



Argon Technical

Argon Technical is the ideal gas for TIG welding of all commonly welded materials or for MIG welding of aluminium and its alloys.

It is a high purity gas which provides optimum protection for the molten weld pool. The low ionisation potential of Argon Technical means that the arc can be struck easily and with excellent stability.

The advantages of Argon Technical

Argon Technical offers the following advantages:

High purity gas (min. 99.998%)

- Easy arc striking
- Good arc stability



Approved welding procedure Argon Technical

Manufacturer:	Air Products S.A.S. and Air Products S.A./N.V.
Welding process:	MIG 131
Penetration pass:	MIG 131
Joint type:	Double V Butt

Characteristics of welded joint

Preparation of parts	Sandblasting and solvent cleaning
Parent material and specifications	Aluminium AWS SB209 Grade 5083
Composition	Si - 0.25 max. Fe - 0.40% max Cu - 0.10% max Mn - 0.50-1.0% Mg - 4.7-5.5% Cr - 0.05-0.2% Zn - 0.25% max Ti 0.05-0.20% Al remainder
Classification of shielding gas	ISO 14175 - I1
Material thickness	10 mm
Outside diameter	n/a
Welding position	PA

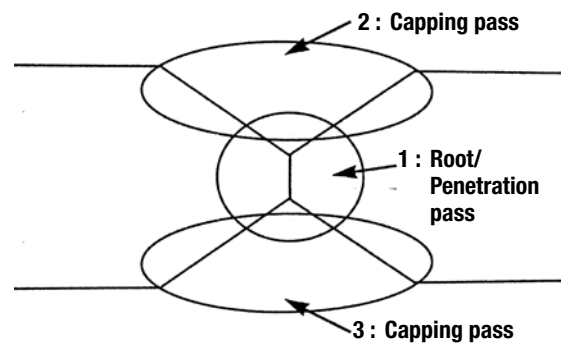
Operating conditions

No. of pass	Wire Process	Wire diameter	Current (A)	Voltage (V)	Type of Wire feed current and speed polarity (m/m)	Welding speed (mm/min)	Heat input (KJ)
1	MIG	1.2	238	25.9	DC+ 7.8	604	0.61
2	MIG	1.2	244	26.6	DC+ 7.9	451	0.86
3	MIG	1.2	254	26.9	DC+ 8.5	380	1.07
4							
5							
6							

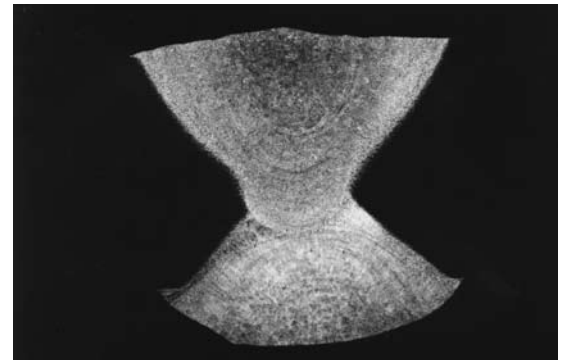
Filler metal	AWS SFA - 5.10 Grade 5556
Wire composition	Si - 0.25 max. - Fe - 0.40% max. Cu - 0.10% max. - Mn - 0.50-1.0% Mg - 4.7-5.5% - Cr - 0.05-0.2% Zn - 0.25% max. - Ti - 0.05-0.20% Al remainder
Shielding/flux gas	Argon Technical
Gas flow rate	
- Shielding gas	20 l/min

Purge gas	n/a
TIG electrode type	n/a
Underside protection	n/a
Preheat temperature	Ambient
Interpass temperature	60°C max
Heat treatment	n/a
Stand off distance	15 mm
Torch angle	15° in the direction of welding
Nozzle bore diameter	20 mm

Welding sequence



Macrography



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