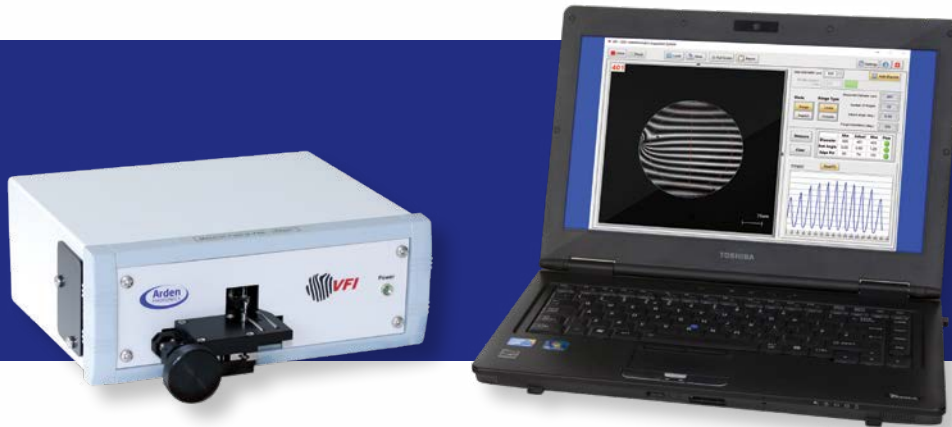




# VFI

## Interferometric Inspection System



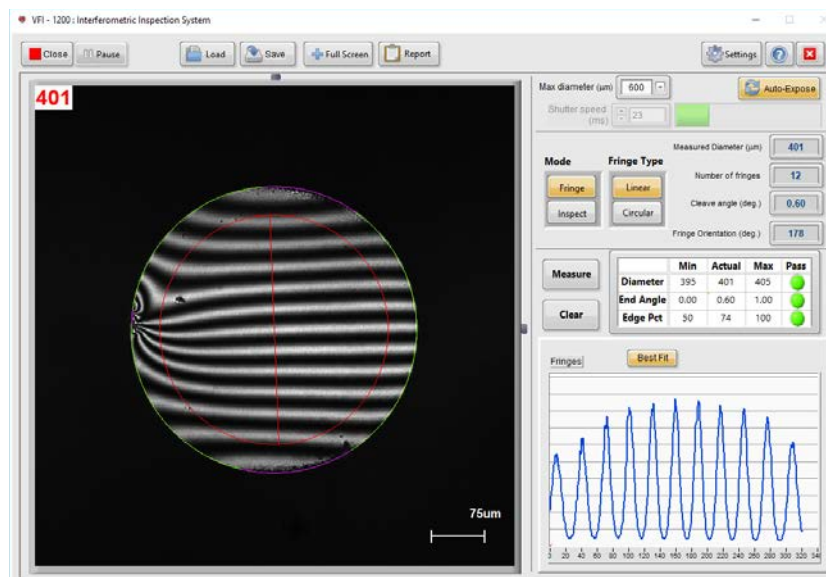
The VFI is an interferometric inspection system specifically designed for checking the surface quality and flatness of your cleaved or polished fibers. The VFI interferometer has proved itself in Research, Production and QA over and over and the feedback we get from users indicates that they value these features:

### Features & Benefits

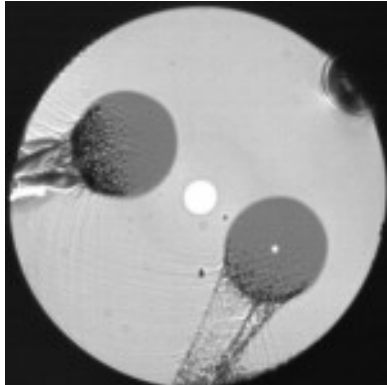
- 3 different fields of view depending on your application
- Flat and angled cleaves
- Arden and Fujikura/AFL holders
- Inspect and Fringe modes
- Automatic measurement feature
- User calibration facility
- Superb image quality
- End angle/radius of curvature estimation
- "Dual-style" holders fully inter-operable with FGC Fiber Geometry System and Fujikura cleavers and splicers

