

MEARIN

ULTRA LIGHT
HIGH PERFORMANCE
DRAINAGE SYSTEM

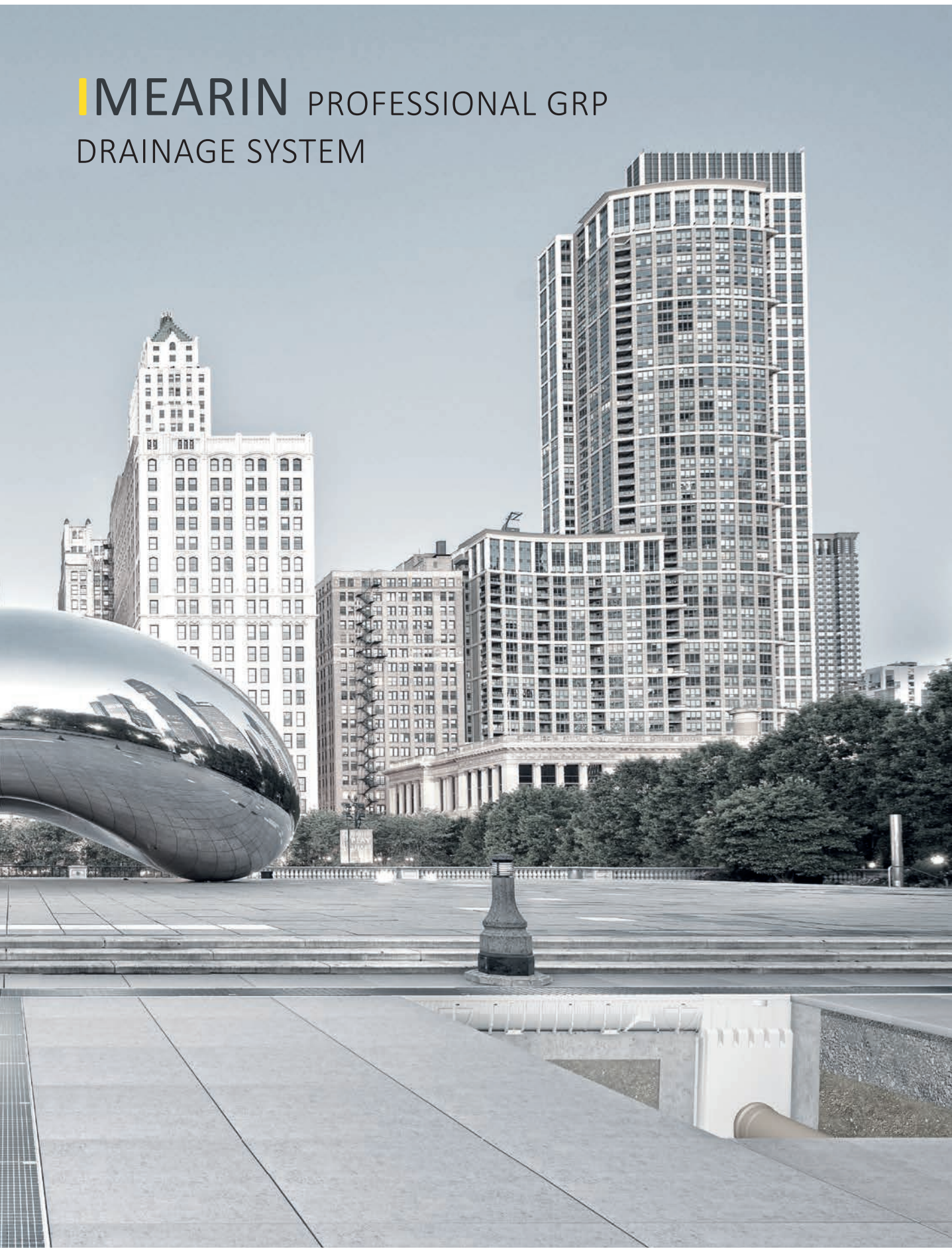


HIGH QUALITY GRP DRAINAGE SYSTEM

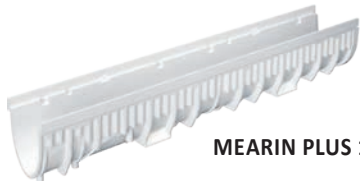
FLEXIBLE PROFESSIONAL DRAINAGE SOLUTION FOR ALL APPLICATIONS
MEARIN PLUS AND EXPERT



MEARIN PROFESSIONAL GRP DRAINAGE SYSTEM



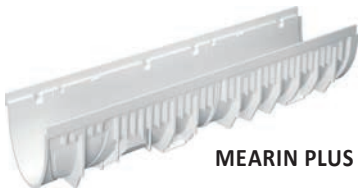
MEARIN PLUS SYSTEM OVERVIEW



MEARIN PLUS 100

Clear width: 100 mm
Total width: 136 mm
Total height: 158 mm

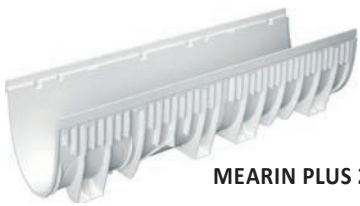
- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400
- > Also available in black



MEARIN PLUS 150

Clear width: 150 mm
Total width: 186 mm
Total height: 187 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400
- > Also available in black



MEARIN PLUS 200

Clear width: 200 mm
Total width: 236 mm
Total height: 242 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400



MEARIN PLUS 300

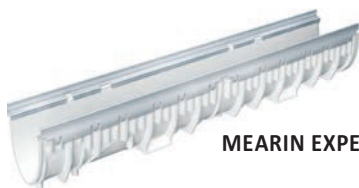
Clear width: 300 mm
Total width: 336 mm
Total height: 397 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400





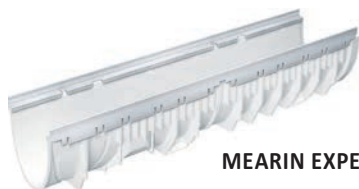
MEARIN EXPERT SYSTEM OVERVIEW



MEARIN EXPERT 100

Clear width: 100 mm
Total width: 132 mm
Total height: 158 mm

- > Drainage channel body without slope
- > With a 4 mm galvanised edge
- > Loading classes A 15 to E 600



MEARIN EXPERT 150

Clear width: 150 mm
Total width: 182 mm
Total height: 187 mm

- > Drainage channel body without slope
- > With a 4 mm galvanised edge
- > Loading classes A 15 to E 600



MEARIN EXPERT 200

Clear width: 200 mm
Total width: 232 mm
Total height: 242 mm

- > Drainage channel body without slope
- > With a 4 mm galvanised edge
- > Loading classes A 15 to E 600



MEARIN EXPERT 300

Clear width: 300 mm
Total width: 332 mm
Total height: 397 mm

- > Drainage channel body without slope
- > With a 4 mm galvanised edge
- > Loading classes A 15 to E 600



