PURE POWER

MARINE PRODUCTS

PURE POWER

CENTA redefines POWER.
POWER, to us, is more than merely strength.

POWER, to us, is the passion to find the best solution. To continuously improve successful concepts. To set new standards in performance, flexibility and service.

Each product bearing the name CENTA puts POWER into practice in a unique way. Ensuring pure power. Removing troublesome influences. Enabling optimum results.

CENTA Power Transmission.

RELIABLE PERFORMANCE

We work every day to be the leading global provider of high value, mission-critical solutions that help customers safely, reliably, and productively keep their goods and assets moving.

Customer satisfaction is our priority. We are the most reliable partner in the industry, delivering lowest total cost of ownership, providing valuable expertise and making it easier to do business with the right products in the right place at the right time.

Rexnord Power Transmission.

MARINE

You determine the course.

We make sure
you reach safe shores.

MARINE

CENTAFLEX-DS
Page 13

CENTAFLEX-R
Page 14

CENTAMAX-HTC
Page 14

CENTAMAX-S
Page 14

CENTAFLEX-A
Page 13

CENTAX-SEC-NL
Page 16

CENTAX-SEC-G
Page 17

CENTAX-SEC-L
Page 17

REXNORD CLUTCHES
Page 18

CENTAFLEX-A
Page 13

CENTAX-SEC-NL
Page 16

CENTAX-SEC-G
Page 17

CENTAX-SEC-L
Page 17

REXNORD CLUTCHES
Page 18

Which product for your purpose?
We will gladly assist –> www.centa.info/contact

CENTAMAX-HTC
Page 14

CENTAMAX-S
Page 14

CENTAX-SEC-B
Page 16

CENTAX-SEC-G
Page 17

CENTAX-SEC-L
Page 17

CENTAX-TT
Page 17

COUPLING + SHAFT

CENTAX-SEC-G
Page 17

CENTAX-V
Page 16

CENTAX-SEC-L
Page 17

CENTAFLEX-RV
Page 14

CENTA CLUTCH PACK
Page 15

CENTASTART-V
Page 16

CENTA FH
Page 15

CENTAFLEX-A
Page 13

REXNORD CLUTCHES
Page 18

CENTALINK
Page 16

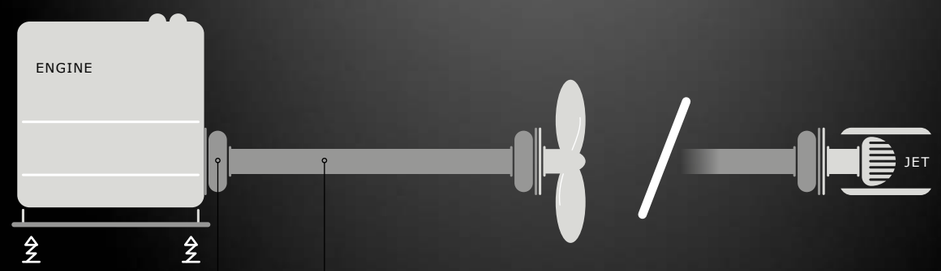
CENTA CARBON
Page 15

CENTADISC-M
Page 14

CENTADISC-C
Page 15

CENTAFLEX-A
Page 13

MARINE



COUPLING + SHAFT

CENTAFLEX-RV
Page 14

CENTAX-V
Page 17

CENTAX-SEC-G
Page 17

CENTAX-SEC-L
Page 17

CENTAFLEX-A
Page 13

CENTA CARBON
Page 15

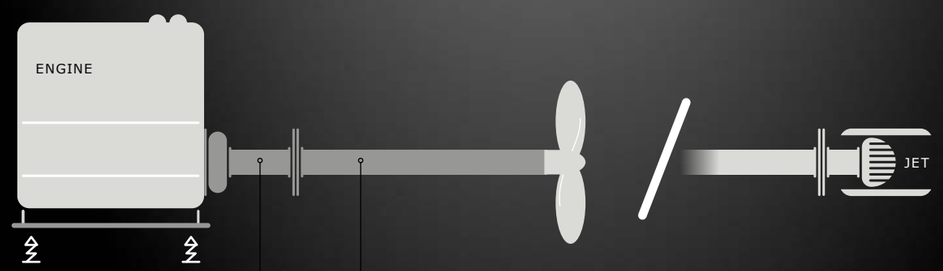
CENTADISC-C
Page 15

CENTADISC-M
Page 15

CENTALINK
