

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA MF-201 ELECTRODE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka MF-201 Electrode** is a smooth running rutile coated stick electrode for hard facing. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

## METALLURGICAL CHARACTERISTICS

**Eureka MF-201 Electrode** is Cobalt based modified 21 type hard facing alloy. It 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 Electrodes** 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.

## 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

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## **TYPICAL CHEMISTRY**

<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>Cr</b>	<b>Mo</b>	<b>Ni</b>	<b>Nb</b>
<b>.15</b>	<b>.30</b>	<b>1.0</b>	<b>28.0</b>	<b>5.5</b>	<b>4.5</b>	<b>.60</b>

## **PHYSICAL AND OR MECHANICAL PROPERTIES**

### **Welded Hardness**

**30-35 HRC**

### **Work Hardens to**

**55 HRC**