polycon
surface water drainage

SF - 200

F900 Loading

Heavy Duty Channels

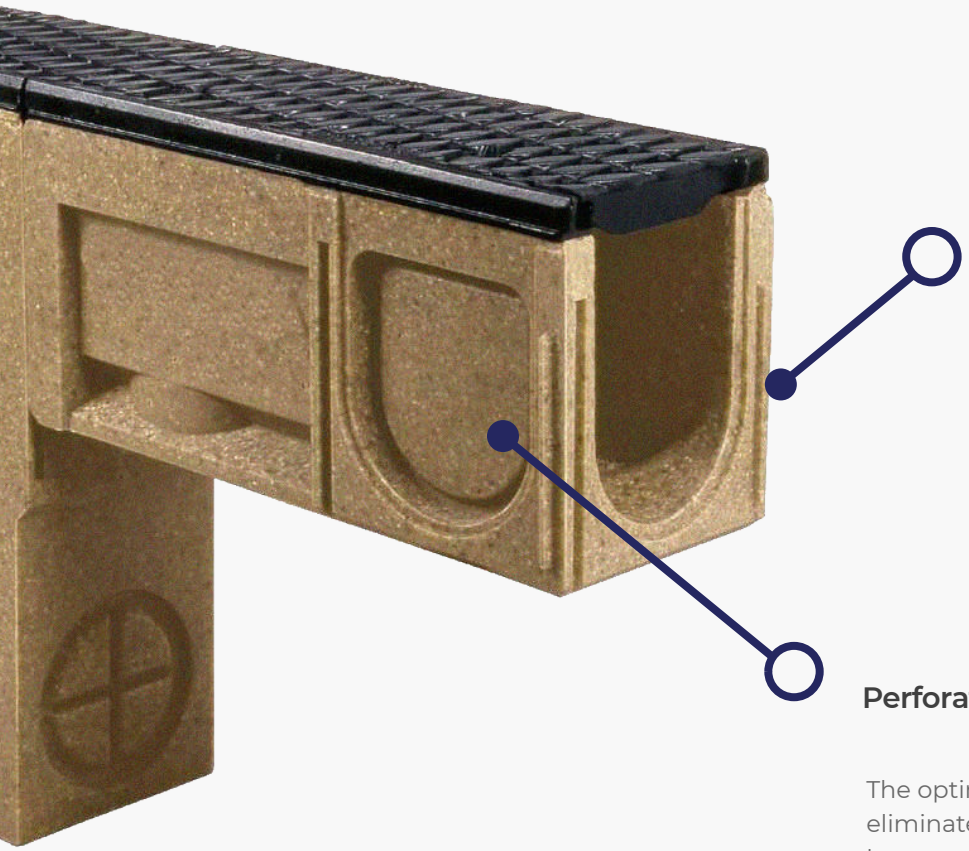
www.polycon.co.uk
0151 424 9747

Level, Invert, or Sloped

SF - 200 drainage system

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:

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.

SF - 200 drainage system

F900 Loading

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 F900
- 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
- Heat Resistence: 100 ° C
- Frost Resistence: - 50 ° C
- Water absorbtion: 0.05 %

Pipe Sockets

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

SF - 200 drainage system

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 listof 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
	Non-public traffic surfaces	●	●	●	●
F900	Commercial airports/Flight operations areas	●	●	●	●
(test force 900kN)	Special Surfaces	●	●	●	●

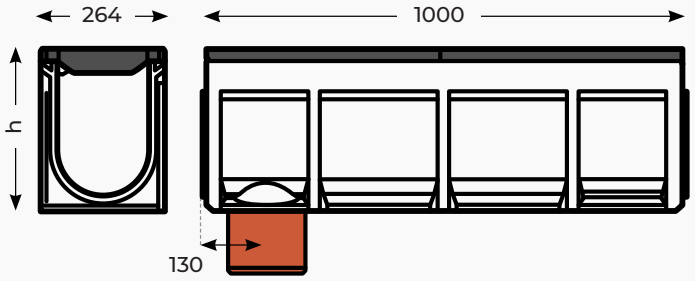
[1] In accordance with DIN 19580 [2] no cross-road drainage of busy roads

