

INLENIA

COATING SYSTEMS FOR ULTRA SMOOTH SURFACES



S3p

Coating Equipment



Benefit from a wide spectrum of possibilities

Oerlikon Balzers' S3p® technology produces coatings with exceptional surface smoothness, providing a long service life and both: high density and resistance to adhesive and abrasive wear. In particular, cutting tool applications with high demands on precision and surface quality (microtools, taps and reamers, inserts for finishing) and applications in difficult-to-cut materials (stainless steel, titanium) benefit from S3p®. Applications suitable for S3p® also include coatings for casting moulds for parts used in consumer electronics or for watchmaker tools.

A quantum leap FOR YOUR PRODUCT PORTFOLIO

At long last, customised coatings that meet the precise requirements of different applications become reality with Oerlikon Balzers' S3p® technology. S3p® supports the unrestricted, cost-effective use of HiPIMS technology in production as well as in research and development – a quantum leap in the field of coatings. S3p® combines the advantages of Arc Evaporation and Sputtering technologies, allowing high ionization with virtually no droplets.

As a result, extremely smooth and dense coatings for a wide variety of applications are achieved. With the revolutionary INLENIA coating system, you benefit from new opportunities that transcend anything seen before and from coatings tailored precisely to your needs. INLENIA is the next leap forward in cost-efficient coating with S3p® technology.

ARC EVAPORATION

S3p OPENS
UP BRAND
NEW MARKET
OPPORTUNITIES.

SPUTTERING

S3p

Scalable
Pulsed Power Plasma

INLENIA pica

The small batch platform

Want to coat dedicated batches with your most precise tools or ramp up a new product line with the shortest possible lead time? INLENIA pica is the right system for your needs. You are free to develop the next coating solution or to customise our coatings so that they meet your highest requirements perfectly. INLENIA pica is the compact and flexible solution, guaranteeing you a smooth transfer to the INLENIA kila high volume production equipment.



INLENIA kila

The high volume production platform

INLENIA kila is the "workhorse" for high volume production needs. Thanks to a batch load capacity with 12 trees you can coat more tools. It's the perfect system for your standard tool coatings and is extremely versatile in production.



Exceptional FEATURES ALIGNED WITH YOUR PRODUC- TION NEEDS.

INLENIA is Oerlikon Balzers' new generation of coating systems with cost-efficient S3p® technology. Every INLENIA is specific to different requirements but based on the same development principles. This is how Oerlikon Balzers can ensure consistently high process reliability.



Features
aligned with
production needs

- | | |
|------------------------------------|--------------------------------------|
| Leading
S3p TECHNOLOGY | BALIQ coating
PORTFOLIO |
| EXTRA SMOOTH
coatings | Compelling
BALZERS QUALITY |
| DIFFERENTIATION
of tools | COST-EFFICIENT
production |

REVOLUTIONARY
SMOOTHNESS

S3p® offers previously unavailable opportunities for optimizing coating structures and properties, and therefore the tool performance. The revolutionary smooth surface of S3p®-based coatings enables smooth chip removal, meaning no post-treatment is necessary. Adhesion of workpiece material and build-up edges are avoided even for difficult-to-machine materials.



High productivity in combination with extra smooth coating

- 4 hBALIQ ALCRONOS
- 4 hBALIQ ALTINOS
- 5 hBALIQ TINOS



INLENIA pica	
Swing diameter	360 mm
Coatable height	400 mm
Max. loading capacity	200 kg
Technology	S3p
Magnet system	2 S3p Sputter modules
Etching	Side-Etching Technology (SET)
Number of spindles	Up to 4

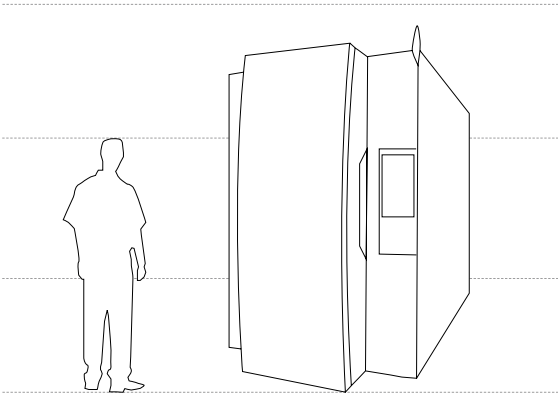
INLENIA pica S3p

The small batch platform

- Ramping up of new product lines
- Development of custom coatings
- Compact batch size
- Dedicated batch to ensure highest quality and precision
- Ideal platform for microtools or small volumes
- Support & cooperation with Oerlikon Balzers R&D

INLENIA pica

4–5 batches per day
typical process
time 4–5 hours



DIMENSIONS

Length: 3500 mm
Width: 1640 mm
Height: 2680 mm
Footprint: 5.7 sqm
Weight: 3200 kg*

* without substrates loaded

INLENIA kila S3p

The high volume production platform

- "Workhorse" for high volume production
- Perfect for standard tool coatings
- Versatile in production
- Coating of precision, special and microtools
- Applications with custom coatings and Oerlikon Balzers recipes
- Proven by Oerlikon Balzers coating centres



Significantly faster than conventional HiPIMS technology*



With 12 trees, INLENIA offers 20% more batch load capacity compared to INNOVA.

