

MECHANICAL POWER TRANSMISSION

# Couplings & mechanical soft-starts

## Engineering catalog



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## Dodge® couplings

Uniquely engineered to reduce vibration, accommodate shaft misalignment, and eliminate unexpected downtime.

Dodge has manufactured couplings for over 100 years and has earned a reputation for developing innovative products that lower customers' total cost of ownership. Our coupling product line offers elastomeric, metallic and mechanical soft-start coupling solutions that can be trusted to perform reliably in the toughest applications.

### Types of coupling offered:

#### Elastomeric

- Vibration and shock load absorbing
- Can accommodate misalignment
- Economical
- Maintenance-free

#### Compression

##### StarFlex (jaw)

Pages: 64-73



##### Poly-Disc (hybrid)

Pages: 74-76



#### Shear

##### Raptor (split tire)

Pages: 10-26



##### Para-Flex (tire)

Pages: 27-45



##### D-Flex (sleeve)

Pages: 46-63



#### Metallic

- Compact and torque dense
- High speed capabilities
- Good balancing capabilities

#### Lubricated

##### Grid-Lign

Pages: 77-92



##### DGF gear

Pages: 92-97



##### Chain

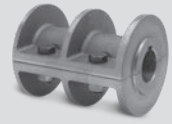
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#### Non-lubricated

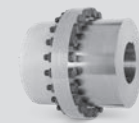
##### Rigid

Pages: 105-115



##### DM Moment

Pages: 116-118



#### Soft-starts & mechanical clutches

##### Flexidyne

Pages: 129-161



##### Fluid coupling

Pages: 162-170

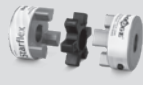







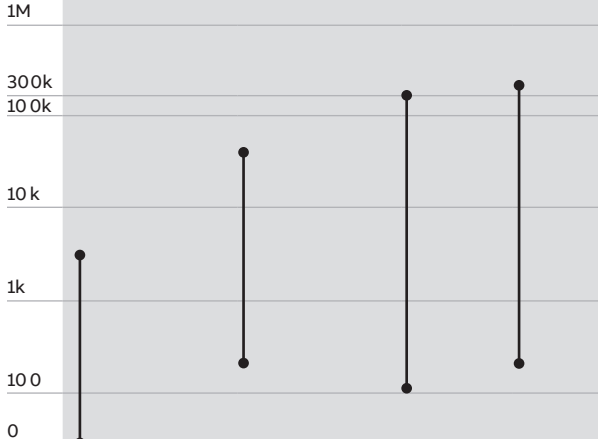
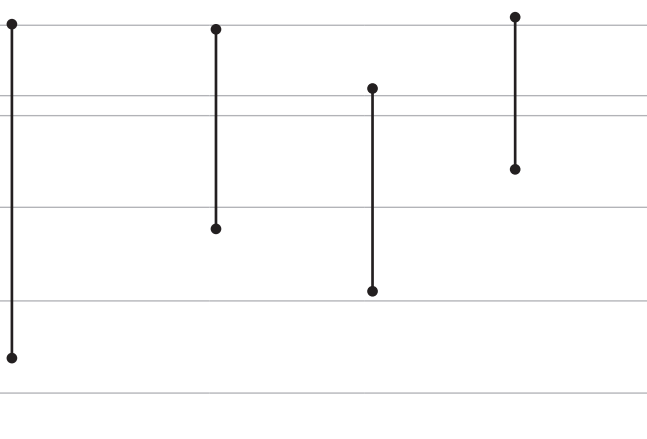


##### Torque-Tamer

Pages: 171-176



# Reference chart

	Elastomeric				Metallic			
	StarFlex	D-Flex	Raptor	Para-Flex	Grid-Lign	DGF gear	Ribbed rigid	DM Moment
								
Torque (in.-lbs.)								
<b>Misalignment</b>								
Angular (degrees)	1°	1°	4°	4°	0.5°	1.5°	0°	0°
Parallel (in.)	0.15	0.18	+/- 0.156	0.125	0.012	0	0	0
Axial	0	+/- 0.125"	0.25	+/- 0.156	0.375	0	0	0
<b>Temperature (°F)</b>	-60° to 450°	-65° to 275°	-45° to 220°	-45° to 210°	-35° to 250°	-20° to 250°	-30° to 225°	-
<b>Max speed (RPM)</b>	31,000	9,200	6,600	4,500	6,000	6,000	5,300	6,000
<b>Lubrication</b>	None	None	None	None	Required	Required	None	None
<b>Max bore (in.)</b>								
Bored	2.625"	5"	9"	11"	13"	11.25"	7"	15"
Taper-Lock	-	-	7"	8"	-	-	-	-
QD	-	3.9375"	7"	-	-	-	-	-
<b>Element material</b>	NBR, Urethane, Hytrel, Bronze	EPDM, Neoprene, Hytrel	Natural rubber	Natural rubber Neoprene	-	-	-	-
<b>ATEX certification</b>	-	Yes	Yes	Yes	Yes	-	-	-

Shown are maximum ratings - varies by coupling size

## Selection methods

### Raptor, Para-Flex, D-Flex, Poly-Disc, Grid-Lign, DGF Gear, and Rigid couplings

#### Torque method:

**Step 1:** Obtain required service factor from service factor tables on pages 7-9.

**Step 2:** Determine torque required for application.

$$\text{Torque (in.-lbs.)} = \frac{63025 \times \text{Hp} \times \text{S.F.}}{\text{Coupling RPM}}$$

**Step 3:** From rating tables, find a rating equal to or greater than the torque. Note coupling size from left hand column.

**Step 4:** Check maximum RPM capability

**Step 5:** Check maximum bore capacity. If maximum bore is exceeded, move to larger size with adequate bore - but be sure maximum RPM of coupling is not exceeded

#### Hp/100 method

**Step 1:** Obtain required S.F. (service factor) from service factor tables on pages 7-9.

**Step 2:** Determine the Hp per 100 RPM required for application:

$$\text{Hp} / 100 \text{ RPM} = \frac{\text{Motor Hp} \times 100 \times \text{S.F.}}{\text{Coupling RPM}}$$

**Step 3:** From rating tables, find a rating equal to or greater than the Hp/100 RPM. Note coupling size from left hand column.

**Step 4:** Check maximum RPM capability.

**Step 5:** Check maximum bore capacity. If maximum bore is exceeded, move to larger size with adequate bore - but be sure maximum RPM of coupling is not exceeded

**Note 1:** Selection program “couple” available on [www.ptwizard.com](http://www.ptwizard.com).

**Note 2:** If spring set motor brake is used, and brake Hp is greater than prime mover, use brake Hp in place of motor Hp.

**Note 3:** If system peak torque is known and is non-reversing, start at step 3. If system peak torque is known and reversing, multiply by 2.0 and start at step 3.

### Chain couplings

#### Design Hp method:

**Step 1:** Obtain required service factor from service factory tables on pages 7-9.

**Step 2:** Determine application Hp:  $\text{Hp design} = \text{Hp} \times \text{S.F.}$

**Step 3:** From rating tables, select appropriate coupling RPM column and find a rating equal to or greater than Hp design. Note coupling size from left hand column.

**Step 4:** Check maximum RPM capability

**Step 5:** Check maximum bore capacity. If maximum bore is exceeded, move to larger size with adequate bore—but be sure maximum RPM of coupling is not exceeded.



# Selection methods

## Service factor

**Table 1**

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
<b>Agitators</b>				
Paddle or propeller (vert. or horiz.)	1.00	1.25	1.00	1.00
Screw	1.00	1.25	1.00	1.00
<b>Blowers</b>				
Centrifugal	1.00	1.25	1.00	1.00
Lobe	1.50	1.50	1.25	1.25
Vane	1.00	1.25	1.25	1.25
<b>Brewing &amp; distilling</b>				
Bottling machinery, brew kettle	1.00	1.25	1.00	1.00
Cooker (continuous duty)	1.00	1.25	1.00	1.00
Mash tub	1.00	1.25	1.00	1.00
Scale hopper-frequent starting peaks	1.50	◆	1.75	1.75
<b>Can filling machine</b>	1.00	1.25	1.00	1.00
<b>Car dumper</b>	1.50	2.00	2.50	2.50
<b>Car puller</b>	1.50	1.50	1.50	1.50
<b>Clarifier</b>	1.00	1.25	1.00	1.00
<b>Classifier</b>	1.00	1.25	1.00	1.00
<b>Clay-working machines</b>				
Brick press, briquette mach., clay working mach., pug mill	1.50	1.50	1.50	1.75
<b>Compressors**</b>				
Centrifugal	1.00	1.25	1.00	1.00
Lobe	1.50	1.25	1.00	1.00
Screw	2.50	1.25	1.00	1.00
For:				
Lobe, rotary	◆	◆	1.25	1.25
Reciprocating				
1 cylinder - single acting	◆	◆	3.00	3.00
1 cylinder - double acting	◆	◆	3.00	3.00
2 cylinder- single acting	◆	◆	3.00	3.00
2 cylinder - double acting	◆	◆	3.00	3.00
3 cl. or more - single acting	◆	◆	3.00	3.00
3 cl. or more - double acting	◆	◆	2.00	2.00
<b>Conveyors</b>				
Apron, assembly, belt, chain, flight, oven	1.00	1.25	1.00	1.00
Reciprocating	2.50	◆	3.00	3.00
Screw	1.00	1.25	1.00	1.00
<b>Cranes and hoists</b>				
Main hoist-medium duty	1.50	1.50	1.75	1.75
Main hoist-heavy duty	2.00	2.00	2.00	2.00
Skip hoist, travel motion, trolley	1.50	1.00	1.75	1.75
Motion, slope	1.50	1.00	1.75	1.75
<b>Crushers</b>				
Cane	2.00	2.00	2.00	2.00
Gyratory	2.50	◆	2.50	2.50

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
<b>Dredges</b>				
Cable reel, screen drive, stacker	1.50	1.50	1.75	1.75
Conveyor	1.50	1.50	1.75	1.25
Cutter head drive, jig drive	2.50	2.00	2.00	2.00
Pump, utility winch	1.50	1.50	1.75	1.50
<b>Dynamometer</b>	1.00	1.25	1.00	1.00
<b>Elevators</b>				
Bucket, freight	2.00	2.00	1.25	1.25
<b>Exciter</b>	1.00	1.25	1.00	1.00
<b>Fans</b>				
Centrifugal	1.00	1.25	1.00	1.00
Cooling tower	2.00	2.00	2.00	2.00
Heavy duty (forced draft)	1.50	2.00	1.50	1.50
Induced draft	1.50	2.00	1.50	1.50
Light	1.00	1.25	1.00	1.00
Propeller indoor	1.50	2.00	1.50	1.50
<b>Food industry</b>				
Beet slicer	1.50	1.50	1.75	1.75
Cereal cooker	1.00	1.25	1.25	1.25
Dough mixer, meat grinder	1.50	1.50	1.75	1.75
<b>Generators</b>				
Even load	1.00	1.25	1.00	1.00
Hoist or railway service	1.50	1.50	1.50	1.50
Welder load	2.00	2.00	2.00	2.00
<b>Grizzly</b>	2.00	2.00	2.00	2.00
<b>Kiln</b>	2.00	2.00	2.00	2.00
<b>Laundry machines</b>				
Tumbler washer	2.00	2.00	2.00	2.00
<b>Line shafts</b>				
Driving processing machinery	1.00	1.25	1.50	1.50
Light	1.00	1.25	1.50	1.50
<b>Lumber industry</b>				
Band resaw	1.50	1.50	1.50	1.50
Circular resaw	1.50	1.50	1.50	1.75
Edger head rig, hog, log haul	2.00	2.00	2.00	2.00
Planer	1.50	1.50	1.75	1.75
Rolls non-reversing	1.50	1.50	1.25	1.25
Rolls reversing	2.00	2.00	2.00	2.00
Sawdust conveyor	1.00	1.25	1.25	1.25
Slab conveyor	1.50	1.50	1.75	1.75
Sorting table	1.50	1.50	1.75	1.50
<b>Machine tools</b>				
Auxiliary	1.00	1.25	1.00	1.00

## Selection methods

Service factor

Table 1 (continued)

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
<b>Machine tools (continued)</b>				
Main drive	1.50	1.50	1.75	1.50
Notching press, planer (reversing), plate planer, punch press	1.50	1.50	1.75	1.75
Traverse	1.00	1.25	1.00	1.00
<b>Metal forming machines</b>				
Draw bench, carriage, main drive, extruder,	2.00	1.50	2.00	2.00
Wire drawing, flattening machine	2.00	1.50	2.00	1.75
Mills rotary type	-	-	-	-
Ball or pebble direct or	2.50	2.00	2.00	2.00
On LS shaft gear reducer	2.50	2.00	2.00	2.00
On HS shaft gear reducer	2.00	1.50	1.50	1.50
Dryer and cooler	1.50	1.50	1.75	1.75
Rod or tube direct or	2.50	2.00	2.00	2.00
On LS shaft gear reducer	2.50	2.00	2.00	2.00
On HS shaft gear reducer	2.00	1.50	1.50	1.50
Tumbling barrel	1.50	2.00	1.75	1.75
<b>Mixers</b>				
Concrete (continuous or intermittent)	1.50	1.50	1.75	1.75
Muller-Simpson type	1.50	1.50	1.75	1.50
<b>Oil industry</b>				
Chiller	1.00	1.25	1.25	1.25
Oil well pumping (not over 150% peak torque)	2.00	2.00	2.00	2.00
Paraffin filter press	1.50	1.50	1.50	1.50
<b>Paper mills</b>				
Agitator	1.00	1.25	2.00	2.00
Barking drum	2.50	2.00	2.50	2.50
Beater and pulper	1.50	1.50	1.75	1.75
Bleacher	1.00	1.25	1.00	1.00
Calender	2.00	2.00	1.75	1.75
Chipper	3.00	2.00	2.50	2.50
Couch cylinder dryer	1.50	1.50	1.75	1.75
Felt stretcher	1.00	1.25	1.25	1.25
Fourdrinier	1.50	1.50	1.75	1.75
Jordan	2.00	2.00	2.00	2.00
Press	2.00	1.50	1.75	1.75
Pulp grinder	2.00	2.00	1.75	1.75
Stock chest	1.50	1.50	1.50	1.50
Stock pump				
Reciprocating	2.00	◆	2.00	2.00

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
<b>Paper mills (continued)</b>				
Suction roll	2.00	1.50	1.75	1.75
Winder	1.50	1.50	1.50	1.50
<b>Paraffin filter press</b>	1.50	1.50	1.50	1.50
<b>Printing press</b>	1.50	1.50	1.50	1.50
<b>Propeller marine</b>	1.50	◆	1.50	1.50
<b>Pullers</b>				
Barge hall	2.50	2.00	2.00	1.50
<b>Pulverizers</b>				
Hammermill	◆	2.00	1.75	1.75
Hog	2.00	2.00	1.75	1.75
Roller	1.50	1.50	1.50	1.50
<b>Pumps</b>				
For stock pumps see paper mills				
Centrifugal	1.00	1.25	1.00	1.00
Descaling gear type	1.50	1.50	1.25	1.25
Oil well pumping (not over 150% peak torque)	2.00	2.00	2.00	2.00
Rotary - other than gear	1.50	1.50	1.25	1.25
Reciprocating	-	-	-	-
1 cylinder - single acting	◆	◆	3.00	3.00
1 cylinder - double acting	◆	◆	3.00	3.00
2 cylinder - single acting	◆	◆	2.00	2.00
2 cylinder - double acting	◆	◆	1.75	1.75
3 cylinder or more	◆	◆	1.50	1.50
<b>Rubber industry</b>				
Banbury mixer	2.50	2.00	2.50	2.50
Calender	2.00	2.00	2.00	2.00
Cracker mixing mill plasticator	2.50	2.00	2.50	2.50
Refiner, sheeter	2.00	2.00	2.50	2.50
Tire-building machine	2.00	2.00	2.50	2.50
Tire and tube press opener based on peak torque	1.00	1.25	1.00	1.00
Tuber and strainer	1.50	1.50	1.75	1.75
Warming mill	2.00	2.00	2.00	2.00
Washer	2.50	2.00	2.50	2.50
<b>Screens</b>				
Air washing	1.00	1.25	1.00	1.00
Coal and sand rotary	1.50	1.50	1.50	1.50
Vibrating	2.50	2.00	2.50	2.50
Water	1.00	1.25	1.00	1.00

**Selection methods**

Service factor

**Table 1 (continued)**

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
Sewage disposal equipment	1.00	1.25	1.00	1.00
Shovel	2.00	2.00	2.00	2.00
Shredder	1.50	1.50	1.50	1.50
<b>Steel industry</b>				
<b>Cold mills</b>				
Coiler up or down	1.50	◆	2.00	1.50
Strip, temper	2.00	◆	2.00	2.00
<b>Hot mills</b>				
Coiler up or down	1.50	◆	2.00	1.50
Edger drive	1.50	◆	2.00	1.50
Feed roll blooming	3.00	◆	2.50	3.00
Roughing mill delivery	3.00	◆	2.50	2.50
Non-reversing, sheet strip	3.00	◆	2.50	2.50
Rod mill	2.50	◆	2.50	2.00
Soaking pit cover drive lift	3.00	◆	1.50	1.00
Soaking pit cover drive travel	3.00	◆	1.50	2.00

Application (read footnotes)	Factor Δ			
	Raptor, Para-Flex, Poly-Disc	D-Flex	Grid, Chain, Rigid	Gear
Steering gear	1.00	1.25	1.00	1.00
Stoker		1.25	1.00	1.00
<b>Textile mills</b>				
Batcher	1.00	1.25	1.25	1.25
“Calender, card machine, D can”	1.50	1.50	1.50	1.50
Dyeing machine	1.00	1.25	1.25	1.25
Loom	1.50	1.50	1.50	1.50
Mangel, napper, soaper	1.00	1.25	1.25	1.25
Spinner, tenter frame	1.50	1.50	1.50	1.50
<b>Windlass</b>	1.50	1.50	1.50	1.50
<b>Woodworking machines</b>	1.00	1.25	1.00	1.00

**System service factor calculation**

To determine the system service factor, the driver service factor adder (table 1A) must be added to the driven service factor (table 1). Example: Determine the system service factor for a Para-Flex coupling used to couple a barking drum and a six-cylinder diesel engine.

Driven S.F. + Driver S.F. adder = System S.F.  
2.5 +.5 = 3.0

Δ The service factors listed are intended only as a general guide. Where substantial shock occurs or starting and stopping is frequent as on some “inching” drives and on some

reversing drives or where the power source is an internal combustion engine with less than four cylinders - consult Dodge. Where torsional vibrations occur as in, for example, internal combustion engine or reciprocating compressor or pump applications, check the coupling stiffness for the possible development of damaging large - amplitude vibrations. A complete system torsional analysis may be necessary.

- \*\* Add 0.5 to factor if without flywheel
- ◆ Consult Dodge for selection assistance

**Table 1A-driver service factor adders**

Type of coupling	Electric motor std. torque	High torque motors	Turbines	Multicylinder engine			
				8 or more	6	4	Less than 4
Raptor	0.00	0.00	0.00	0.50	1.00	1.50	◆
Para-Flex	0.00	0.00	0.00	0.50	0.50	0.50	◆
D-Flex	0.00	If SF < 1.25 add 0.25	If SF < 1.5 subtract 0.25	If SF < 1.25 add 0.25			◆
		If SF > 1.25 add 0.5	If SF > 1.5 subtract 0.5	If SF > 1.25 add 0.5			◆
Metallic	0.00	0.00	0.00	0.50	0.50	1.00	◆

Caution: In the drive systems sensitive to axial movement (i.e. sleeve bearing equipment), it may be necessary to limit axial movement. Consult Dodge Industrial for the proper installation procedure.

—  
ELASTOMERIC

# Raptor

Elastomeric



## Elastomeric - Raptor

### Features/benefits

#### Designed and developed by Dodge

##### A better choice has arrived

Coupling maintenance and reliability should not consume your maintenance team's time. The Dodge Raptor elastomeric coupling is the answer to these concerns.

The Raptor's easy to assemble, patented split natural rubber element significantly decreases total costs of ownership and extends driven equipment life. Built for drop-in interchangeability, the Raptor features an innovative design offering easier installation, reduced maintenance, and improved reliability in a wide range of new and existing applications.



Elastomeric

#### Coupling size

<b>Dodge Raptor</b>	E2	E3	E4	E5	E10	E20	E30	E40	E50	E60	E70	E80	E100	E120	E140
<b>Rexnord Omega</b>	E2	E3	E4	E5	E10	E20	E30	E40	E50	E60	E70	E80	E100	E120	E140
<b>TB Woods Dura-Flex</b>	WE2	WE3	WE4	WE5	WE10	WE20	WE30	WE40	WE50	WE60	WE70	WE80	-	-	-

#### Industry leading 5-year warranty

With over 100 years of coupling manufacturing experience, Dodge has a history of providing reliable coupling solutions in a wide range of industries and applications. Raptor couplings carry an industry leading 5-year limited warranty, even when used with competitors' components.



## Elastomeric - Raptor

Features/benefits

### Superior natural rubber element

Leveraging over 50 years of Dodge's natural rubber expertise, the Raptor features a natural rubber flexible element that offers a number of performance benefits when compared to competitive urethane designs.

- Industry leading misalignment capabilities
- Less vibration transmission to connected equipment
- Better shock absorbing capabilities
- Static conductive for grounding redundancy, allowing current to safely pass through the natural rubber element, preventing the possibility of arcing during operation
- Exceptional resistance to hydrolysis, for improved performance in humid environments
- Superior thermal conductivity and ability to dissipate heat and hysteresis build up



### Patented WingLock™ element design

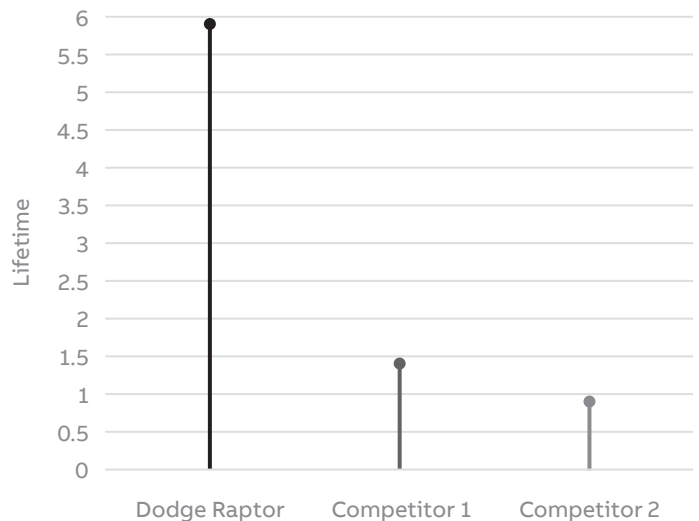
The Dodge Raptor utilizes a patented finite-element optimized winged elastomeric element design. This WingLock technology increases surface area in the most critical regions of the element, resulting in higher bond strength, improved fatigue resistance, and longer life versus competitive designs.



### Documented performance

Comparative benchmark testing confirms the performance improvements associated with Raptor's WingLock element design. Even under worst-case misalignment and torque conditions, testing results show that Raptor lasts six times longer than the closest competitor.

Results based on accelerated life testing at 1.5x cataloged torque, while subject to 4° angular misalignment and 3/16" (4.8mm) parallel misalignment.



## Elastomeric - Raptor

Features/benefits

### Suited for any application

#### A practical solution to spacer couplings

The innovation behind the Raptor coupling also extends to applications requiring additional space between shaft ends.

- One spacer element fits all standard ANSI and ISO spacer lengths.
- Spacer elements can be replaced with standard close-coupled elements, resulting in lower replacement costs and reduced inventory.
- Eliminates the need for high-speed rings, resulting in easier installation, while also reducing purchase costs and inventory requirements.
- Modular full spacer design can be converted for use in half spacer and close-coupled applications, providing opportunity for inventory consolidation



#### Armored elements for extra protection in harsh environments

Raptor couplings are available with an optional armored element. This allows users to benefit from the increased performance and longer driven equipment life of standard Raptor elements, while providing an added layer of protection from ozone, petroleum oils, and some chemical environments. Raptor armored elements exceed ASTM 1149-07 rubber deterioration standards, as determined through third-party testing.



#### Improved features, easier installation

The Dodge Raptor has everything needed for easier installations and reduced maintenance costs.

- Split element for easy replacement without moving and re-aligning connected equipment
- Slotted clamp ring holes offer 187% extra mounting hardware clearance versus competitor's circular through holes.
- Approximately 50% lower torsional stiffness makes the element significantly easier to manipulate by hand during installation.
- Maintenance free non-lubricated natural rubber element for trouble-free operation



Raptor's slotted clamp rings offer more clearance at the bolt holes, for an easier installation than competitive designs.

## Elastomeric - Raptor

### Options

#### Shaft hubs

##### Flexible mounting options for any application

- Available in a wide range of shaft attachment methods, including finished bore, Taper-Lock and QD bushed options.
- Suited for any application, hubs are reversible to accommodate a wide range of shaft gaps.
- Interchangeable hubs are used for both close-coupled and spacer designs for reduced inventory.

##### Finished bore

- Setscrew locking mechanism ensures a quick, easy installation.
- Two setscrews at a 65° angle optimizes radial and torsional holding power, resulting in a 75% holding power increase versus competitive designs using one setscrew.
- Sizes E70-E140 are interference fit per AGMA 9002



##### QD bushed

- “Quick Disconnect” QD bushings for easy installation and removal
- Reduced maintenance time and costs
- Minimal shaft damage
- Increased bore capacities
- Robust flanged design featuring capscrew hardware



##### Taper-Lock bushed

- Reduced maintenance time and costs
- Easy installation and removal
- Flangeless bushing design, narrow length-thru-bore
- Minimal shaft damage
- Clean, compact design
- Dodge original design, an industry standard for over 50 years
- Combine with Dodge <D> integral key bushings for added value and convenience.





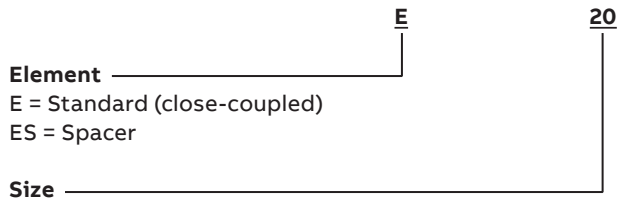
## Elastomeric - Raptor

### Specification/how to order/nomenclature

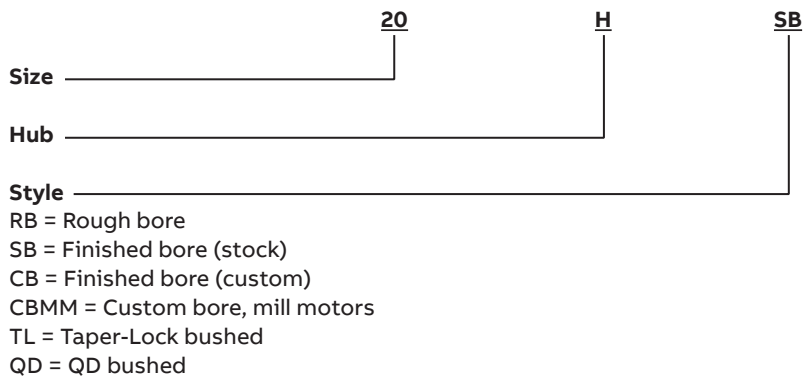
A complete Raptor coupling assembly consists of one element (standard or with spacer) and two shaft hubs (finished or rough stock bore, Taper-Lock, or QD). If Taper-Lock or QD shaft hubs are selected, bushings must also be selected for the desired shaft size.

#### Nomenclature:

##### Elements:

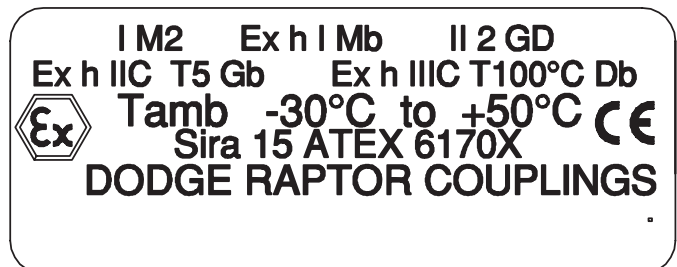


##### Hubs:



#### Third-party ATEX certified

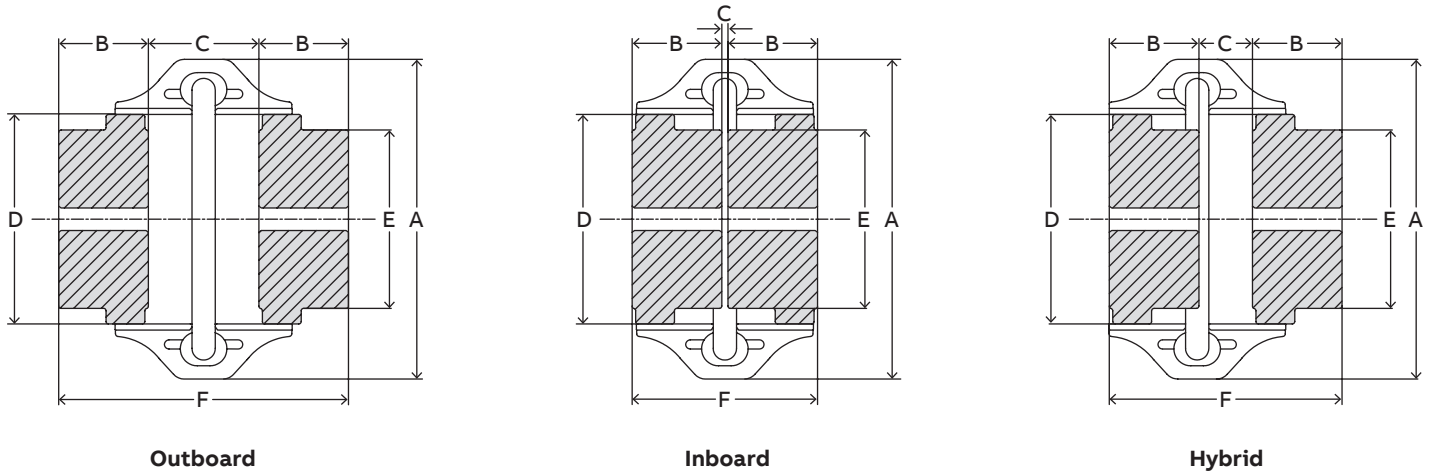
When it comes to applications in hazardous environments, there's no reason for customers to assume any risk by using a product which is self-certified. That's why all Raptor couplings are third-party ATEX certified for worry-free use in hazardous environments. All required product markings and documentation are included with each coupling at no additional charge. When it comes to hazardous environments, you can trust Dodge.



# Elastomeric - Raptor

## Selection/dimensions

### Close-coupled - finished bore



Coupling size	Min. bore	Max. bore <sup>(1)</sup>	Hp/100	Max torque (in.-lbs.)	Max. RPM	A	B	C <sup>(4)</sup>			D	E	F			Weight <sup>(2)</sup> (lbs.)
								Outboard	Inboard	Hybrid			Outboard	Inboard	Hybrid	
E2	-	1.13	0.31	194	6,600	3.50	0.94	1.90	1.34	1.62	1.85	1.65	3.78	3.22	3.50	1.2
E3	-	1.38	0.59	371	6,600	4.00	1.50	1.34	0.78	1.06	2.32	2.00	4.34	3.78	4.06	2.3
E4	-	1.63	0.89	558	6,600	4.56	1.68	1.34	0.42	0.88	2.60	2.36	4.70	3.78	4.24	3.3
E5	-	1.88	1.47	926	6,600	5.38	1.75	1.84	0.78	1.31	3.13	2.80	5.34	4.28	4.81	5.4
E10	-	2.13	2.31	1,456	6,600	6.38	1.88	1.84	0.52	1.18	3.65	3.30	5.60	4.28	4.94	7.6
E20	-	2.38	3.66	2,308	6,600	7.25	2.06	2.66	0.22	1.44	4.48	4.00	6.78	4.34	5.56	12.7
E30	-	2.88	5.79	3,651	5,800	8.25	2.31	2.97	0.03	1.50	5.42	4.62	7.59	4.65	6.12	19.7
E40	-	3.38	8.73	5,504	5,000	9.50	2.50	3.29	0.43	1.86	6.63	5.75	8.29	5.43	6.86	33.5
E50	-	3.63	12.1	7,656	4,200	11.00	2.75	3.91	0.09	2.00	8.13	6.13	9.41	5.59	7.50	50.9
E60	-	4.00	19.8	12,505	3,800	12.50	3.25	4.23	0.49	2.36	8.75	6.50	10.73	6.99	8.86	71.3
E70	-	4.50	35.1	22,132	3,600	14.00	3.62	4.80	0.52	2.66	9.25	6.99	12.04	7.76	9.90	82.0
E80	-	6.00	62.7	39,503	2,000	16.00	4.87	6.67	0.75	3.71	11.25	9.49	16.41	10.49	13.45	169.4
E100	2.50	6.75	135.0	85,085	1,900	21.00	5.50	3.77	1.77	2.77	14.13	10.51	14.77	12.77	13.77	252.6
E120	2.88	7.50	270.0	170,170	1,800	25.00	6.00	4.90	2.26	3.58	17.63	11.76	16.90	14.26	15.58	419.4
E140	3.25	9.00	540.0	340,340	1,500	30.00	7.00	5.02	3.02	4.02	20.88	15.01	19.02	17.02	18.02	593.4

- (1) Contact Dodge for larger bore capacities with shallow keys.
- (2) Weight of complete coupling in pounds
- (3) All dimensions in inches
- (4) Hubs are reversible and will accommodate different shaft spacing requirements.

### Close-coupled inch element assemblies

Size	Standard (natural rubber)	Armored elements	Replacement hardware <sup>(1)(2)</sup>
E2	015843	017 126	017000
E3	015844	017 127	
E4	015845	017 128	017001
E5	015846	017 129	
E10	015847	017 130	017 180
E20	015848	017 131	017 002
E30	015849	017 132	
E40	015850	017 133	017 003

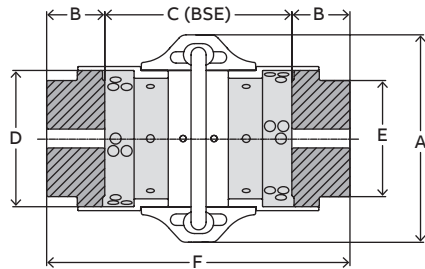
- (1) Element assemblies include Imperial hardware.
- (2) Raptor elements are also available with metric hardware. This requires use of shaft hubs tapped for metric hardware.
- (3) Reference International Couplings Catalog (9AKK107387) or contact Dodge Industrial for more information.

Size	Standard (natural rubber)	Armored elements	Replacement hardware <sup>(1)(2)</sup>
E50	015851	017 134	017 003
E60	015852	017 135	
E70	015853	017 136	017 004
E80	015854	017 137	
E100	015931	017 138	017 005
E120	015932	017 139	017 006
E140	015933	017 140	017 007

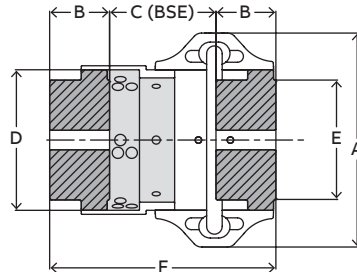
**Elastomeric - Raptor**

Selection/dimensions

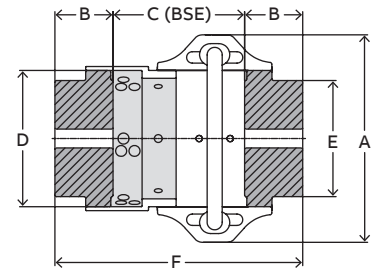
**Spacer - finished bore**



**Full spacer - outboard**



**Half spacer - hybrid**



**Half spacer - outboard**

Coupling size	Min. bore	Max. bore <sup>(1)</sup>	Hp/100	Max rated torque (in.-lbs.)	Max. RPM	A	B	D	E	Weight <sup>(2)</sup> (lbs.)
ES2	-	1.13	0.31	194	6,600	3.50	0.94	1.85	1.65	1.86
ES3	-	1.38	0.59	371	6,600	4.00	1.50	2.32	2.00	3.73
ES4	-	1.63	0.89	558	6,600	4.56	1.69	2.60	2.36	5.12
ES5	-	1.88	1.47	926	6,600	5.38	1.75	3.13	2.80	7.78
ES10	-	2.13	2.31	1,456	6,600	6.38	1.88	3.65	3.30	10.35
ES20	-	2.38	3.66	2,308	4,800	7.25	2.06	4.48	4.00	17.31
ES30	-	2.88	5.79	3,651	4,200	8.25	2.31	5.42	4.62	26.81
ES40	-	3.38	8.73	5,504	3,600	9.50	2.50	6.63	5.75	43.57
ES50	-	3.63	12.1	7,656	3,100	11.00	2.75	8.13	6.13	63.98
ES60	-	4.00	19.8	12,505	2,800	12.50	3.25	8.75	6.50	94.85
ES70	-	4.50	35.1	22,132	2,600	14.00	3.62	9.25	6.99	106.34
ES80	-	6.00	62.7	39,503	1,800	16.00	4.87	11.25	9.49	207.47

- (1) Consult page 119 for larger bore capacities with shallow keys.
- (2) Weight of complete coupling at maximum bore with four spacer extensions
- (3) All dimensions in inches

**Finished bore spacer length options**

Coupling size	Standard (natural rubber) element part number <sup>(1)</sup>		Armored element part number <sup>(1)</sup>		C (BSE) <sup>(4)(5)</sup>				F <sup>(4)(5)</sup>			
	Half spacer	Full spacer	Half spacer	Full spacer	Half spacer		Full spacer		Half spacer		Full spacer	
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
ES2	017 182	017 064	017 218	017 156	2.51	3.01	3.50	4.12	4.39	4.89	5.38	6.00
ES3	017 183	017 065	017 219	017 157	2.14	3.43	3.50	5.51	5.14	6.43	6.50	8.51
ES4	017 184	017 066	017 220	017 158	1.96	3.43	3.50	5.51	5.34	6.81	6.88	8.89
ES5	017 185	017 067	017 221	017 159	2.14	3.68	3.50	5.51	5.64	7.18	7.00	9.01
ES10	017 186	017 068	017 222	017 160	2.01	3.68	3.50	5.51	5.77	7.44	7.26	9.27
ES20	017 187	017 069	017 223	017 161	2.38	5.20	4.54	7.74	6.50	9.32	8.66	11.86
ES30	017 188	017 070	017 224	017 162	2.24	5.42	4.44	7.86	6.86	10.04	9.06	12.48
ES40	017 189	017 071	017 225	017 163	2.51	5.46	5.04	7.63	7.51	10.46	10.04	12.63
ES50	017 190	017 072	017 226	017 164	2.94	6.32	5.76	8.72	8.44	11.82	11.26	14.22
ES60	017 191	017 073	017 227	017 165	3.13	7.38	6.37	10.52	9.63	13.88	12.87	17.02
ES70	017 192	017 074	017 228	017 166	3.36	7.80	7.00	10.80	10.60	15.04	14.24	18.04
ES80	017 193	017 075	017 229	017 167	4.04	11.28	8.98	15.88	13.78	21.02	18.82	25.62

- (1) Element assemblies include Imperial hardware.
- (2) Table shows actual spacer lengths.
- (3) All calculations based off of outboard hubs.
- (4) Hubs are reversible and will accommodate different shaft spacing requirements.
- (5) Consult factory for minimum shaft spacing.

## Elastomeric - Raptor

Selection/dimensions

## Finished bore hub part numbers - inch bore

Bore (in.)	Coupling size														
	Clearance fit										Interference fit*				
	2	3	4	5	10	20	30	40	50	60	70*	80*	100*	120*	140*
Reborable	015234	015235	015236	015237	015238	015239	015240	015241	015242	015243	015244	015245	015246	015247	015248
1/2"	015425	015436	015451	015474	015501										
9/16"	015426	015437	015452	015475	015502										
5/8"	015427	015438	015453	015476	015503										
11/16"	015428	015439	015454	015477	015504										
3/4"	015429	015440	015455	015478	015505	015532	015563	015602							
13/16"	015430	015441	015456	015479	015506	015533	015564	015603							
7/8"	015431	015442	015457	015480	015507	015534	015565	015604							
15/16"	015432	015443	015458	015481	015508	015535	015566	015605							
1"	015433	015444	015459	015482	015509	015536	015567	015606							
1-1/16"	015434	015445	015460	015483	015510	015537	015568	015607							
1-1/8"	015435	015446	015461	015484	015511	015538	015569	015608	015649	015694					
1-3/16"		015447	015462	015485	015512	015539	015570	015609	015650	015695					
1-1/4"		015448	015463	015486	015513	015540	015571	015610	015651	015696					
1-5/16"		015449	015464	015487	015514	015541	015572	015611	015652	015697					
1-3/8"		015450	015465	015488	015515	015542	015573	015612	015653	015698	015749				
1-7/16"			015466	015489	015516	015543	015574	015613	015654	015699	015750				
1-1/2"			015467	015490	015517	015544	015575	015614	015655	015700	015751				
1-9/16"			015468	015491	015518	015545	015576	015615	015656	015701	015752				
1-5/8"			015469	015492	015519	015546	015577	015616	015657	015702	015753	015867			
1-11/16"				015493	015520	015547	015578	015617	015658	015703	015754	015868			
1-3/4"				015494	015521	015548	015579	015618	015659	015704	015755	015869			
1-13/16"				015495	015522	015549	015580	015619	015660	015705	015756	015870			
1-7/8"				015496	015523	015550	015581	015620	015661	015706	015757	015871			
1-15/16"					015524	015551	015582	015621	015662	015707	015758	015872			
2"					015525	015552	015583	015622	015663	015708	015759	015873			
2-1/16"					015526	015553	015584	015623	015664	015709	015760	015874			
2-1/8"					015527	015554	015585	015624	015665	015710	015761	015875			
2-3/16"						015555	015586	015625	015666	015711	015762	015876			
2-1/4"						015556	015587	015626	015667	015712	015763	015877			
2-5/16"						015557	015588	015627	015668	015713	015764	015878			
2-3/8"						015558	015589	015628	015669	015714	015765	015879			
2-7/16"							015590	015629	015670	015715	015766	015880			
2-1/2"							015591	015630	015671	015716	015767	015881	015010		
2-9/16"							015592	015631	015672	015717	015768	015882	015011		
2-5/8"							015593	015632	015673	015718	015769	015883	015012		
2-11/16"							015594	015633	015674	015719	015770	015884	015013		
2-3/4"							015595	015634	015675	015720	015771	015885	015014		
2-13/16"							015596	015635	015676	015721	015772	015886	015015		
2-7/8"							015597	015636	015677	015722	015773	015887	015016	015075	
2-15/16"								015637	015678	015723	015774	015888	015017	015076	
3"								015638	015679	015724	015775	015889	015018	015077	
3-1/16"								015639	015680	015725	015776	015890	015019	015078	
3-1/8"								015640	015681	015726	015777	015891	015020	015079	
3-3/16"								015641	015682	015727	015778	015892	015021	015080	
3-1/4"								015642	015683	015728	015779	015893	015022	015081	015146
3-5/16"								015643	015684	015729	015780	015894	015023	015082	015147
3-3/8"								015644	015685	015730	015781	015895	015024	015083	015148
3-7/16"									015686	015731	015782	015896	015025	015084	015149
3-1/2"									015687	015732	015783	015897	015026	015085	015150

■ Stock bores

• Listed shaft hubs are tapped for Imperial hardware, and intended for use with Imperial element assemblies. Shaft hubs and element assemblies are also available for use with metric hardware. Reference International Catalog (9AKK107387) or contact Dodge Industrial for more information.

• Unless otherwise specified, finished bores for sizes E2-E60 are Class 1 clearance fit and sizes E70-E140 are interference fit per AGMA 9002. See pages 120 for additional details.

\*Interference fit as standard

**Elastomeric - Raptor**

Selection/dimensions

**Finished bore hub part numbers - inch bore (cont.)**

Bore (in.)	Coupling size														
	Clearance fit												Interference fit*		
	2	3	4	5	10	20	30	40	50	60	70*	80*	100*	120*	140*
3-9/16"									015688	015733	015784	015898	015027	015086	015151
3-5/8"									015689	015734	015785	015899	015028	015087	015152
3-11/16"										015735	015786	015900	015029	015088	015153
3-3/4"										015736	015787	015901	015030	015089	015154
3-13/16"										015737	015788	015902	015031	015090	015155
3-7/8"										015738	015789	015903	015032	015091	015156
3-15/16"										015739	015790	015904	015033	015092	015157
4"										015740	015791	015905	015034	015093	015158
4-3/16"											015792	015906	015035	015094	015159
4-1/4"											015793	015907	015036	015095	015160
4-3/8"											015794	015908	015037	015530	015531
4-7/16"											015795	015909	015038	015096	015161
4-1/2"											015796	015910	015039	015097	015162
4-11/16"												015911	015040	015098	015163
4-3/4"												015912	015041	015099	015164
4-7/8"												015913	015042	015100	015165
4-15/16"												015914	015043	015101	015166
5"												015915	015044	015102	015167
5-3/16"												015916	015045	015103	015168
5-1/4"												015917	015046	015104	015169
5-7/16"												015918	015047	015105	015170
5-1/2"												015919	015048	015106	015171
5-11/16"												015920	015049	015107	015172
5-3/4"												015921	015050	015108	015173
5-7/8"												015528	015529	015109	015174
5-15/16"												015922	015051	015110	015175
6"												015923	015052	015111	015176
6-3/16"													015053	015112	015177
6-1/4"													015054	015113	015178
6-7/16"													015055	015114	015179
6-1/2"													015056	015115	015180
6-11/16"													015057	015116	015181
6-3/4"													015058	015117	015182
6-15/16"														015118	015183
7"														015119	015184
7-3/16"														015120	015185
7-1/4"														015121	015186
7-7/16"														015122	015187
7-1/2"														015123	015188
7-11/16"															015189
7-3/4"															015190
7-15/16"															015191
8"															015192
8-3/16"															015193
8-1/4"															015194
8-7/16"															015195
8-1/2"															015196
8-11/16"															015197
8-3/4"															015198
8-15/16"															015199
9"															015200

\* Listed shaft hubs are tapped for Imperial hardware, and intended for use with Imperial element assemblies. Shaft hubs and element assemblies are also available for use with metric hardware. Reference International Catalog (9AKK107387) or contact Dodge Industrial for more information.

\* Unless otherwise specified, finished bores for sizes E2-E60 are Class 1 clearance fit and sizes E70-E140 are interference fit per AGMA 9002. See pages 120 for additional details.

\*Interference fit as standard

## Elastomeric - Raptor

Selection/dimensions

## Finished bore hub part numbers - metric bore

Bore (mm)	Coupling size														
	Clearance fit										Interference fit*				
	2	3	4	5	10	20	30	40	50	60	70*	80*	100*	120*	140*
Reborable	015234	015235	015236	015237	015238	015239	015240	015241	015242	015243	015244	015245	015246	015247	015248
11	016225	016236	016250	016267	016286										
12	016226	016237	016251	016268	016287										
14	016227	016238	016252	016269	016288										
16	016228	016239	016253	016270	016289										
17	016229	016240	016254	016271	016290										
18	016230	016241	016255	016272	016291										
19	016231	016242	016256	016273	016292	016307	016325	016347							
20	016232	016243	016257	016274	016293	016308	016326	016348							
22	016233	016244	016258	016275	016294	016309	016327	016349							
24	016234	016245	016259	016276	016295	016310	016328	016350							
25	016235	016246	016260	016277	016296	016311	016329	016351							
28	396249	016247	016261	016278	016297	016312	016330	016352	016372	016393					
30		016248	016262	016279	016298	016313	016331	016353	016373	016394					
32		016249	016263	016280	016299	016314	016332	016354	016374	016395					
35			016264	016281	016300	016315	016333	016355	016375	016396	016416				
38			016265	016282	016301	016316	016334	016356	016376	016397	016417				
40			016266	016283	016302	016317	016335	016357	016377	016398	016418	016438			
42				016284	016303	016318	016336	016358	016378	016399	016419	016439			
45				016285	016304	016319	016337	016359	016379	016400	016420	016440			
48					016305	016320	016338	016360	016380	016401	016421	016441			
50					016306	016321	016339	016361	016381	016402	016422	016442			
55						016322	016340	016362	016382	016403	016423	016443			
56						016323	016341	016363	016383	016404	016424	016444			
60						016324	016342	016364	016384	016405	016425	016445			
63							016343	016365	016385	016406	016426	016446	016468		
65							016344	016366	016386	016407	016427	016447	016469		
70							016345	016367	016387	016408	016428	016448	016470		
71							016346	016368	016388	016409	016429	016449	016471		
75								016369	016389	016410	016430	016450	016472	016496	
80								016370	016390	016411	016431	016451	016473	016497	
85								016371	016391	016412	016432	016452	016474	016498	
90									016392	016413	016433	016453	016475	016499	
95										016414	016434	016454	016476	016500	016526
100										016415	016435	016455	016477	016501	016527
105											016436	016456	016478	016502	016528
110											016437	016457	016479	016503	016529
120												016458	016480	016504	016530
125												016459	016481	016505	016531
130												016460	016482	016506	016532
140												016461	016483	016507	016533
150												016462	016484	016508	016534

• Listed shaft hubs are tapped for Imperial hardware, and intended for use with Imperial element assemblies. Shaft hubs and element assemblies are also available for use with metric hardware. Reference International Catalog (9AKK107387) or contact Dodge Industrial for more information.

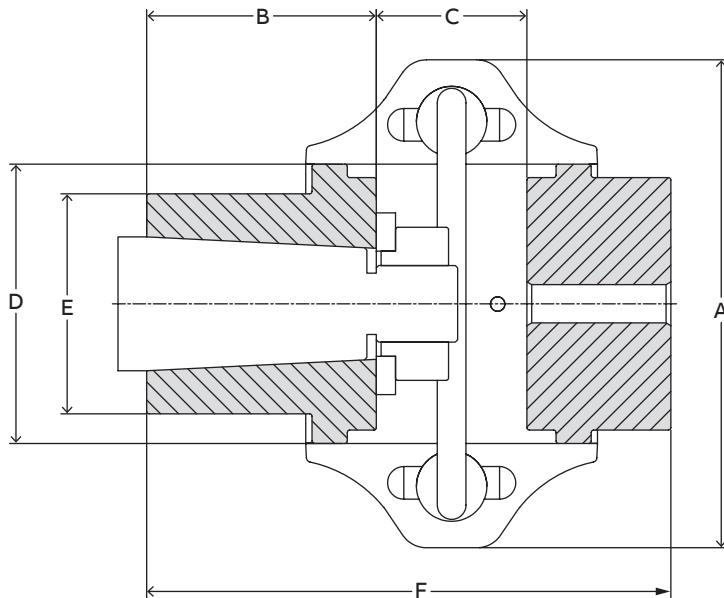
• Unless otherwise specified, finished bores for E2-E60 are clearance fit and sizes E70-E80 are interference fit per ISO R775. See pages 123 for details.

\*Interference fit as standard

**Elastomeric - Raptor**

Selection/dimensions

**Mill motor**



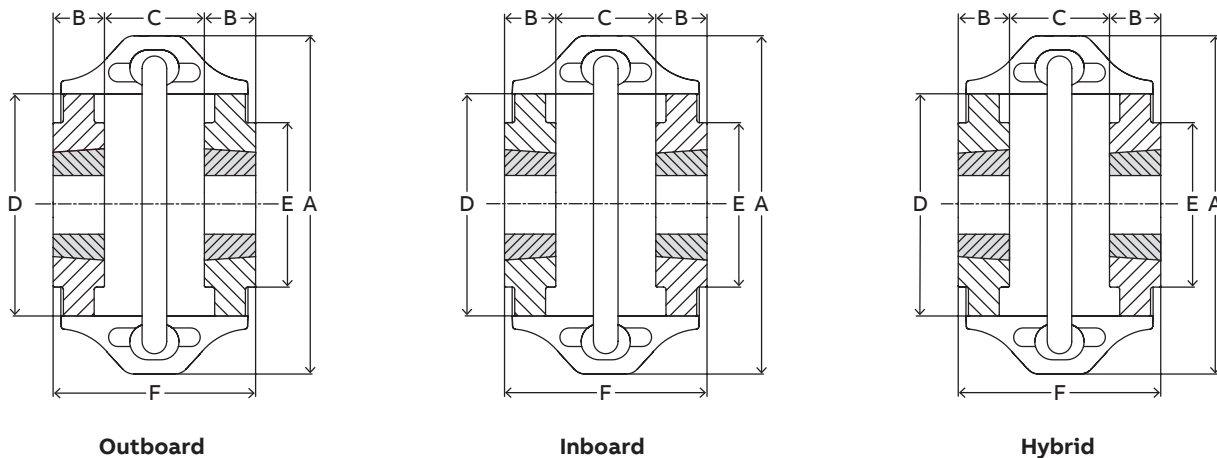
**Mill motor hubs - HCBMM**

Size	Mill motor size	Hp/100	Max rated torque (in.-lbs.)	Max. RPM	A	B	C	D	E	F	Weight (lbs.)	Description	Part number			
E10	602/802	2.31	1,456	7,500	6.38	3.00	1.81	3.65	2.88	6.68	5.8	10HMMCB - 602/802	017 088			
E20	802B/802C	3.66	2,308	6,600	7.25	3.00	2.38	4.48	3.00	7.44	9.8	20HMMCB - 802	017 089			
	603					3.50				7.94				9.1	20HMMCB - 603	017 090
E30	603/803, 604/804	5.79	3,651	5,800	8.25	3.50	2.44	5.42	3.50	8.25	15.8	30HMMCB - 603/803 604/804	017 091			
E40	604/804	8.73	5,504	5,000	9.50	3.50	2.68	6.63	3.50	8.68	26.0	40HMMCB - 604/804	017 092			
E50	406/606/806	12.15	7,656	4,200	11.00	4.00	3.38	8.13	4.00	10.13	39.8	50HMMCB - 406/606/806	017 093			
	408/608/808									10.63				36.0	50HMMCB - 408/608/808	017 094
E60	406/606/806	19.84	12,505	3,800	12.50	4.00	3.44	8.75	4.50	10.69	58.2	60HMMCB - 406/606/806	017 095			
	408/608/808									11.19				54.8	60HMMCB - 408/608/808	017 096
	408/608/808													61.0	70HMMCB - 408/608/808	017097
E70	410/610/810	35.12	22,132	3,600	14.00	4.50	3.75	9.25	4.75	11.88	58.4	70HMMCB - 410/610/810	017 098			
	412/612/812									12.38				54.4	70HMMCB - 412/612/812	017 099
	410/610/810													4.50	14.38	118.0
E80	412/612/812	62.68	39,503	2,000	16.00	5.00	5	11.25	6.00	14.88	115.3	80HMMCB - 412/612/812	017101			
	614													106.1	80HMMCB - 614	017 102
	612/812													5.00	14.25	216.6
E100	614/814	134.96	85,057	1,900	21.00	5.50	3.75	14.13	10.25	14.75	207.4	100HMMCB - 614/814	017 104			
	616/816									14.75				208.3	100HMMCB - 616/816	017 105
	618/818									15.25				207.5	100HMMCB - 618/818	017 106
E120	818	269.91	170,109	1,800	25.00	6.00	4.88	17.63	11.75	16.88	366.3	120HMMCB - 818	017 107			
	620									17.63				357.3	120HMMCB - 620	017 108
E140	622	539.80	340,209	1,500	30.00	7.25	5	20.88	15.00	19.25	504.2	140HMMCB - 622	017 109			
	624									21.25				537.3	140HMMCB - 624	017 110

## Elastomeric - Raptor

Selection/dimensions

## Close-coupled - Taper-Lock bushed



Coupling size	Bushing size	Max. bore <sup>(1)</sup>	Hp/100	Max torque (in.-lbs.) <sup>(2)</sup>	Max. RPM	A	B	C			D	E	F			Weight <sup>(5)</sup> (lbs.)
								Outboard	Inboard	Hybrid			Outboard	Inboard	Hybrid	
E3	10 08	1.00	0.59	371	6,600	4.00	0.88	1.68	1.68	1.68	2.32	2.00	3.44	3.44	3.44	2.2
E4	10 08	1.00	0.89	558	6,600	4.56	0.88	1.68	1.68	1.68	2.60	2.25	3.44	3.44	3.44	2.9
E5	11 08	1.13	1.47	926	6,600	5.38	0.88	2.17	2.19	2.19	3.13	2.80	3.93	3.95	3.95	4.8
E10	13 10	1.44	2.31	1,456	6,600	6.38	1.00	2.06	2.06	2.06	3.65	3.30	4.06	4.06	4.06	6.4
E20	16 10	1.69	3.66	2,308	6,600	7.25	1.00	2.50	2.50	2.50	4.48	3.50	4.50	4.50	4.50	9.2
E30	20 12	2.13	5.79	3,651	5,800	8.25	1.25	2.56	2.56	2.56	5.42	4.01	5.06	5.06	5.06	14.8
E40	25 17	2.69	8.73	5,504	5,000	9.50	1.75	2.38	2.38	2.38	6.63	4.63	5.88	5.88	5.88	23.8
E50	25 17	2.69	12.1	7,656	4,200	11.00	1.75	3.00	3.00	3.00	8.13	4.93	6.50	6.50	6.50	35.2
E60	30 20	3.25	19.8	12,505	3,800	12.50	2.00	3.31	3.31	3.31	8.75	5.75	7.31	7.31	7.31	53.6
E70	35 35	3.94	35.1	22,132	3,600	14.00	3.50	2.38	2.38	2.38	9.25	6.50	9.38	9.38	9.38	77.7
E80	40 40	4.44	62.7	39,503	2,000	16.00	4.00	3.75	3.75	3.75	11.25	7.75	11.75	11.75	11.75	129.0
E100	45 35	4.94	135.0	85,085	1,900	21.00	3.50	6.06	3.56	4.81	14.13	10.51	13.06	10.56	11.81	254.0
E120	50 40	5.00	199.9	126,000 <sup>(2)</sup>	1,800	25.00	4.00	6.78	4.14	5.46	17.63	11.76	14.78	12.14	13.46	428.0
E140	70 60	7.00	540.0	340,340	1,500	30.00	6.00	6.99	2.99	4.99	20.88	15.01	18.99	14.99	16.99	713.0

(1) All maximum bore dimensions are based off of shallow keys

(2) Maximum torque is limited by maximum bushing rated torque

(3) Space required to install bushing with shortened hex key

(4) Space required to remove bushing with shortened hex key

(5) Weight of complete coupling including the bushing at maximum bore

(6) All dimensions in inches

## Taper-Lock bushed part numbers

Coupling size	TL hub	Bushing size	Standard (natural rubber) element	Armored elements	Replacement hardware <sup>(1)</sup>
3HTL	015801	10 08	015844	017 127	
4HTL	015802	10 08	015845	017 128	017001
5HTL	015803	11 08	015846	017 129	
10HTL	015804	13 10	015847	017 130	017 180
20HTL	015805	16 10	015848	017 131	
30HTL	015806	20 12	015849	017 132	017 002
40HTL	015807	25 17	015850	017 133	
50HTL	015808	25 17	015851	017 134	017 003
60HTL	015809	30 20	015852	017 135	
70HTL	015810	35 35	015853	017 136	017 004
80HTL	015865	40 40	015854	017 137	
100HTL	015201	45 35	015931	017 138	017 005
120HTL	015202	50 40	015932	017 139	017 006
140HTL	015203	70 60	015933	017 140	017 007

(1) Element assemblies include Imperial hardware.

(2) Raptor elements are also available with metric hardware. This requires use of shaft hubs tapped for metric hardware.

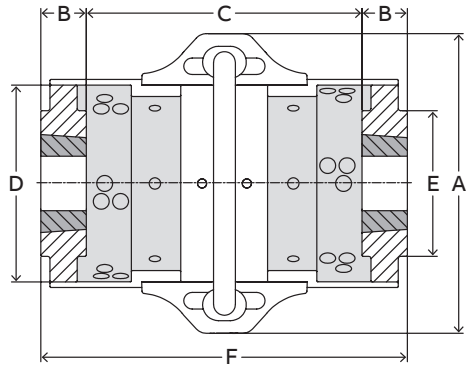
(3) Reference International Couplings Catalog (9AKK107387) or contact Dodge Industrial for more information.



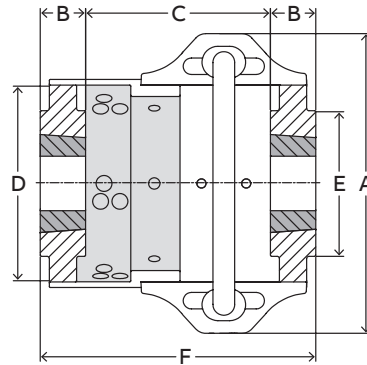
**Elastomeric - Raptor**

Selection/dimensions

**Spacer - Taper-Lock bushed**



**Full spacer**



**Half spacer**

Coupling size	Bushing size	Max bore <sup>(1)</sup>	Hp/100	Max rated torque (in.-lbs.)	Max. RPM	A	B	D	E	Weight <sup>(2)</sup> (lbs.)
ES3	1008	1.00	0.59	371	6,600	4.00	0.88	2.32	2.00	3.6
ES4	1008	1.00	0.89	558	6,600	4.56	0.88	2.60	2.36	4.7
ES5	1108	1.13	1.47	926	6,600	5.38	0.88	3.13	2.80	7.2
ES10	1310	1.44	2.31	1,456	6,600	6.38	1.00	3.65	3.30	9.2
ES20	1610	1.69	3.66	2,308	4,800	7.25	1.00	4.48	4.00	13.8
ES30	2012	2.13	5.79	3,651	4,200	8.25	1.25	5.42	4.62	21.9
ES40	2517	2.69	8.73	5,504	3,600	9.50	1.75	6.63	5.75	33.9
ES50	2517	2.69	12.1	7,656	3,100	11.00	1.75	8.13	6.13	48.3
ES60	3020	3.25	19.8	12,505	2,800	12.50	2.00	8.75	6.50	77.1
ES70	3535	3.94	35.1	22,132	2,600	14.00	3.50	9.25	6.99	102.0
ES80	4040	4.44	62.7	39,503	1,800	16.00	4.00	11.25	9.49	166.8

(1) Maximum bores may require use of shallow key and/or steel bushings. See page 177 for TL bushing details.

(2) Weight of complete full spacer coupling with bushings at maximum bore

(3) All dimensions in inches

**Taper-Lock bushed spacer length options**

Coupling size	Standard (natural rubber)		Armored elements		C (BSE)				F			
	Element part number		part number		Half spacer		Full spacer		Half spacer		Full spacer	
	Half spacer	Full spacer	Half spacer	Full spacer	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
ES3	017 183	017 065	017 219	017 157	2.76	3.77	3.84	5.85	4.52	5.53	5.60	7.61
ES4	017 184	017 066	017 220	017 158	2.76	3.77	3.84	5.85	4.52	5.53	5.60	7.61
ES5	017 185	017 067	017 221	017 159	3.01	4.02	3.84	5.85	4.77	5.78	5.60	7.61
ES10	017 186	017 068	017 222	017 160	2.89	3.90	3.72	5.73	4.89	5.90	5.72	7.73
ES20	017 187	017 069	017 223	017 161	3.54	5.04	4.58	7.58	5.54	7.04	6.58	9.58
ES30	017 188	017 070	017 224	017 162	3.51	5.01	4.45	7.45	6.01	7.51	6.95	9.95
ES40	017 189	017 071	017 225	017 163	3.49	4.55	4.59	6.72	6.99	8.05	8.09	10.22
ES50	017 190	017 072	017 226	017 164	4.15	5.41	5.29	7.81	7.65	8.91	8.79	11.31
ES60	017 191	017 073	017 227	017 165	4.68	6.46	6.05	9.60	8.68	10.46	10.05	13.60
ES70	017 192	017 074	017 228	017 166	3.88	5.38	5.38	8.38	10.88	12.38	12.38	15.38
ES80	017 193	017 075	017 229	017 167	5.74	8.36	7.72	12.96	13.74	16.36	15.72	20.96

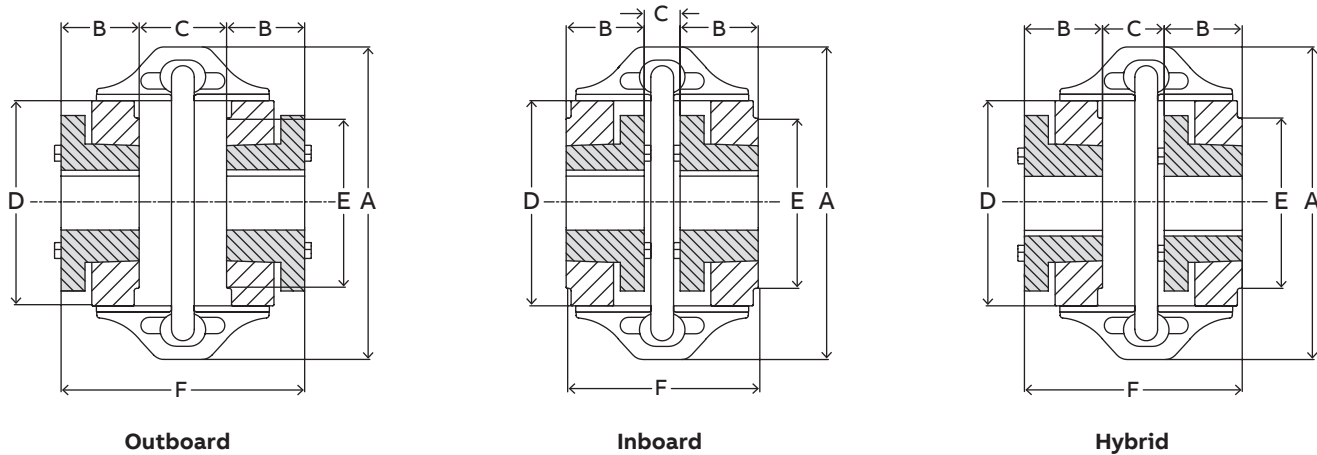
(1) Element assemblies include Imperial hardware.

(2) Table shows actual spacer lengths.

## Elastomeric - Raptor

Selection/dimensions

## Close-coupled - QD bushed



Coupling size	Bushing size	Max. bore <sup>(1)</sup>	Hp/100	Max torque (in.-lbs.) <sup>(2)</sup>	Max. RPM	A	B	C <sup>(7)</sup>			D	E	F <sup>(7)</sup>			Weight <sup>(5)</sup> (lbs.)
								Outboard	Inboard	Hybrid			Outboard	Inboard	Hybrid	
E4	JA	1.19	0.89	558	6,600	4.56	1.00	1.90	1.22	1.57	2.60	2.25	3.90	3.24	3.57	2.9
E5	SH	1.63	1.47	926	6,600	5.38	1.25	1.88	1.62	1.75	3.13	2.80	4.38	4.12	4.25	4.9
E10	SDS	1.94	2.31	1,456	6,600	6.38	1.31	2.32	1.20	1.76	3.65	3.30	4.94	3.82	4.38	6.3
E20	SK	2.50	3.66	2,308	6,600	7.25	1.88	2.62	0.44	1.53	4.48	3.81	6.38	4.20	5.29	11.1
E30	SF	2.94	5.79	3,651	5,800	8.25	2.00	2.43	1.25	1.84	5.42	4.50	6.43	5.25	5.84	17.6
E40	E	3.50	8.73	5,504	5,000	9.50	2.63	2.00	1.00	1.50	6.63	5.75	7.26	6.26	6.76	33.1
E50	E	3.50	12.1	7,656	4,200	11.00	2.63	3.13	1.11	2.12	8.13	5.75	8.39	6.37	7.38	44.9
E60	F	3.94	19.8	12,505	3,800	12.50	3.63	2.13	1.19	1.66	8.75	6.50	9.39	8.45	8.92	68.4
E70	J	4.50	35.1	22,132	3,600	14.00	4.50	1.70	0.92	1.31	9.25	7.25	10.70	9.92	10.31	90.7
E80	M	5.50	62.7	39,503	2,000	16.00	6.75	1.49	0.31	0.90	11.25	9.49	14.99	13.81	14.40	203.0
E100	M	5.50	134.9	85,000	1,900	21.00	6.75	1.77	1.07	1.42	14.13	10.51	15.27	14.57	14.92	297.0
E120	N	6.00	238.0	150,000 <sup>(2)</sup>	1,800	25.00	8.12	2.27	0.77	1.52	17.63	11.51	18.51	17.01	17.76	496.0
E140	P	7.00	396.7	250,000 <sup>(2)</sup>	1,500	30.00	9.38	3.52	-	1.64	20.88	15.01	22.28	-	20.40	835.0

- (1) All maximum bore dimensions are based off of shallow keys  
(2) Maximum torque is limited by maximum bushing rated torque  
(3) Space required to install bushing with open end wrench  
(4) Space required to remove bushing with open end wrench  
(5) Weight of complete coupling including the bushing at maximum bore  
(6) All dimensions in inches  
(7) Hubs are reversible and will accommodate different shaft spacing requirements

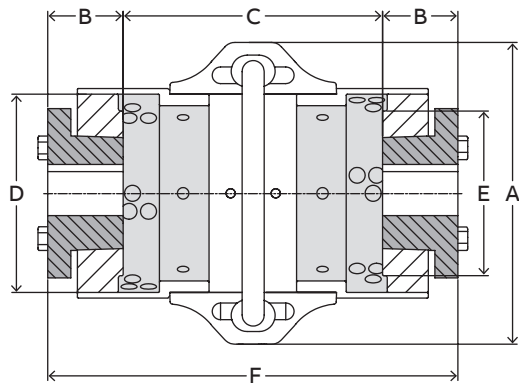
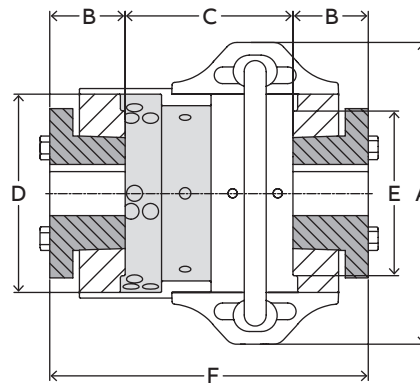
## QD bushed part numbers

Coupling size	QD hub	Bushing size	Standard (natural rubber) element	Armored elements	Replacement hardware <sup>(1)</sup>
4HQD	015811	JA	015845	017128	
5HQD	015812	SH	015846	017129	017001
10HQD	015813	SDS	015847	017130	017180
20HQD	015814	SK	015848	017131	
30HQD	015815	SF	015849	017132	017002
40HQD	015816	E	015850	017133	
50HQD	015817	E	015851	017134	017003
60HQD	015818	F	015852	017135	
70HQD	015819	J	015853	017136	017004
80HQD	015866	M	015854	017137	
100HQD	015204	M	015931	017138	017005
120HQD	015205	N	015932	017139	017006
140HQD	015206	P	015933	017140	017007

- (1) Element assemblies include Imperial hardware.  
(2) Raptor elements are also available with metric hardware. This requires use of shaft hubs tapped for metric hardware.  
(3) Reference International Couplings Catalog (9AKK107387) or contact Dodge for more information.

