

# MEADRAIN® Supreme

The heavy-duty drainage channel made from high-strength polymer concrete



EN 1000

EN 1500

EN 2000

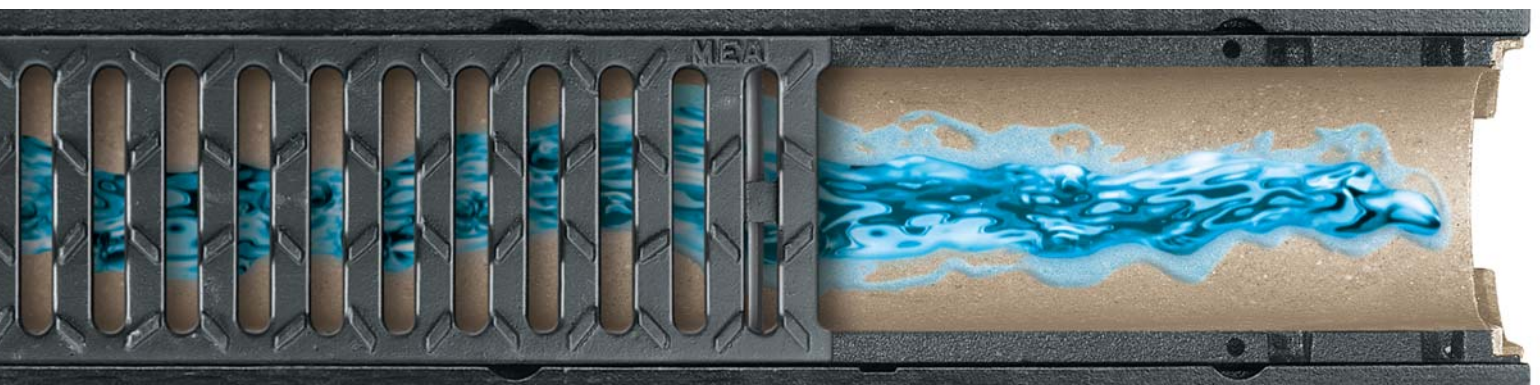
EN 3000

EN 3070

EN 4000

## MEADRAIN® Supreme: For the simple accomplishment of high-performance linear drainage

Wherever heavy loads are on the move, sealed surfaces need to be drained quickly and efficiently, as well as ensuring aggressive liquids do not contaminate ground water, **MEADRAIN® Supreme** literally reigns supreme. Because, for this heavy-duty channel type, the name speaks for the entire series: modern, high strength polymer concrete – the material from which the channels are constructed – already stands in a class of its own. Integrally cast within the channel, the upper cast-iron edge of **MEADRAIN® Supreme** guarantees maximum

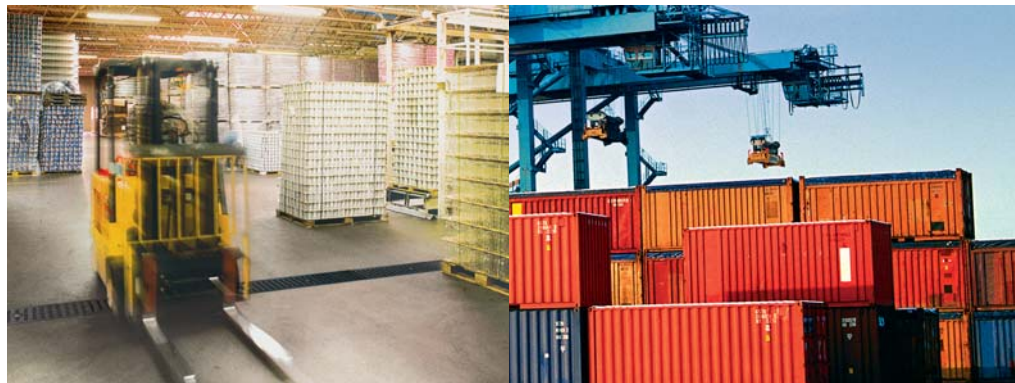


strength – even under the most extreme loads. A wide range of nominal widths as well as extensive system accessories for maximum flexibility during planning and installation serve to complement this high-performance linear drainage system, and when it comes to channel gratings, **MEADRAIN® Top** again offers you a first-rate selection to choose from. Regarding greater planning freedom, maximum construction quality, valuable time and cost savings, **MEADRAIN® Supreme** is the right solution.

