

The VFI is an interferometric inspection system specifically designed for checking the surface quality and flatness of your cleaved or polished fibers. Users can view their fibers in a range of different views, both in 2D and 3D, allowing the users to get a full understanding of their cleaving or polishing process.

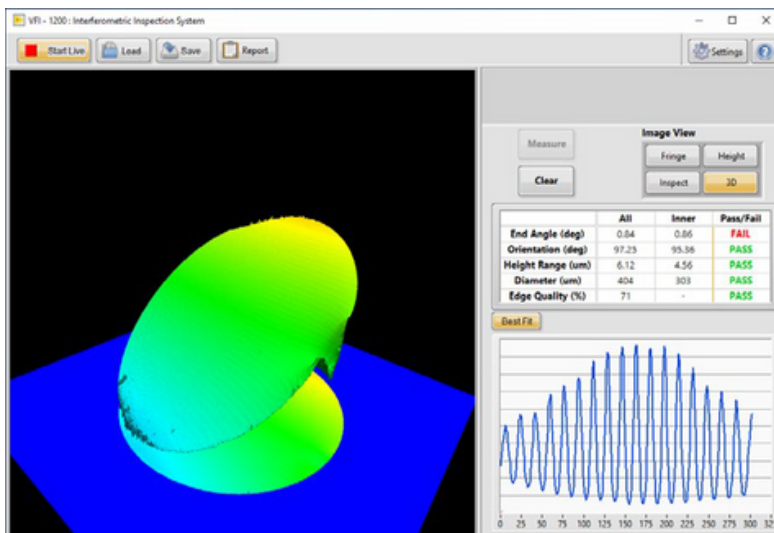
The VFI interferometer has proven itself in Research, Production and QA over and over and the feedback we get from users indicates that they value these features:

Features & Benefits

- 3 different Fields of View
- Flat and angled cleaves
- Inspect and fringe mode
- Automated or manual end angle measurement
- 2D or 3D measurement mode
- 3D end face height map
- 2D measurement - real time; 3D measurement in under 7 seconds
- Height data can be saved as a csv file
- Data output as Excel or HTML reports

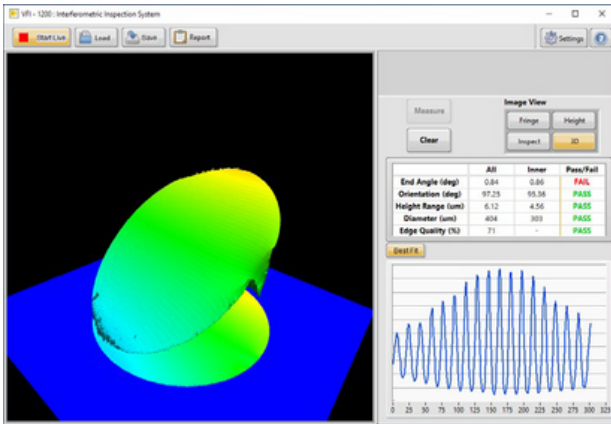
Applications

- Precision cleaver manufacture
- Cleaver maintenance
- Laser manufacture
- Medical device manufacture
- Fiber R&D
- Specialty fiber manufacture
- Development and testing of angled cleavers
- Device pig-tailing
- LDF cleaver manufacture/maintenance
- Fiber end cap manufacture
- Multifiber bundle manufacture

