

# Innovation in Power Transmission

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## Construction, Mobile & Agri

For mobile hydraulics for a positive-locking connection of diesel engines with hydraulic pumps: BoWex® FLE-PA

For a positive-locking connection of diesel engine with high loads and hydraulic pumps:

BoWex FLE-PAC

For mobile hydraulics of small devices as a torsionally flexible combination of diesel engines and hydraulic pumps:

MONOLASTIC<sup>®</sup>

For drives subject to dangerous torsional vibrations to transmit the torque flexibly for the combination of diesel engine with splitterbox, generator, compressor, feed pump, high-pressure pump, etc: BoWex ELASTIC

For mechanical drives of attachments that can be connected to a power take-off, e.g sowing machines, self loading forage boxes, balers, etc:

**ROTEX** with power take-off spline to DIN 9611

For water cooling, oil cooling for hydraulic or gear lubricant oil, or for fuel cooling:

MMC combined cooler



## Materials Handling

For the transportation of bulk material, for storing and distributing, filling up and packing, KTR have the coupling for you.

For crane drives, harbour cranes, overburden dredgers and other large machines where shaft displacements have to be compensated for and vibrations have to be dampened:

**ROTEX** or

ROTEX AFN-SB with integrated brake disk

For elevator drives:

ROTEX GS

For hoisting plants, wrapping machines and robotics:

RADEX - N

RADEX - N NANA

RADEX® – N NNZ

For a frictionally engaged connection between shaft and belt pulley for infinitely variable positioning of synchronous belt drives:

**CLAMPEX**®

For drives with low to average speeds and torques up to 400Nm, e.g. synchronous belt drives on wrapping machines:

SYNTEX

For rugged drives with low requirements to response and repeating accuracy, i.e. chain drives and V-belt pulleys for torques up to 6,800Nm:

RUFLEX®













## General Industry - Pumps & Compressors

#### For Pumps:

The torsionally flexible jaw coupling ROTEX, the short, axial plug-in, torsionally flexible, failsafe jaw coupling POLY-NORM and the non-failsafe POLY coupling as well as the torsionally rigid, backlash-free steel lamina couplings RADEX N and RIGIFLEX. N. The double-cardanic design was developed particularly for pump drives. It corresponds to API 610 or 671 and accepts temperatures between -30°C and 280°C thanks to its all-steel design. For a non-contact torque transmission in pumps for aggressive and toxic media, the permanent magnetic coupling MINEX is used.

Mobile Compressors:

REVOLEX KX or BoWex -ELASTIC

Stationary Compressors:

ROTEX, RADEX -N, RIGIFLEX -N or BoWex-ELASTIC

Vacuum Pumps:

ROTEX and ROTEX FNN with fan, in addition BoWex, POLY-NORM, REVOLEX KX and MINEX

For pump drives that require compensation for large shaft displacements, particularly when delivering hot media:

ROTEX®, ZS-DKM-H

For large pump drives and irrigation systems that require bridging of large shaft distances without causing any weight problems:

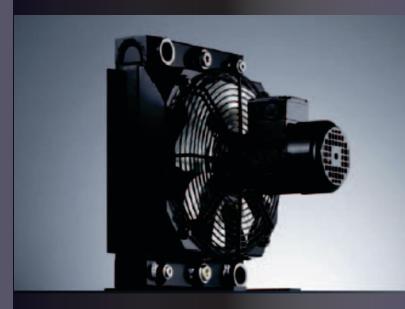
RADEX<sup>®</sup>-N and RIGIFLEX<sup>®</sup>-N with highly stiff GFK or CFK spacers.



### **Hydraulics**

For stationary hydraulics in mechanical engineering, plant engineering and construction of vehicles. Special sizes and customised designs.

- · Bellhousings
- · Base flanges
- · Damping elements
- · Oil-air-coolers
- · Oil-water-coolers
- · Oil Tanks
- · Control & Monitoring
- · Tank Heaters
- Couplings





#### **Brakes**

KTR-STOP brakes are equipped for a range of applications requiring heavy labour under aggressive and rough environmental conditions. Ideal for mining as well as crane and wind power stations.

- · Higher protection against atmospheric influences by full encapsulation and integrated dirt strippers
- Less maintenance intervals and low operating expenses
- · Longer service life
- · Less wear due to additional guiding systems
- · Higher power density by lower weight and more compact design
- Maximum utilisation of material of brake pads:
   They can be worn down to the base plate.

Upon request, the KTR "IntelliRamp" system can provide controlled and coordinated braking which can be accurately adjusted to your parameters. Entering "permanent brake period" stops all systems at the same time, in this way preventing, as an example, a critical material jam in conveyor systems.

## Alternative Drives - New Technology

Within the next ten years, millions of cars with Hybrid or Electric Drives will be produced and sold. Not only must misalignments be compensated for, but at the same time, electric insulation must be assured. Leaking current can damage both the bearing and spline leading to early failure.

