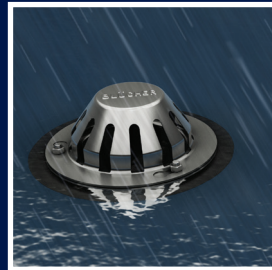
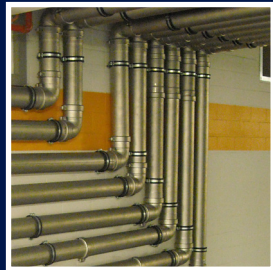
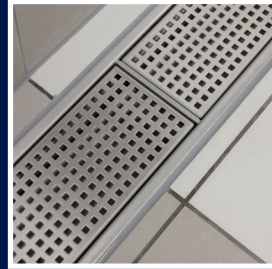
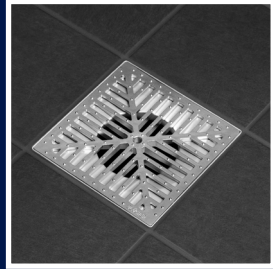


# BLÜCHER® Drainage Systems

Product catalogue for drains, roof drains, pipes and channels



**BLÜCHER®**

K E E P I N G   U P   T H E   F L O W

STAINLESS STEEL DRAINAGE SYSTEMS



BLÜCHER® stainless steel drainage products are installed in almost any kind of construction project, from multi-storey apartments and food processing factories to hospitals and on board prestigious cruise liners. We have specialised our competencies within four main segments:

### Housing

### Commercial

### Industrial

### Marine

The BLÜCHER® drainage system is a modular system providing numerous possible product combinations.

#### **BLÜCHER® Drain**

Floor drains for light- to heavy-duty flow and load applications.

#### **BLÜCHER® Channel**

Standard, modular or customised channels and kitchen channels for all flow and load applications.

#### **BLÜCHER® EuroPipe**

Push-fit drainage pipe-work system for soil, waste and rainwater.

#### **Customised solutions**

To ensure that any drainage requirement can be fulfilled we are always ready to solve your special request.

## Strong products

All BLÜCHER® drainage products are produced in stainless steel grade AISI 304 or optionally grade AISI 316L. This material is ideally suitable for high-quality drainage systems:

- Fire resistant
- High strength - low weight
- Environmentally friendly

Furthermore it is corrosion resistant, resistant to impacts and thermal stress and requires little maintenance.

In the BLÜCHER® drainage products the inherent qualities of stainless steel are enhanced by careful product design resulting in:

- Long product life expectancy
- Excellent hygienic properties
- Easy installation
- Whole-life cost advantages
- Excellent flow capacities

All BLÜCHER® products are chemically descaled and passivated in order to enhance the natural corrosion resistance and provide a uniform matt-silver surface finish.

All stainless steel components are manufactured from recycled materials and are 100% recy-clable.

## Danish quality

Founded in Denmark in 1965, BLÜCHER has developed into a leading manufacturer of stainless steel drainage systems. Today, BLÜCHER is an international company with subsidiaries and representations worldwide. The BLÜCHER Group employs more than 350 staff worldwide.

Customers all over the World appreciate our know-how, dedicated service and common sense.

Through quality stainless steel products and drainage solutions that lead waste water away, BLÜCHER is committed to the promise of keeping up the flow.

The BLÜCHER® drainage products are manufactured in Denmark using the most modern production methods and in accordance with the internationally recognised quality standard ISO 9001. Furthermore, the most respected classification societies endorse the BLÜCHER® drainage products worldwide.

## Safe solutions



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### Drains for housing and commercial applications



### Shower drains For tiled and vinyl floors Square, circular or triangular

#### Applications

For tiled and vinyl floors in:

- Private housing bathrooms
- Toilets and showers in hotels, hospitals, fitness centres, etc.

#### Details

- Square, triangular or circular frame
- Brushed grain finish
- Low frame height
- Grate with starlock screw-system
- Stainless steel AISI304/EN 1.4301 or AISI316L/EN 1.4404

#### Variants

- Side inlets Ø32/40 mm
- Vertical or horizontal outlet
- Flange for liquid or sheet membrane
- Adjustable height, rotation and tilt

#### Options

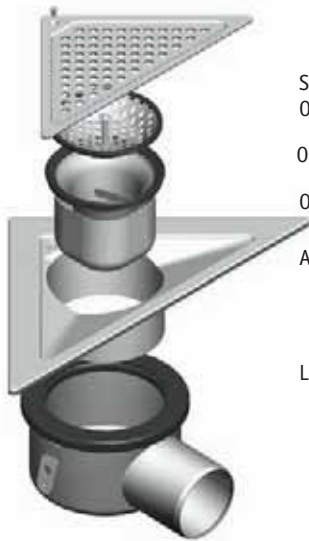
- Removable water trap
- Design gratings in 3 shapes and 6 designs

#### Series

- Series 100 without flange for concrete and tiled floors
- Series 200 for vinyl floors
- Series 300 with liquid or sheet membrane flange for concrete and tiled floors

### Complete drains

#### Concrete and tiles without membrane



- Standard grating VIENNA included
- Optional design gratings available
- Optional filter basket
- Optional removable water trap
- Adjustable upper part
- Lower part with or without side inlets

#### Concrete and tiles with liquid membrane



- Standard grating VIENNA included
- Optional design gratings available
- Optional filter basket
- Optional removable water trap
- Adjustable upper part
- Flange
- Lower part with or without side inlets

#### Concrete and tiles with sheet membrane



- Standard grating VIENNA included
- Optional design gratings available
- Optional filter basket
- Optional removable water trap
- Adjustable upper part
- Adjustable clamping flange
- Lower part with or without side inlets

#### Vinyl



- Standard grating VIENNA included
- Optional design gratings available
- Clamping ring
- Optional inlet deflector
- Optional filter basket
- Optional water trap
- Adjustable upper part
- Lower part with or without side inlets

#### Complete drains

##### Drain

Adjustable 2-part drains or non-adjustable 1-part drains

##### Grating

Standard VIENNA grating is included. Optional design gratings are not included - to be ordered separately

##### Water trap

Removable water trap not included - to be ordered separately.

##### Other accessories

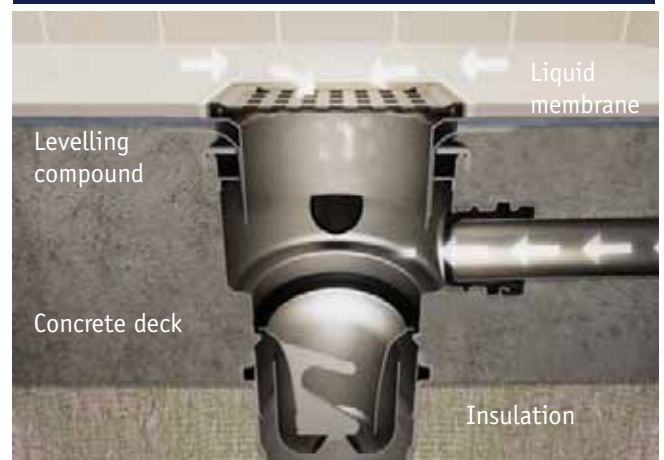
Other accessories such as filter basket not included - to be ordered separately. Most drains with side inlets come with inlet deflector.

### Installation examples

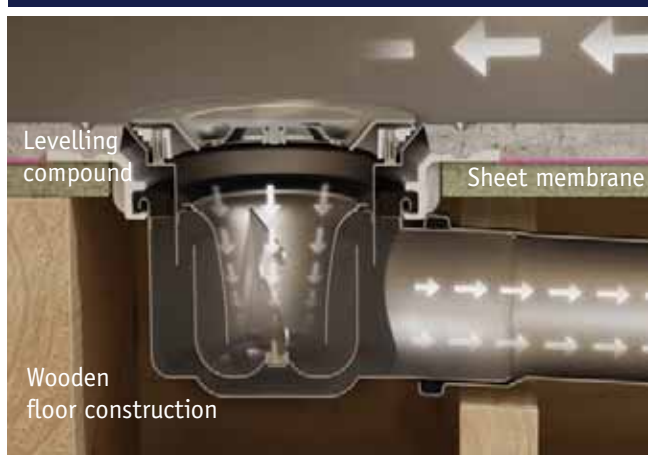
Concrete and tiles without membrane



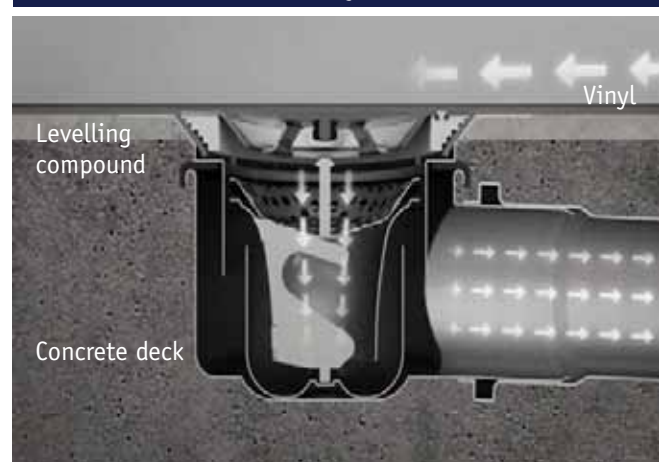
Concrete and tiles with liquid membrane



Concrete and tiles with sheet membrane

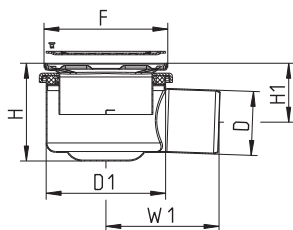


Vinyl



## without membrane

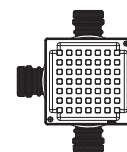
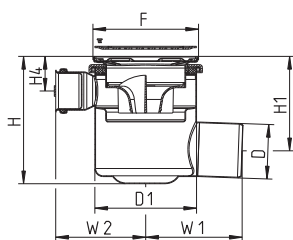
## ADJUSTABLE SHOWER DRAIN SQUARE TYPE 110



Type no.	Customer no.	D	D1	F	H	H1	W1
110.300.050		50	140	145x145	115-145	81-111	128
110.300.075		75	140	145x145	115-145	69-99	133

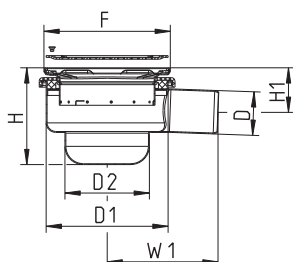
## ADJUSTABLE SHOWER DRAIN SQUARE TYPE 111

WITH SIDE INLETS 50 MM



Type no.	Customer no.	D	D1	F	H	H1	H4	W1	W2
111.303.075		75	140	145x145	175-185	130-140	48-58	133	124

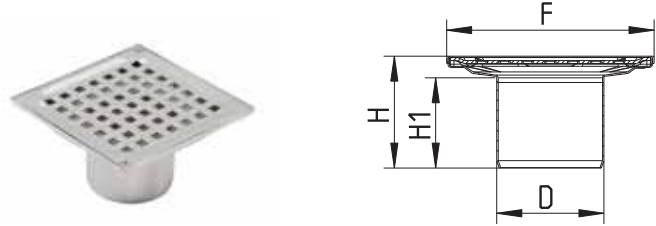
## ADJUSTABLE SHOWER DRAIN SQUARE, LOW MODEL TYPE 114



Type no.	Customer no.	D	D1	F	H	H1	W1	D2
114.300.050		50	140	145x145	111-121	51-61	127	97

without membrane

SHOWER DRAIN SQUARE, LOW MODEL TYPE 140



Type no.	Customer no.	D	F	H	H1
140.300.032		32	145x145	39	23
140.300.040		40	145x145	65	49
140.300.050		50	145x145	74	58
140.300.075		75	145x145	78	63

Not for removable water trap. D=32mm with 1¼" BSP thread

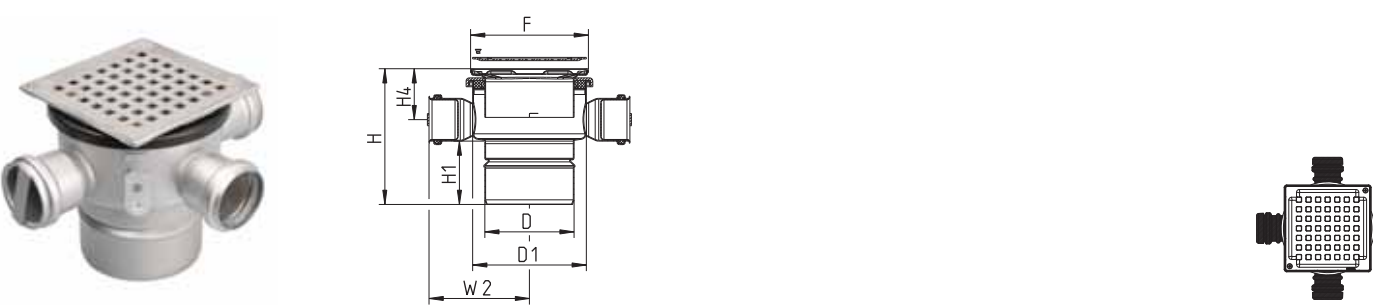
ADJUSTABLE SHOWER DRAIN SQUARE TYPE 150



Type no.	Customer no.	D	D1	F	H	H1
150.300.050		50	140	145x145	189-219	58
150.300.075		75	140	145x145	185-215	63
150.300.110		110	140	145x145	152-182	79

ADJUSTABLE SHOWER DRAIN SQUARE TYPE 151

WITH SIDE INLETS 50 MM

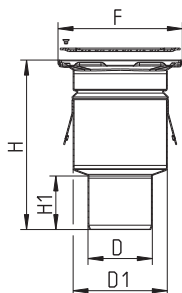


Type no.	Customer no.	D	D1	F	H	H1	H4	W2
151.303.110		110	140	145x145	167-197	79	63-93	124



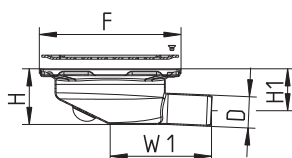
## without membrane

## SHOWER DRAIN SQUARE TYPE 160



Type no.	Customer no.	D	D1	F	H	H1
160.300.050		50	110	145x145	193	60
160.300.075		75	110	145x145	198	63
160.300.110		110	110	145x145	91	79

## MINI DRAIN SQUARE TYPE 181

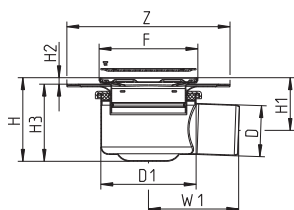


Type no.	Customer no.	D	F	H	H1	W1
181.300.032		32	145x145	57	43	104

Not for removable water trap. Adaptor for D=40mm included

with liquid membrane

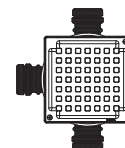
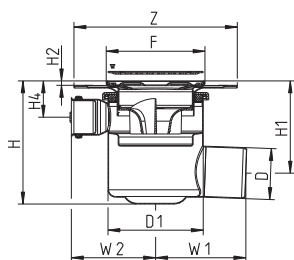
## ADJUSTABLE SHOWER DRAIN SQUARE TYPE 310



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1
310.300.075		75	140	145x145	Ø240	120-150	75-105	6.5-21	113-128	133

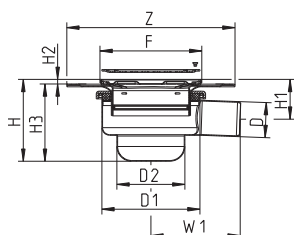
## ADJUSTABLE SHOWER DRAIN SQUARE TYPE 311

WITH SIDE INLETS 50 MM



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H4	W1	W2
311.303.075		75	140	145x145	Ø240	181-211	136-166	6.5-21	53-83	133	124

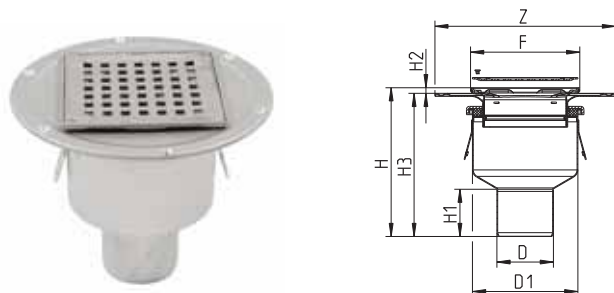
## ADJUSTABLE SHOWER DRAIN SQUARE, LOW MODEL TYPE 314



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1	D2
314.300.050		50	140	145x145	Ø240	117-147	57-87	6.5-21	110-125	127	97

with liquid membrane

### ADJUSTABLE SHOWER DRAIN SQUARE TYPE 350



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3
350.300.050		50	140	145x145	Ø240	194-224	58	6.5-21	188-203
350.300.075		75	140	145x145	Ø240	190-220	63	6.5-21	184-199
350.300.110		110	140	145x145	Ø240	158-188	79	6.5-21	152-167

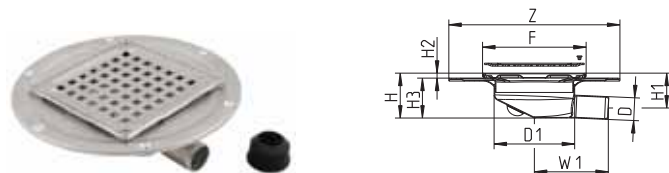
### ADJUSTABLE SHOWER DRAIN SQUARE TYPE 360



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3
360.300.050		50	110	145x145	Ø240	244-259	60	6.5-21	237
360.300.075		75	110	145x145	Ø240	249-264	63	6.5-21	242
360.300.110		110	110	145x145	Ø240	142-157	-	6.5-21	135

Flange is not adjustable.

### MINI DRAIN SQUARE TYPE 381

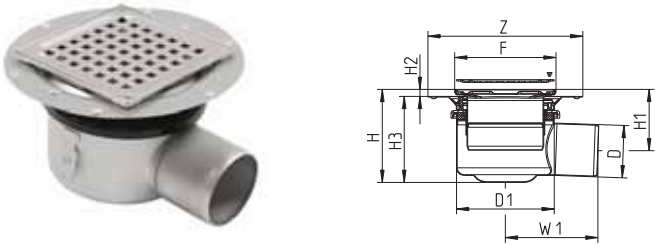


Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1
381.300.032		32	113	145x145	Ø240	62-72	49-59	6-16	56	104

Not for removable water trap. Adaptor for D=40mm included.  
Flange is not adjustable.

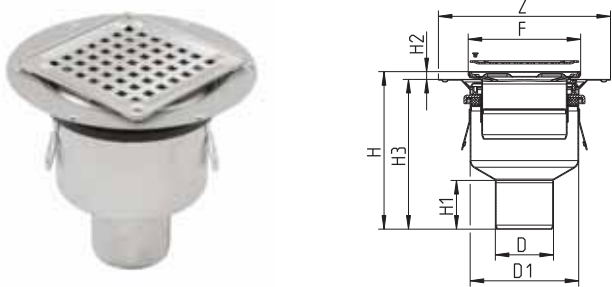
with sheet membrane

ADJUSTABLE SHOWER DRAIN SQUARE TYPE 312



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1
312.300.075		75	140	145x145	Ø222	133-188	88-143	10-50	123-138	133

ADJUSTABLE SHOWER DRAIN SQUARE TYPE 352

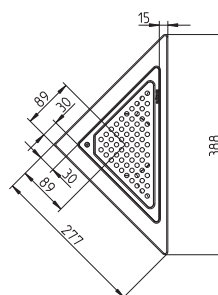
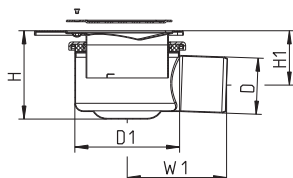


Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3
352.300.075		75	140	145x145	Ø222	203-258	63	10-50	193-208
352.300.110		110	140	145x145	Ø222	171-226	79	10-50	161-176

## without membrane

**ADJUSTABLE SHOWER DRAIN TRIO TYPE 110**

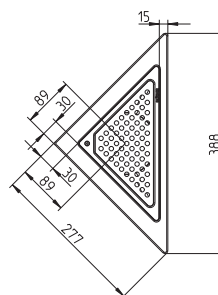
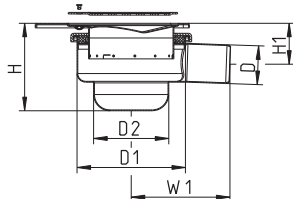
FOR CORNER INSTALLATION



Type no.	Customer no.	D	D1	H	H1	W1
110.360.075		75	140	116-149	71-104	133

**ADJUSTABLE SHOWER DRAIN TRIO, LOW MODEL TYPE 114**

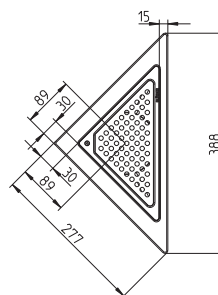
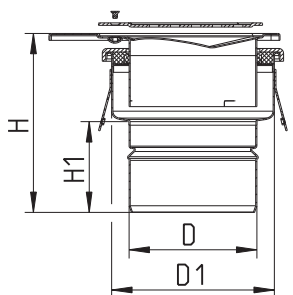
FOR CORNER INSTALLATION



Type no.	Customer no.	D	D1	H	H1	W1	D2
114.360.050		50	140	113-123	53-63	127	97

**ADJUSTABLE SHOWER DRAIN TRIO TYPE 150**

FOR CORNER INSTALLATION



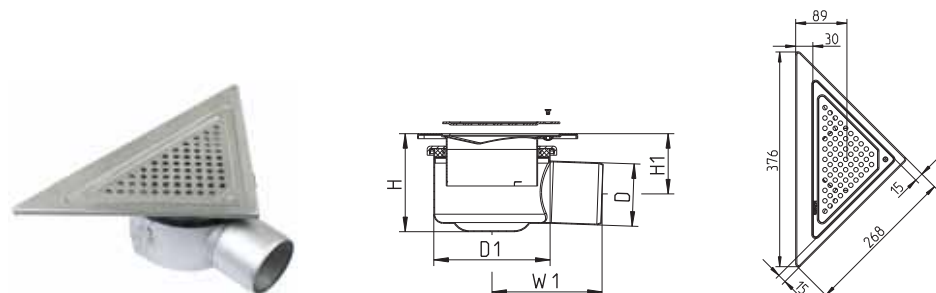
Type no.	Customer no.	D	D1	H	H1
150.360.110		110	140	154-187	79



## without membrane

### ADJUSTABLE SHOWER DRAIN TRIO TYPE 110

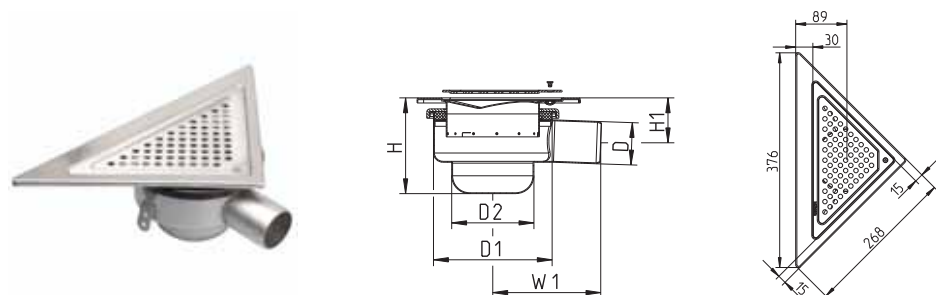
FOR INSTALLATION ALONG WALL



Type no.	Customer no.	D	D1	H	H1	W1
110.370.075		75	140	116-149	71-104	133

### ADJUSTABLE SHOWER DRAIN TRIO, LOW MODEL TYPE 114

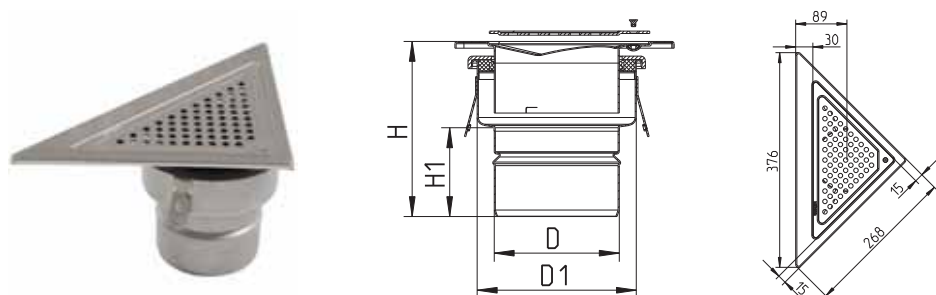
FOR INSTALLATION ALONG WALL



Type no.	Customer no.	D	D1	H	H1	W1	D2
114.370.050		50	140	113-123	53-63	127	97

### ADJUSTABLE SHOWER DRAIN TRIO TYPE 150

FOR INSTALLATION ALONG WALL

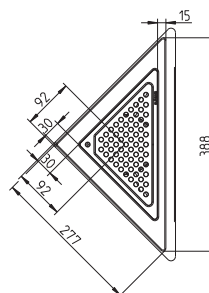
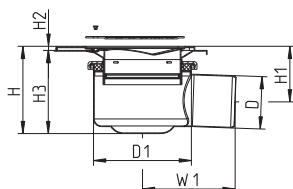


Type no.	Customer no.	D	D1	H	H1
150.370.110		110	140	154-187	79

## with liquid membrane

**ADJUSTABLE SHOWER DRAIN TRIO TYPE 310**

FOR CORNER INSTALLATION

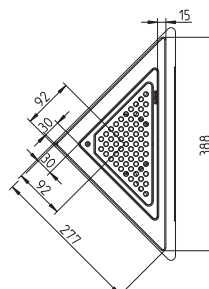
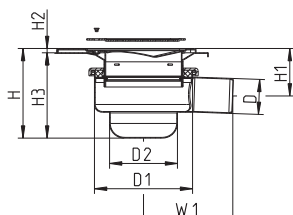


Type no.	Customer no.	D	D1	H	H1	H2	H3	W1
310.360.075		75	140	119-149	74-104	6-21	113-128	133

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

**ADJUSTABLE SHOWER DRAIN TRIO, LOW MODEL TYPE 314**

FOR CORNER INSTALLATION

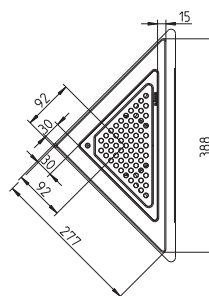
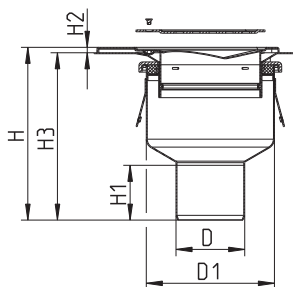


Type no.	Customer no.	D	D1	H	H1	H2	H3	W1	D2
314.360.050		50	140	116-146	56-86	6-21	110-125	127	97

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

**ADJUSTABLE SHOWER DRAIN TRIO TYPE 350**

FOR CORNER INSTALLATION

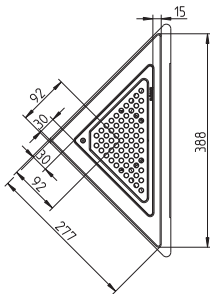
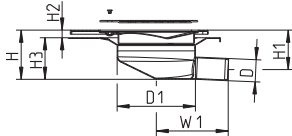


Type no.	Customer no.	D	D1	H	H1	H2	H3
350.360.110		110	140	157-187	79	6-21	151-166

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

with liquid membrane

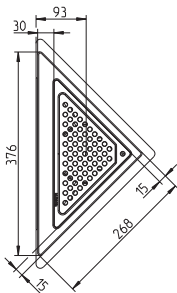
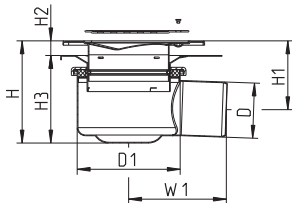
MINI DRAIN TRIO TYPE 381  
FOR CORNER INSTALLATION



Type no.	Customer no.	D	D1	H	H1	H2	H3	W1
381.360.032		32	113	66-76	52-62	6-16	60	104

Not for removable water trap. Adaptor for D=40mm included.  
Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

ADJUSTABLE SHOWER DRAIN TRIO TYPE 310  
FOR INSTALLATION ALONG WALL



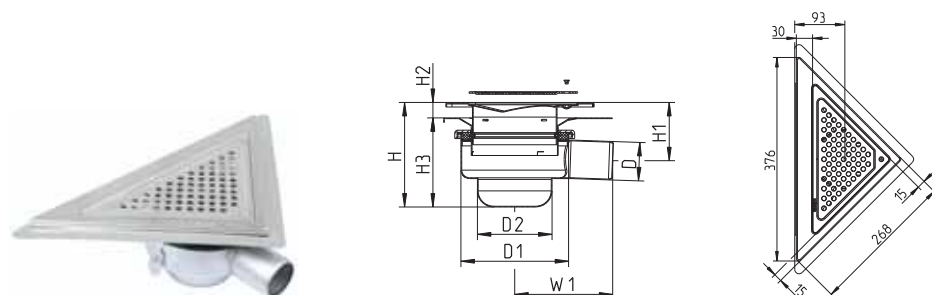
Type no.	Customer no.	D	D1	H	H1	H2	H3	W1
310.370.075		75	140	119-149	74-104	6-21	113-128	133

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

## with liquid membrane

**ADJUSTABLE SHOWER DRAIN TRI0, LOW MODEL TYPE 314**

FOR INSTALLATION ALONG WALL

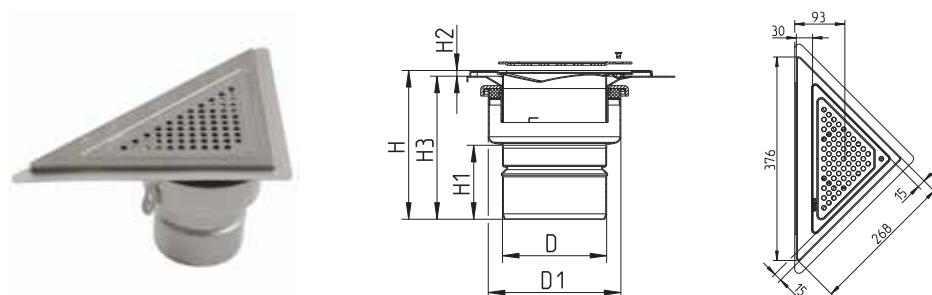


Type no.	Customer no.	D	D1	H	H1	H2	H3	W1	D2
314.370.050		50	140	116-146	56-86	6-21	110-125	127	97

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

**ADJUSTABLE SHOWER DRAIN TRI0 TYPE 350**

FOR INSTALLATION ALONG WALL

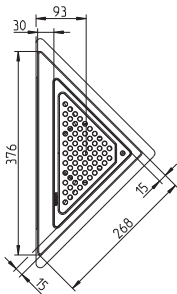
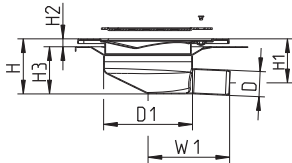


Type no.	Customer no.	D	D1	H	H1	H2	H3
350.370.110		110	140	157-187	79	6-21	151-166

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

with liquid membrane

MINI DRAIN TRIO TYPE 381  
FOR INSTALLATION ALONG WALL



Type no.	Customer no.	D	D1	H	H1	H2	H3	W1
381.370.032		32	113	66-76	52-62	6-16	60	104

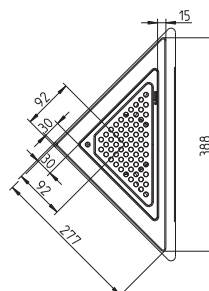
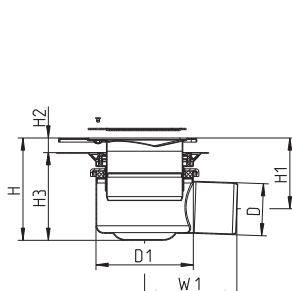
Not for removable water trap. Adaptor for D=40mm included.  
Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.



## with sheet membrane

**ADJUSTABLE SHOWER DRAIN TRI0 TYPE 312**

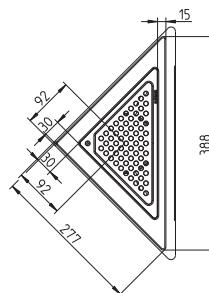
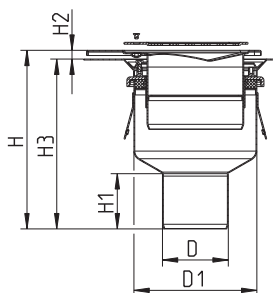
FOR CORNER INSTALLATION



Type no.	Customer no.	D	D1	H	H1	H2	H3	W1
312.360.075		75	140	133-188	88-143	10-50	123-138	133

**ADJUSTABLE SHOWER DRAIN TRI0 TYPE 352**

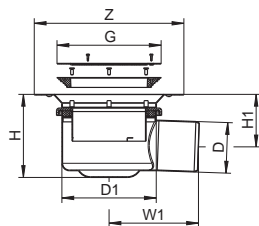
FOR CORNER INSTALLATION



Type no.	Customer no.	D	D1	H	H1	H2	H3
352.360.075		75	140	203-258	63	10-50	193-208

## without membrane

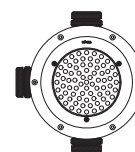
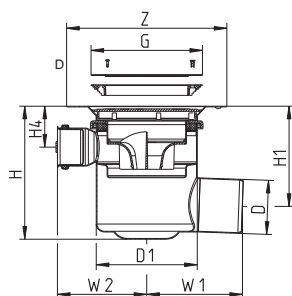
## ADJUSTABLE SHOWER DRAIN CIRCLE TYPE 210



Type no.	Customer no.	D	D1	Z	G	H	H1	W1
210.300.050		50	140	Ø222	Ø155	123-153	90-120	128
210.300.075		75	140	Ø222	Ø155	123-153	78-108	133

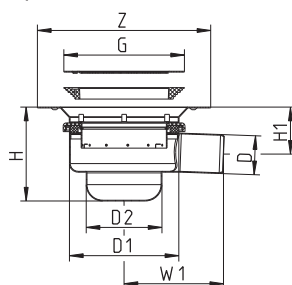
## ADJUSTABLE SHOWER DRAIN CIRCLE TYPE 211

WITH SIDE INLETS 50 MM



Type no.	Customer no.	D	D1	Z	G	H	H1	H4	W1	W2
211.303.075		75	140	Ø222	Ø155	183-193	139-149	57-67	133	124

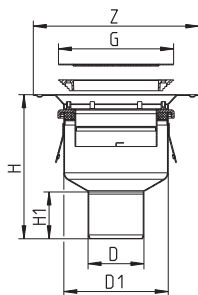
## ADJUSTABLE SHOWER DRAIN CIRCLE, LOW MODEL TYPE 214



Type no.	Customer no.	D	D1	Z	G	H	H1	W1	D2
214.300.050		50	140	Ø222	Ø155	120-130	60-70	127	97

## without membrane

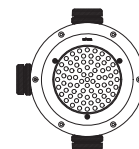
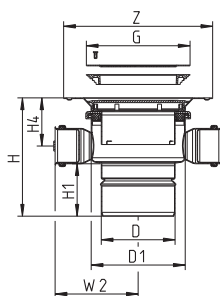
## ADJUSTABLE SHOWER DRAIN CIRCLE TYPE 250



Type no.	Customer no.	D	D1	Z	G	H	H1
250.300.050		50	140	Ø222	Ø155	197-227	58
250.300.075		75	140	Ø222	Ø155	193-223	63
250.300.110		110	140	Ø222	Ø155	161-191	79

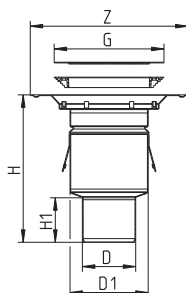
## ADJUSTABLE SHOWER DRAIN CIRCLE TYPE 251

WITH SIDE INLETS 50 MM



Type no.	Customer no.	D	D1	Z	G	H	H1	H4	W2
251.303.110		110	140	Ø222	Ø155	176-206	79	72-102	124

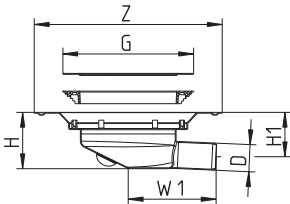
## SHOWER DRAIN CIRCLE TYPE 260



Type no.	Customer no.	D	D1	Z	G	H	H1
260.300.050		50	110	Ø222	Ø155	203	60
260.300.075		75	110	Ø222	Ø155	208	63
260.300.110		110	110	Ø222	Ø155	101	80

without membrane

MINI DRAIN CIRCLE TYPE 281

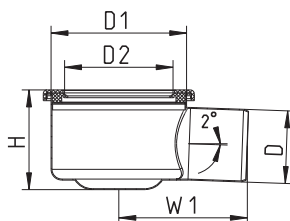


Type no.	Customer no.	D	Z	G	H	H1	W1
281.300.032		32	Ø222	Ø155	67	52	104

Not for removable water trap. Adaptor for D=40mm included.

## - without membrane flange

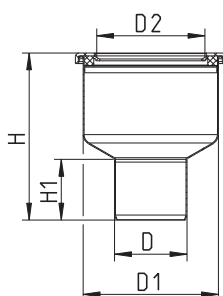
### LOWER PART FOR SHOWER DRAIN TYPE 110



Type no.	Customer no.	D	D1	H	W1	D2
110.000.050		50	140	103	128	113
110.000.075		75	140	103	133	113
110.000.110		110	140	124	143	113

Suitable for all upper parts and flanges with D=110mm or D=113mm.

### LOWER PART FOR SHOWER DRAIN TYPE 150



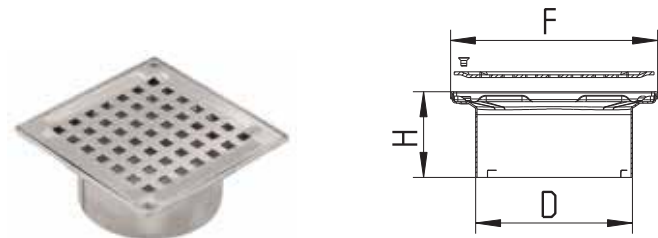
Type no.	Customer no.	D	D1	H	H1	D2
150.000.050		50	140	177	58	113
150.000.075		75	140	173	63	113
150.000.110		110	140	141	79	113

Suitable for all upper parts and flanges with D=110mm or D=113mm.



**UPPER PART FOR SHOWER DRAIN SQUARE TYPE 110**

WITHOUT SUPPORTING RING



Type no.	Customer no.	D	F	H
110.300.000		110	145x145	60

Suitable for adjustable drain type 110, 151, 155, 351, 355, 360 and 361.  
And for adjustable drain type 150 and 350 with outlet D=110mm.

**UPPER PART FOR SHOWER DRAIN SQUARE, EXTRA LENGTH TYPE 110**

WITHOUT SUPPORTING RING



Type no.	Customer no.	D	F	H
110.300.001		110	145x145	199

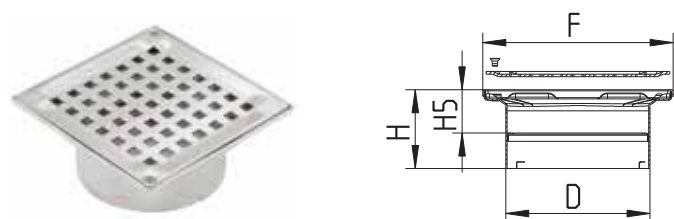
Suitable for adjustable drain type 360,  
and for all adjustable drains with one or more of the following characteristics:

- horizontal outlet
- outlet D=110mm
- side inlets

Please note: To extend the height of shower drain type 3XX we recommend using extra-length flange type 326.300.001 (see accessories)

**UPPER PART FOR SHOWER DRAIN SQUARE TYPE 150**

WITH SUPPORTING RING FOR WATER TRAP

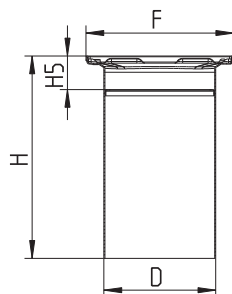


Type no.	Customer no.	D	F	H	H5
150.300.000		110	145x145	60	33

Suitable for adjustable drain type 150 with outlet D=50mm or D=75mm

**UPPER PART FOR SHOWER DRAIN SQUARE, EXTRA LENGTH TYPE 150**

WITH SUPPORTING RING FOR WATER TRAP



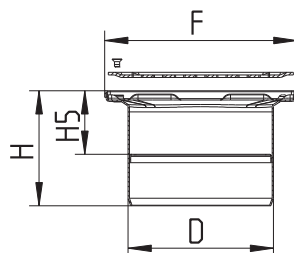
Type no.	Customer no.	D	F	H	H5
150.300.001		110	145x145	199	33

Suitable for adjustable drain type 150, 350 and 352 with outlet D=50mm or D=75mm.

Please note: To extend the height of shower drain type 3XX we recommend using extra-length flange type 326.300.001 (see accessories)

**UPPER PART FOR SHOWER DRAIN SQUARE TYPE 312**

WITH SUPPORTING RING FOR WATER TRAP

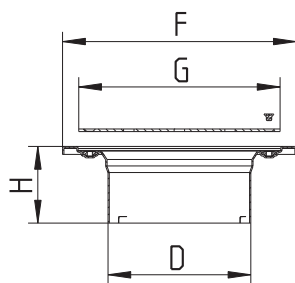


Type no.	Customer no.	D	F	H	H5
312.300.000		110	145x145	87	48

Suitable for adjustable drain type 312 and 352.

### UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 110.320.000

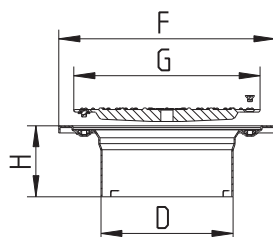
WITHOUT SUPPORTING RING



Type no.	Customer no.	D	F	G	H
110.320.000 S		110	Ø180	Ø155	59

### UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 110.320.100

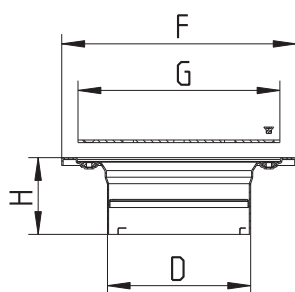
WITHOUT SUPPORTING RING



Type no.	Customer no.	D	F	G	H
110.320.100 S		110	Ø180	Ø155	59

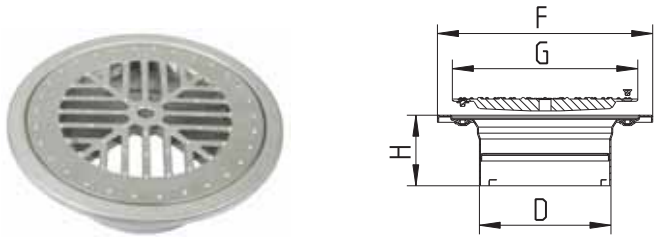
### UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 150.320.000

WITH SUPPORTING RING FOR WATER TRAP



Type no.	Customer no.	D	F	G	H
150.320.000 S		110	Ø180	Ø155	59

UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 150.320.100  
WITH SUPPORTING RING FOR WATER TRAP

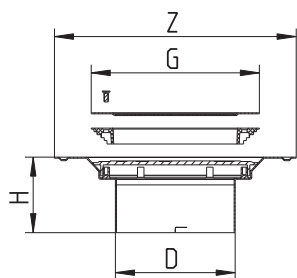


Type no.	Customer no.	D	F	G	H
150.320.100 S		110	Ø180	Ø155	59

All dimensions in mm - Stainless Steel grade AISI 316L specify type no. with suffix S

## UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 210

WITHOUT SUPPORTING RING

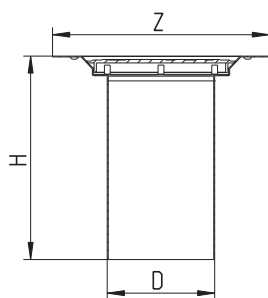


Type no.	Customer no.	D	Z	G	H
210.300.000		110	Ø222	Ø155	70

Suitable for adjustable drain type 210 and 251.  
And for adjustable drain type 250 with outlet D=110mm.

## UPPER PART FOR SHOWER DRAIN CIRCLE, EXTRA LENGTH TYPE 210

WITHOUT SUPPORTING RING



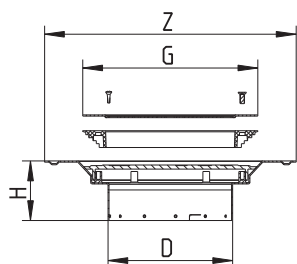
Type no.	Customer no.	D	Z	H
210.300.001		110	Ø222	209

Suitable for all adjustable drains with one or more of the following characteristics:

- horizontal outlet
- outlet D=110mm
- side inlets

## UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 211

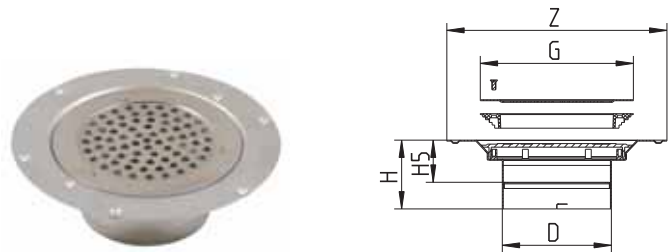
WITHOUT SUPPORTING RING



Type no.	Customer no.	D	Z	G	H
211.300.000		110	Ø222	Ø155	53

Suitable for adjustable drain type 202, 211, 214 and 253.

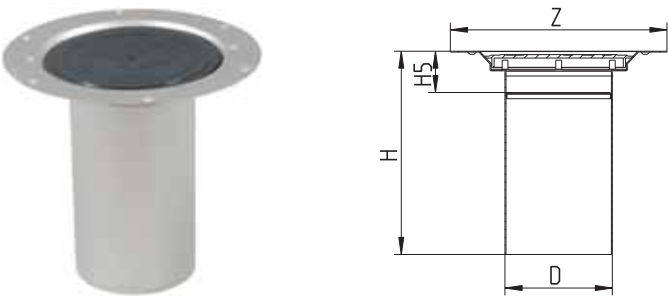
UPPER PART FOR SHOWER DRAIN CIRCLE TYPE 250  
WITH SUPPORTING RING FOR WATER TRAP



Type no.	Customer no.	D	Z	G	H	H5
250.300.000		110	Ø222	Ø155	70	43

Suitable for adjustable drain type 250 with outlet D=50mm or D=75mm.

UPPER PART FOR SHOWER DRAIN CIRCLE, EXTRA LENGTH TYPE 250  
WITH SUPPORTING RING FOR WATER TRAP

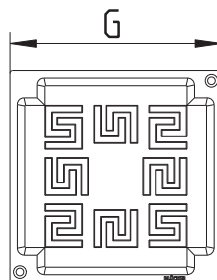


Type no.	Customer no.	D	Z	H	H5
250.300.001		110	Ø222	209	43

Suitable for adjustable drain type 250 with outlet D=50mm or D=75mm.