### Applications

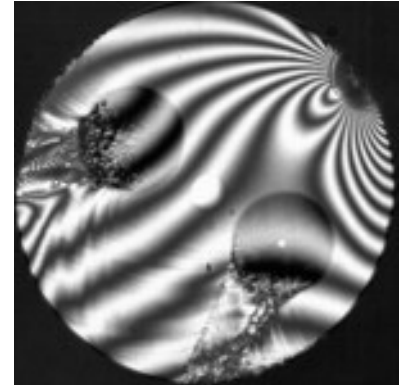
- Precision cleaver manufacture
- Cleaver maintenance
- Laser manufacture
- Medical device manufacture
- Fiber R&D
- Specialty fiber manufacture
- Development and testing of angled cleavers
- Device pig-tailing
- LDF cleaver manufacture/maintenance
- Fiber end cap manufacture
- Multifiber bundle manufacture



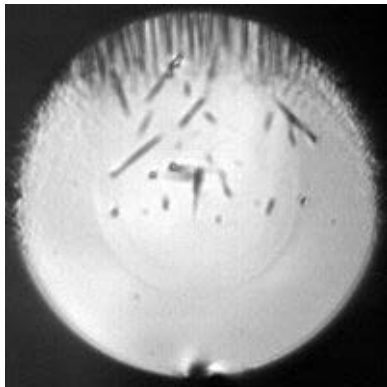
Polarisation Maintaining fiber showing cracking due to stress rods viewed in inspect mode



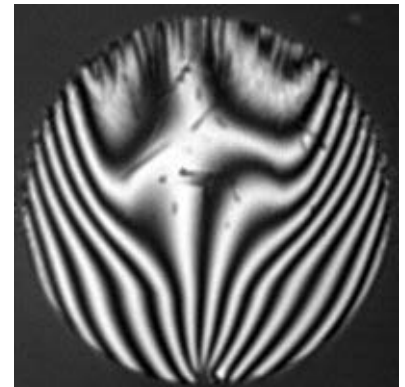
Polarisation Maintaining fiber showing cracking due to stress rods viewed in fringe mode



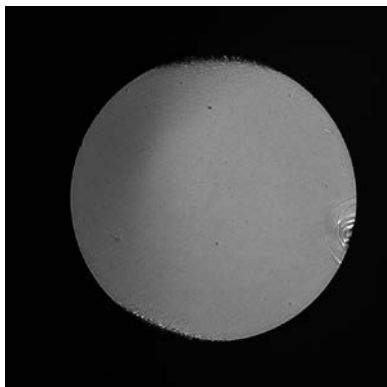
125µm fiber cleaved at 8° and measured in an 8° angled holder thus showing the large amount of hackle and cracking with angled cleaves, viewed in inspect mode



125µm fiber cleaved at 8° and measured in an 8° angled holder thus showing the characteristic saddle shaped interferogram from a non planar cleave, viewed in fringe mode



VFI 400µm calibration fiber viewed in inspect mode



VFI 400µm calibration fiber viewed in fringe mode





# VFI

# Interferometric Inspection System

## Technical Specifications

|                                  | VFI-200  | VFI-1200   | VFI-2000   |
|----------------------------------|--|--|--|
| <b>Field of View</b>             | 200µm  | 1200µm maximum with x1.5, x2, x3 and x6 digital zoom | 2000µm maximum with x1.5, x2, x3 and x6 digital zoom |
| <b>Dimensions</b>                | 240mm (W) x 240mm (D) x 90mm (H)                 | 240mm (W) x 240mm (D) x 90mm (H)                     | 240mm (W) x 240mm (D) x 90mm (H)                     |
| <b>Weight</b>                    | 2.0Kg  | 2.0Kg  | 2.0Kg  |
| <b>Image Sensor</b>              | 1/1.8 inch CMOS array, 12-bit, 6.4MP             | 1/1.8 inch CMOS array, 12-bit, 6.4MP                 | 1/1.8 inch CMOS array, 12-bit, 6.4MP                 |
| <b>Power Supply</b>              | 12v in-line power supply                         | 12v in-line power supply                             | 12v in-line power supply                             |
| <b>Resolution</b>                | 2076 x 2076, 2.4µm square pixels                 | 2076 x 2076, 2.4µm square pixels                     | 2076 x 2076, 2.4µm square pixels                     |
| <b>Fringe resolving power</b>    | 2µm/fringe                                       | 2µm/fringe   | 2µm/fringe   |
| <b>Maximum frame rate</b>        | >10 fps  | >10 fps  | >10 fps  |
| <b>LED wavelength</b>            | 587nm  | 587nm  | 587nm  |
| <b>*Accuracy up to 2°</b>        | <0.1°  | <0.1°  | <0.1°  |
| <b>Connection to computer</b>    | USB 3.0 (USB Type C to USB A: 1m cable supplied) | USB 3.0 (USB Type C to USB A: 1m cable supplied)     | USB 3.0 (USB Type C to USB A: 1m cable supplied)     |
| <b>Operating temperature</b>     | 0° to +50°C                                      | 0° to +50°C  | 0° to +50°C  |
| <b>Humidity</b>                  | 5%-95%, relative, non-condensing                 | 5%-95%, relative, non-condensing                     | 5%-95%, relative, non-condensing                     |
| <b>Operating systems support</b> | Windows 7/8/10 64bit                             | Windows 7/8/10 64bit                                 | Windows 7/8/10 64bit                                 |
| <b>Computer requirements</b>     | 2GB RAM; USB 3.0 port; 64bit                     | 2GB RAM; USB 3.0 port; 64bit                         | 2GB RAM; USB 3.0 port; 64bit                         |

