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Water management

PRODUCT AND INSTALLATION MANUAL

CONNECT TO BETTER

Wavin Civils Channel

CONNECT TO BETTER

Contents
Wavin Civils Channel

Polymer Concrete
Wavin Civils Channel

The Quality Material

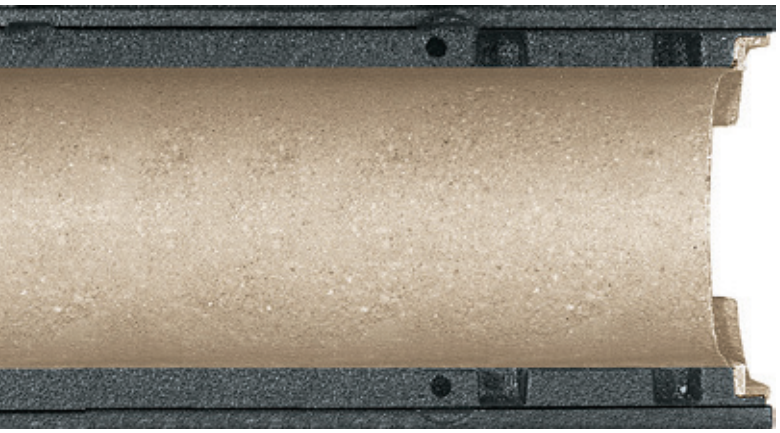
This special polymer concrete produced by MEA for Wavin is remarkable for its outstanding physical and chemical properties. These properties make it an extremely reliable and versatile material in even the toughest conditions. The material is made from natural mineral products. Quartz, Qasalt and granite are bonded together with a resinous mixture – Which is particularly robust and has an extremely high flexural tensile strength and compressive strength. Another impressive feature of drainage channels made from polymer concrete is that they are significantly lighter than conventional concrete channels, making them considerably easier to install.

Because they are particularly resistant to liquid chemicals, Wavin Civils channel polymer concrete products are the system of choice when it comes to eco-friendly drainage solutions and the protection of groundwater. The numerous benefits of this specially developed polymer concrete are what make this material the successful foundation for the Wavin Civils Channel channel system.

The Material at a Glance:

- Impermeable, virtually pore-free
- Highly resistant to chemicals, oils and other chemically aggressive substances
- Predominantly made of natural, minerals such as quartz, basalt and granite
- Significantly lighter than comparable concrete channels

Material	
Compressive strength	> 90 N/mm^2
Flexural tensile strength	> 22 N/mm^2
Water absorption	Below 0.05%
Modulus of elasticity	25 – 35 kN/mm^2
Density	2.1 – 2.3 kg/dm^2
Water ingression depth	0 mm^2
Material structure	Capillary-free – ideal for the rapid discharge of water and dirt particles
Channel body weight	up to 75 % lighter than conventional concrete channels
Material structure	Highly resistant to liquid chemicals (pH range 3 to 9)
Workability	Suitable for grinding disks, rock drills and chisels
Environmental compatibility	Eco-friendly building material with mineral admixtures
Ageing resistance	Entirely frost proof, wear-resilient, and maintenance-free



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System Overview
Wavin Civils Channel

