

OPTOQUICK

PRECISION
MEASURING UNIT
FOR THE SHOP FLOOR



MARPOSS

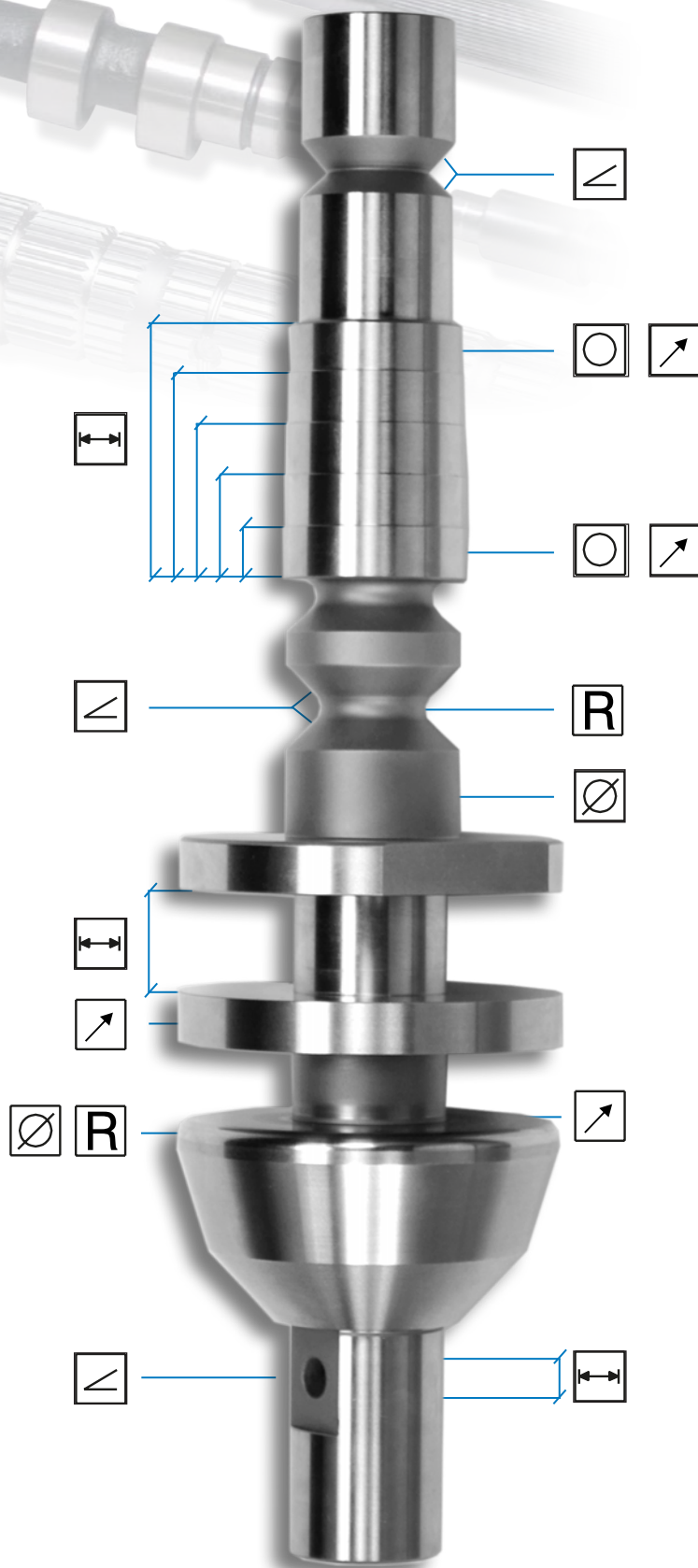
HIGH PRECISION GAUGING IN THE PRODUCTION PROCESS

- ✓ EV ROTOR SHAFTS
- ✓ TRANSMISSION SHAFTS
- ✓ CAM SHAFTS
- ✓ CRANK SHAFTS

TYPICAL MEASURING TASKS

Dimensional, position, form measurements

- | | |
|------------------|--------------------|
| ✓ Diameter | ✓ Coaxiality |
| ✓ Length | ✓ Straightness |
| ✓ Radius | ✓ Roundness |
| ✓ Chamfer | ✓ Flatness |
| ✓ Angle | ✓ Symmetry |
| ✓ Radial run-out | ✓ Parallelism |
| ✓ Axial run-out | ✓ Perpendicularity |
| ✓ Concentricity | ✓ Cam profile |
| ✓ Cylindricity | ✓ Stroke and index |



Optoquick is the Marposs product line dedicated to precision measurement of workpieces in the manufacturing environment. Optoquick delivers a superior balance between measurement performance, speed and flexibility. It gives an unrivalled measurement performance in terms of accuracy, repeatability and stability.



FAST & PRECISE

For complete part quality validation in a few seconds

FLEXIBLE

Able to gauge multiple parts with a single system

OPTICAL & CONTACT

No matter what the specific measuring challenge is!

EASY TO USE

For efficient and fast measuring tasks

INDUSTRIAL

Able to operate on the shop floor with the best performance

HIGH PRECISION GAUGING IN THE PRODUCTION ENVIRONMENT

Leading edge core technologies with full MARPOSS design. Optoquick delivers a superior balance between measurement performance, speed and flexibility.

It is the perfect solution for the manufacturing environment. It gives an unrivalled measurement performance in terms of accuracy, repeatability and stability.

It has been tested and proven in the hardest environmental conditions.

Should large temperature changes be encountered, dynamic temperature compensation may also be incorporated.

EASY TO USE

Optoquick is fast and easy to use and requires no extensive training.

Part loading is ergonomically developed giving an open and clear loading area with no obstructions. Operator safety is guaranteed by using optical safety barriers.

