

The ACO Group

Founded in 1946, the ACO Group is the world leader and pioneer of modular trench drainage systems. ACO surface drainage systems are used in a variety of applications, from domestic environments to airports. ACO products have been used at many prestigious locations world wide.

ACO USA was founded in 1978 and is America's foremost manufacturer of trench drainage products. Products are produced at the company's modern manufacturing facilities in Ohio and Arizona.



Design and Innovation

ACO believes in excellent design and quality products. Design features are important to differentiate ACO from its imitators. This attention to detail in design gives customers confidence in purchasing a proven quality product.

ACO uses extensive FEA computer modeling to ensure maximum performance of its products.

ACO Infrastructure



ACO Infrastructure is a brand consisting of products designed for use in infrastructure construction. They are designed to remove surface water in these challenging locations. Each product within the range addresses a variety of unique design criteria required in these capitol projects.

- Products address several key issues:
- Create a safer driving environment by minimizing roadside ponding and sheeting
 - Cope with the challenges of fast moving vehicles
 - Avoid the need for multiple grades
 - Safe and secure top grate units



Systems Overview

TraffikDrain - TD100

Trench system with removable or non-removable grates

TraffikDrain quickly collects and evacuates stormwater through high intake slots in the grate. TraffikDrain safely withstands loads from heavy vehicles due to its integrally cast-in rail and heavy duty, bolted ductile iron grates. TraffikDrain is available with a complete range of accessories.



E
up to
2,788 psi

Features

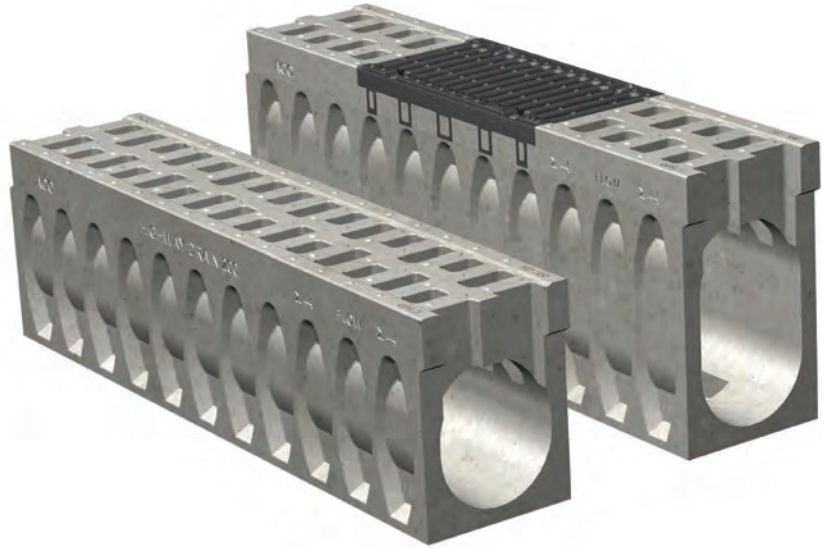
- 4" (100 mm) internal width
- Polymer concrete channel body
- Integral ductile iron edge rail
- Optional concrete anchor available on edge rail
- Built-in 0.6% slope
- Exceeds AASHTO H20/HS25 load rating
- High capacity grates providing 60% open area - 38.92 sq. in. per linear foot
- Choice of fixed, non-removable grates (NRG) or removable grates
- Modular meter (39.37") and half meter (19.69") units
- Total sloping run length - 196' - 10" (60 meters)
- Invert depth; 4.41" - 18.58" (112 - 472 mm)
- Wide choice of outlets providing up to 2,783 GPM flow rate

HighwayDrain - HD200

Monolithic trench system

HighwayDrain offers excellent hydraulics due to 8" internal width and large intake slots. HighwayDrain safely withstands dynamic loads

from fast moving vehicles as there are no parts that can come loose. HighwayDrain is available with a complete range of accessories.



