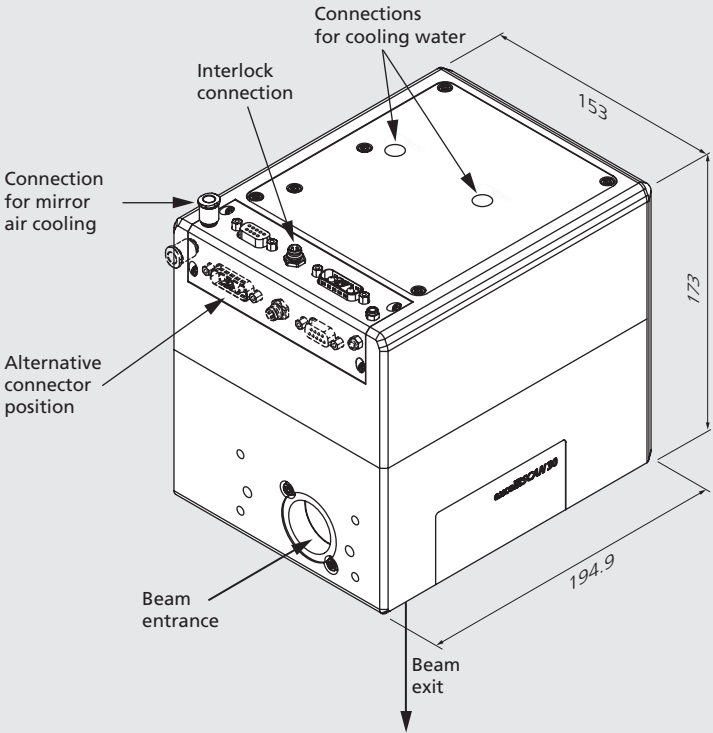
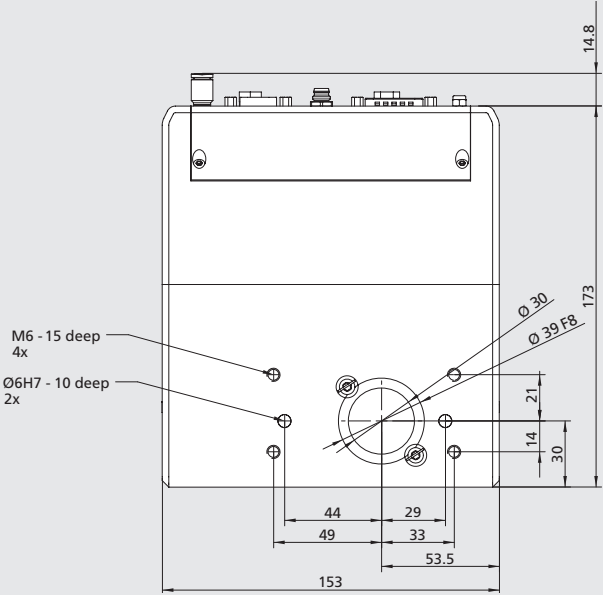


