

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA 88 FLUX CORED WIRE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 88 Flux Cored Wire is a H-19 hot working tool steel alloy. The wire has a smooth spray transfer arc with a thin slag system that is easily removable. 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 Flux 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 Flux Cored Wire 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.

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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

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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