# Working with the modern building material of polymer concrete ...

Compared to conventional concrete, MEA polymer concrete is an impermeable, largely pore free material that is characterised by its extreme stability and, due to considerable material savings, it has a low net weight. Predominantly comprising natural, mineral raw materials like quartz, basalt and granite and bonded by a resin mixture, MEA polymer concrete forms the basis for the high load bearing **MEADRAIN® Supreme** heavy-duty channels. A system which readily satisfies all the requirements for areas in which heavy loads are moved, i.e. in areas of civilian and military airports, at container ports and on other interchange areas where truck and fork-lift truck traffic dominates.

The environment in particular benefits from another advantage of **MEADRAIN® Supreme**: the high resistance of MEA polymer concrete to the majority of chemical liquids makes, this channel system a prime contender where heavy loads need to be moved and ground water needs to be protected. For example, in the food industry, in abattoir yards, on brewery sites and in filling stations.



## Planning with outstanding properties:

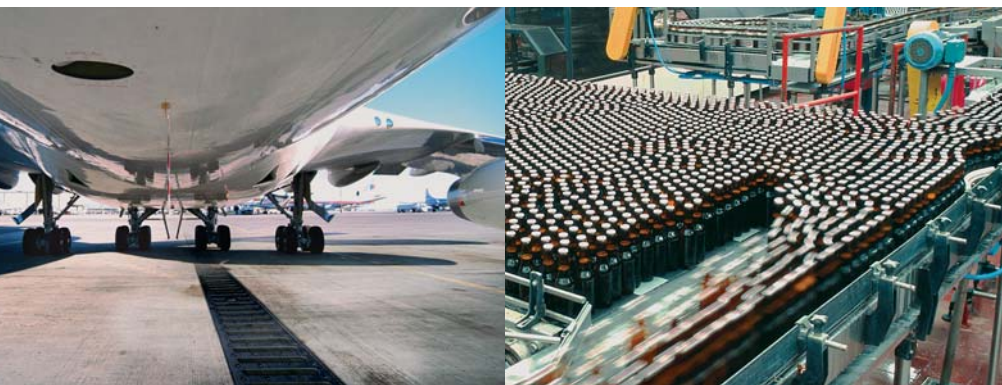
<b>MEADRAIN® Supreme</b>	
<b>Compressive strength</b>	≥ 90 N/mm <sup>2</sup>
<b>Flexural strength</b>	≥ 22 N/mm <sup>2</sup>
<b>Moisture absorption</b>	less than 0.05%
<b>Elastic modulus</b>	25-35 kN/ mm <sup>2</sup>
<b>Density</b>	2.1-2.3 kg/dm <sup>3</sup>
<b>Water ingress depth</b>	0 mm
<b>Material structure</b>	capillary free – ideal for the rapid drainage of water and dirt particles
<b>Channel body weight</b>	up to 75% lighter than conventional concrete channels
<b>Resistance to acids</b>	high resistance to chemical liquids (pH range: 3 to 9)
<b>Tool compatibility</b>	readily cut by grinding disks, masonry drills and chisels
<b>Eco friendliness</b>	environmentally compatible building material with mineral additives
<b>Resistance to ageing</b>	entirely frost resistant, immune to wear and maintenance free

# MEADRAIN® Supreme: Retains its strength even under extreme loads

Apart from appearance and type of incline, the maximum expected load is the defining criteria for the selection of a drainage system. The different load classes and commensurate traffic surfaces are all set down in EN 1433, especially for areas that are subjected to very high wheel loads – classes E 600 and F 900 – there is no better choice than **MEADRAIN® Supreme**. This channel system confirms the advantages of polymer concrete for heavy load areas in a unique manner:

The extremely robust and practically wear resistant design of the channel body ensures the highest possible degree of reliability. Their modular light construction and the different types of fall allow for a multitude of different combination options. The outstanding surface finish guarantees a rapid discharge of water and silt particles, the high resistance to aggressive substances and the protection of ground water.

