



Shielding gas.

# Gases for welding non-ferrous materials.

## MIG/TIG welding.

- Argon 4.6**

  - Best suited to welding thinner materials
  - High reinforcement when MIG welding, can increase stress in weld
  - Can suffer fusion and penetration problems on thicker sections
- VARIGON He30**

  - Improved fusion and penetration over Argon 4.6
  - Fluid weld pool – reduces porosity levels and rework
  - Faster welding – improves productivity
- VARIGON He50**

  - Improved fusion – lowers defect levels and rates
  - Reduced preheat requirement – saves preparation costs
  - Faster welding speed – improves productivity
- VARIGON He70**

  - Ideal for automatic welding of thick aluminium and copper
  - Fluid weld pool – reduces need for high preheat temperatures
  - Deep penetration – reduces need for large weld preparations



### MIG welding

	Welding speed	Spatter control	Porosity control	Fusion	Penetration	Ease of use	Thickness range (mm)
Argon 4.6	•	•	•	•	•	••	1 to 4
VARIGON He30	••	••	••	••	•••	•••	1 to 6
VARIGON He50	•••	•••	•••	•••	•••	••	3 to 10
VARIGON He70	•••	•••	•••	•••	•••	•	6 to 12+



### TIG welding

	Welding speed	Porosity control	Fusion	Penetration	Ease of use	Thickness range (mm)
Argon 4.6	•	•	•	•	••	0 to 3
VARIGON He30	••	••	••	•••	•••	1 to 6
VARIGON He50	•••	•••	•••	•••	••	3 to 9
VARIGON He70	•••	•••	•••	•••	•	6 to 12+

The greater the number of dots, the better the gas performs.  
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