

A new home, one year on. ACO going from *strength to strength!*

ACO Headquarters, Emu Plains

In January 2005, ACO Polycrete moved its headquarters and manufacturing facility to Emu Plains, Sydney. Situated in the Penrith Valley, this new location has allowed ACO to expand its manufacturing operations, warehouse storage facilities and benefit from the valley's skilled workers and support industries.

Part of the ACO Global Group of Companies and the world's largest polymer concrete manufacturer of grated trench drainage systems, ACO will continue to invest several million dollars in upgrading the site with additional manufacturing equipment and expertise to meet its future growth plans. Recently ACO has broadened its capabilities in multipart cover and frame assembly. These systems are traditionally installed in commercial and industrial applications including airports, roads, footpaths and docks.

"Our decision to move to Emu Plains has been the right one."

The recent introduction of ACO's patented **anti slip stainless steel grate** has helped to grow ACO's popularity amongst Australian architects and engineers for its stainless steel grated floor drainage troughs and gullies for wet rooms in buildings. Plans are already in place for ACO to extend its range of building drainage products.

ACO's market is constantly growing and supported by a comprehensive network of branches, distributors, agents and partners in Australia, New Zealand, the Pacific Islands and South East Asia, where a manager has just been moved into Kuala Lumpur in Malaysia.

Staff levels have already increased at Emu Plains, presenting employment opportunities for people living within Penrith City. ACO has already implemented

apprenticeship opportunities in steel fabrication and has aligned with thesis students at the University of Western Sydney.

According to David Eisenhuth, Managing Director, selecting Emu Plains for ACO Polycrete's head office and manufacturing base was a strategic choice.

'Our decision to move to Emu Plains has been the right one. Integral to our selection criteria, were transport routes, for servicing customers all over Australia and ease of access to the shipping routes from Sydney. The recent opening of the M7 motorway has made a significant improvement in this area.

Additionally, the location selected ensured that over 80% of our then existing staff were satisfied to travel the additional distance "against the traffic flow".

He adds '...another key criterion was the large employment pool available in Penrith City. With many young families growing up in the area, we have already benefited from well qualified and experienced employees for a variety of roles including welders, storemen, salesmen and IT specialists.' '...During the relocation, the support of Penrith City Council has been first class, particularly in introducing us to other companies within the Penrith City Community.'

With such a large investment and commitment, ACO is preparing to become a very significant supplier to the Australasian construction industry.

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For more information on ACO's products or services, contact our sales office or visit:

www.acoaus.com.au

Princes Highway, Figtree NSW



ACO KerbDrain – hugging Australian roads with ease

Recently completed roadworks on the Princes Highway in Figtree, Wollongong (NSW), has allowed the NSW Roads and Traffic Authority (RTA) to install a new type of surface drainage system along the median strip.

Unlike conventional kerb and gutter systems, KerbDrain transforms kerbs into continuous inlet structures with minimal excavation. Manufactured from durable, polymer concrete, the KerbDrain system consists of 500mm long pre-cast modular units each comprising an integrally cast channel and batter with inlets for continuous drainage. The underlying channel then transfers captured flow to the stormwater often eliminating the need for multiple pits.

The project showcases over 200 metres of KerbDrain in the super elevated section of the Princes Highway, where in some locations; units are assembled to tight radii near turning bays.

During the design and planning phase, ACO liaised closely with the RTA to provide hydraulic information to ensure the width of flow was minimized for public safety; and that all units were coloured correctly to blend harmoniously with the carriageway and its elements. Finally, ACO provided site support and bespoke lifting tools to aid installation.

ACO Polycrete, now NATA accredited

ACO has recently setup a testing facility capable of testing the performance of its extensive range of drainage grates and access covers.



The testing facility has been assessed and accredited by the National Association of Testing Authorities, Australia (NATA) for compression and deflection tests to the requirements of various Australian and European Standards. NATA is the national organisation for conformity assessment of technical laboratories in Australia and is recognised throughout the world.

Accreditation by NATA acknowledges ACO's competent laboratory practice and allows ACO's testing facility to provide NATA endorsed test reports and certificates. ACO's NATA accredited testing facility will enable ACO to continually manufacture, develop and supply high quality products to the construction industry.