Page 16

CENTAFLEX-A
Page 13

REXNORD CLUTCHES
Page 18



CENTAFLEX-RV
Page 14

REXNORD MODULFLEX
Page 18

CENTA CLUTCH PACK
Page 15

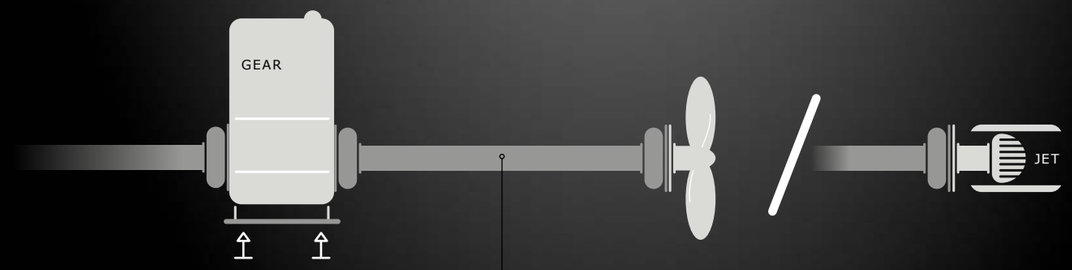
CENTASTART-V
Page 16

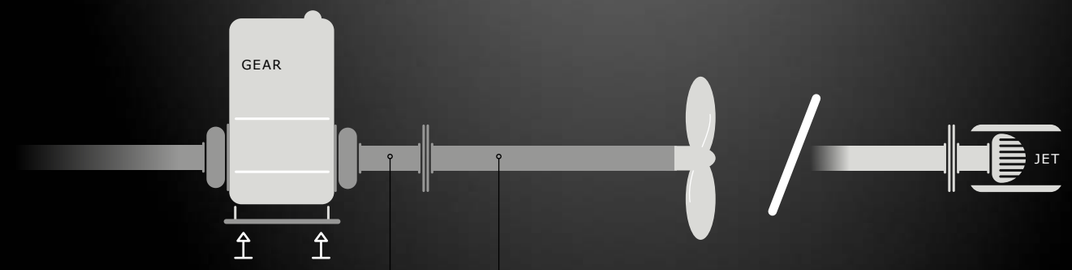
CENTAX-V
Page 17

CENTA FH
Page 15

REXNORD CLUTCHES
Page 18

MARINE





PRODUCTS

CENTAFLEX–A www.centa.info/cf–a

Highly flexible coupling for a wide range of applications. For a maximum of design variants. Based on a highly elastic rubber element subject only to compressive stress. Extremely high-performing design with high torsional elasticity. Dampens torsional vibrations and shocks and compensates considerable axial, radial and angular misalignments. Electrically insulating and thermally resistant in silicon design. For rupture-proof and backlash-free transmission of high torques. Available as axially blind fitting design with radial mountability. Rubber element available as split element for quick replacement. Easy handling and mountable with minimum effort. In various lengths adaptable to the installation requirements if applied as homokinetic shaft. Also available as carbon-fibre or glass-fibre designs.

torque range
0.01 to 12.5 kNm

elastic material
NR / Si

temperature range
NR –45° to +80°C
Si –45° to +120°C

CENTAFLEX–ACV www.centa.info/cf–acv

Highly flexible homokinetic drive shaft for the connection of gear and propeller shaft. For applications with considerable angular deflections. Torque transmission via a double-cardanic drive shaft with a CV joint on one side and a highly flexible rubber element on the other. Propeller thrust transmitted to the boat hull by a self-aligning thrust bearing. Specially designed to reduce noise and vibrations. Dampens torsional vibrations and shocks, interrupts structure-borne noise and tolerates (homokinetic) angular deflections of up to 8 resp. 3 degrees. Additionally offers a high degree of electrical insulation. Mounted with minimum effort by means of a clamping hub. Delivered with fail-safe device and to a large extent ready to install.

torque range
0.16 to 11 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAFLEX–AGM www.centa.info/cf–agm

