# Eureka Welding Alloys

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#### **TECHNICAL DATA FOR EUREKA 62 ELECTRODE**

**Dated:** March 31, 1995 **Revised:** July 8, 2013

#### **INTRODUCTION**

**Eureka 62 Electrode** is a smooth running rutile coated stick electrode with a nickel base 625 chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

#### METALLURGICAL CHARACTERISTICS

Eureka 62 Electrode is a Nickel base, Chromium, Molybdenum, Niobium alloy that can be work hardened up to 46 HRC for high wear or abrasive environments. It has outstanding strength and toughness up to 2000 F, which is derived from the solid solution strengthening effects of the refractory metals, columbium and molybdenum. Eureka 62 nickel base has excellent fatigue strength, which resists heat checking from alternating heating and cooling cycles.

#### **RECOMMENDED APPLICATIONS**

Eureka 62 Electrode is for welding 625, 600, and 800 type nickel base alloys. It is also used for making high strength welds on 9% nickel steels and for overlaying carbon steel. It has outstanding strength and toughness up to 2000° F. Eureka 62 weld deposits perform excellent in many hot working applications. In the steel mill industry it is used on tongs, entry roll guides, hot shear applications, and furnace parts. In the ring industry, it has found great success on axial cones and in the

forging and extrusion industry, it is used for hard facing impressions and dummy blocks.

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#### **WELDING PARAMETERS**

SIZE	AMPERAGE RANGE
3/32" 2.4mm	70 – 120
1/8" 3.2mm	100 – 140
5/32" 4.0mm	140 – 170
3/16" 4.8mm	170 – 225
1/4" 6.35mm	225 – 300
5/16" 7.94mm	300 – 375
3/8" 9.5mm	350 – 425

### TYPICAL CHEMISTRY

C Mn Si Cr Mo Nb Ni .02 .50 .50 21.5 8.5 2.5 Bal

### PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 80,000 psi

**ELONGATION 40%** 

**WORK HARDENS** 

Up to 46 HRC