

PRICE LIST

YOUR BEST CONNECTIONS



Valid from
02/2019

With this price list HALFEN offers you a large product range. It is divided into seven sections covering our selection of products available for: **CONCRETE, FAÇADE and INDUSTRIAL TECHNOLOGY**. Each product stands for a well-known brand. **HALFEN, DEHA, FRIMEDA and DEMU** are the brands which offer user oriented solutions with the highest standards of quality, safety and technology.



Ordering example

Required item:	Article name	Article no.	2001.020-08004 = Your article no.
	Specification: FV according to table, page 2	2001.	
	HTA-CE 38/17 - FV -100 - KF	020-08001	
	HTA-CE 38/17 - FV -150 - KF	020-08002	
	HTA-CE 38/17 - FV -200 - KF	020-08003	
	HTA-CE 38/17 - FV -250 - KF	020-08004	
	HTA-CE 38/17 - FV -300 - KF	020-08005	

All deliveries are made in accordance with our general terms and conditions of business.

Table: Explanation of abbreviations	
FV	Steel, hot-dip galvanized through dipping in a galvanising bath with a temperature of approx. 460°. This method is primarily used for cast-in channels and lifting anchors.
WB	Steel mill-finish
GV	Steel zinc-plated Electrochemical method (free of chrome VI). HALFEN T-bolts are delivered with an additional special coating.
SV	Steel pre-galvanized
A2	Steel of corrosion resistance class (CRC) II according to EN 1993-1-4: 2015-10, table A.3
A4/L4	Steel of corrosion resistance class (CRC) III according to EN 1993-1-4: 2015-10, table A.3
HCR	Steel of corrosion resistance class (CRC) V according to EN 1993-1-4: 2015-10, table A.3
KF	Strip foam filler, to prevent concrete ingress
KS	Plastic
AL	Aluminium
PU	Packaging unit

All listed prices may be subject to change – HALFEN is not liable for any errors or technical changes.

The Quality Management System of HALFEN GmbH is certified for the locations in Germany, France, Netherlands, Austria, Poland, Switzerland and the Czech Republic according to **ISO 9001:2015**, Certificate No. 202384-2016-AQ-GER-DAKKS.



GENERAL PRICE LIST 2019

Further important information regarding this price list:

General conditions

The general terms and conditions of the respective HALFEN subsidiary apply. They can be found on the relevant websites.

Prices

Prices of special products SK (order no. 0xxx.xx9-0xxx) are, if noted, benchmark prices and will be calculated accurately on installation.

Minimum order

The minimum order value accepted (net value of goods) is € 175,00 plus VAT for deliveries.

Temporary and alloy surcharges

Current temporary surcharges and alloy surcharges may be applicable on the date of shipment.

Return of goods

Return of goods is only permissible in appropriate and resale condition along with prior coordination. As a basic principle a handling charge of 20% of the net value of goods will be raised. Special and customized production is excluded from return.

Assembly

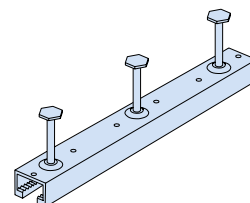
When using our materials, please observe the installation manual or the relevant instructions provided in our technical or installation information.

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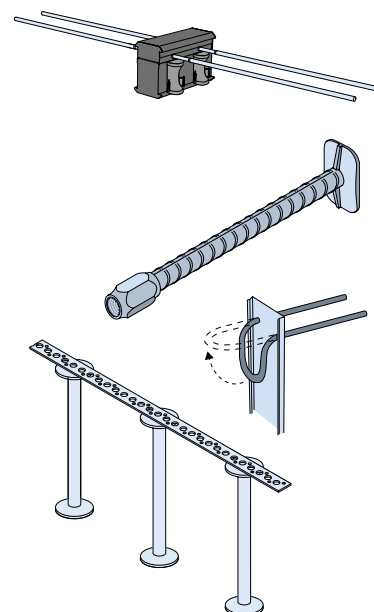
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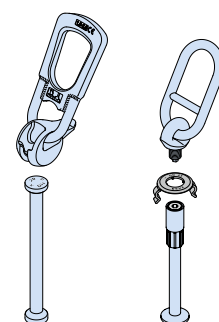
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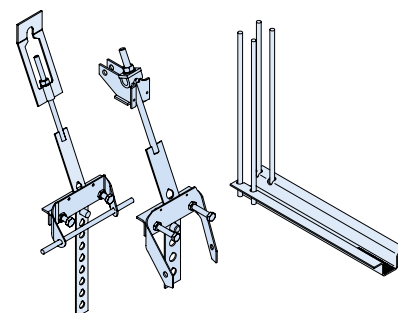
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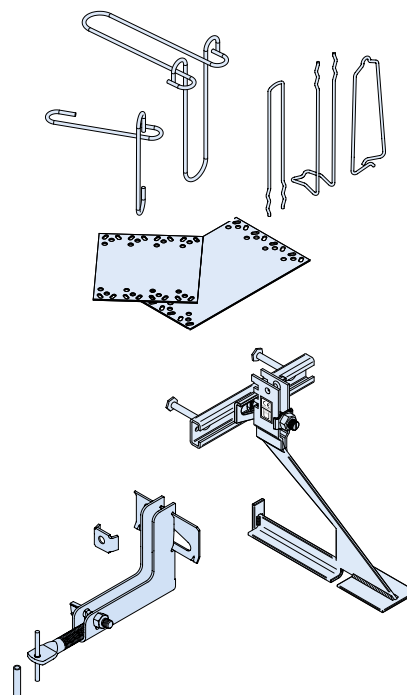
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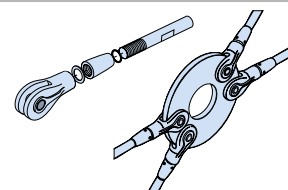
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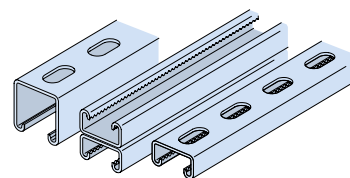
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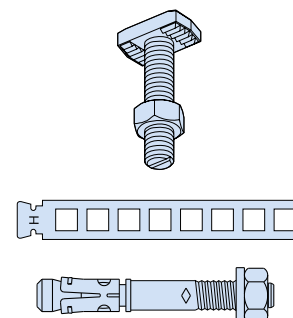
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Anchoring systems – HALFEN Cast-in channels

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Industrial Technology

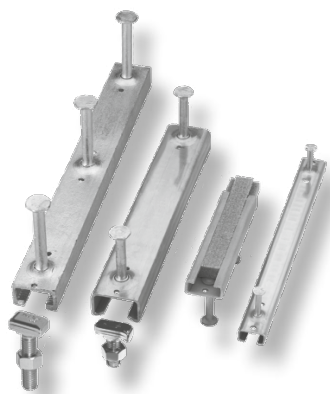
7
Bolts, Accessories

Features

- Adjustable fastening
- Easy installation of the channels
- Easy and quick installation of components
- Cold and hot-rolled cast-in channels available
- Wide range of channels
- No need for drilling in concrete
- HALFEN T-bolts simple twist-in
- Installation safety marking on shank of T-bolt
- Product identification visible after installation
- High versatility – easy to change connections
- HTA with European Technical Assessment (ETA)
- HZA with German national technical approvals (abZ)



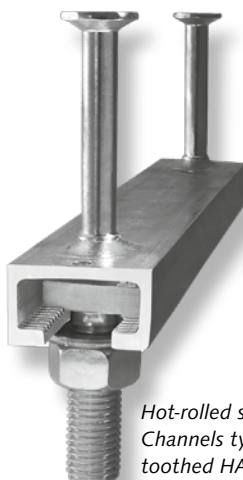
Hot-rolled HALFEN Channels are recommended for applications under fatigue loads, e.g. crane runway beams



A selection of HALFEN Channel product range

Additional features HZA Dynagrip

- Serrated channels and matching toothed HALFEN T-bolts



Hot-rolled serrated HALFEN Channels type HZA with toothed HALFEN T-bolts HZS

Benefits

- Easy and precise positioning of connections
- Time saving
- High fatigue loading resistance over the life-time for reliable fastening of crane runway beams and lift guide rails
- Economic solutions – suitable for all loads
- Reliable and quick installations – no vibration, no dust or noise, no damage to reinforcement
- Easy installation, safe connections, high load capacity
- Reliable fastening

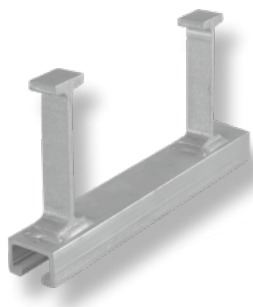
Special benefits HZA Dynagrip

- Supports 3-dimensional loading up to $F_{Rd} = 37,8 \text{ kN}$ (HZA 64/44) per bolt
- Suitable for fatigue loads and loads acting in the longitudinal direction of the channel

Anchoring systems – HALFEN Cast-in channels

Additional features HZA-PS

- Four toothed cast-in channels with matching toothed HALFEN T-bolts
- I-anchor welded on four sides
- Enhanced quality management system
- Flat headed 140 mm long I-anchor



HALFEN HZA-PS Cast-in channel

Special benefits HZA-PS

- Ideal for use in safety relevant areas of nuclear power plants and nuclear facilities
- Approved for catastrophic loads (earthquake, plane crash, differential pressure, impact loads)
- Suitable for highest fatigue loads
- Supports 3-dimensional loading up to $F_{Rd} = 37,8 \text{ kN}$

Additional features HTA-CE-/HZA-CS

- Cold and hot-rolled cast-in channels available
- Toothed and smooth cast-in channels available
- Many different bending radii
- Bending with profile slot facing inwards or outwards is possible



HALFEN HTA-CE-CS
Cast-in channel curved
solution

Special benefits HTA-CE-/HZA-CS

- Suitable for curved reinforced concrete structures
- Can be attached to curved steel forms
- Ideal suitable for tunnel lining segments and concrete pipes
- Complete range for all applications
- Fatigue loads and longitudinal loading possible

Fixing systems

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Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

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ANCHORING SYSTEMS – HALFEN CAST-IN CHANNELS

General information and explanation

Orders

Ordering example

Article name	Length [mm]	Article no.
Specification: FV according to table, page 2		2004.
HTA-CE 50/30P - FV - 150 - KF		050-00101
HTA-CE 50/30P - FV - 200 - KF		050-00102
HTA-CE 50/30P - FV - 250 - KF		050-00103
HTA-CE 50/30P - FV - 300 - KF		050-00104
HTA-CE 50/30P - FV - 350 - KF		050-00106
HTA-CE 50/30P - FV - 400 - KF		050-00107
HTA-CE 50/30P - FV - 550 - KF		050-00108
HTA-CE 50/30P - FV - 800 - KF		050-00109
HTA-CE 50/30P - FV - 1050 - KF		050-00110
HTA-CE 50/30P - FV - 3030 - KF ⑤		050-00111
HTA-CE 50/30P - FV - 6070 - KF		050-00008

Required item:

2004.050-00106

⑤ Due to production tolerances the length may vary to 3050 mm.

All deliveries are made in accordance with our general terms and conditions of business.

Technical

HALFEN Cast-in channels HTA, HTA-CE and HZA will be supplied as standard with bolt anchors. Welded anchors can also be supplied to specific order. Channels with bolt or welded anchors may be supplied if the anchor type is not specified in the order.

Further details regarding our anchoring products can be found in our catalogues and www.halfen.com.

- Technical Product Information B HALFEN Cast-in channels
- Technical Product Information DEMU Socket anchor



All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

ANCHORING SYSTEMS – HALFEN CAST-IN CHANNELS

General information and explanation

HALFEN Cast-in channel DYNAGRIP system – cut lengths

When using the term cut lengths for HALFEN Cast-in channels, a distinction is made between

- **standard** cut lengths (recommended)
- **special** cut lengths

Standard cut lengths

Standard cut lengths for the HALFEN Cast-in channel DYNAGRIP system result from the anchor spacing, depending on the profile type:

Type **HZA 38/23**, **HZA 53/34**, **HZA 64/44**

Standard cut lengths [mm] / number of anchors			
	1.300/ 6	1.550/ 7	1.800/ 8
2.050/ 9	2.300/ 10	2.550/ 11	2.800/ 12
3.030/ 13	3.300/ 14	3.550/ 15	3.800/ 16
4.050/ 17	4.300/ 18	4.550/ 19	4.800/ 20
5.050/ 21	5.300/ 22	5.550/ 23	5.800/ 24

Type **HZA 29/20**, **HTA/HTA-CE 28/15** and **HTA/HTA-CE 38/17**

Standard cut lengths [mm] / number of anchors			
1.250/ 7	1.450/ 8	1.650/ 9	1.850/ 10
2.050/ 11	2.250/ 12	2.450/ 13	2.650/ 14
2.850/ 15	3.030/ 16	3.250/ 17	3.450/ 18
3.650/ 19	3.850/ 20	4.050/ 21	4.250/ 22
4.450/ 23	4.650/ 24	4.850/ 25	5.050/ 26
5.250/ 27	5.450/ 28	5.650/ 29	5.850/ 30

- ① When ordering, please specify the cut length L [mm] required!
Ordering example for standard cut length:

HALFEN Cast-in channel type:	HZA 38/23 - FV
Standard cut length L required:	2550 mm
Article name:	HZA 38/23 - FV - 2550

- ② Item price for standard cut lengths:

$\frac{\text{Meter price} \times \text{standard cut length L [mm]}}{1000} + \text{standard cut length \%}$
--

Example: 1 item **HZA 38/23 - FV - 2550**

$\frac{45,87 \text{ EUR/m} \times 2550 \text{ mm}}{1000} \times 1,1 = \mathbf{128,66 \text{ EUR}}$
--

③ Special cut lengths

A cut length surcharge of **20%** is added for HZA special cut lengths that do not correspond to the standard cut length production. This surcharge covers the additional technical product costs.

This cut length surcharge is reduced for large volumes. Please contact us for details of these prices.

HALFEN Cast-in channels – cut lengths

When using the term cut lengths for HALFEN Cast-in channels, a distinction is made between

- **standard** cut lengths (recommended)
- **special** cut lengths

Standard cut lengths

Standard cut lengths result from an anchor module of **250 mm** (with the exception of types **HZA 29/20**, **HTA/HTA-CE 28/15** and **HTA/HTA-CE 38/17**). This results in the following lengths:

Type **HTA**, **HZA**, **HTA-CE ***

Standard cut lengths [mm] / number of anchors			
1.050/ 5	1.300/ 6	1.550/ 7	1.800/ 8
2.050/ 9	2.300/ 10	2.550/ 11	2.800/ 12
3.030/ 13	3.300/ 14	3.550/ 15	3.800/ 16
4.050/ 17	4.300/ 18	4.550/ 19	4.800/ 20
5.050/ 21	5.300/ 22	5.550/ 23	5.800/ 24

*For HTA/HTA-CE 40/22, 40/22P, 40/25, 41/22, 49/30, 50/30, 50/30P, 52/34, 54/33, 55/42, 72/48, 72/49
Channels 52/34 - 72/49, 50/30P: edge distance from the channel end to the first anchor is approx. 35 mm.

- ① When ordering, please specify the cut length L [mm] required!
Ordering example for standard cut length:

HALFEN Cast-in channel type:	HTA-CE 40/25 - FV
Standard cut length required L:	1800 mm
Article name:	HTA-CE 40/25 - FV - 1800

- ② Item price for standard cut lengths:

$\frac{\text{Meter price} \times \text{standard cut length L [mm]}}{1000} + \text{standard cut length \%}$
--

Example: 1 item **HTA-CE 40/25 - FV - 1800**

$\frac{27,69 \text{ EUR/m} \times 1800 \text{ mm}}{1000} \times 1,1 = \mathbf{54,83 \text{ EUR}}$

③ Special cut lengths

A cut length surcharge of **20%** is added for HTA special cut lengths that do not correspond to the standard cut lengths production. This surcharge covers the additional technical product costs.

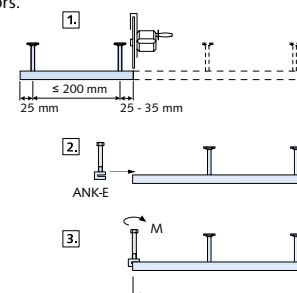
This cut length surcharge is reduced for large volumes. Please contact us for details of these prices.

Note:

Special cut lengths can be produced cost-effectively on the construction site using HALFEN **ANK-E** type end anchors.

Diagram showing application:

ANK-E end anchors can be supplied to match HALFEN Cast-in channels
HTA 28/15,
HTA 38/17,
HTA 40/22,
HTA 40/25.



ANCHORING SYSTEMS – HALFEN CAST-IN CHANNELS

General information and explanation

HALFEN Cast-in channels Curved Solution

Definition bending radii

- ① Outer profile slot
- ② Inner profile slot
- R_i = Radius inner profile slot
- R_a = Radius outer profile slot
- L = Profile length after bending
- h = Wall thickness

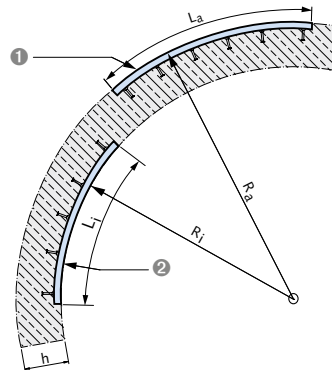
R_i or R_a and L please specify when ordering

Order sample:

Curved HALFEN Cast-in channel: HTA-CE-CS 50/30-A4

Dimension: L_i = 2050 mm

Bending radii: R_i = 4500 mm



HALFEN Cast-in channel pairs with spacer

① Spacer

Specification: Reinforcing steel B500A(B) or B500A(B)NR

② HALFEN Cast-in channels

Specification: FV, A4, HCR according to table, page 2

③ Interaxial spacing a

Please specify when ordering

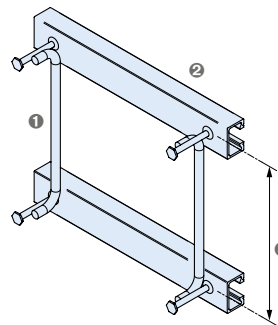
Order sample:

HALFEN Cast-in channel pair: HTA-CE 50/30-A4

Dimension: L = 2050 mm

Interaxial spacing: a = 200 mm

Available as a curved HALFEN Cast-in channel pair

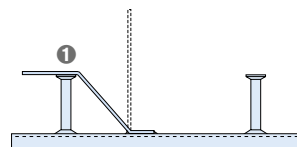


Grounding strap

① Grounding strap

Factory welded on back of channel
Length as required

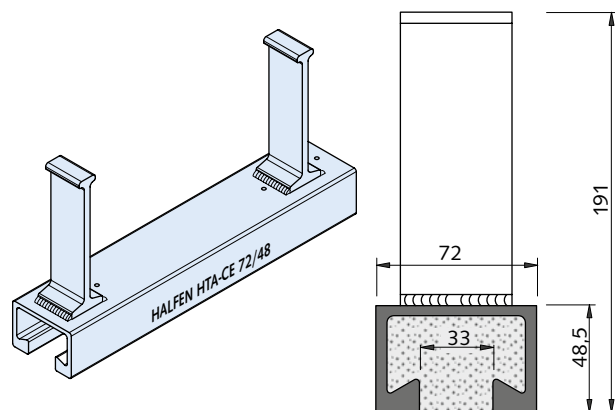
Specification: flat steel, 40 mm x 5 mm



HALFEN CAST-IN CHANNELS

HTA-CE 72/48

HALFEN Cast-in channel, hot-rolled
European Technical Assessment ETA-09/0339



Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]

Specification: FV according to table, page 2

HTA-CE 72/48 - FV - 150 - KF	2	120-00801	31,75
HTA-CE 72/48 - FV - 200 - KF	2	120-00802	35,55
HTA-CE 72/48 - FV - 250 - KF	2	120-00803	39,35
HTA-CE 72/48 - FV - 300 - KF	2	120-00804	43,15
HTA-CE 72/48 - FV - 350 - KF	3	120-00805	55,15
HTA-CE 72/48 - FV - 400 - KF	3	120-00806	59,05
HTA-CE 72/48 - FV - 550 - KF	3	120-00807	73,60
HTA-CE 72/48 - FV - 1050 - KF	5	120-00808	132,65
HTA-CE 72/48 - FV - 6070 - KF	25	120-00008	723,25

Item price of 6070mm channel corresponds to **119,15 EUR/meter**

HTA-CE 72/48-FV-CUT LENGTH-KF ① ② ★

L > 1050 mm Price per meter: **119,15 EUR/meter**

Standard cut length surcharge: **10 % ③ ★**

Specification: Channel: A4 according to table, page 2,
anchor: WB according to table, page 2

HTA-CE 72/48 - A4 - 150 - KF	2	122-00801	130,25
HTA-CE 72/48 - A4 - 200 - KF	2	122-00802	156,15
HTA-CE 72/48 - A4 - 250 - KF	2	122-00803	181,65
HTA-CE 72/48 - A4 - 300 - KF	2	122-00804	207,90
HTA-CE 72/48 - A4 - 350 - KF	3	122-00805	244,80
HTA-CE 72/48 - A4 - 400 - KF	3	122-00806	296,55
HTA-CE 72/48 - A4 - 550 - KF	3	122-00807	396,15
HTA-CE 72/48 - A4 - 1050 - KF	5	122-00808	558,50
HTA-CE 72/48 - A4 - 6070 - KF	25	122-00008	3.192,35

Item price of 6070mm channel corresponds to **525,92 EUR/meter**

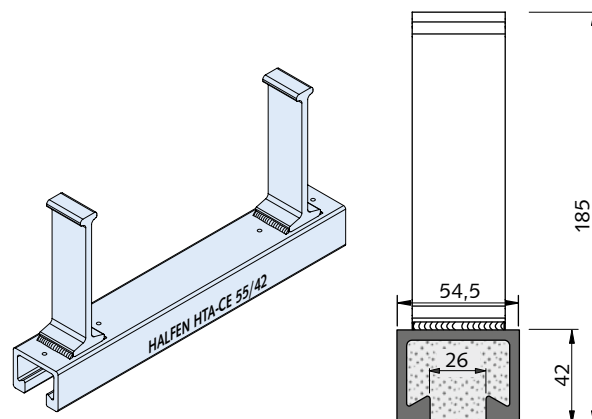
HTA-CE 72/48-A4-CUT LENGTH-KF ① ② ★

L > 1050 mm Price per meter: **525,92 EUR/meter**

Standard cut length surcharge: **10 % ③ ★**

HTA-CE 55/42

HALFEN Cast-in channel, hot-rolled
European Technical Assessment ETA-09/0339



Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]

Specification: FV according to table, page 2

HTA-CE 55/42 - FV - 150 - KF-L-anch.	2	110-00801	23,30
HTA-CE 55/42 - FV - 200 - KF-L-anch.	2	110-00802	26,75
HTA-CE 55/42 - FV - 250 - KF-L-anch.	2	110-00803	29,55
HTA-CE 55/42 - FV - 300 - KF-L-anch.	2	110-00804	33,15
HTA-CE 55/42 - FV - 350 - KF-L-anch.	3	110-00805	41,70
HTA-CE 55/42 - FV - 400 - KF-L-anch.	3	110-00806	48,00
HTA-CE 55/42 - FV - 550 - KF-L-anch.	3	110-00807	60,65
HTA-CE 55/42 - FV - 1050 - KF-L-anch.	5	110-00808	86,55
HTA-CE 55/42 - FV - 6070 - KF-L-anch.	25	110-00008	542,90

Other lengths available on request.

Note: This channel is also available with bolt anchors. Prices on request.

Fixing systems

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Reinforcement systems

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Lifting systems

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DETAN Rod systems

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Bolts, Accessories

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HALFEN CAST-IN CHANNELS

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Façade connection systems

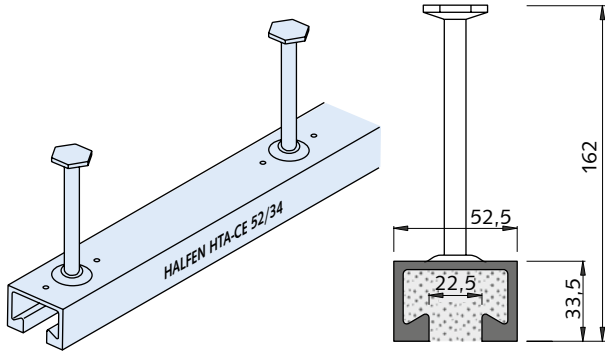
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DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

HTA-CE 52/34

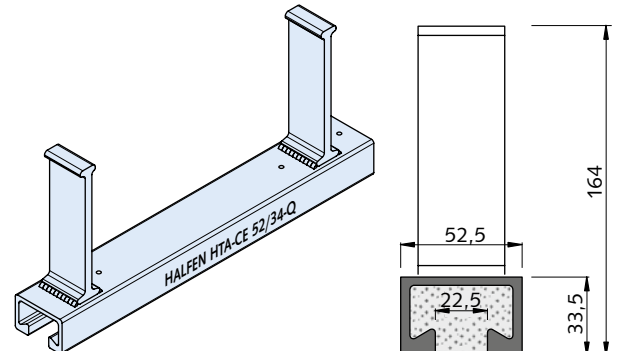
HALFEN Cast-in channel, hot-rolled
European Technical Assessment ETA-09/0339



Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 52/34 - FV - 150 - KF	2	090-00801	20,30
HTA-CE 52/34 - FV - 200 - KF	2	090-00803	22,90
HTA-CE 52/34 - FV - 250 - KF	2	090-00805	25,65
HTA-CE 52/34 - FV - 300 - KF	2	090-00806	28,25
HTA-CE 52/34 - FV - 350 - KF	3	090-00802	35,75
HTA-CE 52/34 - FV - 400 - KF	3	090-00807	38,45
HTA-CE 52/34 - FV - 550 - KF	3	090-00808	47,50
HTA-CE 52/34 - FV - 800 - KF	4	090-00809	66,55
HTA-CE 52/34 - FV - 1050 - KF	5	090-00810	85,15
HTA-CE 52/34 - FV - 6070 - KF	25	090-00008	460,25
Item price of 6070mm channel corresponds to 75,82 EUR/meter			
HTA-CE 52/34-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 75,82 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 52/34 - A4 - 150 - KF-anch.A4	2	092-00801	65,00
HTA-CE 52/34 - A4 - 200 - KF-anch.A4	2	092-00802	79,00
HTA-CE 52/34 - A4 - 250 - KF-anch.A4	2	092-00803	92,90
HTA-CE 52/34 - A4 - 300 - KF-anch.A4	2	092-00804	106,65
HTA-CE 52/34 - A4 - 350 - KF-anch.A4	3	092-00805	128,00
HTA-CE 52/34 - A4 - 400 - KF-anch.A4	3	092-00806	141,75
HTA-CE 52/34 - A4 - 550 - KF-anch.A4	3	092-00807	183,60
HTA-CE 52/34 - A4 - 800 - KF-anch.A4	4	092-00808	259,45
HTA-CE 52/34 - A4 - 1050 - KF-anch.A4	5	092-00809	337,05
HTA-CE 52/34 - A4 - 6070 - KF-anch.A4	25	092-00008	1.903,95
Item price of 6070mm channel corresponds to 313,67 EUR/meter			
HTA-CE 52/34-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 313,67 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HTA-CE 52/34-Q with welded anchors

HALFEN Cast-in channel, hot-rolled
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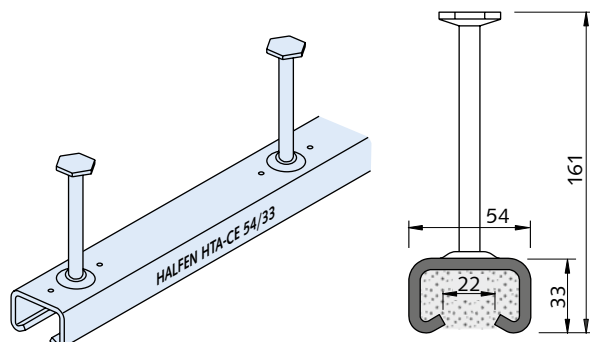
Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 52/34-Q- FV - 150 - KF	2	090-00831	20,30
HTA-CE 52/34-Q- FV - 200 - KF	2	090-00832	22,90
HTA-CE 52/34-Q- FV - 250 - KF	2	090-00833	25,65
HTA-CE 52/34-Q- FV - 300 - KF	2	090-00834	28,25
HTA-CE 52/34-Q- FV - 350 - KF	3	090-00835	35,75
HTA-CE 52/34-Q- FV - 400 - KF	3	090-00836	38,45
HTA-CE 52/34-Q- FV - 550 - KF	3	090-00837	47,50
HTA-CE 52/34-Q- FV - 800 - KF	4	090-00838	on request
HTA-CE 52/34-Q- FV - 1050 - KF	5	090-00839	85,15
HTA-CE 52/34-Q- FV - 6070 - KF	25	090-00009	460,25
Item price of 6070mm channel corresponds to 75,83 EUR/meter			
HTA-CE 52/34-Q-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 75,83 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN CAST-IN CHANNELS

HTA-CE 54/33

HALFEN Cast-in channel, cold rolled
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Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 54/33 - FV - 150 - KF	2	100-00801	19,35
HTA-CE 54/33 - FV - 200 - KF	2	100-00802	21,90
HTA-CE 54/33 - FV - 250 - KF	2	100-00803	24,35
HTA-CE 54/33 - FV - 300 - KF	2	100-00804	26,90
HTA-CE 54/33 - FV - 350 - KF	3	100-00805	34,05
HTA-CE 54/33 - FV - 400 - KF	3	100-00806	36,25
HTA-CE 54/33 - FV - 550 - KF	3	100-00807	42,55
HTA-CE 54/33 - FV - 800 - KF	4	100-00808	61,60
HTA-CE 54/33 - FV - 1050 - KF	5	100-00809	80,55
HTA-CE 54/33 - FV - 6070 - KF	25	100-00008	369,30

Item price of 6070mm channel corresponds to **60,84 EUR/meter**

HTA-CE 54/33-FV-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **60,84 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 54/33 - A4 - 150 - KF-anch.A4	2	102-00801	52,95
HTA-CE 54/33 - A4 - 200 - KF-anch.A4	2	102-00802	65,05
HTA-CE 54/33 - A4 - 250 - KF-anch.A4	2	102-00803	75,55
HTA-CE 54/33 - A4 - 300 - KF-anch.A4	2	102-00804	88,25
HTA-CE 54/33 - A4 - 350 - KF-anch.A4	3	102-00805	106,90
HTA-CE 54/33 - A4 - 400 - KF-anch.A4	3	102-00806	119,00
HTA-CE 54/33 - A4 - 550 - KF-anch.A4	3	102-00807	153,30
HTA-CE 54/33 - A4 - 800 - KF-anch.A4	4	102-00808	219,95
HTA-CE 54/33 - A4 - 1050 - KF-anch.A4	5	102-00809	283,05
HTA-CE 54/33 - A4 - 6070 - KF-anch.A4	25	102-00008	1.283,20

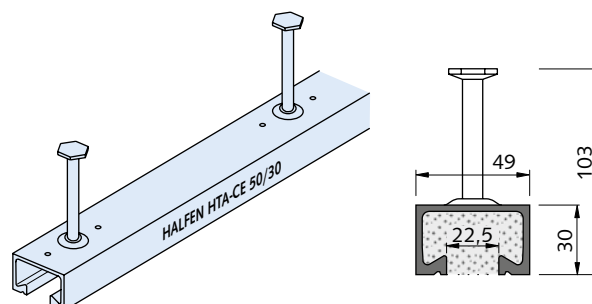
Item price of 6070mm channel corresponds to **211,40 EUR/meter**

HTA-CE 54/33-A4-CUT LENGTH-KF-anch.A4 ① ② ★
L > 1050 mm Price per meter: **211,40 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Other lengths available on request.

HTA-CE 50/30

HALFEN Cast-in channel, hot-rolled
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Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 50/30 - FV - 150 - KF	2	080-00801	14,30
HTA-CE 50/30 - FV - 200 - KF	2	080-00804	16,05
HTA-CE 50/30 - FV - 250 - KF	2	080-00805	17,65
HTA-CE 50/30 - FV - 300 - KF	2	080-00806	19,45
HTA-CE 50/30 - FV - 350 - KF	3	080-00803	24,30
HTA-CE 50/30 - FV - 400 - KF	3	080-00807	26,05
HTA-CE 50/30 - FV - 550 - KF	3	080-00808	31,25
HTA-CE 50/30 - FV - 800 - KF	4	080-00811	43,15
HTA-CE 50/30 - FV - 1050 - KF	5	080-00812	55,10
HTA-CE 50/30 - FV - 3030 - KF ⑤	13	080-00814	144,65
HTA-CE 50/30 - FV - 6070 - KF	25	080-00008	278,45

Item price of 6070mm channel corresponds to **45,87 EUR/meter**

HTA-CE 50/30-FV-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **45,87 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 50/30 - A4 - 150 - KF-anch.A4	2	082-00801	46,00
HTA-CE 50/30 - A4 - 200 - KF-anch.A4	2	082-00802	56,80
HTA-CE 50/30 - A4 - 250 - KF-anch.A4	2	082-00803	67,60
HTA-CE 50/30 - A4 - 300 - KF-anch.A4	2	082-00804	78,50
HTA-CE 50/30 - A4 - 350 - KF-anch.A4	3	082-00805	94,05
HTA-CE 50/30 - A4 - 400 - KF-anch.A4	3	082-00806	104,80
HTA-CE 50/30 - A4 - 550 - KF-anch.A4	3	082-00807	136,80
HTA-CE 50/30 - A4 - 800 - KF-anch.A4	4	082-00808	197,60
HTA-CE 50/30 - A4 - 1050 - KF-anch.A4	5	082-00809	253,80
HTA-CE 50/30 - A4 - 3030 - KF-anch.A4 ⑤	13	082-00810	727,55
HTA-CE 50/30 - A4 - 6070 - KF-anch.A4	25	082-00008	1.400,80

Item price of 6070mm channel corresponds to **230,77 EUR/meter**

HTA-CE 50/30-A4-CUT LENGTH-KF-anch.A4 ① ② ★
L > 1050 mm Price per meter: **230,77 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

HALFEN CAST-IN CHANNELS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

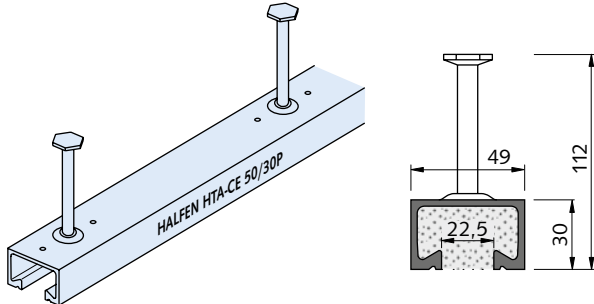
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HTA-CE 50/30P

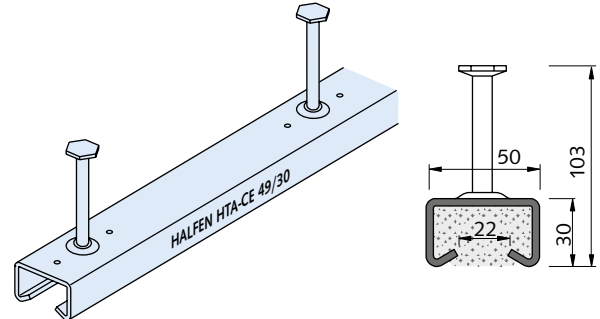
HALFEN Cast-in channel, hot-rolled
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Article name	No. of anchors	Article no.	Price
Length [mm]		2004.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 50/30P - FV - 150 - KF	2	050-00101	16,45
HTA-CE 50/30P - FV - 200 - KF	2	050-00102	18,45
HTA-CE 50/30P - FV - 250 - KF	2	050-00103	20,30
HTA-CE 50/30P - FV - 300 - KF	2	050-00104	22,40
HTA-CE 50/30P - FV - 350 - KF	3	050-00106	27,95
HTA-CE 50/30P - FV - 400 - KF	3	050-00107	30,00
HTA-CE 50/30P - FV - 550 - KF	3	050-00108	35,95
HTA-CE 50/30P - FV - 800 - KF	4	050-00109	49,65
HTA-CE 50/30P - FV - 1050 - KF	5	050-00110	63,40
HTA-CE 50/30P - FV - 3030 - KF ⑤	13	050-00111	166,35
HTA-CE 50/30P - FV - 6070 - KF	25	050-00008	320,25
Item price of 6070mm channel corresponds to 52,76 EUR/meter			
HTA-CE 50/30P-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 52,76 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 50/30P - A4 - 150 - KF-anch.A4	2	052-00101	52,90
HTA-CE 50/30P - A4 - 200 - KF-anch.A4	2	052-00102	65,40
HTA-CE 50/30P - A4 - 250 - KF-anch.A4	2	052-00103	77,75
HTA-CE 50/30P - A4 - 300 - KF-anch.A4	2	052-00104	90,30
HTA-CE 50/30P - A4 - 350 - KF-anch.A4	3	052-00105	108,20
HTA-CE 50/30P - A4 - 400 - KF-anch.A4	3	052-00106	120,55
HTA-CE 50/30P - A4 - 550 - KF-anch.A4	3	052-00107	157,40
HTA-CE 50/30P - A4 - 800 - KF-anch.A4	4	052-00108	227,20
HTA-CE 50/30P - A4 - 1050 - KF-anch.A4	5	052-00109	291,95
HTA-CE 50/30P - A4 - 3030 - KF-anch.A4 ⑤	13	052-00110	836,70
HTA-CE 50/30P - A4 - 6070 - KF-anch.A4	25	052-00008	1.610,90
Item price of 6070mm channel corresponds to 265,39 EUR/meter			
HTA-CE 50/30P-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 265,39 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HTA-CE 49/30

HALFEN Cast-in channel, cold-rolled
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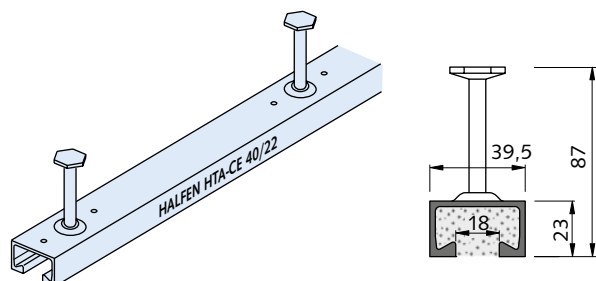
Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 49/30 - FV - 150 - KF	2	070-00801	12,20
HTA-CE 49/30 - FV - 200 - KF	2	070-00802	13,10
HTA-CE 49/30 - FV - 250 - KF	2	070-00803	14,05
HTA-CE 49/30 - FV - 300 - KF	2	070-00804	15,10
HTA-CE 49/30 - FV - 350 - KF	3	070-00805	19,65
HTA-CE 49/30 - FV - 400 - KF	3	070-00806	21,00
HTA-CE 49/30 - FV - 550 - KF	3	070-00807	24,10
HTA-CE 49/30 - FV - 800 - KF	4	070-00808	33,25
HTA-CE 49/30 - FV - 1050 - KF	5	070-00809	41,05
HTA-CE 49/30 - FV - 3030 - KF ⑤	13	070-00810	116,25
HTA-CE 49/30 - FV - 6070 - KF	25	070-00008	221,95
Item price of 6070mm channel corresponds to 36,57 EUR/meter			
HTA-CE 49/30-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 36,57 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 49/30 - A4 - 150 - KF-anch.A4	2	072-00801	32,15
HTA-CE 49/30 - A4 - 200 - KF-anch.A4	2	072-00802	37,50
HTA-CE 49/30 - A4 - 250 - KF-anch.A4	2	072-00803	43,50
HTA-CE 49/30 - A4 - 300 - KF-anch.A4	2	072-00804	50,15
HTA-CE 49/30 - A4 - 350 - KF-anch.A4	3	072-00805	60,95
HTA-CE 49/30 - A4 - 400 - KF-anch.A4	3	072-00806	67,40
HTA-CE 49/30 - A4 - 550 - KF-anch.A4	3	072-00807	87,25
HTA-CE 49/30 - A4 - 800 - KF-anch.A4	4	072-00808	123,00
HTA-CE 49/30 - A4 - 1050 - KF-anch.A4	5	072-00809	160,25
HTA-CE 49/30 - A4 - 3030 - KF-anch.A4 ⑤	13	072-00810	459,85
HTA-CE 49/30 - A4 - 6070 - KF-anch.A4	25	072-00008	871,85
Item price of 6070mm channel corresponds to 143,63 EUR/meter			
HTA-CE 49/30-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 143,63 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: HCR according to table, page 2			
HTA-CE 49/30 - HCR- ⑥ KF-anch.HCR	339-00001	on request	
Other lengths available on request.			
⑥ Please specify the required length when ordering			

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN CAST-IN CHANNELS

HTA-CE 40/22

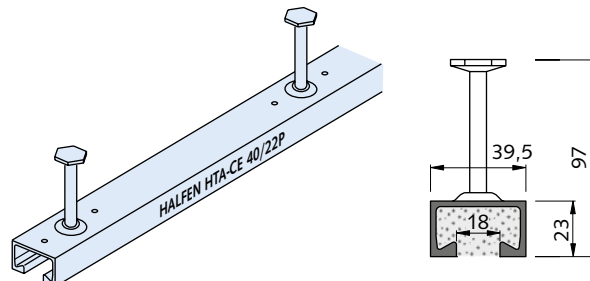
HALFEN Cast-in channel, hot-rolled
European Technical Assessment ETA-09/0339



Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 40/22 - FV - 150 - KF	2	040-00801	10,60
HTA-CE 40/22 - FV - 200 - KF	2	040-00802	11,80
HTA-CE 40/22 - FV - 250 - KF	2	040-00805	12,85
HTA-CE 40/22 - FV - 300 - KF	2	040-00806	14,05
HTA-CE 40/22 - FV - 350 - KF	3	040-00807	18,10
HTA-CE 40/22 - FV - 400 - KF	3	040-00808	19,30
HTA-CE 40/22 - FV - 550 - KF	3	040-00809	22,60
HTA-CE 40/22 - FV - 800 - KF	4	040-00810	31,20
HTA-CE 40/22 - FV - 1050 - KF	5	040-00811	39,55
HTA-CE 40/22 - FV - 1300 - KF	6	040-00812	47,60
HTA-CE 40/22 - FV - 1550 - KF	7	040-00813	56,10
HTA-CE 40/22 - FV - 1800 - KF	8	040-00814	64,40
HTA-CE 40/22 - FV - 2050 - KF	9	040-00815	72,85
HTA-CE 40/22 - FV - 2300 - KF	10	040-00816	81,20
HTA-CE 40/22 - FV - 2550 - KF	11	040-00817	89,60
HTA-CE 40/22 - FV - 3030 - KF ⑤	13	040-00818	106,30
HTA-CE 40/22 - FV - 6070 - KF	25	040-00008	203,10
Item price of 6070mm channel corresponds to 33,46 EUR/meter			
HTA-CE 40/22-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 33,46 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 40/22 - A4 - 150 - KF-anch.A4	2	042-00801	32,70
HTA-CE 40/22 - A4 - 200 - KF-anch.A4	2	042-00802	39,05
HTA-CE 40/22 - A4 - 250 - KF-anch.A4	2	042-00803	46,00
HTA-CE 40/22 - A4 - 300 - KF-anch.A4	2	042-00804	53,30
HTA-CE 40/22 - A4 - 350 - KF-anch.A4	3	042-00805	64,15
HTA-CE 40/22 - A4 - 400 - KF-anch.A4	3	042-00806	71,25
HTA-CE 40/22 - A4 - 550 - KF-anch.A4	3	042-00807	92,25
HTA-CE 40/22 - A4 - 1050 - KF-anch.A4	5	042-00808	170,25
HTA-CE 40/22 - A4 - 6070 - KF-anch.A4	25	042-00008	937,20
Item price of 6070mm channel corresponds to 154,40 EUR/meter			
HTA-CE 40/22-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 154,40 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HTA-CE 40/22P

HALFEN Cast-in channel, hot-rolled
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Article name	No. of anchors	Article no.	Price
Length [mm]		2004.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 40/22P - FV - 150 - KF	2	040-00101	12,20
HTA-CE 40/22P - FV - 200 - KF	2	040-00102	13,55
HTA-CE 40/22P - FV - 250 - KF	2	040-00103	14,75
HTA-CE 40/22P - FV - 300 - KF	2	040-00104	16,15
HTA-CE 40/22P - FV - 350 - KF	3	040-00106	20,85
HTA-CE 40/22P - FV - 400 - KF	3	040-00107	22,20
HTA-CE 40/22P - FV - 550 - KF	3	040-00108	26,00
HTA-CE 40/22P - FV - 800 - KF	4	040-00109	35,90
HTA-CE 40/22P - FV - 1050 - KF	5	040-00110	45,45
HTA-CE 40/22P - FV - 1300 - KF	6	040-00111	54,70
HTA-CE 40/22P - FV - 1550 - KF	7	040-00112	64,50
HTA-CE 40/22P - FV - 1800 - KF	8	040-00113	74,05
HTA-CE 40/22P - FV - 2050 - KF	9	040-00114	83,80
HTA-CE 40/22P - FV - 2300 - KF	10	040-00115	93,40
HTA-CE 40/22P - FV - 2550 - KF	11	040-00116	103,00
HTA-CE 40/22P - FV - 3030 - KF ⑤	13	040-00117	122,25
HTA-CE 40/22P - FV - 6070 - KF	25	040-00008	233,55
Item price of 6070mm channel corresponds to 38,48 EUR/meter			
HTA-CE 40/22P-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 38,48 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 40/22P - A4 - 150 - KF-anch.A4	2	042-00101	37,60
HTA-CE 40/22P - A4 - 200 - KF-anch.A4	2	042-00102	44,95
HTA-CE 40/22P - A4 - 250 - KF-anch.A4	2	042-00103	52,90
HTA-CE 40/22P - A4 - 300 - KF-anch.A4	2	042-00104	61,30
HTA-CE 40/22P - A4 - 350 - KF-anch.A4	3	042-00105	73,75
HTA-CE 40/22P - A4 - 400 - KF-anch.A4	3	042-00106	81,95
HTA-CE 40/22P - A4 - 550 - KF-anch.A4	3	042-00107	106,10
HTA-CE 40/22P - A4 - 1050 - KF-anch.A4	5	042-00108	195,75
HTA-CE 40/22P - A4 - 6070 - KF-anch.A4	25	042-00008	1.077,75
Item price of 6070mm channel corresponds to 177,55 EUR/meter			
HTA-CE 40/22P-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm EUR/meter 177,55 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HALFEN CAST-IN CHANNELS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

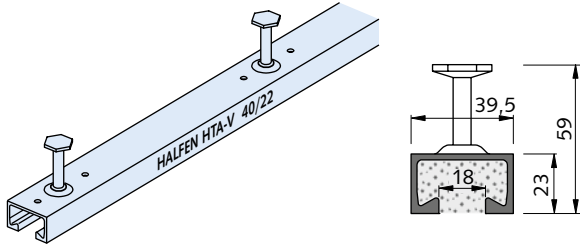
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HTA-V 40/22

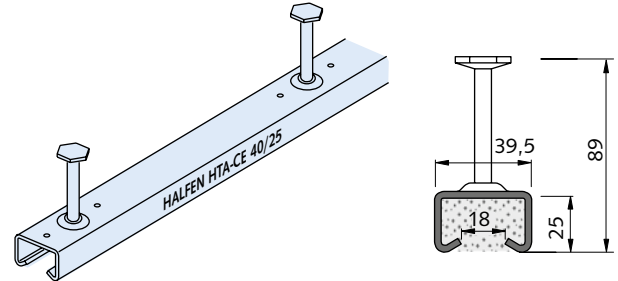
HALFEN Cast-in channel, hot-rolled, with shortened anchors



Article name	No. of anchors	Article no.	Price
Length [mm]		0004.	[EUR/item]
Specification: FV according to table, page 2			
HTA-V 40/22 - FV - 6070 - KF	25	020-00008	203,10
Item price of 6070mm channel corresponds to 33,46 EUR/meter			
HTA-V 40/22-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 33,46 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HTA-CE 40/25

HALFEN Cast-in channel, cold-rolled
European Technical Assessment ETA-09/0339

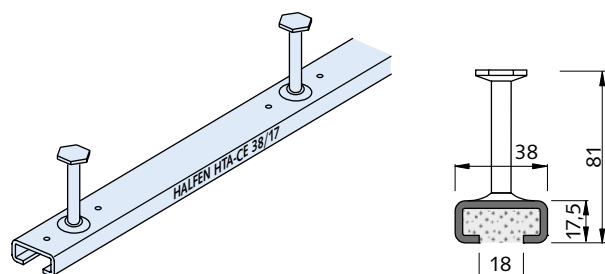


Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 40/25 - FV - 150 - KF	2	060-00801	9,60
HTA-CE 40/25 - FV - 200 - KF	2	060-00802	10,60
HTA-CE 40/25 - FV - 250 - KF	2	060-00803	11,30
HTA-CE 40/25 - FV - 300 - KF	2	060-00804	12,20
HTA-CE 40/25 - FV - 350 - KF	3	060-00805	15,25
HTA-CE 40/25 - FV - 400 - KF	3	060-00806	16,25
HTA-CE 40/25 - FV - 550 - KF	3	060-00807	19,10
HTA-CE 40/25 - FV - 800 - KF	4	060-00808	26,10
HTA-CE 40/25 - FV - 1050 - KF	5	060-00809	33,40
HTA-CE 40/25 - FV - 3030 - KF ⑤	13	060-00810	88,20
HTA-CE 40/25 - FV - 6070 - KF	25	060-00008	168,05
Item price of 6070mm channel corresponds to 27,69 EUR/meter			
HTA-CE 40/25-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 27,69 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 40/25 - A4 - 150 - KF-anch.A4	2	062-00801	27,40
HTA-CE 40/25 - A4 - 200 - KF-anch.A4	2	062-00802	30,80
HTA-CE 40/25 - A4 - 250 - KF-anch.A4	2	062-00803	36,40
HTA-CE 40/25 - A4 - 300 - KF-anch.A4	2	062-00804	41,35
HTA-CE 40/25 - A4 - 350 - KF-anch.A4	3	062-00805	49,15
HTA-CE 40/25 - A4 - 400 - KF-anch.A4	3	062-00806	53,80
HTA-CE 40/25 - A4 - 550 - KF-anch.A4	3	062-00807	68,85
HTA-CE 40/25 - A4 - 800 - KF-anch.A4	4	062-00808	97,75
HTA-CE 40/25 - A4 - 1050 - KF-anch.A4	5	062-00809	125,05
HTA-CE 40/25 - A4 - 6070 - KF-anch.A4	25	062-00008	659,30
Item price of 6070mm channel corresponds to 108,62 EUR/meter			
HTA-CE 40/25-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 108,62 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

HALFEN CAST-IN CHANNELS

HTA-CE 38/17

HALFEN Cast-in channel
European Technical Assessment ETA-09/0339

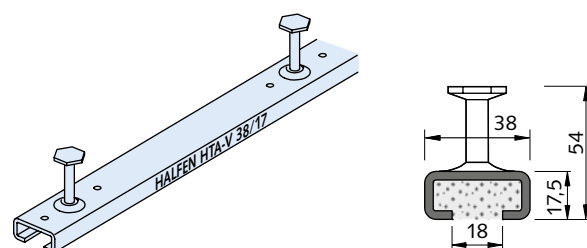


Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 38/17 - FV - 100 - KF	2	020-08001	7,35
HTA-CE 38/17 - FV - 150 - KF	2	020-08002	8,15
HTA-CE 38/17 - FV - 200 - KF	2	020-08003	8,80
HTA-CE 38/17 - FV - 250 - KF	2	020-08004	9,60
HTA-CE 38/17 - FV - 300 - KF	3	020-08005	10,75
HTA-CE 38/17 - FV - 350 - KF	3	020-08006	15,65
HTA-CE 38/17 - FV - 450 - KF	3	020-08007	16,25
HTA-CE 38/17 - FV - 550 - KF	4	020-08008	18,25
HTA-CE 38/17 - FV - 850 - KF	5	020-08009	23,55
HTA-CE 38/17 - FV - 1050 - KF	6	020-08010	30,80
HTA-CE 38/17 - FV - 3030 - KF ⑤	16	020-08011	75,75
HTA-CE 38/17 - FV - 6070 - KF	31	020-00008	143,90
Item price of 6070mm channel corresponds to 23,71 EUR/meter			
HTA-CE 38/17-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 23,71 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 38/17 - A4 - 100 - KF-anch.A4	2	022-08001	21,00
HTA-CE 38/17 - A4 - 150 - KF-anch.A4	2	022-08002	24,35
HTA-CE 38/17 - A4 - 200 - KF-anch.A4	2	022-08003	27,40
HTA-CE 38/17 - A4 - 250 - KF-anch.A4	2	022-08004	30,40
HTA-CE 38/17 - A4 - 300 - KF-anch.A4	3	022-08005	33,60
HTA-CE 38/17 - A4 - 350 - KF-anch.A4	3	022-08006	41,85
HTA-CE 38/17 - A4 - 450 - KF-anch.A4	3	022-08007	49,15
HTA-CE 38/17 - A4 - 550 - KF-anch.A4	4	022-08008	58,05
HTA-CE 38/17 - A4 - 850 - KF-anch.A4	5	022-08009	79,35
HTA-CE 38/17 - A4 - 1050 - KF-anch.A4	6	022-08010	105,70
HTA-CE 38/17 - A4 - 3030 - KF-anch.A4 ⑤	16	022-08011	306,15
HTA-CE 38/17 - A4 - 6070 - KF-anch.A4	31	022-00006	580,30
Item price of 6070mm channel corresponds to 95,60 EUR/meter			
HTA-CE 38/17-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 95,60 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: HCR according to table, page 2			
HTA-CE 38/17- HCR- ⑥ KF-anch.HCR		329-00001	on request

⑥ Please specify the required length when ordering

HTA-V 38/17

HALFEN Cast-in channel, cold-rolled
with shortened anchors



Article name	No. of anchors	Article no.	Price
Length [mm]		0004.	[EUR/item]
Specification: FV according to table, page 2			
HTA-V 38/17 - FV - 6070 - KF	25	010-00008	148,45
Item price of 6070mm channel corresponds to 24,46 EUR/meter			
HTA-V 38/17-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 24,46 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN CAST-IN CHANNELS, ACCESSORIES

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

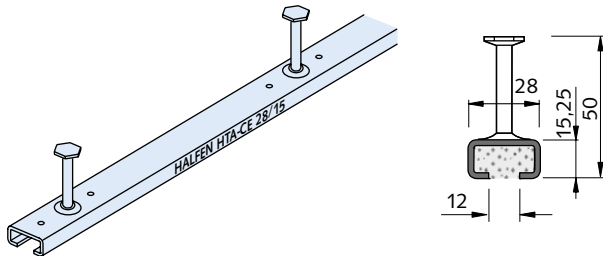
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HTA-CE 28/15

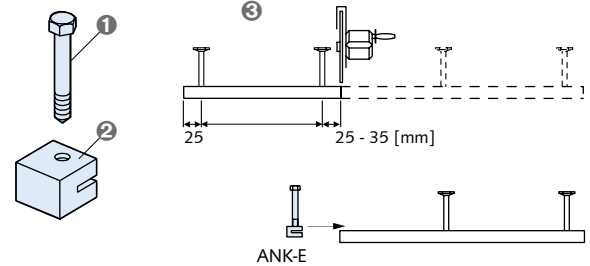
HALFEN Cast-in channel, cold-rolled
European Technical Assessment ETA-09/0339



Article name	No. of anchors	Article no.	Price
Length [mm]		2001.	[EUR/item]
Specification: FV according to table, page 2			
HTA-CE 28/15 - FV - 100 - KF	2	010-08001	5,90
HTA-CE 28/15 - FV - 150 - KF	2	010-08002	6,55
HTA-CE 28/15 - FV - 200 - KF	2	010-08003	7,15
HTA-CE 28/15 - FV - 250 - KF	2	010-08004	7,80
HTA-CE 28/15 - FV - 300 - KF	3	010-08005	8,20
HTA-CE 28/15 - FV - 350 - KF	3	010-08006	12,95
HTA-CE 28/15 - FV - 450 - KF	3	010-08007	14,10
HTA-CE 28/15 - FV - 550 - KF	4	010-08008	14,75
HTA-CE 28/15 - FV - 850 - KF	5	010-08009	20,65
HTA-CE 28/15 - FV - 1050 - KF	6	010-08010	24,45
HTA-CE 28/15 - FV - 3030 - KF ⑤	16	010-08011	56,90
HTA-CE 28/15 - FV - 6070 - KF	31	010-00008	107,80
Item price of 6070mm channel corresponds to 17,76 EUR/meter			
HTA-CE 28/15-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter: 17,76 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: A4 according to table, page 2			
HTA-CE 28/15 - A4 - 100 - KF-anch.A4	2	012-08001	17,10
HTA-CE 28/15 - A4 - 150 - KF-anch.A4	2	012-08002	19,10
HTA-CE 28/15 - A4 - 200 - KF-anch.A4	2	012-08003	21,00
HTA-CE 28/15 - A4 - 250 - KF-anch.A4	2	012-08004	23,15
HTA-CE 28/15 - A4 - 300 - KF-anch.A4	3	012-08005	24,90
HTA-CE 28/15 - A4 - 350 - KF-anch.A4	3	012-08006	31,15
HTA-CE 28/15 - A4 - 450 - KF-anch.A4	3	012-08007	35,85
HTA-CE 28/15 - A4 - 550 - KF-anch.A4	4	012-08008	40,55
HTA-CE 28/15 - A4 - 850 - KF-anch.A4	5	012-08009	58,75
HTA-CE 28/15 - A4 - 1050 - KF-anch.A4	6	012-08010	73,50
HTA-CE 28/15 - A4 - 3030 - KF-anch.A4 ⑤	16	012-08011	203,50
HTA-CE 28/15 - A4 - 6070 - KF-anch.A4	31	012-00006	385,70
Item price of 6070mm channel corresponds to 63,54 EUR/meter			
HTA-CE 28/15-A4-CUT LENGTH-KF-anch.A4 ① ② ★			
L > 1050 mm Price per meter: 63,54 EUR/meter			
Standard cut length surcharge: 10 % ③ ★			
Specification: Channel and anchor: HCR according to table, page 2			
HTA-CE 28/15 - HCR - ⑥ KF-anch.HCR		319-00001	on request
Other lengths available on request.			
⑥ Please specify the required length when ordering			

ANK-E

End anchor for assembly with cut HALFEN Cast-in channels



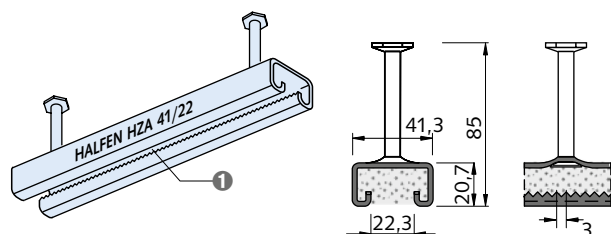
- ① Bolt
- ② Clamp
- ③ Assembly diagram

Article name	Suitable for HALFEN Cast-in channel HTA/HTA-CE	PU [items]	Article no.	Price
			0031.	[EUR/item]
Specification: FV according to table, page 2				
ANK E1-FV	28/15	25	010-00002	3,50
ANK E2-FV	38/17, 40/22, 40/25	25	010-00004	3,90
Specification: A4 according to table, page 2				
ANK E1-A4	28/15	25	010-00001	8,70
ANK E2-A4	38/17, 40/22, 40/25	25	010-00003	10,65

HALFEN CAST-IN CHANNELS, BRICK TIE CHANNELS

HZA 41/22

Toothed HALFEN Cast-in channel, cold-rolled
German approval Z-21.4-145



① toothed

Article name	No. of anchors	Article no.	Price
Length [mm]		0002.	[EUR/item]

Specification: FV according to table, page 2

HZA 41/22 - FV - 100 - KF	2	030-00802	10,60
HZA 41/22 - FV - 150 - KF	2	030-00803	12,15
HZA 41/22 - FV - 200 - KF	2	030-00801	13,10
HZA 41/22 - FV - 250 - KF	2	030-00804	14,30
HZA 41/22 - FV - 300 - KF	2	030-00805	15,45
HZA 41/22 - FV - 350 - KF	3	030-00806	19,45
HZA 41/22 - FV - 400 - KF	3	030-00807	20,55
HZA 41/22 - FV - 550 - KF	3	030-00808	24,25
HZA 41/22 - FV - 1050 - KF	5	030-00809	42,15
HZA 41/22 - FV - 6070 - KF	25	030-00008	214,35

Item price of 6070mm channel corresponds to 35,31 EUR/meter

HZA 41/22-FV-CUT LENGTH-KF ① ② ★

L > 1050 mm Price per meter: 35,31 EUR/meter

Standard cut length surcharge: 10 % ③ ★

Specification: Channel and anchor: A4 according to table, page 2

HZA 41/22 - A4 - 100 - KF-anch.A4	2	030-00851	30,15
HZA 41/22 - A4 - 150 - KF-anch.A4	2	030-00852	35,20
HZA 41/22 - A4 - 200 - KF-anch.A4	2	030-00853	40,20
HZA 41/22 - A4 - 250 - KF-anch.A4	2	030-00854	45,30
HZA 41/22 - A4 - 300 - KF-anch.A4	2	030-00855	50,25
HZA 41/22 - A4 - 350 - KF-anch.A4	3	030-00856	62,70
HZA 41/22 - A4 - 400 - KF-anch.A4	3	030-00857	67,60
HZA 41/22 - A4 - 550 - KF-anch.A4	3	030-00858	82,70
HZA 41/22 - A4 - 1050 - KF-anch.A4	5	030-00859	148,10
HZA 41/22 - A4 - 6070 - KF-anch.A4	25	030-00007	780,45

Item price of 6070mm channel corresponds to 128,57 EUR/meter

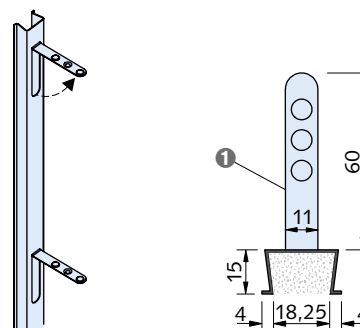
HZA 41/22-A4-CUT LENGTH-KF-anch.A4 ① ② ★

L > 1050 mm Price per meter: 128,57 EUR/meter

Standard cut length surcharge: 10 % ③ ★

HMS 25/15 D

HALFEN Brick tie channel with lug anchors and foam strip filler (KF)



① Lug anchors (pre-cut, easy to bend out)

Article name	Article no.	Price
Length [mm]	0013.	[EUR/item]

Specification: SV according to table, page 2

HMS 25/15 D- SV - 2500 - KF	010-00801	9,15
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Item price of 2500 mm channel corresponds to 3,66 EUR/meter

Specification: A4 according to table, page 2

HMS 25/15 D- A4 - 2500 - KF	010-00802	40,60
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Item price of 2500 mm channel corresponds to 16,24 EUR/meter

Note: ML type brick tie anchor suitable for HMS 25/15 D
see bolts/accessories section, page 265

HALFEN CAST-IN CHANNELS DYNAGRIP

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

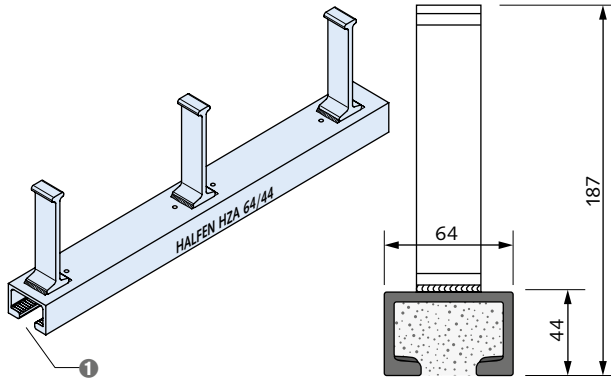
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HZA 64/44

HALFEN Cast-in channel DYNAGRIP, hot-rolled
German approval Z-21.4-1691



① toothed

Article name	No. of anchors	Article no.	Price
Length [mm]		0002.	[EUR/item]
Specification: FV according to table, page 2			
HZA 64/44 - FV - 150 - KF-Q-anch.	2	060-00801	on request
HZA 64/44 - FV - 200 - KF-Q-anch.	2	060-00802	on request
HZA 64/44 - FV - 250 - KF-Q-anch.	2	060-00803	on request
HZA 64/44 - FV - 300 - KF-Q-anch.	2	060-00804	on request
HZA 64/44 - FV - 350 - KF-Q-anch.	3	060-00805	on request
HZA 64/44 - FV - 400 - KF-Q-anch.	3	060-00806	on request
HZA 64/44 - FV - 550 - KF-Q-anch.	3	060-00807	on request
HZA 64/44 - FV - 1050 - KF-Q-anch.	5	060-00809	on request
HZA 64/44 - FV - 6070 - KF-Q-anch.	25	060-00008	on request

Item price of 6070mm channel corresponds to **on request**

HZA 64/44-FV-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **on request**
Standard cut length surcharge: **10 % ③ ★**

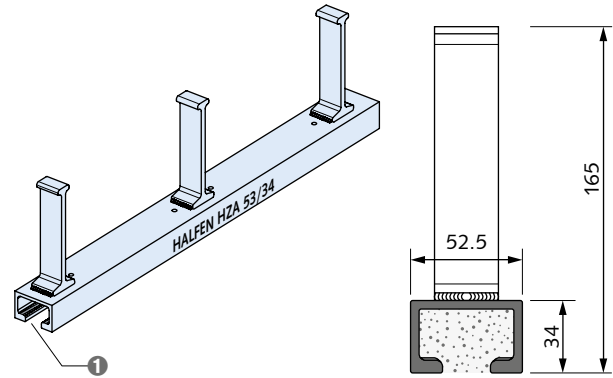
Specification: Channel: A4 according to table, page 2, anchor: WB according to table, page 2			
HZA 64/44 - A4 - 150 - KF-Q-anch.	2	062-00801	on request
HZA 64/44 - A4 - 200 - KF-Q-anch.	2	062-00802	on request
HZA 64/44 - A4 - 250 - KF-Q-anch.	2	062-00803	on request
HZA 64/44 - A4 - 300 - KF-Q-anch.	2	062-00804	on request
HZA 64/44 - A4 - 350 - KF-Q-anch.	3	062-00805	on request
HZA 64/44 - A4 - 400 - KF-Q-anch.	3	062-00806	on request
HZA 64/44 - A4 - 550 - KF-Q-anch.	3	062-00807	on request
HZA 64/44 - A4 - 1050 - KF-Q-anch.	5	062-00809	on request
HZA 64/44 - A4 - 6070 - KF-Q-anch.	25	062-00008	on request

Item price of 6070mm channel corresponds to **on request**

HZA 64/44-A4-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **on request**
Standard cut length surcharge: **10 % ③ ★**

HZA 53/34

HALFEN Cast-in channel DYNAGRIP, hot-rolled
German approval Z-21.4-1691



① toothed

Article name	No. of anchors	Article no.	Price
Length [mm]		0002.	[EUR/item]
Specification: FV according to table, page 2			
HZA 53/34 - FV - 150 - KF-Q-anch.	2	050-00801	20,75
HZA 53/34 - FV - 200 - KF-Q-anch.	2	050-00802	31,75
HZA 53/34 - FV - 250 - KF-Q-anch.	2	050-00803	39,35
HZA 53/34 - FV - 300 - KF-Q-anch.	2	050-00804	43,15
HZA 53/34 - FV - 350 - KF-Q-anch.	3	050-00805	55,15
HZA 53/34 - FV - 400 - KF-Q-anch.	3	050-00806	59,05
HZA 53/34 - FV - 550 - KF-Q-anch.	3	050-00807	73,60
HZA 53/34 - FV - 1050 - KF-Q-anch.	5	050-00809	132,65
HZA 53/34 - FV - 6070 - KF-Q-anch.	25	050-00008	723,25

Item price of 6070mm channel corresponds to **119,15 EUR/meter**

HZA 53/34-FV-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **119,15 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Specification: Channel: A4 according to table, page 2, anchor: WB according to table, page 2			
HZA 53/34 - A4 - 150 - KF-Q-anch.	2	052-00801	130,25
HZA 53/34 - A4 - 200 - KF-Q-anch.	2	052-00802	156,15
HZA 53/34 - A4 - 250 - KF-Q-anch.	2	052-00803	181,65
HZA 53/34 - A4 - 300 - KF-Q-anch.	2	052-00804	207,90
HZA 53/34 - A4 - 350 - KF-Q-anch.	3	052-00805	244,80
HZA 53/34 - A4 - 400 - KF-Q-anch.	3	052-00806	270,50
HZA 53/34 - A4 - 550 - KF-Q-anch.	3	052-00807	347,60
HZA 53/34 - A4 - 1050 - KF-Q-anch.	5	052-00809	628,25
HZA 53/34 - A4 - 6070 - KF-Q-anch.	25	052-00008	3.192,35

Item price of 6070mm channel corresponds to **525,92 EUR/meter**

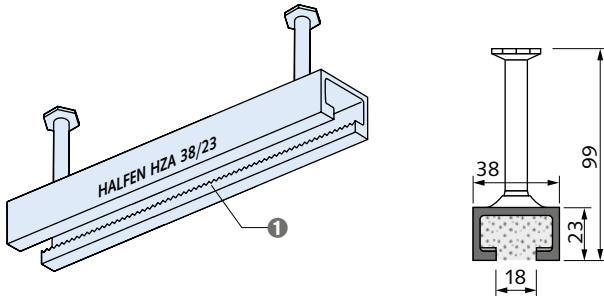
HZA 53/34-A4-CUT LENGTH-KF ① ② ★
L > 1050 mm Price per meter: **525,92 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Note: This channel is also available with bolt anchors. Prices on request.
For higher fatigue values, HZA 53/34 with I140/7,1, please enquire about anchor installation and weld direction for Q.

HALFEN CAST-IN CHANNELS DYNAGRIP

HZA 38/23

HALFEN Cast-in channel DYNAGRIP, hot-rolled
German approval Z-21.4-1691



① toothed

Article name	No. of anchors	Article no.	Price
Length [mm]		0002.	[EUR/item]
Specification: FV according to table, page 2			
HZA 38/23 - FV - 150 - KF	2	020-00803	14,30
HZA 38/23 - FV - 200 - KF	2	020-00805	16,05
HZA 38/23 - FV - 250 - KF	2	020-00806	17,65
HZA 38/23 - FV - 300 - KF	2	020-00807	19,45
HZA 38/23 - FV - 350 - KF	3	020-00802	24,30
HZA 38/23 - FV - 400 - KF	3	020-00808	26,05
HZA 38/23 - FV - 550 - KF	3	020-00809	31,25
HZA 38/23 - FV - 800 - KF	4	020-00810	43,15
HZA 38/23 - FV - 1050 - KF	5	020-00811	55,10
HZA 38/23 - FV - 3030 - KF ⑤	13	020-00812	144,60
HZA 38/23 - FV - 6070 - KF	25	020-00008	278,45

Item price of 6070mm channel corresponds to **45,87 EUR/meter**

HZA 38/23-FV-CUT LENGTH-KF ① ② ★

L > 1050 mm Price per meter: **45,87 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Specification: Channel and anchor: A4 according to table, page 2

HZA 38/23 - A4 - 150 - KF-anch.A4	2	020-00851	46,55
HZA 38/23 - A4 - 200 - KF-anch.A4	2	020-00852	57,55
HZA 38/23 - A4 - 250 - KF-anch.A4	2	020-00853	68,85
HZA 38/23 - A4 - 300 - KF-anch.A4	2	020-00854	79,70
HZA 38/23 - A4 - 350 - KF-anch.A4	3	020-00855	95,50
HZA 38/23 - A4 - 400 - KF-anch.A4	3	020-00856	106,35
HZA 38/23 - A4 - 550 - KF-anch.A4	3	020-00857	138,75
HZA 38/23 - A4 - 800 - KF-anch.A4	4	020-00858	198,40
HZA 38/23 - A4 - 1050 - KF-anch.A4	5	020-00859	258,00
HZA 38/23 - A4 - 3030 - KF-anch.A4 ⑤	13	020-00860	734,95
HZA 38/23 - A4 - 6070 - KF-anch.A4	25	020-00007	1.416,40

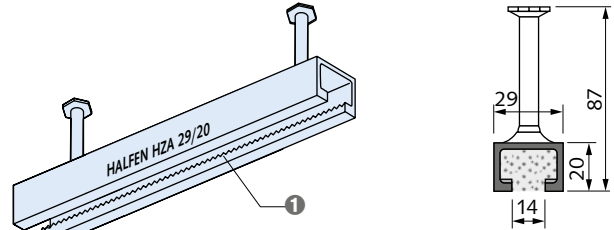
Item price of 6070mm channel corresponds to **233,34 EUR/meter**

HZA 38/23-A4-CUT LENGTH-KF-anch.A4 ① ② ★

L > 1050 mm Price per meter: **233,34 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

HZA 29/20

HALFEN Cast-in channel DYNAGRIP, hot-rolled
German approval Z-21.4-1691



① toothed

Article name	No. of anchors	Article no.	Price
Length [mm]		0002.	[EUR/item]
Specification: FV according to table, page 2			
HZA 29/20 - FV - 150 - KF	2	010-00801	10,60
HZA 29/20 - FV - 200 - KF	2	010-00802	11,80
HZA 29/20 - FV - 250 - KF	2	010-00803	12,85
HZA 29/20 - FV - 300 - KF	3	010-00804	14,05
HZA 29/20 - FV - 350 - KF	3	010-00805	18,10
HZA 29/20 - FV - 400 - KF	3	010-00806	19,30
HZA 29/20 - FV - 550 - KF	4	010-00807	22,60
HZA 29/20 - FV - 1050 - KF	6	010-00809	39,55
HZA 29/20 - FV - 3030 - KF ⑤	16	010-00815	105,45
HZA 29/20 - FV - 6070 - KF	31	010-00008	203,10

Item price of 6070mm channel corresponds to **33,46 EUR/meter**

HZA 29/20-FV-CUT LENGTH-KF ① ② ★

L > 1050 mm Price per meter: **33,46 EUR/meter**
Standard cut length surcharge: **10 % ③ ★**

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

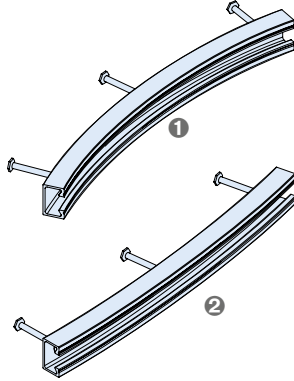
Bolts, Accessories

7

HALFEN CAST-IN CHANNELS CURVED SOLUTION

HTA-CE-CS, hot-rolled

HALFEN Cast-in channel
European Technical Assessment ETA-09/0339



① inner channel slot min. R_i
② outer channel slot min. R_a

Article name	Inner slot min. R_i [m]	Outer slot min. R_a [m]	Article no.	Price
			1001.	[EUR/item]

Specification: FV according to table, page 2

HTA-CE-CS 40/22 - FV -	1,80	2,10	049-00001	on request
HTA-CE-CS 40/22P - FV -	①	①	159-00001	on request
HTA-CE-CS 50/30 - FV -	0,80	2,10	089-00001	on request
HTA-CE-CS 50/30P - FV -	①	①	169-00001	on request
HTA-CE-CS 52/34 - FV -	0,75	3,60	099-00001	on request
HTA-CE-CS 52/34-Q - FV -	0,75	3,60	149-00001	on request

Specification: A4 according to table, page 2

HTA-CE-CS 40/22 - A4 -	2,40	2,10	049-00002	on request
HTA-CE-CS 40/22P - A4 -	①	①	159-00002	on request
HTA-CE-CS 50/30 - A4 -	0,80	2,10	089-00002	on request
HTA-CE-CS 50/30P - A4 -	①	①	169-00002	on request
HTA-CE-CS 52/34 - A4 -	0,80	3,60	099-00002	on request
HTA-CE-CS 52/34-Q - A4 -	0,80	3,60	149-00002	on request

① on request

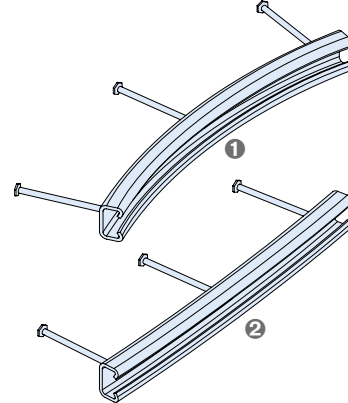
Other bending radii on request.

Please specify the radius and length when ordering.

★ HALFEN remark: for general information and an order example please refer to the start of chapter 1.

HTA-CE-CS, cold rolled

HALFEN Cast-in channel
European Technical Assessment ETA-09/0339



① inner channel slot min. R_i
② outer channel slot min. R_a

Article name	Inner slot min. R_i [m]	Outer slot min. R_a [m]	Article no.	Price
			1001.	[EUR/item]

Specification: FV according to table, page 2

HTA-CE-CS 28/15 - FV -	0,75	2,00	019-00001	on request
HTA-CE-CS 38/17 - FV -	0,75	3,20	029-00001	on request
HTA-CE-CS 40/25 - FV -	1,10	2,20	069-00001	on request
HTA-CE-CS 49/30 - FV -	0,80	3,00	079-00001	on request
HTA-CE-CS 54/33 - FV -	0,80	4,00	109-00001	on request

Specification: A4 according to table, page 2

HTA-CE-CS 28/15 - A4 -	0,75	7,80	019-00002	on request
HTA-CE-CS 38/17 - A4 -	0,75	5,40	029-00002	on request
HTA-CE-CS 40/25 - A4 -	0,90	4,00	069-00002	on request
HTA-CE-CS 49/30 - A4 -	0,80	5,70	079-00002	on request
HTA-CE-CS 54/33 - A4 -	0,80	4,00	109-00002	on request

Specification: HCR-50 = stainless steel material grade HCR-50, high corrosion resistance

HTA-CE-CS 28/15 - HCR -	①	①	319-00001	on request
HTA-CE-CS 38/17 - HCR -	①	①	329-00001	on request
HTA-CE-CS 49/30 - HCR -	①	①	339-00001	on request

① on request

Other bending radii on request.

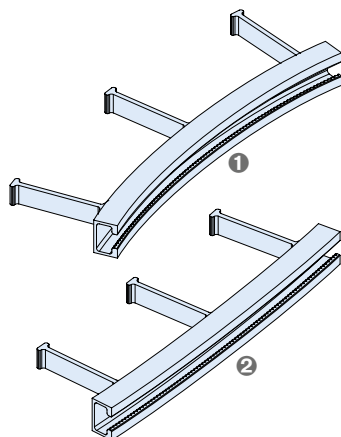
Please specify the radius and length when ordering.

★ HALFEN remark: for general information and an order example please refer to the start of chapter 1.

HALFEN CAST-IN CHANNELS CURVED SOLUTION

HZA-CS, hot-rolled

HALFEN Cast-in channel
German approval Z-21.4-145



- ① inner channel slot min. R_i
② outer channel slot min. R_a

Article name	Inner slot min. R_i [m]	Outer slot min. R_a [m]	Article no. 1002.	Price [EUR/item]
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Specification: FV according to table, page 2

HZA-CS 29/20 -	FV -	0,85	1,10	019-00001	on request
HZA-CS 38/23 -	FV -	2,60	1,40	029-00001	on request
HZA-CS 53/34 -	FV -	①	①	059-00001	on request
HZA-CS 64/44 -	FV -	①	①	069-00001	on request

Specification: A4 according to table, page 2

HZA-CS 38/23 -	A4 -	1,20	3,50	029-00002	on request
HZA-CS 53/34 -	A4 -	①	①	059-00002	on request
HZA-CS 64/44 -	A4 -	①	①	069-00002	on request

① on request

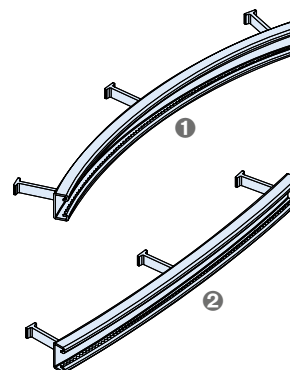
Other bending radii on request.

Please specify the radius and length when ordering.

★ HALFEN remark: for general information and an order example please refer to the start of chapter 1.

HZA-CS, cold rolled

HALFEN Cast-in channel
German approval Z-21.4-145



- ① inner channel slot min. R_i
② outer channel slot min. R_a

Article name	Inner slot min. R_i [m]	Outer slot min. R_a [m]	Article no. 1002.	Price [EUR/item]
--------------	---------------------------	---------------------------	-------------------	------------------

Specification: FV according to table, page 2

HZA-CS 41/22 -	FV -	0,70	2,20	039-00001	on request
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Specification: A4 according to table, page 2

HZA-CS 41/22 -	A4 -	0,70	4,80	039-00002	on request
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Please specify the radius and length when ordering.

★ HALFEN remark: for general information and an order example please refer to the start of chapter 1.

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

HALFEN CAST-IN CHANNELS POWER SOLUTION

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

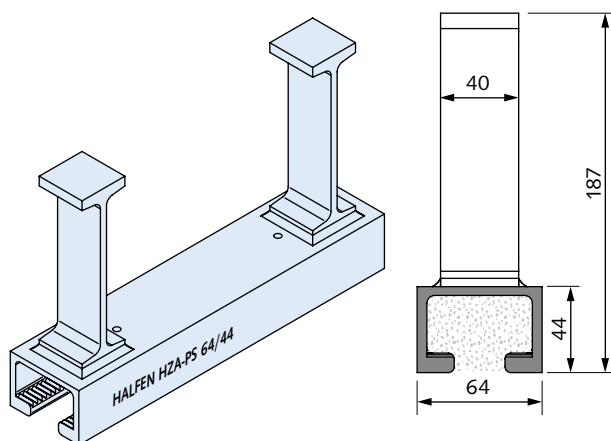
6
Industrial Technology

7
Bolts, Accessories

HZA-PS 64/44

HALFEN Cast-in channel HZA Power Solution,
hot-rolled, toothed

For applications in safety critical areas of nuclear power plants and other
nuclear facilities

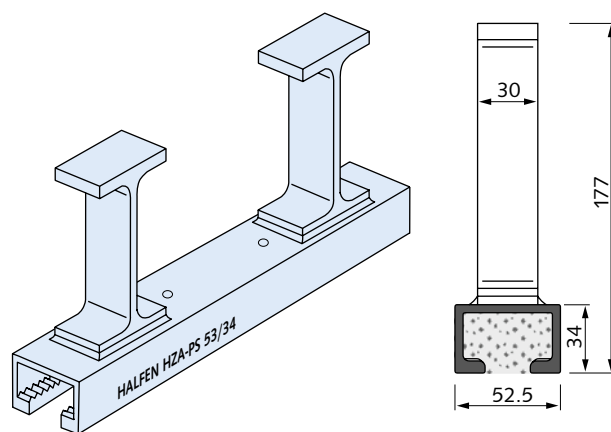


Article name	No. of anchors	Article no.	Price
Length [mm]		0018.	[EUR/item]
Specification: FV according to table, page 2			
HZA-PS 64/44 - FV - 200 - KF	2	040-00302	on request
HZA-PS 64/44 - FV - 350 - KF	3	040-00305	on request
HZA-PS 64/44 - FV - 550 - KF	3	040-00307	on request
HZA-PS 64/44 - FV - 800 - KF	4	040-00308	on request
HZA-PS 64/44 - FV - 1050 - KF	5	040-00309	on request
HZA-PS 64/44 - FV - 3030 - KF ⑤	13	040-00315	on request
HZA-PS 64/44 - FV - 6070 - KF	25	040-00003	on request
Item price of 6070mm channel corresponds to on request			
HZA-PS 64/44-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter:		on request	
Standard cut length surcharge:		10 % ③ ★	

HZA-PS 53/34

HALFEN Cast-in channel HZA Power Solution,
hot-rolled, toothed

For applications in safety critical areas of nuclear power plants and other
nuclear facilities



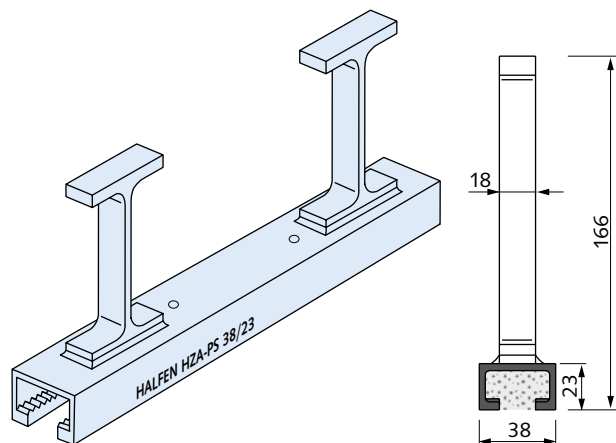
Article name	No. of anchors	Article no.	Price
Length [mm]		0018.	[EUR/item]
Specification: FV according to table, page 2			
HZA-PS 53/34 - FV - 200 - KF	2	030-00302	100,85
HZA-PS 53/34 - FV - 350 - KF	3	030-00305	133,00
HZA-PS 53/34 - FV - 550 - KF	3	030-00307	166,80
HZA-PS 53/34 - FV - 800 - KF	4	030-00308	208,65
HZA-PS 53/34 - FV - 1050 - KF	5	030-00309	237,15
HZA-PS 53/34 - FV - 3030 - KF ⑤	13	030-00315	557,60
HZA-PS 53/34 - FV - 6070 - KF	25	030-00003	1.017,65
Item price of 6070mm channel corresponds to 167,65 EUR/meter			
HZA-PS 53/34-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter:		167,65 EUR/meter	
Standard cut length surcharge:		10 % ③ ★	

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN CAST-IN CHANNELS POWER SOLUTION

HZA-PS 38/23

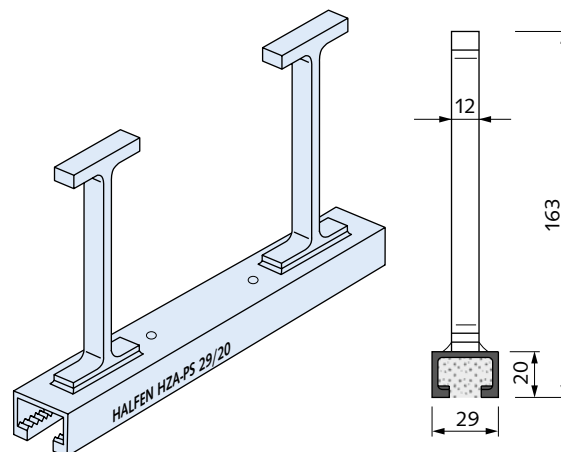
HALFEN Cast-in channel HZA Power Solution,
hot-rolled, toothed
For applications in safety critical areas of nuclear power plants and other
nuclear facilities



Article name	No. of anchors	Article no.	Price
Length [mm]		0018.	[EUR/item]
Specification: FV according to table, page 2			
HZA-PS 38/23 - FV - 200 - KF	2	020-00302	81,15
HZA-PS 38/23 - FV - 350 - KF	3	020-00305	104,95
HZA-PS 38/23 - FV - 550 - KF	3	020-00307	130,80
HZA-PS 38/23 - FV - 800 - KF	4	020-00308	160,55
HZA-PS 38/23 - FV - 1050 - KF	5	020-00309	175,25
HZA-PS 38/23 - FV - 3030 - KF ⑤	13	020-00315	405,35
HZA-PS 38/23 - FV - 6070 - KF	25	020-00003	735,45
Item price of 6070mm channel corresponds to			121,16 EUR/meter
HZA-PS 38/23-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter:			121,16 EUR/meter
Standard cut length surcharge:			10 % ③ ★

HZA-PS 29/20

HALFEN Cast-in channel HZA Power Solution,
hot-rolled, toothed
For applications in safety critical areas of nuclear power plants and other
nuclear facilities



Article name	No. of anchors	Article no.	Price
Length [mm]		0018.	[EUR/item]
Specification: FV according to table, page 2			
HZA-PS 29/20 - FV - 200 - KF	2	010-00302	73,05
HZA-PS 29/20 - FV - 350 - KF	3	010-00305	92,90
HZA-PS 29/20 - FV - 550 - KF	4	010-00307	141,25
HZA-PS 29/20 - FV - 800 - KF	5	010-00308	157,15
HZA-PS 29/20 - FV - 1050 - KF	6	010-00309	190,60
HZA-PS 29/20 - FV - 3030 - KF ⑤	16	010-00315	391,35
HZA-PS 29/20 - FV - 6070 - KF	31	010-00003	714,85
Item price of 6070mm channel corresponds to			117,77 EUR/meter
HZA-PS 29/20-FV-CUT LENGTH-KF ① ② ★			
L > 1050 mm Price per meter:			117,77 EUR/meter
Standard cut length surcharge:			10 % ③ ★

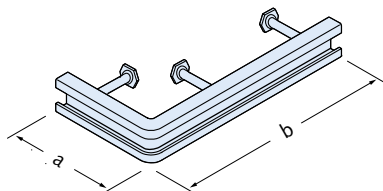
SPECIAL ITEMS, CHANCLIP

1
Fixing systems

HALFEN Cast-in channel corner pieces

Standard version: side dimension a/b = 125/250 mm & a/b = 150/150 mm
Other side dimensions a and b and other channel sizes can be supplied on request.

Subject to alteration



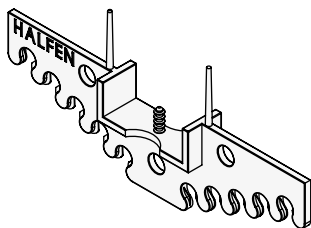
Article name	a/b [mm]	Article no.	Price
		0007.	[EUR/item]
Specification: Channel and anchor: A4 according to table, page 2			
HTA corner 38/17	125/250	020-00009	on request
HTA corner 38/17	150/150	020-00010	on request

2
Reinforcement systems

3
Lifting systems

ChanClip

HALFEN ChanClip for safe and easy connection of HALFEN Cast-in channels to the reinforcement



Article name	Suitable for HALFEN Cast-in channel type HTA-CE/HZA	PU	Article no.	Price
			0017.	[EUR/item]
Specification: Plastic				
HCP-41	38/17, 40/22, 40/23, 40/25, 41/22, 38/23, 41/22,	250	020-00001	1,45
HCP-54	49/30, 50/30, 54/33, 52/34, 53/34	250	020-00002	1,55

4
Façade connection systems

5
DETAN Rod systems

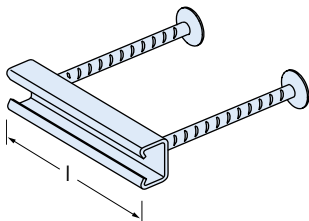
6
Industrial Technology

7
Bolts, Accessories

HANDRAIL CONNECTIONS

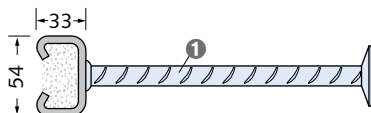
HGB E

HALFEN Cast-in handrail connection
German approval Z-21.4-1912
Available:
A4 according to the table on page 2
FV according to table, page 2 for interior
- Pricing and delivery details on request



HGB E 54/33

Cast-in part
German approval Z-21.4-1912

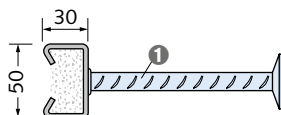


① Ø 14 B500B

Article name	Length [mm]	Article no.	Price
		0003.	[EUR/item]
Specification: Channel: A4 according to table, page 2, anchor: B500B			
HGB E 54/33 - A4	- 100 - KF	040-00801	67,60
HGB E 54/33 - A4	- 150 - KF	040-00803	76,95
HGB E 54/33 - A4	- 200 - KF	040-00804	86,70

HGB E 49/30

Cast-in part
German approval Z-21.4-1912

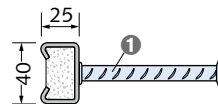


① Ø 12 B500B

Article name	Length [mm]	Article no.	Price
		0003.	[EUR/item]
Specification: Channel: A4 according to table, page 2, anchor: B500B			
HGB E 49/30 - A4	- 100 - KF	030-00801	52,05
HGB E 49/30 - A4	- 150 - KF	030-00803	57,30
HGB E 49/30 - A4	- 200 - KF	030-00804	62,85

HGB E 40/25

Cast-in part
German approval Z-21.4-1912

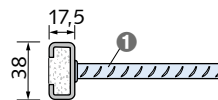


① Ø 10 B500B

Article name	Length [mm]	Article no.	Price
		0003.	[EUR/item]
Specification: Channel: A4 according to table, page 2, anchor: B500B			
HGB E 40/25 - A4	- 100 - KF	020-00801	46,45
HGB E 40/25 - A4	- 150 - KF	020-00803	50,85
HGB E 40/25 - A4	- 200 - KF	020-00804	54,70

HGB E 38/17

Cast-in part
German approval Z-21.4-1912



① Ø 10 B500B NR

Article name	Length [mm]	Article no.	Price
		0003.	[EUR/item]
Specification: Channel: A4 according to table, page 2, anchor: B500B NR			
HGB E 38/17 - A4	- 100 - KF	010-00801	44,45
HGB E 38/17 - A4	- 150 - KF	010-00803	47,85
HGB E 38/17 - A4	- 200 - KF	010-00804	51,10

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

HANDRAIL CONNECTIONS

1
Fixing systems

HGB EE 170/170

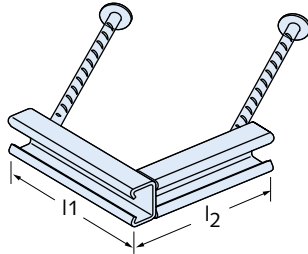
HALFEN Cast-in handrail connection for corner installation

Available:

A4 according to table, page 2

FV according to table, page 2 for interior

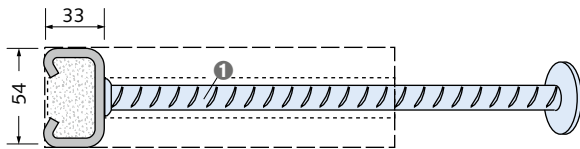
- Pricing and delivery details on request



2
Reinforcement systems

HGB EE 54/33-170/170

Cast-in corner unit



1 Ø 14 B500B

Article name	Lengths l_1, l_2 [mm]	Article no.	Price
		0003.	[EUR/item]

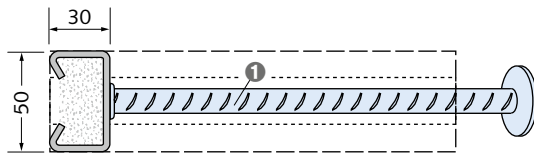
Specification: Channel: A4 according to table, page 2, anchor: B500B

HGB EE 54/33 - A4	- 170/170	080-00001	171,60
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3
Lifting systems

HGB EE 49/30-170/170

Cast-in corner unit



1 Ø 14 B500B

Article name	Lengths l_1, l_2 [mm]	Article no.	Price
		0003.	[EUR/item]

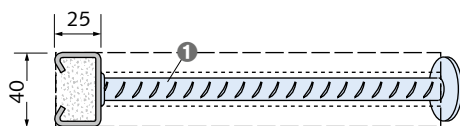
Specification: Channel: A4 according to table, page 2, anchor: B500B

HGB EE 49/30 - A4	- 170/170	070-00001	148,30
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4
Façade connection systems

HGB EE 40/25-170/170

Cast-in corner unit



1 Ø 14 B500B

Article name	Lengths l_1, l_2 [mm]	Article no.	Price
		0003.	[EUR/item]

Specification: Channel: A4 according to table, page 2, anchor: B500B

HGB EE 40/25 - A4	- 170/170	060-00001	124,15
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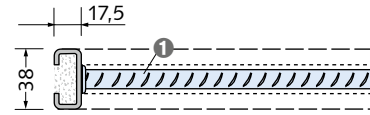
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HGB EE 38/17-170/170

Cast-in corner unit



1 Ø 12 B500B NR

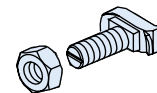
Article name	Lengths l_1, l_2 [mm]	Article no.	Price
		0003.	[EUR/item]

Specification: Channel: A4 according to table, page 2, anchor: B500B NR

HGB EE 38/17 - A4	- 170/170	050-00001	98,85
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HS

Accessories HALFEN Handrail connection,
T-bolt & nut



1 HS 50/30		2 HGB E-54/33 HGB E-49/30
HS 40/22		HGB E-40/25
HS 38/17		HGB E-38/17

1 Type

2 Suitable for channels

Article name	Thread x	Length [mm]	Article no.	Price
			0350.	[EUR/100 items]

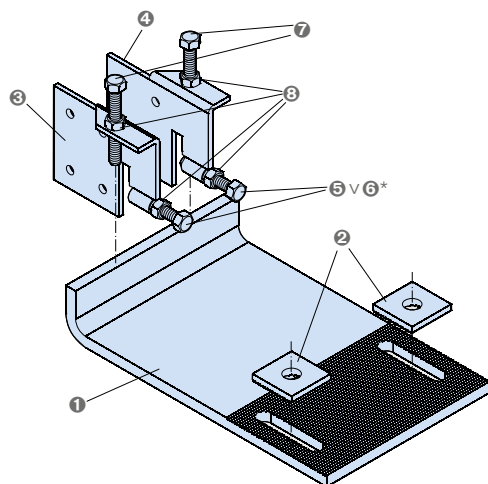
Specification: A4-70 = stainless steel material grade A4-70

HS - 38/17 - A4-70	M12 x	40	050-00013	1.208,40
HS - 38/17 - A4-70	M16 x	50	050-00079	1.938,10
HS - 40/22 - A4-70	M12 x	40	070-00083	2.593,85
HS - 40/22 - A4-70	M16 x	50	070-00082	2.626,35
HS - 50/30 - A4-70	M12 x	40	090-00002	1.861,00
HS - 50/30 - A4-70	M16 x	50	098-00039	3.578,70

CURTAIN WALL SUPPORT SYSTEM

HCW-B1

HALFEN Curtain Wall support system components



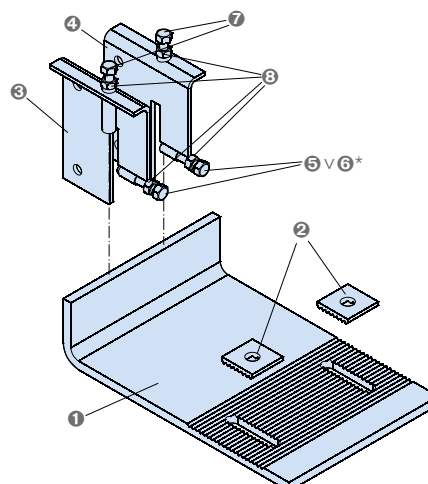
- ❶ HCW-B1 bracket: base bracket
- ❷ RP-17: serrated washer for base bracket (2 pieces per bracket)
- ❸ HCW-PB-L: left hand mullion connection bracket (marked with an „L“)
- ❹ HCW-PB-R: right hand mullion connection bracket (marked with an „R“)
- ❺ HSK M10x60 pointed bolt (to ensure a fixed connection) (2 pieces per bracket)*
- ❻ HSK M10x60 (to ensure a sliding connection) (2 pieces per bracket)*
- ❼ HSK M10x70 (vertical adjustment bolt) (2 pieces per bracket)
- ❼ MU M10 (lock nut) (4 pieces per bracket)

Article name	PU [items]	Article no.	Price
			[EUR/item]
Specification: According to catalogue			
HCW-B1 bracket 175x270x12 GV	1	0059.010-00006	on request
HCW-B1 bracket 175x295x12 GV	1	0059.010-00007	on request
HCW-B1 bracket 200x320x12 GV	1	0059.010-00005	on request
HCW-B1 bracket 150x270x12 GV	1	0059.010-00008	on request
HCW-B1 bracket 150x295x12 GV	1	0059.010-00009	on request
HCW-B1 bracket 150x320x12 GV	1	0059.010-00010	on request
RP-17 35x40x5 RL=17 GV	100	0404.000-00012	on request
HCW-PB-L 100x125x5 GV	1	0592.010-00003	on request
HCW-PB-R 100x125x5 GV	1	0592.010-00004	on request
HSK M10x60 GV 10.9 pointed bolt *	100	0385.040-00059	on request
HSK M10x60 GV 8.8. DIN 933 *	100	0385.040-00012	46,30
HSK M10x70 GV 8.8. DIN 933	100	0385.040-00013	69,30
MU M10 GV DIN 934 FK8	500	0360.040-00001	11,60

* Customer chooses between pointed bolts for fixed connection or normal bolts for a sliding connection

HCW-B2

HALFEN Curtain Wall support system components



- ❶ HCW-B2 bracket: base bracket
- ❷ RP-17: serrated washer for base bracket (2 pieces per bracket)
- ❸ HCW-PB-L: left hand mullion connection bracket (marked with an „L“)
- ❹ HCW-PB-R: right hand mullion connection bracket (marked with an „R“)
- ❺ HSK M10x60 pointed bolt (to ensure a fixed connection) (2 pieces per bracket)*
- ❻ HSK M10x60 (to ensure a sliding connection) (2 pieces per bracket)*
- ❼ HSK M12x120 (vertical adjustment bolt) (2 pieces per bracket)
- ❼ MU M10 (lock nut) (2 pieces per bracket)
- ❼ MU M12 (lock nut) (2 pieces per bracket)

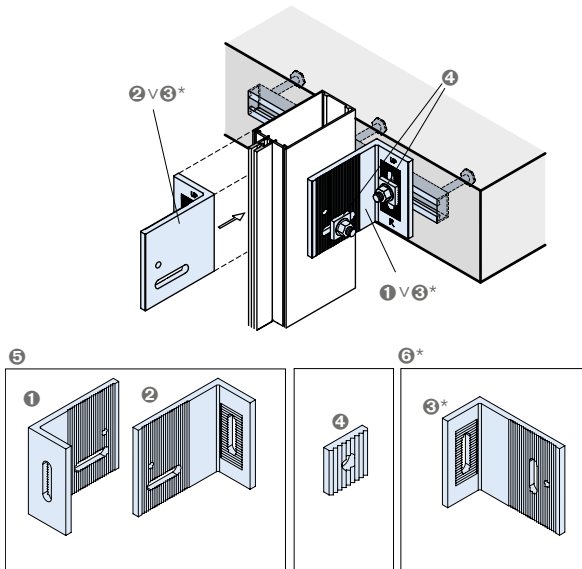
Article name	PU [items]	Article no.	Price
			[EUR/item]
Specification: According to catalogue			
HCW-B2 bracket 235x355x12 GV	1	0059.010-00004	on request
RP-17 35x40x5 RL=17 GV	100	0404.000-00012	on request
HCW-PB-L 165x121x5 GV	1	0592.010-00001	on request
HCW-PB-R 165x121x5 GV	1	0592.010-00002	on request
HSK M10x60 GV 10.9 pointed bolt *	100	0385.040-00059	on request
HSK M10x60 GV 8.8. DIN 933 *	100	0385.040-00012	46,30
HSK M12x120 GV 8.8. DIN 933	100	0385.050-00074	on request
MU M10 GV DIN 934 FK8	500	0360.040-00001	11,60
MU M12 GV DIN 934 FK8	500	0360.050-00002	18,50

* Customer chooses between pinto bolts for fixed connection or normal bolts for a sliding connection

CURTAIN WALL SUPPORT SYSTEM

HCW-ED and HCW-EW

HALFEN Curtain Wall support system components



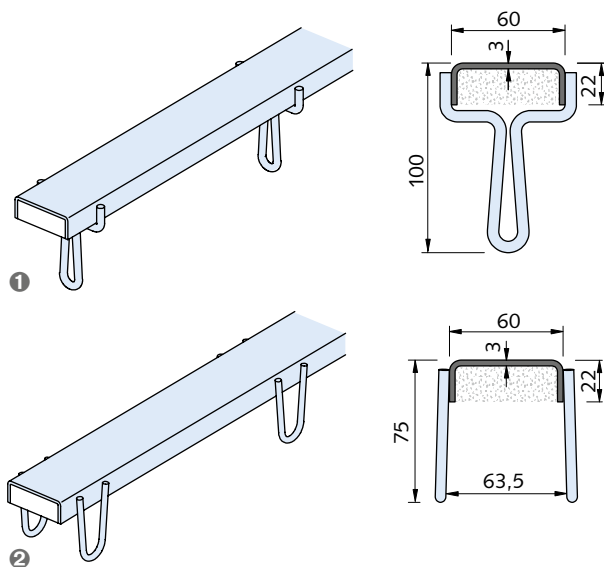
- ① HCW-ED*-R bracket: right hand mullion connection bracket
(each set requires 1 left and 1 right hand bracket)*
- ② HCW-ED*-L bracket: left hand mullion connection bracket
(each set requires 1 left and 1 right hand bracket)*
- ③ HCW-EW* bracket: base bracket, for use on both sides of the mullion
(set requires 2 pieces)*
- ④ HCW-RP: serrated washer (set requires 4 pieces)
- ⑤ for carrying dead loads and wind loads
- ⑥ for carrying wind loads only

Article name	PU [items]	Article no.	Price
		0059.	[EUR/item]
Specification: According to catalogue			
HCW-ED1-R 108x70x114 AL	1	030-00001	on request
HCW-ED1-L 108x70x114 AL	1	030-00002	on request
HCW-ED2-R 133x70x127 AL	1	030-00003	on request
HCW-ED2-L 133x70x127 AL	1	030-00004	on request
HCW-ED3-R 159x70x140 AL	1	030-00005	on request
HCW-ED3-L 159x70x140 AL	1	030-00006	on request
HCW-EW1 108x70x114 AL	1	040-00001	on request
HCW-EW2 133x70x127 AL	1	040-00002	on request
HCW-EW3 159x70x140 AL	1	040-00003	on request
HCW RP 30x30x7 RL=14 AL 20	100	050-00001	on request

CHANNELS FOR SELF-TAPPERS

HTU 60/22/3

HALFEN Channel with foam filler for self-tappers
German approval Z-21.4-84

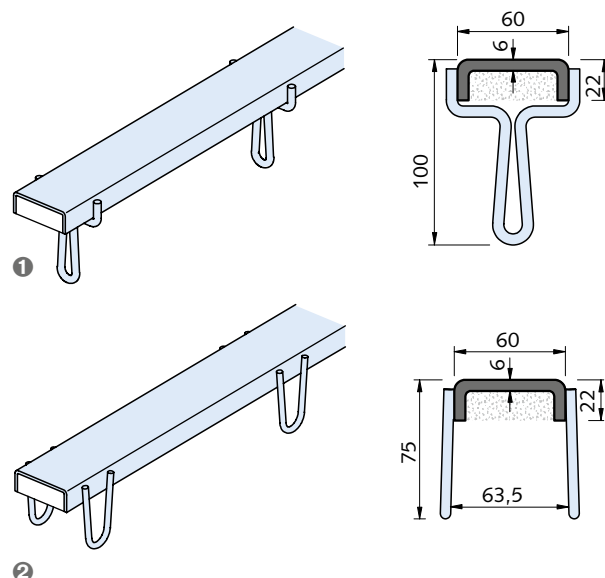


- ① Anchor shape A_N; 1 bundle = 48 items
② Anchor shape D; 1 bundle = 100 items

Article name	No. of anch. (pairs)	Item price corresponds to meter price:	Article no.	Price
Anchor shape/ - positioning ①	Length L [mm]		0015.	[EUR/item]
Specification: FV according to table, page 2				
HTU 60/22/3 - A _N 2 - FV - 3000 - SF	8	21,47	010-00001	64,40
HTU 60/22/3 - D2 - FV - 3000 - SF	8	21,47	010-00003	64,40
HTU 60/22/3 - A _N 3 - FV - 3000 - SF	20	30,13	010-00002	90,40
HTU 60/22/3 - D3 - FV - 3000 - SF	20	30,13	010-00004	90,40
Specification: A4 according to table, page 2				
HTU 60/22/3 - A _N 2 - A4 - 3000 - SF	8	86,15	010-00051	258,45
HTU 60/22/3 - D2 - A4 - 3000 - SF	8	86,15	010-00053	258,45
HTU 60/22/3 - A _N 3 - A4 - 3000 - SF	20	112,73	010-00052	338,20
HTU 60/22/3 - D3 - A4 - 3000 - SF	20	112,73	010-00054	338,20

HTU 60/22/6

HALFEN Channel with foam filler for self-tappers
German approval Z-21.4-84



- ① Anchor shape A_N; 1 bundle = 48 items
② Anchor shape D; 1 bundle = 100 items

Article name	No. of anch. (pairs)	Item price corresponds to meter price:	Article no.	Price
Anchor shape/ - positioning ①	Length L [mm]		0015.	[EUR/item]
Specification: FV according to table, page 2				
HTU 60/22/6 - A _N 2 - FV - 3000 - SF	8	34,63	020-00001	103,90
HTU 60/22/6 - D2 - FV - 3000 - SF	8	34,63	020-00003	103,90
HTU 60/22/6 - A _N 3 - FV - 3000 - SF	20	43,73	020-00002	131,20
HTU 60/22/6 - D3 - FV - 3000 - SF	20	43,73	020-00004	131,20

① Explanation of anchor positioning HTU (measurements in mm):	
A _N 2 and D2 with 8 anchors or pairs of anchors, can be cut in the centre	
A _N 3 and D3 with 20 anchors or pairs of anchors, can be cut into length by the customer	

CORNER GUARDS, DEMU SOCKET ANCHOR

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

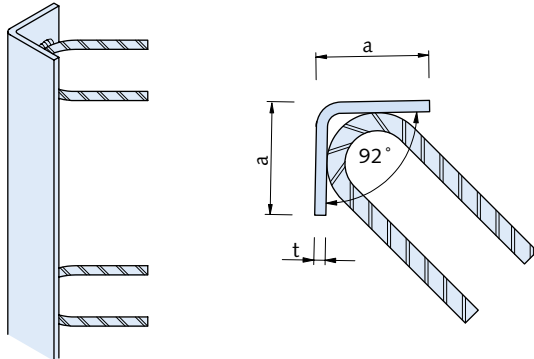
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HKW

HALFEN Corner guard

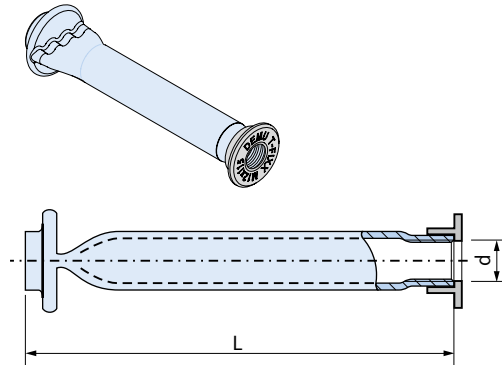


Article name	Length [mm] / number of anchors	Article no.	Price
a/t [mm]		0027.	[EUR/item]
Specification: FV according to table, page 2			
HKW 50/5 - FV -	500 / 2	010-00001	34,15
HKW 50/5 - FV -	750 / 2	010-00002	41,05
HKW 50/5 - FV -	1000 / 2	010-00003	54,85
HKW 50/5 - FV -	1500 / 3	010-00004	67,65
HKW 50/5 - FV -	2000 / 4	010-00005	86,90
HKW 80/6 - FV -	500 / 2	020-00001	44,90
HKW 80/6 - FV -	750 / 2	020-00002	58,70
HKW 80/6 - FV -	1000 / 2	020-00003	78,25
HKW 80/6 - FV -	1500 / 3	020-00004	102,15
HKW 80/6 - FV -	2000 / 4	020-00005	131,30
HKW 100/8 - FV -	500 / 2	030-00001	60,40
HKW 100/8 - FV -	750 / 2	030-00002	82,70
HKW 100/8 - FV -	1000 / 2	030-00003	112,20
HKW 100/8 - FV -	1500 / 3	030-00004	149,60
HKW 100/8 - FV -	2000 / 4	030-00005	194,25
Specification: A2 according to table, page 2			
HKW 50/5 - A2 -	500 / 2	010-00006	83,40
HKW 50/5 - A2 -	750 / 2	010-00007	103,70
HKW 50/5 - A2 -	1000 / 2	010-00008	139,65
HKW 50/5 - A2 -	1500 / 3	010-00009	178,55
HKW 50/5 - A2 -	2000 / 4	010-00010	232,45
HKW 80/6 - A2 -	500 / 2	020-00006	119,00
HKW 80/6 - A2 -	750 / 2	020-00007	159,10
HKW 80/6 - A2 -	1000 / 2	020-00008	213,10
HKW 80/6 - A2 -	1500 / 3	020-00009	287,05
HKW 80/6 - A2 -	2000 / 4	020-00010	375,80
HKW 100/8 - A2 -	500 / 2	030-00006	168,60
HKW 100/8 - A2 -	750 / 2	030-00007	234,90
HKW 100/8 - A2 -	1000 / 2	030-00008	316,65
HKW 100/8 - A2 -	1500 / 3	030-00009	438,60
HKW 100/8 - A2 -	2000 / 4	030-00010	575,10

T-FIXX

DEMU Fixing anchor

European Technical Assessment ETA-13/0222



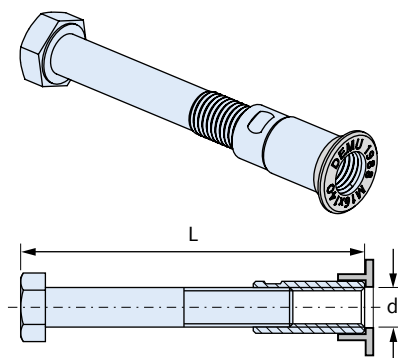
Article name	PU [items]	Article no.	Price
d x L [mm]		0020.	[EUR/100 items]
Specification: GV according to the table on page 2			
T-FIXX M10x50 GV	500	270-00001	309,60
T-FIXX M10x75 GV	250	270-00002	337,45
T-FIXX M12x50 GV	250	270-00003	390,10
T-FIXX M12x70 GV	250	270-00004	455,10
T-FIXX M12x95 GV	200	270-00005	529,40
T-FIXX M16x60 GV	100	270-00006	562,45
T-FIXX M16x100 GV	100	270-00007	616,10
T-FIXX M16x125 GV	100	270-00008	739,95
T-FIXX M20x70 GV	100	270-00009	808,05
T-FIXX M20x100 GV	50	270-00010	863,80
T-FIXX M20x145 GV	50	270-00011	1.164,10
Specification: A4 according to table, page 2			
T-FIXX M10x50 A4	500	270-00101	660,05
T-FIXX M10x65 A4	500	270-00102	684,00
T-FIXX M12x50 A4	250	270-00103	698,50
T-FIXX M12x70 A4	250	270-00104	747,25
T-FIXX M12x115 A4	100	270-00105	769,50
T-FIXX M16x60 A4	100	270-00106	785,25
T-FIXX M16x80 A4	100	270-00107	984,95
T-FIXX M16x110 A4	100	270-00108	1.067,05
T-FIXX M20x70 A4	100	270-00109	1.316,75
T-FIXX M20x100 A4	50	270-00110	1.491,15
T-FIXX M20x125 A4	50	270-00111	1.569,70

DEMU SOCKET ANCHOR

1988

DEMU Bolt anchor

European Technical Assessment ETA-13/0401



Article name d x L [mm]	PU [items]	Article no. 0020.	Price [EUR/100 items]
Specification: Sleeve: GV according to table, page 2, bolt: black-untreated			
1988 M12 x 55 -	GV	250	010-00048 299,55
1988 M12 x 100 -	GV	200	010-00001 350,75
1988 M12 x 150 -	GV	125	010-00002 379,85
1988 M16 x 75 -	GV	100	010-00049 352,80
1988 M16 x 140 -	GV	80	010-00003 440,65
1988 M16 x 220 -	GV	50	010-00004 615,25
1988 M20 x 90 -	GV	75	010-00068 758,50
1988 M20 x 150 -	GV	40	010-00005 783,80
1988 M20 x 180 -	GV	40	010-00006 827,40
1988 M20 x 270 -	GV	25	010-00007 1.108,90
1988 M24 x 110 -	GV	50	010-00069 1.196,75
1988 M24 x 200 -	GV	25	010-00008 1.330,75
1988 M24 x 320 -	GV	15	010-00009 1.913,40
1988 M30 x 160 -	GV	15	010-00070 3.534,75
1988 M30 x 240 -	GV	10	010-00010 3.821,75
1988 M30 x 380 -	GV	5	010-00011 4.601,70
1988 M36 x 300 -	GV	5	010-00012 6.552,15
1988 M36 x 420 -	GV	1	010-00013 8.806,05
1988 M42 x 300 -	GV	1	010-00014 5.303,25
1988 M42 x 460 -	GV	1	010-00015 12.212,15

Article name d x L [mm]	PU [items]	Article no. 0020.	Price [EUR/100 items]
Specification: Sleeve: FV according to table, page 2, bolt: black-untreated			
1988 M12 x 55 -	FV	250	010-00071 312,45
1988 M12 x 100 -	FV	200	010-00032 406,80
1988 M12 x 150 -	FV	125	010-00033 437,65
1988 M16 x 75 -	FV	100	010-00072 442,15
1988 M16 x 140 -	FV	80	010-00034 476,20
1988 M16 x 220 -	FV	50	010-00035 651,80
1988 M20 x 90 -	FV	75	010-00073 729,60
1988 M20 x 150 -	FV	40	010-00036 752,60
1988 M20 x 180 -	FV	40	010-00037 899,05
1988 M20 x 270 -	FV	25	010-00038 1.173,90
1988 M24 x 110 -	FV	50	010-00074 1.257,80
1988 M24 x 200 -	FV	25	010-00039 1.526,10
1988 M24 x 320 -	FV	15	010-00040 2.104,55
1988 M30 x 160 -	FV	15	010-00075 3.754,50
1988 M30 x 240 -	FV	10	010-00041 4.004,95
1988 M30 x 380 -	FV	5	010-00042 4.717,25
1988 M36 x 420 -	FV	1	010-00044 8.795,20
Specification: Sleeve: A4-50 stainless steel, bolt: hot-dip galvanized			
1988 M12 x 100 -	A4-50	200	010-00060 780,25
1988 M12 x 150 -	A4-50	125	010-00061 848,40
1988 M16 x 140 -	A4-50	80	010-00062 1.207,80
1988 M16 x 220 -	A4-50	50	010-00063 1.321,00
1988 M20 x 150 -	A4-50	40	010-00064 1.717,50
1988 M20 x 180 -	A4-50	40	010-00065 1.790,55
1988 M20 x 270 -	A4-50	25	010-00066 1.978,40
Specification: Sleeve: A4-80 stainless steel, bolt: hot-dip galvanized			
1988 M12 x 100 -	A4-80	200	010-00016 845,40
1988 M12 x 150 -	A4-80	125	010-00017 887,50
1988 M16 x 140 -	A4-80	80	010-00018 1.356,30
1988 M16 x 220 -	A4-80	50	010-00019 1.535,75
1988 M20 x 150 -	A4-80	40	010-00020 1.888,20
1988 M20 x 180 -	A4-80	40	010-00021 2.026,45
1988 M20 x 270 -	A4-80	25	010-00067 2.269,30
1988 M24 x 200 -	A4-80	25	010-00022 4.392,20
1988 M30 x 240 -	A4-80	10	010-00023 7.908,75

DEMU SOCKET ANCHOR

1 Fixing systems

2 Reinforcement systems

3 Lifting systems

4 Façade connection systems

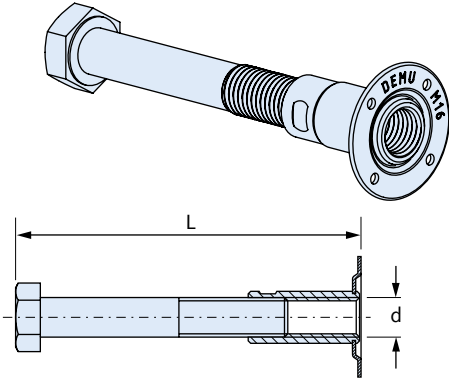
5 DETAN Rod systems

6 Industrial Technology

7 Bolts, Accessories

1985

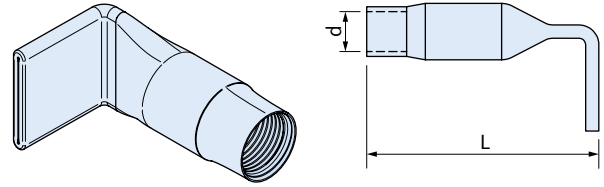
DEMU Bolt anchor with nailing plate
European Technical Assessment ETA-13/0401



Article name	PU [items]	Article no.	Price [EUR/100 items]
d x L [mm]		0020.	
Specification: Sleeve: GV according to table, page 2, bolt: black-untreated			
1985 M12 x 150 - GV	125	020-00001	682,75
1985 M16 x 140 - GV	80	020-00002	989,70
1985 M20 x 180 - GV	40	020-00003	1.376,95
1985 M24 x 200 - GV	25	020-00004	2.184,95

1140

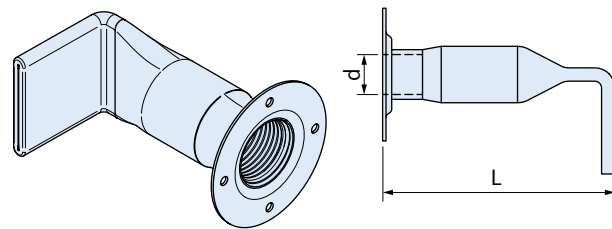
DEMU Sockets, angled



Article name	PU [items]	Article no.	Price [EUR/100 items]
d x L [mm]		0020.	
Specification: GV according to the table on page 2			
1140 M8 x 50 - GV	500	040-00001	87,75
1140 M10 x 60 - GV	400	040-00002	118,55
1140 M12 x 45 - GV	200	040-00003	132,75
1140 M12 x 70 - GV	200	040-00004	158,75
1140 M16 x 60 - GV	100	040-00005	201,55
1140 M16 x 100 - GV	100	040-00006	275,10
1140 M20 x 70 - GV	100	040-00007	301,20
1140 M20 x 100 - GV	50	040-00008	358,15
1140 M24 x 80 - GV	50	040-00009	517,00
Specification: A4 according to table, page 2			
1140 M8 x 50 - A4	500	040-00010	242,40
1140 M10 x 60 - A4	400	040-00011	373,25
1140 M12 x 70 - A4	200	040-00012	479,95
1140 M16 x 100 - A4	100	040-00013	903,00

1130

DEMU Sockets, angled, with nailing plate

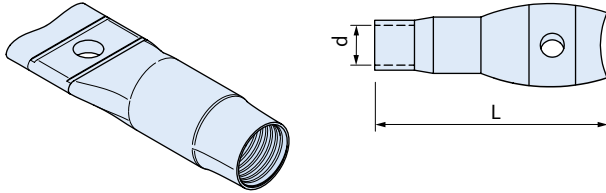


Article name	PU [items]	Article no.	Price [EUR/100 items]
d x L [mm]		0020.	
Specification: GV according to the table on page 2			
1130 M10 x 60 - GV	400	050-00001	163,55
1130 M12 x 70 - GV	200	050-00002	213,50
1130 M16 x 100 - GV	100	050-00003	322,55
1130 M20 x 100 - GV	50	050-00004	403,20

DEMU SOCKET ANCHOR

995-GB, 995-G

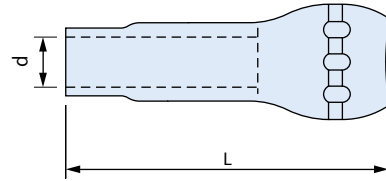
DEMU Sockets with round hole



Article name d x L [mm]	PU [items]	Article no. 0020.	Price [EUR/100 items]
Specification: GV according to the table on page 2			
995-GB M6 x 30 - GV	500	060-00035	36,65
995-GB M6 x 40 - GV	500	060-00001	44,90
995-GB M8 x 40 - GV	500	060-00002	44,90
995-GB M8 x 50 - GV	500	060-00003	49,90
995-G M10 x 50 - GV	500	060-00004	83,00
995-G M12 x 60 - GV	400	060-00005	104,40
995-G M12 x 70 - GV	400	060-00006	113,90
995-G M16 x 70 - GV	200	060-00007	158,75
995-G M16 x 80 - GV	200	060-00008	170,75
995-G M16 x 100 - GV	100	060-00009	201,55
995-G M16 x 120 - GV	100	060-00010	241,95
995-G M20 x 100 - GV	100	060-00011	286,85
995-G M20 x 120 - GV	100	060-00012	329,60
995-G M24 x 120 - GV	50	060-00013	524,15
995-G M30 x 150 - GV	25	060-00014	825,30
Specification: A4 according to table, page 2			
995-G M8 x 50 - A4	200	060-00015	207,65
995-G M10 x 50 - A4	100	060-00016	222,55
995-G M12 x 60 - A4	100	060-00017	321,35
995-G M16 x 80 - A4	50	060-00018	538,95
995-G M16 x 100 - A4	100	060-00019	731,80
995-G M20 x 100 - A4	25	060-00020	890,00
995-G M24 x 120 - A4	25	060-00021	1.997,45

995

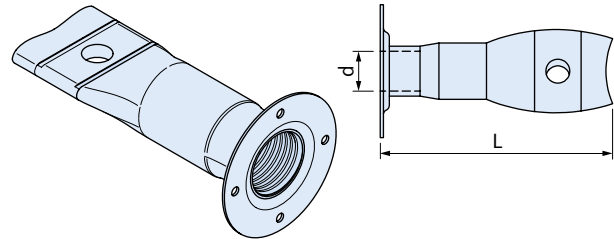
DEMU Sockets



Article name d x L [mm]	PU [items]	Article no. 0020.	Price [EUR/100 items]
Specification: A4 according to table, page 2			
995 M6 x 40 - A4	200	100-00009	270,30

1036-G

DEMU Sockets with round hole, with nailing plate



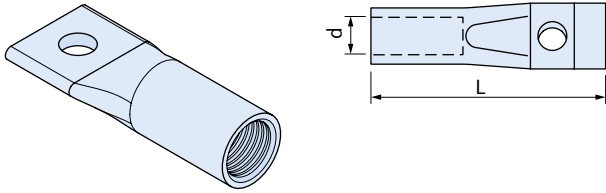
Article name d x L [mm]	PU [items]	Article no. 0020.	Price [EUR/100 items]
Specification: GV according to the table on page 2			
1036-G M10 x 50 - GV	200	070-00001	128,05
1036-G M12 x 70 - GV	200	070-00002	165,90
1036-G M16 x 80 - GV	100	070-00003	246,55
1036-G M16 x 100 - GV	100	070-00004	277,45
1036-G M20 x 100 - GV	100	070-00005	362,80
1036-G M24 x 120 - GV	50	070-00006	588,10
Specification: A4 according to table, page 2			
1036-G M10 x 50 - A4	100	070-00008	380,25
1036-G M12 x 60 - A4	100	070-00009	579,60
1036-G M16 x 80 - A4	50	070-00007	1.009,75
1036-G M20 x 100 - A4	25	070-00010	1.240,35

DEMU SOCKET ANCHOR, ACCESSORIES

1
Fixing systems

995-DG

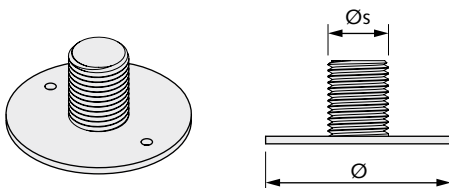
DEMU Sockets, thick-walled, with round hole, for reinforcement loop



Article name	PU [items]	Article no.	Price [EUR/100 items]
d x L [mm]		0020.	
Specification: GV according to the table on page 2			
995-DG M12 x 60 - GV	200	030-00001	173,10
995-DG M16 x 75 - GV	100	030-00002	237,15
995-DG M16 x 100 - GV	100	030-00007	252,10
995-DG M20 x 90 - GV	75	030-00003	417,45
995-DG M20 x 120 - GV	50	030-00008	465,40
995-DG M24 x 100 - GV	50	030-00004	616,55
995-DG M30 x 135 - GV	25	030-00005	1.306,75

2275

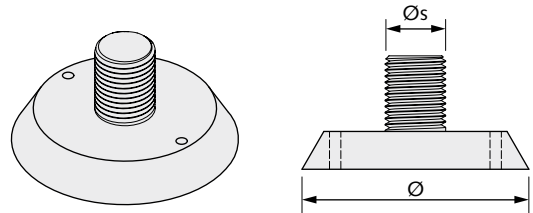
Retaining disc, for nailing to the formwork



Article name	External-Ø [mm]	Height [mm]	PU [items]	Article no.	Price [EUR/100 items]
Ø s for thread				0021.	
Specification: Plastic					
2275 M10 -	49	2	250	090-00001	44,30
2275 M12 -	49	2	250	090-00002	51,20
2275 M16 -	49	2	250	090-00003	52,90
2275 M20 -	49	2	250	090-00004	55,85
2275 M24 -	49	2	250	090-00005	58,00

2280

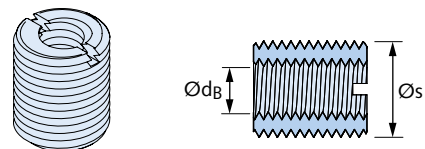
Retaining disc, for nailing to the formwork



Article name	External-Ø [mm]	Height [mm]	PU [items]	Article no.	Price [EUR/100 items]
Ø s for thread				0021.	
Specification: Plastic					
2280 M8 -	60	10	100	010-00001	49,90
2280 M10 -	60	10	100	010-00002	52,20
2280 M12 -	60	10	100	010-00003	52,20
2280 M16 -	60	10	100	010-00004	56,85
2280 M20 -	60	10	100	010-00005	56,85
2280 M24 -	60	10	100	010-00006	59,20
2280 M27 -	60	10	100	010-00008	57,70
2280 M30 -	60	7	100	010-00007	64,00
Nail plate 6306 for attaching to formwork → page 142					

2600

Thread adapter
reduces the diameter of drill holes in formwork
reusable



Article name	Ø d _B [mm]	PU [items]	Article no.	Price [EUR/100 items]
Ø s [mm]			0021.	
Specification: GV according to the table on page 2				
2600 M12 -	M6	100	060-00001	386,80
2600 M16 -	M8	100	060-00002	425,30
2600 M20 -	M8	100	060-00003	446,40
2600 M24 -	M10	100	060-00004	483,60
2600 M30 -	M10	100	060-00005	629,45
2600 M36 -	M10	100	060-00006	917,45
2600 M42 -	M12	100	060-00007	963,80

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

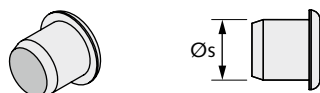
6
Industrial Technology

7
Bolts, Accessories

DEMU SOCKET ANCHOR, ACCESSORIES

2244

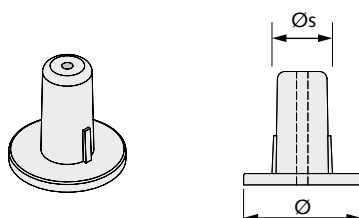
Sealing cap
Protects against ingress of dirt and water



Article name	Size	Colour	PU [items]	Article no.	Price
Ø s [mm]	[mm]	code		0021.	[EUR/100 items]
Specification: Plastic					
2244 M6 -	5,5	red	100	030-00001	14,45
2244 M8 -	7,0	red	100	030-00002	14,45
2244 M10 -	9,0	red	100	030-00003	14,45
2244 M12 -	11,0	red	100	030-00004	14,45
2244 M16 -	14,5	black	100	030-00005	14,45
2244 M20 -	18,0	blue	100	030-00006	14,45
2244 M24 -	21,5	red	100	030-00007	21,35
2244 M30 -	27,0	white	100	030-00008	37,85
2244 M36 -	33,5	white	100	030-00009	64,45
2244 M42 -	38,4	white	100	030-00010	71,45

2290

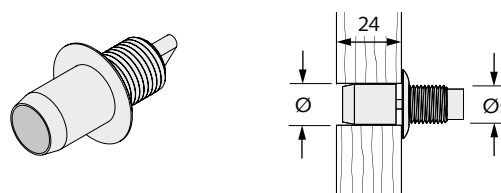
Nailing plug (nail not included)
for easy assembly of socket anchors



Article name	Ø [mm]	PU [items]	Article no.	Price
Ø s [mm]			0021.	[EUR/100 items]
Specification: Plastic				
2290 M8 -	18	100	050-00001	14,55
2290 M10 -	22	100	050-00002	17,00
2290 M12 -	25	100	050-00003	19,35
2290 M16 -	31	100	050-00004	26,55
2290 M20 -	37	100	050-00005	38,80

2250

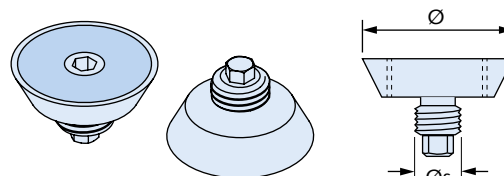
Fixing pin



Article name	Ø Drill hole	Colour	PU [items]	Article no.	Price
Ø s [mm]	[mm]	code		0021.	[EUR/100 items]
Specification: Plastic					
2250 M6 -	11 x 23	green	1000	020-00001	40,35
2250 M8 -	11 x 23	blue	1000	020-00002	44,90
2250 M10 -	11 x 23	yellow	1000	020-00003	47,45
2250 M12 -	11 x 23	red	1000	020-00004	54,70
2250 M16 -	17 x 24	black	1000	020-00005	59,20
2250 M20 -	17 x 24	white	1000	020-00006	70,90
2250 M24 -	17 x 24	blue	1000	020-00007	92,10

6365

Magnetic plate



Article name	External-Ø	Height	PU [items]	Article no.	Price
For M-threads	[mm]	[mm]		0741.	[EUR/item]
Specification: Steel with magnet					
6365 - 12	40	10	1	180-00001	142,15
6365 - 16	40	10	1	180-00002	142,15
6365 - 20	55	10	1	180-00003	148,30
6365 - 24	55	10	1	180-00004	148,30
6365 - 30	70	10	1	180-00005	158,05
6365 - 36	70	10	1	180-00006	162,70
6365 - 42	95	10	1	180-00007	186,80

LIFT-BOX

1

Fixing systems

2

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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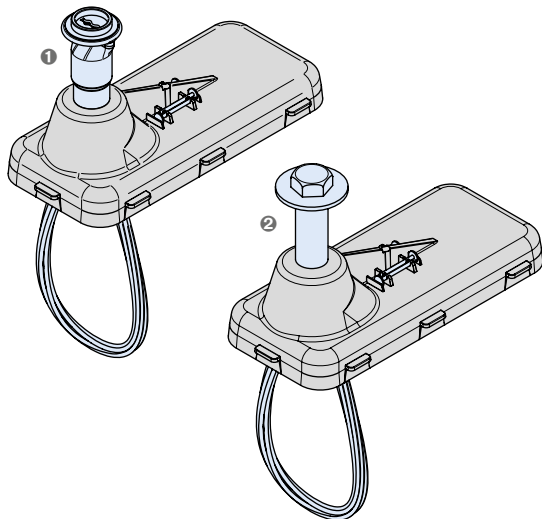
Industrial Technology

7

Bolts, Accessories

HLX Lift-Box

Anchoring point with cable loop
European Technical Assessment ETA-17/0488

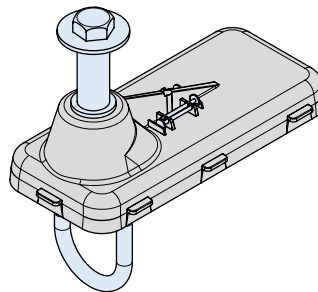


- 1 T-Fixx®
- 2 Sleeve

Article name	Load range	Floor thickness [mm]	PU [items]	Article no.	Price [EUR/item]
				0742.	
Specification: According to catalogue					
HLX Lift-Box 1,5 with loop	1500	150	1	220-00101	66,30
HLX Lift-Box 2,0 with loop	2000	150	1	220-00102	69,50

HLX Lift-Box

Anchoring point with chain link
European Technical Assessment ETA-17/0488

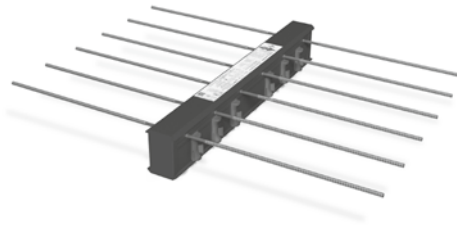


Article name	Load range	Floor thickness [mm]	PU [items]	Article no.	Price [EUR/item]
				0742.	
Specification: According to catalogue					
HLX Lift-Box 2,0 with link	2000	150	1	220-00103	105,40
HLX Lift-Box 4,0 with link	4000	220	1	220-00104	129,10

Reinforcement systems

Features

- Modular system with more than 900 possible combinations for precisely fitting elements
- All elements are fire resistance class REI 120 with non-flammable A1 mineral wool insulation as standard
- European Technical Assessment ETA-18/0189
- Robust plastic housing with fixings for the load bearing elements
- Cantilever connections with no shear load rebar – all compressive and shear forces are safely transferred through the innovative CSB compression bearings
- Verified thermal heat insulation with energy saving components and Passive House Institute certification
- Balcony connections for cantilevered balconies (HIT-HP/-SP MVX) are symmetrical and can be installed irrespective of the balcony orientation



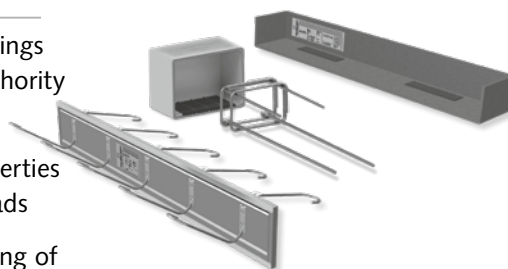
HALFEN HIT-HP/-SP
Insulated Connection

Benefits

- Extensive product range allows economical design, which is not restricted by pre-defined load groups
- Maximum safety for fire protection requirements with no risk of mix-ups – with no additional charge
- Uniform approvals allow reliable planning in over 30 European countries
- Robust and secure; in transport and installation
- Easy and time-efficient installation; in the precast plant and on-site
- Up-to-date technology – Suitable for Passive energy buildings
- Now even more installation reliability; on the building site and in the precast factory

Features

- High-quality bi-trapezoidal-bearings with general constructional authority approval
- Excellent sound insulating properties for a wide range of support loads
- Perforation allows flexible cutting of the elements



HALFEN Impact Sound
Insulation Products

Benefits

- Flexibly planning with three landing-slab heights ($d = 16/18/20 \text{ cm}$)
- Safety in planning with Type-test approval for installed support elements
- Simple and quick installation

Fixing systems

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Reinforcement systems

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Bolts, Accessories

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Reinforcement systems

1
Fixing systems

Features

- Force-fit special thread
- Safe installation with visual check
- Pre-fabricated reinforcement connection
- Metric bars up to Ø 20
- HBS-05-Seismic connection using B500C for maximum ductility



HALFEN HBS-05
Threaded Connection

Benefits

- **Easy handling, no torque wrench necessary**
- **Highest reliability due to visual control**
- **Always available**

3
Lifting systems

Features

- Extremely short anchoring lengths due to the forged anchor head
- Positive connection of reinforced concrete and steel elements
- Fully-functional connection for high loads
- Positive transfer of normal shear and bending moments
- Simple installation to the formwork



HALFEN HSC Stud Connector

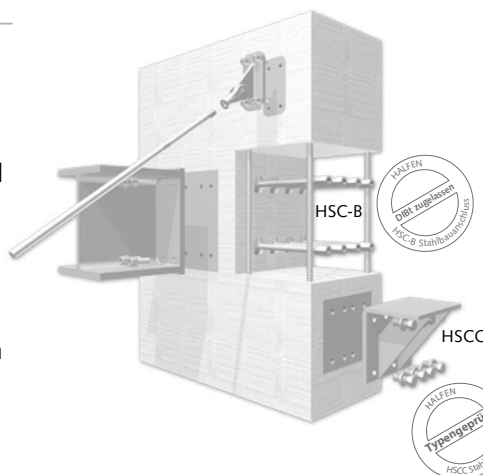
Benefits

- **Reduction in the amount of steel due to effective anchoring**
- **Flexibility in planning**
- **Easy to calculate**
- **Time and cost-effective installation**

4
Façade connection systems

Features

- Fully functional connection for normal, shear forces and bending moments
- Single, two-sided connections and bent anchor possible
- Available with 12, 16, 20 and 25 mm bar diameter
- Durable due to optional corrosion protection for sockets: available in hot-dipped galvanized, zinc galvanized or in stainless steel A4
- HSCC Steel corbels are available in 34 type-tested variants: Standard attached components to support loads up to 2500 kN



HALFEN HUC Universal Connection

Benefits

- **Building authority approval for all attached components**
- **Short anchor lengths through anchor heads**
- **Simple installation to the formwork**
- **No on-site welding**
- **Quick and easy assembly of steel components using bolts and nuts**

5
DETAN Rod systems

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Reinforcement systems

Features

- German approval and type tested
- Minimal case height
- Standard element lengths: 1.25 m and 0.80 m, further lengths on request
- Bar-Ø d_s: 8 mm – 10 mm – 12 mm
- 7 case sizes starting from 6 cm width for connecting various building components
- 13 different stirrup types available for one- and two-row connections



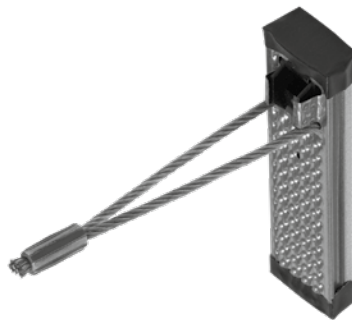
HALFEN HBT Rebind Connection

Benefits

- *Rational connection of concrete components*
- *High load capacity due to low profile casing*
- *Easy to calculate*
- *Stable metal-casing with pre-punched grip-hole*
- *Case is simply nailed to the formwork*
- *Simple removal of the cover from the steel-casing*

Features

- Sturdy steel case and cover
- Special spacers for use between boxes
- Pre-punched nail holes
- The loops pop up automatically
- Officially approved



HALFEN HLB Loop Box

Benefits

- *Stability during concrete pour*
- *Versatile: Easy fixing to the formwork by nailing or gluing*
- *Time saving: no rebar rebending required*
- *Easy joint connection*

Fixing systems

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Reinforcement systems

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Reinforcement systems

1
Fixing systems

Features

- Shear rail with welded on double head anchors
Anchor diameter 10 mm - 25 mm
- 2 and 3 stud elements
Manufacture of complete elements
- Approved across Europe as shear reinforcement
Officially approved for all structures with shear loads
- Clip-bar for the insertion from the top
- Spacers available for concrete cover thicknesses from 15 mm - 40 mm
- CE marked



HALFEN HDB Punching Shear Reinforcement



Benefits

- Can be used as shear punching reinforcement and for structures with shear loads
- Short delivery times for system elements, standard elements available directly from stock
- Complete elements are manufactured to measure with 4 up to 10 double headed studs
- Ideal for the insertion from the top and from below

3
Lifting systems

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Façade connection systems

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DETAN Rod systems

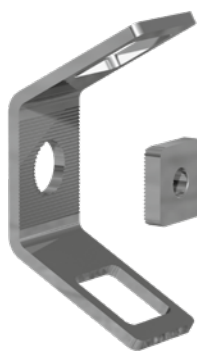
6
Industrial Technology

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Bolts, Accessories

Features

- Innovative and versatile connection of precast elements
- A handy solution for fast and economic assembly

German approval



HEK Precast Coupler

Benefits

- Bolt connection
- Durable corrosion protection
- Short installation time
- No temporary bracing required
- Less crane time
- Weather independent installation
- Dismountable

REINFORCEMENT SYSTEMS

General information and explanation

Orders

Ordering example Scheme A

Product group	Type	Ø d _s [mm]	External dimension x [mm]	External dimension y [mm]	Diam. of bending roll d _{Br}
HBS-05-	BG-	16/	400	1600	4ds
HBS-05-	ALG-	25/	800	2000	10ds

Ordering example Scheme B

Type	Length L _B [mm]	Bar diam. [mm] / Distance e [cm]	Number of bars per box	Socket bars type HBS-05	Measurements of the HBS-05 socket bars	Diam. of bending roll d _{Br}
HBS-05-BOX-	1250	14/15	8/	BG	L=800 x=200	10ds

Ordering example Scheme C

Product group	Ø d _A [mm]	Height of anchors h _A [mm]	Number of anchors	Total length L [mm]	Spacing measurements (L _{A1} +L _{A2} +...+L _{AN}) [mm]
HDB-	14/	235 -	2/	340	
HDB-	16/	205 -	5/	725	(100/100/150/150/150/75)

Technical

Further details about our Reinforcement Systems can be found in our catalogues and www.halfen.com.

