



INTRODUCTION

Established in 1971 as Industrial division of SIPCON having more than 45 years of experience has laid a firm foundation of expertise and excellence on which all Specialist and Engineers rely for optimum efficiency and total reassurance.

In extending its sphere of influence in the field of optical metrology SIPCON offers a comprehensive and superior lineup of quality Profile Projectors, Vision Measuring Systems, Industrial Vision Inspection Solutions and Coordinate Measuring Machines- the largest range in the world.

Model range from a compact 250 mm screen bench top to 1000mm offered with measurement system from simple micrometers, Digital readouts, Geometric readouts, PC based measurement system to full CNC controlled system with opto-edge detection. The high tech design of SIPCON Profile Projectors and world finest projection lenses, optical components and outstanding Illumination ensures a fully correct image, superb image contrast and resolution right to the edge of the screen.

The International standard calibration system assures highest level of accuracy with International and NPL traceability. With a network of fully trained marketing agents SIPCON provides full after sale service and support second to none. The name SIPCON stands synonymous with the ultimate in precision, quality and reliability. It can be said that SIPCON products are PAR Excellence i.e Excellence in PRECISION, ACCURACY & RELIABILITY.

The Fastest
One Click
Automatic Optical
Inspection System
available
on earth.



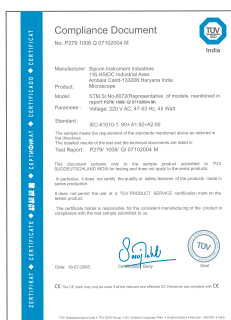
ONE Click
MEASUREMENT SYSTEM



Vision
MEASURING SYSTEM



ISO 9001:2008
Certified Organization



CE Approved
Product Range

You think
WE MEASURE

VERTICAL Profile PROJECTORS

Bench Top



SP-250



SP-300



SP-400

S.no.	Specifications	SP-250	SP-300	SP-400
1	SCREEN	Opaque glass screen with 90° cross line Fitted with graduated rotary ring (0-360°) operated by knob, L.C. 1min.		
1.1	SCREEN SIZE	250mm	300mm	400mm
2	LIGHT AXIS	Vertical		
3	OPTICS	Std. 10X	10X	10X
3.1		Opt. 20X, 50X, 100X	20X, 50X, 100X	20X, 50X, 100X
3.2		Mount Screw Mount	3 Lens Turret Mount/ Screw Mount	3 Lens Turret Mount/Screw Mount
4	WORKSTAGE SIZE	Std. 160mm X 160mm	160mm X 160mm / 260mm X 260mm	260mm x 260mm
5	MEASURING RANGE	Std. 50mm X 50mm	50mm X 50mm / 100mm X 100mm	100mm X 100mm
5.1		Opt. N.A.	X-Axis upto 400mm, Y-Axis upto 200mm	
6	FOCUSING	90mm		
7	LINEAR MEASUREMENT	Micrometers		
8	RESOLUTION	1µm		
9	MEASURING SYSTEM	Micrometers / D.R.O. / PC based Software (See Pg 8-12)		
10	PROJECTION ACCURACY	±0.05% (Contour / Surface)		
11	ILLUMINATION	Contour 24V/150W halogen lamp, illumination control with condenser unit provide light as per lens		
11.1		Surface Twin 24V/150W Halogen lamp provides shadowless light on optical axis		
12	STAND	Unique rigid pedestal system facilitates vibration free handling of component		
13	COOLING SYSTEM	Fan		
14	POWER SUPPLY	110/220V AC, 50/60Hz		
15	MOTORIZED MOVEMENT	N.A. Optional (X, Y and focusing with speed control)		
16	OPTIONAL HARDWARE	Profile Charts, Rotary Table, V-block, Centre Holding Device Opto Edge Sensor, Rotary Encoder (See Pg 12)		

