

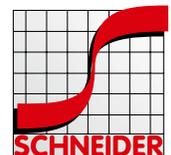


Modulo Line

Generating

# HSC modulo XTAS

Next level generating, intelligently combined



Fascination for Innovation



## Modulo Line

SCHNEIDER had the vision to manufacture individual lenses based on freely definable mathematical descriptions. The HSC generators and CCP polishers have become the tools used to develop the freeform idea in the ophthalmic industry. Individual freeform lenses are now the top product in the market, and SCHNEIDER has grown to be the premier manufacturer of freeform equipment worldwide. The innovative machines have also made their way into standard Rx production, leading to higher productivity and quality of virtually all lenses surfaced today.

The next logical step is a highly integrated system solution: SCHNEIDER's Modulo Line with its unique combination of high level intelligence and plug-and-play simplicity. Following a new self-organizing philosophy, the cognitive machines manage the production flow all by themselves – fully self-sufficient and with the highest level of equipment utilization. With this, the Modulo Line guarantees easy lab planning and expansion as well as significant cost and time savings.

## A stroke of genius. Redefining acceleration

With HSC Modulo XTS, SCHNEIDER has accomplished a quantum leap in high-speed cutting, creating the fastest generator in the market.

The heart of the machine is the new and extremely powerful XS-motor, redefining acceleration in ophthalmics. The generator's machine base has been designed to be extra rigid to withstand the extreme forces exerted.

Combined with high frequency drive technology, a new milling spindle, and intelligent algorithms, an ingenious generator is formed. A sophisticated swarf management system efficiently keeps the work space clean.

**The result: The best lens in the shortest time – Full stop.**



### **New super dynamic motor concept**

What sets the HSC Modulo XTS apart from any other generator on the market is its intelligent and versatile two-motor concept. The new and masterfully designed XS-Tec motor has been six years in the making and brings great power to the tracks.

With an acceleration of up to 40-times the gravitational acceleration, it exceeds any levels previously known in ophthalmics. In addition, the machine features the proven RS-Tec motor, which has become a benchmark for its high robustness and uptime. The linear motor runs on high-precision guides and supports single-tool and twin-tool operation.

Ultimately, this setup allows you to select the perfect individual combination of milling and turning processes to meet your lens requirements with highest speed.

### **Most robust design and machine base**

Super power can only be harnessed when it's based on a structure and components that provide ideal support. Therefore, the machine's components underwent an extensive simulation and design phase. The result: The HSC Modulo XTS' extra rigid machine base and cross-slide withstand the extreme forces exerted and guarantee highest machine stiffness and process stability.

This way, the great power of the XS-Tec motor is translated into super-fast but highly accurate movements significantly speeding-up lens production. At the same time, highest surface smoothness is guaranteed, one of the key elements of superior lens quality.

### **New high-performance milling and intelligent swarf management**

The new and extra robust spindle is fit for heavy duty processing at highest rpm. Newly developed milling algorithms allow for higher efficiency. The process is significantly accelerated – especially beneficial for lens shapes like e.g. complex crib that are rising in demand.

The HSC Modulo XTS is designed with an encapsulated milling chamber containing the swarf generated and transferring it straight out of the machine. Fumes are directly extracted. All in all, the result is a neat work space requiring less cleaning activities. Reduced downtime and higher throughput is guaranteed.

### **Integrated measurement system**

During the setup of the machine, the Calibration and Verification System (CVS) helps to align the tools. Thanks to the automated process the tools are perfectly calibrated independent of the skill-level of the operator. This way processes are running in spec – lens after lens.

### **The Modulo advantage**

HSC Modulo XTS comes with an on-board global interface philosophy that allows connection to the Modulo system.

Once connected to the Modulo system, the machine works as an integral part of this one-of-a-kind solution and is subject to the centralized monitoring Control Center. The lab manager is fully informed about the current status of the machine. Therefore critical situations and downtime can be avoided before they arise. Higher uptimes and increased yields are guaranteed.

