



# KBK Antriebstechnik GmbH

We couple the drive

# KBK History



- 2003** Company foundation - Trennfurt
- 2011** Relocation and expansion at the new site in Röllfeld
- 2013** Generational change. Sven Karpstein takes over management from Robert Karpstein
- 2017** Expansion through the construction of a warehouse
- 2017** Acquisition of 50% of company shares by Sven Karpstein from Robert Karpstein
- 2019** Development and integration of a new product line Magnetic Couplings
- 2020** Site expansion with a modern office loft
- 2020** Acquisition of business operations of Merz Antriebstechnik GmbH - Measuring Gearboxes
- 2021** Launch of a new product line Slit Couplings
- 2023** Rental of additional storage space to increase capacity
- 2024** Market launch of a new product segment Oldham Couplings
- 2025** Acquisition of the remaining company shares by Sven Karpstein - Sole owner (100%)

# KBK – Facts



Number of Employees: 60  
(Office: 20)

Office Space: 140 m<sup>2</sup>

Production space: 600 m<sup>2</sup>

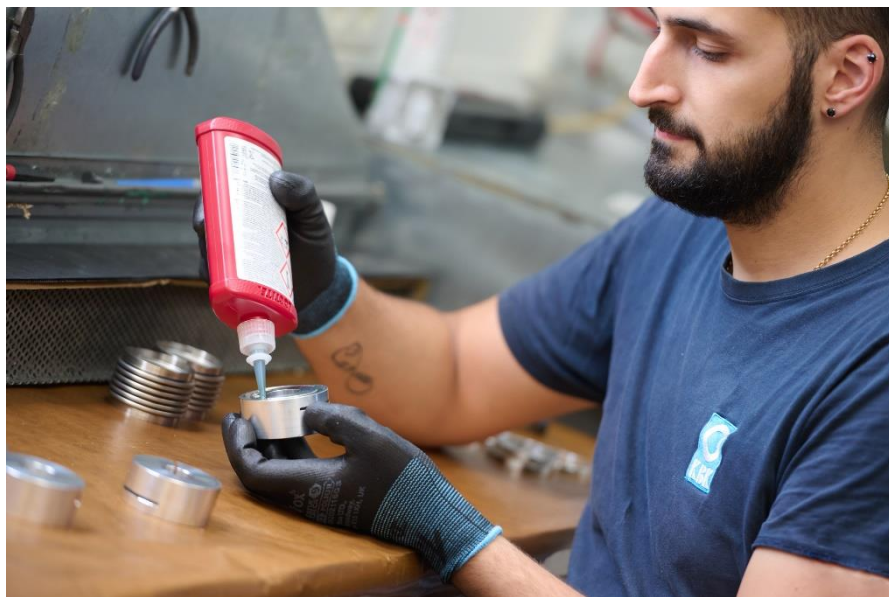
Storage space: 1200 m<sup>2</sup>

7 CNC-Machines

8 conventional lathes







### **Successful since 2003**

Our products are built on decades of experience in developing and producing of shaft hub connections and backlash free couplings – complemented by expert advice, reliable service, and extensive technical know how. The well thought out modular system forms the basis for high quality, interchangeable products at attractive prices. It enables us to produce almost all elastomer, metal bellows, safety couplings, and line shafts, as well as locking devices from our standard range within two hours, customize them with specific bores, and dispatch them to you immediately via direct courier. Our strategically favorable location on the edge of the Rhine Main region also ensures smooth and speedy delivery – both nationally and internationally.



