

# COORDINATE MEASURING MACHINES

## FEATURES

- X&Z axis beam are made of aviation aluminum
- RENISHAW steel scale
- High precision, rigid, pre-loaded air bearings on all axis

## RENISHAW UCC CONTROL SYSTEM

- High speed measurement & servo control system

## RATIONAL-DMIS SOFTWARE

- Unique operation interface, complete drag-and-drop operation
- Instructional programming allows users to replace text
- Intelligent recognition of the construction, calculation and output of relevant geometric elements
- Seamless link with CAD data

## RENISHAW PROBE BODY

- The TP20 is a touch trigger probe
- The TP200B is a touch triggered probe of electronic strain sensing technology, with high measurement accuracy and operate life
- The SP25M is high performance scanning and touch trigger probe



CMM-ST564A

## SPECIFICATION

Code	Range(X×Y×Z)	Probe body	MPEE	MPEP	Max. dimension of workpiece	Max. weight of workpiece	Overall dimension	Weight
	mm		μm	μm				
CMM-ST454A	400×500×400	TP20	±(2.1+3.3L/1000)	±2.2	525×995×600	500	1000×1240×2240	570
CMM-ST454B		TP200B	±(1.8+3.3L/1000)	±1.9				
CMM-ST454C		SP25M						
CMM-ST564A	500×600×400	TP20	±(2.1+3.3L/1000)	±2.2	625×1095×600	500	1100×1340×2240	700
CMM-ST564B		TP200B	±(1.8+3.3L/1000)	±1.9				
CMM-ST564C		SP25M						
CMM-ST686A	600×800×600	TP20	±(2.2+3.3L/1000)	±2.3	730×1400×800	700	1200×1650×2660	960
CMM-ST686B		TP200B	±(1.9+3.3L/1000)	±2.0				
CMM-ST686C		SP25M						
CMM-ST8106A	800×1000×600	TP20	±(2.2+3.3L/1000)	±2.3	930×1600×800	1000	1400×1850×2660	1270
CMM-ST8106B		TP200B	±(1.9+3.3L/1000)	±2.0				
CMM-ST8106C		SP25M						
CMM-ST10128A	1000×1200×800	TP20	±(2.7+3.3L/1000)	±2.7	1190×1814×1040	1800	1690×2370×3150	2460
CMM-ST10128B		TP200B	±(2.4+3.3L/1000)	±2.4				
CMM-ST10128C		SP25M						
CMM-ST10158A	1000×1500×800	TP20	±(2.7+3.3L/1000)	±2.7	1190×2114×1040	1800	1690×2670×3150	2820
CMM-ST10158B		TP200B	±(2.4+3.3L/1000)	±2.4				
CMM-ST10158C		SP25M						
CMM-ST10208A	1000×2000×800	TP20	±(2.7+3.3L/1000)	±2.7	1190×2614×1040	1800	1690×3270×3150	3410
CMM-ST10208B		TP200B	±(2.4+3.3L/1000)	±2.4				
CMM-ST10208C		SP25M						
CMM-ST121510A	1200×1500×1000	TP20	±(3.0+3.3L/1000)	±3.0	1390×2200×1200	2000	1890×2750×3330	3330
CMM-ST121510B		TP200B	±(2.7+3.3L/1000)	±2.7				
CMM-ST121510C		SP25M						
CMM-ST122010A	1200×2000×1000	TP20	±(3.0+3.3L/1000)	±3.0	1390×2700×1200	2000	1890×3350×3330	3910
CMM-ST122010B		TP200B	±(2.7+3.3L/1000)	±2.7				
CMM-ST122010C		SP25M						

