

CMM JUPITER PERFORMANCE



HORIZONTAL ARM JUPITER

CNC COORDINATE MEASURING MACHINE

Environment conditions	Models	Single Arm						Double Arm				Max. 3D Pos. Speed	Max. 3D Accel.
		PH10M/T-TP20			PHS2-TP20			PH10M/T-TP20		PHS2-TP20			
		MPE _{EO150} ⁽¹⁾	MPL _{TP} ⁽²⁾	MPE(PFTU) ⁽³⁾	MPE _{EO150} ⁽¹⁾	MPL _{TP} ⁽²⁾	MPE(PFTU) ⁽³⁾	MPE _{EO150} ⁽¹⁾	MPL _{TP} ⁽²⁾	MPE _{EO150} ⁽¹⁾	MPL _{TP} ⁽²⁾		
[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[μm]	[mm/s]	[mm/s ²]		
T ₁ 18 ± 22 °C	xx.16.20	14 + 18 L/1000 ≤ 55	12	14	19 + 18 L/1000 ≤ 55	18	21	28 + 20 L/1000 ≤ 70	24	38 + 20 L/1000 ≤ 80	36	580	1500
	xx.16.25	15 + 20 L/1000 ≤ 60	13	15	20 + 20 L/1000 ≤ 60	19	22	30 + 22 L/1000 ≤ 75	30	40 + 22 L/1000 ≤ 85	38	580	1500
	xx.16.30	18 + 22 L/1000 ≤ 70	16	18	23 + 22 L/1000 ≤ 70	22	25	36 + 25 L/1000 ≤ 90	32	46 + 25 L/1000 ≤ 100	44	580	1000
T ₂ 16 ± 26 °C	xx.16.20	17 + 24 L/1000 ≤ 70	15	17	22 + 24 L/1000 ≤ 75	21	24	34 + 27 L/1000 ≤ 90	30	44 + 27 L/1000 ≤ 100	42	580	1500
	xx.16.25	18 + 26 L/1000 ≤ 75	16	18	23 + 26 L/1000 ≤ 80	22	25	35 + 31 L/1000 ≤ 95	32	46 + 31 L/1000 ≤ 105	44	580	1500
	xx.16.30	21 + 28 L/1000 ≤ 85	19	21	26 + 28 L/1000 ≤ 90	25	28	42 + 33 L/1000 ≤ 110	38	52 + 33 L/1000 ≤ 120	50	580	1000

⁽¹⁾ Maximum Permissible Error of Length measurement according to UNI EN ISO 10360-2:2010

⁽²⁾ Maximum Permissible Limit of Repeatability range according to UNI EN ISO 10360-2:2010

⁽³⁾ Maximum Permissible Single Stylus Form Error according to UNI EN ISO 10360-5:2010

T₁: 18 ± 22 °C; Max. Gradients: 1,0 °C/h - 2,0 °C/24h - 1,0 °C/m

T₂: 16 ± 26 °C; Max. Gradients: 1,0 °C/h - 5,0 °C/24h - 1,0 °C/m

L= measuring length (mm)

STRUCTURE

CNC Coordinate Measuring Machine, Horizontal Arm type with independent slideway

Guideways:

X Axis: linear guideways

Y-Z Axes: micromachined anodized light alloy extrusion

Drive Method:

X Axis: rack & pinion system

Y-Z Axis: zero hysteresis friction drive

Motion Control:

DC servomotor on all axes

Sliding System:

X Axis: Recirculating ball bearing

Y-Z Axes: Air bearings

Thermal Compensation:

Multi-sensors temperature compensation system for part and scale (Optional)

Measuring System:

Linear scales, System Resolution: 0,1 μm.

