



# Omega Elastomeric Couplings

(Inch)



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# Rexnord Omega Elastomeric Couplings

## OEM Performance and Coverage

The unique split-in-half flex element and reversible hubs significantly decrease total costs by reducing inventory and assembly time.

Rexnord Omega couplings are non-lubricated, material-flexing couplings utilizing a specially formulated polyurethane material engineered for maximum durability, strength and fatigue resistance.

The Rex® Omega HSU coupling (green) is specifically designed for hot and humid conditions.

Rexnord is the leading coupling provider in the industry with a full-line of available solutions supported by trained customer service and application engineering professionals focused only on our coupling product line. For more information, contact your local Rexnord account executive.

## Features and Benefits

**Torsionally Soft Flex Element**

**Split-in-Half Design**

**Radial Bolting**

**Polyurethane-to-Metal Bond**

**Interchangeable Hubs**



- Split-in-half flex element design for simplified assembly and disassembly
- Interchangeable hubs allow for reduced inventory
- High-misalignment capacity accommodates unavoidable misalignment with low reactionary forces
- Torsionally soft flex element cushions shock loads and vibration, extending equipment life
- Polyurethane flex element does not require lubrication
- Polyurethane-to-metal bond eliminates assembly and slippage problems associated with mechanically clamped designs
- Our selection software makes choosing the right coupling a snap
- Rexnord field specialists are locally based experts available to support key end-users
- The Rexnord Omega HSU coupling (green) is specifically designed for hot and humid environments. In addition, the HSU material performs well in caustic and acidic environments. Consult Rexnord engineering for your application.



Rexnord Omega couplings operate in either horizontal or vertical applications without any additional components.

Ease of installation, ease of maintenance and visual inspection make these couplings a must for many applications such as this mash cooker in a brewery. Never operate a coupling without an OSHA approved guard.

## Selection Procedures

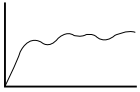
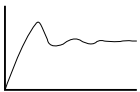


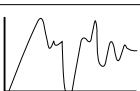
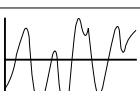
- Determine HP/100 RPM:** 
$$\text{HP/100 RPM} = \frac{\text{Horsepower} \times 100}{\text{RPM}}$$
- Determine Service Factor:**  
Select the proper Service Factor from Table on **page 5**. If not listed, see Load Classification Table.  
Remember to consider both driver and driven equipment and temperature requirements.
- Multiply HP/100 by the service factor to get equivalent HP/100 RPM.**
- Select the Coupling Size:**  
From **Table 1**, with a rating equal to or greater than the equivalent HP/100 RPM determined in Step 3.
- Check Limiting Conditions:**  
Be sure that the operating speed of the coupling does not exceed maximum RPM listed on **pages 8-11**.
- Select Desired Hub Type:**  
Select desired hub type and check maximum allowable coupling bore on **page 17**.

### OR

- Determine Operating Torque:** 
$$\left( \frac{63,000 \times \text{HP}}{\text{RPM}} \right)$$
- Multiply by Service Factor:**  
Select the proper Service Factor from Table on **page 5**.
- Select the Coupling Size:**  
Select coupling size from **Table 2** with a capacity equal to or greater than determined in Step 2.
- Follow Steps 5 & 6 Above**

## Service Factors

Service Factors (S.F.) 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. This is a general guide. More specific factors are given on **page 5**.

|   | 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 |

**Table 1**

| Size     |        | Equivalent HP/100 RPM |
|----------|--------|-----------------------|
| Standard | Spacer |                       |
| E2       | ES2    | 0.3                   |
| E3       | ES3    | 0.58                  |
| E4       | ES4    | 0.88                  |
| E5       | ES5    | 1.48                  |
| E10      | ES10   | 2.3                   |
| E20      | ES20   | 3.65                  |
| E30      | ES30   | 5.79                  |
| E40      | ES40   | 8.85                  |
| E50      | ES50   | 12.14                 |
| E60      | ES60   | 19.84                 |
| E70      | ES70   | 35.12                 |
| E80      | ES80   | 62.7                  |
| E100     | NA     | 135                   |
| E120     | NA     | 270                   |
| E140     | NA     | 540                   |

**Table 2**

| Torque Capacity |                           |      |                           |
|-----------------|---------------------------|------|---------------------------|
| Size            | Continuous Torque (lb-in) | Size | Continuous Torque (lb-in) |
| 2               | 190                       | 40   | 5,500                     |
| 3               | 365                       | 50   | 7,650                     |
| 4               | 550                       | 60   | 12,500                    |
| 5               | 925                       | 70   | 22,125                    |
| 10              | 1,450                     | 80   | 39,500                    |
| 20              | 2,300                     | 100  | 85,050                    |
| 30              | 3,650                     | 120  | 170,100                   |
|                 |                           | 140  | 340,200                   |

Peak torque capacity of element is 250% of above continuous ratings.

| Omega Element Temperature Range (Ambient) ① |       |
|---|-------|
| -40°F                                       | -40°C |
| to  |       |
| +200°F                                      | +93°C |

| High Temperature Service Factor Adjustment ① |              |
|--|--------------|
| Ambient Temp.                                | S.F. Adjust. |
| +150°F (66°C)                                | 0.25         |
| +165°F (74°C)                                | 0.50         |
| +180°F (82°C)                                | 0.75         |
| +200°F (93°C)                                | 1            |

① Added to application service factor.

The service factor adjustment for high temperature is in addition to the service factor consideration for the driver and driven equipment. However, if high temperatures are typical for a specific application, maximum temperature consideration is incorporated into the "typical" service factor listing on **page 5**, i.e., steel mill runout tables.

# Typical Service Factors – Motor and Turbine Driven Equipment <sup>①</sup>

| General Application                                  | Typical Service Factor | Industry Application   | Typical Service Factor | Industry Application   | Typical Service Factor |
|--|------------------------|--|------------------------|--|------------------------|
| <b>AGITATORS</b>                                     |                        | <b>AGGREGATE PROCESSING, CEMENT</b>                                    |                        | <b>PULP &amp; PAPER MILLS</b>  |                        |
| Vertical and Horizontal Screw Propeller, Paddle..... | 1.5                    | Concrete Mixers .....  | 2.0                    | Agitator.....  | 1.5                    |
| <b>BLOWERS</b>                                       |                        | Crushers, Ore or Stone.....  | 3.0                    | Baking Drum.....   | 3.0                    |
| Centrifugal.....                                     | 1.0                    | Dryer, Rotary.....   | 2.0                    | Beater and Pulper.....   | 2.0                    |
| Lobe or Vane.....                                    | 1.5                    | Grizzly.....   | 3.0                    | Bleacher.....  | 1.0                    |
| <b>CAR DUMPER AND PULLER</b> .....                   | 2.0                    | Hammermill.....  | 2.5                    | Calendar.....  | 2.5                    |
| <b>COMPRESSORS</b>                                   |                        | Mining Kilns.....  | 2.5                    | Chipper.....   | 3.5                    |
| Centrifugal.....                                     | 1.0                    | Tube, Rod and Ball Mills.....  | 2.5                    | Couch, Cylinder Dryer.....   | 2.0                    |
| Lobe or Vane.....                                    | 1.5                    | Tumbling Mill or Barrel.....   | 2.0                    | Felt Stretcher.....  | 1.0                    |
| Screw.....   | 1.25                   | <b>BREWERY AND DISTILLING</b>  |                        | Fourdrinier.....   | 2.0                    |
| Reciprocating.....                                   | ①                      | Bottling and Can Filling Machinery, Brew Kettle, Cooker, Mash Tub..... | 1.0                    | Jordan.....  | 2.5                    |
| <b>CONVEYORS</b>                                     |                        | Scale Hopper (frequent peaks).....                                     | 2.0                    | Press.....   | 2.5                    |
| Apron, Assembly, Belt, Chain, Flight, Oven.....      | 1.5                    | <b>FOOD INDUSTRY</b>   |                        | Pulp Grinder.....  | 2.5                    |
| Reciprocating.....                                   | ②                      | Bottle and Can Filling.....  | 1.0                    | Stock Chests.....  | 1.5                    |
| Screw.....   | 1.25                   | Cereal Cooker.....   | 1.0                    | Stock Pump.....  |                        |
| <b>CRANES AND HOISTS</b>                             |                        | Dough Mixer, Meat Grinder.....   | 2.0                    | Centrifugal.....   | 1.25                   |
| Main Hoist – Medium Duty.....                        | 2.0                    | <b>LUMBER INDUSTRY</b>   |                        | Reciprocating.....   | 2.5                    |
| Main Hoist – Heavy Duty.....                         | 2.5                    | Band Resaw, Circular Resaw.....  | 2.0                    | Suction Roll.....  | 2.5                    |
| Skip Hoist.....                                      | 2.0                    | Edger, Head Rig, Hog, Log Haul.....                                    | 2.5                    | Winder.....  | 2.0                    |
| Bridge, Travel or Trolley.....                       | 2.0                    | Planer.....  | 2.0                    | <b>RUBBER INDUSTRY</b>   |                        |
| <b>DREDGES</b>                                       |                        | Rolls, Non-Reversing.....  | 2.0                    | Banbury Mixer.....   | 3.0                    |
| Cable Reel, Conveyor.....                            | 2.0                    | Rolls, Reversing.....  | 2.5                    | Calendar.....  | 2.5                    |
| Cutter Head Drive, Jig Drive.....                    | 3.0                    | Sawdust Conveyor.....  | 1.5                    | Cracker, Mix Mill, Plasticator, Refiner, Sheeter, Tire Building Machine..... | 2.0                    |
| Pump, Screen, Drive, Stacker, Utility Winch.....     | 2.0                    | Slab Conveyor, Sorting Table.....                                      | 2.0                    | Tire and Tube Press Opener.....  | 1.0                    |
| <b>DYNAMOMETER</b> .....                             | 1.0                    | <b>OIL INDUSTRY</b>  |                        | Tiber and Strainer.....  | 2.0                    |
| <b>ELEVATORS</b>                                     |                        | Chiller.....   | 1.0                    | Warming Mill.....  | 2.5                    |
| Bucket, Freight.....                                 | 2.5                    | <b>POWER INDUSTRY</b>  |                        | Washer.....  | 3.0                    |
| <b>EXCITER, GENERATOR</b> .....                      | 1.0                    | Ash Handling Conveyors.....  | 1.5                    | <b>STEEL INDUSTRY</b>  |                        |
| <b>EXTRUDER, PLASTIC</b> .....                       | 2.0                    | Baghouse Air Handling Fans.....  | 1.5                    | Coilers.....   | 2.0                    |
| <b>FANS</b>  |                        | Ball Mill.....   | 2.5                    | Draw Benches.....  | 2.0                    |
| Centrifugal.....                                     | 1.0                    | Belt Conveyors.....  | 1.5                    | Edger Drives.....  | 2.0                    |
| Cooling Tower.....                                   | 2.0                    | Circulating pumps (centrifugal).....                                   | 1.0                    | Reel Drives.....   | 2.0                    |
| Forced Draft and Induced Draft.....                  | 1.5                    | Coal Grinders and Crushers.....  | 2.5                    | Runout Tables (Non-Reversing).....   | 3.0                    |
| Large Mine.....                                      | 2.0                    | Coal Pulverizers and Hammermills.....                                  | 2.5                    | Runout Tables (Reversing).....   | 4.5                    |
| Propeller.....                                       | 1.5                    | Cooling Tower Fans.....  | 2.0                    | Soaking Pit Cover Drives.....  | 3.0                    |
| <b>GENERATORS</b>                                    |                        | FGD Slurry Pumps (centrifugal).....                                    | 1.0                    | Tube Conveyor Rolls.....   | 2.5                    |
| Even Load.....                                       | 1.0                    | Forced Draft Fan and Induced Draft Fan.....                            | 1.5                    | Wire Drawing.....  | 2.0                    |
| Hoist or Railway Service.....                        | 2.0                    | Primary Air, Recycling Fans.....                                       | 1.5                    | <b>TEXTILE MILLS</b>   |                        |
| Welder Load.....                                     | 2.5                    | Traveling Water Screens.....   | 1.0                    | Batcher, Calendar, Card Machine, Dry Can.....                                | 2.0                    |
| <b>PRINTING PRESS</b> .....                          | 2.0                    |  |                        | Dyeing Machinery.....  | 1.0                    |
| <b>PUMPS</b>   |                        |  |                        | Loom.....  | 2.0                    |
| Centrifugal.....                                     | 1.0                    |  |                        | Mangle, Napper, Soaper.....  | 1.5                    |
| Positive Displacement.....                           | 1.5                    |  |                        | Spinner, Tenter Frame.....   | 2.0                    |
| Gear, Lobe, Vane.....                                | 1.5                    |  |                        |  |                        |
| Reciprocating.....                                   | ②                      |  |                        |  |                        |
| Progressive Cavity.....                              | 1.25                   |  |                        |  |                        |
| Peristaltic.....                                     | 1.5                    |  |                        |  |                        |
| Screw.....   | 1.25                   |  |                        |  |                        |
| <b>SCREENS</b>                                       |                        |  |                        |  |                        |
| Air Washing.....                                     | 3.0                    |  |                        |  |                        |
| Grizzly.....   | 1.0                    |  |                        |  |                        |
| Coal and Sand (Rotary).....                          | 2.0                    |  |                        |  |                        |
| Vibrating.....                                       | 5.0                    |  |                        |  |                        |
| <b>SEWAGE DISPOSAL EQUIPMENT</b> .....               | 1.5                    |  |                        |  |                        |
| <b>STOKER</b> .....                                  | 1.5                    |  |                        |  |                        |