# Worldwide Representation



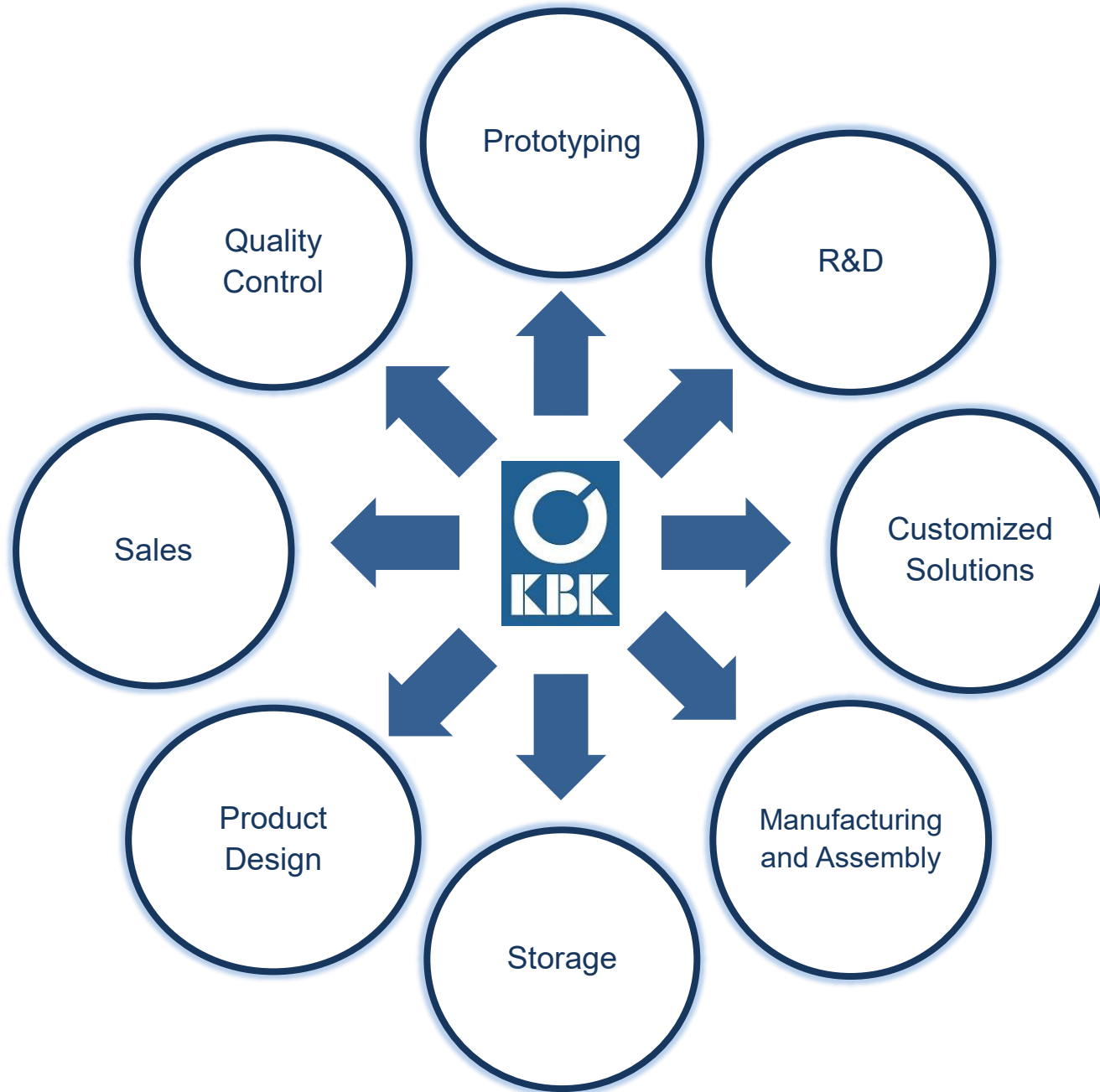




*... regionally rooted!*

- ✓ Annual donation campaign
- ✓ Regional Employer
- ✓ Support for local clubs and associations
- ✓ Social commitment
- ✓ Support for children and youth





# QUALITY YOU CAN RELY ON



## ***100% Quality Control***

***During production and assembly, all couplings are tested multiple times.  
The results are documented.***



Thank you for your inquiry regarding KBK Antriebstechnik GmbH compliance with California Proposition 65, formerly known as the Safe Drinking Water and Toxic Enforcement Act of 1986, which was enacted as a ballot initiative in November 1986.

# Areas of Use - KBK Products

## Automation

- |                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Machine Tools</li><li>• Packaging Machines</li><li>• Printing Machines</li><li>• Woodworking Machines</li><li>• Filling Systems</li><li>• Press Construction</li><li>• Textile Machines</li><li>• Assembly Automation</li><li>• Grinding Machines</li><li>• Agricultural Technology</li></ul> | <ul style="list-style-type: none"><li>• Measurement and Control Systems</li><li>• Photovoltaics</li><li>• Semiconductor Technology</li><li>• Microtechnology</li><li>• Handling Systems</li><li>• Laser Technology</li><li>• Medical Technology</li><li>• Optotechnology</li><li>• Testing Equipment</li><li>• Conveyor Technology</li></ul> |
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# Areas of Use - KBK Products



- Encoders
- Stepper Motors
- Servo Motoren
- Servo Gear Units
- Linear Axes
- Torque Transducers





