



**polycon**  
surface water drainage

**SF 300**

*Service . Range . Knowledge*

## **Welcome To Polycon**

Polycon is identified as one of the leading manufacturers, distributors, and suppliers of channel drainage in the UK. We focus towards creating a diverse range of water solutions, in a variety of different materials, including composite, polymer concrete, SMC, and steel.

Polycon's unique look at the market and expert knowledge of the industry ensures that we can supply a wide range of high-quality products suitable for any application. This includes building drainage, landscaping, sports facilities, distribution centres, highways, and airports.

Our design team provides innovative and efficient hydraulic solutions to ensure we can offer the best product/ solution for your drainage needs. We have a vast and experienced overview of our working industry and have been manufacturing, distributing, and selling channel drainage for over 8 years. We thrive on acting upon your feedback to improve and develop our products to fit flawlessly with the constantly changing market and demand from our customers.

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At Polycon we focus our attention on professionals who sit within the construction industry, targeting our products to specifiers, architects, engineers, and contractors. Therefore, we understand the importance of expanding our product portfolio to create the most efficient surface water drainage systems.

We are a dynamic and evolving company with a focus on quality, innovation, and service. As a result, you can rely on us to handle your project needs in every way to the best of our ability.

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**Service • Range • Knowledge**

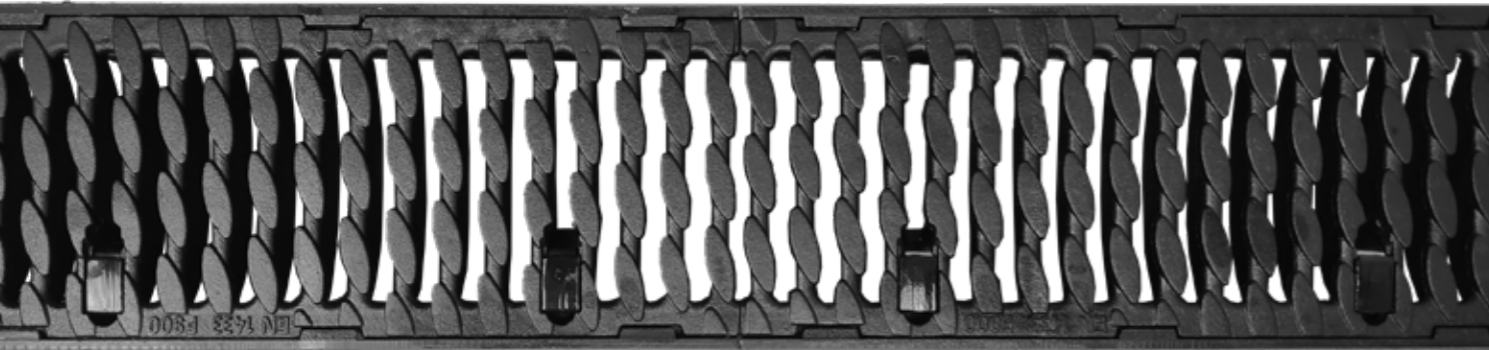
# SF 300

Polycon's SF 300 drainage channels are a top-notch solution for efficient water management in various settings. These channels are renowned for their quality and advanced features, making them an excellent choice for drainage needs. Here, we'll highlight the main advantages of the SF 300 drainage channels supplied by Polycon.

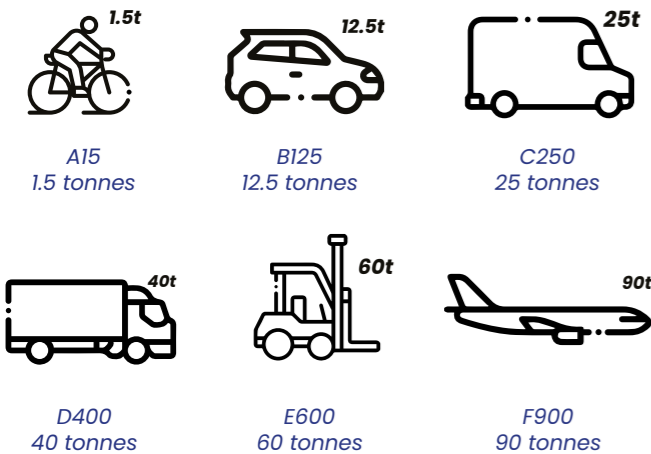
One of the standout features of Polycon's SF 300 channels is their innovative Unilink Joint System. This system ensures a seamless and secure connection between channel sections, eliminating weak points and preventing leaks. It simplifies installation and enhances the overall durability of the drainage system.

