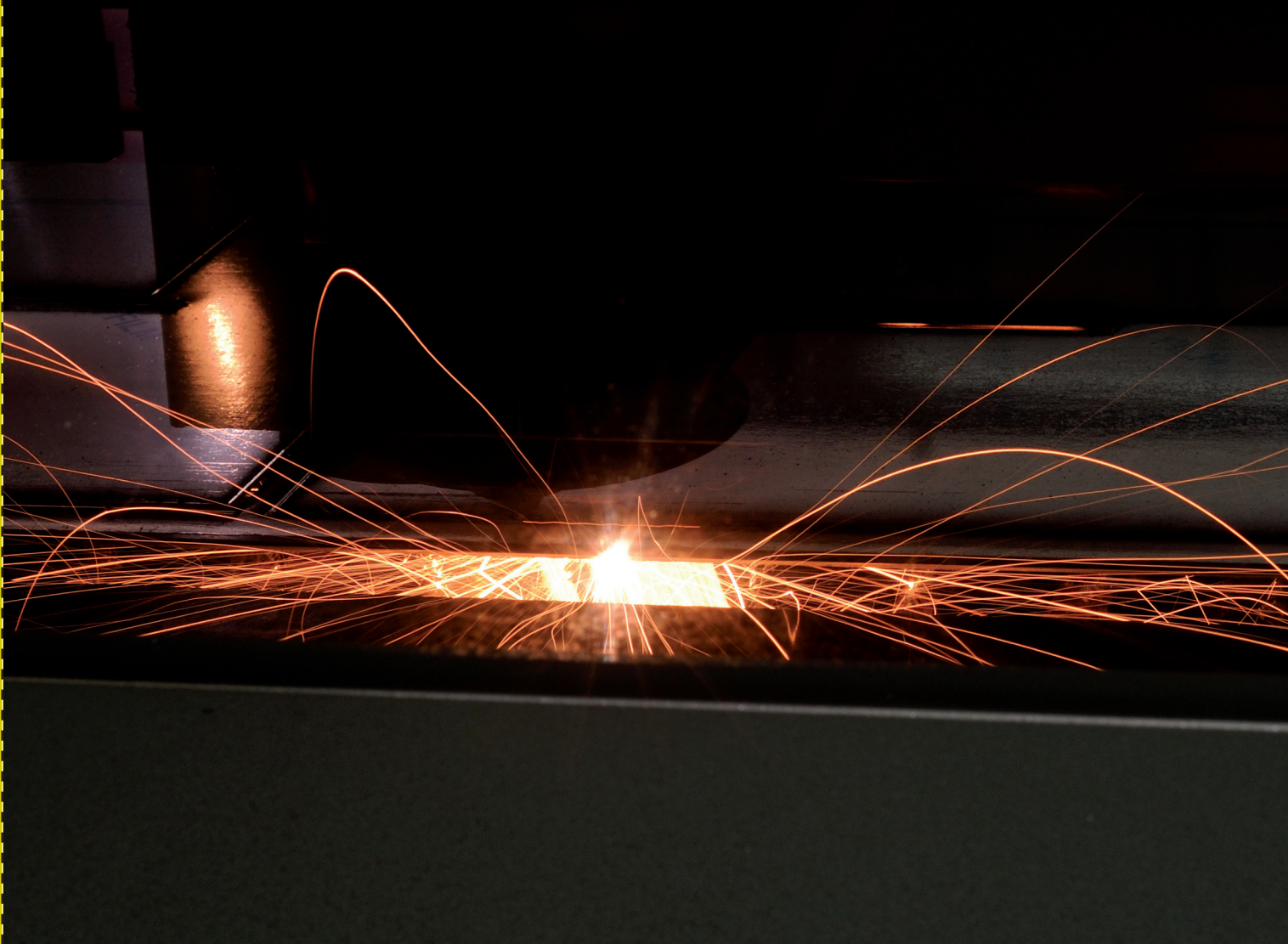
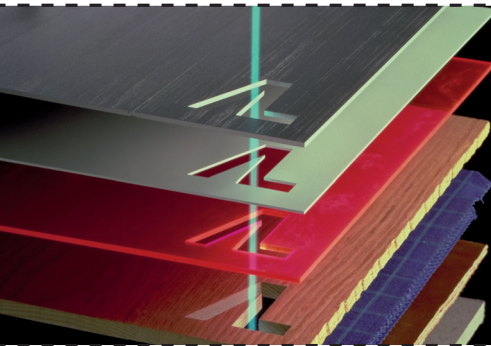


**LASAL™**

# Laser Cutting Solutions



# LASAL™ Gases



Air Liquide provides a full range of lasing and assist gases in convenient packages designed to ensure the optimal performance of your laser.