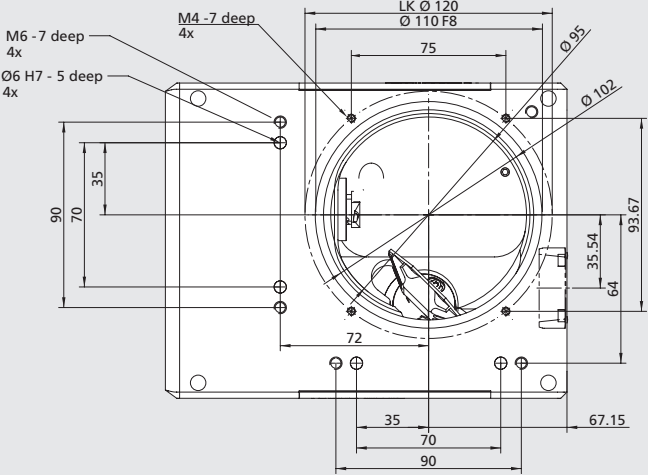
excelliSCAN 30



Beam entrance



Beam exit



NEW



excelliSCAN 30: high contour fidelity, productivity, and process safety

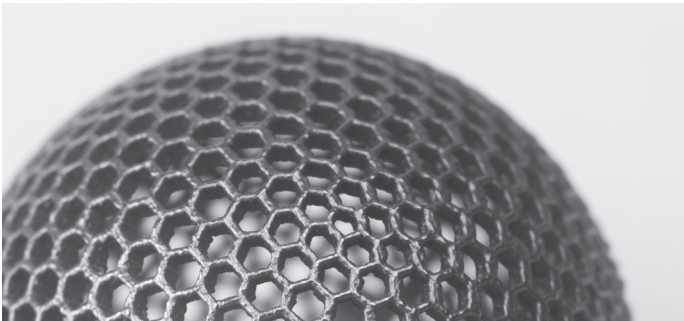
Highest Precision

Outstanding contour fidelity, highest positioning accuracy and long-term stability.



Maximum Productivity

Minimal acceleration and turnaround times significantly reduce process times.



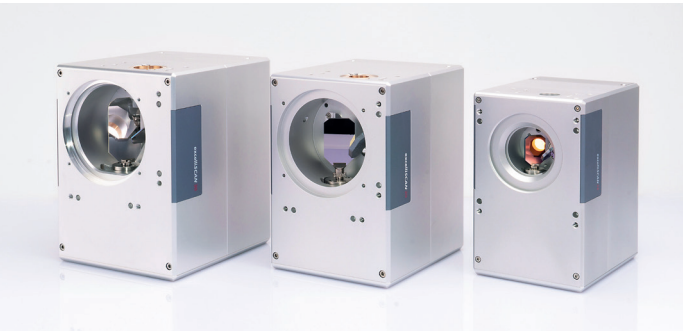
Optimal Process Safety

Interlock and optionally integrated temperature sensors for monitoring the mirrors and the scan system.



Special Features of the excelliSCAN Series

- SCANahead control
- Optimized mechanics and cooling concept
- Galvanometer scanner with 20-bit encoder technology
- Easy integration and commissioning



SCANahead Control

- Fully utilized galvo dynamics for increased throughput
- No tracking error
- Fast marking of circles without necking effects
- Auto-delay function of the RTC6: laser and scanner delays are set automatically

More information about SCANahead in video form:



Precision & Stability

Repeatability (RMS) [μrad]	< 0.4
Dither (RMS) [μrad]	< 1.6
Nonlinearity [mrad] ⁽¹⁾	< 0.5
Temperature Drift	
Offset [μrad/K]	< 10
Gain [ppm/K]	< 5
Long-Term Drift	
Over 24 hours (after 3 h warm-up) ⁽²⁾	
Offset [μrad]	< 25
Gain [ppm]	< 25

⁽¹⁾ related to 0.77 rad
⁽²⁾ at constant ambient temperature and load
⁽³⁾ example values with 160 mm objective

(all angles are in optical degrees)

Dynamics

Tracking error [ms]	0
Acceleration [rad/s²]	130,000
Maximum speed [rad/s]	70
Typical speed ⁽³⁾	
Positioning, jump & shoot [m/s]	< 11.2
Line scan / raster scan [m/s]	< 11.2
Typical vector marking [m/s]	< 2
Positioning times ⁽³⁾	
1 mm jump width [ms]	0.44
10 mm jump width [ms]	1.43
100 mm jump width [ms]	9.47

Common Specifications

Optical Performance	
Typical scan angle [rad]	± 0.35
Gain error [mrad]	< 5
Zero offset [mrad]	< 5
Power Supply (RMS)	48 V, 5 A
Digital Interface	SL2-100
Weight [kg]	approx. 10 kg

