

ood brown & sharpe®



One

One™ shop floor cmm



TECHNICAL CHARACTERISTICS

Control:	Touch trigger or scanning controller, both with geometric temperature compensation
Bearings:	Precision linear recirculating ball bearings (no air required)
Guideways:	Hardened steel
Work Surface:	Granite with M8 threaded inserts for part fastening
Standard Probe System:	TESASTAR manual probe head
Optional Probe Systems:	Variety of manual and automatic articulating touch trigger and scanning probing systems

ELECTRICAL REQUIREMENTS

Voltage:	115 VAC±10%, Single Phase 230 VAC±10%, Single Phase
Frequency:	50-60 Hz
Current:	15 Amperes
Power Consumption:	600 VA Maximum

PERFORMANCE SPECIFICATIONS

ACCORDING TO ASME B89.4.1 ^{(1) (2) (3) (6)} in μm (inch)						
Specifications valid with TESASTAR, TESASTAR-i, TESASTAR-p, TP2, TP20, or SP25M						
Model	T = 18 - 22°C (64.4 - 71.6°F)		T = 16 - 26°C (60.8 - 78.8°F)		T = 15 - 30°C (59.0 - 86.0°F)	
	Volumetric Accuracy	Repeatability	Volumetric Accuracy	Repeatability	Volumetric Accuracy	Repeatability
7.7.5	8.0 (0.000315)	2.0 (0.000079)	13.0 (0.000512)	2.0 (0.000079)	15.0 (0.000591)	2.0 (0.000079)
7.10.7	10.0 (0.000394)		15.0 (0.000591)		17.0 (0.000669)	

ACCORDING TO ISO 10360-2 ^{(1) (4) (5) (6)} Maximum Permissible Error MPE (μm), L (mm)						
Specifications valid with TESASTAR-p, TP2, TP20 or SP25M						
Model	T = 18 - 22°C (64.4 - 71.6°F)		T = 16 - 26°C (60.8 - 78.8°F)		T = 15 - 30°C (59.0 - 86.0°F)	
	MPE _E	MPE _P	MPE _E	MPE _P	MPE _E	MPE _P
7.7.5	3.9 + 4 L/1000	3.9	4.9 + 5 L/1000	3.9	4.9 + 6 L/1000	3.9
7.10.7						

Specifications valid with TESASTAR, TESASTAR-i						
Model	T = 18 - 22°C (64.4 - 71.6°F)		T = 16 - 26°C (60.8 - 78.8°F)		T = 15 - 30°C (59.0 - 86.0°F)	
	MPE _E	MPE _P	MPE _E	MPE _P	MPE _E	MPE _P
7.7.5	4.2 + 4 L/1000	4.2	5.2 + 5 L/1000	4.2	5.2 + 6 L/1000	4.2
7.10.7						

ACCORDING TO ISO 10360-4 ^{(1) (6) (7)} Maximum Permissible Error MPE (μm), L (mm)	
Specifications valid with SP25M	
Model	T = 15 - 30°C (59 - 86°F)
	MPE _{THP} /τ
7.7.5	6.5/85
7.10.7	

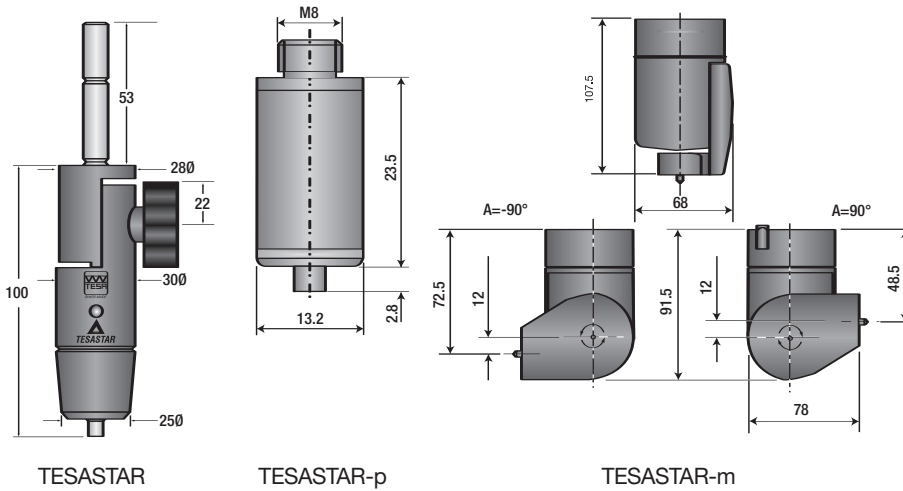
- The following temperature requirements must be met in order to ensure stated performance levels:
 Temperature Gradients in Time: 2°C/hr (3.6 °F/hr)
 10 °C/24 hrs (18 °F/24 hrs)
 Temperature Gradient in Space: 1°C/m (1.8 °F/m)
- Volumetric Accuracy according to ASME B89.4.1b 2001 para. 5.5