Highly flexible homokinetic drive shaft for the connection of gear and propeller shaft. For applications with moderate angular deflections. Backlash-free torque transmission via a double-cardanic drive shaft with two highly flexible rubber elements. Propeller thrust transmitted to the boat hull by a self-aligning thrust bearing. Specially designed to reduce noise and vibrations. Dampens torsional vibrations and shocks, interrupts structure-borne noise and tolerates (homokinetic) angular deflections of up to 3 degrees. Additionally offers a high degree of electrical insulation. Mounted with minimum effort by means of a clamping hub. Delivered with fail-safe device and to a large extent ready to install.

torque range
0.16 to 11 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAFLEX–AM www.centa.info/cf–am

Highly flexible coupling for connecting gear and propeller shaft to isolate noise and vibration from the boat hull. Backlash-free transmission of torque and propeller thrust via a highly flexible rubber element with thrust bearing. Specially designed to reduce noise and vibrations. Dampens torsional vibrations and shocks, interrupts structure-borne noise and compensates moderate axial, radial and angular misalignments. Additionally offers a high degree of electrical insulation. Available in a wide range of standard sizes covering engine power up to several hundred KW. Mounted with minimum effort by means of a clamping hub. Delivered with fail-safe device and ready to install.

torque range
commercial 0.12 to 8 kNm
pleasure 0.175 to 10 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAFLEX–DS www.centa.info/cf–ds

Dual stage coupling with progressive characteristic. For smooth operation and reliable load transmission. Combines good damping characteristics of a torsionally flexible roller coupling under partial load with the robustness of a claw-type coupling under full load. Extremely short and economic design for smooth operation at low idling speeds resp. for applications with high degree of idling. Effectively ventilated and with high allowable power loss. Blind assembly for minimum mounting effort. Delivered with fail-safe device and flywheel connections acc. to SAE. Also available for non-standard flywheels.

torque range
0.15 to 1.75 kNm

elastic material
NR / NBR

temperature range
–25° to +80°C

CENTAFLEX–M www.centa.info/cf–m

Highly flexible coupling for the connection of gear and propeller shaft. For applications with limited mounting space. Backlash-free transmission of torque and propeller thrust via highly flexible rubber element. Specially designed to reduce noise and vibrations under confined space requirements. Dampens torsional vibrations and shocks, interrupts structure-borne noise and compensates axial, radial and angular misalignments. Additionally offers a high degree of electrical insulation. Mounted with minimum effort by means of a clamping hub. Delivered with fail-safe device and ready to install. Further handling, maintenance and cost benefits by omitting additional components, such as spacers.

torque range
commercial 0.175 to 0.35 kNm
pleasure 0.25 to 0.5 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAFLEX–R www.centa.info/cf–r

Highly flexible coupling with progressive characteristic. For heavy duty applications. Extremely robust and fail-safe design with rubber rollers subjected only to compressive stress. Characterised by a slight stiffness at lower speeds and a moderately increased stiffness at rising torques. For smooth operation and reliable transmission over the entire operation range. Also effectively ventilated and with high allowable energy loss. Suitable for high ambient temperatures. HD design includes oil-resistance and even higher temperature resistance. Delivered with fail-safe device and for a variety of shaft connections. With flywheel connections acc. to SAE. Also available for non-standard flywheels.

torque range
0.25 to 15 kNm

elastic material
CENTALAN / HD

temperature range
CENTALAN –45° to +100°C
HD –45° to +130°C

CENTAFLEX–RV www.centa.info/cf–rv

Highly flexible intermediate coupling with progressive characteristic. For drive concepts with many drive shaft variants. Combination of highly flexible roller coupling and built-in bearing support. Characterised by slight stiffness at lower speeds and moderately increased stiffness at rising torques. Dampens torsional vibrations and noise. Ensures smooth operation and long lifespan of the coupled units. HD design includes oil-resistance and even higher temperature resistance. Minimum mounting and maintenance effort. With flywheel connections acc. to SAE. Also available for non-standard flywheels. CENTA FH flange bearing is recommended for larger deflection angles of connected cardan shafts.