① The Service Factors listed are intended only as a general guide and for smooth power sources such as electric motors. For reciprocating prime movers, such as diesel or gas engines, add the following 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

If both driver and driven equipment are reciprocating, consult Rexnord.

Add 0.5 to service factor if drive is a hydraulic motor.

Omega couplings are not recommended for turbine drives if the coupling cannot be protected from steam leakage or from speeds in excess of the coupling's published speed rating (**pages 8-11**).

② Consult Rexnord Engineering.

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

**CAUTION:** In the drive systems sensitive to axial movement (i.e. sleeve bearing equipment), it may be necessary to limit axial force and/or displacement. Consult Rexnord for the proper installation procedure.

# Ordering Instructions

## Standard and Spacer Couplings

When ordering a complete coupling, specify size/type of element and hubs (two hubs per complete coupling).

### Options Include

#### Element

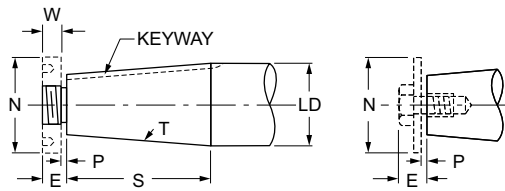
|        |         |               |
|--------|---------|---------------|
| [E2    | – E140] | close-coupled |
| [ES2-R | – ES80] | spacer        |

#### Hub

|        |           |   |
|--------|-----------|---|
| [2HRB  | – 140HRB] | straight hub – rough bore   |
| [2HSB  | – 60HSB]  | straight hub – stock bore (specify bore size from table on <b>page 16</b> ) |
| [2HCB  | – 140HCB] | straight hub – custom bore (specify bore and keyway)                        |
| [4HQD  | – 140HQD] | hub – QD (bushing not included)   |
| [3HTL  | – 140HTL] | hub – Taper-Lock® (bushing not included)                                    |
| [10HMM | – 140HMM] | straight hub – mill motor (specify mill motor number, rough or custom bore) |

## Tapered Bores

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.

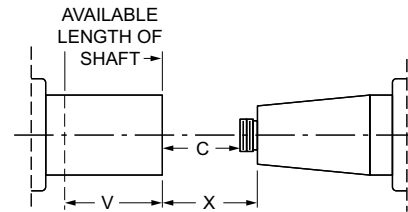
**NOTE:** Specify if keyway is parallel to taper or if parallel to shaft centerline.  
Specify depth at large diameter of taper if keyway is parallel to shaft centerline.

## Order Example

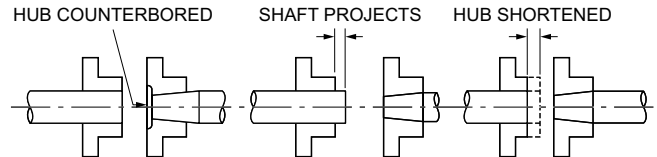
Complete E50 close-coupled coupling with one finished bore 2-1/8" hub w/standard keyway and one QD hub less bushing. Order description:  
 1 ea. E50 element  
 1 ea. 50HSB – 2-1/8" – std.  
 1 ea. 50 HQD – steel

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

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

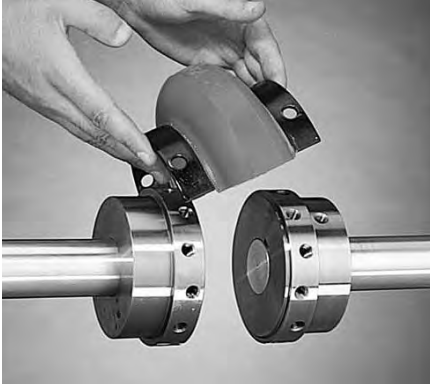


A fixed "X" dimension may require altered or special coupling hubs. Often the straight bored hub can be positioned on its shaft, allowing the use of a standard coupling. See illustrations below.

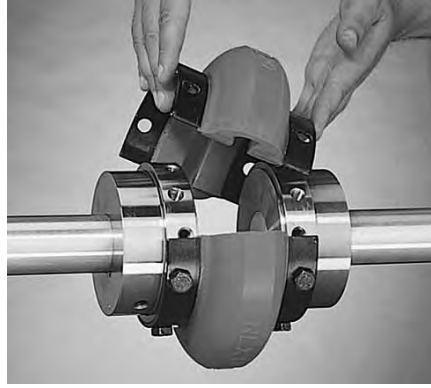


Consult AGMA Standard 9002 "Taper Bores for Flexible Couplings" for new applications.

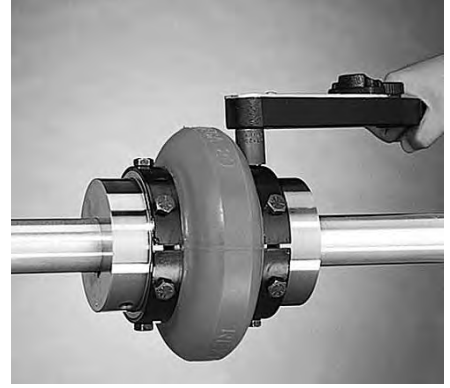
## Installation



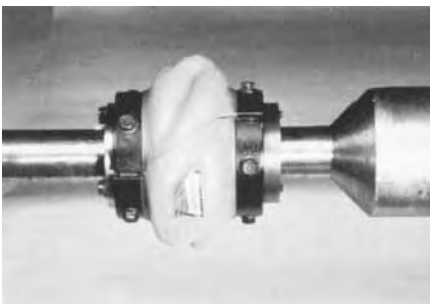
Mount one hub to shaft, leave other hub loose for adjustment of spacing.



Place half of the Rexnord Omega element around hubs and secure with self-locking cap screws. Omega element will space the other hub. Now secure the other hub.



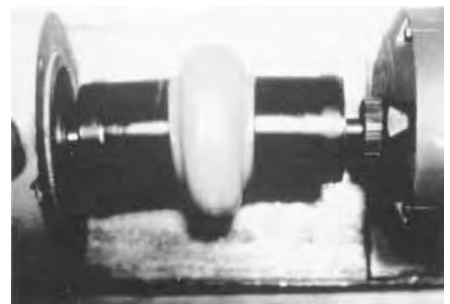
Mount other half of the Omega element. Tighten all cap screws to recommended torques below and installation is done. Refer to the installation instruction for further details.



Severe static testing ( $5 \times$  rating) shows element flexibility, rugged design and positive adhesive bond to the metal shoes.

