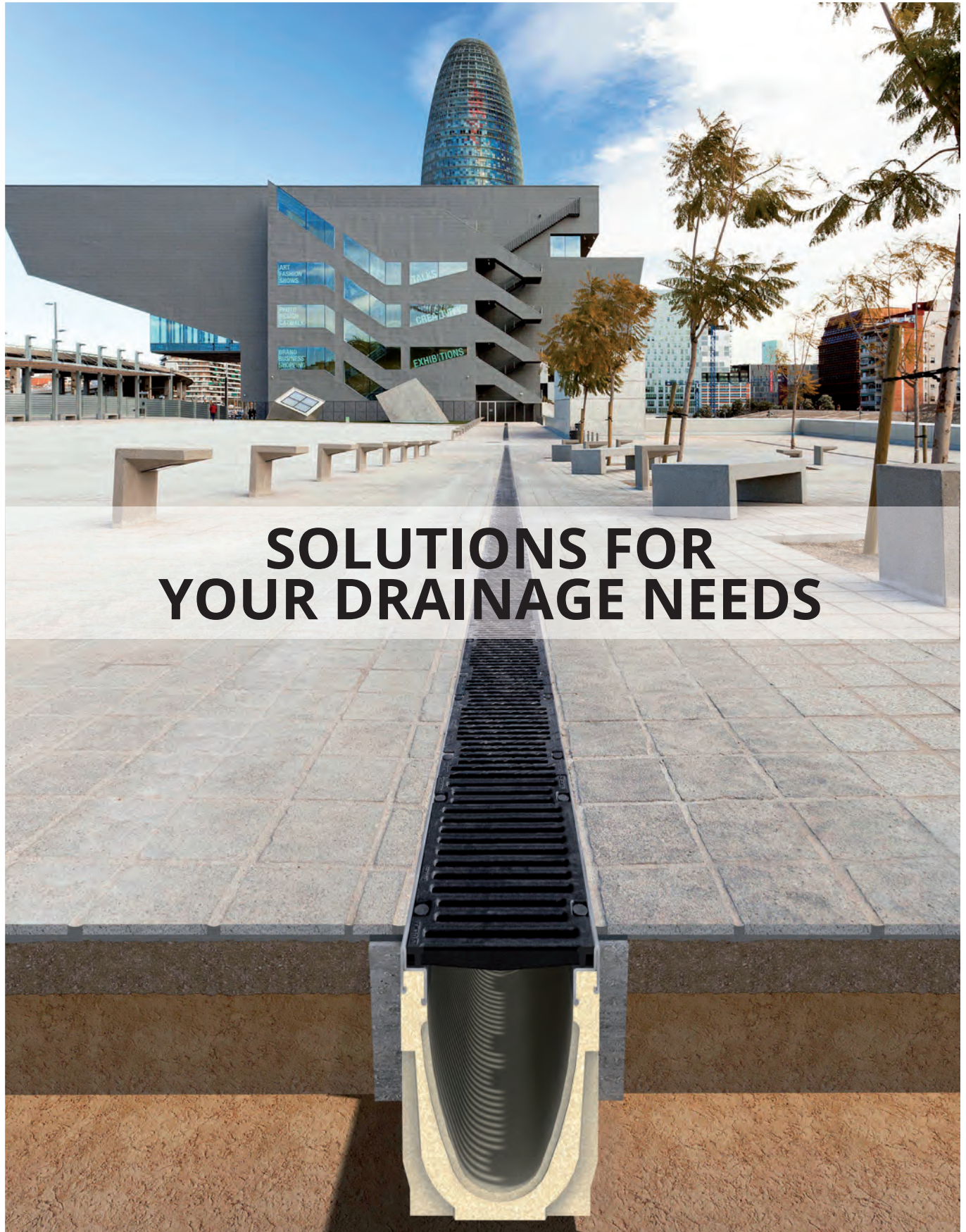




DRAINAGE SYSTEMS



**SOLUTIONS FOR
YOUR DRAINAGE NEEDS**

+ WHO WE ARE

We are part of the ULMA Group, one of the largest Business Groups in northern Spain which has been on the market for more than 50 years and has a clear commitment to Innovation, Employment and Added Value.



We provide solutions in
continents

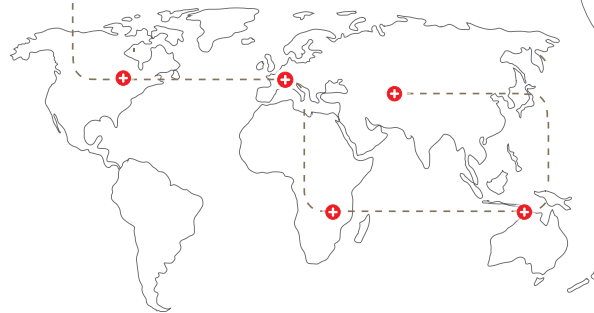
5

9 We have
companies

80
Present
in 80 countries

5.200
Staff

900
Turnover
of million



+ OUR SOLUTIONS AROUND THE WORLD

ULMA Architectural Solutions is a company which is specialised in polymer concrete drainage solutions with more than 30 years' experience on the market designing, manufacturing and commercialising drainage systems.

What are the advantages of our Drainage Systems?

Our experience with polymer concrete and the constant investment in product R&D based on optimisation of the material enables us to provide a very competitive range of trench drains. The linear drainage system, along with its prefabricated condition, also allows our customers to reduce the timeframe with a major saving in labour. All our products have been developed and certified in accordance with Standard EN-1433.

