

# DELTRONIC

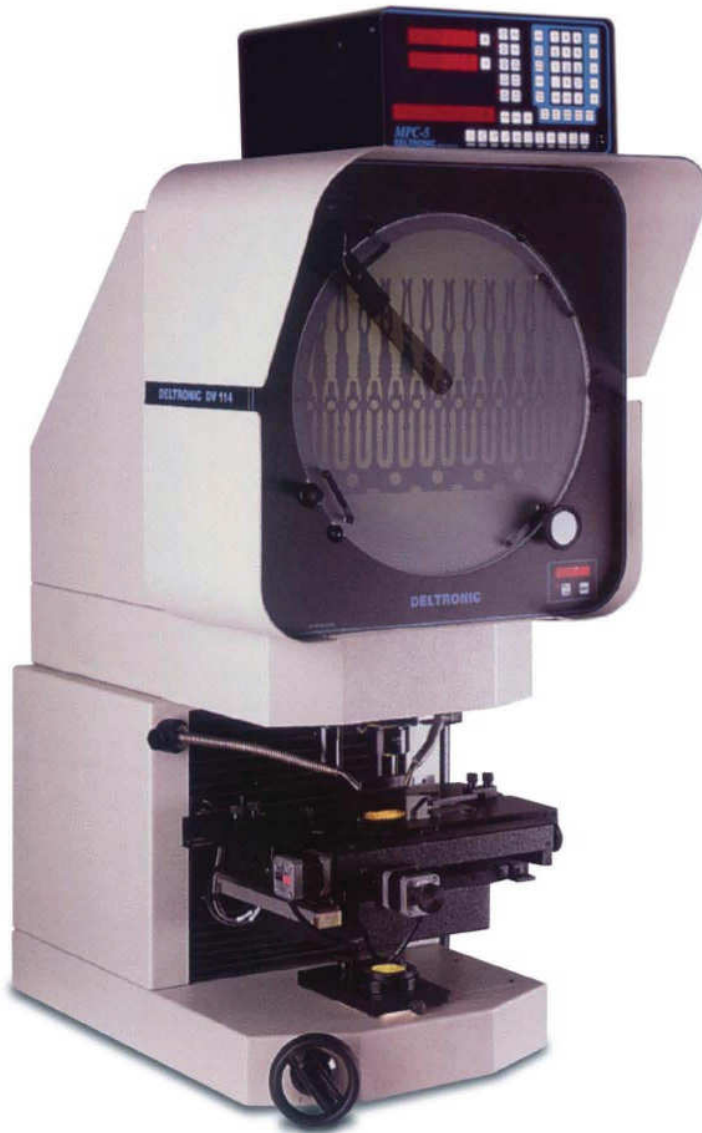
Quality Measurement Since 1955



DV114 and DV124  
Vertical Optical Comparator Systems

Made in  
USA

When you think of accurate measurement, think of DELTRONIC. As a leader and innovator in high-accuracy products for over forty years, we have been designing and manufacturing systems and solutions for thousands of applications on a worldwide basis. We feel our success was achieved because our goal has always been to deliver quality products backed by excellent service at fair prices. It always will be.



## DV114 14" Vertical Bench-Top Comparator System

### Standard Features

- *Hi / Low Enhanced 150 watt Illumination System*
- *Fully Usable 14" Viewing Screen*
- *8" X axis and 4" Y axis Stage Travel*
- *Cross Roller Bearings*
- *Quick Release "X" Travel*
- *Sturdy All-Metal Design*
- *Erect Optical Image*
- *Easy-View Vertical Screen*
- *Rotating Chart Clips*
- *Electronic Screen Protractor (ESP)*
- *3-Position Lens Turret*
- *Screen Locking Mechanism*



#### **3-Position Lens Turret**

Provides for instantaneous magnification lens change without recalibration. A standard feature.



#### **Electronic Screen Protract (ESP)**

Reads angles directly and will display angles to either a minute or 0.01 of a degree on an LED readout.

