

cerlikon
metco

Surface One

The First Thermal Spray Coating Machine



Thermal Spray



Thermal spray coating, re-conceptualized

We understand our customers' priorities and values — because we share them. Like you, we strive to become more productive, adapt faster to changing market conditions and ensure the health and safety of our people. These objectives drove the re-conceptualization of the thermal spray coating process and led to our launch of the first thermal spray coating machine: SurfaceOne™.

- **Improved usability and operator guidance**, which boost productivity while eliminating errors.
- **Standardized design**, which enables faster delivery and installation to minimize disruption of your operations.
- **Compact construction**, that fits in a shipping container and requires significantly less floor space.
- **Mobility**: SurfaceOne is easily relocated to other areas of your shop floor or another facility.
- **Exceptional safety features** that protect people and equipment.



boost your
PRODUCTIVITY

Coating module

Houses the thermal spray system that includes feeders, guns and handling equipment

Process module

Contains all auxiliary systems in a standardized format

Your choice of major robot brands

Easy parts loading from the front or overhead

Safe access to auxiliary systems

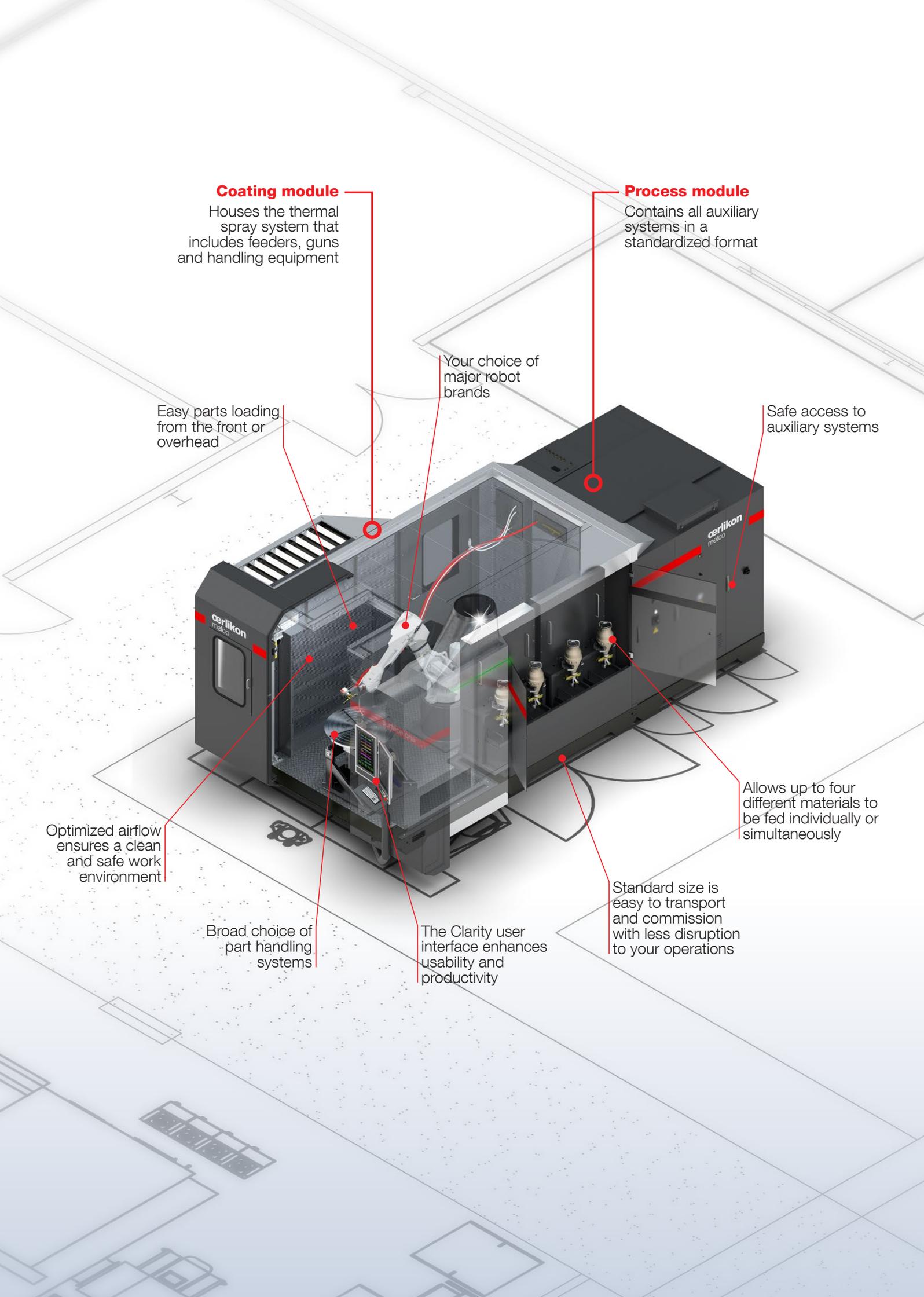
Optimized airflow ensures a clean and safe work environment

