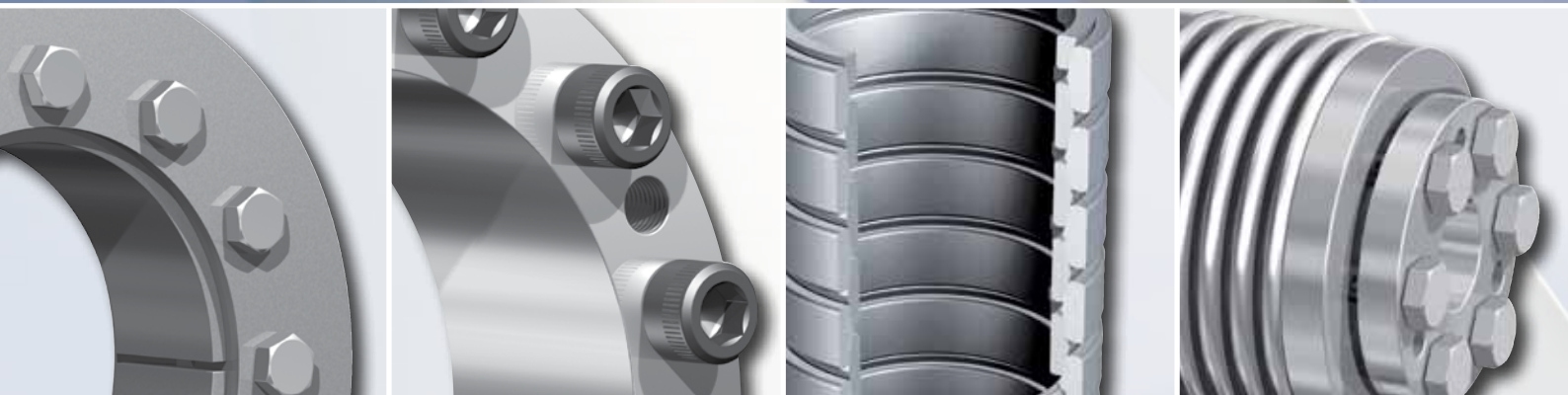


US
11|2011

Power Transmission Solutions



Partner for performance



A Global Presence For You

The RINGFEDER POWER TRANSMISSION GMBH was founded in 1922 in Krefeld, Germany to fabricate and promote Friction Spring technology. Today we have expanded our offerings to top power transmission and damping products. Innovative thinking sets us apart and allows us to develop progressive and economical solutions to support our customers.





Special applications require special solutions

Our extensive range of RINGFEDER POWER TRANSMISSION products can be applied to solve most applications. We don't just sell, but by understanding the individual requirements of our customers (e.g. loads on the components, easy installation/removal capability and reduction of production costs) assist you in every step with innovative engineering to plan efficient and technically mature solutions.



Locking Devices

Keyless shaft-hub locking devices have been the cornerstone of the Ringfeder Power Transmission group. For over 50 years, our product offering of internal clamping and external clamping locking devices and global support has been unparalleled in the industry.

RINGFEDER® Locking Devices are suitable for securing all types of hubs onto shafts and axles. Replacing traditional shrink fits, keys and polygonconnections, splined shafts etc.

Locking Assemblies, Locking Elements

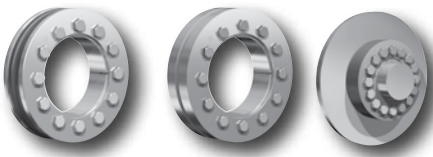


Locking Assemblies are the original and premium internal locking devices, fitting inside a component or hub. These units are most commonly used on applications in general engineering to transmit high torques and axial loads. Common types include 7012, 7013.0, 7013.1, 7014 and 7015.

Locking Elements - Derived initially from the friction spring technology these tapered rings, type 8006, pair together to form a mechanical wedge between the shaft and component being mounted. Available in shaft sizes from 6 mm to 1000 mm.

