

2024-03-21

Automation, process plant and leak testing technology

Solutions from Aprotec – System supplier with a major specialisation advantage

Cologne, March 2024 – The system supplier Aprotec from Karlstadt in Bavaria is a specialist for modern, customised solutions in automation, process plant and leak testing technology. The team of around 30 engineers and technicians offers customers from the automotive and semiconductor industry, mechanical engineering and vacuum technology portfolio – from the idea to the turnkey system.

Leybold expertise secures knowledge advantage

To achieve this, Aprotec relies on the products and the expertise of Leybold. This collaboration goes deep into areas of application where experience is important. Managing Director Michael Landgraf: "It is precisely on this knowledge is the basis of our specialisation advantage over our competitors. Our positioning in the niche ensures not least that. we can react quickly to customer requirements."

Aprotec is therefore a system supplier that offers its customers turnkey systems for customised applications. As a result these are specially designed for processes and their process environments, such as vacuum, overpressure, temperature or gases – from laboratory scale to industrial production. Aprotec's strategic goal, however, is to go into series production.

The company is managed by Michael Landgraf and Matthias Roth. The founders, who started their own business in 2015, have been working in the vacuum industry – in process, testing and automotive technology.

Their customers rely on established methods, such as helium leak testing. The proven leak detectors PHOENIX Quadro and PHOENIX Vario with their high detection sensitivities play an important role. In addition to fuel cells, components, transmission and engine components, pharma packaging and battery housings are tested.

The high-tech systems from Aprotec are designed for short cycle times, low tolerances and a high level of safety. This requires high-quality materials and a great deal of engineering expertise are necessary. The solutions are therefore experts with decades of application knowledge – such as for high-temperature systems for the semiconductor industry. In addition to the expertise, it is also used in crystal systems in which the ingots for silicon wafers are produced, the use of the best vacuum pumps – because it is elementary here, to be oxygen-free and to be able to set particle pressures precisely.

Leybold has a high level of experience with crystal pulling processes and can also supply the vacuum pumps suitable for this purpose. The VARODRY dry screw pump is not only attractively priced, but also completely oil-free. Thanks to its toothed belt drive, it works without gear oil so that there is no risk of contamination due to oil backflow from the vacuum pump to the vacuum chamber.

Q&A with Michael Landgraf, Managing Director aprotec

What characterises your systems?

In our division testing technology, where we primarily use helium leak testing, we develop systems that push the limits of what is technically feasible. This is where most other suppliers reach their limits.

Which detection limits are they exactly?

We test in measuring ranges up to 10^{-10} mbar l/s or at test gas pressures of up to pressures of up to 1500 bar. Recently we have put a leak test system for fittings into operation with a test gas pressure of 1500 bar and a detection limit of 10^{-7} mbar l/s. Implemented in this is a PHOENIX Quadro and a Leybold NEO D rotary vane pump.

Why did you choose in favour of products from Leybold?

Because of the good performance of the products and the great expertise and the good advice from Leybold.

Where do you currently see particularly good opportunities in the market?

In testing technology, especially in applications with hydrogen and fuel cells. For some industries, such as semiconductors, we can supply both the testing systems and the semiconductor equipment.

Why is Leybold the right partner?

Our contacts are experts with decades of application knowledge - especially in the field of leak testing. On this basis, we can offer systems that are not yet available on the market, for example in hydrogen technology. This is how we will assert ourselves in this market.



Leak test system for fittings: Implemented in this is a PHOENIX Quadro and a Leybold NEO D rotary vane pump



Philipp Meissner (left, Regional Sales Manager - Leybold) and Michael Landgraf (General manager - aprotect)



PHOENIX Quadro

For further information, please contact:

Lea Grimberg
Marketing & Communications Generalist
Customer Center Germany

Leybold GmbH
Bonner Str. 498
D-50968 Cologne

lea.grimberg@leybold.com
<https://www.leybold.com>

About Leybold

Established in 1850, Leybold is a pioneer in vacuum innovation. Our inventions have paved the way for many modern-day vacuum technologies, including our range of next-generation vacuum products. We are recognized globally as a leader in the manufacture of vacuum pumps and systems for industrial and scientific vacuum applications, that are supported by our specialized and globally accessible Service solutions.

We are proud to live up to our brand promise - Pioneering products. Passionately applied.

Founded in Cologne, Germany with sales and service locations around the globe. We are a part of the Atlas Copco Group. For more information, visit [leybold.com](https://www.leybold.com).