You think
WE MEASURE



VERTICAL Profile Projectors Floor Model



SV-400



SV-600



SV-800/1000

S.no.	Specifications	SV-400	SV-600	SV-800/1000
1	SCREEN	Opaque glass screen with 90° cross line fitted with graduated rotary ring(360°) operated by knob, L.C. 1min.		
1.1	SCREEN SIZE	400mm	600mm	800/1000mm
2	LIGHT AXIS	Vertical		
3	OPTICS	Std. 10X	10X	10X
3.2		Opt. 20X, 50X, 100X	20X, 50X, 100X	20X, 50X, 100X
3.3		Mount 3 Lens Turret Mount with Click Stop/ Screw Mount		
4	WORKSTAGE SIZE	Std. 260mm X 260mm	260mm X 260mm	260mm x 260mm
5	MEASURING RANGE/TRAVEL	Std. 100mm X 100mm	100mm X 100mm	100mm X 100mm
5.1		Opt. X-Axis upto 400mm, Y-Axis upto 200mm		
6	FOUSSING	100mm	100mm	100mm
7	LINEAR MEASUREMENT	Built-in Glass Scale		
8	RESOLUTION	5/1/0.5µm		
9	MEASURING SYSTEM	D.R.O. / PC based Software (See Pg 8-12)		
10	PROJECTION ACCURACY	±0.05% (Contour / Surface)		
11	ILLUMINATION	Contour 24V/150W halogen lamp, illumination control with condenser unit provide light as per lens		
11.1		Surface Twin 24V/150W Halogen lamp provides shadowless light on optical axis		
12	STAND	Unique rigid pedestal system facilitates vibration free handling of component		
13	COOLING SYSTEM	Fan		
14	POWER SUPPLY	110/220V AC, 50/60Hz		
15	MOTORIZED MOVEMENT	Optional (X, Y and focusing with speed control)		
16	OPTIONAL HARDWARE	Profile Charts, Rotary Table, V-block, Centre Holding Device Opto Edge Sensor, Rotary Encoder (See Pg 12)		

You think
WE MEASURE

HORIZONTAL Profile PROJECTORS



SH-300



SH-400



SH-600

S.no.	Specifications	SH-300	SH-400	SH-600
1	SCREEN	Opaque glass screen with 90° cross line Fitted with graduated rotary ring operated by knob, L.C. 1min.		
1.1	SCREEN SIZE	300mm	400mm	600mm
2	LIGHT AXIS	Horizontal		
3	OPTICS :	Std. 10X,	10X	10X
3.2		Opt. 20X, 50X, 100X	20X, 50X, 100X	20X, 50X, 100X
3.3		Mount Turret Mount with Click Stop/	Screw Mount	
4	WORKSTAGE SIZE	Std. 400mm X 150mm	450mm X 200mm	450mm x 200mm
5	MEASURING RANGE/TRAVEL	Std. 150mm X 100mm	200mm X 100mm	200mm X 150mm
5.1		Opt. X-Axis upto 350mm, Y-Axis upto 250mm		
7	FOCUSSING	75mm	100mm	100mm
6	LINEAR MEASUREMENT	Built-in Glass Scale		
8	HELIX RANGE	±12° / ±15°	±12° / ±15°	±12° / ±15°
9	MEASURING SYSTEM	D.R.O. / PC based Software (See Pg 8-12)		
10	PROJECTION ACCURACY	±0.05% (Contour / Surface)		
11	ILLUMINATION	Contour 24V/150W halogen lamp, illumination control with condenser unit provide light as per lens		
11.1		Surface Twin 24V/150W Halogen lamp provides shadowless light on optical axis		
12	STAND	Unique rigid pedestal system facilitates vibration free handling of component		
13	COOLING SYSTEM	Fan		
14	POWER SUPPLY	110/220V AC, 50/60Hz		
15	MOTORIZED MOVEMENT	Optional (X, Y and focusing with speed control)		
16	OPTIONAL HARDWARE	Profile Charts, Rotary Table, V-block, Centre Holding Device Opto Edge Sensor, Rotary Encoder (see Pg 12)		

