

# RaxVision<sup>®</sup>

## Coordinate Measuring Machine



RaxVision Coordinate Measuring Machine  
offer high accuracy, excellent affordability and  
powerful capabilities!

# AUTOMATIC COORDINATE MEASURING MACHINE

RaxVision

## MODEL

CMM-554C

CMM-665C

CMM-886C

CMM-10108C



## CHARACTERISTICS :

Drive system : Servo motor

Control system : RENISHAW UCC1

Probing system : RENISHAW MH20i/RENISHAW PH10T + TP20

Measuring software : CMM-Manager (CNC)

Motion speed : 300mm/s



## USAGE

Automatic coordinate measuring machine adopts sliding bridge construction, and largely improved motion functions. The work table, guide way, cross beam and Z-axis all are made of granite with consistent temperature stability and rigidity. The machine is designed for highest stability and reliability through finite elements analysis and dynamics study.

Automatic coordinate measuring machine is widely used in the fields of machine manufacturing, electronic, automotive etc.

## SPECIFICATION

MODEL		CMM-554C	CMM-665C	CMM-886C	CMM-10108C
		CMM-574C	CMM-685C	CMM-8106C	CMM-10128C
		CMM-584C	CMM-6105C	CMM-8126C	CMM-10158C
Travel (mm)	X	500	600	800	1000
	Y	500/700/800	600/800/1000	800/1000/1200	1000/1200/1500
	Z	400	500	600	800
Construction		Sliding bridge			
Space accuracy		MPE <sub>E</sub> = (3.0+L/250)μm		MPE <sub>E</sub> = (3.5+L/200)μm	
Resolution		0.5μm			
Dimension (m)		1.21x1.3/1.5/1.6x2.33	1.31x1.4/1.6/1.8x2.53	1.65x1.9/2.1/2.3x2.85	1.85x2.1/2.3/2.6x3.25
Weight (kg)		980/1120/1200	1100/1250/1400	2200/2460/2720	2600/2880/3300
Max. Load (kg)		500	800	1000	1500

## WORK CIRCUMSTANCE

Power	220V±10% 50/60Hz		
Air consumption	120L/min (0.4MPa)	Air Pressure	≥0.5MPa
Temperature	20±2°C <1°C/h <2°C/24H <1°C/m	Humidity	40%-70%

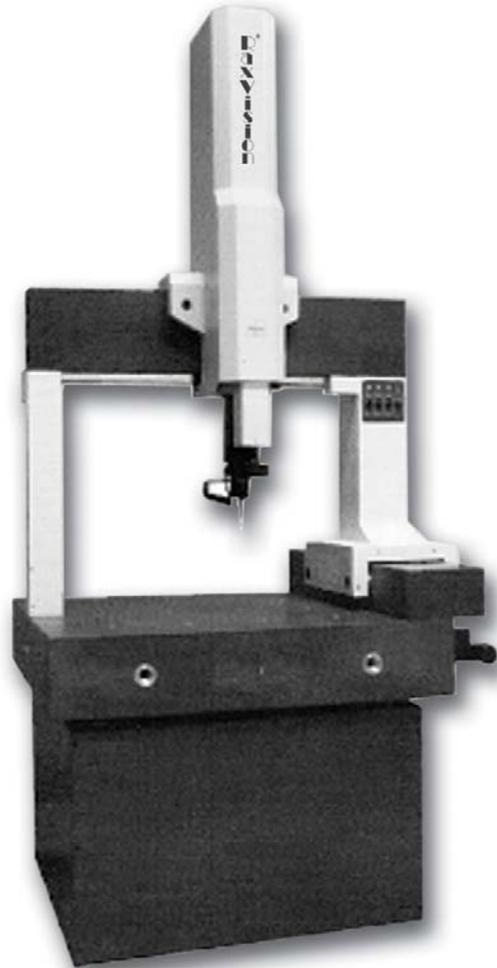
# HYBRID VIDEO COORDINATE MEASURING MACHINE

RaxVision

## MODEL

CMM-554MV

CMM-665MV



## USAGE

It integrates the touching probing system and video probing system. With the best probing system, the measuring speed, flexibility and work efficiency are largely improved.

With the high accuracy CCD digital camera video measuring system, employed advance graphic data processing tech which can realize work pieces edge detecting, points gathering, and circle or arc recognition automatically after amplifying the object to be measured. It is suitable for fine, fragile, distortable spare part and the position where some styli cannot reach. It is widely used in the fields of mechanism, electronic, auto, plastic, watch, mold and metal inspection.

