

Beam Expanders for CO2 Laser System

The most common type beam expander is derived from Galilean telescope which usually has one negative input lens and one positive output lens. The input lens presents a virtual beam focus at the output. For low expansion ratio, the Galilean telescope is most often employed due to simplicity, small package size and low cost. Beam expander is commonly used to magnify the laser diameter to be focused back in smaller spot size.

The absorbability of Zinc Selenide to the infrared wavelengths is low, and can flitter visible light, it is the top choice of beam expander lens.

Standard Beam Expander for CO2 Laser:

Dia(mm)	Magnification	Length(mm)	Input(mm)	Output(mm)	Wavelength (μm)	Product Number
22.00	2	40	10	14	10.6	UQT-BELZ0701
25.00	3	52	10	18	10.6	UQT-BELZ0702
31.00	4	78.5	10	24	10.6	UQT-BELZ0703
33.00	5	105.5	10	26	10.6	UQT-BELZ0704
38.00	6	125	10	28	10.6	UQT-BELZ0705
45.00	8	150	10	29	10.6	UQT-BELZ0706

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

NOTES!

- ➔ ZnSe reacts readily with acidic substances, generating toxic selenium oxide gas. Never clean with acidic washing solutions.
- ➔ Note that ZnSe is classified as a toxic material by law. Transactions involving ZnSe or products incorporating ZnSe require a certificate of transfer.
- ➔ Disposal of ZnSe optics as general waste is prohibited. Please notify us if you need to dispose of such products. (Ultiquest Technologies products only.)
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.