PRODUCT CATALOG

AUDOL

HIGH-PERFORMANCE DRIVES FOR YOUR MACHINES.

2026

Contents

Contents

RENK
Gear Couplings

Basic series

Can be combined with HYGUARD® safety couplings, brake disks, torque measuring shafts, or other auxiliary equipment.

SB Series

Split housing with bolted covers. Misalignment ± 1.5° for each half of the coupling, up to ± 3° in special version. Low strain on sealing rings thanks to optimal arrangement in housing lid.
Large lubrication chamber with secured contents. Filled with choice of oil or grease. Lubrication is maintained even if seal is damaged. Sealing rings are easy to replace. Large tooth center distance.

SBk Series

Split housing with bolted covers. Misalignment ± 0.75° for each half of the coupling, special design on request. Grease lubrication. Sealing rings are easy to replace. Large tooth center distance.

LBk Series

Misalignment ± 0.75° for each half of the coupling, special design on request. Grease lubrication. Split housing with integrated cover. Compact design.

High-speed series

Series ZT
Specially designed for maximum speeds. Nitrided and ground internal and external toothing. Toothing quality Q = 4-5 as per DIN 3962.

Series TF
Specially designed for high speeds. Nitrided internal and external toothing. Toothing quality Q = 6–7 as per DIN 3962.

Series TSB
Specially designed for moderate speeds. Naturally hard internal and external toothing. Toothing quality Q = 7–8 as per DIN 3962.

Gear spindle couplings

High transmission of torques. Compact external diameters. Large angular misalignment. Misalignment values +/- 3°. Lubrication with choice of grease or oil. Hardened toothing. Additional customized solutions available upon request.

Gear joint couplings

Assume a double function as a connecting element between the drive unit and lifting device, for example in a crane and hoist device. In addition to transmitting the torque, the coupling supports the forces acting radially on the drum. The gear joint coupling is torsionally rigid, yet flexible in all directions, which offers significant advantages in comparison with a rigid coupling.

Shifting gear coupling

Engagement and disengagement of toothed parts, also in synchronous operation. Connection or disconnection of drives on demand. Standard version with grease lubrication, special version with oil injection lubrication possible. Custom solutions for every need.

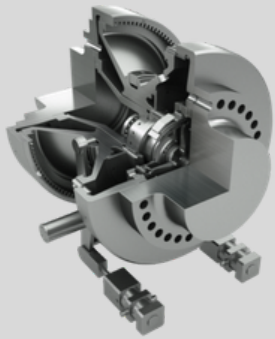
Safety Couplings HYGUARD®

HYGUARD® torque limiting couplings Couplings Couplings connect two shafts to transmit torque. safeguard your machinery's drivetrain from overload, protecting your capital goods from damage caused by unexpected overstraining. With constant, individually adjustable release torque, the RENK solution ensures reliability and flexibility throughout the entire operation.

Diaphragm Couplings

High torques are safely and reliably transmitted at maximum speed via a profiled single disc diaphragm. Power ranges up to 150 MW and continuous torques up to 3,500,000 Nm can be easily covered, matching our turbo gearboxes. The unique diaphragm contour and flexibility allows these couplings to compensate for axial, radial and angular misalignment under load.

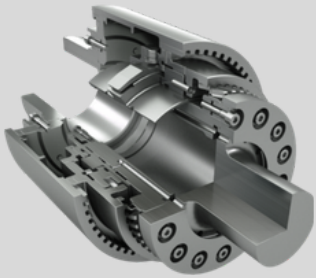
Synchronous Clutch Couplings



HS Type

Engages automatically at low synchronous speeds (< 500 rpm). Disengages upon command at any speed and < 10% output. Transmission of the full positive and negative torque. Power range up to 350 MW, torque range up to 1,100 kNm. Compensation of angular errors as well as radial and axial movements. Wear-free. No additional flexible couplings required.

MS Type



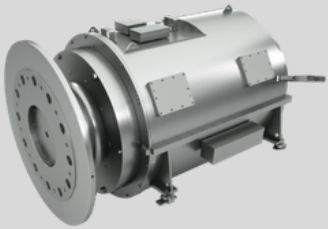
Automatic engagement and disengagement at any synchronous speed. Automatic separation at negative torque. Power range up to 300 MW, torque range up to 1000 kNm and speed range up to 18,500 rpm. Compensation of angular errors as well as radial and axial movements. No further flexible couplings needed. Wear-free thanks to hydrodynamic lubrication. Shorter and efficient system layouts possible. Low installation costs. Installation without repercussions for the adjacent machines. Flange, hub, or quill shaft version. Backspin protection and lock for power reversal (option) also with or without freestanding housing (option). Latch lifting: Low speed and thereby no engagement.

Marine Couplings

KAZ Type Clutch

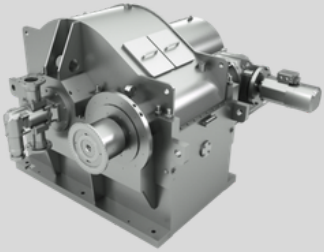
Low complexity of components with compact construction and low weight. Can be opened extremely quickly by the ship's crew. Self-lubricating operation despite highly inclined positions. Noise and vibrations during operation are generally low.

PSC Propeller Shaft Clutch



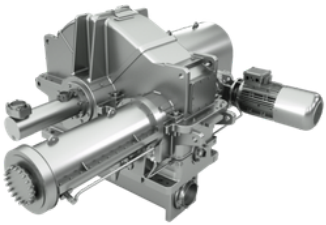
Simple operation of the coupling: Hydraulic switching. No additional loads for axial bearings and foundation of the main engine due to switching forces. Reliable transmission of the torque due to zero-backlash toothing. Positive, backlash-free transmission of the torque due to case-hardened, ground, and slightly conical tooth. Efficiency for vessels with twin-screw propulsion systems. Safety for vessels with single-screw propulsion systems. Flexibility for propulsion and on-board power. Semi- or fully-automatic engagement/ disengagement available.

Helical Gearboxes



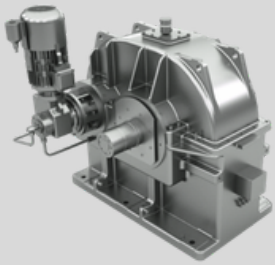
TS-TB-TL

Application-specific, adaptable transmission to the point. Speeds up to 80,000 rpm. Up to 15-fold transmission in single-stage version. Output up to 120 MW. Short delivery time due to high availability of stock. Maintenance-friendly.



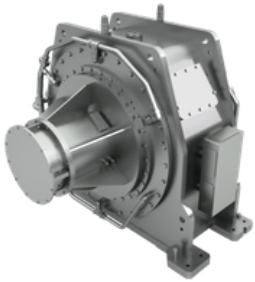
TCS

For the highest transmissions in compressor and turbine systems in which the speeds of the propulsion and working machines need to be adapted to one another. Adaptable individual transmissions at a speed of up to 27,000 1/min, an up to 15-fold and an output of up to 20 MW.



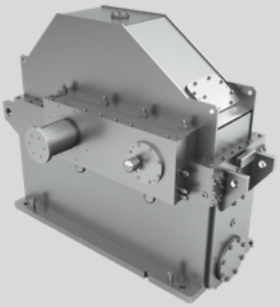
TNA-TNB

Application-specific, adaptable transmission to the point. Speeds up to 15,000 rpm. Up to 8-fold transmission in single-stage version. Output up to 15 MW. Short delivery time due to high availability of stock. Maintenance-friendly.



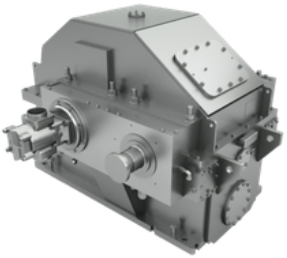
TPV

Co-axial arrangement with unidirectional rotation. Extreme transmission powers. Compact construction. Low circumferential speeds and low movement of mass. Compensation of thermal axial forces. Option to mount an oil pump or rotary drive. Conservative gear tooth design according to API 613 possible.



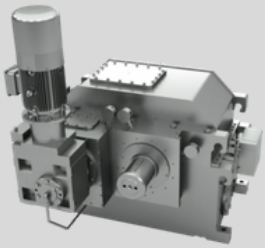
TA..I (standardized API 613 gearbox concept)

Suitable for absorbing axial forces. Short shaft overhangs for the best rotordynamic vibration characteristics. Welded construction. Best possible efficiency that can be achieved by conventional means. Optimized gear tooth geometry in terms of efficiency, noise, and vibration excitation. Individually calculated, optimal bearing geometries for every application scenario. Short delivery time. Oil drainage can be varied as selected. Instruments on lower section only.



TA..XI

Application-specific, adaptable transmission to the point. Speeds up to 15,000 rpm. Up to 8-fold transmission in single-stage version. Output up to 15 MW. Short delivery time due to high availability of stock. Maintenance-friendly.



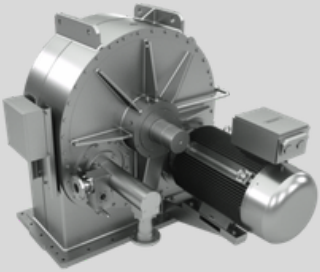
GD

Adaptability to specifications/ customer preferences. Very short shaft overhangs for excellent rotordynamic vibration characteristics. Best possible efficiency that can be achieved by conventional means. Optimized gear tooth geometry in terms of efficiency, noise, and vibration excitation. Individually calculated, optimized bearing geometries for every application scenario. Flexible housing concept for transmitting the highest power requirements. Basis for etaX gearbox concept for reduced power losses. Approved as per the DNV, GL, and LR classifications. Maintenance-friendly due to instruments on lower section of housing.

Planetary Gearboxes

CPG

Most cost-effective gearbox solution. Extremely low space requirements. Extremely lightweight. Integrated couplings and coupling guards. No internal axial forces caused by the system. Compensation of thermal external axial forces. Co-axial shaft arrangement (no center distance). High degree of efficiency.No base required for gearbox.



COPAZ

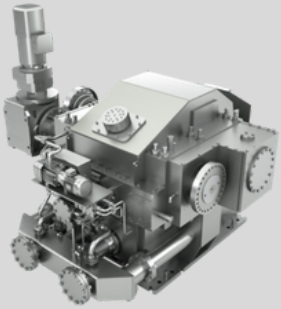
Most cost-effective free-standing gearbox solution. Low space requirements. Lightweight. Integrated HSS couplings and coupling guards. No internal axial forces caused by the system. Compensation for thermal external axial forces possible. Co-axial shaft arrangement (no center distance). Reduced noise emissions due to double-walled housing. High degree of efficiency.

P type

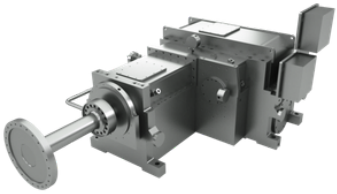
The sun pinions of the single- or multi-stage planetary gearboxes rotate at up to 36,000 rpm. The gearbox housing and the customer's connecting dimensions can either conform to RENK's standards or be adapted completely to the requirements of the customer.

etaX®

Efficiency increases up to 0.4% in comparison with conventional gear units. Reduced operating temperature by at least 15 K. Reduced oil quantity. Reduced oil wear permits longer oil change intervals. Fully automatic operation. Unrestricted availability in conventional operation as well. Amortization typically between one and three years. Significant CO_2 savings in the system's overall footprint. Noise-optimized design.



Clutch Gearboxes



High-speed gearboxes from RENK-MAAG GmbH can transmit a power of up to 100 MW and serve as the key component in energy recovery systems, such as those found in the area of air separation, the chemical and petrochemical industries, the refining of raw materials (SHRT / sintering heat recovery turbine), and steelworks (BPRT / blast furnace power recovery turbine).