You think
WE MEASURE



HORIZONTAL Profile PROJECTORS

SH-800



SH-1000



S.no.	Specifications	SH-800	SH-1000
1	SCREEN	Opaque glass screen with 90° cross line Fitted with graduated rotary ring operated by knob, L.C. 1min.	
1.1	SCREEN SIZE	800mm	1000mm
2	LIGHT AXIS	Horizontal	
3	OPTICS	Std. 10X, 20X	10X, 20X
3.2		Opt. 25X, 50X, 100X	25X, 50X, 100X
3.3		Mount Turret Mount with Click Stop / Screw Mount / Slide Mount	
4	WORKSTAGE SIZE	Std. 450mm X 200mm	450mm X 200mm
5	MEASURING RANGE	Std. 200mm X 150mm	200mm X 150mm
5.1		Opt. X-Axis upto 400mm, Y-Axis upto 250mm	
6	FOCUSSING	100mm	
7	LINEAR MEASUREMENT	Built-in Glass Scale with D.R.O	
8	HELIX RANGE	±12° / ±15°	
9	MEASURING SYSTEM	D.R.O. / PC based Software (See Pg 8-12)	
10	PROJECTION ACCURACY	±0.05% (Contour / Surface)	
11	ILLUMINATION	Contour 24V/150W halogen lamp, illumination control with condenser unit provide light as per lens	
11.1		Surface Twin 24V/150W Halogen lamp provides shadowless light on optical axis	
12	STAND	Unique rigid pedestal system facilitates vibration free handling of component	
13	COOLING SYSTEM	Fan	
14	POWER SUPPLY	110/220V AC, 50/60Hz	
15	MOTORIZED MOVEMENT	Optional (X, Y and focusing with speed control)	
16	OPTIONAL HARDWARE	Profile Charts, Rotary Table, V-block, Centre Holding Device Opto Edge Sensor, Rotary Encoder (see Pg 12)	

You think
WE MEASURE

Shadowgraph Profile Projectors



SVS-300



SVS-600

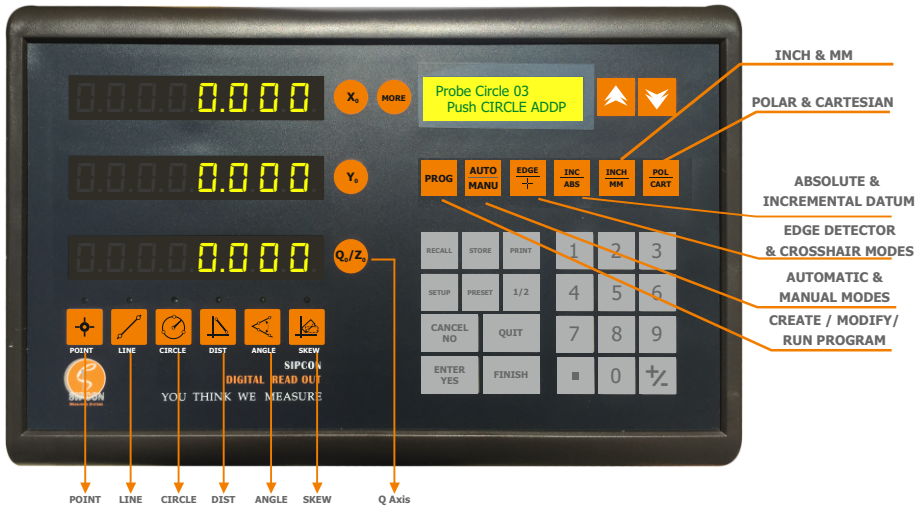


S.no.	Specifications	SVS-300	SVS-400	SVS-600/800
1	SCREEN	Opaque glass screen with 90° cross line Fitted with graduated rotary ring operated by knob, L.C. 1min.		
1.1	SCREEN SIZE	300mm	400mm	600mm/800mm
2	LIGHT AXIS	Vertical	Vertical	Vertical
3	OPTICS	Std. 10X	10X	10X
3.2		Opt. 20X, 25X, 50X, 100X	20X, 25X, 50X, 100X	20X, 25X, 50X, 100X
3.3		Mount Screw Mount	Screw Mount	Screw Mount
4	WORKSTAGE SIZE	Std. 160mm X 160mm	200 X 200 mm / 260 X 260 mm	200 X 200mm / 260 X 260 mm
5	MEASURING RANGE	Std. 50mm X 50mm	50 X 50 mm / 100 X 100 mm	50 X 50 mm / 100 X 100 mm
5.1		Opt. 50mm X 50mm	X-Axis upto 400mm, Y-Axis upto 200mm	
6	FOCUSING	100mm		
7	LINEAR MEASUREMENT	0-25µm with LC 0.001mm	0-25µm Micrometers/ Built-in glass scale	
8	MEASURING SYSTEM	Micrometers	Micrometers / D.R.O. / PC based Software (See Pg 8-12)	
9	PROJECTION ACCURACY	±0.05% (Contour / Surface)		
10	ILLUMINATION	Contour	24V/150W halogen lamp, illumination control with condenser unit provide light as per lens	
10.1		Surface	Twin 24V/150W Halogen lamp provides shadowless light on optical axis	
11	STAND	Unique rigid pedestal system facilitates vibration free handling of component		
12	COOLING SYSTEM	Fan		
13	POWER SUPPLY	110/220V AC, 50/60Hz		
14	MOTORIZED MOVEMENT	N.A.	Optional (X, Y and focusing with speed control)	
15	OPTIONAL HARDWARE	Profile charts, rotary table, V-block, Centre holding device opto Edge Sensor, Rotary Encoder (See Pg 12)		

