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SPECIAL THOMAS FLEXIBLE DISC COUPLINGS 45,46

It has been over 80 years since M.T. Thomas revolutionized the coupling industry by inventing the flexible disc coupling. Today, Thomas' engineers continue to improve the disc coupling through design innovation and modern materials. The Thomas Disc coupling is manufactured within a certified ISO 9001 quality system and is unsurpassed in its reputation for quality, reliability and easy maintenance features.

Thomas® Couplings are non-lubricated, metal flexing couplings, utilizing non-wearing parts for the transmission of torque and the accommodation of unavoidable shaft misalignment. The flex element is a series of precision stamped discs with uniquely designed cross sections that flex without causing the metal-to-metal wear problems associated with lubricated couplings. The flexible disc packs are engineered for infinite life when applied within the published ratings and environmental guidelines. This conservative design standard, combined with more application experience than any other disc coupling manufacturer, assures maximum reliability on the most critical drive systems.

CHOOSE THOMAS COUPLINGS BECAUSE:

- No Lubrication
- No Wearing Parts
- No Backlash
- Wide Temperature Range

THOMAS OFFERS:

- Broad Range of Styles and Sizes
- High Reliability
- Extensive Engineering Support
- World Wide Manufacturing, Distribution and Warehousing Facilities
- Custom Design Capability

BENEFITS :

- Disc Packs Designed for Infinite Life
- Visual Inspection
- Low Restoring Forces
- Original Balance for Life

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS FLEXIBLE DISC COUPLINGS

The design is simple -- 2 hubs, 1 center member and 2 disc pack assemblies solidly bolted together form the basic coupling.

Thomas disc couplings are available in a wide range of styles and sizes to fill most coupling requirements. Because of its unique design, this coupling can be easily adapted to meet a specific application need.

With more than eighty years of coupling experience, Rexnord utilizes special materials and developed manufacturing techniques to insure that Thomas couplings have unsurpassed reliability.

Flexible Disc Packs of special steel transmit the power, and compensate for parallel and angular misalignment as well as axial deflection.

SPACER COUPLINGS

Spacer couplings are used to connect machines whose shafts are separated by some distance, often to facilitate service of bearings, seals, and rotors in the connected equipment. They are available from stock to suit all industry standard shaft spacings, and can be made to order to suit any spacing. Popular designs include the DBZ-C, Series 52, and Series 71.

HIGH PERFORMANCE COUPLINGS

High Performance multiple disc/diaphragm couplings are manufactured to order, to suit the most demanding drive systems in terms of reliability, precision, dynamic balance, light weight and flexibility. Consult Rexnord for specific recommendations on a Series 63 coupling to suit your requirements.

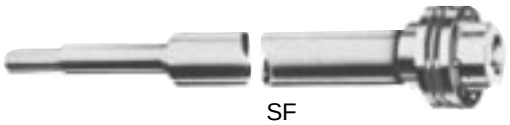
Unitized flexing element U.S. Patent No. 4055966 Others Pending.

FULL AND SEMI-FLOATING SHAFT COUPLINGS

SN, SN-ADJUSTABLE, SF, SV, and TSN-CT couplings span relatively long distances between connected equipment either horizontally or vertically. The tubular center member allows longer spans with less weight than traditional solid shaft or universal joint couplings. They are particularly well suited for use in corrosive environments when ordered with special materials and protective coatings.

SN

SN Adjustable



SF

TSN-CT

SV

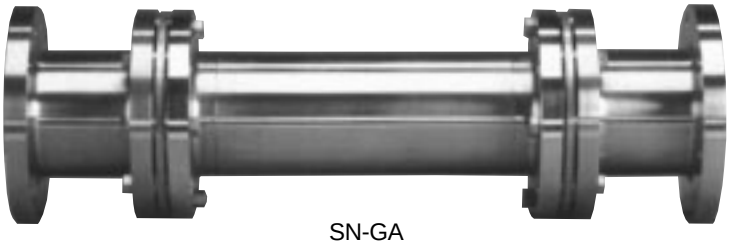
54RD

CLOSE-COUPLED DISC COUPLINGS

The Series 54RD coupling is specifically designed to replace gear and grid couplings on close-coupled drive systems, thereby eliminating costly and time-consuming lubrication. As with all Thomas couplings, lubrication is never required. The Series 54RD also meets the NEMA standards for sleeve-bearing motors without modification. Design includes axially split center member for ease of disc pack replacement.

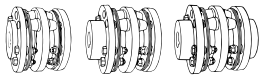
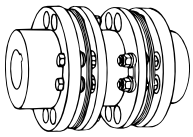
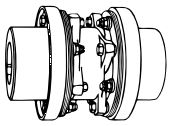
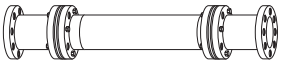
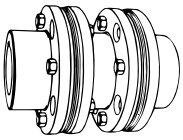
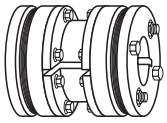
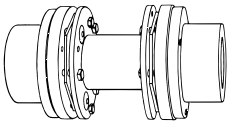
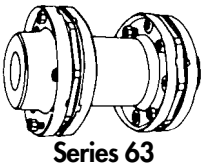
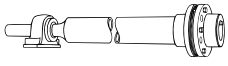
SN-GA

The SN-GA is a one piece, factory torqued, tubular shaft assembly designed to replace a floating shaft gear coupling. The spool adapters are designed to bolt directly to the existing gear coupling's rigid hubs. As with all Thomas disc couplings, lubrication is never needed and it's all metal construction is backlash free and is unaffected by operating temperatures. The flexible discs are exposed so they can be visually inspected without disassembly.



SN-GA

THOMAS COUPLING APPLICATION GUIDE

Coupling Type	Typical Applications	Torque Range* (lb.-in.)	RPM* Range	Max.* Bore (in.)	Page Number	Max. Ang. Misalignment Per Disc Pack
 DBZ DBZ-A DBZ-B	Mixers, Compressors, Agitators, Blowers and Fans, Centrifugal Pumps, Conveyors	UP to 43,400	Up to 9,000	4.75	13, 14	½°
 DBZ-C	Process Pumps with ANSI, API, and other shaft separation standards. Blowers, Fans, Mixers, Compressors, Conveyors.	Up to 50,000	Up to 9,500	4.75	15	½°
 AMR	Reciprocating Pumps and Compressors, Fan Drives, Blowers, Heavy-duty Industrial Drives, Crushers, Extruders, Hoists, Dredges, Generators, Chippers, Calender, Mill Drives, Conveyors	Up to 2,840,000	Up to 2,500	15.5	23	⅓°
 SN-GA	Pulp and Paper machines, Line Shafts, Pelletizers, Crushers and Mill Drives. Replacing long span gear couplings, bolting to existing rigid hubs.	Up to 709,000	Up to 1,800	N/A	31, 32	⅓°
 Series 52	Pumps & Compressors (Centrifugal, Rotary, Lobe, and Axial), Speed Increasers, Fans, Dynamometers.	Up to 2,260,000	Up to 15,000	14	16	⅓°
 Series 54RD	Close-coupled applications. Suitable as replacement for gear and grid couplings	Up to 346,000	Up to 7,000	7	12	⅓°
 Series 71	Pumps & Compressors with popular Shaft Separation Standards. Blowers, Fans, Speed Increasers	Up to 346,000	Up to 20,800	13.12	17, 18	½° - ⅓°
 Series 63	Turbines, Pumps, Compressors, Test Stands, Generators, Speed Increasers	Up to 1,150,000	Up to 36,000	8.84	19, 20	¼°
 SN  SF	Turbines, Pumps, Compressors, Test Stands, Generators, Speed Increasers, Fans (Cooling Tower, Mine Ventilating, Forced and Induced Draft), Paper Mill Drives, Line Shafts, Printing Machines, Pumps. Available as a standard in corrosion-resistant materials.	Up to 447,000	Up to 1,800	8	29,30	⅓°

* These ratings are for cataloged coupling sizes. For special requirements, consult Rexnord.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

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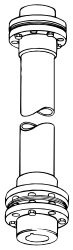
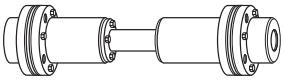
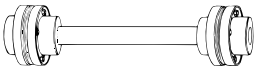
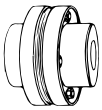
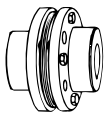
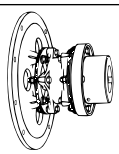
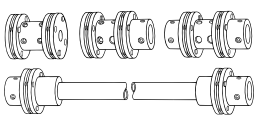
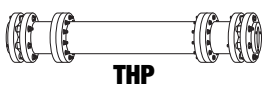
THOMAS COUPLING APPLICATION GUIDE

Coupling Type	Typical Applications	Torque Range* (lb.-in.)	RPM* Range	Max.* Bore (in.)	Page Number	Max. Ang. Misalignment Per Disc Pack
 **SV**	Vertical Drives such as Sewage Pumps, Printing Machines, Marine Pumps. Available as a standard in corrosion-resistant materials.	UP to 447,000	Up to 1,800	8	29,30	⅓ °
 **TSN-CT**	Cooling Tower Fans, Long Span, low weight applications.	Up to 27,500	Up to 1,800	4	28	⅓ °
 **Adjustable Length SN**	Same applications as SN but where axial and/or angular adjustment is desired. Many sizes in stock for emergency break down replacement.	Up to 12,200	Up to 1,800	3.12	33	⅓ °
 **BMR**	Blowers, Fans, Crushers, Marine Drives, Dredge Pumps, Hoists, Heavy-duty Industrial Drives. Reciprocating Pumps and Compressors, Paper Mill Drives, Conveyors.	Up to 261,000	Up to 1,800	6	24	⅓ °
 **ST**	**Will accommodate angular misalignment only.** Three-bearing applications where radial load is supported by the coupling, such as single-bearing generators, V-belt sheaves, etc.	Up to 200,000	Up to 2,500	8	34	⅓ °
 **BMR Single**	**Will accommodate angular misalignment only.** May be used with solid intermediate shafts for applications listed for BMR. Not intended as a radial-load-supporting coupling.	Up to 1,040,000	Up to 2,500	9.25	35	⅓ °
 **SN Single**	**Will accommodate angular misalignment only.** May be used with intermediate solid shaft for applications similar to BMR, but with high speed capacity. Available in corrosion-resistant materials.	Up to 446,000	Up to 7,100	8	36	⅓ °
 **CMR**	Engine Drivers, Reciprocating Pumps and Compressors, Heavy-duty industrial drives – where flywheel mounting is required.	Up to 2,840,000	Up to 2,500	15.5	25, 26	⅓ °
 **Miniature Couplings**	Tachometers, Encoders, Switches, Ball Screws, Test Stands, Pumps, Compressors, Centrifuges, Theodolites, Sonar, Radar, Scales, Carburetors	Up to 700	Up to 150,000	1.25	37, 38	½ ° - 2 °
 **THP**	Turbines, Pumps, Compressors, Speed Increasers, Test Stands.	Up to 579,000	Up to 28,500	5	21, 22	¼ °, ⅓ °

* These ratings are for cataloged coupling sizes. For special requirements, consult Rexnord.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

FLEXIBLE COUPLINGS

A flexible coupling is a device used to connect the ends of two shafts, transmit torque, and at the same time, accommodate the 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 the 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"-"maintenance" difficulties

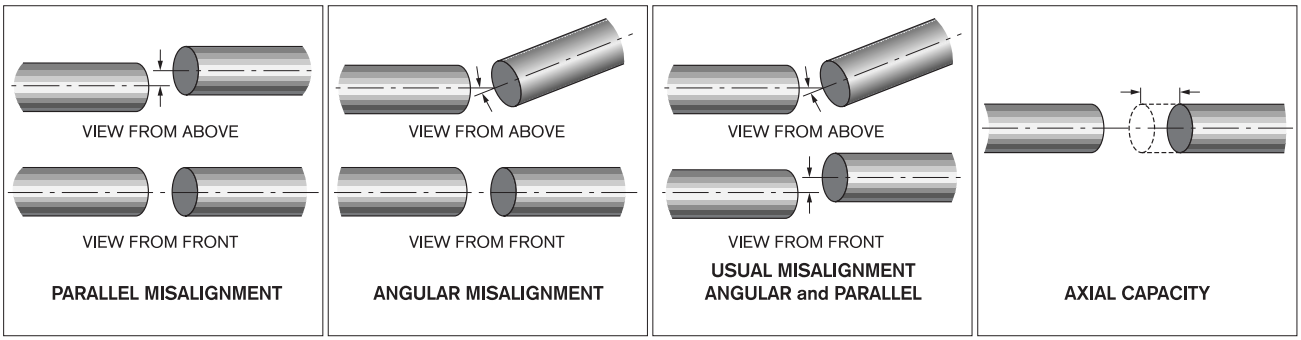
Shafts become misaligned during operation because of settling foundations, the effects of heat, vibration, etc. These misalignments take place in the form of angular misalignment, parallel misalignment, or axial movement of the shafts. Therefore, to get full service life from any flexible coupling, it is necessary to:

1. **ASSURE PROPER SHAFT ALIGNMENT DURING INITIAL INSTALLATION.**
2. **OCCASIONALLY CHECK FOR AND CORRECT SHAFT MISALIGNMENTS DURING OPERATION.**

CAUTION

All rotating power transmission products are potentially dangerous and must be properly guarded.

What is Misalignment



Misaligned shafts not properly coupled are subject to severe stresses which 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.

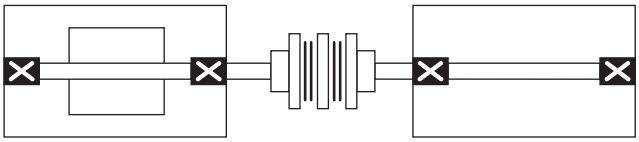
The following pages show basic coupling arrangements and load classifications based on years of experience in coupling applications in all phases of power transmission. Any unusual operating or misalignment conditions should be referred to Rexnord to assure proper selection of size and type of coupling.

Rexnord

COUPLING APPLICATION CONFIGURATIONS

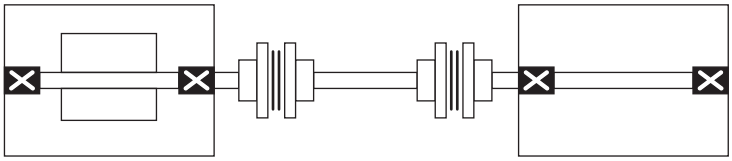
DOUBLE FLEXING COUPLINGS

Four-bearing applications automatically require double flexing Thomas Couplings. Note that both shafts are supported by bearings placed reasonably close to the hubs of the coupling.



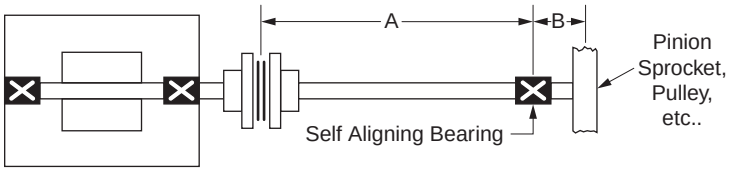
FULL-FLOATING SHAFT COUPLINGS

Two Single Flexing Couplings connected by a tube or shaft constitute a Double Flexing Full-Floating Shaft Coupling. Note that both driving and driven shafts are supported by bearings placed reasonably close to the coupling assembly. No bearings are permitted on the intermediate or floating shaft.



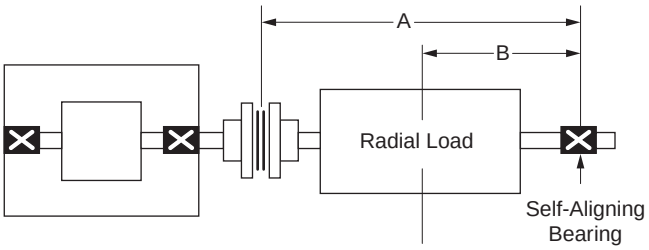
SEMI-FLOATING SHAFT COUPLINGS

If the bearing arrangement permits, a Single Flexing Coupling is used as illustrated. The out board shaft is supported by only one bearing located as close to the pinion, sprocket or pulley as possible. Distance 'A' can be made to any length within reason but should never be reduced to less than 3 times distance 'B'.



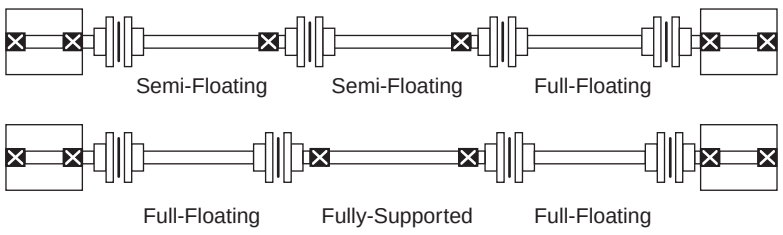
HEAVY RADIAL LOAD COUPLINGS

A Radial Load Single Flexing Coupling must be used on three bearing motor-generator sets, engine to single bearing generators, and similar applications. Distance 'A' must be a minimum of 2 times distance 'B'.



FULL-FLOATING AND SEMI-FLOATING SHAFT COUPLING COMBINATIONS

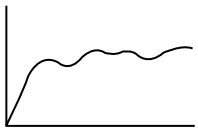
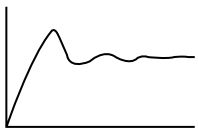
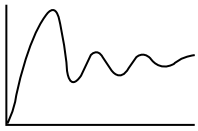
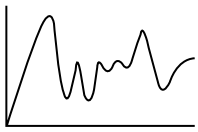
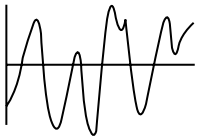
Many combinations of Full-Floating and Semi-Floating Couplings are available for covering long spans between driving and driven equipment. Submit details to our Applications Engineering Department for recommendations.



SELECTION PROCEDURES

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
	Continuous service and running loads vary only slightly.	1.0
	Torque loading varies during operation of the equipment.	1.5
	Torque loading varies during operation, frequent stop/start cycles are encountered.	2.0
	For shock loading and substantial torque variations.	2.5
	For heavy shock loading or light reversing drives.	3.0
	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 Rexnord

DISC COUPLING SELECTION PROCEDURE

The following procedure can be used to select Disc couplings for most applications. For applications involving other than normal loading or design, special consideration must be given to coupling selection. Rexnord application engineers are readily available for selection, advice and assistance.

1. DETERMINE HP/100RPM:

$$\text{HP/100 RPM} = \frac{\text{Horsepower} \times 100}{\text{RPM}}$$

2. DETERMINE SERVICE FACTOR:

Select the proper Service Factor from Table. Note, if not listed, see Load Classification Table.

Note: The Service Factor Table considers the driven equipment only and assumes a normal electric motor or turbine driver. For prime movers of the reciprocating type (engines, etc.) 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 Rexnord

3. SELECT THE COUPLING:

Turn to the page describing the selected coupling type and select the smallest coupling capable of transmitting the calculated HP/100 RPM at the proper Service Factor.

4. CHECK LIMITING CONDITIONS:

a. Check maximum speed (dynamic balancing may be required – see page 40)

b. Check maximum bore.

c. Check other dimensions such as shaft separation, overall length, O.D., etc.

d. Check to be sure that the maximum torque to be transmitted, such as start-up or stall torques, do not exceed the coupling's Peak Overload Torque Rating.

Note: Variable frequency and synchronous motors and certain induction motors produce transient torques several times the continuous rating of the unit. Consult motor manufacturer.

5. REFER TO PAGE 42 FOR ORDERING INFORMATION.

Note: A coupling is a critical component of any drive system. The basic coupling selection criteria is used to determine the size and style only. It is recommended that the system be analyzed for torsional and lateral stability using the specific coupling mass elastic data. The coupling weight, inertia, lateral stiffness, and torsional stiffness are available for this system analysis. It is the responsibility of the coupling user to assure the system, with the coupling as a component properly functions.

TYPICAL SERVICE FACTORS – MOTOR AND TURBINE DRIVEN EQUIPMENT*

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

* 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 Rexnord

SELECTION EXAMPLES

A 150 HP electric motor is to drive a centrifugal pump at 3600 RPM. Shaft size of each is 2 1/8". Distance between shaft ends is 5". High temperature environment. No lubrication preferred.

1. HP/100 RPM = $\frac{150 \text{ HP} \times 100}{3600 \text{ RPM}}$ = 4.17 HP/100 RPM

Typical Service Factors
Motor And Turbine Driven Equipment* – See Page 10

APPLICATION	TYPICAL SERVICE FACTOR
PUMPS	
Centrifugal	
General Duty (Liquid)	1.0

Excerpt of Page 15

Type DBZ-C
Stocked "C" Dimensions

Coupling Size	"C" Dimension (In.)									
	3 ½	4	4 ⅜	4 ¾	5	5 ½	7	7 ½	8	9 ½
201	•		•		•	•	•			

General Dimensions (In.)

Coupling Size	Max. Bore	A	B	Std.	F	G	N
201	2.25	5.34	2.12	3.50	7.74	3.28	.59

Selection Table **Engineering Data**

Coupling Size	Max. Horsepower Per 100 RPM Service Factor			Max. RPM	Max. Continuous Torque (Lb.-In.)	Peak Overload Torque (Lb.-In.)
	1.0	1.5	2.0			
201	5.6	3.7	2.8	4,600	3,530	7,060

2. Service Factor is 1.0 based on electric motor-to-centrifugal pump (general duty).
3. The DBZ-C or Series 71 styles are selected because of the shaft spacing requirement. See Page 15 and Page 18.
4. Using a Service Factor of 1.0 and 4.17 HP/100 RPM, both the 201 DBZ-C and 225 Series 71 are capable of handling the load. Also, both couplings accommodate the 5" shaft separation requirement. See excerpt of Page 15 and 18.
5. The speed of 3600 RPM and shaft sizes of 2.12" are within the capabilities of both couplings.
6. Select the smallest coupling capable of handling the torque. See general dimensions in excerpt Pages 15 and 18.

Excerpt of Page 18

TYPE SERIES 71
Stocked "C" Dimensions

Coupling Size	"C" Dimension (In.)							
	3 ½	4 ⅜	5	5 ½	7	7 ½	8	9
225	•		•	•	•			

General Dimensions (In.)

