

PART OF EXCELLENCE

Solutions for technological progress

Components for
Oil & Gas



Made for Motion



KTR Systems – Solutions across industries for a global market.

As a progressive and innovative knowledge partner for our customers, we actively shape the technological future. By consciously responding to the needs of our customers and having a deep understanding of their technology, it is possible for us to develop cross-industry solutions. In doing so, we always strive for excellence and optimise existing approaches. And this has been the case since 1959.

PART OF EXCELLENCE

Our philosophy of "PART OF EXCELLENCE" is reflected in every single component and service we provide. With our expertise and innovation, we achieve top performance together with our customers. KTR is at home in industrial markets on all continents with more than 500 employees at its headquarters in Rheine, more than 1,200 employees worldwide, 24 subsidiaries and over 90 sales partners. As a **leading manufacturer of high-quality drive technology, braking and cooling systems and hydraulic components** KTR is a reliable partner for all companies that want to keep moving. As a leading expert in these fields, we take pride in offering our versatile solutions in the following industry:

→ Pumps and compressors

KTR worldwide – Our locations for quality and service.

- Headquarters (Rheine / Germany)
- 24 subsidiaries
- 90 sales partners
- More than 1,200 employees worldwide

Our components for Oil & Gas

Pumps and compressors make up about one third of energy consumption in industry. Consequently the market is big with the portfolio ranging from miniature laboratory pumps to large-scale plants for petrochemistry. An essential function of the coupling is the ability to compensate for displacements in the drive train.

That is why double-cardanic couplings are often used. Apart from that radial assembly and disassembly without dismounting adjacent drive components is a vital demand from the part of process and petrochemistry. Torsional flexibility and damping of vibrations is required to increase the service life of the overall

pump drive. Another requirement on couplings for pumps and couplings for compressors is conformity with industry standards (API, ATEX etc.) and company standards.

Our products are primarily used in the following sectors: pumps, compressors and vacuum pumps.

Applications

Centrifugal pumps
Centrifugal pumps for diesel engines
Magnetically coupled pump
Liquid gas compressors / turbo compressors
Stationary screw compressors
Mobile screw compressors
Rotary vane vacuum pumps
Roots vacuum pumps

DRIVE COMPONENTS

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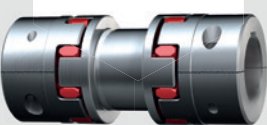
ROTEX®
Torsionally flexible
jaw coupling



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ROTEX® ZS-DKM-SH
Double-cardanic
standard drop-out
center design coupling

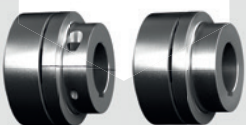


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ROFLEX® SH/N
Torsionally flexible
shaft coupling

NEW!



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ROTEX® SH
Torsionally flexible
jaw coupling



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Bellhousing PG



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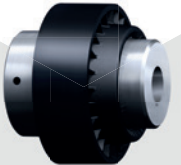
RADEX® -N
Steel laminae
coupling



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BoWex® HEW Compact
Highly flexible
coupling



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BoWex® ELASTIC®
Highly flexible
flange coupling



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RIGIFLEX® -N A-H
Steel laminae
coupling



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SINULASTIC®
Highly flexible
couplings



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BoWex® GT
Gear coupling



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POLY-NORM® ADR
Torsionally flexible
jaw coupling



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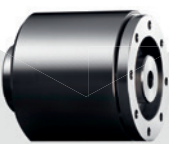
RIGIFLEX® -N
Steel laminae
coupling



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MINEX® -S
Magnetic coupling



COOLING SYSTEMS

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MMC
combined cooler



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MMC
compressor cooler





You can find more information on our website www.ktr.com/en/industries/pumps-and-compressors

KTR SYSTEMS

You can also find more components in our comprehensive four product catalogues in the download area:
↓
www.ktr.com

OVERVIEW



		1 up to 8							
		KTR components							
Applications		1	2	3	4	6	7	8	
Pumps	Centrifugal pumps with electric engine	⬢	⬢	⬢	⬢	⬢			
	Centrifugal pumps with I. C.-engine							⬢	
	Magnetic drive pumps								
Compressors	Liquid gas and turbo compressors					⬢			
	Screw compressors with electric engine	⬢	⬢	⬢	⬢	⬢	⬢		
	Screw compressors with I. C.-engine							⬢	
Vacuum pumps	Slide vane rotary vacuum pumps	⬢	⬢	⬢	⬢	⬢	⬢		
	Roots vacuum pumps	⬢	⬢	⬢	⬢	⬢	⬢		
Certificates and standards	ATEX and API	⬢	⬢	⬢	⬢	⬢	⬢	⬢	