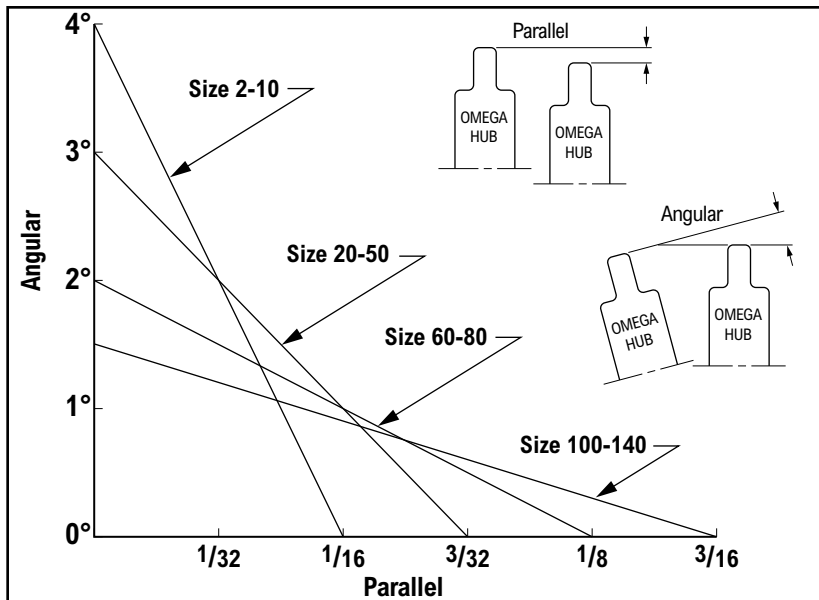
### Tested Tough

Rigorous testing demonstrates that the Rexnord Omega coupling protects connected equipment from the damaging effects of misalignment, vibration and gross overload. Where other coupling designs might allow equipment damage, the super flexible element of Rexnord Omega couplings minimizes the reactionary forces on equipment bearings under severe misalignment conditions and reduces the effects of excessive shock overloads.



Demonstrates coupling's ability to accept severe misalignment.

## Omega Coupling Allowable Misalignment



**NOTE:** Any combination of parallel and angular misalignment which falls under the triangle will not cause a premature fatigue failure of the flexible element in normal use.

### IMPORTANT

#### Recommended Cap Screw Torque for Proper Installation

| Coupling Size | Torque - Dry |         |
|---------------|--------------|---------|
|               | (lb-in)      | (lb-ft) |
| 2             | 204          | 17      |
| 3             |              |         |
| 4             |              |         |
| 5             |              |         |
| 10            |              |         |
| 15            | 240          | 27      |
| 20            |              |         |
| 30            |              |         |
| 40            |              |         |
| 50            | 360          | 30      |
| 60            |              |         |
| 70            |              |         |
| 80            |              |         |
| 100           | 900          | 75      |
| 120           |              |         |
| 140           |              |         |
| 140           | 7080         | 590     |

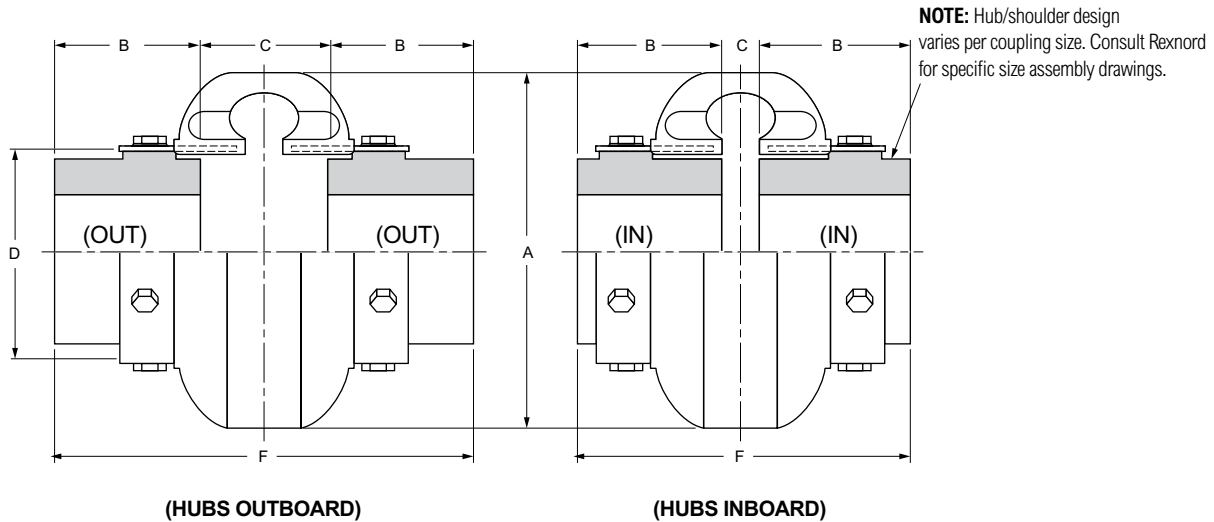
**NOTE:** Cap screws have self-locking patches which should not be reused more than twice. Cap screws can be further used if a thread locking adhesive is applied.

**Do NOT Lubricate Cap Screw Threads.**

#### IMPORTANT NOTE:

**Coupling alignment is directly related to smooth, efficient equipment operation. Care should be taken for best possible alignment.**

# Omega Close-Coupled Design with Straight Bore Hubs



| Coupling Size | Recom. Max. Bore (in) ① | Continuous HP/100 RPM | Continuous Torque (lb-in) | Max. RPM | Dimensions (in) |      |      |       |       |       |       | Weight ② (lb) |
|---------------|-------------------------|-----------------------|---------------------------|----------|-----------------|------|------|-------|-------|-------|-------|---------------|
|               |                         |                       |                           |          | A               | B    | C    |       | D     | F     |       |               |
|               |                         |                       |                           |          |                 |      | (In) | (Out) |       | (In)  | (Out) |               |
| E2            | 1.13                    | 0.30                  | 190                       | 6600     | 3.50            | 0.94 | 1.34 | 1.90  | 1.85  | 3.22  | 3.78  | 1.2           |
| E3            | 1.38                    | 0.58                  | 365                       | 6600     | 4.00            | 1.50 | 0.81 | 1.31  | 2.32  | 3.81  | 4.31  | 2.4           |
| E4            | 1.63                    | 0.88                  | 550                       | 6600     | 4.56            | 1.69 | 0.44 | 1.31  | 2.60  | 3.81  | 4.69  | 3.0           |
| E5            | 1.88                    | 1.48                  | 925                       | 6600     | 5.38            | 1.75 | 0.81 | 1.81  | 3.13  | 4.31  | 5.31  | 5.4           |
| E10           | 2.13                    | 2.30                  | 1450                      | 6600     | 6.38            | 1.88 | 0.56 | 1.84  | 3.65  | 4.31  | 5.56  | 8.2           |
| E15           | 2.13                    | 2.86                  | 1800                      | 6600     | 6.38            | 1.88 | 0.56 | 1.84  | 3.65  | 4.31  | 5.56  | 8.3           |
| E20           | 2.38                    | 3.65                  | 2300                      | 6600     | 7.25            | 2.06 | 0.50 | 2.38  | 4.48  | 4.62  | 6.50  | 13.0          |
| E30           | 2.88                    | 5.79                  | 3650                      | 5800     | 8.25            | 2.31 | 0.56 | 2.44  | 5.42  | 5.19  | 7.06  | 21            |
| E40           | 3.38                    | 8.85                  | 5500                      | 5000     | 9.50            | 2.50 | 0.56 | 2.68  | 6.63  | 5.56  | 7.68  | 35            |
| E50           | 3.63                    | 12.14                 | 7650                      | 4200     | 11.00           | 2.75 | 0.63 | 3.38  | 8.13  | 6.13  | 8.88  | 54            |
| E60           | 4                       | 19.84                 | 12,500                    | 3800     | 12.50           | 3.25 | 0.69 | 3.44  | 8.75  | 7.19  | 9.94  | 72            |
| E70           | 4.5                     | 35.12                 | 22,125                    | 3600     | 14.00           | 3.62 | 0.75 | 3.75  | 9.25  | 8.00  | 11.00 | 86            |
| E80           | 6                       | 62.7                  | 39,500                    | 2000     | 16.00           | 4.87 | 0.75 | 5.00  | 11.25 | 10.50 | 14.75 | 170           |
| E100          | 6.75                    | 135                   | 85,050                    | 1900     | 21.00           | 5.50 | 1.75 | 3.75  | 14.13 | 12.75 | 14.75 | 244           |
| E120          | 7.5                     | 270                   | 170,100                   | 1800     | 25.00           | 6.00 | 2.25 | 4.88  | 17.63 | 14.24 | 16.88 | 425           |
| E140          | 9.00                    | 540                   | 340,200                   | 1500     | 30.00           | 7.00 | 3.00 | 5.00  | 20.88 | 17.00 | 19.00 | 746           |

① See page 17 for larger bore capacities with shallow keyways.  
 ② With maximum bore hubs.

## Split-in-Half Flex Element

Allows disassembly and replacement without disturbing hubs or connected equipment.

## Reversible Hubs

Accommodates different shaft spacing requirements, and allows compression bushings to be installed from either side of the hub.



