

Covered Electrode for Direct Hardfacing on Cast Irons

M H - 1 0 0 M

- Standard —
- Covering Low Hydrogen Type
- Tip Color End Face: Black
Side Face: Black

■ Application

Overlaying on die face of a wide variety of cast irons press molds and bead parts.

■ Feature

1. MH-100M is the covered electrode for hardfacing. MH-100M achieves direct overlaying on cast irons press mold.
2. The weld metal is austenitized by absorbing carbon from base metal and shows better ductility and notch toughness in the first layer. The weld metal is formed by mixture of austenite and martensite in the second layer. As a result, the second layer has excellent abrasion resistance.
3. MH-100M is suitable for the place which abrades vigorously and is subjected to intense contact pressure, such as a die face of drawing die and bead part.

■ Welding Procedure

1. Preheating is not required but welding by proper preheating and interpass temperature, 100~150°C, is very efficient to prevent crack.
Over preheating and too high interpass temperature rises the risk of crack because of increasing of penetration to the base metal.
2. Keep bead length between 80~120mm and do peening just after each bead is finished.
3. Keep arc length as short as possible and weld by stringer bead. These prevent over dilution of the base metal.
4. Apply back step welding or start welding from outside of target area to avoid blowhole at starting part.
5. The electrode should be re-dried 30~60 minutes at over 300°C before use.

■ Typical Hardness of the Deposited Metal as welded (Direct overlaying on cast iron base metal)

	HV	HRC	HS
1 st Layer	220~310	16~31	32~43
2 nd Layer	450~510	45~50	60~66
3 rd Layer	370~410	37~42	51~56

■ Appropriate Welding Current (AC or DCEP)

Diameter (mm)	2.6	3.2	4.0
Length (mm)	300	350	400
Current (A)	50~80	70~110	110~130
Minimum Quantity (Kg)	3.0	5.0	5.0

Equivalent to wire for MAG welding: MH-400S

Equivalent to electrode for TIG welding: MH-400T