...if you use
flexible or highly flexible,
torsionally rigid or articulated-joint
shaft couplings or clutches
made from cast iron or steel,
for torques
from 20 Nm up to 10,000,000 Nm

it's time to connect with...

FLENDER

A. FRIEDR. FLENDER AG
Couplings Factory Mussum

Industriepark Bocholt
Schlavenhorst 100, 46395 Bocholt
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Internet: http://www.flender.com

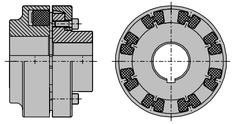
Please contact your local partner:

N-EUPEX

flexible
pin coupling

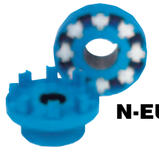
Brochure K 420

- pin coupling to be used universally for compensating shaft misalignments;
- maximum operational reliability owing to fail-safe device;
- suitable for plug-in assembly and simplified assembly of the type consisting of three parts;
- torque range from 19 Nm up to 62,000 Nm for 23 sizes and 7 different types;
- suitable for use in explosion-proof locations; certified acc. to 94/9/EC (ATEX 95).



N-EUPEX couplings are made out of high-quality cast iron GG-25. The flexible elements made out of synthetic rubber (buna N) are resistant to many media. Metal pins and flexible elements are so designed that no wear occurs at permissible misalignment.

Fields of application:
N-EUPEX couplings are widely used in the whole field of mechanical engineering, as high-speed coupling on the motor side (e.g. pump drives or power generating sets), as well as high-torque coupling for the connection of gear unit and driven machine (e.g. mills).

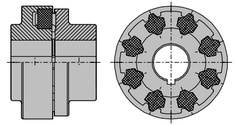


N-EUPEX-DS

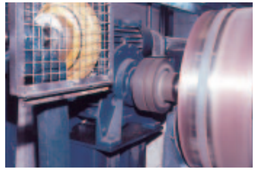
without
fail-safe device

Brochure K 420

- disconnecting driving and driven machines upon failure of flexible elements (without fail-safe device);
- universally applicable since combination with all parts of the N-EUPEX product range is possible;
- torque range from 60 Nm up to 21,200 Nm for 19 sizes and same nominal torques as before;
- suitable for use in explosion-proof locations; certified acc. to 94/9/EC (ATEX 95);
- also maintenance-free if used in hazardous locations.



Metal parts made out of high-quality cast iron GG-25. The flexible elements are made out of polyurethane or buna N.



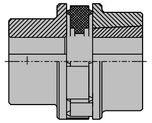
Fields of application:
N-EUPEX-DS couplings are used as universal couplings in the whole field of mechanical engineering. They are particularly preferred where driving and driven machine have to be disconnected upon failure of flexible elements, or where a maintenance-free coupling is required.

BIPEX

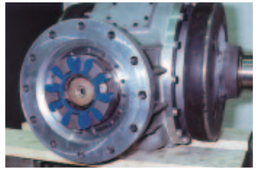
flexible
claw coupling

Brochure K 422

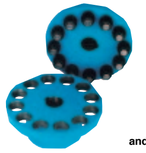
- flexible, fail-safe universal coupling;
- very compact design, high power capacity;
- very well suitable for plug-in assembly and assembly into bell housing;
- available ex stock in 13 sizes for a torque range from 13.5 Nm up to 3,700 Nm;
- type BWT with Taper bush for easy assembly and bore adaptation.



BIPEX couplings of the standard BWN series consist of two identical hub parts (material GG-25).
The geometry of the flexible elements - closed flexible rings made out of polyurethane - and the metal claws has been optimized so that no wear occurs at permissible deflection. BIPEX couplings have a very low circumferential backlash and can be supplied with flexible rings of different elasticity.



Fields of application:
General mechanical engineering; especially as high-speed coupling on the motor side and for bell housing installation, e.g. in hydraulic drives, geared motors, pump drives, and axle drives.

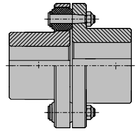


RUPEX

flexible pin
and bush coupling

Brochure K 429

- flexible, fail-safe coupling for medium up to high torques;
- compact design, low weights and mass moments of inertia;
- suitable for plug-in assembly (blind assembly, bell housing installation);
- torque range of the standard series from 210 Nm up to 1,400,000 Nm (larger couplings on request);
- suitable for use in explosion-proof locations; certified acc. to 94/9/EC (ATEX 95).



