

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 dovetail 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 (mutiple machine sensors, 1 part sensor)

UTILITY REQUIREMENTS

Electrical Service	
Electrical Requirements	A dedicated 15 ampere branch circuit is recommended for the incoming service.
Voltage	115/230V ac +/- 10%
Frequency	60/50 Hz
Current	15A
Receptacle	EC 320 standard 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)	5.5 bar
Temperature Range	20°C +/- 2.0 °C
Humidity (Max)	14g/kg
Air Consumption	73.5 NL/Min



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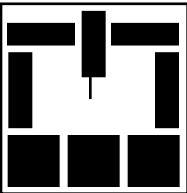
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METRIC UNITS

BRIDGE MEASURING MACHINES



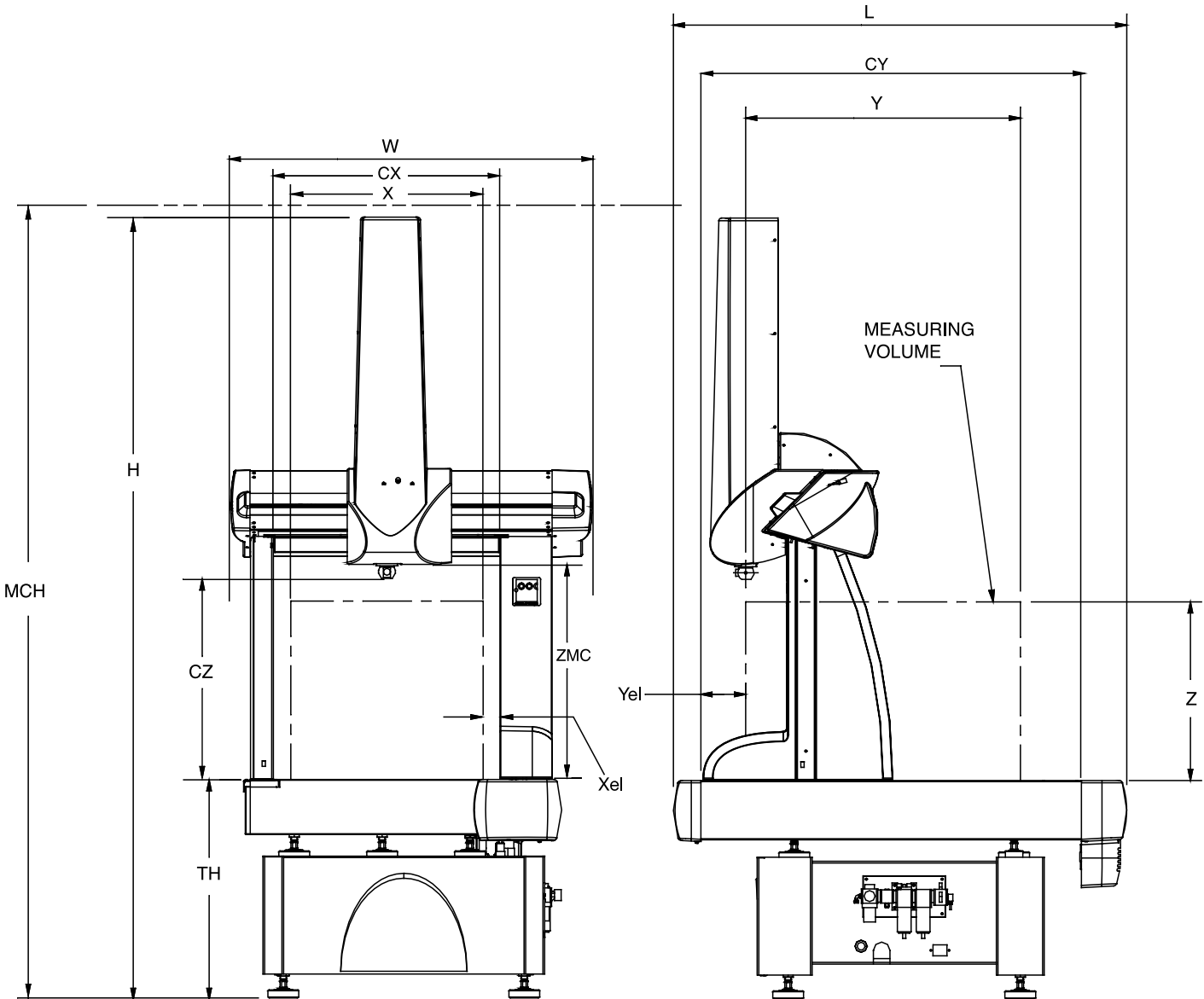
Brown & Sharpe Coordinate Measuring Systems include a 12 month warranty for hardware and software supported by a world wide network of authorized service centers. Due to continuing product development, Brown & Sharpe reserves the right to change product specifications and price without notice.
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IMAGE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

