



POWER and WATER CORPORATION

Water Services - Water Standards Branch Energy House Cavenagh Street Darwin
 Postal Address : PO Box 1921 DARWIN NT 0801 Telephone : (08) 8924 7177 Facsimile : (08) 8924 7212

STRATEGIC ENGINEERING PRODUCT

APPROVAL CERTIFICATE

Approval No. : 03/041

File No : D2002/503- D2000/49

Part(s) : 1- 2

Page 1 of 2

Product Description

ACO traditional concrete infill style gas tight metal access covers and frames manufactured in accordance with AS 3996 and to relevant Power and Water strategic engineering product specification. Suitable for use with maintenance holes in non vehicular loading (Class B) and vehicular loading (Class D) conditions. Each product to comprise the following:

- a) Cover of ductile iron grade 600/3 to AS 1831 with a hardness of 145 - 185 (HB)
- b) Frame of 4 sections, from grey cast iron T220 to AS 1830 with a hardness of 185 - 220 (HB), bolted together with stainless steel M10 bolts, nuts and washers.
- c) Cover and frame coated with bituminous based coating complying with the requirements of BS 3416 Type II.
- d) Markings on top surface of cover: 1) supplier's name "ACO", 2) class and type e.g. "CLASS B-SEALED", 3) weight (including concrete infill) "XXX" and 4) SAI Global StandardardsMark product certification mark. Markings on bottom surface of cover: 1) Date of manufacture e.g. "22-05-2003", 2) foundary identification e.g. "2646 Y.C CHINA", 3) cast iron grade of cover e.g. "DUCTILE IRON 600/3" and 4) Australian Standard number e.g. "AS-3996-1992".
- e) Four lifting keyholes, each sealed with Nylon plugs.

Products to be installed in accordance with manufacturer's instructions and customer's installation specification requirements: 1) concrete shall be class S32 with a minimum cement content of 400 kg/cu m complying with AS 1379, and b) cover and frame interface are to be sealed with Denso manhole sealing grease, Shell Alvaina EP2 sealing grease or approved equivalent in order to obtain a gas and water tight seal.

This approval certificate applies to the following concrete infill covers and frames:

Part Number	Description	Type	Class
85078	900 x 600 mm nominal clear opening	Sealed	B
89072	900 x 600 mm nominal clear opening	Sealed	D

Special Conditions of Approval

1. This approval is based in part on the attainment of product certification through StandardsMark licence number 2646.
2. All products shall bear the StandardsMark product certification mark in a form acceptable to the Power and Water Corporation.
3. Bituminous coating shall be "Alkyd Resin Mix" manufactured by Shandong Lehua Group Pty Ltd.
4. Shell Alvaina EP2 sealing grease shall be manufactured by the Shell Company of Australia Ltd.
5. Denso sealing grease shall be manufactured by Denso Australia Pty Ltd.

Date Issued : 26/05/2003 **Validity Period :** 5 year(s)

Issued To : ACO Polycrete Pty Ltd
 PO Box 522
 WENTWORTHVILLE NSW 2145

ACO Polycrete Pty Ltd
 185 Briens Rd
 NORTHMEAD NSW 2152

Manufacturer : WeiFang YuCai School Foundary
 981 Yuan Fei Rd, Kui Wen District
 Weifang, Shandong Province
 China

WeiFang YuCai School Foundary
 981 Yuan Fei Rd, Kui Wen District
 Weifang, Shandong Province
 China

Aust. Agent: Kede Pty Ltd

Approved Drawing(s) :
 A104C, A105C

Noel McCarthy
 Noel McCarthy
 Manager Water Standards

26/05/03



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Page 2 of 2

General Conditions of Approval

Approval shall be suspended where any of the following conditions are not met:

1. The product shall be manufactured in accordance with Power and Water's requirements applying at the time of approval.
2. The product shall be manufactured to comply with the details provided by the applicant when seeking this approval.
3. The product supplied for use in works under Power and Water's responsibility shall accord with requirements shown on the approval certificate. Sizes, classes, lengths or other product variables which are available with the product but which are not approved shall not be offered by the supplier for use in works under Power and Water's responsibility.
4. The product shall provide satisfactory field performance as determined by Power and Water.
5. Written claims made of the product which relate to approval or testing of the product by Power and Water shall be required to be reviewed and approved by Power and Water before publication. Written or verbal claims made of the product which relate to any approval or testing by Power and Water of the product shall not be contrary to the terms shown on the approval certificate.
6. Any StandardsMark, WaterMark or other third party product certification schemes approved by Power and Water to which the product and complementary components are licenced at the time of approval shall remain valid. The holder of a certification licence shall advise Power and Water upon withdrawal of a licence and the reasons of the withdrawal.
7. The quality assurance management systems of the primary manufacturer and any subcontractors at the time of approval shall, where applicable, retain valid certification licences and shall not be downgraded in any manner as determined by Power and Water.
8. The product shall not be offered or promoted by the manufacturer or supplier for applications other than those shown on the approval certificate.

General Conditions of Approval

Approval shall be reviewed where any of the following conditions occur:

1. The product is manufactured with either different materials, methods of manufacture, location of manufacture, source of raw materials, component subcontractors or models to that at the time of approval.
2. The ownership of the primary manufacturer or any subcontractors is varied from that at time of approval.
3. The standards and/ or specifications to which the product was required to accord with at the time of approval have been amended or revised.
4. The product has been found to sustain damage or provide unsatisfactory performance on occasions of number considered excessive by Power and Water, when handled, stored, assembled or installed in accordance with the supplier's or manufacturer's written instructions.