**Elastomeric - Raptor**

Selection/dimensions

**Spacer - QD bushed****Outboard full spacer****Outboard half spacer**

Coupling size	Bushing size	Max. bore <sup>(1)</sup>	Hp/100	Max rated torque (in.-lbs.)	Max. RPM	A	B	D	E	Weight <sup>(2)</sup> (lbs.)
ES4	JA	1.19	0.89	558	6,600	4.56	1.00	2.60	2.36	4.7
ES5	SH	1.63	1.47	926	6,600	5.38	1.25	3.13	2.80	7.2
ES10	SDS	1.94	2.31	1,456	6,600	6.38	1.31	3.65	3.30	9.0
ES20	SK	2.50	3.66	2,308	4,800	7.25	1.88	4.48	4.00	15.7
ES30	SF	2.94	5.79	3,651	4,200	8.25	2.00	5.42	4.62	24.8
ES40	E	3.50	8.73	5,504	3,600	9.50	2.63	6.63	5.75	43.1
ES50	E	3.50	12.1	7,656	3,100	11.00	2.63	8.13	6.13	58.0
ES60	F	3.94	19.8	12,505	2,800	12.50	3.63	8.75	6.50	91.9
ES70	J	4.50	35.1	22,132	2,600	14.00	4.50	9.25	6.99	115.0
ES80	M	5.50	62.7	39,503	1,800	16.00	6.75	11.25	9.49	240.9

(1) Maximum bores may require use of shallow key. Consult page 192 for QD bushing requirements.

(2) Weight of complete coupling at maximum bore with four spacer extensions

(3) All dimensions in inches

**QD bushed spacer length options**

Coupling size	Standard (natural rubber)		Armored elements		C (BSE) <sup>(4)(5)</sup>				F <sup>(4)(5)</sup>			
	Element part number		part number		Half spacer		Full spacer		Half spacer		Full spacer	
	Half spacer	Full spacer	Half spacer	Full spacer	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
ES4	017 184	017 066	017 220	017 158	2.64	3.99	4.06	6.07	4.64	5.99	6.06	8.07
ES5	017 185	017 067	017 221	017 159	2.64	3.72	3.54	5.55	5.14	6.22	6.04	8.05
ES10	017 186	017 068	017 222	017 160	2.58	4.16	3.98	5.99	5.20	6.78	6.60	8.61
ES20	017 187	017 069	017 223	017 161	2.66	5.16	4.70	7.70	6.42	8.92	8.46	11.46
ES30	017 188	017 070	017 224	017 162	2.76	4.88	4.32	7.32	6.76	8.88	8.32	11.32
ES40	017 189	017 071	017 225	017 163	2.61	4.17	4.21	6.34	7.78	9.43	9.47	11.60
ES50	017 190	017 072	017 226	017 164	3.27	5.54	5.42	7.94	8.53	10.80	10.68	13.20
ES60	017 191	017 073	017 227	017 165	3.05	5.28	4.87	8.42	10.31	12.54	12.13	15.68
ES70	017 192	017 074	017 228	017 166	2.88	4.70	4.70	7.70	11.88	13.70	13.70	16.70
ES80	017 193	017 075	017 229	017 167	2.99	6.10	5.46	10.70	16.49	19.60	18.98	24.20

(1) Element assemblies include Imperial hardware.

(2) Table shows actual spacer lengths.

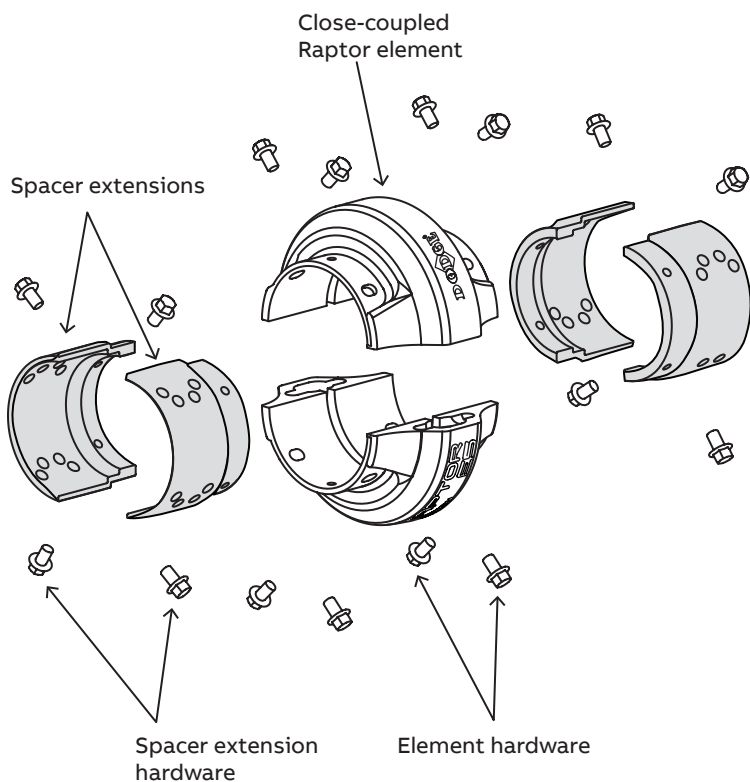
(3) All calculations based off of outboard hubs.

(4) Hubs are reversible and will accommodate different shaft spacing requirements

(5) Consult factory for minimum shaft spacing

**Elastomeric - Raptor**

Selection/dimensions

**Spacer element component details****Raptor spacer element component part numbers**

Coupling size	Complete spacer element assemblies				Replacement components	
	Standard (natural rubber) elements		Close-coupled elements <sup>(1) (2)</sup>		Spacer extension kit <sup>(3) (4)</sup>	Replacement hardware
	Half spacer	Full spacer	Standard (natural rubber)	Armored elements		
ES2	017 182	017 064	015843	017 126	017 040	017 000
ES3	017 183	017 065	015844	017 127	017 041	
ES4	017 184	017 066	015845	017 128	017 042	017 001
ES5	017 185	017 067	015846	017 129	017 043	
ES10	017 186	017 068	015847	017 130	017 044	017 180
ES20	017 187	017 069	015848	017 131	017 045	
ES30	017 188	017 070	015849	017 132	017 046	017 002
ES40	017 189	017 071	015850	017 133	017 047	
ES50	017 190	017 072	015851	017 134	017 048	017 003
ES60	017 191	017 073	015852	017 135	017 049	
ES70	017 192	017 074	015853	017 136	017 050	017 004
ES80	017 193	017 075	015854	017 137	017 051	

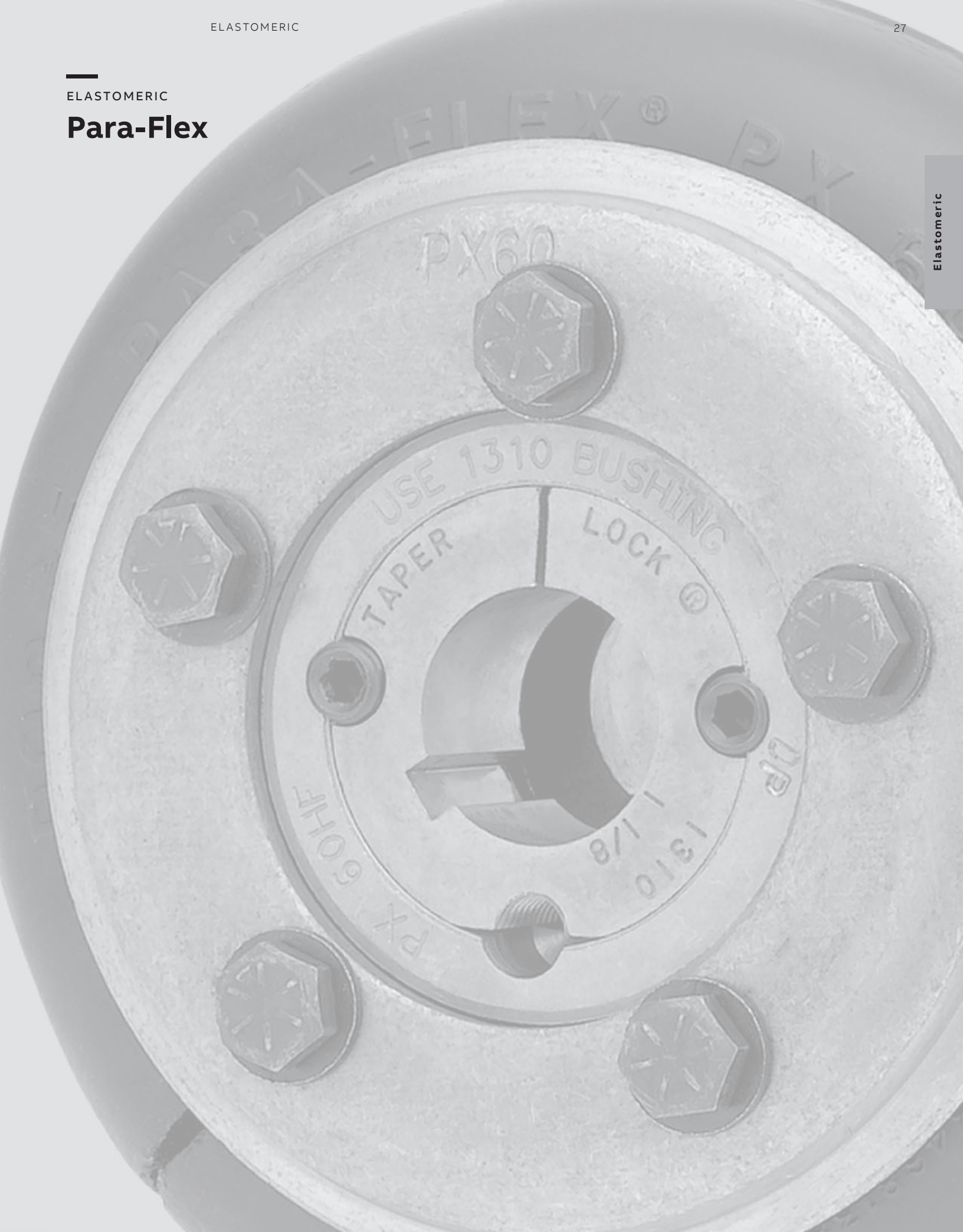
(1) For replacement on existing Raptor half or full spacer couplings, purchase only close-coupled element if spacer extensions remain on shaft hubs

(2) For replacement on existing Raptor half or full spacer couplings, purchase close-coupled element and one set of replacement hardware if spacer extensions have been removed from shaft hubs

(3) For a half-spacer design, purchase one spacer extension kit

(4) For a full spacer design, purchase two spacer extension kits

—  
ELASTOMERIC  
**Para-Flex**



Elastomeric

## Elastomeric - Para-Flex

### Features/benefits

#### Superior “problem solver” element design

- Highest combined misalignment capabilities (torsional, axial and angular) lead to longer element life
- End split reinforcement for increased torque ratings and extended life
- Internal tire cording limits catastrophic element failures
- Uniform and centered beads prevent element pull out during operation
- Protects connected equipment by damping vibrations and shock loads

#### Industry leading five-year limited warranty

- Over 50 years of proven performance
- Reliable product operation
- Includes sizes PX40 to PX320



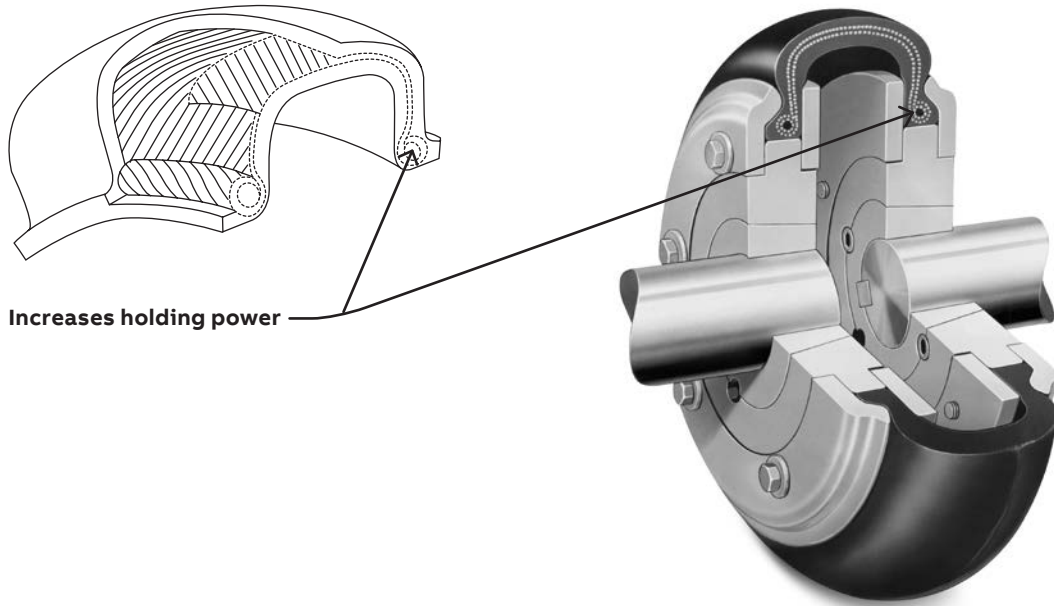
#### Increased productivity

- Non-lubricated design assures trouble-free operation
- Element fatigue indicators save time and allow for preventive maintenance
- Split element for easy installation



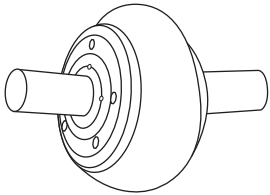
**Elastomeric - Para-Flex**

Features/benefits

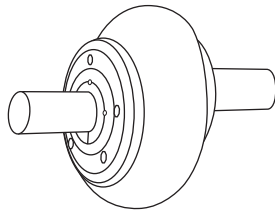


**Increases holding power**

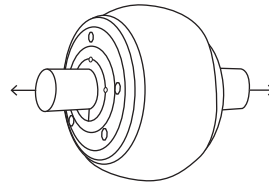
**Accommodates misalignment**



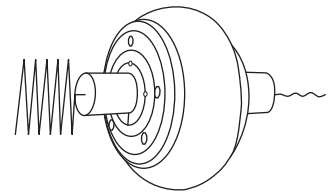
Takes 4° angular misalignment



Takes 1/8" parallel misalignment



Takes end-float of 1/4" to 5/16"



Damps vibrations

## Elastomeric - Para-Flex

### Options

#### (1) Taper-Lock flange design

- Utilizes standard Taper-Lock bushings for easy installation and removal
- Reversible flanges for H and F style mounting on sizes PX50-PX120
- "TLX" extended bore capacity flanges for increased bore capacities
- Pre-assembled for quick installation



#### (3) Bored-to-size flange

- Steel flanges are ideal for high shock load and vibration applications
- Largest bore capacity of all Para-Flex products



#### (2) QD flange design

- Utilizes standard QD bushings for easy installation and removal
- Industry leading bore and torque capacities versus competitive designs
- Hardware installs from inside or outside of the hub for mounting flexibility
- Pre-assembled for quick installation





## Elastomeric - Para-Flex

### Specification/how to order/nomenclature

#### Specification

Para-Flex couplings employ a molded, non-lubricated elastomeric flexing member loaded in shear. The flexible element is compounded natural or neoprene rubber with textile cord reinforcement throughout and has an extra layer of reinforcement adjacent to the split for added durability. The compound of natural rubber element shall be suitable for operation in ambient temperature from -45°F to +180°F; Neoprene -40°F to +210°F.

The flexible element is attached by clamping between axially separable rings with exposed cap screws. The couplings are designed to be capable of accommodating combined misalignments of 4° angular, 1/8" parallel, and 5/16" end float at the full rating of the coupling without restricting the life of the coupling. The flexible element must be replaceable without disturbing the coupled equipment and without the requirement for realignment.

The coupling assemblies have optional methods of attachment to the shaft including but not limited to: clearance fit, interference fit, Taper-Lock or QD (Quick Disconnect) bushings. Clearance fits are supplied with an industry standard keyway and two set screws, one over the key and one at 65°.

1 PX40: 4° angular, 1/16" parallel, 3/16" end float.

2 PX110: 4° angular, 1/8" parallel, 1/4" end float.

3 PH & PF: 1° angular, 1/16" parallel, 3/16" end float.

Para-Flex couplings are static conductive.

#### How to order

Standard couplings consist of:

(2) Flange assemblies

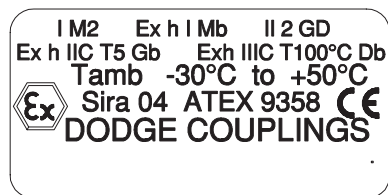
(1) Flexible element

If bushing option preferred:

(2) Bushings (TL or QD)

#### ATEX approved

- All documents and markings included with standard product to meet ATEX requirements



**Elastomeric - Para-Flex**

Specification/how to order/nomenclature



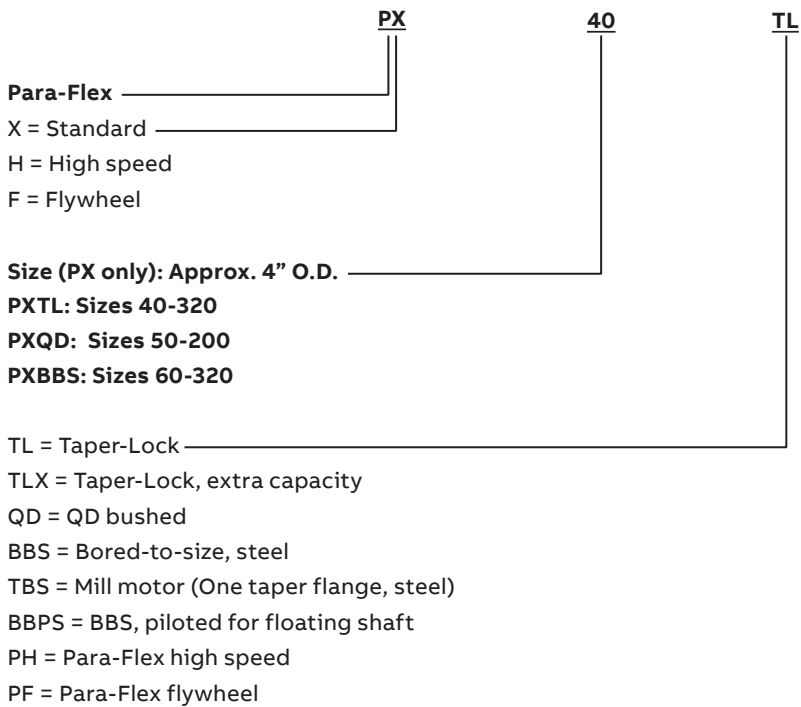
**PXTL - Para-Flex  
with Taper-Lock  
flange**



**PXQD - Para-Flex  
with QD flanges**



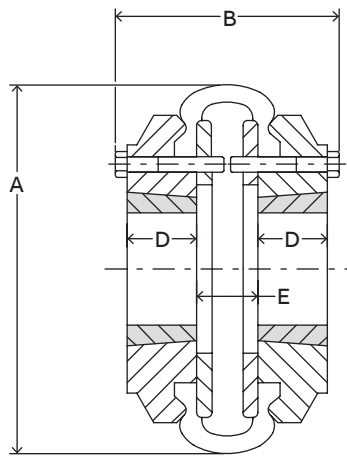
**PXBBS - Para-Flex  
with bored-to-size  
flange**

**Nomenclature**

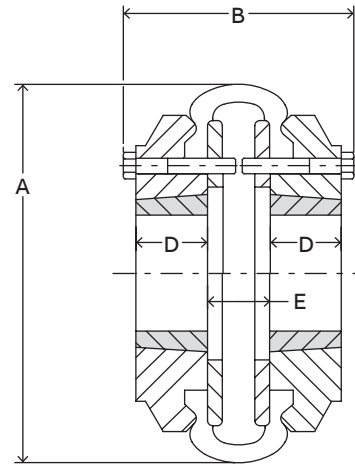
# Elastomeric - Para-Flex

## Selection/dimensions

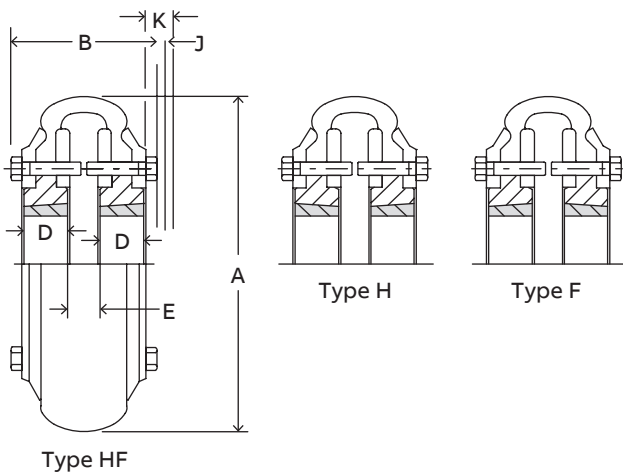
### Standard, Taper-Lock



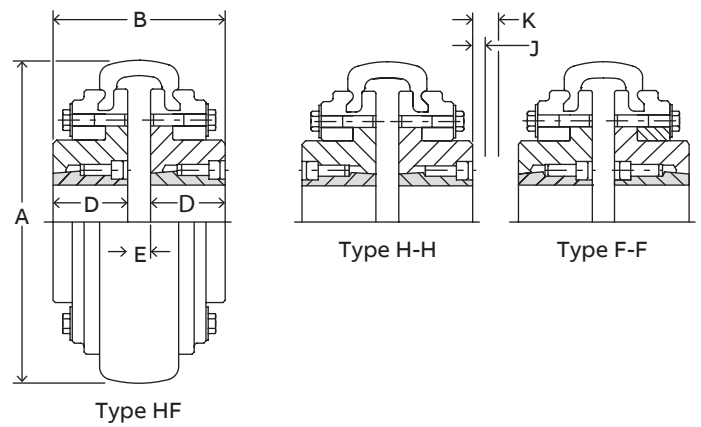
Style 1  
PX40 Standard coupling with Type H Taper-Lock



Style 1  
PX40 Standard coupling Type F Taper-Lock



Style 2  
PX50 - PX120 Taper-Lock couplings with reversible flange  
3-piece design (central hub & two clamp rings)



Style 3  
PX140 - PX320 Taper-Lock couplings  
2-piece design integral hub clamp ring and a separate external clamp ring

**Elastomeric - Para-Flex**

Selection/dimensions

**Standard, Taper-Lock**

Coupling size	Taper-Lock bushing size	Torque (in.-lbs.)	Hp/100	Max. bore (in.)	Max. RPM	Style	Dimensions (in.)						Weight (lbs.) <sup>(3)</sup>	Inertia (lb.-ft. <sup>2</sup> ) <sup>(4)</sup>
							A	B	D	E	J <sup>(1)</sup>	K <sup>(2)</sup>		
PX40TL	1008	429	0.68	1	4500	1	4.25	3	0.88	0.77	0.63	0.75	4.2	0.05
PX50TL	1108	900	1.43	1-1/8	4500	1	5.25	2.75	0.88	0.53	0.63	0.75	4.7	0.07
PX60TL	1310	1800	2.86	1-7/16	4000	1	6.5	3.34	1	0.72	0.81	1.06	9.2	0.21
PX70TL	1610	2200	3.49	1-11/16	3600	2	7.38	3.56	1	0.95	0.81	1.06	13	0.3
PX70TLX-F	2012	2200	3.49	2-1/8	3600	3	7.38	3.83	1.25	0.95	0.94	1.38	14.8	0.3
PX80TL	2012	3605	5.72	2-1/8	3100	2	8.38	3.75	1.25	0.77	0.94	1.38	19.6	0.73
PX80TLX-F	2517	3605	5.72	2-11/16	3100	3	8.38	3.99	1.75	0.77	1	1.63	24.7	0.8
PX90TL	2517	4502	7.15	2-11/16	2800	2	9.25	4.03	1.75	0.33	1	1.63	28.8	1.3
PX100TL	2517	5402	8.58	2-11/16	2600	2	10	4.22	1.75	0.52	1	1.63	38	2.2
PX100TLX-F	3020	5402	8.58	3-1/4	2600	3	10	4.36	2	0.52	1.19	2.06	42.6	2.4
PX110TL	2517	7750	12.3	2-11/16	2300	2	11	4.53	1.75	0.47	1	1.63	52.1	3.7
PX110TLX-F	3020	7750	12.3	3-1/4	2300	3	11	4.75	2	0.47	1.19	2.06	57.2	3.9
PX110TLX-H	3020	7750	12.3	3-1/4	2300	3	11	4.75	2	0.47	1.19	2.06	57.2	3.9
PX120TL	3020	12605	20	3-1/4	2100	2	12.38	5.03	2	0.44	1.19	2.06	74.4	6.6
PX120TLX-F	3525	12605	20	3-15/16	2100	3	12.38	5.45	2.5	0.44	1.31	2.69	88.1	7.4
PX140TL	3535	27590	44	3-15/16	1840	3	14.13	7.81	3.5	0.81	1.31	2.69	156	18.7
PX160TL	4040	37800	60	4-7/16	1560	3	16.63	9.19	4	1.19	1.63	3.38	243	33.7
PX200TL	4545	82500	131	4-15/16	1300	3	20	10.31	4.5	1.31	1.94	4.06	417	101
PX240TL	5050	151200	240	5	1080	3	24.13	11.91	5	1.91	2.31	4.81	682	231
PX280TL	7060	302200	480	7	910	3	28.5	15.97	6	2.22	1.63	4.38	1148	544
PX320TL	8065	453000	719	8	810	3	32.5	16.31	6.5	2.06	1.63	4.38	1640	1077

(1) Space required to tighten bushing with shortened hex key.

(2) Space required to loosen bushing with shortened hex key.

(3) Weight of complete coupling with bushing.

(4) Inertia of complete coupling with bushing.

Flange assemblies may be combined or interchanged for a given element size.

Upon combination, dimensions B and E as well as mass and inertia should be averaged to determine appropriate value.

**Elastomeric - Para-Flex**

Selection/dimensions

**Standard, Taper-Lock part numbers****Taper-Lock flange assemblies**

Coupling size	Flange assembly part no.		Taper-Lock bushing size
	Type H	Type F	
PX40TL	000849	000848	1008
PX50TL	010601	*	1108
PX60TL	010602	*	1310
PX70TL	010603	*	1610
PX70TLX-F	-	395277	2012
PX80TL	010604	*	2012
PX80TLX-F	-	395278	2517
PX90TL	010605	*	2517
PX100TL	010606	*	2517
PX100TLX-F	-	395279	3020
PX110TL	010607	*	2517
PX110TLX-H	395281	-	3020
PX110TLX-F	-	395280	3020
PX120TL	010608	*	3020
PX120TLX-F	-	395282	3525
PX140TL	011134	011154	3535
PX160TL	011137	011157	4040
PX200TL	011140	011160	4545
PX240TL	011144	011164	5050
PX280TL	011455	011456	7060
PX320TL	011472	011471	8065

\* PX50-PX120 have a reversible flange for type H or F mount  
 Complete coupling consists of (2) Taper-Lock flange assemblies.  
 (2) Taper-Lock bushings, and (1) element.

For Taper-Lock bushings, see page 177.

**Elements**

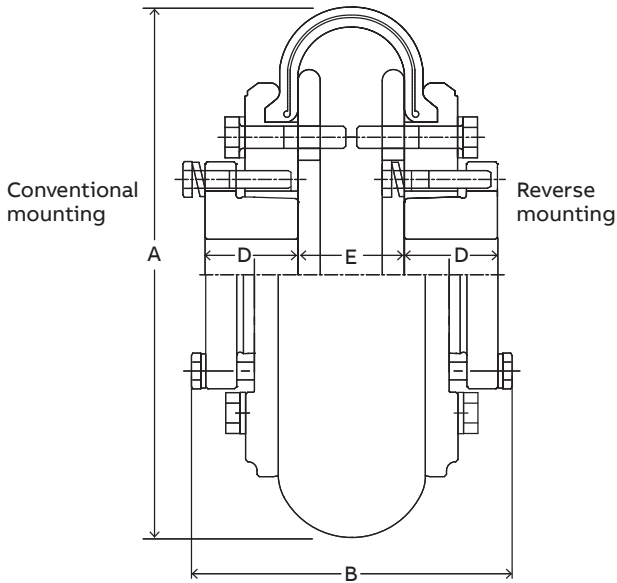
Coupling size	Standard part no.	Neoprene <sup>(1)</sup> part no.	Cordless <sup>(2)</sup> part no.	
PX40	011529	012455		012456
PX50	011105	011296		011285
PX60	011106	011297		011286
PX70	011107	011298		011287
PX80	011108	011299		011288
PX90	011109	011300		011289
PX100	011110	011301		011290
PX110	011111	011302		-
PX120	011112	011303		011292
PX140	011114	011304		-
PX160	011117	011305		-
PX200	011120	011306		-
PX240	011124	011312		-
PX280	011457	011313		-
PX320	011463	011315		-

- (1) Neoprene element ratings are the same as the standard natural rubber element ratings. (Green sticker or painted mark)  
 (2) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)

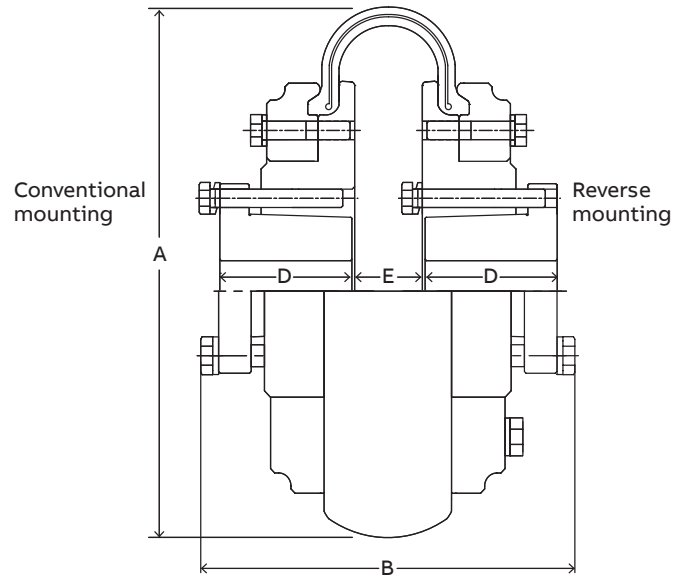
## Elastomeric - Para-Flex

Selection/dimensions

## Standard, QD bushed



Style 1: PX50 - 120QD flange assembly



Style 2: PX140 - 200QD flange assembly

Coupling size	Bushing size	Torque rating (in.-lbs.)	Hp/100	Max. bore (in.)		Max. RPM	Style	Dimensions (in.)				Weight <sup>(1)</sup> (lbs.)	Inertia <sup>(2)</sup> (lb.-ft.)
				Full keyway	Shallow keyway			A	B	D	E		
PX50QD	JA	900	1.43	1	1-3/16	4500	1	5-1/4	3-7/8	1	1-17/32	4.7	0.08
PX60QD	SH	1800	2.86	1-3/8	1-5/8	4000	1	6-1/2	4-23/32	1-1/4	1-25/32	8.0	0.24
PX70QD	SDS	2200	3.49	1-5/8	1-15/16	3600	1	7-3/8	4-17/32	1-5/16	1-1/2	10.7	0.45
PX80QD	SK	3600	5.72	2-1/8	2-1/2	3100	1	8-3/8	5-13/16	1-7/8	1-1/2	15.5	0.88
PX90QD	SK	4350	7.15	2-1/8	2-1/2	2800	1	9-1/4	5-7/8	1-7/8	1-9/16	22.0	1.60
PX100QD	SF	5250	8.58	2-5/16	2-15/16	2600	1	10	6-1/8	2	1-15/32	32.0	2.90
PX110QD	SF	7750	12.3	2-5/16	2-15/16	2300	1	11	5-7/8	2	1-3/16	46.0	4.30
PX120QD	E	12540	20	2-7/8	3-1/2	2100	1	12-3/8	7-1/4	2-5/8	1-1/4	59.8	6.70
PX140QD	F	27590	44	3-1/4	3-15/16	1840	2	14-1/8	9-1/2	3-5/8	1-3/8	132.5	19.50
PX160QD	J	37800	60	3-3/4	4-1/2	1560	2	16-5/8	11-1/2	4-1/2	1-3/8	208.7	34.60
PX200QD	J	82500	131	3-3/4	4-1/2	1300	2	20	11-3/4	4-1/2	1-13/16	366.0	103.00

(1) Weight of complete coupling with bushings.

(2) Inertia of complete coupling with bushings.

## Para-Flex QD part numbers

Size	Description	PXQD flange Part no.	Element		
			Standard	Neoprene <sup>(1)</sup>	
PX50	PX50QD flange assy.	013210	011105	011296	011285
PX60	PX60QD flange assy.	013211	011106	011297	011286
PX70	PX70QD flange assy.	013212	011107	011298	011287
PX80	PX80QD flange assy.	013213	011108	011299	011288
PX90	PX90QD flange assy.	013214	011109	011300	011289
PX100	PX100QD flange assy.	013215	011110	011301	011290
PX110	PX110QD flange assy.	013216	011111	011302	-
PX120	PX120QD flange assy.	013217	011112	011303	011292
PX140	PX140QD flange assy.	013218	011114	011304	-
PX160	PX160QD flange assy.	013219	011117	011305	-
PX200	PX200QD flange assy.	013220	011120	011306	-

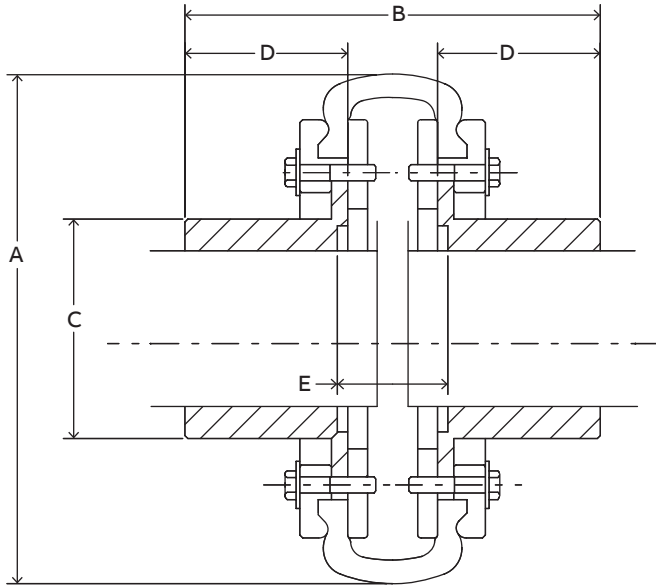
Complete Para-Flex QD coupling consists of (1) element, (2) flanges, and (2) QD bushings.

(1) Neoprene element ratings are the same as the standard natural rubber element ratings. (Green sticker or painted mark)

For QD bushings, see page 191.

**Elastomeric - Para-Flex**

Selection/dimensions

**Bored-to-size, type BBS****PX60 - PX320 type BBS couplings**

Coupling size	Torque (in.-lbs.)	Hp/100	Min. bore (in.)	Max. bore (in.)	Max. RPM	Dimensions (in.)					Weight <sup>(1)</sup> (lbs.)	Inertia <sup>(2)</sup> (lb.-ft. <sup>2</sup> )
						A	B	C	D	E		
PX60BBS	1,800	2.86	-	1-11/16	4000	6.50	4.28	2.38	1.50	1.28	8.8	.21
PX70BBS	2,200	3.49	-	2-1/8	3600	7.38	5.00	2.94	1.75	1.50	12.8	.32
PX80BBS	3,605	5.72	-	2-3/4	3100	8.38	5.50	3.69	2.00	1.50	18.4	.79
PX90BBS	4,502	7.15	-	3	2800	9.25	6.03	4.13	2.25	1.53	25.6	1.4
PX100BBS	5,402	8.58	-	3-3/4	2600	10.00	6.97	4.94	2.63	1.72	36.4	2.5
PX110BBS	7,750	12.30	-	4-1/8	2300	11.00	7.56	5.44	3.00	1.56	47.3	4.2
PX120BBS	12,605	20.00	-	4-7/16	2100	12.38	8.25	5.81	3.25	1.75	68.4	7.0
PX140BBS	27,590	44.00	2-1/4	5	1840	14.13	9.81	7.00	3.88	2.44	127.2	16.4
PX160BBS	37,800	60.00	2-1/2	6-1/2	1560	16.63	12.94	8.50	5.13	3.06	210.8	39.6
PX200BBS	82,500	131.00	2-7/8	7	1300	20.00	15.56	9.38	6.13	3.75	333.5	76.9
PX240BBS	151,200	240.00	4	7-1/2	1080	24.13	14.16	10.00	5.13	4.34	481.0	188.1
PX280BBS	302,200	480.00	4-7/16	9	910	28.50	18.47	12.00	7.13	4.66	802.0	440.8
PX320BBS	453,000	719.00	5-1/2	11	810	32.50	20.75	14.00	8.13	4.94	1074.0	709.6

(1) Weight of complete coupling

(2) Inertia of complete coupling

**Elastomeric - Para-Flex**

Selection/dimensions

**Bored to size, type BBS****PX60BBS - PX320BBS part numbers**

Coupling size	BBS flange assemblies rough bore
PX60BBS <sup>(1)</sup>	010300
PX70BBS <sup>(1)</sup>	010301
PX80BBS <sup>(1)</sup>	010302
PX90BBS <sup>(1)</sup>	010303
PX100BBS <sup>(1)</sup>	010304
PX110BBS <sup>(1)</sup>	010305
PX120BBS <sup>(1)</sup>	010306
PX140BBS <sup>(2)</sup>	010530
PX160BBS <sup>(2)</sup>	010531
PX200BBS <sup>(2)</sup>	010532
PX240BBS <sup>(2)</sup>	010533
PX280BBS <sup>(2)</sup>	010528
PX320BBS <sup>(2)</sup>	010529

(1) Unless otherwise specified, Size 60-120 BBS flanges are clearance fit per AGMA 9002.

(2) Size 140-320BBS flanges are interference fit per AGMA 9002.

Complete coupling consists of: (2) BS flange assemblies and (1) element.

If re-bored, please confirm bore tolerance at time of order

**Para-Flex element - part numbers**

Element size	Standard part no.	Neoprene <sup>(3)</sup> part no.	Cordless <sup>(4)</sup> part no.	Weight (lbs.)
PX40	011529	012455	012456	0.3
PX50	011105	011296	011285	0.7
PX60 <sup>(1)</sup>	011106	011297	011286	1.2
PX70 <sup>(1)</sup>	011107	011298	011287	1.6
PX80 <sup>(1)</sup>	011108	011299	011288	2.2
PX90 <sup>(1)</sup>	011109	011300	011289	2.6
PX100 <sup>(1)</sup>	011110	011301	011290	2.5
PX110 <sup>(1)</sup>	011111	011302	-	3.0
PX120 <sup>(1)</sup>	011112	011303	011292	4.8
PX140 <sup>(2)</sup>	011114	011304	-	5.6
PX160 <sup>(2)</sup>	011117	011305	-	9.1
PX200 <sup>(2)</sup>	011120	011306	-	20.8
PX240 <sup>(2)</sup>	011124	011312	-	27.0
PX280 <sup>(2)</sup>	011457	011313	-	45.0
PX320 <sup>(2)</sup>	011463	011315	-	80.0

(1) Unless otherwise specified, Size 60-120 BBS flanges are clearance fit per AGMA 9002.

(2) Size 140-320 BBS flanges are interference fit per AGMA 9002.

(3) Neoprene element ratings are the same as the standard natural rubber element ratings.  
(Green sticker or painted mark)

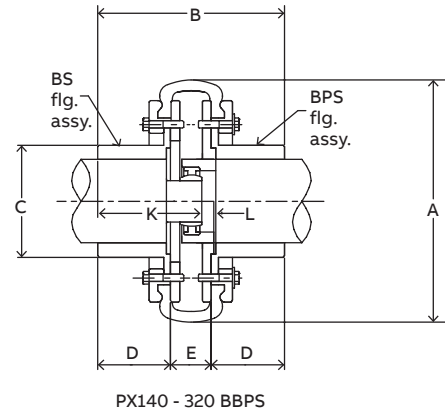
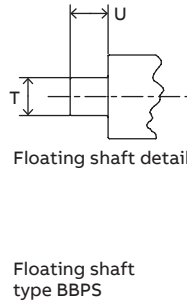
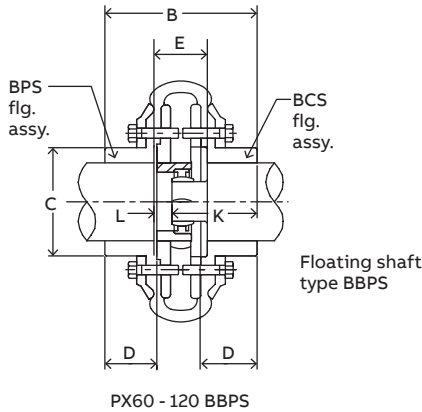
(4) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)



**Elastomeric - Para-Flex**

Selection/dimensions

**Floating shaft, type BBPS**



Size	Torque (in.-lbs.)	Hp/100	Min. bore (in.)	Max. bore (in.)	Max. RPM	Dimensions (in.)							Weight (lbs.)	Inertia (lb.-ft. <sup>2</sup> )		
						A	B	C	D	E	K	L			T	U
PX60BBPS	1,800	2.86	-	1-11/16	4000	6.50	4.28	2.38	1.50	1.78	2.45	0.58	.624/.6225	1.28	9.8	0.21
PX70BBPS	2,200	3.49	-	2-1/8	3600	7.38	5.00	2.94	1.75	2.06	3.05	0.48	.999/.9975	1.58	14.6	0.32
PX80BBPS	3,605	5.72	-	2-3/4	3100	8.38	5.50	3.69	2.00	2.00	3.30	0.45	.999/.9975	1.58	26.9	0.79
PX90BBPS	4,502	7.15	-	3	2800	9.25	6.03	4.13	2.25	2.09	3.67	0.39	1.249/1.2475	1.70	29.0	1.4
PX100BBPS	5,402	5.85	-	3-3/4	2600	10.00	6.97	4.94	2.63	2.16	4.13	0.44	1.249/1.2475	1.72	40.1	2.5
PX110BBPS	7,750	12.30	-	4-1/8	2300	11.00	7.56	5.44	3.00	2.06	4.44	0.38	1.249/1.2475	1.69	51.0	4.2
PX120BBPS	12,605	20	-	4-7/16	2100	12.38	8.25	5.81	3.25	2.44	4.89	0.45	1.499/1.497	1.98	75.7	7.0
PX140BBPS	27,590	44	2-1/4	5	1840	14.13	9.19	7.00	3.88	2.44	5.69	0.44	1.499/1.497	2.00	140.2	16.4
PX160BBPS	37,800	60	2-1/2	6-1/2	1560	16.63	12.94	8.50	5.13	3.06	7.25	0.75	1.499/1.497	2.94	230.8	39.6
PX200BBPS	82,500	131	2-7/8	7	1300	20.00	15.56	9.38	6.13	3.69	8.78	0.84	1.999/1.997	2.84	364.5	76.9
PX240BBPS	151,200	240	4	7-1/2	1080	24.13	14.16	10.00	5.13	4.28	8.06	1.16	1.999/1.997	3.12	529.0	188.1
PX280BBPS	302,200	480	4-7/16	9	910	28.50	18.47	12.00	7.13	4.59	10.22	1.31	1.999/1.997	3.28	877.0	440.8
PX320BBPS	453,000	719	5-1/2	11	810	32.50	20.75	14.00	8.13	4.88	11.38	1.44	1.999/1.997	3.44	1181.0	709.6

**PX60BBPS - PX320BBPS part numbers**

Coupling size	BCS flange assembly	BPS flange assembly	Standard element
PX60BBPS	010658	010657	011106
PX70BBPS	010660	010659	011107
PX80BBPS	010189	010190	011108
PX90BBPS	010191	010192	011109
PX100BBPS	010193	010194	011110
PX110BBPS	010599	010598	011111
PX120BBPS	010195	010196	011112

Coupling size	BS flange assembly	BPS flange assembly	Standard element
PX140BBPS	010530	011714	011114
PX160BBPS	010531	011715	011117
PX200BBPS	010532	011716	011120
PX240BBPS	010533	011717	011124
PX280BBPS	010528	011718	011457
PX320BBPS	010529	011719	011463

Complete coupling consists of:

- (1) BCS or BS flange assembly (depending on size of coupling)
- (1) BPS flange assembly
- (1) Element

BCS flange assembly consists of:

- External clamp ring
- Internal clamp ring
- BCS flange

BPS flange assembly consists of:

- External clamp ring
- Piloted internal clamp ring
  - Includes floating shaft bearing assembly
- BS flange

**Elastomeric - Para-Flex**

Selection/dimensions

**Para-Flex high speed and flywheel couplings****High speed type**

- Compensates for misalignment
- Cushions thrust loads
- Absorbs vibration and shock
- Prolongs bearing life
- Available in Taper-Lock and bored-to-size

**Flywheel type**

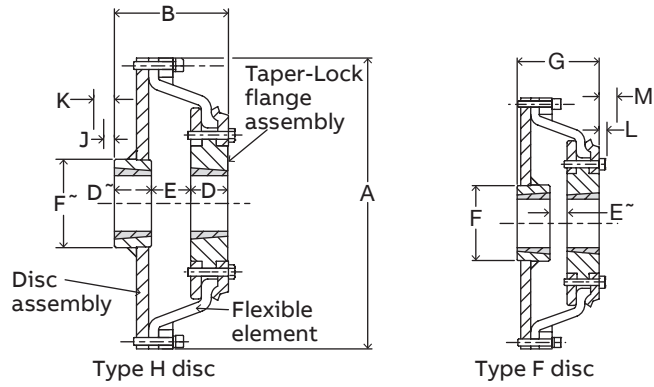
- Specifically designed to connect the flexible element to standard SAE flywheel bolt patterns
- Available in Taper-Lock and bored to configurations



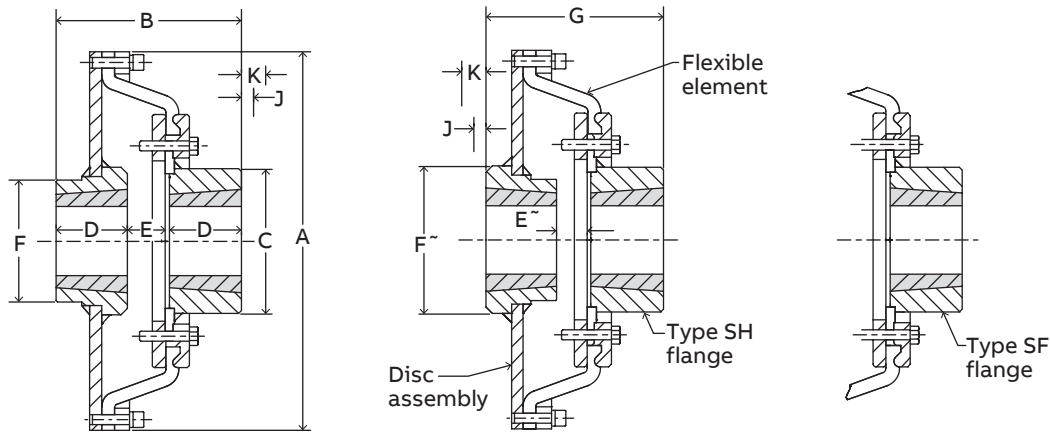
**Elastomeric - Para-Flex**

Selection/dimensions

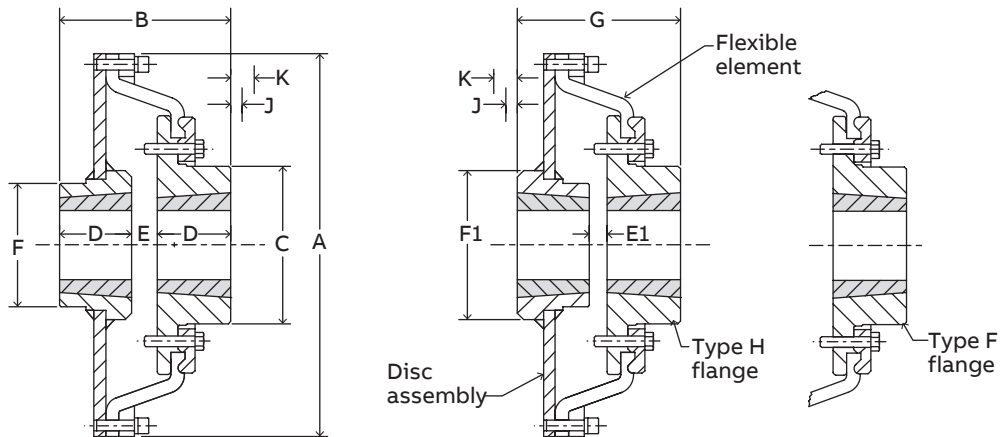
**High speed, Taper-Lock**



PH87 - PH131



PH172 - PH52 steel flange assembly



PH172 & PH192 iron flange assembly

## Elastomeric - Para-Flex

Selection/dimensions

## High speed, Taper-Lock

Coupling size	Bushing size	Torque (in.-lbs.)	Hp/100	Min. bore (in.)	Max. bore (in.)	Max. RPM		Weight (lbs.)		Inertia (lb.-ft. <sup>2</sup> )	
						Gray iron flange	Steel flange	Iron flg.	Steel flg.	Iron flg.	Steel flg.
PH87	+	1890	3.0	1/2	+	6000	-	19.5	-	1.32	-
PH96	*	2835	4.5	1/2	*	5230	-	27.2	-	2.44	-
PH116	2517	4470	7.1	1/2	2-11/16	4050	-	40.8	-	4.92	-
PH131	2517	5985	9.5	1/2	2-11/16	3750	-	59.7	-	8.87	-
PH17 2	3535	14 490	23.0	1-3/16	3-15/16	18 60	2800	13 8.2	12 8.5	31.74	29.98
PH192	4040	29610	47.0	1-7/16	4-7/16	16 20	2430	219.6	219.6	51.09	50.37
PH21 3	4545	56700	90.0	1-15/16	4-15/16	-	21 30	-	291.2	102.3	90.22
PH252	5050	85050	135.0	2-7/16	5-5/16	-	19 45	-	389.9	14 4.1	133.7

## Dimensions (in.)

Coupling size	A		B		C		D	D <sup>1</sup>	E	
	Iron flg.	Steel flg.	Iron flg.	Steel flg.	Iron flg.	Steel flg.			Iron flg.	Steel flg.
PH87	9.44	3.53	-	-	-	-	1.00	1.75	0.81	-
PH96	10.31	4.30	-	-	-	-	1.25	1.75	1.33	-
PH116	12.31	4.44	-	-	-	-	1.75	1.75	1.14	-
PH131	13.81	5.45	-	-	-	-	1.75	1.75	1.95	-
PH17 2	18.31	8.06	8.97	7.50	7.00	3.50	-	-	1.06	1.88
PH192	20.31	9.31	10.25	8.63	8.50	4.00	-	-	1.31	2.25
PH21 3	22.50	-	11.31	-	8.75	4.50	-	-	-	2.31
PH252	26.50	-	14.31	-	9.50	5.00	-	-	-	4.31

## Dimensions (in.)

Coupling size	E		F	F1	G		J★	K†	L★	M†
	Iron flg.	Steel flg.			Iron flg.	Steel flg.				
PH87	0.50	-	4.12	4.19	3.28	-	1.00	1.63	0.81	1.06
PH96	0.45	-	4.12	4.19	3.42	-	1.00	1.63	0.94	1.38
PH116	0.33	-	4.12	4.19	3.63	-	1.00	1.63	1.00	1.63
PH131	0.77	-	4.12	4.19	4.27	-	1.00	1.63	1.00	1.63
PH17 2	0.63	1.44	6.25	7.12	7.62	8.53	1.31	2.69	-	-
PH192	0.38	1.31	7.75	8.62	8.38	9.31	1.63	3.38	-	-
PH21 3	-	1.44	8.75	9.75	-	10.44	1.94	4.06	-	-
PH252	-	2.94	9.50	10.88	-	12.94	2.31	4.81	-	-

★ Space required to tighten bushing with shortened hex key or to loosen screws to permit removal of the hub by a puller

† Space required to loosen bushing with the shortened hex key using screws as hack screws - no puller required.

## PH87 - PH252 part numbers

Coupling size	Taper-Lock flange						Disc assembly	High speed element	Bushing size
	Std flange	Flange size	Iron flange		Steel flange				
			Type H	Type F	Type SH	Type SF			
PH87	010 603	PX70	-	-	-	-	011307	011227	+
PH96	010 604	PX80	-	-	-	-	011308	011228	*
PH116	010606	PX100	-	-	-	-	011310	011230	2517
PH131	010607	PX110	-	-	-	-	011311	011231	2517
PH17 2	-	PX14 0	011134	011154	010290	010294	011314	011234	3535
PH192	-	PX16 0	011137	011157	010291	010295	011316	011236	4040
PH21 3	-	PX19 0	-	-	010292	010296	011319	011239	4545
PH252	-	PX22 0	-	-	010293	010297	011322	011242	5050

+ Flange assembly uses a 1610 bushing with 1-11/16 max. bore

Disc assembly uses a 2517 bushing with 2-11/16 max. bore

\* Flange assembly uses a 2012 bushing with 2-1/8 max. bore

Disc assembly uses a 2517 bushing with 2-11/16 max. bore

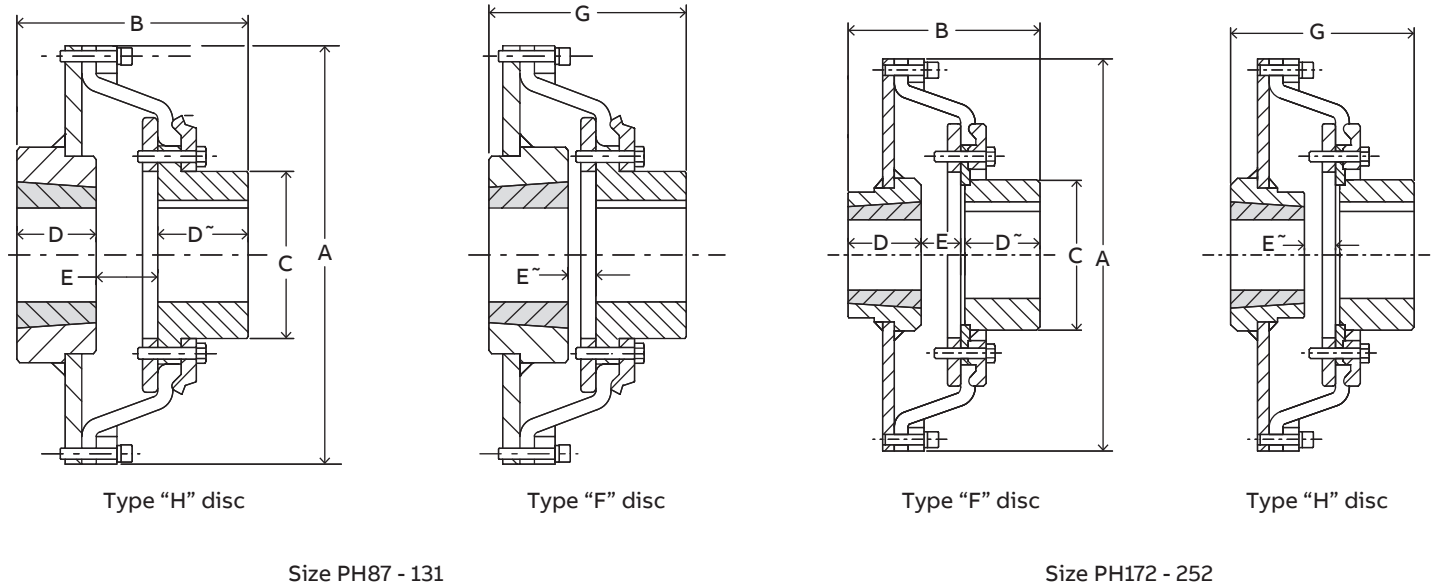
Complete coupling consists of:

(1) Taper-Lock flange assembly, (1) Taper-Lock disc assembly, (1) High-speed element, &amp; (2) bushings.

Taper-Lock bushings must be ordered separately. Refer to bushing section on page 177.

**Elastomeric - Para-Flex**

Selection/dimensions

**High speed, bored-to-size**

Coupling size	BS flange assembly		Taper-Lock disc assembly		Dimensions (in.)								Weight (lbs.)	Inertia (lb.-ft. <sup>2</sup> )
	Min. bore (in.)	Max. bore (in.)	Min. bore (in.)	Max. bore (in.)	A	B	C	D	D <sup>1</sup>	E	E <sup>1</sup>	G		
PH87B	-	2-1/8	1/2	2-11/16	9.44	4.59	2.94	1.75	1.75	1.09	0.81	4.31	20.1	1.33
PH96B	-	2-3/4	1/2	2-11/16	10.31	5.44	3.69	1.75	2.00	1.69	0.81	4.56	28.0	2.47
PH116B	-	3-3/4	1/2	2-11/16	12.31	6.13	4.94	1.75	2.63	1.75	0.97	5.31	42.8	5.31
PH131B	-	4-1/8	1/2	2-11/16	13.81	7.25	5.44	1.75	3.00	2.50	1.31	6.06	60.1	9.08
PH17 2B	2-1/4	5	1-3/16	3-15/16	18.31	9.06	7.00	3.50	3.88	1.88	1.44	8.63	135.2	30.98
PH192B	2-1/2	6	1-7/16	4-7/16	20.31	11.19	8.50	4.00	5.13	2.25	1.31	10.25	220.6	54.27
PH21 3B	2-1/2	6-1/4	1-15/16	4-15/16	22.50	11.31	8.75	4.50	4.69	2.31	1.44	10.44	289.2	91.62
PH252 B	2-7/8	6-7/8	2-7/16	5-5/16	26.50	14.31	9.50	5.00	5.19	4.31	2.94	12.94	379.9	135.9

Coupling size	BS flange assembly	Taper-Lock disc assembly	Taper-Lock bushing size	High speed element
PH87B	010301	011307	2517	011227
PH96B	010302	011308	2517	011228
PH116B	010304	011310	2517	011230
PH131B	010305	011311	2517	011231
PH17 2B	010530	011314	3535	011234
PH192B	010531	011316	4040	011236
PH21 3B	010508	011319	4545	011239
PH252 B	010509	011322	5050	011242

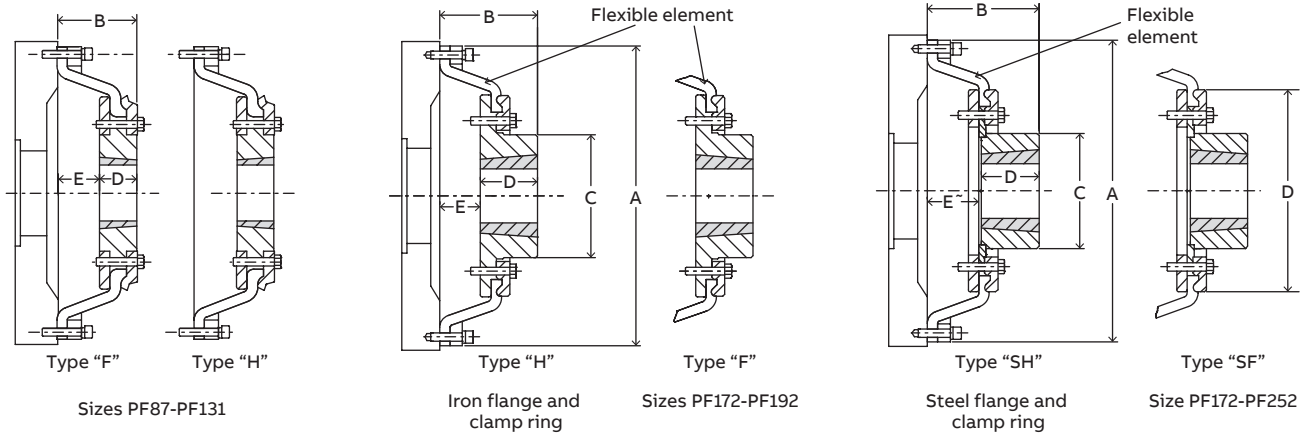
Complete coupling consists of: (1) BS Flange assembly, (1) Taper-Lock disc assembly, (1) high speed element, and (1) Taper-Lock bushing. Taper-Lock bushings must be ordered separately. Refer to bushing section page 177.

Unless otherwise specified, size 60-120 BS flanges are clearance fit per AGMA 9002. Size 140-320 BS flanges are interference fit per AGMA 9002.

**Elastomeric - Para-Flex**

Selection/dimensions

**Flywheel, Taper-Lock**



Coupling size	Bushing size	Torque (in.-lbs.)	Hp/100	Min. bore (in.)	Max. bore (in.)	Max. RPM		Inertia (lb.-ft. <sup>2</sup> )	
						Gray iron flange	Steel flange	Iron flgs.	Steel flgs.
PF87	1610	1890	3.00	1/2	1-11/16	6000	6000	0.6	-
PF96	2012	2835	4.50	1/2	2-1/8	5230	5230	1.05	-
PF116	2517	4470	7.10	1/2	2-11/16	4050	4050	2.35	-
PF131	2517	5985	9.50	1/2	2-11/16	3750	3750	4.35	-
PF172	3535	14490	23.00	1-3/16	3-15/16	1860	2800	17.49	15.73
PF192	4040	29610	47.00	1-7/16	4-7/16	1620	2430	28.84	28.12
PF213	4545	56700	90.00	1-15/16	4-15/16	-	2130	74.47	64.36
PF252	5050	85050	135.00	2-7/16	5-5/16	-	1945	121.79	111.38

**Dimensions (in.)**

Coupling size	Bushing size	A		B		C		D	E	E <sup>1</sup>	Weight (lbs.) less bushing	
		Iron flg.	Steel flg.	Iron flg.	Steel flg.	Iron flgs.	Steel flgs.					
											Iron flg.	Steel flg.
PF87	1610	9.44	2.69	-	-	-	-	1.00	1.34	-	9.9	-
PF96	2012	10.31	2.83	-	-	-	-	1.25	1.58	-	13.5	-
PF116	2517	12.31	3.14	-	-	-	-	1.75	1.39	-	22.3	-
PF131	2517	13.81	3.70	-	-	-	-	1.75	1.95	-	33.3	-
PF172	3535	18.31	5.81	6.72	7.50	7.00	-	3.50	2.31	3.12	87.2	77.5
PF192	4040	20.31	6.56	7.50	8.63	8.50	-	4.00	2.56	3.50	128.6	128.6
PF213	4545	22.50	-	9.00	-	8.75	-	4.50	-	4.50	221.2	190.2
PF252	5050	26.50	-	10.81	-	9.50	-	5.00	-	5.81	297.9	260.9

**PF87 - PF252 part numbers**

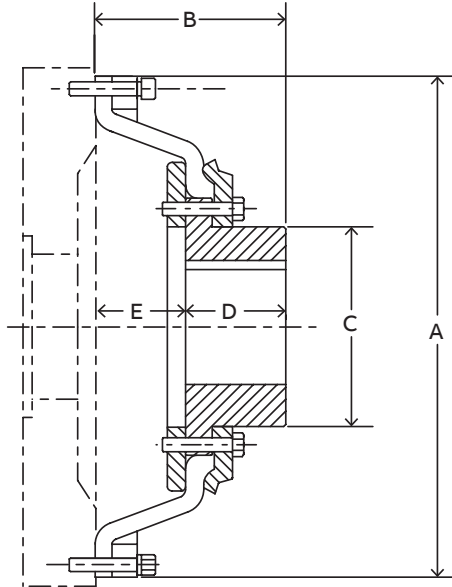
Coupling size	Std. flange	Taper-Lock flange				Bolt ring assembly	High speed element	T-L bushing size
		Iron flange		Steel flange				
		Type H	Type F	Type SH	Type SF			
PF87	010603	-	-	-	-	011247	011227	1610
PF96	010604	-	-	-	-	011248	011228	2012
PF116	010606	-	-	-	-	011250	011230	2517
PF131	010607	-	-	-	-	011251	011231	2517
PF172	-	011134	011154	010290	010294	011254	011234	3535
PF192	-	011137	011157	010291	010295	011256	011236	4040
PF213	-	-	-	010292	010296	011259	011239	4545
PF252	-	-	-	010293	010297	011262	011242	5050

- Complete coupling consists of: (1) Taper-Lock flange assembly (as selected), (1) bolt ring assembly, (1) high speed element, and (1) Taper-Lock bushing. Taper-Lock bushings must be ordered separately.
- See page 45 for flywheel & power take off housing information. Refer to bushing page 177.

**Elastomeric - Para-Flex**

Selection/dimensions

**Flywheel, bored-to-size**



**PF87B - PF252B bored-to-size flywheel couplings**

Coupling size	Torque (in.-lbs.)	Hp/100	Min. bore (in.)	Max. bore (in.)	Max. RPM Steel flg.	Dimensions (in.)					Weight (lbs.)	Inertia (lb.-ft. <sup>2</sup> )
						A	B	C	D	E		
PF87B	1890	3.0	-	2-1/8	6000	9.44	3.38	2.94	1.75	1.63	10.5	0.61
PF96B	2835	4.5	-	2-3/4	5230	10.31	3.94	3.69	2.00	1.94	14.3	1.08
PF116B	4470	7.1	-	3-3/4	4050	12.31	4.68	4.94	2.63	2.00	24.3	2.47
PF131B	5980	9.5	-	4-1/8	3750	13.81	5.50	5.44	3.00	2.50	33.7	4.56
PF17 2B	14 490	23.0	2-1/4	5	2800	18.31	6.81	7.00	3.88	3.13	84.2	16.73
PF192B	29610	47.0	2-1/2	6	2430	20.31	8.44	8.50	5.13	3.50	129.6	32.02
PF21 3B	56700	90.0	2-1/2	6-1/4	2130	22.50	9.00	8.75	4.69	4.50	188.2	65.76
PF252 B	85050	135.0	2-7/8	6-7/8	1945	26.50	10.81	9.50	5.19	5.81	250.9	113.58

**PF87 - PF252B part numbers**

Coupling size	BBS flange assembly	Bolt ring assembly	High speed element
PF87B	010301	011247	011227
PF96B	010302	011248	011228
PF116B	010304	011250	011230
PF131B	010305	011251	011231
PF17 2B	010530	011254	011234
PF192B	010531	011256	011236
PF21 3B	010508	011259	011239
PF252 B	010509	011262	011242

- Complete coupling consists of: (1) BBS Flange assembly, (1) bolt ring assembly, and (1) high speed element.
- Unless otherwise specified, size 60-120 BBS flanges are clearance fit per AGMA 9002. Size 140-320 BBS flanges are interference fit per AGMA 9002.
- See pages 37-38 for additional details for PX BBS flange assemblies.

**SAE power take off & flywheel info.**

Coupling size	Fits within these SAE power take-off housings	Bolt circle diam. (in.)	SAE flywheel Tapped holes	
			No.	Size (in.)
PF87	6,5	8-3/4	8	5/16-18
PF96	4,3	9-5/8	6	3/8-16
PF116	4,3,2,1	11-5/8	8	3/8-16
PF131	3,2,1,0	13-1/8	8	3/8-16
PF17 2	0	17-1/4	8	1/2-13
PF192	0	19-1/4	8	1/2-13
PF21 3	0	21-3/8	6	5/8-11
PF252	0	25-1/4	12	5/8-11

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ELASTOMERIC

# D-Flex

Elastomeric





## Elastomeric - D-Flex

### Features/benefits

#### Interchangeable components makes installation quick and easy

- Interchangeable with other elastomeric sleeve couplings
- Slides into position for snug fit

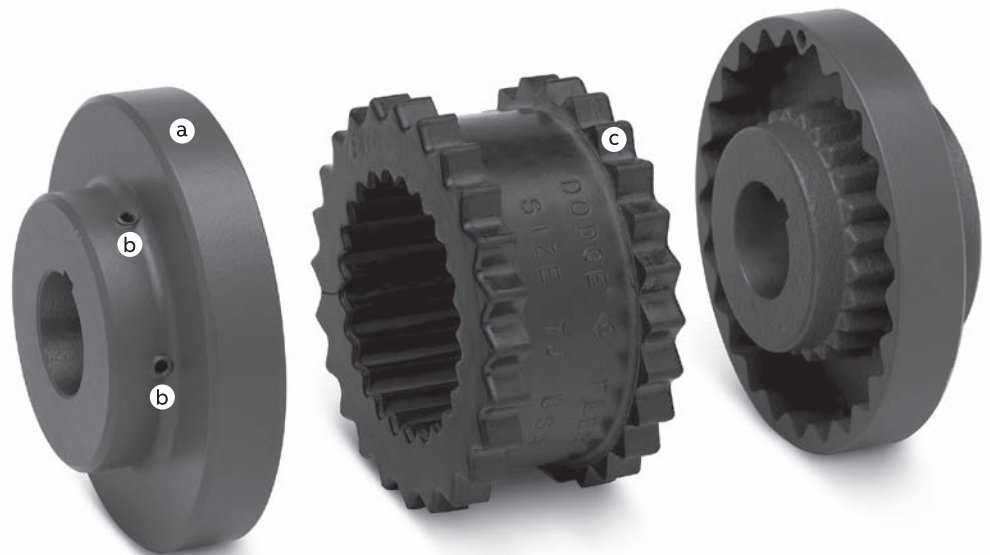
#### No lubrication assures trouble-free operation

- No metal-to-metal contact
- Provides clean, quiet, trouble-free performance



#### Added value

- Outside diameter concentric to bore for ease in alignment
- Two setscrews at 65° on Type J flanges, Type S flanges & Type SC-H hubs for optimum shaft attachment. Holding force is 30% greater than two setscrews at 90°
- Rounded EPDM and Neoprene element edges for full tooth engagement, even load distribution, and reduced stress build up, and longer life



## Elastomeric - D-Flex

### Options

#### D-Flex flange styles

##### Low cost type J couplings offered in four sizes

- Features zinc die-cast flanges that are bored to size
- Accommodates applications through 10 Hp at 1750 RPM
- Available with EPDM or Neoprene sleeves
- Shaft attachment with two setscrews at 65° for optimal holding power



##### Type B couplings offered with standard QD† bushing shaft attachment

- Constructed from high-strength cast iron
- Available with EPDM or Neoprene sleeves



##### Type S couplings feature high-strength, cast iron flanges that are finished bored for AGMA clearance fit

- Ionized powder coated flanges for superior corrosion protection
- Available with EPDM, Neoprene or Hytrel★ sleeves
- Shaft attachment with two setscrews at 65° for optimal holding power



##### Type SC spacer couplings satisfy standard spacing requirements for pump applications

- Accommodates ANSI and ISO standard between shaft end dimensions, with custom spacer dimensions available on demand
- Available with EPDM, Neoprene or Hytrel sleeves
- Uses H & HS shaft hubs that are bored to size for slip fit or offered with plain bore for reborring
- Shaft attachment with two setscrews at 65°
- Shaft hub flats are used for holding shafts stationary while loosening or tightening grade 8 bolts



★ Registered trademark of DuPont

† QD is a registered trademark of Emerson Electric Co.

## Elastomeric - D-Flex

### Specification/how to order/nomenclature

#### Specification

D-Flex couplings employ a molded, non-lubricated elastomeric flexing sleeve loaded in shear. The flexible sleeve shall be of EPDM, Neoprene, or Hytrel. The compound of EPDM shall be suitable for operation in ambient temperature from -30°F to +275°F, Neoprene 0°F to +200°F, and Hytrel -65°F to +250°F. Both EPDM and Neoprene sleeves shall have torsional flexing capability of 15° and accommodate 1° of angular misalignment. Hytrel sleeves, suitable to transmit four times the power of EPDM or Neoprene, has torsional flexing capability of 7° and 1/4° of angular misalignment.

