

DESIGN CHARACTERISTICS

Control	DC Servo Motors
Bearings	Pre-loaded air bearings on all axes
Measuring System	Linear Optical encoders
Z Rail Counterbalance	Pneumatic, adjustable
Surface Plate (Worktable)	Material - Granite Part Fastening - M8 threaded inserts
Guideways	X: Micromachined anodized light alloy extrusion Y: Integral guideway machined into table Z: Micromachined anodized light alloy extrusion
Thermal Compensation	Image (Standard) - Automatic Linear (multiple machine sensors, 1 part sensor) Image (A.C.T.I.V.) - Automatic (multiple machine sensors, 1 part sensor)

UTILITY REQUIREMENTS

Electrical Service

Electrical Requirements	A dedicated 15 ampere branch circuit is recommended for the incoming service.
Voltage	115V ac +/- 10%
Frequency	60 Hz
Current	15A
Receptacle	(1) NEMA 5-15 Standard Duplex Receptacle Line Noise-Incoming service must be free of interference, spikes, noise, and fluctuation in excess of +/-10% A good earth ground (less than 5 ohms) is required for reliable operation of the electrical controls.

Pneumatic Requirements

Air Supply Pressure (Min)	80 psi
Temperature Range	68 °F +/- 3.6 °F
Humidity (Max)	100 Grains/lb
Air Consumption	2.6 scfm@65 psi



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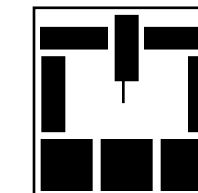
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ENGLISH UNITS

BRIDGE MEASURING MACHINES



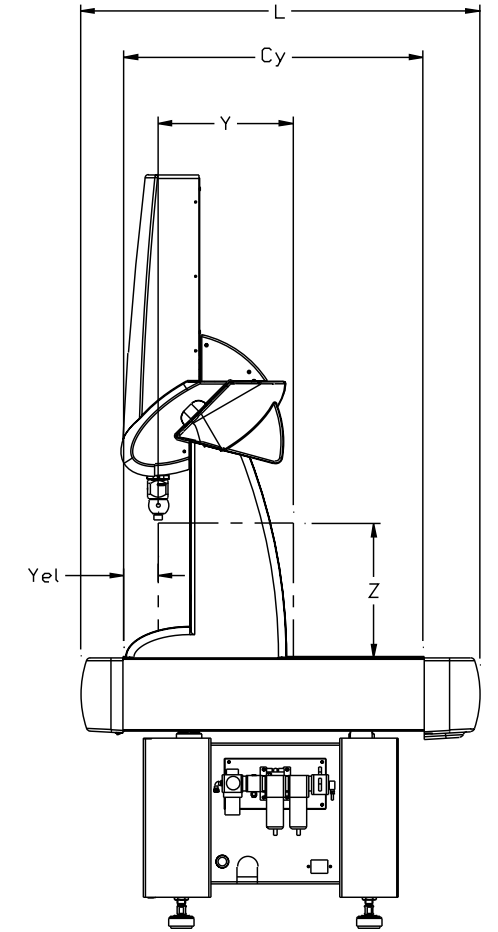
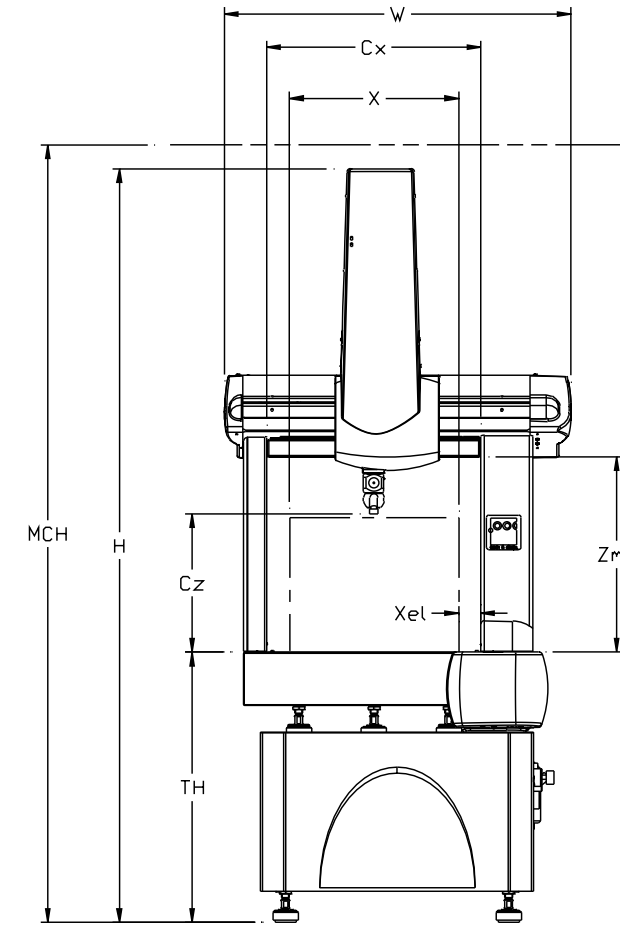
tools for measurement