E
up to
2,323 psi



Features

- 8" (200 mm) internal width
- Monolithically cast polymer concrete channel body
- Built-in 0.6% slope
- Exceeds AASHTO H20/HS25 load rating
- Large grate openings cast into top surface - 30% open area - 36.2 sq. in. per linear foot
- Modular 4 ft (1.22 meter) units
- Total sloping run length - 100' (30.5 meters)
- Invert depth; 12.52" - 19.88" (318 - 505 mm)
- Access for maintenance via 4-bolt ductile iron grate on access and outlet units
- Choice of outlets providing up to 2,867 GPM flow rate

CurbDrain

Curb drainage system

CurbDrain consists of standard 2 ft (600 mm) units, radius units, drop curbs, center curbs, 90° corner, tactile pavers, access curb and catch basin to ensure an easy to design and install solution for any road layout. CurbDrain provides safe, continuous, roadside drainage for urban environments.

D
up to
1,859 psi



Features

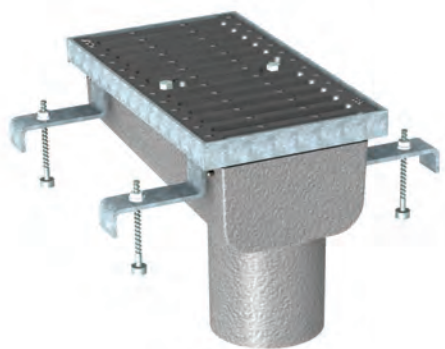
- 4" (100 mm) internal width
- Monolithically cast polymer concrete curb unit
- Matches standard Type 6 curb profile
- Neutral depth system
- Selection of different units creates a full curb system
- Up to Load Class D - 1,859 psi
- Modular 2 ft (600 mm) standard units
- Access for maintenance via locking ductile iron cover on access curb and catch basin
- Outlet via access curb or catch basin - up to 2,722 GPM flow rate

BridgeDrain

Surface drainage for bridge decks

BridgeDrain offers an excellent drainage solution for bridge applications. The system is comprised of a choice of scuppers, to collect stormwater from the bridge surface that can connect to either a uVPC or ductile iron pipe system.

E
up to
2,323 psi



Features

- 8" (200 mm) internal width
- Fiberglass body to minimize bridge deck weight
- Black coated, galvanized or stainless steel frame
- Sloping invert units for good hydraulics
- Choice of bolted grates
- Up to Load Class E - 2,323 psi
- Modular 18", 36" or 54" units
- Outlet via 8" pipe cast into base - up to 561 GPM flow rate

ACO INFRASTRUCTURE

F
up to
2,659 psi



Qmax

High-capacity slot drainage

Qmax® is a high-capacity slot drainage system with patented inlet design that provides a continuous pavement beam, strengthening the installation.

Qmax® allows an unbroken reinforced slab to be cast around, and through, the inlets for a stronger surround.

Manufactured from recycled Medium Density Polyethylene (MDPE), the lightweight material makes ACO Qmax® easy to handle and quick to install.

A full range of accessories, including catch basin connectors and end caps provide simple and convenient integration with conventional site practices.



Features

- Choice of 5 widths ranging from 8.6" (218.44 mm) to 23.6" (599.44 mm)
- Medium Density Polyethylene (MDPE) channel body
- Choice of ductile iron or galvanized steel top rails - including ADA compliant version
- Neutral depth system
- Male/Female interlock - simple push fit channel connection with 1.5" overlap detail
- Qmax® 365, 465 and 600 also have wing nut connections
- Modular 2-meter (78.75") units - can also be cut into 1-meter (39.37") lengths
- Molded cutting guides every 8" allow channels to be easily cut to shorter lengths
- Invert depth: 16.61" - 45.57" (422 - 1155 mm)
- Installation feet keep channels stable during installation
- System connectors - allow connection between different sized systems

Surface Drainage

Whether frequent light rainfall or occasional heavy downpours, surface drainage is necessary.

Surface drainage is designed to:

- Reduce ponding (standing water)
- Reduce slip hazards and subsequent injury
- Protect, and extend, life of paved surfaces
- Protect property from flood damage
- Reduce inconvenience to public users
- Reduce hydroplaning on roads



Catch basin drainage provides intermittent inlets and multiple grades often resulting in ineffective drainage and flooding.



Trench drainage provides continuous capture and simple one-way grades to ensure an effective solution with easier installation.