The flexible sleeve is connected with external and internal gear teeth that engage with mating teeth in each flange. The coupling assemblies have optional methods of attachment to the shaft including but not limited to: clearance fit or QD bushings. Clearance fits are supplied with an industry standard keyway and two set screws, one over the key and one at 65°.

Spacer couplings consist of two hubs and a center assembly consisting of two spacer flanges and one flexible element. The center assembly is easily removable to facilitate maintenance on pumps or other connected equipment and must be replaceable without disturbing the coupled equipment and without realignment.

D-Flex couplings utilizing EPDM and Neoprene elements are static conductive.

#### How to order

Standard couplings consist of:

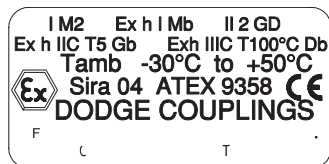
- (2) Flange assemblies
- (1) Flexible sleeve element

Spacer couplings consist of:

- (2) Shaft hubs
- (2) Spacer flanges
- (1) Flexible sleeve element

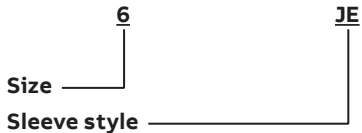
#### ATEX approved

- EPDM and Neoprene flexible elements
- All required documentation and markings included with standard product
- No extra charge



**Elastomeric - D-Flex**

Specification/how to order/nomenclature

**Nomenclature****Sleeve element****EPDM rubber:**

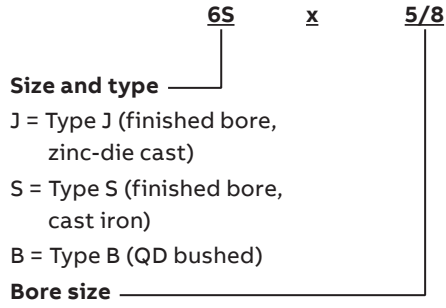
JE = One-piece solid  
 JES = One-piece split  
 E = Two-piece

**Neoprene:**

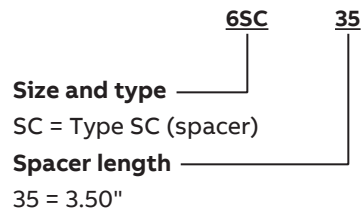
JN = One-piece solid  
 JNS = One-piece split  
 N = Two-piece

**Hytrel:**

H = One-piece solid  
 HS = One-piece split

**Close-coupled flanges**

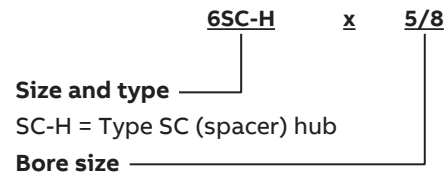
J = Type J (finished bore,  
 zinc-die cast)  
 S = Type S (finished bore,  
 cast iron)  
 B = Type B (QD bushed)

**Spacer flanges**

SC = Type SC (spacer)

**Spacer length**

35 = 3.50"

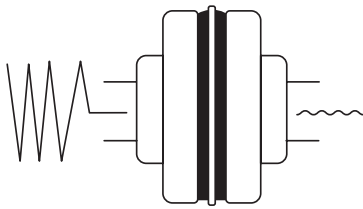
**Spacer hubs**

SC-H = Type SC (spacer) hub

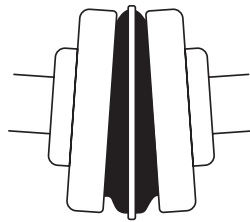
# Elastomeric - D-Flex

## Selection/dimensions

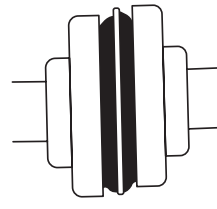
### Four-way flexing action handles shock, vibration & misalignment



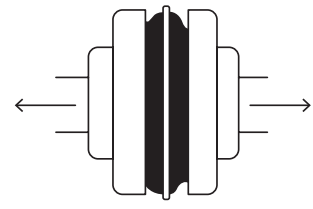
**Torsional**  
Absorbs torsional shock, dampens torsional vibrations



**Angular**  
Allows for angular misalignment



**Parallel**  
Minimizes bearing loads, absorbs parallel misalignment with less wear and energy loss



**Axial**  
Allows for shaft end-float

### D-Flex coupling sleeves

	EPDM rubber	Neoprene	Hytre <sup>(1)</sup>
One-piece solid construction	JE	JN	H
One-piece split construction	JES	JNS	-
Two-piece construction	E	N	HS
Sizes offered	3 - 10 JE, JES 4 - 14 E	3 - 10 JN, JNS 4 - 14 N	6 - 12 H 6 - 14 HS
Temperature range	-30°F to +275°F	0°F to +200°F	-65°F to +250°F
Max. angular	1°	1°	1/4°
Max. parallel <sup>(2)</sup>	.010 in. - .062 in.	.010 in. - .062 in.	.010 in. - .035 in.
Axial end-float <sup>(2)(3)</sup>	.03 in. - .125 in.	.03 in. - .125 in.	.06 in. - .125 in.
Torsional flexibility	15° wind up	15° wind up	7° wind up
Application use	General	Good oil resistance	Downsizing for use of smaller couplings

(1) Do not use with J or B flanges or as a replacement for other sleeves.  
 (2) Depends on coupling size.  
 (3) Increase the E dimension by this amount to accommodate end float.

### JE-JES-JN-JNS

J sleeves are molded EPDM rubber (E) or Neoprene (N). They are available in one-piece solid construction (JE, JN) or one-piece split construction (JES, JNS). These sleeves may be used in any D-Flex flange within a given size.



JE, JN



Types JES, JNS

### E-N

These sleeves are of two-piece design with a retaining ring. They are available in either EPDM (E) or Neoprene (N). They may be used with any flange within a given size. Sleeves are shown here assembled and disassembled.



E and N (Assembled)



E and N (Disassembled)

### H-HS

H (Hytre<sup>(1)</sup>) sleeves, designed for high-torque applications, transmit four times as much power as an equivalent EPDM or Neoprene sleeve. Available in one-piece solid construction (H) or two-piece split construction (HS), these can be used only with S and SC flanges. They cannot be used with J or B flanges.



H



HS

**Elastomeric - D-Flex**

Selection/dimensions

**D-Flex coupling sleeves - part numbers**

Coupling size	EPDM			Neoprene			Hytrel	
	JE	JES	E	JN	JNS	N	H	HS
3	004208	004242	-	004209	004243	-	-	-
4	004210	004244	-	004211	004245	-	-	-
5	004212	004246	022191	004213	004247	022212	-	-
6	004214	004248	022192	004215	004249	022213	022183	022232
7	004216	004250	022193	004217	004251	022214	022184	022233
8	004218	004252	022194	004219	004253	022215	022185	022234
9	004220	004254	022195	-	-	022216	022186	022235
10	004222	004256	022196	-	-	022217	022187	022236
11	-	-	022197	-	-	022218	022188	022237
12	-	-	022198	-	-	022219	022189	022238
13	-	-	021990	-	-	021993	-	022239
14	-	-	021991	-	-	021994	-	425730

**D-Flex ratings**

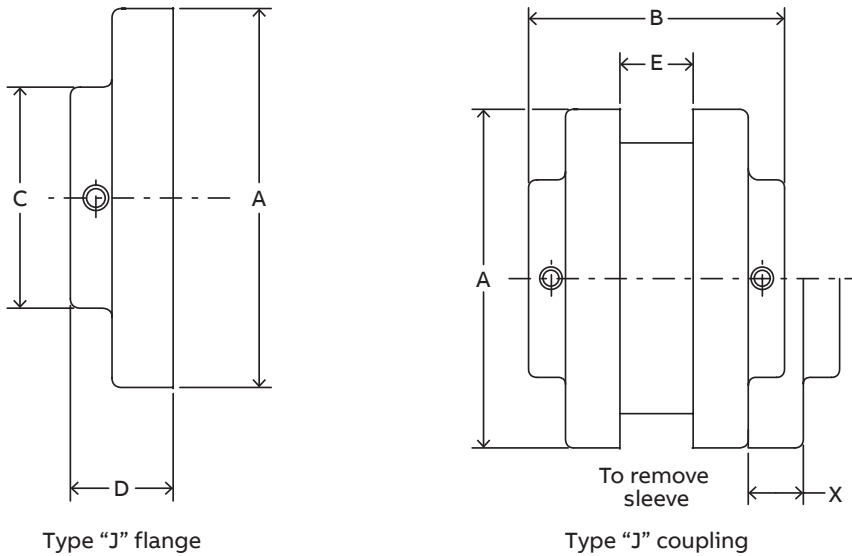
Element size	EPDM & Neoprene		Hytrel		Max. bore				Max. RPM
	Rated torque (in.-lbs.)	Hp/100	Rated torque (in.-lbs.)	Hp/100	Straight bore			Bushed	
					Type J	Type S	Type SC	Type B	
3	60	0.10	-	-	7/8	-	-	-	9200
4	120	0.19	-	-	1	-	-	-	7600
5	240	0.38	-	-	1-1/8	1-1/4	1-1/8	-	7600
6	450	0.71	1,800	2.90	1-3/8	1-7/8	1-3/8	1-3/16	6000
7	725	1.20	2,875	4.60	-	1-7/8	1-5/8	1-3/16	5250
8	1,135	1.80	4,530	7.20	-	2-3/8	1-7/8	1-5/8	4500
9	1,800	2.80	7,200	11.40	-	2-7/8	2-1/8	1-15/16	3750
10	2,875	4.60	11,350	18.00	-	3-3/8	2-3/8	2-1/2	3600
11	4,530	7.20	18,000	28.60	-	3-7/8	2-7/8	2-13/16	3600
12	7,200	11.40	31,500	50.00	-	3-15/16	2-7/8	3-1/2	2800
13	11,350	18.00	47,268	75.00	-	4-1/2	3-3/8	3-15/16	2400
14	18,000	28.60	72,480	115.00	-	5	3-7/8	3-15/16	2200

**D-Flex flange/sleeve compatibility**

Flange style	EPDM		Neoprene		Hytrel	
	JE/JES 1 piece	E 2 piece	JN/JNS 1 piece	N 2 piece	H 1 piece	HS 2 piece
Type J	✓	✓	✓	✓	-	-
Type S	✓	✓	✓	✓	✓	✓
Type B bushed	✓	✓	✓	✓	-	-
SC spacer	✓	✓	✓	✓	✓	✓

**Elastomeric - D-Flex**

Selection/dimensions

**Type "J" finished bore (zinc die cast) coupling dimensions**

Type "J" flange

Type "J" coupling

**Dimensions**

Coupling size	EPDM/Neoprene torque (in.-lbs.)	Hp/100	Min. bore	Max. bore	Max. RPM	A	B	C	D	E	X	Weight (lbs.)
3J	60	0.10	3/8	7/8	9200	2.06	2.00	1.50	0.81	0.38	0.56	0.03
4J	120	0.19	1/2	1	7600	2.46	2.38	1.63	0.88	0.63	0.75	0.04
5J	240	0.38	1/2	1-1/8	7600	3.25	2.88	1.88	1.06	0.75	0.97	0.09
6J	450	0.71	5/8	1	6000	4.00	3.31	1.94	1.22	0.88	1.09	1.40
6J	450	0.71	1-1/8	1-3/8	6000	4.00	3.31	2.50	1.22	0.88	1.09	1.20

**J-Flange part numbers**

Bore (in.)	Coupling flange			
	3J	4J	5J	6J
3/8	022700	-	-	-
1/2	022701	022708	022714	-
5/8	022702	022709	022715	022721
3/4	022703	022710	022716	022722
7/8	022704	022711	022717	022723
15/16	-	022712	022718	022724
1	-	022713	022719	022725
1-1/8	-	-	022720	022726
1-3/16	-	-	-	022727
1-1/4	-	-	-	022728
1-3/8	-	-	-	022729

Unless otherwise specified, all Type-J flanges are clearance fit per AGMA 9002.

Complete coupling consists of (2) J flanges, and (1) EPDM or Neoprene sleeve.

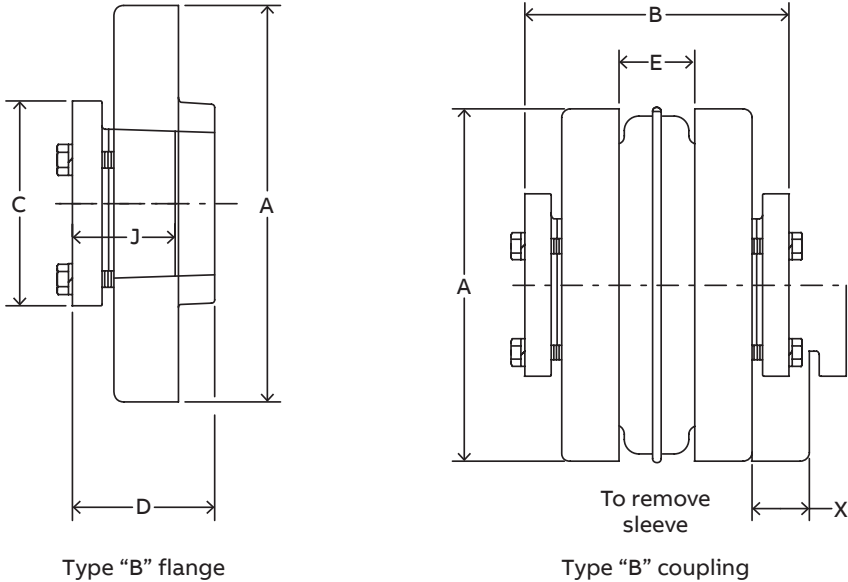
**D-Flex coupling sleeves - part numbers**

Coupling size	EPDM			Neoprene		
	JE	JES	E	JN	JNS	N
3	004208	004242	-	004209	004243	-
4	004210	004244	-	004211	004245	-
5	004212	004246	022191	004213	004247	022212
6	004214	004248	022192	004215	004249	022213

## Elastomeric - D-Flex

Selection/dimensions

### Type "B" QD bushed coupling dimensions



### Dimensions

Coupling size	Bushing type	EPDM/Neoprene torque (in.-lbs.)	Hp/100	Min. bore	Max. bore <sup>(1)</sup>	Max. RPM	A	B	C	D	E	J	X	Weight (lbs.) <sup>(2)</sup>	
														Flange	Bushing
6B	JA	450	0.71	1/2	1-3/16	6000	4.00	3.31	2.00	1.53	0.88	1.00	1.09	1.30	0.40
7B	JA	725	1.20	1/2	1-3/16	5250	4.63	3.44	2.00	1.59	1.00	1.00	1.31	1.90	0.40
8B	SH	1135	1.80	1/2	1-5/8	4500	5.45	4.06	2.63	1.84	1.13	1.31	1.50	2.90	0.90
9B	SD	1800	2.80	1/2	1-15/16	3750	6.35	4.63	3.19	2.19	1.44	1.81	1.75	4.80	1.60
10B	SK	2875	4.60	1/2	2-1/2	3600	7.50	5.63	3.88	1.84	1.63	1.94	2.00	7.80	2.70
11B	SF	4530	7.20	1/2	2-15/16	3600	8.63	6.56	4.63	2.13	1.88	2.00	2.38	12.00	3.80
12B	E	7200	11.40	7/8	3-1/2	2800	10.00	7.94	6.00	2.69	2.31	2.75	2.69	18.00	9.00
13B	F	11350	18.00	1	3-15/16	2400	11.75	9.31	6.63	3.69	2.69	3.75	3.00	31.20	14.00
14B	F	18000	28.60	1	3-15/16	2200	13.88	10.44	6.63	3.69	3.25	3.75	3.50	51.40	14.00

(1) Max. bore with shallow key

(2) Approximate weight for each flange; average weight for each bushing

(3) Hytrel elements not to be used with QD flanges

### QD (B) flange - part numbers

	6B	7B	8B	9B	10B	11B	12B	13B	14B
Part no.	022501	022502	022503	022504	022505	022506	022507	022508	022509

Complete coupling consists of (2) B flanges, (1) EPDM or Neoprene sleeve and (2) QD bushings. QD bushings must be ordered separately.

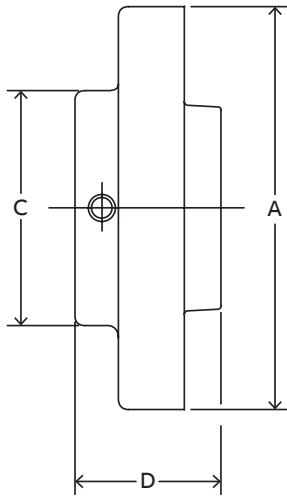
### D-Flex coupling sleeves - part numbers

Coupling size	EPDM			Neoprene		
	JE	JES	E	JN	JNS	N
6	004214	004248	022192	004215	004249	022213
7	004216	004250	022193	004217	004251	022214
8	004218	004252	022194	004219	004253	022215
9	004220	004254	022195	-	-	022216
10	004222	004256	022196	-	-	022217
11	-	-	022197	-	-	022218
12	-	-	022198	-	-	022219
13	-	-	021990	-	-	021993
14	-	-	021991	-	-	021994

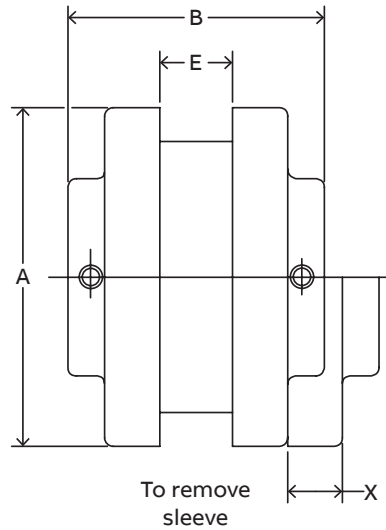


**Elastomeric - D-Flex**  
Selection/dimensions

**Type "S" finished bore (cast iron) coupling dimensions**



Type "S" flange



Type "S" coupling

**Dimensions**

Coupling size	Min. bore	Max. bore #	Hp/100*	Torque* (in.-lbs.)	Max. RPM	A	B	C	D	E	X	Weight (lbs.)	
5S	1/2	1-1/4	0.38	240	7600	3.25	2.81	1.88	1.34	0.75	0.97	1.10	
	1/2	1-1/2						2.50	1.63				
6S	1-9/16	1-3/4	0.71	450	6000	4.00	3.50	2.50	1.31	0.88	1.09	1.80	
	1-13/16	1-7/8						2.81	1.56				
7S	1/2	1-7/8	1.20	725	5250	4.63	3.94	2.81	1.84	1.00	1.31	2.60	
8S	1/2	2-1/8	1.80	1135	4500	5.45	4.44	3.25	2.09	1.13	1.50	3.70	
	2-3/16	2-3/8							1.94				
9S	7/8	2-1/2	2.80	1800	3750	6.35	5.06	3.63	2.41	1.44	1.75	6.50	
	2-9/16	2-7/8							2.28				6.20
10S	1-1/8	2-7/8	4.60	2875	3600	7.50	5.69	4.38	2.72	1.63	2.00	10.50	
	2-15/16	3-3/8							2.69				9.80
11S	1-1/4	2-1/8	7.20	4530	3600	8.63	7.13	5.63	3.44	1.88	2.38	18.10	
	2-3/16	2-3/4							3.44				17.90
	2-13/16	3-3/8							3.44				16.60
	3-7/16	3-7/8							3.88				16.40
12S	1-1/2	2-1/8	11.40	7200	2800	10.00	8.25	5.75	4.00	2.31	2.69	27.80	
	2-3/16	2-7/8							2.69				27.50
	2-15/16	3-15/16							2.60				26.60
13S	2" reb.	4-1/2	18.00	11350	2400	11.75	9.25	6.75	4.38	2.69	3.06	45.20	
14S		5	28.60	18000	2200	13.88	9.88	7.50	4.50	3.25	3.50	69.10	

# Max. bore with shallow keyway. For max. bore with standard keyway, see page 125.

\* Ratings based on EPDM & Neoprene. For Hytrel ratings, see page 52.

**D-Flex coupling sleeves - part numbers**

Coupling size	EPDM			Neoprene			Hytrel	
	JE	JES	E	JN	JNS	N	H	HS
5	004212	004246	022191	004213	004247	022212	-	-
6	004214	004248	022192	004215	004249	022213	022183	022232
7	004216	004250	022193	004217	004251	022214	022184	022233
8	004218	004252	022194	004219	004253	022215	022185	022234
9	004220	004254	022195	-	-	022216	022186	022235
10	004222	004256	022196	-	-	022217	022187	022236
11	-	-	022197	-	-	022218	022188	022237
12	-	-	022198	-	-	022219	022189	022238
13	-	-	021990	-	-	021993	-	022239
14	-	-	021991	-	-	021994	-	425730

**Elastomeric - D-Flex**

Selection/dimensions

**Type "S" coupling flange - part numbers**

Bore (in.)	Coupling flange size									
	5S	6S	7S	8S	9S	10S	11S	12S	13S	14S
Reborable	004976	004977	004978	004979	004980	004981	004982	004983	004993	004994
1/2	004498	-	-	-	-	-	-	-	-	-
5/8	004500	004511	004534	-	-	-	-	-	-	-
3/4	004502	004513	004536	004559	-	-	-	-	-	-
7/8	004504	004515	004538	004561	004586	-	-	-	-	-
15/16	004505	004516	004539	004562	004587	-	-	-	-	-
1	004506	004517	004540	004563	004588	-	-	-	-	-
1-1/8	004508	004519	004542	004565	004590	004619	-	-	-	-
1-3/16	*004509	004520	004543	004566	004591	004620	-	-	-	-
1-1/4	† 004510	004521	004544	004567	004592	004621	004656	-	-	-
1-5/16	-	004522	004545	004568	004593	004622	004657	-	-	-
1-3/8	-	004523	004546	004569	004594	004623	004658	-	-	-
1-7/16	-	*004524	004547	004570	004595	004624	004659	-	-	-
1-1/2	-	† 004525	004548	004571	004596	004625	004660	004696	-	-
1-5/8	-	004527	*004550	004573	004598	004627	004662	004698	-	-
1-11/16	-	004528	004551	004574	004599	004628	004663	004699	-	-
1-3/4	-	004529	004552	004575	004600	004629	004664	004700	-	-
1-7/8	-	004531	† 004554	004577	004602	004631	004666	004702	-	-
1-15/16	-	-	-	004578	004603	004632	004667	004703	-	-
2	-	-	-	004579	004604	004633	004668	004704	-	-
2-1/8	-	-	-	† 004581	004606	004635	004670	004706	-	-
2-3/16	-	-	-	004582	004607	004636	004671	004707	-	-
2-1/4	-	-	-	004583	004608	004637	004672	004708	-	-
2-3/8	-	-	-	004585	*004610	004639	004674	004710	004996	425725
2-7/16	-	-	-	-	004611	004640	004675	004711	-	-
2-1/2	-	-	-	-	† 004612	004641	004676	004712	-	-
2-5/8	-	-	-	-	004614	004643	004678	004714	-	-
2-11/16	-	-	-	-	004615	004644	004679	004715	-	-
2-3/4	-	-	-	-	004616	* 004645	004680	004716	-	-
2-7/8	-	-	-	-	004618	† 004647	004682	004718	004997	004998
2-15/16	-	-	-	-	-	004648	004683	004719	-	-
3	-	-	-	-	-	004649	004684	004720	-	-
3-1/8	-	-	-	-	-	004651	004686	004722	395653	-
3-1/4	-	-	-	-	-	004653	004688	004724	-	-
3-5/16	-	-	-	-	-	004654	004689	004725	-	-
3-3/8	-	-	-	-	-	004655	*† 004690	004726	004497	661450
3-7/16	-	-	-	-	-	-	004691	004727	-	-
3-1/2	-	-	-	-	-	-	004692	004728	661667	-
3-5/8	-	-	-	-	-	-	004693	004730	-	661449
3-11/16	-	-	-	-	-	-	-	004731	-	-
3-3/4	-	-	-	-	-	-	004694	004732	-	-
3-7/8	-	-	-	-	-	-	004695	*† 004734	-	-
3-15/16	-	-	-	-	-	-	-	004735	-	-

Unless otherwise specific, all Type-S flanges are clearance fit per AGMA 9002.

See page 119 for additional details on bore tolerances.

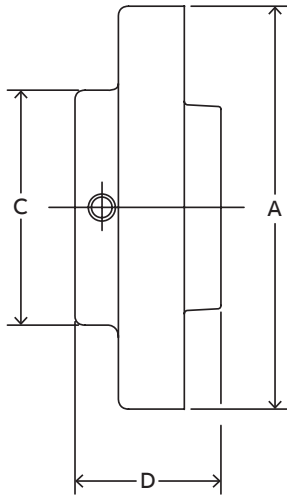
† Max. bore for reborable flanges.

Complete coupling consists of (2) S flanges and (1) sleeve.

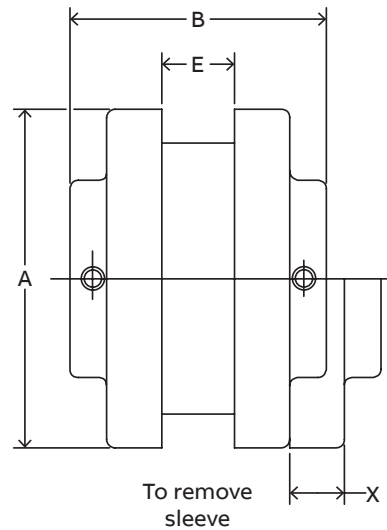
\*Max. bore with std. square keyway. Larger bores have rectangular keyways & keys supplied.

**Elastomeric - D-Flex**

Selection/dimensions

**Type "S" coupling dimensions - metric**

Type "S" flange



Type "S" coupling

**D-Flex type S couplings dimensions\*\***

Coupling size	EPDM and Neoprene		Hytrel		Min. bore (mm)	Max. bore (mm)	Max. RPM	Dimensions (mm)						Mass (kg.)
	Torque (N-m)	kW/100	Torque (N-m)	kW/100				A	B	C	D	E	X	
5S	27	0.28	-	-	13	32*	7600	83	71	48	34	19	25	0.5
6S	51	0.53	203	2.16	13	48*	6000	102	89	71	41	22	28	0.9
7S	82	0.90	325	3.43	13	48*	5250	118	100	71	47	25	33	1.2
8S	128	1.34	512	5.37	13	60*	4500	138	113	83	53	29	38	2.0
9S	203	2.09	814	8.51	23	73*	3750	161	129	92	61	37	44	2.9
10S	325	3.43	1282	13.43	28	85*	3600	191	145	111	69	41	51	4.8
11S	512	5.37	2034	21.34	30	98*	3600	219	181	143	87	48	60	8.2
12S	814	8.50	3559	37.31	38	100*	2800	254	210	146	102	59	68	12.6
13S	1282	13.43	5341	55.97	51	114*	2400	299	235	171	111	68	78	20.5
14S	2034	21.34	8190	85.82	51	127*	2200	353	251	191	114	83	89	31.3

\* Max. bores with metric shallow keys. Metric shallow keys have standard height less 1 mm.

\*\* Includes metric setscrews

(1) Inertia values are for complete coupling with rough stock bore and split EPDM element.

**Elastomeric - D-Flex**

Selection/dimensions

**Type "S" coupling dimensions - metric**

Complete D-Flex type S coupling consists of: one sleeve and two flanges

**D-Flex type "S" coupling flange - part numbers - metric**

Bore (mm)	Coupling flange size									
	5S	6S	7S	8S	9S	10S	11S	12S	13S	14S
Reborable	004976	004977	004978	004979	004980	004981	004982	004983	004993	004994
14	004856	004865	004878	004893	-	-	-	-	-	-
16	004857	004866	004879	004894	-	-	-	-	-	-
18	004858	004867	004880	004895	-	-	-	-	-	-
19	004859	004868	004881	004896	-	-	-	-	-	-
20	004860	004869	004882	004897	-	-	-	-	-	-
22	004861	004870	004883	004898	004916	-	-	-	-	-
24	004862	004871	004884	004899	004917	-	-	-	-	-
25	004863	004872	004885	004900	004918	-	-	-	-	-
28	004864	004873	004886	004901	004919	004928	-	-	-	-
30	004193	004874	004887	004902	004920	004929	004942	-	-	-
32	-	004875	004888	004903	004921	004930	004943	-	-	-
35	-	004876	004889	004904	004922	004931	004944	-	-	-
38	-	394350	004890	004905	004923	004932	004945	004960	-	-
40	-	-	004891	004906	004924	004933	004946	004961	-	-
42	-	-	004892	004907	004925	004934	004947	004962	-	-
45	-	-	005006	004908	004926	004935	004948	004963	-	-
48	-	-	005007	004909	004927	004936	004949	004964	-	-
50	-	-	-	004910	004181	004937	004950	004965	-	-
55	-	-	-	005008	004182	004938	004951	004966	-	-
60	-	-	-	-	005009	004939	004952	004967	-	-
65	-	-	-	-	395373	004940	004953	004968	004177	-
70	-	-	-	-	-	004941	004954	004969	-	-
75	-	-	-	-	-	395372	004955	004970	004178	-
80	-	-	-	-	-	395374	004956	004971	004180	004179
85	-	-	-	-	-	-	004957	004972	-	-
90	-	-	-	-	-	-	004958	004973	-	-
95	-	-	-	-	-	-	004959	004974	-	-
100	-	-	-	-	-	-	-	004975	-	-

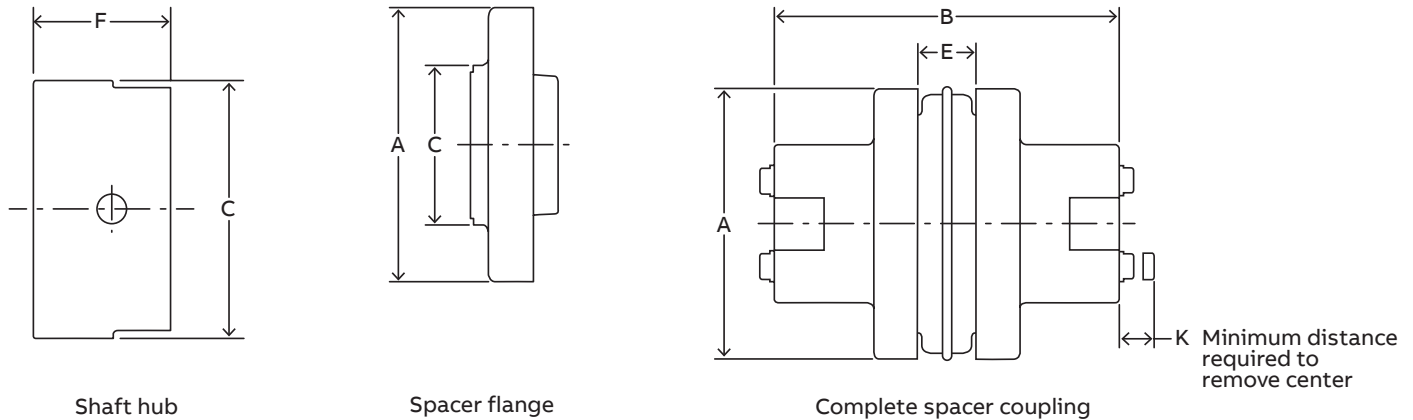
Unless otherwise specified, all D-Flex flanges are clearance fit per ISO R775. See page 123 for additional details.

**D-Flex coupling sleeves**

Coupling size	EPDM			Neoprene			Hytrel	
	JE	JES	E	JN	JNS	N	H	HS
Element construction	One-piece solid	One-piece split	Two-piece	One-piece solid	One-piece split	Two-piece	One-piece solid	Two-piece
5	004212	004246	022191	004213	004247	022212	-	-
6	004214	004248	022192	004215	004249	022213	022183	022232
7	004216	004250	022193	004217	004251	022214	022184	022233
8	004218	004252	022194	004219	004253	022215	022185	022234
9	004220	004254	022195	-	-	022216	022186	022235
10	004222	004256	022196	-	-	022217	022187	022236
11	-	-	022197	-	-	022218	022188	022237
12	-	-	022198	-	-	022219	022189	022238
13	-	-	021990	-	-	021993	-	022239
14	-	-	021991	-	-	021994	-	425730

**Elastomeric - D-Flex**

Selection/dimensions

**Type "SC" spacer couplings****Dimensions <sup>(1)</sup>**

Cplg. size	BSE	Flange number	Shaft hub		Max. bore <sup>(2)</sup>		A	B <sup>(3)</sup>	C	E	F		K	Weight <sup>(4)</sup> (lbs.)
			H	HS	H	HS					H	HS		
5SC	3.50	5SC35	5H	-	1-1/8	-	3.25	5.63	2.00	0.75	1.09	-	0.56	4.50
	3.50	6SC35	6H	-	1-3/8	-	4.00	5.88	2.50	0.88	1.22	-	0.75	7.30
6SC	4.38	6SC44	6H	-	1-3/8	-	-	6.75	2.50	-	1.22	-	-	8.10
	5.00	6SC50	6H	-	1-3/8	-	-	7.88	2.50	-	1.22	-	-	8.70
7SC	3.50	7SC35	7H	-	1-5/8	-	4.63	6.38	2.81	1.00	1.47	-	0.63	9.90
	4.38	7SC44	7H	-	1-5/8	-	-	7.25	2.81	-	1.47	-	-	10.80
	5.00	7SC50	7H	-	1-5/8	-	-	7.88	2.81	-	1.47	-	-	11.40
8SC	3.50	8SC35	8H	-	1-7/8	-	5.45	6.88	3.25	1.13	1.72	-	0.81	15.20
	3.50	8SC35-10	10H	10HS	2-3/8	1-5/8	-	9.13	4.38	-	2.34	-	0.81	23.20
	4.38	8SC44	8H	-	1-7/8	-	-	7.75	3.25	-	1.72	1.66	0.81	16.40
	5.00	8SC50	8H	-	1-7/8	-	-	8.38	3.25	-	1.72	1.33	1.19	17.40
9SC	5.00	8SC50-10	10H	10HS	2-3/8	1-5/8	-	9.63	4.38	-	2.34	-	1.19	27.20
	3.50	9SC35	9H	9HS	2-1/8	1-1/2	6.35	7.50	3.63	1.44	1.97	1.53	1.06	18.60
	4.38	9SC44	9H	9HS	2-1/8	1-1/2	-	8.25	3.63	-	1.97	1.53	1.06	22.20
	5.00	9SC50	9H	9HS	2-1/8	1-1/2	-	8.88	3.63	-	1.97	1.53	1.06	23.20
	5.00	9SC50-11	11H	11HS	2-7/8	1-7/8	-	10.38	5.25	-	2.72	1.91	1.19	40.40
9SC	7.00	9SC70-11	11H	11HS	2-7/8	1-7/8	-	12.38	5.25	-	2.72	1.91	1.19	48.20
	7.75	9SC78-11	11H	11HS	2-7/8	1-7/8	-	13.13	5.25	-	2.72	1.91	1.19	51.00

(1) Ratings (HP/100, torque, RPM) same as type S. See page 55.

(2) Check shaft hub table on page 62 for minimum bore.

(3) B dimension included H hubs. Dimension will change if one or two HS (short hubs) are used.

(4) Complete coupling weight at max bore.

**Elastomeric - D-Flex**

Selection/dimensions

**Type "SC" spacer couplings****Dimensions <sup>(1)</sup>**

Cplg. size	BSE	Flange number	Shaft hub		Max. bore <sup>(2)</sup>		A	B <sup>(3)</sup>	C	E	F		K	Weight <sup>(4)</sup> (lbs.)
			H	HS	H	HS					H	HS		
10 SC	4.75	10SC48	10H	10HS	2-3/8	1-5/8	7.50	9.38	4.38	1.63	2.34	1.66	1.19	37.60
	5.00	10SC50	10H	10HS	2-3/8	1-5/8	-	9.63	4.38	-	2.34	1.66	1.19	38.40
	7.00	10SC70-13	13H	13HS	3-3/8	2-1/2	-	13.63	6.13	-	3.34	2.47	1.88	72.00
	7.75	10SC78-13	13H	13HS	3-3/8	2-1/2	-	14.63	6.13	-	3.34	2.47	1.88	76.00
	10.00	10SC100-13	13H	13HS	3-3/8	2-1/2	-	16.63	6.13	-	3.34	2.47	1.88	88.00
11 SC	4.75	11SC48	11H	11HS	2-7/8	1-7/8	8.63	10.31	5.25	1.88	2.72	1.91	1.19	54.50
	5.00	11SC50	11H	11HS	2-7/8	1-7/8	-	10.38	5.25	-	2.72	-	1.19	54.70
	7.00	11SC70-14	14H	-	3-7/8	-	-	14.38	6.50	-	3.84	-	2.00	86.10
	7.75	11SC78-14	14H	-	3-7/8	-	-	15.38	6.50	-	3.84	-	2.00	90.30
	10.00	11SC100-14	14H	-	3-7/8	-	-	17.63	6.50	-	3.84	-	2.00	102.70
12 SC	7.00	12SC70	12H	12HS	2-7/8	2-1/2	10.00	12.88	5.75	2.31	2.97	2.53	1.50	88.10
	7.00	12SC70-14	14H	-	3-7/8	-	-	14.63	6.50	-	3.84	-	2.00	99.10
	7.75	12SC78	12H	12HS	2-7/8	2-1/2	-	13.63	5.75	-	2.97	-	1.50	91.90
	7.75	12SC78-14	14H	-	3-7/8	-	-	14.38	6.50	-	3.84	-	2.00	103.30
	10.00	12SC100-14	14H	-	3-7/8	-	-	17.63	6.50	-	3.84	-	2.00	115.70
13 SC	7.75	13SC78	13H	13HS	3-3/8	2-1/2	11.75	14.38	6.13	2.69	3.34	2.47	1.88	129.60
14 SC	7.75	14SC78	14H	-	3-7/8	-	13.88	15.38	6.50	3.25	3.84	-	2.00	179.90

(1) Ratings (HP/100, torque, RPM) same as type S. See page 55.

(2) Check shaft hub table on page 62 for minimum bore.

(3) B dimension included H hubs. Dimension will change if one or two HS (short hubs) are used.

(4) Complete coupling weight at max bore.

**Elastomeric - D-Flex**

Selection/dimensions

**Type "SC" couplings - spacer flange part numbers**

Coupling size	3.5 in.	4.375 in.	4.75 in.	5 in.	7 in.	7.75 in.	BSE distance	
							10 in.	Pump standard
5SC	022000	-	-	-	-	-	-	-
6SC	022001	022002	-	022003	-	-	-	-
7SC	022004	022005	-	022006	-	-	-	-
8SC	022007	022008	-	022009	-	-	-	-
8SC-10	022775	-	-	-	022776	-	-	-
9SC	022010	022011	-	022012	-	-	-	-
9SC-11	-	-	-	022777	022778	022779	-	-
10SC	-	-	022013	022014	-	-	-	-
10SC-13	-	-	-	-	022780	022781	022782	-
11SC	-	-	022015	022016	-	-	-	-
11SC-14	-	-	-	-	022783	022784	022785	-
12SC	-	-	-	-	022017	022018	-	-
12SC-14	-	-	-	-	022786	022787	022788	-
13SC	-	-	-	-	-	021997	-	-
14SC	-	-	-	-	-	021998	-	-

Additional spacer BSEs are available for D-Flex Type-SC in chart below. Minimum and maximum BSE's are shown in dimensional information on pages 59-60.

**Spacer combinations****Standard**

Spacing (in.)	Use 2 of each spacer flange
3-1/2	SC35
4-3/8	SC44
5	SC50
7	SC70
7-3/4	SC78
10	SC100

**Combination**

Spacing (in.)	Use 1 of each spacer flange
3-15/16	SC35 & SC44
4-1/4	SC35 & SC50
4-11/16	SC44 & SC50
5-1/4	SC35 & SC70
5-5/8	SC35 & SC78
5-11/16	SC44 & SC70
6	SC50 & SC70
6-1/16	SC44 & SC78
6-3/8	SC50 & SC78
6-3/4	SC35 & SC100
7-3/16	SC44 & SC100
7-3/8	SC70 & SC78
7-1/2	SC50 & SC100
8-1/2	SC70 & SC100
8-7/8	SC78 & SC100

**Half spacer**

Spacing (in.)	Use 1 spacer flange with standard flange
1-7/8	SC35
2-15/16	SC44
2-5/8	SC50
3-5/8	SC70
4	SC78
5-18	SC100

**Elastomeric - D-Flex**

Selection/dimensions

**Spacer shaft hub part numbers - inch bore**

Bore (in.)	Coupling size									
	5SC-H	6SC-H	7SC-H	8SC-H	9SC-H	10SC-H	11SC-H	12SC-H	13SC-H	14SC-H
Reborable	02222 0	02222 1	022222	02222 3	02222 4	02222 5	022226	02222 7	02222 8	426296
Finished bore hubs										
1/2	022329	-	-	-	-	-	-	-	-	-
5/8	022331	022340	022353	-	-	-	-	-	-	-
11/16	022332	022341	022354	-	-	-	-	-	-	-
3/4	022333	022342	022355	022368	-	-	-	-	-	-
7/8	022335	022344	022357	022370	022387	-	-	-	-	-
15/16	022336	022345	022358	022371	022388	-	-	-	-	-
1	022337	022346	022359	022372	022389	-	-	-	-	-
1-1/8	022339	022348	022361	022374	022391	022409	022452	-	-	-
1-1/8 <sup>(1)</sup>	-	-	-	-	022392 <sup>(1)</sup>	022410 <sup>(1)</sup>	022453 <sup>(1)</sup>	-	-	-
1-3/16	-	022349	022362	022375	022393	022411	022454	-	-	-
1-1/4	-	022350	022363	022376	022394	022412	022455	-	-	-
1-5/16	-	022351	022364	022377	022395	022413	022456	-	-	-
1-3/8	-	022352	022365	022378	022396	022414	022457	-	-	-
1-7/16	-	-	-	022379	022397	022415	022458	-	-	-
1-1/2	-	-	022366	022380	022398	022416	022459	-	-	-
1-9/16	-	-	-	022381	022399	022417	022460	-	-	-
1-5/8	-	-	022367	022382	022400	022418	022461	-	-	-
1-5/8 <sup>(1)</sup>	-	-	-	-	-	-	022462 <sup>(1)</sup>	-	-	-
1-3/4	-	-	-	022384	022402	022420	022464	-	-	-
1-7/8	-	-	-	022386	022404	022428	022466	022483	-	-
1-15/16	-	-	-	-	022405	022429	022467	022484	-	-
2	-	-	-	-	022406	022430	022468	022485	-	-
2-1/8	-	-	-	-	022408	022432	022470	022487	022813 <sup>(1)</sup>	-
2-3/16	-	-	-	-	-	022433	022471	022488	-	-
2-1/4	-	-	-	-	-	022434	022472	022489	-	-
2-5/16	-	-	-	-	-	022435	022473	022490	-	-
2-3/8	-	-	-	-	-	022436	022474	022491	022810	022815
2-3/8 <sup>(1)</sup>	-	-	-	-	-	-	-	022492 <sup>(1)</sup>	022814 <sup>(1)</sup>	-
2-7/16	-	-	-	-	-	-	022475	022493	-	-
2-1/2	-	-	-	-	-	-	022476	022494	-	-
2-5/8	-	-	-	-	-	-	022478	022496	-	-
2-11/16	-	-	-	-	-	-	022479	022497	-	-
2-3/4	-	-	-	-	-	-	022480	022498	-	-
2-7/8	-	-	-	-	-	-	022482	022500	022811	022816
3-3/8	-	-	-	-	-	-	-	-	022812	022817
3-7/8	-	-	-	-	-	-	-	-	-	022818

(1) HS (short hub)

Complete full spacer coupling consists of (2) shaft hubs, (2) spacer flanges, and (1) sleeve (see page 52)

Unless otherwise specified, all D-Flex type SC shaft hubs are clearance fit per AGMA 9002. See page 119 for additional details.



**Elastomeric - D-Flex**

Selection/dimensions

**Spacer shaft hub part numbers - metric bore**

Bore (mm)	Coupling size									
	5SC-H	6SC-H	7SC-H	8SC-H	9SC-H	10SC-H	11SC-H	12SC-H	13SC-H	14SC-H
Reborable	02222 0	02222 1	022222	02222 3	02222 4	02222 5	022226	02222 7	02222 8	426296
Finished bore hubs										
14	022 849	-	-	-	-	-	-	-	-	-
16	022 850	022 859	022 871	-	-	-	-	-	-	-
18	022 851	022 860	022 872	-	-	-	-	-	-	-
19	022 852	022 861	022 873	-	-	-	-	-	-	-
20	022 853	022 862	022 874	022 885	-	-	-	-	-	-
22	022 854	022 863	022 875	022 886	-	-	-	-	-	-
24	022 855	022 864	022 876	022 887	022 899	-	-	-	-	-
25	022 856	022 865	022 877	022 888	022 900	-	-	-	-	-
28	022 857	022 866	022 878	022 889	022 901	-	-	-	-	-
30	022 858	022 867	022 879	022 890	022 902	022 911	022 922	-	-	-
32	-	022 868	022 880	022 891	022 903	022 912	022 923	-	-	-
35	-	022 869	022 881	022 892	022 904	022 913	022 924	-	-	-
38	-	022 870	022 882	022 893	022 905	022 914	022 925	-	-	-
40	-	-	022 883	022 894	022 906	022 915	022 926	-	-	-
42	-	-	022 884	022 895	022 907	022 916	022 927	-	-	-
45	-	-	-	022 896	022 908	022 917	022 928	-	-	-
48	-	-	-	022 897	022 909	022 918	022 929	022 935	-	-
50	-	-	-	022 898	022 910	022 919	022 930	022 936	-	-
55	-	-	-	-	-	022 920	022 931	022 937	022 948	-
60	-	-	-	-	-	022 921	022 932	022 938	022 949	-
65	-	-	-	-	-	-	022 933	022 939	022 950	-
70	-	-	-	-	-	-	022 934	022 940	022 951	-
75	-	-	-	-	-	-	-	-	022 952	-
80	-	-	-	-	-	-	-	-	022 953	-
85	-	-	-	-	-	-	-	-	022 954	-

(1) Unless otherwise specified, all D-Flex shaft hubs are clearance fit per ISO R775. See page 123 for additional details.

ELASTOMERIC

# StarFlex



## Elastomeric - StarFlex

### Features/benefits

The most commonly used elastomeric coupling for a wide variety of light to medium-duty applications.

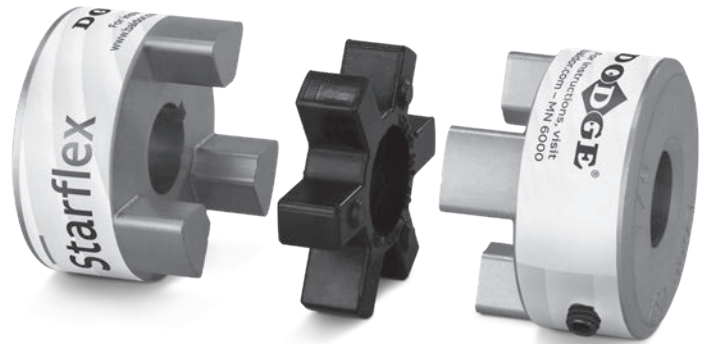
#### Features

- Interchangeable by part number and size with industry standard components
- Cost saving component
- Four types of insert materials for a wide range of applications in varying temperatures and environments

Note: Careful selection of insert based on service factor will result in more-efficient, longer-lasting operation.

#### Product features:

- High speed capability
- Easy installation
- Misalignment capability
- No metal-to-metal contact
- Fail-safe: will still perform after elastomeric element fails
- Integral key option available on select size hubs.







## Elastomeric - StarFlex

### Features/benefits

Note: Selecting the proper insert material plays an important part in the performance of the product.

#### Element characteristics

Properties	Temperature range	Misalignment		Shore hardness	Damping capacity	Chemical resistance	Color
		Angular (degrees)	Parallel (in.)				
NBR (rubber): Nitrile Butadiene Rubber is a flexible elastomer that is oil resistant, with the resilience and elasticity of natural rubber. Most economical and widely-used.	-40° to +212° F	1°	.015	80A	High	Good	Black 
	-40° to +100° C						
Urethane: Urethane has 1.5 times greater torque capacity than NBR, provides less vibration damping, and has good resistance to oil and chemicals. Not recommended for high cycle applications.	-30° to +160° F	1°	.015	55D	Low	Very good	Orange 
	-34° to +71° C			L050-L110 90-95A L150-L225			
Hytrel: Hytrel is a flexible elastomer suited to high torque and temperature applications. Excellent resistance to oil and chemicals. Not recommended for high cycle applications.	-60° to +250° F	1/2°	.015	55D	Low	Excellent	Off-white 
	-51° to 121° C						
Bronze: Bronze is a rigid, oil-impregnated metal insert designed for high torque, slow speed applications. (maximum 250 RPM) Not effected by extreme extreme environments (temperature, water, oil, dirt).	-40° to +450° F	1/2°	.010	-	None	Excellent	Gold 
	-40° to +232° C						

#### Jaw couplings advantages

Jaw couplings are one of the most economical and widely used industrial coupling styles available in the market today. They are popular because they are fail-safe; if the insert element wears or breaks away, the coupling continues to operate until the insert can be replaced. Simple design means easy installation, removal, and visual inspection. It also offers lighter weight and lower cost when compared to other coupling styles with similar torque capacity.

#### Insert choice

The choice of the insert element makes a significant difference in the coupling's performance with regards to torque rating, vibration, temperature, chemical resistance, misalignment, speed, installation and removal.

#### Maintenance tips

Through manual inspection, avoid allowing the jaw tips to come into contact; a noisy, grinding operation will result. Replace the insert if signs of wear are evident. Do not over-estimate service factors when choosing the coupling. This increases costs unnecessarily and can cause damage elsewhere in the drive. Due to the variety of inserts available, careful selection will result in efficient, long-lasting operation.

## Elastomeric - StarFlex

Specification/how to order/nomenclature

### How to order

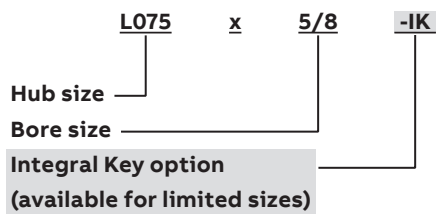
Consists of:

(2) hubs

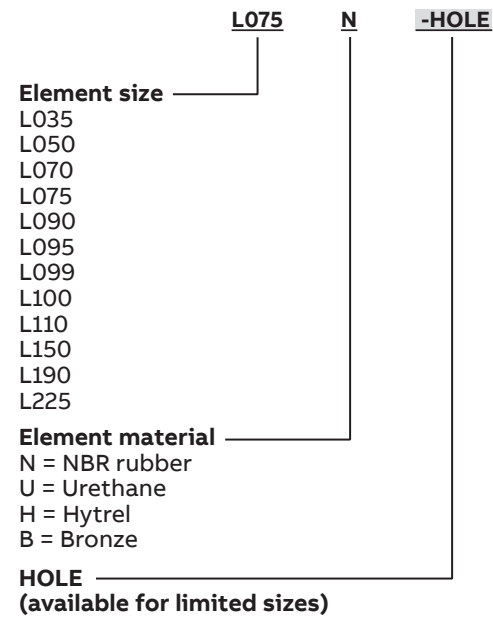
(1) element

### Nomenclature

#### Hub:



#### Element:



## Elastomeric - StarFlex

### Selection/dimensions

#### Element part numbers

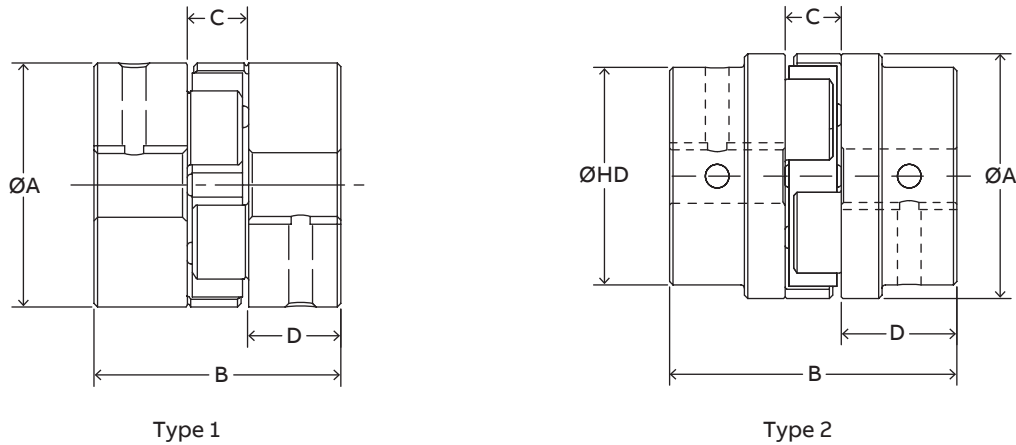
Spider element style	L035	L050	L070	L075	L090 L095	L099 L100	L110	L150	L190	L225
NBR rubber (solid)	L035N	L050N	L070N	L075N	L090-095N	L099-100N	L110N	L150N	L190N	L225N
NBR rubber (open center)	-	-	-	L075N-HOLE	L090-095N-HOLE	L099-100N-HOLE	L110N-HOLE	L150N-HOLE	L190N-HOLE	L225N-HOLE
Urethane (solid)	-	L050U	L070U	L075U	L090-095U	L099-100U	L110U	L150U	L190U	L225U
Urethane (open center)	-	-	L070U-HOLE	L075U-HOLE	L090-095U-HOLE	L099-100U-HOLE	L110U-HOLE	L150U-HOLE	-	-
Hytrel (solid)	-	L050H	L070H	L075H	L090-095H	L099-100H	L110H	L150H	L190H	L225H
Hytrel (open center)	-	-	L070H-HOLE	L075H-HOLE	L090-095H-HOLE	L099-100H-HOLE	L110H-HOLE	L150H-HOLE	L190H-HOLE	L225H-HOLE
Bronze (open center)	-	L050B	L070B	L075B	L090-095B	L099-100B	L110B	L150B	L190B	L225B

#### Torque, speed, and misalignment ratings

Size	Torque and speed ratings							Misalignment ratings			
	Torque (in.-lbs.)				Speed (RPM)			Parallel (in.)		Angular (deg.)	
	NBR	Urethane	Hytrel	Bronze	NBR, Urethane, Hytrel	Bronze	NBR, Urethane, Hytrel	Bronze	NBR, Urethane	Hytrel, Bronze	
L035	3.5	-	-	-	31,000	250	0.015	-	-	-	
L050	26	39	50	50	18,000	250	0.015	0.010	1°	1/2°	
L070	43	65	114	114	14,000	250	0.015	0.010	1°	1/2°	
L075	90	135	227	227	11,000	250	0.015	0.010	1°	1/2°	
L090	144	216	401	401	9,000	250	0.015	0.010	1°	1/2°	
L095	194	291	561	561	9,000	250	0.015	0.010	1°	1/2°	
L099	318	477	792	792	7,000	250	0.015	0.010	1°	1/2°	
L100	417	626	1,134	1,134	7,000	250	0.015	0.010	1°	1/2°	
L110	792	1,188	2,268	2,268	5,000	250	0.015	0.010	1°	1/2°	
L150	1,240	1,860	3,708	3,708	5,000	250	0.015	0.010	1°	1/2°	
L190	1,728	2,592	4,680	4,680	5,000	250	0.015	0.010	1°	1/2°	
L225	2,340	3,510	6,228	6,228	4,200	250	0.015	0.010	1°	1/2°	

**Elastomeric - StarFlex**

Selection/dimensions

**Dimensions (in.)**

Size	Type	Min. bore	Max. bore	Outside diameter (A)	Hub diameter (HD)	Overall length (B)	Distance between hubs (C)	Length through bore (D)	Weight <sup>(1)</sup> (lbs.)	Inertia (lbs.-in. <sup>2</sup> )
L035	1	1/8	3/8	5/8	-	13/16	9/32	17/64	0.10	0.003
L050	1	3/16	5/8	1-1/16	-	1-23/32	15/32	5/8	0.25	0.054
L070	1	3/16	3/4	1-3/8	-	2	1/2	3/4	0.50	0.115
L075	1	3/16	7/8	1-3/4	-	2-1/8	1/2	13/16	0.90	0.388
L090	1	3/16	1	2-1/8	-	2-9/64	33/64	13/16	1.35	0.772
L095	1	7/16	1-1/8	2-1/8	-	2-33/64	33/64	1	1.55	0.890
L099	1	7/16	1-3/16	2-17/32	-	2-27/32	23/32	1-1/16	2.25	2.048
L100	1	7/16	1-3/8	2-17/32	-	3-15/32	23/32	1-3/8	2.80	2.783
L110	1	5/8	1-5/8	3-5/16	-	4-1/4	7/8	1-11/16	5.95	8.993
L150	1	5/8	1-7/8	3-3/4	-	4-1/2	1	1-3/4	7.90	11.477
L190	2	3/4	2-1/8	4-1/2	4	5	1	2	13.80	39.256
L225	2	3/4	2-5/8	5	4-1/4	5-3/8	1	2-3/16	17.30	65.000

(1) Average weight for complete coupling assembly

**New integral key (IK) hubs**

Hub size	Bore size	NEMA motor frame	New part number
L075	5/8"	56C	L075X5/8-IK
L090	5/8"	56C	L090X5/8-IK
	7/8"	14 0TC	L090X7/8-IK
L099	7/8"	14 0TC	L099X7/8-IK
	1-1/8"	14 0TC	L099X1-1/8-IK

## Elastomeric - StarFlex

Selection/dimensions

## Inch series: standard bores and keyways - hub part numbers

Bore (in.)	Keyway (in.)	L035	L050	L070	L075	L090	L095
1/8	No kW	L035x1/8	-	-	-	-	-
3/16	No kW	L035x3/16	L050x3/16	L070x3/16	L075x3/16	L090x3/16	-
1/4	No kW	L035x1/4	L050x1/4	L070x1/4	L075x1/4	L090x1/4	-
1/4	1/8 x 1/16	-	-	-	L075x1/4kW	-	-
5/16	No kW	L035x5/16	L050x5/16	-	L075x5/16	L090x5/16	-
3/8	No kW	L035x3/8	L050x3/8	L070x3/8	L075x3/8	L090x3/8	-
3/8	3/32 x 3/64	-	L050x3/8kW3/32	L070x3/8kW3/32	L075x3/8kW3/32	L090x3/8kW3/32	-
3/8	1/8 x 1/16	-	L050x1/8kW1/8	L070x3/8kW1/8	L075x3/8kW1/8	L090x3/8kW1/8	-
7/16	No kW	-	L050x7/16	L070x7/16	L075x7/16	L090x7/16	L095x7/16
7/16	3/32 x 3/64	-	L050x7/16kW3/32	L070x7/16kW3/32	L075x7/16kW3/32	L090x7/16kW3/32	L095x7/16kW3/32
7/16	1/8 x 1/16	-	-	L070x7/16kW1/8	L075x7/16kW1/8	L090x7/16kW1/8	L095x7/16kW1/8
1/2	No kW	-	L050x1/2	L070x1/2	L075x1/2	L090x1/2	L095x1/2
1/2	1/8 x 1/16	-	L050x1/2kW	L070x1/2kW	L075x1/2kW	L090x1/2kW	L095x1/2kW
9/16	No kW	-	L050x9/16NOKW	L070x9/16NOKW	L075x9/16NOKW	L090x9/16NOKW	L095x9/16NOKW
9/16	1/8 x 1/16	-	L050x9/16	L070x9/16	L075x9/16	L090x9/16	L095x9/16
5/8	No kW	-	L050x5/8NOKW	L070x5/8NOKW	L075x5/8NOKW	L090x5/8NOKW	L095x5/8NOKW
5/8	5/32 x 5/64	-	-	L070x5/8kW5/32	L075x5/8kW5/32	L090x5/8kW5/32	L095x5/8kW5/32
5/8	3/16 x 3/32	-	L050x5/8	L070x5/8	L075x5/8	L090x5/8	L095x5/8
5/8	3/16 x 3/32	-	-	-	L075x5/8-IK	L090x5/8-IK	-
11/16	3/16 x 3/32	-	-	L070x11/16	L075x11/16	L090x11/16	L095x11/16
3/4	No kW	-	-	L070x3/4NOKW	L075x3/4NOKW	L090x3/4NOKW	L095x3/4NOKW
3/4	1/8 x 1/16	-	-	L070x3/4kW1/8	L075x3/4kW1/8	L090x3/4kW1/8	L095x3/4kW1/8
3/4	3/16 x 3/32	-	-	L070x3/4kW	L075x3/4	L090x3/4	L095x3/4
13/16	3/16 x 3/32	-	-	-	L075x13/16	L090x13/16	L095x13/16
7/8	No kW	-	-	-	L075x7/8NOKW	-	-
7/8	3/16 x 3/32	-	-	-	L075x7/8	L090x7/8	L095x7/8
7/8	3/16 x 3/32	-	-	-	-	L090x7/8-IK	-
7/8	1/4 x 1/8	-	-	-	-	L090x7/8kW1/4	L095x7/8kW1/4
15/16	1/4 x 1/8	-	-	-	-	L090x15/16	L095x15/16
1	1/4 x 1/8	-	-	-	-	L090x1	L095x1
1	3/16 x 3/32	-	-	-	-	L090x1kW3/16	L095x1kW3/16
1-1/16	1/4 x 1/8	-	-	-	-	-	L095x1-1/16
1-1/8	1/4 x 1/8	-	-	-	-	-	L095x1-1/8
1-3/16	1/4 x 1/8	-	-	-	-	-	-
1-1/4	1/4 x 1/8	-	-	-	-	-	-
1-1/4	5/16 x 5/32	-	-	-	-	-	-
1-5/16	5/16 x 5/32	-	-	-	-	-	-
1-3/8	5/16 x 5/32	-	-	-	-	-	-
1-3/8	3/8 x 3/16	-	-	-	-	-	-
1-7/16	3/8 x 3/16	-	-	-	-	-	-
1-1/2	5/16 x 5/32	-	-	-	-	-	-
1-1/2	3/8 x 3/16	-	-	-	-	-	-
1-9/16	3/8 x 3/16	-	-	-	-	-	-
1-5/8	3/8 x 3/16	-	-	-	-	-	-
1-11/16	3/8 x 3/16	-	-	-	-	-	-
1-3/4	3/8 x 3/16	-	-	-	-	-	-
1-3/4	3/8 x 3/16	-	-	-	-	-	-
1-13/16	1/2 x 1/4	-	-	-	-	-	-
1-7/8	1/2 x 1/4	-	-	-	-	-	-
1-15/16	1/2 x 1/4	-	-	-	-	-	-
2	1/2 x 1/4	-	-	-	-	-	-
2-1/16	1/2 x 1/4	-	-	-	-	-	-
2-1/8	1/2 x 1/4	-	-	-	-	-	-
2-3/16	1/2 x 1/4	-	-	-	-	-	-
2-1/4	1/2 x 1/4	-	-	-	-	-	-
2-3/8	5/8 x 5/16	-	-	-	-	-	-
2-1/2	5/8 x 5/16	-	-	-	-	-	-
2-5/8	5/8 x 5/16	-	-	-	-	-	-

Hub part number = Size X bore. For example, L075x3/4-IK.

Grey shade indicates integral key option.



**Elastomeric - StarFlex**

Selection/dimensions

**Inch series: standard bores and keyways - hub part numbers**

Bore (in.)	Keyway (in.)	L099	L100	L110	L150	L190	L225
1/8	No kW	-	-	-	-	-	-
3/16	No kW	-	-	-	-	-	-
1/4	No kW	-	-	-	-	-	-
1/4	1/8 x 1/16	-	-	-	-	-	-
5/16	No kW	-	-	-	-	-	-
3/8	No kW	-	-	-	-	-	-
3/8	3/32 x 3/64	-	-	-	-	-	-
3/8	1/8 x 1/16	-	-	-	-	-	-
7/16	No kW	L099x7/16	L100x7/16	-	-	-	-
7/16	3/32 x 3/64	L099x7/16kW3/32	L100x7/16kW3/32	-	-	-	-
7/16	1/8 x 1/16	L099x7/16kW1/8	L100x7/16kW1/8	-	-	-	-
1/2	No kW	L099x1/2	L100x1/2	-	-	-	-
1/2	1/8 x 1/16	L099x1/2kW	L100x1/2kW	-	-	-	-
9/16	No kW	L099x9/16NOkW	L100x9/16NOkW	-	-	-	-
9/16	1/8 x 1/16	L099x9/16	L100x9/16	-	-	-	-
5/8	No kW	L099x5/8NOkW	L100x5/8NOkW	L110x5/8NOkW	L150x5/8NOkW	-	-
5/8	5/32 x 5/64	L099x5/8kW5/32	L100x5/8kW5/32	L110x5/8kW5/32	L150x5/8kW5/32	-	-
5/8	3/16 x 3/32	L099x5/8	L100x5/8	L110x5/8	L150x5/8	-	-
11/16	3/16 x 3/32	L099x11/16	L100x11/16	L110x11/16	L150x11/16	-	-
3/4	No kW	L099x3/4NOkW	L100x3/4NOkW	-	-	L190x3/4NOkW	L225x3/4NOkW
3/4	1/8 x 1/16	L099x3/4kW1/8	L100x3/4kW1/8	L110x3/4kW1/8	L150x3/4kW1/8	L190x3/4kW1/8	-
3/4	3/16 x 3/32	L099x3/4	L100x3/4	L110x3/4	L150x3/4	L190x3/4	L225x3/4
13/16	3/16 x 3/32	L099x13/16	L100x13/16	L110x13/16	L150x13/16	L190x13/16	L225x13/16
7/8	No kW	L099x7/8NOkW	-	-	-	-	-
7/8	3/16 x 3/32	L099x7/8	L100x7/8	L110x7/8	L150x7/8	L190x7/8	L225x7/8
7/8	3/16 x 3/32	L099x7/8-IK	-	-	-	-	-
7/8	1/4 x 1/8	L099x7/8kW1/4	L100x7/8kW1/4	L110x7/8kW1/4	L150x7/8kW1/4	L190x7/8kW1/4	L225x7/8kW1/4
15/16	1/4 x 1/8	L099x15/16	L100x15/16	L110x15/16	L150x15/16	L190x15/16	L225x15/16
1	1/4 x 1/8	L099x1	L100x1	L110x1	L150x1	L190x1	L225x1
1	3/16 x 3/32	L099x1kW13/16	L100x1kW13/16	L110x1kW13/16	L150x1kW13/16	L190x1kW13/16	L225x1kW13/16
1-1/16	1/4 x 1/8	L099x1-1/16	L100x1-1/16	L110x1-1/16	L150x1-1/16	L190x1-1/16	L225x1-1/16
1-1/8	1/4 x 1/8	L099x1-1/8	L100x1-1/8	L110x1-1/8	L150x1-1/8	L190x1-1/8	L225x1-1/8
1-1/8	1/4 x 1/8	L099x1-1/8-IK	-	-	-	-	-
1-3/16	1/4 x 1/8	L099x1-3/16	L100x1-3/16	L110x1-3/16	L150x1-3/16	L190x1-3/16	L225x1-3/16
1-1/4	1/4 x 1/8	-	L100x1-1/4	L110x1-1/4	L150x1-1/4	L190x1-1/4	L225x1-1/4
1-1/4	5/16 x 5/32	-	L100x1-1/4kW	L110x1-1/4kW	L150x1-1/4kW	L190x1-1/4kW	L225x1-1/4kW
1-5/16	5/16 x 5/32	-	L100x1-5/16	L110x1-5/16	L150x1-5/16	L190x1-5/16	L225x1-5/16
1-3/8	5/16 x 5/32	-	L100x1-3/8	L110x1-3/8	L150x1-3/8	L190x1-3/8	L225x1-3/8
1-3/8	3/8 x 3/16	-	L100x1-3/8kW	L110x1-3/8kW	L150x1-3/8kW	L190x1-3/8kW	L225x1-3/8kW
1-7/16	3/8 x 3/16	-	-	L110x1-7/16	L150x1-7/16	L190x1-7/16	L225x1-7/16
1-1/2	5/16 x 5/32	-	-	L110x1-1/2kW	L150x1-1/2kW	L190x1-1/2kW	L225x1-1/2kW
1-1/2	3/8 x 3/16	-	-	L110x1-1/2	L150x1-1/2	L190x1-1/2	L225x1-1/2
1-9/16	3/8 x 3/16	-	-	L110x1-9/16	L150x1-9/16	L190x1-9/16	L225x1-9/16
1-5/8	3/8 x 3/16	-	-	L110x1-5/8	L150x1-5/8	L190x1-5/8	L225x1-5/8
1-11/16	3/8 x 3/16	-	-	-	L150x1-11/16	L190x1-11/16	L225x1-11/16
1-3/4	3/8 x 3/16	-	-	-	L150x1-3/4	L190x1-3/4	L225x1-3/4
1-3/4	7/16 x 7/32	-	-	-	L150x1-3/4kW	L190x1-3/4kW	L225x1-3/4kW
1-13/16	1/2 x 1/4	-	-	-	L150x1-13/16	L190x1-13/16	L225x1-13/16
1-7/8	1/2 x 1/4	-	-	-	L150x1-7/8	L190x1-7/8	L225x1-7/8
1-15/16	1/2 x 1/4	-	-	-	-	L190x1-15/16	L225x1-15/16
2	1/2 x 1/4	-	-	-	-	L190x2	L225x2
2-1/16	1/2 x 1/4	-	-	-	-	L190x2-1/16	L225x2-1/16
2-1/8	1/2 x 1/4	-	-	-	-	L190x2-1/8	L225x2-1/8
2-3/16	1/2 x 1/4	-	-	-	-	-	L225x2-3/16
2-1/4	1/2 x 1/4	-	-	-	-	-	L225x2-1/4
2-3/8	5/8 x 5/16	-	-	-	-	-	L225x2-3/8
2-1/2	5/8 x 5/16	-	-	-	-	-	L225x2-1/2
2-5/8	5/8 x 5/16	-	-	-	-	-	L225x2-5/8

Hub part number = Size X bore. For example, L075x3/4-IK.  
 Grey shade indicates integral key option.