You think
WE MEASURE

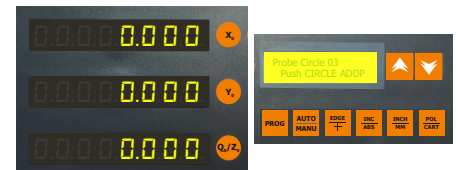


SIPCON Digital Readout



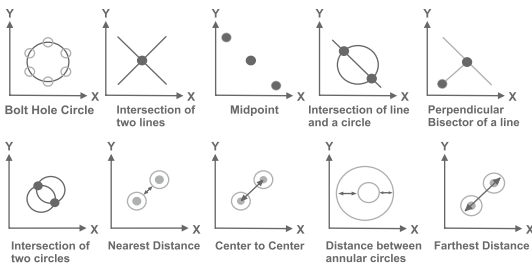
Screen Display

Two screen display on digital readout provides both D.R.O. view as well as representation of the feature. D.R.O. screen shows the present values of X & Y coordinate axis along with the measurement results and second display will shows the selected feature for measurement.

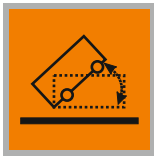


Construction capabilities

Select two or more features to create intersections or constructions. Reduces operator effort by eliminating confusing construction menus.

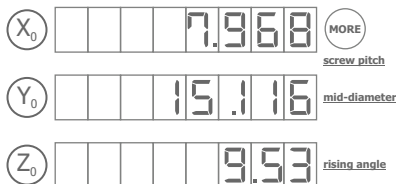


Part Alignment & Skewing



Accurate measurements require the part to be perfectly aligned on the coordinate measuring system. Use the skew function to convert machine coordinates to part coordinates and compensate for part misalignment.

Screw



Quickly and easily create, edit and run part programs. Program a measurement sequence once and run it back as often as you need. Measure the same number of points per feature, in the identical sequence part after part.

Programming



Quickly and easily create, edit and run part programs. Program a measurement sequence once and run it back as often as you need. Measure the same number of points per feature, in the identical sequence part after part.

Print output



Print measurement results using a thermal printer in an easy to read 40 or 80 column format.

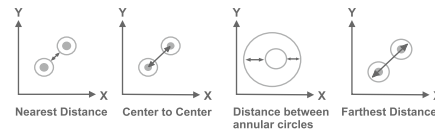
Measure Easy

To measure, simply probe points and click. It automatically detects, the feature type being measured. Operators can inspect multiple features without taking their eyes off the art which speeds throughput, improves accuracy and reduces user fatigue.

LEC (Linear Error Compensation)

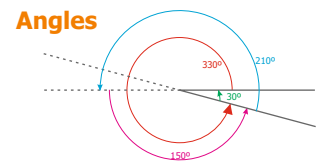
The SIPCON DRO provides linear error compensation. Each method compensates for encoder and machine travel variations using error correction coefficients developed by comparing actual measurements of a standard to the standard's nominal values.

Distance between Circles



Quickly and easily measure distances between two circles.

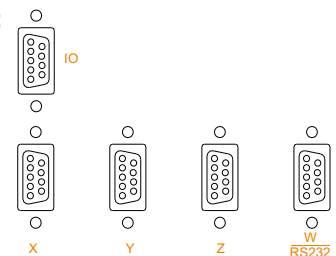
Angles



Easily measure multiple angles of any object.

Data Management & Output

Parallel and serial ports makes it easy to transfer data to PCs, networks and printers.



