



**WZW OPTIC AG**



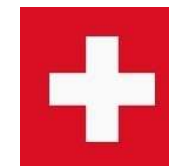
## ABOUT US

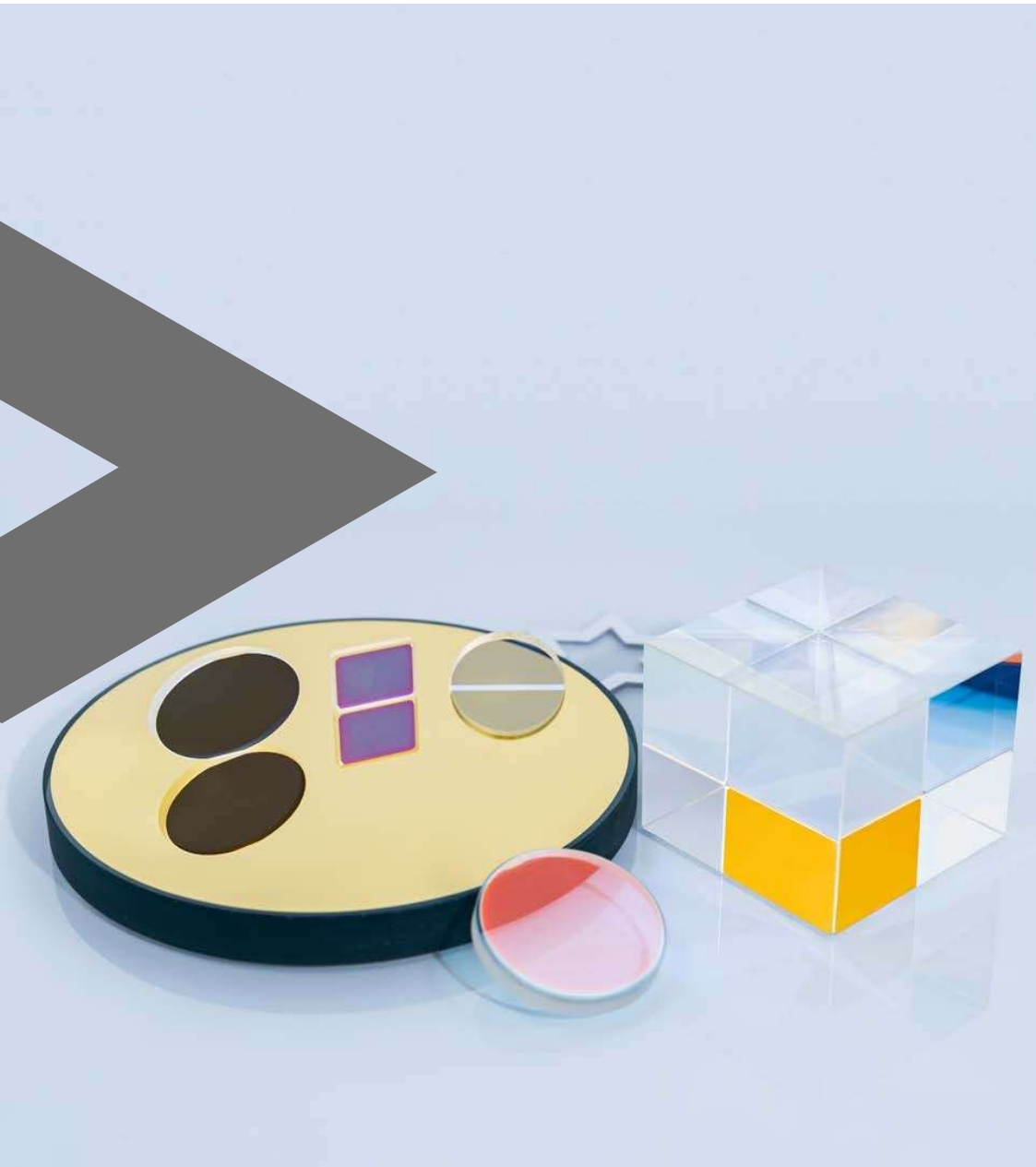
- > Founded: 1965
- > Location: Balgach,  
Swiss Rhine Valley
- > Employees: 65
- > State-of-the-Art  
Production area: 3000 m<sup>2</sup>
- > Export Part: >90%



