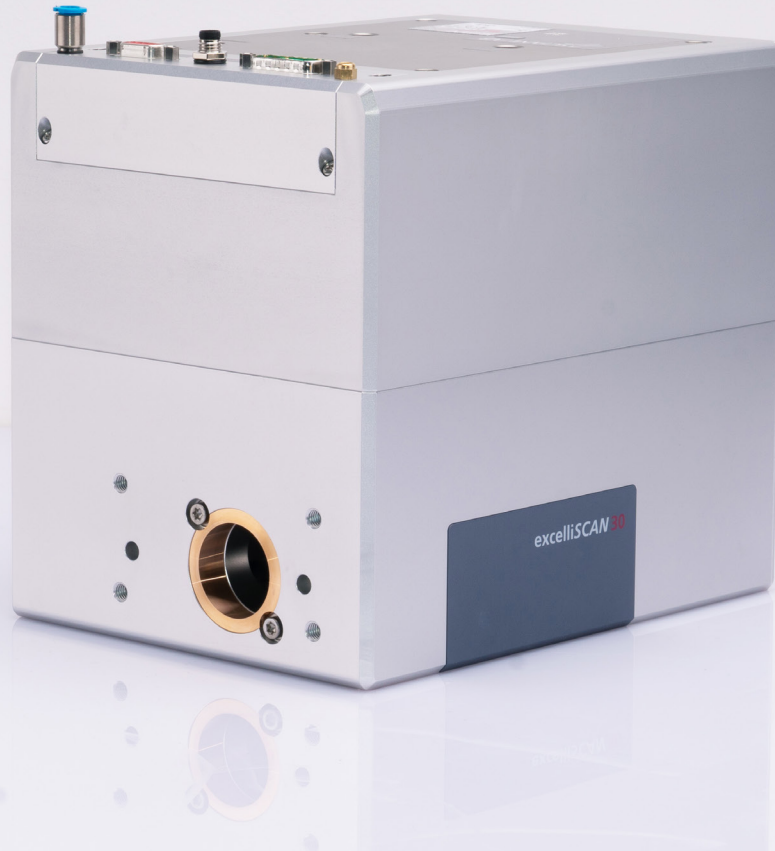


**New!**



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

# Advantages

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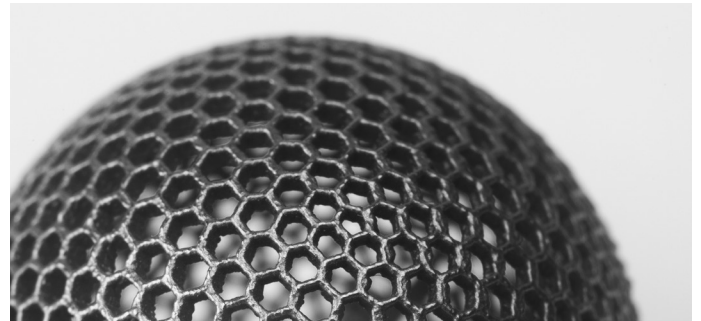
## Highest Precision

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



## Maximum Productivity

Minimal acceleration and turnaround times significantly reduce process times.



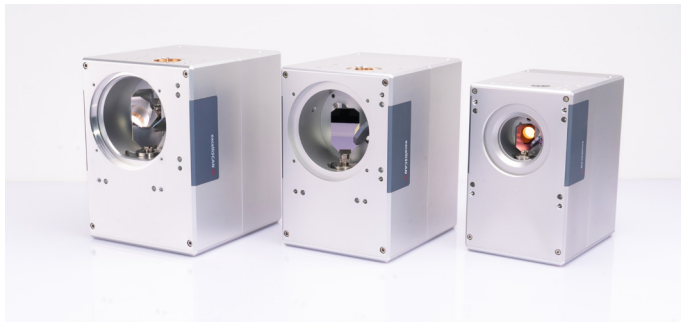
## Optimal Process Safety

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

<b>Repeatability (RMS) [μrad]</b>	< 0.4
<b>Dither (RMS) [μrad]</b>	< 1.6
<b>Nonlinearity [mrad] <sup>(1)</sup></b>	< 0.5
<b>Temperature Drift</b>	
Offset [μrad/K]	< 15
Gain [ppm/K]	< 8
<b>Long-Term Drift</b>	
Over 24 hours (after 3 h warm-up) <sup>(2)</sup>	
Offset [μrad]	< 20
Gain [ppm]	< 25

