



CAMERA BASED PROFILE PROJECTOR (Cross Hair)





Vision Inspection System

(Cross Hair Series)



SVI-CH-DR



SVI-CH-SW

Model No.	SVI-CH-DR	SVI-CH-QC	SVI-CH-SW
Measuring System	GEO D.R.O.	Heidenhain ND1202 D.R.O.	SIPMEAS Software
Measuring Range	Standard Optional	100mm X 100mm X-axis upto 500mm, Y-axis upto 400mm	
Focusing Range	100mm (without encoder)		
Resolution	0.005/ 0.001/ 0.0005mm		
Linear Accuracy	(3+L/200) micron		
Repeatability	±(0.002mm)		
Vision	1/3" High Resolution CCD Camera		
Magnification	Optical Magnification 0.7X - 4.5X		
Measurement Method	With the help of Cross-Hair on Screen		
Optional Hardware	PC +19" Monitor		
Illumination Surface	Fibre Optic/LED		
Illumination Contour	Halogen Lamp/LED		
Operation	Manual with Quick Release Knob		
Base Platform & Column	Metal Base		
Platform Load Capacity	10Kg		
Power Supply	220-240 V ± 5%, 50/60 Hz		
Motion Control through Joystick	Optional		
Observation Head	Optional(Binocular / Trinocular)		
Focusing Slide	Optional		

MEASURING SOFTWARE SIPMEAS



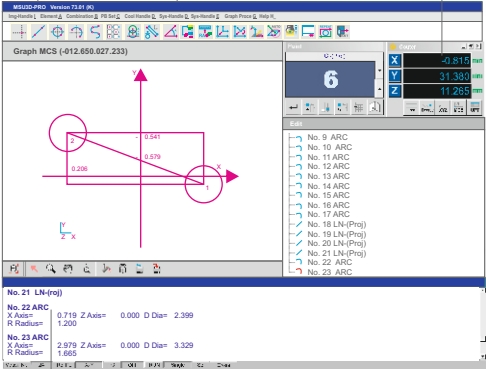
"THE MEASURING SOFTWARE PROVIDES A QUICKER EASIER MEASURING METHOD. 2 AXIS GEOMETRICAL MEASURING FUNCTIONS, LINK TO EXCEL FULL PART PROGRAMMING CAPABILITY WITH EXCELLENT INTERFACE ALLOW TRANSFER TO CAD."

You think

WE MEASURE

Software Desktop

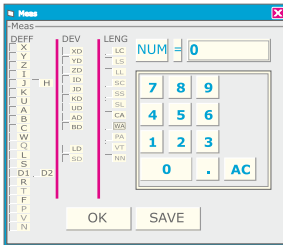
Menu Bar Graphical Display D.R.O



Intelligent Result Display

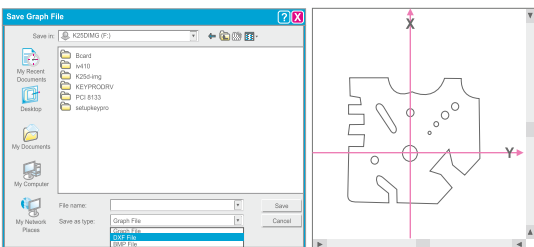
Fast Multi Datum Output

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.

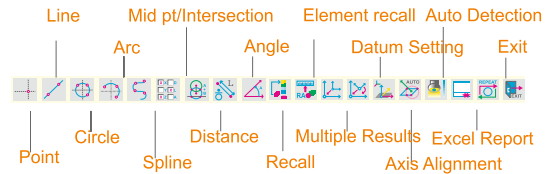


Other Features

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



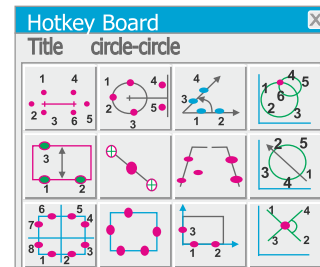
Tolerance Setting & Result Display

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	

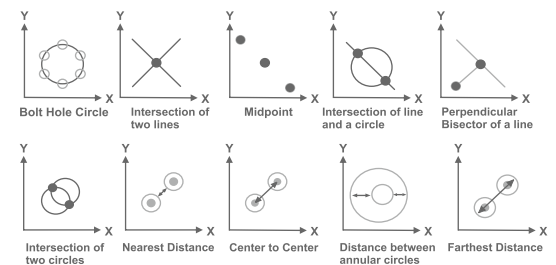
Program Hotkey Board

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.



