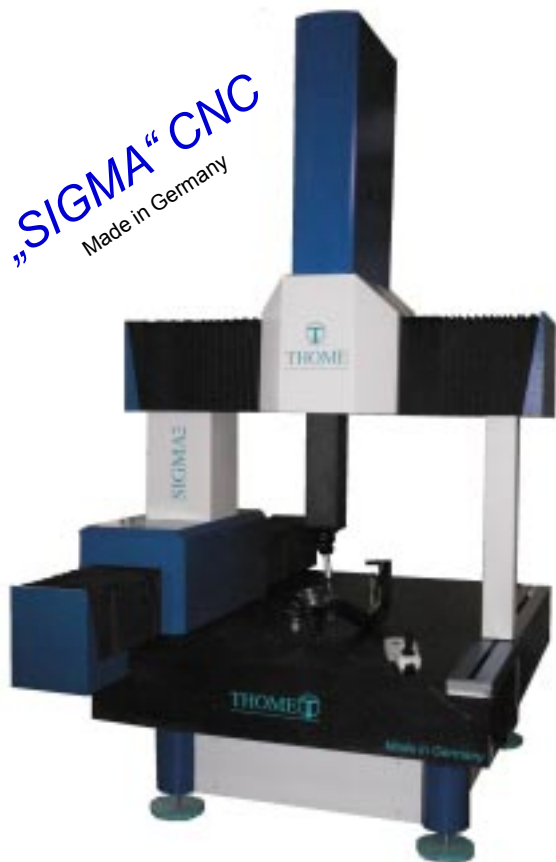


3D Measuring Machine SIGMA / TETA CNC

„SIGMA“ CNC
Made in Germany

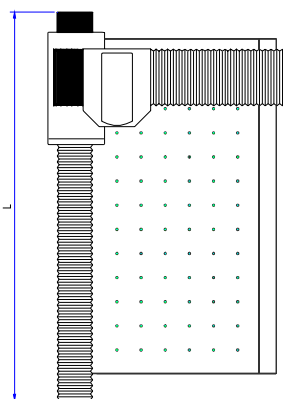
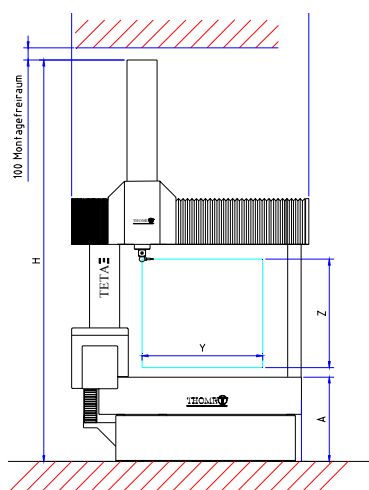


Flexibility of the Measured Areas in all Axes

The new generation of our 3D measuring machines SIGMA / TETA is characterized in particular by the highest precision, robustness, and the fact that it is to a large extent maintenance-free. All guides are manufactured from precious granite and cut and lapped with the highest precision. Upon request, ceramic guides of the highest quality can be supplied as well. Thus the measuring machine gains in dynamics and rigidity. The thermal stability and high precision of the guides guarantee the most accurate measuring results, even without the use of software compensation. Double passive vibration damping is integrated in the devices as a standard. Upon request, the machines can be equipped with active vibration damping through air spring insulators. This improves the damping of low frequency vibrations in particular. Our consistent modular component system allows the combination of any axis lengths. We would be pleased to assemble your individually tuned machine for you.

Reliability and Precision at a Top Price

As a standard, optimized air bearing precision guides of all axes are enclosed. All guideways are thus protected against damaging, dirt, and direct thermal influences. Especially the solid covering of the two table guides offers optimal protection against damaging during the loading and unloading of the machine. Highly dynamic servo drives and highly rigid belt drives free from wear guarantee an optimal positioning performance.



