

Iradion® Beam Expander For Infinity and Eternity

Models BE-2.5x-I, BE-3x-I, BE-4x-I and BE-6x-I



Beam direct mount for package size



Beam expander with extender for optimal beam quality

Small, lightweight and easy-to-install, our BE beam expanders enlarge the beam diameter and optimally collimate your laser's output by 2.5x, 3x, 4x and 6x. The larger beam diameter reduces dangerous hot-spots and risk of optical damage during machine operation, especially in harsh operating environments.

BE beam expanders are developed for higher power (>300 W) CO₂ laser operation without water cooling. The BE outer diameter and connecting thread (M30x1) are consistent across the magnification options for easy integration.

Features and Benefits

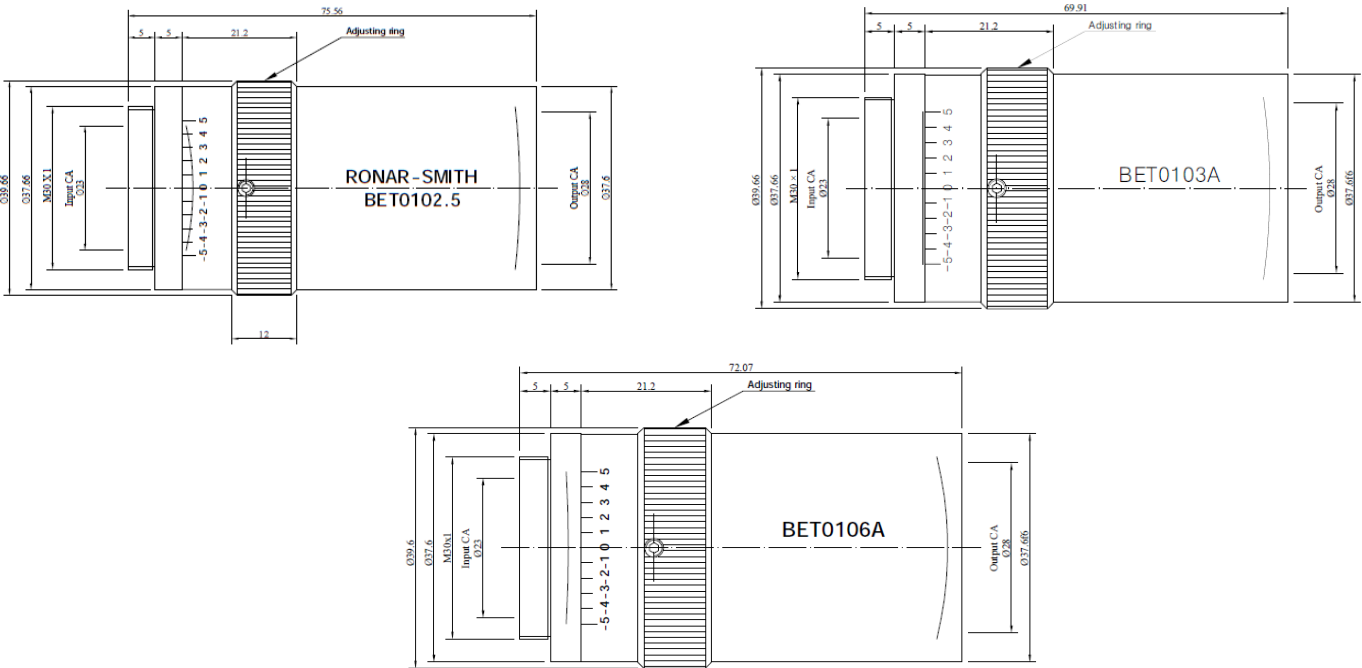
- For collimation of CO₂ laser beams.
- Standard fixed magnifications from 2.5x, 3x, 4x and 6x.
- Galilean telescope design reduces length of beam expander and avoids intermediate focus.
- Adjustable divergence enables fine tuning of output beam collimation.
- Ruggedly constructed BE beam expanders conveniently and easily mount to the front of Iradion Eternity and Infinity-series lasers for maximum adjustability and perfect alignment.
- Interior optical surfaces of BE beam expanders are shielded from the operating environment.
- BE series are a standard in the industry and were selected for their ideal balance of cost and performance.
- Includes mounting ring and optional extender piece.

Specifications

| Model | BE-2.5x-I | BE-3.0x-I | BE-4.0x-I | BE-6.0x-I |
|----------------------------|-----------|-----------|-----------|-----------|
| Magnification* | 2.5x | 3.0x | 4.0x | 6.0x |
| Input Clear Aperture (mm) | 23.0 | 23.0 | 23.0 | 23.0 |
| Output Clear Aperture (mm) | 28.0 | 28.0 | 28.0 | 28.0 |
| Outer Diameter (mm) | 39.6 | 39.6 | 39.6 | 39.6 |
| Housing Length (mm) | 75.56 | 69.91 | 75.21 | 72.07 |

*Other magnifications available upon request.
 Specifications are preliminary and subject to change without notice.

Dimensions



Design Notes:

- CO₂ laser collimation for >300 W, without the need for water cooling.
- Galilean telescope beam expander geometry.
- Adjustable output beam divergence for optimizing collimation.

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