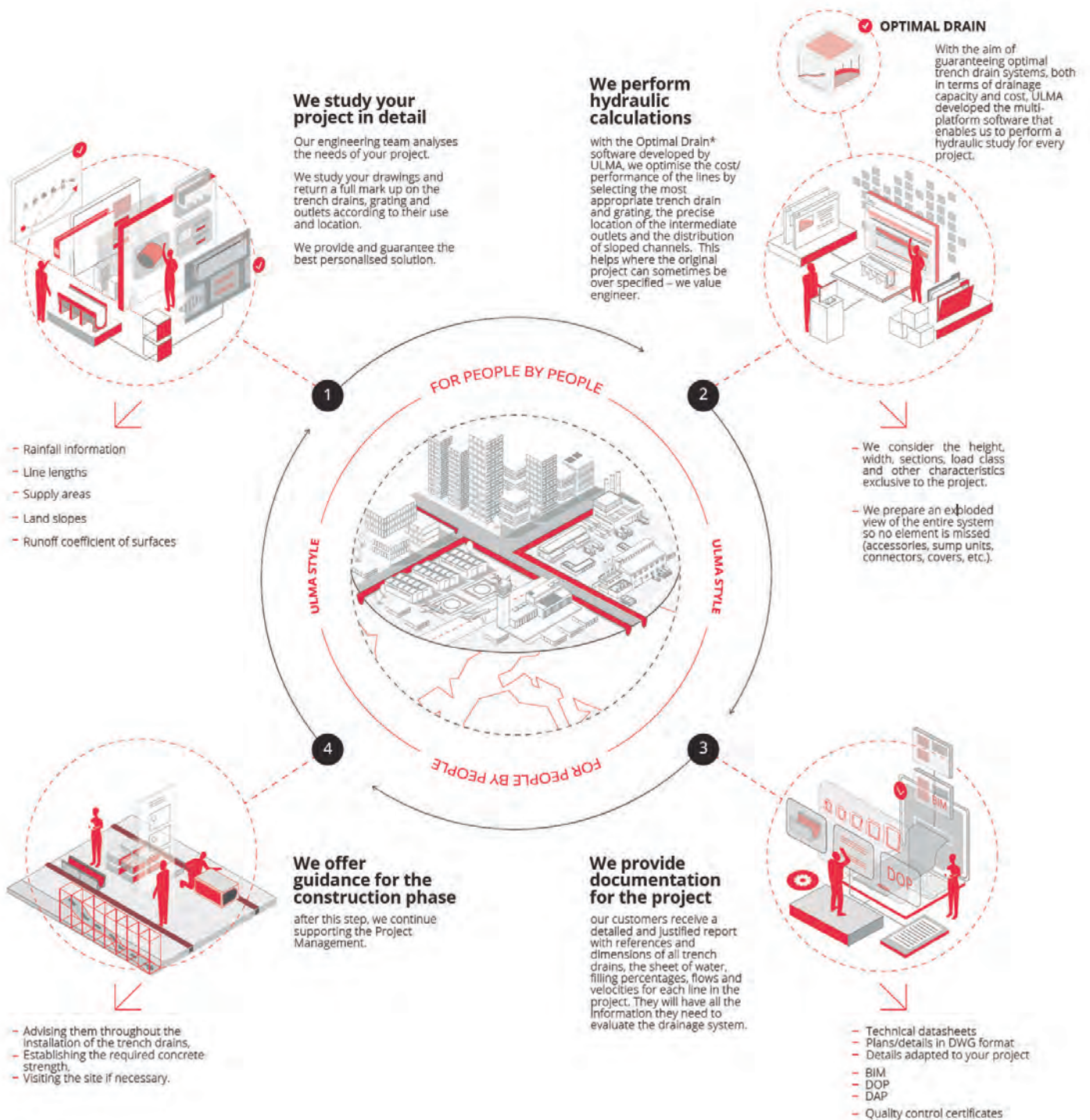


+ ULMA ENGINEERING OFFICE

WE GUARANTEE THE BEST OPTIMIZED DRAINAGE SOLUTION IN TERMS OF HYDRAULIC CAPACITY AND COST.

WE ADVISE YOU

Gain security and peace of mind. Save time by relying on the support of our technical engineering team.



With the hydraulic calculation and the security of having a technical justification, you will have the peace of mind that you have made the right decision with the support of our technical engineering team.

+ TECHNICAL ADVICE

We help you choose the best drainage system optimized in cost and drainage capacity.

We study each project to guarantee the best solution with OPTIMAL DRAIN by ULMA



To ensure drainage systems with optimal evacuation capacity and cost, ULMA has developed a multi-platform software solution offering the possibility of performing a hydraulic study for each project and precisely defining the most suitable trench drain system.

•SIMPLICITY

It only requires a few project parameters, such as line lengths, catchment areas, slopes and run-off coefficients of each surface, to accurately reflect the current situation and the subsequent study.

•PRECISION

To calculate the water's behaviour in the trench drains a mathematical model is used that takes the Spatially Varied Flow with Increasing Flow for Open Channels as the base, which describes the water's behaviour more accurately than other commonly used models and formulas.

•MULTIPLE FUNCTIONALITIES

You can enter different rainfall data for any geographic area worldwide, calculate different trench drain lines in the same project and find the right channel among hundreds of references in ULMA's extensive catalogue, based on their Heights, Widths, Sections, Load Classes or other characteristics.