- Technical Product Information HIT Insulated Connection
- Technical Product Information ISI Impact Sound Insulation
- Technical Product Information HBS-05 Screw Connection
- Technical Product Information HSC Stud Connector
- Technical Product Information HUC Universal Connection
- Technical Product Information HBT Rebend Connection
- Technical Product Information HLB Loop Box
- Technical Product Information HCC Column Shoe
- Technical Product Information HEK Precast coupler
- Technical Product Information MBT Reinforcement Connections
- Technical Product Information Punching and Shear Reinforcement
- Technical Product Information HSD Shear Dowel System
- Technical Product Information HBJ Betojuster



All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

Items per packaging unit – product range HIT-HP / -SP

Width 1,00 m	Width 0,50 m	Width 0,25 m
20 when h = 16 cm	40 when h = 16 cm	80 when h = 16 cm
18 when h = 18 cm	36 when h = 18 cm	72 when h = 18 cm
16 when h = 20 cm	32 when h = 20 cm	64 when h = 20 cm

Fixing systems

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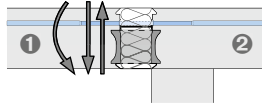
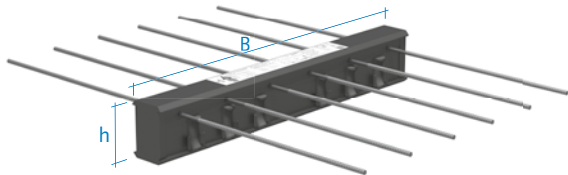
HIT-HP MVX

Balcony connection for cantilevered balconies with moments and bidirectional shear loads

Insulation thickness: 80 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0202	1,00	121,40
HIT-HP MVX 0302	1,00	127,20
HIT-HP MVX 0203	1,00	125,60
HIT-HP MVX 0403	1,00	154,80
HIT-HP MVX 0503	1,00	171,30
HIT-HP MVX 0603	1,00	190,50
HIT-HP MVX 0204	1,00	136,00
HIT-HP MVX 0304	1,00	153,80
HIT-HP MVX 0404	1,00	174,70
HIT-HP MVX 0504	1,00	192,60
HIT-HP MVX 0604	1,00	213,70
HIT-HP MVX 0704	1,00	226,90
HIT-HP MVX 0804	1,00	245,40
HIT-HP MVX 0904	1,00	261,70
HIT-HP MVX 0505	1,00	208,90
HIT-HP MVX 0605	1,00	226,90
HIT-HP MVX 0705	1,00	244,30
HIT-HP MVX 0805	1,00	261,70
HIT-HP MVX 0905	1,00	279,10
HIT-HP MVX 1005	1,00	296,50
HIT-HP MVX 0506	1,00	226,90
HIT-HP MVX 0606	1,00	244,30
HIT-HP MVX 0706	1,00	261,70
HIT-HP MVX 0806	1,00	279,10
HIT-HP MVX 0906	1,00	296,50
HIT-HP MVX 1006	1,00	313,90
HIT-HP MVX 1106	1,00	331,30
HIT-HP MVX 1206	1,00	376,40
HIT-HP MVX 0507	1,00	244,30
HIT-HP MVX 0607	1,00	261,70
HIT-HP MVX 0707	1,00	279,10
HIT-HP MVX 0807	1,00	296,50
HIT-HP MVX 0907	1,00	313,90
HIT-HP MVX 1007	1,00	344,60
HIT-HP MVX 1107	1,00	377,50
HIT-HP MVX 1207	1,00	439,60
HIT-HP MVX 1307	1,00	460,00
HIT-HP MVX 1407	1,00	478,40

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0408	1,00	235,80
HIT-HP MVX 0508	1,00	261,70
HIT-HP MVX 0608	1,00	279,10
HIT-HP MVX 0708	1,00	296,50
HIT-HP MVX 0808	1,00	309,80
HIT-HP MVX 0908	1,00	331,30
HIT-HP MVX 1008	1,00	348,70
HIT-HP MVX 1108	1,00	383,70
HIT-HP MVX 1208	1,00	465,20
HIT-HP MVX 1308	1,00	474,70
HIT-HP MVX 1408	1,00	485,80
HIT-HP MVX 1109	1,00	393,60
HIT-HP MVX 1209	1,00	471,50
HIT-HP MVX 1309	1,00	484,60
HIT-HP MVX 1409	1,00	494,30
HIT-HP MVX 0810	1,00	348,70
HIT-HP MVX 1010	1,00	388,60
HIT-HP MVX 1110	1,00	420,50
HIT-HP MVX 1210	1,00	477,20
HIT-HP MVX 1310	1,00	506,10
HIT-HP MVX 1810	1,00	538,00
HIT-HP MVX 1011	1,00	400,90
HIT-HP MVX 1111	1,00	426,50
HIT-HP MVX 1211	1,00	484,90
HIT-HP MVX 1311	1,00	512,20
HIT-HP MVX 1811	1,00	540,10
HIT-HP MVX 1212	1,00	517,80
HIT-HP MVX 1312	1,00	529,20
HIT-HP MVX 1812	1,00	557,50
HIT-HP MVX 0101	0,50	65,00
HIT-HP MVX 0201	0,50	79,80
HIT-HP MVX 0102	0,50	80,20
HIT-HP MVX 0202	0,50	98,00
HIT-HP MVX 0302	0,50	128,20
HIT-HP MVX 0402	0,50	144,40
HIT-HP MVX 0303	0,50	145,50
HIT-HP MVX 0403	0,50	165,70
HIT-HP MVX 0503	0,50	184,10
HIT-HP MVX 0204	0,50	134,60
HIT-HP MVX 0304	0,50	152,00
HIT-HP MVX 0404	0,50	169,40
HIT-HP MVX 0504	0,50	220,10
HIT-HP MVX 0604	0,50	279,20
HIT-HP MVX 0704	0,50	296,60
HIT-HP MVX 0405	0,50	186,80
HIT-HP MVX 0505	0,50	233,10
HIT-HP MVX 0605	0,50	280,00
HIT-HP MVX 0705	0,50	301,30
HIT-HP MVX 0905	0,50	310,10
HIT-HP MVX 0101	0,25	59,90
HIT-HP MVX 0201	0,25	72,20
HIT-HP MVX 0102	0,25	68,00
HIT-HP MVX 0202	0,25	85,70
HIT-HP MVX 0302	0,25	141,30
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights		
from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

INSULATED CONNECTIONS

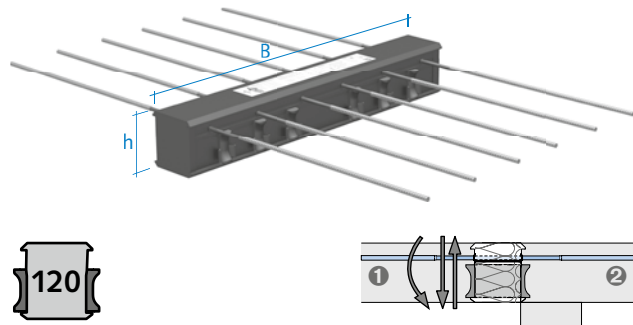
HIT-SP MVX

Balcony connection for cantilevered balconies with moments and bidirectional shear loads

Insulation thickness: 120 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0202	1,00	155,60
HIT-SP MVX 0302	1,00	166,80
HIT-SP MVX 0402	1,00	175,00
HIT-SP MVX 0303	1,00	178,70
HIT-SP MVX 0403	1,00	189,90
HIT-SP MVX 0503	1,00	209,10
HIT-SP MVX 0603	1,00	227,10
HIT-SP MVX 0204	1,00	181,30
HIT-SP MVX 0304	1,00	193,40
HIT-SP MVX 0404	1,00	204,00
HIT-SP MVX 0504	1,00	211,90
HIT-SP MVX 0604	1,00	231,20
HIT-SP MVX 0704	1,00	253,90
HIT-SP MVX 0804	1,00	276,60
HIT-SP MVX 0705	1,00	312,90
HIT-SP MVX 0805	1,00	331,80
HIT-SP MVX 0905	1,00	344,30
HIT-SP MVX 0606	1,00	280,80
HIT-SP MVX 0906	1,00	358,60
HIT-SP MVX 1006	1,00	387,60
HIT-SP MVX 1106	1,00	401,90
HIT-SP MVX 0907	1,00	362,10
HIT-SP MVX 1007	1,00	395,30
HIT-SP MVX 1107	1,00	424,40
HIT-SP MVX 1207	1,00	451,00
HIT-SP MVX 1208	1,00	468,80
HIT-SP MVX 1308	1,00	509,20
HIT-SP MVX 1408	1,00	527,60
HIT-SP MVX 1209	1,00	488,50
HIT-SP MVX 1309	1,00	512,80
HIT-SP MVX 1010	1,00	441,20
HIT-SP MVX 1110	1,00	459,90
HIT-SP MVX 1112	1,00	505,00

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0101	0,50	103,40
HIT-SP MVX 0202	0,50	126,00
HIT-SP MVX 0302	0,50	140,70
HIT-SP MVX 0402	0,50	166,00
HIT-SP MVX 0303	0,50	170,20
HIT-SP MVX 0503	0,50	229,90
HIT-SP MVX 0604	0,50	277,20
HIT-SP MVX 0704	0,50	303,80
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

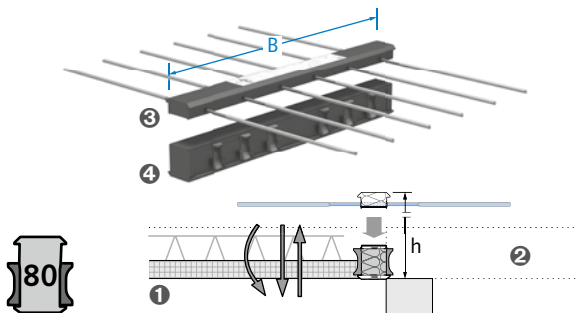
Bolts, Accessories

7

INSULATED CONNECTIONS

HIT-HP MVX-ES

Balcony connection for cantilevered balconies with moments and bidirectional shear loads,
2-piece design for precast concrete balconies
Insulation thickness: 80 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ TB-Box
- ④ CSB-Box

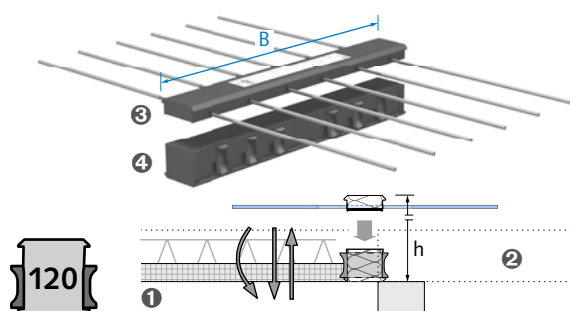
Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0202-ES	1,00	121,40
HIT-HP MVX 0302-ES	1,00	127,20
HIT-HP MVX 0203-ES	1,00	125,60
HIT-HP MVX 0403-ES	1,00	154,80
HIT-HP MVX 0503-ES	1,00	171,30
HIT-HP MVX 0603-ES	1,00	190,50
HIT-HP MVX 0204-ES	1,00	136,00
HIT-HP MVX 0304-ES	1,00	153,80
HIT-HP MVX 0404-ES	1,00	174,70
HIT-HP MVX 0504-ES	1,00	192,60
HIT-HP MVX 0604-ES	1,00	213,70
HIT-HP MVX 0704-ES	1,00	226,90
HIT-HP MVX 0804-ES	1,00	245,40
HIT-HP MVX 0904-ES	1,00	261,70
HIT-HP MVX 0505-ES	1,00	208,90
HIT-HP MVX 0605-ES	1,00	226,90
HIT-HP MVX 0705-ES	1,00	244,30
HIT-HP MVX 0805-ES	1,00	261,70
HIT-HP MVX 0905-ES	1,00	279,10
HIT-HP MVX 1005-ES	1,00	296,50
HIT-HP MVX 0506-ES	1,00	226,90
HIT-HP MVX 0606-ES	1,00	244,30
HIT-HP MVX 0706-ES	1,00	261,70
HIT-HP MVX 0806-ES	1,00	279,10
HIT-HP MVX 0906-ES	1,00	296,50
HIT-HP MVX 1006-ES	1,00	313,90
HIT-HP MVX 1106-ES	1,00	331,30
HIT-HP MVX 1206-ES	1,00	376,40
HIT-HP MVX 0507-ES	1,00	244,30
HIT-HP MVX 0607-ES	1,00	261,70
HIT-HP MVX 0707-ES	1,00	279,10
HIT-HP MVX 0807-ES	1,00	296,50
HIT-HP MVX 0907-ES	1,00	313,90
HIT-HP MVX 1007-ES	1,00	344,60
HIT-HP MVX 1107-ES	1,00	377,50
HIT-HP MVX 1207-ES	1,00	439,60
HIT-HP MVX 1307-ES	1,00	460,00
HIT-HP MVX 1407-ES	1,00	478,40

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0408-ES	1,00	235,80
HIT-HP MVX 0508-ES	1,00	261,70
HIT-HP MVX 0608-ES	1,00	279,10
HIT-HP MVX 0708-ES	1,00	296,50
HIT-HP MVX 0808-ES	1,00	309,80
HIT-HP MVX 0908-ES	1,00	331,30
HIT-HP MVX 1008-ES	1,00	348,70
HIT-HP MVX 1108-ES	1,00	383,70
HIT-HP MVX 1208-ES	1,00	465,20
HIT-HP MVX 1308-ES	1,00	474,70
HIT-HP MVX 1408-ES	1,00	485,80
HIT-HP MVX 1109-ES	1,00	393,60
HIT-HP MVX 1209-ES	1,00	471,50
HIT-HP MVX 1309-ES	1,00	484,60
HIT-HP MVX 1409-ES	1,00	494,30
HIT-HP MVX 0810-ES	1,00	348,70
HIT-HP MVX 1010-ES	1,00	388,60
HIT-HP MVX 1110-ES	1,00	420,50
HIT-HP MVX 1210-ES	1,00	477,20
HIT-HP MVX 1310-ES	1,00	506,10
HIT-HP MVX 1810-ES	1,00	538,00
HIT-HP MVX 1011-ES	1,00	400,90
HIT-HP MVX 1111-ES	1,00	426,50
HIT-HP MVX 1211-ES	1,00	484,90
HIT-HP MVX 1311-ES	1,00	512,20
HIT-HP MVX 1811-ES	1,00	540,10
HIT-HP MVX 1212-ES	1,00	517,80
HIT-HP MVX 1312-ES	1,00	529,20
HIT-HP MVX 1812-ES	1,00	557,50
HIT-HP MVX 0101-ES	0,50	65,00
HIT-HP MVX 0201-ES	0,50	79,80
HIT-HP MVX 0102-ES	0,50	80,20
HIT-HP MVX 0202-ES	0,50	98,00
HIT-HP MVX 0302-ES	0,50	128,20
HIT-HP MVX 0402-ES	0,50	144,40
HIT-HP MVX 0303-ES	0,50	145,50
HIT-HP MVX 0403-ES	0,50	165,70
HIT-HP MVX 0503-ES	0,50	184,10
HIT-HP MVX 0204-ES	0,50	134,60
HIT-HP MVX 0304-ES	0,50	152,00
HIT-HP MVX 0404-ES	0,50	169,40
HIT-HP MVX 0504-ES	0,50	220,10
HIT-HP MVX 0604-ES	0,50	279,20
HIT-HP MVX 0704-ES	0,50	296,60
HIT-HP MVX 0405-ES	0,50	186,80
HIT-HP MVX 0505-ES	0,50	233,10
HIT-HP MVX 0605-ES	0,50	280,00
HIT-HP MVX 0705-ES	0,50	301,30
HIT-HP MVX 0905-ES	0,50	310,10
HIT-HP MVX 0101-ES	0,25	59,90
HIT-HP MVX 0201-ES	0,25	72,20
HIT-HP MVX 0102-ES	0,25	68,00
HIT-HP MVX 0202-ES	0,25	85,70
HIT-HP MVX 0302-ES	0,25	141,30
Other types on request Standard fire protection class REI 120 (F120) without additional charge Different concrete coverings and heights from h=16 cm to h=25 cm without additional charge On request: Heights from h=26 cm to h=35 cm with additional charge Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

HIT-SP MVX-ES

Balcony connection for cantilevered balconies with moments and bidirectional shear loads,
2-piece design for precast concrete balconies
Insulation thickness: 120 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ TB-Box
- ④ CSB-Box

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0202-ES	1,00	155,60
HIT-SP MVX 0302-ES	1,00	166,80
HIT-SP MVX 0402-ES	1,00	175,00
HIT-SP MVX 0303-ES	1,00	178,70
HIT-SP MVX 0403-ES	1,00	189,90
HIT-SP MVX 0503-ES	1,00	209,10
HIT-SP MVX 0603-ES	1,00	227,10
HIT-SP MVX 0204-ES	1,00	181,30
HIT-SP MVX 0304-ES	1,00	193,40
HIT-SP MVX 0404-ES	1,00	204,00
HIT-SP MVX 0504-ES	1,00	211,90
HIT-SP MVX 0604-ES	1,00	231,20
HIT-SP MVX 0704-ES	1,00	253,90
HIT-SP MVX 0804-ES	1,00	276,60
HIT-SP MVX 0705-ES	1,00	312,90
HIT-SP MVX 0805-ES	1,00	331,80
HIT-SP MVX 0905-ES	1,00	344,30
HIT-SP MVX 0606-ES	1,00	280,80
HIT-SP MVX 0906-ES	1,00	358,60
HIT-SP MVX 1006-ES	1,00	387,60
HIT-SP MVX 1106-ES	1,00	401,90
HIT-SP MVX 0907-ES	1,00	362,10
HIT-SP MVX 1007-ES	1,00	395,30
HIT-SP MVX 1107-ES	1,00	424,40
HIT-SP MVX 1207-ES	1,00	451,00
HIT-SP MVX 1208-ES	1,00	468,80
HIT-SP MVX 1308-ES	1,00	509,20
HIT-SP MVX 1408-ES	1,00	527,60
HIT-SP MVX 1209-ES	1,00	488,50
HIT-SP MVX 1309-ES	1,00	512,80
HIT-SP MVX 1010-ES	1,00	441,20
HIT-SP MVX 1110-ES	1,00	459,90
HIT-SP MVX 1112-ES	1,00	505,00

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0101-ES	0,50	103,40
HIT-SP MVX 0202-ES	0,50	126,00
HIT-SP MVX 0302-ES	0,50	140,70
HIT-SP MVX 0402-ES	0,50	166,00
HIT-SP MVX 0303-ES	0,50	170,20
HIT-SP MVX 0503-ES	0,50	229,90
HIT-SP MVX 0604-ES	0,50	277,20
HIT-SP MVX 0704-ES	0,50	303,80
HIT-SP MVX 0101-ES	0,25	68,90
HIT-SP MVX 0201-ES	0,25	86,90
HIT-SP MVX 0302-ES	0,25	147,10
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

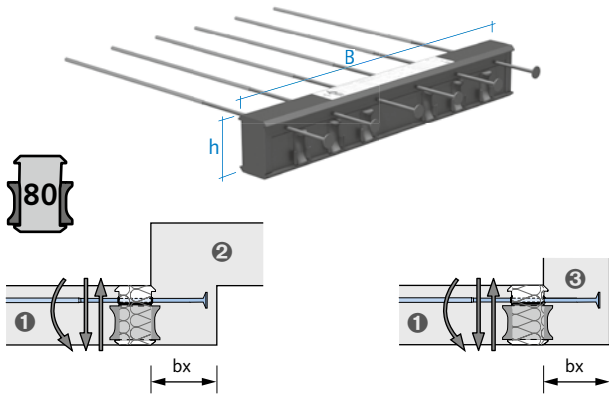
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HIT-HP MVX-OD

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab lower
Insulation thickness: 80 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall

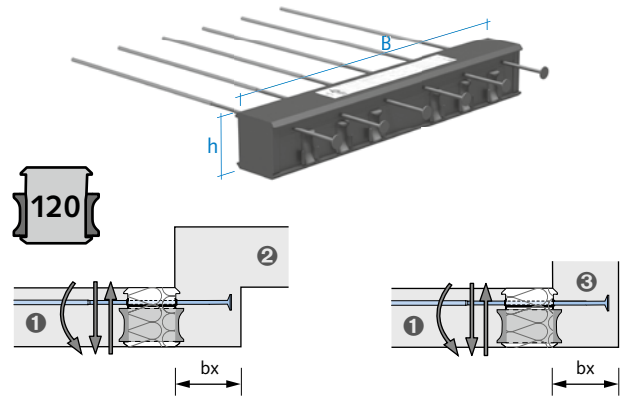
Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0403-OD	1,00	223,80
HIT-HP MVX 0404-OD	1,00	226,90
HIT-HP MVX 0504-OD	1,00	274,60
HIT-HP MVX 0604-OD	1,00	299,00
HIT-HP MVX 0804-OD	1,00	347,80
HIT-HP MVX 0505-OD	1,00	290,90
HIT-HP MVX 0705-OD	1,00	339,70
HIT-HP MVX 0805-OD	1,00	355,10
HIT-HP MVX 0905-OD	1,00	388,50
HIT-HP MVX 0706-OD	1,00	354,10
HIT-HP MVX 0806-OD	1,00	358,80
HIT-HP MVX 0906-OD	1,00	404,80
HIT-HP MVX 1006-OD	1,00	429,20
HIT-HP MVX 1007-OD	1,00	439,80
HIT-HP MVX 1008-OD	1,00	461,90
HIT-HP MVX 1210-OD	1,00	543,30

HIT-HP MVX 0202-OD	0,50	180,50
HIT-HP MVX 0402-OD	0,50	219,00
HIT-HP MVX 0403-OD	0,50	225,20
HIT-HP MVX 0503-OD	0,50	260,70
HIT-HP MVX 0603-OD	0,50	286,60
HIT-HP MVX 0605-OD	0,50	306,60

HIT-HP MVX 0202-OD	0,25	113,20
Other types on request		
Standard fire protection class REI 120 (F120)	without additional charge	
Different concrete coverings and heights from h=16 cm to h=25 cm	without additional charge	
On request: Heights from h=26 cm to h=35 cm with additional charge		
HP: 175 mm < bx < 330 mm		
Item per PU: Please refer to the start of chapter 2		

HIT-SP MVX-OD

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab lower
Insulation thickness: 120 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0403-OD	1,00	243,60
HIT-SP MVX 0404-OD	1,00	245,60
HIT-SP MVX 0504-OD	1,00	287,40
HIT-SP MVX 0804-OD	1,00	383,30
HIT-SP MVX 0705-OD	1,00	376,50
HIT-SP MVX 0805-OD	1,00	403,30
HIT-SP MVX 0905-OD	1,00	430,10
HIT-SP MVX 0806-OD	1,00	423,30
HIT-SP MVX 0906-OD	1,00	450,00
HIT-SP MVX 1006-OD	1,00	476,80
HIT-SP MVX 0907-OD	1,00	454,90
HIT-SP MVX 1007-OD	1,00	496,70
HIT-SP MVX 1209-OD	1,00	558,00
HIT-SP MVX 1210-OD	1,00	610,10

HIT-SP MVX 0202-OD	0,50	191,30
HIT-SP MVX 0402-OD	0,50	243,60
HIT-SP MVX 0403-OD	0,50	263,40
HIT-SP MVX 0503-OD	0,50	290,00
HIT-SP MVX 0605-OD	0,50	356,10

HIT-SP MVX 0101-OD	0,25	78,00
Other types on request		
Standard fire protection class REI 120 (F120)	without additional charge	
Different concrete coverings and heights from h=16 cm to h=25 cm	without additional charge	
On request: Heights from h=26 cm to h=35 cm with additional charge		
SP: 175 mm < bx < 290 mm		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

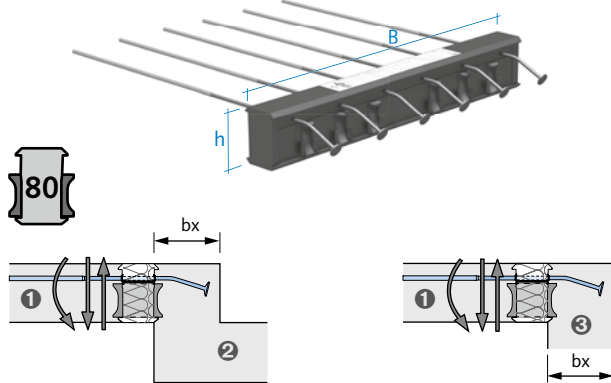
HIT-HP MVX-OU

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab higher

Insulation thickness: 80 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-HP MVX 0403-OU	1,00	223,80
HIT-HP MVX 0404-OU	1,00	226,90
HIT-HP MVX 0504-OU	1,00	274,60
HIT-HP MVX 0604-OU	1,00	299,00
HIT-HP MVX 0804-OU	1,00	347,80
HIT-HP MVX 0505-OU	1,00	290,90
HIT-HP MVX 0705-OU	1,00	339,70
HIT-HP MVX 0805-OU	1,00	355,10
HIT-HP MVX 0905-OU	1,00	388,50
HIT-HP MVX 0706-OU	1,00	354,10
HIT-HP MVX 0806-OU	1,00	358,80
HIT-HP MVX 0906-OU	1,00	404,80
HIT-HP MVX 1006-OU	1,00	429,20
HIT-HP MVX 1007-OU	1,00	439,80
HIT-HP MVX 1008-OU	1,00	461,90
HIT-HP MVX 1210-OU	1,00	543,30

HIT-HP MVX 0202-OU	0,50	180,50
HIT-HP MVX 0402-OU	0,50	219,00
HIT-HP MVX 0403-OU	0,50	225,20
HIT-HP MVX 0503-OU	0,50	260,70
HIT-HP MVX 0603-OU	0,50	286,60
HIT-HP MVX 0605-OU	0,50	306,60

HIT-HP MVX 0202-OU	0,25	113,20
Other types on request		
Standard fire protection class REI 120 (F120)	without additional charge	
Different concrete coverings and heights from h=16 cm to h=25 cm	without additional charge	
On request: Heights from h=26 cm to h=35 cm with additional charge		
HP: 175 mm < bx < 330 mm		
Item per PU: Please refer to the start of chapter 2		

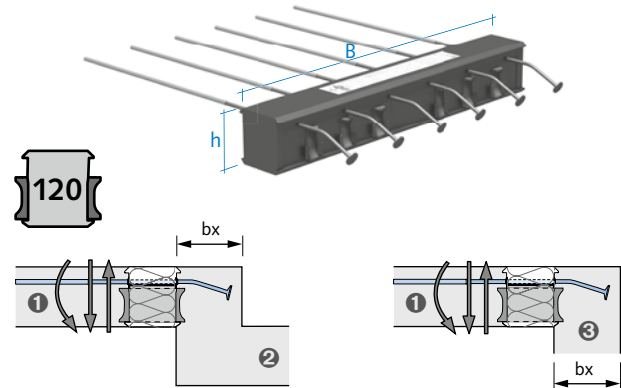
HIT-SP MVX-OU

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab higher

Insulation thickness: 120 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-SP MVX 0403-OU	1,00	243,60
HIT-SP MVX 0404-OU	1,00	245,60
HIT-SP MVX 0504-OU	1,00	287,40
HIT-SP MVX 0804-OU	1,00	383,30
HIT-SP MVX 0705-OU	1,00	376,50
HIT-SP MVX 0805-OU	1,00	403,30
HIT-SP MVX 0905-OU	1,00	430,10
HIT-SP MVX 0806-OU	1,00	423,30
HIT-SP MVX 0906-OU	1,00	450,00
HIT-SP MVX 1006-OU	1,00	476,80
HIT-SP MVX 0907-OU	1,00	454,90
HIT-SP MVX 1007-OU	1,00	496,70
HIT-SP MVX 1209-OU	1,00	558,00
HIT-SP MVX 1210-OU	1,00	610,10

HIT-SP MVX 0202-OU	0,50	191,30
HIT-SP MVX 0402-OU	0,50	243,60
HIT-SP MVX 0403-OU	0,50	263,40
HIT-SP MVX 0503-OU	0,50	290,00
HIT-SP MVX 0605-OU	0,50	356,10

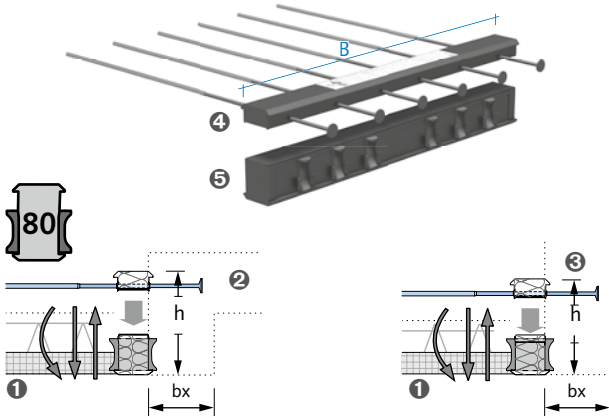
HIT-SP MVX 0101-OU	0,25	78,00
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Other types on request	
Standard fire protection class REI 120 (F120)	without additional charge
Different concrete coverings and heights	
from h=16 cm to h=25 cm	without additional charge
On request: Heights from h=26 cm to h=35 cm with	additional charge
SP: 175 mm < bx < 290 mm	
Item per PU: Please refer to the start of chapter 2	

INSULATED CONNECTIONS

HIT-HP MVX-OD-ES

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab lower
Insulation thickness: 80 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



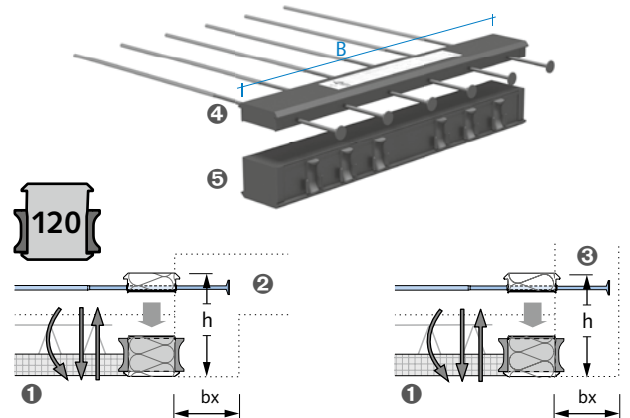
- 1 Balcony
- 2 Floor slab
- 3 Wall
- 4 TB-Box
- 5 CSB-Box

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX 0403-OD-ES	1,00	223,80
HIT-HP MVX 0404-OD-ES	1,00	226,90
HIT-HP MVX 0504-OD-ES	1,00	274,60
HIT-HP MVX 0604-OD-ES	1,00	299,00
HIT-HP MVX 0804-OD-ES	1,00	347,80
HIT-HP MVX 0505-OD-ES	1,00	290,90
HIT-HP MVX 0705-OD-ES	1,00	339,70
HIT-HP MVX 0805-OD-ES	1,00	355,10
HIT-HP MVX 0905-OD-ES	1,00	388,50
HIT-HP MVX 0706-OD-ES	1,00	354,10
HIT-HP MVX 0806-OD-ES	1,00	358,80
HIT-HP MVX 0906-OD-ES	1,00	404,80
HIT-HP MVX 1006-OD-ES	1,00	429,20
HIT-HP MVX 1007-OD-ES	1,00	439,80
HIT-HP MVX 1008-OD-ES	1,00	461,90
HIT-HP MVX 1210-OD-ES	1,00	543,30
HIT-HP MVX 0202-OD-ES	0,50	180,50
HIT-HP MVX 0402-OD-ES	0,50	219,00
HIT-HP MVX 0403-OD-ES	0,50	225,20
HIT-HP MVX 0503-OD-ES	0,50	260,70
HIT-HP MVX 0603-OD-ES	0,50	286,60
HIT-HP MVX 0605-OD-ES	0,50	306,60

HIT-HP MVX 0202-OD-ES	0,25	113,20
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
HP: 175 mm < bx < 330 mm		
Item per PU: Please refer to the start of chapter 2		

HIT-SP MVX-OD-ES

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab lower
Insulation thickness: 120 mm
German approval Z-15.7-293
European Technical Assessment ETA-18/0189



- 1 Balcony
- 2 Floor slab
- 3 Wall
- 4 TB-Box
- 5 CSB-Box

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX 0403-OD-ES	1,00	243,60
HIT-SP MVX 0404-OD-ES	1,00	245,60
HIT-SP MVX 0504-OD-ES	1,00	287,40
HIT-SP MVX 0804-OD-ES	1,00	383,30
HIT-SP MVX 0705-OD-ES	1,00	376,50
HIT-SP MVX 0805-OD-ES	1,00	403,30
HIT-SP MVX 0905-OD-ES	1,00	430,10
HIT-SP MVX 0806-OD-ES	1,00	423,30
HIT-SP MVX 0906-OD-ES	1,00	450,00
HIT-SP MVX 1006-OD-ES	1,00	476,80
HIT-SP MVX 0907-OD-ES	1,00	454,90
HIT-SP MVX 1007-OD-ES	1,00	496,70
HIT-SP MVX 1209-OD-ES	1,00	558,00
HIT-SP MVX 1210-OD-ES	1,00	610,10
HIT-SP MVX 0202-OD-ES	0,50	191,30
HIT-SP MVX 0402-OD-ES	0,50	243,60
HIT-SP MVX 0403-OD-ES	0,50	263,40
HIT-SP MVX 0503-OD-ES	0,50	290,00
HIT-SP MVX 0605-OD-ES	0,50	356,10

HIT-SP MVX 0101-OD-ES	0,25	78,00
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
SP: 175 mm < bx < 290 mm		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

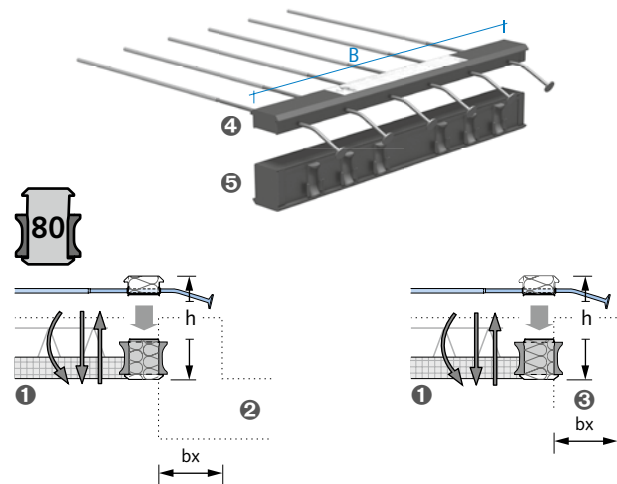
HIT-HP MVX-OU-ES

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab higher

Insulation thickness: 80 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall
- ④ TB-Box
- ⑤ CSB-Box

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-HP MVX 0403-OU-ES	1,00	223,80
HIT-HP MVX 0404-OU-ES	1,00	226,90
HIT-HP MVX 0504-OU-ES	1,00	274,60
HIT-HP MVX 0604-OU-ES	1,00	299,00
HIT-HP MVX 0804-OU-ES	1,00	347,80
HIT-HP MVX 0505-OU-ES	1,00	290,90
HIT-HP MVX 0705-OU-ES	1,00	339,70
HIT-HP MVX 0805-OU-ES	1,00	355,10
HIT-HP MVX 0905-OU-ES	1,00	388,50
HIT-HP MVX 0706-OU-ES	1,00	354,10
HIT-HP MVX 0806-OU-ES	1,00	358,80
HIT-HP MVX 0906-OU-ES	1,00	404,80
HIT-HP MVX 1006-OU-ES	1,00	429,20
HIT-HP MVX 1007-OU-ES	1,00	439,80
HIT-HP MVX 1008-OU-ES	1,00	461,90
HIT-HP MVX 1210-OU-ES	1,00	543,30

HIT-HP MVX 0202-OU-ES	0,50	180,50
HIT-HP MVX 0402-OU-ES	0,50	219,00
HIT-HP MVX 0403-OU-ES	0,50	225,20
HIT-HP MVX 0503-OU-ES	0,50	260,70
HIT-HP MVX 0603-OU-ES	0,50	286,60
HIT-HP MVX 0605-OU-ES	0,50	306,60

HIT-HP MVX 0202-OU-ES	0,25	113,20
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Other types on request
 Standard fire protection class REI 120 (F120) **without additional charge**
 Different concrete coverings and heights
 from h=16 cm to h=25 cm **without additional charge**
 On request: Heights from h=26 cm to h=35 cm with additional charge
 HP: 175 mm < bx < 330 mm
 Item per PU: Please refer to the start of chapter 2

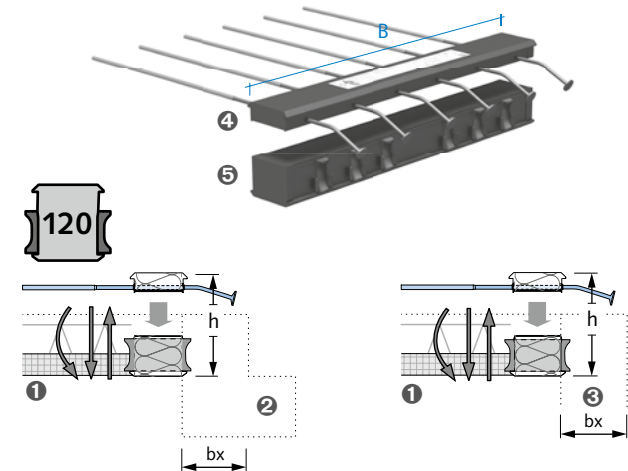
HIT-SP MVX-OU-ES

Balcony connections for cantilevered balconies with moments and bidirectional shear loads for height offsets and wall connections - Balcony slab higher

Insulation thickness: 120 mm

German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab
- ③ Wall
- ④ TB-Box
- ⑤ CSB-Box

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-SP MVX 0403-OU-ES	1,00	243,60
HIT-SP MVX 0404-OU-ES	1,00	245,60
HIT-SP MVX 0504-OU-ES	1,00	287,40
HIT-SP MVX 0804-OU-ES	1,00	383,30
HIT-SP MVX 0705-OU-ES	1,00	376,50
HIT-SP MVX 0805-OU-ES	1,00	403,30
HIT-SP MVX 0905-OU-ES	1,00	430,10
HIT-SP MVX 0806-OU-ES	1,00	423,30
HIT-SP MVX 0906-OU-ES	1,00	450,00
HIT-SP MVX 1006-OU-ES	1,00	476,80
HIT-SP MVX 0907-OU-ES	1,00	454,90
HIT-SP MVX 1007-OU-ES	1,00	496,70
HIT-SP MVX 1209-OU-ES	1,00	558,00
HIT-SP MVX 1210-OU-ES	1,00	610,10

HIT-SP MVX 0202-OU-ES	0,50	191,30
HIT-SP MVX 0402-OU-ES	0,50	243,60
HIT-SP MVX 0403-OU-ES	0,50	263,40
HIT-SP MVX 0503-OU-ES	0,50	290,00
HIT-SP MVX 0605-OU-ES	0,50	356,10

HIT-SP MVX 0101-OU-ES	0,25	78,00
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Other types on request
 Standard fire protection class REI 120 (F120) **without additional charge**
 Different concrete coverings and heights
 from h=16 cm to h=25 cm **without additional charge**
 On request: Heights from h=26 cm to h=35 cm with additional charge
 SP: 175 mm < bx < 290 mm
 Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

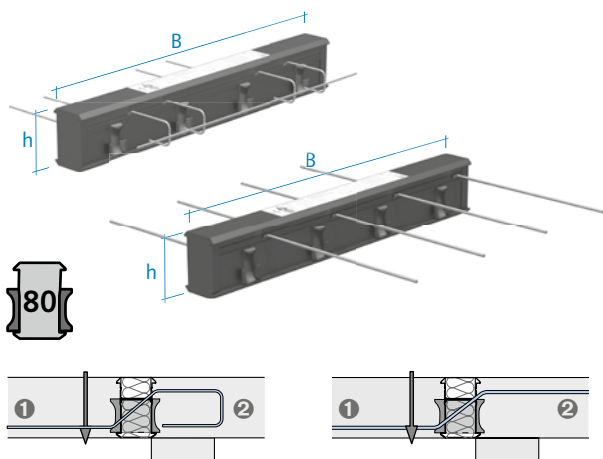
HIT-HP ZVX

Hinged connection for simply supported balconies and loggia slabs for shear load support

Insulation thickness: 80 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① Balcony
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZVX 0202-...-06	1,00	110,70
HIT-HP ZVX 0302-...-06	1,00	113,80
HIT-HP ZVX 0402-...-06	1,00	123,40
HIT-HP ZVX 0502-...-06	1,00	125,90
HIT-HP ZVX 0602-...-06	1,00	132,00
HIT-HP ZVX 0702-...-06	1,00	138,10
HIT-HP ZVX 0802-...-06	1,00	144,10
HIT-HP ZVX 0203-...-06	1,00	127,90
HIT-HP ZVX 0303-...-06	1,00	133,00
HIT-HP ZVX 0403-...-06	1,00	135,30
HIT-HP ZVX 0503-...-06	1,00	141,30
HIT-HP ZVX 0603-...-06	1,00	147,40
HIT-HP ZVX 0703-...-06	1,00	153,50
HIT-HP ZVX 0404-...-06	1,00	150,60
HIT-HP ZVX 0604-...-06	1,00	162,80
HIT-HP ZVX 0804-...-06	1,00	174,90
HIT-HP ZVX 0202-...-08	1,00	124,00
HIT-HP ZVX 0402-...-08	1,00	152,50
HIT-HP ZVX 0502-...-08	1,00	166,70
HIT-HP ZVX 0602-...-08	1,00	180,90
HIT-HP ZVX 0403-...-08	1,00	167,90
HIT-HP ZVX 0503-...-08	1,00	182,10
HIT-HP ZVX 0804-...-08	1,00	240,10
HIT-HP ZVX 0402-...-10	1,00	169,70
HIT-HP ZVX 0403-...-10	1,00	185,00
HIT-HP ZVX 0503-...-10	1,00	203,60
HIT-HP ZVX 0404-...-10	1,00	200,40
HIT-HP ZVX 0604-...-10	1,00	237,40
HIT-HP ZVX 0804-...-10	1,00	274,50
HIT-HP ZVX 0806-...-10	1,00	305,20
HIT-HP ZVX 0503-...-12	1,00	223,50
HIT-HP ZVX 0404-...-12	1,00	214,10
HIT-HP ZVX 0604-...-12	1,00	255,20
HIT-HP ZVX 0406-...-12	1,00	239,50
HIT-HP ZVX 0606-...-12	1,00	280,70
HIT-HP ZVX 0806-...-12	1,00	322,00

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZVX 0101-...-06	0,50	81,50
HIT-HP ZVX 0201-...-06	0,50	111,50
HIT-HP ZVX 0301-...-06	0,50	120,40
HIT-HP ZVX 0401-...-06	0,50	133,50
HIT-HP ZVX 0202-...-06	0,50	119,10
HIT-HP ZVX 0302-...-06	0,50	126,00
HIT-HP ZVX 0402-...-06	0,50	138,70
HIT-HP ZVX 0101-...-08	0,50	89,80
HIT-HP ZVX 0201-...-08	0,50	112,20
HIT-HP ZVX 0301-...-08	0,50	127,70
HIT-HP ZVX 0202-...-08	0,50	128,20
HIT-HP ZVX 0302-...-08	0,50	135,00
HIT-HP ZVX 0402-...-08	0,50	148,90
HIT-HP ZVX 0201-...-10	0,50	112,90
HIT-HP ZVX 0202-...-10	0,50	127,90
HIT-HP ZVX 0302-...-10	0,50	145,20
HIT-HP ZVX 0402-...-10	0,50	162,90
HIT-HP ZVX 0303-...-10	0,50	163,30
HIT-HP ZVX 0202-...-12	0,50	133,60
HIT-HP ZVX 0302-...-12	0,50	154,20
HIT-HP ZVX 0203-...-12	0,50	145,20
HIT-HP ZVX 0303-...-12	0,50	169,30
HIT-HP ZVX 0403-...-12	0,50	190,20
HIT-HP ZVX 0202-...-08	0,33	104,60
HIT-HP ZVX 0302-...-08	0,33	118,80
HIT-HP ZVX 0202-...-10	0,33	113,20
HIT-HP ZVX 0302-...-10	0,33	131,70
HIT-HP ZVX 0202-...-12	0,33	117,40
HIT-HP ZVX 0302-...-12	0,33	138,00
HIT-HP ZVX 0101-...-06	0,25	53,90
HIT-HP ZVX 0201-...-06	0,25	59,90
HIT-HP ZVX 0101-...-08	0,25	62,00
HIT-HP ZVX 0201-...-08	0,25	76,20
HIT-HP ZVX 0201-...-10	0,25	92,10
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

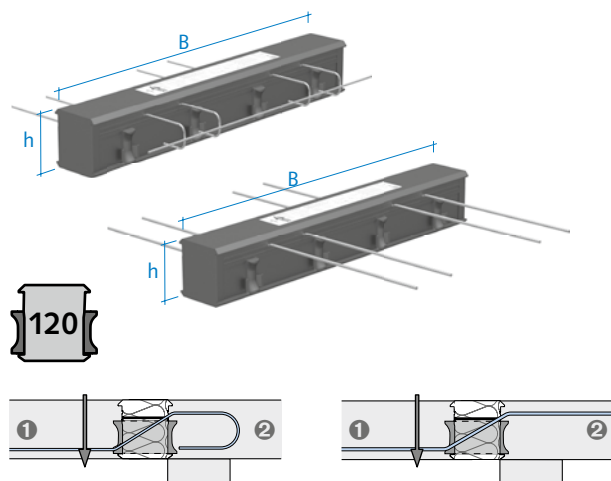
HIT-SP ZVX

Hinged connection for simply supported balconies and loggia slabs for shear load support

Insulation thickness: 120 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZVX 0202-...-06	1,00	125,30
HIT-SP ZVX 0302-...-06	1,00	129,60
HIT-SP ZVX 0402-...-06	1,00	133,50
HIT-SP ZVX 0502-...-06	1,00	143,00
HIT-SP ZVX 0602-...-06	1,00	152,50
HIT-SP ZVX 0702-...-06	1,00	162,00
HIT-SP ZVX 0203-...-06	1,00	134,30
HIT-SP ZVX 0303-...-06	1,00	139,40
HIT-SP ZVX 0403-...-06	1,00	148,90
HIT-SP ZVX 0503-...-06	1,00	158,40
HIT-SP ZVX 0603-...-06	1,00	167,90
HIT-SP ZVX 0703-...-06	1,00	175,40
HIT-SP ZVX 0803-...-06	1,00	186,90
HIT-SP ZVX 0402-...-08	1,00	149,30
HIT-SP ZVX 0602-...-08	1,00	179,10
HIT-SP ZVX 0403-...-08	1,00	166,60
HIT-SP ZVX 0503-...-08	1,00	180,50
HIT-SP ZVX 0604-...-08	1,00	209,70
HIT-SP ZVX 0804-...-08	1,00	237,60
HIT-SP ZVX 0402-...-10	1,00	185,20
HIT-SP ZVX 0403-...-10	1,00	191,30
HIT-SP ZVX 0503-...-10	1,00	207,80
HIT-SP ZVX 0404-...-10	1,00	207,10
HIT-SP ZVX 0604-...-10	1,00	238,20
HIT-SP ZVX 0804-...-10	1,00	275,60
HIT-SP ZVX 0806-...-10	1,00	306,20
HIT-SP ZVX 0604-...-12	1,00	247,30
HIT-SP ZVX 0406-...-12	1,00	237,60
HIT-SP ZVX 0606-...-12	1,00	278,00
HIT-SP ZVX 0806-...-12	1,00	318,30

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZVX 0201-...-06	0,50	109,60
HIT-SP ZVX 0301-...-06	0,50	122,60
HIT-SP ZVX 0201-...-08	0,50	116,60
HIT-SP ZVX 0301-...-08	0,50	128,50
HIT-SP ZVX 0302-...-08	0,50	129,80
HIT-SP ZVX 0402-...-08	0,50	151,00
HIT-SP ZVX 0201-...-10	0,50	119,80
HIT-SP ZVX 0202-...-10	0,50	126,40
HIT-SP ZVX 0302-...-10	0,50	145,10
HIT-SP ZVX 0402-...-10	0,50	163,70
HIT-SP ZVX 0403-...-10	0,50	173,00
HIT-SP ZVX 0203-...-12	0,50	144,70
HIT-SP ZVX 0303-...-12	0,50	164,90
HIT-SP ZVX 0403-...-12	0,50	185,10
HIT-SP ZVX 0202-...-08	0,33	110,40
HIT-SP ZVX 0302-...-08	0,33	124,30
HIT-SP ZVX 0202-...-10	0,33	119,90
HIT-SP ZVX 0302-...-10	0,33	138,60
HIT-SP ZVX 0302-...-12	0,33	143,10
HIT-SP ZVX 0201-...-08	0,25	88,60
HIT-SP ZVX 0201-...-10	0,25	98,10
Other types on request		
Standard fire protection class REI 120 (F120)		
Different heights from h=16 cm to h=25 cm		
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

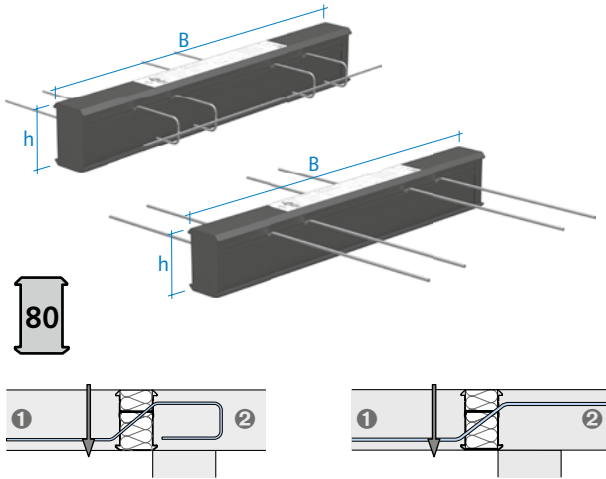
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HIT-HP ZVX, without compression shear bearings

Unrestrained connection for simply supported balconies and loggia slabs for shear load support
Insulation thickness: 80 mm
German approval Z-15.7-312
European Technical Assessment ETA-18/0189



- ① Balcony
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZVX 0400-...-06	1,00	76,00
HIT-HP ZVX 0500-...-06	1,00	95,20
HIT-HP ZVX 0600-...-06	1,00	99,20
HIT-HP ZVX 0700-...-06	1,00	107,30
HIT-HP ZVX 0800-...-06	1,00	125,40
HIT-HP ZVX 0900-...-06	1,00	128,40
HIT-HP ZVX 1000-...-06	1,00	130,50
HIT-HP ZVX 1100-...-06	1,00	131,60
HIT-HP ZVX 1200-...-06	1,00	137,70
HIT-HP ZVX 0600-...-08	1,00	133,10
HIT-HP ZVX 0700-...-08	1,00	158,60
HIT-HP ZVX 0800-...-08	1,00	162,30
HIT-HP ZVX 0900-...-08	1,00	192,80
HIT-HP ZVX 1000-...-08	1,00	196,30
HIT-HP ZVX 1200-...-08	1,00	219,20
HIT-HP ZVX 0600-...-10	1,00	159,20
HIT-HP ZVX 0700-...-10	1,00	194,50
HIT-HP ZVX 0800-...-10	1,00	208,10
HIT-HP ZVX 1000-...-10	1,00	255,00
HIT-HP ZVX 1200-...-10	1,00	304,80
HIT-HP ZVX 0600-...-12	1,00	172,00
HIT-HP ZVX 0700-...-12	1,00	209,10
HIT-HP ZVX 0800-...-12	1,00	213,50
HIT-HP ZVX 1000-...-12	1,00	266,50
HIT-HP ZVX 1200-...-12	1,00	312,20

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZVX 0200-...-06	0,50	51,70
HIT-HP ZVX 0300-...-06	0,50	55,30
HIT-HP ZVX 0400-...-06	0,50	69,00
HIT-HP ZVX 0500-...-06	0,50	72,40
HIT-HP ZVX 0600-...-06	0,50	78,60
HIT-HP ZVX 0300-...-08	0,50	72,30
HIT-HP ZVX 0400-...-08	0,50	77,10
HIT-HP ZVX 0500-...-08	0,50	132,70
HIT-HP ZVX 0600-...-08	0,50	114,20
HIT-HP ZVX 0200-...-10	0,50	79,30
HIT-HP ZVX 0300-...-10	0,50	98,20
HIT-HP ZVX 0400-...-10	0,50	112,30
HIT-HP ZVX 0600-...-10	0,50	153,80
HIT-HP ZVX 0300-...-12	0,50	102,60
HIT-HP ZVX 0400-...-12	0,50	112,90
HIT-HP ZVX 0500-...-12	0,50	163,40
HIT-HP ZVX 0600-...-12	0,50	164,90
HIT-HP ZVX 0300-...-08	0,33	88,10
HIT-HP ZVX 0400-...-08	0,33	102,30
HIT-HP ZVX 0500-...-08	0,33	116,50
HIT-HP ZVX 0300-...-10	0,33	100,90
HIT-HP ZVX 0400-...-10	0,33	119,50
HIT-HP ZVX 0500-...-10	0,33	138,00
HIT-HP ZVX 0300-...-12	0,33	107,20
HIT-HP ZVX 0400-...-12	0,33	127,80
HIT-HP ZVX 0100-...-06	0,25	33,60
HIT-HP ZVX 0200-...-06	0,25	38,70
HIT-HP ZVX 0300-...-06	0,25	51,90
HIT-HP ZVX 0200-...-08	0,25	55,30
HIT-HP ZVX 0300-...-08	0,25	59,90
HIT-HP ZVX 0200-...-10	0,25	60,60
HIT-HP ZVX 0300-...-10	0,25	82,20
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

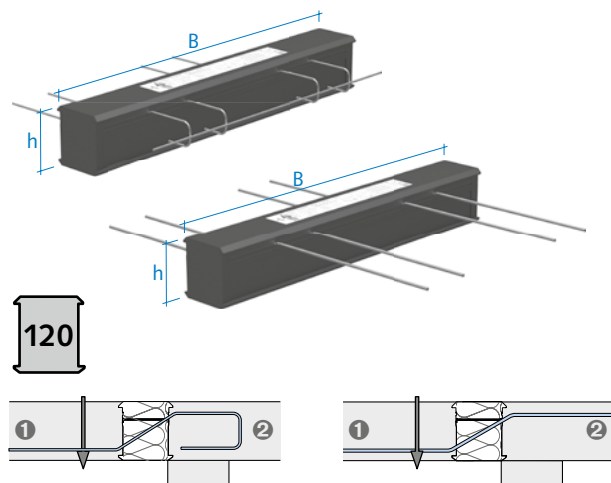
HIT-SP ZVX, without compression shear bearings

Unrestrained connection for simply supported balconies and loggia slabs for shear load support

Insulation thickness: 120 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① Balcony
- ② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZVX 0400-...-06	1,00	99,10
HIT-SP ZVX 0500-...-06	1,00	109,00
HIT-SP ZVX 0600-...-06	1,00	115,40
HIT-SP ZVX 0700-...-06	1,00	131,40
HIT-SP ZVX 0800-...-06	1,00	140,90
HIT-SP ZVX 0900-...-06	1,00	150,40
HIT-SP ZVX 1000-...-06	1,00	157,40
HIT-SP ZVX 1100-...-06	1,00	166,20
HIT-SP ZVX 1200-...-06	1,00	174,80
HIT-SP ZVX 0400-...-08	1,00	117,20
HIT-SP ZVX 0600-...-08	1,00	145,90
HIT-SP ZVX 0700-...-08	1,00	162,30
HIT-SP ZVX 0800-...-08	1,00	169,90
HIT-SP ZVX 0900-...-08	1,00	190,20
HIT-SP ZVX 1100-...-08	1,00	215,10
HIT-SP ZVX 1200-...-08	1,00	232,00
HIT-SP ZVX 0600-...-10	1,00	175,10
HIT-SP ZVX 0700-...-10	1,00	195,60
HIT-SP ZVX 0800-...-10	1,00	214,30
HIT-SP ZVX 1000-...-10	1,00	267,60
HIT-SP ZVX 1200-...-10	1,00	319,80
HIT-SP ZVX 0400-...-12	1,00	143,00
HIT-SP ZVX 0800-...-12	1,00	226,40
HIT-SP ZVX 1000-...-12	1,00	292,90
HIT-SP ZVX 1200-...-12	1,00	350,10

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZVX 0200-...-06	0,50	73,50
HIT-SP ZVX 0300-...-06	0,50	83,30
HIT-SP ZVX 0400-...-06	0,50	93,20
HIT-SP ZVX 0500-...-06	0,50	102,80
HIT-SP ZVX 0600-...-06	0,50	112,60
HIT-SP ZVX 0200-...-08	0,50	82,70
HIT-SP ZVX 0300-...-08	0,50	97,00
HIT-SP ZVX 0400-...-08	0,50	102,50
HIT-SP ZVX 0300-...-10	0,50	111,60
HIT-SP ZVX 0400-...-10	0,50	117,20
HIT-SP ZVX 0500-...-10	0,50	149,90
HIT-SP ZVX 0600-...-10	0,50	169,20
HIT-SP ZVX 0400-...-12	0,50	127,90
HIT-SP ZVX 0500-...-12	0,50	159,30
HIT-SP ZVX 0600-...-12	0,50	179,50
HIT-SP ZVX 0300-...-08	0,33	93,70
HIT-SP ZVX 0400-...-08	0,33	107,60
HIT-SP ZVX 0300-...-10	0,33	111,20
HIT-SP ZVX 0400-...-10	0,33	129,70
HIT-SP ZVX 0500-...-10	0,33	145,30
HIT-SP ZVX 0300-...-12	0,33	113,30
HIT-SP ZVX 0400-...-12	0,33	132,60
HIT-SP ZVX 0100-...-06	0,25	52,30
HIT-SP ZVX 0200-...-06	0,25	61,90
HIT-SP ZVX 0300-...-06	0,25	72,00
HIT-SP ZVX 0100-...-08	0,25	56,40
HIT-SP ZVX 0200-...-08	0,25	70,70
HIT-SP ZVX 0300-...-08	0,25	84,90
HIT-SP ZVX 0200-...-10	0,25	80,40
HIT-SP ZVX 0300-...-10	0,25	99,70
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

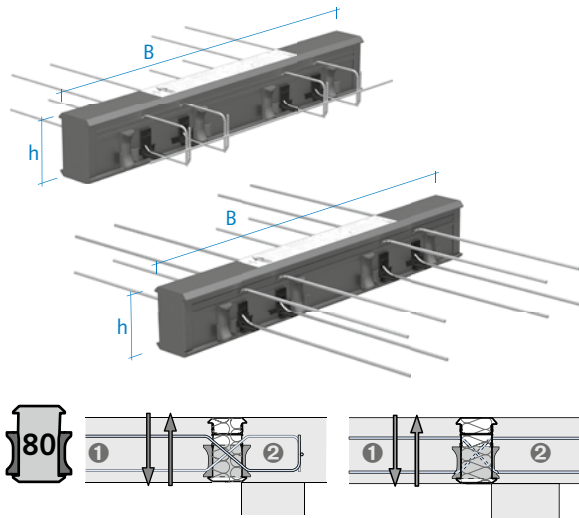
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HIT-HP ZDX

Hinged connection for balcony slabs supported on columns for positive and negative shear load support
Insulation thickness: 80 mm
German approval Z-15.7-312
European Technical Assessment ETA-18/0189



1 balcony
2 floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZDX 0202-...-06	1,00	119,00
HIT-HP ZDX 0302-...-06	1,00	128,70
HIT-HP ZDX 0402-...-06	1,00	138,40
HIT-HP ZDX 0502-...-06	1,00	148,10
HIT-HP ZDX 0602-...-06	1,00	157,80
HIT-HP ZDX 0802-...-06	1,00	177,20
HIT-HP ZDX 0203-...-06	1,00	129,90
HIT-HP ZDX 0303-...-06	1,00	139,60
HIT-HP ZDX 0403-...-06	1,00	149,30
HIT-HP ZDX 0503-...-06	1,00	159,00
HIT-HP ZDX 0603-...-06	1,00	168,70
HIT-HP ZDX 0703-...-06	1,00	178,40
HIT-HP ZDX 0404-...-06	1,00	161,30
HIT-HP ZDX 0604-...-06	1,00	179,60
HIT-HP ZDX 0804-...-06	1,00	197,50
HIT-HP ZDX 0202-...-08	1,00	144,20
HIT-HP ZDX 0402-...-08	1,00	188,70
HIT-HP ZDX 0502-...-08	1,00	210,90
HIT-HP ZDX 0602-...-08	1,00	233,20
HIT-HP ZDX 0604-...-08	1,00	255,00
HIT-HP ZDX 0804-...-08	1,00	299,60
HIT-HP ZDX 0402-...-10	1,00	256,60
HIT-HP ZDX 0403-...-10	1,00	267,50
HIT-HP ZDX 0503-...-10	1,00	306,70
HIT-HP ZDX 0404-...-10	1,00	278,40
HIT-HP ZDX 0604-...-10	1,00	356,90
HIT-HP ZDX 0804-...-10	1,00	435,30
HIT-HP ZDX 0503-...-12	1,00	359,60
HIT-HP ZDX 0604-...-12	1,00	420,30
HIT-HP ZDX 0406-...-12	1,00	342,50
HIT-HP ZDX 0606-...-12	1,00	456,80
HIT-HP ZDX 0806-...-12	1,00	541,80

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP ZDX 0101-...-06	0,50	90,00
HIT-HP ZDX 0201-...-06	0,50	99,50
HIT-HP ZDX 0301-...-06	0,50	110,00
HIT-HP ZDX 0401-...-06	0,50	119,70
HIT-HP ZDX 0202-...-06	0,50	110,40
HIT-HP ZDX 0302-...-06	0,50	120,00
HIT-HP ZDX 0402-...-06	0,50	129,70
HIT-HP ZDX 0101-...-08	0,50	103,20
HIT-HP ZDX 0201-...-08	0,50	125,50
HIT-HP ZDX 0301-...-08	0,50	147,70
HIT-HP ZDX 0402-...-08	0,50	180,90
HIT-HP ZDX 0201-...-10	0,50	159,40
HIT-HP ZDX 0202-...-10	0,50	169,00
HIT-HP ZDX 0302-...-10	0,50	208,00
HIT-HP ZDX 0302-...-12	0,50	241,30
HIT-HP ZDX 0402-...-12	0,50	291,10
HIT-HP ZDX 0203-...-12	0,50	200,80
HIT-HP ZDX 0403-...-12	0,50	299,70
HIT-HP ZDX 0202-...-08	0,33	104,40
HIT-HP ZDX 0302-...-08	0,33	130,80
HIT-HP ZDX 0202-...-10	0,33	138,10
HIT-HP ZDX 0302-...-10	0,33	178,40
HIT-HP ZDX 0202-...-12	0,33	160,40
HIT-HP ZDX 0302-...-12	0,33	218,20
HIT-HP ZDX 0101-...-06	0,25	51,40
HIT-HP ZDX 0201-...-06	0,25	60,90
HIT-HP ZDX 0201-...-08	0,25	85,90
HIT-HP ZDX 0201-...-10	0,25	120,50
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights		without additional charge
from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

INSULATED CONNECTIONS

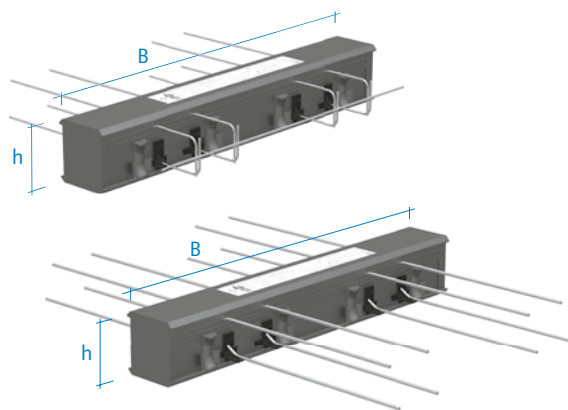
HIT-SP ZDX

Hinged connection for balcony slabs supported on columns for positive and negative shear load support

Insulation thickness: 120 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① balcony
- ② floor slab

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-SP ZDX 0302-...-06	1,00	138,30
HIT-SP ZDX 0402-...-06	1,00	149,60
HIT-SP ZDX 0502-...-06	1,00	161,00
HIT-SP ZDX 0602-...-06	1,00	172,30
HIT-SP ZDX 0702-...-06	1,00	183,70
HIT-SP ZDX 0203-...-06	1,00	138,80
HIT-SP ZDX 0303-...-06	1,00	150,20
HIT-SP ZDX 0403-...-06	1,00	161,50
HIT-SP ZDX 0503-...-06	1,00	172,90
HIT-SP ZDX 0603-...-06	1,00	184,20
HIT-SP ZDX 0803-...-06	1,00	206,90
HIT-SP ZDX 0404-...-06	1,00	170,80
HIT-SP ZDX 0604-...-06	1,00	195,30
HIT-SP ZDX 0804-...-06	1,00	219,20
HIT-SP ZDX 0502-...-08	1,00	221,50
HIT-SP ZDX 0602-...-08	1,00	245,00
HIT-SP ZDX 0403-...-08	1,00	210,00
HIT-SP ZDX 0503-...-08	1,00	233,40
HIT-SP ZDX 0604-...-08	1,00	268,80
HIT-SP ZDX 0804-...-08	1,00	315,70
HIT-SP ZDX 0402-...-10	1,00	267,70
HIT-SP ZDX 0403-...-10	1,00	279,60
HIT-SP ZDX 0604-...-10	1,00	371,60
HIT-SP ZDX 0804-...-10	1,00	453,40
HIT-SP ZDX 0806-...-10	1,00	480,80
HIT-SP ZDX 0406-...-12	1,00	377,90
HIT-SP ZDX 0606-...-12	1,00	487,70
HIT-SP ZDX 0806-...-12	1,00	588,90

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-SP ZDX 0201-...-06	0,50	107,70
HIT-SP ZDX 0301-...-06	0,50	119,10
HIT-SP ZDX 0201-...-08	0,50	132,10
HIT-SP ZDX 0301-...-08	0,50	155,70
HIT-SP ZDX 0302-...-08	0,50	166,90
HIT-SP ZDX 0402-...-08	0,50	190,00
HIT-SP ZDX 0302-...-10	0,50	220,30
HIT-SP ZDX 0402-...-10	0,50	261,40
HIT-SP ZDX 0402-...-12	0,50	322,20
HIT-SP ZDX 0203-...-12	0,50	221,20
HIT-SP ZDX 0303-...-12	0,50	278,70
HIT-SP ZDX 0403-...-12	0,50	336,30

HIT-SP ZDX 0202-...-08	0,33	110,10
HIT-SP ZDX 0302-...-08	0,33	134,40
HIT-SP ZDX 0202-...-10	0,33	142,60
HIT-SP ZDX 0302-...-10	0,33	182,90
HIT-SP ZDX 0202-...-12	0,33	177,00
HIT-SP ZDX 0302-...-12	0,33	221,40

HIT-SP ZDX 0201-...-08	0,25	90,00
HIT-SP ZDX 0201-...-10	0,25	126,60

Other types on request

Standard fire protection class REI 120 (F120)

without additional charge

Different concrete coverings and heights

from h=16 cm to h=25 cm

without additional charge

On request: Heights from h=26 cm to h=35 cm with additional charge

Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

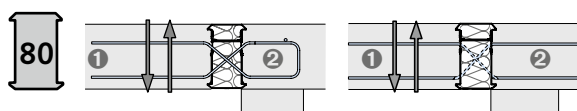
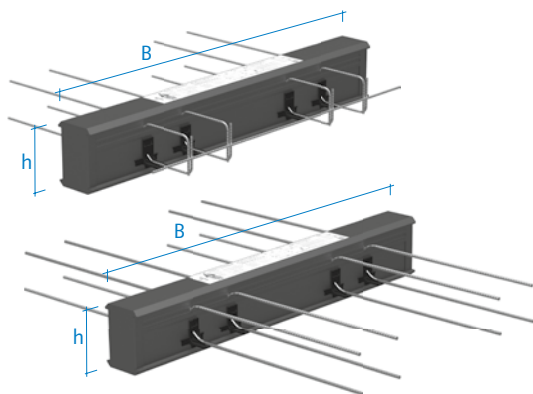
HIT-HP ZDX, without compression shear bearings

Unrestrained connection for simply supported balconies and loggia slabs for positive and negative shear load support

Insulation thickness: 80 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① balcony
- ② floor slab

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-HP ZDX 0400-...-06	1,00	116,60
HIT-HP ZDX 0500-...-06	1,00	126,30
HIT-HP ZDX 0600-...-06	1,00	136,90
HIT-HP ZDX 0800-...-06	1,00	160,70
HIT-HP ZDX 1000-...-06	1,00	174,80
HIT-HP ZDX 0600-...-08	1,00	200,30
HIT-HP ZDX 0700-...-08	1,00	233,60
HIT-HP ZDX 1200-...-08	1,00	345,00
HIT-HP ZDX 0600-...-10	1,00	313,20
HIT-HP ZDX 1200-...-10	1,00	548,60
HIT-HP ZDX 0600-...-12	1,00	376,70
HIT-HP ZDX 0700-...-12	1,00	426,50
HIT-HP ZDX 0800-...-12	1,00	476,30
HIT-HP ZDX 1200-...-12	1,00	675,60

HIT-HP ZDX 0200-...-06	0,50	89,40
HIT-HP ZDX 0300-...-06	0,50	99,10
HIT-HP ZDX 0400-...-06	0,50	108,80
HIT-HP ZDX 0500-...-06	0,50	118,50
HIT-HP ZDX 0300-...-08	0,50	136,80
HIT-HP ZDX 0600-...-08	0,50	203,60
HIT-HP ZDX 0300-...-10	0,50	187,70
HIT-HP ZDX 0600-...-10	0,50	305,40
HIT-HP ZDX 0300-...-12	0,50	219,50
HIT-HP ZDX 0400-...-12	0,50	269,30
HIT-HP ZDX 0600-...-12	0,50	368,90

HIT-HP ZDX 0300-...-08	0,33	105,70
HIT-HP ZDX 0500-...-08	0,33	150,20
HIT-HP ZDX 0500-...-10	0,33	235,10
HIT-HP ZDX 0400-...-12	0,33	238,20

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-HP ZDX 0100-...-06	0,25	40,80
HIT-HP ZDX 0200-...-06	0,25	50,50
HIT-HP ZDX 0300-...-08	0,25	97,90
HIT-HP ZDX 0300-...-10	0,25	148,80

Other types on request

Standard fire protection class REI 120 (F120)

without additional charge

Different concrete coverings and heights

from h=16 cm to h=25 cm

without additional charge

On request: Heights from h=26 cm to h=35 cm with additional charge

Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

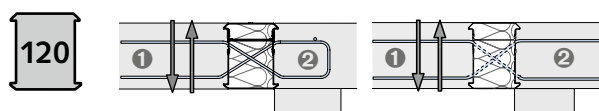
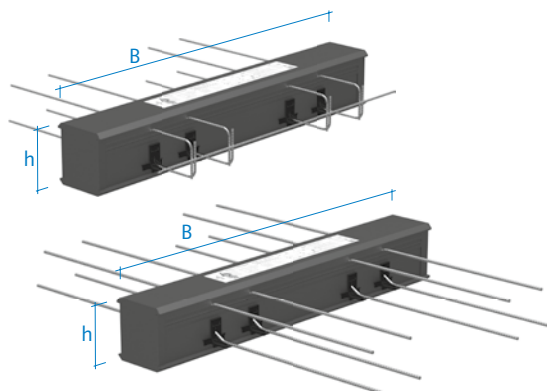
HIT-SP ZDX, without compression shear bearings

Unrestrained connection for simply supported balconies and loggia slabs for positive and negative shear load support

Insulation thickness: 120 mm

German approval Z-15.7-312

European Technical Assessment ETA-18/0189



- ① balcony
- ② floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZDX 0400-...-06	1,00	127,00
HIT-SP ZDX 0500-...-06	1,00	137,20
HIT-SP ZDX 0600-...-06	1,00	147,40
HIT-SP ZDX 0800-...-06	1,00	169,90
HIT-SP ZDX 0900-...-06	1,00	182,50
HIT-SP ZDX 1200-...-06	1,00	216,60
HIT-SP ZDX 0400-...-08	1,00	174,30
HIT-SP ZDX 0600-...-08	1,00	219,20
HIT-SP ZDX 0700-...-08	1,00	244,70
HIT-SP ZDX 0800-...-08	1,00	270,00
HIT-SP ZDX 0900-...-08	1,00	291,60
HIT-SP ZDX 0600-...-10	1,00	325,70
HIT-SP ZDX 0700-...-10	1,00	366,50
HIT-SP ZDX 0800-...-10	1,00	407,40
HIT-SP ZDX 1000-...-10	1,00	489,10
HIT-SP ZDX 0300-...-06	0,50	106,40
HIT-SP ZDX 0400-...-06	0,50	117,80
HIT-SP ZDX 0600-...-06	0,50	140,50
HIT-SP ZDX 0200-...-08	0,50	119,30
HIT-SP ZDX 0300-...-08	0,50	142,80
HIT-SP ZDX 0400-...-08	0,50	166,20
HIT-SP ZDX 0300-...-10	0,50	195,00
HIT-SP ZDX 0400-...-10	0,50	235,90
HIT-SP ZDX 0500-...-10	0,50	276,70
HIT-SP ZDX 0300-...-08	0,33	110,60
HIT-SP ZDX 0400-...-08	0,33	134,10
HIT-SP ZDX 0300-...-10	0,33	162,80
HIT-SP ZDX 0500-...-10	0,33	244,60
HIT-SP ZDX 0400-...-12	0,33	266,30

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP ZDX 0200-...-06	0,25	54,90
HIT-SP ZDX 0100-...-08	0,25	55,60
HIT-SP ZDX 0200-...-08	0,25	79,10
HIT-SP ZDX 0200-...-10	0,25	113,90
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights		without additional charge
from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

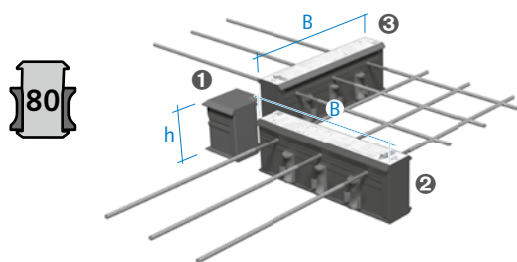
HIT-HP MVX-COR, Length 0,50 m

Type-tested balcony connection for cantilevered corner balconies for moments and bidirectional shear loads consisting of three components

Insulation thickness: 80 mm

Standard elements German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① HIT-HP FK-COR - corner filler
- ② Standard HIT-HP MVX - $c_v = 30/35$ mm
- ③ Standard HIT-HP MVX - $c_v = 50$ mm

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP MVX - $c_v = 30/35$ mm	1,00 / 0,50	on request
HIT-HP MVX - $c_v = 50$ mm	1,00 / 0,50	on request
HIT-HP MVX FK-COR	0,13 x 0,13	on request

Other types on request
 Standard fire protection class REI 120 (F120) **without additional charge**
 Different concrete coverings and heights from h=18 cm to h=25 cm **without additional charge**
 On request: Heights from h=26 cm to h=35 cm with additional charge
 Item per PU: Please refer to the start of chapter 2

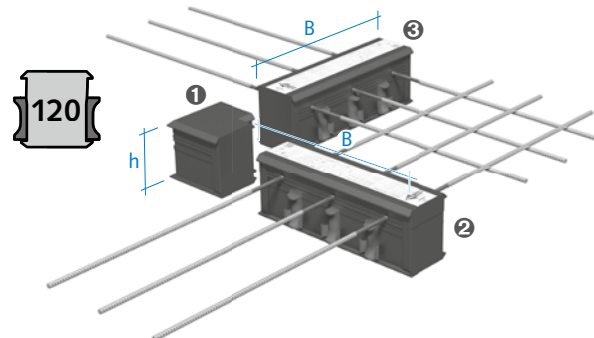
HIT-SP MVX-COR, Length 0,50 m

Type-tested balcony connection for cantilevered corner balconies for moments and bidirectional shear loads consisting of three components

Insulation thickness: 120 mm

Standard element German approval Z-15.7-293

European Technical Assessment ETA-18/0189



- ① HIT-SP FK-COR - corner filler
- ② Standard HIT-SP MVX - $c_v = 30/35$ mm
- ③ Standard HIT-SP MVX - $c_v = 50$ mm

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP MVX - $c_v = 30/35$ mm	1,00 / 0,50	on request
HIT-SP MVX - $c_v = 50$ mm	1,00 / 0,50	on request
HIT-SP MVX FK-COR	0,13 x 0,13	on request

Other types on request
 Standard fire protection class REI 120 (F120) **without additional charge**
 Different concrete coverings and heights from h=18 cm to h=25 cm **without additional charge**
 On request: Heights from h=26 cm to h=35 cm with additional charge
 Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

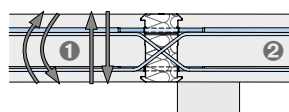
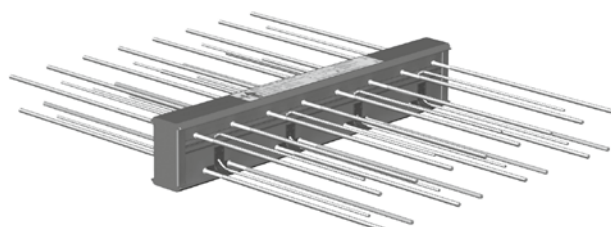
HIT-HP DD

Connections for continuous concrete floor slabs for positive and negative moments and for shear load support

Insulation thickness: 80 mm

German approval Z-15.7-309

European Technical Assessment ETA-18/0189



- ① balcony
- ② floor slab

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-HP DD-0506-...-06	1,00	305,90
HIT-HP DD-0706-...-06	1,00	361,90
HIT-HP DD-1006-...-06	1,00	445,80
HIT-HP DD-0507-...-06	1,00	313,50
HIT-HP DD-0707-...-06	1,00	381,90
HIT-HP DD-1007-...-06	1,00	465,90
HIT-HP DD-1207-...-06	1,00	521,80
HIT-HP DD-1407-...-06	1,00	577,70
HIT-HP DD-0506-...-08	1,00	346,10
HIT-HP DD-0706-...-08	1,00	402,00
HIT-HP DD-1006-...-08	1,00	485,90
HIT-HP DD-1206-...-08	1,00	521,50
HIT-HP DD-0507-...-08	1,00	368,00
HIT-HP DD-0707-...-08	1,00	428,80
HIT-HP DD-1007-...-08	1,00	512,70
HIT-HP DD-1207-...-08	1,00	564,30
HIT-HP DD-1407-...-08	1,00	624,60
HIT-HP DD-0406-...-10	1,00	360,90
HIT-HP DD-0606-...-10	1,00	414,40
HIT-HP DD-0706-...-10	1,00	444,00
HIT-HP DD-1206-...-10	1,00	592,50
HIT-HP DD-0507-...-10	1,00	423,30
HIT-HP DD-0707-...-10	1,00	464,30
HIT-HP DD-1007-...-10	1,00	548,20
HIT-HP DD-1207-...-10	1,00	618,00
HIT-HP DD-1407-...-10	1,00	660,10
HIT-HP DD-0406-...-12	1,00	427,90
HIT-HP DD-0606-...-12	1,00	501,10
HIT-HP DD-0707-...-12	1,00	521,10
HIT-HP DD-0707-...-12	1,00	577,00
HIT-HP DD-1007-...-12	1,00	660,90
HIT-HP DD-1207-...-12	1,00	716,90
HIT-HP DD-1407-...-12	1,00	772,80

Other types on request

Standard fire protection class REI 120 (F120) **without additional charge**

Different concrete coverings and heights from h=16 cm to h=25 cm **without additional charge**

On request: Heights from h=26 cm to h=35 cm with additional charge

On request: 25 cm or 50 cm element lengths

Item per PU: Please refer to the start of chapter 2

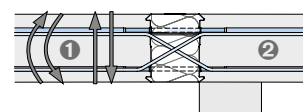
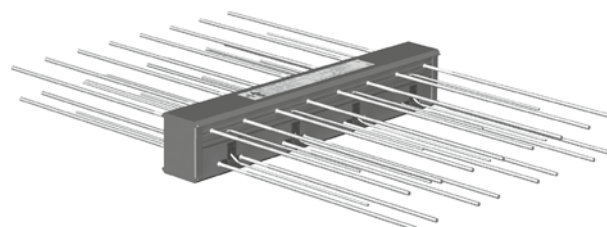
HIT-SP DD

Connections for continuous concrete floor slabs for positive and negative moments and for shear load support

Insulation thickness: 120 mm

German approval Z-15.7-309

European Technical Assessment ETA-18/0189



- ① balcony
- ② floor slab

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

HIT-SP DD-1006-...-06	1,00	496,60
HIT-SP DD-0507-...-06	1,00	367,30
HIT-SP DD-0707-...-06	1,00	424,00
HIT-SP DD-1007-...-06	1,00	540,00
HIT-SP DD-1207-...-06	1,00	592,50
HIT-SP DD-1407-...-06	1,00	637,40
HIT-SP DD-0404-...-08	1,00	316,50
HIT-SP DD-0604-...-08	1,00	386,30
HIT-SP DD-1206-...-08	1,00	605,30
HIT-SP DD-0507-...-08	1,00	398,40
HIT-SP DD-0707-...-08	1,00	526,10
HIT-SP DD-1007-...-08	1,00	610,50
HIT-SP DD-1207-...-08	1,00	634,10
HIT-SP DD-1407-...-08	1,00	694,10
HIT-SP DD-0604-...-10	1,00	445,60
HIT-SP DD-0406-...-10	1,00	424,30
HIT-SP DD-0506-...-10	1,00	467,00
HIT-SP DD-0606-...-10	1,00	497,10
HIT-SP DD-0806-...-10	1,00	578,10
HIT-SP DD-1006-...-10	1,00	644,90
HIT-SP DD-1206-...-10	1,00	692,50
HIT-SP DD-0507-...-10	1,00	507,90
HIT-SP DD-0707-...-10	1,00	547,40
HIT-SP DD-1007-...-10	1,00	658,00
HIT-SP DD-1207-...-10	1,00	705,50
HIT-SP DD-1407-...-10	1,00	760,20
HIT-SP DD-0507-...-12	1,00	575,10
HIT-SP DD-0707-...-12	1,00	635,20
HIT-SP DD-1007-...-12	1,00	725,20
HIT-SP DD-1207-...-12	1,00	785,30
HIT-SP DD-1407-...-12	1,00	845,30

Other types on request

Standard fire protection class REI 120 (F120) **without additional charge**

Different concrete coverings and heights from h=16 cm to h=25 cm **without additional charge**

On request: Heights from h=26 cm to h=35 cm with additional charge

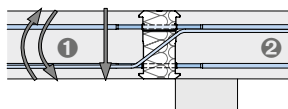
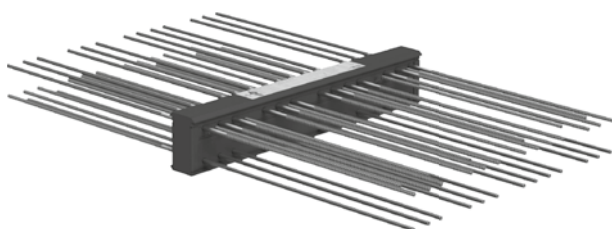
On request: 25 cm or 50 cm element lengths

Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

HIT-HP DVL

Connections for continuous concrete floor slabs for high alternating moments
Insulation thickness: 80 mm
European Technical Assessment ETA-18/0189

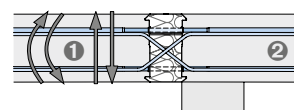
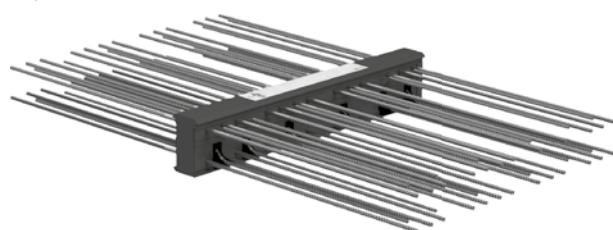


① balcony
② floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP DVL-.....-08	1,00	on request
HIT-HP DVL-.....-12	1,00	on request
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
On request: 25 cm or 50 cm element lengths		
Item per PU: Please refer to the start of chapter 2		

HIT-HP DDL

Connections for continuous concrete floor slabs for high alternating moments and for shear load support.
Insulation thickness: 80 mm
European Technical Assessment ETA-18/0189



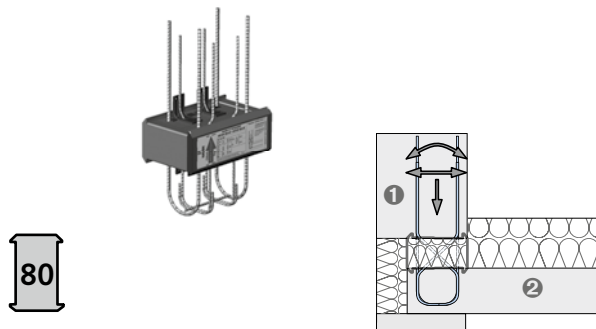
① balcony
② floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP DDL-.....-08	1,00	on request
HIT-HP DDL-.....-12	1,00	on request
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different concrete coverings and heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
On request: 25 cm or 50 cm element lengths		
Item per PU: Please refer to the start of chapter 2		

INSULATED CONNECTIONS

HIT-HP AT

Connection for parapets
Insulation thickness: 80 mm
European Technical Assessment ETA-18/0189



- ① Balcony
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
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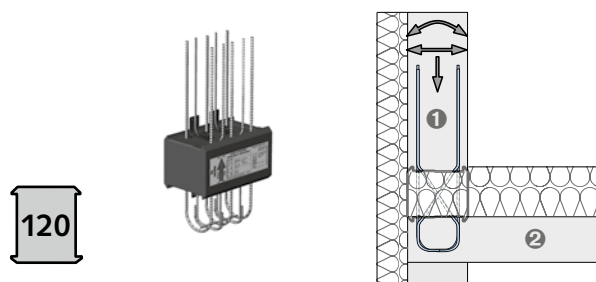
Specification: According to catalogue

HIT-HP AT1-0201-hh-025	0,25	99,70
HIT-HP AT1-0202-hh-025	0,25	100,60
HIT-HP AT2-0301-hh-025	0,25	106,60
HIT-HP AT2-0302-hh-025	0,25	108,40

Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Optionally available with stirrups; on request - higher price applies
Item per PU: Please refer to the start of chapter 2

HIT-SP AT

Connection for parapets
Insulation thickness: 120 mm
European Technical Assessment ETA-18/0189



- ① Balcony
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
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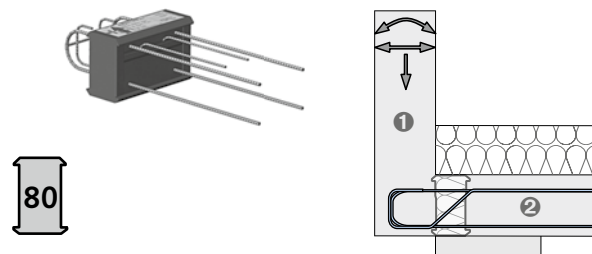
Specification: According to catalogue

HIT-SP AT1-0201-hh-025	0,25	101,20
HIT-SP AT1-0202-hh-025	0,25	102,30
HIT-SP AT2-0301-hh-025	0,25	108,30
HIT-SP AT2-0302-hh-025	0,25	109,90

Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Optionally available with stirrups; on request - higher price applies
Item per PU: Please refer to the start of chapter 2

HIT-HP FT

Connection for corbelled parapets
Insulation thickness: 80 mm
European Technical Assessment ETA-18/0189



- ① Parapet
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
--------------	----------------------	------------------

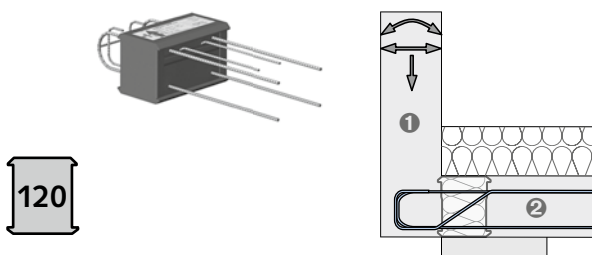
Specification: According to catalogue

HIT-HP FT1-0202-hh-025	0,25	105,70
HIT-HP FT1-0203-hh-025	0,25	106,70
HIT-HP FT2-0202-hh-025	0,25	109,20
HIT-HP FT2-0203-hh-025	0,25	110,90

Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Optionally available with stirrups; on request - higher price applies
Item per PU: Please refer to the start of chapter 2

HIT-SP FT

Connection for corbelled parapets
Insulation thickness: 120 mm
European Technical Assessment ETA-18/0189



- ① Parapet
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
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Specification: According to catalogue

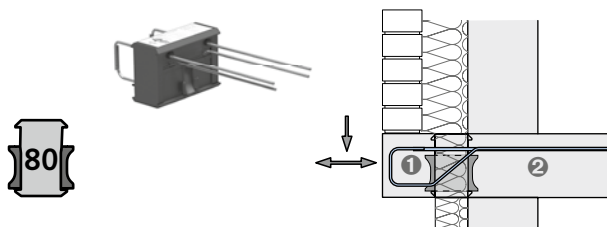
HIT-SP FT1-0202-hh-025	0,25	107,40
HIT-SP FT1-0203-hh-025	0,25	108,40
HIT-SP FT2-0202-hh-025	0,25	110,90
HIT-SP FT2-0203-hh-025	0,25	112,50

Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Optionally available with stirrups; on request - higher price applies
Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

HIT-HP OTX

Thermal insulated connections for application between the main slab and corbelled parapet
Insulation thickness: 80 mm
European Technical Assessment ETA-18/0189



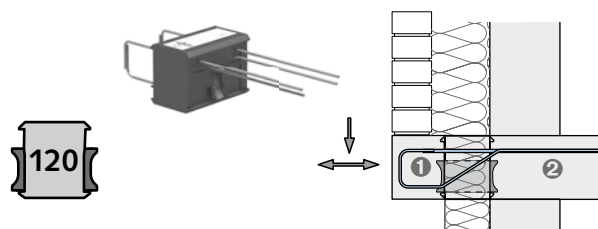
- ① Corbel
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP OTX1-0202-hh-025-06	0,25	113,60
HIT-HP OTX1-0202-hh-025-08	0,25	117,50
HIT-HP OTX2-0202-hh-025-06	0,25	121,50
HIT-HP OTX2-0202-hh-025-08	0,25	126,70

Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Item per PU: Please refer to the start of chapter 2

HIT-SP OTX

Thermal insulated connections for application between the main slab and corbelled parapet
Insulation thickness: 120 mm
European Technical Assessment ETA-18/0189



- ① Corbel
② Floor slab

Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP OTX1-0202-hh-025-06	0,25	115,30
HIT-SP OTX1-0202-hh-025-08	0,25	119,20
HIT-SP OTX2-0202-hh-025-06	0,25	123,00
HIT-SP OTX2-0202-hh-025-08	0,25	128,40

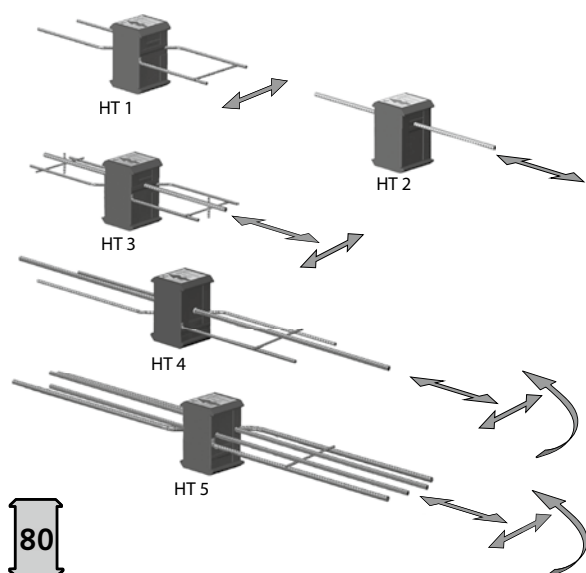
Other types on request
Standard fire protection class REI 120 (F120) **without additional charge**
Different heights from h=16 cm to h=25 cm **without additional charge**
On request: Heights from h=26 cm to h=35 cm with additional charge
Item per PU: Please refer to the start of chapter 2

INSULATED CONNECTIONS

HIT-HP HT

Transfer of planned horizontal forces parallel and/or perpendicular to the insulation plane

Insulation thickness: 80 mm

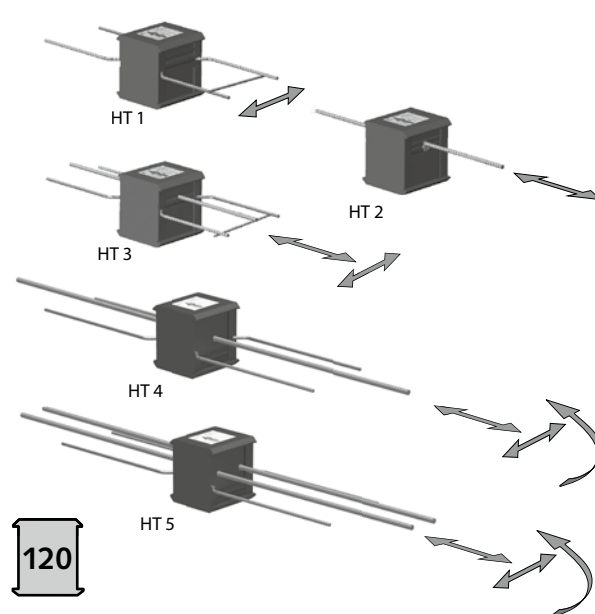


Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP HT1-hh-010	0,10	30,90
HIT-HP HT2-hh-010	0,10	26,00
HIT-HP HT3-hh-010	0,10	40,50
HIT-HP HT4-hh-010	0,10	56,30
HIT-HP HT5-hh-010	0,10	74,20
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

HIT-SP HT

Transfer of planned horizontal forces parallel and/or perpendicular to the insulation plane

Insulation thickness: 120 mm



Article name	Width of element [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP HT1-hh-015	0,15	35,10
HIT-SP HT2-hh-015	0,15	29,60
HIT-SP HT3-hh-015	0,15	44,10
HIT-SP HT4-hh-015	0,15	61,90
HIT-SP HT5-hh-015	0,15	83,30
Other types on request		
Standard fire protection class REI 120 (F120)		without additional charge
Different heights from h=16 cm to h=25 cm		without additional charge
On request: Heights from h=26 cm to h=35 cm with additional charge		
Item per PU: Please refer to the start of chapter 2		

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

INSULATED CONNECTIONS, ACCESSORIES

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

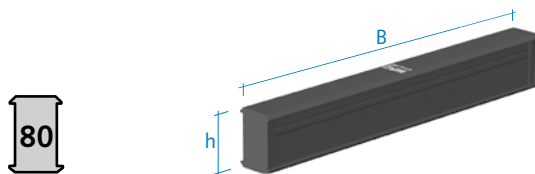
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HIT-HP FK Filler element

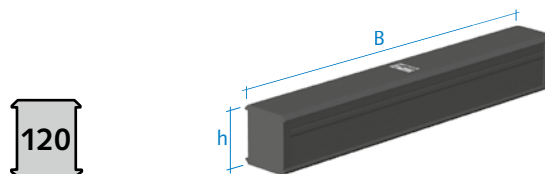
Fire-retardant, thermal-heat-insulating filler element, non-loadable
Insulation thickness: 80 mm



Article name	Width of element B [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-HP FK-16-100	1,00	68,65
HIT-HP FK-17-100	1,00	68,65
HIT-HP FK-18-100	1,00	68,65
HIT-HP FK-19-100	1,00	68,65
HIT-HP FK-20-100	1,00	68,65
HIT-HP FK-21-100	1,00	68,65
HIT-HP FK-22-100	1,00	68,65
HIT-HP FK-23-100	1,00	68,65
HIT-HP FK-24-100	1,00	68,65
HIT-HP FK-25-100	1,00	68,65
HIT-HP FK-26-100	1,00	on request
HIT-HP FK-27-100	1,00	on request
HIT-HP FK-28-100	1,00	on request
HIT-HP FK-29-100	1,00	on request
HIT-HP FK-30-100	1,00	on request
Other types on request Standard fire protection class REI 120 (F120) without additional charge On request: 0,10 m to 1,00 m element length Item per PU: Please refer to the start of chapter 2		

HIT-SP FK Filler element

Fire-retardant, thermal-heat-insulating filler element, non-loadable
Insulation thickness: 120 mm



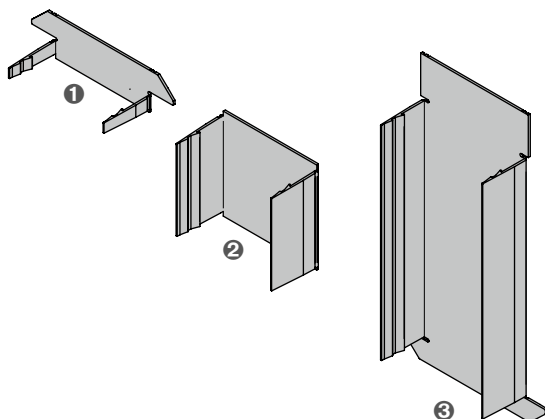
Article name	Width of element B [m]	Price [EUR/item]
Specification: According to catalogue		
HIT-SP FK-16-100	1,00	87,95
HIT-SP FK-17-100	1,00	87,95
HIT-SP FK-18-100	1,00	87,95
HIT-SP FK-19-100	1,00	87,95
HIT-SP FK-20-100	1,00	87,95
HIT-SP FK-21-100	1,00	87,95
HIT-SP FK-22-100	1,00	87,95
HIT-SP FK-23-100	1,00	87,95
HIT-SP FK-24-100	1,00	87,95
HIT-SP FK-25-100	1,00	87,95
HIT-SP FK-26-100	1,00	on request
HIT-SP FK-27-100	1,00	on request
HIT-SP FK-28-100	1,00	on request
HIT-SP FK-29-100	1,00	on request
HIT-SP FK-30-100	1,00	on request
Other types on request Standard fire protection class REI 120 (F120) without additional charge On request: 0,10 m to 1,00 m element length Item per PU: Please refer to the start of chapter 2		

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

INSULATED CONNECTIONS, ACCESSORIES

End covers for HIT-HP MVX

End covers for inserting into and sealing the face-ends of HIT components
For Tension bar boxes, Distance boxes and Compression shear bearing boxes

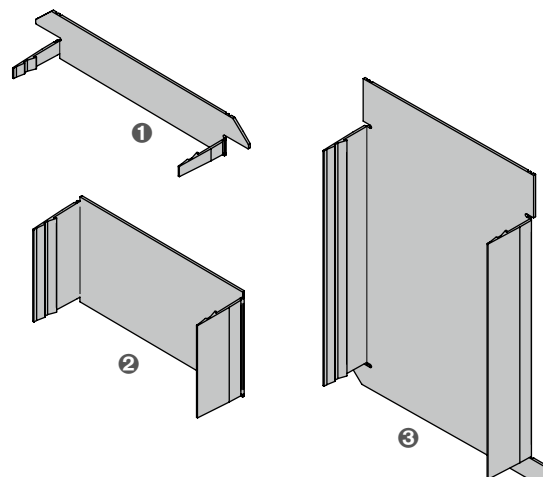


- ❶ For TB boxes
- ❷ For DB boxes
- ❸ For CSB boxes

Article name	Nominal dimension height h [cm]	Items per PU	Article no.	Price
Specification: PVC				
HIT EC-TB-HP-80-30	3	1	140-00003	0,90
HIT EC-TB-HP-80-50	5	1	140-00001	0,70
HIT EC-TB-HP-80-70	7	1	140-00002	0,80
HIT EC-DB-HP-80-20	2	1	200-00001	0,50
HIT EC-DB-HP-80-30	3	1	200-00002	0,60
HIT EC-DB-HP-80-40	4	1	200-00003	0,70
HIT EC-DB-HP-80-50	5	1	200-00004	0,80
HIT EC-DB-HP-80-60	6	1	200-00005	0,90
HIT EC-DB-HP-80-70	7	1	200-00006	1,00
HIT EC-DB-HP-80-80	8	1	200-00007	1,10
HIT EC-DB-HP-80-90	9	1	200-00008	1,20
HIT EC-DB-HP-80-100	10	1	200-00009	1,30
HIT EC-DB-HP-80-110	11	1	200-00010	1,40
HIT EC-CSB-HP-80-160	11	1	130-00001	1,50
HIT EC-CSB-HP-80-170	12	1	130-00002	1,70

End covers for HIT-SP MVX

End covers for inserting into and sealing the face-ends of HIT components
For Tension bar boxes, Distance boxes and Compression shear bearing boxes



- ❶ For TB boxes
- ❷ For DB boxes
- ❸ For CSB boxes

Article name	Nominal dimension height h [cm]	Items per PU	Article no.	Price
Specification: PVC				
HIT EC-TB-SP-120-30	3	1	140-10003	1,00
HIT EC-TB-SP-120-50	5	1	140-10001	0,80
HIT EC-TB-SP-120-70	7	1	140-10002	0,90
HIT EC-TB-SP-120-20	2	1	200-10001	0,60
HIT EC-DB-SP-120-30	3	1	200-10002	0,80
HIT EC-DB-SP-120-40	4	1	200-10003	0,90
HIT EC-DB-SP-120-50	5	1	200-10004	1,00
HIT EC-DB-SP-120-60	6	1	200-10005	1,10
HIT EC-DB-SP-120-70	7	1	200-10006	1,20
HIT EC-DB-SP-120-120	8	1	200-10007	1,30
HIT EC-DB-SP-120-90	9	1	200-10008	1,40
HIT EC-DB-SP-120-100	10	1	200-10009	1,50
HIT EC-DB-SP-120-110	11	1	200-10010	1,60
HIT EC-CSB-SP-120-160	11	1	130-10001	1,90
HIT EC-CSB-SP-120-170	12	1	130-10002	2,00

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

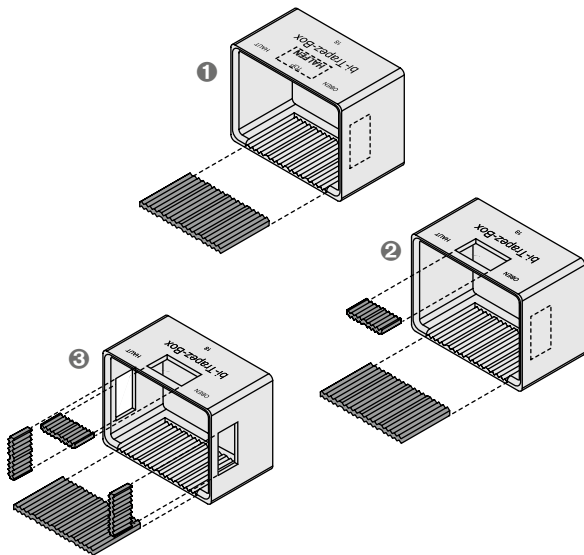
6

Bolts, Accessories

7

SOUND INSULATION PRODUCTS

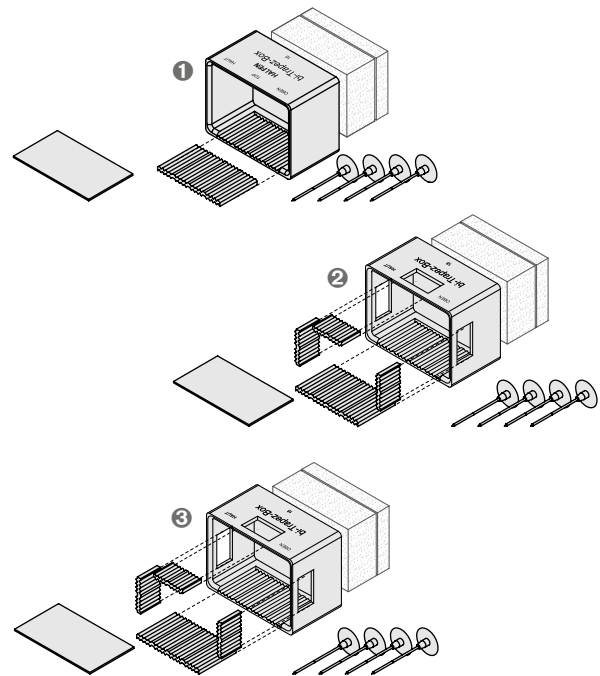
HBB for precast landings



- ① HBB-F incl. bi-trapez bearing®
- ② HBB-FQ incl. 2x bi-trapez bearing® for additional lifting loads
- ③ HBB-FQS incl. 4x bi-trapez bearing® for additional lifting and side loads

Article name	Inside dimension HxWxD [mm]	Article no.	Price
Landing thickness [cm] - type		0970.	[EUR/item]
Specification: According to catalogue			
HBB 16 - F	160x250x140	010-00001	76,30
HBB 18 - F	180x250x140	010-00002	85,70
HBB 20 - F	200x250x140	010-00003	95,20
Specification: According to catalogue			
HBB 16 - FQ	160x250x140	010-00004	92,70
HBB 18 - FQ	180x250x140	010-00005	95,40
HBB 20 - FQ	200x250x140	010-00006	97,80
Specification: According to catalogue			
HBB 16 - FQS	160x250x140	010-00007	105,30
HBB 18 - FQS	180x250x140	010-00008	108,60
HBB 20 - FQS	200x250x140	010-00009	110,50

HBB for concrete landings cast in situ



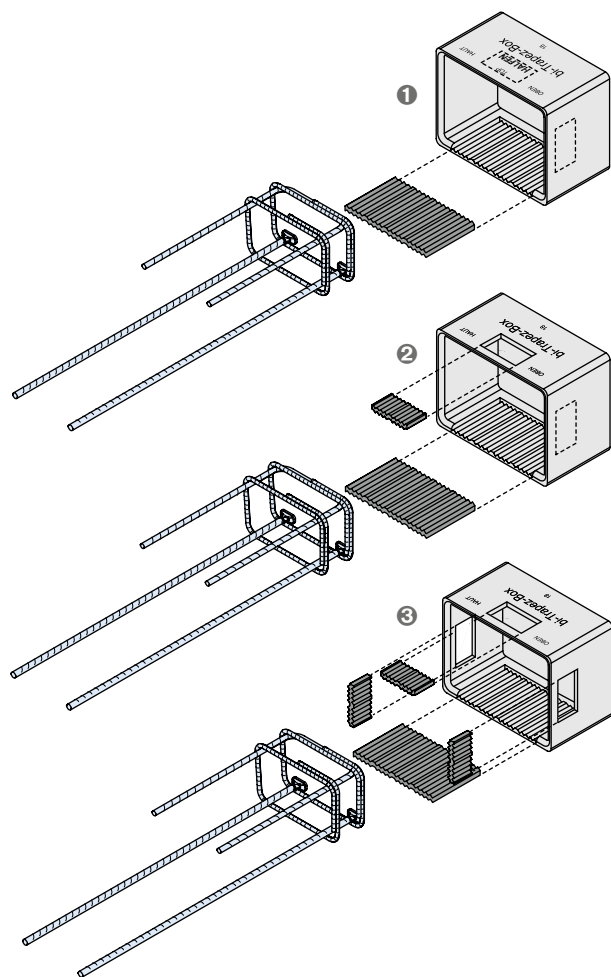
- ① HBB-O incl. bi-trapez bearing®
- ② HBB-OQ incl. 2x bi-trapez bearing® for additional lifting loads
- ③ HBB-OQS incl. 4x bi-trapez bearing® for additional lifting and side loads

Article name	External dimension HxWxD [mm]	Article no.	Price
Landing thickness [cm] - type		0970.	[EUR/item]
Specification: According to catalogue			
HBB 16 - O	187x274x155	020-00001	88,50
HBB 18 - O	207x274x155	020-00002	93,40
HBB 20 - O	227x274x155	020-00003	98,30
Specification: According to catalogue			
HBB 16 - OQ	187x274x155	020-00004	92,90
HBB 18 - OQ	207x274x155	020-00005	96,50
HBB 20 - OQ	227x274x155	020-00006	101,30
Specification: According to catalogue			
HBB 16 - OQS	187x274x155	020-00007	105,20
HBB 18 - OQS	207x274x155	020-00008	109,90
HBB 20 - OQS	227x274x155	020-00009	119,40

All designs with cardboard, 2 polystyrene rigid foam bodies and 4 special nails

SOUND INSULATION PRODUCTS

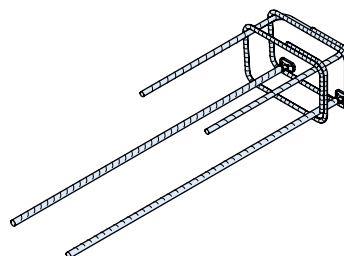
HBB-SET for landings



- ① HBB-SET includes HBB-Reinforcement cage-Q-Unit and HBB-F incl. bi-trapez bearing®
- ② HBB-SET-Q includes HBB-Reinforcement cage-Q-Unit and HBB-FQ incl. 2x bi-trapez bearing® for additional lifting loads
- ③ HBB-SET-QS includes HBB-Reinforcement cage-Q-Unit and HBB-FQS incl. 4x bi-trapez bearing® for additional lifting and side loads

Article name	For slab thickness [mm]	Article no.	Price
Landing thickness [cm] - type		0970.	[EUR/item]
Specification: According to catalogue			
HBB 16 - SET	≥ 160	060-00001	152,30
HBB 18 - SET	≥ 180	060-00002	161,70
HBB 20 - SET	≥ 200	060-00003	171,20
Specification: According to catalogue			
HBB 16 - SET-Q	≥ 160	060-00004	168,70
HBB 18 - SET-Q	≥ 180	060-00005	171,30
HBB 20 - SET-Q	≥ 200	060-00006	173,80
Specification: According to catalogue			
HBB - 16 - SET-QS	≥ 160	060-00007	181,30
HBB - 18 - SET-QS	≥ 180	060-00008	184,60
HBB - 20 - SET-QS	≥ 200	060-00009	186,40

HBB Reinforcement cage-Q-Unit



Article name	For slab thickness [mm]	Article no.	Price
Landing thickness [cm] - type		0970.	[EUR/item]
Specification: According to catalogue			
HBB - Reinforcement cage - 16-Q - Unit	≥ 160	050-00101	76,00
HBB - Reinforcement cage - 18-Q - Unit	≥ 180	050-00102	76,00
HBB - Reinforcement cage - 20-Q - Unit	≥ 200	050-00103	76,00

Fixing systems

1

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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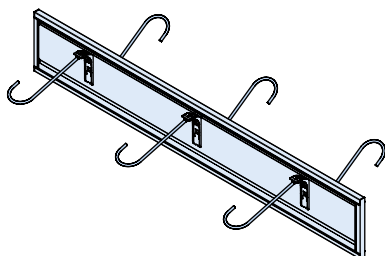
Bolts, Accessories

7

SOUND INSULATION PRODUCTS

HTT Impact sound insulation unit

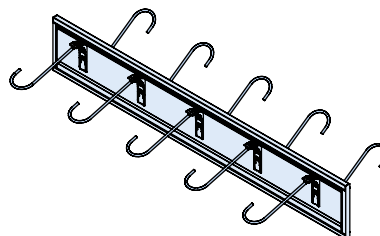
For the connection of a cast in-situ concrete stairway to a cast in-situ landing slab
Load range 4



Article name	Load range	Landing thickness [cm]	Length [cm]	Article no.	Price
				0971.	[EUR/item]
Specification: According to catalogue					
HTT -4	-4	-16	-100	010-00001	99,00
HTT -4	-4	-17	-100	010-00002	99,00
HTT -4	-4	-18	-100	010-00003	104,10
HTT -4	-4	-19	-100	010-00004	104,10
HTT -4	-4	-20	-100	010-00005	109,00
HTT -4	-4	-21	-100	010-00006	109,00
HTT -4	-4	-22	-100	010-00007	109,00
HTT -4	-4	-23	-100	010-00008	116,90
HTT -4	-4	-24	-100	010-00009	116,90
HTT -4	-4	-25	-100	010-00010	116,90
HTT -4	-4	-16	-120	010-00101	104,40
HTT -4	-4	-17	-120	010-00102	104,40
HTT -4	-4	-18	-120	010-00103	109,50
HTT -4	-4	-19	-120	010-00104	109,50
HTT -4	-4	-20	-120	010-00105	114,40
HTT -4	-4	-21	-120	010-00106	114,40
HTT -4	-4	-22	-120	010-00107	114,40
HTT -4	-4	-23	-120	010-00108	122,30
HTT -4	-4	-24	-120	010-00109	122,30
HTT -4	-4	-25	-120	010-00110	122,30
HTT -4 -Special length					
				019-00001	①
① for special lengths differing from our standard lengths (90 - 200 cm) we apply a surcharge of 2,00 Euro per 10 cm and parts thereof					

HTT Impact sound insulation unit

For the connection of a cast in-situ concrete stairway to a cast in-situ landing slab
Load range 6



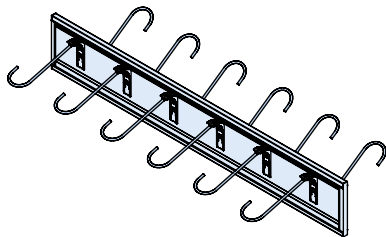
Article name	Load range	Landing thickness [cm]	Length [cm]	Article no.	Price
				0971.	[EUR/item]
Specification: According to catalogue					
HTT -6	-6	-16	-100	020-00001	109,90
HTT -6	-6	-17	-100	020-00002	109,90
HTT -6	-6	-18	-100	020-00003	119,80
HTT -6	-6	-19	-100	020-00004	119,80
HTT -6	-6	-20	-100	020-00005	130,10
HTT -6	-6	-21	-100	020-00006	130,10
HTT -6	-6	-22	-100	020-00007	130,10
HTT -6	-6	-23	-100	020-00008	137,70
HTT -6	-6	-24	-100	020-00009	137,70
HTT -6	-6	-25	-100	020-00010	137,70
HTT -6	-6	-16	-120	020-00101	115,40
HTT -6	-6	-17	-120	020-00102	115,40
HTT -6	-6	-18	-120	020-00103	125,30
HTT -6	-6	-19	-120	020-00104	125,30
HTT -6	-6	-20	-120	020-00105	135,50
HTT -6	-6	-21	-120	020-00106	135,50
HTT -6	-6	-22	-120	020-00107	135,50
HTT -6	-6	-23	-120	020-00108	143,20
HTT -6	-6	-24	-120	020-00109	143,20
HTT -6	-6	-25	-120	020-00110	143,20
HTT -6 -Special length					
				029-00001	①
① for special lengths differing from our standard lengths (90 - 200 cm) we apply a surcharge of 2,00 Euro per 10 cm and parts thereof					

SOUND INSULATION PRODUCTS

HTT Impact sound insulation unit

For the connection of a cast in-situ concrete stairway to a cast in-situ landing slab

Load range 8



Article name			Article no.	Price
Load range	Landing thickness [cm]	Length [cm]	0971.	[EUR/item]
Specification: According to catalogue				
HTT -8	-16	-100	030-00001	123,40
HTT -8	-17	-100	030-00002	123,40
HTT -8	-18	-100	030-00003	135,50
HTT -8	-19	-100	030-00004	135,50
HTT -8	-20	-100	030-00005	146,50
HTT -8	-21	-100	030-00006	146,50
HTT -8	-22	-100	030-00007	146,50
HTT -8	-23	-100	030-00008	154,40
HTT -8	-24	-100	030-00009	154,40
HTT -8	-25	-100	030-00010	154,40
HTT -8	-16	-120	030-00101	128,90
HTT -8	-17	-120	030-00102	128,90
HTT -8	-18	-120	030-00103	141,00
HTT -8	-19	-120	030-00104	141,00
HTT -8	-20	-120	030-00105	152,10
HTT -8	-21	-120	030-00106	152,10
HTT -8	-22	-120	030-00107	152,10
HTT -8	-23	-120	030-00108	159,90
HTT -8	-24	-120	030-00109	159,90
HTT -8	-25	-120	030-00110	159,90
HTT -8 -Special length			039-00001	①

① for special lengths differing from our standard lengths (90 - 200 cm) we apply a surcharge of 2,00 Euro per 10 cm and parts thereof

Fixing systems

1

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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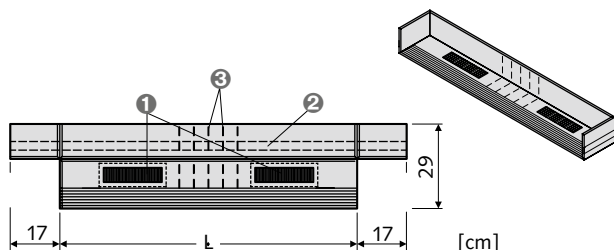
Bolts, Accessories

7

SOUND INSULATION PRODUCTS, ACCESSORIES

HTF Impact sound insulation unit

For placing a precast stair flight into a recess in the landing platforms (stairheads)



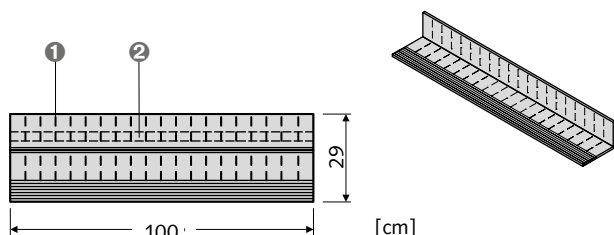
- ① Bi-trapez bearing®
- ② Adhesive tape on back
- ③ Perforation

Article name	PU [items]	Article no.	Price
Length L [cm]		0972.	[EUR/item]
Specification: According to catalogue			
HTF -100	20	010-00001	33,70
HTF -120	20	010-00002	41,50

HTF Insulation strip

As an extension for HTF-100 and HTF-120.