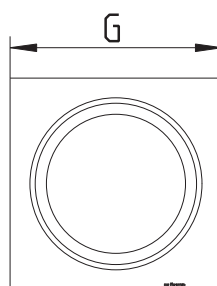
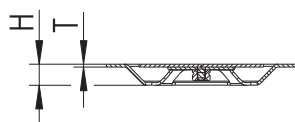
## Gratings SQUARE

## GRATING SQUARE ATHENS



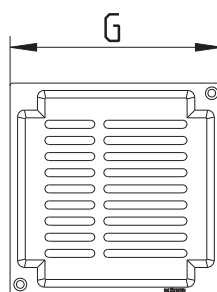
Type no.	Customer no.	G	T	Screws
610.155.427		140x140	2	2

## GRATING SQUARE COPENHAGEN



Type no.	Customer no.	G	H	T	Screws
610.155.521		140x140	16	2	0

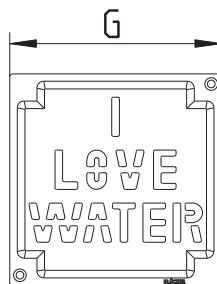
## GRATING SQUARE DETROIT



Type no.	Customer no.	G	T	Screws
610.155.428		140x140	2	2

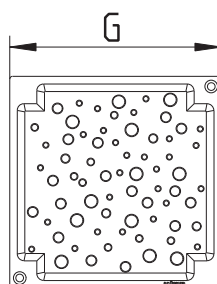
## Gratings SQUARE

## GRATING SQUARE NEW YORK



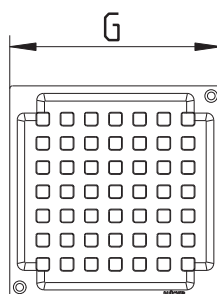
Type no.	Customer no.	G	T	Screws
610.155.429		140x140	2	2

## GRATING SQUARE OSLO



Type no.	Customer no.	G	T	Screws
610.155.426		140x140	2	2

## GRATING SQUARE VIENNA

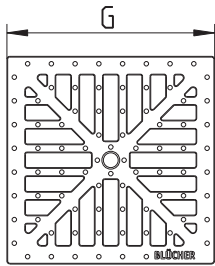
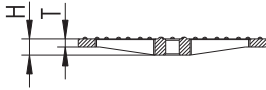


Type no.	Customer no.	G	T	Screws
610.155.421		140x140	2	2



Gratings SQUARE

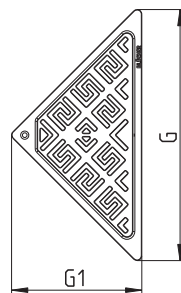
GRATING SQUARE HYGIENIC-PRO



Type no.	Customer no.	G	H	T	Load class	Screws
610.155.500		140x140	12	6	L 3000 kg	0
610.155.501		140x140	12	6	L 3000 kg	2

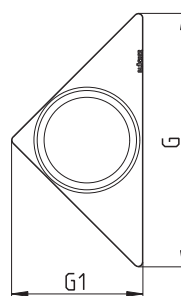
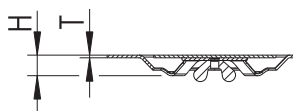
## Grating TRIO

## GRATING TRIO ATHENS



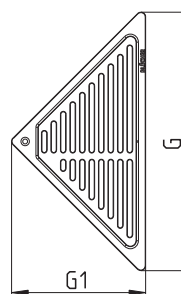
Type no.	Customer no.	G	G1	T	Screws
620.300.031		272	141	2	1

## GRATING TRIO COPENHAGEN



Type no.	Customer no.	G	G1	H	T	Screws
620.300.034		272	141	16	2	0

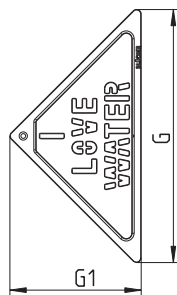
## GRATING TRIO DETROIT



Type no.	Customer no.	G	G1	T	Screws
620.300.032		272	141	2	1

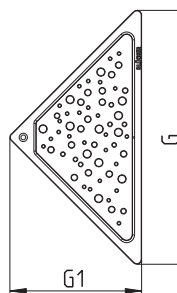
## Grating TRIO

## GRATING TRIO NEW YORK



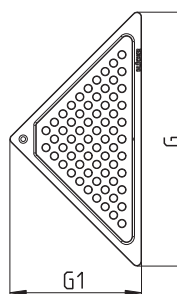
Type no.	Customer no.	G	G1	T	Screws
620.300.033		272	141	2	1

## GRATING TRIO OSLO



Type no.	Customer no.	G	G1	T	Screws
620.300.030		272	141	2	1

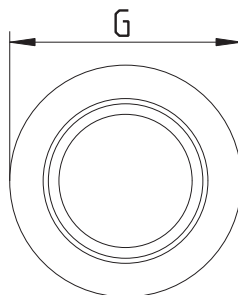
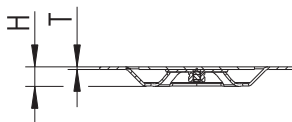
## GRATING TRIO VIENNA



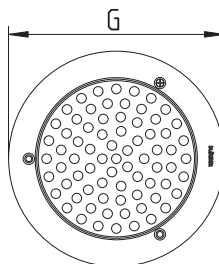
Type no.	Customer no.	G	G1	T	Screws
620.300.035		272	141	2	1

## Gratings CIRCLE

## GRATING CIRCLE COPENHAGEN

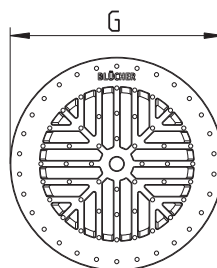
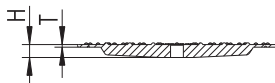


Type no.	Customer no.	G	H	T	Screws
610.160.521		Ø160	16	2	0
651.155.521		Ø155	16	2	3

GRATING CIRCLE VIENNA  
FOR VINYL FLOORS

Type no.	Customer no.	G	T	Screws
620.155.011		Ø155	1	3

## GRATING CIRCLE HYGIENIC-PRO

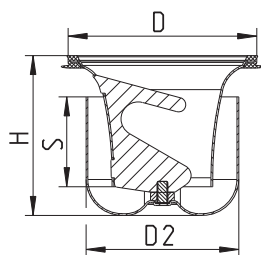


Type no.	Customer no.	G	H	T	Load class	Screws
620.155.500		Ø155	10	2	L 3000 kg	0
620.155.501		Ø155	10	2	L 3000 kg	2

Fits only into upper parts CIRCLE for resin floors

## Water traps

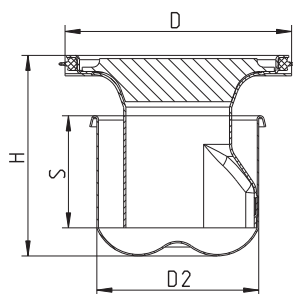
## REMOVABLE TWO-PART WATER TRAP TYPE 502.050



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.050.110		108	89	50	85	1.7

Fits into all drains except type X10, X11 and X14 produced before 2008.  
Accurate flow rate depending on type of drain and grating.

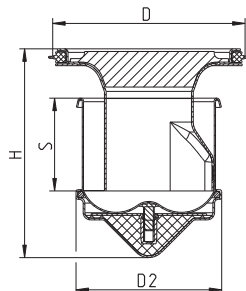
## REMOVABLE WATER TRAP TYPE 502.052



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.052.110		108	93	52	75	1.3

Accurate flow rate depending on type of drain and grating.

## REMOVABLE WATER TRAP FIRE PROOF TYPE 502.052



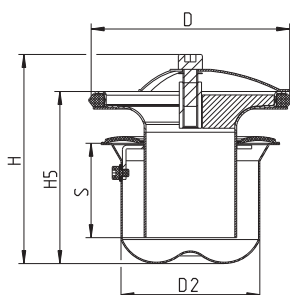
Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.052.110 FS		108	118	52	82	1.2

Fits only shower drains with vertical outlet D=50mm or D=75mm.  
Accurate flow rate depending on type of drain and grating.

## Water traps

## REMOVABLE MULTI WATER TRAP TYPE 503

PREVENTS SMELL AND BACK FLOW

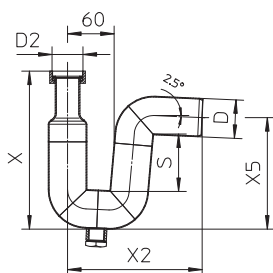


Type no.	Customer no.	D	H	H5	S	D2	Max Flow (l/s)
503.000.110		108	113	93	51	75	1.3

Accurate flow rate depending on type of drain and grating.

## P-TRAP 87.5° TYPE 525

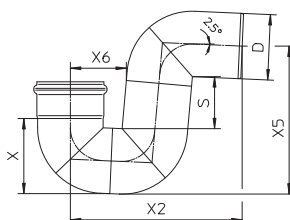
WITH COUPLING AND DRAIN PLUG



Type no.	Customer no.	D	S	D2	X	X2	X5
525.032.050 S		50	74	1¼	205	175	145
525.040.050 S		50	74	1½	205	175	145
525.050.050 S		50	74	2	205	175	145

D2 Specified in inches ("). BSP thread.

## P-TRAP 87.5° TYPE 525.090

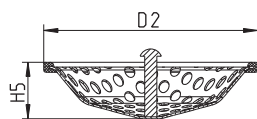


Type no.	Customer no.	D	S	X	X2	X5	X6	Max Flow (l/s)
525.090.050 S		50	74	63	175	145	60	1.7
525.090.075 S		75	81	89	222	189	74	2.5
525.090.110 S		110	89	126	289	249	94	3.4

Accurate flow rate depending on installation.

## Others

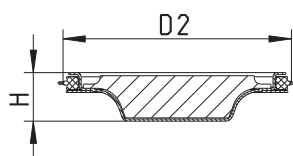
## FILTER BASKET FOR REMOVABLE TWO-PART WATER TRAP



Type no.	Customer no.	H5	D2
502.000.000 S		24	106

## PLUG FOR SHOWER DRAIN

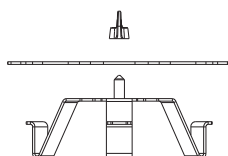
FOR NO SMELL IN COMBINATION WITH BLIND PLATE



Type no.	Customer no.	H	D2
620.300.019 S		23	108

## VINYL CUTTING TEMPLATE

FOR CUTTING IN VINYL FLOORS



Type no.	Customer no.
001.200.001	

### Additional products and options

#### Tundishes



The tundishes are made from grade AISI 304 stainless steel and given a brush grain finish.

#### PRODUCT CODES

Square drain MIS.61

Round drain MIS.62

#### Non standard inlets



As standard all inlets are 50mm push fit BLÜCHER® EuroPipe with the ability to adapt to 1 1/2" pushfit plastic with a W.59 and 1 1/4" plastic with a W.58.

BSP or other non standard inlets can be supplied on short lead times.

#### Bespoke drains

#### Screwlocking



#### Bespoke drains

Should the drain you are looking for not be available from the standard range, BLÜCHER can offer a cost effective custom drain manufacturing service. From simple spigot extensions for POD manufacturers to full drain design, the ability to form and weld stainless steel makes BLÜCHER drains the ideal choice for bespoke manufacture.

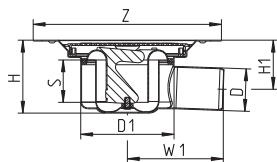
#### Screwlocking

The range of light duty drains are screw locked with either two (square drains) or three (round and triangular drains) standard cross head screws. For additional security square drains can be screw locked in all four corners. Security screws are also available for all screw locked drains on request.



### LOWER PART MULTI, LOW MODEL TYPE 383

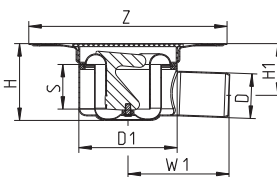
FOR MOUNTING SET, WITH REMOVABLE WATER TRAP



Type no.	Customer no.	D	D1	Z	H	H1	S	W1
383.200.050 V		50	110	Ø222	86	58	50	113

### LOWER PART MULTI, LOW MODEL TYPE 382

FOR MOUNTING SET, WITH LIQUID MEMBRANE FLANGE AND REMOVABLE WATER TRAP



Type no.	Customer no.	D	D1	Z	H	H1	S	W1
382.300.050 V		50	110	Ø222	86	58	50	113

### Shower channels for housing and commercial applications



Height-adjustable

No permanent connection between wall and floor

#### Applications

For tiled and vinyl flooring in:

- Private housing bathrooms
- Toilets and showers in hotels, hospitals, fitness centres, etc.

#### Details

- All in stainless steel AISI 304/EN 1.4301
- Brush grain finish
- Adjustable frame height
- Secured grate providing rat stop

#### Options

- Water trap
- Side inlet connection
- 7 different design gratings

#### Variants

- Installation against 1, 3 or no walls
- 300-700-800-900-1000 mm standard lengths

#### Series

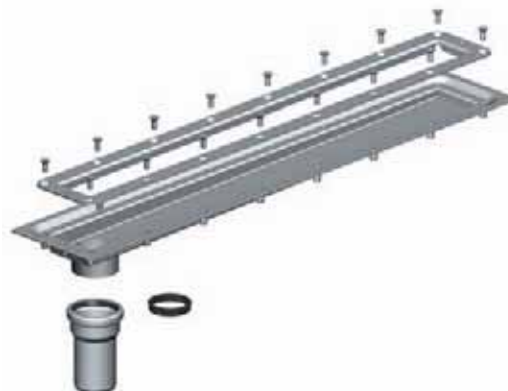
- Series 170 for tiled floors without membrane
- Series 270 for vinyl floors
- Series 370 for tiled floors with liquid membrane

### Complete drains

Series 170 for tiled floor without membrane



Series 270 for vinyl floor



Series 370 for tiled floor with liquid membrane



### Complete shower channel

#### Channel

Series 170 1-part channel or series 270 and 370 adjustable 2-part shower channel. Standard OD50 mm outlet at the left end included.

Series 370 comes with removable mounting brackets and rubber pads for height adjustment.

#### Grating

No standard grating is included - selected design grating to be ordered separately

#### Water trap

Water trap with casing and stand pipe not included - to be ordered separately. To be fitted during installation of the channel, cannot be retro-fitted.

Side inlet OD40 mm is an accessory - to be ordered separately.

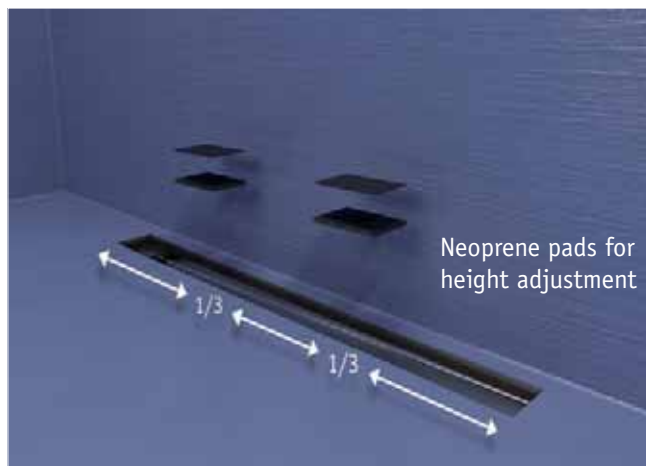


## Installation examples

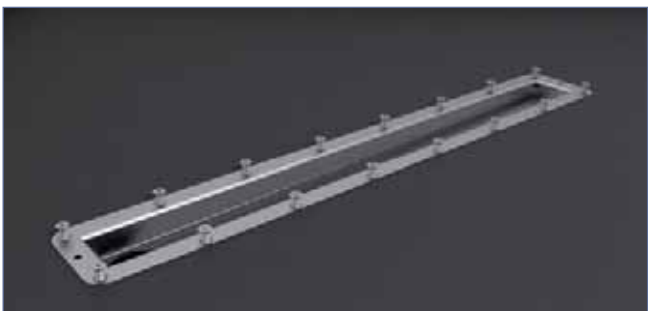
Tiles



Tiles and liquid membrane



Vinyl

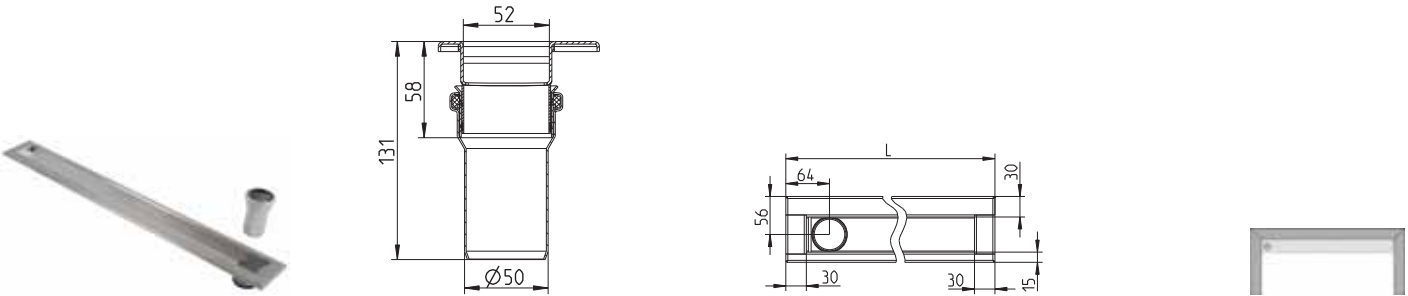


Installation videos available at [www.blucher.com](http://www.blucher.com)

without membrane

SHOWER CHANNEL WATERLINE TYPE 171

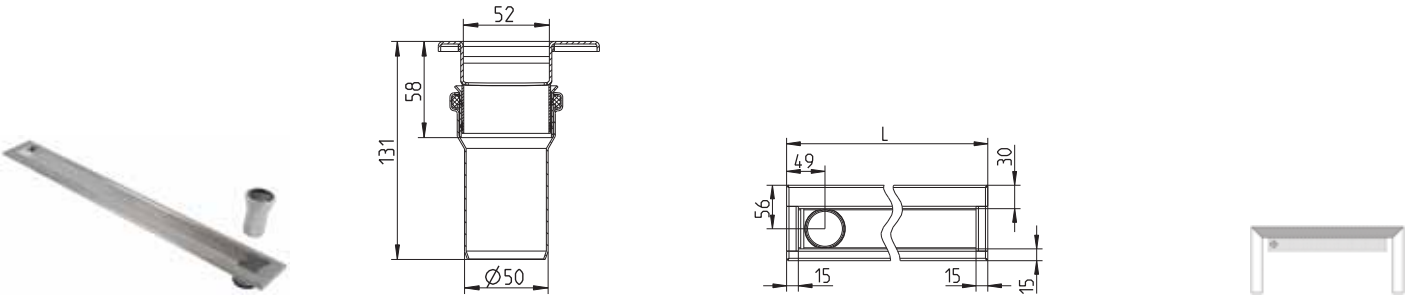
FOR INSTALLATION AGAINST 3 WALLS



Type no.	Customer no.	L
171.070.056.20		694
171.080.056.20		794
171.090.056.20		894
171.100.056.20		994

SHOWER CHANNEL WATERLINE TYPE 174

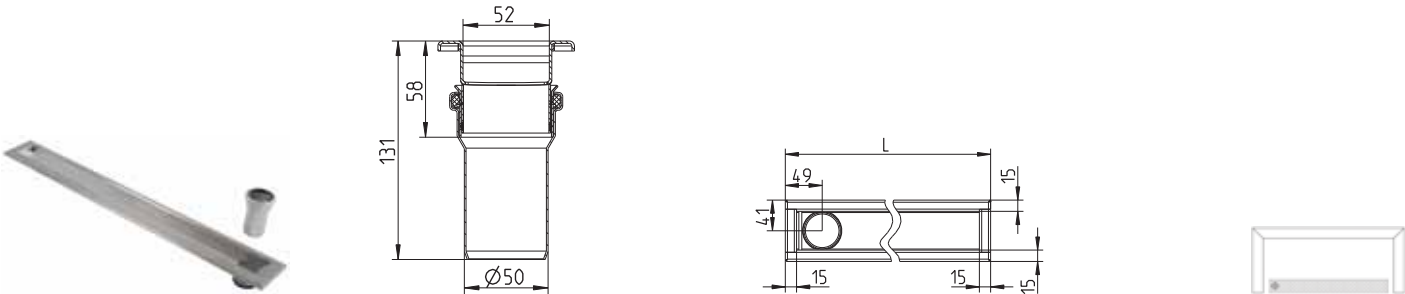
FOR INSTALLATION AGAINST BACK WALL



Type no.	Customer no.	L
174.030.056.20		264
174.070.056.20		664
174.080.056.20		764
174.090.056.20		864
174.100.056.20		964

without membrane

SHOWER CHANNEL WATERLINE TYPE 175  
FOR FREE PLACING



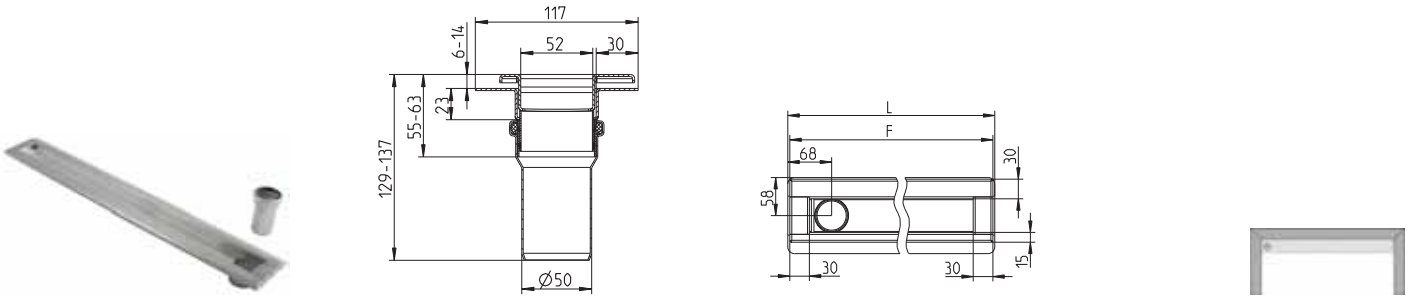
Type no.	Customer no.	L
175.070.056.20		664
175.080.056.20		764
175.090.056.20		864
175.100.056.20		964

If the channel is to be fitted with the grating LINE NEW YORK, it is to be taken into account prior to installation that the text on the grating starts over the channel outlet and is read towards the other end of the channel.

with liquid membrane

SHOWER CHANNEL WATERLINE TYPE 371

FOR INSTALLATION AGAINST 3 WALLS

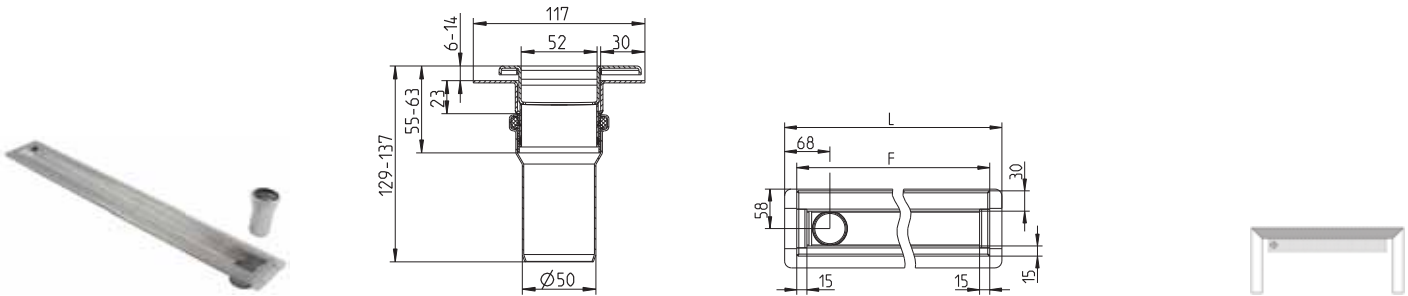


Type no.	Customer no.	F	L
371.070.056.20		694	700
371.080.056.20		794	800
371.090.056.20		894	900
371.100.056.20		994	1000

Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.

SHOWER CHANNEL WATERLINE TYPE 374

FOR INSTALLATION AGAINST BACK WALL



Type no.	Customer no.	F	L
374.030.056.20		264	300
374.070.056.20		664	700
374.080.056.20		764	800
374.090.056.20		864	900
374.100.056.20		964	1000

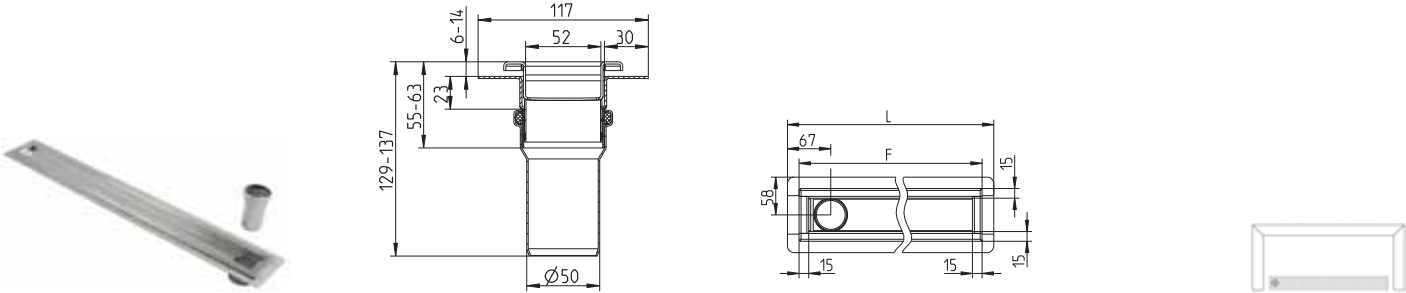
Mounting brackets included for easy and safe installation. Mounting brackets to be removed after installation to allow wall and floor to move independently.



with liquid membrane

SHOWER CHANNEL WATERLINE TYPE 375

FOR FREE PLACING



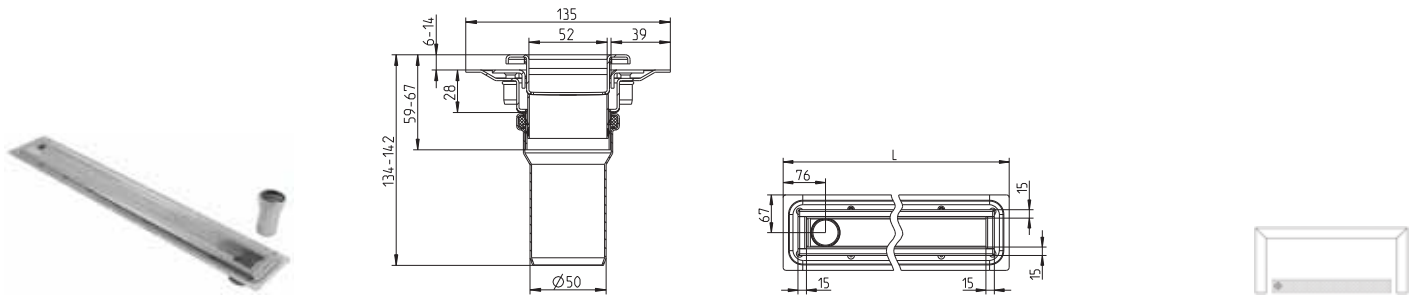
Type no.	Customer no.	F	L
375.070.056.20		664	700
375.080.056.20		764	800
375.090.056.20		864	900
375.100.056.20		964	1000

If the channel is to be fitted with the grating LINE NEW YORK, it is to be taken into account prior to installation that the text on the grating starts over the channel outlet and is read towards the other end of the channel.

with sheet membrane

SHOWER CHANNEL WATERLINE TYPE 395

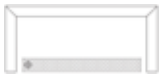
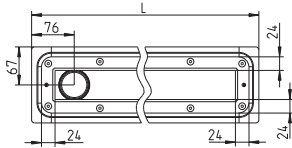
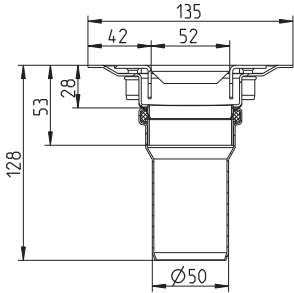
FOR FREE PLACING



Type no.	Customer no.	L
395.070.056.20		717
395.080.056.20		817
395.090.056.20		917
395.100.056.20		1017

If the channel is to be fitted with the grating LINE NEW YORK, it is to be taken into account prior to installation that the text on the grating starts over the channel outlet and is read towards the other end of the channel.

SHOWER CHANNEL WATERLINE TYPE 275  
FOR FREE PLACING

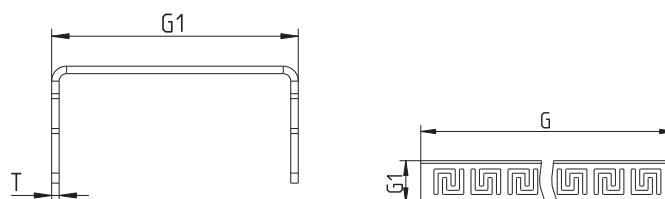


Type no.	Customer no.	L
275.070.056.20		700
275.080.056.20		800
275.090.056.20		900
275.100.056.20		1000

Required distance from wall to long side of channel = 50mm  
Required distance from wall to end of channel = 100mm

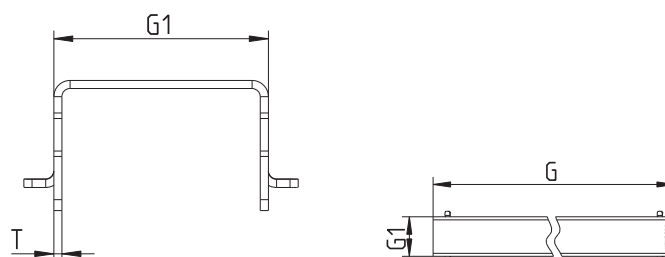
## Gratings

## GRATING LINE ATHENS



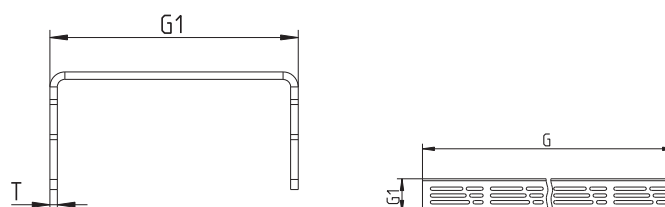
Type no.	Customer no.	G	G1	T
697.005.030		232	50	1.5
697.005.070		632	50	1.5
697.005.080		732	50	1.5
697.005.090		832	50	1.5
697.005.100		932	50	1.5

## GRATING LINE COPENHAGEN



Type no.	Customer no.	G	G1	T
697.004.030		232	40	1.5
697.004.070		632	40	1.5
697.004.080		732	40	1.5
697.004.090		832	40	1.5
697.004.100		932	40	1.5

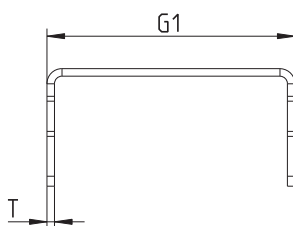
## GRATING LINE DETROIT



Type no.	Customer no.	G	G1	T
697.006.030		232	50	1.5
697.006.070		632	50	1.5
697.006.080		732	50	1.5
697.006.090		832	50	1.5
697.006.100		932	50	1.5

## Gratings

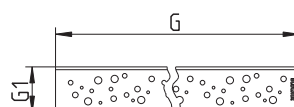
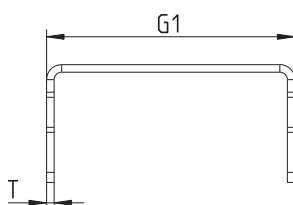
## GRATING LINE NEW YORK



Type no.	Customer no.	G	G1	T
697.007.030		232	50	1.5
697.007.070		632	50	1.5
697.007.080		732	50	1.5
697.007.090		832	50	1.5
697.007.100		932	50	1.5

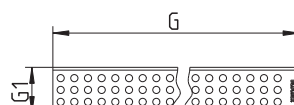
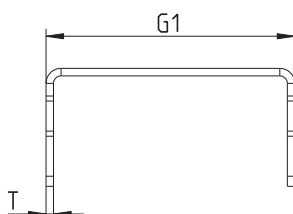
Please note that the text starts over the channel outlet and is read towards the other end of the channel.

## GRATING LINE OSLO



Type no.	Customer no.	G	G1	T
697.008.030		232	50	1.5
697.008.070		632	50	1.5
697.008.080		732	50	1.5
697.008.090		832	50	1.5
697.008.100		932	50	1.5

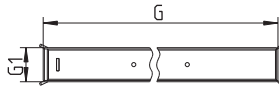
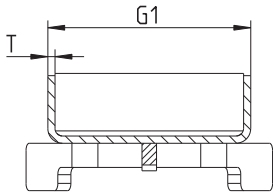
## GRATING LINE VIENNA



Type no.	Customer no.	G	G1	T
697.003.030		232	50	1.5
697.003.070		632	50	1.5
697.003.080		732	50	1.5
697.003.090		832	50	1.5
697.003.100		932	50	1.5

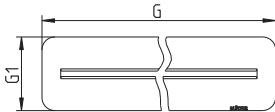
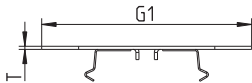
Gratings

GRATING LINE TOKYO



Type no.	Customer no.	G	G1	T
697.009.030		224	42	1.5
697.009.070		624	42	1.5
697.009.080		724	42	1.5
697.009.090		824	42	1.5
697.009.100		924	42	1.5

GRATING LINE COPENHAGEN VINYL  
FOR WATERLINE SHOWER CHANNEL FOR VINYL FLOORS

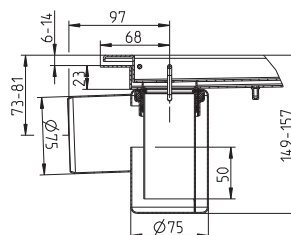
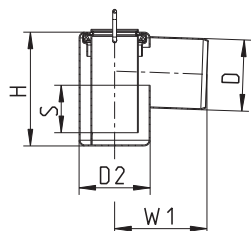


Type no.	Customer no.	G	G1	T
697.104.070		685	103	1.5
697.104.080		785	103	1.5
697.104.090		885	103	1.5
697.104.100		985	103	1.5

## Water traps

## WATER TRAP FOR WATERLINE

TO BE BUILT IN - CANNOT BE RETRO-FITTED

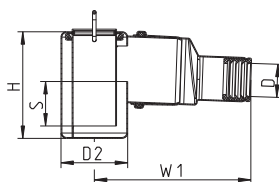


Type no.	Customer no.	D	H	S	W1	D2	Max Flow (l/s)
510.000.075		75	120	50	97	75	0.6

Accurate flow rate depending on type of grating.

## WATER TRAP FOR WATERLINE

TO BE BUILT IN - CANNOT BE RETRO-FITTED



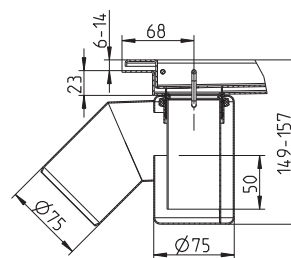
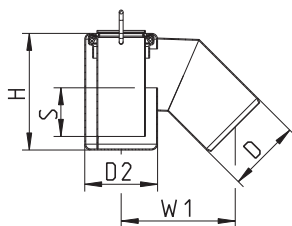
Type no.	Customer no.	D	H	S	W1	D2
510.000.059		1½	120	50	176	75

D specified in inches (").

Accurate flow rate depending on type of grating.

## WATER TRAP 45° FOR WATERLINE

TO BE BUILT IN - CANNOT BE RETRO-FITTED

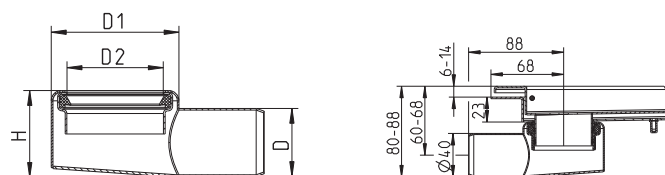


Type no.	Customer no.	D	H	S	W1	D2	Max Flow (l/s)
510.003.075		75	120	50	117	75	0.6

Accurate flow rate depending on type of grating.

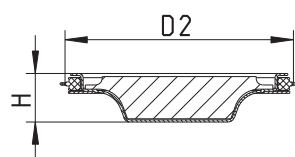
## Others

### LOWER PART FOR WATERLINE



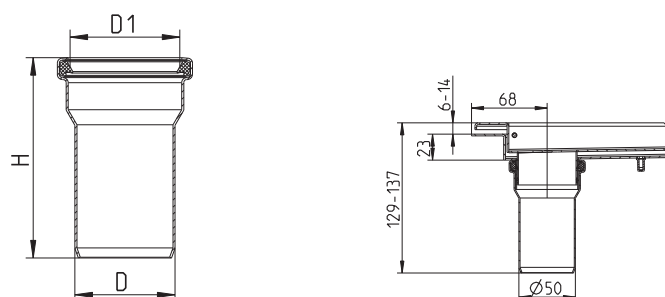
Type no.	Customer no.	D	D1	H	D2
620.300.028		40	75	51	56

### PLUG FOR DRAINS



Type no.	Customer no.	H	D2
620.300.019 S		23	108

### CONNECTING PIECE FOR WATERLINE

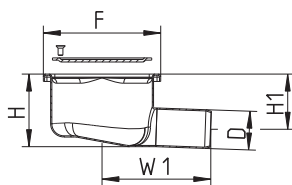


Type no.	Customer no.	D	D1	H
620.300.022		50	56	100



**BALCONY DRAIN SQUARE, 100X100 TYPE 182**

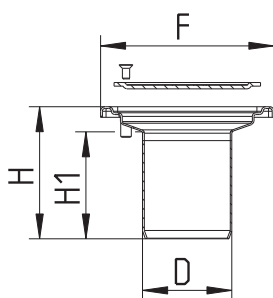
WITH SCREW LOCK



Type no.	Customer no.	D	F	H	H1	W1
182.105.032		32	97x97	60	46	90

**BALCONY DRAIN SQUARE, 100X100 TYPE 183**

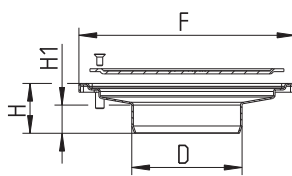
WITH SCREW LOCK



Type no.	Customer no.	D	F	H	H1
183.101.040		40	97x97	62	47
183.101.050		50	97x97	74	60
183.101.075		75	97x97	26	20

**BALCONY DRAIN SQUARE, 150X150 TYPE 183**

WITH SCREW LOCK



Type no.	Customer no.	D	F	H	H1
183.151.075		75	147x147	34	19
183.151.100		100	147x147	35	25

## Drains for commercial and industrial applications



### Floor drains

For concrete, tiled, epoxy or vinyl floors

Square or circular

#### Applications

For concrete, tiled, vinyl and epoxy flooring in:

- Industrial areas
- Commercial kitchens
- Supermarkets, restaurants, airports, etc.

#### Details

- Square or circular reinforced frame
- Flow capacities from 1,2 to 7,8 l/s
- 20 mm frame height
- Gratings suitable for any load class
- Stainless steel AISI304/EN 1.4301 or AISI316L/EN 1.4404

#### Variants

- Vertical or horizontal outlet
- For liquid membrane, sheet membrane or no membrane

#### Options

- Removable water trap
- Filter basket and sand bucket

## Complete drains

### Concrete and tiles without membrane - fixed



- Selected grating
- Optional filter basket
- Optional water trap
- Drain

### Concrete and tiles with liquid membrane



- Selected grating
- Adjustable upper part
- Optional filter basket
- Optional water trap
- Lower part

### Concrete and tiles with sheet membrane



- Selected grating
- Adjustable upper part
- Optional filter basket
- Optional water trap
- Lower part with clamping flange

### Upper parts & frames

#### Concrete/tiles



#### Vinyl



#### Epoxy



### Complete drains

#### Drain

Fixed 1-part drain or 2-part adjustable drain.

#### Grating

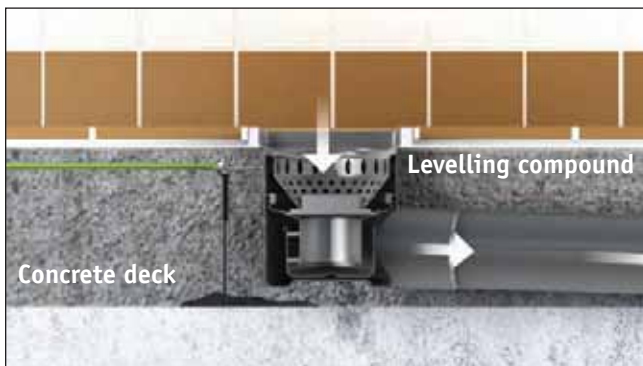
Range of gratings for all load classes. Grating not included - to be ordered separately

#### Accessories

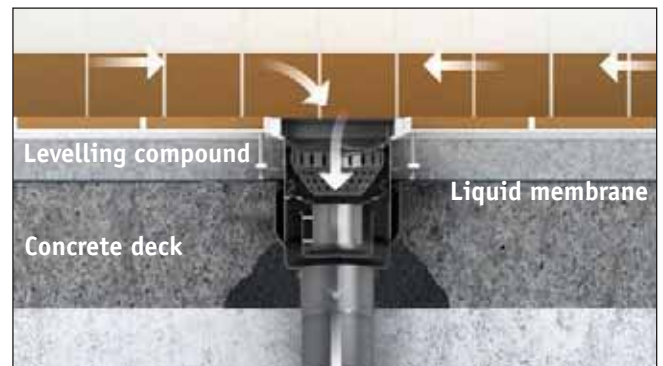
Accessories such as filter basket, sand bucket and water trap not included - to be ordered separately

### Installation examples

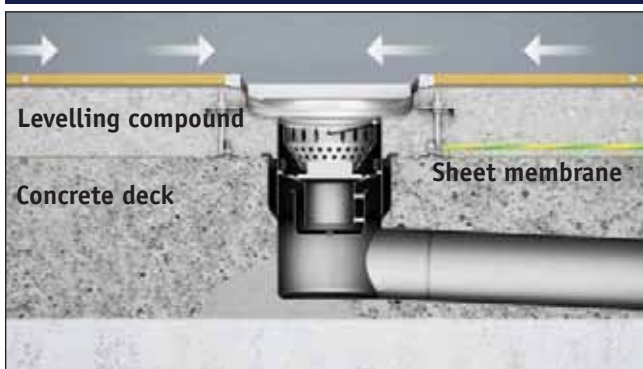
Concrete and tiles without membrane



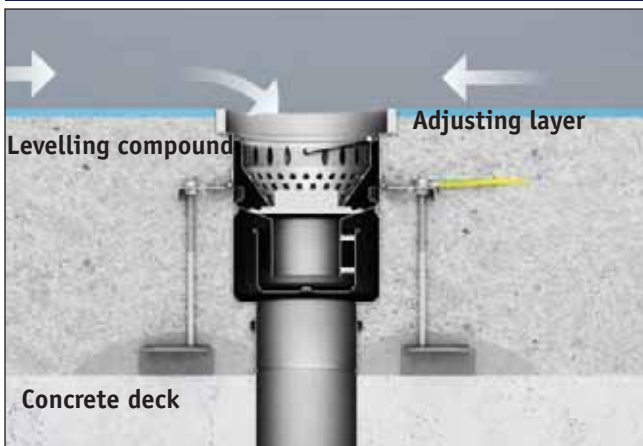
Concrete and tiles with liquid membrane



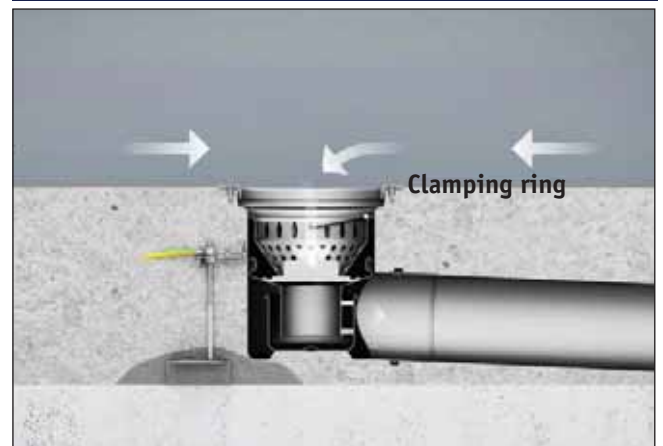
Concrete and tiles with sheet membrane



Epoxy



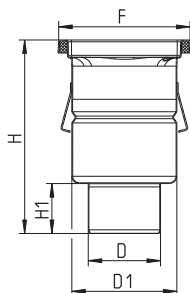
Vinyl



Installation videos available at [www.blucher.com](http://www.blucher.com)

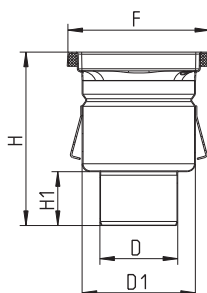
## without membrane

## INDUSTRIAL DRAIN TYPE 760.40



Type no.	Customer no.	D	D1	F	H	H1	Holes for screws
760.402.110		110	160	200x200	295	76	0
760.401.110		110	160	250x250	297	76	0
760.403.110		110	260	300x300	341	76	0
760.403.160		160	260	300x300	360	95	0

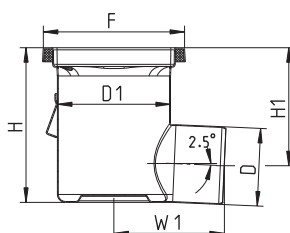
## INDUSTRIAL DRAIN, LOW MODEL TYPE 766.40



Type no.	Customer no.	D	D1	F	H	H1	Holes for screws
766.402.110		110	160	200x200	245	76	0
766.401.110		110	160	250x250	247	76	0
766.403.110		110	260	300x300	284	76	0
766.403.160		160	260	300x300	303	95	0

Only for low filter basket together with water trap

## INDUSTRIAL DRAIN TYPE 763.40

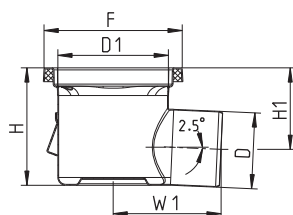


Type no.	Customer no.	D	D1	F	H	H1	W1	Holes for screws
763.402.110		110	160	200x200	219	167	156	0
763.401.110		110	160	250x250	221	169	156	0
763.403.110		110	260	300x300	245	193	206	0
763.403.160		160	260	300x300	245	177-220	341	0

Drains with outlet other than D=110mm come with adaptor.

without membrane

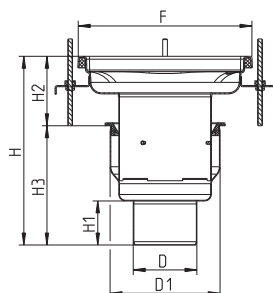
INDUSTRIAL DRAIN, LOW MODEL TYPE 726.40



Type no.	Customer no.	D	D1	F	H	H1	W1	Holes for screws
726.402.110		110	160	200x200	170	118	156	0
726.401.110		110	160	250x250	172	120	156	0
726.403.110		110	260	300x300	188	136	206	0
726.403.160		160	260	300x300	188	120-163	341	0

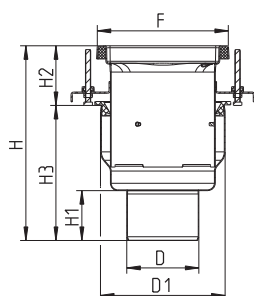
Drains with outlet other than D=110mm come with adaptor.  
Only for low filter basket together with water trap

ADJUSTABLE INDUSTRIAL DRAIN TYPE 710.403



Type no.	Customer no.	D	D1	F	H	H1	H2	H3	Holes for screws
710.403.075		75	190	300x300	315-375	65	120-180	195	0
710.403.110		110	190	300x300	326-386	76	120-180	206	0

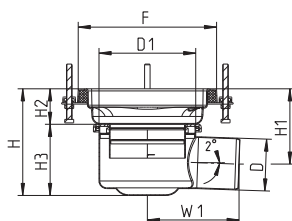
ADJUSTABLE INDUSTRIAL DRAIN TYPE 740.40



Type no.	Customer no.	D	D1	F	H	H1	H2	H3	Holes for screws
740.402.110		110	190	200x200	297-357	76	91-151	206	0
740.403.110		110	291	300x300	342-402	76	91-151	251	0
740.403.160		160	291	300x300	361-421	95	91-151	270	0

## without membrane

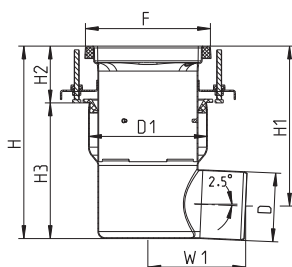
## ADJUSTABLE INDUSTRIAL DRAIN TYPE 713.402



Type no.	Customer no.	D	D1	F	H	H1	H2	H3	W1	Holes for screws
713.402.075		75	140	200x200	154-184	109-139	51-81	103	133	0

Only for removable water trap type 502 and 503.