Straight Bore Hubs



QD Hubs and Bushings

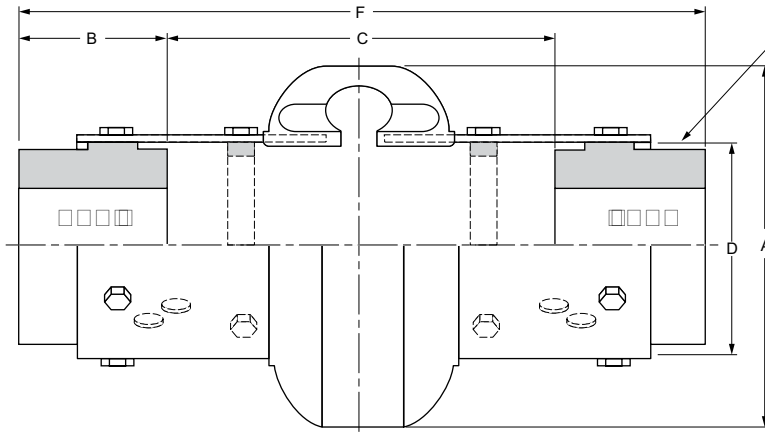


Taper-Lock Hubs and Bushings





# Omega Spacer Design with Straight Bore Hubs



**NOTE:** Hub/shoulder design varies per coupling size. Consult Rexnord for specific size assembly drawings.

| Coupling Size ① | Recom. Max. Bore ⑥ | Continuous HP/100 RPM | Continuous Torque (lb-in) | Max. RPM ② | Dimensions (in) |      |        |       |       |        |       | Weight (lb) ⑤ |
|-----------------|--------------------|-----------------------|---------------------------|------------|-----------------|------|--------|-------|-------|--------|-------|---------------|
|                 |                    |                       |                           |            | A               | B    | C      |       | D     | F      |       |               |
|                 |                    |                       |                           |            |                 |      | (In) ③ | (Out) |       | (In) ④ | (Out) |               |
| ES2-R           | 1.13               | 0.30                  | 190                       | 6600       | 3.50            | 0.94 | 3.50   | 4.00  | 1.85  | 5.75   | 5.92  | 2.3           |
| ES3-R           | 1.38               | 0.58                  | 365                       | 6600       | 4.00            | 1.50 | 3.50   | 5.00  | 2.32  | 7.25   | 8.00  | 4.0           |
| ES4-R           | 1.63               | 0.88                  | 550                       | 6600       | 4.56            | 1.69 | 3.50   | 5.00  | 2.60  | 7.25   | 8.38  | 5.1           |
| ES5-R           | 1.88               | 1.48                  | 925                       | 6600       | 5.38            | 1.75 | 3.50   | 5.00  | 3.13  | 7.25   | 8.50  | 7.5           |
| ES10-R          | 2.13               | 2.30                  | 1450                      | 6600       | 6.38            | 1.88 | 3.50   | 5.00  | 3.65  | 7.25   | 8.75  | 10.3          |
| ES15-R          | 2.13               | 2.86                  | 1800                      | 6600       | 6.38            | 1.88 | 3.50   | 5.00  | 3.65  | 7.25   | 8.75  | 10.4          |
| ES20            | 2.38               | 3.65                  | 2300                      | 4800       | 7.25            | 2.06 | 2.55   | 7.00  | 4.48  | 9.38   | 11.12 | 15.6          |
| ES30            | 2.88               | 5.79                  | 3650                      | 4200       | 8.25            | 2.31 | 2.05   | 7.00  | 5.42  | 9.38   | 11.62 | 25.1          |
| ES40            | 3.38               | 8.85                  | 5500                      | 3600       | 9.50            | 2.50 | 1.67   | 7.00  | 6.63  | 9.38   | 12.00 | 40            |
| ES50            | 3.63               | 12.14                 | 7650                      | 3100       | 11.00           | 2.75 | 1.17   | 7.00  | 8.13  | 9.38   | 12.50 | 60            |
| ES60            | 4.00               | 19.84                 | 12,500                    | 2800       | 12.50           | 3.25 | 2.67   | 9.75  | 8.75  | 12.50  | 16.25 | 84            |
| ES70            | 4.50               | 35.12                 | 22,125                    | 2600       | 14.00           | 3.62 | 1.99   | 9.75  | 9.25  | 12.50  | 17.00 | 102           |
| ES80            | 6.00               | 62.70                 | 39,500                    | 1800       | 16.00           | 4.87 | 2.18   | 9.75  | 11.25 | 12.50  | 19.50 | 180           |

- ① Suffix "R" designates high speed ring design. Rings are furnished standard for sizes ES2-R to ES10-R, optional for sizes ES20 to ES80.
- ② Spacer coupling furnished with optional high speed rings (sizes ES20 to ES80) can be operated up to maximum allowable speeds for standard series couplings. See RPM Ratings on page 8.
- ③ Minimum shaft spacing is 0.25 inch. See page 12 for additional information.
- ④ Overall length of element.
- ⑤ With max bore hubs.
- ⑥ See page 17 for larger bore capacities with shallow keyways.

## Adjustable Spacer Design

Optional hole mounting positions and reversible hub features allow adjustment to accommodate most shaft spacing requirements (see page 12).

## Universal Hubs

Straight bore and compression bushed hub designs are identical and interchangeable for both the spacer and standard couplings. This means maximum utilization of off-the-shelf inventory.



**Straight Bore Hubs**

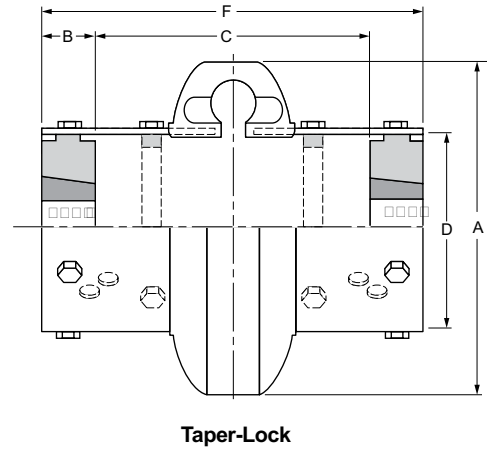
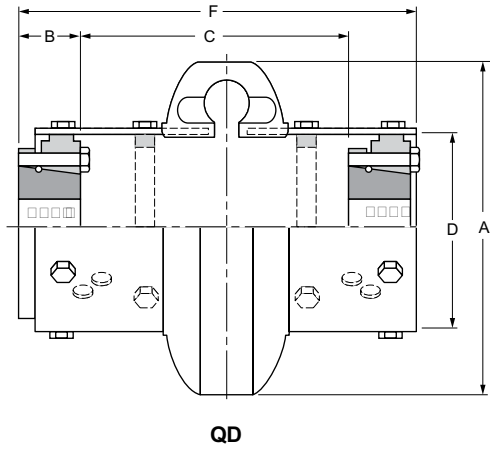


**QD Hubs and Bushings**



**Taper-Lock Hubs and Bushings**

# Omega Spacer Design with Compression Bushed Hubs



**NOTE:** Bushings are NOT included with hubs

## Specification Data with QD Hubs

| Coupling Size ① | QD Bush. No. | Recom. Max. Bore ② | Continuous HP/100 RPM ③ | Continuous Torque (lb-in) ③ | Max. RPM ④ | Dimensions (in) |      |        |       |       |        | Weight (lb) ⑥ |       |
|-----------------|--------------|--------------------|-------------------------|-----------------------------|------------|-----------------|------|--------|-------|-------|--------|---------------|-------|
|                 |              |                    |                         |                             |            | A               | B    | C      |       | D     | F      |               |       |
|                 |              |                    |                         |                             |            |                 |      | (In) ⑤ | (Out) |       | (In) ⑤ |               | (Out) |
| ES4-R           | JA           | 1.19               | 0.88                    | 550                         | 6600       | 4.56            | 1.00 | 3.24   | 5.56  | 2.60  | 7.25   | 7.71          | 4.2   |
| ES5-R           | SH           | 1.63               | 1.48                    | 925                         | 6600       | 5.38            | 1.25 | 3.51   | 5.06  | 3.13  | 7.25   | 7.82          | 5.7   |
| ES10-R          | SDS          | 1.94               | 2.30                    | 1450                        | 6600       | 6.38            | 1.31 | 3.60   | 5.49  | 3.65  | 7.25   | 8.24          | 6.9   |
| ES15-R          | SDS          | 1.94               | 2.86                    | 1800                        | 6600       | 6.38            | 1.31 | 3.60   | 5.49  | 3.65  | 7.25   | 8.24          | 7.0   |
| ES20            | SK           | 2.50               | 3.65                    | 2300                        | 4800       | 7.25            | 1.88 | 2.82   | 6.96  | 4.48  | 9.38   | 10.84         | 11.1  |
| ES30            | SF           | 2.94               | 5.79                    | 3650                        | 4200       | 8.25            | 2.00 | 3.36   | 6.44  | 5.42  | 9.38   | 10.32         | 17.9  |
| ES40            | E            | 3.50               | 8.85                    | 5500                        | 3600       | 9.50            | 2.63 | 2.94   | 5.74  | 6.63  | 9.38   | 10.71         | 28.8  |
| ES50            | E            | 3.50               | 12.14                   | 7650                        | 3100       | 11.00           | 2.63 | 2.44   | 6.24  | 8.13  | 9.38   | 11.21         | 43.6  |
| ES60            | F            | 3.94               | 19.84                   | 12,500                      | 2800       | 12.50           | 3.63 | 4.25   | 7.68  | 8.75  | 12.50  | 14.65         | 57.4  |
| ES70            | J            | 4.50               | 35.12                   | 22,125                      | 2600       | 14.00           | 4.50 | 3.50   | 6.72  | 9.25  | 12.52  | 15.40         | 84.1  |
| ES80            | M            | 5.50               | 62.70                   | 39,500                      | 1800       | 16.00           | 6.75 | 1.35   | 4.76  | 11.25 | 14.17  | 17.58         | 150.0 |

