roundel
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Company Capability Statement

Revised April 2023

Large-span arch – Lower Hotham Rd, South32, WA.

Roundel Stilcor Mobile CSP Pipe Mill.

Overview:

Roundel designs, manufactures, and supplies corrugated metal pipes and bolted, corrugated steel structures principally used for drainage culverts, underpasses, stockpile and personnel tunnels. Our business comprises of three related areas:

1. Corrugated metal pipes ('CMP'), including:
    - Z600 galvanised steel,
    - HPL PE-coated Z600 steel, and
    - Aluminium.
2. Bolted, multi-plate structures; and,
3. Bolted, deep-corrugated plate structures.

Design:

Design for the above structures is either carried out in-house or by local, independent, structural engineers. Both structural and hydraulic designs can be accommodated. Designs utilize the following standards:

- AS / NZS 2041.1:2011 – 'Buried corrugated metal structures – Design methods';
- AS / NZS 2041.2:2011 – 'Buried corrugated metal structures – Installation';
- AS / NZS 2041.4:2010 – 'Buried corrugated metal structures – Helically formed sinusoidal pipes'.
- AS / NZS 2041.6:2010 – 'Buried corrugated metal structures – Bolted plate structures';
- AS 5100.2 – 2004 – 'Bridge design – Design loads'.

Designs use both ring-compression theory and limit states design. For large-span structures Finite Element Analysis ('FEA') is also used where required.

Stilcor CSP culverts:

Our fixed culvert pipe mills have the following manufacturing capabilities:

Corrugation profiles:	68 x 13mm, 75 x 25mm, 125 x 25mm.
Materials:	G250 Z600 hot-dip galvanized, HPL PE-coated Z600 galvanized, and aluminium.
Material thicknesses:	1.6mm to 3.5mm
Diameters:	300mm to 3,650mm (continuous increments)
Production capacity:	20 tonnes per day per mill - average

In addition to the standard Z600 galvanised, and aluminium, culverts we offer the new HPL PE-coated steel culverts which set a new standard for culvert durability even in aggressive conditions. Tested locally, and fully meeting the requirements of AS / NZS 2041.4:2010 Section 2.2.1 (d), the coated steel offers a 100-year life with exceptional abrasion and chemical resistance.

Further details, material samples, and full test results are available on request.

Manufacturing bases:

Roundel has fixed manufacturing bases in the following regions:

- Perth metropolitan area, located in Neerabup, WA.
- The Pilbara, located in Tom Price, WA.
- The Bowen Basin, located in Capella, QLD.
- Northern Queensland, located in Townsville, QLD.

Mobile mills:

Corrugation profiles:	68 x 13mm, 75 x 25mm, 125 x 25mm, 151 x 51mm.
Materials:	G250 Z600 hot-dip galvanized, HPL PE-coated Z600 galvanized, and aluminium.
Material thicknesses:	1.6mm to 4.2mm
Diameters:	300mm to 7,400 (continuous increments and subject to design)
Production capacity:	30 tonnes per day per mill - average

Two of our mobile mills, as shown on the front cover, have been built specifically to meet the stringent safety standards required on mining projects with the main operations being carried out at groundlevel. They have been inspected and approved by independent, reputable, consultants and meet all of the relevant Australian standards. The mills, and all secondary plant and equipment, have been risk- assessed together with our operating procedures and are deemed to meet the requirements of the Mines Safety and Inspection Regulations 1995, as well as those requirements established independentlyby project owners. A third mobile mill has been similarly modified to meet all mine safety standards.

All manufacturing and supervisory personnel are regularly inducted and medically certified to site requirements.

On-site manufacture Yandi Pocket Billiards project, Rio Tinto, WA

On-site manufacturing & culvert lay-down area at Gudai-Darri, Rio Tinto, the Pilbara, WA

Completed On-Site Projects:

Projects successfully completed on site in recent years, with **zero safety incidents**, include:

- Bravus (Adani) Carmichael Rail, QLD – 8,500 tonnes.
- Rio Tinto Gudai-Darri (Koodaideri) Rail, WA – 4,200 tonnes.
- Roy Hill Rail – 4,100 tonnes (Oct 2013 – April 2014);
- FMGs' Solomon Mine, Firetail & Rail Spur (Nov 2011 – Apr 2012) – 4,600tonnes tonnes;
- The Lang Hancock Railway and Mesa A for Rio Tinto (2009) – 1,450 tonnes;
- The Chichester Deviation project for BHP Billiton (WA); and the Great Northern Highway, Kimberley project for Team Savannah / Main Roads WA.

Carmichael Rail project, Bravus (Adani), QLD

Roundel is Australia's market leader in the site-manufacture of CSP culverts, with considerable experience and an exceptional, unrivalled, track record.

B200 and B150 bolted, corrugated plate structures:

We offer the full range of bolted, corrugated plate arches in all shapes including pipe arches, elliptical,underpasses, and high / low-profile arches. Corrugation profiles include the 200 x 55mm, manufactured in Townsville, QLD and the 152 x 51mm. Material thickness ranges from 2.5mm to 8.0mm.

B200 multi-plate structures, Wambo Rail Spur, NSW

Deep, corrugated-plate structures:

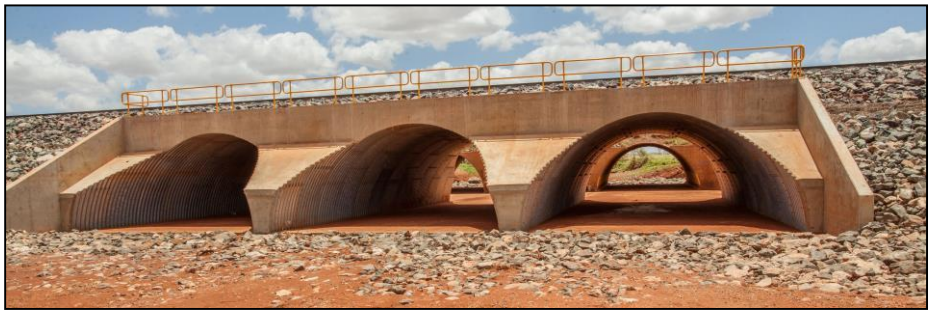
We offer the 381mm x 140mm corrugation profile as per AS2041.6 Section 7; the strongest profile in the Standard. The profile caters for structures with spans up to and exceeding 18m and the loads imposed by high fills and heavy live loads, such as the haul trucks used in mining operations.

Trinity Drive Overpass, Solomon Mine, FMG, WA

On-site support services:

Roundel provides comprehensive site-support services for the installation of all products including pre-start meetings for material layout and review of assembly methods with installation crews, QA inspection and off-site monitoring procedures, as well as on-site inspections throughout the full installation and backfilling procedures.

410E Stockpile Tunnels – BHP Worsley Efficiency & Growth project, Marradong, WA.



B200 arches, Rio Tinto – RCE333 Expansion project, Pilbara, WA

We would welcome your inquiries and having the opportunity of supporting you in the success of your next project.

The Roundel Team.
www.roundel.com.au