**LASAL**

## LASAL – A Complete Range of Lasing and Assist Gases

All our gases have been developed by Air Liquide R&D centres according to laser manufacturer requirements to ensure peak performance from your laser. The choice of gas will determine the reliability of your laser, the lifespan of your optics and output power.

- **Lasing Gases:** Our full LASAL range of single component gases and multi-component mixtures are designed with the ultimate performance of your laser in mind. A detailed table covering the LASAL range appears overleaf enabling you to select the right gas for your machine.
- **Assist Gases:** Process gases are available in convenient packages designed to ensure peak cutting performance by optimising pressure and flow rates. A choice of purities and package sizes are available with higher purity gases available for more demanding applications.

## The Importance of Gas Purity

Air Liquide understand that gas purity is essential in achieving peak laser performance. All LASAL gases are strictly controlled to minimise the content of impurities such as moisture and hydrocarbons which reduce laser power and overall performance. Every cylinder or cylinder pack is a strictly dedicated package for the LASAL product line to ensure product purity is maintained at all times.

## LASAL Packaging

The LASAL range offers advanced cylinder packaging, designed for safer, more reliable operation.

LASAL cylinders for lasing feature:

- **SCANDINA™ Cap** for easy manoeuvring to reduce risk of accidents
- **Residual Pressure Valves (RPV)** maintain gas quality by preventing back flow into cylinder
- Stringent **impurity tolerances** ensure your laser operates at its very best
- **Strict Batch Control** and labelling ensuring full traceability

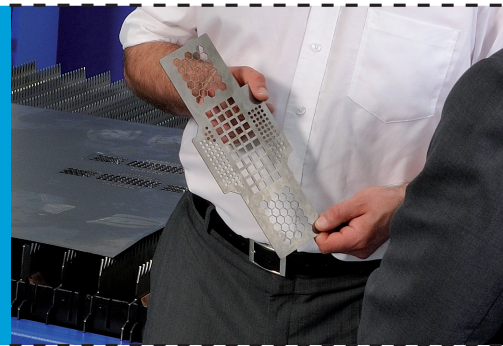
Assist Gases are available in:

- **High pressure, high flow Nitrogen** packs to meet ever more demanding applications
- **High purity Oxygen** enabling faster, cleaner cutting



# LASAL™ Equipment Solutions

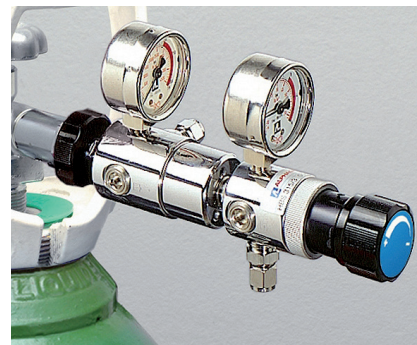
Our equipment range is designed to complement and maintain the quality and purity of LASAL gases from cylinder to point of use.



## A Complete Range of Lasing and Assist Gases Hardware

The LASAL range of gases is supported by a full range of equipment solutions designed to ensure the high quality of our gases is maintained through to the point of use. Air Liquide can provide you with a cost-effective solution that delivers your laser gases at the flow-rate, pressure and purity that your laser system demands.

- **Lasing Gases:** Whether your laser uses premixed or individual component gases, Air Liquide has a range of regulators to suit every gas requirement. Regulators for laser use differ from standard regulators and are produced to a higher specification to ensure greater accuracy of pressure and reduce the risk of gas contamination. A purging function prevents contamination after changing cylinders.
- **Assist Gases:** For assist gases we have designed a range of regulators and changeover manifolds for both oxygen and nitrogen. A range of flow and pressure options are available to cover every potential demand.