Whoever wishes to unite reliability and performance in the best possible way in a professional surface water drainage system will plan with **MEADRAIN® Supreme**.

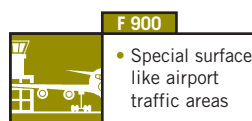
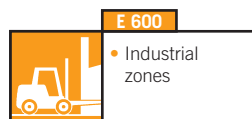
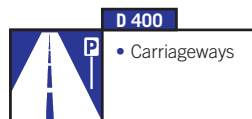
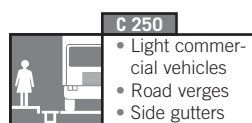


## Loading classes:

The channel for extreme loads, performance and reliability is **MEADRAIN® Supreme**. The channel system made from polymer concrete for drainage in heavy load areas.

Particularly suitable for:

- C 250 (250 kN test load)
- D 400 (400 kN test load)
- Not suitable for cross drainage of high speed roads and motorways
- E 600 (600 kN test load)
- F 900 (900 kN test load)
- EN 1000 - 3000 A 15 - F 900
- EN 4000 A 15 - E 600



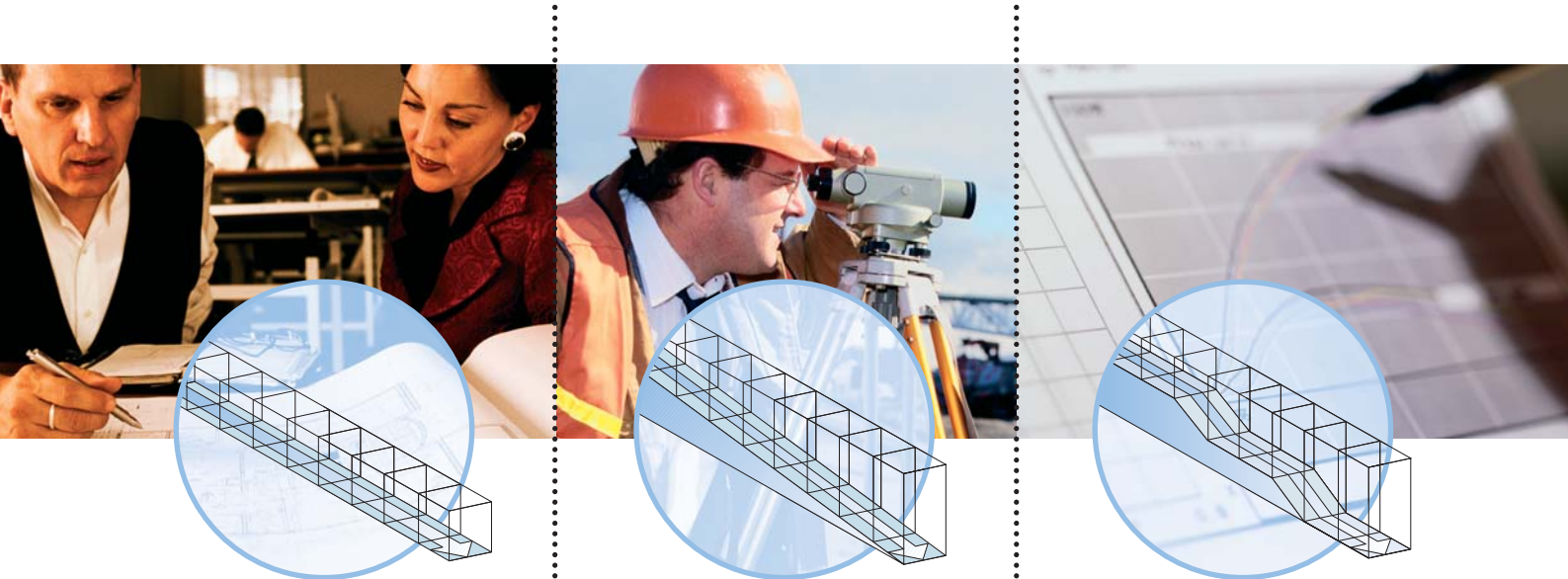


# The right solution whatever the terrain

The rapid, reliable and cost-effective drainage of surfaces will always best be expressed by an equation containing the variables of surface type, average precipitation volume for the respective region, plus the amount of local incline.

When planning with **MEADRAIN® Supreme**, coming up with a practical answer to the equation is a sure thing, right from the

outset. In fact, with its three fall options and a multitude of different combination options, you'll always arrive at the perfect solution for every situation: exact accommodation of the terrain and an optimal flow rate. Naturally, you are also allowed to factor in MEA's wide-ranging experience, which we shall be pleased to provide in the form of hydraulic calculations and diagrams.



## Without fall

*The level channel run is used wherever no fall is required or the natural incline suffices. A choice of different channel heights and nominal widths ranging from EN 1000 to EN 4000 is available.*

