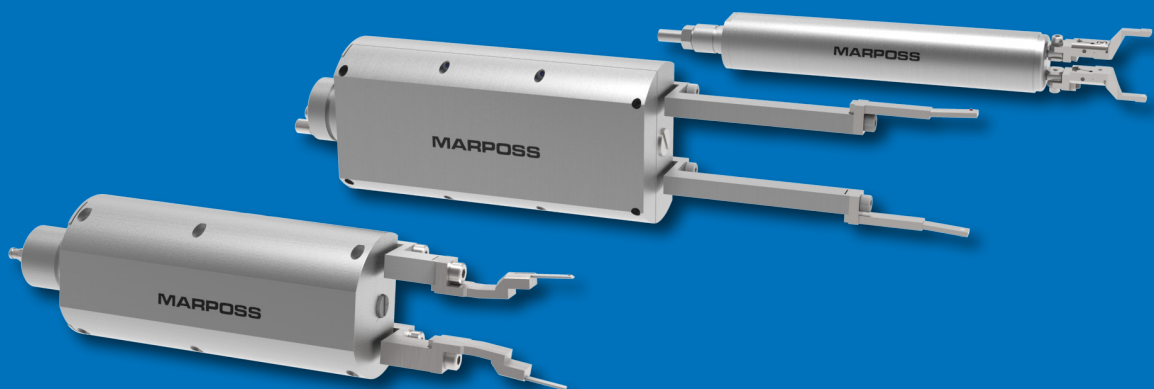


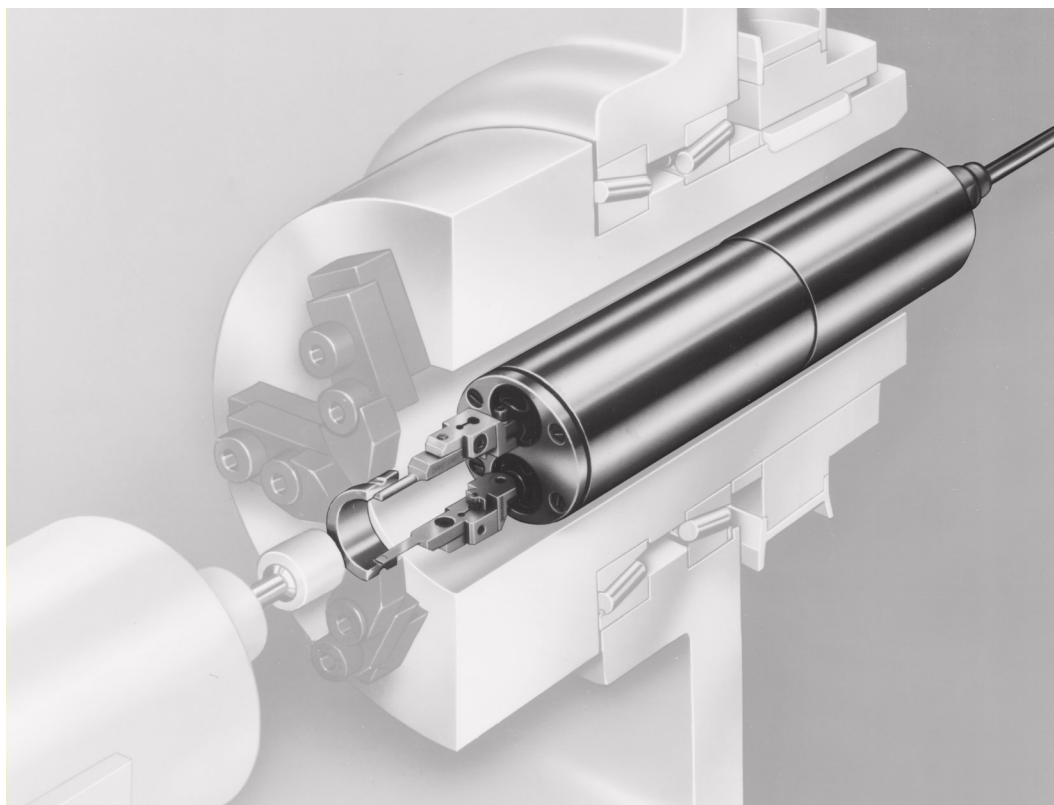
MARPOSS

THRU-SPINDLE
MEASUREMENT SOLUTION
WITH AUTOMATIC RETOOLING



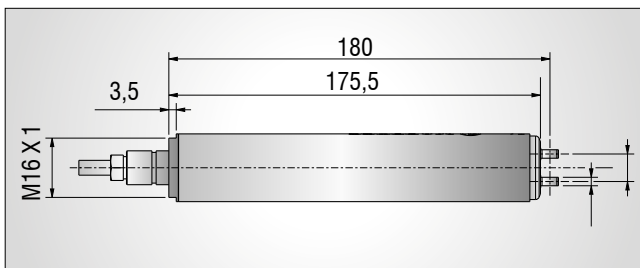
SYSTEM DESCRIPTION

- ▶ Leveraging extensive expertise in precision measurement for grinding machines, Marposs offers a comprehensive range of gauges designed for in-process control of internal diameters. The Thruvar series delivers state-of-the-art internal diameter control across wide variety of different grinding machine setups.
- ▶ Thruvar measuring heads are integrated within the work holding spindle providing easy access to the workpiece. One of the standout features is the ability to automatically retool the system without requiring any mechanical intervention from the operator. When switching workpiece types, manual retooling is no longer necessary as the zeroing procedure is performed by the gauge, driven by an electric motor. This functionality is managed by the P7 electronic amplifier, which communicates directly with the machine's logic, significantly reducing cycle time and enhancing process efficiency.
- ▶ Measurement values are acquired during the grinding cycle, with the gauge exchanging signals with the machine logic, optimizing overall machine performance.
- ▶ Each Thruvar head is crafted from high-strength materials engineered for superior thermal stability and resistance to wear, ensuring optimal reliability and precision in harsh grinding environments.
