

**Many  
measuring  
points  
quickly  
documented**

Ideas for your success

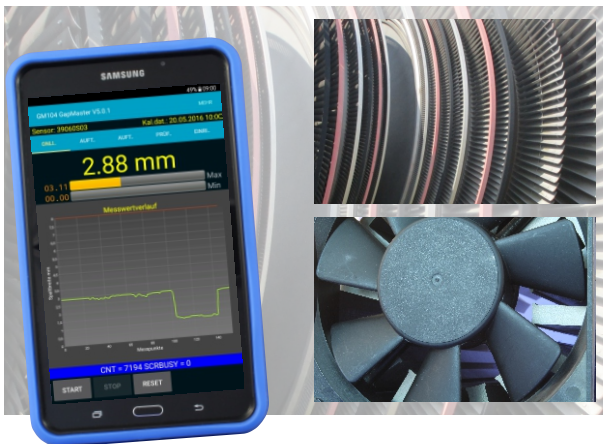
## Measurement of turbine and pump gaps

### Digital measurement of all gaps

With the newly developed gapMaster®, gaps of various shapes, such as between the blade and the housing, can be measured electronically. Various measuring probes enable measurement of gap widths between 0.2 mm and 10 mm or more.

In contrast to optical and capacitive gap gauges, the gapMaster® is independent of the material and surface. Thus material pairings of various types can be measured in gaps.

The gapMaster® is used in rotating machines such as gas, steam and water turbines, aircraft turbines as well as pumps, mixers, fans and compressors.



Electronic measurement processing

## mobile - small - handy

### Interchangeable sensors

Compared to mechanical measuring instruments such as feeler gauges and spies, the digital electronics enable a fast recording of measured values even in places where access is difficult.

The small and handy mobile device can be used flexibly in production as well as in service.

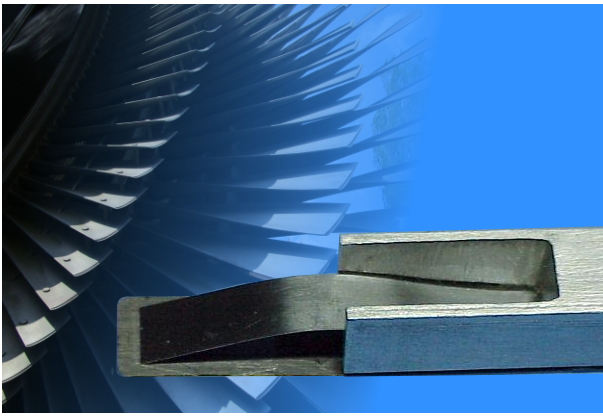
Test plans with feature groups and tolerance display as well as comprehensive and automatic documentation save time and avoid errors.

Specially developed sensors with different measuring ranges, shapes and lengths enable the contour measurement and the measurement of gaps in hidden positions.

Minimum value measurements for axial as well as radial measurements provide quantitative information for the production.



Gap measurement on pumps



Stop sensor for accurate positioning

### 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  $\pm 0.03$  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 and distance measurement during machine and plant assembling
- ✓ Measurement of roller spacings
- ✓ Gap measurement in metal sheet and plastic production
- ✓ Air gap measurement on motors and generators
- ✓ Measurement of nozzle and matrix gaps
- ✓ Gap measurement in aircraft and car mounting
- ✓ Gaps between workpiece and gauge

**Turbines**  
**Fans**  
**Compressors**  
**Pumps**  
**Mixers**

Power stations, airplanes  
Air conditioning  
Compressors, turbines  
Chemistry, foodstuffs  
Rubbers, liquids, solids



Worldwide application possibilities

## 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.

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