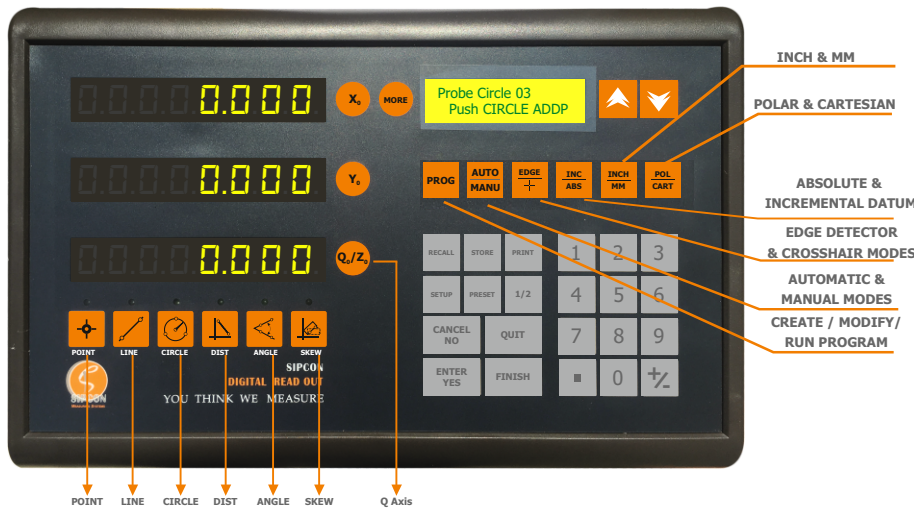
Construction capabilities

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



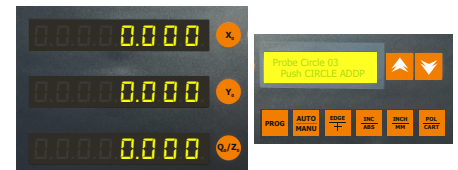


SIPCON Digital Readout



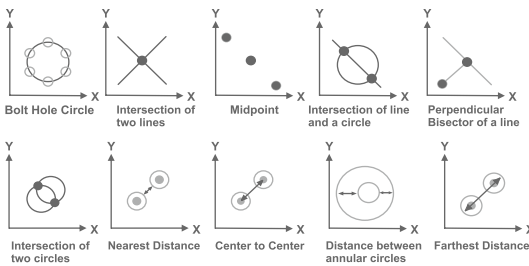
Screen Display

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 show 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.

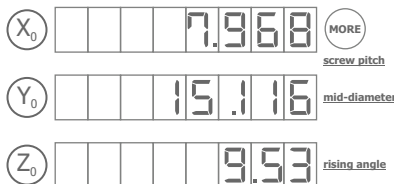


Part Alignment & Skewing



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

PROG

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

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

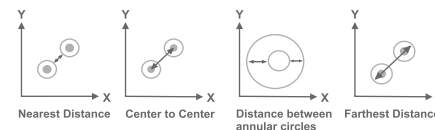
Measure Easy

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)

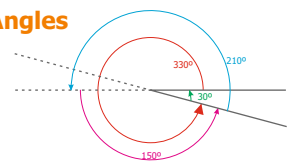
The SIPCON DRO provides linear error compensation. Each method compensates for encoder and machine travel variations using error correction coefficients developed by comparing actual measurements of a standard to the standard's nominal values.

Distance between Circles



Quickly and easily measure distances between two circles.

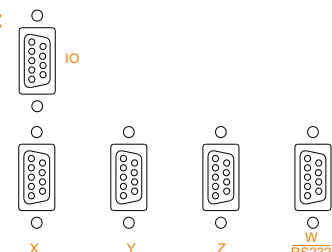
Angles



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.

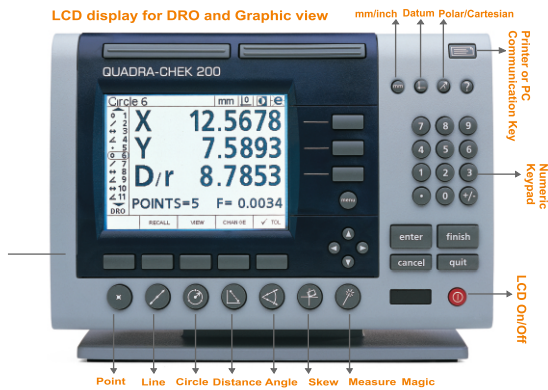


GEOMETRICAL READOUT HEIDENHAIN QC-220(ND1200)



"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



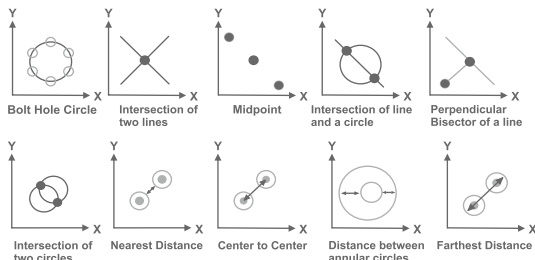
Screen display

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.

