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oerlikon leybold vacuum

Vacuum

Media Release

Delivery of over 50 leak detection systems for elementary particle and antimatter research in the CERN Large Hadron Collider

Major order from CERN for Oerlikon Leybold Vacuum

Pfäffikon, 11 February, 2013 – CERN, the renowned science centre for particle physics has placed an order with Oerlikon Leybold Vacuum for the delivery of over 50 mobile leak detection systems including the matching Remote Control System. With this order, Oerlikon has prevailed against a prestigious international competition. For Dr. Martin Füllenbach, CEO Oerlikon Leybold Vacuum, this success is a beacon for the future: "This is one of the largest orders for leak detection systems of one single customer in the applications within the branch of R&D. We are pleased that CERN continues to regard us as an important partner in their pioneering research."

Researchers at CERN in Geneva are examining what holds the world together - the discovery of the so-called Higgs particle recently revealed another fundamental insight. The world's largest accelerator LHC (Large Hadron Collider) is the heart of the major research institution. For the applications of the CERN Laboratory, the technical requirements on vacuum systems, such as quality, reliability and stability are very high. For decades, Oerlikon Leybold Vacuum has been a technology partner of the Geneva Laboratory and has delivered several vacuum systems and components.

For the experiments at the LHC, it is imperative to maintain a pure ultrahigh vacuum continuously in the 27 km long underground pipeline. Accordingly, the helium leak detection at CERN is of primary importance. If the scarce and expensive noble gas escapes from the storage ring, no more experiments can be performed, as the temperature in the system needs to be kept constant using helium at -271.3 °C. Only under these conditions the particles will travel at the speed of light and finally collide.

The Oerlikon Leybold Vacuum solution is characterized by a quick start, extremely short reaction times in leak detection, high flexibility and reliability as well as innovative features such as wireless USB port as well as touch panels with graphic user interfaces. Another plus: Oerlikon Leybold Vacuum offers training programs for the full range of leak detection applications – also on site. The head of CERN's Vacuum, Surface and Coatings Group, Dr. José Miguel Jimenez says: "Oerlikon Leybold Vacuum is one of the few technology suppliers who meet the extreme requirements of CERN high energy particle accelerators in terms of vacuum and leak detection systems. We can rely on solutions from Oerlikon Leybold Vacuum."

Oerlikon CEO Michael Buscher says: "The success on this tender demonstrates once again that the technologically advanced solutions we offer are essential for research applications. We are proud to support CERN in answering the basic questions of physics also in the future."

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About Oerlikon

Oerlikon (SIX: OERL) is a leading high-tech industrial group specializing in machine and plant engineering. The Company is a provider of innovative industrial solutions and cutting-edge technologies for textile manufacturing, drive, vacuum, coating, and advanced nanotechnology. A Swiss company with a tradition going back over 100 years, Oerlikon is a global player with nearly 17 000 employees at over 150 locations in 38 countries and reported sales of CHF 4.2 billion in 2011. The Company invested in 2011 CHF 213 million (reported) in R&D, with over 1 200 specialists working on future products and services. In most areas, the operative businesses rank either first or second in their respective global markets.

About Oerlikon Leybold Vacuum

Oerlikon Leybold Vacuum offers a broad range of advanced vacuum solutions for use in manufacturing and analytical processes, as well as for research purposes. The Segment's core capabilities centre on the development of application- and customer-specific systems for the creation of vacuums and extraction of processing gases. Fields of application are coating technologies, thin films and data storage, analytical instruments and classic industrial processes.

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