



Verify
endoscope
image quality
before and
after repair



Lighthouse Imaging

Because precision is everything

EndobenchXTB enables OEMs and scope repair service professionals to quantitatively measure and verify clinically relevant optical characteristics of rigid and flexible endoscopes.

LighthouseOptics.com

EndoBenchXTB is an endoscope image quality test system for scope manufacturing and repair QC testing, suitable for high production work environments. The instrument consists of a custom designed opto-mechanical system and software to evaluate and report the parameters that are central to a clinical environment. Adapters and fixtures are included for measuring a wide range of rigid, flexible and video endoscopes.

EndoBenchXTB™

EndoBenchXTB is configured as a bench-mounted system for users that do not require portability and prefer a heavy-duty opto-mechanical assembly. Base model includes:

- EndobenchXTB test bench system w/rail assembly and components
- Machine vision computer (HP) – Windows 7 OS
- Endobench v9.1 software; SQL (Access) database; Excel file support
- 15 inch touch screen display
- System connection modules (2 ea.) and cabling
- Keyboard (packed in foam sleeve)
- Accessories (contained in case)
 - Schott LED Light Source w/ power supply and RS-232 Adapter w/Cable & Light Cable (Lightguide, Light Guide Adapter)
 - Source Adapters - Instrument Adaptor(s) – 4 each
- 17mm Diopter Scale Coupler; 27mm Diopter Scale Coupler; 40mm Diopter Scale Coupler
- USB Hub, power supply, and Interface Cable
- Binder (book) of targets

Optional enhancements include:

- Digital encoder for direction of view (DOV) and field of view (FOV) measurements (P/N 8900083)
- Fixture for mounting camera at offset or off-axis position for measuring offset or angled rigid scopes (P/N 8300001)
- Side-load scope tip mount for small diameter or flexible scopes (P/N 8300002)
- Eyepiece runout – measures image wander when scope is rotated in video coupler (P/N 8300003)
- Diopter at infinity - measurement of eyepiece diopter error for object at infinity (P/N 8300004)
- Small size CCD sensor camera w/mount (P/N 8300005)



Offset eyepiece camera mount

Specifications

Diameters: 2 -16mm

Lengths: 90 - 550mm

Angles of view: 50°-140° Field of view, -30°-115° direction of view

Endoscope types that can be tested:

Rigid endoscopes (laparoscopes, arthroscopes, etc.), flexible fiberoptic endoscopes, video endoscopes (with VCR/NTSC output)

Available measurements:

MTF (image sharpness), image optics transmission and uniformity, fiberoptics brightness and distribution, coloration, distortion, eyepiece diopter error, real and apparent field of view, direction of view

We set a higher standard

Lighthouse Imaging Corporation is a leading provider of optical engineering and design services for the medical device industry.

We design, develop and manufacture optical assemblies for the medical device industry and are the leading provider of test and measurement equipment for verifying the optical quality of endoscopes.

Lighthouse Imaging is an ISO 13485:2003 and ISO 9001:2008 certified, FDA registered medical device manufacturer specializing in minimally invasive surgical applications.



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