Medium Duty 100

- Channel section flat
- Galvanised edge rails
- Loading class C250

Clear Width	Total Width	Total Height
100mm	130mm	150mm

Heavy Duty 100

- Channel section flat
- Cast Iron edge rails
- Loading class D400 or F900

Clear Width	Total Width	Total Height
100mm	140mm	150mm

Heavy Duty 150

- Channel section flat
- Cast Iron edge rails
- Loading class D400 or F900

Clear Width	Total Width	Total Height
150mm	190mm	220mm

Heavy Duty 200

- Channel section flat
- Cast Iron edge rails
- Loading class D400 or F900

Clear Width	Total Width	Total Height
200mm	240mm	280mm

Heavy Duty 300

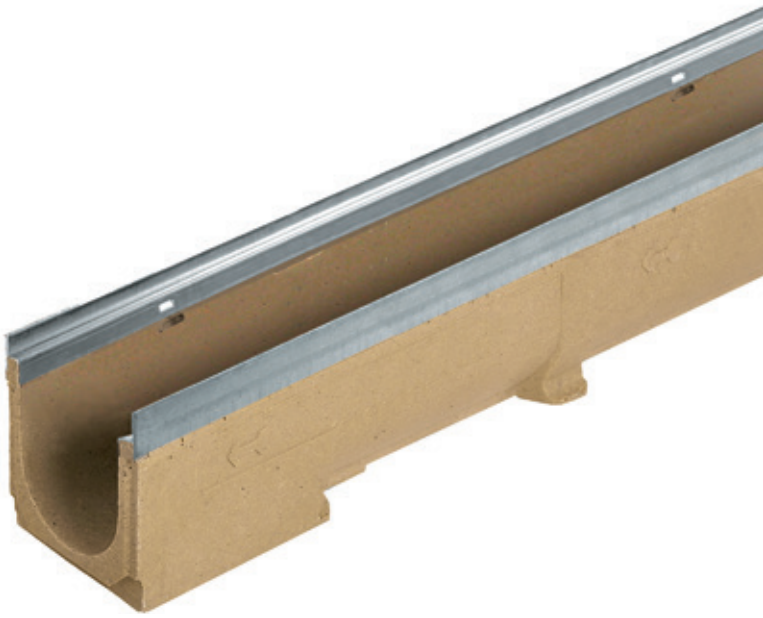
- Channel section flat
- Cast Iron edge rails
- Loading class D400 or F900

Clear Width	Total Width	Total Height
300mm	370mm	390mm

Medium Duty
Wavin Civils Channel

City Channels

When it comes to the drainage of pedestrian zones, parks and car parks, Wavin Medium Duty Civils Channel is the ideal solution in terms of functionality and visual appeal. The system fulfils the new European EN 1433 standard with more stringent environmental protection guidelines for drainage channels in vehicular and pedestrian areas, but also satisfies when it comes to aesthetics due to its slender edge rails, a perfect joint with adjoining slabbed and paved surfaces is guaranteed.



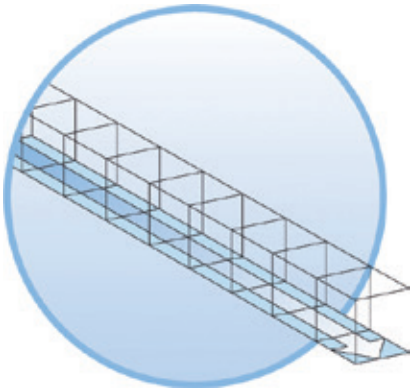
For loading classes A15 to C250, the Wavin Medium Duty Civils Channel with galvanized steel edge rails supports the hard wearing grating. The edge rails are embedded in the channel bodies that are made from eco-friendly, high-strength polymer concrete which protects groundwater reliably from chemically aggressive liquids.
A ductile Iron or a composite grating is available in C250 loading class. Both gratings feature a slimslot design for use in pedestrian and shopping area applications, where the use of high heels and small wheeled traffic (e.g. shopping trolleys) need to be accommodated. The CLIPFIX® design allows for rapid and secure installation.

Specific Applications:

1. Town and city centres
2. Public parks
3. Car parks

Particularly Suitable for Loading Classes:

- C250 (250 kN test load)



No fall
A constant-depth channel run, where no gradient is required or the natural or hydraulic gradient is sufficient.

