

MAGNA 711

Description:

A super-corrosion resisting alloy for welding and overlaying stainless steel. Magna 711 has the following special features: -

Corrosion Resistance

This alloy has additives that reduce the danger of carbide precipitation. The chemistry of Magna 711 resists pitting. Magna 711 will withstand strong acids at elevated and various temperatures that stainless steel electrodes cannot withstand. Magna 711 also has a unique built-in passivating action wherein a surface "shell" of super corrosion resistance forms on the surface of the Magna 711 deposit. This provides added corrosion resistance.

High Physical Properties

Tensile strength: up to 100,000 p.s.i. (7,000 kg/sq.cm)
Yield strength: up to 87,000 p.s.i. (6,100 kg/sq.cm)
Elongation: 35 to 45% (in 2 inches or 50 mm)

Magna 711 provides extraordinary creep strength. It has great resistance to cracking during cooling.

Because of the exceptional crack resistance of Magna 711, it is often used for repair welding of highly crack sensitive air hardening tool steels.

Applications

Magna 711 is used to resist strong acids such as sulphuric acid, hydrochloric acid, phosphoric acid, nitric acid, hypochlorites and organic acids.

This electrode is extensively used in paper mills, chemical and fertilizer industries, and the food industry because of its exceptional resistance to corrosion.

Typical application Procedure

Tack-weld at short intervals. Thicknesses below 10 gauge (3.2mm.) can be square butt welded. Bevel thicknesses over 1/8" (3.175 mm). Use a short arc gap. Stringer beads are preferred over weave beads. Use skip welding or back-step welding procedure to avoid warpage and distortion. After arc is established close the arc gap and maintain a very short length. At the end of the bead, backwhip the crater and extinguish the arc over deposited metal. The slag is easily removed with slight impact and should be removed after each pass before additional weld is applied. Tack weld at short intervals before welding. Sections over 10 gauge (3.2mm.) should be bevelled 60°. Remove slag between passes.

Size Electrode	Amperage
1/8" (3.175mm)	60-110 AMPS
3/32" (2.381mm)	50-80 AMPS