API 610



		9 up to 14							
		KTR components							
Applications		9	10	11	12	13	14		
Pumps	Centrifugal pumps with electric engine	⬢		⬢	⬢	⬢	⬢		
	Centrifugal pumps with I. C.-engine		⬢						
	Magnetic drive pumps							⬢	
Compressors	Liquid gas and turbo compressors	⬢				⬢	⬢		
	Screw compressors with electric engine	⬢			⬢	⬢	⬢		
	Screw compressors with I. C.-engine		⬢					⬢	
Vacuum pumps	Slide vane rotary vacuum pumps	⬢			⬢	⬢	⬢		
	Roots vacuum pumps	⬢			⬢	⬢	⬢		
Certificates and standards	ATEX and API	⬢		⬢	⬢	⬢	⬢	⬢	

API 610 API 685
API 617



You can find more information on our website www.ktr.com/en/industries/pumps-and-compressors

Whether company standards or special ambient conditions, our wide range of couplings for **Oil & Gas** sets the course for long-term and trusting partnerships. The focus is on you and your challenges. We make our contribution with passion and creativity, true to our motto “PART OF EXCELLENCE”.



Wide range of couplings for torque ranges up to 330,000 Nm

PUMPS

ROTEX® torsionally flexible jaw couplings are elastomer couplings characterized by a compact design. In spite of low weights and mass moments of inertia of the elastomer couplings they are able to transmit high torques.

- Jaw coupling for power transmission damping torsional vibrations
- Axial plug-in, easy assembly, maintenance-free
- Standard spiders made of high-temperature resistant T-PUR®



0 to 35,000 Nm nominal torque

ROTEX® 1
Torsionally flexible jaw coupling



ROTEX® SH 4
Torsionally flexible jaw coupling

0 to 4,500 Nm nominal torque

The torsionally flexible jaw coupling **ROTEX® SH** is an **elastomer coupling** with cracked hubs / **SPLIT** hubs (half shell coupling) easy to service and is characterized by easy assembly and disassembly.

- Material cast iron
- Complying with ATEX (acc. to EU directive 2014 / 34 / EU)
- Easy assembly / disassembly via four screws
- Centering of both hub halves through the cracked surface



0 to 2,400 Nm nominal torque

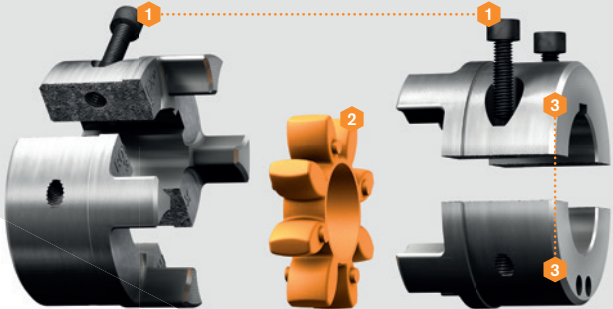
ROTEX® 2S-DKM-SH
Torsionally flexible jaw coupling

The torsionally flexible jaw coupling **ZS-DKM-SH** is a double-cardanic elastomer coupling with split hubs (**SH SPLIT**). The **ROTEX® ZS-DKM-SH** with **SPLIT** hubs provides the advantage that the coupling can be radially assembled and disassembled without displacing the adjacent power packs.

- Double-cardanic jaw coupling for large shaft displacements
- Spacers adapted to drop-out center length of standard pumps
- Coupling consists of two hubs, two spiders and one spacer

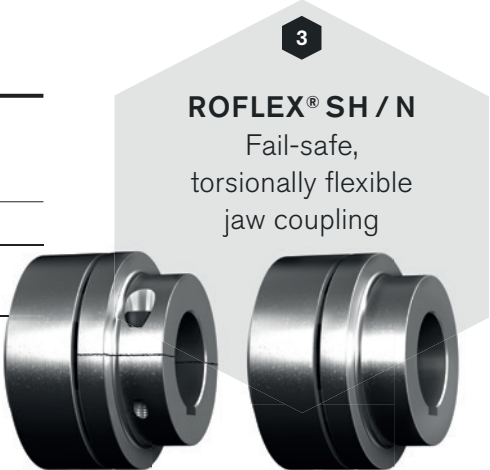
Graphic:

- 1 Easy assembly and disassembly** via four screws only
- 2 The core of the coupling spiders** available in various degrees of hardness, making the pump run perfectly smooth
- 3 Split hubs** Cracked hubs allow radial assembly and disassembly



The torsionally flexible, fail-safe shaft coupling **ROFLEX® SH** is a compact, three-part shaft coupling for torsional vibration-damping power transmission with cracked hubs. The compact design of the **ROFLEX® N** results in a small shaft distance dimension.

