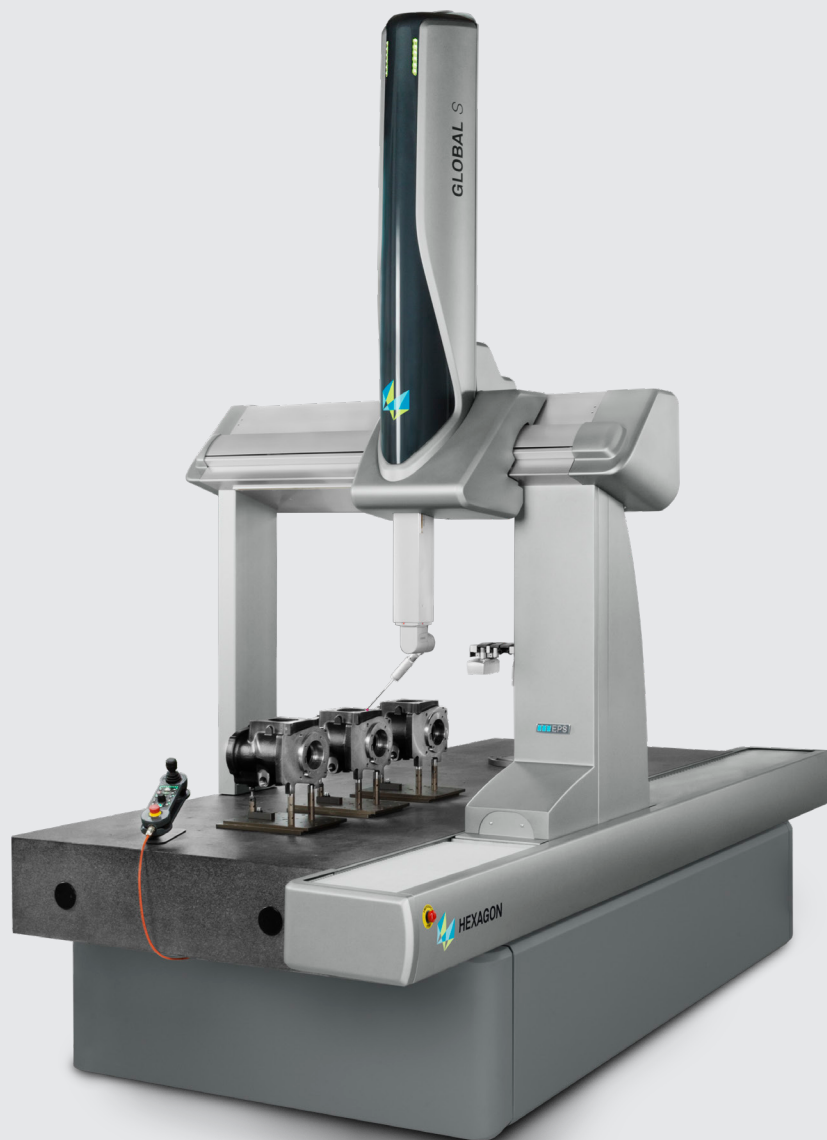


GLOBAL S





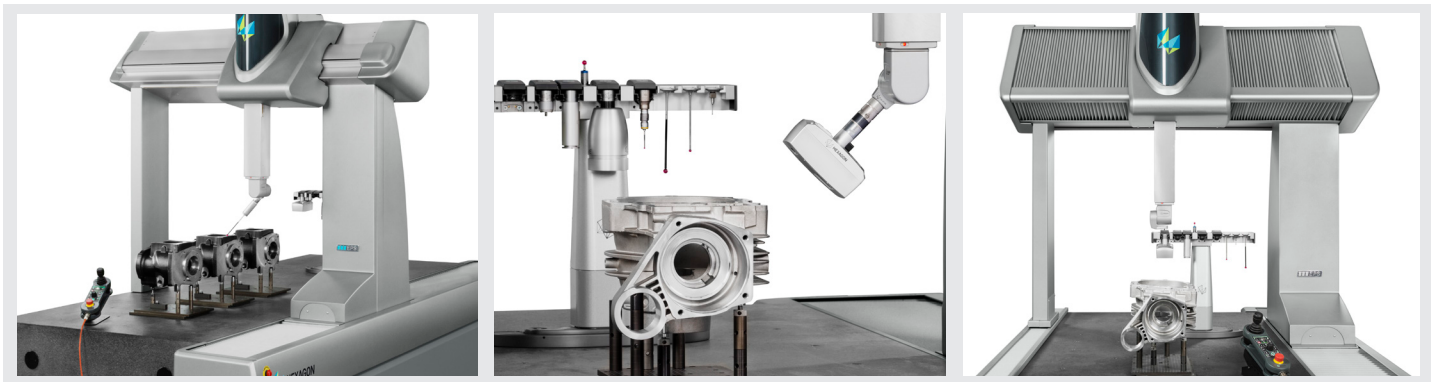
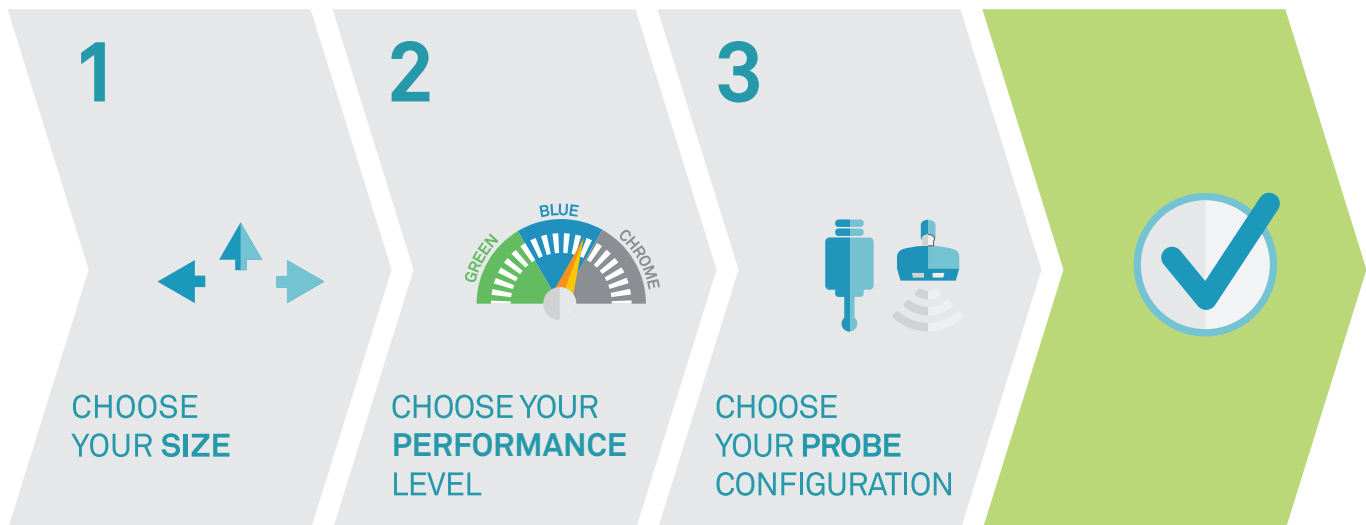
GLOBAL S