# Our Product Range

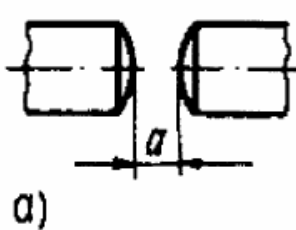
- Metal Bellows Couplings
- Slit Couplings
- Elastomer Couplings
- Line Shafts
- Cardan Couplings / Linear Couplings
- Oldham Couplings
- Rigid Shaft Couplings
- Safety Couplings
- Magnetic Couplings
- Friction Clutches
- Collars
- Locking Devices, Shrink Discs, Locking Elements
- Measuring Gearboxes



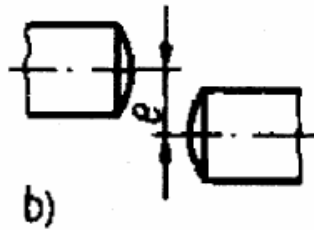
## Backlash-free Shaft Couplings / Servo Couplings

- ✓ Shaft - to - Shaft Connection
- ✓ Torque Transmission

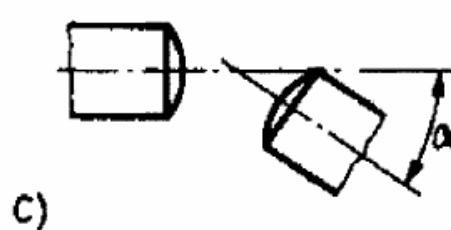
Mögliche Lageabweichung von Wellen



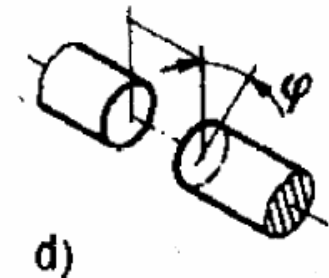
a) axiale



b) radiale



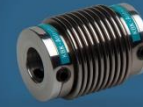
c) Winkel-



d) Drehwinkelabweichung



- ✓ Torque:  
0.05Nm – 5000Nm
- ✓ Bore diameters  
1mm – 90mm
- ✓ Extreme high torsional  
stiffness / Transmission  
accuracy
- ✓ Low restoring forces



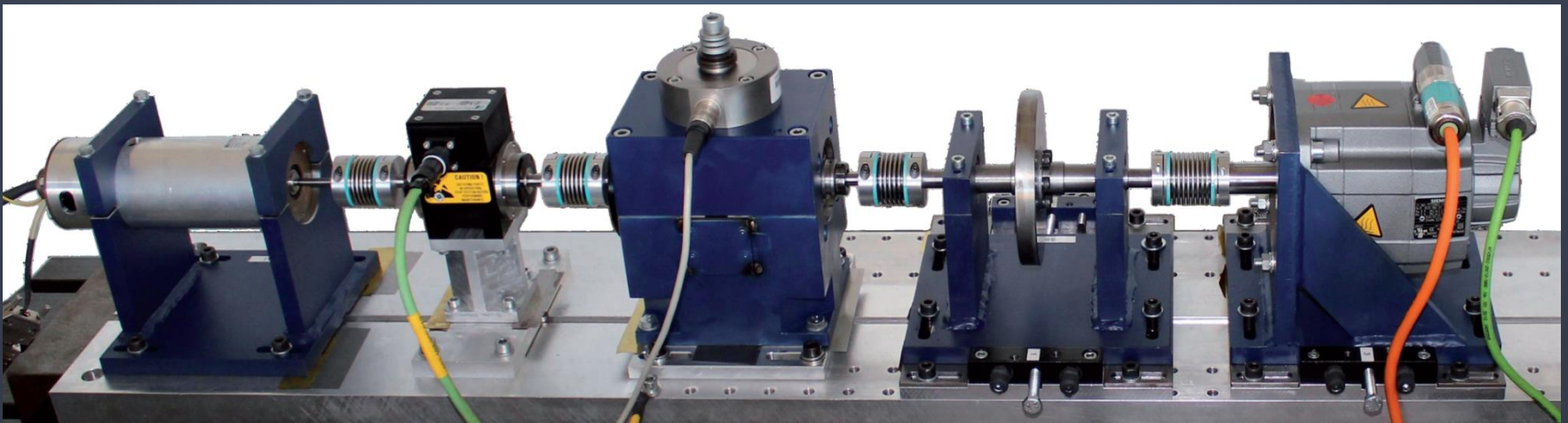
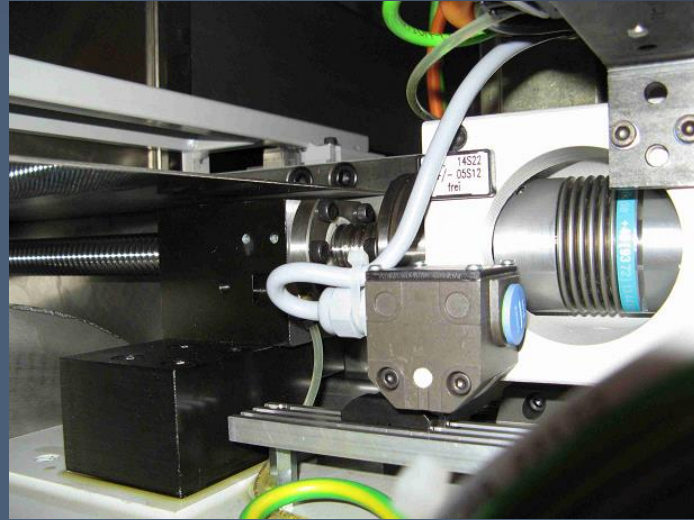
## Miniature Metal Bellows Couplings – Metal Bellows Couplings





