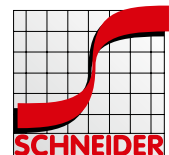


Modulo Line

Blocking

CCU modulo

Automated blocking, 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.

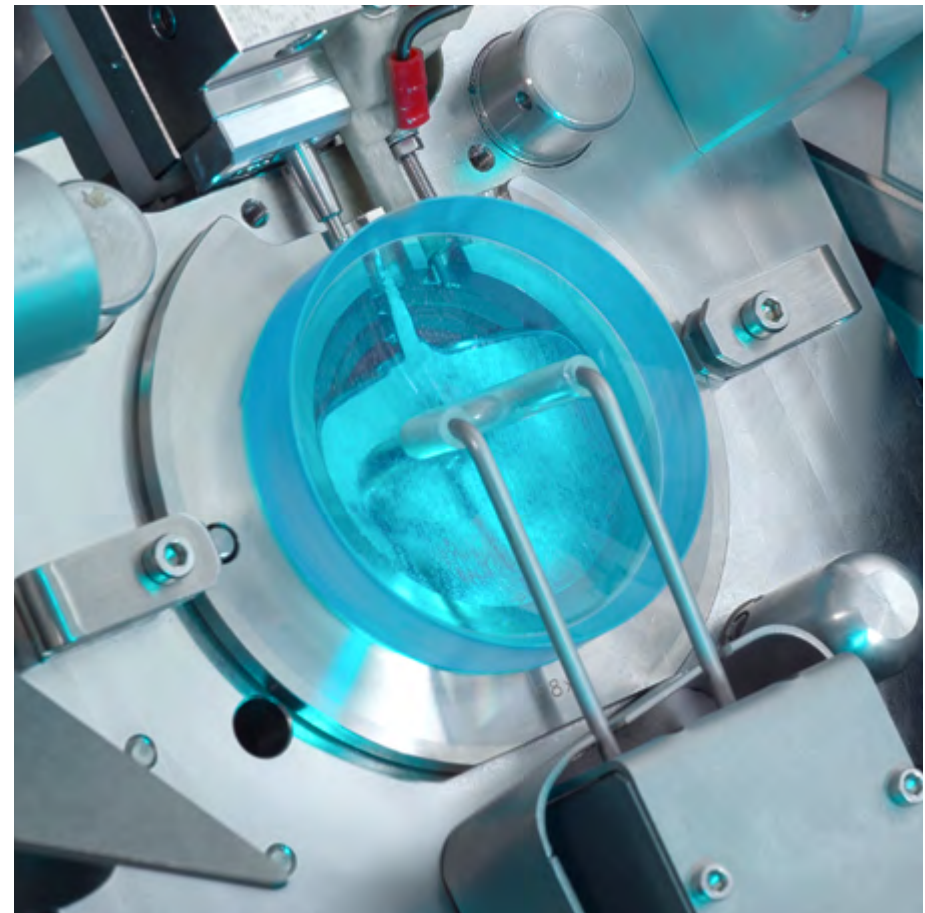
The next logical step is a highly integrated system solution: SCHNEIDER's Modulo Line with its unique combination of high level intelligence and plug-and-play simplicity. Following a new self-organizing philosophy, the cognitive machines manage the production flow all by themselves – fully self-sufficient 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.

Introducing the CCU modulo

The high-performance blocker, CCU Modulo, automatically joins semi-finished blanks and block pieces with highest precision. Parallel processing steps combined with the economical use of the blocking material brings your whole surfacing operation up to speed while significantly reducing costs.

We have designed this future-proof machine with your installed machine base in mind. Compatible with today's blocking standards and consumables, the CCU Modulo is the perfect solution to take over all of your current blocking requirements with no need to redesign the subsequent surfacing steps.

As an integral part of the Modulo concept, the CCU Modulo perfectly fits into the Modulo Line as well as into any other industry-proven Rx and freeform process.