ESP indicates angles from zero in either direction in both INCREMENTAL and ABSOLUTE modes. A standard feature.

## DV124 24" Vertical Comparator System

### Standard Features

- Hi / Low Enhanced 150 watt Illumination System
- Fully Usable 24" Viewing Screen
- 8" X axis and 4" Y axis Stage Travel
- Cross Roller Bearings
- Quick-Release "X" Travel
- Sturdy All-Metal Design
- 30° Easy Viewing Screen Angle
- Quick-Change 3-Position Lens Turret
- Telecentric Lens System
- 500 watt Twin Fiber-Optic Illumination, for surface measurement
- Screen Locking Mechanism
- Electronic Screen Protractor (ESP)
- Built-in Hood and Curtain (not shown)

### DV124 Available Options

- Motorized Stage with Joystick Control
- Motorized Focus Axis
- Automated Measurement Systems (AMS), gives you automatic inspection
- Automatic Edge Sensing
- Extended 12" X Axis and 6" Y Axis Stage Travel



# Electronic Measuring Systems



## Basic Digital Readout

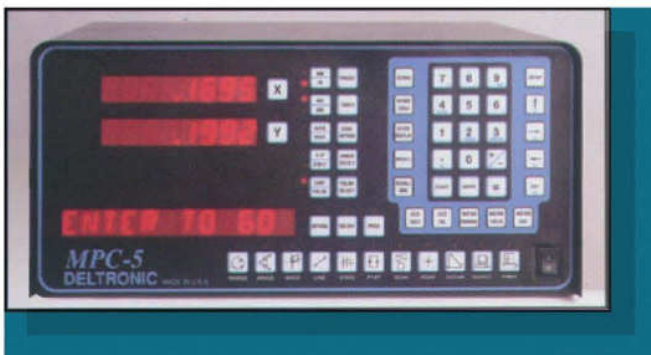
### 612R

#### Standard Features

- 2 Axis Readout
- 3 Point Radius
- Polar Coordinates
- 9 Point Store and Recall
- Datum Reference
- Inch/Metric
- Preset

#### Options

- Automatic Edge Sensing



## Standard Digital Readout

### MPC-5

#### Standard Features

- 2 Axis Readout
- Alpha Display for Prompts
- 30 Point, Multi-Point Functions
- Radius, Angle, Line, Point, Skew, Scan and Datum Reference
- Inch, Metric, Polar, Preset, Centerline, Complement
- 100 Store and Recall points

#### Options

- 3 Axis Readout
- Programmable Footswitch
- Programmable Remote Keypad
- SPC Output
- Automated Measurement System (AMS)
- Automatic Edge Sensing



## Deluxe Measurement Software

### MPC-6

#### Standard Features

- 2 Axis Readout
- Message Window
- 30 Point, Multi-Point Functions
- Includes CAD/CAM
- Storage Window
- Radius, Angle, Line, Point, Skew, Scan and Datum Reference
- Inch, Metric, Polar, Preset, Centerline, Complement
- Includes G D & T

#### Options

- 3 Axis Readout
- SPC Output
- Automated Measurement System (AMS)
- Automatic Edge Sensing