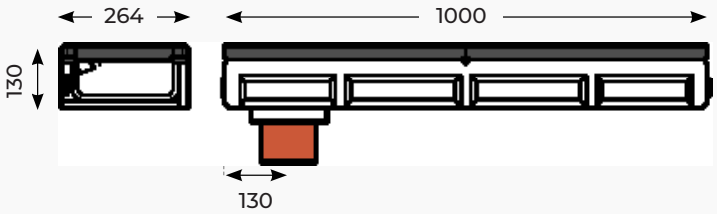
SF - 200
drainage system

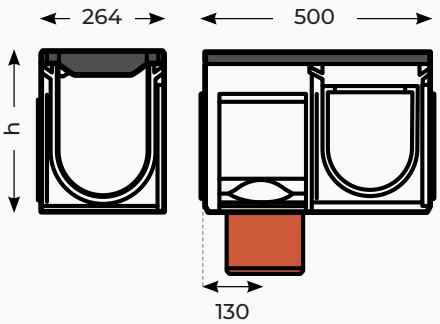
SF - 200 Heavy Duty Channel

- The **Polycon SF-200** 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.
- Up to F900 loading

*All measurements in mm







SF - 200
drainage system

polycon surface water drainage

*Channel Types - **SF - 200***

Article no.	*Designation*	*Slope %*	*Length cm*	*Width cm*	*Height (h)cm*	*Weight kg*
SF.200.290	SF - 200 Channel No.0*	0	100	26.4	29.0	48.2
SF.200.290.R	SF - 200 Channel No. 0R***	0	100	26.4	29.0	48.2
SF.200.290.05	SF - 200 Channel No. 005*/**	0	50	26.4	29.0	25.6
SF.200.295	SF - 200 Channel No. 1*	0.5	100	26.4	29.5	48.2
SF.200.300	SF - 200 Channel No. 2*	0.5	100	26.4	30.0	48.8
SF.200.305	SF - 200 Channel No. 3*	0.5	100	26.4	30.5	49.4
SF.200.310	SF - 200 Channel No. 4*	0.5	100	26.4	31.0	50.0
SF.200.315	SF - 200 Channel No. 5*	0.5	100	26.4	31.5	50.6
SF.200.320	SF - 200 Channel No. 6*	0.5	100	26.4	32.0	51.2
SF.200.325	SF - 200 Channel No. 7*	0.5	100	26.4	32.5	51.8
SF.200.330	SF - 200 Channel No. 8*	0.5	100	26.4	33.0	52.4
SF.200.335	SF - 200 Channel No. 9*	0.5	100	26.4	33.5	53.0
SF.200.340	SF - 200 Channel No. 10*	0.5	100	26.4	34.0	53.6
SF.200.340.0	SF - 200 Channel No. 010*	0	100	26.4	34.0	54.0
SF.200.340.0R	SF - 200 Channel No. 010R***	0	100	26.4	34.0	54.0
SF.200.340.0105	SF - 200 Channel No. 0105**/*	0	50	26.4	34.0	29.6
SF.200.130.P	SF - 200 Channel No. 200-P****	0	100	26.4	13.0	30.4
SF.200.130.P.R	SF - 200 Channel No. 200-PR*****	0	100	26.4	13.0	30.4

* Channel with mouldings for vertical outlet DA/OD 160
** Channel with sidewise perforations for the connection of t-junctions, elbow joints and cross-over joints
*** Channel with DA/OD 160 poured pipe socket
**** Channel with mouldings for vertical outlet DA/OD 110
***** Channel with DA/OD 110 poured pipe socket