•COST REDUCTION

The software optimises the cost of trench drain lines by selecting the most appropriate channel for the application, the exact location of intermediate outlets or the exact distribution of trench in cascaded slope.

•DETAILED REPORT

As a result, we obtain a report with references and dimensions of the necessary trench drains, sheet of water, filling percentages, water flows and speeds in each of the project lines. All the necessary data for the validation of the drainage system.

+ MULTIV + MULTIPURPOSE TRENCH DRAIN

Advantages of the multi V+ optimized solution:

- Optimized V-shaped section
- **rapidlock** fastening system
- Mechanical stability, with 8 fastening points
- Multiple fastening options
- Also available with cast iron edges

[multiV+]

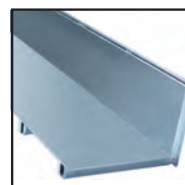


OPTIMIZED V-SHAPE

SLOPE
0,5%

Available with
0,5% SLOPE

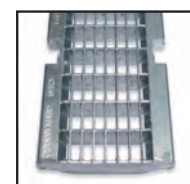
Gratings



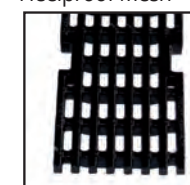
D400 Class
Galvanized Steel Single Slot



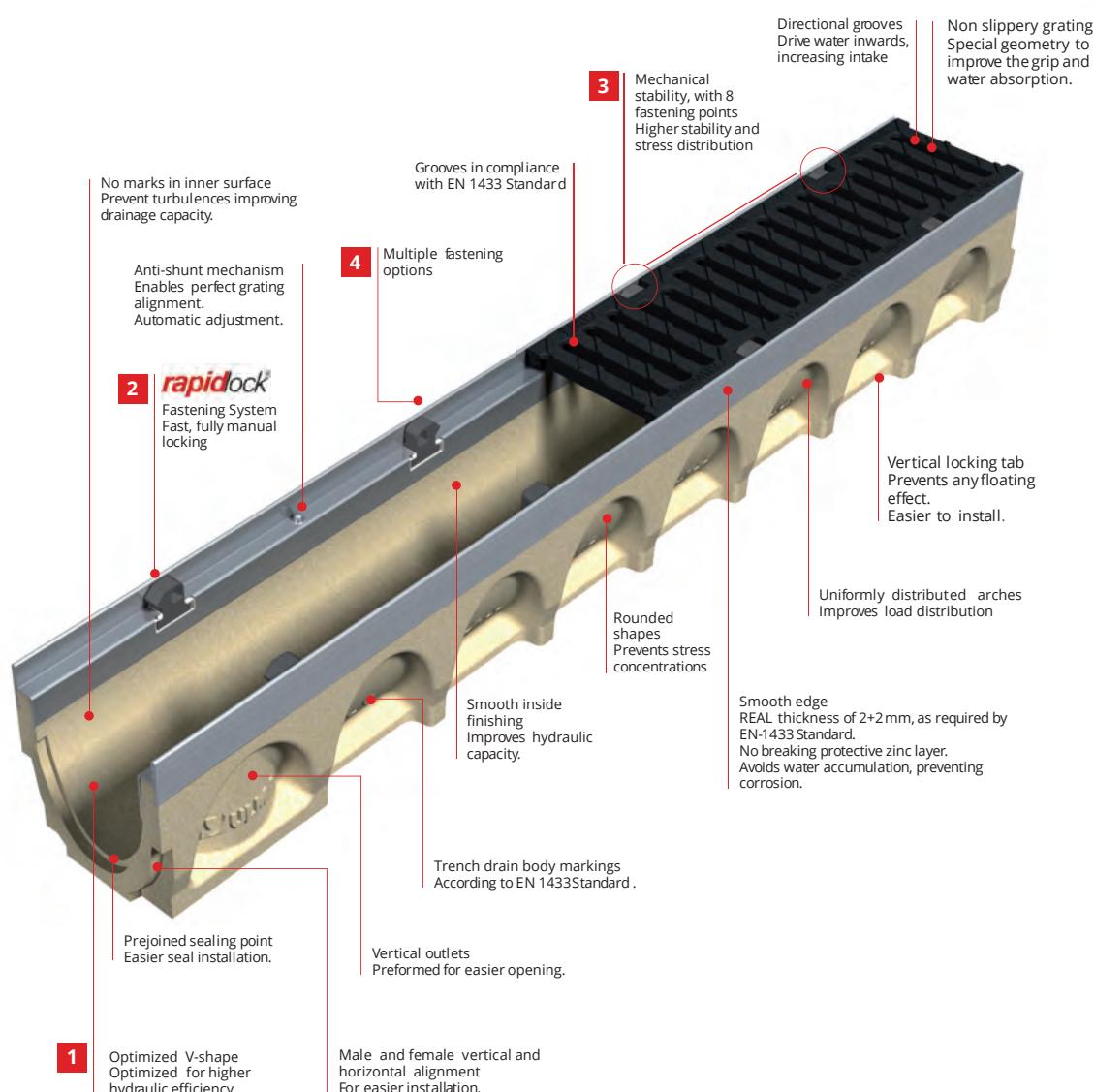
E600 Class
Ductile Iron Slotted



D400 Class
Heelproof Mesh

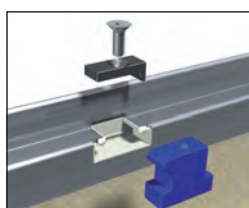
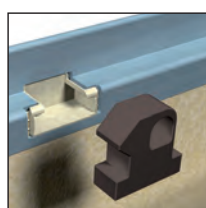


