



THOMAS[®] FLEXIBLE DISC COUPLINGS

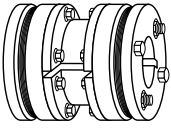
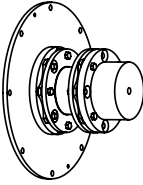
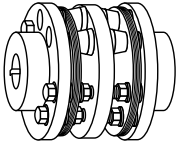
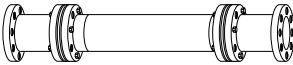
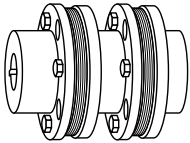
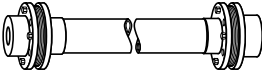
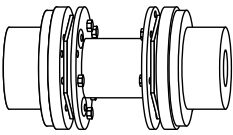
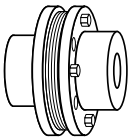
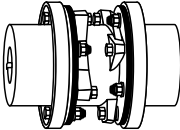
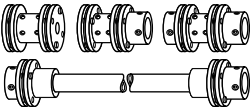
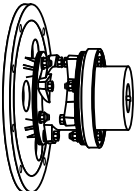
IMPERIAL



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Rexnord® Thomas® Coupling Application Guide

Coupling Type	Description and Typical Applications	Coupling Type	Description and Typical Applications
 <p>Series 54RDG, Series 54RD</p>	<p>Thomas® Series 54 couplings are designed as maintenance-free alternatives to lubricated gear- and grid-style couplings in close-coupled applications.</p> <p>Typical applications include fans, pumps, conveyors, pulpers, and mill drives.</p>	 <p>Series 44</p>	<p>Thomas Series 44 couplings feature a flywheel adapter plate that bolts directly to a flywheel and are ideal for heavy-duty, to medium to high-speed applications, where high starting torque, shock loads, torque reversals or continuous alternating torques are present. They are balanced and include a fully machined spacer for API compliance.</p> <p>Typical applications include engine drivers, reciprocating pumps and compressors, heavy-duty industrial drives where flywheel mounting is required.</p>
 <p>DBZ, DBZ-A, DBZ-B</p>	<p>Thomas DBZ disc couplings are general purpose high-speed, high-torque couplings designed to accommodate maximum continuous torque loads up to 43,400 lb-in.</p> <p>Typical applications include mixers, compressors, agitators, blowers, fans, centrifugal pumps, and conveyors.</p>	 <p>XTSRGA</p>	<p>Thomas XTSRGA couplings directly replace lubricated gear couplings commonly found in many pulp and paper applications with long spans between connected equipment. They blot up to the existing AGMA Standard rigid gear coupling hubs, enabling simple replacement of the floating shaft assembly.</p> <p>Typical applications include pulp and paper machines, line shafts, pelletizers, crushers and mill drives.</p>
 <p>XTSR52</p>	<p>Thomas XTSR52 non-adapter style spacer disc couplings are general purpose, high-speed, high-torque couplings used where minimum coupling weight is desirable. They are API 610 and ISO 14691 compliant when specified as well as ATEX II 2GD c T6 certified.</p> <p>Typical applications include pumps and compressors (centrifugal, rotary, lobe and axial), speed increasers, fans, dynamometers.</p>	 <p>XTSRLS52, XTSRLS71, XTSRLS71-C</p>	<p>Thomas XTSRLS couplings are full-floating shaft couplings designed for applications with relatively long distances between connected equipment, either horizontally or vertically.</p> <p>Typical applications include pumps, generators, fans, paper mill drives, line shafts, compressors, printing machines, turbines, test stands and engine drives.</p>
 <p>XTSR71</p>	<p>The Thomas XTSR71 adapter-style spacer design enables quick drop-in installation and removal without moving connected equipment. They are balanced to AGMA Class 9 and compliant to API 610 as manufactured.</p> <p>Typical applications include pumps and compressors with popular shaft separation standards, blowers, fans, speed increasers.</p>	 <p>XTSRS</p>	<p>Thomas XTSRS couplings are single flexing design that accommodate angular misalignment only. Two XTSRS couplings may be combined with intermediate shaft to support full-floating shaft applications.</p> <p>Typically used in three-bearing applications where radial load is supported by the coupling, such as single bearing generators, such as single bearing generators, V-belt sheaves, etc.</p>
 <p>AMR</p>	<p>Thomas AMR couplings provide shaft-to-shaft connections and are ideal for heavy-duty, slow-to medium-speed applications, where high starting torque, shock loads, torque reversals or continuous alternating torques are present. The open lug type center member provides clearance for assembly while minimizing the space required for coupling installations.</p> <p>Typical applications include reciprocating pumps and compressors, fan drives, blowers, heavy-duty industrial drives, crushers, extruders, hoists, dredges, generators, chippers, calenders, mill drives, conveyors.</p>	 <p>Miniature Couplings</p>	<p>The Rexnord Thomas Miniature Couplings are a range of high precision couplings for low horsepower applications. There are options with a variety of hub styles to accommodate many types of spacing and shafts.</p> <p>Typically used in tachometers, encoders, switches, ball screws, test stands, pumps, compressors, centrifuges, theodolites, sonar, radar, scales, and carburetors.</p>
 <p>CMR</p>	<p>Thomas CMR couplings feature a flywheel adapter plate that bolts directly to a flywheel and are ideal for heavy-duty, slow- to medium-speed applications, where high starting torque, shock loads, torque reversals or continuous alternating torques are present. The open lug type center member provides clearance for assembly while minimizing the space required for coupling installations.</p> <p>Typical applications include engine drivers, reciprocating pumps and compressors, heavy-duty industrial drives where flywheel mounting is required.</p>		

Rexnord® Thomas® Flexible Disc Couplings Overview

A flexible coupling is a device used to connect the ends of two shafts, transmit torque, and at the same time, accommodate slight misalignments which develop in service.

The primary functions of all flexible couplings are:

1. To transmit power from one shaft to another, efficiently and effectively.
2. To accommodate slight shaft misalignments which develop in service.

The secondary functions of flexible couplings are:

1. Protect connected equipment:
 - a. Absorb shock, vibration and pulsations.
 - b. Decrease cross load on bearings.
 - c. Accept load reversals.
 - d. Minimize backlash.

2. Minimize "installation" and "maintenance" difficulties. Shafts become misaligned during operation because of settling foundations, the effects of heat, vibration, etc. These misalignments take place in the form of angular misalignment, parallel misalignment or axial movement of the shafts; therefore, to get full service life from any flexible coupling, it is necessary to:
 - a. Assure proper shaft alignment during initial installation.
 - b. Occasionally check for and correct shaft misalignments during operation.

Misalignment Overview

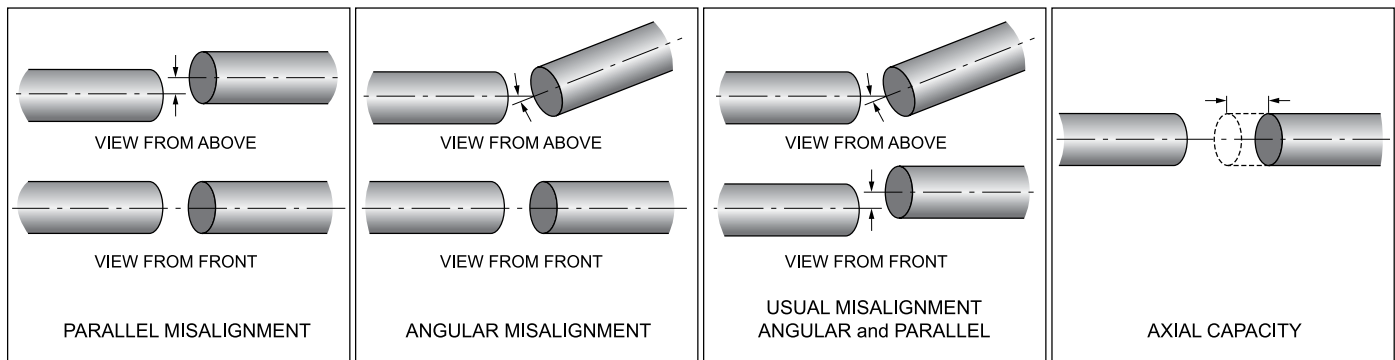
Misaligned shafts not properly coupled are subject to severe stresses that damage bearings and seals. Any or all of the misalignments shown in the above diagrams are present in all connected drives; therefore, it is imperative that flexible couplings be used to avoid costly damage to your equipment.

Initial alignment of machinery is one of the most critical factors affecting coupling performance and reliability. Each particular style of coupling has its own misalignment capabilities. The installation and alignment instructions outline the initial alignment requirements. These initial values are approximately one-third of the total coupling misalignment capacity. This means that the coupling has ample reserve to compensate for operational misalignments which develop as a result of bearing wear, foundation settling, thermal growth, pipe strain, etc. However, the closer the initial alignment, the

more reserve margin a coupling has to compensate for misalignments during the life of the machine. A coupling that operates with large amounts of misalignment will have a limited life, while a coupling operating within capacity will have infinite life.

The customer and coupling manufacturer must mutually select the correct size and type coupling for the application. Good service life will then become a reality if proper installation and alignment procedures are followed.

The following pages show basic coupling arrangements and load classifications based on years of experience in coupling applications in all phases of power transmission. Any unusual operating or misalignment conditions should be referred to Regal Rexnord to assure proper selection of size and type of coupling.



Maximum RPM and Balance Recommendations

Regal Rexnord has developed recommendations for coupling balancing based on AGMA 9000-D11 and the inherent balance level of the various couplings shown in this catalog. These are shown on the data sheets as follows:

Max. RPM As Manufactured

This is the maximum operating speed where the coupling will operate under normal conditions, with "high" sensitivity to coupling unbalance, and not create unacceptable vibration. This is based on maximum potential unbalance per AGMA 9000-D11 and corresponding standard balance class.

Max. RPM Balanced

This is the maximum operating speed where the coupling, after balancing operations, will still be compatible with the typical drive system. Consult Regal Rexnord for speed requirements in excess of this value; special designs or manufacturing procedures may be required.

Certain coupling types are not suitable for dynamic balancing, and should not be used if tighter balance class is required. These types include AMR, CMR, and DBZ.

CAUTION: All rotating power transmission products are potentially dangerous and must be properly guarded. Never operate coupling without an OSHA-approved guard.

Rexnord® Thomas® Disk Pack Overview

XTSR Disc Packs

All XTSR couplings feature **unitized** disc packs in 4-, 6-, or 8-bolt variety (depending on size) and scalloped profile for optimal torque transmission.

- Torque is transmitted in tension through the driving chords
- Scalloped profiling of the disc pack reduces overall stiffness and optimizes the torque carrying path between sections.
- Fully-unitized stainless steel design eliminates loose pieces.
- Profiled washers eliminate high stress levels at bolting area
- The bolt circle in disc pack is smaller than in mounting flanges of spacers, hubs, and adapters. This design pre-stretches the chords to eliminate torque fatigue during start up.



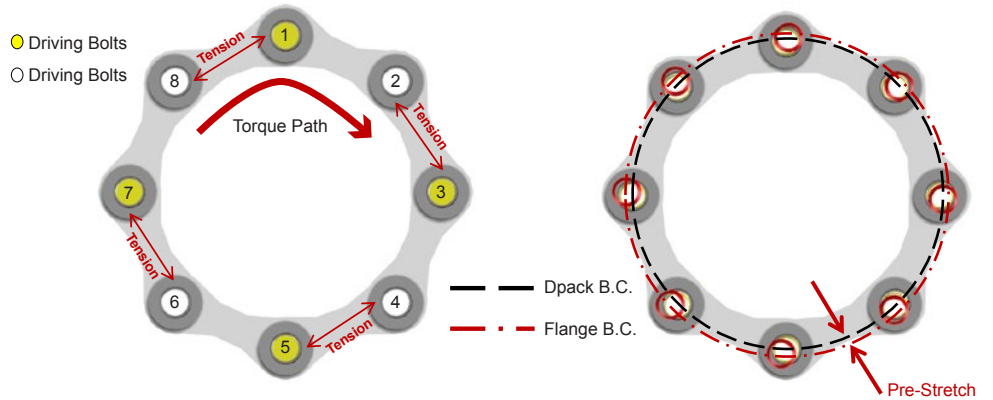
Sizes 494-644
(4 bolt holes)



Sizes 726-996
(6 bolt holes)



Sizes 1088-5258
(8 bolt holes)

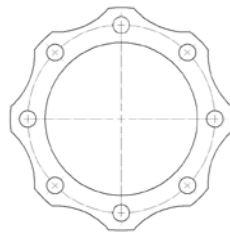


Tpack Style

Tpack style disc packs are **semi-unitized**, with integrated headed bushing at alternating bolt holes and scalloped profile.

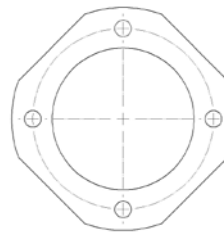
Model	Sizes
AMR / CMR*	225-750
Series 52*	225-750
Series 71-8	225-750

*Tpack style disc packs are options with these Thomas models. Series 71-8 couplings are exclusively supplied with Tpack style.

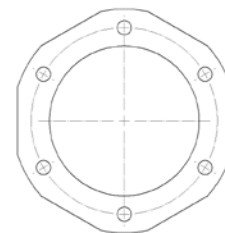


Series 71 (4- & 6-bolt)

Series 71 couplings utilize slabbed profile for reduced stiffness and improved torque transmission. The disc packs are **non-unitized**, with individual discs taped together to simplify installation.

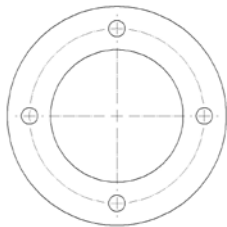


Sizes 150-175
(4 bolt holes)

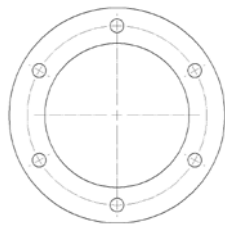


Sizes 225-600
(6 bolt holes)

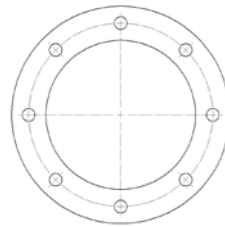
Classic Round



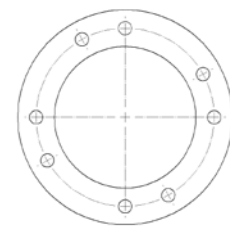
4 Bolt Holes
(Even Spacing)



6 Bolt Holes
(Even Spacing)



8 Bolt Holes
(Even Spacing)



8 Bolt Holes
(4 Pairs of 2)

Model	Sizes
Series 52, 54RD & 54RDG	125
DBZ	50-126
SN / SF / SV	50-125

Model	Sizes
AMR / CMR	162-200
Series 52, 54RD & 54RDG	162-200
SN / SF / SV	162-200

Model	Sizes
AMR / CMR	225-1550
Series 52, 54RD & 54RDG	225-1300
SN / SF / SV	226-925T

Model	Sizes
DBZ	163-451

Original Thomas design features round profile with evenly-spaced or paired bolt holes. The disc packs are **non-unitized**, with individual discs taped together to simplify installation.

Rexnord® Thomas® Flexible Disc Couplings

The following procedure can be used to select disc couplings for most applications.

For applications involving other than normal loading in design, special considerations must be given to coupling selection. Regal Rexnord™ application engineers are readily available for selection, advice and assistance.

1. Select coupling type.

Refer to **page 3** and select the type of coupling to suit your application. If an application requires a special purpose coupling, refer application details to the local Regal Rexnord Representative.

2. Calculate operating torque of application.

- a. Use the following formula to calculate operating torque of application:

$$\text{i. Torque (lb-in)} = \frac{\text{Driver Horsepower} \times 63025}{\text{Operating Speed}}$$

3. Determine service factor.

- a. Find application in table on **page 7**; use the service factor value assigned to that application.

- b. Note: if application not listed, see Load Classification Table on **page 7**.

- c. Note: The service factor table considers the driven equipment only and assumes a normal electric or turbine driver. For prime movers of the reciprocating type (engines, etc) use the engine drive service factor adder on **page 7** to the selected service factor.

4. Multiply operating torque by the selected service factor to determine minimum required torque rating of coupling.

5. Find coupling in the coupling type section of catalog that meets the minimum required torque rating.

6. Verify that the selected coupling will accommodate the shaft sizes or flywheel if engine mount, of driving and driven equipment. Shaft diameters should be equal or less than published maximum bore of selected coupling.

- a. If coupling will not accommodate shaft sizes, select the next largest size that will accommodate shaft sizes.

7. Verify coupling selected can accommodate operating speed of application.

8. Check limiting data.

- a. Other data in coupling type section of catalog can be used to verify that selected coupling will work in application. Additional data can help verify application envelope of space, weight and WR² considerations.

IMPORTANT NOTE:

The coupling selection criteria is intended for the determination of the coupling and style only. It is also recommended that the system be analyzed for torsional and lateral stability using the specific mass elastic data available from Regal Rexnord. The analysis is the responsibility of the user since the coupling is only a single component in the system.

Rexnord Thomas Coupling Nomenclature

Use the following nomenclature guide to identify and order Thomas Disc Couplings.

Coupling Size	Type/Series	Modifications	Distance Between Shaft Ends ("C" Length)	Hub Bore
1088	XTSR71	B	9.00	3.250 x 2.50
	XTSR71	BAL = Balanced	9.00"	110 mm x Taper
	XTSR52	ES = Engineered Special	N/A	1.00 x 2.00
	DBZ	TPR = Taper Bore	130 mm	Taper x 3.00
	AMR	PLT = Special Coating/Plating		etc.
	CMR	ELEC = Electrically Insulated		
	SR54RDG			
	XTSRLS52			
	XTSRLS71			
	XTSRGA			
	SR71			
	SR71-8			
	SR52			

Service Factors

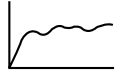

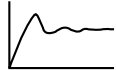

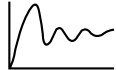

Typical Service Factors – Motor And Turbine Driven Equipment*

Application	Service Factor	Application	Service Factor	Application	Service Factor
AGITATORS		Bottling.....	1.5	Presses.....	2.0
Pure Liquids.....	1.0	GENERATORS		Reel.....	1.5
Variable Density.....	1.5	Non-Welding.....	1.5	Stock Chests.....	1.5
ALTERNATOR	1.5	Welding.....	3.0	Suction Roll.....	2.0
BLOWERS		HAMMER MILLS	3.0	Washers and Thickeners.....	1.5
Centrifugal.....	1.0	LUMBER INDUSTRY		Winders.....	1.5
Lobe.....	1.5	Barkers - Drum Type.....	2.5	PRINTING PRESSES	1.5
Vane.....	1.5	Edger Feed.....	2.0	PULLERS	
BRIQUETTER MACHINES	2.0	Live Rolls.....	2.0	Barge Haul.....	2.0
CAN FILLING MACHINES	1.0	Log Haul - Incline.....	2.0	PUMPS	
CANE KNIVES	2.0	Log Haul - Well Type.....	2.0	Centrifugal	
CAR DUMPERS	2.5	Off Bearing Rolls.....	2.0	General Duty (Liquid).....	1.0
CAR PULLERS	1.5	Planer Feed Chains.....	2.0	Boiler Feed.....	1.5
CLAY WORKING MACHINERY	2.0	Planer Floor Chains.....	2.0	Slurry (Sewage, etc.).....	1.5
COMPRESSORS		Planer Tilting Hoist.....	2.0	Dredge.....	2.0
Centrifugal.....	1.0	Slab Conveyor.....	1.5	Reciprocating	
Lobe, Vane, Screw.....	1.5	Sorting Table.....	1.5	Double Acting.....	2.0
Reciprocating - Multi-Cylinder.....	Consult Regal Rexnord	Trimmer Feed.....	2.0	Single Acting	
Axial.....	1.0	MACHINE TOOLS		1 or 2 Cylinders.....	2.5
CONVEYORS - uniformly loaded or fed.....	1.5	Bending Roll.....	2.0	3 or more Cylinders.....	2.0
CONVEYORS - heavy duty - not uniformly fed.....	2.5	Plate Planer.....	1.5	Rotary - Gear, Lobe, Vane.....	1.5
CRANES AND HOISTS	2.0	Punch Press - Gear Driven.....	2.0	RUBBER INDUSTRY	
CRUSHERS	3.0	Tapping Machines.....	2.5	Mixer - Banbury.....	3.0
DREDGES		Other Machine Tools		Rubber Calendar.....	2.0
Cable Reels.....	2.0	Main Drives.....	1.5	Rubber Mill (2 or more).....	2.5
Conveyors.....	1.5	Auxiliary Drives.....	1.5	Sheeter.....	2.0
Cutter Head Drives.....	2.5	METAL MILLS		Tire Building Machines.....	2.5
Jig Drives.....	2.5	Draw Bench - Carriage.....	2.5	Tire & Tube Press Openers.....	1.0
Maneuvering Winches.....	2.0	Draw Bench - Main Drive.....	2.5	Tubers and Strainers.....	2.0
Pumps.....	2.0	Forming Machines.....	2.5	SCREENS	
Screen Drives.....	2.0	Stitlers.....	2.0	Air Washing.....	1.0
Stackers.....	2.0	Table Conveyors		Rotary - Stone or Gravel.....	1.5
Utility Winches.....	1.5	Non-Reversing.....	2.5	Traveling Water Intake.....	1.5
ELEVATORS		Reversing.....	3.0	Vibratory.....	2.5
Bucket.....	2.0	Wire Drawing & Flattening Machine.....	2.0	SEWAGE DISPOSAL EQUIPMENT	1.5
Centrifugal Discharge.....	1.5	Wire Winding Machine.....	2.0	SEWAGE TREATMENT PUMPS	1.5
Escalators.....	1.5	MILLS, ROTARY TYPE		TEXTILE INDUSTRY	
Freight.....	2.0	Ball.....	2.5	Batchers.....	1.5
Gravily Discharge.....	1.5	Cement Kilns.....	2.0	Calenders.....	2.0
EXTRUDERS		Dryers & Coolers.....	2.0	Card Machines.....	1.5
Plastic.....	2.0	Kilns.....	2.0	Cloth Finishing Machines	
Metal.....	2.5	Pebble.....	2.0	(washers, pads, tenters)	
FANS		Rod.....	2.0	(dryers, calenders, etc.).....	1.5
Centrifugal		Tumbling Barrels.....	2.0	Dry Cans.....	2.0
Forced Draft (Hostile Environment).....	1.5	MIXERS		Dryers.....	1.5
Induced Draft (Hostile Environment).....	1.5	Concrete Mixers.....	2.0	Dyeing Machinery.....	1.5
Axial		Drum Type.....	2.0	Looms.....	1.5
Forced Draft (Hostile Environment).....	1.5	OIL INDUSTRY		Mangles.....	1.5
Induced Draft (Hostile Environment).....	1.5	Chillers.....	1.5	Nappers.....	1.5
Mine Ventilation.....	2.5	Oil Well Pumping.....	2.0	Soapers.....	1.5
Cooling Towers.....	1.5	Paraffin Filter Press.....	2.0	Spinners.....	1.5
Light Duty Blower & Fans.....	1.0	Rotary Kilns.....	2.0	Tenter Frames.....	1.5
FEEDERS		PAPER MILLS		Winders (Other than Batchers).....	1.5
Light Duty.....	1.5	Barker Auxiliaries, Hydraulic.....	2.5	WINDLASS	2.0
Heavy Duty.....	2.5	Barker, Mechanical.....	2.5	WOODWORKING MACHINERY	1.5
FOOD INDUSTRY		Barking Drum (Spur Gear Only).....	2.5		
Beet Slicer.....	2.0	Beater & Pulper.....	2.0		
Cereal Cooker.....	1.5	Bleacher.....	1.0		
Dough Mixer.....	2.0	Calenders.....	2.0		
Meat Grinders.....	2.0	Converting Machines, except			
Can Filling Machine.....	1.0	Cutters, Platers.....	1.5		
		Couch.....	2.0		
		Cutters, Platers.....	2.0		
		Cylinders.....	2.0		
		Dryers.....	2.0		
		Felt Stretcher.....	1.5		
		Felt Whipper.....	2.0		
		Jordans.....	2.0		
		Log Haul.....	2.0		

*Service Factors in this table are for driven equipment based on smooth prime movers such as electric motors and turbines. For reciprocating prime movers, such as diesel or gas engines, add the following to the Service Factor:

For 8 or more cylinders, add 0.5.
 For 6 cylinders, add 1.0.
 For 4 cylinders, add 1.5.
 For less than 4 cylinders, consult Regal Rexnord.

Service Factors – Service Factors are a means of classifying different equipment and applications into various load classifications. Due to variations in application of equipment, service factors are used to adjust equipment ratings to accommodate for variable loading conditions.

	Load Classifications	Service Factors		Load Classifications	Service Factors
	Continuous service and running loads vary only slightly.	1.0		For shock loading and substantial torque variations.	2.5
	Torque loading varies during operation of the equipment.	1.5		For heavy shock loading or light reversing drives.	3.0
	Torque loading varies during operation, frequent stop/start cycles are encountered.	2.0		Reversing torque loads do not necessarily mean reversal of rotation. Depending upon severity of torque reversal, such loads must be classified between "medium" and "extreme."	Consult Regal Rexnord

Ordering Instructions

Complete steps 1 through 6 below. See page 48 for types of fits and shaft diameters.