- **Internal Locking Assemblies Clamp connection**
- **Wide range of standard Locking Assemblies from 6 mm shaft diameter**
- **Safe transmission of high torque loads**
- **Custom made solutions**
- **Backlash-free**
- **Optional GSA units in INCH sizes in Aluminum 1/4-3 inches**
- **Optional stainless steel**

Shrink Discs®



- **External Clamping Devices**
- **Wide range of standard Shrink Discs® from 12 mm (0.472 in) shaft diameter**
- **Safe transmission of high torque loads**
- **Shaft sizes 12-375 mm (0.472-10 in)**
- **Optional stainless steel**

These external clamping devices fit on the hub projection of the component and compress the hub onto the shaft to transmit torque. Designed to be utilized as a single or in a split configuration these devices transmit high torques. Common types include light duty, medium duty and heavy duty devices.

Smart-Lock

Smart-Lock-Set is the new shaft-connection-system by RINGFEDER®. Cylindric bushings allow the adaptation to any hollow or solid shaft diameter.



Smart-Lock puts an end to all the precision machining involved and guarantees an optimum connection even with clearances up to 0.2 mm/0.007 in.. The flexibility offered by using interchangeable bushings between the solid shaft and the hollow shaft of the gearbox makes the Smart-Lock-Set an invaluable aid to the marketplace.

- **Cylindric bushings allow variable adaptations (inch, metric)**
- **Free of wear and fretting corrosion**
- **Economical, minimal spare part costs**
- **Bridging of large tolerances**
- **Flexible, backlash free**

Damping Technology

Protecting people and machinery – modern damping products are indispensable safety components where suddenly occurring kinetic energy needs to be absorbed. In machine tools or production plants, impact damping units dissipate the energy of an unwanted collision into targeted deformation energy and can save lives or prevent precious technology from destruction thus extending the life of the machinery.

For almost 100 years of expertise in the field of energy absorption we have the expert solution for your damping needs. We design, manufacture and supply your solution, whether off-the-shelf, custom designed or customized to your specifications.

Friction Spring



Friction Springs RINGFEDER® consist of separate inner and outer mating tapered rings which stack together to form a column. Under compressive loading of the column, the wedging action of the tapered rings expands the outer ring and contracts the inner ring allowing for axial deflection and, therefore, absorption of the compressive load. RING-springs® can operate in extreme environments for many years without maintenance if properly designed and protected.

- High spring work combined with low weight and volume
- High Damping Potential
- Overload-safe in blocked position
- Independent of loading rate
- Spring rate independent of temperature
- Maintenance free

Shock absorbing units DEFORM plus® / DEFORM plus® R



- High damping properties (up to 95%)
- Low costs
- Small installation space
- Low weight
- Easy replacement of used elements
- No corrosion

DEFORM plus® and DEFORM plus® R shock absorbing elements are elastomeric elements that absorb kinetic energy generated by impact loads. The non-reusable elements plastically deform and must be replaced after each impact. The reusable elements return to their original shape once the overload is removed and may be used repeatedly.

Fluid Elastomeric Damper



Hydro elastic dampers are high performance dampers which complete our range of products. Their function is based on the use of a unique fluid elastomer, which is used under high pressure in heavy-walled housings for the absorption and distribution of mechanical energies, damping of vibrations, impacts and other mechanical loads.

- Large capacity
- Large damping potential
- Non flammable, recyclable
- Environment-friendly
- Greater temperature range
- Maintenance free

GERWAH® Backlash-free Metal Bellows Couplings are used in the field of mechanical engineering to transmit torque or movement from shaft to shaft with maximum torsional rigidity.

For more than 30 years, GERWAH has specialized in trail-blazing couplings for driving technology and conveying engineering.

Our portfolio includes metal bellows, elastomer, safety, and magnetic couplings. From industrial machinery of all kinds to servo systems, linear or high-speed drivers: Customers from all around the globe rely on the precision of our components.

Magnetic Couplings



Magnetic couplings made by GERWAH are absolutely wear and abrasion-free; lengthy downtimes due to maintenance or repair are a thing of the past. The synchronous and hysteresis couplings transmit power without establishing direct contact. This qualifies for use in clean room environments, in large industrial machines (i.e. recycling facilities, industrial brakes, etc.).