torque range
1.6 to 10 kNm

elastic material
CENTALAN / HD

temperature range
CENTALAN –45° to +100°C
HD –45° to +130°C

CENTAMAX–HTC www.centa.info/cm–htc

Robust coupling with high torsional flexibility. For resonance-free operation of drives susceptible to torsional vibration. Torque transmission via a toothed outer ring onto a rubber element. Highly reliable and rupture-proof design for the transmission of high torques in a compact design. Characterised by high torsional flexibility with linear characteristic. Dampens torsional vibrations and shocks and compensates axial, radial and angular misalignments. Effectively ventilated and with high allowable energy loss. Blind assembly for minimum axial mounting effort. With flywheel connections acc. to SAE.
Also available for non-standard flywheels.

torque range
5.4 to 45 kNm

elastic material
NR / CENTALAN HT

temperature range
NR –45° to +80°C
CENTALAN HT –25° to +120°C
short term +120°C

CENTAMAX–S www.centa.info/cm–s

Robust coupling with high torsional flexibility. For resonance-free operation of drives susceptible to torsional vibration. Torque transmission via a toothed outer ring onto a rubber element. Highly reliable and rupture-proof design for the transmission of high torques in a compact design. Characterised by high torsional flexibility with linear characteristic. Dampens torsional vibrations and shocks and compensates axial, radial and angular misalignments. Effectively ventilated and with high allowable energy loss. In silicon design, additionally oil resistant and suitable for higher temperatures. Blind assembly for minimum axial mounting effort. With flywheel connections acc. to SAE.
Also available for non-standard flywheels.

torque range
0.1 to 24 kNm

elastic material
NR / Si / CENTALAN HT

temperature range
NR –45° to +80°C
Si –45° to +120°C
CENTALAN HT –25° to +120°C
short term +120°C

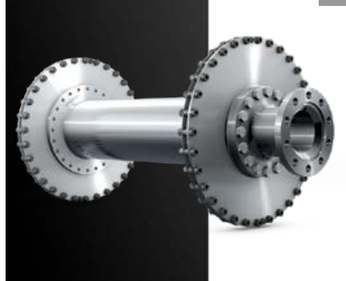
CENTADISC–C www.centa.info/cd–c

A torsionally stiff light weight membrane coupling for the application in vessels, ferries and in wind energy applications where weight and alignment are of importance. Two membranes arranged in series and combined with a fibre reinforced tube function as kinematic joint with optimum operating characteristics. Stiff and lightweight tubes allow for high speeds thus longer driveshafts are possible in with substantially reduced bearings. The combination with further CENTA products, cardanshafts, homokinetic joints or couplings on the other shaft end guarantee for optimal adaption. Positive fit of all components by standardized serration between coupling element and tube or power unit. Easy handling due to modular design and standardization.

torque range
1 to 50 kNm

elastic material
PA / GFK

temperature range
–40° to +150°C



CENTADISC–M www.centa.info/cd–m

High-performing drive shaft with tandem membrane. For light-weight design. Double-cardanic system with two tandem membranes in series and an intermediate tube made of steel or carbon-fibre reinforced plastic. Torsionally stiff design, yet capable of compensating considerable axial misalignments. Ideal for long spans due to low weight and high strength as so eliminating the need for additional intermediate bearings. Extremely durable, also oil-resistant and suitable for high ambient temperatures. Available in any length with up to 10 metres per section. Radially mountable and with minimum maintenance effort. Further handling, maintenance and cost benefits by the omission of additional components, such as bearings and foundations.

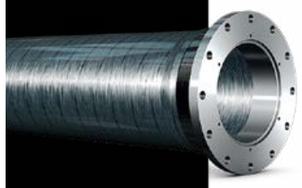
torque range
12.5 to 650 kNm

CENTA CLUTCH PACK www.centa.info/cp

Versatile clutch coupling with flange bearing. For short engaging operations and effective protection against mechanical loads. Combination of a torsional coupling with an electro-magnetic clutch coupling, installed inside a flanged bearing housing. Highly robust design with reliable bearing. Allows starting and stopping the driven unit under load and protects connected shafts and bearings against harmful reaction forces. Effectively ventilated with high allowable energy loss. Short total length, extremely economic design when compared to standard hydraulically operated couplings. Can be operated with on-board voltage.
Delivered preassembled. With flywheel connections acc. to SAE.