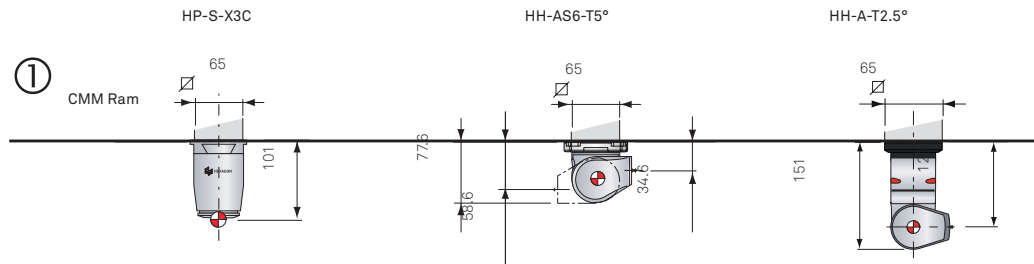
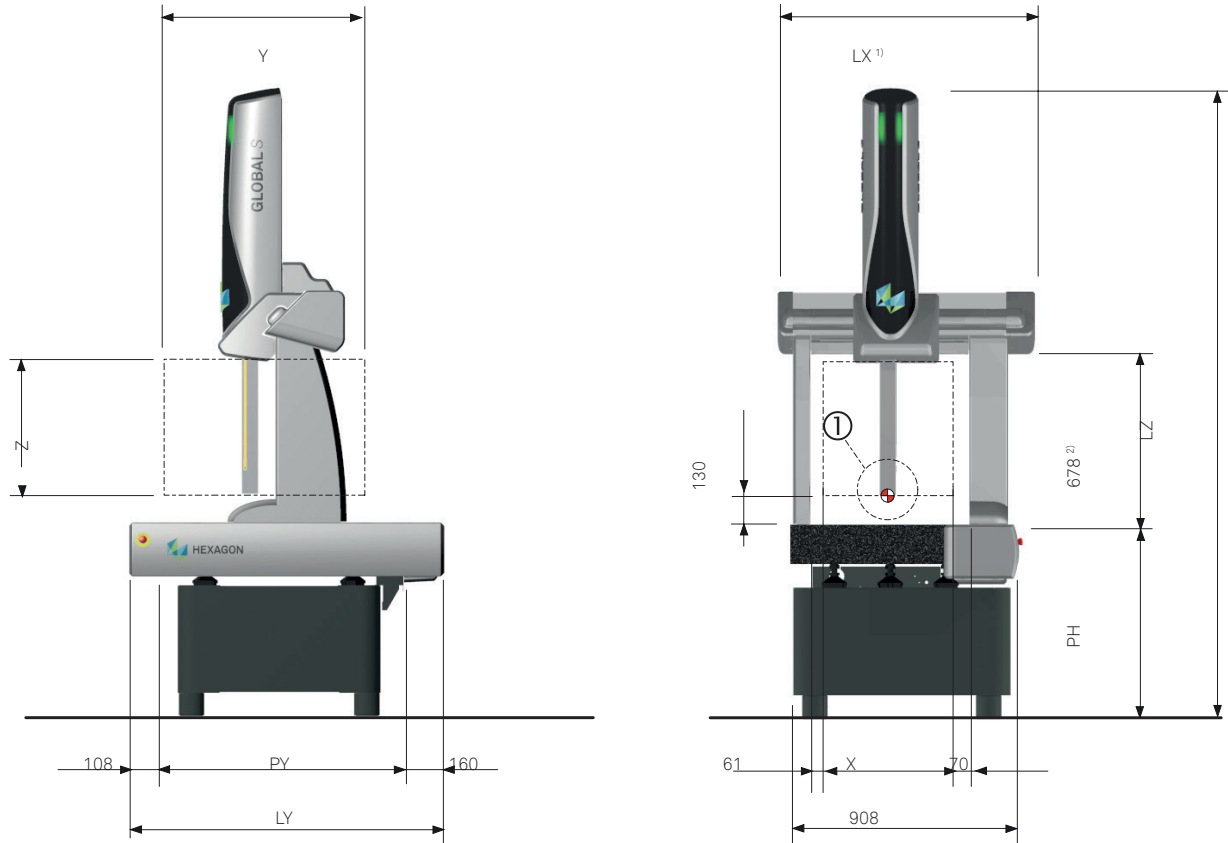
The Coordinate Measuring Machine that Pushes Productivity Further

The GLOBAL S coordinate measuring machine (CMM) series from Hexagon Manufacturing Intelligence combines smart technologies delivering superior measurement performance and enhanced productivity for the unique needs of any production environment. Designed by Pininfarina and powered by Hexagon's Enhanced Productivity Series (EPS) concept, GLOBAL S brings together enhanced technologies to form an optimal measurement solution

with three performance levels: Green, Blue and Chrome, to suit the requirements of any application. EPS machines offer customers the option to select their main productivity driver and configure the CMM for throughput, precision, flexibility or shop floor capability. The CMM range also supports fully-customised setups to ensure that GLOBAL S is universally applicable and drives continuous productivity improvements.