Variable Speed Systems

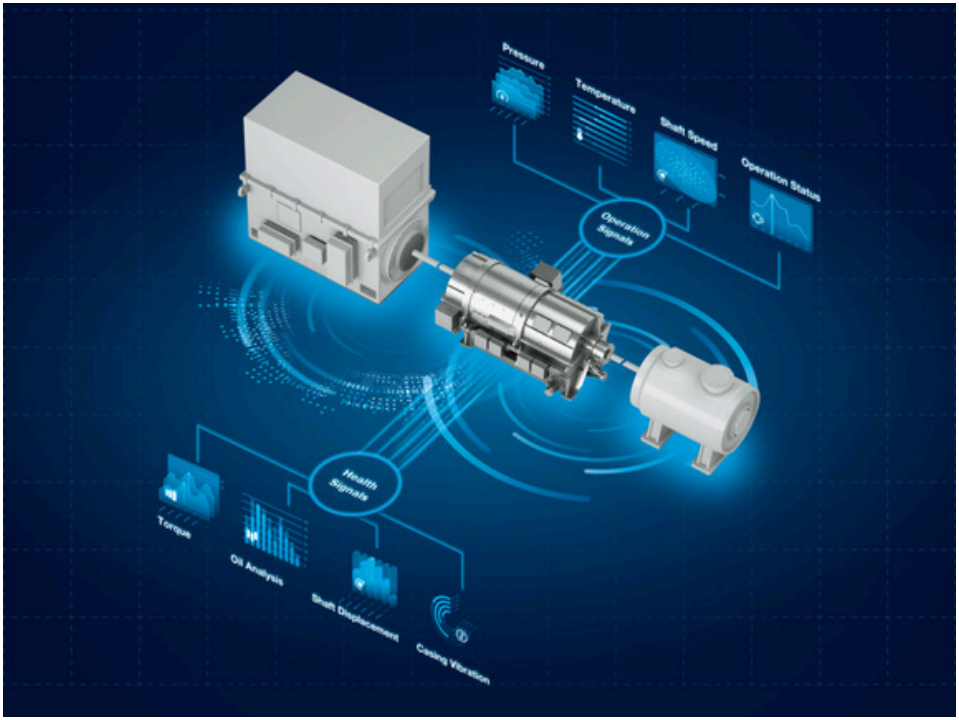
AUDOL®

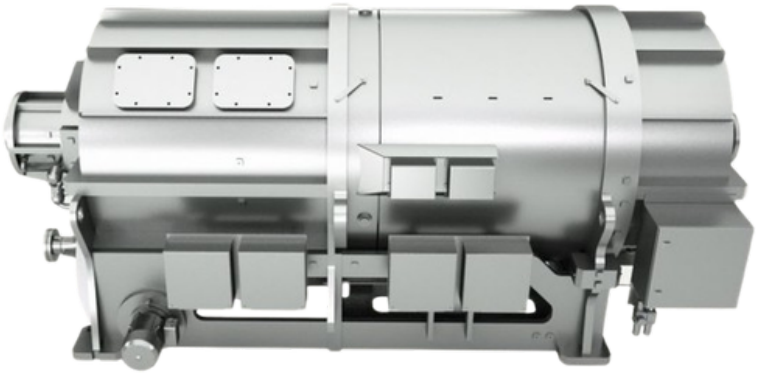
RECOVAR®-E

RECOVAR®-E stands for **R**ENK **ECO**nomic **VAR**iator and is RENK's variable-speed gearbox, which impresses with exceptional reliability, maximum efficiency at all operating points, and energy recovery under partial load.

The RECOVAR®-E offers high flexibility with gear ratios from 3 to 15, a variable speed range from 70 to 105% at constant input speed, power transmission up to 150 MW and an efficiency of approx. 97%.

Application areas for RECOVAR®-E include variable-speed pump and compressor applications in the oil and gas industry, petrochemicals, chemicals, hydrogen production, and other process industries.

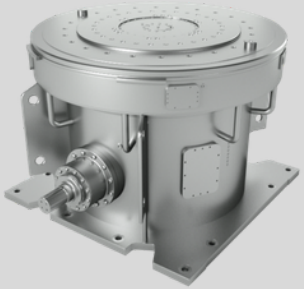




For mills

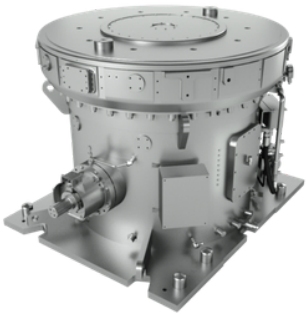
COPE® vertical mill gear unit

Torques of 1.7 to 5 million Nm for larger and large vertical mills. An increase in availability of over 3% makes COPE® economically viable in just a short time. The drive system with the best efficiency on the market. Grid or inverter operation possible, depending on the customer requirements. RENK round block axial bearing with hydrostatics: The indestructible mill bearing. Optionally also with the RENK VIBmonitoring System for the automation of regular maintenance checks. In the event of damage to the drive, the mill can be operated again after just a short time; repairs can be carried out without downtime thanks to redundant structure.



KPBVplus – planetary 3 stage system

Power range 1.500 kW to 12.000 kW. 30% higher transmittable torque with the same footprint. Simplified lubrication system – no jacking oil system required. Reduced power consumption. Best-in-class reliability.



iKPAV – planetary 2 stage

Torques of 140 to 480 kNm for smaller vertical mills. Proven in use for 40 years. Integrated lubrication system, no connecting tubes - short commissioning time, no contamination of the hydraulics during the installation of the system. Overdimensioned mill radial bearings. Sophisticated monitoring, optionally also with the RENK VIBmonitoring System.

PBLZ horizontal mill gear unit

Torques of 1,000 to 6,500 kNm for medium and larger horizontal mills. Transmission of 30 to 100 – which also makes cost-effective, fast-running drive engines possible. Sophisticated product thanks to incredible wealth of experienced gained over 30 years of successful use. Sophisticated lubrication system with fine filtering, resulting in a significantly extended service life. Three-step design results in comparatively small, inexpensive components. Sophisticated monitoring, optionally also with the RENK VIBmonitoring System for the automation of regular maintenance checks.

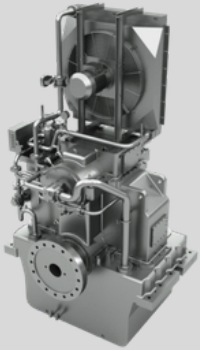
For hydro power plants

PAR/PBR planetary gear units

Compact, extremely lightweight design. Integrated high-speed couplings and coupling guards. Integrated axial bearing for absorbing turbine forces. Compensation of external thermal axial forces. Co-axial shaft arrangement (no center distance). Low noise emissions due to double-walled housing. Highly efficient, even during partial-load operation. Optionally available in a flange version (no base). Operation between idling and full load possible. Wear-free slide bearings. Design with through bore for blade adjustment optionally available.

RIV slide bearing gear units

Application-specific, adaptable transmission to the point. High degree of standardization across the various sizes. Up to 15-fold transmission in single-stage version. The gear geometry is optimized according to the respective application scenario and the running parameters. Short delivery times due to high availability of stock. Maintenance-friendly.



Slide Bearings

E-bearings

Slide bearings have lower noise levels in comparison to rolling bearings and are resistant to loads caused by shocks thanks to lower material stresses. Maintenance-free or low-maintenance and easy to install. Slide bearings have a lubricant film that dampens vibrations, impacts, and noise. Resistant to dust penetration and shocks. Require a small radial installation space and are structurally adaptable (can be integrated as component). Suitable for very high speeds. Exhibit practically no wear during fully hydrodynamic continuous operation and with hydrostatic bearings. More cost-effective than rolling bearings at large dimensions.

EF e-bearings

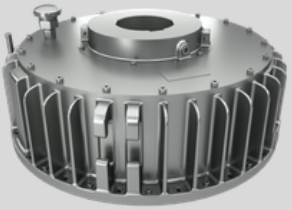
EG/ER e-bearings

EM/ZM e-bearings

Vertical bearings

V series

Mainly used in low- to medium-speed machines with vertical designs, such as pumps, fans, turbines, or electrical machines. They are designed for thrust loads up to 1,000 kN with shaft diameters from 70 to >400 mm.

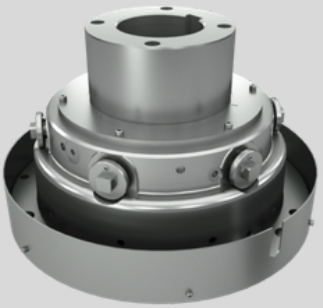


Various options available:

- VT bearings are available as radial and axial with combined thrust and guide bearings
- VG bearings are supplied as guide bearings with journal parts
- VB bearings with thrust and guide feature and upward thrust face
- VX bearings, which are the special and custom designed versions

EV series

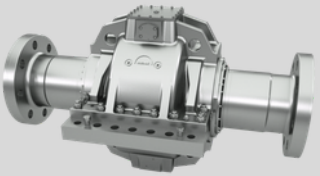
Bearing design tailored especially to vertical applications. Spring and shock-absorbing characteristics can be adapted by adjusting the radial tilting pad. Noise and vibrations during operation are generally low. Efficient condition monitoring thanks to easy evaluation of the bearing temperature. Available as a package with numerous combination options.



Horizontal bearings

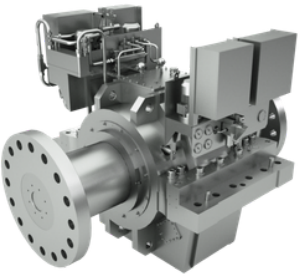
D type

Tested in numerous applications. Integration of special customer-specific requirements. Overhaul and maintenance possible for installed shaft. Low noise and vibrations. Efficient condition monitoring thanks to easy evaluation of the bearing temperature. Available as a package with numerous combination options.



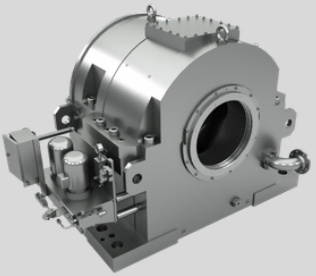
LA type

Designed especially to shipbuilding applications. Integration of customer-specific requirements. Self-lubricating operation despite highly inclined positions. Available in a package with thrust bearing shaft and numerous combinations of options. Overhaul and maintenance possible for installed shaft. Low noise and vibrations during operation. Efficient condition monitoring.



WG type

Bearing design tailored especially to rolling mill applications. Design has been tried and tested in numerous applications. Integration of special customer-specific requirements. Noise and vibrations during operation are generally low. Available as a package with numerous combination options.

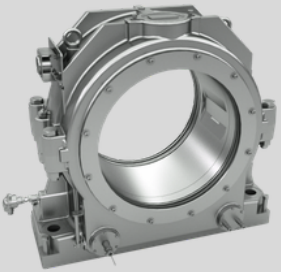


HG type

Bearing design tailored especially to water power applications. Self-lubricating operation despite high shaft speed. Integration of special customer-specific requirements. Design has been tried and tested in numerous applications. Low noise and vibrations. Overhaul and maintenance possible for installed shaft.

LR/SN type

Design tailored especially to shipbuilding applications. Self-lubricating operation despite highly inclined positions. Overhaul and maintenance possible for installed shaft. Low noise and vibrations. Efficient condition monitoring. Available as a package with numerous combination options.

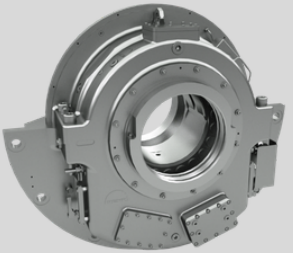


SC type

Design tailored especially to industrial applications. Integration of special customer-specific requirements. Design has been tried and tested in numerous applications. Low noise and vibrations. Overhaul and maintenance possible for installed shaft. Available as a package with numerous combination options.

SM type

Design tailored especially to shipbuilding applications. Self-lubricating operation despite highly inclined positions. Overhaul and maintenance possible for installed shaft. Low noise and vibrations. Efficient condition monitoring. Available as a package with numerous combination options.