The **BoWex** maintenance-free, torsionally stiff coupling is available in numerous designs and is indispensable, among others, in the automobile industry. It allows for a positive-locking power transmission and compensates for axial, radial and angular displacements.

A specifically adapted type of **BoWex** coupling ensures the full electric insulation of electric motor and cylindrical gear.

To meet the demands of Diesel-electric hybrid drives, KTR offer a coupling solution which is just as much "hybrid": the BoWex FLE-PAC is based on the material combination of nylon and steel, it ensures a high quality power transmission. Its novelty in design is a carbon fibre reinforced polyamide flange minimising wear and in this way increasing the service life.

For high power wind turbines: the backlash-free, maintenance-free all-steel RADEX -N coupling, having a lamina from highly stiff spring steel allows compensation of high displacements with low restoring forces due to its special lamina shape. A specifically designed GRK spacer enables electric insulation.

The ROTEX® GS coupling, is most suitable for precision operations: for positioning pods of wind power stations, for aligning solar paddles and for the hybrid drives of some passenger vehicles.















#### Marine

Customised and application-specific maritime solutions, in particular for naval ships, can be developed and supplied.

#### Standard and special gear units for:

- Naval ships
- · Yachts and cruise ships
- · Container ships
- Passenger ferries
- · LNG applications

Standard and special hydrodynamically lubricated slide bearings and thrust bearings for:

- · Propeller thrust
- · Support of shaft lines

#### For vessels using water jet drives:

The double-cardanic RADEX -N Composite steel lamina coupling with CFK spacer which can bridge large distances without bending.

For bow thrusters and azimuth drives:

ROTEX

ROTEX GS with KTR-SI Compact overload system

#### For steering gears:

The CLAMPEX clamping sets have been developed, in particular, for high loads, high alternating torques and high torsional forces. For large shaft diameters up to 400mm and able to transmit much higher torques and axial forces than a positive-locking connection: on the sea up to 500,000Nm.

For deck equipment: Winches and cranes, pumps, compressors and generators:

ROTEX<sup>®</sup>, BoWex<sup>®</sup>, BoWex-ELASTIC<sup>®</sup>, BoWex<sup>®</sup> FLE-PA, POLY-NORM<sup>®</sup>, RADEX<sup>®</sup>-N, RIGIFLEX<sup>®</sup>-N, MINEX<sup>®</sup>-S

## Industry

#### **RENK SLIDE BEARINGS:**

For rolling mill drives with welded housings to absorb maximum loads, for:

- · Large electric motors
- · Generators
- · Pumps in horizontal and vertical construction
- · Fans
- · Water turbines and conveyors

#### **RENK INDUSTRIAL GEAR UNITS:**

Standard and special Industrial gear units for:

- · Power stations
- Gear units and components for wind and water power stations
- Cement mills
- · Oil & Gas
- Sugar mills





TRAMEC

VIII

**TRELLEBORG** 

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 $\label{eq:couplings} \begin{center} Drive Couplings including: ROTEX \ , BoWex \ , RADEX \ , GEAREX \ , LAMEX \ , RIGIFLEX \ , BoWex \ FLE-PA \ , \\ MONOLASTIC \ , BoWex-ELASTIC \ , REVOLEX \ , POLY-NORM \ , POLY \ , ROTEX \ GS \ , TOOLFLEX \ , MINEX \ , \\ \end{center}$ 

Cone Ring, Tyre.

Torque Limiters: RUFLEX.

Backlash-free Overload Systems: SYNTEX.

Torque Measuring Shafts: DATAFLEX.

Shaft-Hub Connectors: CLAMPEX.

Bellhousings, Couplings, Coolers, Tanks, Noise Damping, Temperature Control/ Monitoring.

Industrial Gearboxes (horizontal and vertical).

Marine Gearboxes, (commercial shipping and naval vessels), Gear Couplings, Raflex Disc couplings,

Hyguard Safety Couplings and Elco Elastic Couplings.

Slide Bearings.

Tracked Vehicle Transmissions.

Dynamic Test Rigs & Systems.

TRAMEC Bevel helical, worm and other gearboxes

Quick-Connect Couplings, Screw Couplings, Swivel Joints

Hydraulic Components

Seals & O-Rings

**Directional Control Valves** 

Hydraulic Couplings, Filters & Components.

Steel & Stainless Steel Bell housings, Splined taper lock bushes

Deanquip is the sole distributor in Australia and New Zealand for KTR Kupplungstechnik GmbH and RENK AG

ROTEX, ROTEX GS, DATAFLEX, RUFLEX, MINEX, LAMEX, RADEX, GEAREX, BoWex, BoWex, BoWex FLE-PA, BoWex-ELASTIC, TOOLFLEX, MONOLASTIC, REVOLEX, POLY-NORM, POLY, RIGIFLEX, SYNTEX, CLAMPEX are registered tradenames of KTR Kupplungstechnik GmbH

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