# Applications

## Metal Bellows Couplings



# Slit Couplings



- Backlash-free Slit Couplings with clamping hubs
- Backlash-free Slit Couplings with split hubs
- Bore Diameters: 3-40 mm
- Torque: 3-240 Nm
- Easy to mount design
- Ideal for use in hygiene-critical servo motor applications
- Hub material: aluminium or stainless steel
- High torsional stiffness, compensation for high misalignments with low restoring forces!





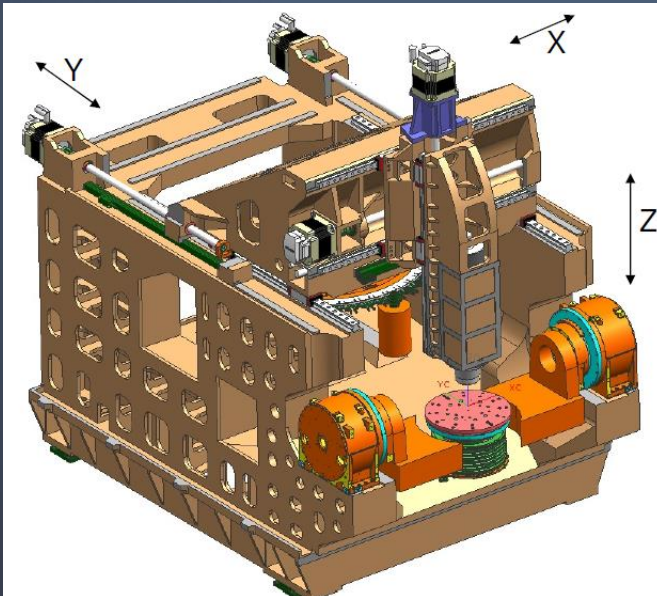
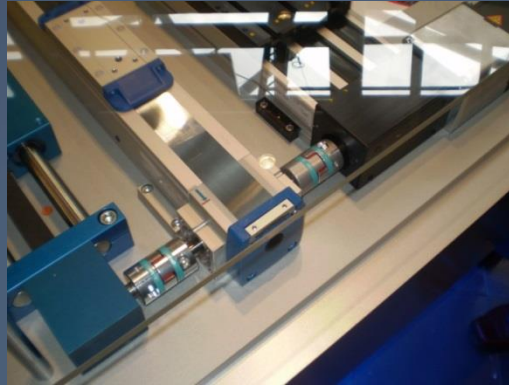
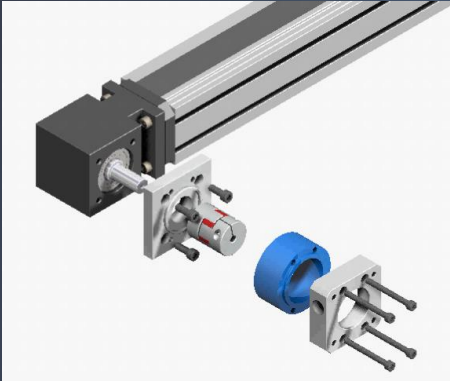
- ✓ Torque: 0.5Nm-825Nm
- ✓ Bore diameters: 2mm – 70mm
- ✓ Vibration dampening
- ✓ Axial pluggable
- ✓ Cost-effective

