BERLINER GLAS GROUP – AN INTRODUCTION.
WELCOME.
THE BERLINER GLAS GROUP AT A GLANCE.
MEDIUM-SIZED, INNOVATIVE, EXPORT-DRIVEN.

Legal form: private-owned company

Executives:  
- Dr. Andreas Nitze  
- Thomas Polzer  
- David Schwem

Year of foundation: 1952

Sales in 2018:  
- 223 million Euro  
  - 92 % Photonics  
  - 8 % Technical Glass

Business areas:  
- Photonics  
- Technical Glass
WHERE CAN YOU FIND US?
CLOSE TO OUR CUSTOMERS – IN EUROPE, THE US AND ASIA.

Production area worldwide: 55,180 sqm
Staff worldwide: more than 1,500

China
- Wuhan
  - Staff: 103
  - Production area: 2,200 sqm

Switzerland
- Berlin
  - Staff: 1,001
  - Production area: 31,780 sqm
- Schwäbisch Hall
  - Staff: 93
  - Production area: 7,400 sqm
- Syrgenstein
  - Staff: 37
  - Production area: 4,800 sqm
- Heerbrugg, Switzerland
  - Staff: 307
  - Production area: 9,000 sqm

USA

Germany

Status 30 June 2019
WHAT DO WE OFFER?
APPLICATIONS WITH LIGHT.

Many of our customers are...
► Global players within the different market segments

Their products are ...
► technically advanced light-using products

In cooperation with the customers we create ...
► innovative (sub-)system solutions using optical, mechanical and electronic components (OEM)

Our services:
► design and development
► professional worldwide procurement
► reliable production of key components, assembly and system integration

Substantial contribution to the process chain of our customers
WHAT WILL OUR CUSTOMERS RECEIVE?
MANY ADVANTAGES AND A LOT OF BENEFITS.

Our strengths:
► 186 employees working in design, engineering or technology service functions; core areas are mechanics, optical components and electronics (12 % of total staff)
► Highly skilled employees
(23 % of the employees are graduates)
► Innovative strength
(High spending on R&D: appx. 10 % of annual turnover)

Your advantages:
► Understanding of the issues, trends and drivers of your market and understanding of your product and performance
► Tailor-made solution, ready for volume production
► Substantial contribution to the performance of your product
WHAT WILL OUR CUSTOMERS RECEIVE?
REDUCED COMPLEXITY AND COMPETITIVE PRICES.

Our strengths:
- Professional supply chain management
- Worldwide network of suppliers
- Purchasing organization in China
- Support and management of more than 300 suppliers

Your advantages:
- Deliberately designed value chain
- Competitive prices on a global market
- Purchasing assemblies will
  - reduce complexity
  - minimize risk
WHAT WILL OUR CUSTOMERS RECEIVE?
TAILOR-MADE PRODUCTS IN ACCORDANCE WITH SPECIFICATIONS.

Our strengths:

- Up-to-date production/measurement technologies for key components
  - High investments in production and measurement processes
    (19 % of annual turnover)
- Stable and lean processes
  - Continuous improvement of
    - process reliability
    - cycle time
    - production flow
    - flexibility
  - Certified Quality Management System according to ISO 9001
- Competitive prices

Your advantages:

- Competitive product, in accordance with specification and the required time frame
- Marketable lead time
- Continuous cost improvement
**HOW DO WE COOPERATE WITH YOU?**

**WE LISTEN, DEVELOP, TEST, PROCURE, PRODUCE, DELIVER.**

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**Understanding customer needs**
- Evaluating technical feasibility

**Specification phase**
- Specifying a technical solution

**Design phase**
- Preparing the production of a prototype

**Prototype phase**
- Building a prototype

**Pilot phase**
- Proving capability for volume production

**Volume production**
- Securing reliable manufacturing
IF REQUIRED, ACCELERATED PROCESS DEVELOPMENT IS POSSIBLE.
WE LISTEN, DEVELOP, TEST, PROCURE, PRODUCE, DELIVER.

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Customer requirements
Feasibility phase
Evaluating feasibility
Specification phase
Design phase
Prototype phase
Pilot phase
Volume production
Pilot phase
Volume production

WHO IS INVOLVED?

- Marketing/ Sales
- Product Engineering/ Development
- Production
- SCM/ Procurement
- Product Management
- Management
WHERE DO YOU FIND US?
IN GROWING MARKETS.

- Technical Glass (8%)
- Medical Applications 13%
- Metrology 19%
- Photonics Solutions 21%
- Semicon 39%
- Photonics (92%)
TECHNICAL GLASS.
SOLUTIONS FROM ONE SOURCE WITH ALL PROCESS TECHNIQUES.

Display glass and glass touch assemblies
- Medical technology
- Industry automation
- Navigation
- Marine
- Agriculture
- Food
- Traffic
- Entertainment systems
- Home automation

Glass for devices
- Sight protection screens
- Mirrors in sensor technology
- Eye protection glass
- Microscope slides
- Optical filters
- Design parts

Structured surfaces
- Cover glass/Front panels
- Instrument glass for vehicle cockpits
- Lighting glass
- Glass for touch applications
- Special etching (clean, relax, smooth)
SEMICON.
SOLUTIONS FOR THE SEMICONDUCTOR INDUSTRY.