## APPROVED FOR MAXIMUM CERTIFICATIONS

- > **SWISS MADE.**
- > **SWISS QUALITY.**
- > **SWISS PRECISION.**





## OUR PRODUCT RANGE



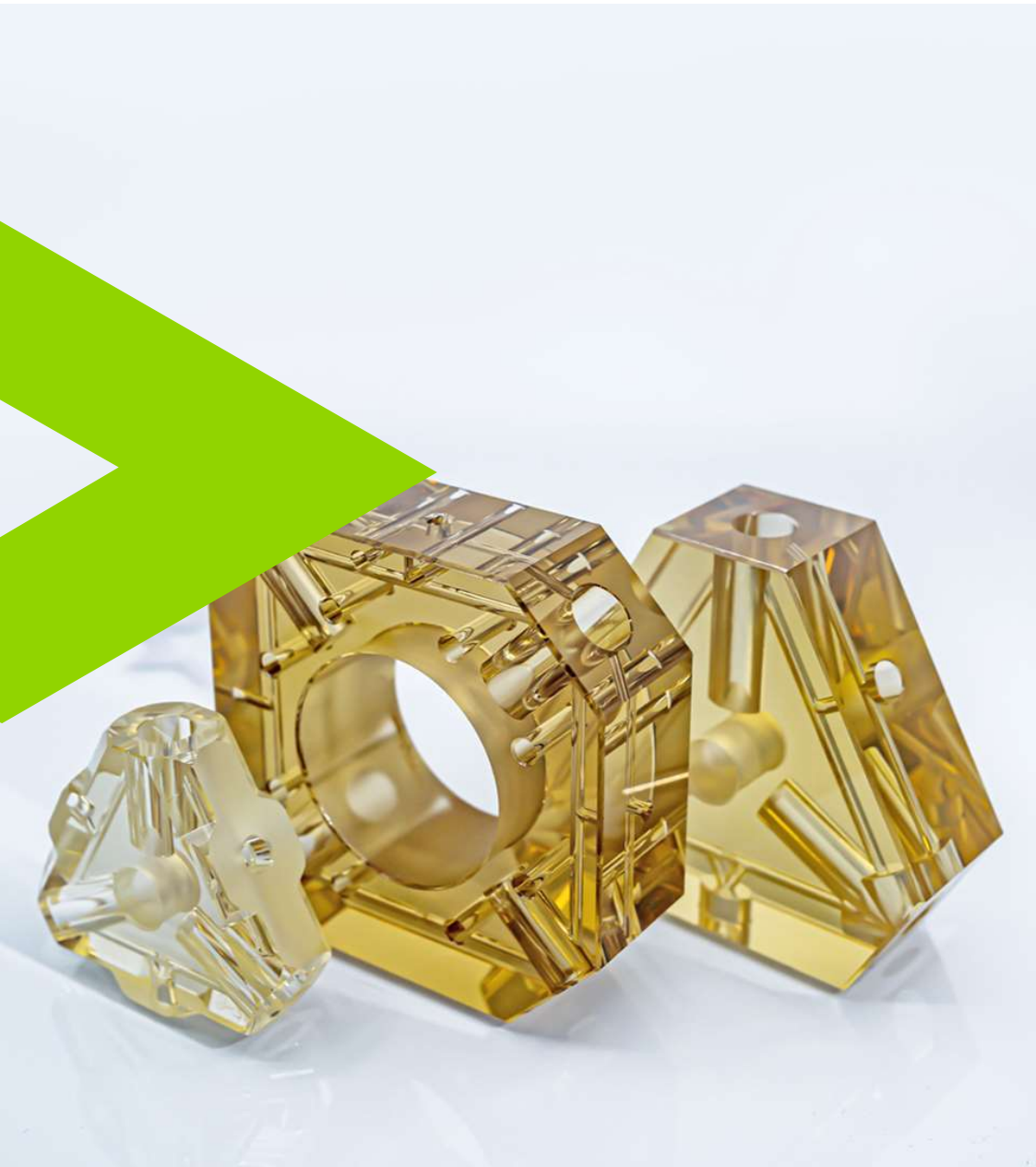


## Superpolishing optics for ultra-low surface roughness

- > Minimize scatter
- > Ideal for laser optics applications where throughput is critical
- > Low-loss coatings, utilized by ion beam sputtering (IBS)
- > Increased optical and energy efficiency
  
- > Sub-Angstrom surfaces
- > Finishing processes without disturbing the substrate
- > Nearly perfect surfaces with little to no subsurface damage.

