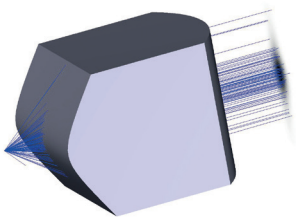


PRECISION GLASS MOLDED ACYLINDRICAL LENSES FOR DIODE LASER COLLIMATION

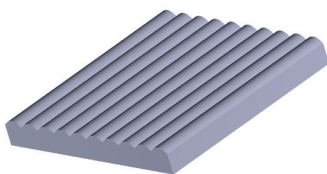
GD Optics has developed its own glass molding process especially for the production of small aspheric cylindrical lenses. The process is very economical for lenses in a size range from 0.5 mm to 5 mm in medium to high quantities.

ACYLINDRICAL COLLIMATORS: CAPABILITIES AND TOLERANCES

Length/Width	0.5 mm to 30 mm ± 0.02
Center Thickness	1 mm to 5 mm ± 0.01
EFL	0.5 mm, Tolerance: $\pm 1\%$ or better
BFL	0.15 mm
ROC	0.4 mm
NA	Up to 0.8 depending on EFL
Form accuracy	<300 nm PV
Material	Optical glasses, high index possible
Type	Plano-convex, convex-convex (perpendicular and parallel axes), Array



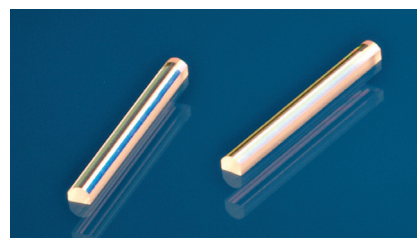
Crossed Cylinder lenses



Cylinder lens array

Applications:

- Fast axis collimation
- Slow axis collimation
- Beam circularization and collimation

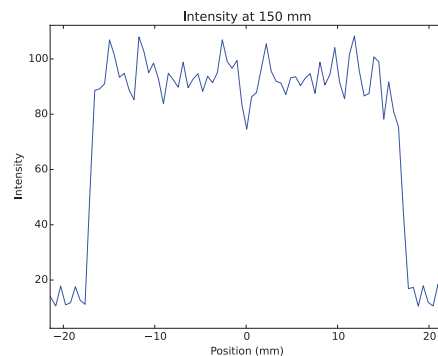
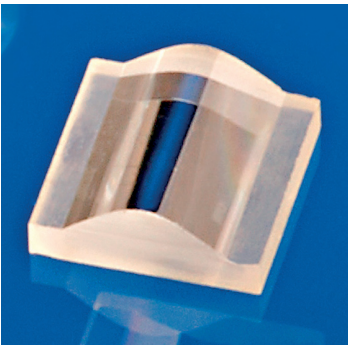


Fast axis collimators

PRECISION GLASS MOLDED ASPHERIC CYLINDER LENS FOR THE GENERATION OF A LASER LINE

Length (parallel to cylindrical axis)	4.0 mm -0.006/-0,036 mm
Center thickness	1.8 mm ±0.05 mm *
Width	5.0 mm -0.006/-0,036 mm
Free aperture	3.6 mm x 3.6 mm
Centering	±0.02 *
Angle (FWHM)	5°, 15°, 30°, 45°, 60° on stock (other angles as custom development possible)
Maximum intensity deviation	<30% below the maximum value in 90% of the line length
Input beam diameter (1/e ²)	1.6 mm
Working distance	150 mm
Wavelength range	400–800 nm (design wavelength 550 nm)
AR-Coating	Possible (please inquire)
RoHS conformity	yes

* other tolerances available per request



Typical intensity distribution

PRECISION GLASS MOLDED ASPHERIC CYLINDER LENS FOR THE GENERATION OF A LASER LINE

Length (parallel to cylindrical axis)	4.0 mm +0/-0.036 mm
Center thickness	1.8 mm ±0.05 mm *
Width	5.0 mm +0/-0.036 mm
Free aperture	3.6 mm x 3.6 mm
Centering	±0.02 *
Angle (FWHM)	38°
Maximum intensity deviation	<25% below the maximum value in 90% of the line length
Input beam diameter (1/e ²)	1.6 mm
Working distance	150 mm
Wavelength range	400–800 nm (design wavelength 550 nm)
AR -Coating	Possible (please inquire)
RoHS conformity	yes

* other tolerances available per request