Coupling Size	Max. Bore	A	B	B1	Std. C	Max. E
225	2.25	4.94	2.00	2.50	3.00	3.12

Selection Table

Coupling Size	Max. Horsepower Per 100 RPM Service Factor				
	1.0	1.5	2.0	2.5	3.0
225	4.8	3.2	2.4	1.9	1.6

Selection Table **Engineering Data**

Coupling Size	Max. Horsepower Per 100 RPM Service Factor			Max. RPM	Max. Continuous Torque (Lb.-In.)	Peak Overload Torque (Lb.-In.)
	1.0	1.5	2.0			
225	4.8	3.2	2.4	7,700	3,060	6,120

A 250 HP electric motor driving a cooling tower fan at 1800 RPM. The motor shaft size is 2 7/8" and the right angle input shaft at the fan end is 2 1/8". The distance or span between shaft ends is 105". Note, this coupling will operate in a corrosive atmosphere.

1. HP/100 RPM = $\frac{250 \text{ HP} \times 100}{1800 \text{ RPM}}$ = 13.9 HP/100 RPM
2. Service factor is 1.5 for an electric motor to a cooling tower fan unless otherwise specified. See Typical Service Factors on Page 10.
3. This long span requires a floating shaft style of coupling such as the SN or TSN-CT. These couplings are shown on Pages 28 and 30.
4. Using the minimum 1.5 service factor and the 13.9 HP/100 RPM, you would select either a 312 SN or the 312 TSN-CT. Both models will accommodate the torque loads and shaft sizes. See the excerpt showing the general dimensions and selection table.

Excerpts of Pages 28, 29, 30

General Dimensions (in.)

Coupling Size	Coupling Type		Bore	Max. A	B	G
	SN	TSN-CT				
312	X	X	3.63	7.81	3.38	5.25

Selection Table

Coupling Size	Max. Horsepower Per 100 RPM Service Factor				
	1.0	1.5	2.0	2.5	3.0
312	31.2	20.8	15.6	12.5	10.4

Maximum Span (L) In Inches For Various Speeds - SN

Coupling Size	1800 RPM	1500 RPM	1200 RPM	1000 RPM	900 RPM	750 RPM	720 RPM
312	107	117	130	143	151	165	173

5. For floating and shaft couplings, you also need to check the speed vs. span table for a proper selection. See the excerpts from Pages 28 and 29 which show the different tables. The span in the table must be equal to or greater than our 105" distance at the 1800 RPM speed. Note that the spans for the TSN-CT composite tubes are much greater than the steel tube of the type SN. However, the TSN-CT is also more expensive and generally applied only when the SN is not adequate or the advantages of composite tubing is desired.
6. Finally, due to the corrosive environment, we need to specify this coupling to be furnished in a "Class E" material which is all stainless steel. See the excerpt from Page 29 showing the different material classes.

Excerpt of Page 28

Coupling Size	Max. Span "L" at 1800 RPM (In.) For TSN-CT Composite Tube Diameters (In.)					
	4.5	6.5	8.5	10.5	12.8	14.8
226	134					
262	132*	160	190			
312		160	190	210	227	
350			190	210	227	232

CORROSION RESISTANT MATERIALS

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 series stainless steel.

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

CLOSE-COUPLED SERIES 54RD

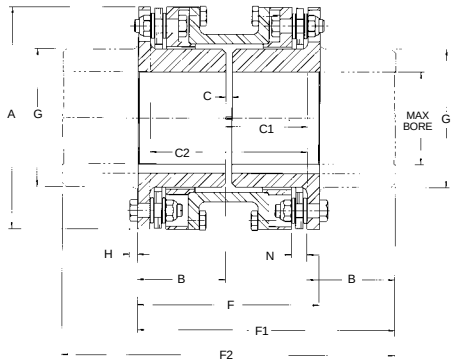
Series 54RD Couplings are specifically designed as replacements for close coupled gear and grid couplings, and where overall shaft-to-shaft spacing is minimal. Materials of construction are identical to the Series 52. Stainless steel disc packs are supplied as standard.

To reduce maintenance costs, the Series 54RD is furnished with an axially split center member. This design permits the removal of the disc packs without moving the connected equipment. When specified, and based on speed requirements, the Series 54RD can be manufactured to meet API-610, 8th Edition. If application requires API specification, please consult Rexnord.

General Dimensions (in)

SIZE	MAX. BORE*	A	B	C	C1**	F	F1**	H	N	G	C2***	F2***
125	1.19	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	4.34	1.88	0.12	1.77	3.88	5.52	0.17	0.29	2.34	3.42	7.18
200	2.25	5.44	2.12	0.12	1.97	4.36	6.22	0.22	0.36	3.25	3.80	7.49
225	2.38	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	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	7.81	2.84	0.19	2.62	5.87	8.31	0.30	0.50	5.00	5.05	10.73
350	3.75	8.69	3.28	0.25	3.06	6.81	9.62	0.34	0.54	5.50	5.87	12.43
375	4.19	9.69	3.56	0.25	3.27	7.37	10.40	0.39	0.59	6.06	6.27	13.39
425	4.50	10.50	3.97	0.25	3.61	8.19	11.55	0.42	0.62	6.56	6.97	14.91
450	4.75	11.31	4.50	0.31	4.16	9.31	13.16	0.47	0.71	7.00	7.99	16.99
500	5.00	12.88	4.72	0.31	4.27	9.75	13.71	0.50	0.78	7.88	8.21	17.65
550	5.50	14.44	5.31	0.38	4.81	11.00	15.44	0.58	0.91	8.75	9.24	19.86
600	6.00	16.00	6.00	0.38	5.39	12.38	17.39	0.67	0.98	9.31	10.42	22.42
700	7.00	18.25	7.00	0.38	6.22	14.38	20.22	0.75	1.19	10.88	12.06	26.06

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



Engineering Data

SIZE	MAX. HP/100 RPM SERVICE FACTOR 1.0	1.5	2.0	2.5	3.0	MAX. RPM NOT BALANCED	③ ④ BALANCED	MAX. CONTINUOUS TORQUE (lb.-in.)	PEAK OVERLOAD TORQUE (lb.-in.)	② WEIGHT (lbs.)	② WR^2 (lb.-in^2)	① Axial Capacity (in)
125	3.7	2.5	1.8	1.5	1.2	4,600	7,200	2,330	4,660	6.7	12	± 0.036
162	6.9	4.6	3.5	2.8	2.3	4,200	7,000	4,360	8,720	9.7	24	± 0.036
200	13.5	9.0	6.7	5.4	4.5	3,800	6,300	8,490	16,980	16.0	65	± 0.036
225	17.0	11.3	8.5	6.8	5.7	3,700	6,000	10,700	21,400	18.0	80	± 0.036
262	27.8	18.5	13.9	11.1	9.3	3,600	5,500	17,500	35,000	31.0	179	± 0.043
312	38.6	25.7	19.3	15.4	12.9	3,000	5,000	24,300	48,600	47.4	399	± 0.051
350	54.1	36.1	27.1	21.7	18.0	2,800	4,500	34,100	68,200	68.3	708	± 0.056
375	81.1	54.1	40.6	32.4	27.0	2,500	4,000	51,100	102,200	94.4	1240	± 0.062
425	115	76.5	57.4	45.9	38.3	2,300	3,700	72,300	144,600	125.0	1920	± 0.067
450	130	87.0	65.2	52.2	43.5	2,200	3,400	82,200	164,400	165.0	2900	± 0.072
500	197	131	98.4	78.7	65.6	2,000	3,300	124,000	248,000	241.0	5420	± 0.082
550	341	228	171	137	114	1,900	2,800	215,000	430,000	347.0	9810	± 0.092
600	427	285	213	171	142	1,800	2,500	269,000	538,000	478.0	16500	± 0.102
700	549	366	275	183	183	1,700	2,500	346,000	692,000	713.0	31900	± 0.115

For larger sizes, consult Rexnord.

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 WR^2 at maximum bore.

③ For higher speeds, consult Rexnord.

④ Based on ANSI/AGMA 9000-C90 average system sensitivity. For ordering instructions, see pages 41-42.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

CLOSE-COUPLED TYPES DBZ, DBZ-A, DBZ-B

DBZ

DBZ-A

DBZ-B

The DBZ is a double-flexing disc coupling designed for light-to-medium duty service at moderately high speed. The primary use is on motor, turbine, and gear-driven equipment that is free of shock loads or torque reversals. DBZ couplings are used on applications with service factors from 1.0 thru 2.0.

These couplings accommodate both parallel and angular misalignments as well as axial movement of the shafts.

The Standard DBZ coupling has two hubs inverted inside the disc pack and is used where shaft separation must be kept at a minimum.

The DBZ-A style has one hub extended to permit taper boring without the necessity of counter boring for the shaft's retaining nut. The DBZ-B coupling has two extended hubs. These couplings allow for greater distance between shaft ends and lend themselves to applications where shaft seals and bearings must be removed for servicing.

CONSTRUCTION

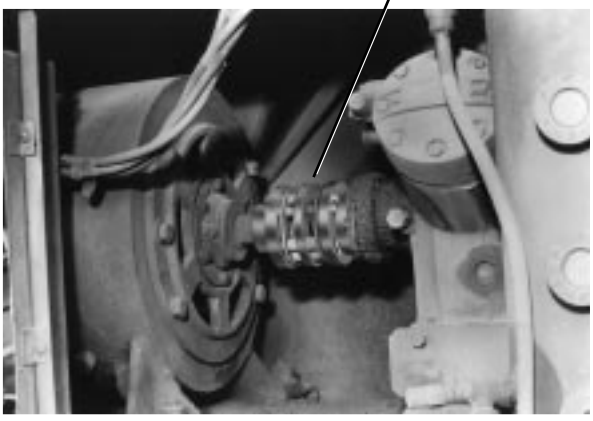
Hubs and Center members: carbon steel. Black oxide coated.

Bolts – alloy steel. Cadmium or zinc plating available.

Discs – Tomaloy standard. 300-Series stainless available from stock. Other materials (Monel, Inconel, etc.) available on special order.

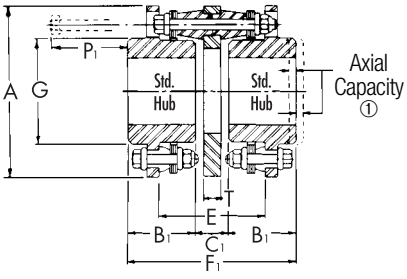
REDUCE MAINTENANCE COSTS
DBZ Couplings can be assembled or disassembled without disturbing the connected machines – a cost-saving feature.

DBZ coupling on a soot blower in a power plant.

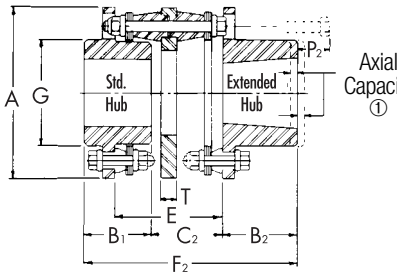


Air conditioning unit of a passenger train using a DBZ-B.

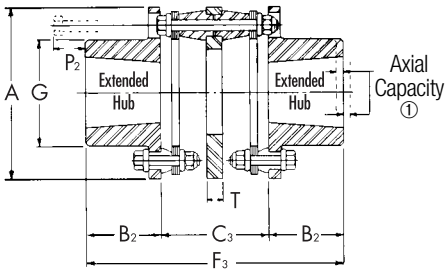
CLOSE-COUPLED TYPES DBZ, DBZ-A, DBZ-B



DBZ



DBZ-A
(one standard hub & one extended hub)*



DBZ-B
(two extended hubs)*

General Dimensions (in.)

Cplg. Size	②⑤ Std. Hub Max. Bore	②⑤ Ext. Hub Max. Bore	A	B1	B2	C1	C2	C3	E	F1	F2	F3	G	P1	P2	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	1.13	1.13	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	1.63	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	2.13	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	2.63	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	3.13	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	4.18	4.63	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	2.16	4.72	7.28	7.28	11.66	17.78	14.72	7.38	5.44	2.38	1.34

Selection Table — Engineering Data

Cplg. Size	Max. Horsepower Per 100 RPM			③ Max. RPM		Max Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	④ Weight (lbs.)			④ WR² (lb.-in.²)			① Axial Capacity (in.)
	Service Factor			Not Bal.	Balanced			DBZ	DBZ-A	DBZ-B	DBZ	DBZ-A	DBZ-B	
	1.0	1.5	2.0											
50	0.23	0.15	0.12	6,000	9,000	145	220	0.7	0.7	0.7	0.3	0.3	0.3	±0.023
62	0.39	0.26	0.20	6,000	8,200	246	370	1.5	1.5	1.5	0.7	0.7	0.7	±0.028
75	0.56	0.37	0.28	6,000	7,800	353	530	1.9	1.9	1.9	1.5	1.5	1.5	±0.032
101	1.1	0.73	0.55	6,000	7,100	693	1,040	3.3	3.3	3.3	4.5	4.5	4.5	±0.038
126	2.0	1.3	1.0	5,500	6,500	1,260	1,900	5.5	5.6	5.7	9.9	10.1	10.1	±0.046
163	2.7	1.8	1.4	5,000	6,000	1,700	2,600	8.4	8.6	8.8	21	21	22	±0.057
201	4.8	3.2	2.4	4,600	5,500	3,020	4,500	14.4	14.4	15.4	53	53	54	±0.067
226	8.7	5.8	4.4	4,100	5,200	5,500	8,300	21	22	23	95	95	105	±0.076
263	13.7	9.1	6.9	3,700	4,800	8,600	12,900	33	34	35	199	209	209	±0.089
301	20.4	13.6	10.2	3,300	4,500	12,900	19,400	50	52	54	365	375	385	±0.102
351	35.9	23.9	18.0	2,900	4,100	22,600	33,900	83	87	90	916	936	965	±0.118
401	52.7	35.1	26.4	2,700	3,900	33,200	49,800	125	125	135	1705	1710	1710	±0.136
451	68.9	45.9	34.5	2,600	3,600	43,400	65,100	170	180	180	3168	3170	3270	±0.154

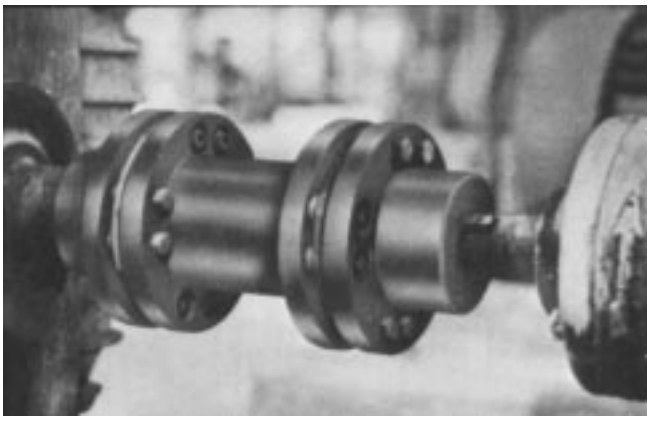
① All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
② Popular sized standard hubs bore with keyway and setscrew are stocked. See page 42 for stocked bore sizes.
③ See Page 40 for explanation of RPM limits and balancing recommendations.
④ Weight and WR² at maximum bore.
⑤ Hubs furnished without a finished bore will be solid.
For ordering instructions, see pages 41-42.

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

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS FLEXIBLE DISC COUPLINGS

SPACER TYPE DBZ-C



The DBZ-C coupling is recommended for applications requiring a spacer-type coupling such as ANSI and API process pumps. The center member is available in a variety of standard lengths or can be made to suit a particular installation.

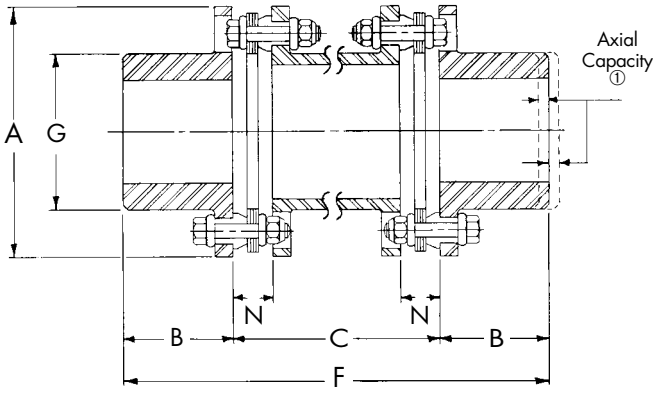
The "drop-out" center member feature of this coupling allows for the removal of the pump seal without disturbing the connected equipment.

CONSTRUCTION

Hubs and spacers: carbon steel.

Bolts: alloy steel (zinc or cadmium plated available).

Disc packs: Tomaloy standard. 300-series stainless steel available from stock and recommended for process service or other corrosive applications. Other materials (Monel, Inconel, etc.) available on special order.



Also Available with Tapered-Bore Hubs

Stocked "C" Dimensions

Coupling Size	"C" Dimensions (In.)									
	3.5	4	4.38	4.75	5	5.5	7	7.5	8	9.5
101	●									
126	●		●		●					
163	●	●	●	●	●		●			
201	●		●		●	●	●			
226			●		●	●	●			
263					●	●	●			
301						●	●			
351								●		
401									●	

General Dimensions (in.) / Selection Table / Engineering Data

Coupling Size	⑤ ② Max. Bore	A	B	Std. C	Min. C	F	G	N	Max. Horsepower Per 100 RPM, Service Factor 1.0	1.5	2.0	③ Max RPM Not Bal.	Balanced	Max. Cont. Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	④ Weight (lbs.)	Weight Change Per In. of "C" Increase (lbs.)	④ WR^2 (lb.-in.^{2})	WR^2 Change Per In. of "C" Increase (lb.-in.^{2})	① Axial Capacity (in.)
50	0.63	2.00	0.88	3.50	-	5.25	1.00	0.24	0.27	0.18	0.14	6,000	9,500	170	340	1.0	0.075	0.45	0.016	±0.023
62	0.75	2.44	1.09	3.50	-	5.69	1.19	0.32	0.46	0.31	0.23	6,000	8,600	290	580	1.8	0.091	1.4	0.027	±0.028
75	0.88	2.69	1.13	3.50	-	5.75	1.44	0.33	0.65	0.43	0.33	6,000	8,200	410	820	2.4	0.11	1.8	0.051	±0.032
101	1.16	3.22	1.38	3.50	-	6.25	1.69	0.45	1.3	0.87	0.65	6,000	7,500	820	1,640	4.6	0.28	6.0	0.160	±0.038
126	1.38	3.84	1.63	3.50	2.88	6.75	2.06	0.52	2.2	1.5	1.1	5,500	6,800	1,400	2,800	7.4	0.45	13.0	0.360	±0.046
163	1.88	4.56	1.88	3.50	2.88	7.25	2.75	0.52	3.1	2.1	1.6	5,000	6,300	1,950	3,900	10.8	0.43	27.4	0.700	±0.057
201	2.25	5.34	2.13	3.50	3.31	7.75	3.28	0.59	5.6	3.7	2.8	4,600	5,700	3,530	7,060	16.4	0.67	60.3	1.6	±0.067
226	2.63	6.06	2.63	5.00	4.31	10.25	3.78	0.98	10.0	6.7	5.0	4,100	5,500	6,300	12,600	24	0.78	104	2.4	±0.076
263	3.00	7.00	3.00	5.00	4.75	11.00	4.44	1.04	15.7	10.5	7.9	3,700	5,000	9,900	19,800	37	0.93	220	4.1	±0.089
301	3.50	8.00	3.44	5.50	5.44	12.38	5.06	1.11	23.5	15.7	11.8	3,300	4,700	14,800	29,600	54	1.2	425	6.9	±0.102
351	4.00	9.38	4.06	7.50	6.38	15.63	5.81	1.34	41.3	27.5	20.7	2,900	4,400	26,000	52,000	91	1.8	970	13	±0.118
401	4.50	10.69	4.63	8.00	6.94	17.25	6.63	1.44	60.5	40.3	30.3	2,700	4,100	38,000	76,000	135	2.7	1860	26	±0.136
451	4.75	12.13	5.25	9.50	7.69	20.00	7.38	1.55	79.3	52.9	39.7	2,600	3,800	50,000	100,000	190	3.1	3240	36	±0.154

① All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
② Popular sized bores with keyway and setscrew are stocked. Consult your Rexnord representative for stock bore size availability.
③ See page 40 for explanation of RPM limits and balancing recommendations.
④ Weight and WR^2 as shown are for maximum bores and standard. "C".
⑤ Hubs furnished without a finished bore will be solid.

For ordering instructions, see pages 41-42.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

SPACER TYPE SERIES 52

*** * INCREASED TORQUE RATINGS * ***

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

Design modifications may be made to further reduce the coupling weight, making the Series 52 an economical choice on drives requiring light weight without the high cost of high performance couplings.

Series 52

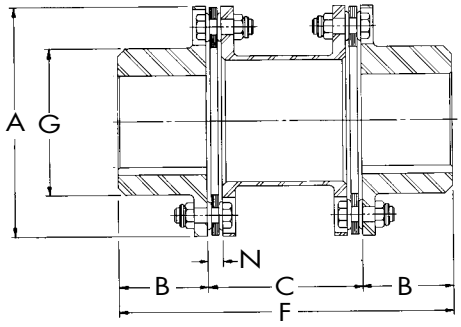
CONSTRUCTION

Hubs and Center Members: carbon steel. Black Oxide coated. Alloy steel and stainless steel available on special order.

Bolts: Alloy steel (Zinc or cadmium plated available).

Disc Packs: Tomaloy standard; 300-series stainless steel available from stock. Other materials (Monel, Inconel, etc.) available on special order.

When specified, the Series 52 coupling can be manufactured to meet API 610, 8th Edition.



Series 52
TAPER BORES ALSO AVAILABLE

General Dimensions (in.)

