CLEAVEMETER 2™

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Optical fiber end-face interferometer

- Sharp fringe patterns
- Flat and angled cleave measurements
- Operator skill independent for fast operation
- Documents images from critical end-faces in production and laboratory environments
- Accepts fibers with cladding diameters from 125µm to 1200µm
- Accepts fiber holders of major splicer manufacturers
- Adaptor plate angle error measurement and compensation (premium software)
- Plane angle and three-point fiber diameter measurement (premium software)

The CLEAVEMETER 2™ is a non-contact interferometer designed for inspecting the end-faces of cleaved or polished optical fibers with cladding diameters of 125µm to 1200µm. It gives immediate information on important end-face properties such as flatness, perpendicularity, hackles and dust. Sampling tests as well as continuous process documentation can be carried out both easily and quickly, making this an ideal instrument for cleaver inspection and optimisation.

The optical system is based on a high-end camera with true megapixel resolution and very high sensitivity, yielding excellent image quality at high frame rates and high magnification. Switching between low and high magnification is software-controlled. High-precision optics guarantees sharp and clear images and fringe patterns with very little aberration.

The CLEAVEMETER 2™ comes with user friendly and efficient software available in two different versions – standard and premium. Standard software features include cleave angle measurements with in-picture presentation of results, user-defined markers at points of interest, pseudo-colour mode for better constrast and the ability to log information, save and load images to and from files. The premium package includes support for measurement of plane angles and fiber diameters as well as compensation for adaptor plate angle error for increased accuracy.

Adaptor plates are available for both perpendicular and angled cleave measurements.The mechanical design is compatible with all NYFORS automatic fiber cleavers and accepts the fiber holders used with those machines as well as those of major splicer manufacturers. Customised adaptor plates are available upon request.

The CLEAVEMETER 2™ comes in a small ergonomic, benchtop design and connects to the USB port of a PC running the host application.

TECHNICAL DATA

Fiber cladding	125-1200µm
Fiber coating	250-1500µm
Camera resolution	1280×1024 pixels
Image scale	1.25 µm per pixel
Image file format	8-bit JPEG, PNG, TIFF, BMP
PC connection	USB 2.0 port
Power supply	Through USB port
Dimensions	97 mm (W) x 179 mm (D) x 142 mm (H)
Weight	1.6 kg

NYFORS part number: 30100012

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Selection Guide

Fiber-specific adaptor plates are required in order to properly align different fiber sizes to the center of the CLEAVEMETER™ optical system field of view. They are not included in delivery and should be ordered separately. Adaptor plates are available for use with NYFORS automatic fiber cleavers and fiber holders of major splicer manufacturers such as Ericsson and Fujikura. Below you find a selection of the most common types and dimensions. NYFORS adaptor plates are sized according to the cladding size required by the customer and are compatible with NYFORS LD fiber clamps and Ericsson FSU-clamps. Please select adaptor plate to match fiber cladding diameter and angle adaptor plate (optional) to match fiber tilt angle.

For more information about available adaptor plates and custom sizes, please contact us at info@nyfors.com.

A Shutter option is also available for this system. This option allows the user to temporarily eliminate the interference patterns for a more detailed view of the end face.

CLEAVE ANGLE ACCURACY

Absolute accuracy	0.15/0.03 degrees*
Relative accuracy	20 % of measured cleave angle (125-199µm)
	10 % of measured cleave angle (200-529µm)
	5 % of measured cleave angle (530-1200µm)

* Measurement accuracy without/with adaptor plate angle error compensation. The latter level of accuracy requires adaptor plate angular errors to be measured/compensated for on the individual CleaveMeter™ the holder is used with. For more information about system accuracy, please contact us at info@nyfors.com.
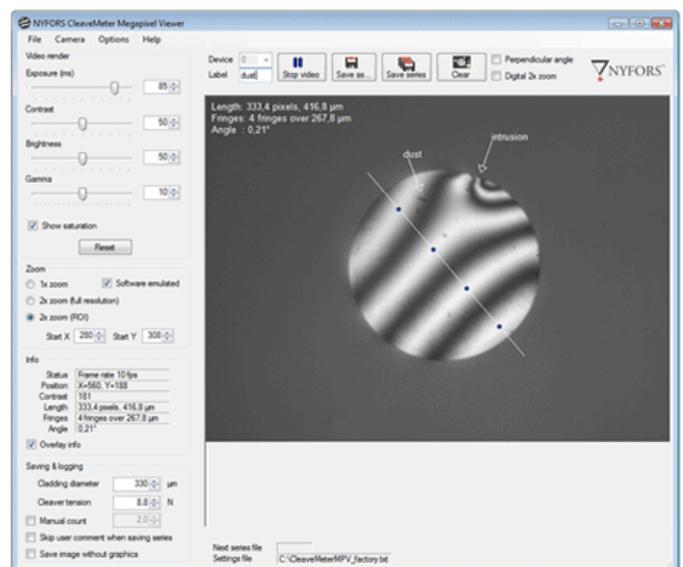
ACCESSORIES FOR CLEAVEMETER					CM 2	CM 3D	CM 3D+
Adaptor plate	Type	Cladding diameter	Article number	Article description			
	FJK	115-210µm	30100001	Adaptor plate, FJK, 115-210µm	•	•	
	FJK	200-529µm	30100002	Adaptor plate, FJK, 200-529µm	•	•	
	FJK	510-800µm	30100003	Adaptor plate, FJK, 510-800µm	•	•	
	FJK	800-1200µm	30100004	Adaptor plate, FJK, 800-1200µm	•	•	
	NYFORS	Customer Specified	30100007	Adaptor plate, NYFORS, Generic	•	•	
	Ferrule	Customer Specified	30100020	Adaptor plate, Ferrule, Generic	•	•	
	FSMA	-	30100024	Adaptor plate, FSMA	•	•	
	SMA	-	30100027	Adaptor plate, SMA	•	•	
	FITEL	115-210µm	30100022	Adaptor plate, FITEL, 115-210µm	•	•	
	FITEL	200-529µm	30100023	Adaptor plate, FITEL, 115-210µm	•	•	
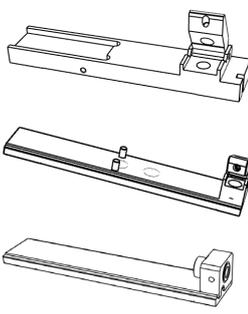
Angle adaptor plate	Angle	Article number	Article description			
	4°	30100021	Angle adaptor plate, 4deg	•	•	
	8°	30100009	Angle adaptor plate, 8deg	•	•	
	15°	30100008	Angle adaptor plate, 15deg	•	•	
	Customer Specified	30100010	Angle adaptor plate, Generic	•	•	
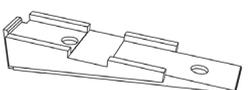
Options	Type	Article number	Article description			
	Premium license	30100014	Premium SW License	•		
	Shutter Option	30100036	CLEAVEMETER Shutter Option	•	•	•
	Autofocus Option	30100037	CLEAVEMETER Autofocus Option		•	