

## Media Release

Oerlikon Leybold Vacuum supplied key vacuum components to CERN's Large Hadron Collider and ATLAS/CMS detectors.

## Oerlikon congratulates CERN on its success in identifying the Higgs particle

Pfäffikon SZ, Switzerland – July 6, 2012 – Swiss global high-tech group Oerlikon today congratulates the CERN scientists involved in the ATLAS (A Toroidal LHC ApparatuS) and CMS (Compact Muon Spectrometer) experiments for identifying clear signs of a new atomic particle. An achievement made using the LHC (Large Hadron Collider) at CERN, this discovery promises to be the long-sought Higgs particle which could help answer many of the remaining mysteries of particle physics.

The LHC is a gigantic 27-kilometer ring accelerator which requires ultra-high vacuum conditions to operate. Along with the four detectors used for experiments at CERN, which include ATLAS and CMS, it is located deep below the ground. The strong radiation caused by the accelerated particles within the LHC and the presence of very strong magnetic fields present technical challenges for the design and operation of vacuum systems. Working together effectively with several scientific and technical collaborators responsible for various aspects of the experiments, Oerlikon designed systems which overcame these challenges and are absolutely unique to CERN.

Oerlikon's vacuum technology business, Oerlikon Leybold Vacuum, is a pioneer and technology leader in its sector and equipped the LHC and the large ATLAS detector with special vacuum systems, then designed and installed two special pump systems for the CMS detector system, for which Oerlikon Leybold Vacuum received a CMS Gold Award in 2008. This award, presented by the CMS Collaboration, recognizes outstanding technological contributions.

Andreas Widl, CEO of Oerlikon Vacuum, said: "We are proud and excited for the ATLAS and CMS teams after the breakthrough announcement. This experiment has significant importance for a better understanding of the world of physics. It is the result of the hard and creative work of exceptional teams. We at Oerlikon Vacuum congratulate those teams and feel honored to have made a small contribution to this success."

Dr. José Miguel Jimenez, Head of CERN's Vacuum, Surfaces and Coatings group in the Technology Department said: "To meet this amazing challenge, we were pleased to find in Oerlikon a partner capable of collaborating with us in the vacuum systems of the LHC and its injectors. Alongside their work with us this really makes Oerlikon a part of the story."

Oerlikon CEO Michael Buscher said: "R&D applications like those of CERN are a perfect illustration of how we are devoted to solving the most difficult challenges together with our customers and partners. Innovation is at the very core of Oerlikon's DNA and plays an essential role in our long-term strategy for profitable growth."



## 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, thin film, coating, and advanced nanotechnology. A Swiss company with a tradition going back over 100 years, Oerlikon is a global player with more than 17 000 employees at over 150 locations in 38 countries and sales of CHF 4.2 billion in 2011. The Company invested in 2011 CHF 213 million 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.

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