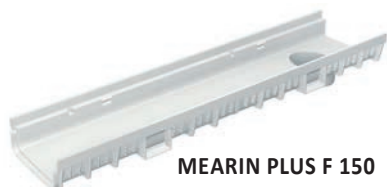
MEARIN FLAT CHANNEL SYSTEM OVERVIEW



MEARIN PLUS F 100

Clear width: 100 mm
Total width: 137 mm
Total height: 55 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400



MEARIN PLUS F 150

Clear width: 150 mm
Total width: 187 mm
Total height: 75 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400



MEARIN PLUS F 200

Clear width: 200 mm
Total width: 237 mm
Total height: 100 mm

- > Drainage channel body without slope
- > With a glass-fibre composite edge
- > Loading classes A 15 to D 400

GRP

FLEXIBLE PROFESSIONAL DRAINAGE SOLUTION FOR ALL APPLICATIONS

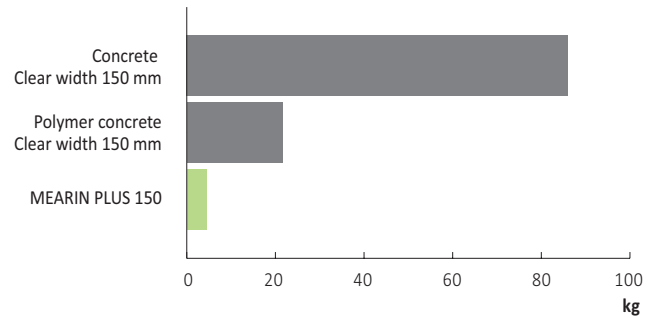
The MEARIN system enables the installation of channels without a mechanical support, and with significantly less personnel than with comparably heavy concrete channels. Perfect anchoring of the system in the concrete casing guarantees a quick and easy installation, and a highly stable construction of the drainage line.

Thanks to the highly stable GRP material, the MEARIN system is extremely break and abrasion resistant. The long-term resistant and highly smooth inner surface of the drainage channel body, will continuously provide the best possible drainage values.

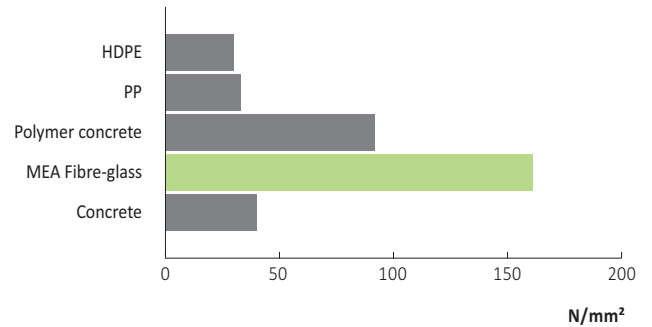
- > Despite the minimal weight loading classes up to E 600 possible, unlike with most conventional PP, PE as well as other GRP channels.
- > The innovative CLIPFIX quick release enables a quick and easy installation or removal of the grates and easy cleaning of the channels.



