



Ferromaxx[®] Plus

For faster, cleaner welding of steel

Purpose-designed for MAG welding of carbon, carbon manganese and low-alloy steels, the Ferromaxx[®] gases give superb weld quality and excellent penetration, together with minimum spatter and low fume levels.

The best gas for steel

Ferromaxx[®] Plus is a ternary mixture (of argon, helium and CO₂):

- Improves weld quality and reduces rejects, with excellent penetration characteristics and a greater tolerance to variations in weld parameter settings.
- Up to 20% increase in manual weld speeds when compared to conventional mixtures
- Particularly suitable for welding thick carbon steel, allows welding on solid and flux-cored wires
- Ideal for automatic welding
- Protects the work environment, minimal ozone generation



Approved welding procedure Ferromaxx® Plus

Manufacturer:	Air Products PLC Air Products Ireland Ltd.
Welding process:	MAG 135
Root welding process:	MAG 135
Joint type:	Butt

Joint design

Preparation of parts	Machined preparations Sandblasting and solvent cleaning
Parent material and specifications	BS 970 : Part 3 Grade 080A15
Composition	C - 0.13 / 0.18% Si - 0.10 / 0.40% Mn - 0.60 / 1.0% P - 0.050% max. S - 0.050% max.
Material thickness	12 mm
Outside diameter	n/a
Welding position	Flat (PA)

Welding details

Run	Process	Diameter of filler metal (mm)	Current (A)	Voltage (V)	Type of Wire feed Current & Polarity	Wire feed Speed (m/min)	Travel Speed (mm/min)	Heat Input (KJ)
1	MAG	1.0	194	25.5	DC+	9.3	225	1.4
2	MAG	1.2	264	27	DC+	8.7	375	1.1
3	MAG	1.2	270	28	DC+	8.5	525	0.8
4								
5								
6								

Filler metal and specification AWS-A5.18 ER 70S-6 (SG3Si)

Filler metal composition C - 0.058% - Si - 0.79%
Mn - 1.32% - P - 0.019%
S - 0.0155% - Cr - 0.10%
N - 0.003% - O - 0.013%

Shielding gas Ferromaxx® Plus

Classification of shielding gas EN 439 - M 21(1)

Gas flow rate

– Shield gas 15 l/min

– Purge gas n/a

TIG electrode type n/a

Underside protection n/a

Preheat temperature Ambient

Interpass temperature n/a

Heat treatment n/a

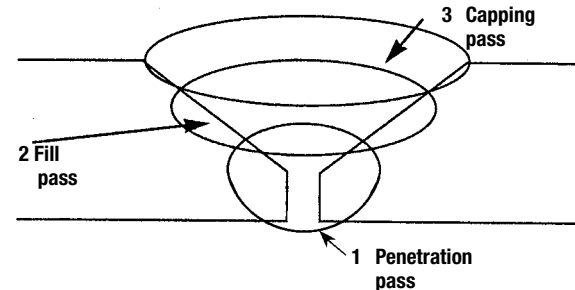
Stand off distance 15 mm

Torch angle 15° in the direction of welding

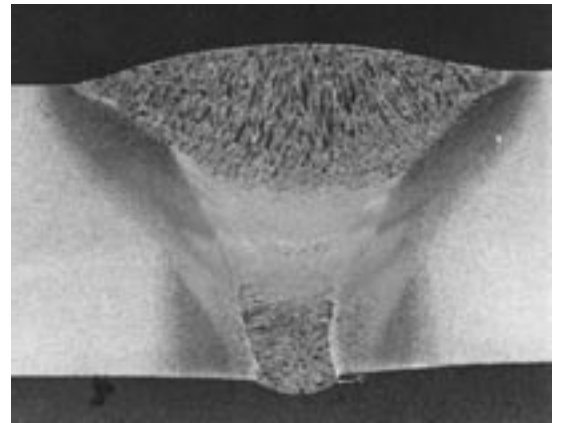
Nozzle bore diameter 20 mm

*n/a: not applicable

Welding sequence



Macrography



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