

Media Release**Oerlikon Balzers introduces REACH-compliant BALINIT PROTEC coating for industrial gas turbine compressors**

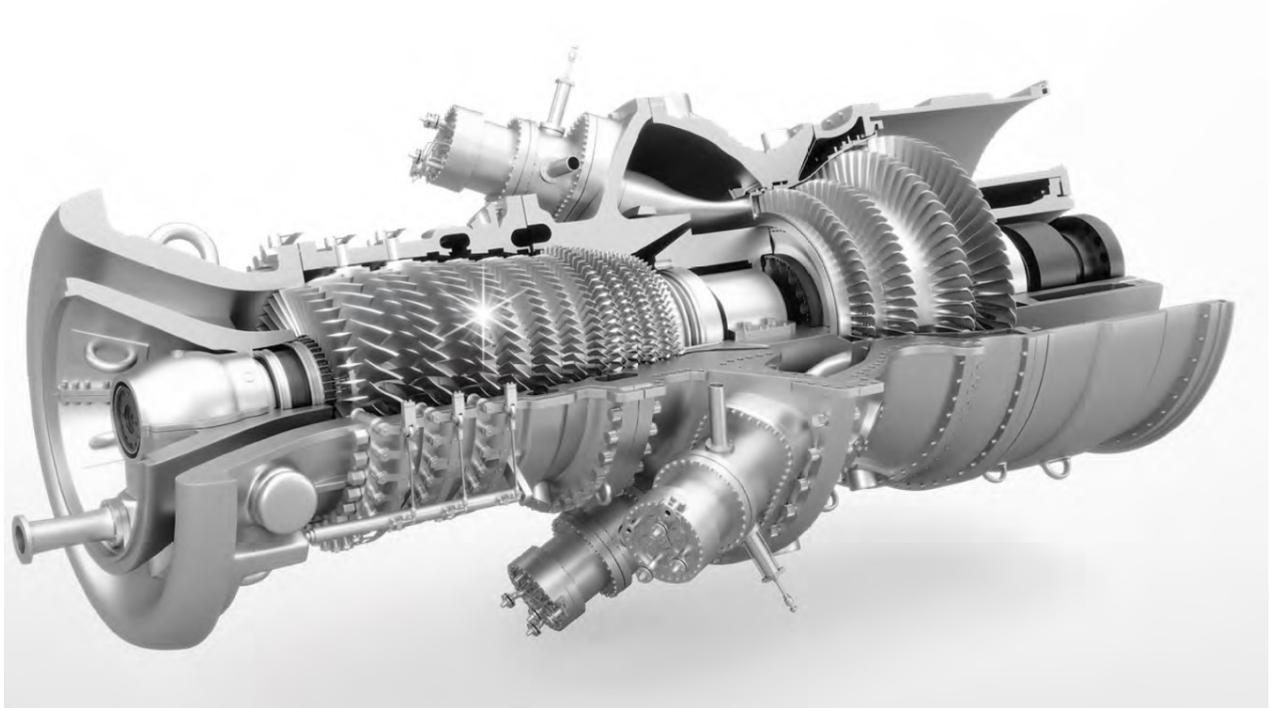
Balzers, Liechtenstein, 24 June 2020 – **Three key factors can impair performance of industrial gas turbine compressors: Solid Particle Erosion (SPE), Water Droplet Erosion (WDE) and corrosion of turbine blades. If undetected, these problems will reduce efficiency and increase costs for operators of power generation plants. BALINIT PROTEC from Oerlikon Balzers, a leading provider of surface solutions, is a REACH-compliant coating specifically developed to make industrial gas turbine compressors significantly more efficient and protect against corrosion and erosion.**

Industrial gas turbine (IGT) components are subjected to stresses from extreme temperatures, hot gas corrosion, water droplet erosion and particle erosion. With their excellent corrosion and erosion resistance, PVD coatings such as BALINIT PROTEC are therefore the ideal solution for these compressors.

The new BALINIT PROTEC coating from Oerlikon Balzers is a sustainable, long-term solution with a wide range of benefits for users. It contains no hexavalent chromium, a toxic and hazardous compound widely used in other industrial galvanic coating solutions that are not REACH-compliant, and repeated tests have shown that it increases asset life and protects compressors by reducing cavitation from Water Droplet Erosion (WDE) caused by fogging and wet compression systems, and by providing enhanced resistance to Solid Particle Erosion (SPE).

BALINIT PROTEC also improves efficiency by improving surface smoothness ($R_a < 0.8 \mu\text{m}$), which can be further enhanced by polishing. In addition, the standard ASTM B117 test and sulphur tests conducted by industrial manufacturers have proved that the coating gives gas turbine compressors greater protection against corrosion.

Paul Brooks, Head of Global Sales & Marketing for Precision Components at Oerlikon Balzers, says: "In view of the constantly increasing demand for energy, we continue to work closely with the power generation sector. BALINIT PROTEC is another clear demonstration of Oerlikon Balzers' technical expertise and power of innovation. This new coating solution for industrial gas turbine compressors is helping to make power generation more efficient."



The new REACH-compliant BALINIT PROTEC coating from Oerlikon Balzers gives industrial gas turbine compressors improved protection against solid particle erosion (SPE), water droplet erosion (WDE) and corrosion.

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About Oerlikon Balzers

Oerlikon Balzers is one of the world's leading suppliers of surface technologies that significantly improve the performance and durability of precision components as well as tools for the metal and plastics processing industries. Extremely thin and exceptionally hard coatings, marketed under the BALINIT and BALIQ brand names, reduce friction and wear. The BALITHERM brand opens up a broad range of heat treatment services, whereas BALTONE comprises coatings that are available in a full range of elegant colours, perfectly suited for decorative applications. BALIMED ThinFilm coatings, with wear-resistant, biocompatible, antimicrobial and chemically inert properties, have been developed especially for medical applications. Under the BALIFOR technology brand the company has introduced technologies which provide tailor-made solutions for the automotive market, while ePD allows the metallisation of plastic parts with a chrome look.

Worldwide, more than 1'100 coating systems are in operation at Oerlikon Balzers facilities and its customers. Equipment engineering and assembly of Balzers' systems are processed in Liechtenstein, in Langenthal (Switzerland) and in Bergisch Gladbach (Germany). Oerlikon Balzers operates a dynamically growing network of more than 110 coating centres in 36 countries in Europe, the Americas and Asia. Oerlikon Balzers is – together with Oerlikon Metco and Oerlikon AM – part of the Surface Solutions Segment of the Switzerland-based Oerlikon Group (SIX: OERL).