DIFFUSION
Innovative superconditioning solutions

DIE-WELD

A newly developed low heat input electrode that gives a Cr-Ni-Mo-V alloy steel deposit which is considered to be standard for die-block repairs, both patch work type as well as extensive. The deposit has good machinability and gives improved die life, and hence it is the automatic choice for the repair and reclamation of hot forging dies. As deposited hardness is 32-36 RC. A post weld stress relief heating to 450°C for 1 to 1.50 hrs would further improve the toughness of the repair work.

Applications:

Die-Block repair as well as heavy building.

Procedure:

Grind or Gouge out the fatigued metal, clean all surface by grinding to get best result. Pre-heat the base metal from 300° C to 500°C depending upon the section thickness. Hold electrode at 45° angle in the direction of travel and deposit on previously made weld. A post weld stress relief heating to 450°C for 1 to 1.50 hrs, would further improve the toughness of the repair work. For repair of worn-out patches in hot forging dies and pressing dies, post welding heat treatment at 450 to 550 ° C for 1 hrs is necessary for stress relief and stabilizing the structure. Final hardness can be controlled between 30 to35 RC.

Technical Data	:	**DIE-WELD**		
Size (mm), Ø	:	3.15	4.00	5.00
Recommended Welding Current (Amps)	:	100 - 120	110 – 150	150 –170
Hardness	:	32-36 HRC		
Tip Colour	:	Green		

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