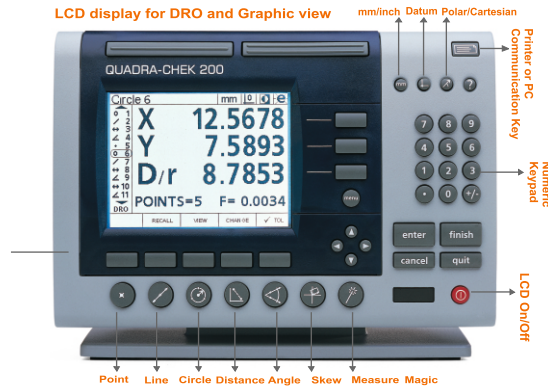
You think
WE MEASURE

GEOMETRICAL READOUT HEIDENHAIN QC-220(ND1200)



"THE QUADRA-CHEK FEATURES AN EASY TO USE PROGRAMMING INTERFACE THAT IMPROVES PRODUCTIVITY REDUCE SUBJECTIVITY AND SIMPLIFIES REPETITIVE TASKS. CONSTRUCTION FEATURE REDUCES OPERATOR EFFORT BY ELIMINATING CONFUSING CONSTRUCTION MENUS."

D.R.O- QC-220



Screen display

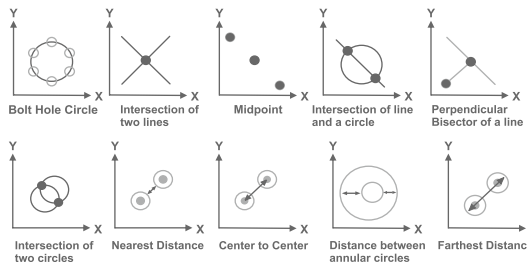
Two screen display on QC 200 provides both D.R.O view as well as graphic representation of the feature. Switch between the two displays according to your convenience. D.R.O Screen shows the present values of X & Y coordinate axis along with the measurement results and graphic screen shows the location of points taken on the feature.

CIRCLE 1	mm	1	+
X	1.7658		
Y	0.8070		
D	0.1732		
Pts=4	F	0.0079	
DRO			
Recall	View	Change	Tol

CIRCLE 1	mm	1	+
X	1.7658		
Y	0.8070		
D	0.1732		
Pts=4	F	0.0079	
DRO			
Recall	View	Change	Zoom

Construction capabilities

Select two or more features to create intersections or constructions. Reduces operator effort by eliminating confusing construction menus.



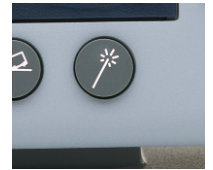
Part Alignment & Skewing



Accurate measurements require the part to be perfectly aligned on the coordinate measuring system. Use the skew function to convert machine coordinates to part coordinates and compensate for part misalignment.

Patented feature Measure Magic

To measure, simply probe points and click. Quadra-Chek automatically detects the feature type being measured. Operators can inspect multiple features without taking their eyes off the part which speeds throughput, improves accuracy and reduces user fatigue.



Tolerance options

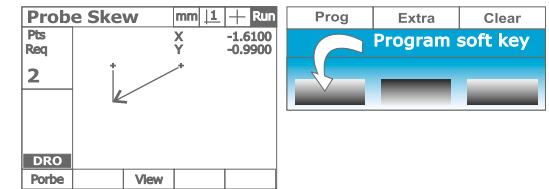
More than 15 types of tolerance setting with an on screen indication of Pass & Fail.

CIRCLE 1	mm	1	+
Circle Position and Size Tolerance			
Tol Type: BiDir			
Nominal	Dev		
X 2.3700	0.0008	✓	
Y 1.1100	0.0015	✓	
D 0.4000	-0.0083	⊗	
Edit	Nominal	Actual	Dev

Feature	Tolerance type
Line	Positional (bi-directional, true position) Form (straightness) Perpendicularity Parallelism
Circle	Positional (bi-directional, true position, MMC, MNC) Form (Circularity) Concentricity Runout
Distance	Width
Angle	Angle
Point	Bi-directional & True Position

Programming

Quickly and easily create, edit and run part programs. Program a measurement sequence once and run it back as often as you need. Measure the same number of points per feature, in the identical sequence part after part. Visual cues guide each feature measurement of a part, to assure complete and consistent data collection.