The SF 300 channels come equipped with a Rapid Lock Fastening system, simplifying the installation process. This feature saves time and reduces labour costs, making it a cost-effective choice for various projects.

SF 300 drainage channels are designed to withstand heavy loads and harsh conditions. Their heavy-duty construction makes them suitable for areas with high traffic, such as industrial facilities, parking lots, and commercial sites. These channels can effectively handle the demands of even the most challenging environments.

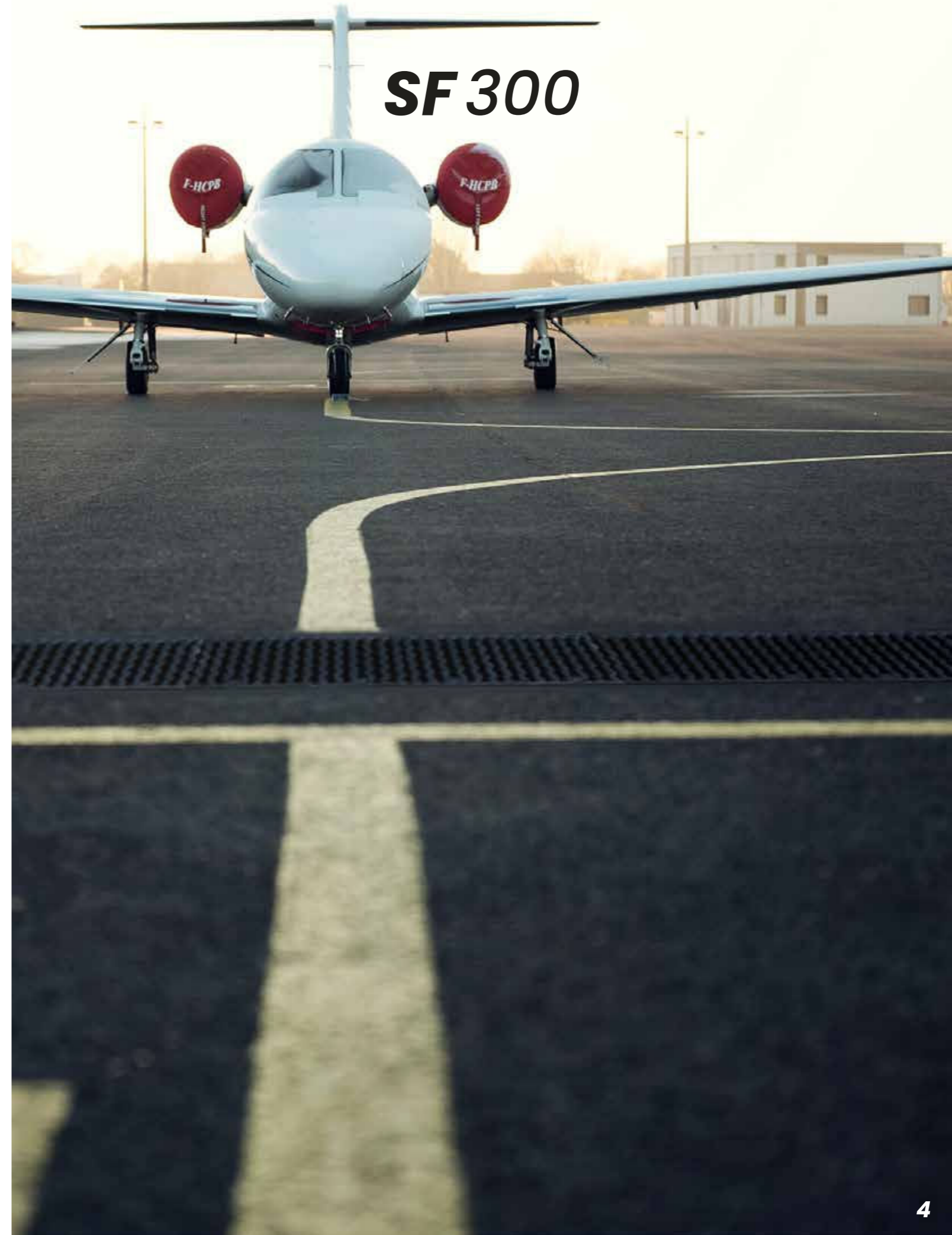


## Load Class



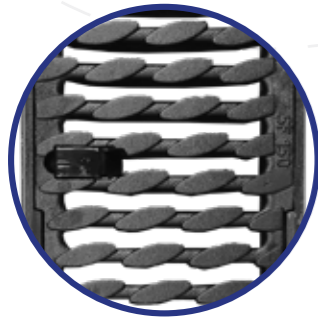
## Applications

- Civil yards
- Warehouses
- Farms
- Docks
- Loading yards
- Commercial airport
- Flight operation areas