D400 Class
Ductile Iron Longitudinal Slotted

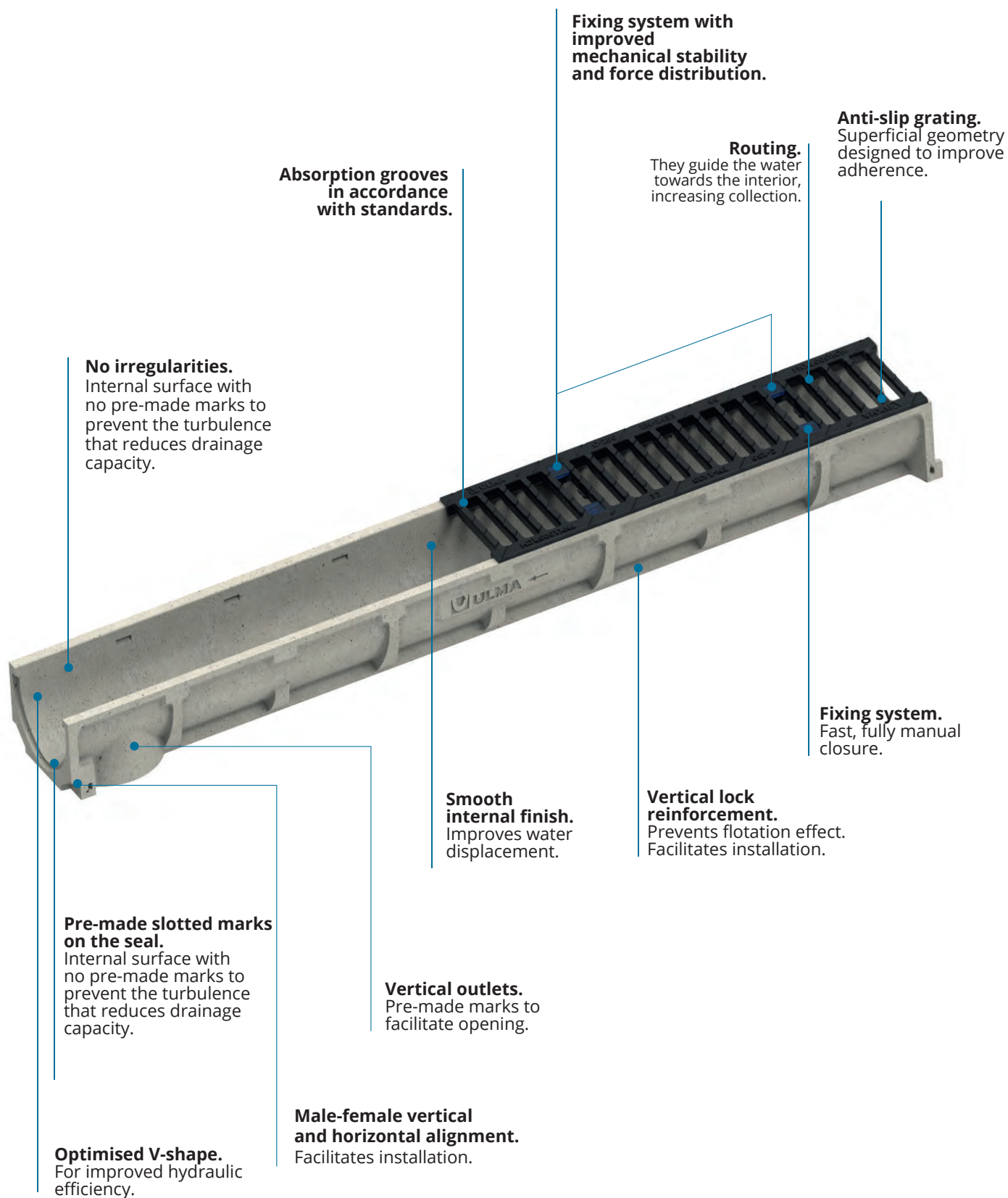


MULTIPLE FASTENING OPTIONS

Rapidlock® and screw-fastened systems can be replaced and combined.



RAPIDSELF SYSTEM FEATURES



+ NEW RAPIDSELF RANGE

ADVANTAGES FOR YOU

RANGE SIMPLIFICATION: WE MAKE IT EASY FOR YOU

It amounts to a significant improvement, as this is an optimized range with fewer references covering the same needs. We have unified our grating and created a simpler range.

REDUCTION IN STOCK: COST SAVINGS

By simplifying the range with fewer references, we can optimise and reduce our stock.

V-SHAPED CHANNELS, MODERNIZED RANGE

An updated V-shaped design to drain water faster.

- More speed at a low.
- More capacity in extreme flows.



