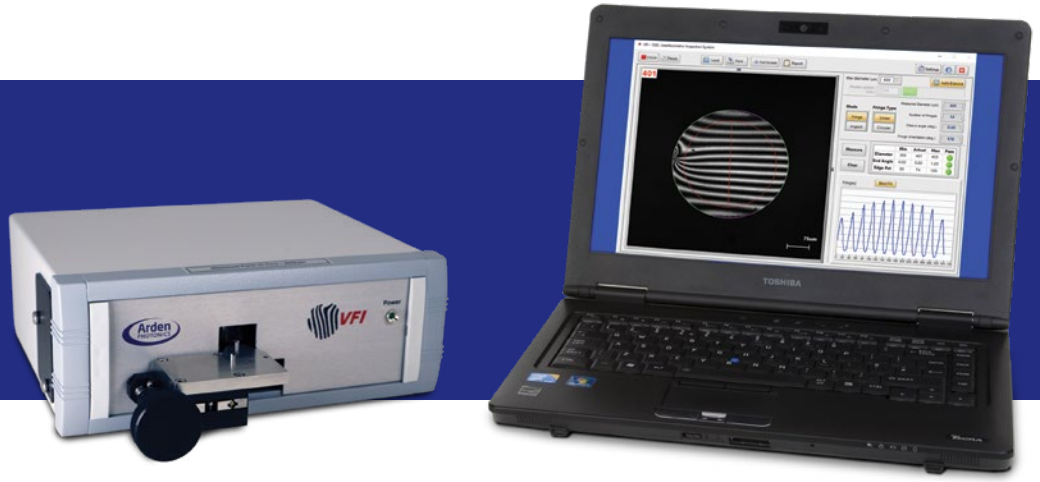
VFI
Interferometric Inspection System



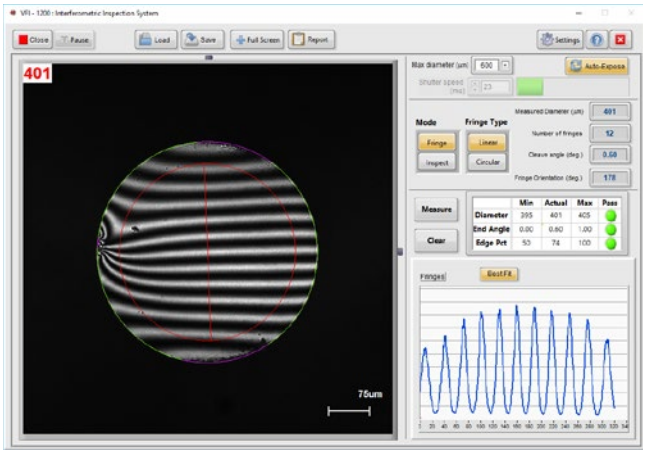
The VFI is an interferometric inspection system specifically designed for checking the surface quality and flatness of your cleaved or polished fibers. The VFI interferometer has proved itself in Research, Production and QA over and over and the feedback we get from users indicates that they value these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



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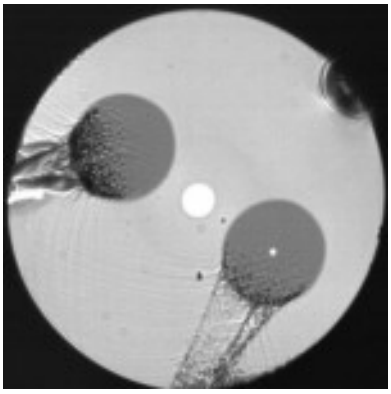
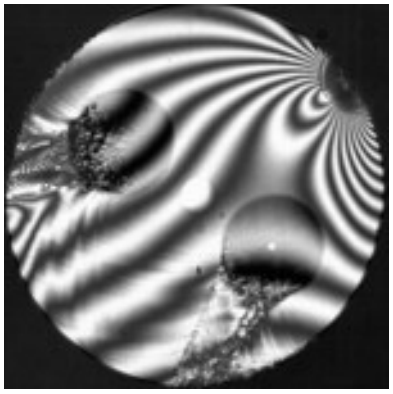
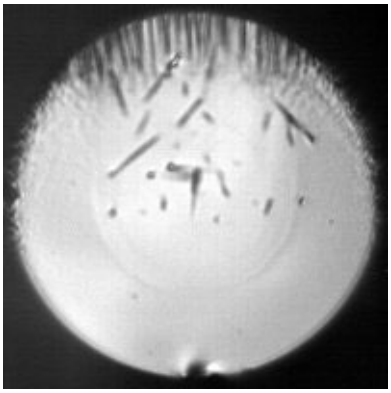
Polarisation Maintaining fiber showing cracking due to stress rods viewed in inspect mode



