

# Couplings for Gas Compression and Process Equipment



# Complete Disc Coupling Portfolio for the Natural Gas Industry

M.T. Thomas revolutionized the coupling industry by inventing the flexible disc coupling in 1919. Today, Rexnord engineers continue to improve the disc coupling through design innovation, modern materials and lean manufacturing processes. The Thomas® disc coupling product portfolio provides a solution for all compressor and pump applications required to handle and process natural gas and the resulting byproducts. Thomas couplings are designed with the strength and flexibility to handle the high vibratory loads of reciprocating engines and the balance required for the high speeds of gas turbines.

## Low Speed



Thomas AMR Type Coupling



Thomas CMR Type Coupling



Thomas Series 44 Type Coupling



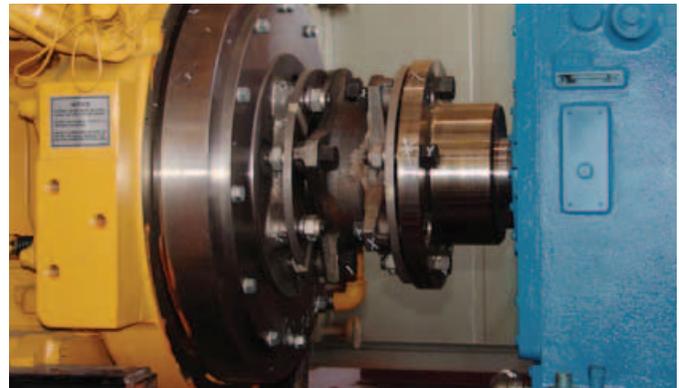
Thomas XTSR52 Series Coupling



Thomas XTSR71 Series Coupling



Thomas THP Type Coupling



AMR and CMR Type Couplings are engineered specifically for the continuous alternating or vibratory torque loads and slow to medium speeds required for the gas compression industry.



Series 44, 52 and 71 Type Couplings are manufactured with a machined center member for higher speeds required for gas and liquid process equipment. THP Type Couplings are designed for the highest speed applications approaching 10,000 rpm. These series are also available in API-compliant designs.

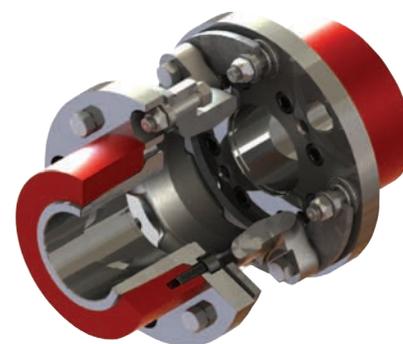
## High Speed



## Adding Value With The Thomas NHR Locking Collar

Thomas disc couplings have traditionally featured a variety of options for securing coupling hubs to shafts. Hub options include keyed, keyless, straight bore and tapered bore. Along with interference fits, Thomas couplings are also available with hydraulic fits, flanged hubs, commercially available locking mechanisms and the NHR (no heat required) locking collar.

The NHR locking collar option features a positive locking collar that eliminates the need for an interference fit between the coupling hubs and shafts. Instead of heating the coupling hubs to expand the material prior to sliding onto the shafts, the NHR locking collar simply slides onto the shaft cold, and is secured with commonly used tools.



Thomas AMR Type Coupling with NHR locking collar

### NHR locking collar benefits over interference fit hubs:

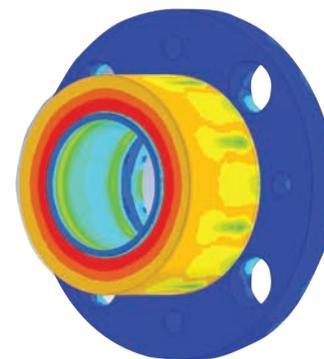
- Hot work permit is not required for installation or removal
- Will not damage driver or driven shafts
- Accommodates tight spaces (e.g., short shafts)
- Does not require special tools

## Engineered Couplings for Each Application

The Thomas coupling portfolio offers a broad array of disc couplings tailored to the specific needs of each application. Rexnord engineers understand there are many combinations of driving and driven equipment used throughout the natural gas industry, and that all of these combinations require unique coupling characteristics.

Along with extensive experience in the natural gas industry, Rexnord products are backed by:

- Computational models
- Physical testing
- Balancing equipment
- Torsional tuning capabilities



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

# Power Transmission From Gathering to Power Generation

Rexnord manufactures products for the vast array of rotating equipment used in the natural gas and petroleum industries. Rexnord products are used throughout the value chain on pumps, compressors, blowers and fans.



Thomas disc couplings are commonly used on high-horsepower and API-compliant equipment. They are found throughout the value chain on gas compression, processing, petrochemical and power generation applications.



Addax® composite couplings are ideal for long span drive shafts such as cooling tower fan drives. The composite shaft is lightweight, resistant to corrosion and has minimal thermal growth.



Omega® and Wrapflex® couplings provide an inexpensive, easy to maintain solution for common process applications. These elastomeric couplings are ideal for those focused on convenience.



Rexnord also offers lubricated couplings for rotating equipment. Lifalign gear couplings can be found on high-speed process equipment, while Steelflex® couplings combine torque capacity with vibration damping for pumps and fans.



Rexnord heavy-duty ball bearings are popular on fans and blowers used in gas compression, processing and power generation. The patented SHURLOK® option allows for quick and confident installation, which leads to increased efficiency and uptime.



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**Contact Rexnord today to learn about our solutions for the natural gas industry that can help you increase uptime, productivity and profit.**

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