UPC nano

Most affordable and compact



UPC nano





Introducing the UPC nano

Unbeatable price, unprecedented performance, a compact design and ready for automation: The industry proven **UPC nano** is one step ahead in manufacturing high-quality contact lenses and IOLs, ready for polishing.

Already including an onboard integrated fast tool for freeform manufacturing, the **UPC nano's** capital investment corresponds to the costs for conventional solutions limited to manufacturing of 2D surfaces.

Ready to go in no time, it comes with on board spherical, non-spherical and freeform capabilities to manufacture all types of contact lenses.

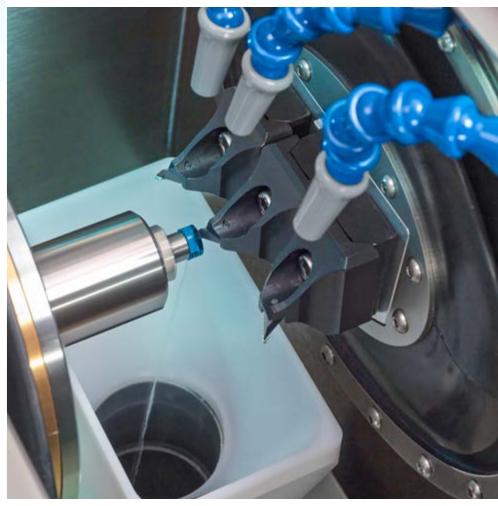
SCHNEIDER -Contact lens and IOL manufacturing

SCHNEIDER is a leading supplier of processing solutions to the ophthalmic and precision-optical industry.

Known as the pioneer of freeform technology, SCHNEIDER has an installed base of more than 1500 highly dynamic single-point diamond turning machines.

Using this experience, SCHNEIDER creates faster and more efficient solutions specifically designed for freeform manufacturing, merging highest surface accuracy and quality with unprecedented productivity.

The highly modular platform machines feature a very rigid machine base, innovative drive technology and unique data handling capabilities for manufacturing of most sophisticated contact lenses and IOL.





Contact lenses



Intraocular lenses

Compact design with great performance

The machine's high linear axis rigidity guarantees great form accuracy during high-speed machining. As a result the time needed in the subsequent polishing step can be greatly reduced. A quick removal of surface roughness is all that is required. In this way the **UPC nano** outpaces the solutions available in the market that rely on less rigid air bearing guiding systems.

Ready for wet and dry machining: The **UPC nano's** unique design allows for all options: air cooling or spray mist lubricated dry machining and – for the first time – wet machining for contact lenses and IOLs. Wet machining is proven in other ophthalmic industries to allow lower process temperatures and increase tool lifetime, paving the way for more cost-effective manufacturing. Labs can choose and exploit a new freedom in process design.

Swarf is removed immediately in gravity direction reducing the need for time consuming cleaning. Thanks to the machine's small and compact size as well as its light weight it can be operated virtually everywhere.

Machine automation and highly accurate laser marking

For high volume requirements, **UPC nano** can be equipped with an optional automation system for non-stop automated processing of larger batches without operator intervention.

With the increasing need for unique device identification (UDI), laser engraving becomes more important. For this reason, the UPC nano can be enhanced with an optional scanhead based laser engraving system producing even the most complex engravings in a matter of seconds.

Semi-automated tool adjustment with NC-accuracy

The **UPC nano's** special machine design allows for adjusting the tools in X, Y and Z direction with highest precision and encoder resolution by using the NC machine axes. Tool adjustments can be done much faster and more reliably. Time-consuming

readjustments are a thing of the past as the position remains stable over time. Highest stiffness from tool tip to machine bed for lowest vibration is a given – especially for highly dynamic machining. A total of three tools only mounted on the fast tool is all that is needed for concave and convex machining.

Highest safety standards

All SCHNEIDER UPC machines comply with the strictest international safety standards. The **UPC nano** comes with a fully encapsulated design protecting the operator in case of workpiece losses. Even the optional laser is integrated in the encapsulated working chamber, preventing any safety risks. In addition, the full enclosure effectively reduces noise and dust emission to preserve a clean working environment.

Benefits

- _ Exceptional price to performance ratio
- Highest quality surfaces for shortest polish times
- On board fast tool for non-spherical lenses and maximum flexibility
- _ Innovative axis arrangement for simplified tool calibration with NC accuracy
- _ Graphical user interface for highest ease of use
- Fully enclosed design meets strictest safety standards in the market
- _ Small footprint
- _ Optional high-speed laser engraving unit
- _ Optional automation for non-stop processing



Automation for highest throughput.



Laser marking unit for highly accurate markings.



technical data	
tool setup	up to 3 tools
axis	4 (incl. integrated fast tool)
travel X	390 mm
travel Z	20 mm
spindle	airbearing spindle (10.000 rpm)
vibration isolation	air springs
controller	64-bit Windows 10 based
machine weight	approx. 650 kg (1433 lb.)
dimensions (w x d x h)	approx. 900 x 1120 x 1030 mm (35 x 44 x 41 inches)

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

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