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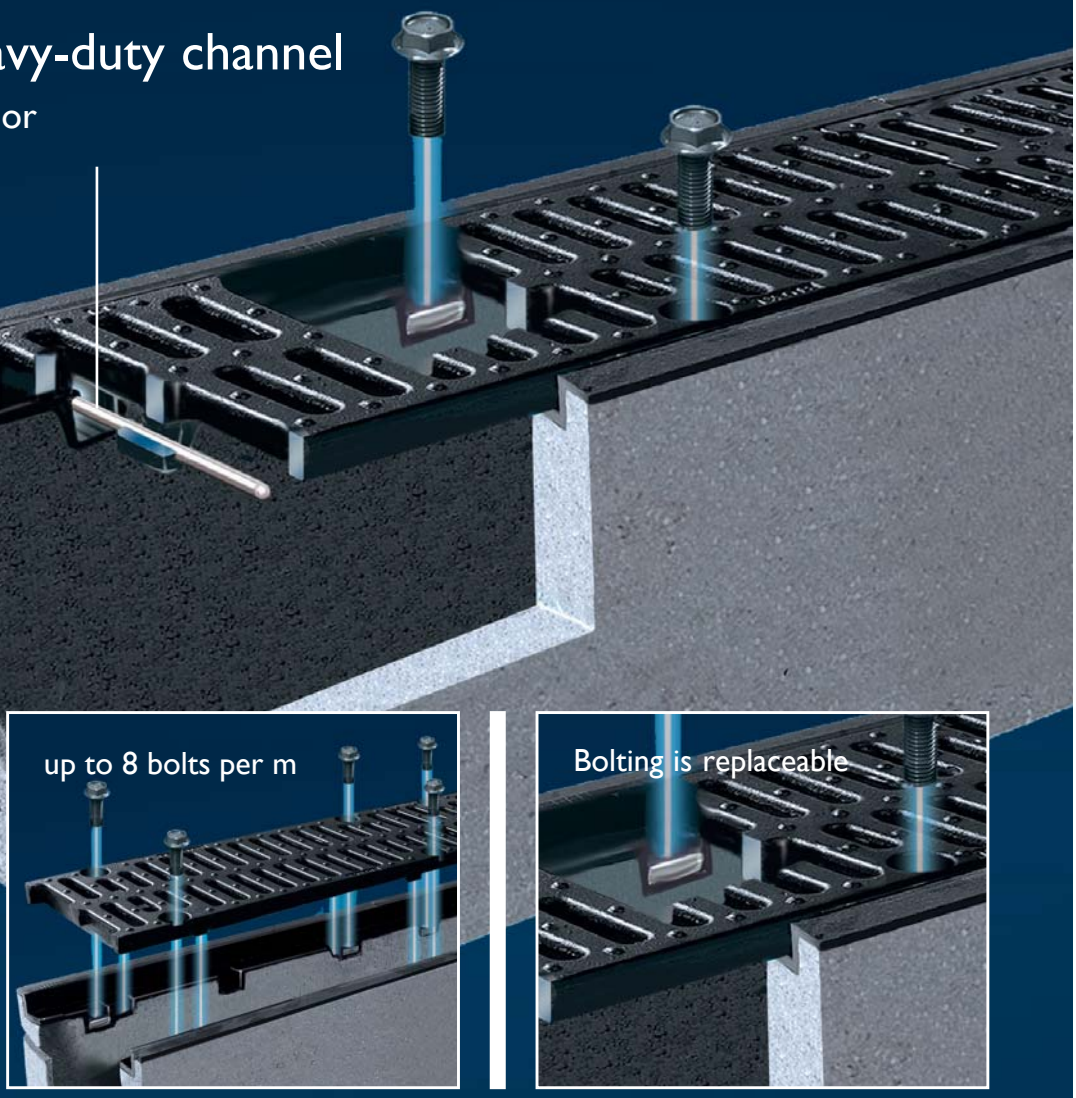
BGZ-S Heavy-duty channel

with SV-system or
boltable



Nominal widths: 100, 150, 200, 300, 400, 500 - with SV-system or bolted

Special feature of the BGZ-S Heavy-duty channels are the Z-shaped cast iron edges. This makes the channel specially stable at the grate bearing and edge-top.
Load class up to F 900 kN.