**Elastomeric - StarFlex**

Selection/dimensions

**Metric series: standard bores and keyways - hub part numbers**

Bore (mm)	Keyway (mm)	L035	L050	L070	L075	L090	L095
9	3 x 1.4	-	L050x9MM	L070x9MM	L075x9MM	-	-
10	3 x 1.4	-	L050x10MM	L070x10MM	L075x10MM	L090x10MM	-
11	4 x 1.8	-	L050x11MM	L070x11MM	L075x11MM	-	L095x11MM
12	4 x 1.8	-	L050x12MM	L070x12MM	L075x12MM	L090x12MM	L095x12MM
14	5 x 2.3	-	L050x14MM	L070x14MM	L075x14MM	L090x14MM	L095x14MM
15	5 x 2.3	-	L050x15MM	L070x15MM	L075x15MM	L090x15MM	L095x15MM
16	5 x 2.3	-	L050x16MM	L070x16MM	L075x16MM	L090x16MM	L095x16MM
17	5 x 2.3	-	-	L070x17MM	L075x17MM	L090x17MM	L095x17MM
18	6 x 2.8	-	-	L070x18MM	L075x18MM	L090x18MM	L095x18MM
19	6 x 2.8	-	-	L070x19MM	L075x19MM	L090x19MM	L095x19MM
20	6 x 2.8	-	-	-	L075x20MM	L090x20MM	L095x20MM
22	6 x 2.8	-	-	-	L075x22MM	L090x22MM	L095x22MM
24	8 x 3.3	-	-	-	-	L090x24MM	L095x24MM
25	8 x 3.3	-	-	-	-	L090x25MM	L095x25MM
28	8 x 3.3	-	-	-	-	-	L095x28MM
30	8 x 3.3	-	-	-	-	-	-
32	10 x 3.3	-	-	-	-	-	-
35	10 x 3.3	-	-	-	-	-	-
38	10 x 3.3	-	-	-	-	-	-
40	12 x 3.3	-	-	-	-	-	-
42	12 x 3.3	-	-	-	-	-	-
45	14 x 3.8	-	-	-	-	-	-
48	14 x 3.8	-	-	-	-	-	-
50	14 x 3.8	-	-	-	-	-	-
55	16 x 4.3	-	-	-	-	-	-
60	18 x 4.4	-	-	-	-	-	-
65	18 x 4.4	-	-	-	-	-	-

Hub part number = Size X bore  
 For example, L075x3/4

**Elastomeric - StarFlex**

Selection/dimensions

**Metric series: standard bores and keyways - hub part numbers**

Bore (mm)	Keyway (mm)	L099	L100	L110	L150	L190	L225
9	3 x 1.4	-	-	-	-	-	-
10	3 x 1.4	-	-	-	-	-	-
11	4 x 1.8	-	-	-	-	-	-
12	4 x 1.8	-	-	-	-	-	-
14	5 x 2.3	L099x14 MM	L10 0x14MM	-	-	-	-
15	5 x 2.3	L099x15MM	L10 0x15MM	-	-	-	-
16	5 x 2.3	L099x16 MM	L100x16 MM	L110x16MM-PB	L150x16MM-PB	-	-
17	5 x 2.3	-	L100x17 MM	L110x17 MM	L150x17MM	-	-
18	6 x 2.8	L099x18 MM	L10 0x18MM	L110x18MM	-	-	-
19	6 x 2.8	L099x19 MM	L10 0x19MM	L110x19MM	L150x19MM	L19 0x19 MM	-
20	6 x 2.8	L099x20MM	L10 0x20MM	L110x20MM	L150x20MM	L19 0x20MM	-
22	6 x 2.8	L099x22 MM	L10 0x22MM	L110x22MM	L150x22MM	-	-
24	8 x 3.3	L099x24MM	L10 0x24MM	L110x24MM	L150x24MM	L19 0x24MM	-
25	8 x 3.3	L099x25MM	L10 0x25MM	L110x25MM	L150x25MM	L19 0x25MM	-
28	8 x 3.3	L099x28MM	L10 0x28MM	L110x28MM	L150x28MM	L190x28MM	-
30	8 x 3.3	L099x30MM	L100x30MM	L110x30MM	L150x30MM	L190x30MM	L225x30MM-PB
32	10 x 3.3	-	L10 0x32MM	L110x32MM	L150x32MM	L19 0x32MM	L225x32MM
35	10 x 3.3	-	L10 0x35MM	L110x35MM	L150x35MM	L19 0x35MM	L225x35MM
38	10 x 3.3	-	-	L110x38MM	L150x38MM	L190x38MM	L225x38MM
40	12 x 3.3	-	-	L110x40MM	L150x40MM	L19 0x40MM	L225x40MM
42	12 x 3.3	-	-	L110x42MM	L150x42MM	L19 0x42MM	L225x42MM
45	14 x 3.8	-	-	-	L150x45MM	L19 0x45MM	L225x45MM
48	14 x 3.8	-	-	-	L150x48MM	L190x48MM	L225x48MM
50	14 x 3.8	-	-	-	-	L190x50MM	L225x50MM
55	16 x 4.3	-	-	-	-	L19 0x55MM	L225x55MM
60	18 x 4.4	-	-	-	-	-	L225x60MM
65	18 x 4.4	-	-	-	-	-	L225x65MM

Hub part number = Size X bore

For example, L075x3/4

PB = Plain bore

ELASTOMERIC

# Poly-Disc

Elastomeric



## Elastomeric - Poly-Disc

### Specification/how to order/nomenclature

#### Specification

Poly-Disc couplings are a pin type coupling using a molded polyurethane disc. The physical properties of the disc allow for the cushioning of shock loads and the resistance to most common chemicals such as acids, alkalis and petroleum products. The disc has an operating range of -90°F to +170°F.

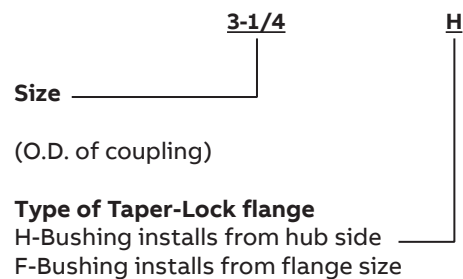
The flexible disc is captured through metallic pins, utilizing a light press fit over the pins to prevent the accumulation of abrasive particles between the disc and pins. The pin holes are barreled to allow 2° angular misalignment and the flexible disc allows 1/32" parallel misalignment. The disc has spacer buttons to achieve automatic flange spacing which speeds up installation. Both flanges are machined all over and are taper bored to receive Taper-Lock bushings to permit quick and easy installation and removal on shafts of equal or different diameters.

#### How to order

Consists of:

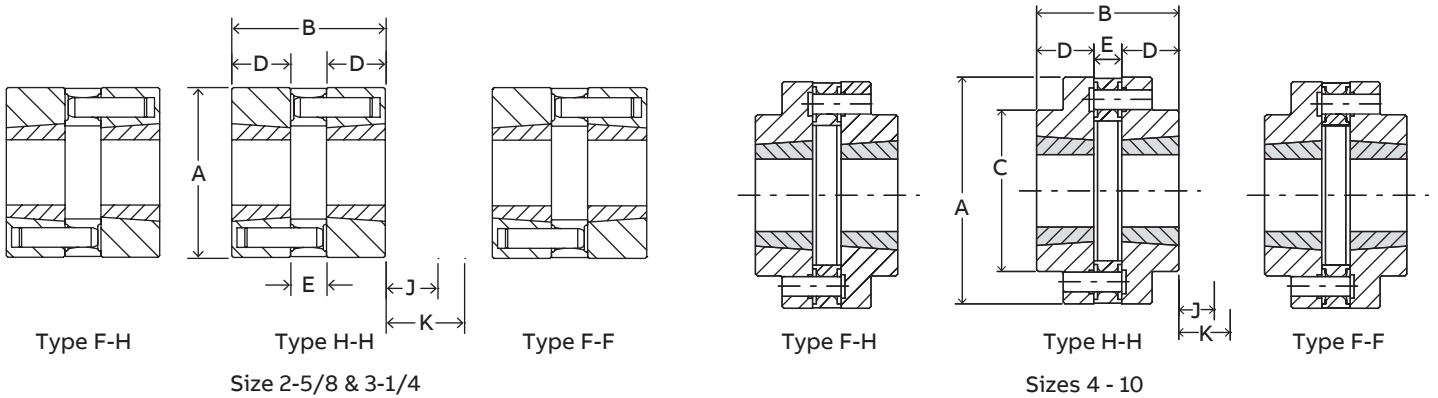
- (2) Taper-Lock flanges
- (2) Taper-Lock bushings
- (1) Poly-Disc element

#### Nomenclature:



## Elastomeric - Poly-Disc

### Selection/dimensions



Coupling size	TL bushing size	Torque (in.-lb.)	Hp/100	Min. bore <sup>(1)</sup>	Max. bore <sup>(1)</sup>	Max. RPM	A <sup>(1)</sup>	B <sup>(1)</sup>	C <sup>(1)</sup>	D <sup>(1)</sup>	E <sup>(1)</sup>	J	K <sup>(1)</sup>	Weight (lbs.)	Inertia (lb.-ft. <sup>2</sup> )	Holes in disc
2-5/8	1008	180	0.29	1/2	1	3600	2.63	2.56	2.63	1.00	0.69	0.63	0.75	2.50	2.30	6
3-1/4	1210	360	0.57	1/2	1-1/4	3600	3.25	2.88	3.25	1.13	0.75	0.81	1.06	4.15	6.20	6
4	1215	600	0.95	1/2	1-1/4	3600	4.00	3.63	2.63	1.50	0.63	0.81	1.06	5.80	10.00	8
5-1/4	1615	1440	2.29	1/2	1-11/16	3600	5.25	3.75	3.25	1.50	0.75	0.81	1.06	12.10	34.40	8
7	2517	2900	4.6	1/2	2-11/16	3000	7.00	4.38	4.97	1.75	0.88	1.00	1.63	25.90	141.20	10
8	2517	6300	10	1/2	2-11/16	2400	8.00	4.63	5.00	1.75	1.13	1.00	1.63	34.10	246.70	12
10	3030	10900	17.26	15/16	3-1/4	2000	10.00	7.5	6.00	3.00	1.50	1.31	2.69	77.70	866.00	12

(1) All dimensions in inch

#### Poly-Disc part numbers

Coupling size	TL bushing size	T-L flanges		Disc
		Type H	Type F	
2-5/8	1008	008057	008058	008030
3-1/4	1210	008059	008060	008031
4	1215	008041	008040	008032
5-1/4	1615	008043	008042	008033
7	2517	008045	008044	008034
8	2517	008047	008046	008035
10	3030	008049	008048	008036

Complete coupling consists of:

- (2) Taper-Lock flanges
- (2) Taper-Lock bushings
- (1) Poly-Disc element

Note: Taper-Lock bushings ordered separately.

Refer to Bushing page 179.

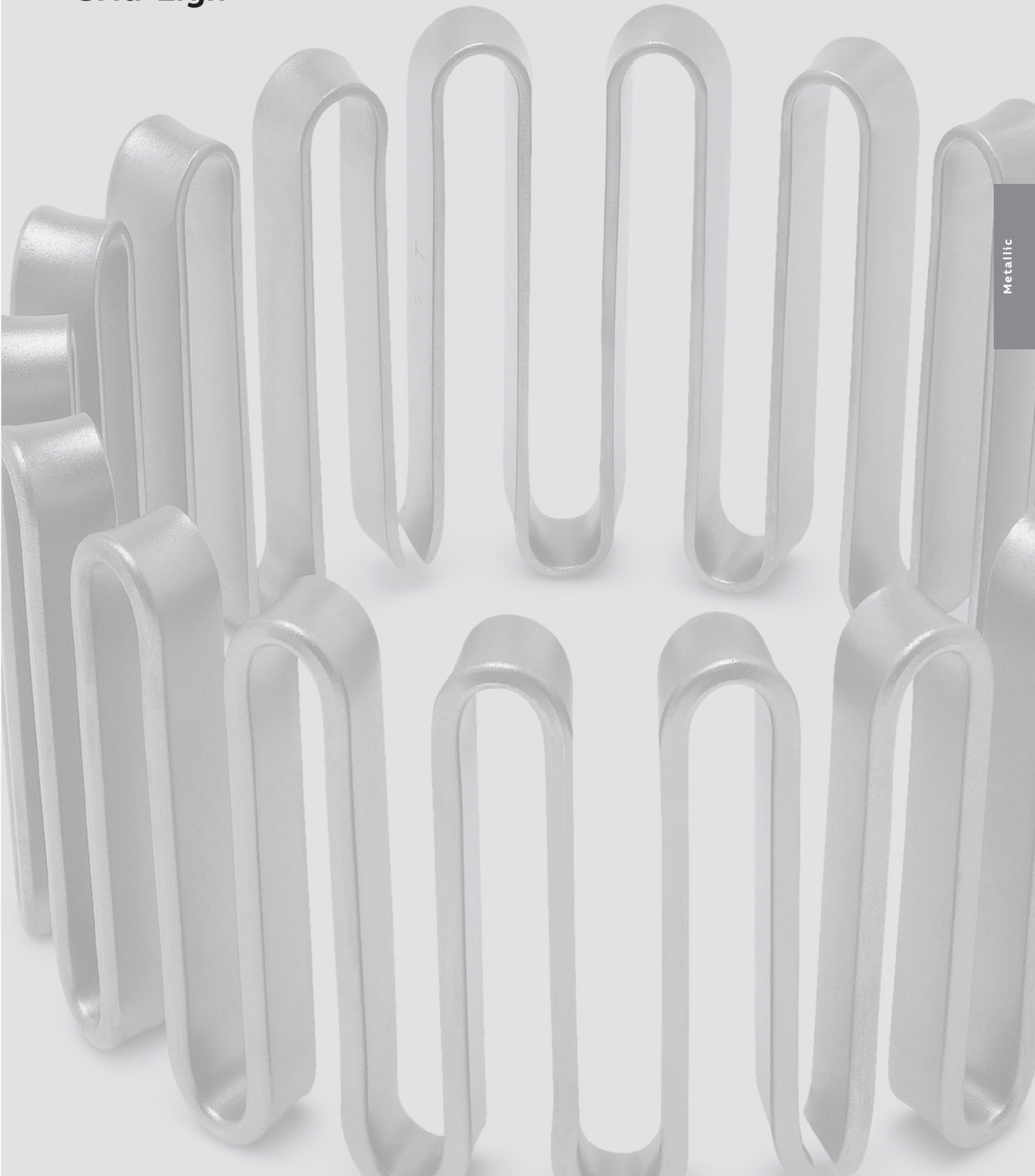
Note: Stainless steel hubs available upon request.





METALLIC

# Grid-Lign



Metallic

## Metallic - Grid-Lign

### Features/benefits

**Compact in size, yet high in torque capability, the Dodge Grid-Lign is a versatile coupling solution.**

Popular for use in both high-speed motor connections and low-speed reducer output connections, the Dodge Grid-Lign is available in both close-coupled and T31 or T35 spacer coupling designs through size 1200T.

#### Features

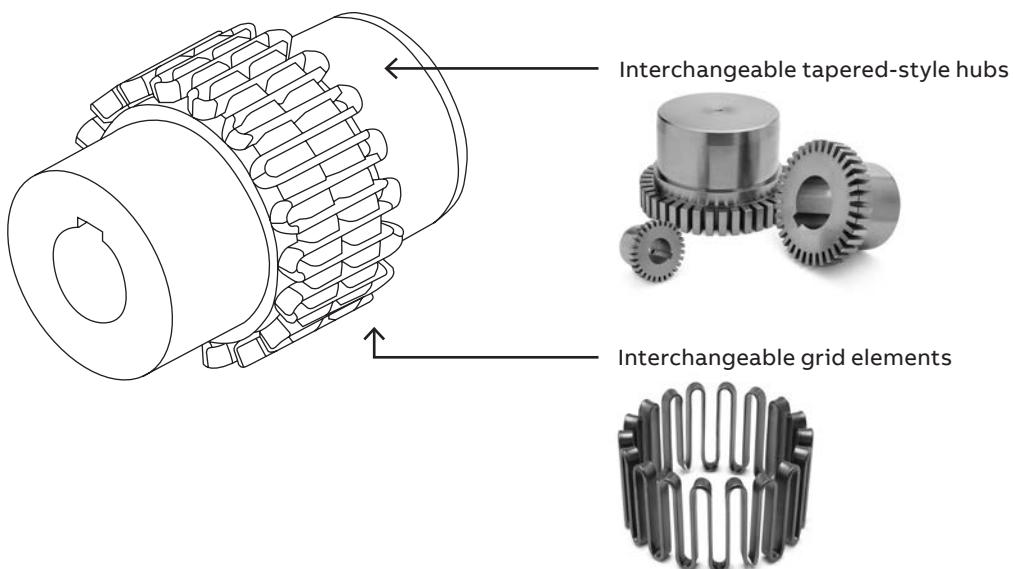
- 24 sizes available: 1020T to 1200T; S150-S480
- Maximum bore: 21.85" (555 mm)
- Maximum torque: 7 million in.-lb. (800 kNm)
- Torque density and large bore capabilities of a metal coupling
- Misalignment and vibration damping capabilities of an elastomeric coupling
- Interchangeable with industry-leading tapered grid couplings
- Coupling grease included for sizes 1020T - 1090T
- Shaft attachment methods available in interference fit, Taper-Lock bushed, clearance fit utilizing two set screws (one over the keyway and a second at 65 degrees for greater holding power)
- Third-party ATEX certified



#### Element & hub interchangeability

Our 1020T to 1200T Grid-Lign coupling components are directly interchangeable on a component level and has been validated through dynamic life testing.

To ensure interchangeability in the harshest applications, the grid couplings were tested at elevated torque and maximum combined angular and parallel misalignment. As a result of testing across the product line, our engineering team stands behind the compatibility of hub and elements component interchangeability.





## Metallic - Grid-Lign

### Specification/how to order/nomenclature

Popular for use in both high-speed motor connections and low-speed reducer output connections, the Dodge Grid-Lign is available in both close-coupled and T31 or T35 spacer coupling designs through size 1200T.

#### Specification

Grid-Lign couplings are tapered grid style with hubs, grids and covers which are interchangeable with other industry standard tapered grid couplings. Grid hubs are machined steel, protected with an anti-rust coating. Hubs have optional methods of attachment to the shaft including but not limited to: clearance fit, interference fit or Taper-Lock bushings. Clearance fits and interference fits are supplied with an industry standard keyway. Clearance fits are supplied with two set screws, one over the key and one at 65°. The grid element is made of high strength spring steel, heat treated and shot peened to enhance strength and durability.

The coupling is designed and manufactured such that the grid member can be replaced without disturbing the connected equipment and without the requirement for realignment. All Grid-Lign couplings are fitted with covers to retain lubrication and prevent the entry of abrasives and contaminants. Covers are of a two piece design to facilitate installation and are available as axial split or radial split. Dodge will provide recommendations for types and amounts of lubricant suitable for operation in ambient temperatures from -22°F to +215°F.

Note: Instruction manuals for all Dodge products available at [www.dodgeindustrial.com](http://www.dodgeindustrial.com).

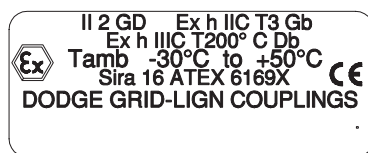
We supply our coupling grease with our grid coupling sizes 1020T-1090T as standard.

#### Maintenance free

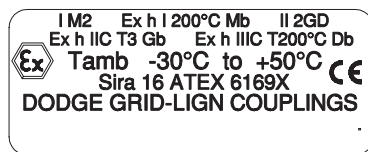
The Dodge coupling grease is specifically suited for our grid and gear metallic style couplings. With over 100 years of experience supplying metallic couplings, we are now able to supply the needed lubricants that will extend the performance and life of these couplings up to five years maintenance free. This grease is capable of withstanding the high centrifugal forces seen during coupling operation.

We supply our grease with our grid couplings sizes 1020T-1090T as standard. All other sizes will be priced aggressively for sale at distribution and will be available in the following quantities:

Dodge coupling grease	Part number
14 oz. cartridge	012995
10 pack of 14 oz.	012996
30 pack of 14 oz.	012997



Sizes T10, T31, and T35



Size T20



**Metallic - Grid-Lign**

Specification/how to order/nomenclature

**How to order:**

Standard couplings consist of:

- (2) Steel shaft hubs
- (1) Grid & cover assembly (T10 or T20)

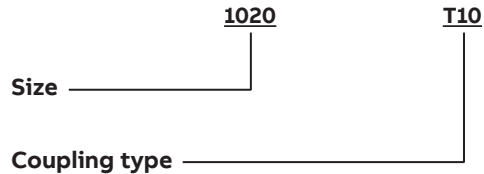
Spacer couplings consist of:

**T31 Spacer**

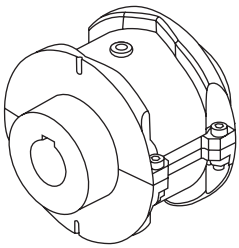
- (2) "T" steel shaft hubs
- (2) Spacer assembly
- (1) T10 grid & cover assembly

**T35 half spacer**

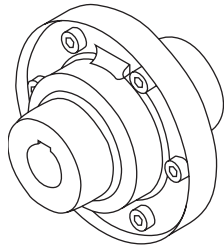
- (1) Steel shaft hub
- (1) Spacer assembly
- (1) "T" steel shaft hub
- (1) T10 grid & cover assembly

**Nomenclature:**

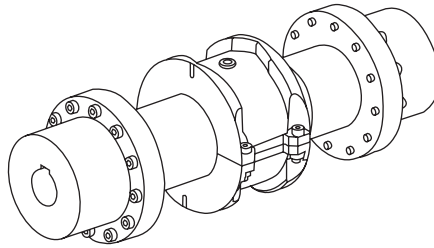
- T10 = Horizontal split cover
- T20 = Vertical split cover
- T31 = Full spacer
- T35 = Half spacer



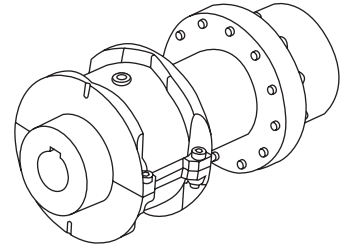
T10



T20



T31

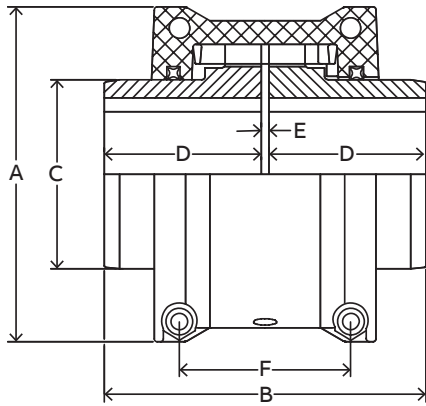


T35

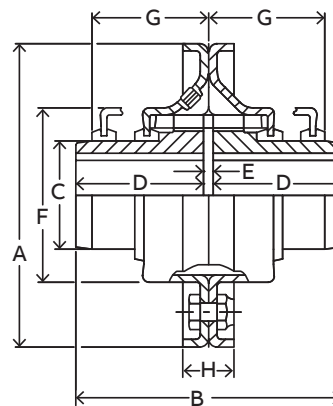
# Metallic - Grid-Lign

## Selection/dimensions

### 1020T - 1140T



Type T10



Type T20

### Specifications

Coupling size	Straight bore			Taper-Lock		Torque		Hp/100		Max. RPM	
	Min. bore	Maximum bore		Min. bore	Max. bore	Str. hub (in.-lbs.)	T-L hub (in.-lbs.)	Straight bore hub	T-L hub	T10	T20
		Sq. key	Rec. key								
1020T	0	1-1/8	1-3/16	N/A	N/A	464	-	0.74	-	4500	6000
1030T	0	1-3/8	1-7/16	1/2	1-1/8	1320	1200	2.09	1.9	4500	6000
1040T	0	1-5/8	1-3/4	1/2	1-1/8	2200	1300	3.49	2.1	4500	6000
1050T	0	1-7/8	2	1/2	1-1/4	3850	3500	6.11	5.6	4500	6000
1060T	0	2-1/8	2-1/4	1/2	1-11/16	6050	4300	9.60	6.8	4350	6000
1070T	0	2-1/2	2-11/16	1/2	2-1/8	8800	7150	13.96	11.3	4125	5500
1080T	0	3	3-1/4	3/4	2-11/16	18150	11300	28.80	17.9	3600	4750
1090T	0	3-1/2	3-3/4	15/16	3-1/4	33000	24000	52.36	38.1	3600	4000
1100T	0	4	4-1/4	15/16	3-1/4	55550	24000	88.14	38.1	2440	3250
1110T	0	4-1/2	4-5/8	1-13/16	3-15/16	82500	44800	130.90	71.1	2250	3000
1120T	0	5	5-3/8	1-7/16	4-7/16	121000	77300	191.99	122.6	2025	2700
1130T	0	6	6-1/2	1-15/16	4-15/16	176000	110000	279.25	174.5	1800	2400
1140T	0	7	7-1/4	2-7/16	5	253000	126000	401.43	199.9	1650	2200

### Dimensions (in.)

Coupling size	A		B		C	D		E	F	H	Weight <sup>(1)</sup> (lbs.)		Inertia <sup>(2)</sup> (lb.-ft. <sup>2</sup> )
	T10	T20	Str. hub	T-L hub		Str. hub	T-L hub				T10	T20	
1020T	3.47	4.38	3.89	N/A	1.56	1.9	N/A	0.1	2.65	0.84	2.8	3.0	0.03
1030T	3.88	4.75	3.89	3.39	1.94	1.9	1.6	0.1	2.71	0.84	3.8	4.0	0.1
1040T	4.22	5.06	4.13	3.36	2.25	2.0	1.6	0.1	2.77	0.78	4.7	4.9	0.1
1050T	5.09	5.81	4.88	3.89	2.63	2.4	1.9	0.1	3.33	1.02	7.3	7.5	0.2
1060T	5.47	6.38	5.13	4.38	3.00	2.5	2.1	0.1	3.59	1.08	11.0	11.0	0.3
1070T	5.92	6.81	6.13	4.38	3.44	3.0	2.1	0.1	3.72	1.08	13.8	14.0	0.4
1080T	6.92	7.88	7.13	5.39	4.13	3.5	2.6	0.1	4.58	1.12	25.1	25.6	1.01
1090T	7.70	9.13	7.88	6.39	4.88	3.9	3.1	0.1	4.83	1.06	35.1	35.6	1.7
1100T	9.88	10.50	9.69	7.19	5.59	4.8	3.5	0.2	6.10	1.38	62.6	63.2	3.7
1110T	10.63	11.25	10.19	7.45	6.31	5.0	3.6	0.2	6.35	1.36	78.5	79.0	5.6
1120T	12.13	12.56	12.00	8.30	7.06	5.9	*	0.3	7.54	1.80	114.0	-	10.8
1130T	13.63	14.88	13.00	9.30	8.56	6.4	*	0.3	7.68	1.92	165.0	-	20.2
1140T	15.13	16.38	14.75	12.80	10.00	7.3	*	0.3	7.92	1.92	236.0	-	36.4

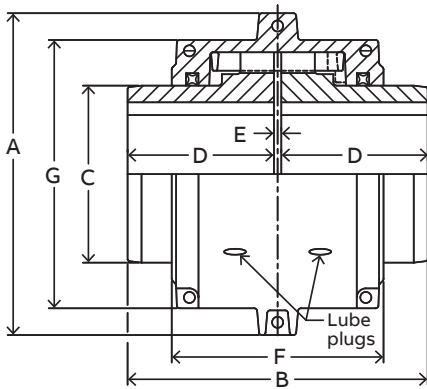
(1) Weight of complete coupling at maximum bore

(2) Inertia of complete coupling at maximum bore

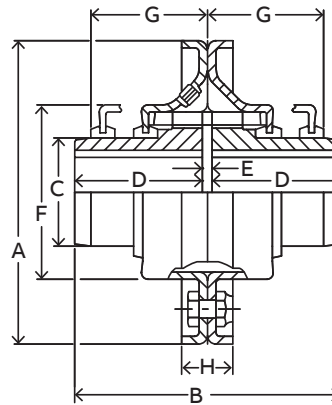
\* Priced on request

**Metallic - Grid-Lign**

Selection/dimensions

**1150T - 1200T**

Type T10



Type T20

Coupling size	Torque		Straight bore		Maximum RPM		Weight <sup>(1)</sup> (lbs.)	Inertia <sup>(2)</sup> (lb.-ft. <sup>2</sup> )
	in.-lbs.	Hp/100	Minimum	Maximum	T10	T20		
1150T	352000	558.5	4.1	8.0	1500	2000	516	1032.3
1160T	495000	785.4	4.6	9.0	1350	1750	699	1682.7
1170T	660000	1047.2	5.1	10.0	1225	1600	988	2937.6
1180T	915000	1451.8	5.8	11.0	1110	1400	1365	5327.9
1190T	1210000	1919.9	5.8	12.0	1050	1300	1711	7950.6
1200T	1650000	2618.0	6.8	13.0	900	1100	2333	13188.0

Coupling size	A		B	C	D	E	F	G	H
	T10	T20							
1150T	17.9	18.8	14.7	10.6	7.2	0.3	10.8	15.5	2.16
1160T	19.8	21.0	15.9	12.0	7.8	0.3	11.0	17.2	2.29
1170T	22.4	23.0	17.3	14.0	8.5	0.3	12.2	19.2	2.29
1180T	24.8	24.8	19.1	15.5	9.4	0.3	12.7	21.9	2.70
1190T	26.4	27.0	20.7	18.3	10.2	0.3	12.8	23.8	2.70
1200T	30.0	29.0	22.3	19.6	11.0	0.3	14.0	26.1	2.70

(1) Weight of complete coupling at minimum bore

(2) Inertia of complete coupling at minimum bore

**Metallic - Grid-Lign**

Selection/dimensions

**Type T10 and T20 Grid-Lign couplings part numbers - sizes 1020T - 1090T**

Size	Clearance fit							
	1020T	1030T	1040T	1050T	1060T	1070T	1080T	1090T
T10 grid/cover	006750	006751	006752	006753	006754	006755	006756	006757
T20 grid/cover	006765	006766	006767	006768	006769	006770	006771	006772
Grid	006275	006276	006277	006278	006279	006280	006281	006282
T10 cover	006250	006251	006252	006253	006254	006255	006256	006257
T20 cover	006260	006261	006262	006263	006264	006265	006266	006267
T-L hubs	N/A	006318	006319	006320	006321	006322	006323	006324
Bushing size	N/A	1108	1108	1215	1615	2012	2525	3030
Reborable	006290	006291	006292	006293	006294	006295	006296	006297
Finished Bore hub								
1/2	006580	-	-	-	-	-	-	-
5/8	006581	006585	-	-	-	-	-	-
3/4	006582	006586	-	-	-	-	-	-
7/8	006583	006587	006592	006576	-	-	-	-
15/16	006571	006572	006950	006953	006957	-	-	-
1	006584	006588	006593	006577	-	-	-	-
1-1/8	006793	006589	006594	006599	006578	-	-	-
1-3/16	-	-	006951	006954	006958	-	-	-
1-1/4	-	006590	006595	006600	006579	006629	-	-
1-3/8	-	006591	006596	006601	006606	006640	-	-
1-7/16	-	-	006952	006955	006643	006961	-	-
1-1/2	-	-	006597	006602	006607	006641	006642	006540
1-5/8	-	-	006598	006603	006608	006612	006539	-
1-11/16	-	-	-	006956	006959	006962	-	-
1-3/4	-	-	-	006604	006609	006613	394483	-
1-7/8	-	-	-	006605	006610	006614	006573	006541
1-15/16	-	-	-	-	006960	006963	-	-
2	-	-	-	-	006794	006615	006620	-
2-1/8	-	-	-	-	006611	006616	006621	006656
2-3/16	-	-	-	-	-	006964	006966	-
2-1/4	-	-	-	-	-	006617	006622	006657
2-3/8	-	-	-	-	-	006618	006623	006804
2-7/16	-	-	-	-	-	006965	006967	-
2-1/2	-	-	-	-	-	006619	006624	006795
2-5/8	-	-	-	-	-	006479	006625	006796
2-11/16	-	-	-	-	-	-	006968	006790
2-3/4	-	-	-	-	-	-	006626	006797
2-7/8	-	-	-	-	-	-	006627	006798
2-15/16	-	-	-	-	-	-	006969	006791
3	-	-	-	-	-	-	006628	006799
3-1/8	-	-	-	-	-	-	-	006800
3-1/4	-	-	-	-	-	-	-	006801
3-3/8	-	-	-	-	-	-	-	006802
3-7/16	-	-	-	-	-	-	-	006792
3-1/2	-	-	-	-	-	-	-	006803
3-5/8	-	-	-	-	-	-	-	-
3-3/4	-	-	-	-	-	-	-	006480

Note: For Taper-Lock design, Taper-Lock bushings must be ordered separately.

Unless otherwise specific, 1020T-1090T hubs are clearance fit per AGMA 9002. See page 120 for additional details.

Complete coupling consists of: (2) hubs, Taper-Lock or straight bore, and (1) grid &amp; cover assembly.

**Metallic - Grid-Lign**

Selection/dimensions

**Type T10 and T20 Grid-Lign couplings part numbers - sizes 1100T - 1200T**

Size											Interference fit	
	1100T	1110T	1120T	1130T	1140T	1150T	1160T	1170T	1180T	1190T	1200T	
T10 grid/cover	006758	006759	006760	006761	006762	007456	007457	007458	007459	007460	007461	
T20 grid/cover	006773	006774	425514	423677	426916	007017	007018	007019	007020	007021	007022	
Grid	006283	006284	007462	007463	007464	007465	007466	007467	007468	007469	007470	
T10 cover	006258	006259	007471	007472	007473	007474	007475	007476	007477	007478	007479	
T20 cover	006268	006269	426672	426673	426674	007011	007012	007013	007014	007015	007016	
T-L hubs	006325	006326	423589	393257	395102	*	*	*	*	*	*	
Bushing size	3030	3535	4040	4545	5050	*	*	*	*	*	*	
Reborable	006298	006299	006300	006301	006245	007450	007451	007452	007453	007454	007455	
Finished bore hubs												
2-1/2	006460	-	-	-	-	-	-	-	-	-	-	
2-5/8	006461	-	-	-	-	-	-	-	-	-	-	
2-11/16	006473	-	-	-	-	-	-	-	-	-	-	
2-3/4	006462	-	-	-	-	-	-	-	-	-	-	
2-7/8	006463	-	-	-	-	-	-	-	-	-	-	
2-15/16	006474	-	-	-	-	-	-	-	-	-	-	
3	006464	006486	-	-	-	-	-	-	-	-	-	
3-1/8	006465	006487	-	-	-	-	-	-	-	-	-	
3-1/4	006466	006488	-	-	-	-	-	-	-	-	-	
3-3/8	006467	006489	-	-	-	-	-	-	-	-	-	
3-7/16	006475	006484	-	-	-	-	-	-	-	-	-	
3-1/2	006468	006490	-	-	-	-	-	-	-	-	-	
3-5/8	006469	006491	-	-	-	-	-	-	-	-	-	
3-3/4	006470	006492	-	-	-	-	-	-	-	-	-	
3-7/8	006471	006493	-	-	-	-	-	-	-	-	-	
3-15/16	006476	006485	-	-	-	-	-	-	-	-	-	
4	006472	006494	-	-	-	-	-	-	-	-	-	

\* Priced on request

Note: For Taper-Lock design, Taper-Lock bushings must be ordered separately.

Unless otherwise specific, replace with - 1100T-1200T hubs are standard interference fit. Clearance fit upon request. See page 119 for additional details.

Complete coupling consists of: (2) hubs, Taper-Lock or straight bore, and (1) grid &amp; cover assembly.

TL Bushings on page 177.

**Grid-Lign coupling hubs**

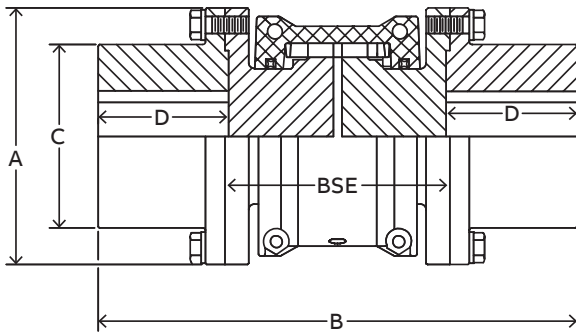
Bore (mm)	Coupling size			
	1020T	1030T	1040T	1050T
14	007579	-	-	-
16	007580	-	-	-
17	007582	-	-	-
18	007583	-	-	-
19	007584	007590	-	-
20	007585	007591	-	-
22	007586	007592	-	-
24	007587	007593	-	-
25	007588	007594	-	-
28	007589	007595	007599	-
30	007674	007596	007600	-
32	-	007597	007601	-
35	-	007598	007602	007606
38	-	007675	007603	007607
40	-	-	007604	007608
42	-	-	007605	007609
45	-	-	-	007610
48	-	-	-	007611
50	-	-	-	007612

Bore (mm)	Coupling size			
	1060T	1070T	1080T	1090T
38	007613	007621	-	-
40	007614	007622	-	-
42	007615	007623	-	-
45	007616	007624	007632	-
48	007617	007625	007633	-
50	007618	007626	007634	-
55	007619	007627	007635	-
56	007620	007628	007636	-
60	-	007629	007637	007644
63	-	007630	007638	007645
65	-	007631	007639	007646
70	-	-	007640	007647
71	-	-	007641	007648
75	-	-	007642	007649
80	-	-	007643	007650
85	-	-	-	007651
90	-	-	-	007652
95	-	-	-	007653

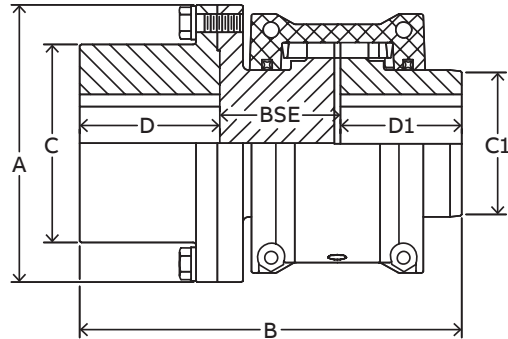
**Metallic - Grid-Lign**

Selection/dimensions

**T31 & T35 spacer, straight bore & Taper-Lock**



Type T31



Type T35

Coupling size	Torque <sup>(5)</sup>		Hp/100 <sup>(5)</sup>		Straight bore		Taper-Lock		Max. RPM	T31 weight*	
	Str. hub (in.-lbs.)	T-L hub (in.-lbs.)	Str. hub	T-L hub	Min. bore	Max bore with std.key	Min. bore	Max. bore		(1)	(2)
1020T	422	422	0.67	0.67	-	1-3/8	1/2	1-1/8	3600	8.1	.54
1030T	12 00	12 00	1.90	1.90	-	1-5/8	1/2	1-1/8	3600	11.1	.83
1040T	2000	2000	3.20	3.20	-	2-1/8	1/2	1-7/16	3600	18.0	1.11
1050T	3500	3500	5.60	5.60	-	2-3/8	1/2	1-11/16	3600	26.6	1.52
1060T	5500	5500	8.70	8.70	-	2-7/8	1/2	2-1/8	3600	42.7	1.98
1070T	8000	8000	13.00	13.00	-	3-1/8	3/4	2-11/16	3600	52.3	2.60
1080T	16,500	11,300	26.00	17.90	-	3-1/2	3/4	2-11/16	3600	84.8	3.70
1090T	30,000	24,000	48.00	38.10	-	4	15/16	3-1/4	3600	130.0	5.20
1100T	50,500	-	80.13	-	-	4-3/4	-	-	2440	-	-
1110T	75,000	-	120.00	-	-	5-1/2	-	-	2250	-	-
1120T	110,000	-	174.53	-	2-3/8	6-1/4	-	-	2025	-	-
1130T	160,000	-	253.87	-	2-5/8	7.000 <sup>(6)</sup>	-	-	1800	-	-
1140T	230,000	-	364.93	-	2-5/8	8.000 <sup>(6)</sup>	-	-	1650	-	-
1150T	320,000	-	507.74	-	4.1	10.000 <sup>(6)</sup>	-	-	1500	-	-
1160T	450,000	-	714.00	-	4.6	11.000 <sup>(6)</sup>	-	-	1350	-	-
1170T	600,000	-	952.00	-	5.1	13.000 <sup>(6)</sup>	-	-	1225	-	-
1180T	832,000	-	1320.11	-	5.8	13.000 <sup>(6)</sup>	-	-	1100	-	-
1190T	1,100,000	-	1745.34	-	5.8	14.250 <sup>(6)</sup>	-	-	1050	-	-
1200T	1,500,000	-	2380.01	-	6.8	15.000 <sup>(6)</sup>	-	-	900	-	-

- (1) Weight of T31 coupling at maximum bore
- (2) Weight adder per inch
- (3) Inertia of T31 coupling at maximum bore
- (4) Inertia adder per inch
- (5) Hp/100 and torque ratings for T-L style shaft hubs apply for "T" shaft hubs. See page 82 for standard T-L style shaft hubs.
- (6) Indicates rectangular key
- (7) T31 weight for sizes 1100T and above will vary depending on BSE
- \* For weight and inertia of T35 use 1/2 of T31 value (this page) and 1/2 T10 value (pages 81-82).

**Metallic - Grid-Lign**

Selection/dimensions

Coupling size	A	C	C1	D	D1	T31 BSE		T35 BSE		T31 inertia (lb.-ft. <sup>2</sup> )	
						Min.	Max.	Min.	Max.	(3)	(4)
1020T	3.38	2.06	1.56	1.38	1.88	3.50	5.00	1.78	2.53	0.07	0.001
1030T	3.69	2.34	1.94	1.63	1.88	3.50	7.25	1.78	3.60	0.11	0.003
1040T	4.44	3.11	2.25	2.13	2.00	3.50	7.25	1.78	3.60	0.21	0.005
1050T	4.94	3.44	2.63	2.38	2.38	4.38	7.25	2.22	3.60	0.51	0.010
1060T	5.69	4.06	3.00	2.88	3.50	5.00	12.25	2.53	6.16	0.88	0.020
1070T	6.00	4.31	3.44	3.13	3.00	5.00	12.25	2.53	6.16	1.23	0.030
1080T	7.00	4.81	4.13	3.50	3.50	7.25	12.25	3.66	6.16	2.49	0.060
1090T	8.25	5.63	4.88	4.00	3.88	7.25	12.25	3.66	6.16	5.01	0.110
1100T	9.875	6.69	5.59	3.56	4.80	8.00	16.00	3.93	7.93		
1110T	10.875	7.69	6.31	4.12	5.00	8.25	16.00	4.80	7.93		
1120T	12.562	8.875	7.06	4.75	5.90	9.69	16.00	5.78	7.65		
1130T	13.625	9.375	8.56	5.25	6.40	10.12	16.00	6.53	7.90		
1140T	15.188	10.50	10.00	6.00	7.30	10.50	16.00	7.40	7.90		
1150T	16.75	13.12	10.60	6.75	7.20	13.50	14.75	6.65	7.28		
1160T	18	14.38	12.00	7.50	7.80	13.50	16.00	6.65	7.90		
1170T	20.75	16.62	14.00	8.75	8.50	15.00	17.50	7.40	8.65		
1180T	23.25	17.75	15.50	10.00	9.40	15.75	19.31	7.78	9.56		
1190T	26	20	18.30	11.00	10.20	16.00	20.88	8.00	10.34		
1200T	28	20.88	19.60	12.12	11.00	17.50	22.50	8.85	11.15		

(1) Weight of T31 coupling at maximum bore

(2) Weight adder per inch

(3) Inertia of T31 coupling at maximum bore

(4) Inertia adder per inch

(5) Hp/100 and torque ratings for T-L style shaft hubs apply for "T" shaft hubs. See page 82 for standard T-L style shaft hubs.

(6) Indicates rectangular key

\* For weight and inertia of T35 use 1/2 of T31 value (this page) and 1/2 T10 value (page 81-82).



**Metallic - Grid-Lign**

Selection/dimensions

**Type T31 and T35 Grid-Lign couplings, spacer straight bore "T" hubs, Taper-Lock "T" hubs, grids and covers - part numbers**

Size	1020T	1030T	1040T	1050T	1060T	1070T	1080T	1090T	1100T	1110T
T10 grid/cover	006750	006751	006752	006753	006754	006755	006756	006757	006758	006759
Grid	006275	006276	006277	006278	006279	006280	006281	006282	006283	006284
T10 cover	006250	006251	006252	006253	006254	006255	006256	006257	006258	006259
T-L hubs	006328	006329	006330	006331	006332	006333	006334	006335	006325	006326
Bushing size	1108	1108	1310	1615	2012	2525	2525	3030	3030	3535
Reborable	006305	006306	006307	006308	006309	006310	006311	006312	001300	001301
5/8	006903	-	-	-	-	-	-	-	-	-
7/8	006904	006907	006399	-	-	-	-	-	-	-
1	006905	006908	006970	006984	-	-	-	-	-	-
1-1/8	006906	006909	006971	006985	-	-	-	-	-	-
1-1/4	006396	006397	006400	006402	006411	-	-	-	-	-
1-3/8	006560	006894	006972	006986	006412	-	-	-	-	-
1-7/16	-	-	-	006456	-	-	-	-	-	-
1-1/2	-	-	-	006481	006413	-	-	-	-	-
1-5/8	-	006398	006973	006987	006414	006417	006433	-	-	-
1-3/4	-	-	006974	006988	006990	006418	-	-	-	-
1-7/8	-	-	006564	006989	006991	006419	006434	006440	-	-
2	-	-	-	006457	006482	-	-	-	-	-
2-1/8	-	-	006401	006565	006992	006429	006435	-	-	-
2-3/8	-	-	-	006566	006567	006430	006458	006451	-	-
2-7/16	-	-	-	-	006415	-	006550	-	-	-
2-5/8	-	-	-	-	006416	-	006436	-	-	-
2-7/8	-	-	-	-	006568	006431	006437	006452	-	-
3	-	-	-	-	-	006432	006438	006453	-	-
3-3/8	-	-	-	-	-	-	006439	006454	-	-
3-7/8	-	-	-	-	-	-	-	006455	-	-

Numerous additional BSE's available from both standard stock and made to order components.

Contact Dodge engineering for additional offerings.

Seals and gaskets are included with the cover assembly.

Grease included with grids sizes 1020T - 1090T.

**Type T31 and T35 Grid-Lign couplings, spacer straight bore "T" hubs, Taper-Lock "T" hubs, grids and covers - part numbers**

Size	1120T	1130T	1140T	1150T	1160T	1170T	1180T	1190T	1200T
T10 grid/cover	006760	006761	006762	007456	007457	007458	007459	007460	007461
Grid	007462	007463	007464	007465	007466	007467	007468	007469	007470
T10 cover	007471	007472	007473	007474	007475	007476	007477	007478	007479
T-L hubs	423589	393257	395102	*	*	*	*	*	*
Bushing size	4040	4545	5050	*	*	*	*	*	*
Reborable	001302	001303	001304	001305	001306	001307	001308	001309	001310

Numerous additional BSE's available from both standard stock and made to order components.

Contact Dodge engineering for additional offerings.

\*Priced on request

Complete spacer couplings consists of:

- T31 spacer - (2) "T" shaft hubs  
 (2) Spacer hubs  
 (1) T10 grid & cover assembly
- T35 half spacer - (1) Shaft hub  
 (1) Spacer hub  
 (1) "T" shaft hub  
 (1) T10 grid & cover assembly

Note: For Taper-Lock designs, Taper-Lock bushings must be ordered separately. Refer to bushing pages 177.

Note: 1020T - 1090T hubs come standard as clearance fit. Interference fit available on request.

**Metallic - Grid-Lign**

Selection/dimensions

**Type T31 - full spacer**

B.S.E. dimensions (in.)	Coupling size															
	1020T		1030T		1040T		1050T		1060T		1070T		1080T		1090T	
	Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly	
	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.
3.5	006497	2	006504	2	006516	2	-	-	-	-	-	-	-	-	-	-
3.94	006497	1	006504	1	006516	1	-	-	-	-	-	-	-	-	-	-
	006498	1	006505	1	006517	1	-	-	-	-	-	-	-	-	-	-
4.25	006497	1	006504	1	006516	1	-	-	-	-	-	-	-	-	-	-
	006499	1	006506	1	006518	1	-	-	-	-	-	-	-	-	-	-
4.38	006498	2	006505	2	006517	2	006533	2	-	-	-	-	-	-	-	-
4.69	006498	1	006505	1	006517	1	006533	1	-	-	-	-	-	-	-	-
	006499	1	006506	1	006518	1	006534	1	-	-	-	-	-	-	-	-
5	006499	2	006506	2	006518	2	006534	2	006544	2	006553	2	-	-	-	-
5.22	-	-	-	-	006516	1	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	006519	1	-	-	-	-	-	-	-	-	-	-
5.38	-	-	006504	1	006516	1	-	-	-	-	-	-	-	-	-	-
	-	-	006507	1	006520	1	-	-	-	-	-	-	-	-	-	-
5.66	-	-	-	-	006517	1	006533	1	-	-	-	-	-	-	-	-
	-	-	-	-	006519	1	006535	1	-	-	-	-	-	-	-	-
5.81	-	-	006505	1	006517	1	006533	1	-	-	-	-	-	-	-	-
	-	-	006507	1	006520	1	006536	1	-	-	-	-	-	-	-	-
5.97	-	-	-	-	006518	1	006534	1	-	-	-	-	-	-	-	-
	-	-	-	-	006519	1	006535	1	-	-	-	-	-	-	-	-
6.12	-	-	006506	1	006518	1	006534	1	006544	1	006553	1	-	-	-	-
	-	-	006507	1	006520	1	006536	1	006545	1	006554	1	-	-	-	-
6.94	-	-	-	-	006519	2	006535	2	-	-	-	-	-	-	-	-
7.09	-	-	-	-	006519	1	006535	1	-	-	-	-	-	-	-	-
	-	-	-	-	006520	1	006536	1	-	-	-	-	-	-	-	-
7.25	-	-	006507	2	006520	2	006536	2	006545	2	006554	2	006561	2	006569	2
8.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.59	-	-	-	-	-	-	-	-	-	-	-	-	006561	1	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	006562	1	-	-
8.62	-	-	-	-	-	-	-	006544	1	006553	1	-	-	-	-	-
	-	-	-	-	-	-	-	006546	1	006555	1	-	-	-	-	-
8.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.75	-	-	-	-	-	-	-	006545	1	006554	1	006561	1	006569	1	-
	-	-	-	-	-	-	-	006546	1	006555	1	006563	1	006570	1	-
9.94	-	-	-	-	-	-	-	-	-	-	-	006562	2	-	-	
11.09	-	-	-	-	-	-	-	-	-	-	-	006562	1	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	006563	1	-	-	-
12.25	-	-	-	-	-	-	-	006546	2	006555	2	006563	2	006570	2	-

**Metallic - Grid-Lign**

Selection/dimensions

**Type T35 - half spacer**

B.S.E. dimensions (in.)	1020T		1030T		1040T		1050T		1060T		1070T		1080T		Coupling size 1090T	
	Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly		Spacer assembly	
	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.	P/N	Qty.
1.78	006497	1	006504	1	006516	1	-	-	-	-	-	-	-	-	-	-
2.22	006498	1	006505	1	006517	1	006533	1	-	-	-	-	-	-	-	-
2.53	006499	1	006506	1	006518	1	006534	1	006544	1	006553	1	-	-	-	-
3.50	-	-	-	-	006519	1	006535	1	-	-	-	-	-	-	-	-
3.66	-	-	006507	1	006520	1	006536	1	006545	1	006554	1	006561	1	006569	1
4.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.00	-	-	-	-	-	-	-	-	-	-	-	-	006562	1	-	-
6.16	-	-	-	-	-	-	-	-	006546	1	006555	1	006563	1	006570	1

Coupling size	T31 BSE		T35 BSE	
	Min	Max	Min	Max
	in	in	in	in
1100T	8	16	3.93	7.93
1110T	8.25	16	4.8	7.93
1120T	9.69	16	5.78	7.65
1130T	10.12	16	6.53	7.9
1140T	10.5	16	7.4	7.9
1150T	13.5	14.75	6.65	7.28
1160T	13.5	16	6.65	7.9
1170T	15	17.5	7.4	8.65
1180T	15.75	19.31	7.78	9.56
1190T	16	20.88	8	10.34
12 00T	17.5	22.5	8.8	11.15

For sizes above 1100T, please refer to the above chart for BSE dimensions (min/max range).  
 Note: Part numbers available upon request or on a made-to-order basis

**T31 - Full spacer**

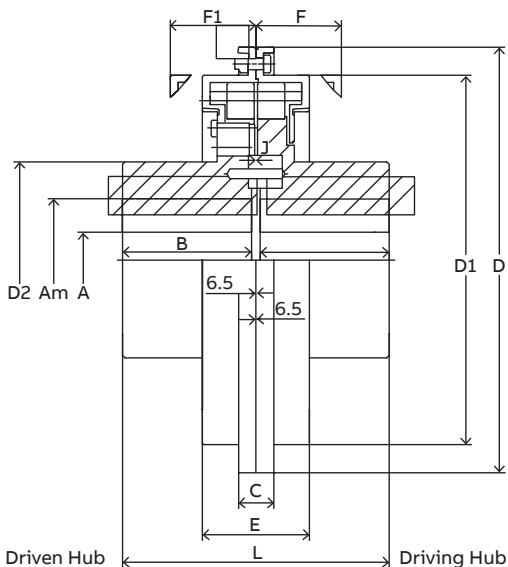


**T35 - Half spacer**



## Metallic - Grid-Lign

Selection/dimensions



F & F1: Clearance for grid spring assembly and removal

### Grid-Lign S-series couplings

Cplg. size	Am <sup>(1)</sup> (max. bore, mm)		kW/100	Torque (N-m)	Max RPM		Dimensions (mm)										
	Standard	Extended <sup>(1)</sup>			Standard	Dynamically balanced	A (rough bore)	B	C	D	D1	D2	E	F	F1	J	L
150	270	315	2,827	270,000	500	950	120	270	76	890	773	410	224	210	215	4 <sup>(2)</sup>	557
220	300	410	4,188	400,000	400	800	165	300	80	1,015	910	450	220	210	215	5 <sup>(3)</sup>	618
300	340	505	5,654	540,000	370	700	180	340	92	1,180	1,050	550	224	210	215	5 <sup>(3)</sup>	698
380	370	525	7,329	700,000	320	600	180	370	92	1,320	1,195	600	224	210	215	5 <sup>(3)</sup>	758
480	390	555	8,377	800,000	320	600	180	400	92	1,360	1,220	620	265	250	255	6 <sup>(3)</sup>	819

(1) Extended max bores must be specified at time of order entry. (2) +2 / -2 tolerance (3) +2 / -3 tolerance

Cplg. size	2 withdrawal holes diameter	Mass (Kg) with rough bore	Mass of grease (Kg)
150	360 / M24	990	12
220	380 / M24	1,260	22
300	450 / M30	1,860	27
380	500 / M30	2,390	30
480	-	2,830	45

Complete Grid-Lign S-series coupling consists of: one grid, one cover and two hubs

### Grid-Lign S-series couplings hubs

Bore (mm)	Coupling size				
	150	220	300	380	480

Part numbers available upon request or on a made-to-order basis

### Grid-Lign S-series coupling grid and cover

Coupling size	Grid	Cover
150		
220		
300	Part numbers available upon request or on a made-to-order basis	
380		
480		

**Metallic - Grid-Lign**

Selection/dimensions

**Modification/accessories****Grid-Lign replacement grids, covers, and seals - part numbers**

Coupling size	Grid	T10 cover assembly	T10 seal kit	T10 hardware kit	T20 cover assembly	T20 seal kit	T20 hardware kit
1020T	006275	006250	006805	395251	006260	006815	006721
1030T	006276	006251	006806	395251	006261	006816	006722
1040T	006277	006252	006807	395251	006262	006817	006722
1050T	006278	006253	006808	395252	006263	006818	006723
1060T	006279	006254	006809	395252	006264	006819	006723
1070T	006280	006255	006810	395252	006265	006820	006723
1080T	006281	006256	006811	395253	006266	006821	006724
1090T	006282	006257	006812	395253	006267	006822	006724
1100T	006283	006258	006813	395254	006268	006823	006725
1110T	006284	006259	006814	395254	006269	006824	006725
1120T	007462	007471	007520	395255	426672	007529	-
1130T	007463	007472	007521	395255	426673	007530	-
1140T	007464	007473	007522	395255	426674	007531	-
1150T	007465	007474	007523	395256	007011	007532	-
1160T	007466	007475	007524	395256	007012	007533	-
1170T	007467	007476	007525	395257	007013	007534	-
1180T	007468	007477	007526	395257	007014	007535	-
1190T	007469	007478	007527	395257	007015	007536	-
1200T	007470	007479	007528	395258	007016	007537	-

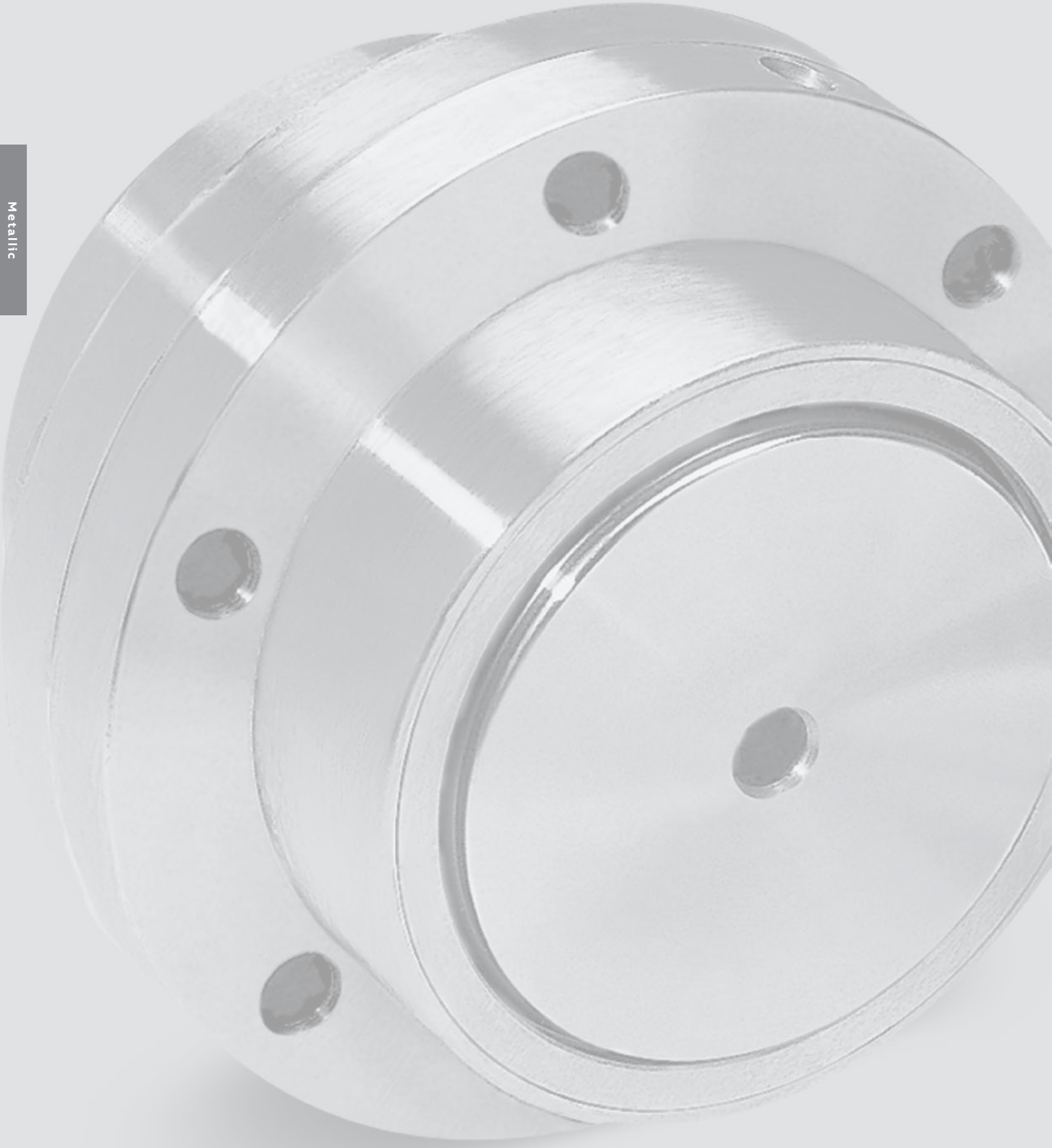
Seal kit includes (2 seals, 2 gaskets)

Hardware kit includes cap screws, lock nuts, and pipe plugs.

Dodge coupling grease	Part number
14 oz. cartridge	012995
10 pack of 14 oz.	012996
30 pack of 14 oz.	012997

—  
METALLIC

# DGF gear



Metalllic

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## Metallic - DGF gear

### Features/benefits

#### The power-dense, high-torque gear coupling

The Dodge gear coupling (DGF) offers unmatched performance and proven reliability

#### Quality manufacturing

- High-quality steel
- Larger tooth profile provides additional service factor
- Good inherent balance
- Proven O-ring seal design
- Machined flanges and gasket for improved sealing
- High-grade fasteners

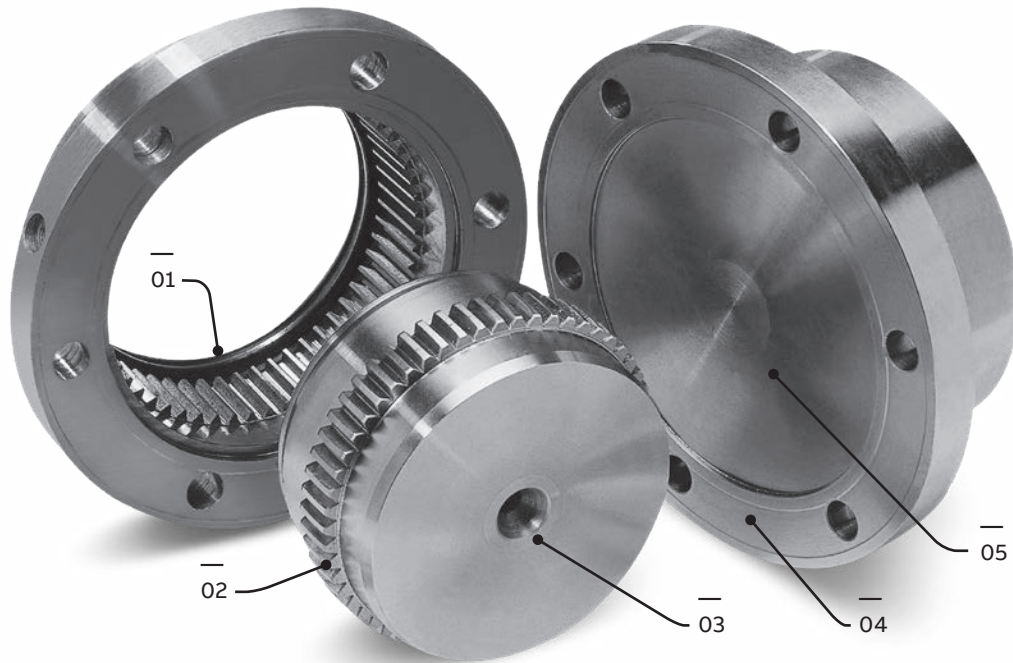
#### Performance benefits

- High torque rating allows for coupling downsizing
- Versatile design permits interchangeability with coupling halves designed to AGMA standards
- Minimal backlash (well suited for reversing applications)
- Crowned tooth profile for longer life and improved performance
- Expanded bore capacity
- ATEX certified



**Metallic - DGF gear**

Features/benefits



— 01 Reliable O-ring design effectively seals against contaminants

— 02 Engineered pressure angle provides large tooth base; results in high safety factor

— 03 Flexible hub styles available for added misalignment capabilities

— 04 Rigid hub styles available for added bore capacity

— 05 High-quality carbon steel ensures longer service life

**O-ring and gasket part numbers**

Part number	Description
660591	DGF 1.0 O-Ring
660592	DGF 1.5 O-Ring
660593	DGF 2.0 O-Ring
660594	DGF 2.5 O-Ring
660595	DGF 3.0 O-Ring
660596	DGF 3.5 O-Ring
660597	DGF 4.0 O-Ring
660598	DGF 4.5 O-Ring
660599	DGF 5.0 O-Ring
660600	DGF 5.5 O-Ring
660601	DGF 6.0 O-Ring
660602	DGF 7.0 O-Ring
660635	DGF 1.0 GASKET
660636	DGF 1.5 GASKET
660637	DGF 2.0 EB GASKET
660638	DGF 2.0 SB GASKET

Part number	Description
660639	DGF 2.5 EB GASKET
660640	DGF 2.5 SB GASKET
660641	DGF 3.0 EB GASKET
660642	DGF 3.0 SB GASKET
660643	DGF 3.5 EB GASKET
660644	DGF 3.5 SB GASKET
660645	DGF 4.0 EB GASKET
660646	DGF 4.0 SB GASKET
660647	DGF 4.5 EB GASKET
660648	DGF 4.5 SB GASKET
660649	DGF 5.0 EB GASKET
660650	DGF 5.0 SB GASKET
660651	DGF 5.5 EB GASKET
660652	DGF 5.5 SB GASKET
660653	DGF 6.0 GASKET
660654	DGF 7.0 GASKET



## Metallic - DGF gear

### Specification/how to order/nomenclature

#### Specification

Dodge gear couplings are power dense and capable of transmitting high torque at high speeds while still remaining inherently well balanced. Gear couplings transmit torque by the mating of two hubs with external gear teeth that are joined by flanged sleeves with internal gear teeth.

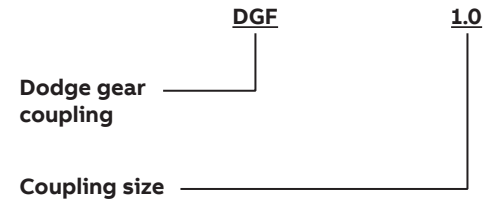
Gear couplings will be provided with interference fit bores unless otherwise specified. The hubs and sleeves will be manufactured of high quality forged steel for longer life, and features a high torque rating for efficient downsizing. A modular system design is half-for-half interchangeable with competitive AGMA gear couplings.

#### How to order:

#### Configuration options:

- **Flex-flex:** (2) Flex hubs; (2) Flex sleeves; (1) Hardware kit.
- **Flex-rigid:** (1) Flex hub; (1) Flex sleeve; (1) Rigid hub; (1) Hardware kit
- **Rigid-rigid:** (2) Rigid hubs; (1) Hardware kit

#### Nomenclature:



#### Competitor interchange

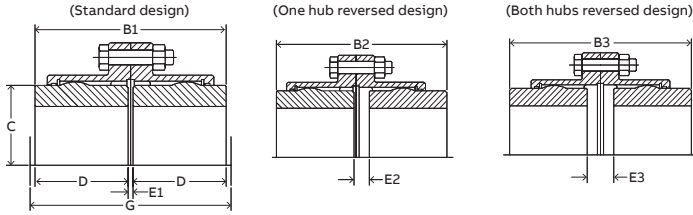
Dodge DGF	Falk Lifelign*	Kop-Flex Koppers series H	Amerigear Zurn F series	Lovejoy
1.0	1010G	1	201	1
1.5	1015G	1-1/2	201-1/2	1.5
2.0	1020G	2	202	2
2.5	1025G	2-1/2	202-1/2	2.5
3.0	1030G	3	203	3
3.5	1035G	3-1/2	203-1/2	3.5
4.0	1040G	4	204	4
4.5	1045G	4-1/2	204-1/2	4.5
5.0	1050G	5	205	5
5.5	1055G	5-1/2	205-1/2	5.5
6.0	1060G	6	206	6
7.0	1070G	7	207	7

\* G20 - Flex-flex  
G52 - Flex-rigid  
G82 - Rigid-rigid

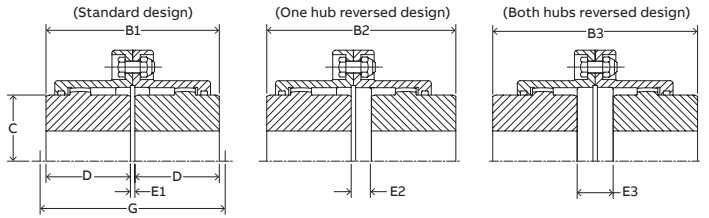
# Metallic - DGF gear

## Selection/dimensions

### Exposed bolt design



### Shrouded bolt design



Size	Min. bore (in.)	Max. bore (in.) standard keyway		Max. bore (in.) shallow keyway		Hp/100+ RPM	Torque+ (lb.-in.)	Max. RPM*	Max. parallel offset (in.)**	Approx. weight (lbs.)***
		Flex hub	Rigid hub	Flex hub	Rigid hub					
1	0.438	1.625	2.188	1.750	2.313	12	75 00	6000	0.055	9
1.5	0.690	2.125	2.813	2.250	3.063	30	18 900	5500	0.060	19
2	0.940	2.750	3.500	3.000	3.750	50	31 500	5000	0.085	34
2.5	1.440	3.250	4.250	3.375	4.500	90	56 700	4400	0.105	55
3	1.440	4.000	4.875	4.250	5.250	150	94 500	4000	0.115	86
3.5	1.810	4.625	5.625	4.875	6.125	240	151 300	3500	0.130	135
4	2.440	5.375	6.500	5.625	6.875	350	22 0600	3000	0.150	195
4.5	3.000	6.000	7.375	6.438	8.000	480	30 2500	2700	0.175	268
5	3.000	6.500	8.375	7.000	8.875	690	43 4900	2500	0.200	394
5.5	4.000	7.500	9.250	7.875	9.875	910	57 3500	2200	0.220	526
6	4.000	8.250	10.125	8.750	11.000	1190	75 0000	2100	0.120	687
7	5.000	9.500	11.250	9.750	12.250	1600	100 8400	2000	0.135	1017

+ Ratings are based on standard interference fit.

\* For higher RPM applications, contact Dodge customer order engineering at (864) 284-5700..

\*\* Based on 1-1/2 degrees angular misalignment per gear mesh for sizes 1 through 5-1/2, 3/4 degree angular misalignment per gear mesh for sizes 6 and 7, and maximum bore Flex-Rigid configurations do not accept parallel misalignment.

\*\*\* Approximate weight with minimum bore.

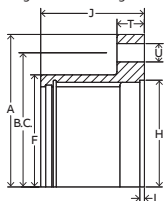
Size	Dimension (in.)								
	B1	B2	B3	C	D	E1	E2	E3	G
1	3-1/2	3-13/16	4-1/8	2-5/16	1-11/16	1/8	7/16	3/4	4-3/16
1.5	4	4-1/4	4-1/2	3	1-15/16	1/8	3/8	5/8	4-3/4
2	5	5-13/16	6-3/8	4	2-7/16	1/8	13/16	1-1/2	6
2.5	6-1/4	7-1/32	7-13/16	4-5/8	3-1/32	3/16	31/32	1-3/4	7-1/8
3	7-3/8	8-1/32	8-11/16	5-5/8	3-19/32	3/16	27/32	1-1/2	8-1/8
3.5	8-5/8	9-3/16	9-3/4	6-1/2	4-3/16	1/4	13/16	1-3/8	9-3/8
4	9-3/4	10-7/16	11-1/8	7-1/2	4-3/4	1/4	15/16	1-5/8	10-1/4
4.5	10-15/16	12	13-1/16	8-1/2	5-5/16	5/16	1-3/8	2-7/16	11-1/2
5	12-3/8	13-23/32	15-1/16	9-1/2	6-1/32	5/16	1-21/32	3	13
5.5	14-1/8	15-5/8	17-1/8	10-1/2	6-29/32	5/16	1-13/16	3-5/16	14-3/8
6	15-1/8	16-17/32	17-15/16	11-1/2	7-13/32	5/16	1-23/32	3-1/8	17
7	17-3/4	19-1/16	20-3/8	13	8-11/16	3/8	1-11/16	3	20

\* Minimum space required to install and align coupling.