For placing a precast stair flight into a recess in the landing platforms (stairheads)



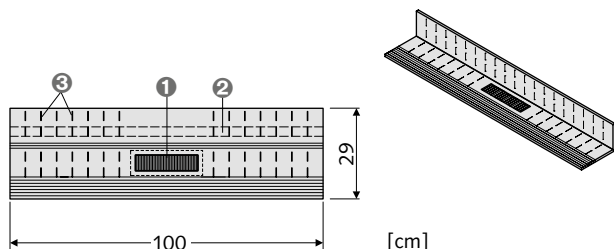
- ① Perforation
- ② Adhesive tape on back

Article name	PU [items]	Article no.	Price
Length [cm]		0972.	[EUR/item]
Specification: According to catalogue			
HTF Insulation strip -100	20	020-00001	28,00

HTF Bedding strip

As an extension for HTF-100 and HTF-120.

For placing a precast stair flight into a recess in the landing platforms (stairheads)

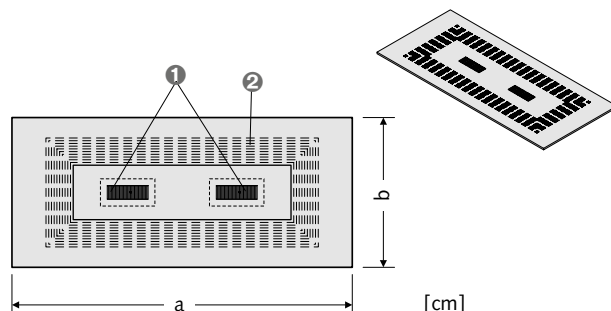


- ① Bi-trapez bearing®
- ② Adhesive tape on back
- ③ Perforation

Article name	PU [items]	Article no.	Price
Length [cm]		0972.	[EUR/item]
Specification: According to catalogue			
HTF Bedding strip -100	20	020-00002	31,00

HTF-B Impact sound insulation element

Impact sound insulation element for precast stairs for mounting a precast stair flight onto the base plate in the lowest storey



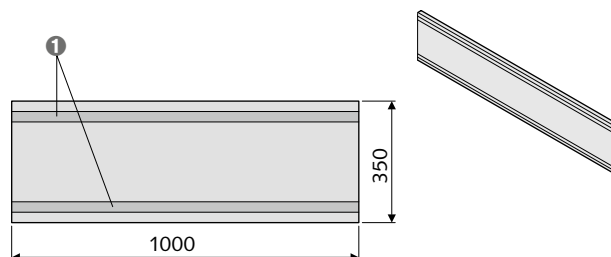
- ① Bi-trapez bearing®
- ② Perforation

Article name	PU [items]	Article no.	Price
Measurement a x b [cm]		0973.	[EUR/item]
Specification: According to catalogue			
HTF-B- 125 x 55	5	010-00001	70,80
HTF-B- 125 x 80	5	010-00002	75,90
HTF-B- 145 x 55	5	010-00003	75,90
HTF-B- 145 x 80	5	010-00004	78,50

HTPL

Impact sound insulation plate

Side separation between the stair flight and the stairwell wall

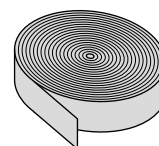


- ① Double-sided adhesive tape

Article name	Width [cm]	d [mm]	PU [items]	Article no.	Price
Length [cm]				0974.	[EUR/item]
Specification: According to catalogue					
HTPL -100	35	10	45	010-00001	17,60
Material: d=10 mm with fire protection requirement B2					

HALFEN Adhesive tape

For sealing all joints between HALFEN impact sound insulation units

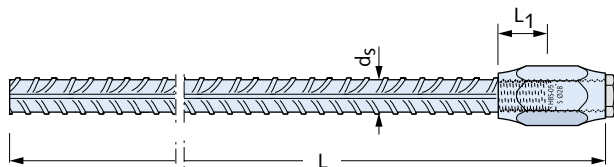


Article name	PU [items]	Article no.	Price
Width [mm]		9602.	[EUR/item]
Specification: According to catalogue			
HALFEN Adhesive tape 50	1 ①	040-00054	7,30
① 1 PU = 66 metres			

THREADED REINFORCEMENT SYSTEMS

HBS-05-S

Threaded socket bar, incl. threaded screw plug
German approval Z-1.5-189



Article name	Measurements [mm] d_s/L	Dimension of thread	Screw-in depth L_1 [mm]	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-S	12/ 400	M12	16,5	020-00001	8,20
HBS-05-S	12/ 610	M12	16,5	020-00002	8,60
HBS-05-S	12/ 860	M12	16,5	020-00003	8,95
HBS-05-S	12/ 1180	M12	16,5	020-00004	9,90

HBS-05-S	14/ 990	M14	19,5	020-00007	11,75
HBS-05-S	14/ 1370	M14	19,5	020-00008	12,40

HBS-05-S	16/ 400	M16	22,5	020-00009	11,00
HBS-05-S	16/ 1110	M16	22,5	020-00010	12,85
HBS-05-S	16/ 1570	M16	22,5	020-00011	14,85

HBS-05-S	20/ 400	M20	28,5	020-00012	13,60
HBS-05-S	20/ 1380	M20	28,5	020-00013	19,75

HBS-05-S	25/ 400	M25 x 2,5 ①	36	020-00015	17,70
HBS-05-S	25/ 1730	M25 x 2,5 ①	36	020-00016	30,70

HBS-05-S	28/ 400	M28 x 2,5 ①	40,5	020-00018	22,85
HBS-05-S	28/ 1930	M28 x 2,5 ①	40,5	020-00019	38,70

HBS-05-S	32/ ②	M32 x 3 ①	45,5		on request
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Other lengths available on request

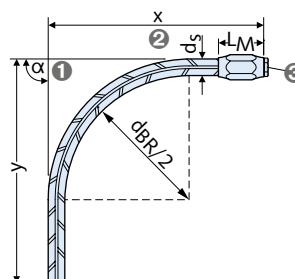
① Please note: Special thread

Connection with standard metric ISO thread → pages 79, 80

② Specify length required when ordering

HBS-05-SG

Bent threaded socket bars, incl. threaded screw plug
German approval Z-1.5-189



- ① Bending angle
- ② Outside dimension
- ③ Threaded plug

Article name	Measurements [mm] $d_s/x, y, d_{BR}$	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-SG- 12 to 32/	①	220-	on request
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Dimensions required when ordering: x, y, α, d_{BR}

Note min. x and note min. y → see Technical Product Information HBS-05

① If not specified when ordering, we will supply $\alpha = 90^\circ$;

$d_{BR} = 4 (7) d_s, x > y$ if $d_{BR} = 10 d_s$ if $x < y$

★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.

Fixing systems

1

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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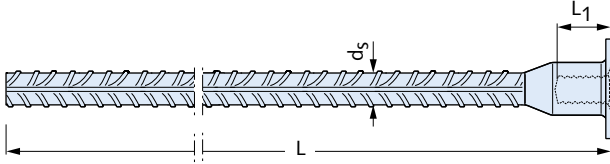
Bolts, Accessories

7

THREADED REINFORCEMENT SYSTEMS

HBS-05-B

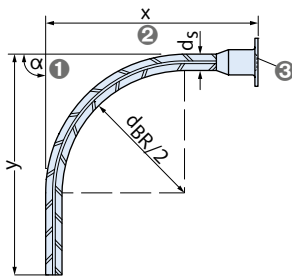
Forged socket bar with nailing plate, incl. threaded plug
German approval Z-1.5-189



Article name	Measurements [mm] d_s/L	Dimension of thread	Screw-in depth L_1 [mm]	Article no.	Price [EUR/item]
				0053.	
Specification: According to catalogue					
HBS-05-B	12/ 400	M12	18	010-00001	9,65
HBS-05-B	12/ 610	M12	18	010-00002	9,80
HBS-05-B	12/ 860	M12	18	010-00003	10,65
HBS-05-B	12/ 1300	M12	18	010-00005	13,90
HBS-05-B	14/ 400	M14	21	010-00006	11,60
HBS-05-B	14/ 1370	M14	21	010-00009	15,60
HBS-05-B	16/ 400	M16	25,5	010-00010	12,05
HBS-05-B	16/ 1110	M16	25,5	010-00011	14,60
HBS-05-B	16/ 1570	M16	25,5	010-00012	16,40
HBS-05-B	20/ 400	M20	30	010-00013	13,80
HBS-05-B	20/ 1380	M20	30	010-00014	20,65
HBS-05-B	25/ 400	M25 x 2,5 ①	39	010-00016	18,75
HBS-05-B	25/ 1730	M25 x 2,5 ①	39	010-00017	32,25
HBS-05-B	28/ 400	M28 x 2,5 ①	44	010-00019	23,95
HBS-05-B	28/ 1930	M28 x 2,5 ①	44	010-00020	40,95
Other lengths available on request					
① Please note: Special thread					
Please note: Connection with standard metric ISO thread → pages 79, 80					

HBS-05-BG

Bent socket bars with forged socket, incl. threaded plug
German approval Z-1.5-189

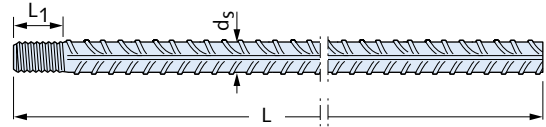


- ① Bending angle
- ② Outside dimension
- ③ Threaded plug

Article name	Measurements [mm] $d_s/x, y, d_{BR}$	Article no.	Price [EUR/item]
		0053.	
Specification: According to catalogue			
HBS-05-BG- 12 to 28/	①	120-	on request
Dimensions required when ordering: x, y, α, d_{BR}			
Note min. x and min. y → see Technical Product Information HBS-05			
① If not specified when ordering, we will supply $\alpha = 90^\circ$;			
$d_{BR} = 4 \text{ (7) } d_s, x > y \text{ if } d_{BR} = 10 d_s \text{ if } x < y$			
★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.			

HBS-05-A

Connector bar, incl. threaded protective cap
German approval Z-1.5-189
Can also be supplied with a left-hand thread as HBS-05-AL...

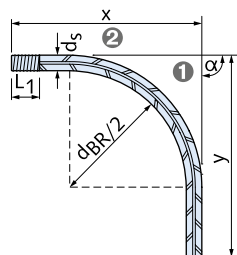


Article name	Measurements [mm] d_s/L	Dimension of thread	Screw-in depth L_1 [mm]	Article no.	Price [EUR/item]
				0053.	
Specification: According to catalogue					
HBS-05-A	12/ 380	M12	16,5	030-00001	5,50
HBS-05-A	12/ 590	M12	16,5	030-00002	5,80
HBS-05-A	12/ 840	M12	16,5	030-00003	6,40
HBS-05-A	12/ 1160	M12	16,5	030-00004	6,90
HBS-05-A	14/ 970	M14	19,5	030-00007	7,85
HBS-05-A	14/ 1350	M14	19,5	030-00008	8,35
HBS-05-A	16/ 375	M16	22,5	030-00009	8,20
HBS-05-A	16/ 1085	M16	22,5	030-00010	9,90
HBS-05-A	16/ 1545	M16	22,5	030-00011	11,25
HBS-05-A	20/ 370	M20	28,5	030-00012	9,20
HBS-05-A	20/ 1350	M20	28,5	030-00013	15,55
HBS-05-A	25/ 360	M25 x 2,5 ①	36,0	030-00015	12,05
HBS-05-A	25/ 1690	M25 x 2,5 ①	36,0	030-00016	23,95
HBS-05-A	28/ 360	M28 x 2,5 ①	40,5	030-00018	14,60
HBS-05-A	28/ 1890	M28 x 2,5 ①	40,5	030-00019	30,75
HBS-05-A	32/ ②	M32 x 3 ①	45,5		on request
Other lengths available on request					
① Please note: Special thread					
② Specify length required when ordering					
★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.					

THREADED REINFORCEMENT SYSTEMS

HBS-05-AG / ALG

Bent connector bars
German approval Z-1.5-189



- ① Bending angle
- ② Outside dimension

Article name	Measurements [mm] $d_s/x, y, d_{BR}$	Article no.	Price [EUR/item]
		0053.	

Specification: According to catalogue

HBS-05-AG- 12 to 32/ ① 370- on request

HBS-05-ALG- 12 to 32/ ① 350- on request
(left hand thread)

Dimensions required when ordering: x, y, α, d_{BR}
Note min. x and min. $y \rightarrow$ see Technical Product Information HBS-05

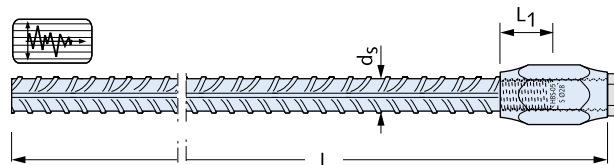
① If not specified when ordering, we will supply $\alpha = 90^\circ$;

$d_{BR} = 4 (7) d_s, x > y$ if $d_{BR} = 10 d_s$ if $x < y$

★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.

HBS-05-S-Seismic

Socket bar with threaded socket, incl. threaded screw plug



Article name	Measurements [mm] d_s/L	Dimension of thread	Screw-in depth L_1 [mm]	Article no.	Price [EUR/item]
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Specification: Reinforcing steel bars B500C according to EN 1992-1-1/BS4449

HBS-05-S-Seismic 12/① ... M12 16 # on request

HBS-05-S-Seismic 14/① ... M14 19 # on request

HBS-05-S-Seismic 16/① ... M16 22 # on request

HBS-05-S-Seismic 20/① ... M20 28 # on request

HBS-05-S-Seismic 25/① ... M25 x 2,5 ② 36,0 # on request

HBS-05-S-Seismic 32/① ... M32 x 3,0 ② 45,5 # on request

Other bar lengths and bending shapes are available on request

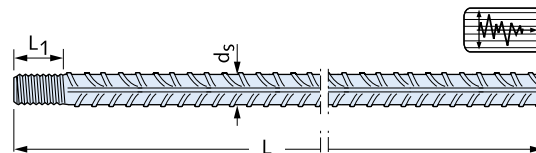
① Please state required lengths when ordering

② Please note: Special thread

★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.

HBS-05-A-Seismic

Connector bar, incl. threaded protective cap



Article name	Measurements [mm] d_s/L	Dimension of thread	Screw-in depth L_1 [mm]	Article no.	Price [EUR/item]
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Specification: Reinforcing steel bars B500C according to EN 1992-1-1/BS4449

HBS-05-A-Seismic 12/① ... M12 16,5 # on request

HBS-05-A-Seismic 14/① ... M14 19,5 # on request

HBS-05-A-Seismic 16/① ... M16 22,5 # on request

HBS-05-A-Seismic 20/① ... M20 28,5 # on request

HBS-05-A-Seismic 25/① ... M25 x 2,5 ② 36,0 # on request

HBS-05-A-Seismic 32/① ... M32 x 3,0 ② 45,5 # on request

Other bar lengths and bending shapes are available on request

① Please state required lengths when ordering

② Please note: Special thread

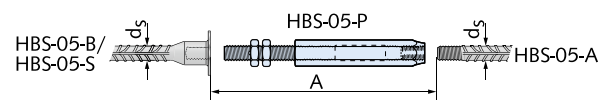
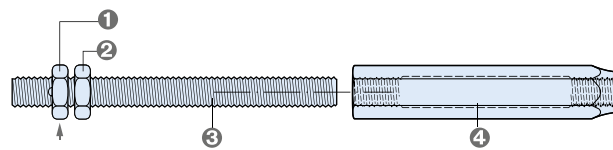
★ HALFEN remark: please refer to the start of the chapter 2 for notes and order examples.

HBS-05-P

Position sleeve

German approval Z-1.5-189

Set consisting of:



- ① Fixed nut
- ② Counter nut, loose
- ③ Threaded stud
- ④ Long socket

Article name	For bar-Ø d_s [mm]	Installation length between bar ends A [mm]	Article no.	Price [EUR/item]
			0725.	

Specification: According to catalogue

HBS-05-P-12-SET 12 171 ± 20,0 050-00001 48,30

HBS-05-P-14-SET 14 187 ± 20,0 050-00002 56,95

HBS-05-P-16-SET 16 203 ± 20,0 050-00003 62,65

HBS-05-P-20-SET 20 270 ± 30,0 050-00004 82,10

HBS-05-P-25-SET 25 314 ± 30,5 050-00005 137,10

HBS-05-P-28-SET 28 336 ± 30,5 050-00006 172,30

HBS-05-P-32-SET 32 385 ± 34,5 050-00007 203,30

THREADED REINFORCEMENT SYSTEMS

1 Fixing systems

2 Reinforcement systems

3 Lifting systems

4 Façade connection systems

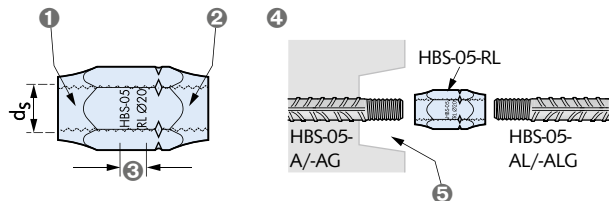
5 DETAN Rod systems

6 Industrial Technology

7 Bolts, Accessories

HBS-05-RL

Right/left-hand threaded socket
German approval Z-1.5-189



- ① Right-hand thread
- ② Left-hand thread
- ③ Thread overlap area
- ④ Application example HBS-05-RL
- ⑤ Order trapeze rail for recess separately → page 78

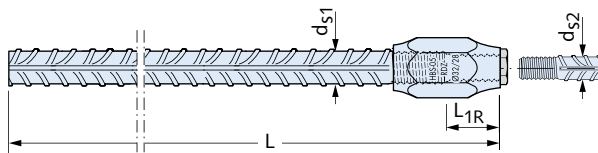
Article name	For bar-Ø d _s [mm]	Article no.	Price
		0725.	[EUR/item]

Specification: According to catalogue

HBS-05-RL	12	010-00001	7,05
HBS-05-RL	14	010-00002	8,20
HBS-05-RL	16	010-00003	9,30
HBS-05-RL	20	010-00004	10,95
HBS-05-RL	25	010-00005	15,15
HBS-05-RL	28	010-00006	19,10
HBS-05-RL	32	010-00007	23,75

HBS-05-RDZ

Reducing socket bar, incl. threaded screw plug
German approval Z-1.5-189



Article name	Dimensions [mm] d _{s1} /d _{s2} - L	Screw-in depth L _{1R} [mm]	Article no.	Price
			0053.	[EUR/item]

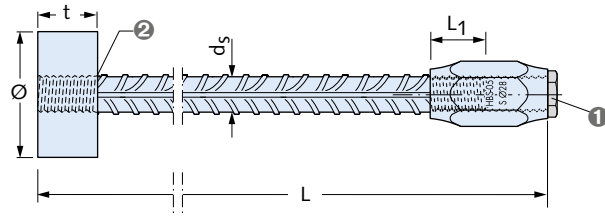
Specification: According to catalogue

HBS-05-RDZ -	16/14 - ①	19,5	420-②	on request
HBS-05-RDZ -	20/16 - ①	22,5	420-②	on request
HBS-05-RDZ -	25/20 - ①	28,5	420-②	on request
HBS-05-RDZ -	28/25 - ①	36,0	420-②	on request
HBS-05-RDZ -	32/28 - ①	40,5	420-②	on request

- ① Specify length L required when ordering
- ② Ordering example: HBS-05-RDZ-20/16-1900 Article no. 0053.420
d_{s1}/d_{s2} = 20/16, L = 1900

HBS-05-SEA

Socket bar with end anchor,
threaded socket, incl. threaded screw plug
German approval Z-1.5-189



- ① Threaded screw plug
- ② Fixed

Article name	Measurements [mm] d _s /L	Ø x t [mm]	Screw-in depth L ₁ [mm]	Article no.	Price
				0053.	[EUR/item]

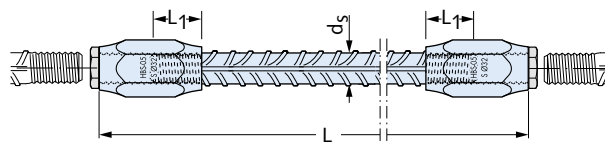
Specification: According to catalogue

HBS-05-SEA -	12/ ①	41 x 18	16,5	280-②	on request
HBS-05-SEA -	14/ ①	46 x 20	19,5	280-②	on request
HBS-05-SEA -	16/ ①	52 x 25	22,5	280-②	on request
HBS-05-SEA -	20/ ①	64 x 30	28,5	280-②	on request
HBS-05-SEA -	25/ ①	80 x 35	36,0	280-②	on request
HBS-05-SEA -	28/ ①	90 x 40	40,5	280-②	on request
HBS-05-SEA -	32/ ①	110 x 45	45,5	280-②	on request

- ① Specify length L required when ordering
- ② Ordering example: HBS-05-SEA-12/850 Article no. 0053.280
d_s = 12, L = 850

HBS-05-SD

Double socket bar, incl. threaded screw plug
German approval Z-1.5-189



Article name	Measurements [mm] d _s /L	Screw-in depth L ₁ [mm]	Article no.	Price
			0053.	[EUR/item]

Specification: According to catalogue

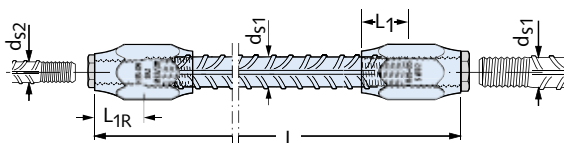
HBS-05-SD-	12/ ①	16,5	230-②	on request
HBS-05-SD-	14/ ①	19,5	230-②	on request
HBS-05-SD-	16/ ①	22,5	230-②	on request
HBS-05-SD-	20/ ①	28,5	230-②	on request
HBS-05-SD-	25/ ①	36,0	230-②	on request
HBS-05-SD-	28/ ①	40,5	230-②	on request
HBS-05-SD-	32/ ①	45,5	230-②	on request

- ① Specify length L required when ordering
- ② Ordering example: HBS-05-SD-14/430 Article no. 0053.230
d_s = 14, L = 430

THREADED REINFORCEMENT SYSTEMS

HBS-05-SRZ

Double socket bar, with reducing sleeve at one end, incl. threaded screw plugs
German approval Z-1.5-189



Article name	Dimensions [mm] $d_{S1}/d_{S2} - L$	Screw-in depth L_{1R} [mm]	Screw-in depth L_1 [mm]	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-SRZ-	16/14 - ①	16,5	19,5	440-②	on request
HBS-05-SRZ-	20/16 - ①	19,5	22,5	440-②	on request
HBS-05-SRZ-	25/20 - ①	22,5	28,5	440-②	on request
HBS-05-SRZ-	28/25 - ①	28,5	36,0	440-②	on request
HBS-05-SRZ-	32/28 - ①	36,0	40,5	440-②	on request

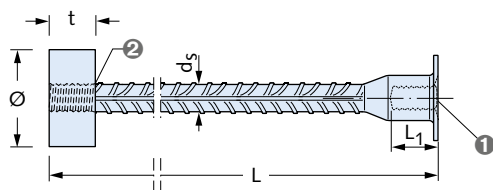
① Specify length L required when ordering

② Ordering example: HBS-05-SRZ-16/14 - 950 Article no. 0053.440

$d_{S1}/d_{S2} = 16/14$, $L = 950$

HBS-05-BEA

Socket bar with end anchor, threaded socket,
incl. threaded plug
German approval Z-1.5-189



- ① Threaded plug
- ② Fixed

Article name	Measurements [mm] d_s/L	$\varnothing \times t$ [mm]	Screw-in depth L_1 [mm]	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-BEA -	12/ ①	41 x 18	18	160-②	on request
HBS-05-BEA -	14/ ①	46 x 20	21	160-②	on request
HBS-05-BEA -	16/ ①	52 x 25	24	160-②	on request
HBS-05-BEA -	20/ ①	64 x 30	30	160-②	on request
HBS-05-BEA -	25/ ①	80 x 35	37,5	160-②	on request
HBS-05-BEA -	28/ ①	90 x 40	42	160-②	on request

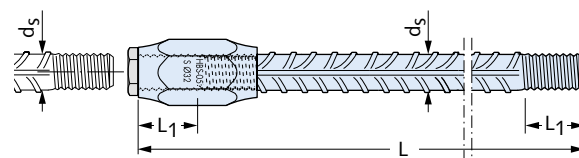
① Specify length L required when ordering

② Ordering example: HBS-05-BEA-16/990 Article no. 0053.160

$d_s = 16$, $L = 990$

HBS-05-SA

Combi bar, threaded socket, incl. threaded plug
German approval Z-1.5-189



Article name	Measurements [mm] d_s/L	Screw-in depth L_1 [mm]	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-SA-	12/ ①	16,5	260-②	on request
HBS-05-SA-	14/ ①	19,5	260-②	on request
HBS-05-SA-	16/ ①	22,5	260-②	on request
HBS-05-SA-	20/ ①	28,5	260-②	on request
HBS-05-SA-	25/ ①	36,0	260-②	on request
HBS-05-SA-	28/ ①	40,5	260-②	on request
HBS-05-SA-	32/ ①	45,5	260-②	on request

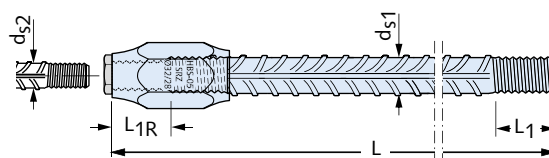
① Specify length L required when ordering

② Ordering example: HBS-05-SA-20/2300 Article no. 0053.260

$d_s = 20$, $L = 2300$

HBS-05-ARZ

Combi bar, with reducing sleeve at one end, incl. threaded plugs
German approval Z-1.5-189



Article name	Dimensions [mm] $d_{S1}/d_{S2} - L$	Screw-in depth L_{1R} [mm]	Screw-in depth L_1 [mm]	Article no. 0053.	Price [EUR/item]
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Specification: According to catalogue

HBS-05-ARZ -	16/14 - ①	16,5	19,5	430-②	on request
HBS-05-ARZ -	20/16 - ①	19,5	22,5	430-②	on request
HBS-05-ARZ -	25/20 - ①	22,5	28,5	430-②	on request
HBS-05-ARZ -	28/25 - ①	28,5	36,0	430-②	on request
HBS-05-ARZ -	32/28 - ①	36,0	40,5	430-②	on request

① Specify length L required when ordering

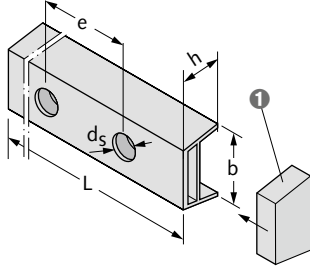
② Ordering example: HBS-05-ARZ-20/16 - 1450 Article no. 0053.430

$d_{S1}/d_{S2} = 20/16$, $L = 1450$

THREADED REINFORCEMENT SYSTEMS, ACCESSORIES

HB5-05-TPL

Recess former with holes ① for HB5-05-A bars used with HB5-05-R/L socket, see page 76



① End cap for recess former (to be ordered separately)

Article name	Measurements [mm] h / b - L	For bar-Ø d _s [mm]	Article no.	Price [EUR/100 items]
			0725.	

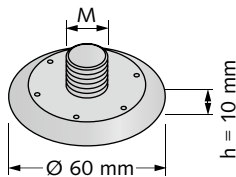
Specification: Plastic

HB5-05-TPL	35/60 - ①	12-20	060-①	on request
HB5-05-TPL	50/90 - ①	25-32	060-①	on request
End cap				
HB5-05-TPL-EDK	35/60	12-20	070-00001	on request
HB5-05-TPL-EDK	50/90	25-32	070-00002	on request

① When ordering, please specify holes required with measurements e, d_s [mm]. For measurements d_s → page 76. Standard length L = 100 cm.

HB5-05 Nailing plate

For HB5-05-S



Article name	For socket bar-Ø d _s [mm]	PU [items]	Article no.	Price [EUR/item]
			0725.	

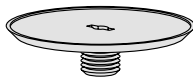
Specification: Plastic

HB5-05-12	12	1	020-00002	0,50
HB5-05-14	14	1	020-00003	0,50
HB5-05-16	16	1	020-00004	0,50
HB5-05-20	20	1	020-00005	0,50

HB5-05 Glued plate

For HB5-05-S

For attaching to steel formwork



Article name	For socket bar-Ø d _s [mm]	PU [items]	Article no.	Price [EUR/item]
			0741.	

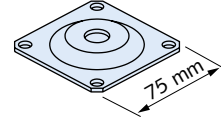
Specification: Plastic

6306-12	12	1	100-00002	0,40
6306-16	16	1	100-00003	0,40
6306-20	20	1	100-00004	0,40

HB5-05 Metal nailing plate

For HB5-05-S

For repeat use



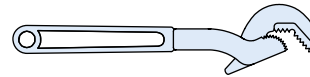
Article name	For socket bar-Ø d _s [mm]	PU [items]	Article no.	Price [EUR/item]
			0725.	

Specification: GV according to the table on page 2

HB5-05-25-GV	25	1	030-00001	3,30
HB5-05-28-GV	28	1	030-00002	3,30
HB5-05-32-GV	32	1	030-00003	3,30

HB5-05 High speed wrench

For an efficient installation of the HB5-05 system

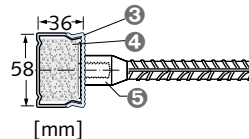
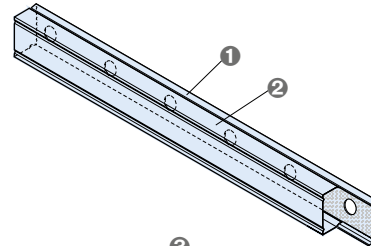


Article name	For bar-Ø [mm]	Article no.	Price [EUR/item]
		0725.	

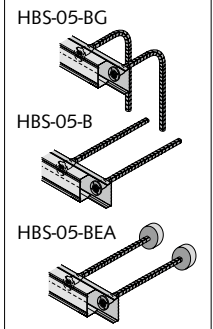
HB5-05-14	12-14	040-00001	117,90
HB5-05-20	16-20	040-00002	145,70
HB5-05-32	25-32	040-00003	182,55

HB5-05-Box

Made from steel sheet, galvanised, perforated, with inserted strip filler. Supplied complete with HB5-05-B socket bars



- ① Casing
- ② Galvanised cover
- ③ HB5-05-Box
- ④ Foam strip
- ⑤ HB5-05-B Socket bar



Article name	Box length LB [mm]	Article no.	Price [EUR/item]
		0053.	

Specification: According to catalogue

HB5-05-Box ③	1250	500 ③	on request
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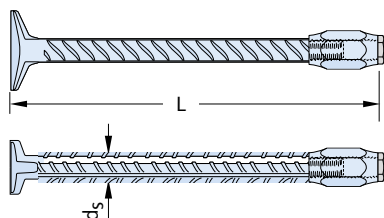
③ Please specify the holes required when ordering
Hole Ø of 12, 14, 16 mm and hole spacing of 7.5 - 10 - 12.5 - 15 - 20 - 25 can be supplied

★ HALFEN remark: please refer to the start of chapter 2 for notes and order examples.

STUD CONNECTOR

HSC-S

Female headed socket bar
incl. threaded screw plug
German approval Z-21.8-1973 and Z-1.5-189



Article name	Bar-Ø [mm] d _s /	Length L [mm]	Article no.	Price
			0060.	[EUR/item]

Specification: Reinforcement steel B500B

HSC-S -	12	/ ≥ 155	300 ①	on request
HSC-S -	16	/ ≥ 180	310 ①	on request
HSC-S -	20	/ ≥ 200	320 ①	on request
HSC-S -	25	/ ≥ 230	330 ①	on request

Standard units

HSC-S -	12	/ 360	300-00001	on request
HSC-S -	12	/ 460	300-00002	on request

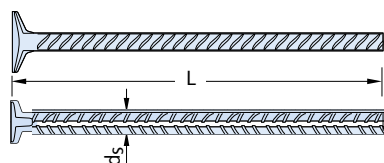
HSC-S -	16	/ 360	310-00001	35,80
HSC-S -	16	/ 460	310-00002	36,60

HSC-S -	20	/ 360	320-00001	44,20
HSC-S -	20	/ 460	320-00002	45,05

① Please provide L [mm] when ordering.
Please consider minimum component dimensions according to approval.

HSC-H

Single headed bar,
German approval Z-21.8-1973



Article name	Bar-Ø [mm] d _s /	Length L [mm]	Article no.	Price
			0060.	[EUR/item]

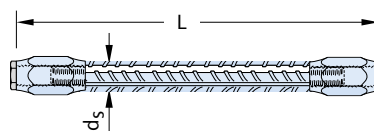
Specification: Reinforcement steel B500B

HSC-H -	12	/ ...	100 ①	on request
HSC-H -	16	/ ...	110 ①	on request
HSC-H -	20	/ ...	120 ①	on request
HSC-H -	25	/ ...	130 ①	on request

① Please provide L [mm] when ordering.
Please consider minimum component dimensions according to approval.

HSC-SD

Female double socket bar
incl. threaded screw plug
German approval Z-1.5-189



Article name	Bar-Ø [mm] d _s /	Length L [mm]	Article no.	Price
			0060.	[EUR/item]

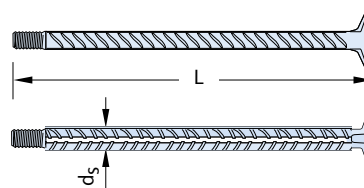
Specification: Reinforcement steel B500B

HSC-SD -	12	/ ≥ 205	500 ①	on request
HSC-SD -	16	/ ≥ 215	510 ①	on request
HSC-SD -	20	/ ≥ 230	520 ①	on request
HSC-SD -	25	/ ≥ 275	530 ①	on request

① Please provide L [mm] when ordering.
Please consider minimum component dimensions according to approval.

HSC-A

Male headed bar
German approval Z-21.8-1973 and Z-1.5-189



Article name	Bar-Ø [mm] d _s /	Length L [mm]	Article no.	Price
			0060.	[EUR/item]

Specification: Reinforcement steel B500B

HSC-A -	12	/ ≥ 130	400 ①	on request
HSC-A -	16	/ ≥ 150	410 ①	on request
HSC-A -	20	/ ≥ 160	420 ①	on request
HSC-A -	25	/ ≥ 190	430 ①	on request

Standard units

HSC-A -	12	/ 195	400-00001	on request
HSC-A -	12	/ 245	400-00002	on request
HSC-A -	12	/ 295	400-00003	on request
HSC-A -	12	/ 345	400-00004	on request
HSC-A -	12	/ 395	400-00005	on request

HSC-A -	16	/ 202	410-00001	22,95
HSC-A -	16	/ 252	410-00002	23,25
HSC-A -	16	/ 302	410-00003	23,60
HSC-A -	16	/ 352	410-00004	23,85
HSC-A -	16	/ 402	410-00005	24,30

HSC-A -	20	/ 208	420-00001	28,75
HSC-A -	20	/ 258	420-00002	29,00
HSC-A -	20	/ 308	420-00003	29,45
HSC-A -	20	/ 358	420-00004	29,90
HSC-A -	20	/ 408	420-00005	30,40

Specification: Stainless steel B500 NR

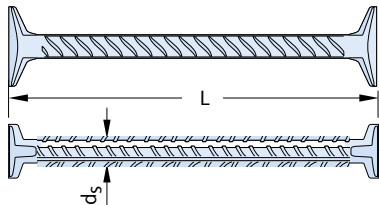
HSC-A -	12	/ ≥ 130	409-00001 ①	on request
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① Please provide L [mm] when ordering.
Please consider minimum component dimensions according to approval.

STUD CONNECTOR, ACCESSORIES

HSC-HD

Double headed bar
German approval Z-21.8-1973



Article name	Bar-Ø [mm] d_s /	Length L [mm]	Article no.	Price
			0060.	[EUR/item]

Specification: Reinforcement steel B500B

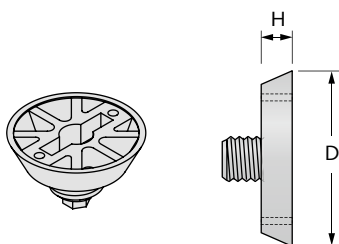
HSC-HD -	12	/ ≥ 175	200 ①	on request
HSC-HD -	16	/ ≥ 175	210 ①	on request
HSC-HD -	20	/ ≥ 175	220 ①	on request
HSC-HD -	25	/ ≥ 180	230 ①	on request

① Please provide L [mm] when ordering.

Please consider minimum component dimensions according to approval.

HSC Nailing plates

Plastic nailing plate
Metal nailing plate (not shown) ①



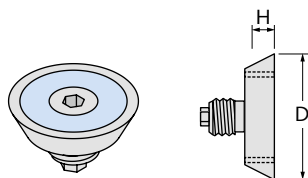
Article name	For bar-Ø d_s [mm]	D [mm]	H [mm]	Article no.	Price
				0725.	[EUR/item]

Specification: Plastic/metal

HBS-05-12	12	60	10	020-00002	0,50
HBS-05-16	16	60	10	020-00004	0,50
HBS-05-20	20	60	10	020-00005	0,50
HBS-05-25-GV ①	25	75	9	030-00001	3,30

HSC Nailing plates

Magnetic plate



Article name	For bar-Ø d_s [mm]	D [mm]	H [mm]	Article no.	Price
				0741.	[EUR/item]

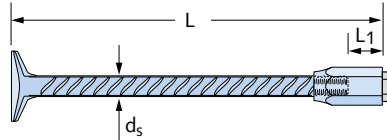
Specification: According to catalogue

6365-12	12	40	12	180-00001	142,15
6365-16	16	40	12	180-00002	142,15
6365-20	20	55	12	180-00003	148,30

UNIVERSAL CONNECTION

HSC-B SH female bar with anchor head - standard lengths

Concrete to steel connector designed for tension and transverse forces
HSC-B concrete to steel connector, German approval Z-21.8-1974
HSC Stud Connector, German approval Z-21.8-1973
HBS-05 Screw Connection, German approval Z-1.5-189

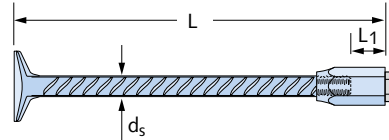


Article name	Bar-Ø [mm] d _s /	Length L [mm]	For column sizes ① h _{col} [mm]	Article no. 1060.	Price [EUR/item]
Specification: Socket: GV according to table, page 2, bar: concrete steel B500B					
HSC-B SH -	16	/ 360	400	030-00001	41,70
HSC-B SH -	16	/ 460	500	030-00002	42,25
HSC-B SH -	20	/ 360	400	060-00001	48,10
HSC-B SH -	20	/ 460	500	060-00002	52,80
Specification: Socket: FV according to table, page 2, bar: concrete steel B500B					
HSC-B SH -	16	/ 360	400	010-00001	45,85
HSC-B SH -	16	/ 460	500	010-00002	46,50
HSC-B SH -	20	/ 360	400	040-00001	52,95
HSC-B SH -	20	/ 460	500	040-00002	54,35
Specification: Socket: A4 according to table, page 2, bar: concrete steel B500B					
HSC-B SH -	16	/ 360	400	020-00001	92,80
HSC-B SH -	16	/ 460	500	020-00002	93,50
HSC-B SH -	20	/ 360	400	050-00001	104,50
HSC-B SH -	20	/ 460	500	050-00002	110,05

① For concrete covering c_{nom} ≈ 3,5 cm

HSC-B SH headed socket bar

Concrete to steel connector designed for tension and transverse forces
HSC-B concrete to steel connector, German approval Z-21.8-1974
HSC Stud Connector, German approval Z-21.8-1973
HBS-05 Screw Connection, German approval Z-1.5-189
Especially suited for short anchoring length due to die-forged anchor head



Article name	Bar-Ø [mm] d _s /	Length L [mm]	Thread size DIN 13	Max. screw depth L ₁	Article no. 1060.	Price [EUR/item]
Specification: Socket: GV according to table, page 2, bar: concrete steel B500B						
HSC-B SH -	12	/ ≥ 155	M12	16,5	730 ①	on request
HSC-B SH -	16	/ ≥ 180	M16	22,5	030 ①	on request
HSC-B SH -	20	/ ≥ 200	M20	28,5	060 ①	on request
HSC-B SH -	25	/ ≥ 230	M27	36,0	090 ①	on request
Specification: Socket: FV according to table, page 2, bar: concrete steel B500B						
HSC-B SH -	12	/ ≥ 155	M12	16,5	710 ①	on request
HSC-B SH -	16	/ ≥ 180	M16	22,5	010 ①	on request
HSC-B SH -	20	/ ≥ 200	M20	28,5	040 ①	on request
HSC-B SH -	25	/ ≥ 230	M27	36,0	070 ①	on request
Specification: Socket: A4 according to table, page 2, bar: concrete steel B500B						
HSC-B SH -	12	/ ≥ 155	M12	16,5	720 ①	on request
HSC-B SH -	16	/ ≥ 180	M16	22,5	020 ①	on request
HSC-B SH -	20	/ ≥ 200	M20	28,5	050 ①	on request
HSC-B SH -	25	/ ≥ 230	M27	36,0	080 ①	on request
Specification: Socket: A4 according to table, page 2, bar: stainless steel B500 NR						
HSC-B SH -	12	/ ≥ 155	M12	16,5	722 ①	on request

① Specify length L [mm] required when ordering

Fixing systems

1

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

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UNIVERSAL CONNECTION

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

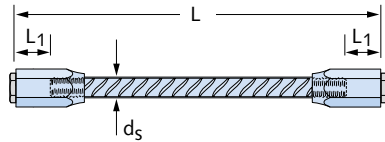
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HSC-B SD double socket bar

Concrete to steel connector designed for tension and transverse forces
HSC-B Stud Connector, German approval Z-21.8-1974
HBS-05 Screw Connection, German approval Z-1.5-189
Especially suited for two sided connections to columns and walls

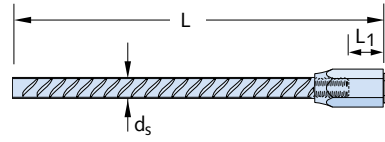


Article name	Bar-Ø [mm] ds /	Length L [mm]	Thread size DIN	Max. screw depth L1	Article no.	Price [EUR/item]
			13		1060.	
Specification: Socket: GV according to table, page 2, bar: concrete steel B500B						
HSC-B SD -	12	/ ≥ 205	M12	16,5	790 ①	on request
HSC-B SD -	16	/ ≥ 215	M16	22,5	230 ①	on request
HSC-B SD -	20	/ ≥ 230	M20	28,5	260 ①	on request
HSC-B SD -	25	/ ≥ 275	M27	36,0	290 ①	on request
Specification: Socket: FV according to table, page 2, bar: concrete steel B500B						
HSC-B SD -	12	/ ≥ 205	M12	16,5	770 ①	on request
HSC-B SD -	16	/ ≥ 215	M16	22,5	210 ①	on request
HSC-B SD -	20	/ ≥ 230	M20	28,5	240 ①	on request
HSC-B SD -	25	/ ≥ 275	M27	36,0	270 ①	on request
Specification: Socket: A4 according to table, page 2, bar: concrete steel B500B						
HSC-B SD -	12	/ ≥ 205	M12	16,5	780 ①	on request
HSC-B SD -	16	/ ≥ 215	M16	22,5	220 ①	on request
HSC-B SD -	20	/ ≥ 230	M20	28,5	250 ①	on request
HSC-B SD -	25	/ ≥ 275	M27	36,0	280 ①	on request
Specification: Socket: A4 according to table, page 2, bar: stainless steel B500 NR						
HSC-B SD -	12	/ ≥ 205	M12	16,5	782 ①	on request

① Specify length L [mm] required when ordering

HSC-B S single headed female bar

Concrete to steel connector designed for tension and transverse forces
HSC-B Stud Connector, German approval Z-21.8-1974
HBS-05 Screw Connection, German approval Z-1.5-189
Especially suited for connections to slabs



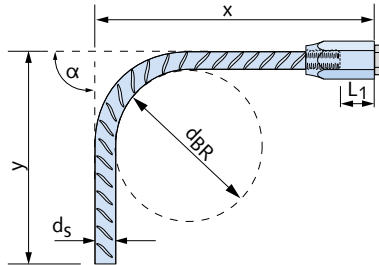
Article name	Bar-Ø [mm] ds /	Length L [mm]	Thread size DIN	Max. screw depth L1	Article no.	Price [EUR/item]
			13		1060.	
Specification: Socket: GV according to table, page 2, bar: concrete steel B500B						
HSC-B S -	12	/...	M12	16,5	830 ①	on request
HSC-B S -	16	/...	M16	22,5	330 ①	on request
HSC-B S -	20	/...	M20	28,5	360 ①	on request
HSC-B S -	25	/...	M27	36,0	390 ①	on request
Specification: Socket: FV according to table, page 2, bar: concrete steel B500B						
HSC-B S -	12	/...	M12	16,5	810 ①	on request
HSC-B S -	16	/...	M16	22,5	310 ①	on request
HSC-B S -	20	/...	M20	28,5	340 ①	on request
HSC-B S -	25	/...	M27	36,0	370 ①	on request
Specification: Socket: A4 according to table, page 2, bar: concrete steel B500B						
HSC-B S -	12	/...	M12	16,5	820 ①	on request
HSC-B S -	16	/...	M16	22,5	320 ①	on request
HSC-B S -	20	/...	M20	28,5	350 ①	on request
HSC-B S -	25	/...	M27	36,0	380 ①	on request
Specification: Socket: A4 according to table, page 2, bar: stainless steel B500 NR						
HSC-B S -	12	/...	M12	16,5	822 ①	on request

① Specify length L [mm] required when ordering

UNIVERSAL CONNECTION

HSC-B SB forged socket bar

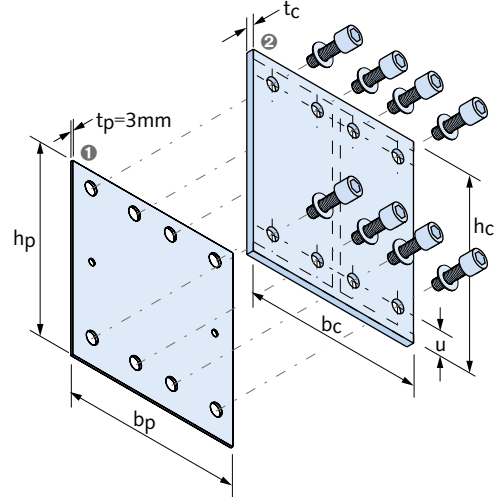
Concrete to steel connector designed for tension and transverse forces
HSC-B Stud Connector, German approval Z-21.8-1974
HBS-05 Screw Connection, German approval Z-1.5-189
Especially suited for transferring loads into columns or walls



Article name	Bar-Ø [mm] d _s /	Length x/y [mm]	Thread size DIN 13	Max. screw depth L ₁	Article no.	Price
Specification: Socket: GV according to table, page 2, bar: concrete steel B500B						
HSC-B SB -	12	/.../...	M12	16,5	760 ①	on request
HSC-B SB -	16	/.../...	M16	22,5	130 ①	on request
HSC-B SB -	20	/.../...	M20	28,5	160 ①	on request
HSC-B SB -	25	/.../...	M27	36,0	190 ①	on request
Specification: Socket: FV according to table, page 2, bar: concrete steel B500B						
HSC-B SB -	12	/.../...	M12	16,5	740 ①	on request
HSC-B SB -	16	/.../...	M16	22,5	110 ①	on request
HSC-B SB -	20	/.../...	M20	28,5	140 ①	on request
HSC-B SB -	25	/.../...	M27	36,0	170 ①	on request
Specification: Socket: A4 according to table, page 2, bar: concrete steel B500B						
HSC-B SB -	12	/.../...	M12	16,5	750 ①	on request
HSC-B SB -	16	/.../...	M16	22,5	120 ①	on request
HSC-B SB -	20	/.../...	M20	28,5	150 ①	on request
HSC-B SB -	25	/.../...	M27	36,0	180 ①	on request
Specification: Socket: A4 according to table, page 2, bar: stainless steel B500 NR						
HSC-B SB -	12	/.../...	M12	16,5	752 ①	on request
Information about dimensions and type of bending required. Recommendation: d _{BR} ≥ 10d _s Bending angle α = 90°, if not otherwise indicated ① Specify length x and y [mm] when ordering						

HSC-B P and HSC-B FP

Positioning plate for exact socket positioning in the formwork
Face plate for exact steel connection



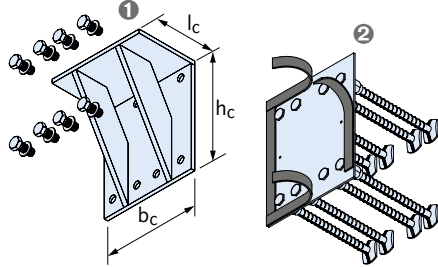
- ① HSC-B P positioning plate
- ② HSC-B FP front plate

Article name	Measurement	Thickness [mm]	Article no.	Price
			1060.	[EUR/item]
Specification: Steel: FV, GV according to table, page 2				
HSC-B P	according to drawing	3	409-00001	on request
Specification: A4 according to table, page 2				
HSC-B P	according to drawing	3	409-00003	on request
Specification: WB according to table, page 2				
HSC-B FP	according to drawing	according to drawing	409-00002	on request
Note: Components ordered as a set under article no. 1060.090-00001 are delivered together. Otherwise, components can be ordered separately. An advantage of ordering individual components is that HALFEN can send the front plate directly to the steel component manufacturer.				

UNIVERSAL CONNECTION, ACCESSORIES

HSCC Steel Corbel Connection

Type-tested standard corbels with short and long overhang attached to the HSC-B steel connection



- ① Corbel
② Steel corbel connection

Article name	b _c [mm]	h _c [mm]	l _c [mm]	Set	Article no.	Price
					1060.	[EUR/item]
Specification: FV according to table, page 2, bolts in grade class 10.9						
Short corbel						
HSCC-16-2-1	120	118	160	Corbel	500-00001	on request
				Connection ①	609-00001	on request
HSCC-16-3-1	160	185	160	Corbel	500-00003	on request
				Connection ①	609-00003	on request
HSCC-16-4-1	220	185	160	Corbel	500-00005	on request
				Connection ①	609-00005	on request
HSCC-16-5-1	260	185	160	Corbel	500-00007	on request
				Connection ①	609-00007	on request
HSCC-20-2-1	160	230	190	Corbel	510-00001	on request
				Connection ①	619-00001	on request
HSCC-20-3-1	210	230	190	Corbel	510-00003	on request
				Connection ①	619-00003	on request
HSCC-20-4-1	270	230	190	Corbel	510-00005	on request
				Connection ①	619-00005	on request
HSCC-20-5-1	330	230	190	Corbel	510-00007	on request
				Connection ①	619-00007	on request
HSCC-25-1-1	160	250	200	Corbel	520-00001	on request
				Connection ①	629-00001	on request
HSCC-25-2-1	220	250	200	Corbel	520-00004	on request
				Connection ①	629-00004	on request
HSCC-25-3-1	280	300	250	Corbel	520-00007	on request
				Connection ①	629-00007	on request
HSCC-25-4-1	370	300	250	Corbel	520-00009	on request
				Connection ①	629-00009	on request
HSCC-25-5-1	460	300	250	Corbel	520-00011	on request
				Connection ①	629-00011	on request
HSCC-25-6-1	540	300	250	Corbel	520-00013	on request
				Connection ①	629-00013	on request
HSCC-25-8-1	680	300	250	Corbel	520-00015	on request
				Connection ①	629-00015	on request
HSCC-25-11-1	900	300	250	Corbel	520-00017	on request
				Connection ①	629-00017	on request

Article name	b _c [mm]	h _c [mm]	l _c [mm]	Set	Article no.	Price
					1060.	[EUR/item]
Specification: FV according to table, page 2, bolts in grade class 10.9						
Long corbel						
HSCC-16-2-2	125	135	210	Corbel	500-00002	on request
				Connection ①	609-00002	on request
HSCC-16-3-2	160	210	230	Corbel	500-00004	on request
				Connection ①	609-00004	on request
HSCC-16-4-2	220	210	230	Corbel	500-00006	on request
				Connection ①	609-00006	on request
HSCC-16-5-2	260	210	230	Corbel	500-00008	on request
				Connection ①	609-00008	on request
HSCC-20-2-2	160	270	265	Corbel	510-00002	on request
				Connection ①	619-00002	on request
HSCC-20-3-2	210	270	265	Corbel	510-00004	on request
				Connection ①	619-00004	on request
HSCC-20-4-2	270	270	265	Corbel	510-00006	on request
				Connection ①	619-00006	on request
HSCC-20-5-2	330	270	265	Corbel	510-00008	on request
				Connection ①	619-00008	on request
HSCC-25-1-2	160	300	250	Corbel	520-00002	on request
				Connection ①	629-00002	on request
HSCC-25-1-3	170	380	350	Corbel	520-00003	on request
				Connection ①	629-00003	on request
HSCC-25-2-2	220	300	250	Corbel	520-00005	on request
				Connection ①	629-00005	on request
HSCC-25-2-3	240	380	350	Corbel	520-00006	on request
				Connection ①	629-00006	on request
HSCC-25-3-2	280	380	350	Corbel	520-00008	on request
				Connection ①	629-00008	on request
HSCC-25-4-2	370	380	350	Corbel	520-00010	on request
				Connection ①	629-00010	on request
HSCC-25-5-2	460	380	350	Corbel	520-00012	on request
				Connection ①	629-00012	on request
HSCC-25-6-2	540	380	350	Corbel	520-00014	on request
				Connection ①	629-00014	on request
HSCC-25-8-2	680	380	350	Corbel	520-00016	on request
				Connection ①	629-00016	on request
HSCC-25-11-2	900	380	350	Corbel	520-00018	on request
				Connection ①	629-00018	on request

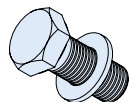
HSK hexagonal head bolts with washers are included in the corbel sets. Template, sockets HSC-B (type SH/SD/S/SB) and HSC-B SE sealing accessories are included in the connection sets. Flat head screws must be ordered separately.

① Information required for female bar: bar type, number, dimensions, sleeve corrosion protection

UNIVERSAL CONNECTION, ACCESSORIES

HSK Hexagonal head bolts

Hex head bolts to DIN 933/ISO 4017 with washer



Article name	Thread M	Length [mm]	Article no.	Price
			0385.	[EUR/item]

Specification: FV: hot-dip galvanized, grade category 10.9

HSK	16	40	070-00067	on request
HSK	20	50	080-00036	on request
HSK	27	60	100-00005	on request

HSK bolts are included in the corbel sets for the HSCC-corbels.

HSC-B FI Location accessories

Pan head screw

For locating HSC-B without penetration of the formwork.

Note: use of HSC-B P, HSC-B SE is recommended to prevent concrete ingress.



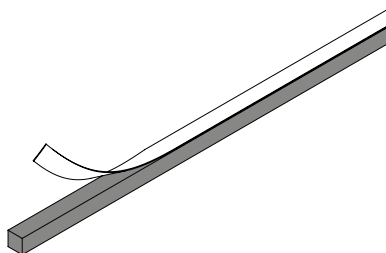
Article name	Thread M	Length [mm]	Article no.	Price
			1060.	[EUR/item]

Specification: According to catalogue

HSC-B FI	12	25	410-00004	on request
HSC-B FI	16	25	410-00001	on request
HSC-B FI	20	25	410-00002	on request
HSC-B FI	27	30	410-00003	on request

HSC-B SE sealing accessories

Sealing accessories for concreting



Article name	Dimensions	Article no.	Price
		1060.	[EUR/item]

Specification: Foam tape, one-sided self-adhesive

HSC-B SE	15 x 15 mm, length: 1000 mm	420-00001	on request
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Fixing systems

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Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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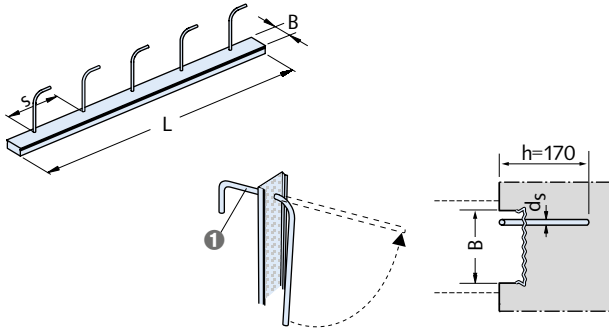
Bolts, Accessories

7

REINFORCEMENT REBEND CONNECTIONS

HBT 55, HBT 85

Re-bendable reinforcement connection - single row
Packaging unit 200 items
German approval Z-21.8-2035



① Type 1 standard bar

Article name	d _s /s [mm/ cm]	Type	Length [mm]	B [mm]	Article no. 0054.	Price [EUR/item]	Price per meter [EUR/meter]
Specification: Pre-galvanised steel sheet with reinforcement steel B500B							
HBT 55 -	8/15	1 -	800	58	010-00101	15,90	-
HBT 55 -	8/20	1 -	800	58	010-00102	13,50	-
HBT 55 -	8/25	1 -	800	58	010-00103	13,20	-
HBT 55 -	10/15	1 -	800	58	010-00104	17,60	-
HBT 55 -	10/20	1 -	800	58	010-00105	14,35	-
HBT 55 -	10/25	1 -	800	58	010-00106	14,05	-

HBT 55 -	8/15 -	1 -	1250	58	010-00001	17,85	14,28
HBT 55 -	8/20 -	1 -	1250	58	010-00002	16,20	12,96
HBT 55 -	8/25 -	1 -	1250	58	010-00003	15,45	12,36
HBT 55 -	10/15 -	1 -	1250	58	010-00004	20,05	16,04
HBT 55 -	10/20 -	1 -	1250	58	010-00005	18,00	14,40
HBT 55 -	10/25 -	1 -	1250	58	010-00006	17,15	13,72

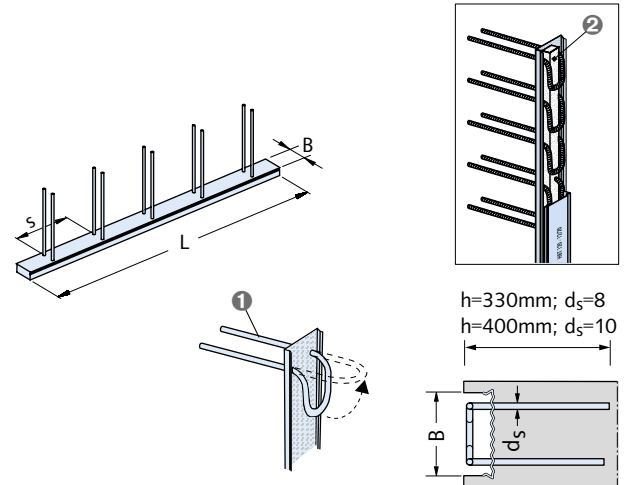
HBT 85 -	10/10	1 -	800	86	020-00101	22,05	-
HBT 85 -	10/15	1 -	800	86	020-00102	18,30	-
HBT 85 -	10/20	1 -	800	86	020-00103	15,15	-
HBT 85 -	10/25	1 -	800	86	020-00104	14,90	-

HBT 85 -	10/10 -	1 -	1250	86	020-00007	26,85	21,48
HBT 85 -	10/15 -	1 -	1250	86	020-00001	21,85	17,48
HBT 85 -	10/20 -	1 -	1250	86	020-00002	19,65	15,72
HBT 85 -	10/25 -	1 -	1250	86	020-00003	18,80	15,04
HBT 85 -	12/10 -	1 -	1250	86	020-00008	34,25	27,40
HBT 85 -	12/15 -	1 -	1250	86	020-00004	27,50	22,00
HBT 85 -	12/20 -	1 -	1250	86	020-00005	24,05	19,24
HBT 85 -	12/25 -	1 -	1250	86	020-00006	22,50	18,00

Check dimension h during installation

HBT 80

Re-bendable reinforcement connection
Packaging unit 64 items = 80 m
German approval Z-21.8-2035



① Type 6 standard bar

② Foam Strip filler HBT Strip

Article name	d _s /s [mm/ cm]	Type	Length [mm]	B [mm]	Article no. 0054.	Price [EUR/item]	Price per meter [EUR/meter]
Specification: Pre-galvanised steel sheet with reinforcement steel B500B							
HBT 80 -	8/15 -	6 -	1250	86	030-00001	30,70	24,56
HBT 80 -	8/20 -	6 -	1250	86	030-00002	25,20	20,16
HBT 80 -	8/25 -	6 -	1250	86	030-00003	22,65	18,12
HBT 80 -	10/15 -	6 -	1250	86	030-00004	38,35	30,68
HBT 80 -	10/20 -	6 -	1250	86	030-00005	31,15	24,92
HBT 80 -	10/25 -	6 -	1250	86	030-00006	27,75	22,20

Also available with foam strip filler HBT Strip. For applications with increased demands on precise measurement. Price on request.
Check dimension h during installation

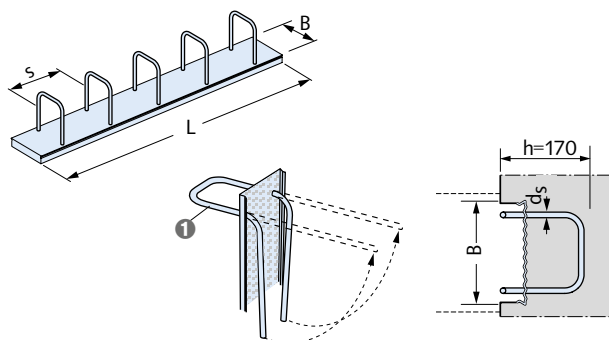
REINFORCEMENT REBEND CONNECTIONS

HBT 120, HBT 150, HBT 190, HBT 220

Re-bendable reinforcement connection - double row

Other lengths and types on request

German approval Z-21.8-2035



① Type 5 standard bar

Article name	d/s [mm/ cm]	Type	Length [mm]	B [mm]	Article no. 0054.	Price [EUR/item]	Price per meter [EUR/meter]
Specification: Pre-galvanised steel sheet with reinforcement steel B500B							
HBT 120 -	8/15 -	5 -	800	122	040-00101	27,50	-
HBT 120 -	8/20 -	5 -	800	122	040-00102	22,75	-
HBT 120 -	8/25 -	5 -	800	122	040-00103	22,65	-
HBT 120 -	10/15 -	5 -	800	122	040-00104	32,45	-
HBT 120 -	10/20 -	5 -	800	122	040-00105	25,80	-
HBT 120 -	10/25 -	5 -	800	122	040-00106	25,40	-
HBT 120 -	8/15 -	5 -	1250	122	040-00001	31,80	25,44
HBT 120 -	8/20 -	5 -	1250	122	040-00002	28,30	22,64
HBT 120 -	8/25 -	5 -	1250	122	040-00003	26,15	20,92
HBT 120 -	10/15 -	5 -	1250	122	040-00004	38,45	30,76
HBT 120 -	10/20 -	5 -	1250	122	040-00005	33,35	26,68
HBT 120 -	10/25 -	5 -	1250	122	040-00006	30,55	24,44
HBT 120 -	12/15 -	5 -	1250	122	040-00007	49,25	39,40
HBT 120 -	12/20 -	5 -	1250	122	040-00008	41,75	33,40
HBT 120 -	12/25 -	5 -	1250	122	040-00009	38,15	30,52
HBT 150 -	8/15 -	5 -	800	150	050-00101	28,95	-
HBT 150 -	8/20 -	5 -	800	150	050-00102	24,45	-
HBT 150 -	8/25 -	5 -	800	150	050-00103	24,10	-
HBT 150 -	10/10 -	5 -	800	150	050-00104	40,75	-
HBT 150 -	10/15 -	5 -	800	150	050-00105	34,10	-
HBT 150 -	10/20 -	5 -	800	150	050-00106	27,30	-
HBT 150 -	10/25 -	5 -	800	150	050-00107	26,90	-
HBT 150 -	8/15 -	5 -	1250	150	050-00001	33,90	27,12
HBT 150 -	8/20 -	5 -	1250	150	050-00002	29,90	23,92
HBT 150 -	8/25 -	5 -	1250	150	050-00003	27,90	22,32
HBT 150 -	10/10 -	5 -	1250	150	050-00010	52,80	42,24
HBT 150 -	10/15 -	5 -	1250	150	050-00004	41,25	33,00
HBT 150 -	10/20 -	5 -	1250	150	050-00005	35,70	28,56
HBT 150 -	10/25 -	5 -	1250	150	050-00006	33,20	26,56
HBT 150 -	12/10 -	5 -	1250	150	050-00011	63,55	50,84
HBT 150 -	12/15 -	5 -	1250	150	050-00007	54,30	43,44
HBT 150 -	12/20 -	5 -	1250	150	050-00008	45,75	36,60
HBT 150 -	12/25 -	5 -	1250	150	050-00009	41,45	33,16

Article name	d/s [mm/ cm]	Type	Length [mm]	B [mm]	Article no. 0054.	Price [EUR/item]	Price per meter [EUR/meter]
Specification: Pre-galvanised steel sheet with reinforcement steel B500B							
HBT 190 -	8/15 -	5 -	800	186	060-00101	45,45	-
HBT 190 -	8/20 -	5 -	800	186	060-00102	38,40	-
HBT 190 -	8/25 -	5 -	800	186	060-00103	38,05	-
HBT 190 -	10/10 -	5 -	800	186	060-00104	63,40	-
HBT 190 -	10/15 -	5 -	800	186	060-00105	52,10	-
HBT 190 -	10/20 -	5 -	800	186	060-00106	42,00	-
HBT 190 -	10/25 -	5 -	800	186	060-00107	42,05	-
HBT 190 -	8/15 -	5 -	1250	186	060-00001	36,25	29,00
HBT 190 -	8/20 -	5 -	1250	186	060-00002	32,40	25,92
HBT 190 -	8/25 -	5 -	1250	186	060-00003	30,55	24,44
HBT 190 -	10/10 -	5 -	1250	186	060-00010	57,20	45,76
HBT 190 -	10/15 -	5 -	1250	186	060-00004	45,05	36,04
HBT 190 -	10/20 -	5 -	1250	186	060-00005	39,35	31,48
HBT 190 -	10/25 -	5 -	1250	186	060-00006	36,10	28,88
HBT 190 -	12/10 -	5 -	1250	186	060-00011	74,85	59,88
HBT 190 -	12/15 -	5 -	1250	186	060-00007	56,75	45,40
HBT 190 -	12/20 -	5 -	1250	186	060-00008	48,60	38,88
HBT 190 -	12/25 -	5 -	1250	186	060-00009	44,40	35,52
HBT 220 -	8/15 -	5 -	800	222	070-00101	34,40	-
HBT 220 -	8/20 -	5 -	800	222	070-00102	29,30	-
HBT 220 -	8/25 -	5 -	800	222	070-00103	29,15	-
HBT 220 -	10/10 -	5 -	800	222	070-00104	46,75	-
HBT 220 -	10/15 -	5 -	800	222	070-00105	38,75	-
HBT 220 -	10/20 -	5 -	800	222	070-00106	31,25	-
HBT 220 -	10/25 -	5 -	800	222	070-00107	31,10	-
HBT 220 -	8/15 -	5 -	1250	222	070-00001	39,35	31,48
HBT 220 -	8/20 -	5 -	1250	222	070-00002	35,30	28,24
HBT 220 -	8/25 -	5 -	1250	222	070-00003	33,20	26,56
HBT 220 -	10/10 -	5 -	1250	222	070-00010	59,70	47,76
HBT 220 -	10/15 -	5 -	1250	222	070-00004	46,75	37,40
HBT 220 -	10/20 -	5 -	1250	222	070-00005	41,25	33,00
HBT 220 -	10/25 -	5 -	1250	222	070-00006	38,35	30,68
HBT 220 -	12/10 -	5 -	1250	222	070-00011	80,05	64,04
HBT 220 -	12/15 -	5 -	1250	222	070-00007	60,10	48,08
HBT 220 -	12/20 -	5 -	1250	222	070-00008	51,35	41,08
HBT 220 -	12/25 -	5 -	1250	222	070-00009	47,15	37,72

Pack quantity: 48 pieces

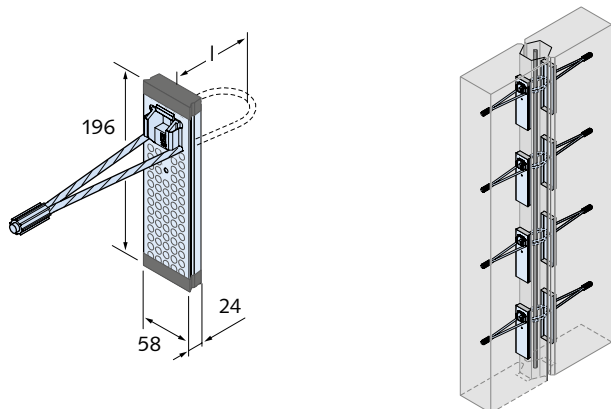
Check dimension h during installation

LOOP BOX

HLB S

Single Loop Box

Nominal spacing of the loops l 80-100-120 mm

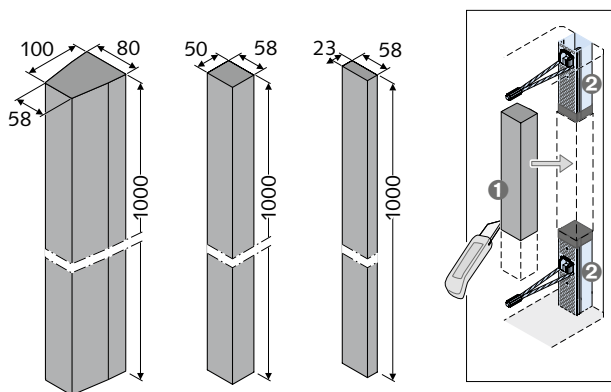


Article name	No. of loops	Article no.	Price
		0058.	[EUR/item]
Specification: Steel sheet, pre-galvanized, loop: high-tensile steel cable, pre-galvanized			
HLB S 80	1	010-00001	5,40
HLB S 100	1	010-00002	5,55
HLB S 120	1	010-00003	5,70

HLB Spacer

Spacer Module length = 1,00 m

Foam Material for infill between HLB M elements



- ① HLB Spacer cut
- ② HLB Loop Box M

Article name	Article no.	Price
	0058.	[EUR/item]
Specification: Plastic		
HLB Spacer 20	070-00001	4,55
HLB Spacer 50	070-00002	7,05
HLB Spacer 100	070-00003	7,70

HLB MIX

HLB MIX Joint Mortar for sealing the joint between HLB Boxes

German approval Z-21.8-1869, Z-21.8-1871

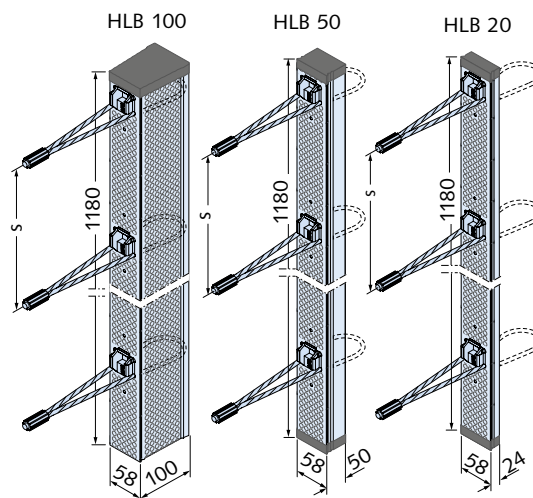


Article name	Article no.	Price
	0058.	[EUR/item]
Specification: Mortar		
HLB MIX Mortar 25 kg bag	060-00001	25,15

HLB M

Multi Loop Box

German approval Z-21.8-1869, Z-21.8-1871

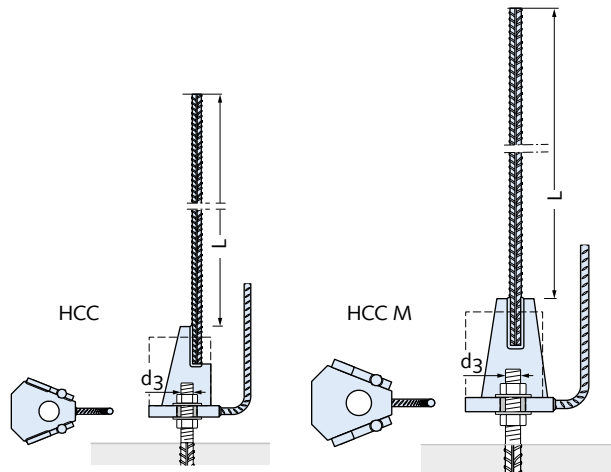


Article name	No. of loops	Article no.	Price
		0058.	[EUR/item]
Specification: Steel sheet, pre-galvanized, loop: high-tensile steel cable, pre-galvanized			
HLB M 20/300	4	030-00003	41,75
HLB M 20/250	5	030-00004	42,95
HLB M 20/200	6	030-00005	44,20
HLB M 20/150	8	030-00006	46,60
HLB M 50/300	4	040-00003	41,75
HLB M 50/250	5	040-00004	42,95
HLB M 50/200	6	040-00005	44,20
HLB M 50/150	8	040-00006	46,60
HLB M 100/300	4	050-00003	50,10
HLB M 100/250	5	050-00004	51,50
HLB M 100/200	6	050-00005	53,05
HLB M 100/150	8	050-00006	56,10

COLUMN SHOE, ANCHOR BOLT

HCC and HCC M

Column Shoe, type tested acc. Report No. 03/30



Article name, suitable for HAB Ø d ₃	Anchorage length L [mm] ①	Article no.	Price
Type/d ₃ [mm]		0950.	[EUR/item]
Specification: Reinforcement steel B500			
HCC 16-	640	010-00001	19,75
HCC 20-	830	010-00002	25,20
HCC 24-	905	010-00003	41,45
HCC 30-	1100	010-00004	73,10
HCC 39-	1450	010-00005	149,75
HCC M30-	1200	010-00006	119,90
HCC M36-	1650	010-00007	177,15
HCC M39-	1650	010-00008	207,90
HCC M45-	2070	010-00009	311,25
HCC M52-	2290	010-00010	473,80

① Anchorage length L for good bond conditions, other anchoring lengths L on request

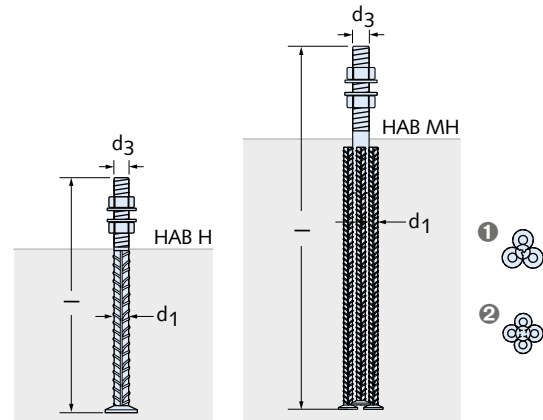
Assembly accessories and recess former → pages 90, 91

HAB H and HAB MH

Headed anchor bolt ①

HAB H German approval Z-21.5-1761

HAB MH German approval Z-21.5-1758



① Triple

② Quadruple

Article name	Anchor length l [mm] ②	Anchor bars: number, Ø d ₁ [mm]	Article no.	Price
Type/d ₃ [mm]			0951.	[EUR/item]
Specification: Reinforcement steel B500B				
HAB H16	280	1, Ø 16	010-00001	11,10
HAB H20	350	1, Ø 20	010-00002	13,45
HAB H24	430	1, Ø 25	010-00003	18,15
HAB H30	500	1, Ø 32	010-00004	26,75
HAB H39	700	1, Ø 40	010-00005	62,15
Specification: Reinforcement steel B500B and IMACRO threaded bolt				
HAB MH30-(36)	755	4, Ø 20	030-00003	75,15
HAB MH36	755	4, Ø 20	030-00004	76,85
HAB MH39	880	3, Ø 25	030-00005	135,75
HAB MH45	980	4, Ø 25	030-00006	176,85
HAB MH52	1160	4, Ø 32	030-00007	319,45

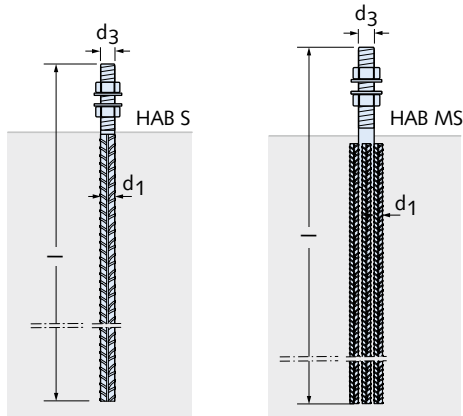
① Set with 2 hex nuts and washers

② Other anchor lengths l on request

COLUMN SHOE, ACCESSORIES, ANCHOR BOLT

HAB S and HAB MS

Anchor bolts, rod anchor ①



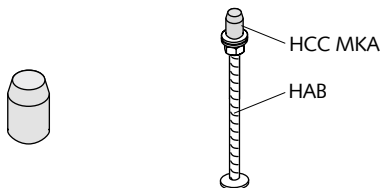
- ① Triple
② Quadruple

Article name	Anchor length l [mm] ②	Anchor bars: number, Ø d ₁ [mm]	Article no.	Price
Type/d ₃ [mm]			0951.	[EUR/item]
Specification: Reinforcement steel B500B				
HAB S16	970	1, Ø 16	020-00001	14,35
HAB S20	1170	1, Ø 20	020-00002	17,60
HAB S24	1360	1, Ø 25	020-00003	26,40
HAB S30	1660	1, Ø 32	020-00004	46,90
HAB S39	1980	1, Ø 40	020-00005	89,60
Specification: Reinforcement steel B500B and IMACRO threaded bolt				
HAB MS30-(36)	1430	4, Ø 20	040-00003	60,55
HAB MS36	1430	4, Ø 20	040-00004	80,80
HAB MS39	1600	3, Ø 25	040-00005	144,15
HAB MS45	1800	4, Ø 25	040-00006	190,65
HAB MS52	1910	4, Ø 32	040-00007	328,70

- ① Set with 2 hex nuts and washers
② anchor bends or other anchor lengths (l) on request

HCC MKA Assembly cap

The steel assembly cap protects the thread of the anchor bolt during installation



Article name, suitable for HAB Ø d ₃	d ₃ [mm]	Article no.	Price
Type		0952.	[EUR/item]
Specification: Steel S235JR			
HCC MKA-	16	060-00001	10,75
HCC MKA-	20	060-00002	12,85
HCC MKA-	24	060-00003	14,55
HCC MKA-	30	060-00004	17,15
HCC MKA-	36	060-00005	19,60
HCC MKA-	39	060-00006	21,15
HCC MKA-	45	060-00007	24,50
HCC MKA-	52	060-00008	27,90

HCC A1 Recess former

Recess former for column corner



Article name, suitable for HCC Ø d ₃	d ₃ [mm]	Article no.	Price
Type		0952.	[EUR/item]
Specification: Polystyrene			
HCC A1-	16	010-00001	1,70
HCC A1-	20	010-00002	1,85
HCC A1-	24	010-00003	1,95
HCC A1-	30	010-00004	2,35
HCC A1-	39	010-00005	3,30
HCC A1-	M30	010-00006	2,35
HCC A1-	M36	010-00007	3,30
HCC A1-	M39	010-00008	3,65
HCC A1-	M45	010-00009	4,10
HCC A1-	M52	010-00010	4,80

HCC A2 Recess former

Recess former for column edge

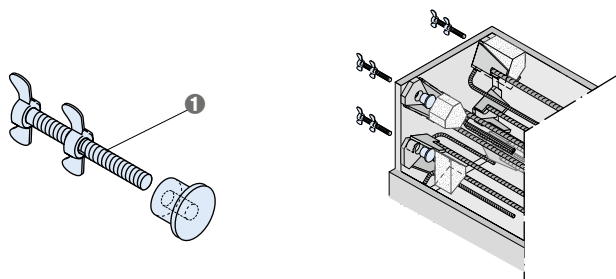


Article name, suitable for HCC Ø d ₃	d ₃ [mm]	Article no.	Price
Type		0952.	[EUR/item]
Specification: Polystyrene			
HCC A2-	16	020-00001	1,70
HCC A2-	20	020-00002	1,85
HCC A2-	24	020-00003	1,95
HCC A2-	30	020-00004	2,35
HCC A2-	39	020-00005	3,30
HCC A2-	M30	020-00006	3,30
HCC A2-	M36	020-00007	3,45
HCC A2-	M39	020-00008	4,10
HCC A2-	M45	020-00009	6,10
HCC A2-	M52	020-00010	6,55

COLUMN SHOE, ACCESSORIES

HCC Installation Set

Installation set for installing the column shoes to the formwork

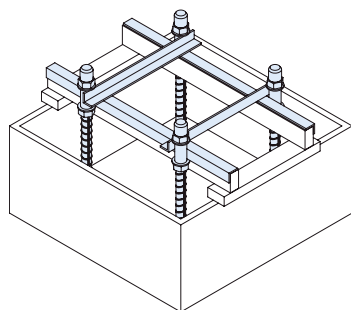


❶ M16 thread

Article name, suitable for HCC Ø d ₃ Type	d ₃ [mm]	Article no. 0952.	Price [EUR/item]
Specification: Steel			
HCC-FIX type	16	090-00001	27,00
HCC-FIX type	20	090-00002	29,65
HCC-FIX type	24	090-00003	33,35
HCC-FIX type	30	090-00004	38,45
HCC-FIX type	39 / M36 / M39	090-00005	50,75
HCC-FIX type	M30	090-00006	45,55
HCC-FIX type	M45	090-00007	67,85
HCC-FIX type	M52	090-00008	75,10

HCC Fitting template

Reusable steel fitting template for precise installation of HAB anchor bolts into the foundation. Available on request



Article name	Article no. 0952.	Price [EUR/item]
Specification: Steel		
HCC MRA-SK assembly frame	089-00001	on request

Fixing systems

1

Reinforcement systems

2

Lifting systems

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Façade connection systems

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DETAN Rod systems

5

Industrial Technology

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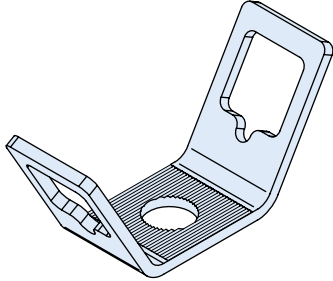
Bolts, Accessories

7

PRECAST COUPLER

HEK Precast Coupler

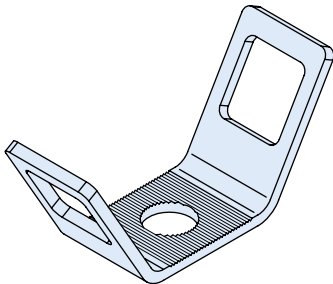
Serration longitudinal to the joint
German approval Z-21.8-2086



Article name	Article no.	Price
	0950.	[EUR/item]
Specification: Steel, hot-dip galvanized		
HEK T-100-FV	200-00001	17,00

HEK Precast Coupler

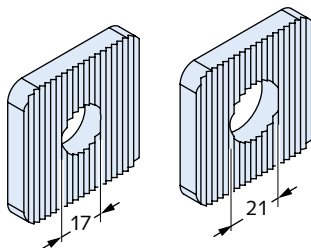
Serration perpendicular to the joint
German approval Z-21.8-2086



Article name	Article no.	Price
	0950.	[EUR/item]
Specification: Steel, hot-dip galvanized		
HEK L-100-FV	200-00002	17,00

HEK Counter plate

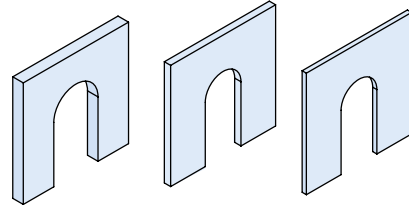
Counter plate



Article name	For thread	Article no.	Price
		0950.	[EUR/item]
Specification: Steel, hot-dip galvanized			
HEK C-100-17-FV	M16	210-00001	2,80
HEK C-100-21-FV	M20	210-00002	2,80

HEK Slotted shim

Slotted shims



Article name	For thread	Thickness [mm]	Article no.	Price
			0950.	[EUR/item]

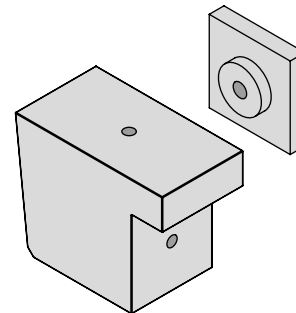
Specification: Steel, hot-dip galvanized or mechanically galvanized

HEK SW-100-17x2-MV	M16	2	220-00001	0,95
HEK SW-100-17x3-MV	M16	3	220-00002	1,05
HEK SW-100-17x5-FV	M16	5	220-00003	1,35

HEK SW-100-21x2-MV	M20	2	220-00011	0,95
HEK SW-100-21x3-MV	M20	3	220-00012	1,25
HEK SW-100-21x5-FV	M20	5	220-00013	1,35

HEK Recess former set

Recess former set with KO10 thread



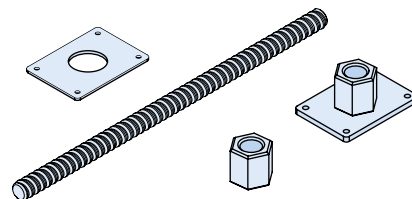
Article name	For element thickness [mm]	Article no.	Price
		0950.	[EUR/item]

Specification: Plastic

HEK-RF-SET-100	100	240-00001	104,10
HEK-RF-SET-120	120	240-00002	108,00
HEK-RF-SET-140	140	240-00003	114,65
HEK-RF-SET-160	160	240-00004	119,10
HEK-RF-SET-180	180	240-00005	125,75

HEK Fixing set

Each set with two pieces KO10-threaded rods 200 mm, hex nuts, washer plates and fixing plates



Article name	Article no.	Price
	0950.	[EUR/item]

Specification: Steel ungalvanized

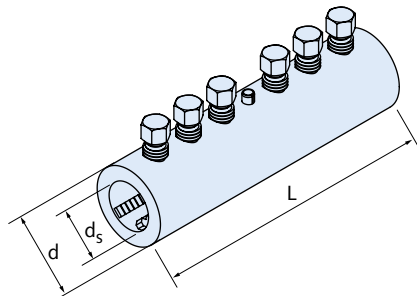
HEK Fixing set	120-00001	23,20
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★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

THREADED REINFORCEMENT SYSTEMS

MBT T

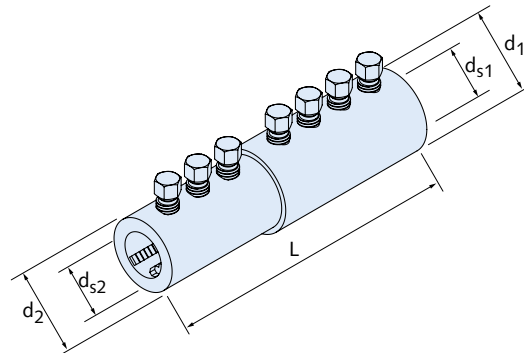
Standard coupler
German approval Z-1.5-10



Article name	For bar-Ø d_s [mm]	External-Ø d x Length L [mm]	Article no. 0710.	Price [EUR/item]
Specification: According to catalogue				
MBT T 10	10	33,4 x 100	010-00002	32,05
MBT T 12	12	33,4 x 140	010-00003	39,65
MBT T 14	14	42,2 x 160	010-00004	43,50
MBT T 16	16	42,2 x 160	010-00005	45,40
MBT T 18 ①	18	48,3 x 204	010-00012	on request
MBT T 20	20	48,3 x 204	010-00006	57,55
MBT T 22 ①	22	48,3 x 248	010-00013	on request
MBT T 25	25	54,0 x 258	010-00007	85,75
MBT T 26 ①	26	66,7 x 312	010-00014	on request
MBT T 28	28	66,7 x 312	010-00008	92,10
MBT T 30 ①	30	71,0 x 312	010-00015	on request
MBT T 32 ①	32	71,0 x 312	010-00009	108,70
MBT T 36 ①	36	85,0 x 484	010-00016	on request
MBT T 40 ①	40	81,0 x 484	010-00010	199,35
① Not covered in the approval Other couplers on request				

MBT RDZ

Transition coupler



Article name	For bar-Ø d_{s1}/d_{s2} [mm]	External-Ø d_1/d_2 x Length L [mm]	Article no. 0710.	Price [EUR/item]
Specification: According to catalogue				
MBT RDZ 16/12	16/12	42,2 / 26,4 x 160	020-00005	39,90
MBT RDZ 16/14	16/14	42,2 / 42,2 x 160	020-00006	on request
MBT RDZ 20/12	20/12	48,3 / 33,4 x 150	020-00007	49,60
MBT RDZ 20/16	20/16	48,3 / 48,3 x 160	020-00001	50,70
MBT RDZ 25/16	25/16	54,0 / 42,2 x 155	020-00008	53,25
MBT RDZ 25/20	25/20	54,0 / 54,0 x 180	020-00002	68,60
MBT RDZ 28/20	28/20	66,7 / 48,3 x 204	020-00003	on request
MBT RDZ 28/22	28/22	66,7 / 41,7 x 253	020-00009	on request
MBT RDZ 28/25	28/25	66,7 / 54,0 x 258	020-00004	on request
MBT RDZ 32/20	32/20	71,0 / 48,3 x 177	020-00010	71,30
MBT RDZ 32/25	32/25	71,0 / 54,0 x 231	020-00011	93,50
MBT RDZ 32/28	32/28	71,0 / 66,7 x 286	020-00012	on request
MBT RDZ 40/32	40/32	81,0 / 71,0 x 335	020-00013	150,95
Other couplers on request				

Fixing systems

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Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

5

Industrial Technology

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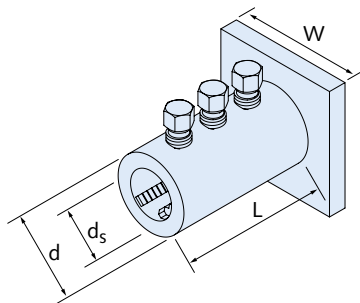
Bolts, Accessories

7

THREADED REINFORCEMENT SYSTEMS, ACCESSORIES

MBT EV

Headed coupler



Article name	For bar-Ø d _s [mm]	External-Ø d x Length L x Anchor widths W [mm]	Article no. 0710.	Price [EUR/item]
Specification: According to catalogue				
MBT EV 10	10	33,4 x 55 x 70	040-00001	21,15
MBT EV 12	12	33,4 x 75 x 70	040-00002	24,85
MBT EV 14	14	42,2 x 82 x 70	040-00003	31,95
MBT EV 16	16	42,2 x 82 x 80	040-00004	33,70
MBT EV 18	18	48,3 x 104 x 90	040-00005	on request
MBT EV 20	20	48,3 x 104 x 90	040-00006	40,45
MBT EV 22	22	48,3 x 126 x 90	040-00007	on request
MBT EV 25	25	54,0 x 129 x 100	040-00008	59,25
MBT EV 26	26	66,7 x 156 x 110	040-00009	on request
MBT EV 28	28	66,7 x 156 x 110	040-00010	77,35
MBT EV 30	30	71,0 x 156 x 130	040-00011	on request
MBT EV 32	32	71,0 x 156 x 130	040-00012	121,50
MBT EV 34	34	75,0 x 215 x 130	040-00013	on request
MBT EV 36	36	85,0 x 247 x 150	040-00014	on request
MBT EV 40	40	81,0 x 247 x 150	040-00015	151,95

Other couplers on request

MBT Corrosion protection



Article name	Article no. 0711.	Price [EUR/item]
Specification: According to catalogue		
MBT 3205-01 Denso-Fill Paste, 250 g Cartridge	010-00001	29,80
MBT 3205-02 Denso-Fill Paste, 20 kg Package	010-00002	591,55

MBT Installation Tool



- ① MBT Ratchet wrench
- ② MBT Special socket
- ③ MBT Power screwdriver
- ④ MBT Electric screwdriver

Article name	Article no. 0711.	Price [EUR/item]
Specification: According to catalogue		
MBT Ratchet wrench 1", 600 mm long	020-00008	on request
MBT Special socket for MBT 10-20	020-00002	on request
MBT Special socket for MBT 25-32	020-00003	on request
MBT Special socket for MBT 34-40	020-00004	on request
MBT Power screwdriver tool kit, MBT 25-40, #	025-00002	on request
MBT Electric screwdriver tool kit type Baier BSA 720 or Lösomat #	025-00001	on request

= Rental article, purchase available on request

SHEAR RAILS

HDB Shear rail - standard units

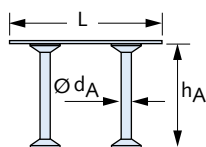
Punching shear reinforcement and shear reinforcement
- with 2 studs

Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to
EN 1992-1-1:2004 + AC: 2010 and the associated National Annex

approved throughout Europe under technical approval (ETA)

Please note: Spacers and clip bars for assembly → page 100



Article name	Height h_A [mm]	L ① [mm]	Article no.	Price
$\varnothing d_A$ [mm]			0057.	[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500				
HDB - 10/	125	200	#	10,05
HDB - 10/	135	200	120-00001	10,15
HDB - 10/	145	200	120-00003	10,15
HDB - 10/	155	220	120-00005	10,15
HDB - 10/	165	240	120-00007	10,15
HDB - 10/	175	240	120-00009	10,15
HDB - 10/	185	280	120-00011	10,15
HDB - 10/	195	280	120-00013	10,15
HDB - 10/	205	280	120-00015	10,15
HDB - 10/	215	300	120-00017	10,35
HDB - 10/	225	320	#	11,30
HDB - 10/	235	340	#	11,60
HDB - 10/	245	360	#	11,85
HDB - 10/	255	360	#	12,15
HDB - 12/	125	200	#	12,35
HDB - 12/	135	200	#	12,55
HDB - 12/	145	200	#	12,75
HDB - 12/	155	220	120-00019	11,10
HDB - 12/	165	240	120-00021	11,20
HDB - 12/	175	240	120-00023	11,30
HDB - 12/	185	280	120-00025	11,30
HDB - 12/	195	280	120-00027	11,30
HDB - 12/	205	280	120-00029	11,30
HDB - 12/	215	300	120-00031	11,40
HDB - 12/	225	320	120-00200	11,40
HDB - 12/	235	340	120-00033	11,60
HDB - 12/	245	360	120-00035	11,60
HDB - 12/	255	360	#	11,95
HDB - 12/	265	400	#	12,05
HDB - 12/	275	400	#	12,20
HDB - 12/	285	420	#	12,30
HDB - 12/	295	440	#	12,40
HDB - 12/	305	440	#	12,50
HDB - 14/	125	200	#	12,60
HDB - 14/	135	200	#	12,70
HDB - 14/	145	200	#	12,80
HDB - 14/	155	220	#	12,90
HDB - 14/	165	240	#	13,00
HDB - 14/	175	240	#	13,10
HDB - 14/	185	280	130-00037	12,25
HDB - 14/	195	280	130-00039	12,25
HDB - 14/	205	280	130-00041	12,35
HDB - 14/	215	300	130-00043	12,35
HDB - 14/	225	320	130-00045	12,35
HDB - 14/	235	340	130-00047	12,45
HDB - 14/	245	360	130-00049	12,45
HDB - 14/	255	360	130-00051	12,45
HDB - 14/	265	400	#	13,50
HDB - 14/	275	400	#	13,60
HDB - 14/	285	420	130-00053	12,75
HDB - 14/	295	440	#	13,90
HDB - 14/	305	440	#	14,00
HDB - 14/	315	480	#	14,15
HDB - 14/	325	480	#	14,30

Article name	Height h_A [mm]	L ① [mm]	Article no.	Price
$\varnothing d_A$ [mm]			0057.	[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500				
HDB - 16/	165	240	#	14,40
HDB - 16/	175	240	#	14,55
HDB - 16/	185	280	#	14,65
HDB - 16/	195	280	#	14,75
HDB - 16/	205	280	130-00055	13,50
HDB - 16/	215	300	130-00057	13,60
HDB - 16/	225	320	130-00202	13,80
HDB - 16/	235	340	130-00059	14,00
HDB - 16/	245	360	130-00061	14,00
HDB - 16/	255	360	130-00063	14,00
HDB - 16/	265	400	#	14,35
HDB - 16/	275	400	130-00065	14,00
HDB - 16/	285	420	130-00067	14,35
HDB - 16/	295	440	130-00206	14,35
HDB - 16/	305	440	#	16,50
HDB - 16/	315	480	#	16,60
HDB - 16/	325	480	#	16,65
HDB - 16/	335	480	#	16,85
HDB - 16/	345	520	#	17,00
HDB - 16/	355	520	#	17,10
HDB - 20/	185	280	#	17,75
HDB - 20/	195	280	#	18,20
HDB - 20/	205	280	#	18,70
HDB - 20/	215	300	#	19,10
HDB - 20/	225	320	#	19,90
HDB - 20/	235	340	130-00069	21,55
HDB - 20/	245	360	130-00071	21,80
HDB - 20/	255	360	130-00073	21,80
HDB - 20/	265	400	#	22,05
HDB - 20/	275	400	130-00075	22,35
HDB - 20/	285	420	130-00076	22,35
HDB - 20/	295	440	130-00078	22,35
HDB - 20/	305	440	130-00080	22,35
HDB - 20/	315	480	#	22,05
HDB - 20/	325	480	#	22,50
HDB - 20/	335	480	130-00082	22,70
HDB - 20/	345	520	#	22,70
HDB - 20/	355	520	130-00221	23,00
HDB - 20/	375	560	#	23,20
HDB - 20/	395	600	#	23,45
HDB - 20/	405	600	#	23,65
HDB - 20/	425	640	#	24,25
HDB - 20/	435	640	#	24,80
HDB - 20/	455	640	#	25,50
HDB - 25/	265	400	#	34,20
HDB - 25/	275	400	#	34,40
HDB - 25/	285	420	#	34,70
HDB - 25/	295	440	#	35,00
HDB - 25/	305	440	#	35,20
HDB - 25/	325	480	#	35,65
HDB - 25/	335	480	#	35,85
HDB - 25/	345	520	#	36,05
HDB - 25/	355	520	#	38,00
HDB - 25/	375	560	#	41,05
HDB - 25/	395	600	#	41,45
HDB - 25/	405	600	#	41,80
HDB - 25/	425	640	#	42,00
HDB - 25/	435	640	#	45,30
HDB - 25/	455	640	#	45,45

= Made to order article. Please indicate article name when ordering.

① For special lengths please specify length L [mm]

Other stud heights available on request.

SHEAR RAILS

HDB Shear rail - standard units

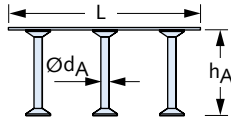
Punching shear reinforcement and shear reinforcement
- with 3 studs

Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to
EN 1992-1-1:2004 + AC: 2010 and the associated National Annex

approved throughout Europe under technical approval (ETA)

Please note: Spacers and clip bars for assembly → page 100



Article name	Height h_A [mm]	L ① [mm]	Article no.	Price
$\varnothing d_A$ [mm]			0057.	[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500				
HDB - 10/	125	300	#	15,00
HDB - 10/	135	300	120-00002	15,20
HDB - 10/	145	300	120-00004	15,20
HDB - 10/	155	330	120-00006	15,20
HDB - 10/	165	360	120-00008	15,20
HDB - 10/	175	360	120-00010	15,20
HDB - 10/	185	420	120-00012	15,20
HDB - 10/	195	420	120-00014	15,20
HDB - 10/	205	420	120-00016	15,20
HDB - 10/	215	450	120-00018	15,55
HDB - 10/	225	480	#	16,15
HDB - 10/	235	510	#	16,25
HDB - 10/	245	540	#	16,35
HDB - 10/	255	540	#	16,45
HDB - 12/	125	300	#	16,35
HDB - 12/	135	300	#	16,45
HDB - 12/	145	300	#	16,55
HDB - 12/	155	330	120-00020	16,65
HDB - 12/	165	360	120-00022	16,90
HDB - 12/	175	360	120-00024	17,10
HDB - 12/	185	420	120-00026	17,10
HDB - 12/	195	420	120-00028	17,10
HDB - 12/	205	420	120-00030	17,10
HDB - 12/	215	450	120-00032	17,30
HDB - 12/	225	480	#	17,25
HDB - 12/	235	510	120-00034	17,45
HDB - 12/	245	540	120-00036	17,45
HDB - 12/	255	540	#	17,35
HDB - 12/	265	600	#	19,00
HDB - 12/	275	600	#	19,10
HDB - 12/	285	630	#	19,10
HDB - 12/	295	660	#	19,20
HDB - 12/	305	660	#	19,20
HDB - 14/	125	300	#	17,65
HDB - 14/	135	300	#	17,75
HDB - 14/	145	300	#	17,85
HDB - 14/	155	330	#	18,00
HDB - 14/	165	360	#	18,10
HDB - 14/	175	360	#	18,20
HDB - 14/	185	420	130-00038	18,25
HDB - 14/	195	420	130-00040	18,25
HDB - 14/	205	420	130-00042	18,40
HDB - 14/	215	450	130-00044	18,40
HDB - 14/	225	480	130-00046	18,40
HDB - 14/	235	510	130-00048	18,65
HDB - 14/	245	540	130-00050	18,65
HDB - 14/	255	540	130-00052	18,65
HDB - 14/	265	600	#	18,90
HDB - 14/	275	600	#	19,00
HDB - 14/	285	630	130-00054	19,10
HDB - 14/	295	660	#	21,90
HDB - 14/	305	660	#	22,05
HDB - 14/	315	720	#	22,25
HDB - 14/	325	720	#	22,35

Article name	Height h_A [mm]	L ① [mm]	Article no.	Price
$\varnothing d_A$ [mm]			0057.	[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500				
HDB - 16/	165	360	#	19,75
HDB - 16/	175	360	#	19,90
HDB - 16/	185	420	#	20,05
HDB - 16/	195	420	#	20,20
HDB - 16/	205	420	130-00056	20,35
HDB - 16/	215	450	130-00058	20,55
HDB - 16/	225	480	#	20,70
HDB - 16/	235	510	130-00060	21,00
HDB - 16/	245	540	130-00062	21,00
HDB - 16/	255	540	130-00064	21,00
HDB - 16/	265	600	#	21,00
HDB - 16/	275	600	130-00066	21,00
HDB - 16/	285	630	130-00068	21,45
HDB - 16/	295	660	#	21,50
HDB - 16/	305	660	#	21,65
HDB - 16/	315	720	#	21,80
HDB - 16/	325	720	#	21,90
HDB - 16/	335	720	#	22,05
HDB - 16/	345	780	#	22,25
HDB - 16/	355	780	#	22,35
HDB - 20/	185	420	#	30,95
HDB - 20/	195	420	#	31,20
HDB - 20/	205	420	#	31,40
HDB - 20/	215	450	#	31,65
HDB - 20/	225	480	#	31,85
HDB - 20/	235	510	130-00070	32,40
HDB - 20/	245	540	130-00072	32,80
HDB - 20/	255	540	130-00074	32,80
HDB - 20/	265	600	#	33,10
HDB - 20/	275	600	#	33,30
HDB - 20/	285	630	130-00077	33,50
HDB - 20/	295	660	130-00079	33,50
HDB - 20/	305	660	130-00081	33,50
HDB - 20/	315	720	#	33,80
HDB - 20/	325	720	#	34,10
HDB - 20/	335	720	#	34,55
HDB - 20/	345	780	#	35,10
HDB - 20/	355	780	#	35,50
HDB - 20/	375	840	#	35,95
HDB - 20/	395	900	#	36,45
HDB - 20/	405	900	#	36,85
HDB - 20/	425	960	#	37,10
HDB - 20/	435	960	#	37,40
HDB - 20/	455	960	#	37,75
HDB - 25/	265	600	#	46,35
HDB - 25/	275	600	#	46,85
HDB - 25/	285	630	#	47,45
HDB - 25/	295	660	#	48,05
HDB - 25/	305	660	#	48,55
HDB - 25/	325	720	#	49,15
HDB - 25/	335	720	#	49,85
HDB - 25/	345	780	#	50,40
HDB - 25/	355	780	#	51,80
HDB - 25/	375	840	#	59,85
HDB - 25/	395	900	#	61,55
HDB - 25/	405	900	#	63,25
HDB - 25/	425	960	#	64,90
HDB - 25/	435	960	#	65,75
HDB - 25/	455	960	#	66,80

= Made to order article. Please indicate article name when ordering.

① For special lengths please specify length L [mm]

Other stud heights available on request.

SHEAR RAILS

HDB Shear rail - custom units

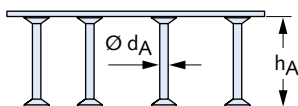
Punching shear reinforcement and shear reinforcement
- with 4 studs at variable centres

Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to
EN 1992-1-1:2004 + AC: 2010 and the associated National Annex

approved throughout Europe under technical approval (ETA)

Please note: Spacers and clip bars for assembly → page 100



Article name	Height h _A [mm]	Article no.	Price
Ø d _A [mm]			[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 10/	125	①	20,05
HDB - 10/	135	①	20,35
HDB - 10/	145	①	20,50
HDB - 10/	155	①	20,60
HDB - 10/	165	①	20,70
HDB - 10/	175	①	20,80
HDB - 10/	185	①	20,90
HDB - 10/	195	①	21,00
HDB - 10/	205	①	21,10
HDB - 10/	215	①	21,20
HDB - 10/	225	①	21,30
HDB - 10/	235	①	21,40
HDB - 10/	245	①	21,50
HDB - 10/	255	①	21,80
HDB - 12/	125	①	21,85
HDB - 12/	135	①	22,00
HDB - 12/	145	①	22,05
HDB - 12/	155	①	22,25
HDB - 12/	165	①	22,30
HDB - 12/	175	①	22,35
HDB - 12/	185	①	22,50
HDB - 12/	195	①	22,60
HDB - 12/	205	①	22,70
HDB - 12/	215	①	22,80
HDB - 12/	225	①	23,00
HDB - 12/	235	①	23,20
HDB - 12/	245	①	23,45
HDB - 12/	255	①	23,85
HDB - 12/	265	①	24,80
HDB - 12/	275	①	25,40
HDB - 12/	285	①	25,75
HDB - 12/	295	①	26,25
HDB - 12/	305	①	26,65
HDB - 14/	125	①	23,30
HDB - 14/	135	①	23,55
HDB - 14/	145	①	23,85
HDB - 14/	155	①	24,10
HDB - 14/	165	①	24,35
HDB - 14/	175	①	24,60
HDB - 14/	185	①	24,80
HDB - 14/	195	①	25,05
HDB - 14/	205	①	25,40
HDB - 14/	215	①	25,75
HDB - 14/	225	①	26,05
HDB - 14/	235	①	26,40
HDB - 14/	245	①	26,75
HDB - 14/	255	①	27,05
HDB - 14/	265	①	27,40
HDB - 14/	275	①	27,80
HDB - 14/	285	①	28,10
HDB - 14/	295	①	28,55
HDB - 14/	305	①	28,85
HDB - 14/	315	①	29,15
HDB - 14/	325	①	29,50

Article name	Height h _A [mm]	Article no.	Price
Ø d _A [mm]			[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 16/	165	①	26,65
HDB - 16/	175	①	26,80
HDB - 16/	185	①	27,40
HDB - 16/	195	①	27,80
HDB - 16/	205	①	27,90
HDB - 16/	215	①	28,25
HDB - 16/	225	①	28,75
HDB - 16/	235	①	29,00
HDB - 16/	245	①	29,40
HDB - 16/	255	①	29,80
HDB - 16/	265	①	30,20
HDB - 16/	275	①	30,65
HDB - 16/	285	①	31,05
HDB - 16/	295	①	31,40
HDB - 16/	305	①	31,80
HDB - 16/	315	①	32,15
HDB - 16/	325	①	32,45
HDB - 16/	335	①	32,80
HDB - 16/	345	①	33,15
HDB - 16/	355	①	33,40
HDB - 20/	185	①	37,85
HDB - 20/	195	①	38,15
HDB - 20/	205	①	38,40
HDB - 20/	215	①	38,60
HDB - 20/	225	①	38,80
HDB - 20/	235	①	39,05
HDB - 20/	245	①	39,35
HDB - 20/	255	①	39,70
HDB - 20/	265	①	40,05
HDB - 20/	275	①	40,40
HDB - 20/	285	①	40,70
HDB - 20/	295	①	41,05
HDB - 20/	305	①	41,35
HDB - 20/	315	①	41,50
HDB - 20/	325	①	41,70
HDB - 20/	335	①	41,85
HDB - 20/	345	①	42,35
HDB - 20/	355	①	42,95
HDB - 20/	375	①	43,60
HDB - 20/	395	①	43,85
HDB - 20/	405	①	44,20
HDB - 20/	425	①	47,05
HDB - 20/	435	①	48,30
HDB - 20/	455	①	49,50
HDB - 25/	265	①	61,70
HDB - 25/	275	①	63,75
HDB - 25/	285	①	65,70
HDB - 25/	295	①	67,70
HDB - 25/	305	①	68,35
HDB - 25/	325	①	68,90
HDB - 25/	335	①	70,00
HDB - 25/	345	①	71,65
HDB - 25/	355	①	72,95
HDB - 25/	375	①	74,30
HDB - 25/	395	①	75,65
HDB - 25/	405	①	77,50
HDB - 25/	425	①	79,40
HDB - 25/	435	①	81,25
HDB - 25/	455	①	83,60

① ★ HALFEN remark: for an order example please refer to the start of chapter 2.
Other stud heights available on request.

SHEAR RAILS

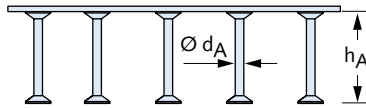
HDB Shear rail - custom units

Punching shear reinforcement and shear reinforcement
- with 5 studs at variable centres

Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to
EN 1992-1-1:2004 + AC: 2010 and the associated National Annex

approved throughout Europe under technical approval (ETA)
Please note: Spacers and clip bars for assembly → page 100



Article name	Height h _A [mm]	Article no.	Price [EUR/item]
Ø d _A [mm]			
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 10/	125	①	25,95
HDB - 10/	135	①	26,15
HDB - 10/	145	①	26,25
HDB - 10/	155	①	26,40
HDB - 10/	165	①	26,50
HDB - 10/	175	①	26,65
HDB - 10/	185	①	26,75
HDB - 10/	195	①	26,85
HDB - 10/	205	①	26,95
HDB - 10/	215	①	27,05
HDB - 10/	225	①	27,20
HDB - 10/	235	①	27,30
HDB - 10/	245	①	27,40
HDB - 10/	255	①	27,55
HDB - 12/	125	①	28,70
HDB - 12/	135	①	28,85
HDB - 12/	145	①	29,00
HDB - 12/	155	①	29,15
HDB - 12/	165	①	29,40
HDB - 12/	175	①	29,55
HDB - 12/	185	①	29,75
HDB - 12/	195	①	29,95
HDB - 12/	205	①	30,10
HDB - 12/	215	①	30,25
HDB - 12/	225	①	30,55
HDB - 12/	235	①	30,75
HDB - 12/	245	①	30,90
HDB - 12/	255	①	31,10
HDB - 12/	265	①	31,75
HDB - 12/	275	①	31,95
HDB - 12/	285	①	32,15
HDB - 12/	295	①	32,50
HDB - 12/	305	①	32,90
HDB - 14/	125	①	32,40
HDB - 14/	135	①	32,60
HDB - 14/	145	①	32,80
HDB - 14/	155	①	32,90
HDB - 14/	165	①	33,10
HDB - 14/	175	①	33,25
HDB - 14/	185	①	33,40
HDB - 14/	195	①	33,55
HDB - 14/	205	①	33,60
HDB - 14/	215	①	33,75
HDB - 14/	225	①	33,90
HDB - 14/	235	①	34,05
HDB - 14/	245	①	34,15
HDB - 14/	255	①	34,30
HDB - 14/	265	①	34,40
HDB - 14/	275	①	34,70
HDB - 14/	285	①	35,10
HDB - 14/	295	①	35,40
HDB - 14/	305	①	35,75
HDB - 14/	315	①	36,05
HDB - 14/	325	①	36,65

Article name	Height h _A [mm]	Article no.	Price [EUR/item]
Ø d _A [mm]			
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 16/	165	①	37,00
HDB - 16/	175	①	37,20
HDB - 16/	185	①	37,40
HDB - 16/	195	①	37,55
HDB - 16/	205	①	37,85
HDB - 16/	215	①	38,15
HDB - 16/	225	①	38,50
HDB - 16/	235	①	38,70
HDB - 16/	245	①	38,90
HDB - 16/	255	①	39,15
HDB - 16/	265	①	39,35
HDB - 16/	275	①	39,60
HDB - 16/	285	①	39,80
HDB - 16/	295	①	40,05
HDB - 16/	305	①	40,30
HDB - 16/	315	①	40,50
HDB - 16/	325	①	40,70
HDB - 16/	335	①	40,95
HDB - 16/	345	①	41,25
HDB - 16/	355	①	41,45
HDB - 20/	185	①	47,95
HDB - 20/	195	①	48,35
HDB - 20/	205	①	48,55
HDB - 20/	215	①	48,85
HDB - 20/	225	①	49,05
HDB - 20/	235	①	49,75
HDB - 20/	245	①	50,15
HDB - 20/	255	①	50,75
HDB - 20/	265	①	51,70
HDB - 20/	275	①	53,05
HDB - 20/	285	①	53,25
HDB - 20/	295	①	53,45
HDB - 20/	305	①	53,65
HDB - 20/	315	①	53,90
HDB - 20/	325	①	54,25
HDB - 20/	335	①	54,45
HDB - 20/	345	①	54,65
HDB - 20/	355	①	54,85
HDB - 20/	375	①	55,15
HDB - 20/	395	①	60,30
HDB - 20/	405	①	60,55
HDB - 20/	425	①	60,90
HDB - 20/	435	①	61,25
HDB - 20/	455	①	61,55
HDB - 25/	265	①	73,80
HDB - 25/	275	①	88,20
HDB - 25/	285	①	89,30
HDB - 25/	295	①	90,45
HDB - 25/	305	①	91,60
HDB - 25/	325	①	93,60
HDB - 25/	335	①	95,65
HDB - 25/	345	①	97,30
HDB - 25/	355	①	98,75
HDB - 25/	375	①	100,30
HDB - 25/	395	①	101,80
HDB - 25/	405	①	102,60
HDB - 25/	425	①	103,00
HDB - 25/	435	①	103,50
HDB - 25/	455	①	104,80

① ★ HALFEN remark: for an order example please refer to the start of chapter 2.
Other stud heights available on request.

SHEAR RAILS

HDB Shear rail - custom units

Punching shear reinforcement and shear reinforcement

- with 6 studs at variable centres

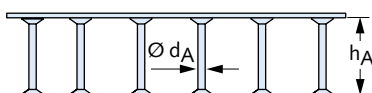
Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to

EN 1992-1-1:2004 + AC: 2010 and the associated National Annex

approved throughout Europe under technical approval (ETA)

Please note: Spacers and clip bars for assembly → page 100



Article name	Height h _A [mm]	Article no.	Price
Ø d _A [mm]			[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 10/	125	①	30,25
HDB - 10/	135	①	30,50
HDB - 10/	145	①	30,65
HDB - 10/	155	①	30,70
HDB - 10/	165	①	30,75
HDB - 10/	175	①	30,85
HDB - 10/	185	①	30,85
HDB - 10/	195	①	30,95
HDB - 10/	205	①	31,10
HDB - 10/	215	①	31,20
HDB - 10/	225	①	31,30
HDB - 10/	235	①	31,40
HDB - 10/	245	①	31,55
HDB - 10/	255	①	31,70
HDB - 12/	125	①	32,95
HDB - 12/	135	①	33,20
HDB - 12/	145	①	33,50
HDB - 12/	155	①	33,80
HDB - 12/	165	①	34,20
HDB - 12/	175	①	34,55
HDB - 12/	185	①	35,30
HDB - 12/	195	①	35,65
HDB - 12/	205	①	36,05
HDB - 12/	215	①	36,45
HDB - 12/	225	①	37,00
HDB - 12/	235	①	37,30
HDB - 12/	245	①	37,65
HDB - 12/	255	①	38,00
HDB - 12/	265	①	38,40
HDB - 12/	275	①	38,80
HDB - 12/	285	①	39,15
HDB - 12/	295	①	39,45
HDB - 12/	305	①	39,95
HDB - 14/	125	①	35,30
HDB - 14/	135	①	35,50
HDB - 14/	145	①	35,85
HDB - 14/	155	①	36,05
HDB - 14/	165	①	36,45
HDB - 14/	175	①	36,65
HDB - 14/	185	①	36,45
HDB - 14/	195	①	36,85
HDB - 14/	205	①	37,30
HDB - 14/	215	①	38,15
HDB - 14/	225	①	38,50
HDB - 14/	235	①	41,80
HDB - 14/	245	①	42,30
HDB - 14/	255	①	40,60
HDB - 14/	265	①	41,25
HDB - 14/	275	①	41,80
HDB - 14/	285	①	41,90
HDB - 14/	295	①	42,20
HDB - 14/	305	①	42,65
HDB - 14/	315	①	43,25
HDB - 14/	325	①	43,85

Article name	Height h _A [mm]	Article no.	Price
Ø d _A [mm]			[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500			
HDB - 16/	165	①	44,40
HDB - 16/	175	①	44,60
HDB - 16/	185	①	44,90
HDB - 16/	195	①	45,10
HDB - 16/	205	①	45,45
HDB - 16/	215	①	45,85
HDB - 16/	225	①	46,25
HDB - 16/	235	①	46,45
HDB - 16/	245	①	46,65
HDB - 16/	255	①	46,85
HDB - 16/	265	①	47,20
HDB - 16/	275	①	47,45
HDB - 16/	285	①	47,70
HDB - 16/	295	①	48,15
HDB - 16/	305	①	48,25
HDB - 16/	315	①	48,35
HDB - 16/	325	①	48,55
HDB - 16/	335	①	48,85
HDB - 16/	345	①	49,05
HDB - 16/	355	①	49,40
HDB - 20/	185	①	59,45
HDB - 20/	195	①	59,75
HDB - 20/	205	①	60,10
HDB - 20/	215	①	60,40
HDB - 20/	225	①	60,80
HDB - 20/	235	①	61,65
HDB - 20/	245	①	62,15
HDB - 20/	255	①	62,60
HDB - 20/	265	①	63,50
HDB - 20/	275	①	63,95
HDB - 20/	285	①	64,40
HDB - 20/	295	①	64,90
HDB - 20/	305	①	65,35
HDB - 20/	315	①	65,75
HDB - 20/	325	①	66,20
HDB - 20/	335	①	66,70
HDB - 20/	345	①	67,15
HDB - 20/	355	①	67,60
HDB - 20/	375	①	82,60
HDB - 20/	395	①	89,40
HDB - 20/	405	①	90,05
HDB - 20/	425	①	90,55
HDB - 20/	435	①	92,10
HDB - 20/	455	①	93,70
HDB - 25/	265	①	94,50
HDB - 25/	275	①	95,05
HDB - 25/	285	①	95,55
HDB - 25/	295	①	96,15
HDB - 25/	305	①	96,75
HDB - 25/	325	①	97,30
HDB - 25/	335	①	97,40
HDB - 25/	345	①	97,85
HDB - 25/	355	①	99,70
HDB - 25/	375	①	113,35
HDB - 25/	395	①	116,10
HDB - 25/	405	①	118,95
HDB - 25/	425	①	119,60
HDB - 25/	435	①	120,35
HDB - 25/	455	①	122,10

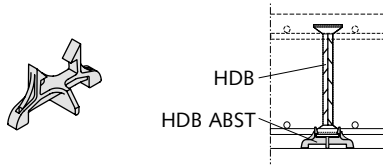
① ★ HALFEN remark: for an order example please refer to the start of chapter 2.
Other stud heights or number of anchors available on request.

SHEAR RAILS, ACCESSORIES

HDB Spacer

Spacer for installation of HDB assembly, e.g. in slabs:

$c_{nom, u}$ is the nominal measurement of the bottom concrete cover.
We recommend planning two spacers per HDB-element. For HDB 20 and 25 one spacer per stud, for elements with 4 and more studs 3 spacers.



Article name	$c_{nom, u}$ [mm]	Article no.	Price
		0066.	[EUR/item]
Specification: Plastic			
HDB ABST -	15	010-00001	0,30
HDB ABST -	20	010-00001	0,30
HDB ABST -	25	010-00002	0,30
HDB ABST -	30	010-00003	0,30
HDB ABST -	35	010-00004	0,30
HDB ABST -	40	010-00005	0,30

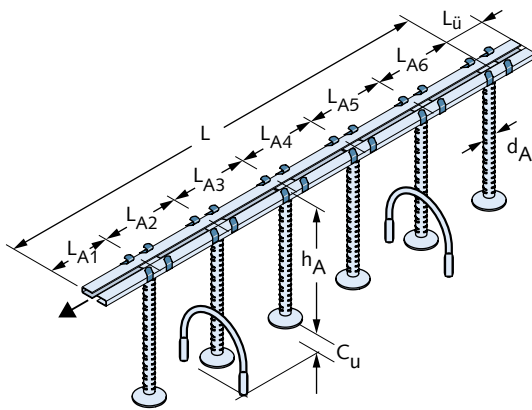
HDB-F Shear rail

Punching shear for slabs

Design calculations according to DIN 1045-1:2008-08

German approval Z-15.1-213 and Z-15.1-264 or for design according to EN 1992-1-1:2004 + AC: 2010 and the associated National Annex approved throughout Europe under technical approval (ETA)

Specifically for the precast concrete industry we can supply units with 2 to 8 studs with a prefitted temporary attachment to secure their position in the slab.



Article name	d_A [mm]	①	Article no.	Price
			0057.	[EUR/item]
Specification: Ribbed and smooth reinforcing steel B500				
HDB - F -	10/	①	059-00001	on request
HDB - F -	12/	①	059-00001	on request
HDB - F -	14/	①	059-00001	on request
HDB - F -	16/	①	059-00001	on request
HDB - F -	20/	①	059-00001	on request

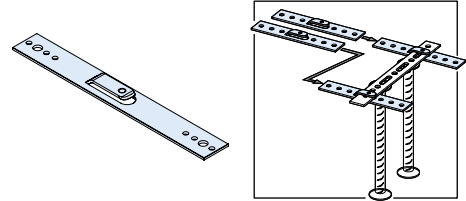
① Please add: stud height h_A , no. of studs n_A , element length L , stud spacing L_{A1} , L_{An} , L_u freely selectable, bottom concrete cover $c_{nom, u}$ see ordering diagram

★ HALFEN remark: for an order example please have a look at the beginning of chapter 2.

HDB Clip bar

Clip bar, can be attached to any point of the assembly bar of HDB-units.

To secure to clip bar we recommend 1,5 clip bars per HDB element.