Coupling Size	⑥ Max. Bore	A	B	② Std. C	② Stocked C	Min. C	F	G	N
125	1.38	3.69	1.31	4.00	4	–	6.63	2.06	0.27
162	1.88	4.34	1.75	5.00	5	2.03	8.50	2.75	0.29
200	2.25	5.44	2.06	5.00	5	2.63	9.13	3.28	0.36
225	2.62	5.69	2.62	5.00	5 & 7	2.75	10.25	3.78	0.36
262	3.12	6.62	2.88	5.00	5 & 7	3.22	10.75	4.50	0.47
312	3.62	7.81	3.38	5.50	5.5 & 7	3.75	12.25	5.25	0.50
350	4.00	8.69	3.75	6.00	6 & 7	4.16	13.50	5.88	0.54
375	4.50	9.69	4.00	7.00	7	4.59	15.00	6.50	0.59
425	4.75	10.50	4.25	7.00	7	4.94	15.50	7.00	0.62
450	5.12	11.31	4.50	8.00	7 & 8	5.34	17.00	7.44	0.71
500	5.38	12.88	5.00	9.00	9	6.03	19.00	8.38	0.78
550	6.00	14.44	5.50	10.00	10	6.88	21.00	9.44	0.91
600	6.50	16.00	6.00	10.00	10	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	12.62	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

Selection Table / **Engineering Data**

Cplg. Size	MAX HORSEPOWER PER 100 RPM SERVICE FACTOR 1.0	1.5	2.0	2.5	3.0	③ Max. RPM ⑤ Not Bal.	Balanced	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	④ Weight (lbs.)	Weight Change Per inch of "C" (lbs.)	④ WR^2 (lb.-in.^{2})	WR^2 Change Per Inch of "C" (lb.-in.^{2})	① Axial Capacity (in.)
125	4.3	2.9	2.1	1.7	1.4	5,000	15,000	2,705	5,410	4.6	0.16	7.4	0.15	±0.036
162	8.5	5.7	4.2	3.4	2.8	4,600	15,000	5,354	10,708	7.2	0.21	15.8	0.27	±0.036
200	16.7	11.1	8.3	6.7	5.6	4,250	15,000	10,504	21,008	12.4	0.25	43.7	0.58	±0.036
225	23.5	15.6	11.7	9.4	7.8	4,100	14,000	14,784	29,568	16.5	0.33	62.4	0.82	±0.036
262	41.7	27.8	20.8	16.7	13.9	3,900	13,000	26,250	52,500	26.0	0.40	139	1.33	±0.043
312	57.8	38.6	28.9	23.1	19.3	3,450	11,700	36,450	72,900	41.2	0.49	305	2.33	±0.051
350	93.9	62.6	46.9	37.6	31.3	3,200	10,500	59,169	118,338	59.5	0.84	542	4.86	±0.056
375	143	95.6	71.7	57.3	47.8	3,000	9,400	90,349	180,698	81.2	1.03	935	7.17	±0.062
425	187	125	93.5	74.8	62.3	2,800	8,700	117,863	235,726	104	1.20	1,396	10	±0.067
450	239	159	119	95.5	79.6	2,700	8,100	150,431	300,862	129	1.30	2,026	13	±0.072
500	369	246	184	148	123	2,500	7,100	232,423	464,846	200	2.30	3,930	30	±0.082
550	513	342	257	205	171	2,300	6,300	323,536	647,072	286	2.80	7,120	40	±0.092
600	652	435	326	261	217	2,150	5,700	411,088	822,176	376	3.30	11,540	60	±0.102
700	873	582	436	349	291	1,950	5,000	549,982	1,099,964	572	4	23,040	90	±0.115
750	1,180	786	590	472	393	1,850	4,600	743,444	1,486,888	722	5	34,250	130	±0.125
800	1,566	1,044	783	626	522	1,750	4,300	986,741	1,973,482	911	6	51,450	200	±0.136
850	2,021	1,347	1,010	808	674	1,600	3,900	1,273,492	2,546,984	1,109	6	71,700	200	±0.144
925	2,736	1,824	1,368	1,094	912	1,500	3,600	1,724,430	3,448,860	1,459	8	111,400	400	±0.156
1000	3,094	2,063	1,547	1,238	1,031		3,250	1,950,000	3,900,000	1,880	9	171,900	506	±0.172
1100	3,689	2,459	1,845	1,476	1,230		3,100	2,325,000	4,650,000	2,250	11	235,500	794	±0.183
1200	4,498	2,999	2,249	1,799	1,499		2,800	2,835,000	5,670,000	3,010	15	376,500	1,196	±0.203
1300	5,379	3,586	2,689	2,152	1,793		2,600	3,390,000	6,780,000	3,660	15	523,700	1,350	±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 Rexnord.
③ Series 52 couplings meet AGMA Class 9 balance requirements as manufactured with interference fit bore and close fit keyway. If clearance fit and/or setscrews are required, please consult Rexnord. See page 40 for explanation of RPM limits and balancing recommendations.
④ Weight and WR^2 at maximum bore and standard "C" dimension listed.
⑤ Balance recommendations based on AGMA Specification 9000-C90 Average Sensitivity.
⑥ Hub sizes 125-600 furnished without a finished bore will be solid. Hub sizes 700 and larger will have a minimum rough bore when finished bore not specified.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

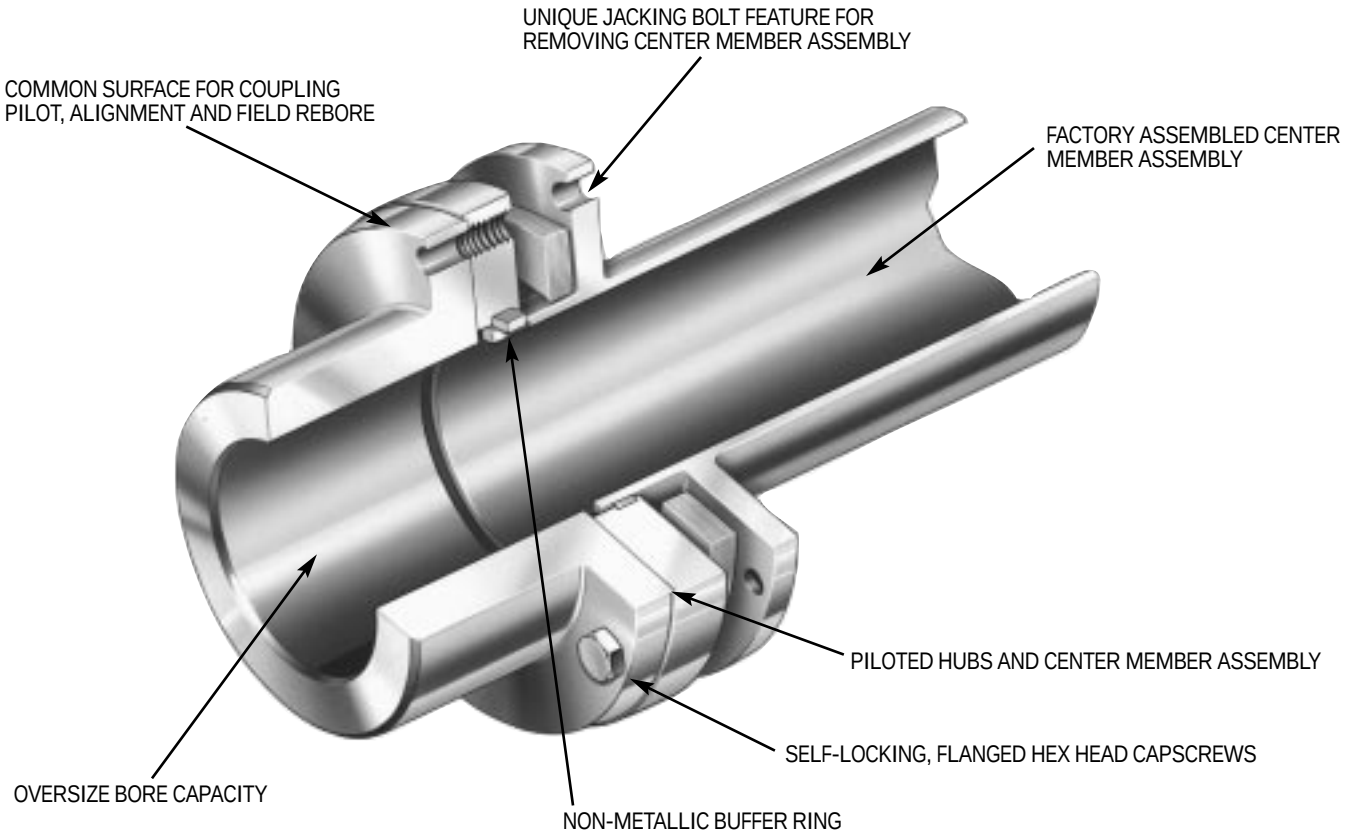
SPACER TYPE SERIES 71

THE SERIES 71 coupling is designed for applications requiring a spacer-type coupling such as ANSI, API and other process pumps. The Series 71 is most commonly applied on motor, turbine, and gear driven pumps, compressors and blowers.

The Series 71 is a simple three piece design. Hubs are piloted fit to the factory assembled center member. 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. The disc design allows for low flexing forces and high overload capacity.

The hubs and center member are manufactured from carbon steel and are black oxide coated. Bolts and capscrews are high strength alloy steel and flexing elements are 300-series stainless steel.

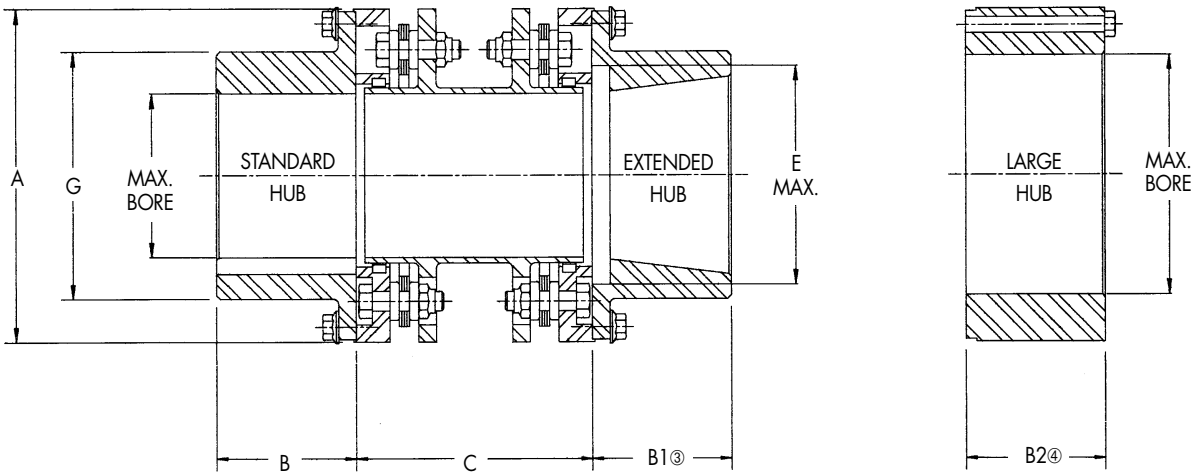
WHEN SPECIFIED, SERIES 71 COUPLINGS MEET ALL REQUIREMENTS OF API 610, 8TH EDITION OR API 671. IF APPLICATION REQUIRES API SPECIFICATION, PLEASE CONSULT REXNORD.



BENEFITS

- Fewer parts – three piece design features unitized center member assembly and two piloted fit hubs
- Quick installation – no special wrenching, easily accessible bolting
- Easy alignment – piloted flanges, common reference surface
- Unique jacking bolt feature compresses coupling for easy installation and removal of center member assembly
- Optimized 4, 6 & 8 bolt design
- Disc design provides low flexible forces with high overload capacity
- Across-the-line starting does not require torque de-rating
- Meets AGMA Class 9 Balance Specification when finish bored with interference fits

SPACER TYPE SERIES 71



General Dimensions (in.)

Cplg. Size	STOCKED 'C' DIMENSIONS 3.50	4.38	5.00	5.50	7.00	7.50	8.00	9.00	B & B1 Hub Max. Bore⑦	B2 Hub Max. Bore⑦	A	B	③ B1	④ B2	Std. C	Min. C	Max. E	G
150	•	•	•						1.500	2.375	3.59	1.31	1.69	1.62	3.50	3.44	2.06	2.31
175	•	•	•						1.875	2.750	4.16	1.56	2.06	1.81	3.50	3.44	2.56	2.81
225	•		•	•	•				2.250	3.250⑧	4.94	2.00	2.50	2.06	5.00	3.44	3.09	3.34
300			•	•	•				3.000	4.000	5.97	2.62	3.25	2.75	5.00	4.00	4.13	4.44
350			•	•	•				3.500	4.500	6.75	3.12	3.75	3.00	5.00	5.00	5.00	5.25
375			•	•	•				3.750	5.000	7.62	3.25	4.00	3.25	5.50	5.00	5.31	5.66
412					•				4.125	5.310	8.00	3.62	4.38	3.63	7.00	6.50	5.75	6.09
462					•	•	•		4.625	6.000	9.00	4.12	5.00	4.13	7.00	7.00	6.31	6.84
512					•		•		5.125	6.690	10.03	4.50	5.38	4.50	7.00	7.00	7.06	7.62
562							•		5.625	7.310	10.97	5.00	6.00	5.00	8.00	8.00	7.69	8.38
600								•	6.000	7.810	11.72	5.25	6.38	5.25	9.00	9.00	8.31	8.94
712									7.125	9.250	13.88	6.25		6.25	9.38	8.88	10.19	10.75
800									8.000	10.375	15.56	7.00		7.00	10.88	10.25	11.38	12.00
875									8.750	11.375	17.12	7.75		7.75	12.00	11.38	12.50	13.12
1038									10.375	13.125	19.75	9.00		9.00	14.00	13.24	14.88	15.56

For "C" dimensions other than shown, consult Rexnord.

Selection Table

Engineering Data

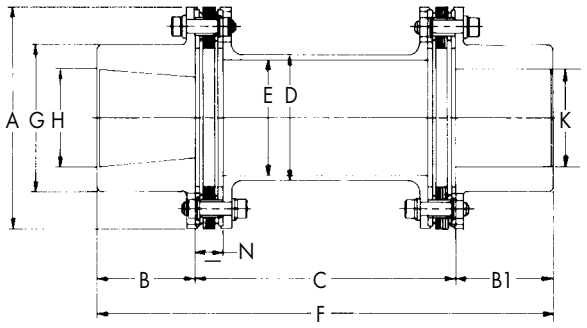
Cplg. Size	MAX HORSEPOWER PER 100 RPM SERVICE FACTOR 1.0	1.5	2.0	2.5	3.0	Max. RPM ①⑥ Not Bal.	① Balanced	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	② Weight (lbs.)	Weight Change Per inch of "C" (lbs.)	② WR^2 ($lb.-in.^2$)	WR^2 Change Per Inch of "C" ($lb.-in.^2$)	⑤ Axial Capacity (in.)
150	1.5	1.0	0.7	0.6	0.5	9,000	20,800	930	1,860	6.7	0.10	10.6	0.03	±0.050
175	2.6	1.7	1.3	1.0	0.9	8,300	17,000	1,630	3,260	9.4	0.14	20.6	0.09	±0.070
225	4.8	3.2	2.4	1.9	1.6	7,700	16,000	3,060	6,120	14	0.19	42	0.25	±0.075
300	11.5	7.7	5.8	4.6	3.8	6,800	14,000	7,260	14,520	26	0.26	121	0.66	±0.085
350	21.2	14.2	10.6	8.4	7.1	6,200	13,500	13,400	26,800	43	0.42	259	1.18	±0.090
375	30.6	20.4	15.3	12.2	10.2	5,650	12,000	19,300	38,600	55	0.43	423	1.62	±0.095
412	35.7	23.8	17.8	14.3	11.9	5,350	11,000	22,500	45,000	71	0.60	615	2.90	±0.110
462	64.1	42.7	32.1	25.6	21.4	5,000	10,000	40,400	80,800	101	0.80	1110	4.65	±0.120
512	87.3	58.2	43.6	34.9	29.1	4,700	9,200	55,000	110,000	135	1.04	1830	7.43	±0.130
562	133	89.0	66.7	53.4	44.5	4,350	8,300	84,100	168,200	186	1.28	3020	10.38	±0.145
600	145	97.0	72.8	58.2	48.5	4,150	7,800	91,700	183,400	228	1.75	4250	17.51	±0.160
712	174	116	87.0	69.6	58.0	3,450	7,200	110,000	220,000	355	1.37	9090	16.90	±0.082
800	255	170	128	102	85.0	3,250	6,800	161,000	322,000	504	2.17	16200	33.20	±0.092
875	373	250	187	149	123	3,050	6,400	235,000	470,000	672	2.41	26200	45.60	±0.102
1038	549	366	275	220	183	2,900	5,800	346,000	692,000	1120	3.21	57000	74.40	±0.115

For ordering instructions, see Pages 41-42.

① See page 40 for explanation of RPM limits and balancing recommendations.
② Weight and WR^2 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 Large hub length. For sizes not shown, consult Rexnord.
⑤ All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.
⑥ Series 71 Coupling assembly meets AGMA Class 9 Balance whenfinish bored with interference fits.
⑦ Hub sizes 150-600 furnished without a finished bore will be solid. Hub sizes 712 and larger will have a minimum rough bore when finish bore not specified.
⑧ If a block hub is supplied, extra capscrews will be provided for center member jacking feature.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

HIGH PERFORMANCE SERIES 63



THE THOMAS SERIES 63 high performance couplings are designed for demanding drive systems where coupling weight and size must be kept to an absolute minimum while transmitting high torques.

The Series 63 couplings incorporate a patented* one-piece disc/diaphragm flexing element for positive torque transmission with low restoring forces. This unitized assembly accommodates misalignment and transmits torque through a multiple disc arrangement which provides redundancy in construction with a high degree of reliability. Pilot plates on the sides of each flexing element give accurate, repeatable registration of coupling components, and retain original dynamic balance repeatability while protecting the flexing members from damage.

The hubs and center member are manufactured from high strength, heat treated 4140 steel and are black oxide coated, with other alloys available to suit special requirements. The flexing members of the disc/diaphragm unit are precision-stamped from high strength, corrosion resistant, 300-series stainless steel.

The Series 63 couplings are ideal for the most demanding drive requirements. Prime movers include motor, steam and gas turbines, rotary engines, and gas expanders. Driven equipment applications include centrifugal and rotary compressors, generators, test stands, boiler feed pumps and other multi-stage pumps, and marine propulsion drives. Special designs available for torsional tuning and reduced moment.

* U.S. Patent 4055966

SERIES 63 COUPLINGS MAY BE FURNISHED TO MEET REQUIREMENTS OF API 671

	Engineering Data							General Dimensions (in.)										
Cplg. Size	Max. HP per 100 RPM Service Factor 1.0	Max. HP per 100 RPM Service Factor 1.75	② Max. Speed (RPM)	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	Max. Bore Hydraulic H	Max. Bore Keyed K	A	B	B1	③ Std. C	Min. C	D	E	F	④ G Max.	N	Axial Capacity (in.)
162	9.35	5.34	36,000	5,890	14,700	2.00	1.88	4.25	2.06	1.88	5.00	3.25	2.41	2.22	8.75	2.81	0.53	±0.050
200	21.6	12.3	28,600	13,600	34,000	2.62	2.45	5.47	2.75	2.45	5.00	4.12	3.38	3.19	9.88	3.68	0.68	±0.070
225	33.5	19.1	26,700	21,100	52,700	2.81	2.62	5.72	2.91	2.62	5.00	4.25	3.50	3.31	10.25	3.94	0.70	±0.055
262	60.0	34.3	22,500	37,800	94,500	3.22	3.00	6.72	3.38	3.00	6.00	4.75	3.94	3.69	12.00	4.50	0.78	±0.060
312	102	58.1	19,100	64,100	160,000	3.75	3.50	8.00	3.94	3.50	6.00	5.50	4.75	4.44	13.00	5.25	0.94	±0.075
350	130	74.3	17,200	81,900	205,000	4.16	3.88	8.91	4.38	3.88	7.00	6.44	5.00	4.69	14.75	5.81	1.13	±0.080
375	200	114	15,600	126,000	315,000	4.69	4.38	9.88	4.88	4.38	7.00	6.62	6.06	5.72	15.75	6.56	1.16	±0.090
425	268	153	14,300	169,000	423,000	4.97	4.62	10.69	5.28	4.62	8.00	7.37	6.50	6.06	17.25	6.94	1.31	±0.100
450	338	193	13,300	213,000	533,000	5.36	5.00	11.50	5.69	5.00	8.00	7.62	7.00	6.55	18.00	7.50	1.36	±0.110
500	502	287	11,600	316,000	790,000	6.00	5.58	13.12	6.47	5.58	9.00	8.50	7.75	7.19	20.12	8.38	1.47	±0.120
550	721	412	10,300	454,000	1,135,000	6.70	6.25	14.75	7.38	6.25	9.88	9.88	8.75	8.06	22.38	9.38	1.73	±0.140
600	1000	571	9,300	630,000	1,575,000	7.33	6.83	16.38	8.06	6.83	11.25	11.25	9.38	8.58	24.88	10.25	2.03	±0.150
700	1433	819	8,200	903,000	2,258,000	8.17	7.62	18.69	8.97	7.62	12.00	—	10.63	9.67	27.25	11.44	2.10	±0.175
750	1825	1043	7,500	1,150,000	2,875,000	8.84	8.25	20.31	9.69	8.25	14.00	—	11.81	10.80	30.88	12.38	2.30	±0.190

For Complete Selection, Dimensions And Mass-Elastic Data, Refer To Rexnord High Performance Coupling Catalog Or Contact Rexnord.