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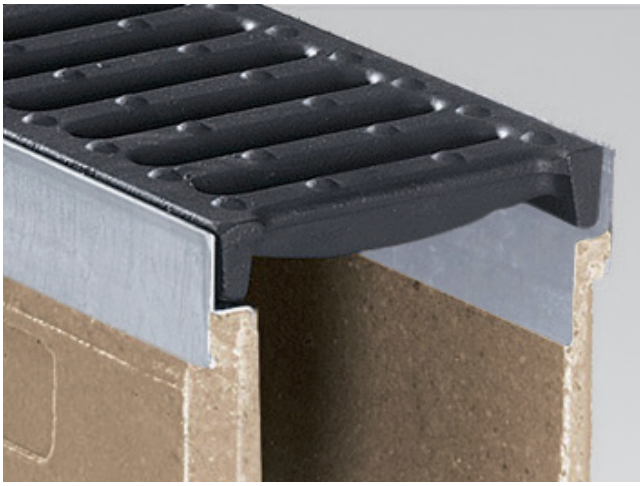
CLIPFIX®
Wavin Civils Channel

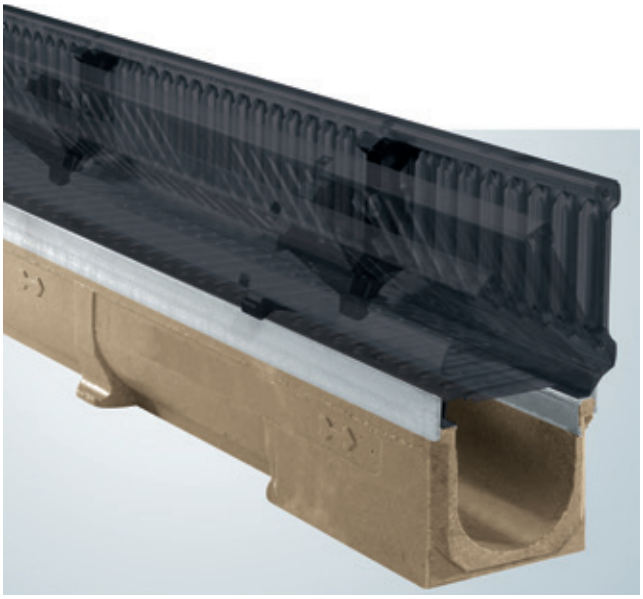
CLIPFIX® Rapid Locking for Gratings

CLIPFIX® is the innovative alternative to securing channel gratings by bolts. Bolted systems can include combinations of bolts, washers and straps, all of which are more difficult to install and include small easy to lose components. CLIPFIX® is fast, easy and secure. The slim galvanised edge rails are cast into the channel for added stability and security provide an unobtrusive transition between the C250 loading class grating and its surrounding paved surface.



CLIPFIX® Rapid Locking System Installation

After the channel has been installed and you are ready to fix the gratings, place and align each grating with the end of the channel edge rail, then step on the grating until it can be felt and heard to clip into place. Finished in seconds! Special CLIPFIX® indents in the galvanised side rails guarantee a secure hold. With two fixing points per grating provided four fixing points per metre of channel. The CLIPFIX® method is compelling; the locking system saves time and money, facilitates optimal water collection and will perform reliably for years to come.

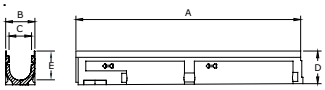


CLIPFIX® Rapid Removal for Maintenance

All you will need are work gloves and a grating hook to remove the first channel grating. Use this to lever out the first grating from the channel run. All the remaining gratings can now be removed by hand. To re-fit the gratings, simply follow the installation procedure above. Cleaning the channel for periodic maintenance is also just as easy, after the grating has been removed it reveals an entirely unobstructed channel, without having the hindrance of cross members such as fixing bolts or straps.

