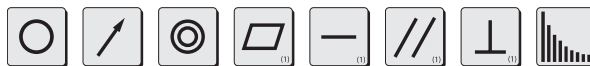
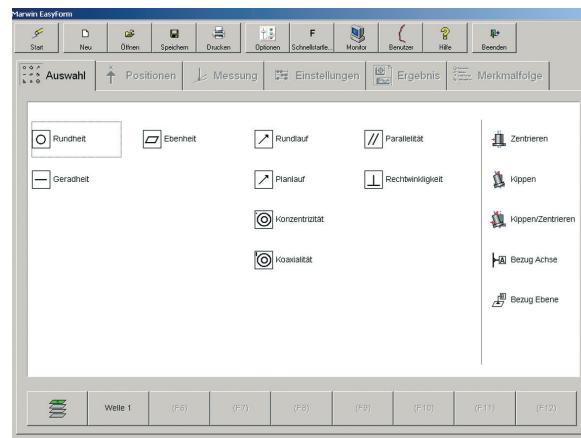


MarForm MMQ 100. Compact Form Measuring Machine

The MarForm MMQ 100 form tester is the ideal solution for simple yet precise measuring tasks.



- Fast and accurate measuring results
- Mechanical bearings for reliability
- Large measuring volume
- Low weight and compact size for greater mobility
- Fast, computer-aided workpiece alignment
- Centering and tilting knobs for coarse and fine adjustment
- Universal and reliable
- Workshop compatible, as no compressed air connection required
- Touchscreen design eliminates the need for a keyboard or mouse
- Digital encoders in Z and X transfer the measuring position directly to the software



Applications:

- Roundness
- Radial run-out
- Axial run-out
- Concentricity / Coaxiality
- Flatness (from a circular trace) (1)
- Straightness (from circular traces) (1)
- Parallelism (from circular traces) (1)
- Perpendicularity (from a circular trace) (1)
- Fourier analysis (waviness analysis)

Options:

- AdvancedForm
- Mahr QE QS-STAT data export

Versions

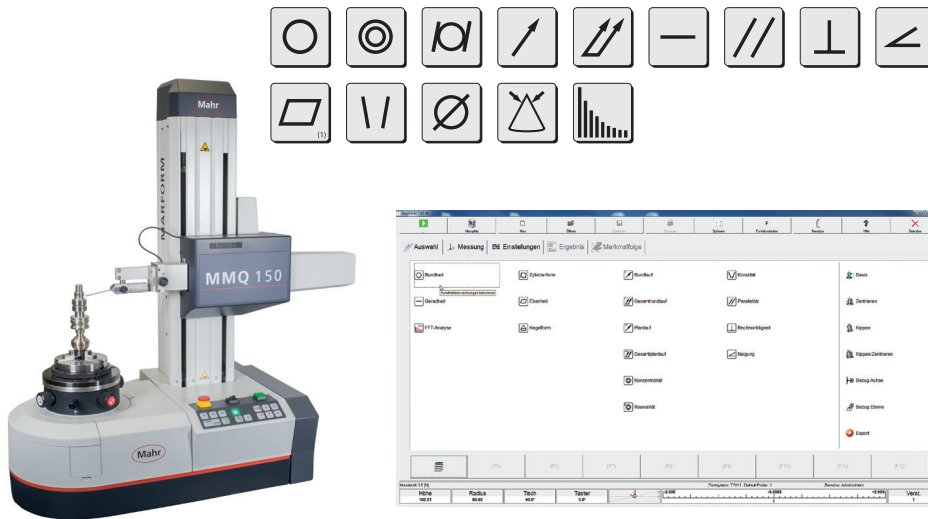
MMQ 100 with EasyForm is a powerful PC based evaluation system running under Windows® 7. It offers meaningful color reports with user friendly software for evaluating form and position tolerances (DIN ISO 1101): roundness, roundness within sections, radial runout, axial runout, concentricity, coaxiality, flatness⁽¹⁾, straightness⁽¹⁾, parallelism⁽¹⁾, perpendicularity⁽¹⁾.