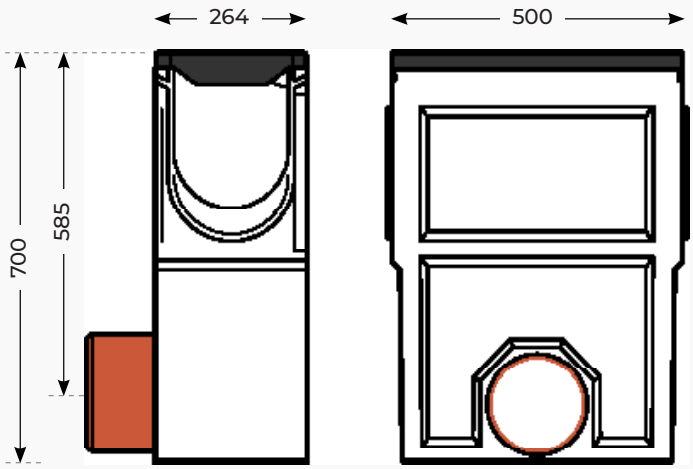
Product Specifications	SF-200	Sump Unit
Material	Polymere Concrete	Polymere Concrete
Length	50 cm and 100 cm	50 cm
Width:	26.4 cm	26.4 cm
Height:	13.0 - 29.0 cm	70 cm
Edge Type:	GJS Cast edge rail	GJS Cast edge rail
Nominal Width	**200 mm**	**200 mm**
Cover Gratings	F900*	F900*
Slope Type	Slope Invert 0.5%	n/a
	Stepped invert	n/a
	Constant invert	n/a
Joint Type	**Unilink Joint**	**Unilink Joint**
Fastening	**RapidLock Fastening**	**RapidLock Fastening**

** no cross-road drainage of busy roads*

SF - 200
drainage system

SF - 200 Sump & Accessories

- The **Polycon SF - 200** system has a complete range of accessories including a **Sump Unit & Galvanised bucket** which can collect silt particles and has **160mm** outlet for pipe connections
- The system also has **end caps** and **end cap outlets** with a **160mm** pipe connector



*All measurements in mm

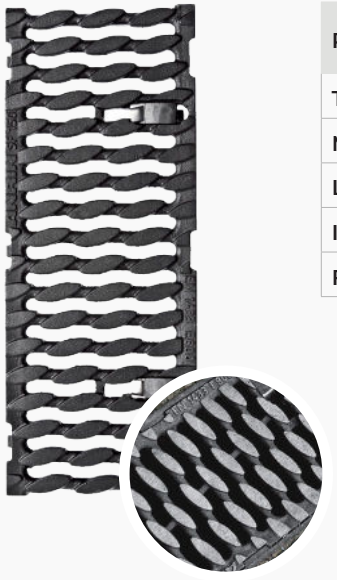
Sump & Accessories SF - 200

Article no.	Designation	Length cm	Width cm	Height (h)cm	Weight kg
SF.200.SUMP	SF - 200 Sump unit with mud bucket	50	26.4	70.0	61.1
SF.200.SUMP.A.EC	SF - 200 Sump assembly top with mud bucket	54	36.0	43.0	49.0
SF.200.P.160	Pipe socket DA/OD 160				0.6
SF.200.P.200	Pipe socket DA/OD 200				0.8
SF.200.CEC.10	SF - 200 Closed end cap for No. 0 - 010				2.8
SF.200.CEC	SF - 200 Closed end cap for No. 0				
SF.200.CEC.200	SF - 200 Closed end cap for No. 200P				1.3
SF.200.EC.160	SF - 200 End cap with pipe socket DA/OD 160 for No. 0, 005				3.6
SF.200.EC.160.10	SF - 200 End cap with pipe socket DA/OD 160 for No. 10, 010, 0105				3.9
SF.200.EC.70	SF - 200 End cap with pipe socket DA/OD 70 for No. 200P				1.3

SF - 200
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 anattractive 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 cm²/m, 680cm²/m, 916cm²/m, 1196 cm²/m
Fastening	GJS Cast edge rail

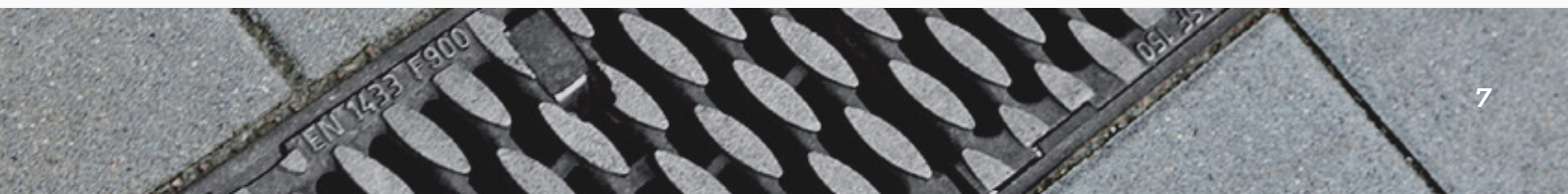
Load Classes	SF-100	SF-150	SF-200	SF-300
F900*	●	●	●	●