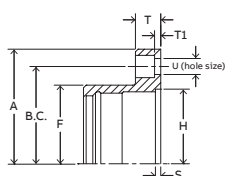
**Metallic - DGF gear**  
Selection/dimensions

**Exposed bolt design**

(Flanged sleeve and rigid hub details)



**Shrouded bolt design**



Size	Outside	Flange	Flange thickness		Hub	Undercut	Undercut	Hole	Bolt	Number of bolts
	Diameter A	Width J	T	T1	Diameter F	Depth I	Diameter H	Diameter U	Circle B.C.	
<b>Dimensions (in.)</b>										
1 EB	4-9/16	1-21/32	9/16	-	3	3/32	2-7/8	1/4	3-3/4	6
1 SB	4-9/16	1-21/32	9/16	1/2	3	3/32	2-7/8	1/4	3-3/4	6
1.5 EB	6	1-7/8	3/4	-	3-7/8	3/32	3-11/16	3/8	4-13/16	8
1.5 SB	6	1-7/8	3/4	1/2	3-7/8	3/32	3-11/16	3/8	4-13/16	8
2 EB	7	2-3/8	3/4	-	4-13/16	3/32	4-5/8	1/2	5-7/8	6
2 SB	7	2-3/8	3/4	1/2	4-13/16	3/32	4-5/8	3/8	5-13/16	10
2.5 EB	8-3/8	2-7/8	15/16	-	5-13/16	3/32	5-7/16	5/8	7-1/8	6
2.5 SB	8-3/8	2-7/8	15/16	5/16	5-13/16	3/32	5-7/16	1/2	7	10
3 EB	9-7/16	3-5/16	15/16	-	6-13/16	3/32	6-7/16	5/8	8-1/8	8
3 SB	9-7/16	3-5/16	15/16	5/16	6-13/16	3/32	6-7/16	1/2	8	12
3.5 EB	11	3-13/16	1-1/8	-	7-27/32	3/32	7-3/8	3/4	9-1/2	8
3.5 SB	11	3-13/16	1-1/8	3/8	7-27/32	3/32	7-3/8	5/8	9-9/32	12
4 EB	12-1/2	4-1/4	1-1/8	-	9-3/16	3/16	8-3/4	3/4	11	8
4 SB	12-1/2	4-1/4	1-1/8	3/8	9-3/16	3/16	8-3/4	5/8	10-5/8	14
4.5 EB	13-5/8	4-13/16	1-1/8	-	10-5/16	3/16	9-3/4	3/4	12	10
4.5 SB	13-5/8	4-13/16	1-1/8	3/8	10-5/16	3/16	9-3/4	5/8	11-3/4	14
5 EB	15-5/16	5-1/2	1-1/2	-	11-7/16	3/16	10-3/4	7/8	13-1/2	8
5 SB	15-5/16	5-1/2	1-1/2	9/16	11-7/16	3/16	10-3/4	3/4	13-3/16	14
5.5 EB	16-3/4	6	1-1/2	-	12-3/4	3/16	12-1/8	7/8	14-1/2	14
5.5 SB	16-3/4	6	1-1/2	9/16	12-3/4	3/16	12-1/8	3/4	14-7/16	16
6 EB*	18	6-11/16	1	-	14	3/16	13-3/8	7/8	15-3/4	14
7 EB*	20-3/4	7-3/8	1-1/8	-	15-3/4	1/4	14-5/8	1	18-1/4	16

EB = Exposed Bolt pattern  
SB = Shrouded Bolt pattern

Part number	Description	Part number	Description	Part number	Description
<b>Size 1.0</b>		<b>Size 3.0</b>		<b>Size 5.0</b>	
013110	DGF 1.0 flex hub	013126	DGF 3.0 flex hub	013142	DGF 5.0 flex hub
013111	DGF 1.0 sleeve EB	013127	DGF 3.0 sleeve EB	013143	DGC 5.0 sleeve EB
012975	DGF 1.0 sleeve SB	012979	DGF 3.0 sleeve SB	012983	DGF 5.0 sleeve SB
013112	DGF 1.0 rigid hub EB	013128	DGF 3.0 rigid hub EB	013144	DGF 5.0 rigid hub EB
013113	DGF 1.0 EB hardware kit	013129	DGF 3.0 EB hardware kit	013145	DGF 5.0 EB hardware kit
394171	DGF 1.0 SB hardware kit	394175	DGF 3.0 SB hardware kit	394179	DGF 5.0 SB hardware kit
<b>Size 1.5</b>		<b>Size 3.5</b>		<b>Size 5.5</b>	
013114	DGF 1.5 flex hub	013130	DGF 3.5 flex hub	013146	DGF 5.5 flex hub
013115	DGF 1.5 sleeve EB	013131	DGF 3.5 sleeve EB	013147	DGF 5.5 sleeve EB
012976	DGF 1.5 sleeve SB	012980	DGF 3.5 sleeve SB	012984	DGF 5.5 sleeve SB
013116	DGF 1.5 rigid hub EB	013132	DGF 3.5 rigid hub EB	013148	DGF 5.5 rigid hub EB
013117	DGF 1.5 EB hardware kit	013133	DGF 3.5 EB hardware kit	013149	DGF 5.5 EB hardware kit
394172	DGF 1.5 SB hardware kit	394176	DGF 3.5 SB hardware kit	394180	DGF 5.5 SB hardware kit
<b>Size 2.0</b>		<b>Size 4.0</b>		<b>Size 6.0</b>	
013118	DGF 2.0 flex hub	013134	DGF 4.0 flex hub	013150	DGF 6.0 Flex hub
013119	DGF 2.0 sleeve EB	013135	DGF 4.0 sleeve EB	013151	DGF 6.0 sleeve EB
012977	DGF 2.0 sleeve SB	012981	DGF 4.0 sleeve SB	013152	DGF 6.0 rigid hub EB
013120	DGF 2.0 rigid hub EB	013136	DGF 4.0 rigid hub EB	013153	DGF 6.0 hardware kit
013121	DGF 2.0 EB hardware kit	013137	DGF 4.0 EB hardware kit	-	-
394173	DGF 2.0 SB hardware kit	394177	DGF 4.0 SB hardware kit	-	-
<b>Size 2.5</b>		<b>Size 4.5</b>		<b>Size 7.0</b>	
013122	DGF 2.5 flex hub	013138	DGF 4.5 flex hub	013154	DGF 7.0 flex hub
013123	DGF 2.5 sleeve EB	013139	DGF 4.5 sleeve EB	013155	DGF 7.0 sleeve EB
012978	DGF 2.5 sleeve SB	012982	DGF 4.5 sleeve SB	013156	DGF 7.0 rigid hub EB
013124	DGF 2.5 rigid hub EB	013140	DGF 4.5 rigid hub EB	013157	DGF 7.0 hardware kit
013125	DGF 2.5 EB hardware kit	013141	DGF 4.5 EB hardware kit	-	-
394174	DGF 2.5 SB hardware kit	394178	DGF 4.5 SB hardware kit	-	-

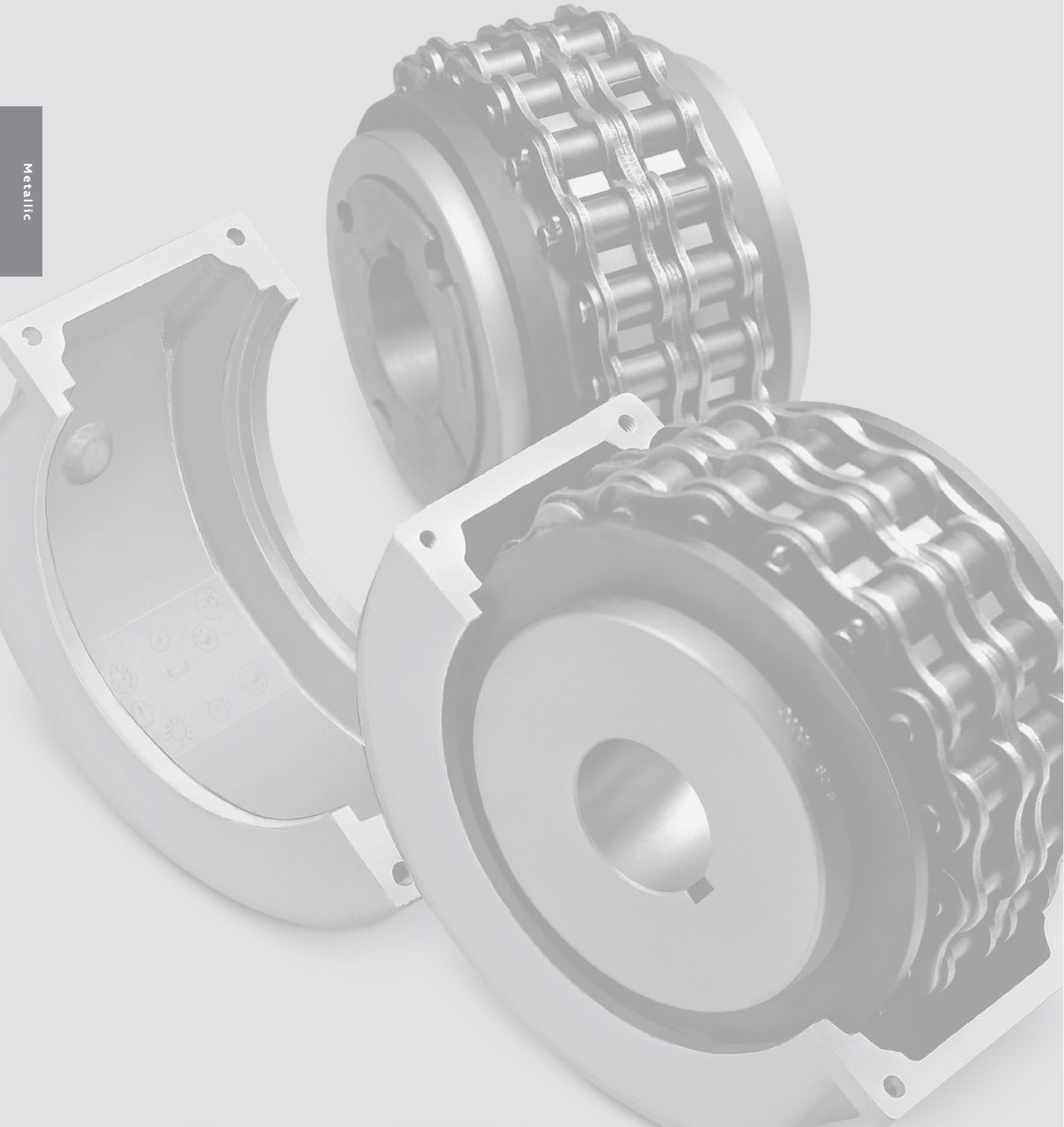
Ordering information: Standard gear couplings may be orders in 3 different assemblies -

- (1) **Flex-flex** (or full flex): To order a complete flex-flex coupling you need - (2) flex hubs [reborable], (2) sleeves [includes seal], and (1) hardware kit.
- (2) **Flex-rigid**: To order a complete flex-rigid coupling you need - (1) flex hub [reborable], (1) sleeve (includes seal), (1) rigid hub [reborable], and (1) hardware kit.
- (3) **Rigid-rigid**: To order a complete rigid-rigid coupling you need - (2) rigid hubs [reborable], and (1) hardware kit.

Note: Hardware kit includes bolts and gasket.

METALLIC  
**Chain**

Metalllic



## Metallic - Chain

### Features/benefits

Dodge chain couplings offer a simple, widely accepted and inexpensive way to couple two shafts. They are interchangeable with industry standard dimensions. Dodge chain couplings can be provided with Taper-Lock bushed hubs, finished bore or reborable flanges. Chain coupling covers and chain assemblies are also available from stock.

#### Low operating cost

- Long service life
- Inexpensive initial investment
- Economical replacement costs

#### Broad product line

- Six popular Taper-Lock coupling sizes
- Eleven popular straight bore sizes
- Stocked covers available for higher speeds

#### Shaft attachment flexibility

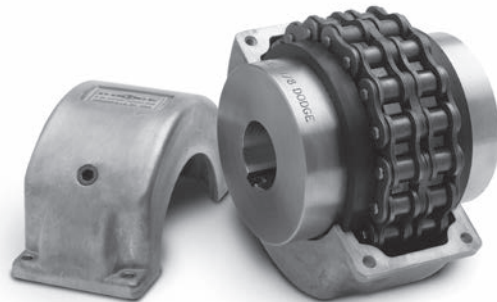
- Taper-Lock bushings
- Clearance fit with setscrews
- Interference fit

#### High torque capability

- Hardened tooth sprockets
- ANSI standard double width roller chain

#### Compact design

- All metallic components
- Excellent torque to bore compatibility



## Metallic - Chain

### Specification/how to order/nomenclature

#### Specification

Chain couplings transmit torque through two hubs with hardened sprocket teeth and a double width roller chain. The chain is wrapped around the sprocket and connected with a link or pin for easy installation or removal. The chain coupling allows for misalignment through the clearances between chain and sprocket teeth. The coupling allows 2° angular misalignment, .015" parallel misalignment and up to .300" shaft end float. The temperature range is -30°F to +225°F.

The coupling hubs have optional methods of attachment to the shaft including but not limited to: clearance fit, interference fit or Taper-Lock bushings. Clearance fits and interference fits are supplied with an industry standard keyway. Clearance fits are supplied with one set screw over the keyway.

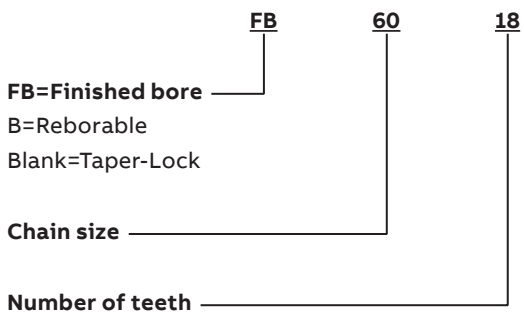
Aluminum covers with elastomeric seals contain lubricant and protect the chain and teeth in an abrasive or corrosive atmosphere.

#### How to order

Standard couplings consist of:

- (2) Flanges
- (1) Chain assembly
- (1) Cover (check RPM requirements on page 103)

#### Nomenclature:



## Metallic - Chain

### Selection/dimensions

#### Easy selection

Coupling size	Max. bore			Max. RPM		*Hp ratings at various RPM 1.0 service factor									
	Taper-Lock	Finished bore	Reborable	Without covers	With covers	10	20	40	60	80	100	150	200	250	300
4012	-	3/4	7/8	875	5000	0.22	0.43	0.86	1.29	1.72	2.15	2.83	3.43	4.03	4.57
4016	1-1/8	1-1/8	1-5/16	875	5000	0.38	0.77	1.53	2.30	3.06	3.83	5.02	6.06	7.14	8.08
5012	-	1-1/8	1-1/8	875	-	40	0.81	1.61	2.42	3.23	4.03	5.30	6.39	7.57	8.57
5016	-	1-5/8	1-11/16	800	4000	0.73	1.46	2.93	4.39	5.86	7.32	9.60	11.7	13.7	15.5
5018	1-11/16	-	2	800	4000	0.95	1.89	3.79	5.68	7.57	9.47	12.4	15.0	17.7	20.0
6018	-	2-7/16	2-7/16	675	3000	1.73	3.46	6.92	10.4	13.8	17.3	22.9	27.6	32.5	36.8
6020	2-1/8	-	2-3/4	675	3000	2.25	4.50	9.01	13.5	18.0	22.5	29.6	35.6	42.0	47.6
8018	-	2-7/8	3-1/8	500	2000	3.86	7.72	15.4	23.2	30.9	38.6	50.8	61.4	72.3	81.5
8020	3-1/4	-	3-9/16	500	2000	5.03	10.1	20.1	30.2	40.3	50.3	66.1	79.7	94.0	106.0
10 020	3-15/16	-	4-5/8	450	1800	8.68	17.4	34.7	52.1	69.4	86.8	115.0	139.0	162.0	184.0
12018	-	-	4-11/16	400	-	13.7	27.3	54.6	82.0	109.0	137.0	178.0	217.0	253.0	288.0
12020	4-7/16	-	-	400	1600	16.8	33.6	67.2	101.0	134.0	168.0	218.0	264.0	308.0	350.0

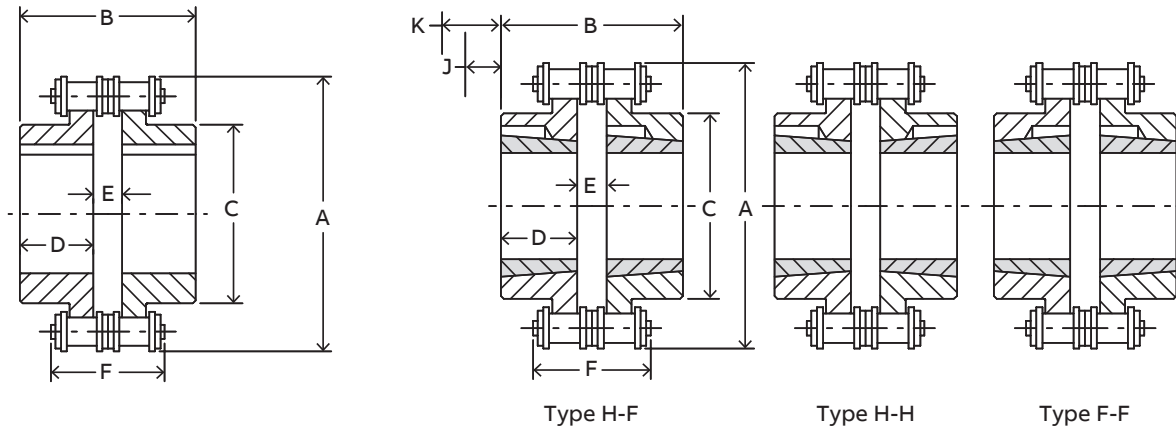
\* Taper-Lock bushings are not recommended below 250 RPM

Coupling size	Max. bore			Max. RPM		Hp ratings at various RPM 1.0 service factor									
	Taper-Lock	Finished bore	Reborable	Without covers	With covers	350	400	500	600	800	1000	1200	1400	1600	1800
4012	-	3/4	7/8	875	5000	5.10	5.57	6.55	7.56	9.42	11.3	13.1	14.9	16.6	18.2
4016	1-1/8	1-1/8	1-5/16	875	5000	9.04	9.89	11.6	13.4	16.7	20.1	23.0	26.3	29.3	32.7
5012	-	1-1/8	1-1/8	875	-	9.41	10.42	12.2	14.1	17.5	21.0	-	-	-	-
5016	-	1-5/8	1-11/16	800	4000	17.3	18.9	22.3	25.7	32.0	38.3	44.5	50.4	56.2	61.9
5018	1-11/16	-	2	800	4000	22.4	24.5	28.8	33.1	41.4	49.7	56.8	65.1	72.6	80.9
6018	-	2-7/16	2-7/16	675	3000	41.2	44.9	53.0	60.9	75.9	90.7	105.0	120.0	134.0	147.0
6020	2-1/8	-	2-3/4	675	3000	53.2	58.2	68.5	78.8	98.5	118.0	135.0	155.0	173.0	192.0
8018	-	2-7/8	3-1/8	500	2000	91.5	99.8	118.0	135.0	169.0	202.0	234.0	266.0	297.0	326.0
8020	3-1/4	-	3-9/16	500	2000	119.0	130.0	153.0	176.0	220.0	264.0	302.0	346.0	386.0	430.0
10 020	3-15/16	-	4-5/8	450	1800	205.0	225.0	265.0	305.0	380.0	454.0	527.0	598.0	667.0	734.0
12018	-	-	4-11/16	400	-	322.0	355.0	-	-	-	-	-	-	-	-
12020	4-7/16	-	-	400	1600	391.0	432.0	510.0	585.0	708.0	877.0	1003.0	1135.0	1273.0	-

## Metallic - Chain

Selection/dimensions

### Straight bore and Taper-Lock - flanges dimensions, ratings



Straight bore chain coupling

Taper-Lock chain coupling

#### Ratings

Coupling size	Straight bore		Taper-Lock		Max. RPM		Weight <sup>(1)</sup> (lbs.)	
	Min.	Max.	Min.	Max.	Without cover	With cover	Str.	T-L
4012	1/2	7/8	-	-	875	5000	2.20	-
4016	5/8	1-5/16	1/2	1-1/8	875	5000	3.80	2.70
5012	5/8	1-1/8	-	-	875	-	3.10	-
5016	5/8	1-11/16	-	-	800	4000	5.00	-
5018	3/4	2	1/2	1-11/16	800	4000	6.00	6.00
6018	1	2-7/16	-	-	675	3000	9.90	-
6020	1-1/8	2-3/4	1/2	2-1/8	675	3000	12.25	12.70
8018	1-1/8	3-1/8	-	-	500	2000	31.10	-
8020	1-1/2	3-9/16	7/8	3-1/4	500	2000	33.50	31.10
10 020	1-1/2	4-5/8	1-3/16	3-15/16	450	1800	80.00	77.90
12018	2	4-11/16	-	-	400	-	110.00	-
12020	-	-	1-7/16	4-7/16	400	1600	-	135.00

#### Dimensions (in.)

Coupling size	A		B		C		D		E		K <sup>(2)</sup>	J <sup>(3)</sup>
	Str.	T-L	Str.	T-L	Str.	T-L	Str.	T-L				
4012	2.41	2.53	-	1.41	1.13	-	0.28	-	-	-	-	-
4016	3.03	2.53	2.04	1.97	1.13	0.88	0.28	0.28	0.75	0.63	-	-
5012	3.00	2.88	-	1.75	1.25	-	0.38	-	-	-	-	-
5016	3.91	3.25	-	2.50	1.44	-	0.38	-	-	-	-	-
5018	4.19	3.75	2.38	2.97	1.69	1.00	0.38	0.38	1.06	0.81	-	-
6018	5.00	4.23	-	3.50	1.88	-	0.47	-	-	-	-	-
6020	5.50	4.47	2.94	3.88	2.00	1.25	0.47	0.47	1.38	0.94	-	-
8018	6.60	5.35	-	4.56	2.38	-	0.59	-	-	-	-	-
8020	7.30	5.85	4.59	5.38	2.63	2.00	0.59	0.59	2.06	1.19	-	-
10 020	9.13	6.97	7.63	6.72	3.13	3.50	0.72	0.72	2.34	1.31	-	-
12018	10.00	7.88	-	6.75	3.50	-	0.86	-	-	-	-	-
12020	10.94	-	8.75	7.75	-	4.00	-	0.86	3.38	1.63	-	-

(1) Weight of complete coupling with cover at maximum bore (5012 & 12018 are without cover).

(2) Space required to loosen bushing with shortened hex key.



**Metallic - Chain**

Selection/dimensions

**Taper-Lock, reborable, finished bore flanges - part number**

Bore (in.)	Coupling size											
	4012	4016	5012	5016	5018	6018	6020	8018	8020	10020	12018	12020
Chain assembly	100480	100490	100489	100481	100491	100482	100492	100483	100493	100495	100497	100496
TL-H	-	• 099049	-	-	• 099053	-	• 099055	-	• 099057	• 099061	-	• 099063
TL-F	-	• 099048	-	-	• 099052	-	• 099054	-	• 099056	• 099060	-	• 099062
Bushing	-	1108	-	-	1610	-	2012	-	3020	3535	-	4040
Reborable	• 099190	• 099151	• 099150	• 099152	• 099161	• 099153	• 099162	• 099154	• 099163	• 099164	• 099226	-
Finished bore hubs												
1/2"	• 099100	-	-	-	-	-	-	-	-	-	-	-
5/8"	• 099101	• 099138	-	-	-	-	-	-	-	-	-	-
3/4"	• 099102	• 099103	• 099132	• 099141	• 099193	-	-	-	-	-	-	-
7/8"	-	• 099104	• 099133	• 099107	• 099194	-	-	-	-	-	-	-
15/16"	-	• 099139	• 099134	-	-	-	-	-	-	-	-	-
1"	-	• 099105	• 099135	• 099108	• 099195	• 099142	-	-	-	-	-	-
1-1/8"	-	• 099106	• 099136	• 099109	• 099196	• 099143	• 099209	• 099146	-	-	-	-
1-3/16"	-	• 099191	-	• 099192	• 099197	• 099206	-	-	-	-	-	-
1-1/4"	-	• 099140	-	• 099110	• 099198	• 099115	• 099210	-	-	-	-	-
1-3/8"	-	-	-	• 099111	• 099199	• 099116	-	-	-	-	-	-
1-7/16"	-	-	-	• 099112	• 099200	• 099117	-	-	-	-	-	-
1-1/2"	-	-	-	• 099113	• 099201	• 099118	• 099211	-	• 099219	-	-	-
1-5/8"	-	-	-	• 099114	• 099202	• 099119	-	-	-	-	-	-
1-3/4"	-	-	-	-	• 099203	• 099120	• 099212	• 099147	-	-	-	-
1-7/8"	-	-	-	-	• 099204	• 099121	-	-	-	-	-	-
1-15/16"	-	-	-	-	• 099205	• 099122	• 099213	• 099125	-	-	-	-
2"	-	-	-	-	-	• 099123	-	• 099126	-	-	-	-
2-1/8"	-	-	-	-	-	• 099124	• 099214	• 099127	-	-	-	-
2-3/16"	-	-	-	-	-	• 099207	-	-	• 099220	-	-	-
2-1/4"	-	-	-	-	-	• 099208	-	-	-	-	-	-
2-3/8"	-	-	-	-	-	• 099144	• 099215	• 099128	-	-	-	-
2-7/16"	-	-	-	-	-	• 099145	• 099216	• 099129	• 099221	-	-	-
2-5/8"	-	-	-	-	-	-	• 099217	• 099130	-	-	-	-
2-11/16"	-	-	-	-	-	-	-	-	• 099222	-	-	-
2-7/8"	-	-	-	-	-	-	-	• 099131	-	-	-	-
2-15/16"	-	-	-	-	-	-	-	• 099218	• 099223	-	-	-
3-1/8	-	-	-	-	-	-	-	-	-	-	-	-
3-3/8	-	-	-	-	-	-	-	-	• 099224	-	-	-
3-7/16	-	-	-	-	-	-	-	-	• 099225	-	-	-

• Stock sizes

Complete coupling consists of:

(2) Hubs, Taper-Lock, straight bore, or reborable

(1) Chain assembly

(1) Cover assembly (if required)

Note: For Taper-Lock designs, Taper-Lock bushings must be ordered separately.

## Metallic - Chain

Selection/dimensions

### Chain coupling covers

Chain coupling covers are recommended for use when couplings are operating under abrasive or moist conditions, or when coupling speeds exceed the RPM listed in the table below.

Cover should be filled with a roller bearing grease of soft or medium consistency. This provides excellent lubrication and substantially increases coupling life.



### Chain coupling cover recommendation

Coupling size	Cover required when coupling RPM exceeds this figure
4012	875
4016	875
5016	800
5018	800
6018	675
6020	675
8018	500
8020	500
10 020	450
12020	400



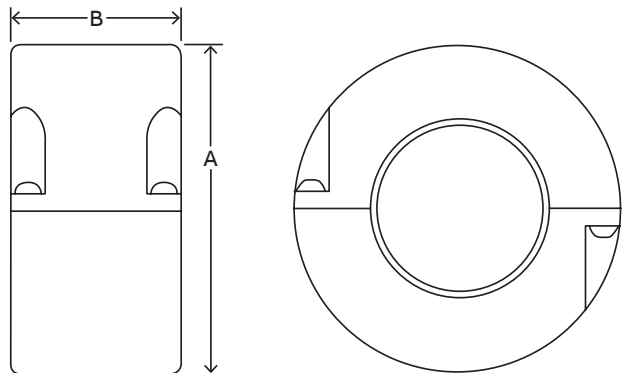
### Chain coupling cover assemblies <sup>▲</sup>

For coupling size	Cover size	Part no.	Wt. (lbs.)	A	B
4012	40	099026	1.0	4.00	2.00
4016	40	099026	1.0	4.00	2.00
5016	50	099027	1.3	5.13	2.38
5018	50	099027	1.3	5.13	2.38
6018	60	099028	2.6	6.38	2.94
6020	60	099028	2.6	6.38	2.94
8018	80	099029	5.1	8.19	4.00
8020	80	099029	5.1	8.19	4.00
10 020	100	099024	12.2	10.13	5.25
12020	120	099025	19.5	12.25	6.13

<sup>▲</sup> Consists of (2) cover halves and screws; (4) seals for cover sizes 4012/4016 - 8012/8020; (2) seals for cover sizes 10020 and 12020; and (2) cover gaskets.

Note: 5012 and 12018 covers are not available

Note: Pipe plug is size 1/8-27



—  
METALLIC  
**Rigid**



Metallic

## Metallic - Taper-Lock rigid

Specification/how to order/nomenclature

### Specification

Rigid couplings provide a connection between two perfectly aligned shafts. Taper-Lock rigid couplings consist of two flanges joined by bolts and taper bored for Taper-Lock bushings to connect shafts of the same or different diameters.

### How to order

Consists of:

- (1) Male flange assembly
- (1) Female flange
- (2) Bushings

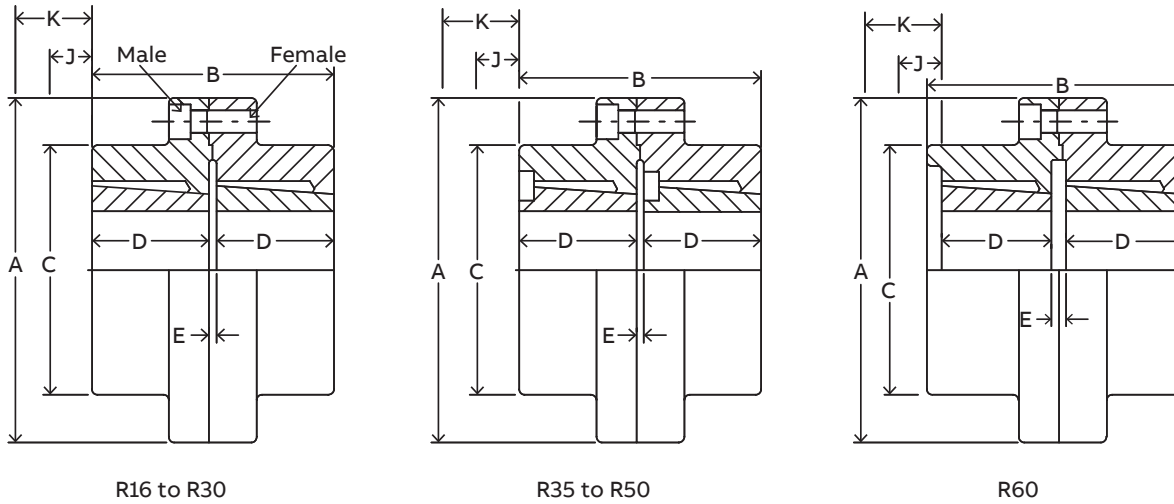
### Nomenclature:

**Taper-Lock rigid**  
**Size**          **R35**  
(Designated size of Taper-Lock bushing)



## Metallic - Taper-Lock rigid

### Selection/dimensions



R16 to R30

R35 to R50

R60

#### Dimensions (in.)

Size	Bushing size	Torque (in.-lb.)**	Hp/100	Min. bore	Max. bore	Max. RPM	A	B	C	D	E	J*	K†	Weight (lbs.)
R16	1615	5,050	8.0	1/2	1-11/16	4965	5.00	3.25	3.25	1.50	0.25	0.81	1.06	8.00
R25	2517	18,400	29.2	1/2	2-11/16	3545	7.00	3.75	5.00	1.75	0.25	1.00	1.63	19.10
R30	3030	31,800	50.5	15/16	3-1/4	2920	8.50	6.25	5.75	3.00	0.25	1.19	2.06	38.10
R35	3535	50,500	80.0	1-3/16	3-15/16	2545	9.75	7.25	7.00	3.50	0.25	1.31	2.69	62.20
R40	4040	75,500	120	1-7/16	4-7/16	2115	11.75	8.25	8.50	4.00	0.25	1.63	3.38	105.60
R45	4545	107,000	170	1-15/16	4-15/16	1910	13.00	9.25	9.50	4.50	0.25	1.94	4.06	146.70
R50	5050	147,000	233	2-7/16	5-5/16	1740	14.25	10.25	10.50	5.00	0.25	2.31	4.81	194.40
R60	6050	254,500	404	3-7/16	6	1240	20.00	13.25	16.00	5.00	1.75	1.63	4.38	526.70

\* Space required to tighten bushing with shortened hex key in bushings 1615 - 5050. 6050 uses standard wrench. Also space required to loosen screws to permit removal of hub by a puller.

† Space required to loosen bushing using screws as jack screws-no puller required. Use shortened hex key for bushing 1615 - 5050. 6050 uses standard wrench.

\*\* Ratings are based on uniform, non-reversing type loads. For more severe conditions, consult Dodge.

**Metallic - Taper-Lock rigid**

Selection/dimensions

**Taper-Lock rigid part numbers**

Coupling size	Bushing size	Standard		Stainless steel*	
		Male flange assembly	Female flange	Male flange assembly	Female flange
R16	1615	003001	003002	394157	394158
R25	2517	003003	003004	424453	424452
R30	3030	003005	003006	424490	424491
R35	3535	003007	003008	394455	393340
R40	4040	003009	003010	394032	394035
R45	4545	003011	003012	395635	395634
R50	5050	003013	003014	395637	395636
R60	6050	003015	003016	395639	395638

Complete coupling consists of:

- (1) Male flange assembly
- (1) Female flange
- (2) TL bushings

\* Stainless steel TL rigid couplings include zinc coated hardware.

Hardware supplied with male flange.

Consult Dodge for reverse bushing mounting options.

Note: Taper-Lock bushings ordered separately. Refer to page 177.

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## Metallic - Ribbed rigid

Specification/how to order/nomenclature

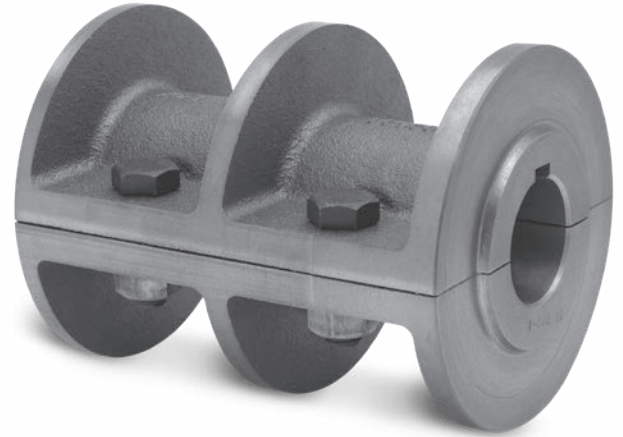
### Specification

Rigid couplings provide a connection between two perfectly aligned shafts. Ribbed rigid couplings are axially split to clamp on shafts of the same diameter and held together by bolts. The coupling uses one key over the entire length and permits quick and easy installation and removal.

### How to order

Consists of:

(1) Ribbed rigid coupling assembly (Complete, by bore size)



Metallic

### Nomenclature:

**Ribbed rigid**  
Bore size of coupling 2-3/4

## Metallic - Ribbed rigid

### Selection/dimensions

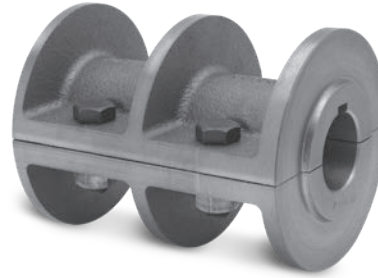
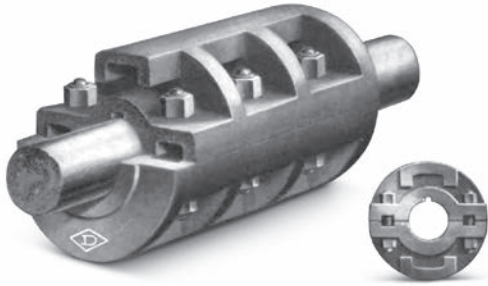


Figure 1  
Today's ribbed rigid coupling

Circa 1905

"Grim Death" compression coupling as presented in the 1905 Dodge catalog, is an original Dodge design.

For nominal shaft of:	Part number	Torque (in.-lb.)	Max. RPM	Weight	Coupling dia. x length	Keyway size	Key furnished	Bolts	
								No.	Dia.
1	009001	12 00	5360	6.0					
1-3/16	009002	2000	5360	5.5	3-5/8 x 5-1/4	1/4 x 1/8	1/4 x 1/4 x 5-1/4	4	3/8
1-1/4	009003	2300	5360	5.2					
1-3/8	009004	3100	4130	11.0	4-5/8 x 6-3/16	5/16 x 5/32	5/16 x 5/16 x 6-3/16	4	1/2
1-7/16	009005	3500	4130	10.5	4-5/8 x 6-3/16	3/8 x 3/16	3/8 x 3/8 x 6-3/16	4	1/2
1-1/2	009006	4000	4130	10.2					
1-11/16	009007	5700	3965	13.7	4-13/16 x 7-1/16	3/8 x 3/16	3/8 x 3/8 x 7-1/16	4	1/2
1-3/4	009008	6300	3965	13.3					
1-7/8	009009	7800	3635	19.4				4	1/2
1-15/16	009010	8600	3635	20.6	5-1/4 x 7-15/16	1/2 x 1/4	1/2 x 1/2 x 7-15/16		
2	009011	9400	3635	20.0					
2-3/16	009013	12 400	3180	29.1	6 x 8-5/8	1/2 x 1/4	1/2 x 1/2 x 8-5/8	4	5/8
2-1/4	009012	13 400	3180	29.0					
2-7/16	009015	17 100	2965	37.3	6-7/16 x 9-11/16	5/8 x 5/16	5/8 x 5/8 x 9-11/16	6	5/8
2-1/2	009016	18 400	2965	36.6					
2-11/16	009017	22 900	2830	43.4	6-3/4 x 10-9/16	5/8 x 5/16	5/8 x 5/8 x 10-9/16	6	5/8
2-3/4	009014	24 500	2830	43.0					
2-15/16	009019	29 900	2545	58.7	7-1/2 x 11-3/8	3/4 x 3/8	3/4 x 3/4 x 11-3/8	6	3/4
3	009020	31 800	2545	56.2					
3-3/16	009022	38 200	2315	80.5	8-1/4 x 12-1/4	3/4 x 3/8	3/4 x 3/4 x 12-1/4	6	7/8
3-1/4	009021	40 500	2315	80.0	8-1/4 x 12-1/4	3/4 x 3/8	3/4 x 3/4 x 12-1/4	6	7/8
3-7/16	009023	47 900	2165	94.6	8-13/16 x 13-3/16	7/8 x 7/16	7/8 x 7/8 x 13-3/16	6	7/8
3-1/2	009024	50 500	2165	94.0	8-13/16 x 13-3/16	7/8 x 7/16	7/8 x 7/8 x 13-3/16	6	7/8
3-15/16	009025	72 000	1900	146.6	10-1/16 x 15-1/4	1 x 1/2	1 x 1 x 15-1/4	6	1
4	009027	75 400	1900	146.0	10-1/16 x 15-1/4	1 x 1/2	1 x 1 x 15-1/4	6	1
4-7/16	009026	103 000	1775	215.0	10-3/4 x 18-3/16	1 x 1/2	1 x 1 x 18-3/16	6	1-1/8
4-1/2	009031	107 400	1775	214.4	10-3/4 x 18-3/16	1 x 1/2	1 x 1 x 18-3/16	6	1-1/8
4-15/16	009028	142 000	1625	276.3	11-3/4 x 19-5/8	1-1/4 x 5/8	1-1/4 x 1-1/4 x 19-5/8	6	1-1/8
5	009043	147 500	1625	275.6	11-3/4 x 19-5/8	1-1/4 x 5/8	1-1/4 x 1-1/4 x 19-5/8	6	1-1/8
5-7/16	009029	190 000	1390	426.2	13-3/4 x 20-3/8	1-1/4 x 5/8	1-1/4 x 1-1/4 x 20-3/8	8	1-1/8
5-1/2	009050	196 000	1390	425.4	13-3/4 x 20-3/8	1-1/4 x 5/8	1-1/4 x 1-1/4 x 20-3/8	8	1-1/8
5-15/16	009042	247 000	1365	426.0	14 x 20-3/4	1-1/2 x 3/4	1-1/2 x 1-1/2 x 20-3/4	6	1-1/4
6	009054	255 000	1365	425.3	14 x 20-3/4	1-1/2 x 3/4	1-1/2 x 1-1/2 x 20-3/4	6	1-1/4
7	009044	404 000	1230	560.8	15-1/2 x 21-15/16	1-3/4 x 3/4	1-3/4 x 1-1/2 x	8	1-1/4

Note: Coupled shafts must be the same diameters.

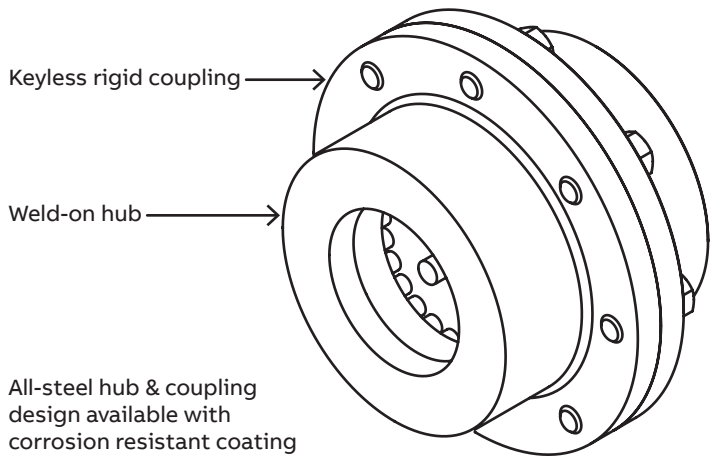
Note: Instruction manuals for ribbed rigid couplings available on [www.dodgeindustrial.com](http://www.dodgeindustrial.com).



**Metallic - Keyless rigid**

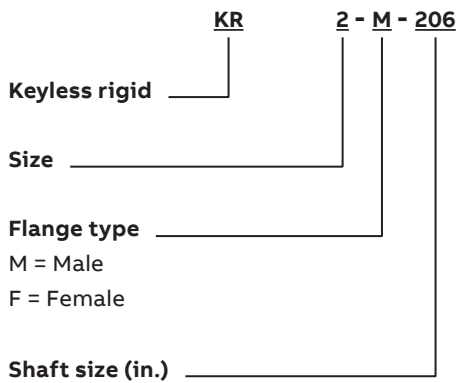
Specification/how to order/nomenclature

A complete keyless rigid coupling consists of one male flange, one female flange, and two keeper plates (optional), and a weld-on hub



**Nomenclature:**

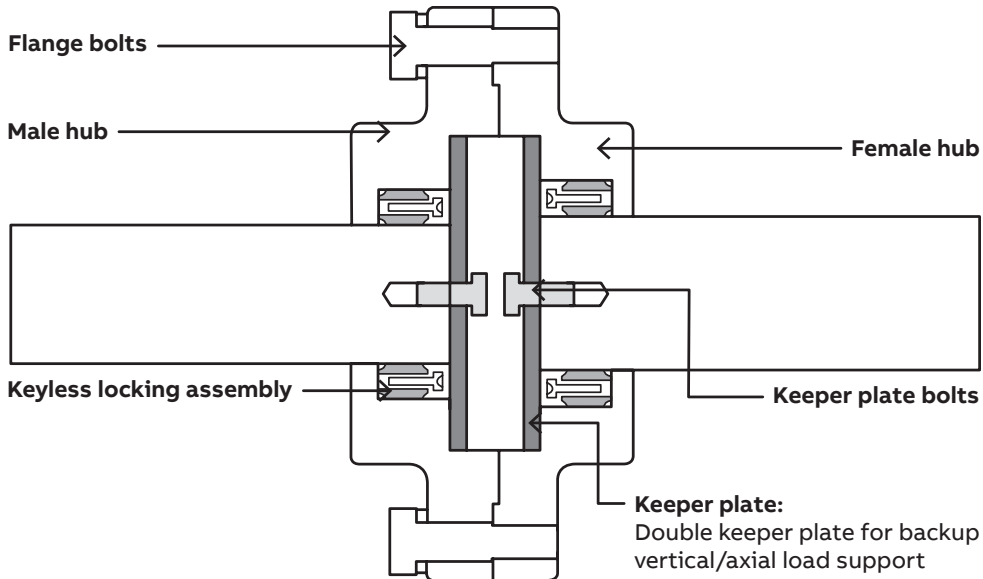
**Flange:**



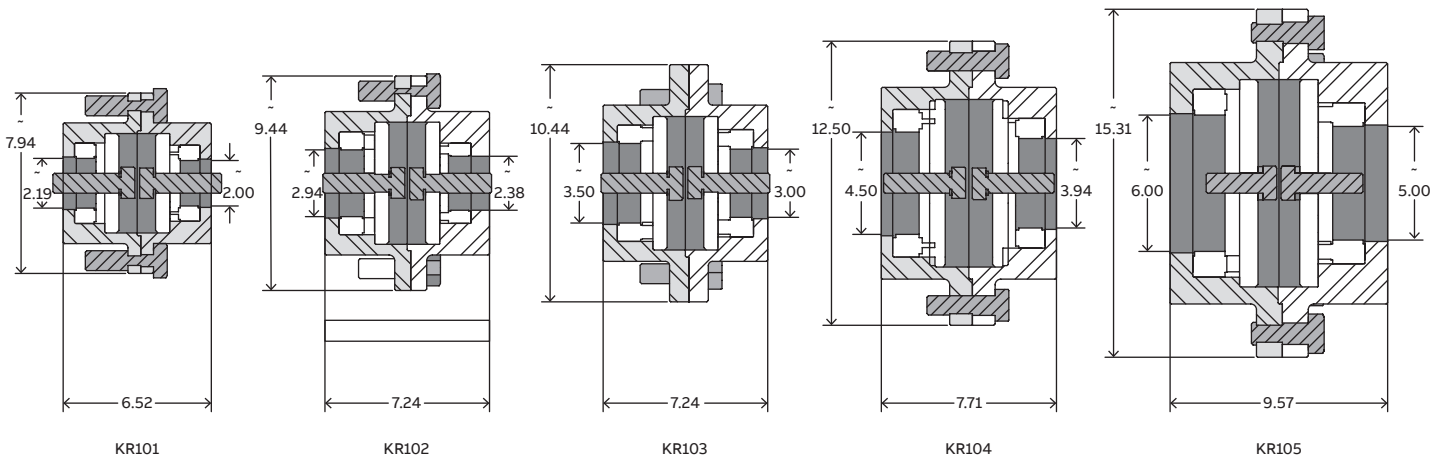
## Metallic - Keyless rigid

### Specification/dimensions

#### Flanged hub design



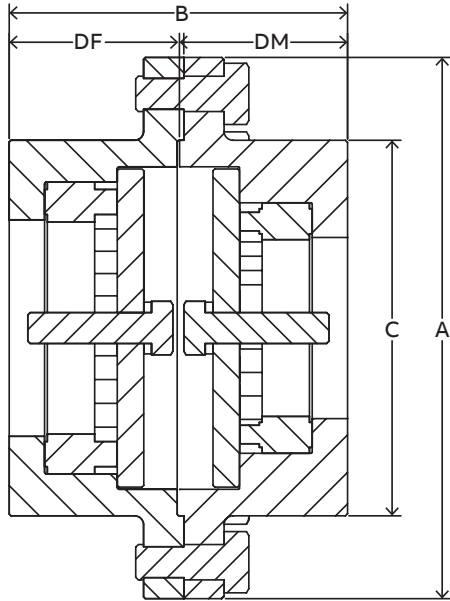
Size	KR101	KR102	KR103	KR104	KR105
Min shaft (in.)	2	2-3/8	3	3-15/16	5
Max shaft (in.)	2-3/16	2-15/16	3-1/2	4-1/2	6
Torque capacity (in.-lbs.)	23,650	51,140	68,470	127,820	273,140
Axial Load Capacity (lbs.)	10,000	10,000	10,000	10,000	15,000



**Metallic - Keyless rigid**

Selection/dimensions

**Rigid coupling flange assembly**



**Keyless rigid rating & dimension table**

Series number	Min bore (in.)	Max bore (in.)	Max torque (in.-lbs.) <sup>(1)</sup>	A	B	C	DM	DF	BSE	Bolt size	Number of bolts
KR1	2	2-3/16	23,600	7.94	6.64	5.31	3.23	3.41	2.9	1/2-13	6
KR2	2-1/4	2-15/16	51,100	9.44	7.37	6.31	3.59	3.78	2.9	5/8-11	7
KR3	3	3-1/2	68,400	10.44	7.37	6.88	3.59	3.78	2.9	3/4-10	6
KR4	3-9/16	4-1/2	127,800	12.5	7.83	8.44	3.82	4.01	3	7/8-9	6
KR5	4-9/16	6	273,100	15.31	9.69	10.63	4.75	4.94	3.5	1-8	8

(1) Torque is based off the bushing capacity for the max shaft size. Actual coupling capacity will be limited by the smallest bushing capacity used in the assembly.  
 (2) A complete coupling consists of: (1) male flange assembly, (1) female flange assembly, optional (2) keeper plates.

**Keyless rigid flange assembly part numbers**

**Male flange part number**

**Female flange part numbers**

Coupling assembly part number	Shaft size (in.)	Description	Series number	Bushing torque capacity	Coupling assembly part number	Shaft size (in.)	Description	Series number	Bushing torque capacity
003120	2	KR1-M-200-Flange	1	21,696	003136	2	KR1-F-200-Flange	1	21,696
003121	2.1875	KR1-M-203-Flange	1	23,652	003137	2.1875	KR1-F-203-Flange	1	23,652
003122	2.375	KR2-M-206-Flange	2	25,524	003138	2.375	KR2-F-206-Flange	2	25,524
003123	2.4375	KR2-M-207-Flange	2	29,964	003139	2.4375	KR2-F-207-Flange	2	29,964
003124	2.5	KR2-M-208-Flange	2	30,672	003140	2.5	KR2-F-208-Flange	2	30,672
003125	2.875	KR2-M-214-Flange	2	50,100	003141	2.875	KR2-F-214-Flange	2	50,100
003126	2.9375	KR2-M-215-Flange	2	51,144	003142	2.9375	KR2-F-215-Flange	2	51,144
003127	3	KR3-M-300-Flange	3	51,984	003143	3	KR3-F-300-Flange	3	51,984
003128	3.4375	KR3-M-307-Flange	3	67,212	003144	3.4375	KR3-F-307-Flange	3	67,212
003129	3.5	KR3-M-308-Flange	3	68,472	003145	3.5	KR3-F-308-Flange	3	68,472
003130	3.9375	KR4-M-315-Flange	4	100,824	003146	3.9375	KR4-F-315-Flange	4	100,824
003131	4	KR4-M-400-Flange	4	101,868	003147	4	KR4-F-400-Flange	4	101,868
003132	4.5	KR4-M-408-Flange	4	127,824	003148	4.5	KR4-F-408-Flange	4	127,824
003133	5	KR5-M-500-Flange	5	176,064	003149	5	KR5-F-500-Flange	5	176,064
003134	5.5	KR5-M-508-Flange	5	213,648	003150	5.5	KR5-F-508-Flange	5	213,648
003135	6	KR5-M-600-Flange	5	273,144	003151	6	KR5-F-600-Flange	5	273,144

(1) A complete assembly comes with (1) male flange assembly, (1) female flange assembly, (2) optional keeper plates

**Metallic - Keyless rigid**

Selection/dimensions

**Rigid coupling flange assembly**

Keeper plate		Bolt		Lock washer	
Part number	Description	Part number	Description	Part number	Description
003153	KR1-Keeper Plate	411565	3/4-10 x 3 1/2 HX HD Cap screw	419016	3/4 MED Lock washer
003154	KR2-Keeper Plate	411565	3/4-10 x 3 1/2 HX HD Cap screw	419016	3/4 MED Lock washer
003155	KR3-Keeper Plate	411565	3/4-10 x 3 1/2 HX HD Cap screw	419016	3/4 MED Lock washer
003156	KR4-Keeper Plate	411565	3/4-10 x 3 1/2 HX HD Cap screw	419016	3/4 MED Lock washer
003157	KR5-Keeper Plate	411564	7/8-9 X 3 1/2 HX HD Cap screw	419018	7/8 MED Lock washer

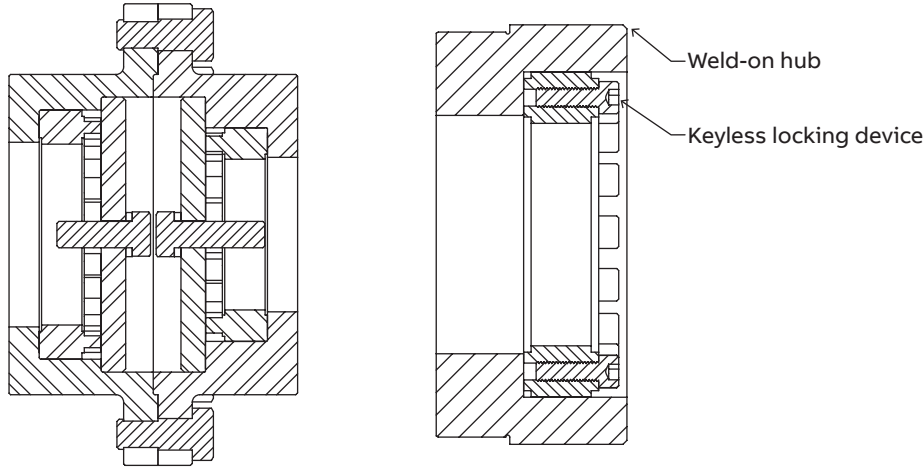
Bushing part number	Bore size	Description
003055	2	7012 X 2 Keyless locking assembly
003056	2-3/16	7012 X 2-3/16 Keyless locking assembly
003057	2-3/8	7012 X 2-3/8 Keyless locking assembly
003058	2-1/2	7012 X 2-1/2 Keyless locking assembly
003059	2-7/16	7012 X 2-7/16 Keyless locking assembly
003060	2-7/8	7012 X 2-7/8 Keyless locking assembly
003061	2-15/16	7012 X 2-15/16 Keyless locking assembly
003062	3	7012 X 3 Keyless locking assembly
003063	3-1/4	7012 X 3-1/4 Keyless locking assembly
003064	3-1/8	7012 X 3-1/8 Keyless locking assembly
003065	3-7/16	7012 X 3-7/16 Keyless locking assembly
003066	3-1/2	7012 X 3-1/2 Keyless locking assembly
003067	3-5/8	7012 X 3-5/8 Keyless locking assembly
003068	4	7012 X 4 Keyless locking assembly
003069	4-1/4	7012 X 4-1/4 Keyless locking assembly
003070	4-3/8	7012 X 4-3/8 Keyless locking assembly
003071	4-1/2	7012 X 4-1/2 Keyless locking assembly
003072	4-3/4	7012 X 4-3/4 Keyless locking assembly
003073	5	7012 X 5 Keyless locking assembly
003074	5-1/2	7012 X 5-1/2 Keyless locking assembly
003075	6	7012 X 6 Keyless locking assembly

Hardware part number	Qty.	Description
417325	6	1/2-13 X 1.25 HHCS GR8
417325	6	1/2-13 X 1.25 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417326	7	5/8-11 X 1.5 HHCS GR8
417327	6	3/4-10 X 1.75 HHCS GR8
417327	6	3/4-10 X 1.75 HHCS GR8
417327	6	3/4-10 X 1.75 HHCS GR8
417328	6	7/8-9 X 2.25 HHCS GR8
417328	6	7/8-9 X 2.25 HHCS GR8
417328	6	7/8-9 X 2.25 HHCS GR8
417329	8	1-8 X 2.25 HHCS GR8
417329	8	1-8 X 2.25 HHCS GR8
417329	8	1-8 X 2.25 HHCS GR8

**Metallic - Keyless rigid**

Selection/dimensions

**Rigid coupling flange assembly**



**Keyless weld-on hub ratings and dimensions**

Assy. part number	Shaft size	Equivalent Taper-Lock mounting	Rated torque capacity (in.-lbs.)	Rated axial load capacity (lbs.)	Recommended shaft tolerance (in.)	A	BDF		C	D	E	F	G
							Min.	Max.					
003085	2	S30	21,600	10,000	+0.00/-0.0025	5.25	3.346	3.3485	5.13	2.25	0.75	1.38	1.63
003086	2-3/8	S30	25,500	10,000	+0.00/-0.003	5.25	3.531	3.534	5.13	2.63	0.75	1.43	1.63
003087	2-7/16	S30	29,900	10,000	+0.00/-0.003	5.25	3.74	3.743	5.13	2.69	0.75	1.38	1.63
003088	2-3/8	S25	25,500	10,000	+0.00/-0.003	5	3.531	3.534	4.13	2.63	1.06	1.43	1.75
003089	3	S30	51,900	10,000	+0.00/-0.003	6.5	4.724	4.727	5.13	3.25	1.82	1.62	2.5
003090	3-1/4	S30	64,200	10,000	+0.00/-0.0035	6.5	4.921	4.9245	5.13	3.5	1.82	1.62	2.5
003091	3-1/2	S35	68,400	10,000	+0.00/-0.0035	6.75	5.118	5.1215	6.37	3.75	0.84	1.62	2

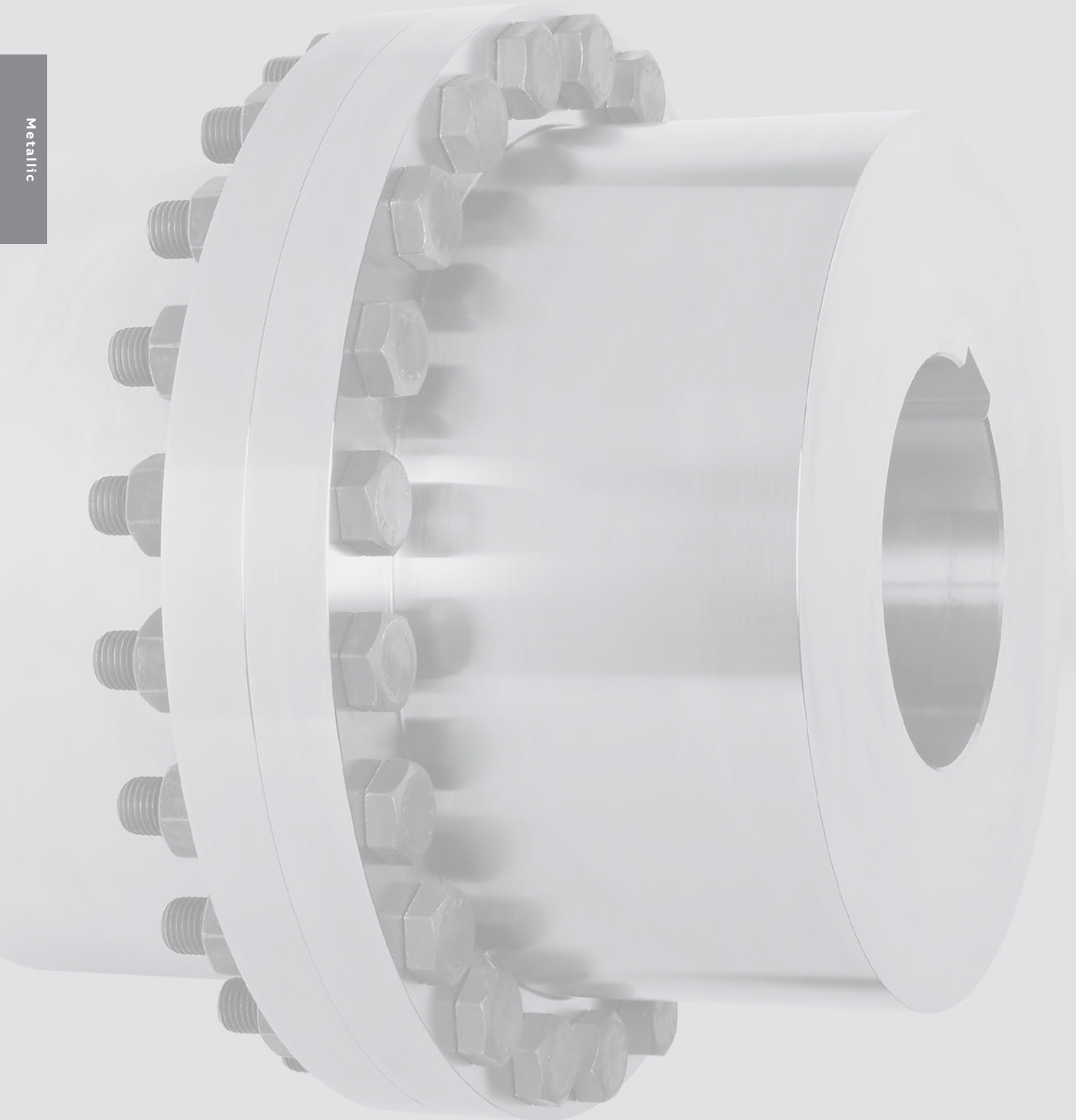
(1) Hub material: AISI 1018-1022

Series	Part number	Assembly Description
1	003080	Keyless Size SF hub X 2-3/16 assembly
2	003081	Keyless Size SF hub X 2-3/8 assembly
3	003082	Keyless Size SF hub X 2-7/8 assembly
4	003083	Keyless Size SF hub X 2-15/16 assembly
5	003084	Keyless Size SF hub X 3-7/16 assembly

Series	Weld-on hubs		Components	
	Part number	Description	Part number	Keyless locking assembly Description
1	003095	Keyless size SF weld-on hub X 2-3/16	003056	7012 X 2-3/16 keyless locking assembly
2	003096	Keyless size SF weld-on hub X 2-3/8	003057	7012 X 2-3/8 keyless locking assembly
3	003097	Keyless size SF weld-on hub X 2-7/8	003060	7012 X 2-7/8 keyless locking assembly
4	003098	Keyless size SF weld-on hub X 2-15/16	003061	7012 X 2-15/16 keyless locking assembly
5	003099	Keyless size SF weld-on hub X 3-7/16	003065	7012 X 3-7/16 keyless locking assembly

METALLIC

# DM moment



Metalllc

## Metallic - DM moment couplings

### Features/benefits

#### DM moment couplings

##### Highly engineered for rigorous applications

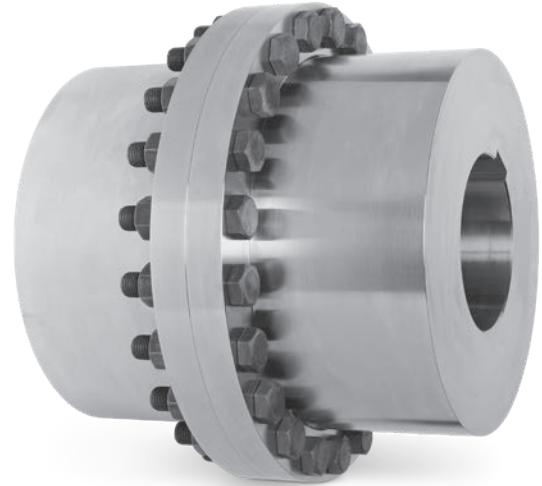
Ideally suited for bulk material handling applications, Dodge DM moment couplings are specifically designed to make the rigid connection between the output shaft of the gearbox and driven equipment. Highly engineered to meet the most rigorous application requirements, these couplings are capable of handling both the required application torque and the bending moment forces of the suspended weight of the drive package.

##### High strength, high reliability

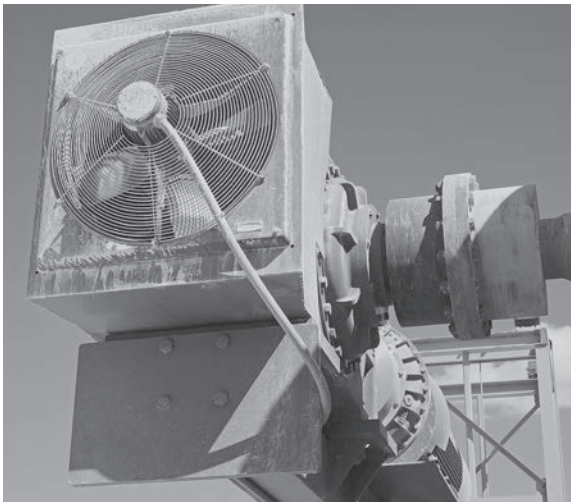
Utilizing high-strength 4140 alloy steel and ISO grade 10.9 bolts, this robust design offers unparalleled strength. When there's no room to compromise on safety, Dodge DM moment couplings are the reliable solution.

##### A cost saving option

DM moment couplings enable large gear boxes to become alignment-free drives, allowing customers to save money by eliminating the time consuming process of aligning a gearbox assembly to the head pulley shaft. These couplings also eliminate the expense associated with the additional structural fabrication required for base-mounted drives.



Dodge DM moment coupling



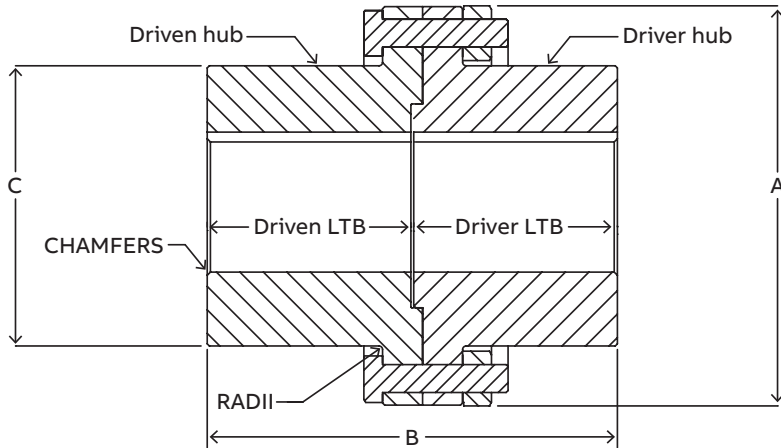
The Dodge DM moment coupling is specifically designed to make the rigid connection between the output shaft of the gearbox and driven equipment.



Moment couplings require tight tolerances and precision machining. To guarantee performance, every Dodge DM moment coupling is checked for 100% accuracy using a coordinate measurement machine (CMM).

## Metallic - DM moment couplings

### Selection/dimensions



#### DM moment couplings

Size	Torque (in.-lbs.)	Max RPM	Max. bore <sup>(4)</sup> (in.)	A	B	C	Driven LTB 1	Driven LTB	BSE	Bolt circle diameter	Number of bolts	Weight <sup>(1)</sup> (lbs.)
DM50	53,955	6,500	4.50	10.50	10.58	6.75	5.25	5.25	0.08	9.00	7	111
DM75	81,361	6,300	4.75	11.00	12.65	7.13	5.94	5.94	0.08	9.50	10	130
DM100	100,203	6,100	4.88	11.25	11.58	7.91	5.75	5.75	0.08	9.75	12	155
DM150	153,473	5,400	5.50	12.70	12.08	9.25	6.00	6.00	0.08	11.20	16	219
DM210	220,138	4,800	6.00	14.50	12.08	10.38	6.00	6.00	0.08	12.75	14	296
DM285	292,028	4,400	7.00	15.75	14.08	11.50	7.00	7.00	0.08	13.93	17	414
DM390	425,594	3,900	7.00	17.75	14.26	12.81	7.09	7.09	0.08	15.50	14	528
DM525	554,301	3,700	8.75	18.75	17.08	14.00	8.50	8.50	0.08	16.63	17	694
DM700	735,473	3,200	10.00	21.25	19.58	15.75	9.75	9.75	0.08	18.75	20	1,012
DM920	920,414	2,900	11.00	23.75	20.58	18.50	10.25	10.25	0.08	21.25	22	1,447
DM1400	1,528,694	2,300	13.50	29.50	23.08	21.50	11.42	11.75	0.08	26.75	20	2,229
DM2100	2,228,750	2,100	15.00	33.00	25.08	25.00	12.42	12.75	0.08	30.00	26	3,222

(1) Weight of coupling at minimum bore

(2) Larger sizes available upon request

(3) Shrink disc options available

(4) DM moment couplings have a max bore based on special interference fits. Do NOT follow interference fits on pages 119-123 for DM moment couplings.

Note: Please contact Dodge for part numbers









**Engineering**

Bore tolerances, keyway tolerances, and fits

**AGMA 9002 inch bore fits (Nominal shaft diameter: 9-7/16 - 11-15/16)**

Nominal shaft diameter	Shaft diameter		Clearance fit				Interference fit				Square key		Standard keyway			
			Hub bore		Fit		Hub bore		Fit		Nominal		Width Scribe height			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Width	Height	Min.	Max.	Min.	Max.
10	9.9990	10.0000	-	-	-	-	9.9940	9.9960	-0.0030	-0.0060	2.5000	2.5000	2.5000	2.5040	11.0912	11.1012
10 - 11 (incl.)	-0.0010	+0.0000	-	-	-	-	-0.0065	-0.0045	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	-	-
10-1/16	10.0615	10.0625	-	-	-	-	10.0560	10.0580	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.1547	11.1647
10-1/8	10.1240	10.1250	-	-	-	-	10.1185	10.1205	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.2183	11.2283
10-3/16	10.1865	10.1875	-	-	-	-	10.1810	10.1830	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.2817	11.2917
10-1/4	10.2490	10.2500	-	-	-	-	10.2435	10.2455	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.3452	11.3552
10-5/16	10.3115	10.3125	-	-	-	-	10.3060	10.3080	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.4087	11.4187
10-3/8	10.3740	10.3750	-	-	-	-	10.3685	10.3705	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.4721	11.4821
10-7/16	10.4365	10.4375	-	-	-	-	10.4310	10.4330	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.5356	11.5456
10-1/2	10.4990	10.5000	-	-	-	-	10.4935	10.4955	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.5990	11.6090
10-9/16	10.5615	10.5625	-	-	-	-	10.5560	10.5580	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.6624	11.6724
10-5/8	10.6240	10.6250	-	-	-	-	10.6185	10.6205	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.7258	11.7358
10-11/16	10.6865	10.6875	-	-	-	-	10.6810	10.6830	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.7892	11.7992
10-3/4	10.7490	10.7500	-	-	-	-	10.7435	10.7455	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.8526	11.8626
10-13/16	10.8115	10.8125	-	-	-	-	10.8060	10.8080	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.9160	11.9260
10-7/8	10.8740	10.8750	-	-	-	-	10.8685	10.8705	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	11.9794	11.9894
10-15/16	10.9365	10.9375	-	-	-	-	10.9310	10.9330	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	12.0427	12.0527
11	10.9990	11.0000	-	-	-	-	10.9935	10.9955	-0.0035	-0.0065	2.5000	2.5000	2.5000	2.5040	12.1061	12.1161
11 - 12 (incl.)	-0.0010	+0.0000	-	-	-	-	-0.0070	-0.0050	-0.0040	-0.0070	2.5000	2.5000	2.5000	2.5040	-	-
11-1/16	11.0615	11.0625	-	-	-	-	11.0555	11.0575	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.3552	12.3652
11-1/8	11.1240	11.1250	-	-	-	-	11.1180	11.1200	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.4189	12.4289
11-3/16	11.1865	11.1875	-	-	-	-	11.1805	11.1825	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.4826	12.4926
11-1/4	11.2490	11.2500	-	-	-	-	11.2430	11.2450	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.5463	12.5563
11-5/16	11.3115	11.3125	-	-	-	-	11.3055	11.3075	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.6100	12.6200
11-3/8	11.3740	11.3750	-	-	-	-	11.3680	11.3700	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.6736	12.6836
11-7/16	11.4365	11.4375	-	-	-	-	11.4305	11.4325	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.7373	12.7473
11-1/2	11.4990	11.5000	-	-	-	-	11.4930	11.4950	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.8009	12.8109
11-9/16	11.5615	11.5625	-	-	-	-	11.5555	11.5575	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.8645	12.8745
11-5/8	11.6240	11.6250	-	-	-	-	11.6180	11.6200	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.9281	12.9381
11-11/16	11.6865	11.6875	-	-	-	-	11.6805	11.6825	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	12.9917	13.0017
11-3/4	11.7490	11.7500	-	-	-	-	11.7430	11.7450	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	13.0553	13.0653
11-13/16	11.8115	11.8125	-	-	-	-	11.8055	11.8075	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	13.1188	13.1288
11-7/8	11.8740	11.8750	-	-	-	-	11.8680	11.8700	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	13.1824	13.1924
11-15/16	11.9365	11.9375	-	-	-	-	11.9305	11.9325	-0.0040	-0.0070	3.0000	3.0000	3.0000	3.0040	13.2459	13.2559

Note: For additional tolerance and keyway dimensions, such as shallow key, contact Dodge customer order engineering at (864) 284-5700.



