



# Gases for Laser Cutting Solutions

From packaged gases cylinder banks through to large scale bulk we have the solution to suit your volume and operational needs

**Energas.**  
Everything Gas.

***ENERGAS***  
an Air Liquide company

# Laser Gases

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

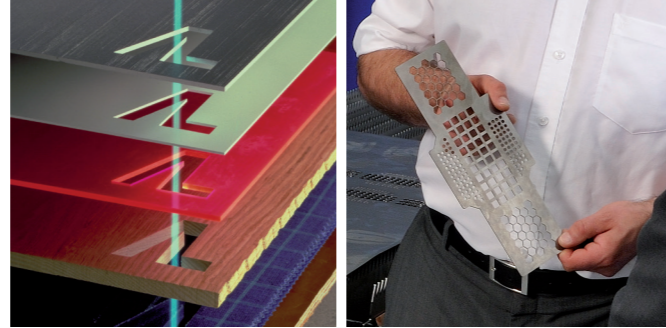
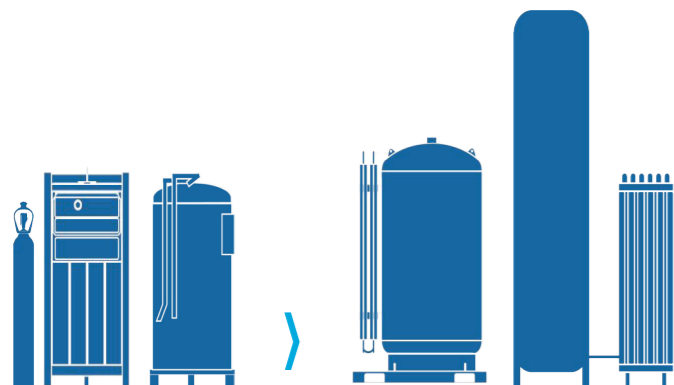
## A Complete Range of Lasing and Assist Gases

Energas supplies a range of gases 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 range of single component gases and multi-component mixtures are designed with the ultimate performance of your laser in mind.
- **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.

Assist Gases are available in:

- **High pressure, high flow Nitrogen** cylinder packs and high pressure skid mounted bulk tanks to meet ever more demanding applications
- **High purity Oxygen** cylinder packs enabling faster, cleaner cutting



## The Importance of Gas Purity

Energas understand that gas purity is essential in achieving peak laser performance. All our laser 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 strictly monitored for quality to ensure product purity is maintained at all times.

## The Importance of Quality

Our laser gases range including our 300 bar cylinder banks offer advanced cylinder packaging, designed for safer, more reliable operation:

- **Residual Pressure Valves (RPV) and NEVOC valves** maintain gas quality by preventing back flow into cylinders
- Stringent **impurity tolerances** ensure your laser operates at its very best
- **Strict Batch Control** and labelling ensuring full traceability



# Equipment Solutions

Equipment required from cylinder to point of use can be supplied to support your laser cutting business.

The Energas range of gases is supported by a complimentary range of equipment solutions designed to ensure the high quality of our gases is maintained through to the point of use. Energas 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 Equipment:** Whether your laser uses premixed or individual component gases, Energas have 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. Hoses capable of delivering varying pressures in different lengths are also available.
- **Assist Gases:** For assist gases we have a range of regulators and associated equipment including hoses for both Oxygen and Nitrogen available. A range of flow and pressure options are available to cover every potential demand.

## Energas offers

**Combined with our high level of customer delivery and support services Energas offers the complete package for your laser set up, metal fabrication and ongoing operational needs.**



- Comprehensive range of welding & cutting gases
- Gas collections or delivery available from our local branches
- LPG for forklifts and heating
- Welding machines and plasma cutting equipment for sale or hire
- Welding consumables for MIG, MAG, TIG, MMA and plasma cutting from world leading manufacturers
- Industrial gases equipment - regulators, hoses, trolleys, brackets
- Welders workwear and PPE incl. air fed welding PAPR helmets
- Fume extraction solutions
- Abrasives incl. slitting, cutting and grinding discs, abrasive sheets and rolls
- Workshop machinery including air compressors, pillar drills and welding positioners
- Power tools and hand tools
- Welding machine calibration, service and repairs
- CP7 Gas equipment safety checks
- Order welding equipment online - over 5,000+ products available online

# Lasing Gas Reference Table

A detailed table covering the range of laser gases available below enables you to select the right laser gas for your machine. Assist Gases available in Oxygen and Nitrogen.

| 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 P66   | 35               | 5                 | B    | –                | –                | –    | –    | Amada-LVD-Mazak                                | Fanuc                  |
| LASAL 78    | 26               | 4                 | B    | –                | –                | –    | –    | Cutlite Panta                                  | Cutlite Panta          |
| LASAL 83    | B                | 5                 | 40   | –                | –                | –    | –    | Amada-LVD-Mazak                                | Fanuc                  |
| 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 201   | 19               | 4                 | B    | –                | 3                | 3    | 6    | All Manufacturers who used Rofin Sinar sources | Rofin Sinar Slab Laser |

B = Balance Gas

For further information on gases for laser cutting applications:

Call us on **01482 329333**

Email us on **info@energass.co.uk**

Visit our website **www.energass.co.uk/laser-gases--2**

**WWW: energass.co.uk**

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