



**weisstechnik**<sup>®</sup>  
a schunk company

**The vision of precision.**  
Thermal processing for  
the ophthalmic industry.

[weiss-technik.com](http://weiss-technik.com)

vötschoven

**vötschoven.**  
For perfect processes.

Always close to you.  
There for you in partnership.



### **From the market leader in heat treatments.**

Thermal processing is an important step in the production of contact lenses and intraocular lenses. This ensures the required optical properties and biocompatibility. As the market leader for heat treatments in the ophthalmic industry, we plan, develop and produce customised ovens and automated oven systems.

Our careful system design and standard process monitoring ensure reliably high and reproducible product quality.



### **Innovation through passion.**

We work in partnership to support companies in research, development, production and quality assurance. With 22 companies in 15 countries at 40 locations.

We engage in strategic cooperation with our customers, from the R&D phase till the start of production. With a continuously expanding team, we ensure there is a reliable service close to you in all countries with ophthalmic industry such as USA, Puerto Rico, Costa Rica, Ireland, Germany, Singapore, China and India.

## Customised solutions from a single source.



Especially for applications in the ophthalmic industry, we have been developing, planning and producing customised systems with our experienced team for decades. Our project procedure in 3 steps:

### 1. Non-disclosure agreement and technical coordination

- Materials (flammability, quantity, quality)
- Process parameters (inert gas, heating and cooling rate of the process, required technical precision)
- Handling concept (degree of automation)

### 2. Project planning and pre-engineering

- Tests in the R&D test centre in Germany
- Definition of temperature uniformity and airflow
- Technical specification with detailed explanation of the system

### 3. Implementation of the solution

- Process validation with prototypes
- Installation and commissioning
- Validation and after-sales support

## Our specialists for polymerisation in the ophthalmic industry.

### Double-chamber oven in protective gas version.

#### Technical data

Temperature range: 39-140°C  
Usable space dimensions per chamber:  
W 1150 × H 950 × D 1300 (mm)  
Heat output: 26.4 kW  
Air guidance: horizontal  
Product: contact lenses



#### System description

- Rockwell PLC with 10" touch panel integrated in a control box for operating both oven chambers
- Automatic protective gas control with measurement of the O<sub>2</sub> content and emergency flushing
- Barcode scanner and batch documentation according to FDA 21 CFR Part 11
- Control cabinet pull-out to reduce the installation space and place the units next to each other

#### Highlights:

- Protective gas oven for unlimited quantities of flammable substances according to DIN EN 1539 for dryer model B
- Guaranteed residual oxygen content of 60 ppm
- Excellent temperature distribution ±1 K between 39 and 120°C
- Independent selection of the tempering program per chamber

### Oven in inert gas version.

#### Technical data

Nominal temperature: 200°C  
Usable space dimensions:  
W 750 × H 1000 × D 750 (mm)  
Heat output: 18 kW  
Air guidance: horizontal  
Product: contact lenses



#### System description

- SIMPAC PLC with networking to the Manufacturing Execution System (MES) of the customer
- Electromotive door lifting for integrating the oven into a fully automated production line
- Automatic protective gas control with measurement of the O<sub>2</sub> content
- Recirculation air fan with frequency converter for adjusting the air speed

#### Highlights:

- Guaranteed residual oxygen content of <1 %
- Rapid cooling under atmospheric condition using fresh air
- Excellent temperature distribution of ±2 K
- UL certification of the oven design
- Integration into a fully automated production line

### Automated continuous oven.

#### Technical data

Nominal temperature: 120°C  
Usable space dimension, per conveyor section:  
W 450 × H 155 × L 4667 (mm)  
Heat output: 69 kW  
Air guidance: horizontal/vertical  
Product: intraocular lenses



#### System description

- Siemens S7 with 19" touch panel and OPC UA interface
- 2 independent 2-strand chain conveyors in FDA-compliant design
- 12 independently adjustable heating zones
- 26 sensors integrated for product monitoring
- Manual and automatic QR code scanning processes

#### Highlights:

- Smooth transport of the lenses through the oven
- Excellent temperature distribution over the entire process of ±0.5 K
- Automatic stacking of trays in accordance with the defined protocol
- Process data management and batch documentation according to FDA 21 CFR Part 11

# We measure ourselves by our service.

Our services -  
lots of good reasons:

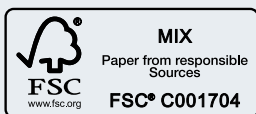
- Global service network
- Wide range of preventive maintenance
- Reliable spare part supply
- Special deployments available any time
- Certified proper disposal of outdated devices

Our Service Experts are always near you.

**24/7-Service-Helpline:**  
**+49 1805 666 556**



**Weiss Technik GmbH**  
Heat Technology  
Greizer Straße 41-49  
35447 Reiskirchen/Germany  
T +49 6408 84-73  
info.ovens@weiss-technik.com  
weiss-technik.com



**Test it. Heat it. Cool it.**