MARPOSS

M62
SOLUTIONS
FOR GEAR
QUALITY
INSPECTION













PRODUCT DESCRIPTION

Marposs M62 products offer a wide range of technology and solutions for inspecting dimensional and functional parameters of cylindrical gears & shafts.

M62 solutions are used in all the production steps of a gear, from initial hobbing to final teeth grinding.

GEAR ADD-ON SOFTWARE

M62 equipment can be connected to Marposs E9066 Industrial PC with Gear SW Package developed to perform the gear analysis according to DIN 3960.

GEAR TEETH INSPECTION

M62 OBD / OBR can support the production quality control with a wide range of retoolability. These applications can be manually or automatically actuated depending on the production process and the required level of parts inspections.

M62 Double Flank and M62 Single Flank gauges are based on the rolling action of a master gear meshing with the part under inspection. They verify functional parameters of a gear in zero backlash condition (DF) or in real working condition (SF), according to DIN 3960 through a fast and automatic cycle.

The M62 Gimbal measuring group is an optional feature of the above roll checker applications and is able to inspect Helix and Taper variation error.

NVH G-EAR application is the evolution of the grinding process analysis. This solution performs the single flank Transmission Error and the NVH (Noise-Vibration-Harshness) analysis.



M62 MEASURING EQUIPMENTS			
MODEL	SENSOR	MEASURING CONTACT	MAIN MEASUREMENT
M62 OBR	Digital Transducer	Ball Contact	OBR
M62 OBD	Digital Transducers	Ball Contacts	OBD
M62 DF	Digital Transducer + Micro	Rolling Master Gear	Fr"
M62 SF	Angular Encoders	Rolling Master Gear	TE analysis
M62 DF/SF + Gimbal	Digital Transducers	Rolling Master Gear	Helix & Taper Errors
NVH G-EAR	Angular Encoders Torsional Accelerometer	Rolling Master Gear	TE & NVH analysis



GEAR TEETH



▶ M62 OBR

A simple, contact bench system to control gear teeth parameters with a wide range of retoolability.

Testing condition

Static, with multiple measuring steps.

Measurements list

OBR, Root Radius, Tip Radius, Runout & Concentricity.

Sensor

Digital transducer.



▶ M62 OBD

Automatic or manual bench system to control gear teeth using calibrated ball contacts or baldes with defined geometry.

Testing condition

Static, with multiple measuring steps.

Measurements list

OBD, Root Diameter & Tip Diameter.

Sensor

Digital transducer.



M62 DF/SF + Gimbal

Automatic bench system for traditional gear roller checks & additional lead and teeth taper inspection with integrated gimbal rolling master group.

Testing condition

Dynamic part rotation at 30 rpm.

Measurements list

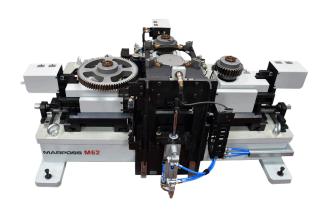
Helix Variation Error & Taper Variation Error.

Sensor

Digital transducers.



INSPECTION



M62 Double Flank

Standard or fully customized bench system for dynamic inspection of gears and shafts to check functional parameters in double flank rolling action.

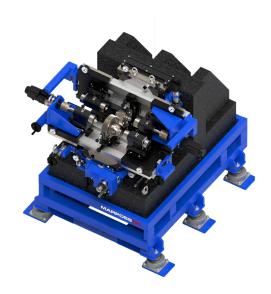
Testing condition

Dynamic part rotation at 30 rpm.

Measurements list

Fr". Fi". fi". Aa". Nick & OBD* (MdK).

Digital transducer & syncronous micro.



M62 Single Flank Automatic or semi-automatic bench system for transmimssion error inspection in single flank working. condition of gears and shafts.

Testing condition

Dynamic part rotation at 30 rpm.

Measurements list

TE, Fis', fi', fis, fl', Basklash, OBD* (MdK), Nick, Circularity, fe (Concentricity), FFT analysis.

Angular Encoders to collect angular displacement (rad).



NVHG-EAR

Measuring Machine with solid and robust structure, capable to investigate vibro-accoustical behaviour of single gear components.

Testing condition

Dynamic part rotation at high speed (400 - 2000 rpm) and high torque condition (up to 25 Nm).

Measurements list

TE & NVH Spectrum analysis.

Torsional Accelaration Sensor to collect angular acceleration (rad/s²).



For a full list of address locations, please consult the Marposs official website

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