

Professional support and first-class production



Your specific application is the starting point of the consultation with our coupling experts.

The extensive range of FLENDER couplings provides perfect solutions for almost every customer application. Our experts support you with the selection of the perfect coupling for your specific task. As already in the design phase you decisively define the lifecycle costs of your plant or system.

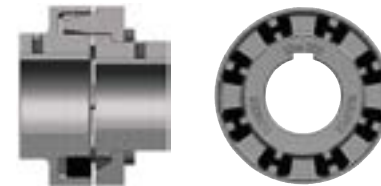
Our couplings play an essential role, for example regarding plant and system availability, minimizing the wear of A-components, such as gear units or motors, vibration and noise damping and finally, energy efficiency. Siemens develops its couplings using modern CAD systems, rigorously tests all of its prototypes and manufactures products in first-class production systems. Our delivery performance is based on our optimized production processes. As one of the largest coupling manufacturers worldwide, we have proven this millions of times to the satisfaction of our customers. We can provide you with the security that you always select the perfect coupling for your specific application.

N-EUPEX

Flexible claw coupling
Catalog MD 10.1



- Damping shaft coupling that can be universally used to compensate shaft misalignment
- Rated torque range from $T_{KN} = 19$ Nm up to 62,000 Nm with 23 sizes
- Temperature range: from -50°C to $+100^{\circ}\text{C}$
- Highest possible operational reliability due to fail-safe design (the load remains connected)
- Suitable for plug-in mounting and simplified mounting with three-part design
- Suitable for use in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



N-EUPEX couplings are manufactured from high quality cast iron EN-GJL-250. Elastomers from synthetic rubber (NBR) are resistant to many media. At permissible misalignment nearly no wear occurs and the restoring forces remain low as metal cams and elastomers are matched carefully.



Applications: Widely used in machine construction both on the motor side as well as also as high-speed coupling (e.g. pumps, fans, compressors) also at high torques for connecting gearboxes and driven loads (e.g. mills)

N-EUPEX-DS

Flexible claw coupling
Catalog MD 10.1



- Damping shaft coupling that can be universally used to compensate shaft misalignments
- Rated torque range from $T_{KN} = 60$ Nm up to 21,200 Nm with 19 sizes
- Temperature range: from -30°C to $+80^{\circ}\text{C}$
- Disconnects driver and driven machine with elastomer failure (non-fail-safe principle operation, the load is disconnected).
- Can be universally used and combined with many components of the N-EUPEX line
- Maintenance-free even in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



N-EUPEX DS couplings manufactured from high quality cast iron EN-GJL-250. Elastomers manufactured from synthetic rubber (NBR) are resistant to many media. At permissible misalignment nearly no wear occurs and the restoring forces remain low as metal cams and elastomers are matched carefully.



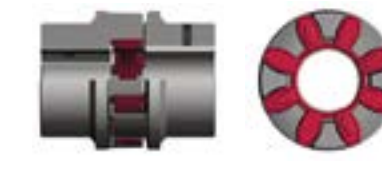
Applications: N-EUPEX-DS couplings are used as universal couplings in all areas of machine construction. They are the preferred solution especially where it is advantageous for input and output to be separated if the flexible elements fail.

N-BIPEX

Flexible claw coupling
Catalog MD 10.1



- Damping shaft coupling that can be universally used to compensate shaft misalignments
- Rated torque range from $T_{KN} = 12$ Nm up to 4,650 Nm with 10 sizes
- Temperature range: from -50°C to $+100^{\circ}\text{C}$
- Compact design
- Highest possible operational safety as fail-safe
- Simple installation
- Cam rings with various Shore grades
- Suitable for use in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



N-BIPEX couplings are manufactured out of high quality nodular cast iron EN-GJS-400-15. The flexible cam ring from thermoplastic polyurethane transmits the torque positively. The N-BIPEX can optimally compensate shaft misalignment. Cam ring and cast cams are perfectly matched by the optimized curved design. Therefore the restoring forces and the edge pressure are minimized.



