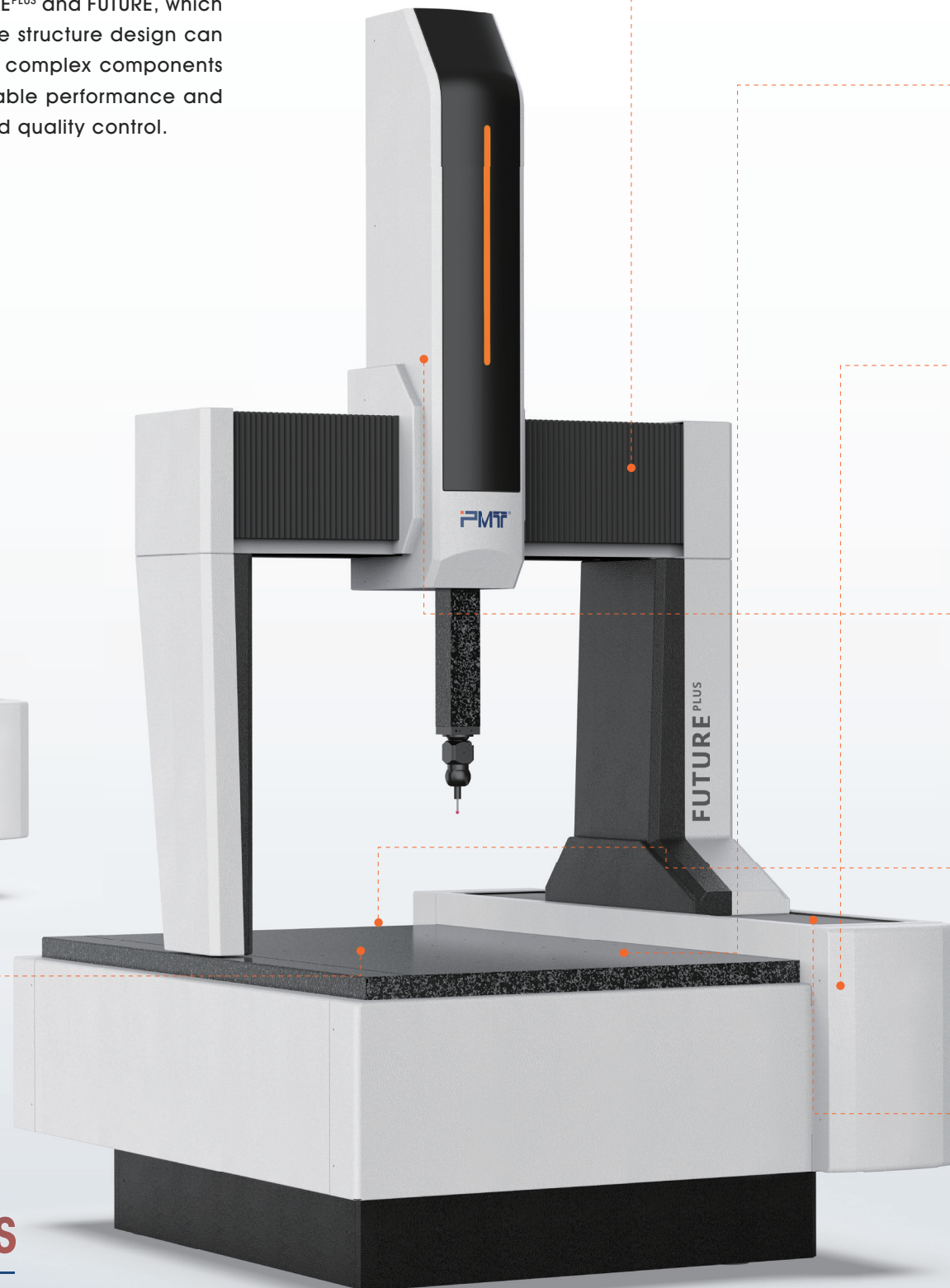
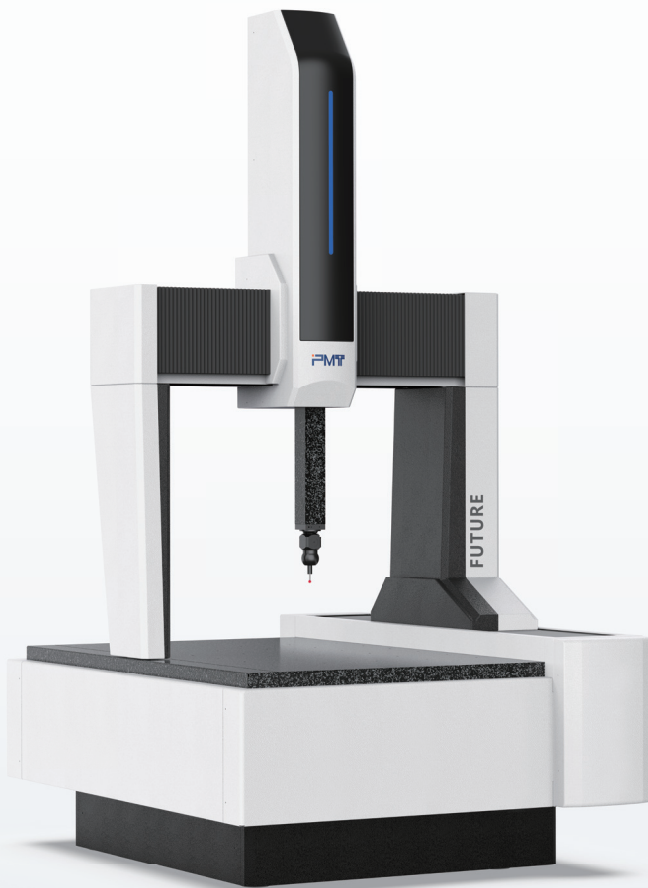




