

## For enquiries in the UK and Ireland: MEA UK Limited

Rectors Lane Pentre Deeside Flintshire CH5 2DH

Telephone: 0 12 44/53 44 55 Fax: 0 12 44/53 44 77 uk.technical@mea.de www.mea-group.com

# For all other enquiries : MEA Drainage Systems

Ambachtsweg 18 7021 BT Zelhem P.O. Box 90 7020 AB Zelhem The Netherlands

Tel: +31(0) 314 62 77 62 Fax: +31(0) 314 62 77 77 sales.info@nl.mea.de www.mea-group.com

Fnr	hnung	advice	contact-

NI GOLDES/NE DE



# MEA®DRAIN Line Drainage

Keeping the world's air traffic flowing freely





Auckland International Airport (Photo: Auckland International Airport Ltd)

Many airports around the world have one thing in common: they also rely on the successful MEA®DRAIN drainage system.





Christchurch International Airport (Photo: Christchurch International Airport Ltd)

## MEA®DRAIN heavy-duty drainage channels For extreme demands on air- and landside

#### A MEA speciality: airport drainage

Abu Dhabi, Alghero, Auckland, Dresden, Rotterdam, Vienna, Warsaw and many other major airports – airport operators around the world depend on MEA and its professional approach to line drainage.

MEA®DRAIN high-quality and durable channel systems can reliably cope with all the special requirements in an airport environment and are held in great esteem. Our comprehensive range extends from special channels for airside installations, specifically developed for areas in the F 900 load class, to sturdy standard channels for landside applications.

#### Conditions are tough on the runway

Only the most robust drainage systems are equipped to cope when used long-term in the challenging environment of an airport. Especially airside, on the apron, taxiways, take-off and landing runways, including the hangars, the load on drainage systems is enormous: immense forces are applied by the movements of aircraft, plus there may be climatic extremes due to geography and the seasons, or tremendous downpours of rain, water from melting snow or fire-fighting, and the risk of aviation fuel spillages during refuelling. MEA®DRAIN heavy-duty drainage channels made of polymer concrete and concrete can take on the challenges in civil engineering.

### MEA®DRAIN drainage

Installed at numerous airports around the world

#### Installed at numerous airports around the world

Austria: Linz Airport Graz Airport

Vienna Airport Salzburg W.A. Mozart Airport

Bahrain:

Sakhir Airport

Bulgaria:

Burgas Airport

Ontario, CFB ASU Petawawa Ontario, 8 Wing Trenton Astra

Estonia:

Amari Military NATO Air Base

Keflavik Airport, Reykjavik

India: Port Blair Airport

Ireland:

Shannon Airport

Napoli Capodichino Airport Aviano, NATO Air Base Reggio Calabria Airport Alghero Airport Catania Airport

Germany:

Spangdahlem Air Base Dresden Airport Neuburg Helicopter Airport Niederrhein Weeze Airport Hamburg Daimler-Benz Aerospace Berlin Schönefeld Airport Frankfurt Airport Donauwörth, Eurocopter

Luxembourg

Luxembourg Airport

Amsterdam Schiphol Airport Rotterdam Airport Zestienhoven Gilze-Rijen Dutch Royal Military Airbase

New Zealand:

Christchurch International Airport Auckland International Airport

Warsaw Okecie Airport Bydgoszcz Miltary Airport Krzesiny Poznan Military Airport Ciechanow Military Airport Krakow Balice Airport

Moscow Vnukovo Airport Moscow Sheremetyevo Airport Moscow Domodedovo Airport

Gelendzjik Airport Saint Petersburg Pulkovo Airport Krasnoyarsk Yemilanovo Airport Norilsk Airport

Madrid Barajas International Airport

Stockholm Linköping Military Airport Kalmar Airport

**United Arab Emirates:** Abu Dhabi Airport

United Kingdom: London Heathrow Airport Wattisham Air Base Manchester Airport Suffolk RAF Wattisham Air Base



**Rotterdam Zestienhoven Airport** 

- → 1 metre units
- → quick and easy to install by hand
- → chemical-resistant material

## **Special Airport Force**

## Heavy-duty drainage channels in polymer concrete

#### The strong candidates in the MEA®DRAIN Supreme product range

Lightweight, robust, resistant – these are the strengths of our polymer concrete product range. **MEA®DRAIN Supreme** systems can reliably withstand the strain of heavy loads, for example aircraft repeatedly taxiing over them, containers being transported and special vehicles manoeuvred. This is thanks to the combination of two components: the cast iron edges set in ultra-strong polymer

concrete, and the inflow gratings made of ductile iron. The smooth inner surfaces of the channel play an important part in the outstanding discharge capacity of MEA systems, enabling sealed surfaces to drain extremely efficiently. The high resistance of polymer concrete to liquid chemicals, and the fact that channel runs, including accessories, can be completely sealed serve as a sound basis for groundwater protection.