The graphical interface is carefully designed to give clear measurement results that show any part non-conformances on a clear visual part layout. This reduces operator training and increases productivity.

SIMPLY FAST

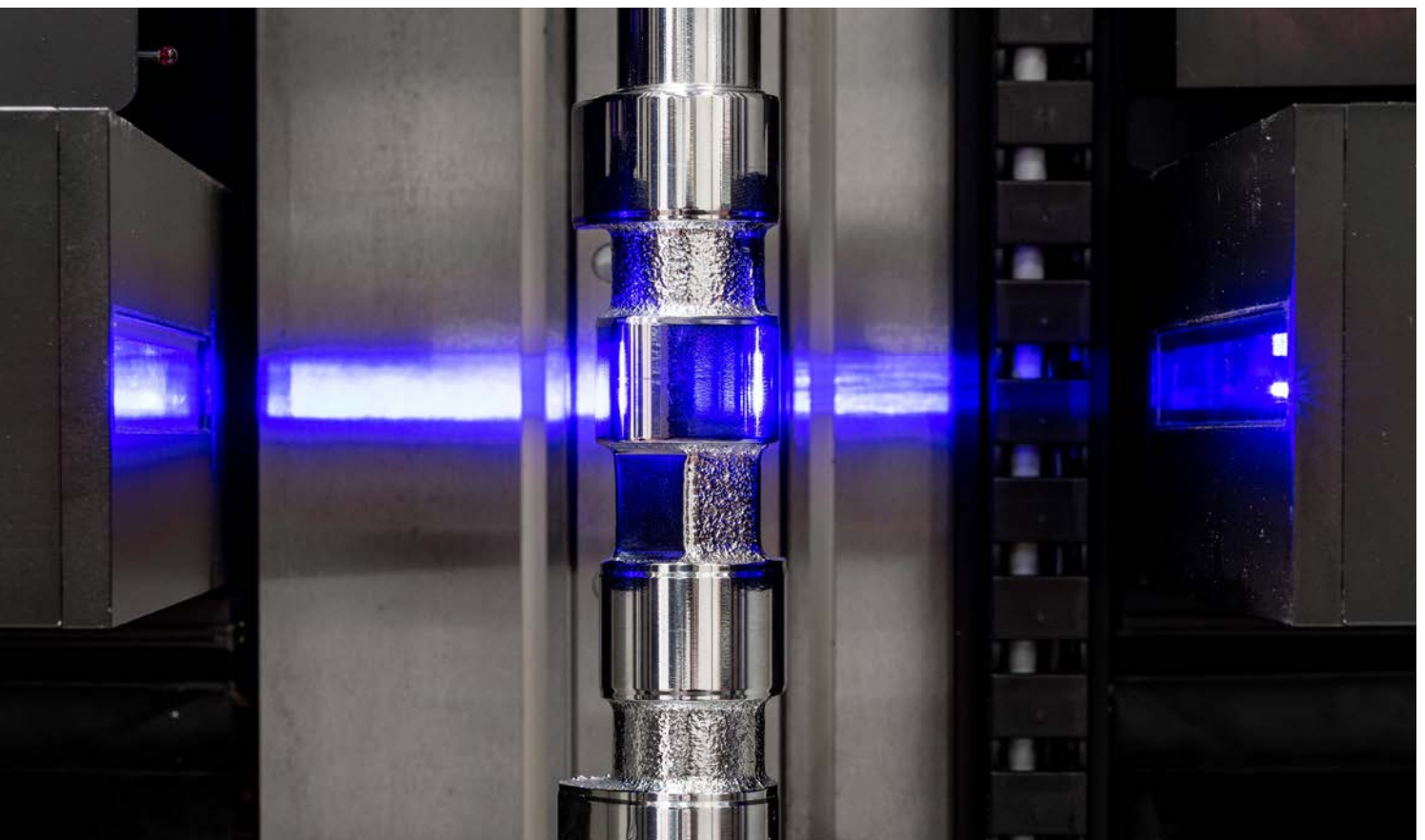
Optoquick is designed to perform comprehensive quality checks on parts within a few seconds.

Image based technology assists in providing a short cycle time. Parts are measured while in motion and using intelligent image processing Optoquick can inspect several different features on the part at the same time.