** no cross-road drainage of busy roads*

Gratings ***cl. F900***[1] *with* ***RapidLock*** *fastening*

Article no.	EAN	Designation	Length cm	Width cm	Inlet Ø cm²/m	Weight kg
?	4026857011392	Slotted cast iron with OvalGrip Design, Cast iron GJS	50	24.3	830	13.9

[1] Exception: Cross road drainage of busy roads



SF - 200
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 loadsin a stable and functional component. In addition, it is installed unobtrusively and harmonically into the attractive surface of the cast iron grating.

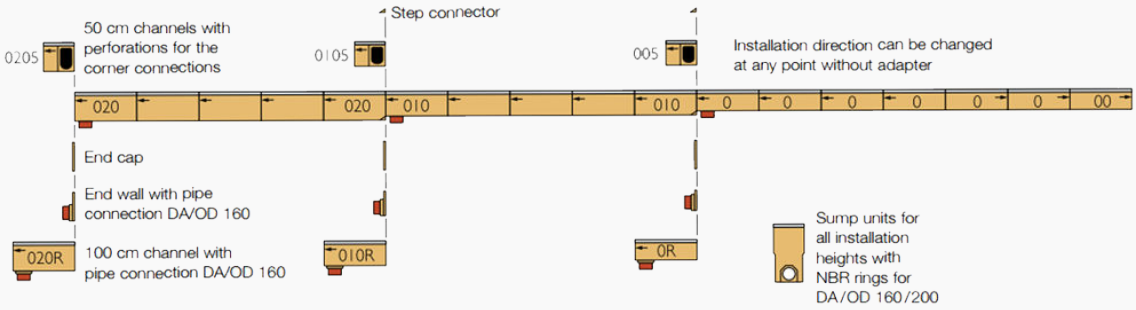
Benefits

- Easy to Install and lock in place
- Self Locking RapidLock locks the grating in place
- Better acommodation 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

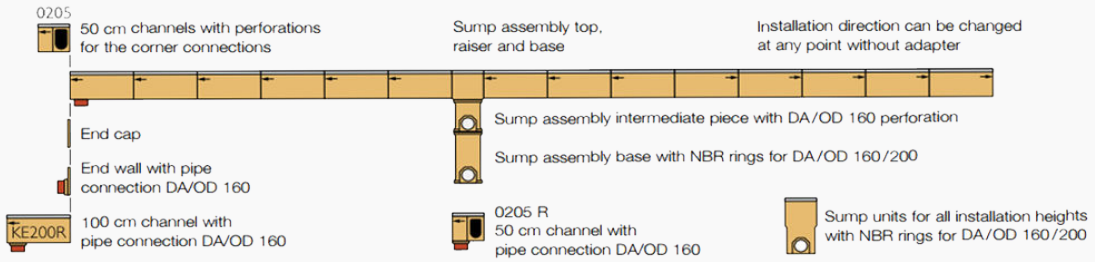
Built in Fall: *Stepped, Level, or Sloped*

Area drainage with channel runs is normally made according to 3 different principles. The slops 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 acording to hydraulic requirements and topographical conditions.

