Eureka Welding Alloys

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> TECHNICAL DATA FOR EUREKA 62 METAL CORED WIRE Dated: March 31, 1995 Revised: July 8, 2013

INTRODUCTION

Eureka 62 Metal Cored Wire is nickel base 625 type alloy. The wire has a smooth spray transfer arc with nearly no slag to contend with. The wire is formulated to develop high quality weld deposits that are porous and crack free. The wire is designed for multi-pass welding which greatly increases productivity.

METALLURGICAL CHARACTERISTICS

Eureka 62 Metal Cored Wire 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 Metal Cored Wire 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

| ТҮРЕ | SIZE | AMPERAGE | VOLTS |
|------------------|--------------|-----------|---------|
| Metal Cored Wire | .045" 1.2 mm | 125 – 225 | 16 – 28 |
| Metal Cored Wire | 1/16" 1.6mm | 180 – 400 | 25 – 33 |
| Flux Cored Wire | 1/16" 1.6mm | 180 – 400 | 25 – 33 |
| Flux Cored Wire | 3/32" 2.4mm | 350 – 600 | 27 – 35 |
| Flux Cored Wire | 1/8" 3.2mm | 500 - 900 | 30 – 38 |

Use DC Current with a Stick Out of 1/4"-1 1/4" (6mm-32mm)

RECOMMENDED SHIELDING GASES

75% Argon, 25% Co2 90% Argon, 10% Co2 92% Argon, 8% Co2 100% CO2 may produce lower quality arc conditions

GAS FLOW RATE

| .045" | 1.2 mm | 20-50 CFH |
|-------|--------|------------|
| 1/16" | 1.6mm | 30-60 CFH |
| 3/32" | 2.4mm | 80-120 CFH |
| 1/8" | 3.2mm | 80-120 CFH |

TYPICAL CHEMISTRY

| С | Mn | Si | Cr | Мо | Nb | Ni |
|-----|-----|-----|------|-----|-----|-----|
| .02 | .50 | .50 | 21.5 | 8.5 | 2.5 | Bal |

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PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 80,000 psi

ELONGATION 40%

WORK HARDENS UP TO 46 HRC