

MODEL 14H HORIZONTAL BEAM

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The Benchmark 14H is an Industry Standard Erect and Reversed Image bench top comparator and is another example of our expanding range of products. This new comparator has the same high quality features as the current product line, with an erect projection image and our "ultra-precision" crossed roller bearing stage system, but in a smaller package. The measurement scales have zero backlash and are mounted in the center of the stage travel which provides maximum measurement accuracy. The optional extra long-life LED surface illumination is another Dorsey innovation.

FEATURES:

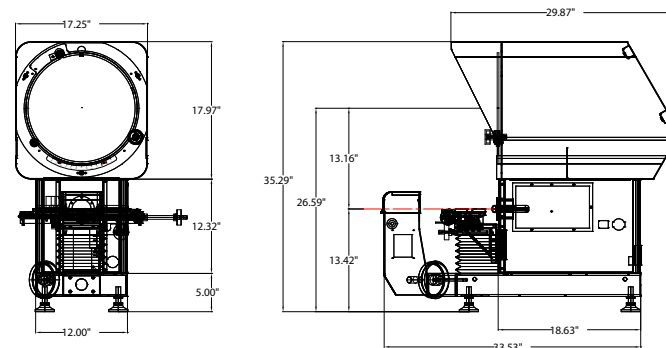
- Industry Standard - erect and reversed profile image
- 14" (350mm) vertical screen for optimum viewing, high resolution ground glass screen with 90 degree cross lines, with calibration reticle and chart clips
- Machined chart ring with vernier protractor, 1 minute graduation facilitates optimal alignment
- Coated telecentric parfocal optics
- Quick change single lens mount
- Integrated hood
- Solid cast iron, nickel plated stage
- X&Y solid rail crossed roller bearings
- Single universal dovetail stage
- 16" x 4" (400x100mm) overall stage size
- 8" / (200mm) X-axis travel with quick release
- 4" / (100mm) Y-axis travel (vertical movement/rise and fall)
- 50 lbs capacity
- ± 5 degree light source helix adjustment
- LED surface & dimmable profile illumination
- 0.1 μm scales are standard equipment
- NIST traceable calibration certificate
- 2 year limited warranty



OPTIONAL FEATURES:

- Internal edge detection
- Choice of readout options, see page 90
- Output for electronic rotary screen protractor (Q-axis) on readout with selectable between DMS (degree-minute-second) and DD (decimal-degrees) of a degree resolution
- Q axis accuracy of ± 0.5 degrees
- Harsh Environment Package
- Additional lens magnifications available
- Tooling

DIMENSIONS



Technical Specification	
Illumination	Profile: Dimmable LED Surface: 2-Triple LED lights
Screen Size	14" (350mm) Ground glass with cross-lines
Stage	Cast iron, nickel plated, 16" x 4" single dovetail
Stage Travel	X = 8" (200mm) Y = 4" (100mm) Focus = 1.5" (38mm)
Stage Accuracy	Within $\pm 0.004\text{mm}$ $+[L/20].001]$
Linear Scale Resolution	Standard: 0.1 $\mu\text{m}/.000004"$
Repeatability of Scales	± 1 Scale count (0.1 $\mu\text{m}/.000004"$)
Coated Telecentric Lenses	10x, 20x, 50x
Optical Accuracy	Within $\pm .10\%$ Profile, $\pm .15\%$ Surface
Power Requirements	120V or 240V AC, 50/60 Hz, 10 Amp
Weight	250 lbs/113 kg