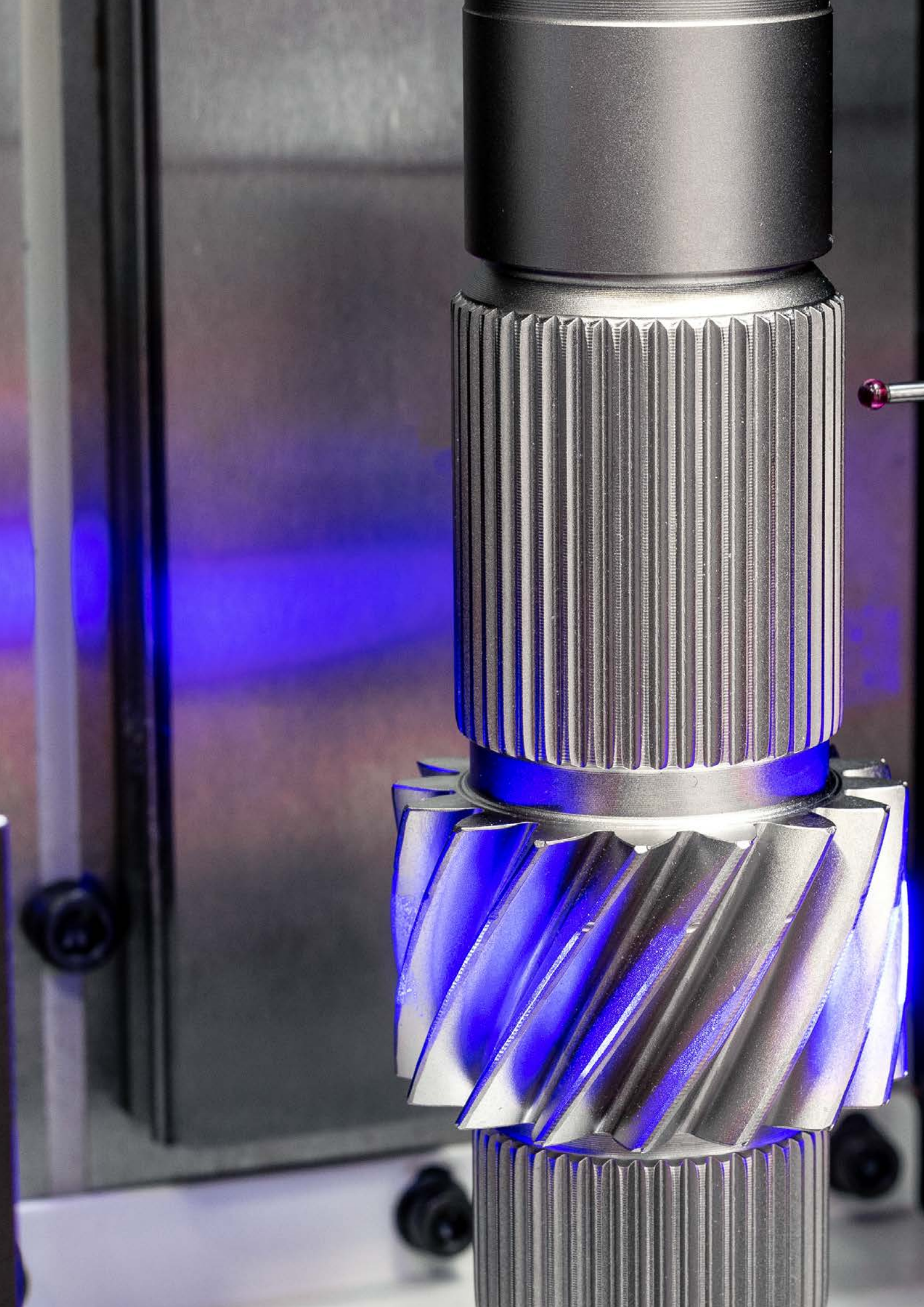
Fast quality checks with Optoquick results in higher productivity and optimizes production capacity.

SUPERIOR EFFICIENCY IN OPERATIONS

Optoquick helps operators with fast and accurate quality checks directly alongside machine tools. This reduces the “work-in-progress” by eliminating the time wasted for transporting parts to dedicated inspection areas.

