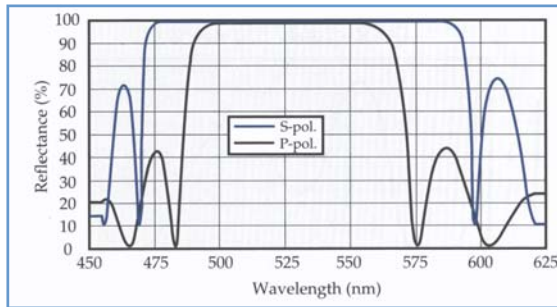


Turning Mirrors

External turning mirrors should be made to the same standards as intra-cavity optics. Even outside the cavity, scatter and absorption can cause severe problems in high energy laser systems.



Turning mirrors are optimized for use at the laser wavelength at or close to 45° angle of incidence. They are typically designed to have 99.5% minimum reflectance of the p-polarized component. At 45° the s-component of polarization is more efficiently reflected resulting in a broader bandwidth for this state of polarization.

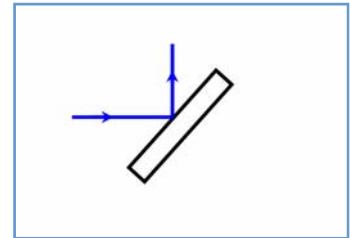
Even though these are reflecting components the

Typical Specifications	
Substrate Material:	CaF2, UVFS, BK7 or ZnSe
Surface flatness:	$\lambda/10$ @ 633 nm
Surface quality:	10/5
Parallelism:	< 3 arcmin
Diameter:	+0.0 / -0.2 mm
Thickness:	± 0.25 mm
Clear aperture:	> 85% of diameter
Reflectance:	R > 99.5%
Damage Threshold:	> 5J/cm ² , 10 ns
Durability:	MIL-C-675

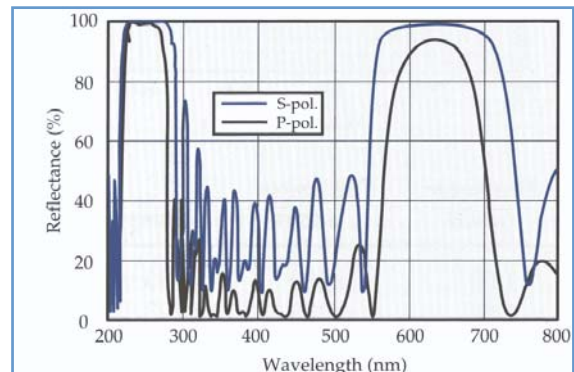
substrate is usually made of a substance which transmits at the laser wavelength to minimize absorption heating.



Sometimes (for example with alignment beams) it is desirable to reflect more than one wavelength at the



same mirror surface. In this case a dual wavelength mirror can be used. Once again the mirror coating is specifically optimized for use at the two



appropriate wavelengths. The second wavelength has a lower, but still useful, reflectivity, usually about 85%.

We can provide turning mirrors for almost all laser types.

To request a quote or to order, please specify:

Quantity — Material — Diameter — Laser Type & Wavelength

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For a quotation — please phone, fax or email us with details of your requirements.