Print output

Print measurement results using a serial or parallel printer in an easy to read 40 or 80 column format.

Report	Features	Program	Report
#	Feature	Position/Dim.	Size
1	Circle 1	X -3.503 Y 0.000 Z 0.000	d 2.068 r 1.034
2	Circle 2	X 3.503 Y 0.000 Z 0.000	d 2.087 r 1.043

Data Management & Output

Parallel and serial ports makes it easy to transfer data to PCs, networks and printers, while the IrDA port can be used to download measurement data to handheld PDAs and notebook computers.

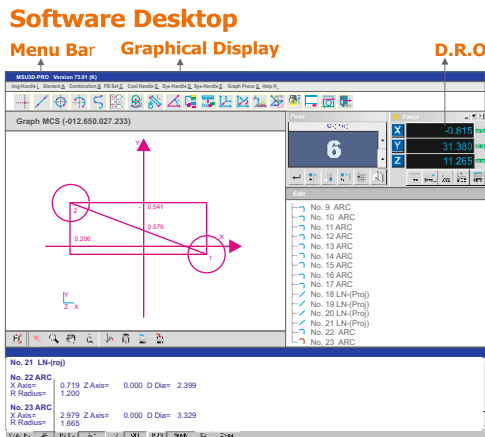
You think
WE MEASURE



MEASURING SOFTWARE SIPMEAS

"THE MEASURING SOFTWARE PROVIDES A QUICKER EASIER MEASURING METHOD. 2 AXIS GEOMETRICAL MEASURING FUNCTIONS, LINK TO EXCEL FULL PART PROGRAMMING CAPABILITY WITH EXCELLENT INTERFACE ALLOW TRANSFER TO CAD."

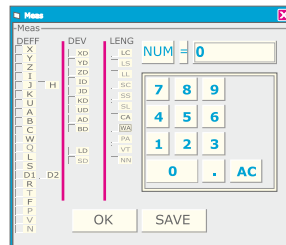
You think
WE MEASURE



Intelligent Result Display

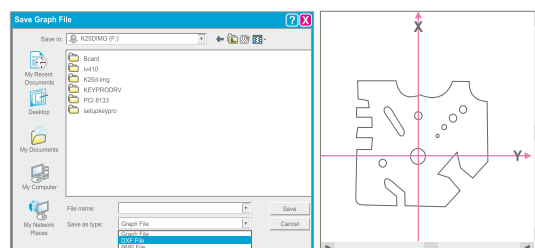
Fast Multi Datum Output

You can do more than one measurement at the same time by setting the options in this window. For example you are measuring the distance between the two circles and at the same time you want the angle of the distance line with the x axis just set the options, you will get both result with just one click.



Data Management-Export and Calculations

Directly saving graphs as DXF or IGS files makes it possible to export our measurement to CAD and CAM for further editing. You can also "Click" the features in the graph to calculate the measurement between the elements. For example to measure the distance between the 2 circles in the graph just click the distance button and then click the two circles from the graph. The result is on the screen.

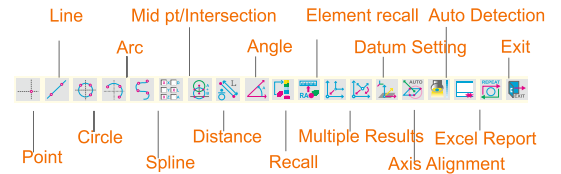


Other Features

1. Inch/Metric Conversion
2. Up to 500 points allowed on each feature
3. Auto Recognition : Just input the points it will tell you what feature is this.
4. Both Cylindrical and cartesian coordinate system.
5. Angle display in Degree-Min-Sec or Decimal Degree.

Menu Bar

One touch Menu Bar for all basic geometric measurements



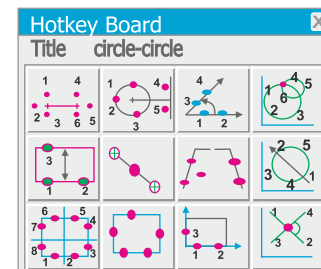
Tolerance Setting & Result Display

Support more than 10 types of Tolerance setting including group Tolerancing (Circularity, Concentricity, Perpendicularity, Parallelism etc.) and Result window will display all the results with tolerance values and will give an indication for PASS or FAIL features.

