DMCCO#1 -- DURAMAX COBALT #1 -- TUBULAR CORED WIRE

Classification: **ERCCoCr-C** ***Specification:*** AWS A5.21 / ASME SFA 5.21

Description:

DMCCO#1 is a tubular fabricated cobalt-based metal cored wire, produces a deposit that exhibits excellent abrasion and corrosion resistance for applications where severe abrasion and moderate impact is encountered. DMCCO#1 contains a higher percentage of carbides than deposits from cobalt alloys #6 & #12 which contribute to the exceptional wear resistance and superior hardness of this alloy. DMCCO#1 derives its high temperature hardness and matrix toughness from the addition of tungsten. Due to the high sensitivity to check cracking, when welding this alloy proper precautions should be made to minimize cooling stresses. This alloy can be applied to any weldable steel, including all grades of stainless steel.

Typical applications include steam turbine parts, mixer blades, extrusion dies, saw blades, pump impellers

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co
2.0 - 3.0	2.0 max	2.0 max	25.0 - 33.0	3.0 max	1.0 max	5.0 max	11.0 - 14.0	Remainder
TOE = 1.0 max								

Typical Deposit Characteristics:

- Metal to Metal Wear	Excellent	- Cold Abrasion	Excellent
- Impact Resistance	Good	- Hot Abrasion	Excellent
- Erosion	Excellent	- Deposit Layers	2 Layers
- Corrosion	Excellent	- Machinability	Use Carbide Tools
- Typical Hardness	HRC 34 - 55	*With Proper Preheat and Slow Cooling	

Sizes available and recommended currents

Diameter	Amps DCEP	Voltage	Shielding Gas	Wire Extension	Position
.045" (1.2mm)	180 - 200	25 - 27	Argon	1/2" - 5/8"	Flat
1/16" (1.6mm)	280 - 300	26 - 28	Argon	5/8" - 3/4"	Flat