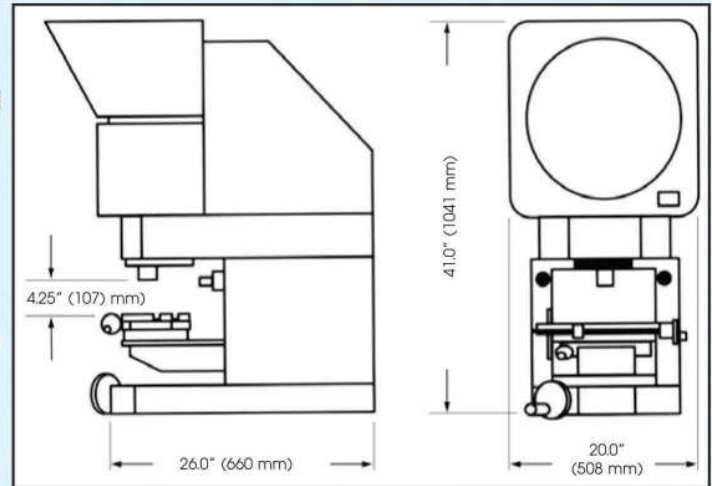
## DV114 Available Options

- Motorized Stage with Joystick Control
- Motorized Focus Axis
- Automated Measurement Systems (AMS), gives you automatic inspection
- Automatic Edge Sensing
- 250 watt Twin Fiber-Optic Illumination for surface measurement

## SPECIFICATIONS

### Standard Features DV114

1. Fully usable 14" (355mm) viewing screen with edge-to-edge accuracy of 0.05%, 15.5" (394mm) glass screen
2. 8" X axis (203mm) and 4" Y axis (101.1mm) stage travel
3. Hard anodized stage surface
4. Screen-locking mechanism
5. Digital Electronic Screen Protractor (ESP) with INC/ABS switchable displays 1' or .01°
6. Quick-change 3 Position Lens Turret
7. Vertical screen for easy viewing
8. Rotating Chart Clip System mounted on screen
9. Quick-release X axis clutch for rapid stage movement, with infinite fine adjustment
10. Erect image
11. Telecentric Lens System
12. 150 watt Profile Illumination System with hi/low intensities



#### Screen

15.5" (393mm) diameter glass screen  
 Crosslines at 0°, 90°, and +/- 30°  
 1' or 0.01° digital display

#### Magnification Lenses

10x, 20x, 25x, 31.25x, 50x, 100x

#### Magnification Accuracy

±0.05% contour  
 ±0.10% surface

#### Profile Illumination

Tungsten-Halogen bulb, 24 Volt, 150 Watt  
 Blower cooled

#### Surface Illumination

Tungsten-Halogen bulb, 24 Volt, 250 Watt  
 Fiber-Optic Delivery  
 Blower cooled

#### Work Stage

##### Standard

Travel X-axis 8" (203mm) and 4" (101mm) Y-axis  
 Surface Hard Anodized Alum; 15" (381mm) by 8" (203mm) with dovetail.  
 Focus Travel 2" (50mm)

##### Option 1. Extended X-axis Travel of 12"

Travel X-axis 12" (304mm) and 4" (101mm) Y-axis  
 Surface Hard Anodized Alum. 19" (482mm) by 10.3" (261mm); with dovetail.

##### Option 2. Motorized X&Y Axis with Joystick.

##### Option 3. Motorized Focus Axis.

##### Option 4. Automated Measurement System – AMS.

### Lens Specification

- True Telecentric Design - total image stability.
- Magnesium fluoride coated for high performance lens transmission and contrast.
- Spherical aberration correction.
- Optional green filter is recommended for all magnifications other than 50x and 100x.

	10x	20x	25x	31.25x	50x	100x
Field of View (largest diameter on screen)	1.40" 35.56mm	.70" 17.78mm	.56" 14.22mm	.45" 11.43mm	.28" 7.11mm	.14" 3.56mm
Working clearance lens to work piece	2.97" 75.44mm	1.85" 46.99mm	1.80" 45.72mm	2.00" 50.80mm	.82" 20.83mm	.58" 14.73mm
Maximum diameter of horiz. cylindrical work piece	4.00 102mm	4.00 102mm	4.00 102mm	4.00 102mm	4.00 102mm	4.00 102mm

#### Electrical

115/230 Volts ~  
 50/60 Hz (24 Volts to all lamps)

#### Machine Weight

Net approximately 300 pounds,  
 shipping weight approximately 450  
 pounds. **CE** Approved.

