

**Dated:** October 15, 1987  
**Revised:** November 17, 2000

## INTRODUCTION

**Eureka No. 26 M. S. Electrode** is perhaps the smoothest running all position electrode available anywhere. This product was initially designed for joining intricate tools and fixtures where high tensile strength and zero spatter are a must. Easy slag removal and low smoke make **Eureka No. 26 M. S. Electrodes** a truly premium quality mild steel electrode.

## METALLURGICAL CHARACTERISTICS

**Eureka No. 26 M. S. Electrode** is a low carbon machine steel. Excellent machinability, high yield strength, and ultra fine grain structure are among its metallurgical assets.

## RECOMMENDED APPLICATIONS

Fabricating close tolerance weldments, jigs, fixtures or other mechanical sections. Excellent for galvanize or zinc coated sheet metal. A must for fabricating seamless tubing and thick wall pipe.

## PREPARATION AND WELDING PROCEDURE

1. Impressions or surfaces to be welded must be free of scale, dirt, or any other foreign matter.
2. All cracks and heat checks must be removed entirely. This can be accomplished by grinding or machining and or air carbon arc gouging.  
**Note: If air carbon arc gouging is to be utilized. Then preheating prior to gouging will be necessary.** In stock removal, allow at least three layers (3/8") of weld metal to guard against dilution or admixture with the base metal.

## PREPARATION AND WELDING PROCEDURE

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### Technical Data Sheet

(continued)

3. Select a preheat temperature according to the base metal (heat for one hour per inch maximum cross sectional thickness at temperature.)
4. Select D.C. reverse polarity.
5. Select the proper diameter electrode according to job size or repair area.
6. Select the lowest amperage needed to effectively weld so as not to overheat or disturb the base.
7. Utilize short 3" – 4" stringer beads – peening thoroughly after each pass to offset shrinkage and welding stress in the crater of the weld.
8. Control interpass temperature as close as possible to preheat temperature.
9. After welding, **post heat** at the same temperature used to preheat to equalize thermal gradients.
10. After post heating, slow cool the die by covering it with heat resistant blankets (Kaowool, Cerawool) to 150°F. minimum.
11. Return the die or component to the furnace for tempering. Temper the die or component according to the temper chart of the welding alloy for desired hardness.
12. Remove from furnace and slow cool (**same as Step 8**).
13. Double temper (**highly recommended**).

## **D.C.R.P. PARAMETERS**

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### **Technical Data Sheet**

*Eureka Welding Alloys*

2000 E. Avis Drive

Madison Heights, MI 48071

Product: **Eureka No. 26 M.S. Electrode**

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<b>Approximate Amperage</b>	
<b>Size</b>	<b>Amperage</b>
<b>3/32"</b>	65 – 100
<b>1/8"</b>	90 – 140
<b>5/32"</b>	120 – 180
<b>3/16"</b>	175 – 225
<b>1/4"</b>	200 – 275

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**Technical Data Sheet**

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