The MMQ 100 measuring station with EasyForm comes as a complete system. The MMQ100 consists of the following:

- MarForm MMQ 100, with
 - Digital encoders in X/Z
 - T20W probe
- MarWin EasyForm software
- MarWin PC with WIN 7 operating system
- 24" TFT monitor
- Touch sensitive touch screen monitor (optional)

For more information, please visit our website: www.mahr.com

MarForm MMQ 150. Compact Form Measuring Machines



MarForm MMQ 150 - The entry into the world of cylindricity metrology, the MMQ 150 is an automatic measuring machine for the testing of form and location tolerances:

- Use in production or measuring room
- Fast and easy operation
- Measuring accuracy, optimized for cylindricity tolerances
- Reduces number of rejected parts, saves time, lowers production costs
- Maintenance-free, high-precision mechanical bearings

Applications:

- Roundness
- Concentricity / Coaxiality
- Cylindricity
- Radial run-out
- Axial run-out
- Total radial run-out (from circular traces) (1)
- Straightness
- Parallelism
- Perpendicularity (from a circular trace) (1)
- Angularity
- Flatness (from a circular trace) (1)
- Conicity
- Taper
- Fourier analysis (waviness analysis)

Options:

- Rim chuck \varnothing 100 mm
- Various additional clamps
- Optional commutator analysis
- Optional vibrational velocity analysis
- Upgrade to MarWin AdvancedForm
- 22" touch screen instead of 24" monitor
- Probe arms of various lengths and with various stylus ball geometries
- Various double probe arms
- Various calibration standards
- Various equipment tables, some with vibration compensation

Versions

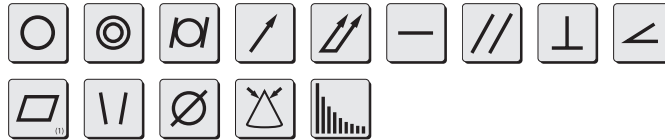
The MMQ 150 measuring station consists of the following components:

- MarForm MMQ 150 form tester
- T20W length measuring probe with probe arm
- EasyForm Software for measuring and operating
- MarWin PC, Windows 7 operating system
- 24" monitor
- Color inkjet printer
- Connecting cable

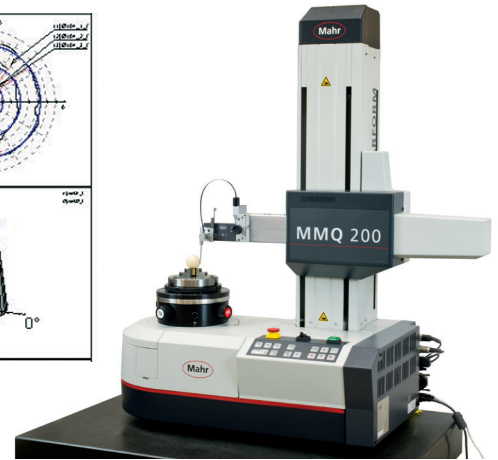
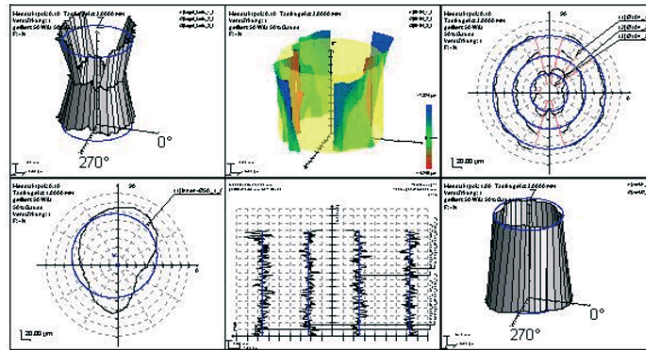
For more information, please visit our website: www.mahr.com

Marform MMQ 200. Compact Form Measuring Machine

The MMQ 200 is the compact form measuring machine for manufacturing workshops and inspection rooms.



- Proof of form and position deviations as per DIN/ISO 1101
- Fully automatic measuring sequences
- Precision roundness measuring axis (C)
- Motorized vertical measuring axis (Z)
- Motorized horizontal positioning axis (X)
- Manual centering and tilting table
- T20W manual length measuring probe or
- T7W motorized probe
- Ergonomic control panel, can also be used to start selected measuring programs (P1, P2, P3)



Applications:

- Roundness
- Concentricity / Coaxiality
- Cylindricity
- Radial run-out
- Axial run-out
- Total radial run-out (from circular traces) (1)
- Straightness
- Parallelism
- Perpendicularity (from a circular trace) (1)
- Angularity
- Flatness (from a circular trace) (1)
- Conicity
- Taper
- Fourier analysis (waviness analysis)

Options:

- 22" touchscreen TFT monitor instead of the 24" standard TFT
- Roughness measurement and evaluation with MMQ 200/T7W
- AdvancedForm software, diameter evaluation
- Various clamps
- Probe arms of various lengths and with various stylus ball geometries
- Various double probe arms
- Various calibration standards

Versions

The MarForm MMQ 200 is available in two versions: As a measuring station with the universal measuring probe T20W and as a measuring station with the motorized measuring probe T7W, which takes automation another step forward with its unique motorization. The MMQ 200 is operated with the EasyForm software. It is controlled by means of touchscreen technology, which also makes operation with the mouse exceptionally easy.