COORDINATE MEASURING MACHINE

PMT BRIDGE CMM

The FUTURE series Bridge CMM has 2 models: FUTURE^{PLUS} and FUTURE, which are the high-end CMMs of PMT. The mobile bridge structure design can meet the ultra-high-precision detection needs of complex components with the characteristics of high efficiency and stable performance and help to realise precision machining, assembly and quality control.



Superior Granite ▶

The whole worktable and guideway are all made of granite with low thermal expansivity, stressless deformation, strong rigidity and super stability. The bearing capacity of the granite table is up to 4500kg.

FUTURE^{SERIES}

From: **£59,440** +VAT

Supplied with Renishaw UCC controller, PH10 head, probe rack, CMM fixture kit, base plate & PC. Delivery, installation & calibration included.

Optional extras such as software, training & upgrades to probe head available.

Rectangular Guideway Structure ▶

The X, Y and Z axes are all made of granite rectangular guideways with low thermal expansivity, which effectively reduces Non-Linearity Error caused by bending deformation, ensuring the symmetry and matching of each air bearing. The 3 axis rectangular guideway can maintain good reliability and stability in high-speed movement, guaranteeing excellent dynamic characteristics.

Drive Technology of Dynamic Movement ▶

The drive technology of dynamic movement can ensure smooth operation of the machine. The Y-axis adopts friction drive by shaft, while the X and Z axes adapt flexible drive by a single belt (similar to a flexible rack and gear pair). The electric motor moves with the moving parts, avoiding differences between the far and near ends caused by transmission, greatly enhancing transmission stability and positioning accuracy, and reducing maintenance costs.

Surrounding Air-bearing Structure ▶

The X, Y and Z axes use the circular symmetrical design of the air bearing, which greatly reduces the influence of the machine stability caused by the deformation of structural parts, and effectively enhances the anti-torsion ability of moving parts. The rigidity and stability of the machine are also improved.

