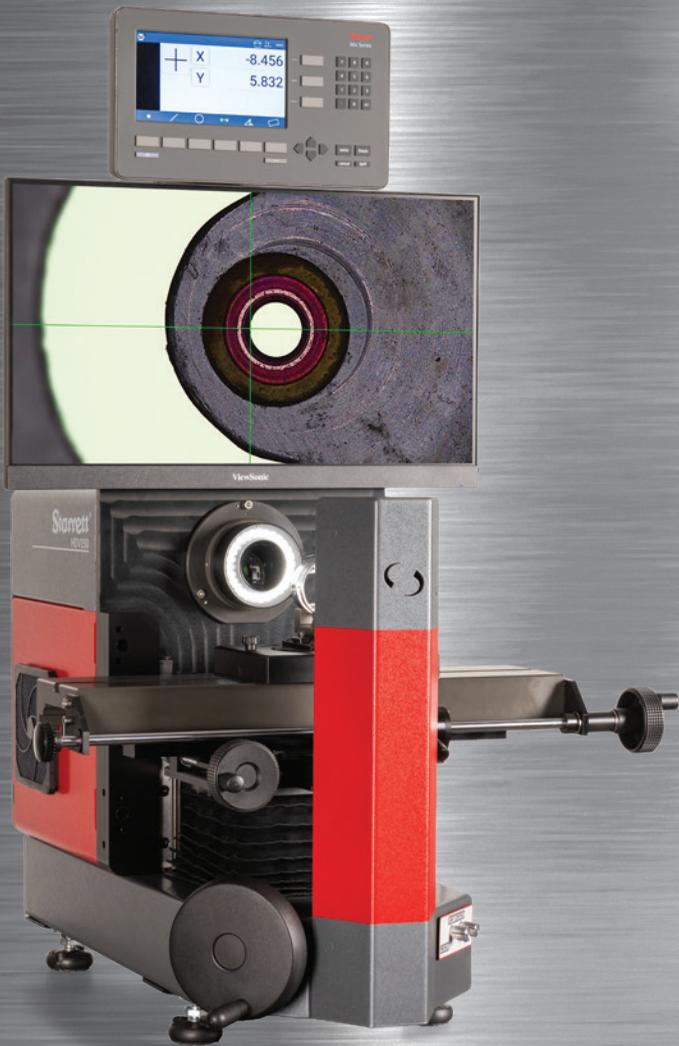


# Starrett®



HDV250

KMR SERIES

MVR SERIES

AVR SERIES

## VISION SYSTEMS

METROLOGY  SOLUTIONS

## STARRETT HDV250 DIGITAL COMPARATOR SYSTEM

MODERN COMPARATOR WORKFLOW.  
DIGITAL CLARITY. SHOP-FLOOR READY.

The Starrett HDV250 is a next-generation digital comparator designed to modernize traditional profile inspection while preserving the workflow operators trust. Built on the proven body and stage platform of Starrett legacy comparator systems, the HDV250 maintains familiar manual operation and crosshair-based measurement techniques — replacing projection optics and mirrors with advanced digital imaging technology.

A high-resolution video camera and integrated LED ring surface illumination, derived from the HDV400 CNC series, deliver enhanced edge contrast and superior surface visibility. The system provides the same crisp silhouette view expected from a traditional optical comparator while enabling clear inspection of features that cannot be backlit.

The HDV250 is engineered to be shop-floor ready and as durable as traditional projection systems. Optional clean air kits can also provide an additional barrier between the system's internal components and the elements. With a compact footprint, reduced weight, and solid mechanical construction, it is well suited for real-world manufacturing environments.

By combining familiar operation with digital imaging, the HDV250 enables faster inspections, enhanced surface evaluation, and more consistent measurement results — all at a price point competitive with standard comparator systems.

Backed by over 140 years of Starrett metrology expertise, the HDV250 delivers inspection integrity and confidence for modern production environments.



