

# SPECIFICATIONS







## Specifications

### System gas requirements

Gas quality and pressure requirements			
Gas type	Quality	Pressure +/- 10%	Flow rate
O <sub>2</sub> oxygen	99.5% pure Clean, dry, oil-free	793 kPa / 8 bar 115 psi	4250 l/h 150 scfh
N <sub>2</sub> nitrogen	99.99% pure Clean, dry, oil-free	793 kPa / 8 bar 115 psi	11610 l/h 410 scfh
Air	* Clean, dry, oil-free per ISO 8573-1 Class 1.4.2	793 kPa / 8 bar 115 psi	11330 l/h 400 scfh
H35 argon-hydrogen	99.995% pure (H35 = 65% Argon, 35% Hydrogen)	793 kPa / 8 bar 115 psi	4250 l/h 150 scfh
F5 nitrogen-hydrogen	99.98% pure (F5 = 95% Nitrogen, 5% Hydrogen)	793 kPa / 8 bar 115 psi	4250 l/h 150 scfh
Ar argon	99.99% pure Clean, dry, oil-free	793 kPa / 8 bar 115 psi	4250 l/h 150 scfh

\* ISO standard 8573-1 Class 1.4.2 requirements are:

- Particulates – no more than 100 particles per cubic meter of air at a size of 0.1 to 0.5 microns in the largest dimension and 1 particle per cubic meter of air at a size of 0.5 to 5.0 microns in the largest dimension.
- Water – the pressure dewpoint of the humidity must be less than or equal to 3° C (37.4° F).
- Oil – the concentration of oil can be no more than 0.1 mg per cubic meter of air.

	Mild steel		Stainless steel		Aluminum	
						
Gas types	Plasma gas	Shield gas	Plasma gas	Shield gas	Plasma gas	Shield gas
Cutting 30 to 50 A	O <sub>2</sub>	O <sub>2</sub>	N <sub>2</sub> & F5	N <sub>2</sub>	Air	Air
Cutting 80 A	O <sub>2</sub>	Air	F5	N <sub>2</sub>	–	–
Cutting 130 A	O <sub>2</sub>	Air	N <sub>2</sub> & H35	N <sub>2</sub>	H35 & Air	N <sub>2</sub> & Air
Cutting 200 A	O <sub>2</sub>	Air	N <sub>2</sub> & H35	N <sub>2</sub>	N <sub>2</sub> & H35	N <sub>2</sub>
Cutting 260 A	O <sub>2</sub>	Air	N <sub>2</sub> & H35	N <sub>2</sub> & Air	N <sub>2</sub> & H35	N <sub>2</sub> & Air
Cutting 400 A	O <sub>2</sub>	Air	N <sub>2</sub> & H35	N <sub>2</sub> & Air	N <sub>2</sub> & H35	N <sub>2</sub> & Air