

# 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](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## TECHNICAL DATA FOR EUREKA 88 METAL CORED WIRE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka 88 Metal Cored Wire** is a H-19 hot working tool steel 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 88 Metal Cored Wire** has an as welded hardness of 55 - 60 HRC. The weld deposits are very resistant to wear at elevated temperatures, display good thermal fatigue resistance, and retains good hot hardness. This alloy is an A.I.S.I. type H-19 hot work tool steel containing high levels of Chromium, Cobalt, Tungsten and Vanadium.

## RECOMMENDED APPLICATIONS

**Eureka 88 Metal Cored** is used on hot punches and trim dies, hot extrusion dies, hot press forging dies and forging die inserts. It is used in areas where severe heat and abrasion will be encountered. Some forged dies would be hand tools, gears, discs and connecting rods. This alloy performs well in shallow impressions and is often use as an overlay or hard facing alloy.

# 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](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## WELDING PARAMETERS

TYPE	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 will produce low 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

C	Mn	Si	Cr	Mo	W	V	Co
.40	.35	.30	4.5	.45	4.3	2.0	4.3

# 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](mailto:info@eurekaweldingalloys.com) Website: [www.eurekaweldingalloys.com](http://www.eurekaweldingalloys.com)

## PHYSICAL AND OR MECHANICAL PROPERTIES

### Welded Hardness

55-60 HRC

### TEMPERING DATA

The tempering data is to be used as a guide. Your results may differ due to the many variables in the utilization of this product.

#### SINGLE TEMPER CURVE EUREKA 88

