

Project Information

Project: QMM Fort Dauphin,
Madagascar

Year: 2024

Product Supplied:

MP100: 2m Diameter x 3mm
steel

Project Team:

Client: Rio Tinto

Contractor: Ferris Engineering

Armco Representative:

Quentin Adendorff



Multiple barrels of 2m Diameter x 24.5m long Structures
with inlet end beveled

Project Challenge

The project was located Fort Dauphin, Southeast coast of Madagascar. A crossing to accommodate multiple vehicles on the overpass were required. The client required multiple barrels of structure to meet the flow requirement of the stream and cover a stream spanning approximately 50m which needed to be installed within the shortest period possible.

Armco Solution

Armco recommended using our 2m diameter culvert to meet the design criteria of minimum fill height and live load of vehicles crossing the structure. To meet the flow requirement, a total of 22 barrels had to be installed. A bevelled inlet was done to increase the opening area for the flow intake. The outlet of the Armco protruded about 2m away from the fill. Both the bevel end and the protruding

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outlet also kept the flowing water a safe distance away from the road to avoid flooding of the road during heavy rainfall.



Conclusion

The benefits of using the MP100 structure for this project was as follows:

- *Ease of logistics* – The entire order was loaded into 5 x 20ft containers and sea freighted.
- *Ease of installation* – The structure were supplied in two halves for ease of identification and installation using M16 x 32mm bolts and nuts supplied.
- *Quick installation time* – Structures timeline equated to between 35 – 40% quicker than the alternative option.

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