- Three-part shaft coupling for torsional vibration damping power transmission
- Axial plug-in, easy assembly
- Application range of NBR spider from -30° C to +80° C



ROFLEX® SH / N 3
Fail-safe, torsionally flexible jaw coupling

Bellhousings made of aluminium, cast iron or steel for applications with special requirements such as high weight loads and operational shocks, but also for maritime use (salt water) and mining.

- Available in different materials
- Horizontal mounting in combination with KTR foot flanges possible
- Good noise damping properties
- Bellhousing with venting hole and oil drain available on request



Bellhousing PG 5

COMPRESSORS

All-steel couplings with laminae sets made of high-strength and stainless spring steel. The steel laminae sets of our laminae couplings, such as the **RADEX®-N**, were developed based on FEM calculations.

- Backlash-free, torsionally rigid and maintenance-free
- Wear-free
- High displacement figures
- Application range up to +280°C



The curved-tooth gear coupling **BoWex® HEW Compact** is a **highly flexible shaft-to-shaft coupling**. It is particularly suitable for compensating for high misalignments. This type combines a compact design, ability for axial plug-in and low restoring forces.

- Highly flexible shaft coupling up to 8,400 Nm
- Maintenance-free gear coupling / curved-tooth gear coupling
- Mainly used in variable-speed drives $v_{max} = 50 \text{ m/s}$
- High potential of compensating for misalignment

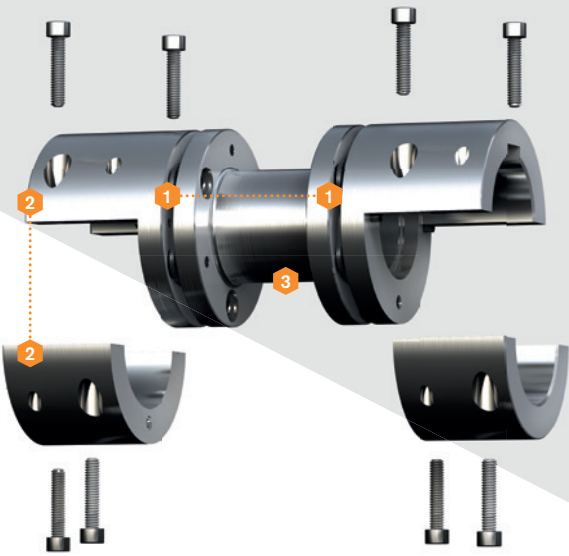


The coupling type **BoWex-ELASTIC®** is a highly flexible flange coupling with SAE and special flange dimensions for mounting to I. C.-engines. The design is characterized by a mounting flange made of either polyamide or steel.

- Highly flexible flange coupling with SAE and special dimensions
- Damping torsional vibrations
- Compensating for displacements on the driving and driven side
- Axial fitting without subsequent screwing

KTR has developed the **RIGIFLEX®-N type A-H** especially for pump applications. The coupling consists of two hubs, two laminae sets and one spacer, which are assembled as a single unit from factory.

- All-steel coupling / laminae coupling
- Coupling complies with ATEX directive in all material respects
- Coupling meets all relevant items of API directive 610 & 671
- Saving costs by quick assembly and reduction of components



- Graphic:
- 1 Laminae sets with taper screw connection for torque increase
 - 2 Half shell hubs for easy radial assembly of the complete coupling
 - 3 Spacer with protection against dropping out with fracture of laminas (API 671). Standard drop-out center lengths of pumps available from stock (100, 140, 180 and 250 mm)



SINULASTIC® is a modularly structured series of highly flexible flange couplings based on a disk-shaped coupling body. Four practical basic versions with individual properties cover a wide range of applications primarily for diesel engine drives, but also general drive tasks.

- Highly flexible flange coupling with SAE and special dimensions
- Damping torsional vibrations
- Compensating for displacements on the driving and driven side
- Elastomer element available in various qualities



Serviceability,
safety and reliability!
That is what
KTR couplings
stand for!



MORE PRODUCTS
FOR THE INDUSTRY

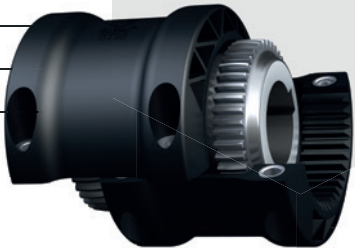
The **BoWex® GT** curved-tooth gear coupling operates with a horizontally split sleeve serving for easy assembly and disassembly. This allows to replace the sleeve in case of wear with no need for moving motor or pump.

