

Nucleo-Blocker

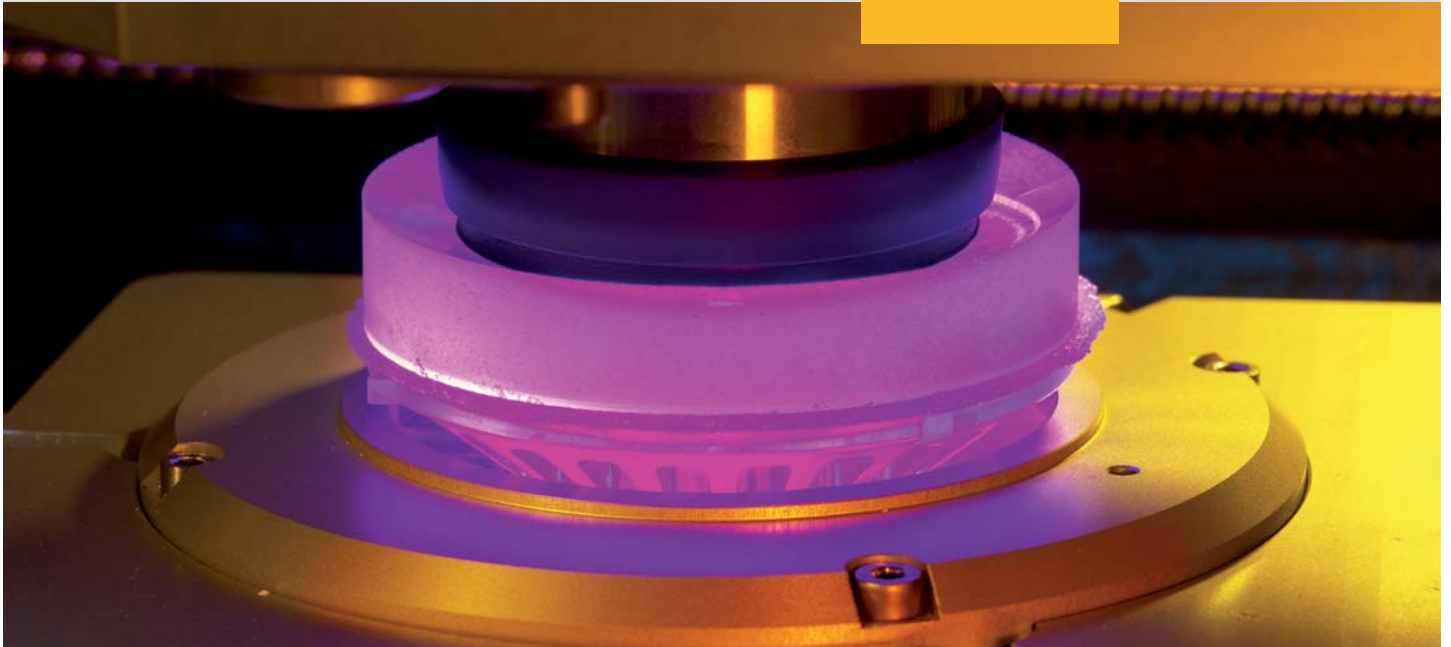
Fully automated alloy-free blocking



Full support blocking for highest precision and yield, fully automated blocking. First step into the fully integrated "OBM - On-Block manufacturing" technology.

satisloh[®]

Nucleo-Blocker
full support blocking, elimination of taping,
first step into OBM-future



Nucleo-Blocker alloy-free On-Block Manufacturing

Full support and environmentally friendly blocking technique and first step into Satisloh's "On-Block Manufacturing" concept where the lens will stay on the block through all manufacturing steps including coating and edging.

The Nucleo system automatically removes semi-finished lenses from a tray, recognizes the type and position of the blank, measures the front curve, chooses the best fitting block piece out of a magazine and applies this clear plastic block to the front by using the patented spatial blocking technique with an organic adhesive UV-light curable media. It then cures the adhesive within seconds and replaces the lenses in the original tray at a rate of up to 100 lenses per hour. The new system meets the long demanded full support and environmentally-friendly blocking solution, while offering so much more.

The organic block and adhesive protects the lens front surface which eliminates the need for taping. Nucleo-Blocker probes the exact geometry of the front curve, which allows the system to accurately position the lenses on the block piece and in addition offers the possibility to detect front curve errors on spherical blanks. The machinable organic block offers the possibility of full surface support. This provides increased accuracy when direct surfacing

complex lens designs – especially with knife edge lenses or plus lenses with oval shapes. A cool UV light curing method is used to cure the adhesive layer.