1. Determine quantity.
2. Determine coupling size and type.
3. Determine bore sizes. Couplings will be bored in accordance with ANSI/AGMA 9002-B04. The type of bore fit normally supplied by Regal Rexnord is listed below.

Bore Specifications

DBZ	Straight Bore – Clearance fit – stocked Straight Bore – Interference fit on bore-to-order sizes ① Taper Bore – To customer specification
AMR, CMR, SN, SF, SV, 52, 54RDG, 54RD, 71, 71-8, XTSR52, XTSR71	Straight Bore – Interference fit on all bores ① Taper Bore – To customer specification
Miniatures	See pages 35-37.

① Unless specified otherwise by customer.

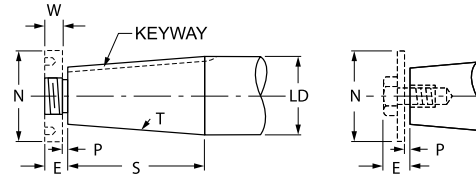
NOTE: Regal Rexnord recommends an interference fit be used whenever possible.

4. Determine keyway and set screw sizes (if non-standard).
5. Determine dynamic balancing (if required).
6. Additional data (where applicable).
 - a. Disc pack material (if other than standard).
 - b. Free or interference fit on shafts (if shaft diameters are given).
 - c. Complete details on tapered bore requirements, see supplemental taper bore information section below.
 - d. On DBZ-A Couplings:
 1. Identify bore of standard hub and bore of extended hub.
 - e. On SN, SF, and SV Couplings:
 1. Corrosion resistance class
 2. "L" dimension
 3. Dynamic balancing if required
 4. Sketch of stub shaft (SF only) if non-standard
 5. On SV, identify bore of upper hub and lower hub
 6. Operating speed required
 - f. On CMR and Series 44:
 1. Adapter:
 - (a) Outside diameter
 - (b) Bolt circle diameter
 - (c) Bolt hole diameter
 - (d) Number of bolts and spacing

Ordering Information – Tapered Bores

Information Required

1. Drawing of hub showing complete bore and keyway details.
- OR -
2. Drawing of shaft with dimensions shown below, allowing Regal Rexnord to bore hubs to suit.



(LD) Large diameter, specify in decimals.

(S): Length of taper; measure parallel to shaft centerline.

(T): Taper per foot; difference in diameter in one foot length.

(P): Clearance space for drawing hub up on tapered shaft.

Usually 1/8 in. or 1/4 in., depending on shaft size and taper.

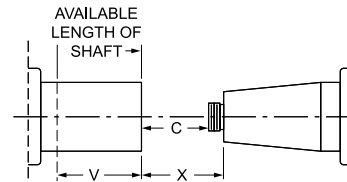
Keyway: Width, depth.

NOTE: Specify if keyway is parallel to taper or if parallel to shaft center line. Specify depth at larger diameter of taper if keyway is parallel to shaft center line.

Supplemental Taper Bore Information

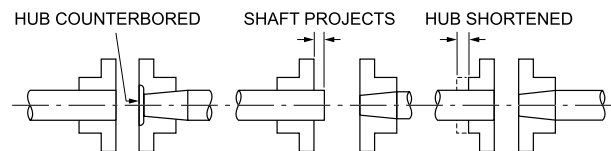
With connected equipment in fixed position, the following additional information is necessary:

Dimensions "V" and "X" must be given when one or both connected machines are fixed on their bases. Advise if dimension "X" is fixed, or if variable between what limits.



A fixed "X" dimension may require altered or special coupling hubs. Often the straight bored hub can be positioned on its shaft allowing the use of a standard coupling. See illustrations below.

Consult AGMA Standard 9002-A86 "Taper Bores for Flexible Couplings" for new applications.



Series 54RDG Close-Coupled Coupling

Series 54RDG couplings are reduced diameter gear and grid replacement couplings. Applications include any situation where the overall shaft-to-shaft spacing is minimal. The center member of the 54RDG is split axially, which permits maintenance of the couplings without moving the hubs or the connected equipment. Contrasted to the Series 54RD, the center member is piloted into the adapter providing high-speed potential at high-torque density.

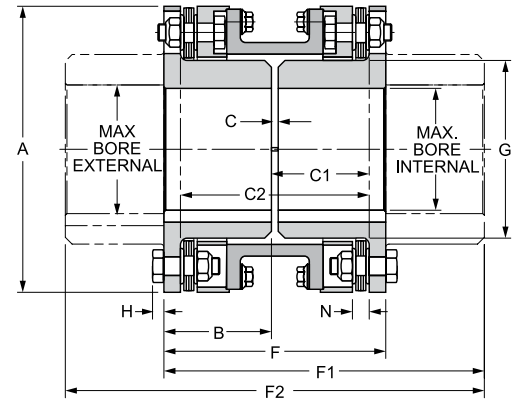
When specified, Series 54RDG couplings meet all requirements of API 610 or API 671. If application requires API specification, please consult Regal Rexnord.

General

Disc Pack Style: Classic Round
 Angular Misalignment: 1/3° per disc pack
 Standard Balance: AGMA Class 6

Standard Materials

Disc Pack: Stainless steel (Tomaloy, Monel and Inconel available as options)
 Major Components: Carbon steel
 Bolts: Alloy steel



General Dimensions (in)

Size	Max. Bore Internal	Max. Bore* External	A	B	C	C1**	F	F1**	H	N	G	C2***	F2***
125	1.19	1.38	3.69	1.84	0.12	1.75	3.89	4.94	0.17	0.27	1.75	3.38	6.00
162	1.62	1.88	4.34	1.89	0.12	1.77	3.89	5.40	0.17	0.29	2.34	3.42	6.92
200	2.25	2.25	5.44	2.13	0.12	1.96	4.37	6.14	0.22	0.36	3.25	3.80	7.92
225	2.38	2.62	5.69	2.19	0.12	2.03	4.51	6.84	0.22	0.36	3.50	3.94	9.18
262	2.75	3.12	6.62	2.59	0.19	2.42	5.37	7.89	0.25	0.47	4.12	4.65	10.41
312	3.38	3.62	7.81	2.84	0.19	2.62	5.87	8.84	0.30	0.50	5.00	5.05	11.81
350	3.75	4.00	8.69	3.28	0.25	3.06	6.81	10.09	0.34	0.54	5.50	5.87	13.37
375	4.19	4.50	9.69	3.55	0.25	3.26	7.36	10.82	0.39	0.59	6.06	6.27	14.27
425	4.50	4.75	10.50	3.97	0.25	3.61	8.19	11.83	0.42	0.62	6.56	6.97	15.47
450	4.75	5.12	11.31	4.50	0.31	4.15	9.31	13.15	0.47	0.71	7.00	7.99	16.99
500	5.00	5.38	12.88	4.72	0.31	4.32	9.87	14.10	0.50	0.78	7.88	8.33	18.33
550	5.50	6.00	14.44	5.31	0.38	4.87	11.11	15.74	0.58	0.91	8.75	9.36	20.36
600	6.00	6.50	16.00	6.00	0.38	5.40	12.38	17.40	0.67	0.98	9.31	10.42	22.42
700	7.00	7.50	18.25	7.00	0.38	6.22	14.38	20.22	0.75	1.20	10.88	12.06	26.06
750	7.50	8.00	19.81	7.75	0.50	7.00	16.00	22.25	0.84	1.27	11.75	13.50	28.50
800	8.00	8.75	21.50	8.25	0.50	7.37	16.98	23.87	0.91	1.34	12.50	14.24	30.74
850	8.50	9.25	23.00	8.88	0.56	7.97	18.32	25.60	1.00	1.40	13.19	15.38	32.88
925	9.00	10.12	25.00	9.91	0.62	8.91	20.45	28.32	1.09	1.50	14.12	17.20	36.20



* Uses Series 52 hubs. Non-bored hubs available upon request.
 ** Hubs may be reversed for alternate shaft spacing.
 *** Both hubs reversed.

Size	Max. Horsepower Per 100 RPM	Max. RPM		Max. Continuous Torque (lb•in)	Peak Overload Torque (lb•in)	② Weight (lb)	② WR ² (lb•in ²)	③ Axial Capacity (in)
		① As Manufactured	① Balanced					
125	4.3	4,600	10,500	2,700	5,400	6.90	12.4	±0.036
162	8.5	4,200	9,700	5,350	10,700	9.27	23.6	±0.036
200	16.7	3,800	8,600	10,500	21,000	16.4	65.0	±0.036
225	27.8	3,700	8,400	17,500	35,000	19.0	80.8	±0.036
262	52.1	3,600	7,400	32,830	65,660	31.4	184	±0.043
312	81.6	3,000	6,700	51,400	102,800	45.6	346	±0.051
350	106	2,800	6,200	66,900	133,800	65.9	648	±0.056
375	159	2,500	5,800	100,300	200,600	87.7	1,053	±0.062
425	213	2,300	5,400	134,300	268,600	116	1,666	±0.067
450	239	2,200	5,000	150,400	300,800	149	2,595	±0.072
500	391	2,000	4,600	246,400	492,800	224	4,629	±0.082
550	524	1,900	4,200	330,400	660,800	323	8,350	±0.092
600	688	1,800	3,900	433,800	867,600	430	13,900	±0.102
700	1,071	1,700	3,600	674,800	1,349,600	657	27,882	±0.115
750	1,331	1,550	3,400	838,800	1,677,600	837	43,382	±0.125
800	1,712	1,450	3,200	1,078,700	2,157,400	1,028	62,257	±0.136
850	2,020	1,350	3,000	1,273,000	2,546,000	1,259	88,902	±0.144
925	2,735	1,300	2,800	1,724,000	3,448,000	1,684	139,321	±0.156

① See page 4 for explanation of RPM limits and balancing recommendations.
 ② Weight and WR² with standard length hubs, maximum bore and standard "C."
 ③ All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.

Series 54RD Close-Coupled Coupling

Series 54RD couplings are specifically designed as replacements for close-coupled gear and grid couplings. The center member of the Series 54RD is split axially, which permits maintenance of the couplings without moving the hubs or the connected equipment.

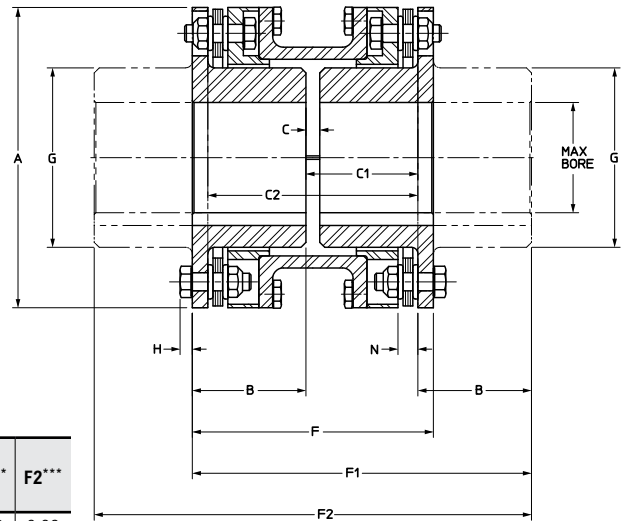
When specified, Series 54RD couplings meet all requirements of API 610. If application requires API specification, please consult Regal Rexnord.

General

Disc Pack Style: Classic Round
 Angular Misalignment: 1/3° per disc pack
 Standard Balance: AGMA Class 6

Standard Materials

Disc Pack: Stainless steel (Tomaloy, Monel and Inconel available as options)
 Major Components: Carbon steel
 Bolts: Alloy steel



General Dimensions (in)

Size	Max Bore* Internal	Max Bore* External	A	B	C	C1**	F	F1**	H	N	G	C2***	F2***
125	1.19	1.38	3.69	1.84	0.12	1.71	3.80	5.39	0.17	0.27	1.75	3.30	6.98
162	1.62	1.88	4.34	1.89	0.12	1.77	3.89	5.52	0.17	0.29	2.34	3.42	7.18
200	2.25	2.25	5.44	2.13	0.12	1.97	4.36	6.22	0.22	0.36	3.25	3.80	7.49
225	2.38	2.62	5.69	2.19	0.12	2.03	4.50	6.40	0.22	0.36	3.50	3.94	8.32
262	2.75	3.12	6.62	2.59	0.19	2.42	5.37	7.61	0.25	0.47	4.12	4.65	9.83
312	3.38	3.62	7.81	2.84	0.19	2.62	5.84	8.31	0.30	0.50	5.00	5.05	10.73
350	3.75	4.00	8.69	3.28	0.25	3.06	6.80	9.62	0.34	0.54	5.50	5.87	12.43
375	4.19	4.50	9.69	3.55	0.25	3.27	7.35	10.40	0.39	0.59	6.06	6.27	13.39
425	4.50	4.75	10.50	3.97	0.25	3.61	8.18	11.55	0.42	0.62	6.56	6.97	14.91
450	4.75	5.12	11.31	4.50	0.31	4.16	9.30	13.16	0.47	0.71	7.00	7.99	16.99
500	5.00	5.38	12.88	4.72	0.31	4.27	9.74	13.71	0.50	0.78	7.88	8.21	17.65
550	5.50	6.00	14.44	5.31	0.38	4.81	11.01	15.44	0.58	0.91	8.75	9.24	19.86
600	6.00	6.50	16.00	6.00	0.38	5.39	12.40	17.39	0.67	0.98	9.31	10.42	22.42
700	7.00	7.50	18.25	7.00	0.38	6.22	14.40	20.22	0.75	1.20	10.88	12.06	26.06
750	7.50	8.00	19.81	7.75	0.50	7.00	16.01	22.50	0.84	1.27	11.75	13.50	29.00
800	8.00	8.75	21.50	8.25	0.50	7.37	16.99	23.87	0.91	1.34	12.50	14.24	30.74
850	8.50	9.25	23.00	8.88	0.56	7.97	18.32	25.73	1.00	1.40	13.19	15.38	33.14
925	9.00	10.12	25.00	9.91	0.62	8.91	20.45	28.73	1.09	1.50	14.12	17.20	37.02



* Non-bored hubs available upon request.

** Hubs may be reversed for alternate shaft spacing.

*** Both hubs reversed.

NOTE: When hub is used with barrel positioned outside of spacer, a Series 52 hub is used.

Size	Max. Horsepower Per 100 RPM	Max. RPM		Max. Continuous Torque (lb-in)	Peak Overload Torque (lb-in)	② Weight (lb)	② WR ² (lb-in ²)	① Axial Capacity (in)
	Service Factor 1.0	As Manufactured	③ Balanced					
125	3.7	4,600	7,200	2,330	4,660	6.63	11.7	±0.036
162	6.9	4,200	7,000	4,360	8,720	9.00	22.5	±0.036
200	13.5	3,800	6,300	8,490	16,980	16.1	62.9	±0.036
225	17.0	3,700	6,000	10,700	21,400	18.2	76.8	±0.036
262	27.8	3,600	5,500	17,500	35,000	30.1	174	±0.043
312	38.6	3,000	5,000	24,300	48,600	47.8	357	±0.051
350	54.1	2,800	4,500	34,100	68,200	69.6	672	±0.056
375	81.1	2,500	4,000	51,100	102,200	94.8	1,107	±0.062
425	115.0	2,300	3,700	72,300	144,600	126	1,772	±0.067
450	130.0	2,200	3,400	82,200	164,400	164	2,791	±0.072
500	197.0	2,000	3,300	124,000	248,000	244	4,865	±0.082
550	341.0	1,900	2,800	215,000	430,000	351	8,864	±0.092
600	427.0	1,800	2,500	269,000	538,000	480	15,070	±0.102
700	549.0	1,700	2,500	346,000	692,000	721	29,939	±0.115
750	741.0	1,550	2,200	467,000	934,000	868	44,783	±0.125
800	920.0	1,450	2,100	580,000	1,160,000	1,095	64,778	±0.136
850	1,125.0	1,350	1,950	709,000	1,418,000	1,452	96,683	±0.144
925	1,503.0	1,300	1,850	947,000	1,894,000	1,954	156,957	±0.156

For larger sizes, consult Regal Rexnord.

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.

② Weight and WR² at maximum bore.

③ For higher speeds, consult Regal Rexnord.

XTSR52 Spacer Type Coupling

XTSR52 couplings are general purpose, non-adapter style spacer disc couplings capable delivering high-speed and torque. Utilizing minimal number of components, XTSR52 couplings provide economical, low weight solution for spacer applications. For additional features, such as expanded bore capacity and "drop-in" installation, consider XTSR71 couplings.

XTSR52 couplings are API 610, ISO 14691 compliant when specified, and ATEX II 2GD c T6 certified.

General

Disc Pack Style: Unitized XTSR

Angular Misalignment: $2/3^\circ$ per disc pack for sizes 494 & 644, $1/2^\circ$ per disc pack for sizes 726-996, and $1/3^\circ$ per disc pack for sizes 1088-5258.

Standard Balance: AGMA Class 9

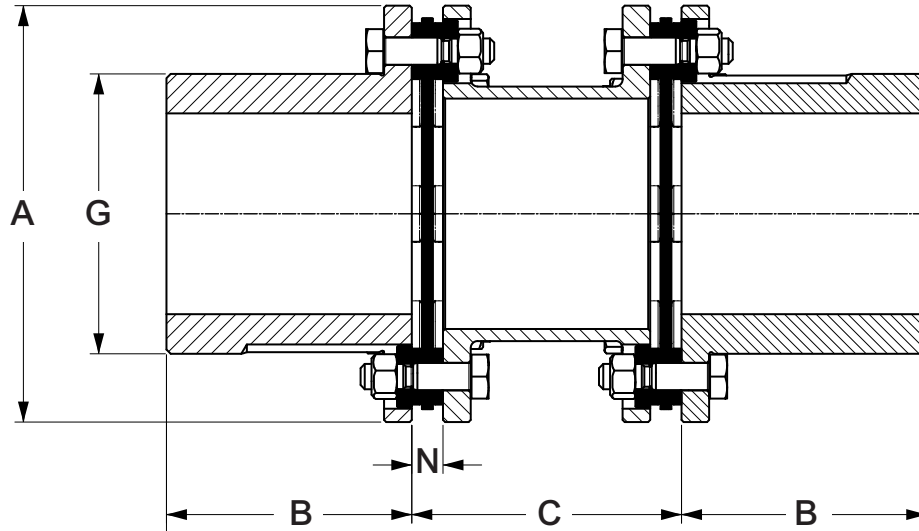
Standard Materials

Disc Pack: Stainless steel

Major Components: Carbon steel

Bolts: Alloy steel

Coating: Manganese Phosphate (Other coatings available upon request)



XTSR52 Spacer Type Coupling

General Coupling Data

Size	Max. Cont. Torque (lb•in) ④	③ Std Hub Max. Bore	⑤ Min. C (in)	⑤ ⑥ Max. C (in)	Max. Speed (rpm)		① Axial Capacity (in)	N (in)	② WR ² (lb•in ²)
					As Manufactured	Balanced			
494	750	1.00	3.23	6.40	13,800	23,000	±0.05	0.339	1.64
644	1,280	1.50	3.23	9.40	12,500	21,500	±0.07	0.339	3.91
726	2,630	1.75	3.23	14.68	12,000	20,000	±0.05	0.339	6.87
826	4,900	2.00	3.47	14.74	10,900	18,500	±0.06	0.368	15.2
996	8,210	2.25	3.84	30.76	9,800	15,000	±0.07	0.378	32.7
1088	19,400	2.50	4.06	30.82	9,000	14,000	±0.05	0.408	64.5
1298	31,400	3.00	4.56	31.02	8,000	12,000	±0.06	0.508	154
1548	52,300	3.50	5.04	31.16	7,100	10,000	±0.07	0.582	344
1698	72,500	4.00	6.00	31.24	6,600	9,100	±0.08	0.622	581
1928	98,200	4.50	6.30	31.34	6,100	8,500	±0.09	0.672	989
2068	136,000	4.75	6.93	31.45	5,800	7,800	±0.10	0.725	1,509
2278	176,000	5.38	8.38	31.51	5,500	7,100	±0.11	0.755	2,438
2468	232,000	5.75	8.73	31.61	5,200	6,500	±0.12	0.807	3,577
2698	318,000	6.00	9.36	43.85	4,800	6,000	±0.13	0.924	5,659
2888	416,000	6.75	10.63	43.98	4,600	5,700	±0.14	0.991	8,532
3058	461,000	7.13	10.63	43.98	4,400	5,400	±0.15	0.991	11,072
3358	622,000	8.00	11.88	44.15	4,200	4,700	±0.16	1.076	18,006
3668	834,000	8.88	12.62	44.39	3,900	4,400	±0.17	1.196	29,010
3908	909,000	9.50	12.62	44.39	3,800	4,100	±0.19	1.196	37,428
4178	1,130,000	10.13	13.50	44.55	3,600	3,900	±0.20	1.277	52,422
4588	1,670,000	11.00	19.62	40.83	3,400	3,600	±0.22	1.415	91,038
4918	2,080,000	11.75	20.38	41.00	3,200	3,300	±0.23	1.501	129,953
5258	2,510,000	12.63	21.25	41.17	3,100	3,100	±0.25	1.586	179,418

Size	Std A (in)	Std B (in)	Std G (in)	② Std Weight (lb)	Weight Change Per in of "C" (lb/in)
494	2.76	0.79	1.61	1.98	0.091
644	3.35	0.98	2.20	3.09	0.169
726	3.74	1.18	2.51	4.41	0.203
826	4.25	1.97	2.83	7.28	0.315
996	5.08	1.97	3.32	10.8	0.286
1088	5.51	3.19	3.63	19.0	0.551
1298	6.54	3.82	4.35	31.3	0.687
1548	7.76	3.82	5.21	48.7	0.983
1698	8.58	4.33	5.78	67.2	1.23
1928	9.65	4.33	6.60	89.1	1.50
2068	10.39	4.92	7.03	118	1.90
2278	11.46	5.71	7.74	157	2.21
2468	12.32	5.91	8.41	197	2.66
2698	13.50	5.91	9.14	260	3.39
2888	14.61	6.89	9.69	333	4.35
3058	15.55	7.28	10.35	384	4.32
3358	16.81	9.65	11.34	534	5.37
3668	18.35	11.06	12.41	723	6.58
3908	19.29	11.93	13.35	837	6.46
4178	20.63	12.68	14.22	1,024	7.51
4588	23.11	13.78	15.44	1,466	10.5
4918	24.80	14.76	16.55	1,819	12.4
5258	26.46	15.79	17.70	2,191	13.9

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Weight and WR² of couplings without adapters at maximum bore and minimum "C" dimension listed.
- ③ Consult Regal Rexnord for minimum rough bore sizes.
- ④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.
- ⑤ Consult Regal Rexnord for C lengths less than Min. C listed.
- ⑥ If larger C lengths are required than the listed Max., refer to XTSR52 page.

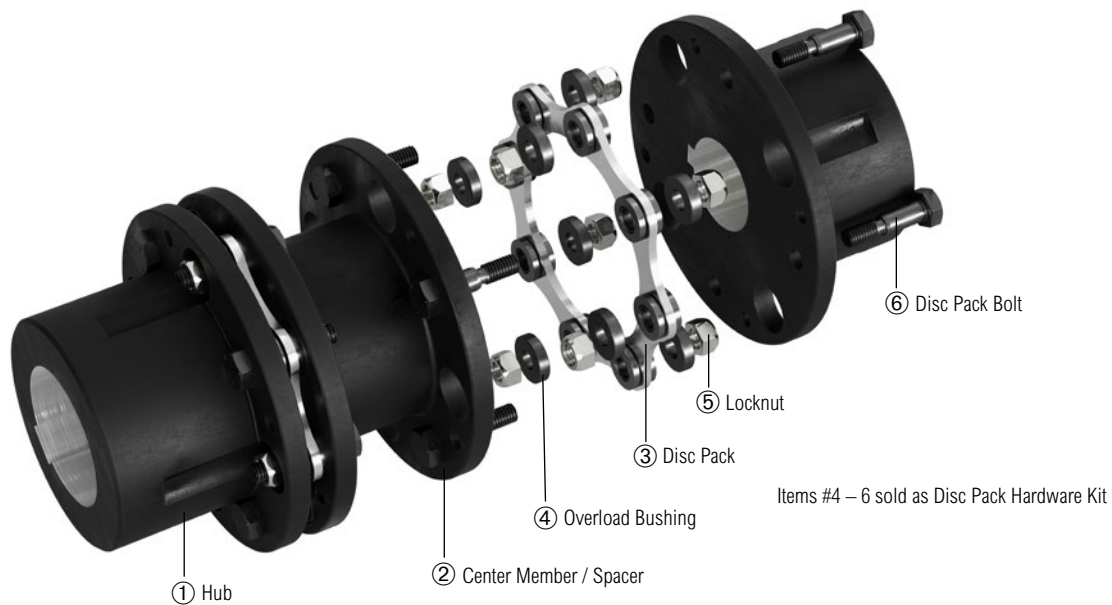
XTSR52 Spacer Type Coupling

Standard C Dimensions - Imperial and Metric

Size	Inch Standard C Dimensions						
	3.5"	3.75"	5.0"	7.0"	8.0"	9.0"	10.0"
494	X	X	X				
644	X	X	X	X			
726	X	X	X	X			
826	X		X	X			
996			X	X			
1088			X	X			X
1298			X	X			X
1548				X			X
1698				X	X	X	X
1928				X	X		X
2068					X	X	X
2278					X	X	
2468						X	
2698							X

Metric Standard C Dimensions				
100mm	140mm	180mm	250mm	300mm
X	X			
X	X			
X	X	X	X	
X	X	X	X	
X	X	X	X	
	X	X	X	X
	X	X	X	X
	X	X	X	X
		X	X	X
		X	X	X
			X	X
			X	X
			X	X

NOTE: C Dimension corresponds to nominal shaft spacing and differs from the spacer / center member length.