## ADJUSTABLE INDUSTRIAL DRAIN TYPE 743.40



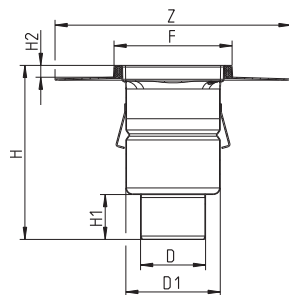
Type no.	Customer no.	D	D1	F	H	H1	H2	H3	W1	Holes for screws
743.402.110		110	190	200x200	308-368	256-316	91-151	217	156	0
743.403.110		110	291	300x300	313-373	261-321	91-151	222	206	0
743.403.160		160	291	300x300	313-373	245-348	91-151	222	341	0

Drains with outlet other than D=110mm come with adaptor.



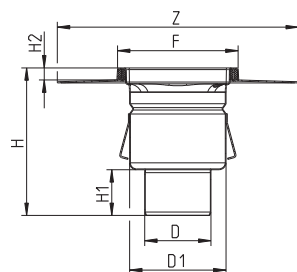
with liquid membrane

### INDUSTRIAL DRAIN TYPE 761.40



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	Holes for screws
761.402.110		110	160	200x200	400x400	295	76	20	0
761.403.110		110	260	300x300	500x500	341	76	20	0
761.403.160		160	260	300x300	500x500	360	95	20	0

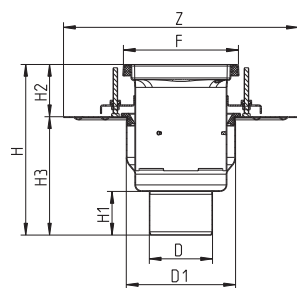
### INDUSTRIAL DRAIN, LOW MODEL TYPE 767.40



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	Holes for screws
767.402.075		75	160	200x200	400x400	234	65	20	0
767.402.110		110	160	200x200	400x400	245	76	20	0
767.403.075		75	260	300x300	500x500	273	65	20	0
767.403.110		110	260	300x300	500x500	284	76	20	0
767.403.160		160	260	300x300	500x500	303	95	20	0

Only for low filter basket together with water trap

### ADJUSTABLE INDUSTRIAL DRAIN TYPE 774.40

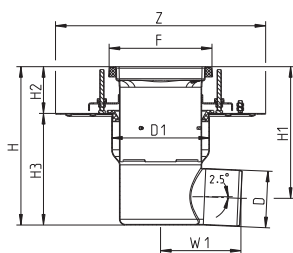


Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	Holes for screws
774.402.110		110	190	200x200	Ø409	297-357	76	91-151	206	0
774.403.110		110	291	300x300	Ø507	342-402	76	91-151	251	0
774.403.160		160	291	300x300	Ø507	361-421	95	91-151	270	0



## with liquid membrane

## ADJUSTABLE INDUSTRIAL DRAIN TYPE 769.40

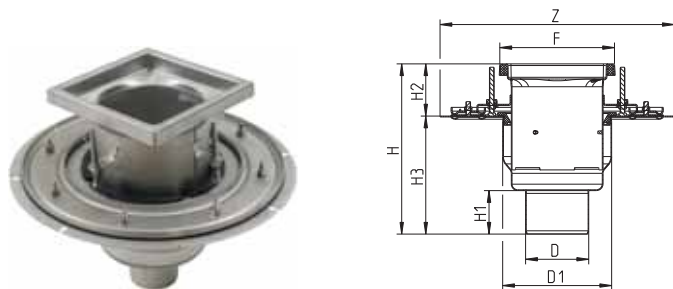


Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1	Holes for screws
769.402.110		110	190	200x200	Ø409	308-368	256-316	91-151	217	156	0
769.403.110		110	291	300x300	Ø507	313-373	261-321	91-151	222	206	0
769.403.160		160	291	300x300	Ø507	313-373	245-348	91-151	222	341	0

Drains with outlet other than D=110mm come with adaptor.

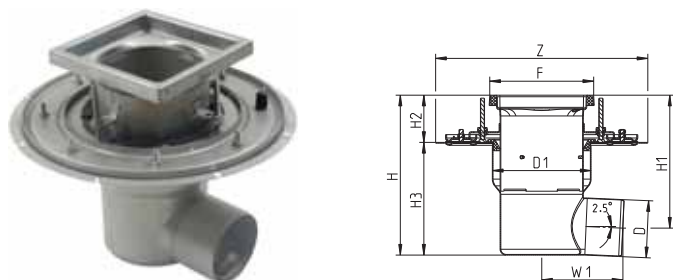
with sheet membrane

### ADJUSTABLE INDUSTRIAL DRAIN TYPE 775.40



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	Holes for screws
775.402.110		110	190	200x200	Ø409	297-357	76	91-151	206	0
775.403.110		110	291	300x300	Ø507	342-402	76	91-151	251	0
775.403.160		160	291	300x300	Ø507	361-421	95	91-151	270	0

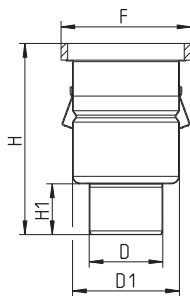
### ADJUSTABLE INDUSTRIAL DRAIN TYPE 771.40



Type no.	Customer no.	D	D1	F	Z	H	H1	H2	H3	W1	Holes for screws
771.402.110		110	190	200x200	Ø409	308-368	256-316	91-151	217	156	0
771.403.110		110	291	300x300	Ø507	313-373	261-321	91-151	222	206	0
771.403.160		160	291	300x300	Ø507	313-373	245-348	91-151	222	341	0

Drains with outlet other than D=110mm come with adaptor.

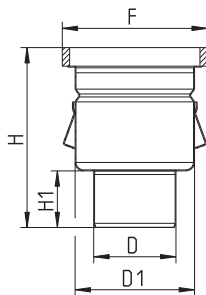
### INDUSTRIAL DRAIN TYPE 760.50



Type no.	Customer no.	D	D1	F	H	H1	Holes for screws
760.502.110		110	160	Ø195	286	76	0
760.503.110		110	260	Ø295	327	76	0
760.503.160		160	260	Ø295	346	95	0

Industrial drains for resin floors are also available as adjustable. For more information contact BLÜCHER.

### INDUSTRIAL DRAIN, LOW MODEL TYPE 766.50

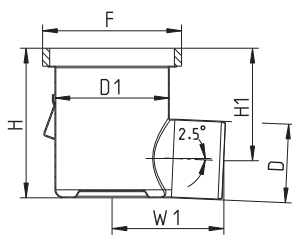


Type no.	Customer no.	D	D1	F	H	H1	Holes for screws
766.502.110		110	160	Ø195	241	76	0
766.503.110		110	260	Ø295	279	76	0
766.503.160		160	260	Ø295	298	95	0

Only for low filter basket together with water trap.

Industrial drains for resin floors are also available as adjustable. For more information contact BLÜCHER.

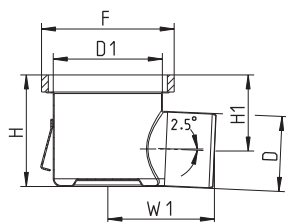
### INDUSTRIAL DRAIN TYPE 763.50



Type no.	Customer no.	D	D1	F	H	H1	W1	Holes for screws
763.502.110		110	160	Ø195	209	157	156	0
763.503.110		110	260	Ø295	228	176	206	0
763.503.160		160	260	Ø295	228	160-203	341	0

Industrial drains for resin floors are also available as adjustable. For more information contact BLÜCHER.

## INDUSTRIAL DRAIN, LOW MODEL TYPE 726.50



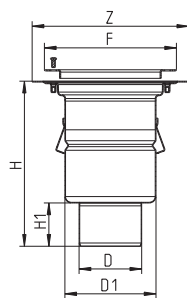
Type no.	Customer no.	D	D1	F	H	H1	W1	Holes for screws
726.502.110		110	160	Ø195	164	112	156	0
726.503.110		110	260	Ø295	177	125	206	0
726.503.160		160	260	Ø295	177	109-152	341	0

Drains with outlet other than D=110mm come with adaptor.

Only for low filter basket together with water trap.

Industrial drains for resin floors are also available as adjustable. For more information contact BLÜCHER.

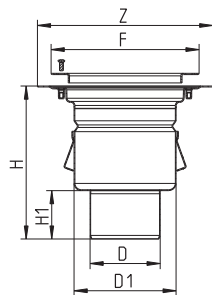
### INDUSTRIAL DRAIN TYPE 760.60



Type no.	Customer no.	D	D1	F	Z	H	H1	Holes for screws
760.602.110		110	160	Ø232	Ø275	290	76	0
760.603.110		110	260	Ø332	Ø375	336	76	0
760.603.160		160	260	Ø332	Ø375	355	95	0

Industrial drains for vinyl floors are also available as adjustable. For more information contact BLÜCHER.

### INDUSTRIAL DRAIN, LOW MODEL TYPE 766.60

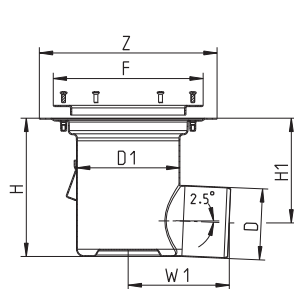


Type no.	Customer no.	D	D1	F	Z	H	H1	Holes for screws
766.602.110		110	160	Ø232	Ø275	240	76	0
766.603.075		75	260	Ø332	Ø375	268	65	0
766.603.110		110	260	Ø332	Ø375	279	76	0
766.603.160		160	260	Ø332	Ø375	298	95	0

Only for low filter basket together with water trap.

Industrial drains for vinyl floors are also available as adjustable. For more information contact BLÜCHER.

### INDUSTRIAL DRAIN TYPE 763.60

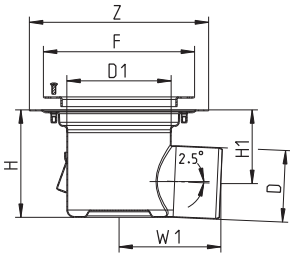


Type no.	Customer no.	D	D1	F	Z	H	H1	W1	Holes for screws
763.602.110		110	160	Ø232	Ø275	214	162	156	0
763.603.110		110	260	Ø332	Ø375	240	188	206	0
763.603.160		160	260	Ø332	Ø375	240	172-215	341	0

Drains with outlet other than D=110mm come with adaptor.

Industrial drains for vinyl floors are also available as adjustable. For more information contact BLÜCHER.

INDUSTRIAL DRAIN, LOW MODEL TYPE 726.60

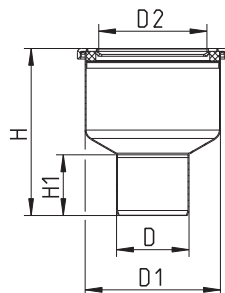


Type no.	Customer no.	D	D1	F	Z	H	H1	W1	Holes for screws
726.602.110		110	160	Ø232	Ø275	165	113	156	0
726.603.110		110	260	Ø332	Ø375	183	131	206	0
726.603.160		160	260	Ø332	Ø375	183	115-158	341	0

Drains with outlet other than D=110mm come with adaptor.  
Only for low filter basket together with water trap.  
Industrial drains for vinyl floors are also available as adjustable. For more information contact BLÜCHER.

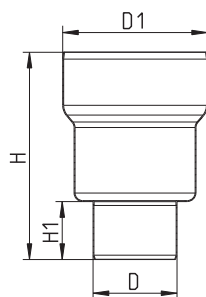
## - without membrane flange

## LOWER PART FOR INDUSTRIAL DRAIN TYPE 150



Type no.	Customer no.	D	D1	H	H1	D2
150.000.075		75	140	173	63	113
150.000.110		110	140	141	79	113

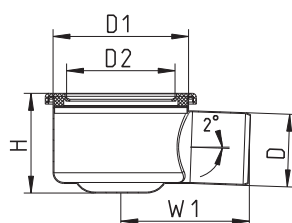
## LOWER PART FOR INDUSTRIAL DRAIN, HIGH MODEL TYPE 760.07



Type no.	Customer no.	D	D1	H	H1
760.072.075		75	190	266	65
760.072.110		110	190	277	76
760.073.110		110	291	299	76
760.073.160		160	291	318	95

Sealing ring included with the upper part

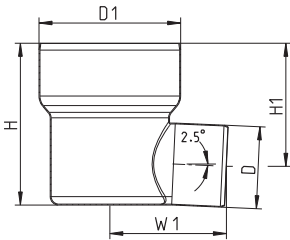
## LOWER PART FOR INDUSTRIAL DRAIN TYPE 110



Type no.	Customer no.	D	D1	H	W1	D2
110.000.075		75	140	103	133	113
110.000.110		110	140	124	143	113

- without membrane flange

LOWER PART FOR INDUSTRIAL DRAIN TYPE 763.00



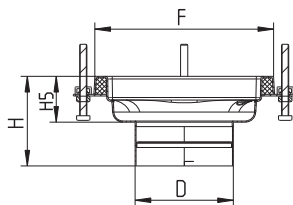
Type no.	Customer no.	D	D1	H	H1	W1
763.002.075		75	190	217	184	253
763.002.110		110	190	217	165	156
763.003.110		110	291	222	170	206
763.003.160		160	291	222	154-197	341

Sealing ring included with the upper part. Lower parts with outlet other than D=110mm come with adaptor.



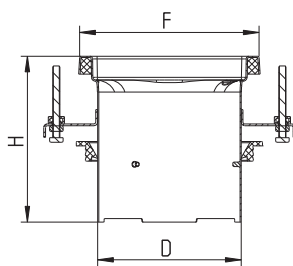
### UPPER PART FOR INDUSTRIAL DRAIN TYPE 710.40

WITH SUPPORTING RING FOR WATER TRAP



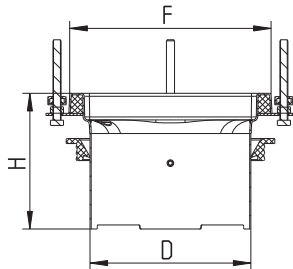
Type no.	Customer no.	D	F	H	H5	Holes for screws
710.402.000		110	200x200	100	51	0
710.401.000		110	250x250	102	53	0
710.403.000		160	300x300	215	65	0

### UPPER PART FOR INDUSTRIAL DRAIN TYPE 774.40



Type no.	Customer no.	D	F	H	Holes for screws
774.402.000		160	200x200	185	0
774.401.000		160	250x250	187	0
774.403.000		260	300x300	183	0

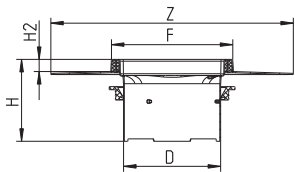
### UPPER PART FOR INDUSTRIAL DRAIN, LOW MODEL TYPE 774.41



Type no.	Customer no.	D	F	H	Holes for screws
774.412.000		160	200x200	135	0
774.411.000		160	250x250	137	0
774.413.000		260	300x300	133	0

Only for low filter basket together with water trap

UPPER PART FOR INDUSTRIAL DRAIN, LOW MODEL TYPE 774.42

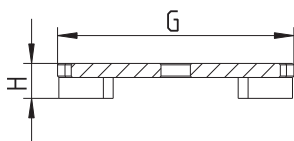


Type no.	Customer no.	D	F	Z	H	H2	Holes for screws
774.422.000		160	200x200	400x400	135	20	0
774.421.000		160	250x250	400x400	137	20	0
774.423.000		260	300x300	500x500	133	20	0

Only for low filter basket together with water trap

## Gratings SQUARE

## SLOT GRATING SQUARE

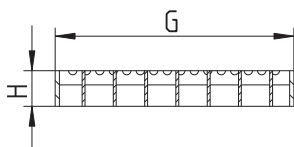
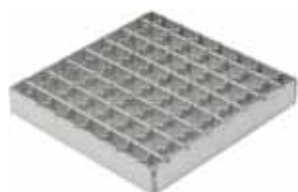


EN 1253



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.10		170x170	25	L 5000 kg	R10	0
790.218.000.10		220x220	25	L 4000 kg	R10	0
790.268.000.10		270x270	25	L 4000 kg	R10	0

## MESH GRATING SQUARE

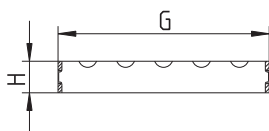


EN 1253



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.22		168x168	25	L 1350 kg	R12	0
790.218.000.22		218x218	25	L 1500 kg	R12	0
790.268.000.22		268x268	25	L 1600 kg	R12	0

## LADDER GRATING SQUARE



EN 1253

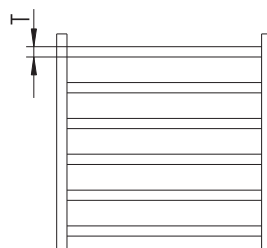
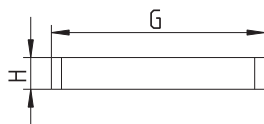


Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.25		168x168	25	L 6000 kg	R11	0
790.218.000.25		218x218	25	L 4000 kg	R11	0
790.268.000.25		268x268	40	M 8400 kg	R11	0

## Gratings SQUARE

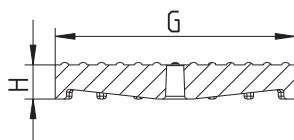
## LADDER GRATING SQUARE

8 MM MATERIAL, FULLY WELDED



Type no.	Customer no.	G	H	T	EN1253	Non slip	Screws
790.168.000.28		168x168	25	8	M 15000kg	R11	0
790.218.000.28		218x218	25	8	M 8400 kg	R11	0
790.268.000.28		268x268	25	8	M 8400 kg	R11	0

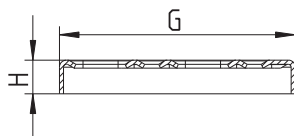
## HYGIENIC-PRO GRATING SQUARE



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.60		170x170	24	L 4000 kg	R10	0
790.218.000.60		220x220	24	L 4000 kg	R10	0
790.268.000.60		270x270	24	L 4000 kg	R10	0

Only available in stainless steel grade AISI CF-8 corresponding to AISI 304/EN1.4301

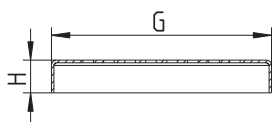
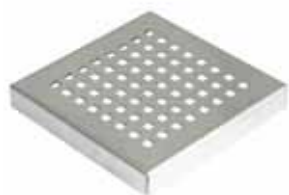
## 3MM GRATING SQUARE



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.03		168x168	24	L 1500 kg	R10	0
790.218.000.03		218x218	24	L 1000 kg	R10	0
790.268.000.03		268x268	24	L 1500 kg	R10	0

## Gratings SQUARE

## SHOWER GRATING SQUARE

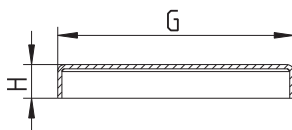
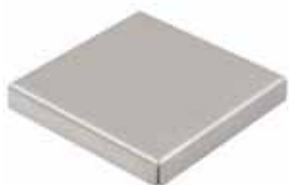


EN 1253



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.168.000.04		168x168	25	K 250 kg	R10	0
790.218.000.04		218x218	25	K 250 kg	R10	0
790.268.000.04		268x268	25	K 250 kg	R10	0

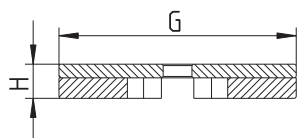
## BLANK PLATE SQUARE



Type no.	Customer no.	G	H	EN1253	Screws
790.168.000.00		168x168	24	K 250 kg	0

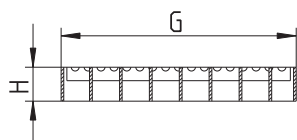
## Gratings CIRCLE

## SLOT GRATING CIRCLE



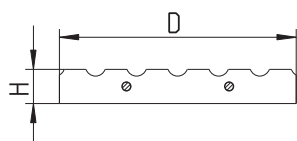
Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.10		Ø173	25	L 8000 kg	R10	0
790.273.000.10 S		Ø273	25	L 7000 kg	R10	0

## MESH GRATING CIRCLE



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.22		Ø173	25	L 2000 kg	R12	0
790.273.000.22		Ø273	25	L 1000 kg	R12	0

## LADDER GRATING CIRCLE

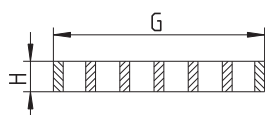


Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.25 S		Ø173	25	L 5000 kg	R11	0
790.273.000.25 S		Ø273	25	L 5000 kg	R11	0

## Gratings CIRCLE

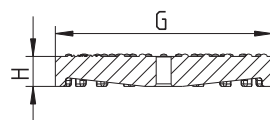
## LADDER GRATING CIRCLE

8 MM MATERIAL, FULLY WELDED



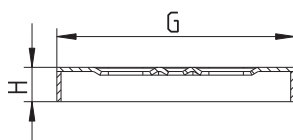
Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.28		Ø173	25	M 10000 kg	R11	0
790.273.000.28		Ø273	25	M 10000 kg	R11	0

## HYGIENIC-PRO GRATING CIRCLE



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.60		Ø173	24	L 7000 kg	R10	0
790.273.000.60		Ø273	24	L 5000 kg	R10	0

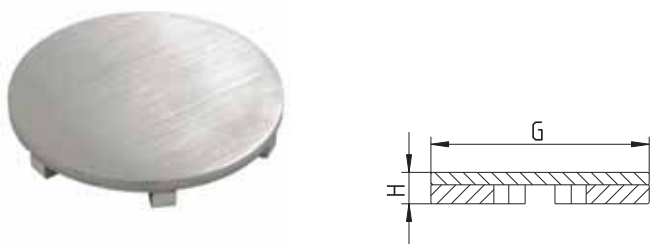
## 3MM GRATING CIRCLE



Type no.	Customer no.	G	H	EN1253	Non slip	Screws
790.173.000.03 S		Ø173	25	L 1500 kg	R10	0
790.273.000.03 S		Ø273	25	L 1000 kg	R10	0

Gratings CIRCLE

BLANK PLATE CIRCLE

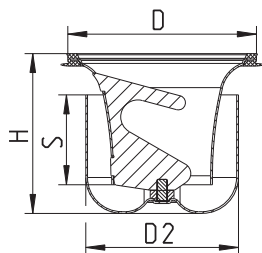


Type no.	Customer no.	G	H	EN1253	Screws
790.173.000.00		Ø173	25	L 4000 kg	0
790.273.000.00		Ø273	25	L 6000 kg	0



## Water traps

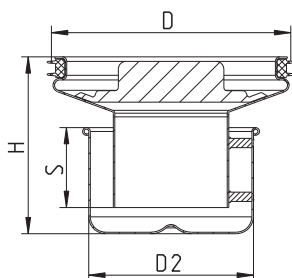
## REMOVABLE TWO-PART WATER TRAP TYPE 502.050



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.050.110		108	89	50	85	1.7

Accurate flow rate depending on type of drain and grating.

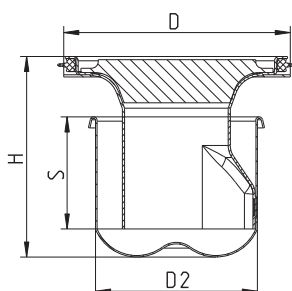
## REMOVABLE WATER TRAP TYPE 562.00



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
562.002.000 S		157	115	52	107	3.3
562.003.000 S		257	128	52	197	7.8

Type 562.002 S fits into drains size 200x200 and type 562.003 S fits into drains size 300x300.  
Accurate flow rate depending on type of drain and grating.

## REMOVABLE WATER TRAP TYPE 502.052

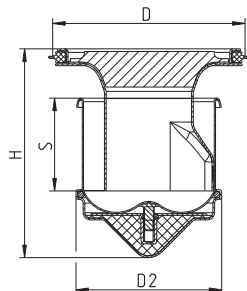


Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.052.110		108	93	52	75	1.3

Accurate flow rate depending on type of drain and grating.

## Water traps

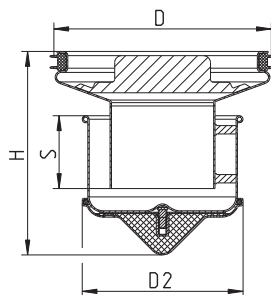
## REMOVABLE WATER TRAP FIRE PROOF TYPE 502.052



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.052.110 FS		108	118	52	82	1.2

Accurate flow rate depending on type of drain and grating.

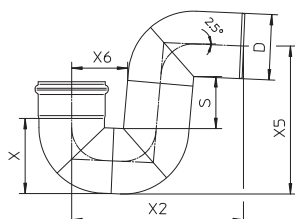
## REMOVABLE WATER TRAP FIRE PROOF TYPE 562.00



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
562.002.000 FS		157	146	52	115	3.3

Accurate flow rate depending on type of drain and grating.

## P-TRAP 87.5° TYPE 525.090

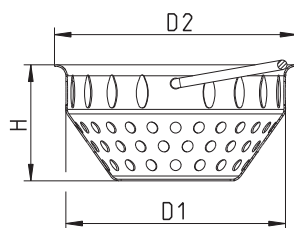


Type no.	Customer no.	D	S	X	X2	X5	X6	Max Flow (l/s)
525.090.075 S		75	81	89	222	189	74	2.5
525.090.110 S		110	89	126	289	249	94	3.4
525.090.160 S		160	105	178	388	338	121	7.5

Accurate flow rate depending on installation.

## Others

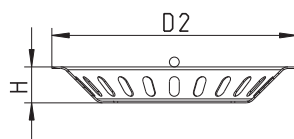
## FILTER BASKET TYPE 780



Type no.	Customer no.	D1	H	D2
780.002.000.05		140	74	155
780.003.000.05		238	75	253

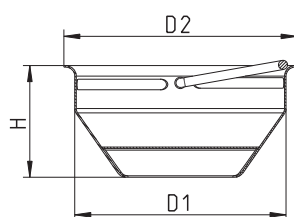
If the drain is to be fitted with both filter basket and water trap, make sure that the height of the drain is sufficient.

## FILTER BASKET, LOW MODEL TYPE 780



Type no.	Customer no.	H	D2
780.002.001.05		22	150
780.003.001.05		16	249

## SAND BUCKET TYPE 780

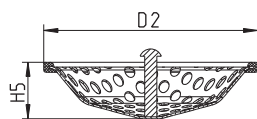


Type no.	Customer no.	D1	H	D2
780.002.000.00		140	74	155
780.003.000.00		238	75	253

If the drain is to be fitted with both filter basket and water trap, make sure that the height of the drain is sufficient.

## Others

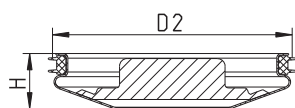
## FILTER BASKET FOR REMOVABLE TWO-PART WATER TRAP



Type no.	Customer no.	H5	D2
502.000.000 S		24	106

## PLUG FOR INDUSTRIAL DRAINS

FOR NO SMELL IN COMBINATION WITH BLIND PLATE



Type no.	Customer no.	H	D2
700.000.004 S		36	157
700.000.005 S		41	256
620.300.019 S		23	108

## SEALING RING FOR WATER TRAP TYPE 562



Type no.	Customer no.	Designation
562.002.EPDM		Fits trap type no. 562.002.000
562.003.EPDM		Fits trap type no. 562.003.000

### Additional products and options

#### Tundishes



Tundishes for the Industrial range of drains can be made to your specification.

Options include:

Square or round profile

Grade AISI 304 or AISI 316L

#### Bespoke drains



Bespoke drains

Should the drain you are looking for not be available from the standard range, BLÜCHER can offer a cost effective custom drain manufacturing service. From simple spigot extensions to full drain design, the ability to form and weld stainless steel makes BLÜCHER drains the ideal choice for bespoke manufacture.

#### Screwlocking



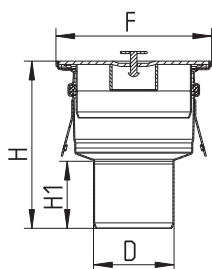
Screwlocking

The range of square industrial drains can be adapted for screwlocking. This can be from one to all four corners and can include either standard cross head screws or special security screws.

## without membrane

### RODDING EYE TYPE 144

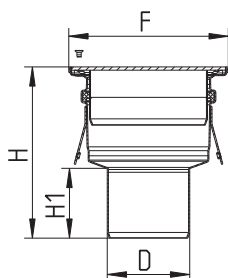
WITH PULL NIPPLE



Type no.	Customer no.	D	F	H	H1
144.150.075 S		75	145x145	156	63
144.150.110 S		110	145x145	120	-
144.200.160 S		160	200x200	159	-

### RODDING EYE WITH SCREW LOCK TYPE 144

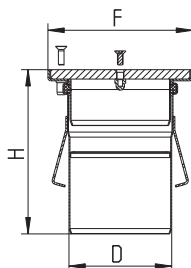
FOR VACUUM HANDLE



Type no.	Customer no.	D	F	H	H1
144.155.075 S		75	145x145	156	63
144.155.110 S		110	145x145	120	-
144.205.160 S		160	200x200	159	-

### RODDING EYE WITH SCREW LOCK TYPE 144

10 MM PLATE, FOR VACUUM HANDLE OR LIFTING SCREW

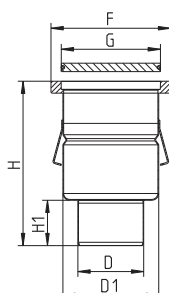


Type no.	Customer no.	D	F	H
144.155.110.10 S		110	155x155	176
144.205.160.10 S		160	200x200	160

## without membrane

**GASTIGHT INDUSTRIAL DRAIN TYPE 760**

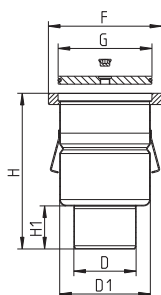
FOR VACUUM HANDLE



Type no.	Customer no.	D	D1	F	G	H	H1
760.452.110 S		110	160	200x200	Ø166	275	76

**GASTIGHT INDUSTRIAL DRAIN TYPE 760**

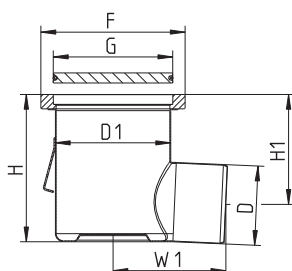
FOR THREADED KEY



Type no.	Customer no.	D	D1	F	G	H	H1
760.462.110 S		110	160	200x200	Ø166	275	76

**GASTIGHT INDUSTRIAL DRAIN TYPE 763**

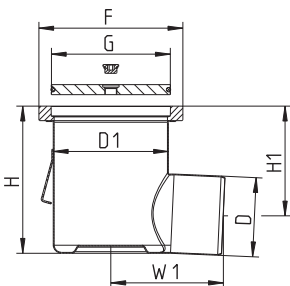
FOR VACUUM HANDLE



Type no.	Customer no.	D	D1	F	G	H	H1	W1
763.452.110 S		110	160	200x200	Ø166	204	152	156

without membrane

GASTIGHT INDUSTRIAL DRAIN TYPE 763  
FOR THREADED KEY

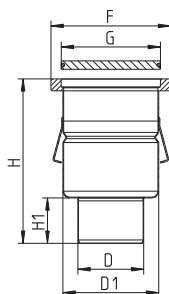


Type no.	Customer no.	D	D1	F	G	H	H1	W1
763.462.110 S		110	160	200x200	Ø166	204	152	156



### GASTIGHT INDUSTRIAL DRAIN TYPE 760

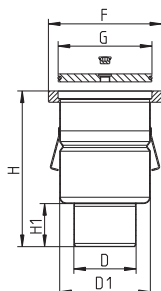
FOR VACUUM HANDLE



Type no.	Customer no.	D	D1	F	G	H	H1
760.552.110 S		110	160	Ø200	Ø166	275	76

### GASTIGHT INDUSTRIAL DRAIN TYPE 760

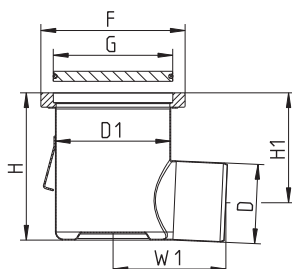
FOR THREADED KEY



Type no.	Customer no.	D	D1	F	G	H	H1
760.562.110 S		110	160	Ø200	Ø166	275	76

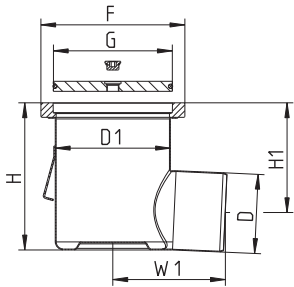
### GASTIGHT INDUSTRIAL DRAIN TYPE 763

FOR VACUUM HANDLE



Type no.	Customer no.	D	D1	F	G	H	H1	W1
763.552.110 S		110	160	Ø200	Ø166	204	152	156

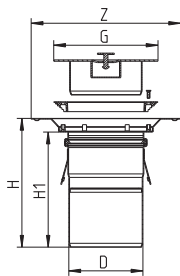
GASTIGHT INDUSTRIAL DRAIN TYPE 763  
FOR THREADED KEY



Type no.	Customer no.	D	D1	F	G	H	H1	W1
763.562.110 S		110	160	Ø200	Ø166	204	152	156

## RODDING EYE TYPE 244

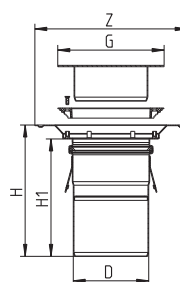
WITH PULL NIPPLE



Type no.	Customer no.	D	Z	G	H	H1
244.150.110 S		110	Ø222	Ø155	192	171

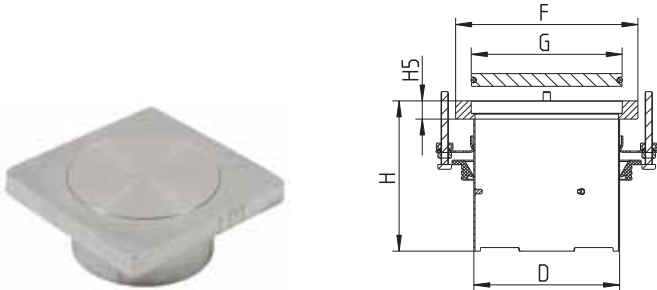
## RODDING EYE WITH SCREW LOCK TYPE 244

FOR VACUUM HANDLE



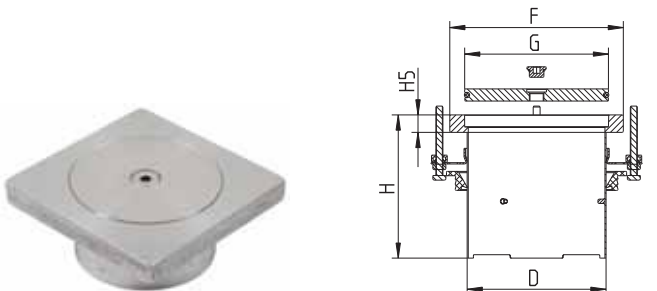
Type no.	Customer no.	D	Z	G	H	H1
244.155.110 S		110	Ø222	Ø155	192	171

## UPPER PART FOR GASTIGHT DRAIN TYPE 774.4 FOR VACUUM HANDLE



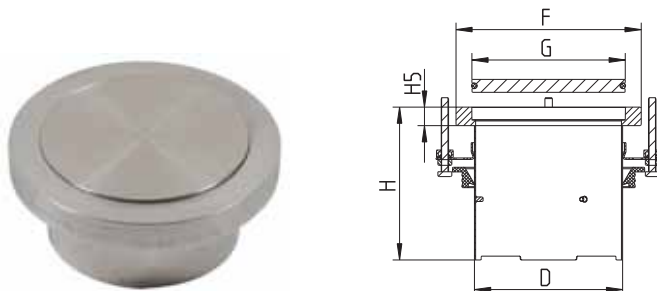
Type no.	Customer no.	D	F	G	H	H5
774.451.000 S		110	150x150	Ø115	64	20
774.452.000 S		160	200x200	Ø166	165	20

## UPPER PART FOR GASTIGHT DRAIN TYPE 774.4 FOR THREADED KEY



Type no.	Customer no.	D	F	G	H	H5
774.461.000 S		110	150x150	Ø115	64	20
774.462.000 S		160	200x200	Ø166	165	20

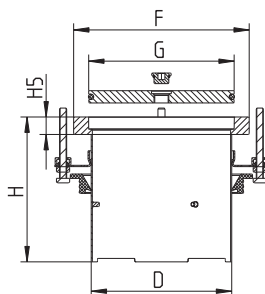
## UPPER PART FOR GASTIGHT DRAIN TYPE 774.5 FOR VACUUM HANDLE



Type no.	Customer no.	D	F	G	H	H5
774.551.000 S		110	Ø150	Ø115	64	20
774.552.000 S		160	Ø200	Ø166	165	20

**UPPER PART FOR GASTIGHT DRAIN TYPE 774.5**

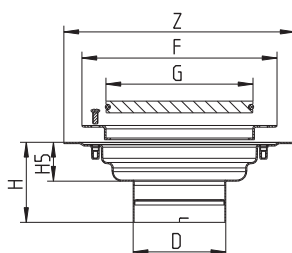
FOR THREADED KEY



Type no.	Customer no.	D	F	G	H	H5
774.561.000 S		110	Ø150	Ø115	64	20
774.562.000 S		160	Ø200	Ø166	165	20

**UPPER PART FOR GASTIGHT DRAIN TYPE 774.6**

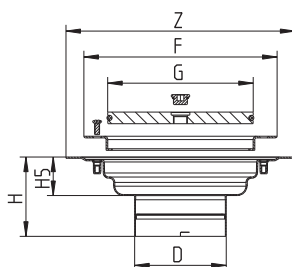
FOR VACUUM HANDLE, FOR VINYL



Type no.	Customer no.	D	F	Z	G	H	H5
774.651.000 S		110	Ø232	Ø275	Ø175	95	46

**UPPER PART FOR GASTIGHT DRAIN TYPE 774.6**

FOR THREADED KEY, FOR VINYL



Type no.	Customer no.	D	F	Z	G	H	H5
774.661.000 S		110	Ø232	Ø275	Ø175	85	46

THREADED KEY FOR GASTIGHT COVER



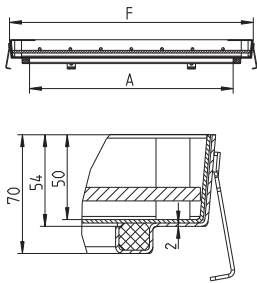
Type no.	Customer no.
700.000.001	

VACUUM HANDLE FOR RODDING EYE AND GASTIGHT COVER



Type no.	Customer no.	D
700.000.002		110
700.000.003		160

ACCESS COVER TYPE 792



Type no.	Customer no.	Name	F	A	EN124
792.030.030		300x300	418x418	300	B 12500 kg
792.040.040		400x400	518x518	400	B 12500 kg
792.060.060		600x600	718x718	600	B 12500 kg
792.080.080		800x800	918x918	800	B 12500 kg
792.100.100		1000x1000	1118x1118	1000	B 12500 kg

Use of concrete C35/C45 guarantees the load class (EN124) above.

### Installation Guidelines

BLÜCHER® Grease Separators should ideally be placed no further than 6-8 metres from the last fixture discharging into the unit. Provided the falls are adequate, this will reduce the likelihood of grease solidifying in the pipework system before reaching the separator.

Waste from macerators and peelers should not normally be discharged into the separator as this will result in a rapid build up of sludge, necessitating more frequent emptying.

Pipework to and from the separator should have generous falls and have the minimum number of bends possible. Outlet pipework should be as large a diameter as possible and not smaller than the inlet pipework. Venting of outlet pipework is recommended.

Inlet and outlet connections are compatible with 110mm diameter PVCu and stainless steel BLÜCHER® Europipe. Standard adapters to other pipework materials (e.g. cast iron, clay) are provided by the respective manufacturers.

BLÜCHER® Grease Separators comply with Building Regulations by meeting the requirements of the relevant BS Codes of Practice for Above and Below ground drainage.

Certain cleaning agents (chlorine, bleach etc.) hinder digestion and should not be discharged into the separator.

### Sizing and Selection

To determine the appropriate size of BLÜCHER® Grease Separator the total volume of fixtures discharging into the separator should be calculated.

Where existing pipe invert levels dictate the need for dimension 'E' (see table below) to be site specific, please quote the required dimension.

Above ground separator has a smooth cover plate and is supplied with height adjustable feet which increase dimension 'C' by 100-125mm. Below ground separator has a non-slip cover plate (pedestrian duty) and is supplied without height adjustable feet.

### Specials

In addition to the standard range of BLÜCHER® Grease Separators purpose made units can be made to suit specific customer requirements.

### Dosing Methods/Procedures

To operate properly BLÜCHER® Grease Separators must be dosed regularly with a Liquid Digestion Media (LDM).

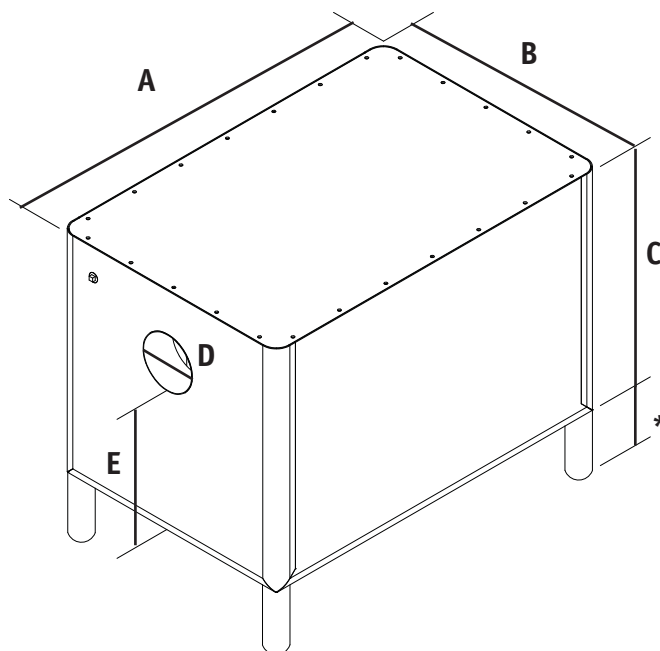
The actual dosing rate is determined by a number of factors (No. of meals, No. of discharge units, capacity of grease separator etc.) but daily dosing is generally considered suitable.

The LDM should be introduced manually or automatically (with an Automatic Dosing Unit) at the end of a shift/day.

Manual Dosing – The LDM can be introduced via a sink which discharges into the grease separator and then flushed into the unit.

Automatic Dosing – The installation of an Automatic Dosing Unit (ADU) allows for optimum dosing by introducing LDM in a predetermined quantity at the most appropriate time of the day. Mains or battery operated ADU's are available.

- A. Sinks –  
Volume of sink (s) CC = Litres 1000
- Reduce by 40% to allow for displacement, frequency of discharge etc.
- B. Dishwashers – Obtain discharge volume in litres from manufacturer
- A + B = Total volume of fixtures (relates to Net Volume of separators)



Type No	Model	Net Volume (litres)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
970.070.110.AR	Above Ground (Mini)*	56	684	578	291	110	202
970.070.110.BR	Below Ground (Mini)	56	684	578	291	110	202
970.090.110.AR	Above Ground (Standard)*	113	756	506	502	110	357
970.090.110.BR	Below Ground (Standard)	113	756	506	502	110	357
970.135.110.AR	Above Ground (Midi)*	189	756	506	702	110	557
970.135.110.BR	Below Ground (Midi)	189	756	506	702	110	557
970.180.110.AR	Above Ground (Maxi)*	251	1006	506	702	110	557
970.180.110.BR	Below Ground (Maxi)	251	1006	506	702	110	557

\* Above ground Grease Separators come complete with height adjustable legs 100 - 125mm



With 40 years experience in the manufacture of stainless steel drainage products, BLÜCHER® Grease Separators have been developed in co-operation with some of the leading authorities in the subject of environmental pollution control.



Outlet comes with built in rodding point

Inlet has removable baffle



Height adjustable legs (above ground separators only)



Curved profiled edges and corners prevent waste build up and ease cleaning process



Socket inlet and outlet are recessed to save installation space

### Effective Grease Control

BLÜCHER® Grease Separators are a modern evolution of the traditional grease / fat trap which required emptying at least weekly. The theory behind BLÜCHER Grease Separators is that they should act as a point of treatment for a Liquid Digestion Media (LDM).

The digestion media can be introduced either manually or automatically.

### How a BLÜCHER® Grease Separator works

There are three stages within the operation of a biological grease separator:

**Separation** – Waste water from sinks, dishwashers etc. enters the separator where a series of baffles separate out the transported grease and oil. The fats are then retained within the separator while the water drains away.

**Digestion** – The Digestion Media is fed into the BLÜCHER® Grease Separator and then converts the grease into harmless digestion products. This process reduces the need to empty the unit frequently, with servicing only required to remove the build up of sludge from food particles etc.

**Removal** – The harmless digestion products are carried away with subsequent waste water which passes through the unit.



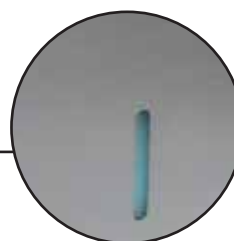
Peristaltic pump can be supplied in either 12v or 240v format making sighting simple



Dosing unit houses up to 12 litres of dosing media



Type No	Model	A (mm)	B (mm)	C (mm)
BODD/ CABINET	12v battery	710	220	250
MODD/ CABINET	240v mains	710	220	250



Dosing gauge shows level of media

### Roof drainage Made to last



### BLÜCHER® Drain Roof and BLÜCHER® EuroPipe

BLÜCHER offers a stainless steel roof drainage system suitable for:

- Flat roofs of all designs
- Downpipes from roofs of all designs
- Roofs with bitumen or single ply roof membrane
- Equally suitable for gravity and siphonic systems

BLÜCHER® roof drainage system comprises strong products which are capable of resisting impacts, corrosion as well as fire and require minimal maintenance.

Gravity roof drainage is used in traditional newbuild or refurbishment projects.

Siphonic roof drainage creates a flow rate approximately 3 - 5 times higher than in a gravity system.

This means that a larger roof area can be drained by fewer roof drains connected to one pipe string in smaller diameter than that required for the gravity system.