# SF 300 - Overview

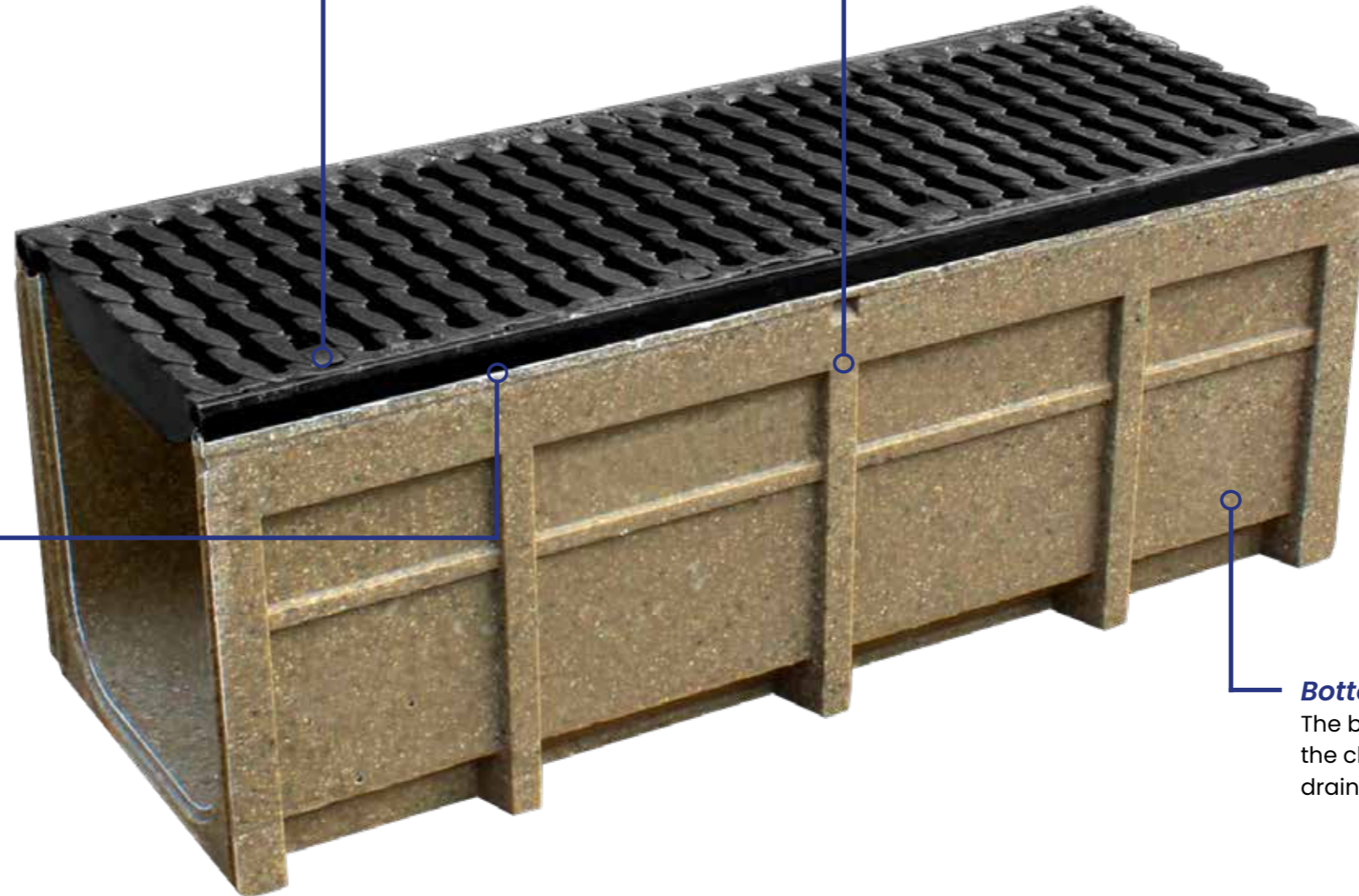
## Colour Options



**Grating**  
4 - point locking, 90 tonne loading.

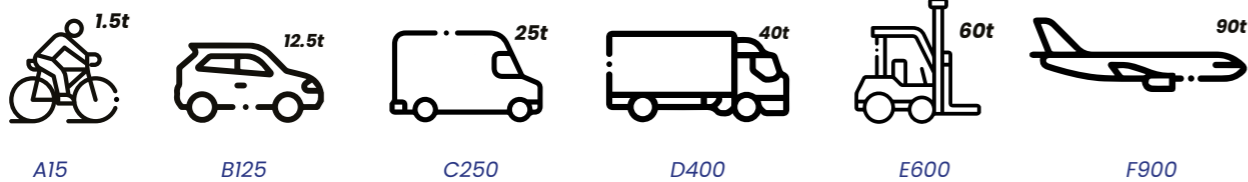
**Material**  
The SF 300 channels are constructed from polymer concrete, a material known for its exceptional strength and durability. This choice of material ensures longevity and resistance to corrosion, making them ideal for long-term use in drainage applications.

**Ductile Iron Edge Rail**  
To enhance the channels' durability and load-bearing capacity, they feature a ductile iron edge. Ductile iron is recognized for its exceptional strength and impact resistance, which extends the lifespan of the drainage channels and ensures reliability in high-stress areas.



**Bottom Outlet**  
The bottom outlet in the base of the channel allows for downward drainage into a 200mm sewer connection.

