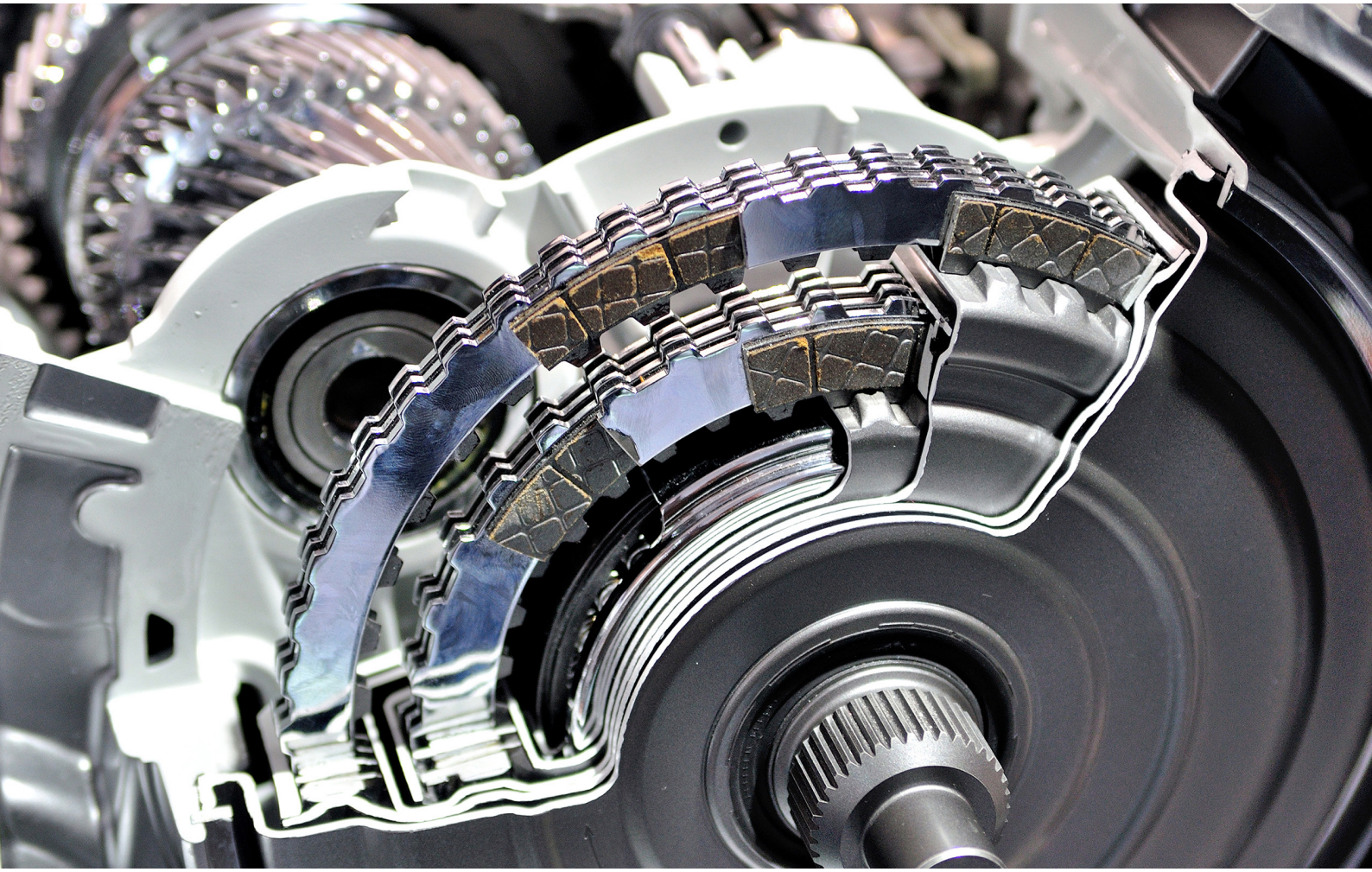
KEM Automotive



Application Spotlight

Test stand for automatic and specialized transmissions

TEST STAND FOR AUTOMATIC AND SPECIALIZED TRANSMISSIONS IN THE AUTOMOBILE INDUSTRY

Technical Data

Medium:	Automatic transmission fluids (ATF) and hypoid oils
Temperature:	-15 °C to +150 °C [+5 °F to +302 °F]
Pressure:	up to 72.5 psi [5 bar]
Measuring range:	0.1 l/min to 7 l/min
Viscosity at 20 °C:	0.88 kg/l
Density at 20 °C:	5 cSt to 80 cSt

Application

Various automatic transmissions from renowned, internationally operating manufacturers in the automotive industry are subjected to comprehensive testing in a test stand for transmission prototypes. Specialty transmissions for use in hybrid or electric vehicles are tested as well.

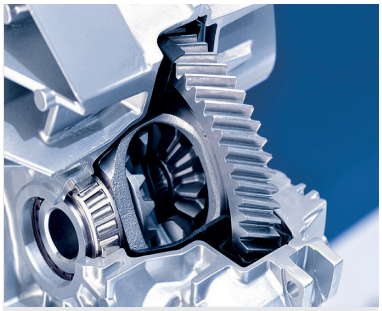
Recirculating lubrication is checked in one of the numerous tests. This is done with low flow volumes for a very large temperature range and at a very low primary pressure. Typical values are less than 72.5 psi. Far lower pressure levels are used in some cases. The challenge for flow measurement is to achieve a particularly high measuring accuracy notwithstanding the expected viscosity changes caused by the large temperature range. Also the allowable pressure loss in this measuring cycle is extremely small.

Solution

The chosen KEM Gear Flow Meter with high quality precision ball bearing permits reliable, precise measurement over a very large viscosity and flow rate range. Even at high temperatures, the volume flows are reliably evaluated by the compact Local Display VIC with its inductive sensor.

Advantages

- Precise measurement, even of low flow volumes with reliable, high frequency signal output
- Direct reading of the measurement results on the digitally scalable local display
- Analog signals (4 - 20 mA) can be used for automated electronic measurement data evaluation



Certificates:

- *Pressure Equipment Directive 97/23/EC, 2014/68/EU*
- *HP0 - Certificationy*
- *Explosion protection according to 2014/34/EU*
- *CSA/UL - Certification*
- *Accreditation according to ISO 17025*

KEM Gear Flow Meter (ZHM KL Series)

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