It is BLÜCHER's mission to provide a high-quality roof drainage system with roof drains easily connected to the BLÜCHER® EuroPipe pipework system, offering the customer a safe and high-quality roof drainage system that minimizes installation time and ensures high performance as regards

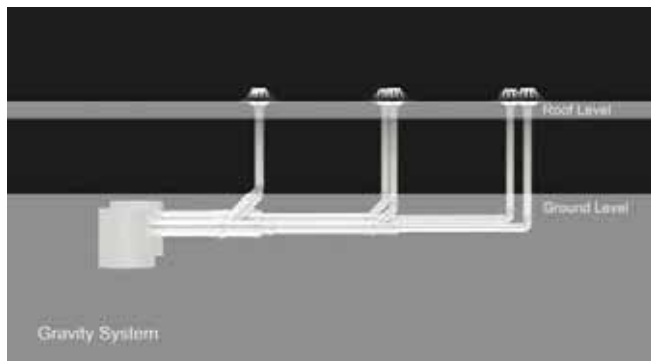
- High flow capacity
- Ease of installation
- Non-combustibility
- Long product life

### Gravity and siphonic roof drainage systems

#### BLÜCHER® gravity roof drainage



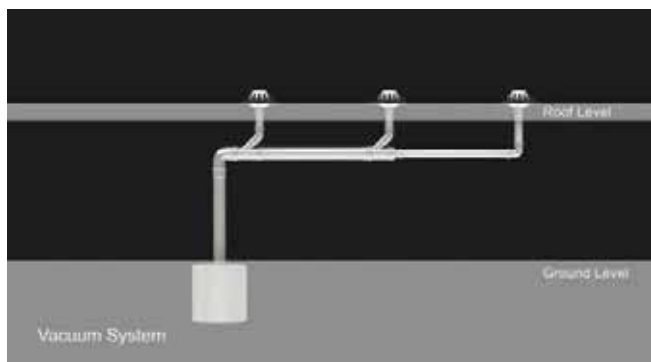
Traditional gravity system with drains spread over the roof area and water filled from the roof through downpipes to a below-ground pipework system



#### BLÜCHER® siphonic roof drainage



Siphonic system with fewer drains and a small-diameter horizontal pipework system underneath the ceiling. More water is transported through the pipework due to faster flow and a filled pipework system, reducing if not completely removing below-ground drainage.



# Gravity and siphonic roof drainage systems

## Advantages of BLÜCHER® roof drainage

All in stainless steel AISI 304 or AISI 316L	Corrosion-resistant, temperature-resistant and impact-resistant Not affected by UV Minimal expansion caused by temperature changes Non-combustible, fire rated A1 Retains its aesthetically pleasing finish, requiring minimal maintenance Robust construction that resists vandalism 100% recyclable
Thin-walled pipes	Light-weight and easy to handle, makes installation fast and easy and provides better working environment Fewer fixing points required due to the low weight of the pipework system Larger inside diameter in combination with the low surface roughness of stainless steel provides up to 30% higher flow capacity compared to similar outside diameter cast-iron pipes
Smooth inside surface	Excellent self-cleansing properties High flow rate Prevents blockages
Push-fit jointing	Fast and easy pipe assembly
Pipe sizes OD 40 - 250 mm and lengths 0,15 - 6 meters	Compact dimensions take up less space Less cutting to size required, thereby less installation costs
Equally suitable for siphonic and gravity	One pipework system fits all applications

## BLÜCHER® siphonic roof drainage offers the added advantages of

Only one downpipe to the ground	Less piping necessary Less below-ground work
Fewer roof drains required	Fewer cut-outs in the roof required, thereby lower costs
Small pipe diameters	Light-weight, takes up less space as compared to traditional plastic or cast-iron systems
Pipes approved for -0,85 bar siphonic	Safe solution
Horizontal pipes without fall	Ease of installation

### BLÜCHER® Drain Roof Siphonic drains and gravity drains

BLÜCHER® Drain Roof - siphonic



Owing to the siphonic plate of the drain, the pipe is quickly 100% filled, keeping air out of the system and allowing full bore discharge to induce a siphonic action resulting in higher velocities and greater discharge.

BLÜCHER® Drain Roof - gravity



Traditional gravity drainage system with pipes filled max. 33%.

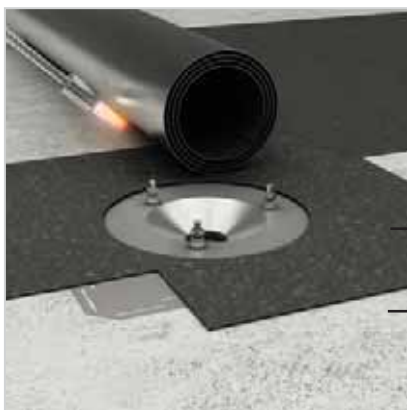
Both types of drains are available for roofs with bitumen or roofs with single ply roof membrane, shown above are drains for roofs with single ply roof membrane.

### BLÜCHER® Drain Roof for bitumen and single ply roof membrane

BLÜCHER® Drain Roof for bitumen

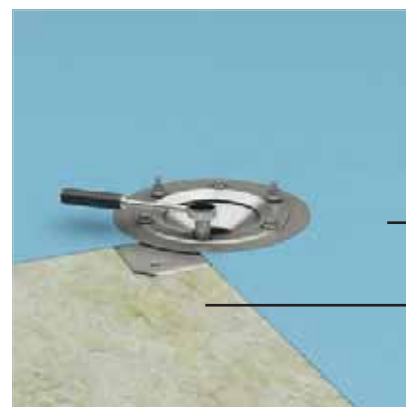


BLÜCHER® Drain Roof for single ply roof membrane



Bitumen

Concrete/insulation



Single ply roof  
membrane

Concrete/insulation

Both types of drains are available as siphonic drains and as gravity drains, shown above are siphonic drains.



## Applicable standards

### EN 1253

BLÜCHER® Drain Roof has been tested by LGA Würzburg and complies with the requirements of EN 1253 1+2. BLÜCHER has its own state-of-the-art laboratory with facilities to design and develop drainage products in accordance with EN 1253. BLÜCHER is committed to offering a thoroughly tested roof drainage system that complies with applicable standards and regulations as to performance and installation.

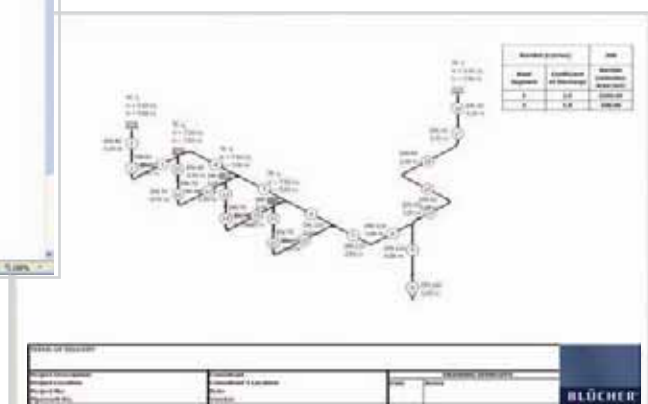
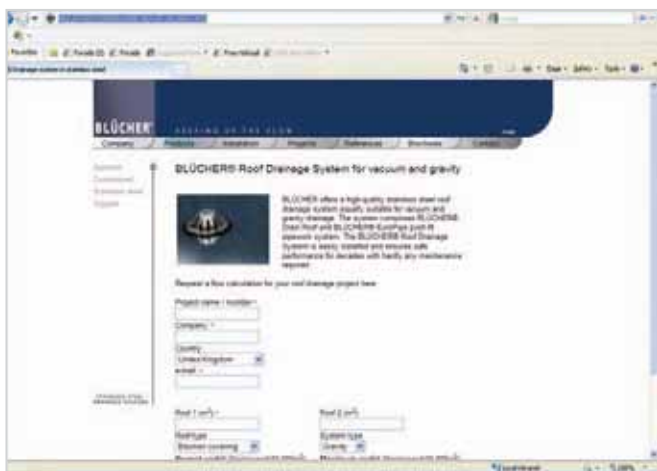


### EN 12056 and VDI 3806

BLÜCHER recommends installation in accordance with EN 12056 3 and VDI 3806. This ensures that the BLÜCHER® roof drainage system can be used in all common building projects in Europe. VDI 3806 are guidelines for syphonic roof drainage, used as applicable guidelines in the EU.

## Flow calculations

BLÜCHER offers to carry out flow calculations and suggest design of the roof drainage system for projects with BLÜCHER® Drain Roof and BLÜCHER® EuroPipe. Enquiries can be submitted through [www.blucher.com/projects](http://www.blucher.com/projects), or call BLÜCHER tel. 01937 838 000.



## Accessories

### Emergency drainage

All roof drainage systems require emergency drainage to ensure that the roof remains water tight in the event of a rain storm rate in excess of the chosen design storm rate. For roofs with bitumen and for roofs with single ply roof membrane BLÜCHER offers an emergency drainage system to be installed in the same way as the common roof drainage system but with a separate BLÜCHER® EuroPipe downpipe leading water away from the roof.



### Thermal insulation

Where there is a need for protecting the roof from the cold there is an insulating sleeve that can easily be fitted around the drain outlet. For BLÜCHER® Drain Roof we have selected a non-combustible insulation core which performs optimally even at temperatures on the roof below 5 °C, thus minimizing condensation.

Optionally, BLÜCHER® Drain Roof can be supplied with the insulating sleeve fitted to the drain outlet.



### Trace heating

For installation in areas where ambient temperatures below 0 °C often occur, BLÜCHER offers a heating cable which is to be fitted around the roof drain and then covered by the insulating sleeve. This ensures a frost-free roof drain that will not be blocked by ice. The heating cable has a performance of 14,5 W per meter at an ambient temperature of 0 °C.

Optionally, BLÜCHER® Drain Roof can be supplied fitted with heating cable and insulating sleeve.





### Installation

#### BLÜCHER® Drain Roof

Due to the small size of the drain bowl leading the water into the piping system, only a small hole in the roof or the insulation is necessary, and this can be drilled easily and quickly.

Secure the drain to the roof by fixing the flange by means of 4 screws, or optionally secure the drain to the membrane selected for the roof.



Bitumen

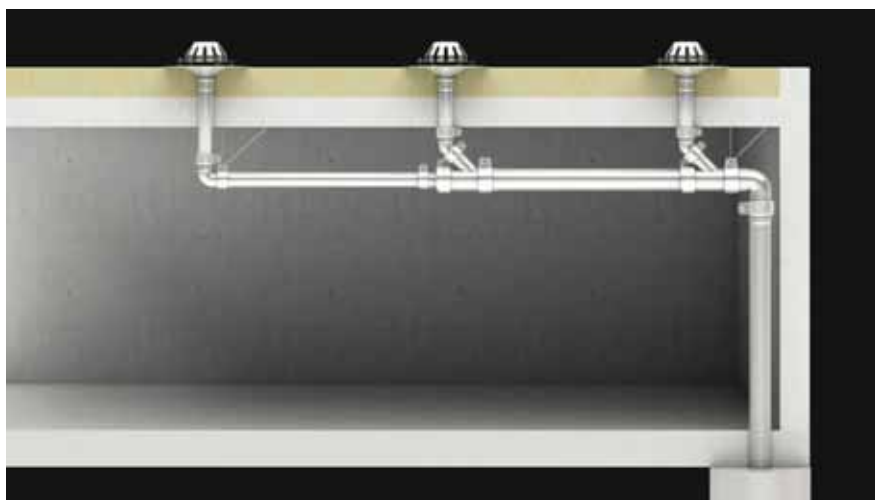


Single ply roof membrane

#### Drain outlet piping

The roof drains come with outlet pipes of either 400 or 600 mm length, and this makes it possible to penetrate the roof insulation without any pipe joints in the insulation. This makes installation fast and safe, and below the insulation BLÜCHER® EuroPipe pipes and fittings can be fitted directly to the outlet piping.

If a shorter outlet pipe is requested, the outlet pipes can be cut to the desired length on site. For this purpose we recommend the BLÜCHER® pipe cutter, available as manual or electrical pipe cutter.



# Installation

## BLÜCHER® EuroPipe

BLÜCHER® EuroPipe stainless steel drainage pipework system is a light-weight push-fit piping system comparable to plastic pipework systems in weight and to cast-iron pipework systems in strength.

Pipes are available in OD40 - OD250 mm in lengths ranging from 15 cm to 6 m. In addition, the pipes can be cut to the desired length on site. For this purpose we recommend the BLÜCHER® pipe cutter, available as manual or electrical pipe cutter.

The pipes are completely interchangeable between gravity or siphonic systems without requiring change of sealing ring.

One man alone can easily install the pipes below roof. Push-fit jointing and easy cutting to length on site make installation fast and simple, and fixing the pipes requires only a simple locking mechanism with pipe joint clamps with no need for a rack system or similar.

Considering the whole-life costs of the pipework system, BLÜCHER® EuroPipe is the most cost-efficient choice, offering approximately 40% saving on installation time as compared to cast-iron pipework systems as stated in BSRIA data sheet 5.11.2

Being non-combustible and not damaged by impacts as opposed to plastic pipework systems, BLÜCHER® EuroPipe offers lower whole-life costs as stated in Building Performance Group Ltd. assessment report no. 1732.

## Suspension and fixing of pipework

The following describes the fixing of pipes for vertical and horizontal pipe runs.

### Vertical piping

All vertical pipework should be provided with pipe brackets at intervals not exceeding 3 metres. Brackets to be placed under ring seal sockets whenever possible.

### Horizontal piping

All horizontal pipework should be provided with pipe brackets at intervals not exceeding 3 metres. Brackets to be placed under ring seal sockets whenever possible.

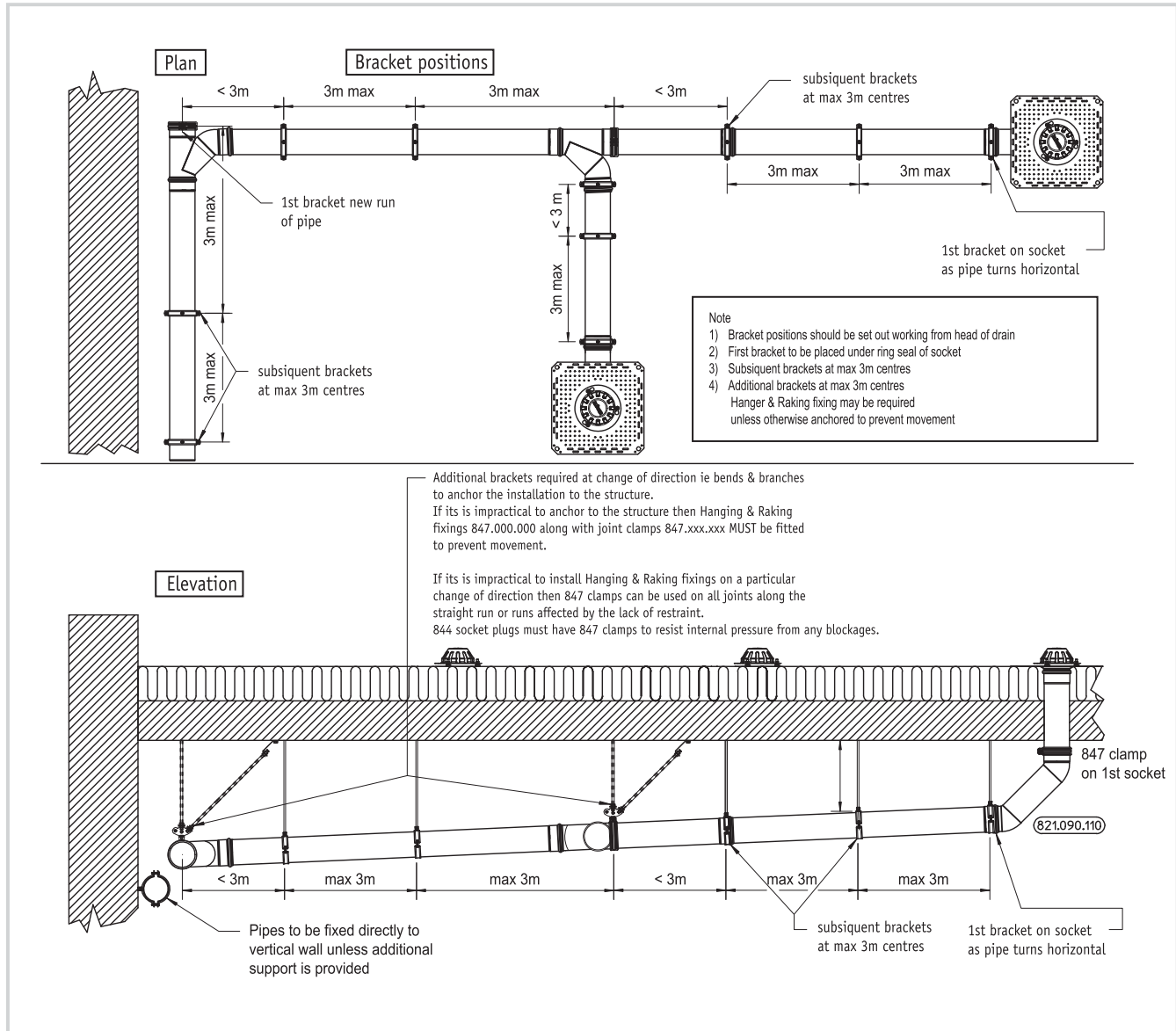
Additional brackets are required at each change of direction, i.e. bends and branches, to anchor the installation to the structure. If it is impractical to anchor to the structure, then hanging and raking fixings 847.000.000 along with joint clamps 847.xxx.xxx must be fitted to prevent movement.

If it is impractical to install hanging and raking fixings on a particular change of direction, then joint clamps 847.xxx.xxx can be used on all joints along the straight run or runs affected by the lack of restraint. Socket plugs type 844 need joint clamps type 847 to withstand internal pressure from a possible blockage.



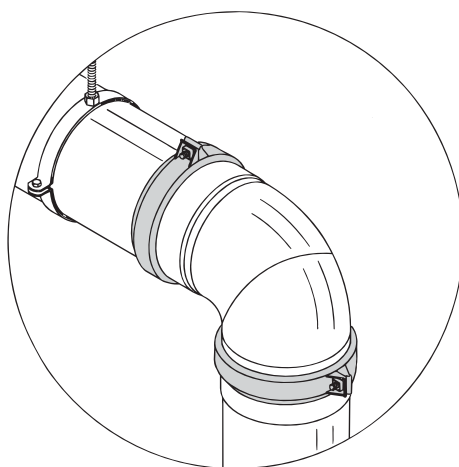
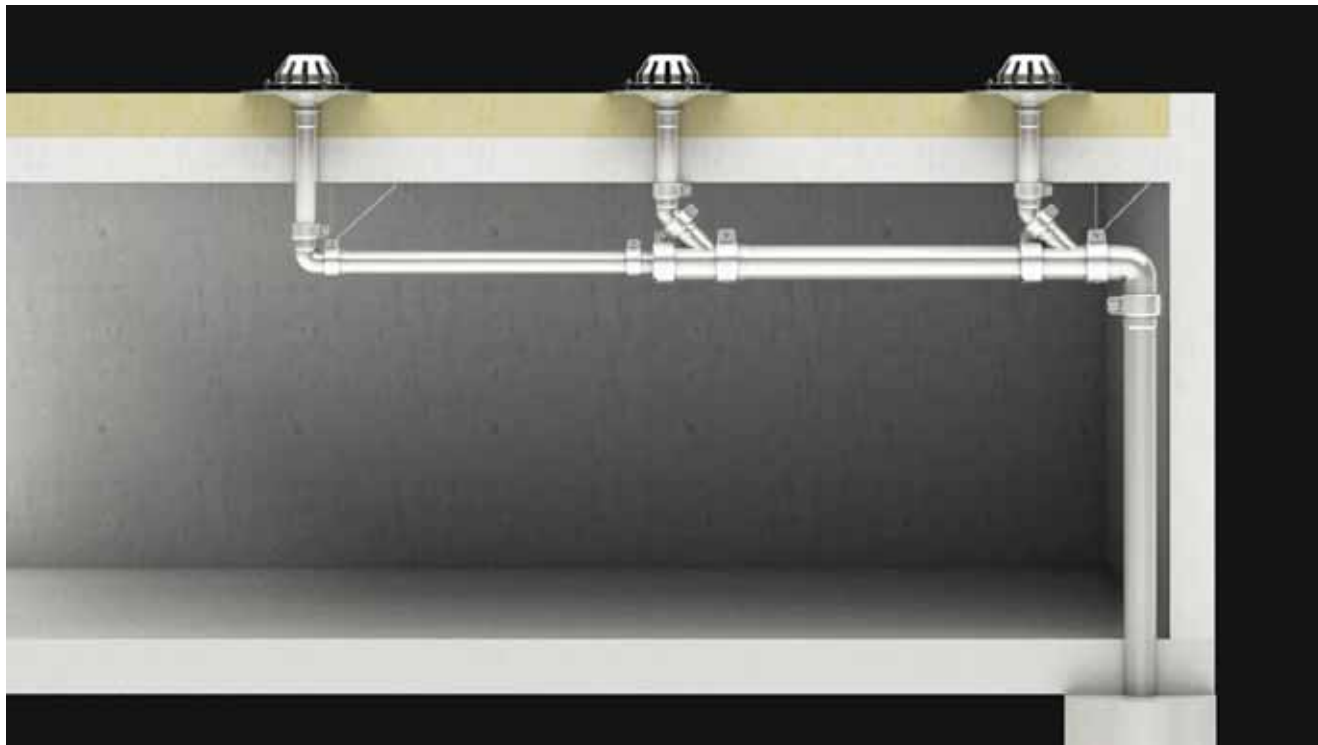
### Pipework installation gravity

We recommend the use of a joint clamp on the first joint off the RW0 to hold it to the pipework system as extra security for holding down the RW0 in adverse weather conditions.



### Siphonic installation

We recommend the use of pipe joint clamps at each bend or bracket and the use of the BLÜCHER® mounting plate for suspension of the drainage pipework for each 3 metres. This will safeguard the pipework system against vibrations and keep the pipes in place in siphonic roof drainage installations.



Pipe joint clamps type no. 847.  
xxx.xxx S may be required if  
walls or soffits are not accessible  
for brackets.

### Emergency drains

All pipework to be installed in the same way as in siphonic systems, i.e. with pipe joint clamps at each bend or bracket.

### Installation examples



Easy and simple installation in single ply roof membrane provides high strength and a secure solution.



Roof drains for bitumen have a wide collar for secure fixing to the bitumen.

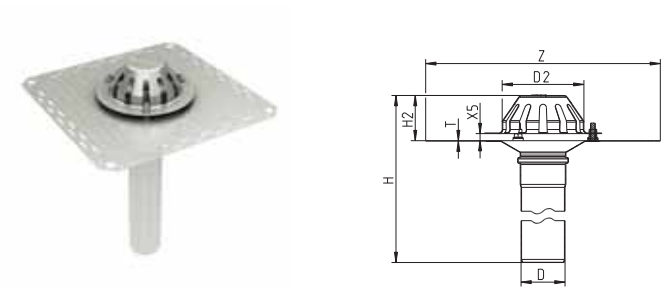
#### 2-part roof drain

2-part roof drains can easily be installed on the roof. Use a standard roof drain in combination with a separate lower part matching the membrane type of the roof.



for gravity

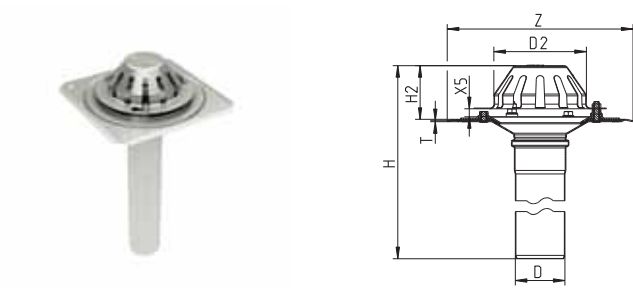
ROOF DRAIN TYPE 401.10  
WITH FLANGE FOR BITUMEN



Type no.	Customer no.	D	Z	H	H2	D2	X5	T
401.104.050		50	400x400	495	77	140	12	0.7
401.104.075		75	400x400	495	77	140	12	0.7
401.104.110		110	400x400	495	77	140	12	0.7

Flow rate in accordance with "Flow rates for roof drains"

ROOF DRAIN TYPE 402.10  
WITH CLAMPING FLANGE FOR SINGLE PLY MEMBRANE



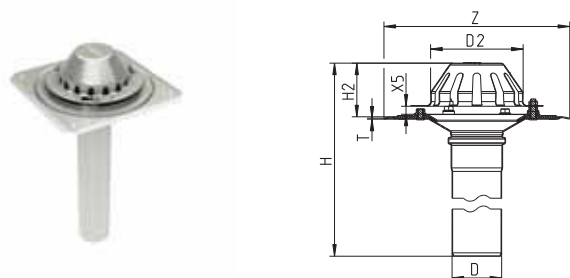
Type no.	Customer no.	D	Z	H	H2	D2	X5	T
402.104.050		50	280x280	501	81	140	12	1.5
402.104.075		75	280x280	501	81	140	12	1.5
402.104.110		110	280x280	501	81	140	12	1.5
402.106.050		50	280x280	701	81	140	12	1.5
402.106.075		75	280x280	701	81	140	12	1.5
402.106.110		110	280x280	701	81	140	12	1.5

Flow rate in accordance with "Flow rates for roof drains"

## for gravity

**ROOF DRAIN TYPE 402.12**

WITH CLAMPING FLANGE AND BOOST LEAF GUARD FOR SINGLE PLY MEMBRANE

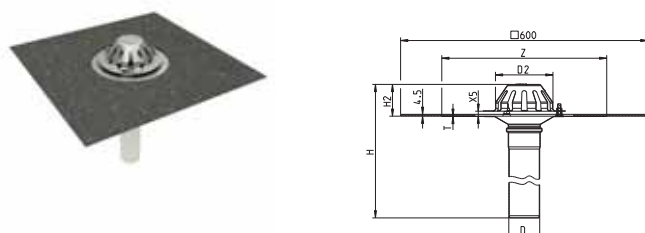


Type no.	EAN no.	D	Z	H	H2	D2	X5	T
402.124.050	5705499132762	50	280x280	501	81	140	12	1.5
402.124.075	5705499132779	75	280x280	501	81	140	12	1.5
402.124.110	5705499132786	110	280x280	501	81	140	12	1.5
402.126.050	5705499132793	50	280x280	701	81	140	12	1.5
402.126.075	5705499132809	75	280x280	701	81	140	12	1.5
402.126.110	5705499132816	110	280x280	701	81	140	12	1.5

Flow rate in accordance with "Flow rates for roof drains"

**ROOF DRAIN TYPE 403.10**

WITH FLANGE FOR BITUMEN AND PRE-MOUNTED BITUMEN COLLAR

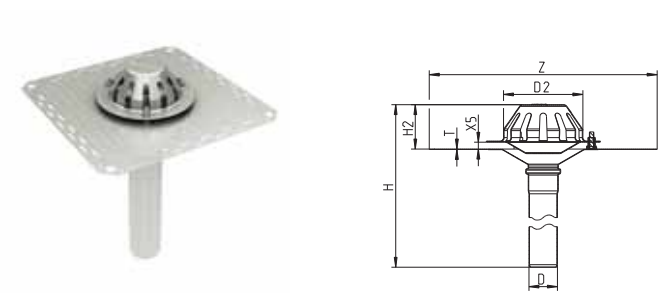


Type no.	EAN no.	D	Z	H	H2	D2	X5	T
403.104.050	5705499133141	50	400x400	495	77	140	12	0.7
403.104.075	5705499133158	75	400x400	495	77	140	12	0.7
403.104.110	5705499133165	110	400x400	495	77	140	12	0.7

Flow rate in accordance with "Flow rates for roof drains"

for siphonic

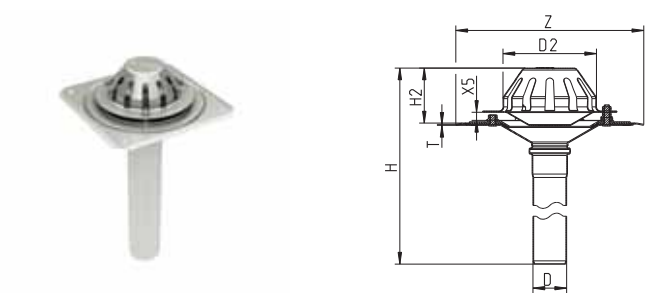
ROOF DRAIN TYPE 401.20  
WITH FLANGE FOR BITUMEN



Type no.	Customer no.	D	Z	H	H2	D2	X5	T
401.204.040		40	400x400	496	78	140	12	0.7
401.204.050		50	400x400	496	78	140	12	0.7
401.204.075		75	400x400	496	78	140	12	0.7

Flow rate in accordance with "Flow rates for roof drains"

ROOF DRAIN TYPE 402.20  
WITH CLAMPING FLANGE FOR SINGLE PLY MEMBRANE



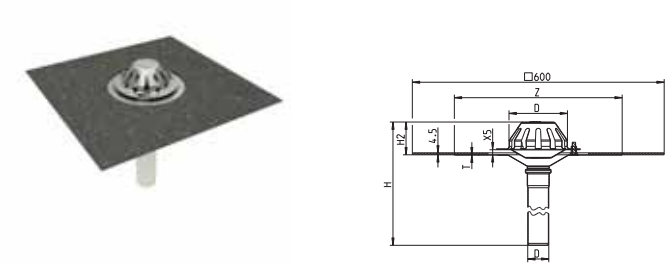
Type no.	Customer no.	D	Z	H	H2	D2	X5	T
402.204.040		40	280x280	502	82	140	12	1.5
402.204.050		50	280x280	502	82	140	12	1.5
402.204.075		75	280x280	502	82	140	12	1.5
402.206.040		40	280x280	702	82	140	12	1.5
402.206.050		50	280x280	702	82	140	12	1.5
402.206.075		75	280x280	702	82	140	12	1.5

Flow rate in accordance with "Flow rates for roof drains"



for siphonic

ROOF DRAIN TYPE 403.20  
WITH FLANGE FOR BITUMEN AND PRE-MOUNTED BITUMEN COLLAR

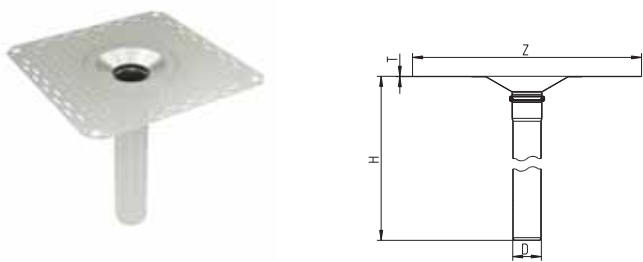


Type no.	Customer no.	D	Z	H	H2	D2	X5	T
403.204.040		40	400x400	496	78	140	12	0.7
403.204.050		50	400x400	496	78	140	12	0.7
403.204.075		75	400x400	496	78	140	12	0.7

Flow rate in accordance with "Flow rates for roof drains"

LOWER PART FOR ROOF DRAIN TYPE 401.00

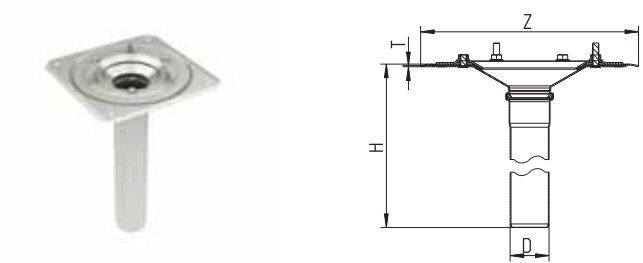
WITH FLANGE FOR BITUMEN



Type no.	Customer no.	D	Z	H	T
401.004.040		40	400x400	418	0.7
401.004.050		50	400x400	418	0.7
401.004.075		75	400x400	418	0.7
401.004.110		110	400x400	418	0.7

LOWER PART FOR ROOF DRAIN TYPE 402.00

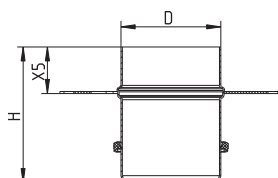
WITH CLAMPING FLANGE FOR SINGLE PLY MEMBRANE



Type no.	Customer no.	D	Z	H	T
402.004.040		40	280x280	420	1.5
402.004.050		50	280x280	420	1.5
402.004.075		75	280x280	420	1.5
402.004.110		110	280x280	420	1.5

**EMERGENCY DRAIN STAND PIPE TYPE 400.100**

FOR ROOF WITH GRAVITY DRAINAGE

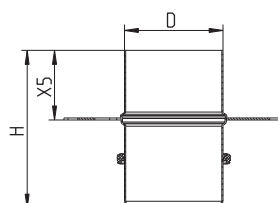


Type no.	Customer no.	D	H	X5	Max Flow (l/s)
400.100.050		50	105	35	6.2
400.100.075		75	102	35	11.5
400.100.110		110	107	35	9.7

Flow rate measured 35mm above top of pipe (70mm above surface of roof)

**EMERGENCY DRAIN STAND PIPE TYPE 400.200**

FOR ROOF WITH SIPHONIC DRAINAGE



Type no.	Customer no.	D	H	X5	Max Flow (l/s)
400.200.050		50	123	55	6.1
400.200.075		75	120	55	12.8

Flow rate measured 35mm above top of pipe (90mm above surface of roof)

**ROOF DRAIN INSULATION TYPE 400.001**

Type no.	Customer no.	D
400.001.040		40
400.001.050		50
400.001.075		75
400.001.110		110

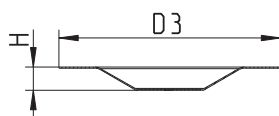
## ELECTRICAL HEATING CABLE

0,8M HEATING CABLE + 1,0M RUBBER CABLE



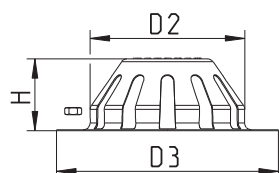
Type no.	Customer no.
400.000.000	

## SIPHONIC PLATE



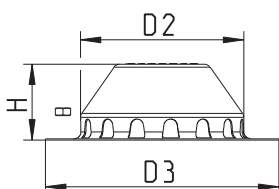
Type no.	Customer no.	H	D3
400.000.100		21	200

## LEAF GUARD TYPE 400.000.001



Type no.	Customer no.	H	D2	D3
400.000.001		65	140	200

## BOOST LEAF GUARD TYPE 400.000.002



Type no.	Customer no.	H	D2	D3
400.000.002		65	140	200

By using this leaf guard in gravity systems, flow rate can be significantly increased. Need for more frequent cleaning to be expected.

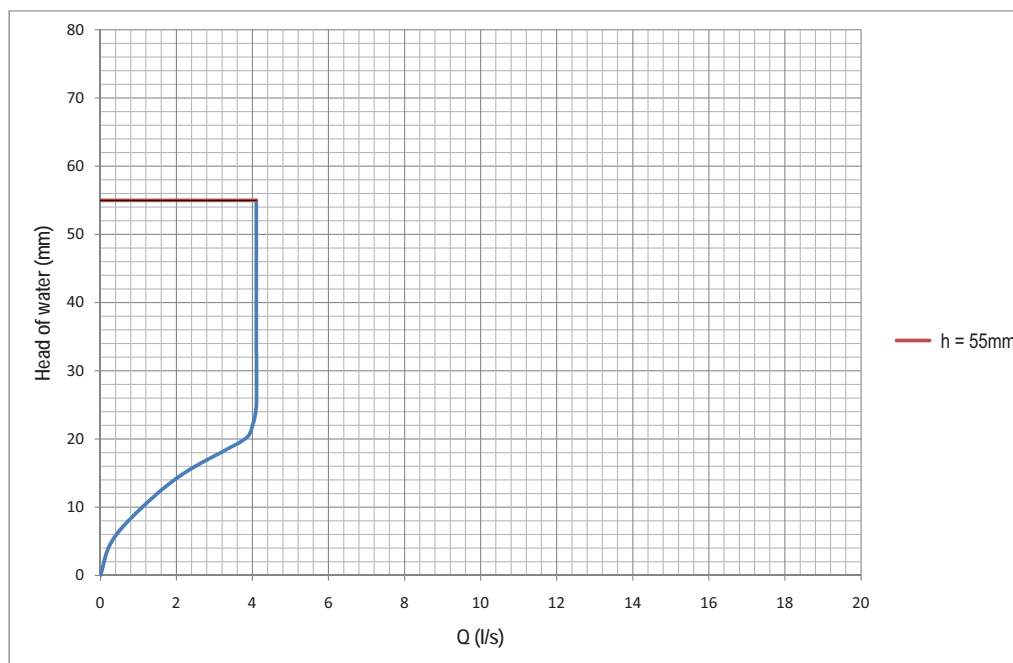
SET OF NUTS FOR ROOF DRAIN



Type no.	Customer no.
400.000.003	

### Flow rates for pipe dimension OD 40 mm

#### BLÜCHER® Drain Roof - siphonic OD 40 mm



#### Test information and basis

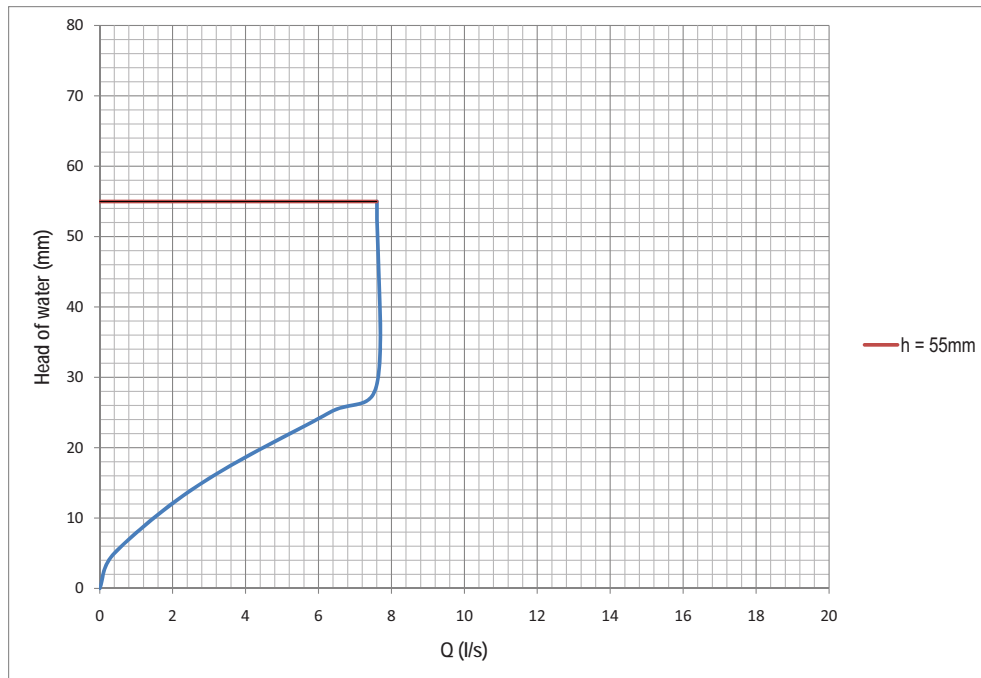
Flow test carried out at TÜV Rheinland LGA Products GmbH February 2011.

Siphonic flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8D

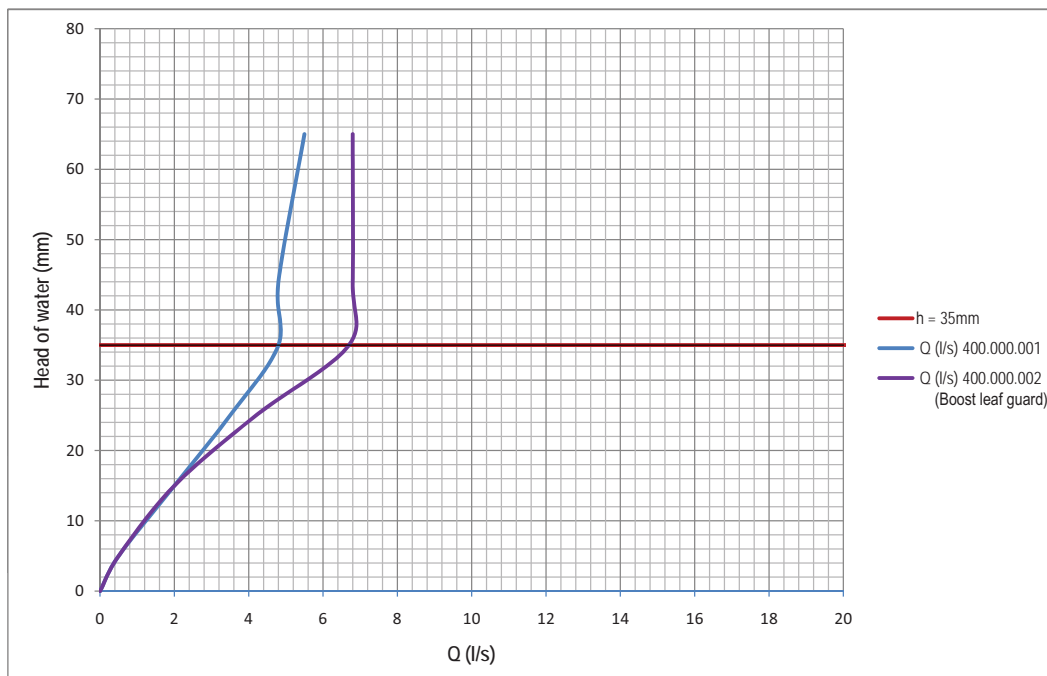
Gravity flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8C

### Flow rates for pipe dimension OD 50 mm

#### BLÜCHER® Drain Roof - siphonic OD 50 mm



#### BLÜCHER® Drain Roof - gravity OD 50 mm



#### Test information and basis

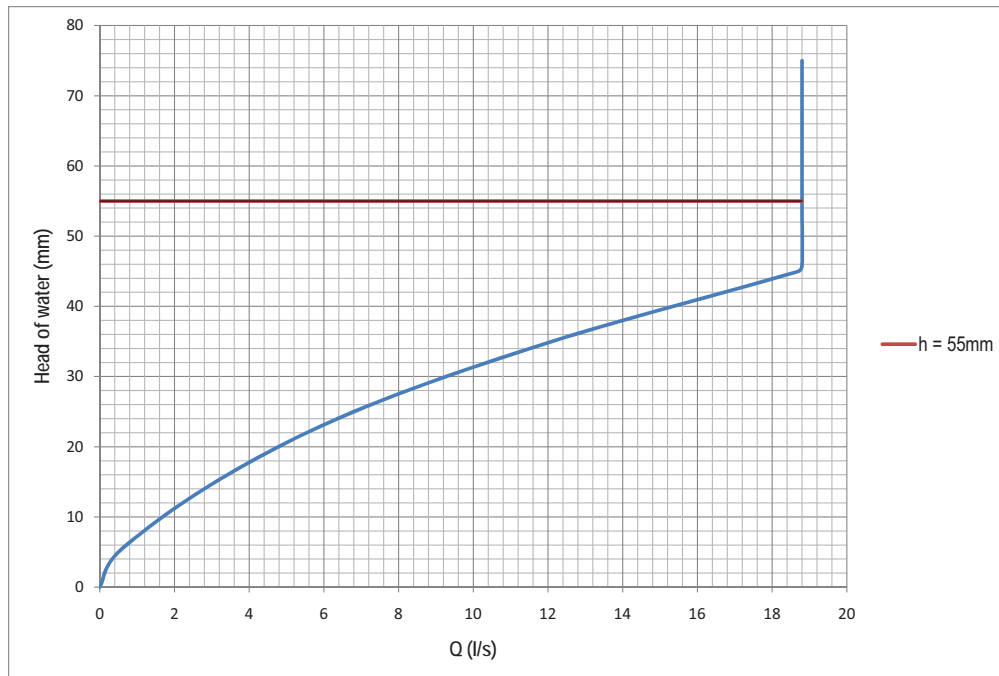
Flow test carried out at TÜV Rheinland LGA Products GmbH February 2011.

Siphonic flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8D

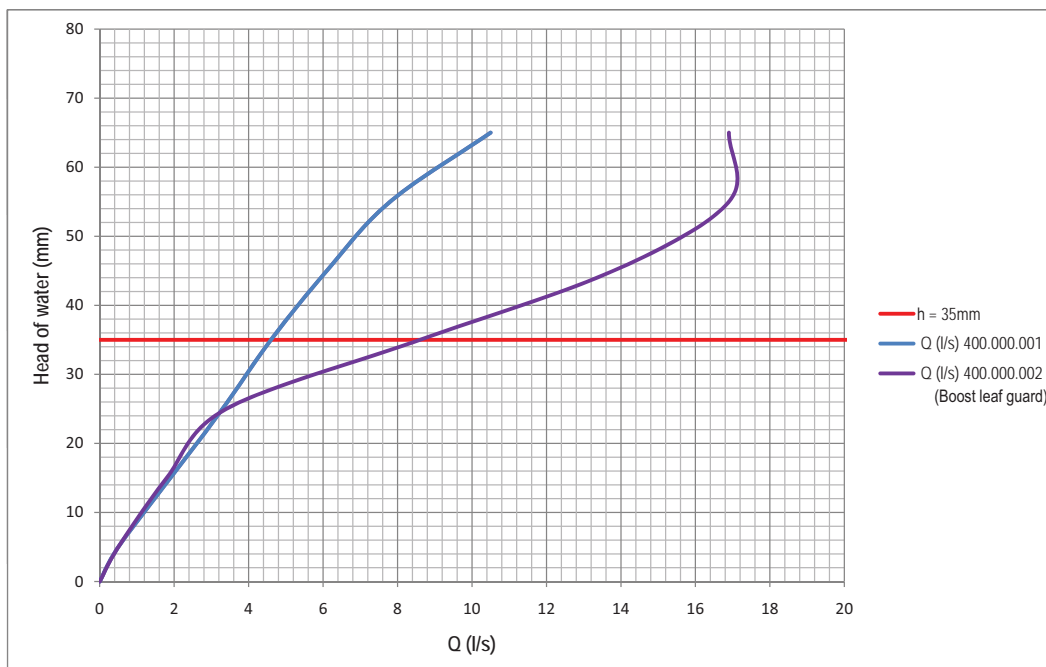
Gravity flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8C

### Flow rates for pipe dimension OD 75 mm

#### BLÜCHER® Drain Roof - siphonic OD 75 mm



#### BLÜCHER® Drain Roof - gravity OD 75 mm



#### Test information and basis

Flow test carried out at TÜV Rheinland LGA Products GmbH February 2011.

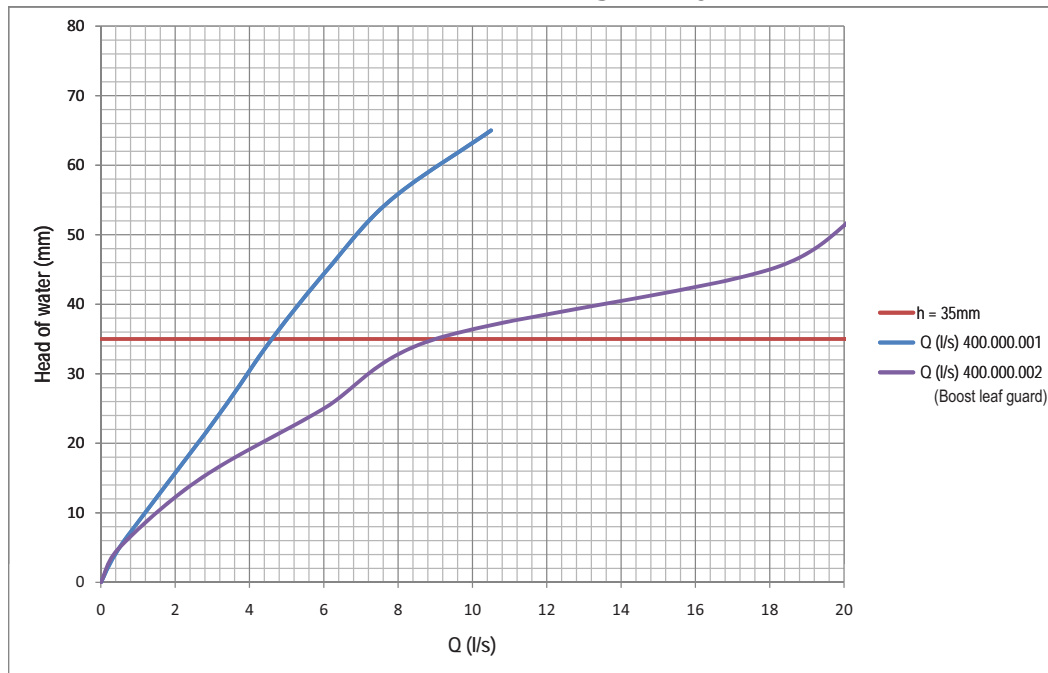
Siphonic flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8D

Gravity flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8C



### Flow rates for pipe dimension OD 110 mm

**BLÜCHER® Drain Roof - gravity OD 110 mm**



#### Test information and basis

Flow test carried out at TÜV Rheinland LGA Products GmbH February 2011.