① Larger sizes are available. Consult Rexnord with specific application requirements.
② Consult Rexnord with higher speed requirements.
③ Standard dimension - may be modified as necessary.
④ "G" dimension at listed maximum bore. Dimension "G" will vary depending on bore size.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

HIGH PERFORMANCE SERIES 63

Standard Mass-Elastic Data

Coupling Size	Weight (lb.)	WR^2 (lb.-in.^{2})	Kt x 10^6 (lb.-in./Rad.)	C.G. (in.)	Change Per Inch of "C"		
					Weight (lb.)	WR^2 (lb.-in.^{2})	Kt x 10^6 (lb.-in./Rad.)
162	7.76	16.5	0.502	0.37	0.19	0.26	10.5
200	16.4	59.8	1.78	0.56	0.27	0.76	29.9
225	19.2	78.2	2.33	0.62	0.28	0.82	33.6
262	30.7	167	3.90	0.67	0.42	1.53	62.7
312	51.0	397	5.66	0.74	0.63	3.33	137
350	69.2	666	9.54	0.79	0.67	3.90	160
375	93.1	1,100	12.3	0.99	0.89	7.72	317
425	118	1,630	19.0	0.97	1.21	11.9	491
450	147	2,330	21.0	1.09	1.35	15.5	636
500	214	4,350	34.8	1.20	1.85	25.8	1,060
550	308	7,870	49.9	1.35	2.54	45.0	1,850
600	416	13,000	61.3	1.37	3.15	63.5	2,610
700	605	24,600	100	1.46	4.25	110	4,510
750	773	37,000	131	1.52	5.02	162	6,600

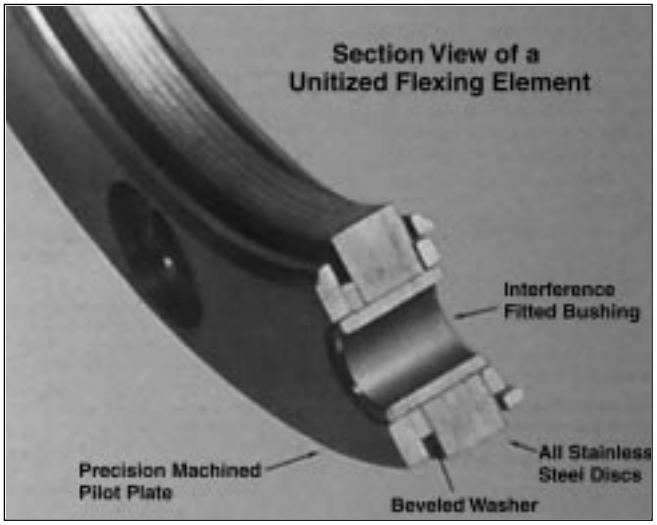
Weight and C.G. data based on standard "C" dimension, maximum hydraulic bores (H) and hydraulic hub lengths (B). Torsional stiffness (K_t) assumes a one-third shaft penetration factor. To determine K_t for a coupling with longer than standard "C" dimension, use the following formula $K_t = \frac{1}{\frac{1}{K_t} + \frac{\triangle L}{\triangle K_t}}$ where $\triangle L$ = additional "C" dimension required $\triangle K_t$ = torsional stiffness change per inch of "C" dimension and $1/K_t$ - inverse of catalog value.

SERIES 63 UNITIZED FLEXING ELEMENT

Unitized Flexing Element

Features and Benefits

- One-piece assembly–no loose parts
- Replaceable in the field
- Individually balanced
- Assures repeatable coupling dynamic balance
- Piloted fit between hubs and spacer
- Complies with API 671
- Visual inspection without coupling disassembly
- Compact and lightweight
- Easy to use



NOTE: A coupling is a critical component of any drive system. The basic coupling selection criteria is used to determine the size and style only. It is recommended that the system be analyzed for torsional and lateral stability using the specific coupling mass elastic data. The coupling weight, inertia, lateral stiffness, and torsional stiffness are available for this system analysis. It is the responsibility of the coupling user to assure the system, with the coupling as a component properly functions.

THOMAS FLEXIBLE DISC COUPLINGS

HIGH PERFORMANCE "THP"

THP couplings are designed for use on high speed equipment where coupling size and weight must be kept to a minimum. Typically, these couplings connect prime movers such as motors, steam and gas turbines, rotary engines and gas expanders, to centrifugal and rotary compressors, generators, process and boiler feed pumps. Test stand and marine propulsion drives also benefit from this unique coupling design.

CONSTRUCTION

Coupling hubs and spacers are manufactured from high strength, heat-treated 4140 and 4340 alloy steel which are black oxide coated. The coupling bolts and locknuts are made of high strength, aircraft quality alloy steel and contain a twelve-point wrenching pattern.

The flexing elements are precision-stamped from a high strength 300 series stainless steel. This material has been used successfully for many years in Thomas couplings manufactured for helicopter drive shaft applications. Special materials for hubs, spacers and/or flexing elements are available to meet unique application requirements.

Engineering Data

Cplg. Size	① Max. Standard Bore (in.)	②③ Max. Cont. Torque Rating (in.-lbs)	Max. Speed RPM	④ Total Wt. (lbs.)	④ Total WR^2 (lbs-in.^{2})	④ Half Coupling C.G. (in.)	④ Torsional Stiffness "K" (lb-in/radx10^6)	Spacer Tube Per Inch			⑤ Axial Capacity (Continuous)
								"K" (lb-in/radx10^6)	Weight (lbs.)	WR^2 (lbs-in.^{2})	
442-6	2.0	27,000	28,500	21.3	65.8	1.64	0.782	30.5	0.330	0.743	±0.120 in.
519-6	2.5	51,000	24,000	35.3	163	2.01	1.60	59.6	0.412	1.45	±0.145 in.
519-8	2.5	75,000	23,800	36.2	173	2.01	1.84	59.6	0.412	1.45	±0.100 in.
638-6	3.0	78,000	19,900	54.5	365	2.43	2.85	103	0.495	2.51	±0.175 in.
638-8	3.0	120,000	19,900	55.4	378	2.44	3.27	103	0.495	2.51	±0.125 in.
744-6	3.5	124,500	17,200	82.3	730	2.87	5.01	208	0.727	5.07	±0.205 in.
744-8	3.5	176,250	17,200	83.7	759	2.88	5.81	208	0.727	5.07	±0.145 in.
850-6	4.0	195,000	15,100	125	1470	3.18	8.12	378	1.00	9.20	±0.235 in.
850-8	4.0	294,000	15,100	127	1530	3.19	9.54	378	1.00	9.20	±0.165 in.
948-6	4.5	285,000	13,400	174	2600	3.57	12.8	617	1.31	15.0	±0.265 in.
948-8	4.5	427,500	13,400	178	2730	3.57	15.4	617	1.31	15.0	±0.185 in.
1025-6	5.0	375,000	12,250	235	4230	4.02	18.5	954	1.65	23.2	±0.290 in.
1025-8	5.0	579,000	12,250	240	4430	4.04	22.3	954	1.65	23.2	±0.205 in.

① For larger bores, consult Rexnord.
② Minimum application factor to be applied = 1.5.
③ Max. peak overload torque = 1.33 x max. cont. torque
④ Information based on standard dimensional data shown.
⑤ Max. transient axial misalignment = 120% of values shown above. Consult Rexnord with specific application requirements.

Features and Benefits

- Multiple disc design to reduce risk of catastrophic failure
- Three piece coupling construction with built-in compression feature for easy assembly with standard tools
- Improved torque weight ratio with increased axial capacity
- Flexible disc pack is easily monitored in service
- Low moment for improved rotor dynamics
- Small diameter with shrouded flanges for minimum heat generation
- Splined bores and flanged adapters available
- Axial shims available
- Alloy steel hubs, adapters and spacers furnished as standard
- Black oxide coating furnished as standard
- Hydraulic installation tooling can be furnished upon request
- Dynamic balancing meets and exceeds API-671 requirements
- Factory assembled hub-flex element-adapter module meets API-671 component balance requirements.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

HIGH PERFORMANCE "THP"

Thomas high performance couplings offer advantages to the high speed coupling user:

Reliable Performance

- All metal construction
- No wearing parts
- Retains original balance
- Low restoring forces
- High torsional stiffness
- Accepts axial movement
- Smooth and constant rotational velocity

Low Maintenance

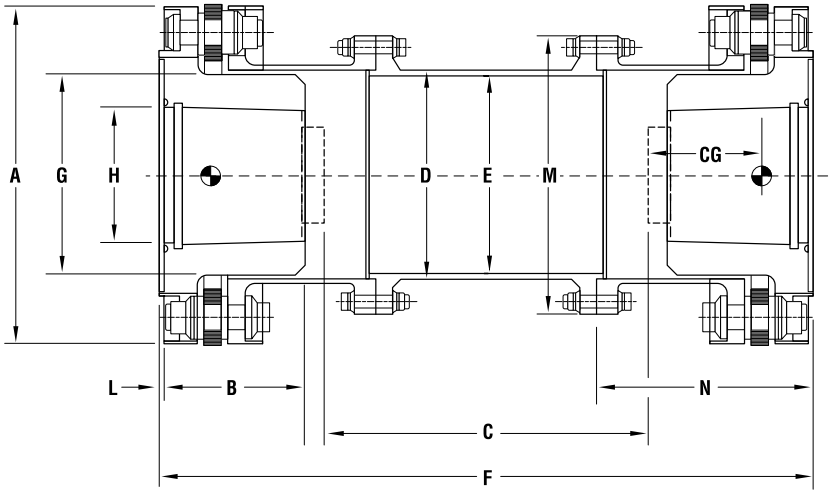
- No lubrication
- Visually inspected without disassembly
- Wide temperature range

Best Choice for API 671

- Increased ratings permit use of smaller coupling
- Low installation and maintenance costs
- All flex elements manufactured to API 671
- When specified, complete couplings will conform to API 671

Special Design Requirements

- Special coupling designs are available to suit extraordinary torque, angular misalignment and axial deflection requirements
- All coupling designs may be optimized for weight, moment, speed, or system torsional requirements
- A variety of special coatings and disc materials are available to suit your application requirements



General Dimensions (in.)

Cplg. SIZE	A	B ②	C	D	E	F	G ②	Max Bore Hydraulic H ①	L	M	N
442-6	5.375	2.062	18.00	3.125	2.875	23.125	3.000	2.0	0.125	4.500	3.79
519-6	6.375	2.594	18.00	3.875	3.625	24.312	3.750	2.5	0.125	5.312	4.50
519-8	6.438	2.594	18.00	3.875	3.625	24.312	3.750	2.5	0.125	5.312	4.50
638-6	7.688	3.094	18.00	4.625	4.375	25.438	4.500	3.0	0.125	6.375	5.00
638-8	7.688	3.094	18.00	4.625	4.375	25.438	4.500	3.0	0.125	6.375	5.05
744-6	8.875	3.688	18.00	5.438	5.125	26.625	5.250	3.5	0.125	7.438	5.22
744-8	8.875	3.688	18.00	5.438	5.125	26.625	5.250	3.5	0.125	7.438	5.25
850-6	10.125	4.188	18.00	6.250	5.875	27.750	6.000	4.0	0.125	8.312	6.26
850-8	10.125	4.188	18.00	6.250	5.875	27.750	6.000	4.0	0.125	8.312	6.32
948-6	11.438	4.688	18.00	7.000	6.562	28.875	6.750	4.5	0.125	9.344	7.14
948-8	11.438	4.688	18.00	7.000	6.562	28.875	6.750	4.5	0.125	9.344	7.15
1025-6	12.500	5.281	18.00	7.750	7.250	30.312	7.500	5.0	0.125	10.344	7.93
1025-8	12.500	5.281	18.00	7.750	7.250	30.312	7.500	5.0	0.125	10.344	8.00

① For larger bores, consult Rexnord.
② May be reduced for smaller shaft sizes. Consult Rexnord.
Note: Catalog dimensions subject to change.

System Analysis

A coupling is a critical component of any drive system. The basic coupling selection criteria is used to determine the size and style only. It is recommended that the system be analyzed for torsional and lateral stability using the specific coupling mass elastic data. The coupling weight, inertia, lateral stiffness, and torsional stiffness are available for this system analysis. **It is the responsibility of the coupling user to assure the system, with the coupling as a component, properly functions.**

THOMAS FLEXIBLE DISC COUPLINGS

TYPE AMR

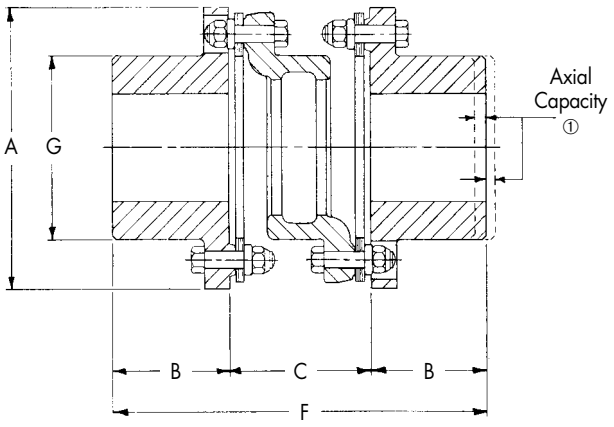
AMR couplings are designed for use in the heavy-duty, slow-to-medium speed field. They are used extensively on heavy-duty motor and engine drives that have high starting torque, shock load, torque reversal, or continuous alternating torque.

All hubs are cast alloy iron and are machined on all critical surfaces to provide indicator points for easy alignment. Center members, Sizes 162-600, are cast alloy iron, and Sizes 700 and up are cast steel. The open lug-type center member gives ample clearance for assembly while minimizing the space required for coupling installation.

The disc packs are available in Tomaloy or stainless steel. Stainless steel is recommended for corrosive applications. Bolts are alloy steel, and may be furnished plated.

General Dimensions (in.)

Coupling Size	Rough Bore④	Max. Bore⑥	A	B	C	F	G
162	—	1.62	4.59	1.75	2.62	6.12	2.75
200	—	2	5.75	2.12	3	7.25	3.62
225	—	2.25	6	2.5	3	8	3.88
262	—	2.62	6.88	2.88	3.5	9.25	4.5
312	—	3.12	8.12	3.38	4.12	10.88	5.44
350	—	3.5	9.12	3.75	4.56	12.06	6
375	—	3.75	10.06	4	5.12	13.12	6.5
425	—	4.25	11	4.25	5.56	14.06	7
450	—	4.5	11.88	4.5	5.94	14.94	7.44
500	2.69	5	13.44	5	6.81	16.81	8.38
550	2.69	5.5	15	5.5	7.69	18.69	9.44
600	3.69	6⑤	16.75	6	8.44	20.44	10.31
700	4.25	7	18.94	7	9.62	23.62	11.75
750	4.94	7.5	20.62	7.25	10.5	25	12.62
800	5.19	8	22.38	7.75	11.38	26.88	13.75
850	5.44	8.5	23.75	8.25	12.12	28.62	14.5
925	5.94	9.25	25.75	9	13.25	31.25	15.88
1000	6.5	10	28.25	9.5	14.5	33.5	17.5
1100	7	11	30.25	10.25	15.5	36	18.5
1200	7.5	12	33.38	11	17.06	39.06	20.25
1300	8	13	36	12	18.31	42.31	22.5
1550	8.5	15.5	39.25	14.5	19.44	48.44	26



Selection Table

Engineering Data

Coupling Size	Max. Horsepower Per 100 RPM — Service Factor 1.0	1.5	2.0	2.5	3.0	③ Max. RPM	Max. Continuous Torque (lb.-in.)	⑦ Peak Overload Torque (lb.-in.)	② Weight (lbs.)	② WR^2 (lb.-in.^{2})	① Axial Capacity (in.)
162	6.9	4.6	3.4	2.8	2.3	2,500	4,350	5,200	8	18	±0.036
200	13.5	9.0	6.7	5.4	4.5	2,500	8,500	10,000	16	57	±0.036
225	19.0	12.7	9.5	7.6	6.3	2,500	12,000	14,400	20	78	±0.036
262	24.3	16.2	12.1	9.7	8.1	2,500	15,300	18,300	32	166	±0.043
312	34.1	22.8	17.1	13.7	11.4	2,500	21,500	25,800	48	375	±0.051
350	76.2	50.8	38.1	30.5	25.4	2,300	48,000	57,600	72	676	±0.056
375	99.7	66.5	49.8	39.9	33.2	2,200	62,800	75,300	94	1,060	±0.062
425	127	84.7	63.5	50.8	42.3	2,000	80,000	96,000	119	1,640	±0.067
450	157	105	78.6	62.9	52.4	1,900	99,000	118,800	146	2,320	±0.072
500	232	154	116	92.7	77.2	1,800	146,000	175,200	216	4,390	±0.082
550	300	200	150	120	100	1,800	189,000	226,800	295	7,460	±0.092
600	414	276	207	166	138	1,800	261,000	313,200	396	12,400	±0.102
700	659	439	329	263	220	1,500	415,000	498,000	598	23,600	±0.115
750	846	564	423	338	282	1,500	533,000	639,600	736	35,100	±0.125
800	1087	725	544	435	362	1,200	685,000	822,000	938	55,600	±0.136
850	1297	865	648	519	432	1,100	817,000	980,000	1,150	75,600	±0.144
925	1651	1101	825	660	550	1,000	1,040,000	1,248,000	1,400	102,000	±0.156
1000	2063	1376	1032	825	688	900	1,300,000	1,560,000	1,900	172,000	±0.172
1100	2460	1640	1230	984	820	800	1,550,000	1,860,000	2,280	245,000	±0.183
1200	2889	1926	1445	1156	963	650	1,820,000	2,180,000	2,990	394,000	±0.203
1300	3450	2300	1725	1380	1150	600	2,170,000	2,610,000	3,900	561,000	±0.218
1550	4500	3000	2250	1800	1500	600	2,840,000	3,400,000	5,150	889,000	±0.242

For larger sizes, consult Rexnord. For ordering instructions, see pages 39-41.

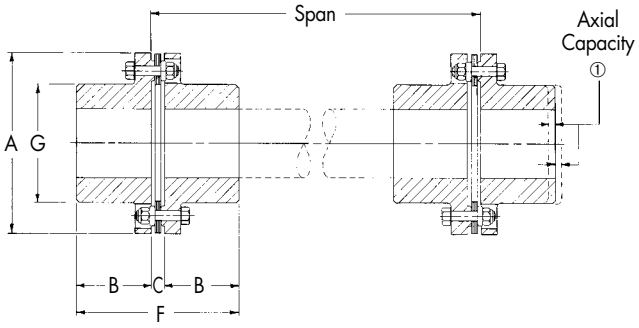
① All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modifications or the addition of end-float restricting devices.
② Weight and WR^2 at maximum bore.
③ AMR Couplings are not furnished dynamically balanced. If balancing is required, use Series 52.
④ Hub sizes 162 through 450 furnished without a finished bore will be solid.
⑤ Special hub available for size 600 with 6 ¾ max. bore. Consult Rexnord.
⑥ Straight bores with no keyway require a steel hub. Consult Rexnord.
⑦ The Peak Overload Torque is not an alternating torque limit.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

TYPE BMR

Type BMR Couplings are recommended for heavy duty motor and engine driven service such as paper machines, grinding mills, dredges, and marine propulsion.

The BMR uses a solid intermediate shaft which can be furnished complete by Rexnord or fabricated by the user. Hubs are cast alloy iron, shafting is hot or cold-rolled steel, and disc packs are Tomaloy (stainless steel also available).



General Dimensions (in.)

Coupling Size ④	Rough Bore ③	Max. Bore	A	B	C	F	G
162	—	1.62	4.59	1.75	3.91	2.75	0.41
200	—	2	5.75	2.12	4.69	3.62	0.44
225	—	2.25	6	2.5	5.44	3.88	0.44
262	—	2.62	6.88	2.88	6.28	4.5	0.53
312	—	3.12	8.12	3.38	7.38	5.44	0.62
350	—	3.5	9.12	3.75	8.16	6	0.66
375	—	3.75	10.06	4	8.81	6.6	0.81
425	—	4.25	11	4.25	9.38	7	0.88
450	—	4.5	11.88	4.5	9.88	7.44	0.88
500	2.69	5	13.44	5	11.06	8.38	1.06
550	2.69	5.5	15	5.5	12.25	9.44	1.25
600	3.69	6	16.75	6	13.38	10.31	1.38

Selection Table

④ Coupling Size	Max. Horsepower Per 100 RPM					Max. RPM
	Service Factor					
	1.0	1.5	2.0	2.5	3.0	
162	6.9	4.6	3.4	2.8	2.3	1,800
200	13.5	9.0	6.7	5.4	4.5	1,800
225	19.0	12.7	9.5	7.6	6.3	1,800
262	24.3	16.2	12.1	9.7	8.1	1,800
312	34.1	22.8	17.1	13.7	11.4	1,800
350	76.2	50.8	38.1	30.5	25.4	1,800
375	99.7	66.5	49.8	39.9	33.2	1,800
425	127	84.7	63.5	50.8	42.3	1,800
450	157	105	78.6	62.9	52.4	1,500
500	232	154	116	92.7	77.2	1,500
550	300	200	150	120	100	1,500
600	414	276	207	166	138	1,200

Engineering Data

Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	② Weight (lbs.)	② WR^2 (lb.-in.^{2})	① Axial Capacity (in.)
4,350	5,200	13	29	±0.036
8,500	10,000	25	81	±0.036
12,000	14,400	29	105	±0.036
15,300	18,300	43	214	±0.043
21,500	25,800	79	566	±0.051
48,000	57,600	106	934	±0.056
62,800	75,300	139	1,470	±0.062
80,000	96,000	174	2,320	±0.067
99,000	118,800	213	3,085	±0.072
146,000	175,200	292	5,500	±0.082
189,000	226,800	420	9,850	±0.092
261,000	313,200	550	15,700	±0.102

BMR Shafting Selection Table

④ Coupling Size	Shaft Dia. (in.)	Max HP/100 For Given Shaft Dia.	Max Allowable Shaft Wt. (lbs.)	Max Span (in.) At Max. Allow Shaft Wt.	Max. Span (in.) For Various RPM			
					1800	1200	900	720
162	1.62	6.9	60	102	54	66	76	85
200	2.00	13.5	74	83	60	73	83	83
225	2.25	19.0	86	76	64	76	76	76
262	2.50	24.3	178	128	67	82	95	106
312	2.88	34.1	233	127	72	88	102	114
350	3.50	76.2	290	107	79	97	107	107

④ Coupling Size	Shaft Dia. (in.)	Max HP/100 For Given Shaft Dia.	Max Allowable Shaft Wt. (lbs.)	Max Span (in.) At Max. Allow Shaft Wt.	Max. Span (in.) For Various RPM			
					1800	1200	900	720
375	3.75	99.7	412	132	82	100	116	130
425	4.25	127	502	125	87	107	123	125
450	4.50	157	596	132	90	110	127	132
500	5.00	232	804	145	95	116	134	145
550	5.50	300	1027	153	99	122	140	153
600	6.00	414	1296	162	104	127	147	162

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 WR^2 at maximum bore and minimum "L".
③ Hub sizes 162 through 450 furnished without a finished bore will be solid.
④ Consult Rexnord for larger sizes.
For ordering instructions, see pages 41-42.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

FLYWHEEL ADAPTER TYPE CMR

Type CMR heavy duty couplings are designed with an 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, and external strains on the crankshaft resulting from misalignment of the driven equipment is minimized. The CMR coupling is designed to withstand reversing and alternating torques from the engine or driven unit.