GLOBAL S- HOW TO CHOOSE THE RIGHT SYSTEM

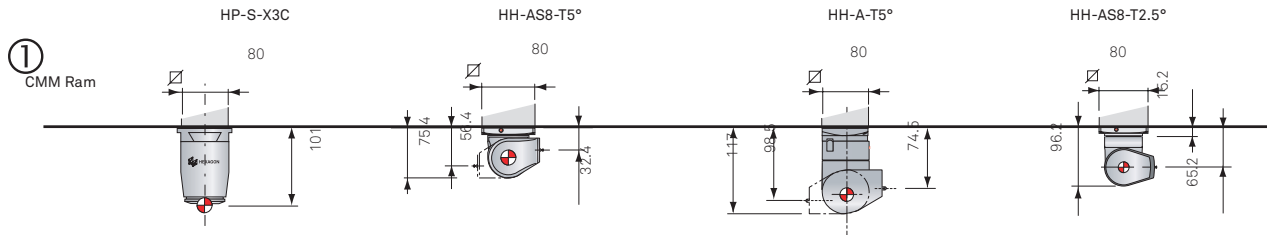
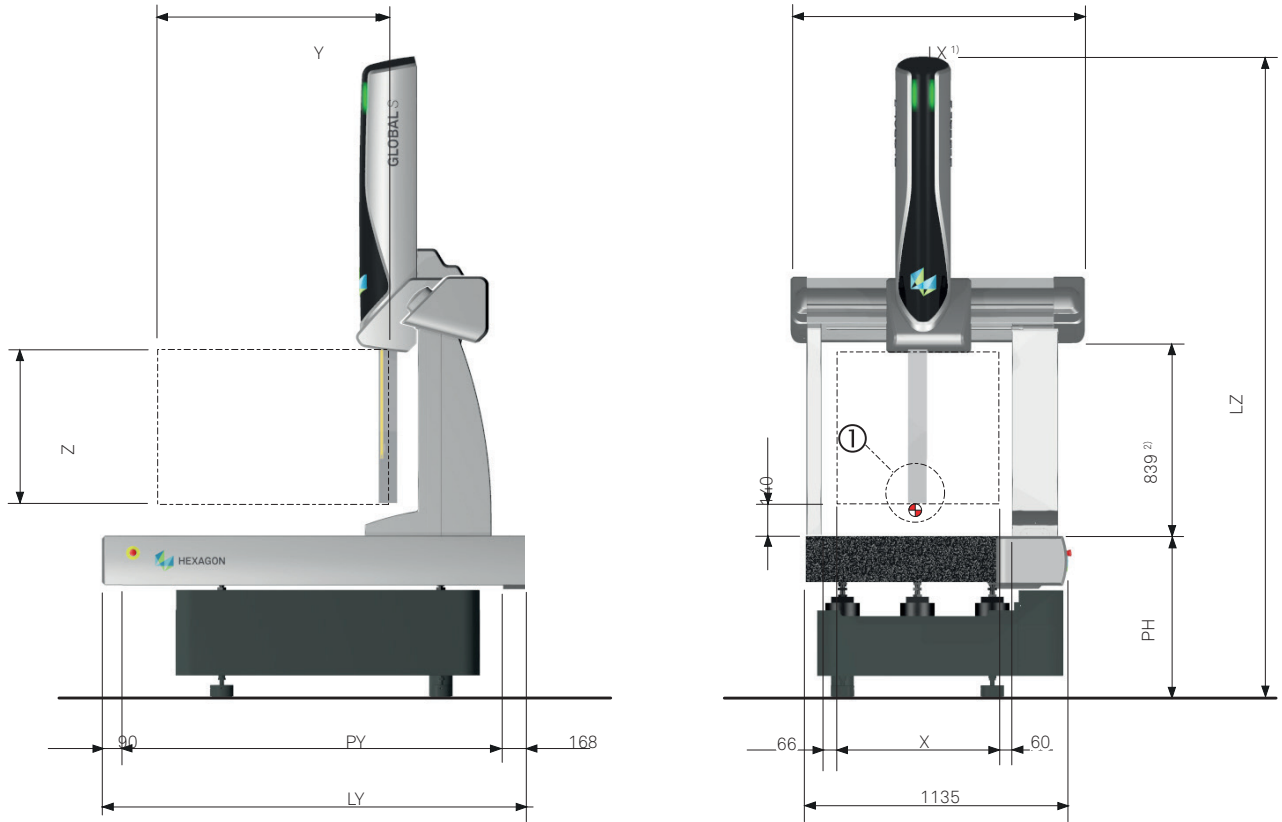




Models	Measuring Range mm (in)			Overall Dimensions mm (in)			Surface Plate mm (in)		Max. Part Weight kg (lb)	CMM Weight approx. kg (lb)
	X	Y	Z	LX ¹⁾	LY	LZ	PH	PY		
05.05.05	500 (19.69)	500 (19.69)	500 (19.69)	1024 (40.31)	1255 (49.41)	2540 (100)	800 (31.50)	990 (38.98)	230 (507.06)	510 (1124.36)
05.07.05	500 (19.69)	700 (27.56)	500 (19.69)	1024 (40.31)	1455 (57.28)	2540 (100)	800 (31.50)	1190 (46.85)	230 (507.06)	625 (1377.89)

¹⁾ With Shop Floor bellows: LX + 21 mm (.83 in)

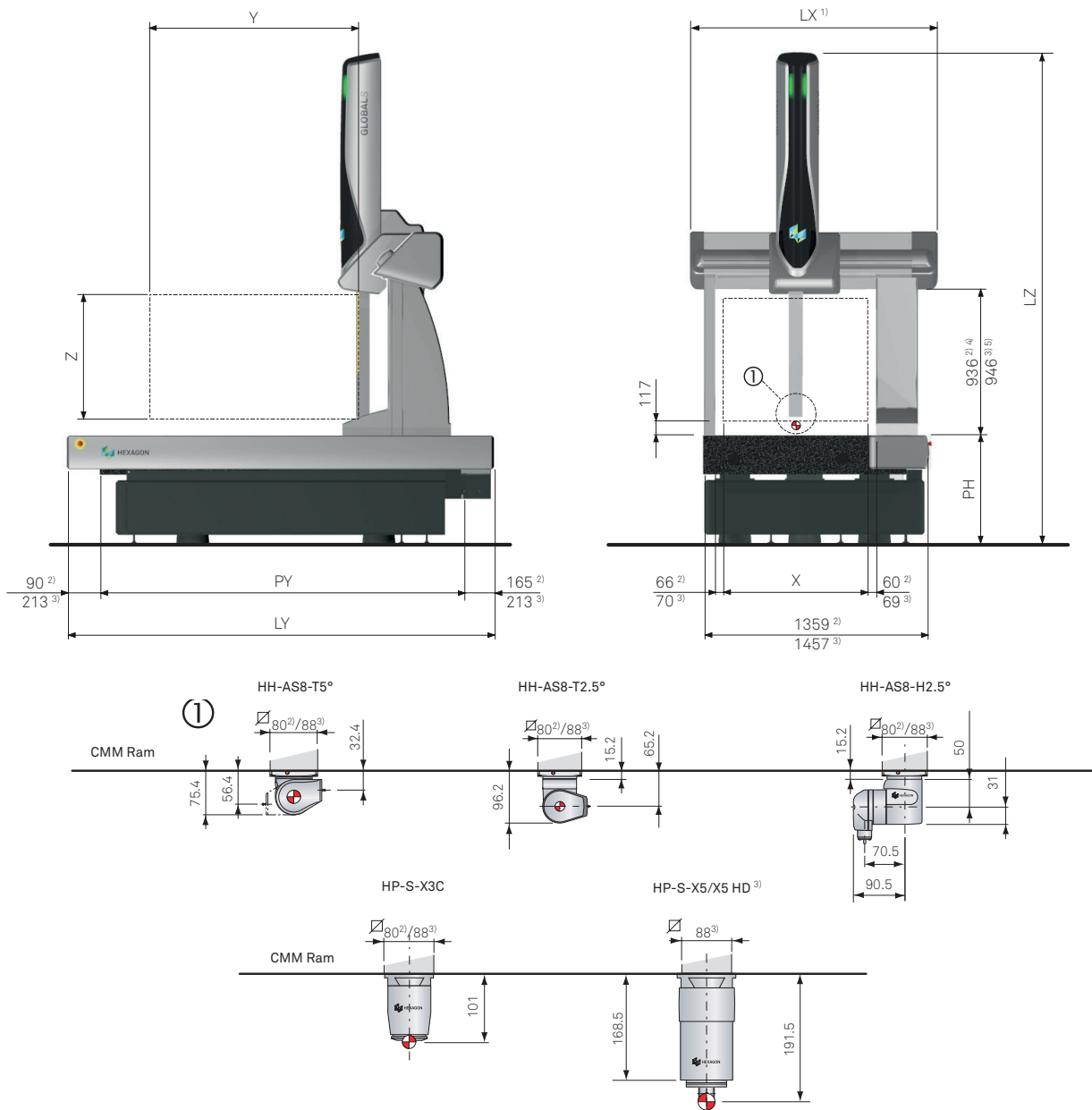
²⁾ With Shop Floor bellows: 649 mm (25.55)



