

Crown E 410-16

Shielded Metal Arc Welding
(SMAW) Stick Electrode

Stainless Steel Alloy

AC/DCEP
All Position
(Except Vertical Down)



Martensitic Stainless Steel Electrode

Typical Applications

Crown E 410-16 is a martensitic stainless steel electrode with a titania type flux coating. It is often used for welding or repairing 12% chromium, air-hardenable stainless steels like types 410, 416, 420, 431 and cast C-15. **Crown E 410-16** is also used for overlays on carbon steels and low-alloy steels to resist corrosion, erosion and abrasion since its hardness is considerably greater than "300 series" stainless steels. It also resists corrosion and oxidation at elevated temperatures up to 1,200°F. It is often used on valve seats for better galling resistance, furnace and burner parts, turbine parts, and for surfacing steel mill rolls. **Crown E 410-16** is also used in the petrochemical and chemical industries. To obtain adequate ductility, preheat and post-weld heat-treatment are required*.

Specifications

AWS A5.4/A5.4M

- Tensile Strength 86,000 psi (typical)
- Yield Strength 64,000 psi (typical)
- Elongation in 2" up to 27% (typical)
- Hardness as Welded 38 to 45 Rc
- Hardness after PWHT* 34 Rc

*Post Weld Heat Treatment: Hold at 1,375°F for 1 hour. Cool at a maximum rate of 200°F/hr to 600°F. Air cool to room temperature.

- **Crown E 410-16** exhibits smooth arc action, low amount of fine spatter and easy slag removal.
- **PRECAUTIONS:** **Crown E 410-16** should be treated and stored as low hydrogen electrodes. It should not be exposed to damp air, and once a sealed bag is opened, the electrodes should be used entirely or stored in a warm, dry and sealed container.

Procedure

For high quality welds, joints must be clean and dry. Welding current can be either DC reverse polarity (DCEP) or AC. However, DCEP always ensures the best weldability and penetration. While not always necessary, a preheat and interpass temperature of at least 400°F will improve running characteristics and decrease cracking potential. Use a short arc, but keep the coating (flux) from touching the puddle. Try to run the **Crown E 410-16** as cool as possible. Start welding at the low end of the amp range and increase amps until a smooth and stable arc is established. Fill each crater before breaking the arc to avoid crater cracks. On deep groove butt joints, the root pass should penetrate only enough to fuse to both plates and seal the opening. More penetration may cause cracks.

Recommended Welding Parameters Direct Current Electrode Positive (DCEP)

(When the welder is in the AC position, use an amp range that is 10% to 20% greater than that of the DCEP position)

Electrode Diameter	Welding Current (amperage)			Arc Voltage (volts)
	Flat	Vertical (Up)	Overhead	
3/32	50 – 75	40 – 55	45 – 65	22 – 26
1/8	80 – 115	65 – 80	75 – 100	22 – 26
5/32	115 – 160	95 – 110	105 – 130	23 – 26
3/16	150 – 210	115 – 130	145 – 170	22 – 25

All suggested settings are approximate. Welds should be tested to comply to your specifications

Sizes and Part Numbers

Electrode Diameter	Part Numbers	
	1# Package	5# Package* or 10# Package
3/32	SE410/EN-BP	SE410/EN*
1/8	SE410/EO-BP	SE410/EO
5/32	SE410/EP-BP	SE410/EP
3/16	SE410/EQ-BP	SE410/EQ



!!!! 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.

