

m^odulo
ONE

Deboxing

DBX m^odulo ONE

THE NATURAL WAY OF DEBOXING



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.



Highly versatile

The deboxer opens all common types of boxes and materials with ease.



Environmentally friendly

A very clean process with minimum energy consumption facilitates maximum sustainability.



High throughput

Fully automated deboxing of large volumes of boxes, 24/7.



DBX modulo ONE

With DBX Modulo ONE, SCHNEIDER debuts a powerful and fully automated new lens deboxer for high throughput, 24/7. The innovative technology unpacks all common kinds of boxes and materials – cardboard, blisters, even sleeves – damage-free with a clean process. It requires a minimum of energy and effort.

After swiftly identifying the type of box, DBX Modulo ONE opens it "naturally": It unfolds, takes out and unwraps, entirely without touching the lens surface. SCHNEIDER's eco-friendly process avoids cutting or burning the material using sharp blades or high energy lasers – no cutting particles or dust and no fumes.

All waste material is separated and collected individually to simplify recycling and further increase sustainability.

DBX Modulo ONE follows SCHNEIDER's vision to provide the full solution for ophthalmic labs, from warehousing all the way to inline coating and beyond.

Ophthalmic lens production fully-automated and entirely hands-free.





An optical recognition system swiftly identifies the box and determines the orientation.

Smart recognition and orientation

On its mission to automate ophthalmic lens production and to offer ophthalmic labs the full solution, SCHNEIDER is now closing the gap between warehousing and surfacing to streamline deboxing for highest efficiency.

Until the time that the production process begins, the boxes are stored in the clean and orderly environment of the warehouse to be transferred over to the deboxer just in time for surfacing to start.

The very first step in deboxing is the error-free recognition of the box. An optical recognition system scans it to check the orientation and fully automatically identifies the brand along with the type, and contents of the box and its dimensions.



The lens blanks are unpacked and put back in the tray in a matter of seconds – no mixups.

Highly versatile and capable

Once perfect positioning and alignment is done, DBX Modulo ONE, opens all common types of boxes – no matter the make and model – the way that they were originally intended to be opened:

- _ cardboard box
- _ cardboard box + plastic blister
- _ cardboard box + foam sleeve

The system offers labs great flexibility as new boxes can be taught and the processes are adjusted accordingly by the system.

Clean and sustainable process

The flaps are wedged open and the box unfolded, before the lens is gently pushed out of the open box and the blister is taken off or the sleeve is unwrapped respectively.

Without cutting the boxes, dust creation and lens contamination from cutting wheels is avoided.



Waste materials are separated diligently, streamlining recycling.

Equally, toxic fumes due to the colors and other materials that must be burned when using a laser method are prevented.

On the contrary, all of the steps are carried out without ever touching the delicate lens surface but only the circumference. An utterly clean process and absolutely damage-free.

Environmentally friendly

Another great benefit is that DBX Modulo ONE diligently separates the waste materials by default. No mixing materials, as the system recognizes the type and even color of the materials to facilitate effective and consistent recycling.

Contrary to other options in the market, the system consumes very little power, adding to the sustainability of the solution.

The Modulo advantage

DBX Modulo ONE 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 assured.

Benefits

High throughput

Covers the widest range of boxes in the market

Low energy consumption, highly sustainable

Accurate and error-free recognition

No dust, no toxic fumes

Effective waste separation for recycling

Available 24/7



DBX Modulo ONE opens all common types of boxes – no matter the make and model.



technical data

box measurements (width x depth x height)	min. 68 x 68 x 20 mm (2,6 x 2,6 x 0,79 inches) max. 86 x 86 x 33 mm (3,4 x 3,4 x 1,3 inches)
box types	cardboard box cardboard box + plastic blister cardboard box + foam sleeve
power consumption	0,6 kVA avg.
air requirement	6 bar (87 psi)
weight machine	approx. 740 kg (1632 lb.)
dimensions without control panel (width x depth x height)	approx. 2000 x 1461 x 1790 mm (79 x 58 x 71 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.

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