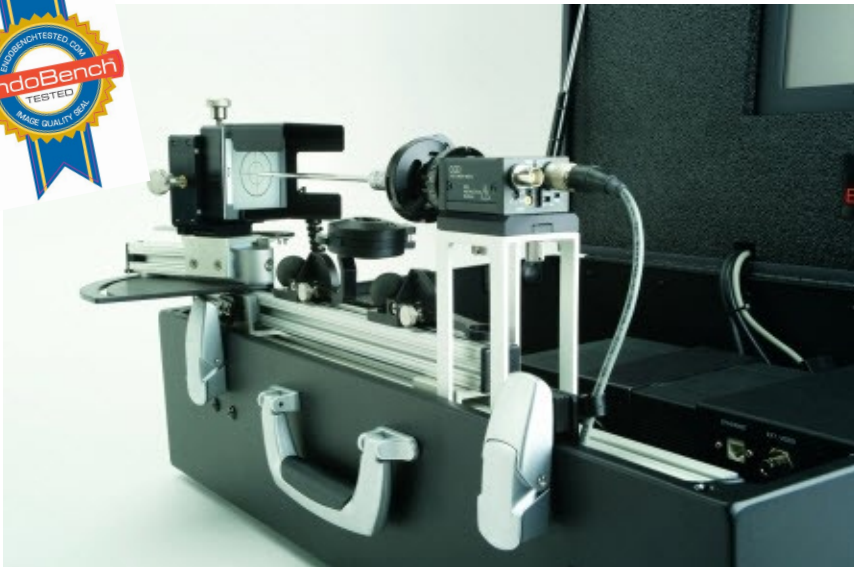


# ENDO BENCH XT™ & ENDO BENCH XTB™

Track and verify endoscope image quality before and after repair.  
Meets Joint Commission tracing requirements!

EndoBench™ by Lighthouse Optics, enables medical manufacturers, service professionals, and medical facilities to quantitatively measure and verify clinically relevant optical characteristics of rigid and flexible endoscopes, such as; MTF (image sharpness), TVC (image optic transmission, uniformity, vignetting, coloration), Distortion, FOV (field of view), AFOV (apparent field of view), DOV (Direction of View), and fiber optic illumination brightness and distribution.



EndoBench XT™ Portable Version is suitable for smaller facilities, repair labs, and field service technicians.



Flexible scope testing using EndoBench XT™

## XT Features & Specifications

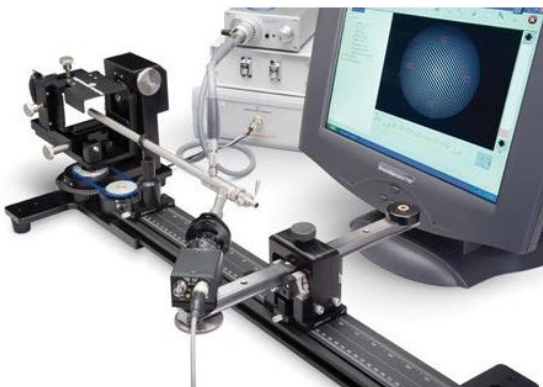
- Scope Diameters: from 2-16mm
- Lengths: 160-470mm
- Angles of View: 50°-140° FOV
- Direction of View: -5° - 80° DOV
- Test: Rigid Endoscopes, Flexible Fiberoptic endoscopes and Video endoscopes (with VCR/NTSC output)
- Touch screen display
- Printable PDF reports and database storage
- 25% higher output external light source
- Up-to-date system software and high-performance CPU
- Improved data interface
- Ability to rotate data collection axis
- Opto-Mechanical rail and systems included in portable case (50 lbs.)
- Annual calibration recommended

## MEASURE + VERIFY

*Inspect endoscopic optical quality like the pros!  
The EndoBench XT™ Portable Version and EndoBench XTB™ Bench-Mount Version provides manufacturers, repair facilities, sterile processing and clinical engineering with important data to measure, verify, and ensure proper image quality.*

# ENDO BENCH XT/XTB™

The EndoBench XT™ (Portable Version) and EndoBench XTB™ (Bench-Mount Version) are endoscope image quality test systems for scope manufacturing and repair / QC testing. The instrument consists of a custom-designed opto-mechanical system, and software, to evaluate and report parameters that are central to a clinical environment such as, MTF (image sharpness), TVC (image transmission, vignetting, coloration), Distortion, FOV (field of view), AFOV (apparent field of view), DOV (Direction of View), and fiber optic brightness and distribution. Adapters and fixtures are included for measuring rigid, flexible, and video endoscopes.



EndoBench XTB™ showing close up of rigid scope measurement with fixture for off-set scopes.



EndoBench XTB—Bench Mount Version has a heavy-duty opto-mechanical assembly that is suitable for manufacturing and high production work environments where portability is not necessary.

## XTB Features & Specifications

- Scope Diameters: from 2-16mm
  - Lengths: 90-635mm
  - Angles of View: 50°-140° FOV
  - Direction of View: -30° - 115° DOV
- Base Model 8900083 includes:
- EndoBench XTB test bench system w/ rail assembly and components
  - Machine vision computer (HP) Windows 7 OS
  - EndoBench software; MS Access database; Excel file support
  - 15" touch screen display
  - System connection modules (2 each) and cabling
  - Keyboard & Mouse
  - Accessories: Schott LED Light Source w/ power supply and RS-232 Adapter w/ Cable & Light Cable Adapters
  - Source Adapters—Instrument Adapters—4 each
  - 17mm Diopter Scale Coupler
  - 27mm Diopter Scale Coupler
  - 40mm Diopter Scale Coupler
  - Digital encoder for DOV and FOV measurements
  - USB Hub, Power Supply and Interface Cable
  - Binder (book) of Targets

Professional series 8900097 includes:

- Fixture for offset scopes
- Side-load tip mount for small diameter or flexible scopes
- Eyepiece runout—measures image wander when scope is rotated in video coupler
- Diopter at infinity— measurement of eyepiece diopter error



**Lighthouse Imaging**