#### MEA®DRAIN Supreme EN 2000/3000

 Opening:
 200/300 mm

 Total width:
 240/354 mm

 Total height:
 280/490 mm

 Length:
 500 and 1000 mm

 Total weight:
 ±59-113 kg/running m

Gratings: ductile iron
Grating fixings: PROFIX®/bolted
Load class: F900, Type M

#### MEA®DRAIN Supreme EN 3070

Opening: 300 mm
Total width: 394 mm
Total height: 760 mm

**Length:** 500 and 1000 mm

**Anchoring:** MEAGRIP

**Total weight:** ±163 kg/running m

Gratings: ductile iron
Grating fixings: bolted (x8)
Load class: F900, Type M

## MEA®DRAIN Supreme EN 4000

Opening: 400 mm
Total width: 494 mm
Total height: 465 mm

**Length:** 500 and 1000 mm **Total weight:**  $\pm 161 \text{ kg/running m}$ 

Gratings: ductile iron
Grating fixings: bolted (x8)
Load class: F900, Type M



**Graz Airport** 

# Heavy-duty drainage channels in concrete

#### MEA®DRAIN Classic. Safety experts with experience

The **BG safety channel** in concrete has been specially designed for use on operational airport areas. This robust drainage system, with a built-in seamless, sheet-steel frame for high-quality edge protection,

sides with a surface layer of concrete

→ 1.0/2.5 metre lengths

 → self-supporting components with solid, steel-reinforced concrete sides
 → no need for additional cladding of

is equally resistant to the accelerating and braking forces of an aircraft, as it is to baking heat and arctic temperatures. This means that **BG safety channels** pass the tests of everyday life in the demanding airside environment with flying colours.



#### MEA®DRAIN Classic BG safety channel

 Opening:
 100 mm
 200 mm
 300 mm

 Total width:
 500 mm
 600 mm
 700 mm

 Total height:
 485 mm
 485 mm
 485 mm

 Length:
 1000 and 2500 mm
 1000 and 2500 mm
 1000 and 2500 mm

 Total weight:
 ±542 kg/running m
 ±584 kg/running m
 ±768 kg/running m

Gratings:ductile ironductile ironductile ironGrating fixings:bolted (x8)bolted (x8)bolted (x8)

Load class: F900 as per EN 1433, Type I F900 as per EN 1433, Type I



Salzburg W. A. MOZART Airport (Photo: Salzburg Airport Archives)

# MEA®DRAIN heavy-duty drainage channels

## On the safe side, airside

#### **Unbeatable advantages**

#### **Durable stability**

These channel systems are able to withstand weights of many tonnes – whether as a result of aircraft, special vehicle or container movements. MEAGRIP ensures that, even with particularly high side walls, channel components are always anchored perfectly in the concrete haunch (EN 3070).

#### High and reliable discharge capacity

Smooth inverts and an excellent self-cleaning effect optimise drainage performance.

#### **Durable products**

Both polymer concrete and concrete are resistant to weathering, frost and de-icing salt, are largely wear-resistant and have proved themselves time and again over decades.

#### High resistance to hazardous substances

The high resistance of channel materials to liquid chemicals provides active and reliable groundwater protection. In addition, thanks to our close cooperation with partners in the sealants industry, we can supply suitable and highly effective materials to ensure perfect installation results.

#### For all applications

Specific solutions can be provided for special airside areas as well as adjacent applications landside.

#### System solutions with a complete range of accessories

In addition to the choice of materials between polymer concrete and concrete, there is also a range of nominal widths, ductile iron gratings as well as silt boxes, gullies and end caps.

**Amsterdam Schiphol Airport** 





## MEA®DRAIN drainage

## The professional and versatile system

The airport, with its airside and landside zones, is one of the specific fields we have expertise in – but there are many more. The **MEA®DRAIN** system, in the four product ranges – Supreme, Classic, Solution and Traffic – combined with an innovative and broad range of gratings, ensures that we can plan a successful solution for every type of application. Whether here, in the very special setting of an international airport, or in fact anywhere where there is a need for professional line drainage that is impressive both functionally and visually: **MEA has the solution.** 

 MEA®DRAIN Supreme
 Drainage systems in polymer concrete

 MEA®DRAIN Classic
 Drainage systems in concrete

 MEA®DRAIN Solution
 Solutions for special situations

 MEA®DRAIN Traffic
 Polymer concrete drainage channels for roads

 MEA®DRAIN Top
 Gratings with innovative securing systems for the complete range of MEA®DRAIN drainage channels

 MEA®TEC
 Roof and facade drainage in galvanised steel and stainless steel

