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 features 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**  
LDX2101

**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.