XTSR71 Spacer Type Coupling with Adapters

XTSR71 couplings are adapter-style spacer disc couplings that leverage optimized three-piece design, consisting of two hubs and factory-assembled center member, to greatly simplify installation and maintenance. The hubs are pilot fitted into the adapters to provide excellent dynamic balance characteristics. Common engineered solutions such as torque overload protection, electrically insulated, torsional tuning, spark resistant and alloy steel construction are available upon request.

Designed for critical spacer-type applications, XTSR71 couplings are API 610 / ISO 14691 compliant as standard, API 671 (ISO 10441) compliant when specified, and ATEX II 2GD c T6 certified.

General

Disc Pack Style: Unitized XTSR

Angular Misalignment: 2/3° per disc pack for sizes 494 & 644, 1/2° per disc pack for sizes 726-996, and 1/3° per disc pack for sizes 1088-5258.

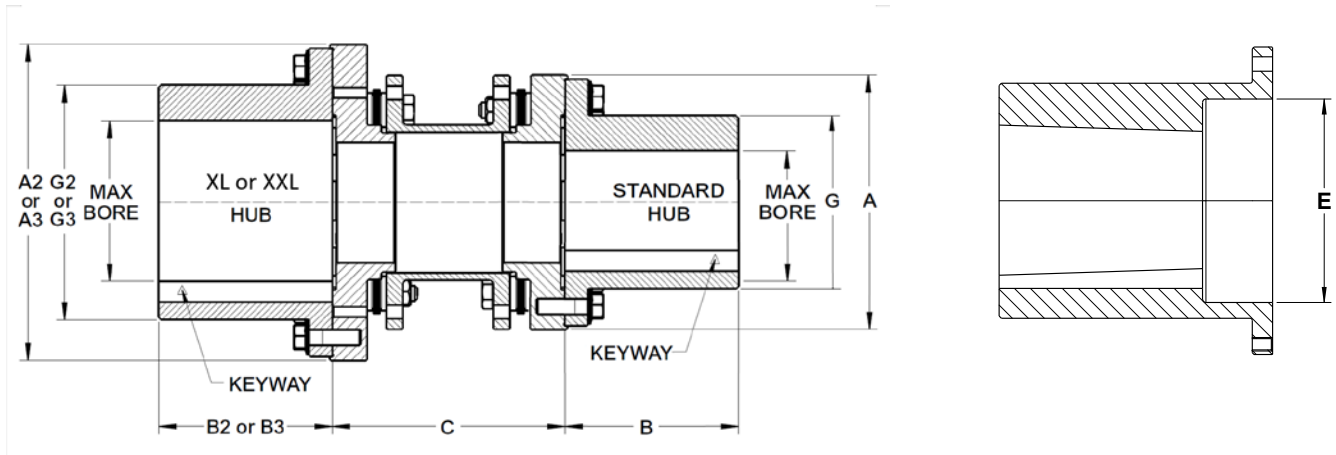
Standard Balance: AGMA Class 9

Standard Materials

Disc Pack: Stainless steel

Major components: Carbon steel

Bolts: Alloy steel



XTSR71 Spacer Type Coupling with Adapters

Example Selection:

1. Select coupling size 1088 for 19,000 lb-in torque and 2.5 in pump shaft diameter.
2. Select XXL 2nd hub for 3.5 in motor shaft diameter.
3. Therefore, coupling is a 1088 XTSR71 XXL.

1088 XTSR71 XXL has one hub with 2.88 in max bore and one hub with 4 in max bore.

General Coupling Data

An optional one size larger XL hub or two sizes larger XXL hub is available to increase bore capacity.

Size	Max. Cont. Torque (lb•in) ④	③ Std Hub Max. Bore	③ XL Hub Max. Bore	③ XXL Hub Max. Bore	Min. C (in)	⑤⑥ Max. C (in)	Max. Speed (rpm)		Axial Capacity (in) ①	Max Counter Bore E (in)
							④ As Manufactured	Balanced		
494	750	1.13	1.50	1.63	2.56	6.40	13,800	23,000	±0.05	1.25
644	1,280	1.50	—	2.00	2.68	10.50	12,500	21,500	±0.07	1.88
726	2,630	1.63	2.00	2.38	2.56	15.68	12,000	20,000	±0.05	2.08
826	4,900	2.00	2.38	2.88	3.03	15.89	10,900	18,500	±0.06	2.58
996	8,210	2.38	2.88	3.38	3.62	32.30	9,800	15,000	±0.07	3.03
1088	19,400	2.88	3.38	4.00	3.78	32.28	9,000	14,000	±0.05	3.47
1298	31,400	3.38	4.00	4.50	4.53	32.80	8,000	12,000	±0.06	4.13
1548	52,300	4.00	4.50	5.00	5.31	33.33	7,100	10,000	±0.07	4.86
1698	72,500	4.50	5.00	5.50	5.94	33.65	6,600	9,100	±0.08	5.60
1928	98,200	5.00	5.50	6.00	6.34	33.87	6,100	8,500	±0.09	6.17
2068	136,000	5.50	6.00	6.50	7.36	34.59	5,800	7,800	±0.10	6.70
2278	176,000	6.00	6.50	7.75	7.72	34.69	5,500	7,100	±0.11	7.42
2468	232,000	6.50	7.75	8.63	8.23	34.99	5,200	6,500	±0.12	7.85
2698	318,000	7.75	8.63	9.13	9.29	47.62	4,800	6,000	±0.13	9.69
2888	416,000	8.63	9.13	10.00	10.04	48.09	4,600	5,700	±0.14	10.69
3058	461,000	9.13	10.00	11.00	10.12	48.13	4,400	5,400	±0.15	11.73
3358	622,000	10.00	11.00	11.50	11.30	48.85	4,200	4,700	±0.16	12.37
3668	834,000	11.00	11.50	12.25	12.20	49.34	3,900	4,400	±0.17	13.97
3908	909,000	11.50	12.25	14.00	12.24	49.39	3,800	4,100	±0.19	14.85
4178	1,130,000	12.25	14.00	15.00	13.39	50.11	3,600	3,900	±0.20	15.64
4588	1,670,000	14.00	15.00	16.00	15.20	47.13	3,400	3,600	±0.22	17.72
4918	2,080,000	15.00	16.00	—	16.06	47.60	3,200	3,300	±0.23	19.21
5258	2,510,000	16.00	—	—	17.24	48.31	3,100	3,100	±0.25	20.19

Size	Std A (in)	XL A2 (in)	XXL A3 (in)	Std B (in)	XL B2 (in)	XXL B3 (in)	Std G (in)	XL G2 (in)	XXL G3 (in)	② Std Weight (lb)	Weight Change Per in of "C" (lb•in)	② WR ² (lb•in ²)
494	2.77	3.36	3.74	0.79	0.98	1.38	1.65	2.28	2.32	3.50	0.088	3.10
644	3.36	—	4.25	0.98	—	1.65	2.28	—	2.87	5.50	0.137	7.50
726	3.74	4.25	5.08	1.38	1.65	2.01	2.32	2.87	3.39	6.80	0.174	12.1
826	4.25	5.08	5.51	1.65	2.01	3.23	2.87	3.39	4.09	10.6	0.300	24.5
996	5.08	5.51	6.54	2.01	3.23	3.74	3.39	4.09	4.84	18.1	0.281	60.8
1088	5.51	6.54	7.83	3.23	3.74	4.49	4.09	4.84	5.71	27.1	0.541	106
1298	6.54	7.83	8.66	3.74	4.49	4.80	4.84	5.71	6.50	45.9	0.661	254
1548	7.83	8.66	9.66	4.49	4.80	5.31	5.71	6.50	7.17	76.5	0.901	605
1698	8.66	9.66	10.39	4.80	5.31	6.10	6.50	7.17	7.87	106	1.20	1,025
1928	9.66	10.39	11.44	5.31	6.10	6.57	7.17	7.87	8.66	140	1.40	1,709
2068	10.39	11.44	12.32	6.10	6.57	7.48	7.87	8.66	9.29	190	1.82	2,688
2278	11.44	12.32	13.58	6.57	7.48	7.28	8.66	9.29	11.02	246	2.11	4,204
2468	12.32	13.58	15.00	7.48	7.28	7.87	9.29	11.02	12.13	312	2.52	6,195
2698	13.58	15.00	15.94	7.28	7.87	7.52	11.02	12.13	13.07	420	3.20	10,632
2888	15.00	15.94	17.20	7.87	7.52	8.86	12.13	13.07	13.98	556	4.01	16,956
3058	15.94	17.20	18.98	7.52	8.86	10.12	13.07	13.98	15.67	627	4.05	21,938
3358	17.20	18.98	19.80	8.86	10.12	9.80	13.98	15.67	16.50	814	5.08	33,188
3668	18.98	19.80	20.83	10.12	9.80	10.47	15.67	16.50	17.48	1,131	6.23	55,920
3908	19.80	20.83	23.94	9.80	10.47	11.81	16.50	17.48	19.84	1,213	6.21	66,777
4178	20.83	23.94	25.51	10.47	11.81	12.60	17.48	19.84	21.46	1,454	7.28	89,742
4588	23.94	25.51	26.69	11.81	12.60	13.62	19.84	21.46	22.64	2,188	10.0	172,521
4918	25.51	26.69	—	12.60	13.62	—	21.46	22.64	—	2,697	11.8	243,846
5258	26.69	—	—	13.62	—	—	22.64	—	—	3,170	13.1	320,251

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Weight and WR² of couplings with standard adapters at maximum bore and minimum "C" dimension listed.

③ Consult Regal Rexnord for minimum rough bore sizes.

④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.

⑤ Consult Regal Rexnord on C lengths greater than 34.99" for sizes 2698-5258.

⑥ If larger C lengths are required than the listed maxes, refer to XTSR71 page.

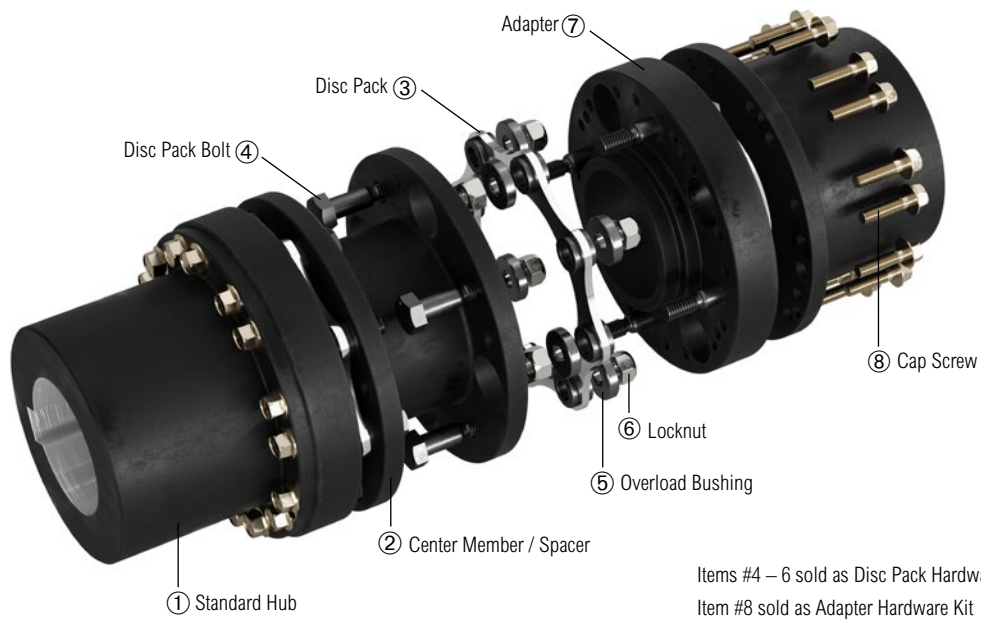
XTSR71 Spacer Type Coupling with Adapters

Standard C Dimensions - Imperial and Metric

Size	Inch Standard C Dimensions						
	3.5"	3.75"	5.0"	7.0"	8.0"	9.0"	10.0"
494	X	X	X				
644	X	X	X	X			
726	X	X	X	X			
826	X		X	X			
996			X	X			
1088			X	X			X
1298			X	X			X
1548				X			X
1698				X	X	X	X
1928				X	X		X
2068					X	X	X
2278					X	X	
2468						X	
2698							X

Metric Standard C Dimensions				
100mm	140mm	180mm	250mm	300mm
X	X			
X	X			
X	X	X	X	
X	X	X	X	
X	X	X	X	
	X	X	X	X
	X	X	X	X
	X	X	X	X
		X	X	X
		X	X	X
			X	X
			X	X
			X	X

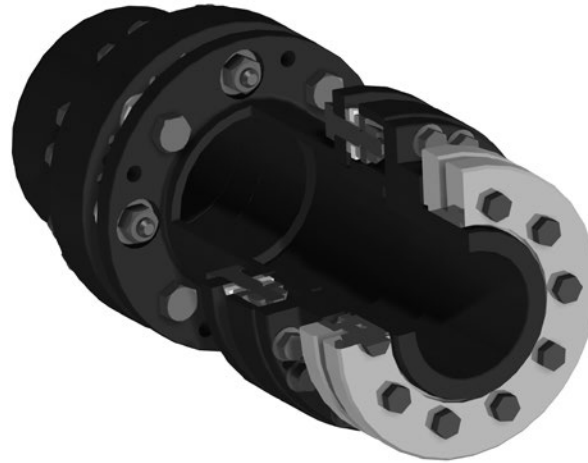
NOTE: C Dimension corresponds to nominal shaft spacing and differs from the spacer / center member length.



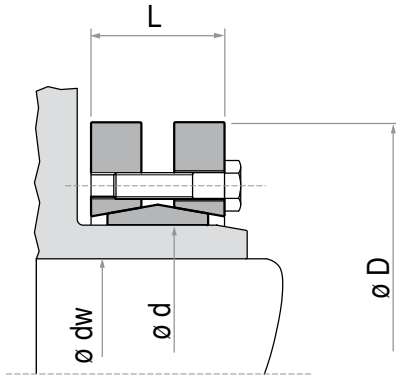
XTSR71 Spacer Type Coupling with Adapters

Optional Tollok TLK 603 External Shrink Disc

- Eliminates need for keyed connection
- Faster installation and removal
- Backlash-free torque transmission
- Limits shaft-hub axial movement



TLK 603 shown mounted on XTSR71 coupling



TLK 603

Tollok TLK 603 Ød (in)	Shaft O.D. Ødw		Max. Continuous Torque (lb•in)		Tollok Data			XTSR71 Coupling Size												
	Min (in)	Max (in)	at Min dw	at Max dw	ØD (in)	L (in)	Weight (lb)	726	826	996	1088	1298	1548	1698	1928	2068	2278	2468	2698	
1.181	0.945	1.024	2,652	3,363	2.362	0.846	0.7													
1.417	1.102	1.220	3,894	5,576	2.835	0.925	1													
1.732	1.260	1.417	5,487	7,612	3.150	1.004	1													
1.969	1.496	1.654	8,320	12,214	3.543	1.083	2													
2.165	1.654	1.890	10,267	16,639	3.937	1.201	2													
2.441	1.890	2.047	16,374	21,242	4.331	1.201	3													
2.677	1.969	2.362	17,702	27,880	4.528	1.201	3													
2.953	2.165	2.559	22,127	34,960	5.433	1.280	4													
3.150	2.362	2.756	28,322	40,713	5.709	1.280	4													
3.346	2.559	2.953	42,484	65,496	6.102	1.535	8													
3.543	2.559	2.953	42,041	64,168	6.102	1.535	7													
3.937	2.756	3.150	61,070	79,657	6.693	1.732	10													
4.331	2.953	3.346	63,725	95,588	7.283	1.969	13													
4.528	3.150	3.543	65,496	98,243	7.402	1.969	12													
4.724	3.150	3.543	93,818	128,336	8.465	2.126	20													
4.921	3.346	3.740	97,358	132,761	8.465	2.126	18													
5.118	3.543	3.937	100,013	136,302	8.465	2.126	18													
5.512	3.740	4.134	133,646	177,900	9.055	2.382	22													
6.102	4.134	4.528	194,717	247,821	10.433	2.539	33													
6.299	4.331	4.724	200,027	254,902	10.433	2.539	32													
6.496	4.528	4.921	274,373	345,179	11.417	2.795	49													
6.693	4.724	5.118	282,339	354,915	11.417	2.795	46													
6.890	4.921	5.315	318,627	398,284	11.811	2.795	49													
7.087	5.118	5.512	327,478	409,790	11.811	2.795	46													
7.283	5.315	5.709	460,239	548,747	12.992	3.386	82													
7.480	5.512	5.906	473,515	564,678	12.992	3.386	79													
7.677	5.512	6.102	575,299	721,336	13.780	3.386	90													
7.874	5.906	6.299	654,956	761,165	13.780	3.386	90													
8.661	6.299	6.693	840,821	973,583	14.567	4.094	119													
9.449	6.693	7.480	1,062,090	1,380,717	15.945	4.291	148													

Identified selections meet minimum bore, maximum bore and are equal to or greater than coupling size peak overload torque rating. TLK 622 is available for applications where installation of the shrink disc without torque wrenches is desired.

AMR Spacer Coupling

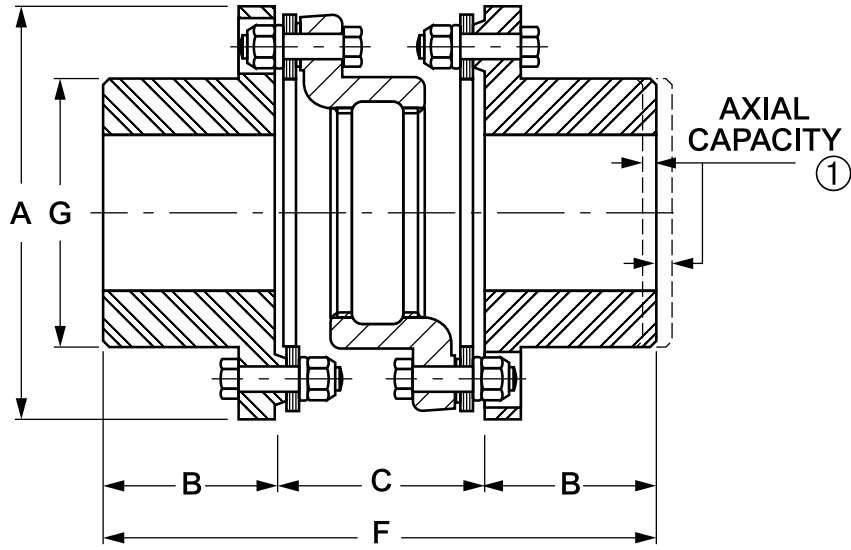
AMR couplings are fixed spacer type used in heavy-duty, slow-to-medium speed applications, where high-starting torque, shock loads, torque reversals or continuous alternating torque are present. They are suitable for shaft-to-shaft connections, such as found in motor-driven compressor applications. For flywheel adapter connections, see CMR couplings.

General

Disc Pack Style: Classic Round (Tpack available as option)
Angular Misalignment: 1/3° per disc pack

Standard Materials

Disc Pack: Tomaloy (Stainless steel, Monel and Inconel available as options)
Hubs: Carbon steel (Keyless hub connections may use special material)
Spacer: Sizes 162-750 are cast alloy iron, sizes 800 and larger are cast steel
Bolts: Alloy steel



AMR Spacer Coupling

General Dimensions (in)

Coupling Size	④ Rough Bore	⑥ Max. Bore	A	B	C	F	G	⑨ Min. Shaft Length H
162	—	1.88	4.56	1.75	2.64	6.12	2.75	1.34
200	—	2.25	5.75	2.12	2.99	7.25	3.62	1.58
225	—	2.63	6.00	2.50	2.99	8.00	3.88	1.97
262	—	3.13	6.88	2.88	3.51	9.25	4.50	2.26
312	—	3.63	8.12	3.38	4.14	10.88	5.44	2.63
350	—	4.00	9.12	3.75	4.58	12.06	6.00	2.91
375	—	4.50	10.06	4.00	5.18	13.12	6.50	3.13
425	—	4.75	11.00	4.25	5.55	14.06	7.00	3.25
450	—	5.13	11.88	4.50	5.93	14.94	7.44	3.44
500	2.69	5.38	13.44	5.00	6.81	16.81	8.38	3.81
550	2.69	6.00	15.00	5.50	7.70	18.69	9.44	4.19
600	3.69	6.50	16.75	6.00	8.45	20.44	10.31	4.57
700	4.25	7.50	18.94	7.00	9.66	23.62	11.75	5.32
750	4.94	8.00	20.62	7.25	10.54	25.00	12.62	5.5
800	5.19	8.75	22.38	7.75	11.36	26.88	13.75	5.81
850	5.44	9.25	23.75	8.25	12.18	28.62	14.50	6.12
925	5.94	10.12	25.75	9.00	13.25	31.25	15.88	6.75
1000	6.50	11.00	28.25	9.50	14.51	33.50	17.50	7.19
1100	7.00	12.00	30.25	10.25	15.50	36.00	18.50	7.81
1200	7.50	13.00	33.38	11.00	17.06	39.06	20.25	—
1300	8.00	14.00	36.00	12.00	18.31	42.31	22.50	—
1550	8.50	15.50	39.25	14.50	19.44	48.44	26.00	—

Coupling Size	Max. Horsepower per 100 RPM	③ Max. Speed (rpm)	Max. Continuous Torque (lb•in)	⑦ Peak Overload Torque (lb•in)	② Weight (lb)	② ⑤ WR ² (lb•in ²)	① Axial Capacity (in)
	Service Factor 1.0						
162	9.1	2,500	5,740	6,888	8.03	18.5	±0.036
200	17.5	2,500	11,030	13,236	16.5	60.9	±0.036
225	24.7	2,500	15,575	18,690	18.9	77.5	±0.036
262	33.4	2,500	21,038	25,245	28.4	159	±0.043
312	37.5	2,500	23,650	28,380	47.8	372	±0.051
350	83.8	2,300	52,800	63,360	67.9	657	±0.056
375	126	2,200	79,442	95,330	87.2	1,041	±0.062
425	140	2,000	88,000	105,600	115	1,616	±0.067
450	216	1,900	136,125	163,350	139	2,298	±0.072
500	319	1,800	200,750	240,900	212	4,339	±0.082
550	436	1,800	275,055	330,066	297	7,644	±0.092
600	569	1,800	358,875	430,650	429	13,435	±0.102
700	724	1,500	456,500	547,800	613	25,161	±0.115
750	1,023	1,500	644,930	773,916	758	36,339	±0.125
800	1,291	1,200	813,780	976,536	923	51,736	±0.136
850	1,426	1,100	898,700	1,078,440	1,177	76,408	±0.144
925	2,033	1,000	1,281,280	1,537,536	1,491	113,160	±0.156
1000	2,360	900	1,487,200	1,784,640	1,870	170,696	±0.172
1100	3,246	800	2,046,000	2,455,200	2,220	233,777	±0.183
1200	3,494	650	2,202,200	2,642,640	2,990	394,000	±0.203
1300	3,787	600	2,387,000	2,864,400	3,900	561,000	±0.218
1550	4,957	600	3,124,000	3,748,800	5,150	889,000	±0.242

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Weight and WR² at maximum bore.
- ③ Consult Regal Rexnord if balancing is required.
- ④ Consult Regal Rexnord for minimum rough bore on size 162-450.
- ⑤ Special hub available for size 600 with 6 3/4 max. bore. Consult Regal Rexnord.
- ⑥ Straight bores with no keyway require a special material hub. Consult Regal Rexnord.
- ⑦ The peak overload torque is not an alternating torque limit.

CMR Flywheel Adapter Coupling

CMR couplings are fixed spacer type used in heavy-duty, slow-to-medium speed applications, where high-starting torque, shock loads, torque reversals or continuous alternating torque are present. They are designed with a flywheel adapter plate which bolts directly to the flywheel of an engine or compressor. The adapters are made to fit accurately into the recess in the flywheel, which minimize external strains on the crankshaft resulting from equipment misalignment.

