

→ Hardware for specialty gases

THE LINDE GROUP

*Linde*

Equipment, supply systems  
and services for specialty gases

Good things  
come in threes



# Everything under one roof — The complete equipment range for specialty gases

When working with specialty gases, you not only require a reliable supply of pure gases and high-quality gas mixtures, you also need the right equipment, fittings, supply systems and services. If you are looking for all these things under one roof, you have come to the right place.

As a full-service supplier, Linde provides its customers from the fields of research, development and production in all sectors with complete, optimised solutions in the form of gas, equipment, fittings, supply systems and services. As part of the HiQ Expert Team, we have qualified advisors both out in the field and in our headquarters, whose sole aim is to find a fast and accurate solution to suit your individual requirements.

## Gas — hardware — service: Everything under one roof

**Gas:** You can choose from our range of over 100 pure gases, or thousand calibration gases and gas mixtures. Our outstanding credentials as a gas supplier are underlined by our certification as a test and calibration laboratory in accordance with ISO 17025 and our accreditation as a manufacturer of reference materials in line with ISO Guide 34.

**Hardware:** We aim to offer you the right equipment, fittings and optimum supply system for each of our speciality gases.

**Service:** We offer customer-specific concepts to meet your individual supply requirements and offer maintenance and other additional services to help you increasing efficiency and productivity and improve quality and safety.

**Contact:** Our HiQ Expert Team will be happy to advise you by e-mail: [hiq@Linde-gas.com](mailto:hiq@Linde-gas.com)



# Fully equipped

## The right equipment for every application

### REDLINE®

In the world of specialty equipment, REDLINE® products are at the top of the pack. REDLINE® fittings guarantee the highest levels of quality, longevity and reliability. REDLINE® represents a universal solution. Equally suited to the most delicate applications in research and development as the continuous loads encountered in all manner of industrial production processes.

The REDLINE® range consists of cylinder pressure regulators for short-term use, station, battery and extraction pressure regulators as well as valves for central gas supply systems. REDLINE® equipment is fully equipped and ready-to-use on delivery.

### BASELINE™

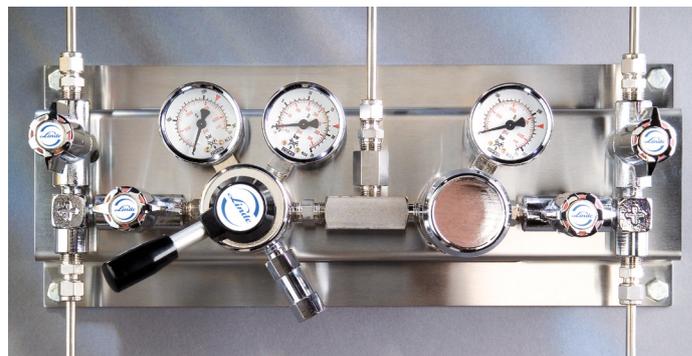
BASELINE™ pressure regulators represent a great value option in the world of specialty equipment. Typical applications include the supply of analytical equipment with test and operating gases in research and development as well as general laboratory applications. BASELINE™ cylinder pressure regulators are equipped with cylinder connectors, inlet and outlet pressure gauges and outlet fittings. An optional shut-off valve is also available. BASELINE™ cylinder pressure regulators are also available for a supply pressure of 300 bar.

### Specialty Equipment for special applications

The REDLINE® and BASELINE™ ranges from Linde were developed for the most typical applications of pure gases and calibration gas mixtures. However, there are also applications that place more specific demands on the equipment, such as regulation in the negative pressure range, very high level of control accuracy, regulation of toxic and corrosive gases or particularly compact designs. HiQ has the right solution for all of these requirements.

### Accessories

We offer a comprehensive range of useful accessories for our specialty gas fittings. These include coil connectors and bundle hoses, screw joints and seals for cylinder connections as well as brackets for wall-mounting pressurised gas cylinders.



REDLINE® A 208 semi-automatic change-over manifold



REDLINE® W 40 B point of use regulator



BASELINE™ C 106/1 cylinder pressure regulator



C 200/1 CP cylinder pressure regulator for corrosive and toxic gases



Tailor-made cylinder pressure regulator (medical application)

# An optimum supply requires the right connections

## Supply systems and central gas supply

### You have the specification — we have the solution!

Standard or tailor-made? Our specialists will develop the best concept for you!



Central supply of calibration and pure gases for exhaust gas analysis on engine test benches, including SECCURA® cylinder management

### Manual, semi-automatic or fully automated?

The gas properties and application prescribe the solution, but your wishes are paramount. As your gas supplier, we will implement a customised solution to suit your specifications.



Fully automated HCl drum tank supply system including SECCURA® cylinder management



Automated silane gas cabinet including pneumatic cylinder valve



Equipment cabinet for a fully automated titanium tetrachloride supply system

## Supply systems and central gas supply

With their distinctive properties, specialty gases place very particular demands on the components and design of a gas supply system.

## Everything under one roof

We are very familiar with the properties of our gases and the resulting demands on equipment, allowing us to provide safe and reliable solutions comprising gases, hardware and service.

## Customised solutions

We will visit you on-site, listen to your needs and record the relevant process data for the gases. We will then devise a supply concept and provide you with a quote. In the event of multiple potential solutions, we will work together with you to find the ideal solution to suit your requirements.