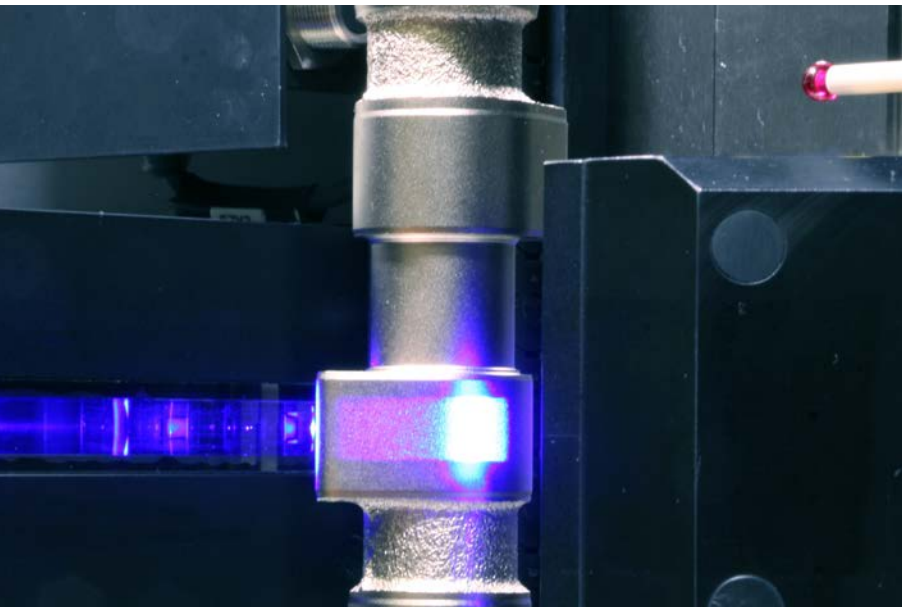








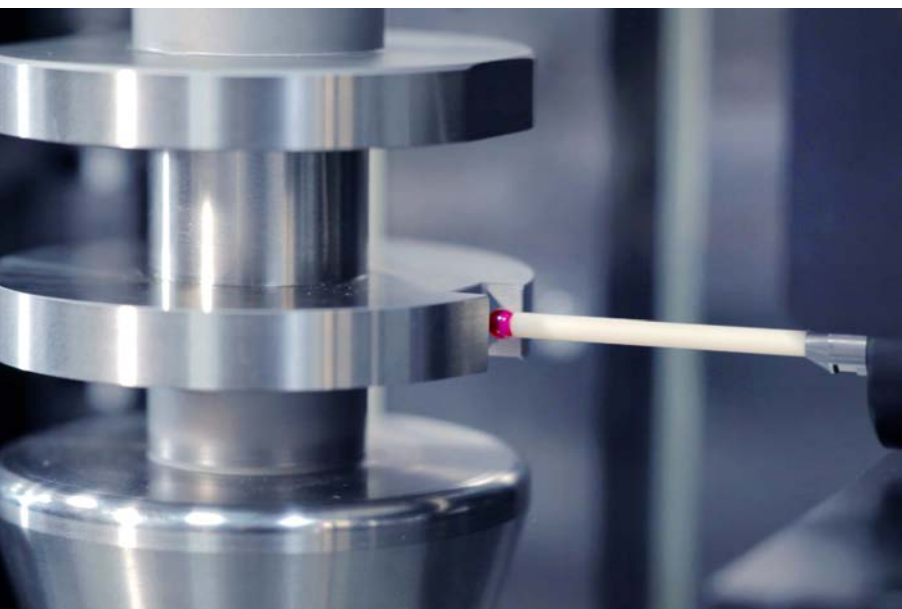
MULTI-SENSOR.
READY FOR ANY
MEASUREMENT
CHALLENGE



OPTICAL SNAP

The Optoquick system utilises non-contact optical scanning to provide rapid and accurate measurements. These may be taken in static mode or dynamic mode using part rotation. Industrial grade optical sensors and the MARPOSS digital signal processing technology make accurate and reliable measurements.

Measurements that are challenging on other measurement systems such as eccentric parts, pin bearings on crankshafts or measurements at structural junctions may also be taken reliably.



G65 – CONTACT GAUGE

The G65 is the perfect complement for non-visible features that require inspection. Typically these are:

- Key slots, depth and angle
- Holes
- Flat surfaces
- Axial run-outs



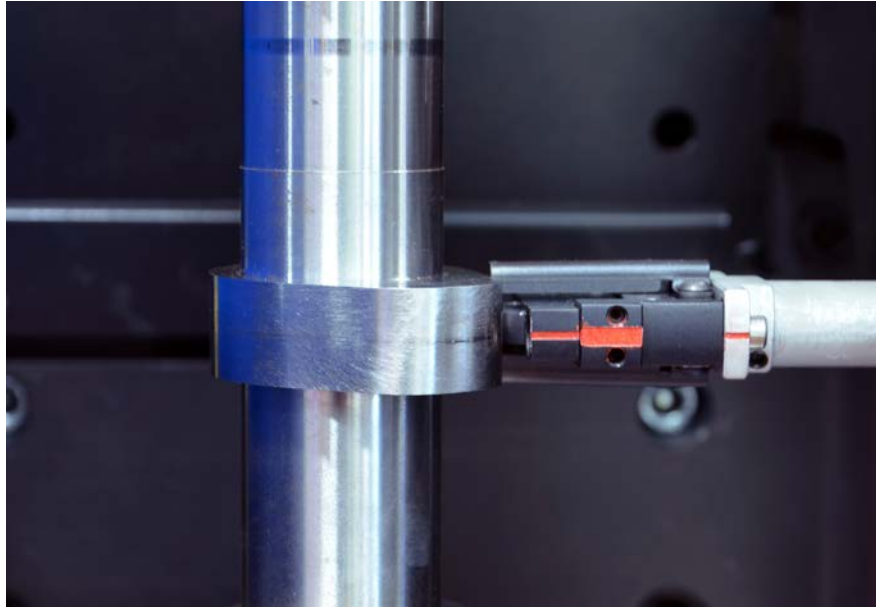
3D LASER SENSOR

OptoQuick can optionally be configured with a 3D laser head, offering special advantages in validation of transmission shafts.

Thanks to the 3D laser head, splined surfaces can be controlled precisely in a matter of a second. OBR, ODB and Fr are typical measurements executed by the laser head of the OptoQuick.

CONTACT CAM FOLLOWER

The MARPOSS cam follower is the innovative solution for the complex task of measuring cam profile during high-speed rotation. It is capable of gauging all types of cam profiles including those with concave sections.



CONTACT AXIAL PROBE

By the intelligent integration of an axial contact probe the capabilities of the Optoquick are further enhanced. This allows the Optoquick to carry out the additional functions below:

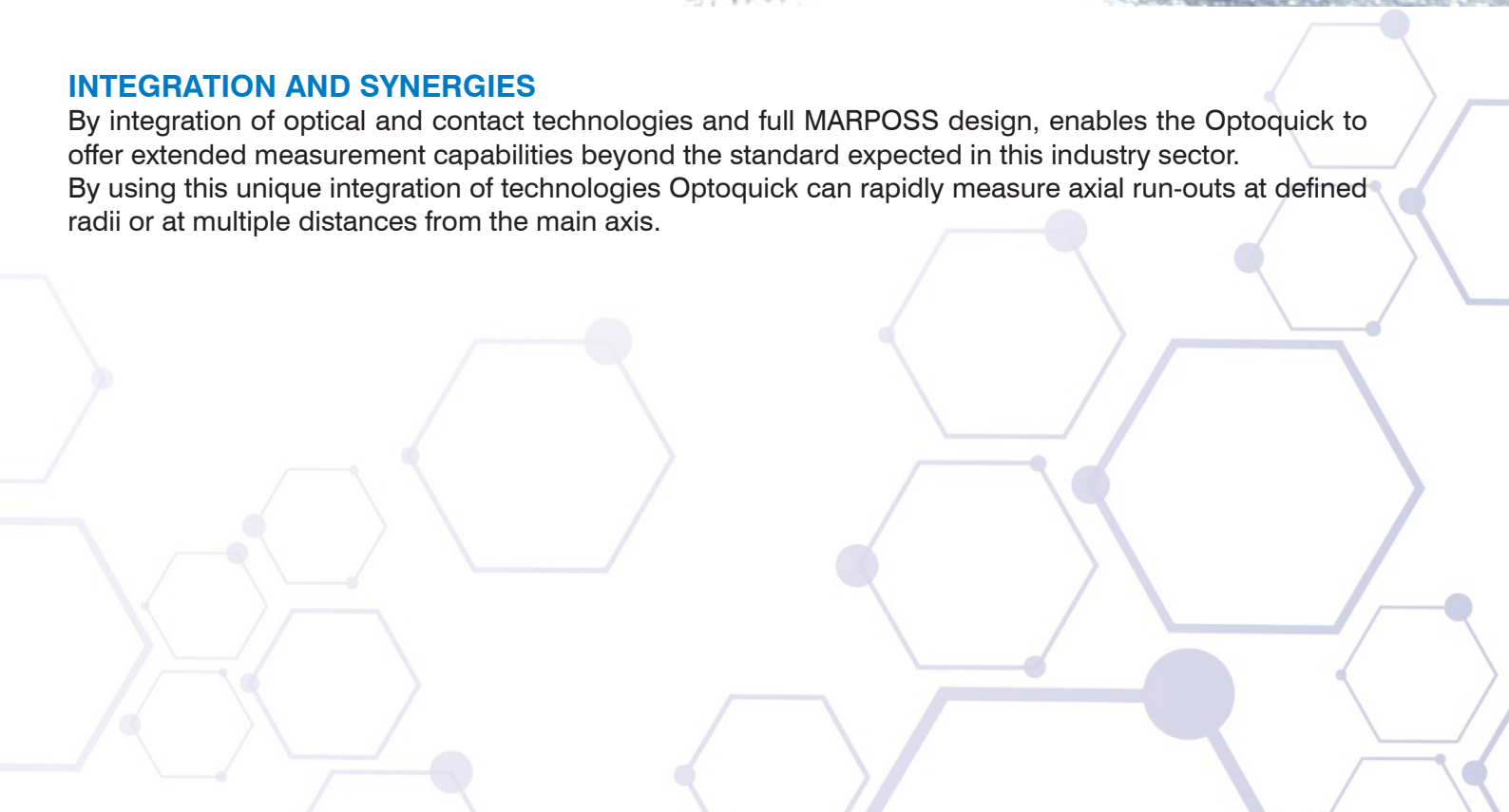
- Axial run-out with tight tolerances
- Distances at user defined radii
- Measurements across the center axis
- Measurements outside of the optical measuring zone



INTEGRATION AND SYNERGIES

By integration of optical and contact technologies and full MARPOSS design, enables the Optoquick to offer extended measurement capabilities beyond the standard expected in this industry sector.

By using this unique integration of technologies Optoquick can rapidly measure axial run-outs at defined radii or at multiple distances from the main axis.





WHY OPTOQUICK?

1

REAL-TIME
FLEXIBILITY
MAKES
COST-EFFECTIVENESS

One single Optoquick can be used to control several machines, manufacturing different parts, in the same production area.

Optoquick switches in real-time to a new control plan with a simple operator selection or barcode scanning.

2

PROTECTS
YOUR INVESTMENT
OVER TIME

Planning a fully flexible and reconfigurable strategy for your production?

Need to adapt an existing production line to manufacture new parts or maybe just a new version of an existing part is to be produced?

This is not a problem for the Optoquick. Add an additional configuration file to the Optoquick. This flexibility makes Optoquick "future-proof".



3

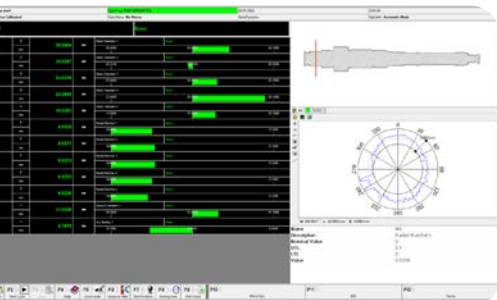
MAKES OPERATIONS MORE EFFICIENT

Optoquick reduces time lost for part validation during the production cycle. Not only is Optoquick fast, but as it is installed directly alongside the production machines, eliminating costly part transportation. By using Optoquick, productivity is increased and peaks in production are managed. It is for this reason the return-on-investment is within months.

4

IMPROVES YOUR LEVEL OF QUALITY IN MANUFACTURING

Since Optoquick is alongside machine tools, part validation and verification may be on a more frequent basis. Optoquick therefore gives improved quality assurance and reduces rejects and wasted production.



SIMPLE AND FAST OPERATIONS

- Automatic measurement routines with One-click cycle activation
- Open loading area for comfortable operator access
- Optical safety barriers protection
- Automatic ambient temperature compensation
- Part temperature compensation option
- Embedded LED on tailstock for real-time part loading error feedback

INTUITIVE MEASUREMENT VALIDATION

- Measurement reporting is easy to understand
- Identification of out-of-tolerance measurements is clear via the graphic display
- Real part image display for simple root-cause analysis

FLEXIBLE AND SMART

- Preloaded, multi part programs for inspecting different parts with a single system
- Barcoded part program: scan a barcode to activate the new part program
- Comfortable tailstock re-positioning, tape measure indication for fast location positioning
- Wide range of part clamping accessories which are easily interchangeable in the field. Different models of centers, chucks and active transport systems are available on Optoquick matching most typical requirements