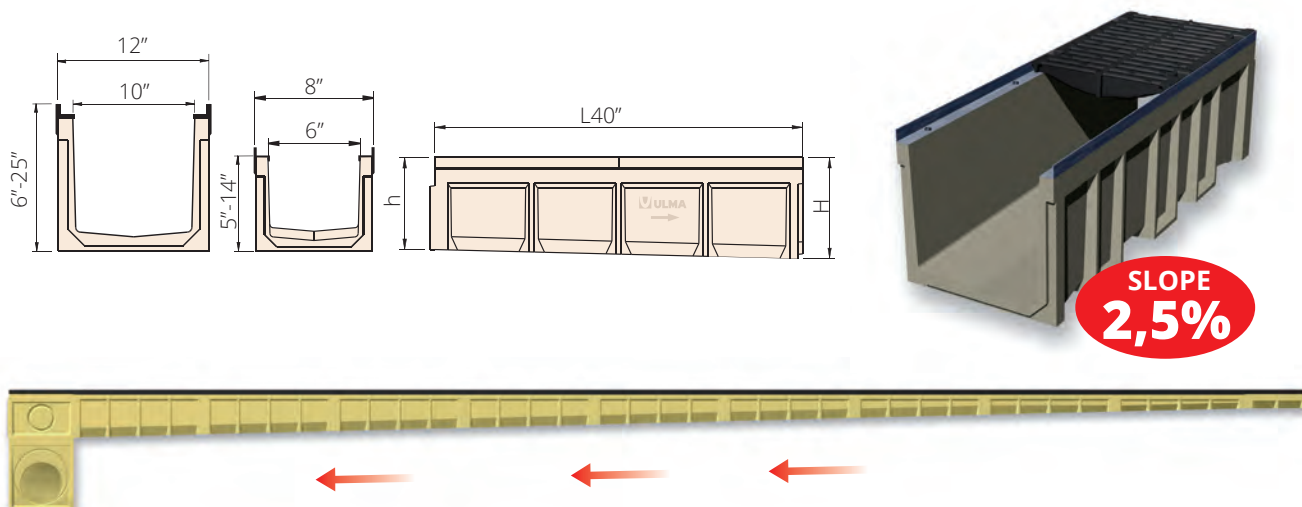
RAPIDSELF FIXING SYSTEM

Thanks to the new fast-fixing system, we can remove the gates from the entire domestic range, we improve the hydraulic efficiency of channels, and we facilitate system maintenance and cleaning.



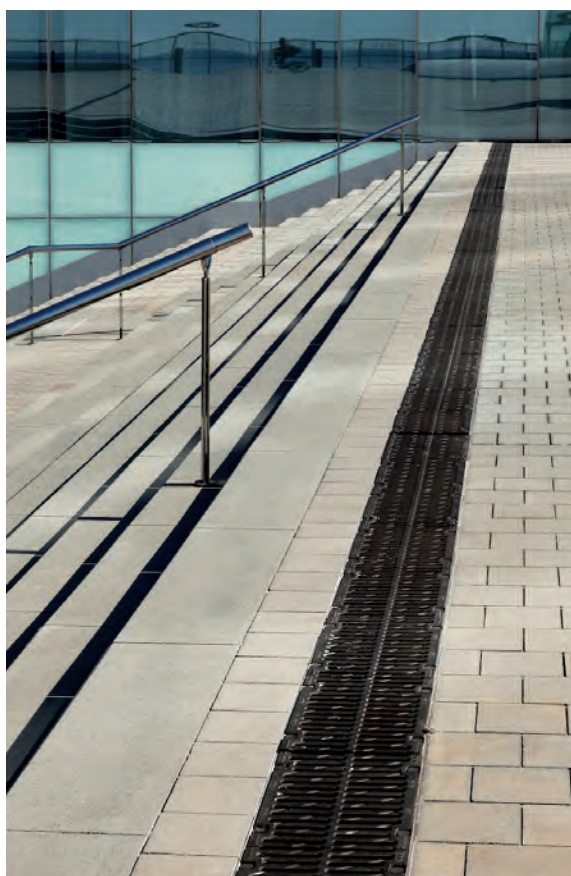
+ 2,5% PRESLOPED TRENCH DRAIN

FIRST POLYMER CONCRETE TRENCH DRAIN WITH PRESLOPE OF 2,5% ON THE MARKET



ADVANTAGES

1. SELF-CLEANING EFFECT
2. HIGH HYDRAULIC CAPACITY
3. MINIMUM MAINTENANCE

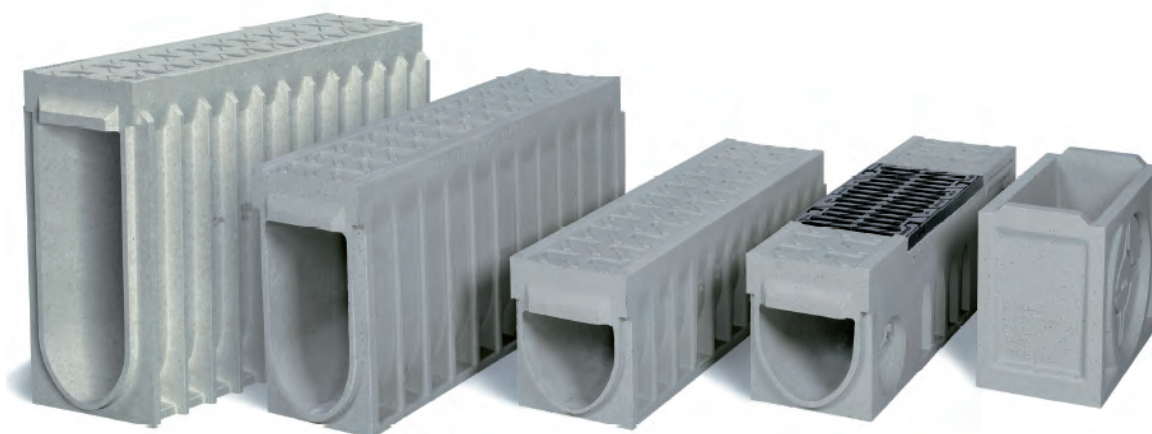


Maximum Drainage
Minimum Maintenance

KOMPAQDRAIN® CHANNEL

Specially designed for areas with high traffic density by **ULMA Architectural Solutions**, specialists in drainage system, this novel compact channel made of polymer concrete, is suitable up to load class F900, according to standard EN-1433.