## Load Classes



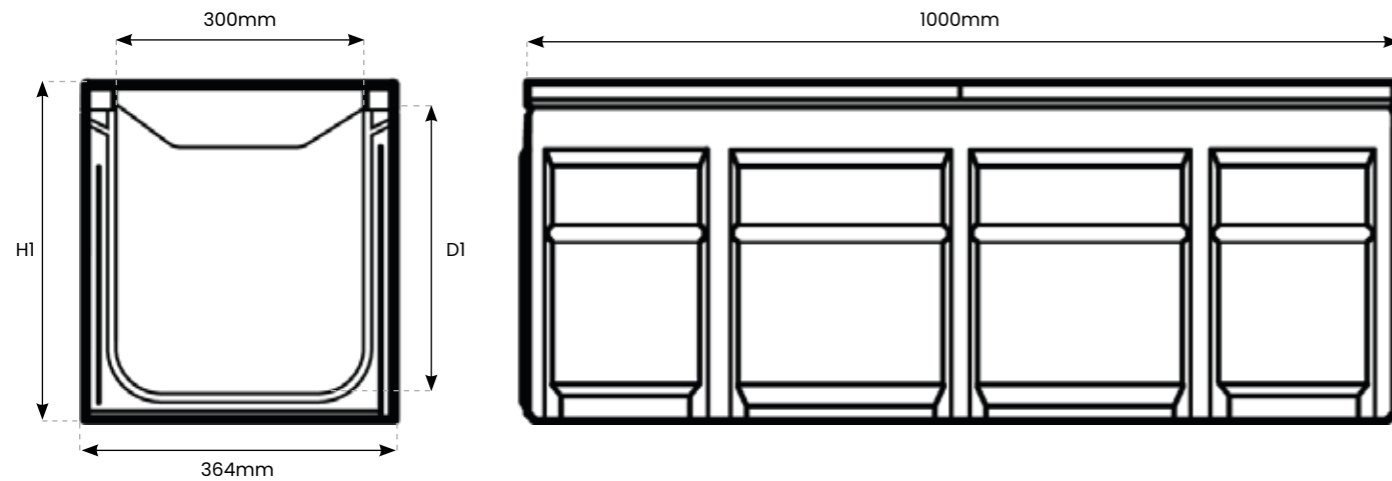
## Depth Options



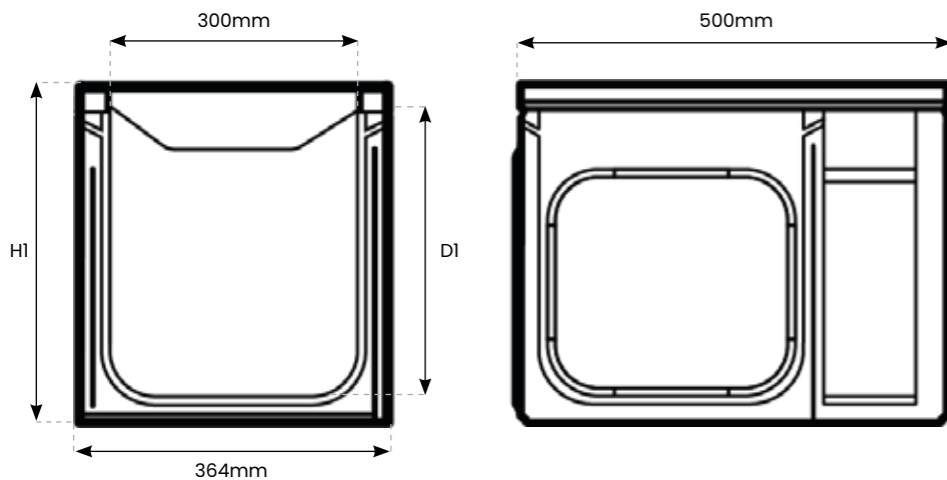
# SF 300

Polycon's SF 300 drainage channels offer a comprehensive solution for effective water management. With their Unilink Joint System, heavy-duty design, polymer concrete construction, ductile iron edge, and rapid lock fastening, they provide a durable, versatile, and efficient solution for draining water and managing surface runoff in demanding environments. These channels are ideal for areas where strength, longevity, and ease of installation are paramount.

## 1000mm Channel Diagram



## 500mm Channel Diagram



# Channel Properties

<b>Polymer concrete:</b>	<b>Polyester resin-based with mineral aggregates, additives.</b>
<b>Compressive strength:</b>	<b>&gt; 90 N/mm<sup>2</sup></b>
<b>Bending tensile strength:</b>	<b>&gt; 22 N/mm<sup>2</sup></b>
<b>Modulus of elasticity:</b>	<b>ca. 25 kN/mm<sup>2</sup></b>
<b>Density:</b>	<b>2.1 - 2.3 g/cm<sup>3</sup></b>
<b>Water penetration depth:</b>	<b>0 mm</b>
<b>Heat resistance:</b>	<b>100°C</b>
<b>Frost resistance:</b>	<b>-50°C</b>
<b>Water absorption:</b>	<b>0.05 %</b>

## Channel Types

Reference	Description	Length	Overall Width	Internal Width	Overall Depth(HI)	Internal Depth(DI)	Weight
SF.300	SF - 300 Channel*	1000mm	364mm	300mm	390mm	370mm	64kg