**NOTE:** Dimensions may vary depending on bushing manufacturer.

## Specification Data with Taper-Lock Hubs

| Coupling Size ① | TL Bush. No. | Recom. Max. Bore ② | Continuous HP/100 RPM ③ | Continuous Torque (lb-in) ③ | Max. RPM ④ | Dimensions (in) |      |        |       |       |        | Weight (lb) ⑥ |       |
|-----------------|--------------|--------------------|-------------------------|-----------------------------|------------|-----------------|------|--------|-------|-------|--------|---------------|-------|
|                 |              |                    |                         |                             |            | A               | B    | C      |       | D     | F      |               |       |
|                 |              |                    |                         |                             |            |                 |      | (In) ⑤ | (Out) |       | (In) ⑤ |               | (Out) |
| ES3-R           | 1008         | 1.00               | 0.58                    | 365                         | 6600       | 4.00            | 0.88 | 3.83   | 5.38  | 2.32  | 7.25   | 7.25          | 3.2   |
| ES4-R           | 1008         | 1.00               | 0.88                    | 550                         | 6600       | 4.56            | 0.88 | 3.83   | 5.38  | 2.60  | 7.25   | 7.25          | 4.2   |
| ES5-R           | 1108         | 1.13               | 1.48                    | 925                         | 6600       | 5.38            | 0.88 | 3.83   | 5.38  | 3.13  | 7.25   | 7.25          | 6.0   |
| ES10-R          | 1310         | 1.44⑦              | 2.30                    | 1450                        | 6600       | 6.38            | 1.00 | 3.71   | 5.25  | 3.65  | 7.25   | 7.25          | 7.9   |
| ES15-R          | 1310         | 1.44⑦              | 2.86                    | 1800                        | 6600       | 6.38            | 1.00 | 3.71   | 5.25  | 3.65  | 7.25   | 7.25          | 8.0   |
| ES20            | 1610         | 1.69⑦              | 3.65                    | 2300                        | 4800       | 7.25            | 1.00 | 4.84   | 6.75  | 4.48  | 9.38   | 9.38          | 11.9  |
| ES30            | 2012         | 2.12⑦              | 5.79                    | 3650                        | 4200       | 8.25            | 1.25 | 4.59   | 6.50  | 5.42  | 9.38   | 9.38          | 18.0  |
| ES40            | 2517         | 2.69⑦              | 8.85                    | 5500                        | 3600       | 9.50            | 1.75 | 4.09   | 6.00  | 6.63  | 9.38   | 9.59          | 26.8  |
| ES50            | 2517         | 2.69⑦              | 12.14                   | 7650                        | 3100       | 11.00           | 1.75 | 4.09   | 6.00  | 8.13  | 9.38   | 9.59          | 37.4  |
| ES60            | 3020         | 3.25⑦              | 19.84                   | 12,500                      | 2800       | 12.50           | 2.00 | 6.09   | 8.75  | 8.75  | 12.50  | 12.84         | 60.7  |
| ES70            | 3535         | 3.94               | 35.12                   | 22,125                      | 2600       | 14.00           | 3.50 | 4.59   | 7.34  | 9.25  | 12.50  | 14.34         | 81.4  |
| ES80            | 4040         | 4.44               | 62.70                   | 39,500                      | 1800       | 16.00           | 4.00 | 4.09   | 6.84  | 11.25 | 12.50  | 14.84         | 93.2  |

① Suffix "R" designates high-speed ring design. Rings are furnished standard for sizes ES2-R to ES10-R, optional for sizes ES20 to ES80.

② With shallow keyway.

③ This rating may be limited by the bushing rating if severe service conditions exist. Consult bushing manufacturer.

④ Spacer coupling furnished with optional high speed rings (sizes ES20 to ES80) can be operated up to maximum allowable speeds for standard series couplings.

⑤ Minimum shaft spacing is 0.25 inch. See **page 12** for additional information.

⑥ Without compression bushings.

⑦ With steel bushings.

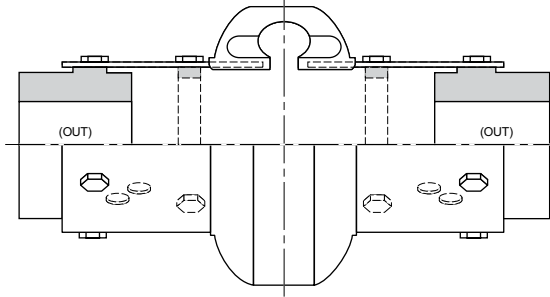
**NOTE:** Dimensions subject to change. Certified dimensions of ordered material furnished on request.

(Catalog #4000) 11

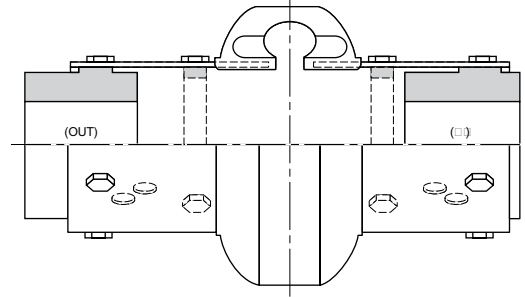
# Adjustability

## Shaft Spacing Options

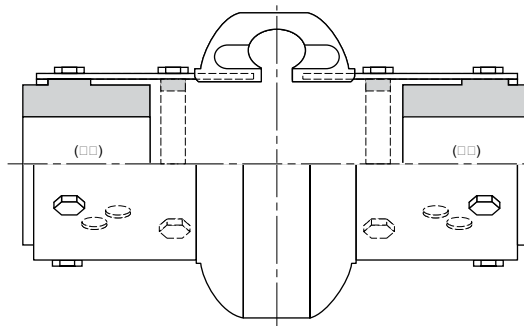
The Rexnord Omega spacer coupling design (pages 10-11) provides clear space between hubs. There are no interfering center members or spools which allows shaft spacing as small as 1/4"; however, for such small spacings, use of the standard Omega coupling would be recommended. The maximum shaft spacing for each coupling is shown on pages 10-11. Any ANSI, ISO or DIN spacing between 1/4 inch and the maximum listed can be achieved without any additional parts. Hubs can be placed on the shafts as shown below.



**Figure A**  
Both hubs mounted outboard

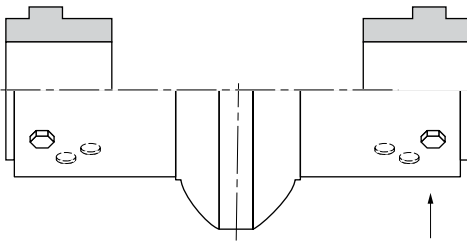


**Figure B**  
One hub mounted inboard  
One hub mounted outboard



**Figure C**  
Both hubs mounted inboard

Use one half of the flex element to establish shaft spacing and appropriate mounting position. Optional hole mounting positions and reversible hubs allow adjustments as needed. Select the combination which most closely matches the dimensions desired between shafts (Figure D). Drawings with specific mounting positions/dimensions are available from Rexnord.

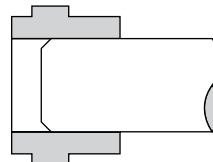


**Figure D**

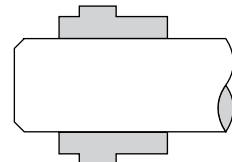
**NOTE:** Optional cap screw hole mounting positions allow easy on-site adjustment to meet various shaft spacing requirements.

Hubs can be flush with the shaft end (not shown), extended beyond the end of the shaft (Figure E) or recessed behind the shaft end provided there is sufficient keyway engagement (Figure F). Special sleeve extensions (see page 13) are available for spacing requirements in excess of those listed on pages 10-11.

**NOTE:** Shaft engagement should be equal to or greater than 0.8 times hub length through bore. 100% shaft engagement is suggested for compression bushed hubs.



**Figure E**

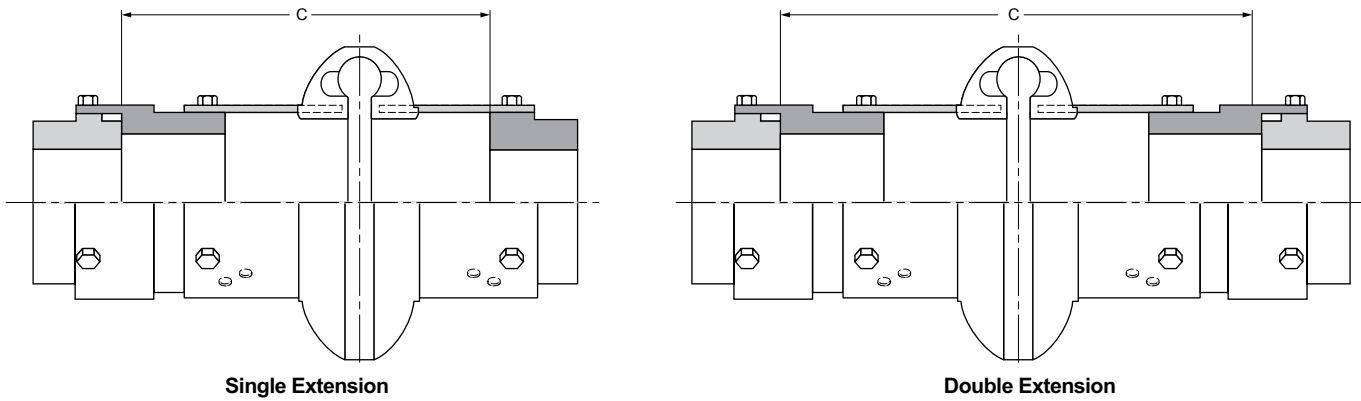


**Figure F**

## Omega Extended Spacer Coupling

Rexnord Omega extended spacer couplings are designed to connect equipment with shaft spacing requirements beyond the Omega spacer coupling capabilities. They are ideal for applications with wide non-standard shaft gaps, and can be an economic alternative to floating shaft couplings (i.e. stock pump applications).

Sleeve extensions (“SE”) are furnished in steel. They mount to regular Omega spacer elements (standard elements for sizes E100 & E120) and straight bore or compression-bushed design. By adjusting the spacer element mounting position, the Omega extended spacer coupling can be utilized for many shaft spacing requirements.

