

I. APPLICATIONS:

Welding of 14% Mn steel, steel armour, hardenable steel and generally all hard-to-weld steels. Joining of wear plates to each other and to their supports. Joining of stainless steels to carbon steels. Building up of rails and buttering layers before hardfacing on 14%Mn steel or on steels of unknown composition or on carbon steels. Extensively used in steelmaking public works, mining carrying and dredging.

II. DESCRIPTION:

NSS-307 is a lime-titania stainless steel electrode which may form the deposited metal of 19%-9%Ni-5%Mn stainless steel with the perfect structure of austenite. The deposited metal has excellent crack resistibility and has easy work hardening.

III. NOTES ON WELDING:

- Remove dirt such as oil and dust from the groove.
- Normally, preheat is not necessary.
- Keep the welding current as low as possible.
- Keep the arc length as short as possible.
- Rebake the electrode at 200-250°C for about one hour before use.

IV. TYPICAL CHEMICAL COMPOSITION OF WELD METAL (%):

C	Mn	Si	Ni	Cr	Mo
0.05	5.66	0.68	9.73	19.87	0.98

V. TYPICAL MECHANICAL PROPERTIES OF WELD METAL:

Tensile Strength N/mm ² (ksi)	Elongation %
640 (93)	46

VI. WELDING POSITIONS: ALL POSITIONS

VII. SIZES AVAILABLE AND RECOMMENDED CURRENTS (AC or DC +):

Diameter (mm)	2.5	3.2	4.0	5.0	
Length (mm)	300	350	350	350	
Current Range	F	50-80	80-110	110-140	150-180
	V, OH	45-75	80-100	110-130	-