SF.300.R	SF - 300 Channel R***	1000mm	364mm	300mm	390mm	370mm	64kg
SF.300.5	SF - 300 Channel /5**/*	500mm	364mm	300mm	390mm	370mm	35kg
SF.300.160.P	SF - 300 Channel P*	1000mm	364mm	300mm	160mm	140mm	46kg
SF.300.160.PR	SF - 300 Channel PR*	1000mm	364mm	300mm	160mm	140mm	46kg

\* Channel with mouldings for vertical outlet DA/OD 200

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

\*\*\* Channel with DA/OD 200 poured pipe socket



# Accessories

## Sump Unit

Sump Units act as a reservoir, temporarily storing excess water before discharging it in a controlled manner to prevent adverse effects of water accumulation. The Sump Unit is excellent for collecting debris and waste that can get into the system. It comes with a silt bucket inside for easy cleaning.



Sump Unit

## End Cap

End Caps can be used at the end of your channel run to stop the flow of water.



End Cap

## End Cap Outlet

The End Cap Outlet can be used at the end of the run to allow water to be taken to your exterior drainage pipes and away from the channel.



End Cap Outlet

## Pipe Socket

The Pipe Socket facilitates the seamless integration of drainage channels with the underground pipe network, ensuring effective water management and preventing waterlogging or surface flooding. It essentially acts as the link between the surface drainage system and the underground drainage infrastructure.