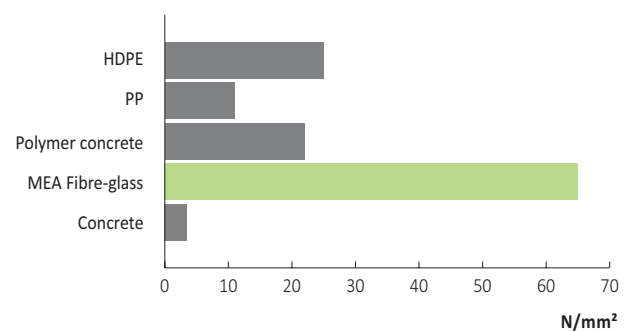
Weight in kg



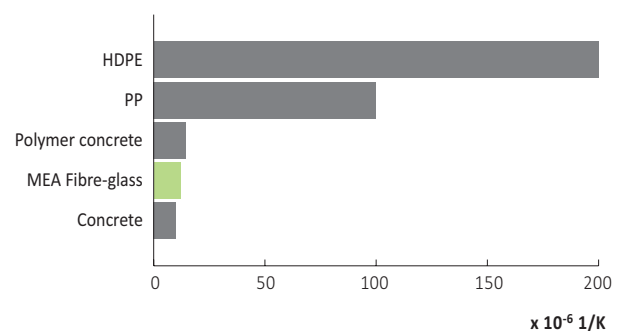
Tensile strength



Compression resistance



Thermal expansion coefficient α





MEARIN PLUS BLACK

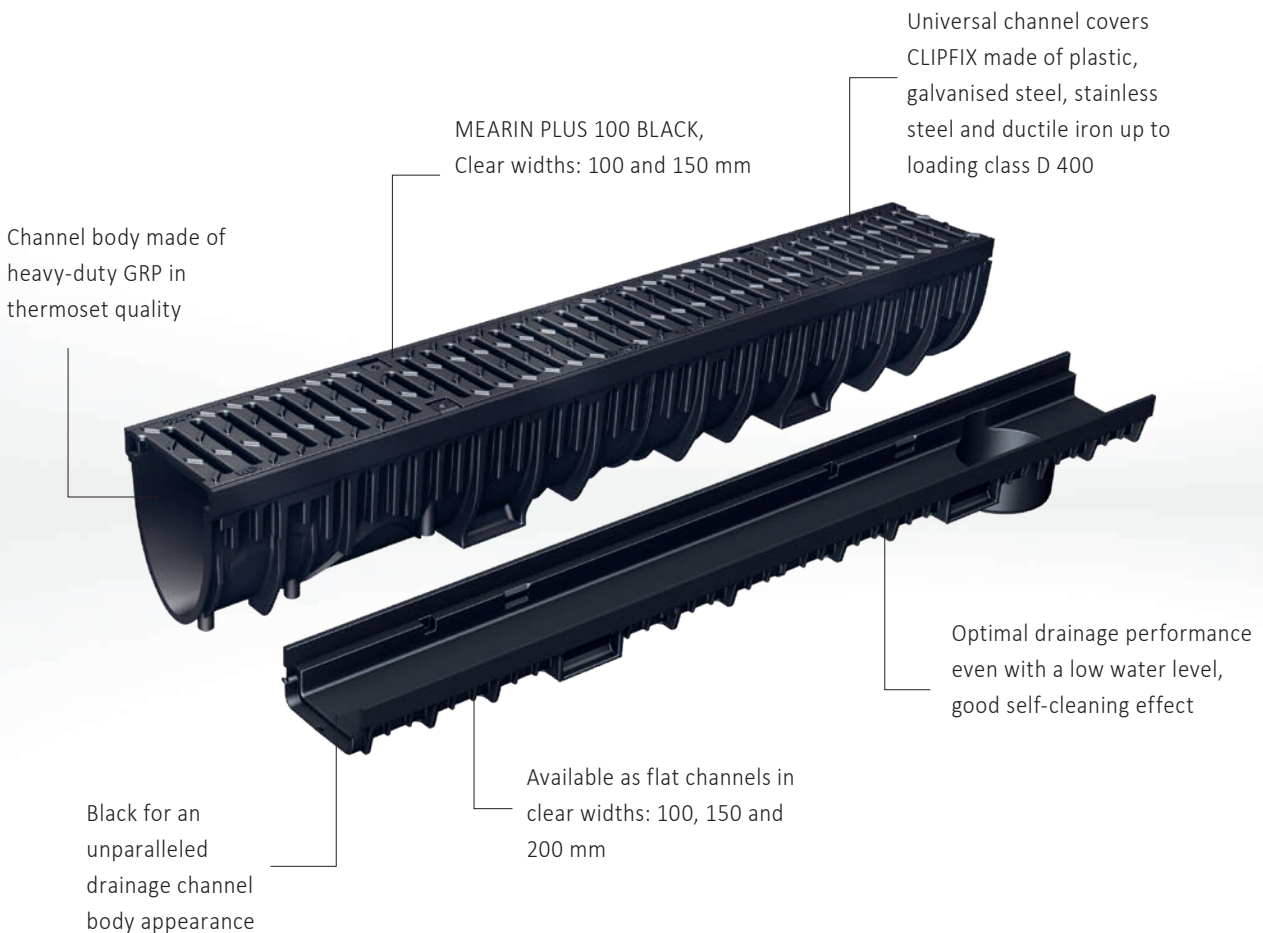
MEARIN PLUS F BLACK

LIGHT AND AESTHETIC (D 400)

The MEARIN BLACK drainage channel system is perfect to conduct a visually appealing drainage of parks and open spaces.

- > Highly stable (up to class D 400)
- > Perfect for dark, charcoal-coloured paving
- > Channel made of GRP (highly stable glass-fibre-reinforced composite)

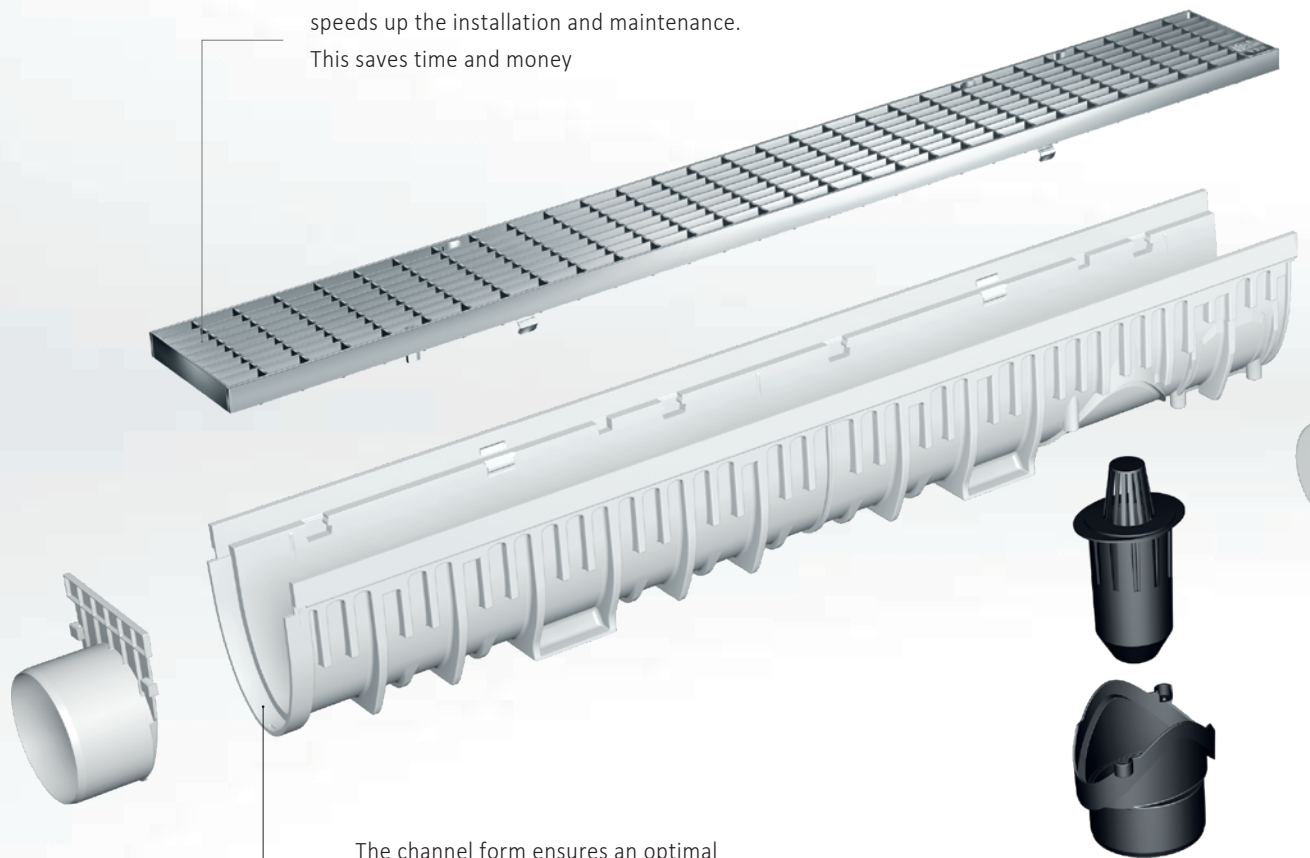
- > No thermoplastic = no deformation!
- > Permanently stable!
- > Weather-resistant plastic gratings (no rust), slotted gratings made of galvanised steel and mesh gratings
- > Sustainable: 100% recyclable



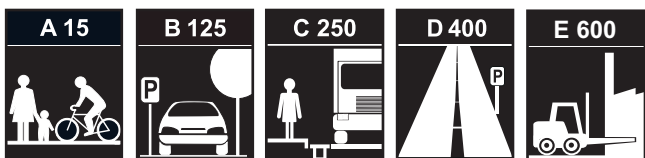
COMPLETE SYSTEM

WITH PERFECTLY FITTING COMPONENTS

The innovative CLIPFIX grate protection system speeds up the installation and maintenance. This saves time and money

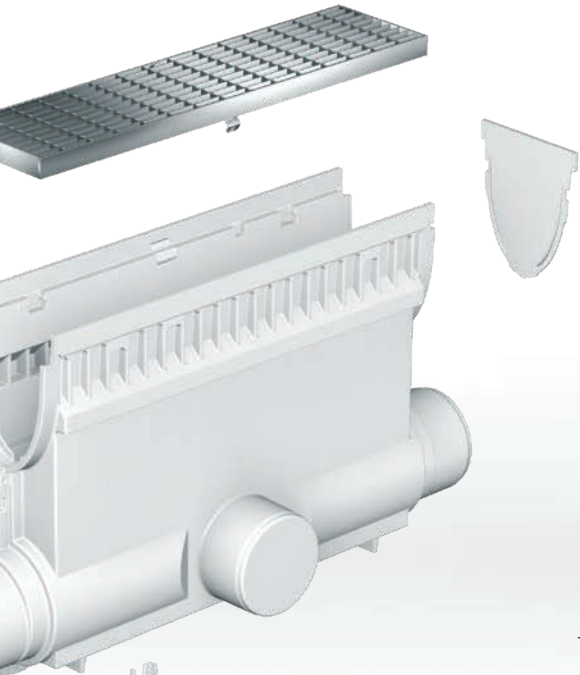


The channel form ensures an optimal drainage performance even at low water levels, and ensures a good self-cleaning effect