ACO INFRASTRUCTURE

Choosing the Correct Surface Drain

Surface drains are designed to capture and carry surface water. Once hydraulic performance is ascertained, the environment of the application and loading requirement needs to be considered.

1. Hydraulic Performance

Volume of liquid a surface drainage system collects and transfers in a given time period

2. Application

2a) Loading

Traffic applied to product

2b) Durability

Material choice for long working life

2c) User Requirements

User requirements are project specific

ACO Service and Support

ACO has an established Technical Services Department with many years experience advising on surface drainage.

This free service is offered with no obligation and is supported with extensive, high quality information, brochures and technical documentation.

1. Installation Details

Installation drawings based on load class, product type & width and pavement finish

2. Trench Hydraulic Service

Flow calculations to ensure correct sizing of trenches

3. Ponding Analysis

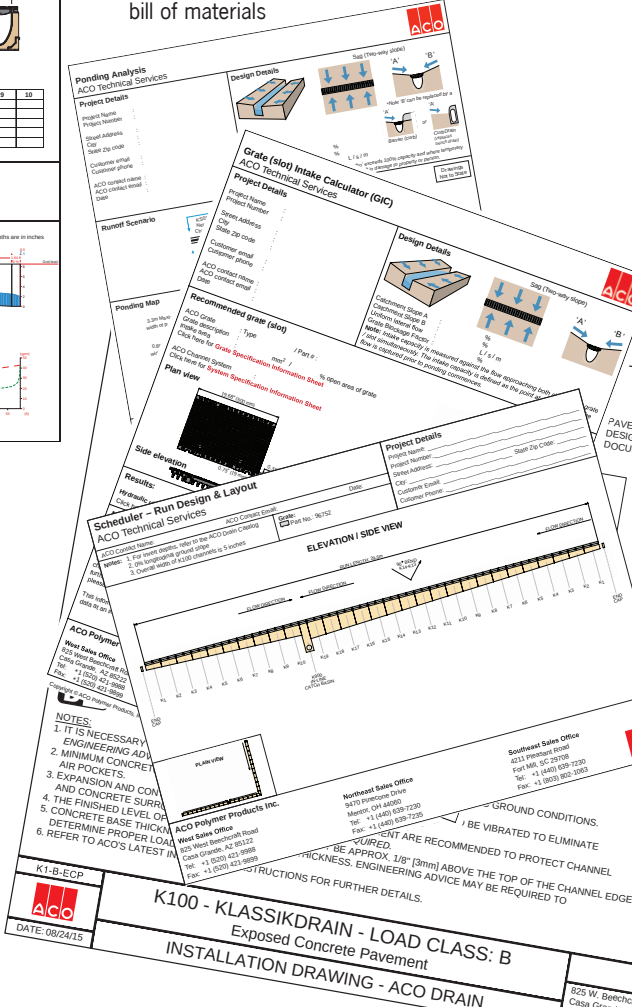
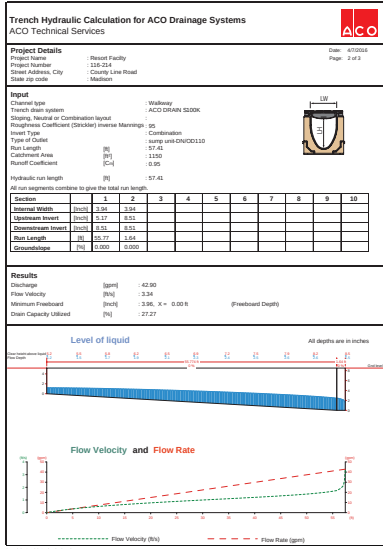
Shows size and duration of temporary ponding

4. Grate Hydraulics

Intake calculations provide grate catchment data

5. Run Layout Service

Plan and profile layouts complete with bill of materials



Other ACO products

Exernal drainage

ACO Sport

Surface drainage and building accessories for track & field.

ACO Infrastructure

Surface drainage products engineered for highways, urban roads and bridges.

Aquaduct

Custom design and manufacture of fiberglass trench drain systems.

ACO Duct

Linear ducting system with removable solid covers.

ACO Environment

Oil water separators and spill containment systems.