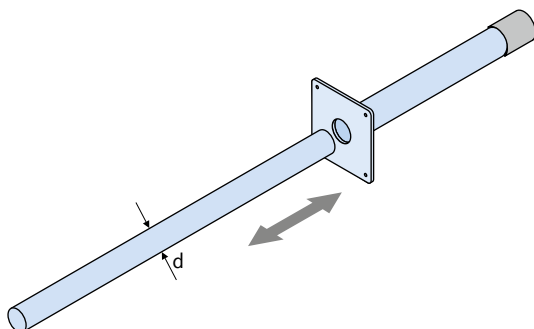


Article name	Article no.	Price
	0066.	[EUR/item]
Specification: S235JR		
HDB Clip bar 35/3x275	020-00001	0,85

SHEAR DOWELS

HSD-SET

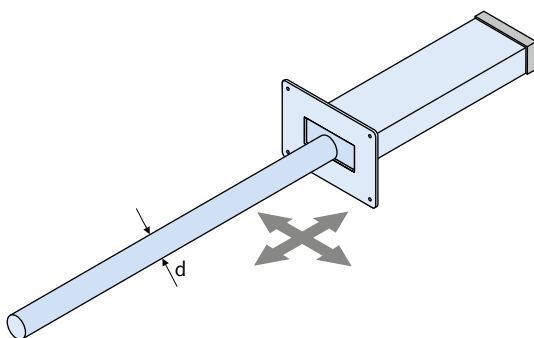
HSD-D Single shear dowel with HSD-S sleeve
Allows movement in one direction



Article name	Dowel-Ø [mm]	Article no.	Price
		0729.	[EUR/item]
Specification: stainless steel according to catalogue			
HSD-SET 20	20	110-00001	34,70
HSD-SET 22	22	110-00002	41,90
HSD-SET 25	25	110-00003	53,85
HSD-SET 30	30	110-00004	80,15

HSD-SET

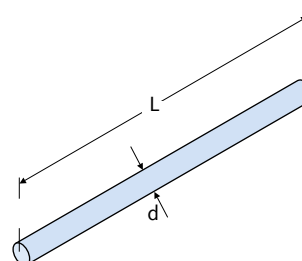
HSD-D Single shear dowel with HSD-SV sleeve
Allows movement in two directions



Article name	Dowel-Ø [mm]	Article no.	Price
		0729.	[EUR/item]
Specification: stainless steel according to catalogue			
HSD-SET 20 V	20	120-00001	50,30
HSD-SET 22 V	22	120-00002	61,65
HSD-SET 25 V	25	120-00003	74,70
HSD-SET 30 V	30	120-00004	112,70

HSD-D Single shear dowel

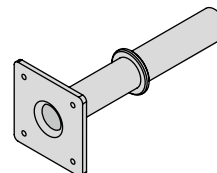
For HSD-P, HSD-S and HSD-SV



Article name	Length L [mm]	Dowel-Ø [mm]	Article no.	Price
			0729.	[EUR/item]
Specification: S355 hot-dip galvanized				
HSD-D 20 FV	300	20	010-00001	6,45
HSD-D 22 FV	300	22	010-00002	8,60
HSD-D 25 FV	300	25	010-00003	13,85
HSD-D 30 FV	350	30	010-00004	21,40
Specification: stainless steel according to catalogue				
HSD-D 20 A4	300	20	020-00001	15,00
HSD-D 22 A4	300	22	020-00002	19,60
HSD-D 25 A4	300	25	020-00003	27,40
HSD-D 30 A4	350	30	020-00004	45,30

HSD-P Sleeves

For single shear dowel HSD-D
Longitudinal movable sleeve



Article name	Dowel-Ø [mm]	Article no.	Price
		0729.	[EUR/item]
Specification: Plastic			
HSD-P 20	20	030-00001	4,90
HSD-P 22	22	030-00002	4,90
HSD-P 25	25	030-00003	5,00
HSD-P 30	30	030-00004	5,45

HEAVY-DUTY SHEAR DOWELS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

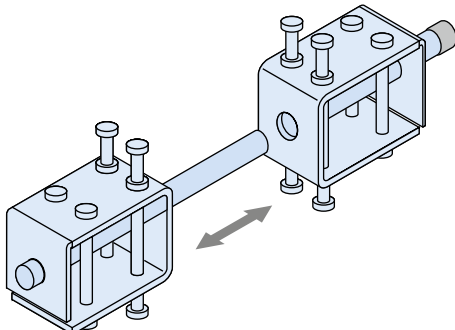
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HSD-CRET Heavy-duty shear dowel

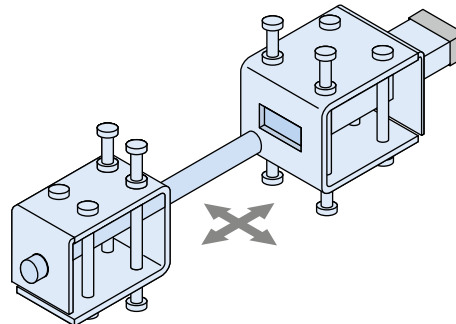
Allows movement in one direction
German approval Z-15.7-253



Article name	Dowel-Ø [mm]	Article no.	Price
		0730.	[EUR/item]
Specification: stainless steel according to catalogue			
HSD-CRET 122	22	010-00001	133,55
HSD-CRET 124	24	010-00002	168,95
HSD-CRET 128	28	010-00003	233,60
HSD-CRET 134	34	010-00004	496,55
HSD-CRET 140	40	010-00005	675,80
HSD-CRET sleeves can also be supplied with magnets for fixing to steel formwork			

HSD-CRET-V Heavy-duty shear dowel

Allows movement in two directions
German approval Z-15.7-253

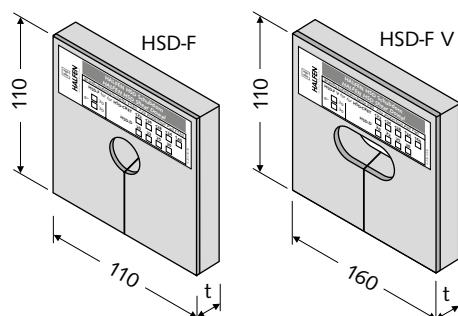


Article name	Dowel-Ø [mm]	Article no.	Price
		0730.	[EUR/item]
Specification: stainless steel according to catalogue			
HSD-CRET 122 V	22	020-00001	180,35
HSD-CRET 124 V	24	020-00002	217,10
HSD-CRET 128 V	28	020-00003	303,10
HSD-CRET 134 V	34	020-00004	646,30
HSD-CRET 140 V	40	020-00005	783,40
HSD-CRET sleeves can also be supplied with magnets for fixing to steel formwork			

SHEAR DOWELS, ACCESSORIES

HSD-F Fire protection pad

For single shear dowel HSD-D and HSD-SET

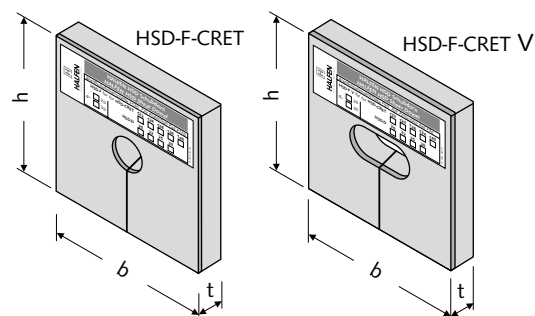


Article name	Thickness t [mm]	For sleeve HSD-	Width/Height [mm]	Article no. 0730.	Price [EUR/item]
Specification: According to catalogue					
HSD-F 20	20	S20	110/110	300-00001	10,70
HSD-F 20	30	S20	110/110	300-00002	11,25
HSD-F 22	20	S22	110/110	300-00003	11,15
HSD-F 22	30	S22	110/110	300-00004	12,05
HSD-F 25	20	S25	110/110	300-00005	12,45
HSD-F 25	30	S25	110/110	300-00006	12,85
HSD-F 30	20	S30	110/110	300-00007	13,55
HSD-F 30	30	S30	110/110	300-00008	14,75
HSD-F 20 V	20	SV20	160/110	310-00001	12,00
HSD-F 20 V	30	SV20	160/110	310-00002	12,40
HSD-F 22 V	20	SV22	160/110	310-00003	12,85
HSD-F 22 V	30	SV22	160/110	310-00004	13,15
HSD-F 25 V	20	SV25	160/110	310-00005	14,15
HSD-F 25 V	30	SV25	160/110	310-00006	15,00
HSD-F 30 V	20	SV30	160/110	310-00007	15,20
HSD-F 30 V	30	SV30	160/110	310-00008	16,35

Remark: Combine units for larger movement joints

HSD-F-CRET Fire protection pad

For heavy-duty shear dowel HSD-CRET and HSD-CRET V



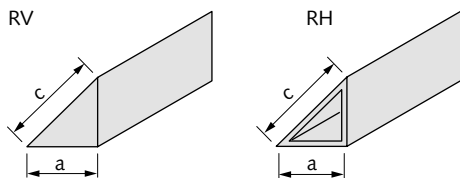
Article name	Thickness t [mm]	For sleeve HSD-CRET	Width/Height b/h [mm]	Article no. 0730.	Price [EUR/item]
Specification: According to catalogue					
HSD-F-CRET 122	20	122	120/120	320-00001	8,25
HSD-F-CRET 122	30	122	120/120	320-00002	8,90
HSD-F-CRET 124	20	124	130/130	320-00003	9,10
HSD-F-CRET 124	30	124	130/130	320-00004	9,90
HSD-F-CRET 128	20	128	140/140	320-00005	11,10
HSD-F-CRET 128	30	128	140/140	320-00006	12,55
HSD-F-CRET 134	20	134	160/180	320-00007	15,45
HSD-F-CRET 134	30	134	160/180	320-00008	16,50
HSD-F-CRET 140	20	140	180/220	320-00009	17,15
HSD-F-CRET 140	30	140	180/220	320-00010	18,35
HSD-F-CRET 122 V	20	122 V	150/150	330-00001	9,80
HSD-F-CRET 122 V	30	122 V	150/150	330-00002	10,15
HSD-F-CRET 124 V	20	124 V	160/160	330-00003	10,00
HSD-F-CRET 124 V	30	124 V	160/160	330-00004	10,65
HSD-F-CRET 128 V	20	128 V	170/170	330-00005	14,80
HSD-F-CRET 128 V	30	128 V	170/170	330-00006	15,20
HSD-F-CRET 134 V	20	134 V	190/190	330-00007	17,25
HSD-F-CRET 134 V	30	134 V	190/190	330-00008	19,30
HSD-F-CRET 140 V	20	140 V	210/220	330-00009	20,25
HSD-F-CRET 140 V	30	140 V	210/220	330-00010	24,05

Remark: Combine units for larger movement joints

SPACER SYSTEM

2100

Plastic triangular strip



Article name	Edge length a/c [mm]	Length [m]	PU [m]	Article no.	Price
				0715.	[EUR/100 m]

Specification: Plastic

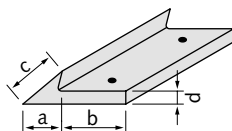
2100-10 RV	10/14	2,5	300	020-00001	124,50
2100-10 RH	10/14	2,5	300	020-00002	91,65
2100-15 RH	15/21	2,5	125	020-00003	129,20

RV = Solid section

RH = Hollow section

2110

Plastic triangular strip with attachment lip



Article name	Measurements a/b/c/d [mm]	Length [m]	PU [m]	Article no.	Price
				0715.	[EUR/100 m]

Specification: Plastic

2110-05W	5/12/7/2,5	2,5	150	030-00001	141,05
2110-07R	7/13/10/2,7	2,5	100	030-00002	112,85
2110-10RF	10/20/15/3,8	2,5	100	030-00004	166,95
2110-15R	15/20/21/3,8	2,5	100	030-00005	258,65

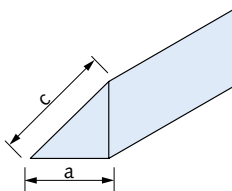
W = Soft PVC for gluing

R = Standard version suitable for manual nailing

RF = Standard version suitable for automatic nailing tool

2030

Plastic triangular strip



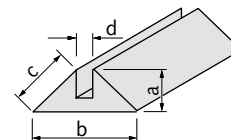
Article name	Measurements a/c [mm]	PU [m]	Article no.	Price
			0715.	[EUR/100 m]

Specification: Steel

2030-10	10/14	100	010-00002	479,80
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2130

Double triangular strip made from soft PVC



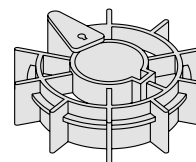
Article name	Measurements a/b/c/d [mm]	Length [m]	PU [m]	Article no.	Price
				0715.	[EUR/100 m]

Specification: PVC

2130-10	10/25/15/4	2,5	100	040-00001	355,10
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1560

Rapid spacer



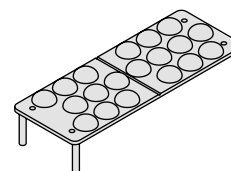
Article name	Concrete cover cv [mm]	Bar Ø [mm]	PU [items]	Article no.	Price
				0716.	[EUR/1000 item]

Specification: Plastic

1560-06-15	15	4-6	1000	050-00001	46,90
1560-10-15	15	8-10	1000	050-00010	46,90
1560-12-15	15	10-12	1000	050-00015	46,90
1560-10-20	20	8-10	1000	050-00011	70,70

3060

Stacking separator with hooks, splittable



Article name	Measurement [mm]	Slab thickness [mm]	PU [items]	Article no.	Price
				0716.	[EUR/1000 item]

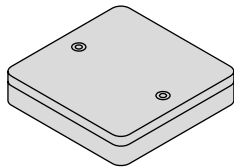
Specification: Plastic

3060	175x63	13	100	130-00001	1.081,65
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SPACER SYSTEM, BETOJUSTER

3070

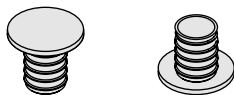
Shim



Article name	Measurements [mm]	Thickness [mm]	PU [items]	Article no.	Price [EUR/1000 item]
				0716.	
Specification: Plastic					
3070-772	70x70	2	1000	140-00001	94,05
3070-773	70x70	3	500	140-00002	141,05
3070-775	70x70	5	500	140-00003	211,50
3070-7710	70x70	10	250	140-00007	540,80

3050

Cover cap for thread

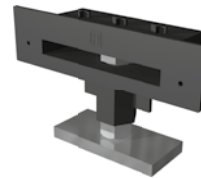


Article name	For thread	Colour code	PU	Article no.	Price [EUR/1000 item]
				0716.	
Specification: Plastic					
3050-10	M10	grey	1000	120-00001	117,65
3050-12	M12	grey	1000	120-00002	117,65
3050-16	M16	grey	1000	120-00003	141,05
3050-20	M20	grey	1000	120-00004	141,05
3050-24	M24	grey	1000	120-00005	211,50
3050-27	M27	grey	1000	120-00006	235,20

HBJ-W

000

HALFEN Betojuster for walls

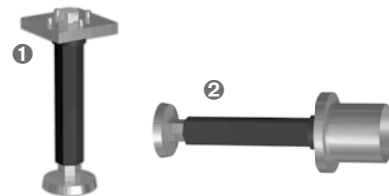


Article name	Load capacity [kN]	Article no.	Price [EUR/item]
		0420.	
Specification: Plastic with steel (wb)			
HBJ-W	50	010-00001	19,15

HBJ-S

000

HALFEN Betojuster in columns



- ① HBJ-S-V for vertical installation
- ② HBJ-S-H for horizontal installation

Article name	Load capacity [kN]	Article no.	Price [EUR/item]
		0420.	
Specification: Steel (wb) with plastic			
V: Column adjuster for vertical installation			
HBJ-S-6,0 V	60	040-00001	45,55
HBJ-S-10,0 V	100	040-00002	72,80
H: Column adjuster for horizontal installation			
HBJ-S-6,0 H	60	040-00003	64,95
HBJ-S-10,0 H	100	040-00004	73,75
Specification: Plastic			
Recess-tube for all HBJ-S			
HBJ-S-AR ①		059-00001	on request
Specification: Plastic			
Plastic cap			
HBJ-A64		050-00001	on request
① Please specify length L [mm] when ordering. L = Foundation height - 183 mm			

Fixing systems

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Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Bolts, Accessories

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Lifting systems

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Features

- Rapid connection and release of lifting devices
- Anchor forged from special material
- Load classes from 1,3 to 45,0
- CE marked according to MD 2006/42 EC



DEHA KKT
Lifting anchor system

Benefits

- Saves time and money
- Anchors can also be supplied in hot-dip galvanized and stainless steel versions
- Especially suitable for civil engineering applications
- A certified system is available for a watertight seal of the recess

Features

- Quick connection and disconnection of the lifting device
- Pneumatic remote release of lifting clutch available
- Load classes from 0,7 to 26,0
- CE marked according to MD 2006/42 EC



FRIMEDA TPA
Lifting anchor system



Benefits

- Especially suitable for the installation of precast elements
- Reduced risk of accident with remote release
- High application security due to closed carabiner of the lifting clutch
- Small edge distances possible

Lifting systems

Features

- Smaller thread diameter combined with higher load capacity
- Integrated thread protector system with identification cap protects the thread from the ingress of laitance, dirty water and simplifies the identification
- Load classes up to 1,3 to 25,0
- CE marked according to MD 2006/42 EC

HD-Socket lifting system



Benefits

- Especially suitable for use with thin-walled precast elements
- Up to 100% higher load capacity for each load range compared to standard threaded systems
- Simpler stocking and processes due to only nine anchor sizes
- Better visually requirement. The HALFEN Thread protector and the recess fillers also prevent corrosion

Features

- For safety lifting of precast elements
- Various anchor types for different units
- Consists of round steel anchor and a threaded socket
- Load classes up to 0,5 to 12,5
- CE marked according to MD 2006/42 EC

DEHA HA Socket anchor system



Benefits

- Safe, quick, efficient
- For all types of precast elements
- Lifting loops available as an attractive alternative
- Perfect head and rotary head lifting clutch can be ordered also with certificate

Fixing systems

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LIFTING SYSTEMS

General information and explanation

1
Fixing systems

HALFEN Lifting clutches: yearly check made easy & certified safety

HALFEN Lifting clutches are marked with an identification number for easier identification during regular checks. You can also request a certificate which confirms compliance to all regulations and quality control. It also contains a schedule for the regular checks.

Your benefits:

- All data for the HALFEN Lifting clutch in one document
- Easy documentation of continuous dimensional inspection
- Clear matching of clutch to document
- Controlled and certified production

2
Reinforcement systems

Order procedure:

To order a HALFEN Lifting clutch including the certificate, please substitute the **3rd last digit** of the article number with a "1"

- Lifting clutch 6102-45,0 with certificate has article number 0738.010-00107
- Threaded Lifting clutch 6377-7,5 with certificate has article number 0742.170-00105

3
Lifting systems

HALFEN Lifting clutches: certified safety through tested load bearing capacity

HALFEN Lifting clutches can be ordered with a certificate confirming an individual proof test to twice the nominal load bearing capacity.

Your benefits:

- Documented safety of the HALFEN Clutch
- Satisfies national regulations prior to using the lifting device
- Contractor-stipulated verification can be satisfied

Order procedure:

To order a HALFEN Lifting clutch including the certificate and conforming individual proof test, to twice the nominal load bearing capacity please substitute the **4th last digit** of the item number with a "1"

- Lifting clutch 6102-45,0 with certificate and individual proof test has article number 0738.010-01007
- Threaded Lifting clutch 6377-7,5 with certificate and individual proof test has article number 0742.170-01005

4
Façade connection systems

Advice for order of 6116 rotary and lifting clutch

When ordering the HALFEN Lifting clutch, the article number 0738.040-0010X (0010X – 00101 – 00106) has to be used and the following information is also required:

- Desired cable length (please consider minimal cable length L)
- Arrangement of cable eye stiffener (type A = eye parallel; type B = eye transverse)

5
DETAN Rod systems

Example:

- 0738.040-00103; Load group 4,0 + 5,0; Length 3 m; type B

Please consider delivery times for pre-assembled rotary and lifting clutches

It is possible to reorder single replacement sets if needed.

6
Industrial Technology

Technical

Further details about our Lifting anchor systems can be found in our catalogues and www.halfen.com.

- Technical Product Information KKT Spherical head lifting anchor system
- Technical Product Information TPA FRIMEDA Lifting anchor system
- Technical Product Information TT Transport anchor system civil engineering
- Technical Product Information HD-socket lifting system
- Technical Product Information HA DEHA Socket anchor system

7
Bolts, Accessories

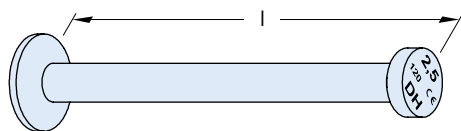


All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

DEHA LIFTING ANCHOR SYSTEM

6000

Spherical head anchor



Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6000-	1,3-	40	300	010-00002 1,45
6000-	1,3-	50	300	010-00003 1,50
6000-	1,3-	55	300	010-00004 1,50
6000-	1,3-	65	300	010-00005 1,70
6000-	1,3-	85	200	010-00006 1,90
6000-	1,3-	120	200	010-00007 1,95
6000-	1,3-	240	100	010-00008 2,00
6000-	2,5-	45	100	010-00015 2,00
6000-	2,5-	55	100	010-00016 2,00
6000-	2,5-	65	100	010-00017 2,25
6000-	2,5-	75	100	010-00189 2,25
6000-	2,5-	85	100	010-00018 2,25
6000-	2,5-	120	40	010-00019 2,35
6000-	2,5-	170	40	010-00020 2,90
6000-	2,5-	210	40	010-00021 3,20
6000-	2,5-	280	40	010-00022 3,80
6000-	4,0-	75	40	010-00023 3,30
6000-	4,0-	100	40	010-00024 3,80
6000-	4,0-	120	40	010-00025 3,90
6000-	4,0-	170	20	010-00027 4,50
6000-	4,0-	210	20	010-00028 5,30
6000-	4,0-	240	20	010-00029 5,50
6000-	4,0-	340	20	010-00030 6,90
6000-	4,0-	420	20	010-00031 9,45
6000-	5,0-	55	20	010-00032 4,10
6000-	5,0-	65	20	010-00033 4,10
6000-	5,0-	75	40	010-00034 4,10
6000-	5,0-	85	40	010-00035 4,50
6000-	5,0-	95	40	010-00036 4,90
6000-	5,0-	110	40	010-00037 5,40
6000-	5,0-	120	40	010-00038 5,00
6000-	5,0-	180	20	010-00039 5,50
6000-	5,0-	210	20	010-00173 5,50
6000-	5,0-	240	20	010-00040 6,35
6000-	5,0-	340	20	010-00041 9,85
6000-	5,0-	480	20	010-00042 12,30
6000-	7,5-	100	20	010-00043 6,95
6000-	7,5-	120	20	010-00046 6,95
6000-	7,5-	140	20	010-00047 7,90
6000-	7,5-	165	20	010-00049 8,20
6000-	7,5-	200	20	010-00050 9,45
6000-	7,5-	300	20	010-00051 12,20
6000-	7,5-	540	1	010-00052 18,85
6000-	7,5-	680	1	010-00053 20,10

Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6000-	10,0-	115	1	010-00054 12,75
6000-	10,0-	135	1	010-00056 12,80
6000-	10,0-	150	1	010-00057 13,20
6000-	10,0-	170	1	010-00058 14,15
6000-	10,0-	200	1	010-00059 16,30
6000-	10,0-	250	1	010-00060 16,90
6000-	10,0-	340	1	010-00061 18,40
6000-	10,0-	680	1	010-00062 29,00
6000-	15,0-	140	1	010-00063 19,60
6000-	15,0-	165	1	010-00064 21,80
6000-	15,0-	200	1	010-00065 23,75
6000-	15,0-	300	1	010-00066 29,35
6000-	15,0-	400	1	010-00067 37,05
6000-	15,0-	840	1	010-00068 79,15
6000-	20,0-	180	1	010-00168 43,30
6000-	20,0-	200	1	010-00070 43,85
6000-	20,0-	240	1	010-00071 47,05
6000-	20,0-	340	1	010-00074 55,35
6000-	20,0-	500	1	010-00075 58,60
6000-	20,0-	1000	1	010-00076 101,35
6000-	32,0-	200	1	010-00077 78,15
6000-	32,0-	250	1	010-00078 81,65
6000-	32,0-	280	1	010-00079 83,00
6000-	32,0-	320	1	010-00080 85,10
6000-	32,0-	700	1	010-00082 155,35
6000-	32,0-	1200	1	010-00083 229,30
6000-	45,0-	500	1	010-00197 229,65
6000-	45,0-	1200	1	010-00159 321,90
Other dimensions on request. Please enquire about delivery times and minimum order quantities before placing an order.				
Specification: FV according to table, page 2				
6000-	1,3-	40 FV	300	200-00067 1,60
6000-	1,3-	50 FV	300	200-00068 1,70
6000-	1,3-	55 FV	300	200-00069 1,70
6000-	1,3-	65 FV	300	200-00070 2,00
6000-	1,3-	85 FV	200	200-00071 2,15
6000-	1,3-	120 FV	200	200-00072 2,20
6000-	1,3-	240 FV	100	200-00073 2,35
6000-	2,5-	45 FV	100	200-00080 2,35
6000-	2,5-	55 FV	100	200-00081 2,35
6000-	2,5-	65 FV	100	200-00082 2,80
6000-	2,5-	75 FV	100	200-00156 2,80
6000-	2,5-	85 FV	100	200-00083 2,80
6000-	2,5-	120 FV	40	200-00084 2,90
6000-	2,5-	170 FV	40	200-00085 3,50
6000-	2,5-	210 FV	40	200-00086 3,70
6000-	2,5-	280 FV	40	200-00087 4,70
6000-	4,0-	75 FV	40	200-00088 4,00
6000-	4,0-	100 FV	40	200-00089 4,70
6000-	4,0-	120 FV	40	200-00090 4,75
6000-	4,0-	170 FV	20	200-00091 5,20
6000-	4,0-	210 FV	20	200-00092 6,35
6000-	4,0-	240 FV	20	200-00093 6,80
6000-	4,0-	340 FV	20	200-00094 8,25
6000-	4,0-	420 FV	20	200-00095 11,35

DEHA LIFTING ANCHOR SYSTEM

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DETAN Rod systems

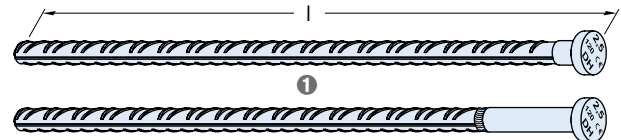
6
Industrial Technology

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Bolts, Accessories

Article name	Measurement l Load class	PU [items]	Article no.	Price
	[mm]		0735.	[EUR/item]
Specification: FV according to table, page 2				
6000-	5,0- 65 FV	40	200-00096	4,90
6000-	5,0- 75 FV	40	200-00097	4,90
6000-	5,0- 85 FV	40	200-00098	5,20
6000-	5,0- 95 FV	40	010-00172	5,85
6000-	5,0- 110 FV	40	200-00167	5,85
6000-	5,0- 120 FV	20	200-00100	6,10
6000-	5,0- 180 FV	20	200-00101	6,80
6000-	5,0- 210 FV	20	200-00102	6,80
6000-	5,0- 240 FV	20	010-00174	7,65
6000-	5,0- 340 FV	20	200-00104	11,75
6000-	5,0- 480 FV	20	200-00105	14,80
6000-	7,5- 100 FV	20	200-00106	8,30
6000-	7,5- 120 FV	20	200-00107	8,30
6000-	7,5- 140 FV	20	200-00108	9,45
6000-	7,5- 165 FV	20	200-00110	9,95
6000-	7,5- 200 FV	20	200-00111	11,35
6000-	7,5- 300 FV	20	010-00188	14,60
6000-	7,5- 540 FV	1	200-00113	22,60
6000-	7,5- 680 FV	1	200-00114	24,10
6000-	10,0- 115 FV	1	200-00116	15,35
6000-	10,0- 135 FV	1	200-00117	15,40
6000-	10,0- 150 FV	1	200-00118	15,90
6000-	10,0- 170 FV	1	200-00119	16,90
6000-	10,0- 200 FV	1	200-00158	18,00
6000-	10,0- 250 FV	1	200-00120	19,50
6000-	10,0- 340 FV	1	200-00121	22,20
6000-	10,0- 680 FV	1	200-00123	34,70
6000-	15,0- 140 FV	1	200-00124	22,80
6000-	15,0- 165 FV	1	200-00125	25,15
6000-	15,0- 200 FV	1	200-00126	27,80
6000-	15,0- 300 FV	1	200-00127	34,25
6000-	15,0- 400 FV	1	200-00128	43,45
6000-	15,0- 840 FV	1	200-00129	88,75
6000-	20,0- 200 FV	1	200-00131	51,10
6000-	20,0- 240 FV	1	200-00132	54,85
6000-	20,0- 340 FV	1	200-00134	64,40
6000-	20,0- 1000 FV	1	200-00136	118,25
6000-	32,0- 200 FV	1	200-00137	90,45
6000-	32,0- 250 FV	1	200-00138	94,70
6000-	32,0- 280 FV	1	200-00139	96,50
6000-	32,0- 320 FV	1	200-00140	110,05
6000-	32,0- 700 FV	1	200-00142	203,50
6000-	32,0- 1200 FV	1	200-00143	266,05
Specification: A4 according to table, page 2 **				
6000-	1,3 65 A4 *	1	010-00130	8,45
6000-	1,3 85 A4	1	010-00131	8,80
6000-	1,3 120 A4 *	1	010-00132	9,70
6000-	2,5 120 A4	1	010-00137	23,55
6000-	5,0 180 A4	1	010-00145	59,85
6000-	7,5 200 A4	1	010-00147	63,50
6000-	20,0 180 A4	1	010-00148	127,10
Other dimensions on request. Please enquire about delivery times and minimum order quantities before placing an order. * Stock clearance sales in progress, available only while stocks last ** Further lengths on request with a minimum order of 200 items				

6050

Spherical head rod anchor

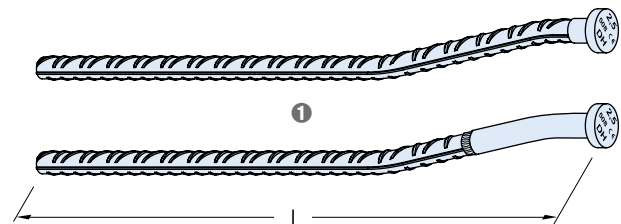


① Possible specifications

Article name	Measurement l Load class	PU [items]	Article no.	Price
	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6050-	2,5- 400	40	070-00002	4,40
6050-	2,5- 520	40	070-00003	4,70
6050-	5,0- 580	20	070-00007	10,10
6050-	5,0- 900	20	070-00008	11,20
6050-	7,5- 750	1	070-00009	19,00
6050-	7,5- 1150	1	070-00010	21,10
6050-	10,0- 870	1	070-00011	24,35
6050-	10,0- 1300	1	070-00012	27,35
6050-	15,0- 1080	1	070-00013	48,10
6050-	15,0- 1550	1	070-00014	56,85
Specification: FV according to table, page 2				
6050-	2,5- 400 FV	40	200-00030	5,30
6050-	5,0- 580 FV	20	200-00159	11,75
Other dimensions on request. Please enquire about delivery times and minimum order quantities before placing an order.				

6052

Offset spherical head rod anchor, for lifting precast concrete elements (reinforced concrete sandwich panels)



① Possible specifications

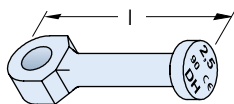
Article name	Measurement l Load class	PU [items]	Article no.	Price
	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6052-	2,5- 508	1	080-00002	7,60
6052-	5,0- 565	1	080-00003	14,15
6052-	5,0- 885	1	080-00004	15,40
6052-	7,5- 1134	1	080-00006	24,10
6052-	10,0- 1284	1	080-00008	31,25
6052-	15,0- 1535	1	080-00010	61,55
Zinc plated finish and other lengths available on request. Please enquire about delivery times and minimum order quantities before placing an order.				

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

DEHA LIFTING ANCHOR SYSTEM

6001

Spherical head eye anchor



Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6001- 1,3-	65	300	050-00001	2,30
6001- 2,5-	90	300	050-00002	3,70
6001- 5,0-	90	20	050-00012	7,55
6001- 5,0-	120	20	050-00003	7,55
6001- 10,0-	115	1	050-00011	17,95
6001- 10,0-	180	1	050-00004	19,45
6001- 20,0-	250	1	050-00005	42,50
Specification: FV according to table, page 2				
6001- 1,3-	65 FV	300	200-00061	2,90
6001- 2,5-	90 FV	100	200-00062	4,60
6001- 5,0-	120 FV	20	200-00063	9,00
6001- 10,0-	180 FV	1	200-00064	23,30
Specification: A4 according to table, page 2				
6001- 2,5-	90 A4	50	050-00022	on request
6001- 10,0-	180 A4	1	050-00024	on request

6073

DSM quick fitting spherical head anchor

Matching recess formers 6126, 6127, 6128 → page 115



Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6073- 1,3-	65	200	110-00005	1,50
6073- 1,3-	120	100	110-00004	1,70
6073- 2,5-	85	100	110-00001	1,55
6073- 2,5-	120	40	110-00002	1,75
6073- 2,5-	170	40	110-00003	4,20
6073- 5,0-	110	20	110-00006	3,80
6073- 5,0-	240	20	110-00007	6,25
Specification: FV according to table, page 2				
6073- 1,3-	65 FV	200	200-00001	1,65
6073- 1,3-	120 FV	100	200-00002	1,95
6073- 2,5-	85 FV	100	200-00003	1,75
6073- 2,5-	120 FV	40	200-00004	2,05
6073- 2,5-	170 FV	40	200-00005	5,05
6073- 5,0-	110 FV	20	200-00006	4,80
6073- 5,0-	240 FV	20	200-00007	7,50

6000 D

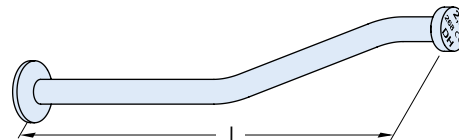
Narrow foot spherical head anchor



Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6000- 10,0-	340D	1	018-00056	22,85
6000- 15,0-	400D	1	018-00057	44,45
6000- 20,0-	500D	1	018-00067	66,10
6000- 32,0-	700D	1	018-00058	139,60
Specification: FV according to table, page 2				
6000- 10,0-	340D FV	1	208-00056	on request
6000- 15,0-	400D FV	1	208-00057	50,75
6000- 20,0-	500D FV	1	208-00067	77,20
6000- 32,0-	700D FV	1	208-00058	211,30

6002

Offset spherical head anchor, for lifting precast concrete sandwich panels



Article name	Measurement l	PU [items]	Article no.	Price
Load class	[mm]		0735.	[EUR/item]
Specification: WB according to table, page 2				
6002- 1,3-	227	40	030-00001	5,05
6002- 2,5-	268	20	030-00002	7,00
6002- 4,0-	406	20	030-00003	12,65
6002- 5,0-	466	1	030-00004	15,45
6002- 7,5-	664	1	030-00005	23,45
6002- 10,0-	667	1	030-00006	33,60
6002- 15,0-	825	1	030-00007	51,40
6002- 20,0-	986	1	030-00008	89,30
Specification: FV according to table, page 2				
6002- 1,3-	227 FV	20	200-00053	6,00
6002- 2,5-	268 FV	20	200-00054	8,30
6002- 4,0-	406 FV	1	200-00055	15,25
6002- 5,0-	466 FV	1	200-00056	18,40
6002- 7,5-	664 FV	1	200-00057	28,15
6002- 10,0-	667 FV	1	200-00058	40,25
6002- 15,0-	825 FV	1	200-00059	61,65
6002- 20,0-	986 FV	1	200-00060	107,00

Stainless steel version on request.

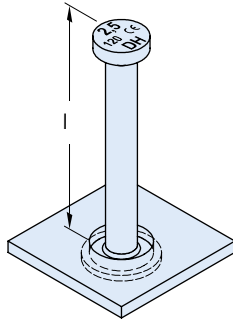
Other dimensions on request.

Please enquire about delivery times and minimum order quantities before placing an order.

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6010

Spherical head plate anchor



Article name	Measure- ment l	Anchor plate	PU [items]	Article no.	Price	
Load class	[mm]	[mm]		0735.	[EUR/item]	
Specification: WB according to table, page 2						
6010-	2,5-	55	70x70x6	40	060-00001	7,10
6010-	2,5-	120	70x70x6	20	060-00002	7,60
6010-	5,0-	65	90x90x8	20	060-00004	10,10
6010-	5,0-	110	90x90x8	20	060-00007	10,70
6010-	7,5-	100	90x90x10	1	060-00008	15,90
6010-	10,0-	115	90x90x10	1	060-00009	17,30
6010-	10,0-	150	90x90x10	1	060-00011	38,00
Specification: FV according to table, page 2						
6010-	2,5-	55 FV	70x70x6	40	200-00043	8,55
6010-	2,5-	120 FV	70x70x6	20	200-00044	9,15
6010-	5,0-	65 FV	90x90x8	20	200-00046	12,15
6010-	5,0-	110 FV	90x90x8	20	200-00047	12,80
6010-	7,5-	100 FV	90x90x10	1	200-00173	19,15
6010-	10,0-	115 FV	90x90x10	1	200-00048	20,75
6010-	10,0-	150 FV	90x90x10	1	200-00172	54,60

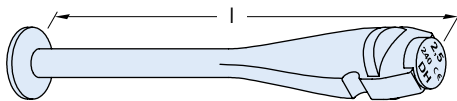
Other dimensions on request.

Please enquire about delivery times and minimum order quantities before placing an order.

6006

Spherical head pitching anchor

For corresponding recess former 6134 → page 114

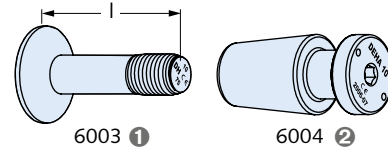


Article name			PU [items]	Article no.	Price
Load class	Measurement l [mm]	0735.		[EUR/item]	
Specification: WB according to table, page 2					
6006-	2,5-	240	1	120-00001	16,70
6006-	5,0-	240	1	120-00002	22,65
Specification: FV according to table, page 2					
6006-	2,5-	240 FV	1	200-00151	18,80
6006-	5,0-	240 FV	1	200-00152	26,25

6003, 6004

DKR conical pipe anchor

Accessories: Recess former 6173 → page 114, sealing cap 6171 → page 112



- ① Cast-in part
- ② Adapter head, marked

Article name			PU [items]	Article no.	Price
Measurement l	Load class	[mm]		0735.	[EUR/item]
Specification: Steel					
6003-	10,0	60	1	140-00011	16,85
6003-	10,0	75	1	140-00001	17,85
6003-	10,0	100	1	140-00002	18,05
6003-	10,0	125	1	140-00003	19,75
6003-	20,0	100	1	140-00012	27,40
6003-	20,0	130	1	140-00004	30,00
6003-	20,0	155	1	140-00005	31,50
6003-	20,0	180	1	140-00006	33,20
6003-	32,0	120	1	140-00013	43,75
6003-	32,0	140	1	140-00015	45,70
6003-	32,0	155	1	140-00007	47,90
6003-	32,0	175	1	140-00008	49,75
6003-	32,0	200	1	140-00009	52,60
6003-	32,0	225	1	140-00010	53,85
6003-	32,0	235	1	140-00014	55,30

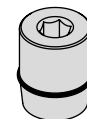
6004-	10,0	*	1	150-00101	67,60
6004-	20,0	*	1	150-00102	114,80
6004-	32,0	*	1	150-00103	193,20

* Total length 6003 + 6004:

see Technical Product Information Lifting anchor system civil engineering

6171

Rubber recess former for DKR conical pipe anchor 6004

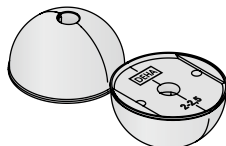


Article name	External-Ø [mm]	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Plastic				
6171- 10,0	43	1	110-00001	8,90
6171- 20,0	65	1	110-00002	12,35
6171- 32,0	83	1	110-00003	23,00

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6131

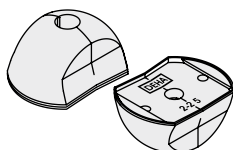
Recess former, without fittings,
can also be used as void filler



Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6131- 1,3	blue	20	010-00001	10,65
6131- 2,5	yellow	10	010-00002	14,80
6131- 4,0	black	10	010-00003	21,90
6131- 5,0	blue	10	010-00004	21,90
6131- 7,5	red	10	010-00005	31,65
6131- 10,0	yellow	10	010-00006	31,65
6131- 15,0	grey	10	010-00007	68,40
6131- 20,0	black	2	010-00008	68,40
6131- 32,0+45,0	black	2	010-00009	104,75

6137

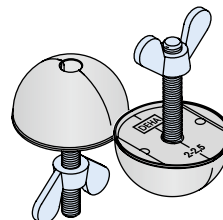
Narrow recess former, without fittings



Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6137- 1,3	blue	20	060-00001	8,05
6137- 2,5	yellow	20	060-00002	12,15
6137- 4,0/5,0	blue	10	060-00004	17,95
6137- 7,5	red	10	060-00005	25,80
6137- 10,0	yellow	10	060-00006	25,80
6137- 15,0	grey	2	060-00007	54,85
6137- 20,0	black	2	060-00008	54,85

6132

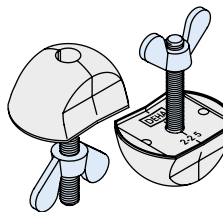
Recess former,
including threaded plate with wing nut 6141 → page 116



Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6132- 1,3	blue	20	020-00001	14,70
6132- 2,5	yellow	10	020-00002	20,55
6132- 4,0	black	10	020-00003	28,05
6132- 5,0	blue	10	020-00004	28,05
6132- 7,5	red	10	020-00005	37,65
6132- 10,0	yellow	10	020-00006	37,65
6132- 15,0	grey	10	020-00007	76,25
6132- 20,0	black	10	020-00008	76,25
6132- 32,0+45,0	black	1	020-00009	150,70

6138

Narrow recess former,
including threaded plate with wing nut 6141 → page 116



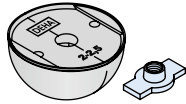
Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6138- 1,3	blue	20	070-00001	12,05
6138- 2,5	yellow	10	070-00002	17,60
6138- 4,0/5,0	blue	10	070-00004	23,80
6138- 7,5	red	10	070-00005	31,90
6138- 10,0	yellow	10	070-00006	31,90
6138- 15,0	grey	2	070-00007	62,55
6138- 20,0	black	2	070-00008	62,55

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

1
Fixing systems

6133

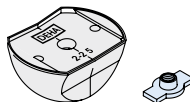
Recess former, round shape
including threaded plate with sleeve 6153 → page 116



Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6133- 1,3	blue	10	030-00001	24,75
6133- 2,5	yellow	10	030-00002	28,95
6133- 4,0	black	10	030-00003	37,20
6133- 5,0	blue	10	030-00005	37,20
6133- 7,5	red	10	030-00006	47,50
6133- 10,0	yellow	10	030-00007	47,50
6133- 15,0	grey	10	030-00008	86,40
6133- 20,0	black	10	030-00004	86,40
6133- 32,0+45,0	black	1	030-00009	139,85

6145

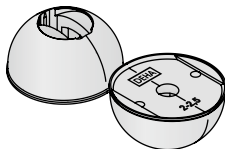
Narrow recess former,
including threaded plate with sleeve 6153 → page 116



Article name	Colour code	Thread M	PU [items]	Article no.	Price
Load class				0736.	[EUR/item]
Specification: Rubber					
6145- 1,3	blue	8	10	080-00001	21,90
6145- 2,5	yellow	12	10	080-00002	26,50
6145- 4,0/5,0	blue	12	10	080-00004	33,20
6145- 7,5	red	12	10	080-00005	41,70
6145- 10,0	yellow	12	10	080-00007	41,70
6145- 15,0	grey	12	2	080-00008	72,50
6145- 20,0	black	12	2	080-00009	90,15

6134

Recess former for spherical head pitching anchor 6006 → page 112

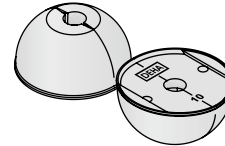


Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6134- 2,5	yellow	1	150-00001	6,85
6134- 5,0	blue	1	150-00002	19,85

If fixings are required then please order these items separately.

6173

Recess former for DKR conical pipe anchor 6004 → page 112

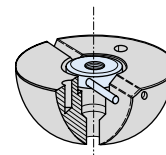


Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6173- 10,0	yellow	1	180-00001	42,90
6173- 20,0	black	1	180-00002	65,95
6173- 32,0	black	1	180-00003	126,50

If fixings are required then please order these items separately.

6129

Recess former, round shape

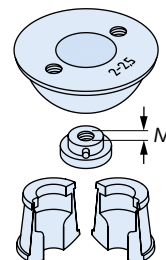


Article name	PU [items]	Article no.	Price
Load class		0736.	[EUR/item]
Specification: Steel			
6129- 1,3	1	160-00001	on request
6129- 2,5	1	160-00002	on request
6129- 5,0	1	160-00003	on request

If fixings are required then please order these items separately.

6144

Round steel recess former + Inner cone



Article name	Thread M	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Steel				
6144- 2,5	10	1	090-00002	277,00
6144- 5,0	12	1	090-00004	360,95
6144- 7,5	16	1	090-00005	433,80
6144- 10,0	16	1	090-00006	433,80

If fixings are required then please order these items separately.

Other load classes on request.

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

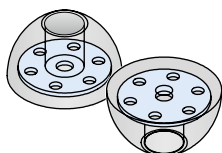
6
Industrial Technology

7
Bolts, Accessories

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6127

Extra durable recess former for quick assembly DSM anchor 6073 → page 111

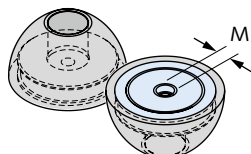


Article name	PU [items]	Article no.	Price
Load class		0736.	[EUR/item]
Specification: Polyurethane			
6127- 1,3	2	170-00001	50,15
6127- 2,5	2	170-00002	59,85
6127- 5,0	2	170-00003	125,10

If fixings are required then please order these items separately.

6126

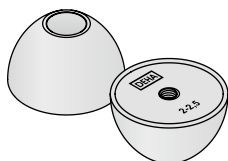
Magnetic recess former for quick assembly DSM anchor 6073 → page 111



Article name	Thread M	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Polyurethane with magnet				
6126- 1,3	8	2	190-00001	130,55
6126- 2,5	12	2	190-00002	173,40
6126- 5,0	12	2	190-00003	254,75

6128

Recess former for quick assembly anchor DSM 6073 → page 111

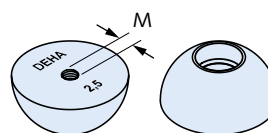


Article name	Colour code	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Rubber				
6128- 1,3	blue	2	140-00002	9,40
6128- 2,5	yellow	2	140-00001	10,35

If fixings are required then please order these items separately.

6150

Recess former, round shape

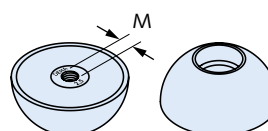


Article name	Thread M	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Steel				
6150- 1,3	8	2	100-00001	34,30
6150- 2,5	12	2	100-00002	44,20
6150- 5,0	12	2	100-00003	65,45

If fixings are required then please order these items separately.

6150 M

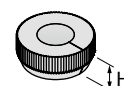
Recess former



Article name	Thread M	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Steel with magnet				
6150- 1,3 M	8	2	110-00001	87,70
6150- 2,5 M	12	2	110-00002	102,75
6150- 5,0 M	12	2	110-00003	117,15

6151

Rubber grommet for recess former type 6150 + type 6150 M
Also suitable for recess formers type 6152 + type 6152 M

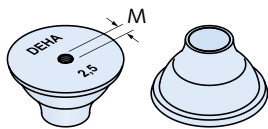


Article name	H [mm]	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Rubber				
6151- 1,3	11	100	060-00001	1,55
6151- 2,5	12	100	060-00002	2,05
6151- 5,0	14	100	060-00003	3,30
6151- 7,5	22	1	060-00004	21,00
6151- 10,0	22	1	060-00005	36,70

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6152

Recess former, trumpet shape

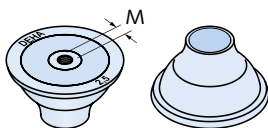


Article name	Thread M	PU [items]	Article no.	Price
Load class			0736.	[EUR/item]
Specification: Steel				
6152- 1,3	8	2	120-00001	40,65
6152- 2,5	12	2	120-00002	51,10
6152- 5,0	12	2	120-00003	81,25

If fixings are required then please order these items separately.

6152 M

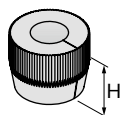
Recess former, trumpet shape



Article name	For load class	Thread M	PU [items]	Article no.	Price
Load class				0736.	[EUR/item]
Specification: Steel with magnet					
6152- 1,3 M	1,3	8	2	130-00001	95,20
6152- 2,5 M	2,5	12	2	130-00002	109,70
6152- 5,0 M	4,0/5,0	12	2	130-00003	144,85
6152- 7,5 M	7,5/10,0	16	1	130-00005	168,45

6151 D

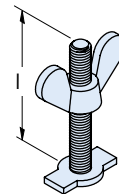
Double rubber grommet for recess former types 6152, 6152 M



Article name	H [mm]	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Rubber				
6151- 1,3 D	22	100	070-00001	3,30
6151- 2,5 D	24	100	070-00002	4,70
6151- 4,0 D	28	100	070-00003	5,95
6151- 7,5 D	44,5	100	070-00004	12,55

6141

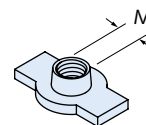
Plate with threaded rod and wing nut



Article name	Thread M	l [mm]	PU [items]	Article no.	Price
Load class				0737.	[EUR/item]
Specification: Steel					
6141- 1,3	8	66	10	020-00001	4,00
6141- 2,5	12	87	10	020-00002	5,60
6141- 4,0/5,0	12	87	10	020-00003	6,10
6141- 7,5/10,0	12	87	10	020-00004	6,25
6141- 15,0/20,0	12	87	10	020-00005	7,55
6141- 32,0/45,0	16	100	10	020-00006	46,35

6153

Threaded plate with sleeve

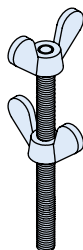


Article name	Thread M	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Steel				
6153- 1,3	8	10	040-00001	11,70
6153- 2,5	12	10	040-00002	11,85
6153- 4,0/5,0	12	10	040-00003	12,65
6153- 7,5/10,0	12	10	040-00004	13,50
6153- 15,0/20,0	16	10	040-00005	15,15
6153- 32,0/45,0	16	1	030-00006	32,60

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

TPA-S1

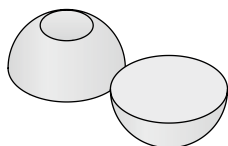
Retaining bolt with wing nut 6160



Article name	For load class	PU [items]	Article no.	Price
			0073.	[EUR/item]
Specification: Steel				
TPA - S1 - M8	1,3	10	060-00001	7,10
TPA - S1 - M12	2,5/4,0/5,0/7,5/10,0	10	060-00002	10,65
TPA - S1 - M16	15,0/20,0/32,0/45,0	10	060-00003	15,65

6015

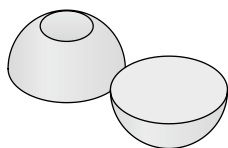
Recess void filler for spherical head anchor



Article name	External-Ø [mm]	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Polystyrene				
6015- 1,3	60	100	010-00001	0,65
6015- 2,5	74	100	010-00002	0,95
6015- 4,0/5,0	94	100	010-00003	0,95
6015- 7,5/10,0	118	40	010-00004	1,60
6015- 15,0/20,0	160	40	010-00005	2,75

6172

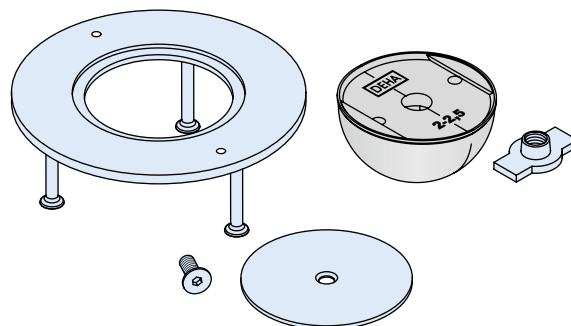
VKF* void filler for spherical head anchor and conical pipe anchor DKR
* waterproof, see Technical Product Information



Article name	External-Ø [mm]	PU [items]	Article no.	Price
Load class			0737.	[EUR/item]
Specification: Fibre concrete				
6172- 4,0 / 5,0	90	2	120-00004	9,45
6172- 7,5 / 10,0	114	2	120-00001	10,85
6172- 15,0 / 20,0	156	2	120-00002	15,20
6172- 32,0 / 45,0	210	2	120-00003	17,00

6180

Stainless steel lock covering for recess
Suitable for vehicle traffic

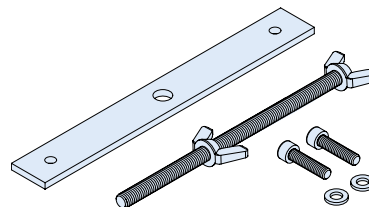


Article name	For load class	Article no.	Price
Load class		0737.	[EUR/item]
Specification: A4 according to table, page 2			
6180- 1,3	1,3	160-00001	on request
6180- 2,5	2,5	160-00002	on request
6180- 5,0	4,0 + 5,0	160-00003	on request

Remark: Please order a spherical head anchor in stainless steel for the recommended load class.

6181

Fixing set for stainless steel lock cover
Required for assembly and installation of the stainless steel cover
Reusable

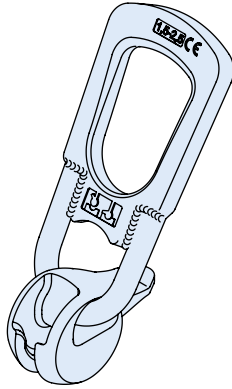


Article name	For load class	Article no.	Price
Load class		0737.	[EUR/item]
Specification: A4 according to table, page 2			
6181- 1,3	1,3	190-00001	on request
6181- 2,5	2,5	190-00002	on request
6181- 5,0	4,0 + 5,0	190-00003	on request

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6102

Universal head lifting link UKK

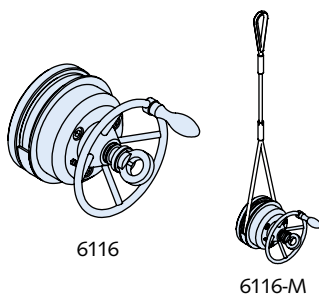


Article name	For load class	PU [items]	Article no.	Price
Load class			0738.	[EUR/item]
Specification: Steel, zinc plated				
6102- 1,3	1,3	1	010-00001	155,35
6102- 2,5	2,5	1	010-00002	188,10
6102- 5,0	4,0 + 5,0	1	010-00003	272,65
6102- 10,0	7,5 + 10,0	1	010-00004	469,15
6102- 20,0	15,0 + 20,0	1	010-00005	807,35
6102- 32,0	32,0	1	010-00006	1.761,90
6102- 45,0	45,0	1	010-00007	1.832,55

★ HALFEN remark: For lifting device with certificate use order no. 0738.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0738.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

6116-M

Turning and lifting clutch with cable and fitting
The turning and lifting link is delivered with a cable length of 3.0 m and a thimble direction „A“.
Other cable lengths and thimble directions are also possible.



Article name	For load class	PU [items]	Article no.	Price
Load class			0738.	[EUR/item]
Specification: Steel				
6116- 1,3	1,3	1	040-00101	on request
6116- 2,5	2,5	1	040-00102	on request
6116- 5,0	4,0 + 5,0	1	040-00103	on request
6116- 10,0	7,5 + 10,0	1	040-00104	on request
6116- 20,0	15,0 + 20,0	1	040-00105	on request
6116- 32,0	32,0	1	040-00106	on request

★ HALFEN remark: Turning and lifting links ordered as fully assembled units are delivered with a certificate
Replacement sets can be ordered for repair → see inspection and assembly instructions

6112

Pipe installation device

See Technical Product Information Lifting anchor system civil engineering



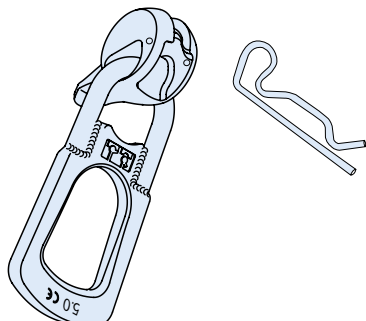
Article name	For pipe-lengths	PU [items]	Article no.	Price
Load class			0738.	[EUR/item]
Specification: Steel				
6112- 2,5	up to 3,5m	1	030-00001	on request
6112- 5,0	up to 3,5m	1	030-00002	on request
6112- 10,0	up to 3,5m	1	030-00003	on request
6112- 20,0	of to 2,5m	1	030-00004	on request
6112- 20,0	of to 3,0m	1	030-00005	on request
6112- 20,0	of to 3,5m	1	030-00006	on request

★ HALFEN remark: For lifting device with certificate use order no. 0738.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0738.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

DEHA LIFTING ANCHOR SYSTEM, ACCESSORIES

6105

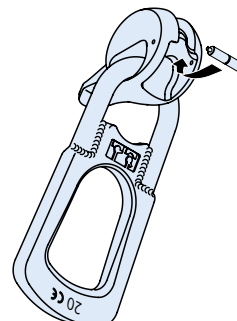
Hoisting hook



Article name	Load class	PU [items]	Article no.	Price
			0738.	[EUR/item]
Specification: Steel, zinc plated				
6105-2,5	2,5	1	210-00001	on request
6105-5,0	5,0	1	210-00002	on request
6105-10,0	10,0	1	210-00003	on request
6105-20,0	20,0	1	210-00004	on request
★ HALFEN remark: For lifting device with certificate use order no. 0738.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0738.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.				

6104

Accident recovery unit



Article name	Load class	Article no.	Price
			[EUR/item]
Specification: According to catalogue			
Load device with provision for locking pin to prevent unintentional removal (without chain)			
6104-	20,0	0738.070-00001	on request
Accessoires			
Spherical head lifting anchor (Specification: stainless steel)			
6000-	20,0 - 0180 A4	0735.009-00003	127,10
Recess formers, round with threaded rod and wing nut			
6132-	20,0	0736.020-00008	76,25

Fixing systems

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Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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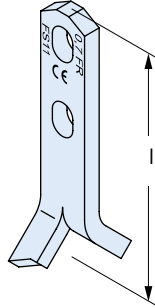
Bolts, Accessories

7

FRIMEDA LIFTING ANCHOR SYSTEM

TPA-FS

Spread anchor



Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: WB according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FS -	1,4 -	11	160	010-00002	1,95
TPA - FS -	1,4 -	16	100	010-00003	2,05
TPA - FS -	2,5 -	15	40	010-00007	2,70
TPA - FS -	2,5 -	20	40	010-00008	3,30
TPA - FS -	2,5 -	25	20	010-00009	4,00

For ring clutch and accessories load capacity 5,0

TPA - FS -	3,0 -	16 *	40	010-00010	3,70
TPA - FS -	3,0 -	20 *	40	010-00011	4,60
TPA - FS -	3,0 -	28 *	20	010-00012	5,55
TPA - FS -	4,0 -	18	40	010-00013	4,80
TPA - FS -	4,0 -	24	20	010-00014	5,95
TPA - FS -	4,0 -	32	20	010-00015	7,55
TPA - FS -	5,0 -	18	20	010-00016	5,95
TPA - FS -	5,0 -	24	20	010-00017	7,10
TPA - FS -	5,0 -	40	20	010-00018	10,75

For ring clutch and accessories load capacity 10,0

TPA - FS -	7,5 -	26	20	010-00022	12,70
TPA - FS -	7,5 -	30	1	010-00023	13,90
TPA - FS -	7,5 -	42	1	010-00024	18,85
TPA - FS -	10,0 -	30	1	010-00025	17,00
TPA - FS -	10,0 -	37	1	010-00026	20,80
TPA - FS -	10,0 -	52	1	010-00027	28,05

For ring clutch and accessories load capacity 26,0

TPA - FS -	14,0 -	37	1	010-00028	33,65
TPA - FS -	14,0 -	46	1	010-00029	41,30
TPA - FS -	22,0 -	50	1	010-00030	54,40
TPA - FS -	22,0 -	62	1	010-00031	67,25

Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: FV according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FS -	1,4 -	11 FV	160	110-00033	2,20
TPA - FS -	1,4 -	16 FV	100	110-00034	2,45
TPA - FS -	2,5 -	15 FV	40	110-00038	3,25
TPA - FS -	2,5 -	20 FV	40	110-00039	3,80
TPA - FS -	2,5 -	25 FV	20	110-00040	4,85

For ring clutch and accessories load capacity 5,0

TPA - FS -	4,0 -	18 FV	20	110-00044	5,55
TPA - FS -	4,0 -	24 FV	20	110-00045	7,10
TPA - FS -	4,0 -	32 FV	20	110-00046	9,00
TPA - FS -	5,0 -	18 FV	20	110-00047	7,10
TPA - FS -	5,0 -	24 FV	20	110-00048	8,55
TPA - FS -	5,0 -	40 FV	1	110-00049	13,00

For ring clutch and accessories load capacity 10,0

TPA - FS -	7,5 -	26 FV	1	110-00053	15,35
TPA - FS -	7,5 -	30 FV	1	110-00054	16,65
TPA - FS -	7,5 -	42 FV	1	110-00055	22,60
TPA - FS -	10,0 -	30 FV	1	110-00056	20,45
TPA - FS -	10,0 -	37 FV	1	110-00057	24,85
TPA - FS -	10,0 -	52 FV	1	110-00058	33,65

For ring clutch and accessories load capacity 26,0

TPA - FS -	14,0 -	37 FV	1	110-00059	40,50
TPA - FS -	14,0 -	46 FV	1	110-00060	49,50
TPA - FS -	22,0 -	50 FV	1	110-00061	65,25
TPA - FS -	22,0 -	62 FV	1	110-00062	80,55

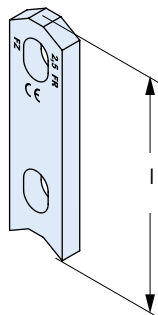
Stainless steel anchors up to load class 5,0 available on request.
Please enquire about delivery times and minimum order quantities before placing an order.

* Stock clearance sales in progress, available only while stocks last.

FRIMEDA LIFTING ANCHOR SYSTEM

TPA-FZ

Two-hole anchor



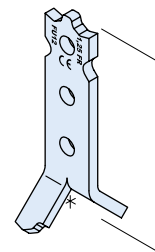
Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]
Specification: WB according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FZ -	1,4 - 9	200	020-00002	1,55
TPA - FZ -	2,5 - 9	100	020-00004	2,15
For ring clutch and accessories load capacity 5,0				
TPA - FZ -	3,0 - 12 *	40	020-00005	3,30
TPA - FZ -	4,0 - 12	40	020-00006	4,40
TPA - FZ -	5,0 - 12	40	020-00007	5,00
For ring clutch and accessories load capacity 10,0				
TPA - FZ -	7,5 - 16	20	020-00009	9,00
TPA - FZ -	10,0 - 17	20	020-00010	11,25
For ring clutch and accessories load capacity 26,0				
TPA - FZ -	14,0 - 24	1	020-00011	24,85
TPA - FZ -	22,0 - 30	1	020-00013	35,45
TPA - FZ -	26,0 - 30	1	020-00012	52,85
Specification: FV according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FZ -	1,4 - 9 FV	200	110-00064	1,75
TPA - FZ -	2,5 - 9 FV	100	110-00066	2,70
For ring clutch and accessories load capacity 5,0				
TPA - FZ -	4,0 - 12 FV	20	110-00068	5,30
TPA - FZ -	5,0 - 12 FV	20	110-00069	5,95
For ring clutch and accessories load capacity 10,0				
TPA - FZ -	7,5 - 16 FV	20	110-00071	10,85
TPA - FZ -	10,0 - 17 FV	20	110-00072	13,55
For ring clutch and accessories load capacity 26,0				
TPA - FZ -	14,0 - 24 FV	1	110-00073	29,90
TPA - FZ -	22,0 - 30 FV	1	110-00074	42,40
TPA - FZ -	26,0 - 30 FV	1	110-00075	63,45

Stainless steel anchors up to load class 5,0 available on request.
Please enquire about delivery times and minimum order quantities before placing an order.

* Stock clearance sales in progress, available only while stocks last.

TPA-FU

Universal anchor



Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]
Specification: WB according to table, page 2				
For ring clutch and accessories load capacity 1,25				
TPA - FU -	1,25 - 12	100	100-00001	2,00
Specification: FV according to table, page 2				
For ring clutch and accessories load capacity 1,25				
TPA - FU -	1,25 - 12 FV	100	100-00003	2,25
Specification: A2 according to table, page 2				
For ring clutch and accessories load capacity 1,25				
TPA - FU -	1,25 - 12 A2	100	100-00002	7,85

Fixing systems

1

Reinforcement systems

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Lifting systems

3

Façade connection systems

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DETAN Rod systems

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Industrial Technology

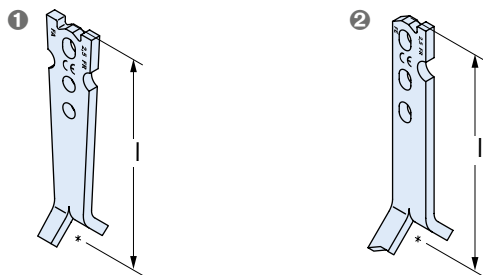
6

Bolts, Accessories

7

FRIMEDA LIFTING ANCHOR SYSTEM

TPA-FA/-FE



- ① TPA-FA Double shoulder erection anchor
② TPA-FE Single shoulder erection anchor

Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: WB according to table, page 2

For ring clutch and accessories load capacity 2,5					
TPA - FA -	1,4 -	20	40	030-00001	5,15
TPA - FA -	2,5 -	23	20	030-00002	7,50
For ring clutch and accessories load capacity 5,0					
TPA - FA -	4,0 -	27	20	030-00003	11,20
TPA - FA -	5,0 -	29	1	030-00004	14,15
For ring clutch and accessories load capacity 10,0					
TPA - FA -	7,5 -	32	1	030-00005	22,65
TPA - FA -	10,0 -	39	1	030-00006	32,05
For ring clutch and accessories load capacity 26,0					
TPA - FA -	12,5 -	50	1	030-00007	81,15
TPA - FA -	17,0 -	48	1	030-00008	97,95
TPA - FA -	22,0 -	50	1	030-00009	104,75
For ring clutch and accessories load capacity 2,5					
TPA - FE -	1,4 -	20	40	040-00001	5,15
TPA - FE -	2,5 -	23	20	040-00002	7,55
For ring clutch and accessories load capacity 5,0					
TPA - FE -	4,0 -	27	20	040-00003	11,25
TPA - FE -	5,0 -	29	1	040-00004	14,35
For ring clutch and accessories load capacity 10,0					
TPA - FE -	7,5 -	32	1	040-00005	22,90
TPA - FE -	10,0 -	39	1	040-00006	32,15
For ring clutch and accessories load capacity 26,0					
TPA - FE -	12,5 -	50	1	040-00007	80,30
TPA - FE -	17,0 -	50	1	040-00008	97,15
TPA - FE -	22,0 -	50	1	040-00009	103,40

Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: FV according to table, page 2

For ring clutch and accessories load capacity 2,5					
TPA - FA -	1,4 -	20 FV	40	110-00001	6,30
TPA - FA -	2,5 -	23 FV	20	110-00002	8,95
For ring clutch and accessories load capacity 5,0					
TPA - FA -	4,0 -	27 FV	1	110-00003	13,50
TPA - FA -	5,0 -	29 FV	1	110-00004	17,00
For ring clutch and accessories load capacity 10,0					
TPA - FA -	7,5 -	32 FV	1	110-00005	27,15
TPA - FA -	10,0 -	39 FV	1	110-00006	38,50
For ring clutch and accessories load capacity 26,0					
TPA - FA -	12,5 -	50 FV	1	110-00007	97,30
TPA - FA -	17,0 -	50 FV	1	110-00008	117,60
TPA - FA -	22,0 -	50 FV	1	110-00009	125,65

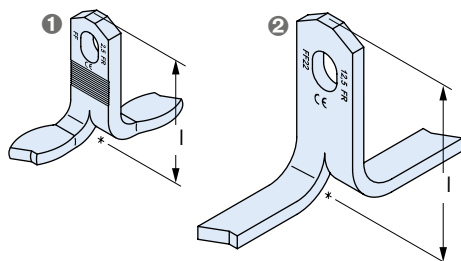
For ring clutch and accessories load capacity 2,5					
TPA - FE -	1,4 -	20 FV	40	110-00010	6,30
TPA - FE -	2,5 -	23 FV	20	110-00011	9,00
For ring clutch and accessories load capacity 5,0					
TPA - FE -	4,0 -	27 FV	1	110-00012	13,55
TPA - FE -	5,0 -	29 FV	1	110-00013	17,30
For ring clutch and accessories load capacity 10,0					
TPA - FE -	7,5 -	32 FV	1	110-00014	27,40
TPA - FE -	10,0 -	39 FV	1	110-00015	38,80
For ring clutch and accessories load capacity 26,0					
TPA - FE -	12,5 -	50 FV	1	110-00016	96,50
TPA - FE -	17,0 -	50 FV	1	110-00017	116,35
TPA - FE -	22,0 -	50 FV	1	110-00018	124,20

Stainless steel anchors up to load class 5,0 available on request.
Please enquire about delivery times and minimum order quantities before placing an order.

FRIMEDA LIFTING ANCHOR SYSTEM

TPA-FF

Flat foot anchor



- ① Version for load groups 2,5 - 5,0 (load groups 0,7 - 5,0 see table)
- ② Version for load groups 10,0 - 26,0 (load groups 7,5 - 22,0 see table)

Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: WB according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FF -	1,4 -	6	100	070-00002	3,40
TPA - FF -	2,5 -	7	80	070-00004	4,60

For ring clutch and accessories load capacity 5,0

TPA - FF -	3,0 -	9 *	1	070-00005	5,70
TPA - FF -	4,0 -	11	1	070-00006	6,45
TPA - FF -	5,0 -	12	1	070-00007	8,25

For ring clutch and accessories load capacity 10,0

TPA - FF -	7,5 -	17	1	070-00009	13,05
TPA - FF -	10,0 -	20	1	070-00010	16,45

For ring clutch and accessories load capacity 26,0

TPA - FF -	12,5 -	22	1	070-00011	24,10
TPA - FF -	17,0 -	27	1	070-00012	34,70
TPA - FF -	22,0 -	31	1	070-00013	53,85

Specification: FV according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FF -	1,4 -	6 FV	100	110-00020	4,15
TPA - FF -	2,5 -	7 FV	100	110-00022	5,40

For ring clutch and accessories load capacity 5,0

TPA - FF -	4,0 -	11 FV	1	110-00024	7,75
TPA - FF -	5,0 -	12 FV	1	110-00025	9,90

For ring clutch and accessories load capacity 10,0

TPA - FF -	7,5 -	17 FV	1	110-00027	15,65
TPA - FF -	10,0 -	20 FV	1	110-00028	19,75

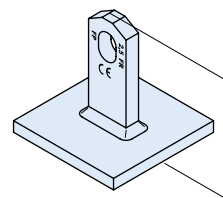
For ring clutch and accessories load capacity 26,0

TPA - FF -	12,5 -	22 FV	1	110-00029	28,80
TPA - FF -	17,0 -	27 FV	1	110-00030	41,75
TPA - FF -	22,0 -	31 FV	1	110-00031	64,80

* Stock clearance sales in progress, available only while stocks last.

TPA-FP

Plate anchor



Article name	Measure- ment l [cm]	Base plate [mm]	PU [items]	Article no.	Price
Load class				0070.	[EUR/item]

Specification: WB according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FP -	1,4 -	5	80/80	20	050-00001	8,25
TPA - FP -	2,5 -	8	80/80	20	050-00002	8,80

For ring clutch and accessories load capacity 5,0

TPA - FP -	5,0 -	12	100/100	1	050-00003	14,00
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For ring clutch and accessories load capacity 10,0

TPA - FP -	10,0 -	16	140/140	1	050-00004	26,00
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Specification: FV according to table, page 2

For ring clutch and accessories load capacity 2,5

TPA - FP -	1,4 -	5 FV	80/80	20	110-00076	9,90
TPA - FP -	2,5 -	8 FV	80/80	20	110-00077	10,65

For ring clutch and accessories load capacity 5,0

TPA - FP -	5,0 -	12 FV	100/100	1	110-00078	16,85
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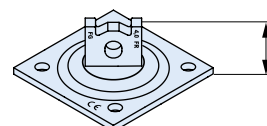
For ring clutch and accessories load capacity 10,0

TPA - FP -	10,0 -	16 FV	140/140	1	110-00079	31,25
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Stainless steel anchors up to load class 5,0 available on request.
Please enquire about delivery times and minimum order quantities before placing an order.

TPA-FG

Garage anchor



Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]

Specification: WB according to table, page 2

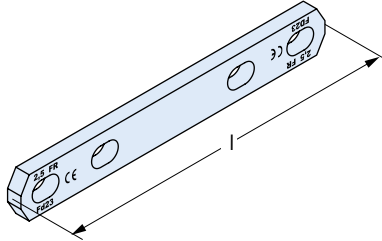
For ring clutch and accessories load capacity 5,0

TPA - FG -	4,0 -	7	1	060-00001	18,40
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FRIMEDA LIFTING ANCHOR SYSTEM

TPA-FD

Double-head anchor
Lengths according to customer request

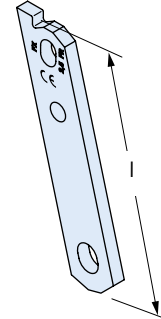


Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]
Specification: WB according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FD - 2,5 - L-SK		1	089-00001 ①	on request
For ring clutch and accessories load capacity 5,0				
TPA - FD - 5,0 - L-SK		1	089-00001 ①	on request
For ring clutch and accessories load capacity 10,0				
TPA - FD - 7,5 - L-SK		1	089-00001 ①	on request
TPA - FD - 10,0 - L-SK		1	089-00001 ①	on request
For ring clutch and accessories load capacity 26,0				
TPA - FD - 12,5 - L-SK		1	089-00001 ①	on request
TPA - FD - 17,0 - L-SK		1	089-00001 ①	on request
TPA - FD - 22,0 - L-SK		1	089-00001 ①	on request
Specification: FV according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FD - 2,5 - L-SK FV		1	089-00002 ①	on request
For ring clutch and accessories load capacity 5,0				
TPA - FD - 5,0 - L-SK FV		1	089-00002 ①	on request
For ring clutch and accessories load capacity 10,0				
TPA - FD - 7,5 - L-SK FV		1	089-00002 ①	on request
TPA - FD - 10,0 - L-SK FV		1	089-00002 ①	on request
For ring clutch and accessories load capacity 26,0				
TPA - FD - 12,5 - L-SK FV		1	089-00002 ①	on request
TPA - FD - 17,0 - L-SK FV		1	089-00002 ①	on request
TPA - FD - 22,0 - L-SK FV		1	089-00002 ①	on request

① Please check installation depth and provide anchor length „L“. Stainless steel anchors up to load class 5,0 available on request. Please enquire about delivery times and minimum order quantities before placing an order.

TPA-FX

Lifting anchor for sandwich panels



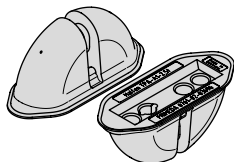
Article name	Measure- ment l [cm]	PU [items]	Article no.	Price
Load class			0070.	[EUR/item]
Specification: WB according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FX - 2,5 - 25		20	090-00001	8,30
For ring clutch and accessories load capacity 5,0				
TPA - FX - 5,0 - 30		1	090-00002	13,85
For ring clutch and accessories load capacity 10,0				
TPA - FX - 7,5 - 35		1	090-00003	24,30
TPA - FX - 10,0 - 35		1	090-00004	31,65
For ring clutch and accessories load capacity 26,0				
TPA - FX - 17,0 - 40		1	090-00005	91,85
Specification: FV according to table, page 2				
For ring clutch and accessories load capacity 2,5				
TPA - FX - 2,5 - 25 FV		20	090-00006	9,95
For ring clutch and accessories load capacity 5,0				
TPA - FX - 5,0 - 30 FV		1	090-00007	16,60
For ring clutch and accessories load capacity 10,0				
TPA - FX - 7,5 - 35 FV		1	090-00008	29,05
TPA - FX - 10,0 - 35 FV		1	090-00009	37,80
For ring clutch and accessories load capacity 26,0				
TPA - FX - 17,0 - 40 FV		1	090-00010	110,15

Stainless steel anchors up to load class 5,0 available on request. Please enquire about delivery times and minimum order quantities before placing an order.

FRIMEDA LIFTING ANCHOR SYSTEM, ACCESSORIES

TPA-A1

Recess former with threaded/bayonet connection, for all anchors except TPA-FU/-FG



Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]

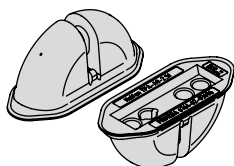
Specification: Plastic

TPA - A1 -	2,5	orange	4	010-00001	16,65
TPA - A1 -	5,0	black	4	010-00002	20,30
TPA - A1 -	10,0	green	4	010-00003	48,10
TPA - A1 -	26,0	blue	1	010-00004	134,95

Fixing units according to page 127 or page 128 must be ordered separately.

TPA-A9

Recess former (as A1, but without lateral recess), for anchor TPA-FS/-FZ/-FD/-FP/-FF, not for TPA-FA/-FE/-FX/-FU/-FG



Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]

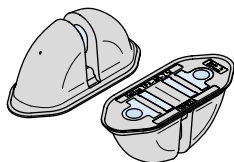
Specification: Plastic EPDM

TPA - A9 -	2,5	orange	4	090-00001	16,65
TPA - A9 -	5,0	black	4	090-00002	24,60
TPA - A9 -	10,0	green	4	090-00003	48,10
TPA - A9 -	26,0	blue	1	090-00004	134,95

Fixing units according to page 127 or page 128 must be ordered separately.

TPA-AM

Magnetic recess former, for all anchors except TPA-FU/-FG



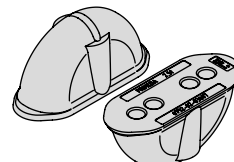
Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]

Specification: Plastic

TPA - AM -	2,5	orange	1	100-00001	on request
TPA - AM -	5,0	black	1	100-00002	on request

TPA-A2

Recess former for anchor TPA-FS/-FZ/-FD/-FP/-FF, not for TPA-FA/-FE/-FX/-FU/-FG



Article name	PU [items]	Article no.	Price
Load class		0072.	[EUR/item]

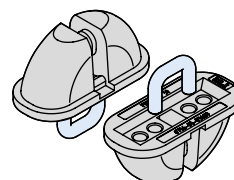
Specification: Rubber

TPA - A2 -	2,5	4	020-00001	10,65
TPA - A2 -	5,0	4	020-00002	14,15
TPA - A2 -	10,0	4	020-00003	41,90

Fixing units according to page 127 or page 128 must be ordered separately.

TPA-A3

Recess former, incl. fastener, especially for garage anchor TPA-FG



Article name	PU [items]	Article no.	Price
Load class		0072.	[EUR/item]

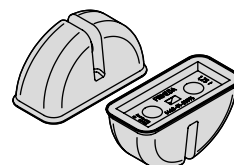
Specification: Rubber

TPA - A3 -	5,0	4	030-00001	25,90
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Fixing units according to page 127 or page 128 must be ordered separately.

TPA-A7

Recess former with threaded connection for universal anchor TPA-FU



Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]

Specification: Plastic

TPA - A7 -	1,25	blue	20	070-00001	7,15
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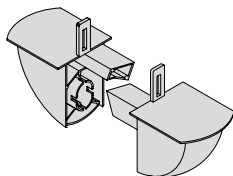
Fixing units according to page 127 or page 128 must be ordered separately.

FRIMEDA LIFTING ANCHOR SYSTEM, ACCESSORIES

1
Fixing systems

TPA - A8

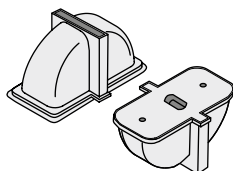
Recess former (consists of two parts), for all anchors except TPA-FU/-FG



Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]
Specification: Plastic				
TPA - A8 - 2,5	orange	200	080-00001	0.50

TPA - SCFA

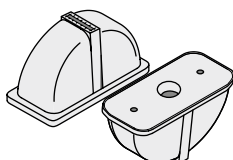
Single-use recess former for anchor with nib, type TPA-FA



Article name	PU [items]	kg/item	Article no.	Price
Load group			0072.	[EUR/item]
Specification: Plastic				
TPA - SCFA - 3,0 / 4,0	500	0,07	150-00002	on request
TPA - SCFA - 5,0	500	0,07	150-00003	on request
TPA - SCFA - 7,5	500	0.07	150-00005	on request

TPA - SCFS

Single-use recess former for anchor, type TPA-FS, -FZ, -FF, -FP, -FD



Article name	PU [items]	kg/item	Article no.	Price
Load group			0072.	[EUR/item]
Specification: Plastic				
TPA - SCFS - 3.0 / 4.0 / 5.0	500	0.05	150-00004	on request

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

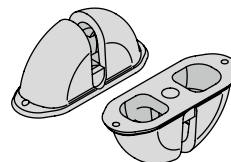
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

TPA - A4

Recess former, incl. wedge for all anchors except TPA-FU/-FG



Article name	Colour code	PU [items]	Article no.	Price
Load class			0072.	[EUR/item]
Specification: Plastic				
TPA - A4 - 2,5	orange	4	040-00001	13,15
TPA - A4 - 5,0	black	4	040-00002	18,90
TPA - A4 - 10,0	green	4	040-00003	52,65
TPA - A4 - 26,0	blue	2	040-00004	104,40
Fixing units according to page 127 or page 128 must be ordered separately.				

TPA - A-E1

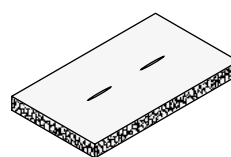
Spare wedge for recess former A4



Article name	PU [items]	Article no.	Price
Load class		0072.	[EUR/item]
Specification: Steel			
TPA - A - E1 - 2,5	20	120-00002	3,00
TPA - A - E1 - 5,0	20	120-00003	4,80
TPA - A - E1 - 10,0	4	120-00004	26,00
TPA - A - E1 - 26.0	1	120-00005	40.70

TPA - A-Z1

Foam strip for recess former A4

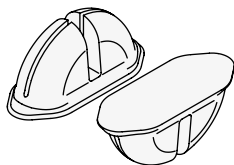


Article name	PU [items]	Article no.	Price [EUR/100 items]
Load class		0072.	
Specification: Foam material			
TPA - A - Z1 - 2,5	100	120-00006	51,55
TPA - A - Z1 - 5,0	100	120-00007	51,55
TPA - A - Z1 - 10,0	100	120-00008	55,45
TPA - A - Z1 - 26,0	100	120-00009	108,40

FRIMEDA LIFTING ANCHOR SYSTEM, ACCESSORIES

TPA-V1

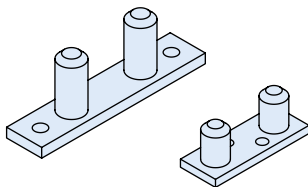
Recess void filler



Article name	PU [items]	Article no.	Price
Load class		0073.	[EUR/item]
Specification: Polystyrene			
TPA - V1 - 2,5	200	080-00001	0,65
TPA - V1 - 5,0	200	080-00002	1,15
TPA - V1 - 10,0	100	080-00003	2,00
TPA - V1 - 26,0	1	080-00004	3,25

TPA-H1

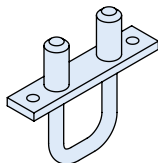
Holding plate for recess formers A1 and A9 or A7



Article name	PU [items]	Article no.	Price
Load class		0073.	[EUR/item]
Specification: Steel			
TPA - H1 - 1,25	20	010-00001	5,55
TPA - H1 - 2,5	20	010-00002	5,60
TPA - H1 - 5,0	20	010-00003	6,10
TPA - H1 - 10,0	4	010-00004	11,00
TPA - H1 - 26,0	4	010-00005	15,95

TPA-H2

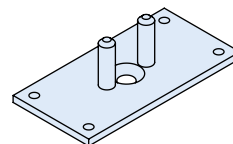
Holding plate for installation of recess formers A1 and A9



Article name	PU [items]	Article no.	Price
Load class		0073.	[EUR/item]
Specification: Steel			
TPA - H2 - 2,5	4	020-00001	12,65
TPA - H2 - 5,0	4	020-00002	12,70
TPA - H2 - 10,0	4	020-00003	19,90
TPA - H2 - 26,0	4	020-00004	24,60

TPA-H3

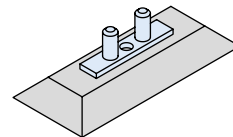
Holding plate for recess former A2



Article name	PU [items]	Article no.	Price
Load class		0073.	[EUR/item]
Specification: Steel			
TPA - H3 - 2,5	4	030-00001	13,10
TPA - H3 - 5,0	4	030-00002	13,40
TPA - H3 - 10,0	4	030-00003	14,80

TPA-HM

Magnetic holding plate for recess former A1 and A9



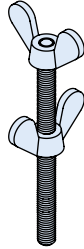
Article name	PU [items]	Article no.	Price
Load class		0073.	[EUR/item]
Specification: Steel with magnet			
TPA - HM - 2,5	1	050-00001	214,45
TPA - HM - 5,0	1	050-00002	214,45
TPA - HM - 10,0	1	050-00003	on request

FRIMEDA LIFTING ANCHOR SYSTEM, ACCESSORIES

1
Fixing systems

TPA-S1

Holding bolt with wing nut



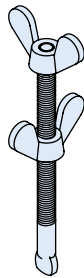
Article name	For load class	PU [items]	Article no. 0073.	Price [EUR/item]
Specification: Steel				
TPA - S1 - M8	1,25/2,5/5,0	10	060-00001	7,10
TPA - S1 - M12	10,0	10	060-00002	10,65
TPA - S1 - M16	26,0	10	060-00003	15,65

2
Reinforcement systems

3
Lifting systems

TPA-S2

Bayonet holding bolt with wing nut for recess former A1 and A9



Article name	For load class	PU [items]	Article no. 0073.	Price [EUR/item]
Specification: Steel				
TPA - S2 - M8	2,5/5,0	10	070-00001	11,00
TPA - S2 - M12	10,0/26,0	10	070-00002	13,90

4
Façade connection systems

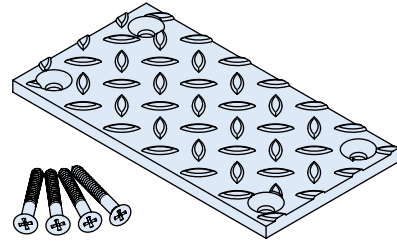
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

TPA-VA

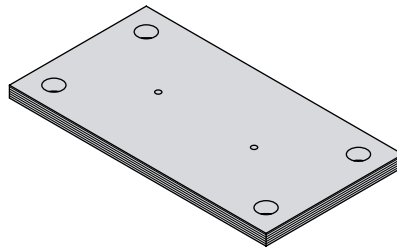
Lock covering for FRIMEDA lifting anchors
Suitable for vehicle traffic



Article name	For load class	Article no. 0073.	Price [EUR/item]
Load class			
Specification: A2 according to table, page 2			
TPA-VA 2,5	1,4 + 2,5	110-00001	on request
TPA-VA 5,0	4,0 + 5,0	110-00002	on request
TPA-VA 10,0	7,5 + 10,0	110-00003	on request
TPA-VA 26,0	12,5 + 26,0	110-00004	on request

TPA-VM

Fixing aid for lock covering
Reusable



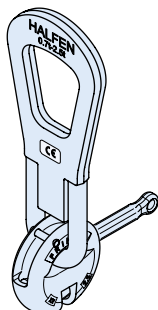
Article name	For load class	Article no. 0073.	Price [EUR/item]
Load class			
Specification: Wood			
TPA-VM 2,5	1,4 + 2,5	120-00001	on request
TPA-VM 5,0	4,0 + 5,0	120-00002	on request
TPA-VM 10,0	7,5 + 10,0	120-00003	on request
TPA-VM 26,0	12,5 + 26,0	120-00004	on request

Holding plate TPA-H1, anchor and recess formers must be ordered separately

FRIMEDA LIFTING ANCHOR SYSTEM, RING CLUTCHES, ACCESSORIES

TPA-R1

Ring clutch with steel bale

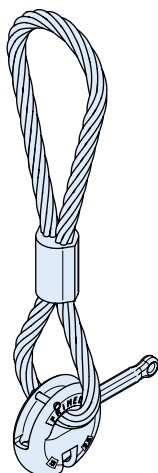


Article name	PU [items]	Article no.	Price
Load class		0071.	[EUR/item]
Specification: Steel, zinc plated			
TPA - R1 - 2,5	1	010-00001	157,65
TPA - R1 - 5,0	1	010-00002	221,25
TPA - R1 - 10,0	1	010-00006	389,10
TPA - R1 - 26,0	1	010-00007	829,90

★ HALFEN remark: For lifting device with certificate use order no. 0071.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0071.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

TPA-R2

Ring clutch with cable
For load groups 1,25 - 10,0

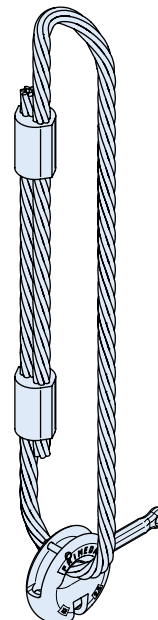


Article name	PU [items]	Article no.	Price
Load class		0071.	[EUR/item]
Specification: Steel, zinc plated			
TPA - R2 - 1,25	1	020-00001	132,55
TPA - R2 - 2,5	1	020-00002	159,35
TPA - R2 - 5,0	1	020-00003	214,70
TPA - R2 - 10,0	1	020-00006	377,70

★ HALFEN remark: For lifting device with certificate use order no. 0071.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0071.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

TPA-R3

Ring clutch with cable
For load group 26,0



Article name	PU [items]	Article no.	Price
Load class		0071.	[EUR/item]
Specification: Steel, zinc plated			
TPA - R3 - 26,0	1	020-00007	871,25

★ HALFEN remark: For lifting device with certificate use order no. 0071.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0071.0.-01... Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

TPA-R-E1

Replacement lifting pin for ring clutches
suitable for TPA-R1, -R2, -R3



Article name	PU [items]	Article no.	Price
Load class		0071.	[EUR/item]
Specification: Steel, zinc plated			
TPA - R - E1 - 1,25 Zi	4	060-00001	10,65
TPA - R - E1 - 2,5 Zi	4	060-00002	13,05
TPA - R - E1 - 5,0 Zi	4	060-00003	18,35
TPA - R - E1 - 10,0 forged	2	060-00004	41,05
TPA - R - E1 - 26,0 forged	2	060-00005	73,00

FRIMEDA LIFTING ANCHOR SYSTEM, RING CLUTCHES

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

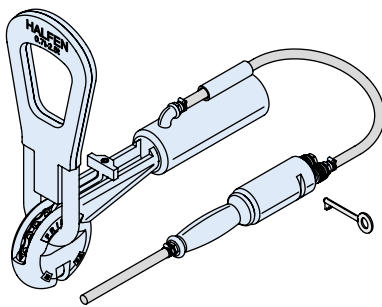
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

TPA-F1

Ring clutch with pneumatic remote release
Order the manual-valve for pneumatic remote release separately
Accessories (to be ordered separately):
• Fabric hose TPA-F1, length according to customer request
• Hose coupling TPA-F1
For other accessories see Technical Product Information TPA
Delivered according to customer specifications

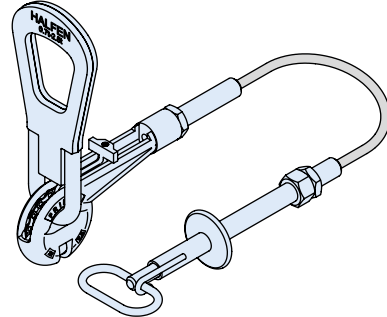


Article name	PU [items]	Article no.	Price
Load class		0071.	[EUR/item]
Specification: Steel, zinc plated			
TPA - F1 - 2,5	1	030-00001	on request
TPA - F1 - 5,0	1	030-00002	on request
TPA - F1 - 10,0	1	030-00003	on request
TPA - F1 - 22,0	1	030-00004	on request

★ HALFEN remark: For lifting device with certificate use order no. 0071.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0071.0.-01...
Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

TPA-F2

Ring clutch with manual remote release, complete
Delivered according to customer specifications



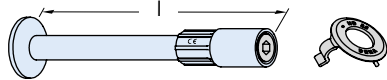
Article name	Length of bowden cable	PU [items]	Article no.	Price
Load class			0071.	[EUR/item]
Specification: Steel, zinc plated				
TPA - F2 - 2,5	L= 2,5 m	1	040-00001	on request
TPA - F2 - 2,5	L= 5,0 m	1	040-00002	on request
TPA - F2 - 2,5	L= 7,5 m	1	040-00003	on request
TPA - F2 - 2,5	L= 10,0 m	1	040-00004	on request
TPA - F2 - 5,0	L= 2,5 m	1	040-00005	on request
TPA - F2 - 5,0	L= 5,0 m	1	040-00006	on request
TPA - F2 - 5,0	L= 7,5 m	1	040-00007	on request
TPA - F2 - 5,0	L= 10,0 m	1	040-00008	on request
TPA - F2 - 10,0	L= 2,5 m	1	040-00009	on request
TPA - F2 - 10,0	L= 5,0 m	1	040-00010	on request
TPA - F2 - 10,0	L= 7,5 m	1	040-00011	on request
TPA - F2 - 10,0	L= 10,0 m	1	040-00012	on request
TPA - F2 - 22,0	L= 2,5 m	1	040-00013	on request
TPA - F2 - 22,0	L= 5,0 m	1	040-00014	on request
TPA - F2 - 22,0	L= 7,5 m	1	040-00015	on request
TPA - F2 - 22,0	L= 10,0 m	1	040-00016	on request

★ HALFEN remark: For lifting device with certificate use order no. 0071.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0071.0.-01...
Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

HD-SOCKET LIFTING SYSTEM

6360

HD anchor and HD short anchor with sleeve protection and identification cap



Article name	Measure- ment l [mm]	Thread	Colour code	PU [items]	Article no.	Price
Load class					0740.	[EUR/item]

Specification: Steel, zinc plated

6360 - 1,3 - 130	Rd12	red	100	130-00001	2,45
6360 - 2,5 - 140	Rd16	blau	100	130-00040	2,85
6360 - 2,5 - 200	Rd16	light grey	40	130-00002	3,40
6360 - 4,0 - 258	Rd20	green	40	130-00003	5,80
6360 - 5,0 - 325	Rd24	blue	20	130-00004	8,25
6360 - 7,5 - 400	Rd30	violet	1	130-00005	15,85
6360 - 10,0 - 475	Rd36	orange	1	130-00006	30,00
6360 - 12,5 - 550	Rd42	brown	1	130-00007	51,40
6360 - 15,0 - 575	Rd52	black	1	130-00008	56,50
6360 - 25,0 - 630	Rd64	green	1	130-00041	138,75

6360 - 1,3 - 70	Rd12	red	100	130-00017	2,25
6360 - 2,5 - 90	Rd16	light grey	40	130-00018	3,35
6360 - 4,0 - 125	Rd20	green	40	130-00019	6,45
6360 - 5,0 - 140	Rd24	blue	20	130-00020	7,80
6360 - 7,5 - 185	Rd30	violet	20	130-00038	13,75

Specification: A4 according to table, page 2

6360 - 1,3 - 130 - A4	Rd12	red	100	130-00009	9,30
6360 - 2,5 - 200 - A4	Rd16	light grey	40	130-00010	16,15
6360 - 4,0 - 258 - A4	Rd20	green	20	130-00011	24,35
6360 - 5,0 - 325 - A4	Rd24	blue	20	130-00012	36,60
6360 - 7,5 - 400 - A4	Rd30	violet	1	130-00013	80,35
6360 - 10,0 - 475 - A4	Rd36	orange	1	130-00014	96,45
6360 - 12,5 - 550 - A4	Rd42	brown	1	130-00015	127,60
6360 - 15,0 - 575 - A4	Rd52	black	1	130-00016	181,05

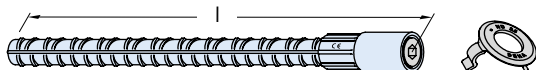
6360 - 1,3 - 70 - A4	Rd12	red	100	130-00021	11,80
6360 - 2,5 - 90 - A4	Rd16	light grey	40	130-00022	19,95
6360 - 4,0 - 125 - A4	Rd20	green	40	130-00023	27,90
6360 - 5,0 - 140 - A4	Rd24	blue	20	130-00024	60,20
6360 - 7,5 - 185 - A4	Rd30	violet	20	130-00039	84,00

Other dimensions on request.

Please enquire about delivery times and minimum order quantities before placing an order.

6361

HD rod anchor with sleeve protection and identification cap



Article name	Measure- ment l [mm]	Thread	Colour code	PU [items]	Article no.	Price
Load class					0740.	[EUR/item]

Specification: Sleeve: stainless steel, zinc coated. Base: steel, mill-finish

6361 - 1,3 - 300	Rd12	red	100	140-00001	2,45
6361 - 2,5 - 400	Rd16	light grey	40	140-00002	4,90
6361 - 4,0 - 520	Rd20	green	20	140-00003	7,10
6361 - 5,0 - 540	Rd24	blue	20	140-00004	9,95
6361 - 7,5 - 700	Rd30	violet	1	140-00005	17,30
6361 - 10,0 - 800	Rd36	orange	1	140-00006	31,90
6361 - 12,5 - 920	Rd42	brown	1	140-00007	49,00

Article name	Measure- ment l [mm]	Thread	Colour code	PU [items]	Article no.	Price
Load class					0740.	[EUR/item]

Specification: Sleeve: stainless steel, zinc coated. Base: steel, mill-finish

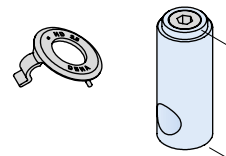
6361 - 15,0 - 1100	Rd52	black	1	140-00008	62,15
6361 - 23,0 - 1310	Rd64	green	1	140-00018	72,25

Other anchor lengths and stainless steel version on request

Please enquire about delivery times and minimum order quantities before placing an order.

6376

HD plain anchor with sleeve protection and identification cap



Article name	Thread	l [mm]	Colour code	PU [items]	Article no.	Price
Load class					0740.	[EUR/item]

Specification: Steel, zinc plated

6376 - 1,3 GV	Rd12	65	red	100	190-00001	2,25
6376 - 2,5 GV	Rd16	70	light grey	40	190-00002	3,70
6376 - 4,0 GV	Rd20	85	green	20	190-00003	6,45
6376 - 5,0 GV	Rd24	98	blue	20	190-00004	10,10
6376 - 7,5 GV	Rd30	115	violet	10	190-00005	16,65
6376 - 10,0 GV	Rd36	135	orange	10	190-00006	22,50

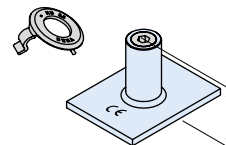
Specification: A4 according to table, page 2

6376 - 1,3 A4	Rd12	65	red	100	190-00007	on request
6376 - 2,5 A4	Rd16	70	light grey	40	190-00008	on request
6376 - 4,0 A4	Rd20	85	green	20	190-00009	on request
6376 - 5,0 A4	Rd24	98	blue	20	190-00010	on request
6376 - 7,5 A4	Rd30	115	violet	10	190-00011	on request
6376 - 10,0 A4	Rd36	135	orange	10	190-00012	on request

Please enquire about delivery times and minimum order quantities before placing an order.

6370

HD plate anchor with sleeve protection and identification cap



Article name	Thread	l [mm]	Colour code	PU [items]	Article no.	Price
Load class					0740.	[EUR/item]

Specification: Steel, zinc plated

6370 - 1,3 - GV	Rd12	46	red	40	180-00001	8,50
6370 - 2,5 - GV	Rd16	54	light grey	40	180-00002	8,90
6370 - 4,0 - GV	Rd20	72	green	20	180-00003	12,15
6370 - 5,0 - GV	Rd24	84	blue	20	180-00004	14,45
6370 - 7,5 - GV	Rd30	98	violet	1	180-00005	19,10

Specification: A4 according to table, page 2

6370 - 1,3 - A4	Rd12	46	red	40	180-00006	12,65
6370 - 2,5 - A4	Rd16	54	light grey	40	180-00007	19,45
6370 - 4,0 - A4	Rd20	72	green	20	180-00008	32,55
6370 - 5,0 - A4	Rd24	84	blue	20	180-00009	46,30
6370 - 7,5 - A4	Rd30	98	violet	1	180-00010	75,65

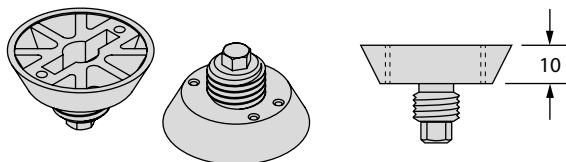
Other dimensions on request.

Please enquire about delivery times and minimum order quantities before placing an order.

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

6358

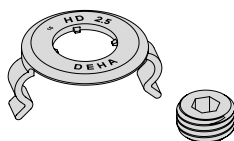
HD nailing plate



Article name	Load class	External-Ø [mm]	Colour code	Article no.	Price
For Rd-Thread				0741.	[EUR/item]
Specification: Plastic					
6358 - 12	1,3	40	red	040-00001	0,15
6358 - 16	2,5	40	light grey	040-00003	0,15
6358 - 20	4,0	55	green	040-00005	0,15
6358 - 24	5,0	55	blue	040-00006	0,15
6358 - 30	7,5	70	violet	040-00007	0,40
6358 - 36	10,0	70	orange	040-00008	0,40
6358 - 42	12,5	95	brown	040-00009	0,65
6358 - 52	15,0	95	black	040-00010	0,95

6363

HD sleeve protection with identification cap



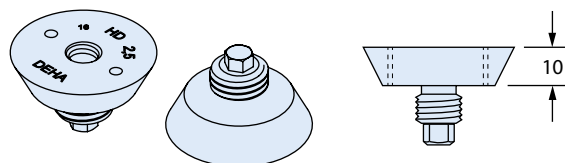
Article name	Thread	Colour code	PU [items]	Article no.	Price
Load class				0741.	[EUR/100 items]
Specification: Plastic					
6363 - 1,3	Rd12	red	100	170-00001	16,05
6363 - 2,5	Rd16	light grey	100	170-00002	16,35
6363 - 4,0	Rd20	green	100	170-00003	18,25
6363 - 5,0	Rd24	blue	100	170-00004	19,60
6363 - 7,5	Rd30	violet	100	170-00005	31,55
6363 - 10,0	Rd36	orange	100	170-00006	52,00
6363 - 12,5	Rd42	brown	40	170-00007	96,50
6363 - 15,0	Rd52	black	40	170-00008	122,25
6363 - 25,0 *	Rd64	green	40	170-00101	477,80

* without sleeve protection

6369

HD nailing plate

Used with retaining bolt 6160

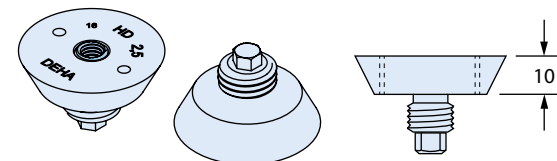


Article name	Load class	External-Ø [mm]	PU [items]	Article no.	Price
Rd-thread				0741.	[EUR/item]
Specification: Steel					
6369 - 12	1,3	40	4	190-00001	21,60
6369 - 16	2,5	40	4	190-00002	24,90
6369 - 20	4,0	55	4	190-00003	38,90
6369 - 24	5,0	55	4	190-00004	39,15
6369 - 30	7,5	70	4	190-00005	44,20
6369 - 36	10,0	70	2	190-00006	57,55
6369 - 42	12,5	95	2	190-00007	59,30
6369 - 52	15,0	95	2	190-00008	62,75

6369 pre-assembled

HD nailing plate with adapter, pre-assembled

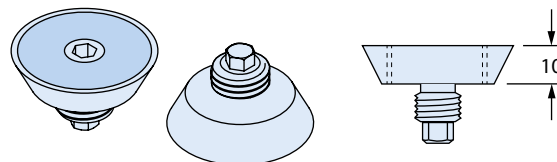
For use with assembly pin 6330



Article name	For thread	External-Ø [mm]	PU [items]	Article no.	Price
				0741.	[EUR/item]
Specification: Steel					
6369 - 16 - A	16	40	1	190-00102	44,25
6369 - 20 - A	20	55	1	190-00103	60,35
6369 - 24 - A	24	55	1	190-00104	75,10
6369 - 30 - A	30	70	1	190-00105	93,60

6365

HD magnetic plate

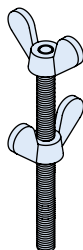


Article name	Load class	External-Ø [mm]	PU [items]	Article no.	Price
Rd-thread				0741.	[EUR/item]
Specification: Steel with magnet					
6365 - 12	1,3	40	1	180-00001	142,15
6365 - 16	2,5	40	1	180-00002	142,15
6365 - 20	4,0	55	1	180-00003	148,30
6365 - 24	5,0	55	1	180-00004	148,30
6365 - 30	7,5	70	1	180-00005	158,05
6365 - 36	10,0	70	1	180-00006	162,70
6365 - 42	12,5	95	1	180-00007	186,80
6365 - 52	15,0	95	1	180-00008	190,30

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

TPA-S1

Holding bolt



Article name	For load class	PU [items]	Article no.	Price
			0073.	[EUR/item]

Specification: Steel

TPA - S1 - M8	*1	10	060-00001	7,10
TPA - S1 - M10	*2	10	060-00004	8,75
TPA - S1 - M12	*3	10	060-00002	10,65
TPA - S1 - M16	*4	10	060-00003	15,65

*1: M8 for 6510-12, 6520-12, 6520-16

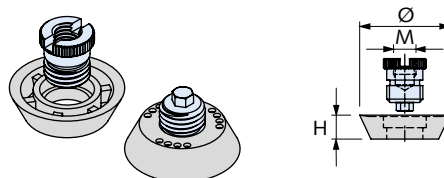
*2: M10 for 6369-16, 6510-16

*3: M12 for 6369-20, 6369-24, 6369-30, 6510-20, 6510-24, 6510-30, 6510-36, 6510-42, 6510-52, 6520-20, 6520-24, 6520-30, 6520-36, 6520-42, 6520-52

*4: M16 for 6369-36, 6369-42, 6369-52, 6510-64

6510

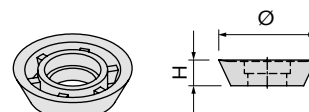
Nailing plate for HD and combi anchors for all lifting clutches
Suitable for RD- and M-threads



Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Ring: plastic. Threaded portion: steel						
6510 - 12	40	10	red	10	080-00101	18,05
6510 - 16	40	10	light grey	10	080-00103	19,35
6510 - 20	55	10	green	10	080-00105	20,80
6510 - 24	55	10	blue	10	080-00106	22,50
6510 - 30	70	10	violet	10	080-00107	39,35
6510 - 36	70	10	orange	10	080-00108	46,85
6510 - 42	95	12	brown	10	080-00109	on request
6510 - 52	95	12	black	10	080-00110	on request
6510 - 64	110	12	green	1	080-00111	on request

6512

Replacement ring for 6510

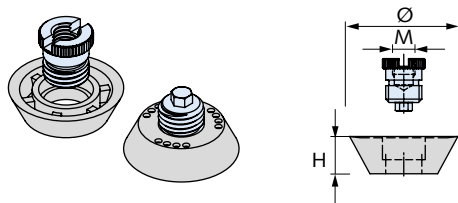


Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Plastic						
6512 - 12	40	10	red	10	090-00001	1,55
6512 - 16	40	10	light grey	10	090-00003	1,55
6512 - 20	55	10	green	10	090-00005	1,60
6512 - 24	55	10	blue	10	090-00006	1,60
6512 - 30	70	10	violet	10	090-00007	1,95
6512 - 36	70	10	orange	10	090-00008	1,95
6512 - 42	95	12	brown	10	090-00009	on request
6512 - 52	95	12	black	10	090-00010	on request
6512 - 64	110	12	green	10	090-00011	on request

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

6520

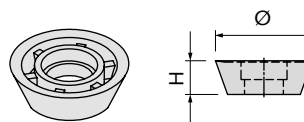
Nailing plate for HD and combi anchors for all lifting clutches
Suitable for RD- and M-threads



Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Ring: plastic. Threaded portion: steel						
6520 - 12	50	20	red	10	210-00101	19,75
6520 - 16	50	20	light grey	10	210-00103	21,20
6520 - 20	65	20	green	10	210-00105	22,85
6520 - 24	65	20	blue	10	210-00106	24,65
6520 - 30	80	20	violet	10	210-00107	43,35
6520 - 36	80	20	orange	10	210-00108	51,55
6520 - 42	105	20	brown	10	210-00109	on request
6520 - 52	105	20	black	10	210-00110	on request

6522

Replacement ring, single

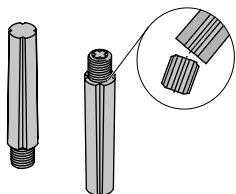


Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Plastic						
6522 - 12	50	20	red	10	230-00001	1,65
6522 - 16	50	20	light grey	10	230-00003	1,65
6522 - 20	65	20	green	10	230-00005	1,75
6522 - 24	65	20	blue	10	230-00006	1,75
6522 - 30	80	20	violet	10	230-00007	2,10
6522 - 36	80	20	orange	10	230-00008	2,10
6522 - 42	105	20	brown	10	230-00009	on request
6522 - 52	105	20	black	10	230-00010	on request

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

6330

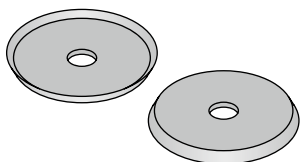
Assembly pin



Article name	PU [items]	Article no.	Price [EUR/100 items]
Specification: Plastic		0741.	
6330 - Rd12-30	100	300-00001	35,05

6334

Sealing plate

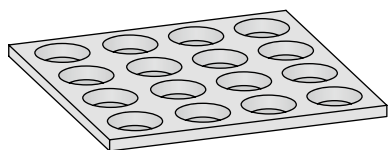


Article name	PU [items]	Article no.	Price [EUR/item]
For thread		0741.	
Specification: Rubber			
6334 - Rd12-16	100	330-00001	7,70
6334 - Rd20-24	100	330-00002	8,10
6334 - Rd30-36	100	330-00003	8,75

6329

Mould

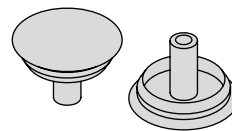
for the production of colour matched recess plugs from the same concrete batch
For recess depth 10 mm



Article name	PU [items]	Article no.	Price [EUR/item]
Specification: Polyurethane		0741.	
6329 - 12-16	1	290-00001	56,60
6329 - 20-24	1	290-00002	78,55
6329 - 30-36	1	290-00003	95,75
6329 - 42-52	1	290-00004	85,60

6513

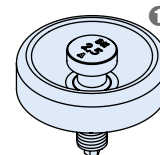
HD sealing plate



Article name	Load class	External-Ø [mm]	PU [items]	Article no.	Price [EUR/item]
Rd-thread				0741.	
Specification: Plastic					
6513 - 12	1,3	40	50	280-00001	2,70
6513 - 16	2,5	40	50	280-00002	2,70
6513 - 20	4,0	40	50	280-00003	3,25
6513 - 24	5,0	40	50	280-00004	3,25

6366

Adapter for universal head clutch 6102 in conjunction with socket anchor in all variants

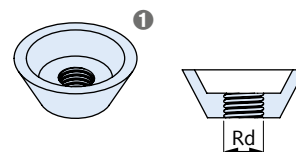


① Suitable for nailing plate recess depth h = 10 mm

Article name	Load class	For universal head clutch type	PU [items]	Article no.	Price [EUR/item]
For thread				0742.	
Specification: Steel					
6366 - 12	0,5 / 1,3	1/1,3	1	140-00001	67,70
6366 - 16	1,2 / 2,5	1,5/2,5	1	140-00002	73,00
6366 - 20	2,0 / 4,0	3/5	1	140-00003	82,50
6366 - 24	2,5 / 5,0	3/5	1	140-00004	84,90
6366 - 30	4,0 / 7,5	6/10	1	140-00005	101,65
6366 - 36	6,3 / 10,0	6/10	1	140-00006	149,85
6366 - 42	8,0 / 12,5	12/20	1	140-00007	159,45
6366 - 52	12,5 / 15,0	12/20	1	140-00008	327,55

6368

Adapter for adapter 6366



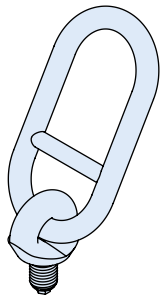
① Allows adapter 6366 to be used with nailing plates h = 20 mm

Article name	For Rd-Thread	PU [items]	Article no.	Price [EUR/item]
Specification: Steel hot-dip galvanized			0742.	
6368 - 12	12	1	150-00001	on request
6368 - 16	16	1	150-00002	on request
6368 - 20	20	1	150-00003	on request
6368 - 24	24	1	150-00004	on request
6368 - 30	30	1	150-00005	on request
6368 - 36	36	1	150-00006	on request
6368 - 42	42	1	150-00007	on request
6368 - 52	52	1	150-00008	on request

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

6362

HD lifting clutch



Article name	Thread	Load class	PU [items]	Article no.	Price
				0742.	[EUR/item]
Specification: Steel, zinc plated					
6362 - 12	Rd12	1,3	1	130-00001	103,90
6362 - 16	Rd16	2,5	1	130-00002	107,90
6362 - 20	Rd20	4,0	1	130-00003	128,90
6362 - 24	Rd24	5,0	1	130-00004	137,60
6362 - 30	Rd30	7,5	1	130-00005	150,70
6362 - 36	Rd36	10,0	1	130-00006	155,15
6362 - 42	Rd42	12,5	1	130-00007	291,25
6362 - 52	Rd52	15,0	1	130-00008	309,40

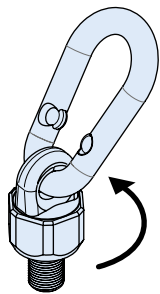
★ HALFEN remark: For lifting device with certificate use order no.

0742.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0742.0.-01...

Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

6367

HD rotary head lifting clutch



Article name	Thread	Load class	PU [items]	Article no.	Price
				0742.	[EUR/item]
Specification: Steel, zinc plated					
6367 - 12	Rd12	1,3	1	230-00001	154,45
6367 - 16	Rd16	2,5	1	230-00002	160,55
6367 - 20	Rd20	4,0	1	230-00003	189,70
6367 - 24	Rd24	5,0	1	230-00004	219,30
6367 - 30	Rd30	7,5	1	230-00005	303,85
6367 - 36	Rd36	10,0	1	230-00006	409,90
6367 - 42	Rd42	12,5	1	230-00007	474,55
6367 - 52	Rd52	15,0	1	230-00008	502,90
6367 - 64	Rd64	25,0	1	230-00009	1.407,60

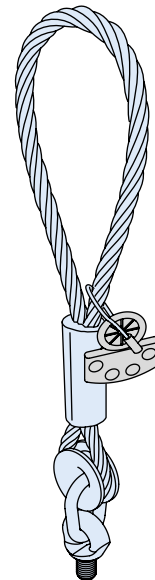
★ HALFEN remark: For lifting device with certificate use order no.

0742.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0742.0.-01...

Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

6377

DEHA HD perfect head lifting clutch



Article name	Thread	Load class	Colour code	PU [items]	Article no.	Price
					0742.	[EUR/item]
Specification: Steel, zinc plated						
6377 - 12	Rd12	1,3	red	1	170-00001	170,55
6377 - 16	Rd16	2,5	light grey	1	170-00002	172,20
6377 - 20	Rd20	4,0	green	1	170-00003	243,20
6377 - 24	Rd24	5,0	blue	1	170-00004	259,65
6377 - 30	Rd30	7,5	violet	1	170-00005	430,15
6377 - 36	Rd36	10,0	orange	1	170-00006	539,50
6377 - 42	Rd42	12,5	brown	1	170-00007	556,05
6377 - 52	Rd52	15,0	black	1	170-00008	621,25

★ HALFEN remark: For lifting device with certificate use order no.

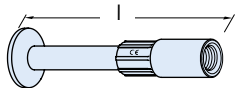
0742.0.-001... For lifting device with certificate and proof tested to twice the work load use order no. 0742.0.-01...

Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

HD-SOCKET LIFTING SYSTEM, ACCESSORIES

6352

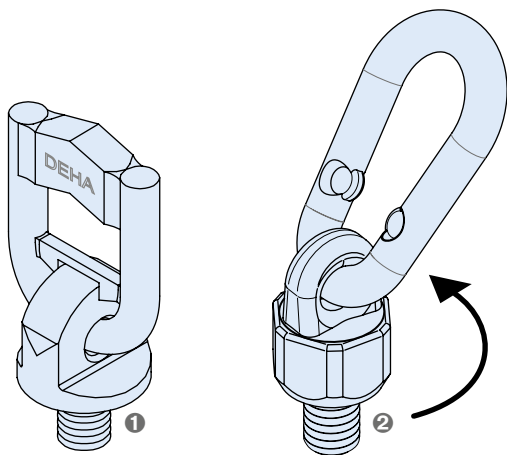
Segment anchor without sleeve protection for axial tension up to 10°



Article name	Measurement l [mm]	For thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Sleeve zinc plated					
6352 -	20,0 - 600	52	1	070-00027	45,75

6312

Segment lifting link for 6352. Especially low construction height
Only for axial tension



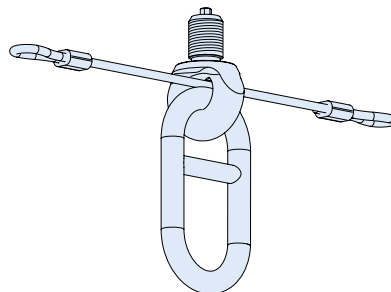
- ❶ 6312-20,0
- ❷ 6312-20,0-D

Article name	Thread	PU [items]	Article no.	Price
Load class			0742.	[EUR/item]
Specification: Steel, zinc plated				
6312-	20,0	Rd52	1	128-00001 on request
6312-	20,0-D	Rd52	1	128-00002 on request

★ HALFEN remark: For lifting device with certificate use order no. 0742.0.-001... For lifting device with certificate and proof tested with twice the work load use order no. 0742.0.-01...
Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

6362-HH

HD lifting clutch with safety cable



Article name	Thread	Article no.	Price
		0742.	[EUR/item]
Specification: GV-S = electroplated special coating ★			
6362 -	1,3 HH	Rd12	137-00001 on request
6362 -	2,5 HH	Rd16	137-00002 on request
6362 -	4,0 HH	Rd20	137-00003 on request
6362 -	5,0 HH	Rd24	137-00004 on request
6362 -	7,5 HH	Rd30	137-00005 on request
6362 -	10,0 HH	Rd36	137-00006 on request
6362 -	12,5 HH	Rd42	137-00007 on request
6362 -	15,0 HH	Rd52	137-00008 on request

HD anchor and bolts must be ordered separately

★ HALFEN remark: For lifting device with certificate use order no.

0742.0.-001... For lifting device with certificate and proof tested with twice the work load use order no. 0742.0.-01...

Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

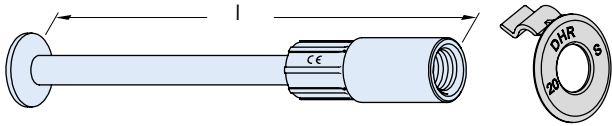
Bolts, Accessories

7

SOCKET ANCHOR SYSTEM

6351

Combi anchor with identification cap



Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Sleeve: stainless steel, zinc coated. Base: steel, mill-finish					
6351 - 0,5 - 100	100	Rd12	160	010-00002	1,60
6351 - 0,5 - 150	150	Rd12	100	010-00003	1,95
6351 - 0,8 - 70	70	Rd14	160	010-00007	1,60
6351 - 0,8 - 105	105	Rd14	160	010-00005	1,75
6351 - 0,8 - 155	155	Rd14	100	010-00006	2,45
6351 - 1,2 - 77	77	Rd16	80	010-00008	1,70
6351 - 1,2 - 130	130	Rd16	80	010-00009	1,95
6351 - 1,2 - 175	175	Rd16	40	010-00010	2,75
6351 - 1,6 - 90	90	Rd18	40	010-00015	2,70
6351 - 1,6 - 150	150	Rd18	40	010-00013	3,00
6351 - 1,6 - 225	225	Rd18	40	010-00014	3,65
6351 - 2,0 - 183	183	Rd20	40	010-00017	3,40
6351 - 2,0 - 250	250	Rd20	20	010-00018	5,15
6351 - 2,5 - 200	200	Rd24	20	010-00021	4,20
6351 - 2,5 - 275	275	Rd24	20	010-00022	6,30
6351 - 4,0 - 275	275	Rd30	20	010-00026	8,15
6351 - 4,0 - 345	345	Rd30	20	010-00027	9,70
6351 - 6,3 - 334	334	Rd36	1	010-00029	14,00
6351 - 8,0 - 385	385	Rd42	1	010-00031	22,40
6351 - 8,0 - 500	500	Rd42	1	010-00032	28,15
6351 - 12,5 - 550	550	Rd52	1	010-00033	61,00
Specification: Sleeve: stainless steel A4, corrosion resistant. Base: steel, mill-finish					
6351 - 0,5 - 70-A4	70-A4	Rd12	20	010-00035	11,10
6351 - 0,5 - 100-A4	100-A4	Rd12	20	010-00036	11,25
6351 - 0,8 - 70-A4	70-A4	Rd14	1	010-00050	11,20
6351 - 0,8 - 105-A4	105-A4	Rd14	1	010-00038	13,60
6351 - 1,2 - 77-A4	77-A4	Rd16	1	010-00039	18,35
6351 - 1,2 - 130-A4	130-A4	Rd16	1	010-00040	18,85
6351 - 1,6 - 90-A4	90-A4	Rd18	1	010-00051	24,05
6351 - 1,6 - 150-A4	150-A4	Rd18	1	010-00041	28,70
6351 - 2,0 - 183-A4	183-A4	Rd20	1	010-00042	34,45
6351 - 2,5 - 200-A4	200-A4	Rd24	1	010-00044	41,20
6351 - 4,0 - 275-A4	275-A4	Rd30	1	010-00046	96,10
6351 - 6,3 - 334-A4	334-A4	Rd36	1	010-00047	137,60
6351 - 8,0 - 385-A4	385-A4	Rd42	1	010-00048	208,40
6351 - 12,5 - 550-A4	550-A4	Rd52	1	010-00049	268,70

6319

Rod anchor with identification cap

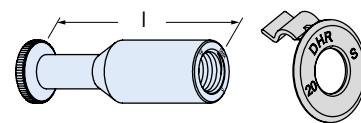


Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Sleeve: stainless steel, zinc coated. Base: steel, mill-finish					
6319 - 0,5 - 190	190	Rd12	100	030-00001	1,75
6319 - 0,8 - 230	230	Rd14	40	030-00003	2,30
6319 - 1,2 - 270	270	Rd16	40	030-00004	2,70
6319 - 1,6 - 350	350	Rd18	40	030-00006	3,65
6319 - 2,0 - 350	350	Rd20	40	030-00007	4,40
6319 - 2,5 - 400	400	Rd24	20	030-00010	5,70
6319 - 4,0 - 540	540	Rd30	20	030-00012	8,50
6319 - 6,3 - 670	670	Rd36	1	030-00013	16,25
6319 - 8,0 - 780	780	Rd42	1	030-00014	23,30
6319 - 12,5 - 1100	1100	Rd52	1	030-00015	58,05

Other lengths on request. Please enquire about delivery times and minimum order quantities before placing an order.
Stainless steel sleeve on request. Please enquire about delivery times and minimum order quantities before placing an order.
Accessories (nail plate, plugs) → pages 139 - 142

6380

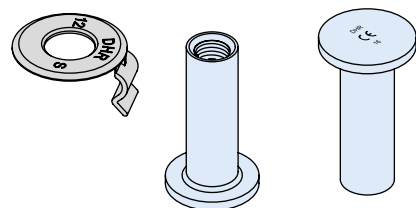
Crown anchor with identification cap



Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Steel, zinc plated					
6380 - 0,5 - 60	60	Rd12	300	020-00001	1,95

6308

Short anchor with identification cap

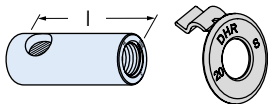


Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Steel, zinc plated					
6308- 0,5- 50	50	Rd12	300	060-00101	2,30
Specification: A4 according to table, page 2					
6308- 0,5- 50	50	Rd12	1	060-00114	15,50

SOCKET ANCHOR SYSTEM, ACCESSORIES

6372

Plain anchor with identification cap



Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]

Specification: Steel, zinc plated

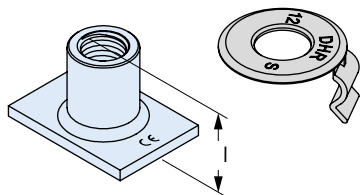
6372 -	0,5 -	50	Rd12	300	040-00001	1,55
6372 -	0,8 -	54	Rd14	200	040-00002	1,95
6372 -	1,2 -	61	Rd16	160	040-00003	2,30
6372 -	1,6 -	70	Rd18	100	040-00004	2,95
6372 -	2,0 -	73	Rd20	40	040-00005	3,30
6372 -	2,5 -	86	Rd24	40	040-00006	4,60
6372 -	4,0 -	107	Rd30	20	040-00007	7,75
6372 -	6,3 -	136	Rd36	1	040-00008	37,10

Specification: A4 according to table, page 2

6372 -	0,5 - A4 -	50	Rd12	300	040-00009	12,40
6372 -	1,2 - A4 -	61	Rd16	160	040-00011	19,45
6372 -	2,0 - A4 -	73	Rd20	40	040-00013	32,50
6372 -	2,5 - A4 -	86	Rd24	40	040-00014	48,75
6372 -	4,0 - A4 -	107	Rd30	20	040-00015	86,45
6372 -	6,3 - A4 -	136	Rd36	1	040-00017	134,70

6346

Threaded plate anchor with identification cap



Article name	Measure- ment l [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]

Specification: Steel, zinc plated

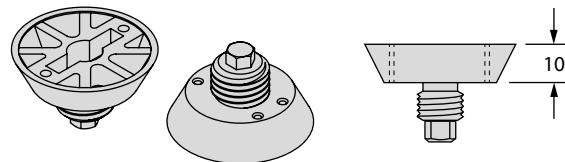
6346 -	0,5 -	30	Rd12	100	050-00001	5,55
6346 -	0,8 -	33	Rd14	100	050-00002	5,60
6346 -	1,2 -	35	Rd16	100	050-00003	6,30
6346 -	1,6 -	44	Rd18	40	050-00004	7,55
6346 -	2,0 -	47	Rd20	40	050-00005	8,95
6346 -	2,5 -	54	Rd24	40	050-00006	9,65
6346 -	4,0 -	72	Rd30	20	050-00007	14,90
6346 -	6,3 -	84	Rd36	1	050-00015	on request

Specification: A4 according to table, page 2

6346 -	0,5 - A4 -	30	Rd12	100	050-00008	23,00
6346 -	0,8 - A4 -	33	Rd14	100	050-00009	27,40
6346 -	1,2 - A4 -	35	Rd16	100	050-00010	30,95
6346 -	1,6 - A4 -	44	Rd18	40	050-00011	41,40
6346 -	2,0 - A4 -	47	Rd20	40	050-00012	49,05
6346 -	2,5 - A4 -	54	Rd24	40	050-00013	68,00
6346 -	4,0 - A4 -	72	Rd30	20	050-00014	103,80
6346 -	6,3 - A4 -	84	Rd36	1	050-00016	on request

6358

Combi nailing plate for all lifting clutches
Suitable for Rd- and M-threads



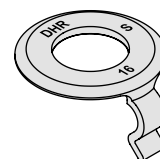
Article name	Colour code	External-Ø [mm]	Height [mm]	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]

Specification: Plastic

6358 -	12	red	40	10	100	040-00001	0,15
6358 -	14	yellow	40	10	100	040-00002	0,15
6358 -	16	light grey	40	10	100	040-00003	0,15
6358 -	18	pink	55	10	100	040-00004	0,15
6358 -	20	green	55	10	100	040-00005	0,15
6358 -	24	blue	55	10	100	040-00006	0,15
6358 -	30	violet	70	10	100	040-00007	0,40
6358 -	36	orange	70	10	100	040-00008	0,40
6358 -	42	brown	95	12	100	040-00009	0,65
6358 -	52	black	95	12	100	040-00010	0,95

6357

Identification cap for rod anchor 6319, combi anchor 6351, crown anchor 6380
and plain anchor 6372 → pages 138, 139



Article name	Colour code	PU [items]	Article no.	Price
For thread			0741.	[EUR/100 items]

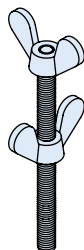
Specification: Plastic

6357 -	12	pink	100	110-00001	15,15
6357 -	14	yellow	100	110-00002	15,15
6357 -	16	white	100	110-00003	15,15
6357 -	18	black	100	110-00004	15,15
6357 -	20	light green	100	110-00005	17,60
6357 -	24	light blue	100	110-00006	17,60
6357 -	30	lilac	100	110-00007	27,85
6357 -	36	yellow	100	110-00008	27,85
6357 -	42	light brown	100	110-00009	40,50
6357 -	52	dark grey	100	110-00010	40,50

SOCKET ANCHOR SYSTEM, ACCESSORIES

TPA-S1

Holding bolt



Article name	For load class	PU [items]	Article no.	Price
			0073.	[EUR/item]
Specification: Steel				
TPA-S1 - M8	*1	10	060-00001	7,10
TPA-S1 - M10	*2	10	060-00004	8,75
TPA-S1 - M12	*3	10	060-00002	10,65
TPA-S1 - M16	*4	10	060-00003	15,65

*1: M8 for 6510-12, 6510-14, 6520-12, 6520-14, 6520-16

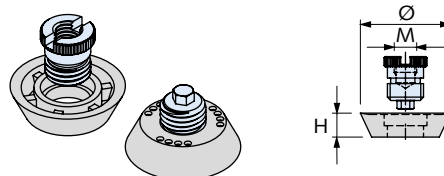
*2: M10 for 6369-16, 6510-16, 6510-18, 6520-18

*3: M12 for 6369-20, 6369-24, 6369-30, 6510-20, 6510-24, 6510-30, 6510-36, 6510-42, 6510-52, 6520-20, 6520-24, 6520-30, 6520-36, 6520-42, 6520-52

*4: M16 for 6369-36, 6369-42, 6369-52, 6510-64

6510

Combi anchors for all lifting clutches
Suitable for Rd- and M-threads

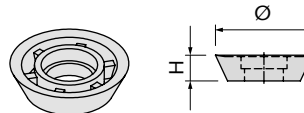


Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Ring: plastic. Threaded portion: steel						
6510 - 12	40	10	red	10	080-00101	18,05
6510 - 14*	40	10	yellow	10	080-00002	18,05
6510 - 16	40	10	light grey	10	080-00103	19,35
6510 - 18*	55	10	black	10	080-00004	20,80
6510 - 20	55	10	green	10	080-00105	20,80
6510 - 24	55	10	blue	10	080-00106	22,50
6510 - 30	70	10	violet	10	080-00107	39,35
6510 - 36	70	10	orange	10	080-00108	46,85
6510 - 42	95	12	brown	10	080-00109	on request
6510 - 52	95	12	black	10	080-00110	on request

* Rd14 and Rd18 without hexagonal

6512

Replacement ring for 6510

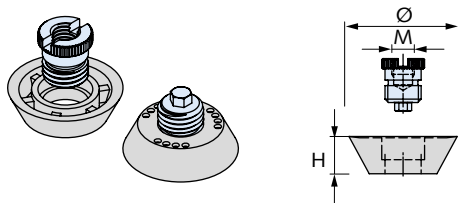


Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Plastic						
6512 - 12	40	10	red	10	090-00001	1,55
6512 - 14	40	10	yellow	10	090-00002	1,55
6512 - 16	40	10	light grey	10	090-00003	1,55
6512 - 18	55	10	black	10	090-00004	1,60
6512 - 20	55	10	green	10	090-00005	1,60
6512 - 24	55	10	blue	10	090-00006	1,60
6512 - 30	70	10	violet	10	090-00007	1,95
6512 - 36	70	10	orange	10	090-00008	1,95
6512 - 42	95	12	brown	10	090-00009	on request
6512 - 52	95	12	black	10	090-00010	on request

SOCKET ANCHOR SYSTEM, ACCESSORIES

6520

Combi anchors for all lifting clutches
Suitable for RD- and M-threads

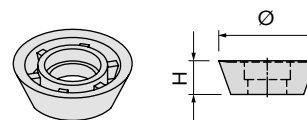


Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Ring: plastic. Threaded portion: steel						
6520 - 12	50	20	red	250	210-00101	19,85
6520 - 14*	50	20	yellow	250	210-00002	19,85
6520 - 16	50	20	light grey	250	210-00103	21,30
6520 - 18*	65	20	black	250	210-00004	22,85
6520 - 20	65	20	green	100	210-00105	22,85
6520 - 24	65	20	blue	100	210-00106	24,65
6520 - 30	80	20	violet	100	210-00107	43,35
6520 - 36	80	20	orange	100	210-00108	51,55
6520 - 42	105	20	brown	100	210-00109	on request
6520 - 52	105	20	black	100	210-00110	on request

* Rd14 and Rd18 without hexagonal

6522

Replacement ring, single



Article name	External-Ø [mm]	Height [mm]	Colour code	PU [items]	Article no.	Price
For thread					0741.	[EUR/item]
Specification: Ring: plastic. Threaded portion: steel						
6522 - 12	50	20	red	250	230-00001	1,65
6522 - 14	50	20	yellow	250	230-00002	1,65
6522 - 16	50	20	light grey	250	230-00003	1,65
6522 - 18	65	20	black	250	230-00004	1,75
6522 - 20	65	20	green	100	230-00005	1,75
6522 - 24	65	20	blue	100	230-00006	1,75
6522 - 30	80	20	violet	100	230-00007	2,10
6522 - 36	80	20	orange	100	230-00008	2,10
6522 - 42	105	20	brown	100	230-00009	on request
6522 - 52	105	20	black	100	230-00010	on request

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

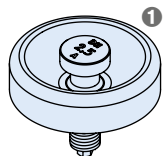
Bolts, Accessories

7

SOCKET ANCHOR SYSTEM, ACCESSORIES

6366

Adapter for universal head clutch 6102 in conjunction with socket anchor in all variants

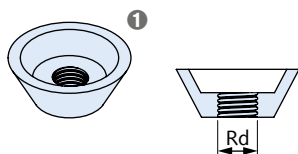


① Suitable for nailing plate h = 10 mm

Article name	Load class	For universal head clutch type	PU [items]	Article no.	Price
For thread				0742.	[EUR/item]
Specification: Steel					
6366 - 12	0,5 / 1,3	1/1,3	1	140-00001	67,70
6366 - 16	1,2 / 2,5	1,5/2,5	1	140-00002	73,00
6366 - 20	2,0 / 4,0	3/5	1	140-00003	82,50
6366 - 24	2,5 / 5,0	3/5	1	140-00004	84,90
6366 - 30	4,0 / 7,5	6/10	1	140-00005	101,65
6366 - 36	6,3 / 10,0	6/10	1	140-00006	149,85
6366 - 42	8,0 / 12,5	12/20	1	140-00007	159,45
6366 - 52	12,5 / 15,0	12/20	1	140-00008	327,55

6368

Supplement for adapter 6366



① Allows adapter 6366 to be used with nailing plates h = 20 mm

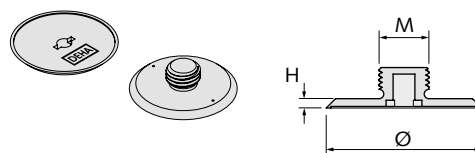
Article name	For Rd-Thread	PU [items]	Article no.	Price
			0742.	[EUR/item]
Specification: Steel hot-dip galvanized				
6368-12	12	1	150-00001	on request
6368-16	16	1	150-00002	on request
6368-20	20	1	150-00003	on request
6368-24	24	1	150-00004	on request
6368-30	30	1	150-00005	on request
6368-36	36	1	150-00006	on request
6368-42	42	1	150-00007	on request
6368-52	52	1	150-00008	on request

Not available for Rd-Thread 14 and Rd-Thread 18

6306

Adhesive plate for holding socket anchors to the formwork, suitable for Rd- and M-threads

Please note: Use with loop lifter 6311 up to 45° only



Article name	External-Ø [mm]	Height [mm]	PU [items]	Article no.	Price
For thread				0741.	[EUR/item]
Specification: Rubber					
6306 - 12	50	3	500	100-00002	0,40
6306 - 16	50	3	500	100-00003	0,40
6306 - 20	50	3	500	100-00004	0,40
6306 - 24	50	3	500	100-00005	0,40

6315

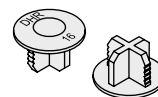
Sealing plug for rod anchor 6319, combi anchor 6351, crown anchor 6380, threaded panel anchor 6346 and plain anchor 6372 → pages 138, 139



Article name	PU [items]	Article no.	Price
For thread		0741.	[EUR/100 items]
Specification: Plastic, uncoloured			
6315 - 12	100	130-00001	15,15
6315 - 14	100	130-00002	20,20
6315 - 16	100	130-00003	20,20
6315 - 18	100	130-00004	27,85
6315 - 20	100	130-00005	27,85
6315 - 24	100	130-00006	27,85
6315 - 30	100	130-00007	32,70
6315 - 36	100	130-00008	35,45
6315 - 42	100	130-00009	37,80
6315 - 52	100	130-00010	42,90

6359

Sealing plug for rod anchor 6319, combi anchor 6351, crown anchor 6380 and plain anchor 6372 → pages 138, 139



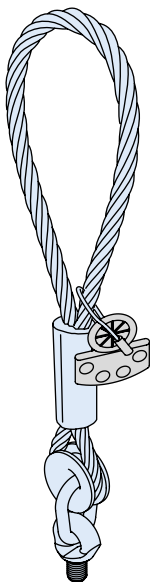
Article name	Colour code	PU [items]	Article no.	Price
For thread			0741.	[EUR/100 items]
Specification: Plastic				
6359 - 12	red	100	120-00001	7,55
6359 - 14	yellow	100	120-00002	7,55
6359 - 16	light grey	100	120-00003	10,10
6359 - 18	black	100	120-00004	10,10
6359 - 20	green	100	120-00005	10,10
6359 - 24	blue	100	120-00006	10,10
6359 - 30	violet	100	120-00007	15,15
6359 - 36	orange	100	120-00008	15,15
6359 - 42	brown	100	120-00009	32,70
6359 - 52	black	100	120-00010	32,70

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

SOCKET ANCHOR SYSTEM, LIFTING DEVICE

6377 / 6313

DEHA perfect head lifting clutch

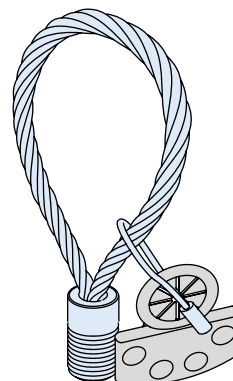


Article name	Thread	Load class	Colour code	PU [items]	Article no. 0742.	Price [EUR/item]
Specification: Steel, zinc plated						
6377 - 12	Rd12	0,5	red	1	170-00001	170,55
6313 - 14	Rd14	0,8	yellow	1	060-00002	170,55
6377 - 16	Rd16	1,2	light grey	1	170-00002	172,20
6313 - 18	Rd18	1,6	black	1	060-00004	177,75
6377 - 20	Rd20	2,0	green	1	170-00003	243,20
6377 - 24	Rd24	2,5	blue	1	170-00004	259,65
6377 - 30	Rd30	4,0	violet	1	170-00005	430,15
6377 - 36	Rd36	6,3	orange	1	170-00006	539,50
6377 - 42	Rd42	8,0	brown	1	170-00007	556,05
6377 - 52	Rd52	12,5	black	1	170-00008	621,25

★ HALFEN remark: For lifting device with certificate use order no. 0742.0..001... For lifting device with certificate and proof tested to twice the work load use order no. 0742.0..01...
Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

6311

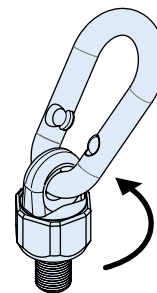
Loop lifter for rod anchor 6319, combi anchor 6351, crown anchor 6380, threaded panel anchor 6346 and plain anchor 6372 with Rd-thread
→ pages 138, 139



Article name	Thread	Load class	Colour code	PU [items]	Article no. 0742.	Price [EUR/item]
Specification: Steel, zinc plated						
6311 - 12	Rd12	0,5	pink	10	040-00001	13,90
6311 - 14	Rd14	0,8	yellow	10	040-00002	14,00
6311 - 16	Rd16	1,2	white	10	040-00003	19,35
6311 - 18	Rd18	1,6	black	10	040-00004	22,90
6311 - 20	Rd20	2,0	light green	10	040-00005	27,00
6311 - 24	Rd24	2,5	light blue	10	040-00006	31,55
6311 - 30	Rd30	4,0	lilac	1	040-00007	49,25
6311 - 36	Rd36	6,3	yellow	1	040-00008	95,10
6311 - 42	Rd42	8,0	light brown	1	040-00009	118,75
6311 - 52	Rd52	12,5	dark gray	1	040-00010	196,45

6367

HD rotary head lifting clutch



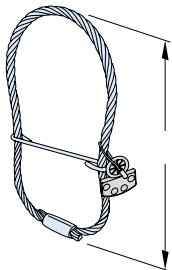
Article name	Thread	Load class	PU [items]	Article no. 0742.	Price [EUR/item]
Specification: Steel, zinc plated					
6367 - 12	Rd12	1,3	1	230-00001	154,45
6367 - 16	Rd16	2,5	1	230-00002	160,55
6367 - 20	Rd20	4,0	1	230-00003	189,70
6367 - 24	Rd24	5,0	1	230-00004	219,30
6367 - 30	Rd30	7,5	1	230-00005	303,85
6367 - 36	Rd36	10,0	1	230-00006	409,90
6367 - 42	Rd42	12,5	1	230-00007	474,55
6367 - 52	Rd52	15,0	1	230-00008	502,90

★ HALFEN remark: For lifting device with certificate use order no. 0742.0..001... For lifting device with certificate and proof tested to twice the work load use order no. 0742.0..01...
Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.