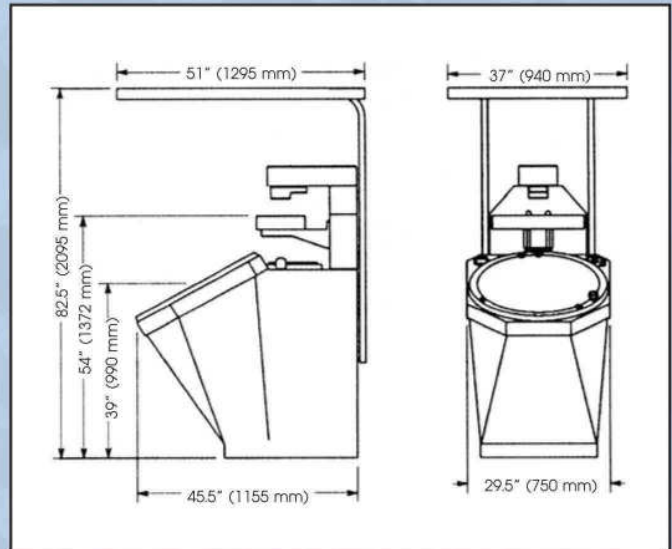
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## SPECIFICATIONS

### Standard Features DV124

1. Fully usable 24" (609mm) viewing screen with edge-to-edge accuracy of 0.05%
2. 8" X-axis (203mm) and 4" Y-axis (101mm) stage travel
3. Hard anodized stage surface
4. Screen-locking mechanism
5. Digital Electronic Protractor (ESP) with INC/ABS switchable displays 1' or .01°
6. Quick-change 3 Position Lens Turret
7. 30° easy viewing screen angle
8. 150 watt Profile Illumination System with hi/low intensities
9. 500 watt twin Fiber-Optic Surface illumination system
10. Quick-release X axis clutch for rapid stage movement, with infinite fine adjustment
11. Built-in hood and curtains
12. Telecentric Lens System
13. Quick Change Two Position Condenser Lens Turret. Assures brightest images with all magnifications. Low Position features easy viewing Green Filter as standard.



#### Screen

25" (635mm) diameter glass screen  
Crosslines at 0°, 90°, and +/- 30°  
1' or 0.01° digital display

#### Magnification Lenses

10x, 20x, 25x, 50x, 100x

#### Magnification Accuracy

±0.05% contour  
±0.10% surface

#### Profile Illumination

Tungsten-Halogen bulb, 24 Volt, 150 Watt  
Blower cooled

#### Surface Illumination

500 Watt Twin Fiber-Optic Delivery System  
With two Tungsten-Halogen, 24Volt, 250Watt bulbs  
Blower cooled

#### Work Stage

##### Standard

8"x15" surface ground and hard anodized with dovetail

##### Optional

10"x19" surface ground and hard anodized with dovetail

#### Stage Travel

##### Standard

X-Axis 8" (203mm) and Y-axis 4" (101mm)

##### Optional

X axis 12" (304mm) and Y axis 6" (152mm)

#### Stage Capacity

70lbs. max, 25lbs for minimum deflection

#### Focus

4" (101mm) stage movement

#### Lens Specification

- True Telecentric Design - total image stability.
- Magnesium fluoride coated for high performance lens transmission and contrast.
- Spherical aberration correction.

	10x	20x	25x	50x	100x
Field of View (largest diameter on screen)	2.40" 60.96mm	1.20" 30.48mm	.96" 24.38mm	.48" 12.19mm	.24" 6.10mm
Working clearance lens to work piece	5.15" 130.81mm	5.15" 130.81mm	4.64" 117.86mm	3.93" 99.82mm	1.88" 47.75mm
Maximum diameter of horiz. cylindrical work piece	4.00" 102mm	4.00" 102mm	4.00" 102mm	4.00" 102mm	3.50" 89mm

#### Electrical

115/230 Volts ~  
50/60 Hz (24 Volts to all lamps)

#### Machine Weight

Net approximately 500 pounds,  
shipping weight approximately  
700 pounds.