## Our portfolio of installation services

- Consulting
- Concept development
- Planning
- Project planning
- Assembly
- Testing
- Commissioning
- Documentation
- Maintenance

Linde supplies turnkey gas supply systems for virtually all applications in the fields of research, development and production.

# Safety first

## Our safety services

As your competent partner, we have developed a safety programme that assists you in fulfilling your safety responsibilities pertaining to your gas supply system. Our programme comprises safety training, risk assessments, status and compliance audits and the inspection, maintenance and repair of your gas supply system.

### Preventive Maintenance

#### Legislation, or Best practice dictates that:

As an employer or operator of technical machinery, you should ensure that all your equipment is subjected to testing according to legal guidelines, for example EIGA best practice. In accordance with the best practice guidance, tests must be conducted by "qualified personnel" and documented.

#### What we offer:

We will carry out inspections, maintenance and repairs in accordance with local regulations and best practice guidelines. Our service also includes a leakage test and an examination of the safety labels on your gas system. The tests to be performed can be defined in a maintenance agreement and documented in a maintenance log.

### Risk assessment

#### Legislation, or Best practice and local regulations dictates that:

As an employer or operator of technical machinery, you should carry out a risk assessment detailing all measures required for the provision and usage of your working equipment and materials, with particular regard to the use of hazardous substances. This risk assessment includes the listing and evaluation of all potential risks posed by the system, the definition of appropriate safety measures and the specification of test intervals.

#### What we offer:

We will support you with our comprehensive expertise in gases and provide you with a complete risk assessment for your gas supply system in accordance with local regulations and established best practices.

### Site audits

#### Legislation, or Best practice dictates that:

The condition of your equipment must comply with the applicable regulations — i.e. suitable for both the activities to be performed and the relevant workplace conditions. Furthermore, the machinery must be state-of-the-art and comply with applicable regulations.

#### What we offer:

We will perform a status and compliance audit for your company. This includes inspecting the documentation and condition of your gas supply system and checking for safety and compliance, both with the latest technology and the applicable legislative regulations and best practice.

### In-house training sessions for safety while working with technical and specialty gases

Would you like your employees to benefit from professional safety instruction, tailored to meet your requirements? After consulting with you, our qualified employees will be happy to conduct in-house training sessions, reflecting all your individual needs and queries. We can also include a practical segment in our training if required.

As an additional focus of our in-house training, we also offer sessions on working with specialty gases safely, alongside general training on technical or industrial gases.

# Effortless gas supply

## SECCURA<sup>®</sup> automatic gas supply

### Automatic cylinder gas supply

SECCURA<sup>®</sup> automatic gas supply is designed mainly for customers with a central gas supply system, who:

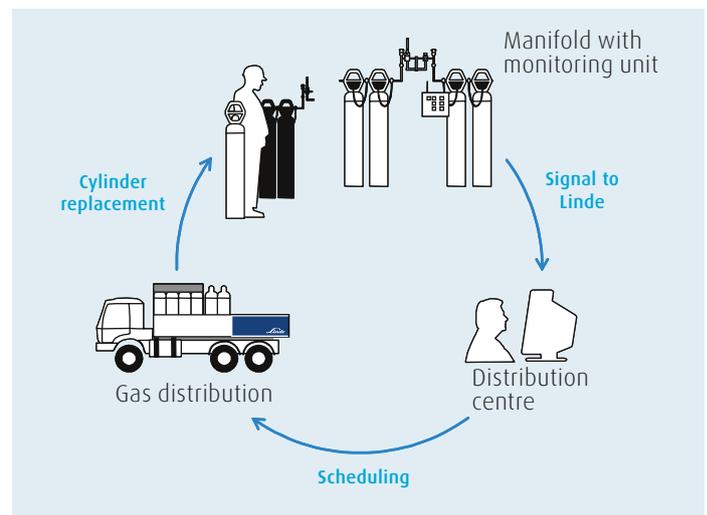
- Expect the highest levels of supply reliability
- Wish to focus on their core competencies and devote minimum effort to handling gases
- Want to reduce high safety stocks in their warehouses

### Benefits

- Increased supply reliability
- Reduced effort for monitoring, ordering and handling gases
- Cost reduction by outsourcing stock
- Replacement of cylinders & bundles by trained drivers

### Additional benefits offered by telemetry:

- Online monitoring of cylinder and bundle levels
- Permanent access to up-to-date telemetry and consumption data — any time, any place



# Leadership through innovation.

Get more from Linde. With its trendsetting product and gas supply concepts, Linde plays a pioneering role in the global market. As a technology leader, it is our mission to keep on setting new standards. Spurred on by our entrepreneurial spirit, we consistently work towards new high-quality products and innovative processes.

Linde offers more — added value, perceptible competitive advantages and increased profitability. Every concept is precisely tailored to the needs of our customers. Each one customised to their needs. This applies to every sector and every company, whatever its size.

If a business isn't going to lag behind the competition in future, it needs a partner for whom top quality, process optimisation and increased productivity are essential for optimum customer solutions. However, for us partnership doesn't just mean working for you, but first and foremost with you. The strength of business success lies in cooperation.

**Linde — ideas become solutions.**

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