

TOP Cleave:

Highly dynamic
cutting.

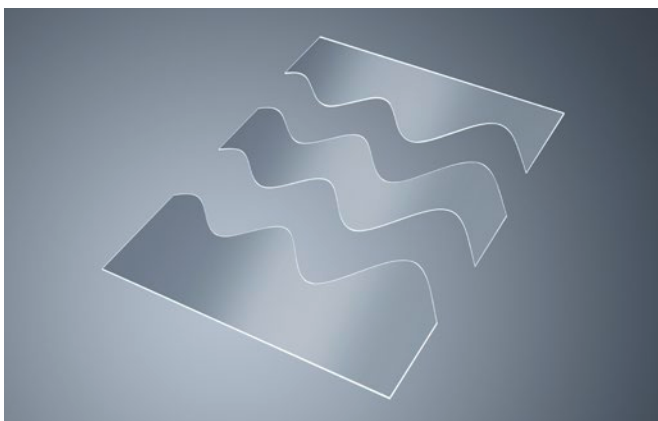


Highly dynamic cutting.

The TOP Cleave focusing optics is a processing optics used to cut transparent materials such as glass or sapphire. Until now the thermally or chemically strengthened glass, including front-cover glass for smartphones, was cut into defined sizes, loaded onto carriers and then coated. With TOP Cleave you no longer need these individual steps, because the large glass sections can be coated directly – and then cut to size later on with TOP Cleave.

Processing of the tiniest geometries.

Specially thin and hardened glass in particular can be cut by means of material modification. Ultra-short laser pulses modify a narrow area along the desired cutting line. This modification intrinsically weakens the glass, which breaks in a controlled manner and with mirror-like smoothness at the desired location – in completely free contours and with precision to one hundredth of a millimeter. TOP Cleave makes your production process one hundred times faster. The focusing optics for highly dynamic cutting distributes the intensity of the laser light along the beam axis – the length of the focus is extended. In just one pass, depending on the pulse energy, the laser pulses modify the complete inner separation planes of a glass sheet, 700 µm thick, for example. With the high-power lasers in the TruMicro Series you achieve cutting speeds of up to 1000 mm/s – that's one hundred times faster than without TOP Cleave.

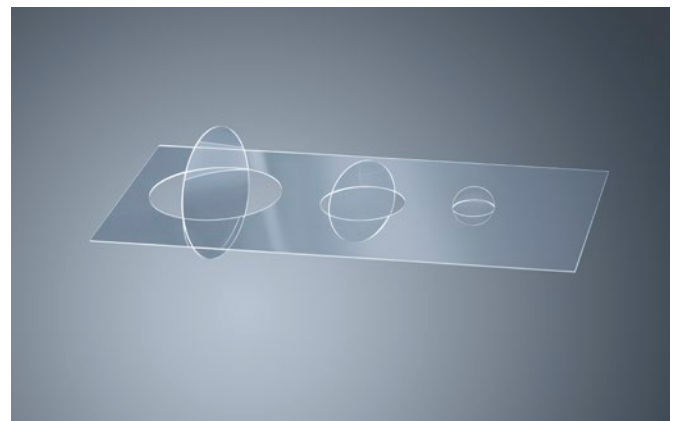


TOP Cleave: Your benefits at a glance.

- 1 High processing speed.
- 2 Processing of the tiniest geometries.
- 3 No refinishing required, thanks to excellent edge quality.

Excellent edge quality.

Cutting with TOP Cleave gives you excellent edge quality, and refinishing work such as regrinding or polishing is either minimized or dispensed with entirely. This means shorter processing times and considerably lower costs.



	TruMicro 5050 with TOP Cleave
Wavelength	1030 nm
Average laser power	50 W
Max. pulse energy	250 µJ
Pulse duration	< 10 ps
Beam quality	M ² < 1.3
Repetition rate	10 kHz – 200 kHz
Processing speed	10 – 1000 mm/s
Edge quality	< 0.5 µm

Subject to alteration. Only specifications in our offer and order confirmation are binding.