Result Display			
No. 21 LN-(Proj)			
No. 22 ARC	X Axis=	0.719 Z Axis=	0.000 D Dia= 2.399
	R Radius=	1.200	
No. 23 ARC	X Axis=	2.979 Z Axis=	0.000 D Dia= 3.329
	R Radius=	1.665	

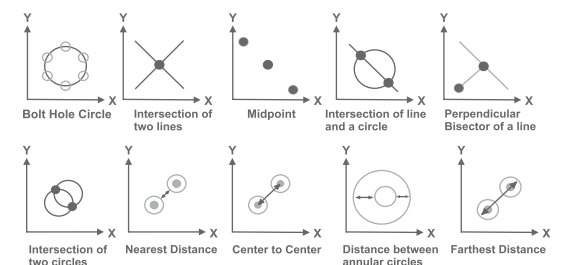
Program Hotkey Board

Customize the series of measurements according to your part and make an icon for it. Next time just press it and start the measurement. So with this software just measure one part for the others it will guide you how to measure.



Construction capabilities

Select two or more features to create intersections or constructions. Reduce operator effort by eliminating confusing construction menus.

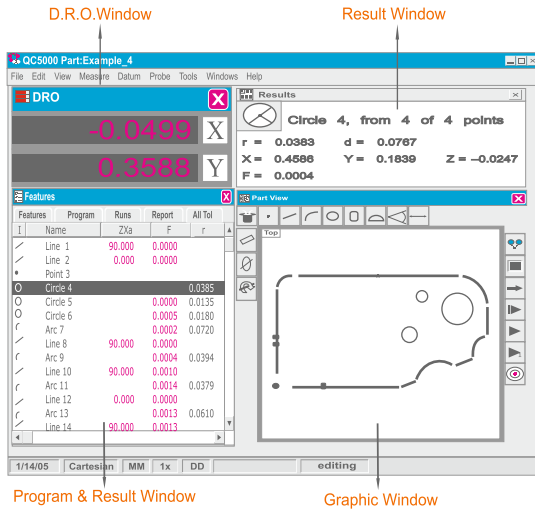


MEASURING SOFTWARE IK-5000



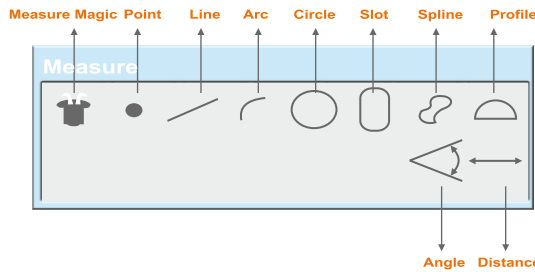
CONCEPTUAL
MODEL OF
IK 5000
SOFTWARE
ORGANIZES THE
WORK FLOW TO
SUPPORT
OPERATOR NEEDS
AT EVERY STAGE
OF MEASUREMENT
PROCESS -
MEASURING -
RECORDING -
ANALYZING -
REPORTING AND
COMMUNICATING
THE DIMENSIONAL
DATA."

Software Desktop



Measurement Toolbar

One click options to measure all types of 2D features. With patented feature Measure Magic probe any feature, enter points and with a click IK-5000 knows without you telling it whether you are measuring circle, arc, or another shape.



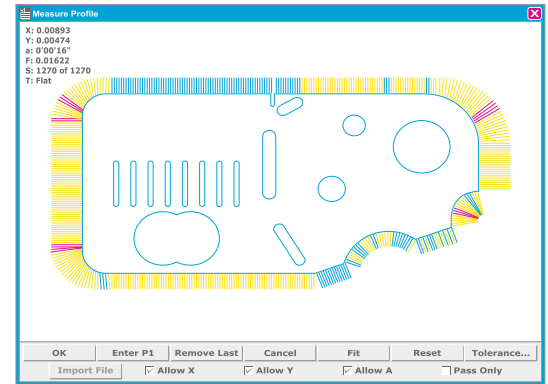
Tolerance types

Support more than 15 types of tolerance settings with display in color coded pass and fail output. If there's a part or feature that doesn't measure up, you will know it immediately. Not only are all out of tolerance features displayed in red, but an audio alert signals if what you are measuring fails to match the specifications.