Models	Measuring Range mm (in)			Overall Dimensions mm (in)			Surface Plate mm (in)		Max. Part Weight kg (lb)	CMM Weight approx. kg (lb)
	X	Y	Z	LX ¹⁾	LY	LZ	PH	PY		
07.10.07	700 (27.56)	1000 (39.37)	660 (25.98)	1277 (50.28)	1908 (75.12)	2777 (109.33)	700 (27.55)	1650 (64.96)	900 (1984.16)	1265 (2788.85)

¹⁾ With Shop Floor bellows: LX + 12 mm (.47 in)

²⁾ With Shop Floor bellows: 796 mm (31.34 in)



Models	Measuring Range mm (in)			Overall Dimensions mm (in)			Surface Plate mm (in)		Max. Part Weight kg (lb)	CMM Weight approx. kg (lb)
	X	Y	Z ⁶⁾	LX ¹⁾	LY	LZ	PH	PY		
09.12.08	900 (35.43)	1200 (47.24)	800 (31.50)	1477 (58.15) ²⁾	2165 (85.24) ²⁾	3027 (119.17) ²⁾	700 (27.56)	1910 (75.20) ²⁾	1300 (2866)	1700 (3747.86) ²⁾
				1598 (62.91) ³⁾	2455 (96.65) ³⁾	3150 (124.02) ³⁾		2030 (79.92) ³⁾		2350 (5180.86) ³⁾
09.15.08	900 (35.43)	1500 (59.06)	800 (31.50)	1477 (58.15) ²⁾	2465 (97.05) ²⁾	3027 (119.17) ²⁾	700 (27.56)	2210 (87.01) ²⁾	1500 (3306.93)	1900 (4188.78) ²⁾
				1598 (62.91) ³⁾	2755 (108.46) ³⁾	3150 (124.02) ³⁾		2330 (91.73) ³⁾		2650 (5842.25) ³⁾
09.20.08	900 (35.43)	2000 (78.74)	800 (31.50)	1477 (58.15) ²⁾	2965 (116.73) ²⁾	3027 (119.17) ²⁾	700 (27.56) ²⁾	2710 (106.69) ²⁾	1800 (3968.32)	2300 (5070.63) ²⁾
				1598 (62.91) ³⁾	3255 (128.15) ³⁾	3175 (125) ³⁾		2830 (111.42) ³⁾		3350 (7385.49) ³⁾

¹⁾ With Shop Floor bellows: LX + 16 mm (.63 in);

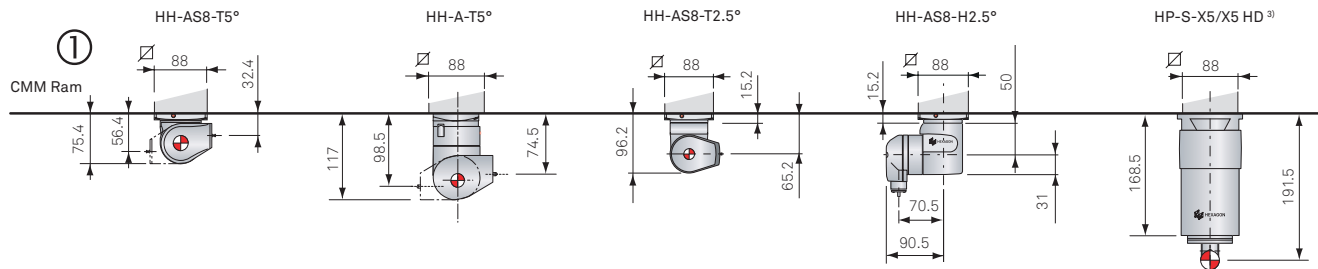
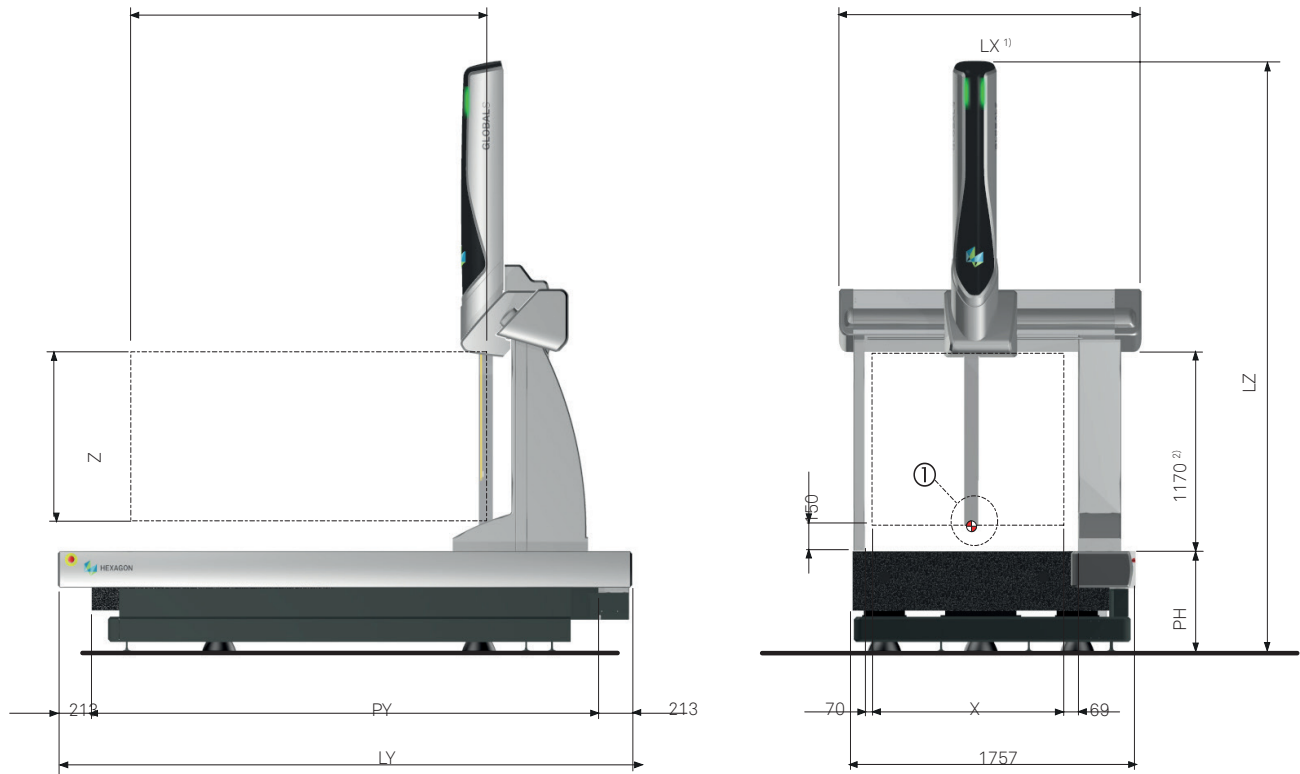
²⁾ GLOBAL S Green