ACO Wildlife

Tunnel and fence system to guide amphibians and other small creatures safely across roads.

ACO StormBrixx

A unique and patented plastic geocellular storm water management system.

ACO Self

Simple drainage and building components for use around the home, garden and office.

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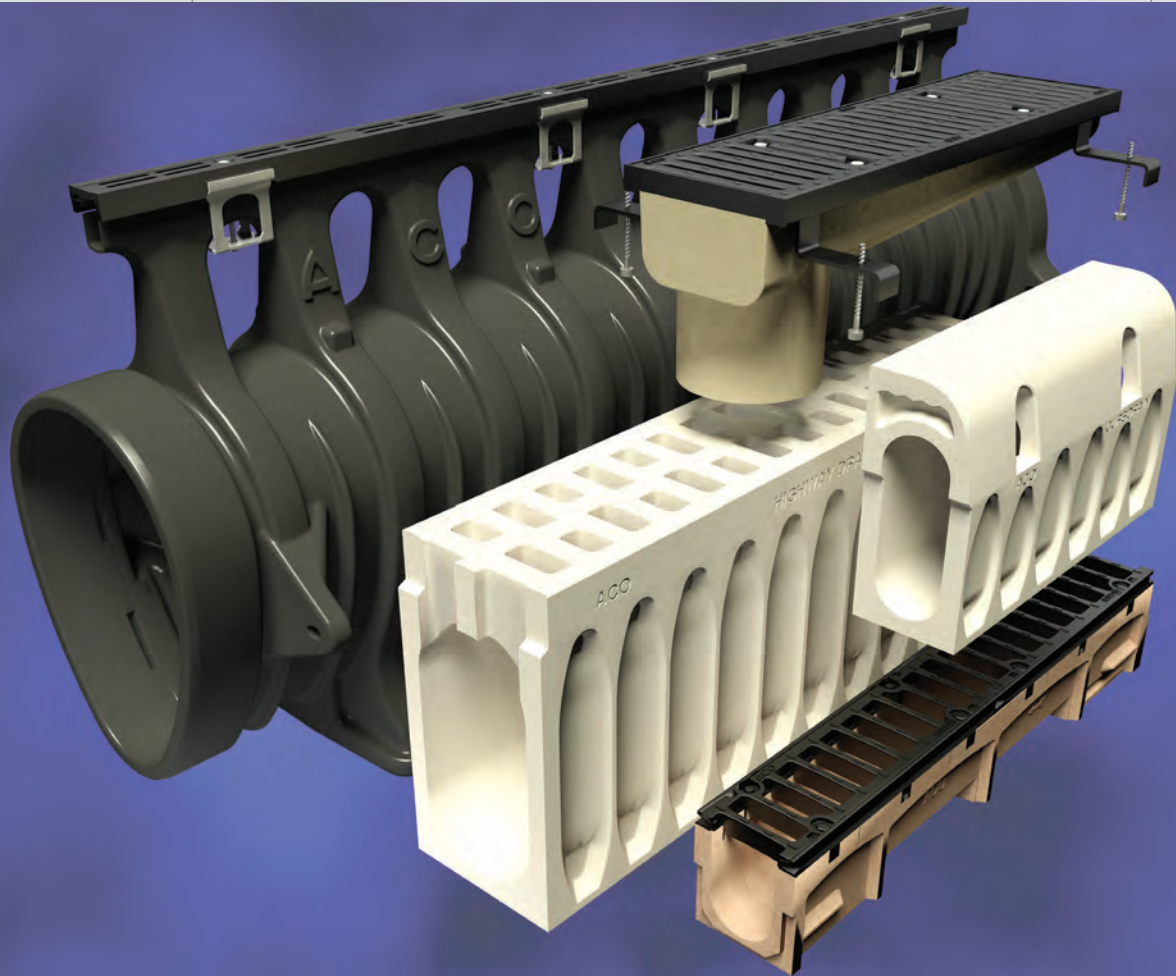
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Re-order Part # RD007 v1.0



ACO Construction & Building Products

Drainage for roads,
bridges, docks
and airports



ACO INFRASTRUCTURE

Overview Leaflet

A Summary of the ACO Infrastructure Product Line