Quick Response to Balanced Pulley of Air Cylinder ▶

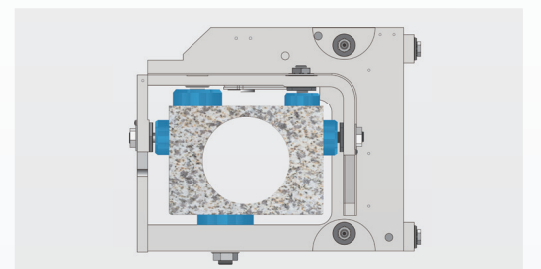
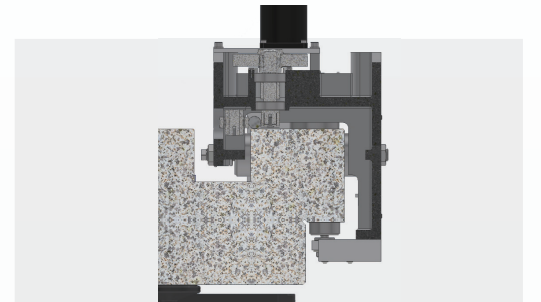
The Z axis adopts a quick response balanced pulley for the air cylinder. The flexible transmission of the pulley belt can reduce the cylinder stroke by half, and the cylinder is placed outside the Z axis, improving its rapid response and reducing the impact of cylinder airflow fluctuations on the Z axis.

Separated Airflow with Independent Operation ▶

The main airflow is divided into five paths, and each flow state is controlled by the precision pressure regulator, so that the bearing surface and the guide surface receive a reasonable airflow distribution. This achieves the optimal airflow condition for the overall machine.

Dust Protection Design ▶

The top of the X and Y axes is provided with a dust protection structure, which prevents dust on the guideways, ensures the air bearing can operate in a clean environment, and greatly reduces the risk of machine failure.



FUTURE^{PLUS} SERIES

- FUTURE^{PLUS}
- FUTURE

Designed for High-precision Metrology
High-grade, Precision and Advanced Mechanical Structure

TECHNICAL FEATURES

FUTURE^{PLUS} BRIDGE CMM From: **£70,355** +VAT | See inclusions on previous page