NATA Accreditation No. 15193



Test Laboratory, Emu Plains

Westfield

– several months on, ACO products are *as good as new*

Helensvale, with an estimated population growth rate of just over 5% per annum is one of the fastest growing regions in South East Queensland. In anticipation of this sustained growth, Westfield in October 2005 opened an integrated shopping town centre and street precinct at the junction of the Pacific Motorway and Gold Coast Highway. The street precinct is linked with the city's bus interchange at Helensvale railway station.

This is Westfield's second only *greenfield* retail development in Queensland with over 160 stores to serve Helensvale's growing and diverse community. The shopping centre comprises over 40000 sq metres of leasable area, parking for more than 2000 cars and a mix of both landscaped and hardstand highly trafficked concrete areas. To drain the site's large pavements, PowerDrain S300K was installed to ensure a high volume of rainwater is quickly removed during heavy storms with minimal interference to Westfield's customers. The drain also provided a barrier so that runoff would not flow across the site's adjoining roads.

PowerDrain is a heavy duty grated trench system comprising precast modular channels made from durable polymer concrete. For this project, a sequence of sloped channels was assembled to produce a continuously graded trench to ensure efficient drainage. The 90 tonne (rated) robust ductile iron grates are a guarantee for safe passage for many more years of car traffic from Westfield's customers. Each grate is fitted with PowerLok boltless locking mechanisms allowing staff to quickly access the trench during maintenance operations.

ACO is the industry's leader in trench drainage. A number of different systems are available with a wide range of grates. The company also offers Australasia's widest range of access covers and pits. These enclosures were also selected in various locations of the shopping centre to house Westfield's various plumbing and electrical services.



Westfield,
Helensvale QLD



'Urbanfil access covers – up in Lights!'

Inner Northern City Busway, QLD

The Inner Northern City Busway is another joint initiative by Brisbane City Council and the Queensland Government to address the growth in the city's traffic volumes. This key infrastructure links Queen Street Station to Royal Brisbane Hospital. A 4.7km dedicated roadway corridor for buses, it contains a number of purpose built stations at key locations along its route. All stations are serviced by intelligent transport systems displaying real-time information on bus arrivals, interchanging local buses and, if needed, emergency procedures.

The Royal Children's Busway Station is now complete. Designers selected ACO's Urbanfil access covers and various types of polymer concrete electrical pits/covers to house and protect the station's electrical, communications/CCTV cables. The access covers selected for this application are discrete covers, made from durable stainless steel. They are recessed to hold the footpath's polished concrete topping so that the visual continuity of the pavement is preserved.

"recessed to hold the footpath's polished concrete topping..."

In keeping with a government requirement to have a portion of the funding dedicated to public art, specialty Urbanfil multipart cover systems were installed at the bus stops with viewing portholes allowing commuters to access a touch activated map, illuminated to display the extent of the busway route and information on the buses that service it.

Urbanfil access covers and polymer concrete pits belong to the ACO Cablemate range of products made in Emu Plains, Sydney. ACO is the foremost supplier of electrical cable jointing pits, drawing pits and continuous ducting systems. It is also the supplier of the industry's broadest range of access covers.

The Royal Children's Busway Station is the 12th station ACO have supplied since construction began on the city's busway network scheme since 1999. For this project, ACO also supplied KlassikDrain grated trench drainage, for the capture of stormwater runoff from the carriageway.

KlassikDrain makes a splash!



Wynnum Manly, QLD

Wynnum Manly, with its fresh, salty breezes and stunning views to Moreton Island is a vibrant community, 25 minutes drive from Brisbane. Situated on its waterfront, The Esplanade attracts many visitors, particularly to Pandanus Beach and the Wynnum wading pool. Water Park, a recently opened \$770,000 playground, complete with a waterslide is now a great place for kids to cool down and have some fun.

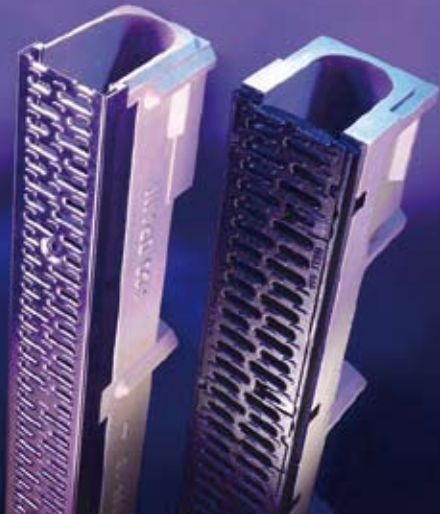
Designers required a grated trench drainage system to collect the runoff from the water feature located on the beachside of the Esplanade. Almost 100 metres of KlassikDrain, K100 was installed for the application. Each modular channel (100mm wide) and grate was mitered to ensure the trench run traced the radial contour of the water feature. Stainless steel spigots with removable strainer baskets were fitted to the channel's stormwater outlets so that debris would be prevented from clogging the system. Heelguard Stainless grates were fitted to ensure that children's fingers would not be trapped and that the drain would be visually appealing.