- **Contact free torque transmission through permanent magnets**
- **Abrasion-free overload protection**
- **Available as synchronous – and hysteresis couplings**
- **Optional stainless steel**

Metal Bellows Couplings



- **Backlash-free**
- **Low moment of inertia**
- **Compensation of shaft-misalignment**
- **Torque from 0.4 – 5000 Nm (0.3 - 3800 lb-ft)**
- **Optional stainless steel**

Metal Bellows couplings made by GERWAH are the perfect choice in many areas where torsionally rigid and backlash-free shaft connections are required. Our high-quality products can compensate angular, axial and radial misalignments and transmit the rotational angle with highest precision. Compact shape and low moments of inertia are features and benefits of our self-aligning couplings.

Products

Servo-Insert Couplings



Backlash-free, vibration-damping, with a plug-in mounting; GERWAH's elastomer couplings are used in driving technology when precise, low-vibration power transmission is required. The flexible elements compensate angular, axial and radial misalignments of the shafts. Depending on the chosen type, the couplings are made for torques of up to 650 Nm (480 lb-ft).

- Backlash-free
- Vibration damping
- Plug-in mounting
- Compensation of shaft-misalignment
- Torque from 0.5 – 650 Nm (0.4-480 lb-ft)
- Optional stainless steel

Line Shafts



- Backlash-free
- Compensation of axial, radial and angular misalignment
- Maintenance free, no wear
- Optimal moment of inertia
- High torsional stiffness and misalignment compensation
- Temperature range -30° to +100° C (-22° to 212° F)

GERWAH's backlash-free line shafts are the perfect choice when large distances exist between shaft ends. The elements are available with metal bellows or elastomeric spiders. Torque and rotating movements are transmitted with highest angular accuracy while misalignments are compensated easily. Installation lengths of up to six meters (20 ft) are possible.

RING-flex® Torsionally Rigid Disc Couplings



Our torsionally rigid, flexible RING-flex® disc couplings can compensate angular, axial, and radial misalignments while transmitting torque in a backlash-free way between driver and driven components. They operate without wear or maintenance, never need lubrication, and, due to their all-metal construction, work well in very high temperatures. RING-flex® couplings are pre-engineered to be connected to the shaft with various RINGFEDER keyless locking devices.

- High torsional stiffness
- High transmissible torques
- Can be used up to temperatures of approx. 240° C (460° F)
- Maintenance-free operation
- Attachment of the coupling to the shafts with keys

Safety Couplings



- Backlash-free torque transmission
- High-speed disengagement
- Roller design for highest dynamic loads
- Modular System
- Optional stainless steel
- Non backlash-free version available

Farewell to breakdowns, overloads, and collisions: GERWAH's safety couplings protect motors, servos and other components from damage due to operation errors or malfunction. In case of overload, the high-speed disengagement capability of the coupling disconnects the backlash-free connection of driver and driven component within milliseconds.

RINGFEDER POWER TRANSMISSION, always there when precise calculations have to be made, now offers a new Locking Assembly with the launch of its ECOLOC product line. Improved manufacturing processes guarantee competitive pricing, making it possible to produce a low cost RINGFEDER POWER TRANSMISSION branded product which is suitable for most applications.

Locking Assemblies



RINGFEDER has excelled in offering premium quality locking devices to the market for almost a century. With the same outlook on quality, but at a more economical price, RINGFEDER is pleased to offer the Ecoloc devices for budget conscious customers.

- **Internal Locking Devices**
- **Wide range of standard Locking Assemblies from 6 mm shaft diameter**
- **Safe transmission of high torque loads**
- **Backlash-free**
- **Optional stainless steel**

Metal Bellows Couplings



- **Backlash-free**
- **Temperatures: - 20° C to +100° C / -4° F to + 212° F**
- **Maintenance-Free**
- **Easy mounting and dismounting**

Cost-efficient for backlash free transmission of low torques. Compensating for radial-, axial or angular misalignments. Low mass moment of inertia, ideal for application involving high speeds. Maintenance-Free, easy mounting and dismounting.





