ACCURATE
Metrology & Automation
Since 1984

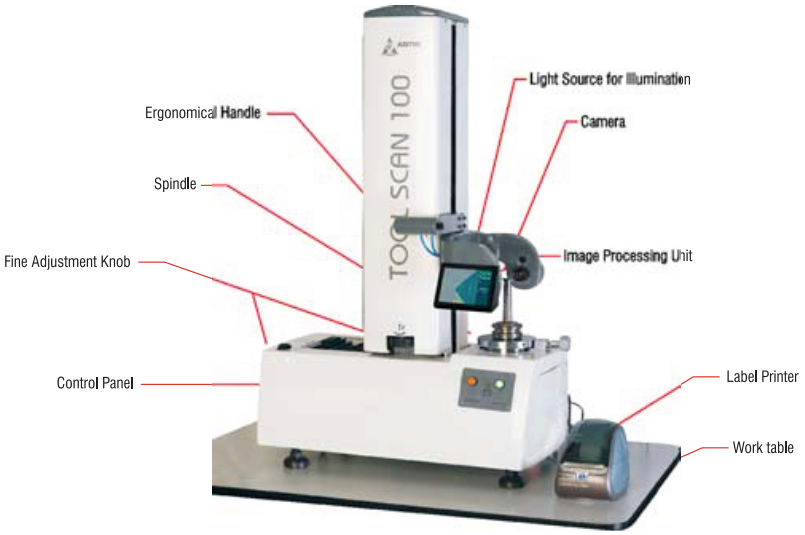
TOOL SCAN 100

Product Code : C1402010003

Tool Scan is the latest technology product for tool measurement.

It has telecentric lenses and CMOS camera with dedicated compact PC for measurement of tip radius, edge angle, position of cutting edge in addition to diameter and length of tools.

Operation is simple and requires minimum computer literacy. Automatic edge recognition increases measuring reliability and productivity.



Features

- High Precision LM guides used for vertical and Horizontal axis movement slide.
- High repetitive accuracy, no operator influence on measuring results.
- Tool presetting with electronic image processing.
- Telecentric lenses with special red L.E.D. for illumination and CMOS camera sensors
- Simple to operate.
- Every Machine supplied with work table.
- High precision optical scale.
- Interfacing with VMC, HMC Possible.
- Value for money.

Tool Holding Spindle

Unique replaceable spindle design with high precision accuracy ball cage of Grade 0.

The Spindle has

- 2 µm Concentricity
- 4 x 90º Spindle Lock
- No need of additional setting master due to integrated calibration edge on the spindle.
- Avoids measuring errors generated due to different reduction sleeve.
- No need of adding additional sleeve in basic spindle taper to accommodation different tool holders.
- It can be adapted to any kind of tool taper such as ISO, BT, HSK, C.V. and SK etc. (As per requirement)

Fast and fine Ad ustment for Axis

Unique design driving system allows two different modes of travels-

a) Push button on the handle for rapid movement of two axis.

b) Fine adjustment for tool geometry measurement with fine adjustment knob on the guard

Tool Clamping

Vacuum clamping facility by push button for positive clamping of tool. For vacuum in built compressor is provided.

Label Printer (Optional)

Measured data can be printed in the form of sticker that can be pasted on the measured tool very easily to save time.

Tool Holding Spindle

Fast & Fine Adjustment

Tool Clamping Buttons

Label Printer

LCD Display

CMOS Camera

Features and Applications of Image processing system

Image Processing system available in three different types Microscan-I, Microscan-II & Microscan-III

Photo Not Received

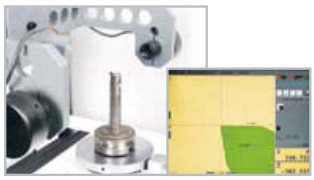
	Features	Microscan-I	Microscan-II	Microscan-III
1	Color LCD TFT	5.7" color monitor	10.4" color monitor	12.1" color monitor
2	Touch screen function	yes	no	yes
3	Resolution Display	640x480 pixel	640x480 pixel	640x480 pixel
4	Magnification Factor	12.5 x	15 x	23 x
5	Methods of evaluation	X and Z	X and Z	X and Z
6	Automatic contour recognition	Not Possible	Possible	Possible
7	Tip Angle measurement	Possible	Possible	Possible
9	Radius	Possible	Possible	Possible
10	RS-232	no	yes	yes
11	Printer can be connect	USB	USB or RS232	USB or RS232
12	Tool reference memory	99 storage locations	99 storage locations	99 storage locations
13	Tool Data memory	no	500 tools	500 tools
14	Camera and transmissive light	"Electronic image processing and telecentric lenses, special white LED for transmissive light, CMOS camera sensor b/w with 0.3 mega pixel"	"Electronic image processing and telecentric lenses, special red LED for transmissive light, CMOS camera sensor b/w with 0.3 mega pixel"	"Electronic image processing and telecentric lenses, special red LED for transmissive light, CMOS camera sensor b/w with 0.3 mega pixel"
15	Viewing field	about 6,5 * 6,5 mm^2	about 6,5 * 6,5 mm^2	about 6,5 * 6,5 mm^2
16	Measurement functions	"Maximum, Fixed axis with cross hair, Measure with center pixel, Line, Angle, Radius."	"Maximum, Fixed axis with cross hair, Flying axis, Measure with center pixel, Invert tool, Line, Angle, Radius."	*Optional Features : Macro, helical angle (cylindrical) Pitch (Conical),Orthogonal Clearance, Helical Angle (Conical), Cutting Angle

Technical Specifications

	TOOL SCAN 100	TOOL SCAN 200	TOOL SCAN 300
Max. Measuring Range			
Height	450mm	550mm	600*
Diameter	300mm	400mm	650*
Image Processing System	Microscan(I) (Optionally Microscan-II & Microscan-III available)		
Camera / Lens	CMOS camera and telecentric lenses with special L.E.D.		
Electric Supply	AC 230V, 50Hz		
Runout on Spindle Nose	≤ 0.002mm		
Measurement Accuracy	≤ 0.020mm		
Spindle Taper	(ISO 50/ISO 40/ISO 30)*		
(Selectable)	(BT 50/BT 40/BT 30/HSK100/ HSK50/ HSK40)*		
Dimension	850 X 350 X 850 (Tool Scan 100)		
L X W X H (in mm)	850 X 450 X 950 (Tool Scan 200)		

*Customer requirement on request

Applications



Checking of a fine boring tool

Checking of a corner cutter