

# Large Format

## MEASUREMENT & INSPECTION SYSTEMS

### High Accuracy Video Measurement Systems

The Large Format Video Systems from Starrett Kinematic Engineering, Inc. range from 460mm (18") to 1273mm (50") of X-Y travel and have 200mm (8") of Z travel. This multi-sensor metrology instrument has increased accuracy to verify critical dimensions. The AV463, AV713, AV963 and AV1273 are ideal for use in QC labs, research, engineering or manufacturing environments.

Available with optional Renishaw contact probe and laser scanner, these systems can be configured to meet a variety of measurement needs.



Above: The AV713 with 711mm x 610mm x 200mm (28"x 24"x 8") measurement volume.

### System Specifications

- Accuracy: (X-Y) E2=1.5+5L/1000  
(Z) E1=1.5+5L/1000
- Encoder Resolution: 0.1  $\mu$ m (4 $\mu$ in)
- Video Camera: Color 1/2" CCD
- Optics: Navitar® 6.5:1 ratio zoom: (1.0x lens standard)
- Environment: 20  $\pm$  0.5°C (67°-69°F) temperature range. 0.25°C (0.5°F)/hr maximum rate of change. 30%-80% RH non-condensing
- Utilities: 115/230 VAC, 50/60 Hz, single phase, 1.0 kW. 85 L/m (3 CFM) dry air at 7 to 8.25 bar (100-120 PSI)

### Features

- Transports are driven by sophisticated, no maintenance, balanced linear motors which are close-looped to precision scales in all three axes
- Adjustable ergonomic workstation including a compact control panel and standard keyboard maximizes operator performance
- Massive granite base, bridge and bearing ways for superior machine stability
- 22" Flat panel LCD video display
- Metronics QC-5000 metrology software standard (see reverse side)

Model	AV463	AV713	AV963	AV1273
<b>X-Y Travel</b>	460mm x 305mm (18" x 12")	711mm x 610mm (28" x 24")	965mm x 760mm (38" x 30")	1270mm x 915mm (50" x 36")
<b>Z Travel</b>	200mm (8")	200mm (8")	200mm (8")	200mm (8")
<b>Dimensions (Width-Depth-Ht)</b>	102 x 102 x 173 cm (40 x 40 x 68 in)	127 x 163 x 173 cm (50 x 64 x 68 in)	176 x 204 x 180 cm (69 x 80 x 71 in)	217 x 235 x 180 cm (85 x 93 x 71 in)
<b>Weight</b>	<b>gross</b> 1043 kg (2300 lbs)	<b>gross</b> 1630kg (3600 lbs)	<b>gross</b> 2087 kg (4600 lbs)	<b>gross</b> 2994 kg (6600 lbs)
	<b>net</b> 726 kg (1500 lbs)	<b>net</b> 1225 kg (2700 lbs)	<b>net</b> 1588 kg (3500 lbs)	<b>net</b> 2450 kg (5400 lbs)

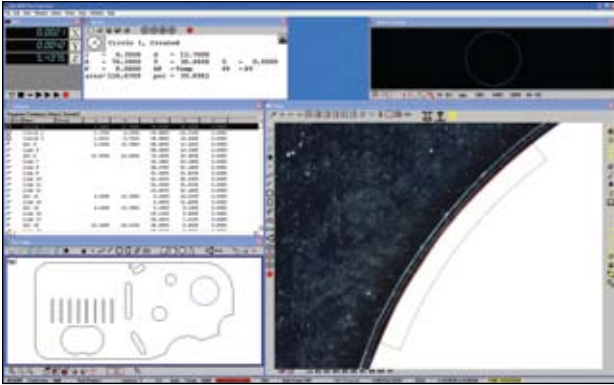
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# Large Format

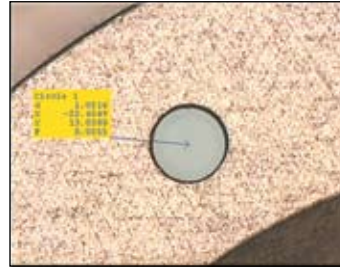
## MEASUREMENT & INSPECTION SYSTEMS

### Quadra-Chek® QC-5000 3-D Metrology Software

Large Format Systems include the powerful, Metronics Quadra-Chek QC-5000 software. This full-featured and intuitive metrology software features the familiar MS Windows® operating system.

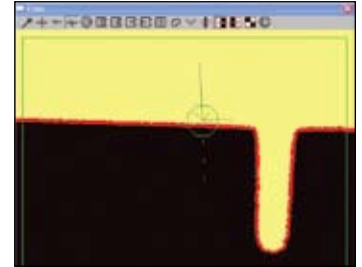


- Measure Magic allowing automatic feature recognition
- Drag and drop report generator
- Video image capture (.JPG or .BMP) with graphical reporting capabilities
- Data import for part programming and export for reverse engineering
- Result data export to Microsoft Access, Excel, .CSV and .TXT formats for data collection and PC applications.
- Integrated video scanning with 2-D Profiling/Best Fit Software
- Full geometrical feature measurement
- Full geometrical tolerancing
- Fully customizable screen layout
- Programmable and lockable screen layouts
- Intuitive yet powerful part programming with point and click editing capabilities
- Full suite of video edge detection (VED) tools
- Available in multiple languages
- Integrated image processing tools
- Interactive 3-D part view
- Definable user access privilege levels
- Form error graphics/features
- Free software updates

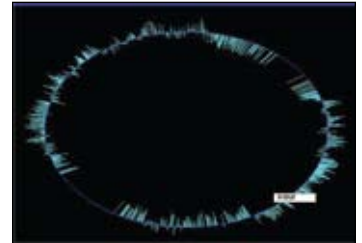


Above: Video Caption Report

Above Right: Scanning with Worm Tool



Right: Data cloud graphic showing form error



### Options & Accessories

- Dark field simulated LED ring light, quadrant controllable
- Programmable LED bottom lighting for illumination of edges and thru-holes
- Z-Trac lighting module provides independent control of incident angle and height for edge enhancement
- Spotter camera with magnified, color view of contact probe
- Renishaw contact probe PH6 head with TP20 module
- Automatic retracting 4-position probe rack
- Optimet® Mark III scanning laser; 100mm, 75mm or 50mm objectives available
- Auxiliary magnification lenses; Navitar 1.5x and 2.0x
- Larger stage sizes available; 711mm x 610mm (28" x 24"), 965mm x 760mm (38" x 30"), and 1270mm x 915mm (50" x 36")



Contact Probe



Dark field Simulated LED Ring Light

# Starrett®