³⁾ GLOBAL S Blue and Chrome

⁴⁾ With Shop Floor bellows: 906 mm (35.67 in)

⁵⁾ With Shop Floor bellows: 922 mm (36.30 in)

⁶⁾ With HP-S-X5/X5 HD probe heads, Z travel = 730 mm (28.74 in)



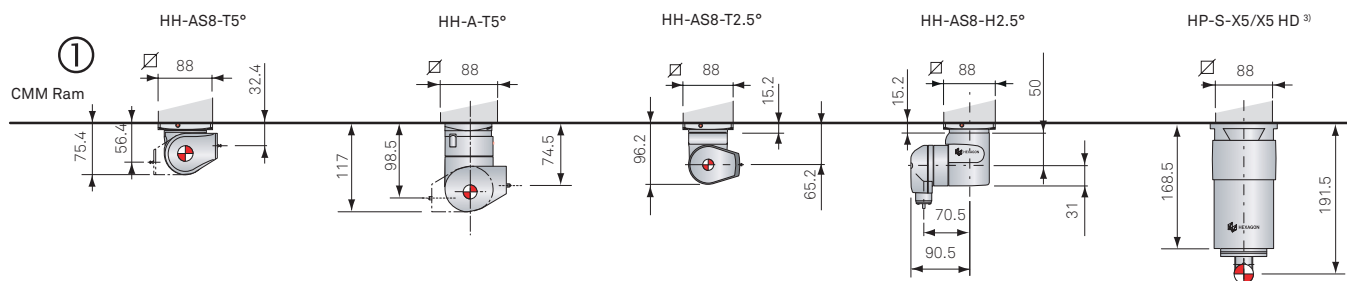
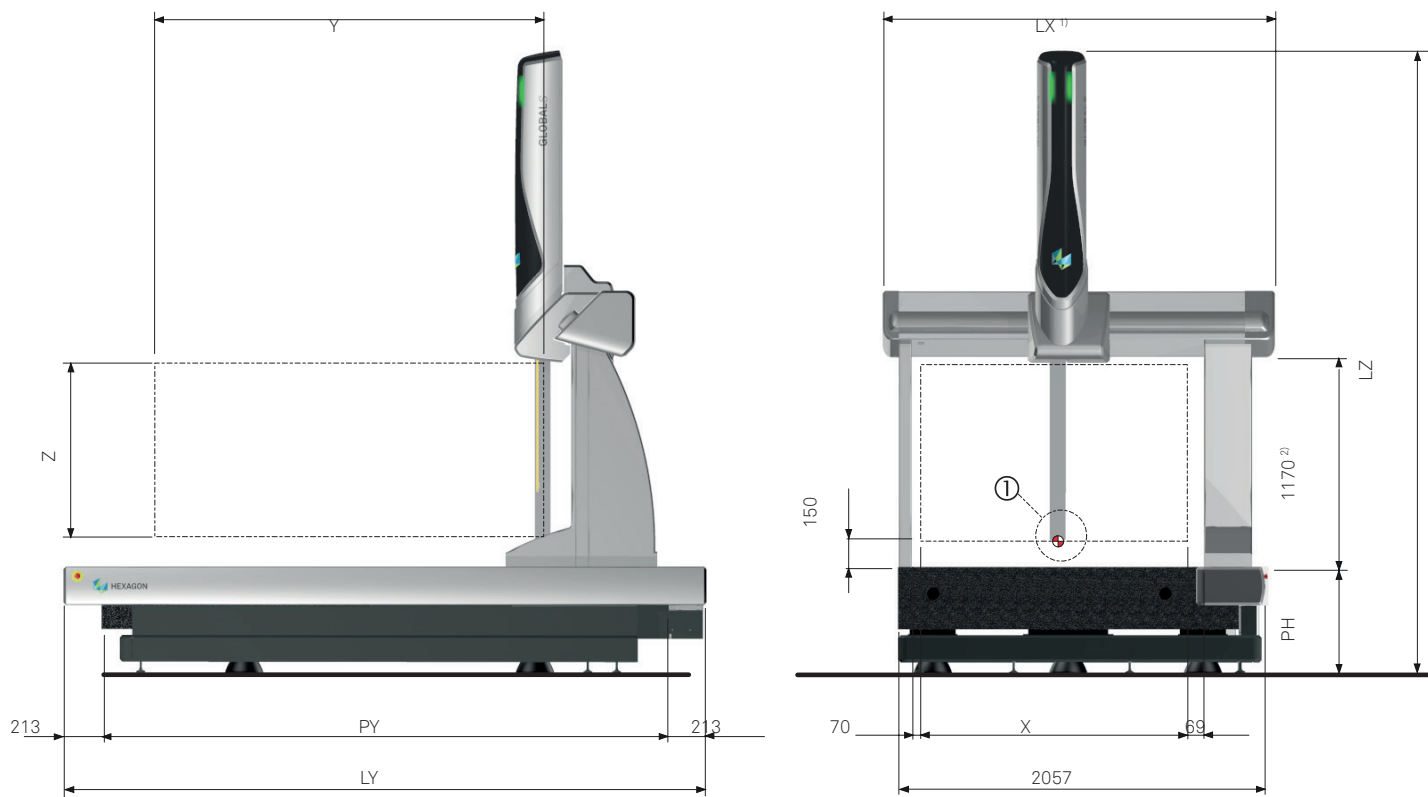
Models	Measuring Range mm (in)			Overall Dimensions mm (in)			Surface Plate mm (in)		Max. Part Weight kg (lb)	CMM Weight approx. kg (lb)
	X	Y	Z ⁴⁾	LX ¹⁾	LY	LZ	PH	PY		
12.15.10	1200 (47.24)	1500 (59.06)	1000 (39.37)	1898 (74.72)	2905 (114.37)	3513 (138.31)	625 (24.61)	2480 (97.64)	1800 (3968.32)	3850 (8487.80)
12.22.10	1200 (47.24)	2200 (86.61)	1000 (39.37)	1898 (74.72)	3605 (141.93)	3488 (137.32)	600 (23.62)	3180 (125.20)	2250 (4960.40)	5750 (12676.58)
12.30.10	1200 (47.24)	3000 (118.11)	1000 (39.37)	1898 (74.72)	4405 (173.43)	3513 (138.31)	625 (24.61)	3980 (156.69)	2250 (4960.40)	7650 (16865.36)