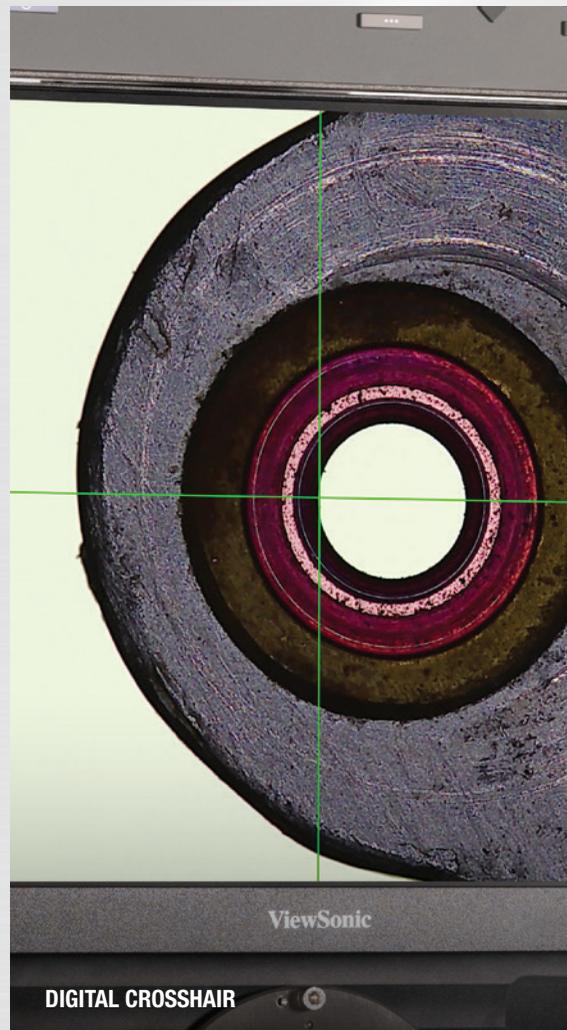
## OPERATOR INTERFACE

The HDV250 is designed around a monitor-based digital viewing system paired with the MetLogix Mx200 digital readout (DRO). The live video image replaces the traditional glass projection screen while maintaining crosshair-based measurement methods familiar to comparator operators.

A digital crosshair is displayed directly on the monitor, allowing precise data point acquisition without altering established inspection workflows. Operators position the part using manual handwheels and capture measurements using the DRO interface, preserving the intuitive feel of a traditional comparator while benefiting from enhanced image clarity and digital resolution.

The integrated LED ring light provides consistent surface illumination, improving edge definition and contrast across a range of materials and finishes. The result is clearer feature visualization, improved repeatability, and greater measurement confidence.

The interface is intentionally straightforward to minimize training requirements and allow seamless transition from legacy optical comparator systems.



## DIGITAL IMAGING & ILLUMINATION

The HDV250 combines high-resolution digital imaging with integrated LED ring light surface illumination to enhance both profile and surface inspection capability. By replacing traditional projection optics with a camera-based viewing system, the HDV250 delivers clearer visualization, improved contrast, and more consistent lighting performance across a wide range of part geometries and finishes.

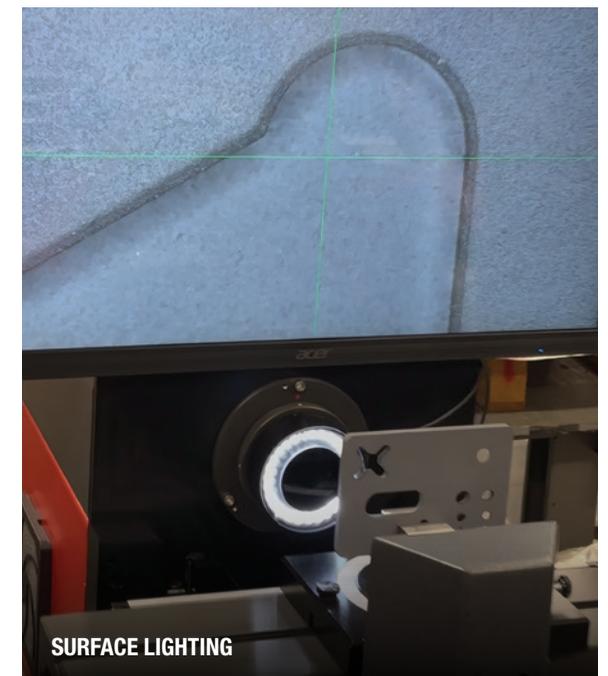
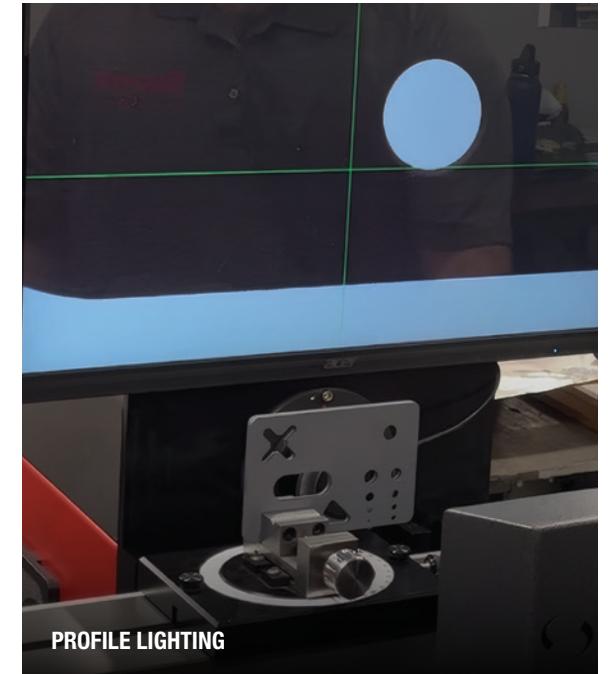
### STANDARD FEATURES

