

SF - 100

D400 - F900 Loading

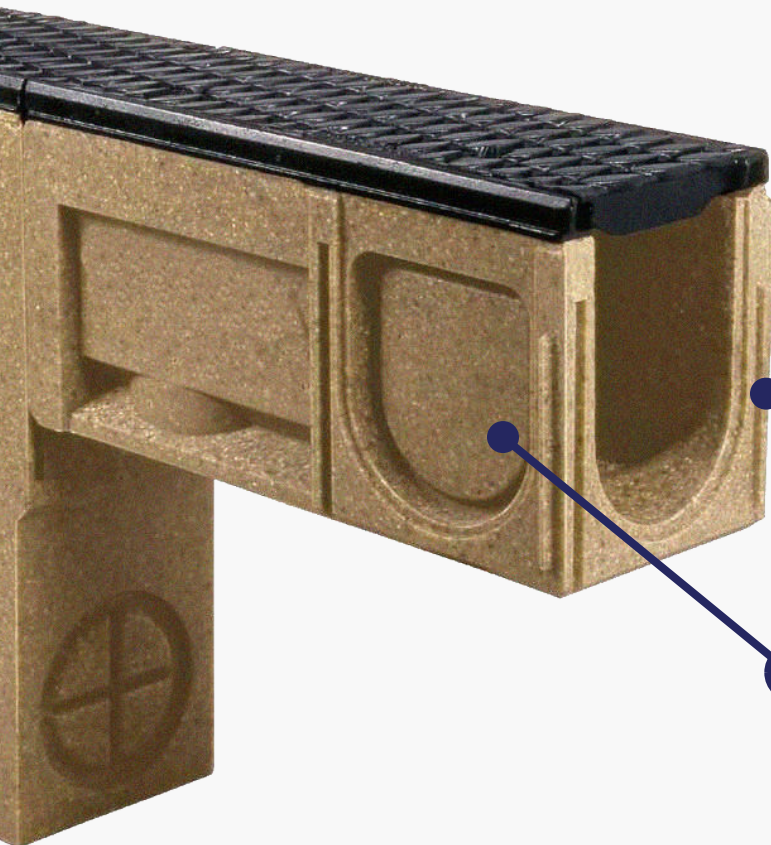
Heavy Duty Channels



SF - 100 *drainage system*

D400 - F900 Loading

The material comprised of naturally occurring mineral quartzes and resin is distinguished by its structural and environmental benefits. In comparison with conventional, cement bound materials, resin concrete allows for unit weights which are much easier to handle. By processing the material on the construction site, time and money are saved.



UniLink Joint

The optimised UNILINK® joint system eliminates the traditional differentiation between the beginning and end of the channel. Elements with an equal installation height can be joined.

Perforations on the 50cm elements:

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The high quality of the individual components as well as the closed material matrix make the POLYCON resin concrete watertight and highly resistant to corrosion as well as a number of substances. As a result, surfaces can be designed which purposefully drain off rainwater and the ground water can be reliably protected against environmental pollution. Our drainage systems (KE & SF) are tested and certified in accordance with DIN EN 1433 and KIWA BRL 5211.

Fastening System

The RapidLock automatically fastens the cover grating safely for traffic and can be opened without special tools, even with heavy soiling

Heavy Duty

Edge rails made of ductile cast iron

Gratings

- Intelligent fastening system
- Load classes D 400 – F 900
- Ductile cast iron design
- OvalGrip design for the nominal widths 100–30

Polymere Concrete - Technical Data

- Bending tensile strength: > 22 N/mm²
- Compression Strength: > 90 N/mm²
- E-module approx: 25kN/mm²
- Density: 2.1 - 2.3 g/cm³
- Water penetration depth: 0 mm

Pipe Sockets

Already poured in the component DA OD 110/160/200



SF - 100 drainage system

D400 - F900 Loading

According to DIN 19580/EN 1433 "Drainage channels for vehicular and pedestrian areas", these surfaces are assigned to specific load classes depending on the use. Accordingly, the respective suitable Polycon heavy duty system can be selected with the appropriate grating. The following tables include a list of typical areas of application and the channel systems which can be used.

