



**LASAL™**

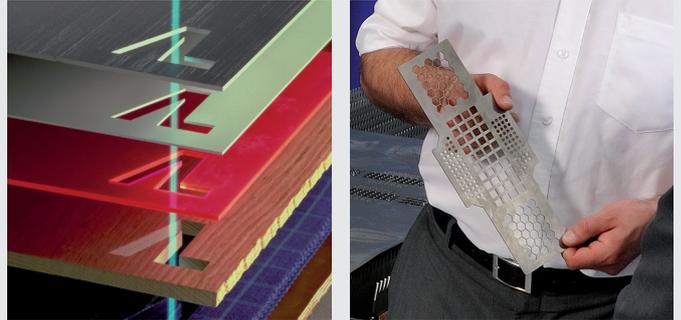
Laser Cutting Solutions

[www.uk.airliquide.com](http://www.uk.airliquide.com)



# 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™ – 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**

# 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             | 31.4              | B    |                  |                  |      |      | Bystronic                                      | Bystronic              |
| LASAL P51   | 15.6             | 3.4               | B    | –                | –                | –    | –    | Mazak  | Panasonic              |
| LASAL P53   | 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    | –                | –                | –    | –    | Cutlite Panta                                  | Cutlite 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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#### Contact

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The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 75 countries with approximately 66,400 employees and serves more than 3.8 million customers and patients.