

## Customer focused development

- spindles + slides
- plan-tables + instruments
- machines
- micro cutting technology



## Form testing RME

### Performance features

- Universal and efficient measuring device for production lines, workshops and instrument rooms.
- Calculation and analysis of circularity, concentricity and cylindricity of all standard form sizes
- Tolerance specification option and monitoring
- CNC-capable programming
- Automatic storage of measurements
- Extensive range of accessories



### Efficiency measure with easy handling!

In developing its RME model ess Mikromechanik GmbH has succeeded in designing a new, cost-effective and yet powerful form testing instrument.

ess Mikromechanik GmbH boasts a tradition of outstanding achievement. One such achievement is the rotary air bearing developed by ess Mikromechanik GmbH and made from 98% high-strength stainless steel which forms the core of the measuring instrument.

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## Technical data

**Formtester**  
**RME 075/100/130**  
 ess Mikromechanik GmbH

<b>Sensor</b>	inductive Sensor
<b>Measuring length</b>	360 °
<b>Measuring bearing</b>	air bearing
<b>Measuring speed</b>	6 – 15 rpm
<b>Power supply</b>	100 V – 240 Volt, 50 – 60 Hz, 120 VA
<b>Working temperature</b>	+10°C till +40°C, relative air humidity max. 80 %
<b>Stock temperature</b>	-10 till +50°C



## Formtester

Basic Unit	RME 075	RME 100	RME 130
Runout accuracy	0,05 µm	0,05 µm	0,05 µm
Planess accuracy	0,03 µm	0,03 µm	0,03 µm
Wobble error	2,0 µrad	2,0 µrad	2,0 µrad
<b>Sensor</b>	<b>Inductive</b>	<b>Inductive</b>	<b>Inductive</b>
Tesa	GT 21	GT 21	GT 21
<b>Z-Column</b>	<b>VMS 003</b>	<b>VMS 003</b>	<b>VMS 003</b>
	motorized	motorized	motorized
	not measuring	not measuring	not measuring
	measuring	measuring	measuring

The radial and axial truth of the air bearing has been optimized by special production engineering techniques exclusive to ess Mikromechanik GmbH and, depending on the accuracy class, the radial runout is less than 0,05 µm and the axial runout comes in at under 0,03 µm.

Another notable master stroke of engineering apart from the rotary air bearing is the drive coupling which works without lateral force. Its development was based strictly on the principle of avoiding inaccuracies due to variations in compression, tension

and temperature, and the result is a piece of equipment of phenomenal strength and rigidity.

Based on the infinitesimally proven air bearing technology applied by ess Mikromechanik GmbH, this form testing instrument is ideally suited to rapid and accurate diagnosis of geometrical errors, mainly on rotationally symmetric parts.

The instrument has been developed according to the “plug and test” principle, and the Profilscan analysis software is a real treat.

Tailored to the requirements of the market, this software enables precise and consistent part measurements to be repeated within a few minutes without any particularly in-depth knowledge.

In addition to the various facilities for analyzing circularity, concentricity and cylindricity, it is also possible to generate a fully automatic program sequence using a CNC generator.

**Efficiency measure**

**with easy handling!**