Technical Data:

Measuring Area	SIGMA				TETA			
	x-Axis [mm]	y-Axis [mm]	z-Axis [mm]	Weight [kg]	Permitted Weight of Workpieces [kg]	Length [mm]	Width [mm]	Height (H) [mm]
x-Axis [mm]	1000	1200	1500	2000	1200	1500	1800	2400
y-Axis [mm]	800 / 900				1000 / 1100			
z-Axis [mm]	700 / 800 / 900				800 / 900 / 1000			
Weight [kg]	2800 for Y=800 2950 for Y=900	3000 for Y=800 3200 for Y=900	3350 for Y=800 3600 for Y=900	4000 for Y=800 4300 for Y=900	4050 for Y=1000 4300 for Y=1100	4550 for Y=1000 4830 for Y=1100	5000 for Y=1000 5300 for Y=1100	6300 for Y=1000 6800 for Y=1100
Permitted Weight of Workpieces [kg]	1000	1100	1200	1400	2000	2200	2300	2800
Length [mm]	2215	2415	2715	3215	2415	2715	3015	3615
Width [mm]	(for y 800) 1765, (for y 900) 1865				(for y 1000) 1965, (for y 1100) 2065			
Height (H) [mm]	3228				3328			
Table Height (A) [mm]	700							
Measurement accuracy [µm]	ISO 10360-2: MPEE2,2 + (L/350); MPEP=2,2 mit TP200							
Resolution	0,0001mm							
Set-up Speed	0 bis 80mm/s							
max. Speed	max. v = 400mm/s							
max. Acceleration	a = 1000mm/s ²							
Temperature for Guaranteeing Accuracy	20°C +/-2°C, max 1°C per hour / 1.5°C per day							
Air Consumption	25l/min, air quality pre-cleaned according to ISO 8573 Class 2							



3D-Measuring Machine „SIGMA / TETA“ CNC

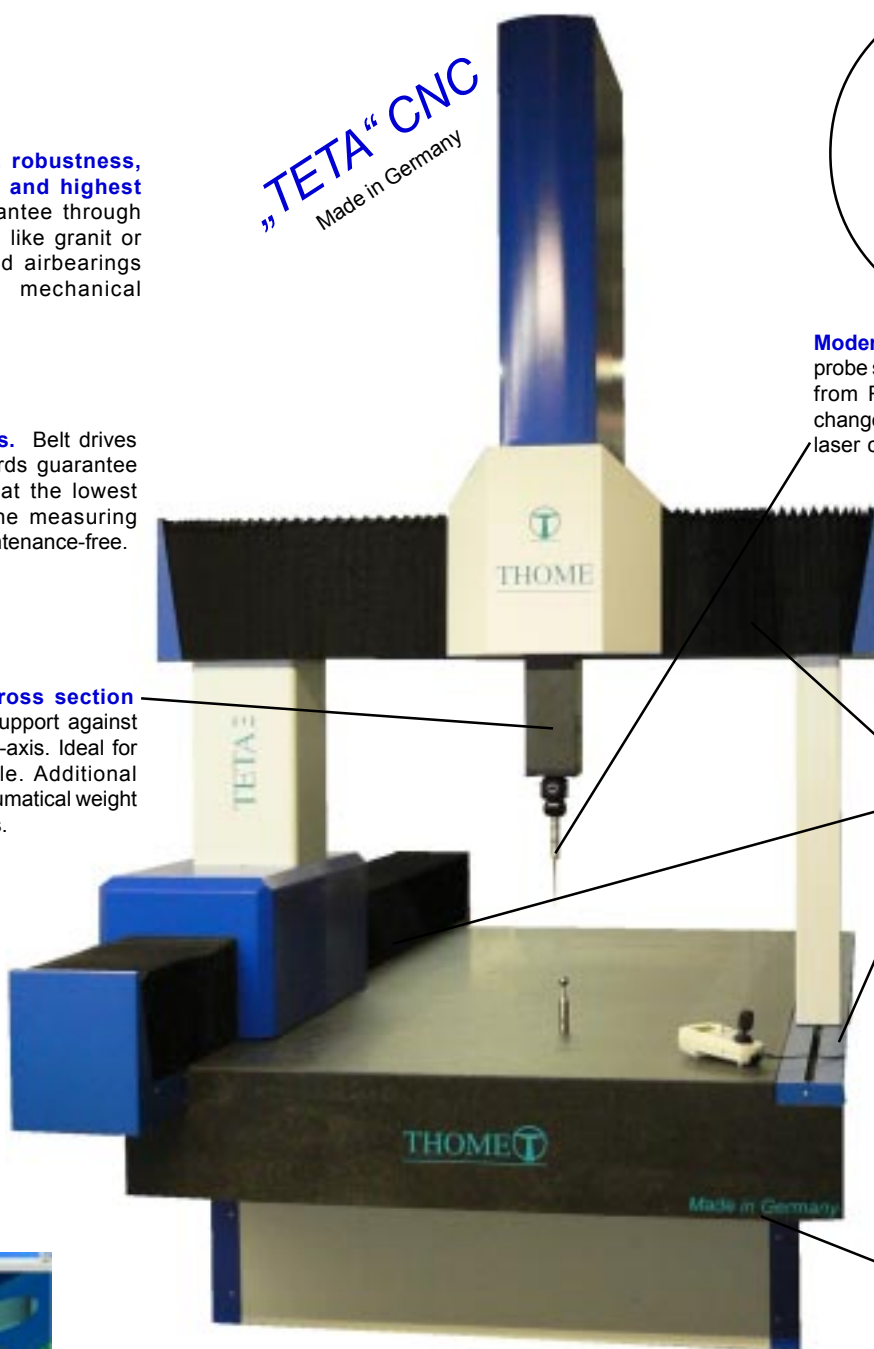
Your advantage:

Highest precision, robustness, thermal stability and highest stiffness are guarantee through fine guide-materials like granit or ceramic. Optimized airbearings ensure perfect, mechanical accuracy.

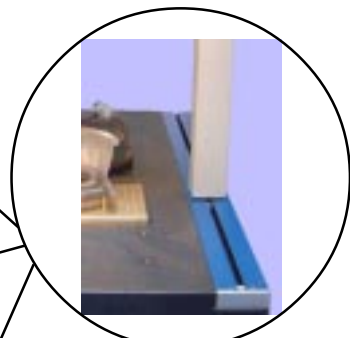
Belt drive in all axis. Belt drives crossed by steel cords guarantee the highest rigidity at the lowest wear. That makes the measuring machine largely maintenance-free.

Big center-sleeve cross section with that optimized support against rotation around the Z-axis. Ideal for long styles useable. Additional finely controlled, pneumatical weight balance of the Z-axis.

„TETA“ CNC
Made in Germany



Modern, flexibel probe systems All probe systems (taktil, scanning and optical) from Renishaw also the accompanying changers could be used. Point and surface laser could be adapted also.



Enclosed guide-ways Protect against dirt and thermal factors. The additional closed table guide moreover protect the machine during loading up the workpieces.



Double passive vibration dumping is the standard deviation integrated in the support. With that the Measuring machine is also good to use into the manufacturing sector. Active air vibration dumpers are also adaptionaly.

Click and Control "Measuring has never been easier"

The new measuring software Metrolog XG is ideally suited for the measurement of all ruled geometries, freeform surfaces, and dynamic scanning. Measuring elements can be clicked and measured directly on the screen. In doing so, the generation of the measuring program takes place completely automatically in the background. The traverse paths are displayed on the screen and can be easily adjusted by the user if need be. Measuring against a set of data is turned into child's play. Extensive strategies for the measurement of point aggregates, individual surfaces, or groups of surfaces are available. The results are displayed directly online on the screen and can also be processed as a color mapping. Thus, the user quickly recognizes immediate problem zones. Other highlights are the automatic probe calibration, an interactive online help, graphic collision protection, a simple log editor, a clearly arranged element database, integrated log masters in graphic and table form, and the import of all common CAD formats such as CATIA, UNIGRAPHICS, ProE, Parasolid, VDA, IGES...