## Linear fall

*Channel runs with an integrated linear fall, achieved by a continuous gradient of 0.5%, ensure reliable discharge. Their use is called for wherever the rapid removal of environmentally hazardous materials is required. The EN 1000 channel can be used to construct runs with a linear fall that extend up to 20 metres for individual lengths.*

## Stepped fall

*Channel runs with a stepped fall provide for cost-effective, free-flowing and even discharge. This type of fall can be attained with channels EN 1500 and 2000 by combining connecting elements that have a base fall of 2.5% with channel elements without a fall. Here, the connecting elements replace a 1 metre channel section. Additional parts are not required.*

# MEADRAIN® Supreme: Channel types

The MEA planning service for MEADRAIN® Supreme makes it simple to find the right solution, even when faced with the trickiest of tasks. Because it not only allows you to plan with a perfectly coordinated system, but also with the longstanding experience of one of the

leading experts in professional surface drainage. The benefit of MEA's technical knowledge always remains accessible to you: for example, practical specification clauses as well as detailed product information – both of which can be called up online round the clock at

[www.mea-group.com](http://www.mea-group.com). Use our hydraulic capacity calculations, precise installation plans and part lists as and when you need them. And don't forget to ask the personal advice of our experts when you need more support – be it during planning, or on the construction site.

## MEADRAIN® Supreme EN 1000



- Clear width:** 100 mm
- Total width:** 140 mm
- Total height:** from 150 mm to 250 mm
- Channel sections for a linear fall (base fall 0.5%) and no fall
- Also with integral outlet connector
- Loading class A 15 to F 900

## MEADRAIN® Supreme EN 1500

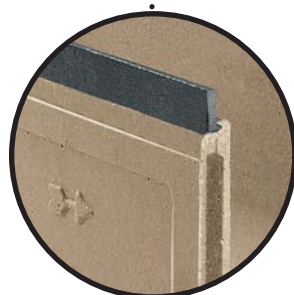


- Clear width:** 150 mm
- Total width:** 190 mm
- Total height:** from 220 mm to 320 mm
- Channel sections for no fall or a stepped fall
- Also with integral outlet connector
- Loading class A 15 to F 900