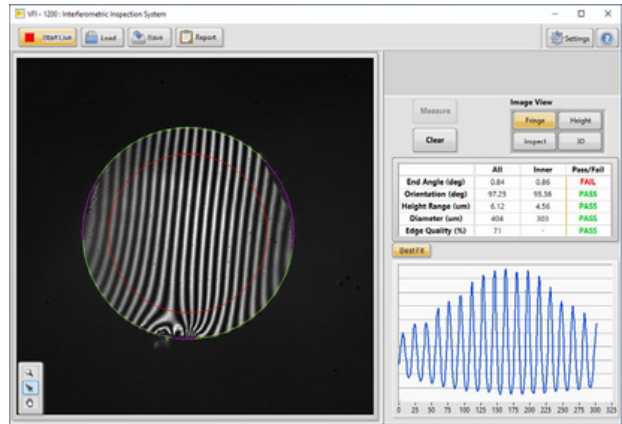


VFI software user interface main screen

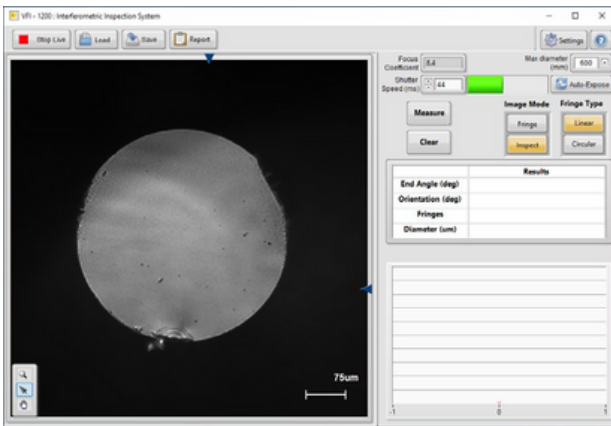
3D Map



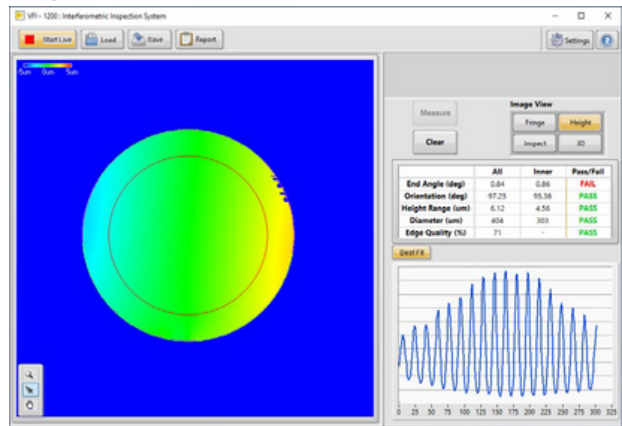
Fringe View



Inspect View

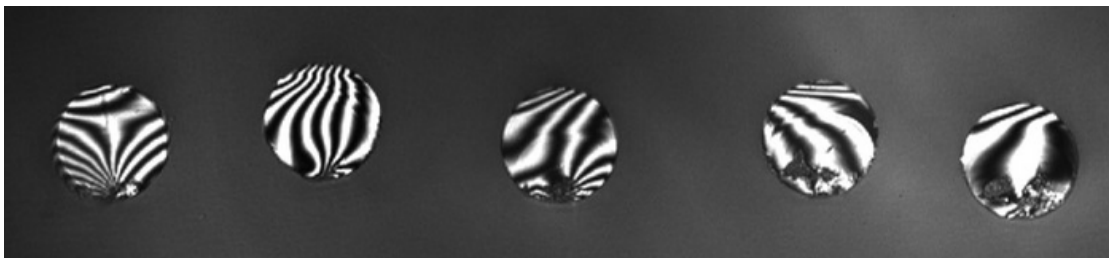


Height Map



Ribbon Fiber

The VFI can also be factory-fitted with an optional "ribbon stage". The ribbon stage is a laterally adjustable stage designed for the quick and efficient imaging of ribbon fibers.





VFI

Interferometric Inspection System

Technical Specifications

| Optical | VFI-200 | VFI-1200 | VFI-2000 |
|--------------------|---|---|---|
| Field of View | 200 μm maximum with x1.5, x2, x3 and x6 digital zoom | 1,200 μm maximum with x1.5, x2, x3 and x6 digital zoom | 2,000 μm maximum with x1.5, x2, x3 and x6 digital zoom |
| Image sensor | 1/1.8 inch CMOS array, 12-bit, 6.4 MP | | |
| Camera sensor size | 3,088 x 2,076 px, 2.4 μm square pixels | | |
| LED wavelength | 525 nm | | |