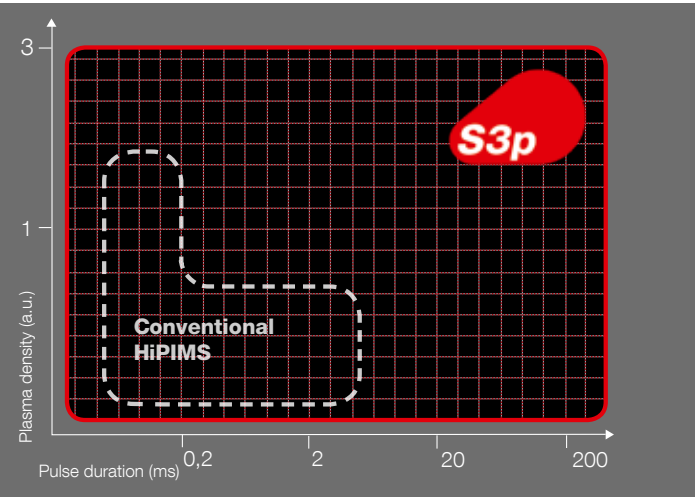


INLENIA kila	
Swing diameter	700 mm
Coatable height	400 mm
Max. loading capacity	600 kg
Technology	S3p
Magnet system	4 S3p Sputter modules
Etching	Side-Etching Technology (SET)
Number of spindles	Up to 12

HIGHLY SCALABLE
AND EXTREMELY
PRECISE

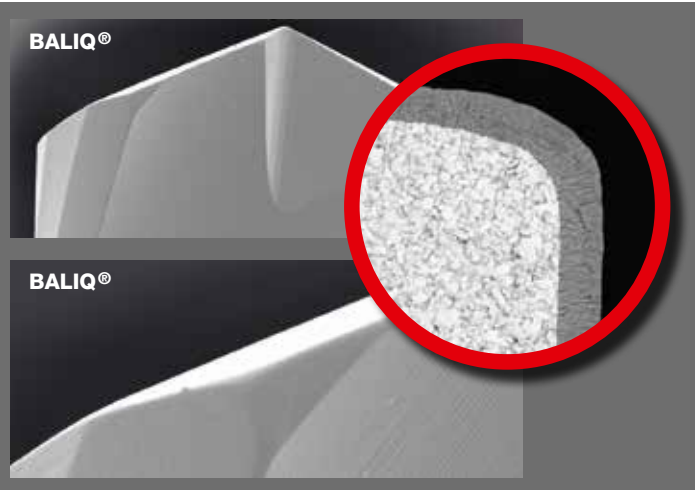
Remarkable scalability far beyond conventional HiPIMS

Customised coatings are possible thanks to the precise and independent scalability of pulse duration and shape as well as current density. The unique process window as well as the significantly higher deposition rates and process stability push the boundaries of conventional HiPIMS.