SV-system

In areas with low traffic frequency, the BGZ-S Heavy-duty channel can also be fitted with the innovative SV-system. The grate is fixed with a single click, additional fixing is possible with replaceable boltings.

Bolting

When installed in areas with heavy traffic, and depending on application area, traversing speed and frequency, we recommend securing the grates with bolts (up to 8 fixing bolts possible per meter). The bolting-material can be replaced at any time.

Application areas

The concrete channels are suitable for use in storage yards, parking lots, freight yards, service stations, loading bays, etc. Similarly, they are recommended for heavily frequented motorways & highways - but only parallel to the roadway. Also in all areas where impact-, braking- and torsional-forces are expected.

BGZ-S Heavy-duty channels SV G

with cast iron edge - nominal width 100

Massive, high-grade concrete channel with Z-shaped cast iron edge, a safety joint on the front end and an innovative SV-system. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

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Application areas

Storage-/parking area, freight yards, loading bays, service stations, motorways & highways, railway stations, etc.

BGZ-S Heavy-duty channel SV G
with or without slope

System	BGZ-S SV G
Total length	1000 mm
Overall width	198 mm
Nominal width	100 mm
Slope 0,5 %	channel no. 1 - 20
Total height	185 - 285 mm
Weight w/o grating	63 - 83 kg

Channels with cast iron edge.

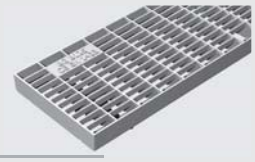
Item no.	Channel type NW 100	Slope/ outlet	Total height	Item no.	Channel type NW 100	Slope/ outlet	Total height
16500	100/0	0 %	185 mm	16520	100/11	0,5 %	240 mm
16501	100/5-0	0 %	210 mm	16521	100/12	0,5 %	245 mm
16502	100/10-0	0 %	235 mm	16522	100/13	0,5 %	250 mm
16503	100/15-0	0 %	260 mm	16523	100/14	0,5 %	255 mm
16504	100/20-0	0 %	285 mm	16524	100/15	0,5 %	260 mm
16510	100/1	0,5 %	190 mm	16525	100/16	0,5 %	265 mm
16511	100/2	0,5 %	195 mm	16526	100/17	0,5 %	270 mm
16512	100/3	0,5 %	200 mm	16527	100/18	0,5 %	275 mm
16513	100/4	0,5 %	205 mm	16528	100/19	0,5 %	280 mm
16514	100/5	0,5 %	210 mm	16529	100/20	0,5 %	285 mm
16515	100/6	0,5 %	215 mm	16505	101/0	0 % / DN100	185 mm
16516	100/7	0,5 %	220 mm	16506	101/5-0	0 % / DN100	210 mm
16517	100/8	0,5 %	225 mm	16507	101/10-0	0 % / DN100	235 mm
16518	100/9	0,5 %	230 mm	16508	101/15-0	0 % / DN100	260 mm
16519	100/10	0,5 %	235 mm	16509	101/20-0	0 % / DN100	285 mm

The drainage channel line with slope can be extended by using of channels without slope before or after the relevant slope channels.

Gratings BGZ-S SV 100.

Item no.	Gratings with SV-System	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
23250	Mesh grating	Galvanized steel	1000/147/25	D 400 kN	MW 30/10	6,4 kg	1190 cm²/m
23251		Galvanized steel	500/147/25	D 400 kN	MW 30/10	3,3 kg	1190 cm²/m
23102	Ductile iron grating	Ductile iron	500/147/25	D 400 kN	SW 18/120	4,0 kg	585 cm²/m
22754	Ductile iron mesh grating	Ductile iron	500/147/25	E 600 kN	MW 24/24	4,7 kg	725 cm²/m
22756	Ductile iron bar grating	Ductile iron	500/147/25	E 600 kN	MW 27/13	4,3 kg	520 cm²/m

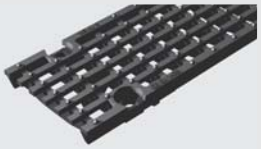
Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22755	Ductile iron mesh grating	Ductile iron	500/147/25	E 600 kN	MW 24/24	4,7 kg	725 cm²/m
22757	Ductile iron bar grating	Ductile iron	500/147/25	E 600 kN	MW 27/13	4,3 kg	520 cm²/m
22053	Ductile iron grating	Ductile iron	500/147/25	F 900 kN	SW 16/120	5,4 kg	517 cm²/m
22059		Ductile iron	500/147/25	F 900 kN	closed	7,7 kg	0 cm²/m