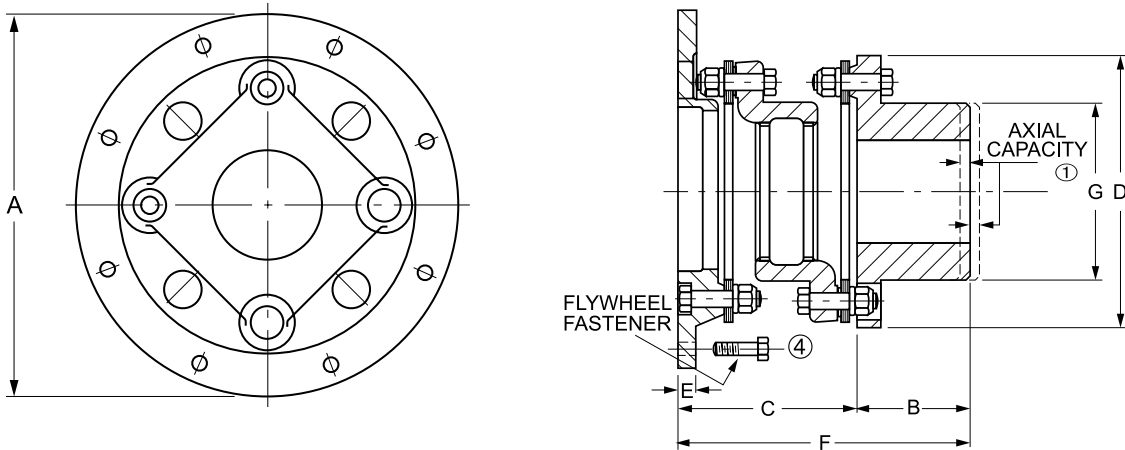
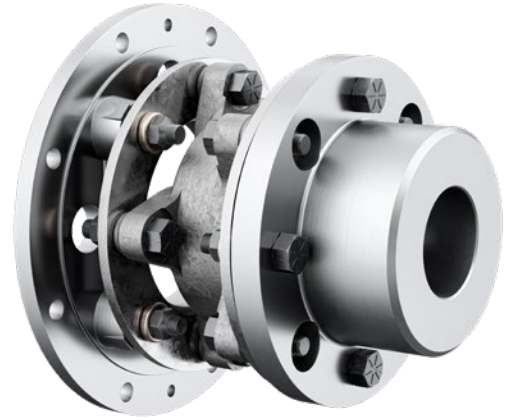
For greater speed, balance, and torque capabilities, or API compliance see Series 44 coupling.

General

Disc Pack Style: Classic Round (Tpack available as option)
 Angular Misalignment: 1/3° per disc pack

Standard Materials

Disc Pack: Tomaloy (Stainless steel, Monel and Inconel available as options)
 Hubs and Flywheel Adapter: Carbon steel (Keyless hub connections may use special material)
 Spacer: Sizes 162-750 are cast alloy iron, sizes 800 and larger are cast steel
 Bolts: Alloy steel



Flywheel Adapter Information

Adapters can be furnished to accommodate virtually any flange design. Where possible, the user should select dimensions from the tables below, as these represent industry standards and thus are the most economical selection. Note that most sizes are available either with SAE bolting or Thomas® heavy-duty bolting.

Available Adapters

Coupling Size	Adapters Available in Shaded Sizes (in)										
Adapter Tolerance	8.500	9.500	10.375	12.375	13.875	16.000	18.375	20.375	22.500	26.500	28.875
	8.498	9.498	10.373	12.373	13.873	15.998	18.373	20.372	22.497	26.497	28.872
162											
200											
225											
262											
312											
350											
375											
425											
450											
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550											
600											
700											
750											
800											
850											

Sizes 925 to 1550 - Adapting dimensions available upon request.

Bolting

Standard A Diameter (in)	Light-Duty SAE Bolting			Heavy-Duty Thomas Bolting		
	Bolt Circle	No. Holes	Size (Dia.)	Bolt Circle	No. Holes	Size (Dia.)
8.5	7.88	6	0.34	7.50	8	0.41
9.5	8.75	8	0.34	8.62	8	0.47
10.38	9.62	6	0.41	9.50	8	0.47
12.38	11.62	8	0.41	11.50	8	0.53
13.88	13.12	8	0.41	12.50	8	0.66
16	-	-	-	14.38	8	0.78
18.38	17.25	8	0.53	16.75	8	0.78
20.38	19.25	8	0.53	18.50	8	0.91
22.5	21.38	6	0.66	20.50	8	1.03
26.5	25.25	12	0.66	24.50	12	1.03
28.88	27.25	12	0.78	26.88	12	1.03

CMR Flywheel Adapter Coupling

General Dimensions (in)

Coupling Size	⑦ Rough Bore	② Max. Bore	Min. "A" Dia.	B	C	D	E	F	G
162	—	1.88	6.25	1.75	3.32	4.56	0.31	5.06	2.75
200	—	2.25	7.38	2.12	3.87	5.75	0.38	5.99	3.62
225	—	2.63	7.62	2.50	3.87	6.00	0.38	6.37	3.88
262	—	3.13	8.50	2.88	4.47	6.88	0.47	7.31	4.50
312	—	3.63	9.50	3.38	5.34	8.12	0.50	8.69	5.44
350	—	4.00	10.88	3.75	5.89	9.12	0.50	9.62	6.00
375	—	4.50	11.88	4.00	6.62	10.06	0.56	10.62	6.50
425	—	4.75	13.12	4.25	7.18	11.00	0.62	11.38	7.00
450	—	5.13	14.75	4.50	7.68	11.88	0.69	12.12	7.44
500	2.69	5.38	16.00	5.00	8.75	13.44	0.78	13.75	8.38
550	2.69	6.00	18.00	5.50	9.89	15.00	0.88	15.39	9.44
600	3.69	6.50	18.38	6.00	10.89	16.75	1.03	16.89	10.31
700	4.25	7.50	20.38	7.00	12.48	18.94	1.00	19.48	11.75
750	4.94	8.00	24.00	7.25	13.54	20.62	1.12	20.75	12.62
800	5.19	8.75	25.62	7.75	14.74	22.38	1.25	22.49	13.75
850	5.44	9.25	27.38	8.25	15.86	23.75	1.25	24.00	14.50
925	5.94	10.12	28.88	9.00	17.24	25.75	1.38	26.24	15.88
1000	6.50	11.00	31.62	9.50	18.57	28.25	1.62	28.07	17.50
1100	7.00	12.00	33.38	10.25	19.81	30.25	1.75	30.06	18.50
1200	7.50	13.00	37.50	11.00	21.56	33.88	2.00	32.56	20.25
1300	8.00	14.00	39.88	12.00	23.31	36.00	2.12	35.31	22.12
1550	8.50	15.50	43.62	14.50	23.75	39.25	2.12	38.25	26.00

Coupling Size	Max. Horsepower per 100 RPM	③ Max. Speed (rpm)	Max. Continuous Torque (lb•in)	⑧ Peak Overload Torque (lb•in)	⑤ ⑥ Weight (lb)	⑤ WR ² (lb•in ²)	① Axial Capacity
	Service Factor 1.0						
162	9.1	2,500	5,740	6,888	10.8	57.5	±0.036
200	17.5	2,500	11,030	13,236	16.0	91.3	±0.036
225	24.7	2,500	15,575	18,690	17.3	103	±0.036
262	33.4	2,500	21,038	25,245	24.6	169	±0.043
312	37.5	2,500	23,650	28,380	38.5	350	±0.051
350	83.8	2,300	52,800	63,360	59.4	761	±0.056
375	126	2,200	79,442	95,330	75.2	1,071	±0.062
425	140	2,200	88,000	105,600	99.8	1,722	±0.067
450	216	1,900	136,125	163,350	140	3,610	±0.072
500	319	1,800	200,750	240,900	191	5,215	±0.082
550	436	1,800	275,055	330,066	258	8,005	±0.092
600	569	1,800	358,875	430,650	365	12,793	±0.102
700	724	1,500	456,500	547,800	506	22,931	±0.115
750	1,023	1,500	644,930	773,916	684	40,890	±0.125
800	1,291	1,200	813,780	976,536	833	55,095	±0.136
850	1,426	1,100	898,700	1,078,440	1,024	77,643	±0.144
925	2,033	1,000	1,281,280	1,537,536	1,252	106,906	±0.156
1000	2,360	900	1,487,200	1,784,640	1,650	156,000	±0.172
1100	3,246	800	2,046,000	2,455,200	1,950	247,000	±0.183
1200	3,494	650	2,202,200	2,642,640	2,550	407,000	±0.203
1300	3,787	600	2,387,000	2,864,400	3,320	567,000	±0.218
1550	4,957	600	3,124,000	3,748,800	4,100	840,000	±0.242

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Straight bores with no keyway require special material.
- ③ Maximum speeds are based on smallest available adapter O.D. For higher speeds, consult Regal Rexnord.
- ④ Flywheel bolts are not supplied with coupling.
- ⑤ Weight and WR² at maximum bores and minimum adapter diameter.
- ⑥ Special hub available for size 600 with 6.75 in. max. bore. Consult Regal Rexnord.
- ⑦ Consult Regal Rexnord for minimum rough bore on sizes 162-450.
- ⑧ The peak overload torque is not an alternating torque limit.

Series 44 Flywheel Adapter Type Spacer Coupling

Series 44 is an all-steel, fully machined flywheel adapter style coupling. It is used in heavy-duty applications where high starting torque, shock loads, torque reversals or alternating torques are present. This coupling is similar to the type CMR, but with the following benefits:

- Spacer (Dimension "C") is adjustable to meet specific spacing requirements and/or to make adjustment to torsional characteristics.
- The all-steel design provides a higher maximum continuous and peak overload torque rating. Fully machined components offer a higher operating speed and balancing level.



When specified, Series 44 couplings meet all requirements of API 610 or API 671.

General

Disc Pack Style: Classic Round (Tpack available as option)

Angular Misalignment: 1/3° per disc pack

Standard Materials

Disc Pack: Tomaloy (Stainless steel, Monel and Inconel available as options)

Major components: Carbon steel

Bolts: Alloy steel

Coating Options: Black Oxide, Zinc, Cadmium

Flywheel to Adapter Bolt Patterns

Standard A Diameter (in)	Light-Duty SAE Bolting			Heavy-Duty Thomas Bolting		
	Bolt Circle	No. Holes	Size (Dia.)	Bolt Circle	No. Holes	Size (Dia.)
12.375	11.62	8	0.41	11.50	8	0.53
13.875	13.12	8	0.41	12.50	8	0.66
16.000	N/A	N/A	N/A	14.37	8	0.78
18.375	17.25	8	0.53	16.75	8	0.78
20.375	19.25	8	0.53	18.50	8	0.91
22.500	21.38	6	0.66	20.50	8	1.03
26.500	25.25	12	0.66	24.50	12	1.03
28.875	27.25	12	0.78	26.88	12	1.03

All dimensions listed are in inches and bolt holes are equally spaced.

Flywheel Adapter Information*

Adapters can be furnished to accommodate most flange designs. Where possible, the user should select dimensions from the tables shown, as these represent industry standards that are more economical and readily available. Note that most sizes can be supplied with either SAE light-duty bolting or Thomas® heavy-duty bolting. Please contact Regal Rexnord for custom designs.

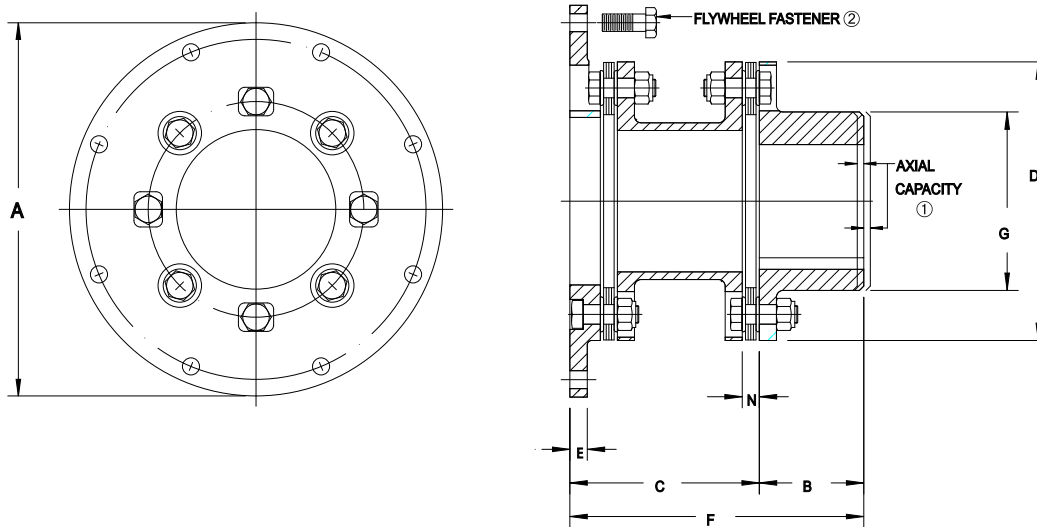
Coupling Size	Minimum Adapter "A" Dia.	① Standard Available Adapter Diameters (in) - Actual OD Tolerance as Listed							
		12.375	13.875	16.00	18.375	20.375	22.500	26.500	28.875
		12.373	13.873	15.998	18.373	20.372	22.497	26.497	28.872
350	10.88	Wt. = 3.88 WR ² = 132	Wt. = 8.25 WR ² = 320	Wt. = 15.3 WR ² = 716	Wt. = 24.4 WR ² = 1,391	Wt. = 33 WR ² = 2,200	Wt. = 43.1 WR ² = 3,365		
375	11.88	Wt. = 1.51 WR ² = 56	Wt. = 6.41 WR ² = 267	Wt. = 14.3 WR ² = 710	Wt. = 24.5 WR ² = 1,466	Wt. = 34.1 WR ² = 2,371	Wt. = 45.5 WR ² = 3,681		
425	13.12		Wt. = 2.79 WR ² = 127	Wt. = 11.5 WR ² = 616	Wt. = 22.8 WR ² = 1,453	Wt. = 33.5 WR ² = 2,460	Wt. = 46 WR ² = 3,901		
450	14.75			Wt. = 5.89 WR ² = 349	Wt. = 18.4 WR ² = 1,277	Wt. = 30.3 WR ² = 2,396	Wt. = 44.3 WR ² = 4,008	Wt. = 74.3 WR ² = 8,543	
500	16.00			Wt. = 0 WR ² = 0 ①	Wt. = 13.6 WR ² = 1,009	Wt. = 26.5 WR ² = 2,223	Wt. = 41.7 WR ² = 3,973	Wt. = 74.4 WR ² = 8,912	Wt. = 96.3 WR ² = 13,118
550	18.00				Wt. = 2.67 WR ² = 221	Wt. = 17.8 WR ² = 1,645	Wt. = 35.6 WR ² = 3,695	Wt. = 74 WR ² = 9,493	Wt. = 99.7 WR ² = 14,429
600	18.38				Wt. = 0 WR ² = 0 ①	Wt. = 17.2 WR ² = 1,618	Wt. = 37.5 WR ² = 3,956	Wt. = 81 WR ² = 10,529	Wt. = 110 WR ² = 16,107
700	20.38					Wt. = 0 WR ² = 0 ①	Wt. = 20.3 WR ² = 2,338	Wt. = 63.8 WR ² = 8,911	Wt. = 93 WR ² = 14,519
750	24.00							Wt. = 31.4 WR ² = 5,017	Wt. = 64.2 WR ² = 11,313
800	25.62							Wt. = 12.7 WR ² = 2,157	Wt. = 49.2 WR ² = 9,166
850	27.38								Wt. = 23.4 WR ² = 4,631
925	28.88								Wt. = 0 WR ² = 0 ①
1000	31.62	No industry standards exist for adapters to fit couplings this size or larger. Consult Regal Rexnord.							

* Weight adder values are given in pounds. WR² values are given in lb-in².

① Wt. and WR² is zero if the listed minimum adapter "A" diameter is the same as complete coupling calculated values in general dimension tables on page 18.

NOTE: Add Wt. and WR² values listed in table to the weight and inertia values provided on page 18 for given size to calculate actual values based on selected adapter size.

Series 44 Flywheel Adapter Type Spacer Coupling



General Dimensions (in)

Coupling Size	Max. Bore	Min. "A" Dia.	B	Std. C	Min. C	D	E	F (Ref.)	G	N
350	4.00	10.88	3.75	5.88	5.15	8.69	0.50	9.63	5.88	0.54
375	4.50	11.88	4.00	6.62	5.71	9.69	0.56	10.62	6.50	0.59
425	4.75	13.12	4.25	7.18	6.15	10.50	0.62	11.43	7.00	0.62
450	5.13	14.75	4.50	7.62	6.71	11.31	0.69	12.12	7.44	0.71
500	5.38	16.00	5.00	8.75	7.53	12.88	0.75	13.75	8.38	0.78
550	6.00	18.00	5.50	9.88	8.53	14.44	0.88	15.38	9.44	0.91
600	6.50	18.38	6.00	10.88	9.36	16.00	1.00	16.88	10.25	0.98
700	7.50	20.38	7.00	12.44	10.68	18.25	1.00	19.44	11.75	1.20
750	8.00	24.00	7.50	13.50	11.58	19.81	1.12	21.00	12.62	1.27
800	8.75	25.62	8.25	14.75	12.68	21.50	1.25	23.00	13.62	1.34
850	9.25	27.38	8.75	15.75	13.59	23.00	1.25	24.50	14.50	1.40
925	10.12	28.88	9.50	17.25	14.56	25.00	1.38	26.75	15.75	1.50
1000	11.00	31.62	10.50	18.56	16.91	27.50	1.62	29.06	17.25	1.69

Coupling Size	Max. Horsepower Per 100 Service Factor 1.0	Max. Speed (rpm) ③		Max. Continuous Torque (lb•in)	④ Peak Overload Torque (lb•in)	⑤ Weight (lb)	Weight Change Per Inch of "C" (lb)	⑤ WR ² (lb•in ²)	WR ² Change Per Inch of "C" (lb•in ²)	① Axial Capacity (in)
		As Manufactured	Balanced							
350	92.2	3,200	10,500	58,080	116,160	51	0.83	588	4.82	± 0.056
375	135	3,000	9,400	85,000	170,000	70	1.03	994	7.21	± 0.062
425	150	2,800	8,700	94,500	189,000	93	1.42	1,560	11.68	± 0.067
450	216	2,700	8,100	136,125	272,250	120	1.47	2,450	13.72	± 0.072
500	319	2,500	7,100	200,750	401,500	177	2.29	4,340	27.17	± 0.082
550	494	2,300	6,300	311,430	622,860	259	2.88	8,090	42.75	± 0.092
600	624	2,150	5,700	393,325	786,650	325	3.35	11,835	61.50	± 0.102
700	793	1,950	5,000	499,870	999,740	490	4.86	22,435	108	± 0.115
750	1037	1,850	4,600	653,725	1,307,450	642	5.37	36,510	146	± 0.125
800	1387	1,750	4,300	874,000	1,748,000	803	5.54	54,155	199	± 0.136
850	1782	1,600	3,900	1,123,375	2,246,750	975	6.67	74,430	284	± 0.144
925	2450	1,500	3,600	1,544,400	3,088,800	1,289	8.49	113,780	413	± 0.156
1000	2813	1,500	3,250	1,773,200	3,546,400	1,655	8.54	173,840	506	± 0.172

- ① Thomas® disc couplings meet NEMA MG1-14.37, 1-20.81, & 1-21.81 specifications without the addition of end-float restricting devices.
- ② Flywheel fasteners are not supplied with this coupling. Contact equipment manufacturer for this hardware and tightening instructions.
- ③ Maximum speeds are based on use with all standard available adapters. For larger sizes or higher speeds, please consult Regal Rexnord.
- ④ The peak overload torque rating is an infrequent torque overload limit and not an alternating or vibratory torque limit.
- ⑤ Weight and WR² values are based on maximum bores and minimum adapter diameters listed above.

XTSR52 Spacer Type Coupling

XTSR52 couplings are non-adapter style, full floating shaft couplings for applications with large distance between shaft ends. They feature welded steel spacer to achieve greater spacer lengths compared to the fully machined XTSR52 couplings. For additional features, such as expanded bore capacity and “drop-in” installation, consider XTSR571 couplings.

General

Disc Pack Style: Unitized XTSR

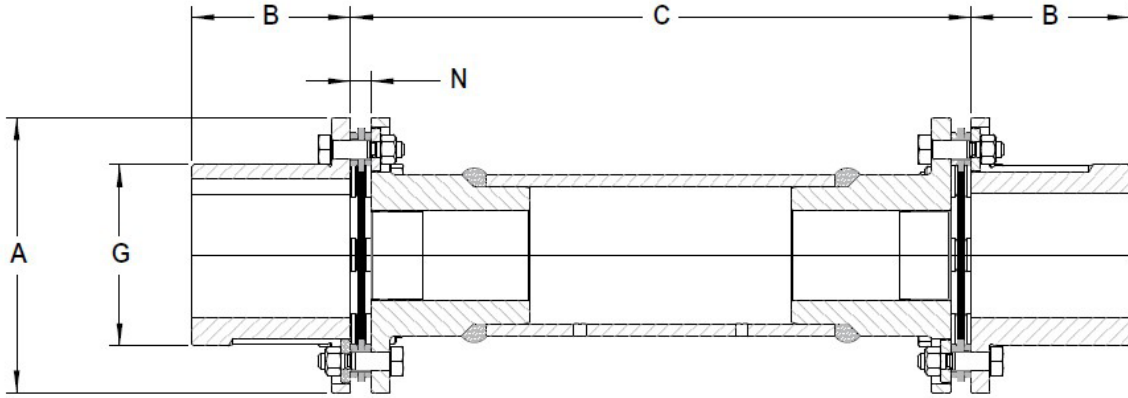
Angular Misalignment: 1/2° per disc pack for sizes 726-996, and 1/3° per disc pack for sizes 1088-4588.

Standard Materials

Disc Pack: Stainless steel

Major components: Carbon steel

Bolts: Alloy steel



XTSRLS52 Spacer Type Coupling

Example Selection:

1. Select coupling size 1088 for a 19,000 lb-in torque, 2.5 in pump shaft diameter, and 2.125 in motor shaft diameter.
2. Operation speed is 1,800 rpm.
3. DBSE is 78.75 in.
4. Therefore, coupling is a 1088 XTSRLS52 to accommodate long span need.

A 1088 XTSRLS52 has two hubs with 2.50 inch maximum bore with maximum DBSE of 87 inches at 1,800 rpm.

General Coupling Data

Size	④ Max. Cont. Torque (lb•in)	③ Std Hub Max. Bore	⑤ Min. C (in)	① Axial Capacity (in)	N (in)	② WR ² (lb•in ²)	② Std Weight (lb)	Weight Change Per in of "C" (lb•in)
726	2,630	1.75	14.68	±0.05	0.339	9.11	6.60	0.119
826	4,900	2.00	14.74	±0.06	0.368	21.6	12.1	0.264
996	8,210	2.25	30.76	±0.07	0.378	55.1	22.1	0.320
1088	19,400	2.50	30.82	±0.05	0.408	114	42.8	0.667
1298	31,400	3.00	31.02	±0.06	0.508	254	62.7	0.834
1548	52,300	3.50	31.16	±0.07	0.582	518	86.0	1.00
1698	72,500	4.00	31.24	±0.08	0.622	807	107	1.11
1928	98,200	4.50	31.34	±0.09	0.672	1,350	135	1.28
2068	136,000	4.75	31.45	±0.10	0.725	2,110	196	1.96
2278	176,000	5.38	31.51	±0.11	0.755	3,360	253	2.21
2468	232,000	5.75	31.61	±0.12	0.807	4,690	295	2.38
2698	318,000	6.00	43.85	±0.13	0.924	8,150	443	3.44
2888	416,000	6.75	43.98	±0.14	0.991	11,600	538	3.67
3058	461,000	7.13	43.98	±0.15	0.991	15,200	616	4.00
3358	622,000	8.00	44.15	±0.16	1.076	25,000	891	5.40
3668	834,000	8.88	44.39	±0.17	1.196	38,800	1,130	5.98
3908	909,000	9.50	44.39	±0.19	1.196	52,500	1,390	7.67
4178	1,130,000	10.13	44.55	±0.20	1.277	71,400	1,430	8.17
4588	1,670,000	11.00	40.83	±0.22	1.415	115,000	2,180	10.9

Size	Std A (in)	Std B (in)	Std G (in)
726	3.74	1.18	2.51
826	4.25	1.97	2.83
996	5.08	1.97	3.32
1088	5.51	3.19	3.63
1298	6.54	3.82	4.35
1548	7.76	3.82	5.21
1698	8.58	4.33	5.78
1928	9.65	4.33	6.60
2068	10.39	4.92	7.03
2278	11.46	5.71	7.74
2468	12.32	5.91	8.41
2698	13.50	5.91	9.14
2888	14.61	6.89	9.69
3058	15.55	7.28	10.35
3358	16.81	9.65	11.34
3668	18.35	11.06	12.41
3908	19.29	11.93	13.35
4178	20.63	12.68	14.22
4588	23.11	13.78	15.44

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Weight and WR² of couplings with standard adapters at maximum bore and minimum "C" dimension listed.
- ③ Consult Regal Rexnord for minimum rough bore sizes.
- ④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.
- ⑤ If shorter C lengths are required than the listed minimums, refer to XTSR52 page.

