

Media Release**Oerlikon Balzers introduces new BALORA portfolio featuring the next generation of MCrAlY coatings based on PVD Arc technology**

Balzers, Liechtenstein, 2 December 2020 – **Oerlikon Balzers, a leading provider of surface solutions, has introduced its new BALORA portfolio of coatings which offers revolutionary properties for applications in high-temperature environments, such as in the aerospace and power generation markets. The first coating from the new portfolio, BALORA PVD MCrAlY, represents the next generation of high-density MCrAlY coatings, which use Oerlikon Balzers' proven PVD Arc surface and equipment technologies to form an outstanding barrier against oxidation and hot corrosion inside the hot section of turbines.**

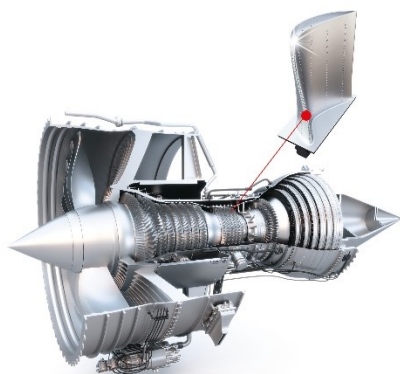
Efficiency improvements in gas turbines are often achieved by increasing the operating temperatures to 1,200 °C and above. Coatings used in turbine hot sections must withstand these extreme conditions to prevent hot corrosion and component oxidation, otherwise a system failure would occur – resulting in considerable replacement costs. Typically, MCrAlY coatings for these applications are produced using thermal spraying and other technologies. Oerlikon Balzers has applied its proven high-end PVD Arc technology to make these standard MCrAlY coating production processes more efficient and improve the coating properties by giving them aerodynamically smooth surfaces and outstanding substrate adhesion.

Oerlikon Balzers has developed its new BALORA PVD MCrAlY solution to produce extremely dense coatings which form an optimum oxidation barrier. The coating design process, a matter of a few steps, takes into account the individual requirements of the application and base material. High-performance targets are developed from the powder material provided by Oerlikon Metco and used to deposit an ultra-dense coating on the components in Oerlikon Balzers' high-end arc evaporation coating systems.

BALORA PVD MCrAlY from Oerlikon Balzers allows higher service temperatures and forms an excellent oxidation barrier, thus providing significant added value to customers by improving system efficiency, extending turbine blade service life, reducing maintenance and increasing service intervals.

Marc Desrayaud, Head of Oerlikon Balzers, says: “The new BALORA portfolio, including PVD MCrAlY, clearly demonstrates Oerlikon Balzers’ technological expertise and power for innovation. This new solution for turbine hot sections will help make applications in the aerospace and power generation markets more efficient thanks to our new coating technology.”

For more information about the new BALORA coating portfolio visit: <https://www.oerlikon.com/balzers/balora/>



BALORA PVD MCrAlY is the next generation of high-density MCrAlY coatings, which use Oerlikon Balzers’ proven PVD Arc surface and equipment technologies to form an outstanding barrier against oxidation and hot corrosion in the hot section of turbines in aerospace and power generation markets.

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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).