<sup>(1)</sup> related to 0.77 rad

<sup>(2)</sup> at constant ambient temperature and load

<sup>(3)</sup> example values with 160 mm objective

(all angles are in optical degrees)

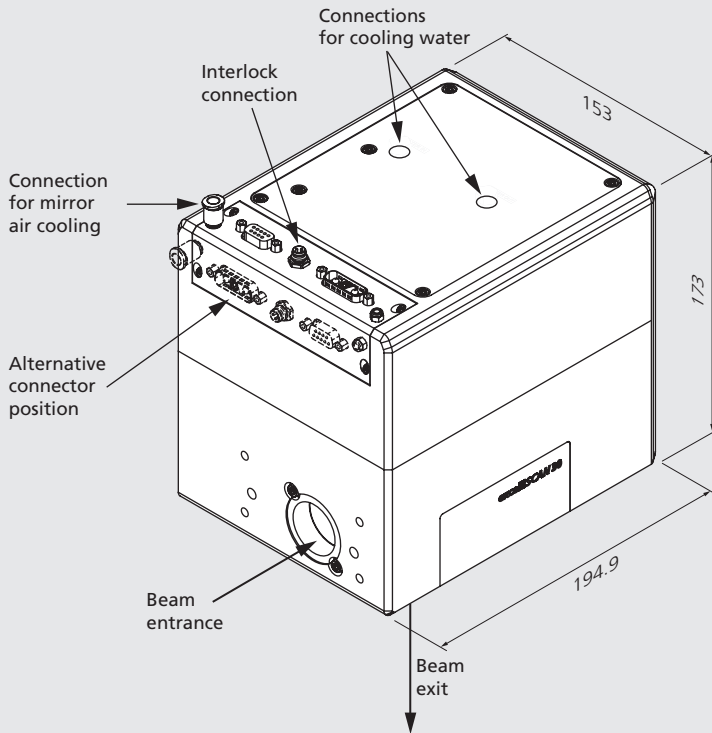
## Dynamics

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

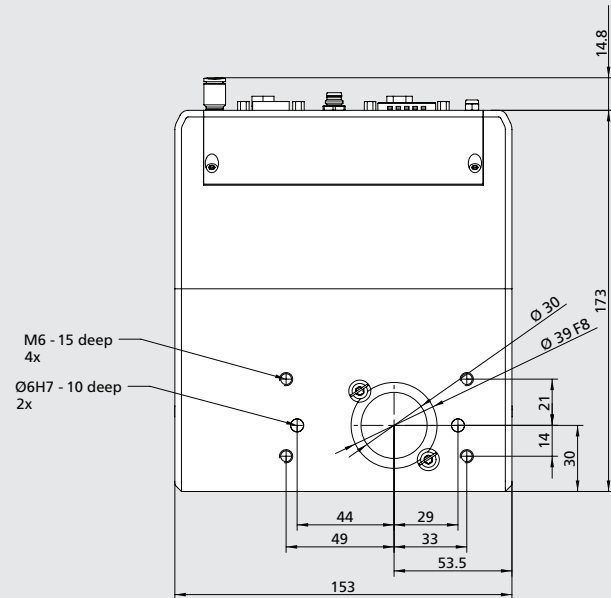
## Common Specifications

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

excelliSCAN



## Beam entrance



## Beam exit