## Engineering

Bore tolerances, keyway tolerances, and fits

### ISO R775 Imperial keyway fits (Shaft diameter: 1/2 in. - 7-9/16 in.)

Bore (in.)		Keyway width	Keyway depth	Key size
From	Thru (incl.)			
1/2	9/16	1/8	1/16	1/8 x 1/8
5/8	7/8	3/16	3/32	3/16 x 3/16
15/16	1-1/4	1/4	1/8	1/4 x 1/4
1-5/16	1-3/8	5/16	5/32	5/16 x 5/16
1-7/16	1-3/4	3/8	3/16	3/8 x 3/8
1-13/16	2-1/4	1/2	1/4	1/2 x 1/2
2-5/16	2-3/4	5/8	5/16	5/8 x 5/8
2-13/16	3-1/4	3/4	3/8	3/4 x 3/4
3-5/16	3-3/4	7/8	7/16	7/8 x 7/8
3-13/16	4-1/2	1	1/2	1 x 1
4-9/16	5-1/2	1-1/4	5/8	1-1/4 x 1-1/4
5-9/16	6-1/2	1-1/2	3/4	1-1/2 x 1-1/2
6-9/16	7-1/2	1-3/4	3/4	1-3/4 x 1-1/2
7-9/16	9	2	3/4	2 x 1-1/2

Does not include Shallow keyway dimensions

### ISO R775 metric keyway fits (Shaft diameter: 12 mm - 200 mm)

Bore (mm)		Keyway width	Keyway depth	Key size
From	Thru (incl.)			
13	17	5 mm	2.3 mm	5 x 5
18	22	6 mm	2.8 mm	6 x 6
23	30	8 mm	3.3 mm	8 x 7
31	38	10 mm	3.3 mm	10 x 8
39	44	12 mm	3.3 mm	12 x 8
45	50	14 mm	3.8 mm	14 x 9
51	58	16 mm	4.3 mm	16 x 10
59	65	18 mm	4.4 mm	18 x 11
66	75	20 mm	4.9 mm	20 x 12
76	85	22 mm	5.4 mm	22 x 14
86	95	25 mm	5.4 mm	25 x 14
96	110	28 mm	6.4 mm	28 x 16
111	130	32 mm	7.4 mm	32 x 18
131	150	36 mm	8.4 mm	36 x 20
151	170	40 mm	9.4 mm	40 x 22
171	200	45 mm	10.4 mm	45 x 25

Does not include Shallow keyway dimensions

Note: For additional tolerance and keyway dimensions, such as shallow key, contact Dodge customer order engineering at (864) 284-5700.

## Engineering

### Temperature ratings

Coupling type	°F
<b>Raptor</b>	
Standard element	-45°F to +220°F (2)
Armored element	-45°F to +220°F (2)
<b>Para-Flex</b>	
PX	-45°F (1) to +180°F (1)
PH, PF	-45°F (1) to +180°F (1)
<b>D-Flex</b>	
EPDM	-30°F to +275°F
Neoprene	0°F to +200°F
Hytrel	-65°F to +250°F
<b>StarFlex</b>	
NBR	-40°F to +212°F
Urethane	-30°F to +160°F
Hytrel	-60°F to +250°F
Bronze	-40°F to +450°F
Poly-Disc	-90°F to +170°F
Grid-Lign	-22°F to +215°F
Gear	-20°F to +250°F
Chain	-30°F to +225°F

(1) -40°F to +210°F for neoprene element.

(2) Reference high temperature adjustment factors for applications in excess of 180°F

#### Raptor high temperature adjustment factors

Temperature range	Adjustment
180°F - 200°F	+0.75
201°F - 220°F	+1.0

Note: High temperature adjustment factors are only to be added to the standard system service factors as needed. High temperature service factors are not included in the standard application service factor in order to prevent oversizing coupling selections.

### Elastomer chemical compatibility

Substance	Natural rubber	Armored element	Substance	Natural rubber	Armored element
Acetic acids	2	3	Hydrobromic acid (40%)	1	2
Acetic anhydride	2	3	Kerosene	3	2
Alcohols, monohydric	2	Nd	Lacquers	3	3
Ammonia anhydrous	3	2	Lead sulfamate	2	Nd
ASTM A oils	3	1	Mineral oil	3	1
Animal fast	3	2	Naphtha	3	2
Benzene	3	3	Nickel chloride	1	3
Carbonic acid	3	3	Nitric acid (10%)	1	3
Calcium bisulfite	2	Nd	Ozone	3	1
Chloracetone	2	3	Petroleum (<250°F)	3	2
Chloroacetic acid	2	3	Potassium dichromate	2	1
Copper sulphate	2	1	Salt water	1	2
Corn oil	2	1	Silicone oils	1	1
Diesel oil	3	2	Sulfuric acid (con.)	3	3
Fuel oil	3	2	Vinegar	2	3
Gasoline	2	2	Zinc sulfate	2	2

Ratings:

1 - Minor effect

2 - Moderate effect

3 - Severe effect

Nd - No data

## Engineering

### Misalignment ratings

Coupling type	Misalignment		End float
	Angular	Parallel	
Raptor (E2-E10)	4°	0.1875"	0.3125"
Raptor (E20-E50)	3°	0.1875"	0.3125"
Raptor (E60-E80)	2°	0.1875"	0.3125"
Raptor (E100-E140)	1-1/2°	0.1875"	0.3125"
Para-Flex (PX)(1)(2)	4°	0.125"	± 0.156"
Para-Flex (PH, PF)	1°	0.0625"	± 0.094"
StarFlex (NBR, Urethane)	1°	0.015"	-
StarFlex (Bronze)	1/2°	0.010"	-
StarFlex (Hytrel)	1/2°	0.015"	-
Poly-Disc	2°	0.032"	-
Grid-Lign	1/2°	0.012"	0.375"
Chain	2°	0.015"	0.300"

(1) PX40 is 4° Angular/.06" Parallel/±.094" End float

(2) PX110 is 4° Angular/0.125" Parallel/±.125" End float

#### D-Flex misalignment<sup>(1)</sup>

Size	Types JE, JN, E & N			Types H & HS <sup>(4)</sup>		
	Parallel <sup>(1)</sup>	Angular <sup>(2)</sup>	End float <sup>(3)</sup>	Parallel <sup>(1)</sup>	Angular <sup>(2)</sup>	End float <sup>(3)</sup>
3	0.010	1°	± 0.030	-	-	-
4	0.010	1°	± 0.030	-	-	-
5	0.015	1°	± 0.046	-	-	-
6	0.015	1°	± 0.060	.010	1/4°	± 0.060
7	0.020	1°	± 0.060	.012	1/4°	± 0.060
8	0.020	1°	± 0.096	.015	1/4°	± 0.096
9	0.025	1°	± 0.096	.017	1/4°	± 0.096
10	0.025	1°	± 0.125	.020	1/4°	± 0.125
11	0.032	1°	± 0.125	.022	1/4°	± 0.125
12	0.032	1°	± 0.125	.025	1/4°	± 0.125
13	0.040	1°	± 0.125	.030	1/4°	± 0.125
14	0.045	1°	± 0.125	.035	1/4°	± 0.125
16	0.062	1°	± 0.125	-	1/4°	-

(1) All dimensions are in inches.

(2) Values are for when 1/4 or more of the rated torque is transmitted. Reduce values by 50% for lower torques.

(3) Increase E dimension by this amount to accommodate end float.

(4) Types H & HS should not be used as direct replacements for EPDM or Neoprene sleeves.



# Engineering

## Torsional stiffness

### Para-Flex

Size	in.-lbs./degree <sup>(4)</sup>	High speed Para-Flex	
		Size	in.-lbs./degree <sup>(4)</sup>
PX40	120	PH 87	1,000
PX50	224	PH 96	1,190
PX60	414	PH 116	2,182
PX70	544	PH 131	2,566
PX80	876	PH 172	6,737
PX90	1,088	PH 192	13,893
PX100	1,530	PH 213	23,143
PX110	2,420	PH 252	39,008
PX120	4,014	-	-
PX140	8,296	-	-
PX160	12,000	-	-
PX200	29,000	-	-
PX240	48,000	-	-
PX280	98,000	-	-
PX320	151,000	-	-

(4) Values are nominal and may vary +/- 20%. To convert static values to approximate dynamic values, multiply the static values by 1.2.

### D-Flex\*

Size	EPDM & neoprene (in.-lbs./radian)	Hytrel (in.-lbs./radian)
3	229	-
4	458	-
5	916	-
6	1,718	10,000
7	2,769	20,000
8	4,335	30,000
9	6,875	47,500
10	10,980	100,000
11	17,300	125,000
12	27,500	225,000
13	43,350	368,900
14	68,775	593,250
16	180,480	-

\* Values shown are for an ambient temperature of 75°F.

### Raptor

Size	Static torsional stiffness (in.-lbs./degree)
E2	23
E3	32
E4	46
E5	97
E10	114
E20	120
E30	275
E40	440
E50	783
E60	1,379
E70	1,856
E80	2,800
E100	5,900
E120	9,200
E140	14,300

Values are shown for an ambient temperature of 70°F.

Values are nominal and may vary by +/- 20%.  
Torsional stiffness values are for both the standard natural rubber and armored element.

## Engineering

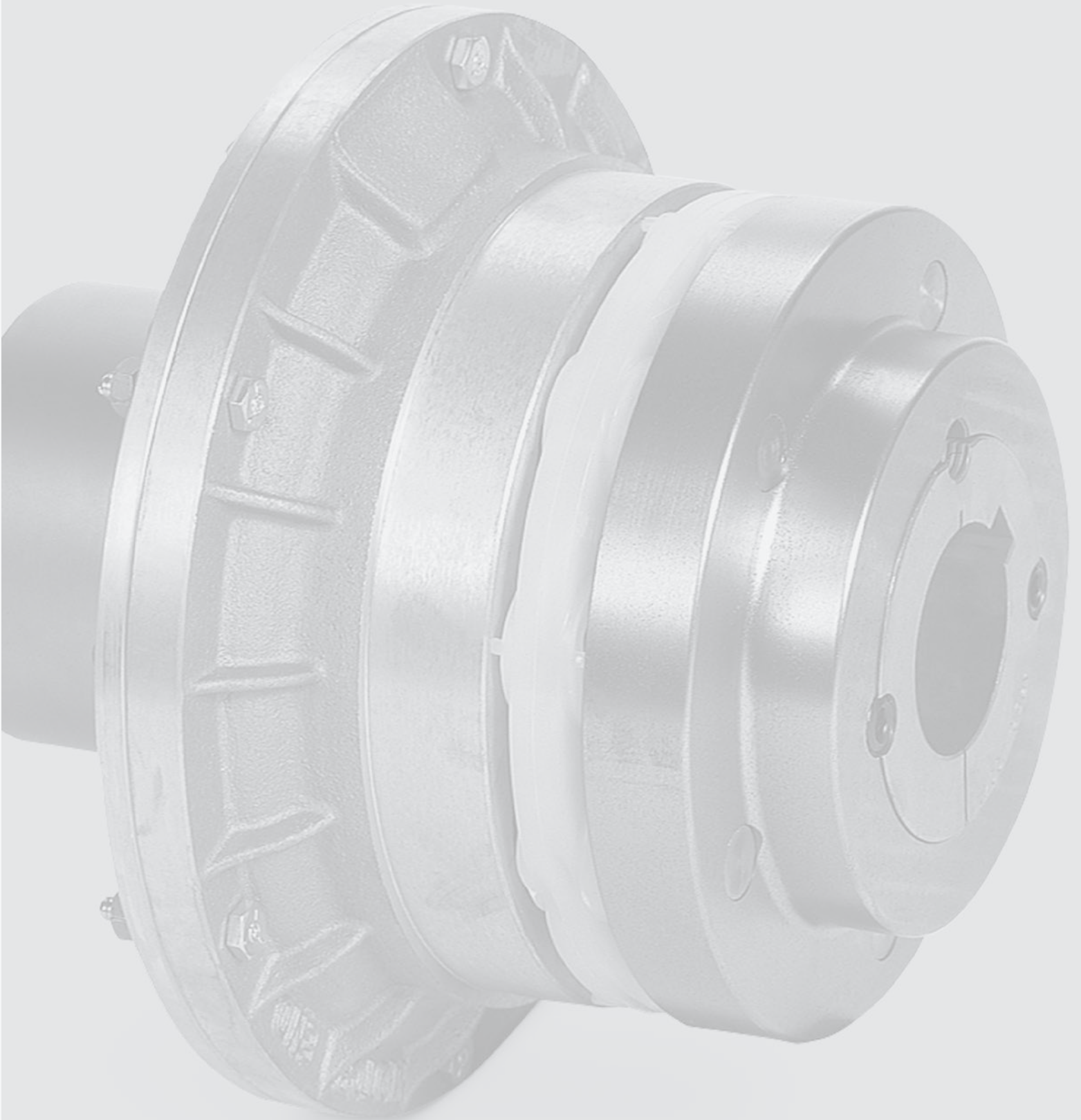
### Common shaft sizes

NEMA frame	Shaft size
56	5/8"
143T/145T	7/8"
182T/184T	1-1/8"
213T/215T	1-3/8"
254T/256T	1-5/8"
284T/286T	1-7/8"
324T/326T	2-1/8"
364T/365T	2-3/8"
404T/405T	2-7/8"
444T/445T	3-3/8"
447T/449T	3-3/8"

IEC frame	Shaft size
71	14 mm
80	19 mm
90	24 mm
100/112	28 mm
132	38 mm
160	42 mm
180	48 mm
200 / 225S	55 mm
225M / 250S	60 mm
250M / 280S	65 mm
280M	75 mm
315S / 315M 2p	65 mm
315S 4-8p	80 mm
315M 4-8p	90 mm
355S / 355M 2p	70 mm
355S 4-8p	100 mm
355M / 355L 4-8p	100 mm
355L 2p	70 mm

MECHANICAL SOFT STARTS

# Flexidyne



Mech. soft starts

---

## Mechanical soft starts - Flexidyne

### Features/benefits

#### **Smoother, faster acceleration**

- Smaller motors may be used
- Motor starts under no load conditions
- Smoother starts
- Starting torque can be easily customized

#### **More efficient design**

- Permits use of standard NEMA design B motors
- High torque or high slip motors not needed
- Reduced voltage starters not needed
- Wound rotor motors not needed

#### **More efficient running**

- No slip at running speed means no wear, no heat, no power loss

#### **Overload protection**

- Provides overload protection at overloads somewhat greater than starting torque
- Protection devices to prevent damage to Flexidyne are available

#### **Low current draw**

- Less than twice the nameplate amperage during both starting and overload periods
- Many electric utilities recommend Flexidyne

#### **Increased productivity**

- Eliminates product spillage and machine damage due to harsh starts or jammed loads



## Mechanical soft starts - Flexidyne

### Specification/how to order/nomenclature

#### Specification

Flexidyne is available in three designs: drives, couplings, and C-flex modules to meet most system needs. The drive style is designed to mount directly on the motor shaft to provide an extremely compact unit for belted service. The coupling style provides a versatile solution for transmitting torque between in-line shafts. The C-flex module style provides all of the benefits of regular Flexidyne in a compact package that readily mounts between C-face motors and reducers.

#### How to order

##### Drive style:

Specify mechanism size and bore size. Select a sheave from the selection tables found in the modifications/accessories section. Refer to the part number when ordering.

##### Coupling style:

On size 5C - specify bore size. A complete coupling consists of (1) output hub and (1) mechanism.

On larger sizes - specify coupling size, and bore size. A complete coupling consists of (1) mechanism, including flexible disc, (1) Poly-Disc flange, and (2) bushings.

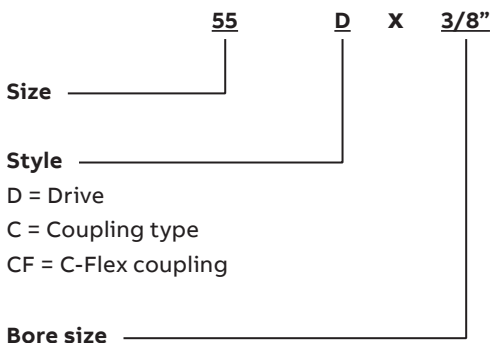
Type PH couplings - specify coupling size, bore size of the driven end and the motor end. A complete coupling consists of (1) mechanism, (1) Taper-Lock or bored-to-size flange assembly, and (1) element.

Refer to the part numbers when ordering.

##### C-flex module style:

Specify the C-flex unit size and the Flexidyne mechanism. Refer to the part numbers when ordering.

#### Nomenclature:



## Mechanical soft starts - Flexidyne

### Selection/dimensions

#### Simplified selection procedure

The tables on pages 135 and 136 give Flexidyne mechanism size and amount of flow charge to provide starting capacities from 100-200% of motor nameplate Hp of a NEMA design B squirrel cage induction motor. This starting capacity is satisfactory for most ordinary industrial applications.

The Flexidyne unit sizes shown in the simplified selection tables suggest the most economical Flexidyne mechanism for a given RPM and Hp. In some cases, under the same conditions, there may be other sizes of Flexidyne which may be utilized.

#### Step 1

Determine the approximate starting torque percentage for the application. As a guide, suggested percentages are listed in the table below.

#### Step 2

Determine motor speed and Hp to be used. Refer to tables on pages 134-135 based on 1760, 1175, or 875 RPM NEMA design B motors.

#### Step 3

Check maximum bore from selection/dimensions pages.

#### Flexidyne mechanism starting torque

Application	Range	Application	Range	Application	Range
Air conditioning	130-17 5%	Cranes (bridge draw)	150-200%	Mixers	130-150%
Agitators	130-17 5%	Crushers	150-200%	Oven drivers	150-17 5%
Belt conveyors	130-150%	Dryers	130-17 5%	Paper mills	-
Blenders	130-17 5%	Fans	150-17 5%	Agitator	130-17 5%
Blowers	150-17 5%	Lumber chippers	150-200%	Hydropulper	130-17 5%
Bucket elevators	130-17 5%	Sawdust conv.	130-17 5%	-	150-200%
Can filling machine	125-150%	Matl. handling equip.	130-150%	Drier	130-150%
Compressors	150-17 5%	Mills (ball, pebble)	150-17 5%	Pumps	125-150%

Note: Since Flexidyne drives and couplings are selected primarily as torque limiting devices by using the starting torque percentages shown above, the use of a service factor is not necessary.

## Mechanical soft starts - Flexidyne

Selection/dimensions

### Other applications

The information on the previous page provides a simple method of selecting the Flexidyne mechanism size when used with NEMA design B motors under general operating conditions. Selection for any other application is based on the specific conditions and requirements of the installation. The power transmitting characteristics of the Flexidyne unit vary with input speed and amount of flow charge used. A Flexidyne unit can be adapted to the specific conditions and requirements of the individual application by using the proper amount of flow charge.

### **Flexidyne units are not recommended for variable speed applications, engines or speeds below 700 RPM.**

Dodge engineers welcome inquiries on Flexidyne mechanism selection for applications not previously covered. It is suggested that their experience be called upon to recommend the best installation. To contact Dodge engineering please call 864-284-5700.

### **Please provide the following information with your request:**

- Type, Hp, RPM, shaft size of motor
- Type, RPM, shaft size of driven machine
- Frequency of starts, reversals, and overloads
- Time required to accelerate
- For high inertia loads, WR2
- Starting Hp and overload breakaway Hp desired
- Functions the Flexidyne unit must perform

## Mechanical soft starts - Flexidyne

Selection/dimensions

### Selection of Flexidyne mechanism size

(based on % of starting torque for NEMA design B motors)

#### 1760 RPM

Rated motor Hp	Flexidyne mech size	100% @ 1760 RPM			125% @ 1750 RPM			150% @ 1740 RPM			175% @ 1700 RPM			200% @ 1650 RPM		
		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge	
			Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.
1/2	5D, 5C	.5	0	8	.62	0	9	.75	0	9.5	.85	0	10	.94	0	10.5
3/4	5D, 5C	.75	0	9	.94	0	10.5	1.1	0	11	1.3	0	11.5	1.4	*	*
1	55D, 55C	1.0	0	9	1.2	0	10	1.5	0	11	1.7	0	12	1.9	0	13
1-1/2	55D, 55C	1.5	0	10	1.9	0	12	2.2	0	13.5	2.5	0	14	2.8	0	16
2	55D, 55C	2.0	0	12	2.5	0	13.5	3.0	0	15	3.4	0	17	3.8	0	18
3	70D, 70C	3.0	1	11	3.7	1	13	4.5	1	14	5.1	2	0	5.7	2	2
5	70D, 70C	5.0	1	14	6.2	2	1	7.5	2	4	8.5	2	8	9.4	2	10
7-1/2	75D, 75	7.5	1	11	9.4	1	14	11.2	2	1	12.7	2	4	14.1	2	9
10	75D, 75C	10	1	15	12.5	2	3	14.9	2	6	17.0	2	9	18.8	2	12
15	9D, 9C	15	2	9	18.8	3	0	22.3	3	7	25.5	3	13	28.3	4	2
20	9D, 9C	20	3	2	25	3	10	30	4	0	34	4	8	38	5	3
25	11D, 11C	25	4	3	31	4	12	37	5	0	42	5	8	47	6	2
30	11D, 11C	30	4	10	37	5	0	45	5	12	51	6	3	57	6	12
40	11D, 11C	40	5	5	50	6	0	60	6	8	68	7	3	75	8	0
50	11D, 11C	50	5	13	62	6	10	74	7	6	85	8	2	94	8	11
60	15D, 15116	60	7	3	75	8	3	89	9	1	102	10	1	113	10	14
75	15D, 15116	75	8	3	94	9	3	111	10	3	127	11	0	141	12	0
100	15D, 15116	100	9	7	125	10	10	149	11	9	170	12	8	188	13	5
125	D15131 ▲	125	7	3	156	8	6	186	9	4	212	10	4	236	11	1
150	D15131 ▲	150	8	3	187	9	3	224	10	3	255	11	1	283	12	1

#### 1175 RPM

Rated motor Hp	Flexidyne mech size	100% @ 1175 RPM			125% @ 1160 RPM			150% @ 1150 RPM			175% @ 1130 RPM			200% @ 1100 RPM		
		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge	
			Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.
1/4	5D, 5C	.25	0	8.5	-	-	-	.46	0	10.5	-	-	-	-	-	-
1/2	55D, 55C	.5	0	11	.62	0	15	.75	0	13	.85	0	15	.94	0	16
3/4	55D, 55C	.75	0	12	.94	0	15	1.1	0	16	1.3	0	17	1.4	0	18
1	70D, 70C	1.0	1	10	1.2	1	12	1.5	1	14	1.7	2	1	1.9	2	4
1-1/2	70D, 70C	1.5	1	13	1.9	2	1	2.2	2	3	2.5	2	6	2.8	2	9
2	75D, 75C	2.0	1	10	2.5	1	13	3.0	2	0	3.4	2	2	3.8	2	6
3	75D, 75C	3.0	1	15	3.7	2	3	4.5	2	7	5.1	2	10	5.7	2	12
5	9D, 9C	5.0	2	4	6.2	2	11	7.4	3	1	8.5	3	8	9.4	3	12
7-1/2	9D, 9C	7.5	3	0	9.3	3	9	11.1	3	14	12.7	4	4	14.1	4	12
10	11D, 11C	10	5	0	12.4	5	5	14.8	5	10	17	6	3	19	7	0
15	11D, 11C	15	5	14	18	6	5	22	7	0	25	7	14	28	9	0
20	11D, 11C	20	6	8	25	7	14	30	8	4	34	8	13	38	9	10
25	15D, 15116	25	8	8	31	9	13	37	10	12	42	11	13	47	12	10
30	15D, 15116	30	9	7	37	10	10	44	11	11	51	12	9	57	13	8
40	15D, 15116	40	10	14	50	12	14	59	13	0	68	14	0	75	15	3
50	15D	50	12	0	62	13	1	74	14	2	85	15	8	-	-	-
	D15116 ▲	50	8	8	62	9	13	74	10	12	85	11	8	94	12	0
60	18D	-	-	-	-	-	-	-	-	-	-	-	-	94	15	11
	15D	60	12	11	75	14	1	89	15	6	-	-	-	-	-	-
60	D15116 ▲	60	9	7	75	10	10	89	11	11	102	12	9	113	13	8
	18D	-	-	-	-	-	-	-	-	-	102	17	4	113	19	6
75	15D	75	13	14	93	15	8	-	-	-	-	-	-	-	-	-
	D15116 ▲	75	10	9	93	11	13	111	12	11	127	13	10	141	14	12
75	18D	-	-	-	-	-	-	111	17	10	127	19	10	141	21	14
	100	18D, 18172	100	15	12	124	18	7	148	20	9	170	22	13	189	24
125	18D, 18172	125	18	7	155	21	1	185	23	3	212	25	3	236	27	3
150	18D, 18172	150	20	5	186	22	15	222	25	0	254	27	0	283	29	4
200	D18172 ▲	200	15	12	249	18	10	285	20	5	340	22	13	377	24	13
250	D18172 ▲	250	18	9	312	21	0	370	23	2	424	25	3	470	27	0

\* Use a Size 55 Flexidyne unit. Fill with 11 oz. of flow charge for 1.5 starting Hp.

▲ Flow charge is listed for one cavity. For duplex (double cavity) units, numbered with prefix "D", the amount listed would have to be doubled.



**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Selection of Flexidyne mechanism size**

(based on % of starting torque for NEMA design B motors)

**875 RPM**

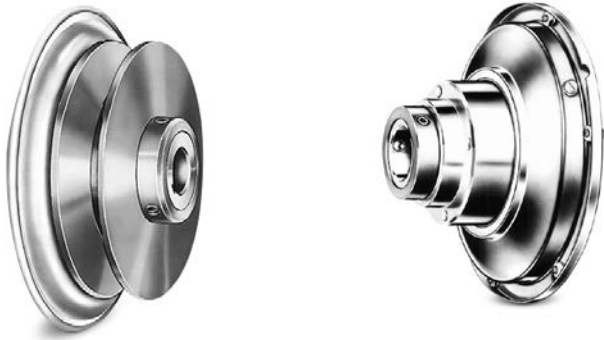
Rated motor Hp	Flexidyne mech. size	100% @ 875 RPM			125% @ 870 RPM			150% @ 850 RPM			175% @ 840 RPM			200% @ 820 RPM		
		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge	
			Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.
1/2	70D, 70C	.5	1	12	.62	1	15	.75	2	1	.85	2	4	.94	2	6
3/4	70D, 70C	.75	2	0	.94	2	3	1.1	2	6	1.3	2	8	1.4	2	12
1	75D, 75C	1.0	1	13	1.2	2	0	1.5	2	3	1.7	2	7	1.9	2	8
1-1/2	75D, 75C	1.5	2	2	1.9	2	7	2.2	2	10	2.5	2	11	2.8	2	12
2	9D, 9C	2.0	2	6	2.5	2	12	2.9	3	0	3.4	3	8	3.7	3	12
3	9D, 9C	3.0	3	0	3.7	3	8	4.4	4	0	5.0	4	6	5.6	4	14
5	11D, 11C	5.0	5	6	6.2	5	14	7.3	6	10	8.4	7	0	9.4	7	8
7-1/2	11D, 11C	7.5	6	8	9.3	7	2	10.9	8	0	12.6	8	8	14.0	9	5
10	15D, 15116	10	8	6	12.4	9	8	14.6	10	9	16.8	11	7	18.7	12	5
15	15D, 15116	15	10	5	19	11	7	22	12	8	25	13	5	28	14	6
20	15D, 15116	20	11	12	25	12	13	29	13	14	34	15	1	38	15	8
25	D15116	25	9	7	31	10	9	36	11	11	42	12	8	47	13	5
30	D15116	30	10	5	37	11	7	44	12	8	50	13	5	56	14	6
40	18D, 18172	40	15	3	50	18	0	58	20	6	67	22	8	75	24	7
50	18D, 18172	50	17	14	62	20	4	73	22	14	84	24	14	94	26	14
60	18D, 18172	60	19	13	75	22	6	87	24	15	101	26	1	112	28	12
75	D18172 ▲	75	14	8	93	17	2	109	19	11	126	21	13	141	23	12
100	D18172 ▲	100	17	14	124	20	4	146	22	14	168	24	14	187	26	14
125	D18172 ▲	125	20	2	155	22	13	182	25	7	210	27	4	234	29	4

▲ Flow charge is listed for one cavity. For duplex (double cavity) units, numbered with prefix "D", the amount listed would have to be doubled.

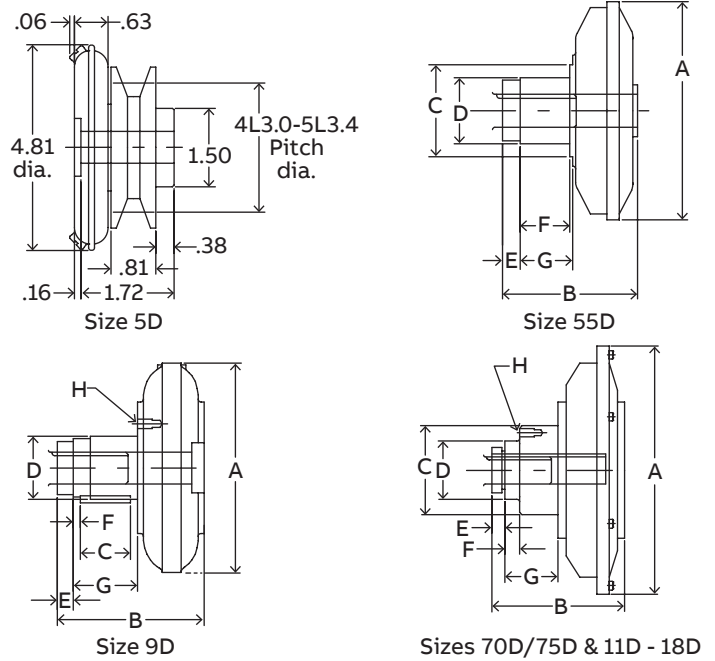
**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Flexidyne drives**



Each Flexidyne, including a container of flow charge, is individually packaged. Cutout features and a cross section drawing are shown in the modifications/accessories section.



Note: Drawings are for dimensional purpose only and do not necessarily represent construction.

**5D Flexidyne drive**

Nom. stock bores ▲	W/integral sheave P.D.	Part number	Wt. lbs.	Keyseat	Key req'd.
5/8	4L2.2-5L2.6	305106	3.4	-	-
	4L3.0-5L3.4	305101	2.4	3/16 X 3/32 X 1-11/16	3/16 X 3/16 X 1-3/8
	4L3.6-5L4.0	305102	3.6	-	-
3/4 (max.)	4L3.0-5L3.4	305103	2.7	3/16 X 3/32 X 1-11/16	3/16 X 3/16 X 1-7/8

▲ +.0005" +.0025" over nominal. Bores not listed will be quoted on application.

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**55D - 18D Flexidyne drive**

Drive size	Max. RPM	Nom. stock bores *	Part number	Wt. lbs.	Keyseat ♥	Key req'd.
55D	3600	5/8	305015	3.0	3/16 x 3/32 x 3-1/16	3/16 x 3/16 x 1-3/8
		7/8 (max.)	305016	2.8		
70D	3300	7/8	305021	9.5	3/16 x 3/32 x 3-5/16	3/16 x 3/16 x 1-3/8
		1-1/8 (max.)	305022	9.7		
75D	3300	1	305085		1/4 x 1/8 x 4	1/4 x 1/4 x 1-3/4
		1-1/8	305056	10.0		
9D	2300	1-3/8 (max.)	305057	10.2	5/16 x 3/32 x 4	5/16 x 1/4 x 2-3/8 ♦
		1-1/8	309070	23.0	1/4 x 1/8 x 6	1/4 x 1/4 x 2
		1-1/4	309071	24.0	1/4 x 1/8 x 6	1/4 x 1/4 x 2-3/4
		1-3/8	309072	23.5	5/16 x 5/32 x 6	5/16 x 5/16 x 2-3/4
11D	2400	1-5/8 (max.)	309073	23.0	3/8 x 1/8 x 6	3/8 x 5/16 x 3-3/4
		1-3/8	311070	45.0	5/16 x 5/32 x 7-5/16	5/16 x 5/16 x 2-3/4
		1-5/8	311071	46.0	3/8 x 3/16 x 7-5/16	3/8 x 3/8 x 3-3/4
11DL	2400	1-7/8 (max.)	311072	45.0	1/2 x 1/8 x 7-5/16	1/2 x 3/8 x 5-1/2 ♦
		2-1/8 (max.)	311073	44.0	1/2 x 1/8 x 7-5/16	1/2 x 3/8 x 5-1/2 ♦
15D	1800	1-7/8	315070	100.0	1/2 x 1/4 x 10-3/16	1/2 x 1/2 x 5
		2-1/8	315071	92.0	1/2 x 1/4 x 10-3/16	1/2 x 1/2 x 5
18D	1500	2-3/8 (max.)	315072	96.0	5/8 x 1/8 x 10-3/16	5/8 x 7/16 x 5-1/2 ♦
		2-7/8	318060	154.0	3/4 x 3/8 x 10-3/16	3/4 x 3/4 x 9-3/4

Size	A	B	C		D	E	F	G **	No. of holes	H Thd.'s
			-.000	+.002						
55D	5.38	3.07	2.752		1.69	0.47	1.38	1.41	-	-
70D	8.13	3.56	3.755/3.753		2.81	0.63	0.63	1.03	4	††
75D	8.13	4.25	3.755/3.753		2.81	0.63	0.63	1.72	4	††
9D	9.50	6.75	-		3.00	0.69	0.56	3.38	4	♣
11D		8.28	5.082/5.080	3.610/3.605		0.75	2.50	4.38	4	§
11DL	11.25									
15D	14.50	11.19	6.625/6.623		4.63	1.00	3.25	6.31	6	▲
18D	18.00	14.75	9.189/9.187		6.00	1.13	1.50	9.25	6	♣

Note: To facilitate order processing specify part numbers.

Setscrews: One furnished over keyway, one @ 120°

\* All sizes: +.0005" +.0025" over nominal. Bores not listed will be quoted on application.

† Key provided.

\*\* Provide 3/32 min. clearance between sheave and Flexidyne drive.

♦ Key is furnished for these sizes only.

♥ Keyseat begins at left end of Flexidyne drive as viewed in drawings on page 136.

♣ 1/4-20x1/2" deep on 3-1/2" dia. B.C.  
(1/4x2-1/2" soc. hd. cap screws w/1-3/8" thd., not furnished)

§ 3/8-16x1-1/8" deep on 4-3/8" dia. B.C.  
(3/8x1-3/4" soc. hd. cap screws w/1-1/4" thd., furnished)

▲ 1/2-13x1-1/4" deep on 5-3/4" dia. B.C.  
(1/2x2" soc. hd. cap screws w/1-1/2" thd., furnished)

♣ 1/2-13x1-5/16" deep on 8-3/16 dia. B.C.  
(1/2x2-1/4" soc. hd. cap screws w/1-1/2" thd., furnished)

†† 1/4-20x5/8" deep on 3-1/4" dia. B.C.  
(1/4x1-1/4" for 70 & 1/4x1-1/4" for 75 furnished)

Mech. soft starts

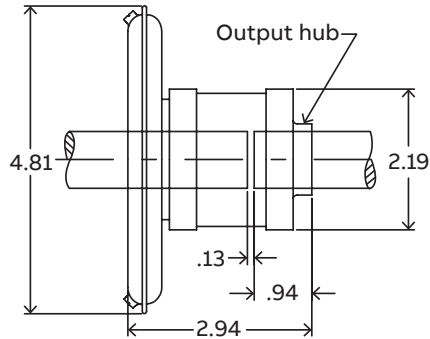
**Mechanical soft starts - Flexidyne**

Selection/dimensions

**5C Flexidyne coupling**



The 5C Flexidyne coupling uses a formed steel housing and tubular flexible element. See ordering instructions in table below.



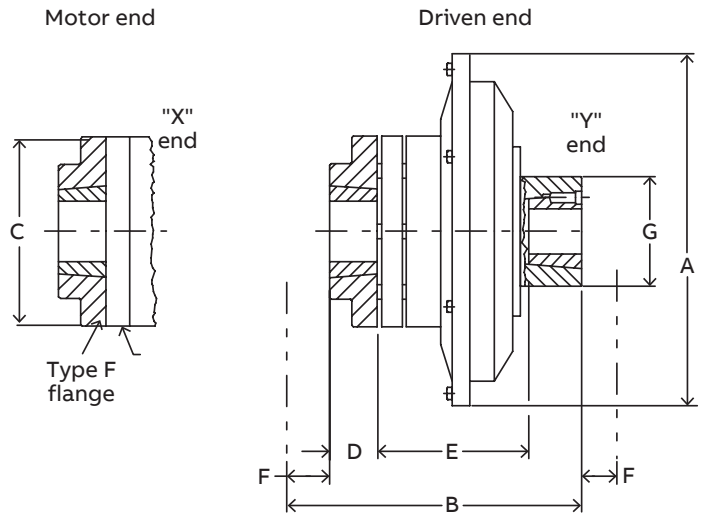
**5C Flexidyne couplings**

Available bores	Keyway	Part numbers	
		Mechanism for motor shaft (avg. wt. 2.2 lbs.)	Output hub for driven shaft (avg. wt. .55 lbs.)
1/2"	1/8 x 1/16	-	305120
5/8"	3/16 x 3/32	305115	305121
3/4"	3/16 x 3/32	305118	305122
7/8"	3/16 x 3/32	305037	305123

Note: Total coupling consists of (1) output hub and (1) mechanism. Order by description x bore. To facilitate order processing, order these items by part number. Max. bore of mechanism = 3/4"; output hub = 1".

Mech. soft starts

**55C - 11C Flexidyne couplings**



The 55C - 11C size Flexidyne coupling uses the same flexible disc used in Dodge poly-disc couplings. The molded polyurethane disc offers longer life and smoother, quieter operation. Disc has excellent physical properties yet remains pliable to cushion shock loads and accommodate misalignment.

H and F flanges, carried in stock, can be arranged in the position which best suits the application. In H type the bushing installs from the hub side of the flange; in F type from the face side.

Sufficient flow charge is furnished with each unit.

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**55C - 11C Flexidyne couplings**

Cplg. size	Bore range of bushing		Max. RPM	Cplg. less bushings	Items required for complete coupling †									
					Mechanism (includes disc)		Poly-Disc flange w/o bush.				Bushings			
	Min.	Max.			Part no.	Wt. lbs.	Size	Type H Part no.	Type F Part no.	Wt. lbs.	Motor end		Driven end	
55C	1/2	1	1800	5.0	305019	4.0	2-5/8	008057	008058	1.0	1008	.2	1008	.2
70C	*	*	1800	15.6	305025	13.6	4	008041	008040	2.0	1215	.7	1610	.7
75C	1/2	1-11/16	1800	18.6	305058	14.1	5-1/4	008043	008042	4.5	1615	1.0	1610	.7
9C	1/2	2-11/16	1800	40.6	309074	30.6	7	008045	008044	10.0	2517	2.8	2517	2.8
11C	1/2	2-11/16	1800	57.2	311074	44.2	8	008047	008046	13.0	2517	2.8	2517	2.8

Cplg. size	Replacement Poly-Disc			A	B	C	D	E ♦	F ▲	G	X end	Y end
	No.	Part number	Weight lbs.									
55C	2-5/8	008030	1	5.38	3.5	2.63	0.88	1.41	0.75	2.25	Driven	Motor
70C	4	008032	0.2	8.13	6.06	4	★	3.56	1.06	3.63	Motor	Driven
75C	5-1/4	008033	0.5	8.13	6.38	5.25	★	3.889	1.06	3.63		
9C	7	008034	0.9	9.5	8.63	7	1.75	5.13	1.63	4.13		
11C	8	008035	1.5	11.25	9.63	8	1.75	6.13	1.63	4.88		

Complete coupling consists of (1) mechanism, including flexible disc,

(1) Poly-Disc flange, and two bushings.

Taper-Lock bushings sold separately.

† To facilitate order processing specify part numbers.

Determine whether H or F flange is required and order accordingly.

\* Motor end: 1/2" -1-1/4" (min./max.); Driven end: 1/2" - 1-5/8"

◆ Normal dimension. Shaft end float which increases or decreases "E" by slight amounts is permissible.

★ 1" on driven end, 1-1/2" on motor end.

▲ Space required to loosen bushing with shortened hex key using screws as jack screws-no puller required.

Keyways - See tables below for standard keyways and shallow keyways.

**Standard keyways**

Bore range	Keyway
1/2 - 9/16 Incl.	1/8 x 1/16
Over 9/16 - 7/8 incl.	3/16 x 3/32
Over 7/8 - 1-1/4 incl.	1/4 x 1/8
Over 1-1/4 - 1-3/8 incl.	5/16 x 5/32
Over 1-3/8 - 1-3/4 incl.	3/8 x 3/16
Over 1-3/4 - 2-1/4 incl.	1/2 x 1/4
Over 2-1/4 - 2-3/4 incl.	5/8 x 5/16
Over 2-3/4 - 3-1/4 incl.	3/4 x 3/8
Over 3-1/4 - 3-3/4 incl.	7/8 x 7/16
Over 3-3/4 - 4-1/2 incl.	1 x 1/2
Over 4-1/2 - 5-1/2 incl.	1-1/4 x 5/8
Over 5-1/2 - 6-1/2 incl.	1-1/2 x 3/4

**Shallow keyways**

Bush no.	Bore range	
1008	15/16 - 1	Note: Key furnished for these exceptions only.
1610	1-9/16 - 11-1/16	
1615		
2517	2-5/16 - 2-11/16	Note: Key furnished for these exceptions only.

## Mechanical soft starts - Flexidyne

Selection/dimensions



### Type PH Flexidyne couplings

This unique combination of Para-Flex coupling and Flexidyne mechanism offers maximum protection for motors and driven machines. The Flexidyne unit allows the motor to accelerate quickly and start the load smoothly while the Para-Flex coupling permits up to 1° angular misalignment, up to 1/16" parallel misalignment and 3/32" end float. Consequently, starting torque can be tailored to the driven load requirements while torsional and lateral vibration and shock loads are being absorbed or cushioned.

The driven end of the couplings uses Taper-Lock bushings only. However, the motor end is available as bushed or bored-to-size. Bored-to-size flanges accommodate larger shafts than possible with bushed flanges. Smaller size flanges are reversible offering the H and F position from the same flange. A choice of H or F flanges is offered for size PX140.

### Taper-Lock bushings

Cplg. size	For mechanism		For flange assy.	
	No	Avg. wt. lbs.	No.	Avg. wt. lbs.
987	2517	2.8	1610	0.7
1196	2517	2.8	2012	1.4
15116	3030	7.4	2517	2.8
D15116	3030	7.4	2517	2.8
D15131	3030	7.4	2517	2.8
18172	3535	11.5	3535	11.5
D18172	3535	11.5	3535	11.5

Note: For keyway information, see footnote next page.

### Type PH Flexidyne couplings w/ taper-lock flanges

Cplg. size	Cplg. less bushings ♦		Items req'd. for complete coupling ▲												
			Mechanism				Taper-Lock flg. assy.				Element				
	Wt. lbs.	Driven end bore range		Part no.	Wt. lbs.	Motor end bore range		Size	Part nos. for respective types		Wt. lbs.	Size	Part no.	Wt. lbs.	
		Min.	Max.			Min.	Max.		St'd. (reversible)	Type H					Type F
987	46.7	1/2	2-11/16	309077†	40	1/2	1-11/16	PX70	010603	-	-	5.1	PH87	011227	1.6
1196	65.5	1/2	2-11/16	311077	56	1/2	2-1/8	PX80	010604	-	-	7.4	PH96	011228	2.1
15116	137.5	1-5/16	3-1/4	315073	120	1/2	2-11/16	PX100	010606	-	-	15.0	PH116	011230	2.5
D15116	184.5	1-5/16	3-1/4	315074	167	1/2	2-11/16	PX100	010606	-	-	15.0	PH116	011230	2.5
D15131	175.7	1-5/16	3-1/4	315075	150	1/2	2-11/16	PX110	010607	-	-	21.6	PH131	011231	4.1
18172	314.2	1-3/16	3-15/16	318110	242	1-3/16	3-15/16	PX140	-	011134	011154	64.0	PH172	011234	8.2
D18172	320.2	1-3/16	3-15/16	318400	248	1-3/16	3-15/16	PX140	-	011134	011154	64.0	PH172	011234	8.2

♦ When ordering bushings, specify bore and part number.

† Assembled-to-order. Consult Dodge for delivery.

▲ To facilitate order processing specify part numbers. In sizes 18172 and D18172, determine whether H or F flange is required and order accordingly. Complete coupling consists of (1) mechanism, (1) Taper-Lock flange assembly, (1) element and (2) bushings.

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Type PH Flexidyne couplings (continued)**

Cplg. size	Coupling less bushings ◆		Size	Rough stock bore				BBS flange assembly Fin. bored w st'd. K.W.		
	Rgh. bored	Fin. bored		Min. bore ★	Max. bore	Part number	Wt. lbs.	Motor end bore range ▼	Wt. lbs. ◆	Set screw
	Wt. lbs.	Wt. lbs.								
987	49.5	47.3	PX70BBS	0	2-1/8	010301	7.9	1/2 - 2-1/8	5.7	
1196	69.1	66.3	PX80BBS	0	2-3/4	010302	11	1/2 - 2-3/4	8.2	
15116	147.5	139.5	PX100BBS	0	3-3/4	010304	25	1/2 - 3-3/4	17	⊕
D15116	194.5	186.5	PX100BBS	0	3-3/4	010304	25	1/2 - 3-3/4	17	
D15131	189.1	176.1	PX110BBS	0	4-1/8	010305	35	1/2 - 4-1/8	22	
1817 2	336.2	311.2	PX140BBS	2-1/4	5	010530	86	2-3/4 - 4-1/2	61	♣
D1817 2	342.2	317.2	PX140BBS	2-1/4	5	010530	86	2-3/4 - 4-1/2	61	

Note: Complete coupling consists of (1) mechanism, (1) BBS flange assembly, (1) element and (1) bushing.

▼ Bored per order-sizes PX70 - PX110 are furnished with a clearance fit from nominal bores (up to 2" +.000-.000, over 2" +.0015 -.0000). In PX140 size, tolerance will be applied to custom bores (up to 3" +.000 -.001, over 3" - 6" +.0000 -.0015; over 6" +.000 -.002). Largest bore listed should be considered as maximum.

⊕ One furnished over keyway.

♣ Not furnished unless specified on order.

\* Standard keyway is the same as shown on page. For shallow keyway exceptions, see table below.

Note: Taper-Lock bushings sold separately.

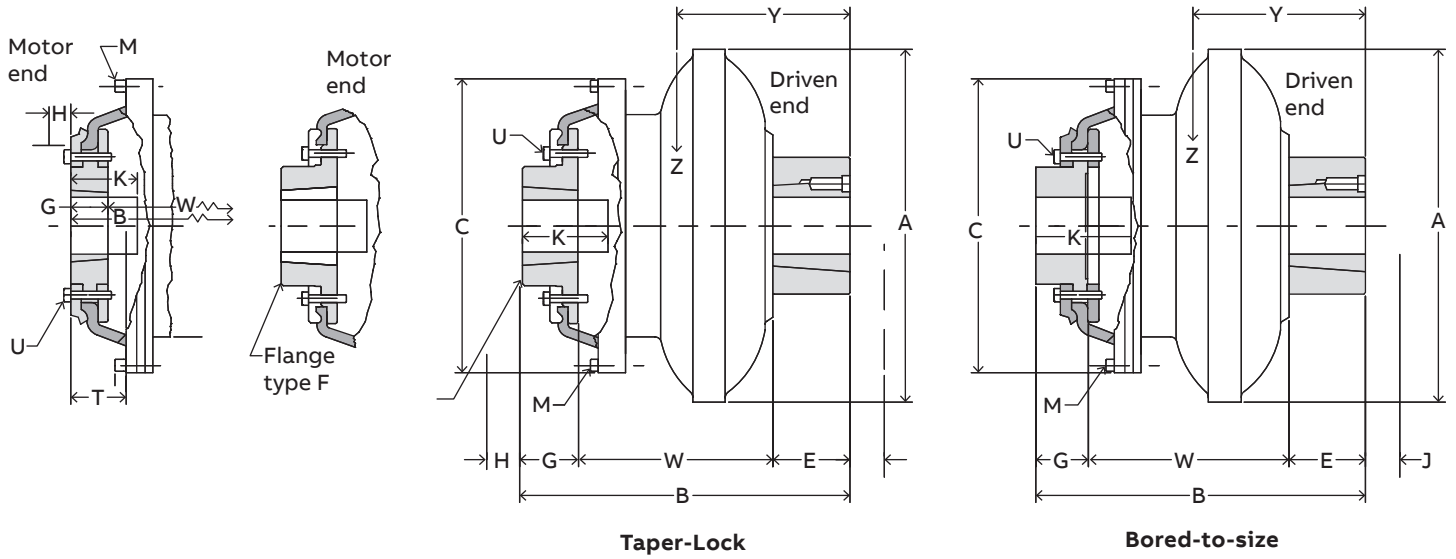
◆ Approximate weight with maximum bore

★ -.010 to -.015" no keyway

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Type PH Flexidyne couplings (continued)**



Coupling size	Max. RPM	A	B		C	E ♣	G		H †	J †	K ▲		M ◆ (No.) & size of screws
			Taper-Lock flange	Bored-to-size flange			Taper-Lock flange	Bored-to-size flange			Taper-Lock flange	Bored-to-size flange	
987	1800	9.5	8.75	9.75	9.44	1.75	1	1.75	1.06	1.63	3.19	4.19	(8) 5/16-18 x 1-1/4
1196	1800	11.25	10.06	11.19	10.31	1.75	1.25	2	1.38	1.38	4.38	5.5	(6) 3/8-16 x 1-1/2
15116	1800	14.5	12.31	13.81	12.31	3	1.75	2.63	1.63	2.06	4.44	5.94	(8) 3/8-16 x 1-1/2
D15116	1800	14.5	13.88	15.31	12.31	3	1.75	2.63	1.63	2.06	4.44	5.94	(8) 3/8-16 x 1-1/2
D15131	1800	14.5	14.63	16.38	13.81	3	1.75	3	1.63	2.06	5.19	6.94	(8) 3/8-16 x 2
18172	1500	18	16.31	17.44	18.31	3.5	3.5	3.88	2.63	2.63	7.5	8.5	(8) 1/2-13 x 2
D18172	1500	18	17.81	18.94	18.31	3.5	3.5	3.88	2.63	2.63	7.31	8.5	(8) 1/2-13 x 2



**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Type PH Flexidyne couplings (continued)**

Coupling size	T		U **		W ■		X	Y ♥	Z ♣ (lbs.)
	Taper-Lock flange	Bored-to-size flange	(No.) & size of screws		Taper-Lock flange	Bored-to-size flange			
			Taper-Lock flange	Bored-to-size flange					
987	1.59	1.59	(5) 5/16-18 x 1-1/2	(5) 5/16-18 x 1-1/2	5.94	6.25	-	3.88	43
1196	1.91	1.91	(6) 5/16-18 x 1-1/2	(6) 5/16-18 x 1-1/2	7.06	7.44	-	4.13	66
15116	2.09	2.09	(6) 3/8-16 x 1-3/4	(6) 3/8-16 x 1-3/4	7.56	8.19	-	5.5	107
D15116	2.09	2.09	(6) 3/8-16 x 1-3/4	(6) 3/8-16 x 1-3/4	9.13	9.69	-	6.5	153
D15131	2.56	2.56	(6) 3/8-16 x 2	(6) 3/8-16 x 2	9.88	10.38	-	6.5	153
1817 2	3.63	3	(8) 1/2-13 x 2-1/2	(8) 1/2-13 x 2-1/4	9.31	10.06	0.19	6.75	209
D1817 2	3.63	3	(8) 1/2-13 x 2-1/2	(8) 1/2-13 x 2-1/4	10.81	11.56	0.19	6.69	284

♣ Driven shaft should not extend into coupling beyond dimension E.

† Space required to loosen bushing with shortened hex key using screws as jackscrew no puller required.

▲ Motor shaft may extend into coupling beyond dimension G but not beyond dimension K.

\* Reversible flanges permit Type H or F from the same flange.

■ Normal distance between shafts. End float which increases or decreases W by slight amounts is permissible.

♥ Distance from driven end to center of gravity of driven section of coupling

♣ Weight of driven section with maximum bore and flow charge

◆ Socket head cap screw

\*\* Hex head cap screw, SAE Grade 8; Optional: Nickel plated grade 8 screws

Keyways - standard keyways are shown on page 140. For shallow keyway exceptions see table below.

Bush No	Bore range	
1610	1-9/16 - 1-5/8	Note: Key furnished for these exceptions only. See Taper-Lock section for Keyway information.
2012	1-15/16 - 2-1/8	
2517	2-5/16 - 2-11/16	
3030	2-13/16 - 3-1/4	
3535	3-5/16 - 3-15/16	

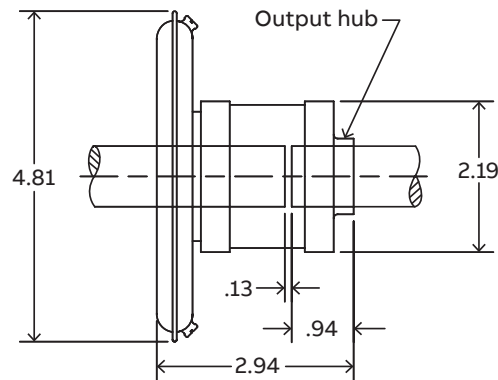
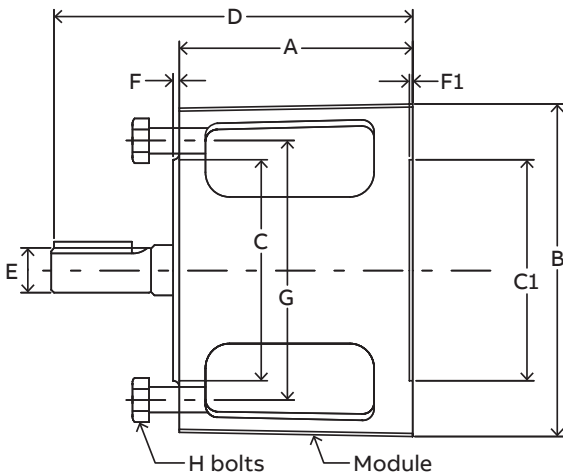
**Mechanical soft starts - Flexidyne**

Selection/dimensions

**C-flex module**

C-flex is a system for easily adapting stock Flexidyne couplings to conventional AC motor/C-face reducer drive combinations. The advantages of this low cost arrangement include soft start and intermittent overload protection utilizing popular NEMA-B motors and across-the-line switching. Costly reduced voltage starters or specially wound motors are not required. Flexidyne unit operates bi-directionally (reversing) and allows starting of heavy inertial loads without oversized motors.

C-flex fits all standard NEMA C-face mountings of 56C, 140TC, 180TC and 210TC frame utilized on 1/2 - 10 Hp, 1750 ROM AC motors. The C-flex output bearing provides support for single-bearing reducer types, but is equally suitable for reducers having two input shaft bearings.



**C-flex modules**

Hp rating @ 1750 RPM	For NEMA C-face frame	C-flex unit ▲			Flexidyne mechanism			A	B	C dia.	C1 dia.	Nom. D	E. dia.	F	F1	G dia. B.C.	H bolts	
		Model no.	Part no.	Wt. (lbs.)	Size	Part no.	Wt. (lbs.)										No.	Size
1/2	56C	150	305026	14.5	5CF x 5/8 ■	305117	2.2	4.75	6.63	4.500	4.501	6.69	5/8	.100	0.19	5.88	4	★
3/4										.160								
1										.160								
1	140TC	200	305027	14.5	5CF x 7/8 ■	305037	2	4.75	6.63	4.500	4.501	6.81	7/8	.100	0.19	5.88	4	★
1-1/2										.160								
2										.160								
3	180TC	500	305028	54.5	70C	305025	13.6	12.5	10	8.499	8.500	15.31	1-1/8	.200	0.22	7.25	4	★
5										.250								
7-1/2										.250								
10	210TC	1000	305029	58.2	75C	305058	14.1	12.5	10	8.499	8.500	15.84	1-3/8	.200	0.22	7.25	4	★
10										.250								

Selection data: For 1/2 - 2 Hp rating, see table below.  
For 3 - 10 Hp rating, see tables on pages 134-135.  
■ For 5C Flexidyne see page 138.

▲ Includes all necessary parts except mechanism.  
★ 3/8 -16 x 1-1/4 hex hd. cap screw.  
\* 1/2 -13 x 1-1/2 soc. hd. cap screw.

**Selection of 5CF Flexidyne mechanism used in C-flex module**

Rated motor Hp	100% @ 1760 RPM			125% @ 1750 RPM			150% @ 1740 RPM			175% @ 1700 RPM			200% @ 1650 RPM		
	Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge		Starting Hp	Flow charge	
		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.		Lbs.	Oz.
1/2	.50	0	4	.62	0	5	.75	0	5	.85	0	6	.94	0	7
3/4	.75	0	5	1.00	0	6	1.10	0	6	1.30	0	7	1.40	0	8
1	1.00	0	6	1.20	0	7	1.50	0	7	1.70	0	8	1.90	0	9
1-1/2	1.50	0	7	1.90	0	8	2.20	0	8	2.50	0	9	2.80	0	10
2	2.00	0	8	2.50	0	9	3.00	0	9	3.40	0	10	3.60	0	11

## Mechanical soft starts - Flexidyne

### Modification/accessories

#### Flexidyne flow charge

Cast steel flow charge is furnished unless otherwise specified. Sufficient amounts for all applications are furnished and included in the price of each Flexidyne unit. The part numbers listed here apply only when extra flow charge is ordered or the application requires stainless steel flow charge.

Flow charge is packaged in a tough transparent plastic bottle which is graduated and has a handy pour spout. This makes handling of flow charge easy whether pouring into the unit or removing flow charge if a change in torque is desired.

Stainless steel flow charge is recommended for applications subject to excessive moisture, humidity or wide temperature variations that may cause internal condensation. It may be ordered to replace that in an existing unit or in place of the cast steel flow charge when ordering a Flexidyne unit.

Sizes 5, 5CF, and 55 Flexidyne mechanisms use SAE S110 (.0234" maximum diameter) steel shot. In sizes 70 and up, SAE S170 (.0331" maximum diameter) steel shot is used.



#### Flow charge for individual Flexidyne mechanism applications

Flexidyne mech. size ▲	Cast steel		Stainless steel	
	Part no.	Wt.	Part no.	Wt.
5, 5CF	311124	1 lb.-2 oz.	311116	11 oz.
55, 6*	311124	1 lb.-2 oz.	311122	1 lb. - 2oz.
7*	311125	3 lb.-5 oz.	311118	1 lb. -14 oz.
8*	311125	3 lb.-5 oz.	311119	3 lb. -5 oz.
70, 75	311125	3 lb.-5 oz.	311123	2 lb. -13 oz.
9	309111	5 lb.-3 oz.	311120	5 lb. -3 oz.
11	311111	10 lb.	311121	10 lb.
15	315111	20 lb.	(2) 311121	20 lb.
D15, 18	(1) 315111	30 lb.	(3) 311121	30 lb.
	(1) 311111			
D18	(3) 315111	60 lb.	(2) 311113	60 lb.
			(1) 311121	

▲ Units with "D" prefix have duplex cavities.

\* Old style Flexidyne sizes.

#### Bulk Flexidyne flow charge Size 70 and up

Wt. (lbs.)	Cast steel part no.	Stainless part no.
15	-	311112
20	315111	-
25	-	311113

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Stock sheaves for Flexidyne drives (refer to information on page 148)**

For Flexidyne size	Fig. no. (page 148)	No. of grvs.	Datum dia.			Outside dia.		Bolt-on part no.	Taper-Lock part no.	QD part no.	Wt. (lbs.) ▲	See drwg.'s on page 148				
			Using A belts ★	Using B belts ★	Using C belts ★	Using 3V belts	Using 5V belts					E	F	L	M	
5D													Sheaves are integral - included in price & wt. of assembled unit			
55D	1 or 2	1	-	-	-	3.35	-	-	11217 5	-	1.1	-	0.69	-	0.31	
		1	-	-	-	3.65	-	-	11217 6	45510 8	1.5	0.56	0.69	-	0.31	
		1	-	-	-	4.12	-	-	11217 7	14410 9	2.2	0.56	0.69	-	0.31	
		1	-	-	-	4.5	-	-	11217 8	14411 0	2.4	0.56	0.69	-	0.31	
		1	-	-	-	5.0	-	-	11218 0	45511 2	2.9	0.56	0.69	-	0.31	
		1	-	-	-	5.3	-	-	11218 1	45511 3	3.4	0.56	0.69	-	0.31	
		1	-	-	-	5.6	-	-	11218 2	45511 4	3.8	0.56	0.69	-	0.31	
		1	-	-	-	6.0	-	-	11218 3	45511 5	4.1	0.56	0.69	-	0.31	
		1	-	-	-	6.5	-	-	11218 4	45511 6	4.5	0.56	0.69	-	0.31	
	1	-	-	-	6.9	-	-	11218 5	45511 7	5.1	0.56	0.69	-	0.31		
	1	3.0	3.4 ■	-	-	-	-	-	11828 3	-	1.2	0.50	0.88	0.00	-	
	1	3.2	3.6 ■	-	-	-	-	-	11828 4	-	1.3	0.50	0.88	0.00	0.00	
	1	3.4	3.8 ■	-	-	-	-	-	11830 1	11828 5	1.6	0.50	0.88	0.00	0.00	
	1	3.6	4.0 ■	-	-	-	-	-	11830 2	11828 6	1.8	0.25	0.88	0.19	0.00	
	1	3.8	4.2 ■	-	-	-	-	-	11819 4	45555 0	2.2	0.25	0.88	0.19	0.13	
	1	4.0	4.4 ■	-	-	-	-	-	11819 5	45555 1	2.6	0.25	0.88	0.19	0.13	
	1	4.2	4.6	-	-	-	-	-	11819 6	-	2.1	-	0.88	-	0.13	
	1	4.4	4.8	-	-	-	-	-	11819 7	-	2.4	-	0.88	-	0.13	
	1 or 2	1	4.6	5.0	-	-	-	-	11819 8	-	3.6	-	0.88	-	0.13	
1 or 2	1	4.8	5.2	-	-	-	-	11819 9	-	3.8	-	0.88	-	0.13		
1	1	5.0	5.4	-	-	-	-	11820 0	-	3.1	-	0.88	-	0.13		
1	1	5.2	5.6	-	-	-	-	11820 1	-	4.3	-	0.88	-	0.13		
1	1	5.4	5.8	-	-	-	-	11820 2	-	4.1	-	0.88	-	0.13		
1	1	5.6	6.0	-	-	-	-	11820 3	-	4.1	-	0.88	-	0.13		
1	1	5.8	6.2	-	-	-	-	11820 4	-	4.3	-	0.88	-	0.13		
1	1	6.0	6.4	-	-	-	-	11820 5	-	4.1	-	0.88	-	0.13		
1	1	6.2	6.6	-	-	-	-	11820 6	-	4.9	-	0.88	-	0.13		
1	1	6.4	6.8	-	-	-	-	11820 7	-	4.8	-	0.88	-	0.13		
70D	4	1	-	-	-	4.75	-	11225 0	-	-	2.2	0.13	0.69	0.44	0.13	
		1	-	-	-	5.0	-	11225 1	-	-	2.5	0.13	0.69	0.44	0.13	
		1	-	-	-	5.3	-	11225 2	-	-	3.1	0.13	0.69	0.44	0.13	
		1	-	-	-	5.6	-	11225 3	-	-	3.3	0.13	0.69	0.44	0.13	
		1	-	-	-	6.0	-	11225 4	-	-	3.8	0.00	0.69	0.56	0.13	
		1	-	-	-	6.5	-	11225 5	-	-	4.6	0.00	0.69	0.56	0.13	
		1	-	-	-	6.9	-	11225 6	-	-	5.4	0.00	0.69	0.56	0.13	
	4	1	4.8	5.2	-	-	-	-	11827 5	-	-	2.7	0.19	0.88	0.44	0.25
		1	5.0	5.4	-	-	-	-	11827 6	-	-	3.2	0.19	0.88	0.44	0.25
		1	5.2	5.6	-	-	-	-	11827 7	-	-	3.7	0.19	0.88	0.44	0.25
		1	5.6	6.0	-	-	-	-	11827 8	-	-	4.5	0.19	0.88	0.44	0.25
		1	6.0	6.4	-	-	-	-	11827 9	-	-	5.3	0.28	0.88	0.22	0.38
		1	6.4	6.8	-	-	-	-	11828 0	-	-	6.2	0.28	0.88	0.22	0.38
1	7.0 ◆	7.4 ◆	-	-	-	-	11828 1	-	-	10.9	0.25	1.00	0.50	0.25		

★ Composite groove to accommodate either A or B belts  
 † These sizes also fit 70D  
 ◆ Made to order sheaves, price on application

■ Use "B" Dyna-Cog belt, not standard "B"  
 ▲ Weight does not include bushing. Order from page 148

Mech. soft starts

**Mechanical soft starts - Flexidyne**

Selection/dimensions

**Stock sheaves for Flexidyne drives (refer to information on page 148)**

For Flexidyne size	Fig. no. (page 148)	No. of grvs.	Datum dia.			Outside dia.		Bolt-on part no.	Taper-Lock part no.	QD part no.	Wt. (lbs.) ▲	See drwg.'s on page 148			
			Using A belts ★	Using B belts ★	Using C belts ★	Using 3V belts	Using 5V belts					E	F	L	M
75D	4	2	-	-	-	4.75	-	112265	-	-	2.2	0.13	1.09	0.69	0.28
		2	-	-	-	5.0 †	-	112266	-	-	2.7	0.13	1.09	0.69	0.28
		2	-	-	-	5.3	-	112267	-	-	3.6	0.13	1.09	0.69	0.28
		2	-	-	-	5.6 †	-	112268	-	-	4.0	0.13	1.09	0.69	0.28
		2	-	-	-	6.0 †	-	112269	-	-	4.9	0.00	1.09	0.81	0.28
		2	-	-	-	6.5	-	112270	-	-	6.1	0.00	1.09	0.81	0.28
		2	-	-	-	6.9	-	112271	-	-	7.5	0.00	1.09	0.81	0.28
	4	2	4.8	5.2	-	-	-	118290	-	-	4.6	0.06	1.75	0.75	0.94
		2	5.0	5.4	-	-	-	118291	-	-	5.5	0.06	1.75	0.75	0.94
		2	5.2	5.6	-	-	-	118292	-	-	6.5	0.06	1.75	0.75	0.94
		2	5.6	6.0	-	-	-	118293	-	-	7.0	0.06	1.75	0.75	0.94
		2	6.0	6.4	-	-	-	118294	-	-	7.9	0.06	1.75	0.75	0.94
		2	6.4	6.8	-	-	-	118295	-	-	8.9	0.06	1.75	0.75	0.94
		2	7.0 ◆	7.4 ◆	-	-	-	118296	-	-	13.3	0.00	1.75	0.81	0.94
9D	3	4	-	-	-	4.75	-	310 077	-	-	4.5	0.00	1.91	2.13	0.22
		4	-	-	-	5.3	-	310 078	-	-	5.6	0.00	1.91	2.13	0.22
		4	-	-	-	6.0	-	310 079	-	-	8.6	0.00	1.91	2.13	0.22
	3	4	5.6	6.0	-	-	-	310 060	-	-	13.2	1.25	3.25	2.25	0.25
		4	6.0	6.4	-	-	-	310 061	-	-	15.0	1.25	3.25	2.25	0.25
		5	5.0	5.4	-	-	-	310 062	-	-	11.4	2.00	4.00	2.25	0.25
		5	5.2	5.6	-	-	-	310 063	-	-	12.3	2.00	4.00	2.25	0.25
11D, 11DL	4	3	-	-	-	-	7.5	310 082	-	-	10.7	0.63	2.38	0.75	1.00
		5	-	-	-	6.5	-	310 080	-	-	7.6	0.56	2.31	0.75	1.00
		5	-	-	-	6.9	-	310 081	-	-	8.7	0.56	2.31	0.75	1.00
	4	5	6.2	6.6	-	-	-	310 064	-	-	13.7	1.63	4.00	0.75	1.63
		5	6.4	6.8	-	-	-	310 065	-	-	14.0	1.63	4.00	0.75	1.63
		5	7.0	7.4	-	-	-	310 066	-	-	18.0	1.63	4.00	0.75	1.63
		5	8.2	8.6	-	-	-	310 067	-	-	23.0	1.63	4.00	0.75	1.63
15D	4	4	-	-	-	-	9.75	310 085	-	-	19.8	0.56	3.06	0.75	1.75
		5	-	-	-	-	8.5	310 083	-	-	16.4	1.25	3.75	0.75	1.75
		5	-	-	-	-	9.0	310 084	-	-	18.6	1.25	3.75	0.75	1.75
	4	5	-	-	10.5	-	-	310 068	-	-	37.0	2.75	5.38	0.75	1.88
		6	-	-	9.0	-	-	310 069	-	-	31.0	2.75	6.38	0.75	2.88
		6	-	-	9.5	-	-	310 070	-	-	33.8	2.75	6.38	0.75	2.88
6	-	-	10.0	-	-	310 071	-	-	40.0	2.75	6.38	0.75	2.88		

18 D Not stocked, see made-to-order sheaves on next page

★ Composite groove to accommodate either A or B belts.

† These sizes also fit 70D.

◆ Made to order sheaves, price on application.

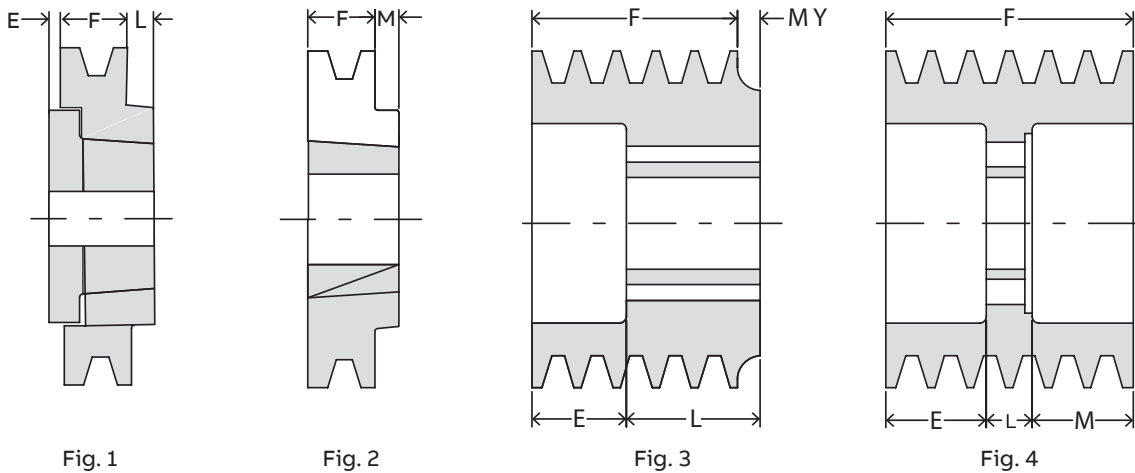
▲ Weight does not include bushing. Order from page 148.