MEARIN SYSTEM

- > First complete and sealable channel system made of GRP
- > Certified compliant to EN 1433 and CE



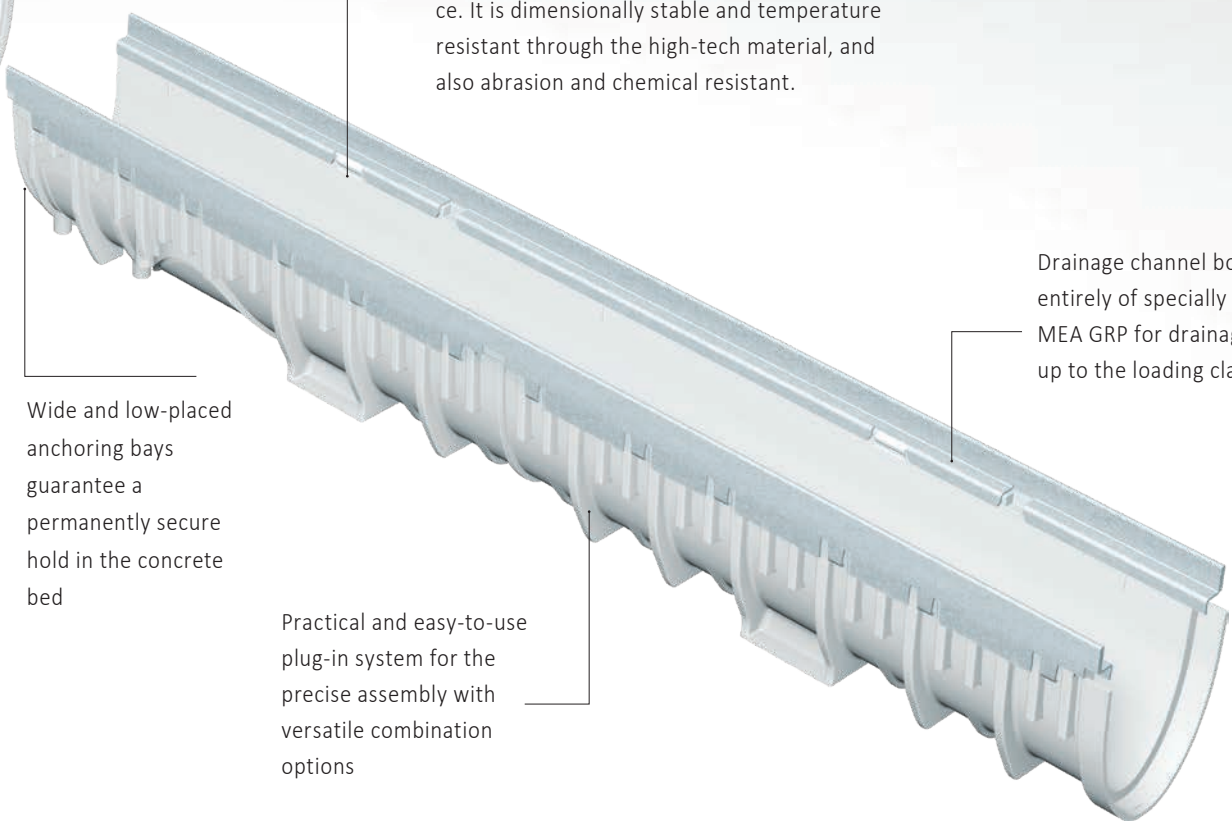
The drainage channel body made of GRP in thermoset quality guarantees a high resilience. It is dimensionally stable and temperature resistant through the high-tech material, and also abrasion and chemical resistant.

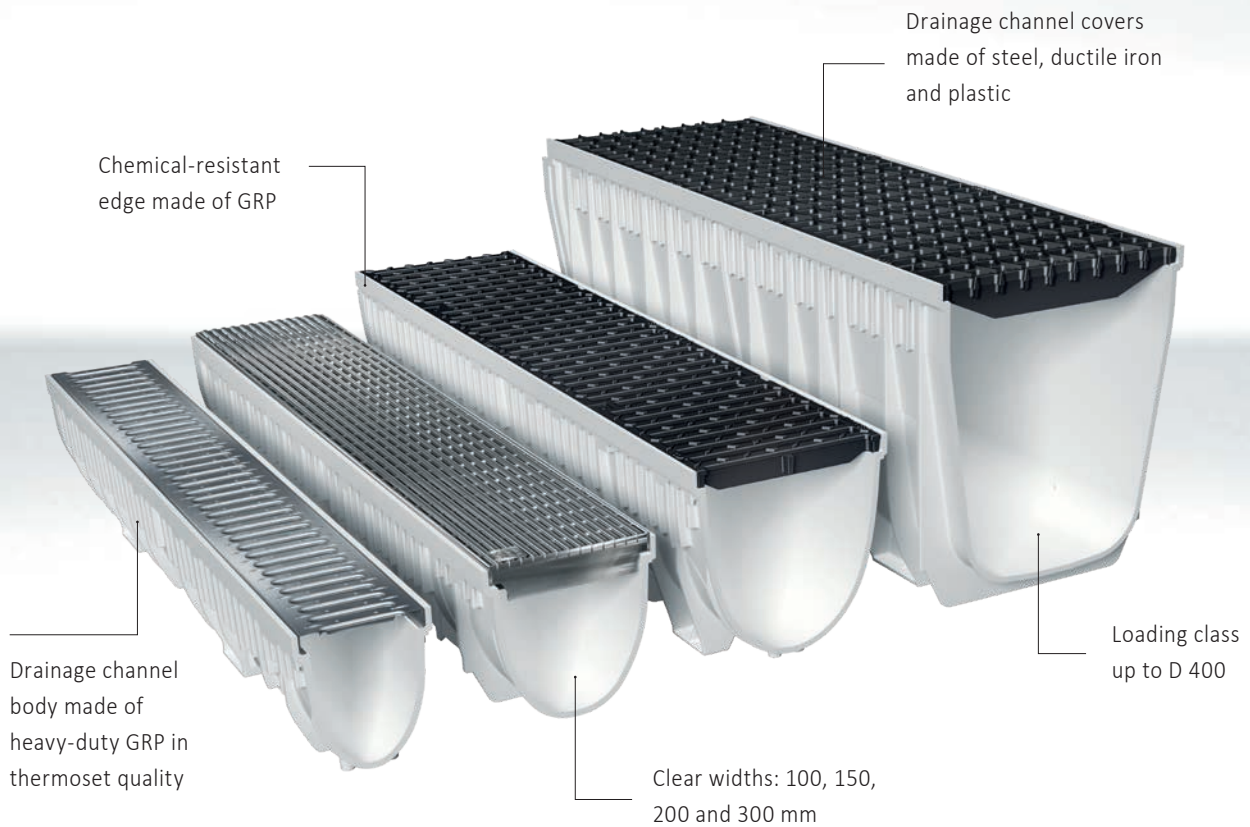


Wide and low-placed anchoring bays guarantee a permanently secure hold in the concrete bed

