

# CARBALOY 70

## ELECTRODE FOR REPAIR AND HARD-FACING OF "HIGH-SPEED" AND "HOT-WORKING" STEELS

**AC OR DC EITHER POLARITY**

### GENERAL CHARACTERISTICS:

This electrode is specially formulated for use on high speed and hot working steels. Tungsten, molybdenum and vanadium have been alloyed with other elements to produce a deposit that will maintain a sharp edge on high speed tools yet can withstand elevated temperatures that are normally encountered with these tools. When applied to hot working tools, the deposit will retain its hardness and resistance to wear at the high operating temperatures.

### APPLICATIONS:

Build-up and hard facing of molding plates, mandrels, hot shears, reamers, turning and planing tools, drawing mandrels and dies, circle cutting tools, trimming plates, stencils, punches, cams, lathe tools, mill cutters, and sliding surfaces.

### TECHNICAL DATA:

Hardness as welded .....	58-62 RC
Hardness heat treated .....	63-65 RC
Hot Hardness .....	Approx. 56 Rc at 1100°F (600°C)
Current .....	AC or DC either polarity
Amperage 45-90 80-120	
(in) 3/32" 1/8"	
(mm) 2.5 3.25	

### PROCEDURE:

Remove all foreign material from weld area. When the base metal is tool steel, preheat part to 800-1100°F (425-600°C); maintain this temperature during the entire welding operation. No preheat is required when making deposits on low carbon steel but a minimum of 3 layers is necessary to overcome dilution. Do not quench after welding, remove slag and reheat to 1000°F (540°C), allow to cool slowly. The deposit can then be ground to final dimension.

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