Siphonic flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8D

Gravity flow tested in accordance with EN1253 1+2 and carried out according to 1253-2: 2003 page 16 Figure 8C

# Channels and kitchen channels for commercial and industrial applications



Standard or customised solutions  
Hygienic design  
Gratings for any purpose and load class

### Applications

For concrete, tiled, vinyl and epoxy flooring in:

- Industrial areas
- Commercial kitchens

### Details

- Standard lengths 1 - 6 m (slot channels up to 12 m)
- Longitudinal and cross fall
- Several standard widths
- 2 mm material thickness (vinyl channels 1,5 mm)
- 20 mm frame width
- Anchor tangs
- Gratings for weight loads from 250 to 12000 kg
- Combinable with BLÜCHER® Drain Industrial accessories
- Stainless steel AISI304/EN 1.4301

### Variants

- Outlet placed in end or center
- With or without outlet box
- With or without membrane flange

### Options

- Removable water trap or P-trap
- Filter basket and sand bucket

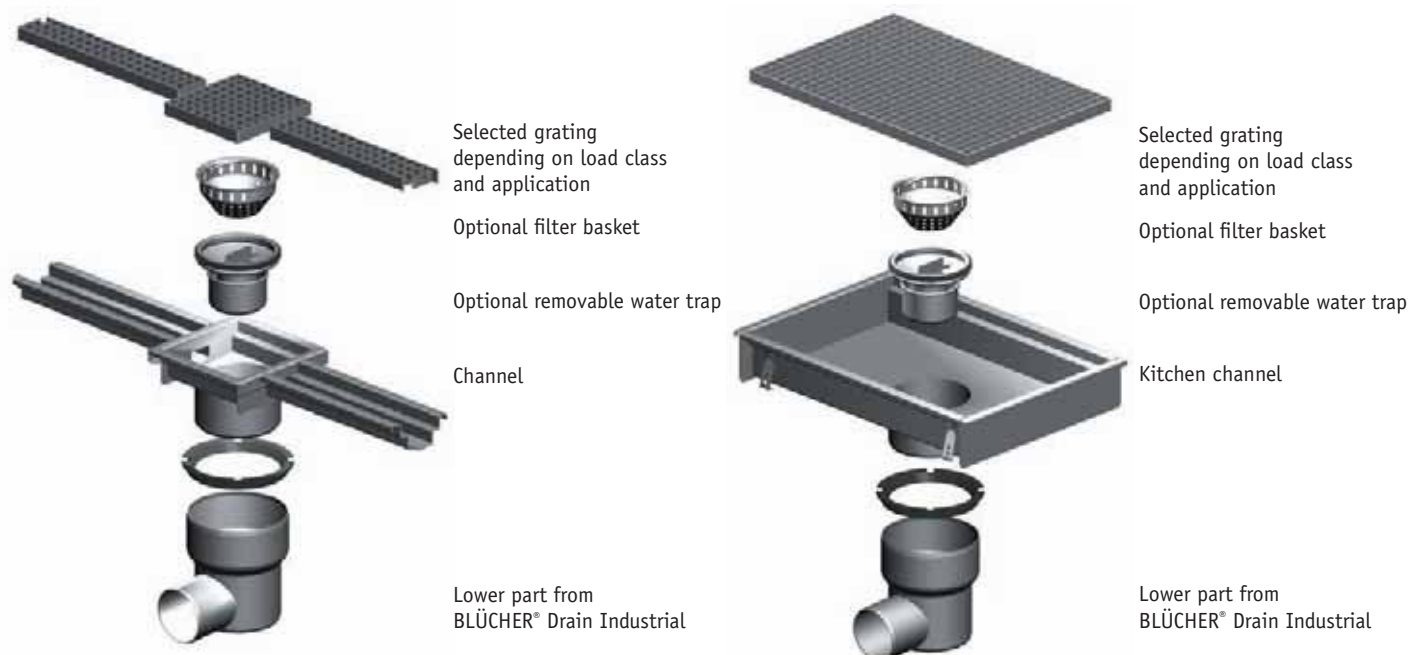
### Extras

- Reinforced frames for extra strong weight loads
- Stabiliser angle and adjustable legs
- Protective strip and grating lock device

### Specialised in customised channels

Product database at [www.blucher.com](http://www.blucher.com)

### Complete channels and kitchen channels



### Complete channels and kitchen channels

#### Channels or kitchen channels

Channel or kitchen channel without grating

#### Gratings

Range of gratings for all load classes.

#### Accessories

Accessories such as filter basket, sand bucket and water trap are not included - to be ordered separately

#### Lower part

Lower part with outlet is not included - to be ordered separately.

### Installation examples

Concrete and tiles without membrane



Vinyl



Mounting bracket for precise height adjustment





### Custom or Standard channel?

BLUCHER manufacture a wide range of channels to suit all floor types and applications. The majority of channels produced for the UK market are bespoke or custom made.

We also manufacture a range of standard channels.

To check whether the channel required falls into the custom or standard category pelase see the details below

custom channel:	Standard channel:
Length: Any	Length: fixed lengths starting at 1metre
Outlet position: Any	Outlet position: End or centre
Tees: Yes	Tees: No
Additional outlets: Yes	Additional outlets: No

The following pages depict the full range of channel styles, gratings and outlets and the full range of standard channels.

If the channel required is classed as custom please use the following product pages as a guide to the style and design of the channels, grates, lower parts and accessories available.

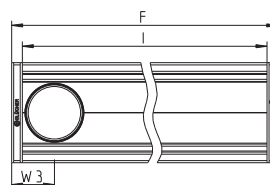
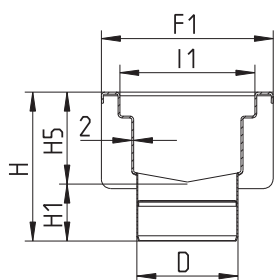
Whilst prices are competitive should the channel you require be close to a standard product please consider the cost effectiveness and delivery time of a standard product.



## without membrane

## CHANNEL TYPE 670

## END OUTLET

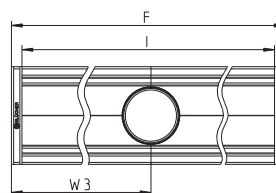
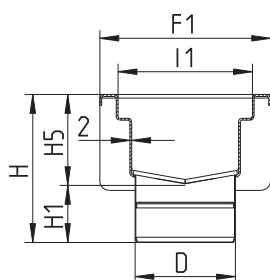


Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
670CH010-00BA		150x1000	110	1040	187	152	62	90	1000	147	80
670CH015-00BA		150x1500	110	1540	187	152	62	90	1500	147	80
670CH020-00BA		150x2000	110	2040	187	152	62	90	2000	147	80
670CH030-00BA		150x3000	110	3056	187	152	62	90	3016	147	80
670CH040-00BA		150x4000	110	4072	187	182	62	120	4032	147	80
670CH050-00BA		150x5000	110	5072	187	182	62	120	5032	147	80
670CH060-00BA		150x6000	110	6088	187	182	62	120	6048	147	80
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670DH010-00BA		200x1000	110	1040	237	152	62	90	1000	197	80
670DH015-00BA		200x1500	110	1540	237	152	62	90	1500	197	80
670DH020-00BA		200x2000	110	2040	237	152	62	90	2000	197	80
670DH030-00BA		200x3000	110	3056	237	152	62	90	3016	197	80
670DH040-00BA		200x4000	110	4072	237	182	62	120	4032	197	80
670DH050-00BA		200x5000	110	5072	237	182	62	120	5032	197	80
670DH060-00BA		200x6000	110	6088	237	182	62	120	6048	197	80
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670DK010-00BA		200x1000	160	1040	237	170	80	90	1000	197	105
670DK015-00BA		200x1500	160	1540	237	170	80	90	1500	197	105
670DK020-00BA		200x2000	160	2040	237	170	80	90	2000	197	105
670DK030-00BA		200x3000	160	3056	237	170	80	90	3016	197	105
670DK040-00BA		200x4000	160	4072	237	200	80	120	4032	197	105
670DK050-00BA		200x5000	160	5072	237	200	80	120	5032	197	105
670DK060-00BA		200x6000	160	6088	237	200	80	120	6048	197	105
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670EK010-00BA		300x1000	160	1040	337	170	80	90	1000	297	105
670EK015-00BA		300x1500	160	1540	337	170	80	90	1500	297	105
670EK020-00BA		300x2000	160	2040	337	170	80	90	2000	297	105
670EK030-00BA		300x3000	160	3056	337	170	80	90	3016	297	105
670EK040-00BA		300x4000	160	4072	337	200	80	120	4032	297	105
670EK050-00BA		300x5000	160	5072	337	200	80	120	5032	297	105
670EK060-00BA		300x6000	160	6088	337	200	80	120	6048	297	105
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670FK010-00BA		400x1000	160	1040	437	170	80	90	1000	397	105
670FK015-00BA		400x1500	160	1540	437	170	80	90	1500	397	105
670FK020-00BA		400x2000	160	2040	437	170	80	90	2000	397	105
670FK030-00BA		400x3000	160	3056	437	170	80	90	3016	397	105
670FK040-00BA		400x4000	160	4072	437	200	80	120	4032	397	105
670FK050-00BA		400x5000	160	5072	437	200	80	120	5032	397	105
670FK060-00BA		400x6000	160	6088	437	200	80	120	6048	397	105

## without membrane

## CHANNEL TYPE 670

## CENTER OUTLET

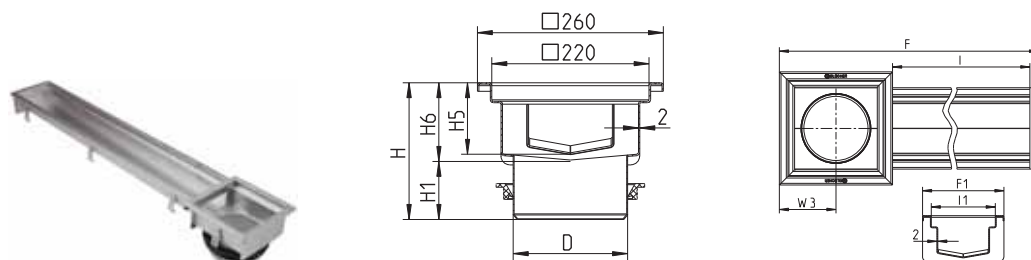


Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
670CH010-05BA		150x1000	110	1040	187	152	62	90	1000	147	520
670CH015-08BA		150x1500	110	1540	187	152	62	90	1500	147	770
670CH020-10BA		150x2000	110	2040	187	152	62	90	2000	147	1020
670CH030-15BA		150x3000	110	3056	187	152	62	90	3016	147	1528
670CH040-20BA		150x4000	110	4072	187	152	62	90	4032	147	2036
670CH050-25BA		150x5000	110	5072	187	152	62	90	5032	147	2536
670CH060-30BA		150x6000	110	6088	187	152	62	90	6048	147	3044
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670DH010-05BA		200x1000	110	1040	237	152	62	90	1000	197	520
670DH015-08BA		200x1500	110	1540	237	152	62	90	1500	197	770
670DH020-10BA		200x2000	110	2040	237	152	62	90	2000	197	1020
670DH030-15BA		200x3000	110	3056	237	152	62	90	3016	197	1528
670DH040-20BA		200x4000	110	4072	237	152	62	90	4032	197	2036
670DH050-25BA		200x5000	110	5072	237	152	62	90	5032	197	2536
670DH060-30BA		200x6000	110	6088	237	152	62	90	6048	197	3044
-----											
670DK010-05BA		200x1000	160	1040	237	170	80	90	1000	197	520
670DK015-08BA		200x1500	160	1540	237	170	80	90	1500	197	770
670DK020-10BA		200x2000	160	2040	237	170	80	90	2000	197	1020
670DK030-15BA		200x3000	160	3056	237	170	80	90	3016	197	1528
670DK040-20BA		200x4000	160	4072	237	170	80	90	4032	197	2036
670DK050-25BA		200x5000	160	5072	237	170	80	90	5032	197	2536
670DK060-30BA		200x6000	160	6088	237	170	80	90	6048	197	3044
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670EK010-05BA		300x1000	160	1040	337	170	80	90	1000	297	520
670EK015-08BA		300x1500	160	1540	337	170	80	90	1500	297	770
670EK020-10BA		300x2000	160	2040	337	170	80	90	2000	297	1020
670EK030-15BA		300x3000	160	3056	337	170	80	90	3016	297	1528
670EK040-20BA		300x4000	160	4072	337	170	80	90	4032	297	2036
670EK050-25BA		300x5000	160	5072	337	170	80	90	5032	297	2536
670EK060-30BA		300x6000	160	6088	337	170	80	90	6048	297	3044
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670FK010-05BA		400x1000	160	1040	437	170	80	90	1000	397	520
670FK015-08BA		400x1500	160	1540	437	170	80	90	1500	397	770
670FK020-10BA		400x2000	160	2040	437	170	80	90	2000	397	1020
670FK030-15BA		400x3000	160	3056	437	170	80	90	3016	397	1528
670FK040-20BA		400x4000	160	4072	437	170	80	90	4032	397	2036
670FK050-25BA		400x5000	160	5072	437	170	80	90	5032	397	2536
670FK060-30BA		400x6000	160	6088	437	170	80	90	6048	397	3044

## without membrane

## CHANNEL TYPE 671

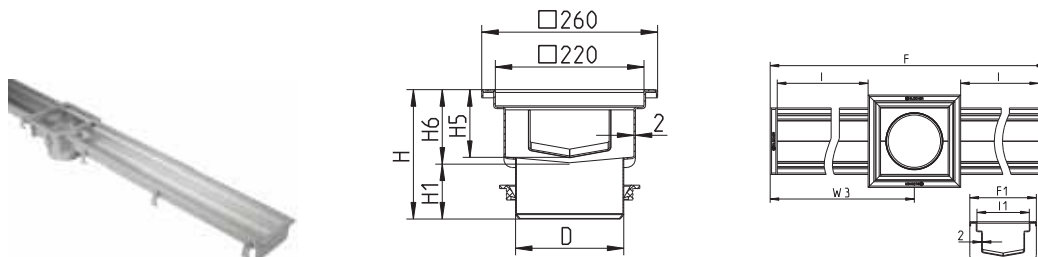
END OUTLET, WITH OUTLET BOX



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	H6	I	I1	W3
671CK010-00BA		150x1000	160	1280	187	180	80	90	100	1000	147	130
671CK015-00BA		150x1500	160	1780	187	180	80	90	100	1500	147	130
671CK020-00BA		150x2000	160	2280	187	180	80	90	100	2000	147	130
671CK030-00BA		150x3000	160	3296	187	180	80	90	100	3016	147	130
671CK040-00BA		150x4000	160	4304	187	205	80	120	125	4024	147	130
671CK050-00BA		150x5000	160	5312	187	205	80	120	125	5032	147	130
671CK060-00BA		150x6000	160	6320	187	205	80	120	125	6040	147	130

## CHANNEL TYPE 671

CENTER OUTLET, WITH OUTLET BOX



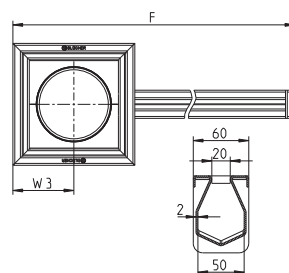
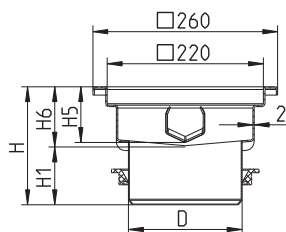
Type no.	Customer no.	Name	D	F	F1	H	H1	H5	H6	I	I1	W3
671CK020-10BA		150x2000	160	2300	187	180	80	90	100	1000	147	1150
671CK030-15BA		150x3000	160	3300	187	180	80	90	100	1500	147	1650
671CK040-20BA		150x4000	160	4300	187	180	80	90	100	2000	147	2150
671CK050-25BA		150x5000	160	5332	187	180	80	90	100	2516	147	2666
671CK060-30BA		150x6000	160	6332	187	180	80	90	100	3016	147	3166



## without membrane

## SLOT CHANNEL TYPE 673

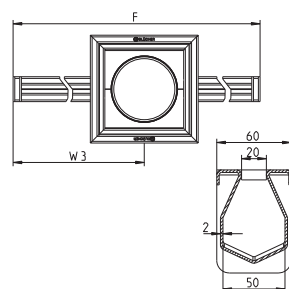
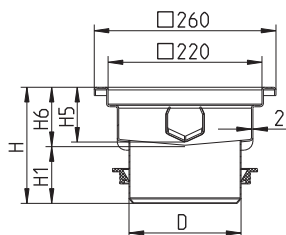
END OUTLET, WITH OUTLET BOX



Type no.	Customer no.	Name	D	F	H	H1	H5	H6	W3
673AK010-00BA		20x1000	160	1000	165	80	78	85	130
673AK015-00BA		20x1500	160	1500	165	80	78	85	130
673AK020-00BA		20x2000	160	2000	165	80	78	85	130
673AK030-00BA		20x3000	160	3000	165	80	78	85	130

## SLOT CHANNEL TYPE 673

CENTER OUTLET, WITH OUTLET BOX

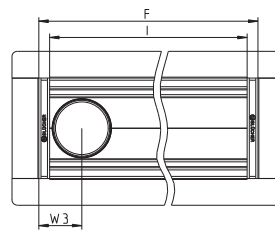
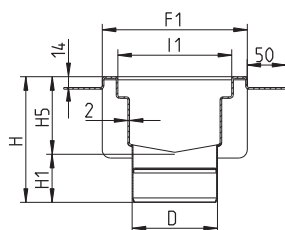


Type no.	Customer no.	Name	D	F	H	H1	H5	H6	W3
673AK020-10BA		20x2000	160	2000	165	80	78	85	1000
673AK030-15BA		20x3000	160	3000	165	80	78	85	1500
673AK040-20BA		20x4000	160	4000	165	80	78	85	2000
673AK050-25BA		20x5000	160	5000	165	80	78	85	2500
673AK060-30BA		20x6000	160	6000	165	80	78	85	3000
673AK070-35BA		20x7000	160	7000	180	80	93	100	3500
673AK080-40BA		20x8000	160	8000	180	80	93	100	4000
673AK090-45BA		20x9000	160	9000	180	80	93	100	4500
673AK100-50BA		20x10000	160	10000	180	80	93	100	5000
673AK110-55BA		20x11000	160	11000	180	80	93	100	5500
673AK120-60BA		20x12000	160	12000	200	80	108	120	6000

## with liquid membrane

## CHANNEL TYPE 674

## END OUTLET

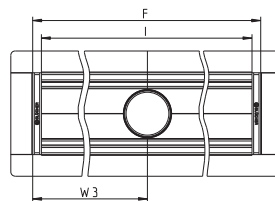
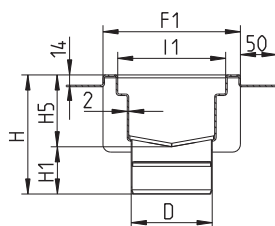


Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
674CH010-00BA		150x1000	110	1040	187	152	62	90	1000	147	80
674CH015-00BA		150x1500	110	1540	187	152	62	90	1500	147	80
674CH020-00BA		150x2000	110	2040	187	152	62	90	2000	147	80
674CH030-00BA		150x3000	110	3056	187	152	62	90	3016	147	80
674CH040-00BA		150x4000	110	4072	187	182	62	120	4032	147	80
674CH050-00BA		150x5000	110	5072	187	182	62	120	5032	147	80
674CH060-00BA		150x6000	110	6088	187	182	62	120	6048	147	80
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674DH010-00BA		200x1000	110	1040	237	152	62	90	1000	197	80
674DH015-00BA		200x1500	110	1540	237	152	62	90	1500	197	80
674DH020-00BA		200x2000	110	2040	237	152	62	90	2000	197	80
674DH030-00BA		200x3000	110	3056	237	152	62	90	3016	197	80
674DH040-00BA		200x4000	110	4072	237	182	62	120	4032	197	80
674DH050-00BA		200x5000	110	5072	237	182	62	120	5032	197	80
674DH060-00BA		200x6000	110	6088	237	182	62	120	6048	197	80
-----											
674DK010-00BA		200x1000	160	1040	237	170	80	90	1000	197	105
674DK015-00BA		200x1500	160	1540	237	170	80	90	1500	197	105
674DK020-00BA		200x2000	160	2040	237	170	80	90	2000	197	105
674DK030-00BA		200x3000	160	3056	237	170	80	90	3016	197	105
674DK040-00BA		200x4000	160	4072	237	200	80	120	4032	197	105
674DK050-00BA		200x5000	160	5072	237	200	80	120	5032	197	105
674DK060-00BA		200x6000	160	6088	237	200	80	120	6048	197	105
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674EK010-00BA		300x1000	160	1040	337	170	80	90	1000	297	105
674EK015-00BA		300x1500	160	1540	337	170	80	90	1500	297	105
674EK020-00BA		300x2000	160	2040	337	170	80	90	2000	297	105
674EK030-00BA		300x3000	160	3056	337	170	80	90	3016	297	105
674EK040-00BA		300x4000	160	4072	337	200	80	120	4032	297	105
674EK050-00BA		300x5000	160	5072	337	200	80	120	5032	297	105
674EK060-00BA		300x6000	160	6088	337	200	80	120	6048	297	105
-----											
674FK010-00BA		400x1000	160	1040	437	170	80	90	1000	397	105
674FK015-00BA		400x1500	160	1540	437	170	80	90	1500	397	105
674FK020-00BA		400x2000	160	2040	437	170	80	90	2000	397	105
674FK030-00BA		400x3000	160	3056	437	170	80	90	3016	397	105
674FK040-00BA		400x4000	160	4072	437	200	80	120	4032	397	105
674FK050-00BA		400x5000	160	5072	437	200	80	120	5032	397	105
674FK060-00BA		400x6000	160	6088	437	200	80	120	6048	397	105

## with liquid membrane

## CHANNEL TYPE 674

## CENTER OUTLET

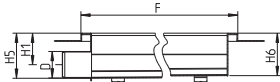
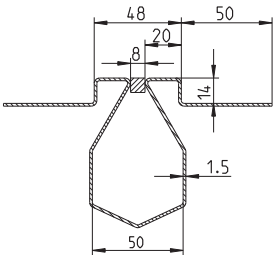


Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
674CH010-05BA		150x1000	110	1040	187	152	62	90	1000	147	520
674CH015-08BA		150x1500	110	1540	187	152	62	90	1500	147	770
674CH020-10BA		150x2000	110	2040	187	152	62	90	2000	147	1020
674CH030-15BA		150x3000	110	3056	187	152	62	90	3016	147	1528
674CH040-20BA		150x4000	110	4072	187	152	62	90	4032	147	2036
674CH050-25BA		150x5000	110	5072	187	152	62	90	5032	147	2536
674CH060-30BA		150x6000	110	6088	187	152	62	90	6048	147	3044
<hr/>											
674DH010-05BA		200x1000	110	1040	237	152	62	90	1000	197	520
674DH015-08BA		200x1500	110	1540	237	152	62	90	1500	197	770
674DH020-10BA		200x2000	110	2040	237	152	62	90	2000	197	1020
674DH030-15BA		200x3000	110	3056	237	152	62	90	3016	197	1528
674DH040-20BA		200x4000	110	4072	237	152	62	90	4032	197	2036
674DH050-25BA		200x5000	110	5072	237	152	62	90	5032	197	2536
674DH060-30BA		200x6000	110	6088	237	152	62	90	6048	197	3044
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674DK010-05BA		200x1000	160	1040	237	170	80	90	1000	197	520
674DK015-08BA		200x1500	160	1540	237	170	80	90	1500	197	770
674DK020-10BA		200x2000	160	2040	237	170	80	90	2000	197	1020
674DK030-15BA		200x3000	160	3056	237	170	80	90	3016	197	1528
674DK040-20BA		200x4000	160	4072	237	170	80	90	4032	197	2036
674DK050-25BA		200x5000	160	5072	237	170	80	90	5032	197	2536
674DK060-30BA		200x6000	160	6088	237	170	80	90	6048	197	3044
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674EK010-05BA		300x1000	160	1040	337	170	80	90	1000	297	520
674EK015-08BA		300x1500	160	1540	337	170	80	90	1500	297	770
674EK020-10BA		300x2000	160	2040	337	170	80	90	2000	297	1020
674EK030-15BA		300x3000	160	3056	337	170	80	90	3016	297	1528
674EK040-20BA		300x4000	160	4072	337	170	80	90	4032	297	2036
674EK050-25BA		300x5000	160	5072	337	170	80	90	5032	297	2536
674EK060-30BA		300x6000	160	6088	337	170	80	90	6048	297	3044
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674FK010-05BA		400x1000	160	1040	437	170	80	90	1000	397	520
674FK015-08BA		400x1500	160	1540	437	170	80	90	1500	397	770
674FK020-10BA		400x2000	160	2040	437	170	80	90	2000	397	1020
674FK030-15BA		400x3000	160	3056	437	170	80	90	3016	397	1528
674FK040-20BA		400x4000	160	4072	437	170	80	90	4032	397	2036
674FK050-25BA		400x5000	160	5072	437	170	80	90	5032	397	2536
674FK060-30BA		400x6000	160	6088	437	170	80	90	6048	397	3044

with liquid membrane

SLOT CHANNEL TYPE 677

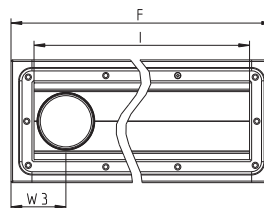
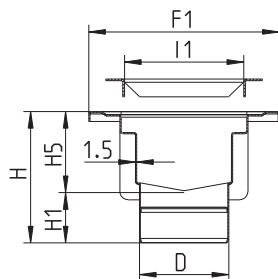
END OUTLET



Type no.	Customer no.	Name	D	F	H1	H5	H6
677AN010-00BA		8x1000	50	1000	60	85	80
677AN015-00BA		8x1500	50	1500	60	85	77
677AN020-00BA		8x2000	50	2000	60	85	75
677AN030-00BA		8x3000	50	3000	60	85	70

## CHANNEL TYPE 672

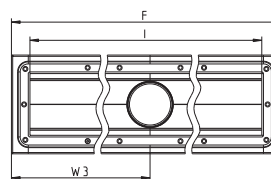
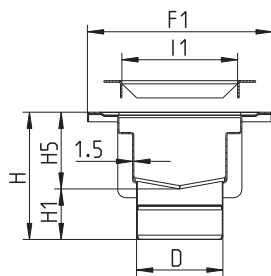
END OUTLET



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
672CH010-00BA		150x1000	110	1088	235	152	62	90	1000	147	105
672CH015-00BA		150x1500	110	1588	235	152	62	90	1500	147	105
672CH020-00BA		150x2000	110	2088	235	152	62	90	2000	147	105
672CH030-00BA		150x3000	110	3104	235	152	62	90	3016	147	105
672CH040-00BA		150x4000	110	4120	235	182	62	120	4032	147	105
672CH050-00BA		150x5000	110	5120	235	182	62	120	5032	147	105
672CH060-00BA		150x6000	110	6136	235	182	62	120	6048	147	105
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672DH010-00BA		200x1000	110	1088	285	152	62	90	1000	197	105
672DH015-00BA		200x1500	110	1588	285	152	62	90	1500	197	105
672DH020-00BA		200x2000	110	2088	285	152	62	90	2000	197	105
672DH030-00BA		200x3000	110	3104	285	152	62	90	3016	197	105
672DH040-00BA		200x4000	110	4120	285	182	62	120	4032	197	105
672DH050-00BA		200x5000	110	5120	285	182	62	120	5032	197	105
672DH060-00BA		200x6000	110	6136	285	182	62	120	6048	197	105
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672DK010-00BA		200x1000	160	1088	285	170	80	90	1000	197	130
672DK015-00BA		200x1500	160	1588	285	170	80	90	1500	197	130
672DK020-00BA		200x2000	160	2088	285	170	80	90	2000	197	130
672DK030-00BA		200x3000	160	3104	285	170	80	90	3016	197	130
672DK040-00BA		200x4000	160	4120	285	200	80	120	4032	197	130
672DK050-00BA		200x5000	160	5120	285	200	80	120	5032	197	130
672DK060-00BA		200x6000	160	6136	285	200	80	120	6048	197	130
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672EK010-00BA		300x1000	160	1088	385	170	80	90	1000	297	130
672EK015-00BA		300x1500	160	1588	385	170	80	90	1500	297	130
672EK020-00BA		300x2000	160	2088	385	170	80	90	2000	297	130
672EK030-00BA		300x3000	160	3104	385	170	80	90	3016	297	130
672EK040-00BA		300x4000	160	4120	385	200	80	120	4032	297	130
672EK050-00BA		300x5000	160	5120	385	200	80	120	5032	297	130
672EK060-00BA		300x6000	160	6136	385	200	80	120	6048	297	130
-----											
672FK010-00BA		400x1000	160	1088	485	170	80	90	1000	397	130
672FK015-00BA		400x1500	160	1588	485	170	80	90	1500	397	130
672FK020-00BA		400x2000	160	2088	485	170	80	90	2000	397	130
672FK030-00BA		400x3000	160	3104	485	170	80	90	3016	397	130
672FK040-00BA		400x4000	160	4120	485	200	80	120	4032	397	130
672FK050-00BA		400x5000	160	5120	485	200	80	120	5032	397	130
672FK060-00BA		400x6000	160	6136	485	200	80	120	6048	397	130

## CHANNEL TYPE 672

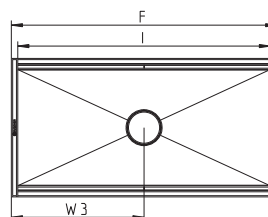
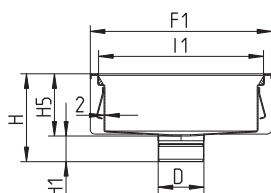
## CENTER OUTLET



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
672CH010-05BA		150x1000	110	1088	235	152	62	90	1000	147	544
672CH015-08BA		150x1500	110	1588	235	152	62	90	1500	147	794
672CH020-10BA		150x2000	110	2088	235	152	62	90	2000	147	1044
672CH030-15BA		150x3000	110	3104	235	152	62	90	3016	147	1552
672CH040-20BA		150x4000	110	4120	235	152	62	90	4032	147	2060
672CH050-25BA		150x5000	110	5120	235	152	62	90	5032	147	2560
672CH060-30BA		150x6000	110	6136	235	152	62	90	6048	147	3068
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672DH010-05BA		200x1000	110	1088	285	152	62	90	1000	197	544
672DH015-08BA		200x1500	110	1588	285	152	62	90	1500	197	794
672DH020-10BA		200x2000	110	2088	285	152	62	90	2000	197	1044
672DH030-15BA		200x3000	110	3104	285	152	62	90	3016	197	1552
672DH040-20BA		200x4000	110	4120	285	152	62	90	4032	197	2060
672DH050-25BA		200x5000	110	5120	285	152	62	90	5032	197	2560
672DH060-30BA		200x6000	110	6136	285	152	62	90	6048	197	3068
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672DK010-05BA		200x1000	160	1088	285	170	80	90	1000	197	544
672DK015-08BA		200x1500	160	1588	285	170	80	90	1500	197	794
672DK020-10BA		200x2000	160	2088	285	170	80	90	2000	197	1044
672DK030-15BA		200x3000	160	3104	285	170	80	90	3016	197	1552
672DK040-20BA		200x4000	160	4120	285	170	80	90	4032	197	2060
672DK050-25BA		200x5000	160	5120	285	170	80	90	5032	197	2560
672DK060-30BA		200x6000	160	6136	285	170	80	90	6048	197	3068
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672EK010-05BA		300x1000	160	1088	385	170	80	90	1000	297	544
672EK015-08BA		300x1500	160	1588	385	170	80	90	1500	297	794
672EK020-10BA		300x2000	160	2088	385	170	80	90	2000	297	1044
672EK030-15BA		300x3000	160	3104	385	170	80	90	3016	297	1552
672EK040-20BA		300x4000	160	4120	385	170	80	90	4032	297	2060
672EK050-25BA		300x5000	160	5120	385	170	80	90	5032	297	2560
672EK060-30BA		300x6000	160	6136	385	170	80	90	6048	297	3068
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672FK010-05BA		400x1000	160	1088	485	170	80	90	1000	397	544
672FK015-08BA		400x1500	160	1588	485	170	80	90	1500	397	794
672FK020-10BA		400x2000	160	2088	485	170	80	90	2000	397	1044
672FK030-15BA		400x3000	160	3104	485	170	80	90	3016	397	1552
672FK040-20BA		400x4000	160	4120	485	170	80	90	4032	397	2060
672FK050-25BA		400x5000	160	5120	485	170	80	90	5032	397	2560
672FK060-30BA		400x6000	160	6136	485	170	80	90	6048	397	3068

## without membrane

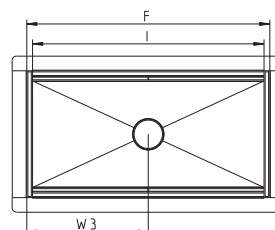
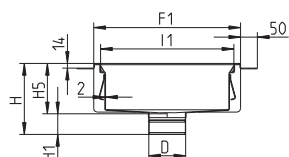
## KITCHEN CHANNEL TYPE 660



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
660FH004-06		400x400	110	437	437	121	61	60	397	397	218
660FH004-11		400x400	110	437	437	171	61	110	397	397	218
660FH004-15		400x400	110	437	437	211	61	150	397	397	218
660FH008-06		400x800	110	837	437	121	61	60	797	397	418
660FH008-11		400x800	110	837	437	171	61	110	797	397	418
660FH008-15		400x800	110	837	437	211	61	150	797	397	418
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660FK004-06		400x400	160	437	437	145	85	60	397	397	218
660FK004-11		400x400	160	437	437	195	85	110	397	397	218
660FK004-15		400x400	160	437	437	235	85	150	397	397	218
660FK008-06		400x800	160	837	437	145	85	60	797	397	418
660FK008-11		400x800	160	837	437	195	85	110	797	397	418
660FK008-15		400x800	160	837	437	235	85	150	797	397	418
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660GH005-06		500x500	110	537	537	121	61	60	497	497	268
660GH005-11		500x500	110	537	537	171	61	110	497	497	268
660GH005-15		500x500	110	537	537	211	61	150	497	497	268
660GH010-06		500x1000	110	1037	537	121	61	60	997	497	518
660GH010-11		500x1000	110	1037	537	171	61	110	997	497	518
660GH010-15		500x1000	110	1037	537	211	61	150	997	497	518
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660GK005-06		500x500	160	537	537	145	85	60	497	497	268
660GK005-11		500x500	160	537	537	195	85	110	497	497	268
660GK005-15		500x500	160	537	537	235	85	150	497	497	268
660GK010-06		500x1000	160	1037	537	145	85	60	997	497	518
660GK010-11		500x1000	160	1037	537	195	85	110	997	497	518
660GK010-15		500x1000	160	1037	537	235	85	150	997	497	518

with liquid membrane

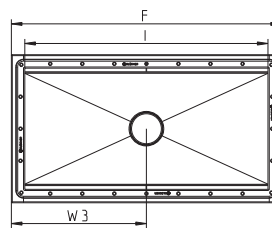
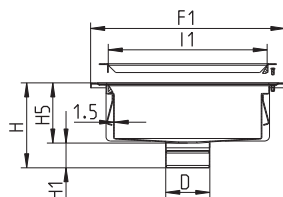
# KITCHEN CHANNEL TYPE 664



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
664FH004-15		400x400	110	437	437	211	61	150	397	397	218
664FH008-15		400x800	110	837	437	211	61	150	797	397	418
664FK004-06		400x400	160	437	437	145	85	60	397	397	218
664FK004-11		400x400	160	437	437	195	85	110	397	397	218
664FK004-15		400x400	160	437	437	235	85	150	397	397	218
664FK008-06		400x800	160	837	437	145	85	60	797	397	418
664FK008-15		400x800	160	837	437	235	85	150	797	397	418
664GH005-15		500x500	110	537	537	211	61	150	497	497	268
664GH010-15		500x1000	110	1037	537	211	61	150	997	497	518
664GK005-06		500x500	160	537	537	145	85	60	497	497	268
664GK005-15		500x500	160	537	537	235	85	150	497	497	268
664GK010-06		500x1000	160	1037	537	145	85	60	997	497	518
664GK010-15		500x1000	160	1037	537	235	85	150	997	497	518



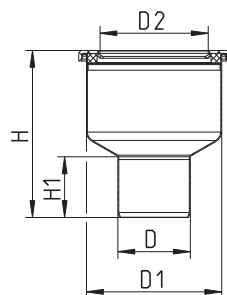
# KITCHEN CHANNEL TYPE 662



Type no.	Customer no.	Name	D	F	F1	H	H1	H5	I	I1	W3
662FH004-06		400x400	110	485	485	121	61	60	397	397	242
662FH004-15		400x400	110	485	485	211	61	150	397	397	242
662FH008-06		400x800	110	885	485	121	61	60	797	397	442
662FH008-15		400x800	110	885	485	211	61	150	797	397	442
662FK004-06		400x400	160	485	485	145	85	60	397	397	242
662FK004-11		400x400	160	485	485	195	85	110	397	397	242
662FK004-15		400x400	160	485	485	235	85	150	397	397	242
662FK008-06		400x800	160	885	485	145	85	60	797	397	442
662FK008-15		400x800	160	885	485	235	85	150	797	397	442
662GH005-06		500x500	110	585	585	121	61	60	497	497	292
662GH005-15		500x500	110	585	585	211	61	150	497	497	292
662GH010-06		500x1000	110	1085	585	121	61	60	997	497	542
662GH010-15		500x1000	110	1085	585	211	61	150	997	497	542
662GK005-06		500x500	160	585	585	145	85	60	497	497	292
662GK005-15		500x500	160	585	585	235	85	150	497	497	292
662GK010-06		500x1000	160	1085	585	145	85	60	997	497	542
662GK010-15		500x1000	160	1085	585	235	85	150	997	497	542

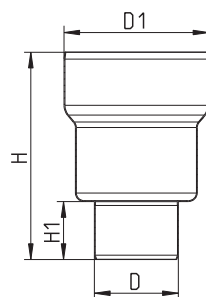
- without membrane flange

### LOWER PART FOR CHANNEL AND KITCHEN CHANNEL TYPE 150



Type no.	Customer no.	D	D1	H	H1	D2
150.000.075		75	140	173	63	113
150.000.110		110	140	141	79	113

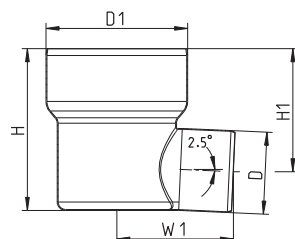
### LOWER PART FOR CHANNEL AND KITCHEN CHANNEL, HIGH MODEL TYPE 760.07



Type no.	Customer no.	D	D1	H	H1
760.072.075		75	190	266	65
760.072.110		110	190	277	76
760.073.110		110	291	299	76
760.073.160		160	291	318	95

Sealing ring included with the upper part

### LOWER PART FOR CHANNEL AND KITCHEN CHANNEL TYPE 763.00

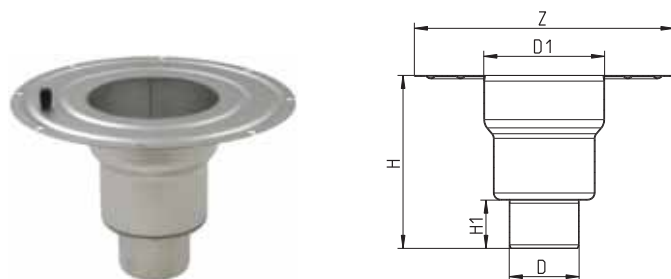


Type no.	Customer no.	D	D1	H	H1	W1
763.002.075		75	190	217	184	253
763.002.110		110	190	217	165	156

Sealing ring included with the upper part. Lower parts with outlet other than D=110mm come with adaptor.

## - with liquid membrane flange

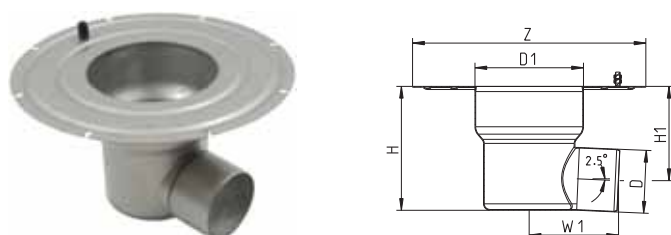
## LOWER PART FOR CHANNEL AND KITCHEN CHANNEL, HIGH MODEL TYPE 774.07



Type no.	Customer no.	D	D1	Z	H	H1
774.072.110		110	190	Ø409	277	76
774.073.110		110	291	Ø507	299	76

Sealing ring included with the upper part

## LOWER PART FOR CHANNEL AND KITCHEN CHANNEL TYPE 769.00

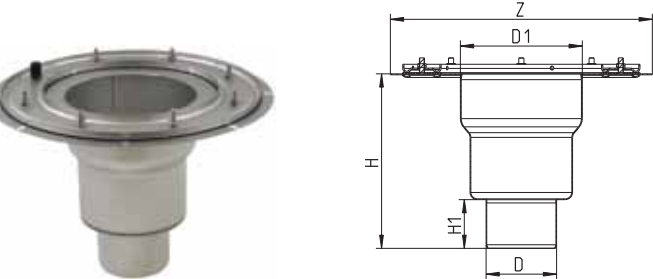


Type no.	Customer no.	D	D1	Z	H	H1	W1
769.002.075		75	190	Ø409	217	184	253
769.002.110		110	190	Ø409	217	165	156

Sealing ring included with the upper part. Lower parts with outlet other than D=110mm come with adaptor.

- with sheet membrane flange

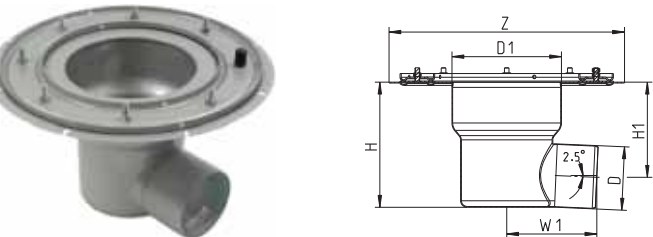
LOWER PART FOR CHANNEL AND KITCHEN CHANNEL, HIGH MODEL TYPE 775.07



Type no.	Customer no.	D	D1	Z	H	H1
775.072.075		75	190	Ø409	266	65
775.072.110		110	190	Ø409	277	76
775.073.110		110	291	Ø507	299	76
775.073.160		160	291	Ø507	318	95

Sealing ring included with the upper part

LOWER PART FOR CHANNEL AND KITCHEN CHANNEL TYPE 771.00

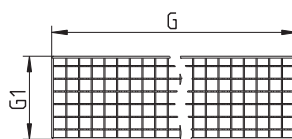
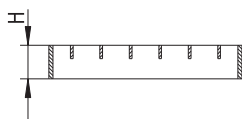


Type no.	Customer no.	D	D1	Z	H	H1	W1
771.002.075		75	190	Ø409	217	184	253
771.002.110		110	190	Ø409	217	165	156

Sealing ring included with the upper part. Lower parts with outlet other than D=110mm come with adaptor.

