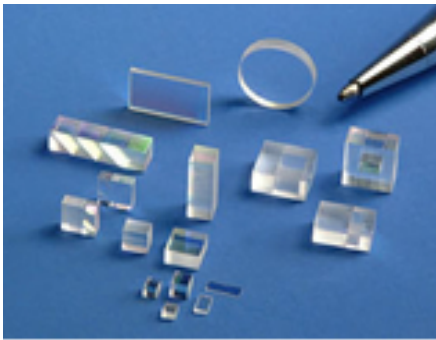


## Standard Etalons



Gooch & Housego (formerly General Optics) has reintroduced its line of solid etalon products for use in R&D and new OEM product designs.

Gooch & Housego patented process uses our proprietary superpolishing techniques for creating optical surfaces with roughness levels less than 1A RMS. This is combined with the use of our MRF (Magnetorheological Finishing) machines and SWS (Swept Wavelength laser System) enabling the precise control of thickness across the etalon surface to levels of better than 2nm/mm.

We complete the etalon production process using our IBS coating chambers to deposit HR and PR films with excellent density and minimum surface stress. Typical HR performances of better than

99.998% at any wavelengths within the C & L bands are possible.

In addition, Gooch & Housego has the capability to contact bond multiple solid etalon plates together to form multi-cavity etalon components. We can build etalon plates in sizes up to 100mm diameter and provide full plates or individual components diced or core drilled to size.

Typical FSR's matching the ITU channel spacing 25, 50, 100, and 200 GHz can be provided. We also have the capability to provide etalons with custom FSR values from 2 GHz - 300 GHz. Our processes are designed for high volume production to support OEM requirements and we have experience supporting rapid production ramp plans.

Standard Etalons		
FSR	Tolerance	Fringe Position
100 GHz	± 25 MHz	± 6GHz
50 GHz	± 12 MHz	± 3GHz
25 GHz	± 6 MHz	± 1.5GHz

Products	
Typical wavelength range:	1520nm - 1640nm
Sizes:	Wafers to 100mm diameter, diced and cored pcs as required
Thickness:	25 GHz to 200GHz typical
Parallelism:	< 1 arcsec
Typical Substrate Materials:	Fused silica, silicon, optical glasses
S1, S2 Surface Flatness:	< 0.01 lambda @ 633nm over 2.5mm dia CA
Surface Roughness:	< 5 Angstroms RMS
Scratch/Dig:	10/5
Center Wavelength Uniformity:	< 0.01nm/mm over CA
HR coating	>99.998%
Patented Mfg. Process:	Patents: 663968 and 6819438

Typical GO Etalon Waveform