LIFTING LOOP

6325

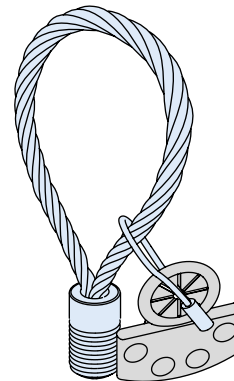
Lifting loop



Article name	Length l [mm]	Colour code	PU [items]	Article no.	Price
Load class				0742.	[EUR/item]
Specification: Steel					
6325- 0,8	200	yellow	1	110-00001	2,05
6325- 1,2	220	white	1	110-00002	2,75
6325- 1,6	240	black	1	110-00003	3,00
6325- 2,0	270	light green	1	110-00004	3,70
6325- 2,5	300	light blue	1	110-00005	4,10
6325- 4,0	350	lilac	1	110-00006	5,60
6325- 6,3	400	yellow	1	110-00007	10,75
6325- 8,0	450	light brown	1	110-00008	15,65
6325- 10,0	500	orange	1	110-00009	23,55
6325- 12,5	530	dark gray	1	110-00010	29,25
6325- 16,0	600	violet	1	110-00011	39,10
6325- 20,0	700	brown	1	110-00012	63,10
6325- 25,0	800	green	1	110-00013	78,40
Other load capacities on request					

6311 M

Loop lifter for metric thread



Article name	Load class	Colour code	PU [items]	Article no.	Price
Thread				0742.	[EUR/item]
Specification: Steel, zinc plated					
6311 - M12	0,5	orange	10	050-00001	on request
6311 - M14	0,8	white	10	050-00002	on request
6311 - M16	1,2	red	10	050-00003	on request
6311 - M18	1,6	pink	10	050-00004	on request
6311 - M20	2,0	yellow	10	050-00005	on request
6311 - M24	2,5	black	10	050-00006	on request
6311 - M30	4,0	green	2	050-00007	on request
6311 - M36	6,3	blue	2	050-00008	on request
6311 - M42	8,0	light grey	2	050-00009	on request

Façade connection systems

Features

- Adjustable anchoring system
- German approval
- Systems for parapets and non-bearing façade elements
- CE marked according EN1090

HALFEN FPA-SL30
System for thin
concrete façade
panels

NEW



HALFEN FPA Precast panel
anchor for concrete
precast façades

Benefits

- Quick and easy installation
- Extensive range of types to accommodate large façade cavities and high loads
- Also suitable for thin, large-format concrete façade panels
- Very extensive range of accessories
- Verifiable dimensioning software

Features

- Fixing for precast parapet or attic panels
- Rigid connection with no additional brackets
- Also available with adjustable bolts for the vertical adjustment
- Type-tested
- CE marked according EN1090

Specification in
Lean Duplex



HALFEN BRA Parapet corbel

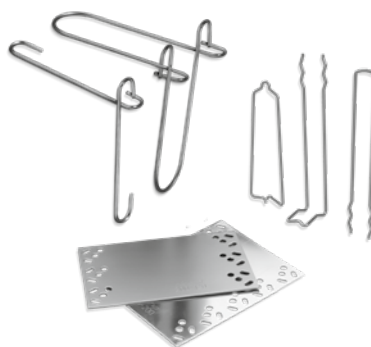


Benefits

- Reduced thermal bridging
- Designed in stainless steel for high corrosion protection
- Very quick to install
- Higher level of prefabrication
- High load capacity through the use of high quality stainless steel Lean Duplex
- Verifiable dimensioning software

Features

- System with supporting anchor and restraint tie
- Used to join the load-bearing and front panel
- Transfer of the dead-weight of the facing-layer as well as the horizontal load into the supporting layer
- German approval
- CE marked according EN1090



HALFEN SP
Sandwich panel anchor



Benefits

- Simple and quick installation
- Technically advanced solution
- Can also be used for very thick insulating layers between the concrete skin
- Verifiable dimensioning software
- Minimal effect on the thermal heat transfer

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

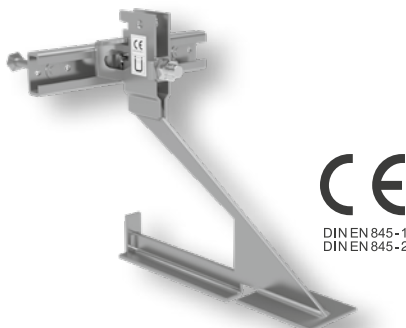
7

Façade connection systems

1
Fixing systems

Features

- Three load levels and an extensive product range
- Type tested and German approval
- Excellent height adjustment
+/- 20 mm
- CE marked



*HALFEN HK5 Support
bracket system for
brickwork*

Benefits

- Available to suit individual customer requirements
- Cost effective and safe design
- Easy to install
- Best thermal bridge heat loss coefficients χ [W/K] on the market
- Higher load levels
4,0 / 8,0 / 12,0

3
Lifting systems

Features

- Installed to HALFEN Anchor channels or HALFEN Drilled bolts
- Large range of anchors
- HALFEN Body-anchors can be adjusted in three dimensions
- Approved quality TÜV/LGA



*HALFEN Body anchors for
natural stone façade*

Benefits

- Loadable immediately after installation → faster construction
- Range covers all applications
- Precise positioning of stone façade for a perfect façade
- Quantifiable thermal bridge heat loss coefficient χ [W/K]

4
Façade connection systems

5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

FAÇADE CONNECTION SYSTEMS

General information and explanation

Orders

Ordering example Scheme A

Product group	Type	Load levels [kN]	Projection K [mm]	Article no.
HK5-	U-	8,0-	210	2300.010-00012
HK5-	P-	8,0-	210	2300.06S
HK5-	S-	12,0-	190	2300.080-00018

Ordering example Scheme B

Product group	Type	Load levels [kN]	Projection K [mm]	Nominal dimension [mm]	Article no.
HK5-	UV-	12,0-	250	v=60	2300.02S, K=250, v=60
HK5-	PV-	12,0-	250	v=80	2300.07S SK, K=250, v=80
HK5-	SV-	12,0-	250	v=80	2300.09S SK, K=250, v=80
HK5-	F-	8,0-	210	L=1245; L2=750	2300.11S SK, K=210, L=1245, L2=750
HK5-	F-	4,0-	190	L=1180; L2=580	2300.11S SK, K=210, L=1180, L2=625
HK5-	FV-	8,0-	210	L=995; L2=500; v=90	2300.13S SK, K=210, L=995, L2=500; v=90
HK5-	FV-	8,0-	230	L=1180; L2=500; v=80	2300.13S SK, K=230, L=1180, L2=750; v=80
HW	90×60×4-			L=1450	2110.010-00030
KW		3,2-	100	L=750	2111.010-00014

Technical

Further details about our Brickwork Support Systems can be found in our catalogues and www.halfen.com.

- Technical Product Information FB Concrete Facade Anchor Systems
- Technical Product Information SP Sandwich Panel Anchors
- Technical Product Information FM Brickwork Support
- Technical Product Information FS Natural Support Systems



All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

7

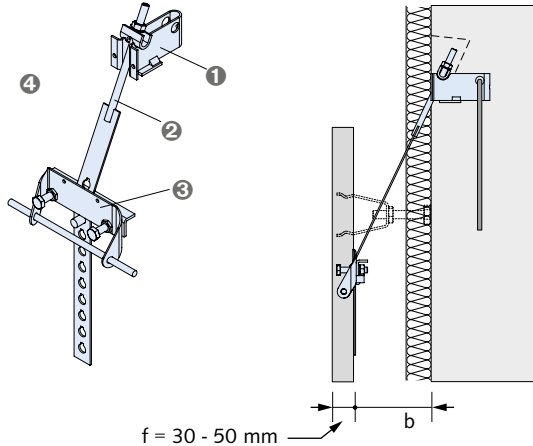
PRECAST PANEL ANCHOR SYSTEM SL30

NEW

System for thin concrete façade panels

FPA-3-SL30

HALFEN Precast panel anchor for thin concrete façade panels
German approval



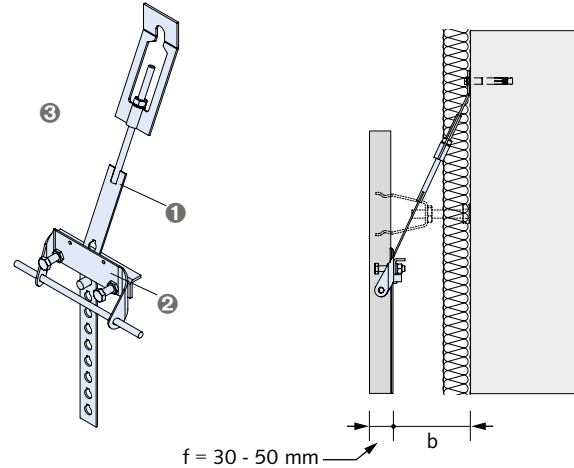
- ① FPA-3-R: (cast-in structural connection) support arm and recess former
- ② FPA-3-M: (assembly component) perforated strap with locating pin, nut, locking bolt
- ③ FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ④ FPA-3-G-SL30: (complete set) cast-in structural connection + assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]		0240.	[EUR/item]
Specification: A4/L4 according to table, page 2				
FPA - 3 - R = cast-in structural connection				
FPA - 3 - R - 5,0			110-00001	14,25
FPA - 3 - M = assembly component ①				
FPA - 3 - M - 5,0 - 60/120 - (M)			220-00001	22,20
FPA - 3 - M - 5,0 - 130/210 - (L)			220-00002	24,60
FPA - 3 - M - 5,0 - 220/300 - (XL)			220-00017	on request
FPA - 3 - E - SL30 = cast-in panel connection				
FPA - E - SL30 - 5,0			250-00101	30,30
FPA - 3 - G - SL30 = complete set ②				
FPA - 3 - G - SL30 - 5,0 - 60/120 - (M)			080-00101	66,75
FPA - 3 - G - SL30 - 5,0 - 130/210 - (L)			080-00102	69,15
FPA - 3 - G - SL30 - 5,0 - 220/300 - (XL)			080-00103	on request

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

FPA-5-SL30

HALFEN Precast panel anchor for thin concrete façade panels
German approval



- ① FPA-5-M: (assembly component) perforated strap with nut and washer, locking bolt and slotted strap
- ② FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5-G-SL30: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]		0240.	[EUR/item]
Specification: A4/L4 according to table, page 2				
FPA - 5 - M = assembly component ①				
FPA - 5 - M - 5,0 - 60/90 - (S)			170-00001	30,75
FPA - 5 - M - 5,0 - 100/170 - (M)			170-00002	32,15
FPA - 5 - M - 5,0 - 180/260 - (L)			170-00003	34,85
FPA - 5 - M - 5,0 - 270/350 - (XL)			170-00025	on request
FPA - 5 - E - SL30 = cast-in panel connection				
FPA - E - SL30 - 5,0			250-00101	30,30
FPA - 5 - G - SL30 = complete set ②				
FPA - 5 - G - SL30 - 5,0 - 60/90 - (S)			030-00101	61,05
FPA - 5 - G - SL30 - 5,0 - 100/170 - (M)			030-00102	62,45
FPA - 5 - G - SL30 - 5,0 - 180/260 - (L)			030-00103	65,15
FPA - 5 - G - SL30 - 5,0 - 270/350 - (XL)			030-00104	on request

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

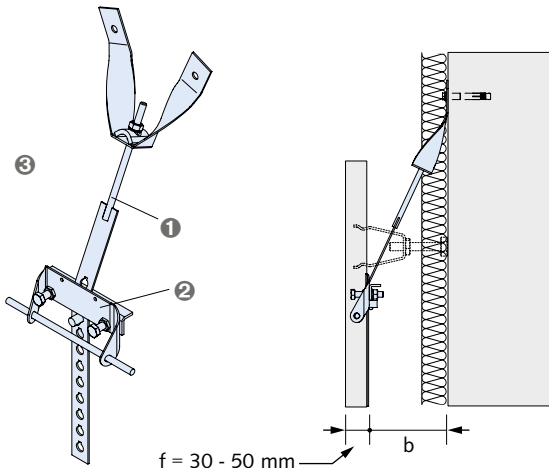
PRECAST PANEL ANCHOR SYSTEM SL30

NEW

System for thin concrete façade panels

FPA-5Z-SL30

HALFEN Precast panel anchor for thin concrete façade panels with two-point connection
German approval



- ① FPA-5Z-M: (assembly component) perforated strap with nut and washer, locking bolt and two-point suspension
- ② FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5Z-G-SL30: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max [mm]	Perforated strap	Article no.	Price
Load capacity [kN]			0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

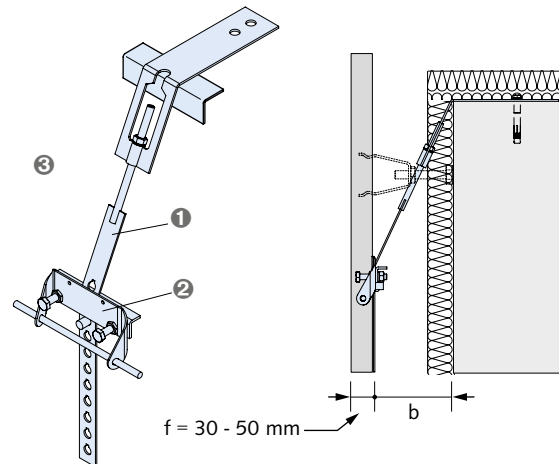
FPA - 5Z - M = assembly component ①

FPA - 5Z -	M - 5,0 -	60/90	-(S)	200-00001	53,10
FPA - 5Z -	M - 5,0 -	100/170	-(M)	200-00002	54,55
FPA - 5Z -	M - 5,0 -	180/260	-(L)	200-00003	57,15
FPA - 5Z -	M - 5,0 -	270/350	-(XL)	200-00025	on request
FPA - 5Z - E - SL30 = cast-in panel connection					
FPA -	E - SL30 - 5,0			250-00101	30,30
FPA - 5Z - G - SL30 = complete set ②					
FPA - 5Z -	G - SL30 - 5,0 -	60/90	-(S)	060-00101	83,40
FPA - 5Z -	G - SL30 - 5,0 -	100/170	-(M)	060-00102	84,85
FPA - 5Z -	G - SL30 - 5,0 -	180/260	-(L)	060-00103	87,45
FPA - 5Z -	G - SL30 - 5,0 -	270/350	-(XL)	060-00104	on request

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

FPA-5A-SL30

HALFEN Precast panel anchor for thin concrete façade panels with top of slab connection
German approval



- ① FPA-5A-M: (assembly component) perforated strap with nut and washer, locking bolt, slotted strap and corner guard (loose)
- ② FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5A-G-SL30: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max [mm]	Perforated strap	Article no.	Price
Load capacity [kN]			0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5A - M = assembly component ①

FPA - 5A -	M - 5,0 -	60/90	-(S)	180-00001	50,95
FPA - 5A -	M - 5,0 -	100/170	-(M)	180-00002	52,55
FPA - 5A -	M - 5,0 -	180/260	-(L)	180-00003	55,15
FPA - 5A -	M - 5,0 -	270/350	-(XL)	180-00019	on request

FPA - 5A - E - SL30 = cast-in panel connection

FPA -	E - SL30 - 5,0			250-00101	30,30
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FPA - 5A - G - SL30 = complete set ②

FPA - 5A -	G - SL30 - 5,0 -	60/90	-(S)	040-00101	81,25
FPA - 5A -	G - SL30 - 5,0 -	100/170	-(M)	040-00102	82,85
FPA - 5A -	G - SL30 - 5,0 -	180/260	-(L)	040-00103	85,45
FPA - 5A -	G - SL30 - 5,0 -	270/350	-(XL)	040-00104	on request

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

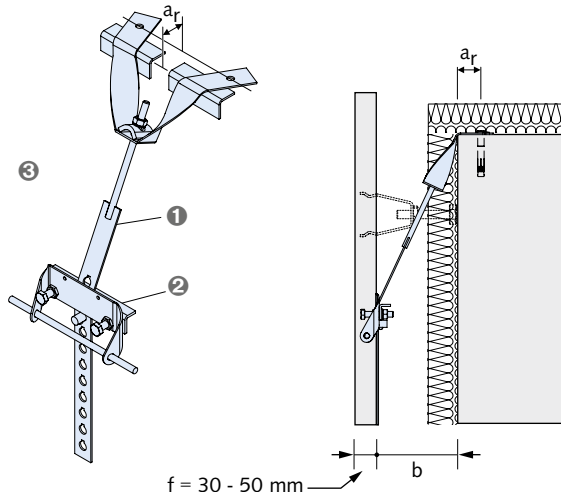
PRECAST PANEL ANCHOR SYSTEM SL30

NEW

System for thin concrete façade panels

FPA-5AZ-SL30

HALFEN Precast panel anchor for thin concrete façade panels with top of slab connection with two-point connection
German approval



- ① FPA 5AZ-M: (assembly component) perforated strap with nut and washer, locking bolt, two-point connection and 2 corner bearings (loose)
- ② FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5AZ-G-SL30: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]	a _r ① ②	0240.	[EUR/item]

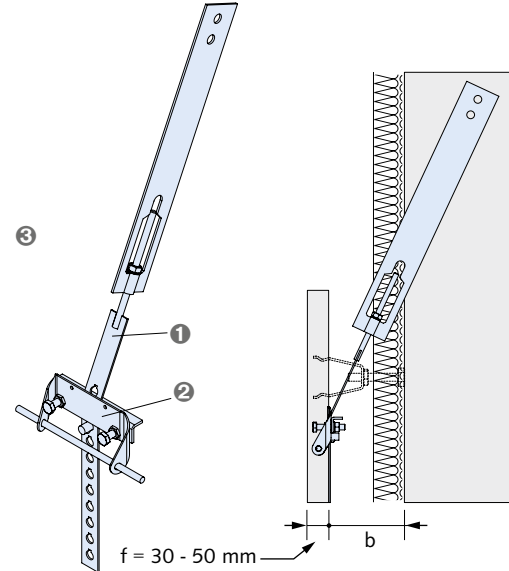
Specification: A4/L4 according to table, page 2

FPA - 5AZ - M = assembly component ③				
FPA - 5AZ - M - 5,0 -	60/90	-(S)	a _r ≤ 100	210-00001 71,00
FPA - 5AZ - M - 5,0 -	100/170	-(M)	a _r ≤ 100	210-00002 72,75
FPA - 5AZ - M - 5,0 -	180/260	-(L)	a _r ≤ 100	210-00003 75,15
FPA - 5AZ - M - 5,0 -	270/350	-(XL)	a _r ≤ 100	210-00019 on request
FPA - 5AZ - E - SL30 = cast-in panel connection				
FPA - E - SL30 - 5,0				250-00101 30,30
FPA - 5AZ - G - SL30 = complete set ④				
FPA - 5AZ - G - SL30 - 5,0 -	60/90	-(S)	a _r ≤ 100	070-00101 101,30
FPA - 5AZ - G - SL30 - 5,0 -	100/170	-(M)	a _r ≤ 100	070-00102 103,05
FPA - 5AZ - G - SL30 - 5,0 -	180/260	-(L)	a _r ≤ 100	070-00103 105,45
FPA - 5AZ - G - SL30 - 5,0 -	270/350	-(XL)	a _r ≤ 100	070-00104 on request

- ① Please specify a_r dimension when ordering
- ② Larger a_r dimension on request
- ③ Assembly components for large façade components on request
- ④ Complete set for large façade components on request

FPA-5S-SL30

HALFEN Precast panel anchor for thin concrete façade panels
German approval



- ① FPA 5S-M: (assembly component) perforated strap with nut and washer, locking bolt and slotted strap
- ② FPA-E-SL30: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5S-G-SL30: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]	a _r ① ②	0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5S - M = assembly component ①				
FPA - 5S - M - 5,0 -	60/90	-(S)		190-00011 51,95
FPA - 5S - M - 5,0 -	100/170	-(M)		190-00012 53,60
FPA - 5S - M - 5,0 -	180/260	-(L)		190-00013 56,30
FPA - 5S - M - 5,0 -	270/350	-(XL)		190-00014 on request
FPA - 5S - E - SL30 = cast-in panel connection				
FPA - E - SL30 - 5,0				250-00101 30,30
FPA - 5S - G - SL30 = complete set ②				
FPA - 5S - G - SL30 - 5,0 -	60/90	-(S)	050-00101	82,25
FPA - 5S - G - SL30 - 5,0 -	100/170	-(M)	050-00102	83,90
FPA - 5S - G - SL30 - 5,0 -	180/260	-(L)	050-00103	86,60
FPA - 5S - G - SL30 - 5,0 -	270/350	-(XL)	050-00104	on request

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

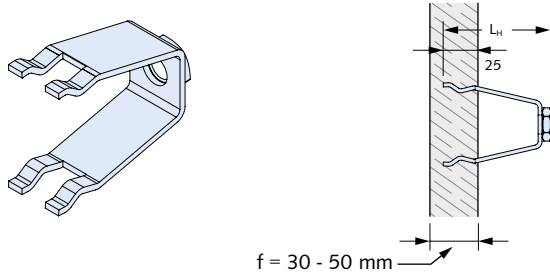
PRECAST PANEL ANCHOR SYSTEM SL30

NEW

System for thin concrete façade panels

DS 3-SL30

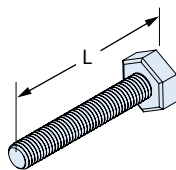
HALFEN Tensile/compression socket for thin concrete precast panels
German approval



Article name	Sleeve length L_H [mm]	Screw-in depth [mm]	Article no. 0243.	Price [EUR/item]
Specification: A4/L4 according to table, page 2				
DS 3 - SL30 - M12 - A4	80	25	030-00101	17,00

DS 1

HALFEN Spacer bolt
German type approval

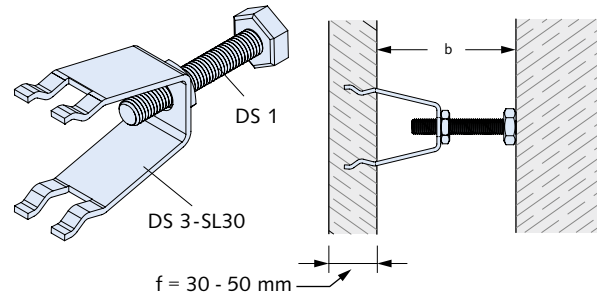


Article name $\emptyset \times L$ [mm]	Suitable for DS 13-SL30 b [mm] ①	Article no. 0243.	Price [EUR/item]
Specification: A4 according to table, page 2			
DS 1 - M12 x 52 - A4	80	010-00078	9,15
DS 1 - M12 x 72 - A4	100	010-00012	9,15
DS 1 - M12 x 92 - A4	120	010-00013	9,15
DS 1 - M12 x 112 - A4	140	010-00014	9,15
DS 1 - M12 x 132 - A4	160	010-00015	9,15
DS 1 - M12 x 152 - A4	180	010-00016	9,15
DS 1 - M12 x 172 - A4	200	010-00017	9,70
DS 1 - M12 x 192 - A4	220	010-00018	9,70
DS 1 - M12 x 212 - A4	240	010-00019	9,70
DS 1 - M12 x 232 - A4	260	010-00020	11,10
DS 1 - M12 x 252 - A4	280	010-00021	13,50

① Spacer bolts for large façade components on request

DS 13-SL30

HALFEN Spacer bolt with tensile/compression socket,
consisting of DS 1 and DS 3-SL30
DS 1 - German type approval
DS 3-SL30 - German approval



Article name	Thread M	Cavity b [mm] ①	Article no. 0243.	Price [EUR/item]
Specification: A4/L4 according to table, page 2				
DS 13 - SL30 -	12 -	80 - A4	130-00101	26,15
DS 13 - SL30 -	12 -	100 - A4	130-00102	26,15
DS 13 - SL30 -	12 -	120 - A4	130-00103	26,15
DS 13 - SL30 -	12 -	140 - A4	130-00104	26,15
DS 13 - SL30 -	12 -	160 - A4	130-00105	26,15
DS 13 - SL30 -	12 -	180 - A4	130-00106	26,15
DS 13 - SL30 -	12 -	200 - A4	130-00107	26,70
DS 13 - SL30 -	12 -	220 - A4	130-00108	26,70
DS 13 - SL30 -	12 -	240 - A4	130-00109	26,70
DS 13 - SL30 -	12 -	260 - A4	130-00110	28,10
DS 13 - SL30 -	12 -	280 - A4	130-00111	30,50

① Spacer bolts for large façade components on request

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

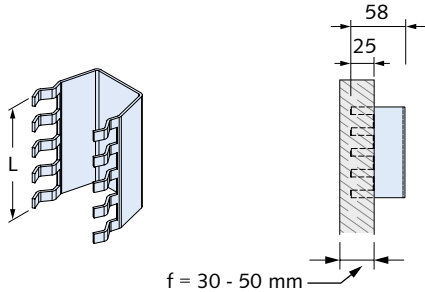
PRECAST PANEL ANCHOR SYSTEM SL30

NEW

System for thin concrete façade panels

HFV-SL30

Anchoring element for thin concrete façade panels
The upper and lower parts are identical
German approval

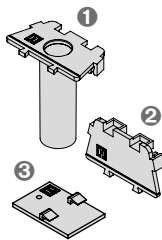


Article name	Length L [mm]	Screw-in depth [mm]	Article no.	Price
			0249.	[EUR/item]
Specification: A4/L4 according to table, page 2				
HFV-SL30 - A4	96	25	120-00001	20,80

HFV-Z-SL30-Set

Accessories set for HFV-SL30
includes:

- 1 x top cover (with dowel sleeve)
- 1 x bottom cover
- 4 x installation aid

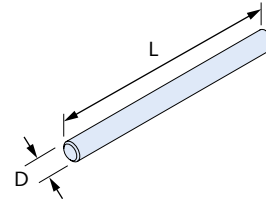


- ① HFV-O-SL30
- ② HFV-U-SL30
- ③ HFV-M2-SL30

Article name	Article no.	Price
	0249.	[EUR/item]
Specification: Plastic		
HFV-Z-SL30-Set	130-00001	5,85
Single components		
HFV-O-SL30	140-00001	2,00
HFV-U-SL30	150-00001	0,85
HFV-M2-SL30	160-00002 *	0,75
* Please always order in pairs		

HFV-3-SL30

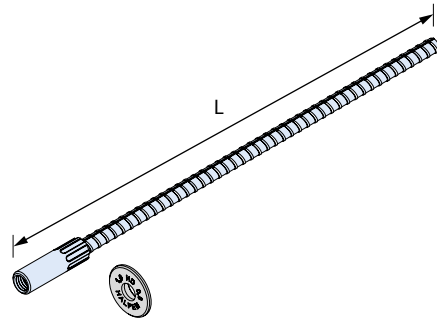
Loose dowel



Article name	Measurement L [mm]	Measurement D [mm]	Article no.	Price
Load capacity [kN]			0249.	[EUR/item]
Specification: A4/L4 according to table, page 2				
HFV-3- 2,5 - A4	200	16	030-00005	14,15

6350 - SL30

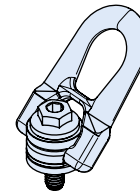
HD Rod anchor-SL30 with identification cap



Article name	Measurement L [mm]	Thread	PU [items]	Article no.	Price
Load class				0740.	[EUR/item]
Specification: Sleeve and base A4/L4 according to table, page 2					
6350 - 0,8 - 300 - SL30	M10	1	230-00001	8,05	
Other dimensions on request. Please enquire about delivery times and minimum order quantities before placing an order					

6318

Double-swivel ring clutch



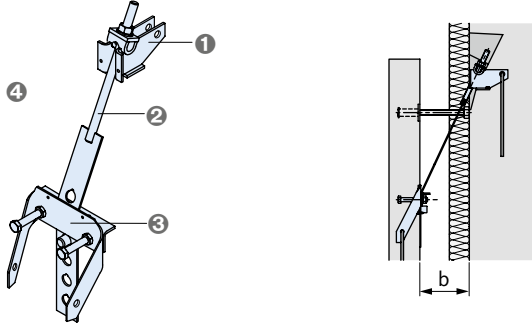
Article name	Thread	Load class	PU [items]	Article no.	Price
				0742.	[EUR/item]
Specification: Steel, zinc plated					
6318 - 0,8 DSR	M10	0,8	1	250-00001	105,25
★ HALFEN remark: For lifting device with certificate (6318-0,8 DSR-C) use order no. 0742.250-00101. For lifting device with certificate and proof tested to twice the work load (6318-0,8 DSR-C+P) use order no. 0742.250-01001. Please specify when ordering if a certificate is required. A certificate cannot be subsequently created.					

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

PRECAST PANEL ANCHOR

FPA-3

HALFEN Precast panel anchor
German approval



- ① FPA-3-R: (cast-in structural connection) support arm and recess former
- ② FPA-3-M: (assembly component) perforated strap with locating pin, nut, locking bolt
- ③ FPA-3-E: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ④ FPA-3-G: (complete set) cast-in structural connection + assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]		0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 3 - R = cast-in structural connection

FPA - 3 -	R - 5,0		110-00001	14,25
FPA - 3 -	R - 8,0		110-00002	15,55
FPA - 3 -	R - 11,5		110-00003	19,35
FPA - 3 -	R - 16,0		110-00004	23,70
FPA - 3 -	R - 22,0		110-00005	30,10
FPA - 3 -	R - 34,0		110-00006	57,10
FPA - 3 -	R - 46,0		110-00007	77,00
FPA - 3 -	R - 56,0		110-00008	95,75

FPA - 3 - M = assembly component ①

FPA - 3 -	M - 5,0 -	60/120	-(M)	220-00001	22,20
FPA - 3 -	M - 5,0 -	130/210	-(L)	220-00002	24,60
FPA - 3 -	M - 5,0 -	220/300	-(XL)	220-00017	on request
FPA - 3 -	M - 8,0 -	60/110	-(M)	220-00003	24,90
FPA - 3 -	M - 8,0 -	120/200	-(L)	220-00004	28,80
FPA - 3 -	M - 8,0 -	210/290	-(XL)	220-00018	on request
FPA - 3 -	M - 11,5 -	60/120	-(M)	220-00005	31,60
FPA - 3 -	M - 11,5 -	130/210	-(L)	220-00006	36,85
FPA - 3 -	M - 11,5 -	220/300	-(XL)	220-00019	on request
FPA - 3 -	M - 16,0 -	60/110	-(M)	220-00007	41,35
FPA - 3 -	M - 16,0 -	120/180	-(L)	220-00008	47,65
FPA - 3 -	M - 16,0 -	190/260	-(XL)	220-00020	on request
FPA - 3 -	M - 22,0 -	60/130	-(M)	220-00009	62,25
FPA - 3 -	M - 22,0 -	140/220	-(L)	220-00010	73,50
FPA - 3 -	M - 22,0 -	230/330	-(XL)	220-00021	on request
FPA - 3 -	M - 34,0 -	60/120	-(M)	220-00011	95,00
FPA - 3 -	M - 34,0 -	130/190	-(L)	220-00012	108,60
FPA - 3 -	M - 34,0 -	200/280	-(XL)	220-00022	on request
FPA - 3 -	M - 46,0 -	60/120	-(M)	220-00013	167,00
FPA - 3 -	M - 46,0 -	130/190	-(L)	220-00014	189,10
FPA - 3 -	M - 46,0 -	200/280	-(XL)	220-00023	on request
FPA - 3 -	M - 56,0 -	60/120	-(M)	220-00015	219,15
FPA - 3 -	M - 56,0 -	130/210	-(L)	220-00016	249,20
FPA - 3 -	M - 56,0 -	220/300	-(XL)	220-00024	on request

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]		0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 3 - E = cast-in panel connection

FPA -	E - 5,0		250-00001	20,75
FPA -	E - 8,0		250-00002	23,30
FPA -	E - 11,5		250-00003	28,85
FPA -	E - 16,0		250-00004	37,50
FPA -	E - 22,0		250-00005	43,00
FPA -	E - 34,0		250-00006	74,65
FPA -	E - 46,0		250-00007	172,10
FPA -	E - 56,0		250-00008	189,10

FPA - 3 - G = complete set ②

FPA - 3 -	G - 5,0 -	60/120	-(M)	080-00001	57,20
FPA - 3 -	G - 5,0 -	130/210	-(L)	080-00002	59,60
FPA - 3 -	G - 5,0 -	220/300	-(XL)	080-00017	on request
FPA - 3 -	G - 8,0 -	60/110	-(M)	080-00003	63,75
FPA - 3 -	G - 8,0 -	120/200	-(L)	080-00004	67,65
FPA - 3 -	G - 8,0 -	210/290	-(XL)	080-00018	on request
FPA - 3 -	G - 11,5 -	60/120	-(M)	080-00005	79,80
FPA - 3 -	G - 11,5 -	130/210	-(L)	080-00006	85,05
FPA - 3 -	G - 11,5 -	220/300	-(XL)	080-00019	on request
FPA - 3 -	G - 16,0 -	60/110	-(M)	080-00007	102,55
FPA - 3 -	G - 16,0 -	120/180	-(L)	080-00008	108,85
FPA - 3 -	G - 16,0 -	190/260	-(XL)	080-00020	on request
FPA - 3 -	G - 22,0 -	60/130	-(M)	080-00009	135,35
FPA - 3 -	G - 22,0 -	140/220	-(L)	080-00010	146,60
FPA - 3 -	G - 22,0 -	230/330	-(XL)	080-00021	on request
FPA - 3 -	G - 34,0 -	60/120	-(M)	080-00011	226,75
FPA - 3 -	G - 34,0 -	130/190	-(L)	080-00012	240,35
FPA - 3 -	G - 34,0 -	200/280	-(XL)	080-00022	on request
FPA - 3 -	G - 46,0 -	60/120	-(M)	080-00013	416,10
FPA - 3 -	G - 46,0 -	130/190	-(L)	080-00014	438,20
FPA - 3 -	G - 46,0 -	200/280	-(XL)	080-00023	on request
FPA - 3 -	G - 56,0 -	60/120	-(M)	080-00015	504,00
FPA - 3 -	G - 56,0 -	130/210	-(L)	080-00016	534,05
FPA - 3 -	G - 56,0 -	220/300	-(XL)	080-00024	on request

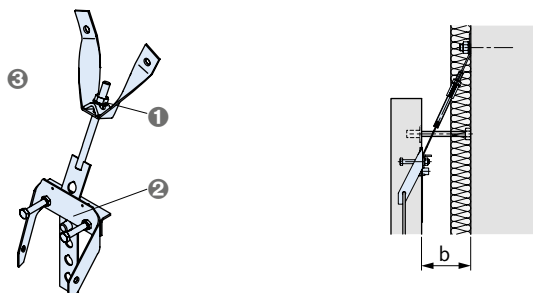
① Assembly components for large façade components on request

② Complete set for large façade components on request

PRECAST PANEL ANCHOR

FPA-5Z

HALFEN Precast panel anchor with two-point connection
German approval



- ① FPA-5Z-M: (assembly component) perforated strap with nut and washer, locking bolt and two-point suspension
- ② FPA-E: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5Z-G: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max [mm]	Perforated strap	Article no. 0240.	Price [EUR/item]
Specification: A4/L4 according to table, page 2				
FPA - 5Z - M = assembly component ①				
FPA - 5Z - M - 5,0 - 60/90 - (S)	200-00001	53,10		
FPA - 5Z - M - 5,0 - 100/170 - (M)	200-00002	54,55		
FPA - 5Z - M - 5,0 - 180/260 - (L)	200-00003	57,15		
FPA - 5Z - M - 5,0 - 270/350 - (XL)	200-00025	on request		
FPA - 5Z - M - 8,0 - 60/100 - (S)	200-00004	56,85		
FPA - 5Z - M - 8,0 - 110/180 - (M)	200-00005	58,70		
FPA - 5Z - M - 8,0 - 190/260 - (L)	200-00006	62,65		
FPA - 5Z - M - 8,0 - 270/350 - (XL)	200-00026	on request		
FPA - 5Z - M - 11,5 - 60/120 - (S)	200-00007	65,65		
FPA - 5Z - M - 11,5 - 130/190 - (M)	200-00008	68,00		
FPA - 5Z - M - 11,5 - 200/280 - (L)	200-00009	73,45		
FPA - 5Z - M - 11,5 - 290/360 - (XL)	200-00027	on request		
FPA - 5Z - M - 16,0 - 60/140 - (S)	200-00010	76,00		
FPA - 5Z - M - 16,0 - 150/190 - (M)	200-00011	78,00		
FPA - 5Z - M - 16,0 - 200/260 - (L)	200-00012	84,25		
FPA - 5Z - M - 16,0 - 270/340 - (XL)	200-00028	on request		
FPA - 5Z - M - 22,0 - 60/130 - (S)	200-00013	86,65		
FPA - 5Z - M - 22,0 - 140/210 - (M)	200-00014	92,45		
FPA - 5Z - M - 22,0 - 220/300 - (L)	200-00015	103,80		
FPA - 5Z - M - 22,0 - 310/410 - (XL)	200-00029	on request		
FPA - 5Z - M - 34,0 - 70/150 - (S)	200-00016	123,50		
FPA - 5Z - M - 34,0 - 160/210 - (M)	200-00017	128,05		
FPA - 5Z - M - 34,0 - 220/280 - (L)	200-00018	138,05		
FPA - 5Z - M - 34,0 - 290/370 - (XL)	200-00030	on request		
FPA - 5Z - M - 46,0 - 100/160 - (S)	200-00019	138,30		
FPA - 5Z - M - 46,0 - 170/220 - (M)	200-00020	149,65		
FPA - 5Z - M - 46,0 - 230/290 - (L)	200-00021	164,20		
FPA - 5Z - M - 46,0 - 300/380 - (XL)	200-00031	on request		
FPA - 5Z - M - 56,0 - 110/180 - (S)	200-00022	241,95		
FPA - 5Z - M - 56,0 - 190/240 - (M)	200-00023	263,70		
FPA - 5Z - M - 56,0 - 250/330 - (L)	200-00024	281,75		
FPA - 5Z - M - 56,0 - 340/420 - (XL)	200-00032	on request		
FPA - 5Z - E = cast-in panel connection				
FPA - E - 5,0	250-00001	20,75		
FPA - E - 8,0	250-00002	23,30		
FPA - E - 11,5	250-00003	28,85		
FPA - E - 16,0	250-00004	37,50		
FPA - E - 22,0	250-00005	43,00		
FPA - E - 34,0	250-00006	74,65		
FPA - E - 46,0	250-00007	172,10		
FPA - E - 56,0	250-00008	189,10		

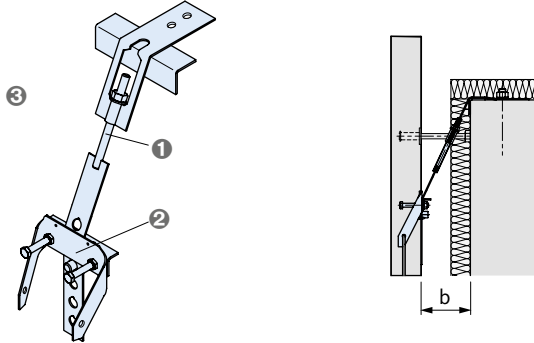
Article name	Cavity b min/max [mm]	Perforated strap	Article no. 0240.	Price [EUR/item]
Specification: A4/L4 according to table, page 2				
FPA - 5Z - G = complete set ②				
FPA - 5Z - G - 5,0 - 60/90 - (S)	060-00001	73,85		
FPA - 5Z - G - 5,0 - 100/170 - (M)	060-00002	75,30		
FPA - 5Z - G - 5,0 - 180/260 - (L)	060-00003	77,90		
FPA - 5Z - G - 5,0 - 270/350 - (XL)	060-00025	on request		
FPA - 5Z - G - 8,0 - 60/100 - (S)	060-00004	80,15		
FPA - 5Z - G - 8,0 - 110/180 - (M)	060-00005	82,00		
FPA - 5Z - G - 8,0 - 190/260 - (L)	060-00006	85,95		
FPA - 5Z - G - 8,0 - 270/350 - (XL)	060-00026	on request		
FPA - 5Z - G - 11,5 - 60/120 - (S)	060-00007	94,50		
FPA - 5Z - G - 11,5 - 130/190 - (M)	060-00008	96,85		
FPA - 5Z - G - 11,5 - 200/280 - (L)	060-00009	102,30		
FPA - 5Z - G - 11,5 - 290/360 - (XL)	060-00027	on request		
FPA - 5Z - G - 16,0 - 60/140 - (S)	060-00010	113,50		
FPA - 5Z - G - 16,0 - 150/190 - (M)	060-00011	115,50		
FPA - 5Z - G - 16,0 - 200/260 - (L)	060-00012	121,75		
FPA - 5Z - G - 16,0 - 270/340 - (XL)	060-00028	on request		
FPA - 5Z - G - 22,0 - 60/130 - (S)	060-00013	129,65		
FPA - 5Z - G - 22,0 - 140/210 - (M)	060-00014	135,45		
FPA - 5Z - G - 22,0 - 220/300 - (L)	060-00015	146,80		
FPA - 5Z - G - 22,0 - 310/410 - (XL)	060-00029	on request		
FPA - 5Z - G - 34,0 - 70/150 - (S)	060-00016	198,15		
FPA - 5Z - G - 34,0 - 160/210 - (M)	060-00017	202,70		
FPA - 5Z - G - 34,0 - 220/280 - (L)	060-00018	212,70		
FPA - 5Z - G - 34,0 - 290/370 - (XL)	060-00030	on request		
FPA - 5Z - G - 46,0 - 110/160 - (S)	060-00019	310,40		
FPA - 5Z - G - 46,0 - 170/220 - (M)	060-00020	321,75		
FPA - 5Z - G - 46,0 - 230/290 - (L)	060-00021	336,30		
FPA - 5Z - G - 46,0 - 300/380 - (XL)	060-00031	on request		
FPA - 5Z - G - 56,0 - 100/180 - (S)	060-00022	431,05		
FPA - 5Z - G - 56,0 - 190/240 - (M)	060-00023	452,80		
FPA - 5Z - G - 56,0 - 250/330 - (L)	060-00024	470,85		
FPA - 5Z - G - 56,0 - 340/420 - (XL)	060-00032	on request		

- ① Assembly components for large façade components on request
- ② Complete set for large façade components on request

PRECAST PANEL ANCHOR

FPA-5A

HALFEN Precast panel anchor with top of slab connection
German approval



- ① FPA-5A-M: (assembly component) perforated strap with nut and washer, locking bolt, slotted strap and corner guard (loose)
- ② FPA-E: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5A-G: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max [mm]	Perforated strap	Article no.	Price
Load capacity [kN]			0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5A - M = assembly component ①

FPA - 5A -	M - 5,0 -	60/90	- (S)	180-00001	50,95
FPA - 5A -	M - 5,0 -	100/170	- (M)	180-00002	52,55
FPA - 5A -	M - 5,0 -	180/260	- (L)	180-00003	55,15
FPA - 5A -	M - 5,0 -	270/350	- (XL)	180-00019	on request
FPA - 5A -	M - 8,0 -	60/100	- (S)	180-00004	58,25
FPA - 5A -	M - 8,0 -	110/180	- (M)	180-00005	60,15
FPA - 5A -	M - 8,0 -	190/260	- (L)	180-00006	63,90
FPA - 5A -	M - 8,0 -	270/350	- (XL)	180-00020	on request
FPA - 5A -	M - 11,5 -	60/120	- (S)	180-00007	73,05
FPA - 5A -	M - 11,5 -	130/190	- (M)	180-00008	75,50
FPA - 5A -	M - 11,5 -	200/270	- (L)	180-00009	80,80
FPA - 5A -	M - 11,5 -	280/370	- (XL)	180-00021	on request
FPA - 5A -	M - 16,0 -	60/140	- (S)	180-00010	94,60
FPA - 5A -	M - 16,0 -	150/190	- (M)	180-00011	96,45
FPA - 5A -	M - 16,0 -	200/260	- (L)	180-00012	102,70
FPA - 5A -	M - 16,0 -	270/340	- (XL)	180-00022	on request
FPA - 5A -	M - 22,0 -	60/130	- (S)	180-00013	109,90
FPA - 5A -	M - 22,0 -	140/210	- (M)	180-00014	115,75
FPA - 5A -	M - 22,0 -	220/300	- (L)	180-00015	127,15
FPA - 5A -	M - 22,0 -	310/410	- (XL)	180-00023	on request
FPA - 5A -	M - 34,0 -	70/150	- (S)	180-00016	180,40
FPA - 5A -	M - 34,0 -	160/210	- (M)	180-00017	185,00
FPA - 5A -	M - 34,0 -	220/290	- (L)	180-00018	198,60
FPA - 5A -	M - 34,0 -	300/370	- (XL)	180-00024	on request

FPA - 5A - E = cast-in panel connection

FPA -	E - 5,0	250-00001	20,75
FPA -	E - 8,0	250-00002	23,30
FPA -	E - 11,5	250-00003	28,85
FPA -	E - 16,0	250-00004	37,50
FPA -	E - 22,0	250-00005	43,00
FPA -	E - 34,0	250-00006	74,65

Article name	Cavity b min/max [mm]	Perforated strap	Article no.	Price
Load capacity [kN]			0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5A - G = complete set ②

FPA - 5A -	G - 5,0 -	60/90	- (S)	040-00001	71,70
FPA - 5A -	G - 5,0 -	100/170	- (M)	040-00002	73,30
FPA - 5A -	G - 5,0 -	180/260	- (L)	040-00003	75,90
FPA - 5A -	G - 5,0 -	270/350	- (XL)	040-00019	on request
FPA - 5A -	G - 8,0 -	60/100	- (S)	040-00004	81,55
FPA - 5A -	G - 8,0 -	110/180	- (M)	040-00005	83,45
FPA - 5A -	G - 8,0 -	190/260	- (L)	040-00006	87,20
FPA - 5A -	G - 8,0 -	270/350	- (XL)	040-00020	on request
FPA - 5A -	G - 11,5 -	60/120	- (S)	040-00007	101,90
FPA - 5A -	G - 11,5 -	130/190	- (M)	040-00008	104,35
FPA - 5A -	G - 11,5 -	200/270	- (L)	040-00009	109,65
FPA - 5A -	G - 11,5 -	280/370	- (XL)	040-00021	on request
FPA - 5A -	G - 16,0 -	60/140	- (S)	040-00010	132,10
FPA - 5A -	G - 16,0 -	150/190	- (M)	040-00011	133,95
FPA - 5A -	G - 16,0 -	200/260	- (L)	040-00012	140,20
FPA - 5A -	G - 16,0 -	270/340	- (XL)	040-00022	on request
FPA - 5A -	G - 22,0 -	60/130	- (S)	040-00013	152,90
FPA - 5A -	G - 22,0 -	140/210	- (M)	040-00014	158,75
FPA - 5A -	G - 22,0 -	220/300	- (L)	040-00015	170,15
FPA - 5A -	G - 22,0 -	310/410	- (XL)	040-00023	on request
FPA - 5A -	G - 34,0 -	70/150	- (S)	040-00016	255,05
FPA - 5A -	G - 34,0 -	160/210	- (M)	040-00017	259,65
FPA - 5A -	G - 34,0 -	220/290	- (L)	040-00018	273,25
FPA - 5A -	G - 34,0 -	300/370	- (XL)	040-00024	on request

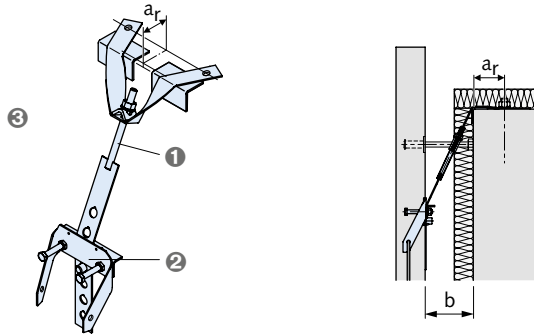
① Assembly components for large façade components on request

② Complete set for large façade components on request

PRECAST PANEL ANCHOR

FPA-5AZ

HALFEN Precast panel anchor with top of slab connection with two-point connection
German approval



- ① FPA-5AZ-M: (assembly component) perforated strap with nut and washer, locking bolt, two-point connection and 2 corner bearings (loose)
- ② FPA-E: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5AZ-G: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]	a _r ① ②	0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5AZ - M = assembly component ③

FPA - 5AZ - M - 5,0 -	60/90	-(S)	a _r ≤ 100	210-00001	71,00
FPA - 5AZ - M - 5,0 -	100/170	-(M)	a _r ≤ 100	210-00002	72,75
FPA - 5AZ - M - 5,0 -	180/260	-(L)	a _r ≤ 100	210-00003	75,15
FPA - 5AZ - M - 5,0 -	270/350	-(XL)	a _r ≤ 100	210-00019	on request
FPA - 5AZ - M - 8,0 -	60/100	-(S)	a _r ≤ 110	210-00004	77,00
FPA - 5AZ - M - 8,0 -	110/180	-(M)	a _r ≤ 110	210-00005	79,00
FPA - 5AZ - M - 8,0 -	190/260	-(L)	a _r ≤ 110	210-00006	82,75
FPA - 5AZ - M - 8,0 -	270/350	-(XL)	a _r ≤ 110	210-00020	on request
FPA - 5AZ - M - 11,5 -	60/120	-(S)	a _r ≤ 135	210-00007	86,90
FPA - 5AZ - M - 11,5 -	130/190	-(M)	a _r ≤ 135	210-00008	89,15
FPA - 5AZ - M - 11,5 -	200/270	-(L)	a _r ≤ 135	210-00009	94,65
FPA - 5AZ - M - 11,5 -	280/370	-(XL)	a _r ≤ 135	210-00021	on request
FPA - 5AZ - M - 16,0 -	60/140	-(S)	a _r ≤ 140	210-00010	97,40
FPA - 5AZ - M - 16,0 -	150/190	-(M)	a _r ≤ 140	210-00011	99,30
FPA - 5AZ - M - 16,0 -	200/260	-(L)	a _r ≤ 140	210-00012	105,50
FPA - 5AZ - M - 16,0 -	270/340	-(XL)	a _r ≤ 140	210-00022	on request
FPA - 5AZ - M - 22,0 -	60/130	-(S)	a _r ≤ 170	210-00013	114,40
FPA - 5AZ - M - 22,0 -	140/210	-(M)	a _r ≤ 170	210-00014	120,40
FPA - 5AZ - M - 22,0 -	220/300	-(L)	a _r ≤ 170	210-00015	131,65
FPA - 5AZ - M - 22,0 -	310/410	-(XL)	a _r ≤ 170	210-00023	on request
FPA - 5AZ - M - 34,0 -	70/150	-(S)	a _r ≤ 200	210-00016	159,30
FPA - 5AZ - M - 34,0 -	160/210	-(M)	a _r ≤ 200	210-00017	163,70
FPA - 5AZ - M - 34,0 -	220/290	-(L)	a _r ≤ 200	210-00018	177,40
FPA - 5AZ - M - 34,0 -	300/370	-(XL)	a _r ≤ 200	210-00024	on request
FPA - 5AZ - M - 46,0 -	100/160	-(S)	a _r ≤ 230	210-00025	on request
FPA - 5AZ - M - 46,0 -	170/220	-(M)	a _r ≤ 230	210-00026	on request
FPA - 5AZ - M - 46,0 -	230/290	-(L)	a _r ≤ 230	210-00027	on request
FPA - 5AZ - M - 46,0 -	300/380	-(XL)	a _r ≤ 230	210-00028	on request
FPA - 5AZ - M - 56,0 -	110/180	-(S)	a _r ≤ 280	210-00029	on request
FPA - 5AZ - M - 56,0 -	190/240	-(M)	a _r ≤ 280	210-00030	on request
FPA - 5AZ - M - 56,0 -	250/330	-(L)	a _r ≤ 280	210-00031	on request
FPA - 5AZ - M - 56,0 -	340/420	-(XL)	a _r ≤ 280	210-00032	on request

Article name	Cavity b min/max	Perforated strap	Article no.	Price
Load capacity [kN]	[mm]	a _r ① ②	0240.	[EUR/item]

Specification: A4/L4 according to table, page 2

FPA - 5AZ - E = cast-in part

FPA - E - 5,0	250-00001	20,75
FPA - E - 8,0	250-00002	23,30
FPA - E - 11,5	250-00003	28,85
FPA - E - 16,0	250-00004	37,50
FPA - E - 22,0	250-00005	43,00
FPA - E - 34,0	250-00006	74,65
FPA - E - 46,0	250-00007	172,10
FPA - E - 56,0	250-00008	189,10

FPA - 5AZ - G = complete set ④

FPA - 5AZ - G - 5,0 -	60/90	-(S)	a _r ≤ 100	070-00001	91,75
FPA - 5AZ - G - 5,0 -	100/170	-(M)	a _r ≤ 100	070-00002	93,50
FPA - 5AZ - G - 5,0 -	180/260	-(L)	a _r ≤ 100	070-00003	95,90
FPA - 5AZ - G - 5,0 -	270/350	-(XL)	a _r ≤ 100	070-00019	on request
FPA - 5AZ - G - 8,0 -	60/100	-(S)	a _r ≤ 110	070-00004	100,30
FPA - 5AZ - G - 8,0 -	110/180	-(M)	a _r ≤ 110	070-00005	102,30
FPA - 5AZ - G - 8,0 -	190/260	-(L)	a _r ≤ 110	070-00006	106,05
FPA - 5AZ - G - 8,0 -	270/350	-(XL)	a _r ≤ 110	070-00020	on request
FPA - 5AZ - G - 11,5 -	60/120	-(S)	a _r ≤ 135	070-00007	115,75
FPA - 5AZ - G - 11,5 -	130/190	-(M)	a _r ≤ 135	070-00008	118,00
FPA - 5AZ - G - 11,5 -	200/270	-(L)	a _r ≤ 135	070-00009	123,50
FPA - 5AZ - G - 11,5 -	280/370	-(XL)	a _r ≤ 135	070-00021	on request
FPA - 5AZ - G - 16,0 -	60/140	-(S)	a _r ≤ 140	070-00010	134,90
FPA - 5AZ - G - 16,0 -	150/190	-(M)	a _r ≤ 140	070-00011	136,80
FPA - 5AZ - G - 16,0 -	200/260	-(L)	a _r ≤ 140	070-00012	143,00
FPA - 5AZ - G - 16,0 -	270/340	-(XL)	a _r ≤ 140	070-00022	on request
FPA - 5AZ - G - 22,0 -	60/130	-(S)	a _r ≤ 170	070-00013	157,40
FPA - 5AZ - G - 22,0 -	140/210	-(M)	a _r ≤ 170	070-00014	163,40
FPA - 5AZ - G - 22,0 -	220/300	-(L)	a _r ≤ 170	070-00015	174,65
FPA - 5AZ - G - 22,0 -	310/410	-(XL)	a _r ≤ 170	070-00023	on request
FPA - 5AZ - G - 34,0 -	70/150	-(S)	a _r ≤ 200	070-00016	233,95
FPA - 5AZ - G - 34,0 -	160/210	-(M)	a _r ≤ 200	070-00017	238,35
FPA - 5AZ - G - 34,0 -	220/290	-(L)	a _r ≤ 200	070-00018	252,05
FPA - 5AZ - G - 34,0 -	300/370	-(XL)	a _r ≤ 200	070-00024	on request
FPA - 5AZ - G - 46,0 -	100/160	-(S)	a _r ≤ 230	070-00025	on request
FPA - 5AZ - G - 46,0 -	170/220	-(M)	a _r ≤ 230	070-00026	on request
FPA - 5AZ - G - 46,0 -	230/290	-(L)	a _r ≤ 230	070-00027	on request
FPA - 5AZ - G - 46,0 -	300/380	-(XL)	a _r ≤ 230	070-00028	on request
FPA - 5AZ - G - 56,0 -	110/180	-(S)	a _r ≤ 280	070-00029	on request
FPA - 5AZ - G - 56,0 -	190/240	-(M)	a _r ≤ 280	070-00030	on request
FPA - 5AZ - G - 56,0 -	250/330	-(L)	a _r ≤ 280	070-00031	on request
FPA - 5AZ - G - 56,0 -	340/420	-(XL)	a _r ≤ 280	070-00032	on request

① Please specify a_r dimension when ordering

② Larger a_r dimension on request

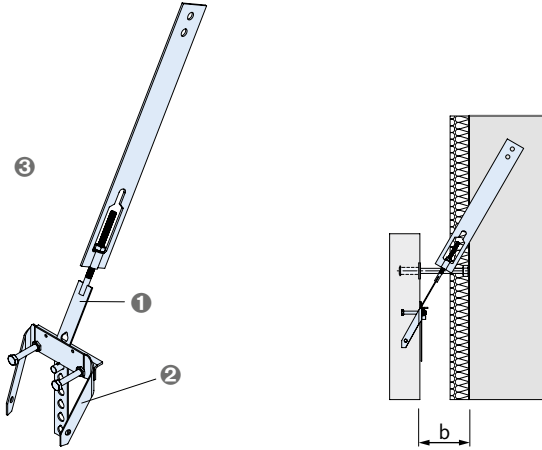
③ Assembly components for large façade components on request

④ Complete set for large façade components on request

PRECAST PANEL ANCHOR

FPA-5S

HALFEN Precast panel anchor
German approval



- ① FPA-5S-M: (assembly component) perforated strap with nut and washer, locking bolt and slotted strap
- ② FPA-E: (cast-in panel connection) U-shaped bracket with angle cleat and recess former
- ③ FPA-5S-G: (complete set) assembly component + cast-in panel connection

Article name	Cavity b min/max [mm]	Perforated strap	Article no. 0240.	Price [EUR/item]
Load capacity [kN]				

Specification: A4/L4 according to table, page 2

FPA - 5S - M = assembly component ①

FPA - 5S -	M - 5,0 -	60/90	- (S)	190-00011	51,95
FPA - 5S -	M - 5,0 -	100/170	- (M)	190-00012	53,60
FPA - 5S -	M - 5,0 -	180/260	- (L)	190-00013	56,30
FPA - 5S -	M - 5,0 -	270/350	- (XL)	190-00014	on request
FPA - 5S -	M - 8,0 -	60/100	- (S)	190-00021	61,05
FPA - 5S -	M - 8,0 -	110/180	- (M)	190-00022	62,95
FPA - 5S -	M - 8,0 -	190/260	- (L)	190-00023	66,60
FPA - 5S -	M - 8,0 -	270/350	- (XL)	190-00024	on request
FPA - 5S -	M - 11,5 -	60/120	- (S)	190-00031	82,30
FPA - 5S -	M - 11,5 -	130/190	- (M)	190-00032	84,40
FPA - 5S -	M - 11,5 -	200/270	- (L)	190-00033	87,40
FPA - 5S -	M - 11,5 -	280/370	- (XL)	190-00034	on request
FPA - 5S -	M - 16,0 -	60/140	- (S)	190-00041	106,75
FPA - 5S -	M - 16,0 -	150/190	- (M)	190-00042	108,25
FPA - 5S -	M - 16,0 -	200/260	- (L)	190-00043	114,50
FPA - 5S -	M - 16,0 -	270/340	- (XL)	190-00044	on request
FPA - 5S -	M - 22,0 -	60/130	- (S)	190-00051	122,90
FPA - 5S -	M - 22,0 -	140/210	- (M)	190-00052	128,80
FPA - 5S -	M - 22,0 -	220/300	- (L)	190-00053	140,15
FPA - 5S -	M - 22,0 -	310/410	- (XL)	190-00054	on request
FPA - 5S -	M - 34,0 -	70/150	- (S)	190-00061	195,55
FPA - 5S -	M - 34,0 -	160/210	- (M)	190-00062	200,15
FPA - 5S -	M - 34,0 -	220/290	- (L)	190-00063	213,85
FPA - 5S -	M - 34,0 -	300/350	- (XL)	190-00064	on request

FPA - 5S - E = cast-in part

FPA -	E - 5,0 -	250-00001	20,75
FPA -	E - 8,0 -	250-00002	23,30
FPA -	E - 11,5 -	250-00003	28,85
FPA -	E - 16,0 -	250-00004	37,50
FPA -	E - 22,0 -	250-00005	43,00
FPA -	E - 34,0 -	250-00006	74,65

Article name	Cavity b min/max [mm]	Perforated strap	Article no. 0240.	Price [EUR/item]
Load capacity [kN]				

Specification: A4/L4 according to table, page 2

FPA - 5S - G = complete set ②

FPA - 5S -	G - 5,0 -	60/90	- (S)	050-00011	72,70
FPA - 5S -	G - 5,0 -	100/170	- (M)	050-00012	74,35
FPA - 5S -	G - 5,0 -	180/260	- (L)	050-00013	77,05
FPA - 5S -	G - 5,0 -	270/350	- (XL)	050-00014	on request
FPA - 5S -	G - 8,0 -	60/100	- (S)	050-00021	84,35
FPA - 5S -	G - 8,0 -	110/180	- (M)	050-00022	86,25
FPA - 5S -	G - 8,0 -	190/260	- (L)	050-00023	89,90
FPA - 5S -	G - 8,0 -	270/350	- (XL)	050-00024	on request
FPA - 5S -	G - 11,5 -	60/120	- (S)	050-00031	111,15
FPA - 5S -	G - 11,5 -	130/190	- (M)	050-00032	113,25
FPA - 5S -	G - 11,5 -	200/270	- (L)	050-00033	116,25
FPA - 5S -	G - 11,5 -	280/370	- (XL)	050-00034	on request
FPA - 5S -	G - 16,0 -	60/140	- (S)	050-00041	144,25
FPA - 5S -	G - 16,0 -	150/190	- (M)	050-00042	145,75
FPA - 5S -	G - 16,0 -	200/260	- (L)	050-00043	152,00
FPA - 5S -	G - 16,0 -	270/340	- (XL)	050-00044	on request
FPA - 5S -	G - 22,0 -	60/130	- (S)	050-00051	165,90
FPA - 5S -	G - 22,0 -	140/210	- (M)	050-00052	171,80
FPA - 5S -	G - 22,0 -	220/300	- (L)	050-00053	183,15
FPA - 5S -	G - 22,0 -	310/410	- (XL)	050-00054	on request
FPA - 5S -	G - 34,0 -	70/150	- (S)	050-00061	270,20
FPA - 5S -	G - 34,0 -	160/210	- (M)	050-00062	274,80
FPA - 5S -	G - 34,0 -	220/290	- (L)	050-00063	288,50
FPA - 5S -	G - 34,0 -	300/350	- (XL)	050-00064	on request

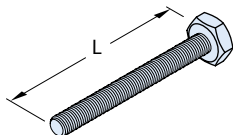
① Assembly components for large façade components on request

② Complete set for large façade components on request

SPACER BOLTS

DS 1

HALFEN Spacer bolt
German type approval



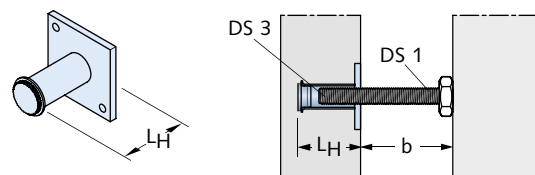
Article name Ø x L [mm]	Suitable for DS 13 b [mm] ①	Suitable for DS 18 b [mm] ①	Article no. 0243.	Price [EUR/item]
Specification: A4 according to table, page 2				
DS 1 - M10 x 70 - A4	40	-	010-00002	7,75
DS 1 - M10 x 90 - A4	60	40	010-00003	7,75
DS 1 - M10 x 110 - A4	80	60	010-00004	7,75
DS 1 - M10 x 130 - A4	100	80	010-00005	7,75
DS 1 - M10 x 150 - A4	120	100	010-00006	7,75
DS 1 - M10 x 170 - A4	140	120	010-00007	8,55
DS 1 - M10 x 190 - A4	160	140	010-00008	8,55
DS 1 - M10 x 210 - A4	180	160	010-00009	8,55
DS 1 - M10 x 230 - A4	200	180	010-00010	9,45
DS 1 - M10 x 250 - A4	220	200	010-00011	10,45
DS 1 - M12 x 72 - A4	40	-	010-00012	9,15
DS 1 - M12 x 92 - A4	60	40	010-00013	9,15
DS 1 - M12 x 112 - A4	80	60	010-00014	9,15
DS 1 - M12 x 132 - A4	100	80	010-00015	9,15
DS 1 - M12 x 152 - A4	120	100	010-00016	9,15
DS 1 - M12 x 172 - A4	140	120	010-00017	9,70
DS 1 - M12 x 192 - A4	160	140	010-00018	9,70
DS 1 - M12 x 212 - A4	180	160	010-00019	9,70
DS 1 - M12 x 232 - A4	200	180	010-00020	11,10
DS 1 - M12 x 252 - A4	220	200	010-00021	13,50
DS 1 - M16 x 75 - A4	40	-	010-00022	14,40
DS 1 - M16 x 95 - A4	60	40	010-00023	14,40
DS 1 - M16 x 115 - A4	80	60	010-00024	14,40
DS 1 - M16 x 135 - A4	100	80	010-00025	14,40
DS 1 - M16 x 155 - A4	120	100	010-00026	14,40
DS 1 - M16 x 175 - A4	140	120	010-00027	15,15
DS 1 - M16 x 195 - A4	160	140	010-00028	15,15
DS 1 - M16 x 215 - A4	180	160	010-00029	15,15
DS 1 - M16 x 235 - A4	200	180	010-00030	16,35
DS 1 - M16 x 255 - A4	220	200	010-00031	20,20
DS 1 - M16 x 275 - A4	240	220	010-00032	21,05
DS 1 - M16 x 295 - A4	260	240	010-00033	21,05
DS 1 - M16 x 315 - A4	280	260	010-00034	21,05
DS 1 - M16 x 335 - A4	300	280	010-00068	on request
DS 1 - M20 x 80 - A4	40	-	010-00035	25,30
DS 1 - M20 x 100 - A4	60	40	010-00036	25,30
DS 1 - M20 x 120 - A4	80	60	010-00037	25,30
DS 1 - M20 x 140 - A4	100	80	010-00038	25,30
DS 1 - M20 x 160 - A4	120	100	010-00039	25,30
DS 1 - M20 x 180 - A4	140	120	010-00040	27,85
DS 1 - M20 x 200 - A4	160	140	010-00041	27,85
DS 1 - M20 x 220 - A4	180	160	010-00042	27,85
DS 1 - M20 x 240 - A4	200	180	010-00043	28,95
DS 1 - M20 x 260 - A4	220	200	010-00044	37,80
DS 1 - M20 x 280 - A4	240	220	010-00045	39,30
DS 1 - M20 x 300 - A4	260	240	010-00046	41,20
DS 1 - M20 x 320 - A4	280	260	010-00067	on request
DS 1 - M20 x 340 - A4	300	280	010-00069	on request

Article name Ø x L [mm]	Suitable for DS 13 b [mm] ①	Suitable for DS 18 b [mm] ①	Article no. 0243.	Price [EUR/item]
Specification: A4 according to table, page 2				
DS 1 - M24 x 105 - A4	60	-	010-00047	46,80
DS 1 - M24 x 125 - A4	80	-	010-00048	46,80
DS 1 - M24 x 145 - A4	100	-	010-00049	46,80
DS 1 - M24 x 165 - A4	120	-	010-00050	46,80
DS 1 - M24 x 185 - A4	140	-	010-00051	50,00
DS 1 - M24 x 205 - A4	160	-	010-00052	50,00
DS 1 - M24 x 225 - A4	180	-	010-00053	50,00
DS 1 - M24 x 245 - A4	200	-	010-00054	52,00
DS 1 - M24 x 265 - A4	220	-	010-00055	54,25
DS 1 - M24 x 285 - A4	240	-	010-00056	56,25
DS 1 - M24 x 305 - A4	260	-	010-00057	59,05
DS 1 - M27 x 145 - A4	100	-	010-00058	on request
DS 1 - M27 x 165 - A4	120	-	010-00059	on request
DS 1 - M27 x 185 - A4	140	-	010-00060	on request
DS 1 - M27 x 205 - A4	160	-	010-00061	on request
DS 1 - M27 x 225 - A4	180	-	010-00062	on request
DS 1 - M27 x 245 - A4	200	-	010-00063	on request
DS 1 - M27 x 265 - A4	220	-	010-00064	on request
DS 1 - M27 x 285 - A4	240	-	010-00065	on request
DS 1 - M27 x 305 - A4	260	-	010-00066	on request
DS 1 - M30 x 145 - A4	100	-	010-00070	on request
DS 1 - M30 x 165 - A4	120	-	010-00071	on request
DS 1 - M30 x 185 - A4	140	-	010-00072	on request
DS 1 - M30 x 205 - A4	160	-	010-00073	on request
DS 1 - M30 x 225 - A4	180	-	010-00074	on request
DS 1 - M30 x 245 - A4	200	-	010-00075	on request
DS 1 - M30 x 265 - A4	220	-	010-00076	on request
DS 1 - M30 x 285 - A4	240	-	010-00077	on request

① Spacer bolts for large façade components on request

DS 3

HALFEN Tensile/compression socket for thin precast panels

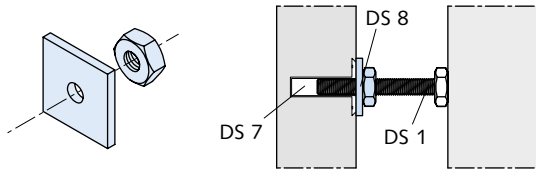


Article name	Sleeve length L _H [mm]	Article no. 0243.	Price [EUR/item]
Specification: A4/L4 according to table, page 2			
DS 3 - M10 - A4	63	030-00001	11,95
DS 3 - M12 - A4	64	030-00002	12,25
DS 3 - M16 - A4	70	030-00003	13,45
DS 3 - M20 - A4	77	030-00004	21,85
DS 3 - M24 - A4	80	030-00005	25,75
DS 3 - M27 - A4	81	030-00006	on request
DS 3 - M30 - A4	80	030-00007	on request

SPACER BOLTS

DS 8

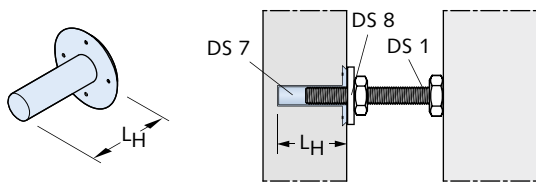
Pressure plate with nut



Article name	Article no.	Price
	0243.	[EUR/item]
Specification: A4 according to table, page 2		
DS 8 - M10 - A4	080-00001	3,60
DS 8 - M12 - A4	080-00002	3,70
DS 8 - M16 - A4	080-00003	3,70
DS 8 - M20 - A4	080-00004	8,40

DS 7

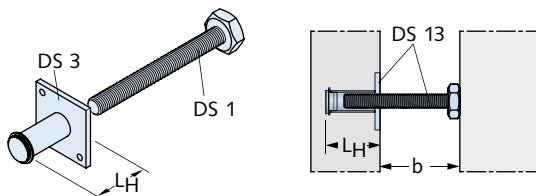
Plastic socket for precast panels



Article name	Sleeve length L _H [mm]	Article no.	Price
		0243.	[EUR/item]
Specification: Plastic			
DS 7 - M10	70	070-00001	0,95
DS 7 - M12	70	070-00002	1,10
DS 7 - M16	80	070-00003	1,15
DS 7 - M20	80	070-00004	1,15

DS 13

HALFEN Spacer bolt with tensile/compression socket, consisting of DS 1 and DS 3
German type approval



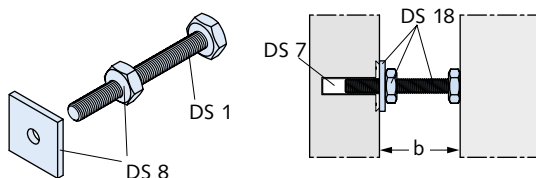
Article name	Article no.	Price
	0243.	[EUR/item]
Specification: A4/L4 according to table, page 2		
DS 13 - 10 - 40 - A4	130-00001	19,70
DS 13 - 10 - 60 - A4	130-00002	19,70
DS 13 - 10 - 80 - A4	130-00003	19,70
DS 13 - 10 - 100 - A4	130-00004	19,70
DS 13 - 10 - 120 - A4	130-00005	19,70
DS 13 - 10 - 140 - A4	130-00006	20,50
DS 13 - 10 - 160 - A4	130-00007	20,50
DS 13 - 10 - 180 - A4	130-00008	20,50
DS 13 - 10 - 200 - A4	130-00009	21,40

Article name	Article no.	Price
	0243.	[EUR/item]
Specification: A4/L4 according to table, page 2		
DS 13 - 12 - 40 - A4	130-00010	21,40
DS 13 - 12 - 60 - A4	130-00011	21,40
DS 13 - 12 - 80 - A4	130-00012	21,40
DS 13 - 12 - 100 - A4	130-00013	21,40
DS 13 - 12 - 120 - A4	130-00014	21,40
DS 13 - 12 - 140 - A4	130-00015	21,95
DS 13 - 12 - 160 - A4	130-00016	21,95
DS 13 - 12 - 180 - A4	130-00017	21,95
DS 13 - 12 - 200 - A4	130-00018	23,35
DS 13 - 16 - 40 - A4	130-00019	27,85
DS 13 - 16 - 60 - A4	130-00020	27,85
DS 13 - 16 - 80 - A4	130-00021	27,85
DS 13 - 16 - 100 - A4	130-00022	27,85
DS 13 - 16 - 120 - A4	130-00023	27,85
DS 13 - 16 - 140 - A4	130-00024	28,60
DS 13 - 16 - 160 - A4	130-00025	28,60
DS 13 - 16 - 180 - A4	130-00026	28,60
DS 13 - 16 - 200 - A4	130-00027	29,80
DS 13 - 16 - 220 - A4	130-00028	33,65
DS 13 - 16 - 240 - A4	130-00029	34,50
DS 13 - 20 - 40 - A4	130-00030	47,15
DS 13 - 20 - 60 - A4	130-00031	47,15
DS 13 - 20 - 80 - A4	130-00032	47,15
DS 13 - 20 - 100 - A4	130-00033	47,15
DS 13 - 20 - 120 - A4	130-00034	47,15
DS 13 - 20 - 140 - A4	130-00035	49,70
DS 13 - 20 - 160 - A4	130-00036	49,70
DS 13 - 20 - 180 - A4	130-00037	49,70
DS 13 - 20 - 200 - A4	130-00038	50,80
DS 13 - 20 - 220 - A4	130-00039	59,65
DS 13 - 20 - 240 - A4	130-00040	61,15
DS 13 - 24 - 60 - A4	130-00041	72,55
DS 13 - 24 - 80 - A4	130-00042	72,55
DS 13 - 24 - 100 - A4	130-00043	72,55
DS 13 - 24 - 120 - A4	130-00044	72,55
DS 13 - 24 - 140 - A4	130-00045	75,75
DS 13 - 24 - 160 - A4	130-00046	75,75
DS 13 - 24 - 180 - A4	130-00047	75,75
DS 13 - 24 - 200 - A4	130-00048	77,75
DS 13 - 24 - 220 - A4	130-00049	80,00
DS 13 - 24 - 240 - A4	130-00050	82,00
① Spacer bolts for large façade components on request		

SPACER BOLTS

DS 18

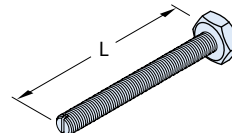
HALFEN Spacer bolt and threaded plate + nut, consisting of DS 1 and DS 8



Article name		Article no.	Price
Thread M	Cavity b [mm]	0243.	[EUR/item]
Specification: A4 according to table, page 2			
DS 18 - 10 -	40 - A4	180-00001	11,35
DS 18 - 10 -	60 - A4	180-00002	11,35
DS 18 - 10 -	80 - A4	180-00003	11,35
DS 18 - 10 -	100 - A4	180-00004	11,35
DS 18 - 10 -	120 - A4	180-00005	12,20
DS 18 - 10 -	140 - A4	180-00006	12,20
DS 18 - 10 -	160 - A4	180-00007	12,20
DS 18 - 10 -	180 - A4	180-00008	13,05
DS 18 - 10 -	200 - A4	180-00009	14,10
DS 18 - 12 -	40 - A4	180-00010	12,85
DS 18 - 12 -	60 - A4	180-00011	12,85
DS 18 - 12 -	80 - A4	180-00012	12,85
DS 18 - 12 -	100 - A4	180-00013	12,85
DS 18 - 12 -	120 - A4	180-00014	13,40
DS 18 - 12 -	140 - A4	180-00015	13,40
DS 18 - 12 -	160 - A4	180-00016	13,40
DS 18 - 12 -	180 - A4	180-00017	14,80
DS 18 - 12 -	200 - A4	180-00018	17,25
DS 18 - 16 -	40 - A4	180-00019	18,10
DS 18 - 16 -	60 - A4	180-00020	18,10
DS 18 - 16 -	80 - A4	180-00021	18,10
DS 18 - 16 -	100 - A4	180-00022	18,10
DS 18 - 16 -	120 - A4	180-00023	18,90
DS 18 - 16 -	140 - A4	180-00024	18,90
DS 18 - 16 -	160 - A4	180-00025	18,90
DS 18 - 16 -	180 - A4	180-00026	20,05
DS 18 - 16 -	200 - A4	180-00027	23,90
DS 18 - 16 -	220 - A4	180-00028	24,75
DS 18 - 16 -	240 - A4	180-00029	24,75
DS 18 - 16 -	260 - A4	180-00030	24,75
DS 18 - 20 -	40 - A4	180-00031	33,70
DS 18 - 20 -	60 - A4	180-00032	33,70
DS 18 - 20 -	80 - A4	180-00033	33,70
DS 18 - 20 -	100 - A4	180-00034	33,70
DS 18 - 20 -	120 - A4	180-00035	36,25
DS 18 - 20 -	140 - A4	180-00036	36,25
DS 18 - 20 -	160 - A4	180-00037	36,25
DS 18 - 20 -	180 - A4	180-00038	37,35
DS 18 - 20 -	200 - A4	180-00039	46,25
DS 18 - 20 -	220 - A4	180-00040	47,75
DS 18 - 20 -	240 - A4	180-00041	49,60
DS 18 - 20 -	260 - A4	180-00042	on request

DS 2

HALFEN Spacer bolt with slot
For application together with DS 5



Article name	Suitable for DS 25 b [mm]	Article no.	Price
Ø x L [mm]		0243.	[EUR/item]
Specification: A4 according to table, page 2			
DS 2 - M10 x 70 - A4	40	020-00001	11,00
DS 2 - M10 x 90 - A4	60	020-00002	11,00
DS 2 - M10 x 110 - A4	80	020-00003	11,00
DS 2 - M10 x 130 - A4	100	020-00004	11,00
DS 2 - M10 x 150 - A4	120	020-00005	11,00
DS 2 - M10 x 170 - A4	140	020-00006	11,95
DS 2 - M10 x 190 - A4	160	020-00007	11,95
DS 2 - M10 x 210 - A4	180	020-00008	11,95
DS 2 - M10 x 230 - A4	200	020-00009	12,65
DS 2 - M10 x 250 - A4	220	020-00010	on request
DS 2 - M12 x 72 - A4	40	020-00011	12,35
DS 2 - M12 x 92 - A4	60	020-00012	12,35
DS 2 - M12 x 112 - A4	80	020-00013	12,35
DS 2 - M12 x 132 - A4	100	020-00014	12,35
DS 2 - M12 x 152 - A4	120	020-00015	12,35
DS 2 - M12 x 172 - A4	140	020-00016	13,00
DS 2 - M12 x 192 - A4	160	020-00017	13,00
DS 2 - M12 x 212 - A4	180	020-00018	13,00
DS 2 - M12 x 232 - A4	200	020-00019	14,40
DS 2 - M12 x 252 - A4	220	020-00020	on request
DS 2 - M16 x 75 - A4	40	020-00021	17,55
DS 2 - M16 x 95 - A4	60	020-00022	17,55
DS 2 - M16 x 115 - A4	80	020-00023	17,55
DS 2 - M16 x 135 - A4	100	020-00024	17,55
DS 2 - M16 x 155 - A4	120	020-00025	17,55
DS 2 - M16 x 175 - A4	140	020-00026	18,30
DS 2 - M16 x 195 - A4	160	020-00027	18,30
DS 2 - M16 x 215 - A4	180	020-00028	18,30
DS 2 - M16 x 235 - A4	200	020-00029	19,55
DS 2 - M16 x 255 - A4	220	020-00030	24,80
DS 2 - M16 x 275 - A4	240	020-00031	25,75
DS 2 - M16 x 295 - A4	260	020-00032	on request
DS 2 - M20 x 80 - A4	40	020-00033	29,60
DS 2 - M20 x 100 - A4	60	020-00034	29,60
DS 2 - M20 x 120 - A4	80	020-00035	29,60
DS 2 - M20 x 140 - A4	100	020-00036	29,60
DS 2 - M20 x 160 - A4	120	020-00037	29,60
DS 2 - M20 x 180 - A4	140	020-00038	32,00
DS 2 - M20 x 200 - A4	160	020-00039	32,00
DS 2 - M20 x 220 - A4	180	020-00040	32,00
DS 2 - M20 x 240 - A4	200	020-00041	33,35
DS 2 - M20 x 260 - A4	220	020-00042	on request
DS 2 - M20 x 280 - A4	240	020-00043	45,10
DS 2 - M20 x 300 - A4	260	020-00044	on request

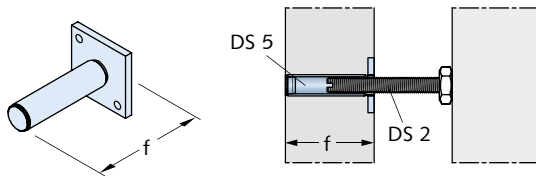
SPACER BOLTS, ADJUSTABLE RESTRAINT, ACCESSORIES

1
Fixing systems

Article name	Suitable for DS 25 b [mm]	Article no.	Price
Ø x L [mm]		0243.	[EUR/item]
Specification: A4 according to table, page 2			
DS 2 - M24 x 105 - A4	60	020-00045	52,30
DS 2 - M24 x 125 - A4	80	020-00046	52,30
DS 2 - M24 x 145 - A4	100	020-00047	52,30
DS 2 - M24 x 165 - A4	120	020-00048	52,30
DS 2 - M24 x 185 - A4	140	020-00049	55,40
DS 2 - M24 x 205 - A4	160	020-00050	55,40
DS 2 - M24 x 225 - A4	180	020-00051	55,40
DS 2 - M24 x 245 - A4	200	020-00052	57,30
DS 2 - M24 x 265 - A4	220	020-00053	58,40
DS 2 - M24 x 285 - A4	240	020-00054	60,50
DS 2 - M24 x 305 - A4	260	020-00055	on request

DS 5

HALFEN Tensile/compression socket for precast panels



Article name	Article no.	Price
Thread/sleeve length f [mm]	0243.	[EUR/item]
Specification: A4/L4 according to table, page 2		
DS 5 - M10 - A4 - f = ①	050-#	on request
DS 5 - M12 - A4 - f = ①	050-#	on request
DS 5 - M16 - A4 - f = ①	050-#	on request
DS 5 - M20 - A4 - f = ①	050-#	on request
① Please note: Measurement f [mm] according to customer request Thickness of precast panels = Sleeve length # = Special items, please indicate article name when ordering		

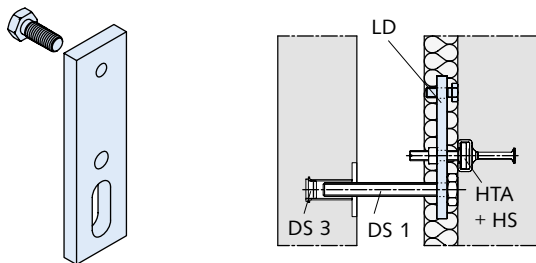
LD

Adjustable restraint

Consists of: adjustable plate and set-screw

Ordered separately: HALFEN T-bolts + washers, HALFEN Cast-in channel, tensile/compression socket DS 13

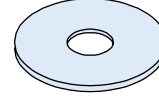
For use with DS 13 M10 please order washer M10 DIN 9021 separately



Article name	Matching HALFEN T-bolts (please order separately)	Article no.	Price
Tension capacity [kN]		0244.	[EUR/item]
Specification: A4/L4 according to table, page 2			
LD - 2,0	HS 28/15-A4-70-M10x40	000-00001	27,05
LD - 3,5	HS 38/17-A4-50-M12x50	000-00002	39,30
LD - 6,0	HS 50/30-A4-50-M16x60	000-00003	73,10

LD Accessories US DIN 9021

Washer,
required for LD with M10 spacer bolt



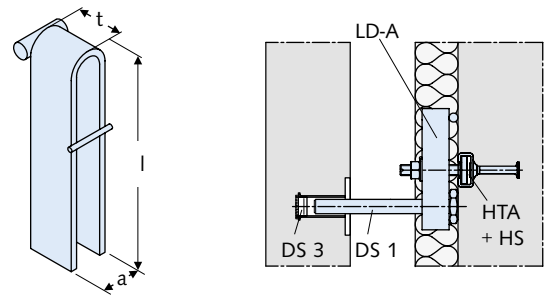
Article name	Article no.	Price
	0370.	[EUR/100 items]
Specification: A4 according to table, page 2		
US M10 A4 DIN 9021	040-00002	68,25

LD-A

Adjustable restraint

Consists of: clamping fork

Ordered separately: HALFEN T-bolts, washers, HALFEN Cast-in channel, tensile/compression socket DS 13



Article name	Spacer bolt	Measure-ment a [mm]	Measure-ment t [mm]	Measure-ment l [mm]	Article no.	Price
Tension capacity [kN]					0261.	[EUR/item]
Specification: A4 according to table, page 2						
LD-A - 1,8 - 12	M12	21	22	130	170-00001	22,00
LD-A - 1,8 - 16	M16	25	22	130	170-00002	22,40
LD-A - 3,5 - 12	M12	21	30	135	170-00003	28,40
LD-A - 3,5 - 16	M16	25	30	135	170-00004	28,70
LD-A - 3,5 - 20	M20	29	30	135	170-00005	29,40
LD-A - 6,0 - 16	M16	27	35	135	170-00006	45,70
LD-A - 6,0 - 20	M20	31	35	135	170-00007	47,20

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

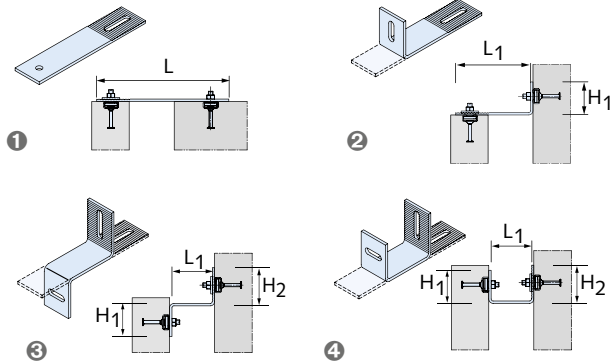
6
Industrial Technology

7
Bolts, Accessories

UNIVERSAL TIES, RESTRAINT

ULZ

Universal tie with serrated plate ①



- ① Flat tie
- ② L-cleat
- ③ Z-cleat
- ④ U-cleat

Article name	Measurement L [mm]	Article no.	Price
		0261.	[EUR/item]

Specification: A4 according to table, page 2

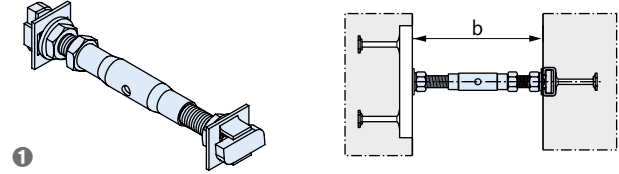
ULZ 30-5 -	② - A4	050 ②	on request
ULZ 40-6 -	② - A4	050 ②	on request
ULZ 60-6 -	② - A4	050 ②	on request

- ① HALFEN T-bolt and HALFEN Cast-in channels to be ordered separately
 - ② Please quote dimensions L, L₁, H₁, H₂ and holes/slots when ordering.
- Drawing required - please see the order form in the catalogue FB

SPV

HALFEN Turnbuckle restraint

Please note: HALFEN Cast-in channels to be ordered separately



- ① Scope of delivery: turnbuckle, 2 HALFEN T-bolts (right- and left-hand thread), 3 flat nuts, 2 washers and 2 locking washers SIC

Article name	Cavity b [mm]	Article no.	Price
Load capacity [kN]		0248.	[EUR/item]

Specification: A4 according to table, page 2

SPV - 5,0 -	100	000-00001	46,40
SPV - 5,0 -	120	000-00002	46,80
SPV - 5,0 -	140	000-00003	48,20
SPV - 5,0 -	160	000-00004	48,60
SPV - 5,0 -	180	000-00005	49,35
SPV - 5,0 -	200	000-00006	49,65
SPV - 7,0 -	100	000-00007	64,55
SPV - 7,0 -	120	000-00008	65,65
SPV - 7,0 -	140	000-00009	65,75
SPV - 7,0 -	160	000-00010	68,25
SPV - 7,0 -	180	000-00011	69,75
SPV - 7,0 -	200	000-00012	71,30
SPV - 10,0 -	140	000-00013	103,20
SPV - 10,0 -	160	000-00014	104,85
SPV - 10,0 -	180	000-00015	106,10
SPV - 10,0 -	200	000-00016	107,65

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

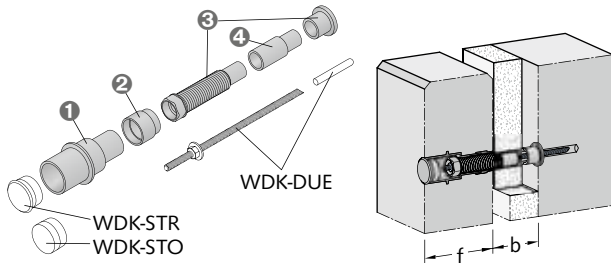
Bolts, Accessories

7

WIND ANCHOR, ACCESSORIES

WDK

Plastic wind restraint anchor with sandwich panel anchor M10



- ① Installation component WDK-E
- ② Installation component extension WDK-E-3,0 VRL
- ③ Assembly component WDK-M
- ④ Assembly component extension WDK-M-3,0 VRL

Article name	f [mm]	For b min/ max [mm]	Article no.	Price
Load capacity [kN]			0247.	[EUR/item]

Specification: Glass fibre reinforced plastic

Installation component

WDK - E	3,0 - 100	100	010-00001	5,60
WDK - E	3,0 - 120	120	010	7,00

Installation component extension

WDK - E -	3,0 - VRL 20	+20	010-00003	1,40
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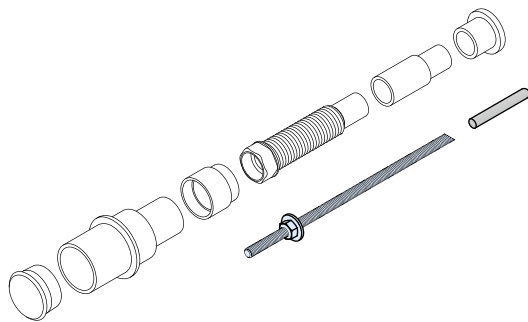
Assembly component

WDK - M - 100	100	20/60	020	3,70
WDK - M - 120	120	20/40	020	3,70

Assembly component extension

WDK - M	3,0 - VRL 40	+40	020-00004	1,40
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WDK Accessories



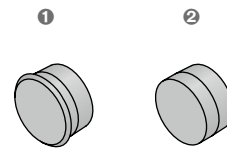
Article name	f [mm]	For b min/ max [mm]	Article no.	Price
Load capacity [kN]			0430.	[EUR/item]

Specification: A4 according to table, page 2

Anchor bolt and mortar capsule

WDK - DUE	3,0 - 100-20/60-A4	100	20/60	010-00014	15,00
WDK - DUE	3,0 - 100-20/60-A4	120	0/40	010-00014	15,00
WDK - DUE	3,0 - 100-70/100-A4	100	70/100	010-00015	17,55
WDK - DUE	3,0 - 100-70/100-A4	120	50/80	010-00015	17,55
WDK - DUE	3,0 - 100-110/140-A4	100	110/140	010-00016	18,35
WDK - DUE	3,0 - 100-110/140-A4	120	90/120	010-00016	18,35
WDK - DUE	3,0 - 100-150/180-A4	100	150/180	010-00017	20,25
WDK - DUE	3,0 - 100-150/180-A4	120	130/160	010-00017	20,25

WDK Accessories



- ① With rim
- ② Without rim

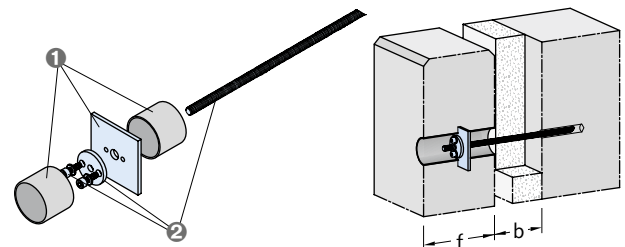
Article name	Article no.	Price
	0250.	[EUR/item]

Specification: Plastic

WDK-STR	Plug with rim	060-00001	1,10
WDK-STO	Plug without rim	060-00002	1,00

WDI

Wind restraint anchor with injection recess M12



- ① Cast-in component WDI-7,0-E
- ② Assembly component WDI-7,0-M

Article name	f [mm]	For b [mm]	Description	Article no.	Price
Load capacity [kN]				0247.	[EUR/item]

Specification: A4 according to table, page 2

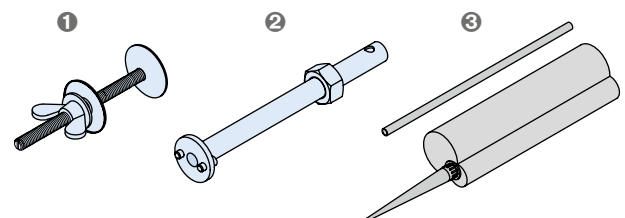
WDI -	7,0 - E	⑦	Cast-in component	030- ⑦	on request
WDI -	7,0 - M	⑦ ⑧	Assembly component	040- ⑦ ⑧	on request

Explanatory notes: ⑦ ⑧ = please specify measurements when ordering

Ordering examples:

WDI-7,0-E f = 80mm / WDI-7,0-M f = 80mm, b = 120mm

WDI Accessories



- ① Support WDI-Z2
- ② Setting tool WDI-Z4
- ③ WDI mortar set

Article name	Description	Article no.	Price
		0250.	[EUR/item]

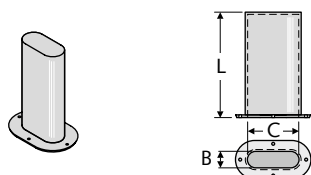
Specification: According to catalogue

WDI - Z2	Support	110-00010	65,10
WDI - Z4	Setting tool	110-00011	52,35
WDI - Mortar set	Sufficient for approx. 30 drilled holes	110-00006	34,45

DOWEL RESTRAINTS

HFV-1

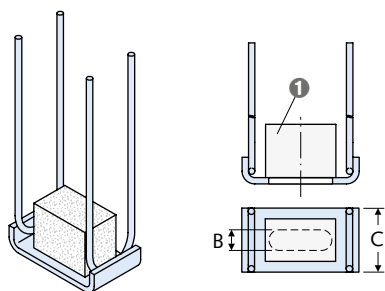
Oval sleeve



Article name	Measurements B/C/L [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: Plastic			
HFV-1 - 2,5	18/44/100	010-00001	1,50
HFV-1 - 5,0	22/47/100	010-00002	1,55

HFV-2

Slotted plate with reinforcement

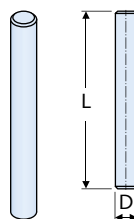


1 Polystyrene®

Article name	Measurements B/C [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: A4 according to table, page 2			
HFV-2 - 2,5 - A4	17/50	020-00001	35,45
HFV-2 - 5,0 - A4	21/60	020-00002	35,65

HFV-3

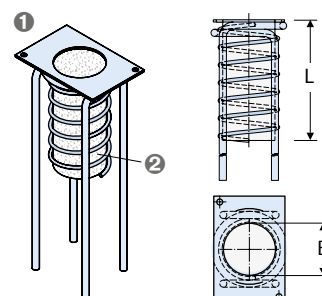
Loose dowel



Article name	Measurement L [mm]	Measurement D [mm]	Article no.	Price
Load capacity [kN]			0249.	[EUR/item]
Specification: A4 according to table, page 2				
HFV-3 - 2,5 - A4	170	16	030-00004	11,35
HFV-3 - 5,0 - A4	170	20	030-00006	18,90

HFV-4

HFV-4

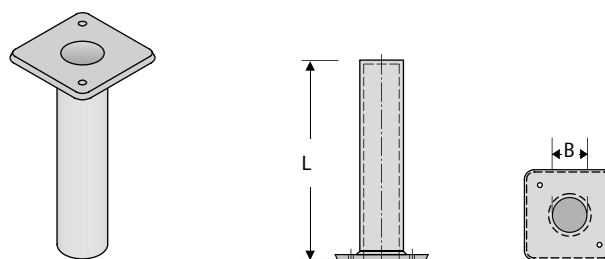


1 Socket
2 Polystyrene®

Article name	Measurement B/L [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: A4 according to table, page 2			
HFV-4 - 2,5/5,0 - A4	44/100	040-00001	38,65

HFV-5

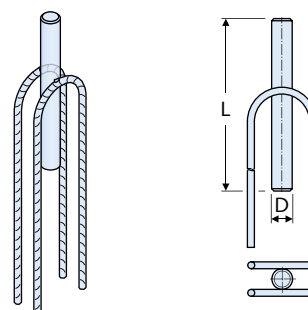
Dowel sleeve



Article name	Measurement B/L [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: Plastic			
HFV-5 - 2,5	16,5/100	050-00001	1,40
HFV-5 - 5,0	20,5/100	050-00002	1,55

HFV-7

Reinforced dowel

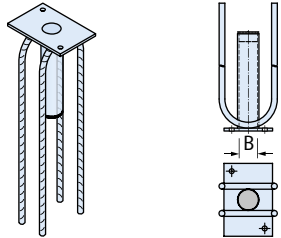


Article name	Measurement D [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: A4 according to table, page 2			
HFV-7 - 2,5 - A4	16	070-00001	29,25
HFV-7 - 5,0 - A4	20	070-00002	34,05

DOWEL RESTRAINTS

HFV-8

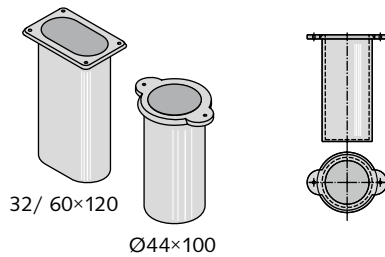
Reinforced dowel sleeve



Article name	Measurement B [mm]	Article no.	Price
Load capacity [kN]		0249.	[EUR/item]
Specification: A4 according to table, page 2			
HFV-8 - 2,5 - A4	17	080-00001	30,00
HFV-8 - 5,0 - A4	21	080-00002	32,60

HFV-9

Grouting sleeve



Article name	Article no.	Price
	0249.	[EUR/item]
Specification: Plastic		
HFV-9 - 44 x 100	090-00001	2,15
HFV-9 - 32/60 x 120 oval	090-00002	2,15

HFV-B

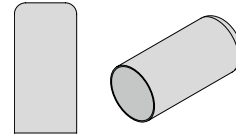
Spiral 60 x 80 mm for precast panel dowel restraints



Article name	Article no.	Price
	0249.	[EUR/item]
Specification: WB according to table, page 2 (without corrosion protection)		
HFV-B - WB	100-00001	0,95
Specification: A4 according to table, page 2		
HFV-B - A4	100-00002	4,80

HFV-K

Cover for HFV-3 when using HFV-1

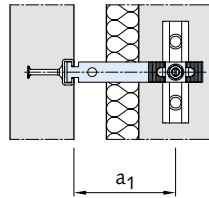
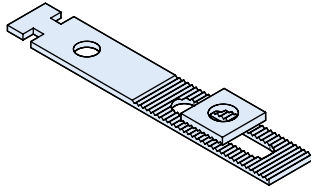


Article name	Load capacity [kN]	Article no.	Price
		0249.	[EUR/item]
Specification: Plastic			
HFV-K	2,5 - KS	110-00001	on request
HFV-K	5,0 - KS	110-00002	on request

RESTRAINT TIES

HKZ

HALFEN Sliding restraint tie with serrated plate ①

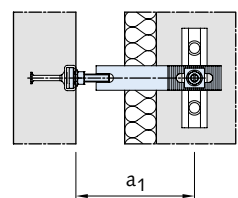
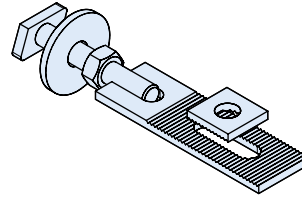


Article name	Measurement a ₁ [mm]	Article no.	Price
		0245.	[EUR/item]
Specification: GV according to the table on page 2			
HKZ 28/15 -	50 - GV	010-00008	8,75
HKZ 28/15 -	75 - GV	010-00009	8,90
HKZ 28/15 -	100 - GV	010-00010	8,95
HKZ 28/15 -	125 - GV	010-00011	9,00
HKZ 28/15 -	150 - GV	010-00012	9,55
HKZ 28/15 -	175 - GV	010-00013	9,65
HKZ 28/15 -	200 - GV	010-00014	9,70
HKZ 28/15 -	225 - GV	010-00018	on request
HKZ 28/15 -	250 - GV	010-00019	on request
Specification: A4 according to table, page 2			
HKZ 38/17 -	75 - GV	020-00009	10,20
HKZ 38/17 -	100 - GV	020-00010	10,35
HKZ 38/17 -	125 - GV	020-00011	10,45
HKZ 38/17 -	150 - GV	020-00012	10,65
HKZ 38/17 -	175 - GV	020-00013	10,80
HKZ 38/17 -	200 - GV	020-00014	10,85
HKZ 38/17 -	225 - GV	020-00019	on request
HKZ 38/17 -	250 - GV	020-00020	on request
HKZ 38/17 -	275 - GV	020-00021	on request
HKZ 38/17 -	300 - GV	020-00022	on request
Specification: A4 according to table, page 2			
HKZ 28/15 -	50 - A4	010-00001	15,50
HKZ 28/15 -	75 - A4	010-00002	15,95
HKZ 28/15 -	100 - A4	010-00003	16,40
HKZ 28/15 -	125 - A4	010-00004	17,05
HKZ 28/15 -	150 - A4	010-00005	17,45
HKZ 28/15 -	175 - A4	010-00006	18,05
HKZ 28/15 -	200 - A4	010-00007	18,40
HKZ 28/15 -	225 - A4	010-00015	19,05
HKZ 28/15 -	250 - A4	010-00016	20,10
HKZ 38/17 -	75 - A4	020-00002	18,90
HKZ 38/17 -	100 - A4	020-00003	19,55
HKZ 38/17 -	125 - A4	020-00004	20,60
HKZ 38/17 -	150 - A4	020-00005	21,10
HKZ 38/17 -	175 - A4	020-00006	21,90
HKZ 38/17 -	200 - A4	020-00007	22,60
HKZ 38/17 -	225 - A4	020-00015	25,40
HKZ 38/17 -	250 - A4	020-00016	27,90
HKZ 38/17 -	275 - A4	020-00017	30,95
HKZ 38/17 -	300 - A4	020-00018	33,35

① HALFEN T-bolt and HALFEN Cast-in channel to be ordered separately

HKZ-GF

HALFEN Bolted restraint tie with serrated plate ①



Article name	Measurement a ₁ [mm]	Article no.	Price
		0245.	[EUR/item]
Specification: GV according to the table on page 2			
HKZ-GF 28/15 -	75 - GV	050-00006	15,35
HKZ-GF 28/15 -	100 - GV	050-00007	15,50
HKZ-GF 28/15 -	125 - GV	050-00008	15,55
HKZ-GF 28/15 -	150 - GV	050-00009	15,70
HKZ-GF 28/15 -	175 - GV	050-00010	15,85
HKZ-GF 38/17 -	100 - GV	060-00007	17,95
HKZ-GF 38/17 -	125 - GV	060-00008	18,10
HKZ-GF 38/17 -	150 - GV	060-00009	18,25
HKZ-GF 38/17 -	175 - GV	060-00010	18,65
Specification: A4 according to table, page 2			
HKZ-GF 28/15 -	75 - A4	050-00001	30,15
HKZ-GF 28/15 -	100 - A4	050-00002	30,70
HKZ-GF 28/15 -	125 - A4	050-00003	31,35
HKZ-GF 28/15 -	150 - A4	050-00004	32,15
HKZ-GF 28/15 -	175 - A4	050-00005	32,55
HKZ-GF 38/17 -	100 - A4	060-00002	40,50
HKZ-GF 38/17 -	125 - A4	060-00003	40,60
HKZ-GF 38/17 -	150 - A4	060-00004	42,05
HKZ-GF 38/17 -	175 - A4	060-00005	42,40
HKZ-GF 38/17 -	200 - A4 ②	060-00011	49,30
HKZ-GF 38/17 -	225 - A4 ②	060-00012	50,40
HKZ-GF 38/17 -	250 - A4 ②	060-00013	51,35

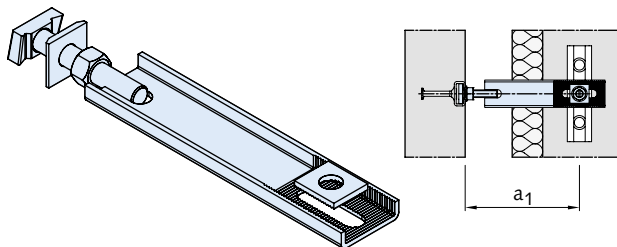
① HALFEN T-bolt and HALFEN Cast-in channel to be ordered separately

② Limited compression capacity

RESTRAINT TIES, PRECAST CONNECTION

HKZ-GU

HALFEN Heavy duty restraint tie with serrated plate ①



Article name	Measurement a ₁ [mm]	Article no.	Price
		0245.	[EUR/item]

Specification: GV according to the table on page 2

HKZ-GU 38/17 -	200 - GV	090-00004	21,40
HKZ-GU 38/17 -	225 - GV	090-00005	21,50
HKZ-GU 38/17 -	250 - GV	090-00006	21,60

HKZ-GU 50/30 -	200 - GV	100-00006	27,60
HKZ-GU 50/30 -	225 - GV	100-00007	28,05
HKZ-GU 50/30 -	250 - GV	100-00008	28,55
HKZ-GU 50/30 -	275 - GV	100-00009	28,70
HKZ-GU 50/30 -	300 - GV	100-00010	28,95

Specification: A4 according to table, page 2

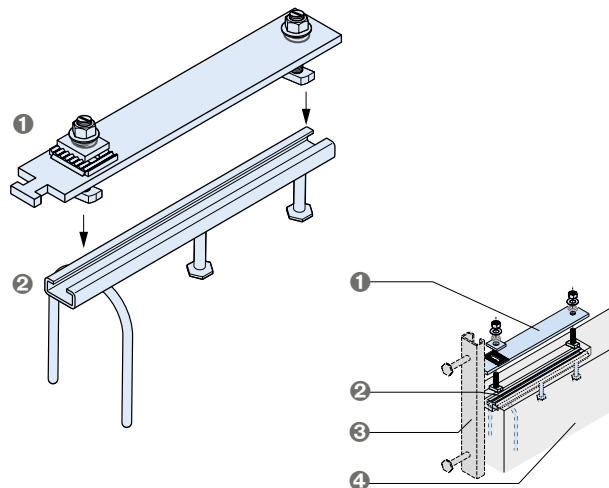
HKZ-GU 38/17 -	200 - A4	090-00001	48,25
HKZ-GU 38/17 -	225 - A4	090-00002	49,90
HKZ-GU 38/17 -	250 - A4	090-00003	51,30

HKZ-GU 50/30 -	200 - A4	100-00001	67,85
HKZ-GU 50/30 -	225 - A4	100-00002	69,05
HKZ-GU 50/30 -	250 - A4	100-00003	70,20
HKZ-GU 50/30 -	275 - A4	100-00004	71,80
HKZ-GU 50/30 -	300 - A4	100-00005	73,45

① HALFEN T-bolt and HALFEN Cast-in channel to be ordered separately

HVL

HALFEN Panel end anchor



- ① HVL-M pre-assembled unit consists of: hammer head strap with welded toothed plate, 1 toothed washer, 2 bolt sets (HALFEN T-bolt HS 38/17 - M12 x 50 + washer + tapered compression spring)
- ② HVL-E pre-assembled unit consists of: HALFEN Cast-in channel HTA-CE 38/17-300 with 2 bolt anchors and 1 loop end anchor
- ③ HTA-CE 38/17 cast-into structure → page 17
- ④ Precast concrete element to be connected

Article name	Article no.	Price
	0040.	[EUR/item]

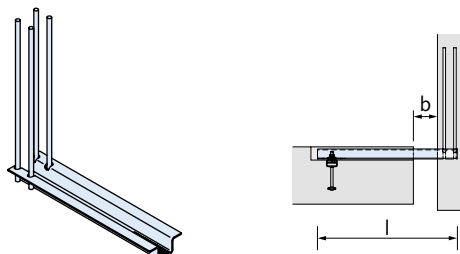
Specification: FV according to table, page 2

HVL - M - FV assembly component	010-00001	46,90
HVL - E - FV installation component	020-00001	14,70

PARAPET CORBEL

BRA-N

Panel corbel,
standard version without height adjustment screw
German type tested
Required assembly accessory: BRA-M1

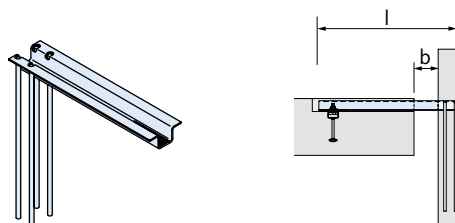


Article name b* min/max[mm]	Profile length l	Material	Article no. 2242.	Price [EUR/item]
Specification: L4 according to table, page 2				
BRA - N 1 - 0/120	400	L4	120-00002	64,15
BRA - N 1 - 0/170	450	L4	120-00003	68,80
BRA - N 1 - 0/220	500	L4	120-00004	73,30
BRA - N 2 - 0/160	450	L4	120-00009	74,30
BRA - N 2 - 0/210	500	L4	120-00010	79,45
BRA - N 2 - 0/260	550	L4	120-00011	84,60
BRA - N 3 - 0/180	500	L4	120-00016	105,10
BRA - N 3 - 0/230	550	L4	120-00017	112,55
BRA - N 3 - 0/280	600	L4	120-00018	120,05
BRA - N 4 - 0/220	550	L4	120-00023	138,70
BRA - N 4 - 0/270	600	L4	120-00024	148,10
BRA - N 4 - 0/320	650	L4	120-00025	157,55
BRA - N 5 - 0/220	550	L4	120-00031	170,85
BRA - N 5 - 0/270	600	L4	120-00032	182,15
BRA - N 5 - 0/320	650	L4	120-00033	193,50
BRA - N 6 - 0/260	600	L4	120-00038	208,25
BRA - N 6 - 0/310	650	L4	120-00039	221,65
BRA - N 6 - 0/360	700	L4	120-00040	235,20
BRA - N 7 - 0/280	650	L4	120-00046	268,55
BRA - N 7 - 0/330	700	L4	120-00047	286,00
BRA - N 7 - 0/380	750	L4	120-00048	303,70
BRA - N 8 - 0/320	700	L4	120-00056	335,60
BRA - N 8 - 0/370	750	L4	120-00057	356,80
BRA - N 8 - 0/420	800	L4	120-00058	377,95

*) Please specify „b“ in 10 mm increments when ordering

BRA-A

Panel corbel,
drop down version without height adjustment screw
German type tested
Required assembly accessory: BRA-M1



Article name b* min/max[mm]	Profile length l	Material	Article no. 2242.	Price [EUR/item]
Specification: L4 according to table, page 2				
BRA - A 1 - 0/120	400	L4	110-00002	64,15
BRA - A 1 - 0/170	450	L4	110-00003	68,80
BRA - A 1 - 0/220	500	L4	110-00004	73,30
BRA - A 2 - 0/160	450	L4	110-00009	74,30
BRA - A 2 - 0/210	500	L4	110-00010	79,45
BRA - A 2 - 0/260	550	L4	110-00011	84,60
BRA - A 3 - 0/180	500	L4	110-00016	105,10
BRA - A 3 - 0/230	550	L4	110-00017	112,55
BRA - A 3 - 0/280	600	L4	110-00018	120,05
BRA - A 4 - 0/220	550	L4	110-00023	138,70
BRA - A 4 - 0/270	600	L4	110-00024	148,10
BRA - A 4 - 0/320	650	L4	110-00025	157,55
BRA - A 5 - 0/220	550	L4	110-00031	170,85
BRA - A 5 - 0/270	600	L4	110-00032	182,15
BRA - A 5 - 0/320	650	L4	110-00033	193,50
BRA - A 6 - 0/260	600	L4	110-00038	208,25
BRA - A 6 - 0/310	650	L4	110-00039	221,65
BRA - A 6 - 0/360	700	L4	110-00040	235,20
BRA - A 7 - 0/280	650	L4	110-00046	268,55
BRA - A 7 - 0/330	700	L4	110-00047	286,00
BRA - A 7 - 0/380	750	L4	110-00048	303,70
BRA - A 8 - 0/320	700	L4	110-00056	335,60
BRA - A 8 - 0/370	750	L4	110-00057	356,80
BRA - A 8 - 0/420	800	L4	110-00058	377,95

*) Please specify „b“ in 10 mm increments when ordering

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Facade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

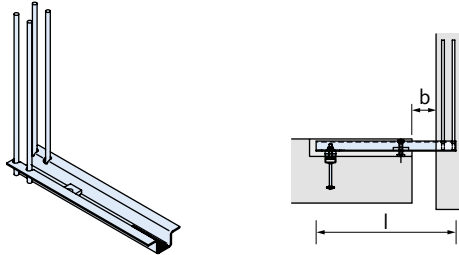
Bolts, Accessories

7

PARAPET CORBEL

BRA - NJ

Panel corbel,
standard version, adjustable
German type tested
Required assembly accessory: BRA-M1 and BRA-M2

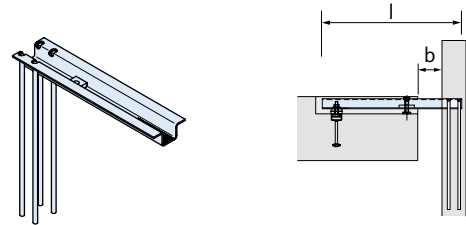


Article name	Profile length l	Material	Article no.	Price	
b* min/max[mm]			2242.	[EUR/item]	
Specification: L4 according to table, page 2					
BRA - NJ 1	0/120	400	L4	140-00001	79,75
BRA - NJ 1	0/170	450	L4	140-00003	84,35
BRA - NJ 1	0/220	500	L4	140-00006	88,85
BRA - NJ 2	0/160	450	L4	140-00008	90,15
BRA - NJ 2	0/210	500	L4	140-00010	95,20
BRA - NJ 2	0/260	550	L4	140-00013	100,30
BRA - NJ 3	0/180	500	L4	140-00015	124,35
BRA - NJ 3	0/230	550	L4	140-00017	131,90
BRA - NJ 3	0/280	600	L4	140-00020	139,45
BRA - NJ 4	0/220	550	L4	140-00022	165,20
BRA - NJ 4	0/270	600	L4	140-00024	174,65
BRA - NJ 4	0/320	650	L4	140-00027	184,10
BRA - NJ 5	0/220	550	L4	140-00029	186,60
BRA - NJ 5	0/270	600	L4	140-00031	197,95
BRA - NJ 5	0/320	650	L4	140-00034	209,15
BRA - NJ 6	0/260	600	L4	140-00036	232,50
BRA - NJ 6	0/310	650	L4	140-00038	245,95
BRA - NJ 6	0/360	700	L4	140-00041	259,40
BRA - NJ 7	0/280	650	L4	140-00043	302,00
BRA - NJ 7	0/330	700	L4	140-00045	319,80
BRA - NJ 7	0/380	750	L4	140-00048	337,35
BRA - NJ 8	0/320	700	L4	140-00050	382,90
BRA - NJ 8	0/370	750	L4	140-00052	404,15
BRA - NJ 8	0/420	800	L4	140-00055	425,40
*) Please specify „b“ in 10 mm increments when ordering					

*) Please specify „b“ in 10 mm increments when ordering

BRA - AJ

Panel corbel,
drop down version, adjustable
German type tested
Required assembly accessory: BRA-M1 and BRA-M2



Article name	Profile length l	Material	Article no.	Price	
b* min/max[mm]			2242.	[EUR/item]	
Specification: L4 according to table, page 2					
BRA - AJ 1	0/120	400	L4	130-00001	79,75
BRA - AJ 1	0/170	450	L4	130-00003	84,35
BRA - AJ 1	0/220	500	L4	130-00006	88,85
BRA - AJ 2	0/160	450	L4	130-00008	90,15
BRA - AJ 2	0/210	500	L4	130-00010	95,20
BRA - AJ 2	0/260	550	L4	130-00013	100,30
BRA - AJ 3	0/180	500	L4	130-00015	124,35
BRA - AJ 3	0/230	550	L4	130-00017	131,90
BRA - AJ 3	0/280	600	L4	130-00020	139,45
BRA - AJ 4	0/220	550	L4	130-00022	165,20
BRA - AJ 4	0/270	600	L4	130-00024	174,65
BRA - AJ 4	0/320	650	L4	130-00027	184,10
BRA - AJ 5	0/220	550	L4	130-00029	186,60
BRA - AJ 5	0/270	600	L4	130-00031	197,95
BRA - AJ 5	0/320	650	L4	130-00034	209,15
BRA - AJ 6	0/260	600	L4	130-00036	232,50
BRA - AJ 6	0/310	650	L4	130-00038	245,95
BRA - AJ 6	0/360	700	L4	130-00041	259,40
BRA - AJ 7	0/280	650	L4	130-00043	302,00
BRA - AJ 7	0/330	700	L4	130-00045	319,80
BRA - AJ 7	0/380	750	L4	130-00048	337,35
BRA - AJ 8	0/320	700	L4	130-00050	382,90
BRA - AJ 8	0/370	750	L4	130-00052	404,15
BRA - AJ 8	0/420	800	L4	130-00055	425,40
*) Please specify „b“ in 10 mm increments when ordering					

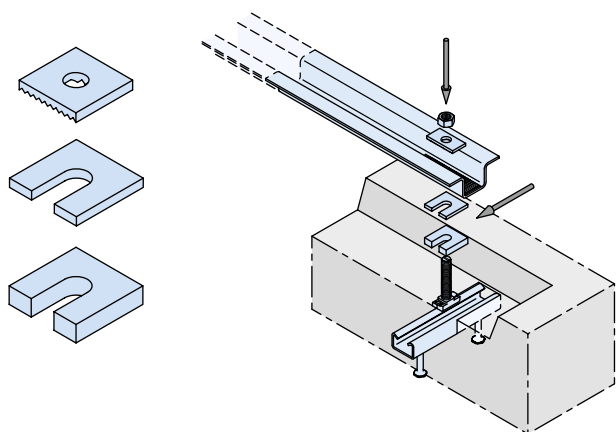
*) Please specify „b“ in 10 mm increments when ordering

PARAPET CORBEL, ACCESSORIES

BRA-M1

Assembly components for panel corbel

Complete set: serrated plate, 2 shims for level adjustment, t = 3 mm and t = 6 mm

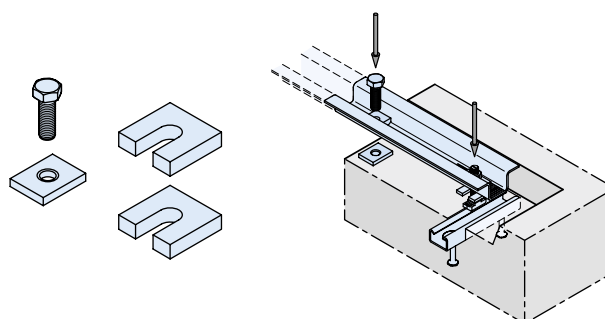


Article name	Article no.	Price
Suitable for BRA-type	0250.	[EUR/item]
Specification: GV according to the table on page 2		
BRA - M1 - 1 GV	1	150-00006 4,30
BRA - M1 - 2/3 GV	2/3	150-00007 4,40
BRA - M1 - 4 GV	4	150-00008 5,10
BRA - M1 - 5 GV	5	150-00009 6,55
BRA - M1 - 6/7/8 GV	6/7/8	150-00010 7,00
Specification: A4/L4 according to table, page 2		
BRA - M1 - 1 A4	1	150-00001 14,00
BRA - M1 - 2/3 A4	2/3	150-00002 14,55
BRA - M1 - 4 A4	4	150-00003 16,85
BRA - M1 - 5 A4	5	150-00004 23,65
BRA - M1 - 6/7/8 A4	6/7/8	150-00005 25,20

BRA-M2

Height adjustment for panel corbel BRA-NJ/-AJ

Complete set: hexagonal head bolt, serrated plate, two shims for level adjustment, t = 6mm



Article name	Article no.	Price
Suitable for BRA-type	0250.	[EUR/item]
Specification: GV according to the table on page 2		
BRA - M2 - 1 GV ①	1	160-00007 4,10
BRA - M2 - 2 GV ①	2	160-00008 4,10
BRA - M2 - 3 GV ①	3	160-00009 4,15
BRA - M2 - 4 GV ①	4	160-00010 5,55
BRA - M2 - 5/6 GV	5/6	160-00011 11,20
BRA - M2 - 7/8 GV	7/8	160-00012 13,05
Specification: A4/L4 according to table, page 2		
BRA - M2 - 1 A4 ①	1	160-00001 13,50
BRA - M2 - 2 A4 ①	2	160-00002 13,50
BRA - M2 - 3 A4 ①	3	160-00003 23,20
BRA - M2 - 4 A4 ①	4	160-00004 33,75
BRA - M2 - 5/6 A4	5/6	160-00005 71,90
BRA - M2 - 7/8 A4	7/8	160-00006 93,25

① only 1 shim provided

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

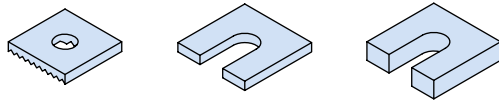
Bolts, Accessories

7

PARAPET CORBEL, ACCESSORIES, TOP FIXING DOWEL

BRA-M1 Assembly accessories

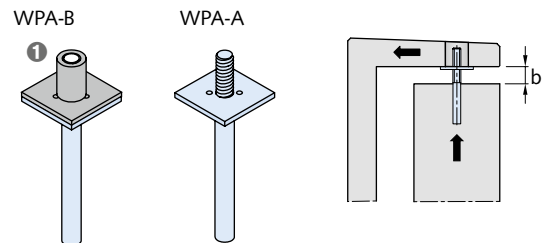
If a greater tolerance is required or you require a custom assembly set HALFEN can deliver individual components