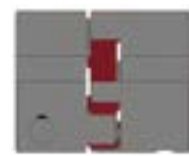
Applications: N-BIPEX couplings are used in general machine construction, frequently as high-speed coupling on the motor side. Main applications for N-BIPEX include hydraulic drives and motor bell housings (e.g. geared motors).

BIPEX-S

Backlash-free claw coupling
Catalog MD 10.3



- Pluggable, vibration-damping and electrically isolated claw coupling
- Rated torque range from $T_{KN} = 0.5$ Nm up to 655 Nm with 10 sizes
- Temperature range: from -50°C to $+120^{\circ}\text{C}$ (depending on the degree of hardness, short-term from -60°C up to $+150^{\circ}\text{C}$)
- Compact design with a high power density
- Axially pluggable
- Vibration damping



BIPEX-S couplings consist of two hubs manufactured from aluminum or steel and a polyurethane cam ring. The cam rings can be supplied with different Shore grades so that the degree of damping and torsional stiffness can be varied. The wide range of hub designs for example slotted clamping hub, half-shell design or expanding mandrel, allow optimum connection to the coupled machine shafts.



Applications: Spindle and positioning drives in machine tools, automation technology, drives in printing and packaging machines, healthcare or in the area of renewable energies.

RUPEX

Flexible pin and bush coupling
Catalog MD 10.1



- Damping, fail-safe pin and bush coupling for medium and higher torques
- Rated torque range from $T_{KN} = 200$ Nm up to 1,300,000 Nm (larger couplings on request) with 26 sizes
- Temperature range: from -50°C to $+100^{\circ}\text{C}$
- Compact design, low weights and moments of inertia
- Suitable for plug-in mounting



Standard hub material of the standard series RWN is EN-GJL-250 cast iron, the RWS series from steel. The optimized shape of the crowned buffers and the tapered fit of the bolts simplify the mounting process – and allow for a reliable operation even under harsh operating conditions. Different versions, e.g. with disk brake, limited axial play or backlash-free, are available.



Applications: RUPEX couplings are used in general machine construction as high-speed coupling and also for applications involving high torques or load fluctuations, e.g. cranes, conveyor systems, blowers, pumps, cable railways, mixers, cement processing systems.

ELPEX

Highly flexible rubber tire coupling
Catalog MD 10.1



- Highly flexible, backlash-free coupling
- Rated torque range from $T_{KN} = 1,600$ Nm up to 90,000 Nm with 9 sizes – also available as fail-safe coupling
- Temperature range: from -40°C to $+80^{\circ}\text{C}$
- Suitable for high shaft misalignments
- Withstands high dynamics with good damping characteristics
- EFG type with a flange design and dimensions according to SAE J620d



ELPEX couplings are manufactured from cast iron or steel. The flexible rings are from high-quality natural rubber with vulcanized fiber inserts.



Applications: Drive subject to periodic excitation, such as combustion engines, compressors, reciprocating pumps, drives with high shock loads or large shaft misalignments, e.g. in the cement industry.

ELPEX-B

Highly flexible rubber tire coupling
Catalog MD 10.1



- Highly flexible, backlash-free coupling
- Rated torque range from $T_{KN} = 24$ Nm up to 14,500 Nm with 15 sizes
- Temperature range: from -50°C to $+50^{\circ}\text{C}$ for natural rubber materials, from -15°C to $+70^{\circ}\text{C}$ for chloroprene rubber
- Suitable for very high shaft misalignments
- Rubber tires can be replaced easily without moving the coupled machines
- Bored hubs and hubs with taper bushings for easy mounting are available



The hub components of the ELPEX-B are manufactured from high quality EN-GJL-250 cast iron or steel. Torque is transmitted by rubber tires reinforced with cord inserts.



Applications: Steel industry, heavy machine construction, pump and compressor construction and many more.

ELPEX-S

Highly flexible rubber tire coupling
Catalog MD 10.1



- Highly flexible rubber disk coupling to couple machines with high torque fluctuations
- Rated torque range from $T_{KN} = 330$ Nm up to 63,000 Nm with 17 sizes
- Temperature range: from -40°C to $+120^{\circ}\text{C}$
- Isolate torsional vibration using linear torsion spring characteristic
- Flange connection dimensions according to SAE 620d, very simple plug-in mounting
- Rubber elements can be replaced without moving the coupled machines
- Silicon rubber elements for higher ambient temperatures



The rubber element is vulcanized to a flange at the inner radius. Depending on the particular version, this is connected with a hub or implemented as hub to accept a tapered clamping bushing.