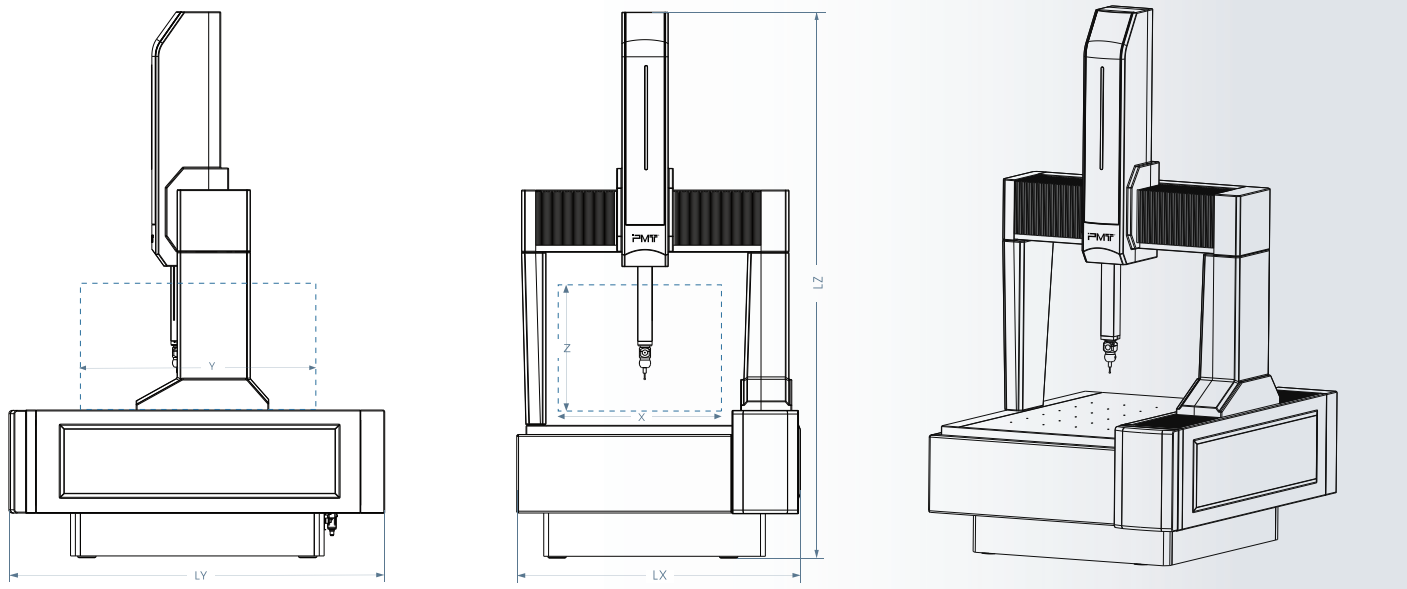
Model		FUTURE ^{PLUS} 55		FUTURE ^{PLUS} 87			FUTURE ^{PLUS} 108				FUTURE ^{PLUS} 1210				FUTURE ^{PLUS} 1512			
Type		655	855	1087	1587	2087	12108	15108	20108	25108	151210	201210	251210	301210	201512	251512	301512	401512
Range (mm)	X	500	500	800	800	800	1000	1000	1000	1000	1200	1200	1200	1200	1500	1500	1500	1500
	Y	600	800	1000	1500	2000	1200	1500	2000	2500	1500	2000	2500	3000	2000	2500	3000	4000
	Z	500	500	700	700	700	800	800	800	800	1000	1000	1000	1000	1200	1200	1200	1200
Size (mm)	LX	1160	1160	1560	1560	1560	1810	1810	1810	1810	2145	2145	2145	2145	2630	2630	2630	2630
	LY	1590	1790	2060	2560	3060	2420	2800	3400	4000	2940	3540	4140	4740	3760	4360	4960	6260
	LZ	2560	2560	2990	2990	2990	3210	3210	3210	3210	3610	3610	3610	3610	4250	4250	4250	4250
Weight (kg)		800	1050	2200	3100	4250	4300	5000	6500	8200	5500	8000	10000	12500	11000	12500	15300	19500
The Maximum Weight for Workpiece (kg)		400	500	1000	1100	1300	2000	2200	2500	2800	2500	2800	3000	3200	3600	3800	4200	4500
MPE _x (μm)		1.2+L/400		1.4+L/400			1.6+L/400				2.0+L/400				2.6+L/400			
MPE _z (μm)		1.2		1.4			1.6				2.0				2.6			

FUTURE BRIDGE CMM From: **£59,440** +VAT | See inclusions on previous page

Model		FUTURE 55		FUTURE 87			FUTURE 108				FUTURE 1210				FUTURE 1512			
Type		655	855	1087	1587	2087	12108	15108	20108	25108	151210	201210	251210	301210	201512	251512	301512	401512
Range (mm)	X	500	500	800	800	800	1000	1000	1000	1000	1200	1200	1200	1200	1500	1500	1500	1500
	Y	600	800	1000	1500	2000	1200	1500	2000	2500	1500	2000	2500	3000	2000	2500	3000	4000
	Z	500	500	700	700	700	800	800	800	800	1000	1000	1000	1000	1200	1200	1200	1200
Size (mm)	LX	1160	1160	1560	1560	1560	1810	1810	1810	1810	2145	2145	2145	2145	2630	2630	2630	2630
	LY	1590	1790	2060	2560	3060	2420	2800	3400	4000	2940	3540	4140	4740	3760	4360	4960	6260
	LZ	2560	2560	2990	2990	2990	3210	3210	3210	3210	3610	3610	3610	3610	4250	4250	4250	4250
Weight (kg)		800	1050	2200	3100	4250	4300	5000	6500	8200	5500	8000	10000	12500	11000	12500	15300	19500
The Maximum Weight for Workpiece (kg)		400	500	1000	1100	1300	2000	2200	2500	2800	2500	2800	3000	3200	3600	3800	4200	4500
MPE _x (μm)		1.6+L/350		1.8+L/350			2.0+L/350				2.6+L/350				2.9+L/350			
MPE _z (μm)		1.6		1.8			2.0				2.6				2.9			

- MPE_x: According to ISO 10360-2:2009;
- MPE_z: According to ISO 10360-2:2009.