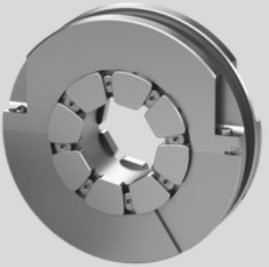
Turbo slide bearings

Radial Tilting Pad Bearings

Radial tilting pad bearings from RENK are suitable for applications in turbomachinery and gearboxes in the high-speed range due to their excellent rotor dynamic properties. The internal geometry is determined by the number and shape of the segments as well as the type and position of the support.

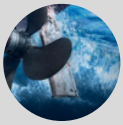
Axial Tilting Pad Bearings

RENK axial tilting pad bearings are suitable for high and low speeds as well as very high loads. The geometry of the axial tilting pad bearing is determined by the size, number and shape of the pads as well as the position and type of support.



DELLNER BUBENZER
Caliper / Disk Brakes

Industries


Marine Propulsion

Container Handling



Iron & Steel

Cranes & Hoists



Material Handling

Mining & Bulk Handling



Offshore

Bridges & Movable Structures



Oil & Gas

Pulp & Paper

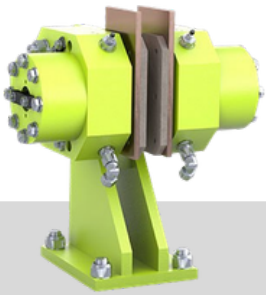


General Industry

BAC

Contact Force: 60 kN

The BAC-brakes is used for stopping and/or holding of fans, blowers, wind turbines, coilers, crane slewing and travel gears etc.



BSC

Contact Force: 50 kN

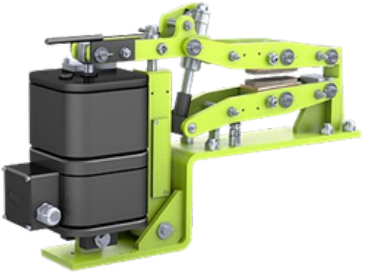
The high capacity of these brakes makes them particularly suitable as service- or secondary emergency brakes e.g. on hoists, slewing drives and belt conveyors.

The SB series standts out due to its extremely fast closing times and its variability. It is used in a wide range of industries around the world due to its versatility, ease of application and user-friendly handling.

SB 16
Torque: 890 Nm
Contact Force: 5000 N

SB 17.3 MX
Torque: 750 Nm
Contact Force: 4200 N

SB 17.3 MXs
Torque: 535 Nm
Contact Force: 3000 N



SB 22
Torque: 565 Nm
Contact Force: 3140 N

SB 23.3
Torque: 5165 Nm
Contact Force: 20500 N

SB 28.5

Torque: 23400 Nm
Contact Force: 65000 N

Supported by decades of engineering, evolution, and innovation, the SB 28.5 brake presents significant advantages with an enhanced and compact design, sustainability, and preeminent performance.

SB 30

Torque: 28800 Nm
Contact Force: 80000 N

The most powerful service brake in this series. It is dimensioned for large hoists and for BOSS applications. Furthermore, automatic adjustment, self-centering, jaw parallel adjustment are part of the standard equipment.

SB 8 Series

Torque: up to 20500 Nm
Contact Force: up to 45760 N

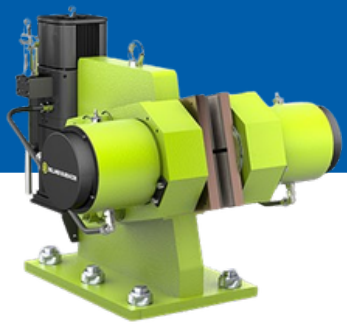
The SB 8 series covers a large part of the versatile industrial applications. It is often used in hoists where installation space is limited and can be equipped with a wide range of options.

SBS - Safety Brake System

The SBS system consist of a spring applied, hydraulically released SKP model disc brake and the hydraulic brake release pressure is generated from a Hydraulic Power Pack – all incorporated on a bracket. The SBS is typically used on stacker cranes (bolted to crane structure) and the brake is acting directly on the crane travel railhead. The system communicate with the crane control system and can stop the crane wherever in the aisle in an emergency situation.

Contact Force:
2000 - 33500 N

The high capacity of the SF-series makes them particularly suitable as secondary emergency brakes on hoist gears and on downhill conveyors. Torque Force: Depending on contact pressure, coefficient of friction and brake disc diameter.



SF 10-40

SF 50

DELLNER BUBENZER's model SKD disc brakes are direct acting, hydraulic or air pressure applied, spring released units.

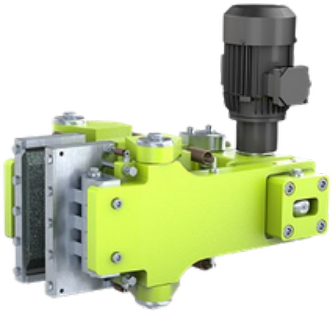
SKD 100 Active Brakes
Braking Force: up to 129,200 N

SKD 140 Active Brakes
Braking Force: up to 258,600 N

SKD 35-50-65-80 Active Brake
Braking Force: up to 41,400 N

SKD 4x125 Active Brakes
Braking Force: up to 404,200 N

SKD 90 Active Brake
Braking Force: up to 104,800 N



SKD(E) 100 Electric Active Brakes
Braking Force: up to 129,2 Kn

SKD(E) 50 Electric Active Brake
Braking Force: up to 16,2 Kn

The SKP model disc brake is a spring applied, hydraulically released brake which offers a reliable and safe of method of braking linear or rotary motion.

SKP 140 Fail Safe Brake
113,000 N

SKP 180 A Fail Safe Brake
226,800 N

SKP 180 S Fail Safe Brake
226,800 N

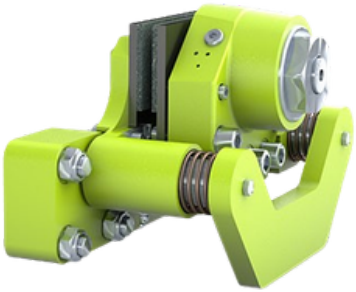
SKP 50 Fail Safe Brake
12,400 N

SKP 95 Fail Safe Brake
33,500 N

With a single acting (SA) brake, braking force is generated in one half of the brake and the other half slides towards it using a robust, low friction system, enabling self-alignment and making it ideal for small spaces and applications with axial movement.

SKP 140 SA Fail Safe Brake
Braking Force: up to 113,600 N

SKP 65 SA Fail Safe Brake
Braking Force: up to 18,200 N



SKP 95 SA Fail Safe Brake

Couplings

Industries


Wind Energy

Container Handling



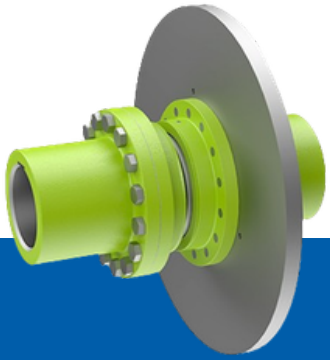
Iron & Steel

Cranes & Hoists

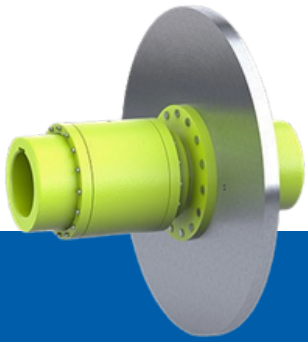


Material Handling

Mining & Bulk Handling

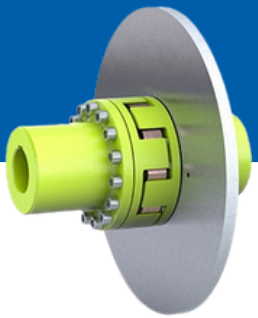
KBSD
TK_{MAX}: 168000 Nm



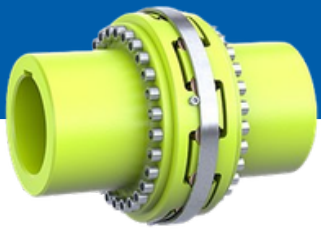
KBT
TK_{MAX}: 46000 Nm

These couplings are for use in machinery where a torsionally rigid torque is required, especially on frequently varying loads and speeds.

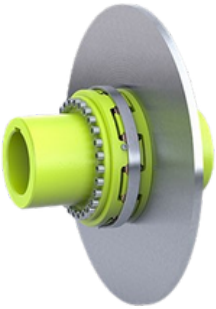
Following couplings are for use in application with high dynamic loads. Damping of peak torques and vibrations as well as electrical insulation between motor and gearbox are further reasons for the use of this coupling type. The standard material of the elastic intermediate ring Polyurethane (Vulkollan) is suitable for a temperature range of -35°C up to +80°C. For a short time -40°C up to +100°C.



K
Torsional Force: 40050 Nm



KH
TK_{MAX}: 62000 Nm



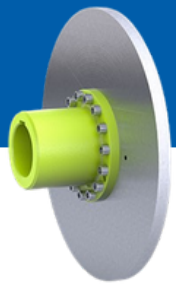
KHD
TK_{MAX}: 62000 Nm

KL
TK_{MAX}: 40500 Nm

KLST
TK_{MAX}: 7950 Nm

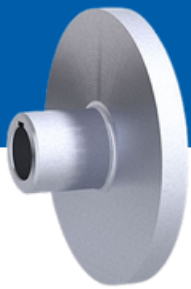
KST
TK_{MAX}: 7950 Nm

The Hub with Brake Disc Type N + NX is appropriate for all drives, where the brake is not located between motor and gearbox, like brake installation on the second gear box shaft or at the motor end shaft.



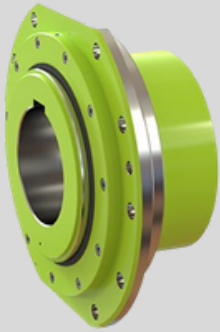
N

TK_{MAX}: 40050 Nm



NX

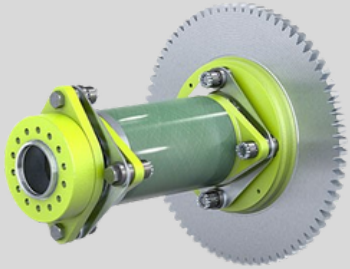
Torsional Force: 40050 Nm



NTRST

Torsional Force: 1390000 Nm

The NTRST Drum Couplings is a high-performance solution for hoist, winches, and conveying systems, ensuring a reliable connection between the gearbox output shaft and the rope drum. Designed to compensate for misalignments caused by bending drum structures, it enhances equipment lifespan and reduces wear. With high torque capacity and durable construction, it delivers exceptional performance in heavy-duty industrial applications. Ideal for cranes, hoists, and conveyors, this drum coupling ensures smooth power transmission with minimal maintenance.



JHS WTC

(Wind Turbine Coupling)

JHS WTC is a flexible disc coupling mounted between gearbox and generator. It's a tailor-made solution for wind turbine applications.

Band & Drum Brakes

Industries


Cranes & Hoists

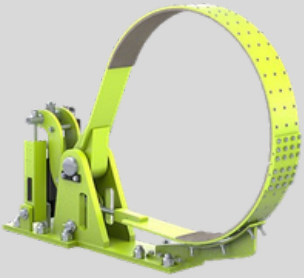

Container handling


Iron & Steel


Bridges&Movable Structures


Material handling


Mining & Bulk handling



BHB

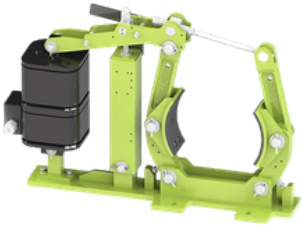
Torque: 253000 Nm

Band Brake for large torque applications that can be used for emergencies or back up braking needs. Band Brakes have been around for many years and we offer many ways to operate via thruster, air, hydraulic or hand wheel.

EBA

Torque: up to 9000 (ft-lb)

The EBA is a powerful drum brake with braking torques from 24 (ft-lb) to 9000 (ft-lb) that meets AISE (TR11) & NEMA (ICS 8) standards.