OPTOQUICK
M600

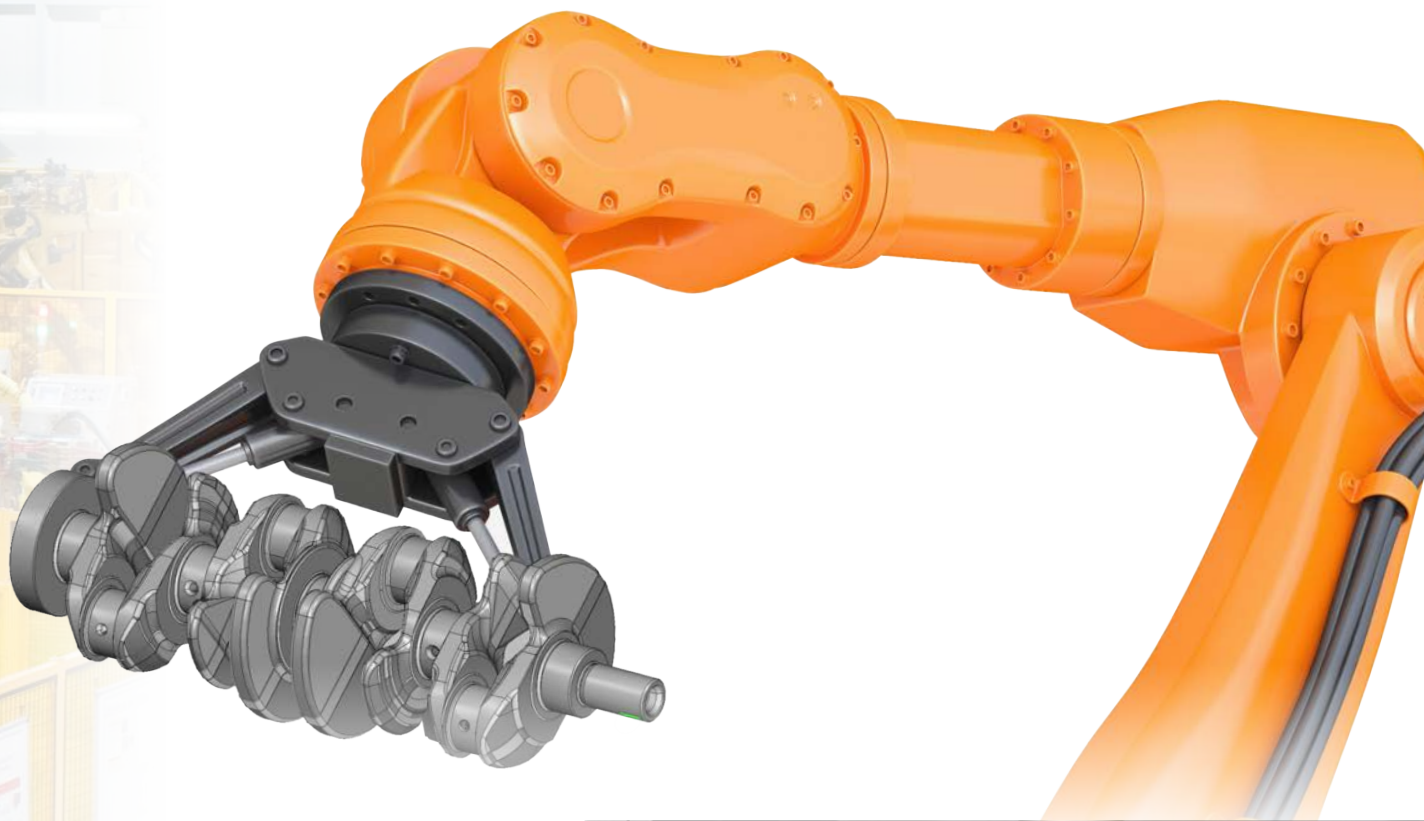
MARPOSS



MARPOSS

OPTOQUICK
L600





HEAVY-DUTY WORKPIECES

- Optoquick L is the perfect choice for large workpieces. These are possible to be loaded into the Optoquick both in manual or automatic mode
- The tailstock is motorized, making part clamping and retooling completely automatic