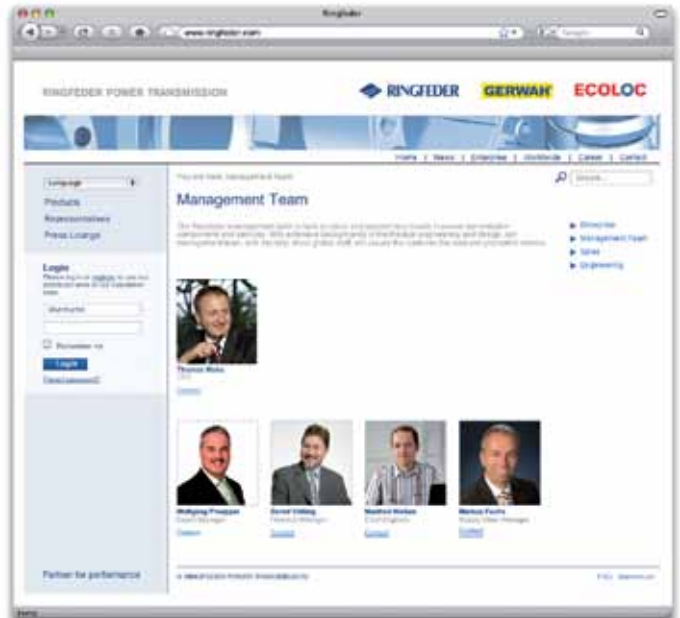
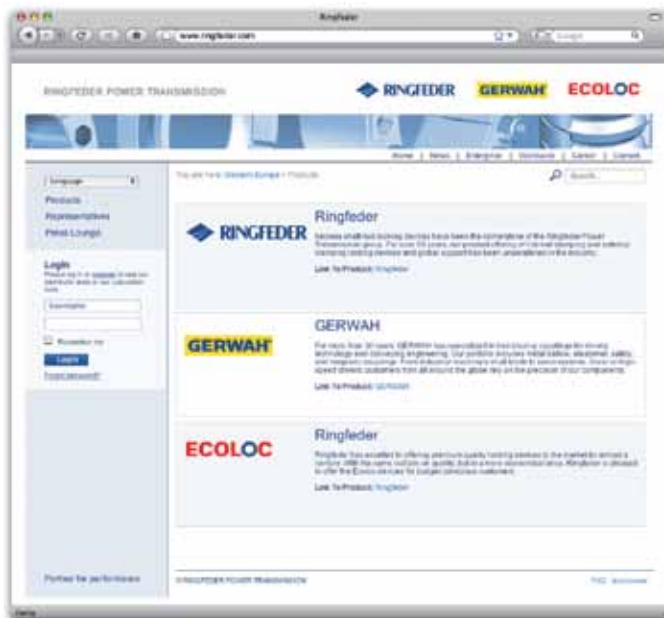
RINGFEDER POWER TRANSMISSION Website Relaunch

Global Player with fast access.

RINGFEDER POWER TRANSMISSION - one of the premium addresses when it's all about drive and damping technological solutions for mechanical engineering.

Our new homepage clearly shows the RINGFEDER POWER TRANSMISSION brands and products offered with easy navigation between products.

Please visit www.ringfeder.com for more information!



Fax Inquiry

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Please send us the following catalogs



RINGFEDER®
Locking Assemblies, Locking Elements,
Special Solutions

Languages

US D|GB Pcs



RINGFEDER®
Locking Assemblies for Bending Moments

Languages

GB Pcs



RINGFEDER®
Shrink Discs®, Smart-Lock, Shaft Couplings

Languages

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GERWAH®
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GERWAH®
Metal Bellows Couplings,
Servo-Insert Couplings, Line Shafts

Languages

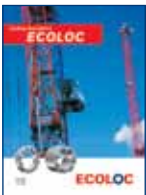
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GERWAH®
Safety Couplings