¹⁾ With Shop Floor bellows: LX + 17 mm (.67 in)

²⁾ With Shop Floor bellows: 1162 mm (45.75 in)

³⁾ GLOBAL S Blue and Chrome

⁴⁾ With HP-S-X5/X5HD probe head, Z travel = 970 mm (38.19 in)



Models	Measuring Range mm (in)			Overall Dimensions mm (in)			Surface Plate mm (in)		Max. Part Weight kg (lb)	CMM Weight approx. kg (lb)
	X	Y	Z ⁴⁾	LX ¹⁾	LY	LZ	PH	PY		
15.22.10	1500 (59.06)	2200 (86.61)	1000 (39.37)	2198 (86.54)	3605 (141.93)	3488 (137.32)	600 (23.62)	3180 (125.20)	2250 (4960.40)	6700 (14770.97)
15.30.10	1500 (59.06)	3000 (118.11)	1000 (39.37)	2198 (86.54)	4405 (173.43)	3513 (138.31)	625 (24.61)	3980 (156.70)	2250 (4960.40)	8930 (19687.28)

¹⁾ With Shop Floor bellows: LX + 17 mm (.67 in)

²⁾ With Shop Floor bellows: 1162 mm (45.75 in)

³⁾ GLOBAL S Blue and Chrome

⁴⁾ With HP-S-X5/X5 HD probe heads, Z travel = 970 mm (38.19 in)

GLOBAL S: MINIMUM DOOR OPENING REQUIREMENTS

Standard Size Frames	Machine maximum overall dimensions	
	Width mm (in)	Height ¹⁾ mm (in)
5.5.5 - 5.7.5	1095 (43.11)	1490 (58.66)
7.10.7	1340 (52.75)	1655 (65.15)
9.12.8 - 9.15.8 - 9.20.8	1540 (60.62) ²⁾ / 1665 (65.55) ³⁾	2020 (79.52 ²⁾ / 2065 (81.29) ³⁾
12.15.10 - 12.22.10 - 12.30.10	1965 (77.36)	2305 (90.74)
15.22.10 - 15.30.10	2265 (89.17)	2305 (90.74)

¹⁾ Minimum Height is listed w/o the CMM stand for Global 05.YY.05 and 07.YY.07 series and w/o pedestals for the Global 09.YY.08 thru 15.YY.10 series
Dimensions shown are from the highest point at the top of the CMM to the lowest point on the CMM as in shipped condition

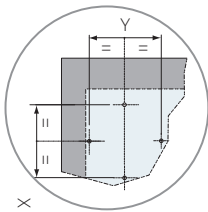
Dimensions shown do not include lifting equipment

Dimensions shown are with 1 inch minimum clearance all around

²⁾ For GLOBAL S Green

³⁾ For GLOBAL S Blue and Chrome

GLOBAL S: TECHNICAL CHARACTERISTICS

Mechanical Frame		X: Micromachined anodized light alloy extrusion Y: Integral dovetail guideways, machined into the table Z: Micromachined anodized light alloy extrusion		
Surface Plate		Material: Granite Flatness: according to DIN 876/III		
		Part Locking: threaded inserts M8 x 1.25 Diagonally staggered hole pattern: GLOBAL S 05.YY.05: X = 350 mm (13.78 in); Y = 150 mm (5.90 in) GLOBAL S 07.YY.07: X = 300 mm (11.81 in); Y = 300 mm (11.81 in) GLOBAL S from 09.YY.08: X = 350 mm (13.78 in); Y = 350 mm (13.78 in)		
				
Sliding System		Air bearings on all axes		
Measuring System		METALLUR® linear scales. System Resolution: 0.039 µm		
Temperature Compensation		Extended temperature 16 - 26 °C: Multi-sensor technology Shop floor temperature 15 - 30°C: Structural multi-sensor technology		
Ram Counterbalance		Pneumatic, adjustable		
Controller		DC800, IP54	DC800, IP54	DC 241, IP54
Supply Requirements	Power	100/120/220/240 V ± 10% - 50/60 Hz - 1.6 KVA		
	Air	0.5 MPa minimum - Class 4 according to ISO 8573/1		
Consumption	Power	0.5 KVAh	0.5 KVAh	0.35 KVAh
	Air	70 NI/min (for 05.YY.05); 90 NI/min (for all other models)		
Operating Specifications		Ambient temperature: 10 °C - 40 °C / 50 - 104 °F Relative humidity: 20% - 90 % non-condensing		



Scanning probe heads HP-S-X5/X3
Articulating head with HP-S-X1 scanning probe

	05.YY.05	07.YY.07	09.YY.08	12.YY.10	15.YY.10
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.4 + L/333	1.3 + L/333	1.3 + L/333	2.0 + L/333	2.1 + L/333
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	1.6 + L/222	1.5 + L/250	1.6 + L/250	2.4 + L/200	2.5 + L/200
MPL(R0)	1.2	1.2	1.2	1.7	1.7
MPE(PFTU)	1.4	1.4	1.3	1.7	1.8
MPE(THP)/MPT(τ) - High accuracy ²⁾	2.1/30	2.0/30	2.0/35	2.5/35	2.9/35
MPE(THP)/MPT(τ) - High throughput ²⁾	2.1/30	2.0/30	2.3/25	3.5/25	3.5/25
MPE(THN)/MPT(τ) - Non-predefined path ²⁾	2.1/50	2.0/50	2.0/50	2.0/50	2.9/50
RONt (MZCI) ³⁾	1.4	1.4	1.4	1.7	1.8
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.4 + L/333	1.4 + L/333	1.4 + L/333	2.1 + L/333	2.2 + L/333
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	1.6 + L/222	1.6 + L/250	1.7 + L/250	2.5 + L/200	2.5 + L/200
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ⁴⁾	–	1.4 + L/294	1.4 + L/285	2.1 + L/277	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ⁴⁾	–	1.4 + L/263	1.4 + L/256	2.1 + L/250	–
MPL(R0)	1.2	1.2	1.2	1.7	1.8
MPE(PFTU)	1.4	1.4	1.4	1.8	2.0
MPE(THP)/MPT(τ) ²⁾	2.5/45	2.5/45	2.5/45	3.1/45	3.5/45
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.5 + L/333	1.5 + L/333	1.8 + L/333	2.4 + L/333	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	1.7 + L/222	1.7 + L/250	2.1 + L/250	2.8 + L/200	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ⁴⁾	–	1.5 + L/294	–	–	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ⁴⁾	–	1.5 + L/263	–	–	–
MPL(R0)	1.4	1.4	1.7	1.9	–
MPE(PFTU)	1.6	1.6	1.8	2.4	–
MPE(THP)/MPT(τ) ²⁾	2.9/45	2.9/45	2.9/45	4.0/45	–

Chrome Performance Level

Blue Performance Level

Green Performance Level

Max. Permissible Error MPE (μ m) and Max. Permissible Limit MPL (μ m) according to ISO 10360-2:2009:

- Volumetric length measuring error: MPE(E0/E150)
- Repeatability range: MPL(R0)

Max. Permissible Error MPE (μ m) according to ISO 10360-5:2010:

- Single stylus form error: MPE(PFTU)

Max. Permissible Error MPE (μ m) and Max. Permissible Time MPT (s) according to ISO 10360-4: 2000:

- Single stylus form error, scanning: MPE(THP)/MPT(τ)
- Single stylus form error, scanning - Non-predefined path: MPE(THN)/MPT(τ)

ISO 12181-1: 2011 (VDI/VDE 2617 part 2.2): Form measurement error (μ m): RONt (MZCI)

Probe Configuration:

- HP-S-X5/3C: stylus length 60 mm (2.36 in), tip diameter 5 mm (.20 in)
- HP-S-X1: stylus length 50 mm (2 in), tip diameter 5 mm (.20 in)

¹⁾ MPE(E0/E150) specifications are to be formally understood as MPE(E0/E150)* for the case where non-normal CTE material calibrated test lengths are used. Length unit measure (L) in mm.