## Elastomer Couplings – Jaw Couplings





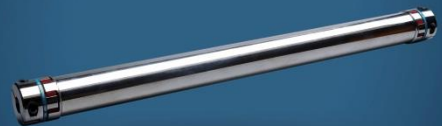
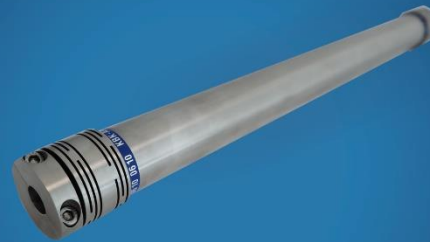
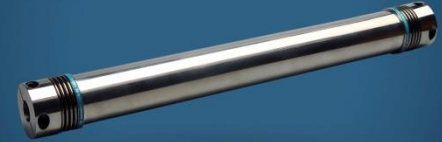
# Applications Elastomer Couplings



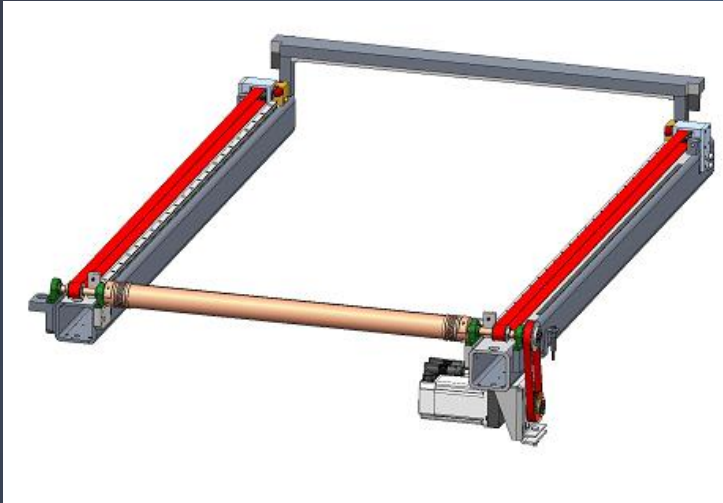
# Line Shafts



- ✓ Line Shafts
- ✓ Torque: 4.5Nm – 525Nm
- ✓ Bores: 4mm – 65mm
- ✓ Length: up to 6m
- ✓ High torsional stiffness
- ✓ Low weight
- ✓ Combinable with metal bellows or elastomer inserts



# Applications Line Shafts





# Cardan Couplings

- ✓ High misalignment compensation
- ✓ Bore diameters: 3-55 mm
- ✓ Torque: 2-580 Nm
- ✓ Suitable for servo applications
- ✓ Low restoring forces
- ✓ High Torques
- ✓ Linear coupling versions

# Oldham Couplings



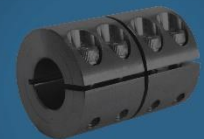
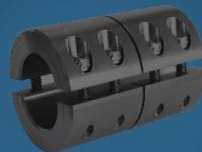
- Oldham Coupling
- X- Serie
- Backlash-free
- Torque: 0.9 Nm – 20Nm
- Bore diameters: 3mm – 25mm
- Ideal für servo applications
- Price competitive design



X-SERIE

- ✓ Rigid Couplings
- ✓ Bore Diameters 5 – 104mm
- ✓ Torque: 21 – 12500Nm
- ✓ Single slit or split design
- ✓ Steel and stainless steel versions
- ✓ Solid connection of shafts
- ✓ Different bore diameter combinations possible

## Rigid Shaft Couplings

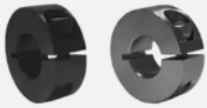




# Collars



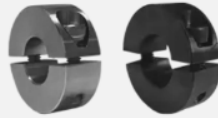
Collar  
single slit



**KR**

Shaft diameter: 4 mm - 50 mm  
Axial force: 867-8135 N

Collar  
split



**KR-G**

Shaft diameter: 4 mm - 50 mm  
Axial force: 1300-14560 N

Collar  
in wide version



**KR-B**

Shaft diameter: 6 mm - 50 mm  
Axial force: 1734-16270 N

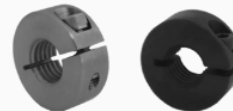
Collar  
split, in wide version



**KR-GB**

Shaft diameter: 6 mm - 50 mm  
Axial force: 2600-29120 N

Collar  
with thread



**KR-M**

thread diameters: M4 - M30  
Axial force: 867-5540 N

# Safety Couplings – Torque Limiters



Für direct drives

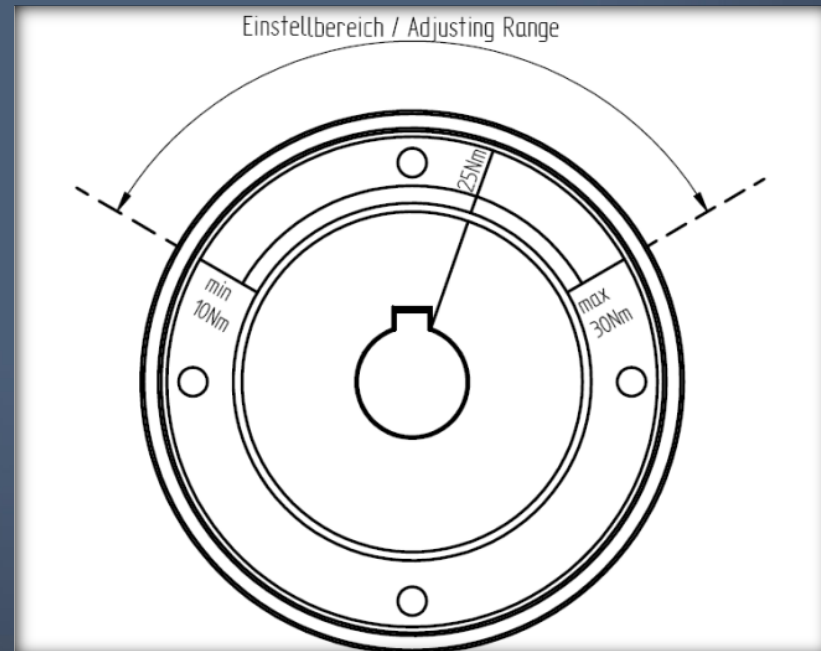
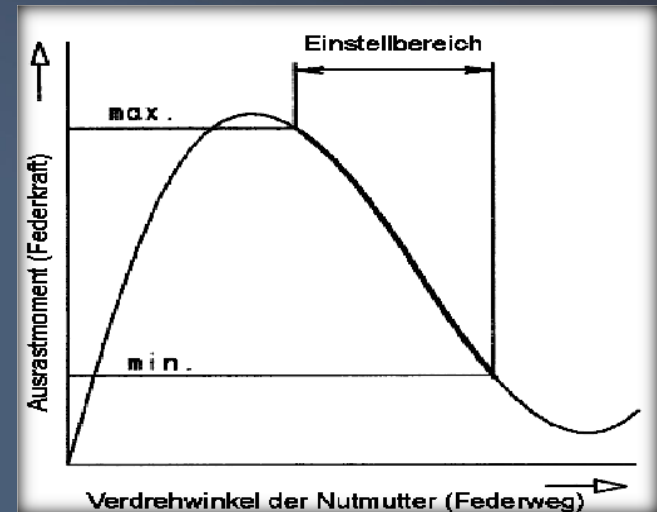
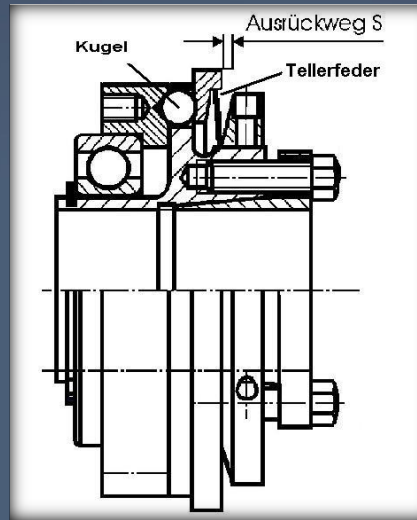


Für indirect drives



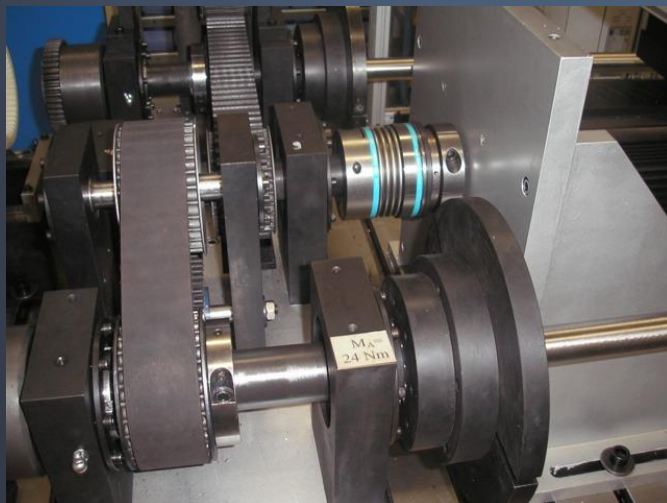
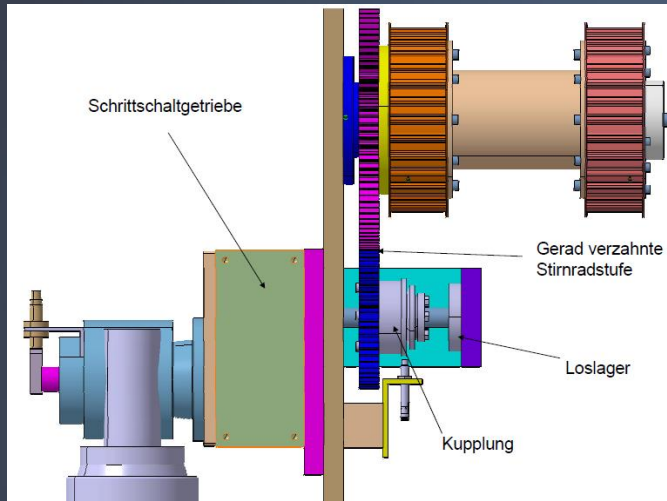
# Torque Limiters

- Safety Couplings
- Torque Limiters
- Torque:  
0.2Nm – 1400Nm
- Bore Diameters:  
3mm – 75mm
- Disengagement: 2 – 5 ms
- Adjustable torque settings
- Low residual friction
- Precise repeatability

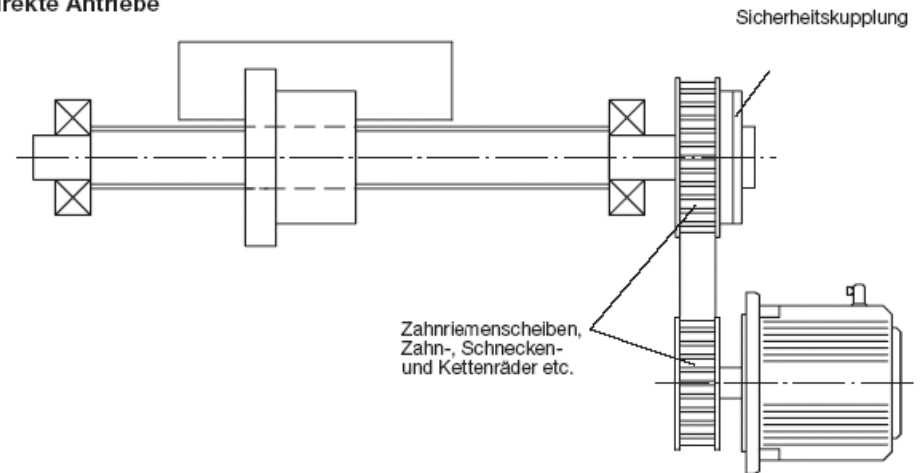




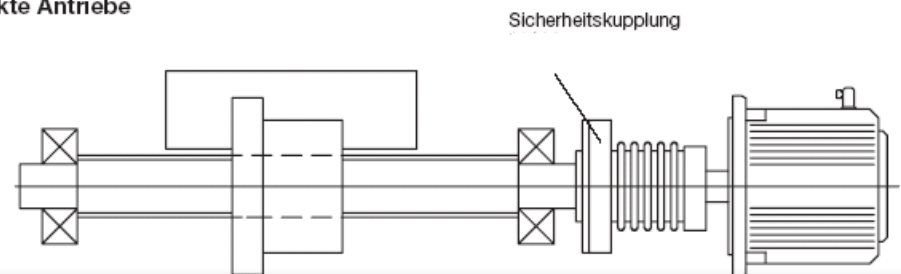
# Applications Safety Couplings



Indirekte Antriebe



Direkte Antriebe



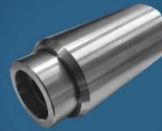
# Magnetic Couplings



Permanent Magnetic Coupling with clamp hubs (PMK)



Hysteresis Coupling with clamp hubs (HMK)



Hysteresis Clutch with inner and outer threads (HSM)

Hysteresis Magnetic Coupling with screw-in thread (HLM)



Magnetic Disc Coupling with clamp hubs (AMK)