0 to
560 Nm
nominal
torque

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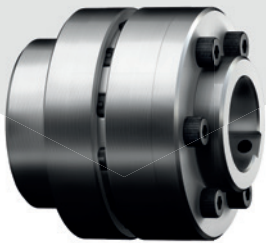
BoWex® GT
Gear coupling

- Double-cardanic curved-tooth gear coupling / gear coupling
- Carbon fibre reinforced sleeve
- Sleeve consisting of two half shells
- Radially dismountable by split sleeve



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POLY-NORM® ADR
Torsionally flexible
jaw coupling



The torsionally flexible, fail-safe **POLY-NORM® ADR** is a compact, three-part shaft coupling for torsional vibration damping power transmission. The three-part **POLY-NORM® ADR** shaft coupling allows to offset the form fit.

- Three-part shaft coupling for torsional vibration-damping power transmission
- Axial plug-in, easy assembly
- Maintenance-free
- Compact: small shaft distance dimension

The **RIGIFLEX®-N** steel laminae couplings are used wherever reliable and backlash-free torque transmission with simultaneous shaft displacement is required. The steel laminae are designed as layered, waisted laminae sets.

- Series in accordance with API 610 / optional API 671
- For drives with circumferential speeds of up to 100 m
- All-steel coupling / laminae coupling

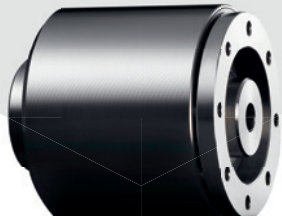
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RIGIFLEX® -N
Steel laminae
coupling



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MINEX® -S
Magnetic coupling



300°C
maximum
operating
temperature

The magnetic couplings of the **MINEX®** range are permanent-magnetic couplings transmitting the torque without contact through magnetic forces between two magnetic rotors. The standard type **MINEX®-S** magnetic coupling with containment shroud and magnets positioned radially ensures hermetic separation of driving and driven side in pumps and agitators.

- Containment shrouds available in various materials
- Contactless torque transmission with permanent magnets
- Hermetical separation of sensitive liquids and gases

We manufacture
cooling systems
with an output of
over 1,000 kW



COOLING SYSTEMS

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MMC
combined
cooler



Depending on the application, our **combined coolers type MMC** (Mobile Machinery Cooler) combine different media such as oil, water, fuel and air in one cooling system that is calculated and designed according to the application.

- Tailor-made, compact and efficient system solutions
- System for various media (charge air, water glycol, oil, fuel, etc.)
- Engineering, project management and personal advice

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Block
design
in plates
and bars

MMC
compressor cooler



Tailor-made heat exchangers for compressors and special hydraulic systems supplement the portfolio. Each **MMC cooler** is a project-specific version – calculated and developed by our engineers.

- Modularly designed heat exchanger element
- Heat exchanger for cooling compressed air in pressure booster systems
- Customised design

Superfuel Hydrogen

Take a look at our
Success Story:



KTR FOCUS

Is Hydrogen the Game Changer for Electrolysis Projects?

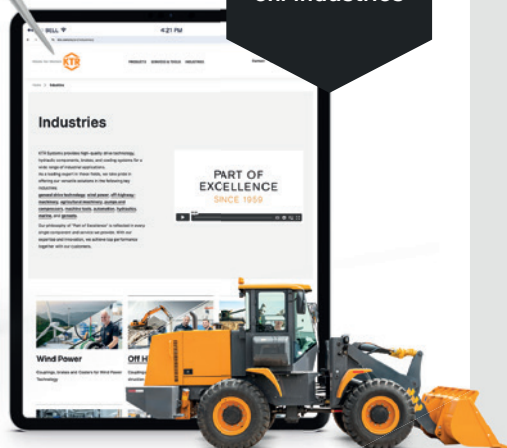
Hydrogen has proven to be an important part of a clean energy mix when it comes to the energy transition. The product "picea" by HPS Home Power Solutions shows that smooth interaction between the components battery, electrolyser and fuel cell can save up to 3 tonnes of carbon dioxide per year. The electricity generated from a solar system can be stored for months as hydrogen and converted back into electricity and heat when required.

Up to 3 tonnes CO₂ per household saved

Contactless torque transmission with magnetic couplings

Reliable sealing by means of containment shroud

↓
[www.ktr.com/
en/industries](http://www.ktr.com/en/industries)



Solutions across all industries on our KTR website.

KTR Systems supplies high-quality products for a wide range of industrial applications. We are proud to be able to offer versatile solutions across all key industries with our drive technology, hydraulic components, brakes and cooling systems.

No matter what industry you need components for, we look forward to supporting you with our expertise and innovative strength to meet your challenges. Achieve peak performance with us! Find out more about the diversity of our portfolio on our website:

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Made for Motion