- ▶ The internal diameter measurement system consists of a spindle-mounted measuring head and an electronic amplifier. The figure shows the working principle: the Thruvar gauge positioned opposite the grinding wheel monitors the size of the workpiece during the grinding process. It transmits realtime measurement data to the amplifier unit which controls the grinding cycle and stops the process once the target dimension is achieved, minimizing the risk of producing defective parts.
- ▶ One of the standout features is the ability to automatically retool the system without requiring any mechanical intervention from the operator. When switching workpiece types, manual retooling is no longer necessary, as the zeroing procedure is performed by the gauge, driven by an electric motor. This functionality is managed by the P7 electronic amplifier, which communicates directly with the machine's logic, significantly reducing cycle time and enhancing process efficiency.





MINITHRUVAR 5

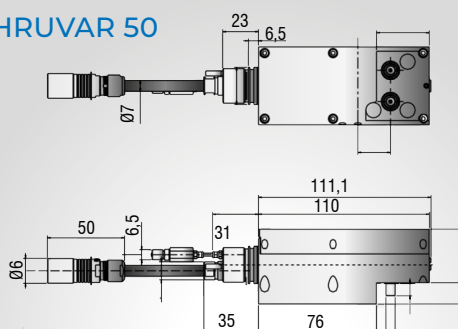


TECHNICAL SPECIFICATIONS

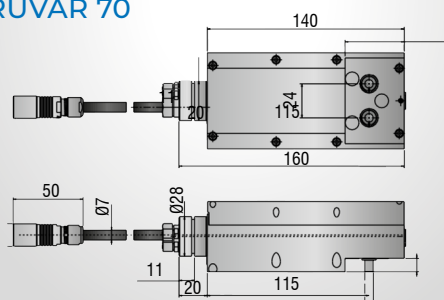
ZEROING	Mechanical guides
PIECE CHANGE	Automatic
MEASUREMENT RANGE	Ø 5÷55 mm
REPEATABILITY	0,5 µm

THRUVAR 50 - THRUVAR 70

THRUVAR 50



THRUVAR 70



TECHNICAL SPECIFICATIONS

ZEROING	Automatic
PIECE CHANGE	Automatic
MEASUREMENT RANGE	Ø 09 ÷ 160 mm - Thruvar 50 Ø 10 ÷ 180 mm - Thruvar 70
REPEATABILITY	0,5 µm

SUMMARY TABLE

MODEL	Ø BODY [mm]	ZEROING	PIECE CHANGE	MEASUREMENT RANGE Ø [mm]	REPEATABILITY [µm]	MAX OSCILLATION [1/min]	INTERRUPTED SURFACE
MINITHRUVAR 5	32	Automatic	Automatic	5÷55	0,5	800	Yes
THRUVAR 50	50	Automatic	Automatic	9÷160	0,5	No	No
THRUVAR 70	68	Automatic	Automatic	10÷180	0,5	No	No



MARPOSS

marposs.com



D6I06900G0 Edition 10/2025 - Specifications are subject to modifications.
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