

Company Profile

Passion for Surface Solutions

Oerlikon Balzers is one of the world technology leaders in surface engineering. Our surface solutions for metal and plastics processing tools and precision and automotive components enhance performance and service life, and thereby open up completely new dimensions in material machining and construction in many industries. Founded as “Gerätebauanstalt Balzers” in 1946 in the Principality of Liechtenstein, Oerlikon Balzers is, today, still headquartered in Liechtenstein, and operates a dynamically growing network of more than 100 coating centres employing more than 4000 skilled professionals in 35 countries in Europe, the Americas and Asia.

The company achieved a world-first breakthrough in the 1970s with scratch resistant PVD coatings (Physical Vapour Deposition). Development and marketing of PVD coatings officially kicked off eight years later under the brand name BALINIT, which, to this day remains a mainstay of the Oerlikon Balzers product range. The integration of Balzers' sister company Metco into the Surface Solutions Segment of the Oerlikon Group in 2014, and of Metco's ThinFilm business into Oerlikon Balzers, placed a wholly new range of surface solution products and services at the disposal of our customers.

Products & Technologies: A unique portfolio

Aircraft turbines, car engines, industrial tools, bathroom fixtures and high quality watches: these are just a few of the products that come into contact with Oerlikon Balzers' coating solutions during their manufacture. Our coatings are extremely thin – some are up to 50 times thinner than a single human hair - and exceptionally hard. Reducing friction and wear, they serve a broad range of industries, such as the metal and plastics processing industry, but also the automotive and aerospace, energy, medical, food and packaging industries.

Since the first developments in the 1970s, **BALINIT** has grown into a large family of PVD and PACVD coatings that are just a few thousandths of a millimetre thick, but harder than steel. These low-friction coatings are extremely wear resistant and chemically inert. The optimum coating is determined by the intended conditions of use, as well as economic factors. The material and properties of BALINIT coatings can, moreover, be tailored to the customer's specific requirements.

Global expansion of Oerlikon Balzers and growth of the unique BALINIT coatings family have been accompanied by the development of a broad range of entirely new coatings to meet the individual needs of specific industries and customers:

BALIQ, which is based on the pioneering S3p technology (Scalable Pulsed Power Plasma), intelligently combines the advantages of arc evaporation and sputtering. A unique process window and separate scalability of pulse duration, shape and current density, provide unprecedented flexibility in coating design. BALIQ enables custom solutions with extremely high smoothness, density and hardness, for example for the coating of micro and threading tools.

BALTONE comprises wear and scratch resistant coatings for precision components that are available in a full range of elegant colours, and is thus perfectly suited for decorative applications.

The **ePD technology** (embedded PVD) is an innovative process which provides an environmentally friendly alternative for decorative, chrome-looking, functional coating of plastics – previously only possible with the aid of electroplating. This technology is especially renowned for its environmental neutrality - no harmful agents such as chromium III and chromium VI or other heavy metals are used - and broad scope of application in a variety of industries, amongst these the automotive, the furniture and even the sanitary industry.

Heat Treatment solutions from Oerlikon Balzers, marketed under the **BALITHERM** brand, improve the performance, efficiency and reliability of tools and components.

Services & Systems: Worldwide quality, seamlessly integrated to benefit our customers

Oerlikon Balzers operates a dense network of more than 100 **coating centres** in all the major industrial regions of Europe, the Americas, and Asia, guaranteeing efficient procedures, short delivery times and proximity to the customers. These centres provide more than just coating however. Products, processes and services are designed to benefit and bring added value for the customer. Balzers coordinates and carries out any pre- and/or post-processing steps that are critical to performance, and complementary services such as logistics are fitted seamlessly into the customers' process chain.

Worldwide, more than 700 **coating systems** are in operation at Oerlikon Balzers facilities and its customers. Equipment engineering and assembly of Balzers' machines are headquartered in Liechtenstein. Oerlikon Balzers systems and turnkey production lines can be seamlessly integrated into the customers' manufacturing environment right from the start, including guaranteed production and coating quality. Since Balzers not only develops and builds these coating systems, but uses hundreds of them each day in its own coating centres throughout the world, customers benefit from the know-how of the technology leader: from planning, through installation to operation.

Oerlikon Balzers' **in-house centres** provide complete service with home advantage for the coating of large part volumes. Production lines are operated by Oerlikon Balzers staff, but are tailored to the customers' specific needs and seamlessly integrated into their manufacturing environment.

Continuous improvement for zero-defect quality

Oerlikon Balzers coats more than 270 million parts every year throughout the world. To guarantee uniform quality, all of our centres use comprehensively documented technical standards and undergo internal audits to ensure compliance with these standards. Systematic reject evaluations and resultant improvement measures are, moreover, communicated to all centres in order to further improve quality.

From ingoing inspection of parts, to returning them to the customer after coating, a specialised production process takes place in many separate stages – in each case geared to the customer's individual requirements. Quality standards are always exacting, regardless of whether coating processes take place at our company, or on the customer's premises: all coating centres are certified to ISO 9001, and many have environmental certification to ISO 14001. Centres specialising in component coating for the automotive industry are additionally certified to ISO/TS 16949. Competence centres serving the aviation industry are certified to NADCAP.

The Surface Solutions Segment

Oerlikon Balzers is – together with its sister brand Oerlikon Metco – part of the Surface Solutions Segment of the Swiss-based Oerlikon Group (SIX: OERL). These brands complement each other perfectly in terms of their technologies, competencies and addressable markets, and customers thus benefit from a unique range of surface treatment products and services, thin-film and thicker-layer coating technologies, specialized machining services and components, as well as a global infrastructure.

Please refer to the Oerlikon Balzers website for more details:

www.oerlikon.com/balzers