## MEADRAIN® Supreme EN 2000



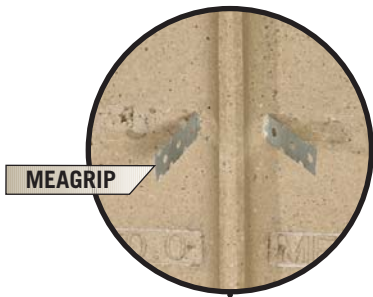
- Clear width:** 200 mm
- Total width:** 240 mm
- Total height:** from 280 mm to 380 mm
- Channel sections for no fall or a stepped fall
- Also with integral outlet connector
- Loading class A 15 to F 900



### An intimate bond:

#### Upper edge and channel body

The MEADRAIN® Supreme EN features a cast-iron upper edge that is permanently embedded within the channel body. This guarantees a physically robust and visually appealing solution, with effortless fitting of the MEADRAIN® Top channel gratings.



**MEAGRIP** provides a perfect anchorage in the concrete haunch of the channel sections with extreme high sidewalls (EN 3070).

### MEADRAIN® Supreme EN 3000



### MEADRAIN® Supreme EN 3070



### MEADRAIN® Supreme EN 4000



**Clear width:** 300 mm  
**Total width:** 354 mm  
**Total height:** 390 mm and 490 mm

- Channel sections for no fall
- Connection option for a vertical outlet every half metre
- Channel sections with pre-formed knockouts for corner, T and cross connections
- Loading class A 15 to F 900

**Clear width:** 300 mm  
**Total width:** 394 mm  
**Total height:** 760 mm

- Channel sections for no fall
- Connection option for a vertical outlet every half metre
- Also with integral outlet connector
- Loading class A 15 to F 900

**Clear width:** 400 mm  
**Total width:** 494 mm  
**Total height:** 465 mm

- Channel sections for no fall
- Also with integral outlet connector
- Loading class A 15 to E 600

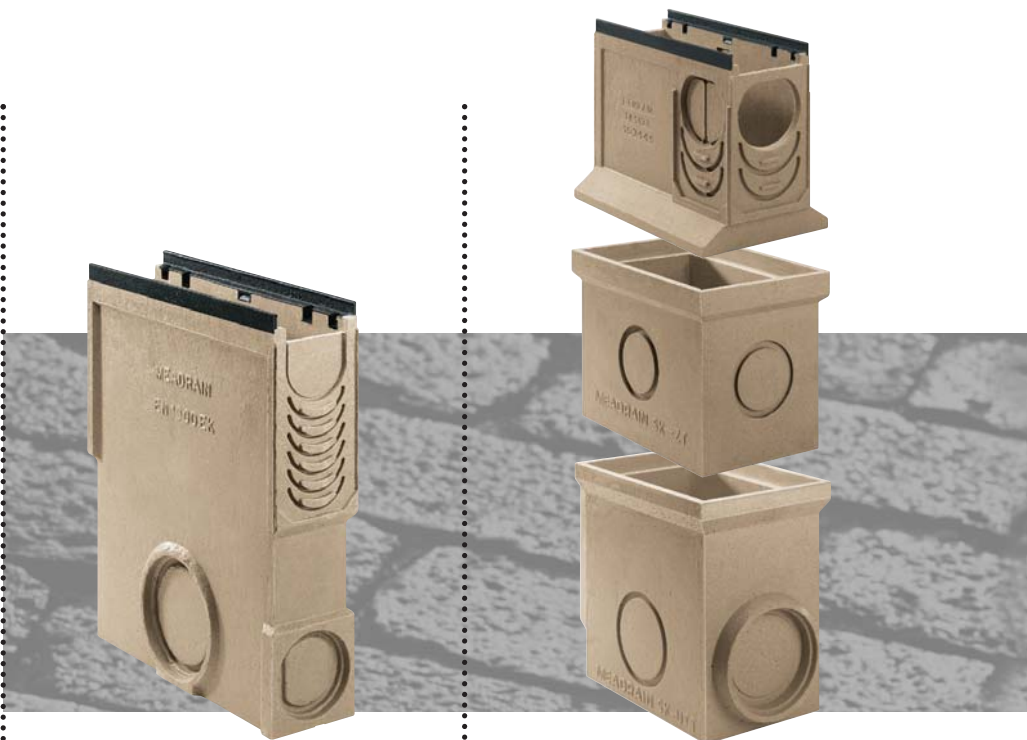
**EN 1000 - 3000 are approved by the German Institute of Construction Engineering (DIBT)**  
**MEADRAIN® Supreme EN** is an intelligently designed system from start to finish. One that provides distinct advantages, especially in critical areas like filling stations where ground water needs to be protected: i.e. a sealable rebate which facilitates the sealing of the channels.