Models	Strokes (inches)			Measurement Uncertainty by Probe Type (µm)						Scanning ⁽⁴⁾ Performance µm (sec)	Scale Resolution µm	Max.3D Velocity (mm/sec)	Max. 3D Acceleration (mm/sec²)	Max. Part Weight (kg)
				TP2/TP20	TP200	SP600	TP2 TP20	TP200	SP600					
	X	Y	Z	MPE _E ⁽¹⁾⁽²⁾			MPE _p ⁽³⁾			MPE _{THP}				
777		700												
	700		650	2.2+L/333	1.9+L/333	1.7+L/333	2.2	1.9	1.7	3.4 (120 sec)	0.08	866	4330	907
7107		1000												

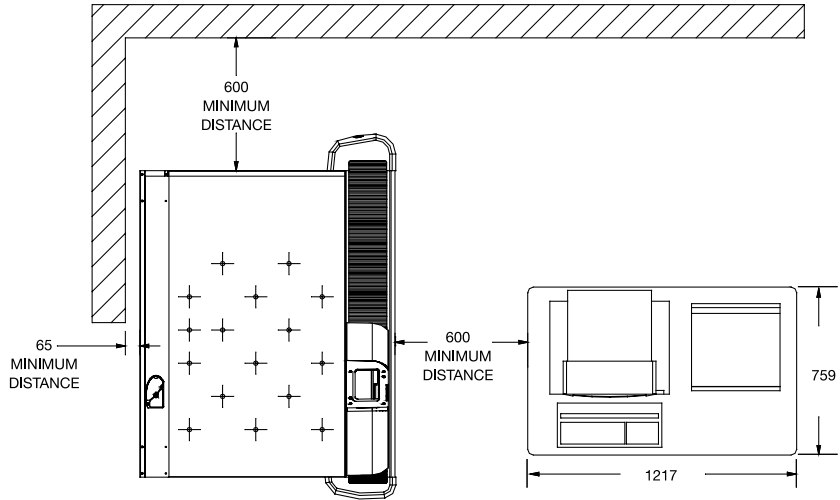
1. Volumetric measuring uncertainty along any direction in space according to ISO 10360-2. (Please refer to Brown and Sharpe document "Understanding the ISO 10360-2 Performance Standard").
2. Volumetric uncertainty is valid for the following conditions; average room temperature for any hour 18-22 °C, superimposed air conditioning cycle ±2.3 °C at 4 cycles/hr min, max temperature difference between any two points close to machine 1°C. 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. With the A.C.T.I.V. option the temperature range is extended to 15 °C to 30 °C, 2 °C/hour , 10 °C/day and 1°C/meter with only a 15% degradation in measurement uncertainty.

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.
3. Volumetric probing uncertainty according to ISO-10360-2.
4. Scanning performance is according to ISO 10360-4, applicable to the SP600 probe only.



GLOBAL DIMENSIONS

Model	Stroke (mm)			Overall Dimensions (mm)			TH (mm)	MCH (mm)	Work Capacity (mm)			Z max clearance (mm)	Envelope Location (mm)		Machine Weight (kg)
	X	Y	Z	L	W	H			CX	CY	CZ		Xel	Yel	
777		700		1650	1315	2842	800	2870	825	1385	730	810	61	162	1072
7107		1000		1950						1685					1255



ADDITIONAL DIMENSIONS

Model	Worktable Inserts	
	Size	No.
777	M8	16
7107		21