The Dorsey Advantage

Construction features of our Model 16H

Focus travel is always "optically coaxial"
Unique design features an intermediate plate that allows the focus axis to travel independently of the X axis

Ultra Precision Cast Iron Stage
Large capacity 10" x 6" travel - 150 lbs stage system
Optional 20" or 24" X axis travel
Solid cast iron - no aluminum

X Axis glass scale has zero backlash and is mounted directly under focal plane to greatly increase accuracy

Lens is mounted to cast iron nickel plated stage - not to sheet metal case

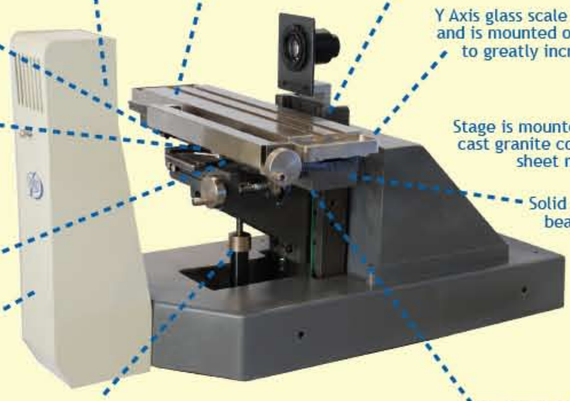
Y Axis glass scale has zero backlash and is mounted on lens center line to greatly increase accuracy

Single hand quick release on X axis

Stage is mounted to independent cast granite composite base not sheet metal case

Both profile and surface illumination bulbs are located in lamphouse

Solid rail crossed roller bearings in all axes



True parfocal helix adjustment ±15 degree with 5 minute vernier

Case fabrication is powder coated not painted

Y axis drive is located directly under the center of gravity, and uses a composite steel/Delrin bevel gear set for accurate and silent operation

For improved stability, the weight bearing stage base is longer than stage top

Available with internal edge sensing ("IED")

This feature provides automatic edge detection without the viewing obstruction of a plexiglass arm on the screen. The IED target is aligned directly behind the screen crossline.

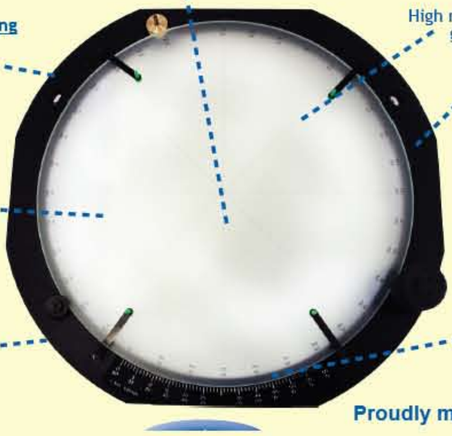
- IED is more accurate because the image is "read directly and is not diffused through ground glass screen.
- IED is also not subject to the stability and rigidity of a plastic arm, our IED sensor cannot be bumped out of alignment under normal use.

Standard with Machined Chart Ring

Screen is mounted in precision machined chart ring for increased rigidity, optical accuracy, and improved protractor operation

High resolution lapped glass screen

Recessed screen protects damage and eliminates contamination of internal optics



Built in calibration reticle for easy magnification verification

Large format vernier protractor with one minute graduations

Machined chart ring with recesses screen protects internal optics and facilitates the alignment of the screen to the optical axis

Proudly made in the USA

Model 16H Horizontal Beam

This extremely versatile measurement instrument features a robust cast granite composite base and our proven cast iron "ultra precision" stage system. This comparator comes standard with integrated fiber optic surface illumination. Measurement scales are mounted in the center of travel with zero backlash. A variety of readout options combine to make this one of the most accurate and versatile horizontal benchtop comparators.

Features:

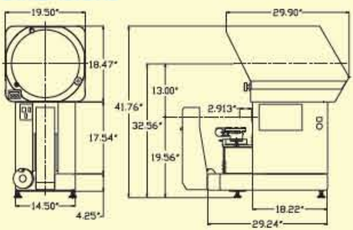
- 16" (400mm) Vertical screen for optimum viewing
- Erect and reversed profile image
- High resolution ground glass screen with calibration reticle, 90 degree cross lines and chart clips
- Machined chart ring with vernier protractor, 1 minute graduation
- Coated telecentric parfocal optics
- Quick change single lens mount
- Fiber optic surface illumination
- Integrated hood
- Solid cast iron nickel plated stage
  - 3 axes solid rail crossed roller bearings
  - Twin universal dovetails
  - 18" x 5" overall size
  - 10" X axis travel with "glide release"
  - 6" Y axis travel (vertical movement/rise & fall)
  - 150 lbs capacity
  - ±15 degree true parfocal helix stage adjustment, with 5 minute vernier
- NIST traceable calibration certificate
- 2 Year limited warranty

Optional Features:

- Internal edge detection
- Swing away lamp house arm
- 20" or 24" extended stage travel on "X" axis (50 lbs capacity), 5" Y axis travel (vertical movement Rise & Fall)
- Choice of readout options see pages 11-13
- Motorized and CNC computer controlled systems, 50 lbs capacity
- Output for electronic rotary screen protractor (Q axis) with selectable 1 minute or 1/100 of a degree resolution
- Harsh Environment package
- 3 axes of measurement

Technical Specification	
Illumination	Profile: Built-in 24V/150W direct collimated halogen Surface: Built-in 24V/250W via fiber optics
Screen Size	16" (400mm) Ground glass with cross-lines
Stage	Cast iron, nickel plated, 18" x 5", twin dovetail
Stage Travel	X = 10" (250mm) Y = 6" (150mm) Focus = 2" (50mm)
Stage Options	Optional increase of stage travel to 20" (500mm) or 24" (600mm) on X axis
Stage Accuracy	Within +/- 0.004mm +[(L/20).001]
Linear Scale Resolution	Standard: 0.00025mm/.000010"
Repeatability of Scales	+/- 1 Scale count (0.0005mm/.00002")
Coated Telecentric Lenses	5x, 10x, 20x, 25x, 31.25x, 50x, 62.5x, 100x
Optical Accuracy	Within +/- .10% Profile, +/- .15% Surface
Power Requirements	120V or 240V AC, 50/60 Hz, 10 Amp
Weight	460 lbs/209 kg

DIMENSIONS



Proudly made in the USA