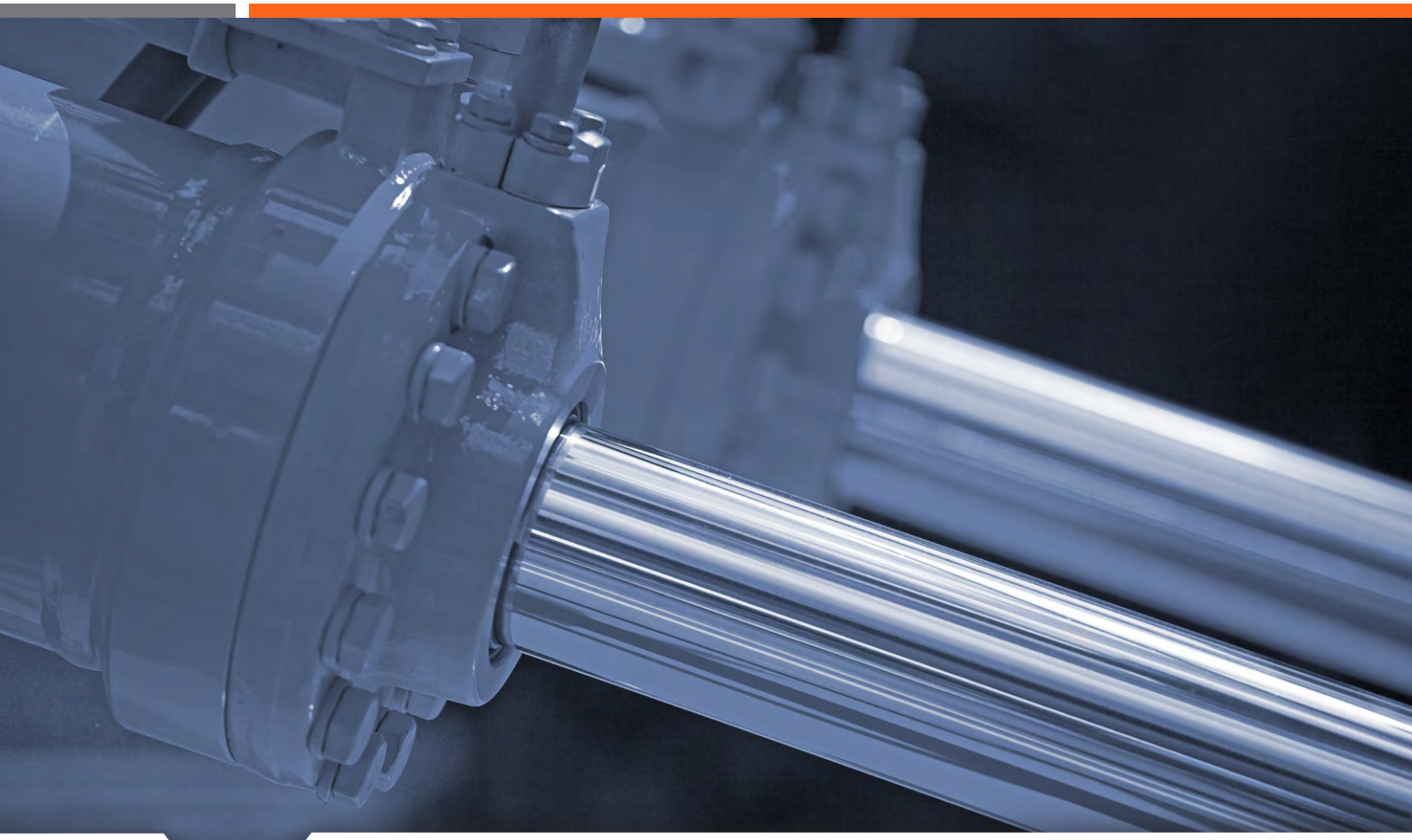
www.kem-kueppers.com
info@kem-kueppers.com

Küppers Elektromechanik GmbH



KEM Flow Measurement

Hydraulics and Oil Applications

DESIGN | PRODUCTION | DISTRIBUTION | CALIBRATION

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KEM IN HYDRAULICS AND OIL APPLICATIONS

KEM is a reliable process technology partner in a wide variety of industry segments. We know and understand the processes of our customers. This allows us to precisely tailor our products to the individual needs of our customers and ensure an optimised process sequence for them.