Load Classes :

Load Classes ¹	Areas of Application	SF - 100	SF - 150	SF - 200	SF - 300
D400²	Roads	●	●	●	●
(test force 600kN)	Parking Surfaces	●	●	●	●
	Pedestrian Roads	●	●	●	●
E600	Traffic Routes in industrial areas	●	●	●	●
(test force 600kN)	Surface with high wheel loads	●	●	●	●
	Non-public traffic surfaces	●	●	●	●
F900	Commercial airports/Flight operations areas	●	●	●	●
(test force 900kN)	Special Surfaces	●	●	●	●

¹ In accordance with DIN 19580 ² no cross-road drainage of busy roads

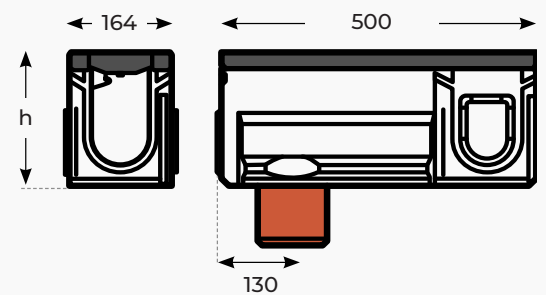
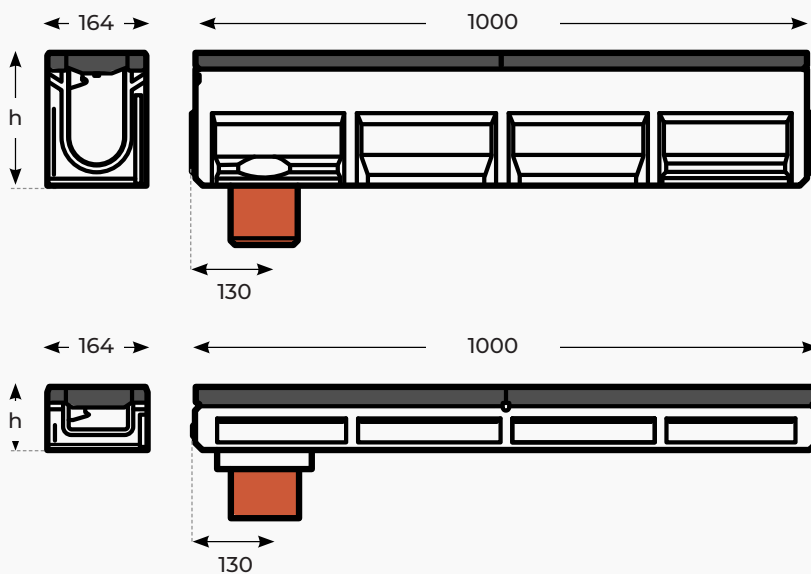


SF - 100

drainage system

SF - 100 Heavy Duty Channel

- The **Polycon SF - 100** channel is a heavy duty drainage system that utilises The Rapid Lock fastening system to secure the gratings down for heavy traffic. No special tools are required to lift the gratings.



Product Specifications	SF-100	Sump Unit
Material	Polymere Concrete	Polymere Concrete
Length	50 cm and 100 cm	50 cm
Width:	16.4 cm	16.4 cm
Height:	10.0 - 26.50 cm	58.0 cm
Edge Type:	GJS Cast edge rail	GJS Cast edge rail
Nominal Width	100 mm	100 mm
Cover Gratings	D400*, E600* & F900*	D400*, E600* & F900*
Slope Type	Slope Invert 0.5%	
	Stepped invert	
	Constant invert	
Joint Type	Unilink Joint	Unilink Joint
Fastening	RapidLock Fastening	RapidLock Fastening

