

'NEEDLESAFE' DRAIN GRATES

ACO are helping to combat the drug problem in our society.

The ongoing problem of drug abuse in inner cities has raised an interesting problem for Engineers, Architects and maintenance crews. Many drugs are administered by means of a hypodermic syringe and, although the authorities are providing needle exchange centres, users sometimes look for more convenient disposal points such as drains, pits and sumps.

Disposing of used syringes into drains can lead to potentially severe health hazards for maintenance crews, who may have to put hands into the drains and subsequently can run the risk of 'spearing' themselves on a needle lying in the bottom of the drain.

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ACO were recently contacted to help solve this problem during the design of a project in St Kilda, Melbourne. Designers now have a responsibility to give consideration to the users of their designs, and maintenance is a very important issue. This part of



Melbourne has some history of drug abuse, so it was felt it was important to give thought to the safety of the maintenance crews who will eventually have to maintain the drainage systems.

The **ACO DRAIN K100S** system was the ideal solution for this problem as the gratings can be locked into the channel by a simple, one bolt, locking bar and **ACO** has a range of gratings with slot widths which stop the insertion of the smallest syringes. The **K100S** range has an extensive

range of gratings in different materials, finishes and load ratings, to ensure that the correct grating choice can be made, which fits aesthetically into the location as well as giving the required performance.



ACO SPORT PRODUCT RANGE

ACO has a significant history in the manufacture of drainage systems for Olympic stadiums. The first major high profile installation of the modular polymer concrete **ACO DRAIN** system was for the running track in the Munich Olympic stadium for the 1972 Games. Since then **ACO** have produced drainage systems for all Olympic stadiums and many other major sporting venues used for international events.

ACO have produced Drain systems for Olympic stadiums since 1972

Today **ACO** offers a comprehensive range of products in its **ACO SPORT** range, including three different systems for running track drainage and other related track and field accessories, such as



electrical boxes, sand traps, pole vault boxes, rubber capped kerbing and synthetic turf clamping. **ACO SPORT** systems comply with IAAF (International Amateur Athletic Federation) guidelines and the versatility of the drainage systems for running tracks allows the track surface to be installed over the drain or up to the drain edge, which is then used as the dressing edge for the track surface. On occasion the drainage system can be used to locate the perimeter rail which defines the boundary of the running track. In areas such as the sand pits for the long jump and

the high jump **ACO** produces a polymer concrete wall component with a soft cast in EPDM rubber cap which prevents injury to competitors. The versatility of these products has seen them used in diverse areas such as children's playgrounds and other recreational areas.

With the construction of many sporting facilities for the Olympic Games to be held in Australia in 2000, **ACO** products have been used extensively at many of the major locations and training facilities country wide.

CABLEMATE 'TYPE 7' PIT NOW AVAILABLE

As part of **ACO's** continuing policy of offering the most comprehensive range of electrical pits on the market, **ACO** has now introduced a **Type 7** plastic pit to add to its existing range of pits. The all new **Type 7** pit is the result of knowledge and experience gained from the widespread use of the Type 3, Type 4 and Type 5 plastic pits and high priority has been given to the structural integrity of the pit. The **Type 7** pit has a complex wall design to maximise rigidity and help with integration to the surrounding backfill. As part of this wall design **ACO** has introduced two recesses each side, which can support 40mm diameter plastic pipes which act as both bracing beams and also hangers for items

such as electrical fuses and cables. The heavy duty lip on the top of the pit is a box structure design to give maximum rigidity and allow good all round lateral support to the pit covers. The seating for the pit has a moulded-in support that allows the use of a cast iron support bar which supports the cement concrete covers and minimises the possibility of covers breaking and falling into the pit. The **Type 7** pit is available with cement concrete covers which can be supplied with no markings, electricity or communications. **ACO** also offers a complete range of locked and non locked galvanised steel covers.



EXPORT SUCCESS FOR ACO POLYCRETE

Earlier this year the **ACO** Group allocated trading responsibility for South East Asia to **ACO Polycrete** in Australia. In conjunction with our Malaysian agent, Titan, **ACO Polycrete** has achieved immediate success. The Malaysian Government is currently building new container docks at Tanjung Pelepas Port – Johor Bahru. The engineer decided that the **ACO DRAIN S300** system, with its 90 tonne loading capability, was the ideal product for the surface drainage. **ACO's** Technical Services, from both Australia and England, were able to assist the engineer with the hydraulics of the drainage system, thus ensuring a cost effective solution for both the client and the contractor. The 240 metre runs of **S300** utilised all three



depths of the stepped drainage system to ensure maximum capacity of the channels. The runs discharged into a culvert which carries the water away from the site and the change in depth of the channels is smoothed out by means of a polymer concrete ramp which is inserted at the channel joints during installation. The **S300** system, with its four bolts per grating, and

Change in channel depths smoothed out by polymer concrete ramps

integrally cast in ductile iron rail, has been used world wide in many locations where a heavy duty solution is required for surface drainage. The **ACO DRAIN S300** has become an accepted product in Australia for Military and Civil Aviation facilities, as well as heavy industrial use.