Brown & Sharpe Coordinate Measuring Systems include a 12 month warranty for hardware and software supported by a world wide network of authorized service centers.
Due to continuing product development, Brown & Sharpe reserves the right to change product specifications and price without notice.
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IMAGE PERFORMANCE

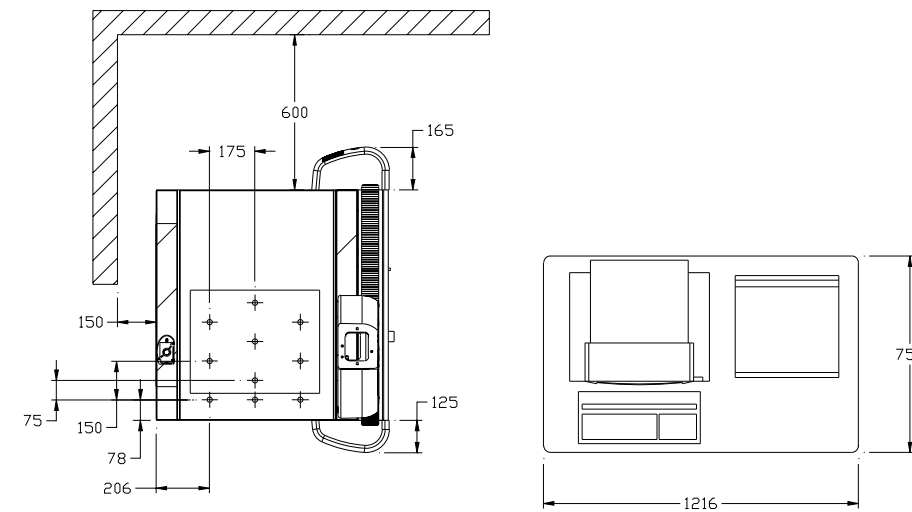
Models	Strokes (inches)			Measurement Uncertainty by Probe Type (µm)						Scanning Performance µm (sec) MPE _{THP}	ASME B89 Measurement Performance ⁽⁴⁾ (in)				Scale Resolution (in)	Max.3D Velocity (in/sec)	Max. 3D Accel (in/sec ²)	Max. Part (lbs)
				TP2/TP20	TP200	SP600/TRAX	TP2/TP20	TP200	SP600/TRAX		All Sensors	TP2/TP20	TP200	SP600				
	X	Y	Z	MPE _E ⁽¹⁾⁽²⁾			MPE _r ⁽³⁾											
555	19.6								3.4 (120 sec)	0.00020	0.00006	0.00006	0.00006	0.000003	34.1	170.5	500	
575	19.6	27.5	19.6	2.2+L/333	1.9+L/333	1.7+L/333	2.2	1.9	1.7								500	

- Volumetric measuring uncertainty along any direction in space according to ISO 10360-2. (Please refer to Brown and Sharpe document Understanding the ISO 10360-2 Performance Standard”).
- Volumetric uncertainty is valid for the following conditions; average room temperature for any hour 65-72 °F, superimposed air conditioning cycle ±4.1 °F at 4 cycles/hr min, max temperature difference between any two points close to machine 1.8 °F. At installation if the environment does not conform to the above mentioned requirements, Brown & Sharpe reserves the right to derate the machine volumetric performance accordingly. For ASME, the methods prescribed in B89.4.1-1997, paragraph 4.2 apply. For ISO 10360-2 the second term of ‘E’ may be degraded by up to 1µm/per meter/per degree C without the A.C.T.I.V. option. With the A.C.T.I.V. option the second term is limited to only 15% degradation over the complete range.
- Volumetric probing uncertainty according to ISO-10360-2.
- Scanning performance is according to ISO 10360-4, applicable to the SP600 probe only.
- Volumetric accuracy according to ASME B89.4.1-1997, paragraph 5.5
- Repeatability according to ASME B89.4.1-1997, paragraph 5.3.



GLOBAL DIMENSIONS

Models	Strokes (in)			Overall Dimensions (in)			TH	MCH	Work Capacity (in)			Z max. clearance (in)	Envelope Location (in)		System Weight (lbs)
	X	Y	Z	L	W	H			CX	CY	CZ		Zmc	Xel	
555	19.6	19.6	19.6	50.4	40.3	95.7	31.5	96.4	24.9	38.9	20.4	22.7	2.7	3.9	1196
575	19.6	27.5	19.6	58.3	40.3	95.7	31.5	96.4	24.9	46.8	20.4	22.7	2.7	3.9	1364



ADDITIONAL DIMENSIONS

Model	Worktable Inserts	
	Size	No.
555	M8	10
575	M8	16