Eureka Welding Alloys
2000 E. Avis Drive
Madison Heights, MI 48071

ISO 9001 Certified

Product: Eureka MF-201 Electrode

Dated: July 8, 1993
Revised: September 18, 2000

MATERIAL CHARACTERISTICS

Eureka MF-201 is a hard facing Cobalt base modified 21 type metallic arc welding electrode that has high work hardening qualities. **Eureka MF-201** 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** has excellent corrosion resistance in oxidizing and chlorine type solutions as well as resistance to scaling up to 1800◦F. in an air atmosphere, and will retain its hardness well at elevated temperatures. The weld deposits of **Eureka MF-201**, which is the toughest of Cobalt-base alloys, will average approximately 32 - 34 Rockwell "C" as applied, and will work-harden up to 50 Rockwell "C". The deposits are also highly resistant to heat checking.

RECOMMENDED APPLICATIONS

Eureka MF-201 Hard Facing Electrodes should be utilized to face units that require resistance to extreme heat, impact, and abrasion. They can also be used where corrosion, erosion, or a combination of these conditions is present. Hot press dies, hot trim dies, extrusion dies, and hot piercing punches will all give outstanding service life when overlaid with **Eureka MF-201.** Overlaying hot press forging dies with **Eureka MF-201** can double or triple die life over conventional die block steels.

PREPARATION AND WELDING PROCEDURE

- Impressions or surfaces to be welded must be free of scale, dirt, or any other foreign matter.

- All cracks and heat checks must be removed entirely.

- In stock removal, allow for two layers of weld metal to guard against dilution or admixture with the base metal.

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PREPARATION AND WELDING PROCEDURE

(Continued)

- Select a preheat temperature according to the base metal (heat for one hour per inch maximum cross sectional thickness at temperature.)

- Select the proper diameter filler metal according to job size.

- Utilize 3" - 4" stringer beads, back fill crater, peen thoroughly after each pass to offset shrinkage stresses.

- Control interpass temperature as close as possible to preheat temperature.

- After welding, **post heat** at the same temperature used to preheat to equalize thermal gradients.

- Slow cool to a minimum of 150°F.

- Temper for one inch/hour of maximum cross sectional thickness at temperature.

*Note: Tempering does not affect hardness of Eurekalloy “X” weld deposits. This step aids in tempering the H.A.Z. and parent metal only!!!.

MACHINING

Although the weld is tough, it may be machined with cemented carbide tools. To avoid vibration and chatter, the largest possible size tool should be used and a rigid set-up is recommended.

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Packaging

Size	Package	Identification
3/32”	10 lb.	Orange
1/8”	10 lb.	Orange
5/32”	10 lb.	Orange
3/16”	10 lb.	Orange
1/4”	10 lb.	Orange

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