

AMTEC HSS 64 HIGH SPEED TOOL STEEL
DC REVERSE OR AC ELECTRODE

General Characteristics

Amtec HSS 64 is an all position, extremely high alloyed, titania coated electrode, used when molybdenum-bearing, high speed steel characteristics are desired. Deposits are very dense and have high resistance to abrasion and frictional wear. The deposit almost reaches full hardness as deposited, and has excellent cutting power and toughness. Amtec HSS 64 is ideal for welding the molybdenum-alloyed, high speed tools made from AISI M-1, M-2, M-7, and M-10.

Procedure

Clean the welding zone free from oil, rust and other contaminants. Grind out cracks and other defects, and pre-heat high speed tool steel units to 1000°F and maintain the temperature during welding. On base metals other than high speed steel, pre-heat and post-heat accordingly. Deposit short stringer beads and lightly peen each deposit after welding. After welding, cool the unit to 150°F in still air and then temper at 750-1110°F twice, one hour each temper. On items that are not high speed steel, preheat according to the base metal being welded, with higher preheat for high carbon and alloyed steel. When joining or when a cushion layer for heavy build-up is required, use Amtec 264 as an underlay.

Application

This electrode is primarily used where high speed weld deposits are required for greater wear resistance to abrasion and heat. Examples include hot and cold trimming dies, blanking dies, piercing dies, shear blades, as well as cutting and shaving knives. This electrode is also excellent for cladding high wear areas on equipment and also for building composite dies and tools.

Hardness (RC)	(as deposited) 60-64		
Alloy Type	Carbon-Silicon-Manganese-Chromium-Molybdenum- Vanadium-Tungsten Type		
Heat Treatment	Use M-2 Procedure		
Diameter (Inch)	3/32	1/8	5/32
(mm)	2.5	3.2	4.0
Amps (approx.)	60-90	75-125	100-150

* Also available in tig wire 1/16 and 3/32 by 36" lengths/.035 and .045 mig wire on 25 lb. spools

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Subject to change without notice

Tip Color – Black
Blue Coating