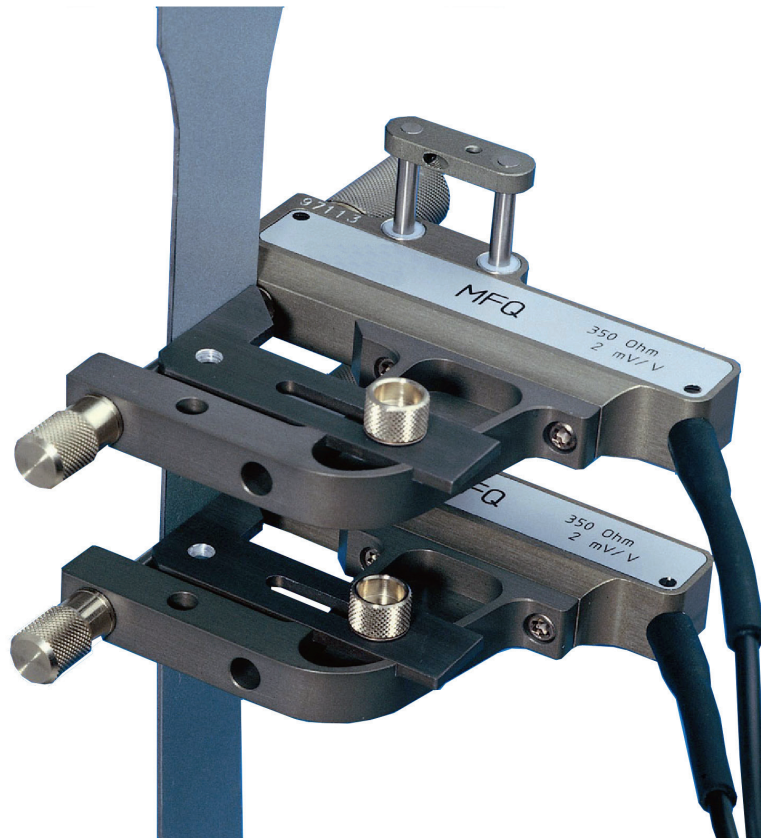


Transversal Extensometer Series MFQ-H

The self-supporting, hand-clamped, transversal extensometers MFQ-H are designed for measuring plastic strain ratio (r-value) in sheet (metal) testing or round samples.

Model MFQ-H extensometers are applicable for testing to ISO 10113 and ASTM E517.

These extensometers are available with one measuring location or as is available with one single measuring location or as averaging unit with two measuring locations.



MFQ-H models are equipped with easy exchangeable, fixed B0 -stops for fixed initial width of the specimen. The stoppers are easy and quick to change without any tools.

These extensometers are self-supporting on the sample. As the test sample is pulled, the contact edges follow the part of the sample they were mounted on, measuring lateral strain on the sample at the same location throughout the test.

The MFQ-H are compatible with MFL, MFX automatic axial extensometers and often used simultaneous with axial clip-on extensometer model MFA.