Article name	Accessory	Article no.	Price
		0250.	[EUR/item]
Specification: GV according to the table on page 2			
BRA US 50/50/3 S=35/17	Shim 3 mm, slot 17 mm	030-00014	1,10
BRA US 50/50/3 S=35/21	Shim 3 mm, slot 21 mm	030-00015	1,40
BRA US 65/65/3 S=45/25	Shim 3 mm, slot 25 mm	030-00023	2,30
BRA US 50/50/6 S=35/17	Shim 6 mm, slot 17 mm	030-00018	1,65
BRA US 50/50/6 S=35/21	Shim 6 mm, slot 21 mm	030-00019	1,75
BRA US 65/65/6 S=45/25	Shim 6 mm, slot 25 mm	030-00024	3,30
BRA RP 26x55x6 RL=13	Type 1 toothed washer	050-00016	3,90
BRA RP 30x55x6 RL=17	Type 2 and 3 toothed washer	050-00017	4,15
BRA RP 38x55x6 RL=17	Type 4 toothed washer	050-00020	4,25
BRA RP 38x65x6 RL=21	Type 5 toothed washer	050-00018	4,35
BRA RP 45x65x8 LL=21x25	Type 6, 7 and 8 toothed washer	050-00019	4,90
Specification: A4/L4 according to table, page 2			
BRA US 50/50/3 S=35/17	Shim 3 mm, slot 17 mm	030-00006	2,00
BRA US 50/50/3 S=35/21	Shim 3 mm, slot 21 mm	030-00007	2,25
BRA US 65/65/3 S=45/25	Shim 3 mm, slot 25 mm	030-00021	4,35
BRA US 50/50/6 S=35/17	Shim 6 mm, slot 17 mm	030-00010	3,65
BRA US 50/50/6 S=35/21	Shim 6 mm, slot 21 mm	030-00011	4,15
BRA US 65/65/6 S=45/25	Shim 6 mm, slot 25 mm	030-00022	7,15
BRA RP 26x55x6 RL=13	Type 1 toothed washer	050-00011	4,35
BRA RP 30x55x6 RL=17	Type 2 and 3 toothed washer	050-00012	4,60
BRA RP 38x55x6 RL=17	Type 4 toothed washer	050-00015	5,80
BRA RP 38x65x6 RL=21	Type 4 toothed washer	050-00013	5,55
BRA RP 45x65x8 LL=21x25	Type 6, 7 and 8 toothed washer	050-00014	7,30
RP = Serrated plate			

WPA-A/B

HALFEN Top fixing dowel



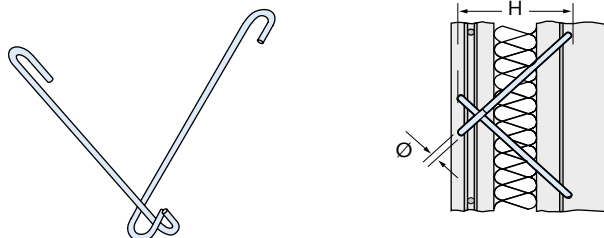
① Flexible sleeve + elastomeric support plate

Article name	Load range F_v [kN]	Article no.	Price
b max/min [mm]		0241.	[EUR/item]
Specification: A4 according to table, page 2			
WPA - A - 5,0 - 20/80	5,0	010-00001	76,50
WPA - A - 8,0 - 20/80	8,0	010-00002	88,00
WPA - A - 11,5 - 30/80	11,5	010-00003	110,10
WPA - A - 16,0 - 30/80	16,0	010-00004	134,85
WPA - A - 22,0 - 40/80	22,0	010-00005	183,50
WPA - A - 34,0 - 40/80	34,0	010-00006	223,95
WPA - B - 5,0 - 20/80	5,0	020-00001	80,20
WPA - B - 8,0 - 20/80	8,0	020-00002	91,85
WPA - B - 11,5 - 30/80	11,5	020-00003	114,40
WPA - B - 16,0 - 30/80	16,0	020-00004	139,45
WPA - B - 22,0 - 40/80	22,0	020-00005	188,25
WPA - B - 34,0 - 40/80	34,0	020-00006	229,35

SANDWICH PANEL ANCHORS

SP-SPA-1

HALFEN Sandwich panel support anchor
German approval

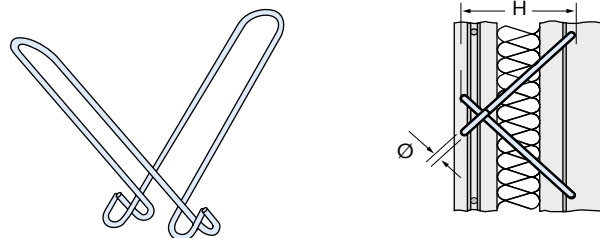


Article name	Nominal dimension Ø [mm]	H [mm]	PU [items]	Article no.	Price
				0270.	[EUR/item]
Specification: A4 according to table, page 2					
SP-SPA - 1 - 05 - 160 - A4	05	160 - A4	100	010-00001	6,40
SP-SPA - 1 - 05 - 180 - A4	05	180 - A4	100	010-00002	6,55
SP-SPA - 1 - 07 - 160 - A4	07	160 - A4	80	010-00003	8,55
SP-SPA - 1 - 07 - 180 - A4	07	180 - A4	75	010-00004	8,95
SP-SPA - 1 - 07 - 200 - A4	07	200 - A4	65	010-00005	9,45
SP-SPA - 1 - 07 - 220 - A4	07	220 - A4	50	010-00006	9,70
SP-SPA - 1 - 07 - 240 - A4	07	240 - A4	45	010-00007	10,15
SP-SPA - 1 - 07 - 260 - A4	07	260 - A4	30	010-00008	10,40
SP-SPA - 1 - 09 - 220 - A4	09	220 - A4	40	010-00138	on request
SP-SPA - 1 - 09 - 240 - A4	09	240 - A4	30	010-00139	on request
SP-SPA - 1 - 09 - 260 - A4	09	260 - A4	25	010-00111	12,70
SP-SPA - 1 - 09 - 280 - A4	09	280 - A4	60	010-00112	14,65
SP-SPA - 1 - 09 - 300 - A4	09	300 - A4	40	010-00113	15,15
SP-SPA - 1 - 09 - 320 - A4	09	320 - A4	100	010-00114	15,65
SP-SPA - 1 - 09 - 340 - A4	09	340 - A4	50	010-00115	on request
SP-SPA - 1 - 09 - 360 - A4	09	360 - A4	100	010-00116	on request
SP-SPA - 1 - 09 - 380 - A4	09	380 - A4	100	010-00117	on request
SP-SPA - 1 - 09 - 400 - A4	09	400 - A4	100	010-00118	on request
SP-SPA - 1 - 10 - 340 - A4	10	340 - A4	50	010-00015	28,85
SP-SPA - 1 - 10 - 360 - A4	10	360 - A4	100	010-00016	29,80
SP-SPA - 1 - 10 - 380 - A4	10	380 - A4	50	010-00103	on request
SP-SPA - 1 - 10 - 400 - A4	10	400 - A4	50	010-00105	on request

SP-SPA-1-10 with larger H dimension available on request

SP-SPA-2

HALFEN Sandwich panel support anchor
German approval



Article name	Nominal dimension Ø [mm]	H [mm]	PU [items]	Article no.	Price
				0271.	[EUR/item]
Specification: A4 according to table, page 2					
SP-SPA - 2 - 05 - 160 - A4	05	160 - A4	70	010-00001	10,25
SP-SPA - 2 - 05 - 180 - A4	05	180 - A4	60	010-00002	10,80
SP-SPA - 2 - 07 - 160 - A4	07	160 - A4	56	010-00003	14,25
SP-SPA - 2 - 07 - 180 - A4	07	180 - A4	50	010-00004	14,90
SP-SPA - 2 - 07 - 200 - A4	07	200 - A4	35	010-00005	15,90
SP-SPA - 2 - 07 - 220 - A4	07	220 - A4	35	010-00006	16,50
SP-SPA - 2 - 07 - 240 - A4	07	240 - A4	30	010-00007	17,40
SP-SPA - 2 - 07 - 260 - A4	07	260 - A4	20	010-00008	18,30
SP-SPA - 2 - 09 - 220 - A4	09	220 - A4	100	010-00139	on request
SP-SPA - 2 - 09 - 240 - A4	09	240 - A4	100	010-00140	on request
SP-SPA - 2 - 09 - 260 - A4	09	260 - A4	25	010-00111	25,25
SP-SPA - 2 - 09 - 280 - A4	09	280 - A4	60	010-00112	26,45
SP-SPA - 2 - 09 - 300 - A4	09	300 - A4	40	010-00113	27,60
SP-SPA - 2 - 09 - 320 - A4	09	320 - A4	100	010-00114	28,80
SP-SPA - 2 - 09 - 340 - A4	09	340 - A4	50	010-00115	on request
SP-SPA - 2 - 09 - 360 - A4	09	360 - A4	100	010-00116	on request
SP-SPA - 2 - 09 - 380 - A4	09	380 - A4	100	010-00117	on request
SP-SPA - 2 - 09 - 400 - A4	09	400 - A4	100	010-00118	on request
SP-SPA - 2 - 10 - 340 - A4	10	340 - A4	100	010-00015	50,95
SP-SPA - 2 - 10 - 360 - A4	10	360 - A4	100	010-00016	52,80
SP-SPA - 2 - 10 - 380 - A4	10	380 - A4	25	010-00103	on request
SP-SPA - 2 - 10 - 400 - A4	10	400 - A4	15	010-00105	on request

SP-SPA-2-10 with larger H dimension available on request

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

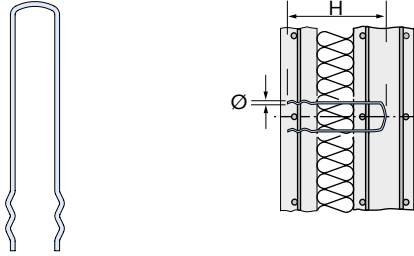
Bolts, Accessories

7

SANDWICH PANEL ANCHORS

SP-SPA-N

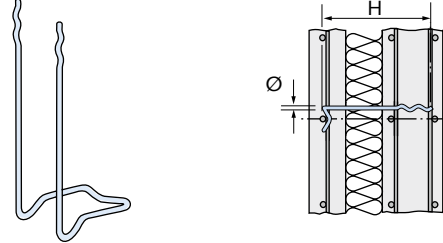
Sandwich panel connector pins
German approval



Article name	PU [items]	Article no.	Price
Nominal dimension Ø [mm] H [mm]		0274.	[EUR/item]
Specification: A4 according to table, page 2			
SP-SPA - N - 03 - 120 - A4	1000	010-00001	0,45
SP-SPA - N - 03 - 140 - A4	1000	010-00002	0,45
SP-SPA - N - 03 - 160 - A4	1000	010-00003	0,60
SP-SPA - N - 03 - 180 - A4	1000	010-00004	0,60
SP-SPA - N - 03 - 200 - A4	1000	010-00005	0,65
SP-SPA - N - 04 - 160 - A4	500	020-00001	1,65
SP-SPA - N - 04 - 180 - A4	500	020-00002	1,70
SP-SPA - N - 04 - 200 - A4	500	020-00003	1,70
SP-SPA - N - 04 - 220 - A4	500	020-00004	1,80
SP-SPA - N - 04 - 240 - A4	250	020-00005	2,00
SP-SPA - N - 05 - 240 - A4	250	030-00001	3,65
SP-SPA - N - 05 - 260 - A4	250	030-00002	4,65
SP-SPA - N - 05 - 280 - A4	250	030-00003	4,85
SP-SPA - N - 05 - 300 - A4	250	030-00004	5,00
SP-SPA - N - 05 - 320 - A4	250	030-00005	5,40
SP-SPA - N - 06 - 340 - A4	50	040-00001	6,75
SP-SPA - N - 06 - 360 - A4	50	040-00002	6,80
SP-SPA - N - 06 - 380 - A4	50	040-00003	6,80
SP-SPA - N - 06 - 400 - A4	50	040-00004	6,90
SP-SPA - N - 06 - 420 - A4	50	040-00005	7,15

SP-SPA-A

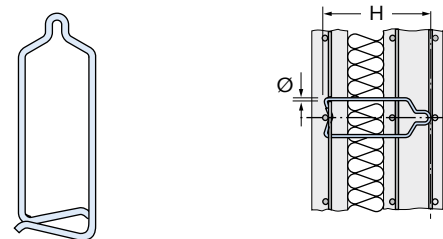
Sandwich panel clip-on pins
German approval



Article name	PU [items]	Article no.	Price
Nominal dimension Ø [mm] H [mm]		0272.	[EUR/item]
Specification: A4 according to table, page 2			
SP-SPA - A - 03 - 120 - A4	1000	010-00001	1,10
SP-SPA - A - 03 - 140 - A4	1000	010-00002	1,25
SP-SPA - A - 03 - 160 - A4	1000	010-00003	1,25
SP-SPA - A - 03 - 180 - A4	1000	010-00004	1,40
SP-SPA - A - 04 - 160 - A4	250	030-00001	1,80
SP-SPA - A - 04 - 200 - A4	250	030-00002	1,85
SP-SPA - A - 04 - 250 - A4	250	030-00003	2,00
SP-SPA - A - 05 - 200 - A4	250	050-00001	4,65
SP-SPA - A - 05 - 250 - A4	250	050-00002	4,85
SP-SPA - A - 05 - 280 - A4	250	050-00003	5,00
SP-SPA - A - 05 - 320 - A4	200	050-00004	5,45

SP-SPA-B

Sandwich panel tie (plug-in tie)
German approval

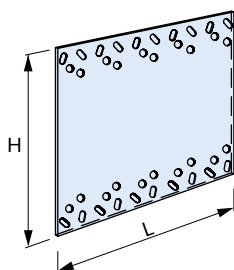


Article name	PU [items]	Article no.	Price
Nominal dimension Ø [mm] H [mm]		0273.	[EUR/item]
Specification: A4 according to table, page 2			
SP-SPA - B - 03 - 160 - A4	1000	010-00001	1,40
SP-SPA - B - 03 - 180 - A4	800	010-00002	1,40
SP-SPA - B - 04 - 160 - A4	600	020-00001	1,80
SP-SPA - B - 04 - 180 - A4	500	020-00002	1,85
SP-SPA - B - 04 - 200 - A4	500	020-00003	2,15
SP-SPA - B - 04 - 220 - A4	500	020-00004	2,20
SP-SPA - B - 04 - 240 - A4	400	020-00005	2,55
SP-SPA - B - 05 - 240 - A4	300	030-00001	3,70
SP-SPA - B - 05 - 260 - A4	300	030-00002	3,75
SP-SPA - B - 05 - 280 - A4	250	030-00003	4,10
SP-SPA - B - 05 - 300 - A4	250	030-00004	4,15
SP-SPA - B - 05 - 320 - A4	250	030-00005	4,40

SANDWICH PANEL ANCHORS

SP-FA-1

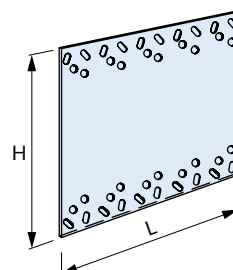
Flat anchor
Plate thickness 1,5 mm
German approval



Article name		Article no.	Price
Height H [mm]	L [mm]	0771.	[EUR/item]
Specification: A4 according to table, page 2			
SP-FA - 1 -	150 -	40	010-00001 4,40
SP-FA - 1 -	150 -	80	010-00002 7,15
SP-FA - 1 -	150 -	120	010-00003 10,40
SP-FA - 1 -	150 -	160	010-00004 13,40
SP-FA - 1 -	150 -	200	010-00005 16,50
SP-FA - 1 -	150 -	240	010-00006 19,55
SP-FA - 1 -	150 -	280	010-00007 23,15
SP-FA - 1 -	150 -	320	010-00008 26,10
SP-FA - 1 -	150 -	360	010-00009 29,25
SP-FA - 1 -	150 -	400	010-00010 32,45
SP-FA - 1 -	175 -	40	010-00011 5,40
SP-FA - 1 -	175 -	80	010-00012 9,65
SP-FA - 1 -	175 -	120	010-00013 13,75
SP-FA - 1 -	175 -	160	010-00014 16,25
SP-FA - 1 -	175 -	200	010-00015 19,55
SP-FA - 1 -	175 -	240	010-00016 23,30
SP-FA - 1 -	175 -	280	010-00017 27,60
SP-FA - 1 -	175 -	320	010-00018 34,20
SP-FA - 1 -	175 -	360	010-00019 35,45
SP-FA - 1 -	175 -	400	010-00020 38,65
SP-FA - 1 -	200 -	40	010-00021 6,40
SP-FA - 1 -	200 -	80	010-00022 12,65
SP-FA - 1 -	200 -	120	010-00023 16,70
SP-FA - 1 -	200 -	160	010-00024 22,35
SP-FA - 1 -	200 -	200	010-00025 27,05
SP-FA - 1 -	200 -	240	010-00026 32,45
SP-FA - 1 -	200 -	280	010-00027 38,60
SP-FA - 1 -	200 -	320	010-00028 43,90
SP-FA - 1 -	200 -	360	010-00029 49,45
SP-FA - 1 -	200 -	400	010-00030 54,95
SP-FA - 1 -	225 -	40	010-00031 6,90
SP-FA - 1 -	225 -	80	010-00032 13,95
SP-FA - 1 -	225 -	120	010-00033 18,15
SP-FA - 1 -	225 -	160	010-00034 23,70
SP-FA - 1 -	225 -	200	010-00035 29,25
SP-FA - 1 -	225 -	240	010-00036 35,20
SP-FA - 1 -	225 -	280	010-00037 41,75
SP-FA - 1 -	225 -	320	010-00038 47,60
SP-FA - 1 -	225 -	360	010-00039 53,40
SP-FA - 1 -	225 -	400	010-00040 59,10

SP-FA-2

Flat anchor
Plate thickness 2,0 mm
German approval

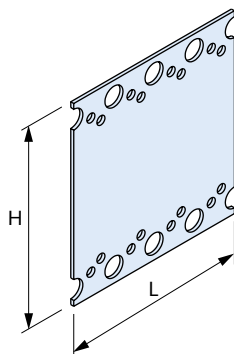


Article name		Article no.	Price
Height H [mm]	L [mm]	0771.	[EUR/item]
Specification: A4 according to table, page 2			
SP-FA - 2 -	175 -	40	020-00001 8,65
SP-FA - 2 -	175 -	80	020-00002 12,35
SP-FA - 2 -	175 -	120	020-00003 16,25
SP-FA - 2 -	175 -	160	020-00004 21,85
SP-FA - 2 -	175 -	200	020-00005 25,75
SP-FA - 2 -	175 -	240	020-00006 29,60
SP-FA - 2 -	175 -	280	020-00007 34,20
SP-FA - 2 -	175 -	320	020-00008 38,45
SP-FA - 2 -	175 -	360	020-00009 42,40
SP-FA - 2 -	175 -	400	020-00010 46,55
SP-FA - 2 -	200 -	40	020-00011 9,45
SP-FA - 2 -	200 -	80	020-00012 13,85
SP-FA - 2 -	200 -	120	020-00013 18,50
SP-FA - 2 -	200 -	160	020-00014 24,85
SP-FA - 2 -	200 -	200	020-00015 29,00
SP-FA - 2 -	200 -	240	020-00016 33,75
SP-FA - 2 -	200 -	280	020-00017 40,95
SP-FA - 2 -	200 -	320	020-00018 47,60
SP-FA - 2 -	200 -	360	020-00019 52,35
SP-FA - 2 -	200 -	400	020-00020 57,10
SP-FA - 2 -	225 -	40	020-00021 10,05
SP-FA - 2 -	225 -	80	020-00022 14,90
SP-FA - 2 -	225 -	120	020-00023 19,85
SP-FA - 2 -	225 -	160	020-00024 26,95
SP-FA - 2 -	225 -	200	020-00025 31,85
SP-FA - 2 -	225 -	240	020-00026 38,75
SP-FA - 2 -	225 -	280	020-00027 44,65
SP-FA - 2 -	225 -	320	020-00028 50,25
SP-FA - 2 -	225 -	360	020-00029 55,30
SP-FA - 2 -	225 -	400	020-00030 62,65
SP-FA - 2 -	260 -	40	020-00031 20,80
SP-FA - 2 -	260 -	80	020-00032 26,50
SP-FA - 2 -	260 -	120	020-00033 32,35
SP-FA - 2 -	260 -	160	020-00034 38,60
SP-FA - 2 -	260 -	200	020-00035 44,25
SP-FA - 2 -	260 -	240	020-00036 50,25
SP-FA - 2 -	260 -	280	020-00037 57,15
SP-FA - 2 -	260 -	320	020-00038 63,80
SP-FA - 2 -	260 -	360	020-00039 70,10
SP-FA - 2 -	260 -	400	020-00040 75,95

SANDWICH PANEL ANCHORS

SP-FA-3

Flat anchor
Plate thickness 3,0 mm
German approval



Article name		Article no.	Price	
Height H [mm]	L [mm]	0771.	[EUR/item]	
Specification: A4 according to table, page 2				
SP-FA - 3 -	260 -	80	030-00001	36,75
SP-FA - 3 -	260 -	120	030-00002	50,40
SP-FA - 3 -	260 -	160	030-00003	60,30
SP-FA - 3 -	260 -	200	030-00004	78,75
SP-FA - 3 -	260 -	240	030-00005	93,35
SP-FA - 3 -	260 -	280	030-00006	100,95
SP-FA - 3 -	260 -	320	030-00007	106,60
SP-FA - 3 -	260 -	360	030-00008	112,75
SP-FA - 3 -	260 -	400	030-00009	119,60
SP-FA - 3 -	280 -	80	030-00010	39,15
SP-FA - 3 -	280 -	120	030-00011	53,90
SP-FA - 3 -	280 -	160	030-00012	69,35
SP-FA - 3 -	280 -	200	030-00013	84,40
SP-FA - 3 -	280 -	240	030-00014	100,00
Please note: SP-SPA-N/-A/-B → page 174				

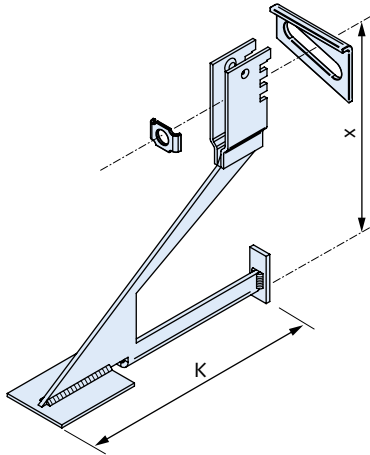
BRICKWORK SUPPORT SYSTEM

HK5-U

Brickwork support system, standard type U.

Can also be used in combination with spanning loose support angles type HW → page 182

Height adjustable ± 20 mm



Article name	Projection K [mm]	Lever arm x [mm]	Article no.	Price
Load capacity [kN]			2300.	[EUR/item]

Specification: A4/L4 according to table, page 2

HK5-U-	4,0-	130	150	010-00001	19,85
HK5-U-	4,0-	150	150	010-00002	20,30
HK5-U-	4,0-	170	150	010-00003	20,80
HK5-U-	4,0-	190	150	010-00004	21,10
HK5-U-	4,0-	210	150	010-00005	21,50
HK5-U-	4,0-	230	175	010-00006	23,45
HK5-U-	4,0-	250	175	010-00007	25,20
HK5-U-	4,0-SK-	270	180	01S	on request
HK5-U-	4,0-SK-	290	200	01S	on request
HK5-U-	4,0-SK-	310	220	01S	on request
HK5-U-	4,0-SK-	330	240	01S	on request
HK5-U-	4,0-SK-	350	260	01S	on request

HK5-U-	8,0-	130	200	010-00008	27,80
HK5-U-	8,0-	150	200	010-00009	28,25
HK5-U-	8,0-	170	200	010-00010	27,50
HK5-U-	8,0-	190	200	010-00011	28,25
HK5-U-	8,0-	210	200	010-00012	28,85
HK5-U-	8,0-	230	250	010-00013	33,35
HK5-U-	8,0-	250	250	010-00014	34,05
HK5-U-	8,0-SK-	270	270	01S	on request
HK5-U-	8,0-SK-	290	290	01S	on request
HK5-U-	8,0-SK-	310	310	01S	on request
HK5-U-	8,0-SK-	330	330	01S	on request
HK5-U-	8,0-SK-	350	350	01S	on request

HK5-U-	12,0-	130	250	010-00015	41,35
HK5-U-	12,0-	150	250	010-00016	42,10
HK5-U-	12,0-	170	250	010-00017	43,05
HK5-U-	12,0-	190	250	010-00018	44,55
HK5-U-	12,0-	210	250	010-00019	45,70
HK5-U-	12,0-	230	300	010-00020	49,90
HK5-U-	12,0-	250	300	010-00021	51,05
HK5-U-	12,0-SK-	270	320	01S	on request
HK5-U-	12,0-SK-	290	340	01S	on request
HK5-U-	12,0-SK-	310	360	01S	on request
HK5-U-	12,0-SK-	330	380	01S	on request
HK5-U-	12,0-SK-	350	400	01S	on request

Projections and custom dimensions on request

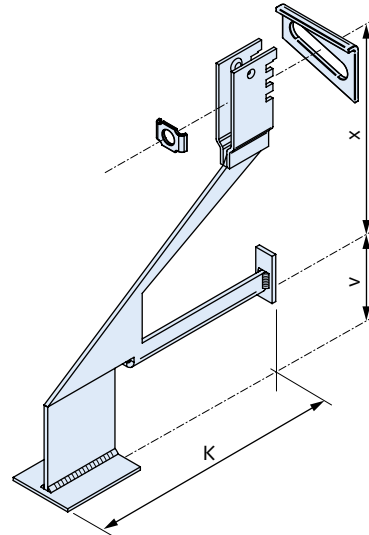
★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme A

HK5-UV

Brickwork support system, type UV with height v.

Can also be used in combination with spanning loose support angles type HW → page 182

Height adjustable ± 20 mm



Article name	Projection K [mm]	Nominal dimension [mm]	Article no.	Price
Load capacity [kN]			2300.	[EUR/item] ②

Specification: A4/L4 according to table, page 2

HK5-UV-	4,0-SK-	K = v = 60 ①	02S	on request
Change of offset dimension each ± 10 mm				0,30
HK5-UV-	8,0-SK-	K = v = 60 ①	02S	on request
Change of offset dimension each ± 10 mm				0,30
HK5-UV-	12,0-SK-	K = v = 60 ①	02S	on request
Change of offset dimension each ± 10 mm				0,30

① Please specify projection K and offset measurement v in mm

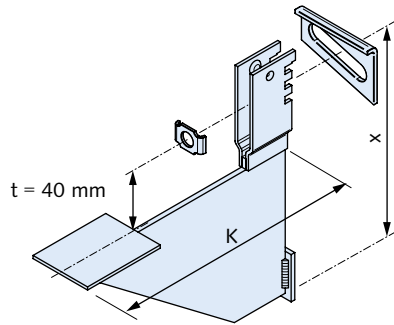
② Prices for special designs: please see note on page 3

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme B

BRICKWORK SUPPORT SYSTEM

HK5-UT

Brickwork support system, type UT with elevated support plate.
Can also be used in combination with spanning loose support angles type HW → page 182
Height adjustable ± 20 mm



Article name	Article no.	Price
Load capacity [kN] Projection K [mm]	2100.	[EUR/item] ②
Specification: A4/L4 according to table, page 2		
HK5-UT- 4,0-SK-	K = ① 03S	on request
HK5-UT- 8,0-SK-	K = ① 03S	on request
HK5-UT- 12,0-SK-	K = ① 03S	on request

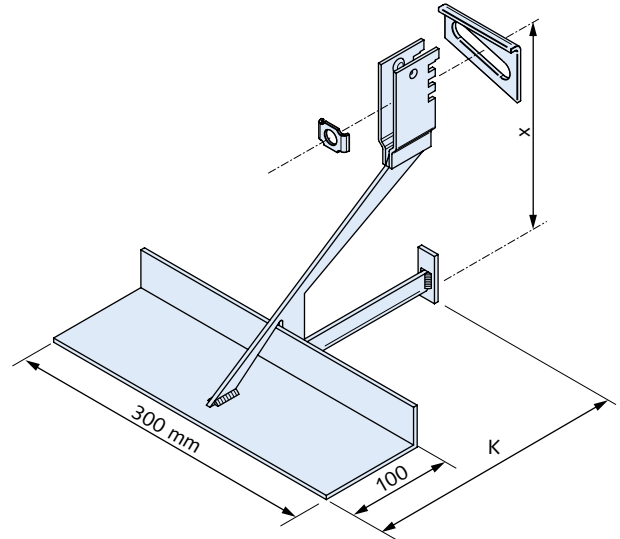
① Please specify projection K in mm

② Prices for special designs: please see note on page 3

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme A

HK5-P

Brickwork support system, type P, typically used near expansion joints
Height adjustable ± 20 mm



Article name	Projection K [mm]	Lever arm x [mm]	Article no.	Price
Load capacity [kN]			2300.	[EUR/item]
Specification: A4/L4 according to table, page 2				
HK5-P- 4,0-	130	150	06S	47,15
HK5-P- 4,0-	150	150	06S	46,65
HK5-P- 4,0-	170	150	06S	47,05
HK5-P- 4,0-	190	150	06S	47,65
HK5-P- 4,0-	210	150	06S	47,65
HK5-P- 4,0-	230	175	06S	49,40
HK5-P- 4,0-	250	175	06S	50,05
HK5-P- 8,0-	130	200	06S	52,05
HK5-P- 8,0-	150	200	06S	52,55
HK5-P- 8,0-	170	200	06S	53,15
HK5-P- 8,0-	190	200	06S	52,90
HK5-P- 8,0-	210	200	06S	53,15
HK5-P- 8,0-	230	250	06S	57,45
HK5-P- 8,0-	250	250	06S	58,10
HK5-P- 12,0-	130	250	06S	66,10
HK5-P- 12,0-	150	250	06S	67,05
HK5-P- 12,0-	170	250	06S	68,10
HK5-P- 12,0-	190	250	06S	69,10
HK5-P- 12,0-	210	250	06S	70,10
HK5-P- 12,0-	230	300	06S	74,45
HK5-P- 12,0-	250	300	06S	75,65

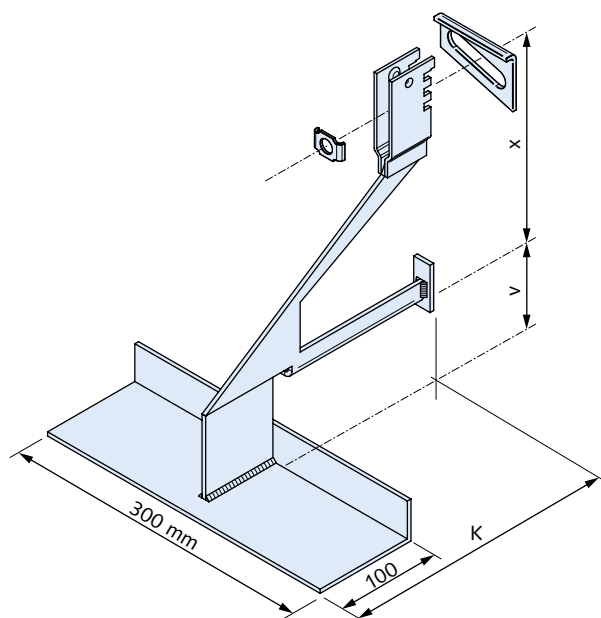
Projections up to 350 mm and other dimensions on request

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme A

BRICKWORK SUPPORT SYSTEM

HK5-PV

Brickwork support system, type PV with height offset measurement v , typically used near expansion joints,
Height adjustable ± 20 mm

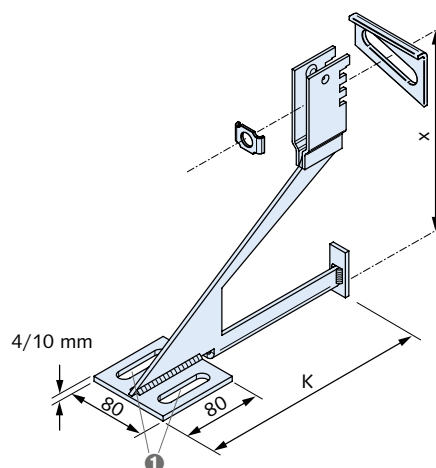


Article name	Projection K [mm]	Nominal dimension [mm]	Article no.	Price
Load capacity [kN]			2300.	[EUR/item] ②
Specification: A4/L4 according to table, page 2				
HK5-PV- 4,0-SK	K =	v = 60 ①	07S	on request
Change of offset dimension each ± 10 mm				0,65
HK5-PV- 8,0-SK	K =	v = 60 ①	07S	on request
Change of offset dimension each ± 10 mm				0,65
HK5-PV- 12,0-SK	K =	v = 60 ①	07S	on request
Change of offset dimension each ± 10 mm				0,65

① Please specify projection K and offset measurement v in mm
★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme B
② Prices for special design: please see note on page 3.

HK5-S

Brickwork support system type S also for suspending precast brick units, above openings
Height adjustable ± 20 mm



① Slots for bolted connection to precast elements

Article name	Load capacity [kN]	Projection K [mm]	Lever arm x [mm]	Article no.	Price
				2300.	[EUR/item]
Specification: A4/L4 according to table, page 2					
HK5-S- 4,0-	4,0	130	150	080-00001	20,10
HK5-S- 4,0-	4,0	150	150	080-00002	20,05
HK5-S- 4,0-	4,0	170	150	080-00003	22,35
HK5-S- 4,0-	4,0	190	150	080-00004	20,60
HK5-S- 4,0-	4,0	210	150	080-00005	23,15
HK5-S- 4,0-	4,0	230	175	080-00006	25,20
HK5-S- 4,0-	4,0	250	175	080-00007	26,75
HK5-S- 4,0-SK-	4,0-SK-	270	180	08S	on request
HK5-S- 4,0-SK-	4,0-SK-	290	200	08S	on request
HK5-S- 4,0-SK-	4,0-SK-	310	220	08S	on request
HK5-S- 4,0-SK-	4,0-SK-	330	240	08S	on request
HK5-S- 4,0-SK-	4,0-SK-	350	260	08S	on request
HK5-S- 8,0-	8,0	130	200	080-00008	34,15
HK5-S- 8,0-	8,0	150	200	080-00009	34,85
HK5-S- 8,0-	8,0	170	200	080-00010	30,90
HK5-S- 8,0-	8,0	190	200	080-00011	33,60
HK5-S- 8,0-	8,0	210	200	080-00012	32,00
HK5-S- 8,0-	8,0	230	250	080-00013	36,80
HK5-S- 8,0-	8,0	250	250	080-00014	37,40
HK5-S- 8,0-SK-	8,0-SK-	270	270	08S	on request
HK5-S- 8,0-SK-	8,0-SK-	290	290	08S	on request
HK5-S- 8,0-SK-	8,0-SK-	310	310	08S	on request
HK5-S- 8,0-SK-	8,0-SK-	330	330	08S	on request
HK5-S- 8,0-SK-	8,0-SK-	350	350	08S	on request
HK5-S- 12,0-	12,0	130	250	080-00015	47,15
HK5-S- 12,0-	12,0	150	250	080-00016	48,20
HK5-S- 12,0-	12,0	170	250	080-00017	48,65
HK5-S- 12,0-	12,0	190	250	080-00018	46,80
HK5-S- 12,0-	12,0	210	250	080-00019	51,30
HK5-S- 12,0-	12,0	230	300	080-00020	56,55
HK5-S- 12,0-	12,0	250	300	080-00021	58,05
HK5-S- 12,0-SK-	12,0-SK-	270	320	08S	on request
HK5-S- 12,0-SK-	12,0-SK-	290	340	08S	on request
HK5-S- 12,0-SK-	12,0-SK-	310	360	08S	on request
HK5-S- 12,0-SK-	12,0-SK-	330	380	08S	on request
HK5-S- 12,0-SK-	12,0-SK-	350	400	08S	on request

Projections and custom dimensions on request

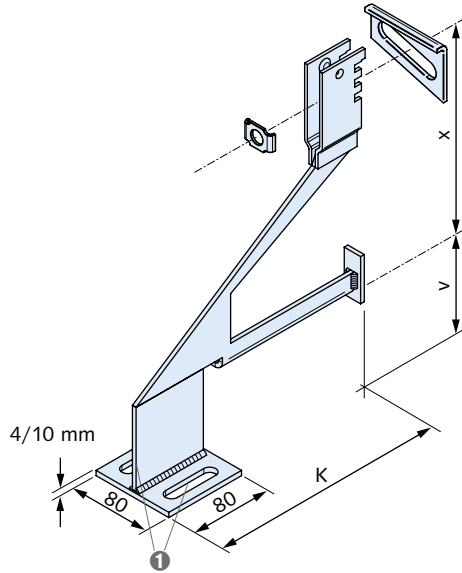
★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme A

Installation and assembly components for precast brick units → page 186.

BRICKWORK SUPPORT SYSTEM

HK5-SV

Brickwork support system type SV with height offset measurement v also for suspending precast brick units, above openings
Height adjustable ± 20 mm



① Slots for bolted connection to precast elements

Article name	Load capacity [kN]	Projection K [mm]	Nominal dimension [mm]	Article no.	Price
				2300.	[EUR/item] ②
Specification: A4/L4 according to table, page 2					
HK5-SV-	4,0-SK	K =	v = 60 ①	09S	on request
Change of offset dimension each ± 10 mm					0,30
HK5-SV-	8,0-SK	K =	v = 60 ①	09S	on request
Change of offset dimension each ± 10 mm					0,30
HK5-SV-	12,0-SK	K =	v = 60 ①	09S	on request
Change of offset dimension each ± 10 mm					0,30

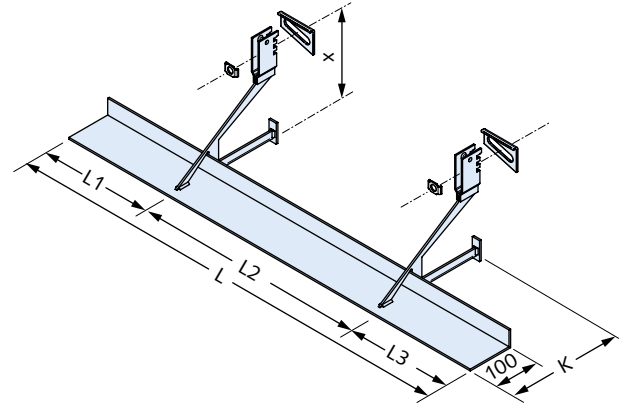
① Please specify projection K and offset measurement v in mm

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme B

② Prices for special designs: please see note on page 3

HK5-F

Brickwork support system, type F, over openings
Height adjustable ± 20 mm



Article name	Load capacity [kN]	Projection K [mm]	Bracket lengths L / L2 [mm]	Article no.	Price
				2300.	[EUR/item] ②
Specification: A4/L4 according to table, page 2					
HK5-F-	4,0-	K =	995 / 500	11S	109,85
HK5-F-	4,0-	K =	1245 / 750	11S	121,30
HK5-F-	4,0-	K =	1495 / 1000	11S	132,95
HK5-F-	8,0-	K =	995 / 500	11S	122,20
HK5-F-	8,0-	K =	1245 / 750	11S	133,70
HK5-F-	8,0-	K =	1495 / 1000	11S	145,40
HK5-F-	12,0-	K =	995 / 500	11S	147,15
HK5-F-	12,0-	K =	1245 / 750	11S	161,60
HK5-F-	12,0-	K =	1495 / 1000	11S	176,15
HK5-F-	4,0-SK-	K =	L / L2	11S	on request
HK5-F-	8,0-SK-	K =	L / L2	11S	on request
HK5-F-	12,0-SK-	K =	L / L2	11S	on request

Projections and custom dimensions on request

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme B

① Please enter K, L and L2 dimensions to article numbers when ordering

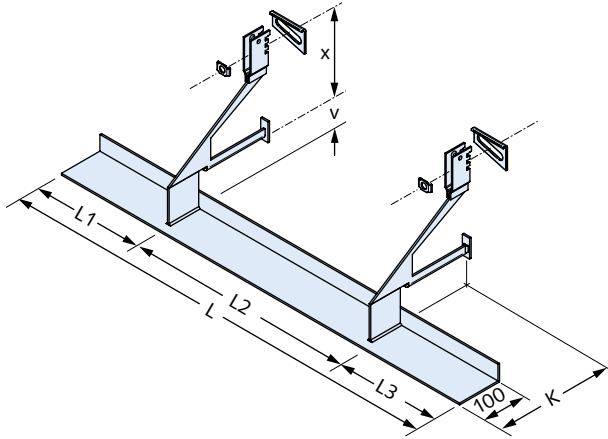
② Price for measurements K from 130 - 350 mm.

Prices for special design: see note on page 3

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

HK5-FV

Brickwork support system, type FV, with height offset measurement v
Height adjustable ± 20 mm



Article name	Projection K Load capacity [kN]	Bracket lengths L / L2 [mm]	Offset measurement v [mm]	Article no. 2300.	Price [EUR/item] ②
Specification: A4/L4 according to table, page 2					
HK5-FV- 4,0-	K =	995 / 500	v = 60 ①	13S	143,90
HK5-FV- 4,0-	K =	1245 / 750	v = 60 ①	13S	155,80
HK5-FV- 4,0-	K =	1495 / 1000	v = 60 ①	13S	167,80
Change of offset dimension each ± 10 mm					0,95
HK5-FV- 8,0-	K =	995 / 500	v = 60 ①	13S	161,10
HK5-FV- 8,0-	K =	1245 / 750	v = 60 ①	13S	173,05
HK5-FV- 8,0-	K =	1495 / 1000	v = 60 ①	13S	185,00
Change of offset dimension each ± 10 mm					0,95
HK5-FV- 12,0-	K =	995 / 500	v = 60 ①	13S	193,30
HK5-FV- 12,0-	K =	1245 / 750	v = 60 ①	13S	208,40
HK5-FV- 12,0-	K =	1495 / 1000	v = 60 ①	13S	223,25
Change of offset dimension each ± 10 mm					0,95
HK5-FV- 4,0-SK	K =	L / L2	v = 60 ①	13S	on request
HK5-FV- 8,0-SK	K =	L / L2	v = 60 ①	13S	on request
HK5-FV- 12,0-SK	K =	L / L2	v = 60 ①	13S	on request

Projections up to 350 mm and custom dimensions on request

★ HALFEN remark: for an order example please refer to the start of chapter 4, scheme B

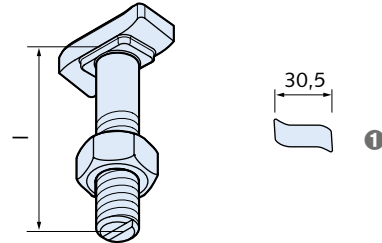
① Please enter measurement K, L, L₂ and v dimensions to article numbers when ordering

② Price for measurements K from 130 - 250 mm.

Prices for special design: see note on page 3

HS 38/17

HALFEN T-bolt suitable for HK5 brackets in conjunction with HALFEN Channel HTA-CE 38/17

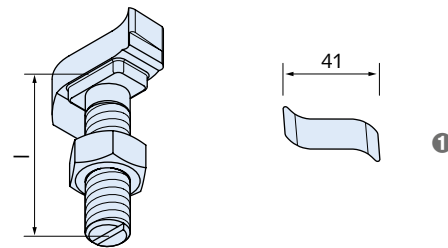


① Standard head shape

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0161.	
Specification: A4 according to table, page 2			
HS 38/17 M12 x 72 A4	50	050-00001	524,30
HS 38/17 M12 x 90 A4	50	058-00001	548,40
For other T-bolts → see chapter 7			

HS 50/30

HALFEN T-bolt suitable for HK5 brackets in conjunction with HALFEN Channels HTA-CE 49/30 and HTA-CE 50/30

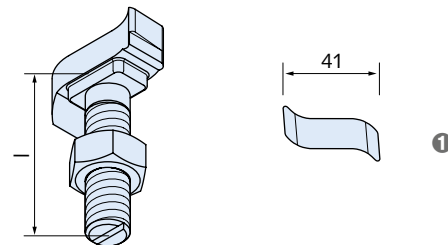


① Standard head shape

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0161.	
Specification: A4 according to table, page 2			
HS 50/30 M12 x 87 A4	50	090-00001	1.120,00
For other T-bolts → see chapter 7			

HS 50/30

HALFEN T-bolt suitable for HK5 brackets in conjunction with HALFEN Channels HTA-CE 54/33 and HTA-CE 52/34



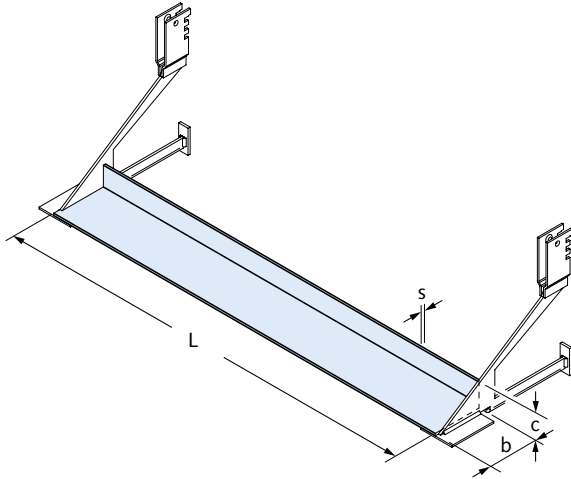
① Standard head shape

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0161.	
Specification: A4 according to table, page 2			
HS 50/30 M16 x 87 A4-70	25	090-00002	1.429,75
For other T-bolts → see chapter 7			

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

HW-95

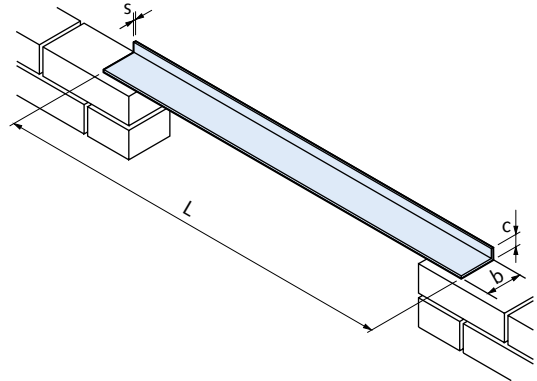
Loose support angle type HW-95
German type tested



Article name	Article no.	Price
Bracket lengths b x c x s [mm]	2110.	[EUR/item]
Specification: L4 according to table, page 2		
HW- 95 x 20 x 2 -	480	010-00002 14,10
HW- 95 x 30 x 3 -	730	010-00003 32,00
HW- 95 x 40 x 4 -	980	010-00004 58,00
Please enter article name, bracket measurements and length with article no. when ordering		

HW-90

Loose support angle, type HW-90



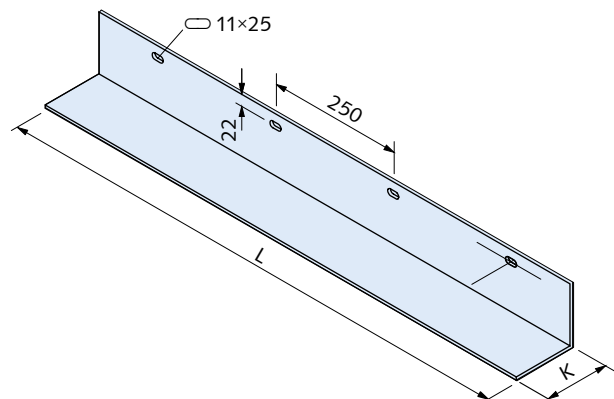
Article name	Length L [mm]	Article no.	Price
Bracket lengths b x c x s [mm]		2110.	[EUR/item]
Specification: L4 according to table, page 2			
HW- 90 x 30 x 3 -	700	010-00025	on request
HW- 90 x 30 x 3 -	950	010-00026	on request
HW- 90 x 45 x 3 -	1200	010-00027	on request
HW- 90 x 60 x 3 -	1200	010-00028	on request
HW- 90 x 60 x 3 -	1450	010-00029	on request
HW- 90 x 60 x 4 -	1450	010-00030	on request
HW- 90 x 60 x 5 -	1450	010-00031	on request
HW- 90 x 90 x 4 -	1700	010-00032	on request
HW- 90 x 90 x 5 -	1700	010-00033	on request
HW- 90 x 90 x 4 -	1950	010-00034	on request
HW- 90 x 90 x 5 -	1950	010-00035	on request
HW- 90 x 90 x 6 -	1950	010-00036	on request
HW- 90 x 90 x 5 -	2200	010-00037	on request
HW- 90 x 90 x 6 -	2200	010-00038	on request
HW- 90 x 90 x 8 -	2200	010-00039	on request
HW- 90 x 100 x 8 -	2200	010-00040	on request
HW-L4-SK special design			
		009-#	on request
Please enter article name, bracket measurements and length with article no. when ordering			
Other dimensions on request			
Ordering example: HW 90x60x4-1450 article no. 2110.010-00030			
# = Custom articles on request, please provide the article dimensions when ordering.			

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

KW

Bolt-on support angle, type KW

Standard lengths L: 500 mm, 750 mm, 1000 mm



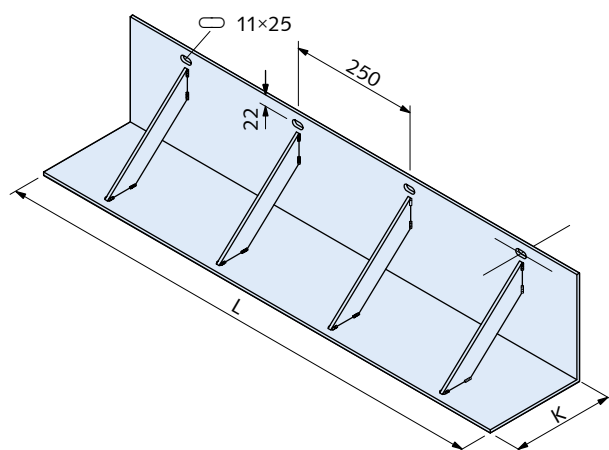
Article name	Load capacity [kN]	Projection K [mm]	Length L [mm]	Article no.	Price
				0111.	[EUR/item]
Specification: A4 according to table, page 2					
KW -	1,2 -	100 -	500	010-00001	51,15
KW -	1,2 -	100 -	750	010-00002	75,65
KW -	1,2 -	100 -	1000	010-00003	96,95
KW -	1,2 -	120 -	500	010-00004	61,20
KW -	1,2 -	120 -	750	010-00005	91,65
KW -	1,2 -	120 -	1000	010-00006	116,65
KW -	2,1 -	100 -	500	010-00007	69,45
KW -	2,1 -	100 -	750	010-00008	103,25
KW -	2,1 -	100 -	1000	010-00009	133,65
KW -	2,1 -	120 -	500	010-00010	83,55
KW -	2,1 -	120 -	750	010-00011	125,15
KW -	2,1 -	120 -	1000	010-00012	161,60
KW -	3,2 -	100 -	500	010-00013	89,05
KW -	3,2 -	100 -	750	010-00014	135,70
KW -	3,2 -	100 -	1000	010-00015	175,00
KW -	3,2 -	120 -	500	010-00016	110,70
KW -	3,2 -	120 -	750	010-00017	165,35
KW -	3,2 -	120 -	1000	010-00018	212,85
KW-SK special design				019-00001	on request

Order example: KW 2,1-120-1000 order no. 0111.010-00012

KWL

Bolt-on angle, type KWL

Standard lengths L: 500 mm, 750 mm, 1000 mm



Article name	Load capacity [kN]	Projection K [mm]	Length L [mm]	Article no.	Price
				2112.	[EUR/item]
Specification: L4 according to table, page 2					
KWL -	1,5 -	130 -	500	010-00001	on request
KWL -	1,5 -	130 -	750	010-00002	on request
KWL -	1,5 -	130 -	1000	010-00003	on request
KWL -	1,5 -	150 -	500	010-00004	on request
KWL -	1,5 -	150 -	750	010-00005	on request
KWL -	1,5 -	150 -	1000	010-00006	on request
KWL -	1,5 -	170 -	500	010-00007	on request
KWL -	1,5 -	170 -	750	010-00008	on request
KWL -	1,5 -	170 -	1000	010-00009	on request
KWL -	1,5 -	190 -	500	010-00010	on request
KWL -	1,5 -	190 -	750	010-00011	on request
KWL -	1,5 -	190 -	1000	010-00012	on request
KWL -	1,5 -	210 -	500	010-00013	on request
KWL -	1,5 -	210 -	750	010-00014	on request
KWL -	1,5 -	210 -	1000	010-00015	on request
KWL -	1,5 -	230 -	500	010-00016	on request
KWL -	1,5 -	230 -	750	010-00017	on request
KWL -	1,5 -	230 -	1000	010-00018	on request

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

1
Fixing systems

Article name	Load capacity [kN]	Projection K [mm]	Length L [mm]	Article no.	Price
				2112.	[EUR/item]
Specification: L4 according to table, page 2					
KWL -	1,5 -	250 -	500	010-00019	on request
KWL -	1,5 -	250 -	750	010-00020	on request
KWL -	1,5 -	250 -	1000	010-00021	on request

2
Reinforcement systems

KWL -	3,2 -	130 -	500	010-00022	130,25
KWL -	3,2 -	130 -	750	010-00023	186,70
KWL -	3,2 -	130 -	1000	010-00024	233,45
KWL -	3,2 -	150 -	500	010-00025	138,15
KWL -	3,2 -	150 -	750	010-00026	204,70
KWL -	3,2 -	150 -	1000	010-00027	257,65
KWL -	3,2 -	170 -	500	010-00028	150,10
KWL -	3,2 -	170 -	750	010-00029	222,85
KWL -	3,2 -	170 -	1000	010-00030	281,80

3
Lifting systems

KWL -	3,2 -	190 -	500	010-00031	165,15
KWL -	3,2 -	190 -	750	010-00032	245,45
KWL -	3,2 -	190 -	1000	010-00033	316,35
KWL -	3,2 -	210 -	500	010-00034	177,25
KWL -	3,2 -	210 -	750	010-00035	263,60
KWL -	3,2 -	210 -	1000	010-00036	340,60

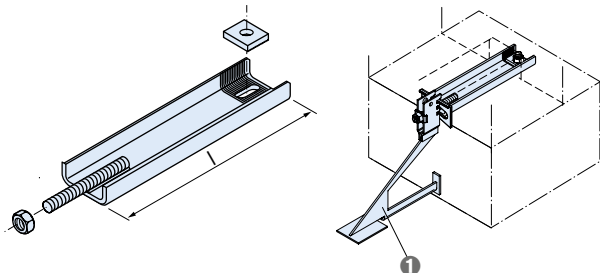
4
Façade connection systems

KWL -	3,2 -	230 -	500	010-00037	192,25
KWL -	3,2 -	230 -	750	010-00038	286,05
KWL -	3,2 -	230 -	1000	010-00039	370,70
KWL -	3,2 -	250 -	500	010-00040	204,25
KWL -	3,2 -	250 -	750	010-00041	304,15
KWL -	3,2 -	250 -	1000	010-00042	394,85

KWL-SK special design	019-00001	on request
Order example: KWL-1,5-210-750 order no. 2112.010-00014		
Order example: KWL-3,2-210-750 order no. 2112.010-00035		

HK-DA

Top of slab connection type HK-DA
Scope of supply: with toothed washer and hexagonal nut



① Can be used for HK5 brickwork support system load groups 4,0 and 8,0 kN

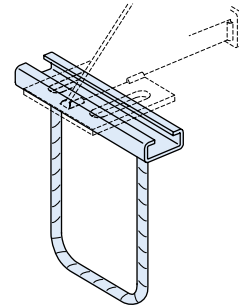
Article name	Load capacity [kN]	I [mm]	Article no.	Price
			0156.	[EUR/item]
Specification: A4/L4 according to table, page 2				
HK-DA-	4,0 - L -	320	010-00001	30,65
HK-DA-	8,0 - L -	320	010-00005	35,95
HK-DA-	4,0 - K -	200	010-00002	26,95
HK-DA-	8,0 - K -	200	010-00006	33,65

6
Industrial Technology

7
Bolts, Accessories

HTA-ES

HALFEN Channel type HTA-ES cast into precast for connection HK5-S, HK5-SV
→ pages 179, 180
German type tested

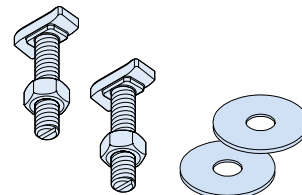


Article name	Load capacity [kN]	Article no.	Price
		0121.	[EUR/item]
Specification: A4 according to table, page 2			
HTA-ES 28/15 - A4	3,5	010-00801	8,30
HTA-ES 38/17 - A4	7,0	010-00803	11,10
HTA-ES 49/30 - A4	10,5	010-00804	15,00

Note: Two HS T-bolts and 2 washers required per HTA-ES channel.

HTA-ES Connection set

Consists of two HALFEN HS T-bolts and two US washers

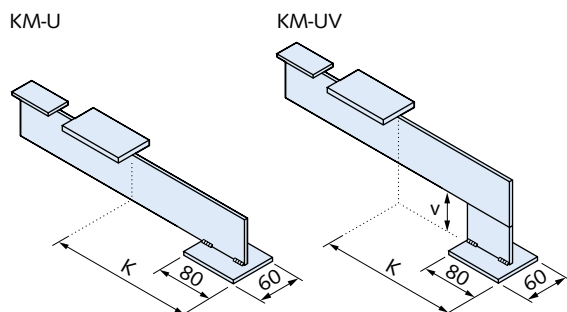


Article name	PU [items]	Article no.	Price	
		0121.	[EUR/item]	
Specification: A4 according to table, page 2				
HTA-ES 28/15	Connection set	100	020-00001	16,35
HTA-ES 38/17	Connection set	50	020-00003	24,60
HTA-ES 50/30	Connection set	25	020-00004	39,30

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

KM-U / KM-UV

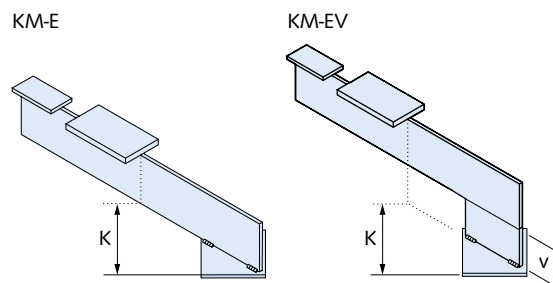
Grout-in brickwork support brackets, both also suitable in combination with spanning loose support angles type HW → page 182



Article name	Article no.	Price
Projection K [mm] ①	0102.	[EUR/item]
Specification: A4 according to table, page 2		
KM-U - 110 - A4	010-00001	32,55
KM-U - 130 - A4	010-00002	34,45
KM-U - 150 - A4	010-00003	36,20
KM-U - 170 - A4	010-00004	38,15
KM-U - 190 - A4	010-00005	39,25
KM-U - 210 - A4	010-00006	42,30
KM-U - 230 - A4	010-00007	43,00
KM-U - 250 - A4	010-00008	46,30
KM-U -SK, KM-UV -SK ②		
	009-00001	on request
① Other projections on request		
② Please specify projection K and, if required, height v when ordering		

KM-E / KM-EV

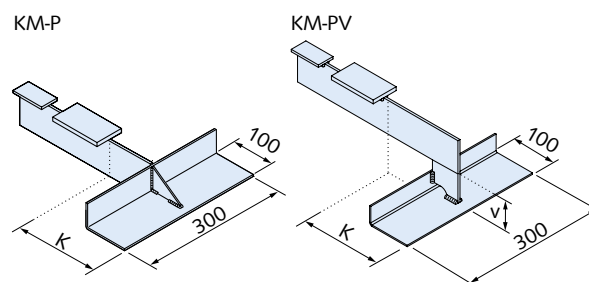
Grout-in brickwork support brackets, for corner area, both also suitable in combination with spanning loose support angles type HW → page 182



Article name	Article no.	Price
Projection K [mm] ①	0102.	[EUR/item]
Specification: A4 according to table, page 2		
KM-E - 110 - A4	050-00001	49,70
KM-E - 130 - A4	050-00002	52,30
KM-E - 150 - A4	050-00003	54,85
KM-E - 170 - A4	050-00004	57,30
KM-E - 190 - A4	050-00005	66,45
KM-E - 210 - A4	050-00006	70,35
KM-E - 230 - A4	050-00007	75,35
KM-E - 250 - A4	050-00008	79,60
KM-E -SK, KM-EV -SK ②		
	009-00001	on request
① Other projections on request		
② Please specify projection K and, if required, height v when ordering		
Please note: The bracket is longer at a given k-value due to the diagonal assembly		

KM-P / KM-PV

Grout-in brickwork support brackets

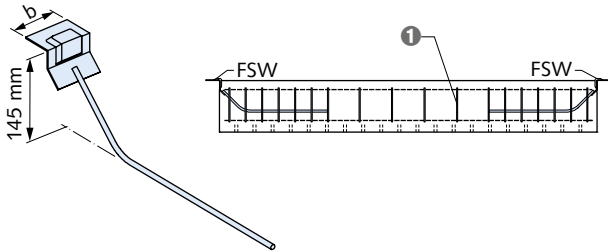


Article name	Article no.	Price
Projection K [mm] ①	0102.	[EUR/item]
Specification: A4 according to table, page 2		
KM-P - 110 - A4	040-00001	73,40
KM-P - 130 - A4	040-00002	75,05
KM-P - 150 - A4	040-00003	76,65
KM-P - 170 - A4	040-00004	78,25
KM-P - 190 - A4	040-00005	79,30
KM-P - 210 - A4	040-00006	82,05
KM-P - 230 - A4	040-00007	82,80
KM-P - 250 - A4	040-00008	85,60
KM-P -SK, KM-PV -SK ②		
	009-00001	on request
① Other projections on request		
② Please specify projection K and, if required, height v when ordering		

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

FSW

Precast lintel support bracket, type FSW, German type tested



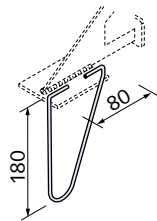
1 Installation concept

Article name	Article no.	Price
Load capacity [kN] Measurement b [mm]	0120.	[EUR/item]
Specification: A4 according to table, page 2		
FSW - 2,6 - 60 - A4	010-00001	9,30
FSW - 3,5 - 80 - A4	010-00002	10,60
FSW - 3,9 - 60 - A4	010-00003	13,40
FSW - 5,1 - 60 - A4	010-00005	26,90
FSW - 5,3 - 80 - A4	010-00006	27,50
FSW - 6,8 - 80 - A4	010-00007	32,95

Prices for special designs: please see note on page 3

HSL-A1

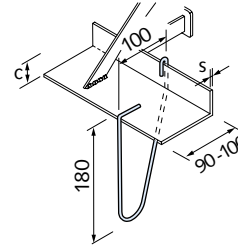
Suspension loop type HSL-A1 for individual brickwork support system HK5-U, HK5-UV



Article name	PU [items]	Article no.	Price
		0122.	[EUR/item]
Specification: A4 according to table, page 2			
HSL-A1 - A4	10	010-00001	1,95

HSL-W...

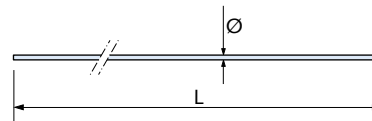
Suspension loop type HSL-W for brickwork support system type HK5-P, HK5-PV, HK5-F, HK5-FV



Article name	c / s [mm]	PU [items]	Article no.	Price
			0122.	[EUR/item]
Specification: A4 according to table, page 2				
HSL-W20 - 1	20 / 2 - 6	10	050-00001	2,20
HSL-W30 - 1	30 / 3 - 6	10	050-00002	2,20
HSL-W40 - 1	40 / 3 - 6	10	050-00003	2,20
HSL-W50 - 1	50 / 3 - 6	10	050-00004	2,20
HSL-W60 - 1	60 / 3 - 6	10	050-00005	2,20
HSL-W70 - 1	70 / 4 - 8	10	050-00006	2,35
HSL-W80 - 1	80 / 4 - 8	10	050-00007	2,35
HSL-W90 - 1	90 / 4 - 8	10	050-00008	2,45

HSL-Z

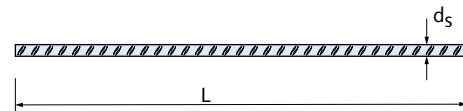
Stainless steel wire type HSL-Z as longitudinal brickwork reinforcement



Article name	Ø	L	PU [items]	Article no.	Price
				0123.	[EUR/item]
Specification: A4 according to table, page 2					
HSL-Z 01	4 mm	3,00 m	10	010-00002	5,95
HSL-Z 01	4 mm	1,00 m	10	010-00001	2,00

BRS

Deformed bars



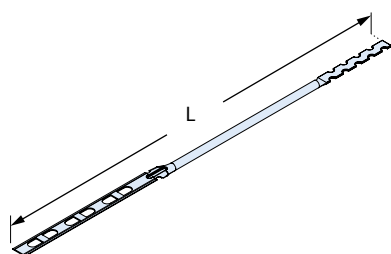
Article name	Rod Ø d _s [mm]	Rod length L [mm]	Article no.	Price
			0069.	[EUR/item]
Specification: A4/L4 according to table, page 2				
BRS - 6	6	① 6000	010-00101	36,25

① Please specify bar length L [mm] and, if necessary, bent shape when ordering. The cut length surcharge is 20%

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

LSA-FS For inserting in brickwork (also for thin bed mortar)

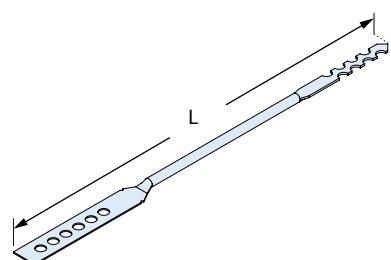
Cavity wall tie type LSA-FS
German approval Z-17.1-888



Article name	Cavity [mm]	Article no.	Price [EUR/100 items]
L [mm]		0142.	
Specification: A4 according to table, page 2			
LSA-FS-280-A4 FS-anchor	to 130/250	140-00001	on request
LSA-FS-300-A4 FS-anchor	to 150/250	140-00002	on request
LSA-FS-320-A4 FS-anchor	to 170/250	140-00003	on request

LSA-F For inserting in brickwork (also for thin bed mortar)

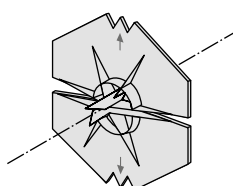
Cavity wall tie type LSA-F
German approval Z-17.1-888



Article name	Cavity [mm]	PU [items]	Article no.	Price [EUR/100 items]
L [mm]			0142.	
Specification: A4 according to table, page 2				
LSA-F-280/6 F-anchor	115 - 135	250	120-00001	107,50
LSA-F-300/6 F-anchor	135 - 155	250	120-00002	114,20
LSA-F-320/6 F-anchor	155 - 175	250	120-00003	120,95
LSA-F-340/6 F-anchor	175 - 195	250	120-00004	140,60
LSA-F-360/6 F-anchor	195 - 210	250	120-00005	148,15

LSZ

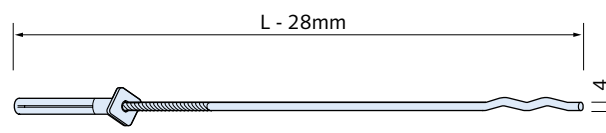
Insulation holder with drip nose type LSZ-ISO-CLIP Maxi-F
Suitable for LSA-F



Article name	PU [items]	Article no.	Price [EUR/100 items]
		0143.	
Specification: Plastic			
LSZ-ISO-CLIP Maxi-F	250	050-00003	4,70

LSA-DW: For solid brickwork + reinforced concrete substrates

Cavity wall tie type LSA-DW incl. drilled connection 8 x 60
German approval Z-21.2-1009 or Z-17.1-1138
Approval valid for cavities ≤ 250 mm

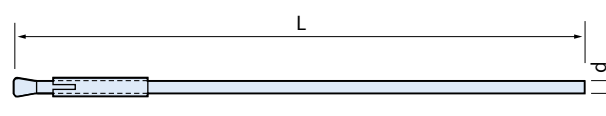


Article name	Cavity [mm]	PU [items] ①	Article no.	Price [EUR/100 items]
L [mm]			0142.	
Specification: A4 according to table, page 2				
LSA-DW - 180	25-45	250	080-00002	88,20
LSA-DW - 210	45-75	250	080-00003	95,60
LSA-DW - 250	75-115	250	080-00004	105,75
LSA-DW - 275	115-140	250	080-00005	112,00
LSA-DW - 300	140-165	250	080-00006	119,15
LSA-DW - 320	165-185	250	080-00007	128,15
LSA-DW - 350	185-215	250	080-00008	139,95
LSA-DW - 400	215-265	250	080-00009	160,00

① There is a drive-in tool in every PU of 250 items.

HEA: For reinforced concrete substrate

Drive-in cavity wall tie type HEA
German approval Z-21.1-910



Article name	Cavity [mm]	PU [items]	Article no.	Price [EUR/100 items]
Length L / d [mm]			0140.	
Specification: A4 according to table, page 2				
HEA - 160/4	to 45	100	010-00001	107,85
HEA - 200/4	45-85	100	010-00002	112,70
HEA - 250/4	85-135	100	010-00004	117,70
HEA - 300/4	135-185	100	010-00006	132,55
HEA - 200/5	45-85	100	010-00003	137,25
HEA - 250/5	85-135	100	010-00005	156,95
HEA - 300/5	135-185	100	010-00007	181,45

HEA accessories: EW

Cavity wall tie insertion tool or bending tube suitable for HEA



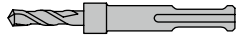
Article name	Article no.	Price [EUR/item]
	0143.	
Specification: Plastic		
HEA-EW 4 for HEA-.../4	020-00001	39,55
HEA-EW 5 for HEA-.../5	020-00002	39,55

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

1
Fixing systems

HEA accessories: BB

Collar drill suitable for HEA

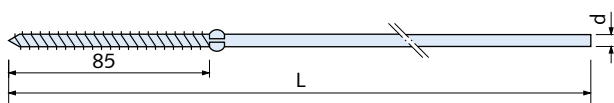


Article name	Article no.	Price
Ø / L [mm]	0143.	[EUR/item]
HEA-BB 4 - 6x40 for HEA-.../4	010-00001	14,70
HEA-BB 5 - 7x40 for HEA-.../5	010-00002	17,70

2
Reinforcement systems

HPV-L: For aerated concrete substrate

Cavity wall tie type HPV-L



Article name	Cavity [mm]	PU [items]	Article no.	Price [EUR/100 items]
Length L / d [mm]			0141.	
Specification: A4 according to table, page 2				
HPV-L - 240/4	to 80	250	010-00001	130,85
HPV-L - 280/4	80-120	250	010-00002	147,15
HPV-L - 320/4	120-160	250	010-00003	163,40

3
Lifting systems

HPV accessories: Z1

Drilling and bending tube suitable for installing HPV-L

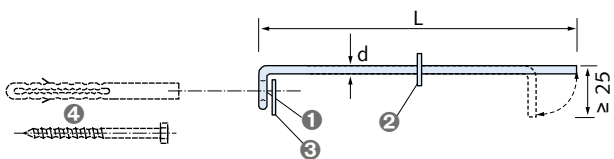


Article name	PU [items]	Article no.	Price
		0143.	[EUR/item]
HPV - Z1 for HPL-L-.../4	1	030-00001	6,40

4
Façade connection systems

LSA-L: For perforated brick, substrates

With shim and drip disc



- ① Eye
- ② Drip disc
- ③ Washer
- ④ Nylon plug + hexagonal retaining screw (A4)

Article name	Cavity [mm]	PU [items]	Article no.	Price [EUR/100 items]
Length L / d [mm]			0142.	
Specification: A4 according to table, page 2				
LSA-L - 235/4	20-150	100	050-00001	147,15

6
Industrial Technology

7
Bolts, Accessories

LSA-L accessories: DUE-FUR

Drilled nylon plug and hexagonal retaining screw (A4) suitable for LSA-L

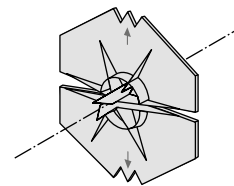


- ① Nylon dowel
- ② Hexagonal retaining screw

Article name	PU [items]	Article no.	Price [EUR/100 items]
		0432.	
Specification: A4 according to table, page 2			
DUE-FUR 10x80 SS- A4	100	010-00001	557,65

LSZ

Insulation holder with drip nose type LSZ-ISO-CLIP

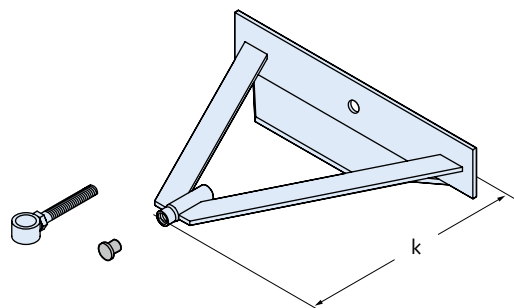


Article name	For anchor Ø [mm]	PU [items]	Article no.	Price [EUR/100 items]
			0143.	
Specification: Plastic				
LSZ-ISO-CLIP 3-6	3 - 6	250	050-00002	4,70

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

HGA-Q

Scaffold anchor, type HGA-Q with inner thread, including plastic cap HGA-STO and ring bolt HGA-RS



Article name	Article no.	Price
Projection K [mm] ①	0159.	[EUR/item]

Specification: A4 according to table, page 2

HGA-Q -	160	010-00101	36,95
HGA-Q -	185	010-00102	37,15
HGA-Q -	210	010-00103	38,45
HGA-Q -	235	010-00104	43,85
HGA-Q -	260	010-00105	45,50
HGA-Q -	285	010-00106	on request
HGA-Q -	310	010-00107	on request
HGA-Q -	335	010-00108	on request
HGA-Q -	360	010-00109	on request

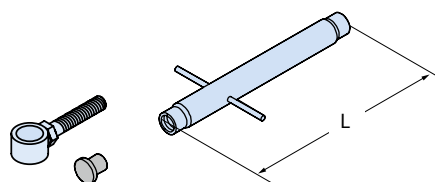
HGA-Q - SK -	019-00001	on request
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The ring bolt HGA-RS corresponds to the load requirements for HALFEN Scaffold anchors HGA-Q and HGA-ZN

① Please specify required measurement K

HGA-ZN

Scaffold anchor, type HGA-ZN with inner thread, including plastic cap HGA-STO and ring bolt HGA-RS



Article name	Article no.	Price
Projection L [mm] ①	0159.	[EUR/item]

Specification: A4 according to table, page 2

HGA-ZN -	115	020-00001	14,35
HGA-ZN -	145	020-00002	14,80
HGA-ZN -	175	020-00003	16,10
HGA-ZN -	205	020-00004	16,05
HGA-ZN -	235	020-00005	on request
HGA-ZN -	265	020-00006	on request
HGA-ZN -	295	020-00007	on request
HGA-ZN -	325	020-00008	on request
HGA-ZN -	355	020-00009	on request

HGA-ZN - SK -	029-00001	on request
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The ring bolt HGA-RS corresponds to the load requirements for HALFEN Scaffold anchors HGA-Q and HGA-ZN

① Please specify required measurement L in accordance with wall cavity g (please see our catalogue)

Ordering example: HGA-ZN-115 article no. 0159.020-00001

HGA-RS

Ring bolt type HGA-RS suitable for scaffold anchor HGA-Q and HGA-ZN



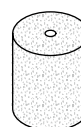
Article name	Article no.	Price
	0160.	[EUR/item]

Specification: GV = hot-dip galvanized, free of Chrome-VI

HGA-RS -	M12 x 80 GV	000-00002	7,00
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HGA accessories: HGA-STO WDVS

Scaffold anchor plug for thermal insulation system



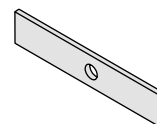
Article name	PU [items]	Article no.	Price
		0159.	[EUR/item]

Specification: PUR flexible foam

HGA-STO WDVS	25	040-00001	on request
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HGA accessories: HIP

Thermal pad
HALFEN Insulation Plate



Article name	Article no.	Price
Suitable for:	0159.	[EUR/item]

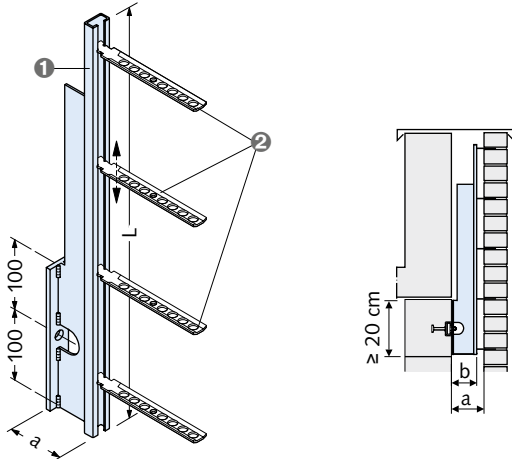
Specification: PVC

HGA HIP-1	HGA-Q 160/185/210	030-00001	on request
HGA HIP-2	HGA-Q 235/260/285	030-00002	on request
HGA HIP-3	HGA-Q 310/335/360	030-00003	on request

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

HAV

Parapet support bracket type HAV



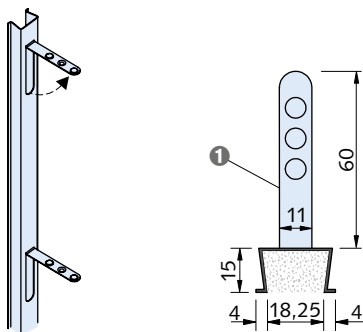
- ① Profile 28/15
② Brick tie anchor type ML (to be ordered separately → pages 190, 191)

Article name	a [min] / L [mm]	b [mm]	Article no.	Price
			0155.	[EUR/item]
Specification: A4 according to table, page 2				
HAV	80/600	75	000-00001	62,65
HAV	80/850	75	000-00002	77,70
HAV	80/1100	75	000-00003	95,90
HAV	140/600	135	000-00004	106,30
HAV	140/850	135	000-00005	129,00
HAV	140/1100	135	000-00006	137,45
HAV SK	①		009-00001	on request

① Special design, please specify measurements b and L when ordering
Ordering example: HAV-80/1100 article no. 0155.000-00003

HMS 25/15 D

HALFEN Brick tie channel with bend out lug anchors and strip foam filler (KF)

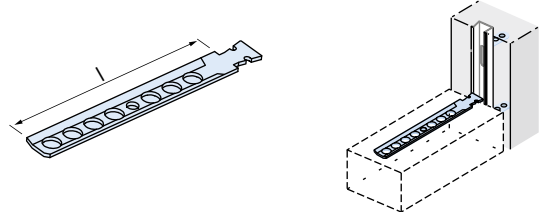


- ① Lug anchor (pre-cut, easy to bend out)

Article name	Length L [mm]	Article no.	Price
		0013.	[EUR/item]
Specification: A4 according to table, page 2			
HMS 25/15 D-A4	2500-KF	010-00802	40,60

ML

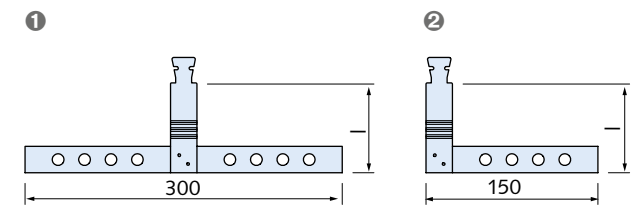
HALFEN Brick tie anchor suitable for brick tie channel HMS 25/15D and HALFEN Cast-in channel HTA 28/15 as well as for HAV



Article name	PU [items]	Article no.	Price
Length l [mm]		0132.	[EUR/100 items]
Specification: A4 according to table, page 2			
ML- 85 - A4	200	010-00001	353,05
ML- 120 - A4	200	010-00002	431,60
ML- 180 - A4	200	010-00003	531,60

MLQ

HALFEN Brick tie anchor suitable for brick tie channel HMS 25/15D and HALFEN Cast-in channel HTA 28/15



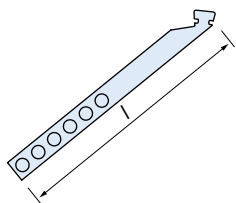
- ① MLQ-D = double sided
② MLQ-E = one sided

Article name	Length l [mm]	Article no.	Price
		0132.	[EUR/100 items]
Specification: A4 according to table, page 2			
MLQ-D-	85 - A4	020-00001	2.144,35
MLQ-D-	120 - A4	020-00002	2.203,60
MLQ-D-	180 - A4	020-00003	2.301,35
MLQ-E-	85 - A4	030-00001	1.767,60
MLQ-E-	120 - A4	030-00002	1.824,15
MLQ-E-	180 - A4	030-00003	1.924,45

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

MLS

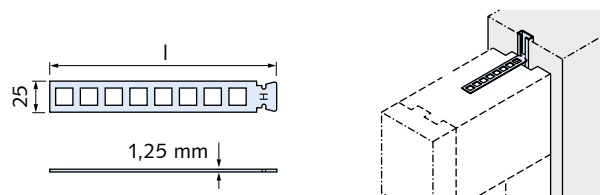
HALFEN Angled brick tie anchor suitable for brick tie channel HMS 25/15D and HALFEN Cast-in channel HTA 28/15



Article name	PU [items]	Article no.	Price [EUR/100 items]
Length l [mm]		0132.	
Specification: A4 according to table, page 2			
MLS- 300 - A4	200	040-00001	1.109,40
MLS- 350 - A4	200	040-00002	1.172,50
MLS- 400 - A4	200	040-00003	1.237,90

ML1

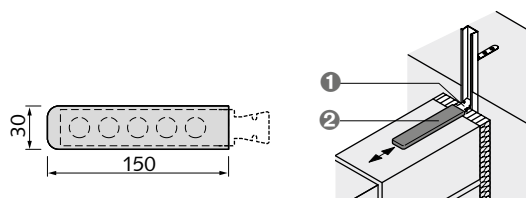
HALFEN Brick tie anchor for connecting masonry with thin mortar joints to HALFEN Cast-in channels HTA 28/15 or brick tie channel HMS 25/15D



Article name	Article no.	Price [EUR/100 items]
Length l [mm]	0132.	
Specification: A2 according to table, page 2		
ML1- 125 - A2	080-00001	233,45
ML1- 185 - A2	080-00002	268,10
ML1- 245 - A2	080-00003	292,00

ML-G

Debond sleeve, suitable for HALFEN Brick tie anchor ML

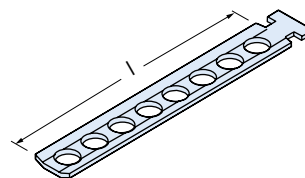


- ① ML anchor
- ② ML-G 150

Article name	Article no.	Price [EUR/100 items]
	0134.	
Specification: Plastic		
ML-G - 150	010-00001	146,30

BL

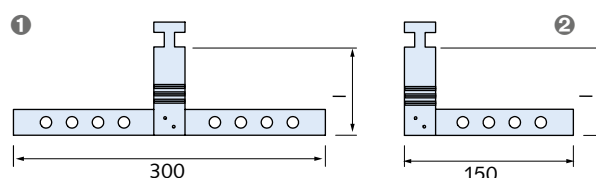
HALFEN Brick tie anchor suitable for HALFEN Cast-in channel HTA 38/17



Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: A4 according to table, page 2			
BL- 85 - A4	200	050-00001	438,15
BL- 120 - A4	200	050-00002	486,00
BL- 180 - A4	200	050-00003	573,40

BLQ

HALFEN Brick tie anchor, transverse suitable for HALFEN Cast-in channel HTA 38/17



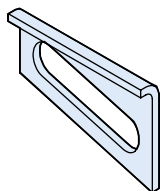
- ① BLQ-D = double-sided
- ② BLQ-E = one-sided

Article name	Article no.	Price [EUR/100 items]
Length [mm]	0132.	
Specification: A4 according to table, page 2		
BLQ-D- 85 - A4	060-00001	2.271,00
BLQ-D- 120 - A4	060-00002	2.340,75
BLQ-D- 180 - A4	060-00003	2.460,60
BLQ-E- 85 - A4	070-00001	1.844,05
BLQ-E- 120 - A4	070-00002	1.913,60
BLQ-E- 180 - A4	070-00003	2.031,45

BRICKWORK SUPPORT SYSTEM, ACCESSORIES

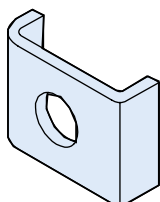
1
Fixing systems

HK5 Accessories: Adjuster plate



Article name	Article no.	Price
Load capacity [kN]	0157.	[EUR/item]
Specification: A4/L4 according to table, page 2		
Adjuster plate	4,0 / 8,0 / 12,0	000-00001
		2,20

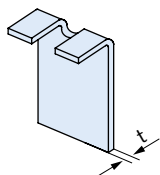
HK5 Accessories: U-plate



Article name	Article no.	Price
Load capacity [kN]	0158.	[EUR/item]
Specification: A4/L4 according to table, page 2		
U-plate	4,0	000-00001
U-plate	8,0 / 12,0	000-00002

HK5 Accessories: HK-AW

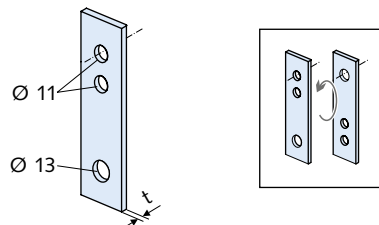
Heel shim



Article name	Article no.	Price
Material thickness t [mm]	0156.	[EUR/item]
Specification: A4/L4 according to table, page 2		
HK-AW - 3	020-00001	4,20
HK-AW - 6	020-00002	4,90

HK5 Accessories: HK-AL

Shim



Article name	Article no.	Price
Material thickness t [mm]	0156.	[EUR/item]
Specification: A4/L4 according to table, page 2		
HK-AL - 3	030-00001	5,95

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

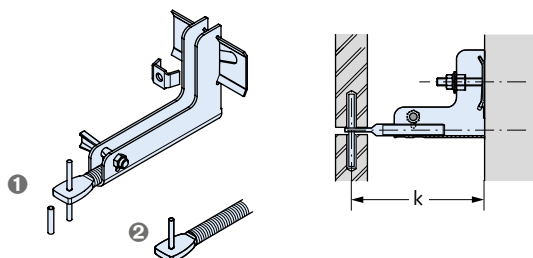
6
Industrial Technology

7
Bolts, Accessories

NATURAL STONE SUPPORT

DT Body anchor

Support and restraint anchor



- ① Type 1 with one loose pin and one sliding sleeve
- ② Type 2 with half pin, pressed

Article name	k [mm]	Article no.	Price
		0755.	[EUR/item]

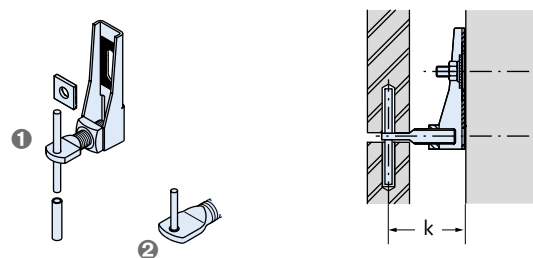
Specification: A4 according to table, page 2

DT 414 - 1 - A4	k = 140	010-00001	20,85
DT 416 - 1 - A4	k = 160	010-00002	21,35
DT 418 - 1 - A4	k = 180	010-00003	23,70
DT 420 - 1 - A4	k = 200	010-00004	24,90
DT 422 - 1 - A4	k = 220	010-00005	28,00
DT 424 - 1 - A4	k = 240	010-00006	28,55
DT 426 - 1 - A4	k = 260	010-00022	29,50
DT 428 - 1 - A4	k = 280	010-00023	29,80
DT 430 - 1 - A4	k = 300	010-00024	31,15
DT 1314 - 1 - A4	k = 140	010-00013	36,15
DT 1316 - 1 - A4	k = 160	010-00014	36,40
DT 1318 - 1 - A4	k = 180	010-00015	41,25
DT 1320 - 1 - A4	k = 200	010-00016	41,95
DT 1322 - 1 - A4	k = 220	010-00017	46,50
DT 1324 - 1 - A4	k = 240	010-00018	50,85
DT 1326 - 1 - A4	k = 260	010-00019	51,20
DT 1328 - 1 - A4	k = 280	010-00020	52,65
DT 1330 - 1 - A4	k = 300	010-00021	55,40

DT 414 - 2 - A4	k = 140	020-00001	21,25
DT 416 - 2 - A4	k = 160	020-00002	21,85
DT 418 - 2 - A4	k = 180	020-00003	24,30
DT 420 - 2 - A4	k = 200	020-00004	25,60
DT 422 - 2 - A4	k = 220	020-00005	28,70
DT 424 - 2 - A4	k = 240	020-00006	29,25
DT 426 - 2 - A4	k = 260	020-00022	29,90
DT 428 - 2 - A4	k = 280	020-00023	30,65
DT 430 - 2 - A4	k = 300	020-00024	31,50
DT 1314 - 2 - A4	k = 140	020-00013	36,85
DT 1316 - 2 - A4	k = 160	020-00014	37,15
DT 1318 - 2 - A4	k = 180	020-00015	41,75
DT 1320 - 2 - A4	k = 200	020-00016	42,40
DT 1322 - 2 - A4	k = 220	020-00017	47,05
DT 1324 - 2 - A4	k = 240	020-00018	51,20
DT 1326 - 2 - A4	k = 260	020-00019	52,00
DT 1328 - 2 - A4	k = 280	020-00020	53,30
DT 1330 - 2 - A4	k = 300	020-00021	56,40

BA Body anchor

Support and restraint anchor



- ① Type 1 with one loose pin and one sliding sleeve
- ② Type 2 with half pin, pressed

Article name	k [mm]	Article no.	Price
		0754.	[EUR/item]

Specification: A4 according to table, page 2

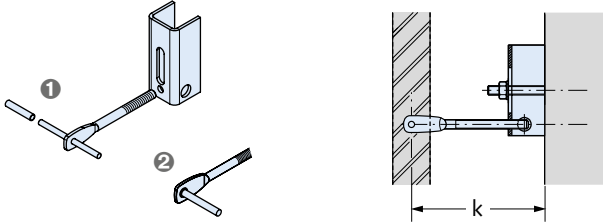
BA 606 - 1 - A4	k = 60	010-00001	11,40
BA 608 - 1 - A4	k = 80	010-00023	14,40
BA 610 - 1 - A4	k = 100	010-00024	16,40
BA 612 - 1 - A4	k = 120	010-00004	14,95
BA 1308 - 1 - A4	k = 80	010-00009	17,40
BA 1310 - 1 - A4	k = 100	010-00010	18,45
BA 1312 - 1 - A4	k = 120	010-00011	19,00

BA 606 - 2 - A4	k = 60	020-00001	12,45
BA 608 - 2 - A4	k = 80	020-00023	15,45
BA 610 - 2 - A4	k = 100	020-00024	17,55
BA 612 - 2 - A4	k = 120	020-00004	16,10
BA 1308 - 2 - A4	k = 80	020-00009	21,80
BA 1310 - 2 - A4	k = 100	020-00010	23,00
BA 1312 - 2 - A4	k = 120	020-00011	23,75

NATURAL STONE SUPPORT

DH Body anchor

Restraint anchor



① Type 1 with one loose pin and one sliding sleeve

② Type 2 with half pin, pressed

Article name	k [mm]	Article no.	Price
		0756.	[EUR/item]

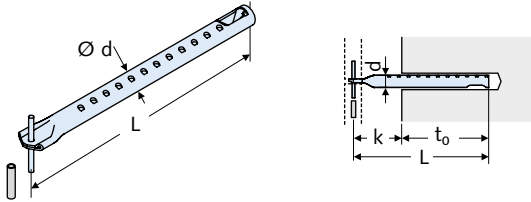
Specification: A4 according to table, page 2

DH 1006 - A4 - 1	k = 60	010-00001	6,70
DH 1008 - A4 - 1	k = 80	010-00002	6,75
DH 1010 - A4 - 1	k = 100	010-00003	7,10
DH 1712 - A4 - 1	k = 120	010-00004	8,95
DH 1714 - A4 - 1	k = 140	010-00005	9,20
DH 1716 - A4 - 1	k = 160	010-00006	9,40
DH 1718 - A4 - 1	k = 180	010-00007	9,70
DH 1720 - A4 - 1	k = 200	010-00008	9,80
DH 1722 - A4 - 1	k = 220	010-00009	9,95
DH 1724 - A4 - 1	k = 240	010-00010	10,35
DH 1726 - A4 - 1	k = 260	010-00011	16,85
DH 1728 - A4 - 1	k = 280	010-00012	17,10
DH 1730 - A4 - 1	k = 300	010-00013	17,70
DH 1732 - A4 - 1	k = 320	010-00014	17,95
DH 1006 - A4 - 2	k = 60	020-00001	7,80
DH 1008 - A4 - 2	k = 80	020-00002	7,85
DH 1010 - A4 - 2	k = 100	020-00003	8,55
DH 1712 - A4 - 2	k = 120	020-00004	10,15
DH 1714 - A4 - 2	k = 140	020-00005	10,85
DH 1716 - A4 - 2	k = 160	020-00006	11,05
DH 1718 - A4 - 2	k = 180	020-00007	11,35
DH 1720 - A4 - 2	k = 200	020-00008	11,40
DH 1722 - A4 - 2	k = 220	020-00009	11,75
DH 1724 - A4 - 2	k = 240	020-00010	12,25
DH 1726 - A4 - 2	k = 260	020-00011	19,85
DH 1728 - A4 - 2	k = 280	020-00012	20,20
DH 1730 - A4 - 2	k = 300	020-00013	20,95
DH 1732 - A4 - 2	k = 320	020-00014	21,15

NATURAL STONE GROUT-IN ANCHOR

UMA Grout-in anchor

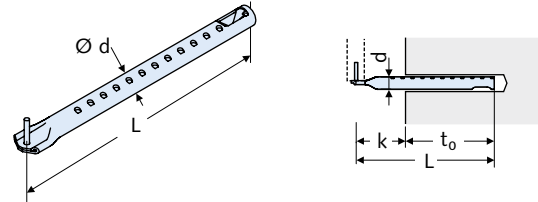
Support and restraint anchor type 1
with one single pin and one sliding sleeve
German type tested



Article name d - type - L	Article no. 0170.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 10-1-120 - A4	000-00001	2,70
UMA 10-1-150 - A4	000-00002	3,05
UMA 10-1-180 - A4	000-00003	3,45
UMA 10-1-210 - A4	000-00004	4,15
UMA 10-1-240 - A4	000-00005	4,65
UMA 12-1-120 - A4	000-00006	3,40
UMA 12-1-150 - A4	000-00007	3,55
UMA 12-1-180 - A4	000-00008	3,75
UMA 12-1-210 - A4	000-00009	4,55
UMA 12-1-240 - A4	000-00010	5,15
UMA 16-1-120 - A4	000-00068	4,55
UMA 16-1-150 - A4	000-00069	4,80
UMA 16-1-180 - A4	000-00070	5,30
UMA 16-1-210 - A4	000-00071	5,45
UMA 16-1-240 - A4	000-00072	5,85
UMA 16-1-270 - A4	000-00073	6,55
UMA 18-1-120 - A4	000-00023	5,85
UMA 18-1-150 - A4	000-00024	6,30
UMA 18-1-180 - A4	000-00025	6,90
UMA 18-1-210 - A4	000-00026	7,70
UMA 18-1-240 - A4	000-00027	8,30
UMA 18-1-270 - A4	000-00028	9,00
UMA 18-1-300 - A4	000-00029	9,60
UMA 18-1-330 - A4	000-00030	10,80
UMA 18-1-360 - A4	000-00031	12,00
UMA 22-1-180 - A4	000-00032	8,15
UMA 22-1-210 - A4	000-00033	9,00
UMA 22-1-240 - A4	000-00034	9,80
UMA 22-1-270 - A4	000-00035	10,75
UMA 22-1-300 - A4	000-00036	11,60
UMA 22-1-330 - A4	000-00037	12,85
UMA 22-1-360 - A4	000-00038	14,25
UMA 22-1-390 - A4	000-00039	15,20
UMA 25-1-210 - A4	000-00040	11,40
UMA 25-1-240 - A4	000-00041	12,65
UMA 25-1-270 - A4	000-00042	13,95
UMA 25-1-300 - A4	000-00043	14,65
UMA 25-1-330 - A4	000-00044	16,35
UMA 25-1-360 - A4	000-00045	17,35
UMA 25-1-390 - A4	000-00046	18,85
UMA 28-1-230 - A4	000-00047	16,35
UMA 28-1-260 - A4	000-00048	17,10
UMA 28-1-290 - A4	000-00049	18,25
UMA 28-1-320 - A4	000-00050	20,05
UMA 28-1-350 - A4	000-00051	21,35
UMA 28-1-380 - A4	000-00052	22,85
UMA 28-1-410 - A4	000-00053	24,75
UMA 28-1-440 - A4	000-00054	26,45
UMA 28-1-470 - A4	000-00055	28,00
UMA 28-1-500 - A4	000-00056	29,65
UMA 33-1-230 - A4	000-00057	21,05
UMA 33-1-260 - A4	000-00058	23,45
UMA 33-1-290 - A4	000-00059	25,55
UMA 33-1-320 - A4	000-00060	26,50
UMA 33-1-350 - A4	000-00061	29,55
UMA 33-1-380 - A4	000-00062	31,60
UMA 33-1-410 - A4	000-00063	33,70
UMA 33-1-440 - A4	000-00064	35,70
UMA 33-1-470 - A4	000-00065	37,35
UMA 33-1-500 - A4	000-00066	39,15
UMA 33-1-530 - A4	000-00067	40,85

UMA Grout-in anchor

Support and restraint anchor type 2
with half pin, pressed
German type tested

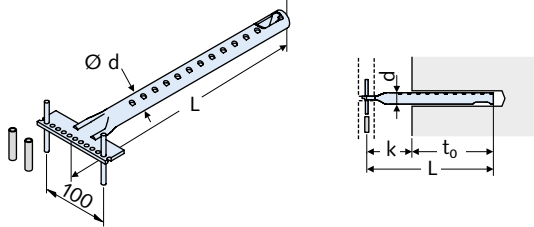


Article name d - type - L	Article no. 0171.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 10-2-120 - A4	000-00001	3,05
UMA 10-2-150 - A4	000-00002	3,45
UMA 10-2-180 - A4	000-00003	3,75
UMA 10-2-210 - A4	000-00004	4,80
UMA 10-2-240 - A4	000-00005	5,00
UMA 12-2-120 - A4	000-00006	3,70
UMA 12-2-150 - A4	000-00007	3,70
UMA 12-2-180 - A4	000-00008	4,20
UMA 12-2-210 - A4	000-00009	4,90
UMA 12-2-240 - A4	000-00010	5,55
UMA 16-2-120 - A4	000-00068	4,40
UMA 16-2-150 - A4	000-00069	4,65
UMA 16-2-180 - A4	000-00070	5,15
UMA 16-2-210 - A4	000-00071	5,30
UMA 16-2-240 - A4	000-00072	5,60
UMA 16-2-270 - A4	000-00073	6,30
UMA 18-2-120 - A4	000-00023	6,25
UMA 18-2-150 - A4	000-00024	6,70
UMA 18-2-180 - A4	000-00025	7,15
UMA 18-2-210 - A4	000-00026	7,85
UMA 18-2-240 - A4	000-00027	8,60
UMA 18-2-270 - A4	000-00028	9,60
UMA 18-2-300 - A4	000-00029	9,80
UMA 18-2-330 - A4	000-00030	11,10
UMA 18-2-360 - A4	000-00031	12,25
UMA 22-2-180 - A4	000-00032	8,55
UMA 22-2-210 - A4	000-00033	9,60
UMA 22-2-240 - A4	000-00034	10,15
UMA 22-2-270 - A4	000-00035	11,00
UMA 22-2-300 - A4	000-00036	12,05
UMA 22-2-330 - A4	000-00037	13,20
UMA 22-2-360 - A4	000-00038	14,65
UMA 22-2-390 - A4	000-00039	15,60
UMA 25-2-210 - A4	000-00040	12,00
UMA 25-2-240 - A4	000-00041	13,05
UMA 25-2-270 - A4	000-00042	14,40
UMA 25-2-300 - A4	000-00043	14,95
UMA 25-2-330 - A4	000-00044	16,70
UMA 25-2-360 - A4	000-00045	17,55
UMA 25-2-390 - A4	000-00046	19,20
UMA 28-2-230 - A4	000-00047	16,70
UMA 28-2-260 - A4	000-00048	17,50
UMA 28-2-290 - A4	000-00049	18,75
UMA 28-2-320 - A4	000-00050	20,55
UMA 28-2-350 - A4	000-00051	21,80
UMA 28-2-380 - A4	000-00052	23,45
UMA 28-2-410 - A4	000-00053	25,25
UMA 28-2-440 - A4	000-00054	27,05
UMA 28-2-470 - A4	000-00055	28,55
UMA 28-2-500 - A4	000-00056	30,15
UMA 33-2-230 - A4	000-00057	21,45
UMA 33-2-260 - A4	000-00058	23,95
UMA 33-2-290 - A4	000-00059	26,10
UMA 33-2-320 - A4	000-00060	27,15
UMA 33-2-350 - A4	000-00061	30,25
UMA 33-2-380 - A4	000-00062	32,25
UMA 33-2-410 - A4	000-00063	34,35
UMA 33-2-440 - A4	000-00064	36,50
UMA 33-2-470 - A4	000-00065	38,20
UMA 33-2-500 - A4	000-00066	40,00
UMA 33-2-530 - A4	000-00067	41,75

NATURAL STONE GROUT-IN ANCHOR

UMA Grout-in anchor

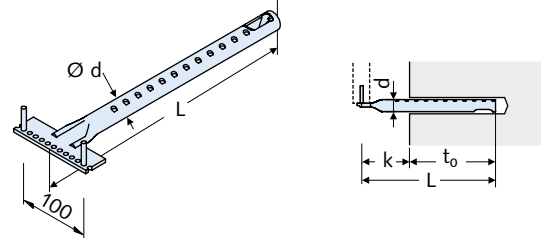
Support and restraint anchor type 3
with two single pins and two sliding sleeves



Article name d - type - L	Article no. 0172.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 10-3-120 - A4	000-00001	7,55
UMA 10-3-150 - A4	000-00002	7,85
UMA 10-3-180 - A4	000-00003	8,15
UMA 10-3-210 - A4	000-00004	8,30
UMA 10-3-240 - A4	000-00005	8,60
UMA 12-3-120 - A4	000-00006	8,25
UMA 12-3-150 - A4	000-00007	8,15
UMA 12-3-180 - A4	000-00008	8,60
UMA 12-3-210 - A4	000-00009	9,60
UMA 12-3-240 - A4	000-00010	10,05
UMA 16-3-120 - A4	000-00068	10,75
UMA 16-3-150 - A4	000-00069	11,10
UMA 16-3-180 - A4	000-00070	11,35
UMA 16-3-210 - A4	000-00071	12,00
UMA 16-3-240 - A4	000-00072	12,20
UMA 16-3-270 - A4	000-00073	13,00
UMA 18-3-120 - A4	000-00023	12,20
UMA 18-3-150 - A4	000-00024	12,45
UMA 18-3-180 - A4	000-00025	13,20
UMA 18-3-210 - A4	000-00026	13,95
UMA 18-3-240 - A4	000-00027	14,75
UMA 18-3-270 - A4	000-00028	15,25
UMA 18-3-300 - A4	000-00029	15,90
UMA 18-3-330 - A4	000-00030	17,05
UMA 18-3-360 - A4	000-00031	17,95
UMA 22-3-180 - A4	000-00032	14,90
UMA 22-3-210 - A4	000-00033	16,25
UMA 22-3-240 - A4	000-00034	16,85
UMA 22-3-270 - A4	000-00035	17,45
UMA 22-3-300 - A4	000-00036	18,65
UMA 22-3-330 - A4	000-00037	19,35
UMA 22-3-360 - A4	000-00038	20,90
UMA 22-3-390 - A4	000-00039	21,60
UMA 25-3-210 - A4	000-00040	18,50
UMA 25-3-240 - A4	000-00041	20,05
UMA 25-3-270 - A4	000-00042	21,10
UMA 25-3-300 - A4	000-00043	21,90
UMA 25-3-330 - A4	000-00044	23,30
UMA 25-3-360 - A4	000-00045	24,10
UMA 25-3-390 - A4	000-00046	25,60
UMA 28-3-230 - A4	000-00047	23,55
UMA 28-3-260 - A4	000-00048	24,25
UMA 28-3-290 - A4	000-00049	25,25
UMA 28-3-320 - A4	000-00050	27,05
UMA 28-3-350 - A4	000-00051	28,55
UMA 28-3-380 - A4	000-00052	29,80
UMA 28-3-410 - A4	000-00053	31,95
UMA 28-3-440 - A4	000-00054	33,50
UMA 28-3-470 - A4	000-00055	35,00
UMA 28-3-500 - A4	000-00056	36,50
UMA 33-3-230 - A4	000-00057	28,00
UMA 33-3-260 - A4	000-00058	30,45
UMA 33-3-290 - A4	000-00059	32,25
UMA 33-3-320 - A4	000-00060	33,50
UMA 33-3-350 - A4	000-00061	36,20
UMA 33-3-380 - A4	000-00062	38,45
UMA 33-3-410 - A4	000-00063	40,45
UMA 33-3-440 - A4	000-00064	42,30
UMA 33-3-470 - A4	000-00065	119,65
UMA 33-3-500 - A4	000-00066	121,70
UMA 33-3-530 - A4	000-00067	126,00

UMA Grout-in anchor

Support and restraint anchor type 4
with two half pins, pressed

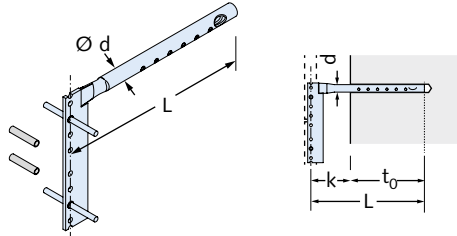


Article name d - type - L	Article no. 0173.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 10-4-120 - A4	000-00001	7,85
UMA 10-4-150 - A4	000-00002	8,30
UMA 10-4-180 - A4	000-00003	8,55
UMA 10-4-210 - A4	000-00004	8,65
UMA 10-4-240 - A4	000-00005	8,95
UMA 12-4-120 - A4	000-00006	8,60
UMA 12-4-150 - A4	000-00007	8,55
UMA 12-4-180 - A4	000-00008	8,95
UMA 12-4-210 - A4	000-00009	10,05
UMA 12-4-240 - A4	000-00010	10,40
UMA 16-4-120 - A4	000-00068	11,30
UMA 16-4-150 - A4	000-00069	11,70
UMA 16-4-180 - A4	000-00070	12,05
UMA 16-4-210 - A4	000-00071	12,55
UMA 16-4-240 - A4	000-00072	12,65
UMA 16-4-270 - A4	000-00073	13,75
UMA 18-4-120 - A4	000-00023	12,65
UMA 18-4-150 - A4	000-00024	13,00
UMA 18-4-180 - A4	000-00025	13,95
UMA 18-4-210 - A4	000-00026	14,65
UMA 18-4-240 - A4	000-00027	15,55
UMA 18-4-270 - A4	000-00028	16,10
UMA 18-4-300 - A4	000-00029	16,60
UMA 18-4-330 - A4	000-00030	17,75
UMA 18-4-360 - A4	000-00031	18,85
UMA 22-4-180 - A4	000-00032	15,65
UMA 22-4-210 - A4	000-00033	17,05
UMA 22-4-240 - A4	000-00034	17,65
UMA 22-4-270 - A4	000-00035	18,30
UMA 22-4-300 - A4	000-00036	19,55
UMA 22-4-330 - A4	000-00037	20,55
UMA 22-4-360 - A4	000-00038	21,85
UMA 22-4-390 - A4	000-00039	22,75
UMA 25-4-210 - A4	000-00040	19,35
UMA 25-4-240 - A4	000-00041	21,05
UMA 25-4-270 - A4	000-00042	22,25
UMA 25-4-300 - A4	000-00043	23,10
UMA 25-4-330 - A4	000-00044	24,40
UMA 25-4-360 - A4	000-00045	25,25
UMA 25-4-390 - A4	000-00046	26,80
UMA 28-4-230 - A4	000-00047	24,75
UMA 28-4-260 - A4	000-00048	25,55
UMA 28-4-290 - A4	000-00049	26,50
UMA 28-4-320 - A4	000-00050	28,55
UMA 28-4-350 - A4	000-00051	30,00
UMA 28-4-380 - A4	000-00052	31,30
UMA 28-4-410 - A4	000-00053	33,70
UMA 28-4-440 - A4	000-00054	35,10
UMA 28-4-470 - A4	000-00055	36,75
UMA 28-4-500 - A4	000-00056	38,45
UMA 33-4-230 - A4	000-00057	29,40
UMA 33-4-260 - A4	000-00058	31,95
UMA 33-4-290 - A4	000-00059	33,90
UMA 33-4-320 - A4	000-00060	35,10
UMA 33-4-350 - A4	000-00061	38,15
UMA 33-4-380 - A4	000-00062	40,45
UMA 33-4-410 - A4	000-00063	42,30
UMA 33-4-440 - A4	000-00064	44,50
UMA 33-4-470 - A4	000-00065	125,75
UMA 33-4-500 - A4	000-00066	127,75
UMA 33-4-530 - A4	000-00067	132,20

NATURAL STONE GROUT-IN ANCHOR

UMA Grout-in anchor

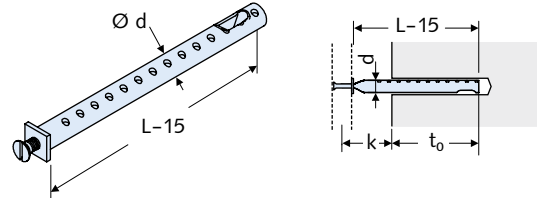
Support and restraint anchor type 7
with L-bracket, two single pins and two sliding sleeves



Article name d - type - L	Article no. 0174.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 10-7-120 - A4	000-00001	9,80
UMA 10-7-150 - A4	000-00002	10,15
UMA 10-7-180 - A4	000-00003	10,45
UMA 10-7-210 - A4	000-00004	11,20
UMA 10-7-240 - A4	000-00005	11,60
UMA 12-7-120 - A4	000-00006	10,10
UMA 12-7-150 - A4	000-00007	10,40
UMA 12-7-180 - A4	000-00008	10,80
UMA 12-7-210 - A4	000-00009	17,40
UMA 12-7-240 - A4	000-00010	12,25
UMA 16-7-120 - A4	000-00068	13,40
UMA 16-7-150 - A4	000-00069	13,80
UMA 16-7-180 - A4	000-00070	14,05
UMA 16-7-210 - A4	000-00071	14,40
UMA 16-7-240 - A4	000-00072	14,95
UMA 16-7-270 - A4	000-00073	15,25
UMA 18-7-120 - A4	000-00023	13,80
UMA 18-7-150 - A4	000-00024	14,60
UMA 18-7-180 - A4	000-00025	15,25
UMA 18-7-210 - A4	000-00026	15,70
UMA 18-7-240 - A4	000-00027	16,35
UMA 18-7-270 - A4	000-00028	16,85
UMA 18-7-300 - A4	000-00029	17,45
UMA 18-7-330 - A4	000-00030	18,10
UMA 18-7-360 - A4	000-00031	18,65
UMA 22-7-180 - A4	000-00032	28,40
UMA 22-7-210 - A4	000-00033	28,95
UMA 22-7-240 - A4	000-00034	30,25
UMA 22-7-270 - A4	000-00035	30,85
UMA 22-7-300 - A4	000-00036	31,60
UMA 22-7-330 - A4	000-00037	33,20
UMA 22-7-360 - A4	000-00038	34,05
UMA 22-7-390 - A4	000-00039	35,20
UMA 25-7-210 - A4	000-00040	on request
UMA 25-7-240 - A4	000-00041	on request
UMA 25-7-270 - A4	000-00042	on request
UMA 25-7-300 - A4	000-00043	on request
UMA 25-7-330 - A4	000-00044	on request
UMA 25-7-360 - A4	000-00045	on request
UMA 25-7-390 - A4	000-00046	on request
UMA 28-7-230 - A4	000-00047	on request
UMA 28-7-260 - A4	000-00048	on request
UMA 28-7-290 - A4	000-00049	on request
UMA 28-7-320 - A4	000-00050	on request
UMA 28-7-350 - A4	000-00051	on request
UMA 28-7-380 - A4	000-00052	on request
UMA 28-7-410 - A4	000-00053	on request
UMA 28-7-440 - A4	000-00054	on request
UMA 28-7-470 - A4	000-00055	on request
UMA 28-7-500 - A4	000-00056	on request
UMA 33-7-230 - A4	000-00057	on request
UMA 33-7-260 - A4	000-00058	on request
UMA 33-7-290 - A4	000-00059	on request
UMA 33-7-320 - A4	000-00060	on request
UMA 33-7-350 - A4	000-00061	on request
UMA 33-7-380 - A4	000-00062	on request
UMA 33-7-410 - A4	000-00063	on request
UMA 33-7-440 - A4	000-00064	on request
UMA 33-7-470 - A4	000-00065	on request
UMA 33-7-500 - A4	000-00066	on request
UMA 33-7-530 - A4	000-00067	on request

UMA Grout-in anchor

Support and restraint anchor type 8
Threaded anchor with countersink screw and 2x EPDM washers

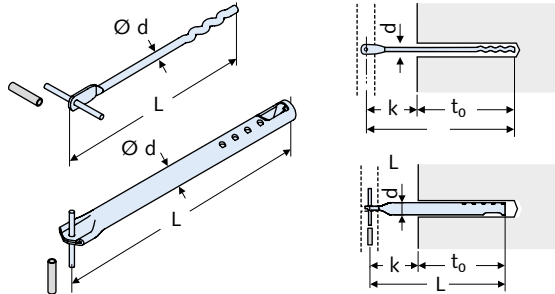


Article name d - type - L	Article no. 0175.	Price [EUR/item]
Specification: A4 according to table, page 2		
UMA 16-8-120 - A4	000-00001	8,65
UMA 16-8-150 - A4	000-00002	9,00
UMA 16-8-180 - A4	000-00003	12,35
UMA 16-8-210 - A4	000-00004	13,80
UMA 16-8-240 - A4	000-00005	16,85
UMA 16-8-270 - A4	000-00006	17,35
UMA 18-8-120 - A4	000-00007	15,45
UMA 18-8-150 - A4	000-00008	12,60
UMA 18-8-180 - A4	000-00009	13,45
UMA 18-8-210 - A4	000-00010	13,80
UMA 18-8-240 - A4	000-00011	15,25
UMA 18-8-270 - A4	000-00012	16,30
UMA 18-8-300 - A4	000-00013	16,50
UMA 18-8-330 - A4	000-00014	16,85
UMA 18-8-360 - A4	000-00015	17,35
UMA 22-8-180 - A4	000-00016	13,50
UMA 22-8-210 - A4	000-00017	13,95
UMA 22-8-240 - A4	000-00018	14,75
UMA 22-8-270 - A4	000-00019	15,65
UMA 22-8-300 - A4	000-00020	18,35
UMA 22-8-330 - A4	000-00021	19,20
UMA 22-8-360 - A4	000-00022	20,30
UMA 22-8-390 - A4	000-00023	20,80
UMA 25-8-210 - A4	000-00024	17,55
UMA 25-8-240 - A4	000-00025	18,50
UMA 25-8-270 - A4	000-00026	19,30
UMA 25-8-300 - A4	000-00027	20,75
UMA 25-8-330 - A4	000-00028	21,50
UMA 25-8-360 - A4	000-00029	23,30
UMA 25-8-390 - A4	000-00030	23,55
UMA 28-8-230 - A4	000-00031	on request
UMA 28-8-260 - A4	000-00032	on request
UMA 28-8-290 - A4	000-00033	on request
UMA 28-8-320 - A4	000-00034	on request
UMA 28-8-350 - A4	000-00035	on request
UMA 28-8-380 - A4	000-00036	on request
UMA 28-8-410 - A4	000-00037	on request
UMA 28-8-440 - A4	000-00038	on request
UMA 28-8-470 - A4	000-00039	on request
UMA 28-8-500 - A4	000-00040	on request
UMA 33-8-230 - A4	000-00041	on request
UMA 33-8-260 - A4	000-00042	on request
UMA 33-8-290 - A4	000-00043	on request
UMA 33-8-320 - A4	000-00044	on request
UMA 33-8-350 - A4	000-00045	on request
UMA 33-8-380 - A4	000-00046	on request
UMA 33-8-410 - A4	000-00047	on request
UMA 33-8-440 - A4	000-00048	on request
UMA 33-8-470 - A4	000-00049	on request
UMA 33-8-500 - A4	000-00050	on request
UMA 33-8-530 - A4	000-00051	on request

NATURAL STONE GROUT-IN ANCHOR

UHA Grout-in anchor

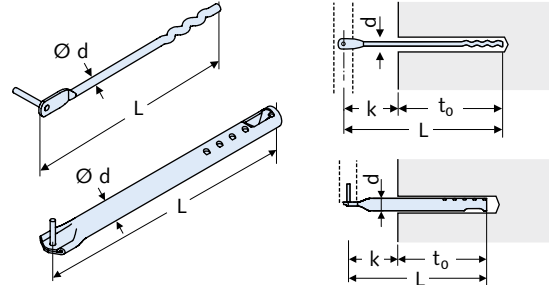
Restraint anchor type 1
with one loose pin and one sliding sleeve
German type tested



Article name	Article no.	Price
d - type - L	0180.	[EUR/item]
Specification: A4 according to table, page 2		
UHA 5-1-120 - A4	000-00001	1,65
UHA 5-1-150 - A4	000-00002	1,70
UHA 5-1-180 - A4	000-00003	1,80
UHA 5-1-210 - A4	000-00004	1,95
UHA 5-1-240 - A4	000-00005	2,15
UHA 5-1-270 - A4	000-00006	2,25
UHA 5-1-300 - A4	000-00007	2,55
UHA 7-1-180 - A4	000-00008	2,45
UHA 7-1-210 - A4	000-00009	2,70
UHA 7-1-240 - A4	000-00010	2,95
UHA 7-1-270 - A4	000-00011	3,25
UHA 7-1-300 - A4	000-00012	3,40
UHA 7-1-330 - A4	000-00013	3,75
UHA 7-1-360 - A4	000-00014	4,40
UHA 10-1-270 - A4	000-00015	5,15
UHA 10-1-300 - A4	000-00016	5,40
UHA 10-1-330 - A4	000-00017	6,70
UHA 10-1-360 - A4	000-00018	6,55
UHA 10-1-390 - A4	000-00019	6,75

UHA Grout-in anchor

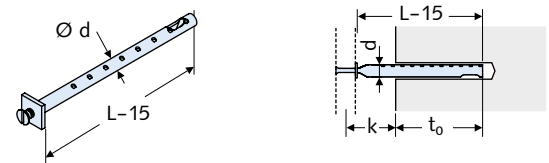
Restraint anchor type 2
with one half pin, pressed
German type tested



Article name	Article no.	Price
d - type - L	0181.	[EUR/item]
Specification: A4 according to table, page 2		
UHA 5-2-120 - A4	000-00001	1,65
UHA 5-2-150 - A4	000-00002	1,70
UHA 5-2-180 - A4	000-00003	1,85
UHA 5-2-210 - A4	000-00004	2,00
UHA 5-2-240 - A4	000-00005	2,15
UHA 5-2-270 - A4	000-00006	2,25
UHA 5-2-300 - A4	000-00007	2,45
UHA 7-2-180 - A4	000-00008	2,95
UHA 7-2-210 - A4	000-00009	3,05
UHA 7-2-240 - A4	000-00010	3,30
UHA 7-2-270 - A4	000-00011	3,55
UHA 7-2-300 - A4	000-00012	3,70
UHA 7-2-330 - A4	000-00013	4,20
UHA 7-2-360 - A4	000-00014	4,85
UHA 10-2-270 - A4	000-00015	5,20
UHA 10-2-300 - A4	000-00016	5,45
UHA 10-2-330 - A4	000-00017	6,80
UHA 10-2-360 - A4	000-00018	6,75
UHA 10-2-390 - A4	000-00019	6,90

UHA Grout-in anchor

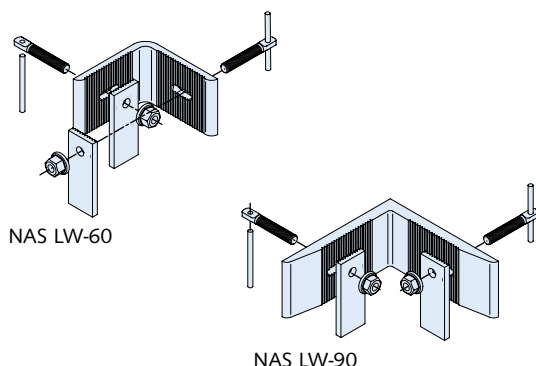
Restraint tie design 8
Threaded anchor with countersink screw and 2x EPDM washers



Article name	Article no.	Price
d - type - L	0184.	[EUR/item]
Specification: A4 according to table, page 2		
UHA 10-8-120 - A4	000-00001	6,00
UHA 10-8-150 - A4	000-00002	8,05
UHA 10-8-180 - A4	000-00003	9,15
UHA 10-8-210 - A4	000-00004	8,90
UHA 10-8-240 - A4	000-00005	9,45
UHA 10-8-270 - A4	000-00006	10,45
UHA 10-8-300 - A4	000-00007	11,00
UHA 10-8-330 - A4	000-00008	on request
UHA 10-8-360 - A4	000-00009	on request
UHA 10-8-390 - A4	000-00010	on request

NATURAL STONE SUPPORT ACCESSORIES

LW-ALU Soffit bracket



Article name	Article no.	Price [EUR/100 items]
Specification: Aluminum	0232.	
NAS LW - 60/60 -ALU	080-00002	on request
NAS LW - 90/60 -ALU	080-00006	on request

LW Soffit bracket

Soffit bracket NAS LW 1, NAS LW 2

NAS LW 1

NAS LW 2



Article name	Article no.	Price [EUR/item]
Specification: A4 according to table, page 2	0232.	
NAS LW 1 - A4	010-00001	4,85
NAS LW 2 - A4	010-00002	5,85

HB-BZ Drilled anchor

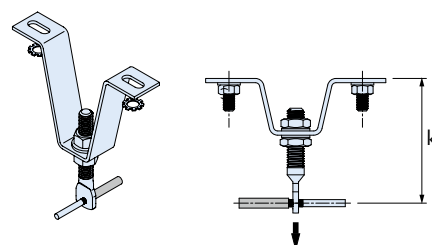
Drilled anchor HB-BZ for cracked concrete
European Technical Assessment ETA-07/0249



① Alternatively:
HALFEN Cast-in channels HTA-CE and HALFEN T-bolts, German approval
Specification: stainless steel A4 → chapter 1 and 7.