# MEADRAIN® Supreme: System accessories

Opting for **MEADRAIN® Supreme** also means not sacrificing ultimate performance and reliability when it comes to the vulnerable interfaces of a drainage system.

Because **MEADRAIN® Supreme** stands for reliability and performance – right down to the smallest detail. That's why a comprehensive series of accessories which offers the right connection piece for every conceivable installation rounds off the channel range. For example: T, cross and corner pieces as well as silt boxes and gullies.



## Silt box for EN 1000

*The silt box for the EN 1000 channel assumes the exact width as the channel itself. Strengthened by cast-iron edge protection, the silt box comes with a sediment bucket to effectively protect the storm water mains against blockage.*

## Gully 1500/2000/3000

*The counterpart to the silt box for the EN channel plays a multifunctional role for the 1000, 1500, 2000 and 3000 channel types. A suitable gully is available for every respective nominal width. Strengthened by cast-iron edge protection, the gully comes with a sediment bucket to effectively protect the storm water mains against blockage.*



## Problem free connection

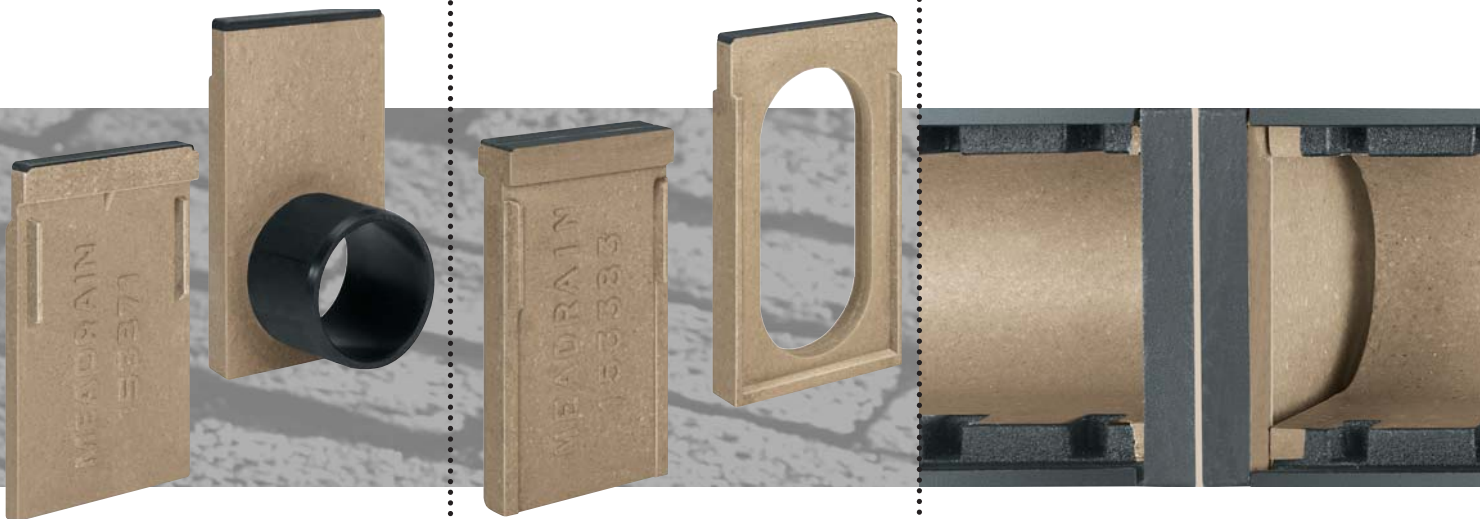
*A choice between  $\varnothing 110$  and  $\varnothing 160$  exists for connection of the storm water pipe to the EN 1000 silt box.*