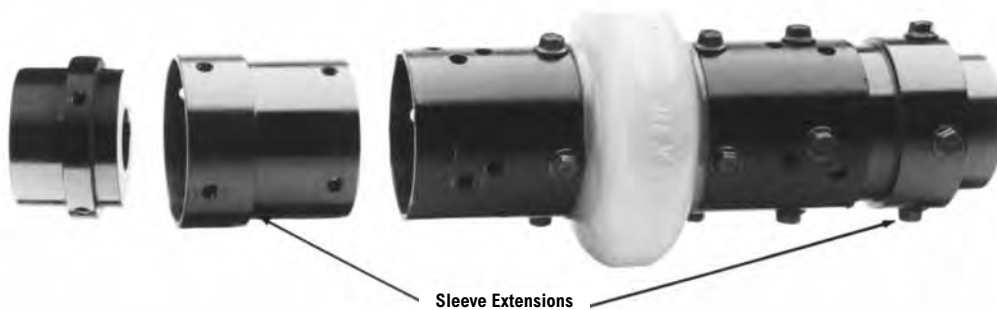


| Spacer Size | Max. RPM Standard | Max. RPM Matched Assembly <sup>②</sup> | Maximum Spacing <sup>①</sup> – “C” Dimension (in) |        |        |                 |        |        |                 |        |        | Weight (lb) One SE |
|-------------|-------------------|--|---|--------|--------|-----------------|--------|--------|-----------------|--------|--------|--------------------|
|             |                   |  | With SHRB Hubs                                    |        |        | With HQD Hubs   |        |        | With HTL Hubs   |        |        |                    |
|             |                   |  | Max. Without SE                                   | One SE | Two SE | Max. Without SE | One SE | Two SE | Max. Without SE | One SE | Two SE |                    |
| ES3-R       | 1800              | 3600                                   | 5.00  | 7.00   | 9.00   | –               | –      | –      | 5.38            | 7.38   | 9.38   | 1.2                |
| ES4-R       | 1800              | 3600                                   | 5.00  | 7.00   | 9.00   | 5.56            | 7.56   | 9.56   | 5.38            | 7.38   | 9.38   | 1.4                |
| ES5-R       | 1800              | 3600                                   | 5.00  | 7.00   | 9.00   | 5.06            | 7.06   | 9.06   | 5.38            | 7.38   | 9.38   | 1.5                |
| ES10-R      | 1800              | 3600                                   | 5.00  | 7.00   | 9.00   | 5.49            | 7.49   | 9.49   | 5.25            | 7.25   | 9.25   | 1.6                |
| ES15-R      | 1800              | 3600                                   | 5.00  | 7.00   | 9.00   | 5.49            | 7.49   | 9.49   | 5.25            | 7.25   | 9.25   | 1.6                |
| ES20        | 1800              | 3600                                   | 7.00  | 9.75   | 12.50  | 6.96            | 9.71   | 12.46  | 6.75            | 9.50   | 12.25  | 3.7                |
| ES30        | 1800              | 3600                                   | 7.00  | 9.75   | 12.50  | 6.44            | 8.97   | 11.72  | 6.50            | 9.25   | 12.00  | 4.5                |
| ES40        | 1800              | 3600                                   | 7.00  | 9.75   | 12.50  | 5.74            | 8.23   | 10.98  | 6.00            | 8.75   | 11.50  | 5.3                |
| ES50        | 1800              | 3100                                   | 7.00  | 9.75   | 12.50  | 6.24            | 8.73   | 11.48  | 6.00            | 8.75   | 11.50  | 8.0                |
| ES60        | 1800              | 2800                                   | 9.75  | 14.38  | 19.00  | 7.68            | 12.31  | 16.93  | 8.75            | 13.38  | 18.00  | 20.8               |
| ES70        | 1800              | 2600                                   | 9.75  | 15.13  | 20.50  | 6.72            | 12.10  | 17.47  | 7.34            | 12.72  | 18.09  | 34.6               |
| ES80        | 1500              | 1800                                   | 9.75  | 15.38  | 21.00  | 4.76            | 10.39  | 16.01  | 6.84            | 12.37  | 18.00  | 46.2               |
| E100        | 1500              | 1800                                   | 3.75  | 8.75   | 13.75  | 1.75            | 7.00   | 12.25  | 6.00            | 11.25  | 16.50  | 76.0               |
| E120        | 1500              | 1800                                   | 4.88  | 10.13  | 15.38  | 1.74            | 6.74   | 11.74  | 7.13            | 12.13  | 17.13  | 81.3               |
| E140        | 1200              | 1500                                   | 5.00  | 10.50  | 22.00  | 3.00            | 8.50   | 14.00  | 7.00            | 12.50  | 18.00  | 122.0              |

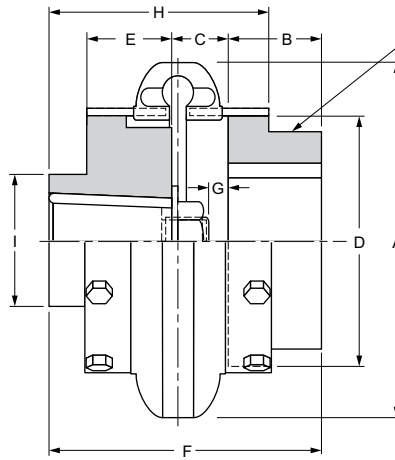
① Maximum spacings shown are with hubs mounted outboard and flush with shaft ends. Longer custom length extensions are available; consult Rexnord.

② Hub/sleeve extension assembly precisely machined and matched to obtain higher speed rating. Specify “Matched Assembly” when ordering.

**Ordering Information:** When ordering, be sure to specify whether one or two sleeve extensions are required. If custom length, specify distance between shaft ends.



# Mill Motor Couplings



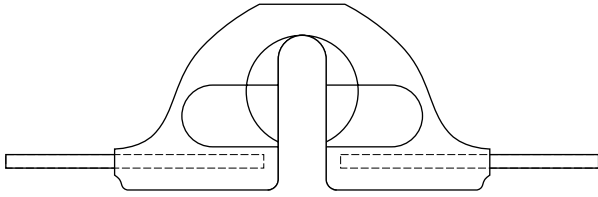
**NOTE:** Hub/shoulder design varies per coupling size. Consult Rexnord for specific size assembly drawings.

## Mill Motor Coupling Dimensions (in)

| Coupling Size | Mill Motor Size | Max. RPM | Continuous HP/100 RPM <sup>①</sup> | Complete Coupling Weight (lb) | Dimensions |        |         |        |        |         |        |         |        | Max. Straight Bore |
|---------------|-----------------|----------|------------------------------------|-------------------------------|------------|--------|---------|--------|--------|---------|--------|---------|--------|--------------------|
|               |                 |          |                                    |                               | A          | B      | C       | D      | E      | F       | G      | H       | I      |                    |
| 10            | 802A            | 6600     | 2.3                                | 15.6                          | 6-3/8      | 1-7/8  | 1-9/32  | 3-5/8  | 3      | 6-5/32  | 1-1/32 | 3-3/16  | 2-7/8  | 2-1/8              |
|               | 602             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
| 20            | 802B            | 6600     | 3.65                               | 25.4                          | 7-1/4      | 2-1/16 | 1-5/8   | 4-1/2  | 3      | 6-11/16 | 9/16   | 4-1/4   | 3      | 2-3/8              |
|               | 802C            |          |                                    |                               |            |        |         |        | 3-1/2  |         |        |         |        |                    |
|               | 603             |          |                                    |                               |            |        |         |        | 6-3/8  |         |        |         |        |                    |
| 30            | 803             | 5800     | 5.79                               | 39.3                          | 8-1/4      | 2-5/16 | 1-1/2   | 5-7/16 | 3-1/2  | 7-5/16  | 5/8    | 4-9/16  | 3-1/2  | 2-7/8              |
|               | 804             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 603             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 604             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
| 40            | 804             | 5000     | 8.85                               | 58.0                          | 9-1/2      | 2-1/2  | 1-1/2   | 6-5/8  | 3-1/2  | 7-1/2   | 1/2    | 4-7/8   | 3-1/2  | 3-3/8              |
|               | 604             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
| 50            | 406             | 4200     | 12.14                              | 83.5                          | 11         | 2-3/4  | 1-13/16 | 8-1/8  | 4      | 8-9/16  | 11/16  | 5-1/2   | 4      | 3-5/8              |
|               | 806             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 606             |          |                                    |                               |            |        |         |        | 4-1/2  |         |        |         |        |                    |
|               | 408             |          |                                    |                               |            |        |         |        | 9-1/16 |         |        |         |        |                    |
|               | 608             |          |                                    |                               |            |        |         |        | 9/16   |         |        |         |        |                    |
| 60            | 406             | 3800     | 19.84                              | 120.3                         | 12-1/2     | 3-1/4  | 1-3/4   | 8-3/4  | 4      | 9       | 5/8    | 6-5/16  | 4-1/2  | 4                  |
|               | 806             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 408             |          |                                    |                               |            |        |         |        | 4-1/2  |         |        |         |        |                    |
|               | 608             |          |                                    |                               |            |        |         |        | 9-1/2  |         |        |         |        |                    |
| 70            | 408             | 3600     | 35.12                              | 150                           | 14         | 3-5/8  | 2 1/2   | 9-1/4  | 4-1/2  | 10-5/8  | 1-1/4  | 6-7/8   | 4-3/4  | 4-1/2              |
|               | 808             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 608             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 410             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 810             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 610             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 412             |          |                                    |                               |            |        |         |        | 5      |         |        |         |        |                    |
| 612           | 11-11/16        |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
| 80            | 410             | 2000     | 62.7                               | 235                           | 16         | 4-7/8  | 3-1/8   | 11-1/4 | 4-1/2  | 12-1/2  | 1-3/4  | 9-1/4   | 6      | 6                  |
|               | 810             |          |                                    |                               |            |        |         |        |        |         |        |         |        |                    |
|               | 412             |          |                                    |                               |            |        |         |        | 5      |         |        |         |        |                    |
|               | 812             |          |                                    |                               |            |        |         |        | 13     |         |        |         |        |                    |
|               | 612             |          |                                    |                               |            |        |         |        | 1-9/16 |         |        |         |        |                    |
| 100           | 614             | 1900     | 135                                | 340                           | 21         | 5-1/2  | 3-3/4   | 14-1/8 | 5      | 14-1/4  | 2-1/4  | 9-3/4   | 10-1/4 | 6-3/4              |
|               | 814             |          |                                    |                               |            |        |         |        | 2-1/8  |         |        |         |        |                    |
|               | 616             |          |                                    |                               |            |        |         |        | 5-1/2  |         |        |         |        |                    |
|               | 816             |          |                                    |                               |            |        |         |        | 14-3/4 |         |        |         |        |                    |
|               | 618             |          |                                    |                               |            |        |         |        | 2      |         |        |         |        |                    |
|               | 818             |          |                                    |                               |            |        |         |        | 5-1/2  |         |        |         |        |                    |
|               | 618             |          |                                    |                               |            |        |         |        | 14-3/4 |         |        |         |        |                    |
| 120           | 818             | 1800     | 270                                | 520                           | 25         | 6      | 4-7/8   | 17-5/8 | 6      | 16-7/8  | 3-9/16 | 11-9/16 | 11-3/4 | 7-1/2              |
|               | 620             |          |                                    |                               |            |        |         |        | 6      |         |        |         |        |                    |
| 140           | 622             | 1500     | 540                                | 950                           | 30         | 7      | 5       | 20-7/8 | 7      | 19      | 2-5/8  | 13      | 15     | 9                  |
|               | 624             |          |                                    |                               |            |        |         |        | 7      |         |        |         |        |                    |

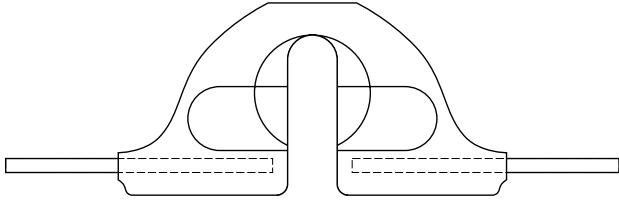
① Service Factor - 1.0.

