

Product information **BASALT-S2**



## Pin-on-Disc Tribometer

Tribology in a nutshell.

## BASALT-S2 – Tribology in a nutshell

Tribology is the science and engineering of interacting material surfaces in relative motion. A Tribometer is an instrument for characterizing friction, wear, scratch resistance and influences of certain lubrication and envi-

ronmental conditions to the tribological system behavior.

**BASALT-S2** is a research instrument for a high-resolution view in local and temporal dimensions of tribomechanics.



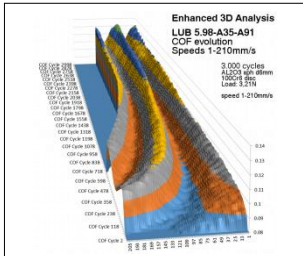
### Precision measurement

- Nominal force (load) up to 10 N
- Dynamic force control
- Tangential force (friction)  $\pm 10$  N
- Temperature and humidity
- Force resolution 1 mN



### Relative motion

- Dynamic rotation and oscillation
- Low vertical and radial run-out
- Track speed 1 mm/s ... 1.3 m/s
- Easy clamping of specimen discs up to  $\varnothing 60$  mm



### Advanced Data Mining

- Data acquisition rate 1 kHz
- Measure data streaming to PC
- Jitter < 1  $\mu$ s
- Advanced recording rules
- Exportable files for analysis

Benefits

Reproducible  
Measurement

Enhanced  
Information Depth

Intuitive  
Operation

Exceptional  
Cost-Benefit-Ratio

Fast Service





Certified Quality  
ISO 9001:2008  
„Made in Germany“

## Application

- Metals, ceramics and glass
- Polymers and elastomers
- Textile, wood and paper
- Composite materials
- Thin films (CVD, PVD, optical ...)
- Coatings (i.e. lacquer, PTFE ...)
- Mineral oils and greases
- Biogenic and solid lubricants
- Surface-Microstructures
- Semiconductors and Electronics (passivation, metallization, MEMS)
- Medicine technologies and pharmacy
- Consumer Goods
- and many more ...



## Users

<p><b>Small and medium-sized enterprise</b></p> <p>Highest precision Compact device</p> <p>Always one step ahead.</p>		<p><b>Contract research lab</b></p> <p>Automate recurring tasks Fast return on invest</p> <p>Always one step ahead.</p>	
<p><b>Practical Knowhow Transfer</b></p> <p>Fast familiarization Robust design</p>		<p><b>Advanced Data Mining</b></p> <p>Large data handling and enhanced</p>	
<p><b>School and University</b></p>		<p><b>Industrial research lab</b></p>	

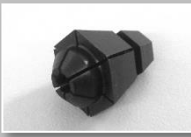

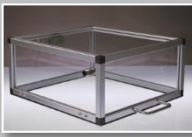
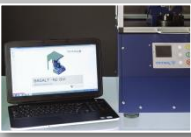

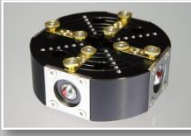
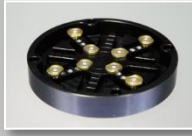
## Portfolio



### Delivery includes

- Device with rotation table
- 2D-force-sensor  $F_N 10\text{ N}$  |  $F_T 10\text{ N}$
- 1x  $\text{Ø}6\text{ mm}$  ball holder
- 1x Disc holder ( $\text{Ø}20 - 50\text{ mm}$ )
- Software Installer with e-Manual (USB)
- Start Specimen Set (Steel Ball/ Steel Disc)
- Cables and printed manual

### Optional Accessories

Specimen holders		Environment	Data Acquisition	Calibration
				
<p><b>Ball holders</b> <math>\text{Ø}3-10\text{mm}</math> 1/8" – 1/2"</p>	<p><b>Pin holders</b> <math>\text{Ø}3-10\text{mm}</math> 1/8" – 1/2"</p>	<p><b>Insulation Cover</b> Temp. /Humidity - Sensors &amp; Gas Inlets</p>	<p><b>Workstations</b> Desktop/Notebook Pre-installed Software</p>	<p><b>Calibration Tool</b> Calibrating 2D-force-sensor with weights-set</p>
				
<p><b>Face chuck</b> for irregular specimen shapes</p>	<p><b>Lubrication cup</b> for lubricated experiments</p>			






## Application consultancy and sales

TETRA GmbH  
 Dipl.-Ing. Udo Haupt  
[sales@tetra-ilmenau.de](mailto:sales@tetra-ilmenau.de)  
 Tel: +49 (3677) 8659-11



## International partners for consultancy, sales and service

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Dr. Dirk Drees	Leon Zhu	James P. Hepp
<a href="mailto:office@falex.eu">office@falex.eu</a>	<a href="mailto:china@winwintec.com">china@winwintec.com</a>	<a href="mailto:heppjp@compass-instruments.com">heppjp@compass-instruments.com</a>
+32 16 407965 tel +32 16 405128 fax	+ 86 10 6266 7685 tel + 86 10 6266 7685 fax	+1 630 556 4835 tel +1 630 556 3679 fax
Falex Tribology  Wingepark 23B B-3110 Rotselaar  Belgium	WinWinTec Beijing Office Room 220, Block 2B Gui Gu Liang Cheng, No.1 Nong Da South Road Haidian District Beijing 100084 China	Compass Instruments  1020 Airpark Drive Sugar Grove, IL 60554  United States of America

## Contact

TETRA Gesellschaft für Sensorik, Robotik  
 und Automation mbH

[info@tetra-ilmenau.de](mailto:info@tetra-ilmenau.de)

Gewerbepark „Am Wald“ 4

98693 Ilmenau - Germany

Tel: +49 (3677) 8659-0, [www.tetra-ilmenau.de](http://www.tetra-ilmenau.de)



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