All hubs and adapters are cast alloy iron. Special steel hubs are available where required. Center members, Sizes 162-600 are cast alloy iron, and Sizes 700 and up are cast steel. Disc packs are available in either Tomaloy or stainless steel. Stainless is recommended for corrosive applications. Bolts are alloy steel and may be furnished plated.

CMR coupling between engine and reciprocating compressor.

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										
Adapter Tolerance	8.500 8.498	9.500 9.498	10.375 10.373	12.375 12.373	13.875 13.873	16.000 15.998	18.375 18.373	20.375 20.372	22.500 22.497	26.500 26.497	28.875 28.872
162	■	■	■	■							
200	■	■	■	■	■						
225	■	■	■	■	■						
262	■	■	■	■	■	■	■				
312		■	■	■	■	■	■	■	■		
350				■	■	■	■	■	■		
375				■	■	■	■	■	■		
425					■	■	■	■	■	■	
450						■	■	■	■	■	
500						■	■	■	■	■	■
550							■	■	■	■	■
600							■	■	■	■	■
700								■	■	■	■
750										■	■
800										■	■
850											■

AVAILABLE IN THESE SIZES

Sizes 925 to 1550 — Adapting dimensions on request.

Bolting

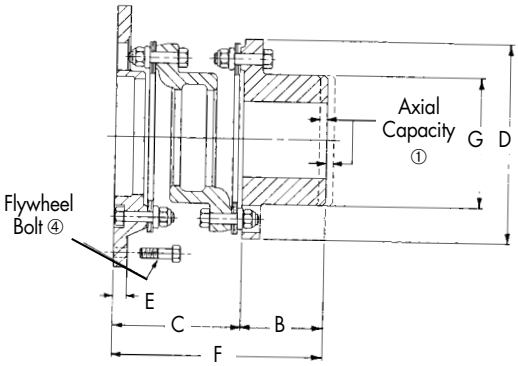
Standard A Diameter	LIGHT DUTY SAE BOLTING			HEAVY DUTY THOMAS BOLTING		
	Bolt Circle	No. Holes	Size (Dia.)	Bolt Circle	No. Holes	Size (Dia.)
8.5	7.88	6	0.34	7.5	8	0.41
9.5	8.75	8	0.34	8.62	8	0.47
10.38	9.62	6	0.41	9.5	8	0.47
12.38	11.62	8	0.41	11.5	8	0.53
13.88	13.12	8	0.41	12.5	8	0.66
16	—	—	—	14.38	8	0.078
18.38	17.25	8	0.53	16.75	8	0.078
20.38	19.25	8	0.53	18.5	8	0.091
22.5	21.38	6	0.66	20.5	8	1.03
26.5	25.25	12	0.66	24.5	12	1.03
28.88	27.25	12	0.78	26.88	12	1.03

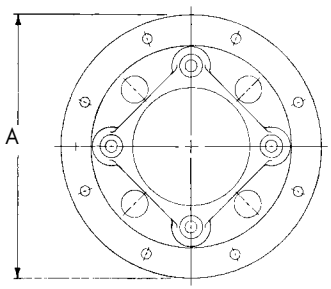
Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

FLYWHEEL ADAPTER TYPE CMR

General Dimensions (in.)

Coupling Size	⑦ Rough Bore	② Max. Bore	Min. "A" Dia.	B	C	D	E	F	G
162	—	1.62	6.25	1.75	3.31	4.59	0.31	5.06	2.75
200	—	2	7.38	2.12	3.88	5.75	0.38	6	3.62
225	—	2.5	7.62	2.5	3.88	6	0.38	6.38	3.88
262	—	2.62	8.50	2.88	4.44	6.88	0.44	7.31	4.5
312	—	3.12	9.50	3.38	5.31	8.12	0.5	8.69	5.44
350	—	3.5	10.88	3.75	5.88	9.12	0.5	9.62	6
375	—	3.75	11.88	4	6.62	10.06	0.56	10.62	6.5
425	—	4.25	13.12	4.25	7.12	11	0.62	11.38	7
450	—	4.5	14.75	4.5	7.62	11.88	0.69	12.12	7.44
500	2.69	5	16	5	8.75	13.44	0.75	13.75	8.38
550	2.69	5.5	18	5.5	9.88	15	0.88	15.38	9.44
600	3.69	6 ⑥	18.38	6	10.88	16.75	1	16.88	10.31
700	4.25	7	20.38	7	12.44	18.94	1	19.44	11.75
750	4.94	7.5	24	7.25	13.5	20.62	1.12	20.75	12.62
800	5.19	8	25.62	7.75	14.75	22.38	1.25	22.5	13.75
850	5.44	8.5	27.38	8.25	15.75	23.75	1.25	24	14.5
925	5.94	9.25	28.88	9	17.25	25.75	1.38	26.25	15.88
1000	6.5	10	31.62	9.5	18.56	28.25	1.62	28.06	17.5
1100	7	11	33.38	10.25	19.81	30.25	1.75	30.06	18.5
1200	7.5	12	37.5	11	21.56	33.38	2	32.56	20.25
1300	8	13	39.88	12	23.31	36	2.12	35.31	22.12
1550	8.5	15.5	43.62	14.5	23.75	39.25	2.12	38.25	26





Selection Table / Engineering Data

Coupling Size	Max. Horsepower Per 100 RPM, Service Factor 1.0	1.5	2.0	2.5	3.0	③ Max. RPM	Max. Continuous Torque (lb.-in.)	⑧ Peak Overload Torque (lb.-in.)	⑤ Weight (lbs.)	⑤ WR^2 (lb.-in.^{2})	① Axial Capacity (in.)
162	6.9	4.6	3.4	2.8	2.3	2,500	4,350	5,200	8	27	±0.036
200	13.5	9.0	6.7	5.4	4.5	2,500	8,500	10,000	12	68	±0.036
225	19.0	12.7	9.5	7.6	6.3	2,500	12,000	14,400	16	83	±0.036
262	24.3	16.2	12.1	9.7	8. 1	2,500	15,300	18,300	25	178	±0.043
312	34.1	22.8	17.1	13.7	11.4	2,500	21,500	25,800	39	367	±0.051
350	76.2	50.8	38.1	30.5	25.4	2,300	48,000	57,600	56	630	±0.056
375	99.7	66.5	49.8	39.9	33.2	2,200	62,800	75,300	77	1,040	±0.062
425	127	84.7	63.5	50.8	42.3	2,000	80,000	96,000	101	1,780	±0.067
450	157	105	78.6	62.9	52.4	1,900	99,000	118,800	126	2,470	±0.072
500	232	154	116	92.7	77.2	1,800	146,000	175,200	178	4,310	±0.082
550	300	200	150	120	100	1,800	189,000	226,800	245	7,700	±0.092
600	414	276	207	166	138	1,800	261,000	313,200	321	11,500	±0.102
700	659	439	329	263	220	1,500	415,000	498,000	481	21,200	±0.115
750	846	564	423	338	282	1,500	533,000	639,600	610	34,300	±0.125
800	1087	725	544	435	362	1,200	685,000	822,000	800	58,700	±0.136
850	1297	865	648	519	432	1,100	817,000	980,000	975	73,300	±0.144
925	1651	1101	825	660	550	1,000	1,040,000	1,248,000	1,180	107,000	±0.156
1000	2063	1376	1032	825	688	900	1,300,000	1,560,000	1,650	156,000	±0.172
1100	2460	1640	1230	984	820	800	1,550,000	1,860,000	1,950	247,000	±0.183
1200	2889	1926	1445	1156	963	650	1,820,000	2,180,000	2,550	407,000	±0.203
1300	3450	2300	1725	1380	1150	600	2,170,000	2,610,000	3,320	567,000	±0.218
1550	4500	3000	2250	1800	1500	600	2,840,000	3,400,000	4,100	840,000	±0.242

For larger sizes, consult Rexnord. For ordering instructions, see pages 41-42.

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 a steel hub. Consult Rexnord.

③ Maximum speeds are based on smallest available adapter O.D. For higher speeds, consult Rexnord.

④ Flywheel bolts are not supplied with coupling.

⑤ Weight and WR^2 at maximum bore and minimum adapter diameter.

⑥ Special hub available for size 600 with 6 ¾ max. bore. Consult Rexnord.

⑦ Hub sizes 162 through 450 furnished without a finished bore will be solid.

⑧ The Peak Overload Torque is not an alternating torque limit.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

FLOATING SHAFT TYPES TSN-CT, SN, SF, SV, SN ADJUSTABLE

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 on the following pages for speed recommendations. In addition, special balancing may be required for high speed service or for extended shaft lengths. Consult Rexnord for intended applications at speeds not covered in the table.

The TSN-CT, SN, SF and SV type couplings are furnished with stainless steel disc packs unless otherwise specified.

TSN-CT

TYPE TSN-CT couplings use a composite tube center shaft. This coupling is offered in a number of standard sizes and material combinations. The lightweight design offers the strength of steel, but up to a 50% reduction in weight when compared to a conventional steel design. The composite tube can also be utilized in other applications to provide lighter weight, longer spans or higher speeds than can be achieved with steel tubes. These applications include test stands, waste water treatment pumps, vertical pumps in dry docks, jack stands and in the printing industry.

TYPE SN

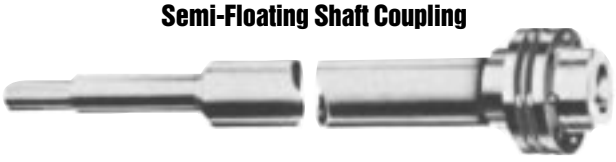
Full-Floating Shaft Coupling

TYPE SN couplings use a tubular center shaft, fabricated complete by 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 inches.

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.

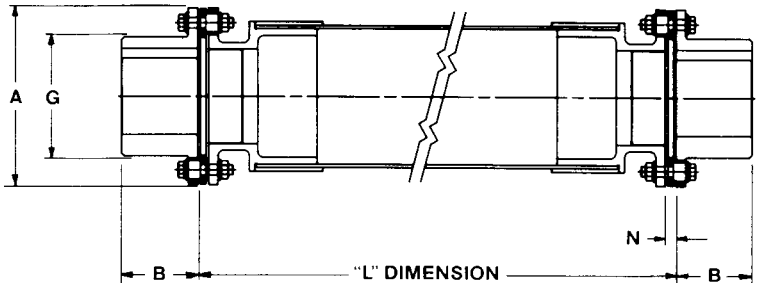
TYPE SN ADJUSTABLE

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 thru a four-inch length range, using a special compression bushing to lock the shaft in place once the length is set.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

TSN-CT COMPOSITE SHAFT COUPLINGS

THE MOST LOGICAL CHOICE FOR MOST MAJOR COOLING TOWER APPLICATIONS



CORROSION RESISTANT MATERIALS

TSN-CT couplings 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. Safety overload bushings are provided as standard. Also, these couplings are available in the following material classes as standard.

CLASS
A – All steel w/ composite tube
D – Stainless steel hardware and zinc plated hubs w/ composite tube
E – All 300 series series stainless steel w/ composite tube

Coupling Size	Max. HP Per 100 RPM Service Factor 1.0	1.5	2.0	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	Max. Bore (in.)	A	B	G	N	① Axial Capacity (in.)
226	11.2	7.5	5.6	7100	14200	2.63	5.81	2.63	3.78	0.36	±0.036
262	19.4	12.9	9.7	12200	24400	3.12	6.69	2.88	4.50	0.47	±0.043
312	31.2	20.8	15.6	19700	39400	3.63	7.81	3.38	5.25	0.50	±0.051
350	43.6	29.1	21.8	27500	55000	4.00	8.75	3.75	5.88	0.53	±0.056

Coupling Size	Maximum Span "L" at 1800 RPM (in.) Composite Tube Diameters (in.) 4.5	6.5	8.5	10.5	12.8	14.8	Maximum Span "L" at 1500 RPM (in.) Composite Tube Diameters (in.) 4.5	6.5	8.5	10.5	12.8	14.8
226	134						135					
262	132*	160	190				132*	164	196			
312		160	190	210	227			164	196	230	232	
350			190	210	227	232			197	230	233	232

1. Service factor 1.5 may be applied for standard cooling tower selection. For variable speed and reversing applications, consult Rexnord.
2. Special tubes may be applied to suit application requirements.
3. Coupling will be bored and keywayed in accordance with AGMA Standard 9001 A86. Class I clearance fit with commercial class keyways and two setscrews per hub.
4. All Rexnord cooling tower couplings are dynamically balanced and meet AGMA Standard 9000-90.

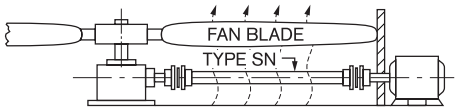
* Slight derating required for 262 SN with 4.5 tube. Service Factor 1.0=17.6 hp/100 rpm Peak overload torque 22,200 lb.-in.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

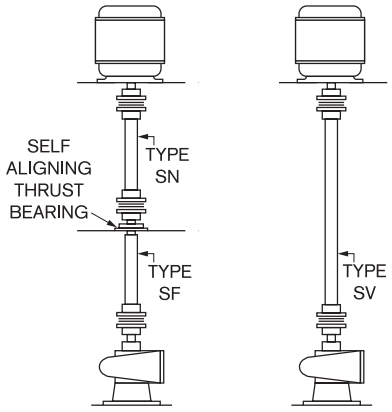
THOMAS FLOATING SHAFT COUPLINGS

TYPICAL APPLICATION ARRANGEMENTS

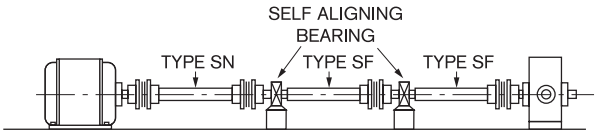
Cooling Tower Fan Drive – Humid or Corrosive Atmosphere



In the typical cooling tower installation shown above, the motor – outside the humid or corrosive atmosphere – is connected by a floating-shaft coupling to the gear box under the large slow-speed, horizontal fan blade.



VERTICAL APPLICATION



HORIZONTAL APPLICATION

CORROSION RESISTANT MATERIALS

TYPES SN, SF AND SV 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.

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

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

SELECTION DATA

Max. Horsepower Per 100 RPM

① Coupling Size	SERVICE FACTOR 1.0	1.5	2.0	2.5	3.0
50	0.27	0.18	0.14	0.11	0.09
62	0.46	0.31	0.23	0.18	0.15
75	0.65	0.43	0.33	0.26	0.22
100	1.3	0.87	0.65	0.52	0.43
125	3.5	2.4	1.8	1.4	1.2
162	6.7	4.5	3.4	2.7	2.2
200	13.6	9.1	6.8	5.5	4.5
226	22.6	15.1	11.3	9.1	7.5
262	34.9	23.3	17.5	14.0	11.6
312	44.7	29.8	22.4	17.9	14.9
350	55.7	37.1	27.8	22.3	18.6
375	123	81.8	61.3	49.1	40.9
425	187	125	93.5	74.8	62.3
450	216	144	108	86.3	71.9
500T	369	246	184	147	123
550T	427	285	214	171	142
600T	652	435	326	261	217
700T	871	581	436	348	290
750T	1001	667	501	400	334
800T	1441	960	720	576	480
850T	1756	1171	878	703	585
925T	2326	1551	1163	930	775

Maximum Span (L) in Inches For Various Speeds– For SN & SV ②
Maximum Span (X) in Inches for Various Speeds for SF ②

Coupling Size	④ 3600 RPM	3000 RPM	③ 1800 RPM	1500 RPM	1200 RPM	1000 RPM	900 RPM	750 RPM	720 RPM	600 RPM	500 RPM
50	See Footnote ④	See Footnote ④	43	47	52	56	56	56	56	56	56
62			50	54	61	67	70	75	75	75	75
75			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	See Footnote ④	See Footnote ④	147	161	180	197	207	227	232	254	279
600T			165	180	202	221	233	255	260	285	312
700T			164	179	200	219	231	253	258	283	310
750T			164	179	200	219	231	253	258	283	310
800T			179	196	219	240	252	276	282	309	See Footnote ④
850T			187	205	229	251	265	290	296	See Footnote ④	
925T			200	220	245	269	284	311	317		

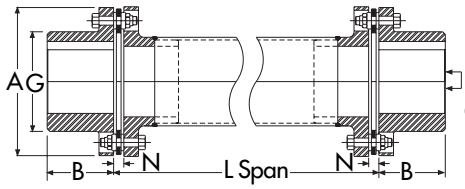
① For sizes available in each coupling type, see dimension table on the following page. T suffix on size indicates thin flange.
② Do not use floating shaft couplings on equipment having long overhung shafts.
③ Speeds 1800 rpm and under see page 40 for balancing recommendations. Consult Rexnord on speeds in excess of 1800 rpm. Advise operating speed when ordering.
④ For spans not shown consult Rexnord with application data for "span/speed" review. Consult Rexnord for speeds in excess of 3,600 rpm. Advise speed when ordering.

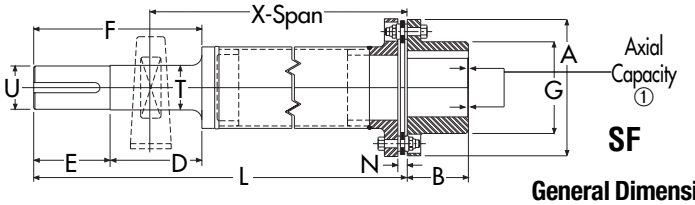
Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

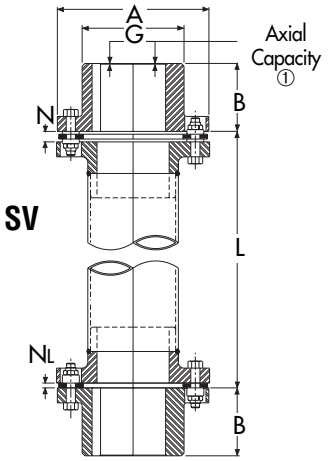
Rexnord

THOMAS FLOATING SHAFT COUPLINGS

TYPES SN, SF, SV







General Dimensions (in.)

⑤Coupling Size	Coupling Size			Max. Bore	A	B	D	E	③ T	③ U	F	G	N	N_L	② Min. L	
	SN	SV	SF												SN	SF
50	●			0.63	2.00	0.88	–	–	–	–	–	1.00	0.23	–	4.00	–
62	●			0.75	2.44	1.09	–	–	–	–	–	1.19	0.31	–	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	0.44	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	0.50	0.14	6.25	12.25
162	●	●	●	1.88	4.47	1.88	4.50	2.63	1.44	1.38	7.13	2.75	0.53	0.16	6.75	13.25
200	●	●	●	2.25	5.44	2.13	5.50	2.88	1.69	1.63	8.38	3.28	0.56	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	0.59	0.17	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	0.53	0.28	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	23.25
425	●	●	●	4.75	10.50	4.25	9.00	5.00	3.69	3.63	14.00	7.00	0.63	0.36	13.25	25.25
450	●	●		5.13	11.31	4.50	–	–	–	–	–	7.44	0.78	0.39	15.00	–
500T	●	●		5.38	12.88	5.00	–	–	–	–	–	8.38	0.78	0.45	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	0.97	0.59	18.50	–
700T	●	●		7.50	18.25	7.00	–	–	–	–	–	11.75	1.19	0.69	22.00	–
750T	●	●		8.00	19.81	7.50	–	–	–	–	–	12.63	1.25	0.75	23.50	–
800T	●	●		8.75	21.50	8.25	–	–	–	–	–	13.62	1.31	0.82	26.00	–
850T	●	●		9.25	23.00	8.75	–	–	–	–	–	14.50	1.41	0.89	36.00	–
925T	●	●		10.12	25.00	9.50	–	–	–	–	–	15.75	1.50	0.98	36.00	–

Engineering Data

⑤ Coupling Size	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	Weight (lbs.) ④		Weight Change Per Inch of "L" (lbs.)	WR^2 (lb.-in.^{2}) ④		WR^2 Change Per Inch of "L" (lb.-in.^{2})	①⑥ 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	…	0.030	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	0.17	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	39	36	0.41	222	133	1.6	±0.043
312	28,200	56,400	61.3	54	0.47	465	291	2.2	±0.051
350	35,100	70,200	86.3	78	0.52	821	478	3.1	±0.056
375	77,300	154,600	128	110	0.97	1,450	844	7.3	±0.062
425	117,850	235,700	175	…	1.58	2,490	…	15.9	±0.067
450	136,000	272,000	206	…	1.58	3,350	…	15.9	±0.072
500T	232,400	464,800	242	…	2.38	5,080	…	41.1	±0.082
550T	269,200	538,400	342	…	2.38	8,620	…	41.1	±0.092
600T	411,000	822,000	448	…	3.37	14,870	…	91	±0.102
700T	549,000	1,098,000	726	…	4.56	28,680	…	120	±0.115
750T	631,000	1,262,000	894	…	4.56	41,320	…	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

For larger sizes and longer spans, consult Rexnord. For ordering instructions, see pages 41-42.

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 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 WR^2 at max. bore and min. "L" dimension.
⑤ T suffix to coupling size indicates thin flange design. Consult Rexnord for larger sizes.
⑥ Types SF and SV end-float is one half ± value shown for type SN.
⑦ Hub sizes 50-600 furnished without a finished bore will be solid. Hub sizes 700 and larger will have a minimum rough bore when finished bore not specified.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS FLOATING SHAFT COUPLING

THOMAS SN-GA

Replaces troublesome gear couplings on pulp and paper applications. The Thomas one-piece, factory-torqued assembly is easy to install. This coupling is designed to bolt directly to existing rigid hubs using the gear coupling bolts. Axial shims are supplied for minor axial positioning.

FEATURES AND BENEFITS

NO LUBRICATION REQUIRED – EVER

Because there are no moving parts, lubrication is never required.

