

Fiber End Caps



- Material: Fused Silica
- Custom dimensions and shapes
- Diameter from 1.8 to 100 mm
- Clear aperture: Central 90% of diameter
- Flatness: $\lambda/10@632.8\text{nm}$
- Surface quality: 10-5 S/D, even up to 0-0 S/D
- Parallelism: $<15''$
- Standard and custom AR coating options available
- High laser damage threshold

As an important optical component in the QBH (fiber laser output head), the end cap is mainly used to solve the fiber laser output problem, and also back reflection problem in the industrial processing.

CASTECH offers a wide range of customized fused silica fiber end caps. Material includes Corning fused silica, Heraeus fused silica, OHARA fused silica, etc. And with coating available in both IAD and IBS, we can provide customers with ideal solutions for fiber laser applications from low power to high power.

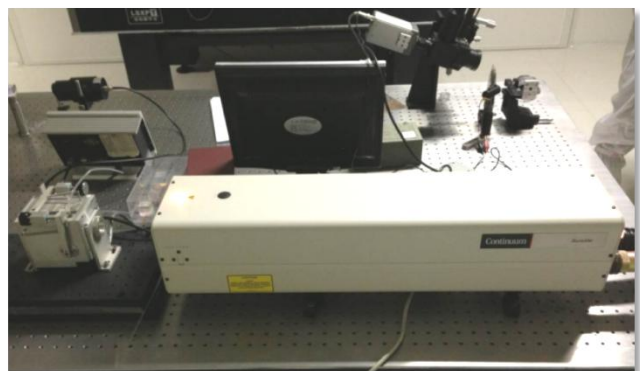
Metrology

We use Zygo New View 8300 3D optical surface profiler or Atomic Microscope (AFM) for high precision measurement of roughness to ensure a high uniform substrate surface, combined with high laser damage threshold coating, to reach better damage resistance of the end caps.

CASTECH has established a LIDT measurement system with 1064nm as one of the operating wavelength and a pulse duration of 5 ns, which can be used in 1-to-1 or S-to-1 mode.



Zygo New View 8300



1064nm, 532nm & 355nm laser damage threshold testing system
Repetition frequency : 1-10Hz
Pulse width: 5ns