## **SUPER POLISHING Process for Low Loss Optics**

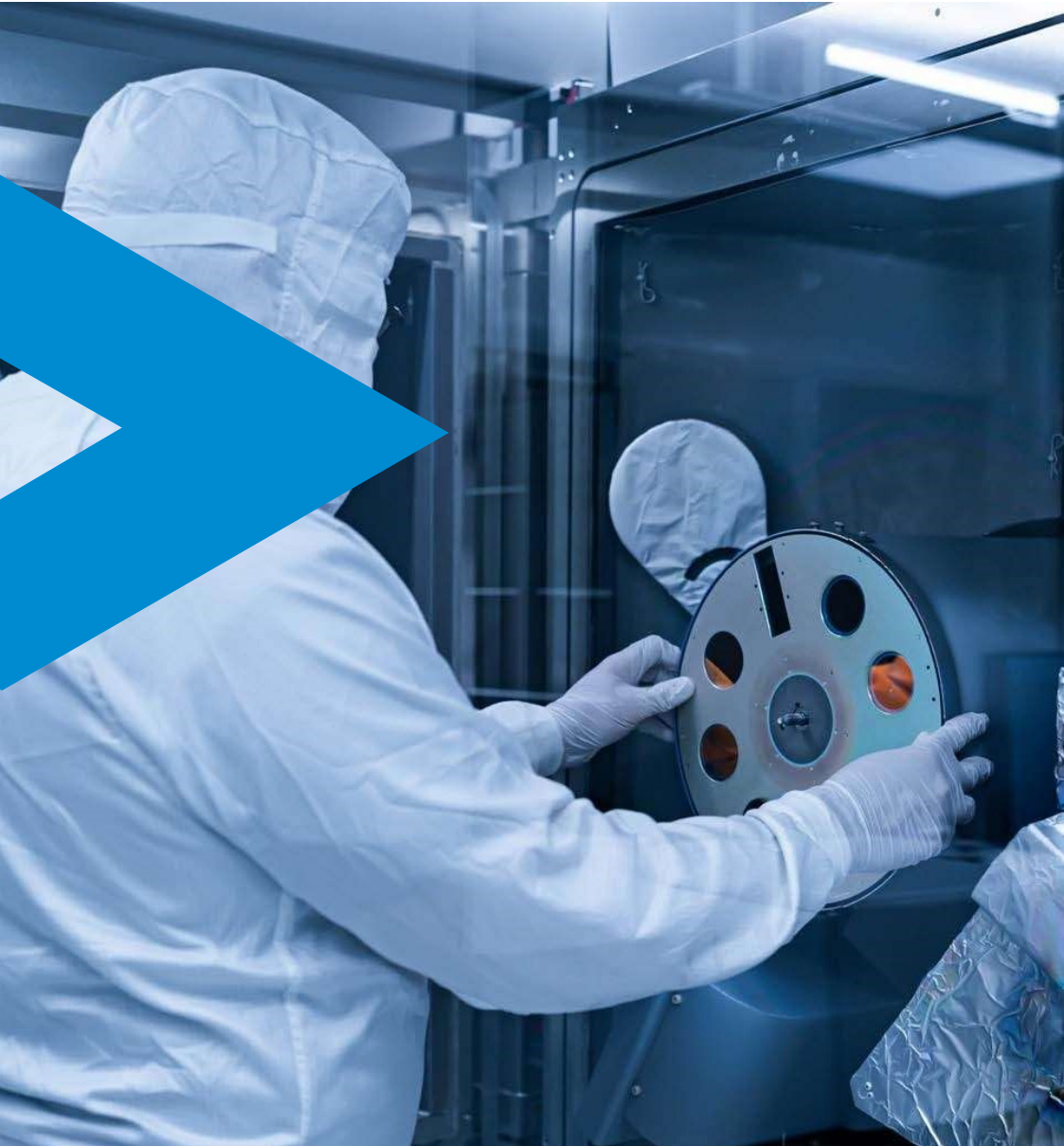
- > Roughness: < 1 Angström RMS
- > Parallelism: < 1arc sec
- > Surface figure: <  $\lambda/20$
  
- > Laser applications
- > Low scatter optics
- > Ring laser gyroscope mirrors



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## Biggest Investment Program in the history of WZW