Languages

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ECOLOC

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ECOLOC

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Languages

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Languages

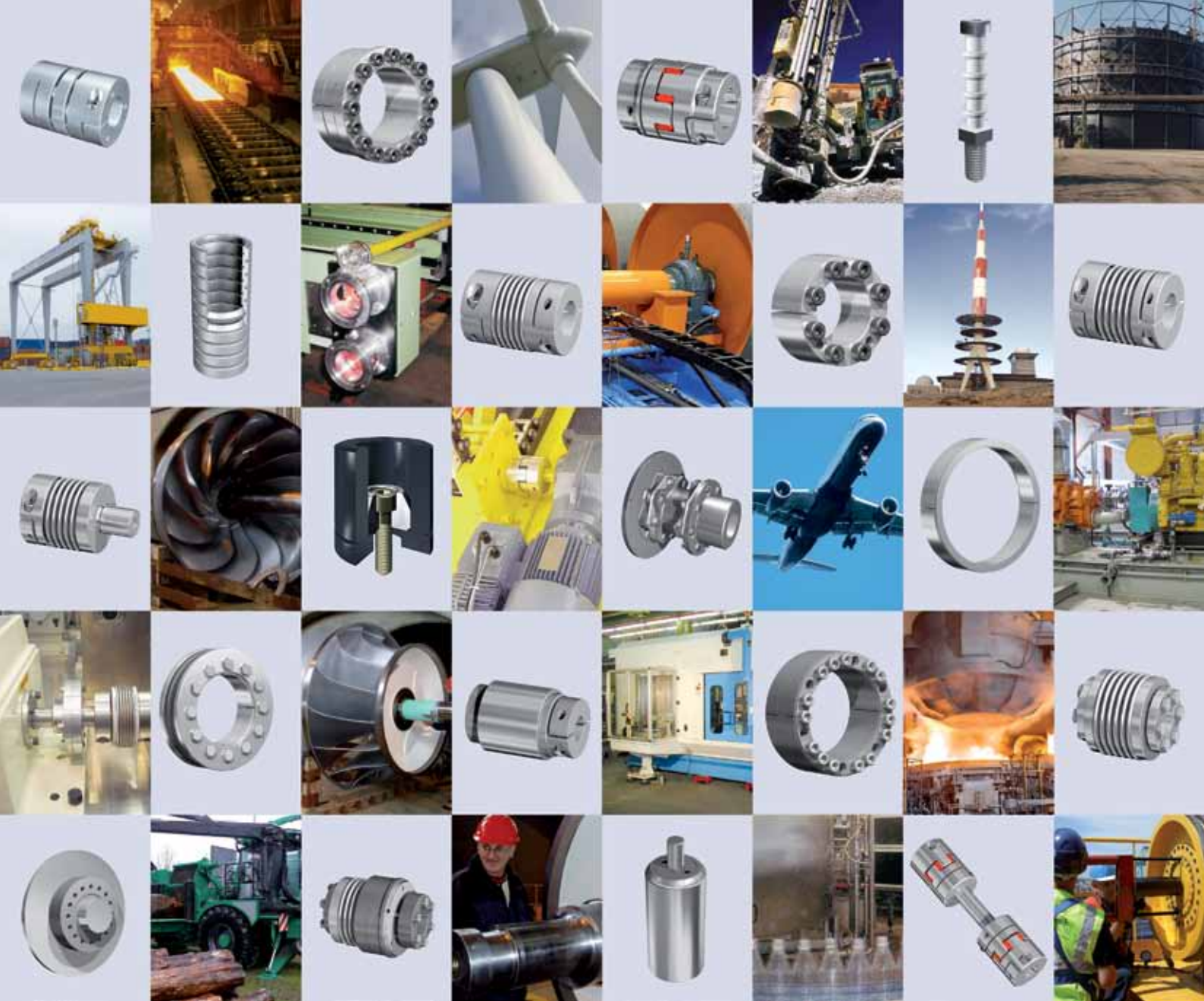
US = special edition for the US market

DE|EN = german and english

E|P = spanish and portuguese

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