

VECTOR - MATRIX Serie



3D Capabilities
Bright video images
Available with Inspec Metrology
Software

Manual Measuring Machines

VECTOR - MATRIX Serie

Vector and Matrix™ are 3D vision measuring instruments for reliable and non contact precision measurement of small and large parts. They are easier and more accurate than a profile projector. They combine the power of a CCD camera, a continuous manual zoom and an easy programming Microvu software, to allow rapid and precise inspection and to produce extremely fast piece-part analysis.

Increase productivity with powerful and easy-to-use InSpec Metrology Software and edge detection to handle measuring applications with ease even on the production floor. Operator error are reduced and repeatability improved.

Vector and Matrix are capable of a wide range of measuring applications. Compare to use of a profile projector, measurement error due to incorrect handling is ruled out. They offer as a cost effective solution for manual parts inspection.

MATRIX
Range 600 to 900



1. Measuring stage capacities XYZ

- 150 x 150 x 150 mm
- 300 x 300 x 150 mm*
- 600 x 450 x 150 mm*
- 900 x 600 x 150 mm*
- * 300 mm optional

- 2.** Q16 metrology display with video screen
Option, Inspec metrology Software

- 3.** Continuous manual zoom for 2D / 3D measurement

Feature Highlights



VECTOR
Range 150 to 300



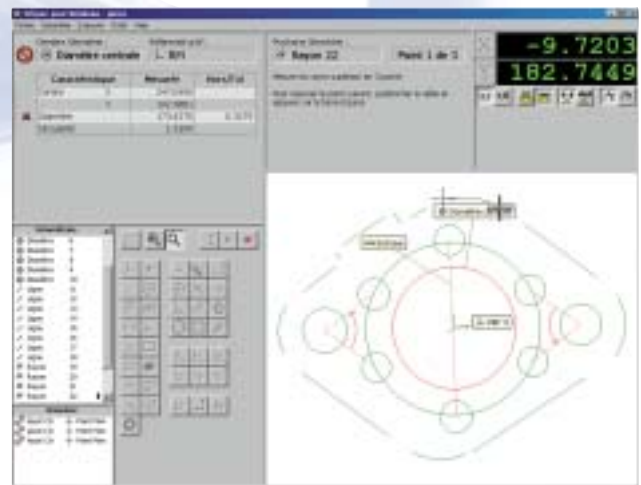
Mechanics

- High precision measuring stage
- 2 and 1 μ m XYZ encoders
- X,Y axis rapid declutching movement



Optics

- Hi-Res B&W or Color CCD Camera
- Screen Magnification until 300x
- Adjustable zoom magnification
- 3D Measurement with focus detector
- Programmable surface and profile light
- A wide choice of Crosshairs (color, design...)
- Images capture (300x magnification)
- Profile Edge detector for semi-automatic measurements



InspeC Metrology Software

- Interface : InspeC uses familiar Windows interface with graphics, icons, color-coding and Messages Windows to help operator
- Programming : With teach-as-you-go-programming, creating and editing measurement routines is as simple as pointing and clicking the mouse...
- Feature measurement and constraint icons. Create angles, arcs, circles, distances, lines, o-ring...and create parallel, tangents intersections...InspeC will only allow geometrically correct combinations.
- File Inputs - Outputs : A variety of files formats can be imported (DXF, IGES...). Export datas on SPC, CAD, databases...

VECTOR - MATRIX

	VECTOR				MATRIX			
Performance	150x150		300x300 ⁽¹⁾		600x450 ⁽²⁾		900x600 ⁽²⁾	
X Y Z Travel Range (mm)	150 x 150 x 150 mm		300 x 300 x 150 mm		600 x 450 x 150 mm		900 x 600 x 150 mm	
Encoder (µm)	2	1	2	1	2	1	2	1
E ₂ XY* (µm, L in mm)	from 2,5 + L/100				from 4 + 3L/100			
E ₁ Z* - Video (µm)	5 + 2L/100				5 + 2L/100			
Z Repeatability (µm)	+ 2,5				+ 2,5			

Mechanics	150x150	300x300 ⁽¹⁾	600x450 ⁽²⁾	900x600 ⁽²⁾
Dimensions (mm)	L430 x D710 x H870	L710 x D1070 x H1015	L1755 x D865 x H1525	L2390 x D1220 x H1525
Weight (kg)	39	159	432	554
Stage capacity (kg)	9	16	34	45
Base Material	AL		Steel	
Ways X&Y	Linear Ways			

Optics / Computer	150x150	300x300 ⁽¹⁾	600x450 ⁽²⁾	900x600 ⁽²⁾
Video	Hi-res B&W or Color CCD camera			
Optics	6,5 : 1 zoom			
Magnification	0,7 to 4,5x (25 to 150x screen resolution)			
2x lens Magnification	1,4 to 9x (50 to 300x screen resolution)			
Connection	RS 232 for Q16 or USB for Inspec Software			
Measuring system	Q16 Metrology box or Inspec metrology software			

Lighting	150x150	300x300 ⁽¹⁾	600x450 ⁽²⁾	900x600 ⁽²⁾
Surface	Fiber Optic Ring			
Profil	Collimated Condensed Tungsten			

* Accuracy calculated with L in mm, under the optimum conditions using the maximum zoom, on the basis of standard linked to COFRAC.

(1) and (2) Optional Z travel : 300 mm.

This brochure does not have a contractual value. MCE Technologies reserves the right to modify the specifications without notice.

Automatic video
measuring systems



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