Two IBS Coating machines

- > Bühler Leybold HP1400

- > Veeco Spector 1.5

- > Automated Ultrasonic Cleaning line

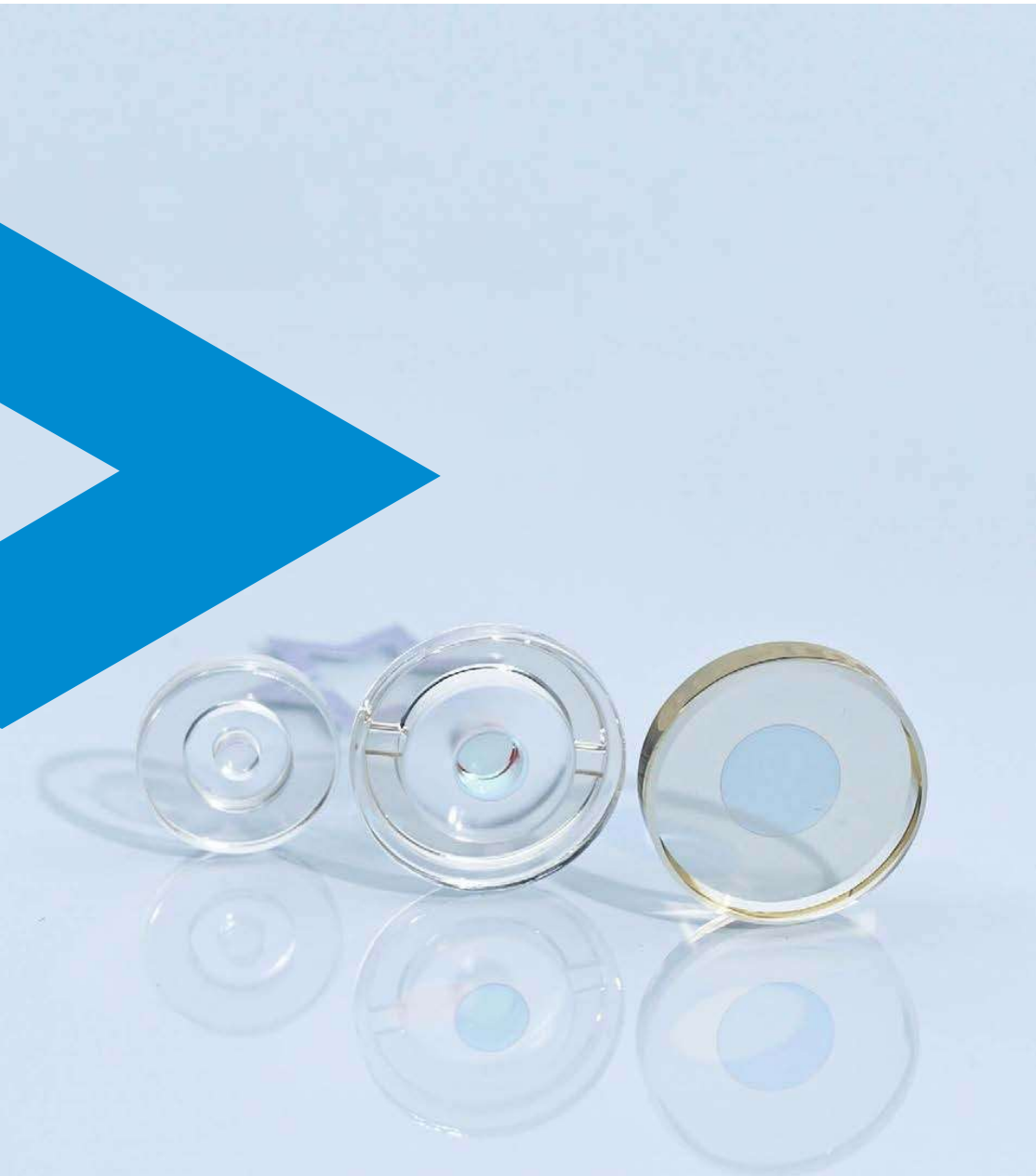
- > New Clean room 120m<sup>2</sup> ISO 4-7  
including Assembly area

- > HF Etching device



## **IBS-COATING for Low Loss and Low Defect Optics**

- > Very low absorption
- > Very low scattered light in combination with **WZWOPTICAG**'s super polished substrates
- > Reflectivity:  $R > 99.999\%$   
@633 nm AOI 45°s-pol
- > Total integrated Scatter < 5ppm  
@633 nm AOI 45°s-pol
- > Absorption < 3ppm  
@785nm HR AOI 0°





