



## z-shifting that breaks the speed limit

SCANLAB's new excelliSHIFT extends a 2D scan head into a **highly dynamic 3D system**. Based on tried-and-proven galvanometer technology, its completely new design drastically improves dynamic performance compared to conventional z-axes.

The Z-scanner is no longer a limiting factor, so that identical acceleration can be achieved in all in all three spatial directions. This opens up entirely new possibilities for laser processing of 3-dimensional, complexly-shaped surfaces. Moreover, the new technology uses no transmissive optical components. That means dispersion effects are avoided when working with different wavelengths, and thermal-lens effects are minimized, too.

The excelliSHIFT is ideal in combination with excelliSCAN and intelliSCAN scan heads.

### Typical applications:

- Micromachining
- Marking of curved surfaces
- Deep engraving
- Ultra-fast 3D processing

### Key advantages:

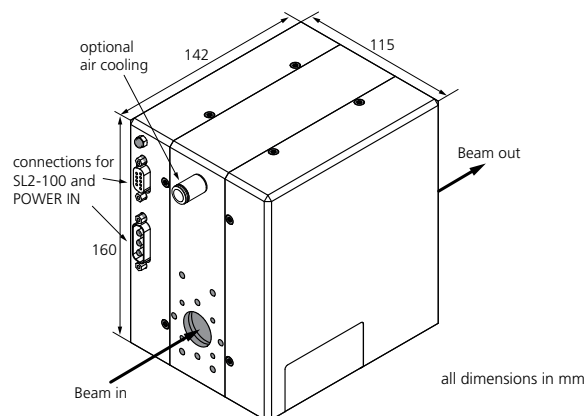
- Highest reliability due to field-proven galvanometer technology
- High-dynamic processing of complex 3D-surfaces
- Designed without transmissive optical components
- Flat field correction of pre-focused systems without dynamic limitations
- Position-independent mounting

### Specifications

<b>Aperture</b>	14 mm
<b>Wavelength</b>	515 nm - 532 nm, 1030 nm - 1070 nm <sup>(1)</sup>
<b>Beam expansion</b>	1-fold
<b>Tracking error</b>	0.1 ms
<b>Beam guidance</b>	reflective
<b>Dimensions W x H x D</b>	(115 x 160 x 142) mm <sup>3</sup>
<b>Weight</b>	3.7 kg
<b>Laser power</b>	120 W (green)
(with cooling)	200 W (IR)
<b>Focus range</b> <sup>(2)</sup>	±14 mm
<b>Focus speed in image field</b> <sup>(2)</sup>	up to 30 m/s

<sup>(1)</sup> other wavelengths available on request

<sup>(2)</sup> with f-theta lens, f = 160 mm; at larger focal lengths corresponding higher values are achieved



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