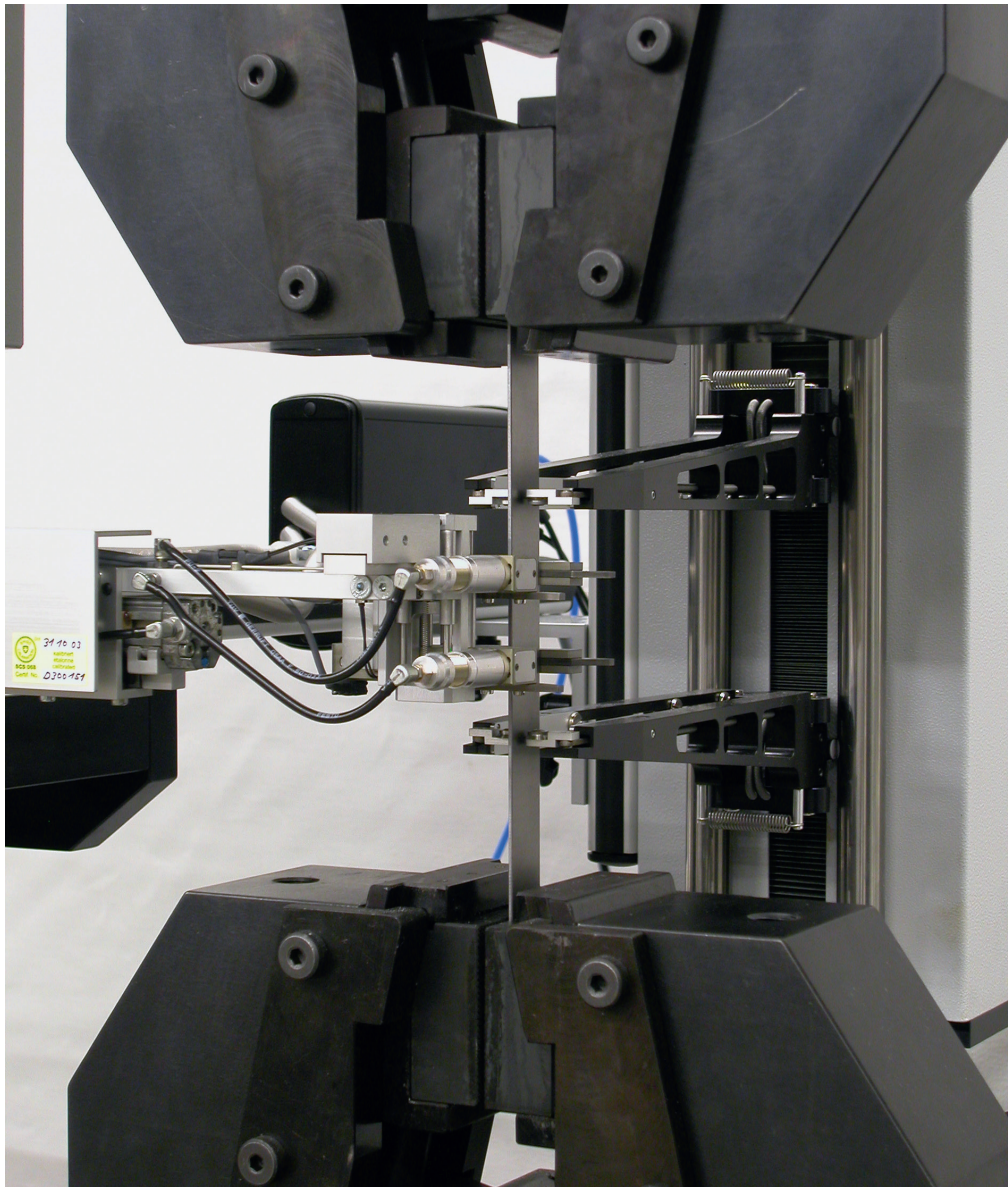
Features

- May be left on through specimen failure
- Self-supporting on specimen
- Standard configurations meet ISO 9513 class 0,5 and ASTM E83 class B-1 requirements for accuracy.
 - Easy to operate and comfortable clamping
 - Rugged design for strength and long lifetime
 - Low weight
 - Maintaining of the position of the measuring points during the tension test through a smooth-running guide rail system (averaging MFQ-H unit)
 - Durable knife edges
 - High quality foam lined case is provided
 - Includes high quality foam lined case

Technical Data:

Transverse Extensometer Series	MFQ-H	MFQ-H2
Measuring location	1	2 (averaging)
Accuracy class EN ISO 9513	0.5	0.5
Measuring principle	DMS-full bridge	DMS-full bridge
Nominal measuring travel (standard)	4 mm (6 mm optional)	4 mm (6 mm optional)
Indication error (v.A.)*	0.2 %	0.2 %
Indication error*	0.6 µm	0.6 µm
Full range error	0.05 %	0.05 %
Sensitivity	2 mV/V	2 mV/V
Specimen thickness	0.4 – 30 mm	
Specimen dimensional tolerance B ₀	± 0.3 mm	
Pressing force of the measuring pins	4 N (2 N)	4 N (2 N)
Specimen widths (fixed B ₀ , easy hangable)	10, 12.5, ½", 13, 20, 25, 1" 30 mm	10, 12.5, ½", 13, 20, 25, 1" 30
Specimen cross-section Thickness x Width	0.4 x 4 mm up to 30 x 25 mm (30 x 50 mm optional)	
Diameter (round specimen)	Ø 4-25 mm	
Optional available	Ø 4-50 mm / Ø 4-60 mm	
Weight:		
One measuring location		100 g
Two measuring locations		180 g

*The larger of the values is admissible.

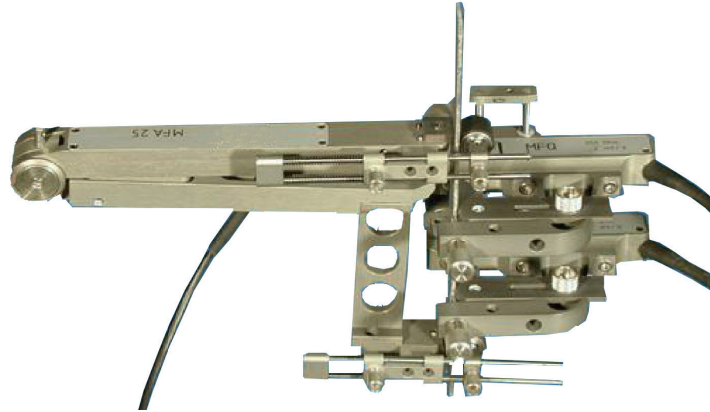


Operation:

The adjustable stops in the measurement brackets of the MFQ have to be set in such a way that the centre line of the sample approximately matches the centre line of the measuring pins. In order to clamp the MFQ the measuring pins are fully retracted by turning the knurled knobs counter clockwise. Then the MFQ is slightly pressed against the sample by means of the adjustable stops and clamped to the sample by turning the knurled knobs clockwise all the way. After uniform deformation the MFQ should be removed from the sample in order to prevent damage of the MFQ.

Important Note

This extensometer can be used with automatic extensometers MFL, MFX and axial clip-on extensometer MFA series



Supplied Parts:

- 1 MFQ with one or two measuring heads
- 2 gauge blocks for calibration (corresponding to gauge length position)
- 1 Storing case
- 1 Measurement protocol

Calibration of MFQ:

The MFQ gauge blocks are supplied for sensitivity calibration of the measurement amplifier. For example, with the 16.5 mm gauge block the amplifier can be set at zero and with the 20.5 mm calibration block it can be set to its nominal sensitivity (also view the operating instructions).

Option for Environmental Chamber Units

20 109-200	-55°C to +200°C for MFQ-H
20 110-200	-55°C to +200°C for MFQ-H2

Option Weight compensation

Weight compensated MFQ units with deflection pulley available for very thin sheets.

MFQ-H2 with two measuring locations:

