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# Couplings for Gas Compression























# Rexnord's Complete Coupling Portfolio for Gas Compression

Rexnord offers a complete coupling portfolio for all natural gas compression applications. The Rexnord portfolio includes disc and torsionally soft options, specifically suited to different needs and applications: Thomas®, Euroflex, and CENTA®. Delivering on reputation and reliability, Rexnord has the right solution no matter the application.

## Rexnord CENTA Torsionally Soft Couplings Range *(focus: damping and misalignment)*

Coupling Type	Speed	Torque	Damping	Misalignment	Key Applications
 CENTAX®-B/G					reciprocating compressors
 CENTAFLEX®-A					screw compressors

## Rexnord Disc Coupling Range *(focus: speed and compactness)*

Coupling Type	Speed	Torque	Damping	Misalignment	Key Applications
 Euroflex GH & GBH					centrifugal & screw compressors
 Thomas XTSR					centrifugal & screw compressors
 Thomas AMR & CMR					reciprocating compressors
 Thomas Series 44					reciprocating compressors



# Rexnord's Brands for Gas Compression

## THOMAS

The Rexnord Thomas Disc Coupling portfolio provides highly reliable and economical solutions for the gas compression industry. The range of torsionally-rigid, all-metal disc couplings offers the flexibility and adaptability to accommodate both the high vibratory loads of reciprocating engines and the precision and balance required for the high speeds of gas turbines. The modularity of coupling designs ensures component and part availability with best-in-class lead times.

### Features include:

- Fully configurable components for exceptional design flexibility, even with standard stock components
- Flywheel adapters to accommodate virtually any flange design
- A wide variety of shaft connection options, including keyless locking mechanisms
- Fully machined spacers for high-speed applications
- ATEX certification and API 610 & 671 compliant designs
- Online selection, with configuration and CAD tools available
- Fast fulfillment of the complete Rexnord catalog portfolio



Thomas AMR and CMR Couplings feature cast iron or steel center members engineered specifically for the continuous alternating or vibratory torque loads and slow to medium speeds required for reciprocating applications.

## EUROFLEX

Rexnord Euroflex Disc Couplings are designed for high-performance turbomachinery applications common in the oil & gas industry. Each coupling is designed and manufactured to meet specific application requirements and optimized for your needs – a truly custom solution.

Euroflex Couplings are fully-featured and highly adaptable, without sacrificing performance or reliability. In the most critical applications, like turbine-driven compressors, where speed, torque, and power requirements are extremely demanding and reliability is paramount, Euroflex is an ideal custom solution.

### Features include:

- Designed for high-performance applications above 250,000 Nm and 3,600 rpm
- The Euroflex design is fully optimized for every application:
  - Engineered and manufactured to order
  - Hardware and disc packs are manufactured in-house
  - Full suite of custom options such as torque-overload shear pins, electrical insulation, and limited end float
  - Available in special materials such as titanium, aluminum, composite, and alloy steel
  - Torsionally tuned with high-misalignment capacity
- ATEX certification, and API 671 & ISO 10441 compliant when specified



Euroflex Couplings are of all-metal construction and are fully-machined for higher speeds required by turbine-driven gas and liquid process equipment. High performance applications requiring speeds in excess of 20,000 rpm and API 671 compliance can be supplied.

## CENTA

CENTA Couplings are one of the most technically advanced couplings in the Rexnord portfolio, delivering reliable customized solutions and the highest quality. Designed and made in Germany, CENTA products are manufactured with carefully selected materials and advanced engineering.

CENTA products have a reputation for the highest torsional vibration and the most reliable performance in a wide variety of demanding industries. CENTA products withstand the roughest conditions. Applications include reciprocating engines subject to high vibratory loads requiring strong damping abilities to absorb vibrations, and screw compressors demanding high levels of flexibility.