Hub material of the standard RWN series is grey cast iron GG-25, type RWS quenched and tempered steel C 45 N. The optimized shape of the barrelled buffers and conical seats of the buffer pins facilitate mounting and guarantee maintenance-free operation. Type variants are offered, e.g. with brake disk, axial play limiting device, or brake motor couplings.

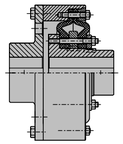
Fields of application:
RUPEX couplings are used in general mechanical engineering both as high-speed couplings and for high torques, e.g. in cranes, conveyors, blowers, screw pumps, cableways, mixers, cement processing machines.

ELPEX

highly flexible
ring coupling

Brochure K 425

- highly flexible coupling without circumferential backlash;
- can be used for large shaft misalignments;
- suitable for high dynamic loads, good damping properties;
- available in 12 sizes for torques up to 90,000 Nm also as fail-safe coupling;
- type EFG in flanged design with dimensions according to SAE J620d.



ELPEX couplings are made out of grey cast iron GG-25 or steel. The flexible rings are made out of high-quality natural rubber in which the radial fibre inserts, which transmit the torque, are vulcanized.

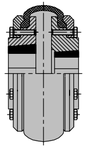
Fields of application:
Drives with periodically exciting machines, such as internal combustion engines, piston compressors, piston pumps, drives with high shock loads or large shaft misalignments, e.g. in the cement industry.

ELPEX-B

highly flexible
rubber tyre coupling

Brochure K 4251

- highly flexible rubber tyre coupling without circumferential backlash;
- compensating very large shaft misalignments;
- the rubber tyre can be easily replaced without the need to move the coupled machines;
- easy mounting on the shafts with Taper bushes or hubs bored according to customer's requirements;
- nominal torque range T_{KN} between 24 Nm and 14,500 Nm.



The hubs of the ELPEX-B coupling are made out of high-quality nodular graphite cast iron GGG-40. The torque is transmitted by a flexible tyre reinforced with a cord ply.

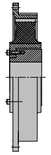
Fields of application:
Heavy machinery construction, metallurgical engineering, materials-handling technology, pumps, compressors, etc.

ELPEX-S

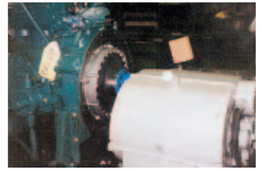
highly flexible
rubber disk coupling

Brochure K 4252

- highly flexible rubber disk coupling for connecting machines having a very non-uniform flow of torque;
- damps torsional vibrations with linear torsional spring characteristic;
- flange connections with dimensions according to SAE J620d, very easy plug-in assembly;
- replacement of rubber disk element is possible without the need to move the coupled machines;
- nominal torque range T_{KN} between 330 Nm and 63,000 Nm;
- for ambient temperatures up to 120 °C, rubber disks made from silicone caoutchouc are also available;
- suitable for use in explosion-proof locations; certified acc. to 94/9/EC (ATEX 95).



The inside diameter of the rubber disk element is vulcanized on a flange, the flange serving for taking a Taper bush or a hub.



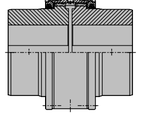
Fields of application:
Used in general mechanical engineering, especially suitable for drives comprising internal combustion engines, piston compressors, or for cement mill drives.

ZAPEX-ZW

universal gear coupling
oil or grease lubricated

Brochure K 432

- double-jointed gear coupling which compensates angular, parallel and axial misalignment of shafts;
- low restoring forces in case of shaft misalignment;
- long-term lubrication is ensured by design measures and by using special seals;
- small dimensions; can be used for high shock loads; with large safety reserves;
- suitable for both directions of rotation (reversing operation).



ZAPEX gear couplings of the ZW series are made out of high-quality quenched and tempered steel and are manufactured according to the modular construction system. The external gear teeth of the hubs are hobbed in crowned design and thus, guarantee high flexibility at low circumferential backlash. The product range includes 31 sizes, 14 of which are on stock for a torque range of up to 250,000 Nm and max. bores up to 275 mm. Couplings up to 10,000,000 Nm can be offered in addition to the standard product range.

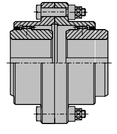
Fields of application:
Heavy machinery construction, metallurgical engineering, materials-handling technology, pumps.

ZAPEX-ZI

universal gear coupling
acc. to international standard

Brochure K 432-1

- double-jointed gear coupling with hobbed and crowned external gear teeth and low circumferential backlash;
- largest possible bore range with grease lubricated gear teeth;
- flange connection according to international standard;
- large safety reserves also at high shock loads.