| Measurement Capabilities | VFI-200 | VFI-1200 | VFI-2000 |
|--|---|-----------------------------|----------------------------|
| Maximum measurable cleave angle (without using angled fiber holder)* | 2D mode: 10° 3D mode: 9° | 2D mode: 10° 3D mode: 8° | 2D mode: 8° 3D mode: 6° |
| Measurement time | 2D mode: real-time 3D mode: < 7 s | | |
| Image Quality | Fully resolves USAF Target to Level 7 minimum | | |
| Height Resolution | 0.01 μm | | |

| Measurement Capabilities | VFI-200 | VFI-1200 | VFI-2000 |
|---------------------------|---|----------|----------|
| Dimensions | 240(W) x 240(D) x 90(H) mm | | |
| Weight | 3 kg | | |
| Connection to computer | USB 3.0 (USB Type B to USB A); 1 m cable supplied | | |
| Power supply | Via USB | | |
| Operating systems support | Windows 10/11 64 bit | | |
| Computer requirements | 4 GB RAM; USB 3.0 port; 64 bit | | |
| Operating temperature | 10 - 30°C | | |

* Maximum angle is stated for a fiber with 125 μm cladding diameter. Larger cleave angle can be measured using an angled fiber holder.



VFI

Interferometric Inspection System

Ordering Information

| Part number | Description |
|-------------|---|
| VFI-200 | Interferometric inspection system for fibers with diameters from 80µm to 200 µm. Includes VFI-200 optical unit; fiber holder for 125 µm fibers; PC software; USB cable. Computer not included. |
| VFI-1200 | Interferometric inspection system for fibers with diameters from 80 to 1200 µm. Includes VFI-1200 optical unit; fiber holder for 400 µm fibers -either classic VF-H0-400 or dual VF-H0-400-D (requires VF-AP-3 or VF-AP-12.5), please specify version at time of order; VFI-FTK400 fiber samples; PC software; USB cable. Computer not included. |
| VFI-2000 | Interferometric inspection system for fibers with diameters from 400 to 2000 µm. Includes VFI-2000 optical unit; fiber holder for 400 µm fibers -either classic VF-H0-400 or dual VF-H0-400-D (requires VF-AP-3 or VF-AP-12.5), please specify version at time of order; VFI-FTK400 fiber samples; PC software; USB cable. Computer not included. |

| Holders | Description |
|--------------|---|
| VFI-H0 | Arden VFI fiber holder for 125 µm fiber, perpendicular cleave |
| VFI-H0-200 | Arden VFI fiber holder for 200 µm fiber, perpendicular cleave |
| VFI-H0-400 | Arden VFI fiber holder for 400 µm fiber, perpendicular cleave |
| VFI-H0-600 | Arden VFI fiber holder for 600 µm fiber, perpendicular cleave |
| VFI-H0-800 | Arden VFI fiber holder for 800 µm fiber, perpendicular cleave |
| VFI-H0-1000 | Arden VFI fiber holder for 1,000 µm fiber, perpendicular cleave |
| VFI-H0-1250 | Arden VFI fiber holder for 1,250 µm fiber, perpendicular cleave |
| VFI-H0-1500 | Arden VFI fiber holder for 1,500 µm fiber, perpendicular cleave |
| VFI-H0-2000 | Arden VFI fiber holder for 2,000 µm fiber, perpendicular cleave |
| VFI-H0-1250F | Arden VFI fiber holder for 1.25 mm ferrules |
| VFI-H-Angle | VFI angle inducing anulus for measuring cleave angles from 4° - 12° |

| Adapters | Description |
|----------|---|
| VF-MPS | VFI mounting plate for standard Arden Photonics VFI holders |
| VF-MPF | VFI mounting plate for 125 µm Fujikura style fiber holders (also works with FGC holders) |
| VF-MPFL | VFI mounting plate for 200 µm+ Fujikura style fiber holders (also works with FGC holders) |

| Other options | Description |
|---------------|---|
| VF-CC-01 | Rigid carrying case for VFI-200, VFI-1200 or VFI-2000 |
| VFI-UEW3 | VFI extended warranty covering parts and labour for 3 years from purchase, return to base. Cover excludes camera. |
| VFI-FTK400 | VFI fiber samples, 400 µm diameter, for checking VFI-1200 alignment and calibration. |

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