Motorways, airports, service stations and other intense traffic areas require high drainage and maximum safety, requirements to which **KOMPAQDRAIN®** responds with a combination of features that make it unique on the market.



ADVANTAGES OF THE SYSTEM

1. COMPACT
2. LONG-LASTING AND RESISTANT
3. SELF-CLEANING
4. MAXIMUM SECURITY
5. QUICK INSTALLATION

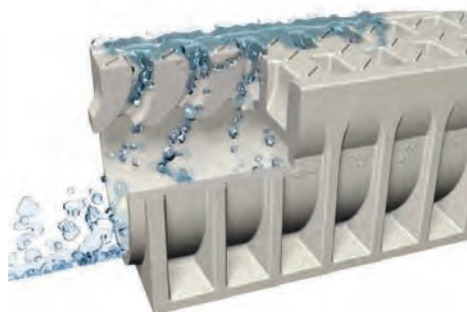
Max Flow® SYSTEM

The original curved design of the inlets, together with the non-slip surface and water router, achieve the novel **Max Flow®** effect, increasing the water speed and the drainage capacity. More over, the progressive widening of the orificies helps the waste pass through more easily. Therefore **KOMPAQDRAIN®** can drain the same volume of water with a smaller channel.

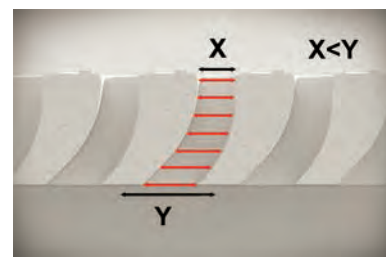
KOMPAQDRAIN® meets all requirements of the EN-1433 international standard of quality and reliability.



CURVED DESIGN OF THE INLETS



IT INCREASES THE WATER ENTRY SPEED AND THE DRAINAGE CAPACITY



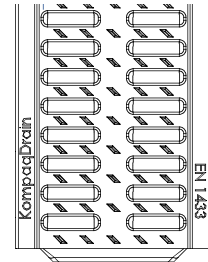
PROGRESSIVE WIDENING TO PREVENT DIRT BLOCKAGE

KOMPAQDRAIN® PRODUCT RANGE

CITY



- Grating specially designed for compliance with European standards of pedestrians uses.
- Main application: city and pedestrian areas.
- Available in 3,93", 5,90" and 7,87" widths.

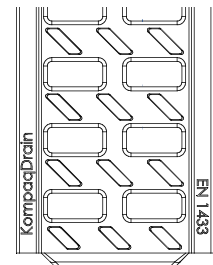


CITY D400

TRAFFIC



- Grating specially designed for heavy traffic areas.
- Main application: highways.
- Available in 5,90" and 7,87" widths.

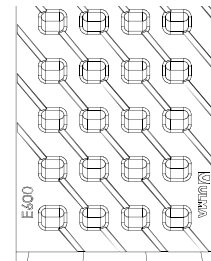


TRAFFIC D400

INDUSTRY



- Inverted anti-slippery surface, without protuberances.
- Grating with small holes, specially designed for forklifts and warehouses.
- Available in 5,90" and 7,87" widths.

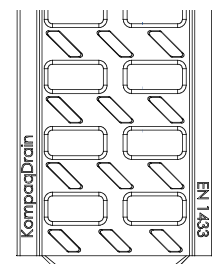


INDUSTRY E600

CIVIL



- Grating specially designed for highest load classes.
- Main applications: civil works and airports.
- Available in 5,90" and 7,87" widths.



CIVIL F900

+ KOMPAQSLOT® CONCEALED TRENCH DRAIN SYSTEM



BENEFITS

compared to other systems

MADE FROM POLYMER CONCRETE: LIGHTWEIGHT AND STRONG

Among its many excellent mechanical properties, polymer concrete is 4 times stronger than traditional concrete. This allows us to considerably reduce the weight and size of the precast elements, so we can manufacture smaller, lightweight pieces.

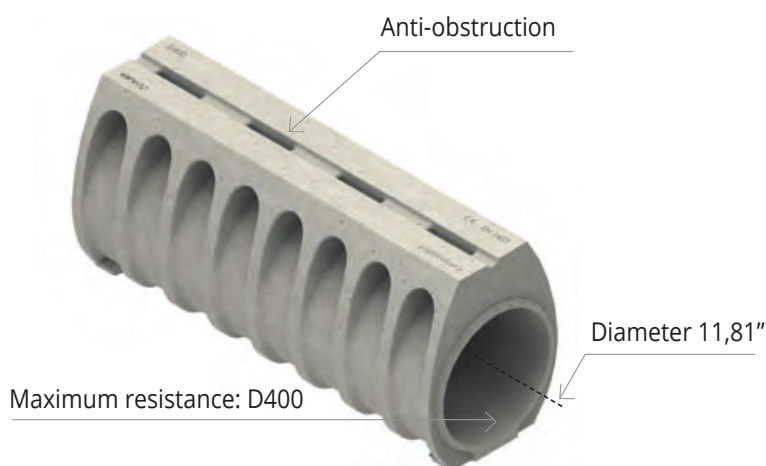
SIMPLE FAST INSTALLATION

The lightness of polymer concrete compared to other materials and the 1 metre length of the KompaqSlot® slotted channel makes installation simpler and faster. This technical advantage reduces the need for equipment to transport the material to the site, thus optimising execution times.

