

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA 25 METAL CORED WIRE

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Revised:

INTRODUCTION

Eureka 25 Metal Cored Wire is a cobalt based filler metal. 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 25 Metal Cored Wire is a Cobalt based type hard facing alloy. It offers combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. It has far greater resistance to thermal shock or heat checking than typical Cobalt base alloys normally have. **Eureka 25** 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 25 Metal Cored Wire** are approximately 25 HRC as applied, and will work-harden up to 45 HRC.

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RECOMMENDED APPLICATIONS

Eureka 25 Metal Cored Wire is used in press forging dies, hot trimming dies, punching and shearing dies, extrusion dies and dummy blocks. This alloy offers a combined resistance to impact, heat, abrasion, corrosion, scaling and thermal shock. The 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 25 Metal Cored Wire** can double or triple die life over conventional die block steels.

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

Use DC Current with a Stick Out of
1/4" - 1 1/4" (6mm-32mm)

RECOMMENDED SHIELDING GASES

90% Argon, 10% Co2

92% Argon, 8% Co2

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GAS FLOW RATE

.045" 1.2 mm 20-50 CFH

1/16" 1.6mm 30-60 CFH

TYPICAL CHEMISTRY

C	Mn	Si	Cr	W	Ni
.08	.30	1.0	20.0	15.0	10.0

PHYSICAL AND OR MECHANICAL PROPERTIES

As Welded Hardness

25 HRC

Work Hardens to

45 HRC