### SPECIFICATION

MODEL		CMM-554MV	CMM-665MV
		CMM-564MV	CMM-685MV
		CMM-574MV	CMM-6105MC
		CMM-584MV	
Travel (mm)	X	500	600
	Y	500/600/700/800	600/800/1000
	Z	400	500
Operation		Manual	
Construction		Sliding bridge	
Probing system		RENISHAW MH 20i/Video probing system	
Measuring software		CMM-Manager (M) / M2D-AT	
Space accuracy		$MPE_E = (4.0 + L/200)\mu\text{m}$	
Resolution		0.5 $\mu\text{m}$	
Dimension (m)		1.0x1.1/1.2/1.3/1.4x2.2	1.14x1.1/1.3/1.5x2.4
Weight (kg)		700/770/840/910	900/1040/1180
Max. Load (kg)		200	500

### VIDEO PROBING SYSTEM

Operation	Manual
Camera	Japan, Colour 1/2" CCD Camera
Illumination	Adopted LED, can be continuous adjusted
Lens	NAVITAR (USA)
Lens multiple	0.7X – 4.5X
Total multiple	30X – 190X
Object view	10.6mm – 1.6mm
Accuracy	$(3.0 + L/200)\mu\text{m}$

# MANUAL COORDINATE MEASURING MACHINE

RaxVision



## MODEL

CMM-554M

CMM-665M

## USAGE

M-series coordinate measuring machine

can easily measure the 3D profile dimension, shape and position tolerance of all kinds of work pieces.

It is a photoelectric measuring system of high precision and efficiency. It is widely used in the manufacturing and quality control process of mechanism, electronic parts, mold, automotive and aviation. It can inspect the dimension, shape and position of the box, guide rail and other work pieces.

## CHARACTERISTICS

Probing system : RENISHAW MH20i

Measuring software : CMM-Manager (M)

## SPECIFICATION

MODEL		CMM-554M	CMM-564M	CMM-574M	CMM-584M	CMM-665M	CMM-685M	CMM-6105M
Travel (mm)	X	500	500	500	500	600	600	600
	Y	500	600	700	800	600	800	1000
	Z	400	400	400	400	500	500	500
Construction		Sliding bridge						
Space accuracy		$MPE_E = (4.0+L/200)\mu m$						
Resolution		0.5 $\mu m$						
Dimension (m)		1.0x1.1x2.2	1.0x1.2x2.2	1.0x1.3x2.2	1.0x1.4x2.2	1.14x1.1x2.4	1.14x1.3x2.4	1.14x1.5x2.4
Weight		700kg	770kg	840kg	910kg	900kg	1040kg	1180kg
Max. Load		200kg	200kg	200kg	200kg	500kg	500kg	500kg

## WORK CIRCUMSTANCE

Power	220V $\pm$ 10% 50/60Hz
Air pressure	$\geq$ 0.5MPa
Air consumption	120L/min (0.4MPa)
Temperature	20 $\pm$ 2 $^{\circ}$ C <1 $^{\circ}$ C/h <2 $^{\circ}$ C/24h <1 $^{\circ}$ C/m
Humidity	40% - 70%

## COMPUTER

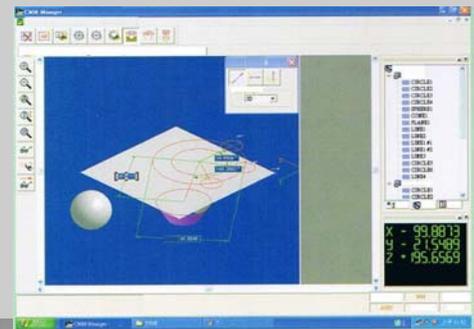
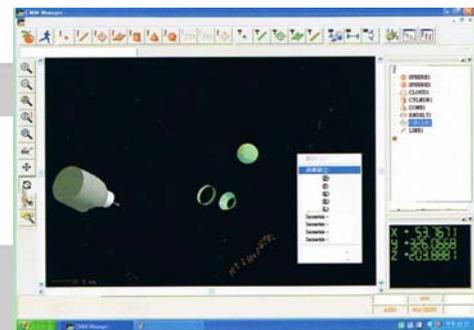
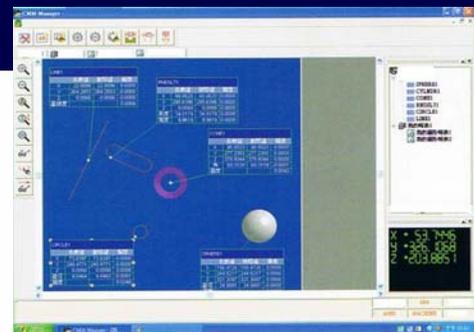
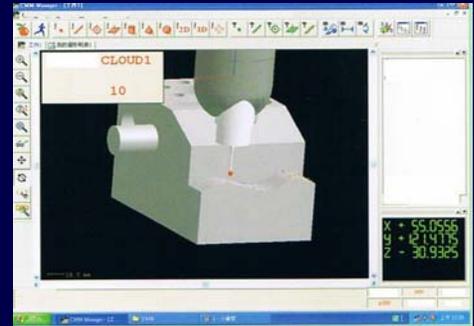
CPU	C2.8G
Memory	512M
Hard disk	80G
Monitor	17" LCD
Operating system	Windows XP

# CMM-Manager

CMM Measuring software is the generic software, which is specially used in the data processing for coordinate measuring machine.

