



Bridge Series Coordinate Measuring Machine

- Air Bearing Moving Bridge CMM with Granite Plate, Granite Cross Rail and Measuring Arm for Robust Stability and Matched Coefficient of Thermal Expansion
- 3 Size Ranges, LB (Large), MB (Medium) and SB (Small)
- V - Dove Tail Guide Ways
- Precision Ground Straightness & Flatness less than 2 arc seconds
- Choice of Renishaw, Pantec or TARUS Controller
- Renishaw PH10, PH20 or REVO Trigger Probe Head
- Renishaw .1 Micron Optical Scales
- Renishaw UCC Platform Controllers
- Renishaw MCU5 Joystick Control
- Tsunami Air Filtration System
- Custom Computer Workstation Table
- Battery Backup/Surge Protector
- Two Year Complete System Warranty
- Full Support and Calibration by TARUS, ISO/IEC 17025:2005 Accredited



Bridge Series LB Specifications

Measuring range	X [mm]	1200		
	Y [mm]	1500	2000	2500
	Z [mm]	1000		
Machine Total Weight	[kg]	4200	4900	5550
Part Weight	[kg]	2000		

Power requirements

Electrical	Single-phase AC, 115/230V, +/- 10%, 50/60 Hz		
Pneumatic	8 bar, pre-filtered, quality according to ISO 8573-1: Class 4 or better.		
Air consumption	[cfm]	4.2	

Motor Details

Sanyo Denki-DC Servo Motor	T511T-012 (X & Z Axis)	T720 (Y Axis)
Rated Speed	3000 rpm	
Rated Torque	0.221 Nm	0.605 Nm
Rated Current	2 A	3.4 A

Scale & Encoder Details

Scale	Optical scale with 20 micron grating
Encoder	Optical Encoder with 0.1 micron Resolution

Accuracy

Resolution	[μm]	0.1	0.1	0.1
Limit probing	MPE _P [μm]	2.5	2.5	2.5
Limit length measuring error	MPE _E [μm]	$\pm 2.5 + L/350$	$\pm 2.5 + L/350$	$\pm 2.5 + L/350$

Ambient conditions

Operating	[°C]	19-22 °C
Temperature range for MPEE	20° C \pm 1° C, ΔT : 0.5°C/h, 0.5°C/m	
Relative Humidity	[%]	40-60%

Dynamics

Joystick operation	V [mm/s] max	0-20 (creep), 0-100 (Normal)
Max. Pos. Speed	V [mm/s] max	280 axis, 480 vectorially
Max. Acceleration	a [mm/s^2] max	580 axis, 1000 vectorially

Bridge Series MB Specifications

Measuring range	X [mm]	1000		
	Y [mm]	1000	1500	2000
	Z [mm]	800		
Machine Total Weight	[kg]	3050	3800	4400
Part Weight	[kg]	2000		

Power requirements

Electrical	Single-phase AC, 115/230V, +/- 10%, 50/60 Hz			
Pneumatic	8 bar, pre-filtered, quality according to ISO 8573-1: Class 4 or better.			
Air consumption	[cfm]	4.2		

Motor Details

Sanyo Denki-DC Servo Motor	T511T-012 (X & Z Axis)	T720 (Y Axis)	
Rated Speed	3000 rpm		
Rated Torque	0.221 Nm	0.605 Nm	
Rated Current	2 A	3.4 A	

Scale & Encoder Details

Scale	Optical scale with 20 micron grating			
Encoder	Optical Encoder with 0.1 micron Resolution			

Accuracy

Resolution	[μ m]	0.1	0.1	0.1
Limit probing	MPE _P [μ m]	2.9	2.9	2.9
Limit length measuring error	MPE _E [μ m]	$\pm 2.9 + L/350$	$\pm 2.9 + L/350$	$\pm 2.9 + L/350$

Ambient conditions

Operating	[°C]	19-22 °C		
Temperature range for MPEE	20° C \pm 1° C, Δ T: 0.5°C/h, 0.5°C/m			
Relative Humidity	[%]	40-60%		

Dynamics

Joystick operation	V _{max} [mm/s]	0-20 (creep), 0-100 (Normal)		
Max. Pos. Speed	V _{max} [mm/s]	280 axis, 480 vectorially		
Max. Acceleration	a _{max} [mm/s ²]	580 axis, 1000 vectorially		

Bridge Series SB Specifications

Measuring range	X [mm]	600	
	Y [mm]	800	1000
	Z [mm]	1000	
Machine Total Weight	[kg]	1400	1520
Part Weight	[kg]	500	

Power requirements

Electrical	Single-phase AC, 115/230V, +/- 10%, 50/60 Hz		
Pneumatic	Compressed air supply pressure: For Cordimesur & Mega – 8 bar, pre-filtered, quality according to ISO 8573-1: Class 4 or better.		
Air consumption	[cfm]	2.1	

Motor Details

Sanyo Denki-DC Servo Motor	T511T-012 (X & Z Axis)	T720 (Y Axis)	
Rated Speed	3000 rpm		
Rated Torque	0.221 Nm	0.605 Nm	
Rated Current	2 A	3.4 A	

Scale & Encoder Details

Scale	Optical scale with 20 micron grating		
Encoder	Optical Encoder with 0.1 micron Resolution		

Accuracy

Resolution	[μ m]	0.1	0.1	0.1
Limit probing	MPE _P [μ m]	2.2	2.2	2.2
Limit length measuring error	MPE _E [μ m]	$\pm 2.2 + L/350$	$\pm 2.2 + L/350$	$\pm 2.2 + L/350$

Ambient conditions

Operating	[°C]	19-22 °C	
Temperature range for MPEE	20° C \pm 1° C, Δ T: 0.5°C/h, 0.5°C/m		
Relative Humidity	[%]	40-60%	

Dynamics

Joystick operation	V _{max} [mm/s]	0-20 (creep), 0-100 (Normal)
Max. Pos. Speed	V _{max} [mm/s]	465 axis, 480 vectorially
Max. Acceleration	a _{max} [mm/s ²]	580 axis, 1000 vectorially

Available CMM Controller and Software Combos

	Renishaw	Pantec	New TARUS
Modus	(I++)	Direct	
Polyworks	(I++)	Direct	
Touch DMIS	(I++)	Direct	
Verisurf	(I++)	Direct	
VDMIS	(I++)	Direct	
Calypso	(I++)	Direct	
Metrologic	(I++)	Direct	
CAPPS	(I++)	Direct	
Open DMIS	(I++)	Direct	
TARUS EASY DMIS			Direct