

INNOVATIONS IN METROLOGY

WENZEL LHF SERIES

Our solutions for your measuring tasks



WENZEL LHF SERIES

LARGE MEASURING RANGE AND EXCELLENT ACCESSIBILITY

Wide measuring range and excellent accessibility. The LHF is a CNC coordinate measuring machine with air bearings on guide beams, which has been designed for high-precision measurement of large-volume and complex workpieces. Its ground-level design allows excellent access to a large measuring range with maximum freedom of movement. The measuring range in the Y-axis is available in the standard version up to a length of

12 meters. A double drive in the Y-axis of the LHF makes it unbeatable in terms of dynamics. The thermal influences of the environment on the machine and workpiece can optionally be corrected by means of automatic temperature compensation. LHF series measuring machines are available in the accuracy classes Standard, Premium and Premium Select.

FEATURES

- **Optimum stability** due to intrinsically stable guide beams and precisely dimensioned air bearings
- **High performance** even with large extensions, eccentric loads and scanning with REVO at high speed
- **Best position stability** due to incremental displacement measuring systems with precision scales and excellent contamination tolerance
- **High dynamics** due to double drive in the Y-axis and backlash-free friction drives
- **Easy maintenance** due to high availability of spare parts and easily accessible replacement components

FIELDS OF APPLICATION

The WENZEL LHF is designed for high-precision measurement of large-volume and complex workpieces. It is used by innovative medium-sized companies as well as world-famous large corporations - or simply everywhere where high measuring requirements define the requirement.





MEASURING ACCURACY

Type	Measuring ranges X x Y x Z (mm)	Volumetric length measuring uncertainty $E_{L, MPE}$ (μm) Premium Select
LHF 2517	2500 x 4000/5000/6000 x 1700	3,5 + L / 400
LHF 3020	3000 x 4000/5000/6000 x 2000	4,3 + L / 400
LHF 3025	3000 x 5000/6000 x 2500	5,2 + L / 400
LHF 4025	4000 x 5000/6000 x 2500	7,0 + L / 400

Value $E_{L, MPE}$ only valid for SP80/SP25M/REVO touch probes.

Other Y-lengths on request. Subject to changes in design and scope of delivery as well as further technical development.

YOUR ADVANTAGES AT A GLANCE

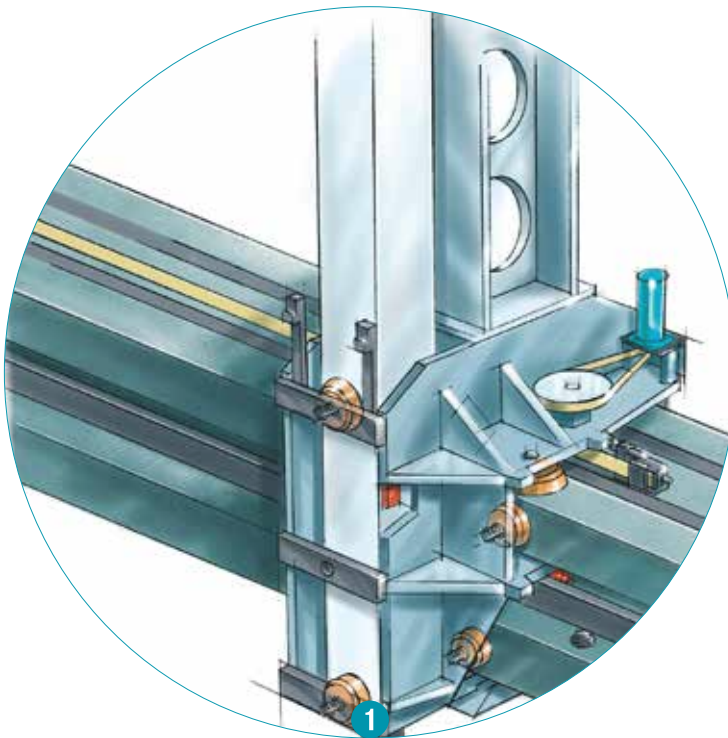
- Long term, mechanical accuracy**
 Temperature stable structure | Hand finished |
 Air bearing guide elements in all axes
- Low cost of ownership**
 Low air consumption | Reliable and cheap replacement
 parts | Less effort in recalibration
- High flexibility**
 Special measuring sizes on request | Data compatibility
 with other WENZEL systems | Loading systems |
 Automation solutions
- Various sensor options**
 Touch trigger probes | 3- or 5-axis scanning |
 Optical sensors
- Ergonomic design**
 Easy to use | Easy to service | Easy to load