DURABILITY

Thanks to the grating incorporated into the structure, these compact channels offer maximum security and increased durability.

The low water absorption coefficient of polymer concrete optimises the durability of the product and its resistance to the freeze-thaw cycle. It is also very highly resistant to a wide range of chemical products.



+ KOMPAQDRAIN: CIVIL ENGINEERING APPLICATIONS



+ TRENCH DRAINS FOR HEAVY DUTY APPLICATIONS

The F system is specifically designed for heavy traffic areas.

Areas such as service stations, loading and unloading areas, ports, warehouses, airports, public roads, and heavy vehicle parking areas.

As a result, all trench drains in the F range are reinforced with galvanized steel or cast iron edges. This system is available up to the F900 load class and is ideal for public works.

- Height: 27,55 in / 700mm
- 8 Bolt locking system
- Width: 15,74 in / 400mm



FRANCE
Bandol quai

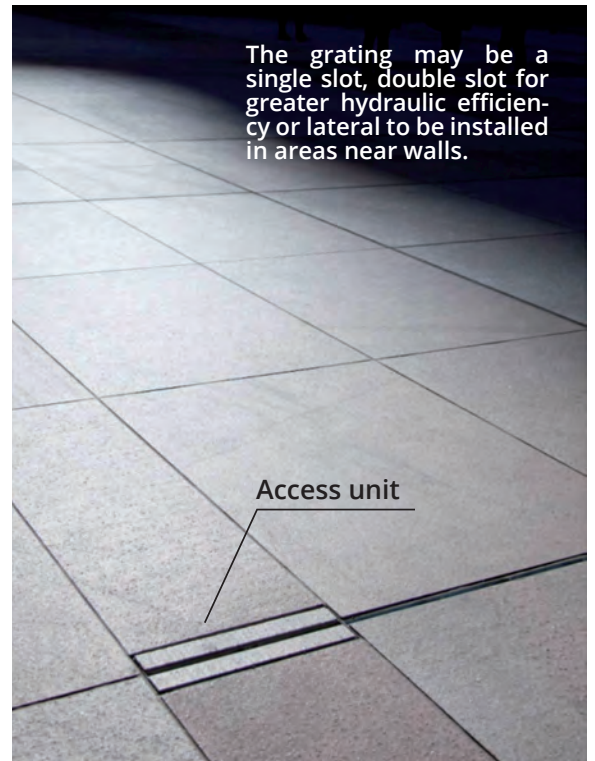


BRAZIL
GUARULHOS AIRPORT, São Paulo

SINGLE SLOT GRATING



Aesthetics and hydraulic capacity



The grating may be a single slot, double slot for greater hydraulic efficiency or lateral to be installed in areas near walls.

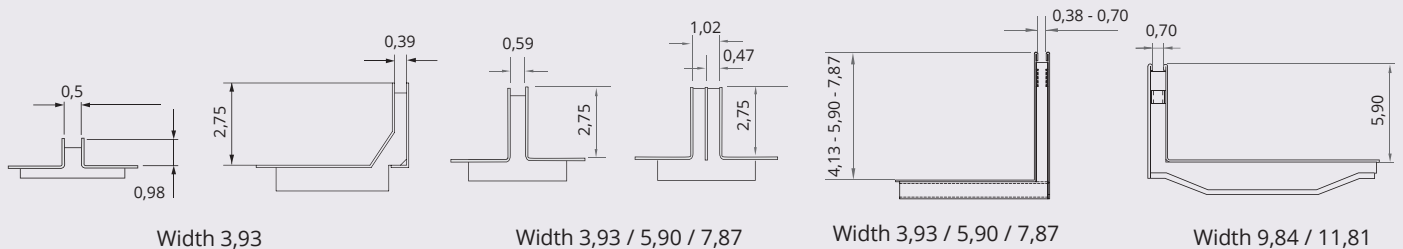
Access unit

It is an inverted-T shape grating model that mainly stands out for its look as it fits in perfectly into the flooring (whether it is concrete, cobblestone or tile), achieving total mimetization in the urban landscape.

The single slot grating forms part of an integral system which consists of a grating, channel and set of inspection chambers for an optimum maintenance of the drainage line. It is adaptable to different channel models and available in galvanised and stainless steel finish.

Withstands a load class up to D-400 according to Standard EN1433, suitable for road surfaces, pedestrian streets, hard shoulders and parking areas for all kinds of road vehicles.

GRATINGS DIMENSIONS



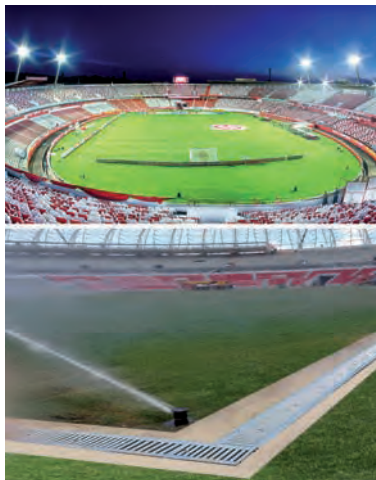
+ DRAINAGE SOLUTIONS FOR SPORT FACILITIES

Drainage solutions for sport applications as soccer fields, running tracks and indoor areas such as showers and changing rooms, pool sides, etc.