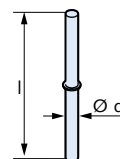
Article name	Ø	Max. clamping thickness	Anchor length	Article no.	Price [EUR/100 items]
Specification: A4 according to table, page 2				0432.	
HB-BZ	8 -	10-21	75 - A4	040-00027	540,75
HB-BZ	8 -	50-61	115 - A4	040-00028	664,40
HB-BZ	10 -	10-30	90 - A4	040-00029	716,40
HB-BZ	10 -	50-70	130 - A4	040-00030	1.028,20
HB-BZ	12 -	15-35	110 - A4	040-00031	1.141,85
HB-BZ	12 -	50-70	145 - A4	040-00032	1.433,65

SOF Soffit anchor



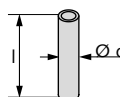
Article name	k [mm]	Article no.	Price [EUR/item]
Specification: A4 according to table, page 2		0192.	
SOF 805 - A4	50	010-00009	27,50
SOF 806 - A4	60	010-00010	27,80
SOF 807 - A4	70	010-00011	28,70
SOF 808 - A4	80	010-00012	28,35
SOF 810 - A4	100	010-00013	30,10
SOF 813 - A4	130	010-00014	30,85
SOF 816 - A4	160	010-00015	31,85
SOF 819 - A4	190	010-00016	31,75

NAS D Pin



Article name	d [mm]	l [mm]	Article no.	Price [EUR/item]
Specification: A4 according to table, page 2			0225.	
NAS D- 5x70 with collar - A4	5	70	000-00001	0,30
NAS D- 6x75 with collar - A4	6	75	000-00002	0,45
NAS D- 5x70B knurled - A4	5	70	000-00003	0,35

NAS G Sliding sleeves



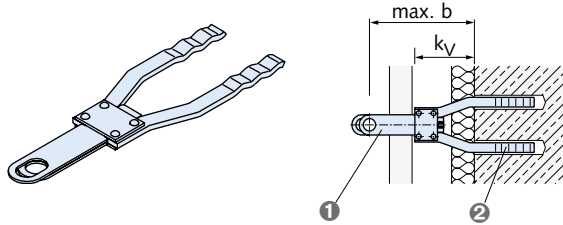
Article name	d [mm]	l [mm]	Article no.	Price [EUR/item]
Specification: Plastic			0226.	
NAS G- 5	7,5	40	000-00001	0,05
NAS G- 6	8,5	40	000-00002	0,05

NATURAL STONE SUPPORT ACCESSORIES

1 Fixing systems

GE HB Scaffold anchor, horizontal joint

For grouting in: GE HB for horizontal joint



- ① Connection - electroplated
- ② Base element - A4 according to table, page 2

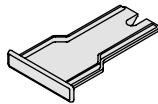
Article name	k _v	max. b	Article no.	Price
			0765.	[EUR/item]

Specification: A4 according to table, page 2

GE HB-135-A4	45-60	135	010-00001	19,65
GE HB-150-A4	60-75	150	010-00002	20,75
GE HB-165-A4	75-90	165	010-00003	21,35
GE HB-180-A4	90-105	180	010-00004	22,40
GE HB-195-A4	105-120	195	010-00005	23,45
GE HB-210-A4	120-135	210	010-00006	23,65
GE HB-225-A4	135-150	225	010-00007	24,50
GE HB-240-A4	150-165	240	010-00008	25,30
GE HB-255-A4	165-180	255	010-00009	28,85
GE HB-270-A4	180-195	270	010-00010	29,45
GE HB-285-A4	195-210	285	010-00011	29,45
GE HB-300-A4	210-225	300	010-00012	33,45
GE HB-315-A4	225-240	315	010-00013	33,90
GE HB-330-A4	240-255	330	010-00014	35,80

GE KAP Scaffold anchor sealing cap

Sealing cap for scaffold anchor GE HB



Article name	Article no.	Price
	0765.	[EUR/item]

Specification: Plastic

GE KAP-01 black	030-00001	0,25
GE KAP-02 transparent	030-00002	0,25
GE KAP-03 light grey	030-00003	0,25

2 Reinforcement systems

3 Lifting systems

4 Façade connection systems

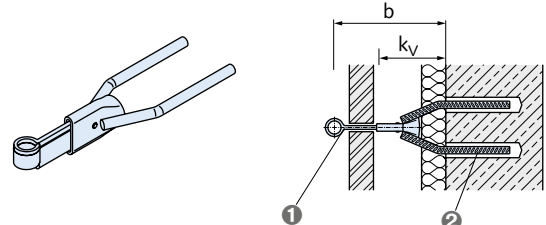
5 DETAN Rod systems

6 Industrial Technology

7 Bolts, Accessories

GE VB Scaffold anchor, vertical joint

For grouting in: GE VB for vertical joint



- ① Connection - electroplated
- ② Base element - A4 according to table, page 2

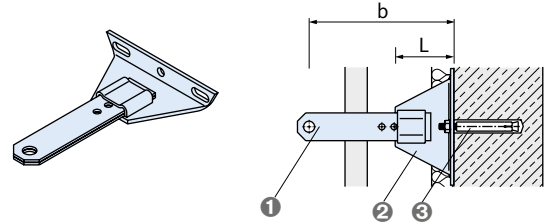
Article name	k _v	max. b	Article no.	Price
			0765.	[EUR/item]

Specification: A4 according to table, page 2

GE VB-200-A4	115-135	200	020-00001	43,75
GE VB-220-A4	135-155	220	020-00002	44,60
GE VB-240-A4	155-175	240	020-00003	46,10
GE VB-260-A4	175-195	260	020-00004	51,75
GE VB-280-A4	195-215	280	020-00005	53,15
GE VB-300-A4	215-235	300	020-00006	55,30
GE VB-320-A4	235-255	320	020-00007	56,65
GE VB-340-A4	255-275	340	020-00008	on request
GE VB-360-A4	275-295	360	020-00009	on request

HGA-F Scaffold anchor

For connection with drilled bolt: HGA-F for horizontal joint



- ① Connection - electroplated
- ② Base element - A4 according to table, page 2
- ③ Drilled bolt - A4 according to table, page 2

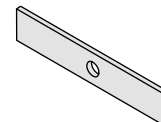
Article name	L [mm]	b [mm]	Article no.	Price
			0233.	[EUR/item]

Specification: A4 according to table, page 2

HGA-F-110-A4	109	233-277	010-00001	38,15
HGA-F-140-A4	139	241-307	010-00002	44,25

HGA Accessories: HIP

Thermal strip
HALFEN Insulation Plate



Article name	Suitable for:	Article no.	Price
		0159.	[EUR/item]

Specification: PVC

HGA HIP-1	HGA-F-110/140	030-00001	4,25
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DETAN Rod systems

Features

- Uniform design base
- CE marking
- Quality assurance and production are constantly monitored
- Minimum requirements for the strength of the connection plates
- Cross couplers are now available galvanized and in stainless steel
- Tension rods up to Ø 95 mm in DETAN steel and up to Ø 30 mm in DETAN stainless steel
- Extensive labelling with project specific information
- All rod systems up to Ø 60 mm preassembled
- High-quality finish: hot-dip galvanized or stainless steel



Benefits

- **No national approvals or certification required**
- **Easy application in the whole of Europe**
- **Safe basis for the structural design**
- **Cross couplers are a cost effective alternative to cross bracing using an anchor disc**
- **Makes long spans possible and limits bending**
- **Easy checking and sorting of types and lengths at the construction site**
- **Low net weight**



DETAN Tension rod

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

DETAN Rod systems

1
Fixing systems

Features

- Fork-heads, couplers and locking nuts in hot-dip galvanized, inner threads are protected
- Machining processes are completed before galvanizing, hot-dip galvanized threaded rod
- Left- and right-hand threads for length adjustment and simple tensioning
- Thread plugs are included. A seal system is provided from Ø 16 mm and above
- Supplied with locking nuts as standard



DETAN fork end

Benefits

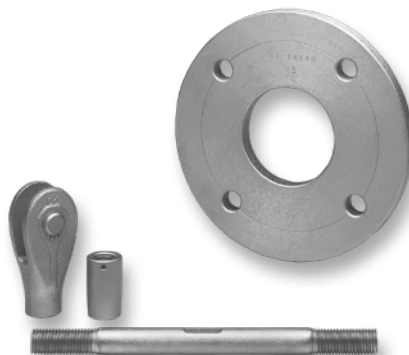
- **Excellent corrosion protection for the spanner flats and threaded areas**
- **No turnbuckles needed – aesthetic design**
- **High corrosion protection**
- **Smooth transition between the fork and the rod**

3
Lifting systems

4
Façade connection systems

Features

- Large product range, with cross couplers and anchor discs available
- Couplers with and without lug
- European Technical Assessments ETA-05/0207 and ETA-11/0311
- User friendly dimensioning software incl. configurator
- Large element range available



DETAN product range

Benefits

- **Aesthetic cross bracing**
- **Creative freedom with large system lengths and configurations**
- **Europe-wide distribution with one approval**
- **Safe and easy design**
- **Suitable product for virtually any application**

5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

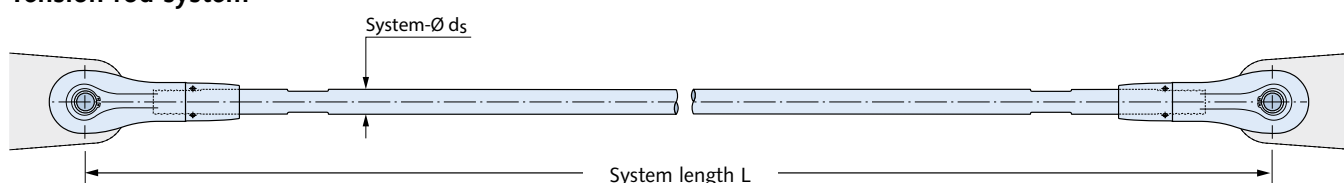
Prestressing of system diameters 30-60 mm

- Very easy system
- Independent from electric power
- Protection of the high-grade galvanized surface
- The pretension unit can be rented from HALFEN

 HALFEN A CRH COMPANY	CHECKLIST DETAN Tension Rod system	Area: DETAN Rod system
		Designation: CHK-F-DT-001-E

Customer: _____ Contact name: _____
 Customer address: _____
 Tel.: _____ Fax: _____ e-mail: _____
 Project: _____ Project address: _____
 Date: _____ Customer no.: _____ ☐ Enquiry ☐ Estimate ☐ Order

Tension rod system



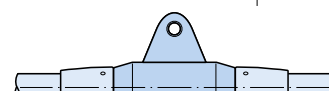
Options



without sleeve



with sleeve



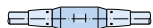
with sleeve and lug

Choice of material:

DETAN-S (steel) – FV (hot dip galvanized) – S355
 ETA-05/0207; EN1993

DETAN-S (steel) – WB (mill-finish) – S355
 ETA-05/0207; EN1993

DETAN-E (stainless steel) – FK235
 ETA-11/0311; EN1993

Item	Quantity	d_s [mm]	$Z_{Ed,max}^{②}$ [kN]	L [mm]						Material choice		
						number ①		number ①		WB	FV	E
Example	3	30		5600		x	2				x	

- ① Number of couplers within a system length
 ② Maximum tensile load required if diameter is unknown

We would be pleased to provide you a proposal in accordance with its specifications.
 Please send this completed form sheet to
es.det@halfen.com

DETAN ROD SYSTEM

DETAN-S assembled system

DETAN-S assembled system, Ø d_s 10-95 mm
European Technical Assessment ETA-05/0207

- Consisting of at least one tension rod with one left-hand thread and one right-hand thread, two fork-heads (1x left, 1x right), pin, circlips and locking nuts; incl. sealing set (system Ø 16 and larger system diameters)
- Dividing the overall length into several tension rods by using couplers is possible. For transportation pre-assembled systems may be separated at the coupler locations.
- System is either completely galvanized, or available in mill-finish with galvanized accessories

Configuration examples

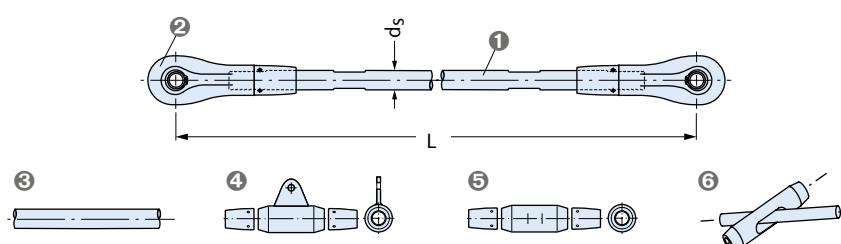
Article no.: 0802-500

Tension rod system, DETAN-S, d_s = 52 mm, L = 3620, hot-dip galvanized

Tension rod system, DETAN-S, d_s = 30 mm, L = 4500, hot-dip galvanized, 2 couplers without lug

Tension rod system, DETAN-S, d_s = 20 mm, L = 6480, mill-finish, cross coupler

Note: A maximum of 5 couplers per system



- ① Tension rod
- ② Fork-head
- ③ Tension rod without coupler
- ④ Coupler with lug
- ⑤ Coupler without lug
- ⑥ Cross coupler

Ø d _s [mm]	min L [mm]	max. L ① [mm]	Article no.	Price
			0802.	[EUR/item]
Specification: FV, WB according to table, page 2				
Assembled systems				
10	250	6060	500	on request
12	310	6070	500	on request
16	360	12080	500	on request
20	440	12100	500	on request
24	520	12120	500	on request
27	560	12140	500	on request
30	600	12140	500	on request
36	700	12170	500	on request
42	810	12220	500	on request
48	940	12260	500	on request
52	990	12270	500	on request
56	1050	12290	500	on request
60	1160	12320	500	on request
Un-assembled systems				
76	1480	15430	510	on request
85	1640	15480	510	on request
95	1810	15530	510	on request

① Maximum system length using a single rod without couplers

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

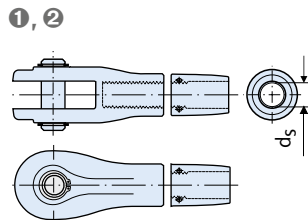
Bolts, Accessories

7

DETAN ROD SYSTEM

DETAN-S Components fork-head

Fork-head connection set
consisting of fork, pin, circlips and locking nut
Incl. sealing set - system Ø 16 mm and larger system diameters

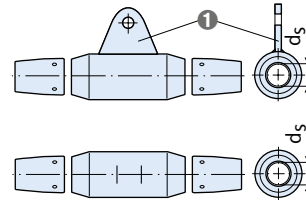


- ① Fork-head, complete, left-hand thread
- ② Fork-head, complete, right-hand thread

Article name	Ø d _s [mm]	Article no.	Price
		0810.	[EUR/item]
Specification: FV according to table, page 2			
Fork-head, complete, left-hand thread	10	030-00003	on request
Fork-head, complete, left-hand thread	12	030-00004	on request
Fork-head, complete, left-hand thread	16	030-00005	on request
Fork-head, complete, left-hand thread	20	030-00006	on request
Fork-head, complete, left-hand thread	24	030-00007	on request
Fork-head, complete, left-hand thread	27	030-00008	on request
Fork-head, complete, left-hand thread	30	030-00009	on request
Fork-head, complete, left-hand thread	36	030-00010	on request
Fork-head, complete, left-hand thread	42	030-00011	on request
Fork-head, complete, left-hand thread	48	030-00012	on request
Fork-head, complete, left-hand thread	52	030-00013	on request
Fork-head, complete, left-hand thread	56	030-00014	on request
Fork-head, complete, left-hand thread	60	030-00015	on request
Fork-head, complete, left-hand thread	76	030-00017	on request
Fork-head, complete, left-hand thread	85	030-00018	on request
Fork-head, complete, left-hand thread	95	030-00019	on request
Fork-head, complete, right-hand thread	10	040-00003	on request
Fork-head, complete, right-hand thread	12	040-00004	on request
Fork-head, complete, right-hand thread	16	040-00005	on request
Fork-head, complete, right-hand thread	20	040-00006	on request
Fork-head, complete, right-hand thread	24	040-00007	on request
Fork-head, complete, right-hand thread	27	040-00008	on request
Fork-head, complete, right-hand thread	30	040-00009	on request
Fork-head, complete, right-hand thread	36	040-00010	on request
Fork-head, complete, right-hand thread	42	040-00011	on request
Fork-head, complete, right-hand thread	48	040-00012	on request
Fork-head, complete, right-hand thread	52	040-00013	on request
Fork-head, complete, right-hand thread	56	040-00014	on request
Fork-head, complete, right-hand thread	60	040-00015	on request
Fork-head, complete, right-hand thread	76	040-00017	on request
Fork-head, complete, right-hand thread	85	040-00018	on request
Fork-head, complete, right-hand thread	95	040-00019	on request

DETAN-S Components coupler

Coupler with support lug or without,
complete with two locking nuts
Incl. sealing set - system Ø 16 mm and larger system diameters



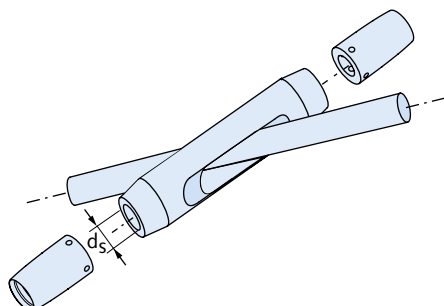
- ① Lug

Article name	Ø d _s [mm]	Article no.	Price
		0816.	[EUR/item]
Specification: FV according to table, page 2			
Coupler without lug	10	040-00003	on request
Coupler without lug	12	040-00004	on request
Coupler without lug	16	040-00005	on request
Coupler without lug	20	040-00006	on request
Coupler without lug	24	040-00007	on request
Coupler without lug	27	040-00008	on request
Coupler without lug	30	040-00009	on request
Coupler without lug	36	040-00010	on request
Coupler without lug	42	040-00011	on request
Coupler without lug	48	040-00012	on request
Coupler without lug	52	040-00013	on request
Coupler without lug	56	040-00014	on request
Coupler without lug	60	040-00015	on request
Coupler without lug	76	040-00017	on request
Coupler without lug	85	040-00018	on request
Coupler without lug	95	040-00019	on request
Coupler with lug	12	030-00004	on request
Coupler with lug	16	030-00005	on request
Coupler with lug	20	030-00006	on request
Coupler with lug	24	030-00007	on request
Coupler with lug	27	030-00008	on request
Coupler with lug	30	030-00009	on request
Coupler with lug	36	030-00010	on request
Coupler with lug	42	030-00011	on request
Coupler with lug	48	030-00012	on request
Coupler with lug	52	030-00013	on request
Coupler with lug	56	030-00014	on request
Coupler with lug	60	030-00015	on request
Coupler with lug	76	030-00017	on request
Coupler with lug	85	030-00018	on request
Coupler with lug	95	030-00019	on request

DETAN ROD SYSTEM

DETAN-S Components cross coupler

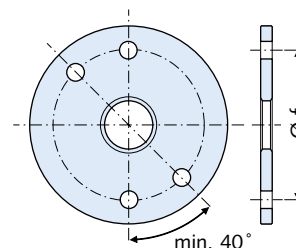
Cross coupler
complete with two locking nuts



Article name	Ø d _s [mm]	Article no.	Price
		0816.	[EUR/item]
Specification: FV according to table, page 2			
Cross coupler	10	080-00003	on request
Cross coupler	12	080-00004	on request
Cross coupler	16	080-00005	on request
Cross coupler	20	080-00006	on request
Cross coupler	24	080-00007	on request
Cross coupler	27	080-00008	on request
Cross coupler	30	080-00009	on request
Cross coupler	36	080-00010	on request
Cross coupler	42	080-00011	on request
Cross coupler	48	080-00012	on request
Cross coupler	52	080-00013	on request
Cross coupler	56	080-00014	on request
Cross coupler	60	080-00015	on request
Cross coupler	76	080-00017	on request
Cross coupler	85	080-00018	on request
Cross coupler	95	080-00019	on request

DETAN-S Components anchor disc

Anchor disc, single element
Please specify hole position when ordering



Article name	Ø d _s [mm]	Ø f [mm]	Article no.	Price
			0815.	[EUR/item]
Specification: FV according to table, page 2				
Anchor disc K40	10	90	020	on request
Anchor disc K40	12	110	020	on request
Anchor disc K40	16	140	020	on request
Anchor disc K40	20	180	020	on request
Anchor disc K40	24	210	020	on request
Anchor disc K40	27	240	020	on request
Anchor disc K40	30	260	020	on request
Anchor disc K40	36	310	020	on request
Anchor disc K40	42	360	020	on request
Anchor disc K40	48	420	020	on request
Anchor disc K40	52	450	020	on request
Anchor disc K40	56	490	020	on request
Anchor disc K40	60	520	020	on request
Anchor disc K40	76	702	020	on request
Anchor disc K40	85	777	020	on request
Anchor disc K40	95	832	020	on request

Fixing systems

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DETAN Rod systems

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Bolts, Accessories

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DETAN ROD SYSTEM

DETAN-E assembled system

DETAN-E assembled system, $\varnothing d_s$ 6-30 mm
European Technical Assessment ETA-11/0311

- Consisting of at least one tension rod with one left-hand thread and one right-hand thread, two fork-heads (1x left, 1x right), pin, circlips and locking nuts
- Dividing the overall length into several tension rods by using couplers is possible. For transportation pre-assembled systems may be separated at the coupler locations.
- System and accessories available in stainless steel

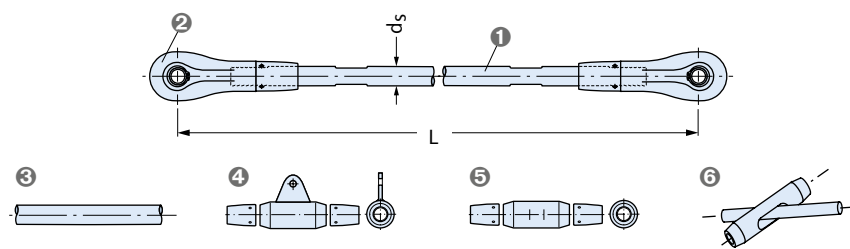
Configuration examples

Article no.: 0800-700

Tension rod system, DETAN-E, $d_s = 24$ mm, $L = 11200$, 2 couplers

Tension rod system, DETAN-E, $d_s = 20$ mm, $L = 6480$, cross coupler

Note: A maximum of 5 couplers per system



- ① Tension rod
- ② Fork-head
- ③ Tension rod without coupler
- ④ Coupler with lug
- ⑤ Coupler without lug
- ⑥ Cross coupler

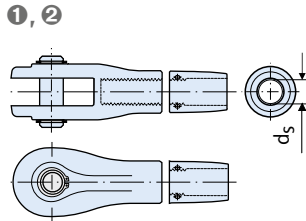
$\varnothing d_s$ [mm]	min L [mm]	max. L ① [mm]	Article no.	Price
			0800.	[EUR/item]
Specification: A4/L4 according to table, page 2				
6	190	3040	700	on request
8	210	6050	700	on request
10	250	6060	700	on request
12	310	6070	700	on request
16	360	6080	700	on request
20	440	6100	700	on request
24	520	6120	700	on request
27	560	6140	700	on request
30	600	6140	700	on request

① Maximum system length using a single rod without couplers

DETAN ROD SYSTEM

DETAN-E Components fork-head

Fork-head connection set
consisting of fork, pin, clips and locking nut

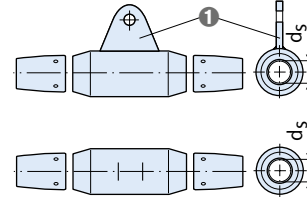


- ① Fork-head, complete, left-hand thread
② Fork-head, complete, right-hand thread

Article name	Ø d _s [mm]	Article no.	Price
		0810.	[EUR/item]
Specification: A4/L4 according to table, page 2			
Fork-head, complete, left-hand thread	6	010-00002	on request
Fork-head, complete, left-hand thread	8	010-00005	on request
Fork-head, complete, left-hand thread	10	010-00008	on request
Fork-head, complete, left-hand thread	12	010-00011	on request
Fork-head, complete, left-hand thread	16	010-00014	on request
Fork-head, complete, left-hand thread	20	010-00017	on request
Fork-head, complete, left-hand thread	24	010-00020	on request
Fork-head, complete, left-hand thread	27	010-00023	on request
Fork-head, complete, left-hand thread	30	010-00026	on request
Fork-head, complete, right-hand thread	6	020-00002	on request
Fork-head, complete, right-hand thread	8	020-00005	on request
Fork-head, complete, right-hand thread	10	020-00008	on request
Fork-head, complete, right-hand thread	12	020-00011	on request
Fork-head, complete, right-hand thread	16	020-00014	on request
Fork-head, complete, right-hand thread	20	020-00017	on request
Fork-head, complete, right-hand thread	24	020-00020	on request
Fork-head, complete, right-hand thread	27	020-00023	on request
Fork-head, complete, right-hand thread	30	020-00026	on request

DETAN-E Components couplers

Coupler with or without support lug
complete with two locking nuts

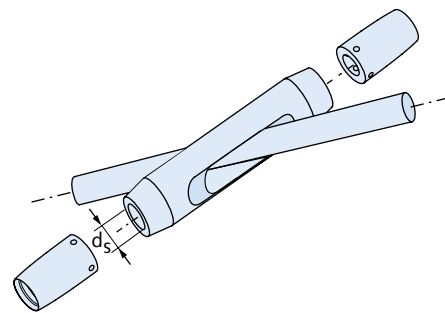


- ① Lug

Article name	Ø d _s [mm]	Article no.	Price
		0816.	[EUR/item]
Specification: A4/L4 according to table, page 2			
Coupler without lug	6	020-00002	on request
Coupler without lug	8	020-00005	on request
Coupler without lug	10	020-00008	on request
Coupler without lug	12	020-00011	on request
Coupler without lug	16	020-00014	on request
Coupler without lug	20	020-00017	on request
Coupler without lug	24	020-00020	on request
Coupler without lug	27	020-00023	on request
Coupler without lug	30	020-00026	on request
Coupler with lug	6	010-00002	on request
Coupler with lug	8	010-00005	on request
Coupler with lug	10	010-00008	on request
Coupler with lug	12	010-00011	on request
Coupler with lug	16	010-00014	on request
Coupler with lug	20	010-00017	on request
Coupler with lug	24	010-00020	on request
Coupler with lug	27	010-00023	on request
Coupler with lug	30	010-00026	on request

DETAN-E Components cross coupler

Cross coupler
complete with two locking nuts



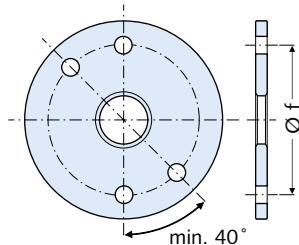
Article name	Ø d _s [mm]	Article no.	Price
		0816.	[EUR/item]
Specification: A4/L4 according to table, page 2			
Cross coupler	6	090-00001	on request
Cross coupler	8	090-00002	on request
Cross coupler	10	090-00003	on request
Cross coupler	12	090-00004	on request
Cross coupler	16	090-00005	on request
Cross coupler	20	090-00006	on request
Cross coupler	24	090-00007	on request
Cross coupler	27	090-00008	on request
Cross coupler	30	090-00009	on request

DETAN ROD SYSTEM

DETAN-E Components anchor disc

Anchor disc, single element

Please specify hole position when ordering



Article name	Ø d, [mm]	Ø f [mm]	Article no.	Price
			0815.	[EUR/item]
Specification: A4/L4 according to table, page 2				
Anchor disc K40	6	55	010	on request
Anchor disc K40	8	75	010	on request
Anchor disc K40	10	90	010	on request
Anchor disc K40	12	110	010	on request
Anchor disc K40	16	140	010	on request
Anchor disc K40	20	180	010	on request
Anchor disc K40	24	210	010	on request
Anchor disc K40	27	240	010	on request
Anchor disc K40	30	260	010	on request

Industrial Technology/ Flexible Bolt Connections

Features

- Hot-rolled, serrated channels
- Flexible and non-slip bolted connections for high-loads
- Available in:
 - mill-finish
 - hot-dip galvanized
 - stainless steel
- Excellent weldability
- CE marked



Benefits

- **Very high load transmission in longitudinal direction**
- **Easy adjustment of the bolted connection**
- **Highly suitable for transmission of dynamic loads**

Features

- Hot-rolled, unserrated channels
- Flexible bolt connection for high loads
- Available in:
 - mill-finish
 - hot-dip galvanized
 - stainless steel
- Excellent weldability
- CE marked



Benefits

- **High load transmission in tensil / transverse load direction**
- **Precise adjustment of the bolted connection**
- **Highly suitable for transmission of dynamic loads**

Features

- Cold channel profiles
- For low loads
- Available in:
 - mill-finish
 - pre-galvanized
 - hot-dip galvanized
 - stainless steel
- CE marked



Benefits

- **Versatile due to wide product range**

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Industrial Technology/ Flexible Framing Connections

1

Fixing systems

Features

- Flexible support elements for pipework installations
- Wide product range for small and high loads
- CE marked



Bracket with HALFEN T-bolts HS

Benefits

- *Short installation times*
- *Construction tolerances can be compensated on site*
- *Multi-dimensional adjustment for components*
- *High versatility*

2

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

Features

- Wide range of accessories for the installation of pipes



Pipe clamp

Benefits

- *Easy and fast installation*
- *High flexibility for pipework installations*

INDUSTRIAL TECHNOLOGY

General information and explanation

Product information

Corresponding HALFEN T-bolts for HALFEN Framing channels → see chapter 7.

Some HALFEN Profile types are also available in special stainless steel HCR on request.

CE marking for HALFEN Industrial Technology

- Certification of production as well as the factory production control according to EN 1090-2 and EN 1090-1
- Design values of bearing capacity with predefined calculations and tests
- Certification of the HALFEN engineers according to EN 1090-1 for the planning preparation
- Quality assurance throughout the entire value-added chain

Orders

Scheme A for standard channel lengths		
Article name	Length [mm]	Article no.
HM 72/48 - WB -	6070	0280.180-00002
HM 52/34 - WB -	6070	0280.190-00002
HM 50/30 - WB -	6070	0280.200-00002

Scheme B for cut channel lengths and pipe clamps and diameter			
Article name	Length [mm]	Outer pipe Ø [mm]	Article no.
HM 72/48 - WB -	250		HM 72/48 - WB - 250
HM 52/34 - WB -	250		HM 52/34 - WB - 250
HRG-1(-) - FV		114	HRG-1-114 - FV

Technical

Further details about our Industrial Technology can be found in our catalogues and www.halfen.com.

- Technical Product Information MT-FFC Flexible Framing Connections
- Technical Product Information MT-FBC Flexible Bolt Connections



All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

Fixing systems

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Industrial Technology

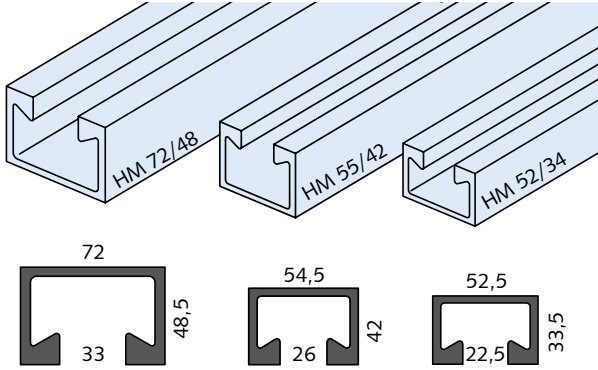
6

Bolts, Accessories

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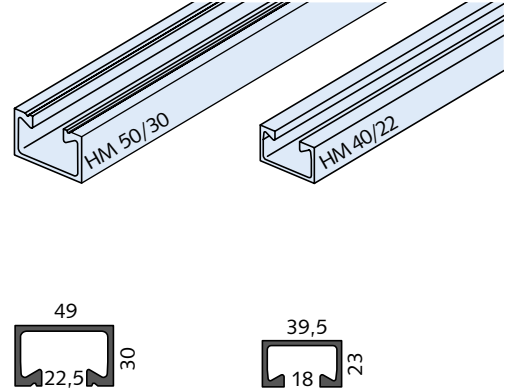
FRAMING CHANNELS

Heavy duty framing systems, hot-rolled channels



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 72/48 - WB - 6070	0280.180-00002	361,15		
HM 72/48 - WB - Cut length		★	59,50	16,10
HM 55/42 - WB - 6070				
HM 55/42 - WB - Cut length	0280.290-00001	280,05	★	46,14 16,10
HM 52/34 - WB - 6070				
HM 52/34 - WB - Cut length	0280.190-00002	203,95	★	33,60 16,10
Specification: FV according to table, page 2				
HM 72/48 - FV - 6070	0280.180-00003	538,00		
HM 72/48 - FV - Cut length		★	88,63	16,10
HM 55/42 - FV - 6070				
HM 55/42 - FV - Cut length	0280.290-00002	320,75	★	52,84 16,10
HM 52/34 - FV - 6070				
HM 52/34 - FV - Cut length	0280.190-00003	308,60	★	50,84 16,10
Specification: A4 according to table, page 2				
HM 72/48 - A4 - 6070	0280.180-00001	3.106,55		
HM 72/48 - A4 - Cut length		★	511,79	32,55
HM 52/34 - A4 - 6070				
HM 52/34 - A4 - Cut length	0280.190-00001	1.779,70	★	293,20 18,40

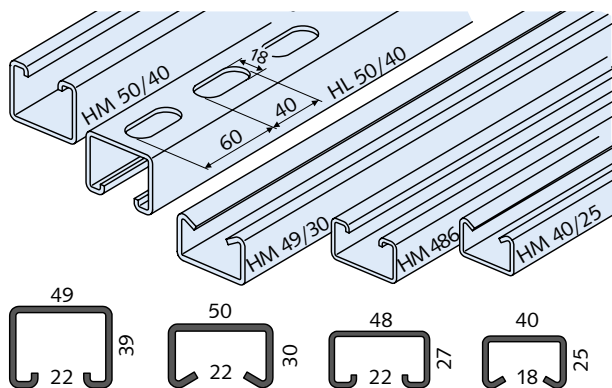
Heavy duty framing systems, hot-rolled channels



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 50/30 - WB - 6070	0280.200-00002	137,00		
HM 50/30 - WB - Cut length		★	22,57	10,15
HM 40/22 - WB - 6070				
HM 40/22 - WB - Cut length	0280.210-00002	92,55	★	15,25 6,35
Specification: FV according to table, page 2				
HM 50/30 - FV - 6070	0280.200-00003	215,85		
HM 50/30 - FV - Cut length		★	35,56	10,15
HM 40/22 - FV - 6070				
HM 40/22 - FV - Cut length	0280.210-00003	142,50	★	23,48 6,35
Specification: A4 according to table, page 2				
HM 50/30 - A4 - 6070	0280.200-00001	1.381,85		
HM 50/30 - A4 - Cut length		★	227,65	12,95
HM 40/22 - A4 - 6070				
HM 40/22 - A4 - Cut length	0280.210-00001	818,50	★	134,84 10,15

FRAMING CHANNELS

Heavy duty framing systems, cold-rolled channels



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 50/40 - WB - 6000	0280.090-00002	110,60		
HM 50/40 - WB - Cut length		★	18,43	10,15
HL 50/40 - WB - 6000	0281.100-00001	120,50		
HL 50/40 - WB - Cut length		★	20,08	10,15
HM 49/30 - WB - 6070	0280.220-00001	93,50		
HM 49/30 - WB - Cut length		★	15,40	6,35
HM 486 - WB - 6000	0280.100-00001	85,35		
HM 486 - WB - Cut length		★	14,23	
HM 40/25 - WB - 6070	0280.230-00001	66,85		
HM 40/25 - WB - Cut length		★	11,01	6,35
Specification: FV according to table, page 2				
HM 50/40 - FV - 6000	0280.090-00003	194,55		
HM 50/40 - FV - Cut length			32,43	10,15
HL 50/40 - FV - 6000	0281.100-00002	204,55		
HL 50/40 - FV - Cut length		★	34,09	10,15
HM 49/30 - FV - 6070	0280.220-00002	162,90		
HM 49/30 - FV - Cut length		★	26,84	6,35
HM 486 - FV - 6000	0280.100-00002	135,35		
HM 486 - FV - Cut length		★	22,56	
HM 40/25 - FV - 6070	0280.230-00002	114,05		
HM 40/25 - FV - Cut length		★	18,79	6,35
Specification: A2 according to table, page 2				
HM 49/30 - A2 - 6070	0280.220-00003	639,10		
HM 49/30 - A2 - Cut length		★	105,29	10,15
HM 40/25 - A2 - 6070	0280.230-00003	421,90		
HM 40/25 - A2 - Cut length		★	69,51	10,15

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: A4 according to table, page 2				
HM 50/40 - A4 - 6000	0280.090-00001	992,65		
HM 50/40 - A4 - Cut length		★	165,44	12,95
HL 50/40 - A4 - 6000	0281.100-00003	1.017,00		
HL 50/40 - A4 - Cut length		★	169,50	12,95
HM 49/30 - A4 - 6070	0280.220-00004	816,10		
HM 49/30 - A4 - Cut length		★	134,45	10,15
HM 40/25 - A4 - 6070	0280.230-00004	550,15		
HM 40/25 - A4 - Cut length		★	90,63	10,15

Fixing systems

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Industrial Technology

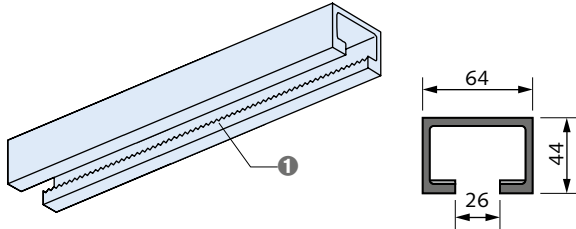
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Bolts, Accessories

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FRAMING CHANNELS

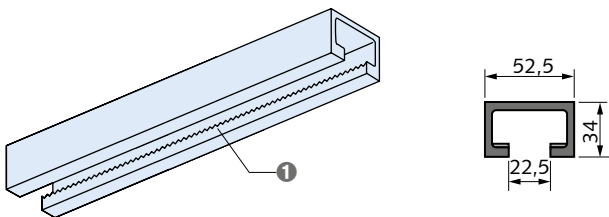
HZM 64/44



① hot-rolled, toothed profile

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]	0284.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HZM 64/44 - WB - 6070	080-00002	on request		
HZM 64/44 - WB - Cut length		★	on request	on request
Specification: FV according to table, page 2				
HZM 64/44 - FV - 6070	080-00003	on request		
HZM 64/44 - FV - Cut length		★	on request	on request
Specification: A4 according to table, page 2				
HZM 64/44 - A4 - 6070	080-00001	on request		
HZM 64/44 - A4 - Cut length		★	on request	on request

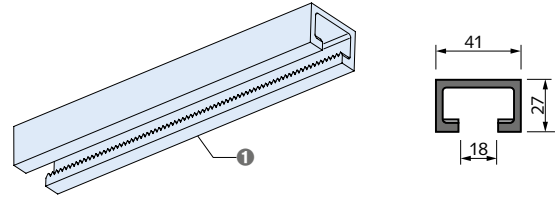
HZM 53/34



① hot-rolled, toothed profile

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]	0284.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HZM 53/34 - WB - 6070	070-00002	356,60		
HZM 53/34 - WB - Cut length		★	58,75	16,10
Specification: FV according to table, page 2				
HZM 53/34 - FV - 6070	070-00003	529,60		
HZM 53/34 - FV - Cut length		★	87,25	16,10
Specification: A4 according to table, page 2				
HZM 53/34 - A4 - 6070	070-00001	3.015,35		
HZM 53/34 - A4 - Cut length		★	496,76	18,40

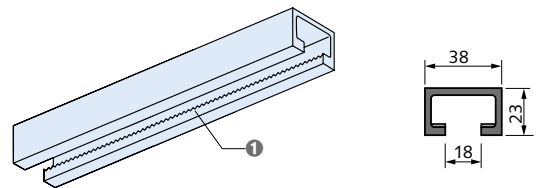
HZM 41/27



① hot-rolled, toothed profile

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]	0284.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HZM 41/27 - WB - 6070	090-00002	203,65		
HZM 41/27 - WB - Cut length		★	33,55	10,15
Specification: FV according to table, page 2				
HZM 41/27 - FV - 6070	090-00001	225,80		
HZM 41/27 - FV - Cut length		★	37,20	10,15

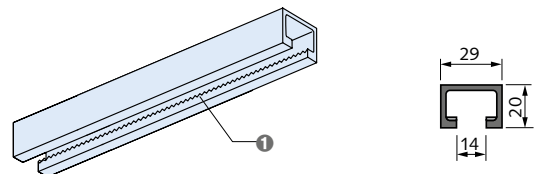
HZM 38/23



① hot-rolled, toothed profile

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]	0284.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HZM 38/23 - WB - 6070	060-00001	137,00		
HZM 38/23 - WB - Cut length		★	22,57	10,15
Specification: FV, WB according to table, page 2				
HZM 38/23 - FV - 6070	060-00003	215,85		
HZM 38/23 - FV - Cut length		★	35,56	10,15
Specification: A4 according to table, page 2				
HZM 38/23 - A4 - 6070	060-00002	on request		
HZM 38/23 - A4 - Cut length		★	on request	on request

HZM 29/20



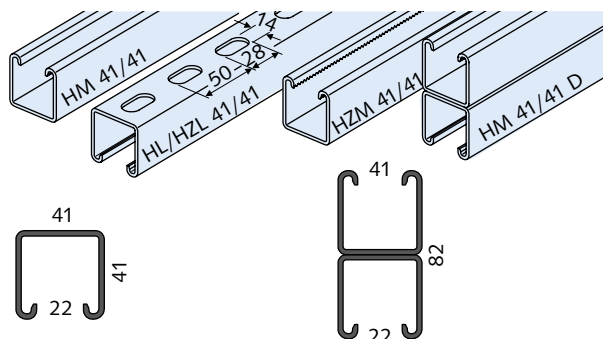
① hot-rolled, toothed profile

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]	0284.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HZM 29/20 - WB - 6070	050-00001	92,55		
HZM 29/20 - WB - Cut length		★	15,25	6,35
Specification: FV according to table, page 2				
HZM 29/20 - FV - 6070	050-00003	142,50		
HZM 29/20 - FV - Cut length		★	23,48	6,10

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

FRAMING CHANNELS

Medium duty framing systems



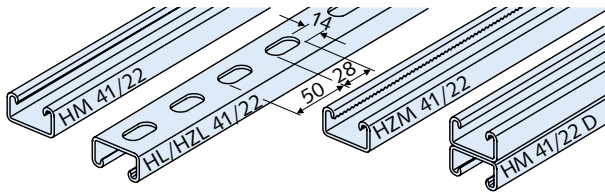
Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 41/41 - WB - 6000	0280.080-00001	81,65		
HM 41/41 - WB - Cut length		★	13,61	6,35
HL 41/41 - WB - 6000	0281.010-00001	88,85		
HL 41/41 - WB - Cut length		★	14,81	6,35
HZM 41/41 - WB - 6000	0284.010-00001	144,05		
HZM 41/41 - WB - Cut length		★	24,01	6,35
HZM 41/41 D - WB - 6000	0284.030-00001	314,05		
HZM 41/41 D - WB - Cut length		★	52,34	12,55
HZL 41/41 - WB - 6000	0283.010-00001	149,75		
HZL 41/41 - WB - Cut length		★	24,96	6,35
HM 41/41 D - WB - 6000	0280.150-00001	189,55		
HM 41/41 D - WB - Cut length		★	31,59	6,35
Specification: SV according to table, page 2				
HM 41/41 - SV - 6000	0280.080-00002	105,90		
HM 41/41 - SV - Cut length		★	17,65	6,35
HL 41/41 - SV - 3000	0281.010-00006	53,00		
HL 41/41 - SV - 6000	0281.010-00003	112,55		
HL 41/41 - SV - Cut length		★	18,76	6,35
Specification: FV according to table, page 2				
HM 41/41 - FV - 6000	0280.080-00003	138,05		
HM 41/41 - FV - Cut length		★	23,01	6,35
HL 41/41 - FV - 6000	0281.010-00002	145,05		
HL 41/41 - FV - Cut length		★	24,18	6,35
HZM 41/41 - FV - 6000	0284.010-00002	196,60		
HZM 41/41 - FV - Cut length		★	32,77	6,35
HZM 41/41 D - FV - 6000	0284.030-00002	418,95		
HZM 41/41 D - FV - Cut length		★	69,83	12,55
HZL 41/41 - FV - 6000	0283.010-00002	202,20		
HZL 41/41 - FV - Cut length		★	33,70	6,35
HM 41/41 D - FV - 6000	0280.150-00003	301,70		
HM 41/41 D - FV - Cut length		★	50,28	12,55

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: A2 according to table, page 2				
HM 41/41 - A2 - 6000	0280.080-00005	364,20		
HM 41/41 - A2 - Cut length		★	60,70	10,15
HL 41/41 - A2 - 3000	0281.017-00001	309,75		
HL 41/41 - A2 - 6000	0281.010-00005	569,65		
HL 41/41 - A2 - Cut length		★	94,94	10,15
Specification: A4 according to table, page 2				
HM 41/41 - A4 - 6000	0280.080-00004	725,85		
HM 41/41 - A4 - Cut length		★	120,98	10,15
HL 41/41 - A4 - 6000	0281.010-00004	750,15		
HL 41/41 - A4 - Cut length		★	125,03	10,15
HZM 41/41 - A4 - 6000	0284.010-00003	800,30		
HZM 41/41 - A4 - Cut length		★	133,38	10,15
HZM 41/41 - D - A4 - 6000	0284.030-00003	1.641,65		
HZM 41/41 - D - A4 - Cut length		★	273,61	20,25
HZL 41/41 - A4 - 3000	0283.010-00005	435,20		
HZL 41/41 - A4 - 6000	0283.010-00003	817,70		
HZL 41/41 - A4 - Cut length		★	136,29	10,15
HM 41/41 D - A4 - 6000	0280.150-00002	1.493,20		
HM 41/41 D - A4 - Cut length		★	248,87	20,25

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

FRAMING CHANNELS

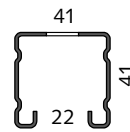
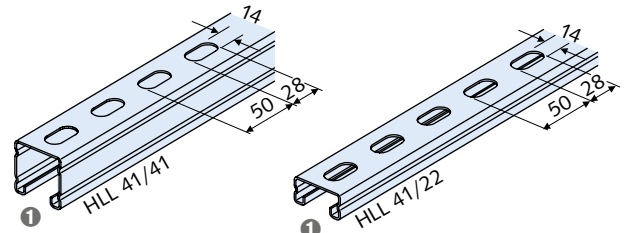
Medium duty framing systems



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 41/22 - WB - 6000	0280.120-00001	52,90		
HM 41/22 - WB - Cut length		★	8,82	6,35
HL 41/22 - WB - 6000	0281.020-00001	59,95		
HL 41/22 - WB - Cut length		★	9,99	6,35
HZM 41/22 - WB - 6070	0284.020-00001	107,75		
HZM 41/22 - WB - Cut length		★	17,75	6,35
HZM 41/22 D - WB - 6070	0284.040-00001	239,40		
HZM 41/22 D - WB - Cut length		★	39,44	12,55
HZL 41/22 - WB - 6000	0283.020-00001	113,60		
HZL 41/22 - WB - Cut length		★	18,93	6,35
HM 41/22 D - WB - 6000	0280.160-00001	131,60		
HM 41/22 D - WB - Cut length		★	21,93	12,55
Specification: SV according to table, page 2				
HM 41/22 - SV - 6000	0280.120-00003	68,95		
HM 41/22 - SV - Cut length		★	11,49	6,35
HL 41/22 - SV - 3000	0281.020-00005	38,10		
HL 41/22 - SV - 6000	0281.020-00003	76,10		
HL 41/22 - SV - Cut length		★	12,68	6,35
Specification: FV according to table, page 2				
HM 41/22 - FV - 6000	0280.120-00002	93,20		
HM 41/22 - FV - Cut length		★	15,53	6,35
HL 41/22 - FV - 6000	0281.020-00002	100,00		
HL 41/22 - FV - Cut length		★	16,67	6,35
HZM 41/22 - FV - 6070	0284.020-00002	161,95		
HZM 41/22 - FV - Cut length		★	26,68	6,35
HZL 41/22 - FV - 6000	0283.020-00002	168,25		
HZL 41/22 - FV - Cut length		★	28,04	6,35
HM 41/22 D - FV - 6000	0280.160-00002	212,00		
HM 41/22 D - FV - Cut length		★	35,33	12,55
HZM 41/22 D - FV - 6070	0284.040-00002	346,25		
HZM 41/22 D - FV - Cut length		★	57,04	12,55

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: A2 according to table, page 2				
HL 41/22 - A2 - 3000	0281.027-00002	181,15		
HL 41/22 - A2 - 6000	0281.020-00006	281,55		
HL 41/22 - A2 - Cut length		★	46,93	10,15
Specification: A4 according to table, page 2				
HM 41/22 - A4 - 6000	0280.120-00004	522,00		
HM 41/22 - A4 - Cut length		★	87,00	10,15
HL 41/22 - A4 - 6000	0281.020-00004	540,90		
HL 41/22 - A4 - Cut length		★	90,15	10,15
HZM 41/22 - A4 - 6070	0284.020-00003	648,40		
HZM 41/22 - A4 - Cut length		★	106,82	10,15
HZL 41/22 - A4 - 3000	0283.020-00004	332,70		
HZL 41/22 - A4 - 6000	0283.020-00003	667,20		
HZL 41/22 - A4 - Cut length		★	111,20	10,15
HM 41/22 D - A4 - 6000	0280.160-00003	1.083,05		
HM 41/22 D - A4 - Cut length		★	180,51	20,25
HZM 41/22 D - A4 - 6070	0284.040-00003	1.321,00		
HZM 41/22 D - A4 - Cut length		★	217,63	20,25

Medium duty framing systems



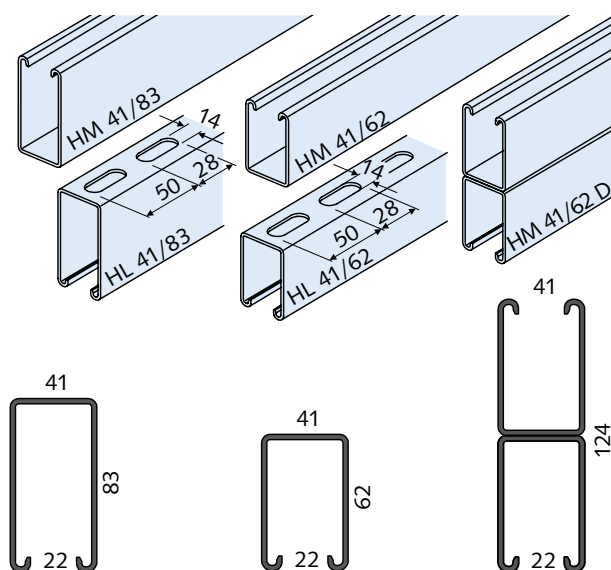
① Tyco UNISTRUT

Article name	Article no.	Price	Price per meter
Length [mm] ①		[EUR/item]	[EUR/m]
Specification: SV according to table, page 2			
HLL 41/41 - SV - 6000	0282.010-00002	70,35	11,73
HLL 41/22 - SV - 6000	0282.020-00003	63,00	10,50
① No cut lengths			

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

FRAMING CHANNELS

Medium duty framing systems



Article name	Article no.	Price	Price per meter
Length [mm] ①		[EUR/item]	[EUR/m]
Specification: WB according to table, page 2			
HM 41/83 - WB - 6000	0280.130-00002	161,60	26,93
HL 41/83 - WB - 6000	0281.030-00004	172,45	28,74
HM 41/62 - WB - 6000	0280.140-00002	122,30	20,38
HL 41/62 - WB - 6000	0281.040-00001	133,00	22,17
HM 41/62 D - WB - 6000	0280.170-00001	373,05	62,18
Specification: SV according to table, page 2			
HM 41/83 - SV - 6000	0280.130-00001	212,00	35,33
HL 41/83 - SV - 6000	0281.030-00006	223,40	37,23
HL 41/62 - SV - 6000	0281.040-00003	174,20	29,03
Specification: FV according to table, page 2			
HM 41/83 - FV - 6000	0280.130-00003	240,30	40,05
HL 41/83 - FV - 6000	0281.030-00005	251,30	41,88
HM 41/62 - FV - 6000	0280.140-00003	192,05	32,01
HL 41/62 - FV - 6000	0281.040-00002	203,35	33,89
HM 41/62 D - FV - 6000	0280.170-00002	467,60	77,93

① No cut lengths

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

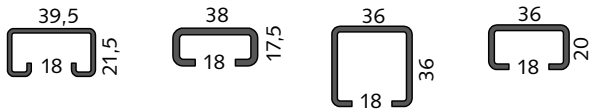
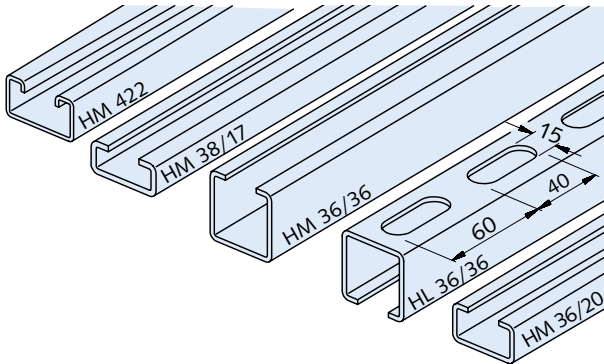
6

Bolts, Accessories

7

FRAMING CHANNELS

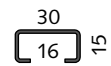
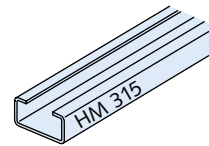
Light weight framing systems



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 422 - WB - 6000	0280.110-00001	48,25		
HM 422 - WB - Cut length		★	8,04	6,35
HM 38/17 - WB - 6070	0280.020-00001	57,75		
HM 38/17 - WB - Cut length		★	9,51	4,70
HM 36/36 - WB - 6000	0280.070-00001	67,00		
HM 36/36 - WB - Cut length		★	11,17	6,35
HL 36/36 - WB - 6000	0281.050-00001	76,95		
HL 36/36 - WB - Cut length		★	12,83	6,35
HM 36/20 - WB - 6000	0280.240-00001	45,30		
HM 36/20 - WB - Cut length		★	7,55	4,70
Specification: FV according to table, page 2				
HM 422 - FV - 6000	0280.110-00002	86,00		
HM 422 - FV - Cut length		★	14,33	6,35
HM 38/17 - FV - 6070	0280.020-00002	94,60		
HM 38/17 - FV - Cut length		★	15,58	4,70
HM 36/36 - FV - 6000	0280.070-00002	113,45		
HM 36/36 - FV - Cut length		★	18,91	6,35
HL 36/36 - FV - 6000	0281.050-00002	120,50		
HL 36/36 - FV - Cut length		★	20,08	6,35
HM 36/20 - FV - 6000	0280.240-00002	77,85		
HM 36/20 - FV - Cut length		★	12,98	4,70
Specification: A2 according to table, page 2				
HM 38/17 - A2 - 6070	0280.020-00003	348,65		
HM 38/17 - A2 - Cut length		★	57,44	7,15

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: A4 according to table, page 2				
HM 38/17 - A4 - 6070	0280.020-00004	451,15		
HM 38/17 - A4 - Cut length		★	74,32	7,15
HM 36/36 - A4 - 6000	0280.070-00003	526,20		
HM 36/36 - A4 - Cut length		★	87,70	10,15
HL 36/36 - A4 - 6000	0281.050-00003	549,70		
HL 36/36 - A4 - Cut length		★	91,62	10,15

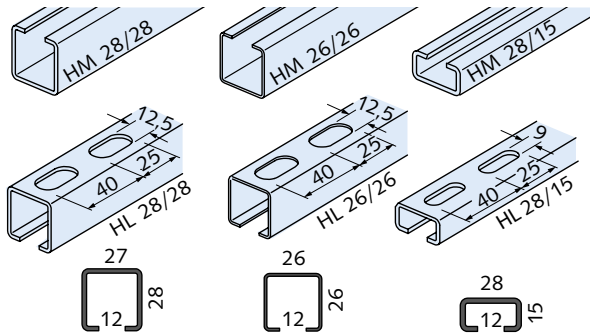
Light weight framing systems



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 315 - WB - 6000	0280.060-00001	33,25		
HM 315 - WB - Cut length		★	5,54	4,70
Specification: FV according to table, page 2				
HM 315 - FV - 6000	0280.060-00002	52,55		
HM 315 - FV - Cut length		★	8,76	4,70

FRAMING CHANNELS

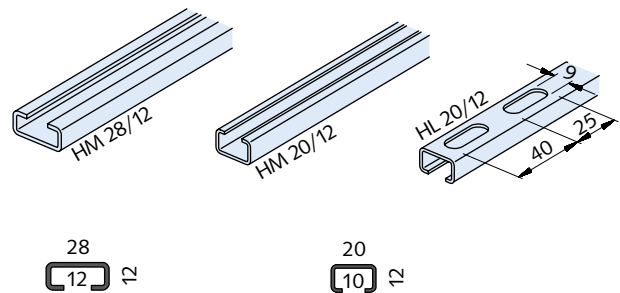
Light weight framing systems



Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 28/28 - WB - 6000	0280.050-00001	42,15		
HM 28/28 - WB - Cut length		★	7,03	6,35
HL 28/28 - WB - 6000	0281.060-00001	49,15		
HL 28/28 - WB - Cut length		★	8,19	6,35
HM 28/15 - WB - 6070	0280.010-00001	36,20		
HM 28/15 - WB - Cut length		★	5,96	4,70
HL 28/15 - WB - 6070	0281.080-00001	42,95		
HL 28/15 - WB - Cut length		★	7,07	4,70
Specification: SV according to table, page 2				
HM 28/28 - SV - 6000	0280.050-00003	53,25		
HM 28/28 - SV - Cut length		★	8,88	6,35
HL 28/28 - SV - 6000	0281.060-00003	60,55		
HL 28/28 - SV - Cut length		★	10,09	6,35
Specification: FV according to table, page 2				
HM 28/28 - FV - 6000	0280.050-00002	74,60		
HM 28/28 - FV - Cut length		★	12,43	6,35
HL 28/28 - FV - 6000	0281.060-00002	81,40		
HL 28/28 - FV - Cut length		★	13,57	6,35
HM 28/15 - FV - 6070	0280.010-00002	58,50		
HM 28/15 - FV - Cut length		★	9,63	4,70
HL 28/15 - FV - 6070	0281.080-00004	65,85		
HL 28/15 - FV - Cut length		★	10,84	4,70
Specification: A2 according to table, page 2				
HM 28/15 - A2 - 6070	0280.010-00004	216,15		
HM 28/15 - A2 - Cut length		★	35,61	7,15
HL 28/15 - A2 - 6070	0281.080-00002	238,85		
HL 28/15 - A2 - Cut length		★	39,35	7,15

Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: A4 according to table, page 2				
HM 28/28 - A4 - 6000	0280.050-00004	349,00		
HM 28/28 - A4 - Cut length		★	58,17	10,15
HL 28/28 - A4 - 6000	0281.060-00004	371,85		
HL 28/28 - A4 - Cut length		★	61,98	10,15
HM 28/15 - A4 - 6070	0280.010-00003	286,95		
HM 28/15 - A4 - Cut length		★	47,27	7,15
HL 28/15 - A4 - 6070	0281.080-00003	310,60		
HL 28/15 - A4 - Cut length		★	51,17	7,15

Light weight framing systems

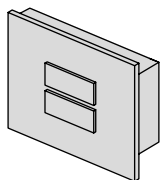


Article name	Article no.	Price	Price per meter	Cut length surcharge
Length [mm]		[EUR/item]	[EUR/m]	[EUR/item]
Specification: WB according to table, page 2				
HM 28/12 - WB - 6000	0280.260-00001	29,25		
HM 28/12 - WB - Cut length		★	4,88	4,70
HM 20/12 - WB - 6000	0280.030-00001	20,90		
HM 20/12 - WB - Cut length		★	3,48	4,70
HL 20/12 - WB - 6000	0281.090-00001	27,75		
HL 20/12 - WB - Cut length		★	4,63	4,70
Specification: FV according to table, page 2				
HM 28/12 - FV - 6000	0280.260-00002	48,25		
HM 28/12 - FV - Cut length		★	8,04	4,70
HM 20/12 - FV - 6000	0280.030-00003	35,00		
HM 20/12 - FV - Cut length		★	5,83	4,70
HL 20/12 - FV - 6000	0281.090-00002	41,45		
HL 20/12 - FV - Cut length		★	6,91	4,70
Specification: A2 according to table, page 2				
HM 20/12 - A2 - 6000	0280.030-00002	127,65		
HM 20/12 - A2 - Cut length		★	21,28	7,15
HL 20/12 - A2 - 6000	0281.090-00003	150,95		
HL 20/12 - A2 - Cut length		★	25,16	7,15

FRAMING SYSTEMS, ACCESSORIES

HPE

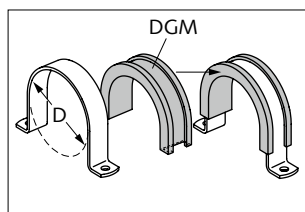
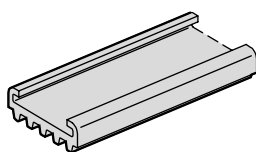
Channel end cap



Article name	Suitable for profile	Article no.	Price [EUR/100 items]
Specification: Plastic, colour: black			
HPE 52/34	52/34	000-00001	117,95
HPE 50/40	50/40	000-00002	99,55
HPE 41/41	41/41	000-00003	102,10
HPE 41/22	41/22	000-00004	102,10
HPE 36/36	36/36	000-00005	83,80
HPE 28/28	28/28	000-00006	65,45
HPE 28/15	28/15	000-00011	57,50

DGM

Rubber pipe clip lining for HALFEN Pipe clamps, heat resistant to + 110 °C

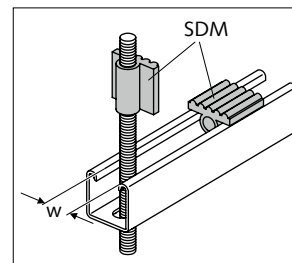
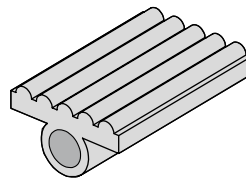


Article name	For pipe clamps Ø D [mm]	Article no.	Price per meter [EUR/m]
Specification: EPDM			
DGM 25/8	17-96	000-00001	8,80
DGM 30/8	100-157	000-00002	10,00
DGM 40/8	160-235	000-00003	12,60
DGM 50/8	267-340 ①	000-00004	19,05
DGM 60/8	355-532	000-00005	30,10

① Usable for pipe clamps HRS-A for diameter 267-532 mm

SDM

Rubber sound insulation for channels



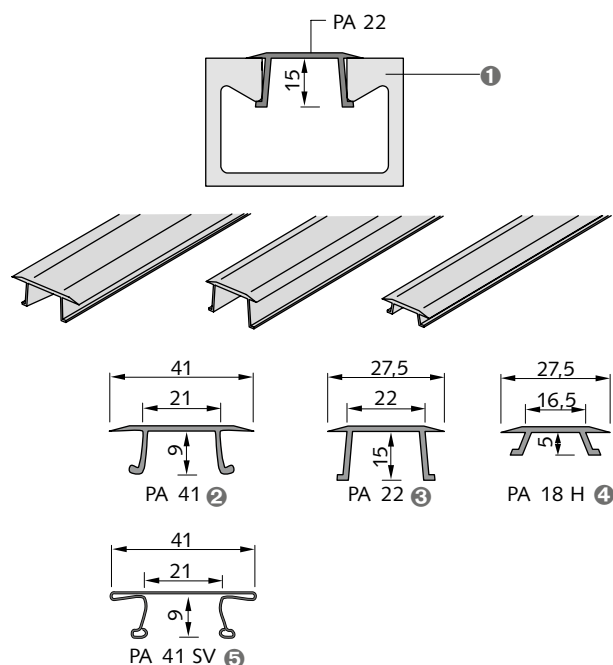
① Channel slot width w

Article name	Suitable for profiles with slot width w [mm]	Article no.	Price [EUR/100 items]	Price per meter [EUR/m]
Specification: EPDM				
SDM 41/8 - roll	22	000-00001		23,27
SDM 41/8 - 4 cm - item	22	000-00002	167,65	
SDM36/6 - roll	18	000-00003		20,95
SDM 36/6 - 4 cm - item	18	000-00004	133,50	
SDM 28/6 - roll	12	000-00005		18,89
SDM 28/6 - 4 cm - item	12	000-00006	102,10	

FRAMING SYSTEMS, ACCESSORIES, FITTINGS

PA

Channel cover

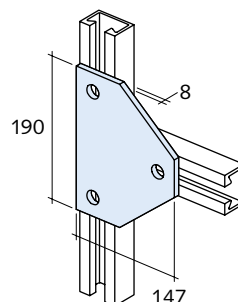


- ① HALFEN Framing channel, e.g. HM 52/34
- ② Specification: PVC, hard (KS): for channels 50/40, 486, all 41-type channels
- ③ Specification: PVC, hard (KS): for channels 52/34, 50/30
- ④ Specification: PVC, hard (KS): for channels 36/36, 38/17
- ⑤ Specification: Steel, pre-galvanized (SV); for channels: 50/40, 486, all 41-type channels

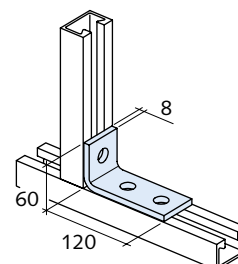
Article name	Article no.	Price	Price per meter	Cut length surcharge
	0321.	[EUR/item]	[EUR/m]	[EUR/item]
Specification: KS according to table, page 2				
PA - 41 - KS - 3000	000-00002	16,25		
PA - 41 - KS - Cut length		★	5,42	2,15
PA - 22 - KS - 3000	000-00003	10,55		
PA - 22 - KS - Cut length		★	3,51	1,55
PA - 18H - KS - 3000	000-00004	9,60		
PA - 18H - KS - Cut length		★	3,20	1,15
Specification: SV according to table, page 2				
PA - 41 - SV - 3000	000-00001	10,55		
PA - 41 - SV - Cut length		★	3,51	1,55
Ordering example for cut length: PA-22-KS-1500 (required length)				

HVT 52

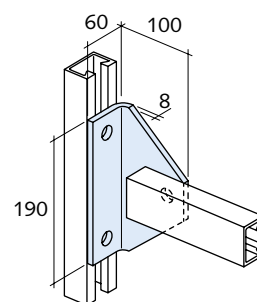
HALFEN system 52 fittings, suitable for channel 52/34, holes Ø 18 mm



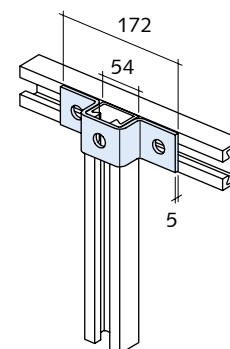
HVT 52-1



HVT 52-2



HVT 52-3



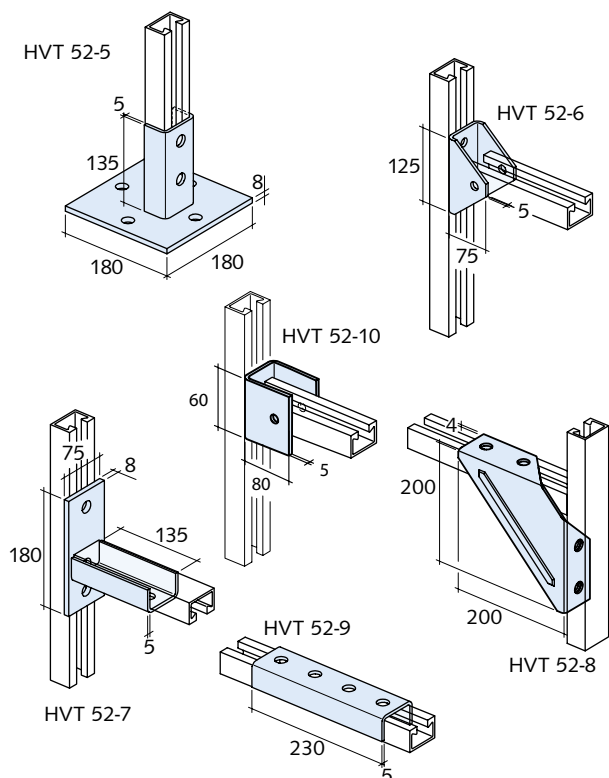
HVT 52-4

Article name	Article no.	Price
	0312.	[EUR/item]
Specification: FV according to table, page 2		
HVT 52 - 1 - FV	040-00001	24,50
HVT 52 - 2 - FV	040-00002	15,65
HVT 52 - 3 - FV	040-00003	28,00
HVT 52 - 4 - FV	040-00004	8,10
Specification: A4 according to table, page 2		
HVT 52 - 1 - A4	040-00011	67,60
HVT 52 - 2 - A4	040-00012	33,25
HVT 52 - 3 - A4	040-00013	72,60
HVT 52 - 4 - A4	040-00014	45,10

FITTINGS

HVT 52

HALFEN system 52 fittings,
suitable for channel 52/34, holes Ø 18 mm



Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

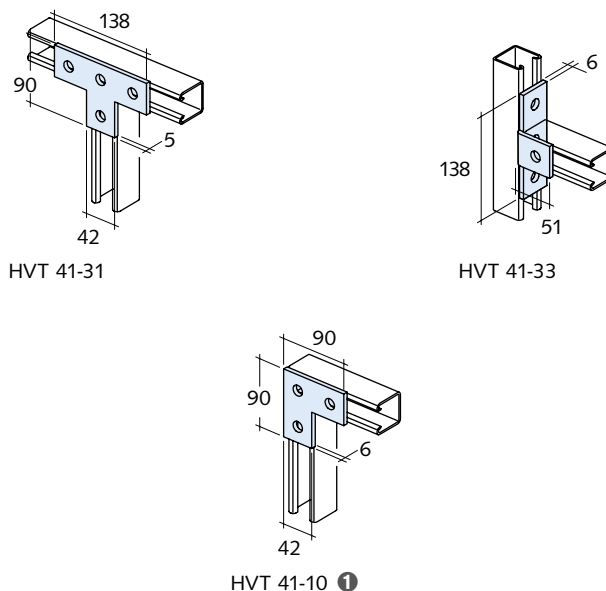
HVT 52 - 5 - FV	040-00005	44,65
HVT 52 - 6 - FV	040-00006	9,90
HVT 52 - 7 - FV	040-00007	35,40
HVT 52 - 8 - FV	040-00008	32,55
HVT 52 - 9 - FV	040-00009	23,65
HVT 52 - 10 - FV	040-00010	23,65

Specification: A4 according to table, page 2

HVT 52 - 5 - A4	040-00015	126,45
HVT 52 - 6 - A4	040-00016	47,05
HVT 52 - 7 - A4	040-00017	96,65
HVT 52 - 8 - A4	040-00018	94,85
HVT 52 - 9 - A4	040-00019	55,05
HVT 52 - 10 - A4	040-00020	55,05

HVT 41

HALFEN system 41 fittings, suitable for channels 41/41



① Specification stainless steel Tyco UNISTRUT

Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

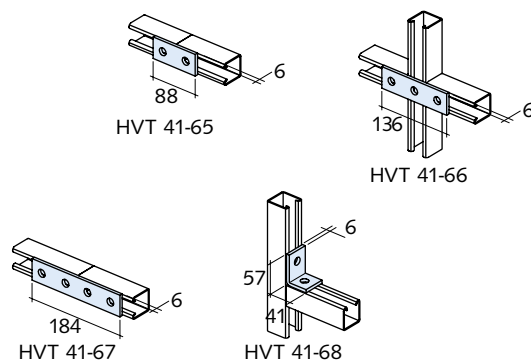
HVT - 41 - 31 - FV	030-00013	4,40
HVT - 41 - 33 - FV	030-00014	4,80
HVT - 41 - 10 - FV	030-00002	3,30

Specification: A4 according to table, page 2

HVT - 41 - 10 - A4	030-00049	21,50
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HVT 41

HALFEN system 41 fittings, suitable for channels 41/41



Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

HVT - 41 - 65 - FV	030-00032	2,05
HVT - 41 - 66 - FV	030-00033	3,05
HVT - 41 - 67 - FV	030-00034	3,70
HVT - 41 - 68 - FV	030-00035	2,35

Specification: A4 according to table, page 2

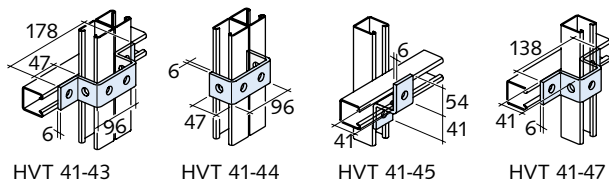
HVT - 41 - 68 - A4	030-00079	10,85
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★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

FITTINGS

HVT 41

HALFEN system 41 fittings, suitable for channels 41/41



Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

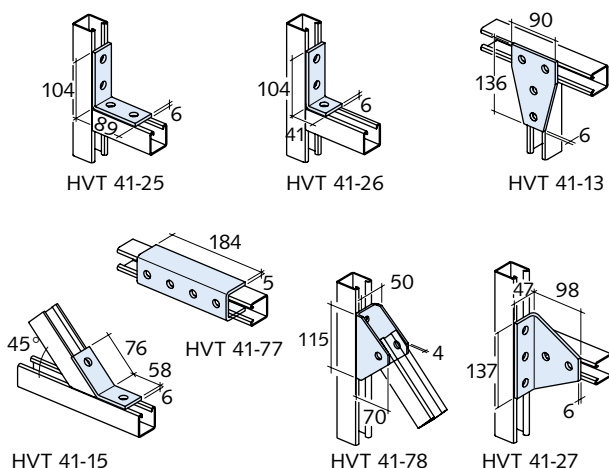
HVT - 41 - 43 - FV	030-00022	6,55
HVT - 41 - 44 - FV	030-00023	4,60
HVT - 41 - 45 - FV	030-00024	3,25
HVT - 41 - 47 - FV	030-00026	5,15

Specification: A4 according to table, page 2

HVT - 41 - 45 - A4	030-00070	on request
HVT - 41 - 47 - A4	030-00072	27,75

HVT 41

HALFEN system 41 fittings, suitable for channels 41/41



Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

HVT - 41 - 25 - FV	030-00010	3,75
HVT - 41 - 26 - FV	030-00011	3,05

HVT - 41 - 13 - FV	030-00004	7,50
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HVT - 41 - 15 - FV	030-00005	3,55
HVT - 41 - 77 - FV	030-00039	11,75
HVT - 41 - 77 H - FV	050-00007	on request
HVT - 41 - 78 - FV	030-00040	12,45
HVT - 41 - 27 - FV	030-00012	12,55

Article name	Article no.	Price
	0312.	[EUR/item]

Specification: A4 according to table, page 2

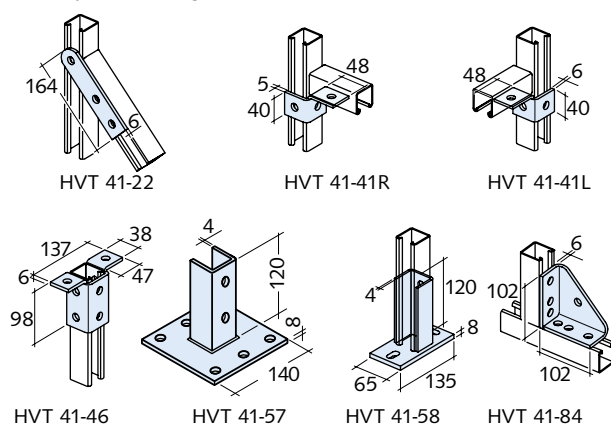
HVT - 41 - 25 - A4	030-00056	on request
HVT - 41 - 26 - A4	030-00057	19,00

HVT - 41 - 13 - A4	030-00051	45,45
HVT - 41 - 15 - A4	030-00052	18,00

HVT - 41 - 77 - A4	030-00082	70,90
HVT - 41 - 78 - A4	030-00083	32,05
HVT - 41 - 27 - A4	030-00058	78,15

HVT 41

HALFEN system 41 fittings



Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

HVT - 41 - 22 - FV	030-00008	3,65
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HVT - 41 - 41R - FV	030-00021	5,35
HVT - 41 - 41L - FV	030-00020	5,35

HVT - 41 - 46 - FV	030-00025	11,70
HVT - 41 - 57 - FV	030-00029	24,50
HVT - 41 - 58 - FV	030-00030	20,55

HVT - 41 - 84 - FV	030-00041	10,20
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Specification: A4 according to table, page 2

HVT - 41 - 22 - A4	030-00054	26,70
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HVT - 41 - 46 - A4	030-00071	70,35
HVT - 41 - 57 - A4	030-00074	87,80
HVT - 41 - 58 - A4	030-00075	54,45

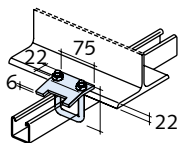
HVT - 41 - 84 - A4	030-00084	85,25
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FITTINGS

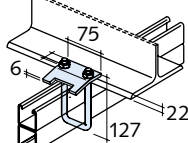
Beam clamp

HALFEN Beam clamp system 41 fittings

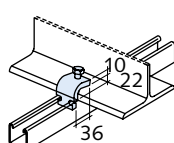
Note: Beam clamp TK see page 264



HVT 41-85 ①



HVT 41-86 ①



HVT 41-89 ①

① Use in pairs

Article name	Suitable for HALFEN Cast-in channel	Article no.	Price
		0312.	[EUR/item]

Specification: FV according to table, page 2

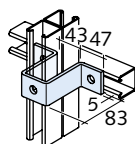
HVT - 41 - 85 - FV	41/41, 41/22 D	030-00042	5,55
HVT - 41 - 86 - FV	41/41 D, 41/83	030-00044	6,25
HVT - 41 - 89 - FV	all 41 profiles	030-00046	7,50

Specification: A4 according to table, page 2

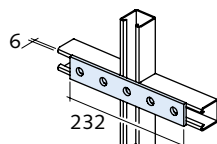
HVT - 41 - 85 - A4	41/41, 41/22 D	030-00085	56,80
HVT - 41 - 86 - A4	41/41 D, 41/83, 41/62	030-00086	61,45
HVT - 41 - 89 - A4	all profiles 41/41 bis 41/83	030-00087	58,95

HVT 41

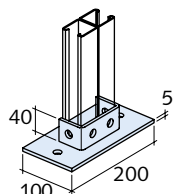
HALFEN system 41 fittings



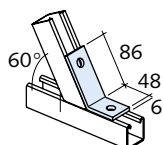
HVT 41-37 ①



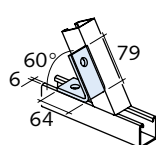
HVT 41-19



HVT 41-73



HVT 41-97



HVT 41-08

① Tyco UNISTRUT

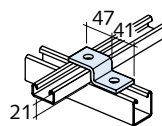
Article name	Article no.	Price
	0312.	[EUR/item]

Specification: FV according to table, page 2

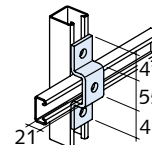
HVT - 41 - 37 - FV	030-00018	8,10
HVT - 41 - 19 - FV	030-00006	4,80
HVT - 41 - 73 - FV	030-00037	17,95
HVT - 41 - 97 - FV	030-00047	3,55
HVT - 41 - 08 - FV	030-00001	3,55

HVT 41

HALFEN system 41 fittings, suitable for channels 41/22



HVT 41-49



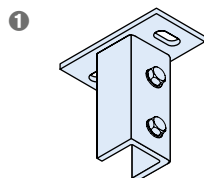
HVT 41-40

Article name	Article no.	Price
	0312.	[EUR/item]
Specification: FV according to table, page 2		
HVT - 41 - 49 - FV	030-00027	3,05
HVT - 41 - 40 - FV	030-00019	4,80

POWERCLICK SYSTEMS, FITTINGS

HCS-VT 41-58

Channel base
HALFEN POWERCLICK framing system



① HCS-VT 41-58/2 Channel base with 2 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

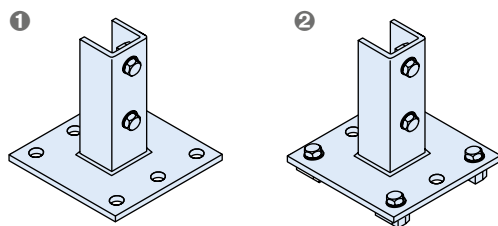
HCS-VT 41 - 58/2 - FV	10	010-00029	21,40
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Specification: A4 according to table, page 2

HCS-VT 41 - 58/2 - A4	10	010-00028	58,10
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HCS-VT 41-57

Channel base
HALFEN POWERCLICK framing system



① HCS-VT 41-57/2 with 2 pre-fitted bolts

② HCS-VT 41-57/6 with 6 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

HCS-VT 41 - 57/2 - FV	10	010-00023	33,10
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HCS-VT 41 - 57/6 - FV	10	010-00026	36,20
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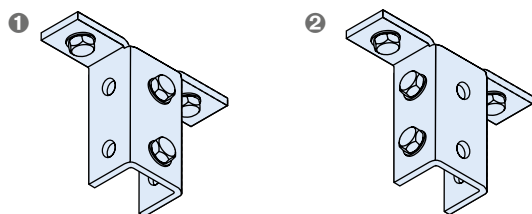
Specification: A4 according to table, page 2

HCS-VT 41 - 57/2 - A4	10	010-00022	90,60
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HCS-VT 41 - 57/6 - A4	10	010-00025	130,55
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HCS-VT 41-46

Channel T-fitting
HALFEN POWERCLICK framing system



① HCS-VT 41-46/4v with 4 pre-fitted bolts

② HCS-VT 41-46/4s with 4 pre-fitted bolts (2 of which are on the side)

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

HCS-VT 41 - 46/4v - FV	10	010-00041	19,85
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HCS-VT 41 - 46/4s - FV	10	010-00038	19,85
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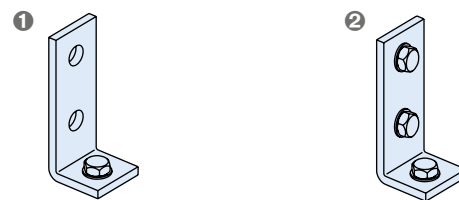
Specification: A4 according to table, page 2

HCS-VT 41 - 46/4v - A4	10	010-00040	58,25
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HCS-VT 41 - 46/4s - A4	10	010-00037	58,25
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HCS-VT 41-26

Angle fitting
HALFEN POWERCLICK framing system



① HCS-VT 41-26/1 with 1 pre-fitted bolt

② HCS-VT 41-26/3 with 3 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

HCS-VT 41 - 26/1 - FV	10	010-00005	5,40
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HCS-VT 41 - 26/3 - FV	10	010-00008	10,75
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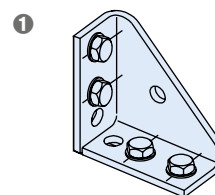
Specification: A4 according to table, page 2

HCS-VT 41 - 26/1 - A4	10	010-00004	23,85
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HCS-VT 41 - 26/3 - A4	10	010-00007	40,95
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HCS-VT 41-84

Angle bracket
HALFEN POWERCLICK framing system



① HCS-VT 41-84/4 with 4 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

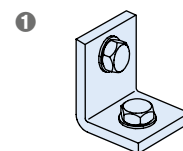
HCS-VT 41 - 84/4 - FV	10	010-00035	19,05
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Specification: A4 according to table, page 2

HCS-VT 41 - 84/4 - A4	10	010-00034	102,75
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HCS-VT 41-68

90° angle fitting with 2 pre-fitted bolts
Framing channel connection
HALFEN POWERCLICK framing system



① HCS-VT 41-68/2 with 2 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]

Specification: FV according to table, page 2

HCS-VT 41 - 68/2 - FV	1	010-00043	9,80
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Specification: A4 according to table, page 2

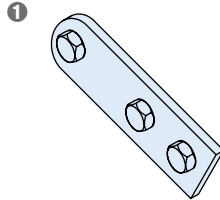
HCS-VT 41 - 68/2 - A4	1	010-00044	23,15
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POWERCLICK SYSTEMS, FITTINGS

1
Fixing systems

HCS-VT 41-22

Framing channel connection
HALFEN POWERCLICK framing system



① HCS-VT 41-22/3 with 3 pre-fitted bolts

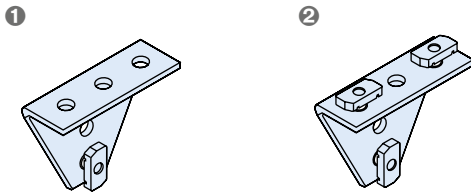
Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 41 - 22/3 - FV	10	010-00002	10,70
Specification: A4 p = stainless steel A4, grade category S355, polished			
HCS-VT 41 - 22/3 - A4	10	010-00001	47,20

2
Reinforcement systems

3
Lifting systems

HCS-VT 41-27

Angle fitting
HALFEN POWERCLICK framing system



① HCS-VT 41-27/1 with 1 pre-fitted bolt
② HCS-VT 41-27/3 with 3 pre-fitted bolts

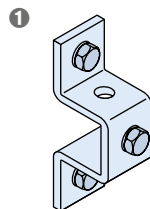
Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 41 - 27/1 - FV	10	010-00011	12,60
HCS-VT 41 - 27/3 - FV	10	010-00014	17,50
Specification: A4 according to table, page 2			
HCS-VT 41 - 27/1 - A4	10	010-00010	86,50
HCS-VT 41 - 27/3 - A4	10	010-00013	95,05

4
Façade connection systems

5
DETAN Rod systems

HCS-VT 41-47

Channel U-fitting
HALFEN POWERCLICK framing system



① HCS-VT 41-47/3 with 3 pre-fitted bolts

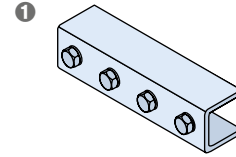
Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 41 - 47/3 - FV	10	010-00020	12,45
Specification: A4 according to table, page 2			
HCS-VT 41 - 47/3 - A4	10	010-00019	48,25

6
Industrial Technology

7
Bolts, Accessories

HCS-VT 41-77

Channel coupler
HALFEN POWERCLICK framing system

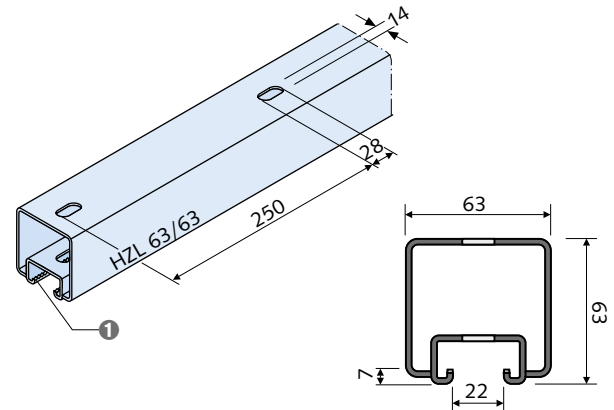


① HCS-VT 41-77/4 with 4 pre-fitted bolts

Article name	PU [items]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 41 - 77/4 - FV	10	010-00032	19,30
Specification: A4 according to table, page 2			
HCS-VT 41 - 77/4 - A4	10	010-00031	91,35

HZL 63/63

Toothed channel, slotted
HALFEN POWERCLICK framing system

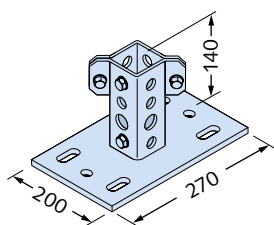


Article name	Length [mm]	Article no.	Price
		0283.	[EUR/item]
Specification: FV according to table, page 2			
HZL 63/63- FV - 3000	3000	030-00001	152,15
HZL 63/63- FV - 6000	6000	030-00003	336,35

POWERCLICK SYSTEMS, FITTINGS

HCS-VT-63 11/2

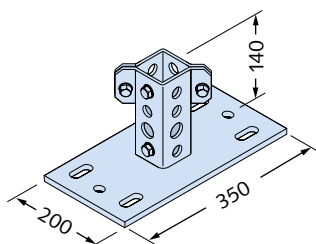
Base plate:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 11/2 - FV	75 - 155	020-00001	50,55

HCS-VT 63-12/2

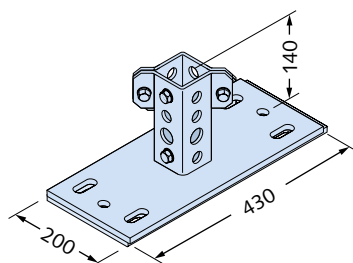
Base plate:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 12/2 - FV	155 - 230	020-00002	57,45

HCS-VT 63-13/2

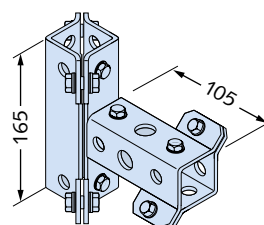
Base plate:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 13/2 - FV	235 - 300	020-00003	71,30

HCS-VT 63-21/4

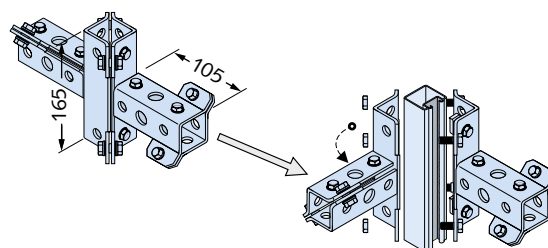
Corner connector:
Heavy 90° channel connector
HALFEN POWERCLICK framing system



Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 21/4 - FV	020-00007	51,80

HCS-VT 63-23/6

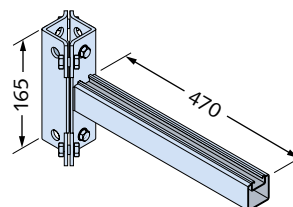
Corner connector:
Heavy double 90° channel connector
HALFEN POWERCLICK framing system



Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 23/6 - FV	020-00009	87,30

HCS-VT 63-41/2

Cantilever:
Single arm bracket
HALFEN POWERCLICK framing system



Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 41/2 - FV	020-00011	65,20

POWERCLICK SYSTEMS, FITTINGS

1 Fixing systems

2 Reinforcement systems

3 Lifting systems

4 Façade connection systems

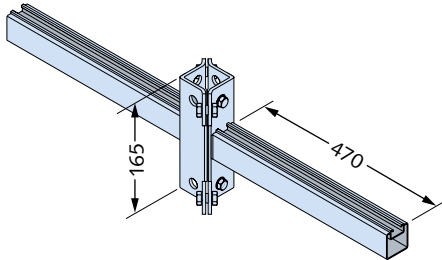
5 DETAN Rod systems

6 Industrial Technology

7 Bolts, Accessories

HCS-VT 63-42/2

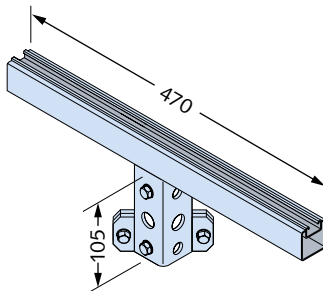
Cantilever:
Double arm bracket
HALFEN POWERCLICK framing system



Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 42/2 - FV	020-00012	102,55

HCS-VT 63-31/2

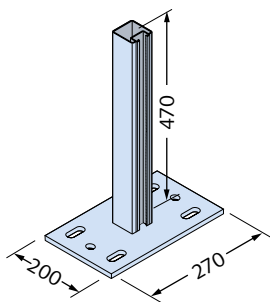
T-bracket
HALFEN POWERCLICK framing system



Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 31/2 - FV	020-00010	61,80

HCS-VT 63-14/0

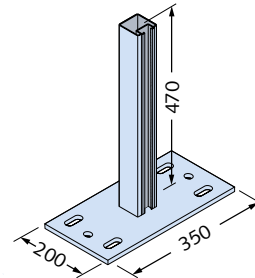
Post base:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 14/0 - FV	75 - 155	020-00004	64,00

HCS-VT 63-15/0

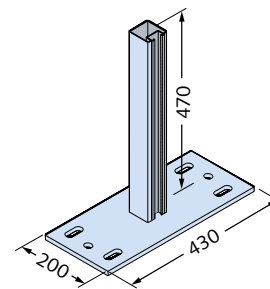
Post base:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 15/0 - FV	155 - 230	020-00005	71,00

HCS-VT 63-16/0

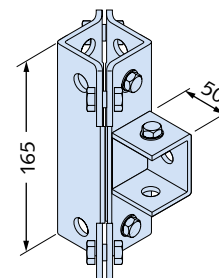
Post base:
Connection to steel or concrete
HALFEN POWERCLICK framing system



Article name	Fits beam flange width [mm]	Article no.	Price
		0300.	[EUR/item]
Specification: FV according to table, page 2			
HCS-VT 63 - 16/0 - FV	235 - 300	020-00006	84,95

HCS-VT 63-22/3

Corner connector:
Light 90° channel connector
HALFEN POWERCLICK framing system



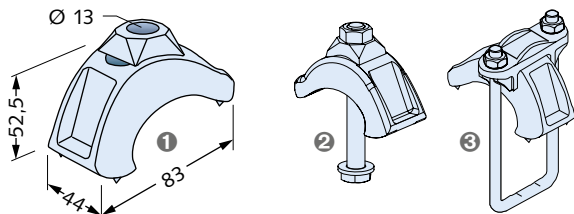
Article name	Article no.	Price
	0300.	[EUR/item]
Specification: FV according to table, page 2		
HCS-VT 63 - 22/3 - FV	020-00008	48,10

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

POWERCLICK SYSTEMS, FITTINGS

TK

HALFEN Beam clamp - universel
HALFEN POWERCLICK framing system



- ❶ HCS-TK for general fixing to steel beams
- ❷ HCS-TK-L for Powerclick channel base
- ❸ HCS-TK 63 for HZL 63/63 Powerclick channel

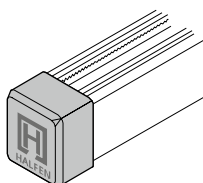
Article name	Article no.	Price
	0308.	[EUR/item]

Specification: FV according to table, page 2

HCS-TK - FV	030-00001	7,45
HCS-TK-L - FV	030-00002	8,55
HCS-TK - FV	030-00003	15,95

HPE 63/63

End cap for channel
HALFEN POWERCLICK framing system



Article name	Colour	Article no.	Price
		0318.	[EUR/item]

Specification: KS = plastic

HPE 63/63	blue	000-00010	55,15
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Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

FITTINGS

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

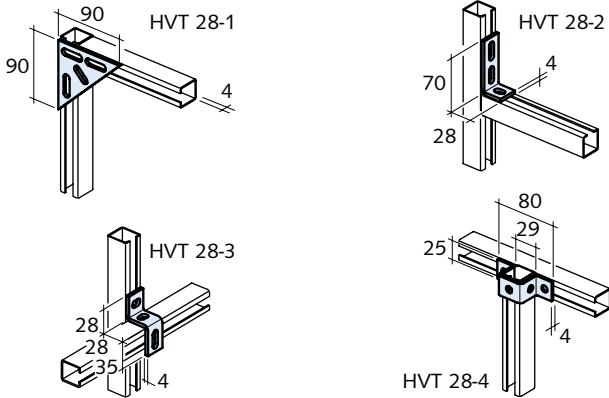
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

HALFEN system 28 fittings

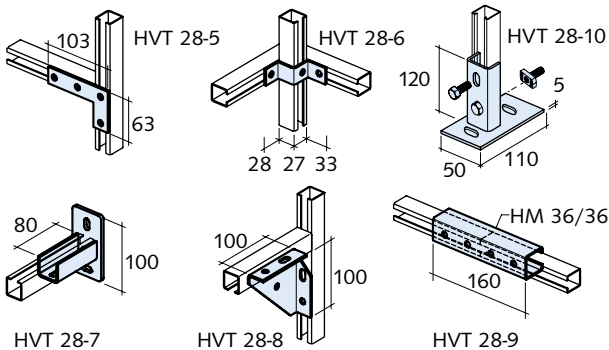
HALFEN system 28 fittings, suitable for channels 28/28



Article name	Article no.	Price
	0312.	[EUR/item]
Specification: GV according to the table on page 2		
HVT - 28 - 1 - GV	010-00001	3,25
HVT - 28 - 2 - GV	010-00002	1,80
HVT - 28 - 3 - GV	010-00003	1,95
HVT - 28 - 4 - GV	010-00004	1,80

HALFEN system 28 fittings

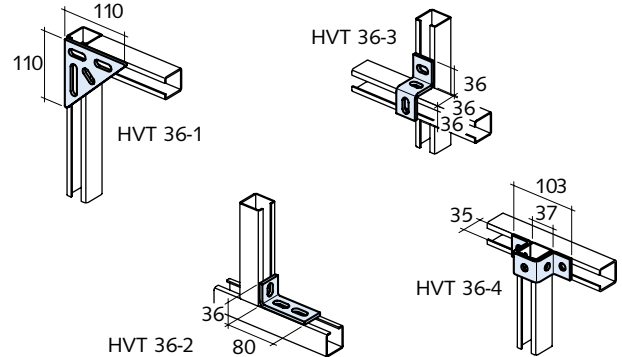
HALFEN system 28 fittings, suitable for channels 28/28



Article name	Article no.	Price
	0312.	[EUR/item]
Specification: FV, GV according to table, page 2		
HVT - 28 - 5 - GV	010-00005	2,05
HVT - 28 - 6 - GV	010-00006	8,50
HVT - 28 - 7 - FV	010-00007	19,05
HVT - 28 - 8 - GV	010-00008	4,35
HVT - 28 - 9 - FV	010-00009	5,85
HVT - 28 - 10 - FV	010-00010	on request

HALFEN system 36 fittings

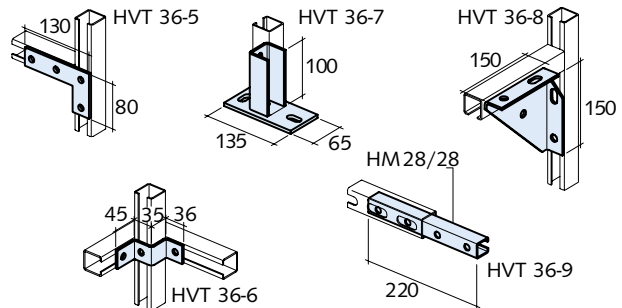
HALFEN system 36 fittings, suitable for channels 36/36



Article name	Article no.	Price
	0312.	[EUR/item]
Specification: GV according to the table on page 2		
HVT - 36 - 1 - GV	020-00001	4,70
HVT - 36 - 2 - GV	020-00002	1,95
HVT - 36 - 3 - GV	020-00003	3,05
HVT - 36 - 4 - GV	020-00004	3,25
Specification: A4 according to table, page 2		
HVT - 36 - 2 - A4	020-00010	19,05

HALFEN system 36 fittings

HALFEN system 36 fittings, suitable for channels 36/36



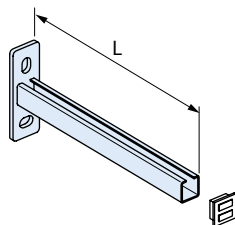
Article name	Article no.	Price
	0312.	[EUR/item]
Specification: FV, GV according to table, page 2		
HVT - 36 - 5 - GV	020-00005	3,75
HVT - 36 - 6 - GV	020-00006	10,65
HVT - 36 - 7 - FV	020-00007	23,25
HVT - 36 - 8 - GV	020-00008	9,00
HVT - 36 - 9 - FV	020-00009	7,20
Specification: A4 according to table, page 2		
HVT - 36 - 7 - A4	020-00011	48,95

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

CANTILEVER BRACKETS

KON 28/1

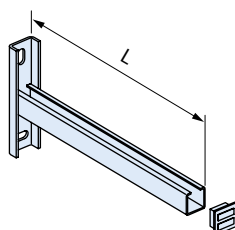
HALFEN Cantilever bracket with end cap



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 28/1 - FV - 100	050-00001	15,40
KON 28/1 - FV - 200	050-00002	16,40
KON 28/1 - FV - 300	050-00003	17,35
KON 28/1 - FV - 400	050-00004	18,05
Specification: A4 according to table, page 2		
KON 28/1 - A4 - 100	050-00005	36,00
KON 28/1 - A4 - 200	050-00006	40,80
KON 28/1 - A4 - 300	050-00007	45,60
KON 28/1 - A4 - 400	050-00008	50,00

KON 36/1

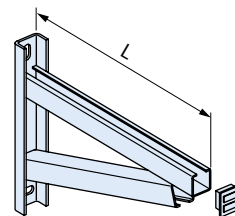
HALFEN Cantilever bracket with end cap



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 36/1 - FV - 300	060-00001	23,15
KON 36/1 - FV - 400	060-00002	24,95
KON 36/1 - FV - 500	060-00003	26,80
KON 36/1 - FV - 600	060-00004	28,70
Specification: A4 according to table, page 2		
KON 36/1 - A4 - 300	060-00005	70,35
KON 36/1 - A4 - 400	060-00006	78,75
KON 36/1 - A4 - 500	060-00007	87,85
KON 36/1 - A4 - 600	060-00008	96,25

KON 36/2

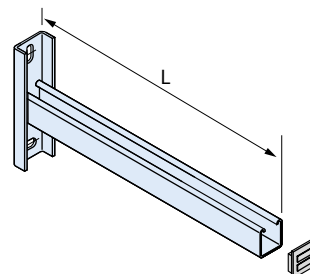
HALFEN Cantilever bracket with end cap



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 36/2 - FV - 300	070-00001	41,05
KON 36/2 - FV - 400	070-00002	45,20
KON 36/2 - FV - 500	070-00003	49,50
KON 36/2 - FV - 600	070-00004	53,30
KON 36/2 - FV - 700	070-00005	57,65
Specification: A4 according to table, page 2		
KON 36/2 - A4 - 300	070-00006	117,00
KON 36/2 - A4 - 400	070-00010	135,60
KON 36/2 - A4 - 500	070-00007	154,65
KON 36/2 - A4 - 600	070-00009	173,90
KON 36/2 - A4 - 700	070-00011	192,80

KON 41/1

HALFEN Cantilever bracket with end cap



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 41/1 - FV - 175	010-00001	24,15
KON 41/1 - FV - 325	010-00002	26,90
KON 41/1 - FV - 475	010-00003	29,60
Specification: A4 according to table, page 2		
KON 41/1 - A4 - 175	010-00004	72,90
KON 41/1 - A4 - 325	010-00005	93,35
KON 41/1 - A4 - 475	010-00006	114,05

CANTILEVER BRACKETS, ACCESSORIES

1
Fixing systems

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

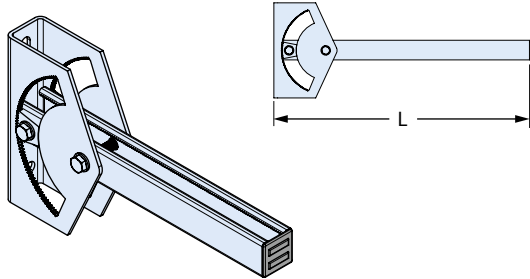
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

KON 41/V

HALFEN Adjustable cantilever
complete, assembled

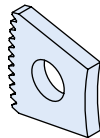


Article name	Article no.	Price
Length L _{nom} [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 41/V - FV - 245	300-00001	on request
KON 41/V - FV - 345	300-00002	on request
KON 41/V - FV - 495	300-00003	on request
Specification: A4 according to table, page 2		
KON 41/V - A4 - 245	300-00101	on request
KON 41/V - A4 - 345	300-00102	on request
KON 41/V - A4 - 495	300-00103	on request

Product available as disassembled kit if preferred

Toothed plate for KON 41/V

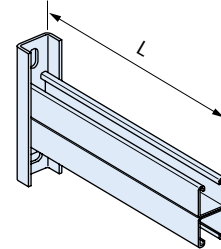
HALFEN Spare toothed plate for adjustable cantilever



Article name	Article no.	Price
	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 41/V-FV toothed plate	330-00001	on request
Specification: A4 according to table, page 2		
KON 41/V-A4 toothed plate	330-00101	on request

KON 41/D

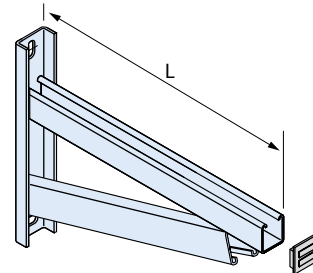
HALFEN Cantilever bracket



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 41/D - FV - 325	030-00001	35,20
KON 41/D - FV - 475	030-00002	41,55
KON 41/D - FV - 625	030-00003	49,90
Specification: A4 according to table, page 2		
KON 41/D - A4 - 325	030-00004	142,65
KON 41/D - A4 - 475	030-00005	184,10
KON 41/D - A4 - 625	030-00006	223,10

KON 41/2

HALFEN Cantilever brackets with end cap

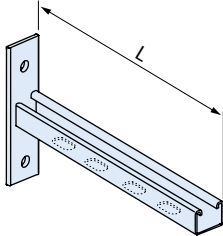


Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 41/2 - FV - 325	020-00001	49,95
KON 41/2 - FV - 475	020-00002	55,05
KON 41/2 - FV - 625	020-00003	65,05
KON 41/2 - FV - 775	020-00004	76,80
Specification: A4 according to table, page 2		
KON 41/2 - A4 - 325	020-00005	165,90
KON 41/2 - A4 - 475	020-00006	233,30
KON 41/2 - A4 - 625	020-00007	287,55
KON 41/2 - A4 - 775	020-00008	337,00

CANTILEVER BRACKETS

KON F 21/1

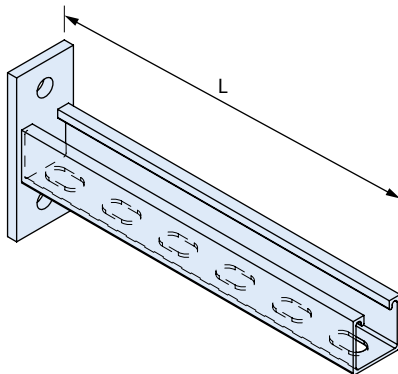
HALFEN Cantilever bracket



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON F - 21/1 FV - 200	150-00001	on request
KON F - 21/1 FV - 300	150-00002	on request
KON F - 21/1 FV - 400	150-00003	on request
KON F - 21/1 FV - 500	150-00004	on request
Specification: A4 according to table, page 2		
KON F - 21/1 A4 - 200	150-00005	on request
KON F - 21/1 A4 - 300	150-00006	on request
KON F - 21/1 A4 - 400	150-00007	on request
KON F - 21/1 A4 - 500	150-00008	on request

KON F 41/1

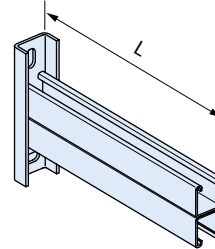
HALFEN Cantilever bracket



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON F - 41/1 FV - 200	160-00001	on request
KON F - 41/1 FV - 300	160-00002	on request
KON F - 41/1 FV - 400	160-00003	on request
KON F - 41/1 FV - 500	160-00004	on request
KON F - 41/1 FV - 600	160-00005	on request
KON F - 41/1 FV - 700	160-00006	on request
KON F - 41/1 FV - 800	160-00007	on request
KON F - 41/1 FV - 1000	160-00008	on request
Specification: A2 according to table, page 2		
KON F - 41/1 A2 - 200	160-00009	on request
KON F - 41/1 A2 - 300	160-00010	on request
KON F - 41/1 A2 - 400	160-00011	on request
KON F - 41/1 A2 - 500	160-00012	on request
KON F - 41/1 A2 - 600	160-00013	on request
KON F - 41/1 A2 - 700	160-00014	on request
KON F - 41/1 A2 - 800	160-00015	on request
KON F - 41/1 A2 - 1000	160-00016	on request

KON F 41/D

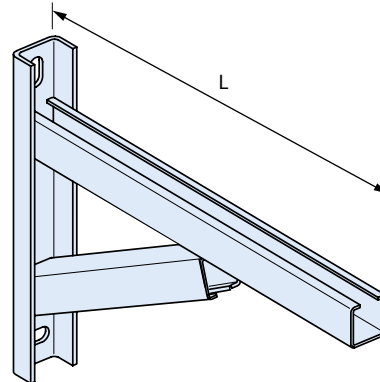
HALFEN Cantilever bracket, double



Article name	Article no.	Price
Length [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON F - 41/D FV - 600	180-00001	on request
KON F - 41/D FV - 800	180-00002	on request
KON F - 41/D FV - 1050	180-00003	on request

KON F 41/2

HALFEN braced cantilever



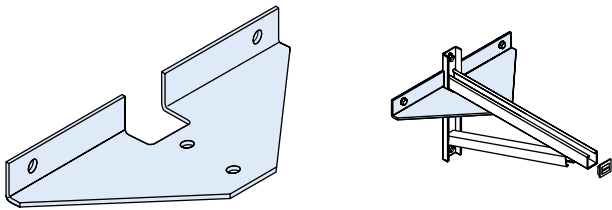
Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON F - 41/2 FV - 425	190-00001	on request
KON F - 41/2 FV - 525	190-00002	on request
KON F - 41/2 FV - 625	190-00003	on request
KON F - 41/2 FV - 725	190-00004	on request
KON F - 41/2 FV - 825	190-00005	on request
KON F - 41/2 FV - 925	190-00006	on request
KON F - 41/2 FV - 1075	190-00007	on request
Specification: A4 according to table, page 2		
KON F - 41/2 A4 - 525	190-00008	on request
KON F - 41/2 A4 - 625	190-00009	on request
KON F - 41/2 A4 - 825	190-00010	on request
KON F - 41/2 A4 - 1075	190-00011	on request

CANTILEVER BRACKETS, ACCESSORIES

1
Fixing systems

KON Z1

Bracing for cantilever brackets KON 41

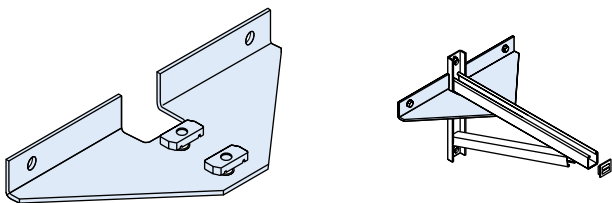


Article name	Article no.	Price
	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON Z1 - FV	110-00002	29,40
Specification: A4 according to table, page 2		
KON Z1 - A4	110-00001	107,05

2
Reinforcement systems

HCS KON - Z1

Bracing for cantilever brackets KON 41, with 2 pre-fitted bolts
HALFEN POWERCLICK framing system



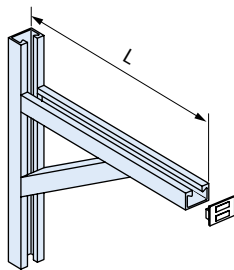
Article name	Article no.	Price
	0302.	[EUR/item]
Specification: FV according to table, page 2		
HCS KON - Z1 - FV	050-00002	30,65
Specification: A4 according to table, page 2		
HCS KON - Z1 - A4	050-00001	109,45

3
Lifting systems

4
Façade connection systems

KON 52/2

HALFEN Cantilever bracket with end cap



Article name	Article no.	Price
Length L [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 52/2 - FV -	500	080-00001 127,35
KON 52/2 - FV -	600	080-00002 139,00
KON 52/2 - FV -	700	080-00003 150,20
KON 52/2 - FV -	800	080-00004 163,20
KON 52/2 - FV -	900	080-00005 175,85
KON 52/2 - FV -	1000	080-00006 188,95
KON 52/2 - FV -	1100	080-00007 201,85

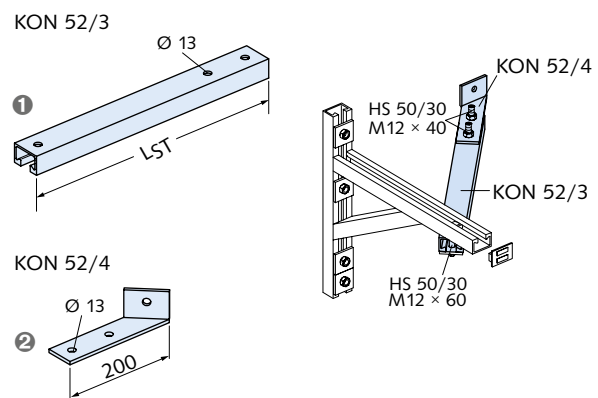
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

Article name	Article no.	Price
Length [mm]	0310.	[EUR/item]
Specification: A4 according to table, page 2		
KON 52/2 - A4 -	500	080-00008 578,30
KON 52/2 - A4 -	600	080-00009 656,40
KON 52/2 - A4 -	700	080-00010 734,60
KON 52/2 - A4 -	800	080-00011 820,95
KON 52/2 - A4 -	900	080-00012 906,70
KON 52/2 - A4 -	1000	080-00013 992,75
KON 52/2 - A4 -	1100	080-00014 1.079,05

Bracing for KON 52/2



- ① Bracket brace
- ② Connection bracket

Article name	Article no.	Price
Length L _{st} [mm]	0310.	[EUR/item]
Specification: FV according to table, page 2		
KON 52/3 - FV -	532	090-00001 32,55
KON 52/3 - FV -	602	090-00002 36,50
KON 52/3 - FV -	673	090-00003 38,95
KON 52/3 - FV -	744	090-00004 43,70
KON 52/3 - FV -	815	090-00005 48,05
KON 52/3 - FV -	961	090-00006 55,55
KON 52/3 - FV -	1102	090-00007 63,10

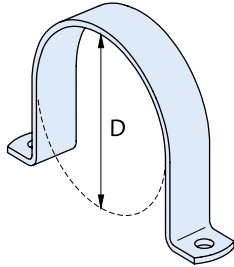
KON 52/4 - FV	100-00002	17,35
Specification: A4 according to table, page 2		
KON 52/3 - A4 -	532	090-00012 174,30
KON 52/3 - A4 -	602	090-00013 196,20
KON 52/3 - A4 -	673	090-00014 210,55
KON 52/3 - A4 -	744	090-00015 240,20
KON 52/3 - A4 -	815	090-00016 264,30
KON 52/3 - A4 -	961	090-00017 308,05
KON 52/3 - A4 -	1102	090-00018 352,25
KON 52/4 - A4	100-00001	41,20

★ **HALFEN remark:** Please refer to the start of the chapter for notes and explanations

PIPE CLAMPS

HRS-A

Alpha pipe clamp



Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: FV according to table, page 2		
HRS - A - 17 - FV	010-00048	180,75
HRS - A - 21,5 - FV	010-00049	191,15
HRS - A - 27 - FV	010-00050	193,70
HRS - A - 33,5 - FV	010-00051	209,30
HRS - A - 42,5 - FV	010-00052	217,25
HRS - A - 48,5 - FV	010-00053	240,75
HRS - A - 50 - FV	010-00054	264,55
HRS - A - 56 - FV	010-00055	282,85
HRS - A - 60 - FV	010-00056	285,30
HRS - A - 64 - FV	010-00057	295,70
HRS - A - 77 - FV	010-00058	421,55
HRS - A - 80 - FV	010-00059	426,85
HRS - A - 84 - FV	010-00060	437,25
HRS - A - 89 - FV	010-00061	450,30
HRS - A - 96 - FV	010-00062	476,55
HRS - A - 100 - FV	010-00063	544,50
HRS - A - 105 - FV	010-00064	570,75
HRS - A - 110 - FV	010-00065	594,35
HRS - A - 116 - FV	010-00066	743,55
HRS - A - 125 - FV	010-00067	780,20
HRS - A - 131 - FV	010-00068	845,65
HRS - A - 137 - FV	010-00069	908,45
HRS - A - 141 - FV	010-00070	958,25
HRS - A - 150 - FV	010-00071	989,75
HRS - A - 157 - FV	010-00072	1.015,80
HRS - A - 160 - FV	010-00073	1.107,40
HRS - A - 168 - FV	010-00074	1.125,75
HRS - A - 176 - FV	010-00075	1.183,45
HRS - A - 185 - FV	010-00076	1.262,00
HRS - A - 200 - FV	010-00077	1.311,70
HRS - A - 212 - FV	010-00078	1.521,20
HRS - A - 218 - FV	010-00079	1.521,20
HRS - A - 225 - FV	010-00080	1.583,95
HRS - A - 235 - FV	010-00081	1.628,50
HRS - A - 250 - FV	010-00132	2.197,75
HRS - A - 267 - FV	010-00083	on request
HRS - A - 273 - FV	010-00084	on request
HRS - A - 285 - FV	010-00085	on request
HRS - A - 315 - FV	010-00133	on request
HRS - A - 326 - FV	010-00086	on request
HRS - A - 340 - FV	010-00087	on request
HRS - A - 355 - FV	010-00088	on request
HRS - A - 400 - FV	010-00089	on request
HRS - A - 406 - FV	010-00090	on request
HRS - A - 420 - FV	010-00091	on request
HRS - A - 429 - FV	010-00092	on request
HRS - A - 508 - FV	010-00093	on request
HRS - A - 525 - FV	010-00094	on request
HRS - A - 532 - FV	010-00095	on request

Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: A4 according to table, page 2		
HRS - A - 17 - A4	010-00001	1.059,20
HRS - A - 21,5 - A4	010-00002	1.201,75
HRS - A - 27 - A4	010-00003	1.332,20
HRS - A - 33,5 - A4	010-00004	1.507,30
HRS - A - 42,5 - A4	010-00005	1.706,80
HRS - A - 48,5 - A4	010-00006	1.869,90
HRS - A - 50 - A4	010-00007	1.971,65
HRS - A - 56 - A4	010-00008	2.126,55
HRS - A - 60 - A4	010-00009	2.265,10
HRS - A - 64 - A4	010-00010	2.399,30
HRS - A - 77 - A4	010-00011	2.847,50
HRS - A - 80 - A4	010-00012	2.949,45
HRS - A - 84 - A4	010-00013	2.990,10
HRS - A - 89 - A4	010-00014	3.295,70
HRS - A - 96 - A4	010-00015	3.397,50
HRS - A - 100 - A4	010-00016	4.892,45
HRS - A - 105 - A4	010-00017	5.132,85
HRS - A - 110 - A4	010-00018	5.357,10
HRS - A - 116 - A4	010-00019	5.410,00
HRS - A - 125 - A4	010-00020	5.666,65
HRS - A - 131 - A4	010-00021	5.894,70
HRS - A - 137 - A4	010-00022	6.123,00
HRS - A - 141 - A4	010-00023	6.171,80
HRS - A - 150 - A4	010-00024	6.579,10
HRS - A - 157 - A4	010-00025	6.860,25
HRS - A - 160 - A4	010-00026	8.615,95
HRS - A - 168 - A4	010-00027	8.774,80
HRS - A - 176 - A4	010-00028	9.084,50
HRS - A - 185 - A4	010-00029	9.667,10
HRS - A - 200 - A4	010-00030	10.029,65
HRS - A - 212 - A4	010-00031	10.648,80
HRS - A - 218 - A4	010-00032	10.876,80
HRS - A - 225 - A4	010-00033	11.186,35
HRS - A - 235 - A4	010-00034	12.001,20
HRS - A - 267 - A4	010-00035	on request
HRS - A - 273 - A4	010-00036	on request
HRS - A - 285 - A4	010-00037	on request
HRS - A - 326 - A4	010-00038	on request
HRS - A - 340 - A4	010-00039	on request
HRS - A - 355 - A4	010-00040	on request
HRS - A - 400 - A4	010-00041	on request
HRS - A - 406 - A4	010-00042	on request
HRS - A - 420 - A4	010-00043	on request
HRS - A - 429 - A4	010-00044	on request
HRS - A - 508 - A4	010-00045	on request
HRS - A - 525 - A4	010-00046	on request
HRS - A - 532 - A4	010-00047	on request

① Measurement D = internal diameter of the pipe clamps, correspond to external diameter of the pipe

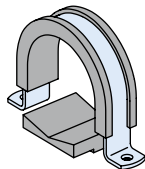
PIPE CLAMPS

HCS-RAD

Anti-vibration pipe clamp set

Scope of supply: 1 x Alpha pipe clamp, 1 x DGM rubber sound absorption (enclosed separately as rolls), 1x RUV pipe rest

Pack quantity: 1 set



Article name	Clamping Ø D [mm] ①	Article no.	Price
		0303.	[EUR/item]
Specification: FV according to table, page 2			
HCS - RAD - 33,5 - FV	16.5-21.5	010-00042	6,95
HCS - RAD - 42,5 - FV	25.5-30.5	010-00043	6,95
HCS - RAD - 48,5 - FV	31.5-36.5	010-00044	7,50
HCS - RAD - 50 - FV	33-38	010-00045	7,70
HCS - RAD - 56 - FV	39-44	010-00046	7,85
HCS - RAD - 60 - FV	43-48	010-00047	8,05
HCS - RAD - 64 - FV	47-52	010-00048	8,20
HCS - RAD - 77 - FV	60-65	010-00049	9,30
HCS - RAD - 80 - FV	63-68	010-00050	11,80
HCS - RAD - 84 - FV	67-72	010-00051	12,00
HCS - RAD - 89 - FV	72-77	010-00052	12,15
HCS - RAD - 96 - FV	79-84	010-00053	12,40
HCS - RAD - 100 - FV	83-88	010-00054	13,40
HCS - RAD - 105 - FV	88-93	010-00055	13,55
HCS - RAD - 110 - FV	93-98	010-00056	13,95
HCS - RAD - 116 - FV	99-104	010-00057	15,15
HCS - RAD - 125 - FV	108-113	010-00058	15,65
HCS - RAD - 131 - FV	114-119	010-00059	16,20
HCS - RAD - 137 - FV	120-125	010-00060	16,85
HCS - RAD - 141 - FV	124-129	010-00061	17,15
HCS - RAD - 150 - FV	133-138	010-00062	17,65
HCS - RAD - 157 - FV	140-145	010-00063	17,95
HCS - RAD - 160 - FV	143-148	010-00064	20,10
HCS - RAD - 168 - FV	151-156	010-00065	20,20
HCS - RAD - 176 - FV	159-164	010-00066	20,60
HCS - RAD - 185 - FV	168-173	010-00067	21,80
HCS - RAD - 200 - FV	183-188	010-00068	22,20
HCS - RAD - 212 - FV	195-200	010-00069	24,35
HCS - RAD - 218 - FV	201-206	010-00070	24,35
HCS - RAD - 225 - FV	208-213	010-00071	25,45
HCS - RAD - 235 - FV	218-223	010-00072	25,80
HCS - RAD - 267 - FV	250-255	010-00073	93,55
HCS - RAD - 273 - FV	256-261	010-00074	96,75
HCS - RAD - 285 - FV	268-273	010-00075	110,90
HCS - RAD - 326 - FV	309-314	010-00076	114,90
HCS - RAD - 340 - FV	323-328	010-00077	117,50
HCS - RAD - 355 - FV	338-343	010-00078	120,95
HCS - RAD - 400 - FV	383-388	010-00079	133,70
HCS - RAD - 406 - FV	389-394	010-00080	141,80
HCS - RAD - 420 - FV	403-408	010-00081	147,40
HCS - RAD - 429 - FV	412-417	010-00082	150,95

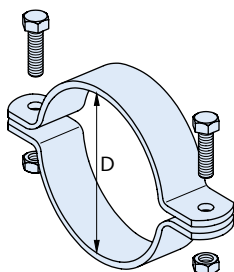
Article name	Clamping Ø D [mm] ①	Article no.	Price
		0303.	[EUR/item]
Specification: A4 according to table, page 2			
HCS - RAD - 33,5 - A4	16.5-21.5	010-00001	20,20
HCS - RAD - 42,5 - A4	25.5-30.5	010-00002	21,85
HCS - RAD - 48,5 - A4	31.5-36.5	010-00003	23,75
HCS - RAD - 50 - A4	33-38	010-00004	24,45
HCS - RAD - 56 - A4	39-44	010-00005	25,90
HCS - RAD - 60 - A4	43-48	010-00006	27,00
HCS - RAD - 64 - A4	47-52	010-00007	28,00
HCS - RAD - 77 - A4	60-65	010-00008	32,00
HCS - RAD - 80 - A4	63-68	010-00009	36,75
HCS - RAD - 84 - A4	67-72	010-00010	36,80
HCS - RAD - 89 - A4	72-77	010-00011	39,55
HCS - RAD - 96 - A4	79-84	010-00012	40,65
HCS - RAD - 100 - A4	83-88	010-00013	53,25
HCS - RAD - 105 - A4	88-93	010-00014	55,25
HCS - RAD - 110 - A4	93-98	010-00015	57,15
HCS - RAD - 116 - A4	99-104	010-00016	57,30
HCS - RAD - 125 - A4	108-113	010-00017	59,90
HCS - RAD - 131 - A4	114-119	010-00018	61,80
HCS - RAD - 137 - A4	120-125	010-00019	63,80
HCS - RAD - 141 - A4	124-129	010-00020	64,10
HCS - RAD - 150 - A4	133-138	010-00021	68,10
HCS - RAD - 157 - A4	140-145	010-00022	70,40
HCS - RAD - 160 - A4	143-148	010-00023	86,15
HCS - RAD - 168 - A4	151-156	010-00024	87,50
HCS - RAD - 176 - A4	159-164	010-00025	89,90
HCS - RAD - 185 - A4	168-173	010-00026	95,55
HCS - RAD - 200 - A4	183-188	010-00027	98,45
HCS - RAD - 212 - A4	195-200	010-00028	104,05
HCS - RAD - 218 - A4	201-206	010-00029	106,00
HCS - RAD - 225 - A4	208-213	010-00030	109,45
HCS - RAD - 235 - A4	218-223	010-00031	115,95
HCS - RAD - 267 - A4	250-255	010-00032	220,75
HCS - RAD - 273 - A4	256-261	010-00033	226,25
HCS - RAD - 285 - A4	268-273	010-00034	237,75
HCS - RAD - 326 - A4	309-314	010-00035	240,95
HCS - RAD - 340 - A4	323-328	010-00036	278,90
HCS - RAD - 355 - A4	338-343	010-00037	284,40
HCS - RAD - 400 - A4	383-388	010-00038	292,00
HCS - RAD - 406 - A4	389-394	010-00039	293,00
HCS - RAD - 420 - A4	403-408	010-00040	312,50
HCS - RAD - 429 - A4	412-417	010-00041	331,80

① Clamping Ø range represents the choice of outside pipe diameters suitable for each anti-vibration pipe clamp set.