Product Details
Wavin Civils Channel

Medium Duty – 100mm Wide C250

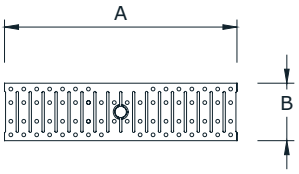


Channel – Flat, 150mm Deep, 1.0m Long

- Integrated galvanised steel edge protection
- 100mm diameter connection facility for vertical discharge
- Interlocking joint system for an exact fitting of the channels

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
100	100MDC100	1000	130	100	150	130

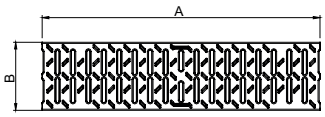


CLIPFIX® Grating – 0.5m Long

- Loading class C250 to EN 1433
- Slimslot 5mm x 90mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
100	100MDC110	500	122

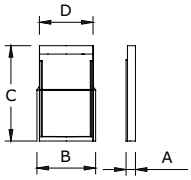


CLIPFIX® Grating – 0.5m Long

- Loading class C250 to EN 1433
- Slimslot 6mm x 43mm

Material: Composite

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
100	100MDC120	500	122

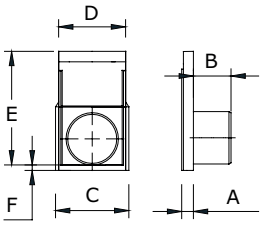


End Plate – Blank

- Galvanised steel edge protection

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
100	100MDC130	26	154	245	130

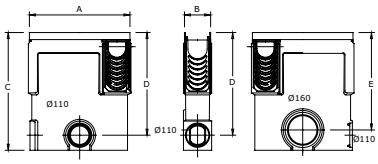


End Plate – Outlet

- Galvanised steel edge protection
- 110mm PVC-U outlet

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
100	100MDC140	26	100	154	130	131	19



Sump – Complete with bucket (does not include grating)

- Integrated galvanised steel edge protection
- Galvanised steel sediment bucket included
- Connection facility for 110mm and 160mm diameter pipe

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
100	100MDC150	500	130	585	510	484

Heavy Duty
Wavin Civils Channel

Heavy-load Applications

Next to appearance, the expected maximum load is the decisive factor in the selection of a drainage system.

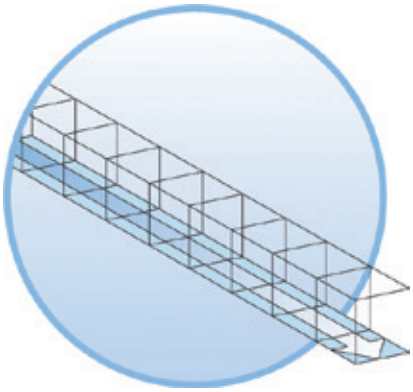
The EN 1433 standard specifies the various loading classes and associated installation locations. Wavin Heavy Duty Civils Channel has been created specifically for all those applications where high to extremely high wheel loads are present – classes D400 and F900. This channel system utilises the advantages of polymer concrete in a unique manner to heavy-load applications: the extremely robust and practically wear-free design of channel bodies ensures maximum reliability. Their modular, lightweight construction allow for a wide spectrum of options. The outstanding surface finish guarantees the rapid discharge of water and dirt particles. What's more, groundwater is permanently protected thanks to the channel's high resistance to chemically aggressive substances. Civils channel combines performance, reliability and efficiency in an optimal manner for professional surface drainage.

Specific Applications:

1. Commercial premises
2. Warehouses and stockyards
3. At the dockside

Particularly Suitable for Loading Classes:

- D400 (400 kN test load)
  Not suitable for the cross drainage of high speed roads and motorways
- F900 (900 kN test load)



No fall
A constant-depth channel run, where no gradient is required or the natural or hydraulic gradient is sufficient.

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PROFIX®
Wavin Civils Channel

PROFIX® Rapid Locking for Gratings

PROFIX® is the innovative alternative to securing channel gratings by bolts. PROFIX® is fast, easy and secure. Its heavy gauge four point sprung steel locking system provides long term functionality under extreme conditions. The robust cast iron edge rails are cast into the channel for added stability and security providing a seamless transition between the D400 or F900 loading class grating and its surrounding paved surface.