Applications: Especially suitable for drives with reciprocating machines (internal combustion engines, reciprocating compressors,...).

X-Cat NG



Our X.Cat Configurator navigates you to the coupling that you require in just a few steps.

Further information at:
siemens.com/x-cat-qr1

FLENDER couplings – at a glance!



FLUDEX

Fluid coupling
Catalog MD 10.1



- Hydrodynamic fluid couplings
- Rated powers from 1.2 kW up to 2,500 kW with 15 sizes
- Rated torque limiting when starting and under overload conditions
- Soft and shock-free starting and acceleration of high masses with load-relieved motor starting
- Excellent vibration isolation and shock damping
- Wear-free torque transmission
- Allows combustion engines to be started with coupled load



FLUDEX couplings have an optimized working chamber, which allows torque-limited starting and guarantees a very low slip in operation at rated load. FLUDEX couplings are provided in 4 series with different versions developed according to a modular system.



Applications: Conveyor equipment, conveyor belts, bucket excavators, centrifuges, mixers, drums drives, crushers, fans, pumps, shredders, bucket wheel excavators, agitators, etc.

ARPEX

Multiple disk coupling
ARS-6, ARC-8/-10, ARP-6,
ARW-4/-6, ARF-6 series
Catalog MD 10.1



- Torsionally rigid, backlash-free all-steel multiple disk coupling
- Rated torque range from $T_{KN} = 5$ Nm up to 10,000,000 Nm
- Temperature range: from -40°C to $+280^{\circ}\text{C}$
- Compensates radial, angular and axial shaft misalignments
- Maintenance-free and wear-free
- Simple installation
- Modular system, providing a wide range of variations based on standard components
- Positive torque transmission using a patented tapered bolt connection (from $T_{KN} = 8,500$ Nm)
- ARS-6 series: standard series for universal use
- ARC-8 series: optimized for high torques
- ARP-6 series: optimized for pump drives (according to API 610 / API671)
- ARW-4/6 series: optimized for large shaft misalignments
- ARS-6 series: optimized for extremely restricted space
- Suitable for use in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



Ideal in all applications in which torque must be reliably and uniformly transmitted with simultaneous shaft misalignment.



Applications: Paper, printing machines, compressors, energy technology, petrochemical, chemical, conveyor belts, cement industry marine drives, pumps, fans, etc.

ARPEX Composite

Multiple disk coupling
ARS-6 series
Catalog MD 10.5



- Multiple disk coupling for drives with large gaps between shaft ends
- Rated torque range from $T_{KN} = 1,250$ Nm up to 7,600 Nm
- Temperature range: from -40°C to $+120^{\circ}\text{C}$
- Corrosion-resistant composite/steel design; spacer tube manufactured from carbon fiber reinforced plastic, other components manufactured from stainless steel (alternatively corrosion-protected steel)
- Weight-optimized design (up to 80% lighter than a comparable all-steel coupling)
- Designed for long distances between shaft ends up to 6 meters without requiring any additional bearing for the sleeve
- Compensates radial, angular and axial shaft misalignments
- Maintenance-free and wear-free
- Suitable for use in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



ARPEX composite couplings have been specifically developed for drives with large distances between shaft ends. The weight is kept extremely low by using composite material tubes – and no intermediate bearings are required. Cooling tower drives are a typical application.



Applications: Resistant to corrosion, extremely light coupling for drives with very large gaps between shafts, up to 6 m (e.g. cooling tower fan).