Perfect task coordination

Several independent handling systems enable CCU Modulo to run multiple activities simultaneously. Lens pick-up, block piece supply, lens measurement and the three blocking stations are placed in a small, easy access configuration. The two robotic arms, mounted in the middle of the operating platform, work virtually non-stop. Together with an independent third loading arm the system maximizes parallel-running processes, significantly reducing idle time and boosting efficiency as well as throughput. While lenses are cooling down in the blocking stations, the next lenses are already loaded and precisely aligned before they meet their block piece counterparts. Blocking as fast as it gets!

Economical blocking

The computer controlled filling process of the CCU Modulo guarantees very economical blocking with minimized losses. A cartridge magazine containing 160 block pieces enables long uninterrupted processing. The cartridges are refilled outside of the machine resulting in no production downtime. The use of the reusable block pieces minimizes the consumption of blocking media significantly.

From alloy to non-alloy

With a mechanical upgrade the CCU Modulo can be converted from alloy to Connex. The new Connex is a plastic blocking media, which is free of hazardous elements, fully reuseable, and recyclable. This leads to the lowest blocking costs per lens in the industry.

Highest precision, best surfacing results

The high-resolution optical lens recognition and alignment system guarantees a perfect position of the lens and the block piece. Unique CNC controlled prism and axis adjustment and the variable lens clamping position ensure perfectly blocked lenses no matter how complex the requirements. The result is high precision blocking and consistency over long periods of operation.

The team player

CCU Modulo comes with an on-board global interface philosophy that allows connection to the Modulo system. Once connected to the LMS Modulo and management cockpit, the generator works as an integral part of this one-of-a-kind system solution and is subject to the centralized monitoring and 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 up-times and increased yields are guaranteed.

Features

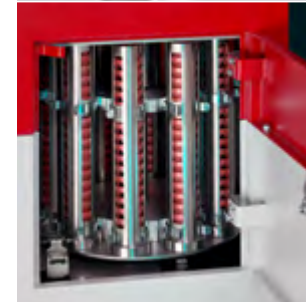
- Fully automated blocking
- Three blocking stations
- Parallel lens handling, blocking and loading processes
- Camera-based lens recognition and alignment
- Prismatic blocking

Benefits

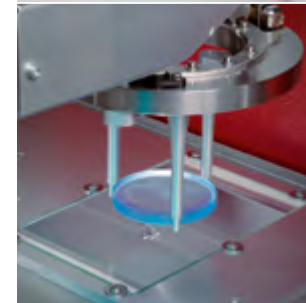
- Consistent precision blocking
- Fully automated operation
- Highest yield
- Works for single-vision, multi-focal and progressive lenses
- Low running costs
- Mechanical upgradeability from alloy to Connex version
- Supports the new cognitive Modulo machine philosophy



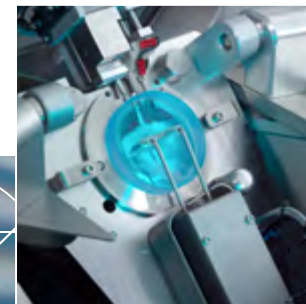
Fast loading and unloading of the lenses.



Eight block-piece cartridges on board enable extended, uninterrupted production periods.



Precise lens recognition and alignment of progressive and multi-focal lenses.



The blocking station precisely sets the prism and axis angle resulting in perfectly blocked lens blanks under all conditions.





technical data	
lens diameter	up to \varnothing 85 mm
lens material	all organic and mineral lens materials
blocking material	alloy
blocking diameter	53 – 63mm
blocking height	7 – 10 mm
clamping system	block \varnothing 43 mm
prism angle	up to 5° (optional: 7°)
power consumption	2.4 kVA avg.
air requirement	6 bar (87 psi)
weight machine	approx. 1000 kg (2205 lb.)
dimensions without control panel (width x depth x height)	approx. 1650 x 1360 x 1715 mm (65 x 54 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.

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