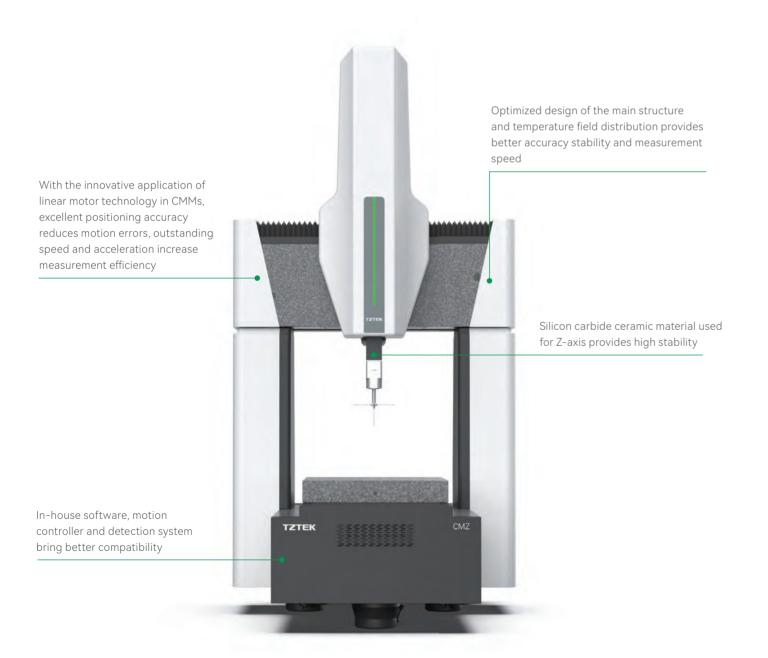
# **Zenith Coordinate Measuring Machine**

CMZ Zenith Coordinate Measuring Machine is a high-end metrological equipment produced by TZTEK. It has a fixed-bridge structure to meet the requirements of ultra-high precision measurement of complex components. With advantages of sub-micron accuracy, high efficiency and stable performance, it contributes to precision machining, assembly and quality control.



## **Product features**



### Ultra-high rigid mechanical structure

The high-rigid fixed-bridge mechanical structure, as well as the combination of granite beams, granite bases, granite columns and Z-axie made of industrial precision material silicon carbide ceramic, ensures the high stability of the mechanical structure and the strong resistance against external interference.



#### Ultra-high stability

- Preloaded air bearings are used for all axes, and their enveloping structure ensures high rigidity, no contact and low friction.
- Zero expansion coefficient scale, ultra-high resolution up to the nanometer level, and insusceptible to external temperature, ensures high precision and the stablity of the machine.



### In-house compensation algorithm

With TZTEK in-house geometric error compensation, the accuracy can reach metrology grade.

Model	Stroke range(mm)				Overall dimension(mm)			Main machine	Max. load (kg)	Vector motion	Vector motion acceleration
	Х	Υ	Z		LX	LY	LZ	weight(kg)	Max. Idau (kg)	velocity (mm/s)	(mm/s²)
06.08.06	600	800	600	LZ T	1682	2107	3260	4760	400	520	1870
08.10.06	800	1000	600		1882	2557	3260	6207	500	520	1870
10.12.08	1000	1200	800		2082	3007	3660	8000	800	520	1870
10.15.08	1000	1500	800		2082	3582	3660	9600	800	520	1870
12.15.10	1200	1500	1000	Y	2282	3582	4060	10800	1000	400	1000
12.20.10	1200	2000	1000	LY —	2282	4632	4060	13800	1000	400	1000

Length measurement error	Single stylus form probing error				
MPE (E0) (μm)	MPE (PFTU) (µm)				
From 0.5+L/500	From 0.5				

Precision index: According to CMM calibration standard: JJF 1064-2010 (ISO 10360-2:2009, ISO 10360-5:2010)

Temperature requirements for measuring m	achine room	Power requirement			
Room temperature (temperature control room)	20°±1°C	Voltage	220 vac±10%		
Temperature gradient (time)	0.5°C /h	Frequency	50/60 Hz±1%		
Temperature gradient (time)	1°C /24h	Electric current	6A		
Temperature gradient (space)	0.5°C /m	Power	1.5kw		
Air source requirement		Electrical equipment requires reliable grounding: grounding resistance is less than 4 ohms			
Min. air supply pressure	0.6MPa	Humidity requirements for measuring machine room			
Air consumption	250L/min	Relative air humidity	25~75%		

<sup>\*</sup> The machine parameters will change due to product update, which shall be subject to the technical agreement

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