## Investment Program in Metrology

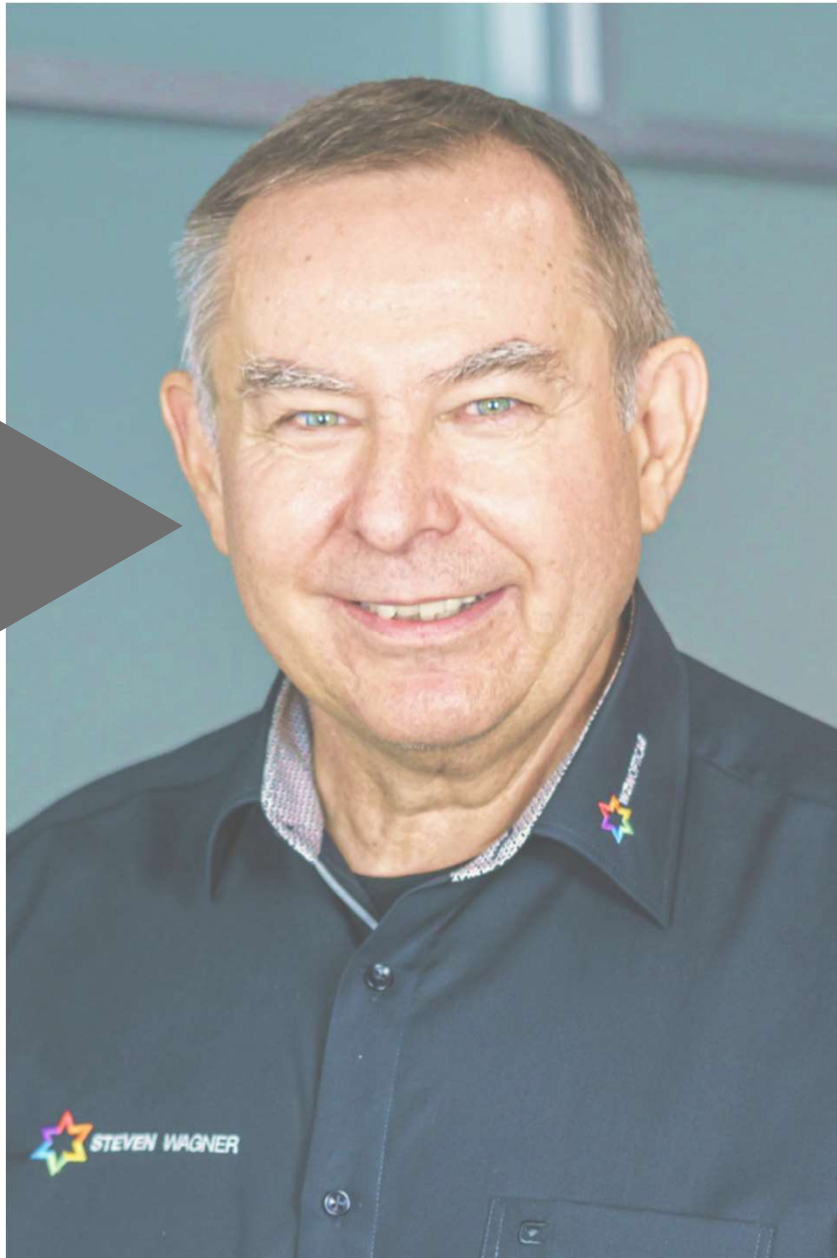
- > Photospectrometer (175-3350nm)
- > Integrated Scattering Device
- > Cavity Ring Down setup @633nm
- > Ellipsometer with mapping unit & NIR extension (240-1700nm)
- > Particle counter (down to 0.1  $\mu\text{m}$ )

## Status and Results of Superpolished & IBS Coating

- >  $R > 99.999\%$  @633nm AOI45°s-pol
- >  $R > 99.998\%$  @633nm AOI 0°
- > TIS < 5ppm @633nm AOI45°s-pol
- > Absorption < 3ppm @785nm for  
HR mirror @785 & 405nm (AOI 0°)
- > Finesse > 150'000 of laser resonator @740nm
- > mirrors, spacers produced & assembled,

**100% measured at and by WZW !**





**Thank you for your interest:**

**Steven D. Wagner**  
*Sales Manager*

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**WZWOPTICAG**

Wegenstrasse 18

CH-9436 Balgach / Switzerland

Phone: +41 71 523 23 00

Direct : +41 71 523 23 21

Mobile: +41 79 721 11 01

E-Mail: [steven.wagner@wzw.ch](mailto:steven.wagner@wzw.ch)

Web: [www.wzw.ch](http://www.wzw.ch)

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