

Supagas Shielding Gases Selection Guide

MIG Welding

MIG welding is a commonly used high deposition rate welding process which generates heat from an electric arc maintained between a mechanically fed wire electrode and the part to be welded. MIG welding is therefore referred to as a semi-automatic welding process. MIG welding benefits include all position capability, higher deposition rates than Arc welding, less operator skill required, long welds can be made without starts and stops and minimal post weld cleaning required.

To recommend a welding shield gas, use the following steps:

- 1** Select the appropriate metal.
- 2** Select the thickness range.
- 3** Then match the appropriate gas.

NB: If the customer is currently using a competitive gas, refer to gas comparison chart.

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Mild Steels

	Thickness (mm)																			
	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40	45	50
Supa Argon 07																				
Supa Argon 10																				
Supa Argon 16																				
Supa Argon 18																				
Supa Argon 23																				
Supa Argon 52																				

Aluminium

	Thickness (mm)																			
	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40	45	50
Pure Argon																				
Supa Argon 25																				
Supa Argon 75																				

Stainless Steel

	Thickness (mm)																			
	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40	45	50
Supa Argon 02																				
Supa Stainless 20																				
Supa Stainless 62																				
Supa Stainless 64																				
Supa Stainless 98																				

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TIG Welding

TIG welding is a commonly used high quality welding process. TIG welding has become a popular choice of welding processes when high quality, precision welding is required. In TIG welding an arc is formed between a non-consumable tungsten electrode and the metal being welded. Gas is fed through the torch to shield the electrode and molten weld pool. If filler wire is used, it is added to the weld pool separately. TIG welding benefits include superior quality welds, welds can be made with or without filler metal, precise control of welding variables (heat), free of spatter and low distortion.

To recommend a welding shield gas, use the following steps:

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Aluminium	Thickness (mm)																				
	1	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	35	40	45	50	
Pure Argon																					
Supa Argon 25																					

Recommended
 Suitable