

Media Release

Complementary offering for aerospace

Oerlikon 'making aircraft innovations fly' at Paris Air Show

Pfäffikon Schwyz, Switzerland – June 1, 2017 – Under the slogan 'Making Aircraft Innovations Fly', Oerlikon is presenting its market-leading surface solutions, advanced materials, turbine components and 3D metal printing, under its Oerlikon Balzers and Oerlikon Metco brands, at the Paris Airshow.

Aerospace components must withstand wear, corrosion, thermal effects, erosion and greater loads, and at the same time, be light and provide low friction. Oerlikon will be displaying a complete set of surface solutions, advanced materials, turbine components and 3D metal printing for the aerospace industry from its Oerlikon Balzers and Oerlikon Metco brands at the 2017 Paris Airshow.

Greater performance and reliability – Oerlikon Balzers thin-film solutions

Protected with BALINIT coatings from Oerlikon Balzers, such as the new BALINIT TURBINE PRO, the light-weight materials and components used in the aerospace industry permit greater loads, meet higher tolerances and reduce maintenance. They exhibit excellent wear resistance, low co-efficient of friction and functional stability at high temperatures, while improving corrosion resistance.

Materials important to the aerospace industry, like titanium and nickel alloys, impose severe stress, thermally and mechanically, on the tools used to machine them. Composite materials, increasingly used in the light-weight construction of aerospace parts, are challenging to cut. Oerlikon Balzers' customizable BALINIT coatings, such as the new BALINIT DIAMOND coatings, are designed to improve the cutting parameters for a wide spectrum of aerospace applications.

Reducing fuel consumption and emissions – Oerlikon Metco thermal spray and turbine components solutions

Thermal spray materials, coatings, specialized machining services and components for aircraft engines significantly increase engine efficiency and fuel economy while reducing emissions. Specifically designed materials and coatings protect the base material of critical turbine parts from oxidation, hot gas corrosion, erosion, wear and excessive heat. In particular, thermal barrier coatings (TBCs) reduce the amount of heat transferred to the base material of turbine parts, allowing high operating temperatures, which in turn leads to improved efficiency and life expectancy. Next-generation materials designed for coating and additive manufacturing processes, such as the new MetcoAdd™ alloys, are key contributors to improve aircraft engine efficiency.

Decreasing weight – Oerlikon metal-based additive manufacturing (AM) solutions

Oerlikon provides additive manufacturing metal powders and contract services for design, prototyping and series production. The metal alloy powders are produced at Nadcap-certified atomization facilities, where alloy development for AM-specific applications is possible. Equipped with a fleet of metal AM printers in Europe and the USA, the materials can be used to additively produce advanced components out of aluminum, titanium, nickel superalloys and steels for aerospace customers. Oerlikon also offers component design services for lightweight, structural, heat-resistant and high-performance applications within aircraft structures, aviation engines, space and missile assemblies, and ground and marine structures.

Oerlikon's high-end surface solutions, advanced materials, turbine components and metal additive manufacturing solutions for the aerospace industry will be showcased at stand E 121 / Hall 2B at the Paris Air Show.

[Read more about Oerlikon Balzers thin-film solutions for aerospace](#)

[Read more about Oerlikon Metco thermal spray solutions for aerospace](#)

[Read more about Oerlikon additive manufacturing solutions for aerospace](#)

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About the Surface Solutions Segment

The Surface Solutions Segment of the Oerlikon Group includes the two brands Oerlikon Balzers and Oerlikon Metco. **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. Under the technology brand ePD, the company develops integrated services and solutions for the metallization of plastic parts with chrome effects. 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 and in Bergisch Gladbach (Germany). **Oerlikon Metco** enhances surfaces with coating solutions and equipment. Customers benefit from a uniquely broad range of materials, surface technologies, coating equipment and services, specialized machining services and components. The innovative solutions improve performance and increase efficiency and reliability of numerous industry products and applications. As innovation leader, Oerlikon Metco is forging new paths with metal based materials for additive manufacturing (AM). Oerlikon Metco serves industries such as power generation, aviation, automotive, and other specialized markets. **The Surface Solutions Segment** operates a dynamically growing network of currently more than 145 facilities with over 140 coating centres in 37 countries in Europe, the Americas, Asia and Australia, employing more than 6'000 people. The Surface Solutions Segment is part of the Switzerland-based Oerlikon Group (SIX: OERL).

About Oerlikon

Oerlikon (SIX: OERL) is a leading global technology Group, with a clear strategy to become a global powerhouse in surface solutions, advanced materials and materials processing. Backed by the key ability to intelligently engineer and process surface solutions and advanced materials, the Group is committed to invest in value-bringing technologies that provide customers with lighter, more durable, more efficient and environmentally sustainable products. A Swiss company with over 100 years of tradition, Oerlikon has a global footprint of over 13'500 employees at more than 180 locations in 37 countries and sales of CHF 2.3 billion in 2016. The company invested CHF 94 million in R&D in 2016 and has over 1'000 specialists developing innovative and customer-oriented products and services.