torque range
0.7 to 4.2 kNm

elastic material
and temperature range
dependent upon
the coupling installed



CENTA CARBON www.centa.info/carbon

Light-weight drive shaft made of carbon-fibre reinforced plastic. For energy-efficient power transmission while simultaneously permitting increased velocities of the driven machines. Developed in cooperation with the Technical University of Darmstadt and leading classification societies. Strength and stability comparable to steel, but significant savings in weight. Combinable with a variety of flexible couplings and connecting elements for optimum adaption of the torsional situation. Extremely durable and noise damping. With low thermal expansion, fatigue-free and corrosion-proof. Available in any length with up to 10 metres per section. Further handling, maintenance and cost benefits by the omission of additional components, such as bearings and foundations.

torque range
0.1 to 650 kNm

elastic material
CFK

temperature range
–40° to +90°C

CENTA FH www.centa.info/fh

Flange bearing to protect engine crankshafts from high bending moments. For compensation of high forces resulting from large deflection angles of connected components. Robust flanged bearing housing made of tempered aluminium. Extremely easy maintainable design on durable bearing. Takes up reaction forces and transmits them to the flywheel housing for the protection of the crankshaft and its bearing. Also available with speed-controlled centrifugal clutch for soft engagement of connected components. Extremely light-weight and compact design. Effectively ventilated. Minimum mounting and maintenance effort. Preassembled as unit for flywheel connections acc. SAE.

torque range
0.77 to 24 kNm

elastic material
and temperature range
dependent upon
the coupling installed

CENTALINK

www.centa.info/cl

Torsionally stiff drive shaft with outstanding kinematics. For reliable misalignment compensation and smooth operation. Equipped with links designed for push and pull, and bolted together with flexible rubber bushes. Extremely high-performing and torsionally stiff design with linear characteristic. Unique design with ability to compensate axial, radial and angular misalignments. In addition, offers the utmost degree of electrical insulation and reliable interruption of structure-borne noise. Protects the system against electrical corrosion and ensures significant reduction in noise transmission. Reduces installation time to a minimum and keeps lifecycle costs low. Available in optional intermediate and special sizes within the wide standard series. Also available as carbon-fibre or glass-fibre design.

torque range
3.3 to 150 kNm

temperature range
–45° to +80°C

CENTASTART–V

www.centa.info/cs–v

Speed-controlled centrifugal clutch with high flexibility. For zero-loss power transmission. Combination of a highly flexible rubber element, subjected only to compressive stress, and several centrifugal weights with friction lining connected by tension springs. Thermally resistant design with precisely determinable engaging speed. Allows complete separation of frictional connection as well as soft engaging and slip-free power transmission when reaching engagement speed. Extremely compact dimensions, additionally protects against overload. Available in numerous standard and special designs. With flywheel connections acc. to SAE. Also available for non-standard flywheels.

torque range
0.08 to 2.5 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–SEC–B

www.centa.info/cx–b

Robust coupling in economic design. For drives with high axial misalignments. Ring element featuring high torsional flexibility and radial capacity, combined with axial pins and bushes. Very reliable design, easy to install. With medium to high torsional flexibility. Available in various Shore hardness, ensuring optimum tuning of the torsional system. Dampens torsional vibrations and shocks and compensates considerable axial and radial misalignments. Effectively ventilated and with high allowable energy loss. Also available as segmented design. Mounted axially or radially with minimum effort. Extreme easy maintainable and durable.

torque range
5.5 to 260 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–SEC–NL

www.centa.info/cx–nl

Torsionally high flexible coupling with linear characteristic. For applications in soft mounted drive concepts. Ring element featuring high torsional and radial flexibility, combined with flexibility in axial and angular directions. Designed with amply dimensioned secondary inertia. With high torsional flexibility and extreme variable adaption to the individual torsional requirements by use of various degrees of Shore hardness. Dampens torsional vibrations and shocks and compensates considerable axial, radial and angular misalignments. Effectively ventilated and with high allowable energy loss. Minimum mounting effort. Fail-safe device optionally available. With flywheel connections acc. to SAE.

