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**APPLICATION
DATA
SHEET****Installation and Maintenance of Grade
316 Near the Ocean****Stainless Steel**

Grade 316 should have adequate corrosion resistance for use in decorative applications in non-polluted areas near the ocean in all parts of Australia, provided care is taken in design, installation and maintenance. Grade 304 is unlikely to have sufficient corrosion resistance in marine conditions, and will suffer unsightly pitting corrosion in addition to light general corrosion.

Design

- provide for rain washing wherever possible – i.e. avoid rain shadows.
- choose smooth surfaces wherever possible – ground or lished finishes (e.g. No 4) provide grooves where chloride can concentrate and cause corrosion.

Installation

- avoid carbon steel contamination of surfaces.
- weld with matching consumables to get matching corrosion resistance.
- if welding to carbon steel, continue the paint from the carbon steel to cover the weld.
- treat all stainless welds – remove all slag and oxide, restore the area to equivalent roughness to the parent material. This may be best achieved with pickling paste.
- avoid contamination with muriatic (hydrochloric) acid, which is often used for cleaning bricks. If splashes get on the stainless, they should be hosed off immediately.
- consider finishing the job by washing with 5 – 10% nitric acid for full passivity. Austral Wright Metals can supply S-Weld Passivator for this.

Maintenance

- wash or wipe down surfaces with clean water, when they look dull or when cleaning the adjacent areas.
- if grime is difficult to remove, use soapy water and a soft cloth.
- use a soft brush or stainless steel wool for stubborn deposits, never use steel wool.
- consider stainless steel cleaners, available from supermarkets and hardware stores, but ensure any salt deposits are well washed off in the process.