Mesh grating MW 30/10, Cl. D, galvanized steel

Ductile iron grating SW 18/120, Cl. D

Ductile iron mesh grating MW 24/24, Cl. E



Ductile iron bar grating MW 27/13, Cl. E

Ductile iron grating SW 16/120, Cl. F

Ductile iron cover, Cl. F

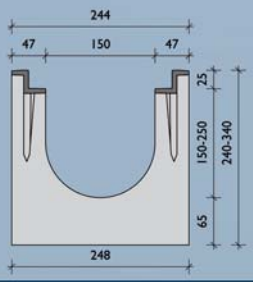
Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

Althon

BGZ-S Heavy-duty channels SV G

with cast iron edge - nominal width 150

BGZ-S Heavy-duty channel SV G
with or without slope



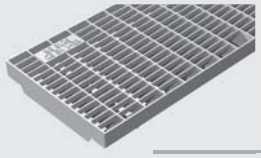
all dimensions in mm

Massive, high-grade concrete channel with Z-shaped cast iron edge, a safety joint on the front end and an innovative SV-system. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

Application areas

Storage-/parking area, freight yards, loading bays, service stations, motorways & highways, railway stations, etc.

System	**BGZ-S SV G**
Total length	1000 mm
Overall width	248 mm
Nominal width	150 mm
Slope 0,5 %	channel no. 1 - 20
Total height	240 - 340 mm
Weight w/o grating	86 - 105 kg



Mesh grating MW 30/10, Cl. D, galvanized steel

Ductile iron grating SW 18/170, Cl. D

Ductile iron bar grating MW 27/13, Cl. E

Ductile iron grating SW 15/75, Cl. F

Channels with cast iron edge.

Item no.	Channel type NW 150	Slope/ outlet	Total height	Item no.	Channel type NW 150	Slope/ outlet	Total height
16600	150/0	0 %	240 mm	16620	150/11	0,5 %	295 mm
16601	150/5-0	0 %	265 mm	16621	150/12	0,5 %	300 mm
16602	150/10-0	0 %	290 mm	16622	150/13	0,5 %	305 mm
16603	150/15-0	0 %	315 mm	16623	150/14	0,5 %	310 mm
16604	150/20-0	0 %	340 mm	16624	150/15	0,5 %	315 mm
16610	150/1	0,5 %	245 mm	16625	150/16	0,5 %	320 mm
16611	150/2	0,5 %	250 mm	16626	150/17	0,5 %	325 mm
16612	150/3	0,5 %	255 mm	16627	150/18	0,5 %	330 mm
16613	150/4	0,5 %	260 mm	16628	150/19	0,5 %	335 mm
16614	150/5	0,5 %	265 mm	16629	150/20	0,5 %	340 mm
16615	150/6	0,5 %	270 mm	16605	151/0	0 % / DN150	240 mm
16616	150/7	0,5 %	275 mm	16606	151/5-0	0 % / DN150	265 mm
16617	150/8	0,5 %	280 mm	16607	151/10-0	0 % / DN150	290 mm
16618	150/9	0,5 %	285 mm	16608	151/15-0	0 % / DN150	315 mm
16619	150/10	0,5 %	290 mm	16609	151/20-0	0 % / DN150	340 mm

The drainage channel line with slope can be extended by using of channels without slope before or after the relevant slope channels.

Gratings BGZ-S SV 150.

Item no.	Gratings with SV-System	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
23260	Mesh grating	Galvanized steel	1000/197/25	D 400 kN	MW 30/10	10,2 kg	1530 cm²/m
23261		Galvanized steel	500/197/25	D 400 kN	MW 30/10	5,3 kg	1530 cm²/m
22066	Ductile iron grating	Ductile iron	500/197/25	D 400 kN	SW 18/170	6,0 kg	840 cm²/m
22764	Ductile iron bar grating	Ductile iron	500/197/25	E 600 kN	MW 27/13	7,3 kg	720 cm²/m

Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22765	Ductile iron bar grating	Ductile iron	500/197/25	E 600 kN	MW 27/13	7,3 kg	720 cm²/m
22063	Ductile iron grating	Ductile iron	500/197/25	F 900 kN	SW 15/75	11,4 kg	704 cm²/m

Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

BGZ-S Heavy-duty channels SV G

with cast iron edge - nominal width 200

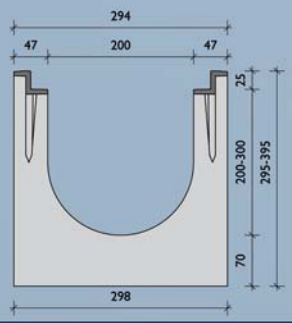
Massive, high-grade concrete channel with Z-shaped cast iron edge, a safety joint on the front end and an innovative SV-system. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

Application areas

Storage-/parking area, freight yards, loading bays, service stations, motorways & highways, railway stations, etc.

