

# ACO Infrastructure

## Qmax<sup>®</sup>



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### Heavy-dirty polyethylene (PE) slot drainage system

ACO's drainage systems consist of factory manufactured channel units made from corrosion resistant durable materials designed to withstand the most challenging environments. This makes them ideal for diverse New Zealand climates and durable in all seasons.

ACO Infrastructure is the market leading brand for trench drainage in transportation infrastructure applications and comprises a number of systems, including the high-efficiency ACO Qmax<sup>®</sup> slot drainage system manufactured from polyethylene (PE).



ACO. creating  
the future of drainage







## ACO Qmax®

ACO Qmax® has been developed to satisfy the demand for a versatile, high capacity slot drainage system for a wide range of applications involving small to large catchment areas to any load class.

### What is ACO Qmax® ?

ACO Qmax® is a slot drainage system manufactured from polyethylene (PE) ensuring the system is lightweight and robust. Simple access and connection between each channel run is provided by a range of access units, pits and connectors. It allows an unbroken reinforced concrete slab to be cast around - and through - the inlets for a stronger surround.

ACO Qmax® is specifically designed to form an integral part of any modern, sustainable surface water management solution. The system maximises the hydraulic capacity available providing effective storage, attenuation, and eliminating carry over in stormwater conditions.

ACO New Zealand offers five channel sizes ensuring greater system flexibility for engineers and designers to optimise scheme hydraulics. In recognition of its innovative design, ACO Qmax® has received many accolades including Construction Product of the Year 2006 and The Queen's Award for Enterprise: Innovation in 2006.

#### Typical Applications

- Airport pavements
- Container ports
- Industrial parks
- Distribution centres
- Highways & motorways
- Correctional facilities







## Why choose ACO Qmax® ?

The channel is manufactured from PE which is lightweight, chemically resistant and extremely robust. Its ovoid High-Flow bore, sealed push fit channel connections and unique patented inlet design ensure efficient drainage even at low hydraulic flows and promote self cleansing. Installation rates are maximised and the product is fully integrated within the pavement detail providing long term dependable performance.



### System Features

- Available in these sizes: 225, 350, 365, 465 and 600
- The ACO Qmax® channel unit is 2m in length
- Simple connection between each channel run is provided by step and channel connectors
- Range of access chambers available
- Manufactured from Polyethylene (PE), including recycled material
- ACO Qmax® is easy to handle and quick to install
- Unique patented inlet design provides a continuous pavement beam feature over the line of the channel
- Certified to AS 3996 Load Class G 900kN
- ATec coating on all the ductile iron edge rails

### System Benefits

- Unobtrusive continuous slot drainage system
- Eliminates stormwater carry over
- Sealed system
- Effective silt management
- Meets environmental construction targets
- Improves onsite handling and installation rates
- Strengthening the pavement installation and minimising the need for reinforcement
- Proven performance and durability
- Safe and secure installation
- Long service life in excess of 25 years



## ACO Qmax®



ACO Qmax® 225

ACO Qmax® 225 channels are available with the following components:

- Outlet and closing end cap
- Qmax® 225-350 step connector
- Access, outlet / inlet and silt chambers
- Installation edge rail protectors
- Q-Brake Vortex flow controls



ACO Qmax® 350

ACO Qmax® 350 channels are available with the following components:

- Outlet/inlet and closing end cap
- Access, outlet / inlet and silt chambers
- Installation edge rail protectors
- Q-Brake Vortex flow controls



ACO Qmax® 365

The increased hydraulic capacity of the ACO Qmax® 365 channel makes it ideal for larger catchments and can eliminate the need for additional carrier drains and pipework. ACO Qmax® 365 channels are available with the following components:

- Outlet, closing and blanking end caps
- Qmax 365-465 step connector
- Access and silt chambers
- Installation edge rail protectors
- Q-Brake Vortex flow controls



ACO Qmax® 465

The increased hydraulic capacity of the ACO Qmax® 465 channel makes it ideal for larger catchments and can eliminate the need for additional carrier drains and pipework. ACO Qmax® 465 channels are available with the following components:

- Outlet, closing and blanking end caps
- Qmax 465-600 step connector
- Access and silt chambers
- Installation edge rail protectors
- Q-Brake Vortex flow controls



ACO Qmax® 600

The increased hydraulic capacity of the ACO Qmax® 600 channel makes it ideal for larger catchments and can eliminate the need for additional carrier drains and pipework. ACO Qmax® 600 channels are available with the following components:

- Outlet, closing and blanking end caps
- Access and silt chambers
- Installation edge rail protectors
- Q-Brake Vortex flow controls





## Reference

### Bruce Highway Interchange, Brisbane, QLD, Australia

The federal government has committed \$195 million to upgrade the Bruce Highway. The highway is Queensland's major north-south corridor and provides a vital link for the coastal towns between Brisbane and Cairns for freight movements and tourism. The project included widening and strengthening the road, providing overtaking lanes and rest areas, improving safety and creating new interchanges to connect local roads to the highway. On a section of the Bruce Highway south of Caloundra, a designated emergency turning area was required to link the northbound and southbound lanes. The 50-metre section is located at a sag point on the road and needed an easy to install drainage system to efficiently capture the surface water runoff.

#### ACO's Solution:

- Qmax 225 system



ACO Qmax 225 system

### International Airport Sarajevo, Bosnia

Located in the capital city Sarajevo, the international airport is the main airport catering for Bosnia Herzgovina. The reconstruction of the runway at Sarajevo International Airport, as well as the entrance - exit from the facility have been a chance for ACO to involve its products.

#### ACO's Solution:

- Qmax 600 system

**askACO**

For further information about the ACO Qmax® range please scan the QR Code.



ACO Qmax 600

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#### ACO Limited

Sales Hotline  
Phone 0800 448 080  
Fax + 64 (0) 9 255 5114  
E-Mail: [info@aconz.co.nz](mailto:info@aconz.co.nz)

Head Office  
Unit F, 6 Percival Gull Place  
Mangere, Auckland 2022  
New Zealand

[www.aconz.co.nz](http://www.aconz.co.nz)

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