

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA CHD FLUX CORED WIRE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka CHD Flux Cored Wire is a nickel based alloy filler metal. 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 CHD Flux Cored Wire has good resistance to pitting, stress-corrosion cracking, and oxidizing in atmospheres up to 1,900° F. It also provides superior corrosion resistance to many types of chlorides and salts. It is a hard surfacing and a heat resisting alloy that corresponds to AWS ERNiCrMo-4. This alloy resists extreme thermal shock and work hardens up to 40 HRC.

RECOMMENDED APPLICATIONS

Eureka CHD Flux Cored Wire is used for welding C 276 to itself and to various grades of stainless steels. It is used for joining or repairing many nickel based alloys. It is also used to hard face tools and dies requiring a resistance to heat, abrasion, impact, erosion, corrosion or any combination of these conditions. They have been exceptionally successful when used for facing forging dies. Other applications are entry roll guides, tongs, twist roll guides, hot trim dies and dummy blocks. This alloy is untied as an underlay alloy for waspalloy or udimet (Eureka CWD) overlays in the open die forging industry.

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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

90% Argon, 10% Co2

92% Argon, 8% Co2

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

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TYPICAL CHEMISTRY

C	Mn	Si	Cr	Mo	W	Ni
.01	.50	.50	15.5	16.0	3.7	Bal

PHYSICAL AND OR MECHANICAL PROPERTIES

TENSILE STRENGTH 110,000 psi

ELONGATION 30%

WORK HARDENS UP TO 40 HRC