

# Crown 255

Shielded Metal Arc Welding  
(SMAW) Stick Electrode

Alloy for Clean Cast Iron

AC/DCEP  
All Position



"The Royal Line"

**CROWN** ALLOYS COMPANY

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## Medium Nickel Alloy for Cast Iron

### Typical Applications

**Crown 255** is an economical nickel-iron electrode for general repair on all clean cast, ductile, nodular and meehanite iron. This electrode produces welds with higher strength and ductility than straight nickel electrodes. Deposits are machinable, but harder and more resistant to abrasion. **Crown 255** is used for heavy sections of high-strength and engineering-grade cast iron. Castings containing phosphorus levels higher than normal (approximately 0.20% phosphorus) are more readily welded using the **Crown 255** than with the **Crown 295** or even the **Royal 290**. The **Crown 255** is also used to weld clean sections of cast iron to steel. **Please see the Royal 260 technical sheet if welding on dirty, scaly or oil soaked castings.**

### Specifications

AWS A5.15  
E NiFe-CI

- Tensile Strength Up to 70,000 psi
- Yield Strength Up to 55,000 psi
- Color Match Good
- Elongation in 2" 4–12%
- Hardness 200 to 400 Brinell
- Deposit Magnetic

### Procedure

Clean weld area thoroughly. Bevel or use **Chamfer 204** to form a "U" groove. Prepare the groove by grinding or filing it clean. Preheating is not necessary, although warming to 400°F to 500°F will produce a softer weld and minimize stresses on heavier sections. Locate the ends of all cracks. Use the **Crown 255** to weld 1-1½" long beads perpendicular to the crack. Begin welding from the center of the crack and weld alternately to the right and left. Select lowest possible amperage. Maintain a medium long arc with electrode tilted slightly in the direction of travel. Short stringer beads or narrow weave beads should be used to prevent excessive heat build-up. When breaking the arc, always fill the crater and drag rod back over the weld deposit. Stopping to peen often will help relieve stresses. Allow part to cool slowly.

### Sizes, Amps and Part Numbers

Diameter	Amps	Part Numbers		
		1# Package	Standard Package	
3/32	40 – 80	NE255/EN-BP	5 lb pkg	NE255/EN
1/8	60 – 110	NE255/EO-BP	10 lb pkg	NE255/EO
5/32	100 – 140	NE255/EP-BP	10 lb pkg	NE255/EP
3/16	130 – 180	NE255/EQ-BP	10 lb pkg	NE255/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.**