ZAPEX gear couplings of the ZI series are made out of high-quality quenched and tempered steel and are manufactured according to the modular construction system. They are available ex stock in 12 sizes up to a torque of 125,000 Nm and a maximum bore of 276 mm.

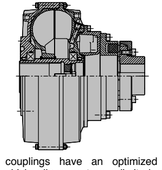
Fields of application:
Heavy machinery construction, metallurgical engineering, materials-handling, pumps, compressors.

FLUDEX

fluid coupling

Brochure K 481

- soft starting without shocks and acceleration of large masses during a load-relieved start of motor;
- torque limitation during start and overload;
- excellent vibration separation and shock damping;
- torque transmission without wear;
- allows the start of internal combustion engines with connected load;
- suitable for use in explosion-proof locations; certified acc. to 94/9/EC (ATEX 95).



FLUDEX couplings have an optimized working chamber which allows a torque-limited start and guarantees very low operating slip at nominal load. Four series of FLUDEX couplings are offered with various types designed according to the modular construction system, and 14 sizes for power ratings up to 2,500 kW.

Fields of application:
Hoisting devices, centrifuges, mixers, drum drives, flushers, ventilators, pumps, shredders, bucket wheel excavators, PTO shaft generators, and pulleys.

ARPEX

all-steel couplings

ARPEX all-steel couplings are available for torques from 5 Nm up to 10,000,000 Nm. Ideally, they are used in drives requiring a reliable and uniform transmission of torque even in the case of shaft misalignment. The ambient temperature range is between -20 °C and +280 °C.

Additional features of the couplings are:

- torsionally rigid all-steel couplings without backlash;
- compensate radial, angular, and axial shaft misalignment by means of two flexible plate packs;
- maintenance-free plate packs made out of stainless spring steel are not subject to wear;
- easy to assemble owing to compact design;
- approved for use in hazardous locations according to directive 94/9/EC (ATEX 95).

ARS-6 series *Brochure K 431*

- standard coupling; many design variations possible owing to the modular construction system and use of standard components;
- hexagonal plate packs.

Fields of application: Universal coupling for paper and printing machines, compressors, power engineering, the petrochemical and chemical industries, conveyors, the cement industry, marine propulsions, ventilators, etc.

ARC-8/10 series *Brochure K 431*

- positive transmission of torque by means of patented conical screw connection;
- optimized coupling diameter and torque capacity;
- easy to assemble owing to conical screw connection.

ARPEX

all-steel couplings

- with octagonal and decagonal plate packs.

Fields of application: Universal coupling for paper and printing machines, compressors, power engineering, the petrochemical and chemical industries, conveyors, the cement industry, marine propulsions, ventilators, etc.

ARF-6 series *Brochure K 431*

Fields of application:
Short series for applications with extremely short distances between shafts and free radial dismantling of the coupling without the necessity to move the machines.

ARW-4/6 series *Brochure K 431*

- for applications with large angular shaft misalignments;
- square and hexagonal plate packs.

ARP-6 series *Brochure K 4313*

- design according to API 610 requirements;
- design according to API 671 also available;
- hexagonal plate packs.

Fields of application:
Especially designed for pump drives.

ARPEX

all-steel couplings

ART-6/8/10 series *Brochure K 4312*
- High-speed couplings -

Fields of application:
Generators, turbines, turbo-compressors, boiler feed pumps, marine propulsions, test stands, etc.

ARS-6 series *Brochure K 4315*
- Composite -

Fields of application: Corrosion resistant, extremely light coupling for drives with very large distances between shafts: up to 6 metres (e.g. cooling tower fans).

AKR series *Brochure K 4311*
- Torque limiters -

- torque limitation with high repetitive accuracy by spring-loaded face gearing, up to 35,000 Nm;
- torque transmission without backlash;
- combinations with different drive elements or various other couplings offer innumerable assembly options.

Fields of application:
Wide range of applications as torque limiter and overload protection in general mechanical engineering.

ARPEX

all-steel couplings

ARM-4 series *Brochure K 4316*
- Miniature couplings -

Fields of application:
Control engineering, machine tools, test stands, etc.

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- **Subsidiary with manufacturing plant, sales and stock;**
- **Representative with sales and stock;**
- **Distributor; or**
- **Representative office.**

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Let's talk about couplings now...

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