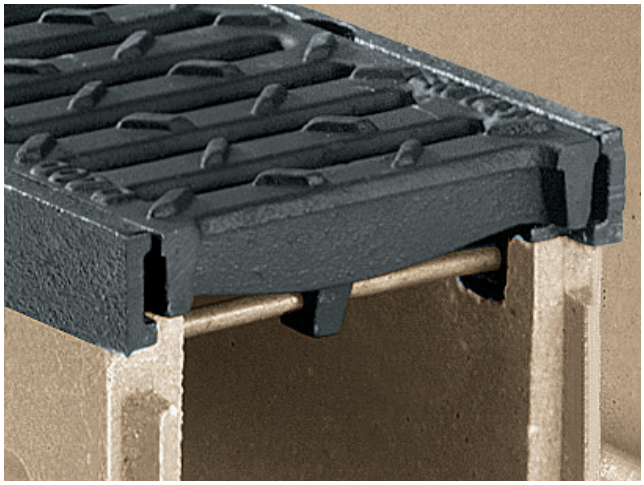
PROFIX® Rapid Locking System Installation

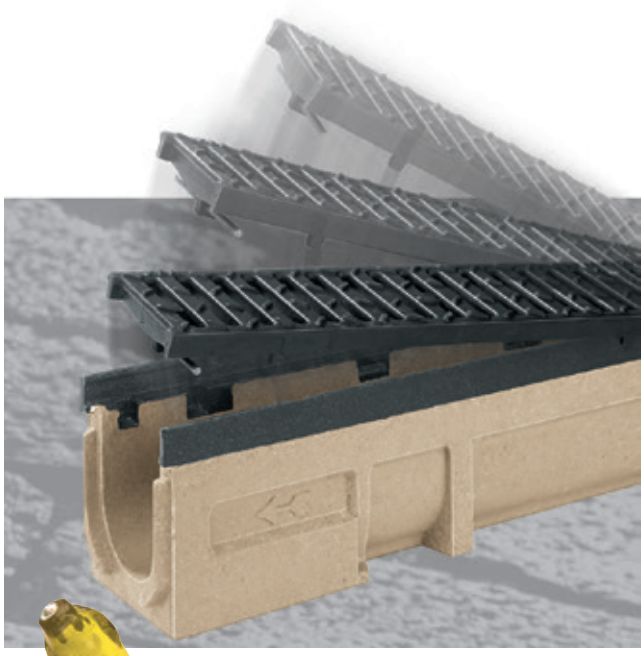
After the channel has been installed and you are ready to fix the gratings, place and align each grating with the end of the channel edge rail, then step on the grating until it can be felt and heard to lock into place. The PROFIX® securing lugs in the cast iron side rails guarantee a secure grip enabling high wheel load vehicles to travel over turn on the channel gratings whilst defiantly remaining in place. With four fixing points per grating providing eight fixing points per metre of channel. The PROFIX® method is durable and secure; the locking system saves time and money, facilitates optimal water collection and will perform reliably for years to come.

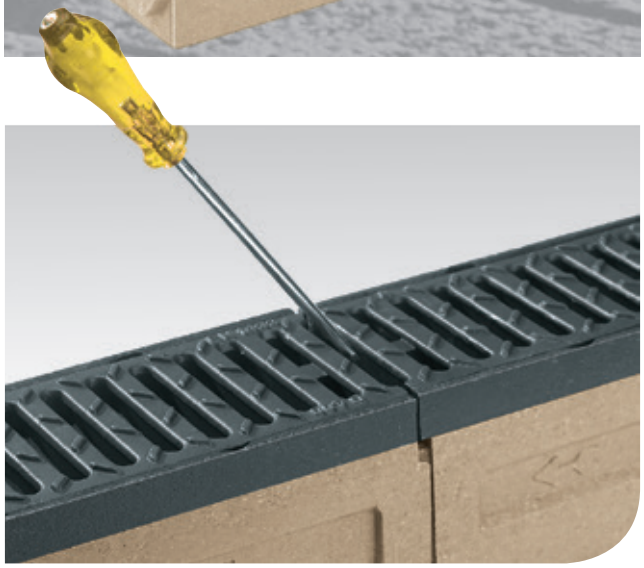
PROFIX® Rapid Removal for Maintenance

All you will need are work gloves and a sturdy screwdriver to remove the first channel grating. Use this to lever out the first grating from the channel run. All the remaining gratings can now be removed by hand. To re-fit the gratings, simply follow the installation procedure above. Cleaning the channel for periodic maintenance is also just as easy, after the grating has been removed it reveals an entirely unobstructed channel, without having the hindrance of cross members such as fixing bolts or straps.