### **Benefits**

- Unmatched throughput, unmatched quality
- Superior design replication
- Unsurpassed surface roughness
- Full surfacing capability for all curves and materials
- Processing of high-wrap lenses
- Immediate swarf removal
- Direct fume extraction
- Rugged industrial design
- Supports the new cognitive Modulo machine philosophy



### **Automated loading**

*The fast loading cycle of the automation ensures maximum productivity.*



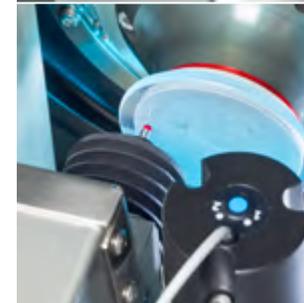
### **SCHNEIDER kinematics HSC+G**

*The industry-proven kinematics HSC+G combines fast rough cutting and cribbing with most precise fine turning.*



### **Twin Tool**

*For quick and high stock removal as well as cutting extra steep curvatures.*



### **Quality assurance**

*The calibration and verification system CVS allows for easy and fast tool calibration.*



### **XS-Tec motor**

*The new super dynamic XS-Tec motor setting new standards in acceleration.*





technical data	
lens diameter	up to $\varnothing$ 96 mm
clamping system	block $\varnothing$ 43 mm
lens material	CR39, Hi-index, Polycarbonate, Trivex®
curve range	concave 0 – 14 (extendable to 30) diopters convex 0 – 30 diopters
power consumption	8.0 kVA avg.
air requirement	6 bar (87 psi)
weight machine	approx. 2250 kg (4960 lb.)
dimensions (width x depth x height) without control panel	approx. 1600 x 2020 x 1715 mm (63 x 80 x 68 inches)

All data subject to change without notice. Please verify details with SCHNEIDER.



## SCHNEIDER

We are one of the world's leading suppliers of processing solutions to the ophthalmic and (ultra-)precision optical industry. Founded in 1986 our company is known as the pioneer of freeform and setting the pace. We are distinctive for our development of new technologies and swift translation of technological concepts into customer-oriented innovations. Our success stems from the creativity, commitment and enthusiasm of our highly qualified team. With our locations in Germany, the US, Brazil, Hong Kong, China and Thailand we support our customers at any time – worldwide, with fascination for innovation.

### SCHNEIDER GmbH & Co. KG

Biegenstrasse 8–12  
35112 Fronhausen  
Germany  
Phone: +49 (64 26) 96 96-0  
Fax: +49 (64 26) 96 96-100  
www.schneider-om.com  
info@schneider-om.com

### SCHNEIDER Optical Machines Inc.

6644 All Stars Avenue, Suite 100  
Frisco, TX 75033, USA  
Phone: +1 (972) 247-4000  
Fax: +1 (972) 247-4060  
info-us@schneider-om.com

### SCHNEIDER Optical Machines

do Brasil Ltda.  
Avenida Eid Mansur, 621  
Parque São George  
CEP: 06708-070, Cotia – SP  
Brazil  
Phone/Fax: +55 (11) 4777-1717  
info-brasil@schneider-om.com

### SCHNEIDER Optical Machines Ltd.

Room 202, 2/F, APEC Plaza  
49 Hoi Yuen Road  
Kwun Tong, Hong Kong  
Phone: +852 3563-5238  
Fax: +852 3563-5240  
info-hk@schneider-om.com

### SCHNEIDER Optical Machines

(Shanghai) Co., Ltd.  
Room 202, 2nd Floor, Building 16  
481 Guiping Road  
200233 Shanghai – Xuhui District  
Phone: +86 (21) 61 48 00 61-120  
Fax: +86 (21) 61 48 00 65  
info-cn@schneider-om.com

### SCHNEIDER Optical Machines

Asia-Pacific Co., Ltd.  
Piya Place Lungsuan Building  
29/1, Tower B, 9th Floor, Unit 9B  
Soi Lungsuan Ploenchit Road  
Lumpini, Pathumwan  
Bangkok 10330, Thailand  
Phone: +66 (0) 2014-4690-2  
Fax: +66 (0) 2014-4693  
info-asia@schneider-om.com

For a complete list of SCHNEIDER agencies, please visit [www.schneider-om.com](http://www.schneider-om.com)



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