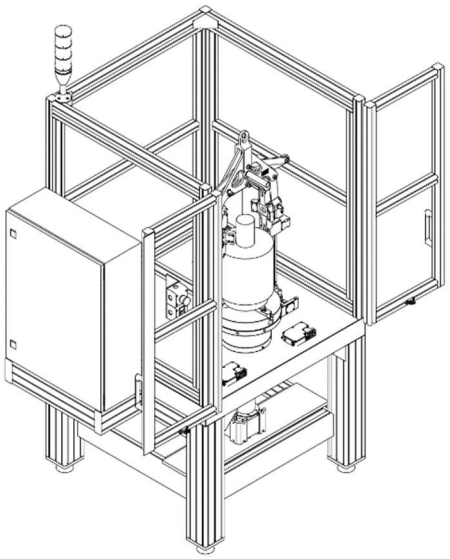
Rotorscan M-SCAN ROTORY

Compact Quality Control in Lab and Production!

- Standalone or combined in your magnetizing process
- Fully automated measuring algorithm
- For radial and axial rotors
- Use of high-quality Hall probes
- Full signal analysis
- Software with different modes
- Clear *O.K./not O.K.* output



Test Criteria:

- Local and global pole peak detection
- Flux density at pole center
- Pole width
- Harmonic analysis
- Position rotor to clamping
- Pole skewing
- Total Flux
- Pole comparison

Technical Data:

General	• Supply • Measurand • Measurement direction • Interfaces • Temperature range	230V, 50/60 Hz Flux density radial, axial USB +5 °C to +45 °C
Hall Probe	• Range • Probe type • DC resolution • DC accuracy • Frequency	±2 T full scale One- or Triaxial < 60 µT peak to peak at full range < ±0,25 % at full range DC – 2,5 kHz
Data acquisition	• Resolution • Ranges • Encoder	16-bit ±400 mT, ±800 mT, ±2 T 10.000 Samples/360°
Mechanical	• Movement direction • max. movement range • max. sample weight • Movement precision • Cycle time • min. measurement distance • Probe protection	radial, axial selectable* selectable* ±0,02 mm in both directions Typ.: 4 – 8 sec (rotor size dependent) 0,35 mm in measurement direction
Calibration		Magnetic zero chamber Homogeneous master magnet Specific machine alignment tools on demand
Documentation		Manual Calibration certificate and report EG-declaration of conformity

*) Our housings are available in three sizes. Special requirements can be taken into account.
The smallest servomotor arrangement turns cylindrical loads up to 3 kg.

Small:	Dimension: 350 x 350 mm;	Movement range: 70 x 70 mm;	Shaft size: 1 - 10 mm
Medium:	Dimension: 400 x 400 mm;	Movement range: 100 x 140 mm;	Shaft size: 1 - 16 mm
Large:	Dimension: 600 x 530 mm;	Movement range: 100 x 220 mm;	Shaft size: 1 - 80 mm

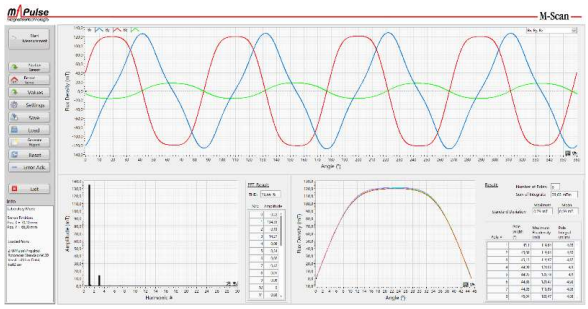
Software:

Our **M-SCAN ROTORY** comes with the standard **M-Scan** software. The software fully communicates with the measuring station. You can run the software from any PC. After installation of the **M-Scan** software, simply connect the machine via USB to your PC and start your measurement.