Detailed view – PROFIX locking system

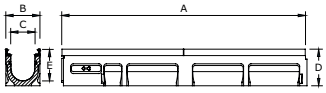






Product Details
Wavin Civils Channel

Heavy Duty – 100mm Wide D400/F900

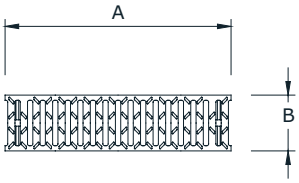


Channel – Flat, 150mm Deep, 1.0m Long

- Integrated cast iron edge protection
- 100mm diameter connection facility for vertical discharge
- Interlocking joint system for an exact fitting of the channels

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
100	100HDC100	1000	140	100	150	130

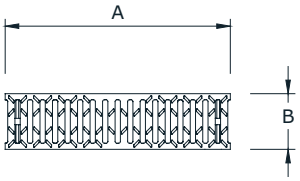


PROFIX® Grating – 0.5m Long

- Loading class D400 to EN 1433
- Slot dimensions 12mm x 100mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
100	100HDC110	500	122

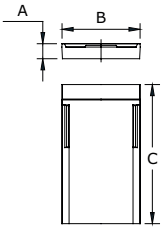


PROFIX® Grating – 0.5m Long

- Loading class F900 to EN 1433
- Slot dimensions 12mm x 100mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
100	100HDC120	500	122

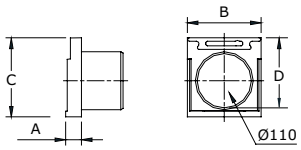


End Plate – Blank

- Cast iron edge protection

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C
100	100HDC130	27	140	250

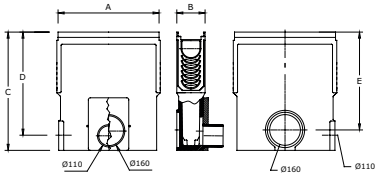


End Plate – Outlet

- Cast iron edge protection
- 110mm diameter outlet

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
100	100HDC140	30	140	150	133



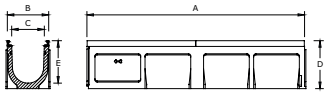
Sump – Complete with bucket (does not include grating)

- Integrated cast iron edge protection
- Galvanised steel sediment bucket included
- Connection facility for 110mm and 160mm diameter pipe

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
100	100HDC150	500	140	585	510	484

Heavy Duty – 150mm Wide D400/F900

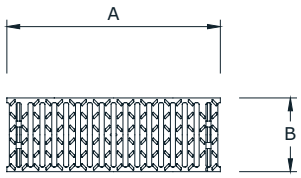


Channel – Flat, 150mm Deep, 1.0m Long

- Integrated cast iron edge protection
- 150mm diameter connection facility for vertical discharge
- Interlocking joint system for an exact fitting of the channels

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
150	150HDC100	1000	190	150	220	195



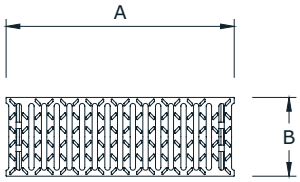
PROFIX® Grating – 0.5m Long

- Loading class D400 to EN 1433
- Slot dimensions 12mm x 147mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
150	150HDC110	500	172