- LOCATION
- SIZE
- FORM
- ORIENTATION
- Bidirectional
- Length
- Straightness
- Parallelism
- True position
- Radius
- Roundness
- Perpendicularity
- MMC
- Angle
- Flatness
- RUNOUT
- LMC
- Width
- Cylindricity
- Circular
- Concentricity

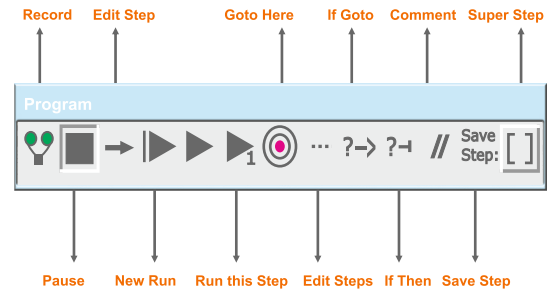
Feature stamp for deviation analysis

Along with the shape and numerical data about the features, this software will also tell you point uses to construct the feature with tolerance markings for each of the points.



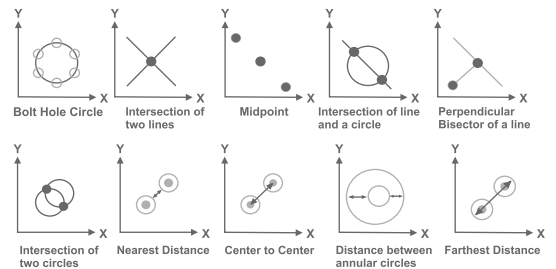
Programming

Simplify difficult and repetitive measurement sequences with an easy to use and robust programming interface. Programming steps are in English language which are easy to understand and edit. Edit any step, add any step, use normal conditional statement like if-then, else-then & lots more.



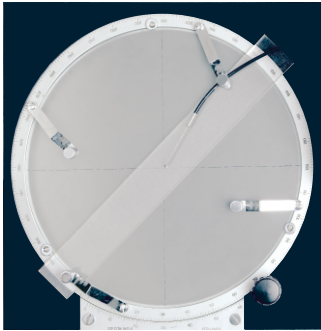
Construction capabilities

Select two or more features to create intersections or constructions. Reduces operator effort by eliminating confusing construction menus.



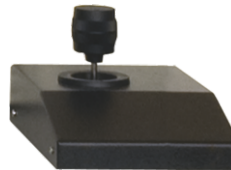
You think
WE MEASURE

ACCESSORIES



Opto-Edge Sensor

For Automatic Edge Detection
Reduces the operator error
Increases throughput
Available with QC 220, SIPMEAS, QC 5000
Increases the speed of inspection
Highly recommended for CNC Profile Projectors



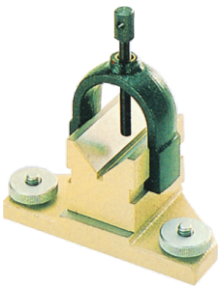
Motorized Controller with Joystick



Foot Switch



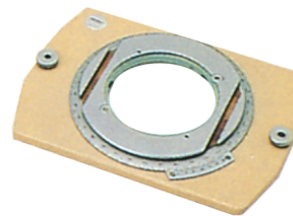
Fibre Optic Light



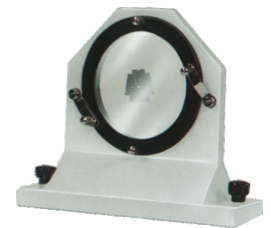
V Block



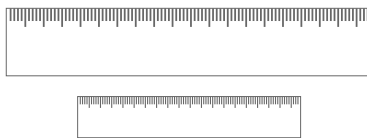
Center Holding Device



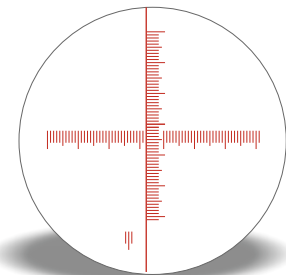
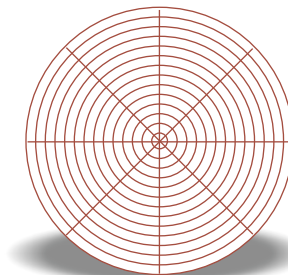
Rotary Table



Vertical Holding Device



Calibration Scale



Profile Charts for Comparison

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