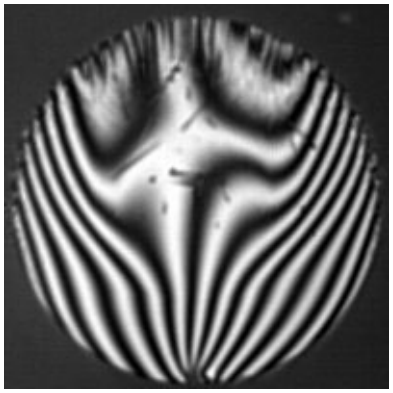
Polarisation Maintaining fiber showing cracking due to stress rods viewed in fringe mode



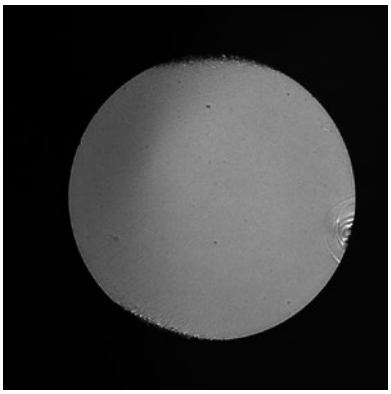
125µm fiber cleaved at 8° and measured in an 8° angled holder thus showing the large amount of hackle and cracking with angled cleaves, viewed in inspect mode



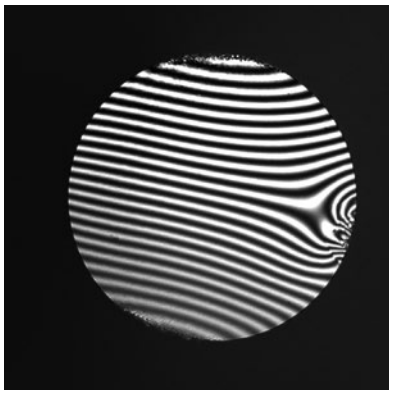
125µm fiber cleaved at 8° and measured in an 8° angled holder thus showing the characteristic saddle shaped interferogram from a non planar cleave, viewed in fringe mode



VFI 400µm calibration fiber viewed in inspect mode



VFI 400µm calibration fiber viewed in fringe mode



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Technical Specifications

	VFI-200	VFI-1200	VFI-2000
Field of View	200µm	1200µm maximum with x1.5, x2, x3 and x6 digital zoom	2000µm maximum with x1.5, x2, x3 and x6 digital zoom
Dimensions	240mm (W) x 240mm (D) x 90mm (H)	240mm (W) x 240mm (D) x 90mm (H)	240mm (W) x 240mm (D) x 90mm (H)
Weight	3.0Kg	3.0Kg	3.0Kg
Image Sensor	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
Power Supply	12v in-line power supply	12v in-line power supply	12v in-line power supply
Resolution	2076 x 2076, 2.4µm square pixels	2076 x 2076, 2.4µm square pixels	2076 x 2076, 2.4µm square pixels
Fringe resolving power	2µm/fringe	2µm/fringe	2µm/fringe
Maximum frame rate	>10 fps	>10 fps	>10 fps
LED wavelength	525nm	525nm	525nm
***Accuracy up to 2°**	<0.1°	<0.1°	<0.1°
Connection to computer	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)
Operating temperature	10 – 30°C	10 – 30°C	10 – 30°C
Humidity	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing	5% – 95%, relative, non-condensing
Operating systems support	Windows 7/8/10 64bit	Windows 7/8/10 64bit	Windows 7/8/10 64bit
Computer requirements	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.

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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)
VF-H08-XXXX	Arden fiber holder for xxxµm fiber, 8 degree cleave
VF-Annulus	9-sided annulus used with fiber holder in order to present the fiber to the VFI at a range of integer angles (from 4 to 12 degrees)

Please note: Standard holder sizes include 125, 200, 250, 400, 600, 800, 1000, 1250, 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 200um 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 125µm fiber only.

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**

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

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