

Innovation for success

WENZEL Group GmbH & Co. KG is one of the leading manufacturers of industrial metrology solutions. The wide range of WENZEL products includes solutions in the fields of coordinate measuring machines, gear metrology, computed tomography and high speed measuring and digitizing systems. Founded in 1968 as a family business WENZEL Group combines tradition

with innovation, relies on values such as reliability, trust and respect for the environment. Subsidiaries as well as sales and service partners worldwide represent the company in more than 50 countries. The WENZEL Group employs more than 630 people worldwide.

XOplus GB, USA 14 | WENZEL Group
Subject to technical modification and to changes in scope and design.

Preferred Solution XOplus Series



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Higher Precision and Efficiency XOplus

As a new member of WENZEL Group's XOrbit family designed for market development and customer needs, the XOplus series can complete different measurements quickly and easily while providing higher precise measurement results. Equipped with multifunctional measuring head systems, it proves itself a highly cost-effective and competitive WENZEL product since it can meet a complete range of industrial measurement needs.

XOplus Features

- Three axes made from granite material ensure all axes have the same thermodynamic properties
- The granite surfaces of all three axes are uniquely hand lapped by WENZEL, to ensure the precision of the mechanical structure, which guarantees long-term precision stability of measuring machines
- The use of a heavy granite surface plate minimizes the possible impact of surface plate deformation on measurement precision due to work piece weight and makes reliable measurement results possible
- The Y-Axis guide-way is directly integrated into the granite surface plate and is completed with high-strength air bearing guides for excellent long-term stability
- All axes are equipped with embracing air bearings and self-cleaning function to ensure precise and stable operation of the machine construction
- X- and Y- Axis completely protected with bellows to avoid contamination of the guide surfaces
- Ergonomic design for convenient daily operation
- Modular design that is easy to maintain

XOplus Specifications Overview Measuring Ranges (mm)

	X	Y	Z
XOplus 55	500	500/700/1000	500
XOplus 77	700	1000/1500/2000	700
XOplus 98	900	1200/1500/2000	800

The design and parameters are subject to change without prior notice due to continuous technical development.

Granite: The Preferred Material for Coordinate Measuring Machines

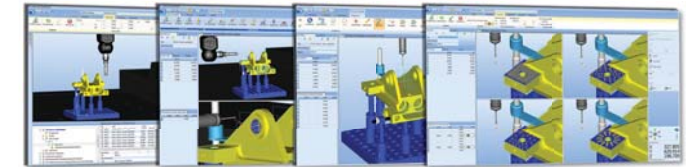
Due to the physical property of temperature insensitivity, granite is an ideal material in the metrology field. People's first impression is that aluminum is much lighter than granite. In fact, the specific weight of granite is only 1% higher than that of aluminum while the expansion coefficient of aluminum is almost four times that of granite. Three granite axes of the same material on the coordinate measuring machine can ensure their identical thermodynamic properties.

Physical Properties of Measuring Materials

Material	Specific Weight [Kg/dm ³]	Expansion Coefficient [1/K]	Temperature Diffusion Rate [W/mK]	Elasticity Module [10 ⁹ N/mm ²]
Steel	7.25	10,4*10 ⁻⁶	42-63	90-180
Aluminum	2.7	23,8*10 ⁻⁶	210	72
Ceramics (Al ₂ O ₃)	3.85	8*10 ⁻⁶	28	370
Granite	2.8	6,5*10 ⁻⁶	3.5	NIL



Metrosoft QUARTIS®



WENZEL Metrosoft QUARTIS® measuring software is one of the most powerful and widely used metrology software in the market which is most conveniently to operate. It can provide customers with precise and significant measurement results quickly and efficiently.

- 1st measuring software using Microsoft Office Fluent™ user interface technology in the field of metrology
- Based on measurements of CAD model, curves and surfaces, and unknown free-form surfaces
- Result-oriented measuring software that can generate visual and vivid reports easily
- A wide range of measurement applications are available such as reverse engineering, computed tomography (CT), die & mould manufacture, etc.
- Special modules such as pipe measurement, high-efficient turbine blade evaluation, or other customized applications are available

Probe Systems



PH10T/M

Motorized Indexing Head
Automatically indexable probe head in 7.5° increments. Extensions of up to 300mm possible



PHOENIX

WENZEL Optical 3D Measuring Sensor
Only one scanning can achieve fast geometrical element measurement and surface acquisition for multiple material colors and surfaces



SP25M

Compact Scanning Probe
The most compact and versatile probe system for scanning on a global scale



SHAPETRACER

WENZEL 3D Line Scanner
The ideal tool to record and handle point clouds. Perfect for tool and die making, and designed for model construction



TP200

Highest Precision Touch-Trigger Probe
Highly precise and suitable for styli up to 100mm in length. Styli can be changed via tool changer



PH20™

Continuous 5-Axis Touch-Trigger Head
Integrated TP20 probe body. The modules and extension bars can be changed via tool changer

For more measuring probe systems, like MH20i, TP20 or SP80, etc. please contact your local WENZEL office.