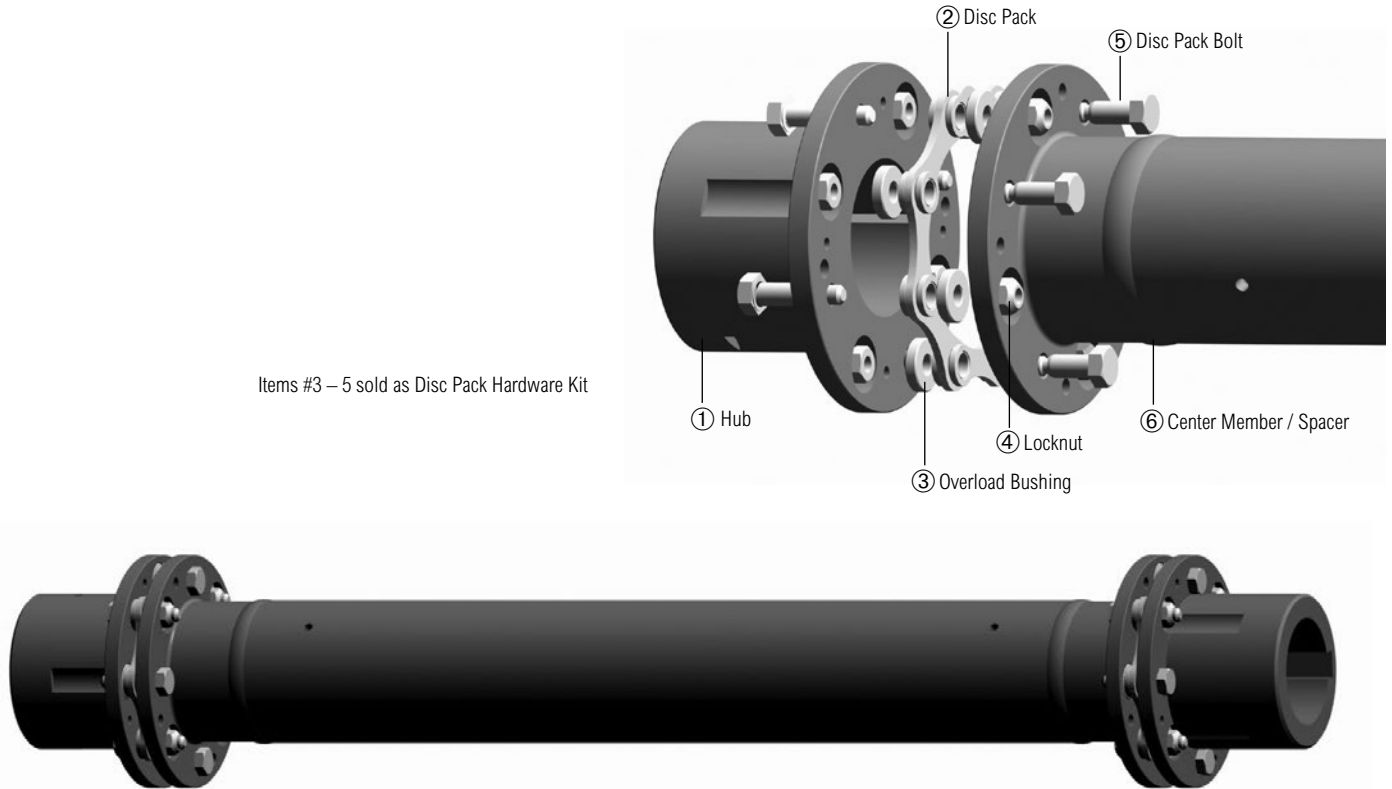
XTSRLS52 Spacer Type Coupling

Maximum C at Given rpm (in)

Size	3,600 rpm	3,000 rpm	1,800 rpm	1,500 rpm	1,200 rpm	1,000 rpm	900 rpm	750 rpm	720 rpm	600 rpm	500 rpm
726	51	56	72	79	88	96	101	111	113	124	136
826	54	60	77	84	94	103	109	119	122	133	146
996	60	66	85	93	104	114	120	131	134	147	161
1088	61	67	87	95	106	116	123	134	137	150	164
1298	68	75	97	106	119	130	137	150	153	168	184
1548	75	82	106	116	130	142	150	164	168	184	201
1698	79	87	112	122	137	150	158	173	177	194	212
1928	85	93	120	131	147	161	169	186	189	208	227
2068	86	94	121	133	148	163	171	188	192	210	230
2278	91	100	129	141	158	173	182	199	203	223	244
2468	94	103	133	146	163	179	189	207	211	231	253
2698	98	108	139	152	170	187	197	216	220	241	264
2888	102	111	144	157	176	193	203	222	227	249	272
3058	106	116	150	164	184	201	212	232	237	260	285
3358	110	120	155	170	190	208	219	240	245	269	294
3668	115	126	163	178	200	219	230	252	258	282	309
3908	120	131	170	186	208	228	240	263	268	294	322
4178	124	136	175	192	214	235	247	271	277	303	332
4588	128	140	181	198	221	243	256	280	286	313	343

NOTE: Consult Regal Rexnord for intended applications at speeds not covered in the table.

Items #3 – 5 sold as Disc Pack Hardware Kit



XTSRLS71 Spacer Type Coupling with Adapter

XTSRLS71 couplings are adapter style, full floating shaft couplings for applications with large distance between shaft ends. Features include optimized 3-piece design for simplified installation and maintenance, and pilot-fitted hubs for enhanced dynamic operation and balance. A welded steel spacer is utilized to achieve greater spacer lengths compared to the fully machined XTSR71 couplings.

General

Disc Pack Style: Unitized XTSR

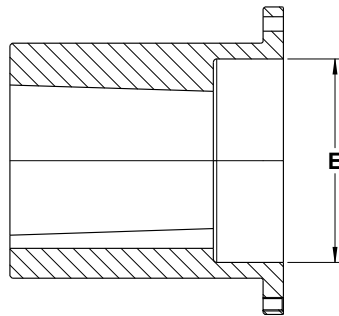
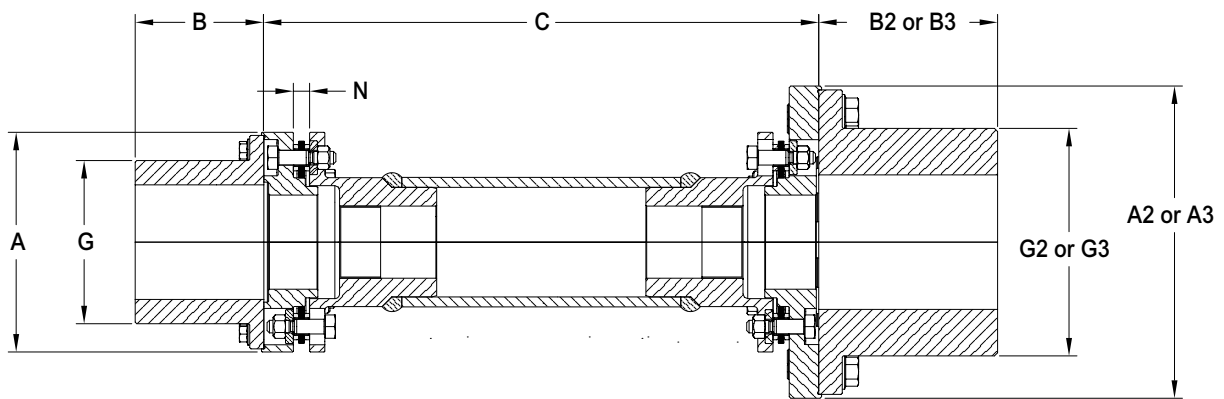
Angular Misalignment: $1/2^\circ$ per disc pack for sizes 726-996, and $1/3^\circ$ per disc pack for sizes 1088-4588.

Standard Materials

Disc Pack: Stainless steel

Major components: Carbon steel

Bolts: Alloy steel



XTSRLS71 Spacer Type Coupling with Adapter

Example Selection:

1. Select coupling size 1088 for a 19,000 lb-in torque and 2.5 in pump shaft diameter.
2. Select XXL 2nd hub for 3.5 in motor shaft diameter.
3. Operation speed is 1,800 rpm.
4. DBSE is 78.75 in.
5. Therefore, coupling is a 1088 XTSRLS71 XXL to accommodate long span need.

A 1088 XTSRLS71 XXL has one hub with 2.88 in max bore and one hub with 4 in max bore. The max DBSE is 88 in at 1,800 rpm.

General Coupling Data

Size	④ Max. Cont. Torque (lb•in)	③ Std Hub Max. Bore	③ XL Hub Max. Bore	③ XXL Hub Max. Bore	⑤ Min. C (in)	① Axial Capacity (in)	Max Counter Bore E (in)
726	2,630	1.63	2.00	2.38	15.68	±0.05	2.08
826	4,900	2.00	2.38	2.88	15.89	±0.06	2.58
996	8,210	2.38	2.88	3.38	32.30	±0.07	3.03
1088	19,400	2.88	3.38	4.00	32.28	±0.05	3.47
1298	31,400	3.38	4.00	4.50	32.80	±0.06	4.13
1548	52,300	4.00	4.50	5.00	33.33	±0.07	4.86
1698	72,500	4.50	5.00	5.50	33.65	±0.08	5.60
1928	98,200	5.00	5.50	6.00	33.87	±0.09	6.17
2068	136,000	5.50	6.00	6.50	34.59	±0.10	6.70
2278	176,000	6.00	6.50	7.75	34.69	±0.11	7.42
2468	232,000	6.50	7.75	8.63	34.99	±0.12	7.85
2698	318,000	7.75	8.63	9.13	47.62	±0.13	9.69
2888	416,000	8.63	9.13	10.00	48.09	±0.14	10.69
3058	461,000	9.13	10.00	11.00	48.13	±0.15	11.73
3358	622,000	10.00	11.00	11.50	48.85	±0.16	12.37
3668	834,000	11.00	11.50	12.25	49.34	±0.17	13.97
3908	909,000	11.50	12.25	14.00	49.39	±0.19	14.85
4178	1,130,000	12.25	14.00	15.00	50.11	±0.20	15.64
4588	1,670,000	14.00	15.00	16.00	47.13	±0.22	17.72

Size	Std A (in)	XL A2 (in)	XXL A3 (in)	Std B (in)	XL B2 (in)	XXL B3 (in)	Std G (in)	XL G2 (in)	XXL G3 (in)	② Std Weight (lb)	Weight Change Per in of "C" (lb/in)	② WR2 (lb•in ²)
726	3.74	4.25	5.08	1.38	1.65	2.01	2.32	2.87	3.39	9.34	0.119	14.6
826	4.25	5.08	5.51	1.65	2.01	3.23	2.87	3.39	4.09	15.5	0.264	31.8
996	5.08	5.51	6.54	2.01	3.23	3.74	3.39	4.09	4.84	30.0	0.320	85.8
1088	5.51	6.54	7.83	3.23	3.74	4.49	4.09	4.84	5.71	51.0	0.667	156
1298	6.54	7.83	8.66	3.74	4.49	4.80	4.84	5.71	6.50	76.5	0.834	357
1548	7.83	8.66	9.66	4.49	4.80	5.31	5.71	6.50	7.17	114	1.000	788
1698	8.66	9.66	10.39	4.80	5.31	6.10	6.50	7.17	7.87	147	1.11	1,280
1928	9.66	10.39	11.44	5.31	6.10	6.57	7.17	7.87	8.66	189	1.28	2,110
2068	10.39	11.44	12.32	6.10	6.57	7.48	7.87	8.66	9.29	269	1.96	3,340
2278	11.44	12.32	13.58	6.57	7.48	7.28	8.66	9.29	11.02	341	2.21	5,170
2468	12.32	13.58	15.00	7.48	7.28	7.87	9.29	11.02	12.13	414	2.38	7,430
2698	13.58	15.00	15.94	7.28	7.87	7.52	11.02	12.13	13.07	599	3.44	13,200
2888	15.00	15.94	17.20	7.87	7.52	8.86	12.13	13.07	13.98	764	3.67	20,200
3058	15.94	17.20	18.98	7.52	8.86	10.12	13.07	13.98	15.67	856	4.00	26,100
3358	17.20	18.98	19.80	8.86	10.12	9.80	13.98	15.67	16.50	1,140	5.40	40,200
3668	18.98	19.80	20.83	10.12	9.80	10.47	15.67	16.50	17.48	1,530	5.98	66,600
3908	19.80	20.83	23.94	9.80	10.47	11.81	16.50	17.48	19.84	1,720	7.67	82,000
4178	20.83	23.94	25.51	10.47	11.81	12.60	17.48	19.84	21.46	2,010	8.17	109,000
4588	23.94	25.51	26.69	11.81	12.60	13.62	19.84	21.46	22.64	2,890	10.9	199,000

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Weight and WR² of couplings with standard adapters at maximum bore and minimum "C" dimension listed.
- ③ Consult Regal Rexnord for minimum rough bore sizes.
- ④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.
- ⑤ If shorter C lengths are required than the listed minimums, refer to XTSR71 page.

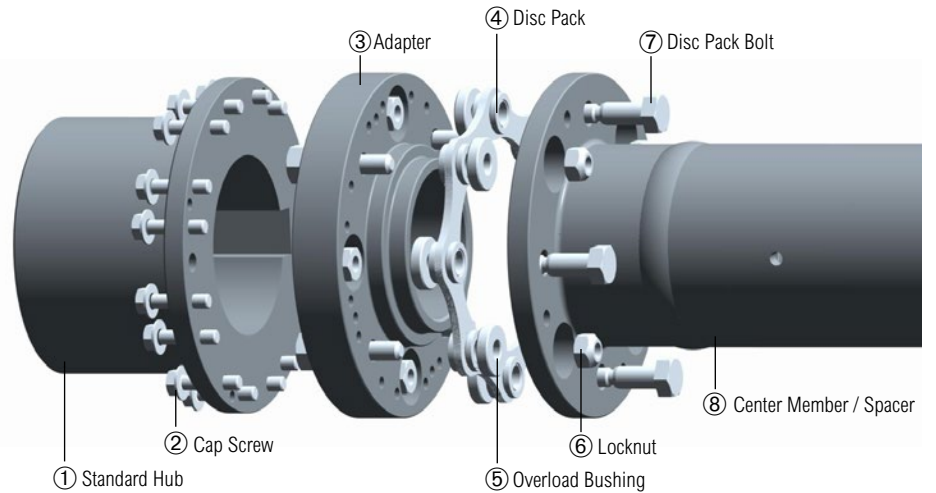
XTSRLS71 Spacer Type Coupling with Adapter

Maximum C at Given rpm (in)*

Size	3,600 rpm	3,000 rpm	1,800 rpm	1,500 rpm	1,200 rpm	1,000 rpm	900 rpm	750 rpm	720 rpm	600 rpm	500 rpm
726	52	57	73	80	89	97	102	112	114	125	137
826	56	61	78	86	96	105	110	121	123	135	147
996	61	67	86	94	105	115	121	133	135	148	162
1088	63	69	88	96	108	118	124	136	139	152	166
1298	70	77	99	108	120	132	139	152	155	170	186
1548	77	84	108	118	132	144	152	166	170	186	203
1698	81	89	114	125	139	152	161	176	179	196	215
1928	87	95	122	134	149	163	172	188	192	210	230
2068	89	97	124	136	152	166	174	191	195	213	233
2278	94	103	132	144	161	176	185	203	207	226	247
2468	98	107	137	150	167	182	192	210	214	234	257
2698	102	112	143	156	174	191	201	219	224	245	268
2888	106	115	148	161	180	197	207	227	231	253	277
3058	110	120	154	168	188	205	216	236	241	264	289
3358	114	125	160	175	195	213	224	245	250	273	299
3668	120	131	168	183	204	224	235	257	263	287	314
3908	125	136	175	191	213	233	245	268	273	299	327
4178	129	141	181	197	220	240	253	277	282	309	338
4588	134	146	187	204	228	249	262	286	292	319	349

* For API-671 required couplings, consult Regal Rexnord for maximum spans.

NOTE: Consult Regal Rexnord for intended applications at speeds not covered in the table.



XTSRLS71-C Spacer Type Coupling with Adapter

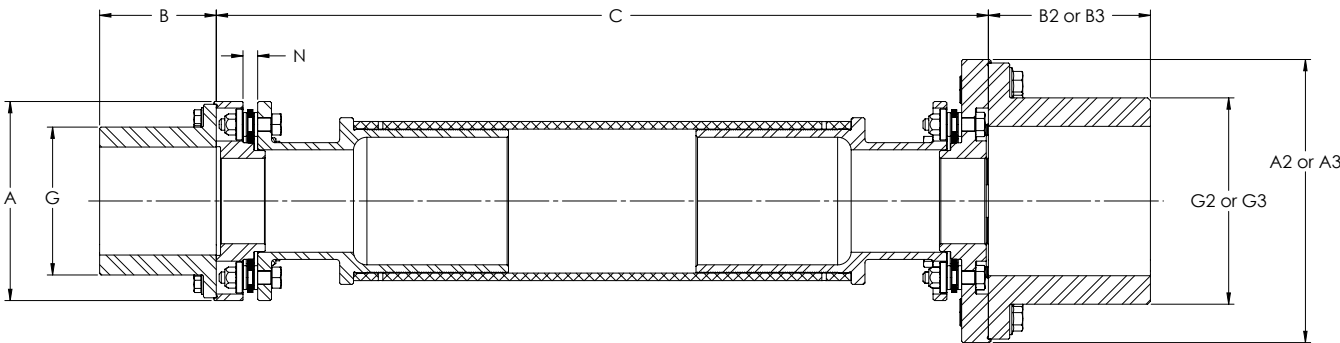
XTSRLS71-C couplings are adapter style, full floating shaft couplings featuring low-weight, composite spacer to deliver optimal performance and simplified installation. Compared to the standard welded steel XTSRLS couplings, the composite spacer version achieves greater maximum span lengths, while simultaneously reducing overall weight and radial loads on connected equipment. Other design features and options are identical to XTSR71 / XTSRLS71 models.

General

Disc Pack Style: Unitized XTSR
Angular Misalignment: 1/3° per disc pack

Standard Materials

Disc Pack: Stainless steel
Major components (excl. spacer tube): Carbon steel
Spacer tube: Carbon fiber composite
Bolts: Alloy steel
Coating (excl. spacer tube): Manganese phosphate



XTSRLS71-C Spacer Type Coupling with Adapter

Example Selection:

1. Select coupling size 1088 for a 19,000 lb-in torque and 2.5 in pump shaft diameter.
2. Select XXL 2nd hub for 3.5 in motor shaft diameter.
3. Operation speed is 1,800 rpm.
4. DBSE is 78.75 in.
5. Therefore, coupling is a 1088 XTSRLS71 XXL to accommodate long span need.

A 1088 XTSRLS71-C XXL has one hub with 2.88 in max bore and one hub with 4 in max bore.
The max DBSE is 97 in at 1,800 rpm.



General Coupling Data

Size	④ Max. Cont. Torque (lb•in)	③ Std Hub Max. Bore (in)	③ XL Hub Max. Bore (in)	③ XXL Hub Max. Bore (in)	⑤ Min. C (in)	① Axial Capacity (in)	Max Counter Bore E (in)
1088	19,400	2.88	3.38	4.00	32.28	±0.05	3.47
1298	31,400	3.38	4.00	4.50	32.80	±0.06	4.13
1548	52,300	4.00	4.50	5.00	33.33	±0.07	4.86
1698	72,500	4.50	5.00	5.50	33.65	±0.08	5.60
1928	98,200	5.00	5.50	6.00	33.87	±0.09	6.17
2068	136,000	5.50	6.00	6.50	34.59	±0.10	6.70
2278	176,000	6.00	6.50	7.75	34.69	±0.11	7.42
2468	232,000	6.50	7.75	8.63	34.99	±0.12	7.85
2698	318,000	7.75	8.63	9.13	47.62	±0.13	9.69
2888	416,000	8.63	9.13	10.00	48.09	±0.14	10.69

Size	Std A (in)	XL A2 (in)	XXL A3 (in)	Std B (in)	XL B2 (in)	XXL B3 (in)	Std G (in)	XL G2 (in)	XXL G3 (in)	② Std Weight (lb)	Weight Change Per in of "C" (lb•in)	② WR2 (lb•in ²)
1088	5.51	6.54	7.83	3.23	3.74	4.49	4.09	4.84	5.71	41.7	0.154	162
1298	6.54	7.83	8.66	3.74	4.49	4.80	4.84	5.71	6.50	68.4	0.294	385
1548	7.83	8.66	9.66	4.49	4.80	5.31	5.71	6.50	7.17	108	0.338	847
1698	8.66	9.66	10.39	4.80	5.31	6.10	6.50	7.17	7.87	154	0.496	1,534
1928	9.66	10.39	11.44	5.31	6.10	6.57	7.17	7.87	8.66	201	0.568	2,558
2068	10.39	11.44	12.32	6.10	6.57	7.48	7.87	8.66	9.29	267	0.586	3,823
2278	11.44	12.32	13.58	6.57	7.48	7.28	8.66	9.29	11.02	344	0.675	6,149
2468	12.32	13.58	15.00	7.48	7.28	7.87	9.29	11.02	12.13	432	0.711	8,811
2698	13.58	15.00	15.94	7.28	7.87	7.52	11.02	12.13	13.07	599	0.819	15,899
2888	15.00	15.94	17.20	7.87	7.52	8.86	12.13	13.07	13.98	808	0.927	26,495

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Weight and WR2 of couplings with standard adapters at maximum bore and minimum "C" dimension listed.

③ Consult Regal Rexnord for minimum rough bore sizes.

④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.

⑤ If shorter C lengths are required than the listed minimums, refer to standard XTSR71 model.

Maximum C at Given rpm (in)

Size	3,600 rpm	3,000 rpm	1,800 rpm	1,500 rpm	1,200 rpm	1,000 rpm	900 rpm	750 rpm	720 rpm	600 rpm	500 rpm
1088	69	75	97	106	118	130	137	149	153	167	183
1298	72	78	100	110	123	134	141	155	158	173	189
1548	77	84	108	118	132	144	152	166	170	186	203
1698	96	104	134	147	164	179	189	206	211	230	252
1928	102	112	144	157	176	192	202	221	226	247	271
2068	105	114	147	160	179	196	206	225	230	252	275
2278	112	123	158	172	192	210	222	243	243	243	243
2468	116	126	162	177	198	216	228	249	254	278	281
2698	124	136	174	191	213	233	245	263	263	263	263
2888	133	145	186	203	227	248	261	285	285	285	285

NOTE: Consult Regal Rexnord for applications at speeds not covered in the table. Longer spans may be supplied based on application requirements.

XTSRGA Spacer Type Coupling

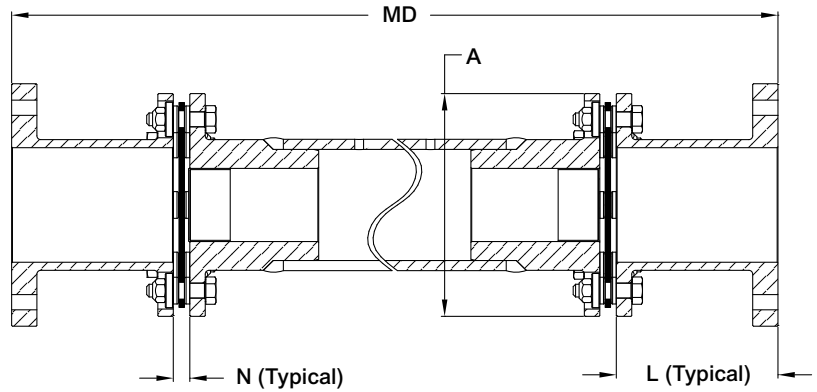
Full floating shaft coupling designed to directly replace lubricated gear couplings found in many pulp and paper applications with large distances between connected equipment. The included adapters bolt up to existing AGMA Standard rigid gear coupling hubs, replacing the complete floating shaft assembly. Axial shims are supplied to allow minor axial positioning adjustment.

General

Disc Pack Style: Unitized XTSTR
 Angular Misalignment: 1/2° per disc pack for size 996 and 1/3° per disc pack for sizes 1088-4178.

Standard Materials

Disc Pack: Stainless steel
 Major components: Carbon steel
 Bolts: Alloy steel



General Coupling Data

For maximum centermember lengths per application speeds and coupling size, consult Regal Rexnord.

Gear Coupling (Falk) Thomas® Coupling	#1½ (1015)	#2 (1020)	#2½ (1025)	#3 (1030)	#3½ (1035)	#4 (1040)	#4½ (1045)	#5 (1050)	#5½ (1055)	#6 (1060)	#7 (1070)
996											
1088											
1298											
1548											
1698											
1928											
2068											
2278											
2468											
2698											
2888											
3058											
3358											
3668											
3908											
4178											

Size	Max. Horsepower per 100 RPM	Max. Continuous Torque (lb-in)	Peak Overload Torque (lb-in) ②	A (in)	L (in)	Min. Mounting Dimension "MD" (in)	N (in)	Axial Capacity (in) ①
	Service Factor 1.0							
996	13.0	8,210	16,420	5.08	4.00	38.76	0.38	±0.07
1088	30.8	19,400	38,800	5.51	4.00	38.82	0.41	±0.05
1298	49.8	31,400	62,800	6.54	5.13	41.27	0.51	±0.06
1548	83.0	52,300	104,600	7.76	5.50	42.16	0.58	±0.07
1698	115	72,500	145,000	8.58	6.63	44.49	0.62	±0.08
1928	156	98,200	196,400	9.65	6.50	44.34	0.67	±0.09
2068	216	136,000	272,000	10.39	6.75	44.95	0.73	±0.10
2278	279	176,000	352,000	11.46	7.25	46.01	0.75	±0.11
2468	368	232,000	464,000	12.32	7.75	47.11	0.81	±0.12
2698	505	318,000	636,000	13.50	9.13	62.10	0.92	±0.13
2888	660	416,000	832,000	14.61	9.13	62.23	0.99	±0.14
3058	731	461,000	922,000	15.55	9.13	62.23	0.99	±0.15
3358	987	622,000	1,244,000	16.81	9.25	62.65	1.08	±0.16
3668	1,323	834,000	1,668,000	18.35	9.75	63.89	1.20	±0.17
3908	1,442	909,000	1,818,000	19.29	10.25	64.89	1.20	±0.19
4178	1,793	1,130,000	2,260,000	20.63	10.25	65.05	1.28	±0.20

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② The peak overload torque is not an alternating torque limit.

XTSRS Single Flex Type Coupling

Single flex style coupling used to accommodate angular misalignment only. Typically used in three-bearing applications where radial load is supported by the coupling, such as single bearing generators. Two XTSRS couplings may be combined with an intermediate shaft to create a full floating shaft coupling.