## Gratings

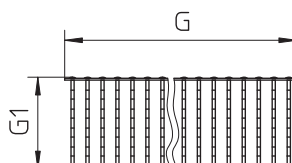
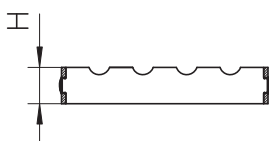
## MESH GRATING FOR CHANNEL



Type no.	Customer no.	Name	G	G1	H	EN1253	EN1433	Non slip
696.223.144.49		150x500	499	144	25	L 1800 kg	A 1800 kg	R12
696.223.144.99		150x1000	998	144	25	L 1800 kg	A 1800 kg	R12
696.223.194.49		200x500	499	194	25	L 1350 kg	A 1350 kg	R12
696.223.194.99		200x1000	998	194	25	L 1350 kg	A 1350 kg	R12
696.223.294.49		300x500	499	294	25	L 1350 kg	A 1350 kg	R12
696.223.294.99		300x1000	998	294	25	L 1350 kg	A 1350 kg	R12
696.223.394.49		400x500	499	394	25	L 1350 kg	A 1350 kg	R12
696.223.394.99		400x1000	998	394	25	L 1350 kg	A 1350 kg	R12

## LADDER GRATING FOR CHANNEL

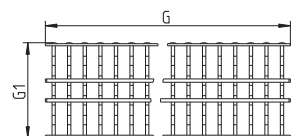
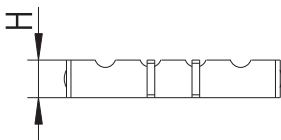
25 MM HEIGHT



Type no.	Customer no.	Name	G	G1	H	EN1253	EN1433	Non slip
697.125.150.50		150x500	499	145	25	L 5000 kg	A 5000 kg	R11
697.125.200.50		200x500	499	195	25	L 7000 kg	A 7000 kg	R11
697.125.300.50		300x500	499	295	25	L 7000 kg	A 7000 kg	R11
697.125.400.50		400x500	499	395	25	L 7000 kg	A 7000 kg	R11

## LADDER GRATING FOR CHANNEL, NON-TILT

25 MM HEIGHT

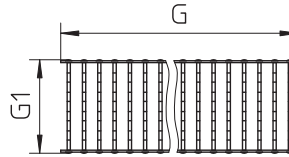
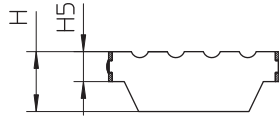


Type no.	Customer no.	Name	G	G1	H	EN1253	EN1433	Non slip
697.127.150.50		150x500	499	145	25	L 5000 kg	A 5000 kg	R11
697.127.200.50		200x500	499	195	25	L 7000 kg	A 7000 kg	R11

## Gratings

## LADDER GRATING FOR CHANNEL

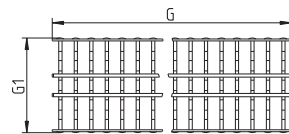
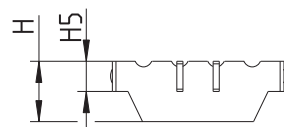
50 MM HEIGHT



Type no.	Customer no.	Name	G	G1	H	H5	EN1253	EN1433	Non slip
697.150.150.50		150x500	499	145	50	25	M 8400 kg	B 8400 kg	R11
697.150.200.50		200x500	499	195	50	25	M 8400 kg	B 8400 kg	R11
697.150.300.50		300x500	499	295	50	25	M 8400 kg	B 8400 kg	R11
697.150.400.50		400x500	499	395	50	25	M 8400 kg	B 8400 kg	R11

## LADDER GRATING FOR CHANNEL, NON-TILT

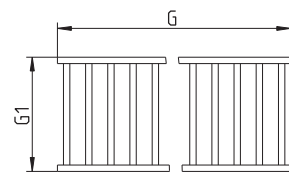
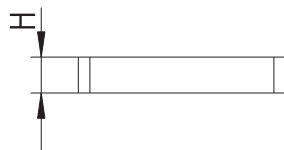
50 MM HEIGHT



Type no.	Customer no.	Name	G	G1	H	H5	EN1253	EN1433	Non slip
697.157.150.50		150x500	499	145	50	25	M 8400 kg	B 8400 kg	R11
697.157.200.50		200x500	499	195	50	25	M 8400 kg	B 8400 kg	R11

## LADDER GRATING FOR CHANNEL

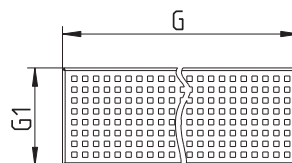
8 MM MATERIAL, FULLY WELDED



Type no.	Customer no.	Name	G	G1	H	EN1253	EN1433	Non slip
697.225.150.50		150x500	499	144	25	M 10000 kg	B 10000 kg	R11
697.225.200.50		200x500	499	194	25	M 10000 kg	B 10000 kg	R11
697.225.300.50		300x500	499	294	25	M 12000 kg	B 12000 kg	R11
697.225.400.50		400x500	499	394	25	M 12000 kg	B 12000 kg	R11

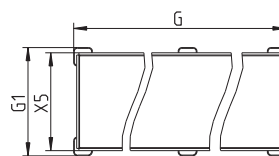
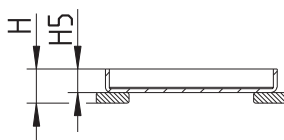
## Gratings

## SHOWER GRATING FOR CHANNEL



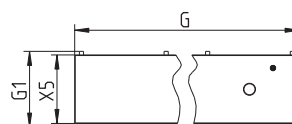
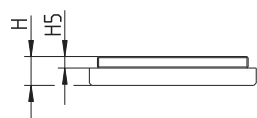
Type no.	Customer no.	Name	G	G1	H	EN1253	Non slip
697.015.150.50		150x500	499	144	25	K 250 kg	R10
697.015.150.99		150x1000	998	144	25	K 250 kg	R10
697.015.200.50		200x500	499	194	25	K 250 kg	R10
697.015.200.99		200x1000	998	194	25	K 250 kg	R10

## TILED/EPOXY GRATING FOR CHANNEL



Type no.	Customer no.	Name	G	G1	H	H5	X5	EN1253
697.020.150.49		150x500	499	145	26	18	131	K 250 kg
697.020.200.49		200x500	499	195	26	18	181	K 250 kg
697.020.300.49		300x500	499	295	26	18	281	K 250 kg

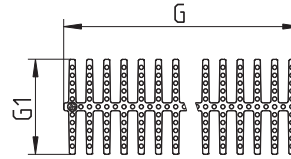
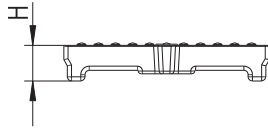
## SLOT GRATING FOR CHANNEL



Type no.	Customer no.	Name	G	G1	H	H5	X5	EN1253	EN1433	Non slip
697.200.150.49		150x500	499	145	25	10	131	L 3500 kg	A 3000 kg	R10
697.200.150.99		150x1000	998	145	25	10	131	L 3500 kg	A 3000 kg	R10
697.200.200.50		200x500	499	195	25	10	181	L 3500 kg	A 3500 kg	R10
697.200.200.99		200x1000	998	195	25	10	181	L 3500 kg	A 3500 kg	R10
697.200.300.50		300x500	499	295	25	10	281	L 3500 kg	A 3500 kg	R10
697.200.300.99		300x1000	998	295	25	10	281	L 3500 kg	A 3500 kg	R10

## Gratings

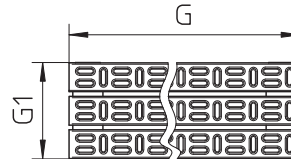
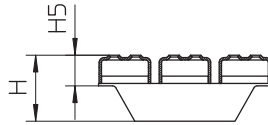
## HYGIENIC-PRO GRATING FOR CHANNEL



Type no.	Customer no.	Name	G	G1	H	EN1253	EN1433	Non slip
697.250.150.50		150x500	499	145	25	L 4000 kg	A 6000 kg	R10
697.250.200.50		200x500	499	195	25	L 5500 kg	A 7000 kg	R10

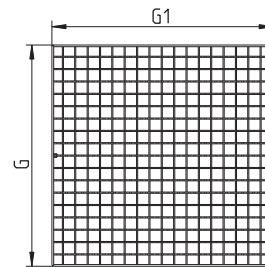
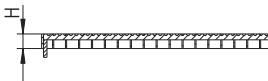
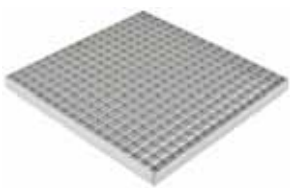
## 3MM GRATING FOR CHANNEL

## LENGTH-WISE PLACED BARS



Type no.	Customer no.	Name	G	G1	H	H5	EN1253	EN1433	Non slip
697.025.150.50		150x500	499	144	55	25	L 1000 kg	A 1000 kg	R10
697.025.150.99		150x1000	998	144	55	25	L 1000 kg	A 1000 kg	R10
697.025.200.50		200x500	499	194	55	25	L 1200 kg	A 1200 kg	R10
697.025.200.99		200x1000	998	194	55	25	L 1200 kg	A 1200 kg	R10
697.025.300.50		300x500	499	294	55	25	L 1200 kg	A 1200 kg	R10
697.025.300.99		300x1000	998	294	55	25	L 1200 kg	A 1200 kg	R10

## MESH GRATING FOR KITCHEN CHANNEL

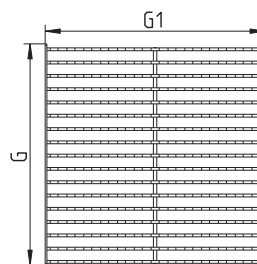
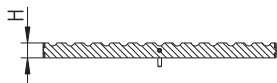
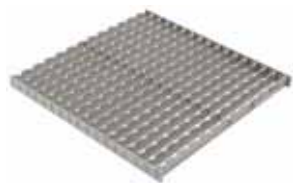


Type no.	Customer no.	Name	G	G1	H	EN1253	Non slip
696.223.394.395		400x400	394	394	25	L 1500 kg	R12
696.223.494.495		500x500	494	494	25	L 1500 kg	R12



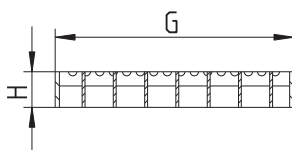
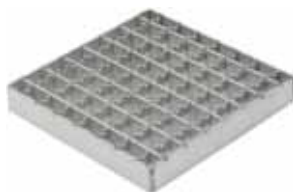
## Gratings

## LADDER GRATING FOR KITCHEN CHANNEL



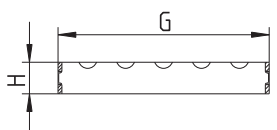
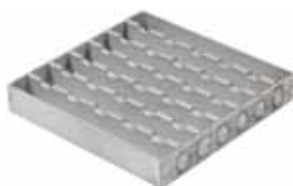
Type no.	Customer no.	Name	G	G1	H	Non slip
697.125.400.395		400x400	395	392	25	R11
697.125.500.495		500x500	495	492	25	R11

## MESH GRATING FOR OUTLET BOX



Type no.	Customer no.	Name	G	H	EN1253	EN1433	Non slip
790.218.000.22		250x250	218x218	25	L 1500 kg	A 1500 kg	R12

## LADDER GRATING FOR OUTLET BOX

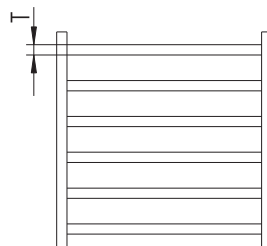
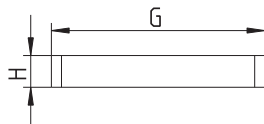


Type no.	Customer no.	Name	G	H	EN1253	EN1433	Non slip
790.218.000.25		250x250	218x218	25	L 4000 kg	A 4000 kg	R11

## Gratings

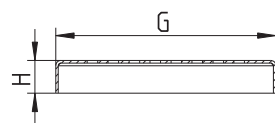
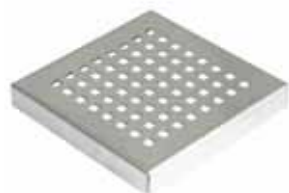
## LADDER GRATING FOR OUTLET BOX

8 MM MATERIAL, FULLY WELDED



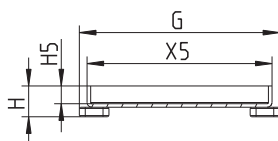
Type no.	Customer no.	Name	G	H	T	EN1253	EN1433	Non slip
790.218.000.28		250x250	218x218	25	8	M 8400 kg	B 8400 kg	R11

## SHOWER GRATING FOR OUTLET BOX



Type no.	Customer no.	Name	G	H	EN1253	Non slip
790.218.000.04		250x250	218x218	25	K 250 kg	R10

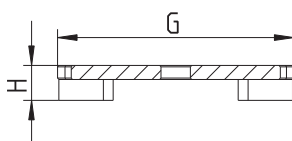
## TILED/EPOXY GRATING FOR OUTLET BOX



Type no.	Customer no.	Name	G	H	H5	X5	EN1253
790.218.000.06		250x250	219x219	26	15	206	K 250 kg

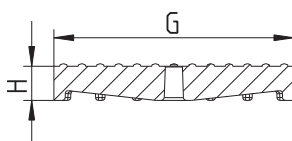
## Gratings

## SLOT GRATING FOR OUTLET BOX



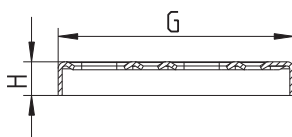
Type no.	Customer no.	Name	G	H	EN1253	EN1433	Non slip
790.218.000.10		250x250	220x220	25	L 4000 kg	A 4000 kg	R10

## HYGIENIC-PRO GRATING FOR OUTLET BOX



Type no.	Customer no.	Name	G	H	EN1253	EN1433	Non slip
790.218.000.60		250x250	220x220	24	L 4000 kg	A 4000 kg	R10

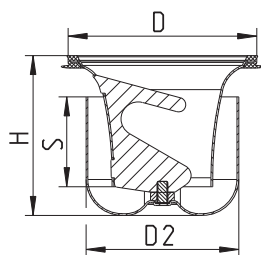
## 3MM GRATING FOR OUTLET BOX



Type no.	Customer no.	Name	G	H	EN1253	EN1433	Non slip
790.218.000.03		250x250	218x218	24	L 1000 kg	A 1000 kg	R10

## Water traps

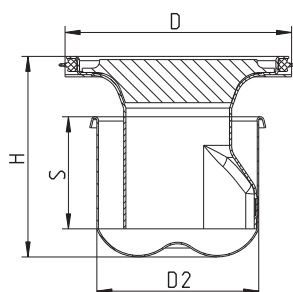
## REMOVABLE TWO-PART WATER TRAP TYPE 502.050



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.050.110		108	89	50	85	1.7

Accurate flow rate depending on type of channel and grating.

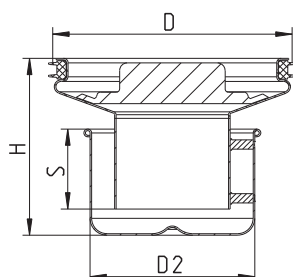
## REMOVABLE WATER TRAP TYPE 502.052



Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
502.052.110		108	93	52	75	1.3

Accurate flow rate depending on type of channel and grating.

## REMOVABLE WATER TRAP TYPE 562.00

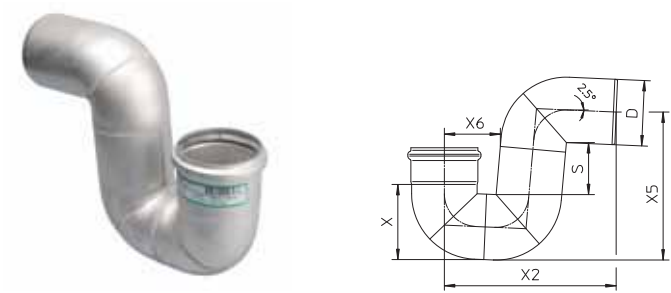


Type no.	Customer no.	D	H	S	D2	Max Flow (l/s)
562.002.000 S		157	115	52	107	3.3
562.003.000 S		257	128	52	197	7.8

Accurate flow rate depending on type of channel and grating.

Water traps

P-TRAP 87.5° TYPE 525.090



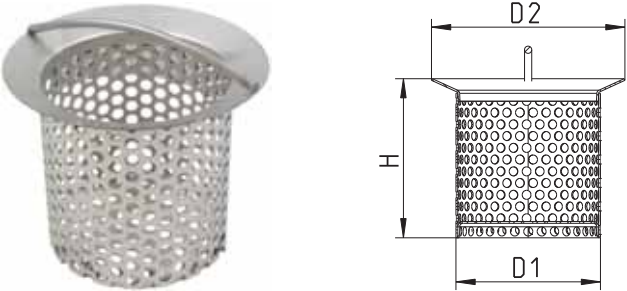
Type no.	Customer no.	D	S	X	X2	X5	X6	Max Flow (l/s)
525.090.075 S		75	81	89	222	189	74	2.5
525.090.110 S		110	89	126	289	249	94	3.4
525.090.160 S		160	105	178	388	338	121	7.5

Accurate flow rate depending on installation.

All dimensions in mm - Stainless Steel grade AISI 316L specify type no. with suffix S

Others

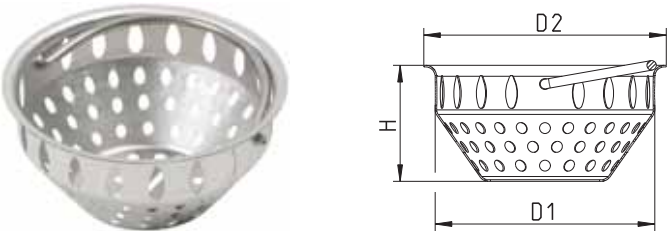
FILTER BASKET



Type no.	Customer no.	D1	H	D2
780.107.110.05 S		80	88	107

Only for use in drains without removable water trap

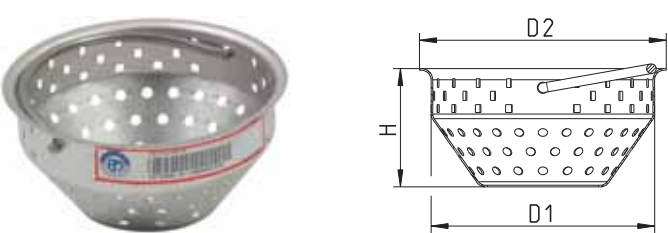
FILTER BASKET TYPE 780



Type no.	Customer no.	D1	H	D2
780.002.000.05		140	74	155

FILTER BASKET TYPE 780

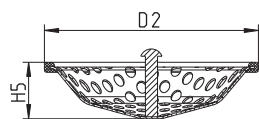
WITH 6 MM HOLES



Type no.	Customer no.	D1	H	D2
780.002.003.05		140	74	155

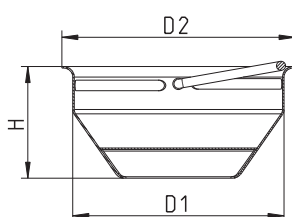
## Others

## FILTER BASKET FOR TWO-PART WATER TRAP



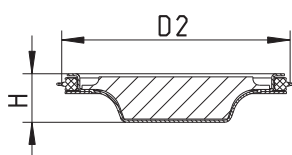
Type no.	Customer no.	H5	D2
502.000.000 S		24	106

## SAND BUCKET TYPE 780



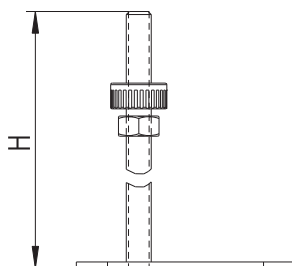
Type no.	Customer no.	D1	H	D2
780.002.000.00		140	74	155

## PLUG FOR CHANNEL AND KITCHEN CHANNEL



Type no.	Customer no.	H	D2
620.300.019 S		23	108

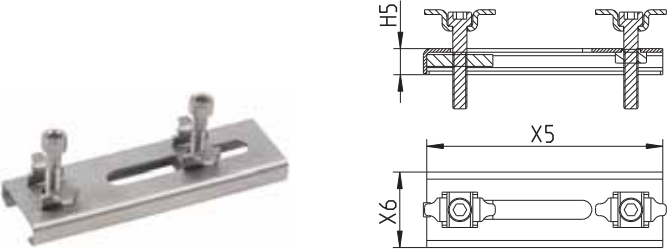
## ADJUSTABLE LEGS



Type no.	Customer no.	H
670.000.001		150
670.000.005		300

Others

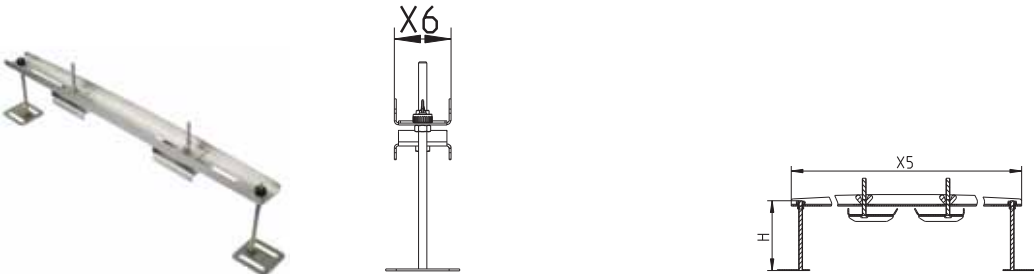
GRATING LOCK



Type no.	Customer no.	H5	X5	X6
670.000.003 S		11	100	32

For gratings with height max 25mm.  
Used for locking the grating + grating combination.

MOUNTING BRACKET FOR CHANNELS



Type no.	Customer no.	H	X5	X6
670.000.000		150	680	54



# Pipes and fittings for commercial and industrial applications



Push-fit system  
Lightweight  
Fire resistant

## Applications

- Above or below ground
- Completely interchangeable between vacuum and gravity systems

## Details

- Standard dimensions Ø50 - Ø250mm
- Standard lengths 0.15 - 6 metres
- Extensive range of fittings
- Sealing ring included
- Stainless steel AISI304/EN 1.4301 or AISI316L/EN 1.4404

## Variants

- Range of sealing rings for various applications

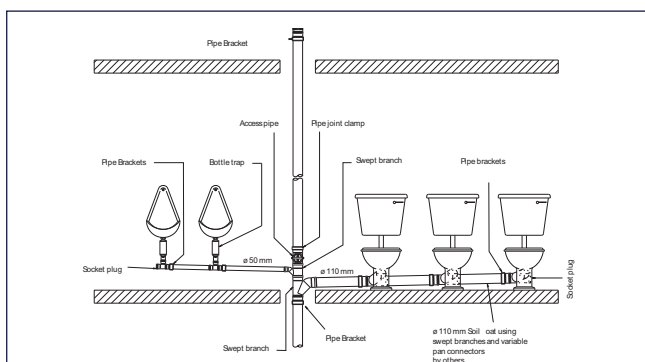
## Options

- Range of pipe hangers
- Access pipe with hinged door
- Rat stop
- Electrical or manual pipe cutters

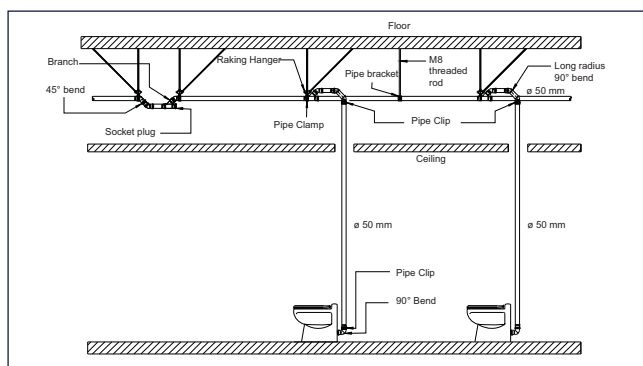
## Complete systems

BLÜCHER® EuroPipe system can be used for many purposes - waste-water drainage, rainwater drainage, vacuum-cleaning systems, roof drainage

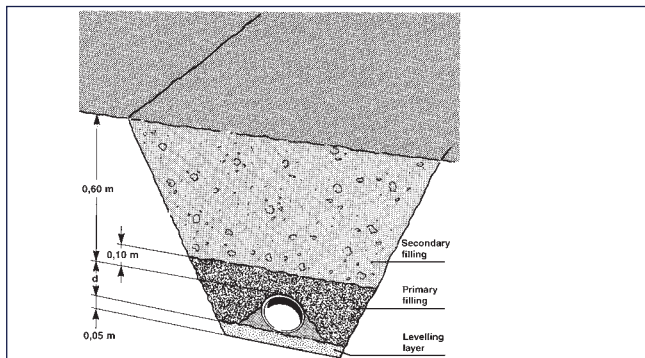
Waste-water drainage system, gravity



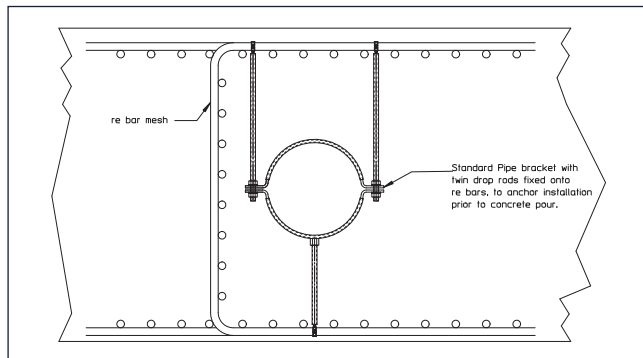
Waste-water drainage system, vacuum



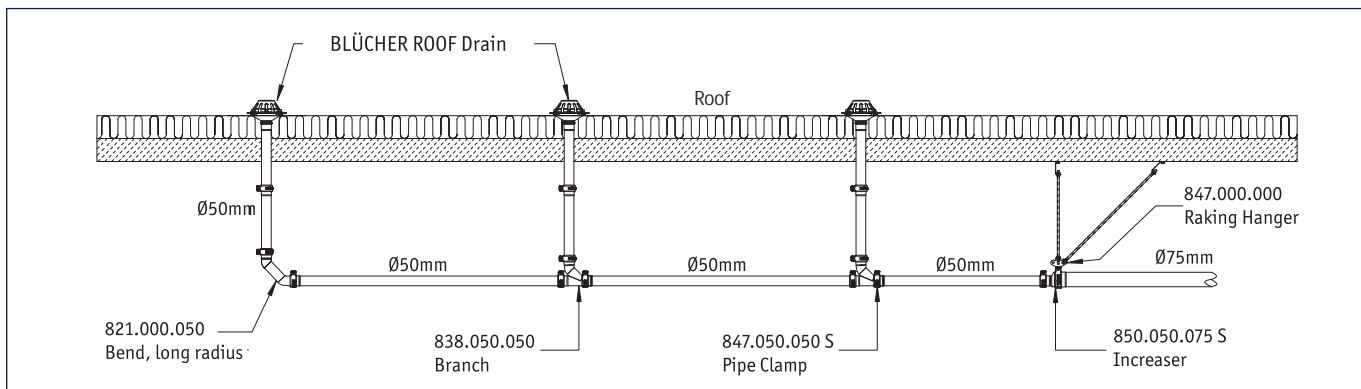
Below ground installation



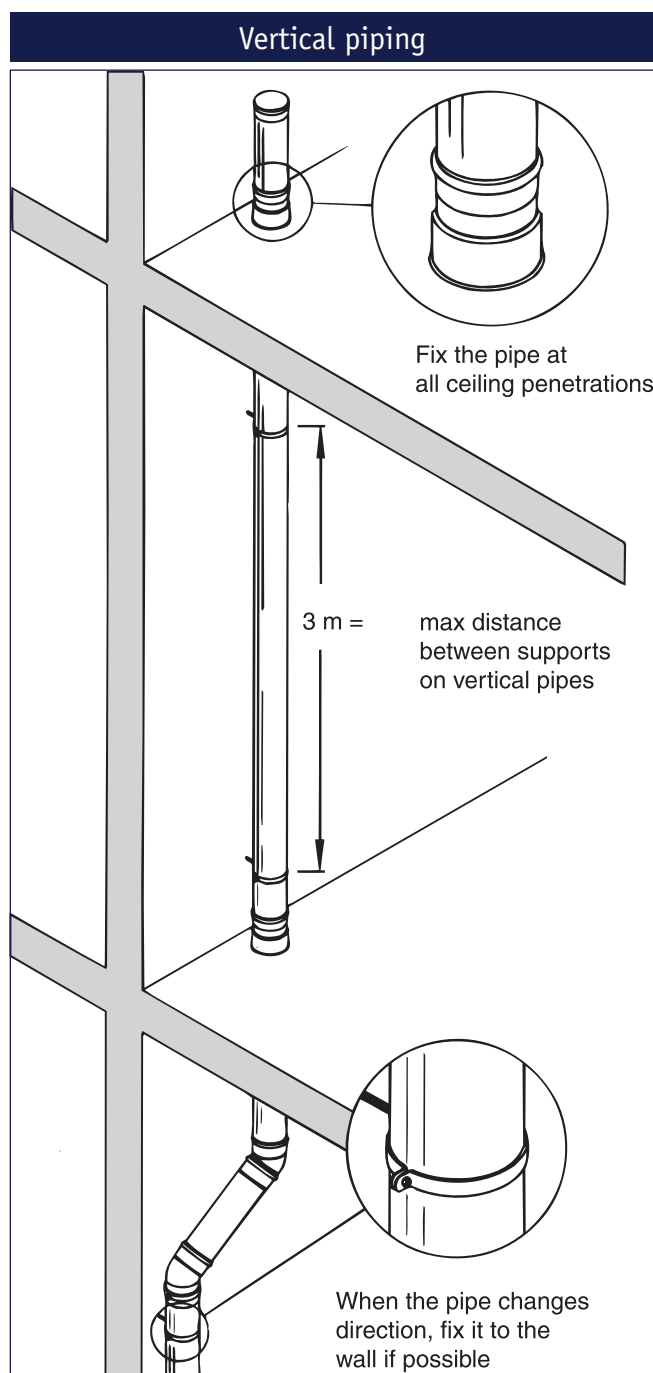
Below ground, pipes cast in raft foundation



Siphonic rainwater installation

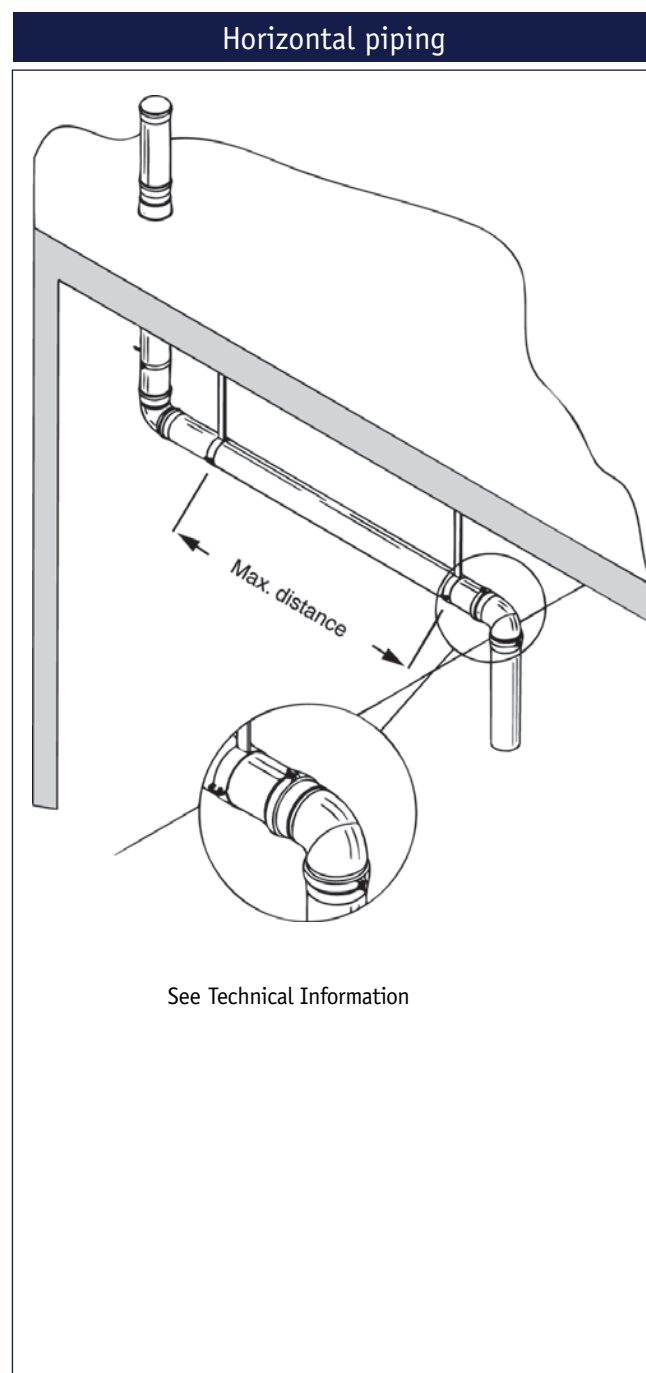


## Installation examples



One fixing point per storey is normally sufficient. As opposed to plastic pipes, stainless steel pipes require only one pipe hanger per 3 metres, resulting in less sound and faster installation.

**For further specifications and installation advice see the catalogue:**  
**"Technical information on BLÜCHER® EuroPipe".**

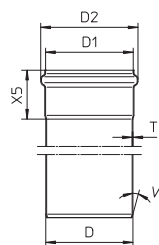


Horizontal pipe runs are always to be installed with a gradient. If no self-cleansing calculation is available, a gradient of 20 ‰ is recommended in gravity systems. Horizontal pipe runs in vacuum systems are to be installed in accordance with the recommendations of the vacuum system supplier.

When connecting major branch lines, the pipe is to be fixed just below the branch line.

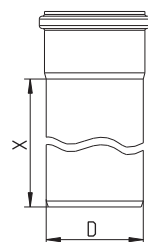
## DIMENSIONAL DRAWING, SOCKET AND SPIGOT END

### PIPES AND FITTINGS



Type no.	Customer no.	D	D1	D2	X5	T	V
811.XXX.040		40	41	52	46	1	20
811.XXX.050		50	51	61	47	1	20
811.XXX.075		75	76	87	55	1	20
811.XXX.082		82	83	94	57	1	20
811.XXX.110		110	111	123	62	1	20
811.XXX.125		125	126	140	65	1	20
811.XXX.160		160	161	177	78	1.25	20
811.XXX.200		200	201	219	98	1.5	20
811.XXX.250		250	251	277	116	1.5	20

## STRAIGHT PIPE WITH ONE SOCKET TYPE 811



Type no.	Customer no.	D	X	Kg
811.015.040		40	150	0,20
811.025.040		40	250	0,29
811.050.040		40	500	0,68
811.075.040		40	750	0,78
811.100.040		40	1000	1,02
811.150.040		40	1500	1,50
811.200.040		40	2000	1,99
811.300.040		40	3000	2,96
811.400.040		40	4000	3,92
811.500.040		40	5000	4,89
811.600.040		40	6000	5,86
-----				
811.015.050		50	150	0,25
811.025.050		50	250	0,38
811.050.050		50	500	0,68
811.075.050		50	750	1,00
811.100.050		50	1000	1,25
811.150.050		50	1500	1,90
811.200.050		50	2000	2,45
811.300.050		50	3000	3,82
811.400.050		50	4000	5,06
811.500.050		50	5000	6,31
811.600.050		50	6000	7,56
-----				
811.015.075		75	150	0,41
811.025.075		75	250	0,58
811.050.075		75	500	1,00
811.075.075		75	750	1,50
811.100.075		75	1000	1,95
811.150.075		75	1500	2,75
811.200.075		75	2000	3,70
811.300.075		75	3000	5,78
811.400.075		75	4000	7,66
811.500.075		75	5000	9,54
811.600.075		75	6000	11,42
-----				
811.015.082		82	150	0,44
811.025.082		82	250	0,64
811.050.082		82	500	1,14
811.075.082		82	750	1,65
811.100.082		82	1000	2,15
811.150.082		82	1500	3,16
811.200.082		82	2000	4,17
811.300.082		82	3000	6,20
811.400.082		82	4000	8,22
811.500.082		82	5000	10,24
811.600.082		82	6000	12,26
-----				
811.015.110		110	150	0,61
811.025.110		110	250	0,87
811.050.110		110	500	1,50
811.075.110		110	750	2,15
811.100.110		110	1000	2,85
811.150.110		110	1500	4,30
811.200.110		110	2000	5,40

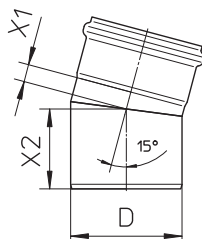
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## STRAIGHT PIPE WITH ONE SOCKET TYPE 811

Type no.	Customer no.	D	X	Kg
Continued from previous page				
811.300.110		110	3000	8,34
811.400.110		110	4000	11,26
811.500.110		110	5000	14,02
811.600.110		110	6000	16,78
-----				
811.015.125		125	150	0,70
811.025.125		125	250	1,01
811.050.125		125	500	1,78
811.075.125		125	750	2,55
811.100.125		125	1000	3,32
811.150.125		125	1500	4,86
811.200.125		125	2000	6,40
811.300.125		125	3000	9,47
811.400.125		125	4000	12,55
811.500.125		125	5000	15,63
811.600.125		125	6000	18,71
-----				
811.015.160		160	150	1,19
811.025.160		160	250	1,69
811.050.160		160	500	2,96
811.075.160		160	750	4,22
811.100.160		160	1000	5,48
811.150.160		160	1500	8,02
811.200.160		160	2000	10,54
811.300.160		160	3000	15,59
811.400.160		160	4000	20,64
811.500.160		160	5000	25,69
811.600.160		160	6000	30,74
-----				
811.015.200		200	150	1,96
811.025.200		200	250	2,77
811.050.200		200	500	4,62
811.075.200		200	750	6,47
811.100.200		200	1000	8,32
811.200.200		200	2000	15,71
811.300.200		200	3000	23,10
-----				
811.050.250		250	500	5,84
811.100.250		250	1000	10,47
811.200.250		250	2000	19,72
811.300.250		250	3000	28,97

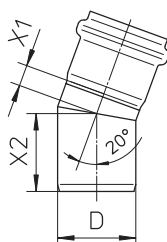
## - Bends

### BEND 15° TYPE 820.015



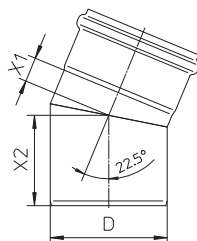
Type no.	Customer no.	D	X1	X2	Kg
820.015.040		40	11	53	0,12
820.015.050		50	14	54	0,15
820.015.075		75	16	66	0,28
820.015.082		82	12	64	0,30
820.015.110		110	20	78	0,47
820.015.125		125	14	84	0,56
820.015.160		160	23	99	1,08
820.015.200 S		200	23	123	1,99
820.015.250 S		250	30	136	3,03

### BEND 20° TYPE 820.020



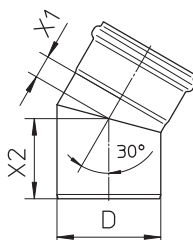
Type no.	Customer no.	D	X1	X2	Kg
820.020.050		50	13	50	0,15

### BEND 22.5° TYPE 820.023



Type no.	Customer no.	D	X1	X2	Kg
820.023.050 S		50	10	57	0,15
820.023.075 S		75	16	71	0,29
820.023.110 S		110	23	85	0,51
820.023.160 S		160	33	109	1,18

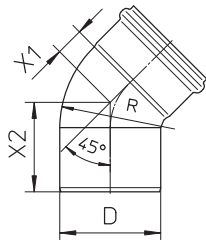
### BEND 30° TYPE 820.030



Type no.	Customer no.	D	X1	X2	Kg
820.030.040		40	14	55	0,13
820.030.050		50	18	57	0,16
820.030.075		75	20	71	0,28
820.030.082		82	18	70	0,32
820.030.110		110	28	85	0,51
820.030.125		125	23	98	0,63
820.030.160		160	34	110	1,19
820.030.200 S		200	37	137	2,20
820.030.250 S		250	48	153	3,35

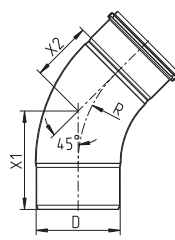
## - Bends

### BEND 45° TYPE 820.045



Type no.	Customer no.	D	X1	X2	R	Kg
820.045.040		40	17	58	40	0,13
820.045.050		50	21	60	50	0,17
820.045.075		75	28	76	75	0,30
820.045.082		82	25	80	82	0,34
820.045.110		110	38	93	110	0,56
820.045.125		125	53	111	125	0,73
820.045.160		160	49	131	172	1,55

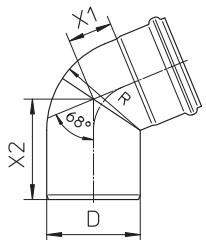
### BEND, LARGE RADIUS 45° TYPE 820.045



Type no.	Customer no.	D	X1	X2	R	Kg
820.045.200 S						4,18
820.045.250 S						6,53

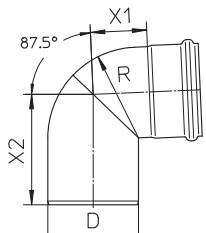
**NEW DESIGN**  
Please contact BLÜCHER Customer Center or visit our products database at [www.blucher.com](http://www.blucher.com).

### BEND 68° TYPE 820.068



Type no.	Customer no.	D	X1	X2	R	Kg
820.068.082		82	36	97	82	0,40
820.068.110		110	52	118	110	0,60

### BEND 87.5° TYPE 820.090

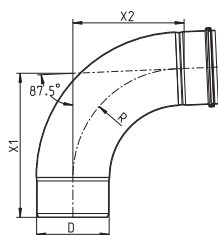


Type no.	Customer no.	D	X1	X2	R	Kg
820.090.040		40	28	79	40	0,16
820.090.050		50	35	86	50	0,21
820.090.075		75	48	107	75	0,39
820.090.082		82	48	109	82	0,43
820.090.110		110	68	134	110	0,67
820.090.125		125	88	161	125	1,68
820.090.160		160	99	181	171	2,10

To comply with BS EN 12056 Gravity Drainage inside Buildings use 821 bend at offsets and base of stack.

- Bends

**BEND, LARGE RADIUS 87.5° TYPE 820.090**

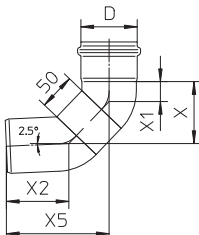


Type no.	Customer no.	Kg
820.090.200 S		8,41
820.090.250 S		9,88

To comply with BS EN 12056 Gravity Drainage inside Buildings use 821 bend at offsets and base of stack.

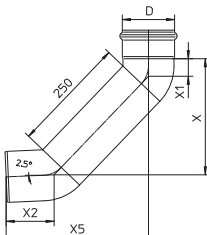
**NEW DESIGN**  
Please contact BLÜCHER Customer Center or visit our products database at [www.blucher.com](http://www.blucher.com).

**BEND, LONG RADIUS 87.5°, 50 MM TYPE 821.000**



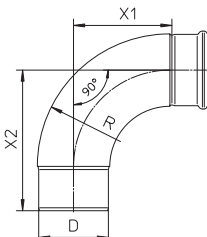
Type no.	Customer no.	D	X	X1	X2	X5	Kg
821.000.050		50	72	22	72	120	0,30
821.000.075		75	85	27	86	141	0,50

**BEND, LONG RADIUS 87.5°, 250 MM TYPE 821.090**



Type no.	Customer no.	D	X	X1	X2	X5	Kg
821.090.050		50	217	22	72	259	0,50
821.090.075		75	230	27	87	280	0,90
821.090.110		110	250	38	103	307	1,61
821.090.125		125	269	53	126	335	1,72
821.090.160		160	282	48	130	354	4,34

**BEND, MEDIUM RADIUS 90° TYPE 825**



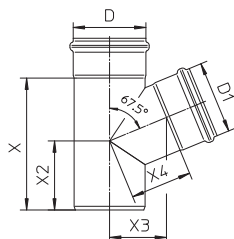
Type no.	Customer no.	D	X1	X2	R	Kg
825.090.050 S		50	72	125	97	0,65
825.090.075 S		75	105	155	133	1,00
825.090.110 S		110	155	222	209	1,41
825.090.160 S		160	241	322	313	2,99

To comply with BS EN 12056 Gravity Drainage inside Buildings use 821 bend at offsets and base of stack.



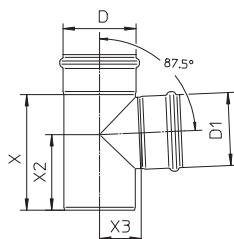
## - Branches

### BRANCH 67.5° TYPE 829



Type no.	Customer no.	D	D1	X	X2	X3	X4	Kg
829.050.075		75	50	134	80	60	65	0,46
829.050.082		82	50	127	73	62	67	0,50
829.075.075		75	75	145	80	69	74	0,53
829.075.082		82	75	155	87	61	65	0,62
829.082.082		82	82	163	91	62	67	0,66
829.110.110		110	110	204	107	88	95	0,88

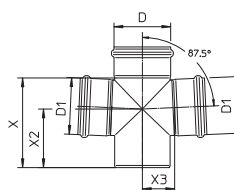
### BRANCH 87.5° TYPE 830



Type no.	Customer no.	D	D1	X	X2	X3	Kg
830.040.040		40	40	97	69	24	0,22
830.040.050		50	40	102	71	31	0,26
830.050.050		50	50	101	71	31	0,27
830.050.075		75	50	134	98	44	0,44
830.050.082		82	50	123	86	47	0,47
830.050.110		110	50	127	93	61	0,64
830.075.075		75	75	134	90	47	0,50
830.075.082		82	75	149	99	50	0,57
830.075.110		110	75	147	104	65	0,76
830.075.125		125	75	182	110	72	0,94
830.082.082		82	82	157	103	51	0,61
830.110.110		110	110	178	117	64	0,88
830.110.125		125	110	200	127	71	1,25
830.110.160		160	110	230	152	88	1,84
830.125.125		125	125	215	135	77	1,17
830.160.160		160	160	282	184	98	2,40
830.160.200 S		200	160	285	186	116	3,45
830.200.200 S		200	200	325	206	120	4,17
830.200.250 S		250	200	344	220	147	5,50
830.250.250 S		250	250	399	245	144	6,53

To comply with BS EN 12056 Gravity Drainage inside Buildings, when using non reducing branch consider branch type 838, 848 or 839

### DOUBLE BRANCE 87.5° TYPE 831

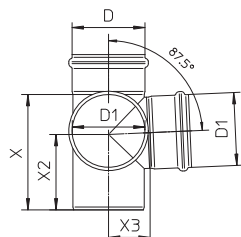


Type no.	Customer no.	D	D1	X	X2	X3	Kg
831.050.050		50	50	101	71	31	0,36
831.050.075		75	50	134	98	44	0,54
831.050.110		110	50	127	93	61	0,72
831.075.075		75	75	134	90	47	0,66
831.075.110		110	75	147	104	64	0,89
831.110.110		110	110	178	117	64	1,14
831.110.160		160	110	230	152	88	2,05
831.160.160		160	160	282	184	98	2,91

To comply with BS EN 12056 Gravity Drainage inside Buildings, when using non reducing branch consider branch type 836.

## - Branches

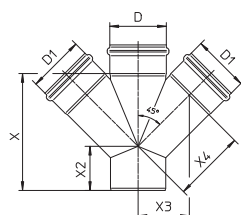
### DOUBLE BRANCH 87.5° TYPE 832



Type no.	Customer no.	D	D1	X	X2	X3	Kg
832.050.050		50	50	101	71	31	0,36
832.050.075		75	50	134	98	44	0,54
832.050.110		110	50	127	93	61	0,72
832.075.075		75	75	134	90	47	0,66
832.075.110		110	75	147	104	64	0,89
832.110.110		110	110	178	117	64	1,14
832.110.160		160	110	230	152	88	2,05
832.160.160		160	160	282	184	98	2,91

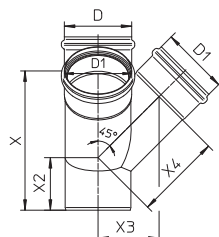
To comply with BS EN 12056 Gravity Drainage inside Buildings, when using non reducing branch consider branch type 837.