### Features include:

- Modular design and maximum customization options:
  - Engineered and made to order with in-house manufacturing
  - Various shore hardness to ensure optimum tuning of the torsional system
  - Ring or segmented rubber elements available as one or multi-row designs, made of high-grade natural rubber, silicone, or durable CENTALAN
  - Coupling or shaft design options available
- Additional options include electrical insulation, fail-safe devices, various adapters, tubes, and hubs
- ATEX certification



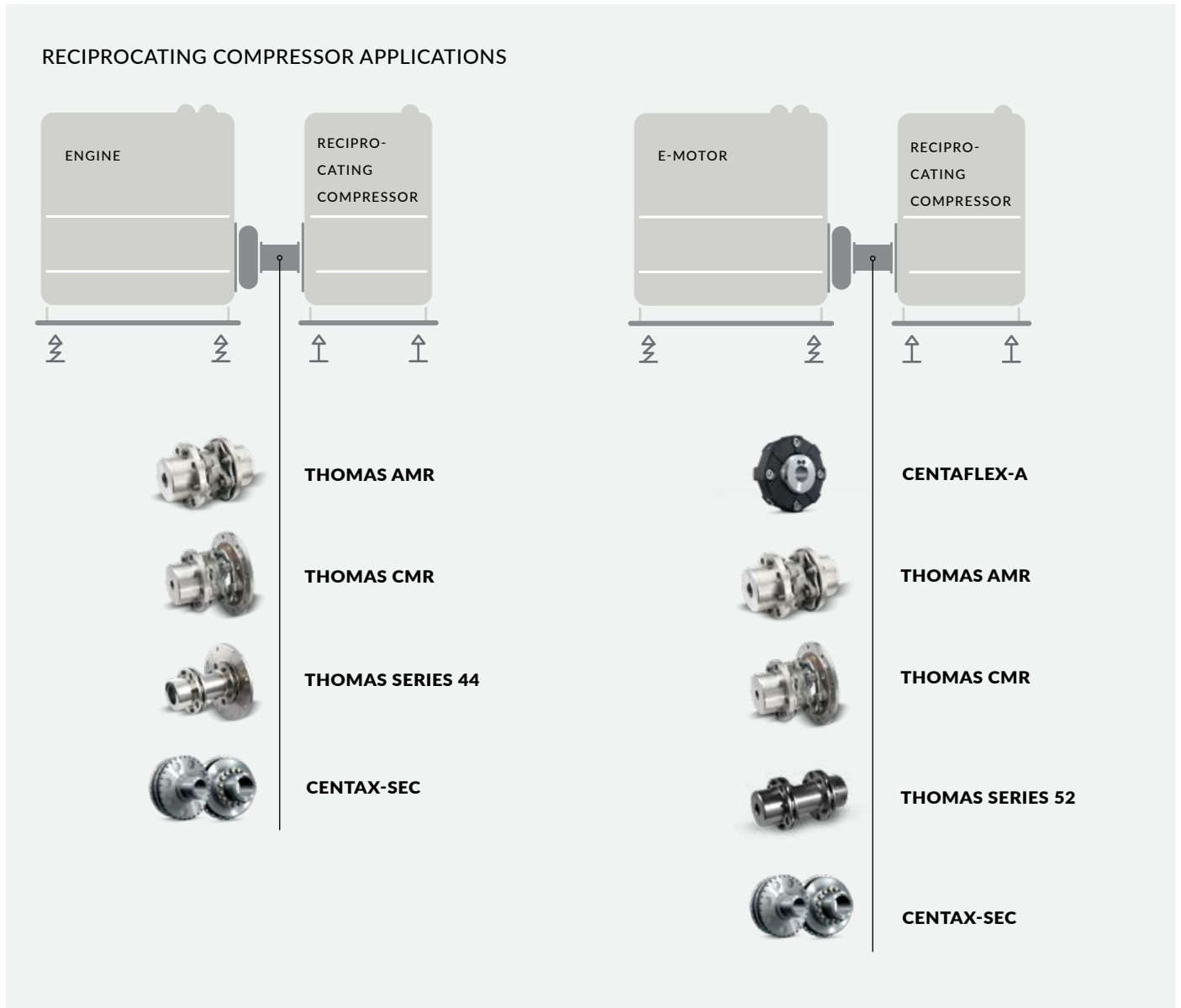
CENTA Couplings and shafts are highly engineered to perform in demanding applications.