EBH

Torque: 3500 Nm

The EBH is a powerful drum brake with automatic wear adjustment and braking torques from 140 to 3500 Nm. It is mainly used in slewing gears, trolleys, gantrys and conveyor belts.

EBN

Torque: 6920 Nm

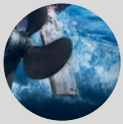
The EBN is a powerful drum brake with automatic wear adjustment and braking torques from 325 to 6920 Nm. EBN-2St modification: the ideal solution for Bridges and Sluice Systems

Hydraulic systems

Industries

Cranes & Hoists

Container Handling



Marine Propulsion

General Industry

Offshore

Compactus HPU

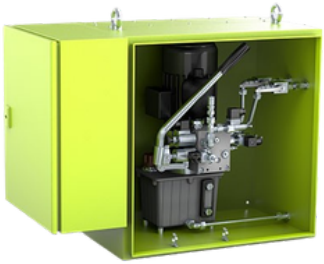
Hydraulic Pressure: up to 200 bar

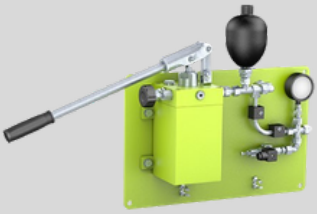
Compactus is a pneumatically operated hydraulic pump system that multiplies pneumatic line pressure into hydraulic pressure that is sufficient to operate pressure applied disc brakes at rated capacity.

DH HPU

Hydraulic Pressure: up to 200 bar

The DH hydraulic power packs deliver pressure up to 200 bar and can be delivered with optional hydraulic cabinets and electrical terminal boxes.





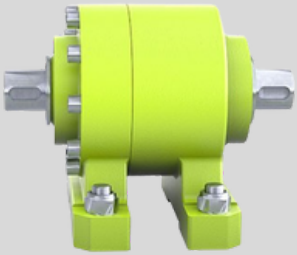
Hand Pump

Hydraulic Pressure: up to 200 bar

Our hand pump can be used to simply activate the Dellner brake calipers. It also acts as a back up system for the primary pressure supply system.

Anti Sway Systems

DELLNER BUBENZER's Anti Sway Systems allow the damping of head-block, spreader and container oscillation generated by acceleration / deceleration of trolley and gantry.



Hydraulic Rotary Actuator

Hydraulic Pressure: up to 200 bar

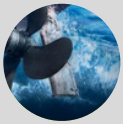
The hydraulic rotary actuator is a device which transform hydraulic power (pressure and flow) in mechanical power: torque and angular speed.

Monitoring & Control Systems

Industries

Cranes & Hoists

Container Handling



Marine Propulsion

Mining & Bulk Handling

Offshore

Iron & Steel

BOSS®

The BOSS® system is working with variable tripping points (each corner individually) depending on the actual corner load measurement and hoisting speed. The BOSS® PLC is pre-calculating the perfect tripping point for each load condition. Working with the best tripping points leads to faster snag detection and less stress in the wire ropes as well as in the crane structure.

Brake Control Unit BCMS-4

The BCMS-4 is a micro-controller-based monitoring and switching device for spring applied brakes of the SFB and KFB series.

Brake Control Unit BCU2001

The Brake Control Unit BCU 2001 records characteristic current and voltage variations, which are induced by movements of the armature disk in the magnetic field of the brake coil.

VSR-3 For SB Brakes

A retrofitable, compact electronic status indication system to be integrated into the brake as an additional device.

Compact status monitoring system for a brake system with display and fieldbus interface.

CMB-3 For SB Brakes

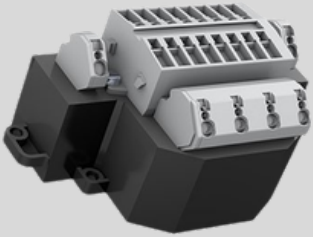
CMB-3 For SF Brakes

Brake Rectifiers BGL/EGL

Half Wave & Full Wave rectifiers for Din rail or panel mounted rectification.

Switching Rectifier SGL

Din rail mounted unit switches from bridge rectification to half-wave rectification.



Rectifiers FWR and HWR

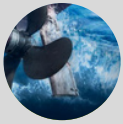
Half Wave & Full Wave rectifiers for junction box mounting.

Motor mounted brakes

Industries

Cranes & Hoists

Container Handling



Marine Propulsion

General Industry

Offshore

KFB
Torque: up to 1600 Nm

The KFB is a spring applied safety brake which is mainly used in gantry, trolley and hoisting application on harbour crane systems, in dynamic and static use at general industrial applications, in mechanical engineering, steel mills, coal mining or wind energy systems.

SFB
Torque: up to 13,000 Nm

For many years a seawaterproof version of the SFB series has been used successfully on winch motors in ship building and as a safety, service or holding brake in wharf crane installations.

Twin Safe
Torque: up to 20,000 Nm

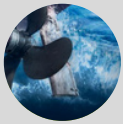
The Twin Safe is our larger torque twin disc variation of our classic reliable SFB series, used successfully on winch motors in ship building and as a safety, service or holding brake in wharf crane installations.

Pneumatic Drum Clutches & Brakes

Industries


Iron & Steel


Mining & Bulk Handling


Marine Propulsion

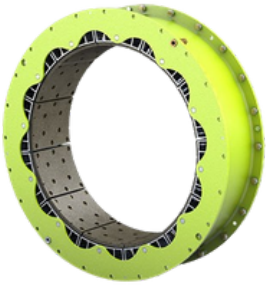

General Industry


Offshore


Pulp & Paper


Material Handling

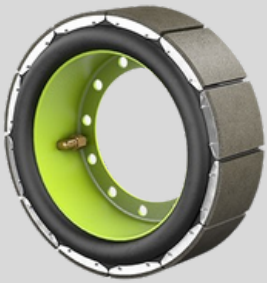

Oil & Gas



FKT Series

Torque Rating: up to 316,000 Nm

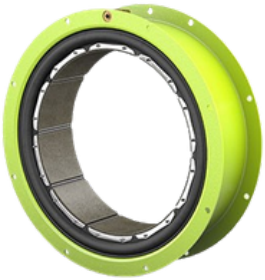
The FKT is well suited for applications with the most demanding equipment where severe clutching and braking is required.



FKE Series

Torque Rating: Up to 2,120 Nm

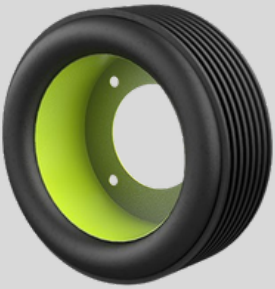
The FKE is best suited for applications with light starting and stopping loads. It is also commonly used as a slip clutch or tension brake within light horsepower and torque applications.



FK Series

Torque Rating: up to 2,000 Nm

The FK is well suited as a clutch or brake for a variety of high speed and low to medium torque power transmission applications where high heat generation is not a factor.



FKR Series

Torque Rating: up to 2,120 Nm

The FKR is often referred to as a coupling, as its expanding neoprene rubber facing engages the interior diameter of the drum directly. The resulting friction generates significant torque within a small package.

FM Series

Torque Rating: up to 126,000 Nm

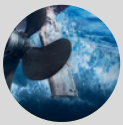
The FM is designed and manufactured for marine applications, mainly for use on diesel-driven reduction gears.

Stop Turn Lock Systems

Industries

Material Handling

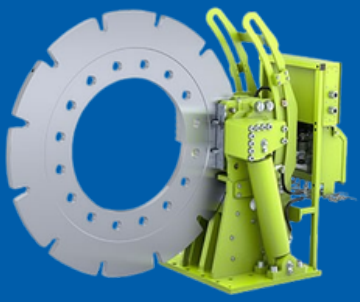
Mining & Bulk Handling



Marine Propulsion

General Industry

Offshore



STL - Stop Turn Locking System

Standard Range Stopping: up to 285 000 Nm
Turning: 227 000 Nm
Locking:600 000 Nm

The STL Systems are "multi-function" units, all contained within one interface. It is indeed a modular system that you can choose the function(s) needed. All from single, S (Stopping) T (Turning) or L (Locking) functions.

Storm Brakes (Rail & Wheel)

Industries

Container Handling

Mining & Bulk Handling

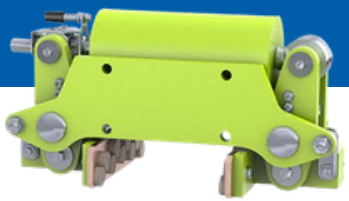
Cranes & Hoists

BRB 120

Contact Force: 56 kN

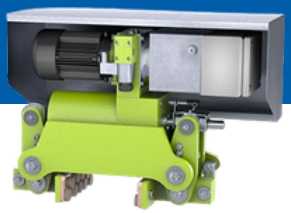
These brakes are for parking utilization, securing the crane against the wind force. In emergency condition they can be operated also as dynamic brakes to stop the crane. They are hydraulic powered with HPU or BUEL® G.

These brakes are for parking utilization, securing the crane against the wind force. In emergency condition they can be operated also as dynamic brakes to stop the crane.



DBRB

91 kN (higher force on request)



DBRBe

91 kN (higher force on request)

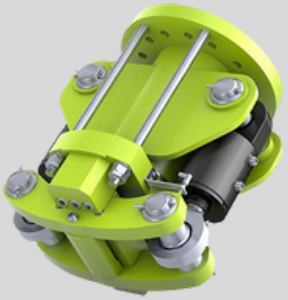
These rail clamps are storm brakes suitable for high forces. They are self-blocking type; in case a force acts on the crane and tends to put the same into motion, they press on the rail sideways.

DBSZA

1500 kN (higher force on request)

DBSZR

1500 kN (higher force on request)



DBSB

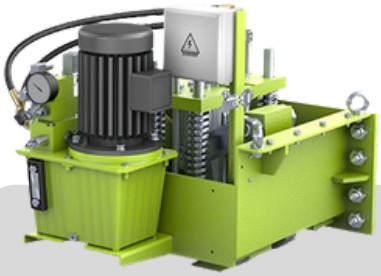
300 kN

DELLNER BUBENZER's DBSB is a storm safety brake for all rail mounted equipment, e. g. cranes, stackers, reclaimers etc.

DBSBT

500 kN (higher force on request)

DELLNER BUBENZER's DBSB is a storm safety brake for all rail mounted equipment, e. g. cranes, stackers, reclaimers etc.



DBSZ

Holding Force: up to 800 kN
(higher force on request)

These rail clamps are storm brakes static suitable for small to medium forces. They are spring actuated; the spring exercise the closing force while an hydraulic cylinder fed by a suitable hydraulic unit provides the opening.

DBSZe

Holding Force: up to 800 kN
(higher force on request)

These rail clamps are storm brakes static suitable for small to medium forces. They are spring actuated; the spring exercise the closing force while a group composed by electric motor, gear reducer and a ball screw provides the opening.

Thruster / BUEL®

Industries

Cranes & Hoists

Container handling

Iron & Steel

Mining & Bulk handling

Material handling

Buel® G

The BUEL® Model G is a new family member of the DELLNER BUBENZER brand BUEL®. It is a compact thruster to feed active or passive hydraulic brakes and emergency brakes. It is also suitable for small capacity hydraulic cylinders. Operational pressure can be up to 250 bar.

Buel® H

The BUEL® Model H is a family member of the DELLNER BUBENZER brand BUEL®. BUEL® thrusters are used for almost all kind of industrial applications. They are setting new industry standards for disk and drum brakes as well as wheel brakes.

Components & Accessories

DBB 55 - 140

Gas-Hydraulic Buffers are installed as impact energy absorber on crane gantries, trolleys, elevators, stackers, reclaimers and other industrial equipment.

PE 400/150/5

Protective element to be connected parallel to the output of the rectifiers BGL, EGL and SGL to increase the interurruption capacity

WPT Disc Clutches & Brakes

WPT Low Inertia Clutches and Brakes are suited for high cycle applications or general clutch/brake duties.