Allows up to four different materials to be fed individually or simultaneously

Broad choice of part handling systems

The Clarity user interface enhances usability and productivity

Standard size is easy to transport and commission with less disruption to your operations



Boost your process efficiency

- Efficient access to all operating components allows you to do more while occupying 20% less of your shop floor space.
- Operate up to 3 thermal spray processes. Add a new process at any time with minimum effort.
- Choose the handling system that best suits your operating environment.
- Ready for Industry 4.0 / IIoT and smart factories of the future.

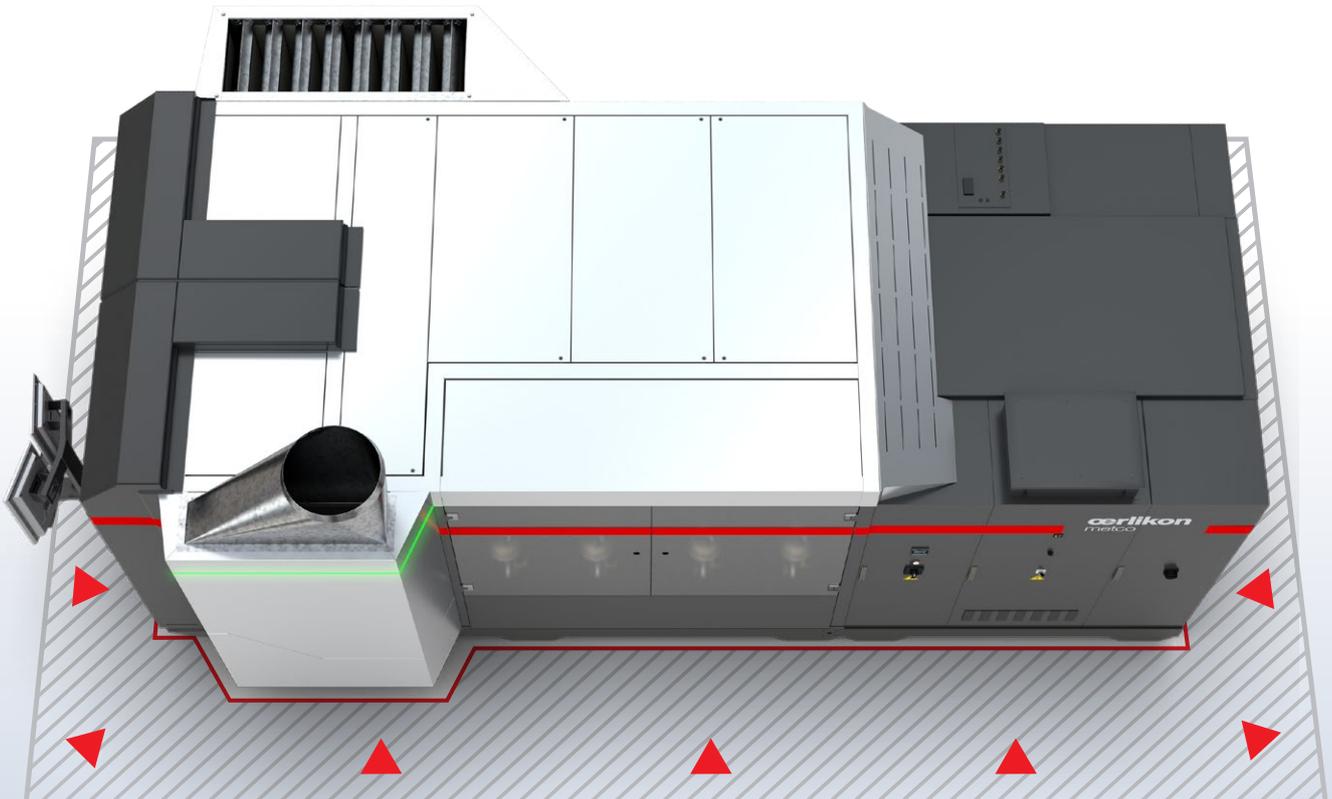


Plasma



HVOF

Occupies 20% less space

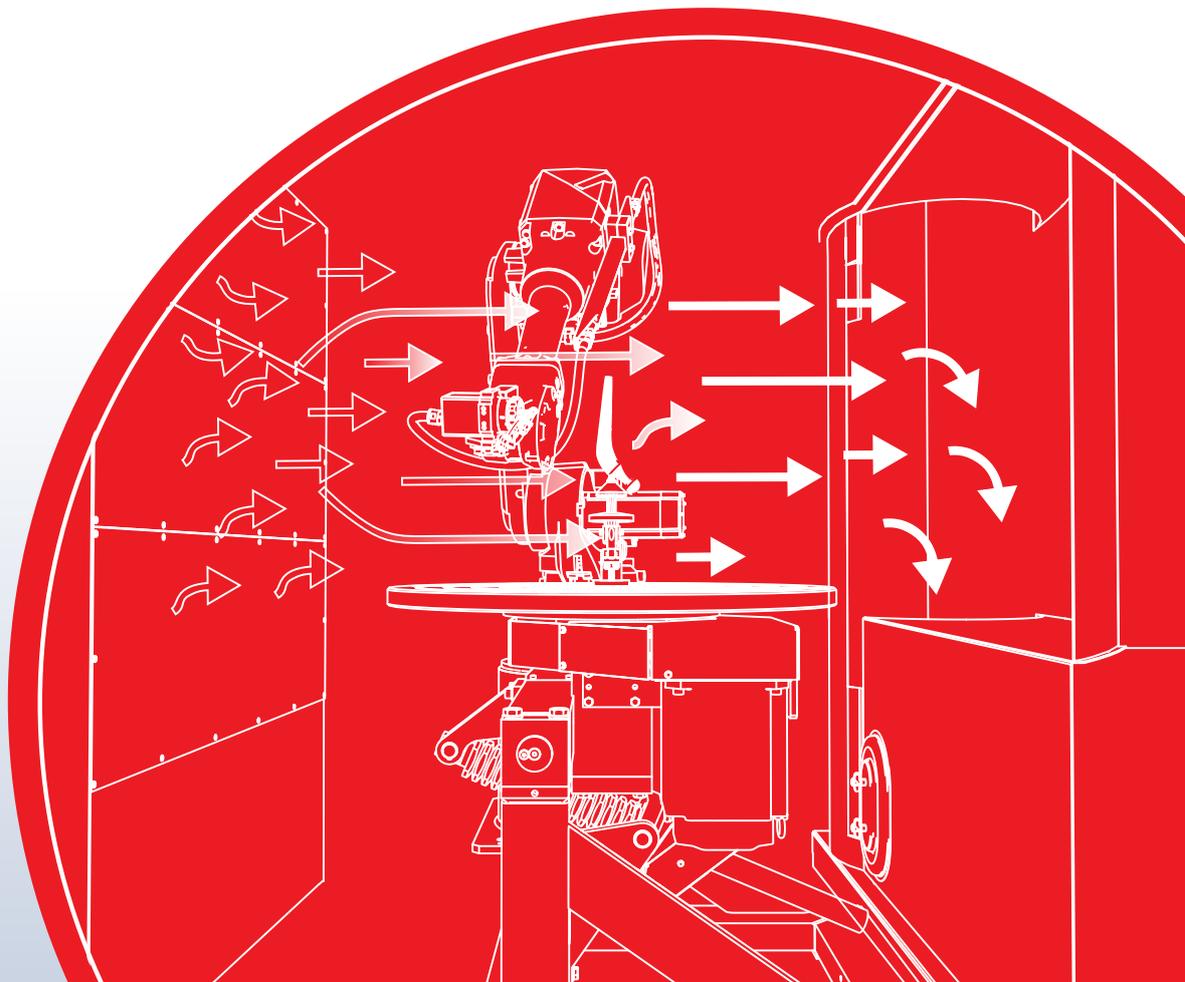


Surface One delivers cost and efficiency advances

- The machine packs into a standard shipping container. Compared with conventional systems, it is delivered 30% faster and installed within a few weeks instead of months.
- Whether reorganizing your existing facility or moving to a different location, relocating and recommissioning is simple and easy, thereby reducing down time.
- The modular design with plug-in interfaces ensures that no additional time is spent installing cables and hoses.
- The optimized environment minimizes variables and ensures coating reliability and repeatability across your installed base.

A superior user experience

- Say goodbye to time-consuming, error-prone parts changeover and operational handling. Our unique Clarity™ user interface makes controlling your entire coating process as easy as plug and spray.
- Reduce operator exposure to the thermal spray environment via easy exterior access to all relevant elements.
- Overhead doors make loading your part a whole lot easier and faster.
- The innovative airflow design significantly reduces dust build-up, which supports your health and safety initiatives while minimizing cleaning efforts.