**For reliable water discharge**

*A connector that is factory fitted in the EN channel ensures reliable discharge and effective protection of ground water.*



**End caps with / without outlet connectors**

*The end caps benefit from durable edge protection made of cast iron. They are available with or without an outlet connector.*

**Flow direction reversal**

*The accessory for optimal and even utilisation of silt boxes: In long channel runs, the flow direction reversal insert controls the flow of water into silt boxes at the left and right end of a channel run.*

**Detailed view**

*Flow direction reversal integrated in a channelrun.*

# MEADRAIN® Top: The crowning finish

MEADRAIN® Top channel gratings complete the MEADRAIN® Supreme series.

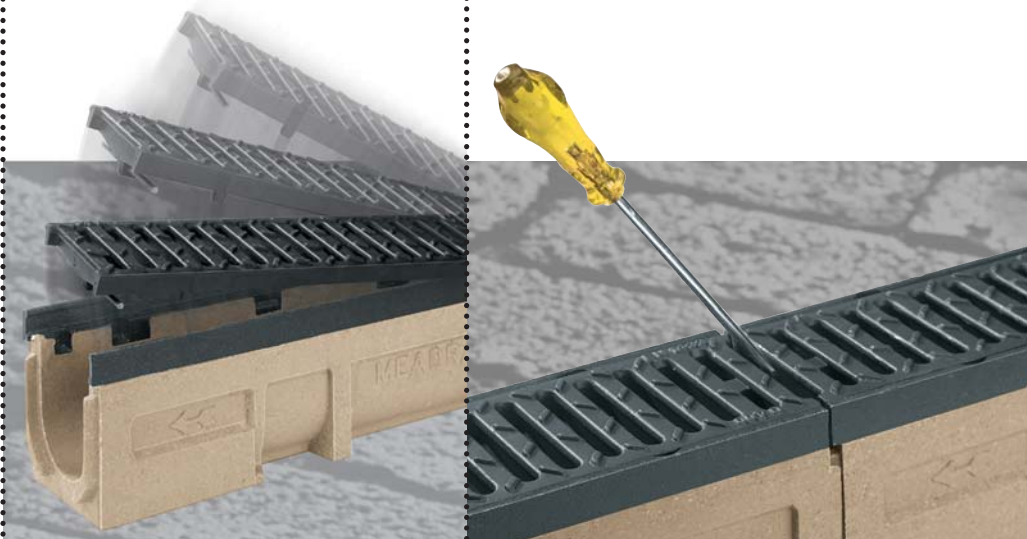
Available in loading classes C 250, D 400, E 600 and F 900, a range of different designs is available. Depending on channel type and width a selection of 3 locking mechanisms is available:

with MEADRAIN PROFIX® and MEADRAIN CLIPFIX® you have two innovative boltless securing solutions at hand. Optionally also available with a 4 point bolted locking mechanism.

Opt for MEADRAIN® Top and receive a whole package of additional benefits right from the start:

- Fast, cost-effective installation
- Excellent water inflow
- Extended service life
- Rattle free operation with vehicle traffic
- TÜV-tested

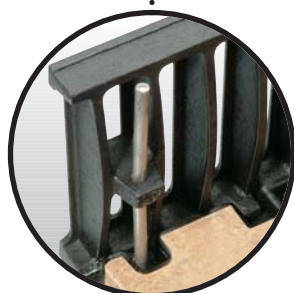
## PROFIX



### For everyone who appreciates fast, simple and convenient installation

*It's professionals who fit PROFIX! And it's never been easier: lay the grating into the channel – push in – finished. The grating's 4 point spring steel locking system automatically secures the grating in the channel, and what about removal? The professional simply uses a screwdriver to lever the grating up.*