# Mechanical soft starts - Flexidyne

## Modification/accessories

The tables on the previous pages list stock sheaves available for use on Flexidyne drives from size 55D - 15D. The size 5D uses integral sheaves which are shown on page 136. The 18D sheaves are made-to-order.

Avoid the use of bored-to-size sheaves which use setscrews which may distort sleeve or damage bearings. Order sheaves by part number listed in tables on previous pages 146 - 147. Refer to V-Drive tables on pages 150 - 153. Information on made-to-order sheaves is shown below.



▲ Locate right side of M dimension shown here @ right end of G dimension as shown in drawing for size 9D on page 136.

### Made-to-order Flexidyne sheaves

Flexidyne mech. size	Max. no. grvs.	Belt size	Min. dia.* Taper-Lock	Separate sheaves	
				QD	Bolt-on
55D	1	3V	3.85	-	-
		A	3.8	3.0	-
		B	4.2	3.4	-
70D	1	3V	-	-	5.3
		A	-	-	4.8
		B	-	-	5.2
75D	2	3V	-	-	5.3
		A	-	-	4.8
		B	-	-	5.2
9D	7	3V	6.4	-	4.75 ★
	6	B	6.6	-	5.4 ◆
	10	3V	-	-	6.6
11D, 11DL	6	5V	-	-	7.5
	7	B	-	-	6.7
15D	15	3V	-	-	8.0
	9	5V	-	-	9.0
	9	B	-	-	8.0
	7	C	-	-	8.5
18D	13	5V	-	-	11.8
	10	C	-	-	11.0

\* For 3V, 5V groove sheaves outside diameter is shown. For A, B and C groove sheaves, pitch diameter is shown.  
 ★ Taper-Lock furnished for 6.4 and larger O.D.  
 ◆ Taper-Lock furnished for 6.6 and larger P.D.

### Flexidyne sheave bushings

Dwg. ref.	Bush. type	Part number	Wt. (lbs.)	Size
Fig. 1	QD	12 0580*	.6	SH x 1-11/16
Fig. 2	Taper-Lock	117 071*	.5	1610 x 1-11/16

\* These bushings used with 55D Flexidyne. Must be used without key.

Stock Flexidyne sheaves should be used whenever possible. However made-to-order sheaves which conform to diameter and groove limitations listed in table at left, can be furnished. Consult Dodge if sheave required does not fall within these limits.

Made-to-order sheaves will be priced on application. Consult Dodge for price and delivery. The following should be included with your inquiry:

1. Style of sheave (Bolt-on, integral, Taper-Lock, etc.)
2. No. of grooves
3. Belt size
4. Sheave dia. (State whether O.D. or P.D.)
5. Quantity req'd

**Mechanical soft starts - Flexidyne**

Modification/accessories

**V-belt drives For 5D Flexidyne drives**

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Driver ▲	Sheave Driven *	Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Driver ▲	Sheave Driven *	Quan. & belt size ◆
2250	1.29	3.6	AK30H	1-4L	1122	1.56	3.6	5.6	**
2122	1.22	3.4	AK30H	1-4L	1117	1.57	3.0	AK51H	1-4L
2100	1.20	3.6	AK32H	1-4L	1105	1.58	3.6	AK61H	1-4L
1970	1.13	3.6	AK34H	1-4L	1048	1.67	3.0	AK54H	1-4L
1970	1.13	3.4	AK32H	1-4L	1012	1.73	3.0	AK56H	1-4L
1875	1.07	3.0	AK30H	1-4L	1008	1.74	3.4	BK65H	1-5L
1850	1.06	3.6	3.4	**	983	1.78	3.6	6.4	**
1850	1.06	3.4	AK34H	1-4L	955	1.83	3.0	AK59H	1-4L
1750	1.00	3.0	AK32H	1-4L	936	1.87	3.0	5.6	**
1707	1.03	4.0	BK47H	1-5L	930	1.88	3.4	BK70H	1-5L
1703	1.03	3.6	AK41H	1-4L	921	1.90	3.0	AK61H	1-4L
1651	1.06	3.6	3.8	**	900	1.94	3.6	AK74H	1-4L
1651	1.06	3.4	BK40H	1-5L	875	2.00	3.0	AK64H	1-4L
1640	1.07	3.0	AK34H	1-4L	833	2.10	4.0	BK90H	1-5L
1577	1.11	3.6	AK44H	1-4L	804	2.18	3.4	BK80H	1-5L
1572	1.11	4.0	BK50H	1-5L	788	2.22	3.6	AK84H	1-4L
1615	1.08	3.6	BK45H	1-5L	768	2.28	3.6	8.2	**
1544	1.13	3.0	3.4	**	751	2.33	3.0	AK74H	1-4L
1525	1.15	3.4	BK45H	1-5L	708	2.47	3.4	BK90H	1-5L
1496	1.17	3.6	AK46H	1-4L	700	2.50	3.6	AK94H	1-4L
1522	1.15	4.0	BK52H	1-5L	673	2.60	4.0	BK110H	1-5L
1458	1.20	3.0	3.6	**	656	2.67	3.0	AK84H	1-4L
1451	1.21	3.4	BK47H	1-5L	641	2.73	3.0	8.2	**
1429	1.23	4.0	BK55H	1-5L	630	2.78	3.6	AK104H	1-4L
1400	1.25	3.6	AK49H	1-4L	614	2.85	4.0	BK120H	1-5L
1423	1.23	3.0	AK41H	1-4L	595	2.94	3.6	10.6	**
1378	1.27	3.0	3.8	**	583	3.00	3.0	AK94H	1-4L
1376	1.28	3.6	4.6	**	572	3.06	3.4	BK110H	1-5L
1372	1.28	4.0	BK57H	1-5L	525	3.33	3.0	AK104H	1-4L
1316	1.33	3.6	4.8	**	496	3.53	3.0	10.6	**
1340	1.31	3.6	AK51H	1-4L	455	3.85	4.0	BK160H	1-5L
1313	1.33	3.0	AK44H	1-4L	450	3.89	3.6	AK144H	1-4L
1296	1.35	4.0	BK60H	1-5L	444	3.94	3.4	BK140H	1-5L
1293	1.35	3.4	BK52H	1-5L	438	4.00	3.0	AK124H	1-4L
1259	1.39	3.6	AK54H	1-4L	420	4.17	3.6	AK154H	1-4L
1250	1.40	3.0	AK46H	1-4L	386	4.53	3.4	BK160H	1-5L
1215	1.44	3.6	AK56H	1-4L	375	4.67	3.0	AK144H	1-4L
1214	1.44	3.4	BK55H	1-5L	350	5.00	3.0	AK154H	1-4L
1186	1.48	4.0	BK65H	1-5L	323	5.41	3.4	BK190H	1-5L
1167	1.50	3.0	AK49H	1-4L	292	6.00	3.0	AK184H	1-4L
1167	1.50	3.4	BK57H	1-5L	-	-	-	-	-
1145	1.58	3.6	AK59H	1-4L	-	-	-	-	-

\*\* Use one belt, either A or 4L.

▲ Pitch diameter of integral sheaves supplied with stock 5D-Flexidyne.

◆ "A" belts may be used in place of 4L belts on 3.0 P.D. sheaves or larger.

"AX" belts may be used in place of 4L belts on 2.2 P.D. sheaves or larger.

"B" belts are not recommended in place of 5L belts.

"BX" belts may be used in place of 5L belts on 4.0 P.D. sheaves or larger.

\* All sheaves are Dodge stock sheaves. Size numbers are shown for FHP 4L and 5L sheaves; datum diameters for dual duty sheaves.

## Mechanical soft starts - Flexidyne

Modification/accessories

## V-belt drives For 55D Flexidyne drives

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★ Driver *	Driven ♣	Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Diameter ★ Driver *	Driven ♣	Quan. & belt size ◆
1750	1.00	3.6	3.6	1-A	1160	1.00	3.0	3.0	1-A
1750	1.00	3.4	3.4	1-3V	1160	1.00	3.4	3.4	1-3V
1670	1.05	4.2	4.4	1-A	1112	1.04	4.6	4.8	1-B
1657	1.06	4.5	4.8	1-3V	1098	1.06	4.5	4.8	1-3V
1598	1.10	4.2	4.6	1-A	1059	1.10	4.2	4.6	1-A
1573	1.11	4.5	5.0	1-3V	1061	1.09	4.1	4.5	1-3V
1522	1.15	4.0	4.6	1-A	1036	1.12	5.0	5.6	1-B
1515	1.15	4.1	4.8	1-3V	1026	1.13	3.7	4.1	1-3V
1483	1.18	4.5	5.3	1-3V	1005	1.15	4.1	4.8	1-3V
1470	1.19	4.2	5.0	1-A	1002	1.16	3.8	4.4	1-A
1439	1.22	4.1	5.0	1-3V	958	1.21	3.8	4.6	1-A
1411	1.24	5.0	6.2	1-B	954	1.22	4.1	5.0	1-3V
1403	1.25	4.5	5.6	1-3V	928	1.25	3.2	4.0	1-A
1357	1.29	4.1	5.3	1-3V	930	1.25	4.5	5.6	1-3V
1342	1.30	4.6	6.0	1-B	899	1.29	4.1	5.3	1-3V
1309	1.34	4.5	6.0	1-3V	892	1.30	4.0	5.2	1-A
1298	1.35	4.6	6.2	1-B	868	1.34	4.5	6.0	1-3V
1273	1.37	3.7	5.0	1-3V	859	1.35	4.0	5.4	1-A
1250	1.40	4.0	5.6	1-A	844	1.37	3.7	5.0	1-3V
1229	1.42	3.4	4.8	1-3V	840	1.38	4.2	5.8	1-A
1207	1.45	4.0	5.8	1-A	816	1.42	3.8	5.4	1-A
1197	1.46	4.1	6.0	1-3V	814	1.42	3.4	4.8	1-3V
1182	1.48	5.0	7.4	1-B	800	1.45	4.5	6.5	1-3V
1167	1.50	3.4	5.0	1-3V	791	1.47	3.0	4.4	1-A
1135	1.54	3.7	5.6	1-3V	773	1.50	3.2	4.8	1-A
1129	1.55	4.0	6.2	1-A	773	1.50	3.4	5.0	1-3V
1100	1.59	3.4	5.3	1-3V	757	1.53	3.0	4.6	1-A
1094	1.60	4.0	6.4	1-A	754	1.54	4.5	6.9	1-3V
1073	1.63	3.8	6.2	1-A	746	1.56	3.6	5.6	1-A
1059	1.65	3.7	6.0	1-3V	730	1.59	3.4	5.4	1-A
1041	1.68	3.4	5.6	1-3V	729	1.59	3.4	5.3	1-3V
1026	1.71	3.4	5.8	1-A	711	1.63	3.8	6.2	1-A
1000	1.75	4.0	7.0	1-A	702	1.65	3.7	6.0	1-3V
980	1.79	4.5	8.0	1-3V	696	1.67	3.0	5.0	1-A
960	1.82	3.4	6.2	1-A	690	1.68	3.4	5.6	1-3V
936	1.87	4.6	8.6	1-B	680	1.71	3.4	5.8	1-A
920	1.90	3.7	6.9	1-3V	649	1.79	4.5	8.0	1-3V
900	1.94	3.6	7.0	1-A	644	1.80	3.0	5.4	1-A
895	1.95	3.4	6.5	1-3V	616	1.88	3.4	6.4	1-A
850	2.06	3.4	7.0	1-A	610	1.90	3.7	6.9	1-3V
843	2.08	3.4	6.9	1-3V	593	1.95	3.4	6.5	1-3V
795	2.20	5.0	11.0	1-B	580	2.00	3.0	6.0	1-A
792	2.21	3.7	8.0	1-3V	559	2.08	3.4	6.9	1-3V
759	2.30	4.6	10.6	1-A	544	2.13	3.0	6.4	1-A
726	2.41	3.4	8.2	1-A	527	2.20	5.0	11.0	1-B
726	2.41	3.4	8.0	1-3V	525	2.21	3.7	8.0	1-3V
693	2.52	4.2	10.6	1-A	503	2.30	4.6	10.6	1-A
675	2.59	4.1	10.6	1-3V	489	2.37	4.5	10.6	1-3V
671	2.61	4.6	12.0	1-A	481	2.41	3.4	8.2	1-A
627	2.79	3.8	10.6	1-A	482	2.41	3.4	8.0	1-3V
597	2.93	3.7	10.6	1-3V	448	2.59	4.1	10.6	1-3V
583	3.00	4.0	12.0	1-A	445	2.61	4.6	12.0	1-A
558	3.13	4.5	14.0	1-3V	406	2.86	4.2	12.0	1-A
537	3.26	4.6	15.0	1-A	396	2.93	3.7	10.6	1-3V
511	3.43	4.1	14.0	1-3V	372	3.12	3.4	10.6	1-A
496	3.53	3.4	12.0	1-A	370	3.13	4.5	14.0	1-3V
476	3.68	5.0	18.4	1-B	346	3.35	4.6	15.4	1-B
452	3.87	3.7	14.0	1-3V	338	3.43	4.1	14.0	1-3V
443	3.95	3.8	15.0	1-A	309	3.75	3.2	12.0	1-A
420	4.17	3.6	15.0	1-A	299	3.87	3.7	14.0	1-3V
411	4.26	4.5	19.0	1-3V	278	4.17	3.6	15.0	1-A
397	4.41	3.4	15.0	1-A	274	4.23	3.4	14.0	1-3V
376	4.66	4.1	19.0	1-3V	258	4.50	4.0	18.0	1-A
369	4.74	3.8	18.0	1-A	249	4.66	4.1	19.0	1-3V
350	5.00	3.6	18.0	1-A	219	5.29	3.4	18.0	1-A
331	5.29	3.4	18.0	1-A	220	5.26	3.7	19.0	1-3V
332	5.26	3.7	19.0	1-3V	202	5.74	3.4	19.0	1-3V
305	5.74	3.4	19.0	1-3V	193	6.00	3.0	18.0	1-A

\* Stock Flexidyne sheaves listed on pages 147-148.

\* Stock Taper-Lock sheaves in V-drives section.

★ Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.



**Mechanical soft starts - Flexidyne**

Modification/accessories

**V-belts drive For 70D Flexidyne drives**

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆
		Driver *	Driven ♣				Driver *	Driven ♣	
1750	1.00	5.6	5.6	1-B	1160	1.00	4.8	4.8	1-A
1694	1.03	6.0	6.2	1-B	1123	1.03	6.0	6.2	1-B
1690	1.04	5.6	5.8	1-B	1119	1.04	5.4	5.6	1-B
1641	1.07	6.0	6.4	1-B	1094	1.06	5.0	5.3	1-3V
1633	1.07	5.6	6.0	1-B	1083	1.07	5.6	6.0	1-B
1632	1.07	5.6	6.0	1-3V	1082	1.07	5.6	6.0	1-3V
1614	1.08	6.0	6.5	1-3V	1070	1.08	6.0	6.5	1-3V
1591	1.10	6.0	6.6	1-B	1055	1.10	6.0	6.6	1-B
1581	1.11	5.6	6.2	1-B	1040	1.12	5.2	5.8	1-B
1575	1.11	5.4	6.0	1-B	1035	1.12	5.0	5.6	1-3V
1544	1.13	6.0	6.8	1-B	1015	1.14	5.6	6.4	1-B
1531	1.14	5.6	6.4	1-B	1008	1.15	6.0	6.9	1-3V
1524	1.15	5.4	6.2	1-B	998	1.16	5.6	6.5	1-3V
1520	1.15	6.0	6.9	1-3V	994	1.17	4.8	5.6	1-A
1506	1.16	5.6	6.5	1-3V	967	1.20	5.0	6.0	1-A
1485	1.18	5.6	6.6	1-B	965	1.20	5.0	6.0	1-3V
1477	1.19	5.4	6.4	1-B	949	1.22	5.4	6.6	1-B
1441	1.21	5.6	6.8	1-B	940	1.23	5.6	6.9	1-3V
1432	1.22	5.4	6.6	1-B	928	1.25	4.8	6.0	1-A
1419	1.23	6.0	7.4	1-B	914	1.27	5.2	6.6	1-B
1418	1.23	5.6	6.9	1-3V	898	1.29	4.8	6.2	1-A
1390	1.26	5.4	6.8	1-B	890	1.30	5.0	6.5	1-3V
1324	1.32	5.6	7.4	1-B	878	1.32	5.6	7.4	1-B
1310	1.34	6.0	8.0	1-3V	868	1.34	6.0	8.0	1-3V
1265	1.38	5.0	6.9	1-3V	862	1.35	5.2	7.0	1-A
1221	1.43	6.0	8.6	1-B	846	1.37	5.4	7.4	1-B
1222	1.43	5.6	8.0	1-3V	838	1.38	5.0	6.9	1-3V
1140	1.54	5.6	8.6	1-B	829	1.40	5.0	7.0	1-A
1117	1.57	6.0	9.4	1-B	809	1.43	6.0	8.6	1-B
1099	1.59	5.4	8.6	1-B	810	1.43	5.6	8.0	1-3V
1090	1.61	5.0	8.0	1-3V	792	1.46	5.6	8.2	1-A
1058	1.65	5.2	8.6	1-B	755	1.54	5.6	8.6	1-B
1043	1.68	5.6	9.4	1-B	740	1.57	6.0	9.4	1-B
1005	1.74	5.4	9.4	1-B	722	1.61	5.6	9.0	1-A
987	1.77	6.0	10.6	1-3V	722	1.61	5.0	8.0	1-3V
968	1.81	5.2	9.4	1-B	701	1.65	5.2	8.6	1-B
955	1.83	6.0	11.0	1-B	679	1.71	4.8	8.2	1-A
921	1.90	5.6	10.6	1-3V	666	1.74	5.4	9.4	1-B
891	1.96	5.6	11.0	1-B	654	1.77	6.0	10.6	1-3V
859	2.04	5.4	11.0	1-B	644	1.80	5.0	9.0	1-A
847	2.07	6.0	12.4	1-B	613	1.89	5.6	10.6	1-A
827	2.12	5.2	11.0	1-B	610	1.90	5.6	10.6	1-3V
821	2.13	5.0	10.6	1-3V	591	1.96	5.6	11.0	1-B
790	2.21	5.6	12.4	1-B	569	2.04	5.4	11.0	1-B
762	2.30	5.4	12.4	1-B	548	2.12	5.2	11.0	1-B
746	2.34	6.0	14.0	1-3V	544	2.13	5.0	10.6	1-3V
734	2.38	5.2	12.4	1-B	525	2.21	4.8	10.6	1-A
696	2.51	5.6	14.0	1-3V	505	2.30	5.4	12.4	1-B
682	2.57	6.0	15.4	1-B	495	2.34	6.0	14.0	1-3V
636	2.75	5.6	15.4	1-B	486	2.38	5.2	12.4	1-B
621	2.82	5.0	14.0	1-3V	464	2.50	4.8	12.0	1-A
614	2.85	5.4	15.4	1-B	462	2.51	5.6	14.0	1-3V
609	2.87	6.4	18.4	1-B	452	2.57	6.0	15.4	1-B
591	2.96	5.2	15.4	1-B	433	2.68	5.6	15.0	1-A
571	3.07	6.0	18.4	1-B	422	2.75	5.6	15.4	1-B
549	3.18	6.0	19.0	1-3V	412	2.82	5.0	14.0	1-3V
533	3.29	5.6	18.4	1-B	402	2.88	5.2	15.0	1-A
514	3.41	5.4	18.4	1-B	392	2.96	5.2	15.4	1-B
513	3.41	5.6	19.0	1-3V	387	3.00	5.0	15.0	1-A
495	3.54	5.2	18.4	1-B	371	3.12	4.8	15.0	1-A
457	3.83	5.0	19.0	1-3V	364	3.18	6.0	19.0	1-3V
-	-	-	-	-	361	3.21	5.6	18.0	1-A
-	-	-	-	-	353	3.29	5.6	18.4	1-B
-	-	-	-	-	340	3.41	5.6	19.0	1-3V
-	-	-	-	-	335	3.46	5.2	18.0	1-A
-	-	-	-	-	322	3.60	5.0	18.0	1-A
-	-	-	-	-	309	3.75	4.8	18.0	1-A
-	-	-	-	-	303	3.83	5.0	19.0	1-3V

\* Stock Flexidyne sheaves listed on pages 147-148.

\* Stock Taper-Lock sheaves in V-drives section.

★ Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.

## Mechanical soft starts - Flexidyne

Modification/accessories

## V-belt drives For 75D Flexidyne drives

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆
		Driver *	Driven ♣				Driver *	Driven ♣	
1750	1.00	5.6	5.6	2-B	1160	1.00	4.8	4.8	2-A
1694	1.03	6.0	6.2	2-B	1114	1.04	4.8	5.0	2-A
1690	1.04	5.6	5.8	2-B	1094	1.06	5.0	5.3	2-3V
1641	1.07	6.0	6.4	2-B	1082	1.07	5.6	6.0	2-3V
1632	1.07	5.6	6.0	2-3V	1071	1.08	4.8	5.2	2-A
1614	1.08	6.0	6.5	2-3V	1072	1.08	6.0	6.5	2-3V
1591	1.10	6.0	6.6	2-B	1055	1.10	6.0	6.6	2-B
1544	1.13	6.0	6.8	2-B	1036	1.12	5.0	5.6	2-A
1524	1.15	5.4	6.2	2-B	1035	1.12	5.0	5.6	2-3V
1520	1.15	6.0	6.9	2-3V	1015	1.14	5.6	6.4	2-B
1506	1.16	5.6	6.5	2-3V	1008	1.15	6.0	6.9	2-3V
1485	1.18	5.6	6.6	2-B	1000	1.16	5.0	5.8	2-A
1441	1.21	5.6	6.8	2-B	998	1.16	5.6	6.5	2-3V
1419	1.23	6.0	7.4	2-B	994	1.17	4.8	5.6	2-A
1418	1.23	5.6	6.9	2-3V	984	1.18	5.6	6.6	2-B
1390	1.26	5.4	6.8	2-B	967	1.20	5.0	6.0	2-A
1324	1.32	5.6	7.4	2-B	965	1.20	5.0	6.0	2-3V
1310	1.34	6.0	8.0	2-3V	960	1.21	4.8	5.8	2-A
1277	1.37	5.4	7.4	2-B	941	1.23	6.0	7.4	2-B
1265	1.38	5.0	6.9	2-3V	940	1.23	5.6	6.9	2-3V
1221	1.43	6.0	8.6	2-B	935	1.24	5.0	6.2	2-A
1222	1.43	5.6	8.0	2-3V	928	1.25	4.8	6.0	2-A
1140	1.54	5.6	8.6	2-B	906	1.28	5.0	6.4	2-A
1117	1.57	6.0	9.4	2-B	898	1.29	4.8	6.2	2-A
1099	1.59	5.4	8.6	2-B	890	1.30	5.0	6.5	2-3V
1090	1.61	5.0	8.0	2-3V	887	1.31	5.2	6.8	2-B
1043	1.68	5.6	9.4	2-B	870	1.33	4.8	6.4	2-A
1005	1.74	5.4	9.4	2-B	868	1.34	6.0	8.0	2-3V
987	1.77	6.0	10.6	2-3V	862	1.35	5.2	7.0	2-A
968	1.81	5.2	9.4	2-B	846	1.37	5.4	7.4	2-B
955	1.83	6.0	11.0	2-B	838	1.38	5.0	6.9	2-3V
921	1.90	5.6	10.6	2-3V	829	1.40	5.0	7.0	2-A
891	1.96	5.6	11.0	2-B	809	1.43	6.0	8.6	2-B
859	2.04	5.4	11.0	2-B	810	1.43	5.6	8.0	2-3V
847	2.07	6.0	12.4	2-B	795	1.46	4.8	7.0	2-A
827	2.12	5.2	11.0	2-B	755	1.54	5.6	8.6	2-B
821	2.13	5.0	10.6	2-3V	736	1.58	5.2	8.2	2-A
790	2.21	5.6	12.4	2-B	722	1.61	5.0	8.0	2-3V
762	2.30	5.4	12.4	2-B	707	1.64	5.0	8.2	2-A
746	2.34	6.0	14.0	2-3V	679	1.71	4.8	8.2	2-A
734	2.38	5.2	12.4	2-B	670	1.73	5.2	9.0	2-A
696	2.51	5.6	14.0	2-3V	654	1.77	6.0	10.6	2-3V
682	2.57	6.0	15.4	2-B	644	1.80	5.0	9.0	2-A
636	2.75	5.6	15.4	2-B	619	1.87	4.8	9.0	2-A
621	2.82	5.0	14.0	2-3V	610	1.90	5.6	10.6	2-3V
614	2.85	5.4	15.4	2-B	591	1.96	5.6	11.0	2-B
591	2.96	5.2	15.4	2-B	569	2.04	5.4	11.0	2-B
571	3.07	6.0	18.4	2-B	547	2.12	5.0	10.6	2-A
549	3.18	6.0	19.0	2-3V	544	2.13	5.0	10.6	2-3V
525	3.33	6.0	20.0	2-B	525	2.21	4.8	10.6	2-A
514	3.41	5.4	18.4	2-B	495	2.34	6.0	14.0	2-3V
513	3.41	5.6	19.0	2-3V	486	2.38	5.2	12.4	2-B
490	3.57	5.6	20.0	2-B	464	2.50	4.8	12.0	2-A
455	3.85	5.2	20.0	2-B	462	2.51	5.6	14.0	2-3V
457	3.83	5.0	19.0	2-3V	422	2.75	5.6	15.4	2-B
420	4.17	6.0	25.0	2-B	412	2.82	5.0	14.0	2-3V
417	4.19	6.0	25.0	2-3V	402	2.88	5.2	15.0	2-A
392	4.46	5.6	25.0	2-B	387	3.00	5.0	15.0	2-A
389	4.50	5.6	25.0	2-3V	371	3.12	4.8	15.0	2-A
378	4.63	5.4	25.0	2-B	364	3.18	6.0	19.0	2-3V
364	4.81	5.2	25.0	2-B	340	3.41	5.6	19.0	2-3V
350	5.00	6.0	30.0	2-B	322	3.60	5.0	18.0	2-A
347	5.04	5.0	25.0	2-3V	309	3.75	4.8	18.0	2-A
327	5.36	5.6	30.0	2-B	303	3.83	5.0	19.0	2-3V
303	5.77	5.2	30.0	2-B	278	4.17	6.0	25.0	2-B
276	6.33	6.0	38.0	2-B	277	4.19	6.0	25.0	2-3V
258	6.79	5.6	38.0	2-B	258	4.50	5.6	25.0	2-3V
249	7.04	5.4	38.0	2-B	230	5.04	5.0	25.0	2-3V

★ Stock Flexidyne sheaves listed on pages 147-148.

\* Stock Taper-Lock sheaves in V-drives section.

★ Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.

**Mechanical soft starts - Flexidyne**

Modification/accessories

**V-belt drives For 9D Flexidyne drives**

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆
		Driver *	Driven ♣				Driver *	Driven ♣	
1750	1.00	4.75	4.75	4-3V	1160	1.00	4.75	4.75	4-3V
1683	1.04	5.0	5.2	5-A	1115	1.04	5.0	5.2	5-A
1667	1.05	4.75	5.0	4-3V	1105	1.05	4.75	5.0	4-3V
1636	1.07	5.6	6.0	4-A	1084	1.07	5.6	6.0	4-A
1620	1.08	5.2	5.6	5-A	1074	1.08	5.2	5.6	5-A
1577	1.11	5.4	6.0	5-B	1045	1.11	5.4	6.0	5-B
1563	1.12	4.75	5.3	4-3V	1036	1.12	4.75	5.3	4-3V
1549	1.13	5.3	6.0	4-3V	1027	1.13	5.3	6.0	4-3V
1535	1.14	5.6	6.4	4-A	1018	1.14	5.6	6.4	4-A
1522	1.15	6.0	6.9	4-3V	1009	1.15	6.0	6.9	4-3V
1496	1.17	6.0	7.0	4-A	991	1.17	6.0	7.0	4-A
1483	1.18	4.75	5.6	4-3V	983	1.18	4.75	5.6	4-3V
1458	1.20	5.0	6.0	5-A	967	1.20	5.0	6.0	5-A
1423	1.23	5.3	6.5	4-3V	943	1.23	5.3	6.5	4-3V
1400	1.25	5.6	7.0	4-A	928	1.25	5.6	7.0	4-A
1378	1.27	4.75	6.0	4-3V	913	1.27	4.75	6.0	4-3V
1367	1.28	5.0	6.4	5-A	906	1.28	5.0	6.4	5-A
1346	1.30	5.3	6.9	4-3V	892	1.30	5.3	6.9	4-3V
1326	1.32	5.6	7.4	5-B	879	1.32	5.6	7.4	5-B
1306	1.34	6.0	8.0	4-3V	866	1.34	6.0	8.0	4-3V
1296	1.35	5.2	7.0	5-A	859	1.35	5.2	7.0	5-A
1277	1.37	4.75	6.5	4-3V	847	1.37	4.75	6.5	4-3V
1250	1.40	5.0	7.0	5-A	829	1.40	5.0	7.0	5-A
1224	1.43	6.0	8.6	4-B	811	1.43	6.0	8.6	4-B
1199	1.46	4.75	6.9	4-3V	795	1.46	4.75	6.9	4-3V
1159	1.51	5.3	8.0	4-3V	768	1.51	5.3	8.0	4-3V
1136	1.54	5.6	8.6	5-B	753	1.54	5.6	8.6	5-B
1108	1.58	5.2	8.2	5-A	734	1.58	5.2	8.2	5-A
1087	1.61	5.6	9.0	4-A	720	1.61	5.6	9.0	4-A
1067	1.64	5.0	8.2	5-A	707	1.64	5.0	8.2	5-A
1036	1.69	4.75	8.0	4-3V	686	1.69	4.75	8.0	4-3V
1012	1.73	5.2	9.0	5-A	671	1.73	5.2	9.0	5-A
989	1.77	6.0	10.6	4-3V	655	1.77	6.0	10.6	4-3V
972	1.80	5.0	9.0	5-A	644	1.80	5.0	9.0	5-A
956	1.83	6.0	11.0	4-B	634	1.83	6.0	11.0	4-B
926	1.89	5.6	10.6	4-A	614	1.89	5.6	10.6	4-A
902	1.94	6.4	12.4	4-B	598	1.94	6.4	12.4	4-B
871	2.01	5.3	10.6	4-3V	577	2.01	5.3	10.6	4-3V
858	2.04	5.2	10.6	5-A	569	2.04	5.2	10.6	5-A
818	2.14	5.6	12.0	4-A	542	2.14	5.6	12.0	4-A
792	2.21	5.6	12.4	5-B	525	2.21	5.6	12.4	5-B
781	2.24	4.75	10.6	4-3V	518	2.24	4.75	10.6	4-3V
748	2.34	6.0	14.0	4-3V	496	2.34	6.0	14.0	4-3V
729	2.40	5.0	12.0	5-A	483	2.40	5.0	12.0	5-A
700	2.50	6.0	12.0	4-A	464	2.50	6.0	15.0	4-A
681	2.57	6.0	15.4	4-B	451	2.57	6.0	15.4	4-B
658	2.66	5.3	14.0	4-3V	436	2.66	5.3	14.0	4-3V
636	2.75	5.6	15.4	5-B	422	2.75	5.6	15.4	5-B
608	2.88	5.2	15.0	5-A	403	2.88	5.2	15.0	5-A
589	2.97	4.75	14.0	4-3V	391	2.97	4.75	14.0	4-3A
570	3.07	6.0	18.4	4-B	378	3.07	6.0	18.4	4-B
545	3.21	5.6	18.0	4-A	361	3.21	5.6	18.0	4-A
532	3.29	5.6	18.4	5-B	353	3.29	5.6	18.4	5-B
506	3.46	5.2	18.0	5-A	335	3.46	5.2	18.0	5-A
485	3.61	5.3	19.0	4-3V	321	3.61	5.3	19.0	4-3V
473	3.70	5.4	20.0	5-B	314	3.70	5.4	20.0	5-B
448	3.91	6.4	25.0	4-B	297	3.91	6.4	25.0	4-B
434	4.03	4.75	19.0	4-3V	288	4.03	4.75	19.0	4-3V
420	4.17	6.0	25.0	4-B	278	4.17	6.0	25.0	4-B
392	4.46	5.6	25.0	5-B	260	4.46	5.6	25.0	5-B
368	4.75	5.3	25.0	4-3V	244	4.75	5.3	25.0	4-3V
350	5.00	6.0	30.0	4-B	232	5.00	6.0	30.0	4-B
330	5.31	4.75	25.0	4-3V	218	5.31	4.75	25.0	4-3V
311	5.62	6.0	33.5	4-3V	206	5.62	6.0	33.5	4-3V
295	5.94	6.4	38.0	4-B	195	5.94	6.4	38.0	4-B
275	6.37	5.3	33.5	4-3V	182	6.37	5.3	33.5	4-3V
258	6.79	5.6	38.0	5-B	171	6.79	5.6	38.0	5-B
246	7.12	4.75	33.5	4-3V	163	7.12	4.75	33.5	4-3V

\* Stock Flexidyne sheaves listed on pages 147-148.  
 \* Stock Taper-Lock sheaves in V-drives section.

\* Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.

Mech. soft starts

## Mechanical soft starts - Flexidyne

Modification/accessories

### V-belt drives For 11D, 11DL Flexidyne drives

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★ Driver *	Driven †	Quan. & belt size ‡	Driven RPM	V-belt drive ratio	Diameter ★ Driver *	Driven †	Quan. & belt size ‡
1750	1.00	6.5	6.5	5-3V	1160	1.00	6.5	6.5	5-3V
1750	1.00	6.8	6.8	5-B	1160	1.00	6.8	6.8	5-B
1699	1.03	6.6	6.8	5-B	1126	1.03	6.6	6.8	5-B
1651	1.06	6.5	6.9	5-3V	1094	1.06	6.5	6.9	5-3V
1636	1.07	7.5	8.0	3-5V	1084	1.07	7.5	8.0	3-5V
1606	1.09	6.8	7.4	5-B	1064	1.09	6.8	7.4	5-B
1563	1.12	6.6	7.4	5-B	1036	1.12	6.6	7.4	5-B
1535	1.14	7.5	8.5	3-5V	1022	1.14	7.5	8.5	3-5V
1509	1.16	7.4	8.6	5-B	1000	1.16	7.4	8.6	5-B
1509	1.16	6.9	8.0	5-3V	1000	1.16	6.9	8.0	5-3V
1458	1.20	7.5	9.0	3-5V	967	1.20	7.5	9.0	3-5V
1423	1.23	6.5	8.0	5-3V	943	1.23	6.5	8.0	5-3V
1411	1.24	7.5	9.25	3-5V	935	1.24	7.5	9.25	3-5V
1389	1.26	6.8	8.6	5-B	921	1.26	6.8	8.6	5-B
1378	1.27	7.4	9.4	5-B	913	1.27	7.4	9.4	5-B
1367	1.28	8.6	11.0	5-B	906	1.28	8.6	11.0	5-B
1346	1.30	7.5	9.75	3-5V	892	1.30	7.5	9.75	3-5V
1346	1.30	6.6	8.6	5-B	892	1.30	6.6	8.6	5-B
1268	1.38	7.5	10.3	3-5V	841	1.38	7.5	10.3	3-5V
1268	1.38	6.8	9.4	5-B	841	1.38	6.8	9.4	5-B
1232	1.42	6.6	9.4	5-B	817	1.42	6.6	9.4	5-B
1215	1.44	8.6	12.4	5-B	806	1.44	8.6	12.4	5-B
1199	1.46	7.5	10.9	3-5V	795	1.46	7.5	10.9	3-5V
1174	1.49	7.4	11.0	5-B	779	1.49	7.4	11.0	5-B
1136	1.54	6.9	10.6	5-3V	753	1.54	6.9	10.6	5-3V
1108	1.58	7.5	11.8	3-5V	734	1.58	7.5	11.8	3-5V
1080	1.62	6.8	11.0	5-B	716	1.62	6.8	11.0	5-B
1067	1.64	6.5	10.6	5-3V	707	1.64	6.5	10.6	5-3V
1048	1.67	6.6	11.0	5-B	695	1.67	6.6	11.0	5-B
1042	1.68	7.5	12.5	3-5V	690	1.68	7.5	12.5	3-5V
1042	1.68	7.4	12.4	5-B	690	1.68	7.4	12.4	5-B
989	1.77	7.5	13.2	3-5V	655	1.77	7.5	13.2	3-5V
978	1.79	8.6	15.4	5-B	648	1.79	8.6	15.4	5-B
962	1.82	6.8	12.4	5-B	637	1.82	6.8	12.4	5-B
931	1.88	7.5	14.0	3-5V	617	1.88	7.5	14.0	3-5V
931	1.88	6.6	12.4	5-B	617	1.88	6.6	12.4	5-B
871	2.01	7.5	15.0	3-5V	577	2.01	7.5	15.0	3-5V
858	2.04	6.9	14.0	5-3V	569	2.04	6.9	14.0	5-3V
841	2.08	7.4	15.4	5-B	558	2.08	7.4	15.4	5-B
818	2.14	8.6	18.4	5-B	542	2.14	8.6	18.4	5-B
814	2.15	7.5	16.0	3-5V	540	2.15	7.5	16.0	3-5V
810	2.16	6.5	14.0	5-3V	537	2.16	6.5	14.0	5-3V
774	2.26	6.8	15.4	5-B	513	2.26	6.8	15.4	5-B
751	2.33	6.6	15.4	5-B	498	2.33	6.6	15.4	5-B
703	2.49	7.4	18.4	5-B	466	2.49	7.4	18.4	5-B
646	2.71	6.8	18.4	5-B	428	2.71	6.8	18.4	5-B
632	2.77	6.9	19.0	5-3V	419	2.77	6.9	19.0	5-3V
627	2.79	6.6	18.4	5-B	416	2.79	6.6	18.4	5-B
614	2.85	7.5	21.2	3-5V	407	2.85	7.5	21.2	3-5V
601	2.91	8.6	25.0	5-B	399	2.91	8.6	25.0	5-B
595	2.94	6.5	19.0	5-3V	395	2.94	6.5	19.0	5-3V
578	3.03	6.6	20.0	5-B	383	3.03	6.6	20.0	5-B
518	3.38	7.4	25.0	5-B	343	3.38	7.4	25.0	5-B
501	3.49	8.6	30.0	5-B	332	3.49	8.6	30.0	5-B
481	3.64	6.9	25.0	5-3V	319	3.64	6.9	25.0	5-3V
476	3.68	6.8	25.0	5-B	315	3.68	6.8	25.0	5-B
464	3.77	7.5	28.0	3-5V	308	3.77	7.5	28.0	3-5V
462	3.79	6.6	25.0	5-B	306	3.79	6.6	25.0	5-B
452	3.87	6.5	25.0	5-3V	300	3.87	6.5	25.0	5-3V
432	4.05	7.4	30.0	5-B	286	4.05	7.4	30.0	5-B
397	4.41	6.8	30.0	5-B	263	4.41	6.8	30.0	5-B
385	4.55	6.6	30.0	5-B	255	4.55	6.6	30.0	5-B
359	4.88	6.9	33.5	5-3V	238	4.88	6.9	33.5	5-3V
347	5.05	7.5	37.5	3-5V	230	5.05	7.5	37.5	3-5V
340	5.14	7.4	38.0	5-B	226	5.14	7.4	38.0	5-B
337	5.19	6.5	33.5	5-3V	224	5.19	6.5	33.5	5-3V
313	5.59	6.8	38.0	5-B	208	5.59	6.8	38.0	5-B
304	5.76	6.6	38.0	5-B	201	5.76	6.6	38.0	5-B

\* Stock Flexidyne sheaves listed on pages 147-148.

\* Stock Taper-Lock sheaves in V-drives section.

\* Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.

**Mechanical soft starts - Flexidyne**

Modification/accessories

**V-belt drives For 15D Flexidyne drives**

These are typical drives for average service conditions

Driven by 1750 RPM motors					Driven by 1750 RPM motors				
Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆	Driven RPM	V-belt drive ratio	Diameter ★		Quan. & belt size ◆
		Driver *	Driven ♣				Driver *	Driven ♣	
1750	1.00	9.75	9.75	4-5V	1160	1.00	9.75	9.75	4-5V
1699	1.03	9.0	9.25	5-5V	1126	1.03	9.0	9.25	5-5V
1663	1.05	9.5	10.0	6-C	1102	1.05	9.5	10.0	6-C
1651	1.06	9.75	10.3	4-5V	1094	1.06	9.75	10.3	4-5V
1620	1.08	9.0	9.75	5-5V	1074	1.08	9.0	9.75	5-5V
1606	1.09	8.5	9.25	5-5V	1064	1.09	8.5	9.25	5-5V
1591	1.10	10.0	11.0	6-C	1055	1.10	10.0	11.0	6-C
1575	1.11	9.0	10.0	6-C	1044	1.11	9.0	10.0	6-C
1563	1.12	9.75	10.9	4-5V	1036	1.12	9.75	10.9	4-5V
1531	1.14	10.5	12.0	5-C	1015	1.14	10.5	12.0	5-C
1522	1.15	8.5	9.75	5-5V	1009	1.15	8.5	9.75	5-5V
1496	1.17	9.0	10.5	6-C	994	1.17	9.0	10.5	6-C
1458	1.20	10.0	12.0	6-C	966	1.20	10.0	12.0	6-C
1446	1.21	9.75	11.8	4-5V	959	1.21	9.75	11.8	4-5V
1432	1.22	9.0	11.0	6-C	949	1.22	9.0	11.0	6-C
1413	1.24	10.5	13.0	5-C	937	1.24	10.5	13.0	5-C
1385	1.26	9.5	12.0	6-C	918	1.26	9.5	12.0	6-C
1367	1.28	9.75	12.5	4-3V	906	1.28	9.75	12.5	4-3V
1357	1.29	8.5	10.9	5-5V	899	1.29	8.5	10.9	5-5V
1346	1.30	10.0	13.0	6-C	892	1.30	10.0	13.0	6-C
1336	1.31	9.0	11.8	5-5V	885	1.31	9.0	11.8	5-5V
1313	1.33	10.5	14.0	5-C	870	1.33	10.5	14.0	5-C
1287	1.36	9.75	13.2	4-5V	853	1.36	9.75	13.2	4-5V
1279	1.37	9.5	13.0	6-C	848	1.37	9.5	13.0	6-C
1259	1.39	8.5	11.8	5-5V	835	1.39	8.5	11.8	5-5V
1250	1.40	10.0	14.0	6-C	829	1.40	10.0	14.0	6-C
1215	1.44	9.75	14.0	4-5V	806	1.44	9.75	14.0	4-5V
1190	1.47	9.0	13.2	5-5V	789	1.47	9.0	13.2	5-5V
1182	1.48	8.5	12.5	5-5V	784	1.48	8.5	12.5	5-5V
1148	1.52	10.5	16.0	5-C	761	1.52	10.5	16.0	5-C
1136	1.54	9.75	15.0	4-5V	753	1.54	9.75	15.0	4-5V
1122	1.56	8.5	13.2	5-5V	744	1.56	8.5	13.2	5-5V
1094	1.60	10.0	16.0	6-C	725	1.60	10.0	16.0	6-C
1061	1.65	9.75	16.0	4-5V	703	1.65	9.75	16.0	4-5V
1048	1.67	9.0	15.0	5-5V	695	1.67	9.0	15.0	5-5V
1039	1.68	9.5	16.0	6-C	689	1.68	9.5	16.0	6-C
989	1.77	8.5	15.0	5-5V	655	1.77	8.5	15.0	5-5V
978	1.79	9.0	16.0	5-5V	648	1.79	9.0	16.0	5-5V
926	1.89	8.5	16.0	5-5V	614	1.89	8.5	16.0	5-5V
919	1.91	10.5	20.0	5-C	609	1.91	10.5	20.0	5-C
875	2.00	10.0	20.0	6-C	580	2.00	10.0	20.0	6-C
831	2.10	9.5	20.0	6-C	551	2.10	9.5	20.0	6-C
799	2.19	9.75	21.2	4-5V	530	2.19	9.75	21.2	4-5V
788	2.22	9.0	20.0	6-C	522	2.22	9.0	20.0	6-C
766	2.28	10.5	24.0	5-C	508	2.28	10.5	24.0	5-C
738	2.37	9.0	21.2	5-5V	489	2.37	9.0	21.2	5-5V
729	2.40	10.0	24.0	6-C	483	2.40	10.0	24.0	6-C
697	2.51	8.5	21.2	5-5V	462	2.51	8.5	21.2	5-5V
656	2.67	9.0	24.0	6-C	435	2.67	9.0	24.0	6-C
612	2.86	10.5	30.0	5-C	406	2.86	10.5	30.0	5-C
606	2.89	9.75	28.0	4-5V	401	2.89	9.75	28.0	4-5V
583	3.00	10.0	30.0	6-C	386	3.00	10.0	30.0	6-C
559	3.13	9.0	28.0	5-5V	371	3.13	9.0	28.0	5-5V
527	3.32	8.5	28.0	5-5V	349	3.32	8.5	28.0	5-5V
510	3.43	10.5	36.0	5-C	338	3.43	10.5	36.0	5-C
486	3.60	10.0	36.0	6-C	322	3.60	10.0	36.0	6-C
462	3.79	9.5	36.0	6-C	306	3.79	9.5	36.0	6-C
451	3.88	9.75	37.5	4-5V	299	3.88	9.75	37.5	4-5V
438	4.00	9.0	36.0	6-C	290	4.00	9.0	36.0	6-C
417	4.20	9.0	37.5	5-5V	276	4.20	9.0	37.5	5-5V
393	4.45	8.5	37.5	5-5V	261	4.45	8.5	37.5	5-5V
378	4.64	9.5	44.0	6-C	251	4.64	9.5	44.0	6-C
368	4.76	10.5	50.0	5-C	244	4.76	10.5	50.0	5-C
358	4.89	9.0	44.0	6-C	237	4.89	9.0	44.0	6-C
350	5.00	10.0	50.0	6-C	232	5.00	10.0	50.0	6-C
338	5.17	9.75	50.0	4-5V	224	5.17	9.75	50.0	4-5V
312	5.61	9.0	50.0	5-5V	207	5.61	9.0	50.0	5-5V
295	5.94	8.5	50.0	5-5V	195	5.94	8.5	50.0	5-5V

\* Stock Flexidyne sheaves listed on pages 147-148.  
 \* Stock Taper-Lock sheaves in V-drives section.

★ Outside diameter of 3V Dyna-V sheaves. Datum diameter of A and B sheaves. All ratios are based on P.D. for Dyna-V sheaves and Datum diameter for A and B sheaves.

Mech. soft starts

## Mechanical soft starts - Flexidyne

Engineering/technical

### SCF Flexidyne mechanism used in a C-flex module Maximum allowable acceleration time (seconds)

Frequency of starts	RPM	Starting horsepower*						
		0.50	1.00	1.50	2.00	2.50	3.00	3.60
2 hours	1750	140	90	70	56	50	44	37
1 hour	1750	140	90	70	56	50	44	37
30 min.	1750	140	90	70	56	50	44	37
15 min.	1750	140	90	70	56	50	44	37
10 min.	1750	125	80	60	48	42	39	32
5 min.	1750	74	46	46	29	26	23	20
2 min.	1750	30	19	15	12	10	8	5
1 min.	1750	15	10	5	3	-	-	-

Table may be interpolated for Hp and cycle times between those figures listed.

### Thermal capacities Flexidyne mechanism size 5 Maximum allowable acceleration time (seconds)

Frequency of starts	RPM	Starting horsepower*					
		0.30	0.50	0.70	0.90	1.10	1.30
2 hours	1750	330	220	170	128	116	104
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
1 hour	1750	330	220	170	128	116	104
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
30 min.	1750	330	220	170	128	116	104
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
15 min.	1750	330	220	170	128	116	104
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
10 min.	1750	300	200	150	116	105	94
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
5 min.	1750	170	116	88	68	62	55
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
2 min.	1750	70	47	35	27	25	22
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-
1 min.	1750	35	23	18	14	12	11
	1160	-	-	-	-	-	-
	870	-	-	-	-	-	-

Table may be interpolated for Hp and cycle times between those figures listed.

\* Starting Hp is dependent on the amount of flow charge used.

**Mechanical soft starts - Flexidyne**

Engineering/technical

**Flexidyne mechanism size 55****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*								
		0.50	0.75	1.00	1.50	2.00	2.50	3.00	3.50	4.00
2 hours	1750	-	-	125	92	76	67	60	55	50
	1160	250	175	148	110	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
1 hour	1750	-	-	125	92	76	67	60	55	50
	1160	250	175	148	110	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
30 min.	1750	-	-	125	92	76	67	60	55	50
	1160	250	175	148	110	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
15 min.	1750	-	-	125	92	76	67	60	55	50
	1160	250	175	148	110	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
10 min.	1750	-	-	96	67	60	52	47	43	40
	1160	190	130	110	82	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
5 min.	1750	-	-	58	41	37	32	29	25	20
	1160	110	80	68	50	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
2 min.	1750	-	-	30	23	20	17	15	13	10
	1160	60	40	35	28	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-
1 min.	1750	-	-	19	15	13	11	9	8	6
	1160	33	26	22	18	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-

**Flexidyne mechanism size 70****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*									
		0.50	0.75	1.00	2.00	2.50	3.00	4.00	6.00	8.00	10.00
2 hours	1750	-	-	-	210	180	150	110	80	63	53
	1160	-	-	500	260	190	170	130	-	-	-
	870	900	800	550	-	-	-	-	-	-	-
1 hour	1750	-	-	-	210	180	150	110	80	63	53
	1160	-	-	500	260	190	170	130	-	-	-
	870	900	800	550	-	-	-	-	-	-	-
30 min.	1750	-	-	-	210	180	150	110	80	63	53
	1160	-	-	500	260	190	170	130	-	-	-
	870	900	800	550	-	-	-	-	-	-	-
15 min.	1750	-	-	-	190	160	140	100	72	56	46
	1160	-	-	450	230	165	155	118	-	-	-
	870	800	700	500	-	-	-	-	-	-	-
10 min.	1750	-	-	-	170	140	120	83	60	41	36
	1160	-	-	320	190	143	133	90	-	-	-
	870	500	400	330	-	-	-	-	-	-	-
5 min.	1750	-	-	-	105	85	74	54	38	29	23
	1160	-	-	200	120	88	80	60	-	-	-
	870	250	230	210	-	-	-	-	-	-	-
2 min.	1750	-	-	-	58	45	39	30	21	16	13
	1160	-	-	80	60	49	45	36	-	-	-
	870	100	100	100	-	-	-	-	-	-	-
1 min.	1750	-	-	-	36	29	25	19	13	10	8
	1160	-	-	45	38	33	28	23	-	-	-
	870	50	50	50	-	-	-	-	-	-	-

Table may be interpolated for Hp and cycle times between those figures listed.

\* Starting Hp is dependent on the amount of flow charge used

**Mechanical soft starts - Flexidyne**

Engineering/technical

**Flexidyne mechanism size 75****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*									
		1.00	2.00	3.00	4.00	5.00	7.00	8.00	10.00	15.00	20.00
2 hours	1750	-	-	-	-	85	73	70	58	48	40
	1160	-	250	150	110	90	75	-	-	-	--
	870	520	300	200	-	-	-	-	-	-	-
1 hour	1750	-	-	-	-	85	73	70	58	48	40
	1160	-	250	150	110	90	75	-	-	-	-
	870	520	300	200	-	-	-	-	-	-	-
30 min.	1750	-	-	-	-	85	73	70	58	48	40
	1160	-	250	150	110	90	75	-	-	-	-
	870	520	300	200	-	-	-	-	-	-	-
15 min.	1750	-	-	-	-	80	68	64	53	43	35
	1160	-	220	130	100	85	70	-	-	-	-
	870	520	300	200	-	-	-	-	-	-	-
10 min.	1750	-	-	-	-	65	57	54	45	34	27
	1160	-	180	110	82	70	60	-	-	-	-
	870	420	210	150	-	-	-	-	-	-	-
5 min.	1750	-	-	-	-	40	37	35	30	21	17
	1160	-	110	65	50	45	38	-	-	-	-
	870	260	130	100	-	-	-	-	-	-	-
2 min.	1750	-	-	-	-	22	20	18	16	11	8
	1160	-	60	40	28	24	21	-	-	-	-
	870	100	80	52	-	-	-	-	-	-	-
1 min.	1750	-	-	-	-	15	13	11	10	8	5
	1160	-	40	22	18	16	14	-	-	-	-
	870	50	40	30	-	-	-	-	-	-	-

**Flexidyne mechanism size 9****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*									
		2.50	5	10.00	15.00	17.50	20.00	25.00	30.00	35.00	38.00
2 hours	1750	-	-	135	76	64	52	40	26	21	16
	1160	-	230	150	120	110	-	-	-	-	-
	870	1000	310	-	-	-	-	-	-	-	-
1 hour	1750	-	-	135	76	64	52	40	26	21	16
	1160	-	230	150	120	110	-	-	-	-	-
	870	1000	310	-	-	-	-	-	-	-	-
30 min.	1750	-	-	135	76	64	52	40	26	21	16
	1160	-	230	150	120	110	-	-	-	-	-
	870	820	260	-	-	-	-	-	-	-	-
15 min.	1750	-	-	118	66	55	45	35	22	18	15
	1160	-	190	120	100	92	-	-	-	-	-
	870	600	180	-	-	-	-	-	-	-	-
10 min.	1750	-	-	100	58	48	38	30	18	15	13
	1160	-	160	100	85	78	-	-	-	-	-
	870	425	140	-	-	-	-	-	-	-	-
5 min.	1750	-	-	70	38	31	25	20	12	10	9
	1160	-	100	65	50	47	-	-	-	-	-
	870	225	70	-	-	-	-	-	-	-	-
2 min.	1750	-	-	28	15	12	10	8	5	4	3
	1160	-	42	26	21	19	-	-	-	-	-
	870	90	27	-	-	-	-	-	-	-	-
1 min.	1750	-	-	14	7	6	5	4	-	-	-
	1160	-	22	13	11	9	-	-	-	-	-
	870	45	13	-	-	-	-	-	-	-	-

Table may be interpolated for Hp and cycle times between those figures listed.

\* Starting Hp is dependent on the amount of flow charge used.



**Mechanical soft starts - Flexidyne**

Engineering/technical

**Flexidyne mechanism size 11****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*										
		5	10	20	30	40	50	60	70	80	90	100
2 hours	1750	-	-	116	80	44	34	24	21	18	16	14
	1160	-	480	308	136	107	78	-	-	-	-	-
	870	1000	600	320	-	-	-	-	-	-	-	-
1 hour	1750	-	-	116	80	44	34	24	21	18	16	14
	1160	-	480	308	136	107	78	-	-	-	-	-
	870	950	560	300	-	-	-	-	-	-	-	-
30 min.	1750	-	-	116	80	44	34	24	21	18	16	14
	1160	-	400	257	115	89	64	-	-	-	-	-
	870	700	440	230	-	-	-	-	-	-	-	-
15 min.	1750	-	-	96	67	37	28	20	17	15	13	12
	1160	-	270	175	80	63	46	-	-	-	-	-
	870	450	280	150	-	-	-	-	-	-	-	-
10 min.	1750	-	-	80	56	32	24	17	14	12	11	10
	1160	-	200	130	60	47	35	-	-	-	-	-
	870	290	180	90	-	-	-	-	-	-	-	-
5 min.	1750	-	-	50	35	20	15	10	9	8	7	6
	1160	-	100	65	30	23	17	-	-	-	-	-
	870	130	80	42	-	-	-	-	-	-	-	-
2 min.	1750	-	-	21	14	8	6	4	3	-	-	-
	1160	-	40	26	12	9	6	-	-	-	-	-
	870	46	30	15	-	-	-	-	-	-	-	-
1 min.	1750	-	-	11	7	4	3	-	-	-	-	-
	1160	-	20	13	6	4	3	-	-	-	-	-
	870	21	13	6	-	-	-	-	-	-	-	-

Table may be interpolated for Hp and cycle times between those figures listed.

\* Starting Hp is dependent on the amount of flow charge used.

**Mechanical soft starts - Flexidyne**

Engineering/technical

**Flexidyne mechanism size 15****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*									
		10	20	30	40	50	60	70	80	90	100
2 hours	17 50	-	-	-	-	35	31	27	23	20	16
	1160	-	230	167	105	81	56	47	39	33	28
	870	560	300	200	145	-	-	-	-	-	-
1 hour	17 50	-	-	-	-	35	31	27	23	20	16
	1160	-	230	167	105	81	56	47	39	33	28
	870	560	300	200	145	-	-	-	-	-	-
30 min.	17 50	-	-	-	-	34	30	26	22	18	15
	1160	-	230	167	105	81	56	47	39	33	28
	870	460	240	160	120	-	-	-	-	-	-
15 min.	17 50	-	-	-	-	30	27	23	20	16	13
	1160	-	190	140	90	68	47	40	33	28	24
	870	350	170	125	90	-	-	-	-	-	-
10 min.	17 50	-	-	-	-	28	25	21	17	15	13
	1160	-	160	117	74	57	40	34	28	24	20
	870	260	130	95	68	-	-	-	-	-	-
5 min.	17 50	-	-	-	-	19	16	14	12	10	9
	1160	-	100	73	46	35	25	21	17	14	12
	870	160	80	60	42	-	-	-	-	-	-
2 min.	17 50	-	-	-	-	12	10	9	7	6	5
	1160	-	44	32	20	15	11	9	7	6	5
	870	85	42	32	22	-	-	-	-	-	-
1 min.	17 50	-	-	-	-	8	7	6	5	4	3
	1160	-	23	17	10	7	5	5	4	3	3
	870	53	25	19	14	-	-	-	-	-	-

Frequency of starts	RPM	Starting horsepower*									
		110	120	130	140	150	160	170	180	190	200
2 hours	17 50	15	14	13	12	11	10	9	9	8	8
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
1 hour	17 50	15	14	13	12	11	10	9	9	8	8
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
30 min.	17 50	14	13	12	11	10	10	9	9	8	7
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
15 min.	17 50	12	11	10	10	9	8	8	7	7	6
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
10 min.	17 50	12	11	10	9	8	8	7	7	6	6
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
5 min.	17 50	8	7	7	6	6	6	5	5	4	4
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
2 min.	17 50	5	4	4	3	3	-	-	-	-	-
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-
1 min.	17 50	3	-	-	-	-	-	-	-	-	-
	1160	-	-	-	-	-	-	-	-	-	-
	870	-	-	-	-	-	-	-	-	-	-

• Table may be interpolated for Hp and cycle times between those figures listed

• Thermal capacities are shown for single cavity units.

• For duplex cavities, starting horsepower = (Hp\* starting torque%)/2.

\* Starting Hp is dependent on the amount of flow charge used.

**Mechanical soft starts - Flexidyne**

Engineering/technical

**Flexidyne mechanism size 18****Maximum allowable acceleration time (seconds)**

Frequency of starts	RPM	Starting horsepower*							
		20	40	60	80	100	120	140	160
2 hours	1160	-	-	-	-	60	49	38	33
	870	-	200	160	120	96	72	62	52
	720	600	370	220	160	-	-	-	-
1 hour	1160	-	-	-	-	60	49	38	33
	870	-	200	160	120	96	72	62	52
	720	560	350	200	150	-	-	-	-
30 min.	1160	-	-	-	-	56	45	35	30
	870	-	160	130	100	80	60	52	44
	720	450	280	160	120	-	-	-	-
15 min.	1160	-	-	-	-	44	35	26	23
	870	-	115	94	72	58	45	38	32
	720	300	180	100	74	-	-	-	-
10 min.	1160	-	-	-	-	32	26	20	17
	870	-	90	72	54	43	32	27	22
	720	200	120	66	48	-	-	-	-
5 min.	1160	-	-	-	-	17	13	10	9
	870	-	44	35	27	21	16	13	11
	720	90	54	32	23	-	-	-	-
2 min.	1160	-	-	-	-	7	5	4	4
	870	-	17	13	10	8	6	5	4
	720	35	21	12	8	-	-	-	-
1 min.	1160	-	-	-	-	-	-	-	-
	870	-	8	6	5	4	3	-	-
	720	16	10	5	4	-	-	-	-

Frequency of starts	RPM	Starting horsepower*							
		180	200	220	240	260	280	300	
2 hours	1160	28	25	22	20	18	16	14	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
1 hour	1160	28	25	22	20	18	16	14	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
30 min.	1160	26	23	20	18	17	15	13	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
15 min.	1160	20	18	16	14	13	11	10	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
10 min.	1160	15	13	12	10	9	8	7	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
5 min.	1160	8	7	6	5	5	4	4	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
2 min.	1160	-	-	-	-	-	-	-	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	
1 min.	1160	-	-	-	-	-	-	-	
	870	-	-	-	-	-	-	-	
	720	-	-	-	-	-	-	-	

• Table may be interpolated for Hp and cycle times between those figures listed.

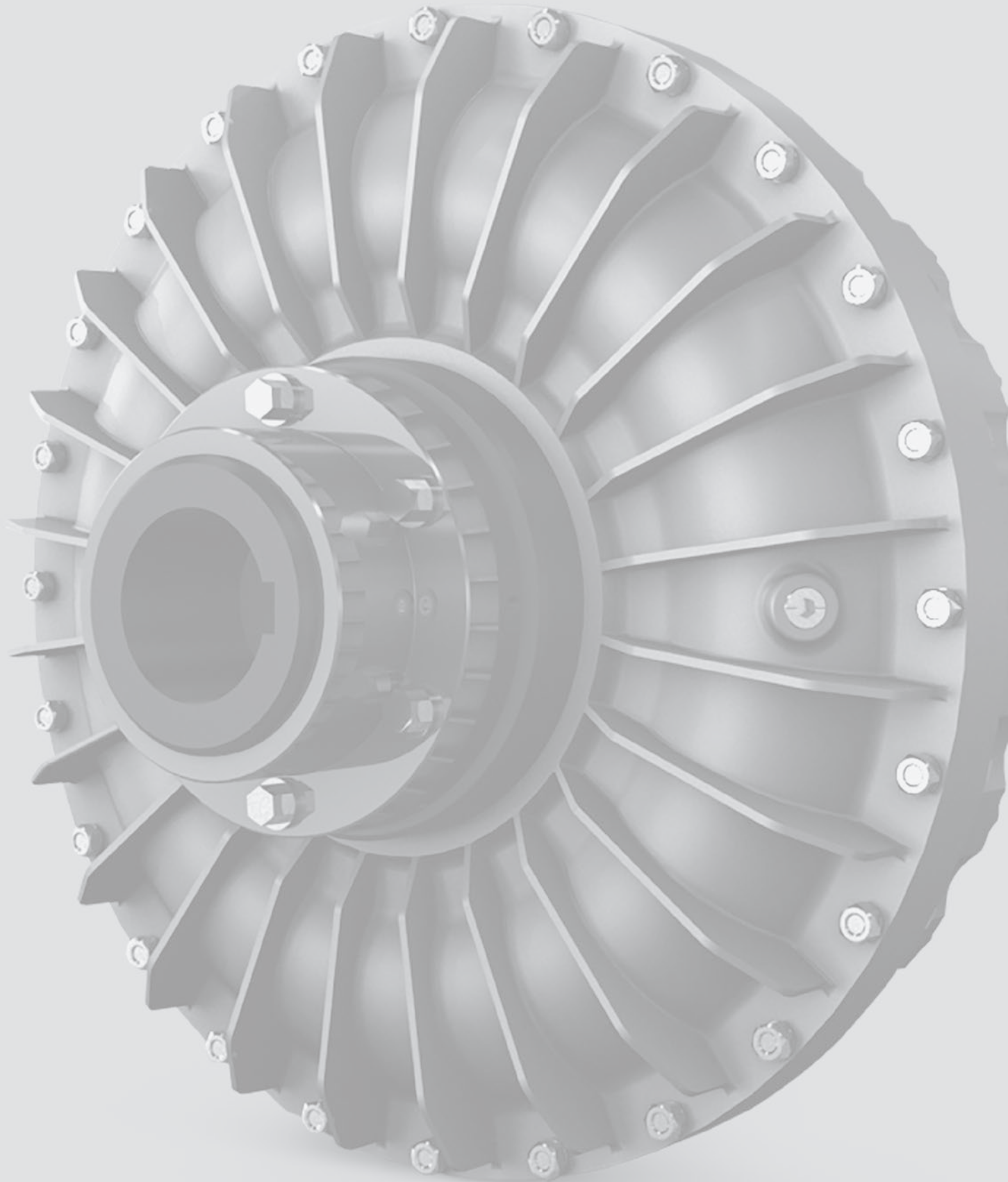
• Thermal capacities are shown for single cavity units.

• For duplex cavities, starting horsepower = (Hp \* starting torque%)/2.

\* Starting Hp is dependent on the amount of flow charge used.

MECHANICAL SOFT STARTS

# Fluid



Mech. soft starts

## Mechanical soft starts - fluid couplings

### Features/benefits

#### Smoother and shock free operation

- Motor starts under no load conditions
- Smoother starts

#### More efficient design

- Permits use of standard NEMA design B motors
- Eliminate need for motors with special winding
- Wound rotor motors not needed

#### Overload protection

- Provides overload protection at overloads somewhat greater than starting torque
- Protection devices to prevent damage to fluid couplings are available

#### Low current draw

- Less than twice the nameplate amperage during both starting and overload periods
- Many electric utilities recommend fluid couplings

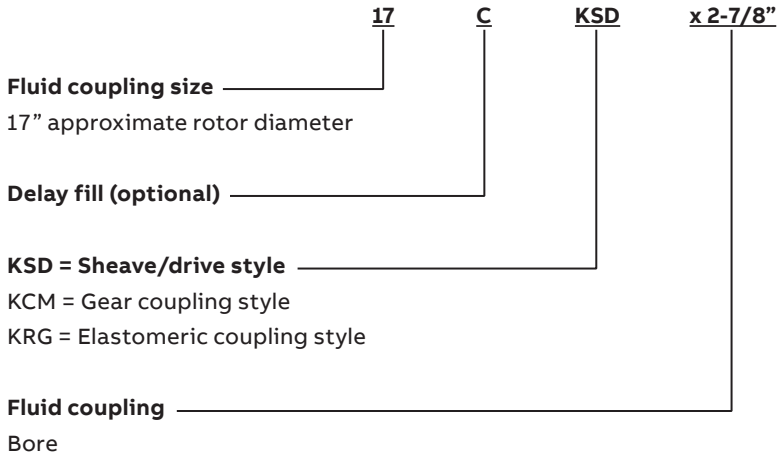
#### Increased productivity

- Eliminates product spillage and machine damage due to harsh starts or jammed loads



## Mechanical soft starts - fluid couplings

Specification/how to order/nomenclature

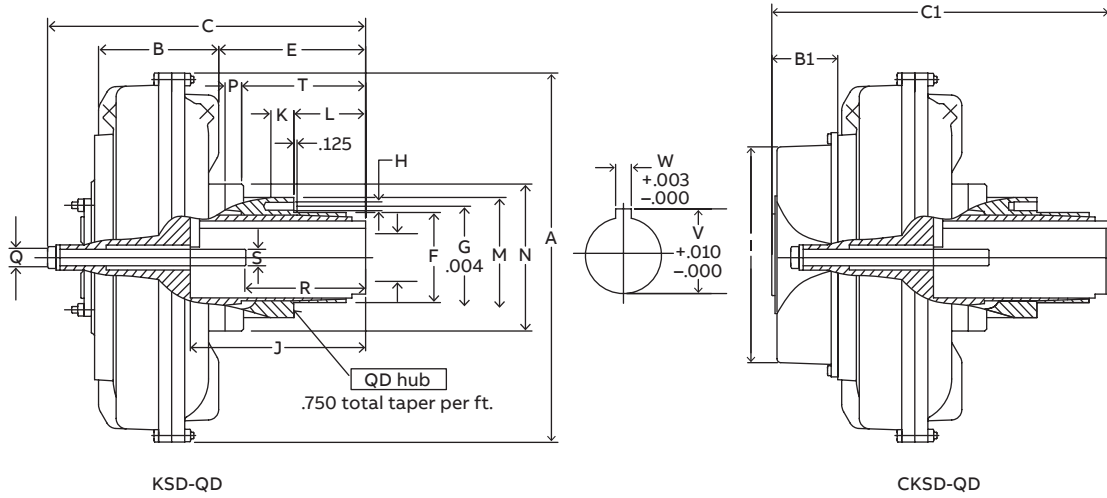


### Coupling size selection

Hp	RPM		
	1800	1500	1200
5	8	8	9
7.50	8	9	11
10	8	9	12
15	9	11	12
20	11	12	13
25	11	12	13
30	11	12	15
40	12	13	15
50	13	15	17
60	13	15	17
75	15	15	17
100	15	17	19
125	17	19	21
150	17	19	21
200	19	21	24
250	21	21	24
300	21	24	27
350	21	24	27
400	24	24	27
500	24	27	29

# Mechanical soft starts - KSD fluid couplings (with sheave/drive style)

## Selection/dimensions



Dimensional data sheet - KSD & CKSD

Size	D bore	KSD		CKSD		E	F	G	H # Dia.	J	K	L	M	N	P	Q	R	S	T	QD hub size	Weight (lb.) less oil		Oil U.S. gal. max.			
		A	B	B1	C max.																C1 max.	KSD-QD	CKSD-QD	KSD-QD	CKSD-QD	
7	1.375																									
	1.125	8.98	3.03	7.09	-	2.77	2.19	2.69	3	1/4-20	2.40	0.6	1.2	3.1	4.5	0.6	1/2-13 UNC			1.94	SDS	13.4	-	0.24	-	
	0.875																									
8	1.375	10.08	3.58	7.33	-	2.61	2.19	2.69	3	1/4-20	2.40	0.6	1.2	3.1	4.5	0.6	1/2-13 UNC			1.94	SDS	14.8	-	0.40	-	
	1.125																									
9	1.625	11.61	3.78	9.80	-	3.98	2.81	3.31	3	5/16-18	3.31	0.7	1.5	3.9	5.0	1.0	3/4-10 UNC			2.48	SK	28.7	-	0.52	-	
	1.375																									
11	1.875	12.80	4.21	10.20	11.39	3.86	3.13	3.88	3	3/8-16	4.00	0.8	1.5	4.6	5.5	0.8	3/4-10 UNC			2.76	SF	34.2	-	0.73	-	
	1.625																									
12	2.125																									
	1.875	14.57	4.80	3.15	11.56	13.05	5.10	3.83	5.00	3	1/2-13	4.25	1.1	1.9	6.0	6.1	0.9	3/4-10 UNC			3.98	E	50.7	57.2	1.08	1.27
	1.625																									
13	2.375																									
	2.125	15.67	5.39	3.15	13.90	14.96	6.42	3.83	5.00	3	1/2-13	4.25	1.1	2.8	6.0	7.0	1.1	3/4-10 UNC			5.22	E	73.9	80.5	1.37	1.53
	1.875																									
15	2.875	18.11	5.95	3.62	15.60	16.70	7.13	4.44	5.63	3	9/16-12	7.00	1.2	3.9	6.6	8.0	1.38	7/8-9 UNC	5.35	3/4-10 UNC	5.43	F	107	115.8	2.02	2.27
	2.375																									
17	3.375	20.47	6.69	3.98	19.11	20.32	9.65	5.15	6.25	3	5/8-11	8.25	1.4	4.3	7.24	8.3	2.8	11/4-7 UNC	6.30	7/8-9 UNC	6.69	J	156	169.2	3.09	3.59
	2.875																									
19	3.375	22.24	7.48	3.98	18.17	20.32	8.86	5.15	6.25	3	5/8-11	8.25	1.4	4.3	7.24	8.98	1.77	11/8-7 UNC	6.30	7/8-9 UNC	6.69	J	174	187.2	3.75	4.36
	2.875																									
21	3.875	24.41	8.07	4.53	21.46	24.41	11.81	6.50	7.88	4	3/4-10	1.00	1.6	7.1	9.02	10.38	2.2	11/4-7 UNC	6.56	7/8-9 UNC	11.02	M	270	292	5.02	6.08
	3.375				19.88	22.84	10.24					0.88		5.5							9.45					
24	3.875	27.95	9.02	4.53	21.46	24.41	10.87	6.50	7.88	4	3/4-10	1.00	1.6	7.1	9.02	10.38	1.4	11/4-7 UNC	6.56	7/8-9 UNC	11.02	M	307	329	7.50	8.24

• Max. bore

Mech. soft starts

**Mechanical soft starts - KSD fluid couplings (with sheave/drive style)**

Selection/dimensions

**Collet mount:**

Available on most sizes for ease of installation.