torque range
1.1 to 25 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–SEC–G

www.centa.info/cx–g

Highly elastic membrane coupling with high misalignment capability. For use in flexible-mounted drive concepts. Rubber element featuring high torsional and radial flexibility, combined with a membrane flexible in axial and angular directions. With high torsional flexibility and especially ideal system adaption by selection of one row or multi-row arrangement and different degrees of Shore hardness. Dampens torsional vibrations and shocks and compensates axial, radial and angular misalignments. Effectively ventilated and with high allowable energy loss. Available with ring element or with segmented rubber element. Fail-safe device optionally available. Flanges and hubs available in numerous variants.

torque range
2.25 to 650 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–SEC–L

www.centa.info/cx–l

Highly elastic link coupling with excellent misalignment capability. For use in soft-mounted drives. Rubber element featuring high torsional and radial flexibility, combined with links flexible in axial and angular directions. With high torsional flexibility and especially ideal system adaption by selection of one row or multi-row arrangement and between different degrees of Shore hardness. Dampens torsional vibrations and shocks and compensates considerable axial, radial and angular misalignments. Additionally provides reliable acoustic decoupling. Effectively ventilated and with high allowable energy loss. Available with ring element or with segmented rubber element. Fail-safe device optionally available. Flanges and hubs available in numerous variants.

torque range
2.25 to 330 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–TT

www.centa.info/cx–tt

Compact coupling with high performance density. For heavy duty applications with high speeds. Design with segmented rubber elements, each consisting of two concentrically arranged precompressed rubber segments, which jointly transmit the torque. Extremely short and high-performing design. Characterised by medium torsional stiffness, especially variable adaption to the torsional system by adjusting the number and the arrangement of the segments. Dampens torsional vibrations and shocks and compensates axial and radial misalignments. Effectively ventilated and with high admissible energy loss. Mounted with minimum effort, replaceable without movement of the coupled units.

torque range
17.6 to 500 kNm

elastic material
NR

temperature range
–45° to +80°C

CENTAX–V

www.centa.info/cx–v

Torsionally highly flexible intermediate coupling with linear characteristic. For drive concepts with cardan shafts. Safe transmission of torque via a highly flexible precompressed rubber element with precisely centred plain bearings. Characterised by high torsional flexibility with linear characteristic. Dampens torsional vibrations and noise, ensures smooth operation and long service life of the connected units. Also effectively ventilated and with high allowable energy loss. Available with flywheel connections acc. to SAE and various cardan connections. Also available for non-standard flywheels. Flange bearing CENTA FH recommended for larger deflection angles.

torque range
0.23 to 50 kNm

elastic material
NR

temperature range
–45° to +80°C

REXNORD MODULFLEX

This application often requires a drive train coupling and clutch package that can connect a Diesel engine and engage / disengage the thruster.

The torsionally stiff disc coupling compensates for angular and axial misalignment in the drive train. Additional radial offset is compensated by combining two disc modules within the same coupling.

Compared to conventional shaft connections, the maintenance-free disc coupling uses an intermediate tube providing less weight thus requiring fewer bearings. A clamping hub system is available to provide reliable performance and ease of assembly.

The clutch provides an axial air inlet incorporated in the central driveshaft. A unique feature is the power take off (PTO) interface for providing power to auxiliary drives through a belt drive. Power can thus be used for other purposes even when the thruster is disconnected. Clutches are available in both pneumatic and hydraulically operated versions.

- Reliable and maintenance-free connection
- Easy installation
- Suitable for long shaft applications
- High misalignment capacity
- EN 10204-3.2 compliant

REXNORD CLUTCHES

Tug-boats and push-boats use tunnel or bow thrusters to increase their manoeuvrability and safety at sea. Clutches are used to connect and disconnect the thruster from the propulsion drive.

For this application, Rexnord offers two options, depending on the type of thruster:

A hydraulic clutch integrated with the gear providing a maintenance-free and reliable solution allowing for high actuation frequencies

A dry clutch solution ensuring smooth running while dampening when engaging.

- Easy to assemble/ disassemble and maintain
- Pneumatically or hydraulically operated
- Axial or radial oil inlet available
- External or integrated solutions available
- EN 10204-3.2 compliant

REXNORD | CENTA

You count on high-performing partners.

We are ready available wherever you are.

CENTA

CENTA Power Transmission is now part of Rexnord.
As a global leader in premium couplings,
Rexnord provides the same high quality customer
solutions and service you've come to expect
from CENTA since 1970.

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