# Rexnord's Gas Compression Driveline Solutions

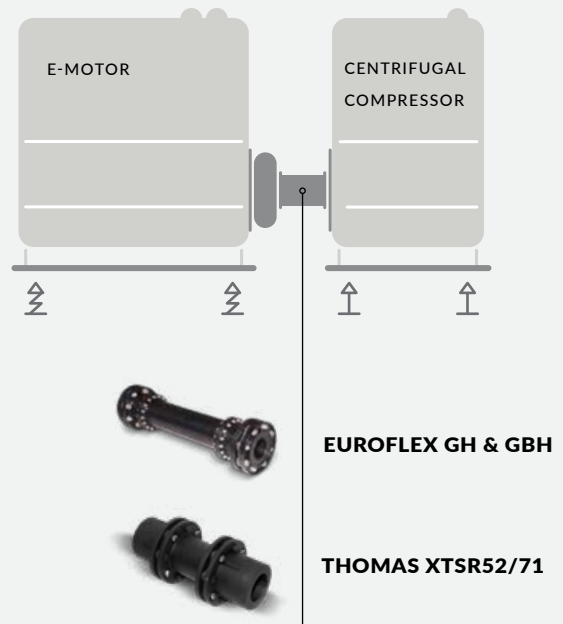
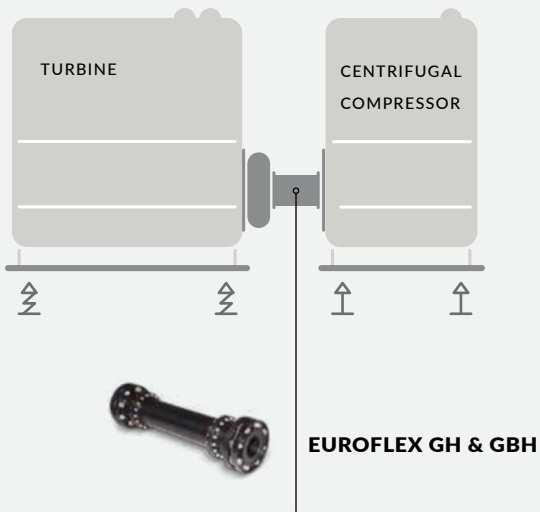
Rexnord manufactures reliable solutions for the vast array of rotating equipment used in natural gas and petroleum industries. Rexnord products are used in every step of the process, from gas exploration and gas compression to power generation.