EXTERNAL DIMENSIONS



MEASURING SYSTEM

Incremental Photoelectric Grating Ruler } Optical Scale 20μm ; Resolution Ratio: 0.1μm

DYNAMIC PROPERTY

- Manual Mode Operation(Vmax) } 0~20mm/s (Slow Mode), 0~100mm/s (Standard Mode)
- CNC Mode (Vmax) } Uniaxial Velocity 300mm/s, Dynamic Velocity 520mm/s
- CNC Mode (Qmax) } Uniaxial Velocity 1000mm/s, Dynamic Velocity 1732mm/s

OPERATING REQUIREMENTS

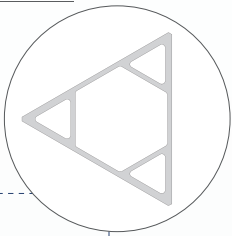
- Power Supply } Single-phase Power Supply 1P+N+PE,115/230V+/-10%,50/60Hz,Maximum Power 1000VA; Standard: EN60204/1
- Compressed Air } Air Pressure: 6-10bar; Standard: ISO8573-1, Level 4 or higher
- Air Flow } 160-200NI/min;
- Operating Temperature } 20±2 C ;
- Calibration Temperature(MPE_E) } 20±1℃ , ΔT 1K/ h, 1K/ m, 2K/d
- Relative Humidity } RH40%~75%

PMT BRIDGE CMM

PRIME

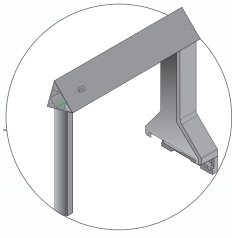
Structure of Equilateral Triangle Beam ▼

The aluminium alloy beam, with an equilateral triangle structure, has good thermal balance and isotropy to ensure smooth operation of the machine.



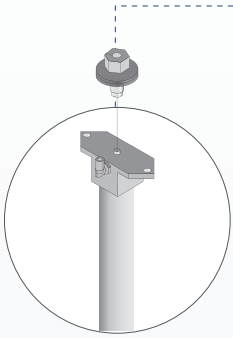
Aviation Aluminium Alloy Frame Structure ▼

The aluminium alloy frame with a hard-anodised surface has a good rigidity ratio, ensuring the machine maintains precision during high-speed operation.



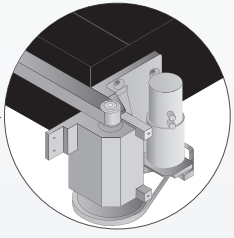
Flexible Pneumatic Balance Technology ▼

The flexible pneumatic balance technology adopts a flexible suspension system to avoid impacts on accuracy when the machine is operating, improving measurement accuracy and stability.