VISUAL INSPECTION

The Disc packs can be visually inspected without disassembly. Gear couplings must be disassembled.

NO WEARING PARTS

Disc couplings have no wearing parts and retain original balance. Worn gear couplings cause imbalance.

UNAFFECTED BY TEMPERATURE

Lubricants and seals break down in a hot, wet environment. Because disc couplings do not use lubricants or seals, there is nothing to break down.

REPLACEABLE FLEXING ELEMENTS REDUCE INVENTORY

Discs and hardware are normal spare parts. Gear couplings normally are spared for every drive position.

NO BACKLASH

Disc couplings are backlash free. Gear coupling backlash can cause defects in paper.

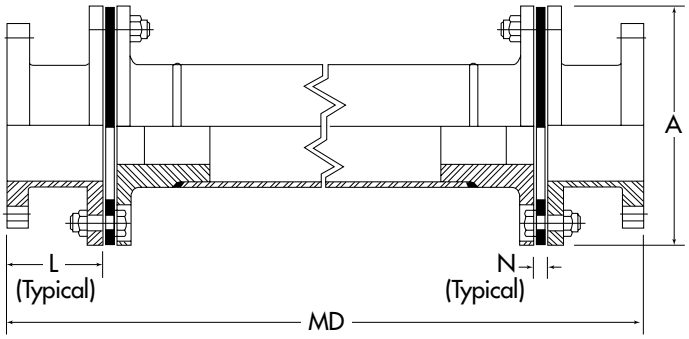
- When checking speed vs. span, compare with max span chart on page 29.
- Couplings are supplied all steel with stainless steel discs. Zinc plating can be supplied optional.
- SN-GA singles may be supplied if customer wishes to supply his own intermediate solid shaft.
- See bulletin #2016 for complete information.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS SN-GA

THOMAS CPLG \ GEAR CPLG	2	2 ½	3	3 ½	4	4 ½	5	5 ½	6
262									
312									
350									
375									
425									
450									
500-T									
550-T									
600-T									
700-T									
750-T									
800-T									
850-T									

Other sizes available – consult Rexnord.



Selection Table

Engineering/Dimensions (in)

SIZE	MAX. HORSEPOWER PER 100 RPM SERVICE FACTOR 1.0	1.5	2.0	2.5	3.0	MAX. CONTINUOUS TORQUE (lb.-in.)	PEAK OVERLOAD TORQUE (lb.-in.)	A	L	MIN. MD	N	① AXIAL CAPACITY
262	27.8	18.5	13.9	11.1	9.3	17,500	35,000	6.69	4.5	17.25	0.469	±0.043
312	36.8	24.5	18.4	14.7	12.3	23,200	46,400	7.81	5.12	19.99	0.500	±0.051
350	46.0	30.7	23.0	18.4	15.3	28,800	57,600	8.75	5.31	22.12	0.531	±0.056
375	98.0	65.3	46.0	39.2	32.7	62,100	124,200	9.69	6.62	25.99	0.594	±0.062
425	101	67.3	50.5	40.4	33.7	63,700	127,400	10.50	6.50	26.25	0.625	±0.067
450	137	91.3	68.5	54.8	45.7	86,300	172,600	11.31	6.75	28.50	0.750	±0.072
500-T	175	117	87.0	70.0	58.3	110,000	220,000	12.88	7.25	30.00	0.781	±0.082
550-T	338	225	169	135	113	213,000	426,000	14.44	7.75	33.50	0.906	±0.092
600-T	356	237	178	142	119	224,000	448,000	16.00	9.12	36.74	0.969	±0.102
700-T	549	366	275	220	183	346,000	692,000	18.25	9.25	40.50	1.188	±0.115
750-T	709	473	355	284	236	447,000	894,000	19.81	9.75	43.00	1.250	±0.125
800-T	906	604	453	362	302	571,000	1,140,000	21.50	10.25		1.31	±0.136
850-T	1126	751	563	450	375	709,000	1,420,000	23.00	10.25		1.41	±0.144

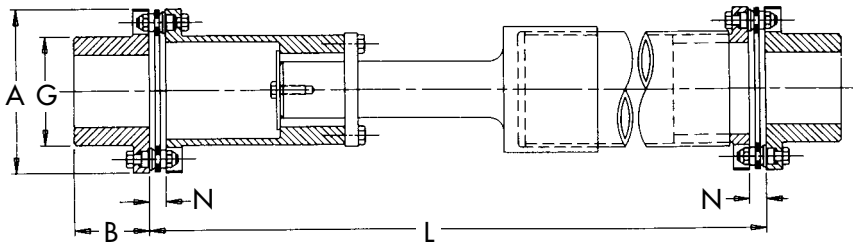
For larger sizes consult Rexnord.

① All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
② Gear coupling bolts are not supplied. When mating to shrouded type rigid hub, use gear coupling long bolts.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS FLOATING SHAFT COUPLINGS

TYPE SN ADJUSTABLE



General Dimensions (in) and Engineering Data

Coupling Size	Max. Bore	A	B	G	H	Min. "L"	Adjustment Range (in.)	② Weight (lbs.)	Weight Change Per Inch of "L" (lbs.)	② WR^2 (lb.-in.^{2})	WR^2 Change Per Inch of "L" (lbs.-in.2)	① Axial Capacity (in.)
162	1 7/8	4 11/32	1 7/8	2 3/4	17/32	14 1/4	4	19	0.17	37	0.22	±0.036
200	2 1/4	5 7/16	2 1/8	3 9/32	9/16	15 1/8	4	30	0.39	80	0.56	±0.036
226	2 5/8	5 11/16	2 5/8	3 25/32	19/32	17 9/32	4	43	0.33	151	0.82	±0.036
262	3 1/8	6 11/16	3	4 1/2	15/32	18 7/8	4	61	0.41	253	1.6	±0.043

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

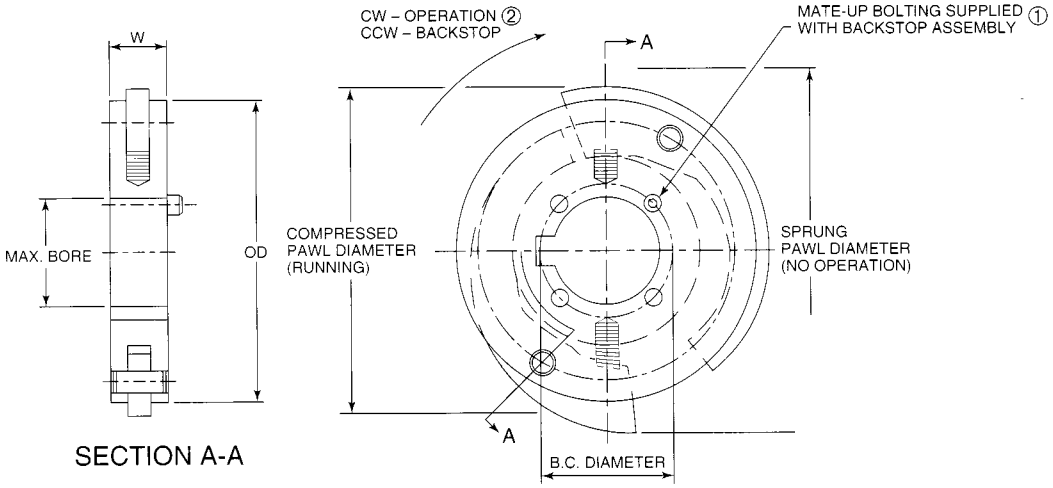
② Weight and WR^2 at maximum bore

Note: See page 30 for selection data.

Stocked Sizes		
Size	**Length Adjustment**	
162	43-47	55-59
	47-51	59-63
	51-55	
200	57-61	69-73
	61-65	77-81
	65-69	81-85
226	74-78	82-86
	78-82	86-90
262	88-92	96-100
	92-96	

THOMAS COOLING TOWER BACKSTOP

- Bolts Directly to Thomas SN & TSN-CT Hubs
- Prevents reverse shaft rotation of Cooling Tower Fans
- All Stainless Steel Construction
- Available From Stock
- For non-Corrosive environments this can be supplied in carbon steel



Bolt-On Backstop Tabulation

Size	Max. Bore	Mating Hub Backstop Bolting Info				OD	W (Ref)	Pawl Dia. (Ref)		Compressed Speed (RPM Ref)
		B.C. Dia.	Capscrew Size	Min Tap DP	Tight Torque			Compressed	Sprung	
162	1 7/8	2 5/16	1/4-20 NC x 1 1/2	5/8	25 in-lbs	5 1/4	1	5 11/16	6 1/2	450 RPM Ref
200	2 1/8	2 11/16	1/4-20 NC x 1 1/2	5/8	25 in-lbs					
226	2 5/8	3 1/4	1/4-20 NC x 1 1/2	5/8	40 in-lbs.	9 1/16	1 1/8	9 3/16	10 9/16	400 RPM Ref
262	3 1/8	3 7/8	3/8-16 NC x 1 3/4	7/8	142 in-lbs.					
312	3 5/8	4 7/16	7/16-14 NC x 2	1 1/8	225 in-lbs.					
350 / 375	4	4 7/8	1/2-13 NC x 2	1 1/8	350 in-lbs.					

Special integral hub/backstop can be supplied.

① 162 & 200 size supplied with (4) socket head capscrews. All other sizes supplied with (4) hex head capscrews.

② Backstop may be inversely mounted for opposite rotation.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

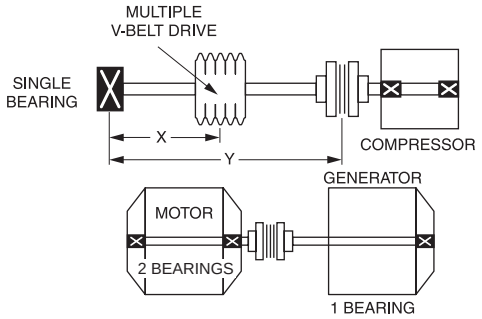
TYPE ST

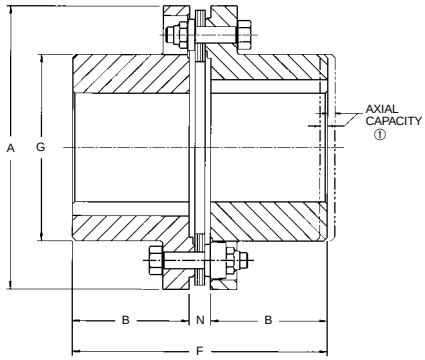
The ST Coupling is designed for applications which require the coupling to support a substantial radial load while accommodating angular misalignment. Typical installations include units where one shaft is fully supported in its own bearings, and the other shaft is single-bearing supported. The radial load is transmitted through the coupling to the inner bearing of the other shaft.

Belt drives can be designed to utilize this type of coupling to eliminate a jack shaft bearing and transfer radial loading directly to a machine bearing. Such arrangements are economical and space saving. See the sketches below.

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

The hubs on the ST coupling are cast alloy iron. Special steel hubs are available where required. Disc packs are available in either Tomaloy or stainless steel. Stainless is recommended for corrosive environments.





General Dimensions (in)

Coupling Size	Rough Bore ②	Max. Bore	A	B	F	G	N
162	—	1.62	4.59	1.75	3.91	2.75	0.41
200	—	2	5.75	2.12	4.69	3.62	0.44
225	—	2.25	6	2.5	5.44	3.88	0.44
262	—	2.62	6.88	2.88	6.28	4.5	0.53
312	—	3.12	8.12	3.38	7.38	5.44	0.62
350	—	3.5	9.12	3.75	8.19	6	0.69
375	—	3.75	10.06	4	8.88	6.5	0.88
425	—	4.25	11	4.25	9.38	7	0.88
450	—	4.5	11.88	4.5	9.94	7.44	0.94
500	2.69	5	13.44	5	11.12	8.38	1.12
550	2.69	5.5	15	5.5	12.31	9.44	1.31
600	3.69	6	16.75	6	13.38	10.31	1.38
700	4.25	7	18.94	7	15.62	11.75	1.62
750	4.94	7.5	20.62	7.25	16.31	12.62	1.81
800	5.19	8	22.38	7.75	17.38	13.75	1.88

Selection Table

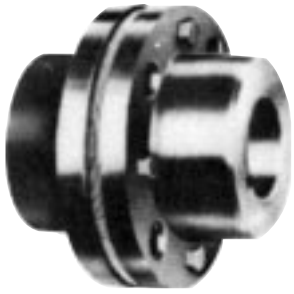
Engineering Data

Coupling Size	Max. Radial Load (lbs.)	Max. Horsepower Per 100 RPM						Max. RPM	⑥ Max. Continuous Torque (lb.-in.)	⑥ Peak Overload Torque (lb.-in.)	② Wt. (lbs.)	② WR^2 (lb.-in.^{2})	① Axial Capacity (in.)
		Smooth			Pulsating								
		③ Col. 1	④ Col. 2	⑤ Col. 3	③ Col. 4	④ Col. 5	⑤ Col. 6						
162	150	0.8	1.1	1.4	0.4	0.6	0.7	2,500	880	1,320	7	16	±0.018
200	225	1.5	2.1	2.7	0.7	1.0	1.3	2,500	1,700	2,550	14	46	±0.018
225	340	2.1	3.0	3.8	1.0	1.5	1.9	2,500	2,400	3,600	15	59	±0.018
262	520	3.8	5.3	6.8	1.9	2.6	3.4	2,500	4,280	6,420	23	120	±0.022
312	700	6.0	8.4	10.7	3.0	4.2	5.4	2,500	6,740	10,100	41	310	±0.026
350	900	8.5	11.9	15.3	4.2	6.0	7.6	2,300	9,640	14,500	56	520	±0.028
375	1,250	13.1	18.3	23.6	6.6	9.2	11.8	2,200	14,900	22,400	71	820	±0.031
425	1,500	17.0	23.8	30.6	8.5	11.9	16.3	1,900	19,300	29,000	93	1,300	±0.034
450	1,800	21.7	30.4	39.0	10.8	15.2	19.5	1,500	24,600	36,900	110	1,700	±0.036
500	2,400	33.5	46.9	60.3	16.8	23.4	30.2	1,500	38,000	57,000	160	3,100	±0.041
550	3,200	48.9	68.4	87.0	24.4	34.2	43.5	1,500	54,800	82,200	230	5,600	±0.046
600	4,000	68.6	96.0	123	34.3	48.0	61.5	1,200	77,500	116,000	300	8,400	±0.051
700	5,500	106	148	190	53.0	74.0	95.0	1,100	120,000	180,000	440	18,000	±0.058
750	6,500	139	194	250	69.5	97.0	125	1,000	158,000	237,000	590	27,000	±0.062
800	7,700	177	247	318	88.5	124	159	900	200,000	300,000	700	39,000	±0.068

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 WR^2 at maximum bore.
③ Col. 1 gives maximum HP/100 RPM permitted when combined with maximum lbs. radial load.
④ Col. 2 gives maximum HP/100 RPM permitted when combined with ⅔ maximum lbs. radial load.
⑤ Col. 3 gives maximum HP/100 RPM permitted when combined with ⅓ maximum lbs. radial load.
⑥ Maximum torque and peak overload torque are based on ⅓ maximum radial load.
⑦ Hub sizes 162 through 500 furnished without finished bore will be solid. **For ordering instructions, see pages 41-42.**

THOMAS SINGLE-FLEXING DISC COUPLINGS

TYPE BMR SINGLE



Type BMR Single

Type BMR single couplings are used for floating shaft applications where the user wishes to supply his own intermediate solid shaft, or for single-flexing applications where light-to-moderate radial loads occur. They are generally more economical than ST couplings.

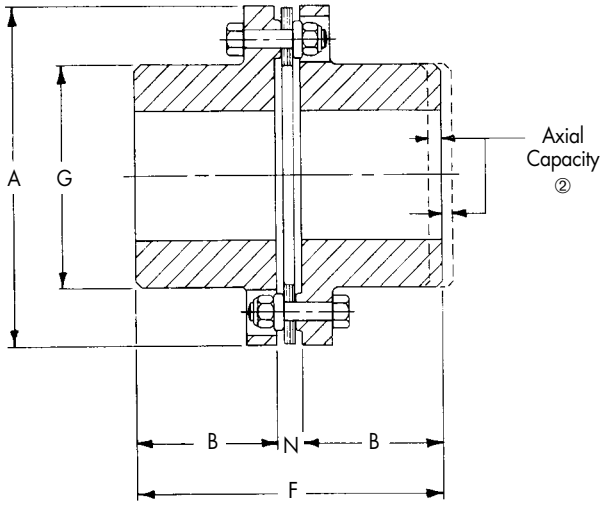
Single flexing couplings can accommodate only angular misalignment and are therefore not suitable for drives where each shaft is supported rigidly in two or more bearings.

BMR coupling hubs are cast iron with Tomaloy disc packs.

Note: For use of two single couplings with solid shaft see page 24 for maximum span.

General Dimensions (in)

Coupling Size	Rough Bore ①	Max. Bore	A	B	F	G	N
162	–	1.62	4.59	1.75	3.91	2.75	0.41
200	–	2	5.75	2.12	4.69	3.62	0.44
225	–	2.25	6	2.5	5.44	3.88	0.44
262	–	2.62	6.88	2.88	6.28	4.5	0.53
312	–	3.12	8.12	3.38	7.38	5.44	0.62
350	–	3.5	9.12	3.75	8.16	6	0.66
375	–	3.75	10.06	4	8.81	6.5	0.81
425	–	4.25	11	4.25	9.38	7	0.88
450	–	4.5	11.88	4.5	9.88	7.44	0.88
500	2.69	5	13.44	5	11.06	8.38	1.06
550	2.69	5.5	15	5.5	12.25	9.44	1.25
600	3.69	6	16.75	6	13.38	10.31	1.38
700	4.25	7	18.94	7	15.56	11.75	1.56
750	4.94	7.5	20.62	7.5	16.25	12.62	1.75
800	5.19	8	22.38	7.75	17.31	13.75	1.81
850	5.44	8.5	23.75	8.25	18.5	14.5	2.00
925	5.94	9.25	25.75	9	20.25	15.88	2.25



Selection Table

Coupling Size	Max. Horsepower Per 100 RPM, Service Factor 1.0	1.5	2.0	2.5	3.0	Max. RPM	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	③ Weight (lbs.)	③ WR² (lb.-in.²)	② Axial Capacity (in.)
162	6.9	4.6	3.4	2.8	2.3	2,500	4,350	5,200	6.5	14.5	±0.018
200	13.5	9.0	6.7	5.4	4.5	2,500	8,500	10,000	13	40.5	±0.018
225	19.0	12.7	9.5	7.6	6.3	2,500	12,000	14,400	15	58	±0.018
262	24.3	16.2	12.1	9.7	8.1	2,500	15,300	18,300	22	107	±0.022
312	34.1	22.8	17.1	13.7	11.4	2,500	21,500	25,800	40	283	±0.025
350	76.2	50.8	38.1	30.5	25.4	2,300	48,000	57,600	53	467	±0.025
375	99.7	66.5	49.8	39.9	33.2	2,200	62,800	75,300	70	735	±0.031
425	127	84.7	63.5	50.8	42.3	2,000	80,000	96,000	87	1,160	±0.034
450	157	105	78.6	62.9	52.4	1,900	99,000	118,800	107	1,540	±0.036
500	232	154	116	92.7	77.2	1,800	146,000	175,200	146	2,750	±0.041
550	300	200	150	120	100	1,800	189,000	226,800	210	4,930	±0.046
600	414	276	207	166	138	1,500	261,000	313,200	275	7,850	±0.051
700	659	439	329	263	220	1,250	415,000	498,000	410	15,300	±0.058
750	846	564	423	338	282	1,100	533,000	639,600	500	22,700	±0.062
800	1087	725	544	435	362	1,000	685,000	822,000	645	40,520	±0.068
850	1297	865	648	519	432	1,000	817,000	980,000	795	47,080	±0.072
925	1651	1101	825	660	550	1,000	1,040,000	1,248,000	1,010	70,600	±0.078

① Hub sizes 162 through 450 that are furnished without a finished bore will be solid.
② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
③ Weight and WR² shown at maximum bore.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

TYPE SN SINGLE

Type SN Single

Type SN Single Couplings are used for floating shaft applications where the user wishes to supply his own intermediate solid shaft, or for single-flexing applications where light-to-moderate radial loads occur. They are generally more economical than ST couplings.

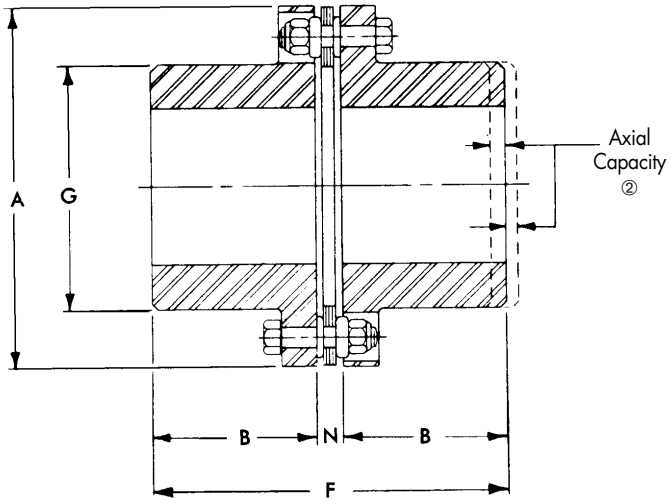
Single flexing couplings can accommodate only angular misalignment and are therefore not suitable for drives where each shaft is supported rigidly in two or more bearings.

SN single couplings use carbon steel hubs and Tomaloy disc packs (stainless steel available on request).

Note: For use of two single couplings with solid shaft see page 24 for max. span.