THE LHF-FEATURES

EASY ASSEMBLY FOR LARGE PARTS

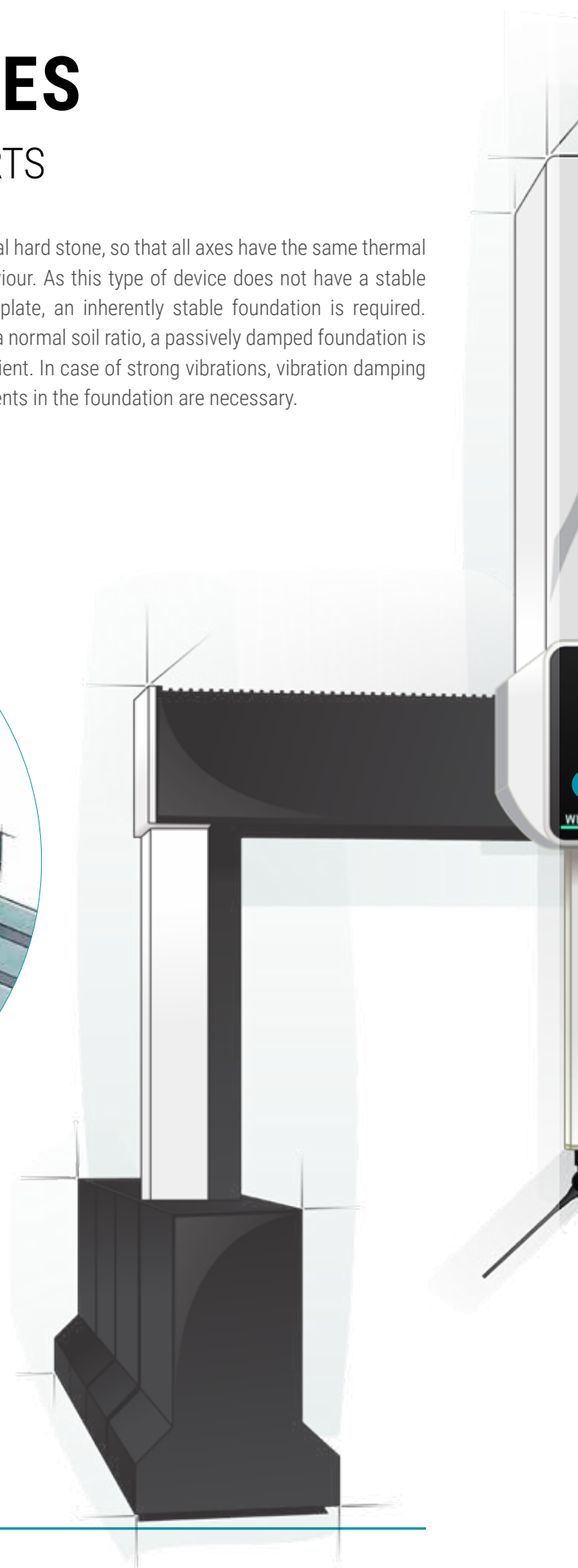
Air bearings on the guide beam in the Y-axis. The ground-level design of the LHF allows excellent access to a large measuring range with maximum freedom of movement. A double drive in the Y-axis of the LHF makes it unbeatable in terms of dynamics; and that with unique stability of the guides. Similar to the LH-Gantry, the LHF air bearing guide elements also guarantee wear-free operation with precise guidance. Crossbeam and guide beam are made of dark