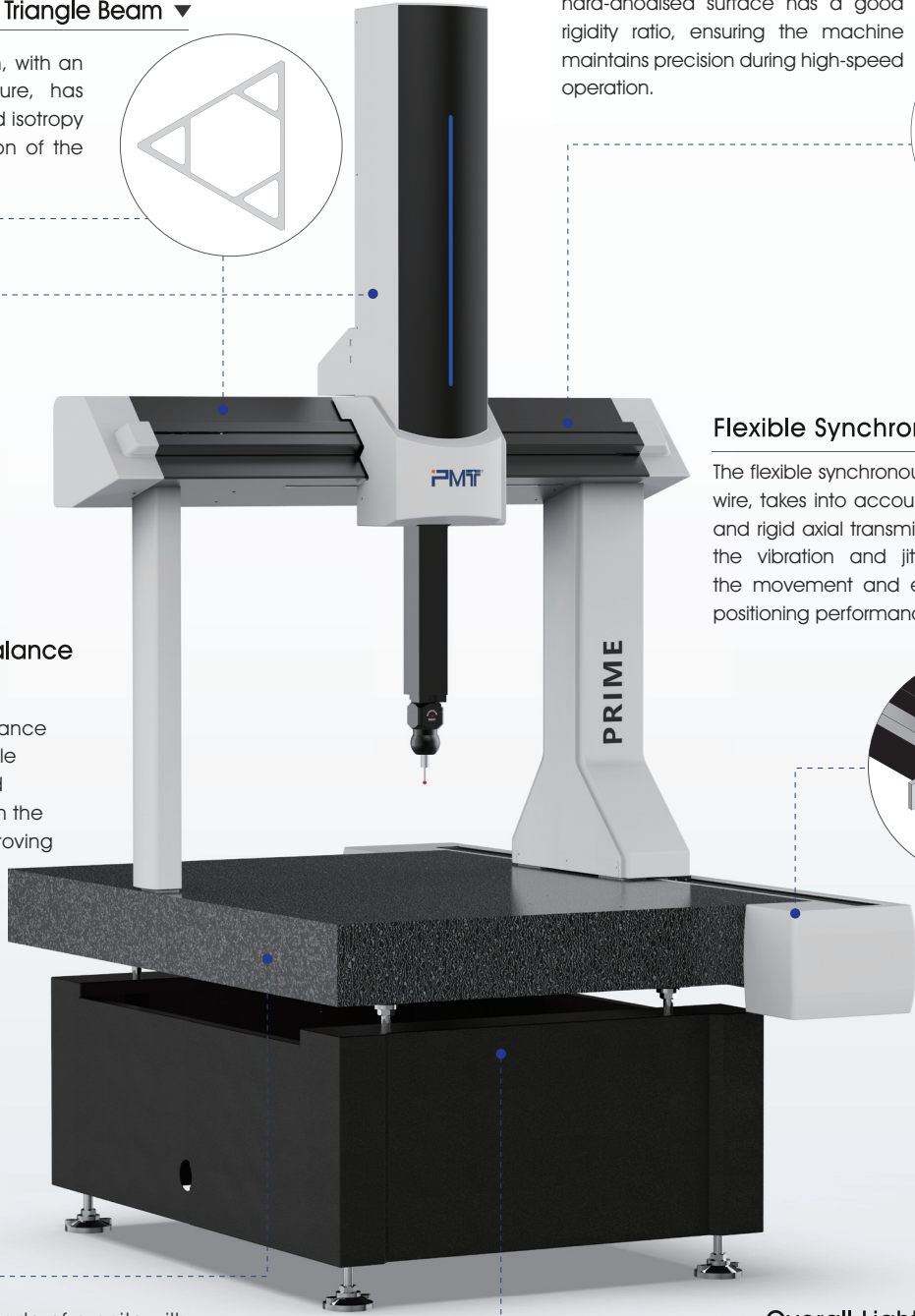
Flexible Synchronous Belt Drive ▼

The flexible synchronous belt with built-in steel wire, takes into account the flexible meshing and rigid axial transmission, which eliminates the vibration and jitter generated during the movement and ensuring high-precision positioning performance of the machine.



Superior Granite ▼

The whole worktable is made of granite with low thermal expansivity, stressless deformation, strong rigidity and super stability. The bearing capacity of the granite table is up to 1400kg.