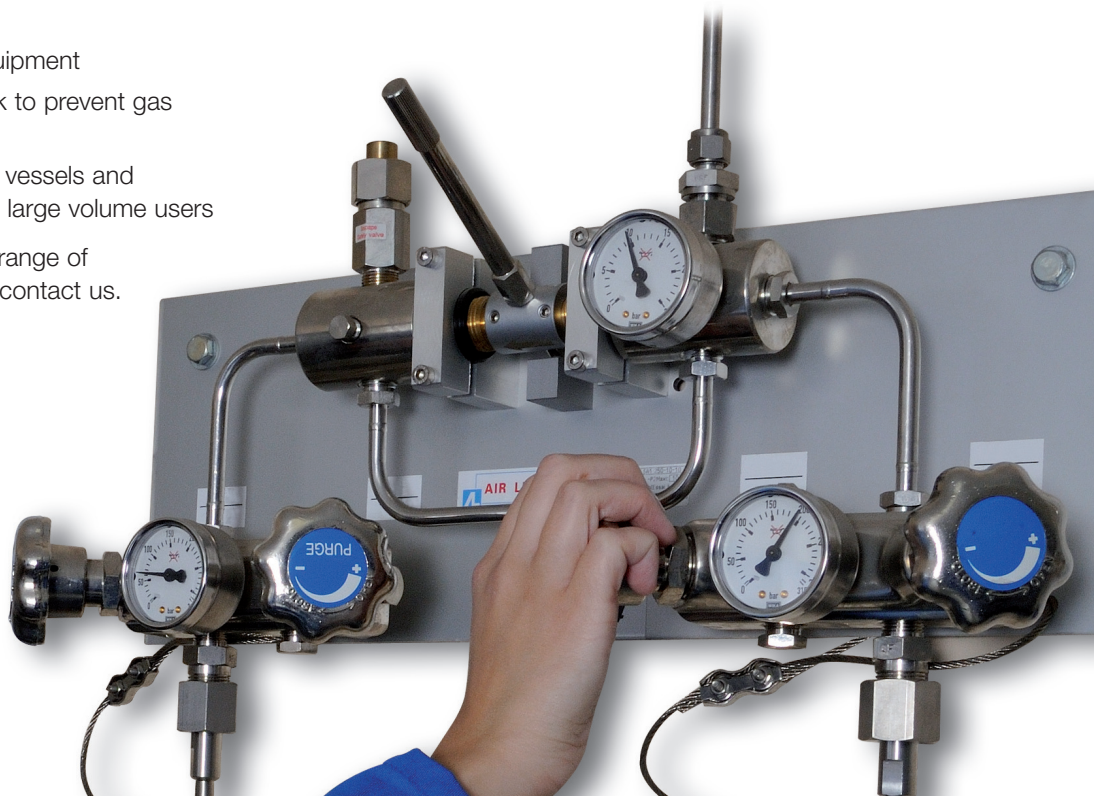


## LASAL Equipment Installation

In addition to our cylinder regulator offer, Air Liquide offer a full gas system pipeline installation service designed exclusively for laser users. This includes:

- High flow assist gas manifolds
- Lasing gas manifolds
- Point of use control equipment
- Stainless steel pipework to prevent gas contamination
- Bulk assist gas storage vessels and equipment solutions for large volume users

For more information on our range of engineering solutions please contact us.



The table below shows the full range of LASAL Lasing Gases.

LASAL Name	% N <sub>2</sub>	% CO <sub>2</sub>	% He	% H <sub>2</sub>	% O <sub>2</sub>	% Xe	% CO	Laser Manufacturers	Laser Sources
LASAL 1	100	-	-	-	-	-	-	Trumpf-Bystronic-Prima	Trumpf-Bystronic-Prima
LASAL 2	-	100	-	-	-	-	-	Trumpf-Bystronic-Prima	Trumpf-Bystronic-Prima
LASAL 4	-	-	100	-	-	-	-	Trumpf-Bystronic-Prima	Trumpf-Bystronic-Prima
LASAL 41	31,4	3,14	B					Bystronic	Bystronic
LASAL P51	15.6	3.4	B	-	-	-	-	Mazak	Panasonic
LASAL 53	13.5	4.5	B	-	-	-	-	Amada-LVD-Mazak	Fanuc
LASAL P61	23.4	1.7	B	-	-	-	-	Mazak	Panasonic
LASAL 63	20	6	B	-	-	-	-	Lectra System	Lectra System
LASAL 66	35	5	B	-	-	-	-	Amada-LVD-Mazak	Fanuc
LASAL 68	29	5	B	-	-	-	-	Prima	PRC
LASAL 78	26	4	B	-	-	-	-	Cutlita Panta	Cutlita Panta
LASAL 81	15	3.875	B	0.23	-	-	-	Feha	Feha
LASAL 82	15	3.875	B	0.315	-	-	-	Feha	Feha
LASAL 83	B	5	40	-	-	-	-	Amada-LVD-Mazak	Fanuc
LASAL 86	25	5	B	-	-	-	-	Amada-LVD-Mazak	Fanuc
LASAL 97	13	2	B					Haco	Haco
LASAL 101	8	8	B	-	-	-	2	Lumonics	Lumonics
LASAL 102	16	8	B	-	-	-	2	Lumonics	Lumonics
LASAL 105	B	8	28	-	-	-	4	Amada	Mitsubishi
LASAL 114	16	8	B	-	-	-	4	Lumonics	Lumonics
LASAL 152	18	9	B	0.3	-	-	4	Lumonics	Lumonics
LASAL 155	16	8	B	0.5	-	-	4	Altec 2	Altec 2
LASAL 201	19	4	B	-	3	3	6	All Manufacturers who used Rofin Sinar sources	Rofin Sinar Slab Laser

For further information on LASAL laser cutting solutions:

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