Spend more time on your product and less on operating issues

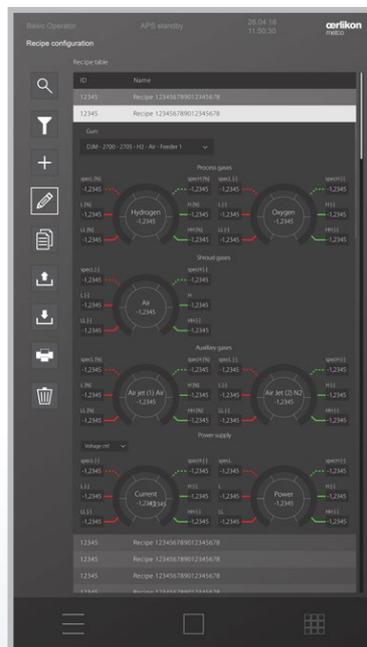
At the heart of the Surface One lies the Clarity user interface and production manager. Clarity is designed to simplify your production process and enable an easier, faster and more efficient operation. Benefit from the intuitive, customizable user interface and integrated operator guidance.

- Clarity reduces complexity and focuses on the information relevant on the task. This eliminates operating errors, improves productivity and minimizes training effort.
- Key process indicators are designed for fast and intuitive recognition. The large, high-contrast display makes indicators visible from a distance so operators can multitask and spend their time more effectively.
- First time right – Clarity allows you to design the way your parts should be coated with step-by-step instructions that guide the operator through the entire process.



Full control

The intuitive process interface is easy to use and provides updates on the status of all relevant data at a glance.



Easy setup

Operators are guided through the production setup of appropriate thermal spray and motion control recipes to achieve the perfect coating.



Continuous optimization

Quick access to easily readable process data enables informed decision-making and continuous process improvements.

Keep your process running

Maximize your productivity and minimize interruptions to the production process by accessing sophisticated multi-level alarm and maintenance information.

- Clarity helps optimize your resources. It keeps you informed by diagnosing system performance and lets you know when maintenance is needed.
- Integrated system diagnostics help maximize your uptime. They immediately alert you to malfunctions with detailed error reports so you can intervene fast and efficiently.

Stay in control and move ahead

With Clarity, you are fully connected and in control — and able to remain a step or two ahead of your competitors!

- Quickly scale up and replicate production by simply transferring coating recipes and operating configurations from one machine to another regardless of location.
- Easily integrate Clarity into your production environment to improve control of the production process and increase productivity.
- With Clarity, your coating process has Industry 4.0 and IIoT features that provide real-time status information about the manufacturing process and system health.



Surface One

Advanced Technology Solutions and Services



Thermal Spray

Perfect solutions through optimum materials and innovative technologies

Oerlikon Metco is a global leader in surface engineering solutions and services offering:

- A broad range of thermal spray and other advanced surface technology equipment
- Integrated systems and materials
- Specialized coating and surface enhancement services
- Customer support services

Oerlikon Metco provides a comprehensive manufacturing, distribution and service network, catering to aviation, power generation, automotive and other strategic growth industries.

To take control of your surface engineering challenges, contact your Oerlikon Metco sales office, visit our web site at www.oerlikon.com/metco or e-mail us at info.metco@oerlikon.com.

Surface One is recognized by Red Dot and the Industrial Designers Society of America for outstanding product design



reddot award 2018
winner



“Breaking the mould in regard to design in order to enhance the effectiveness and user-friendliness of the technology — this has been superbly achieved by Surface One.”

Red Dot Design Award July 2018

About Oerlikon Surface Solutions Division

Oerlikon is a leading global provider of surface and additive manufacturing solutions and services. The division offers an extensive portfolio of market-leading thin-film, thermal spray and additive manufacturing technologies, equipment, components and materials. Emission reduction in transportation, maximized longevity and performance of tools and components, increased efficiency and intelligent materials are hallmarks of its leadership. Pioneering technology for decades, the division serves customers with standardized and customized solutions across a worldwide network of more than 170 sites in 37 countries. With its technology brands – Oerlikon Balzers, Oerlikon Metco and Oerlikon AM – Oerlikon’s Surface Solutions division focuses on technologies and services that improve and maximize performance, function, design, reliability and sustainability, which are innovative, game-changing advantages for customers in the automotive, aviation, tooling, general industries, luxury, medical, semiconductors, power generation and oil & gas markets. The division is part of the publicly listed Oerlikon Group, headquartered in Switzerland, which has 12 000 employees and generated CHF 2.65 billion in revenue in 2021.

Information is subject to change without prior notice.