

Making our world more productive



Spare parts in oxygen services

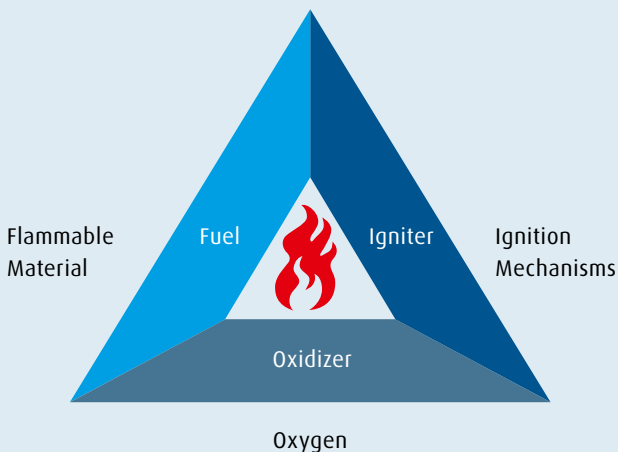
Enhancing safety in the handling of oxygen



Fire hazards in focus.

Any industrial process that generates or uses oxygen is exposed to an elevated risk of fire. This applies in particular to air separation units, where the presence of oxygen obviously increases fire hazards. Mechanisms such as friction, mechanical impact and organic material non-compatible with oxygen can quickly spark a fire inside valves, for instance.

In the presence of oxygen, any flammable material – once ignited – will readily burn. Depending on operational conditions, even metals may get ignited.



All elements required for a fire to occur.

Fire safety through product responsibility.

Here at Linde, we are committed to helping our customers understand and mitigate the risk of fires. Worldwide, Linde has built more than 4,000 plants and currently operates around 1,000 air separation units. This experience gives us in-depth insights into the safe handling of oxygen and our customers' needs in this area. These insights, combined with our proactive product responsibility policy, mean we are ideally equipped to support you in ensuring the safety of your plant, especially when it comes to spare parts.



Our oxygen safety services at a glance

Identification of oxygen equipment

- Spare part in contact with oxygen?
- Level of oxygen enrichment?
- Pressure range?

Oxygen audit status of supplier

- Supplier suitable and audited by Linde?
- Usage of special oxygen order requirements necessary?

Ordering from supplier

- Ordering according to latest Linde oxygen standards

Linde oxygen standards.

Our strict oxygen safety standards make sure that all spare parts for oxygen service in process plants are compatible.

These standards cover aspects such as:

- Compliance with international industry standards
- Conformity with general Linde guidelines and work instructions
- Assessment of the necessity of oxygen requirements
- Usage of suitable materials
- Adherence to contamination limits and special requirements for cleaning
- Qualification of manufacturers
- Oxygen awareness training
- Specific labelling and packing
- Provision of required certificates

Inspection

- White & UV light inspection
- Wipe test
- Water break test
- Claim & tracking in case of findings

Delivery

- Oxygen-specific packing
- Labelling
- Packing list
- Documentation and oxygen information sheet

Installation

- On-site installation by Linde experts, if requested

How can we help you?

Based on our strict oxygen safety standards, we have developed a range of safety-relevant spare parts services.

Our all-inclusive oxygen spare parts service package includes:

- Identification of oxygen-relevant spare parts
- Selection of alternatives if original parts are not available or do not comply with oxygen safety standards
- Guarantee of suitable material
- Oxygen quality inspection before delivery
- Specific packing and labelling
- Installation service

You benefit from Linde's extensive oxygen knowledge, experience and proximity to suppliers

- Support from plant operation and maintenance team
- Support in increasing plant safety and plant reliability
- Advice on all questions about oxygen spare parts
- Immediate usability of delivered spare parts
- Confidence in supplied oxygen spare parts

[Visit us on our website](#)

www.linde-engineering.com/spare-part-management

Published by:

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Linde spare parts service in action.

Case study: Replacement of an angle control valve

The Linde in-house plant documentation shows that the valve is used for oxygen environment.

The oxygen safety process for spare parts:

- We verify the compliance of the supplier with Linde oxygen safety standards
- We purchase the valve including corresponding flange gaskets from our certified supplier
- We review the completeness of the documentation provided by the supplier
- We inspect the valve for oxygen compatibility at our special workstation
- We specially pack and label the spare parts for oxygen service
- We send the valve and gaskets together with the documentation and an oxygen information sheet to our customer

Discover how we can contribute to your success at www.linde-engineering.com

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