Drainage channel body made entirely of specially developed MEA GRP for drainage solutions up to the loading class E 600

Practical and easy-to-use plug-in system for the precise assembly with versatile combination options





IMEARIN PLUS

DRAINAGE SYSTEM WITH GRP EDGE (D 400)

Drainage channel body made of heavy-duty GRP in thermoset quality

> Drainage channel body and edge completely made of GRP (highly stable glass-fibre-reinforced composite)

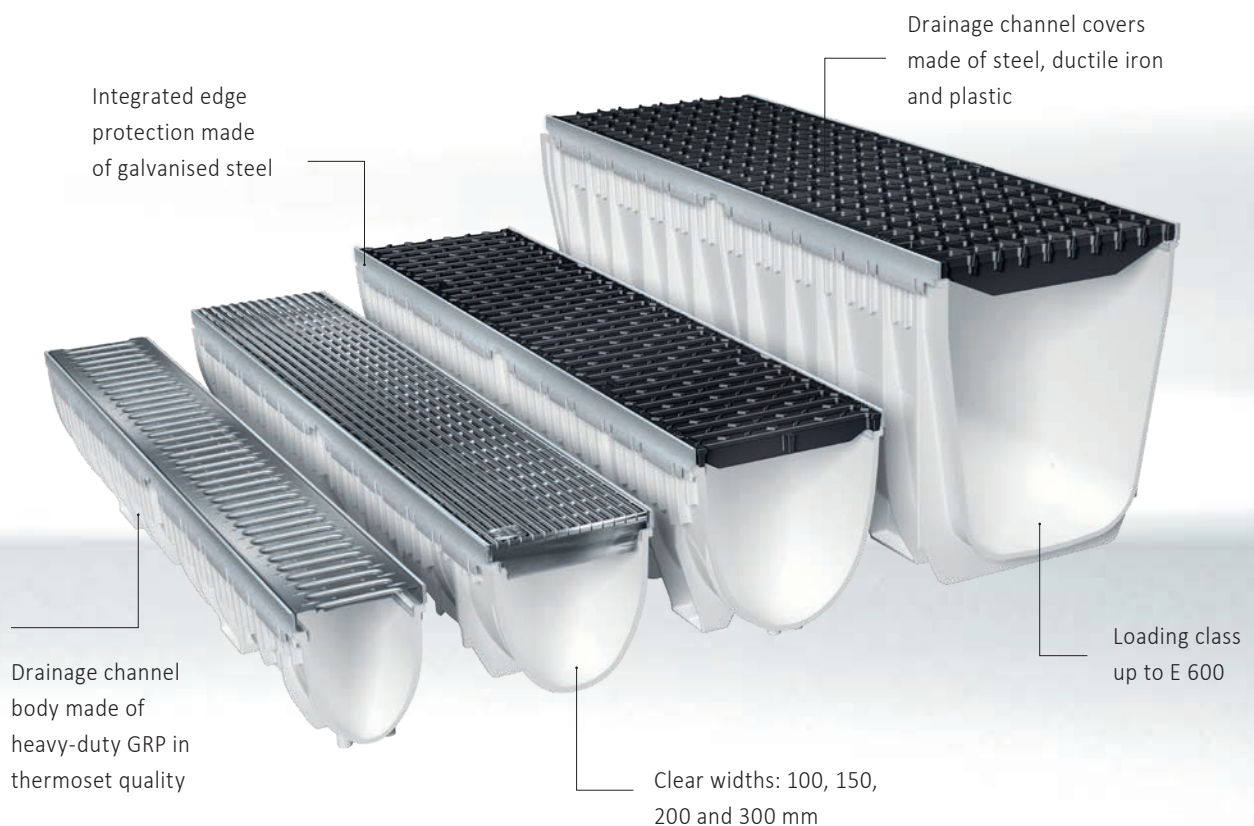
- > Available in the clear widths: 100, 150, 200 and 300 mm
- > Grating covers made of steel, ductile iron and plastic
- > Areas of application: Public places, parking lots, gardening and landscaping
- > Loading class up to D 400

MEARIN EXPERT

DRAINAGE SYSTEM WITH EDGE PROTECTION MADE OF STEEL (E 600)

For applications in urban areas, on traffic routes and industrial areas:

- > Drainage channel body made of GRP (highly stable glass-fibre-reinforced composite) with tightly integrated edge protection made of galvanised steel for high loads
- > Available in clear widths: 100, 150, 200 and 300 mm
- > Grating covers made of steel, ductile iron and plastic
- > Areas of application: leisure facilities, industrial areas, workshops, streets and roads
- > Loading class up to E 600