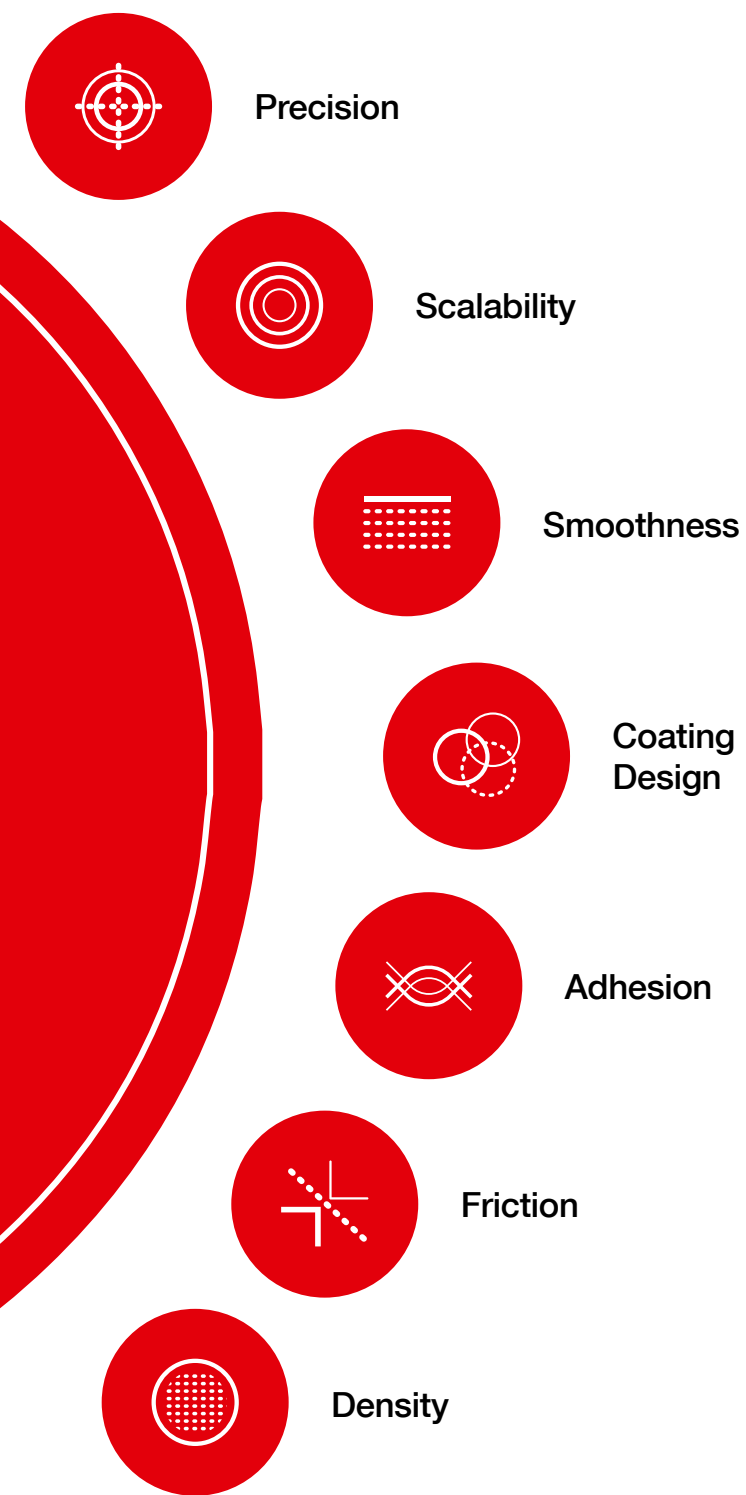
Exceptional precision

High precision in coating thickness distribution guarantees extremely sharp edges. Outstanding results are achieved, especially for tools with ultra-small diameters.



* with equal loading
** without substrates loaded

TAKE ADVANTAGE OF
OUR OUTSTANDING
COATING FEATURES.

