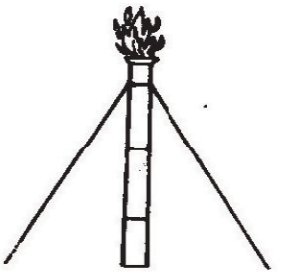
MAGNUM M8N12

A Niobium bearing, all position Inconel electrode for joining high temperature and cryogenic steels and nickels



- **Excellent out of position.**
- **Phenomenal physical properties.**
- **Extremely easy slag removal.**
- **Performs unusually well on AC current.**

INTERNATIONAL SPECIFICATIONS	AWS/ASME A 5.11: E NiCrFe-3 DIN 1736: EL-NiCr 16 FeMn NFA 81-347: EF 20.70 NiCrMnFe B 20 BH

APPLICATIONS:

For dissimilar welds on nickel base alloys to themselves, to alloyed steels or to stainless steels.

MICROSTRUCTURE:

In the as welded condition this nickel base weld metal consists of austenite with a few carbides.

ALL WELD METAL ANALYSIS (Typical Weight %):

C	Mn	Si	S	P	Cr	Nb	Fe	Co	Cu	Ta	Ti	Ni
.04	6.0	.40	.005	.01	16.5	2.0	6.0	.12	.1	.05	.1	bal

FLUX COLOR: Grey - Tan

TYPICAL MECHANICAL PROPERTIES:

Undiluted Weld Metal	Maximum Value Up to:
Tensile Strength (Cold Worked)	160,000 PSI
Yield Strength (Cold Worked)	120,000 PSI
Elongation (As Welded)	43 %
Hardness	Up To 300 Brinell

RECOMMENDED CURRENT: DC Positive (+), AC

RECOMMENDED AMPERAGE SETTINGS:

Diameter (mm)	3/32(2.5)	1/8(3.25)	5/32(4.0)
Minimum Amperage	50	70	90
Maximum Amperage	70	95	120

WELDING POSITIONS: Flat, Horizontal, Vertical up, Overhead

DEPOSITION RATES:

Diameter (mm)	Length (mm)	Weldmetal/ Electrode	Electrodes per lb (kg) of Weldmetal	Arc Time of Deposition min/lb (kg)	Amperage Setting	Recovery Rate
3/32 (2.5)	12" (300)	.37oz (10.5g)	43 (95)	37 (82)	60	105%
1/8 (3.25)	14" (350)	.76oz (22g)	21 (47)	24 (53)	90	105%
5/32 (4.0)	14" (350)	1.14oz (32g)	14 (31)	17 (38)	105	105%

WELDING TECHNIQUES:

Weld at minimum amperage to maintain low heat imput.