System	BGZ-S SV G
Total length	1000 mm
Overall width	298 mm
Nominal width	200 mm
Slope 0,5 %	channel no. 1 - 20
Total height	295 - 395 mm
Weight w/o grating	114 - 134 kg

BGZ-S Heavy-duty channel SV G
with or without slope

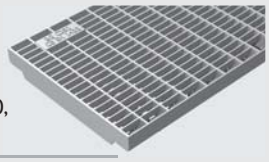


all dimensions in mm

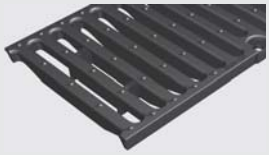
Channels with cast iron edge.

Item no.	Channel type NW 200	Slope/ outlet	Total height	Item no.	Channel type NW 200	Slope/ outlet	Total height
16700	200/0	0 %	295 mm	16730	200/11	0,5 %	350 mm
16701	200/5-0	0 %	320 mm	16731	200/12	0,5 %	355 mm
16702	200/10-0	0 %	345 mm	16732	200/13	0,5 %	360 mm
16726	200/15-0	0 %	370 mm	16733	200/14	0,5 %	365 mm
16727	200/20-0	0 %	395 mm	16734	200/15	0,5 %	370 mm
16706	200/1	0,5 %	300 mm	16735	200/16	0,5 %	375 mm
16707	200/2	0,5 %	305 mm	16736	200/17	0,5 %	380 mm
16708	200/3	0,5 %	310 mm	16737	200/18	0,5 %	385 mm
16709	200/4	0,5 %	315 mm	16738	200/19	0,5 %	390 mm
16710	200/5	0,5 %	320 mm	16739	200/20	0,5 %	395 mm
16711	200/6	0,5 %	325 mm	16703	201/0	0 % / DN200	295 mm
16712	200/7	0,5 %	330 mm	16704	201/5-0	0 % / DN200	320 mm
16713	200/8	0,5 %	335 mm	16705	201/10-0	0 % / DN200	345 mm
16714	200/9	0,5 %	340 mm	16728	201/15-0	0 % / DN200	370 mm
16715	200/10	0,5 %	345 mm	16729	201/20-0	0 % / DN200	395 mm

The drainage channel line with slope can be extended by using of channels without slope before or after the relevant slope channels.



Mesh grating MW 30/10, Cl. D, galvanized steel



Ductile iron grating SW 18/220, Cl. D

Ductile iron bar grating MW 27/13, Cl. E

Ductile iron grating SW 16/220, Cl. F

Ductile iron cover, Cl. F

Gratings BGZ-S SV 200.

Item no.	Gratings with SV-System	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
23270	Mesh grating	Galvanized steel	1000/247/25	D 400 kN	MW 30/10	16,0 kg	1940 cm²/m
23271		Galvanized steel	500/247/25	D 400 kN	MW 30/10	8,2 kg	1940 cm²/m
22079	Ductile iron grating	Ductile iron	500/247/25	D 400 kN	SW 18/220	8,2 kg	1075 cm²/m
22774	Ductile iron bar grating	Ductile iron	500/247/25	E 600 kN	MW 27/13	9,1 kg	960 cm²/m

Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22775	Ductile iron bar grating	Ductile iron	500/247/25	E 600 kN	MW 27/13	9,1 kg	960 cm²/m
22073	Ductile iron grating	Ductile iron	500/247/25	F 900 kN	SW 16/220	11,1 kg	1045 cm²/m
22078		Ductile iron	500/247/25	F 900 kN	closed	16,8 kg	0 cm²/m

Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

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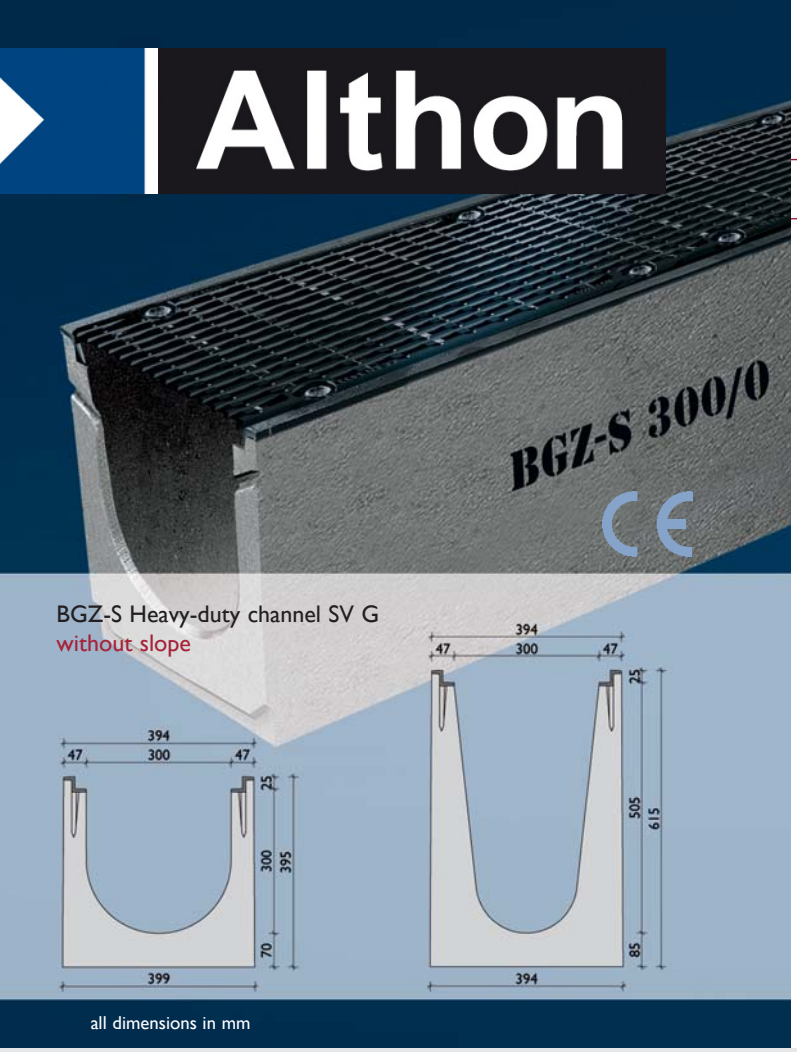

BGZ-S Heavy-duty channels SV G

with cast iron edge - nominal width 300

Massive, high-grade concrete channel with Z-shaped cast iron edge, a safety joint on the front end and an innovative SV-system. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

Application areas

Storage-/parking area, freight yards, loading bays, service stations, motorways & highways, railway stations, etc.

System	BGZ-S SV G	BGZ-S SV G / H=615
Total length	1000 mm	1000 / 2500 mm
Overall width	399 mm	394 mm
Nominal width	300 mm	300 mm
Slope 0,5 %	none	none
Total height	395 mm	615 mm
Weight w/o grating	169 kg	256 / 640 kg

Mesh grating MW 30/30, Cl. C, galvanized steel

Ductile iron grating SW 18/150 Cl. D

Ductile iron bar grating MW 25/14, Cl. E

Ductile iron grating SW 16/148, Cl. F

Ductile iron cover, Cl. F

Channels with cast iron edge.

Item no.	Channel type NW 300	Total length	Slope/ outlet	Total height	Item no.	Channel type NW 300	Total length	Slope/ outlet	Total height
16800	300/0	L=1000	0 %	395 mm	16830	300/H=615	L=2500	0 %	615 mm
16801	301/0	L=1000	0 %	395 mm	16831	300/H=615	L=1000	0 %	615 mm
					16832	301/H=615	L=1000	0 % / DN200	615 mm

Gratings BGZ-S SV 300.

