



SMOOTHFLO™ gas pressure regulators. Multi-stage performance from a single-stage pressure regulator.



Challenge Today's gas pressure regulators present operators with a number of challenges. Firstly, the gauges and inlet/outlet stems are prone to damage. In the event of a fall, a damaged regulator could even turn the cylinder into a "missile", causing damage to people or property. In addition, safety relief valves that are not integrated into the regulator are prone to contamination, which can cause blockages. Lastly, fluctuating pressure levels as cylinder contents drop can result in loss of productivity and compromised weld quality.

Solution SMOOTHFLO™ regulators from Linde were designed to answer today's regulator challenges. They are the most advanced in the industry, incorporating several patented 'world firsts'. SMOOTHFLO combines the best of current regulator features with new customer-led innovative developments, making it one of the easiest to use on the market. With SMOOTHFLO, operators can just "set and forget" – it's as simple as that. Manufactured and certified to ISO 2503 and AS 4267, SMOOTHFLO combines the productivity benefits of consistent pressure stability throughout the cylinder lifetime with maximum regulator safety. The SMOOTHFLO gas pressure regulator is optimised for cutting and purging tasks, whereas the more recent addition to the family, the SMOOTHFLO Dial Select gas flow regulator, is designed for welding operations. It builds on all the proven advantages of a typical SMOOTHFLO regulator, but with the added productivity bonus of a predictable gas flow without the need for a separate flowmeter.

Features of SMOOTHFLO gas pressure regulators

- Patented technology enables multi-stage performance from a single-stage pressure regulator
- Enhanced safety with robust, splash/rust-resistant casing; gauge protection; plus a tamper-proof piston-embedded safety valve instead of a conventional diaphragm
- Improved pressure stability across the entire working pressure range, so operators only need to set the pressure once and can then focus on the job at hand
- Pressure adjusting knob mechanism that allows the maximum setting to be reached in less than three turns
- Break-off inlet stem with shut-off valve – in the event of a fall, not only will the inlet stem break off to protect the regulator, but a high-performing excess-flow valve will automatically and safely seal off gas discharge
- Maximum durability with regulator bonnet made of brass and body from forged brass
- Approval by Kiwa for oxygen-promoted ignition test and oxygen ignition test
- 5-year conditional warranty

Range SMOOTHFLO gas pressure regulators are available with connection points on the right, left and bottom of the device. SMOOTHFLO regulators are currently available for acetylene (1.5 bar), nitrogen (10 bar), high-pressure nitrogen (50 bar), oxygen (4 and 10 bar) and LPG (4 bar).

Specifications

Description	Oxygen	Acetylene	Nitrogen	LPG
	400 kPa/4 bar 1000 kPa/10 bar	150 kPa/1.5 bar	1000 kPa/10 bar 50000 kPa/ 50 bar***	4 bar/400 kPa
International standards	ISO2503, AS4267	ISO2503, AS4267	ISO2503, AS4267	ISO2503, AS4267
Gas type	oxygen	acetylene	nitrogen	LPG
Outlet pressure/ flow - delivery range	400/4 1000/10 kPa/bar constant pressure	150/1.5 kPa/bar constant pressure	1000/10 50000/50 kPa/bar constant pressure	400/4 kPa/bar constant pressure
Regulator outlet connection position	drooped	drooped	drooped	drooped
Regulator inlet connection position	side/bottom	side/bottom	side/bottom,	side/bottom,
Regulator outlet connection	market dependent	market dependent	market dependent	market dependent
Inlet stem seat type	hard	hard	hard	hard
Inlet connection	market dependent	market dependent	market dependent	market dependent
Inlet stem to cylinder valve thread	customer specific	customer specific	customer specific	customer specific
Safety valve integrated into piston	yes	no*	yes	no
Gauge scale	kPa/bar	kPa/bar	kPa/bar	kPa/bar
Pressure adjusting knob colour	blue**	red	black**	orange
Inlet pressure (kPa/bar)	20000/200 30000/300 kPa/bar	2500/25 kPa/bar	20000/200 30000/300 kPa/bar	2500/25 kPa/bar
Body and bonnet material	brass	brass	brass	brass
Casing material	nylon based	nylon based	nylon based	nylon based
Weight	<1.1kg	<1.1kg	<1.1kg	<1.1kg
Operating temperature	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C	-20 to +60 °C
Warranty	5 years conditional	5 years conditional	5 years conditional	5 years conditional
KIWA approved	yes	yes	yes	yes

* Available in some countries on request

** Country dependent

*** The 50 bar regulator is outside the scope of ISO2503

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