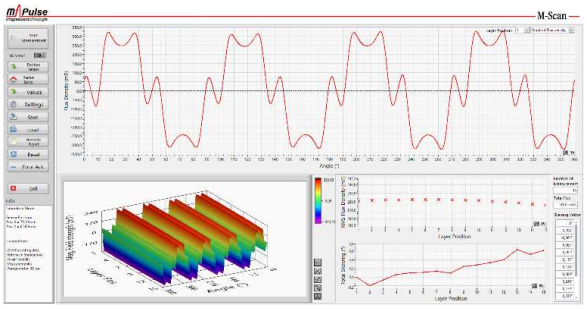
3 different settings:

- **Laboratory mode** for individual measurements,
- **Automatic mode** for fast *O.K./not O.K.* determination,
- **3D-Scan mode** for surface mapping.

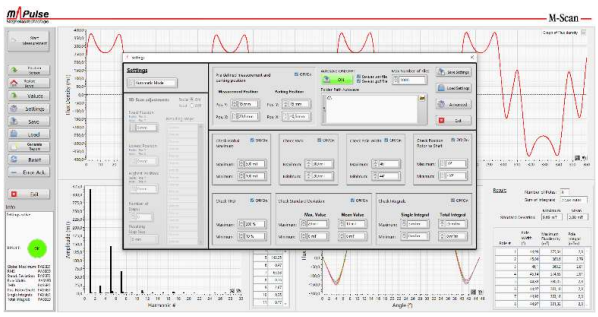
Analyze the field distribution at any measurement position.

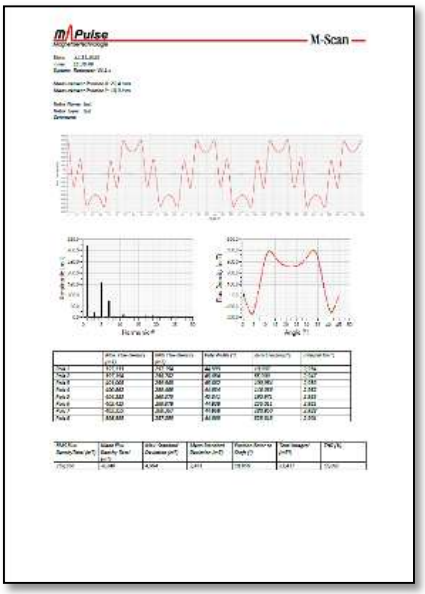


Map the field along the surface to get access to e.g., the rotor skewing.



Quickly check all determined values to ensure compliance with the specified target values. Save all measurements manually or automatically to a .csv file and generate a .pdf report of your measurement.





Integration:

Our **M-SCAN ROTORY** is built up in a modular way. This allows an easy integration of the system into your mass production line. You can directly combine the measurement with the magnetization handling in one work sequence. Due to this additional measurement step, a coordination between the magnetization and measuring process is possible with usually no increase in cycle time.

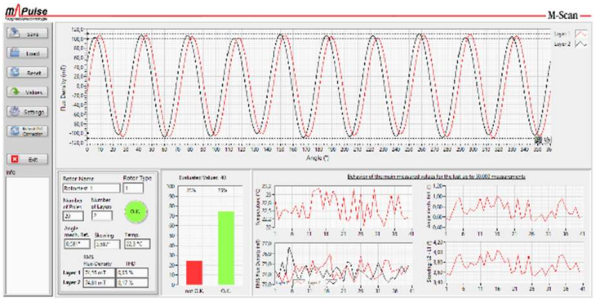
3 different ways to run:

- Completely controlled by the **PLC** (PROFINET or EtherCAT),
- via dip **switches**,
- by a graphical **user interface**.

This system is characterized by a **noise resistant measurement module** for DIN rail connection.

For rough environments, we offer **different Hall probe housings** which can be calibrated on-site.

The graphical user interface and the determined **quality values are tailored to your use** e. g., add a long-term observation of your specific quantities to the measurement analysis.



- M-Pulse realizes your magnetization as well as measurement handling.
- We have experiences in machine design for rotors up to 4m length.