

Reflex - Curved Walls Made Easy

PROJECT : MT ROPER RESERVOIR

Location: Whitsunday Island, QLD
 Client: Whitsunday Shire Council
 Date: April, 2003



The Mt Roper Reservoir is a 1.52 megalitre water reservoir with a diameter of 21.5m and a height of 4.9m.

A ring beam incorporating a 250mm high nib was poured initially, and then two 2.35m high sections were poured to form the wall to full height. The initial wall pour used the Reflex curved wall system only, and for the second pour, the Reflex panels were supported on a Super Slim Soldier walkway structure that used the tie locations from the first pour. This provided an access walkway around the external and internal panels.

RMD's Rapidshor shoring system was used to support soffit formwork for the roof slab and the Rapidstage Stair Access system was used for access in and out of the reservoir.

The Whitsunday Shire Council had used RMD's Reflex system on a prior project (Mt Julian Reservoir) and they were very happy with its performance. When the Mt Roper project was considered, RMD's Reflex system was their first choice because the Reflex panels were easy to radius and erect, had fewer components to use and required less labour than other systems. These Reflex features improved site efficiency and substantially reduced costs. The Council was also pleased with the level of sales, technical and design support RMD provided.

PROJECT : NELLY BAY, MAGNETIC ISLAND

Location: Magnetic Island, QLD
 Client: S.A.W. Formwork
 Date: April, 2002



The Reflex system was used to form a curved feature wall at the entrance to the new Nelly Bay ferry terminal. One of the reasons Reflex was chosen for this project was the need for a short construction time which couldn't be delivered by conventional formwork.

S.A.W. Formwork won a great deal of praise from their client because they finished the project well ahead of schedule. They attributed this time saving to the fact that Reflex doesn't have to be constantly assembled and disassembled. It is a pre-assembled, adjustable panel that is easily and quickly changed to meet curved wall specifications.

The customer also thought Reflex was more productive because they didn't have to worry about parts being lost: Reflex is delivered pre-assembled.

PROJECT: SEAFORTH APARTMENTS



Reflex was utilised to construct an external curved wall outside the Seaforth Apartments.

Formtech Constructions decided to use Reflex because of the ease of erecting and dismantling it which provides significant reductions in labour costs.

The customer was also impressed with RMD's ability to work with a short lead-time for delivery to site, and the overall flexibility of the system.

Location: Kings Beach, Caloundra, QLD
 Client: Formtech Constructions
 Date: March 2002

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Reflex Project Information

RMD - Excellence in Access, Formwork & Shoring

Reflex

Curved Walls Made Easy

- Reflex used at Daintree due to reduction in labour
- Reduced construction times from using Reflex
- Ease of erection was the key for Formtech Constructions
- Paveways Pty Ltd used Reflex due to the speed that it can be stripped and re-positioned



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Panels are fixed with Reflex clamps eliminating the use of nut and bolt connectors.



Large Reflex panels weigh 100kg/m², enabling ganging of panels for crane handling.



The high grade form ply face on Reflex produces a safe and high quality concrete finish.

RMD Australia is aware of the need for an innovative, flexible and easy to use solution for the construction of circular concrete structures in Australia. Consequently we have developed **REFLEX** – the latest in RMD Australia’s range of wall formwork products – it’s our solution for the cost effective forming of reinforced concrete curved walls.

Traditional methods of curved wall construction are labour intensive because of all the time needed to constantly assemble, disassemble and modify the system being used. Reflex is a pre-assembled, adjustable panel that is easily and quickly adjusted for the setting of all curves efficiently and accurately.

The key benefits of the Reflex system are:

- It has a steel frame, which means it is strong, withstanding concrete pressures of up to 60kNm². Furthermore it is galvanised and is thus easy to maintain.
- It is easily adjusted for re-use at site after site without dismantling, which eliminates the risk of component loss and improves on-site productivity.
- Its high-grade form ply face produces a high quality concrete finish.
- Reflex access platforms and guardrails provide a safe and secure working platform during site operations.
- Manufacturing costs for Reflex have been kept to a minimum. This factor combined with labour savings allow Reflex to be priced very competitively.



Reflex is infinitely adjustable from a flat plane to a minimum radius of 2500mm.



Reflex panel units remain assembled between use, eliminating lost items and improving on-site productivity.



Reflex’s access platform and guard-rail provides a safe and secure working platform during site operations.

PROJECT : DAINTREE WATER PROJECT

Location: Daintree Township, QLD
Client: L.D.I. Constructions Pty Ltd
Date: July 2002

Reflex was the main product used in the construction of a water tank for the Daintree Township. Reflex is the latest addition to RMD Australia’s range of wall formwork products. It is a pre-assembled, adjustable panel that is easily and quickly adjusted for setting of all curves efficiently and accurately.

L.D.I. Constructions specialise in concrete tank construction and water treatment plants, they were very pleased with the reduction in labour required when using the Reflex system and will use it again.



PROJECT : MT JULIAN RESERVOIR

Location: Mt Julian, near Mackay, QLD
Client: Clough Downer RML Joint Venture
Date: February, 2003



The Mt. Julian Reservoir tank located near Mackay in Queensland was recently constructed using the Reflex circular wall system. The tank has an internal diameter of 11.8m, wall height of 3.8m and wall thickness of 250mm. The Reflex panel system was erected to the full height of the reservoir using a 2.4m high panel and a 1.2m panel bolted and clamped together.

Rapidstage scaffolding along with LVL bearers and joists and 17mm plywood were used as the soffit formwork support structure.

The main benefits realised from using Reflex on this project was the need for less labour and the ease and speed at which the Reflex was erected and dismantled.

PROJECT: BELL VISTA RESIDENTIAL CANAL

Location: Caloundra, QLD
Client: Paveways Pty Ltd
Date: June, 2002

In this project Reflex is being used to construct a 36m curved revetment with feature inserts.

In the photograph to the right, Reflex is in use constructing the curved wall in the centre and RMD Rapid Ply provides forms for the straight walls in the foreground.

Paveways chose to use Reflex because of the speed at which it can be stripped and then set up for the next pour.

Paveways were very pleased with the time it took to set the Reflex system in place.



PROJECT: HEATHFIELD WASTE WATER



Delnote Constructions required support in the construction of a waste-water clarifier tank. This involved the construction of one tank inside another. The smaller tank has the radius of 6.9m. The larger tank has a radius of 14.7m. Both tanks have the same wall height of 4.8m, which was catered for by using 2 x 2.4m Reflex panels.

The smaller tank was constructed in two pours, where half of the tank was poured, then the Reflex was stripped and used on the second half of the tank. The same forms were then used on the larger tank in 4 pours.

Delnote Constructions elected to use RMD on this project because Reflex provides significantly improved on-site productivity and improved labor costs. Also Delnote had previous favourable experiences working with RMD Adelaide.

Location: Heathfield, Adelaide SA
Client: Delnote Constructions Pty Ltd
Date: March, 2003