ACO CABLEMATE PITS USED AT BRISBANE SOUTHBANK

Brisbane City Council has recently carried out an extensive enlargement and improvement to the Southbank area within the city centre. Southbank has become a popular destination for both tourists and the local population, with its extensive recreational facilities. As part of

these improvements additional electricity supplies and re-cabling and was required. The **ACO CABLEMATE** range of electrical pits and covers has been used for the majority of underground jointing applications. A variety of polymer concrete pits have been used in

Variety of covers including steel covers which can be either non locking or locking

the area, with the ease of installation and versatility being a major factor in their choice for this project. A major advantage of polymer concrete pits in areas of hard standing is the rigidity of the walls ensure no

collapsing of the pit and hence no compromise the clear working space for the electrician. **ACO CABLEMATE** pits are available with a variety of different types of cover, including galvanised steel chequer plate covers which can be either non locking or locked to prevent unauthorised access.

EXTENDED ACO TECHNICAL SUPPORT

ACO is renowned for its free technical support for **ACO DRAIN** line drainage systems. **ACO** supplies hydraulic engineers and consultants with hydraulic data to ensure the correct sizing of channels. This information is generated from 'Hydro', a bespoke software system developed from extensive testing of **ACO DRAIN** channel systems. 'Hydro' generates data in the form of a hydraulic plot or a table which illustrates the flow in the channel. To complement this service **ACO** has introduced its Grating Intake Calculation computer programme, which was developed from extensive experimentation on **ACO DRAIN** gratings by a leading Australian University. This programme allows **ACO** to illustrate the water intake performance of the grating. **ACO** also offers a scheduling service for run layouts of **ACO DRAIN** to assist installation for both specifier and contractor. **ACO** also supplies installation illustrations in electronic format which

ensures the correct installation is achieved. The introduction of a handy on-site pocket guide to **ACO DRAIN** installation, further assists the contractor to install a trouble free drainage system. The popularity of this



service has led **ACO's** Technical Services department to introduce electronic format installation details for **CABLEMATE** electrical jointing pits and **ACCESS** Cover range. These installation details ensure that the correct pit and cover is chosen, according to performance and application requirements such as cover loadings and pavement types.

POLYMER CONCRETE AT BATHERS PAVILLION

The expertise of **ACO** and versatility of polymer concrete has once again been illustrated during the refurbishment of the historic Bathers Pavilion at Balmoral Beach in Sydney. The celebrated landmark required a major renovation and as part of the renovation **ACO** were approached to manufacture the replica replacement window grills, finials and corbelling for the building. The original materials for these components had been attacked and corroded over time by the aggressive salt environment and the excellent resistance of polymer concrete to saline atmosphere provided the ideal solution. **ACO** reclaimed a sample of each of the four window grills to use as models for new moulds. The replacement grills were cast complete with fixing locations to assist with easy fitting into the window enclosure of the building. To give the best aesthetic effect for diners inside the new restaurant, the casting surface of the window grills was given a sand-like finish, which after painting by the contractor, gave the appropriate effect that the Architect was seeking.



ACO DRAIN AT YARRA VALLEY WINERY

ACO DRAIN has become the established drainage product for use in wineries here in Australia and other parts of the world, such as California and France. Leading architects, Scott Shelton Design, used more than 200 metres of **ACO DRAIN KS100S** at the prestigious Yarra Valley Winery in Victoria. Hygiene is important for wineries and during the processing of the grapes there is continuous wash-down of machinery and associated areas to discourage dirt and bacterial growth. The acidic nature of the grapejuice can affect conventional concrete and steel. The superior corrosion resistance and smooth surface of the polymer concrete channels assist the wine maker to prevent dirt and

bugs. To withstand the trolleys and small forklifts, used by winemakers, the stainless steel edge of the **KS100S** system provides a good general purpose, corrosion resistant, wearing edge to the channel. When equipped with a removable, grating, the drainage system can withstand any of the loads applied during the process of wine making, as well as providing an easy to maintain system.

Each modular, 1 metre, **ACO DRAIN KS100S** unit has a 6mm inbuilt slope which, when using the 60 available different depth units, a continuous sloping drain system can be achieved which assists in helping water to run away to the outlet.

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