

A photograph of a woman with dark hair, wearing a white lab coat and white gloves, is shown in profile, focused on her work. She is holding a small, intricate optical component with her gloved hands. The background is dark and out of focus, suggesting a laboratory or industrial setting. The image is partially obscured by a large, dark, diagonal shape that cuts across the top right corner of the page.

**MAXIMUM
PASSION.**

➤ FOR PRECISION OPTICS.

THE PRINCIPLE OF MAXIMUM.

SWISS PRECISION OPTICS

WZWOPTICAG is Europe's leading manufacturer of high-precision optic components and assemblies. Each piece we create is unique, handmade, and meticulously inspected. We are dedicated to the principle of maximum quality and maximum commitment: from ideation and development, to production.





The “principle of maximum” demands that we always test the limits of what is possible, so we start with the best available technology and refine it into unique solutions. We are always ready for new challenges, and we work closely with our customers in order to understand and fulfill their requirements, no matter how difficult. Ongoing investments are a prerequisite for continuous improvement in all areas, and through team spirit, passion, and perfected process control, we maximize our collective talents. **WZWOPTICAG** offers personalized support, short delivery times (even for custom-manufactured components), secure serial production, high-end coatings for optics, and optimum reliability - thus satisfying the needs of even the most demanding customers.

Maximum precision. Maximum quality. Maximum customer satisfaction.

FACT BOX

Location:	Swiss Rhine Valley, Balgach
Chairman of the board:	Willi Weder
CEO:	Claudio Meli
Employees/Production area:	65/3000 m ²
Markets:	Semi-conductor industry, laser industry, defense and space, measurement technology, imaging
Export:	env. 90 %

MAXIMUM TECHNOLOGY.

“What we produce, we can also measure” – an approach that both challenges and promotes continuous development of our production processes, so that our concepts can be proven in black and white to our customers. A major part of our success comes from reinvesting in our company to ensure perpetual development of unique technologies for unique solutions, further pushing the boundaries of what is possible.

ASSEMBLIES & SYSTEM

We manufacture assemblies in clean rooms certified up to ISO 6.

We support our customers with the analysis, simulation, planning, and construction of prototypes, and also with model calculation. Moreover, we carry out smaller serial production on request.

- > **Mechanical fitting precision:**
< / = 0.001 mm
- > **Optical fitting precision:**
< / = 1" beam alignment
- > **MTF Tests**
- > **High precision wavefront corrections**

COATING

Using ion-beam sputtering (IBS), we offer high-precision reproducible coatings at low process temperatures. Our IBS machines are surrounded by a ultra sonic cleaning machine and thin film measurement equipment.

- > Extremely low HR losses:
R > 99.999 %
- > AR, shortpass, longpass, bandpass, and more
- > Low loss coatings

SUPER POLISHING

We are one of Europe's leading companies to offer polishing processes in the sub-Ångström region, and with precision of less than a ten-millionth of a millimeter.

- > **Roughness:** < 1 Ångström rms
- > **Parallelism:** < 2"
- > **Surface flatness:** < $\lambda/20$
Flat and spherical surfaces

> ***Laser applications, low-scatter optics, laser cavities***





PROJECTS

Projects are implemented internally, using the most efficient professional project management methods. Over the course of a project, our customers receive regular status reports and are involved in every important decision. Additionally, all documentation is compiled according to the customer's requirements.

- > Optics-related R&D projects
- > Verification and validation of parts and assemblies.
- > Design of complete optics production lines, including processes

ENGINEERING

All engineering sectors are developed internally. Our deep knowledge of coating, optical, and mechanical design is the result of successfully completing sophisticated customer projects over several decades, in fields where maximum quality is the standard.

- > OpticStudio (ZEMAX) - optical design
- > Onshape - mechanical design
- > FTG Filmstar - coating design

OPTICS FROM UV TO IR

Since day one we have produced ultra-high precision optics, especially surface polishing with high quality, and close angle tolerances. Using the latest CNC technology, we can manufacture optics in a variety of forms and contours.

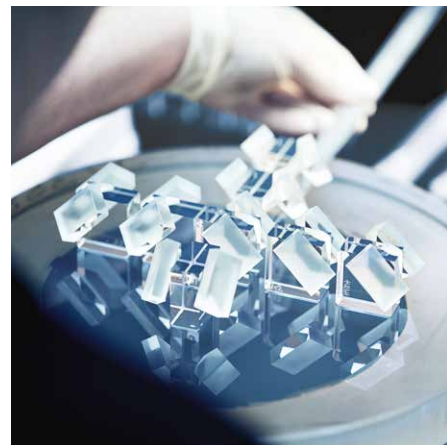
- > **Size:** 2 mm – 450 mm
- > **Angle tolerances:** < 0.5°
- > **Thickness tolerance:** 1 µm

- > **Beam splitters, prisms, assemblies, OEM-products, high-end products**



MAXIMUM KNOWLEDGE THEREFORE, **WZWOPTICAG.**

We are a family-owned business with a clear organizational structure. Customers, employees, and suppliers are all treated as partners who contribute to our collective success. Precision is the basis of our creativity, and defines our understanding of quality. We are constantly challenging and redefining the limits of what is possible in the field of optics.





> EXPERIENCE

Throughout our almost 60 years in business, we have never stopped refining our existing technologies and developing new ones. Each of our customers receives a unique product from our high-tech facility, where “flexible and fast” are the norm.

> TECHNOLOGY

We are not just content with today’s achievements. We continue to invest with an eye to the future. This allows us to not just manufacture unique products, but also discover and utilize unique technologies.

> MEASURABILITY

What we produce, we can also measure - and with precision of up to a ten-millionth of a millimeter: roughness, scatter, angle, surface, cleanliness & texture, and free-form shape.

> QUALITY

Our zero-error promise does not end with a finished product. Our specially-trained Export department guarantees professional handling, through to the final destination and confirmation of delivery. Our quality is further proven through our willingness to conduct our own in-house environmental and burn-in tests.

> SATISFACTION

We collaborate with our customers to develop exceptional solutions. Our success is evidenced by the many years of cooperation we have enjoyed with well-known companies in key industries like defense, semiconductor, and R&D.





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Swiss Made, Swiss Quality, Swiss Precision

