ALL-IN-ONE ROTOR GAUGING DIMENSIONAL & MAGNETIC FIELD MEASUREMENT



OptoQuick, the Marposs line of flexible optical gauges for the complete dimensional measurement of shafts, has been enriched with a configuration dedicated to the dimensional and magnetic characterization of permanent magnet rotors.

This new approach helps saving workshop floor. Both R&D and production can use it, simplifying the measuring, helping to keep a lean but complete approach offering consistent 100% checks of rotors dimensions and expected performances.

The need to reduce the air gap as much as possible requires verifying the dimension and geometrical runout of the external surface of the stack with respect to the seat bearing. But at the same time, it is necessary to guarantee the perfect uniformity of the magnetic field during the rotation.

The mapping of the magnetic field of the rotor at the end of the line allows not only feedback on errors in the previous manufacturing operations but also prevents possible functional problems before the complete assembly of the motor.



Max measurable diameter	Ø 240 mm
Max rotor length	600 mm
Max rotor weight	60 Kg
Metrological performances	U95 Lengths: $(4+L[mm]/200) \mu m$ U95 Diameters: $(1.5+D[mm]/200) \mu m$
Magnetic measurement data	3 Axis Hall Sensor

ADVANTAGE

- Combine Dimensional and Magnetic inspection in a single product
- Small Footprint
- 100% check of the rotors with permanent magnets
- The same application can be used for data consistency in the R&D phase and production

APPLICATIONS

- Reverse engineering
- Performance evaluation against theoretical values
- R&D Testing of prototypes swiftly without retooling or external laboratories
- 100% check of permanent magnet rotors for production and performance consistency