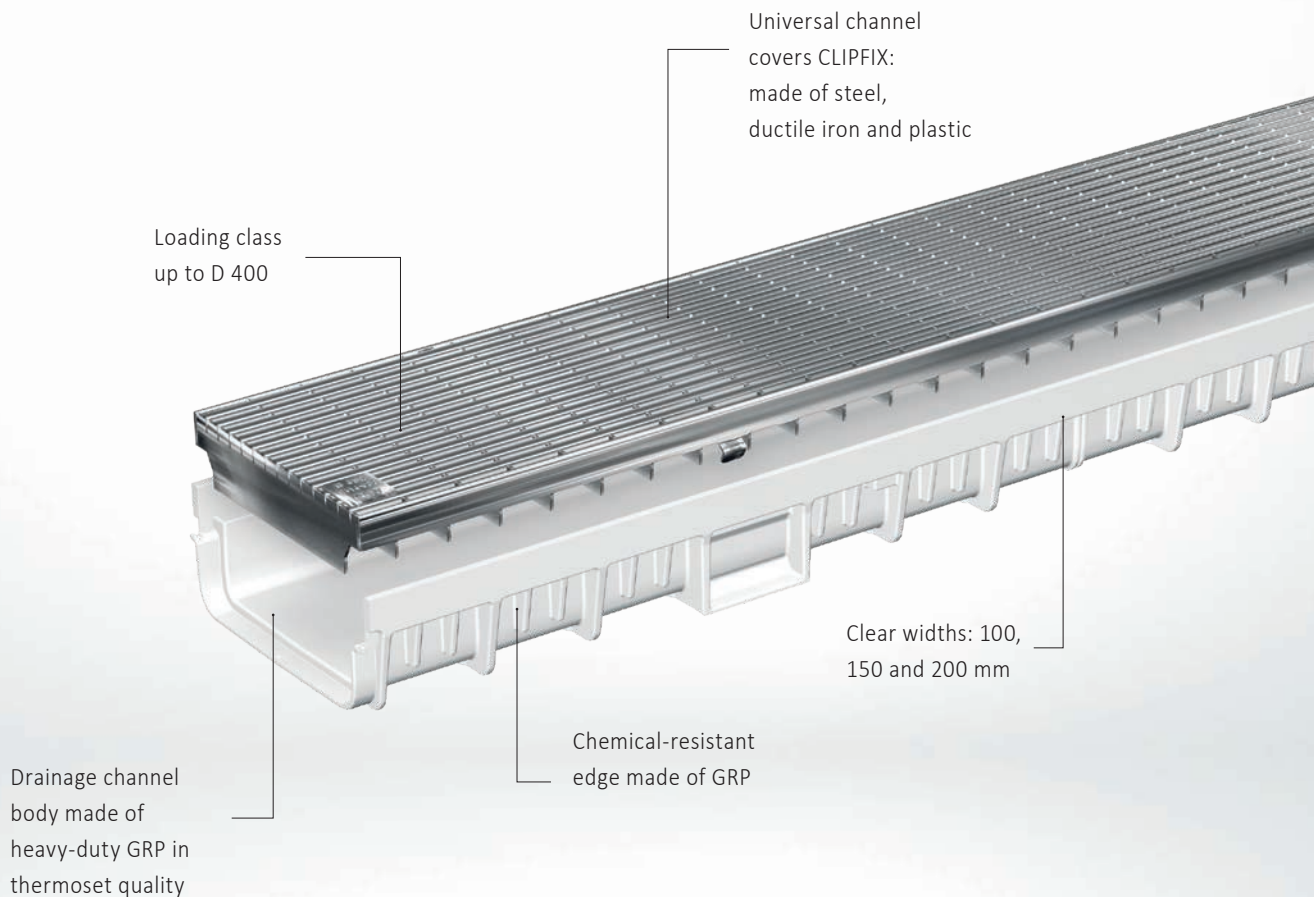
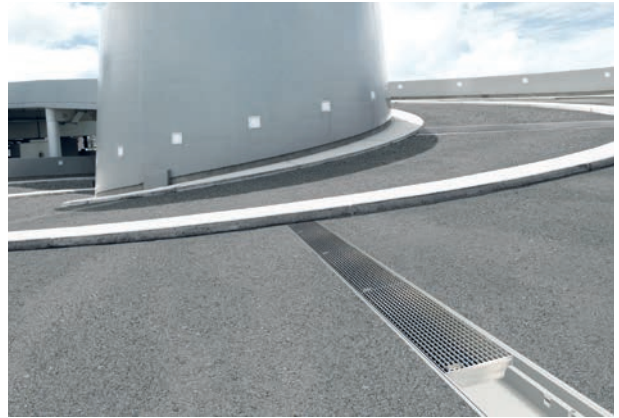




MEARIN PLUS F FLAT CHANNELS

The MEARIN PLUS F flat channel has been designed for areas where shallow solutions are needed, for instance in multi-storey car parks and facades

- > Drainage channel body and edge completely made of GRP (highly stable glass-fibre-reinforced composite)
- > Available in clear widths: 100, 150 and 200 mm
- > Grating covers made of steel, ductile iron and plastic
- > Areas of application: Public places, parking lots, gardening and landscaping
- > Loading class up to D 400



MEARIN PLUS AND EXPERT

CHANNEL COVERS

MEA offers a wide range of covers for the MEARIN system that not only functional, but also sets standards in product design. From efficient mesh gratings to the the classical slotted gratings, up to the elegant design gratings, the name MEA also stands for quality, innovation and creativity.

Slotted gratings made of galvanised steel or PAG:

- > The intelligent slot/grating design is a visual alternative to mesh grates. Particularly stable and weather resistant
- > Loading classes A 15 to C 250

Ductile iron slotted gratings:

- > Especially suitable for extreme loads and heavily frequented areas.
- > Loading classes C 250 to E 600

Longitudinal bar gratings:

- > The aesthetic solution made of galvanised steel, stainless steel or ductile iron
- > Loading classes A 15 to E 600

Mesh gratings:

- > Gratings made of galvanised or stainless steel
- > Loading classes A 15 to D 400

Ductile iron gratings:

- > Aesthetic solutions for use in representative areas
- > Loading classes A 15 to D 400



Slotted grating made of galvanised and stainless steel



Mesh grating made of galvanised and stainless steel



Longitudinal bar grating



PAG slotted grating



Ductile iron slotted grating



Ductile iron design grating WAVE



Ductile iron design grating BAVARIA



Ductile iron design grating CATHEDRAL



Ductile iron design grating HONEYCOMB

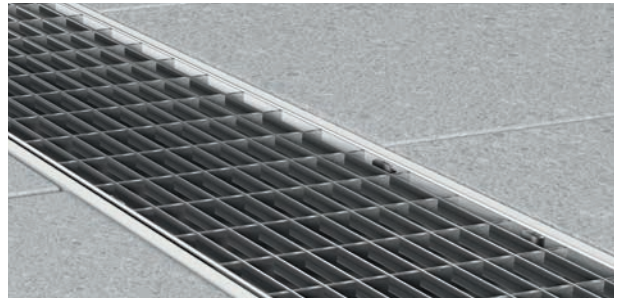
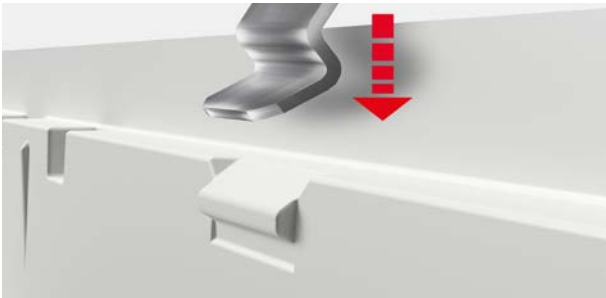