Available in 3 widths, KlassikDrain is ACO's general purpose trench drain range and is now available with Quicklok™, ACO's lockable boltless system allowing for quick access to trenches for reduced installation and maintenance times. KlassikDrain trench channels can be assembled to produce sloped runs making it ideal for level pavements such as public domains and streetscapes. KlassikDrain comprises the industry's widest selection of grates for all load classes and legislative requirements including the patented Heelguard Antislip™ Stainless grate.



Heelguard Antislip™ Patent no. 635425

ACO DRAIN goes boltless



KlassikDrain & PowerDrain systems

ACO Polycrete, world acclaimed innovator and Australian manufacturer of ACO DRAIN, has launched an advanced range of boltless grated trench drainage systems which comprise the industry's widest selection of grates. With no loose bolts or bars, the **KlassikDrain** and **PowerDrain** systems provide secure locking, whilst enabling rapid and effortless removal of grates for easy maintenance and cleaning.

The ACO DRAIN range consists of Australian made modular precast channels made from durable polymer concrete. The range is suitable for all applications, from shopping malls to airport runways and roads. Sloped runs can be used to produce falls in flat level pavements. Furthermore, a full range of accessories and grates in various materials and finishes make these lockable systems highly versatile solutions.

Designed for public pedestrian areas, forecourts and carparks, the **KlassikDrain** features an integrally cast steel protective edge. The system can accommodate over 10 different grate types, including ACO's heel safe grates (as pictured below) and a selection that complies with AS1428.2, Access and Mobility. All grates are secured with the 'QuickLok™' boltless locking device. A nylon stud is factory fitted to the grate, allowing it to snap tight into a bar positioned across the channel.

"can accommodate over 10 different grate types..."

PowerDrain is an extra heavy duty drainage system. Its special strengthening design features an integrally cast ductile iron edge rail and a choice of heavy duty ductile iron grates. The grates are secured with **PowerLok™**. This bolting system is surrounded by anti shunt lugs positioned in the edge rail to prevent longitudinal movement from traffic loads.

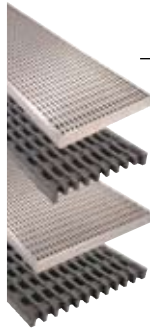
To complement its core range of products, ACO has developed **SlabDrain** for restricted depth installations and a range of specialty drainage systems for specific applications and problem situations. They include purpose made trench drains for brick pavements (**Brickslot**); systems that allow the connection of waterproof membranes (**Membrane Drain**) and attractive unobtrusive threshold drains (**MiniKlassik**).

ACO's range of heel safe grates



K100

Stainless Steel Heelguard
Stainless Steel Heelguard
Antislip™
Stainless Steel Perforated
Galvanised Perforated
Heelguard Iron



K200 & 300

Stainless Steel
Antislip™
Heelguard Iron



MiniKlassik

Stainless Steel Heelguard
Stainless Steel Perforated
Galvanised Perforated

Ponding Investigation

Early in 2005, ACO approached the University of Western Sydney (UWS) School of Engineering & Industrial Design to conduct an investigation on the temporary ponding of grated trench drains. The investigation was undertaken and submitted as a thesis titled, "Ponding of Drains in Urban Areas", by Marlene van der Sterren, an undergraduate in her final year of study for the degree of Bachelor of Engineering (Civil).

Part of her thesis included full scale field testing which was conducted at the UWS Hawkesbury Campus. A run of **ACO Drain** was installed along the edge of a concrete slab and a rainfall simulator (using recycled water from the UWS Hawkesbury Wastewater Reuse Scheme) was used to flood the site to create ponding, which characteristics could be measured.

The findings will assist ACO's Technical Services department to provide empirically refined calculations. These calculations are included in a ponding analysis, designed to assist engineers in selecting the correct size ACO Drain System for applications where temporary ponding is allowable.

University of
Western Sydney

Bringing knowledge to life



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