### DOUBLE BRANCH 45° TYPE 836



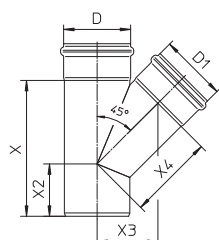
Type no.	Customer no.	D	D1	X	X2	X3	X4	Kg
836.050.050 S		50	50	123	57	50	71	0,59
836.050.075 S		75	50	139	56	63	89	0,69
836.050.110 S		110	50	142	42	81	114	0,80
836.075.075 S		75	75	174	74	74	105	1,15
836.075.110 S		110	75	178	60	92	130	1,31
836.110.110 S		110	110	228	88	102	144	2,10
836.110.160 S		160	110	252	80	128	180	2,85
836.160.160 S		160	160	322	115	151	216	5,28

### DOUBLE BRANCH 45° TYPE 837



Type no.	Customer no.	D	D1	X	X2	X3	X4	Kg
837.050.050 S		50	50	123	57	50	71	0,49
837.050.075 S		75	50	139	56	63	89	0,67
837.050.110 S		110	50	142	42	81	114	0,92
837.075.075 S		75	75	174	74	74	105	1,43
837.075.110 S		110	75	177	60	92	130	1,31
837.110.110 S		110	110	228	88	102	144	2,07
837.110.160 S		160	110	252	80	128	180	2,07
837.160.160 S		160	160	322	115	151	216	4,02

### OBLIQUE BRANCH 45° TYPE 838



Type no.	Customer no.	D	D1	X	X2	X3	X4	Kg
838.040.040		40	40	114	58	42	59	0,25
838.040.040 S		40	40	114	58	42	59	0,25
838.040.050		50	40	157	55	47	67	0,30
838.050.050		50	50	123	57	50	71	0,32
838.050.075		75	50	139	56	63	89	0,48
838.050.082		82	50	144	57	68	97	0,54
838.050.110		110	50	142	42	81	114	0,70
838.075.075		75	75	174	74	74	105	0,64
838.075.082		82	75	180	75	77	109	0,70
838.075.110		110	75	177	60	92	130	0,88
838.075.125		125	75	195	65	96	136	1,32
838.082.082		82	82	190	80	80	113	0,75
838.110.110		110	110	228	88	102	144	1,16
838.110.125		125	110	245	90	106	149	1,50
838.110.160		160	110	252	80	128	180	2,11
838.125.125		125	125	268	103	117	165	1,49
838.160.160		160	160	322	115	151	216	3,04
838.160.200 S		200	160	351	123	172	242	4,37
838.200.200 S		200	200	407	151	189	266	5,47
838.200.250 S		250	200	424	141	212	299	6,61

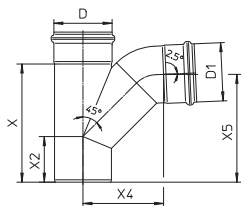
Continues on next page

## - Branches

### OBLIQUE BRANCH 45° TYPE 838

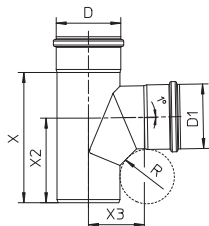
Type no.	Customer no.	D	D1	X	X2	X3	X4	Kg
Continued from previous page								
838.250.250 S		250	250	504	177	230	326	8,57

### SWEPT BRANCH 87.5° TYPE 839



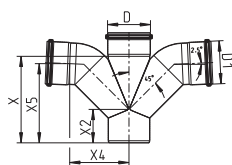
Type no.	Customer no.	D	D1	X	X2	X4	X5	Kg
839.050.050		50	50	123	57	80	121	0,44
839.050.075		75	50	139	56	92	128	0,60
839.050.110		110	50	142	42	110	132	0,81
839.075.075		75	75	174	74	108	160	0,87
839.075.110		110	75	177	60	125	160	1,11
839.110.110		110	110	228	88	155	211	1,64
839.110.160		160	110	252	80	180	227	2,53
839.160.160		160	160	322	115	219	298	4,52

### SWEPT BRANCH 89° TYPE 848



Type no.	Customer no.	D	D1	X	X2	X3	R	Kg
848.050.050 AS		50	50	123	88	53	25	0,43
848.050.075 AS		75	50	139	97	65	25	0,59
848.050.110 AS		110	50	147	105	83	25	0,70
848.075.075 AS		75	75	174	125	79	50	0,83
848.075.110 AS		110	75	177	110	81	25	0,85
848.110.110 AS		110	110	228	148	98	50	1,50
848.110.160 AS		160	110	228	154	110	25	1,50
848.160.160 AS		160	160	281	189	122	50	2,02

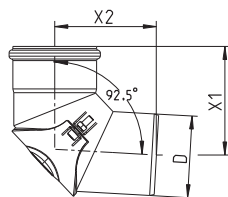
### DOUBLE SWEPT BRANCH TYPE 879



Type no.	Customer no.	D	D1	X	X2	X4	X5
879.110.110 S		110	110	228	88	156	208

## - Access pipes and bends

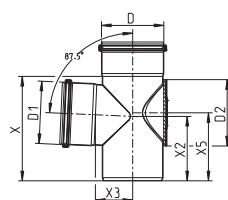
### BEND 87.5° WITH ACCESS TYPE 822



Type no.	Customer no.	D	X1	X2
822.090.075		75	52	102
822.090.110		110	75	132
822.090.160		160	106	205

For gravity

### BRANCH 87.5° WITH ACCESS TYPE 834

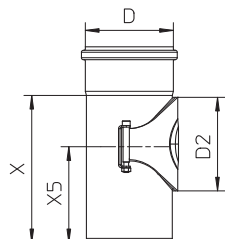


Type no.	Customer no.	D	D1	D2	X	X2	X3	X5
834.110.110 S		110	110	120	189	117	67	123
834.160.160 S		160	160	120	271	176	86	208

For gravity

To comply with BS EN 12056 Gravity Drainage inside Buildings, when using non reducing branch consider branch type 838, 848 or 839.

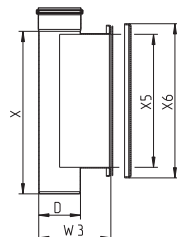
### PIPE WITH ACCESS TYPE 840



Type no.	Customer no.	D	D2	X	X5
840.075.075		75	80	134	92
840.110.110		110	120	188	123
840.111.110		110	120	248	187
840.125.125 S		125	120	190	128
840.160.160		160	120	271	208
840.200.200 S		200	120	281	208

For gravity

### PIPE WITH ACCESS TYPE 840.000

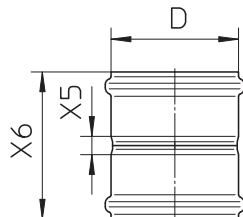


Type no.	Customer no.	D	W3	X	X5	X6
840.000.110 S		110	190	430	350	406
840.000.160 S		160	265	495	400	456
840.000.200 S		200	330	610	500	556
840.000.250 S		250	405	735	600	656

For below ground

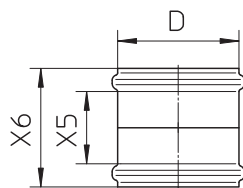
## - Sockets

## DOUBLE COUPLING TYPE 841



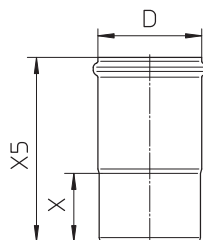
Type no.	Customer no.	D	X5	X6	Kg
841.040.040		40	20	104	0,13
841.050.050		50	13	97	0,15
841.075.075		75	20	120	0,26
841.082.082 S		82	20	124	0,31
841.110.110		110	16	130	0,45
841.125.125		125	20	140	0,54
841.160.160		160	20	162	1,05
841.200.200 S		200	20	200	1,85
841.250.250 S		250	30	246	3,11

## DOUBLE SLIP COUPLING TYPE 842



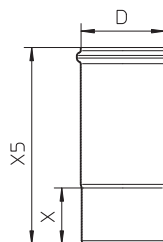
Type no.	Customer no.	D	X5	X6	Kg
842.040.040 S		40	76	104	0,13
842.050.050 S		50	71	97	0,12
842.075.075 S		75	91	120	0,21
842.082.082 S		82	95	124	0,31
842.110.110 S		110	97	130	0,45
842.125.125 S		125	104	140	0,47
842.160.160 S		160	118	162	1,05
842.200.200 S		200	147	200	1,82
842.250.250 S		250	173	264	3,11

## EXPANSION SOCKET TYPE 843



Type no.	Customer no.	D	X	X5	Kg
843.095.040		40	51	150	0,17
843.105.050		50	52	159	0,21
843.115.075		75	57	175	0,36
843.125.110		110	74	200	0,57
843.140.125		125	94	240	0,81
843.182.160		160	116	292	1,55

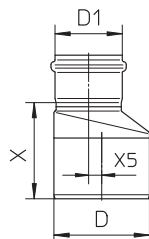
## EXPANSION SOCKET, LONG MODEL TYPE 869



Type no.	Customer no.	D	X	X5	Kg
869.143.050		50	52	200	0,25
869.163.075		75	57	225	0,40
869.170.082		82	64	240	0,54
869.181.110		110	74	260	0,70
869.200.125		125	94	300	0,99
869.238.160		160	116	360	1,85
869.300.200 S		200	112	420	2,43

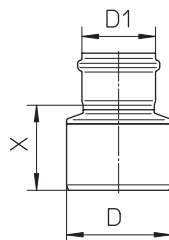
## - Increasers and reducers

## INCREASER ECCENTRIC TYPE 850



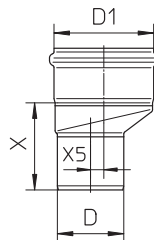
Type no.	Customer no.	D	D1	X	X5	Kg
850.040.050 S		50	40	81	5	0,16
850.050.075		75	50	82	7	0,22
850.050.075 S		75	50	82	7	0,22
850.050.082 S		82	50	92	14	0,25
850.050.110		110	50	108	25	0,38
850.050.110 S		110	50	108	25	0,38
850.075.110		110	75	111	15	0,42
850.075.110 S		110	75	111	15	0,42
850.075.160		160	75	172	37	1,20
850.075.160 S		160	75	172	37	1,20
850.082.110 S		110	82	106	11	0,43
850.110.125 S		125	110	105	8	0,49
850.110.160		160	110	135	22	1,06
850.110.160 S		160	110	135	22	1,06
850.125.160 S		160	125	135	18	0,95
850.160.200 S		200	160	162	20	1,67
850.200.250 S		250	200	188	25	2,57

## INCREASER CONCENTRIC TYPE 850



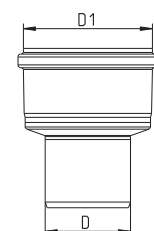
Type no.	Customer no.	D	D1	X	Kg
850.050.075 CS		75	50	77	0,20
850.050.110 CS		110	50	89	0,30
850.075.082 CS		82	75	91	0,29
850.075.110 C		110	75	90	0,37
850.075.110 CS		110	75	90	0,37
850.082.110 CS		110	82	104	0,40
850.110.125 CS		125	110	98	0,52
850.110.160 CS		160	110	112	1,00
850.125.160 CS		160	125	140	1,00
850.160.200 CS		200	160	164	1,51
850.160.250 CS		250	160		1,99
850.200.250 CS		250	200	168	1,98

## REDUCER ECCENTRIC TYPE 850



Type no.	Customer no.	D	D1	X	X5	Kg
850.075.050 S		50	75	79	7	0,28
850.110.050 S		50	110	94	25	0,50
850.110.075 S		75	110	98	15	0,55
850.160.110 S		110	160	117	22	1,08
850.110.082 S		82	110	98	11	0,29
850.125.110 S		110	125	93	8	0,49
850.160.125 S		125	160	132	18	0,97
850.200.160 S		160	200	146	20	1,77
850.250.200 S		200	250	181	25	2,78

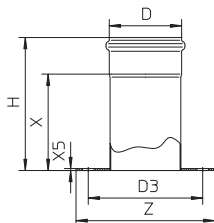
## REDUCER CONCENTRIC TYPE 850



Type no.	Customer no.	D	D1	Kg
850.050.040 C		40	50	0,20

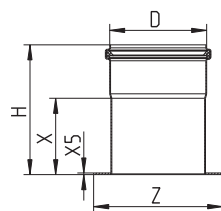
## - Adaptors

### FLANGE ADAPTOR TYPE 850.015



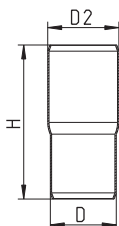
Type no.	Customer no.	D	Z.	H.	D3	X	X5
850.015.110 S FL		110	Ø216	207	178	150	3
850.015.160 S FL		160	Ø280	220	235	150	3

### ADAPTOR FOR CLAY PIPE TYPE 851



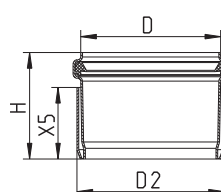
Type no.	Customer no.	D	Z	H	X	X5
851.150.110 S		110	Ø150	151	89	2
851.200.160 S		160	Ø200	195	125	1.3

### ADAPTOR FOR PVC PIPE TYPE 852



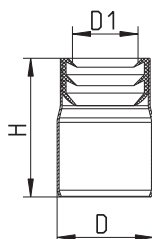
Type no.	Customer no.	D	H	D2
852.050.054 S		50	117	54
852.075.082 S		75	123	82

### ADAPTOR FOR PVC PIPE TYPE 852



Type no.	Customer no.	D	H	D2	X5
852.050.054 S0S		50	49	54	30
852.075.082 S0S		75	60	82	40

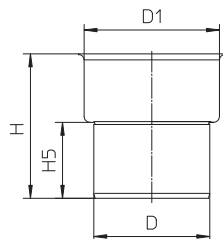
### ADAPTOR FOR PVC PIPE TYPE 852



Type no.	Customer no.	D	D1	H.
852.075.052		75	52	108

## - Adaptors

## ADAPTOR FOR CAST IRON PIPE TYPE 853

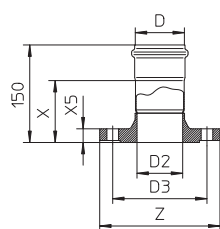


Type no.	Customer no.	D	D1	H.	H5.
853.093.075 S		75	93	125	66
853.127.110 S		110	127	141	76

Please order rubber insert type 803 separately

## DIN FLANGE ADAPTOR TYPE 854.X00

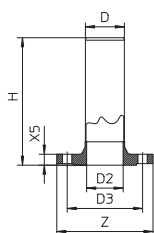
WITH SOCKET AND FLANGE PN16 DIN 2633/EN1092-1



Type no.	Customer no.	D	Z.	D2	D3	X	X5	Kg
854.200.040 S		40	150	43	110	104	18	2,21
854.200.050 S		50	150	43	110	103	19	2,10
854.200.075 S		75	185	70	145	95	21	3,40
854.300.040 S		40	165	55	125	104	18	2,62
854.300.050 S		50	165	51	125	103	21	2,80
854.300.110 S		110	220	107	180	88	23	5,00

## DIN FLANGE ADAPTOR TYPE 854.X10

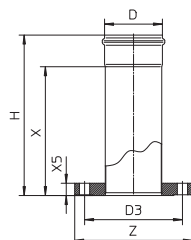
WITH SPIGOT AND FLANGE PN16 DIN 2633/EN1092-1



Type no.	Customer no.	D	Z.	H.	D2	D3	X5	Kg
854.210.040 S		40	150	150	43	110	18	2,19
854.210.050 S		50	150	234	43	110	19	2,10
854.210.075 S		75	185	245	70	145	21	3,45
854.310.040 S		40	165	150	55	125	18	2,60
854.310.050 S		50	165	192	51	125	21	2,80
854.310.110 S		110	220	259	107	180	23	5,15

## ANSI FLANGE ADAPTOR TYPE 854.025

WITH SOCKET AND FLANGE ANSI B16.5



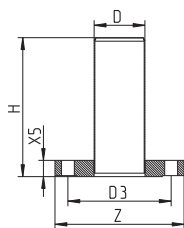
Type no.	Customer no.	D	Z.	H.	D3	X	X5	Kg
854.025.040 S		40	152	292	121	250	19	2,56
854.025.050 S		50	152	297	121	250	20	2,52
854.025.075 S		75	191	305	153	250	24	4,72
854.025.110 S		110	229	312	191	250	24	6,14
854.025.160 S		160	279	328	242	250	24	6,50



## - Adaptors

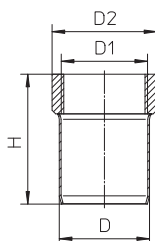
## ANSI FLANGE ADAPTOR TYPE 854.035

WITH SPIGOT AND FLANGE ANSI B16.5



Type no.	Customer no.	D	Z.	H.	D3	X5	Kg
854.035.040 S		40	152	200	121	19	2,56
854.035.050 S		50	152	197	121	19	2,39
854.035.075 S		75	191	205	152	24	4,52
854.035.110 S		110	229	212	191	24	5,85

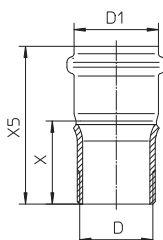
## FEMALE ADAPTOR TYPE 885



Type no.	Customer no.	D	D1	H.	D2	Kg
885.032.040 S		40	1¼	70	45	0,20
885.040.040 S		40	1½	73	57	0,20
885.025.050 S		50	1	93	40	0,18
885.032.050 S		50	1¼	72	48	0,17
885.040.050 S		50	1½	72	58	0,19
885.050.050 S		50	2	77	67	0,22

D1 specified in inches ("). BSP thread.

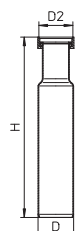
## MALE ADAPTOR TYPE 886



Type no.	Customer no.	D	D1	X	X5	Kg
886.050.032		1¼	50	97	50	0,25
886.050.040 S		1½	50	98	52	0,23
886.050.050 S		2	50	98	52	0,27

D specified in inches ("). BSP thread.

## PIPE WITH 1½" SWIVEL NUT TYPE 851

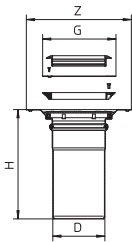


Type no.	Customer no.	D	H	D2
851.025.040 S		50	205	1½

D2 specified in inches ("). BSP thread.

- Adaptors

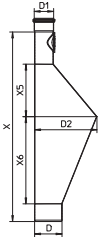
PENETRATION TYPE 865  
FOR VINYL FLOORS



Type no.	Customer no.	D	Z	G	H
865.155.110		110	Ø222	Ø155	231

- Rat stops

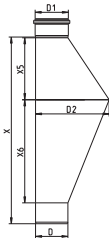
RAT STOP WITH ACCESS TYPE 891



Type no.	Customer no.	D	D1	D2	X	X5	X6
891.075.110 S		110	75	250	759	210	350
891.110.110 S		110	110	250	809	210	350
891.125.125 S		125	125	250	831	210	350

For gravity

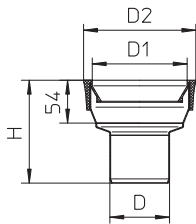
RAT STOP WITHOUT ACCESS TYPE 892



Type no.	Customer no.	D	D1	D2	X	X5	X6
892.075.110		110	75	250	672	210	350
892.110.110		110	110	250	635	210	350

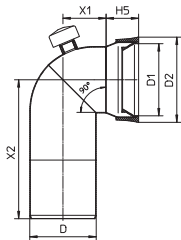
- Toilet adaptors

TOILET ADAPTOR STRAIGHT TYPE 855.090



Type no.	Customer no.	D	D1	H.	D2	Kg
855.090.075 S		75	110	129	141	0,42
855.090.082 S		82	110	136	141	0,51
855.090.110 S		110	110	124	141	0,39

TOILET ADAPTOR 90° TYPE 857

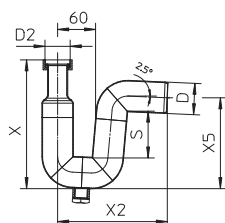


Type no.	Customer no.	D	D1	H5.	D2	X1	X2	Kg
857.090.110		110	110	54	141	71	230	1,33

## Water traps

## P-TRAP 87.5° TYPE 525

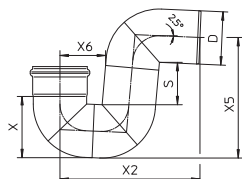
WITH COUPLING AND DRAIN PLUG



Type no.	Customer no.	D	S	D2	X	X2	X5
525.032.050 S		50	74	1¼	205	175	145
525.040.050 S		50	74	1½	205	175	145
525.050.050 S		50	74	2	205	175	145

D2 specified in inches ("). BSP thread.

## P-TRAP 87.5° TYPE 525.090



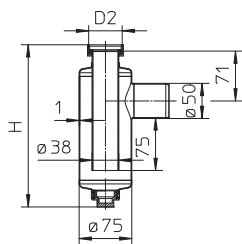
Type no.	Customer no.	D	S	X	X2	X5	X6
525.090.050 S		50	74	63	175	145	60
525.090.075 S		75	81	89	222	189	74
525.090.110 S		110	89	126	289	249	94
525.090.125 S		125	110	154	330	292	102
525.090.160 S		160	105	178	388	338	121

## FLOW RATES FOR P-TRAP 87.5° TYPE 525.090

Type no.	Customer no.	Max Flow (l/s)
525.090.050 S		1.7
525.090.075 S		2.5
525.090.110 S		3.4
525.090.125 S		4.4
525.090.160 S		7.5

Accurate flow rate depending on installation.

## BOTTLE WATER TRAP TYPE 505

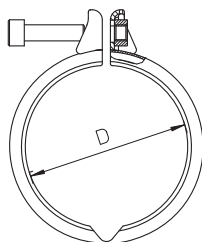


Type no.	Customer no.	H	D2
505.032.050 S		250	1¼
505.040.050 S		233	1½
505.050.050 S		243	2

75 mm water seal. D2 specified in inches ("). BSP thread.

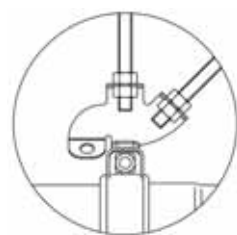
## Clamps

## PIPE JOINT CLAMP TYPE 847



Type no.	Customer no.	D
847.040.040		40
847.050.050		50
847.075.075		75
847.082.082		82
847.110.110		110
847.125.125		125
847.160.160		160
847.200.200		200
847.250.250		250

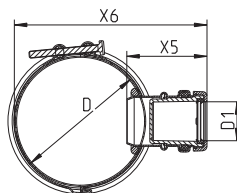
## CROSS RAKING FIXING FOR PIPE JOINT CLAMP TYPE 847



Type no.	Customer no.
847.000.000	

Pipework system fitted with this product is suitable for up to +3 bar pressure and -0,85 bar vacuum

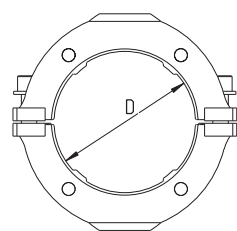
## SADDLE CLAMP TYPE 890



Type no.	Customer no.	D	D1	X5	X6
890.075.040		75	32	68	126
890.075.050		75	50	70	124
890.110.050		110	50	70	159

D=32mm fits D=40mm as well.

## PRESSURE PEAK PIPE JOINT CLAMPS TYPE 847.001



Type no.	Customer no.	D
847.001.040		40
847.001.050		50
847.001.075		75
847.001.082		82
847.001.110		110
847.001.125		125
847.001.160		160

If the system is designed to resist peak pressure then clamps must be fitted on all joints.

Pipework D=40mm - D=110mm can withstand brief pressure peak up to +10 bar and D=125mm - D=160mm up to +7 bar when fitted with pressure peak pipe joint clamps

## Pipe hangers

## PIPE HANGER WITH EPDM RUBBER TYPE 895.401

IN GALVANIZED STEEL



Type no.	Customer no.	D	H	W	X5	T
895.401.040		40	20	75	34	1.25
895.401.050		50	20	85	45	1.5
895.401.075		75	23	126	61	2
895.401.110		110	25	160	79	2.5
895.401.125		125	23	173	85	2.5
895.401.160		160	25	233	102	3
895.401.200		200	25	273	122	3
895.401.250		250	38	342	163	4

D=75mm fits D=82mm as well.

## PIPE HANGER WITH EPDM RUBBER TYPE 895.402

IN GALVANIZED STEEL



Type no.	Customer no.	D	H	H5	W
895.402.050		50	25	52-62	125
895.402.075		75	25	83-93	154
895.402.110		110	25	100-110	176
895.402.125		125	25	108-118	199
895.402.160		160	25	127-137	234
895.402.200		200	25	152-162	274
895.402.250		250			

Reducing noise transmission to the building.

D=75mm fits D=82mm as well.

## PIPE HANGER WITH SI RUBBER TYPE 895.403

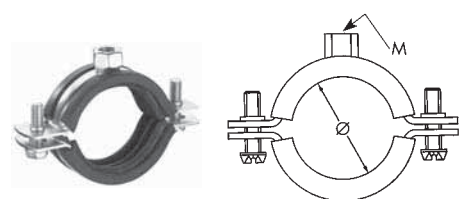
IN STAINLESS STEEL



Type no.	Customer no.	D	H	W	X5	T
895.403.050 S		50	20	97	41	2
895.403.075 S		75	20	118	52	2
895.403.110 S		110	20	158	78	2.5
895.403.125 S		125	20	170	84	2.5
895.403.160 S		160	25	233	108	2.5
895.403.200 S		200	25	273	123	3
895.403.250 S		250	25	317	142	2.5

D=75mm fits D=82mm as well.

## STAINLESS STEEL BRACKET TYPE 595

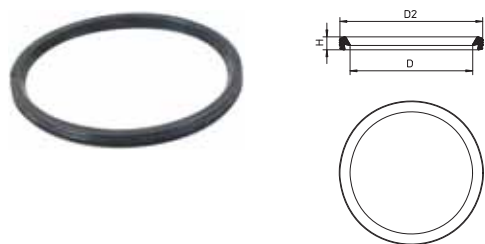


Type no.	Pipe dia.	Back Fixing Nut
595650	50	M8
595690	75	M8
595600	82	M8
595720	110	M10
595730	160	M10
595760	160	M10
595770	200	M10

## Sealing rings

**EPDM LIP SEALING RING BLACK TYPE 801**

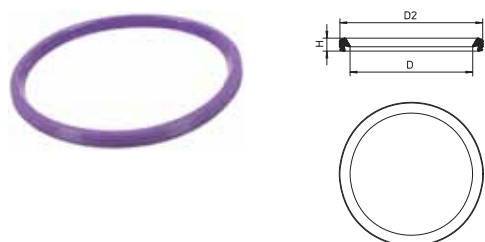
FOR STANDARD USE



Type no.	Customer no.	D	H	D2
801.EPDM.032		32	6.0	39.5
801.EPDM.040		40	7.8	51.7
801.EPDM.050		50	7.8	61.8
801.EPDM.075		75	7.8	87.1
801.EPDM.082		82	8.0	93
801.EPDM.110		110	8.9	124.2
801.EPDM.125		125	10.2	142.3
801.EPDM.160		160	11.5	180.1
801.EPDM.200		200	12.8	223.8
801.EPDM.250		250	19	282

**FPM LIP SEALING RING PURPLE TYPE 801**

FOR HIGH TEMPERATURES



Type no.	Customer no.	D	H	D2
801.FPM.040		40	7.8	51.7
801.FPM.050		50	7.8	61.8
801.FPM.075		75	7.8	87.1
801.FPM.110		110	8.9	124.2
801.FPM.125		125	10.2	142.3
801.FPM.160		160	11.5	180.1
801.FPM.200		200	12.8	223.8
801.FPM.250		250	19	282

**NBR LIP SEALING RING BLACK/YELLOW TYPE 801**

FOR USE WITH OIL

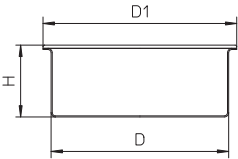


Type no.	Customer no.	D	H	D2
801.NBR.050		50	7.8	61.8
801.NBR.075		75	7.8	87.1
801.NBR.110		110	8.9	124.2
801.NBR.125		125	10.2	142.3
801.NBR.160		160	11.5	180.1
801.NBR.200		200	12.8	223.8
801.NBR.250		250	19	282.0



Plugs

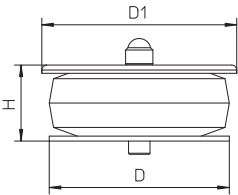
SOCKET PLUG TYPE 844.000



Type no.	Customer no.	D	D1	H.
844.000.040 S		40	50	32
844.000.050 S		50	58	50
844.000.075 S		75	85	45
844.000.110 S		110	120	45
844.000.160 S		160	170	45
844.000.200 S		200	210	50
844.000.250 S		250	265	65

Use of pipe joint clamp type 847 is necessary if any pressure in the pipe system is expected.

SOCKET PLUG TYPE 844.100



Type no.	Customer no.	D	D1	H.
844.100.050 S		50	59	31
844.100.075 S		75	83	36
844.100.082 S		82	90	36
844.100.110 S		110	118	36

Use of pipe joint clamp type 847 is recommended if the pressure in the pipe system is expected to exceed 0.5 bar for D<110mm and 0.3 bar for D=110mm.

# Connection to other pipe materials

up to  
600 mm



»TEEKAY« Couplers

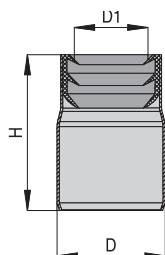
Can be supplied for connecting our stainless steel pipe upto 600mm dia and/or for connection to other materials.  
*Details on request.*



»Flex-Seal« Couplers

PVC pipes

2"



BLÜCHER adapter Ø75 mm - 2" plastic pipe

Type No.	D	D1
852.075.052	75	53.9 to 55.7 108

The adapter is suitable for both dimensions used in the UK (Ø53.9mm and Ø55.7 mm).

Plastic, copper or stainless steel



Reducer (rubber)

To 50 mm dia BLÜCHER® EuroPipe socket, enables nom. 1¼" or 1½" pipes to be push fit connected to 50 mm dia BLÜCHER® EuroPipe.

Nom. 1¼" Type No. W 58

Nom. 1½" Type No. W 59

Vitrified clay (plain end)



Connector (supplied by others)

Naylor Bros

- Densleeve Type DC6

Hepworth

- Supersleeve Type SA9



Connector (supplied by others)

Naylor Bros

- Densleeve Type DC7

Hepworth

- Supersleeve Type SA10

Cast Iron (plain end)



Connector 150mm dia (supplied by others)

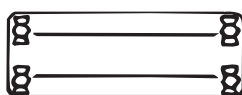
Saint-Gobain

- Timesaver TD02 (drain)

- Timesaver GT01 (soil)

- Ensign EC002

- SMU RB013



Connector 100mm dia (supplied by others)

Saint-Gobain

- Timesaver TD02 (drain)

- Timesaver GT01 (soil)

- Ensign EC002

- SMU RB011

## MANUAL PIPE CUTTER

Cutting is done by a special disc cutter, which cuts and grips at the same time.

N.B.: Do not cut fittings.



Type no.	Customer no.	Designation
006.050.110		Manual pipe cutter (40 - 110 mm)
006.125.200		Manual pipe cutter (110 - 200 mm)
006.200.315		Manual pipe cutter (200 - 315 mm)
006.000.005		Spindle for pipe cutter 006.050.110
006.000.000		Cutting disc for pipe cutter 006.050.110
006.000.001		Cutting disc for pipe cutter 006.125.200

## ELECTRICAL PIPE CUTTER

Cutting time:  
Seconds.

Changeover time:  
Changeover from one cutting disc to another can be effected within a matter of seconds.

Cutting quality:  
The cutting motion has been developed to produce a bevelled leading edge to cut ends. As a result only the application of BLÜCHER jointing lubricant is required prior to jointing cut ends.

Power supply:  
110 Volt/Min 2 kVA/60 Hz or 220 Volt/50 Hz.

Pipe diametres:  
50-160 mm

N.B.: Do not cut fittings.



Type no.	Customer no.	Designation
800.050.160 GB		Electrical pipe cutter 110 V, 16 A
800.030.006		Cutting disc
006.050.160		Support base for electrical pipe cutter

## CUTTING OIL/JOINTING LUBRICANT

Jointing lubricant is applied to make jointing a simple action. After a few days the lubricant will dry out and lose its lubricity making subsequent demounting of a joint difficult. If subsequent demounting of joints can be envisaged then we can supply a silicone based lubricant that will not dry out. BLÜCHER jointing lubricant is based on a mild and harmless liquid detergent that is biologically degradable. BLÜCHER cutting oil is recommended for use with BLÜCHER EuroPipe pipe cutters.

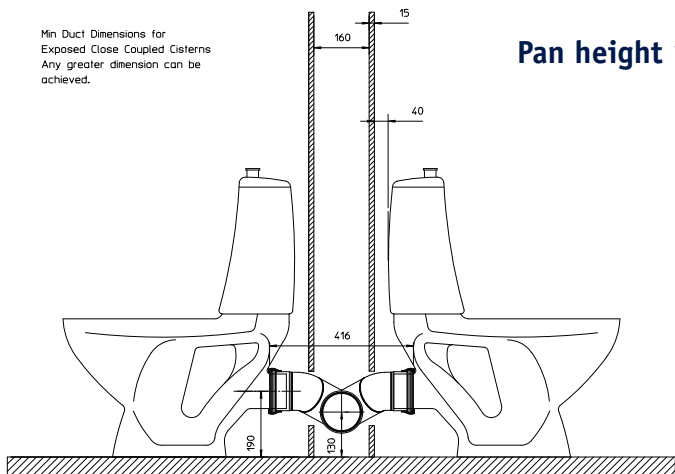


Type no.	Customer no.	Designation
007.000.000		Atomizer
007.100.050		Jointing lubricant 0.5 L
007.500.050		Cutting oil 0.5 L

### Back to back soil manifold

Product code 879.xxx.xxx.xx 5

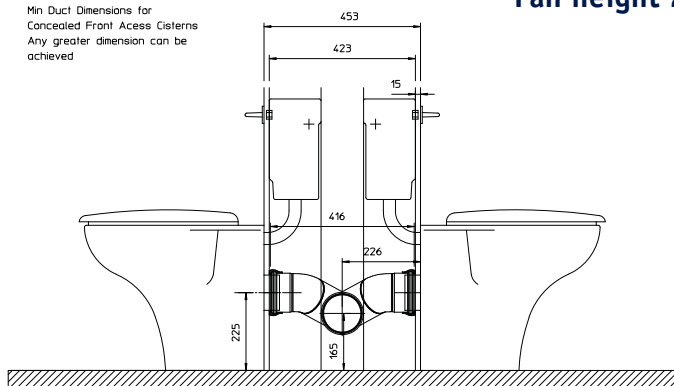
Min Duct Dimensions for  
Exposed Close Coupled Cisterns  
Any greater dimension can be  
achieved.



**Pan height 190 mm**

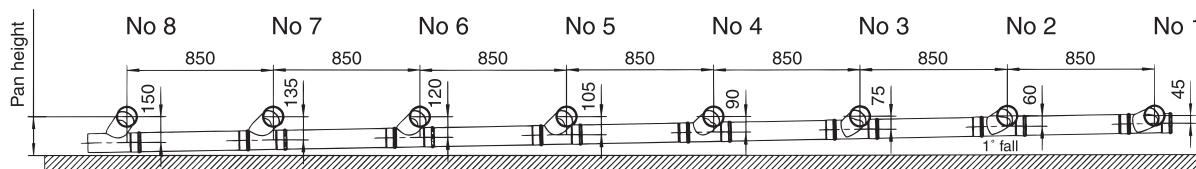
→ **Max 12 No  
Back to Back WC's**

Min Duct Dimensions for  
Concealed Front Access Cisterns  
Any greater dimension can be  
achieved

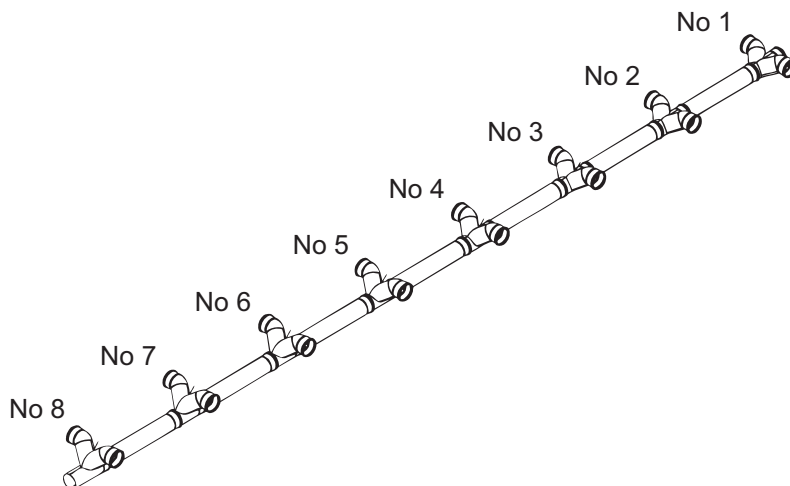


**Pan height 225 mm**

→ **Max 16 No  
Back to Back WC's**



Tests have shown that both a  
3 litre and a 6 litre flush with  
and without simulated solids  
result in effective discharge  
with **NO CROSS-FLOW** from  
one WC pan to the opposite WC  
pan.



## Filling around the pipe

Filling around the pipe can only start when the line and level of the pipe has been checked and approved.

## Compression

Avoid tipping the filling directly down on to the pipe.

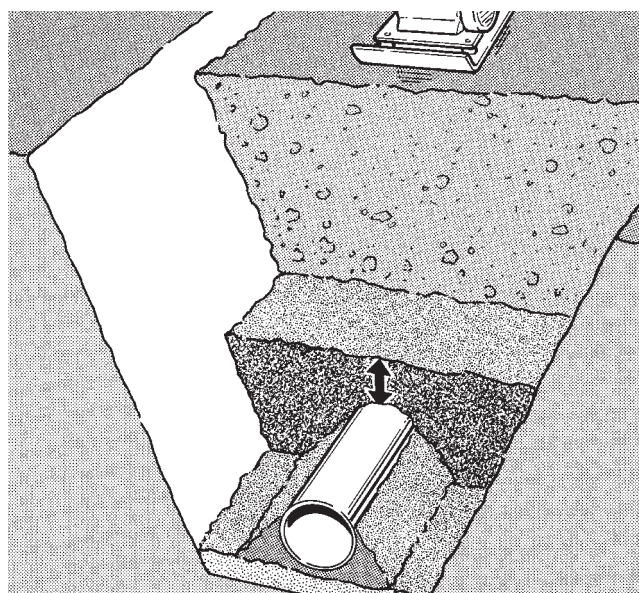
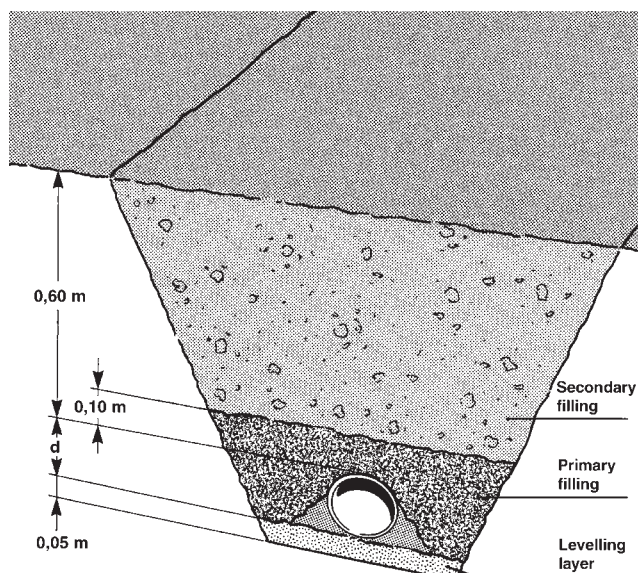
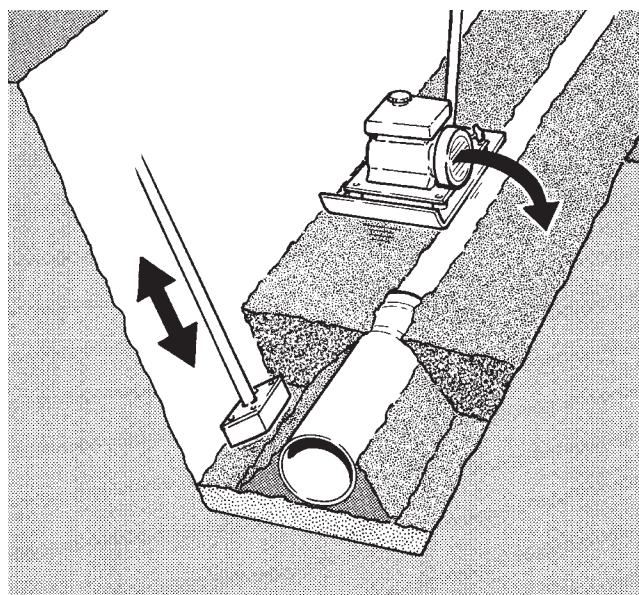
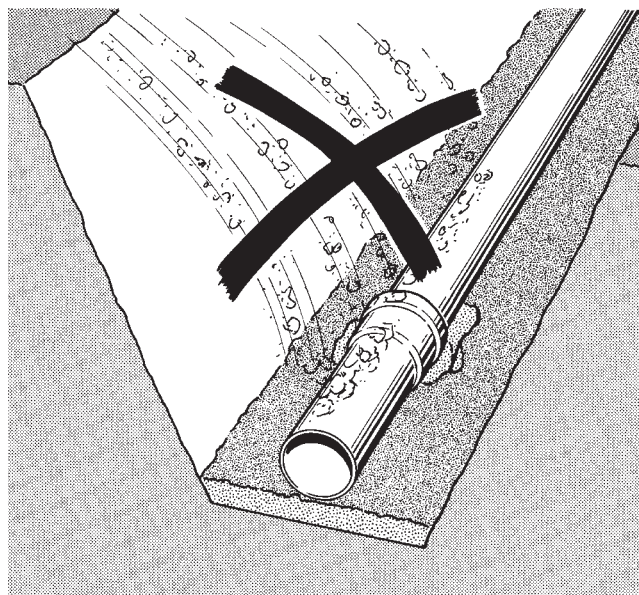
If a machine is used for compression, the equipment's own weight and impact force must be adapted to conditions.

The filling should be compressed to at least 93%.

## Filling in the excavation

Soil from the excavation can be used for filling, but larger stones and blocks may not be used. Compression of the filling material outside reinforced areas is not necessary if the settling will not cause problems or damage.

Further guidance can be obtained from BS 5955 Pt 6





## Fixing and support

### Vertical fixing

All vertical pipework should be provided with pipe brackets at maximum of 3 m intervals. Brackets to be placed under ring seal sockets whenever possible.

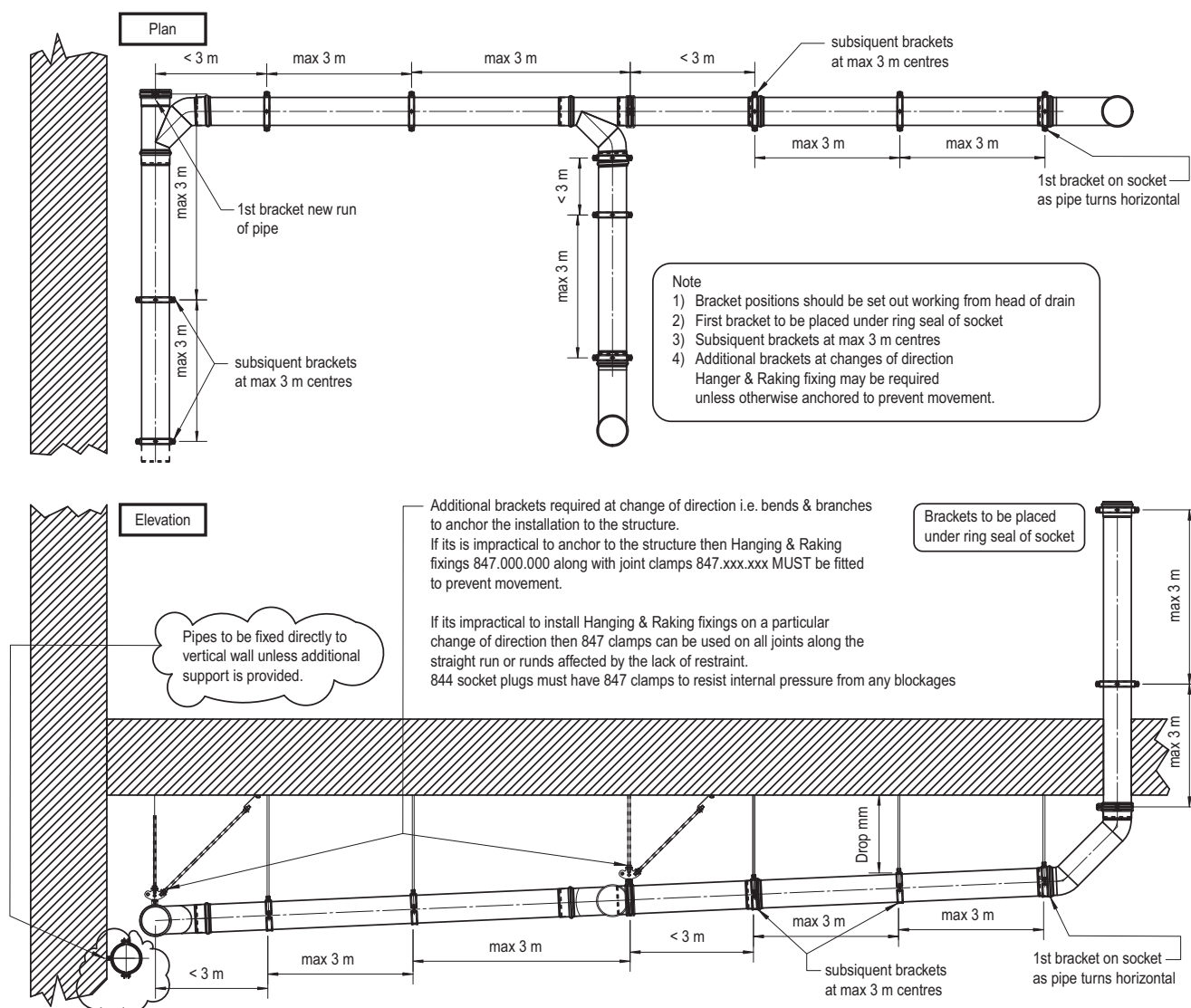
### Horizontal fixing

All horizontal pipework should be provided with pipe brackets at maximum of 3 m intervals. Brackets to be placed under ring seal sockets whenever possible.

Additional brackets required at change of direction, i.e. bends and branches, to anchor the installation to the structure. If it is impractical to anchor to the structure then Hanging & Raking fixings 847.000.000 along with Joint Clamps 847.xxx.xxx **must** be fitted to prevent movement.

If it is impractical to install Hanging and Raking fixings on a particular change of direction then 847.xxx.xxx clamps can be used on all joints along the straight run or runs affected by the lack of restraint.

844 Socket plugs must have 847 clamp to resist internal pressure from any blockage



## Flow tables

Hydraulic Flow Data - Roughness Coef Ks=0.6

Gradient	50 mm Dia		75 mm Dia		82 mm Dia		110 mm Dia		125 mm Dia		160 mm Dia		200 mm Dia		250 mm Dia	
	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
(1in)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)
10	1.50	2.71	1.99	8.33	2.12	10.63	2.58	23.64	2.81	33.39	3.30	64.32	4.42	211.60	3.82	116.29
15	1.22	2.21	1.62	6.78	1.72	8.66	2.10	19.26	2.29	27.21	2.69	52.43	3.60	172.64	3.11	94.81
20	1.06	1.91	1.40	5.87	1.49	7.49	1.82	16.67	1.98	23.55	2.33	45.39	3.12	149.42	2.69	82.08
25	0.94	1.70	1.25	5.24	1.33	6.69	1.63	14.89	1.77	21.05	2.08	40.56	2.79	133.57	2.41	73.36
30	0.86	1.55	1.14	4.78	1.21	6.10	1.48	13.58	1.61	19.19	1.90	36.98	2.54	121.87	2.19	66.89
35	0.79	1.44	1.06	4.42	1.12	5.65	1.37	12.57	1.50	17.77	1.76	34.25	2.35	112.78	2.03	61.95
40	0.74	1.34	0.99	4.13	1.05	5.28	1.28	11.74	1.40	16.60	1.64	32.00	2.20	105.45	1.90	57.89
45	0.70	1.26	0.93	3.89	0.99	4.97	1.21	11.06	1.32	15.63	1.55	30.14	2.07	99.38	1.79	54.52
50	0.66	1.20	0.88	3.69	0.94	4.71	1.14	10.49	1.25	14.83	1.47	28.59	1.97	94.24	1.70	51.72
55	0.63	1.14	0.84	3.51	0.89	4.49	1.09	10.00	1.19	14.13	1.40	27.26	1.87	89.82	1.62	49.32
60	0.60	1.09	0.80	3.36	0.85	4.30	1.04	9.57	1.14	13.53	1.34	26.10	1.79	85.97	1.55	47.22
65	0.58	1.05	0.77	3.23	0.82	4.12	1.00	9.19	1.09	12.99	1.29	25.05	1.72	82.57	1.49	45.33
70	0.56	1.01	0.74	3.11	0.79	3.97	0.97	8.85	1.05	12.51	1.24	24.12	1.66	79.54	1.43	43.66
75	0.54	0.97	0.72	2.99	0.76	3.83	0.93	8.53	1.01	12.05	1.19	23.25	1.60	76.82	1.38	42.09
80	0.52	0.94	0.69	2.90	0.74	3.71	0.90	8.26	0.98	11.68	1.16	22.53	1.55	74.36	1.34	40.79
85	0.50	0.91	0.67	2.82	0.72	3.60	0.88	8.02	0.95	11.34	1.12	21.89	1.51	72.12	1.30	39.62
90	0.49	0.88	0.65	2.73	0.69	3.49	0.85	7.78	0.93	11.00	1.09	21.22	1.46	70.07	1.26	38.41
95	0.48	0.86	0.63	2.65	0.67	3.39	0.83	7.56	0.90	10.69	1.06	20.63	1.42	68.18	1.23	37.34
100	0.46	0.84	0.62	2.59	0.66	3.31	0.80	7.37	0.88	10.43	1.03	20.12	1.39	66.44	1.20	36.43
105	0.45	0.82	0.60	2.52	0.64	3.22	0.78	7.18	0.86	10.16	1.01	19.61	1.35	64.82	1.16	35.50
110	0.44	0.80	0.59	2.47	0.63	3.15	0.77	7.03	0.84	9.94	0.98	19.18	1.32	63.31	1.14	34.73
115	0.43	0.78	0.58	2.41	0.61	3.08	0.75	6.87	0.82	9.71	0.96	18.75	1.29	61.91	1.11	33.95
120	0.42	0.76	0.56	2.35	0.60	3.01	0.73	6.71	0.80	9.48	0.94	18.31	1.26	60.59	1.09	33.15
125	0.42	0.75	0.55	2.31	0.59	2.95	0.72	6.58	0.78	9.31	0.92	17.97	1.24	59.35	1.07	32.53
130	0.40	0.73	0.54	2.26	0.58	2.89	0.70	6.45	0.77	9.13	0.90	17.62	1.21	58.19	1.05	31.91
135	0.40	0.72	0.53	2.22	0.56	2.83	0.69	6.32	0.76	8.95	0.89	17.27	1.19	57.09	1.03	31.27
140	0.39	0.70	0.52	2.17	0.55	2.78	0.68	6.19	0.74	8.76	0.87	16.91	1.17	56.04	1.00	30.62
145	0.38	0.69	0.51	2.14	0.54	2.73	0.67	6.10	0.73	8.63	0.86	16.66	1.15	55.06	0.99	30.18

## Introduction

Stainless Steel pipes are hydraulically smooth (Ks value 0.003mm) and are less susceptible to scaling than other pipe materials e.g. cast iron.