²⁾ MPE(THP/THN) and MPT(τ): test sphere placed in the centre of measuring volume

³⁾ RONt test on $\varnothing$ 50 mm (2 in) ring gauge. Ring axis parallel to machine vertical axis, gauge placed in the centre of measuring volume

⁴⁾ For Shop Floor packages only.

Articulating head with HP-THD / TP200
high precision trigger probe

	05.YY.05	07.YY.07	09.YY.08	12.YY.10	15.YY.10
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	–	1.7 + L/333	1.7 + L/333	2.4 + L/333	2.5 + L/333
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	–	1.9 + L/250	1.9 + L/250	2.7 + L/200	2.8 + L/200
MPL(R0)	–	1.7	1.7	2.7	2.8
MPE(PFTU)	–	1.7	1.7	2.2	2.2

MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.7 + L/333	1.7 + L/333	1.9 + L/333	2.5 + L/333	2.5 + L/333
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	1.9 + L/222	1.9 + L/250	2.1 + L/250	2.8 + L/200	2.8 + L/200
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ²⁾	–	1.7 + L/294	1.9 + L/285	2.5 + L/277	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ²⁾	–	1.7 + L/263	1.9 + L/256	2.5 + L/250	–
MPL(R0)	1.9	1.9	2.1	2.7	2.8
MPE(PFTU)	1.9	1.9	1.9	2.2	2.2

MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.7 + L/333	1.7 + L/333	1.9 + L/333	2.5 + L/333	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	1.9 + L/222	1.9 + L/250	2.1 + L/250	2.8 + L/200	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ²⁾	–	1.7 + L/294	–	–	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ²⁾	–	1.7 + L/263	–	–	–
MPL(R0)	1.9	1.9	2.1	2.7	–
MPE(PFTU)	1.9	1.9	1.9	2.5	–

Articulating head with HP-TM trigger probe.

	05.YY.05	07.YY.07	09.YY.08	12.YY.10	15.YY.10
MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.9 + L/333	1.9 + L/333	2.1 + L/333	2.7 + L/333	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	2.2 + L/222	2.2 + L/250	2.4 + L/250	3.1 + L/200	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ²⁾	–	1.9 + L/294	2.1 + L/285	2.7 + L/277	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ²⁾	–	1.9 + L/263	2.1 + L/256	2.7 + L/250	–
MPL(R0)	1.9	1.9	2.1	2.7	–
MPE(PFTU)	2.0	2.0	2.0	2.6	–

MPE(E0/E150) ¹⁾ - (18 °C - 22 °C / 64 °F - 71 °F)	1.9 + L/333	1.9 + L/333	2.1 + L/333	2.7 + L/333	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F)	2.2 + L/222	2.2 + L/250	2.4 + L/250	3.1 + L/200	–
MPE(E0/E150) ¹⁾ - (16 °C - 26 °C / 61 °F - 79 °F) ²⁾	–	1.9 + L/294	–	–	–
MPE(E0/E150) ¹⁾ - (15 °C - 30 °C / 59 °F - 86 °F) ²⁾	–	1.9 + L/263	–	–	–
MPL(R0)	1.9	1.9	2.1	2.7	–
MPE(PFTU)	2.0	2.0	2.0	2.7	–

Chrome Performance Level
 Blue Performance Level
 Green Performance Level

Max. Permissible Error MPE (μm) and Max. Permissible Limit MPL (μm) according to ISO 10360-2:2009:

- Volumetric length measuring error: MPE(E0/E150)
- Repeatability range: MPL(R0)

Max. Permissible Error MPE (μm) according to ISO 10360-5:2010:

- Single stylus form error: MPE(PFTU)

Probe Configuration:

- HP-THD: Standard force module, stylus length 10 mm (.39 in), tip diameter 4 mm (.16 in)
- TP200: Standard force module, stylus length 10 mm (.39 in), tip diameter 4 mm (.16 in)
- HP-TM: Standard Force Module, stylus length 10 mm (.39 in), tip diameter 4 mm (.16 in)

¹⁾ MPE(E0/E150) specifications are to be formally understood as MPE(E0/E150)* for the case where non-normal CTE material calibrated test lengths are used.
Length unit measure (L) in mm.

²⁾ For Shop Floor packages only.



GLOBAL S: NON CONTACT SENSORS SPECIFICATIONS



	HH-A/HP-L-10.6 ¹⁾	HH-A/HP-L-20.8 ¹⁾	HH-A/HP-C-Ve
²⁾ Probing Form Error	22 µm	25 µm	–
³⁾ Dispersion	7.5 µm	7.5 µm	–
⁴⁾ $P_{F2D,MPE}$	–	–	10 µm
⁴⁾ $P_{FD2D,MPE}$	–	–	6 µm
⁴⁾ $E_{UV,MPE}$	–	–	4 + 2L µm

Chrome Performance Level
 Blue Performance Level
 Green Performance Level

¹⁾ From GLOBAL S 07.YY.07. Some restrictions to workpiece size and machine configuration may apply when used on GLOBAL S 07.YY.07

²⁾ Maximum Permissible Probing Form Error $P_{Form,Sph,1x25;Tr:0DS,MPE}$ according to ISO10360-8:2013

³⁾ Maximum Permissible Probing Error (1 σ). In a Gaussian error distribution, the Probing Error (1 σ) is the width of the spherical shell that encompasses 34.1% of all the points.