ARPEX ART

High-performance multiple disk
ART-6/-8/-10 and ARE-6/-8/-10 series
Catalog MD 10.2



- Torsionally rigid, backlash-free, all-steel multiple disk coupling for high-speed applications
- Rated torque range from $T_{KN} = 1,000$ Nm up to 588,500 Nm with 16 sizes
- Temperature range: from -40°C to $+280^{\circ}\text{C}$
- Compact and weight-optimized design in compliance with API 671 / ISO 10441
- High balance quality
- Simple installation due to preassembled modules
- Low restoring forces
- No lubrication required and therefore maintenance-free
- Suitable for use in potentially explosive environments. Certified according to 94/9/EC (ATEX 95)



ARPEX ART and ARE high performance couplings transmit the torque by a patented conical bolting and disk packages in 6-, 8- or 10-sided design with maximum permissible shaft misalignment of 0.16° to 0.35° . High-quality materials and a compact design permit high circumferential velocities and high torques with low associated weight.



Applications: Gas and steam turbines, generator systems, turbo compressors, boiler feed pumps, marine drives and test stands

SIPEX

Backlash-free metal
bellow coupling
Catalog MD 10.3



- Torsionally stiff metal bellow coupling
- Rated torque range from $T_{KN} = 0.05$ Nm up to 5,000 Nm with 20 sizes
- Temperature range: from -30°C up to $+120^{\circ}\text{C}$ (up to $+250^{\circ}\text{C}$ possible)
- Metal bellow compensates axial, radial and angular misalignment with only low associated restoring forces
- High transmission precision as a result of a high torsional stiffness
- Compact design with a high power density
- Low moments of inertia



SIPEX couplings consist of two hubs manufactured from aluminum or steel and a stainless steel bellow. SIPEX couplings can also be completely supplied in a stainless steel version. The wide range of hub designs, for example, slotted clamping hub, half-shell design or expanding mandrel, allow the optimum connection to be established to machine shafts. SIPEX couplings have very smooth running properties (low concentricity) and are therefore suitable for high speed applications.



Applications: Rotary encoders, servo drives and stepping motors, spindle and positioning drives in machine tools, automation technology, drives in printing and packaging machines, healthcare or in the area of renewable energies.

ZAPEX-ZW

Gear coupling
Catalog MD 10.1



- Double-jointed gear coupling
- Rated torque range from $T_{KN} = 1,300$ Nm up to 7,200,000 Nm with 31 sizes
- Temperature range: from -20°C to $+80^{\circ}\text{C}$
- Compensates axial, radial and angular misalignment with only low associated restoring forces
- Design and special seals ensure long-term lubrication
- Compact design with high safety margins, suitable for high shock loads
- Suitable for both directions of rotation (reversing)



ZAPEX ZW gear couplings have a modular design and are manufactured from high-quality quenched and tempered steel. Also application-based solutions can be addressed within a short delivery time. The crowned milled outer gearing of the hub guarantees a high freedom of movement with low torsional backlash. Further, ZAPEX-ZW couplings stand out for their compact design and very low need for maintenance.



Applications: Heavy machine construction, steel industry, conveyor technology, pump construction, compressors.

ZAPEX-ZN

Gear coupling
Catalog MD 10.1



- Double-jointed gear coupling
- Rated torque range from $T_{KN} = 1,020$ Nm up to 162,500 Nm with 12 sizes and a maximum bore of 288 mm
- Temperature range: from -20°C to $+80^{\circ}\text{C}$
- Double-jointed gear coupling with crowned outer gearing and low torsional backlash
- Highest bore capacity and grease-lubricated gearing
- High safety margins even at high shock loads



ZAPEX ZN gear couplings have a modular design and are manufactured from high-quality quenched and tempered steel.



Applications: Heavy machine construction, steel industry, Industry, pumps, compressors.

Railway couplings

Whether between motor and gearbox or between the gearbox and axle, whether as part of a complete drive-related solution from a single source or single connection integrated in the system – FLENDER railway couplings have proven and established themselves almost everywhere in thousands of drive applications all over the world.



Properties: Very high quality standard, components are 100% traceable, comprehensive range of products, delivery as module with FLENDER railway gearboxes, comprehensive services.



Wind turbine couplings

Every wind turbine coupling is perfectly designed for the individual wind turbine system. The coupling connects the high-speed gearbox shaft with the generator shaft.



Properties: Maintenance-free and robust, torsionally stiff, very large shaft misalignments can be compensated, connected machines are protected against overload damage.



SIEMENS



FLENDER couplings

Let's talk about couplings today