QualiMaster®





QualiMaster, optimised for maximum precision

QualiMaster measures the torque profile of barrels and evaluates all characteristic parameters. The robust rotary drive with adjustable sensor alignment fulfils the highest demands on concentricity. The torque sensor is equipped with a spring-loaded axle so that it couples reliably and gently to the barrel. A compensation element eliminates radial forces. As a result, the QualiMaster achieves precise and reproducible measurement results.

As table-top device or integrated into an automation solution

As a table-top device, the QualiMaster is designed to perform automated measurements with manual loading. The QualiMaster Automat has a centring and retaining function for maximal process reliability in automation.

Powerful PC software with WiCoTRACE

The WiCoTRACE parameter and result management facilitates programming and allows parallel operation of up to 4 measuring channels. The measurement result is displayed graphically and is evaluated according to the desired quality criteria.



QualiMaster®

- Measuring the torque profile of barrels and evaluating the characteristic parameters
- Fully automatic test sequence with good/bad evaluation
- Robust mechanical design for continuous operation
- Interchangeable torque sensors with automatic detection for 5, 10, 20, 50 or 100 mNm
- Spring-loaded sensor axis and monitoring of axial force for a gentle coupling to the barrel
- Cardanic compensation element for elimination of radial forces
- Fast changing of piece holder
- Fine-tuning for the alignement of the sensor axis in relation to the drive axis
- Integrated status indicators and LED lighting for the work area
- Powerful test parameter and result management using WiCoTRACE for Windows PC (up to 4 measuring channels)

	QualiMaster	QualiMaster Automat
Foot for table-top device	•	
Foot for anchoring with screws (4x M6)		•
Pneumatic centring and retaining function for reliable automatic loading		•
Interface for external control		•
WiCoTRACE	•	•

General

Operation	Computer software 2 push-buttons on the device
Display units	Windows PC
Interfaces	1x USB type A (device type B) 1x 9-pole D-sub 1x compressed air connection ¹ 6 bar
Dimensions QualiMaster QualiMaster Automat	140 x 390 x 251 mm (W x H x D) 110 x 385 x 236 mm (W x H x D)
Weight	7.5 kg
WiCoTRACE	yes

Measurement

Measurement principle	Torque and angle of rotation measurement with controlled measuring drive. Parameterisable coupling Programmable measuring sequence	
Measuring drive	Speed Resolution Concentricity	0.1 60 U/min ± 0.1° 0.05 mm
Vertical drive	Regulated speeds with mechanical and electronic overload protection.	

Accessories

Torque sensor	Accuracy	5, 10, 20, 50 and 100 mNm < 1% FS 0.01 mNm	
Compensation element	Compensates for position errors between test specimen and torque sensor of \pm 0.3 mm in the X and Y directions.		
Piece holder and spanner	Is built specifically for each calibre on a cost-effective standard concept, provided the corresponding compatibility with the mainspring barrel is given. With identifying laser labelling With identifying colour ring (on request)		

¹ QualiMaster Automat only