Product Details
Wavin Civils Channel

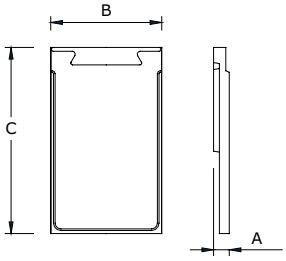


PROFIX® Grating – 0.5m Long

- Loading class F900 to EN 1433
- Slot dimensions 12mm x 147mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
150	150HDC120	500	172

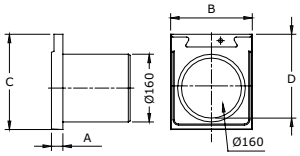


End Plate – Blank

- Cast iron edge protection

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C
150	150HDC130	27	191	320

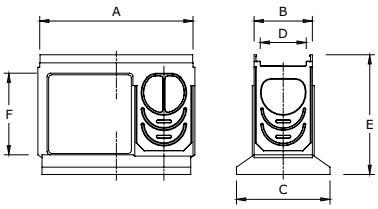


End Plate – Outlet

- Cast iron edge protection
- 150mm diameter outlet

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
150	150HDC140	27	193	225	198

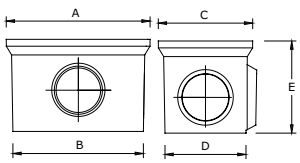


Sump Upper – (does not include grating)

- Integrated cast iron edge protection

Material: Polymer concrete

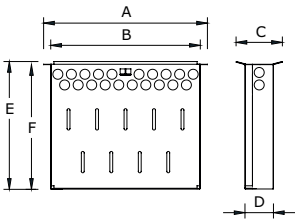
Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
150	150HDC150	500	190	305	150	390	266



Sump Lower

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
150	150HDC160	524	475	344	295	335

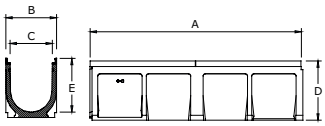


Sump Bucket

Material: Galvanised steel

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
150	150HDC170	460	420	130	80	359	350

Heavy Duty – 200mm Wide D400/F900

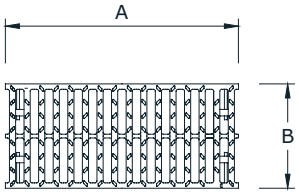


Channel – Flat, 280mm Deep, 1.0m Long

- Integrated cast iron edge protection
- 150mm diameter connection facility for vertical discharge
- Interlocking joint system for an exact fitting of the channels

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
200	200HDC100	1000	240	200	280	255

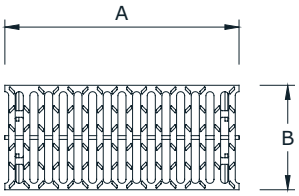


PROFIX® Grating – 0.5m Long

- Loading class D400 to EN 1433
- Slot dimensions 18mm x 96mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
200	200HDC110	500	222



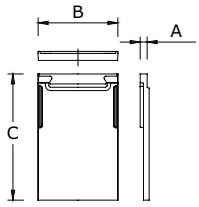
PROFIX® Grating – 0.5m Long

- Loading class F900 to EN 1433
- Slot dimensions 17mm x 194mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
200	200HDC120	500	222

Product Details
Wavin Civils Channel

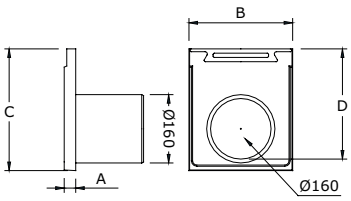


End Plate – Blank

- Cast iron edge protection

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C
200	200HDC130	21	240	380

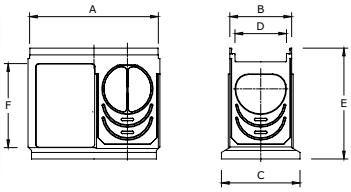


End Plate – Outlet

- Cast iron edge protection
- 150mm diameter outlet

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
200	200HDC140	27	243	285	258

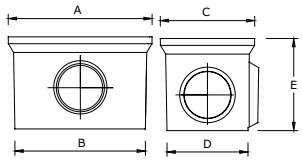


Sump Upper – (does not include grating)