WPT Low Inertia Brakes

WPT Low Inertia Clutch

WPT Low Inertia High Torque Clutch

WPT Pilotless Mechanical PTO (Power Take Off)

WPT Power has engineered the WPT Pilotless™ Mechanical Power Take-off to eliminates the pilot bearing and increases side load capacity over previous generations of PTO products.

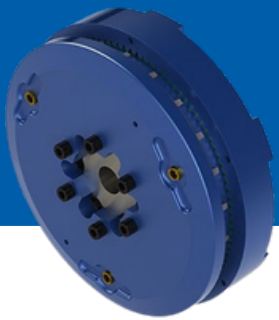
WPT Mechanical PTO (Power Take Off)

This flywheel PTO is designed for inline and sideload applications on all internal combustion engines with standard SAE industrial flywheel or flywheel housing dimensions.

WPT Type 2 PTO (Power Take Off)

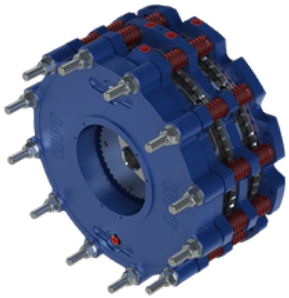
The WPT® Type 2 Hydraulic Power Take-Off utilizes large spherical roller bearings designed for heavier duty sideload capacity.

WPT® Power Grip clutches are designed to accommodate in-line and shaft-to-shaft power transmission applications.



WPT Power Grip

WPT Power Grip PO



WPT Water Cooled Brake

WPT® water cooled brakes (WCBs) are high energy absorbing solutions used as dynamic tensioning and static holding brakes.

WPT Worm Gear Winches

WPT Worm Gear Winches are offered from 9,000 lbf to 20,000 lbf, with options of hydraulic or electric operation.

WPT Planetary Hydrualic Winches

WPT Planetary Hydraulic Winches provide fast line speed and consistent, powerful pull capacity.

WPT Planetary Hydraulic Hoist

WPT Planetary Hydraulic Hoists are ideal for applications in the oil & gas, utility, and crane industries. WPT's hoist designs adhere to SAE J706 standards and provide lifting capacities of 8,000 lbf and 12,000 lbf, respectively.

SUMITOMO D.T.
Industrial Gearboxes

Hansen M4 ACC

Nominal output torque: 20 to 70 kNm

Specifically designed for Air Cooled Condenser (ACC) drives. Standard with lantern housing, allowing an alignment-free connection of a motor on the top of the gear unit.

Hansen M5CT

Nominal output torque: 13 to 53 kNm

Vertical Right Angle 2-stage industrial gearbox series. Specifically designed for fan drive applications: Wet Cooling Towers (WCT), Air Cooled Condensers (ACC), Direct Air Capturing (DAC).

Hansen P4 Multistage - horizontal

Nominal output torque: 13 to 53 kNm

Parallel and right Angle - 2/3/4 stage gearboxes with a wide range of reduction ratios. Service friendly and maintenance-free sealing system. Flexible customization and options upon request. Low noise and vibration levels.

Hansen P4 Multistage - vertical

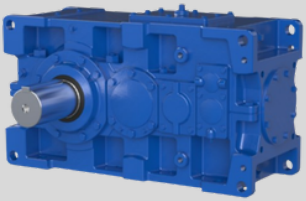
Nominal output torque: 3 to 1100 kNm

Designed for heavy-duty applications: Cooling towers, Mixers, Toasters, Pulpers and more. Mounting feet symetric around low speed shaft to evenly distribute loads. Service friendly, low noise and vibration levels.

Hansen P4 Single Stage

Nominal output torque: 15 to 185 kNm

Available in a parallel horizontal configuration. Technically balanced between optimum thermal and mechanical performance there are mainly 2 series available: standard series and heavy duty series.



PARAMAX® 9000 Reducer

Nominal output torque: 2.6 to 552 kNm

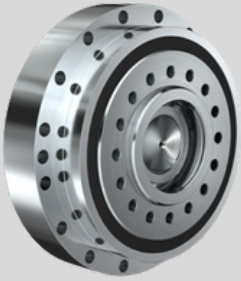
Specifically for small and medium torque applications with horizontal output shaft (material handling applications, cranes, horizontal mixers). Numerous other options and accessories: condition monitoring, backstop, cooling fan and other.

Motion Control Drives

Fine Cyclo A-Series FC Type

Nominal torque: 149 to 3900 Nm

Reduction kit without output bearing. Maximum freedom and flexibility for installation of external bearings and for integration in specific machine designs. Less than 1 arcmin Lost Motion. Pre-filled with grease. Motor adapter on request.



Fine Cyclo DA-Series

Nominal torque: 257 to 1,686 Nm

The design provides very accurate motion quality with increased torque density and bearing capacity. Highest torque density of our single stage gearboxes. Ideal for robotic and machine tool applications. Lost motion <1 arcmin.

Fine Cyclo C-Series

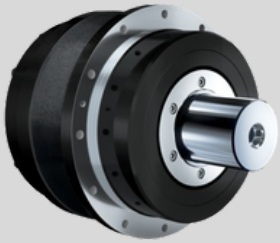
Huge hollow bore for easy routing of cables. Less than 1 arcmin Lost Motion. Maintenance free for life. Large permissible bending moment on output. Motor connection with belt transmission or spur gear. Pre-stage provided on request

Fine Cyclo A-Series F2 Type

All-rounder for all available automation tasks. Compact cylindrical housing. Maintenance free for life. 5 different ratios available (depending on size). Motor adapter on request. Less than 1 arcmin Lost Motion. Input Shaft Variants: keyway, clamp ring, spline

Fine Cyclo UA-Series

Spur gear pre-stage and three to four (UA115) eccentrics providing highest transmission accuracy, minimum speed ripples and minimum vibration. Less than 0.5 arcmin Lost Motion. Ideal for applications with traverse movements. Highest overall available Torque. Additional ratios available on request.
Variants: basic design to be fully integrated in robotic arms / fully sealed version including motor flange available.



Fine Cyclo A-Series F3 Type

Provides extremely high radial capacity at solid output shaft. Less than 1 arcmin Lost Motion. Maintenance free for life. Motor adapter on request.
Input AND Output Shaft Variants: solid shaft, keyway, spline

Fine Cyclo A-Series F1 Type

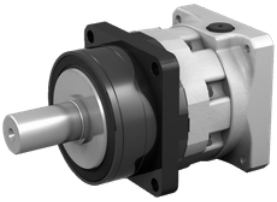
Combination of zero backlash gearbox and precision cross roller bearing. Less than 1 arcmin Lost Motion. Sizes 45, 65 and 75 provide extremely high support capacity at output shaft. Motor adapter provided on request.
Input Shaft Variants: keyway, clamp ring, spline

Fine Cyclo W-Series

High load precision gearbox with huge hollow bore and integrated pre-stage. Less than 1 arcmin Lost Motion. Ideal for robot base axes. Input and output on same side. Different ratios possible on request (different pre-stage). Motor coupling and adapter on request

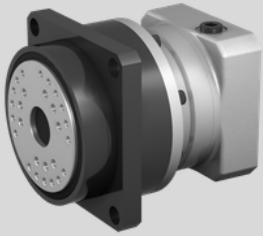
E-CYCLO - ECY

High precision shaft gear with output flange and high rigidity. The new E CYCLO series features high rigidity due to its internal roller bearings. This is significantly higher when compared to the competition. Therefore, the E CYCLO can achieve higher performance in a smaller design envelope and thus lower costs. Lost Motion 1.0 arcmin.



IB Series P1 Type *

Precision planetary line for miscellaneous automation applications in the lower torque range. High torque density unit with angular ball bearings for high load capacity. Adaptable servo motor connection. Maintenance free for life.
Variants: <3 arcmin Backlash-precise version / <15 arcmin Backlash- standard



IB Series P2 Type *

Precision planetary line for miscellaneous automation applications in the upper torque range. High torque density unit with angular ball bearings for high load capacity. Adaptable servo motor connection. Helical gears for lowest vibration and noise.

IB Series PK1 Type *

Precision right angle planetary line for miscellaneous automation applications in the lower torque range. High torque density unit with angular ball bearings for high load capacity. Adaptable servo motor connection. Maintenance free for life.
Variants: <6 arcmin Backlash-precise version / <15arcmin Backlash-standard

Cyclo Drive 6000 for Servo Motors

Utilizes our unique Cyclo mechanism for durability and long product life, with a flange, for servo motors.
Two series: Cyclo Drive 6000 Standard-Backlash Series / SERVO 6000 Low-Backlash Series: 6 arcmin (12 arcmin for reduction ratio 6:1)

*Output Shaft Variants: flange, solid shaft, keyway

Motors

AC Motors

AC motors have a significant impact on the total energy operation cost for industrial, institutional and commercial buildings. Today, the major factor influencing the motor industry is energy efficiency driven by both increasingly demanding legislation and industry's greater awareness of green issue responsibilities.

The range includes Premium Efficiency IE2 and High Efficiency IE2 motors providing compliance with the requirements of global MEPS, mainly in EU, USA and Canada.

Synchronous PM Motors

High Performance (HP) is a generation of PM (Permanent Magnet) Synchronous Motors, achieving IE5 Super Premium Efficiency and up to IE6 Hyper Efficiency level, that offer improved electrical efficiency and a very compact design.

The complete range 0.37 kW to 37 kW are supplied as stand-alone motors (HPS series), as motor-drive combined package (HPC series) or as motor-drive integrated unit (HPI series).

Brake Motors

Engineered according to the client's specification. Total control over all aspects of production permits multiple design options including flanges, shafts, brakes plus optimum resistance to external agents and offshore environments for paints, seals, and magnet surfaces.

The result is a range of AC motors with DC and AC brake, produced entirely in-house, combined with the option for application-specific customization.

Brushless Servo Motors and Torque Motors

The range of brushless Servo Motors is one of the most complete available on the market, with nominal torques 0.18 Nm to 390 Nm. Direct Drive Motors cover torques 10 Nm to 500 Nm. The full range is available with ATEX Certification – Zone 2-22, for use in potentially explosive atmospheres.

Gearless Machines for Elevators

Its novel inner rotor and fractional slot gearless technology are of products of Lafert's in-house design and manufacturing expertise. It provides the highest levels of performance and energy efficiency plus enhanced response to satisfy today's needs and trends in the elevator market i.e. higher speed to greater heights.

Power Electronics

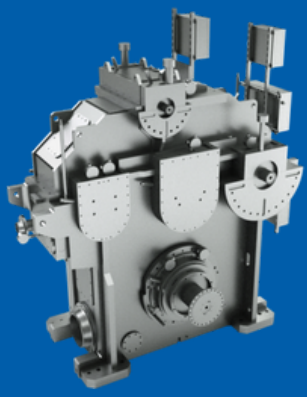
Designed to drive brushless servo motors and includes standard products and custom solutions that ensure high performance and energy cost reductions for diverse applications across the fields of Industrial Automation and battery-powered applications, such as the automated handling of materials and/or people.

Drive Solution for AGV/AMR

Combination of three smart components. In a compact, integrated, and intelligent solution of : Gear + Servo Motor + Drive. Compact size achieved by in-wheel structure. Filled with long-life grease (when shipped from factory). Maintenance free. Customization available on request

Integral Gearboxes

MULTICOM® integral gear unit



The MULTICOM® is a multi-shaft integral gear unit designed using the latest gear technology. This type is capable of driving up to 10 compressor or expander stages at five different speeds, making it a core component in various compressor systems. With efficiencies up to 99%, the MULTICOM® gearbox is a highly versatile and energy saving solution.

Technical specifications of MULTICOM® gear units include a power transmission Transmission A vehicle transmission transfers engine power to the wheels and allows for variable driving speeds. range of 0.25-50 MW, speeds up to 63,000 rpm, ratios up to 30, and the ability to accommodate 1 to 10 compressor stages. The casing is of welded or cast-iron construction and the gearing is single helical with a thrust collar or thrust bearing.

