INNOVENTA
HIGH-PERFORMANCE
PVD COATING SYSTEMS

Coating Equipment
More than 35 years of know-how
AND ON THE SPOT IN OVER 30 COUNTRIES

Oerlikon Balzers is a globally leading provider of wear-resistant coatings for tools used in metal and plastics processing applications. Our customers have been benefiting from this in-depth know-how in surface solutions and industrial engineering for over 35 years. Currently, Oerlikon Balzers operates more than 100 coating centres in over 30 countries throughout Europe, the Americas, and Asia, and sells coating equipment around the world.

Over 1100 coating systems for high-end coating applications are in service worldwide. Equipment engineering and assembly of the Balzers systems are headquartered in Balzers in the Principality of Liechtenstein.

OSG Corporation
«OGS has been an Oerlikon Balzers customer for 30 years. At our facility in Shinshiro, we run one of the biggest coating centres in the world, where we even develop exclusive high-end coatings for our cutting tools. However, OGS also relies on Oerlikon Balzers’ worldwide coating services: for us as a global player, the consistent quality and reproducibility of its coating solutions are a decisive strategic factor.»

Mr. Mitsuyoshi Hikosaka
Senior Executive Officer OSG CORPORATION & President OSG COATING SERVICE Co., Ltd.

Fratelli Vergnano Srl
«Since many years, Oerlikon Balzers is a reliable partner for our family business. Our relationship developed over the years from coating services to our insourced coating centre with the latest equipment from Balzers. This enables us to work jointly on innovations. Oerlikon Balzers not only knows about our needs and challenges in the cutting market, but also the needs of our customers. This enables us to stay at the forefront of the market, to benefit of our company and our customers.»

Mr. Guido Vergnano
R&D Manager
Vergnano Srl
Presenting INGENIA & the INNOVENTA Family

INNOVENTA mega
Compact solution for small batch sizes and R&D

INNOVENTA mega is simply the answer for enormous quantities of tools per batch or for R&D. With its short turnaround times, it is perfect for running more batches per day, which assures great flexibility in terms of processes, coatings and products being run during a day. When used in combination with larger machines, this highly productive system helps to smoothen production flows and is always ready to bridge capacity shortages. INGENIA is the right choice for the ramping up of new products.

INNOVENTA kila
Flexible all-rounder for ambitious expectations

INNOVENTA kila is the preferred coating system size for most production requirements and perfectly maintains remarkable qualities. INNOVENTA kila's predecessor INNOVA has an impressive history of units sold and is synonymous with performance, reliability, and versatility. But most of all, it infuses the spirit of innovation into production technology. INNOVENTA kila meets all your expectations with compelling elegance. It is the perfect coating equipment for tools, and also for R&D.

INNOVENTA giga
For gigantic volumes and gigantic throughput

INNOVENTA giga is the solution for big forming tools and stands for huge capacity and the highest productivity in mass production. With a coating height of almost 1.5 m, even the biggest forming tools, extra large and long cutting tools and components can be coated. And if it comes to giant volumes of tools, the INNOVENTA giga will definitely fulfill your demands.

INGENIA
For mega volumes and stunning throughput

INGENIA is the ideal PVD coating equipment for frequently processed small quantities of tools per batch or for R&D. Oerlikon Balzers leverages its decades of experience to generate maximum added value for each customer by providing the optimised coating system solution. Every equipment type is aligned with different requirements, but based on the same development principles. Processes are easily transferable within the INNOVENTA platform. All INNOVENTA systems are built with the same components, which ease the serviceability and require only a minimum stock of spare parts. This is how Oerlikon Balzers dependably increases reliability.

Totally rounded
CONSISTENTLY ALIGNED WITH CUSTOMER NEEDS
INNOVENTA kila

Flexible all-rounder for ambitious expectations

The perfect fit in PVD coating applications

Synonymous with flexibility & productivity

Perfectly sized for most production requirements

Up to 5 batches per day

Evaporation of up to 4 target materials per batch

Available for nitride and oxide based coatings

**without loaded carousel**
Applications

Benchmark in Technology

Versatile Magnet Systems
Striving for excellence in magnet systems means achieving the most homogenous coating structure, increasing target utilisation and boosting productivity. Oerlikon Balzers’ proprietary Versatile Magnet System (VMS) complies with the requirements of modern arc technology. VMS is the only magnet system on the market with an infinitely variable magnetic field and compensation target depletion. It covers a wide spectrum of applications.