Overall Lightweight and High-strength Structure ▼

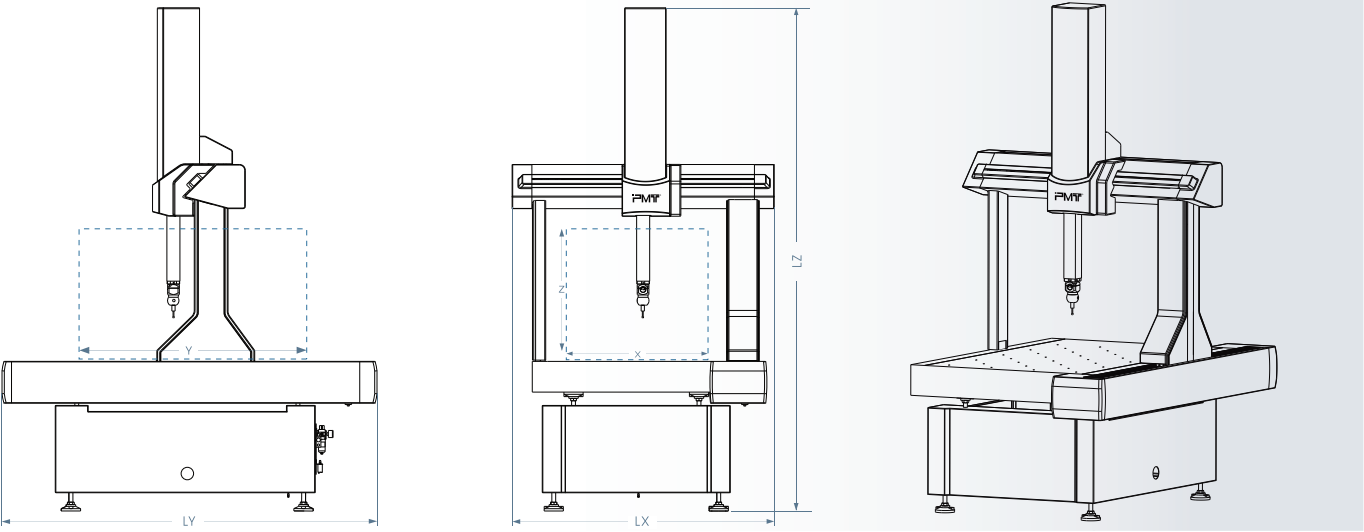
The overall lightweight, high-strength design ensures that the machine not only achieves good accuracy during high-speed measurement but also improves measurement efficiency.

TECHNICAL FEATURES

Model		PRIME					
Type		866	1086	1286	12108	15108	20108
Range	X	600	800	800	1000	1000	1000
	Y (mm)	800	1000	1200	1200	1500	2000
	Z	600	600	600	800	800	800
Size	LX	1170	1370	1370	1650	1650	1650
	LY (mm)	1760	1960	2160	2350	2650	3250
	LZ	2630	2630	2630	3080	3080	3080
Weight	(kg)	660	880	1000	1200	1450	1850
The Maximum Weight for Workpiece	(kg)	300	500	700	1000	1200	1400
MPE _E	(μm)	2.8+L/300	2.8+L/300	2.8+L/300	3.4+L/300	3.4+L/300	3.4+L/300
MPE _P	(μm)	2.8	2.8	2.8	3.4	3.4	3.4

► MPE_E: According to ISO 10360-2:2009; ► MPE_P: According to ISO 10360-2:2009.

EXTERNAL DIMENSIONS



MEASURING SYSTEM

Incremental Photoelectric Grating Ruler > Optical Scale 20μm; Resolution Ratio: 0.5μm

DYNAMIC PROPERTY

Manual Mode Operation(Vmax)	0-20mm/s (Slow Mode), 0-100mm/s (Standard Mode)
CNC Mode (Vmax)	Uniaxial Velocity 300mm/s, Dynamic Velocity 520mm/s
CNC Mode (Qmax)	Uniaxial Velocity 1000mm/s, Dynamic Velocity 1732mm/s

OPERATING REQUIREMENTS

Power Supply	Single-phase Power Supply 1P+N+PE,115/230V+/-10%,50/60Hz,Maximum Power 1000VA; Standard: EN60204/1
Compressed Air	Air Pressure: 6-10bar; Standard: ISO8573-1, Level 4 or higher
Air Flow	160-200NI/min;
Operating Temperature	20±2℃;
Calibration Temperature(MPE _E)	20±1℃, ΔT 1K/ h, 1K/ m, 2K/d
Relative Humidity	RH40%~75%

From: **£47,880** +VAT

Supplied with Renishaw UCC controller, PH10 head, probe rack, CMM fixture kit, base plate & PC. Delivery, installation & calibration included.

Optional extras such as software, training & upgrades to probe head available.



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