- Repeatability according to ASME B89.4.1b 2001 para. 5.3
- MPE_E, error indication for size measurement according to ISO 10360-2, where L= length of measurement in mm.
- MPE_P, probing error according to ISO 10360-2
- The following installation site vibration requirements must be met to ensure stated performance levels: 2μm maximum horizontal and vertical amplitude over 5-50Hz frequency range
- MPE_{THP}/τ, scanning probing error according to ISO 10360-4.
- The following module and stylus configurations used for performance tests:
 - TP2: 3x10mm stylus.
 - TP20: Standard force module with 3x10mm stylus.
 - TESASTAR-p: Standard force probe with 3x10mm stylus.
 - TESASTAR/TESASTAR-i: 3x21mm stylus.
 - SP25M: SM25-1 module with 3x21mm stylus.

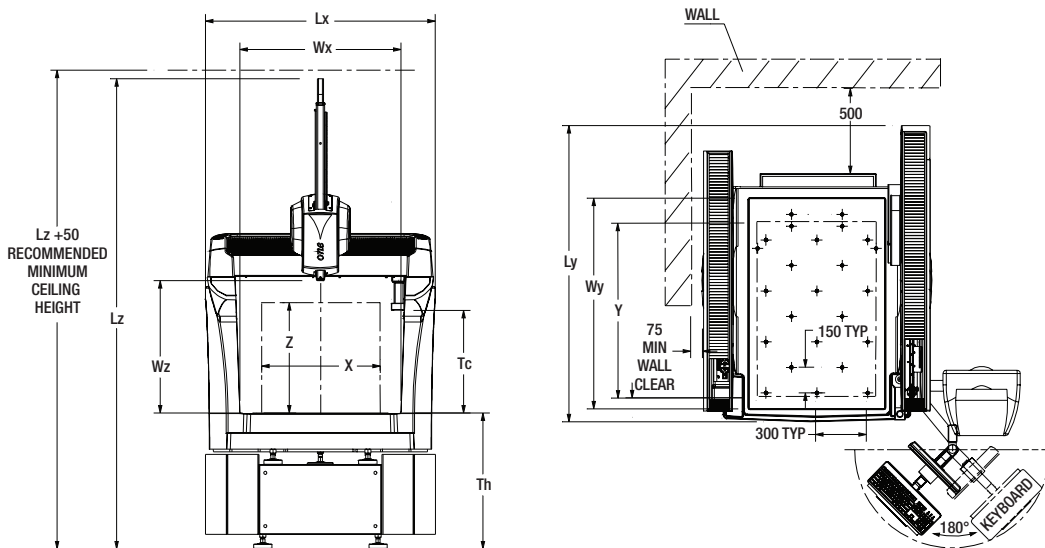
THROUGHPUT SPECIFICATIONS

Model	Maximum 3D Speed mm/s (in/s)	Maximum 3D Acceleration mm/s (in/s)
7.7.5	520 (20.5)	1732 (68.2)
7.10.7		

PROBE DIMENSIONS



ONE FLOOR PLAN LAYOUT



KEY WEIGHTS AND DIMENSIONS


Model	Strokes			Overall Dimensions*			Work Capacity			Work Surface Height	Maximum Distributed Part Weight	Basic Machine Weight
	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	kg (lbs)	kg (lbs)	
	X	Y	Z	Lx	Ly	Lz	Wx	Wy	Wz	Th		
7.7.5	700 (27.6)	700 (27.6)	500 (19.7)	1356 (53.4)	1413 (55.6)	2486 (97.9)	800 (31.5)	940 (37.0)	636 (25.0)	800 (31.5)	500 (1102)	1100 (2420)
7.10.7	700 (27.6)	1000 (39.4)	650 (25.6)	1356 (53.4)	1743 (68.6)	2768 (109)	800 (31.5)	1240 (48.8)	780 (30.7)	800 (31.5)	500 (1102)	1503 (3307)

* Note: The articulating arm option will add a maximum of 719mm (28.3") to the width and 749mm (29.5") to the length of the machine.

ONE SHIPPING DIMENSIONS

The machine will ship on two pallets. These dimensions represent the machine in its shipping state, both on pallet and off with the upper crate removed (if applicable). One pallet will accommodate the CMM and controller. Second pallet will accommodate the stand and peripherals.

		7.7.5	7.10.7
CMM Frame & Control with Pallet & Crate for Domestic or International Shipping	Weight (kg)	1250	1709
	Width (mm)	1677	1677
	Height (mm)	2045	2185
	Length (mm)	1727	1981
Complete System Standard Configuration without Pallet & Crate	Weight (kg)	1100	1503
	Width (mm)	1356	1356
	Height (mm)	2486	2768
	Length (mm)	1413	1743
Secondary Pallet & Crate with Peripherals Domestic or International Shipping	Weight (kg)	320	343
	Width (mm)	1524	1524
	Height (mm)	1194	1194
	Length (mm)	2185	2185

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For other countries please consult: www.HexagonMetrology.com

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