- Integrated cast iron edge protection

Material: Polymer concrete

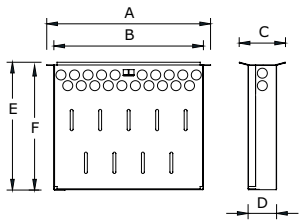
Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
200	200HDC150	500	240	305	200	430	326



Sump Lower

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
200	200HDC160	524	475	344	295	335

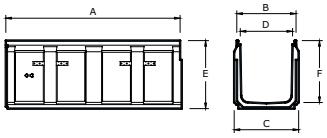


Sump Bucket

Material: Galvanised steel

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
200	200HDC170	460	420	180	120	360	351

Heavy Duty – 300mm Wide D400/F900

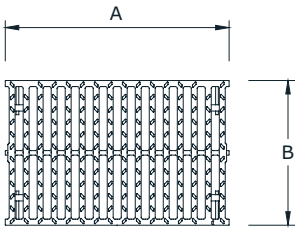


Channel – Flat, 390mm Deep, 1.0m Long

- Integrated cast iron edge protection
- 200mm diameter connection facility for vertical discharge
- Interlocking joint system for an exact fitting of the channels

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E	F
300	300HDC100	1000	340	370	300	390	360

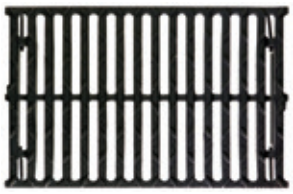


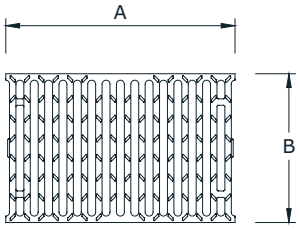
PROFIX® Grating – 0.5m Long

- Loading class D400 to EN 1433
- Slot dimensions 18mm x 143mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
300	300HDC110	500	322



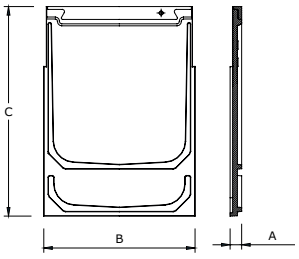


PROFIX® Grating – 0.5m Long

- Loading class F900 to EN 1433
- Slot dimensions 17mm x 295mm

Material: Ductile Iron

Nominal Size (mm)	Part Number	Dimensions (mm) A	B
300	300HDC120	500	322



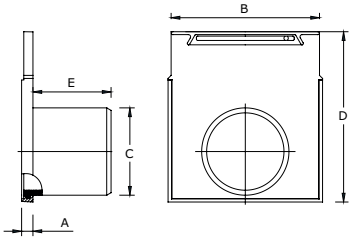
End Plate – Blank

- Cast iron edge protection

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C
300	300HDC130	27	354	490

Product Details
Wavin Civils Channel

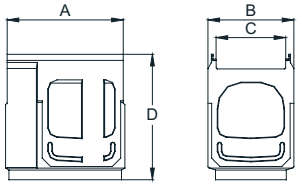


End Plate – Outlet

- Cast iron edge protection
- 200mm diameter outlet

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
300	300HDC140	26	340	200	390	179

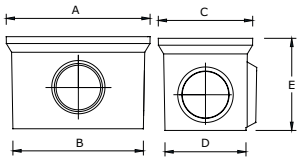


Sump Upper – (does not include grating)

- Integrated cast iron edge protection

Material: Polymer concrete

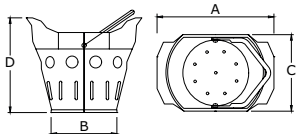
Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
300	300HDC150	500	370	300	540



Sump Lower

Material: Polymer concrete

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D	E
300	300HDC160	524	475	344	295	335



Sump Bucket

Material: Galvanised steel

Nominal Size (mm)	Part Number	Dimensions (mm) A	B	C	D
300	300HDC170	390	220	260	320

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