



Drop Forging Insert

High strength electrode for rebuilding of drop-forging dies

Typical Applications:

Rebuilding of worn-out drop forging dies, punches, inserts.

Outstanding Features:

- Specially designed weld alloy ensures high strength and toughness at service temperature.
- Resistance to metal to metal wear.
- High impact resistance with good compressive strength.
- Superior deformation resistance at high temperature.
- Excellent compatibility with die block steels.
- Machinable with tungsten carbide tool.
- All position weldability.

Recommendation:

Build-up of all drop-forging dies and tools. Repair of worn out or damaged profiles. Salvage of scrapped undersized die-blocks by total rebuild with weld metal. Rebuilding of complicated profiles requiring combination of wear resistance, toughness and good machinability.

Procedure:

Clean weld area. Remove all cracked or fatigued metal. Preheat job to 350°C-400°C and maintain preheat temperature during welding. Deposit with short gap and electrode perpendicular to welding direction. Remove slag thoroughly after each pass. Peening of deposits is essential. After completing deposition, air-cool the job to 200°C to develop uniform hardness. Then temper at 550°C-600°C for 1 hour duration per inch job thickness. Thereafter, cool in still air.

Recommended Amperages:

| Size(mm) | Amperage |
|----------|----------|
| 4.00 | 130-170 |
| 6.00 | 210-240 |
| 8.00 | 240-280 |

Hardness:

As welded 35 - 45 Rockwell C (3 layer)

After Tempering:

35 - 42 Rockwell C (3 layer)