





Contour measurement in the air gap

Ideas for your success

# Gap measurement in mechanical engineering

## Contouring in the air gap



Machines and systems often have functional gaps, which must be measured or adjusted in their width. As a rule, the measurement in the nip core is necessary because the smallest distance determines the functionality. With the newly developed gapMaster® instrument, mechanic feeler gauges can be replaced and gap contours measured between 0.2 mm - 10 mm digitally.

In contrast to optical and capacitive gap gauges, the gapMaster® is independent of material and surface. Thus any material pairing can be measured in gap width.

The application is possible in many areas, from air gap measurement of engines and generators through hybrid drives as well as gearboxes to nozzles of all kinds.

## Gap depth up to 500 mm

#### Mobile and flexible

The tactile sensor has very low measuring forces and is put into the gap. A holding function indicates the minimum value when the sensor is pushed through. With the recording function it is possible to determine gap contours. Long sensors are used for the complete metal sheet package measurement regarding full performance of electrical machines.

Various sensor shapes allow measurements and quantitative statements for production as well as for service in test places which are difficult to access.







Measuring up to 500 mm depth



Precise measurement of sheet metal packages

#### **Electronics**

- Test frequency to 100 Hz
- Up to 4 channels
- Display depending on model 7-10" LCD touch
- USB and WIFI interface

#### Sensors

- Measuring limits 0.2 mm to over 10 mm
- Measuring depths 2 mm to over 500 mm
- Accuracy depend on sensor up to ± 0.03 mm
- Resolution up to 0.003 mm depending on sensor
- Touch line or point
- Measuring force depending on sensor 0.5 2 N
- Material independence
- Surface independence

#### Software

- Operating system depending on device model Android® and Windows®
- Measuring software with online/order measurement
- Multi language support
- Static and dynamic measurement
- Inspection plan and order management
- Calibration
- Data format XML, CSV and PDF

# Precision at every Measurement

## Other Applications

- ✓ Gap measurement and wear detection on rotary machines such as turbines, mixers, pumps and
- Exterior and interior measurement of vehicles
- Measurement of roller spacings
- ✓ Gap measurement in metal sheet and plastic production as well as in construction
- ✓ Measurement of nozzle and matrix gaps
- Gap measurement in aircraft mounting
- Gaps between worpiece and gauge

## **Facilitie**

### Wind power generators

### Machinery

Hybrid drives, motors, gearboxes



Precise column for effective drives

## MFP - Competence in gap

#### **Patents**

MFP owns patents, approvals and property rights for various products and processes.

### **Developments**

The invention of the gapMaster® gap measuring device has led to many developments in this field. With over 30 years of experience in measurement technology, MFP supports its customers in gap measurement with optimized sensors, tuned software for Android® and Windows® as well as the latest electronics.

### Team and Partners

We and our national and international partners are happy to pass on to you our extensive know-how in gap measurement technology, which we have gathered in almost all industries since the development of gapMaster®.

## Have we aroused your interest?

Ask for more information. Our team is at your disposal for further information.

## MFP Messtechnik und Fertigungstechnologie GmbH

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