General

Disc Pack Style: Unitized XTZR

Angular Misalignment: 2/3° per disc pack for sizes 494 & 644, 1/2° per disc pack for sizes 726-996, and 1/3° per disc pack for sizes 1088-5258.

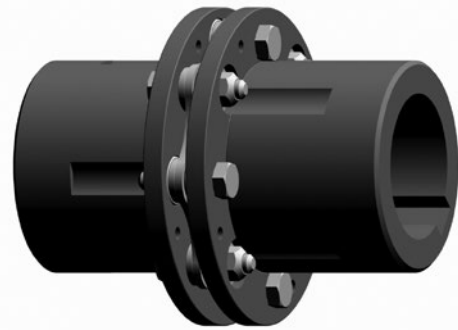
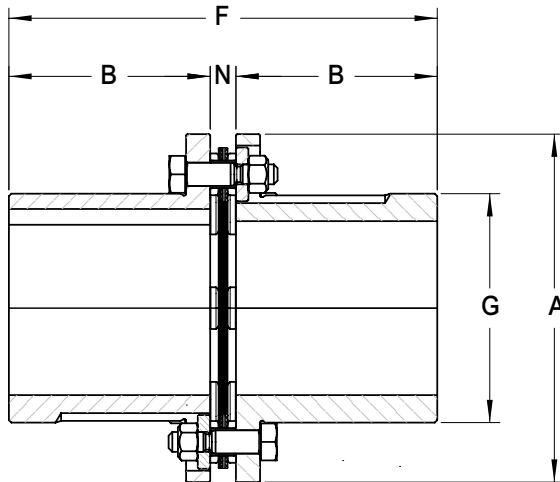
Standard Material

Disc Pack: Stainless steel

Hubs: Carbon steel

Bolts: Alloy steel

Coating: Manganese Phosphate



General Coupling Data

Size	④ Max. Cont. Torque (lb•in)	③ Std Hub Max. Bore	Max. Speed (rpm)	① Axial Capacity (in)	N (in)	BE (in)	Std F (in)	② Std Weight (lb)
494	750	1.00	13,800	±0.02	0.339	0.819	1.92	1.06
644	1,280	1.50	12,500	±0.03	0.339	0.863	2.30	1.74
726	2,630	1.75	12,000	±0.03	0.339	0.831	2.70	2.72
826	4,900	2.00	10,900	±0.03	0.368	0.962	4.30	5.26
996	8,210	2.25	9,800	±0.04	0.378	1.130	4.31	8.24
1088	19,400	2.50	9,000	±0.03	0.408	1.148	6.79	14.4
1298	31,400	3.00	8,000	±0.03	0.508	1.410	8.15	24.7
1548	52,300	3.50	7,100	±0.04	0.582	1.649	8.22	37.9
1698	72,500	4.00	6,600	±0.04	0.622	1.846	9.28	50.0
1928	98,200	4.50	6,100	±0.05	0.672	1.960	9.33	67.4
2068	136,000	4.75	5,800	±0.05	0.725	2.269	10.57	89.9
2278	176,000	5.38	5,500	±0.05	0.755	2.349	12.17	119
2468	232,000	5.75	5,200	±0.06	0.807	2.500	12.62	150
2698	318,000	6.00	4,800	±0.06	0.924	2.833	12.73	196
2888	416,000	6.75	4,600	±0.07	0.991	3.038	14.77	245
3058	461,000	7.13	4,400	±0.07	0.991	3.054	15.56	288
3358	622,000	8.00	4,200	±0.08	1.076	3.403	20.37	415
3668	834,000	8.88	3,900	±0.09	1.196	3.668	23.32	553
3908	909,000	9.50	3,800	±0.09	1.196	3.692	25.05	658
4178	1,130,000	10.13	3,600	±0.10	1.277	4.033	26.63	604
4588	1,670,000	11.00	3,400	±0.11	1.415	4.565	28.97	1,080
4918	2,080,000	11.75	3,200	±0.12	1.501	4.800	31.03	1,340
5258	2,510,000	12.63	3,100	±0.12	1.586	5.153	33.16	1,630

Size	Std A (in)	Std B (in)	Std G (in)	② WR ² (lb•in ²)
494	2.76	0.79	1.61	0.889
644	3.35	0.98	2.20	2.21
726	3.74	1.18	2.51	4.23
826	4.25	1.97	2.83	10.3
996	5.08	1.97	3.32	22.4
1088	5.51	3.19	3.63	45.5
1298	6.54	3.82	4.35	111
1548	7.76	3.82	5.21	244
1698	8.58	4.33	5.78	398
1928	9.65	4.33	6.60	694
2068	10.39	4.92	7.03	1,060
2278	11.46	5.71	7.74	1,720
2468	12.32	5.91	8.41	2,530
2698	13.50	5.91	9.14	3,930
2888	14.61	6.89	9.69	5,880
3058	15.55	7.28	10.35	7,670
3358	16.81	9.65	11.34	12,900
3668	18.35	11.06	12.41	20,800
3908	19.29	11.93	13.35	27,500
4178	20.63	12.68	14.22	38,400
4588	23.11	13.78	15.44	63,500
4918	24.80	14.76	16.55	90,600
5258	26.46	15.79	17.70	126,000

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Weight and WR² of couplings with standard adapters at maximum bore and minimum "C" dimension listed.

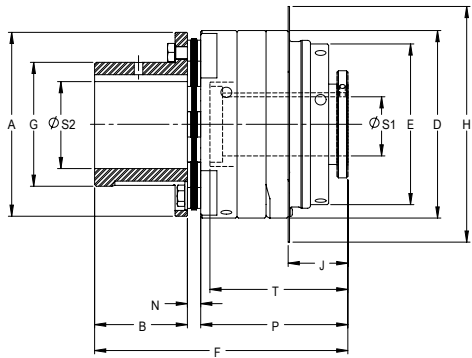
③ Consult x for minimum rough bore sizes.

④ Peak Overload Torque (lb•in) is twice the Maximum Continuous Torque.

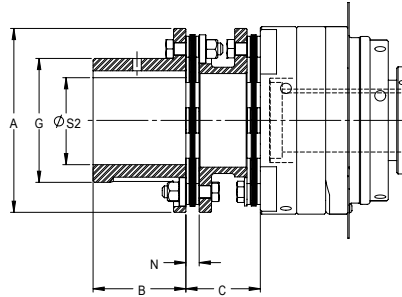
XTSR Torque Limiter Couplings (Autogard 405)

The Autogard® 400 Series can be integrated with Thomas® XTSR52 or XTSRS couplings to provide torque overload protection with misalignment capabilities of a flexible coupling.

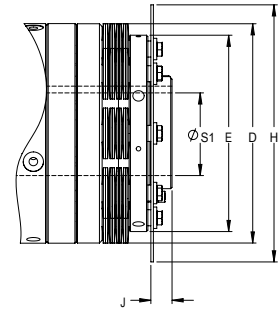
The 405.XTSR52 model accommodates variable spacer lengths (Dimension "C"), and both angular and parallel misalignment types. The 405.XTSRS model utilizes single flexing style coupling and accommodates angular misalignment only.



405 XTSRS



405 XTSR52



Sizes 6-8

General Coupling Data

405 Size	XTSR Size equivalent	Cont. Torque ⑥		Hub Max. Bore S1 (in)	Hub Max. Bore S2 (in)	Min. C ⑤ (in)	Max. Speed ⑦ (rpm)	Max Axial Misalignment Capacity Per Disc Pack (in)	Max Angular Misalignment Capacity ① ④ (degrees)	N (in)	XTSRS WR2 ②	
		Min (lb•in)	Max ④ (lb•in)								S1 side (lb•in²)	S2 side (lb•in²)
405-2	826	36	2000	1.13	2.00	1.84	3600	± 0.03	0.50	0.37	13.7	17.1
405-3	1088	240	6000	1.63	2.50	2.26	3600	± 0.03	0.33	0.41	44.4	64.9
405-4	1088	400	10000	2.00	2.50	2.26	2000	± 0.03	0.33	0.41	75.2	99.1
405-5	1698	885	22500	3.00	4.00	3.48	2000	± 0.04	0.33	0.62	372.5	498.9
405-6	2068	9750	50000	4.00	4.75	4.26	1800	± 0.05	0.33	0.73	902.1	1387.4
405-7	2468	13275	100000	5.00	5.75	4.82	1500	± 0.06	0.33	0.81	2371.5	3095.9
405-8	3058	31000	220000	6.00	7.13	5.96	1000	± 0.07	0.33	0.99	6673.7	8843.6

405 Size	Max Bore S1 ③ (in)	Max Bore S2 ③ (in)	Std A (in)	Std B (in)	Std G (in)	Std F (in)	Std D (in)	Std E (in)	Std H (in)	Std J ⑧ (in)	Std P (in)	Std T (in)	XTSRS Std Weight ② (lb)
405-2	1.13	2.00	4.25	1.97	2.83	6.61	4.36	3.42	5.50	1.77	4.27	4.25	13.4
405-3	1.63	2.50	5.51	3.19	3.63	8.37	5.74	4.72	7.25	1.80	4.77	4.51	27.8
405-4	2.00	2.50	5.51	3.19	3.63	8.62	6.55	5.37	8.00	1.85	5.02	4.77	34.6
405-5	3.00	4.00	8.58	4.33	5.78	11.82	8.75	7.50	11.00	2.79	6.87	6.44	91.5
405-6	4.00	4.75	10.39	4.92	7.03	14.61	10.35	9.17	12.00	0.99	8.97	8.56	160.5
405-7	5.00	5.75	12.32	5.91	8.41	16.36	12.48	11.13	15.25	1.12	9.65	9.65	264.6
405-8	6.00	7.13	15.55	7.28	10.35	20.64	15.14	14.25	19.00	1.42	12.37	11.81	504.6

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ② Weights and moments of inertia apply to max S1 and S2 bores with type XTSRS couplings only.
- ③ Consult Regal Rexnord for minimum rough bore sizes.
- ④ Peak Overload Torque (lb•in) is twice the Max. Continuous Torque.
- ⑤ For longer spacers, consult Regal Rexnord. Parallel offset is not permissible for type XTSRS couplings.
- ⑥ For higher torque applications, consult Regal Rexnord.
- ⑦ Higher speeds may be allowed under certain conditions. Please consult Regal Rexnord.
- ⑧ For size 6 and above, clearance is required for adjusting bolt, consult Regal Rexnord.

Miniature Couplings

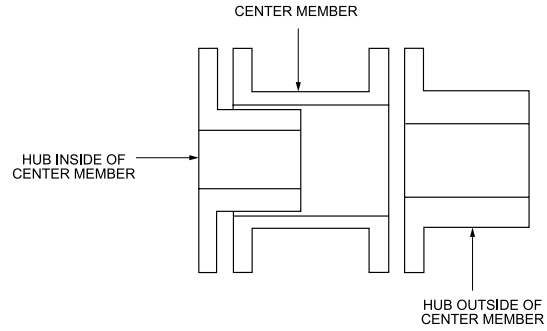
General

Maximum temperature: 250°F
 Available with electrically insulated phenolic material

Standard Materials

Hubs and Center Member: Aluminum alloy, anodized
 Rivets: Brass
 Washers: Brass
 Discs: Stainless steel
 Set screws: 18-8 Stainless steel, passivated

Guide to Proper Designation of Hubs



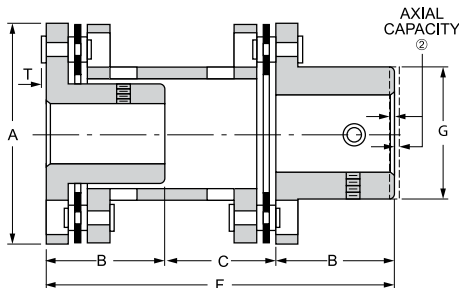
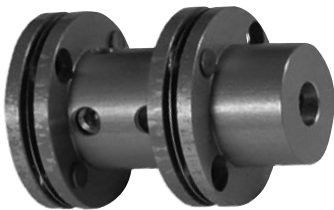
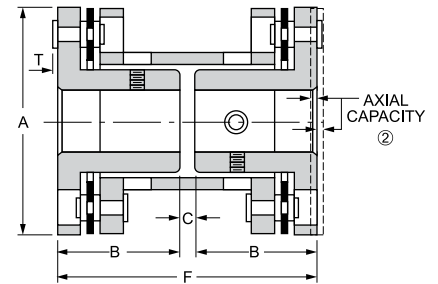
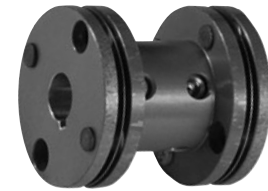
Style CC

This coupling has both hubs inverted and is designed to fit shafts normally encountered at a given torque range. Ideal for use where space limitations require close coupling of the shafts.

General Dimensions (in)

Coupling Size	A	B	C	F	T	① Torque Capacity (lb-in)
12	0.500	0.250	0.0313	0.531	0.018	1.1
18	0.750	0.375	0.0625	0.813	0.023	2.2
25	1.000	0.500	0.0625	1.063	0.025	4.7
37	1.437	0.688	0.125	1.500	0.035	19.0
50	1.750	0.938	0.125	2.000	0.045	75.0
62	2.250	1.063	0.125	2.250	0.060	300
75	2.500	1.188	0.125	2.500	0.060	440
100	3.000	1.375	0.250	3.00	0.060	700

- ① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown for severe applications such as indexing drives where torque reversals occur.
- ② All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.



Style CA

This design of our miniature coupling has one inverted hub to accept a normal shaft and one extended hub to accommodate oversize shafts. It also accommodates a larger shaft gap than the Style CC.

General Dimensions (in)

Coupling Size	A	B	C	F	G	T	① Torque Capacity (lb-in)
12	0.500	0.250	0.234	0.734	0.313	0.018	1.10
18	0.750	0.375	0.375	1.125	0.469	0.023	2.20
25	1.000	0.500	0.469	1.469	0.625	0.025	4.70
37	1.438	0.688	0.688	2.063	0.875	0.035	19.0
50	1.750	0.938	0.906	2.781	1.063	0.045	75.0
62	2.250	1.063	1.000	3.125	1.375	0.060	300
75	2.500	1.188	1.125	3.500	1.625	0.060	440
100	3.000	1.375	1.375	4.125	1.875	0.060	700

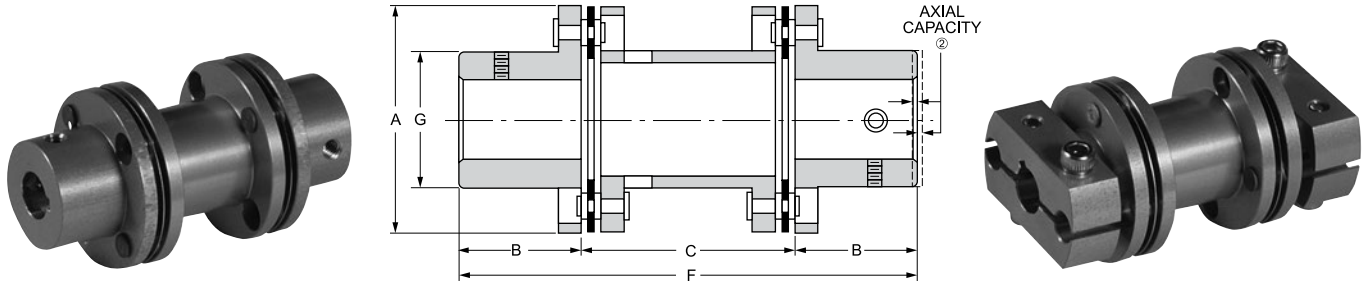
- ① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown for severe applications such as indexing drives where torque reversals occur.
- ② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

Miniature Couplings

Styles CB & CBC

This coupling design has both hubs extended to accept two oversized shafts. Shaft gap is larger than that of the Style CA or CC couplings.

Style CBC is the newest addition to our miniature coupling line. It offers clamping hubs that are an integral part of the coupling. The clamping hubs assure positive fit on the shafts. There are no loose parts to handle during installation. The Style CBC coupling has the same dimensions and torque capacities as the Style CB. Consult Regal Rexnord for additional design and engineering data.



General Dimensions (in)

Coupling Size	A	B	C	F	G	Torque Capacity (lb•in)
12	0.500	0.250	0.438	0.938	0.313	1.10
18	0.750	0.375	0.688	1.438	0.469	2.20
25	1.000	0.500	0.875	1.875	0.625	4.70
37	1.437	0.688	1.250	2.625	0.875	19.0
50	1.750	0.938	1.688	3.563	1.063	75.0
62	2.250	1.063	1.875	4.000	1.375	300
75	2.500	1.188	2.125	5.000	1.625	440
100	3.000	1.375	2.500	5.000	1.875	700

Styles CC, CA, CB & CBC Ratings and Mass Elastic Data

Coupling Size	Max. RPM	① Approx Weight (oz)	① Approx WR ² (oz•in ²)	Torsional Rigidity Kt (lb•in/radian)	Max. Angular Misalignment Continuous Per Flexing Element	Max. Parallel Misalignment Continuous (in)	Axial Capacity (lb•in)
12	150,000	0.09	0.00	422	2°	0.015	±0.016
18	100,000	0.29	0.02	688	2°	0.015	±0.016
25	80,000	0.74	0.08	1689	2°	0.028	±0.031
37	55,000	2.02	0.47	11,282	1.5°	0.028	±0.031
50	45,000	4.02	1.42	17,265	1°	0.028	±0.031
62	35,000	9.36	4.99	44,964	0.67°	0.028	±0.031
75	30,000	11.57	8.61	70,225	0.67°	0.028	±0.031
100	25,000	20.00	23.00	94,697	0.50°	0.020	±0.031

① Weight and WR² at maximum bore.

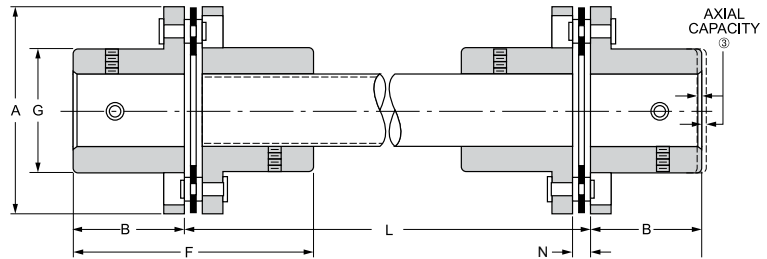
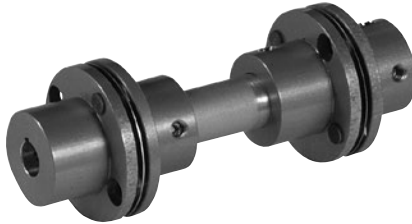
② All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

Miniature Couplings

Style CE

The Style CE coupling consists of two Style CS single flexing couplings that are connected by a tubular shaft. It is designed to span large distances between shafts and is ideal for those applications where a large amount of parallel misalignment is anticipated.

The Style CS is designed for applications where one shaft is fully supported in its own bearings and the other shaft is single-bearing supported. The single flexing design can only accept angular misalignment.



General Data ④

Coupling Size	A	B	N	F	G	L	Max. RPM		① Torque Capacity (lb•in)	Weight (oz)		Weight Change Per Inch of "L" (oz)
							Style CE	Style CS		② CE	CS	
12	0.500	0.250	0.031	0.531	0.313	Varies to suit as required	Consult Regal Rexnord	150,000	1.1	0.45	0.06	0.027
18	0.750	0.375	0.063	0.813	0.469			100,000	2.2	0.97	0.20	0.048
25	1.000	0.500	0.094	1.094	0.625			80,000	4.7	1.70	0.50	0.059
37	1.438	0.688	0.109	1.484	0.875			55,000	19	4.10	1.40	0.110
50	1.750	0.938	0.141	2.016	1.063			45,000	75	7.80	2.82	0.180
62	2.250	1.063	0.172	2.297	1.375			35,000	300	14.30	5.85	0.220
75	2.500	1.188	0.188	2.563	1.625			30,000	440	18.10	6.02	0.380
100	3.000	1.375	0.225	2.975	1.875			25,000	700	28.60	12.8	0.420

- ① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown for severe applications such as indexing drives where torque reversals occur.
- ② Weight calculated at maximum bore and "L" = 12".
- ③ All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
- ④ For WR², misalignment capacities and torsional rigidity consult Regal Rexnord.

Standard Bore Sizes for Style CC, CA, CB, CBC, CE & CS Miniature Couplings ①

Coupling Size	Bores ② ③ (in)		Coupling Size	Bores ② ③ (in)	
	Hub Inside Center Member	Hub Outside Center Member		Hub Inside Center Member	Hub Outside Center Member
12	0.0781, 0.0937 0.1200, 0.1250	0.1200, 0.1250 0.1562, 0.1875	50	0.2505, 0.3130 0.3755, 0.4380 0.5005	0.2505, 0.3130 0.3755, 0.4380 0.5005, 0.6255
18	0.0937, 0.1200 0.1250, 0.1562 0.1875	0.1250, 0.1562 0.1875, 0.2500	62	0.3755, 0.4380 0.5005, 0.6255	0.4380, 0.5005 0.6255, 0.7505
25	0.1255, 0.1880 0.2505	0.1255, 0.1880 0.2505, 0.3130 0.3755	75	0.4380, 0.5005 0.6255, 0.7505	0.5005, 0.6255 0.7505, 0.8755 1.0005
37	0.1255, 0.1880 0.2505, 0.3130 0.3755	0.1880, 0.2505 0.3130, 0.3755 0.4380, 0.5005	100	0.6255, 0.7505 0.8755, 1.0005	0.7505, 0.8755 1.0005, 1.1255 1.2505

- ① Couplings not available with rough bore. Keyway not included in standard bore. Keyways and nonstandard bores also available.
- ② Tolerances: Sizes 12 and 18, ±0.0003". Larger sizes, ±0.0005".
- ③ The largest bore shown for each hub is maximum allowable bore. Consult Regal Rexnord if a larger bore is required.

Rexnord[®] Thomas[®] Supported Products

DBZ, DBZ-A, DBZ-B Close-Coupled Couplings

DBZ disc couplings are used in general purpose applications where overall shaft-to-shaft spacing is minimal. One or both hubs can be flipped to accommodate variety of different shaft spacings.

