

Press release

Linde launches new service portal for industrial plant operators

- LINDE PLANTSERV™ portal for rapid identification and ordering of spare parts
- Digital technology paves the way for new services and more efficient plant operations
- New, integrated service: Linde Engineering supports customers during the entire plant lifecycle

Pullach, 08 November 2017 – The Engineering Division of The Linde Group has launched a new service for plant operators known as LINDE PLANTSERV[™] portal. With a service life often spanning many decades, industrial plants comprise tens of thousands of components. Over time, worn and defective valves, seals and compressors need to be replaced. This can be a time-consuming task for plant operators, who have to identify the right spare part, find providers, compare prices and then place the order. The new <u>LINDE PLANTSERV[™] portal</u> makes this process much simpler, faster and more efficient for Linde's engineering customers. This e-marketplace can be accessed from any web browser, offering impressive time savings of up to 90 percent to identify spare parts and up to 30 percent to get competitive quotes.

LINDE PLANTSERV[™] portal was developed by Linde Engineering in collaboration with Linde's digitalisation team as part of an "accelerator process" and is now being launched as an online platform. Linde AG has been working on digital transformation for several years now. In autumn 2016, it set up a Digital Base Camp to fast-track and selectively drive the development of digital product and service prototypes. LINDE PLANTSERV[™] portal is based on clickable plant diagrams. Each customer can access the pipeline and instrumentation diagrams (P&IDs) for their plant online and simply click on the spare parts they need. The portal then displays all key specifications along with a list of component suppliers, pricing and timelines. "We act as an intermediary for spare parts, also offering our customers a complementary component verification service so they can be sure that the parts they select meet the latest quality and safety standards," explains Dr Ferdinand Kühner. He is head of what was previously known as Customer Service at Linde Engineering. Now, the department operates under the name LINDE PLANTSERV[™],

Press release

combining and connecting a broad spectrum of service offerings.

"Customer services are becoming increasingly important in the international plant engineering business. Through the launch of LINDE PLANTSERV™ portal, coupled with the realignment and expansion of our service portfolio, we aim to move even closer to our customers and meet their needs even better than before," explains Jürgen Nowicki, Spokesman for the Board of Directors of the Linde Engineering Division.

The online portal also highlights the huge potential that digital data holds for the efficient operation of industrial plants. Linde can provide detailed insights into process flows by linking P&IDs with the vast data streams generated by sensors measuring indicators such as pressure, temperature and flow rates, and analysing these connections with intelligent algorithms. The LINDE PLANTSERV[™] team will use this flow of data to support condition-based monitoring. By continuously monitoring plants, the team will be able to predict incidents before they happen and ensure that spare parts are ordered in good time. In future, plant operators will also be able to efficiently organise upcoming work by logging in to LINDE PLANTSERV[™] portal. They can plan turnarounds, maintenance and repairs more quickly and easily than ever before.

Linde's all-round LINDE PLANTSERV[™] concept provides operators with help and support over the entire lifecycle of their plants, which in some cases can be up to fifty years. The portfolio of services ranges from training, maintenance and repairs through spare parts management, operational support and plant modifications to the digital services mentioned above. The modernisation and restructuring of plants – known as revamping – is another important focus for the LINDE PLANTSERV[™] team. "Our job starts once a plant goes on stream. We want to ensure customers are happy and can look forward to successful operations well into the future. This will make them more likely to return to Linde Engineering as they know that they will always receive professional support from us," adds Kühner.

About The Linde Group

In the 2016 financial year, The Linde Group generated revenue of EUR 16.948 bn, making it one of the leading gases and engineering companies in the world, with approximately 60,000 employees working in more than 100

Press release

countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business, with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development.

For more information, see The Linde Group online at <u>www.linde.com</u>

Further information:

Dr Thomas Hagn Technical Communications Phone: +49-89-35757-1323 E-mail: <u>thomas.hagn@linde.com</u>