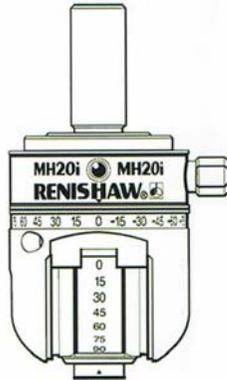
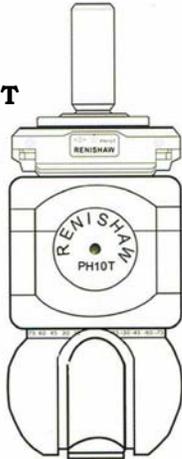
## Major functions :

- It employs various standards of machine calibration and probing system to realize the orientation, location and calibration of probing ball
- It can realize the establishment, saving, interchanging and transformation between various coordinates.
- It can detect and compute the characteristics of various basic geometry parameters (point, line, plane, circle, etc) by joining the points.
- It can construct new elements or compute dimensions (eg distance and angle) of work pieces by 8 different ways (assembly, parallel, verticality, intersection, projection, symmetry, image, statistics) according to the detecting outcome.
- It can detect various shape and position errors of work pieces.
- The detecting outcome can be displayed or printed by arranging in column or graph and also can be transformed as AutoCAD, Excel, Word file to satisfy different need of users.
- It allows recalibration of systematic errors of coordinates for improved accuracy.
- It allows temperature compensation under constant temperature.
- The “auto guide window” will inform the operator the measuring steps and current measuring position.
- It allows raising the measuring efficiency by using the macro function “hot” key



# Probing System Resolution Graph

PH10T



MH20i with MSI shank with TP20 module



TP20

SC2

SK2

SE4

SE5

Option

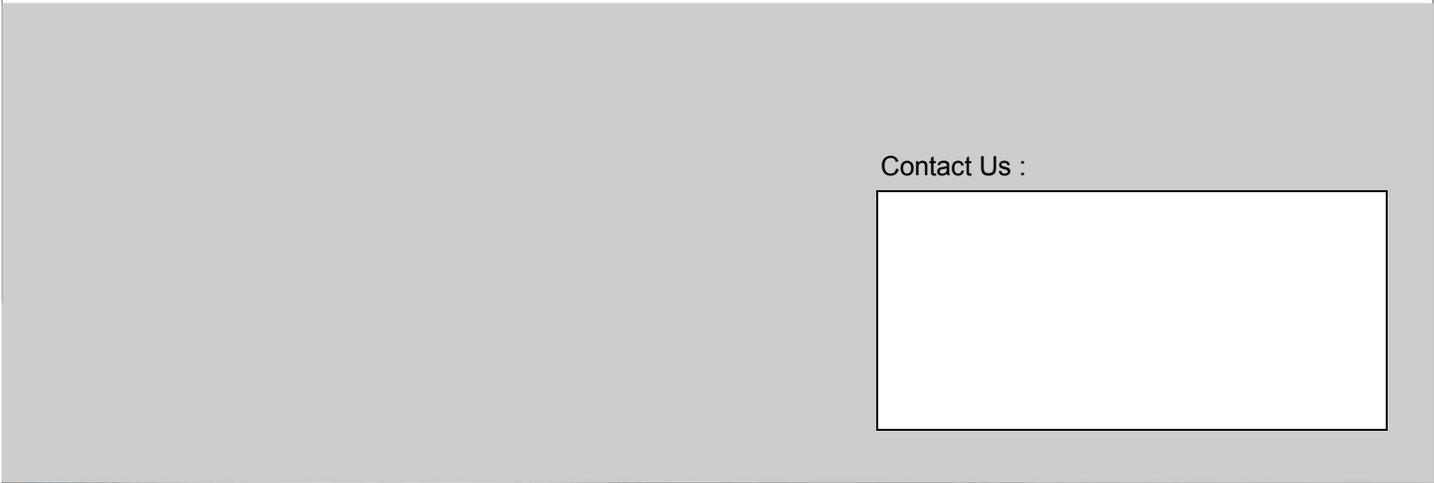
PS1R PS8R PS9R

PS17R PS27R PS49R

PS20R PS3R

PS68R

In the process of using coordinate measuring machine, you need judge from the measuring feature to select the suitable pattern and size of styli



Contact Us :