Vacuum Gearboxes

HET Gear®

While the toothing of standard gear units is surrounded by a medium similar to air in the gearbox housing, the interior is placed under a vacuum in the case of the patented HET Gear® (high efficiency technology gearbox), thereby reducing the loss of power by up to 60%. This improves the carbon footprint, the financial balance, and the durability of the components as well, because they run cooler.

Highest efficiency up to 99.3 % at 90 MW. Output range from 15 up to 180 MW. Tooth-system-speed from 120 up to > 180 m/s.

BENZLERS
Fluid Couplings

Industries

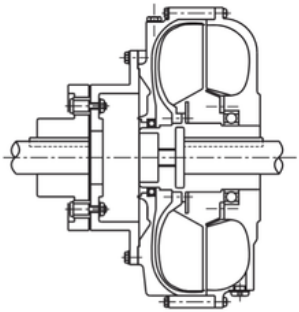
Chemical Industry

Cement Industry

Power Industry

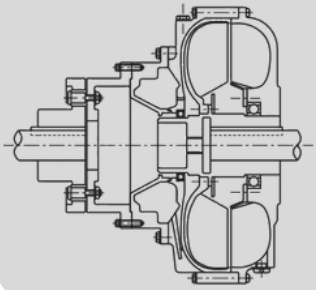
Pulp & Paper

Material Handling



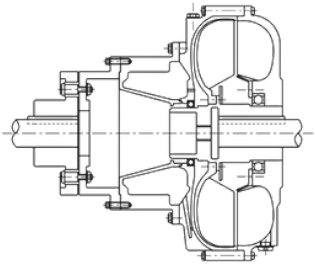
CD

"Basic coupling"
The CD design without delay fill chamber is used for high inertia machines requiring a starting torque limited to 200 % of nominal torque.



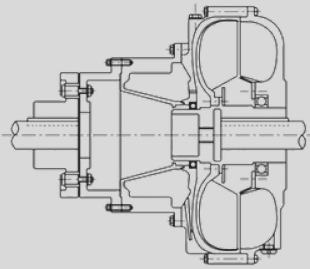
CDR

"Soft start coupling"
The CDR design with standard delay fill chamber is used where the starting torque limitation down to 140 % of nominal torque is required.



CDRP

"Prolonged soft start coupling"
The CDRP design has a delay fill chamber of twice the volume of that of the CDR, and is used for belt conveyors where torquw limitation down to 120 % of nominal torque is required.



CDRS

"Super soft start coupling"

The CDRS design is used particularly on belt conveyors where the motor starting torque is limited to 60% of the nominal torque. It allows prograssive tensioning of the belt before accelerating the load with a torque limitation down to 120% of nominal torque.

Scoop Controlled Variable Speed Fluid Coupling

Industries

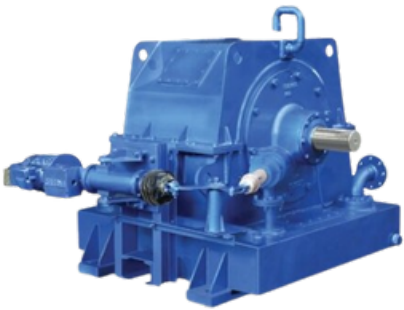
Chemical Industry

Oil & Gas Industry

Power Industry

Metallurgical Industry

Material Handling



Variable Fill Scoop Fluid Coupling provides step less speed variations when connected to a constant speed electric motor. The variation in speed is obtained by change of quantity of oil in the main circuit through scoop tube movement, sliding in & out. The available speed regulation range depends on the type of load.

Mainly the ranges available are Centrifugal Loads 4:1, Constant Torque Loads 2:1, and Rising Torque Loads 1.5:1 etc., These ranges can be further extended provided operation is possible in the specified regulation range.

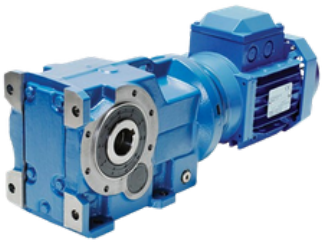
Geared Motors

Industries

Steel Industry

Pulp & Paper Industry

Cement Industry



Helical bevel gear and gear motors (Series K)

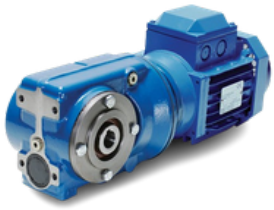
Output torque: up to 50,000 Nm

Due to the design that combines bevel gear technology and regular step gears, this type of gear exhibits very low energy losses. Series K bevel gears are therefore very energy efficient.

Helical gears and geared motors (Series M)

Output torque: up to 20,000 Nm

A strong alternative in the industry's heavy and demanding applications. In these situations, the Series M is often chosen over our series E and G industrial gearboxes. Benzler gears are manufactured to the most demanding standards, which has resulted in very low energy losses and noise levels.



Helical worm gear drives and gear motors (Series C)

Output torque: up to 10,000 Nm

Compact solution with high gear ratio. Can be supplied as ATEX certified. This design helps improve the energy efficiency.

Parallel Shaft Mounted Gear (Series F)

Output torque: up to 16,500 Nm

F-shaft mounted gears are a reliable and high-performance transmission solution that offers a lot of Nm for the money. The electric motor is by default an IEC motor mounted in a hollow shaft with a composite bushing.

Planetary Gearboxes

Industries

Steel Industry

Sugar Industry

Cement Industry

Power Industry

Plastic Industry

Material Handling

Co-axial Sugar Mill Planetary Gearbox

Foot Mounted Co-Axial (Inline Type) 3 Stage Planetary Gear unit with Solid input and Square Output shaft.

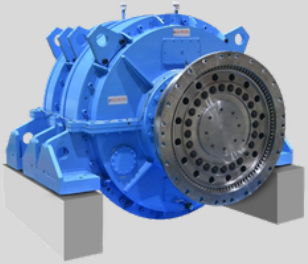
Helical Cum Planetary Gearbox

Three Stages, helical cum planetary gear unit, Shaft Mounted, helical/ Planetary Gearbox with Hollow output shaft, Shrink disc and combined torque arm, input safe set coupling, carden shaft, Spe. Flexible coupling on motor side, forced lubrication cum cooling system.

Planetary gears and geared motors

Output torque: up to 65,000 Nm

The high demands set by our designers have resulted in a product series with high performance and incredibly low noise levels. Benzler's planetary gears, Series P, meet the market's expectations, which means that Series P can in most cases be built in without conversions.



Inline Planetary Gearbox

Maximum Output Torque capacity: up to 8 000 kNm

Planetary Gearbox for Sugar Mill – Foot Mounting

Planetary Gearbox for Sugar Mill – Shaft Mounting

Planetary Gearbox Medium Size

Size: small and medium size planetary gearbox sizes

Custom Build

3 Input 3 Output Shaft Gearbox

Bevel Helical gear box with 3 input and 3 output shafts. All drives are housed in single casing maintaining shaft position with 60 deg. incline output shaft.

3 Input 3 Output Shaft Gearbox

Helical gear box with 3 input and 3 output shafts with 3 different ratios. All drives are housed in single casing maintaining shaft position.

3 Stages, Vertical, Helical Gearbox Cum Pinion Stand (Pinion Stand Rolling Mill)

Rolling Mill for Steel Industries. Torque range up to 1200 kNm. Case Carburised and hardened gears with 58+/-2 HRC.

4 Input 4 Output Shaft Gearbox

Mandrel Bar Retainer Drive of Seamless Tube Industries. All drives are housed in single casing maintaining shaft position.

4 Stages, Vertical, Helical Gearbox Cum Pinion Stand (Pinion Stand Rolling Mill)

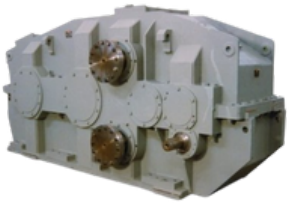
Available torque up to 1200 kNm. Rolling Mill for Steel Industry. Case Carburised and hardened gears with 58+/-2 HRC.

5 Stages Inline Type Planetary Gearbox With Hollow Output Shaft With Torque Arm

5 stages inline type planetary gearbox with hollow output shaft with torque arm.

Blooming Mill Gearbox

Horizontal, parallel shaft, combined two side single stages, double helical type with solid input shaft and solid two output shaft at horizontal offset center distance as 1040 mm gearbox.



Briquetting Gearbox For Sponge Iron Project

These are three stage gear boxes having single input and 2 output, driving the briquetting press rolls. Internals of this box is our of 17CrNiMo6 duly case carburized, hardened and precisely ground enhoused on antifriction bearings mounted in fabricated casing.

Bucket Elevator

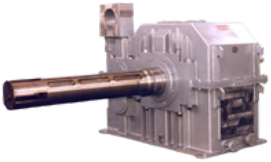
Bevel Helical Gearbox for Bucket Elevator Drive.

Bucket Wheel Excavator Drive Gearbox

Bevel Helical Planetary Gear unit with maintenance drive and torque arm. Bucket Capacity of 700 liters.

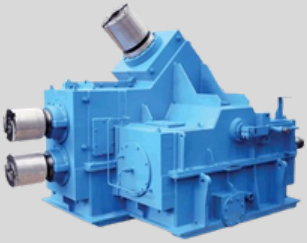
Calendar Drive

Helical Gearbox of three input and three output shafts (Individually driven) in a single casing, parallel shaft, horizontal, foot mounted with solid input and solid output shaft with external forced lubrication cum cooling system.



Coiler/Uncoiler, Tension Reel & Pay-off Reel Gearbox

Parallel shaft helical gear box with heavy duty bearings on output shaft. Robust design with high load carrying capacity bearings to take load of coils during coiling, reeling and tensioning.



Convertible Pinion Stand

Convertible Pinion Stand for Reber Mill.

Conveyor Track Drive Gear Unit

For conveyor tracks. Suitable for power industries.

Crawler Travel Drive

For conveyor tracks. Suitable for power industries. Suitable for material handling industries.

Custom Built Gearbox For Calendar Drive

Special gear box with two or four output shafts diagonally opposite. Two or four output shaft gearbox housed in single casing.

Custom Built Gearbox For Precipitator

Four stages, helical gearbox with vertical input upward and output shaft vertically downward. Suitable for Precipitator drive gearbox used in mixer application.

Drive Solution

Compelete Drive Solutions incudes gearbox, couplings, brake, motor and guards.

Dual Tandem Gearbox

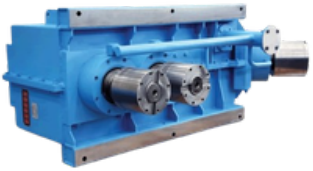
Dual Tandem – Power Sharing Gear Box. Helical Load Sharing Dual Tandem Gearbox model S4BZ-35. Power Sharing at last two stages to increase Torque Transmission Capacity at a relatively smaller gear size.

Flattner Drive Gear Box

Compact with matching shaft position. Suitable for steel mill. Single Input and 5 output shaft.

Gearbox With Pinion Stand For Vertical Rod Mill

Vertical input shaft and vertically downward two output shafts. Heavy Duty Gearbox.



Gearbox With Pinion Stand for Wire Rod Mill Drive

All the gear internals are out of case carburising steel duly carburised and hardened and precisely ground with profile corrections on all pinions and longitudinal corrections depending on the load, so as to keep the noise level as low as upto 80 db.

Heavy Duty Rolling Mill Drive

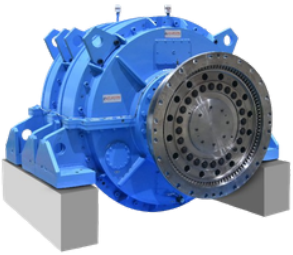
Parallel shaft helical gear box with single input and two vertically offset output shafts. Robust design capable of withstanding high shocks during rolling.