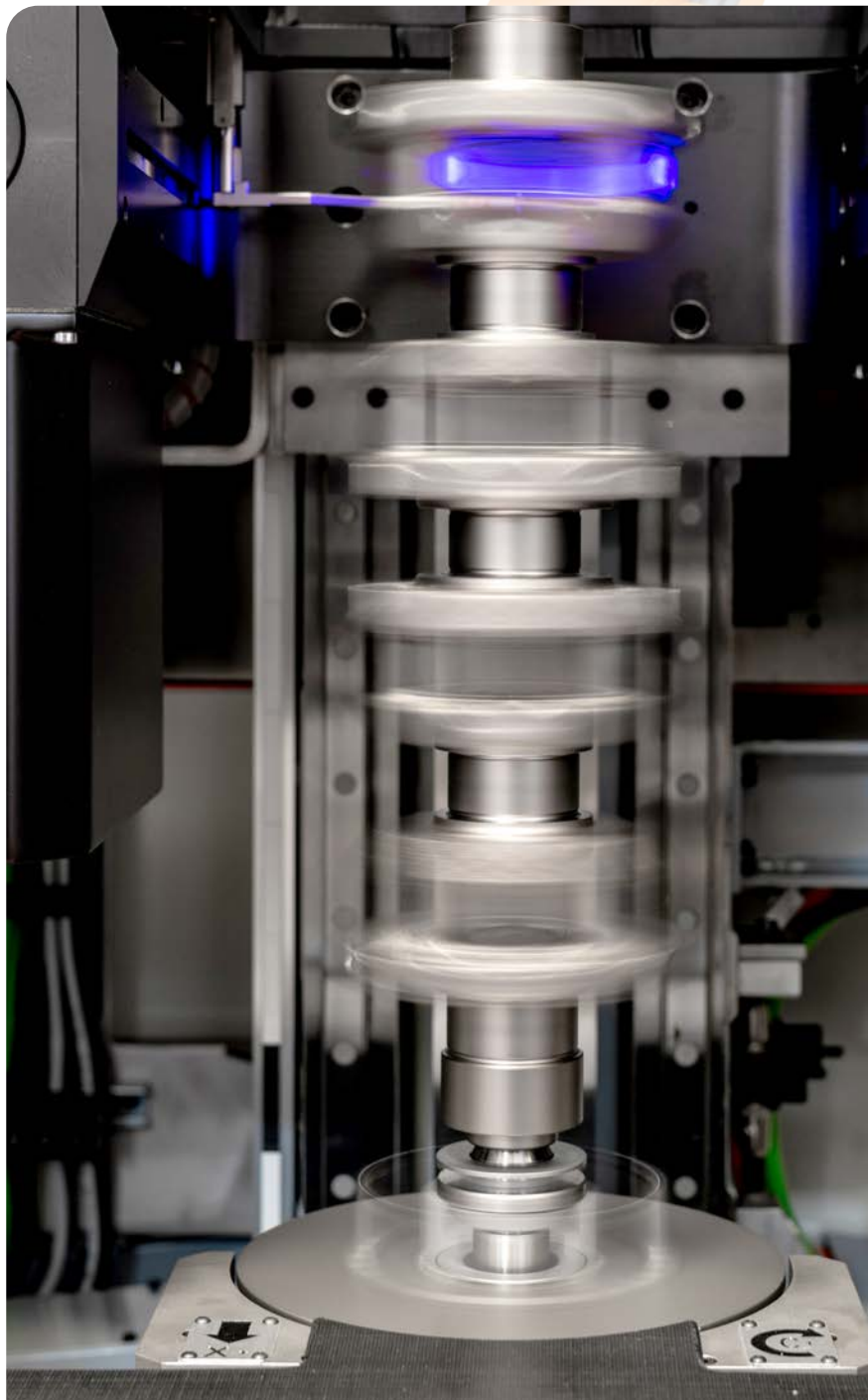
REAL-TIME CONFIGURATION CHANGE

- The smart control interface allows line managers to completely interact with the Optoquick with a simple set of commands
- Optoquick supports multiple part programs so it can measure different parts subsequently through a simple command. It can switch from one to another program in a matter of seconds therefore removing any latency in the setup for new production batches

CONSISTENT PRECISION ALL OVER THE SUPER-WIDE RANGE

Optoquick L features an extra-large measuring range accommodating parts up to 1200 mm of length and 200 mm diameter.

Optoquick leads to consistent gauging reliability in demanding conditions. It guarantees the maximum measuring precision over the full measuring range giving a perfect quality check even on large and heavy parts.

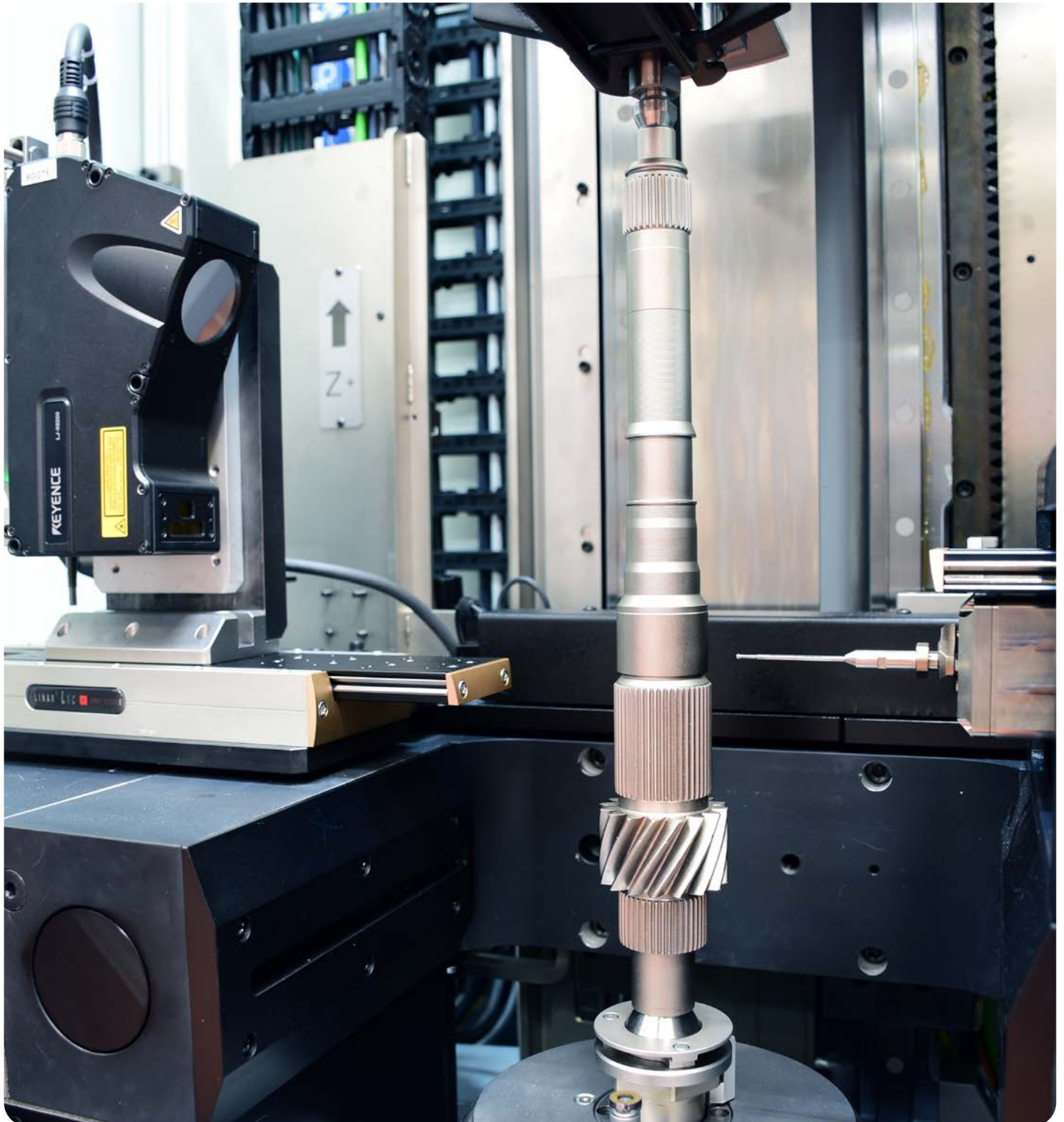


New!

