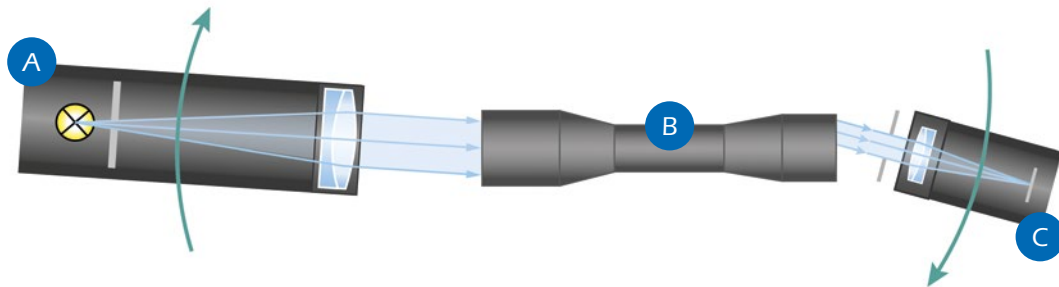


ImageMaster[®] Afocal

Telescope Test Bench



For image quality testing of optical afocal systems TRIOPTICS has developed the new telescope test bench ImageMaster® Afocal. The horizontal measurement system is well suited for typical afocal samples like telescopes and riflescopes. With additional options and dedicated sample holders it is upgradeable for measurement of binoculars and spotting scopes.



The ImageMaster® Afocal measures at infinite and finite conjugates. A collimator (A) simulates a distant object which may be located at infinity or some closer distance. A motorized video telescope (C) views the image created by the sample (B).

In its standard configuration a wide range of parameters such as MTF or magnification is easily measured with the ImageMaster® Afocal. With its focusable collimator also specific measurements like parallax (free distance) can be performed easily and with little effort.

In order to meet individual requirements, the test bench is available with various upgrades. The result are flexible configuration options for measurement of different specific parameters of optical afocal systems, for instance the subjective as well as the objective field of view. Another important parameter, especially for riflescopes and spotting scopes is the eyerelief. It rounds up the versatile measurement functionality of the ImageMaster® Afocal.

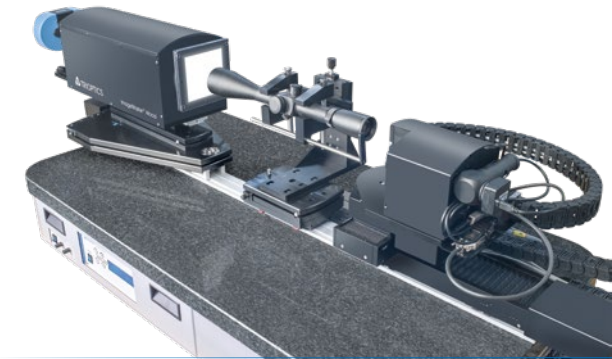
Key Features

- Horizontal measurement system for measuring image quality of optical afocal systems (e. g. riflescopes and binoculars)
- Measurement Process: manual or fully automated
- Measurement at infinite and finite conjugates
- ImageMaster® MTF Lab Software

Measurement Parameters

The ImageMaster® Afocal test bench measures the following parameters:

- MTF on-axis and off-axis
- Magnification
- Distortion
- Lateral chromatic aberration
- Longitudinal chromatic aberration
- Astigmatism
- Field curvature
- Parallax (Alignment check of reticle)
- Field of View; objective & subjective (Optional)
- Eyereief (with optional autocollimator)



Software MTF-Lab for ImageMaster® Afocal

- Measurements of MTF, magnification and a range of other parameters using special target patterns and dedicated software routines
- Functions for easy alignment of the sample under test
- Conventional MTF measurement using a single slit or a crosshair as a target
- Automated selection and positioning of the suitable reticle (target) and filter for the current application
- Configuration files with optimized process parameters and password protected access for operator and supervisor
- Scripting tools for customer specific programming and analysis
- Intuitive user interface and time-saving lens test routines
- External control via TCP/IP

Technical Data

	ImageMaster® Afocal
Spectral Range	450–750 nm
Clear Aperture	25–78 mm
Illumination Sources	Halogen light source (Optional “White” LED panel)
Max. off-axis object angle	± 15°
Max. off-axis image angle	± 45° (90° optional)
Magnification	1 – 60x
MTF Accuracy on-axis an off-axis	± 3 MTF
MTF Repeatability	± 2 MTF
Object distances	20 m–∞

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