* no cross-road drainage of busy roads

SF - 100

drainage system



Channel Types - SF - 100

Article no.	Designation	Slope %	Length cm	Width cm	Height (h)cm	Weight kg
SF.100.165	SF - 100 Channel No.0*	0	100	16.4	16.5	36.0
SF.100.165.R	SF - 100 Channel No. 0R***	0	100	16.4	16.5	36.0
SF.100.165.05	SF - 100 Channel No. 005**/**	0	50	16.4	16.5	19.0
SF.100.170	SF - 100 Channel No. 1	0.5	100	16.4	17.0	36.0
SF.100.175	SF - 100 Channel No. 2	0.5	100	16.4	17.5	36.4
SF.100.180	SF - 100 Channel No. 3	0.5	100	16.4	18.0	36.6
SF.100.185	SF - 100 Channel No. 4	0.5	100	16.4	18.5	36.8
SF.100.190	SF - 100 Channel No. 5	0.5	100	16.4	19.0	37.0
SF.100.195	SF - 100 Channel No. 6	0.5	100	16.4	19.5	37.3
SF.100.200	SF - 100 Channel No. 7	0.5	100	16.4	20.0	37.5
SF.100.205	SF - 100 Channel No. 8	0.5	100	16.4	20.5	38.0
SF.100.210	SF - 100 Channel No. 9	0.5	100	16.4	21.0	38.3
SF.100.215	SF - 100 Channel No. 10*	0.5	100	16.4	21.5	38.5
SF.100.215.0	SF - 100 Channel No. 010*	0	100	16.4	21.5	38.5
SF.100.215.0R	SF - 100 Channel No. 010R***	0	100	16.4	21.5	38.5
SF.100.215.0105	SF - 100 Channel No. 0105**/**	0	50	16.4	21.5	21.0
SF.100.220	SF - 100 Channel No. 11	0.5	100	16.4	22.0	39.0
SF.100.225	SF - 100 Channel No. 12	0.5	100	16.4	22.5	39.3
SF.100.230	SF - 100 Channel No. 13	0.5	50	16.4	23.0	39.8
SF.100.235	SF - 100 Channel No. 14	0.5	100	16.4	23.5	40.5
SF.100.240	SF - 100 Channel No. 15*	0.5	100	16.4	24.0	41.0
SF.100.245	SF - 100 Channel No. 16	0.5	100	16.4	24.5	41.4
SF.100.250	SF - 100 Channel No. 17	0.5	100	16.4	25.0	41.6
SF.100.255	SF - 100 Channel No. 18	0.5	100	16.4	25.5	41.7
SF.100.260	SF - 100 Channel No. 19	0.5	100	16.4	26.0	41.9
SF.100.265	SF - 100 Channel No. 20*	0.5	100	16.4	26.5	42.0
SF.100.265.0	SF - 100 Channel No. 020*	0	100	16.4	26.5	42.0
SF.100.265.020R	SF - 100 Channel No. 020R***	0	100	16.4	26.5	42.0
SF.100.265.0205	SF - 100 Channel No. 0205**/**	0	50	16.4	26.5	23.0
SF.100.110P	SF - 100 Channel No. 100-P*	0	100	16.4	10.0	32.0
SF.100.110PR	SF - 100 Channel No. 100-PR***	0	100	16.4	10.0	32.0

* Channel with mouldings for vertical outlet DA/OD 110

** Channel with sideways perforations for the connection of t-junctions, elbow joints and cross- over joints

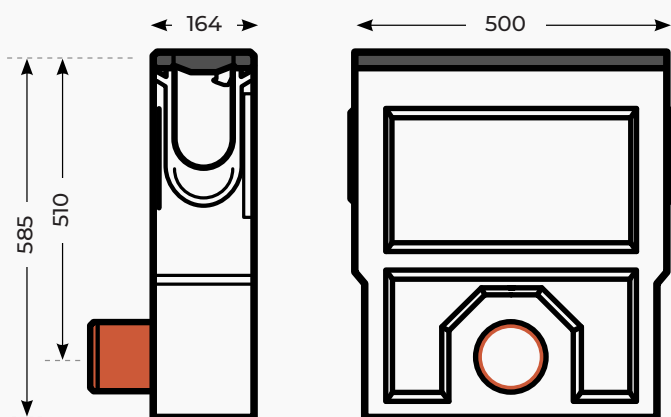
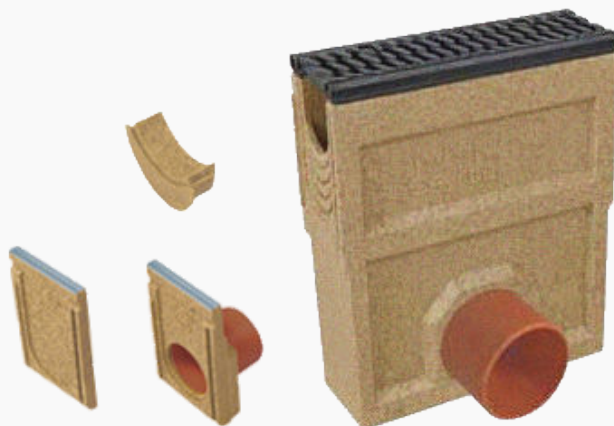
*** Channel with vertical pipe socket DA/OD 110

SF - 100

drainage system

SF - 100 Sump & Accessories

- The **Polycon SF - 100** system has a complete range of accessories including a **Sump Unit & Galvanised bucket** which can collect silt particles and has **110mm** outlet for pipe connections
- The system also has **end caps** and **end cap outlets** with a **110mm** pipe connector



Sump & Accessories

Article no.	Designation	Length cm	Width cm	Height (h)cm	Weight kg
SF.100.SUMP	SF - 100 Sump unit incl. cast iron grating cl. F 900	50	16.4	58.5	42.0
SF.100.BUCKET	SF - 100 Sump assembly top with mud bucket	54	36.0	43.0	49.0
SF.100.PS.160	Pipe socket DA/OD 160				0.2
SF.100.PS.200	Pipe socket DA/OD 200				0.6
SF.100.EC	SF - 100 Closed end cap for No. 0 - 20				2.4
SF.100.EC.100P	SF - 100 Closed end cap for No. 100P				1.0
SF.100.ECP.0	SF - 100 End cap with pipe socket DA/OD 110 for No. 0				1.8
SF.100.ECP.110.010	SF - 100 End cap with pipe socket DA/OD 110 for No. 010				2.1
SF.100.ECP.110.020	SF - 100 End cap with pipe socket DA/OD 110 for No. 020				2.5
SF.100.ECP.70.020	SF - 100 End cap with pipe socket DA/OD 70 for No. 100P				0.6
SF.100.SC	SF - 100 Step connector for compensating level differences				0.5

* Channel with mouldings for vertical outlet DA/OD 110

** Channel with sidewise perforations for the connection of t-junctions, elbow joints and cross- over joints

*** Channel with vertical pipe socket DA/OD 110

SF - 100

drainage system

OvalGrip Slotted Cast Iron Grating

- The edge rails and cover gratings of Polycon heavy duty channel systems are made of ductile cast iron. To accommodate the traffic loads, gratings and edge rails are intermeshed with each other and fastened with RapidLock. The self-locking Rapid Lock fastening retains its functionality when heavily soiled. It is locked in place and lifted out without special tools. The exclusive OvalGrip design lends it an attractive surface with maximal drainage of accumulated precipitation.



Product Specification	
Type	OvalGrip slotted cast iron grating
Material	EN-GJS cast iron
Length	50 cm
Inlet cross-section	490 cm ² /m, 680cm ² /m, 916cm ² /m, 1196 cm ² /m
Fastening	GJS Cast edge rail

Load Classes	SF-100	SF-150	SF-200	SF-300
D400* & E600*		●	●	●
F900*	●	●	●	●

** no cross-road drainage of busy roads*



SF - 100

drainage system

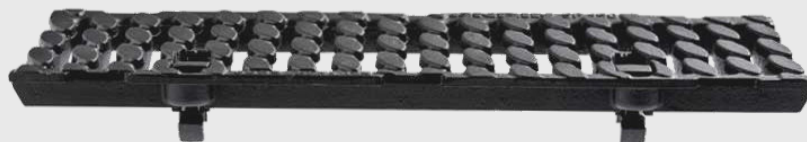


RapidLock fastening

This patented fastening developed in-house by Polycon and combines all the important functions of a grating lock for the accommodation of heavy loads in a stable and functional component. In addition, it is installed unobtrusively and harmonically into the attractive surface of the cast iron grating.

Benefits

- Easy to Install and lock in place
- Self Locking RapidLock locks the grating in place
- Better accommodation of traffic loads with intermeshing of grating and channel body
- Reliable function even when heavily soiled
- It is locked in place and lifted out without special tools



SF - 100

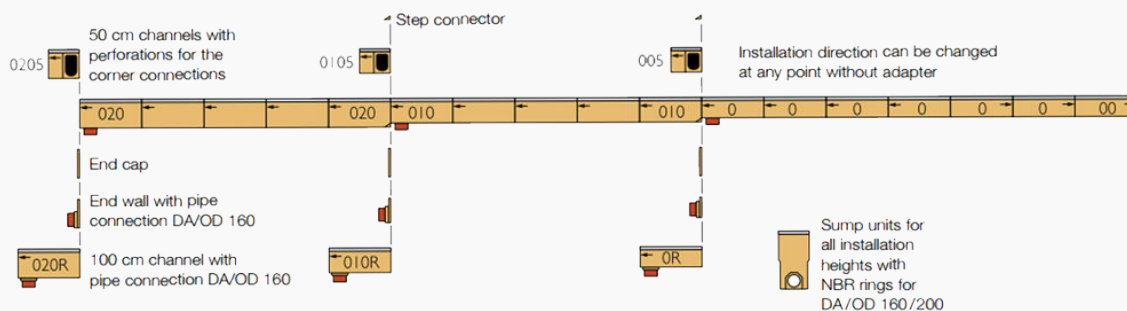
drainage system



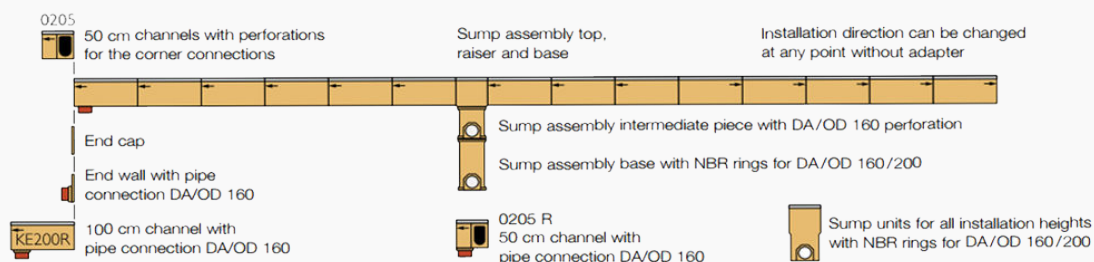
Built in Fall: Stepped, Level, or Sloped

Area drainage with channel runs is normally made according to 3 different principles. The slope of water surface is achieved by the natural fall of the land. The water flows downwards with the gradient of the water level. A stepped invert is realised by an artificial gradient which is formed by the installation of stepped-height channels and connectors. The high flow rate with self-cleaning effect can be achieved with channels in natural slope. All slope types can be combined according to hydraulic requirements and topographical conditions.

