

WELDING POSITIONS : 

- Tough, Work Hardenable Manganese Deposit
- For Rebuilding And Reinforcing 11-14% Manganese Steels

DESCRIPTION AND APPLICATIONS

HARDFACING Mn-Ni is a smooth running, AC / DC electrode which deposits an austenitic manganese steel weld metal for rebuilding and reinforcing matching manganese and manganese/nickel steels. Abrasion resistant weld deposits such as HARDFACING ARC 33 can be applied directly onto HARDFACING Mn-Ni. Typical applications include the reclamation of crusher rods and jaws, bucket lips and teeth, grizzlies, liners, crossings and other manganese steel components. These electrodes is not recommended for direct application onto mild or carbon steels - in this situation STAINARC 309L should be used as a "buffer layer".

DEPOSIT PROPERTIES

HARDFACING Mn-Ni deposits a semi-stabilised, austenitic manganese steel weld metal that work hardens under impact conditions. As deposited weld is machinable & extremely tough, it offers excellent resistance to impact and high stress gouging type abrasion.

TYPICAL ALL WELD METAL COMPOSITION (Wt%)			
C	Mn	Ni	Fe
0.7	12.5	3.3	Bal

DEPOSIT HARDNESS	
MULTI-LAYER, AS WELDED	TYPICAL HARDNESS 18 - 24 HRC
MULTI-LAYER, WORK HARDENED	TYPICAL HARDNESS 40 - 45 HRC

WELDING MANGANESE STEELS

When welding austenitic manganese steels the welding current should be kept as low as possible and widely spaced short runs should be employed. These measures will avoid local overheating and prevent embrittlement of the base metal. It may also be necessary to cool the component during welding either by partial immersion in water or by regular quenching.

OPERATIONAL AND PACKAGING DATA				
ELECTRODE SIZE (mm)	ELECTRODE LENGTH (mm)	WELDING CURRENT RANGE * (amps)	PACKAGING (kg)	
			PKT	CTN
3.2	350	100 - 130	5	20
4.0	400	140 - 170	5	20
5.0	400	170 - 220	5	20

- * Recommended for DC + or AC (minimum 70 OCV) operation