Form measuring station with T20W (order no. 9999485)

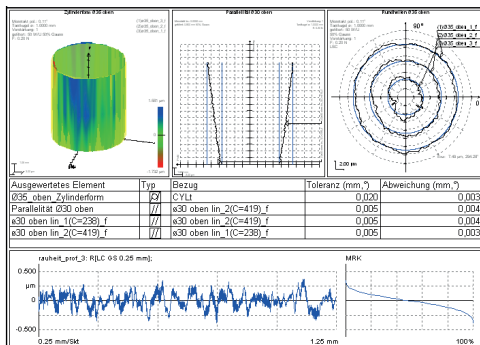
- MarForm MMQ 200 form tester
- T20W length measuring probe, manual, with probe arm
- EasyForm Software for measuring and operating
- Intel class PC, Windows 7 Ultimate 64 bit
- 24" TFT monitor
- Color inkjet printer with cable
- Rim chuck Ø 100 mm

Form measuring station with T7W (order no. 9999486)

- MarForm MMQ 200 form tester
- T7W length measuring probe with probe arm
- EasyForm Software for measuring and operating
- Intel class PC, Windows 7 Ultimate 64 bit
- 24" TFT monitor
- Color inkjet printer with cable
- Rim chuck Ø 100 mm

For more information, please visit our website: www.mahr.com

Marform MMQ 400. Universal Form Measuring Machine



MarForm MMQ 400 is suitable for universal use for extensive workpiece evaluation according to DIN ISO 1101.

High precision measuring axes in Z and X make every form measuring task possible. MarForm MMQ 400 is available in different versions for:

- High precision workpieces
- Unusually long workpieces
- Large and heavy workpieces
- Use in production or in the precision measuring room

Different modules are available with which the MarForm MMQ 400 can optimally be prepared for your requirements:

- Motorized or manual centering and tilting table
- Vertical axis (Z) with 900 mm, 500 mm or 350 mm measuring length
- Horizontal axis (X) with 180 mm or 280 mm measuring length and with digital linear scales in the X and Z axes; high probe position accuracy for measurements requiring high reproducibility.
- Manual or fully automatic probe with short measuring circuit, high linearity, low measuring force.
- Path control for the fast measuring of a nominal contour

Applications:

- Roundness
- Concentricity / Coaxiality
- Cylindricity
- Radial run-out
- Axial run-out
- Total run-out
- Straightness
- Parallelism
- Perpendicularity
- Angularity
- Flatness
- Conicity
- Diameter (optional)
- Taper
- Fourier analysis (waviness analysis)
- Cam profile (optional)

Options:

- Roughness measurement
- Switch between form probe with ruby ball and roughness probe PHT 6-350
- Piston testing with MarWin evaluation software
- Shaft twist testing and analysis with MarWin
- Cam profile testing
- Bar-to-bar variation analysis at commutators
- Contour measurement and evaluation
- Path control (MCPC)
- Shape evaluation
- Vibrational velocity analysis
- Dominant roundness waviness (MBN 10455)

For more information, please visit our website: www.mahr.com

Marform MMQ 400. Universal Form Measuring Machine

Versionen

The **MarForm MMQ 400-2** is available in five versions which are designed to meet your requirements and solve any of your measuring tasks.

- Motorized or manual centering and tilting table
- Vertical axis (Z) with measuring length of either 500 mm (19.67 in) or 900 mm (35.4 in) and horizontal axis (X) with measuring length of 280 mm (11.02 in) or
- Vertical axis (Z) with measuring length of 350 mm (13.78 in) and horizontal axis (X) with measuring length of 180 mm (7.09 in)
- With digital position decoders in the linear axes X and Z for best reproducibility of measurements.

Your **MarForm MMQ 400-2** is available as a semi-automated measuring station with manual centering and tilting table or as a fully automated measuring station which, in conjunction with a motorized centering and tilting table and T7W probe, is perfect for the high precision testing of your parts without any operator intervention.

The **T7W** probe is fitted with a motor-driven rotational axis. This makes it possible to move the probe arm in steps of less than one degree to the required contacting position. Measurements can be performed on the generating surfaces and end faces. As a zero position probe, the **T7W** can also switch automatically between internal and external measurements or between end face measurements from above and below without operator intervention. Fully automatic measurement processes on complex workpieces can be carried out without operator intervention too.

The probe arms of the **T7W** are exchangeable. Its motor-driven rotational axis enables the construction of "multi-point probe arm units" - i.e. probe arm units with a variety of contacting elements - making it possible to switch between different stylus ball geometries within a single measurement run.



For more information, please visit our website: www.mahr.com