Chucks and precision components
- Electrostatic chucks
- Vacuum chucks
- High-precision structural parts
- Reference mirrors

Optical systems
- Opto-mechanical assemblies
- Opto-electronic systems
- High-end lenses

Stage modules
- Modules for integrated precision stages
- Modules for measurement systems
- Contract manufacturing
PHOTONICS SOLUTIONS. CONVINCING SOLUTIONS FOR YOUR IDEAS.
PHOTONICS SOLUTIONS.  
WE MAKE LIGHT WORK.

**Space**
- Modules for optical communication between satellites
- Modules for satellites for environmental monitoring

**Laser technology**
- Laser systems for OLED displays
- Laser expansion systems and beam guiding systems for the industry

**High-precision optical components**
Optical key components for highly specialized applications, e.g.
- Cylindrical lenses
- Aspherical lenses
- Interferometer mirrors
METROLOGY.
ACCURACY AND PRECISION – TO THE POINT.
METROLOGY.

OPTO-MECHANICAL SYSTEMS FOR INNOVATIVE LASER BASED METROLOGY.

Geodesy
- Theodolites
- Total stations
- Laser scanners

Photogrammetry
- OEM lenses for aerial cameras
- Beam splitters

Industrial surveying
- Laser trackers
- White light scanners

Industrial metrology
- Opto-electronic sensors
- Interferometer lenses
METROLOGY.
OPTO-MECHANICAL SYSTEMS FOR INNOVATIVE LASER BASED METROLOGY.

Market characteristics, trends
- High accuracy of portable devices
- Compact, lighter, faster, and at the same time less expensive
- Automation options
- Industry 4.0 requires smart sensor systems

The solution
- TPS total stations
- Aerial camera lenses for photogrammetric measurements
- Integration of superior aspherical lenses
- Opto-electronic sensor systems
- Application-specific systems engineering

Our strengths
- Competence in development
- Measurement technology perfectly aligned to the production technology
- Assembling competence incl. quality check of complete systems
- Global sourcing with qualified partners

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Your benefits
- System responsibility – from concept to prototype to volume production
- Excellent knowledge of the processes and of product requirements
- Inhouse assembly & testing of the whole device
- Possibility to relocate the volume production to our subsidiary in China
MEDICAL APPLICATIONS.

HEALTH IN A NEW LIGHT.
MEDICAL APPLICATIONS.
CONTRIBUTION TO INNOVATIONS IN MEDICAL TECHNOLOGY.

Ophthalmology
Optical components and systems for
- Ophthalmic lasers (LASIK)
- Eye diagnostics (fundus imaging systems, OCT etc.)

Dentistry
- Dental measuring cameras
- Dental video cameras
- Intraoral cameras
- Caries detection systems
- Lab scanners

Endoscopy
- 3-chip cameras, autoclavable
- 2-chip cameras, VIS-NIR
- Endoscopes
- Autoclavable lenses
- Chip-on-tip

Life Sciences
- Lens systems
- Broadband lenses
- Microscope lenses
- Laser modules
- Spectrometers
HOW DO WE OPERATE?
ON A BROAD BASE. HIGHLY SPECIALIZED.

**Semicon**
- Lithography
- Wafer handling
- 3D Integration
- Coating
- Inspection
- Metrology

**Photonics Solutions**
- Space
- Laser technology
- High-precision optical components

**Metrology**
- Geodesy
- Photogrammetry
- Industrial surveying
- Industrial metrology

**Medical Applications**
- Ophthalmology
- Dentistry
- Endoscopy
- Life Sciences

**Technical Glass**
- Display glass and glass touch assemblies
- Glass for devices
- Structured surfaces
HOW DO WE SECURE CONTINUOUS GROWTH?
THROUGH SUSTAINABLE SOLUTIONS AND WITH OUR EMPLOYEES.
OUR ORGANIZATION.
CLEAR FOCUS – FLAT HIERARCHIES.
GOOD REASONS TO CHOOSE THE BERLINER GLAS GROUP.
AT LEAST FIVE.

CUSTOMER FOCUS
We help to accelerate your innovation and be first to market
- An understanding of the topics, trends and drivers in your market
- An understanding of your product and your service
- An understanding of your objective

INNOVATIVE SOLUTIONS
Attractive solutions for your customers will increase your revenue and market share
- Expertise to develop the most demanding components and assemblies
- Tailor-made solutions that are ready for volume production
- An important contribution to the performance of your product

NETWORK WITH STRONG PARTNERS
Assemblies reduce your complexity and risk in purchasing
Worldwide sourcing guarantees a competitive price/performance ratio
- Worldwide network of capable suppliers: reliable and cost-conscious

RELIABLE PRODUCTION
You profit from a flawless production in the ramp up phase and on-time delivery of your products
- The products supplied meet the highest quality requirements
- Competitive lead times
- Continuous cost improvement
- Investments in the best employees, equipment and processes

LONG-TERM ORIENTATION
You get a fast, reliable, flexible and competent partner
- Family-run business
- Pursuit of long-term and partner-like business relations
- Investments in qualification and further training at all levels
- Focus on financial stability
WE HELP OUR CUSTOMERS TO GET TO THE TOP.
AND TO REMAIN THERE.