\*Please note: Accuracy is measured using Arden Photonics' classic-style fiber holders.



# VFI

# Interferometric Inspection System

## Ordering Information

| Part Number | Description   |
|-------------|---|
| VFI-200     | Interferometric inspection system for fibers with diameters of 125µm. Includes VFI-200 optical unit; fiber holder for 125µm fibers; PC software; USB cable; power supply. Computer not included.                                      |
| VFI-1200    | Interferometric inspection system for fibers with diameters from 125 to 1200µm. Includes VFI-1200 optical unit; fiber holder for 400µm fibers; VFI-FTK400 fiber samples; PC software; USB cable; power supply. Computer not included. |
| VFI-2000    | Interferometric inspection system for fibers with diameters from 400 to 2000µm. Includes VFI-2000 optical unit; fiber holder for 400µm fibers; VFI-FTK400 fiber samples; PC software; USB cable; power supply. Computer not included. |

| Fiber Holders | Description  |
|---------------|--|
| VF-H0-XXX     | Classic-style Arden VFI fiber holder for XXX µm diameter fiber, perpendicular cleave                       |
| VF-H0-XXX-D   | Dual-style Arden VFI fiber holder for XXX µm diameter fiber, perpendicular cleave (requires adapter plate) |

Please note: Standard holder sizes include 125, 200, 250, 400, 600, 800, 1000, 1500, 2000 with custom diameters available with extra charge.

| Adapter Plates | Description   |
|----------------|---|
| VF-AP-3        | Adapter plate for use with dual-style Arden holders and Fujikura holders. For use with fiber protrusion of 3mm from end of holder   |
| VF-AP-12.5     | Adapter plate for use with dual-style Arden holders and Fujikura holders. For use with fiber protrusion of 12.5mm from end of holder for direct use with FGC system or Fujikura cleavers and splicers (not suitable for fibers under 200µm in diameter)                       |
| VF-AP-C        | Front-clamped adapter plate for use with dual-style Arden holders and Fujikura holders. For use with fiber protrusion of 12.5mm from end of holder for direct use with FGC system or Fujikura cleavers and splicers. Designed for use with fibers of diameter less than 200µm |

| Other Options | Description   |
|---------------|---|
| VF-CC-01      | Rigid carrying case for VFI-2000, VFI-1200 or VFI-200   |
| VFI-UEW2      | VFI extended warranty covering parts and labour for 2 years from purchase, return to base. Cover excludes camera. |
| VFI-UEW3      | VFI extended warranty covering parts and labour for 3 years from purchase, return to base. Cover excludes camera. |
| VFI-UEW4      | VFI extended warranty covering parts and labour for 4 years from purchase, return to base. Cover excludes camera. |
| VFI-UEW5      | VFI extended warranty covering parts and labour for 5 years from purchase, return to base. Cover excludes camera. |
| VFI-FTK400    | VFI fiber samples, 400µm diameter, for checking VFI-1200 alignment and calibration.                               |

For North American sales enquiries call **(727) 478-2651** or email us on [sales@ardenphotonics.com](mailto:sales@ardenphotonics.com)

For Rest of World sales enquiries call **+44 (0)121 733 7721** or email us on [sales@ardenphotonics.com](mailto:sales@ardenphotonics.com)

Iss 32 Jun 19

Manufactured by  
Arden Photonics Ltd

Arden Photonics Ltd,  
Royston House, 267 Cranmore Boulevard,  
Shirley, Solihull, B90 4QT, UK  
**+44 (0)121 733 7721**

Arden Photonics, LLC,  
4500 140th Avenue North, Suite 101,  
Clearwater, FL 33762, USA  
**+1 (727)478-2651**

[www.ardenphotonics.com](http://www.ardenphotonics.com)  
[enquiries@ardenphotonics.com](mailto:enquiries@ardenphotonics.com)