General Dimensions (in)

Coupling Size	Max. Bore ①	A	B	F	G	N
100	1.16	3.22	1.38	3.19	1.69	0.44
125	1.38	3.84	1.63	3.75	2.06	0.50
162	1.88	4.47	1.88	4.28	2.75	0.53
200	2.25	5.44	2.13	4.81	3.28	0.56
226	2.63	5.81	2.63	5.84	3.78	0.59
262	3.13	6.69	3.00	6.47	4.50	0.47
312	3.63	7.81	3.38	7.25	5.25	0.50
350	4.00	8.75	3.75	8.03	5.88	0.53
375	4.50	9.69	4.00	8.59	6.50	0.59
425	4.75	10.50	4.25	9.13	7.00	0.63
450	5.13	11.31	4.50	9.75	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	12.97	10.25	0.97
700T	7.50	18.25	7.00	15.19	11.75	1.19
750T	8.00	19.81	7.50	16.25	12.63	1.25



Selection Table

Coupling Size	Max. Horsepower Per 100 RPM — Service Factor 1.0	1.5	2.0	2.5	3.0
100	1.3	0.87	0.65	0.52	0.43
125	2.2	1.5	1.1	0.88	0.73
162	3.9	2.6	2.0	1.6	1.3
200	6.2	4.1	3.1	2.5	2.1
226	11.2	7.5	5.6	4.5	3.7
262	19.4	12.9	9.7	7.8	6.5
312	31.2	20.8	15.6	12.5	10.4
350	43.6	29.1	21.8	17.4	14.5
375	67.2	44.8	33.6	26.9	22.4
425	101	61.3	50.5	40.4	33.7
450	137	91.3	68.5	54.8	45.7
500T	175	117	87.0	70.0	58.3
550T	338	225	169	135	113
600T	356	237	178	142	119
700T	549	366	274	220	183
750T	708	472	354	283	236

Engineering Data

Coupling Size	Max. RPM	Max. Continuous Torque (lb.-in.)	Peak Overload Torque (lb.-in.)	③ Wt. (lbs.)	③ WR^2 (lb.-in.^{2})	② Axial Capacity (in.)
100	7,100	820	1,640	2.3	2.7	±0.019
125	6,500	1,390	2,780	3.8	6.5	±0.023
162	6,000	2,460	4,920	5.8	17.1	±0.018
200	5,500	3,900	7,800	1	37	±0.018
226	5,200	7,060	14,100	14	53	±0.018
262	4,800	12,200	24,400	23	117	±0.022
312	4,500	19,700	39,400	37	264	±0.026
350	4,100	27,500	55,000	52	459	±0.028
375	3,900	42,300	84,600	71	770	±0.031
425	3,700	55,700	111,000	89	1,160	±0.034
450	3,600	71,800	144,000	121	1,580	±0.036
500T	2,800	109,500	219,000	150	2,860	±0.041
550T	2,500	160,500	321,000	210	5,130	±0.046
600T	2,300	224,500	449,000	257	7,010	±0.051
700T	2,000	346,000	692,000	390	12,100	±0.057
750T	1,800	446,000	892,000	534	24,650	±0.062

For larger sizes, consult Rexnord. For ordering instructions, see pages 41-42.

① Hub sizes 100-600 furnished without a finished bore will be solid. Hub size 700 and 750 will have a minimum rough bore when finished bore not specified.

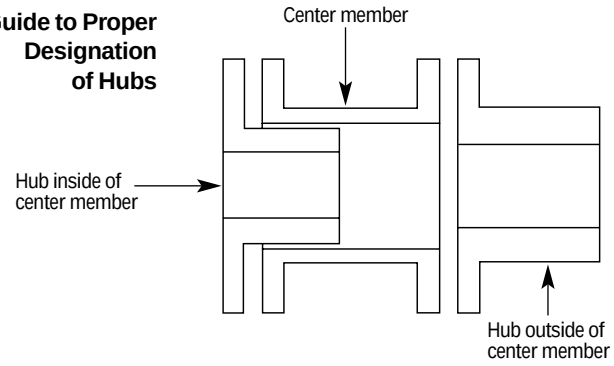
② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

③ Weight and WR^2 at maximum bore.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS MINIATURE FLEXIBLE DISC COUPLINGS

Guide to Proper Designation of Hubs

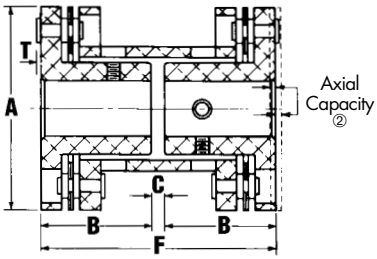


MATERIAL SPECIFICATIONS FOR STANDARD COUPLINGS:

Hubs and center member: Aluminum alloy, anodized.
Rivets: Brass.
Washers: Brass.
Discs: Stainless steel.
Set screws: 18-8 stainless steel, passivated.

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.

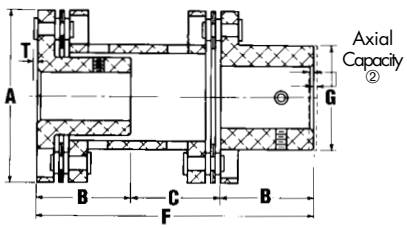


General Dimensions (in.)

Size No.	A	B	C	F	T	Torque① Capacity (lb.-in)
12	1/2	1/4	1/32	17/32	0.018	1.1
18	3/4	3/8	1/16	13/16	0.023	2.2
25	1	1/2	1/16	1 1/16	0.025	4.7
37	1 7/16	11/16	1/8	1 1/2	0.035	19.0
50	1 3/4	15/16	1/8	2	0.045	75.0
62	2 1/4	1 1/16	1/8	2 1/4	0.060	300
75	2 1/2	1 3/16	1/8	2 1/2	0.060	440
100	3	1 3/8	1/4	3	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.)

Size No.	A	B	C	F	G	T	Torque① Capacity (lb.-in)
12	1/2	1/4	15/64	47/64	5/16	0.018	1.1
18	3/4	3/8	3/8	1 1/8	15/32	0.023	2.2
25	1	1/2	15/32	1 15/32	5/8	0.025	4.7
37	1 7/16	11/16	11/16	2 1/16	7/8	0.035	19.0
50	1 3/4	15/16	29/32	2 25/32	1 1/16	0.045	75.0
62	2 1/4	1 1/16	1	3 1/8	1 3/8	0.060	300
75	2 1/2	1 3/16	1 1/8	3 1/2	1 5/8	0.060	440
100	3	1 3/8	1 3/8	4 1/8	1 7/8	0.060	700

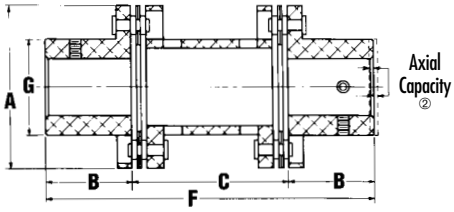
① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown for severe applications such as indexing drives where torque reversals occur.
② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or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

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

STYLE 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 Rexnord for additional design and engineering data.



General Dimensions (in.)

Size No.	A	B	C	F	G	Torque① Capacity (lb.-in)
12	1/2	1/4	7/16	15/16	5/16	1.1
18	3/4	3/8	11/16	1 7/16	15/32	2.2
25	1	1/2	7/8	1 7/8	5/8	4.7
37	1 7/16	11/16	1 1/4	2 5/8	7/8	19.0
50	1 3/4	15/16	1 11/16	3 9/16	1 1/16	75.0
62	2 1/4	1 1/16	1 7/8	4	1 3/8	300
75	2 1/2	1 3/16	2 1/8	4 1/2	1 5/8	440
100	3	1 3/8	2 1/2	5 1/4	1 7/8	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.

RATINGS AND MASS ELASTIC DATA

(Styles CC, CA, CB & CBC)

Size No.	Max. RPM	① Approx. Weight (oz.)	① Approx. WR^2 ($oz.\text{-}inch^2$)	Torsional Rigidity (K) (Milliradians per oz.-inch)	Max. Angular Misalignment, Continuous Per Flexing Element	Max. Parallel Misalignment, Continuous	② Axial Capacity
12	150,000	0.09	0.0026	0.148	2°	0.015 in.	±0.016 in.
18	100,000	0.29	0.0177	0.0908	2°	0.015 in.	±0.016 in.
25	80,000	0.74	0.0799	0.0370	2°	0.028 in.	±0.031 in.
37	55,000	2.02	0.474	0.00554	1.5°	0.028 in.	±0.031 in.
50	45,000	4.02	1.418	0.00362	1°	0.028 in.	±0.031 in.
62	35,000	9.36	4.99	0.00139	0.67°	0.028 in.	±0.031 in.
75	30,000	11.57	8.61	0.00089	0.67°	0.028 in,	±0.031 in.
100	25,000	20.00	23.00	0.00066	0.50°	0.020 in.	±0.031 in.

① Weight and WR^2 at maximum bore.

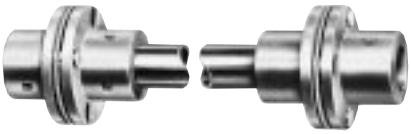
② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

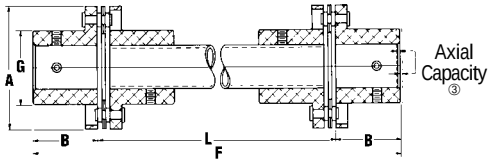
Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

THOMAS MINIATURE COUPLINGS

STYLE CE

Two single-flexing units are connected by a tubular shaft in this type of miniature coupling. It's designed to span large distances between shafts. Ideal for those applications where a large amount of parallel misalignment is anticipated.





General Dimensions (in.)

Size No.	A	B	F	G	L	Torque ② Capacity (lb.-in)	Weight ① (oz.)	Weight Change per inch of "L" (oz.)
12	1/2	1/4	Varies With "L" Specified	5/16	Variable To Suit Require-ments	1.1	0.45	0.027
18	3/4	3/8		15/32		2.2	0.97	0.048
25	1	1/2		5/8		4.7	1.70	0.059
37	1 7/16	11/16		7/8		19.0	4.10	0.110
50	1 3/4	15/16		1 1/16		75.0	7.80	0.180
62	2 1/4	1 1/16		1 3/8		300	14.30	0.220
75	2 1/2	1 3/16		1 5/8		440	18.10	0.380
100	3	1 3/8		1 7/8		700		

① Weight calculated at maximum bore and "L" = 12 inches.
② 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.
③ All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.
④ For WR^2, misalignment capacities, and torsional rigidity, consult Rexnord.

MINIATURE COUPLINGS STANDARD BORE SIZES ①

CC, CA, CB, CBC & CE Couplings

Size No.	Bores ② ③	
	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
18	0.0937, 0.1200 0.1250, 0.1562 0.1875	0.1250, 0.1562 0.1875, 0.2500
25	0.1255, 0.1880 0.2505	0.1255, 0.1880 0.2505, 0.3130 0.3755
37	0.1255, 0.1880 0.2505, 0.3130 0.3755	0.1880, 0.2505 0.3130, 0.3755 0.4380, 0.5005
50	0.2505, 0.3130 0.3755, 0.4380 0.5005	0.2505, 0.3130 0.3755, 0.4380 0.5005, 0.6255
62	0.3755, 0.4380 0.5005, 0.6255	0.4380, 0.5005 0.6255, 0.7505
75	0.4380, 0.5005 0.6255, 0.7505	0.5005, 0.6255 0.7505, 0.8755 1.0005
100	0.6255 0.7505, 0.8755 1.0005	0.7505, 0.8755 1.0005, 1.1255 1.2505

① Coupling not available with rough bore. Other bore sizes can be furnished. Consult Rexnord.
② Tolerances. Sizes 12 and 18, ±0.0003". Other sizes, ±0.0005".
③ The largest bore shown for each hub is maximum allowable bore. If larger bore is required, consult Rexnord.

Selecting and Ordering Standard Couplings

- Determine torque requirements for the application and select coupling size to handle these requirements. For severe applications such as indexing drives, where torque reversals occur, reduce the coupling's rated torque capacity by 1/3 before making selection.
- Determine the coupling style most suited for application.
- Check bore sizes to be sure the coupling selected can accept both of the connected shafts (if not, check the next size or other styles).
- When ordering, specify (1) quantity desired, (2) coupling type and size, (3) bore sizes, and (4) relevant coupling application information.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

DYNAMIC BALANCING

CLOSE COUPLED COUPLINGS AND SPACER COUPLINGS

The need for flexible couplings in high speed applications continues to grow. Thomas couplings have been particularly successful in these applications due to their desirable qualities of being in balance and staying in balance.

Thomas couplings are manufactured with an inherent high level of balance quality "designed in" to the product. That is, components are manufactured to close tolerances and concentricities, and fits between mating parts are carefully controlled.

The balance requirements of a flexible coupling are in reality governed by the characteristics and requirements of the connected equipment; in other words, the dynamics of the system dictate the required coupling balance quality. Different systems operating at the same horsepower and speed may vary in their balance requirements, depending on the "sensitivity" of the system to coupling unbalance. Some of the factors affecting sensitivity are:

- Stiffness of bearing supports
- Distance between bearing supports
- Shaft overhang between bearing and coupling
- Shaft diameter relative to coupling weight

The American Gear Manufacturers Association has developed Standard 9000-C90, entitled "Balancing Classification for Flexible Couplings" which attempts to relate the above factors, and to also define coupling balance quality as related to the system factors.

Rexnord has developed recommendations for coupling balancing based on AGMA 9000-C90 and the inherent balance level of the various couplings shown in this catalog. These are shown on the data sheets as follows:

- "Max RPM Not Balanced". This is the maximum operating speed where the coupling will operate under normal conditions, and not create unacceptable vibration due to coupling unbalance. This is based on many years of operating experience on a wide variety of drive systems.
- "Max. RPM Balanced". This is the maximum operating speed where the coupling, after balancing, will still be compatible with the typical drive system. Consult 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 balancing is required. These types are:

Type AMR

Type BMR

Type CMR

Type ST

Series 63 and THP couplings are always furnished dynamically balanced in accordance with the requirements of the application.

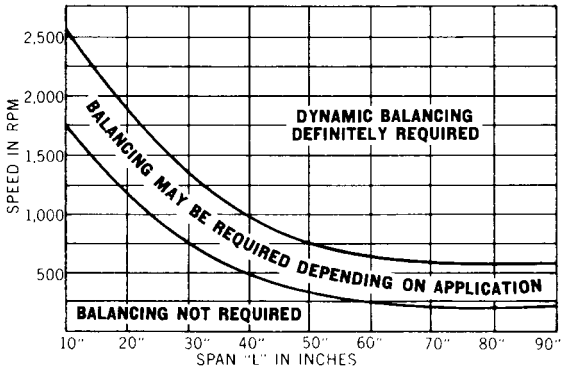
FLOATING SHAFT COUPLINGS

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

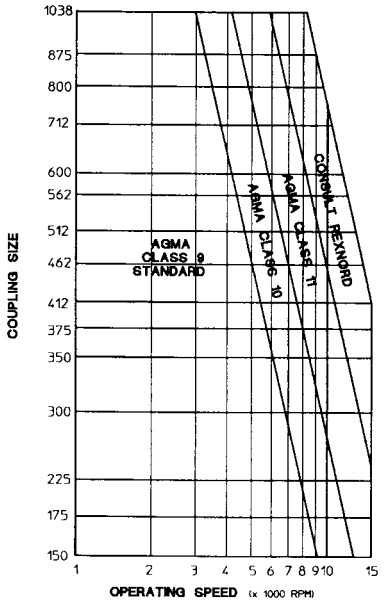
The standard procedure for balancing of SN, SV, SF, and SN-GA couplings includes straightening of the tubular shaft prior to balancing. Many couplings of this type operate relatively near to the lateral resonant frequency of the coupling center member, and special balancing techniques are often required.

Consult Rexnord for any application with speed in excess of 1800 RPM.

Coupling Types SF, SN, SV and TSN-CT



Series 71 Balance Recommendations



NOTE: The above 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 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.

ORDERING INSTRUCTIONS

PROCEDURES

The following bore will be furnished when **tolerance and type of fit** are not specified. (Does apply to miniature and DBZ stocked bores.)

Nominal Bore Dia.

Over	Thru	Bore Tolerance
. . . .	1 ½	+0.0000 -0.0005
1 ½	3	+0.0000-0.001
3	6	+0.0000-0.0015
6	12	+0.0000-0.002

See page 42 for types of fits and shaft diameters.

1. Quantity
2. Coupling Size and Type
3. Bore Sizes
4. Keyway and Setscrew Sizes (if non-standard)
5. Dynamic Balancing if required
6. Additional Data (where applicable):
   - (a) Disc Pack material (if other than Tomaloy).
   - (b) Free or interference fit on shafts (if shaft diameters are given).
   - (c) Complete details on tapered bore requirements, see 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 BMR Couplings
     - (1) Solid Shaft Diameter, if ordered
     - (2) "L" Dimension
   - (g) On CMR Couplings:
     - (1) Adapter; Page 25
       - (a) Outside Diameter
       - (b) Bolt Circle Diameter
       - (c) Bolt Hole Diameter
       - (d) Number of Bolts and Spacing

THOMAS FLEXIBLE DISC COUPLINGS

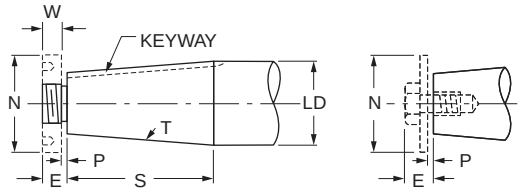
ORDERING INFORMATION
TAPERED BORES

INFORMATION REQUIRED

1. Drawing of HUB showing complete bore and keyway details.

— OR —

2. Drawing of SHAFT with dimensions shown below, allowing 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" or 1/4", depending on shaft size and taper.

Keyway: Width, Depth.

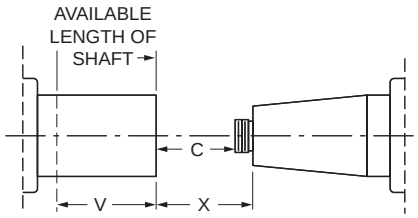
Note: Specify if keyway is parallel to Taper or if parallel to shaft center line.

Specify depth at larger diameter of Taper if keyway is parallel to shaft center line.

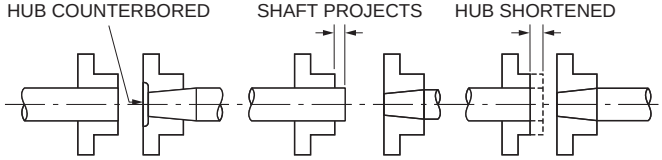
SUPPLEMENTAL TAPER BORE INFORMATION

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 A.G.M.A. Standard 9002-A86 "Taper Bores for Flexible Couplings" for new applications.



Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

ORDERING INFORMATION

BORE SPECIFICATIONS

Couplings will be bored in accordance with AGMA Standard 9002-A86 for Flexible Couplings. The type of bore fit normally supplied by Rexnord is listed below.

DBZ	Straight Bore – Class I Clearance Fit – Stocked Straight Bore – Interference Fit on Bore-To-Order Sizes ① Taper Bore – To Customer Specification
AMR, BMR, CMR, SN, SF, SV, ST, 52, 54RD, 71	Straight Bore – Interference Fit on All Bores ① Taper bore – To Customer Specification
Series 63/THP	All Bores per Customer Specification
Miniatures	See page 39

① Unless specified otherwise by customer.

Note: Rexnord recommends an interference fit be used whenever possible.

STOCK BORES AVAILABLE FOR STANDARD HUBS ON DBZ & DBZA COUPLINGS

	Coupling Size								
Bore Size	**50**	**62**	**75**	**101**	**126**	**163**	**201**	**226**	**263**
.375	•								
.50	•	•	•						
.625		•	•						
.75			•	•					
.875				•	•				
1.00				•	•	•			
1.125				•	•	•			
1.25					•	•			
1.375					•	•	•		
1.50						•			
1.625						•	•		
1.875						•	•	•	
2.00								•	
2.125							•	•	•
2.375								•	•

Standard Keyways Dimensions – Tolerances

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

Bore Sizes

Shaft Dia.	Clearance Fit – Class 1	Interference Fit
1/2	0.500-0.501	0.4990-0.4995
5/8	0.625-0.626	0.6240-0.6245
3/4	0.750-0.751	0.7490-0.7495
7/8	0.875-0.876	0.8740-0.8745
1	1.000-1.001	0.9990-0.9995
1 1/8	1.125-1.126	1.1240-1.1245
1 1/4	1.250-1.251	1.2490-1.2495
1 3/8	1.375-1.376	1.3740-1.3745
1 1/2	1.500-1.501	1.4990-1.4995
1 5/8	1.625-1.626	1.623-1.624
1 3/4	1.750-1.751	1.748-1.749
1 7/8	1.875-1.876	1.873-1.874
2	2.000-2.001	1.998-1.999
2 1/8	2.1250-2.1265	2.123-2.124
2 1/4	2.2500-2.2515	2.248-2.249

Shaft Dia.	Clearance Fit – Class 1	Interference Fit
2 3/8	2.3750-2.3765	2.373-2.374
2 1/2	2.5000-2.5015	2.498-2.499
2 5/8	2.6250-2.6265	2.623-2.624
2 3/4	2.7500-2.7515	2.748-2.749
2 7/8	2.8750-2.8765	2.873-2.874
3	3.0000-3.0015	2.998-2.999
3 1/4	3.2500-3.2515	3.2470-3.2485
3 1/2	3.5000-3.5015	3.4970-3.4985
3 5/8	3.6250-3.6265	3.6220-3.6235
3 3/4	3.7500-3.7515	3.7470-3.7485
4	4.000-4.0015	3.9970-3.9985
4 1/2	4.500-4.502	4.4965-4.4980
5	5.000-5.002	4.9965-4.998
5 1/2	5.500-5.502	5.4960-5.4975
6	6.000-6.002	5.9960-5.9975

Consult Rexnord for unlisted sizes or bores over 6-inch diameter.

TAPER-LOCK AND QD BUSHING SELECTION CROSS REFERENCE

In order to cross reference tapered bushing and bore sizes to a coupling selection, the following tables will cover the majority of cases.

* Reg. TM of others.

Taper-Lock* Type

Bushing Size	Coupling Size and Type					
	Maximum Bore	**DBZ**	**SV, SF, SN**	**Series 52**	**Series 54RD**	**AMR, BMR, CMR, ST**
1108	1 1/8	126	125	125	162	162
1215	1 1/4	163	162	162	200	200
1310	1 3/8	201	200	200	200	200
1610	1 5/8	201	200	200	200	200
1615	1 5/8	201	200	200	225	200
2012	2	226	226	225	262	262
2517	2 1/2	263	262	262	312	312
2525	2 1/2	263	262	262	312	262
3020	3	351	350	350	375	375
3030	3	351	312	312	350	350
3535	3 1/2	401	375	375	450	425

Note: "C" Dimension will be as listed for all couplings.
"F" Dimension will vary according to bushing selection.
Consult Rexnord for "F" dimensions with bushings.

