



## ***Inomaxx<sup>®</sup> Plus***

### ***Maximum performance for welding stainless steel***

The Inomaxx<sup>®</sup> gases have been developed to give optimum weld quality and ease of use without compromise on material performance. Inomaxx<sup>®</sup> gases also provide a high-grade surface finish with low reject rates and superb environmental performance.

### ***The best gas for stainless steel***

Inomaxx<sup>®</sup> Plus is a mixture of argon, helium and CO<sub>2</sub> used to weld stainless steel:

- Improves weld quality and reduces rejects, with excellent penetration characteristics and a greater tolerance to variations in weld parameter settings
- More productive, up to 17% increase in manual weld speeds when compared with conventional mixtures
- Particularly suitable for welding thick materials and suitable for all modes of metal transfer
- Protects the work environment, minimal ozone generation



## Approved welding procedure Inomaxx® 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	Sandblasting and solvent cleaning
Parent material and specifications	Stainless steel EN 10088-2 X2CrNi 19-11
Composition	C - 0.030% max. Si - 1.0% max. Mn - 2.0% max. P - 0.045% max. S - 0.030% max. Cr - 17.0 / 19.0% Ni - 9.0 / 12.5%
Material thickness	12.5 mm
Outside diameter	n/a
Welding position	Flat (PA)

## Welding details

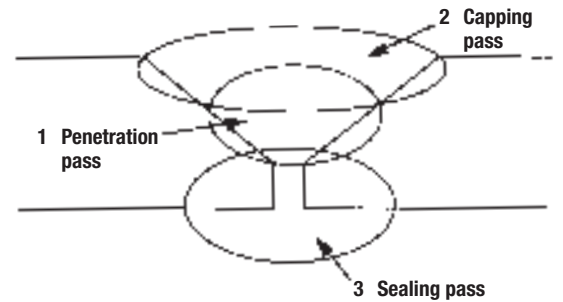
Run	Process	Diameter of filler metal (mm)	Current (A)	Voltage (V)	Type of Current & Polarity	Wire feed Speed (m/min)	Travel Speed (mm/min)	Heat Input (KJ)
1	MAG	1.0	254	27.0	DC+	6.9	438	0.94
2	MAG	1.0	226	27.5	DC+	7.3	420	0.88
3	MAG	1.0	230	27.0	DC+	7.3	420	0.88
4								
5								
6								

Filler metal and specification	316LSi AWS A5.9 ER316LSi
Filler metal composition	C - 0.03% max. - Si - 0.65 / 1.00% Mn - 1.50 / 2.50% - P - 0.030% max. S - 0.030% max. - Cr - 19.5 / 21.0% Mo - 0.50% max. Ni - 9.50 / 11.0% Cu - 0.50% max.
Classification of shielding gas	EN 439 - M 12(2)
Shielding gas	Inomaxx® Plus
Gas flow rate - Shield	18 l/min
Purge	n/a
TIG electrode type	n/a
Underside protection	n/a
Preheat temperature	Ambient
Interpass temperature	150°C max

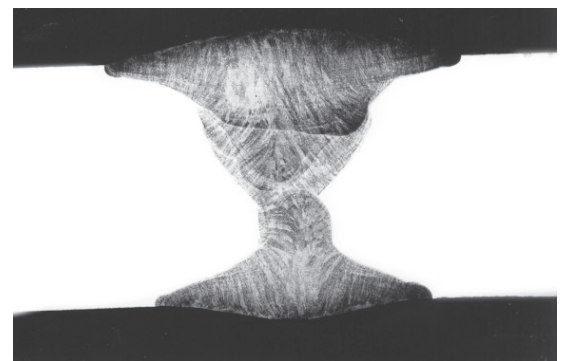
Heat treatment	n/a
Stand off distance	15 mm
Torch angle	15° in the direction of welding
Nozzle bore diameter	20 mm

\*n/a: not applicable

## Welding sequence



## Macrography



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