⁴⁾ According to ISO10360-7:2011

GLOBAL S: THROUGHPUT AND DYNAMICS

	Max. probing frequency (with scanning probes)	Max. 3D Speed mm/s (in/s)	Max. 3D Acceleration mm/s ² (in/s ²)
High Dynamics ⁵⁾	1000 point/s	860 (33.86)	4300 (169.29)
Standard Dynamics	1000 point/s	510 (20.08)	1700 (66.93)

Chrome Performance Level
 Blue Performance Level
 Green Performance Level

⁵⁾ Dynamics reduction may apply to meet specific customer and/or local safety requirements

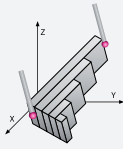
GLOBAL S: TEMPERATURE SPECIFICATIONS

	Lab Temperature	Extended Temperature	Shop Floor Temperature
Ambient temperature	18 °C ÷ 22 °C (64 °F ÷ 71 °F)	16 °C ÷ 26 °C (61 °F ÷ 79 °F)	15 °C ÷ 30 °C (59 °F ÷ 86 °F)
Max. air temperature variation	1 °C/h - 2 °C/24h (33 °F/h - 35 °F/24h)	1 °C/h - 5 °C/24h (33 °F/h - 41 °F/24h)	1 °C/h - 5 °C/24h (33 °F/h - 41 °F/24h) 2 °C/h - 10 °C/24h (35 °F/h - 50 °F/24h) ⁶⁾
Max. gradient in space	1 °C/m (33 °F/m)	1 °C/m (33 °F/m)	1 °C/m (33 °F/m)

⁶⁾ Accuracy specifications for this temperature range are available on request.

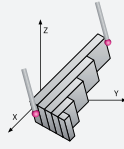
PERFORMANCE VERIFICATION

MPE(E0) : maximum permissible error of length measurement



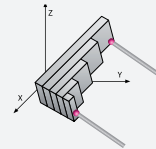
5 gauges have to be measured 3 times with one probing at each end, in 7 different directions. All measuring results must be within MPE(E0).

MPL(R0): maximum permissible limit of the repeatability range



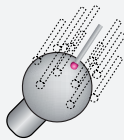
Extreme value of the repeatability range of the length measurement error, calculated by three repeated measurements on each size for a total of 35 values. The 35 repeatability range results must be within MPL(R0).

MPE(E150): maximum permissible error of length measurement



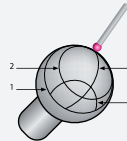
5 length gauges have to be measured 3 times in the YZ- or XZ plane with opposite styli, mounted 150 mm off the Z spindle axis. All measuring results must be within MPE(E150).

MPE(PFTU) : maximum permissible single stylus form error



A precision sphere has to be measured with 25 probeings. PFTU is the range of all radii. The range of all radii must be within MPE(PFTU).

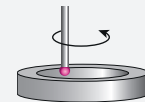
Maximum permissible scanning probing error



MPE(THP)/MPT(τ) : A precision sphere has to be scanned with 4 defined lines. THP is the range of all radii with the predefined path.

MPE(THN)/MPT(τ): A precision sphere has to be scanned with 4 defined lines. THN is the range of all radii with the non-predefined path. The range of all radii and the scanning time must be within MPE(THP/THN) and MPT(τ).

RONt (MZCI) maximum permissible form measurement error (2D)



A ring gauge is measured in scanning mode, with high points density. The range of radial distances from two concentric circles enclosing the roundness profile and having the least radial separation, is then evaluated. The range of radial distances must be within RONt.

NOTE: ISO 10360-2 test with maximum part weight performed as an option upon request only.



PROBE HEADS AND SENSORS



Technical Characteristics	HP-S-X1C	HP-S-X3C	HP-S-X5/X5 HD
Overtravel range	± 2 mm in all axes	± 1.25 mm in all axes	± 2 mm in all axes
Stylus joint	M3	M5	M5
Max. stylus weight	33 g	150 g	500 g / 650 g
Max. stylus length	Vertical: up to 225 mm Horizontal: up to 100 mm	360 mm	500 mm / 800 mm



Technical Characteristics	HH-AS and HH-A-T5° Indexable Probe Head	HH-AS8 and HH-A-T2.5° Indexable Probe Head	HH-AS8-H2.5° Indexable Probe Head
Angular rotation	A axis: +90° / -115° B axis: ±180°	A axis: ±105° B axis: ±180°	A axis: ±180° B axis: ±180°
Angular rotation step	5°	2.5°	2.5°
Max. applied torque	0.6 Nm	1.4 Nm	1.7 Nm
Max. extensions length	300 mm	450 mm	750 mm

Technical Characteristics	HP-L-10.6	HP-L-20.8
Laser	Visible red, class 2	Visible red, class 2
Standoff and depth of FOV	170 ± 30 mm	180 ± 40 mm
Width of FOV user selectable	24, 60, 124 mm	25, 51, 63, 130, 220 mm
T range for specified accuracy	15 ~ 32 °C	15 ~ 32 °C
Sensor size L x W x H	134 x 72 x 60.5 mm	137 x 76 x 85 mm



Technical Characteristics	HP-C-VE
Nominal FOV size	6.5 mm x 5 mm
Nominal pixel size	approx. 8.5 µm
Optical magnification	x 0.73
Working distance	75 mm
Ring light configuration	2 rings, each with 4 sectors. 1 LED per sector on the inner ring, 2 LED per sector on the outer ring
Sensor size Ø x L	max. Ø 75 mm x 137.5 mm (with TKJ mount)





PROBE HEADS CONFIGURATIONS

	05.YY.05	07.YY.07	09.YY.08	12.YY.10	15.YY.10
HP-S-X3C	X	✓	•	•	•
HP-S-X5	X	X	✓	✓	•
HP-S-X5 HD	X	X	•	•	✓
HH-A-T 5°	•	•	X	•	•
HH-AS-T 5°	✓	•	•	•	•
HH-A-T 2.5°	•	•	•	•	•
HH-AS-T 2.5°	X	✓	✓	✓	•
HH-AS-H 2.5°	X	X	•	•	✓
HP-S-X1C	•	•	•	•	•
HP-S-X3C	✓	✓	•	•	•
HP-S-X5	X	X	✓	✓	✓
HP-S-X5 HD	X	X	•	•	•
HH-A-T 5°	•	•	X	•	•
HH-AS-T 5°	✓	•	•	•	•
HH-A-T 2.5°	•	•	•	•	•
HH-AS-T 2.5°	X	✓	✓	✓	•
HH-AS-H 2.5°	X	X	•	•	✓
HP-S-X1C	•	•	•	•	X
HP-S-X3C	✓	✓	✓	✓	X
HP-S-X5	X	X	X	X	X
HP-S-X5 HD	X	X	X	X	X
HH-A-T 5°	•	•	X	•	X
HH-AS-T 5°	✓	✓	✓	✓	X
HH-A-T 2.5°	•	•	•	•	X
HH-AS-T 2.5°	X	•	•	•	X
HH-AS-H 2.5°	X	X	•	•	X

Chrome Performance Level
 Blue Performance Level
 Green Performance Level

- X Unavailable
- ✓ Recommended
- Available



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3D LASER SCANNING



SENSORS



PORTABLE MEASURING ARMS



SERVICES



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MULTISENSOR & OPTICAL SYSTEMS



WHITE LIGHT SCANNERS



METROLOGY SOFTWARE SOLUTIONS



CAD / CAM



STATISTICAL PROCESS CONTROL



AUTOMATED APPLICATIONS



MICROMETERS, CALIPERS AND GAUGES



DESIGN AND COSTING SOFTWARE