Hubs bored for Q.D. or Taper-Lock® bushings will be modified for proper fit with bushing length. Consult Rexnord for specific dimensional data.

If specific reference to the coupling series or type is not found in the table, i.e. special designs, comparison of the shaft size with the maximum bore table only, will indicate the correct taper bushing in the left side of each table. Other flange style and compression bushings can be used with coupling hubs.

Q.D. Type

Bushing Size	Coupling Size and Type						
	Maximum Bore ⑤	**DBZ**	**SV, SF, SN**	**Series 52**	**Series 54RD**	**Series 71**	**AMR, BMR, CMR, ST**
JA	1 1/4	126	125	125	162	150	162
SH	1 5/8	163	162	200	200	175	200
SDS	1 15/16	201	226	225	225	300	200
SD	1 15/16	201	226	225	225	300	200
SK	2 1/2	263	262	262	312	300	262
SF	2 15/16	301	312	350	350	350	312
E	3 7/16	401	375	375	425	462	375
F	3 15/16	…	450	450	500	512	450

⑤ With shallow keyway. Key supplied with bushing where shallow keyway is furnished.

APPLICATION DATA FORM — ENGINEERED PRODUCTS

Thomas couplings are adaptable to virtually any special drive system.

Please fill out this page and the facing page and send to Rexnord Corp., Coupling Operation, Warren, PA 16365. Telephone: (814) 723-6600.

NAME: _____

TITLE: _____

COMPANY: _____

ADDRESS: _____

PHONE: _____

DATE: ____/____/____

APPLICATION DATA

DRIVER _____

DRIVEN _____

NEW APPL. Yes ☐ No ☐

REPLACING _____

SERVICE: Cont. ☐ Intermit. ☐

TEMP.: Norm. _____°F Max. _____°F

SERVICE FACTOR _____

CORROSION PROTECTION Yes ☐ No ☐

PLATE/COAT. _____

THERMAL GROWTH:

BSE (Cold) _____

BSE (Hot) _____

AXIAL FLOAT REQ'D.± _____

CUSTOMER REQUIREMENTS

WT ☐ Solo Plate ☐

WR^2 ☐ WT/2 — CG Simulator ☐

KT ☐ Puller Holes ☐

CG ☐ Sketch ☐

NCR ☐ Dwg. ☐

FN ☐ Quote ☐

BALANCE CPLG. Yes ☐ No ☐

BALANCE HUBS No ☐

DR. ☐ DN. ☐

FIELD BAL. TAPS Yes ☐ No ☐

OTHER ☐ _____

INQUIRY NO. T _____

COUPLING OPERATION DATA

DATE QUOTED ____/____/____

CPLG. SIZE/STYLE _____

DESIGN: **Std.** ☐ **Rm.** ☐ **Spec.** ☐

ORDER NO. _____

DWG. NO. _____

QTY. _____

PRICE _____

DELIVERY _____

TORQUE DATA

	NOR.	MAX.	START	TRIP
H.P.	_____	_____	_____	_____
kW	_____	_____	_____	_____
RPM	_____	_____	_____	_____
Torque (In-Lbs)	_____	_____	_____	_____

SPECIFICATION APPLICABLE

API-671 Yes ☐ No ☐ EDITION _____

API-610 Yes ☐ No ☐ EDITION _____

OTHER _____

DESIGN LIMITS

WEIGHT: Yes ☐ No ☐ — _____ lbs.

WR^2: Yes ☐ No ☐ — _____ $lbs.-in.^2$

KT: Yes ☐ No ☐ — _____ x 10^6 in.-lb./Rad.

O.D.: Yes ☐ No ☐ — _____ in.

MISALIGNMENT: Yes ☐ No ☐

ANG. _____ Deg./Element

PARA. _____ in. Offset

Axial ± _____ in.

OTHER: _____

SPECIAL NOTES: _____

_____

_____

_____

_____

APPLICATION DATA FORM — ENGINEERED PRODUCTS

Thomas couplings are adaptable to virtually any special drive system.

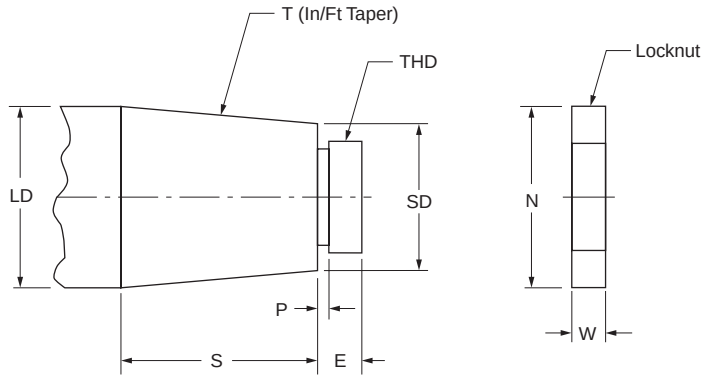
Please fill out this page and the facing page and send to Rexnord Corp., Coupling Operation, Warren, PA 16365. Telephone: (814) 723-6600.

DIMENSIONAL DATA

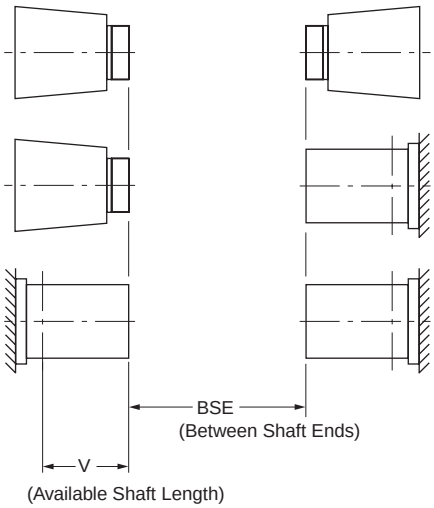
BORE/KWY DATA

	Driver	Driven
Bore Dia: Straight	_____	_____
Taper (L.D.)	_____	_____
Keyway Size	_____ W. x Dp. _____	_____ W. x Dp. _____
	Depth From Opp. Side of Bore at LD _____	Depth From Opp. Side of Bore at LD _____
Kwy. Parallel To	℄ ☐ Taper ☐	℄ ☐ Taper ☐
Hydraulic Fit	Yes ☐ No ☐ Inter. _____/_____	Yes ☐ No ☐ Inter. _____/_____
Spine (Provide Details)	P.D. _____ Lg. _____	P.D. _____ Lg. _____
Fig. Adapter	No. Holes _____	No. Hole _____
* — Provide Sketch Below	BCD _____	BCD _____
	Spacing _____	Spacing _____
	Pilot Dia. _____	Pilot Dia. _____
	Pilot Hgt. _____	Pilot Hgt. _____
Other	_____	_____

SHAFT DATA



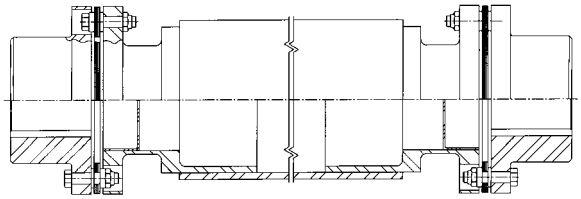
		Driver	Driven
LD		_____	_____
SD		_____	_____
S		_____	_____
E		_____	_____
P		_____	_____
T (In/Ft)		_____	_____
W		_____	_____
N		_____	_____
THD	RH	_____	_____
	LH	_____	_____
BSE		_____	_____
V		_____	_____



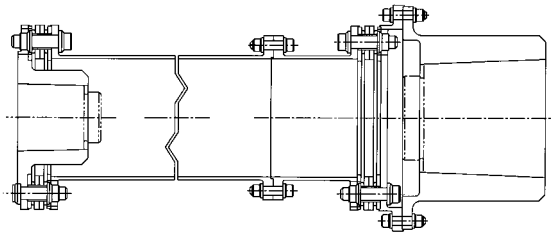
SKETCH AREA

THOMAS COUPLINGS

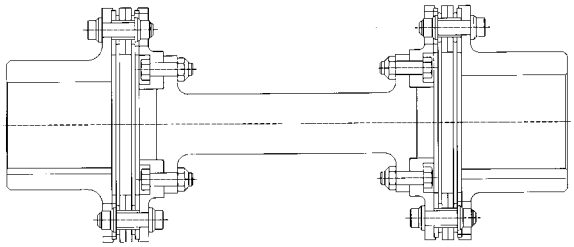
This is a small assortment of special couplings Rexnord Thomas Coupling has designed and manufactured. Couplings for extreme temperatures and very high speed, high torque and corrosive environments have been provided. For special considerations, please contact Rexnord Thomas Coupling Division.



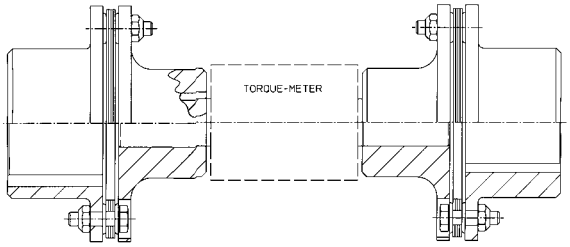
SN-EL - EXTRA LONG SPAN



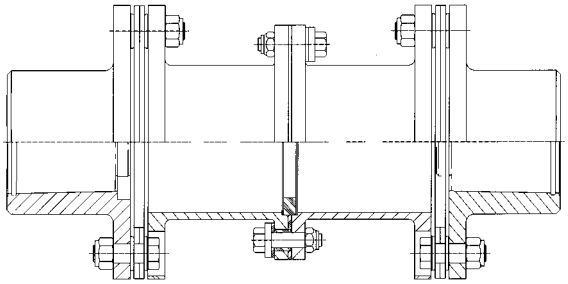
SEMI-REDUCED MOVEMENT – BOLT ON HUB



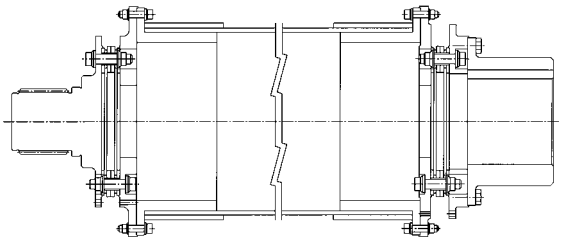
TORSIONALLY TUNED CENTER MEMBERS



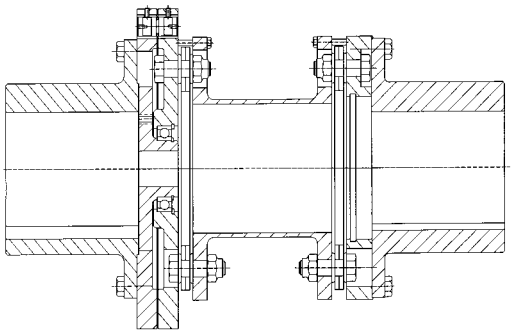
TORQUE METER COUPLING



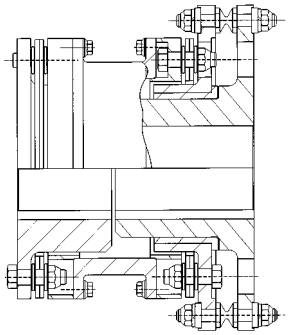
ELECTRICALLY INSULATED COUPLINGS



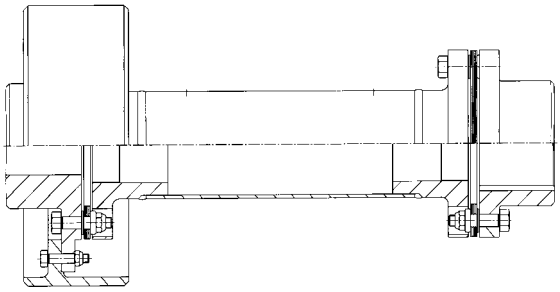
HIGH SPEED-COMPOSITE TUBE COUPLING



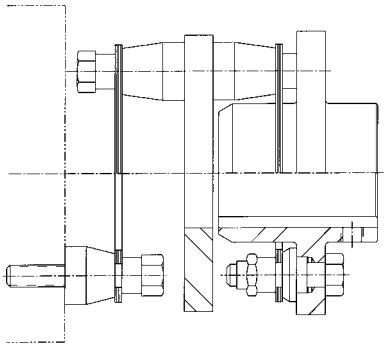
SHEAR PIN COUPLING-BEARING STYLE



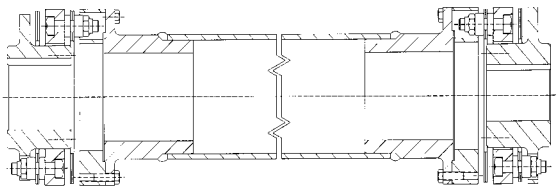
SHEAR PIN COUPLING-BUSHING STYLE



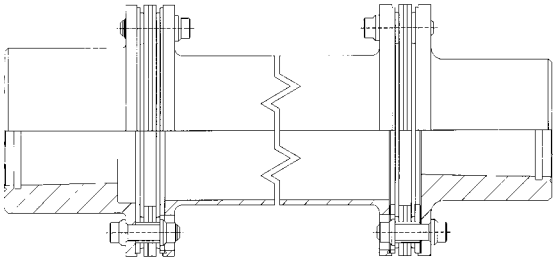
BRAKE DRUM HUB



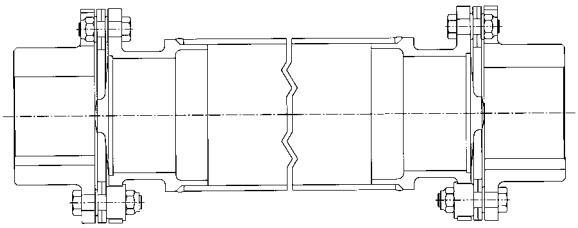
MOTOR-TACHOMETER COUPLING



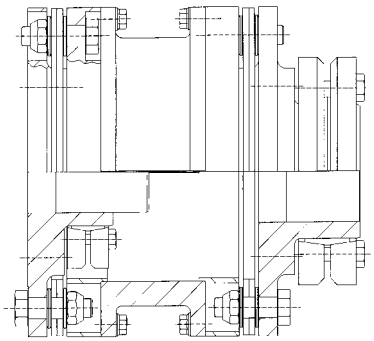
DOUBLE DISC PACKS PROVIDE HIGH AXIAL CAPACITY



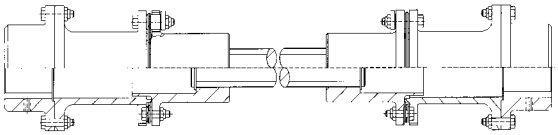
HYDRAULIC HUB MOUNTING



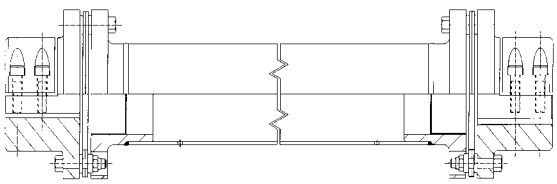
AXIAL LIMITING STOPS



SHRINK DISC HUB MOUNTING



SLIDE COUPLING FOR AXIAL POSITIONING



CLAMP HUB MOUNTING

GENERAL ALIGNMENT INSTRUCTIONS

Correct installation and alignment will assure long life and smooth, trouble free service. Refer to specific instruction sheet, which accompanies shipment, for style of coupling being installed.

Two methods are commonly accepted:

1. Reverse Indicator Method **(preferred)**
2. Face/Rim Method (angular/offset)

For complete alignment information, contact Rexnord

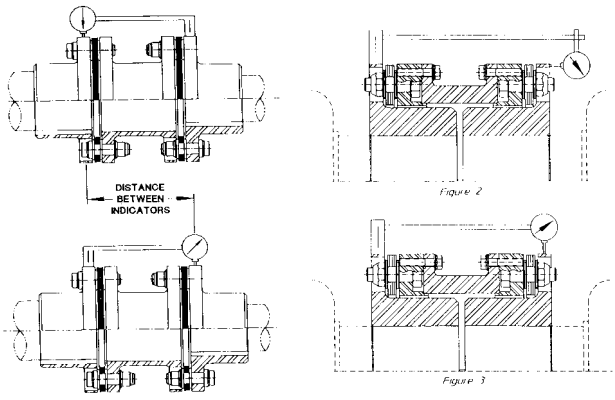
THE REVERSE INDICATOR METHOD

1. Rigidly mount a dial indicator on one hub or shaft, reading the shaft or other hub outside diameter as shown. Compensate for indicator set-up sag. Rotate both shafts together. Adjust the equipment by shimming and/or moving so that the indicator reading is within maximum allowable variations for the coupling style.
2. Reverse the set-up as shown and repeat #1 above.
3. When the results of #1 and #2 above are both within maximum allowable variations for the coupling style the shafts are in good alignment.

Angular Alignment. Rigidly mount a dial indicator on one hub or shaft, reading the face of the other hub flange, as shown in Figure 2.

Rotate both shafts together making sure the shaft axial spacing remains constant. Adjust the equipment by shimming and/or moving so that the indicator reading is within maximum allowable variations for the coupling style.

Parallel Offset. Rigidly mount a dial indicator on one hub or shaft, reading the other hub flange outside diameter, as shown in Figure 3. Indicator set-up sag must be compensated for. Rotate both shafts together. Adjust the equipment by shimming and/or moving so that the indicator reading is within maximum allowable variations for the coupling style.



LOCKNUT TIGHTENING TORQUES

Properly tightened locknuts are essential in achieving maximum coupling torque. This table suggests the approximate locknut tightening torque values of disc couplings. Torque should be measured at the locknut while it is being turned.

The tightening toques apply to locknuts as received from the factory. If plated hardware is used, tightening torque must be modified to suit.

Stainless steel hardware requires special consideration. The tightening torques must be reduced to 60% of the values shown.

Series 71
Locknut and Capscrew Tightening Torques

Coupling Size	Locknut Torque Ft.-lbs. (in.-lbs.)	Capscrew Torque Ft.-lbs. (in.-lbs.)
150	(130)	(113)
175	(162)	(108)
225	(162)	(108)
300	25	(108)
350	34	18
376	60	18
412	80	18
462	130	33
512	164	52
562	190*	80
600	190*	80
712	190*	95
800	255*	165
875	335*	270
1038	425*	270

Bolt and locknut threads must also be liberally coated with a molybdenum disulphide grease.

Bolting instructions for Series 63 Couplings are included with coupling installation procedures.

Disc Couplings
Approximate Locknut Torque – Ft.-lbs.

Coupling Size	Coupling Types: DBZ DBZ-A DBZ-B DBZ-C	Coupling Types: SN, SF, SV, AMR, BMR, ST 52, 54RD	Coupling Size	Coupling Types: DBZ DBZ-A DBZ-B DBZ-C	Coupling Types: SN, SF, SV, AMR, BMR, ST 52, 54RD
50	2	2	**312**	…	40
62	3	3	**350**	…	95
75	3	3	**351**	175	…
100	…	8	**375**	…	130
101	8	…	**401**	150*	…
125	…	13	**425**	…	175
126	13	…	**450**	…	150*
162	…	13	**451**	190*	…
163	13	…	**500**	…	190*
200	…	25	**550**	…	255*
201	25	…	**600**	…	335*
225	…	25	**700**	…	425*
226	30	25	**750**	…	560*
262	…	30	**800**	…	740*
263	40	…	**850**	…	950*
301	95	…	**925**	…	1800

Note:

1. These torque values are approximate for steel bolts with oil lubricated threads.
2. Bolts should be held from rotating while the locknuts are torqued to the values shown.

* These locknuts are cadmium plated.

Note: Dimensions subject to change. Certified dimensions of ordered material furnished on request.

Rexnord

NOTES

ADDITIONAL REXNORD COUPLING PRODUCTS

THE REXNORD FAMILY OF COUPLING SOLUTIONS

In the past 80 years of coupling manufacturing, Rexnord has seen and solved virtually every problem a coupling application can present. Today's buyer gets the benefit of that experience in a broad line of coupling products:

Thomas® disc couplings lead the industry with their non-lubricated flexible design. These metal flexing couplings utilize non-wearing parts for the transmission of torque and the accommodation of unavoidable shaft misalignment. Thomas couplings feature include a visual inspection design (no need to disassemble the coupling to assure its integrity) and flexible metal disc packs which never require lubrication. Thomas coupling engineers possess more application experience than any other disk coupling manufacturer, to assure added reliability on the most critical drive systems.

Rex® Omega™ elastomeric couplings feature a split-in-half flexible polyurethane design. Easy maintenance is the focus, with only four components, two hubs and two half elements. The flex element can easily be replaced without disturbing the hubs or moving or realigning connected equipment. A polyurethane-to-metal flex element bond design and radial bolting combine to make assembly and disassembly very quick and efficient. Omega couplings are also non-lubricated, with a specially formulated polyurethane material engineered for maximum fatigue resistance and environmental compatibility. The torsionally soft flex element protects connected equipment by cushioning shock loads, reducing torsional vibration and absorbing the effect of unavoidable misalignment. The result is lower equipment vibration, longer equipment service life and lower overall maintenance costs.

Rex® MagneLink™ introduces a revolutionary new technology to the power transmission industry. Its patented design consists of two parts that have no physical contact! This unique design allows torque to be transmitted through the air while eliminating the transfer of vibration. The MagneLink™ coupling works on a fundamental principle of nature involving permanent magnets. It has no wearing parts making it virtually maintenance-free!

Addax® composite coupling systems have been installed on every continent around the globe and are utilized for a number of applications including fans, pumps, compressors and ships. Addax advantages include:

- **High Misalignment Capacity**
- **Corrosion resistance**
- **Elimination of Steady Bearings**
- **Reduced Bearing Loads**
- **Low vibration**

The Omega, Thomas, MagneLink and Addax coupling family is manufactured for the quality, reliability and easy maintenance you depend on. You can rely on Rexnord to meet the need in your industry's toughest applications.