

WENZEL®

The company of μ

XOrbit
Just measure



XOrbit – just measure

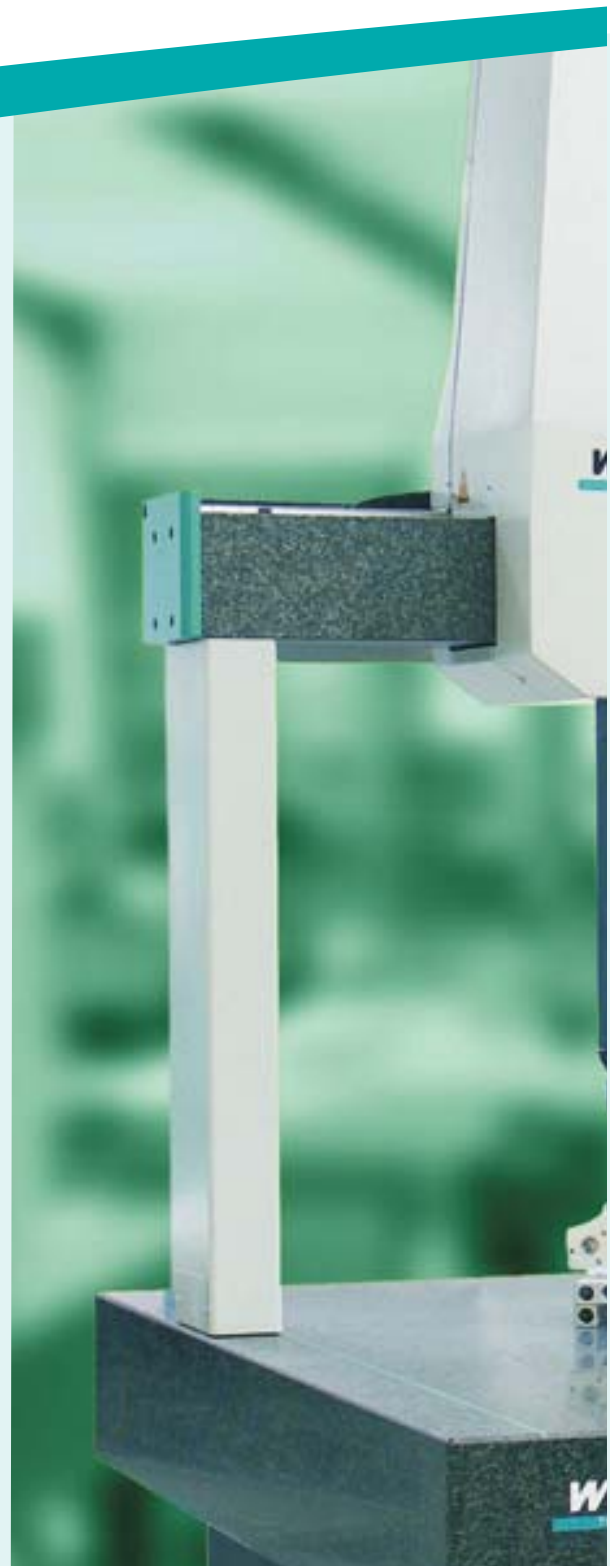
The WENZEL XOrbit is the ideal coordinate measuring machine, wherever the core aspects of measuring are required and where rapidity and ease of use are in demand. It can be used for checking incoming goods and throughout the production cycle until final inspection since it fulfils all major demands. No matter whether for individual measurements or

scanning, for individual components or mass production (total CNC control), the XOrbit is suitable for universal applications. The XOrbit is efficient and multitalented due to its flexible and simple use. Consistent orientation on an intelligent machine concept enables economic entry into coordinate metrology. Simply measure - simply good.

XOrbit features:

- The XOrbit combines the decades of experience gained by WENZEL by concentrating purely on the functionality.
- CMM material No. 1 is used for the XOrbit: Granite.
- The base plate, the cross-beam and the quill are made from granite thus ensuring an identical thermal reaction in all axes.
- High-tensile air bearing guide ways in the Y-axis with very precisely lapped locating surfaces incorporated in the granite base plate: A guarantee for outstanding long-term stability.
- Self-cleaning and wear-free air bearings in all axes ensure easy operation.
- Good accessibility during maintenance work.
- CNC-bridge design measuring machine, both with touch-trigger as well as with scanning probe system.
- Multisensor capable

	Measuring range (mm)	XOrbit 55		XOrbit 87		XOrbit 108	
x		500	500	800	800	1000	1000
y		700	1000	1000	1500	1200	1600
z		500	500	700	700	800	800



The advantages at a glance:

- Economic use
- Simple operation
- Reliable measuring results
- Efficient, flexible and uncomplicated in use
- Simple checking of control geometrics and free-form surfaces



CMM material No. 1: Granite

Granite is the perfect material for coordinate measuring machines due to its physical characteristics.

Even though aluminium is considered by highly experienced specialists to be lighter than granite, in actual fact its specific weight is only 1% lower.

Even so, the coefficient of expansion of aluminium is almost four-times that of granite! Consequently, the deformation of an aluminium structure is four-times that of a comparable granite structure.

By comparison to granite, aluminium is not an optimum material for metrology, which is why all air bearing CMMs normally have base plates of granite. The base plate as well as the cross-beam and the quill of the WENZEL XOrbit are made from granite thus ensuring an identical, thermal reaction in all axes.

Physical characteristics of materials in metrology

Material	Specific Weight [kg/dm ³]	Expansion Coefficient [1/K]	Temperature Diffusion Rate [W/mK]	Elasticity Module [10 ³ N/mm ²]
Steel	7,25	10,4*10 ⁻⁶	42-63	90-180
Aluminium	2,7	23,8*10 ⁻⁶	210	72
Ceramic (Al2O3)	3,85	8*10 ⁻⁶	28	370
Granite	2,8	6,5*10⁻⁶	3,5	NIL

We are there for you

Wenzel worldwide

Today, Wenzel is the largest and most successful, family owned and operated company in the world in the field of coordinate measuring technology; it has branches in Switzerland, France, the Netherlands, England, the USA, China and Singapore. Sales and service

partners take care of Wenzel customers in more than 50 countries around the globe. Wenzel are a Global Player employing more than 440 people worldwide and supplying more than 500 precision measuring machines annually – the future looks upbeat.

And, by the way, that's no reason to rest on our laurels: We consistently push our global activities and with a long-term strategic direction in mind – if you're going to do something, do it right; typical Wenzel ...

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