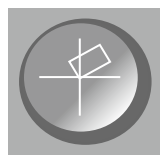
CIRCLE 1		mm	1	+	CIRCLE 1		mm	1	+
0	X	1.7658					X	1.7658	
	Y	0.8070					Y	0.8070	
	D	0.1732					D	0.1732	
	Pts=4	F	0.0079				F	0.0079	
	LSBF						LSBF		

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.



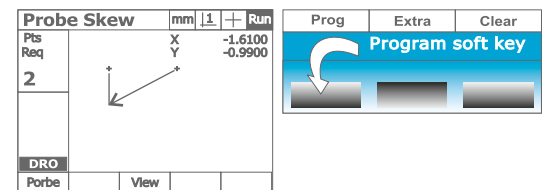
Tolerance options

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

CIRCLE 1					mm	1	+	Feature	Tolerance type
Circle Position and Size Tolerance									
Tol Type: BiDir									
Nominal Dev									
X	2.3700	0.0008	✓				Line	Positional (bi-directional, true position) Form (straightness) Perpendicularity Parallelism	
Y	1.1100	0.0015	✓				Circle	Positional (bi-directional, true position, MMC, MNC) Form (Circularity) Concentricity Runout	
D	0.4000	-0.0083	⊗				Distance	Width	
								Angle	Angle
								Point	Bi-directional & True Position
Edit	Nominal	Actual	Dev	Other					

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	Orientatic
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	

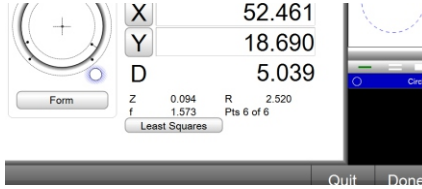
Data Management & Output

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.



SIPCON M2 SOFTWARE

Clean, Intuitive Design



The user interface design of the M2 software means you'll spend more time measuring and less time reading manuals. By combining a familiar user experience with current touch screen conventions, the M2 software can quickly be integrated into your process and accessible to a wide range of users.

Geometric tolerancing

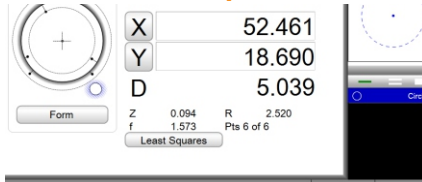


You may measure features, set nominals, apply tolerances and view deviation results with only a few quick clicks. You may also apply a variety of popular tolerance types to features in the standard "feature-to-feature" fashion, or utilize the "place tolerancing" system for applications where tolerances are specified in a block tolerance style call out. For these cases the M2 software let's you enter and apply universal tolerance values according to your feature resolution groupings.

Supported tolerances include:

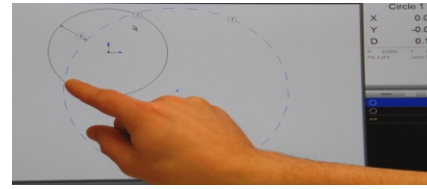
X/Y/Z Positional, Diameter/Radius/Length/Width, Size, Theta (Angle), Form, Parallelism, Angularity, True Position (LMC/MMC Modifiers), Straightness, Perpendicularity Roundness, Concentricity, Runout

Feature Detail Graphics



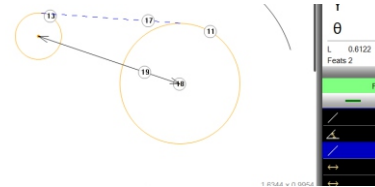
Individual feature views provide informative drawings displaying point cloud distributions, as well as nominal deviations, and tolerance results. Scroll through your measured features list from this view for a feature by feature display of Actual, Nominal, Tolerance, and Deviation results. Set the desired data fit type from the "Actual" screen using the "fit toggle" button.

Multi-Touch software control



In addition to the conventional mouse interface, expanded Multi-Touch logic allows for versatile pan and zoom of the active part view. Increase the efficiency of feature construction, feature data manipulation, and reporting tasks with a simple pinch zoom, swipe pan, or double click.

Graphics-based "Part View" constructions



Generate popular construction types, like Distances and Tangent Lines, from within the graphical part view itself. Constructions with multiple sub-types can be toggled quickly with the change feature type command.

