

Water

HYDROPLUS FUSEGATE SYSTEM



89

The upgrade of the Little Para Dam in South Australia utilised stainless steel as part of its unique design.

The upgrade incorporates a Hydroplus Fusegate System which feature a concrete design with stainless steel inlet wells and seal fixings to provide a 100 year life and virtually no maintenance. Intelligent design reduced materials required by 40%. Off-site fabrication reduced the amount of time spent on-site from 8 months to 6 weeks.

Grade LDX2101 was specified for the superstructure of the units as it has similar corrosion-resistance to 316, yet higher tensile strength and lower price.

Location | AUSTRALIA

Environment | OUTDOOR

Product | STAINLESS STEEL PLATES, RIBBING AND RODS

Fabrication process | COIL CUT TO LENGTH AND PLATES LASER-CUT TO WITHIN 0.2 MM ACCURACY. SPOT WELDING OF RIBS BEFORE PRE-SETTING AND STITCH WELDING. PLATE CAST INTO CONCRETE DURING PRE-CASTING AND CONTINUOUSLY WELDED ALONG SPLICE POINTS, THEN BOLTED INTO PLACE ON SITE.

Grade/surface | LDX 2101

Material thickness/diameter | PLATES 4 MM; RIBS: 4 TO 40 MM; ROD: 12 MM.

Weight | AROUND 70 TONNES

Competing material | 316

Date of Completion | 2010

Manufacturer | LWA ENGINEERING (ASSDA ACCREDITED)

Material Supplier | SANDVIK

Source of Information | AUSTRALIAN STAINLESS (PUBLISHED BY ASSDA)

Remarks | THE USE OF STAINLESS STEEL HELPED TO MAKE THE LITTLE PARA DAM UPGRADE ONE OF THE WORLD'S FIRST ZERO CARBON-FOOTPRINT WATER PROJECTS.