## Special Designs



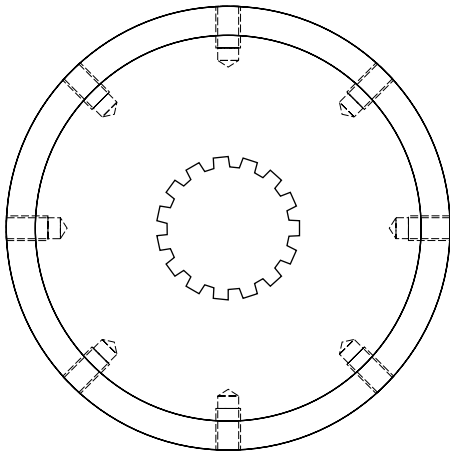
### Rexnord Omega HSU Element

Hydrolytically Stable Urethane (HSU) for superior resistance to hot and humid conditions in addition to acidic and alkaline environments. The Omega HSU element is interchangeable with existing hubs.



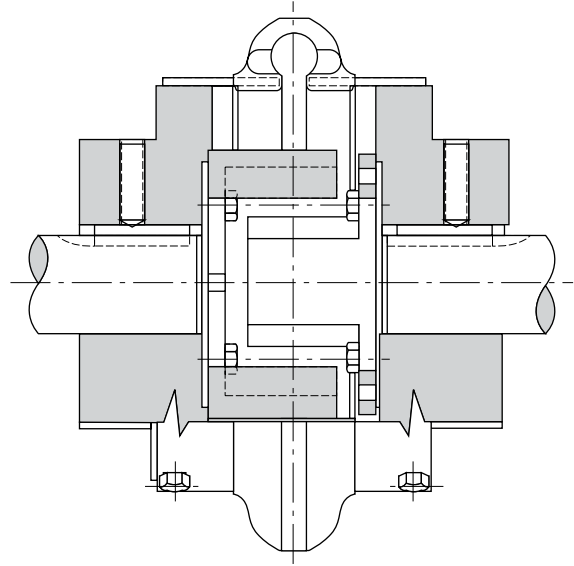
### Rexnord Omega Heavy-Duty Yellow Element

25% higher torque capacity. Fits standard hubs. Available in all sizes.



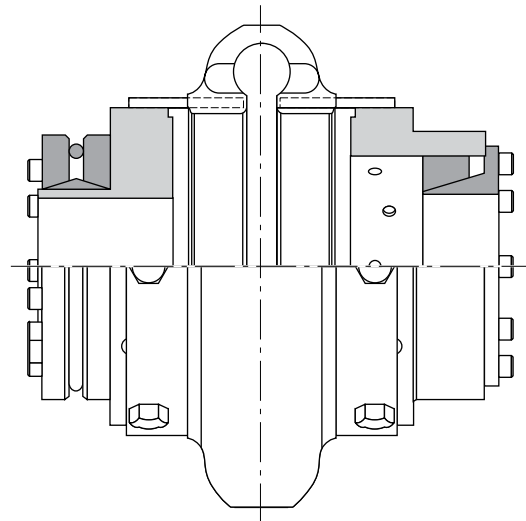
### Rexnord Omega Spline Bore Hub

1. Number of Teeth – Ex. 14T
2. Pitch Fraction – Ex. 12/24 Pitch
3. Pressure Angle – 30° P.A.
4. Type of Tooth Shape – Ex. Involute or Straight Side
5. Type of Root – Ex. Fillet or Flat Root
6. Tolerance – Ex. Class I thru VII
7. Type of Fit – Ex. Side Fit or Major Diameter Fit



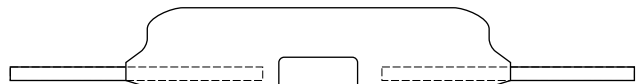
### Rexnord Omega Positive Drive Coupling

With interlocking drive fail-safe requirements.



### Rexnord Omega Keyless Hub/Bushing Design

Several optional keyless Hub/Bushing designs are available for increased bore end shaft gap requirements.



### Rexnord Omega Light Duty Element

Available in size E2LD only. Minimum O.D. (2.5") for low-profile applications. Max torque rating of 100 lb-in.

## Bore Specification

Couplings will be bored in accordance with AGMA Standard 9002 for flexible couplings.

Finished bore hubs will be Class 1 clearance fit unless otherwise specified.

| Shaft Dia. | Class 1 Clearance Fit | Interference Fit | Shaft Dia. | Class 1 Clearance Fit | Interference Fit |
|------------|-----------------------|------------------|------------|-----------------------|------------------|
| 1/2        | 0.500-0.501           | 0.4990-0.4995    | 2-3/8      | 2.3750-2.3765         | 2.373-2.374      |
| 5/8        | 0.625-0.626           | 0.6240-0.6245    | 2-1/2      | 2.5000-2.5015         | 2.498-2.499      |
| 3/4        | 0.750-0.751           | 0.7490-0.7495    | 2-5/8      | 2.6250-2.6265         | 2.623-2.624      |
| 7/8        | 0.875-0.876           | 0.8740-0.8745    | 2-3/4      | 2.7500-2.7515         | 2.748-2.749      |
| 1          | 1.000-1.001           | 0.9990-0.9995    | 2-7/8      | 2.8750-2.8765         | 2.873-2.874      |
| 1-1/8      | 1.125-1.126           | 1.1240-1.1245    | 3          | 3.0000-3.0015         | 2.998-2.999      |
| 1-1/4      | 1.250-1.251           | 1.2490-1.2495    | 3-1/4      | 3.2500-3.2515         | 3.2470-3.2485    |
| 1-3/8      | 1.375-1.376           | 1.3740-1.3745    | 3-1/2      | 3.5000-3.5015         | 3.4970-3.4985    |
| 1-1/2      | 1.500-1.501           | 1.4990-1.4995    | 3-5/8      | 3.6250-3.6265         | 3.6220-3.6235    |
| 1-5/8      | 1.625-1.626           | 1.623-1.624      | 3-3/4      | 3.7500-3.7515         | 3.7470-3.7485    |
| 1-3/4      | 1.750-1.751           | 1.748-1.749      | 4          | 4.0000-4.0015         | 3.9970-3.9985    |
| 1-7/8      | 1.875-1.876           | 1.873-1.874      | 4-1/2      | 4.5000-4.502          | 4.4965-4.4980    |
| 2          | 2.000-2.001           | 1.998-1.999      | 5          | 5.0000-5.002          | 4.9965-4.9980    |
| 2-1/8      | 2.1250-2.1265         | 2.123-2.124      | 5-1/2      | 5.5000-5.502          | 5.4960-5.4975    |
| 2-1/4      | 2.2500-2.2515         | 2.248-2.249      | 6          | 6.0000-6.002          | 5.9960-5.9975    |

## Bore Sizes (in)

| Nominal Shaft Diameter |       | Key   |       |       | Setscrew Dia. Class 2B NC Thread | Recommended Tightening Torque (lb-in) |
|------------------------|-------|-------|-------|-------|----------------------------------|---------------------------------------|
|                        |       | Width | Depth |       |                                  |                                       |
| Over                   | Thru  |       | Sq.   | Rect. |                                  |                                       |
| 5/16                   | 7/16  | 3/32  | 3/64  | —     | 1/4 - 20                         | 87                                    |
| 7/16                   | 9/16  | 1/8   | 1/16  | 3/64  |                                  |                                       |
| 9/16                   | 7/8   | 3/16  | 3/32  | 1/16  |                                  |                                       |
| 7/8                    | 1-1/4 | 1/4   | 1/8   | 3/32  | 3/8 - 16①                        | 290                                   |
| 1-1/4                  | 1-3/8 | 5/16  | 5/32  | 1/8   |                                  |                                       |
| 1-3/8                  | 1-3/4 | 3/8   | 3/16  | 1/8   |                                  |                                       |
| 1-3/4                  | 2-1/4 | 1/2   | 1/4   | 3/16  | 1/2 - 13②                        | 620                                   |
| 2-1/4                  | 2-3/4 | 5/8   | 5/16  | 7/32  | 5/8 - 11                         | 1325                                  |
| 2-3/4                  | 3-1/4 | 3/4   | 3/4   | 1/4   | 3/4 - 10                         | 2400                                  |
| 3-1/4                  | 3-3/4 | 7/8   | 7/8   | 5/16  | 7/8 - 9                          | 5200                                  |
| 3-3/4                  | 4-1/2 | 1     | 1/2   | 3/8   | 1-8                              | 7200                                  |
| 4-1/2                  | 5-1/2 | 1-1/4 | 5/8   | 7/16  |                                  |                                       |
| 5-1/2                  | 6-1/2 | 1-1/2 | 3/4   | 1/2   |                                  |                                       |
| 6-1/2                  | 7-1/2 | 1-3/4 | 7/8   | 3/4   |                                  |                                       |
| 7-1/2                  | 9     | 2     | 1     | 3/4   |                                  |                                       |

① Maximum setscrew diameter in 1/4 - 20 UNC for size #2 hub.