OPTION

Steel worktable
Training c/o Coord 3 Center or Agents
Installation by Coord 3 or Agents
PC & Printer
Multi-wire cable
Safety laser scanner

POWER SUPPLY

Power supply voltage:

230 V ± 10%; 50 Hz ± 2% single phase

115 V ± 10%; 60 Hz ± 2% single phase

AIR SUPPLY

Air Consumption:

Max 150 NI/min

Minimum Air Supply:

6 Bar

Air quality:

Max. oil concentration:

5 mg/m³ (ISO 8573 - class 4)

Max. particle size of contaminants:

40 μm (ISO 8573 - class 5)

Max. contaminants concentration:

10 mg/m³ (ISO 8573 - class 5)

Max dew point:

10 °C (ISO 8573 - class 6)

ENVIRONMENT

Temperature Range T₁ for Metrological Specification:

Ambient Temperature Range: 18 ± 22 °C

Max. gradient per hour: 1,0 °C/h

Max. gradient per day: 2,0 °C/24h

Max. gradient in space: 1,0 °C/m

Operating Temperature:

15 ± 35 °C

Relative Humidity:

40 ± 80 % (non condensing)

Acceptable Vibrations:

(vibration acceleration between peaks)

30 mm/s² from 1 to 10 Hz

15 mm/s² from 10 to 20 Hz

50 mm/s² from 20 to 100 Hz

PROBING SYSTEM

Manual Probe Head:

MIH, MH20, MH20i

Motorized Probe Head:

PH10T, PH10M, PH10MQ, PHS-2

Point-to-point Trigger Probe:

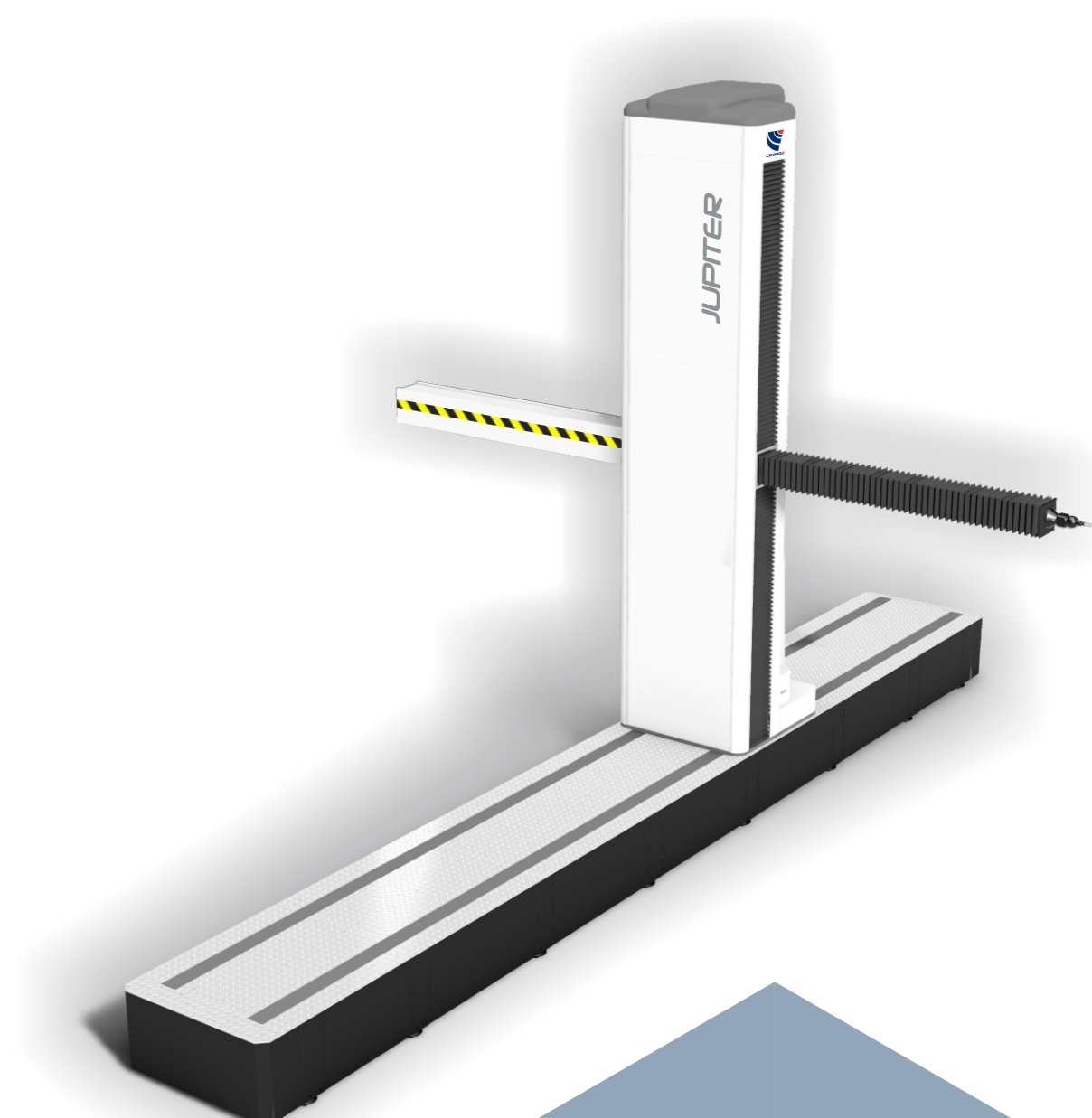
TP20

Laser Probe:

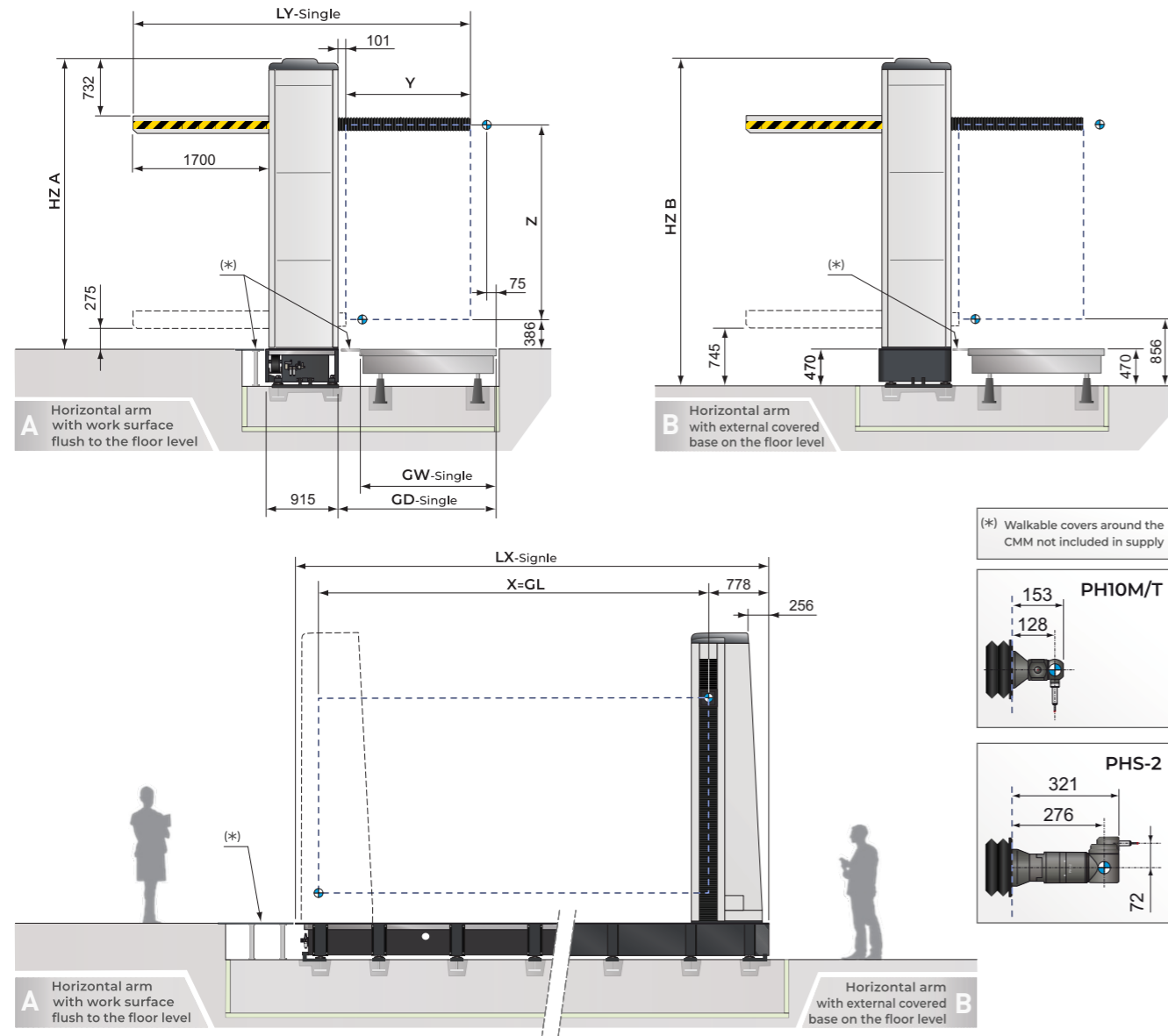
SLK25

Stylus and Probe Changer:

Fully automated stylus and probe changers



CMM HORIZONTAL ARM | JUPITER - Single Arm



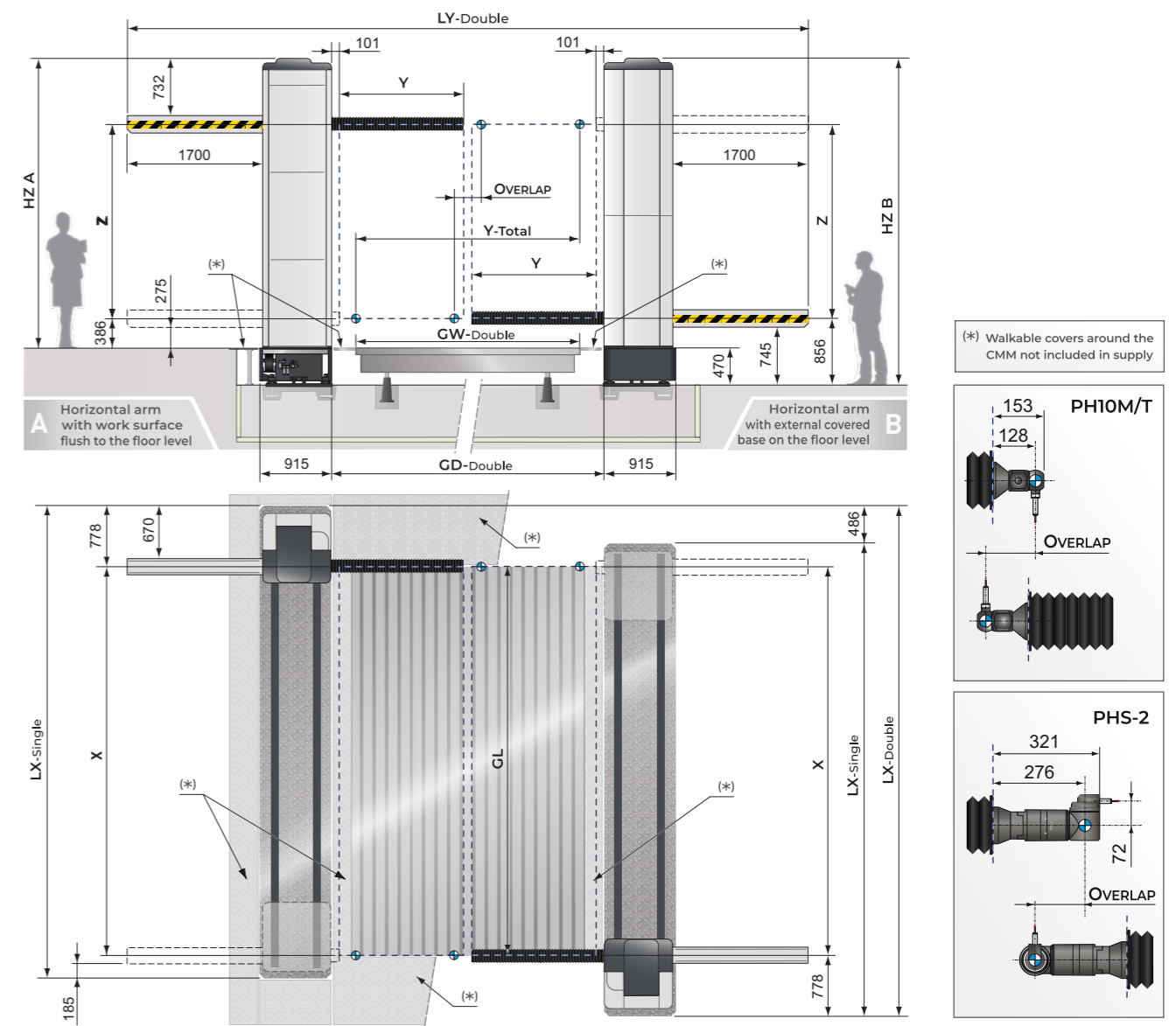
CMM JUPITER - Single Arm

STROKES, DIMENSIONS, WEIGHTS

Models	Measuring Strokes			Overall Dimensions ⁽¹⁾				Worktable (Optional) ⁽²⁾				Weights
	X	Y	Z	LX-Single	LY-Single	HZ ver. A ver. B		GL Lenght	GW-Single Width	GD-Single PH10M/T PHS-2		Machine Weight ⁽¹⁾
	[mm]			[mm]		[mm]		[mm]				
30.16.20	3000	1600	2000	4070	4318	3227	3697	3000	1750	1906	2054	2215
40.16.20	4000	1600	2000	5070	4318	3227	3697	4000	1750	1906	2054	2655
50.16.20	5000	1600	2000	6070	4318	3227	3697	5000	1750	1906	2054	3095
40.16.25	4000	1600	2500	5070	4318	3727	4197	4000	1750	1906	2054	2725
50.16.25	5000	1600	2500	6070	4318	3727	4197	5000	1750	1906	2054	3165
60.16.25	6000	1600	2500	7070	4318	3727	4197	6000	1750	1906	2054	3605
50.16.30	5000	1600	3000	6070	4318	4227	4697	5000	1750	1906	2054	3225
60.16.30	6000	1600	3000	7070	4318	4227	4697	6000	1750	1906	2054	3665
70.16.30	7000	1600	3000	8070	4318	4227	4697	7000	1750	1906	2054	4105

⁽¹⁾ CMM only. Operator table, work table, probe and Control cabinet not included.
⁽²⁾ The gap between GD and GW must be filled with two walkable covers - Not included in supply.

CMM HORIZONTAL ARM | JUPITER - Double Arm



CMM JUPITER - Double Arm

STROKES, DIMENSIONS, WEIGHTS

Models	Measuring Strokes					Overall Dimensions ⁽¹⁾				Worktable (Optional) ⁽²⁾				Weights	
	X	Y	Y Total	OVERLAP	Z	LX Double	LY-Double PH10M/T PHS-2		HZ ver. A ver. B		GL Lenght	GW-Double Width	GD-Double PH10M/T PHS-2		Machine Weight ⁽¹⁾
	[mm]					[mm]				[mm]				[Kg]	
30.16.20	3000	1600	3050	150	2000	4556	8741	9037	3227	3697	3000	3000	3511	3807	4430
40.16.20	4000	1600	3050	150	2000	5556	8741	9037	3227	3697	4000	3000	3511	3807	5310
50.16.20	5000	1600	3050	150	2000	6556	8741	9037	3227	3697	5000	3000	3511	3807	6190
40.16.25	4000	1600	3050	150	2500	5556	8741	9037	3727	4197	4000	3000	3511	3807	5450
50.16.25	5000	1600	3050	150	2500	6556	8741	9037	3727	4197	5000	3000	3511	3807	6330
60.16.25	6000	1600	3050	150	2500	7556	8741	9037	3727	4197	6000	3000	3511	3807	7210
50.16.30	5000	1600	3050	150	3000	6556	8741	9037	4227	4697	5000	3000	3511	3807	6450
60.16.30	6000	1600	3050	150	3000	7556	8741	9037	4227	4697	6000	3000	3511	3807	7330
70.16.30	7000	1600	3050	150	3000	8556	8741	9037	4227	4697	7000	3000	3511	3807	8210

⁽¹⁾ CMM only. Operator table, work table, probe and Control cabinet not included.
⁽²⁾ The gap between GD and GW must be filled with two walkable covers - Not included in supply.