Ductile iron design grating BACKGAMMON



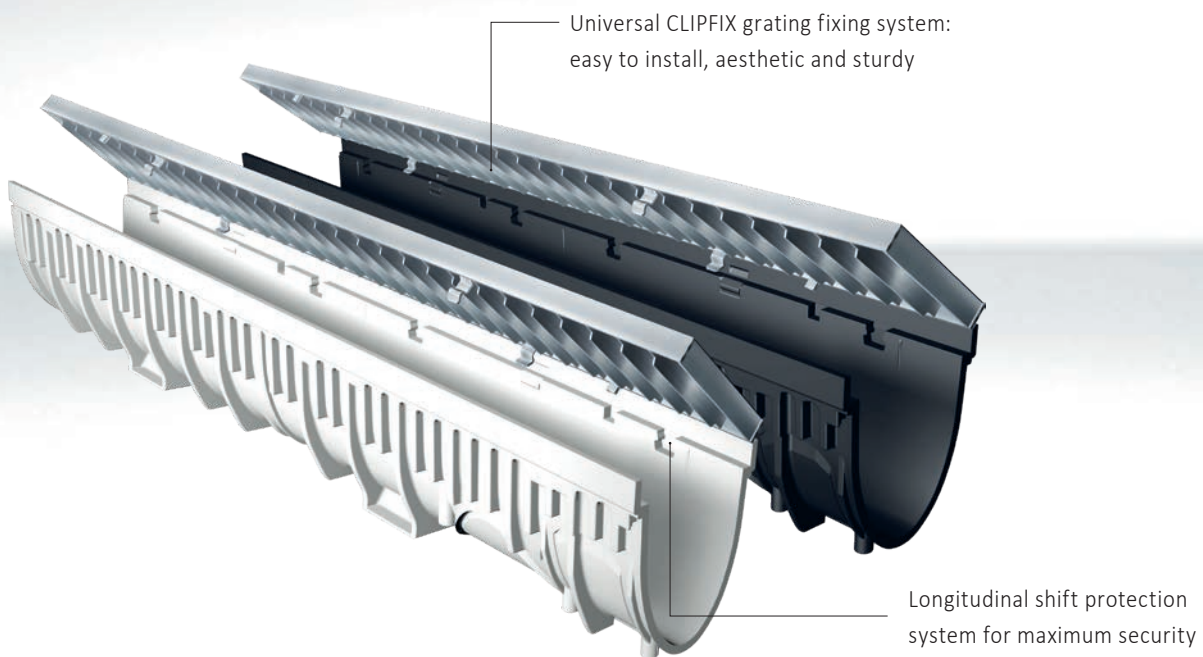
CLIPFIX

UNIVERSAL GRATING FIXING MECHANISM



The MEARIN PLUS/EXPERT channels have been designed and optimised for our universal CLIPFIX grating fixing mechanism with longitudinal shift protection. The advantages: a large choice of gratings and an easy to understand product program.

Thanks to the CLIPFIX system, the channel and the grating offer an aesthetically pleasing solution when mounted, because no locking devices or screws are apparent on the outside.



MEA CLIPFIX ANTI-THEFT PROTECTION

- > With the newly developed screwable MEA CLIPFIX anti-theft protection, your gratings are safely protected against theft and vandalism.
- > The anti-theft protection is available in nominal widths 100, 150 and 200 and is easy to install.





IMEA TSH TOPSLOT

ELEGANT DRAINAGE SOLUTION WITH HIGH FUNCTIONALITY

In addition to its simple elegance, the MEA TSH TOPSLOT system offers a large array of advantages during and after installation. The MEA TSH TOPSLOT system has been designed for loading classes from A 15 to E 600. Beyond the standard height of 160 mm, the MEA TSH TOPSLOT system can be delivered in very cost effective custom heights for specific projects. The flush positioned external contours simplify the paving. The special, extra thick, zinc coating of the TSH TOPSLOT guarantees maximum functional reliability and best possible resistance to corrosion. The TSH system is also available in stainless steel for making it a unique and longlasting design solution for drainage purposes.



IMEA GRP PREMIUM MATERIAL

All MEARIN channels systems are manufactured from high-quality MEA GRP. GRP stands for glass-fibre-reinforced composite material, and is used in a broad range of applications with high requirements, including aircraft construction, the automotive industry and also in motorsports.

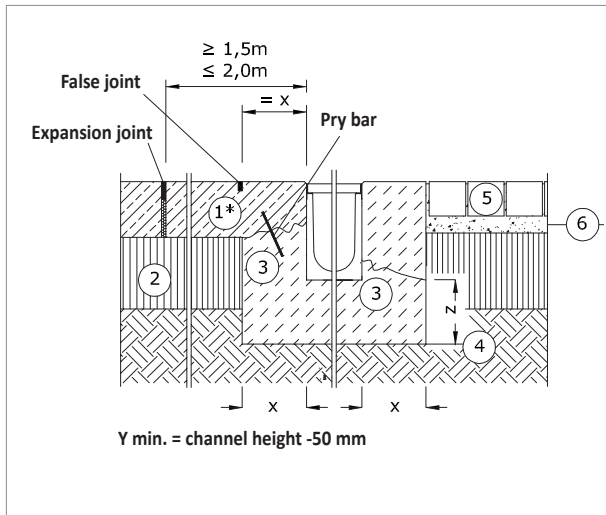
But not all GRP types are equal, as the quality and specific characteristics sometimes differ considerably. Thereby, we rely on SMC technology, (Sheet Moulding Compound) - a composite of polyester resin, mineral filler materials, additives and fibreglass mats.

GRP convinces with the highest degree of strength and dimensional stability. This means extreme stability even under high temperatures, combined with a very low thermal expansion. In contrast to thermoplastics, GRP can be not deform after curing, but rather remains stable and durable in its form. Our many years of experience and expertise with this material will guarantee light-weight and equally long-lasting products that create sustainable values for our customers and partners.

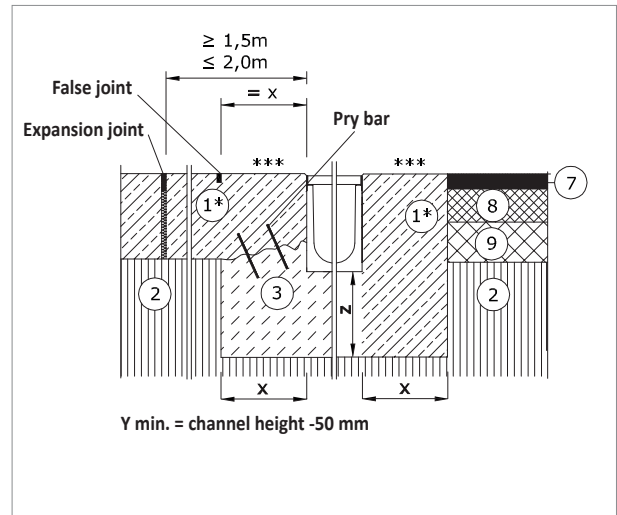


INSTALLATION INSTRUCTIONS

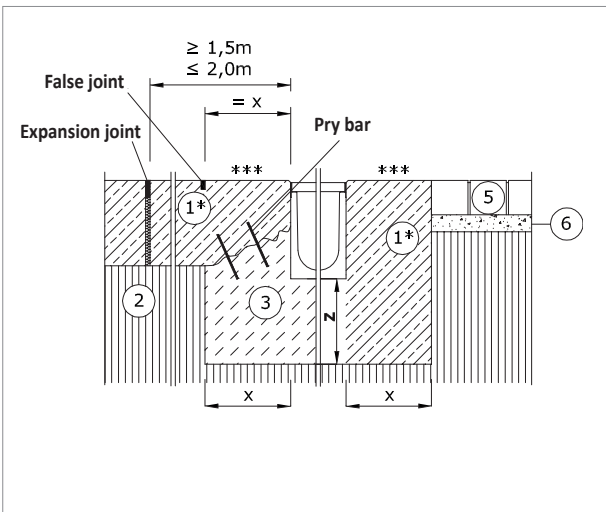
Floor channel area and untraveled road shoulders and similar. (Test force 250 kN)