Supported construction types include:

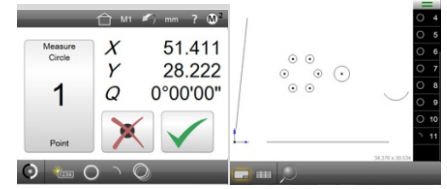
Average, Intersections, Bolt Circle, Farthest Distance, Perpendicular/Parallel Line(s), End Points, Mid/Center Point(s), Shortest Distance, Gage Circle(s), Angle Compliments Tangent Line(s)

Support for Optical Edge or Cross hair measuring systems



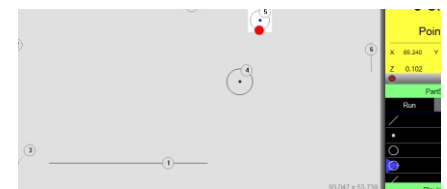
Gain access to many of the same powerful features, and intuitive measuring environment, whether using an optical edge equipped system or an externally generated cross hair device. Precise optical edge detection mechanisms provide accurate results as well as access to powerful, industry first, measurement functionality.

Advanced Crosshair Probe Toolbox



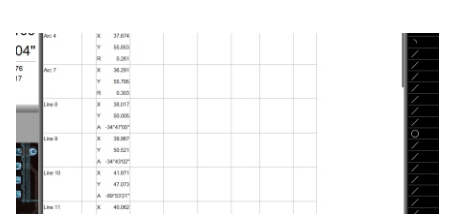
For Optical Edge enabled systems, both "simple" and "auto edge" crosshair probes are available. The "auto edge" probe captures points on edges automatically upon crossing. The M2's EdgeLogic™ system (Optical Edge enabled systems only) enables gesture driven control of start and end measurement commands. Start and finish measurements quickly, without the need for direct software interaction.

Part programs and playback



Playback or edit groups of measured, constructed, and created features from a saved part program file. Part program files, when loaded, will prepare the M2 software to repeat a sequence of feature measurement steps, printed reports, and reported measurement data. The playback guidance mechanism provides helpful on-screen instruction for successful playback of your part programs.

Reports



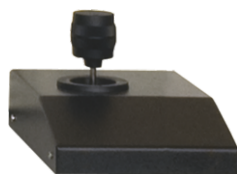
Flexibility for report contents and formatting allows for full customization of the data format, header information, and header and footer graphics.

Report data formats include:

Standard Report, Tolerance, CSV, European

Support for All Current Industry Standard Software Stage Calibration Methodologies
Industry Standard Tablet Operating System

ACCESSORIES



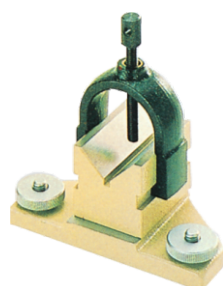
Motorized Controller with Joystick



Foot Switch



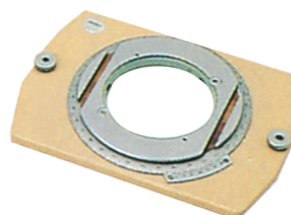
Fibre Optic Light



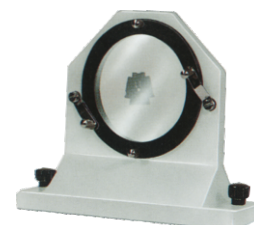
V Block



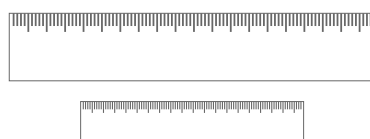
Center Holding Device



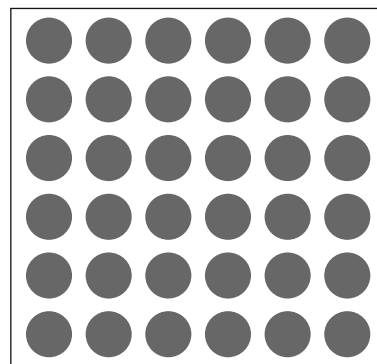
Rotary Table



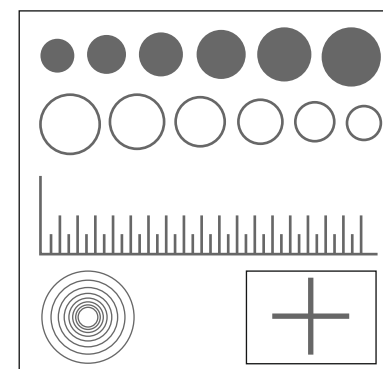
Vertical Holding Device



Calibration Scale



Calibration Master: Grid



Calibration Master : Universal

OUR OTHER PRODUCTS



PROFILE PROJECTOR



AUTOMATIC VISION MEASURING SYSTEM



VISION MEASURING MICROSCOPE



COORDINATE MEASURING MACHINE

SIPCON INSTRUMENT INDUSTRIES