DBZ: Both hubs with inverted orientation

DBZ-A: One hub extended to permit taper boring

DBZ-B: Both hubs extended to allow for greatest spacing where required

General

Disc Pack Style: Classic Round

Angular Misalignment: 1/3° per disc pack

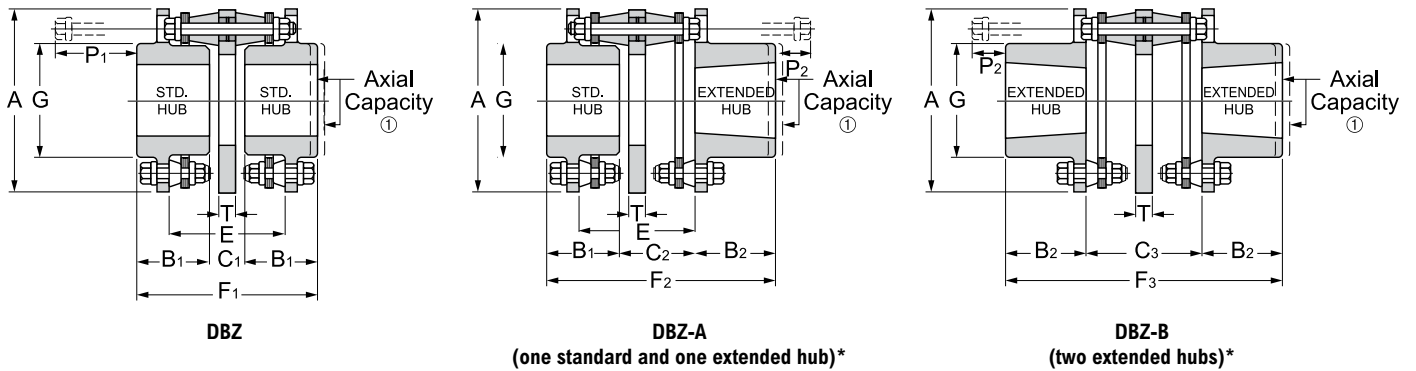
Standard Balance: AGMA Class 7

Standard Materials

Disc Pack: Stainless steel (Tomaloy, Monel and Inconel available as options)

Major Components: Carbon steel

Bolts: Alloy steel



General Dimensions (in)

Size	Standard Hub Max. Bore	Extended Hub Max. Bore	A	B ₁	B ₂	C ₁	C ₂	C ₃	E	F ₁	F ₂	F ₃	G	P ₁	P ₂	T
50	0.63	0.63	2.00	0.88	0.88	0.32	0.84	1.36	1.36	2.08	2.60	3.12	1.00	1.25	0.78	0.19
62	0.75	0.75	2.44	1.09	1.09	0.38	1.05	1.72	1.72	2.56	3.23	3.90	1.19	1.56	1.06	0.25
75	0.88	0.88	2.69	1.12	1.12	0.37	1.06	1.75	1.75	2.61	3.30	3.99	1.44	1.56	1.06	0.25
101	1.13	1.16	3.22	1.38	1.38	0.69	1.39	2.08	2.08	3.45	4.15	4.84	1.69	1.69	1.00	0.31
126	1.38	1.38	3.84	1.50	1.62	0.96	1.70	2.45	2.45	3.96	4.82	5.69	2.06	2.00	1.13	0.41
163	1.88	1.88	4.56	1.69	1.88	0.95	1.70	2.45	2.45	4.33	5.27	6.21	2.75	1.81	0.88	0.41
201	2.13	2.25	5.34	1.94	2.12	0.96	1.96	2.96	2.96	4.84	6.02	7.20	3.28	2.31	1.13	0.56
226	2.38	2.63	6.06	2.38	2.62	1.22	2.53	3.84	3.84	5.98	7.53	9.08	3.78	2.69	1.13	0.66
263	2.88	3.00	7.00	2.75	3.00	1.31	2.81	4.31	4.31	6.81	8.56	10.31	4.44	3.00	1.25	0.75
301	3.13	3.50	8.00	3.12	3.44	1.50	3.19	4.88	4.88	7.74	9.75	11.76	5.06	3.56	1.56	0.84
351	3.63	4.00	9.38	3.69	4.06	1.80	3.86	5.92	5.92	9.18	11.61	14.04	5.81	4.50	2.06	1.06
401	4.13	4.50	10.69	4.19	4.62	1.94	4.32	6.70	6.70	10.32	13.13	15.94	6.63	5.13	2.31	1.19
451	4.63	4.75	12.13	4.75	5.25	2.17	4.72	7.28	7.28	11.66	14.72	17.78	7.38	5.44	2.38	1.34

Size	Max. Horsepower Per 100 RPM	Max. Speed (rpm)		Max. Continuous Torque (lb·in)	Peak Overload Torque (lb·in)	② Weight (lb)			② WR ² (lb-in ²)			① Axial Capacity (in)
		Service Factor 1.0	As Manufactured			Balanced	DBZ	DBZ-A	DBZ-B	DBZ	DBZ-A	
50	0.23	6,000	9,000	145	220	0.7	0.7	0.7	0.3	0.3	0.3	±0.023
62	0.39	6,000	8,200	246	370	1.5	1.5	1.5	0.7	0.7	0.7	±0.028
75	0.56	6,000	7,800	353	530	1.9	1.9	1.9	1.5	1.5	1.5	±0.032
101	1.10	6,000	7,100	693	1,040	3.3	3.3	3.3	4.5	4.5	4.5	±0.038
126	2.00	5,500	6,500	1,260	1,900	5.5	5.6	5.7	9.9	10.1	10.1	±0.046
163	2.70	5,000	6,000	1,700	2,600	8.4	8.6	8.8	21	21	22	±0.057
201	4.79	4,600	5,500	3,020	4,500	14.4	14.4	15.4	53	53	54	±0.067
226	8.73	4,100	5,200	5,500	8,300	21	22	23	95	95	105	±0.076
263	13.60	3,700	4,800	8,600	12,900	33	34	35	199	209	209	±0.089
301	20.50	3,300	4,500	12,900	19,400	50	52	54	365	375	385	±0.102
351	35.90	2,900	4,100	22,600	33,900	83	87	90	916	936	965	±0.118
401	52.70	2,700	3,900	33,200	49,800	125	125	135	1,705	1,710	1,710	±0.136
451	68.90	2,600	3,600	43,400	65,100	170	180	180	3,168	3,170	3,270	±0.154

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.

② Weight and WR² at maximum bore.

* Extended hubs can be supplied with straight bores or taper bores.

Series 52 Spacer Type Couplings

SEE PAGES 11-13 FOR UPDATED VERSION WITH ENHANCED FEATURES

Series 52 couplings are all-purpose high-speed, high-torque spacer couplings used where minimum coupling weight is desirable. They are commonly used on motor and turbine driven pumps, compressors and fans.

When specified, Series 52 couplings meet requirements of API 610 and ISO 14691.

General

Disc Pack Style: Classic Round (Tpack available as option)
 Angular Misalignment 1/3° per disc pack
 Standard Balance: AGMA Class 9

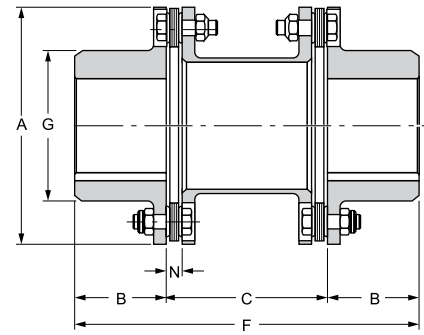
Standard Materials

Disc Pack: Tomaloy (Stainless steel, Monel and Inconel available as options)
 Major Components: Carbon steel
 Bolts: Alloy steel
 Coating Options: Black Oxide, Zinc, Cadmium



General Dimensions (in)

Coupling Size	④ Max. Bore	A	B	② Std. C	Min. C	F	G	N
125	1.38	3.69	1.31	4.00	—	6.63	2.06	0.27
162	1.88	4.34	1.75	5.00	2.03	8.50	2.75	0.29
200	2.25	5.44	2.06	5.00	2.63	9.13	3.28	0.36
225	2.63	5.69	2.63	5.00	2.75	10.25	3.78	0.36
262	3.13	6.62	2.88	5.00	3.22	10.75	4.50	0.47
312	3.63	7.81	3.38	5.50	3.75	12.25	5.25	0.50
350	4.00	8.69	3.75	6.00	4.16	13.50	5.88	0.54
375	4.50	9.69	4.00	7.00	4.59	15.00	6.50	0.59
425	4.75	10.50	4.25	7.00	4.94	15.50	7.00	0.62
450	5.13	11.31	4.50	8.00	5.34	17.00	7.44	0.71
500	5.38	12.88	5.00	9.00	6.03	19.00	8.38	0.78
550	6.00	14.44	5.50	10.00	6.88	21.00	9.44	0.91
600	6.50	16.00	6.00	10.00	7.50	22.00	10.25	0.98
700	7.50	18.25	7.00	11.00	8.56	25.00	11.75	1.20
750	8.00	19.81	7.50	11.00	9.25	26.00	12.63	1.27
800	8.75	21.50	8.25	12.00	10.02	28.50	13.62	1.34
850	9.25	23.00	8.75	13.00	10.75	30.50	14.50	1.40
925	10.12	25.00	9.50	14.00	11.50	33.00	15.75	1.50
1000	11.00	27.50	10.50	14.50	—	35.50	17.25	1.69
1100	12.00	29.19	11.25	16.00	—	38.50	18.50	1.75
1200	13.00	32.12	12.25	17.00	—	41.50	20.25	1.97
1300	14.00	34.50	13.25	18.00	—	44.50	21.88	2.03



Taper Bores Also Available

Coupling Size	Max. Horsepower Per 100 RPM	④ Max. Speed (rpm)		Max. Continuous Torque (lb•in)	Peak Overload Torque (lb•in)	③ Weight (lb)	Weight Change Per Inch of "C" (lb)	③ WR ² (lb•in ²)	WR ² Change Per Inch of "C" (lb•in ²)	① Axial Capacity (in)
	Service Factor 1.0	④ As Manufactured	Balanced							
125	4.28	5,000	15,000	2,700	5,400	4.6	0.16	7.4	0.15	±0.036
162	8.49	4,600	15,000	5,350	10,700	7.2	0.21	15.8	0.27	±0.036
200	16.7	4,250	15,000	10,500	21,000	12.4	0.25	43.7	0.58	±0.036
225	27.8	4,100	14,000	17,500	35,000	16.0	0.35	61	0.85	±0.036
262	52.1	3,900	13,000	32,830	65,660	26.0	0.50	137	1.6	±0.043
312	81.6	3,450	11,700	51,400	102,800	41.4	0.66	300	3.1	±0.051
350	106	3,200	10,500	66,900	133,800	58.6	0.83	528	4.8	±0.056
375	159	3,000	9,400	100,300	200,600	80.0	1.03	909	7.2	±0.062
425	213	2,800	8,700	134,300	268,600	104.0	1.43	1,380	11.7	±0.067
450	239	2,700	8,100	150,400	300,800	127	1.44	1,970	13.5	±0.072
500	391	2,500	7,100	246,400	492,800	196	2.30	3,800	27.2	±0.082
550	524	2,300	6,300	330,400	660,800	281	2.90	6,900	43.0	±0.092
600	688	2,150	5,700	433,800	867,600	370	3.30	11,200	61.2	±0.102
700	1,071	1,950	5,000	674,800	1,349,600	567	4.60	22,300	103.0	±0.115
750	1,331	1,850	4,600	838,800	1,677,600	712	5.20	33,100	143.0	±0.125
800	1,712	1,750	4,300	1,078,700	2,157,400	911	6.00	51,450	200.0	±0.136
850	2,020	1,600	3,900	1,273,000	2,546,000	1,109	6.00	71,700	200.0	±0.144
925	2,735	1,500	3,600	1,724,000	3,448,000	1,459	8.00	111,400	400.0	±0.156
1000	3,094	—	3,250	1,950,000	3,900,000	1,880	9.00	171,900	506.0	±0.172
1100	3,689	—	3,100	2,325,000	4,650,000	2,250	11.00	235,500	794.0	±0.183
1200	4,498	—	2,800	2,835,000	5,670,000	3,010	15.00	376,500	1,196.0	±0.203
1300	5,379	—	2,600	3,390,000	6,780,000	3,660	15.00	523,700	1,350.0	±0.218

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Additional "C" dimensions available. Consult Regal Rexnord.

③ Weight and WR² at maximum bore and standard "C" dimension listed.

④ Balance recommendations based on AGMA Specification 9000-C90 Average Sensitivity.

⑤ Consult Regal Rexnord for minimum rough bore sizes.

Series 71 Spacer Type Couplings

SEE PAGES 21-23 FOR UPDATED VERSION WITH ENHANCED FEATURES

Series 71 couplings are adapter-style spacer disc couplings commonly used on motor, turbine, and gear driven pumps, compressors, and blowers. The simple three-piece design features unitized center member assembly and two pilot-fitted hubs. The piloting provides repeatable assembly of components for better dynamic balance characteristics. The center assembly simply "drops out" for fast installation or removal without special tools.

When specified, Series 71 couplings meet all requirements of API 610 or API 671.

General

Disc Pack Style: Slabbed (4- & 6-bolt designs) or Tpack (8-bolt design)

Angular Misalignment $1/3^\circ$ per disc pack

Standard Balance: AGMA Class 9

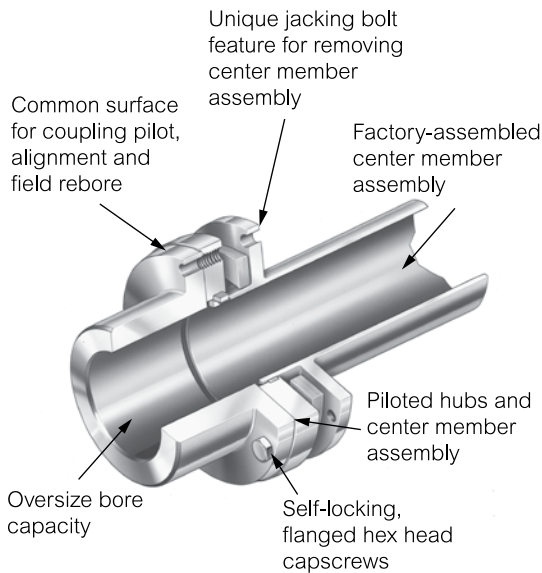
Standard Materials

Disc Pack: Stainless steel (Monel and Inconel available as options)

Major Components: Carbon steel

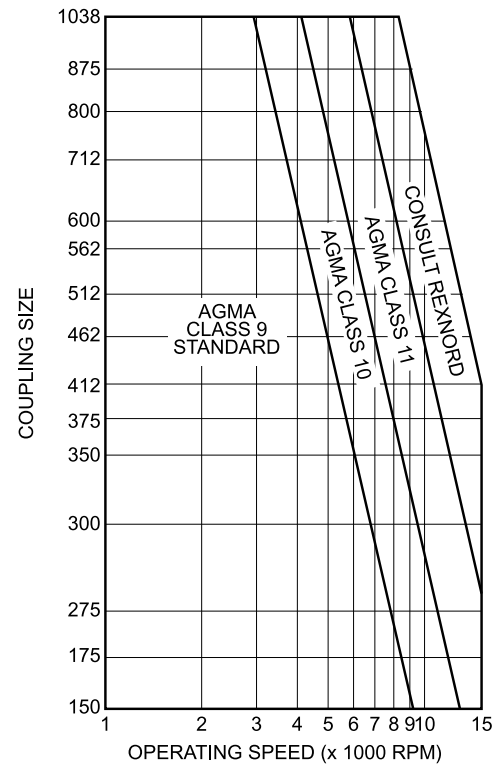
Bolts: Alloy steel

Coating Options: Black Oxide, Zinc, Cadmium

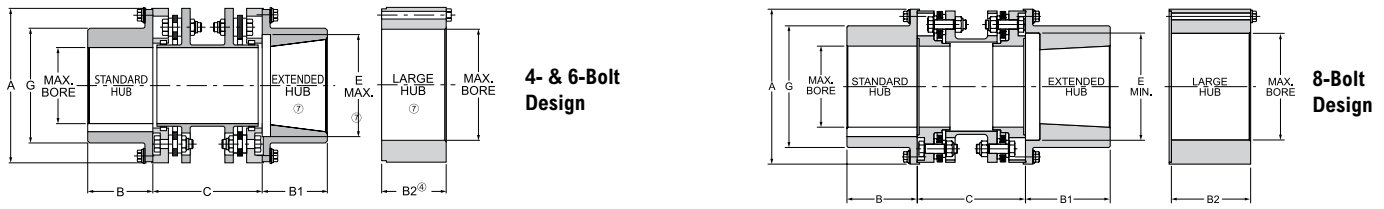


NOTE: These recommendations and balance classes are based on AGMA Specifications 9000-C90, high sensitivity. If conditions exist other than as defined in 9000-C90, for sensitivity, consult Regal Rexnord. The above information should be used as a guide only. AGMA Class 9 balance is furnished as standard when Series 71 couplings are finished bored with interference fits.

Series 71 Balance Recommendations



Series 71 Spacer Type Couplings



General Dimensions (in)

Coupling Size	⑤ B&B' Hub Max. Bore	⑤ B² Hub Max. Bore	A	③ B	B1	Std. B2	Std. C	Min. C	Max. C	E	G
4-Bolt Design											
150	1.500	2.375	3.59	1.31	1.69	1.62	3.50	3.44	15.82	2.06	2.31
175	1.875	2.750	4.16	1.56	2.06	1.81	3.50	3.44	15.86	2.56	2.81
6-Bolt Design											
225	2.250	3.250	4.94	2.00	2.50	2.06	5.00	3.44	31.82	3.09	3.34
300	3.000	4.000	5.97	2.62	3.25	2.75	5.00	4.00	32.24	4.13	4.44
350	3.500	4.500	6.75	3.12	3.75	3.00	5.00	4.88	32.72	5.00	5.25
375	3.750	5.000	7.62	3.25	4.00	3.25	5.50	5.00	32.92	5.31	5.66
412	4.125	5.310	8.00	3.62	4.38	3.62	7.00	6.12	33.36	5.75	6.09
462	4.625	6.000	9.00	4.12	5.00	4.12	7.00	7.00	33.70	6.31	6.84
512	5.125	6.690	10.03	4.50	5.38	4.50	7.00	7.00	45.80	7.06	7.62
562	5.625	7.310	10.97	5.00	6.00	5.00	8.00	8.00	46.34	7.69	8.38
600	6.000	7.810	11.72	5.25	6.38	5.25	9.00	9.00	46.80	8.31	8.94
8-Bolt Design											
225-8	3.000	3.750	5.97	2.50	3.12	3.06	5.00	4.75	32.42	4.19	4.56
262-8	3.438	4.188	6.88	3.06	3.69	3.56	7.00	5.50	32.82	4.69	5.19
312-8	4.188	5.125	8.00	3.56	4.31	4.12	7.50	6.00	33.01	5.75	6.31
350-8	4.688	5.562	8.94	3.88	4.75	4.50	7.50	6.75	33.49	6.50	7.06
375-8	5.250	6.500	9.94	4.44	5.31	5.16	7.50	7.25	33.75	7.13	7.94
425-8	5.625	6.750	10.75	4.88	5.88	5.50	8.00	7.50	45.93	7.44	8.44
450-8	6.188	7.500	11.56	5.06	6.19	6.00	9.00	8.75	46.49	8.38	9.28
500-8	7.000	8.750	13.12	5.94	7.06	6.75	11.00	10.25	47.56	9.13	10.50
550-8	7.625	—	14.69	6.56	7.81	—	11.50	11.50	48.20	10.00	11.50
600-8	8.812	—	16.38	7.19	8.44	—	12.50	12.50	48.68	11.75	13.22
700-8	9.750	—	18.56	8.31	9.69	—	14.50	14.50	49.52	12.78	14.69
750-8	10.812	—	20.12	8.94	10.31	—	15.75	15.75	46.18	14.31	16.25

Coupling Size	Max. Horsepower Per 100 RPM Service Factor 1.0	④ Max. Speed (rpm)		Max. Continuous Torque (lb·in)	Peak Overload Torque (lb·in)	② Weight (lb)	Weight Change Per Inch of "C" (lb)	② WR² (lb·in²)	WR² Change Per Inch of "C" (lb·in²)	① Axial Capacity (in)
		As Manufactured	④ Balanced							
4-Bolt Design										
150	1.48	9,000	20,800	930	1,860	6.7	0.10	10.6	0.03	±0.050
175	2.59	8,300	17,000	1,630	3,260	9.4	0.14	20.6	0.09	±0.070
6-Bolt Design										
225	4.86	7,700	16,000	3,060	6,120	14.0	0.19	42.0	0.25	±0.075
300	11.5	6,800	14,000	7,260	14,520	26.0	0.26	121.0	0.66	±0.085
350	21.3	6,200	13,500	13,400	26,800	43.0	0.42	259.0	1.18	±0.090
375	30.6	5,650	12,000	19,300	38,600	55.0	0.43	423.0	1.62	±0.095
412	35.7	5,350	11,000	22,500	45,000	71.0	0.60	615.0	2.90	±0.110
462	64.1	5,000	10,000	40,400	80,800	101.0	0.80	1,110.0	4.65	±0.120
512	87.3	4,700	9,200	55,000	110,000	135.0	1.04	1,830.0	7.43	±0.130
562	133.00	4,350	8,300	84,100	168,200	186.0	1.28	3,020.0	10.38	±0.145
600	145.00	4,150	7,800	91,700	183,400	228.0	1.75	4,250.0	17.51	±0.160
8-Bolt Design										
225-8	27.77	7,500	14,000	17,500	35,000	27.8	0.38	128.0	1.07	±0.036
262-8	52.09	6,800	12,500	32,830	65,660	43.0	0.46	265.0	1.95	±0.043
312-8	81.55	6,200	11,500	51,400	102,800	67.0	0.55	580.0	3.34	±0.051
350-8	106.00	5,700	10,500	66,900	133,800	95.0	0.75	1,031.0	5.63	±0.056
375-8	159.00	5,200	9,800	100,300	200,600	134.0	1.05	1,784.0	9.23	±0.062
425-8	213.00	5,000	9,300	134,300	268,600	169.0	1.22	2,616.0	12.60	±0.067
450-8	239.00	4,700	8,700	150,400	300,800	220.0	1.59	4,020.0	18.00	±0.072
500-8	391.00	4,200	7,900	246,400	492,800	341.0	2.12	8,040.0	31.40	±0.082
550-8	524.00	3,900	7,300	330,400	660,800	475.0	2.65	13,930.0	49.80	±0.092
600-8	688.00	3,600	6,800	433,800	867,600	653.0	3.05	24,130.0	69.10	±0.102
700-8	1,071.00	3,300	6,200	674,800	1,349,600	961.0	4.13	44,900.0	118.00	±0.115
750-8	1,331.00	3,100	5,800	838,800	1,677,600	1,242.0	5.17	69,220.0	175.00	±0.125

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.

② Weight and WR² with standard length hubs, maximum bore and standard "C".

③ Extended hub length is designed longer in order to include a counter-bore for the threaded extension on a tapered shaft.

④ See page 4 for explanation of RPM limits and balancing recommendations.

⑤ Consult Regal Rexnord for minimum rough bore sizes.

⑥ If a block hub is supplied, extra capscrews will be provided for center member jacking feature.

SN-GA Floating Shaft Coupling

Full floating shaft coupling designed to directly replace lubricated gear couplings found in many pulp and paper applications with large distances between connected equipment. The included adapters bolt up to existing AGMA Standard rigid gear coupling hubs, replacing the complete floating shaft assembly. Axial shims are supplied to allow minor axial positioning adjustment.

General

Disc Pack Style: Classic Round (Tpack available as option)
 Angular Misalignment 1/3° per disc pack

Standard Materials

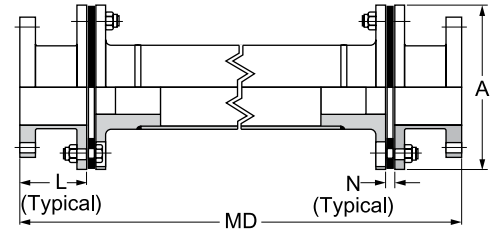
Disc Pack: Stainless steel (Monel and Inconel available as options)
 Major Components: Carbon steel
 Bolts: Alloy steel



Available Adapters

Gear Coupling Thomas® Coupling (Falk)	#1½ (1015)	#2 (1020)	#2½ (1025)	#3 (1030)	#3½ (1035)	#4 (1040)	#4½ (1045)	#5 (1050)	#5½ (1055)	#6 (1060)	#7 (1070)
226											
262											
312											
350											
375											
425											
450											
500T											
550T											
600T											
700T											
750T											
800T											
850T											

Available In These Sizes



For other sizes, please consult Regal Rexnord.

Coupling Size	Max. Horsepower per 100 RPM	Max. Continuous Torque (lb-in)	Peak Overload Torque (lb-in) ^②	A	L	Min. MD	N	Axial Capacity (in) ^①
	Service Factor 1.0							
226	22.6	14,260	28,520	5.81	4	16.25	0.58	0.036
262	34.9	22,000	44,000	6.69	4.5	17.25	0.47	0.043
312	44.7	28,200	56,400	7.81	5.12	20	0.5	0.051
350	55.7	35,100	70,200	8.75	5.31	22.12	0.54	0.056
375	123	77,300	154,600	9.69	6.62	26	0.59	0.062
425	187	117,850	235,700	10.5	6.5	26.25	0.62	0.067
450 ^③	216	136,000	272,000	11.31	6.75	28.5	0.78	0.072
500T	369	232,400	464,800	12.88	7.25	30	0.78	0.082
550T	427	269,200	538,400	14.44	7.75	33.5	0.91	0.092
600T	652	411,000	822,000	16	9.12	36.74	0.98	0.102
700T	871	549,000	1,098,000	18.25	9.25	40.5	1.2	0.115
750T	1,001	631,000	1,262,000	19.81	9.75	43	1.27	0.125
800T	1,441	908,000	1,816,000	21.5	10.25	—	1.34	0.136
850T	1,756	1,107,000	2,214,000	23	10.25	—	1.4	0.144

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② The peak overload torque is not an alternating torque limit.

③ Available with Tpack for new couplings, not retrofittable in size 450.

SN, SF, SV Floating Shaft Couplings

Floating shaft couplings are used to connect units which are relatively far apart. Such arrangements are particularly suited to transmit power into areas where moisture, dust or corrosive conditions would adversely affect the driving machinery. Floating shaft couplings' operating speeds are dependent upon the length of span required. Refer to the speed/span table for speed recommendations. In addition, special balancing may be required for high-speed service or for extended shaft lengths. Consult Regal Rexnord for intended applications at speeds not covered in the table. The SN, SF and SV type couplings are furnished with stainless steel disc packs unless otherwise specified.

Type SN Full-Floating Shaft Coupling

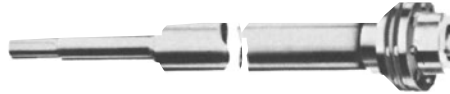
Type SN couplings use a tubular center shaft, fabricated complete by Regal Rexnord. Typical applications include cooling tower fan drives, paper machinery, printing presses, pumps and compressors.

Connected shafts should be rigidly supported and long shaft overhang should be avoided. The tubular coupling shaft **MUST NOT** be supported with a bearing. They may be operated vertically if length does not exceed 36 in.



Type SF Semi-Floating Shaft Coupling

Type SF couplings are a tubular shaft design with a stub shaft and bearing journal replacing the half-coupling on one end. They are typically used in tandem with the Type SN or Type SV where spans are too long for a single section of shafting.



Type SV Vertical Floating Shaft Couplings

Type SV couplings are similar to the Type SN except that the lower half-coupling is modified to support the weight of the floating shaft. Typical applications include fresh-water pumps, sewage pumps, and marine cargo pumps. They may be used in tandem with the Type SF where spans are too long for a single shaft.



Corrosion Resistant Materials

Types SN, SV and SF couplings are particularly suited to applications involving wet or corrosive conditions, for this reason they are all furnished with 300 series stainless steel disc packs. For extremely corrosive environments, 316 stainless steel, Inconel 625 or Monel disc pack materials are available on request. As standard, these couplings are available in the following material classes.

NOTE: The stub shaft on the SF coupling is always furnished as unplated carbon steel in classes A, B, C and D. Couplings may be painted with acid and alkali resistant paints or coating besides the corrosion resistant classes listed.