# Friction Clutch

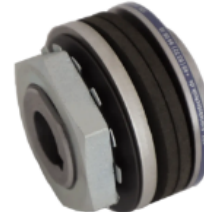
Friction Clutch  
with keyway



**KRDA**

Shaft diameter: 3.7 mm - 120 mm  
Torque range: 0.5 - 6800 Nm

Friction Clutch  
with keyway



**KRDB**

Shaft diameter: 3.7 mm - 65 mm  
Torque range: 0.5-1365 Nm

- For assembling pulleys, sprockets, etc.
- Smooth slipping on overload
- For shaft diameters from 3.7mm - 120mm
- Easy to adjust by using a scaled ring
- Reliable overload protection for conveyors and many other applications
- Torque range: 0,5-6800Nm



# Shaft-Hub\_Connections

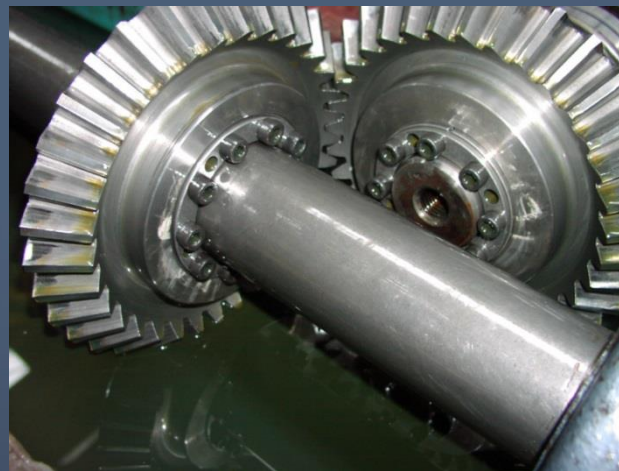
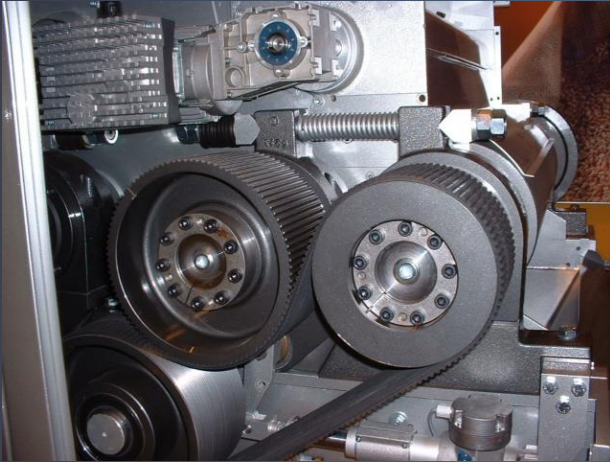
## Locking Devices – Shrink Discs – Locking Elements



- ✓ Bores: 4 – 600mm
- ✓ Torque: 3 – 1.247.000Nm

# Applications

## Shaft-Hub-Connections



# Measuring Gearboxes



## VGA

The compact measuring gearbox version “A” is used for a direct attachment of encoders by using a pinion.



## VGB

Attachment of encoders via coupling and mounting bell

- ✓ Backlash free Measuring Gearboxes
- ✓ Ratio according customer's request
- ✓ Upon request sealed and in stainless steel



Made for Motion



- ✓ Torsionally Elastic Couplings (Rotex)
- ✓ Shaft – Hub - Connections
- ✓ Elastomer Couplings
- ✓ Metal Bellows Couplings
- ✓ Safety Couplings

**R+W**<sup>®</sup>  
COUPLING TECHNOLOGY

- ✓ Line Shafts
- ✓ Elastomer Couplings
- ✓ Metal Bellows Couplings
- ✓ Safety Couplings

A stylized logo symbol for Poppe+Pothhoff, featuring a blue 'P' and 'O' intertwined.  
**POPPE+POTTHOFF**

**mayr**<sup>®</sup>

*Ihr zuverlässiger Partner*

- ✓ Magnetic Couplings
- ✓ Elastomer Couplings
- ✓ Metal Bellows Couplings
- ✓ Safety Couplings

**GERWAH**

 **RINGFEDER**

**ECOLOC**

 **TSCHAN** 

- ✓ Magnetic Couplings
- ✓ Shaft-Hub-Connections
- ✓ Elastomer Couplings
- ✓ Metal Bellows Couplings
- ✓ Safety Couplings



Entwicklung • Konstruktion • Beratung • Vertrieb  
Development • Engineering • Consulting • Sales  
Sviluppo • Construzione • Consulenza • Vendite

- ✓ Locking Devices
- ✓ Shrink Discs



- ✓ Locking Devices
- ✓ Shrink Discs



# Further Competitors

