

CUSTOM HIGH-POWER BEAM EXPANDER

FOR 100 KW CONTINUOUS-WAVE LASER SYSTEMS (1064 NM)

EKSMA Optics offers a custom-designed beam expander engineered specifically for ultra-high-power continuous-wave laser applications.

The beam expander features a robust optomechanical design with precise lens positioning and an advanced dual cooling solution (air and water), enabling stable, long-term performance in demanding industrial and research environments.

OPTICAL PERFORMANCE

All optical elements are coated using EKSMA Optics' proprietary IBS technology, ensuring:

- High damage resistance
- Excellent coating uniformity
- Long-term stability under high thermal load

Carefully selected lens materials help preserve beam quality and reduce thermally induced wavefront distortions during continuous high-power operation.

CUSTOMIZATION

This beam expander is a custom solution and can be adapted to:

- Different magnification ratios
- Alternative wavelengths
- Specific mechanical or cooling requirements

TECHNICAL SPECIFICATIONS	
Parameter	Value
Magnification	3x
Operating Wavelength	1064 nm
Laser Power	Up to 100 kW (CW)
Cooling	Air and Water
Overall Length	750 mm
System Weight	27 kg
Optical Coatings	IBS coatings (in-house)