- High-resolution digital video camera
- Integrated LED ring light surface illumination
- Digital crosshair for easy data point acquisition
- MetLogix Mx200 digital readout (DRO)
- Monitor-based image display
- Manual stage motion via handwheels
- Compact, floor-ready footprint
- Durable construction for shop-floor environments
- Competitive price point relative to standard comparators

### THIS CONFIGURATION PROVIDES:

- Crisp profile contour viewing
- Enhanced surface feature visibility
- Improved edge detection clarity
- Consistent illumination across varied finishes
- Continued compatibility with Starrett comparator stage accessories for seamless upgrades

Unlike traditional projection systems that rely on lamps, mirrors, and screens, the HDV250 reduces optical alignment concerns while maintaining precision measurement capability. The proven stage platform remains compatible with existing Starrett comparator accessories, allowing current users to transition to digital imaging while preserving their established fixturing and tooling investments.



## SYSTEM CONSTRUCTION & FOOTPRINT

The HDV250 shares the same robust body and stage architecture as Starrett's legacy comparator models, ensuring durability and long-term performance. The system is engineered for shop-floor use, offering:

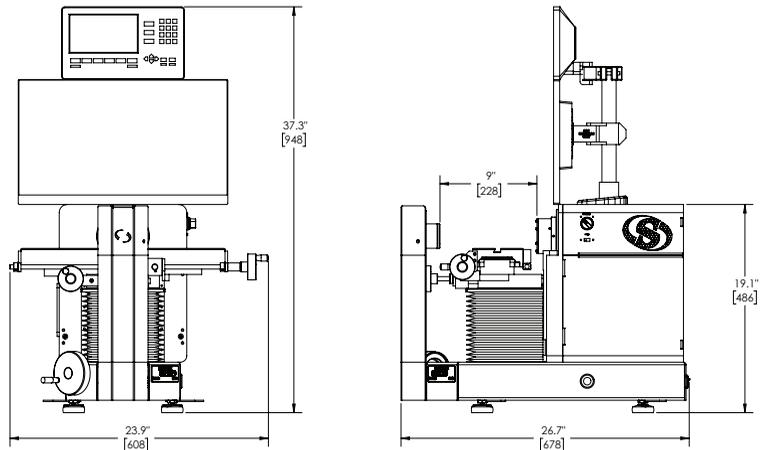
- Compact, floor-ready footprint
- Reduced overall weight for easier installation
- Durable mechanical construction
- Familiar manual stage operation

Its accessible price point makes modern digital comparator capability available to small and mid-scale operations seeking to improve inspection throughput without transitioning to full CNC systems.

### HDV250 WEIGHT & DIMENSIONS

Net weight: 122 lbs (55 kg)

Shipping weight: 234 lbs (106 kg)



CATEGORY	SPECIFICATIONS
<b>Measurement Range (Stage Travel)</b>	
X-axis	250 mm (10")
Y-axis	100 mm (4")
Z-axis (focus range)	50 mm (2")
<b>Stage Dimensions</b>	
X-axis	480 mm (18.9")
Z-axis	120 mm (4.7")
Motion Control	Manual X-Y positioning via precision handwheels
Scale Resolution	Enclosed glass linear encoders
X & Y Resolution	1 $\mu\text{m}$ (0.00005")
Stage Load Capacity	55 lb (25 kg)*

\*Pending final confirmation

### Starrett Metrology Division

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### HDV250

Bulletin 985

1.5M/Q 2/26

The L.S. Starrett Company 2026®  
Specifications Subject to Change