Pipe Socket

## Accessories- Specifications

Reference	Description	Length	Height (H)	Overall Width	Weight (KG)	Outlet
SF.300.SUT	SF 300 Sump Unit Top	500mm	390mm	364mm	30kg	200mm
SF.300.SUB	SF 300 Sump Unit Base	480mm	645mm	330mm	43.2kg	200mm
SF.300.EC	SF 300 End Cap	20mm	160-390mm	364mm	5.2kg	-
SF.300.ECO	SF 300 End Cap Outlet	30mm	390mm	364mm	9.1kg	200mm
SF.300.PS.160	SF 300 Pipe Socket 160mm	160mm	-	160mm	0.6kg	-
SF.300.PS.200	SF 300 Pipe Socket 200mm	200mm	-	200mm	0.8kg	-

# Grating



Ductile Iron Oval Grating (F900)

## Grating Properties

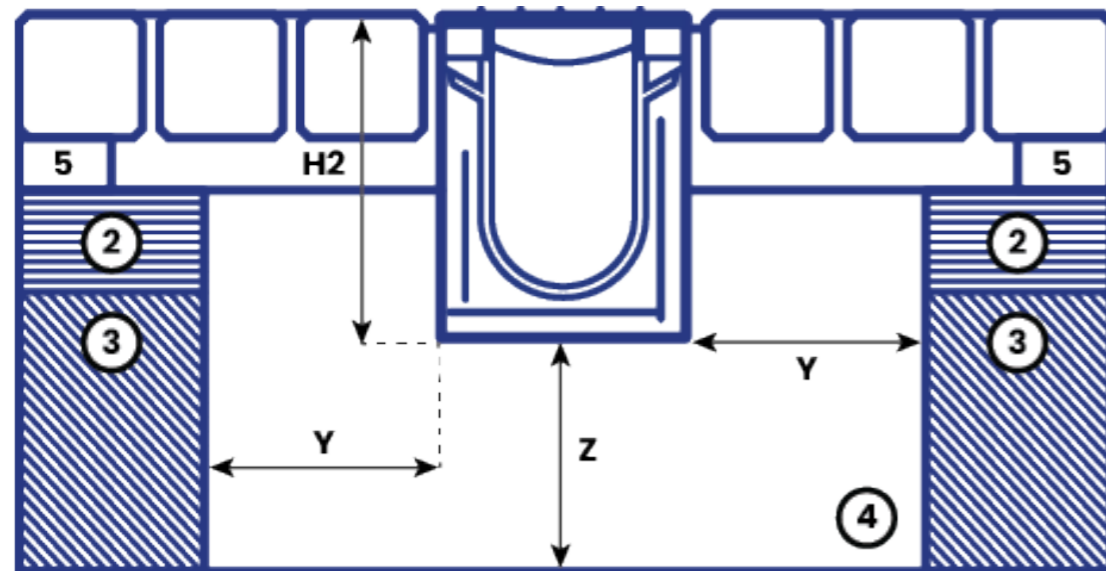
Type:	OvalGrip slotted cast iron grating
Material:	EN-GJS cast iron
Length:	500mm
Inlet cross-section:	490 cm <sup>2</sup> /m, 680cm <sup>2</sup> /m, 916cm <sup>2</sup> /m, 1196 cm <sup>2</sup> /m
Fastening:	GJS Cast edge rail

