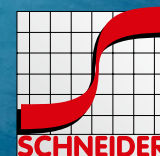




Edging

HSE modulo QS

AUTOMATED EDGING,
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. Individual freeform lenses are now the top product in the market, and SCHNEIDER has grown to be the premier equipment manufacturer 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 step is a highly integrated system solution: SCHNEIDER's Modulo Line.

Following a new self-organizing philosophy, the cognitive machines manage the production flow all by themselves – fully self-sufficient. The result is an unprecedented level of equipment utilization and unmatched throughput. Designed for utmost flexibility, the unique arrangement and plug-and-play connection allows adding new modules in any order, with minimal disruption.

The Modulo Control Center interacts with the intelligent machines and provides centralized production control. At a glance, the smart dashboard presents all the key information and functions to run the lab at highest efficiency. Significant cost and time savings as well as maximum equipment utilization are guaranteed.



Quattro design

Four processing stations for exceptional throughput.



No time-consuming tool changes

thanks to 5 fine cutting spindles per station.



Integrated quality control

based on full map measurement.



HSE modulo QS

Meet the first and only edger on the market with four processing stations, setting a new benchmark in industrial edging.

Thanks to its unique quattro design featuring two rough cut and two finishing stations, four lenses are processed simultaneously at highest speeds for exceptional throughput. Non-productive times are reduced to a minimum through parallel processing and high speed handling systems.

The two sophisticated LMU optical measurement units provide fully automated quality control based on the full lens map. Working blockless is a given.



Four cutting stations – quattrò design – ensure highest productivity.



Five tool spindles provide highest flexibility in processing and shortest cycle times.



The LMU's two double gripper system allows for fast and blockless handling.

Designed for unprecedented throughput

HSE Modulo QS has been designed with a single goal in mind – creating a machine that provides unprecedented throughput. This has been achieved through the unique quattrò design, a cleverly devised 2x2 design comprising four cutting stations. Up to four lenses are actively cut at the same time, while another two lenses are measured and yet another four are being transferred to or back from the stations.

The powerful edger also features two tactile measurement systems, and two LMU lens measuring units. This allows for parallel processing at its best and reduces non-productive times to a bare minimum.

Substantial time is saved by deploying multiple spindles and eliminating tool changes. Each rough cut station is equipped with a high-frequency milling spindle to cut the rough shape at high speed. The finishing stations are fitted with five tool spindles mounted next to one another. Consequently, instead of changing tools, HSE Modulo QS has all the tools available for immediate utilization. In fractions of a second the next finishing step starts, resulting in extremely short chip-to-chip times.

To provide the rigidity required for high-speed edging with precision and smoothest edge quality,

the HSE Modulo QS's axes are mounted on solid cast iron blocks. Separating the working chambers for cutting and measuring ensures that swarf is contained and the lens measuring units remain clean.

Unrestricted lens finishing for flawless first fit

In its basic configuration, the edger comes with four tool spindles. Optionally, a fifth tool spindle can be added to accommodate extended requirements. Whether angled rimless drilling, V-beveling, front and back safety bevels, T-grooving, polishing, step-back, design cut, and many more – the edger does it all. Highest feature accuracy and a flawless, unmatched first fit rate is achieved even with extreme curves. For delicate lenses such as super-hydrophobics, the chucking pressure and rotational speed are automatically adjusted to prevent slippage.

Highly sophisticated shape optimization

The HSE Modulo QS is prepared to keep up with the constantly changing requirements of fashion. The advanced shape editor offers simple programming of virtually any shape, even the most complex. The sophisticated software performs all optimizations including 3D-fit fully automated to provide the best results without specific operator expertise.

Excellent aesthetics

The sophisticated set of rules for auto bevel positioning produces better aesthetics with all common and complex jobs. Together with the automated size adjustment, best fit with superb aesthetics is guaranteed.

Integrated quality control, blockless handling

A special feature of the HSE Modulo QS is its two exclusive LMU lens measuring units that provide both blockless handling and integrated quality control. Contrary to other systems, the LMU measures the full map inside the edger. The result is a fully automated quality control before further manufacturing steps occur. Mismatch is avoided,



labor is reduced, and process efficiency gains are unmatched.

In addition, the fast non-tactile measurement technology measures the spherical and cylindrical power, axes and prism to determine the right lens position. Alternatively, the system recognizes visible and semi-visible marks and printings. Working blockless, the edger reduces costs and eliminates handling errors.

The Modulo advantage

HSE Modulo QS comes with an on-board global interface philosophy that allows for connection to the Modulo system. Once connected to the Modulo system, the machine works as an integral part of this one-of-a-kind system 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

Best first fit rate and highest throughput

Robust machine design

Integrated quality control with LMU

Intuitive, simple to use shape editor

Broad range of finishing options

Premium polished edges

Blockless handling

The integrated LMU quality control measures the full map for quality control inside the edger.



technical data	
lens diameter	up to ø 85 mm
lens thickness	up to 25 mm
lens material	CR39, Hi-index, Polycarbonate, Trivex®, Tribid™
minimum B-size (depending on the used block piece)	approx. 22 mm
power consumption	6 kVA avg.
air requirement	6 bar (87 psi)
weight machine	approx. 2750 kg (6063 lb.)
dimensions without control panel (width x depth x height)	approx. 1650 x 2950 x 2225 mm (65 x 117 x 88 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, 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

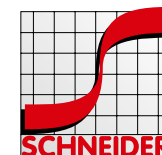
SCHNEIDER Optical Machines Inc.
6644 All Stars Avenue, Suite 100
Frisco, TX 75033, USA
Phone: +1 (972) 247-4000
Fax: +1 (972) 247-4060
info-us@schneider-om.com

SCHNEIDER Optical Machines
do Brasil Ltda.
Avenida Tucunaré, 574
Cond. Palmar Modular – Modulo 1
Tamboré
06460-020 Barueri – SP
Brazil
Phone: +55 (11) 4777-1717
info-brasil@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



Fascination for Innovation