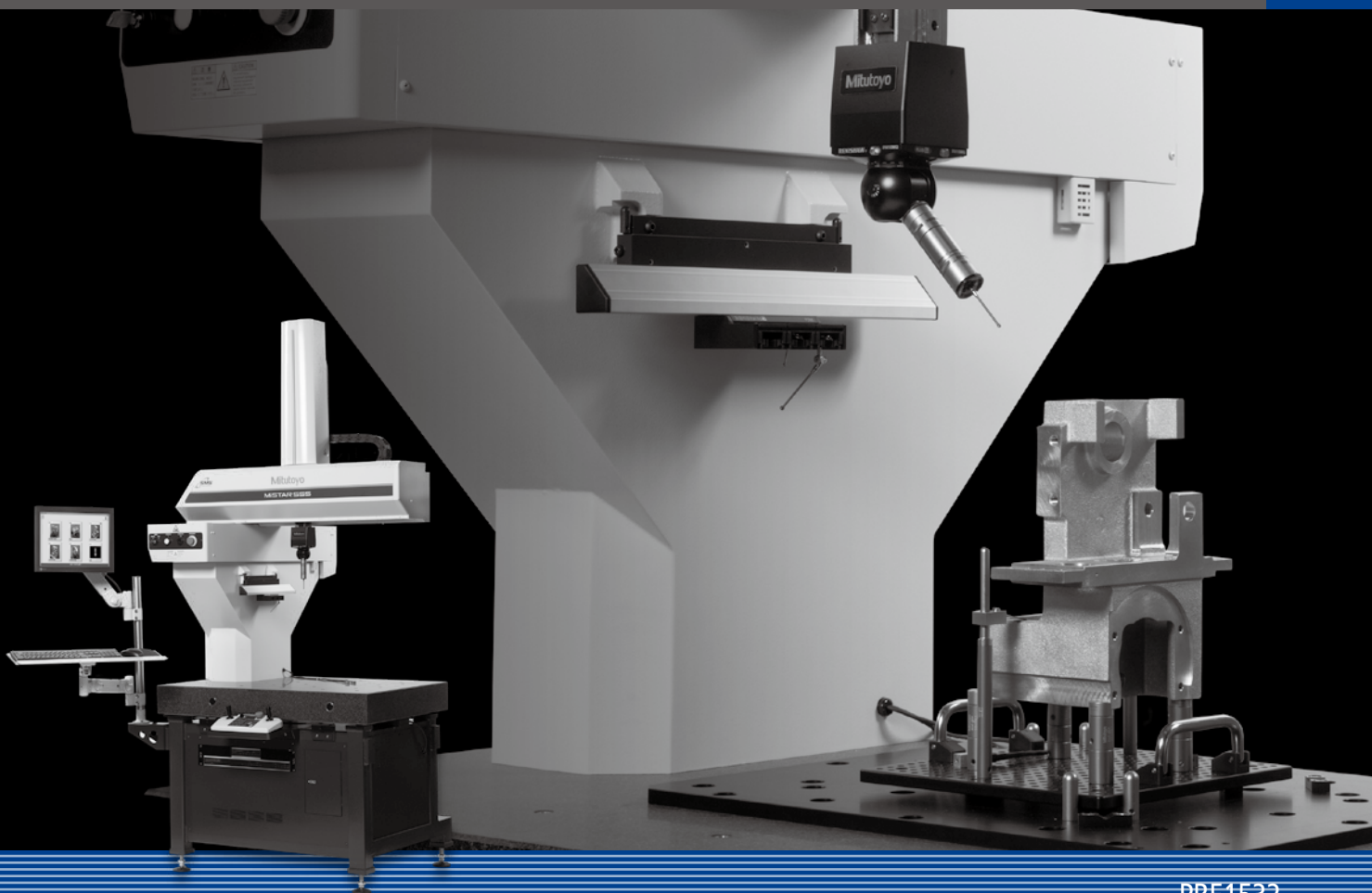


Shop-floor Type CNC Coordinate Measuring Machine MiSTAR 555 Specifications Sheet



Main unit

Measuring range [mm]	X		570
	Y		500
	Z		500
Guide method			Linear guide on each axis
Drive speed [mm/s]	CNC MODE (Mode selector switch: AUTO)	Drive speed	Each axis 5 to 350 (Max. combined speed 606)
		Measuring speed	1 to 5
	CNC MODE (Mode selector switch: MANUAL)	Drive speed	5 to 133 (Max. combined speed 230)
		Measuring speed	1 to 5
	J/S MODE	Drive speed	0 to 80
		Measuring speed	0 to 3
		Fine speed	0.05
Drive acceleration [mm/s ²]			Each axis 1556 (Max. combined acceleration 2695)
Length measuring method			Linear encoder
Resolution [mm]			0.0001
Measuring table	Material		Granite
	Size (stage) [mm]		755×730
	Measured object fixing method		Screw (M8×1.25)
Workpieces	Maximum height [mm]		660
	Maximum mass [kg]		120
Main unit dimensions [mm]	Height		2350
	Width		1121
	Depth		1122
Mass (including the installation platform and control device) [kg]			655
Power requirements	Voltage, Frequency		100 to 120/200 to 240 V AC ±10 %, 50/60 Hz
	Power consumption	Standard PH10MQ+TP200	Maximum 0.32 kW, Average 0.19 kW
		Full option	Maximum 1.5 kW

Temperature environment

	Temperature range	Rate of change	Gradient
Temperature environment 1	18 to 22 °C	2 °C per hour 2 °C in 24 hours	1 °C/m (Both vertically and horizontally)
Temperature environment 2	10 to 30 °C	2 °C per hour 10 °C in 24 hours	
Temperature environment 3	10 to 40 °C		

