



**Press Forging Die**

## FCAW Wire for Drop Forging Tools & Dies

### Typical Applications:

Build-up of drop forging dies and tools, Repair of worn-out profiles, Salvage of undersized die-blocks, Repair of hot working tools and impressions, Drop forging dies, punches, inserts & other components

### Outstanding Features:

- Multi-layer build up, crack resistant deposits
- Fe-Cr-Ni-Mo-V alloy resists deformation due to impact & compressive loads
- Resistance to high temperature frictional & adhesive wear
- High temperature strength & toughness
- High deposition rate & machinable deposit with tungsten carbide tip tools.

### Welding Procedure:

Clean weld area by removing fatigued & worn out material. Preheat the die to 400-450 °C and maintain interpass temperature

throughout welding. Weld using CV type power source with a suitable wire feeder under 80:20 Ar:CO<sub>2</sub> shielding gas (20 lit/min). Remove slag after each pass using pneumatic needle scaler. Peening of deposits is highly recommended to relieve stresses. After completion of welding, air-cool the part to 200 °C & then transfer to a furnace maintained at 550-600 °C and temper for 1 hr per inch of job thickness. Thereafter, remove to still air and cool to room temperature.

### Recommended Amperages:

Wire Diameter	Power Source	Polarity	Voltage
2.4mm	CVtype	DCEP	23-26
Wirefeed Speed	Amerage	Stickout	GasFlow rate
210-250 in/min	330-400	20- 25mm	20lit/min

**Hardness:** 40 - 46 HRC (as welded)

38 - 45 HRC (after tempering at 550-600 °C for 1hr per inch job thickness)