The Nucleo blocking system is paired with a matching automated de-blocking system, thus enabling a lab to fully automate its surfacing operation. The de-blocking system will separate block piece, adhesive and lens and cleans the lens afterwards.

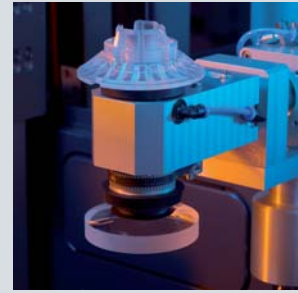
Nucleo is not only a new, full support and environmentally friendly blocking and de-blocking technique superior to alloy blocking. It is also the first step into Satisloh's future "On-Block Manufacturing" concept, where the lens will stay on the Nucleo-block through all manufacturing steps including coating and edging, hence allowing for ultimate process integration with full automation. With this concept manufacturing of a lens in the Rx laboratory for the first time will become an efficient and truly industrial process with a very short turn around time compared to today's standards.

Features

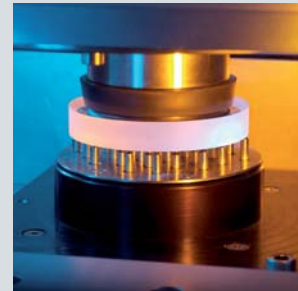
- Enabling of “On-Block Manufacturing”
- Fully automated blocking technology
- Machinable block piece
- UV curable blocking material
- Measuring of front surface
- Prism blocking
- Different block piece curvatures for optimized performance

Benefits

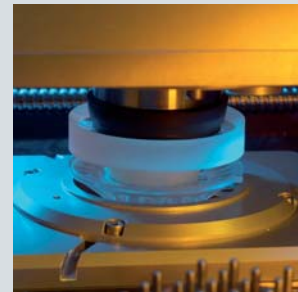
- First step into the OBM-future
- Full support: Offering higher process accuracy and stability, especially for the direct surfacing technology employing soft tool polishing
- Different block piece curvatures save adhesive
- Elimination of taping
- Full automation for the blocking steps
- Eliminates alloy (heavy metal)
- Economical
- All consumables like block pieces and adhesive are environmentally friendly



Automated loading and unloading



Front curve measurement



Precise positioning



Nucleo block piece

Technical Information:

Working Ranges:

- Normal:
 - plano up to +15 dpt base curve
- Extended:
 - 10 dpt up to +25 dpt base curve
 - prism up to 5.5°
- Front curve correction possible
- Progressive lenses
- Multi-focal

Lens Dimensions:

- Diameters: 55-85 mm
- Thickness: up to 30 mm

Materials:

- All standard organic and mineral materials
- Photochromic and polarized blanks

Energy Requirements:

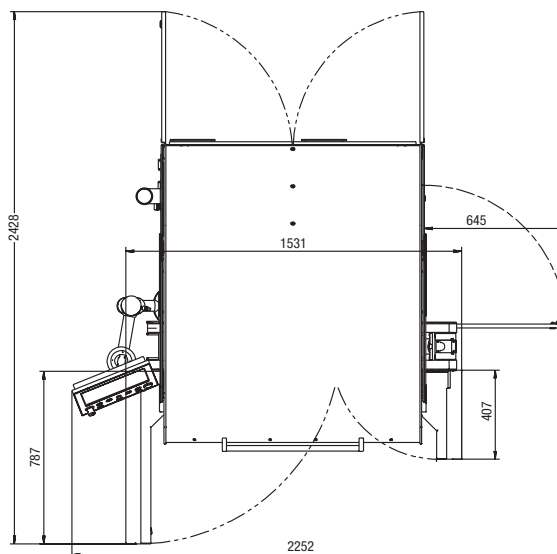
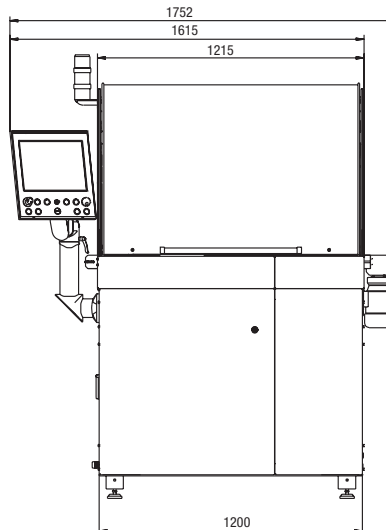
- Air consumption 300 l/min
- Power: 4 kVA
- Voltage 200 – 400 V, 50-60 Hz, 8 A, 3 phases, 5 conductors

Dimensions (wxdxh):

1752 x 1236 x 1894 mm
69 x 49 x 75 inches

Weight:

880 kg / 1940 lb



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