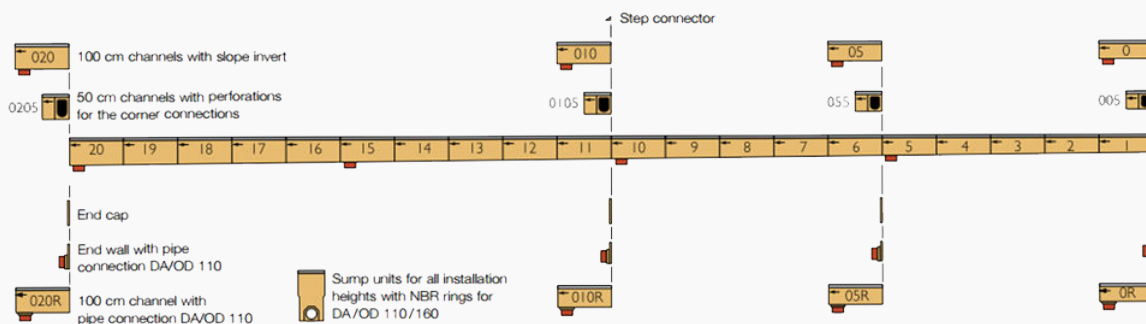
Stepped Invert



Level Invert



Sloped Invert



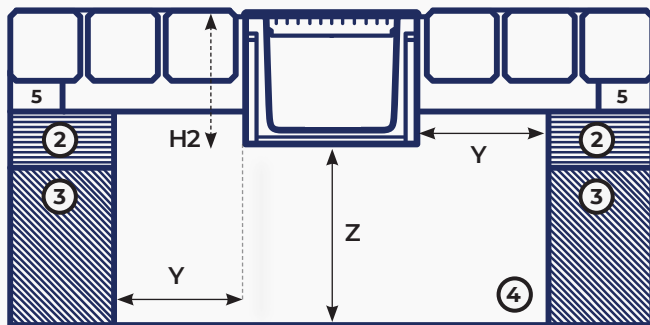
SF - 100

Installation Guide

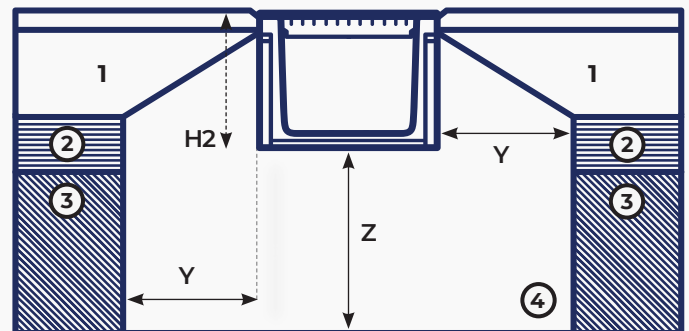


Grounds conditions must be suitable and all dimensions shown are the minimum requirement. Engineering advice should be taken where necessary and any questions should be directed to Polycon's technical team through emailing us at technical@polycon.co.uk or by calling us on **0151 424 9747**

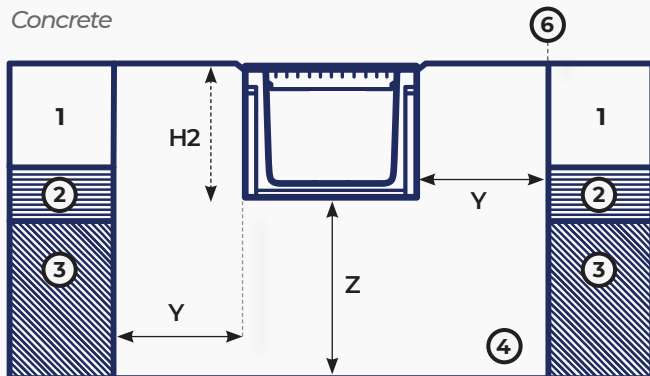
BlockPaving



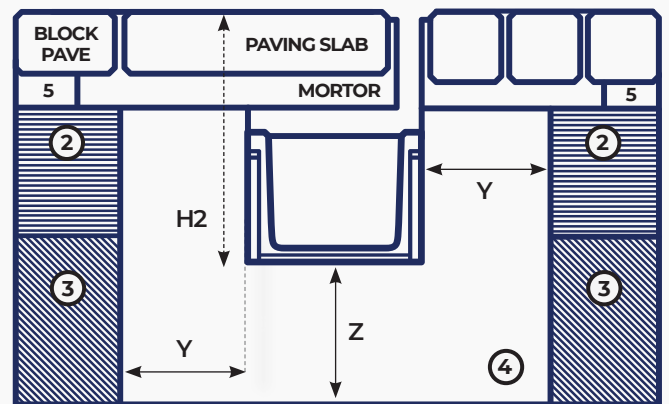
Tarmac



Concrete



PaveSlot



Load Class	A15	B125	C250	D400	E600	F900
H2 - Channel Height	Channel Height	Channel Height	Channel Height	Channel Height	Channel Height	Channel Height
Y - Minimum Surround	100mm	150mm	150mm	200mm	200mm	250mm
Z - Minimum Surround	100mm	150mm	150mm	200mm	200mm	250mm
T1 - Minimum Depth	40mm	40mm	40mm	40mm	40mm	40mm
T2 - Maximum Depth	95mm	55mm	55mm	55mm	55mm	55mm

1	2	3	4	5	6	** Minimum Concrete Haunch 25 N/mm ²
Concrete	Sub Base	Earth	Concrete Haunch	Sand Layer	Expansion Joint	Detail A Allow for overbuild of 3mm to 5mm above the grating surfaces



Polycon Surface Water Drainage

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Visit our website for our full range of products at www.polycon.co.uk