**SPECIFICATION**

Code	Range(X×Y×Z)	Probe body	MPEE	MPEP	Max. dimension of workpiece	Max. weight of workpiece	Overall dimension	Weight
	mm		μm	μm	mm	kg	mm	kg
CMM-ST152010A	1500×2000×1000	TP20	±(3.3+3.3L/1000)	±3.3	1690×2700×1200	3000	2190×3350×3370	5220
CMM-ST152010B		TP200B	±(3.0+3.3L/1000)	±3.0				
CMM-ST152010C		SP25M						
CMM-ST152510A	1500×2500×1000	TP20	±(3.3+3.3L/1000)	±3.3	1690×3200×1200	3000	2190×3850×3400	6680
CMM-ST152510B		TP200B	±(3.0+3.3L/1000)	±3.0				
CMM-ST152510C		SP25M						
CMM-ST153010A	1500×3000×1000	TP20	±(3.5+4L/1000)	±3.5	1690×3700×1200	3000	2260×3910×3420	8120
CMM-ST153010B		TP200B	±(3.2+4L/1000)	±3.2				
CMM-ST153010C		SP25M						
CMM-ST152512A	1500×2500×1200	TP20	±(3.5+4L/1000)	±3.5	1690×3200×1400	3000	2190×3850×3870	6730
CMM-ST152512B		TP200B	±(3.2+4L/1000)	±3.2				
CMM-ST152512C		SP25M						
CMM-ST152515A	1500×2500×1500	TP20	±(3.8+4L/1000)	±3.8	1680×3330×1700	3000	2190×3980×4500	6950
CMM-ST152515B		TP200B	±(3.5+4L/1000)	±3.5				
CMM-ST152515C		SP25M						
CMM-ST153015A	1500×3000×1500	TP20	±(4.0+4L/1000)	±4.0	1680×3830×1700	3000	2260×4040×4520	8440
CMM-ST153015B		TP200B	±(3.7+4L/1000)	±3.7				
CMM-ST153015C		SP25M						
CMM-ST163515A	1600×3500×1500	TP20	±(4.0+4L/1000)	±4.0	1780×4330×1700	3000	2360×4540×4520	9960
CMM-ST163515B		TP200B	±(3.7+4L/1000)	±3.7				
CMM-ST163515C		SP25M						
CMM-ST203015A	2000×3000×1500	TP20	±(4.5+4L/1000)	±4.5	2180×3930×1700	6000	2760×4240×4520	11200
CMM-ST203015B		TP200B	±(4.0+4L/1000)	±4.0				
CMM-ST203015C		SP25M						
CMM-ST203018A	2000×3000×1800	TP20	±(4.5+4L/1000)	±4.5	2180×3930×2000	6000	2760×4240×5120	11200
CMM-ST203018B		TP200B	±(4.0+4L/1000)	±4.0				
CMM-ST203018C		SP25M						

**OPERATION ENVIRONMENT**

Air pressure	0.5~1.0MPa
Air supply	0.3~0.45m <sup>3</sup> /min
Temperature	20±2°C
Humidity	55%~65%
Power	220V±10%, 50/60Hz

**STANDARD DELIVERY**

Main unit		1 pc
Probe system	Probe head (Renishaw)	1 pc
	Probe body (Renishaw)	1 pc
	Styli (Renishaw)	1 set
Calibration sphere	Ø19mm	1 pc
Computer		1 pc
Printer		1 pc
Software		1 pc

**PROBE HEAD SPECIFICATION**

Probe head (PH10T)	Angular movement with horizontal axis	0°~105° in 7.5 steps
	Angular movement with vertical axis	±180° in 7.5 steps
	Number of positions	720
	Probe mounting	M8
	Max. output torque	0.45N.m
	Max. extension length	300mm
	Weight	645g
Probe body	Detect direction	±X, ±Y, +Z
	Styli mounting	M2
	Rating life	>1000,000 times

**STYLI INCLUDED IN TP20 AND TP200B**

Material	Ball diameter	Length	Quantity
ruby ball / stainless steel stem	SØ1mm	10mm	1 pc
	SØ2mm	20mm	1 pc
	SØ3mm	20mm	1 pc
	SØ3mm	30mm	1 pc
	SØ4mm	10mm	1 pc
	SØ4mm	30mm	1 pc
	SØ4mm	40mm	1 pc
	SØ5mm	20mm	1 pc
	SØ5mm	50mm	1 pc
stainless steel stem	—	10mm	1 pc
	—	20mm	1 pc
	—	30mm	1 pc

**STYLI INCLUDED IN SP25M**

Material	Ball diameter	Length	Quantity
ruby ball / stainless steel stem	SØ2mm	21mm	2 pc
	SØ3mm	21mm	2 pc
	SØ4mm	21mm	2 pc
	SØ2mm	30mm	2 pc
	SØ3mm	40mm	2 pc
	SØ4mm	50mm	2 pc
	SØ6mm	75mm	2 pc
stainless steel stem	—	20mm	1 pc