Heating and Etching Technology
A decisive factor for achieving excellent adhesion is outstanding heating and etching technology. Our Side Etching Technology (SET) allows the customisation of a wide range of parameters to obtain the required, tool-specific surface condition. The result: outstanding coating adhesion and a perceptibly positive impact on tool performance, service life and reproducibility.

Switchable Advanced Plasma Optimizer
The Switchable Advanced Plasma Optimizer (SAP) offers unique plasma adjustment options. Systematically leveraging the Advanced Plasma Optimizer provides access to countless possibilities for customising coating designs and product differentiation in the marketplace.

Self-adjusting Trigger
No manual adjustments are necessary anymore with our new self-adjusting Trigger Finger. This reduces the effort required for maintenance and batch preparation significantly.

Oerlikon Balzers not only masters coatings but also sees itself as a “Surface Engineer” that understands coating as a contiguous, coherent process. Apart from the coating, the system engineering and the coating technology, the pre- and post-treatment of tools also play an important role. It takes an overall perspective to achieve an ideal result and to maximise the performance of tools with high-end coatings. Oerlikon Balzers is the solution provider that offers advanced technologies for every single process step. Rely on us for counsel, planning, and implementation support.

Creating your own coatings

Benefits of Oerlikon Balzers
• Reduce wear and friction
• Improve production reliability
• Strengthen oxidation- and scratch resistance
• Increase surface hardness
• Help reducing energy, fuel and lubrication consumption

Total Coating Solutions

1. Cleaning
Clean surfaces are essential for coating adhesion. For this reason, Oerlikon Balzers invests a great deal of effort in surface preparation for PVD and other multi-stage ultrasonic cleaning. Using aqueous alkaline baths with no environmentally damaging additives.

2. Pre-treatment
If additional surface preparation is required, Oerlikon Balzers offers the appropriate technologies. Microblasting removes porous surface layers and edge preparation delivers extra performance and superb tool reliability.

3. Coating
BALINIT® Coating Portfolio
Coating with BALINIT® provide you with high-performance tools that are always ready to meet the increasing demands of modern manufacturing. A broad range of coating technologies is available for almost all kinds of cutting, forming, punching, metal die casting or plastic processing applications. New coating solutions are continuously opening up new applications. Customised coatings are available on request.

4. Post-treatment
Numerous methods are applied to give tools the finishing touches. Over the years, Oerlikon Balzers has gained the extensive experience needed to suggest the best possible solution and equipment to meet your needs.

5. Quality inspection
The success of a coating also hinges directly on the condition and quality of the tool. Visual and mechanical methods are employed to assess the coating compatibility of incoming items and to determine coating quality. The deployment of our technologies in a wide range of industries allows us to provide optimal consultancy regarding appropriate quality assurance resources.

100% network addresses are listed at: Our worldwide coating centre

Contact us now!
Partnership & Services

After Sales
- Technical support and advice via telephone, service hotline and e-mail
- Remote diagnostics and control for even faster troubleshooting
- Professional on-site support for installations, upgrades, repairs and maintenance tasks
- Engineers dispatched within 24 hours
- Service agreements
- New and second-hand parts, as well as consumables for Oerlikon Balzers equipment
- Upgrades, including the latest technologies and coatings
- Standard and customer-specific fixtures

Backup Services
Capacity shortages? The Oerlikon Balzers worldwide coating centres network supports you with the fulfilment of production orders using automated and standardised production procedures that guarantee the same high and reproducible quality throughout the world.

Creating your Individual Portfolio
We offer joint development work to create your own coating for your specific application and differentiate your products from the competition.

Global Equipment Sales and After Sales organization

Our After Sales bases are located in Europe, America and Asia. From these locations, we provide you with services and products. Our service and application engineers worldwide help you keep your equipment up and running. Furthermore, our parts warehouses located in Germany, the USA, Japan and China are committed to increasing the availability of your equipment.

Consistently Convincing Quality
Our global After Sales team is committed to providing consistent, expert support around the world.
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Our worldwide coating centre network addresses are listed at:
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