

Royal 182

Shielded Metal Arc Welding
(SMAW) Stick Electrode

Nickel-Chrome Alloy

DC reverse
(DCEP)

All Position (3/32 & 1/8)
Flat & Horizontal (5/32 & 3/16)



Premium Nickel-Chromium-Iron Welding Electrode

Typical Applications

Royal 182 is THE universal electrode for high heat and cryogenic (low temperature) applications. **Royal 182** withstands thermal cycling even to sub-zero temperatures thus making it the perfect choice for flame hardening equipment, heat treat parts, and cryogenic vessels. **Royal 182** is also highly corrosion resistant. The aforementioned characteristics make **Royal 182** ideal for cladding and wearfacing as well as joining. The high manganese content of this weld deposit reduces the possibility of micro fissures, but it reduces creep strength, which limits its usage up to 900°F.

Royal 182 is used to join carbon steels and stainless steels to high nickel-based metals. **Royal 182** is also used to weld Inconel® alloys 600,601 and 690 to themselves or each other. Inconel® and Incoloy® alloys are joined to carbon steels, stainless steels, nickel and Monel® alloys with **Royal 182**. Also, Monel® alloys can be joined to carbon steels with this electrode.

Specifications

AWS A5.11/A5.11M
E NiCrFe-3

- Tensile Strength 80,000 psi (minimum)
- Yield Strength 45,000 psi (minimum)
- Elongation in 2" 30% (minimum)

Procedure

The base metal must be clean. Nickel alloys become brittle if any sulfur or lead is absorbed into the weld deposit. These impurities are often found in lubricants, dirt, grease, oil paint, and other processing residues. Use about 30% more opening than conventional joint openings to allow for the low penetrating and sluggish nature of the molten nickel. Use DC reverse polarity (DCEP) while holding the electrode about 20° off vertical for flat position welding. Use a weave type bead but not more than three times the diameter of the electrode. In multipass welding, it is essential that all slag is removed before each bead is deposited.

Sizes, Amps and Part Numbers

Size	Amps	Part Numbers	
		1# Package	5# Package
3/32	40-70	RE182/EN-BP	RE182/EN
1/8	65-100	RE182/EO-BP	RE182/EO
5/32	95-130	RE182/EP-BP	RE182/EP
3/16	125-170	RE182/EQ-BP	RE182/EQ

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!!!! WARNING !!!!



WELDING FUMES AND GASES CAN BE DANGEROUS TO YOUR HEALTH.

BEFORE USING THIS PRODUCT THE WELDER (END-USER) MUST READ AND UNDERSTAND THE COMPLETE PRODUCT WARNING LABEL AND THE NEW 16 SECTION SAFETY DATA SHEET (SDS).

THE SAFETY DATA SHEET (SDS) WHICH OUTLINES THE POTENTIAL HEALTH HAZARDS AND SAFETY INFORMATION RELATED TO THIS PRODUCT CAN BE DOWNLOADED FROM THE SDS PORTION OF THIS WEBSITE. IT IS ALSO AVAILABLE FROM YOUR EMPLOYER AND WELDING SUPPLY DISTRIBUTOR.

DO NOT PROCEED WITH USE OF THIS PRODUCT UNTIL YOU READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) AND PRODUCT WARNING STATEMENT.

BE SURE TO CONSULT THE LATEST VERSION OF THE SDS.

SEE THE PRODUCT WARNING LABEL AND SDS FOR COMPLETE WARNING INFORMATION.