PIPE CLAMPS

HRS-B

Beta pipe clamp



Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: FV according to table, page 2		
HRS - B - 21,5 - FV	030-00049	on request
HRS - B - 27 - FV	030-00050	on request
HRS - B - 33,5 - FV	030-00051	on request
HRS - B - 42,5 - FV	030-00052	on request
HRS - B - 48,5 - FV	030-00053	on request
HRS - B - 50 - FV	030-00054	on request
HRS - B - 56 - FV	030-00055	on request
HRS - B - 60 - FV	030-00056	on request
HRS - B - 64 - FV	030-00057	on request
HRS - B - 77 - FV	030-00058	on request
HRS - B - 80 - FV	030-00059	on request
HRS - B - 84 - FV	030-00060	on request
HRS - B - 89 - FV	030-00061	on request
HRS - B - 96 - FV	030-00062	on request
HRS - B - 100 - FV	030-00063	on request
HRS - B - 105 - FV	030-00064	on request
HRS - B - 110 - FV	030-00065	on request
HRS - B - 116 - FV	030-00066	on request
HRS - B - 125 - FV	030-00067	on request
HRS - B - 131 - FV	030-00068	on request
HRS - B - 137 - FV	030-00069	on request
HRS - B - 141 - FV	030-00070	on request
HRS - B - 150 - FV	030-00071	on request
HRS - B - 157 - FV	030-00072	on request
HRS - B - 160 - FV	030-00073	on request
HRS - B - 168 - FV	030-00074	on request
HRS - B - 176 - FV	030-00075	on request
HRS - B - 185 - FV	030-00076	on request
HRS - B - 200 - FV	030-00077	on request
HRS - B - 212 - FV	030-00078	on request
HRS - B - 218 - FV	030-00079	on request
HRS - B - 225 - FV	030-00080	on request
HRS - B - 235 - FV	030-00081	on request
HRS - B - 250 - FV	030-00095	on request
HRS - B - 267 - FV	030-00082	on request
HRS - B - 273 - FV	030-00083	on request
HRS - B - 285 - FV	030-00084	on request
HRS - B - 326 - FV	030-00085	on request
HRS - B - 340 - FV	030-00086	on request
HRS - B - 355 - FV	030-00087	on request
HRS - B - 400 - FV	030-00088	on request
HRS - B - 406 - FV	030-00089	on request
HRS - B - 420 - FV	030-00090	on request
HRS - B - 429 - FV	030-00091	on request
HRS - B - 508 - FV	030-00092	on request
HRS - B - 525 - FV	030-00093	on request
HRS - B - 532 - FV	030-00094	on request

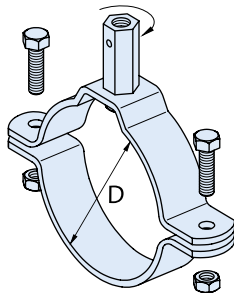
Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: A4 according to table, page 2		
HRS - B - 21,5 - A4	030-00002	on request
HRS - B - 27 - A4	030-00003	on request
HRS - B - 33,5 - A4	030-00004	on request
HRS - B - 42,5 - A4	030-00005	on request
HRS - B - 48,5 - A4	030-00006	on request
HRS - B - 50 - A4	030-00007	on request
HRS - B - 56 - A4	030-00008	on request
HRS - B - 60 - A4	030-00009	on request
HRS - B - 64 - A4	030-00010	on request
HRS - B - 77 - A4	030-00011	on request
HRS - B - 80 - A4	030-00012	on request
HRS - B - 84 - A4	030-00013	on request
HRS - B - 89 - A4	030-00014	on request
HRS - B - 96 - A4	030-00015	on request
HRS - B - 100 - A4	030-00016	on request
HRS - B - 105 - A4	030-00017	on request
HRS - B - 110 - A4	030-00018	on request
HRS - B - 116 - A4	030-00019	on request
HRS - B - 125 - A4	030-00020	on request
HRS - B - 131 - A4	030-00021	on request
HRS - B - 137 - A4	030-00022	on request
HRS - B - 141 - A4	030-00023	on request
HRS - B - 150 - A4	030-00024	on request
HRS - B - 157 - A4	030-00025	on request
HRS - B - 160 - A4	030-00026	on request
HRS - B - 168 - A4	030-00027	on request
HRS - B - 176 - A4	030-00028	on request
HRS - B - 185 - A4	030-00029	on request
HRS - B - 200 - A4	030-00030	on request
HRS - B - 212 - A4	030-00031	on request
HRS - B - 218 - A4	030-00032	on request
HRS - B - 225 - A4	030-00033	on request
HRS - B - 235 - A4	030-00034	on request
HRS - B - 267 - A4	030-00035	on request
HRS - B - 273 - A4	030-00036	on request
HRS - B - 285 - A4	030-00037	on request
HRS - B - 326 - A4	030-00038	on request
HRS - B - 340 - A4	030-00039	on request
HRS - B - 355 - A4	030-00040	on request
HRS - B - 400 - A4	030-00041	on request
HRS - B - 406 - A4	030-00042	on request
HRS - B - 420 - A4	030-00043	on request
HRS - B - 429 - A4	030-00044	on request
HRS - B - 508 - A4	030-00045	on request
HRS - B - 525 - A4	030-00046	on request
HRS - B - 532 - A4	030-00047	on request

① Measurement D = internal diameter of the pipe clamps, correspond to external diameter of the pipe

PIPE CLAMPS

HRS-D

Delta pipe clamp



Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: FV according to table, page 2		
HRS - D - 64 - FV	050-00030	1.212,15
HRS - D - 77 - FV	050-00031	1.296,05
HRS - D - 80 - FV	050-00032	1.309,10
HRS - D - 89 - FV	050-00033	1.327,45
HRS - D - 96 - FV	050-00034	1.392,85
HRS - D - 100 - FV	050-00035	1.958,35
HRS - D - 105 - FV	050-00036	1.966,25
HRS - D - 110 - FV	050-00037	1.976,80
HRS - D - 116 - FV	050-00038	2.123,50
HRS - D - 125 - FV	050-00039	2.183,45
HRS - D - 131 - FV	050-00040	2.207,20
HRS - D - 137 - FV	050-00041	2.225,45
HRS - D - 141 - FV	050-00042	2.246,25
HRS - D - 150 - FV	050-00043	2.338,05
HRS - D - 157 - FV	050-00044	2.416,60
HRS - D - 160 - FV	050-00045	3.003,05
HRS - D - 168 - FV	050-00046	3.026,60
HRS - D - 176 - FV	050-00047	3.086,90
HRS - D - 185 - FV	050-00048	3.165,45
HRS - D - 200 - FV	050-00049	3.212,45
HRS - D - 212 - FV	050-00050	3.537,15
HRS - D - 218 - FV	050-00051	3.537,15
HRS - D - 225 - FV	050-00052	3.665,45
HRS - D - 235 - FV	050-00053	3.736,20
HRS - D - 267 - FV	050-00054	on request
HRS - D - 273 - FV	050-00055	on request
HRS - D - 285 - FV	050-00056	on request
HRS - D - 326 - FV	050-00057	on request
HRS - D - 340 - FV	050-00058	on request

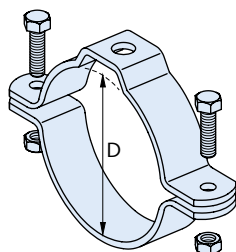
Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: A4 according to table, page 2		
HRS - D - 64 - A4	050-00001	5.361,10
HRS - D - 77 - A4	050-00002	5.642,25
HRS - D - 80 - A4	050-00003	5.805,10
HRS - D - 89 - A4	050-00004	6.114,70
HRS - D - 96 - A4	050-00005	6.330,60
HRS - D - 100 - A4	050-00006	9.593,70
HRS - D - 105 - A4	050-00007	9.838,10
HRS - D - 110 - A4	050-00008	10.045,95
HRS - D - 116 - A4	050-00009	10.363,60
HRS - D - 125 - A4	050-00010	10.742,50
HRS - D - 131 - A4	050-00011	10.966,50
HRS - D - 137 - A4	050-00012	11.109,20
HRS - D - 141 - A4	050-00013	11.426,80
HRS - D - 150 - A4	050-00014	11.699,85
HRS - D - 157 - A4	050-00015	12.013,50
HRS - D - 160 - A4	050-00016	15.598,25
HRS - D - 168 - A4	050-00017	16.070,85
HRS - D - 176 - A4	050-00018	16.457,90
HRS - D - 185 - A4	050-00019	16.991,75
HRS - D - 200 - A4	050-00020	17.378,80
HRS - D - 212 - A4	050-00021	17.977,50
HRS - D - 218 - A4	050-00022	18.238,35
HRS - D - 225 - A4	050-00023	18.653,75
HRS - D - 235 - A4	050-00024	19.672,20
HRS - D - 267 - A4	050-00025	on request
HRS - D - 273 - A4	050-00026	on request
HRS - D - 285 - A4	050-00027	on request
HRS - D - 326 - A4	050-00028	on request
HRS - D - 340 - A4	050-00029	on request

① Measurement D = internal diameter of the pipe clamps, correspond to external diameter of the pipe

PIPE CLAMPS

HRS-G

Gamma pipe clamp



Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: FV according to table, page 2		
HRS - G - 64 - FV	060-00030	on request
HRS - G - 77 - FV	060-00031	on request
HRS - G - 80 - FV	060-00032	on request
HRS - G - 89 - FV	060-00033	on request
HRS - G - 96 - FV	060-00034	on request
HRS - G - 100 - FV	060-00035	on request
HRS - G - 105 - FV	060-00036	on request
HRS - G - 110 - FV	060-00037	on request
HRS - G - 116 - FV	060-00038	on request
HRS - G - 125 - FV	060-00039	on request
HRS - G - 131 - FV	060-00040	on request
HRS - G - 137 - FV	060-00041	on request
HRS - G - 141 - FV	060-00042	on request
HRS - G - 150 - FV	060-00043	on request
HRS - G - 157 - FV	060-00044	on request
HRS - G - 160 - FV	060-00045	on request
HRS - G - 168 - FV	060-00046	on request
HRS - G - 176 - FV	060-00047	on request
HRS - G - 185 - FV	060-00048	on request
HRS - G - 200 - FV	060-00049	on request
HRS - G - 212 - FV	060-00050	on request
HRS - G - 218 - FV	060-00051	on request
HRS - G - 225 - FV	060-00052	on request
HRS - G - 235 - FV	060-00053	on request
HRS - G - 267 - FV	060-00054	on request
HRS - G - 273 - FV	060-00055	on request
HRS - G - 285 - FV	060-00056	on request
HRS - G - 326 - FV	060-00057	on request
HRS - G - 340 - FV	060-00058	on request

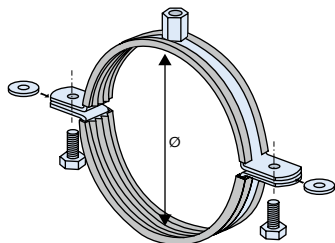
Article name	Article no.	Price [EUR/100 items]
Ø D [mm] ①	0311.	
Specification: A4 according to table, page 2		
HRS - G - 64 - A4	060-00001	on request
HRS - G - 77 - A4	060-00002	on request
HRS - G - 80 - A4	060-00003	on request
HRS - G - 89 - A4	060-00004	on request
HRS - G - 96 - A4	060-00005	on request
HRS - G - 100 - A4	060-00006	on request
HRS - G - 105 - A4	060-00007	on request
HRS - G - 110 - A4	060-00008	on request
HRS - G - 116 - A4	060-00009	on request
HRS - G - 125 - A4	060-00010	on request
HRS - G - 131 - A4	060-00011	on request
HRS - G - 137 - A4	060-00012	on request
HRS - G - 141 - A4	060-00013	on request
HRS - G - 150 - A4	060-00014	on request
HRS - G - 157 - A4	060-00015	on request
HRS - G - 160 - A4	060-00016	on request
HRS - G - 168 - A4	060-00017	on request
HRS - G - 176 - A4	060-00018	on request
HRS - G - 185 - A4	060-00019	on request
HRS - G - 200 - A4	060-00020	on request
HRS - G - 212 - A4	060-00021	on request
HRS - G - 218 - A4	060-00022	on request
HRS - G - 225 - A4	060-00023	on request
HRS - G - 235 - A4	060-00024	on request
HRS - G - 267 - A4	060-00025	on request
HRS - G - 273 - A4	060-00026	on request
HRS - G - 285 - A4	060-00027	on request
HRS - G - 326 - A4	060-00028	on request
HRS - G - 340 - A4	060-00029	on request

① Measurement D = internal diameter of the pipe clamps, correspond to external diameter of the pipe

PIPE CLAMPS, FRAMING SYSTEMS, ACCESSORIES

HRS-DI

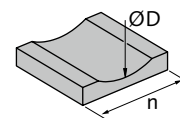
Sound insulating clamp with two bolts



Article name	Ø [mm]	Sleeve	PU	Article no.	Price
				0311.	[EUR/item]
Specification: GV according to the table on page 2					
HRS - DI -	15-19	M8/10	50	070-00030	on request
HRS - DI -	20-23	M8/10	50	070-00031	on request
HRS - DI -	25-28	M8/10	50	070-00032	on request
HRS - DI -	31-35	M8/10	50	070-00033	on request
HRS - DI -	40-43	M8/10	25	070-00034	on request
HRS - DI -	44-49	M8/10	25	070-00035	on request
HRS - DI -	50-56	M8/10	25	070-00036	on request
HRS - DI -	57-61	M8/10	25	070-00037	on request
HRS - DI -	68-71	M8/10	25	070-00038	on request
HRS - DI -	74-85	M8/10	25	070-00039	on request
HRS - DI -	80-83	M8/10	25	070-00040	on request
HRS - DI -	86-91	M8/10	25	070-00041	on request
HRS - DI -	100-106	M8/10	25	070-00042	on request
HRS - DI -	108-116	M8/10	25	070-00043	on request
HRS - DI -	124-132	M8/10	25	070-00045	on request
HRS - DI -	138-141	M8/10	25	070-00047	on request
HRS - DI -	159-169	M8/10	25	070-00049	on request
HRS - DI -	192-200	M8/10	25	070-00051	on request
HRS - DI -	219-225	M8/10	25	070-00052	on request
Specification: A4 according to table, page 2					
HRS - DI -	20-23	M8/10	50	070-00002	on request
HRS - DI -	25-28	M8/10	50	070-00003	on request
HRS - DI -	31-35	M8/10	50	070-00004	on request
HRS - DI -	40-43	M8/10	25	070-00005	on request
HRS - DI -	47-51	M8/10	25	070-00006	on request
HRS - DI -	57-64	M8/10	25	070-00008	on request
HRS - DI -	70-76	M8/10	25	070-00010	on request
HRS - DI -	86-91	M8/10	25	070-00011	on request
HRS - DI -	100-106	M8/10	25	070-00012	on request
HRS - DI -	108-116	M8/10	25	070-00013	on request
HRS - DI -	124-132	M8/10	25	070-00015	on request
HRS - DI -	133-141	M8/10	25	070-00016	on request
HRS - DI -	159-168	M8/10	25	070-00017	on request
HRS - DI -	200-210	M8/10	25	070-00018	on request
HRS - DI -	210-219	M8/10	25	070-00019	on request

RUK

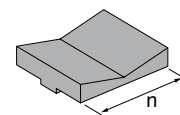
Pipe rest



Article name	Article no.	Price
For pipe outer Ø D [mm]	0316.	[EUR/item]
Specification: Polypropylene, temperature-resistant -30° to +90° C		
RUK - 57	57	38
RUK - 60	60	38
RUK - 76	76	38
RUK - 88	88	75
RUK - 108	108	75
RUK - 114	114	75
RUK - 133	133	75
RUK - 139	139	75
RUK - 159	159	140
RUK - 168	168	140
RUK - 193	193	140
RUK - 216	216	140
RUK - 219	219	140
RUK - 267	267	140
RUK - 273	273	140
RUK - 318	318	220
RUK - 323	323	220
RUK - 355	355	220
RUK - 368	368	220
RUK - 406	406	220
RUK - 419	419	220
RUK - 508	508	220
RUK - 521	521	220

RUV

Pipe rest for multiple pipe diameters

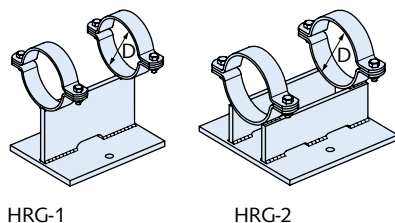


Article name	Article no.	Price
For pipe outer Ø D [mm]	0317.	[EUR/item]
Specification: Polypropylene, temperature-resistant -30° to +90° C		
RUV - K	25 - 79	30
RUV - M	80 - 269	80
RUV - G	270 - 420	120

PIPE SUPPORTS, SPACER CLIP

HRG

Pipe shoe



HRG-1

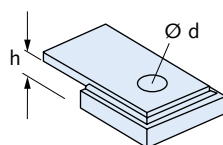
HRG-2

Article name	For pipes outer Ø D [mm]	Article no.	Price
		0291.	[EUR/item]
Specification: FV according to table, page 2			
HRG-1- (1) - FV	21,5 - 185	009-00004	on request
HRG-2- (1) - FV	176 - 532	009-00005	on request
Specification: A4 according to table, page 2			
HRG-1- (1) - A4	21,5 - 185	009-00001	on request
HRG-2- (1) - A4	176 - 532	009-00002	on request

① When ordering, please specify the pipe clamp Ø [mm]
→ see pipe clamps HRS-B, page 241

AHS

Spacer clip

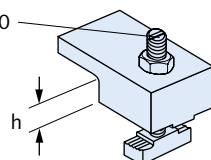


Article name	h [mm]	d [mm]	Article no.	Price
			0324.	[EUR/item]
Specification: FV according to table, page 2				
AHS - 1 - FV	8,0	13	000-00001	17,95
AHS - 2 - FV	10,0	13	000-00002	18,05
AHS - 3 - FV	12,0	13	000-00003	18,40
AHS - 4 - FV	20,0	17	000-00004	26,90
Specification: A4 according to table, page 2				
AHS - 1 - A4	8,0	13	000-00005	38,70
AHS - 2 - A4	10,0	13	000-00006	40,15
AHS - 3 - A4	12,0	13	000-00007	41,95
AHS - 4 - A4	20,0	17	000-00008	79,65

HCS AHS

Pipe shoe channel clamp with HS T-bolt for channels 41/41, 41/22 and 63/63

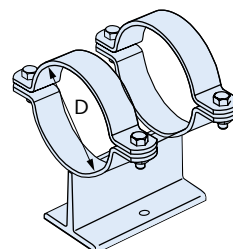
HZS 41/22-FV8.8 M12x50



Article name	h [mm]	d [mm]	Article no.	Price
			0308.	[EUR/item]
Specification: FV according to table, page 2				
HCS AHS 5/1 - FV	15	13	040-00001	on request
HCS AHS 6/1 - FV	17,5	13	040-00002	on request

HCS HRG 4

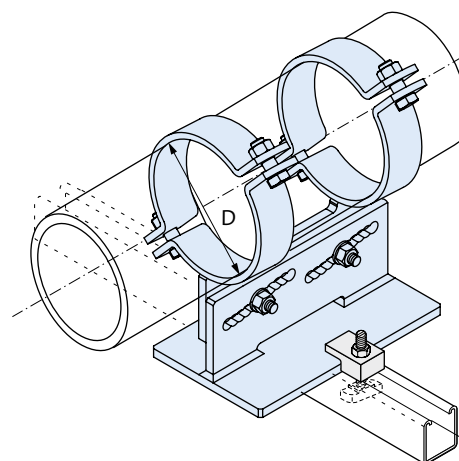
Pipe shoe



Article name	For pipes outer Ø D [mm]	Article no.	Price
		0291.	[EUR/item]
Specification: FV according to table, page 2			
HCS HRG 4-21 - FV	21,3	040-00001	on request
HCS HRG 4-33 - FV	33,7	040-00002	on request
HCS HRG 4-48 - FV	48,3	040-00003	on request
HCS HRG 4-60 - FV	60,3	040-00004	on request
HCS HRG 4-76 - FV	76,1	040-00009	on request
HCS HRG 4-89 - FV	88,9	040-00005	on request
HCS HRG 4-116 - FV	114,3	040-00006	on request
HCS HRG 4-141 - FV	139,7	040-00007	on request
HCS HRG 4-168 - FV	168,3	040-00008	on request
HCS HRG 4-219 - FV	219,1	040-00010	on request

HCS HRG 5

Pipe shoe, height adjustable



Article name	For pipes outer Ø D [mm]	Article no.	Price
		0291.	[EUR/item]
Specification: FV according to table, page 2			
HCS HRG 5 HV-21 - FV	21,3	080-00001	on request
HCS HRG 5 HV-33 - FV	33,7	080-00002	on request
HCS HRG 5 HV-48 - FV	48,3	080-00003	on request
HCS HRG 5 HV-60 - FV	60,3	080-00004	on request
HCS HRG 5 HV-76 - FV	76,1	080-00005	on request
HCS HRG 5 HV-89 - FV	88,9	080-00006	on request
HCS HRG 5 HV-116 - FV	114,3	080-00007	on request
HCS HRG 5 HV-141 - FV	139,7	080-00008	on request
HCS HRG 5 HV-168 - FV	168,3	080-00009	on request
HCS HRG 5 HV-219 - FV	219,1	080-00010	on request

Bolts, accessories, anchor bolt systems

1
Fixing systems

Features

- Matching T-bolts for each channel type
- Load bearing capacity in 2 directions
- Different grades available in steel and stainless steel
- Shank marking provides easy safe installation check



HS HALFEN T-bolt

Benefits

- *T-bolt types match performance of HALFEN Cast-in channels*
- *Economical*
- *Installation reliability*
- *Wide product range*

2
Reinforcement systems

Features

- For hot-rolled profiles with mild steel
- Antislip due to nibbed T-bolt
- Load bearing capacity in all directions
- The hook head prevents the T-bolt rotating under dynamic or seismic loading
- Shank marking provides easy safe installation check



HSR HALFEN nibbed T-bolt

3
Lifting systems

Features

- For toothed cast-in-channels HZA resp. framing channels HZM and HZL
- The serration also ensures a positive load transmission in the longitudinal channel direction. The danger of bolt slippage is minimized
- Different grades available in steel and stainless steel
- Shank marking provides easy safe installation check



HZS HALFEN T-bolt with teeth

4
Façade connection systems

5
DETAN Rod systems

6
Industrial Technology

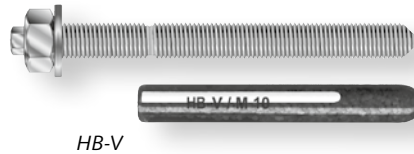
7
Bolts, Accessories

Bolts, accessories, anchor bolt systems

Features

- Classical shear connector for application in non-cracked concrete

Chemical anchoring systems



Benefits

- *Economic solution*
- *Easy installation*

Features

- Strong, versatile anchor for application in cracked and non-cracked concrete



Benefits

- *High loads possible with even the smallest edge distance and optimization achieved by using various anchoring depths*
- *Leak-proof sealing of drill hole*

Features

- Universal injection system for the use in brickwork (masonry), cracked and non-cracked concrete



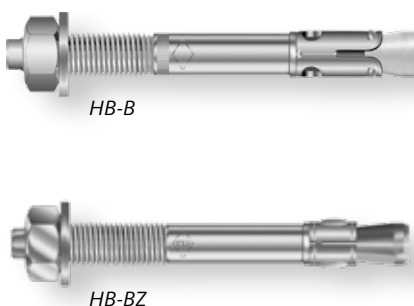
Benefits

- *Only one mortar for almost all applications, less inventory, greater application security*
- *Variable anchorage depth for more flexibility*
- *Fire resistance test report*
- *Approved to use under seismic action according to the performance category C1*

Features

- For easy application in non-cracked concrete
- Versatile headed studs for application in cracked and non-cracked concrete

Mechanical heavy-duty anchor bolts



Benefits

- *Easy and fast handling*
- *Economical*
- *Plated expansion cone allows reliable anchoring in cracked concrete*

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

BOLTS, ACCESSORIES, ANCHOR BOLT SYSTEMS

General information and explanation

Product information

For all HALFEN T-bolts specification GV-S = galvanized special coating:

Galvanized special coatings for long-lasting corrosion protection can be used like hot-dip galvanized coatings according to European Technical Assessment ETA-16/0453 annex A3 respectively ETA-09/0339 annex 3 depending on application.

HALFEN Cast-in channels, suitable for HALFEN Framing channels type DYNAGRIP according to approval Z-21.4-1691, appendix 7.

When ordering A4-70 HALFEN T-bolts, due to different production processes, bolts with designation FA-70 may be delivered. The material strength is the same and the corrosion resistance is even better. The ferritic-austenitic steel FA-70 is classified as corrosion resistance class IV, where however the austenitic steel A4 is only classified as corrosion resistance class III.

Orders

Scheme

Article name	PE [item]	Article no.
HS 72/48 M20 x 50 FV	20	0350.100-00003
HS 72/48 M24 x 100 GV 8.8	10	0350.100-00025
KLP - Nr. 26 FV	1	0325.010-00002
PU [item] = Packaging unit [piece]		

Technical

Further product details regarding the Anchor bolt systems can be found in our catalogues and www.halfen.com.

- Technical Product Information MT-FFC Flexible Framing Connections
- Technical Product Information MT-FBC Flexible Bolt Connections
- Technical Product Information GA Permanent Scaffold Anchor
- Technical Product Information B HALFEN Cast-in channels
- Technical Product Information HB Anchor Bolt Systems

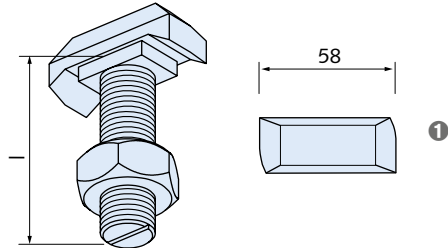


All catalogues are included in the HALFEN Catalogue App, which is available in the App Store and the Google Play Store for download.

HALFEN BOLTS

HS 72/48

HALFEN T-bolt including nut,
for channels 72/48, 72/49

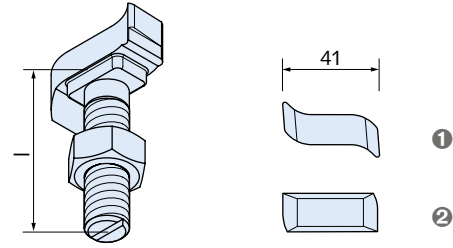


① Standard head shape

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: FV = hot-dip galvanized, grade class 4.6			
HS 72/48 M20 x 50 FV	20	100-00003	839,10
HS 72/48 M20 x 75 FV	20	100-00004	910,80
HS 72/48 M20 x 100 FV	15	100-00005	936,20
HS 72/48 M20 x 150 FV	10	100-00006	1.211,30
HS 72/48 M20 x 200 FV	10	100-00007	1.382,20
HS 72/48 M24 x 50 FV	15	100-00008	802,05
HS 72/48 M24 x 75 FV	15	100-00009	880,75
HS 72/48 M24 x 100 FV	10	100-00010	989,15
HS 72/48 M24 x 150 FV	10	100-00011	1.229,75
HS 72/48 M24 x 200 FV	10	100-00012	1.481,65
HS 72/48 M27 x 75 FV	25	100-00015	1.146,50
HS 72/48 M30 x 75 FV	15	100-00018	1.352,25
HS 72/48 M30 x 100 FV	15	100-00019	1.544,15
HS 72/48 M30 x 150 FV	10	100-00020	1.930,10
HS 72/48 M30 x 200 FV	5	100-00021	2.237,65
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HS 72/48 M20 x 75 GV-S 8.8	20	100-00023	1.188,75
HS 72/48 M20 x 100 GV-S 8.8	15	100-00024	1.343,50
HS 72/48 M24 x 100 GV-S 8.8	10	100-00025	1.599,45
HS 72/48 M24 x 150 GV-S 8.8	10	100-00026	2.147,20
Specification: FV = hot-dip galvanized, grade class 8.8			
HS 72/48 M20 x 60 FV 8.8	20	100-00022	1.048,10
HS 72/48 M24 x 75 FV 8.8	15	100-00014	1.243,50
HS 72/48 M27 x 100 FV 8.8	20	100-00017	1.696,65
Specification: A4-50 = stainless steel material grade A4-50			
HS 72/48 M24 x 50 A4-50	15	100-00001	5.510,10
HS 72/48 M24 x 100 A4-50	10	100-00002	7.394,75

HS 50/30

HALFEN T-bolt including nut,
for channels 55/42, 52//34, 54/33, 50/30, 49/30, 50/40, 486



① Standard head shape
② Alternative head shape ①

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: GV-S = electroplated special coating ★, grade class 4.6			
HS 50/30 M10 x 30 GV-S	100	090-00020	305,10
HS 50/30 M10 x 40 GV-S	100	090-00021	305,10
HS 50/30 M10 x 50 GV-S	100	090-00022	309,70
HS 50/30 M12 x 30 GV-S	100	090-00028	261,20
HS 50/30 M12 x 40 GV-S	50	090-00029	268,15
HS 50/30 M12 x 50 GV-S	50	090-00030	279,70
HS 50/30 M12 x 60 GV-S	50	090-00031	289,00
HS 50/30 M12 x 80 GV-S	50	090-00032	328,25
HS 50/30 M12 x 100 GV-S	50	090-00033	402,20
HS 50/30 M12 x 125 GV-S	50	090-00034	601,05
HS 50/30 M12 x 150 GV-S	50	090-00035	709,70
HS 50/30 M12 x 200 GV-S	25	090-00036	966,15
HS 50/30 M16 x 30 GV-S	50	090-00046	314,30
HS 50/30 M16 x 40 GV-S	50	090-00047	321,25
HS 50/30 M16 x 50 GV-S	50	090-00048	337,60
HS 50/30 M16 x 60 GV-S	25	090-00049	346,60
HS 50/30 M16 x 80 GV-S	25	090-00051	395,30
HS 50/30 M16 x 100 GV-S	25	090-00052	467,05
HS 50/30 M16 x 125 GV-S	25	090-00076	601,05
HS 50/30 M16 x 150 GV-S ①	25	090-00053	681,90
HS 50/30 M16 x 200 GV-S ①	25	090-00054	822,95
HS 50/30 M16 x 300 GV-S ①	15	090-00055	1.158,05
HS 50/30 M20 x 35 GV-S	25	090-00063	on request
HS 50/30 M20 x 45 GV-S	25	090-00064	402,20
HS 50/30 M20 x 55 GV-S	25	090-00065	427,55
HS 50/30 M20 x 65 GV-S	25	090-00066	441,45
HS 50/30 M20 x 75 GV-S	25	090-00067	467,05
HS 50/30 M20 x 100 GV-S	25	090-00068	540,85
HS 50/30 M20 x 125 GV-S	25	090-00069	718,85
HS 50/30 M20 x 200 GV-S	10	090-00071	1.072,55
HS 50/30 M20 x 300 GV-S	10	090-00072	on request
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HS 50/30 M12 x 35 GV-S 8.8	50	090-00087	on request
HS 50/30 M12 x 45 GV-S 8.8	50	090-00040	418,50
HS 50/30 M12 x 60 GV-S 8.8	50	090-00037	515,45
HS 50/30 M12 x 80 GV-S 8.8	50	090-00077	548,35
HS 50/30 M16 x 40 GV-S 8.8	50	090-00057	480,70
HS 50/30 M16 x 60 GV-S 8.8	25	090-00056	635,60
HS 50/30 M16 x 80 GV-S 8.8	25	090-00078	686,35
HS 50/30 M16 x 100 GV-S 8.8	25	090-00079	815,85
HS 50/30 M20 x 45 GV-S 8.8	25	090-00074	566,25
HS 50/30 M20 x 60 GV-S 8.8	25	090-00073	693,50
HS 50/30 M20 x 80 GV-S 8.8	25	090-00080	798,60
HS 50/30 M20 x 100 GV-S 8.8	25	090-00081	843,70
HS 50/30 M20 x 150 GV-S 8.8	25	090-00082	1.259,85

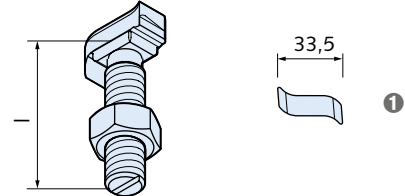
HALFEN BOLTS

1	Fixing systems
2	Reinforcement systems
3	Lifting systems
4	Façade connection systems
5	DETAN Rod systems
6	Industrial Technology
7	Bolts, Accessories

Article name		PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]			0350.	
Specification: FV = hot-dip galvanized, grade class 4.6				
HS 50/30	M10 x 30 FV	100	090-00019	305,10
HS 50/30	M12 x 40 FV	50	090-00026	268,15
HS 50/30	M12 x 100 FV	50	090-00113	442,70
HS 50/30	M16 x 40 FV	50	090-00041	321,25
HS 50/30	M16 x 50 FV	50	090-00042	337,60
HS 50/30	M16 x 60 FV	25	090-00084	384,90
HS 50/30	M16 x 80 FV	25	090-00091	on request
HS 50/30	M16 x 100 FV	25	090-00043	467,05
HS 50/30	M16 x 150 FV	25	090-00044	681,90
HS 50/30	M20 x 55 FV	25	090-00060	427,55
HS 50/30	M20 x 80 FV	25	090-00119	484,20
HS 50/30	M20 x 100 FV	25	090-00062	540,85
Specification: FV = hot-dip galvanized, grade class 8.8				
HS 50/30	M12 x 60 FV 8.8	50	090-00114	600,55
HS 50/30	M12 x 80 FV 8.8	50	090-00117	601,15
HS 50/30	M16 x 60 FV 8.8	25	090-00045	611,65
HS 50/30	M16 x 80 FV 8.8	25	090-00118	624,35
Specification: A4-50 = stainless steel material grade A4-50				
HS 50/30	M12 x 100 A4-50	25	090-00004	3.132,65
HS 50/30	M16 x 30 A4-50	25	090-00005	3.042,75
HS 50/30	M16 x 40 A4-50	25	090-00006	3.359,25
HS 50/30	M16 x 50 A4-50	25	090-00007	3.578,70
HS 50/30	M16 x 60 A4-50	25	090-00008	3.639,85
HS 50/30	M16 x 80 A4-50	10	090-00009	4.520,95
HS 50/30	M16 x 150 A4-50	10	090-00010	5.398,55
HS 50/30	M20 x 45 A4-50	25	090-00012	3.639,85
HS 50/30	M20 x 55 A4-50	25	090-00013	3.909,60
HS 50/30	M20 x 75 A4-50	25	090-00014	4.459,75
HS 50/30	M20 x 100 A4-50	10	090-00015	4.531,85
HS 50/30	M20 x 125 A4-50	10	090-00016	on request
HS 50/30	M20 x 150 A4-50	10	090-00017	on request
Specification: A4-70 = stainless steel material grade A4-70				
HS 50/30	M12 x 30 A4-70	25	090-00001	1.902,60
HS 50/30	M12 x 40 A4-70	25	090-00002	1.861,00
HS 50/30	M12 x 50 A4-70	25	090-00003	2.082,30
HS 50/30	M16 x 50 A4-70	25	098-00039	3.578,70
HS 50/30	M16 x 80 A4-70	10	090-00094	4.520,95
Specification: FA-70 = stainless steel material grade FA-70				
HS 50/30	M20 x 55 FA-70	25	090-00095	on request
HS 50/30	M20 x 75 FA-70	25	090-00096	on request
HS 50/30	M20 x 100 FA-70	25	090-00097	on request
Specification: HCR-50 = stainless steel material grade HCR-50, high corrosion resistance				
HS 50/30	M16 x 50 HCR-50	25	090-00085	on request
HS 50/30	M16 x 100 HCR-50	10	090-00120	on request
HS 50/30	M16 x 150 HCR-50	10	090-00121	on request

HS 40/22

HALFEN T-bolt including nut, for channels 40/22, 40/25, 422



① Standard head shape

Article name		PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]			0350.	
Specification: GV-S = electroplated special coating ★, grade class 4.6				
HS 40/22	M10 x 20 GV-S	100	070-00020	143,30
HS 40/22	M10 x 30 GV-S	100	070-00022	145,65
HS 40/22	M10 x 40 GV-S	100	070-00023	152,60
HS 40/22	M10 x 50 GV-S	100	070-00024	154,85
HS 40/22	M10 x 60 GV-S	100	070-00025	171,00
HS 40/22	M10 x 80 GV-S	50	070-00027	402,20
HS 40/22	M10 x 100 GV-S	50	070-00028	469,35
HS 40/22	M12 x 20 GV-S	100	070-00031	177,90
HS 40/22	M12 x 30 GV-S	100	070-00032	180,35
HS 40/22	M12 x 40 GV-S	50	070-00033	182,65
HS 40/22	M12 x 50 GV-S	50	070-00034	191,85
HS 40/22	M12 x 60 GV-S	50	070-00035	201,15
HS 40/22	M12 x 80 GV-S	50	070-00036	247,30
HS 40/22	M12 x 100 GV-S	50	070-00037	277,40
HS 40/22	M12 x 125 GV-S	50	070-00038	376,90
HS 40/22	M12 x 150 GV-S	50	070-00039	513,25
HS 40/22	M12 x 200 GV-S	25	070-00040	573,20
HS 40/22	M16 x 30 GV-S	50	070-00051	242,80
HS 40/22	M16 x 40 GV-S	50	070-00052	258,90
HS 40/22	M16 x 50 GV-S	50	070-00053	277,40
HS 40/22	M16 x 60 GV-S	25	070-00054	282,10
HS 40/22	M16 x 80 GV-S	25	070-00056	330,55
HS 40/22	M16 x 100 GV-S	25	070-00057	402,20
HS 40/22	M16 x 125 GV-S	25	070-00058	478,45
HS 40/22	M16 x 150 GV-S	25	070-00059	605,65
HS 40/22	M16 x 200 GV-S	25	070-00060	776,70
HS 40/22	M16 x 250 GV-S	25	070-00061	862,25
HS 40/22	M16 x 300 GV-S	25	070-00062	1.044,85
Specification: GV-S = electroplated special coating ★, grade class 8.8				
HS 40/22	M12 x 40 GV-S 8.8	50	070-00041	233,40
HS 40/22	M12 x 45 GV-S 8.8	50	070-00045	270,40
HS 40/22	M12 x 60 GV-S 8.8	50	070-00042	285,85
HS 40/22	M12 x 80 GV-S 8.8	50	070-00070	353,10
HS 40/22	M12 x 100 GV-S 8.8	50	070-00047	457,75
HS 40/22	M16 x 60 GV-S 8.8	25	070-00071	423,70
HS 40/22	M16 x 80 GV-S 8.8	25	070-00072	524,75
Specification: FV = hot-dip galvanized, grade class 4.6				
HS 40/22	M12 x 30 FV	100	070-00029	180,35
HS 40/22	M12 x 50 FV	50	070-00030	191,85
HS 40/22	M12 x 60 FV	50	070-00085	201,15
HS 40/22	M12 x 80 FV	50	070-00090	247,30
HS 40/22	M16 x 50 FV	50	070-00048	277,40
HS 40/22	M16 x 60 FV	25	070-00078	on request
HS 40/22	M16 x 100 FV	25	070-00049	402,20

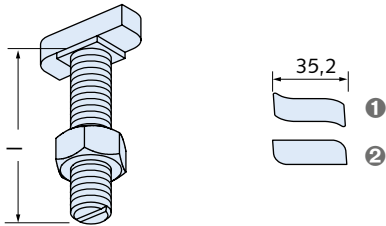
★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN BOLTS

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: A4-50 = stainless steel material grade A4-50			
HS 40/22 M12 x 30 A4-50	25	070-00004	1.647,25
HS 40/22 M12 x 40 A4-50	25	070-00005	1.823,55
HS 40/22 M12 x 50 A4-50	25	070-00006	1.981,80
HS 40/22 M12 x 80 A4-50	25	070-00007	2.294,70
HS 40/22 M16 x 30 A4-50	25	070-00009	1.863,00
HS 40/22 M16 x 40 A4-50	25	070-00010	1.996,20
HS 40/22 M16 x 50 A4-50	25	070-00011	2.161,65
HS 40/22 M16 x 60 A4-50	25	070-00012	on request
HS 40/22 M16 x 80 A4-50	25	070-00013	2.445,75
HS 40/22 M16 x 100 A4-50	10	070-00014	3.089,65
Specification: A4-70 = stainless steel material grade A4-70			
HS 40/22 M10 x 30 A4-70	25	070-00001	2.438,45
HS 40/22 M10 x 40 A4-70	25	070-00002	2.492,50
HS 40/22 M10 x 50 A4-70	25	070-00003	2.589,60
HS 40/22 M12 x 40 A4-70	50	070-00083	2.593,85
HS 40/22 M16 x 50 A4-70	25	070-00082	2.626,35

HS 41/41

HALFEN T-bolt including nut,
for all system 41 channels

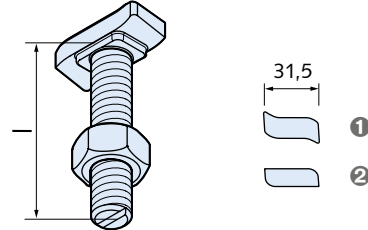


- ① Standard head shape
- ② Alternative head shape ①

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0323.	
Specification: FV = hot-dip galvanized, grade class 4.6			
HS 41/41 M10 x 35 FV	100	000-00003	298,55
HS 41/41 M12 x 35 FV	100	000-00004	303,70
HS 41/41 M12 x 50 FV	50	000-00007	324,65
Specification: A4-70 = stainless steel material grade A4-70			
HS 41/41 M10 x 35 A4-70 ①	100	000-00001	on request
HS 41/41 M12 x 35 A4-70 ①	100	000-00002	1.125,05

HS 38/17

HALFEN T-bolt including nut,
for channels 38/17, 36/36, 36/20, 35/50



- ① Standard head shape
- ② Alternative head shape ①

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: GV-S = electroplated special coating ★, grade class 4.6			
HS 38/17 M10 x 20 GV-S	100	050-00037	131,80
HS 38/17 M10 x 30 GV-S	100	050-00038	134,05
HS 38/17 M10 x 40 GV-S	100	050-00039	143,30
HS 38/17 M10 x 50 GV-S	100	050-00040	147,90
HS 38/17 M10 x 60 GV-S	100	050-00041	152,60
HS 38/17 M10 x 80 GV-S	50	050-00043	205,90
HS 38/17 M10 x 100 GV-S	50	050-00044	256,60
HS 38/17 M10 x 150 GV-S ①	50	050-00045	455,40
HS 38/17 M12 x 20 GV-S	100	050-00051	141,00
HS 38/17 M12 x 30 GV-S	100	050-00052	147,90
HS 38/17 M12 x 40 GV-S	50	050-00053	152,60
HS 38/17 M12 x 50 GV-S	50	050-00054	159,50
HS 38/17 M12 x 60 GV-S	50	050-00055	171,00
HS 38/17 M12 x 80 GV-S	50	050-00056	184,95
HS 38/17 M12 x 100 GV-S	50	050-00057	298,20
HS 38/17 M12 x 125 GV-S ①	50	050-00058	381,50
HS 38/17 M12 x 150 GV-S ①	25	050-00059	462,25
HS 38/17 M12 x 200 GV-S ①	25	050-00060	762,80
HS 38/17 M16 x 30 GV-S	50	050-00067	205,90
HS 38/17 M16 x 40 GV-S	50	050-00068	207,95
HS 38/17 M16 x 50 GV-S	50	050-00069	228,90
HS 38/17 M16 x 60 GV-S	50	050-00070	249,65
HS 38/17 M16 x 80 GV-S	25	050-00071	289,00
HS 38/17 M16 x 100 GV-S	25	050-00072	365,05
HS 38/17 M16 x 125 GV-S ①	25	050-00073	517,80
HS 38/17 M16 x 150 GV-S ①	25	050-00074	605,65
HS 38/17 M16 x 200 GV-S ①	25	050-00075	889,80
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HS 38/17 M12 x 60 GV-S 8.8	50	050-00081	309,35
HS 38/17 M16 x 60 GV-S 8.8	50	050-00082	on request
Specification: FV = hot-dip galvanized, grade class 4.6			
HS 38/17 M10 x 30 FV	100	050-00036	134,05
HS 38/17 M12 x 30 FV	100	050-00046	147,90
HS 38/17 M12 x 50 FV	50	050-00048	159,50
HS 38/17 M16 x 30 FV	50	050-00061	on request
HS 38/17 M16 x 40 FV	50	050-00062	207,95
HS 38/17 M16 x 50 FV	50	050-00063	228,90
HS 38/17 M16 x 80 FV	25	050-00084	304,60
HS 38/17 M16 x 100 FV	25	050-00064	365,05
Specification: FV = hot-dip galvanized, grade class 8.8			
HS 38/17 M12 x 70 FV 8.8	50	050-00050	321,25
HS 38/17 M16 x 60 FV 8.8	50	050-00065	432,20
Specification: A2-70 = stainless steel material grade A2-70			
HS 38/17 M12 x 30 A2-70	50	050-00005	813,95
HS 38/17 M12 x 40 A2-70	50	050-00006	865,95
HS 38/17 M12 x 50 A2-70	50	050-00007	927,60

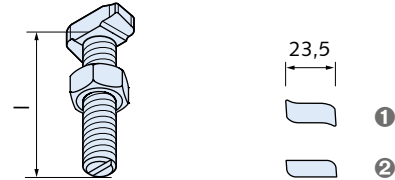
HALFEN BOLTS

1	Fixing systems
2	Reinforcement systems
3	Lifting systems
4	Façade connection systems
5	DETAN Rod systems
6	Industrial Technology
7	Bolts, Accessories

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: A4 according to table, page 2			
HS 38/17 M12 x 50 left A4 ②	50	050-00131	2.788,00
HS 38/17 M16 x 50 left A4 ②	50	050-00133	4.069,80
Specification: A4-50 = stainless steel material grade A4-50			
HS 38/17 M12 x 100 A4-50	50	050-00008	1.981,80
HS 38/17 M16 x 30 A4-50	50	050-00023	on request
HS 38/17 M16 x 40 A4-50	50	050-00024	1.650,95
HS 38/17 M16 x 50 A4-50	50	050-00025	1.827,20
HS 38/17 M16 x 60 A4-50	25	050-00026	1.942,30
HS 38/17 M16 x 80 A4-50	25	050-00027	2.233,50
HS 38/17 M16 x 80 left A4-50	50	050-00035	on request
HS 38/17 M16 x 100 A4-50	25	050-00028	on request
HS 38/17 M16 x 150 A4-50 ①	25	050-00029	on request
Specification: A4-70 = stainless steel material grade A4-70			
HS 38/17 M10 x 30 A4-70	50	050-00001	1.125,70
HS 38/17 M10 x 40 A4-70	50	050-00002	on request
HS 38/17 M10 x 50 A4-70	50	050-00003	on request
HS 38/17 M10 x 60 A4-70	50	050-00004	on request
HS 38/17 M12 x 25 A4-70	50	050-00011	on request
HS 38/17 M12 x 30 A4-70	50	050-00012	1.136,60
HS 38/17 M12 x 40 A4-70	50	050-00013	1.208,40
HS 38/17 M12 x 50 A4-70	50	050-00014	1.298,35
HS 38/17 M12 x 60 A4-70	50	050-00015	1.438,70
HS 38/17 M12 x 80 A4-70	50	050-00016	1.481,75
Specification: HCR-50 = stainless steel material grade HCR-50, high corrosion resistance			
HS 38/17 M10 x 50 HCR-50	50	050-00085	on request
HS 38/17 M10 x 100 HCR-50	50	050-00086	on request
HS 38/17 M16 x 50 HCR-50	50	050-00087	on request
HS 38/17 M16 x 100 HCR-50	25	050-00088	on request
HS 38/17 M16 x 150 HCR-50	25	050-00089	on request

HS 28/15

HALFEN T-bolt including nut, for channels 28/15, 28/28, 26/26



- ① Standard head shape
- ② Alternative head shape ①

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: GV-S = electroplated special coating ★, grade class 4.6			
HS 28/15 M6 x 15 GV-S	100	020-00021	83,20
HS 28/15 M6 x 20 GV-S	100	020-00022	83,20
HS 28/15 M6 x 25 GV-S	100	020-00023	85,50
HS 28/15 M6 x 30 GV-S	100	020-00024	87,85
HS 28/15 M6 x 40 GV-S	100	020-00025	90,15
HS 28/15 M8 x 15 GV-S	100	020-00028	67,15
HS 28/15 M8 x 20 GV-S	100	020-00029	67,15
HS 28/15 M8 x 25 GV-S	100	020-00030	69,30
HS 28/15 M8 x 30 GV-S	100	020-00031	71,50
HS 28/15 M8 x 40 GV-S	100	020-00032	78,55
HS 28/15 M8 x 50 GV-S	100	020-00033	78,55
HS 28/15 M8 x 60 GV-S	100	020-00034	99,40
HS 28/15 M8 x 80 GV-S	100	020-00035	168,75
HS 28/15 M8 x 100 GV-S	100	020-00036	228,90
HS 28/15 M10 x 15 GV-S	100	020-00041	87,85
HS 28/15 M10 x 20 GV-S	100	020-00042	90,15
HS 28/15 M10 x 25 GV-S	100	020-00043	94,85
HS 28/15 M10 x 30 GV-S	100	020-00044	97,15
HS 28/15 M10 x 40 GV-S	100	020-00046	111,00
HS 28/15 M10 x 50 GV-S	100	020-00047	120,30
HS 28/15 M10 x 60 GV-S	100	020-00048	127,05
HS 28/15 M10 x 80 GV-S	100	020-00049	182,65
HS 28/15 M10 x 100 GV-S	50	020-00050	244,90
HS 28/15 M10 x 125 GV-S	50	020-00051	374,45
HS 28/15 M10 x 150 GV-S	50	020-00052	455,40
HS 28/15 M10 x 200 GV-S	50	020-00053	721,15
HS 28/15 M12 x 30 GV-S ①	100	020-00057	171,00
HS 28/15 M12 x 35 GV-S ①	100	020-00058	174,35
HS 28/15 M12 x 50 GV-S ①	50	020-00059	184,95
HS 28/15 M12 x 80 GV-S ①	50	020-00060	203,50
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HS 28/15 M8 x 20 GV-S 8.8	100	020-00071	103,10
HS 28/15 M10 x 60 GV-S 8.8	100	020-00068	on request
Specification: FV = hot-dip galvanized, grade class 4.6			
HS 28/15 M10 x 20 FV	100	020-00061	on request
HS 28/15 M10 x 30 FV	100	020-00038	97,15
HS 28/15 M10 x 50 FV	100	020-00039	120,30
Specification: FV = hot-dip galvanized, grade class 8.8			
HS 28/15 M10 x 40 FV 8.8	100	020-00040	205,90
Specification: A2-70 = stainless steel material grade A2-70			
HS 28/15 M8 x 20 A2-70	100	020-00073	on request
HS 28/15 M8 x 25 A2-70	100	020-00001	517,90
HS 28/15 M8 x 30 A2-70	100	020-00002	557,80
HS 28/15 M10 x 20 A2-70	100	020-00004	on request
HS 28/15 M10 x 25 A2-70	100	020-00005	580,65
HS 28/15 M10 x 30 A2-70	100	020-00006	609,80
HS 28/15 M10 x 40 A2-70	100	020-00007	on request
HS 28/15 M10 x 50 A2-70	100	020-00008	on request

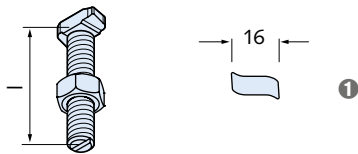
★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

HALFEN BOLTS

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: A4-50 = stainless steel material grade A4-50			
HS 28/15 M10 x 100 A4-50	50	020-00009	on request
HS 28/15 M10 x 125 A4-50	50	020-00010	on request
HS 28/15 M10 x 150 A4-50	50	020-00011	on request
HS 28/15 M10 x 200 A4-50	50	020-00012	on request
Specification: A4-70 = stainless steel material grade A4-70			
HS 28/15 M8 x 30 A4-70	100	020-00003	665,45
HS 28/15 M10 x 20 A4-70	100	020-00013	on request
HS 28/15 M10 x 25 A4-70	100	020-00014	715,75
HS 28/15 M10 x 30 A4-70	100	020-00015	725,00
HS 28/15 M10 x 40 A4-70	100	020-00016	809,30
HS 28/15 M10 x 50 A4-70	100	020-00017	870,50
HS 28/15 M10 x 60 A4-70	100	020-00018	on request
HS 28/15 M10 x 80 A4-70	100	020-00019	1.143,85
Specification: HCR-50 = stainless steel material grade HCR-50, high corrosion resistance			
HS 28/15 M10 x 50 HCR-50	100	020-00063	on request
HS 28/15 M10 x 100 HCR-50	50	020-00064	on request

HS 20/12

HALFEN T-bolt including nut,
for channel 20/12

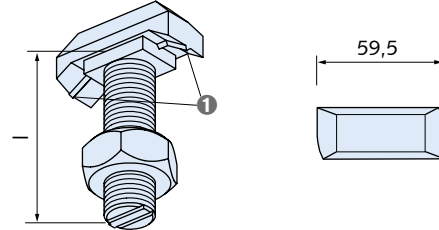


① Standard head shape

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0350.	
Specification: GV-S = electroplated special coating ★, grade class 4.6			
HS 20/12 M6 x 20 GV-S	100	010-00006	73,90
HS 20/12 M6 x 30 GV-S	100	010-00007	78,55
HS 20/12 M6 x 40 GV-S	100	010-00008	on request
HS 20/12 M8 x 15 GV-S	100	010-00011	69,30
HS 20/12 M8 x 20 GV-S	100	010-00012	71,50
HS 20/12 M8 x 25 GV-S	100	010-00013	73,90
HS 20/12 M8 x 30 GV-S	100	010-00014	73,90
HS 20/12 M8 x 40 GV-S	100	010-00015	83,20
HS 20/12 M8 x 50 GV-S	100	010-00016	90,15
HS 20/12 M8 x 60 GV-S	100	010-00017	on request
HS 20/12 M8 x 80 GV-S	100	010-00018	on request
Specification: A2-70 = stainless steel material grade A2-70			
HS 20/12 M8 x 20 A2-70	100	010-00002	on request
HS 20/12 M8 x 30 A2-70	100	010-00003	on request
HS 20/12 M8 x 50 A2-70	100	010-00005	on request

HSR 72/48

HALFEN nibbed T-bolt including nut,
for channel 72/48

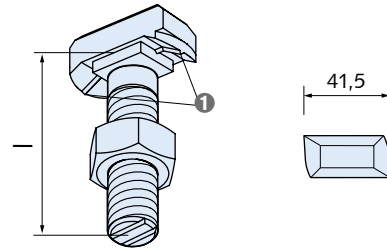


① Nib

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0351.	
Specification: FV = hot-dip galvanized, grade class 8.8			
HSR 72/48 M20 x 75 FV 8.8	20	100-00002	1.522,05

HSR 50/30

HALFEN nibbed T-bolt including nut,
for channels 52/34, 50/30

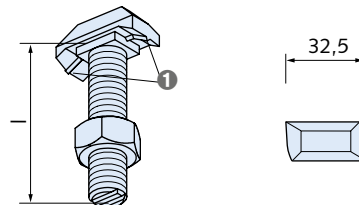


① Nib

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0351.	
Specification: FV = hot-dip galvanized, grade class 8.8			
HSR 50/30 M16 x 40 FV 8.8	50	090-00001	on request
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HSR 50/30 M16 x 60 GV-S 8.8	25	090-00002	580,15
HSR 50/30 M20 x 45 GV-S 8.8	25	090-00003	661,10
HSR 50/30 M20 x 60 GV-S 8.8	25	090-00004	723,55
HSR 50/30 M20 x 75 GV-S 8.8	25	090-00005	809,15

HSR 40/22

HALFEN nibbed T-bolt including nut,
for channel 40/22



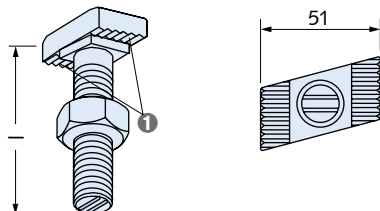
① Nib

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0351.	
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HSR 40/22 M16 x 40 GV-S 8.8	50	070-00001	453,15
HSR 40/22 M16 x 60 GV-S 8.8	25	070-00002	513,25

HALFEN BOLTS

HZS 64/44

HALFEN T-bolt, with teeth, including nut,
for channel HZA 64/44

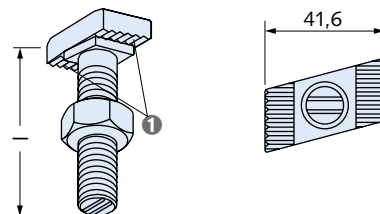


① Teeth

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length [mm]		0352.	
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HZS 64/44 M20 x 80 GV-S 8.8	20	090-00001	on request
HZS 64/44 M20 x 125 GV-S 8.8	15	090-00002	on request
HZS 64/44 M24 x 80 GV-S 8.8	15	090-00003	on request
HZS 64/44 M24 x 150 GV-S 8.8	10	090-00004	on request
Specification: A4-70 = stainless steel material grade A4-70			
HZS 64/44 M20 x 80 A4-70	20	090-00011	on request
HZS 64/44 M20 x 125 A4-70	15	090-00012	on request
HZS 64/44 M24 x 80 A4-70	15	090-00013	on request
HZS 64/44 M24 x 150 A4-70	10	090-00014	on request

HZS 53/34

HALFEN T-bolt, with teeth, including nut,
for channel HZA 53/34 DYNAGRIP

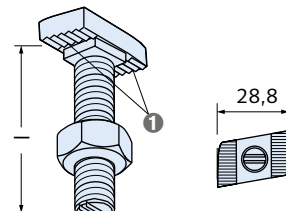


① Teeth

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length [mm]		0352.	
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HZS 53/34 M16 x 60 GV-S 8.8	25	080-00001	1.439,35
HZS 53/34 M16 x 100 GV-S 8.8	25	080-00002	1.502,15
HZS 53/34 M20 x 65 GV-S 8.8	25	080-00003	1.657,55
HZS 53/34 M20 x 100 GV-S 8.8	25	080-00004	1.756,95
Specification: A4-70 = stainless steel material grade A4-70			
HZS 53/34 M16 x 60 A4-70	25	080-00011	2.280,55
HZS 53/34 M16 x 100 A4-70	25	080-00012	2.535,45
HZS 53/34 M20 x 65 A4-70	25	080-00013	2.466,10
HZS 53/34 M20 x 100 A4-70	25	080-00014	2.801,25

HZS 38/23

HALFEN T-bolt, with teeth, including nut,
for channel HZA 38/23 DYNAGRIP



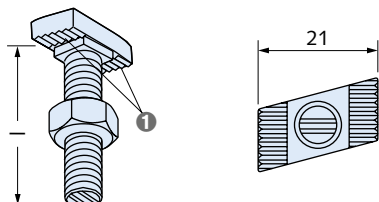
① Teeth

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0352.	
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HZS 38/23 M12 x 30 GV-S 8.8	100	060-00001	353,70
HZS 38/23 M12 x 40 GV-S 8.8	50	060-00002	362,80
HZS 38/23 M12 x 50 GV-S 8.8	50	060-00003	381,50
HZS 38/23 M12 x 60 GV-S 8.8	50	060-00004	390,65
HZS 38/23 M12 x 80 GV-S 8.8	50	060-00005	612,50
HZS 38/23 M12 x 100 GV-S 8.8	50	060-00006	811,35
HZS 38/23 M12 x 125 GV-S 8.8	50	060-00007	on request
HZS 38/23 M12 x 150 GV-S 8.8	50	060-00008	on request
HZS 38/23 M16 x 30 GV-S 8.8	50	060-00011	on request
HZS 38/23 M16 x 40 GV-S 8.8	50	060-00012	450,80
HZS 38/23 M16 x 50 GV-S 8.8	50	060-00013	469,35
HZS 38/23 M16 x 60 GV-S 8.8	25	060-00014	492,45
HZS 38/23 M16 x 80 GV-S 8.8	25	060-00015	575,60
HZS 38/23 M16 x 100 GV-S 8.8	25	060-00016	612,50
HZS 38/23 M16 x 125 GV-S 8.8	25	060-00017	on request
HZS 38/23 M16 x 150 GV-S 8.8	25	060-00018	1.527,80
HZS 38/23 M16 x 200 GV-S 8.8	25	060-00019	1.828,55
HZS 38/23 M16 x 300 GV-S 8.8	25	060-00020	2.547,40
Specification: FV = hot-dip galvanized, grade class 8.8			
HZS 38/23 M12 x 50 FV 8.8	50	060-00026	406,60
HZS 38/23 M16 x 60 FV 8.8	25	060-00023	523,00
Specification: A4-70 = stainless steel material grade A4-70			
HZS 38/23 M16 x 60 A4-70	25	060-00021	1.804,15
HZS 38/23 M16 x 80 A4-70	25	060-00022	2.014,30

HALFEN BOLTS

HZS 29/20

HALFEN T-bolt, with teeth, including nut,
for channel 29/20 DYNAGRIP

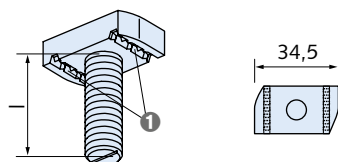


① Teeth

Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0352.	
Specification: GV-S = electroplated special coating ★, grade class 8.8			
HZS 29/20 M12 x 30 GV-S 8.8	100	040-00001	270,40
HZS 29/20 M12 x 40 GV-S 8.8	50	040-00002	291,25
HZS 29/20 M12 x 50 GV-S 8.8	50	040-00003	314,30
HZS 29/20 M12 x 60 GV-S 8.8	50	040-00004	319,00
HZS 29/20 M12 x 80 GV-S 8.8	50	040-00005	374,45
HZS 29/20 M12 x 100 GV-S 8.8	50	040-00006	on request
HZS 29/20 M12 x 125 GV-S 8.8	50	040-00007	on request
HZS 29/20 M12 x 150 GV-S 8.8	50	040-00008	on request
HZS 29/20 M12 x 200 GV-S 8.8	25	040-00009	on request
HZS 29/20 M12 x 250 GV-S 8.8	25	040-00010	on request
HZS 29/20 M12 x 300 GV-S 8.8	25	040-00011	on request

HZS 41/41

HALFEN T-bolt without nut,
for channels 41/22, 41/41, 41/62, 41/83



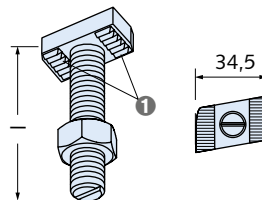
① Teeth

Article name	Article no.	Price [EUR/100 items]
Thread x length l [mm]	0323.	
Specification: ZL = Zinc flake plated		
HZS 41/41 M6 x 30 ZL	010-00012	on request
HZS 41/41 M8 x 30 ZL	010-00001	565,55
HZS 41/41 M8 x 50 ZL	010-00002	594,35
HZS 41/41 M10 x 30 ZL	010-00003	573,35
HZS 41/41 M10 x 50 ZL	010-00004	609,95
HZS 41/41 M12 x 30 ZL	010-00005	607,30
HZS 41/41 M12 x 50 ZL	010-00006	657,25
HZS 41/41 M12 x 75 ZL	010-00007	722,65
HZS 41/41 M12 x 100 ZL	010-00008	772,25
HZS 41/41 M16 x 63 ZL ① ②	010-00009	1.220,10
HZS 41/41 M16 x 102 ZL ③	010-00010	on request

- ① Not for channel HZA and HZM 41/22
② 30 mm width, fit from the channel end
③ Without teeth

HZS 41/22

HALFEN T-bolt, with teeth, including nut,
for channels HZA 41/22, HZM, HZL 41/22 and 41/41



① Teeth

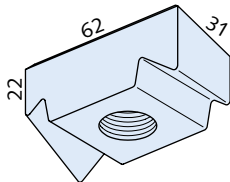
Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread x length l [mm]		0352.	
Specification: FV = hot-dip galvanized, grade class 8.8			
HZS 41/22 M12 x 35 FV 8.8	100	070-00011	423,00
HZS 41/22 M12 x 50 FV 8.8	100	070-00012	459,95
HZS 41/22 M16 x 50 FV 8.8	25	070-00003	704,95
HZS 41/22 M16 x 100 FV 8.8	25	070-00004	977,75
Specification: A4-50 = stainless steel material grade A4-50			
HZS 41/22 M12 x 35 A4-50	25	070-00005	2.690,35
HZS 41/22 M12 x 50 A4-50	25	070-00006	2.873,65
HZS 41/22 M12 x 80 A4-50	25	070-00007	2.992,50
HZS 41/22 M16 x 35 A4-50	25	070-00008	on request
HZS 41/22 M16 x 50 A4-50	25	070-00009	2.909,55

CHANNEL NUTS

1
Fixing systems

GWP 72/48

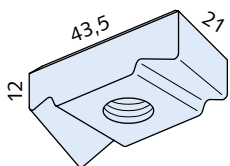
HALFEN Channel nut,
for channels 72/48, 72/49



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 72/48 M12 GV	50	090-00001	709,70
GWP 72/48 M16 GV	50	090-00002	709,70
GWP 72/48 M20 GV	50	090-00003	709,70
Specification: A4 according to table, page 2			
GWP 72/48 M12 A4	50	090-00006	4.488,60
GWP 72/48 M16 A4	50	090-00007	4.488,60
GWP 72/48 M20 A4	50	090-00008	4.488,60

GWP 50/30

HALFEN Channel nut,
for channels 52/34, 54/33, 50/30, 49/30, 50/40



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 50/30 M8 GV	100	070-00001	261,20
GWP 50/30 M10 GV	100	070-00002	261,20
GWP 50/30 M12 GV	100	070-00003	261,20
GWP 50/30 M16 GV	100	070-00004	305,10
Specification: FV according to table, page 2			
GWP 50/30 M12 FV	100	078-00001	on request
GWP 50/30 M16 FV	100	078-00002	324,70
Specification: A4 according to table, page 2			
GWP 50/30 M8 A4	100	070-00007	1.625,60
GWP 50/30 M10 A4	100	070-00008	1.625,60
GWP 50/30 M12 A4	100	070-00009	1.625,60
GWP 50/30 M16 A4	100	070-00010	1.625,60

2
Reinforcement systems

3
Lifting systems

4
Façade connection systems

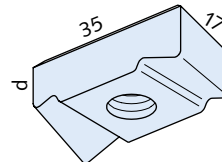
5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

GWP 40/22

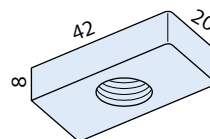
HALFEN Channel nut,
for channels 40/22, 40/25



Article name	d [mm]	PU [items]	Article no.	Price [EUR/100 items]
Thread			0380.	
Specification: GV according to the table on page 2				
GWP 40/22 M5 GV	10	100	050-00001	207,95
GWP 40/22 M6 GV	10	100	050-00002	207,95
GWP 40/22 M8 GV	10	100	050-00003	207,95
GWP 40/22 M10 GV	10	100	050-00004	207,95
GWP 40/22 M12 GV	11,5	100	050-00005	228,90
Specification: A4 according to table, page 2				
GWP 40/22 M8 A4	10	100	050-00010	1.571,70
GWP 40/22 M10 A4	10	100	050-00011	1.571,70
GWP 40/22 M12 A4	11,5	100	050-00012	1.611,40

GWP 50/40

HALFEN Channel nut,
for channels 50/40, 486



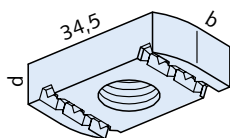
Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 50/40 M6 GV	100	080-00001	125,60
GWP 50/40 M8 GV	100	080-00002	125,60
GWP 50/40 M10 GV	100	080-00003	125,60
GWP 50/40 M12 GV	100	080-00004	125,60
GWP 50/40 M16 GV	100	080-00005	125,60
Specification: A4 according to table, page 2			
GWP 50/40 M8 A4	100	080-00007	888,40
GWP 50/40 M10 A4	100	080-00008	888,40
GWP 50/40 M12 A4	100	080-00009	935,10
GWP 50/40 M16 A4	100	080-00010	935,10

★ HALFEN remark: Please refer to the start of the chapter for notes and explanations

CHANNEL NUTS

GWP 41/41

HALFEN Channel nut,
for channels 41/41 D, 41/62 D, 41/83 and channels *) 41/22, 41/22 D
) Only M6 to M10, for M12 only type 41/41 F is suitable (flat shape)



Article name	d [mm]	b [mm]	Article no.	Price [EUR/100 items]
Thread			0322.	

Specification: GV according to the table on page 2

GWP 41/41	M6 GV	6	20	010-00001	86,50
GWP 41/41	M8 GV	8	20	010-00003	94,25
GWP 41/41	M10 GV	9	20	010-00006	94,25
GWP 41/41	M12 GV	11	20	010-00009	112,60
GWP 41/41	F M12 GV	9	20	020-00002	94,25
GWP 41/41	M16 GV	12	30	010-00010	343,10

Specification: FV according to table, page 2

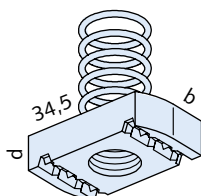
GWP 41/41	M8 FV	8	20	010-00012	168,85
GWP 41/41	M10 FV	9	20	010-00005	102,10
GWP 41/41	M12 FV	12	20	010-00008	on request
GWP 41/41	F M12 FV	9	20	020-00001	on request

Specification: A4 according to table, page 2

GWP 41/41	M6 A4	6	20	010-00002	558,15
GWP 41/41	M8 A4	8	20	010-00004	558,15
GWP 41/41	M10 A4	9	20	010-00007	733,30
GWP 41/41	F M12 A4	9	20	020-00003	733,30
GWP 41/41	M16 A4	12	30	010-00011	2.122,55

GWP 41/41 SH

HALFEN Channel nut with long spring,
for channel 41/41 D



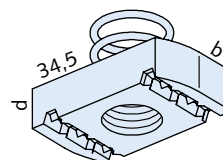
Article name	d [mm]	b [mm]	Article no.	Price [EUR/100 items]
Thread			0322.	

Specification: GV according to the table on page 2

GWP 41/41 SH	M6 GV	6	20	030-00001	146,65
GWP 41/41 SH	M8 GV	8	20	030-00002	154,45
GWP 41/41 SH	M10 GV	9	20	030-00003	154,45
GWP 41/41 SH	M12 GV	11	20	030-00004	172,80

GWP 41/41 SN

HALFEN Channel nut with short spring,
for channel 41/22 D
Spring Ø: 15 mm (shape A) or 21 mm (shape B),
delivery subject to confirmation



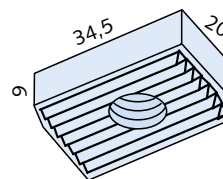
Article name	d [mm]	b [mm]	Article no.	Price [EUR/100 items]
Thread			0322.	

Specification: GV according to the table on page 2

GWP 41/41 SN	M6 GV	6	20	040-00001	146,65
GWP 41/41 SN	M8 GV	8	20	040-00002	162,35
GWP 41/41 SN	M10 GV	9	20	040-00003	162,35
GWP 41/41 SN	M12 GV	9	20	040-00004	180,75

GWP 41/22

HALFEN Channel nut, with teeth,
for channels 41/22, 41/41



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	

Specification: GV according to the table on page 2

GWP 41/22	M6 GV	100	060-00001	289,00
GWP 41/22	M8 GV	100	060-00002	289,00
GWP 41/22	M10 GV	100	060-00003	289,00
GWP 41/22	M12 GV	100	060-00004	328,25
GWP 41/22	M16 GV	100	060-00005	328,25

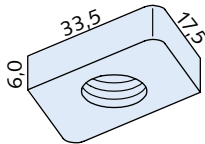
Specification: A4 according to table, page 2

GWP 41/22	M8 A4	100	060-00006	1.783,80
GWP 41/22	M10 A4	100	060-00007	1.812,70
GWP 41/22	M12 A4	100	060-00008	1.845,15
GWP 41/22	M16 A4	100	060-00009	1.845,15

CHANNEL NUTS, ACCESSORIES

GWP 38/17

HALFEN Channel nut,
for channels 38/17, 36/20, 35/50, 36/36



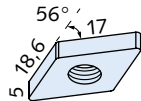
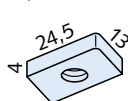
Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 38/17 M6 GV	100	040-00001	94,85
GWP 38/17 M8 GV	100	040-00002	94,85
GWP 38/17 M10 GV	100	040-00003	94,85
GWP 38/17 M12 GV	100	040-00004	94,85
Specification: A4 according to table, page 2			
GWP 38/17 M6 A4	100	040-00009	866,75
GWP 38/17 M8 A4	100	040-00010	866,75
GWP 38/17 M10 A4	100	040-00011	866,75
GWP 38/17 M12 A4	100	040-00012	866,75

GWP 28/15

HALFEN Channel nut,
for channels 28/28, 28/15, 28/12, 26/26, 26/18

M 6, M 8:

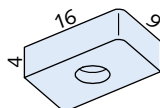
M 10:



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 28/15 M5 GV	200	020-00002	39,10
GWP 28/15 M6 GV	200	020-00003	44,00
GWP 28/15 M8 GV	200	020-00004	44,00
GWP 28/15 M10 GV	200	020-00005	99,40
Specification: A4 according to table, page 2			
GWP 28/15 M6 A4	200	020-00006	571,85
GWP 28/15 M8 A4	200	020-00007	571,85
GWP 28/15 M10 A4	200	020-00008	571,85

GWP 20/12

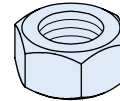
HALFEN Channel nut, for channel 20/12



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0380.	
Specification: GV according to the table on page 2			
GWP 20/12 M5 GV	200	010-00002	41,55
GWP 20/12 M6 GV	200	010-00003	41,55
Specification: A4 according to table, page 2			
GWP 20/12 M5 A4	200	010-00004	489,00
GWP 20/12 M6 A4	200	010-00005	489,00

MU

Hexagonal nuts DIN 934 or DIN EN ISO 4032

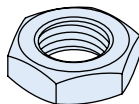


Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0360.	
Specification: GV according to the table on page 2			
MU M6 GV	1000	020-00001	2,25
MU M8 GV	1000	030-00001	4,70
MU M10 GV	500	040-00001	11,60
MU M12 GV	500	050-00002	18,50
MU M16 GV	200	070-00002	30,15
MU M20 GV	100	080-00001	62,50
MU M24 GV	50	090-00001	122,40
Specification: A2 according to table, page 2			
MU M8 A2	1000	030-00002	17,75
MU M10 A2	500	040-00002	42,90
MU M12 A2	500	050-00003	64,10
MU M16 A2	200	070-00003	121,30
Specification: A4 according to table, page 2			
MU M6 A4	1000	020-00002	10,70
MU M8 A4	1000	030-00003	21,50
MU M10 A4	500	040-00003	46,65
MU M12 A4	500	050-00004	71,95
MU M16 A4	200	070-00004	133,00
MU M20 A4	100	080-00003	251,70
MU M24 A4	50	090-00002	601,30

ACCESSORIES

HU DIN 439

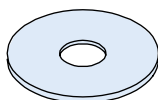
Low profile hex nut
(DIN, FR EN 24035, ISO 4035)



Article name	PU [items]	Article no.	Price [EUR/100 items]
Thread		0360.	
Specification: GV according to the table on page 2			
HU M12 GV DIN 439	100	050-00010	on request
HU M16 GV DIN 439	25	070-00010	on request
HU M20 GV DIN 439	25	080-00008	on request
HU M24 GV DIN 439	25	090-00009	on request
HU M27 GV DIN 439	25	100-00008	on request
HU M30 GV DIN 439	25	110-00010	on request

US DIN 440/9021

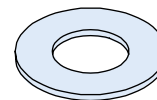
Washers DIN 440 / DIN 9021



Article name	PU [items]	Article no.	Price [EUR/100 items]
For thread		0370.	
Specification: GV according to the table on page 2			
US M6 GV DIN 440	200	020-00001	6,95
US M8 GV DIN 9021	100	030-00001	6,95
US M10 GV DIN 9021	500	040-00001	13,90
US M12 GV DIN 440	500	050-00001	44,00
US M12 GV DIN 9021	500	050-00002	25,40
US M16 GV DIN 9021	200	070-00001	41,55
US M20 GV DIN 440	100	080-00001	124,65
Specification: A4 according to table, page 2			
US M8 A4 DIN 9021	100	030-00002	35,90
US M10 A4 DIN 9021	100	040-00002	66,15
US M12 A4 DIN 9021	100	050-00003	158,15
US M16 A4 DIN 9021	100	070-00002	230,10

US DIN 125

Washers DIN 125



Article name	PU [items]	Article no.	Price [EUR/100 items]
For thread		0370.	
Specification: FV according to table, page 2			
US M10 FV	1000	040-00006	8,35
US M12 FV	500	050-00008	11,60
US M16 FV	500	070-00007	21,05
Specification: GV according to the table on page 2			
US M6 GV	1000	020-00002	2,25
US M8 GV	1000	030-00003	4,70
US M10 GV	1000	040-00003	6,95
US M12 GV	500	050-00004	9,30
US M16 GV	500	070-00003	16,25
US M20 GV	200	080-00002	30,15
US M24 GV	200	090-00001	41,55
Specification: A2 according to table, page 2			
US M10 A2	1000	040-00005	17,75
US M12 A2	500	050-00006	32,10
US M16 A2	500	070-00005	60,60
Specification: A4 according to table, page 2			
US M6 A4	1000	020-00003	10,70
US M8 A4	1000	030-00004	18,05
US M10 A4	1000	040-00004	28,70
US M12 A4	500	050-00005	45,20
US M16 A4	500	070-00004	86,45
US M20 A4	200	080-00003	158,15

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

ACCESSORIES

FAEC

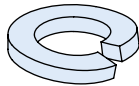
Lock washer



Article name	PU [items]	Article no.	Price
Thread		0403.	[EUR/item]
Specification: GV according to the table on page 2			
FAEC M6 - GV DIN 6798 A	100	070-00005	on request
FAEC M8 - GV DIN 6798 A	100	070-00006	on request
FAEC M10 - GV DIN 6798 A	100	070-00007	on request
FAEC M12 - GV DIN 6798 A	100	070-00008	on request
FAEC M16 - GV DIN 6798 A	100	070-00009	on request
Stainless steel available on request			

FED

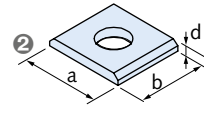
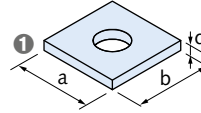
Spring washer



Article name	PU [items]	Article no.	Price
Thread		0403.	[EUR/item]
Specification: GV according to the table on page 2			
FED M6 - GV DIN 127 B	100	060-00028	on request
FED M8 - GV DIN 127 B	100	060-00045	on request
FED M10 - GV DIN 127 B	100	060-00029	on request
FED M12 - GV DIN 127 B	100	060-00010	on request
FED M16 - GV DIN 127 B	250	060-00030	on request
FED M20 - GV DIN 127 B	50	060-00031	on request
Stainless steel available on request			

VUS

Square washers



- ① Shape A
② Shape B

Article name	Shape	a x b x d [mm]	Article no.	Price [EUR/100 items]
For thread			0371.	
Specification: FV according to table, page 2				
VUS 40/25 M10 FV	A	40x40x5	000-00001	166,50
VUS 40/25 M12 FV	A	40x40x5	000-00002	166,50
VUS 40/25 M16 FV	A	40x40x5	000-00003	166,50
VUS 41/41 M6 FV	A	40x40x6	010-00004	83,20
VUS 41/41 M10 FV	A	40x40x6	010-00005	83,20
VUS 41/41 M12 FV	A	40x40x6	010-00006	83,20
VUS 49/30 M10 FV	B	37x37x5	000-00004	219,60
VUS 49/30 M12 FV	B	37x37x5	000-00005	219,60
VUS 49/30 M16 FV	B	37x37x5	000-00006	219,60
VUS 49/30 M20 FV	B	37x37x5	000-00007	219,60
VUS 52/34 M16 FV	A	50x50x6	000-00008	233,40
VUS 52/34 M20 FV	A	50x50x6	000-00009	233,40
VUS 72/49 M20 FV	B	54x54x6	000-00010	286,70
VUS 72/49 M24 FV	B	54x54x6	000-00011	286,70
VUS 72/49 M27 FV	B	54x54x6	000-00012	286,70
VUS 72/49 M30 FV	B	54x54x6	000-00013	286,70
Specification: A4 according to table, page 2				
VUS 40/25 M10 A4	A	40x40x5	000-00015	392,15
VUS 40/25 M12 A4	A	40x40x5	000-00016	392,15
VUS 40/25 M16 A4	A	40x40x5	000-00017	392,15
VUS 41/41 M6 A4	A	40x40x6	010-00001	510,70
VUS 41/41 M10 A4	A	40x40x6	010-00002	510,70
VUS 41/41 M12 A4	A	40x40x6	010-00003	510,70
VUS 49/30 M10 A4	B	37x37x5	000-00020	485,45
VUS 49/30 M12 A4	B	37x37x5	000-00021	485,45
VUS 49/30 M16 A4	B	37x37x5	000-00022	485,45
VUS 49/30 M20 A4	B	37x37x5	000-00023	485,45
VUS 52/34 M16 A4	A	50x50x6	000-00024	589,90
VUS 52/34 M20 A4	A	50x50x6	000-00025	589,90
VUS 72/49 M20 A4	B	54x54x6	000-00026	701,40
VUS 72/49 M24 A4	B	54x54x6	000-00027	701,40
VUS 72/49 M27 A4	B	54x54x6	000-00028	701,40
VUS 72/49 M30 A4	B	54x54x6	000-00029	701,40

ACCESSORIES

GWS

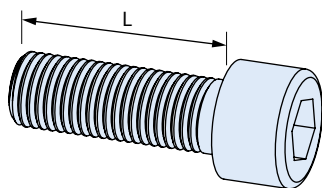
Threaded rods
DIN 976-1



Article name	Article no.	Price
Thread x length [mm]	0400.	[EUR/100 items]
Specification: GV according to the table on page 2		
GWS M6 x 1000 GV	020-00001	124,65
GWS M8 x 1000 GV	030-00001	150,20
GWS M10 x 1000 GV	040-00001	233,40
GWS M12 x 1000 GV	050-00001	330,55
GWS M16 x 1000 GV	060-00001	684,20
GWS M20 x 1000 GV	070-00001	1.005,60
GWS M24 x 1000 GV	080-00001	1.576,50
Specification: A4 according to table, page 2		
GWS M6 x 1000 A4	020-00002	917,25
GWS M8 x 1000 A4	030-00002	1.424,25
GWS M10 x 1000 A4	040-00002	2.233,50
GWS M12 x 1000 A4	050-00002	3.366,40
GWS M16 x 1000 A4	060-00002	5.517,20
GWS M20 x 1000 A4	070-00002	8.394,50

VIS CHC

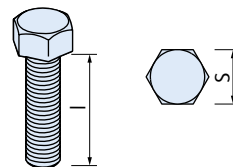
Allen screw



Article name	PU [items]	Article no.	Price
Thread x length l [mm]		0405.	[EUR/item]
Specification: GV = electroplated, grade class 8.8			
VIS CHC - M8x20 - GV DIN 912	100	030-00002	on request
VIS CHC - M12x30 - GV DIN 912	50	030-00010	on request

HSK

Hexagonal head bolts DIN 933 (without nuts)



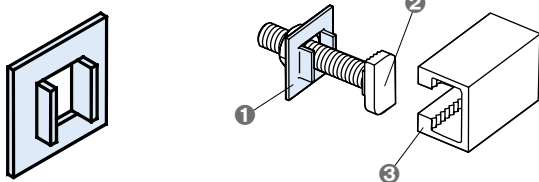
Article name	S (DIN) [mm]	S (ISO) [mm]	Article no.	Price
Thread x length [mm]			0385.	[EUR/100 items]
Specification: GV = electroplated, grade class 8.8				
HSK M6 x 12 GV 8.8	10	10	020-00005	on request
HSK M6 x 25 GV 8.8	10	10	020-00006	on request
HSK M8 x 20 GV 8.8	13	13	030-00014	on request
HSK M8 x 25 GV 8.8	13	13	030-00005	13,90
HSK M8 x 30 GV 8.8	13	13	030-00015	on request
HSK M8 x 40 GV 8.8	13	13	030-00006	18,50
HSK M10 x 20 GV 8.8	17	16	040-00009	18,50
HSK M10 x 30 GV 8.8	17	16	040-00010	23,10
HSK M10 x 40 GV 8.8	17	16	040-00026	on request
HSK M10 x 45 GV 8.8	17	16	040-00011	30,15
HSK M10 x 60 GV 8.8	17	16	040-00012	46,30
HSK M10 x 70 GV 8.8	17	16	040-00013	69,30
HSK M12 x 22 GV 8.8	19	18	050-00012	on request
HSK M12 x 25 GV 8.8	19	18	050-00013	32,20
HSK M12 x 30 GV 8.8	19	18	050-00014	32,20
HSK M12 x 40 GV 8.8	19	18	050-00015	39,25
HSK M12 x 50 GV 8.8	19	18	050-00016	46,30
HSK M12 x 60 GV 8.8	19	18	050-00017	57,75
HSK M12 x 80 GV 8.8	19	18	050-00018	117,95
HSK M12 x 90 GV 8.8	19	18	050-00019	141,00
HSK M16 x 40 GV 8.8	24	24	070-00015	78,55
HSK M16 x 60 GV 8.8	24	24	070-00017	111,00
HSK M16 x 90 GV 8.8	24	24	070-00010	on request
Specification: A2 according to table, page 2				
HSK M8 x 16 A2	13	13	030-00033	on request
HSK M8 x 20 A2	13	13	030-00018	on request
Specification: A4 according to table, page 2				
HSK M8 x 25 A4	13	13	030-00002	64,85
HSK M10 x 30 A4	17	16	040-00003	122,25
HSK M10 x 45 A4	17	16	040-00005	154,60
HSK M12 x 25 A4	19	18	050-00002	179,75
HSK M12 x 30 A4	19	18	050-00003	179,75
HSK M12 x 40 A4	19	18	050-00004	201,35
HSK M12 x 60 A4	19	18	050-00006	284,15
HSK M12 x 80 A4	19	18	050-00008	435,25
HSK M16 x 40 A4	24	24	070-00002	456,80
HSK M16 x 60 A4	24	24	070-00004	557,65
HSK M16 x 90 A4	24	24	070-00007	769,70

ACCESSORIES

SIC

Locking washers

To prevent HALFEN bolts from rotating out of channel when unscrewing



- ① Locking washer SIC
- ② HALFEN T-bolt
- ③ HALFEN channel

Article name	Suitable for HALFEN T-bolts type HS	For thread Ø	Article no.	Price [EUR/100 items]
			0372.	

Specification: GV according to the table on page 2

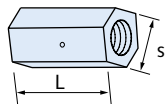
SIC - 50/30 - GV	50/30	M16, M20	000-00006	60,15
SIC - 40/22 - GV	38/17, 40/22	M16	000-00007	48,55
SIC - 38/17 - GV	38/17, 40/22	M10, M12	000-00008	48,55
SIC - 38/23 - GV	38/23 Dynagrip	M16	000-00011	83,20
SIC - 29/20 - GV	29/20 Dynagrip	M12	000-00012	83,20
SIC - 28/15 - GV	28/15	M8, M10	000-00009	39,25
SIC - 20/12 - GV	20/12	M8	000-00010	34,45

Specification: A4 according to table, page 2

SIC - 50/30 - A4	50/30	M16, M20	000-00001	348,85
SIC - 40/22 - A4	38/17, 40/22	M16	000-00002	262,65
SIC - 38/17 - A4	38/17, 40/22	M10, M12	000-00003	262,65
SIC - 28/15 - A4	28/15	M8, M10	000-00004	133,00
SIC - 20/12 - A4	20/12	M8	000-00005	115,20

SKM

Hexagonal coupler sleeves



Article name	Thread	s [mm]	L [mm]	PU [items]	Article no.	Price [EUR/100 items]
					0390.	

Specification: FV according to table, page 2

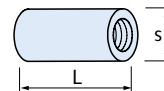
SKM	M10 FV	13	40	100	000-00004	212,70
SKM	M12 FV	17	40	50	000-00005	247,30
SKM	M16 FV	22	50	25	000-00006	379,15

Specification: A4 according to table, page 2

SKM	M10 A4	13	40	100	000-00001	1.492,65
SKM	M12 A4	17	40	50	000-00002	1.769,50
SKM	M16 A4	22	50	25	000-00003	2.560,90

VBM

Coupler sleeves, round



Article name	Thread	s [mm]	L [mm]	PU [items]	Article no.	Price [EUR/100 items]
					0391.	

Specification: GV according to the table on page 2

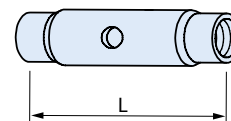
VBM	M6 GV	10	15	100	000-00007	46,30
VBM	M8 GV	12	20	100	000-00008	64,80
VBM	M10 GV	13	25	100	000-00009	104,05
VBM	M12 GV	16	30	50	000-00010	166,50
VBM	M16 GV	21	40	50	000-00011	263,55
VBM	M20 GV	26	50	25	000-00012	459,95

Specification: A4 according to table, page 2

VBM	M6 A4	10	15	100	000-00001	579,15
VBM	M8 A4	14	20	100	000-00002	589,90
VBM	M10 A4	16	25	100	000-00003	852,40
VBM	M12 A4	20	30	50	000-00004	1.201,25
VBM	M16 A4	25	40	50	000-00005	2.211,95
VBM	M20 A4	32	50	25	000-00006	4.409,55

SPH

Turnbuckles with right- and left-hand thread and view hole



Article name	Thread x length [mm]	Article no.	Price [EUR/100 items]
		0392.	

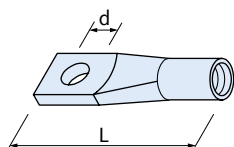
Specification: A4 according to table, page 2

SPH	M12 x 60 A4	000-00001	1.406,25
SPH	M12 x 75 A4	000-00002	1.463,80
SPH	M12 x 95 A4	000-00003	1.521,50
SPH	M12 x 115 A4	000-00004	1.589,65
SPH	M12 x 135 A4	000-00005	1.647,25
SPH	M16 x 60 A4	000-00006	1.909,75
SPH	M16 x 75 A4	000-00007	2.046,45
SPH	M16 x 95 A4	000-00008	2.229,90
SPH	M16 x 115 A4	000-00009	2.413,40
SPH	M16 x 135 A4	000-00010	2.596,65

ACCESSORIES

OES

Threaded eye sleeves



Article name	L [mm]	d [mm]	PU [items]	Article no.	Price [EUR/100 items]
Thread				0401.	
Specification: GV according to the table on page 2					
OES M6 GV	35	6	250	000-00001	106,45
OES M8 GV	53	8	300	000-00007	120,35
OES M10 GV	57	10	225	000-00003	131,80
OES M12 GV	55	12	200	000-00010	138,15
OES M16 GV	80	16	60	000-00005	305,10

RM

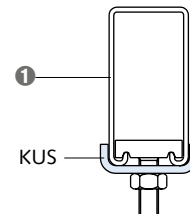
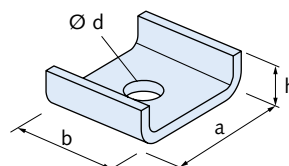
Ring nuts DIN 582



Article name	Thread	PU [items]	Article no.	Price [EUR/100 items]
			0402.	
Specification: GV according to the table on page 2				
RM	M8 GV DIN 582	100	050-00001	272,65
RM	M10 GV DIN 582	100	050-00002	360,70
RM	M12 GV DIN 582	50	050-00003	467,05
RM	M16 GV DIN 582	50	050-00004	677,20
RM	M20 GV DIN 582	20	050-00005	889,80

KUS

Clamping-U-washers
for channel series 28, 41 and 50



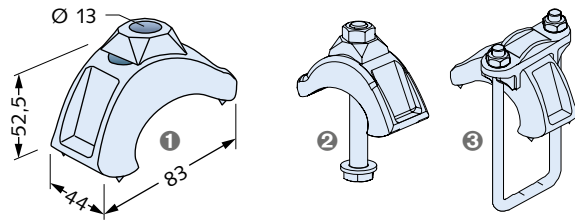
1 Channel e.g. HM 41/83

Article name	a [mm]	b [mm]	h [mm]	d [mm]	t [mm]	Article no.	Price [EUR/100 items]
						0314.	
Specification: FV according to table, page 2							
KUS 28 - M6 - FV	35	30	13	8	3	010-00009	on request
KUS 28 - M8 - FV	35	30	13	10	3	010-00010	on request
KUS 28 - M10 - FV	35	30	13	12	3	010-00011	on request
KUS 41 - M8 - FV	50	50	15	10	3	010-00001	on request
KUS 41 - M10 - FV	50	50	15	12	3	010-00002	on request
KUS 41 - M12 - FV	50	50	15	14	3	010-00003	on request
KUS FV - M12	50	50	15	13	4	000-00001	272,25
KUS 41 - M16 - FV	50	50	15	18	3	010-00004	on request
KUS 50 - M10 - FV	60	50	17	12	4	010-00012	on request
KUS 50 - M12 - FV	60	50	17	14	4	010-00013	on request
KUS 50 - M16 - FV	60	50	17	18	4	010-00014	on request
KUS 50 - M20 - FV	60	50	17	22	4	010-00015	on request
Specification: A2 according to table, page 2							
KUS 41 - M8 - A2	50	50	15	10	3	010-00005	on request
KUS 41 - M10 - A2	50	50	15	12	3	010-00006	on request
KUS 41 - M12 - A2	50	50	15	14	3	010-00007	on request
KUS 41 - M16 - A2	50	50	15	18	3	010-00008	on request
Specification: A4 according to table, page 2							
KUS A4 - M12	50	40	15	13	4	000-00002	631,25

RAIL CLIPS, BEAM CLAMPS, ADJUSTMENT COUPLER

TK

HALFEN Beam clamp - universel

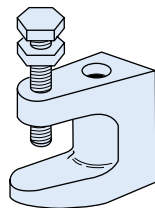


- ① HCS-TK for general fixing to steel beams
- ② HCS-TK-L for Powerclick channel base
- ③ HCS-TK 63 for HZL 63/63 Powerclick channel

Article name	PU [items]	Article no.	Price
		0308.	[EUR/item]
Specification: FV according to table, page 2			
HCS-TK - FV with curved top plate only	20	030-00001	7,45
HCS-TK-L - FV with long hex bolt	20	030-00002	8,55
HCS-TK - FV with U-bolt set	10	030-00003	15,95

KLP-TK

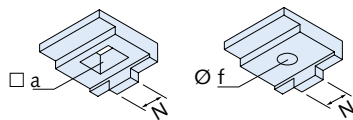
Light screw clamp



Article name	For diameter	Article no.	Price
		0325.	[EUR/item]
Specification: FV according to table, page 2			
KLP-TK - 19/08 GV	M8	060-00004	on request
KLP-TK - 21/10 GV	M10	060-00005	on request
KLP-TK - 23/10 GV	M12	060-00006	on request

KLP-S

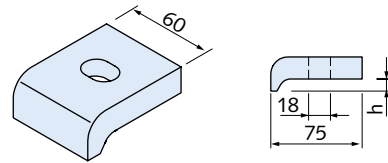
Rail clip, forged



Article name	Heel width N [mm]	Ø f / □ a [mm]	Article no.	Price
			0325.	[EUR/100 items]
Specification: FV according to table, page 2				
KLP - Nr. 10 - FV	16	Ø 18	010-00001	664,95
KLP - Nr. 26 - FV	without heel	Ø 18	010-00002	1.324,85
KLP - Nr. 20 - FV	20	□ 22	010-00003	929,45

KLP-60

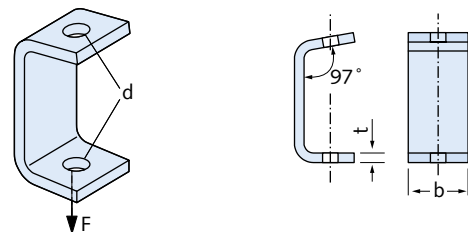
Rail clip (previously DIN 3568)



Article name	Clamping height h [mm]	Article no.	Price
		0325.	[EUR/100 items]
Specification: FV according to table, page 2			
KLP - 60/10 - FV	10	020-00001	994,90
KLP - 60/12 - FV	12	020-00002	1.028,95
KLP - 60/14 - FV	14	020-00003	1.047,15
KLP - 60/16 - FV	16	020-00004	1.073,40
KLP - 60/18 - FV	18	020-00005	1.104,85
KLP - 60/20 - FV	20	020-00006	1.157,30

HJV

Adjustment coupler

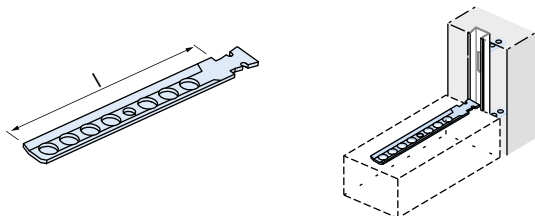


Article name	F [kN]	t [mm]	b [mm]	d [mm]	Article no.	Price
					0313.	[EUR/100 items]
Specification: FV according to table, page 2						
HJV - 1 - FV	1,5	6	40	13	000-00001	1.172,95
HJV - 2 - FV	3,3	8	50	17	000-00002	1.303,90
HJV - 3 - FV	5,0	10	50	17	000-00003	1.521,20
Specification: A4 according to table, page 2						
HJV - 1 - A4	1,5	6	40	13	000-00004	2.444,25
HJV - 2 - A4	3,3	8	50	17	000-00005	3.014,60
HJV - 3 - A4	5,0	10	50	17	000-00006	3.544,15

BRICK TIE ANCHOR

ML

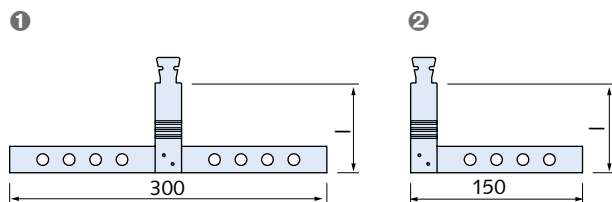
HALFEN Brick tie, suitable for brick tie channels HMS 25/15D and HALFEN Cast-in channel HTA 28/15



Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: FV according to table, page 2			
ML- 85 - FV	200	010-00004	77,10
ML- 120 - FV	200	010-00005	88,30
ML- 180 - FV	200	010-00006	124,60

MLQ

HALFEN Brick tie, suitable for brick tie channels HMS 25/15D and HALFEN Cast-in channel HTA 28/15

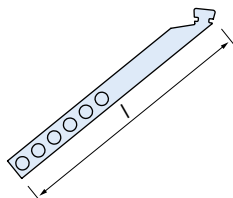


- ① MLQ-D = double-sided
- ② MLQ-E = one-sided

Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: FV according to table, page 2			
MLQ-D- 85 - FV	200	020-00004	1.105,25
MLQ-D- 120 - FV	200	020-00005	1.117,85
MLQ-D- 180 - FV	200	020-00006	1.141,65
MLQ-E- 85 - FV	200	030-00004	935,60
MLQ-E- 120 - FV	200	030-00005	949,70
MLQ-E- 180 - FV	200	030-00006	970,80

MLS

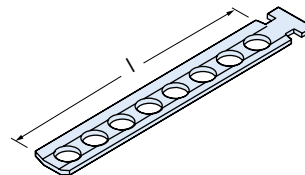
HALFEN Angled brick tie, suitable for brick tie channels HMS 25/15D and HALFEN Cast-in channel HTA 28/15



Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: FV according to table, page 2			
MLS- 300 - FV	200	040-00004	539,25
MLS- 350 - FV	200	040-00005	553,15
MLS- 400 - FV	200	040-00006	567,35

BL

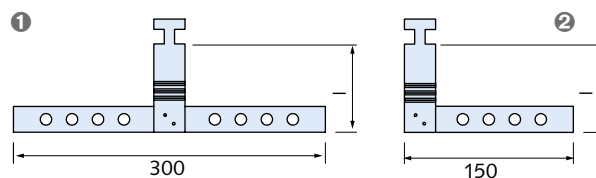
HALFEN Brick tie, suitable for HALFEN Cast-in channel HTA 38/17



Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: FV according to table, page 2			
BL- 85 - FV	200	050-00004	92,40
BL- 120 - FV	200	050-00005	111,90
BL- 180 - FV	200	050-00006	149,90

BLQ

HALFEN Brick tie, suitable for HALFEN Cast-in channel HTA 38/17



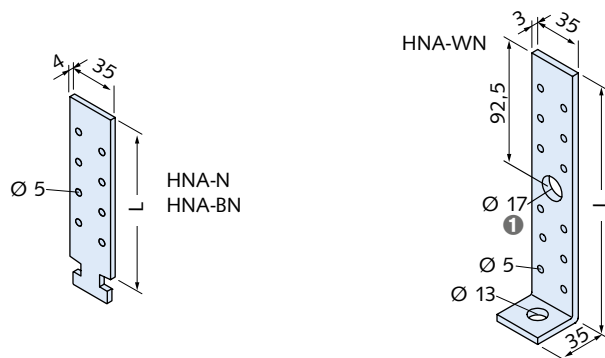
- ① BLQ-D = double-sided
- ② BLQ-E = one-sided

Article name	PU [items]	Article no.	Price [EUR/100 items]
Length [mm]		0132.	
Specification: FV according to table, page 2			
BLQ-D- 85 - FV	200	060-00004	1.155,60
BLQ-D- 120 - FV	200	060-00005	1.172,35
BLQ-D- 180 - FV	200	060-00006	1.201,75
BLQ-E- 85 - FV	200	070-00004	952,50
BLQ-E- 120 - FV	200	070-00005	969,20
BLQ-E- 180 - FV	200	070-00006	997,30

ACCESSORIES

HNA

HALFEN Timber anchor
for connecting structural timber to HALFEN Cast-in channels HTA 28/15 or HTA 38/17

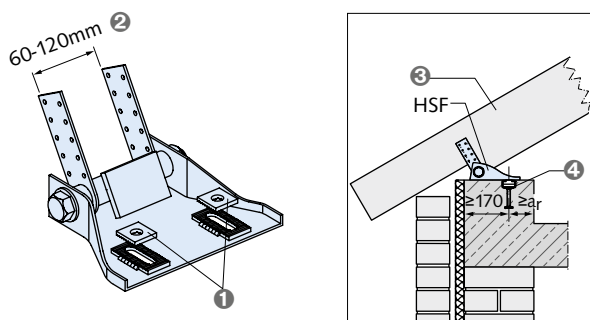


① 120 without RL Ø 17

Article name	Suitable for HALFEN Cast-in channel HTA/HTA-CE	PU [items]	Article no.	Price [EUR/100 items]
Length l [mm]			0032.	
Specification: FV according to table, page 2				
HNA- N 95 - FV	28/15	150	010-00001	164,20
HNA- N 120 - FV	28/15	150	010-00002	189,55
HNA- BN 95 - FV	38/17	150	020-00001	164,20
HNA- BN 120 - FV	38/17	150	020-00002	189,55
HNA- BN 185 - FV	38/17	150	020-00003	249,65
HNA- WN 120 - FV	all with M12	150	030-00001	201,15
HNA- WN 185 - FV	all with M12	150	030-00002	242,80

HSF

HALFEN Rafter shoe
Including 2 toothed washers each
Note: HALFEN T-bolts must be ordered separately.



- ① Toothed washers with round hole, Ø 17 mm
- ② Adjustable
- ③ Rafters
- ④ HSF rafter shoe

Article name	Article no.	Price
	0038.	[EUR/item]
Specification: FV according to table, page 2		
HSF 6/12 - FV	010-00001	55,45

CHEMICAL ANCHOR BOLT SYSTEMS, ACCESSORIES

Drilled chemical anchor HB-V-A

With nut and washer

Approval for non-cracked concrete

European Technical Assessment ETA-07/0257



Article name		Max. clamping thickness	Anchor length		PU [items] ①	Article no. 0430.	Price [EUR/100 items]
Specification: GV according to the table on page 2							
HB - V - A	10-	30/	130	GV	10	100-00029	126,95
HB - V - A	10-	65/	165	GV	10	100-00030	165,05
HB - V - A	12-	35/	160	GV	10	100-00033	172,40
HB - V - A	12-	85/	210	GV	10	100-00034	227,60
HB - V - A	16-	20/	165	GV	10	100-00017	293,75
HB - V - A	16-	45/	190	GV	10	100-00018	323,80
Specification: FV according to table, page 2							
HB - V - A	10-	30/	130	FV	10	100-00023	175,75
HB - V - A	12-	35/	160	FV	10	100-00024	232,00
HB - V - A	12-	95/	220	FV	10	100-00046	318,55
Specification: A4 according to table, page 2							
HB - V - A	8-	20/	110	A4	10	100-00001	347,10
HB - V - A	10-	15/	115	A4	10	100-00002	492,30
HB - V - A	10-	30/	130	A4	10	100-00003	578,35
HB - V - A	10-	65/	165	A4	10	100-00004	604,20
HB - V - A	10-	90/	190	A4	10	100-00053	692,20
HB - V - A	12-	10/	135	A4	10	100-00005	697,70
HB - V - A	12-	35/	160	A4	10	100-00006	771,20
HB - V - A	12-	55/	180	A4	10	100-00007	782,25
HB - V - A	12-	65/	190	A4	10	100-00064	848,35
HB - V - A	12-	95/	220	A4	10	100-00055	945,70
HB - V - A	16-	20/	165	A4	10	100-00010	1.606,75
HB - V - A	16-	45/	190	A4	10	100-00011	1.799,60
HB - V - A	16-	65/	210	A4	10	100-00012	2.075,05
HB - V - A	16-	85/	230	A4	10	100-00058	2.240,30
HB - V - A	20-	20/	220	A4	10	100-00014	3.667,15
HB - V - A	20-	60/	260	A4	10	100-00015	4.186,90
HB - V - A	24-	55/	300	A4	5	100-00016	6.913,85

Anchor rods M8 - M24 with external hexagon head. Other lengths on request
① Each package contains one setting tool.

Anchor rods M8 - M24 with external hexagon head. Other lengths on request
① Each package contains one setting tool.

Adhesive capsule HB-V-P

Two-component synthetic resin in glass capsule for anchor rod HB-V-A



Article name	PU [items]	Article no. 0433.	Price [EUR/100 items]
Specification: Two-component synthetic resin			
HB - V - P 8	10	050-00001	188,35
HB - V - P 10	10	050-00002	212,70
HB - V - P 12	10	050-00003	238,60
HB - V - P 16	10	050-00005	362,70
HB - V - P 20	10	050-00006	442,20
HB - V - P 24	5	050-00007	519,00

Fixing systems

1

Reinforcement systems

2

Lifting systems

3

Façade connection systems

4

DETAN Rod systems

5

Industrial Technology

6

Bolts, Accessories

7

CHEMICAL ANCHOR BOLT SYSTEMS, ACCESSORIES

1
Fixing systems

Drilled chemical anchor HB-VMZ-A

With nut and washer
Approval for cracked and non-cracked concrete
European Technical Assessment ETA-07/0256



2
Reinforcement systems

Article name Depth of anchoring	Max. clamping Anchor Ø thickness length				PU [items]	Article no. 0432.	Price [EUR/100 items]
Specification: GV according to the table on page 2							
HB - VMZ - A 60 10-	30/	105	GV	10	380-00032	555,45	
HB - VMZ - A 60 10-	60/	135	GV	10	380-00033	653,15	
HB - VMZ - A 80 12-	50/	150	GV	10	380-00037	716,55	
HB - VMZ - A 125 12-	25/	170	GV	10	380-00085	856,95	
HB - VMZ - A 125 16-	30/	180	GV	10	380-00044	949,65	
HB - VMZ - A 125 16-	60/	210	GV	10	380-00045	1.114,10	
HB - VMZ - A 170 20-	25/	230	GV	5	380-00049	1.675,95	
HB - VMZ - A 170 20-	50/	255	GV	5	380-00050	1.871,50	
HB - VMZ - A 170 20-	100/	305	GV	5	380-00051	2.387,80	
Specification: A4 according to table, page 2							
HB - VMZ - A 60 10-	10/	85	A4	10	380-00004	1.086,30	
HB - VMZ - A 60 10-	20/	95	A4	10	380-00005	1.181,85	
HB - VMZ - A 60 10-	30/	105	A4	10	380-00006	1.225,10	
HB - VMZ - A 60 10-	60/	135	A4	10	380-00007	1.325,80	
HB - VMZ - A 60 10-	100/	175	A4	10	380-00008	1.730,70	
HB - VMZ - A 75 10-	40/	130	A4	10	380-00094	1.318,55	
HB - VMZ - A 80 12-	10/	110	A4	10	380-00009	1.382,35	
HB - VMZ - A 80 12-	25/	125	A4	10	380-00010	1.488,95	
HB - VMZ - A 80 12-	50/	150	A4	10	380-00011	1.678,15	
HB - VMZ - A 80 12-	60/	160	A4	10	380-00096	2.332,60	
HB - VMZ - A 80 12-	100/	200	A4	10	380-00012	2.163,45	
HB - VMZ - A 100 12-	60/	180	A4	10	380-00016	2.339,55	
HB - VMZ - A 125 12-	60/	205	A4	10	380-00097	2.713,65	
HB - VMZ - A 90 16-	30/	145	A4	10	380-00066	2.475,35	
HB - VMZ - A 90 16-	60/	175	A4	10	380-00098	2.969,25	
HB - VMZ - A 105 16-	30/	160	A4	10	380-00068	2.613,00	
HB - VMZ - A 105 16-	60/	190	A4	10	380-00099	2.957,60	
HB - VMZ - A 125 16-	30/	180	A4	10	380-00018	2.936,20	
HB - VMZ - A 125 16-	60/	210	A4	10	380-00019	3.107,10	
HB - VMZ - A 125 16-	100/	250	A4	10	380-00020	3.687,35	
HB - VMZ - A 115 20-	30/	175	A4	5	380-00070	4.113,35	
HB - VMZ - A 170 20-	20/	225	LG A4 ①	5	380-00071	4.513,70	
HB - VMZ - A 170 20-	50/	255	A4	5	380-00023	5.136,20	
HB - VMZ - A 200 24-	50/	290	A4	5	380-00025	6.836,65	

① Version LG with thread up to concrete surface
Other dimensions and thread lengths available on request

① Version LG with thread up to concrete surface
Other dimensions and thread lengths available on request

3
Lifting systems

4
Façade connection systems

5
DETAN Rod systems

6
Industrial Technology

7
Bolts, Accessories

Injection system HB-VMZ

2-component adhesive
European approval for cracked and non-cracked concrete



Article name	Article no.	Price
	0433.	[EUR/item]
Specification: 2-component adhesive		
HB-VMZ 280 ml, incl. 2 HB-VM-X static mixer ①	040-00100	46,30
HB-VMZ 420 ml, incl. 1 HB-VM-X static mixer	040-00101	61,75
Static mixer HB-VM-X	040-00039	2,05
Extension for mixer HB-VM-XE (200 mm)	040-00076	0,50
Installation wedge HB-VMZ-MK	040-00116	1,65

① HB-VMZ 280ml can be dispensed with a standard silicone gun
② Single cartridges can also be supplied

CHEMICAL ANCHOR BOLT SYSTEMS, ACCESSORIES

Drilled anchor HB-VMU-A

Approval for cracked and non-cracked concrete
European Technical Assessment ETA-16/0691
and for brickwork

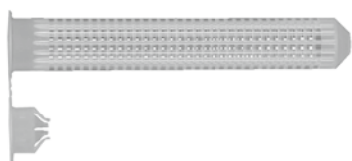
European Technical Assessment ETA-17/0196



Article name		Max. clamping thickness	Anchor length		PU [items]	Article no.	Price [EUR/100 items]
Ø						0430.	
Specification: GV according to the table on page 2							
HB - VMU - A	8-	20/	110	GV	10	190-00025	92,40
HB - VMU - A	10-	10/	110	GV	10	190-00027	118,95
HB - VMU - A	10-	50/	150	GV	10	190-00029	156,40
HB - VMU - A	10-	160/	260	GV	10	190-00032	322,60
HB - VMU - A	12-	10/	135	GV	10	190-00033	147,15
HB - VMU - A	12-	125/	250	GV	10	190-00040	270,80
Specification: A4 according to table, page 2							
HB - VMU - A	8-	20/	110	A4	10	190-00002	347,10
HB - VMU - A	8-	55/	145	A4	10	190-00050	455,40
HB - VMU - A	10-	10/	110	A4	10	190-00004	475,55
HB - VMU - A	10-	30/	130	A4	10	190-00005	578,35
HB - VMU - A	10-	50/	150	A4	10	190-00006	589,55
HB - VMU - A	10-	90/	190	A4	10	190-00008	692,20
HB - VMU - A	12-	15/	120	A4	10	190-00011	on request
HB - VMU - A	12-	50/	175	A4	10	190-00015	841,15
HB - VMU - A	12-	85/	210	A4	10	190-00016	896,20
HB - VMU - A	16-	60/	210	A4	10	190-00021	on request
Further sizes on request							

Perfo sleeve HB-VM-SH

For use in perforated brickwork



Article name	Ø [mm]	Suitable for:	Drill depth [mm]	PU [items]	Article no.	Price [EUR/10 items]
					0433.	
Specification: Polypropylene						
HB - VM - SH	16x85	M8 / M10	80	10	040-00042	13,50
HB - VM - SH	16x130	M8 / M10	130	10	040-00043	on request
HB - VM - SH	20x85	M12 / M16	80	10	040-00044	21,50
HB - VM - SH	20x130	M12 / M16	130	10	040-00040	on request

Injection system HB-VMU plus

Intrusion mortar - cartridge

Approval for cracked and non-cracked concrete,
HB-VMU plus Assessment ETA-16/0691

Approval for brickwork

HB-VMU plus Assessment ETA-17/0196



Article name	Content [ml]	PU [items] ②	Article no.	Price [EUR/item]
			0433.	
Specification: Polypropylene				
HB-VMU plus 280 ml, incl. 2 HB-VM-X static mixer ①	280	12	040-00137	36,00
HB-VMU plus 410 ml, incl. 1 HB-VM-X static mixer	410	12	040-00136	46,35
HB-VM-X static mixer			040-00039	2,05
Extension for mixer HB-VM-XE (200 mm)			040-00076	0,50

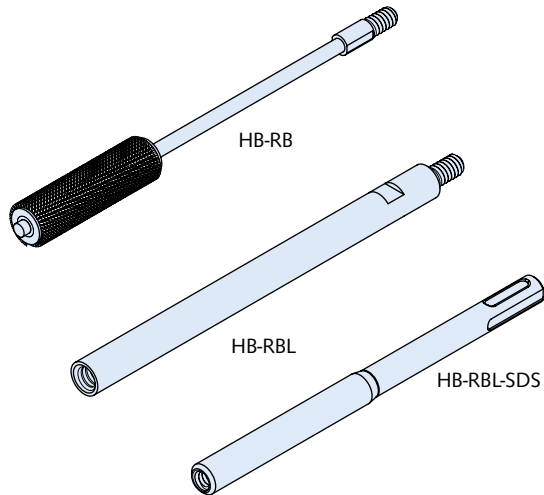
① HB-VMU plus 280 ml can be dispensed with a standard silicone gun.

② Single cartridges can also be supplied.

CHEMICAL ANCHOR BOLT SYSTEMS, ACCESSORIES

Cleaning brush HB-RB

Accessory for cleaning drill holes
For hole diameter 10 - 28 mm



Article name	Suitable for:	PU [items]	Article no. 0433.	Price [EUR/item]
Specification: Steel wire				
HB-RB 10	HB-VMZ, HB-V, HB-VMU M10	1	040-00104	10,35
HB-RB 12	HB-VMZ, HB-V, HB-VMU M9	1	040-00105	10,60
HB-RB 14	HB-VMZ, HB-V, HB-VMU M12	1	040-00106	10,80
HB-RB 16	HB-VMU plus M12 ①	1	040-00118	11,00
HB-RB 18	HB-VMZ, HB-V, HB-VMU M16	1	040-00107	11,40
HB-RB 20	HB-VMU plus M16 ①	1	040-00119	11,75
HB-RB 22	HB-VMZ 115, HB-VMU M20	1	040-00108	12,05
HB-RB 24	HB-VMZ M20	1	040-00113	12,60
HB-RB 26	HB-VMZ, HB-V M20, HB-VMU M24	1	040-00109	14,95
HB-RB 28	HB-V M24	1	040-00114	15,95
Accessories for cleaning brushes HB-RB				
HB-RBL-SDS M6 SDS-adapter	all HB-RB variants	1	040-00098	15,50
HB-RBL M6 extension	all HB-RB variants	1	040-00099	26,50

① For brickwork

Dispenser HB-VM-P



Article name	Article no. 0433.	Price [EUR/item]
Specification: Metal		
HB-VM-P 345 ①	040-00077	116,60
HB-VM-P 420 Profi ②	040-00080	185,25

① Suitable for 280ml cartridges

② Suitable for 410ml and 420ml cartridges

Blow-out gun / Blow-out pump

Accessories for cleaning drill holes

HB VM-AP

HB VM-ABP



Article name	Suitable for drill hole Ø [mm]	PU [items]	Article no. 0433.	Price [EUR/item]
Specification: According to catalogue				
HB-VM-AP 360	8-35	1	040-00110	43,25
HB-VM-ABP	22-26	1	040-00111	72,50

MECHANICAL HEAVY-DUTY ANCHOR BOLTS

Wedge anchor HB-B

Approval for non-cracked concrete

European Technical Assessment ETA-07/0247



Article name	Max. clamping thickness	Anchor length	PU [items]	Article no. 0432.	Price [EUR/100 items]
Specification: GV according to the table on page 2					
HB-B 10-	10-16/	85	GV	50	060-00069 115,05
HB-B 10-	20-26/	95	GV	50	060-00070 122,40
HB-B 12-	10-25/	105	GV	25	060-00144 175,75
HB-B 12-	15-30/	110	GV	25	060-00051 176,15
HB-B 12-	30-45/	125	GV	25	060-00052 208,05
HB-B 12-	50-65/	145	GV	25	060-00079 220,40
HB-B 12-	65-80/	160	GV	25	060-00080 250,60
HB-B 12-	85-100/	180	GV	25	060-00081 306,50
HB-B 16-	10-28/	130	GV	20	060-00145 308,25
HB-B 16-	30-48/	150	GV	20	060-00054 335,45
Specification: A4 according to table, page 2					
HB-B 8-	15-24/	80	A4	100	060-00006 368,50
HB-B 8-	20-29/	85	A4	100	060-00025 384,10
HB-B 8-	30-39/	95	A4	100	060-00007 402,15
HB-B 8-	45-54/	110	A4	100	060-00008 433,80
HB-B 10-	15-21/	90	A4	50	060-00010 528,55
HB-B 10-	20-26/	95	A4	50	060-00028 551,40
HB-B 10-	30-36/	105	A4	50	060-00029 591,55
HB-B 10-	45-51/	120	A4	50	060-00011 617,70
HB-B 10-	50-56/	125	A4	50	060-00030 642,25
HB-B 10-	70-76/	145	A4	50	060-00031 745,15
HB-B 12-	10/	95	A4	25	060-00034 760,95
HB-B 12-	10-25/	105	A4	25	060-00135 775,45
HB-B 12-	15-30/	110	A4	25	060-00013 783,10
HB-B 12-	20-35/	115	A4	25	060-00014 865,25
HB-B 12-	30-45/	125	A4	25	060-00015 899,95
HB-B 12-	50-65/	145	A4	25	060-00016 953,05
HB-B 12-	65-80/	160	A4	25	060-00035 1.055,65
HB-B 12-	85-100/	180	A4	25	060-00017 1.222,00
HB-B 16-	10-26/	130	A4	20	060-00137 1.458,35
HB-B 16-	30-46/	150	A4	20	060-00019 1.518,20
HB-B 16-	60-76/	180	A4	20	060-00020 1.778,65
HB-B 16-	100-116/	220	A4	10	060-00039 2.297,60
HB-B 20-	5-27/	150	A4	10	060-00041 2.829,80
HB-B 20-	35-57/	180	A4	10	060-00042 3.643,30
HB-B 20-	60-82/	205	A4	10	060-00022 3.766,25

Wedge anchor HB-B-IG



Article name	Drill depth [mm]	PU [items]	Article no. 0432.	Price [EUR/100 items]
Specification: A4 according to table, page 2				
HB-B-IG M8 x 50 A4	①	100	070-00003	377,45
HB-B-IG M10 x 60 A4	①	50	070-00001	555,95
HB-B-IG M12 x 75 A4	①	25	070-00002	825,10
① Drive the HB-B-IG wedge anchor a little below the fitting surface using a fitting screw.				

Fixing systems

1

Reinforcement systems

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Lifting systems

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Façade connection systems

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DETAN Rod systems

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Industrial Technology

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Bolts, Accessories

7

MECHANICAL HEAVY-DUTY ANCHOR BOLTS

Wedge anchor HB-BZ

Approval for cracked and non-cracked concrete
European Technical Assessment ETA-07/0249



Article name		Max. clamping thickness	Anchor length		PU [items]	Article no.	Price [EUR/100 items]
Ø						0432.	
Specification: GV according to the table on page 2							
HB-BZ	8-	10-21/	75	GV	100	260-00041	106,00
HB-BZ	8-	15-26/	80	GV	100	260-00042	112,00
HB-BZ	8-	30-41/	95	GV	100	260-00043	130,85
HB-BZ	10-	10-30/	90	GV	50	260-00046	145,65
HB-BZ	10-	30-50/	110	GV	50	260-00049	173,55
HB-BZ	10-	50-70/	130	GV	50	260-00050	183,95
HB-BZ	12-	15-35/	110	GV	25	260-00052	224,00
HB-BZ	12-	30-50/	125	GV	25	260-00054	251,80
HB-BZ	12-	50-70/	145	GV	25	260-00055	291,25
HB-BZ	12-	65-85/	160	GV	25	260-00056	315,85
HB-BZ	12-	85-105/	180	GV	25	260-00057	362,15
HB-BZ	16-	25-45/	145	GV	20	260-00060	489,60
HB-BZ	16-	50-70/	170	GV	20	260-00061	593,80
HB-BZ	16-	80-100/	200	GV	10	260-00062	654,50
HB-BZ	20-	30/	165	GV	10	260-00029	935,20
HB-BZ	20-	60/	195	GV	10	260-00030	1.197,75
HB-BZ	24-	30/	190	GV	10	260-00034	1.978,20
HB-BZ	24-	60/	220	GV	5	260-00035	2.196,40
Specification: A4 according to table, page 2							
HB-BZ	8-	10-21/	75	A4	100	040-00027	540,75
HB-BZ	8-	15-26/	80	A4	100	040-00035	568,95
HB-BZ	8-	30-41/	95	A4	100	040-00036	600,85
HB-BZ	8-	50-61/	115	A4	100	040-00028	664,40
HB-BZ	10-	10-30/	90	A4	50	040-00029	716,40
HB-BZ	10-	15-35/	95	A4	50	040-00037	771,45
HB-BZ	10-	30-50/	110	A4	50	040-00038	909,10
HB-BZ	10-	50-70/	130	A4	50	040-00030	1.028,20
HB-BZ	12-	15-35/	110	A4	25	040-00031	1.141,85
HB-BZ	12-	20-40/	115	A4	25	040-00039	1.210,35
HB-BZ	12-	30-50/	125	A4	25	040-00040	1.277,00
HB-BZ	12-	50-70/	145	A4	25	040-00032	1.433,65
HB-BZ	12-	85-105/	180	A4	25	040-00041	1.743,50
HB-BZ	12-	125/	220	A4	25	040-00016	2.006,20
HB-BZ	16-	25-45/	145	A4	20	040-00033	2.260,70
HB-BZ	16-	50-70/	170	A4	20	040-00034	2.443,20
HB-BZ	16-	65-85/	185	A4	20	040-00042	on request
HB-BZ	16-	100/	220	A4	10	040-00017	3.141,20
HB-BZ	20-	30/	165	A4	10	040-00018	4.758,25
HB-BZ	20-	60/	195	A4	10	040-00019	5.600,40
HB-BZ	20-	100/	235	A4	5	040-00020	on request
Other lengths on request							

Wedge anchor HB-BZ-U

With large washer DIN EN ISO 7093 (DIN 9024)
European approval for cracked and non-cracked concrete,
Assesment ETA-07/0249
European Technical Assessment ETA-07/0249



Article name		Max. clamping thickness	Anchor length		PU [items]	Article no.	Price [EUR/100 items]
Ø						0432.	
Specification: GV according to the table on page 2							
HB-BZ-U	8-	15-26/	80	GV	100	270-00029	118,80
HB-BZ-U	12-	15-35/	110	GV	25	270-00034	242,00
HB-BZ-U	12-	30-50/	125	GV	25	270-00035	276,10
HB-BZ-U	12-	50-70/	145	GV	25	270-00036	318,65
Specification: A4 according to table, page 2							
HB-BZ-U	8-	15-26/	80	A4	100	250-00024	608,80
HB-BZ-U	12-	15-35/	110	A4	25	250-00029	1.260,80
HB-BZ-U	12-	50-70/	145	A4	25	250-00030	1.583,30
HB-BZ-U	16-	25-45/	145	A4	20	250-00031	2.525,55
Other lengths on request							

Wedge anchor HB-BZ-IG

For pre-fastening and through-fastening
Approved for cracked and non-cracked concrete



Article name	Max. clamping thickness	PU [items]	Article no.	Price [EUR/100 items]
Thread Ø			0432.	
Specification: A4 = stainless steel A4 / pre-fastening				
HB-BZ-IG M12 -	0	A4 ①	20	280-00004 on request
Specification: A4 = stainless steel A4 / through-fastening				
HB-BZ-IG M6 -	20	A4 ①	100	280-00006 on request
HB-BZ-IG M8 -	20	A4 ①	50	280-00009 on request
① Bolts and nuts to be ordered separately. Other bolts lengths according to DIN 933 upon request.				

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STANDARD TERMS AND CONDITIONS

of HALFEN GmbH and HALFEN International GmbH, as revised in 09/2014

§ 1 General

(1) These Standard Terms and Conditions ("Standard Terms") shall govern all business relations between HALFEN GmbH or HALFEN International GmbH, respectively, (hereinafter: "HALFEN" or "we" or "us") and the Customer if the Customer qualifies as an entrepreneur (Section 14 of the German Civil Code – BGB), a legal person under public law or a special fund under public law.

(2) These Standard Terms shall apply, without limitation, to contracts for the sale and/or supply by HALFEN of movable things (hereinafter also referred to as "goods") whether from our own production or purchased from our vendors (Sections 433, 651 BGB), as well as to any services we provide in connection with those goods. These Standard Terms in their current release shall apply as a framework agreement to any present or future contracts for the sale and/or supply of goods and the performance of services made with a given Customer, with no need for us to reference these Standard Terms for each individual contract.

(3) Our Standard Terms shall apply exclusively. No deviating, conflicting or supplementing standard terms and conditions of the Customer shall become part of a contract unless and to the extent we have expressly approved their applicability. This requirement of approval by HALFEN shall apply in all events, including, for example, if we make a delivery to the Customer without making a reservation while having knowledge of the Customer's standard terms and conditions.

(4) Individual understandings made with the Customer (including collateral understandings or additions or modifications) shall prevail over these Standard Terms in all events.

(5) Any legally relevant statements or notifications to be issued to us by the Customer after the conclusion of a contract (for example the setting of deadlines, the notification of defects or rescission or reduction of the purchase price) must be in writing to become effective.

(6) Any reference to the applicability of statutory provisions shall be for clarification only. Consequently, whether with or without such clarification, the statutory provisions shall apply except as directly modified or expressly contracted out in these Standard Terms.

§ 2 Conclusion and Performance of Contract

(1) Information we provide about our goods shall not be considered an offer in the legal sense but shall be non-binding and subject to change. This shall also hold if we have provided the Customer with catalogues, technical documentation (for example drawings, layouts, calculations, cost estimates, references to DIN standards), other product descriptions or documentation – whether in electronic or non-electronic form.

(2) The ordering of goods by the Customer shall be considered a binding offer for a contract.

(3) The contract and other understandings or guarantee statements shall only come into effect when we confirm the order in writing.

(4) We reserve the title and copyright to any execution plans (e.g., layouts, outlines and structural analysis documentation) produced by us that concern an offer or contract order.

(5) The Customer may not use any know-how included in execution plans unless for the purposes assumed in the contract.

(6) Insofar as we provide goods on the basis of drawings, models, samples, instructions or other annexes to an order furnished by the Customer, the Customer warrants that the production and provision of the goods ordered does not infringe any intellectual property rights or copyrights. The Customer shall hold us free and harmless against any claims of third parties without undue delay if the production or provision of the goods does infringe any intellectual property rights or copyrights of a third party in violation of sentence 1. If a third party should hold us liable for infringement of intellectual property rights or copyrights, we have the right against the Customer to discontinue the production and provision and to request compensation for the costs accrued unless the Customer procures for us within a reasonable period of time all rights necessary for HALFEN to perform the contract. The provisions contained in § 3 paragraph 2 and § 4 shall apply.

(7) Except as otherwise agreed in writing, we have the right to destroy any models, samples, drawings, instructions and other annexes to an order after six months from the performance of a contract, unless the circumstances make it obvious to us that the Customer is legitimately interested in a return of said annexes to an order.

§ 3 Time for Delivery and Default in Delivery

(1) The time for delivery will be agreed on for each specific order or announced by us when we accept an order.

(2) Notwithstanding our rights based on default in acceptance, any times for delivery or dates of delivery shall be extended by the period of time for which our performance is impeded by the Customer's default in relation to us or by the Customer's failure to comply with duties of assistance (for example failure to procure the required official confirmations or permits or failure to deliver the required execution planning or failure to make the advance payment).

(3) If we cannot meet binding times for delivery for reasons for which we are not responsible (non-availability of performance), we will inform the Customer without undue delay, notifying the expected new time for delivery. For purposes of the foregoing, an event of non-availability of performance for which we are not responsible shall include, without limitation, our own late supply by our vendor if we have entered into a congruent hedging transaction (i.e., there exists a delivery contract between us and our vendor on the date of the conclusion of

the purchase contract with the Customer, which will, under normal circumstances, enable us to serve the Customer with the same certainty that has been promised to us), provided that we have not furnished an additional guarantee regarding the timely delivery. Our statutory rights of rescission and cancellation and the statutory provisions regarding the unwinding of a contract if the claim for performance is excluded (e.g., if performance or rectification is either impossible or cannot reasonably be required of us), shall remain unaffected. The Customer's rights of rescission and cancellation under § 8 of these Standard Terms shall remain unaffected as well.

(4) The statutory provisions shall apply as to the occurrence of default in delivery on our side.

§ 4 Delivery, Passing of Risk, Acceptance, Default in Acceptance

(1) Delivery shall be ex works, and this shall also be the place of performance unless otherwise agreed. At the request and for the account of the Customer, the goods will be shipped to another point of destination (sales per dispatch – "Versendungskauf"). Except as otherwise agreed, we have the right to decide the form of shipment (including, without limitation, the carrier, route of shipment, packing) in good faith.

(2) Partial deliveries shall be allowed to the extent we may reasonably expect the Customer to accept such partial deliveries, except as otherwise agreed.

(3) The risk of accidental loss and accidental deterioration of the goods shall pass to the Customer at the latest when the goods are made available for transit ex works. In the case of a sales per dispatch (Versendungskauf), however, the risks of accidental loss and accidental deterioration of the goods as well as the risk of delay shall pass to the Customer when the goods have been handed over to the forwarding agent, the carrier or another person or institution designated for performing the shipment.

(4) If the Customer is in default of acceptance or fails to perform an act of assistance for reasons for which the Customer is responsible or if delivery by us is delayed for other reasons for which the Customer is responsible, we have the right to claim compensation for the resulting damage including any additional costs (e.g., storage costs).

§ 5 Prices and Terms of Payment

(1) Except as otherwise agreed, our current price list as revised at the time of conclusion of a contract shall apply, and prices shall be ex works and plus VAT at the statutory rate.

(2) In the case of a sale per dispatch (§ 4 paragraph 1), the Customer shall bear the costs for shipping ex works and the costs of any transport insurance requested by the Customer. The Customer shall bear any customs duties, charges, taxes and other public levies.

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(3) Any swap packing (euro-pallettes, crates, etc.) handed over for use in transport shall remain our property and shall be for the Customer's temporary possession only. The Customer shall owe HALFEN the exchange or return of such swap packing.

(4) The purchase price shall be paid within 30 days after the due date and receipt of the invoice, without deduction of any discount.

(5) The partial payments for goods delivered in partial deliveries shall be due from invoicing and passing of the risk of the goods.

(6) The Customer is in default if he does not perform within 30 days after the due date and receipt of the invoice. During default, interest on the sum due for payment accrues at the statutory rate of default interest. We reserve the right to claim additional default damages. In relation to merchants (Kaufleute), our right to claim interests from the due date (Section 353 of the German Commercial Code – HGB) shall remain unaffected.

(7) In the case of several outstanding payments from the Customer, we will set off payments by the Customer against the earlier receivables first. If costs and interests have already accrued, we will set off payments by the Customer first against interest, then against costs and finally against the receivables.

(8) The Customer shall have rights of set-off or retention only if and when the Customer's claim has been awarded with final and binding effect or if and when the Customer's claim has not been contested by us.

(9) If it becomes evident after the conclusion of the contract that our claim to the purchase price is jeopardized by lack of solvency of the Customer (e.g., if a request for opening insolvency proceedings against the Customer is filed), the law allows us to refuse performance and – after setting a deadline as may be necessary – to rescind the contract (Section 321 BGB).

§ 6 Reservation of Title

(1) We reserve our title to the delivered goods up until all of our current and future claims under the contract and under a standing business relationship between us and the Customer (secured claims) are fully paid.

(2) Until the secured claims are paid in full, no goods under reservation of title may be pledged to third parties or transferred by way of security. In the case of seizure or other interferences, the Customer must identify our title to the goods to the executing official or to other third parties. The Customer shall give us instant written notice of any third-party interference with the goods owned by us.

(3) The Customer may resell and/or process any goods under reservation of title in the course of ordinary business. In this case, the following provisions shall apply.

(a) Our reservation of title shall extend to the full

value of any products created through processing of or combination with or connection to our goods, and we shall be considered the producer of the newly created products. If a third party retains title after such processing, combination or connection of the goods, we shall hold joint title relative to the invoice values of the goods processed, combined or connected. In all other respects, the newly created products shall be subject to the same provisions as the goods delivered under reservation of title.

(b) The Customer hereby assigns to us by way of security, and we accept the assignment of, any claims against third parties that arise by reselling the goods or the newly created product, either wholly or at the amount of our possible fraction of title pursuant to the foregoing paragraph. The duties of the Customer set forth in § 6 paragraph 2 shall also apply regarding the claims assigned.

(c) The Customer remains authorized to collect the claim in addition to us. We agree that we will not collect the claim providing that the Customer meets its payment obligations towards us, does not get into default and no request for opening of insolvency proceedings is been filed and no other deficiency regarding the Customer's solvency arises. If any of these conditions does occur, we may request that the Customer disclose the assigned claims as well as the corresponding debtors to us and provide us with all information required for collection, including handing over all relevant documentation and notifies the debtors (third parties) of the assignment. In this event, we reserve the rights to rescind the Customer's authorisation to collect the claim and to disclose the assignment to third parties.

(4) Insofar as the realisable value of the security exceeds our claims by more than 10%, we will, at the Customer's request, release securities chosen at our discretion in the total amount of the excess value.

§ 7 Liability for Defects

(1) Except as hereinafter otherwise provided, the statutory provisions shall apply to the Customer's rights if goods delivered have defects in material or title (including wrong delivery or short delivery as well as improper installation or inadequate installation instructions) or if services are deficient. The special statutory provisions on the ultimate delivery of goods to a consumer (recourse of the supplier pursuant to Sections 478, 479 BGB) shall remain unaffected in all cases.

(2) The written agreement regarding the quality of the goods or services forms the primary basis of our liability for defects. Inter alia, any product or service specifications that are part of a particular contract qualify as agreements regarding the quality of the goods or services, regardless of whether the specifications are provided by the Customer, the producer or us.

(3) In the absence of an agreement on the quality of the goods, the statutory rule shall control

whether or not a defect has occurred (Section 434 paragraph 1 sentences 2 and 3 BGB).

(4) As a condition for the Customer to claim a defect regarding the goods, the Customer must have complied with its statutory duties of inspection and notification (Sections 377, 381 HGB). If a defect is found during inspection or later, the Customer shall give us written notice without undue delay. Regardless of this duty of inspection and notification, the Customer shall give us written notice of obvious defects (including wrong delivery and short delivery) without undue delay but no later than within two weeks of delivery, whereas the sending of the notification within the required time period shall be sufficient to meet the deadline. If the Customer does not properly inspect the goods and/or notify an obvious defect, our liability for the obvious defect that has not been notified shall be excluded.

(5) If the goods or services delivered are defective, the Customer may opt whether we shall cure the defect by eliminating the defect (rectification) or by providing a good that is free from defects or re-performing the service (substitute delivery), without prejudice to our right to refuse the chosen way of subsequent performance in accordance to the statutory provisions.

(6) The Customer shall allow us the required time and opportunity to carry out the subsequent performance and in particular the Customer will hand over the objected goods for examination; or else we will be released from liability for any consequences thereof. In the case of substitute delivery, the Customer shall return the defective good in accordance with the statutory provisions.

(7) Any expenditure required for purposes of examination and subsequent performance, including, without limitation, any costs of transit, travel, work and material, shall be for our own account if there is an actual defect.

(8) In urgent cases, for example if operational safety is affected or for preventing unreasonable losses, the Customer has the right to eliminate the defect on its own and to claim compensation from us for the objectively required expenditure. The Customer shall inform us without undue delay and if possible in advance. The Customer is not entitled to claim compensation for eliminating a defect on its own in cases where we would have a right to refuse curing the defect in accordance with the statutory provisions.

(9) If curing the defect has failed or if a reasonable period of time specified by the Customer to allow curing the defect has expired to no avail or may be dispensable according to the statutory provisions, the Customer may either rescind the purchase contract or reasonably reduce the purchase price. The Customer has no right of rescission if the defect is insignificant.

(10) Any claims of the Customer for damages or compensation for lost expenditures shall be governed by § 8.

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§ 8 Other Liability

(1) We shall be liable for damages without limitation in cases of intent and gross negligence, injury to life, body or health, as well as for fraudulent non-disclosure of defects and for breach of guarantees. In case of a limited guarantee, however, we shall only be liable as set forth in said guarantee.

(2) Subject to the provisions in § 8 paragraph 1, our liability shall be limited to compensation for the foreseeable, typical damage in the case of a simple negligent breach of a material contractual obligation, i.e., an obligation which if performed renders the proper performance of the contract possible in the first place and on compliance with which the other party to the contract therefore commonly relies and may reasonably rely.

(3) In all other cases, our liability under any theory of law shall be excluded.

(4) Notwithstanding, our liability under the German Product Liability Act (Produkthaftungsgesetz) shall remain unaffected hereby.

(5) The provisions contained in § 8 paragraph 1 to 5 shall apply mutatis mutandis to the liability of the owner, the bodies, executives, staff or other vicarious agents of HALFEN.

(6) The Customer may not rescind or cancel the contract for a breach of an obligation other than a breach that comprises a defect unless we are responsible for this breach of an obligation.

(7) In all other respects, the statutory prerequisites and legal consequences shall apply.

Contracts for the International Sale of Goods (CISG) shall be excluded.

(2) If the Customer is a merchant (Kaufmann) within the meaning of the German Commercial Code, a legal person under public law or a special fund under public law, the exclusive – national or international – place of jurisdiction for any controversies resulting from or related to the contractual relationship shall be Düsseldorf. However, we reserve the right to bring an action at the Customer's general place of jurisdiction.

§ 9 Statute of Limitations

(1) In derogation from Section 438 paragraph 1 no. 3 BGB, the general period of limitation for claims attaching to defects in material or title for used goods shall be one year from delivery.

(2) In all other cases, the statutory periods of limitations shall apply (Sections 438, 479, 634a BGB).

(3) The foregoing periods of limitation under the law of purchase and sale shall also apply to contractual and non-contractual damage claims of the Customer that are due to a defect in the goods or services unless the application of the standard statutory period of limitation (Sections 195, 199 BGB) would individually result in a shorter period of limitation.

(4) The periods of limitation under the German Product Liability Act shall remain unaffected in all events.

(5) In all other respects, claims for damages by the Customer shall be governed exclusively by the statutory periods of limitation.

§ 10 Applicable Law and Place of Jurisdiction

(1) These Standard Terms and any contractual relations between us and the Customer that fall under these Standard Terms pursuant to its § 1 paragraph 2 shall be governed by the laws of the Federal Republic of Germany. Provisions on the conflict of laws and the United Nations Convention on

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