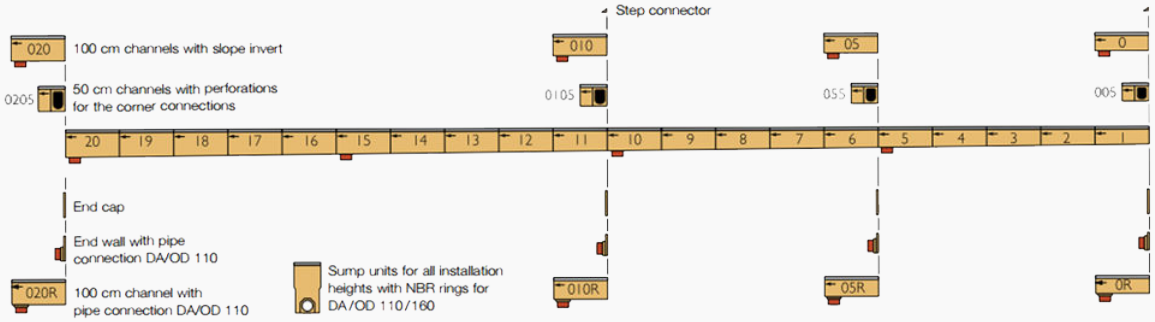
Stepped *Invert*



Level *Invert*



Sloped *Invert*

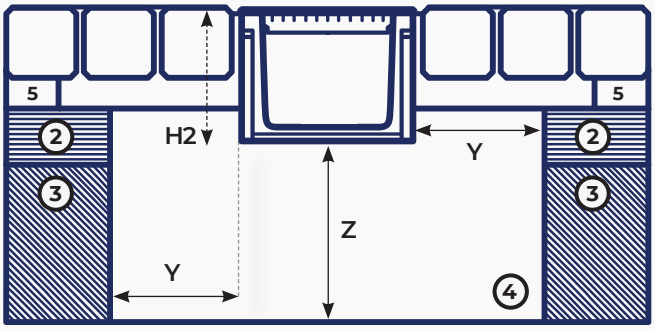


SF - 200

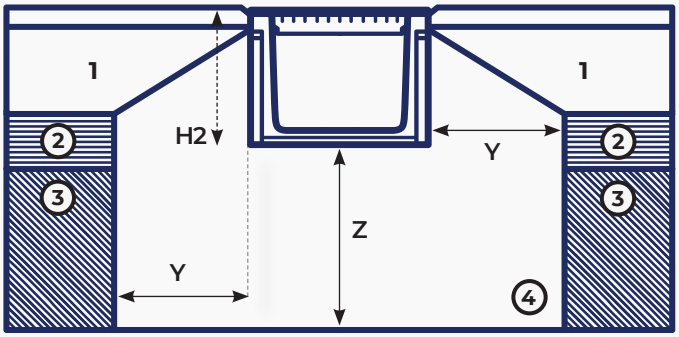
Installation Guide

Grounds condtions 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**

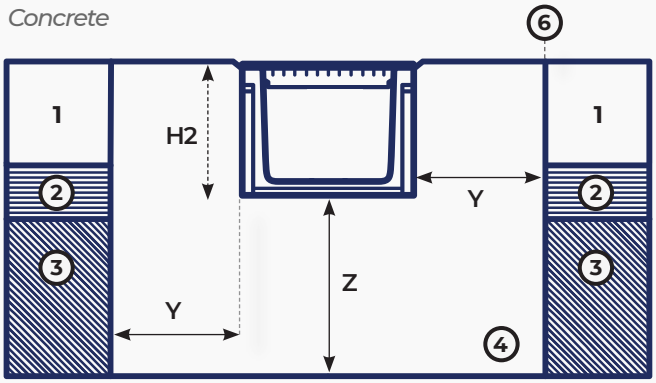
BlockPaving



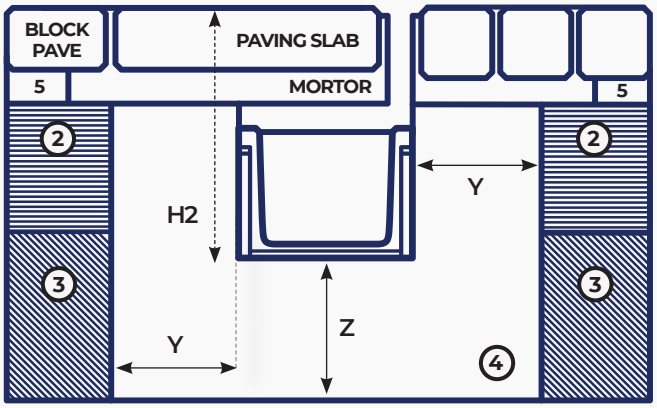
Tarmac



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
Concrete	Sub Base	Earth	Concrete Haunch	Sand Layer	Expansion Joint

** Minimum Concrete Haunch 25 N/mm²

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**