Lanes of roadways (also pedestrian roads), shoulders of roads and parking areas approved for all types of road vehicles. (Test force 400 kN)



Areas that are driven upon by high wheel loads, e.g. harbours and dock facilities. (Test force 600 kN)



- | | |
|---------------------------------|-------------------------|
| ① Road concrete | ⑥ Pavement base |
| ② Base course according to RstO | ⑦ Bituminous base cover |
| ③ Concrete coating | ⑧ Binder layer |
| ④ Grown soil | ⑨ Bituminous base layer |
| ⑤ Pavement | ⑩ Mortar bed |

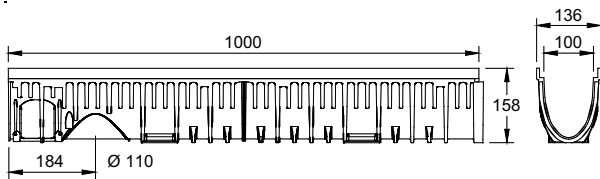
*Reinforcement of the exposure class as specified by the responsible planner.

***Drainage of highly dynamically loaded surfaces, e.g. cross drainage of highways, motorways and railway crossings, exclusively when installing our DM drainage channel systems and after consultation with our application technology. Inspection parts and inlet boxes must always be positioned outside dynamically loaded surfaces.

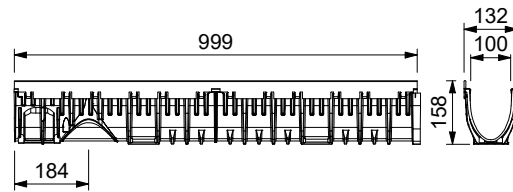
Settlement-free, frost-resistant base layers must be laid in accordance with RStO.

The adjacent covering must be designed in such a way that no horizontal forces act on the channel elements. After the installation, the drainage channel bodies must be fitted with covers to achieve the stiffening.

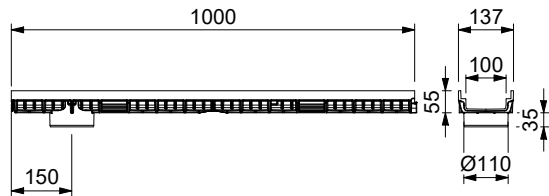
TECHNICAL DETAILS



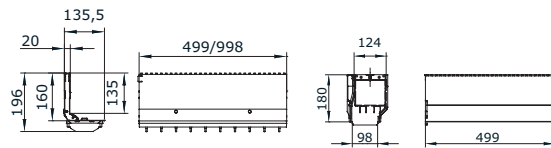
MEARIN PLUS 100.0 channel ^{4) 14)}



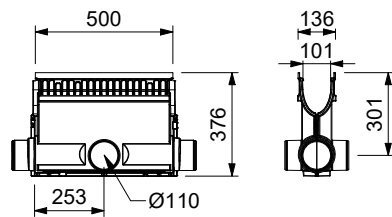
MEARIN EXPERT 100.0 channel ^{4) 14)}



MEARIN PLUS F 100.0 A/55 channel with vertical outlet Ø 110 mm ⁸⁾



MEA TSH 100.0 / TSH 100.1



Silt box MEARIN PLUS and EXPERT 100 EK

> REMARK

- 4) Connection option for the vertical discharge Ø 110 mm; End cap with connector or gully
- 8) With tight formed-in drain socket Ø 110 mm
- 14) Connection possibility for corner, T- and crossing element

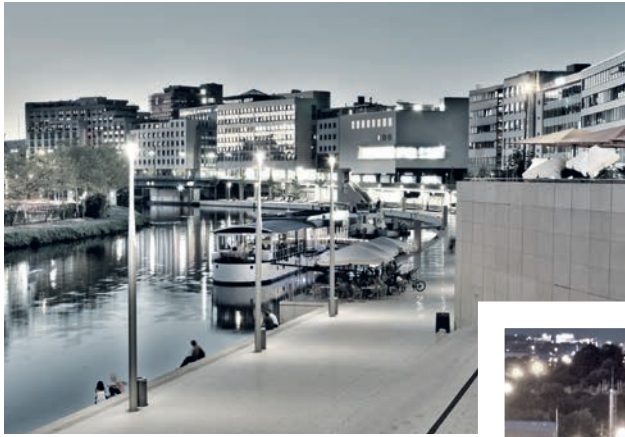
FOUNDATIONS

The requirements for the concrete with regard to durability against environmental influences must generally be specified by the planner by specifying the corresponding exposure class.

For instance: exposure class for pavement concrete for cross drainage of expressways and highways-C30/37 (LP), XF4, XM2 (source: Cement Data Sheet Concrete Technology B9 3.2006, www.beton.org).

Loading classes according to EN1433	A 15 kN	B 125 kN	C 250 kN	D 400 kN	E 600 kN
Foundation dimension X (mm)	> 80	> 100	> 150	> 200	> 200
Foundation dimension Z(mm)	> 80	> 100	> 150	> 200	> 200
Reinforcement of the concrete casing (3) as specified by the responsible planner	no	no	no	yes	yes
Concrete quality DIN EN 206-1/DIN 1045-2 For road concrete (1) ≥ C 30/37 with reinforcement	≥ C 12/15	≥ C 20/25	≥ C 20/25	≥ C 25/30	≥ C 25/30

The max. loading class for the selected drainage channel system can be found in brochure documents, data sheets and price lists and may not be exceeded.



TOWN CENTRES AND PEDESTRIAN AREAS



GARDENING AND LANDSCAPING



PARKING SPACES

IMEARIN

AREAS OF APPLICATION



STREETS AND ROADS

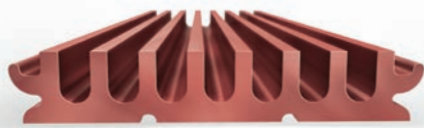


HOME AND GARDEN



INDUSTRY AND COMMERCE

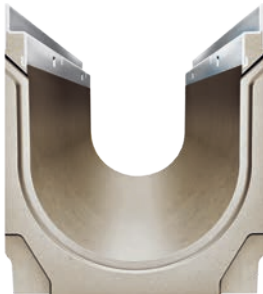
THE ADDITIONAL PRODUCT PORTFOLIO OF MEA WATER MANAGEMENT



MEARIN PG EVO
Drainage solution for multi-storey car parks



MEATEC
Professional drainage system for facades and terraces



MEADRAIN
Professional drainage systems for the heavy loaded areas



MEADRAIN TRAFFIC
Professional drainage systems for streets and motorways



BUILDING SUCCESS

MEA Bautechnik GmbH ■ Sudetenstraße 1 ■ D-86551 Aichach ■ www.mea-group.com
Business unit MEA Water Management