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Solid Wire for Overlaying of a Wide Variety of Metal Molds (MAG Welding)

M H － 5 S

■ Application

MH-5S is suitable for modifying cutting blade or repair overlaying of cold pressing mold which is made by flame-hardening steel such as HMD and ICD.
MH-5S can use for the metal mold for hot forging and die face of the drawing die.
Repair overlaying for SKS, SK, SUJ, and so on.

■ Feature

1. MH-5S is solid wire for MAG welding. It is suitable for hardfacing on cold pressing mold which is made by flame-hardening steel.
2. The deposited metal of MH-5S is designed to become same chemical component as the base metal made by HMD, ICD.

■ Welding Procedure

1. Use MAG welding machine with pulse system. Ar+20%CO_2 is recommended for shield gas. Appropriate gas flow is 15～25 ℓ/min.
2. Preheating at over 250℃ and slow cooling is required.
3. In case of welding cutting blade, avoid over penetration at starting point.
4. To prevent crack during heat treatment, be careful not to cause undercut at welded zone.

■ Typical Chemical Component of the Wire (%)

C	Si	Mn	Cr	Mo
0.4～0.7	0.7～1.3	0.7～1.2	0.8～1.2	≦0.30

■ Typical Hardness of the Deposited Metal

Condition	HV	HRC	HS
As Welded	670～750	59～62	79～85
Oil Quenching at 850℃→Tempering at 200℃	710～740	60～62	82～84
Annealing (At 850℃ in 1h→Furnace Cooling)	260～290	24～29	37～41

■ Appropriate Welding Conditions (DC Wire＋ with Pulse)

Diameter (mm)	Welding Current (A)	Welding Voltage (V)	Gas Flow (ℓ/min.)
1.2	70～110	20～30	Ar+20%CO_2 15～25

*Minimum Quantity: 12.5kg

Equivalent to electrode for shielded metal arc welding: MH-5
Equivalent to electrode for TIG welding: MH-5T