② Maximum setscrew size for hub size #3 thru #10 is 3/8 - 16 UNC.

## Finished Stock Bore Hub Part Numbers

(Straight bore hubs bored in accordance with AGMA Standard 9002 Class 1 Clearance Fit)

| Size Bore | 2 HSB   | 3 HSB   | 4 HSB   | 5 HSB   | 10 HSB  | 15 HSB | 20 HSB  | 30 HSB  | 40 HSB  | 50 HSB  | 60 HSB  |
|-----------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|
| 5/8       | 7300218 | 7300242 | 7300272 | —       | —       | —      | —       | —       | —       | —       | —       |
| 3/4       | 7300220 | 7300244 | 7300274 | 7300306 | —       | —      | —       | —       | —       | —       | —       |
| 7/8       | 7300225 | 7300245 | 7300275 | 7300308 | 7385821 | —      | —       | —       | —       | —       | —       |
| 1-5/16    | —       | —       | 7300276 | 7300309 | —       | —      | —       | —       | —       | —       | —       |
| 1         | 7300230 | 7300250 | 7300280 | 7300310 | 7385820 | —      | —       | —       | —       | —       | —       |
| 1-1/16    | —       | —       | —       | 7300312 | —       | —      | —       | —       | —       | —       | —       |
| 1-1/8     | 7300235 | 7300255 | 7300285 | 7300315 | 7300345 | —      | 7300649 | 7385825 | —       | —       | —       |
| 1-3/16    | —       | —       | 7300286 | 7300318 | —       | —      | —       | —       | —       | —       | —       |
| 1-1/4     | —       | 7300260 | 7300290 | 7300320 | 7300350 | —      | 7300651 | 7385822 | —       | —       | —       |
| 1-5/16    | —       | —       | —       | 7300322 | —       | —      | —       | —       | —       | —       | —       |
| 1-3/8     | —       | 7300265 | 7300295 | 7300325 | 7300355 | —      | 7300963 | 7385823 | —       | —       | —       |
| 1-7/16    | —       | —       | 7300296 | 7300326 | 7300356 | —      | —       | —       | —       | —       | —       |
| 1-1/2     | —       | —       | 7300298 | 7300328 | 7300358 | —      | 7300652 | 7300661 | 7300669 | —       | —       |
| 1-9/16    | —       | —       | 7300299 | —       | 7300359 | —      | —       | —       | —       | —       | —       |
| 1-5/8     | —       | —       | 7300300 | 7300330 | 7300360 | —      | 7300653 | 7369351 | 7369352 | —       | —       |
| 1-11/16   | —       | —       | —       | 7300332 | 7300361 | —      | 7300656 | 7300964 | —       | —       | —       |
| 1-3/4     | —       | —       | —       | 7300333 | 7300362 | —      | 7300654 | 7300663 | 7300672 | 7300681 | —       |
| 1-7/8     | —       | —       | —       | 7300335 | 7300365 | —      | 7300655 | 7300662 | 7300671 | 7300684 | —       |
| 1-15/16   | —       | —       | —       | —       | 7300366 | —      | 7390410 | —       | —       | —       | —       |
| 2         | —       | —       | —       | —       | 7300368 | —      | 7390411 | 7390413 | 7390417 | —       | 7390417 |
| 2-1/8     | —       | —       | —       | —       | 7300370 | —      | 7300657 | 7300664 | 7300673 | 7300961 | 7390418 |
| 2-3/16    | —       | —       | —       | —       | —       | —      | 7390412 | —       | —       | —       | —       |
| 2-1/4     | —       | —       | —       | —       | —       | —      | 7300658 | 7300665 | 7300674 | 7300682 | —       |
| 2-3/8     | —       | —       | —       | —       | —       | —      | 7300659 | 7300666 | 7300675 | 7300962 | 7300691 |
| 2-1/2     | —       | —       | —       | —       | —       | —      | —       | 7300667 | 7300676 | —       | —       |
| 2-11/16   | —       | —       | —       | —       | —       | —      | —       | 7300965 | 7300678 | —       | —       |
| 2-3/4     | —       | —       | —       | —       | —       | —      | —       | 7390414 | 7390415 | —       | —       |
| 2-7/8     | —       | —       | —       | —       | —       | —      | —       | 7300668 | 7300677 | 7300683 | 7300692 |
| 3-5/16    | —       | —       | —       | —       | —       | —      | —       | —       | —       | 7300685 | 7300693 |
| 3-3/8     | —       | —       | —       | —       | —       | —      | —       | —       | 7300679 | 7300686 | 7300694 |



## Coupling Selection

### Bore Ranges (in)

| Hub Size | Straight Bore |             | Taper-Lock ①   |           |             | QD ① ②         |           |             |
|----------|---------------|-------------|----------------|-----------|-------------|----------------|-----------|-------------|
|          | Min. Bore ②   | Max. Bore ③ | Bushing Number | Min. Bore | Max. Bore ③ | Bushing Number | Min. Bore | Max. Bore ③ |
| 2        | No Min.       | 1-3/16      | NA             | —         | —           | NA             | —         | —           |
| 3        | 3/8           | 1-3/8       | 1008           | 1/2       | 1           | NA             | —         | —           |
| 4        | 3/8           | 1-3/4       | 1008           | 1/2       | 1           | JA             | 3/8       | 1-3/16      |
| 5        | 3/8           | 1-15/16     | 1108           | 1/2       | 1-1/8       | SH             | 1/2       | 1-5/8       |
| 10       | 3/8           | 2-1/4       | 1310           | 1/2       | 1-7/16      | SDS            | 1/2       | 1-15/16     |
| 15       | 3/8           | 2-1/4       | 1310           | 1/2       | 1-7/16      | SDS            | 1/2       | 1-15/16     |
| 20       | 3/4           | 2-3/4       | 1610           | 1/2       | 1-11/16     | SK             | 1/2       | 2-1/2       |
| 30       | 3/4           | 3-1/4       | 2012           | 1/2       | 2-1/8       | SF             | 1/2       | 2-15/16     |
| 40       | 3/4           | 3-3/4       | 2517           | 1/2       | 2-11/16     | E              | 7/8       | 3-1/2       |
| 50       | 1-1/8         | 4           | 2517           | 1/2       | 2-11/16     | E              | 7/8       | 3-1/2       |
| 60       | 1-1/8         | 4-1/2       | 3020           | 15/16     | 3-1/4       | F              | 1         | 3-15/16     |
| 70       | 1-3/8         | 4-7/8       | 3535           | 1-3/16    | 3-15/16     | J              | 1-7/16    | 4-1/2       |
| 80       | 1-7/8         | 6-3/4       | 4040           | 1-7/16    | 4-7/16      | M              | 1-15/16   | 5-1/2       |
| 100      | 1-7/8         | 7-1/4       | 4545           | 1-15/16   | 4-15/16     | M              | 1-15/16   | 5-1/2       |
| 120      | 1-7/8         | 8-1/4       | 5050           | 2-5/16    | 6           | N              | 2-7/16    | 6           |
| 140      | 1-7/8         | 9-1/4       | 7060           | 4-9/16    | 7           | P              | 2-15/16   | 7           |

- ① Bushings are not included with bushed hubs. Bushing bore ranges may vary, check with bushing manufacturer.  
 ② Rough bores are slightly undersized to conform with minimum bore specifications.  
 ③ With shallow keyway and steel hub and steel bushing.

### Omega Couplings Interchange ④

| Omega | Dodge Para-Flex | Lovejoy (Rubber) | TB Woods (Rubber) | Falk Grid    |            |        | Kop-Flex Gear |
|-------|-----------------|------------------|-------------------|--------------|------------|--------|---------------|
|       |                 |                  |                   | 1000T        | 10T        | F      |               |
| 2     | —               | L-095            | 5                 | 1020T        | 20T        | 3      | 1H            |
| 3     | —               | L-099, L-100     | 6                 | 1030T        | 30T        | 4      | 1H            |
| 4     | —               | L-110            | 7                 | 1040T        | 40T        | 4      | 1H            |
| 5     | 50              | L-110            | 8                 | 1040T, 1050T | 40T, 50T   | 5, 6   | 1H, 1-1/2H    |
| 10    | 60              | L-150, L-190     | 9                 | 1050T, 1060T | 50T, 60T   | 7, 8   | 1-1/2H        |
| 15    | 60              | L-150, L-190     | 9                 | 1050T, 1060T | 50T, 60T   | 7, 8   | 1-1/2H        |
| 20    | 70              | L-225            | 10                | 1060T, 1070T | 60T, 70T   | 8, 9   | 1-1/2H, 2H    |
| 30    | 80              | L-276            | 11                | 1070T, 1080T | 70T, 80T   | 9, 10  | 2H, 2-1/2H    |
| 40    | 90              | —                | 12                | 1090T        | 90T        | 10     | 2-1/2H        |
| 50    | 110             | —                | —                 | 1090T        | 90T        | 11     | 2-1/2H        |
| 60    | 120             | —                | 13                | 1090T        | 90T        | 11     | 2-1/2H        |
| 70    | 140             | —                | 14                | 1100T        | 100T       | 13     | 3H            |
| 80    | 160             | —                | 16                | 1110T        | 110T       | 14     | 3H            |
| 100   | 200             | —                | NA                | 1120T        | 120T       | 15     | ⑤             |
| 120   | 240             | —                | NA                | 1130T, 1140T | 130T, 140T | 16, 17 | ⑤             |
| 140   | 280             | —                | NA                | 1150T        | 150T       | 18     | ⑤             |

- ④ **CAUTION** should be applied when using any interchange chart (particularly with respect to gear and grid couplings) since each product has different dimensions, benefits and service factor recommendations. This interchange is based on typical specifications for centrifugal pump applications at 1750 RPM. For specific applications, consult Rexnord, refer to **page 4**, or ask for our free Slide Selector. Use this chart as a general guide.  
 ⑤ Consult Rexnord.







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

### Delivering Lowest Total Cost of Ownership

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

### Valuable Expertise

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

# REXNORD

## Rexnord Company Overview

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

## Process and Motion Control

The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

## Water Management

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