# Installation Guide

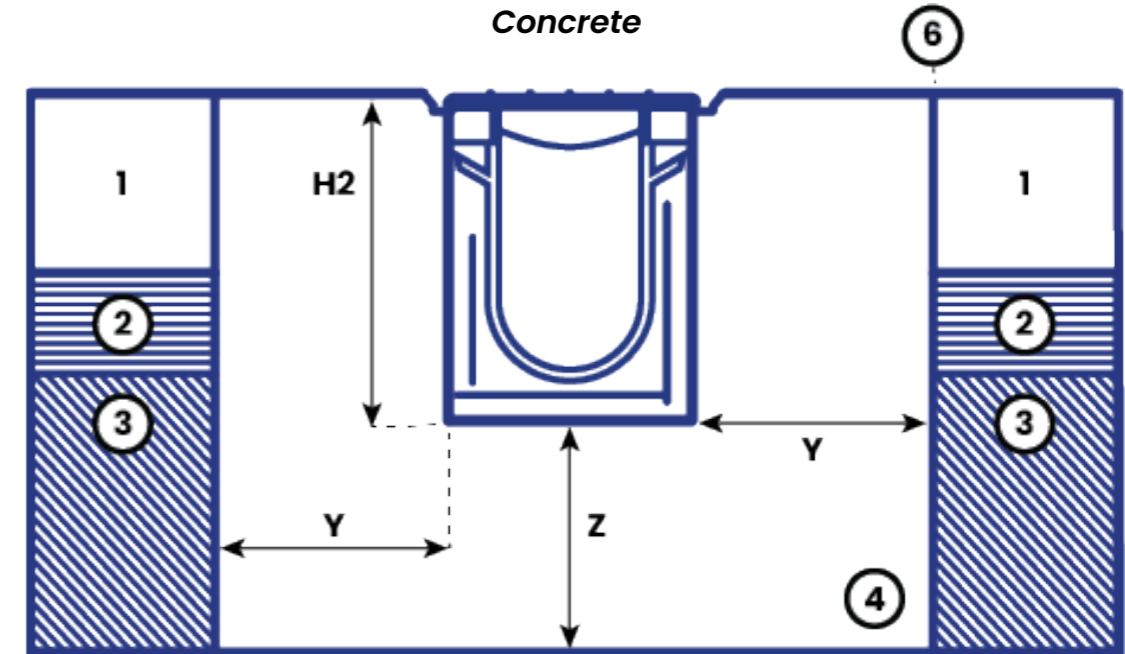
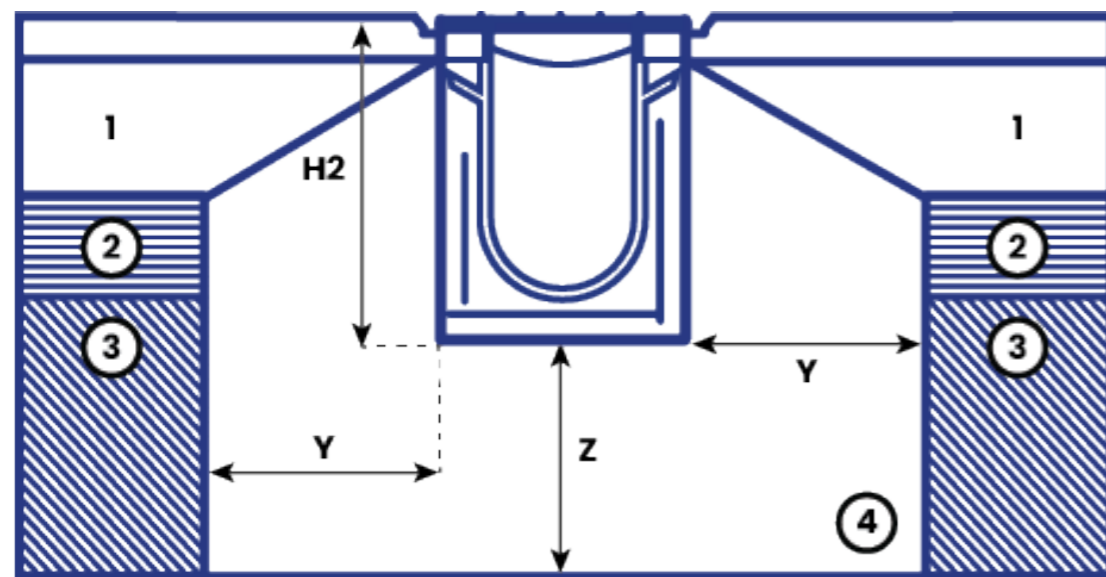
Ground conditions must be suitable and all dimensions shown are the minimum requirement. Engineering advice should be taken where necessary and any questions should be directed to Polycon's technical team by emailing us at [sales@polycon.co.uk](mailto:sales@polycon.co.uk) or by calling us on **0151 424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

1	2	3	4	5	6
Concrete	Sub Base	Earth	Concrete Haunch	Sand Layer	Expansion Joint

**Block Paving**



**Tarmac**



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

\*\* Minimum Concrete Haunch 25 N/mm<sup>2</sup>.  
Detail A allow for overbuild of 3mm to 5mm above the grating surfaces.





**Polycon Surface Water Drainage**

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