Helical Cum Planetary Gearbox

Three Stages, Helical cum planetary gear unit, Shaft Mounted, helical/ Planetary Gearbox with Hollow output shaft, Shrink disc and combined torque arm, input safe set coupling, carden shaft, Spe. Flexible coupling on motor side, forced lubrication cum cooling system.

Hot Sizing Mill Gearbox

Helical gear box with 2 input and 7 output shafts. Heavy Duty gearbox with precise ground gears and multi output shafts. Seamless Tube Plants for driving roll stands.



Inline Planetary Gearbox

Central Mill Drive for Cement Mill. Inline Planetary Gearbox with integral Backstop. Maximum Output Torque capacity upto 8 000 kNm.

Main Hoist Gearbox

Available as 300, 350 and 550 tons Main Hoist Laddle Crane.

Piercing Mill Gearbox

The piercing mill is used to pierce out and roll the mother tube out of original billet. The single input, double output, two-stage gearbox drives this mill. This is a three metre tall and robust gearbox with a base of 2.8/1.4 meters and weighing around 18 tons.

Roll – Stand

Spiral Bevel Pairs. Specially designed with spiral bevel pairs to achieving single speed of rollers during hot sizing.

Speed Change Gearbox

Parallel shaft helical gearbox with two different output speeds. Two predefined outputs speeds can be obtained using a manual / automatic lever. Steel Rolling Mills, Refineries to obtain different output speeds.

Worm Gearbox

Special Worm Reduction Gear unit.

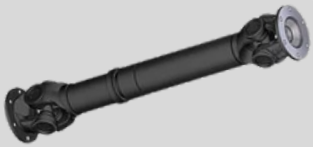
Tube Drawing Mill Gear Unit

The first gear box is having three input in which the first input is connected to electric motor. Second input is connected to the input of next gear box and the third input is connected to generator so that in case of the power failure the process of drawing the tube will continue in operation.

WELTE GROUP
Cardan Shafts

Drive Shaft / Cardan Shaft

With and without lenght compensation and a variety of different connection types.



Short Couple Shaft

Design tailored especially to shipbuilding applications. Self-lubricating operation despite highly inclined positions. Overhaul and maintenance possible for installed shaft. Low noise and vibrations. Efficient condition monitoring. Available as a package with numerous combination options.

Mid Ship Shaft

With andwithout lenght compensation / with intermediate shaft bearing at one or both ends and a variety of different connection types.

Drive Shaft / Combination

Combination of intermediate and main shaft in various combinations and a variety of different connection types.

Connection Flanges

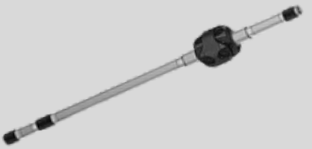
DIN Ø 58 mm - 435 mm
SAR 1110 - 2000 Serie
KV (XS) Ø 100 mm - 210 mm
Wing-Style 2C - 20C
Hub connection & US + Japanese standard connections

Constant Velocity Drive Shaft

With and without lenght compensation and a variety of different connection types.

Steer Axle Joint

With connection spigot on wheel side and on differential.



Cardan Shaft Spare Parts

A variety of different drive shaft spare parts for example U-Joint or Centre Bearing.

GEFA
Two-Piece Butterfly Valves - Soft-Seated

Soft Seated Butterfly Valve KG7

Sizes: DN 50 to DN 300

Two-piece body with threaded cams for a firm flange connection from both sides. The pipeline can be removed from the flange on one side, vacuum-tight.

Soft Seated Butterfly Valve KG9

Sizes: DN 50 to DN 300

Wafer type butterfly valve for installation between flanges EN 1092, PN 10/16, ASME class 150. Two-piece body, self-centring, one-piece disc and stem, bubble-tight up to 16 bar, vacuum-tight.

Soft Seated Butterfly Valve K17

Sizes: DN 350 to DN 500

Two-piece body with threaded cams for a firm flange connection from both sides. One-piece disc and stem, bubble-tight up to 16 bar and vacuum-tight. The pipeline can be removed from the flange on one side.

Soft Seated Butterfly Valve K19

Sizes: DN 350 to DN 500 (Also available in intermediate size DN450)

Wafer type butterfly valve with two-piece body, self-centring, one-piece disc and stem, bubble-tight up to 16 bar, vacuum-tight.

The connection is shielded from the medium. Changeable seat ring with additional steel support ring as firm rubbermetal connection in compliance with a solid elastomer thickness of approx. 15 to 17 mm.

Soft Seated Butterfly Valve K07

Sizes: DN 600 to DN 1000

Soft Seated Butterfly Valve K08

Sizes: DN 600 to DN 1200

Soft Seated Butterfly Valve KS9

Sizes: DN 50 to DN 300

Due to the pneumatic pressurisationof the seat ring in position CLOSED, the valve switches without friction and without preload between seat and valve disc. Signs of wear are avoided in this way.

All-stainless steel design is offered for all areas that require corrosion-free use, even of the external components. This is the case in the food/beverage industry and in the pharmaceutical sector, as well as in the chemical industry or even for seawater loads.

Soft Seated Butterfly Valve K14

Sizes: DN 25 to DN 40

Soft Seated Butterfly Valve K11

Sizes: DN 25 to DN 150

Two-Piece Butterfly Valves PTFE-Lined

Wafer type butterfly valve for installation between flanges EN 1092, PN 10/16, ASME class 150. Two-piece body, selfcentring, one-piece valve disc and stem, bubble-tight up to 10 bar.

PTFE-lined Butterfly Valve KG6

Sizes: DN 50 to DN 300

PTFE-lined Butterfly Valve K16

Sizes: DN 350 to DN 500

Lug type butterfly valve for installation between flanges EN 1092, PN 10/16, ASME class 150. Two-piece body, selfcentring, one-piece valve disc and stem, bubble-tight up to 10 bar. The pipeline can be removed from the flange on one side.

PTFE-lined Butterfly Valve KG8

Sizes: DN 50 to DN 300

PTFE-lined Butterfly Valve K18

Sizes: DN 350 to DN 500

One-Piece Butterfly Valves - Soft-Seated

Soft Seated Butterfly Valve KG2

Sizes: DN 50 to DN 500

Wafer type butterfly valve for installation between flanges EN 1092, PN 10/16, ASME class 150. One-piece body, self-centring, two-piece disc and stem connection, bubble-tight up to 10 bar, vacuum-tight.

Soft Seated Butterfly Valve KG4

Sizes: DN 50 to DN 500

One-piece body, selfcentring, two-piece disc and stem connection, bubble-tight up to 10 bar, vacuum-tight. The pipeline can be removed from the flange on one side.

Soft Seated Butterfly Valve DVGW gas

Sizes: DN 50 to DN 350

One-piece body, self-centring, two-piece disc and stem connection, bubble-tight up to 10 bar, vacuum-tight. DVGW approved for gas according to DIN EN 13774.

Double Eccentric Butterfly Valves

Double-eccentric butterfly valve HG1

Sizes: DN 50 to DN 600; DN 800

Double offset valve as water type butterfly valve for high pressure and temperature loads.

Double-eccentric butterfly valve HG7

Sizes: DN 50 to DN 600

Double offset valve with lugs for high pressure and temperature loads. Can be removed from the flange on one side. For installation between flanges EN 1092, PN 10/16/25/40, PS25 ASME Cl 150/300, PS25.

Double-eccentric butterfly valve HGF

Sizes: DN 50 to DN 600

Double offset valve for the use in the FireSafe area according to DIN EN ISO 10497, API 607 und BS 6755 Part 2.
For installation between flanges EN 1092, PN 10/16/25/40, PS 25 ASME Cl 150/300, PS25.

Double-eccentric butterfly valve HG1/7 W

Sizes: DN 50 to DN 800

Double eccentric butterfly valve in tried and tested design for technical gases and high-purity media.

Double-eccentric butterfly valve HG1/7 L

Sizes: DN 50 to DN 600

Double offset valve for the use in the food industry according to the regulation EC1935/2004.

Double-eccentric butterfly valve HG7- BK

Sizes: DN 50 to DN 600

Double offset valve with lugs for high pressure and temperature loads.
Can be removed from the flange on both sides.

Double-eccentric butterfly valve HGC

Sizes: DN 50 to DN 600

Double offset valve for the use down to -196°C with cryogenic stem extension as pressure chamber.

Double-eccentric butterfly valve HGH

Sizes: DN 50 to DN 600

Double-eccentric butterfly valve HGHL

Sizes: DN 50 to DN 600

Double offset valve with double shell for heating without interruption of the pipeline heating.

Tripple-Eccentric Butterfly Valves

Butterfly valve triple offset design HGT7

Sizes: DN 80 to DN 300

Triple offset valve with lugs for high pressure and temperature loads. Can be removed from the flange on both sides. For installation between flanges EN 1092, PN 10/16/25/40, PS25, ASME Cl 150/300, PS25.

Butterfly valve triple offset design HGT1

Sizes: DN 80 to DN 300

Triple offset valve as wafer type butterfly valve for high pressure and temperature loads. Wafer style for installation between flanges EN 1092, PN 10/16/25/40, PS 25, ASME Cl 150/300, PS25.

Double Flange Butterfly Valves

Double flange butterfly valve HG5

Sizes: DN 80 to DN 300

The new generation of the Hg series - a further development in a proven design. Our high-performance butterfly valve in double-flange design offers a range of advanced features that fulfill the highest demands.

Throttle Valves

Throttle and regulating valve KGT

Sizes: DN 80 to DN 250

Wafer type butterfly valve for installation between flanges EN 1092, PN 10, one-piece body with centring lugs, end-to-end valve stem, flat disc design with excellent flow characteristics.
The setting range 0 ° to 70 ° is used for normal operation. In the area of 20 ° to 60 °, the valve has an almost linear flow characteristic curve (See Link: Product information).

Granulate And Bulk Material Butterfly Valve

Granulate and bulk material Butterfly Valve KGG

Sizes: DN 50 to DN 200

Initially, simple design details often prove decisive for a successful design in the end. The KGG is manufactured to customer specifications for use in high-purity applications with bulk materials, e.g. in plastics technology or in the food sector. With a particular focus on minimizing residual quantities, maintainability and cleaning.

3-Piece Ball Valves

3-piece Ball Valve DG1L with food approval

Sizes: DN 8 to DN 150

Ball valve for food applications according to regulation EU1935/2004, EG 10/2011 and FDA. Three-piece body, pressure rating depending on nominal size up to PN125, ball floating, vacuum-tight.

3-piece Ball Valve DG1W for hydrogen applications

Sizes: DN 8 to DN 150

Compact design and full flow for hydrogen applications. Three-pice body, pressure rating dependent on nominal size up to PN125, floating ball, vacuum-tight.

3-piece ball valve DG1 1.4529 corrosion-resistant

Sizes: DN 8 to DN 150

Ball valve stainless steel 1.4529 for applications in corrosive media (e.g. chlorides and dilute acids). With a PREN value between 42 and 47, suitable for seawater. 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vaccum-thight.

3-piece Ball Valve DGF FireSafe version

Sizes: DN 8 to DN 100

Ball valve with Firesafe approval according to BS6755-2, 3-piece body, pressure class depending on the nominal size up to PN 40, floating ball, vacuum-tight.

3-piece Ball Valve DG5HP for High-purity media

Sizes: DN 8 to DN 150

Our high purity ball valves were designed for semiconductor technology in order to meet the demanding standards of the industry. In our production facility, we can flexibly process common tube dimensions for the industry. Three-pice body, pressure rating dependent on nominal size up to PN125, floating ball, vacuum-tight.

3-piece Ball Valve DG1 screwed ends

Sizes: DN 8 to DN 100

Ball valve with female thread ends according to DIN 2999-Rp (pipe thread), ISO 228/1-G or NPT, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DG1 Orbital weld ends

Sizes: DN 8 to DN 100

Ball valve for welding in ORBITAL welding process, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DG1 short butt weld ends

Sizes: DN 8 to DN 150

Ball valve for welding, short version, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DG1 long butt weld ends

Sizes: DN 8 to DN 50

Ball valve for welding, long version, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DG1 with welding flanges

Sizes: DN 8 to DN 150

Ball Valve for installation between flanges according to DIN EN 1092 or ASME, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DG5 with almost no cavities

Sizes: DN 8 to DN 100

Ball valve with seat rings filling the cavities, 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

3-piece Ball Valve DGH heating jacket version

Sizes: DN 8 to DN 150

Ball valve with heating jacket for all common heating media (pressure pmax = 20 bar), 3-piece body, pressure class depending on the nominal size up to PN 125, floating ball, vacuum-tight.