Item no.	Gratings with SV-System	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22182	Mesh grating	Galvanized steel	1000/347/25	C 250 kN	MW 30/30	23,3 kg	2565 cm²/m
22183		Galvanized steel	500/347/25	C 250 kN	MW 30/30	11,7 kg	2565 cm²/m
23180	Ductile iron grating	Ductile iron	500/347/25	D 400 kN	SW 18/150	15,2 kg	1440 cm²/m
22784	Ductile iron bar grating	Ductile iron	500/347/25	E 600 kN	MW 25/14	15,7 kg	1350 cm²/m

Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22785	Ductile iron bar grating	Ductile iron	500/347/25	E 600 kN	MW 25/14	15,7 kg	1350 cm²/m
22083	Ductile iron grating	Ductile iron	500/347/25	F 900 kN	SW 16/148	30,9 kg	1400 cm²/m
22080		Ductile iron	500/347/25	F 900 kN	closed	35,4 kg	0 cm²/m

Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

BGZ-S Heavy-duty channels G

with cast iron edge - nominal width 400

Massive, high-grade concrete channel with Z-shaped cast iron edge and a safety joint on the front end. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

Application areas

Storage-/parking area, freight yards, loading bays, petrol stations, motorways & highways, railway stations, etc.

System	BGZ-S G
Total length	1000 mm
Overall width	499 mm
Nominal width	400 mm
Slope 0,5 %	none
Total height	495 mm
Weight w/o grating	225 kg

Channels with cast iron edge.

Item no.	Channel type NW 400	Total length	Slope/ outlet	Total height	Item no.	Channel type NW 400	Total length	Slope/ outlet	Total height
16850	400/0	L=1000	0 %	495 mm	16851	401/0	L=1000	0 % / DN200	495 mm

Ductile iron grating
SW 18/200, Cl. D

Ductile iron grating
SW 15/125, Cl. E

Ductile iron grating
SW 15/125, Cl. F

Gratings BGZ-S 400.

Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22088	Ductile iron grating	Ductile iron	500/447/25	D 400 kN	SW 18/200	20,5 kg	1780 cm²/m
22086		Ductile iron	500/447/25	E 600 kN	SW 15/125	35,5 kg	1780 cm²/m
22087		Ductile iron	500/447/25	F 900 kN	SW 15/125	40,6 kg	1780 cm²/m

Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

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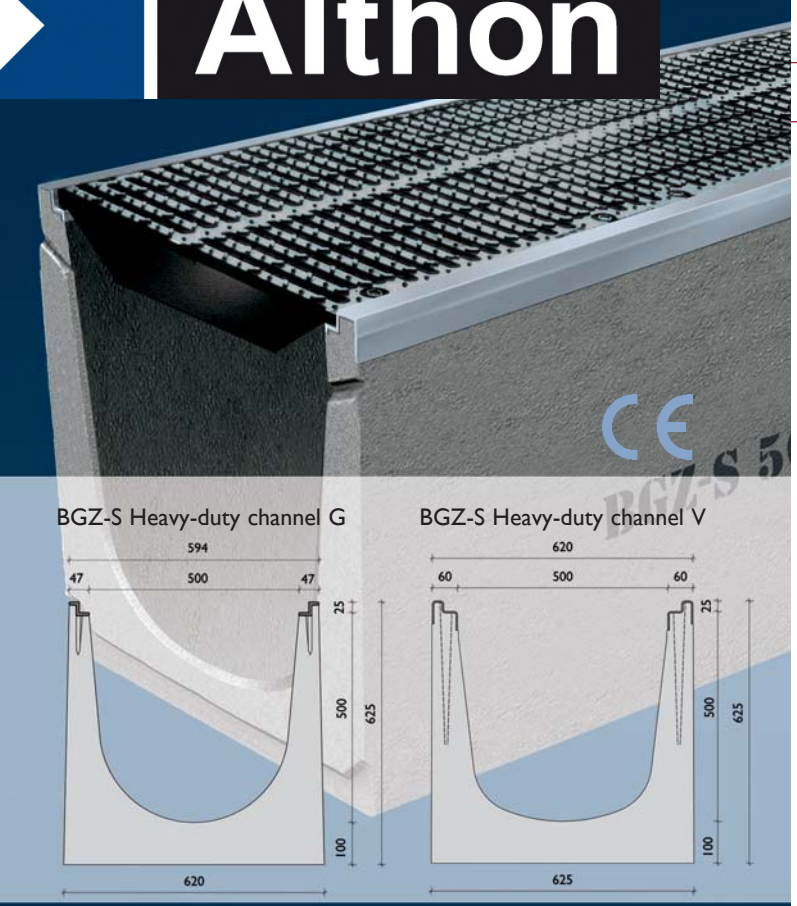


BGZ-S Heavy-duty channels G / V

with galv. steel or cast iron edge - nominal width 500

Massive, high-grade concrete channel with Z-shaped cast iron edge or a galvanized steel edge and a safety joint on the front end. This product is suitable for all areas with high traffic frequency and heavy loads because of the multipoint bolting for the mesh gratings or cast iron gratings.