Depending on the application, flow meters may be exposed to extreme conditions in the field of hydraulics and oil consumption measurement.

For example, they have to withstand enormous pressures and very high temperatures of the environment or the media being measured. The materials of the flow meters that are used even have to stand up to critical or hazardous media such as oil foams or contaminated oil. Furthermore, flow meters have to ensure consistently high measurement accuracy even when the viscosity fluctuates.

Thanks to decades of experience in the development and production of flow meter technology, KEM Küppers Elektromechanik GmbH is able to offer an optimum, application-specific solution for these complex requirements.

The combination of high quality materials, specific configurations and geometries, and the use of various measuring principles supports a broad range of flow meters predestined for hydraulics or oil applications.

Highly individual solutions optimised for the respective application are created in close cooperation with our customers.

Our quality standard of “highest precision with a long service life” guarantees the lasting, successful use of the KEM Flow Meters.

OVERVIEW OF MEDIA AND APPLICATIONS

Media

- Various classes of hydraulic oil
- Engine and gear oil
- Water hydraulics
- Different oil viscosities
- Contaminated oil
- Oil foams
- Fuels

Applications

- Monitoring of
  - Central hydraulic supply systems
  - Lubrication points
  - Valves
- Measurement of
  - Cylinder stroke (indirect measurement)
  - Mobile hydraulics
  - Consumption
- Test stands
  - Hydraulic test stands for changing viscosities
  - Pump and gear mechanism test stands
  - Engine test stands
  - Test stands for endurance tests
  - Diagnosis test stands

High-precision manufacturing and great flexibility in the implementation of specific customer requirements are distinguishing features of KEM.

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KEM PRODUCT RANGE

Turbine Flow Meters

The KEM Turbine Flow Meters are designed primarily for low-viscosity applications. They set themselves apart through especially low pressure loss.

We offer various electronic solutions to compensate for viscosity in applications with very broad viscosity ranges and simultaneous high measurement accuracy requirements.

Coriolis Mass Flow Meters

When very high measuring accuracy is the focus of an application, Coriolis Mass Flow Meters impressively demonstrate their precision. These devices return measurement results with a deviation of just 0.1 percent.

The measuring instruments have proven themselves very well in practice when various media and different viscosities are used, or when moving components cannot be used in measuring.

Thanks to the Coriolis measuring principle, the main feature of the devices is that they are not only able to measure the mass flow rate but simultaneously also the volume flow rate, temperature and density.

Helical Flow Meters

KEM Helical Flow Meters are designed especially for highly viscous media and applications where the viscosity changes frequently. Their strengths lie in the low pressure loss and viscosity independence on the one hand, and the very broad measuring range and high measuring accuracy on the other hand.

Different bearing arrangement variants ensure optimum matching of the Helical Flow Meter to the respective measuring task.

Gear Flow Meters

KEM offers a broad range of hard metal and ball-bearing Gear Flow Meters of various designs for many different measuring ranges.

The outstanding benefits of the KEM Gear Flow Meters include both the fast response behaviour and the width of the measuring range. What's more, special ball bearings and adapted clearances enable precise consumption measurements for all types of fuels and hydraulic fluids.

This versatility makes it possible to use the Gear Flow Meters with a wide variety of very different test stands.

KEM Flow Meters – the right solution for every requirement.

KEM Headquarters

Liebigstraße 5
85757 Karlsfeld
Germany

T. +49 8131 59391-0
F. +49 8131 92604

info@kem-kueppers.com

KEM Manufacturing Center

Wettzeller Straße 22
93444 Bad Kötzting
Germany

T. +49 9941 9423-0
F. +49 9941 9423-23

production@kem-kueppers.com

KEM Sales

Liebigstraße 5
85757 Karlsfeld
Germany

T. +49 8131 59391-100
F. +49 8131 92604

sales@kem-kueppers.com

KEM Service & Repairs

Wettzeller Straße 22
93444 Bad Kötzting
Germany

T. +49 9941 9423-37
F. +49 9941 9423-24

service@kem-kueppers.com

More distributors & partners can be found at:
www.kem-kueppers.com