Flanged Ball Valves FG

Flanged Ball Valve FG

Sizes: DN 15 to DN 100

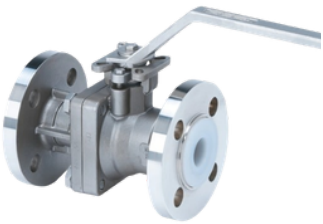
Two-piece ball valve for installation between flanges according to DIN EN 1092, pressure class depending on the nominal size up to PN 40, floating ball, vacuum-tigh.

Flanged Ball Valve FG

Sizes: DN 150

Two-piece ball valve for installation between flanges according to DIN EN 2501, pressure class depending on the nominal size up to PN 16, floating ball, vacuum-tigh.

Flanged Ball Valves FGT



Flanged Ball Valve FGT

Sizes: DN 15 to DN 50

PFA-lined flanged ball valve class 150 with full bore. The material combination stainless steel 1.4408 on the outside and PFA fluoropolymer as lining coming into contact with the medium ensures a very good chemical resistance and the external corrosive influences are also considered. The interface according to EN ISO 5211 allows a costeffective automation and the direct mounting of actuating elements and actuators. The ball valve is also available according to food certification EG1935/2004.

Multi-Way Ball Valve

Materials and basic version correspond to the series DG1, Pressure class up to PN40.

3-way Ball Valve DG3
Horizontal Design
Sizes: DN 8 to DN 65

3-way Ball Valve DG4
Vertical Design
Sizes: DN 8 to DN 65

DOMINO Knife Gate Valves

Two-piece body, bidirectional tight shutoff. Metal guided plate, locked when closed. Self-adjusting COMPACT cross seal, no necessity for gland packing – maintenance-free. Self-cleaning flush-out corners with cutting edge in the lower body area.

Knife gate valve SD1
AT100
Sizes: DN 100 to DN 400

Knife gate valve SD5
AT150
Sizes: DN 50 to DN 400

Knife gate valve SD7
AT200
Sizes: DN 50 to DN 1800

Knife gate valve SDR - AT200 R

Sizes: DN 50 to DN 1200

Control knife gate valve with optimised control plate designed for precise air volume control with almost linear control function, e.g. for ventilation tasks in sewage installation plants. Lug type knife gate valve for installation between flanges acc. to EN 1092-1 / PN 10. Also suitable for dead-end service. Two-piece body, bidirectional tight shutoff. Metal guided plate, locked when closed. Self-adjusting COMPACT cross seal, no necessity for gland packing – maintenance-free.

High pressure gate valve SD3 - AT300

Sizes: DN 100 to DN 300

High pressure knife gate valve up to 40 bar operating pressure, e.g. for dewatered sewage sludges or biomass. Lug type knife gate valve for installation between flanges acc. to EN 1092-1 / PN 10 to PN 40. Also suitable for dead-end service. Two-piece body, bidirectional tight shutoff. Metal guided plate, locked when closed. Self-adjusting COMPACT cross seal, no necessity for gland packing – maintenance-free. Self-cleaning flush-out corners with cutting edge in the lower body area.

Knife gate valve SDH - AT550F

Sizes: DN 50 to DN 800

Knife gate valve for pharmaceutical and chemical industries. Two-piece body with funnel-shaped outlet for the prevention of product deposits, sealing on one side, flushing connections in the body at the end of the plate stroke allows the closing of the falling or standing product column.

Knife gate valve SD4/9 - AT400/416

Sizes: DN 40 to DN 1200

Knife gate valve with completely round bore – with a special design according to customer requests possible.
Lug type knife gate valve for installation between flanges acc. to EN 1092-1 / PN 2,5 to PN 40. Special pressure classes, lengths and nominal sizes possible. Also suitable for dead-end service (SD 9). Two-piece body, bidirectional tight shutoff. Metal guided plate, locked when closed. Self-adjusting COMPACT cross seal.
Optional: secondary sealing, readjustable from the outside. Cutting edge in the lower body area.

Knife gate valve SD8/81 - AT500 / AT510F

Sizes: DN 300 to DN 700

Lug and wafer type knife gate valve for installation between flanges acc. to EN 1092-1/PN 10. Also suitable for deadend service in vertical pipelines and below silos. ATEX approved for category II 1/2 D c TX.
One-piece body with funnel-shaped outlet for the prevention of product deposits, sealing on one side, flushing connections in the body at the end of the plate stroke allows the closing of the standing product column.

Knife gate valve SD2 - AT200 F

Sizes: DN 200 to DN 1000

Two-piece body with conically designed plate bed milling groove. Lateral plate guidance interrupted alternately in the front and rear body. Bidirectional tight shutoff in both flow directions.

Rectangular gate valve SD6 - AT600

Sizes: According to customer request

Absolutely watertight and airtight design for liquids, slurries and free-flowing solids. Flanged gate valve for clamping between flanges according to customer specification or manufacturer standard. Two-part body, sealing on both sides, metal-guided gate plate locked in the closed position, self-adjusting COMPACT transverse seal to the atmosphere. Additional secondary seal adjustable from the outside possible, cutting edge in the base area.

Rectangular gate valve SD65 - AT650

Sizes: According to customer request

Rectangle knife gate valve with a special design and different sizes according to user requests possible. Knife gate valve for solid materials applications for installation between flanges. Also suitable for dead-end service in downpipes or below silos. Flanges according to customer specifications or manufacturer standard. Two-piece body, sealing on one side. Metal guided plate, locked when closed. Self-adjusting COMPACT cross seal. Optional: secondary sealing, readjustable from the outside. Cutting edge in the lower body area

High Pressure gate valve SD75 - AT750

Sizes: DN 50 to DN 500

Domino knife gate valve with through-going valve plate, valve up to PN 160 for dewatered sewage sludge, thick matter and biomass. Flanged gate valve completely round and smooth passage, special lengths and nominal sizes possible. Two-part body, sealing on both sides, metal-guided gate plate with pressure shock protection. COMPACT transverse sealing system to the outside. Additional secondary seal adjustable from the outside possible.

High Pressure gate valve SD75 - AT750

Sizes: DN 50 to DN 500

Domino knife gate valve with through-going valve plate, valve up to PN 160 for dewatered sewage sludge, thick matter and biomass. Flanged gate valve for clamping between flanges to EN 1092-1 / PN 2.5 to PN 160. Completely round and smooth passage, special lengths and nominal sizes possible.

Two-part body, sealing on both sides, metal-guided gate plate with pressure shock protection. COMPACT transverse sealing system to the outside. Additional secondary seal adjustable from the outside possible.

Mounting Parts

Hand wheel

Hand-wheel for non-rising stem made of cast iron GGG 40 – JS 1030, diameter 150 mm – 500 mm. Also available with ball handle upon request

Hand Lever

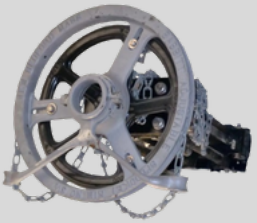
Hand lever made of quick-release lever made of galvanised steel. Piston rod made of stainless steel 1.4301, optionally 1.4571. Available up to DN 200

Bevel gearbox

Reduction gearbox
As angular or spur gear

Chain wheel

Made of aluminium with galvanised steel chain or stainless steel chain. Made of stainless steel with stainless steel chain. Adapted to the standard handwheel.



Electric acutator

For rising stems, applicable for both control or regular operation.

Hydraulic cylinder

Double-acting, for control pressures up to 250 bar. Also available with hydraulic end position indicator and distance measuring system for continuous position feedback.

Pneumatic cylinder - single-acting

Single acting, spring close. Control pressure 6-10 bar. Cylinder barrel and base made of aluminium (stainless steel optional). Spring chamber: coated steel.

Pneumatic cylinder - double-acting

Double-acting, air pressure 6-10 bar, cylinder body, cap and bottom made of piston plate made of steel or aluminium, piston aluminium (optionally stainless steel), made of stainless steel 1.4104, optionally 1.4571.

Control of the pneumatic actuators via solenoid valves

3/2 ways, 5/2 ways, 5/3 ways with blocked intermediate position, quick exhaust and booster valves, ATEX, SIL.

Indication of the end position OPEN / CLOSE

Wiring in terminal boxes possible, ATEX and ASi-Bus versions upon request.

Indication of the end position OPEN / CLOSE

With roller swivelling lever, open mounting, wiring in terminal boxes possible, optionally also for Exatmospheres.

Indication of the end position OPEN / CLOSE

via magnetic switch on the pneumatic cylinder.

Positioner

For single and double-acting pneumatic cylinders. Optionally with quick exhaust and booster valves, ATEX version.

Non-Return Valves

Non Return Valve series RG1 6666

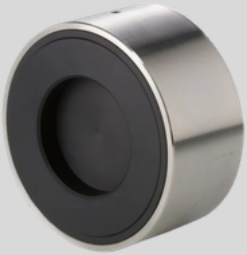
Sizes: DN 15 to DN 150

Soft seated non return valves for clamping. Sandwich construction for installation between flanges PN 6 - PN 40. Backflow is reliably prevented due to the spring.

Non Return Valve series RG1 6666M

Sizes: DN 15 to DN 150

Metal seated non return valve for clamping. Sandwich construction for installation between flanges PN 6 - PN 40. Backflow is reliably prevented due to the spring.



Non Return Valve series RG2 8686TK

Sizes: DN 15 to DN 125

PTFE-execution non return valve for clamping. Sandwich construction for installation between flanges PN 10 / PS 4 - Ps 10. Backflow is reliably prevented due to the spring.

Swing Check Valves

Swing Check Valve C 4444 / 6666

Sizes: DN 40 to DN 500

Wafer type swing check valve. Sandwich construction for installation between flanges PN 10/16 (other pressure stages on request).

Swing Check Valve series C 8686

Sizes: DN 50 to DN 300

Wafer type swing check valve in PTFE-execution. Sandwich construction for installation between flanges PN 10 (other pressure stages on request).

Swing Check Valve series C 8888

Sizes: DN 50 to DN 500

Wafer type swing check valve in Polypropylene-execution.
Sandwich construction for installation between flanges PN 10 (other pressure stages on request).

Pneumatic Acutators

Pneumatic Actuator Series AP

Maintenance-free function due to permanent lubrication.
Corrosion protection through hard anodising of the housing. Linear torque curve due to rack and pinion/tooth shaft principle. Wear-free piston guide. Standardised interfaces. Option: stroke adjustment in both end positions.

Pneumatic Actuator Series MC

The pneumatic quarter-turn actuator series MC has proven itself in terms of reliability in process plants.
The robust and compact design and the technical solutions used make this product extremely reliable under the toughest operating conditions. The comprehensive range of accessories for the actuator, originating from our production, allows a single point of contact for the components of the entire automation system and the valves.

Electrical Acutators

Electrical Actuator Series AQ

90° part-turn actuators for the positioning and control operation of ball valves and butterfly valves.

Electrical Actuator Series FQ

90° part-turn actuators for the positioning and control operation of ball valves and butterfly valves with emergency positioning function.

Electrical Actuator Series SQ

Sizes: DN 8 to DN 150

90° part-turn actuators for the positioning and control operation of ball valves and butterfly valves, also for demanding environments.

Need more information or interested in receiving a offer?

Get in touch with us:

AUDOL

HIGH-PERFORMANCE DRIVES FOR YOUR MACHINES.

Masarykova 822,
252 19 Rudna,
Czech republic

+420 311 678 399

firma@audol.cz

www.audol.cz