

## PRESS RELEASE

### KACO launches sealing solution for high-speed-applications



Source: KACO GmbH + Co. KG

The Expert for Sealing Systems successfully developed dynamic seals for high-speed-applications. Besides their main feature that enables bi-directional dynamic high-speed sealing they also show minimal friction losses and fantastic lifetime performance.

#### Change in vehicle architecture

Being a supplier for sealing solutions to the automotive industry currently the major part of our portfolio is used for internal combustion engines, auxiliaries as well as clutches and gearboxes. But a new era is arising for suppliers of dynamic sealing systems as three main factors will change for e-mobility: higher linear speed, low-viscosity oils containing a high percentage of additives and bi-directional shaft rotation at the gearbox entrance shaft. Those requirements are relevant wherever electric drives are used like in hybrid or electric cars.

#### Real life test procedure

Compared to conventional combustion engines that are used in the automotive market electric drives have a maximum speed of approximately 15.000 to 20.000 rpm, whereby further increase of speed is expected. KACO high-speed seals have been tested under real-life conditions on our test benches\*. For tests with a main direction of rotation the results have been far in excess of our customer's expectations. Moreover the Chinese norms QC/T 1022-2015 as well as all so-far known customer specifications for bi-directional applications have been passed perfectly. The focus was on real life testing varying the following parameters: oil level (max / min), high and slow speed and standstill period. In addition all our durability tests with no preferred direction for rotation have been very successful, as we could find only minimal wear while having very low friction for the application.

„It is very gratifying to know that we made such big progress during the last years with our products used in high-speed transmissions for e-mobility applications. Today we are able to fulfil our customer's specifications for one- or bi-directional high-speed sealing systems for reductor transmission applications based on robust long-term tests, as our products are tested in accordance to the Chinese norm QC/T 1022-2015 for instance. Our latest patented sealing structures enable our customers to create their e-mobility powertrain purpose-designs for highest linear speeds with alternating input shaft rotation” explains Vice President Research and Development Andreas Genesisius.

## **The Expert for Sealing Systems**

KACO GmbH + Co. KG is one of the world's leading developers and manufacturers of high-precision, practical sealing solutions for the automotive and mechanical engineering sectors. The company, with its headquarters in Germany, has earned a reputation for the highest quality sealing solutions and innovative power as well as for expertise in development and production. KACO has eight production facilities in Germany, Austria, Hungary, China and the USA and delivers products across the globe. A trusted partner of the automotive and supplier industry, the company has been keeping pace with the high demands and technical changes of the industry for decades.

\*Products are tested on model test benches at KACO which is not replacing the validation within the original application unit of the customer