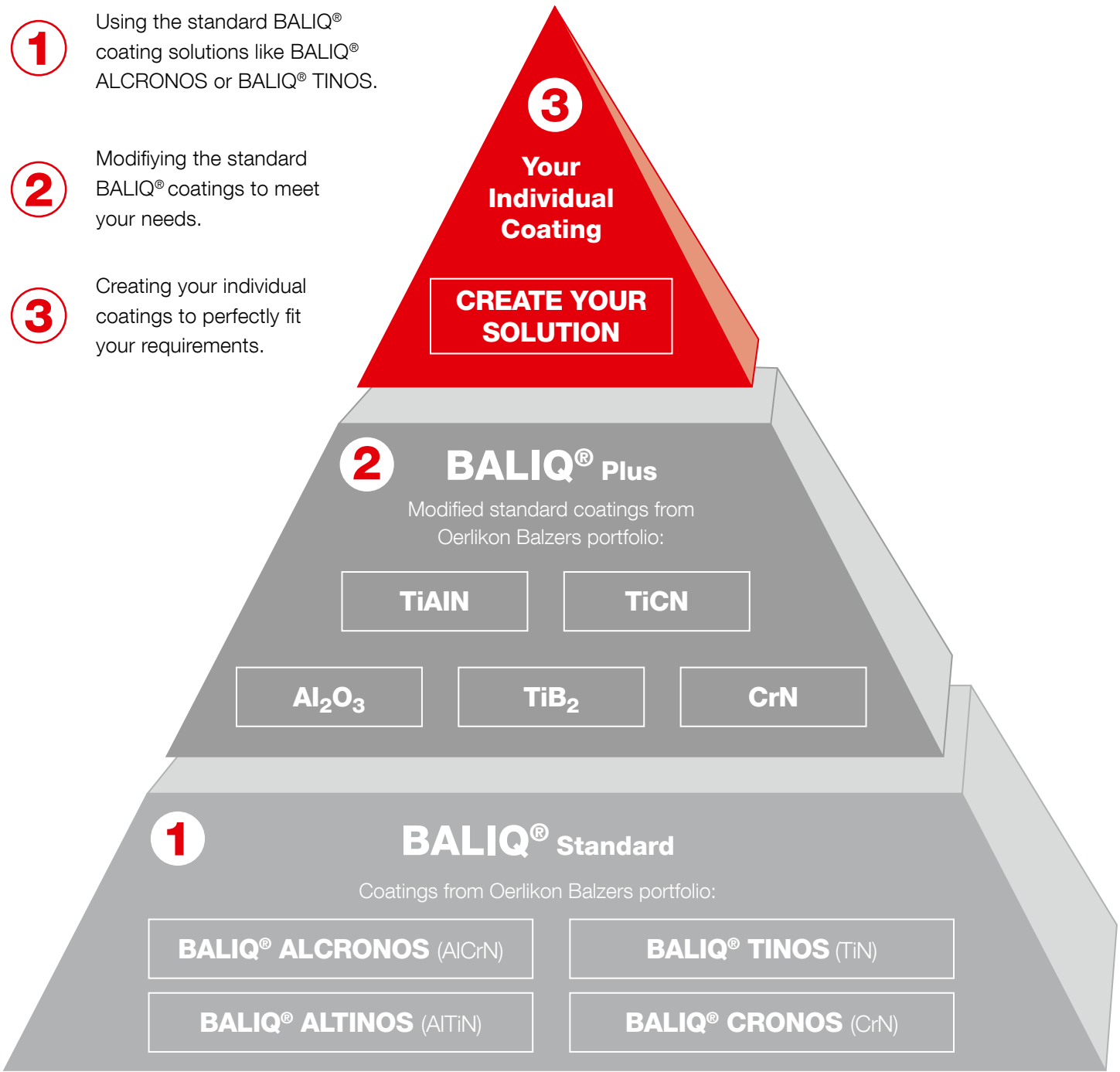


Be individual!

CREATE YOUR INDIVIDUAL COATING PORTFOLIO

You benefit from new opportunities that transcend anything seen before – with coatings tailored precisely to your needs. We offer you 3 alternatives to achieve your goals:

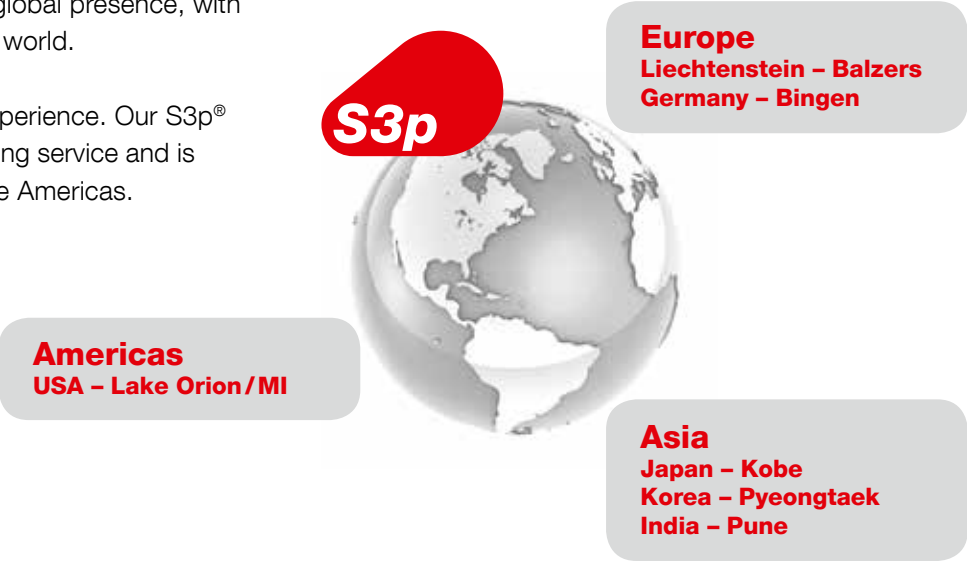
- 1 Using the standard BALIQ® coating solutions like BALIQ® ALCRONOS or BALIQ® TINOS.
- 2 Modifying the standard BALIQ® coatings to meet your needs.
- 3 Creating your individual coatings to perfectly fit your requirements.



RELY ON OUR EXPERTISE

Oerlikon Balzers has been powered by innovation for over 70 years. Our customers benefit from our global presence, with over 100 coating centres all around the world.

Benefit from Oerlikon Balzers' global experience. Our S3p® technology is well established as a coating service and is already available in Europe, Asia and the Americas.



Our S3p® technology is the perfect solution for a large variety of tools. BALIQ®, our high-end family of wear-resistant coatings offers revolutionary properties for a unique spectrum of applications.



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.

Our Global Equipment Sales and After Sales organisation



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.





Up and running!

Our global After Sales team will provide you with products and services covering all aspects of your coating equipment.

Global Equipment Sales and After Sales locations:

Headquarters

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Our worldwide coating centre
network addresses are listed at:
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