CLASS

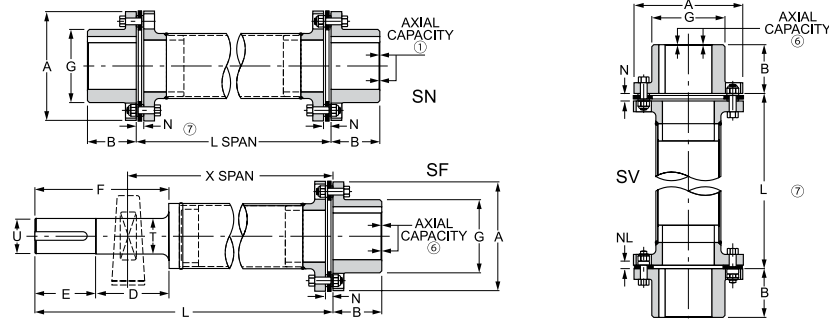
- A** – All steel
- B** – All steel – zinc plated
- C** – All steel – zinc plated w/stainless steel hardware
- D** – Stainless steel except for zinc plated hubs
- E** – All 300 series stainless steel

Floating Shaft Couplings

Types SN, SV and SF center members are of tubular construction, requiring special considerations for the operating speed and span length. The graph to the right may be used as a guide when determining whether it is desirable to balance the center member.

The standard procedure for balancing of SN, SV and SF couplings includes straightening of the tubular shaft prior to balancing. Many couplings of this type operate relatively near to the lateral resonant frequency of the coupling center member, and special balancing techniques are often required. For speeds 1800 RPM and under see page 4 for balancing recommendations. Consult Regal Rexnord for any application with speed in excess of 1800 RPM.

SN, SF, SV Floating Shaft Couplings



General Dimensions

Coupling Size	Coupling Type			Max. Bore	A	B	D	E	T	U	F	G	N	NL	Min. L	
	SN	SV	SF												SN	SF
50	•			0.63	2.00	0.88	—	—	—	—	—	1.00	0.24	—	4.00	—
62	•			0.75	2.44	1.09	—	—	—	—	—	1.19	0.32	—	4.50	—
75	•			0.88	2.69	1.13	—	—	—	—	—	1.44	0.33	—	4.75	—
100	•	•	•	1.16	3.22	1.38	3.75	1.75	0.94	0.88	5.50	1.69	0.45	0.13	5.75	12.00
125	•	•	•	1.38	3.84	1.63	4.25	2.13	1.19	1.13	6.38	2.06	0.52	0.15	6.25	12.20
162	•	•	•	1.88	4.47	1.88	4.50	2.63	1.44	1.38	7.13	2.75	0.54	0.16	6.75	13.20
200	•	•	•	2.25	5.44	2.13	5.50	2.88	1.69	1.63	8.38	3.28	0.57	0.16	7.50	15.50
226*	•	•	•	2.63	5.81	2.63	5.63	3.38	1.94	1.88	9.00	3.78	0.58	0.18	8.25	16.50
262	•	•	•	3.13	6.69	3.00	6.13	3.75	2.19	2.13	9.88	4.50	0.47	0.22	8.25	18.00
312	•	•	•	3.63	7.81	3.38	6.38	4.00	2.44	2.38	10.38	5.25	0.50	0.25	9.75	19.50
350	•	•	•	4.00	8.75	3.75	7.50	4.50	2.94	2.88	12.00	5.88	0.54	0.29	11.50	20.50
375	•	•	•	4.50	9.69	4.00	8.00	4.75	3.44	3.38	12.75	6.50	0.59	0.33	12.75	23.20
425	•	•	•	4.75	10.50	4.25	9.00	5.00	3.69	3.63	14.00	7.00	0.62	0.37	13.25	25.20
450*	•	•		5.13	11.31	4.50	—	—	—	—	—	7.44	0.78	0.40	15.00	—
500T	•	•		5.38	12.88	5.00	—	—	—	—	—	8.38	0.78	0.47	15.50	—
550T	•	•		6.00	14.44	5.50	—	—	—	—	—	9.44	0.91	0.53	18.00	—
600T	•	•		6.50	16.00	6.00	—	—	—	—	—	10.25	0.98	0.60	18.50	—
700T	•	•		7.50	18.25	7.00	—	—	—	—	—	11.75	1.20	0.70	22.00	—
750T	•	•		8.00	19.81	7.50	—	—	—	—	—	12.63	1.27	0.77	23.50	—
800T	•	•		8.75	21.50	8.25	—	—	—	—	—	13.62	1.34	0.84	26.00	—
850T	•	•		9.25	23.00	8.75	—	—	—	—	—	14.50	1.40	0.90	36.00	—
925T	•	•		10.12	25.00	9.50	—	—	—	—	—	15.75	1.50	1.00	36.00	—

Coupling Size	Max. Continuous Torque	Peak Overload Torque (lb•in)	Weight (lb)		Weight Change Per inch of "L" (lb•in)	WR ² (lb•in ²)		WR ² Change Per inch of "L" (lb•in ²)	Type SN Axial Capacity (in)
			SN, SV	SF		SN, SV	SF		
50	170	340	1.1	—	0.022	0.5	—	0.0026	±0.023
62	290	580	1.6	—	0.03	1.2	—	0.0063	±0.028
75	410	820	2.4	—	0.052	1.9	—	0.018	±0.032
100	820	1,640	4.9	3.6	0.076	5.3	3.1	0.033	±0.038
125	2,230	4,460	7.5	6.5	0.095	12.2	7.1	0.068	±0.046
162	4,250	8,500	11	10.5	0.13	27	15	0.22	±0.036
200	8,600	17,200	21	11	0.29	32	17	0.56	±0.036
226*	14,260	28,520	26.6	25	0.33	105	61	0.82	±0.036
262	22,000	44,000	38.6	36	0.41	218	133	1.6	±0.043
312	28,200	56,400	60.7	54	0.47	456	291	2.2	±0.051
350	35,100	70,200	85.5	78	0.52	807	478	3.1	±0.056
375	77,300	154,600	127	110	0.97	1,421	844	7.3	±0.062
425	117,850	235,700	173	—	1.58	2,448	—	15.9	±0.067
450*	136,000	272,000	206	—	1.58	3,350	—	15.9	±0.072
500T	232,400	464,800	239	—	2.38	4,955	—	41.1	±0.082
550T	269,200	538,400	337	—	2.38	8,400	—	41.1	±0.092
600T	411,000	822,000	442	—	3.37	14,510	—	91	±0.102
700T	549,000	1,098,000	717	—	4.56	27,970	—	120	±0.115
750T	631,000	1,262,000	882	—	4.56	40,270	—	120	±0.125
800T	908,000	1,816,000	1,140	—	5.45	64,170	—	205	±0.136
850T	1,107,000	2,214,000	1,420	—	6.00	91,730	—	274	±0.144
925T	1,466,000	2,932,000	1,820	—	6.89	143,500	—	414	±0.156

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Shorter "L" requires special construction. Consult Regal Rexnord.

③ Shaft tolerances: 5/16 to 1 1/2 + .000 - .0005. 1 5/8 to 3 1/16 .000 - .001. Key furnished with standard keyway in SF stub shaft.

④ Weight and WR² at max. bore and min. "L" dimension.

⑤ T suffix to coupling size indicates thin flange design. Consult Regal Rexnord for larger sizes.

⑥ Types SF and SV end-float is one half ± value shown for type SN.

⑦ Maximum span (L) in inches for various speeds - For SN & SV

⑧ Consult Regal Rexnord for larger sizes.

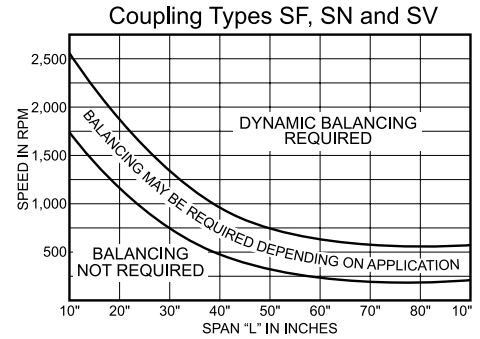
*Not available with Tpack.

SN, SF, SV Floating Shaft Couplings

Maximum Span at Given RPM

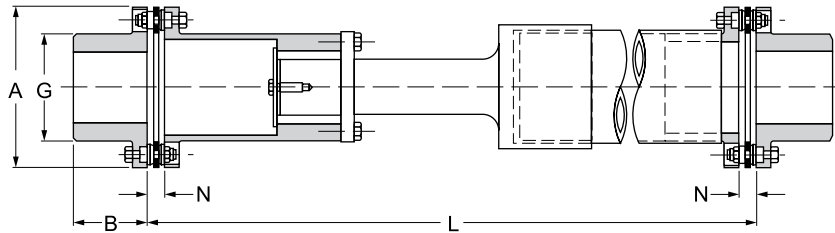
Coupling Size	3600 RPM	3000 RPM	1800 RPM	1500 RPM	1200 RPM	1000 RPM	900 RPM	750 RPM	720 RPM	600 RPM	500 RPM
50	Consult Regal Rexnord		43	47	52	56	56	56	56	56	56
62	Consult Regal Rexnord		50	54	61	67	70	75	75	75	75
75	Consult Regal Rexnord		56	61	68	75	79	86	88	94	94
100	41	45	57	64	71	78	82	91	93	102	102
125	47	51	64	72	81	88	93	103	105	114	114
162	54	59	75	84	94	103	109	119	122	133	133
200	60	66	85	93	104	114	120	132	135	147	161
226	64	70	90	99	112	122	128	141	144	157	172
262	71	77	100	110	123	135	142	156	160	173	191
312	75	82	107	117	130	143	151	165	173	185	203
350	79	87	113	123	138	151	159	174	178	195	213
375	87	95	123	135	151	165	174	191	195	213	234
425	90	99	128	141	157	172	182	199	203	222	244
450*	90	99	128	141	157	172	182	199	203	222	244
500T	104	113	147	161	180	197	207	227	232	254	279
550T	Consult Regal Rexnord		147	161	180	197	207	227	232	254	279
600T	Consult Regal Rexnord		165	180	202	221	233	255	260	285	312
700T	Consult Regal Rexnord		164	179	200	219	231	253	258	283	310
750T	Consult Regal Rexnord		164	179	200	219	231	253	258	283	309
800T	Consult Regal Rexnord		179	196	219	240	252	276	282	Consult Regal Rexnord	
850T	Consult Regal Rexnord		187	205	229	251	265	290	296	Consult Regal Rexnord	
925T	Consult Regal Rexnord		200	220	245	269	284	311	317	Consult Regal Rexnord	

* Not available with Tpack



Type SN Adjustable

Type SN adjustable couplings were developed as emergency replacements for standard Type SN couplings and are available from stock in most sizes required for cooling tower applications. Each shaft may be adjusted through a four-inch length range, using a special compression bushing to lock the shaft in place once the length is set.



General Dimensions (in)

Coupling Size	Max. Bore	A	B	G	H	Min. "L"	Adjustment Range	② Weight (lb)	Weight Change Per inch of "L" (lb)	② WR ² (lb•in ²)	WR ² Change per inch of "L" (lb•in ²)	① Axial Capacity (in)
162	1.88	4.47	1.88	2.75	0.54	14.25	4.00	19	0.13	37	0.22	± 0.036
200	2.25	5.44	2.12	3.28	0.57	15.12	4.00	30	0.29	80	0.56	± 0.036
226	2.62	5.81	2.62	3.78	0.58	17.28	4.00	43	0.33	151	0.82	± 0.036
262	3.12	6.69	3.00	4.50	0.47	18.88	4.00	61	0.41	253	1.60	± 0.043

① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

② Weight and WR² at maximum bore.

SN Single Flexing Disc Coupling

Type SN couplings are used for single-flexing applications where light-to-moderate radial loads occur, or may be combined with intermediate solid shaft for floating shaft applications. They do not accommodate parallel misalignment and are not suitable for connecting equipment where both shafts are held rigidly in their bearings.

General

Disc Pack Style: Classic Round (Tpack available as option)
Angular Misalignment 1/3° per disc pack

Standard Materials

Disc Pack: Tomaloy (Stainless steel, Monel and Inconel available as options)
Major Components: Carbon steel
Bolts: Alloy steel

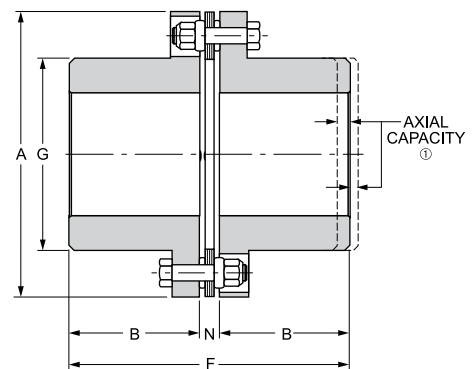
NOTE:

Single-flexing couplings cannot accommodate parallel misalignment. They are not suitable for connecting equipment where both shafts are held rigidly in their own bearings.



General Dimensions (in)

Coupling Size	② Max. Bore	A	B	F	G	N
100	1.16	3.22	1.38	3.21	1.69	0.45
125	1.38	3.84	1.63	3.78	2.06	0.52
162	1.88	4.47	1.88	4.30	2.75	0.54
200	2.25	5.44	2.13	4.83	3.28	0.57
226	2.63	5.81	2.63	5.84	3.78	0.58
262	3.13	6.69	3.00	6.47	4.50	0.47
312	3.63	7.81	3.38	7.26	5.25	0.50
350	4.00	8.75	3.75	8.04	5.88	0.54
375	4.50	9.69	4.00	8.59	6.50	0.59
425	4.75	10.50	4.25	9.12	7.00	0.62
450	5.13	11.31	4.50	9.78	7.44	0.78
500T	5.38	12.88	5.00	10.78	8.38	0.78
550T	6.00	14.44	5.50	11.91	9.44	0.91
600T	6.50	16.00	6.00	12.98	10.25	0.98
700T	7.50	18.25	7.00	15.20	11.75	1.20
750T	8.00	19.81	7.50	16.27	12.63	1.27



Coupling Size	Max. Horsepower Per 100 RPM	Max. Speed (rpm)	Max. Continuous Torque (lb•in)	Peak Overload Torque (lb•in)	③ Weight (lb•in)	③ WR ² (lb•in ²)	① Axial Capacity (in)
	Service Factor 1.0						
100	1.3	7,100	820	1,640	2.3	2.7	±0.019
125	3.5	6,500	2,230	4,460	3.8	6.5	±0.023
162	7.1	6,000	4,450	8,900	5.8	17.1	±0.018
200	13.6	5,500	8,600	17,200	11	37	±0.018
226	22.6	5,200	14,260	28,520	14	53	±0.018
262	52.1	4,800	32,830	65,660	23	117	±0.022
312	81.6	4,500	51,400	102,800	37	264	±0.026
350	106	4,100	66,900	133,800	52	459	±0.028
375	159	3,900	100,300	200,600	71	770	±0.031
425	213	3,700	134,300	268,600	89	1,160	±0.034
450	239	3,600	150,400	300,800	121	1,580	±0.036
500T	391	2,800	246,400	492,800	150	2860	±0.041
550T	524	2,500	330,400	660,800	210	5,130	±0.046
600T	688	2,300	433,800	867,600	257	7,010	±0.051
700T	1,071	2,000	674,800	1,349,600	390	12,100	±0.057
750T	1,331	1,800	838,800	1,677,600	534	24,650	±0.062

- ① All Thomas® disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of the end-float restricting devices.
- ② Consult Regal Rexnord for minimum rough bore on sizes 162-450.
- ③ Weight and WR² shown at maximum bore.

Standard Keyway Dimensions – Tolerances

Standard Keyway Dimensions – Tolerances

Nominal Shaft Diameter		Keyway			Keyway Tolerance		
Over	Thru	Width	Depth		Width		Depth
			Sq. ②	Rect. ②	Close Side Fit ③	Free Side Fit ④	
5/16	7/16	3/32	3/64	–			+0.015 -0.000
7/16	9/16	1/8	1/16	3/64			
9/16	7/8	3/16	3/32	1/16	+0.0005	+0.002	
7/8	1 1/4	1/4	1/8	3/32	-0.0015	-0.000	
1 1/4	1 3/8	5/16	5/32	1/8			
1 3/8	1 3/4	3/8	3/16	1/8	+0.0005	+0.0025	+0.023 -0.000
1 3/4	2 1/4	1/2	1/4	3/16	-0.0020	-0.000	
2 1/4	2 3/4	5/8	5/16	7/32			
2 3/4	3 1/4	3/4	3/8	1/4	+0.0005	+0.003	
3 1/4	3 3/4	7/8	7/16	5/16	-0.0025	-0.000	
3 3/4	4 1/2	1	1/2	3/8			
4 1/2	5 1/2	1 1/4	5/8	7/16	+0.0010	+0.0035	+0.030 -0.000
5 1/2	6 1/2	1 1/2	3/4	1/2	-0.0025	-0.000	
6 1/2	7 1/2	1 3/4	7/8	3/4	+0.0010	+0.004	
7 1/2	9	2	1	3/4	-0.0030	-0.000	

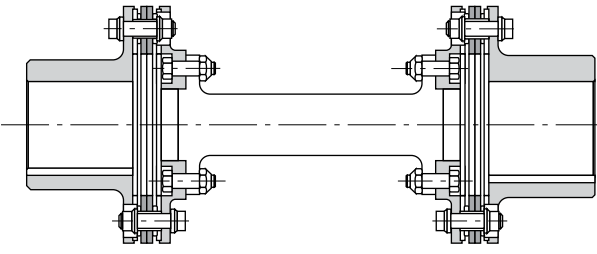
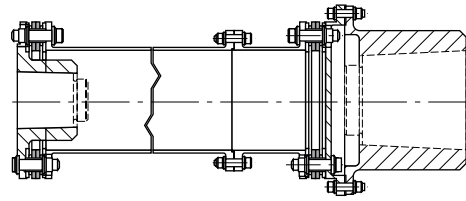
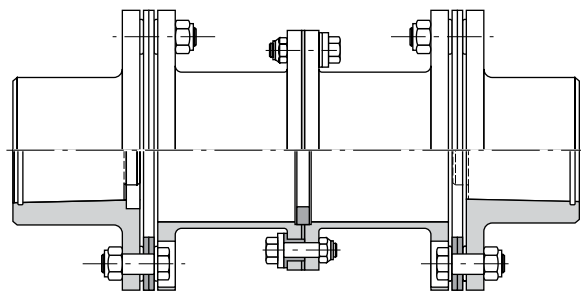
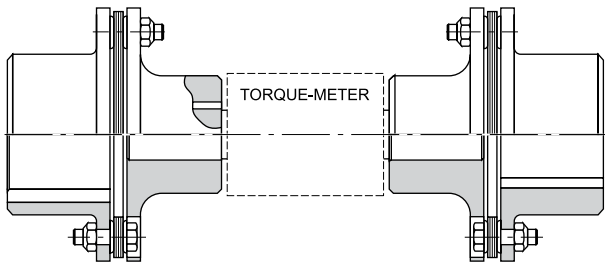
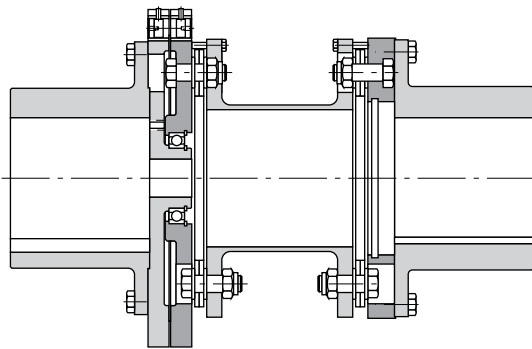
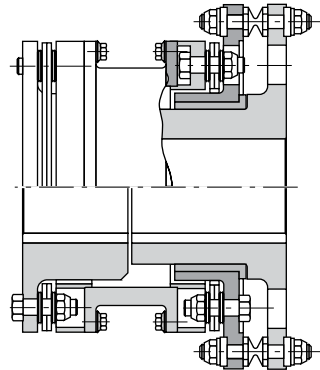
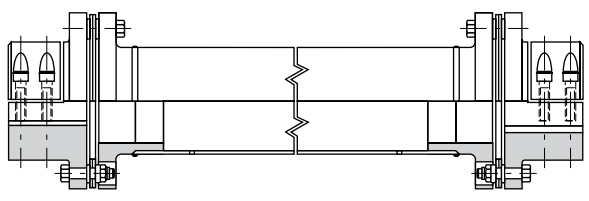
② Rectangular keyways recommended for shafts over 6 1/2" diameter.

③ Close Side Fit Keyways – recommended for reversing torque, drives or other drives which are vibratory in nature, or where zero backlash is required. A close side fit keyway will be furnished on all **Disc Type couplings** unless specified by the customer.

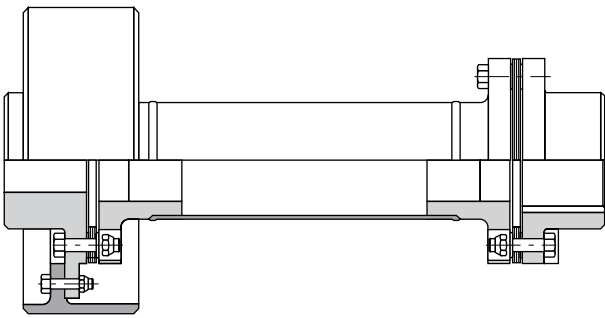
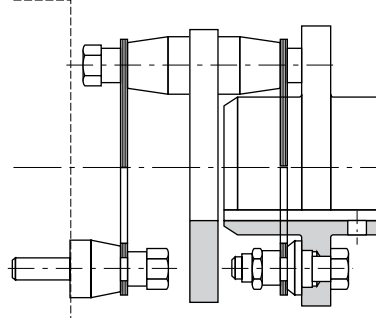
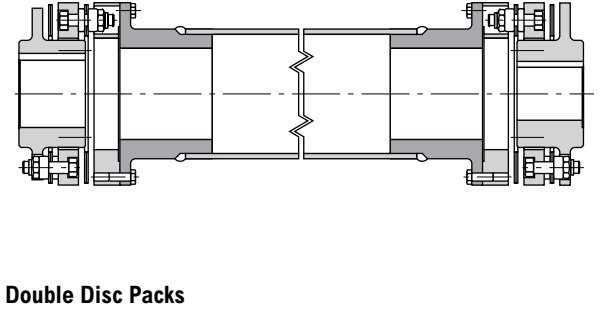
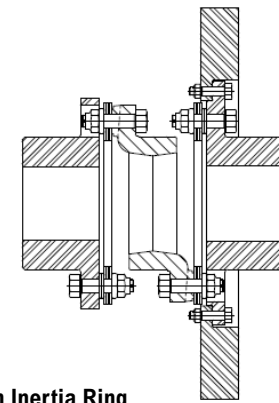
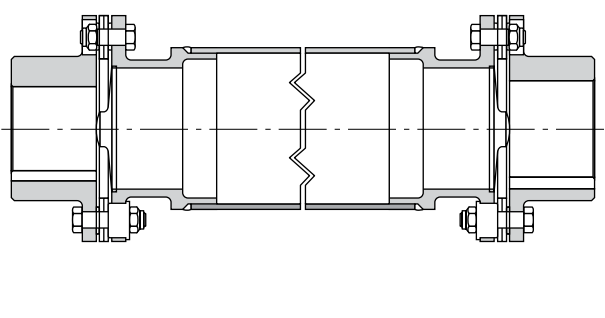
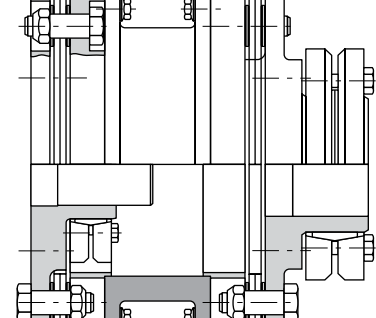
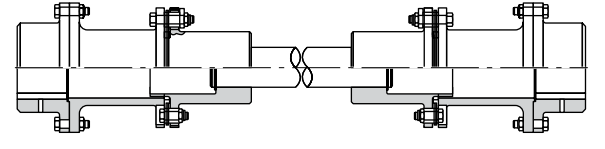
④ Free Side Fit Keyways – recommended for use on smooth, unidirectional drives where fitting of key as assembly cannot be tolerated. A free side fit keyway will be furnished on **DBZ couplings** with Class 1 clearance fits unless specified by customer.

Customized Flexible Disc Couplings Designs

The following pages illustrate a sampling of the special disc coupling products designed and manufactured by Regal Rexnord for applications requiring special coupling designs; please contact your Regal Rexnord™ representative.

 <p>Torsionally Tuned Center Members</p>	 <p>Semi-Reduced Moment – Bolt On Hub</p>
 <p>Electrically Insulated Couplings</p>	 <p>Torque Meter Coupling</p>
 <p>Breaker Pin Coupling – Bearing Style</p>	 <p>Breaker Pin Coupling – Bushing Style</p>
 <p>Clamp Hub Mounting</p>	

Customized Flexible Disc Couplings Designs

 <p>Brake Drum Hub</p>	 <p>Motor-Tachometer Coupling</p>
 <p>Double Disc Packs</p>	 <p>AMR Bolt-On Inertia Ring</p>
 <p>Axial Limiting Stops</p>	 <p>Shrink Disc Hub Mounting</p>
 <p>Slide Coupling</p>	

PRODUCT CATALOG



Industrial Powertrain Solutions Regal Rexnord

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[regalrexnord.com](https://www.regalrexnord.com)

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