Pipe manufacturers often claim very low roughness coefficient values (Ks) but for design purposes 0.6mm for Surface Water drainage and 1.5mm for Foul drainage are recommended in BS EN 752:4 and should be used. BS EN 752:4 further recommends that where surface water drains remain clean, unsoiled and in good condition throughout their design life, the roughness will depend principally on the pipe material. In such cases, recommended pipe roughness values (ks) can be obtained from H R Wallingford Tables for Hydraulic design of pipes.

## Flow Tables

The flow tables are based on the Colebrook-White equation and are full bore velocity and discharge values. Velocities (V) are in metres/second (0.76 m/s is regarded as the minimum for self cleansing in foul sewers). Discharge capacities (Q) are in litres/second.

## Pipe Sizing

Internal Soil Waste and Rainwater pipes should be sized in accordance with the requirements of BS EN 12056 - Gravity drainage systems inside buildings.

External Below Ground Foul and Storm Drains should be sized in accordance with the requirements of BS EN 752 - Drain and sewer systems outside buildings.

Hydraulic Flow Data - Roughness Coef Ks=1.5

Gradient	50 mm Dia		75 mm Dia		82 mm Dia		110 mm Dia		125 mm Dia		160 mm Dia		200 mm Dia		250 mm Dia	
	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q
(1in)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)	(m/s)	(l/s)
10	1.26	2.29	1.70	7.11	1.81	9.10	2.22	20.38	2.43	28.87	2.87	55.91	3.33	101.54	3.87	185.49
15	1.03	1.87	1.39	5.80	1.48	7.42	1.81	16.62	1.98	23.55	2.34	45.61	2.72	82.83	3.16	151.40
20	0.89	1.61	1.20	5.02	1.28	6.43	1.57	14.39	1.72	20.39	2.03	39.50	2.35	71.74	2.74	131.08
25	0.80	1.44	1.07	4.49	1.14	5.74	1.40	12.88	1.53	18.23	1.81	35.31	2.10	64.15	2.45	117.21
30	0.73	1.32	0.98	4.09	1.04	5.24	1.28	11.73	1.40	16.63	1.65	32.21	1.92	58.50	2.23	106.97
35	0.67	1.22	0.91	3.79	0.97	4.85	1.19	10.87	1.30	15.40	1.53	29.84	1.78	54.20	2.07	99.01
40	0.63	1.14	0.85	3.54	0.90	4.53	1.11	10.16	1.21	14.40	1.43	27.89	1.66	50.66	1.93	92.60
45	0.59	1.07	0.80	3.34	0.85	4.27	1.04	9.57	1.14	13.56	1.35	26.27	1.57	47.73	1.82	87.29
50	0.56	1.02	0.76	3.16	0.81	4.05	0.99	9.08	1.08	12.87	1.28	24.93	1.49	45.29	1.73	82.79
55	0.54	0.97	0.72	3.02	0.77	3.86	0.95	8.66	1.03	12.27	1.22	23.78	1.42	43.20	1.65	78.93
60	0.51	0.93	0.69	2.89	0.74	3.70	0.91	8.29	0.99	11.75	1.17	22.77	1.36	41.37	1.58	75.55
65	0.49	0.89	0.66	2.77	0.71	3.55	0.87	7.96	0.95	11.28	1.12	21.86	1.30	39.72	1.51	72.58
70	0.47	0.86	0.64	2.67	0.68	3.42	0.84	7.67	0.91	10.87	1.08	21.06	1.26	38.27	1.46	69.93
75	0.46	0.83	0.62	2.58	0.66	3.30	0.81	7.39	0.88	10.48	1.04	20.31	1.21	36.90	1.41	67.55
80	0.44	0.80	0.60	2.50	0.64	3.20	0.78	7.17	0.85	10.16	1.01	19.68	1.17	35.76	1.36	65.39
85	0.43	0.78	0.58	2.42	0.62	3.10	0.76	6.96	0.83	9.87	0.98	19.12	1.14	34.74	1.32	63.43
90	0.42	0.75	0.56	2.35	0.60	3.01	0.74	6.75	0.81	9.57	0.95	18.54	1.11	33.69	1.29	61.64
95	0.41	0.73	0.55	2.29	0.58	2.93	0.72	6.56	0.78	9.30	0.93	18.03	1.07	32.76	1.25	59.99
100	0.40	0.72	0.53	2.23	0.57	2.85	0.70	6.40	0.76	9.08	0.90	17.59	1.05	31.97	1.22	58.46
105	0.39	0.70	0.52	2.17	0.55	2.78	0.68	6.24	0.74	8.84	0.88	17.14	1.02	31.15	1.19	57.04
110	0.38	0.68	0.51	2.13	0.54	2.72	0.67	6.10	0.73	8.65	0.86	16.77	1.00	30.48	1.16	55.73
115	0.37	0.67	0.50	2.08	0.53	2.66	0.65	5.97	0.71	8.46	0.84	16.40	0.98	29.80	1.14	54.49
120	0.36	0.65	0.48	2.03	0.52	2.60	0.64	5.83	0.70	8.26	0.82	16.01	0.95	29.10	1.11	53.34
125	0.35	0.64	0.48	1.99	0.51	2.55	0.62	5.72	0.68	8.11	0.81	15.72	0.94	28.57	1.09	52.26
130	0.35	0.63	0.47	1.95	0.50	2.50	0.61	5.61	0.67	7.95	0.79	15.42	0.92	28.03	1.07	51.24
135	0.34	0.62	0.46	1.91	0.49	2.45	0.60	5.50	0.66	7.80	0.78	15.11	0.90	27.47	1.05	50.27
140	0.33	0.60	0.45	1.87	0.48	2.40	0.59	5.39	0.64	7.63	0.76	14.80	0.88	26.90	1.03	49.36
145	0.33	0.59	0.44	1.85	0.47	2.37	0.58	5.31	0.63	7.53	0.75	14.59	0.87	26.52	1.01	48.50

## Installation - Pipe joint clamps

### Joint Clamps

Drainage systems for soil, waste water and rainwater in above-ground installations are gravity systems, which are free draining and should not become subjected to internal hydrostatic pressure unless a blockage occurs.

The BLÜCHER® EuroPipe drainage pipework system has push-fit joints and consequently will not resist internal hydrostatic pressure, unless precautions are taken to ensure that the joints will not slide apart.

Appropriate fixing to the building, as recommended, will prevent the joints from sliding apart in most cases, upto approx. 10 m head. If it is difficult or impossible to fix the pipes to the building, joint clamps (type 847.xxx.xxx) can be used to prevent the push-fit sockets and spigot ends from sliding apart in the event of a blockage causing internal pressure to be generated.

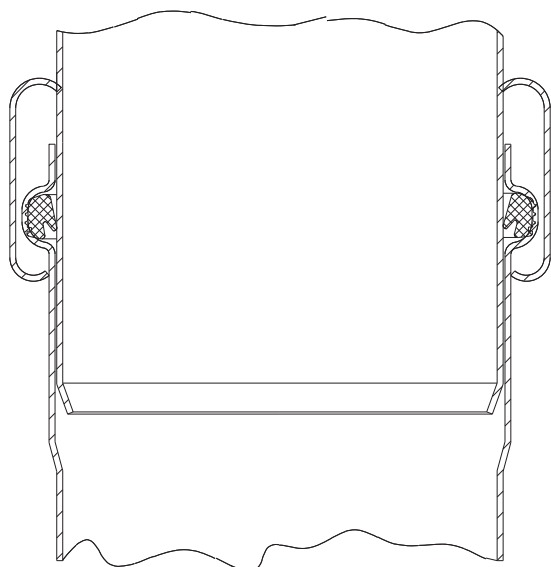


Fig. 1

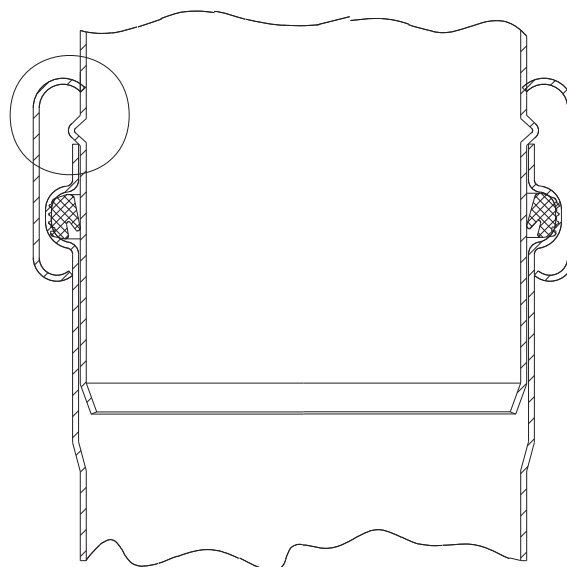


Fig. 2

Joint clamps can be used in two ways:

They can simply be tightened (see Fig. 1), or the spigot end can be provided with dimples for the clamps to grip (see Fig. 2).

The max. acceptable pressure depends on the method chosen. A joint with dimples on the spigot end can, as shown below, withstand a higher pressure than a joint without dimples.

Push-fit socket and spigot end without dimples, with joint clamp type no. 847.xxx.xxx, can withstand the following pressures:

Pipe dimension	Max. pressure
ø 50 mm	+ 2.0 bar
ø 75 mm	+ 2.0 bar
ø 82 mm	+ 2.0 bar
ø110 mm	+ 2.0 bar
ø125 mm	+ 1.0 bar
ø160 mm	+ 1.0 bar
ø200 mm	+ 0.5 bar
ø250 mm	+ 0.3 bar

Push-fit socket and spigot end with dimples, with joint clamp type no. 847.xxx.xxx, can withstand the following pressures:

Pipe dimension	Max. pressure
ø 50 mm	+ 3.0 bar
ø 75 mm	+ 3.0 bar
ø 82 mm	+ 3.0 bar
ø110 mm	+ 3.0 bar
ø125 mm	+ 3.0 bar
ø160 mm	+ 3.0 bar
ø200 mm	+ 3.0 bar
ø250 mm	+ 2.5 bar



## Installation - Dimples on the socket end

### Dimples on the socket end

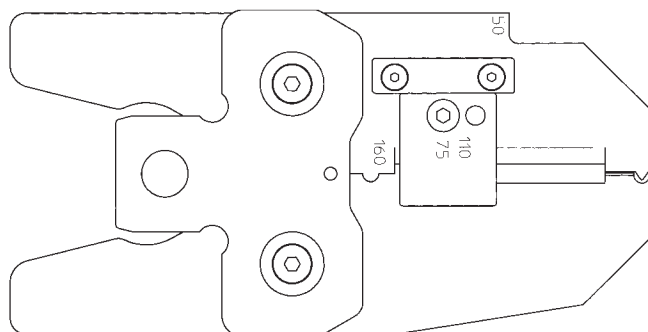
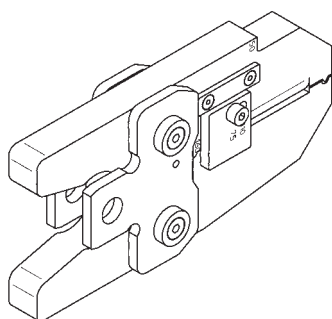
For pipe dimensions OD 50, 75, 110, 125, 160 and 200 mm, a number of dimples are pressed on the spigot end of the pipe with a special tool before jointing with the socket end.

The dimples can be pressed very quickly. When the spigot end has been mounted in the socket end, the joint clamp can be mounted in the usual way so that the part of the joint clamp holding the spigot end covers the dimples (see Figure 2).

The table below shows the number of dimples to be pressed on the pipe for the joint to be able to withstand 3 bar.

Pipe dimension	No. of dimples
ø 50 mm	2
ø 75 mm	4
ø 82 mm	4
ø110 mm	6
ø125 mm	8
ø160 mm	16
ø200 mm	16
ø250 mm	16

Fig. 3



### Using socket plug clamps as access plugs

Drainage systems for waste water and rainwater in above-ground installations are gravity systems which are free draining and should not become subjected to internal hydrostatic pressure unless a blockage occurs.

Under these conditions, joint clamps are not necessary to retain the access plugs in place. As it can be difficult to remove the access plugs after the lubricant applied on the installation has been washed away, using non-drying silicone as lubricant on these joints should be considered. However, if the access plugs are to be secured to prevent being pushed out, e.g. as a result of an unforeseen blockage in the pipe system, 847 joint clamps should be used.

The tool consists of a set of special jaws for the electro-mechanical tool used in pressfitting systems (see Fig. 3).

*It is important that the joints are completely tightened.*

## Testing / leakage test

All pipework systems above or below ground should be tested in accordance with BS EN 12056 annex NG.3

This allows for an Air test of 38mm water gauge to be applied without leakage for 3 mins.

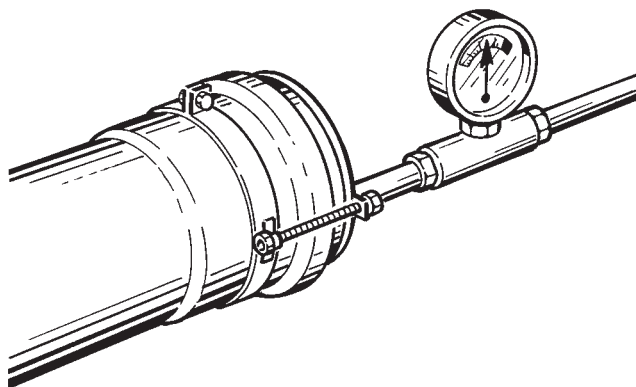
There is no justification for a water test to be applied to the whole of the system. The part of the system mostly at risk is that below the lowest sanitary appliance. This may be subjected to a water test up to the level of the lowest appliance but must not exceed 6m head.

### Leakage test

All fittings manufactured in Denmark are individually tested before leaving the factory.

The test is carried out with an air pressure of 0.5 bar (5m head). Any leak will then be immediately evident.

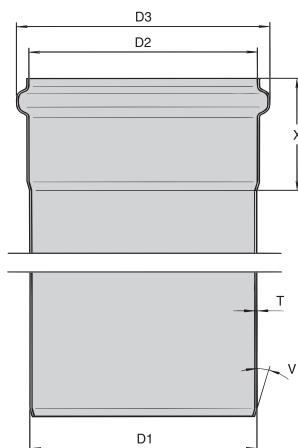
Products are also tested at regular intervals with water pressure and vacuum by BLÜCHER and by independent approval authorities.



## Technical data

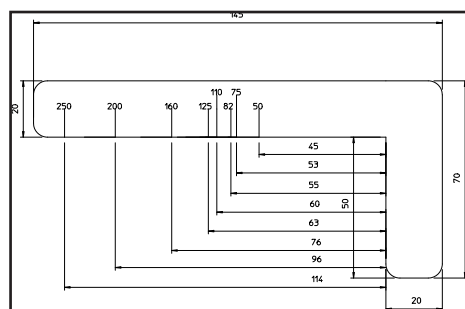
### Dimenions

For pipe socket dimensions and wall thicknesses for 50 mm, 75 mm, 82 mm, 110 mm, 125 mm, 160 mm, 200 mm and 250 mm outside diameters - see Figure 1.



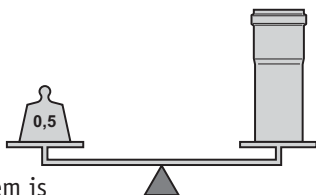
D1	D2	D3	X	V	T
50	51	61	47	20°	1
75	76	87	55	20°	1
82	83	94	57	20°	1
110	111	123	62	20°	1
125	126	140	65	20°	1
160	161	177	78	20°	1.25
200	201	219	98	20°	1.50
250	251	277	116	20°	1.50

Figure 1. Pipe dimensions (in mm).



### Weight

Being manufactured from lightweight stainless steel the BLÜCHER® EuroPipe system is easy to handle and install. It offers major savings on labour costs when compared with traditional pipe systems. The weight savings are of great benefit when used on multi-storey buildings, ships and offshore structures.



Diameter	Pipe only	Pipe filled with water
50 mm	1.30	3.01
75 mm	1.94	6.03
82 mm	2.15	7.35
110 mm	2.87	11.86
125 mm	3.30	14.96
160 mm	5.31	24.48
200 mm	8.12	38.60

Figure 2. Pipe Weights (Kg/m).

### Cutting

May be carried out with either BLÜCHER Cutting and Bevelling Tools (manual or electric) or by a fine toothed metal saw. Adequate mineral oil lubrication (type no. 007.500.050) is recommended. When a saw is used ensure pipe is cut square, chamfered and deburred prior to jointing.

### Note!

When cutting and Jointing EuroPipe care should be taken to wear all site PPE as required. Site gloves will protect against any potential sharpe edges from the cutting process, when handling and jointing.



**BLÜCHER  
Cutting and  
Bevelling Tool  
(manual)**

Type No. 006.050.110 to cut and bevel 50 mm, 75 mm, 82 mm and 110 mm diameter BLÜCHER® EuroPipe. Type No. 006.125.200 to cut and bevel 110 mm, 125 mm, 160 mm and 200 mm diameter BLÜCHER® EuroPipe.



**BLÜCHER  
Cutting and  
Bevelling Tool  
(electric)**

Type No. 800.050.160 to cut and bevel 50 mm, 75 mm, 82 mm, 110 mm, 125 mm and 160 mm diameter BLÜCHER® EuroPipe.

### Jointing

Mark insertion depth on spigot end of pipe as figure 1, or using Insertion depth Gauge. Lubricate spigot with BLÜCHER® lubricant. Apply standard soap based lubricant for normal use (type no. 007.100.050) or silicone based lubricant (type no 007.200.040) if there may be a requirement to demount the joints at a later date.

Push fit to marked insertion depth, this allows for expansion

All pipes and fittings have sockets. Direction of flow should be from spigot into socket to ensure the correct use of the built in fall in the fittings. Couplings may be used to fit cut pipe lengths.

### BLÜCHER Lubricant

Type No. 007.100.050

1/2 litre soap lubricant

Type No. 007.200.040

400 ml silicon lubricant

Type No. 007.000.000

Atomizer

## Handling

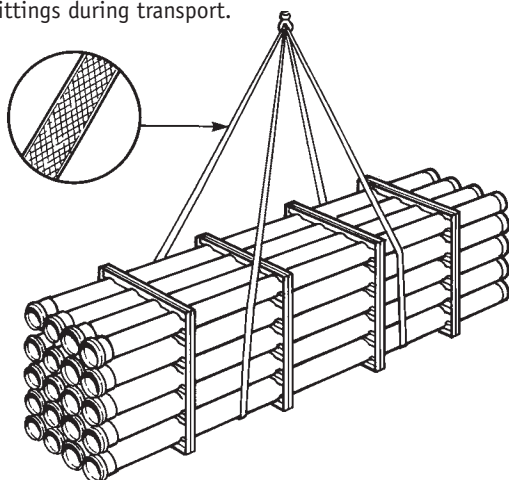
### General:

Generally all pipe shipments from BLÜCHER are cradled and packed on pallets. Fittings are packed in cardboard boxes and stacked on pallets.

All goods are carefully packaged to avoid damage during transport.

### Transport and handling

The following rules should be observed to avoid damage to pipes and fittings during transport.

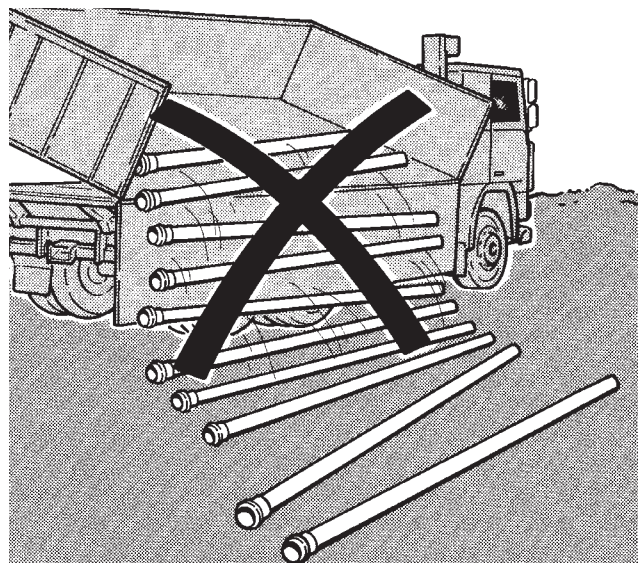


*Support straps for loading and moving bundles of pipes by crane must be made of textile, canvas or similar material.*

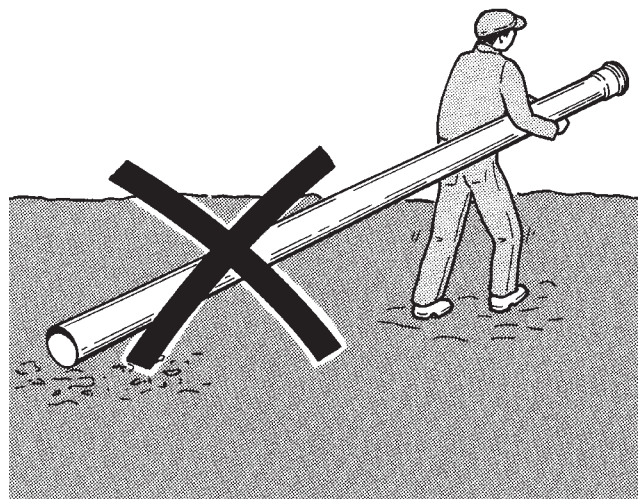
### Storage

To avoid deformation of, or serious damage to, pipes and fittings, we recommend storing the products in their original packaging until they are to be used.

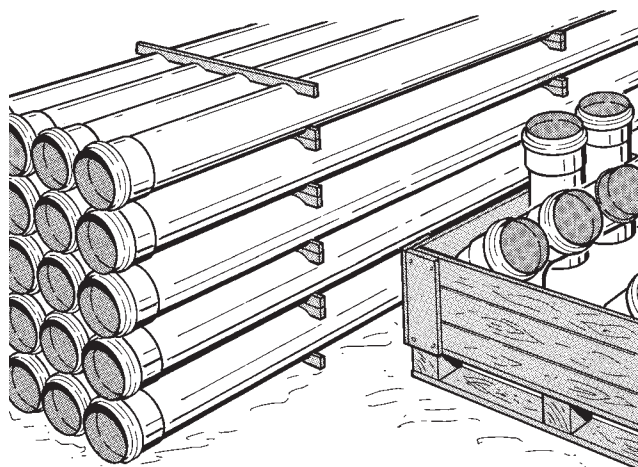
Store pipes and fittings so that they do not come into contact with carbon steel, which can leave traces of corrosion on the stainless steel. Pipes and fittings must also be stored a safe distance away from sparks and spray from e.g. angle grinders and oxyacetylene torches.



*Pipes and fittings must not be dumped off trucks.*



*Pipes and fittings must not be dragged along the ground or other surfaces which could cause damage.*



*Pipe bundles and loose pipes should be stored on a flat surface and supported so that the pipes do not rest on their sockets.*



## Technical data

### Expansion

Stainless steel has a low coefficient of expansion. This approximates to 1 mm per metre length of pipe per 60° C change in temperature, see Figure 3.

Polyethylene	12.00
PVC	8.00
Aluminium	2.40
Copper	1.62
Stainless Steel	1.60
Cast Iron	0.90

Figure 3. Coefficient of expansion of different pipe materials.  
(Increase in mm per m when heated up by 100° C.)

An allowance for expansion is only therefore required when the pipes are carrying hot waste water, see Jointing, page 25.

### Fire resistance - A1 Fire rated

The BLÜCHER® EuroPipe system being of stainless steel is inherently fire resistant and may be considered as non-combustible for the requirements of the Building Regulations. i.e. When exposed to a temperature of 800° C. will not soften or fracture to the extent that flames or hot gases will pass through the pipe wall.

It is recommended that any structural opening for the pipe be kept as small as possible and fire-stopped around the pipe. Suitable fire-stop materials are:

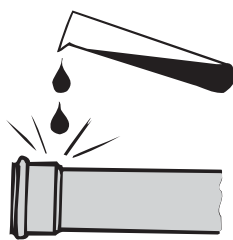
I) cement mortar, II) gypsum based plaster, III) intumescent materials.



### Chemical resistance

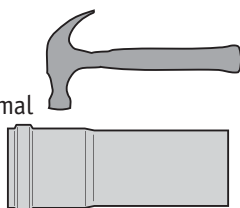
Austenitic Stainless Steels are extremely chemical resistant and are unaffected by elevated temperatures.

The BLÜCHER® EuroPipe system utilises EPDM sealing rings to provide a flexible, chemical resistant joint. For extreme applications special sealing rings are available e.g. FPM (Viton) if required. For advice regarding the suitability of BLÜCHER® EuroPipe and elastomeric sealing rings in chemical environments consult our Technical Department.



### Strength

All pipes and fittings have adequate resistance to the forms of loading associated with installation and normal service conditions. However, the pipes and fittings should be protected from impacts by heavy vehicles such as fork lift trucks.



### Environment

Stainless steel is capable of endless recycling with no loss of physical properties. The stainless steel materials used by BLÜCHER have a recycled scrap content of approx. 70%.

Environmentally friendly manufacture, long life and 100% recyclability - BLÜCHER® drainage products are part of the ecological cycle and recommended by Greenpeace as a suitable alternative to PVC.



### Prefabrication

Purpose made fittings can be manufactured to customers requirements. For information regarding the prefabrication service consult our Technical Department.

### Earth continuity

The BLÜCHER® EuroPipe push-fit waste pipework system has been tested and certified by AREPA Test and Calibration in Denmark, to be classified as equipotentially bonded without the addition of earth continuity clamps.

Copies of the test procedure and results are available upon request to our Technical Department but may be summarised as follows:

1. Resistance measurements are taken with pipe/ fittings pushed together and also pulled apart by 4 mm. In each case values are taken and the inserted pipe rotated 120 degrees and 240 degrees and retested.
2. A current of 10A DC is applied and resistance values calculated.
3. Resistance values between 0.25mΩ and 19.68mΩ were obtained.

It is recommended that the pipework system is checked regularly for equipotential bonding in case accidental damage or modification has occurred.

## Technical data

### Approvals and labelling

#### EN 1124

The BLÜCHER® EuroPipe system (pipes and fittings) is made, tested and checked under the EN standards

#### EN 1124-1 and EN 1124-2.

These two standards cover the following:

**EN 1124-1** specifies requirements, tests and quality controls applying to pipes and fittings.

**EN 1124-2** specifies requirements applying to pipe dimensions and dimensional tolerances for various fittings and pipes.

The above EN standards were prepared by the European standardisation organisation CEN. The BLÜCHER® EuroPipe system will thus soon obtain the recognised CE approval (CE label).

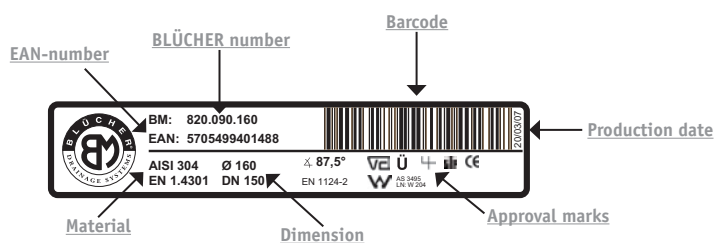
These approvals serve as documentation that the approved product complies with all specified requirements.

### Type approvals

BLÜCHER® EuroPipe has also been tested and approved in Norway, Sweden, Finland, England, Germany and Switzerland, and for ships and off-shore installations in accordance with Bureau Veritas, Lloyd's Register, DNV (Det Norske Veritas), Germanischer Lloyd, Rina (Registro Italiano Navale), and ABS (American Bureau of Shipping).

### Labelling

#### Pipes and fittings



**Stainless steel AISI 304** - RED label

**Stainless steel AISI 316L** - GREEN label

### Negative pressure rating

BLÜCHER® EuroPipe is suitable for use on syphonic rain-water schemes and vacuum drainage applications.

### Negative Pressures:

Diameter	Standard seal	Special "O" ring
50 mm	-800m bar	-980m Bar
75 mm	-800m bar	-960m Bar
110 mm	-800m bar	-960m Bar
125 mm	-800m bar	not yet available
160 mm	-800m bar	not yet available
200 mm	-790m bar	not yet available
250 mm	-790m bar	not yet available

### Stainless steel



Long product life

Fire resistant

Lightweight

Hygienic

Long product life

- Corrosion resistant
- Resistant to impact damages
- Resistant to temperature variations

Fire resistant

- Non combustible
- No need for special fire insulation
- No toxic fumes are released in case of fire

Light-weight

- Low weight - high strength
- Weight only one third of cast iron
- Large pipes are easily handled by one man

Hygienic

- Low surface roughness
- High flow capacity
- Smooth surface prevents bacterial growth
- Smooth surface prevents blockages

Available in stainless steel AISI304/EN 1.4301 or  
AISI316L/EN 1.4404

# Material properties of stainless steel

## What is stainless steel?

The designation stainless steel covers a wide range of alloys with different properties. One property common to all stainless steels is that they contain at least 12% chromium.

The stainless steels can be divided into three main groups and a few mixed types according to the structure of the steel:

- Austenitic stainless steel
- Ferritic stainless steel
- Martensitic stainless steel

Austenitic stainless steel is the most important, representing approx. 90% of total stainless steel consumption. Austenitic steel is also the only stainless steel suitable for drainage installations, and it is, of course, the type used by BLÜCHER.

## Importance of alloying elements

Austenitic stainless steel contains at least 18% chromium and 8% nickel – thus the well-known designation »18/8« steel. Corrosion resistance generally increases with increasing content of chromium. In alloys with 12-13% chromium, the passive layer is strong enough to prevent the steel from corroding in normal or mildly aggressive media. The main effect of the alloying element nickel is on the structure of the steel and its mechanical properties. The steel's structure is austenitic with an adequate content of nickel. In contrast to the pure chromium steels (ferritic stainless steel), this results in significant changes in the mechanical properties, such as increased workability and ductility, better resistance to thermal stress and improved weldability. The austenitic structure also results in a change in the physical properties of the steel. For example, the steel is not magnetic and has higher thermal conductivity.

## Material Specification

Material	AISI 316 L 1.4404	AISI 304 1.4301
Analysis		
Carbon (C %)	Max. 0,03	Max. 0,07
Chromium (Cr %)	16,5 - 18,5	17,0 - 19,0
Nickel (Ni %)	11,0 - 14,0	8,5 - 10,5
Molybdenum (Mo %)	2,0 - 2,5	-
Manganese (Mn %)	Max. 2,0	Max. 2,0
Silicium (Si %)	Max. 1,0	Max. 1,0
Sulphur (S %)	Max. 0,030	Max. 0,030

## Physical Properties

Structure	Austenitic (nonmagnetic)	Austenitic (nonmagnetic)
State	Non-annealed	
Specific gravity (g/cm <sup>3</sup> )	7,98	7,9
Melting point (°C)	Ca. 1400	Ca. 1400
Decortication temperature in air (°C)	800 - 860	800 - 860
Expansion coefficient 20 - 100 °C (m/m · °C)	16,5 x 10 <sup>-6</sup>	16,5 x 10 <sup>-6</sup>
Specific resistance (20° C) (Ohm · mm <sup>2</sup> /m)	0,75	0,73
Heat conductivity (20°C) (W/°C-m)	15	15
Specific heat (J/g · K)	0,5	0,5

## Mechanical Properties

Ultimate tensile strength (Rm) (N/mm <sup>2</sup> )	490 - 690	500 - 700
Yield point (Rp02) (N/mm <sup>2</sup> )	190	195
Modulus of elasticity (E) (20° C) (N/mm <sup>2</sup> )	2,0 x 10 <sup>5</sup>	2,0 x 10 <sup>5</sup>
Hardness Brinell (HB) (N/mm <sup>2</sup> )	120 - 180	130 - 180

Nickel also increases resistance to corrosion caused by certain media. Molybdenum has the same effect on the structure as chromium, but it also has a strongly positive influence on corrosion resistance. Molybdenum-containing steel is normally designated »acid-resistant« because of the resistance of these steels to certain types of acids. But acid-resistant stainless steel will also have limited resistance to some media such as chlorine-containing media (see table of resistance).

## Why is steel »stainless«?

The addition of chromium to the steel results in the formation of a passivating oxide film with a high content of chromium oxides.

This oxide film protects the surface of the steel against oxygen in air and water. An outstanding property of stainless steel is that the chromium oxide film automatically regenerates if the surface of the steel is exposed.

This restitution of the oxide film can only occur if the surface of the steel is completely clean and free of tempering agents and slag from welding processes and residues from tools made from ordinary carbon steel.

If this surface contamination is not removed, the steel may ultimately corrode. To prevent this, the steel surfaces should be cleaned after welding and processing, e.g. by means of so-called acid pickling of the stainless steel.

The pickling effectively removes all impurities from the surface of the steel and permits the reestablishment of a strong, uniform chromium oxide film. The pickling bath normally consists of 0.5-5% v/v HF (hydrofluoric acid) and 8-20% v/v HNO<sub>3</sub> (nitric acid) at a temperature of 25-60°C. This acid bath removes residues, the existing chromium oxide film and traces of iron, leaving the clean steel surface. The restitution of a strong chromium oxide film starts in the subsequent rinsing in water.

## CHEMICAL RESISTANCE TABLE

The table is based on laboratory experiments with chemically pure sub-stances. The values should therefore be regarded as for guidance only.

A = Very good service to operating limit of material B = Moderate service C = Limited or variable service D = Unsatisfactory	AISI 316 L Stainless	AISI 304 Stainless	EPDM	NBR	PPM
Acetone	A	A	A	D	D
Acetic acid (dilute.) 30% or 50%	A	A	A	B	B
Acetic acid 100%	A	A	A	C	C
Acetic anhydride	A	A	B	C	D
Aluminium chloride	D	D	A	A	A
Aluminium sulfate	A	D	A	A	A
Ammonium carbonate	A	A	A	D	-
Ammonium chloride/salmiac	B	C	A	A	-
Ammonium hydroxide	A	A	A	D	B
Amyl chloride	A	A	-	-	-
Aniline	A	A	B	D	C
Anilin hydrochloride	D	D	B	B	B
Barium chloride	B	B	A	A	A
Barium hydroxide	A	A	A	A	A
Benzaldehyde	A	A	A	D	D
Benzene	A	A	D	D	A
Benzoic acid	A	A	-	-	A
Borax/sodium borat	A	A	A	B	A
Boric acid	A	A	A	A	A
Bromine	D	D	-	-	A
Bromine chloride	D	D	A	B	A
Bromoethylene/vinyl bromide	A	A	-	-	-
Butanol	A	A	D	A	A
Butyl acetat	A	A	B	-	D
Butyric acid	A	A	-	-	-
Calcium bisulfate	A	A	D	A	A
Calcium chloride	B	B	A	A	A
Calcium hydroxide	A	A	A	A	A
Calcium hypochlorite	B	C	A	C	A
Carbon disulfide	A	A	-	-	-
Carbon tetrachloride	A	A	D	C	A
Chloroacetic acid (Mono)	D	D	B	-	-
Chlorine (dry)	A	A	-	-	A
Chlorobenzene	A	A	D	D	A
Chlorosulfonic acid	B	C	D	D	C
Copper chloride	B	B	A	A	A
Copper nitrate	A	A	-	-	-
Copper sulfate	A	A	A	A	A
Ether	A	A	-	-	-
Ethyl chloride	A	A	A	A	A
Fatty acid	A	A	D	B	A
Fluorine (dry)	A	A	-	-	-
Hydrofluoric acid	D	D	B	D	A
Formaldehyde	A	A	A	B	A
Formic acid	A	A	A	B	C
Furfural	A	A	B	D	D
Gallic acid	A	A	B	B	A
Hydrobromic acid	D	D	A	D	A
Hydrochloric acid	D	D	A	D	A
Hydrogen peroxide	A	A	C	D	B
Iodine (wet)	D	D	-	-	-
Kloroform	B	B	D	D	A
Lead acetate	A	A	A	B	-
Magnesium chloride	B	B	A	A	A

VALUES TO BE REGARDED AS FOR GUIDANCE ONLY

A = Very good service to operating limit of material B = Moderate service C = Limited or variable service D = Unsatisfactory	AISI 316 L Stainless	AISI 304 Stainless	EPDM	NBR	PPM
Magnesium sulfate	A	A	A	A	A
Mercury	A	A	A	A	A
Methanol	A	A	A	A	C
Methyl chloride	A	A	C	D	A
Methylene chloride	B	B	D	D	B
Natphalene	A	A	D	D	A
Nickel chloride	B	B	A	A	A
Nickel sulfate	A	A	A	A	A
Nitric acid	C	C	C	D	A
Oxalic acid	C	C	A	B	A
Perchloric acid	D	D	B	-	A
Phosphoric acid	A	A	B	D	A
Picric acid	A	A	B	B	A
Potassium bromide	A	A	-	-	-
Potassium carbonate	A	A	-	-	-
Potassium chlorate	A	A	-	-	-
Potassium cyanide	A	A	A	A	A
Potassium hydroxide	A	A	A	B	B
Potassium nitrate	A	A	A	A	A
Potassium permanganate	A	A	-	-	-
Potassium sulfate	A	A	A	A	A
Potassium sulfide	A	A	-	-	-
Potassium chloride	B	B	A	A	A
Propylene dichloride	A	A	-	-	-
Silver nitrate	A	A	A	B	A
Soda (ash)/sodium	A	A	-	-	-
Sodium acetate	A	A	A	B	D
Sodium bicarbonate	A	A	A	A	A
Sodium bisulfate	A	C	-	-	-
Sodium bisulfite	A	A	A	A	A
Sodium bromide	B	B	-	-	-
Sodium chlorate	A	A	-	-	-
Sodium chloride	D	D	-	-	-
Sodium cyanide	A	A	A	A	A
Sodium fluoride	A	A	-	-	-
Sodium hydroxide	A	A	A	B	B
Sodium hypochlorite	D	D	B	B	A
Sodium nitrate	A	A	A	B	-
Sodium sulfate	A	A	A	A	A
Sodium sulfide	A	A	-	-	-
Sodium sulfite	A	A	-	-	-
Stannous chloride/tin chloride	B	C	B	A	A
Sulfur	A	A	A	D	A
Sulfur chloride	A	A	D	C	A
Sulfur dioxide	A	B	A	D	A
Sulfuric acid	D	D	B	D	A
Sulfurous acid	A	C	B	B	A
Thionyl chloride	A	A	D	-	A
Toluene/toluol	A	A	D	D	A
Trichloroethylene	A	A	D	C	A
Turpentine	A	A	D	A	A
Xylene/xylol	A	A	-	-	-
Zinc sulfate	A	A	-	-	-

VALUES TO BE REGARDED AS FOR GUIDANCE ONLY

Assumptions: 20°C room temperature

### References

Corrosion Data Survey, 1969 Edition, Nace  
Corrosion Tables, Stainless Steels, 1979, Jernkontoret  
Chemical Resistance of Plastic Piping Materials, Cabot Corporation, 1979

### PLEASE NOTE!

Concentration level, length of exposure, temperature and in particular the combination of several chemicals have a direct influence on the resistance of stainless steel to certain chemicals.  
Each application should therefore be carefully reviewed to determine the suitability of stainless steel.

In particular, be careful with the use of hydrous cleaning agents containing compounds of chlorine.



# Material properties of rubber seals

## Rubber types

International designation	EPDM	NBR	FPM
Rubber type	Ethylene propene	Nitrile	Fluorine (Viton)
Nominal hardness IRHD	60 (+/-5)	60 (+/-5)	60 (+/-5)
Colour	Black	Black/yellow dot	Purple
Tensile strength MPa	≥ 10 N/mm <sup>2</sup>	≥ 10 N/mm <sup>2</sup>	≥ 8 N/mm <sup>2</sup>
Elongation after fracture %	≥ 300%	≥ 300%	≥ 260%
Max. temperatur range	-35/+100° C	-30/+80° C	-25/+200° C

## Resistance

Wearability	B	B	B
Resistance to mineral oil	D	A	A
Resistance to vegetable oil	B	A	A
Resistance to benzene/petrol	D	A	A
Resistance to aromatic compounds and hydrocarbons	D	B	A
Resistance to ketones	A	D	D
Resistance to ordinary diluted acids and alkalines	A	A	A
Resistance to ozone and weather stresses	A	C	A
Resistance to air diffusion	D	C	A

A = Very good service - B = Moderate service - C = Limited or variable service - D = Unsatisfactory

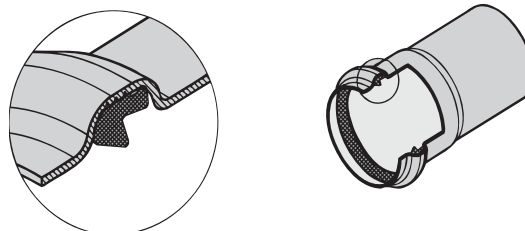
A lip sealing ring constitutes the seal between socket and spigot end. The lip sealing ring ensures quick and efficient jointing of the pipe system while providing a tight seal in case of both pressure and vacuum. BLÜCHER® sealing rings are available in three different rubber qualities.

**EPDM** This sealing ring is black and made of ethylene propene rubber. This is BLÜCHER's standard sealing ring and it is suitable for all rainwater and waste water installations where there is no oil or no petrol residues in the waste water. The EPDM lip seal is a good all-round rubber quality suitable for a wide range of applications.

**NBR** This sealing ring is black with a yellow spot and made from nitrile rubber and is the sealing ring to be used where there are petrol or oil residues on the waste water (e.g. in connection with oil and petrol separators at service stations, garages etc.). The NBR lip seal should not be used where there is a risk of temperatures above 80°C. NBR is not resistant to solvents.

**FPM** This sealing ring is purple and made from fluorine rubber (Viton®). This is BLÜCHER's sealing ring for special applications. The material is particularly heat-resistant and resistant to oil, solvents and strong acids. However, the FPM seal has only limited resistance to e.g. butyl acetate, acetone and methyl alcohol.

**For advice regarding the suitability of the different rubber qualities, consult BLÜCHER.**



## Load classes

### Gratings

BLÜCHER gratings for **INDOOR** use are tested and classified according to EN 1253.



K 3 (3 kN) 300 kg Barefoot areas



L 15 (15 kN) 1.500 kg Light vehicular traffic in commercial premises, excl. fork-lift trucks



M 125 (125 kN) 12.500 kg Car parks, factories and workshops

BLÜCHER gratings for **OUTDOOR** use are tested and classified according to EN 1433.



A 15 (15 kN) 1.500 kg Pedestrian and pedal cyclists



B 125 (125 kN) 12.500 kg Footways, pedestrian areas, private car parks, car parking decks

### Access covers

BLÜCHER access covers for **INDOOR** and **OUTDOOR** use are tested and classified according to EN 124.



A 15 (15 kN) 1.500 kg Pedestrian and pedal cyclists



B 125 (125 kN) 12.500 kg Footways, pedestrian areas, private car parks, car parking decks

## Non-slip gratings

Gratings are non-slip tested according to DIN 51130

## Approvals

BLÜCHER has own testing facilities and cooperates with internationally recognized independent institutes. At BLÜCHER we also play an active part in setting international standards.

The functionality of our products has been documented by test reports and approvals from international institutes such as Sitac (SE), LGA (DE), BBA (UK), VTT (FI), ETA (DK) etc.

All pipes and channels are CE marked.

For a complete list of all current product approvals we refer to [www.blucher.com](http://www.blucher.com).

Furhermore, we use approved institutes for fire and sound testing, for instance DTI (DK) and Fraunhofer Institut (DE)

All production is carried out in Denmark in accordance with ISO 9001.

## Maintenance

BLÜCHER stainless steel drainage products require only a minimum of maintenance.

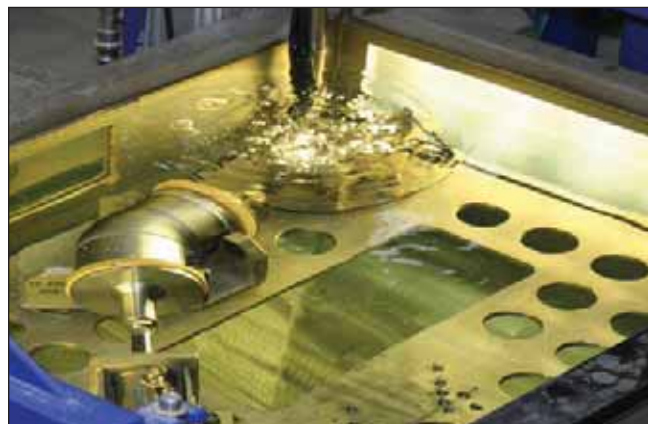
The smooth, acid-pickled surface retains its uniform matt silver finish in most environments such as wet rooms, bathrooms and kitchens. However, in particularly demanding environments such as the food industry, laboratories, the chemical industry and agriculture, it may be necessary to clean the installation to avoid formation of coatings which can cause subsequent corrosion.

Cleaning can for instance be done by means of high pressure flushing. In some cases it may be necessary to use diluted citric acid. After use take care to rinse with plenty of water.

Please also notice that particularly aggressive and hazardous substances should be collected in containers and disposed of in another way and not through the drainage system.

## Production

Excellent workmanship, common sense and the most sophisticated production technology are combined to ensure the highest quality in our products.



*All BLÜCHER® products are tested for leakages before leaving the factory*



*The most modern piping machinery in Europe*

# BLÜCHER®

At BLÜCHER® more than 300 employees create an annual turnover of more than 50 million euro.

Through know-how, dedicated service and common sense we develop, produce and market high quality stainless steel drainage solutions for customers within the housing, commercial, industrial and marine sectors all over the world.

Find your local BLÜCHER® specialist at [www.blucher.com](http://www.blucher.com)

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**BLÜCHER® Channel**

**BLÜCHER® Drain**



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