Optoquick is the world-first solution in its category combining a so large number of different measurement technologies, optical and contact.

The latest step of the OptoQuick evolution is the integration of a 3D laser head, extending the capability of the product to extensively measure transmission shafts with a very short cycle time. Thanks to the extended multi-sensor capability, the Optoquick positions itself as an all-in-one flexible solution, since it can deliver a premium level of measuring functionality and makes possible measurements that are not resolved by traditional measurement products.

The 3D laser option can be optionally integrated together with the 3D touch measuring sensor and its automatic stylus changing system.



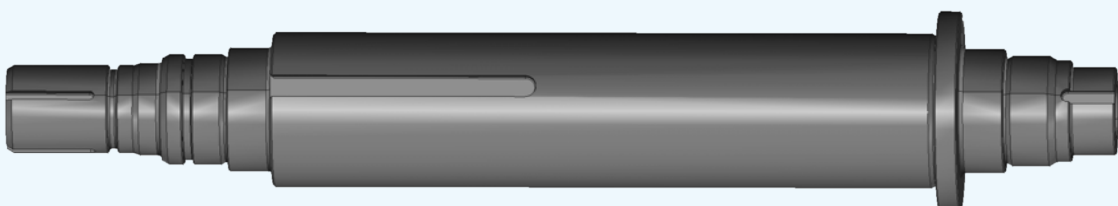
New!

The new Optoquick is a perfect solution for extensive measurements on transmission shafts, where spline and gears features such as OBR, ODB, pitch run-out - are to be measured, together with any traditional measurement of the solid bearing portions.



ELECTRIC VEHICLES APPLICATIONS

The new 3D sensors, optical and contact together with the stylus changing system elevate the OptoQuick at the benchmark from measurement of Electric Vehicles rotor shaft in the shop-floor environment







OPTOQUICK MODELS



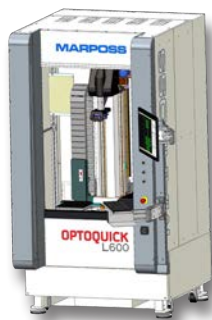
M600

M900

TYPICAL PARTS	 <p>GEAR SHAFTS CAM SHAFTS DRIVE SHAFTS</p>	
MEASURING RANGE [MAX PART DIMENSION] LENGTH (mm) DIAMETER (mm)	600 [600] 0-60 [140], 6-126 [140]	900 [900] 0-60 [140] 6-126 [140]
MAX PART WEIGHT (Kg)	15	
MEASURING UNCERTAINTY ¹ LENGTHS DIAMETERS	U95 (4+L[mm])/200) μ m U95 (1.5+D[mm])/200) μ m	
MANUAL LOADING OPTION	YES	
AUTOMATIC LOADING OPTION	-	
MULTI-AXIS CONTACT PROBE (G65) OPTION		
3D LASER OPTION FOR SPLINES	-	
CONTACT PROBE FOR AXIAL MEASURES OPTION	-	
CAM FOLLOWER OPTION	-	
PART TEMPERATURE COMPENSATION OPTION		
BARCODE READER OPTION		
MACHINE DIMENSIONS (WxDxH mm)	750 x 1010 x 1518	750 x 1010 x 2018
MACHINE WEIGHT (Kg)	500	600
POWER SUPPLY	120/230V - 50/60Hz - 1.5 kVA, Fuse 16A	

(1) Calculated following DIN 1319 part 3 / ISO norms on a reference master.

Ambient temperature at 20°C \pm 1K with a maximum variation of 0.5K/h. Part temperature 20°C \pm 1K.



L600



L900



XL1200



GEAR SHAFTS
CAM SHAFTS
DRIVE SHAFTS
CRANK SHAFTS

600 [600]

0-60 [140], 0-120[140], 0-180[200]

30

900 [900]

0-60 [140], 0-120[140], 0-180[200]

30

1200 [1200]

0-180[200], 0-240[250]

60

U95 (4+L[mm]/200) μ m
U95 (1.5+D[mm]/200) μ m

MAN. & ELECTRICAL TAILSTOCK OPT (L60)

ELECTRICAL TAILSTOCK, OPERATOR CONTROLLED (L90 AND XL120)

ELECTRICAL TAILSTOCK, ROBOT CONTROLLED INTERFACE



1200 x 1304 x 2304

1200 x 1304 x 2604

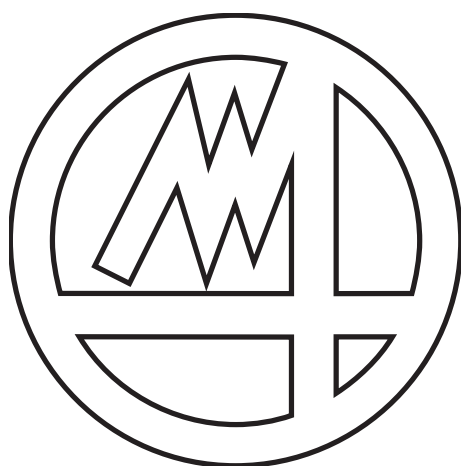
1300 x 1354 x 2754

1400

1500

1550

120/230V - 50/60Hz - 2 kVA, Fuse 16A



MARPOSS

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

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