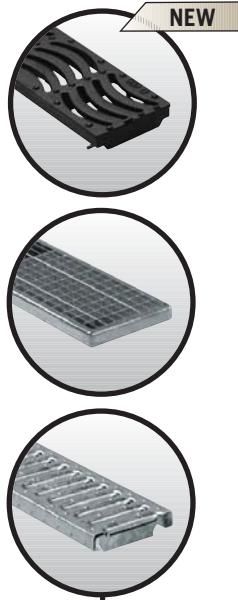
*Whether inserting gratings for the first time or cleaning the channel: compared with conventional methods of channel securement, PROFIX releases you from the arduous task of unbolting gratings and guarantees to be rattle free when driven over by vehicles. This securement method for professionals is available for all gratings.*



### PROFIX-locking in detail

*PROFIX has no moving parts and guarantees long lasting functionality even under extreme conditions. The grating has been designed to snap securely into the edge of the channel. In addition, four protruding lugs serve to prevent any longitudinal displacement of the grating.*

A galvanized mesh grating and galvanized slotted grating are additionally available for the **MEADRAIN® Supreme EN 1000**.



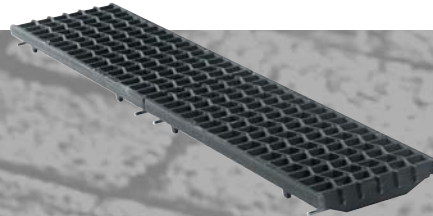
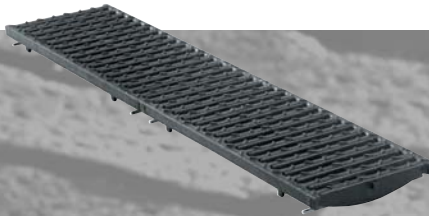
## Grating summary

Gratings 1000		
<b>Class 250</b>	ductile iron slotted grating	slot width 5/90 mm
	mesh grating, galv.	mesh width 20/10 mm
	slotted grating, galv.	slot width 10/85 mm
	ductile iron cover	solid
<b>Class D 400</b>	ductile iron slotted grating	slot width 12/100 mm
	ductile iron wave grating	mesh width 23/20 mm
	ductile iron Move grating	slot width 8/107 mm
<b>Class E 600</b>	ductile iron slotted grating	slot width 12/100 mm
<b>Class F 900</b>	ductile iron slotted grating	slot width 12/96 mm

### Ductile iron slotted grating

### Wave

### Solid ductile iron cover



### Three gratings for extreme loads

A choice of three alternative channel coverings is provided for heavy load applications: the ductile iron slotted grating, Wave and the solid ductile iron cover. No matter which of these three gratings from our **MEADRAIN® Top** range you choose for your next project – drainage by MEA is of the highest quality, right down to the smallest detail.

Gratings 1500		
<b>Class D 400</b>	ductile iron cover	solid
	ductile iron slotted grating	slot width 12/150 mm
	ductile iron wave grating	mesh width 23/20 mm
<b>Class F 900</b>	ductile iron slotted grating	slot width 12/134 mm

Gratings 2000		
<b>Class D 400</b>	ductile iron cover	solid
	ductile iron slotted grating	slot width 18/200 mm
<b>Class E 600</b>	ductile iron wave grating	mesh width 23/19 mm
<b>Class F 900</b>	ductile iron slotted grating	slot width 17/195 mm

Gratings 3000		
<b>Class D 400</b>	ductile iron cover	solid
	ductile iron slotted grating	slot width 18/295 mm
<b>Class F 900</b>	ductile iron slotted grating	slot width 17/295 mm

Gratings 4000		
<b>Class E 600</b>	ductile iron slotted grating	slot width 15/125 mm

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