# Eureka Welding Alloys

2000 E. Avis Drive Madison Heights, MI 48071

Phone: 248-588-0001 Fax: 248-585-7711 Toll Free: 800-962-8560

E-mail: info@eurekaweldingalloys.com Website: www.eurekaweldingalloys.com

#### **TECHNICAL DATA FOR EUREKA MF-201 TIG RODS**

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### INTRODUCTION

**Eureka MF-201 TIG Rods** are drawn, straightened, cut to length, and then cleaned and packaged to obtain microscopically clean weld deposits. These rods are designed for the most critical applications where weld metal cleanliness is most important.

### METALLURGICAL CHARACTERISTICS

Eureka MF-201 TIG Rods are a Cobalt based modified 21 type hard facing alloy. If offers combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. It has far greater resistance to shock and heat checking than typical Cobalt base alloys normally have. Eureka MF-201 weld deposits have excellent corrosion resistance in oxidizing atmospheres and chlorine type solutions. It also has resistance to scaling up to 1800 F. It has good hot hardness well at extreme temperatures. The weld deposits of Eureka MF-201, which is the toughest of Cobalt-base alloys, will average approximately 30 – 35 HRC as applied, and will work-harden up to 55 HRC. The deposits are also highly resistant to heat checking.

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#### RECOMMENDED APPLICATIONS

Eureka MF-201 TIG Rods are used in press forging dies, hot trimming dies, punching and shearing dies, extrusion dies and dummy blocks. Eureka MF-201 offers a combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. Eureka MF-201 weld deposits are the toughest of the cobalt base alloys and will retain its hardness well at elevated temperatures. Overlaying hot press forging dies with Eureka MF-20 can double or triple die life over conventional die block steels.

#### RECOMMENDED SHIELDING GASES

100% Argon

**GAS FLOW RATE** 

20-40 CFH

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### TYPICAL CHEMISTRY

C Mn Si Cr Mo Ni Nb

.15 .30 1.0 28.0 5.5 4.5 .60

### PHYSICAL AND OR MECHANICAL PROPERTIES

**Welded Hardness** 

30-35 HRC

**Work Hardens to** 

**55 HRC**