Precision specification

[Unit: μm]

Items	Symbol	Temperature environment	Probe head and probe combination				
			PH6M+SP25M	PH6M+TP200*	PH10MQ+SP25M	PH10MQ+TP200	SP600Q
Length measurement error	E_0, MPE	Temperature environment 1	$2.2 + 3.0L/1000$	$2.5 + 3.0L/1000$	$2.2 + 3.0L/1000$	$2.5 + 3.0L/1000$	$2.5 + 3.0L/1000$
		Temperature environment 2	$2.9 + 4.5L/1000$	$3.2 + 4.5L/1000$	$2.9 + 4.5L/1000$	$3.2 + 4.5L/1000$	$3.2 + 4.5L/1000$
		Temperature environment 3	$3.8 + 8.0L/1000$	$4.1 + 8.0L/1000$	$3.8 + 8.0L/1000$	$4.1 + 8.0L/1000$	$4.1 + 8.0L/1000$
Length measurement error with offset	E_{150}, MPE	Temperature environment 1	□	□	$2.2 + 3.0L/1000$	$3.0 + 3.0L/1000$	□
		Temperature environment 2	□	□	$2.9 + 4.5L/1000$	$3.7 + 4.5L/1000$	□
		Temperature environment 3	□	□	$3.8 + 8.0L/1000$	$4.6 + 8.0L/1000$	□
	E_{50}, MPE	Temperature environment 1	$2.2 + 3.0L/1000$	□	□	□	□
		Temperature environment 2	$2.9 + 4.5L/1000$	□	□	□	□
		Temperature environment 3	$3.8 + 8.0L/1000$	□	□	□	□
	E_{90}, MPE	Temperature environment 1	□	□	□	□	$2.5 + 3.0L/1000$
		Temperature environment 2	□	□	□	□	$3.2 + 4.5L/1000$
		Temperature environment 3	□	□	□	□	$4.1 + 8.0L/1000$
Repetitive accuracy	R_0, MPL	Temperature environment 1, 2, 3	2.2	2.5	2.2	2.5	2.5

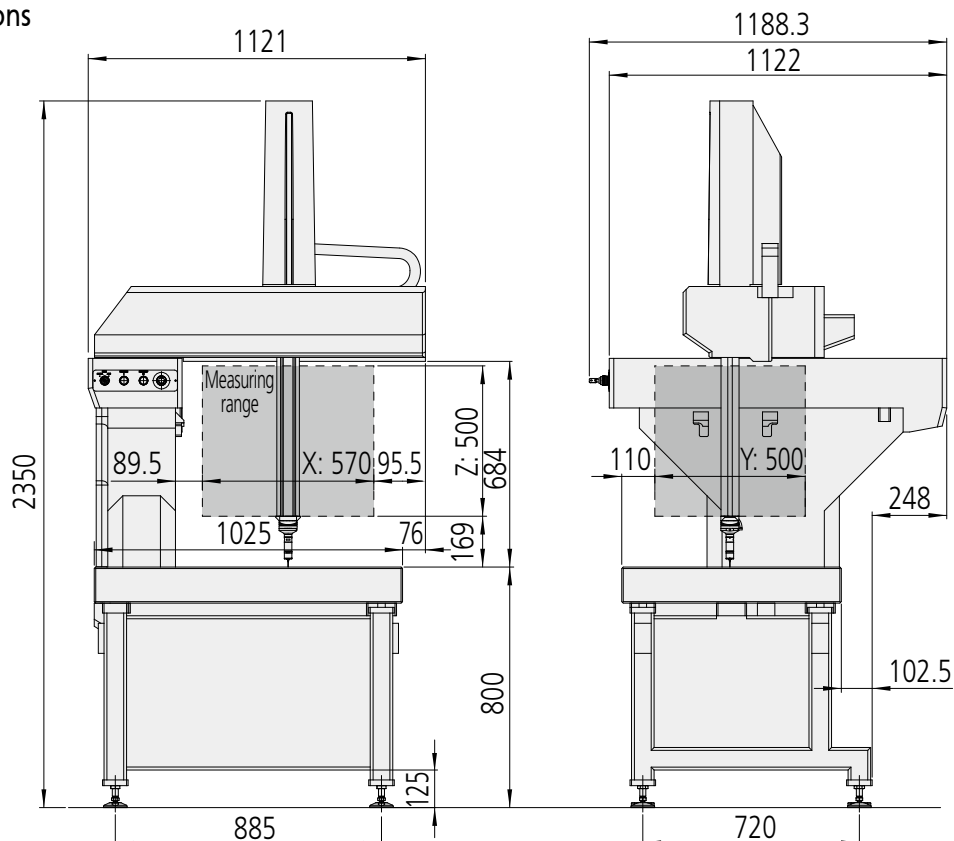
* For the combination of probe head and probe PH6M+TP200, the length measurement error E_0, MPE in the Z-axis direction and error in length measurement with offset E_{150}, MPE are outside the scope of accuracy guarantee.

Note 1: Precision specification when the standard stylus is used. [SP25M (SM25-1): $\phi 4 \times L50$, TP200: $\phi 4 \times L10$, SP600Q: $\phi 4 \times L50$]

Note 2: Testing and evaluation methods are as per ISO 1360-2: 2009 (JIS B7440-2: 2013).

External dimensions

[Unit: mm]

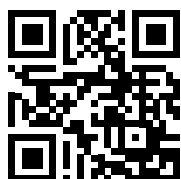




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