Application areas

Storage-/parking area, freight yards, loading bays, petrol stations, motorways & highways, railway stations, etc.

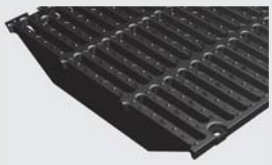
System	BGZ-S G	BGZ-S V
Total length	1000 / 2000 mm	1000 / 2500 mm
Overall width	620 mm	625 mm
Nominal width	500 mm	500 mm
Slope 0,5 %	none	none
Total height	625 mm	625 mm
Weight w/o grating	360 / 720 kg	380 / 950 kg

BGZ-S Heavy-duty channel G

BGZ-S Heavy-duty channel V

all dimensions in mm

Ductile iron grating
SW 15/248, Cl. D



Ductile iron grating
SW 15/164, Cl. E

Bolt sizes:
-for cast iron edge: M10
-for galvanized steel edge: M12

Channels with cast iron edge. Channels with galv. steel edge.

Item no. cast iron edge	Channel type NW 500	Total length	Slope/ outlet	Total height	Item no. galv. steel edge	Channel type NW 500	Total length	Slope/ outlet	Total height
16900	500/0	L=2000	0 %	625 mm	16950	500/0	L=2500	0 %	625 mm
16901	500/0	L=1000	0 %	625 mm	16951	500/0	L=1000	0 %	625 mm
16902	501/0	L=1000	0 % / DN200	625 mm	16955	501/0	L=2500	0 % / DN200	625 mm
					16956	501/0	L=1000	0 % / DN200	625 mm

Gratings BGZ-S 500.

Item no.	Gratings boltable	Material	Dimensions in mm	Loading class EN1433	Slot/mesh-width in mm	Weight/ unit	Inlet-section
22094	Ductile iron grating	Ductile iron	500/547/25	D 400 kN	SW 15/248	30,2 kg	2590 cm²/m
22091	cast iron edge	Ductile iron	500/547/25	E 600 kN	SW 15/164	31,0 kg	2350 cm²/m
22095	Ductile iron grating	Ductile iron	500/547/25	D 400 kN	SW 15/248	30,2 kg	2590 cm²/m
22093	galv. steel edge	Ductile iron	500/547/25	E 600 kN	SW 15/164	31,0 kg	2350 cm²/m

Caution: impact-, braking- and torsional-forces must be considered separately. Heed installation instructions. Subject to technical modifications.

References.

BGZ-S Heavy-duty channels SV

References.

BGZ-S Heavy-duty channels SV

General installation guideline:

The following installation guidelines and examples are intended for standard applications. Loading class and the installation site according to EN 1433 must be adapted to local conditions by the planner. Consider the common known technical rules and guidelines which are accepted among experts.

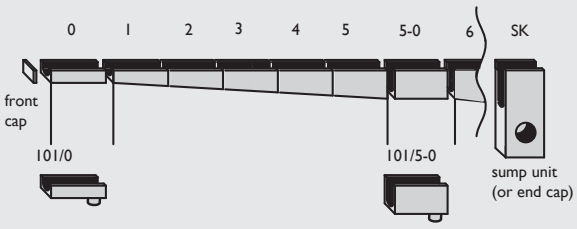
Installation guidelines and examples:

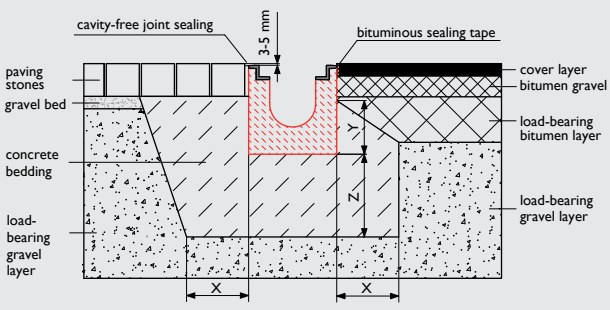
Installation guidelines BGZ-S Heavy-duty channels:

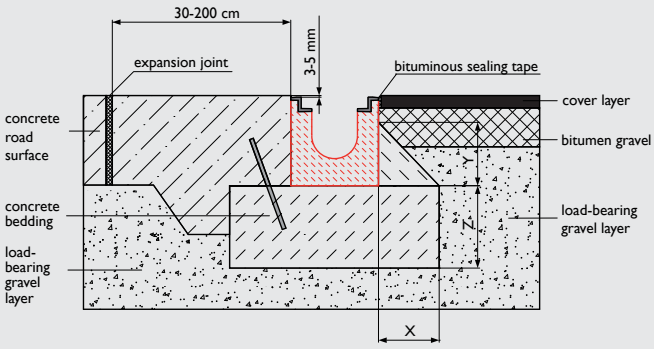
1. BG concrete channels are bedded in concrete in accordance with Austrian Standard Ö-Norm B4710-1 or in drainage concrete acc. to RVS 08.18.01. Mind the slope of the channel while excavating. Depending on the static requirements, a lateral supporting wedge or a concrete casing might be necessary, even with reinforcement - for details, see table and sectional drawings. BG channels should generally be bedded with proper tools (e.g. BG lifting grab).
2. Take note of the different heights of channels with slopes and start bedding the drainage line from the discharge end. The direction of flow is marked with an arrow on each channel.
3. The rebated joints between the channel segments can be sealed with a suitable sealing compound - for description of material and quantity determination - see BG sealing system.
4. Before starting work on the adjoining surfaces, mount the grate and secure with bolts if necessary, or make sure that the channel walls cannot be pressed together. When compacting the superstructure and the covering layer (asphalt, paving stones, concrete, etc.), make sure that the channels are not damaged.
5. If horizontal forces are expected (e.g. with concrete surfaces, installation on slopes, etc.), a suitably dimensioned expansion joint must be provided at a distance of 30...200 cm from the channel. Expansion joints transverse to the drainage line that must be provided in the adjoining concrete surfaces, have to pass through a rebated joint of the channel line.
6. When installed in areas with frequent traffic, and depending on application area, traversing speed, and frequency, we recommend securing the grates with bolts (up to 8 bolts possible). If securing bolts are used, it must be ensured that they provide a durable and tight connection.
7. All adjoining covering layers should be permanently 3...5 mm higher than the top of the channel in order to prevent mechanical damage (e.g. snow shovelling), and to ensure good water run-off.
8. These installation guidelines apply analogously to silt buckets.

Load Class	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN	F 900 kN
Concrete quality - base according to Ö-Norm B 4710-1 *	C16/20	C20/25	C20/25	C25/30	C25/30	C25/30
X	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 15 cm	≥ 15 cm	≥ 20 cm
Y	min. channel height -8 cm			min. channel height -5 cm		channel height
Z	≥ 8 cm	≥ 10 cm	≥ 15 cm	≥ 20 cm	≥ 20 cm	≥ 25 cm
Splice bar	unnecessary					Ø = 8 mm all 20 cm

*Concrete quality is a minimum requirement and must be adapted to local requirements.

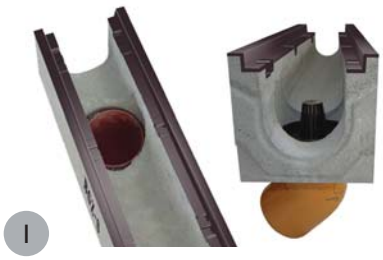






Further information is provided on our website under www.graspointner.at or you can contact our application engineers directly in case of different installation conditions.

Althon



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1 Channels with outlet
DN same as nominal width - maximum of DN 200

Location of outlet:
BGZ-S: Channel end to center of outlet = 250 mm

2 Drain trap for bottom outlet -
can be used for channels with outlet DN 100

3 Sump unit with cast iron edge (L= 500 mm) -
for nominal widths 100 - 400

4 Drain trap made of PVC-sewer pipes -
use for sump units with pipe connection DN 150/200

5 Silt bucket - suitable for sump unit -
galvanized steel or plastic - serves as a dust trap

6 Front-/end cap or end cap with outlet -
galvanized- or stainless-steel - for all nominal widths

7 Bolting material M10 -
for all mesh gratings or ductile iron gratings
at NW 500 with galvanized steel edge: M12

8 Sealing system to seal the rebated joints

9 Forsheda-sealing - DN 100/150/200
is installed on-site into the outlet from below