*Explore the product best suited to your application:*

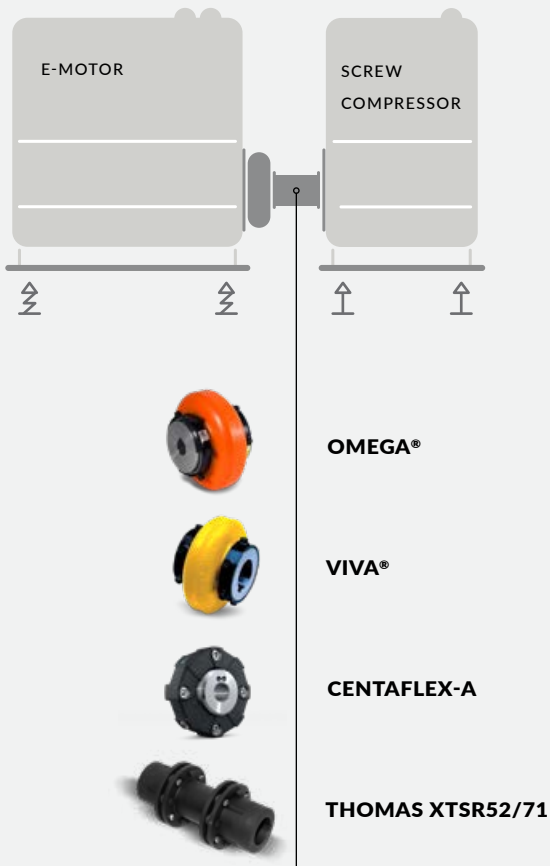


Contact Rexnord today to learn more about our solutions for the gas compression industry to help you increase uptime, productivity, and profit.

## CENTRIFUGAL COMPRESSOR APPLICATIONS



## SCREW COMPRESSOR APPLICATIONS



*Omega and Viva can be used in limited cases and are therefore not part of our lead products for these applications. Our experts will be happy to advise you on the selection.*



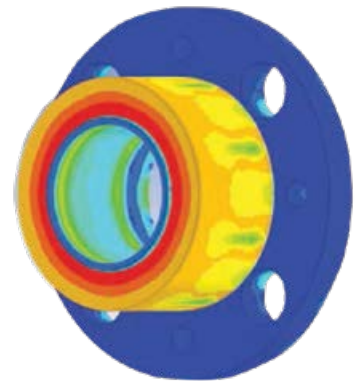
# Adding Value with Rexnord

## ENGINEERED SOLUTIONS FOR EVERY APPLICATION

The Rexnord Coupling portfolio includes a broad array of couplings and shafts tailored to the specific needs of each application.

Rexnord engineers understand there are many combinations of driving and driven equipment used throughout the gas compression industry, and that each of these combinations requires unique coupling solutions.

Rexnord tests its products worldwide to cover different tasks (such as misalignment compensation, torsional vibration mitigation and torque transfer) and performance ranges. Through these tests, Rexnord carries out 3D measuring, measuring of dynamic values and static characteristic curves, tensile strength testing, spectrometer and hardness measuring, as well as customer-specific testing. Our close contact with external research facilities, as well as engineering and planning offices, provides assurance that all Rexnord products are reliably built and rigorously tested to perform consistently.



Rexnord employs finite element analysis (FEA) models when designing innovative features such as the NHR locking collar.

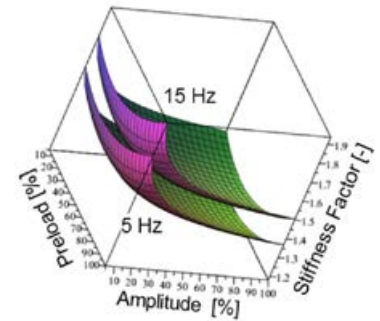




## TORSIONAL VIBRATION EXPERTISE

Along with extensive experience in the gas compression industry, Rexnord engineers bring years of experience in the field of torsional vibration calculation and simulation. The coupling and shaft designs in the Rexnord product portfolio are subject to extensive torsional vibration analysis, multi-mass, and finite element analyses.

Rexnord engineers and leading global OEMs have developed numerous innovations to solve specific torsional vibration problems. Members of Rexnord's Competence Team for Simulation and Control Engineering are valued speakers at industry-leading engineering and torsional vibration events.



Dynamic stiffness versus preload and amplitude for two frequencies.

## SPECIAL COMPONENTS

### Locking Devices

The No Heat Required (NHR) locking collar is a mechanical locking device that greatly simplifies the installation process by eliminating the need for a keyed interference fit between the coupling hub and shaft. Instead of requiring heat to expand the coupling hub before sliding onto the shaft, the NHR locking collar simply slides onto the shaft cold and is secured with standard tools.



Thomas AMR Type Coupling with NHR locking collar

ALL AROUND  
THE GLOBE,

CUSTOMERS TRUST  
OUR PROVEN BRANDS.

#### WHY CHOOSE REXNORD?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

#### Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

#### Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

#### Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.