Large range of gratings up to C250 load class according to Standard EN1433 in different materials as ductile iron, galvanized, stainless steel and polyethylene. Possibility of drain line layouts with step fall.



SPAIN
BETIS Team soccer field, in Seville



BRAZIL
Trench drains installed at the Beira Stadium Rio, Brazil. Soccer World Cup Headquarters 2014.



FRANCE
Enna Villeurbanne stadium



UK
Glasgow Rangers FC



SPAIN
Rafa Nadal Academy



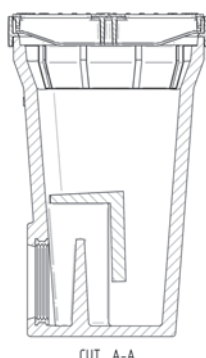
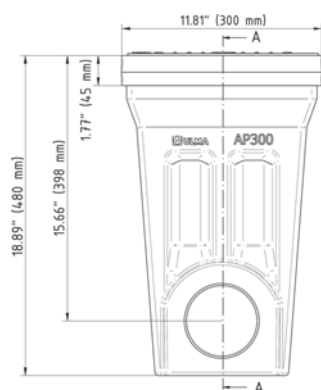
SPAIN
José Zorrilla stadium

+ POINT DRAINAGE 30 X 30

Stackable point drainage chamber made of polymer concrete for pedestrian areas. Ideal for gardens, courtyards, parks or terraces. Load class B-125 in accordance with DIN EN 124. With seal made of NBR material.

ADVANTAGES

- High-quality polymer concrete material
- Stackable system
- Simple "click" fastening
- Easy maintenance and cleaning
- Star-shaped gratings





ULMA AROUND THE WORLD



SPAIN
Design Center,
Barcelona.



MEXICO
Femexfut HQ



UK
CNG
Fuel station



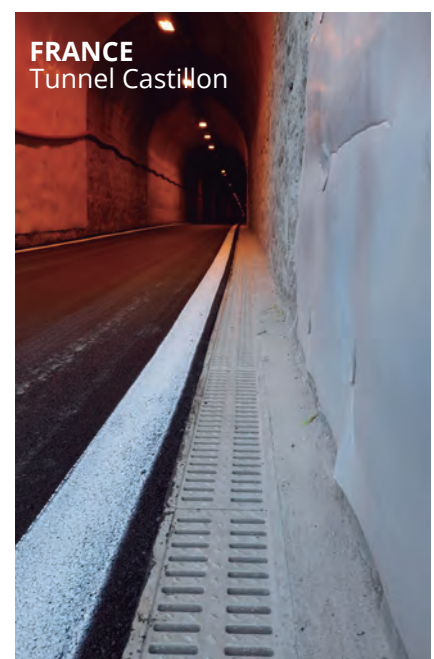
SPAIN
Gas station



FRANCE
Ballan Mire,
City Hall



GERMANY
Swimmingpool, Düsseldorf



FRANCE
Tunnel Castillon



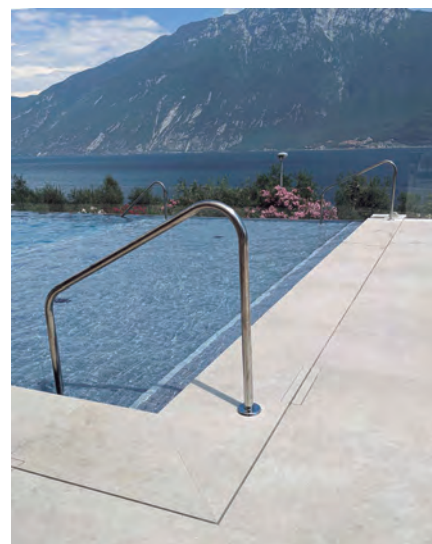
+ ULMA AROUND THE WORLD



GERMANY
Siegen's train station, Thür



BRAZIL
Tom Jobim Airport



ITALY
Garda Lake



UK
Residential urbanization



GERMANY
Hannover



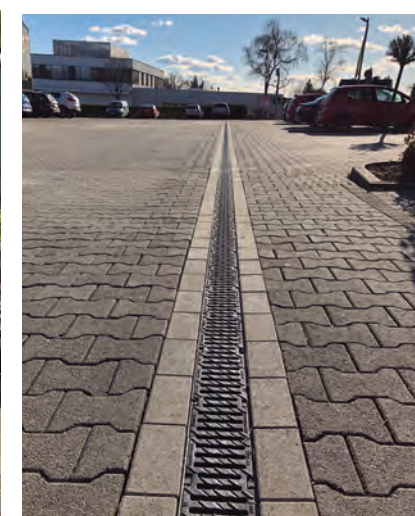
PORTUGAL
Truck station



BRAZIL
Campos Jordao



GERMANY
Bicycle station Cologne



CHILE
Shopping Mall



+ ULMA AROUND THE WORLD



FRANCE
MECA Bordeaux



SPAIN
Gran Vía street in Madrid



ITALY
Naples Port



UK
Lord's Cricket Ground in London



FRANCE
Choisy Le Roi, Dock in Paris



SPAIN
Main entrance Barcelona FC



MEXICO DF
Cibeles Square



ULMA ARCHITECTURAL SOLUTIONS

ASHLAND CENTER TWO

701B Ashland Avenue - Bay 206

Folcroft, PA 19032

Contact: mserna@ulmaarchitectural.com