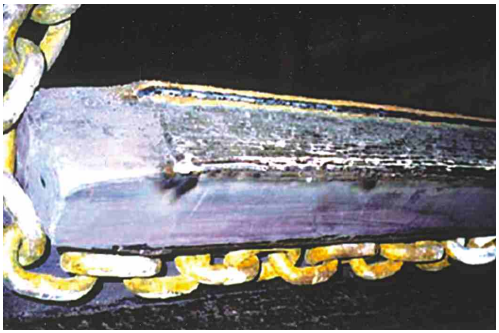

Forging Die

Repair and build-up of drop forging tools and damaged profiles

Typical Applications:

Drop forging dies, punches, inserts.

Outstanding Features:

- Superior deformation resistance at high temperatures.
- Excellent compatibility with die block steels.
- Machinable with tungsten carbide tool.
- All position weldability.

Recommendation:

Build-up on all drop forging tools. Repair of worn out or damaged profiles. Salvage scrapped undersized die-blocks by total re-build with weld metal. Overlaying of complicated profiles requiring combination of high hardness and toughness combined with good machinability such as gear pinion teeth.

Procedure:

Clean weld area. Remove all cracked or fatigued metal with Eutec-ChamferTrode. Pre-heat job to 400°-450°C and maintain throughout welding. Deposit with short gap, keeping electrode perpendicular to welding direction. Peening of deposits is essential. Chip slag between passes. After completing deposition, air-cool the job to 200°C to develop uniform hardness. Then transfer to a furnace at 550°C-600°C and temper for 12-16 hours. Remove into still air and cool.

Recommended Amperages:

Size(mm)	I-Range
3.15	90-130
4.00	120-160
5.00	150-160

Hardness: 35 - 45 HRc (3 layer)