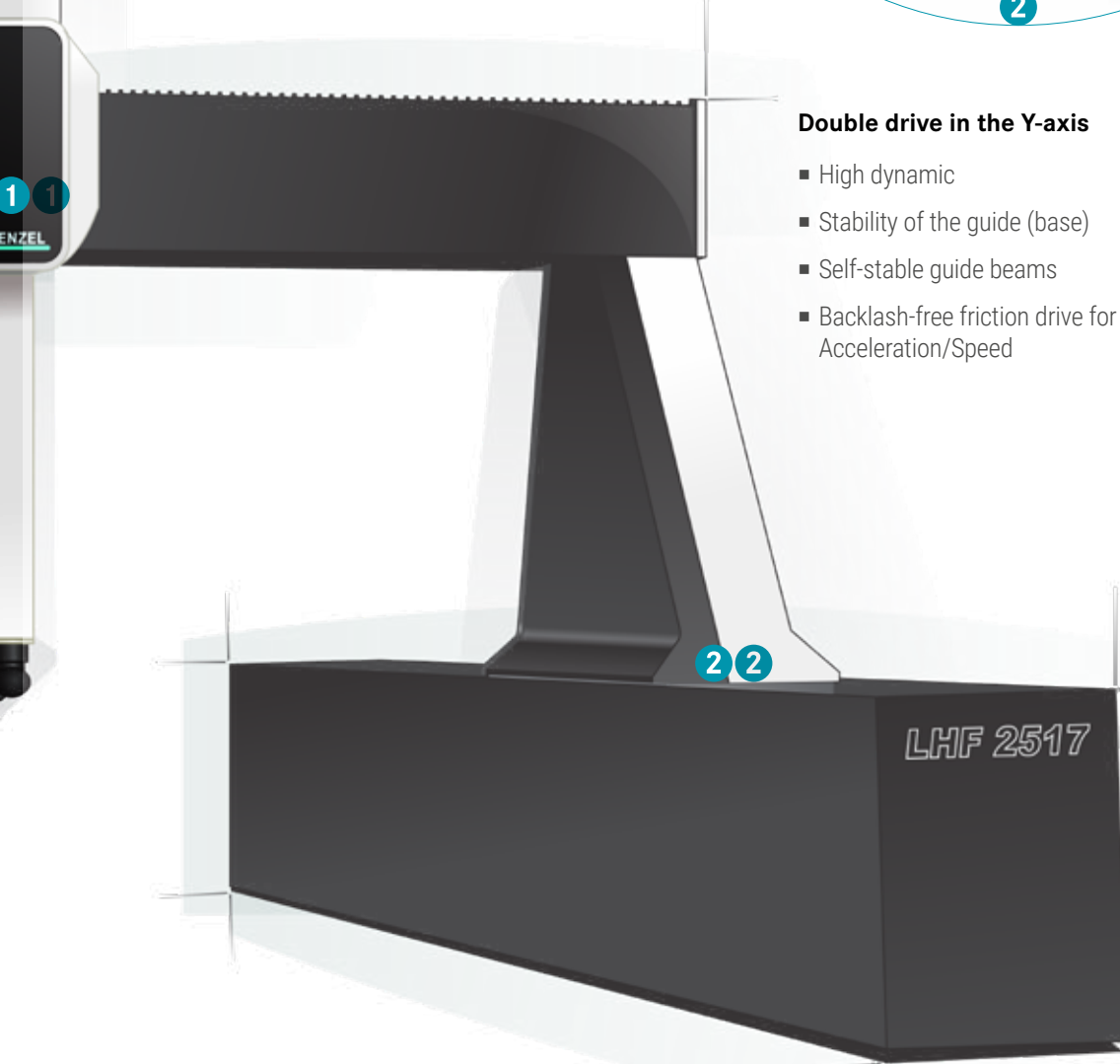
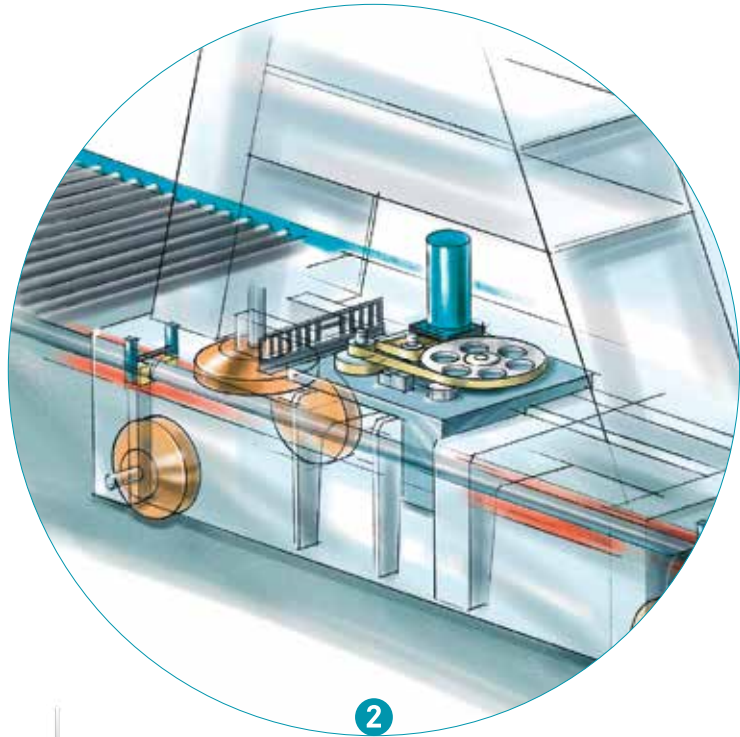
natural hard stone, so that all axes have the same thermal behaviour. As this type of device does not have a stable base plate, an inherently stable foundation is required. With a normal soil ratio, a passively damped foundation is sufficient. In case of strong vibrations, vibration damping elements in the foundation are necessary.



Symmetry everywhere

- Optimized air bearing with "broad base"
- Perfection in detail
- Service friendliness
- Thermal stability
- Optimized air bearing guidance in double T-shape





Double drive in the Y-axis

- High dynamic
- Stability of the guide (base)
- Self-stable guide beams
- Backlash-free friction drive for maximum Acceleration/Speed

INNOVATION MEETS TRADITION

The WENZEL Group is a market leader in innovative Metrology. WENZEL offers a comprehensive product portfolio in the fields of Coordinate Metrology, Computed Tomography and Optical High Speed Scanning. The technology of WENZEL is used in all industries, including the automotive sector, aeronautics, power generation and

medicine. WENZEL looks at today on an installed base of more than 10,000 machines worldwide. Subsidiaries and agencies in more than 50 countries support sales and provide after-sales service for our customers. The WENZEL Group today employs more than 600 people.



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