**Part numbers**

KSD drive accepts "Q" style sheave	
Part #	Part description
660373	7 KSD-QD SDS W/ 7/8 collet
118780	7 KSD-QD SDS W/ 1-1/8 collet
118781	8 KSD-QD SDS W/ 1-1/8 collet
393209	8 KSD-QD-SDS W 1-3/8 collet
118782	9 KSD-QD SK W/ 1-3/8 collet
660208	9 KSD-QD-SK W/ 1-5/8 collet
393383	11 KSD-QD-SF W/ 1-5/8 collet
118783	11 KSD-QD SF W/ 1-7/8 collet
118784	12 KSD-QD E W/ 2-1/8 collet
118785	13 KSD-QD E W/ 2-1/8 collet
118786	13 KSD-QD E W/ 2-3/8 collet
118648	15 KSD-QD F W/ 2-3/8 collet
118649	15 KSD-QD F W/ 2-7/8 collet
118650	17 KSD-QD J W/ 3-3/8 collet
118651	19 KSD-QD J W/ 3-3/8 collet

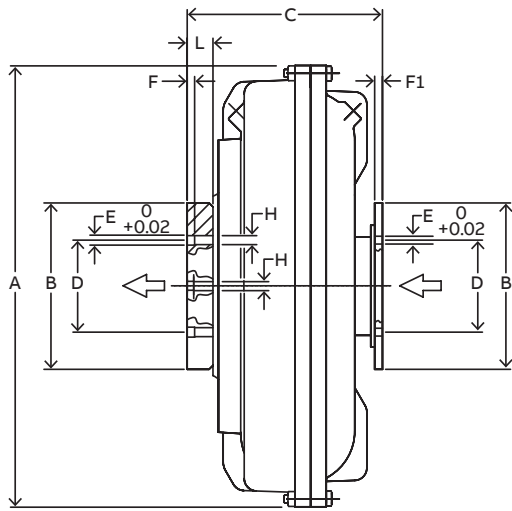
**Delay fill**

CKSD drive accepts "QD" style sheave	
Part #	Part description
118654	11 CKSD-QD SF w/ 1-7/8 collet
118655	12 CKSD-QD E w/ 2-1/8 collet
118656	13 CKSD-QD E w/ 2-1/8 collet
118657	13 CKSD-QD E w/ 2-3/8 collet
118658	15 CKSD-QD F w/ 2-3/8 collet
118659	15 CKSD-QD F w/ 2-7/8 collet
394375	17 CKSD-QD J w/ 2-7/8 collet
118660	17 CKSD-QD J w/ 3-3/8 collet
118661	19 CKSD-QD J w/ 3-3/8 collet

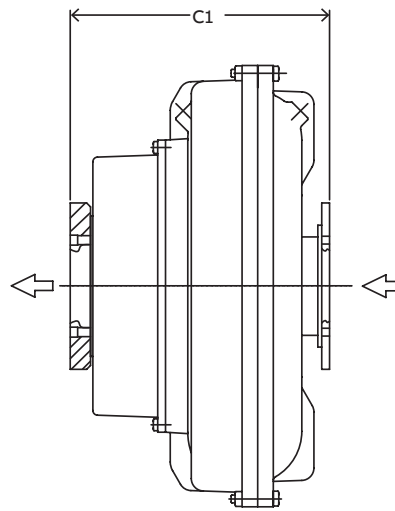


# Mechanical soft starts - KCM fluid couplings (Shrouded bolt gear coupling)

Selection/dimensions



KCM



CKCM

Dimensional data sheet - Shrouded bolt KCM & CKCM

Size	A	B	C		C1	Gear coupling size	Weight (lb.)		Oil U.S. gal. max.	
			KCM-SB	CKCM-SB			KCM-SB	CKCM-SB	KCM-SB	CKCM-SB
7	8.98	4.57	9.02	-	-	1.0 SB	25	-	0.24	-
8	10.08	4.57	9.21	-	-	1.0 SB	26	-	0.40	-
9	11.61	6.00	10.97	-	-	1.5 SB	50	-	0.52	-
11	12.80	6.00	11.32	13.61	-	1.5 SB	54	62	0.73	0.88
12	14.57	6.00	11.80	14.43	-	1.5 SB	64	71	1.08	1.27
13	15.67	6.00	12.19	15.16	-	1.5 SB	81	91	1.37	1.48
15	18.11	8.39	16.18	18.86	-	2.5 SB	166	175	2.02	2.27
17	20.47	8.39	16.10	19.33	-	2.5 SB	201	214	3.09	3.59
19	22.24	8.39	16.10	19.33	-	2.5 SB	220	234	3.75	4.36
21	24.41	8.39	18.86	22.87	-	2.5 SB	293	306	5.02	6.08
24	28.11	8.39	18.86	22.87	-	2.5 SB	339	346	7.50	8.24

Dimensional data sheet - Exposed bolt KCM & CKCM

Size	A	B	C		C1	Gear coupling size	Weight (lb.)		Oil U.S. gal. max.	
			KCM-EB	CKCM-EB			KCM-EB	CKCM-EB	KCM-EB	CKCM-EB
7	8.98	4.57	9.02	-	-	1.0 EB	25	-	0.24	-
8	10.08	4.57	9.21	-	-	1.0 EB	26	-	0.40	-
9	11.61	6.00	11.44	-	-	1.5 EB	50	-	0.52	-
11	12.80	6.00	11.80	13.61	-	1.5 EB	24	62	0.73	0.88
12	14.57	6.00	11.80	14.43	-	1.5 EB	64	71	1.08	1.27
13	15.67	6.00	12.80	15.16	-	1.5 EB	81	91	1.37	1.48
15	18.11	8.39	16.14	18.82	-	2.5 EB	166	175	2.02	2.27
17	20.47	8.39	17.09	20.24	-	2.5 EB	201	214	3.09	3.59
19	22.24	8.39	17.09	20.24	-	2.5 EB	220	234	3.75	4.36
21	24.41	8.39	19.80	23.74	-	3.0 EB	324	337	5.02	6.08
24	28.11	8.39	19.80	23.74	-	3.0 EB	370	377	7.50	8.24
27	30.71	11.02	24.69	29.33	-	3.5 EB	563	605	11.10	13.21
29	33.86	11.02	25.82	30.47	-	3.5 EB	682	721	14.53	16.64

## Mechanical soft starts - KCM fluid couplings (Shrouded bolt gear coupling)

Selection/dimensions

### Part numbers

#### Fluid couplings

Part #	Part description
118625	7 KCM - less 1.0SB gear coupling
118626	8 KCM - less 1.0SB gear coupling
118627	9 KCM - less 1.5SB gear coupling
118628	11 KCM - less 1.5SB gear coupling
118629	12 KCM - less 1.5SB gear coupling
118630	13 KCM - less 1.5SB gear coupling
118631	15 KCM - less 2.5SB gear coupling
660886	17 KCM - less 2.5EB gear coupling
118632	17 KCM - less 2.5SB gear coupling
660887	19 KCM - less 2.5EB gear coupling
118633	19 KCM - less 2.5SB gear coupling
660888	21 KCM - less 3.0EB gear coupling
118634	21 KCM - less 2.5SB gear coupling
660889	24 KCM - less 3.0EB gear coupling
118635	24 KCM - less 2.5SB gear coupling
118636	27 KCM - less 3.5EB gear coupling
118637	29 KCM - less 3.5EB gear coupling

\* Gear coupling kit ordered separately. (See below)

#### Delay fill fluid couplings

Part #	Part description
118638	11 CKCM - less 1.5SB gear coupling
118639	12 CKCM - less 1.5SB gear coupling
118640	13 CKCM - less 1.5SB gear coupling
118641	15 CKCM - less 2.5SB gear coupling
660890	17 CKCM - less 2.5EB gear coupling
118642	17 CKCM - less 2.5SB gear coupling
660891	19 CKCM - less 2.5EB gear coupling
118643	19 CKCM - less 2.5SB gear coupling
660892	21 CKCM - less 3.0EB gear coupling
118644	21 CKCM - less 2.5SB gear coupling
660893	24 CKCM - less 3.0EB gear coupling
118645	24 CKCM - less 2.5SB gear coupling
118646	27 CKCM - less 3.5EB gear coupling
118647	29 CKCM - less 3.5EB gear coupling

#### Gear couplings for KCM fluid coupling

Fluid coupling size 7 - 8	
Part numbers	Description
013110	DGF 1.0 flex hub
012975	DGF 1.0 sleeve SB
012987	KCM/CKCM 7 - 8 hardware kit

Fluid coupling size 9 - 13	
Part numbers	Description
013114	DGF 1.5 flex hub
012976	DGF 1.5 sleeve SB
012988	KCM/CKCM 9 - 13 hardware kit

Fluid coupling size 15 - 24	
Part numbers	Description
013122	DGF 2.5 flex hub
012978	DGF 2.5 sleeve SB
012989	KCM/CKCM 15 - 24 hardware kit

Fluid coupling size 27 - 34	
Part numbers	Description
013130	DGF 3.5 flex hub
013131	DGF 3.5 sleeve EB
012990	KCM/CKCM 27 - 29 hardware kit

Gear couplings are required for shaft attachment. For a complete gear coupling attachment kit, please order - (2) flex hubs (reborable), (2) sleeves (includes seal), and (2) hardware kits.

#### Gear couplings for KCM fluid coupling

Fluid coupling size 17 - 19 exposed bolt	
Part numbers	Description
013122	DGF 2.5 flex hub
013123	DGF 2.5 flex sleeve EB
013125	DGF 2.5 hardware kit

Fluid coupling size 21 - 24 exposed bolt	
Part numbers	Description
013126	DGF 3.0 flex hub
013127	DGF 3.0 sleeve EB
013129	DGF 3.0 hardware kit

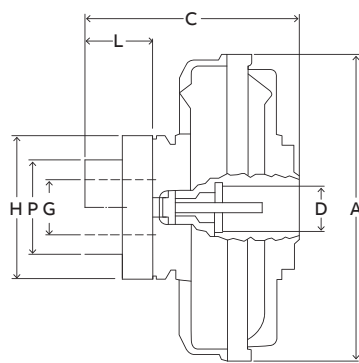
\* (2) hubs, (2) sleeves and (2) hardware kits per fluid coupling

#### Gear coupling chart

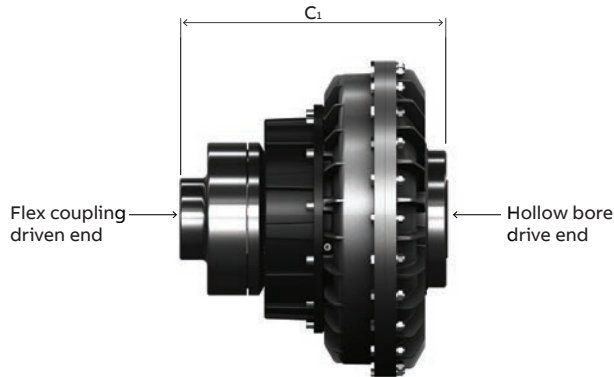
Size	Outside diameter	Flange width	Flange thickness	Hub diameter	Undercut depth	Undercut diameter	Hole diameter	Bolt circle	Number of bolts	Max. bore
	A	J	T	F	I	H	U	B.C.		
All dimensions in inches										
1 SB	4-9/16	1-21/32	9/16	3	3/32	2-7/8	1/4	3-3/4	6	1.625"
1.5 SB	6	1-7/8	3/4	3-7/8	3/32	3-11/16	3/8	4-13/16	8	2.250"
2.5 SB	8-3/8	2-7/8	15/16	5-13/16	3/32	5-7/16	1/2	7	10	3.375"
3.0 EB	9-7/16	3-5/16	15/16	6-13/16	3/32	6-7/16	5/8	8-1/8	8	4.25"
3.5 EB	11	3-13/16	1-1/8	7-27/32	3/32	7-3/8	3/4	9-1/2	8	4.750"

# Mechanical soft starts - KRG fluid couplings

## Selection/dimensions



**KRG**



**CKRG - CCKRG**

**Dimensional data sheet -KRG & CKRG**

Size	D input bore	A	C KRG	C1 CKRG	H	L	P	Flexible coupling	G max. bore	Weight lbs. - less oil	
										KRG	CKRG
13	2.125	15.67	11.93	14.29	6.69	3.15	3.94	BT30	2.75	75	82
	2.375										
15	2.375	18.11	14.33	17.01	6.69	4.33	4.72	BT40	3.15	111	120
	2.875										
17	2.875	20.47	15.24	18.39	9.84	4.33	5.31	BT50	3.54	170	183
	3.375										
19	2.875	22.24	15.24	18.39	9.84	4.33	5.31	BT50	3.54	185	198
	3.375										
21	3.375	24.41	18.07	22.01	11.42	5.51	6.69	BT60	4.33	284	306
	3.875										
24	3.375	28.11	18.07	22.01	11.42	5.51	6.69	BT60	4.33	324	345
	3.875										
27	4.75	30.71	20.04	24.69	13.94	5.91	7.87	BT80	5.12	510	548
29	5.25	33.86	21.1	25.75	13.94	5.91	7.87	BT80	5.12	625	665

Note: Contact Dodge for made-to-order quotes on sizes 8-12.

Part number	Description	Flex coupling
14 6030	Size 13 KR x 2-1/8 hollow bore	BT30
14 6031	Size 13 KR x 2-3/8 hollow bore	BT30
14 6032	Size 15 KR x 2-3/8 hollow bore	BT40
14 6033	Size 15 KR x 2-7/8 hollow bore	BT40
14 6034	Size 17 KR x 2-7/8 hollow bore	BT50
14 6035	Size 17 KR x 3-3/8 hollow bore	BT50
14 6036	Size 19 KR x 2-7/8 hollow bore	BT50
14 6037	Size 19 KR x 3-3/8 hollow bore	BT50
14 6038	Size 21 KR x 3-3/8 hollow bore	BT60
14 6039	Size 24 KR x 3-3/8 hollow bore	BT60
14 6040	Size 24 KR x 3-7/8 hollow bore	BT60
14 6041	Size 27 KR x 4-3/4 hollow bore	BT80
14 6042	Size 29 KR x 5-1/4 hollow bore	BT80
14 6043	Size 13 CKR x 2-1/8 hollow bore	BT30
14 6044	Size 13 CKR x 2-3/8 hollow bore	BT30
14 6045	Size 15 CKR x 2-3/8 hollow bore	BT40

Part number	Description	Flex coupling
146046	Size 15 CKR x 2-7/8 hollow bore	BT40
146047	Size 17 CKR x 2-7/8 hollow bore	BT50
14 6048	Size 17 CKR x 3-3/8 hollow bore	BT50
14 6049	Size 19 CKR x 2-7/8 hollow Bore	BT50
14 6050	Size 19 CKR x 3-3/8 hollow bore	BT50
146051	Size 21 CKR x 3-3/8 hollow bore	BT60
14 6052	Size 24 CKR x 3-3/8 hollow bore	BT60
14 6053	Size 24 CKR x 3-7/8 hollow bore	BT60
14 6054	Size 27 CKR x 4-3/4 hollow bore	BT80
14 6055	Size 29 CKR x 5-1/4 hollow bore	BT80

Part number	Description
146056	Size BT30 x RSB HUB
14 6057	Size BT40 x RSB HUB
14 6058	Size BT50 x RSB HUB
14 6059	Size BT60 x RSB HUB
146060	Size BT80 x RSB HUB

Note: Replacement rubber inserts available

**Mechanical soft starts - fluid couplings**

Selection/dimensions

**Replacement fuse plugs**

Fluid coupling size (range)	Part number	Temperature
6	019161	290°F
6	019162	390°F
7 - 12	019163	290°F
7 - 12	019164	390°F
13 - 24	019165	290°F
13 - 24	019166	390°F
27 - 34	019167	290°F
27 - 34	019168	390°F

Note: Switch pin kits also available

**Switch pin kit**

Part number	Description
019187	Fld cplg switch pin 13-24 w/relay
019188	Fld cplg switch pin 27-34 w/relay
019189	Sizes 13-24 switch pin only 250F
019190	Sizes 13-24 switch pin only 290F
019191	Fluid coupling - relay only

MECHANICAL CLUTCHES

# Torque-Tamer



## Mechanical clutches - Torque-Tamer

### Features/benefits

#### Dodge Torque-Tamer clutches

Low cost overload protection that's a cinch to adjust. Intermittent shock loads or drive overload conditions can stress reducers to a point of premature failure. Dodge Torque-Tamer clutches provide a simple, economical solution. When an overload occurs, the Torque-Tamer clutch is designed to slip, protecting the valuable reducer and other components in the drive train. Once the overload is cleared, the Torque-Tamer clutch automatically picks up the load.

A Dodge Torque-Tamer clutch is easily set to the required slip-protection torque level, using standard wrenches.

#### Quality features

- Non-asbestos friction discs
- Long-life bushing

New keyed bushing will not slip on the hub. Provides improved bearing surface for sprocket to ride on during overload slip. Note: Because of the possibility of excessive heat build-up, the Torque-Tamer clutch is not recommended for continuous slip duty.

#### Exclusive "easy set" adjustment

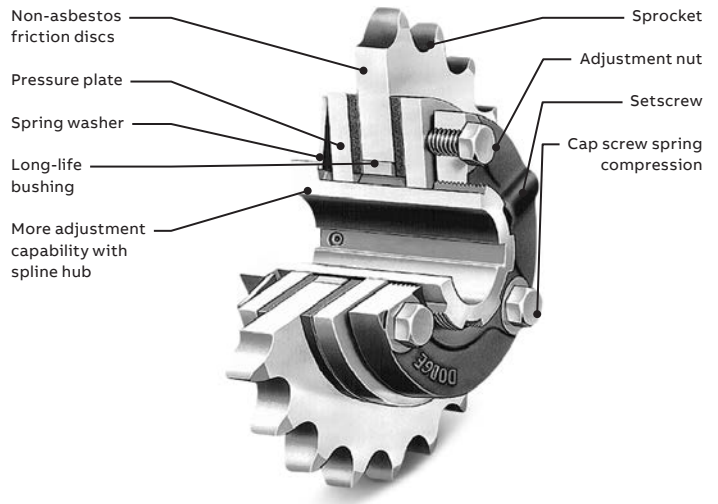
Torque adjustment is a simple matter, accomplished quickly! The need for hammer and block, brute strength and spanner wrenches is eliminated. No sweat. No wasted time.

For maximum torque, tighten the adjusting nut to finger tight and use a small wrench to tighten the three cap screws until the heads bottom out. For less torque, loosen the cap screws and set screws. Then back off the adjusting nut from one to seven spline notches, depending on the torque desired. Then retighten set screw and cap screws. Please consult Instruction Manual MN4038 for complete details. This instruction manual is available on [www.baldor.com/manuals](http://www.baldor.com/manuals).

#### Automatic reset

The Dodge Torque-Tamer clutch gives machinery permanent protection against overloads during starting, reversing or driving-by slipping at the desired load.

When an overload occurs, the driven member slips between long-life, clutch-type friction discs. After slipping has started, it will continue at approximately 90% of the torque setting, due to the lower coefficient of friction when slipping, until the overload condition has been corrected. It resumes driving without resetting when the overload is relieved.



For speeds above 500 RPM please contact **Dodge Industrial**

#### Higher torque ratings

Spring design provides higher torque ratings for No. 35 and No. 50 Torque-Tamer clutches. This results in more uniform coverage between minimum and maximum torque range of the Torque-Tamer clutch.

#### Application versatility

Dodge Torque-Tamer clutches may be used with stock or special sprockets, gears, sheaves, flange or other driven members. It is recommended that the rubbing sides of the driven member be ground to provide a smooth rubbing surface of 65 to 125 micro-inches.

Higher torque ratings can be obtained by the use of a second spring nested within the original spring. (See torque rating table on page 174.)

#### Minimum maintenance

The Dodge Torque-Tamer clutch is simple in design, compact, efficient, and built for long life. It provides low cost torque limiting service for a wide variety of applications. No lubrication. . . minimum maintenance.

Torque-Tamer clutches are supplied complete with friction discs and one spring. The following are ordered separately:

**Sprocket** - Stock sizes shown on page 176. Non-stock sizes can be furnished as reworked A-Plate sprockets listed in the sprocket section of the Dodge Engineering Catalog.

**Bushings** - Specify size and width and/or part no. as tabulated.

**Extra spring** - Provides higher torque rating as tabulated. Second spring is nested into first spring.

## Mechanical clutches - Torque-Tamer

### Specification/how to order/nomenclature

#### Specification

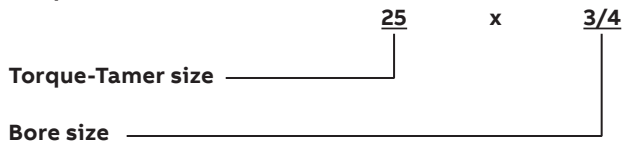
The Dodge Torque-Tamer is a protective device that is designed to slip when overloaded, thus protecting the valuable reducer and other components in the drive train. Once the overload is cleared, the Torque-Tamer clutch will automatically re-engage. No resetting is required.

#### How to order

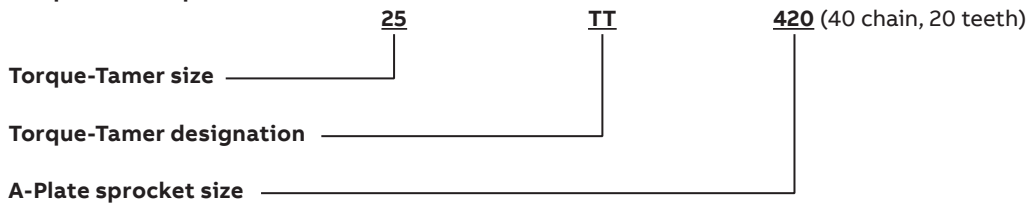
Torque-Tamer clutches are ordered by the size of the Torque-Tamer, the bore size of the unit, and the sprocket and bushing width required. The Dodge Torque-Tamer is supplied with the friction discs and one spring. The sprocket, bushings, and additional spring (if needed) must be ordered separately.

#### Nomenclature:

##### Torque-Tamer:



##### Torque-Tamer sprocket:



A complete Torque-Tamer consists of: (1) Torque-Tamer mechanism, (1) sprocket, and (1) bushing

# Mechanical clutches - Torque-Tamer

## Selection/dimensions

**Step 1:** Determine torque at which clutch should limit or slip.

$$T = \frac{Hp \times 63025}{RPM} \times \text{limit factor}$$

Limit factor determines point at which Torque-Tamer should slip above nominal load.

**Step 2:** Refer to chart 1. Select the Torque-Tamer size that falls within the min./max. torque range. Verify the max. bore for the Torque-Tamer is within specification. This chart will also determine the number of springs required and the spline setting for the Torque-Tamer.

**Step 3:** Refer to chart 2 to verify the minimum number of sprocket teeth required for the Torque-Tamer sprocket. From chart 2, also determine the bushing width required.

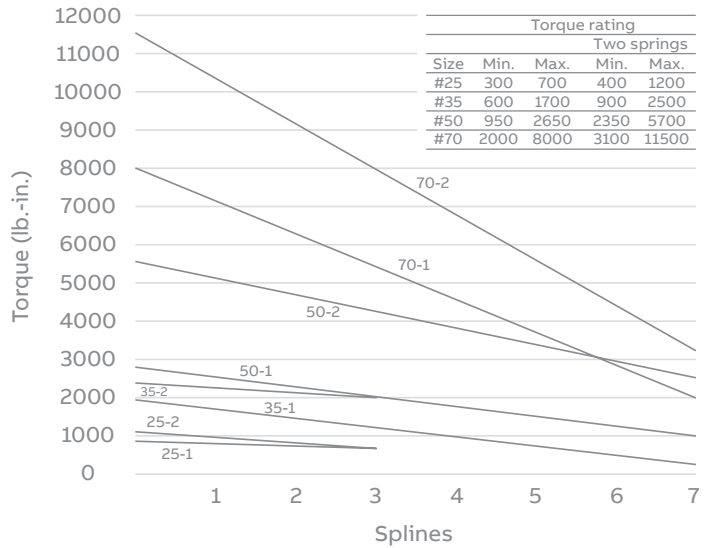
Example: 3 Hp, RPM at Torque-Tamer 175, needs Torque-Tamer to limit or slip at 150% of nominal torque.

1. Limit factor is 150%/100% = 1.5

$$T = \frac{3Hp \times 63025}{175 \text{ RPM}} \times 1.5 = 1,620 \text{ lb.-in.}$$

2. Select size from chart 1. Minimum size is #35 Torque-Tamer. One spring will be sufficient, however, a second spring can be added for increased torque capability (should parameters of application required additional torque).

**Chart 1**



Note: Graph indicates approximate rated torque vs. number of splines adjusting nut is backed off from finger tight.

Numbers on calibration lines indicate Torque-Tamer model and quantity of compression springs. Example: 35-2 is a model 35 Torque-Tamer with 2 springs.

3. Check chart 2 for maximum bore and minimum sprocket teeth and bushing requirements.

**Chart 2 - Minimum allowable sprocket teeth\* & width of bushing required & maximum bore capability**

Torque-Tamer size	Data	Chain size										Max. bore	
		#35 chain	#41 chain	#40 chain	#50 chain	#60 chain	#80 chain	#100 chain	#120 chain	#140 chain	#160 chain	Std. kW†	Shallow kW†
25	Minimum # teeth	25	19▲	19▲	16▲	-	-	-	-	-	-	7/8	1
	bushing width req'd	1/8	1/8	1/4	1/4	-	-	-	-	-	-		
35	Minimum # teeth	34	26	26	21	18	15	-	-	-	-	1-3/16	1-1/4
	bushing width req'd	1/8	1/8	1/4	1/4	3/8	3/8	-	-	-	-		
50	Minimum # teeth	48	35	35	30	25	19	17	-	-	-	1-3/16	2
	bushing width req'd	1/8	1/8	1/4	1/4	3/8	3/8	1/2***	-	-	-		
70	Minimum # teeth	-	-	48	40	34	26	21	18	16	14	2-3/4	3
	bushing width req'd	-	-	1/4	1/4	3/8	3/8	1/2	3/4*	3/4*	1**		

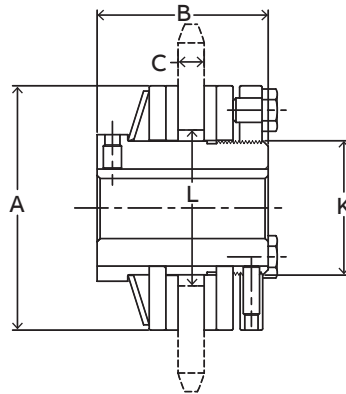
• Minimum number of teeth on sprocket which will permit chain to clear friction disc  
 ▲ 20 teeth minimum recommended. Minimal clearance of 19 teeth may shorten life.

\* Use two 3/8" wide bushings.  
 \*\* Use two 1/2" wide bushings.  
 † Keyway to be cut central with threaded spline. For standard kW sizes refer to page 119.  
 \*\*\* Use two 1/4" wide bushings.



**Mechanical clutches - Torque-Tamer**

Selection/dimensions



Torque-Tamer size	Avg. wt.	A	B	Torque-Tamer clutch dimensions						
				Min.	Max.	C	K	L	Max. bore	
									Std. key*	Shallow key*
25	1	2-1/2	1-3/4	1/8	11/32	1.368	1.628	7/8	1	
35	2.5	3-1/2	2-7/16	1/8	5/8	1.675	2.003	1-3/16	1-1/4	
50	6	5	2-7/8	1/8	5/8	2.625	3.005	1-3/4	2	
70	18	7	3-7/8	1/4	1-1/4	3.811	4.194	2-3/4	3	

\* Keyway to be cut central with threaded spline.

**Stock Torque-Tamer clutches:  
Finished bores & reborable**

Torque-Tamer size	Stock Torque-Tamer clutches w/finished bore & keyway			Reborable Torque-Tamer clutches		
	Bore	Part number	Bore (No kW & 1*)	Part number	Standard kW*	Max. bore Shallow kW*
25	1/2	096034	1/2	096033	7/8	1
	5/8	096035				
	3/4	096036				
	7/8	096037				
35	3/4	096008	3/4	096010	1-3/16	1-1/4
	7/8	096009				
	1	096011				
50	1	096014	1	096017	1-3/4	2
	1-1/8	096015				
	1-3/16	096018				
	1-1/4	096019				
	1-3/8	096020				
	1-7/16	096021				
	1-1/2	096022				
1-5/8	096023					
70	1-7/16	096028	1-3/8	096027	2-3/4	3
	1-1/2	096029				
	1-3/4	096030				
	1-15/16	096031				
	2	096032				
	2-3/16	096038				
2-7/16	096016					

\* With standard keyway and (1) setscrew.

\* Keyway to be cut central with threaded spline. For standard kW sizes refer to page 125.

A complete Torque-Tamer consists of: (1) Torque-Tamer mechanism, (1) sprocket, and (1) bushing

Mech. clutches

## Mechanical clutches - Torque-Tamer

Selection/dimensions

### Torque-Tamer sprocket



Stock Torque-Tamer sprockets are bored to fit Torque-Tamer clutches. Sprocket faces are machined smooth and parallel to provide proper interface with friction discs. Rubbing sides are micro ground to 65 to 125 micro-inches.

Additional Torque-Tamer sprocket sizes available upon request.

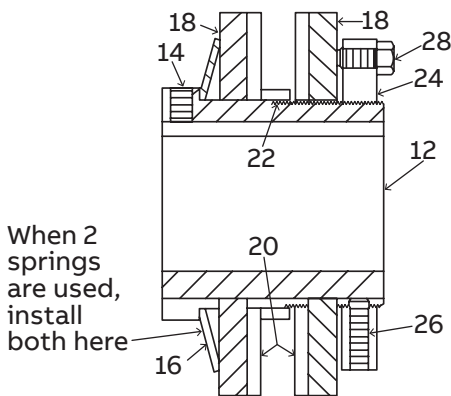
#### Stock Torque-Tamer sprockets bored and micro ground

#25 Torque-Tamer					#35 Torque-Tamer				
Chain size	No. teeth	Descrip.	Part no.	Bushing part no.*	Chain size	No. teeth	Descrip.	Part no.	Bushing part no.*
40	19	25TT419	096135	096051	40	26	35TT426	096150	096056
40	20	25TT420	096136	096051	50	21	35TT521	096151	096056
40	21	25TT421	096137	096051	50	22	35TT522	096152	096056
40	23	25TT423	096138	096051	50	23	35TT523	096153	096056
50	16	25TT516	096139	096051	50	25	35TT525	096154	096056
50	17	25TT517	096140	096051	60	18	35TT618	096155	096057
50	18	25TT518	096141	096051	60	19	35TT619	096156	096057
50	19	25TT519	096142	096051	60	20	35TT620	096157	096057
50	21	25TT521	096143	096051	60	21	35TT621	096158	096057
50	23	25TT523	096144	096051	60	23	35TT623	096159	096057

#50 Torque-Tamer					#70 Torque-Tamer				
Chain size	No. teeth	Descrip.	Part no.	Bushing part no.*	Chain size	No. teeth	Descrip.	Part no.	Bushing part no.*
50	30	50TT530	096165	096063	60	35	70TT635	096175	096071
60	25	50TT625	096166	096064	80	26	70TT826	096176	096071
60	26	50TT626	096167	096064	80	27	70TT827	096177	096071
80	19	50TT819	096168	096064	100	21	70TT1021	096178	096072
80	20	50TT820	096169	096064	100	22	70TT1022	096179	096072
80	21	50TT821	096170	096064					-
80	23	50TT823	096171	096064					-

\* Bushing ordered separately

A complete Torque-Tamer consists of: (1) Torque-Tamer mechanism, (1) sprocket, and (1) bushing



When 2 springs are used, install both here

#### Torque-Tamer clutch extra items

Torque-Tamer size	Part number for bushing width of:				Part number for extra spring
	1/8"	1/4"	3/8"	1/2"	
25	096050	096051	-	-	096039
35	096055	096056	096057	-	096041
50	096062	096063	096064	-	096042
70	-	096070	096071	096072	096043
Reference #	22	22	22	22	16

#### Torque-Tamer replacement parts

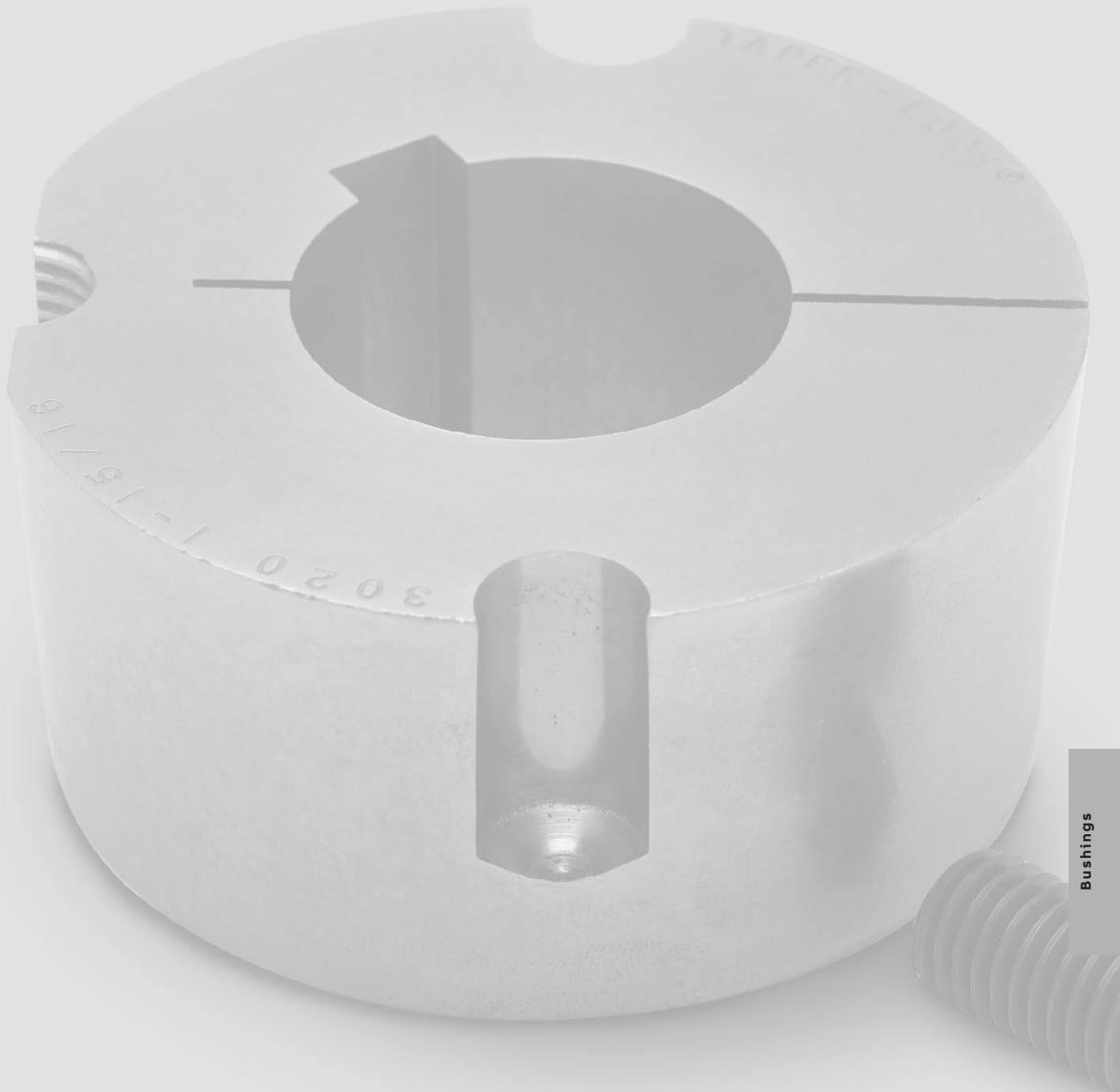
Reference #	No. req'd	Name of part	Part numbers			
			Size 25	Size 35	Size 50	Size 70
12	1	Hub assembly	096095	096181	096187	096104
14	1	Hub set screw	N/A	N/A	N/A	N/A
18	2	Pressure plate	391371	391375	391379	391383
20	1	• Friction discs	096065	096066	096067	096068
24	1	Adjusting nut Assembly	391372	391376	391380	391384
26	1	▲ Adjusting nut	-	-	-	-
		Set screws	-	-	-	-
28	3	▲ Tension screw	391373	391377	391381	391385

• Sold in packs of 2 only

▲ Included in preceding assembly

—  
BUSHINGS

# Taper-Lock



## Bushings - Taper-Lock

### Features/benefits

#### Simple mounting

##### Easy on

- Insert bushing into sprocket.
- Match holes (not threads).
- Put screws into holes that are farthest apart.
- Slip entire unit onto shaft.
- Set drive alignment and tighten screws.



##### Easy off

- Take both screws out entirely.
- Insert one screw into hole that is threaded in the bushing only.
- Use as jackscrew to disengage bushing.



#### Important!

Do not use lubricants or anti-seize compounds on tapered bore, bushing suitcase, shaft or screws. Complete installation instructions are available on [www.baldor.com/manuals](http://www.baldor.com/manuals).

- Clean, compact design
- An industry standard for over 40 years
- Easy-on, easy-off
- 8° taper-grips tight, holds tight, runs true, no wobble
- Total system concept: bushings, hubs, adapters and products
- World-wide acceptance and availability
- Flush mounting-no protruding parts
- Diamond <D> integral key for added value and convenience



Taper-Lock keyway-type bushing



Taper-Lock integral key bushing

#### Dodge Taper-Lock bushing with integral key

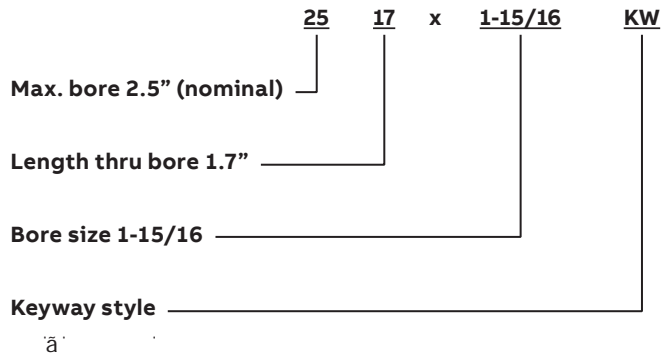
- Popular bore sizes, 1008 - 2517
- Capitalizes on proven Dodge sintered steel technology
- Convenience: No more fumbling with a separate key and setscrew over the key. Integral key cannot work loose or fall out.
- More secure fit: Clearances between key and bushing are automatically eliminated, providing a more precise fit. Provides full key even in maximum bore sizes. . . No more "shallow keyseat" compromise.
- Cost reduction: Eliminates labor cost associated with installing key and separate key, and associated inventory expense.
- Engineered and tested design: Integral key concept thoroughly analyzed, including computerized Finite Element Analysis (FEA), for stress evaluation. Extensive laboratory testing included static and dynamic loading on customized machinery. Results demonstrated in successful field applications.

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## Bushings - Taper-Lock

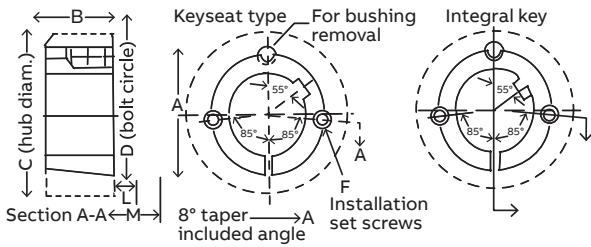
Specification/how to order/nomenclature

### Example nomenclature



# Bushings - Taper-Lock

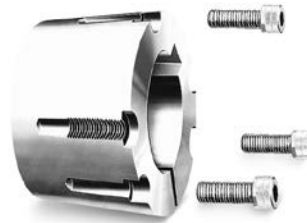
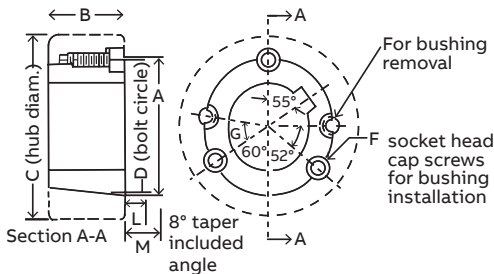
## Selection/dimensions



Dimensions for 1008 - 3030 Taper-Lock bushings

Bush no.	Ratings (lb.-in.)		C Hub dia. ■				F †		L ●		M ★		
	Torque capacity ◆	Wrench torque install screws	A	B	CL 30	Steel	D	Qty.	Size	Std. hex. key	Short key ▲	Std. hex. key	Short key ▲
1008	12 00	55	1.39	0.87	2.19	1.94	1.33	2	1/4 X 1/2	1.13	0.63	1.25	0.75
1108	13 00	55	1.51	0.87	2.31	2.06	1.45	2	1/4 X 1/2	1.13	0.63	1.25	0.75
1210	3600	175	1.87	1.00	3.25	2.88	1.75	2	3/8 X 5/8	1.38	0.81	1.63	1.10
1215	3550	175	1.87	1.50	2.88	2.63	1.75	2	3/8 X 5/8	1.38	0.81	1.63	1.10
1310	3850	175	2.00	1.00	3.38	3.00	1.88	2	3/8 X 5/8	1.38	0.81	1.63	1.10
1610	4300	175	2.25	1.00	3.63	3.25	2.13	2	3/8 X 5/8	1.38	0.81	1.63	1.10
1615	4300	175	2.25	1.50	3.25	3.00	2.13	2	3/8 X 5/8	1.38	0.81	1.63	1.10
2012	7150	280	2.75	1.25	4.38	3.88	2.63	2	7/16 X 7/8	1.56	0.94	2.00	1.38
2517	11600	430	3.38	1.75	4.88	4.38	3.25	2	1/2 X 1	1.63	1.00	2.25	1.63
2525	11300	430	3.38	2.50	4.50	4.25	3.25	2	1/2 X 1	1.63	1.00	2.25	1.63
3020	24000	800	4.25	2.00	6.25	5.63	4.00	2	5/8 X 1-1/4	1.81	1.19	2.69	2.10
3030	24000	800	4.25	3.00	5.75	5.38	4.00	2	5/8 X 1-1/4	1.81	1.19	2.69	2.10

### 3535 - 5050 size



Dimensions for 3525 - 5050 Taper-Lock bushings

Bush no.	Ratings (lb.-in.)		C hub dia. ■				F †		L ●		M ★			
	Torque capacity ◆	Wrench torque install screws	A	B	CL 30	Steel	D	Qty.	Size	G	Std. hex. key	Short key ▲	Std. hex. key	Short key ▲
3525	44800	1000	5.00	2.50	7.00	6.50	4.83	3	1/2 X 1-1/2	39	2.00	1.31	3.38	2.69
3535	44800	1000	5.00	3.50	7.00	6.50	4.83	3	1/2 X 1-1/2	39	2.00	1.31	3.38	2.69
4030	77300	1700	5.75	3.00	8.50	7.75	5.54	3	5/8 X 1-3/4	39	2.39	1.63	4.13	3.38
4040	77300	1700	5.75	4.00	8.50	7.75	5.54	3	5/8 X 1-3/4	40	2.39	1.63	4.13	3.38
4535	110000	2450	6.38	3.50	9.50	8.75	6.13	3	3/4 X 2	40	2.63	1.94	4.75	4.10
4545	110000	2450	6.38	4.50	9.50	8.75	6.13	3	3/4 X 2	40	2.63	1.94	4.75	4.10
5040	126000	3100	7.00	4.00	10.50	9.50	6.72	3	7/8 X 2-1/4	37	2.81	2.31	5.25	4.81
5050	126000	3100	7.00	5.00	10.50	9.50	6.72	3	7/8 X 2-1/4	37	2.81	2.31	5.25	4.81

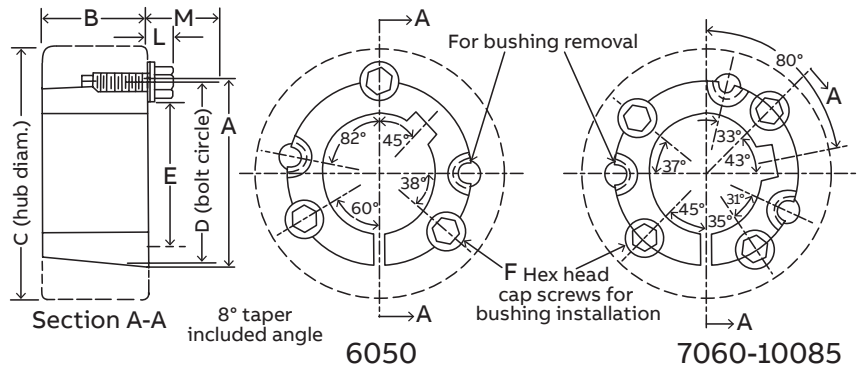
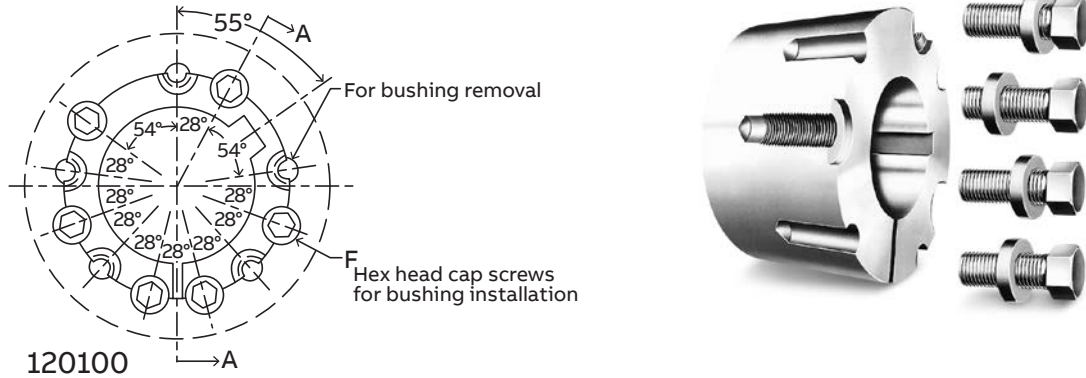
Note: For dimensions required for machining hubs, consult factory.  
 ■ Hub diameter required depends on the application. Hub diameter shown is based on 30,000 P.S.I. minimum ultimate tensile strength.  
 ◆ Important: refer to service factor information on page 181.  
 ● Space required to tighten bushing. Also space required to loosen screws to permit removal of hub by puller.

★ Space required to remove bushing using jackscrews-no puller required  
 ▲ Standard hex key cut to minimum usable length.  
 † Use in position shown in drawing above for tightening bushing on shaft. When loosening bushing remove screws and use all except one in the other holes.  
 Note: Installation and maintenance instructions for Dodge products available at [www.baldor.com/manuals](http://www.baldor.com/manuals).

**Bushings - Taper-Lock**

Selection/dimensions

**6050 - 120100 sizes**



**Dimensions for 6050 - 120100 Taper-Lock bushings**

Bush no.	Ratings (lb.-in.)		C hub dia.						F		L	M
	Torque capacity ♦	Wrench torque install screws	A	B	CL 30	Steel	D	E	Qty.	Size		
6050	282000	7820	9.25	5.00	15.50	13.50	9.00	6.75	3	1-1/4 X 3-1/2	1.63	4.38
7060	416000	7820	10.25	6.00	17.00	14.80	10.00	7.75	4	1-1/4 X 3-1/2	1.63	4.38
8065	456000	7820	11.25	6.50	17.50	15.50	11.00	8.75	4	1-1/4 X 3-1/2	1.63	4.38
10 085	869000	13700	14.75	8.50	22.00	19.50	14.50	11.75	4	1-1/2 X 4-1/4	2.00	5.38
120100	1520000	13700	17.25	10.00	26.00	23.00	17.00	14.25	6	1-1/2 X 4-1/4	2.00	5.38

Note: For dimensions required for machining hubs, consult factory.

- Hub diameter required depends on the application. Hub diameter shown is based on 30,000 P.S.I. minimum ultimate tensile strength.
- † Use in position shown in drawing above for tightening bushing on shaft. When loosening bushing remove screws and use all except one in the other holes.
- Space required to tighten bushing. Also space required to loosen screws to permit removal of hub by puller.
- ★ Space required to loosen bushing using screws as jackscrews - no puller required.
- ♦ Peak torque loads must not exceed torque capacity rating shown. Capacity values shown are for light starting and steady running conditions. For more severe duty, divide torque capacity by service factor suggested in following table.

Service factor	Type of loading
1.00	Light starting & steady running
1.50	Light starting & uneven running
2.00	Fairly heavy starting & steady or uneven running
2.50	Light or heavy starting & moderate shock running
3.00	Light or heavy starting & severe shock running, or reversing loads





**Bushings - Taper-Lock**

Selection/dimensions

**Taper-Lock bushings - stock bore**

TL bush size	Bore	P/N integral Key	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key Size REF
1610 (cont.)	18 mm	11 9663	0.9				
	19 mm	11 9573	0.8		6 x 2.8mm	6 x 3.5mm	6 x 6mm
	20mm	11 9598	0.8				
	22mm	11 9236	0.8				
	24mm	11 9599	0.8				
	25mm	11 9600	0.7		8 X 3.3mm	8 X 4mm	8 X 7mm
	28mm	11 9601	0.7				
	30mm	11 9602	0.7				
	32mm	11 9603	0.6				
	35mm	11 9604	0.6		10 X 3.3mm	10 X 5mm	10 X 8mm
	38mm	11 9605	0.5				
	40mm	11 9606	0.5				
	42mm +	393002	0.5		12 X 3.3mm	12 X 5mm	12 X 8mm
	1/2"	119040	1.3		1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	9/16"	11 9041	1.3				
5/8"	11 9042	1.3					
11/16"	11 9043	1.2					
3/4"	11 9044	1.2		3/16 x 3/32	3/16 x 3/32	3/16 x 3/16	
13/16"	11 9045	1.2					
7/8"	11 9046	1.1					
15/16"	11 9047	1.1					
1"	11 9048	1.1					
1-1/16"	11 9049	1		1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
1-1/8"	11 9050	1					
1-3/16"	11 9051	1					
1-1/4"	11 9052	0.9					
1-5/16"	11 9053	0.8		5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
1-3/8"	11 9054	0.8					
1-7/16"	11 9055	0.7		3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-1/2"	119056	0.7					
1-9/16" #	11 9057	0.7					
1-5/8" #	11 9058	0.6		3/8 x 1/8	3/8 x 3/16	3/8 x 5/16 Δ	
1-11/16" +	11 9068	0.6					
25mm	11 9039	0.7		8 X 3.3mm	8 X 4mm	8 X 7mm	
35mm	11 9038	0.7		10 X 3.3mm	10 X 5mm	10 X 8mm	
1/2"	11 9241	1.7		1/8 x 1/16	1/8 x 1/16	1/8 x 1/8	
9/16"	11 9242	1.7					
5/8"	117 087	1.7					
11/16"	11 9244	1.7					
3/4"	117 088	1.7		3/16 x 3/32	3/16 x 3/32	3/16 x 3/16	
13/16"	11 9246	1.7					
7/8"	117 089	1.6					
15/16"	11 9248	1.6					
1"	11 9249	117 164	1.6				
1-1/16"	11 9250	1.6					
1-1/8"	117 090	1.5		1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
1-3/16"	119252	117 165	1.5				
1-1/4"	11 9253	117 166	1.4				
1-5/16"	11 9254	1.3		5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
1-3/8"	117 091	1.2					
1-7/16"	11 9256	117 167	1.2				
1-1/2"	11 9257	117 168	1.2				
1-9/16"	11 9258	1.2		3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-5/8"	117 092	1.2					
1-11/16"	117 093	1.1					
1-3/4"	117 094	1					
1-13/16"	11 9262	1		1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
1-7/8"	117 095	0.9					

Δ Key furnished for these sizes ONLY.

+ These sizes are steel.

# Refer to torque capacity ratings on page 180. If service factor of 2.0 or greater is required consult Dodge.

TL bush size	Bore	P/N integral Key	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key Size REF
2012 (cont.)	1-15/16" #		117 169	0.9			
	2" #		117 170	0.9	1/2 x 3/16	1/2 x 1/4	1/2 x 7/16 Δ
	2-1/8" +		117 177	0.9			
	14 mm		11 9664	1.7			
	16 mm		11 9665	1.7	5 x 2.3mm	5 x 5.3mm	5 x 5mm
	18 mm		119666	1.6			
	19 mm		119574	1.6			
	20mm		11 9607	1.6	6 x 2.8mm	6 x 3.5mm	6 x 6mm
	22mm		11 9667	1.6			
	24mm		11 9608	1.5			
	25mm		11 9609	1.5	8 x 3.3mm	8 x 4mm	8 x 7mm
	28mm		11 9610	1.5			
	30mm		11 9611	1.4			
	32mm		11 9612	1.4			
	35mm		11 9613	1.3	10 x 3.3mm	10 x 5mm	10 x 8mm
38mm		11 9614	1.3				
40mm		11 9615	1.2				
42mm		11 9616	1.1	12 x 3.3mm	12 x 5mm	12 x 8mm	
45mm		119617	1				
48mm		11 9668	0.9	14 x 3.8mm	14 x 5.5mm	14 x 9mm	
1/2"		119100	3.7	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8	
5/8"		119102	3.6				
11/16"		119103	3.5				
3/4"		119104	3.4	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16	
13/16"		119105	3.4				
7/8"		119106	3.3				
15/16"		119107	3.3				
1"		119108	3.3				
1-1/16"		119109	3.2				
1-1/8"		11 9110	3.2	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
1-3/16"		11 9111	3.2				
1-1/4"		11 9112	3.2				
1-5/16"		11 9113	3.1				
1-3/8"		11 9114	3.1	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
1-7/16"		11 9115	3				
1-1/2"		11 9116	2.9				
1-9/16"		11 9117	2.9				
1-5/8"	11 9144	11 9118	2.8	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-11/16"		11 9119	2.8				
1-3/4"		11 9120	2.7				
1-13/16"		11 9121	2.6				
1-7/8"		11 9122	2.5				
1-15/16"	11 9123	117 173	2.4				
2"	11 9124	117 174	2.3				
2-1/16"		11 9125	2.3	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
2-1/8"		117 096	2.2				
2-3/16"		117 175	2.1				
2-1/4"		117097	2				
2-5/16"		11 9129	1.9				
2-3/8"		117 098	1.9				
2-7/16" #		117 176	1.8	5/8 x 3/16	5/8 x 5/16	5/8 x 1/2 Δ	
2-1/2" #		117 099	1.8				
2-5/8" +		11 7111	1.8				
2-11/16" +		11 7115	1.8				
14 mm		11 9669	3.6	5 x 2.3mm	5 x 5.3mm	5 x 5mm	
16 mm		119670	3.6				
18 mm		11 9671	3.5				
19 mm		11 9672	3.4				
20mm		119618	3.4	6 x 2.8mm	6 x 3.5mm	6 x 6mm	
22mm		119619	3.3				
24mm		119620	3.3				
25mm		119621	3.2				
28mm		119622	3.1	8 x 3.3mm	8 x 4mm	8 x 7mm	
30mm		119623	3.1				



**Bushings - Taper-Lock**

Selection/dimensions

**Taper-Lock bushings - stock bore**

TL bush size	Bore	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key size REF		
3030 (cont)	55mm	11 9812	6.9	16 X 4.3mm	16 X 6mm	16 X 10mm		
	60mm	11 9813	6.4	18 X 4.4mm	18 X 7 mm	18 X 11mm		
	80mm +	11 9895	4	22 X 5.4mm	22 X 9mm	22 X 14mm		
3525	1-3/16"	11970 2	16	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4		
	1-1/4"	11970 3	14.6					
	1-5/16"	1197 91	14.6	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16		
	1-3/8"	11970 4	14.3					
	1-7/16"	1197 34	14.2	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8		
	1-1/2"	11970 5	14					
	1-9/16"	1197 92	14					
	1-5/8"	1197 35	14					
	1-11/16"	11970 6	13.9					
	1-3/4"	11970 7	13.4					
	1-13/16"	1197 93	13.3					
	1-7/8"	11970 8	13.2					
	1-15/16"	11970 9	13	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2		
	2"	119710	13					
	2-1/8"	11 9711	12.6	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8		
	2-3/16"	1197 12	12.4					
	2-1/4"	1197 13	12.3					
	2-5/16"	1197 36	12.2					
	2-3/8"	1197 14	12					
	2-7/16"	1197 15	11.7					
	2-1/2"	1197 16	11.5					
	2-9/16"	1197 95	11.4					
	2-5/8"	1197 17	11.1					
	2-11/16"	1197 18	10.7					
	3535	2-3/4"	1197 19	10.4	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4	
		2-13/16"	1197 96	10.3				
		2-7/8"	1197 20	10.1				
		2-15/16"	1197 21	10.5				
3"		1197 22	9.5					
3-1/16"		1197 97	9.4					
3-1/8"		1197 23	9.3					
3-3/16"		1197 24	8.6					
3-1/4"		1197 25	8.8					
3-5/16"		1197 37	8.6	7/8 x 1/8	7/8 x 7/16	7/8 x 9/16 Δ		
3-3/8"		1197 26	8.5					
3-7/16"		1197 27	8.2	7/8 x 3/16	7/8 x 7/16	7/8 x 5/8 Δ		
3-1/2"		1197 28	8					
3-9/16"		1197 98	8					
3-5/8" #		1197 29	7.9					
3-11/16" #		1197 30	7.9					
3-3/4" #		1197 31	7.9					
3-13/16" #		1197 99	7.9					
3-7/8" #		1197 32	7.9					
3-15/16" #		1197 33	7.9	1 x 1/4	1 x 1/2	1 x 3/4 Δ		
1-3/16"		117 207	15.2					
4030		1-1/4"	117 208	14.9	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
		1-3/8"	117 209	14.8				
		1-7/16"	117 210	14.6	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
		1-1/2"	11 7211	14.4				
		1-5/8"	117 212	14.1	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
		1-11/16"	117 213	14				
		1-3/4"	117 214	14				
	1-7/8"	117 215	13.6					
	1-15/16"	117 216	13.4					
	2"	117 217	13.1					
	2-1/8"	117 218	12.6					
	2-3/16"	117 219	12.4					
	2-1/4"	117 220	12.2	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2		
	2-5/16"	117 221	11.7					
	4030 (cont.)	2-3/8"	117 222	11.7	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8	
		2-7/16"	117 223	11				
		2-1/2"	117 223	11				
		2-5/8"	117 224	10.9				
		2-11/16"	117 225	10.7				
		2-3/4"	117 226	10				
		2-7/8"	117 227	9.8				
		2-15/16"	117 228	9.7				
		3"	117 229	9.2				
		4030	3-1/8"	117 230	9.2	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4
			3-3/16"	117 231	8.8			
			3-1/4"	117 232	8.7	7/8 x 1/8	7/8 x 7/16	7/8 x 9/16 Δ
			3-5/16"	117 236	8.6			
			3-3/8"	117 233	8.7			
3-7/16"			117 234	8.3				
3-1/2"			117 235	8				
3-5/8" #			117 707	7.1				
3-11/16" #			117 708	6.8				
3-3/4" #			117 709	6.4				
3-7/8" #			117 710	6				
3-15/16" #			117 703	5.6	1 x 1/4	1 x 1/2	1 x 3/4 Δ	
32mm			11 9814	14.6				
4030			38mm	11 9815	14	10 X 3.3mm	10 X 5mm	10 X 8mm
			48mm	11 9816	13.2			
			50mm	117 738	13	14 X 3.8mm	14 X 5.5mm	14 X 9mm
			55mm	119817	11.1			
			60mm	11 9683	11.1	16 X 4.3mm	16 X 6mm	16 X 10mm
			65mm	117 737	11			
	75mm		117 722	10	20 X 4.9mm	20 X 7.5mm	20 X 12mm	
	80mm		117 297	10				
	85mm		393170	10	22 X 5.4mm	22 X 9mm	22 X 14mm	
	90mm		426013	10				
	95mm		117 728	10	25 X 5.4mm	25 X 9mm	25 x 14mm	
	1-7/16"		1197 38	24				
	4030		1-1/2"	1197 39	22	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8
			1-9/16"	1197 70	21.9			
			1-5/8"	1197 40	21.8			
		1-11/16"	1197 71	21.5				
		1-3/4"	1197 72	21.2				
		1-13/16"	1197 73	21				
		1-7/8"	1197 74	20.9				
		1-15/16"	1197 75	20.7				
		2"	1197 41	20.6				
		2-1/16"	1197 76	20.6	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
		2-1/8"	1197 42	20.7				
		2-3/16"	1197 43	20.4	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8	
		2-1/4"	1197 44	20.1				
		2-5/16"	1197 77	20				
		2-3/8"	1197 45	19.5				
		2-7/16"	1197 46	19.3				
2-1/2"		1197 78	19.2					
2-9/16"		1197 79	19.1					
2-5/8"		1197 47	19					
2-11/16"		1197 80	18.4					
2-3/4"		1197 48	17.7	2-13/16"	1197 81	17.5		
2-7/8"		1197 49	17.2					
2-15/16"		1197 50	17.2	3"	3/4 x 3/8	3/4 x 3/4		
3"		1197 51	17					
3-1/16"		1197 82	16.8	3-1/8"	1197 52	16.5		
3-1/8"		1197 83	15.9					
3-3/16"		1197 83	15.9					
3-1/4"		1197 53	15.4					

Δ Key furnished for these sizes ONLY.

+ These sizes are steel.

# Refer to torque capacity ratings on page 180. If service factor of 2.0 or greater is required consult Dodge.



**Bushings - Taper-Lock**

Selection/dimensions

**Taper-Lock bushings - stock bore**

TL bush size	Bore	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
4545 (cont.)	4-7/16"	117440	16.5	1 x 1/4	1 x 1/2	1 x 3/4 Δ
	4-1/2"	117447	15.9			
	4-3/4" #	117718	13.9			
	4-7/8" #	117719	12.9	1-1/4 x 1/4	1-1/4 x 5/8	1-1/4 x 7/8 Δ
	4-15/16" #	117705	12.5			
	2-7/16"	114865	39.5	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8
	2-1/2"	114866	38.3			
	2-9/16"	114867	37.7			
	2-5/8"	114868	37.1			
	2-11/16"	114869	36.9			
	2-3/4"	114870	36.6			
	2-13/16"	114871	36.5			
	2-7/8"	114872	36.4			
	2-15/16"	114873	36.2			
	3"	114874	35.6			
3-1/16"	114875	35.2	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4	
3-1/8"	114876	34.8				
3-3/16"	114877	33.9	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8	
3-1/4"	114878	33.2				
3-5/16"	114879	33				
3-3/8"	114880	32.7				
3-7/16"	114881	32				
3-1/2"	114882	31.7				
3-9/16"	114883	31.4				
3-5/8"	114884	31.1				
3-11/16"	114885	30.4				
3-3/4"	114886	29.7				
3-13/16"	114887	29.4				
3-7/8"	114888	29				
3-15/16"	114889	28.7				
4"	114890	27.8				
4-1/8"	114891	27.5				1 x 1/2
4-3/16"	114892	27.2				
4-1/4"	114893	27				
4-3/8"	114894	26				
4-7/16"	114895	25.1				
4-1/2"	114896	23.6				
4-3/4"	114897	22.9				
4-7/8"	114898	22.2				
4-15/16"	114899	20.6				
5"	114900	20.5				
2-7/16"	117458	39	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8	
2-11/16"	117450	37.4				
2-15/16"	117459	36				
3-3/8"	117452	33				
3-7/16"	117460	32.6				
3-5/8"	117453	31.2	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8	
3-7/8"	117454	29.3				
3-15/16"	117461	28.6				
4"	117466	28.3				
4-1/4"	117465	26.2				
4-3/8"	117469	25				
4-7/16"	117462	24.4				
4-1/2"	117467	23.9				
4-5/8"	117734	23				
4-7/8"	117468	22.3				
4-15/16"	117463	21.4	1-1/4 x 1/4	1-1/4 x 5/8	1-1/4 x 7/8 Δ	
5"	117464	20.9				
11 Omm	117736	26.2	28 X 6.4mm	28 X 10mm	28 X 16mm	

TL bush size	Bore	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
6050	4-7/16"	117474	63.6	1 x 1/2	1 x 1/2	1 x 1
	4-15/16"	117473	58.2			
	5-7/16"	117475	52.3	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4
	5-15/16"	117476	57.2			
	6"	117477	46.4			
7060	4-15/16"	117490	92	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4
	5-7/16"	117491	84.5			
	5-15/16"	117492	78.2	1-1/2 x 3/4	1-1/2 x 3/4	1-1/2 x 1-1/2
	6"	117493	76.6			
	6-7/16"	117494	68.1			
	6-1/2"	117495	68.7			
	6-15/16"	117496	62.1			
	7" #	117497	60.6			
	5-7/16"	117479	98.6			
	5-15/16"	117480	105.7			
6-7/16"	117481	102.3				
6-1/2"	117482	101.8	1-3/4 x 3/4	1-3/4 x 3/4	1-3/4 x 1-1/2	
6-15/16"	117488	92				
7"	117483	91.1				
7-1/2"	117503	89.9				
8" #	117484	89.9				
7"	117486	245				
8"	117485	219				
8-1/4"	117411	210				
9"	117487	190				
10"	117510	157.5				2-1/2 x 7/8
8"	117522	410				
8-1/2"	117523	395				
9"	117520	380				
9-1/2"	117524	365				
120100	10"	117521	350	2-1/2 x 7/8	2-1/2 x 7/8	2-1/2 x 1-3/4
	10-1/2"	117525	335			
	11"	117526	320	3 x 1	3 x 1	3 x 2
	11-1/2"	117527	305			
	12" #	117508	290			

Δ Key furnished for these sizes ONLY.

+ These sizes are steel.

# Refer to torque capacity ratings on page 180-181. If service factor of 2.0 or greater is required consult Dodge.

**Bushings - Taper-Lock**

Selection/dimensions

**Taper-Lock bushings - reborable**



Note:  
All reborable bushings are stocked without sawsplit to facilitate re-machining.

Sawsplit must be made in bushing to allow it to compress for proper gripping of the shaft. Factory rebore and keyseat service as listed in MLP price book includes sawsplit.

TL bush Size	Sintered steel		Cast iron		Ductile iron		Steel		Stainless steel	
	Bore	P/N	Bore	P/N	Bore	P/N	Bore	P/N	Bore	P/N
1008	1/2"	119187	-	-	-	-	1/2"	119432	1/2"	119410
1108	1/2"	119361	-	-	-	-	1/2"	119433	1/2"	119411
1210	1/2"	119206	-	-	-	-	1/2"	119434	1/2"	119412
1215	1/2"	119023	-	-	-	-	1/2"	119435	1/2"	119413
1310	1/2"	119386	-	-	-	-	1/2"	119436	1/2"	119414
1610	1/2"	119209	-	-	-	-	1/2"	119421	1/2"	119415
1615	1/2"	119067	-	-	-	-	1/2"	119437	1/2"	119416
2012	1/2"	119272	-	-	-	-	1/2"	119422	1/2"	119417
2517	1/2"	119141	-	-	-	-	1"	119423	5/8"	119418
2525	-	-	-	-	-	-	1-7/16"	119429	-	-
3020	7/8"	117147	-	-	-	-	1-7/16"	119430	7/8"	119419
3020	1-11/16"	117149	-	-	-	-	-	-	-	-
3030	-	-	15/16"	117045	-	-	1-7/16"	119431	-	-
3525	-	-	1-3/16"	119700	1-3/16"	119701	-	-	-	-
3535	-	-	1-3/16"	117250	1-7/16"	117205	-	-	-	-
4030	-	-	1-7/16"	119789	1-15/16"	119790	-	-	-	-
4040	-	-	1-7/16"	117345	1-15/16"	117307	-	-	-	-
4535	-	-	1-15/16"	119766	2-7/16"	119767	-	-	-	-
4545	-	-	1-15/16"	117448	2-7/16"	117414	-	-	-	-
5040	-	-	2-7/16"	119768	2-15/16"	119769	-	-	-	-
5050	-	-	2-7/16"	117451	2-15/16"	117455	-	-	-	-
6050	-	-	3-7/16"	117472	3-7/16"	117471	-	-	-	-
7060	-	-	3-15/16"	117498	3-15/16"	117505	-	-	-	-
8065	-	-	4-7/16"	117502	4-7/16"	117506	-	-	-	-
10085	-	-	7"	117489	-	-	-	-	-	-
120100	-	-	8"	117504	-	-	-	-	-	-

**Taper-Lock bushings - maximum bore capacities (inches)**

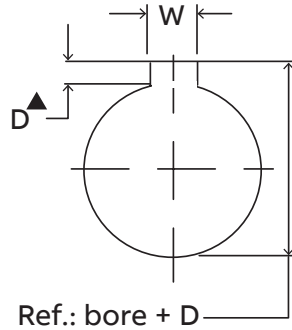
TL bush size	Sintered steel			Cast iron			Ductile iron			Steel		
	Full key	Shallow key	No* key	Full key	Shallow key	No* key	Full key	Shallow key	No* key	Full key	Shallow key	No* key
1008	7/8"	1"	1"	-	-	-	-	-	-	7/8"	1"	1"
1108	1"	1-1/8"	1-1/8"	-	-	-	-	-	-	1"	1-1/8"	1-1/8"
1210	1-1/4"	1-1/4"	1-1/4"	-	-	-	-	-	-	1-1/4"	1-1/4"	1-1/4"
1215	1-1/4"	1-1/4"	1-1/4"	-	-	-	-	-	-	1-1/4"	1-1/4"	1-1/4"
1310	1-3/8"	1-3/8"	1-3/8"	-	-	-	-	-	-	1-3/8"	1-7/16"	1-7/16"
1610	1-1/2"	1-5/8"	1-5/8"	-	-	-	-	-	-	1-5/8"	1-11/16"	1-11/16"
1615	1-1/2"	1-5/8"	1-5/8"	-	-	-	-	-	-	1-5/8"	1-11/16"	1-11/16"
2012	1-7/8"	2"	2"	-	-	-	-	-	-	2"	2-1/8"	2-1/8"
2517	2-1/4"	2-1/2"	2-1/2"	-	-	-	-	-	-	2-7/16"	2-11/16"	2-11/16"
2525	-	-	-	2-1/4"	2-1/2"	2-1/2"	-	-	-	2-3/8"	2-11/16"	2-11/16"
3020	2-3/4"	3"	3"	2-3/4"	3"	3"	-	-	-	3"	3-1/4"	3-1/4"
3030	-	-	-	2-3/4"	3"	3"	-	-	-	3"	3-1/4"	3-1/4"
3525	-	-	-	3-1/4"	3-1/2"	3-1/2"	3-1/2"	3-15/16"	3-15/16"	-	-	-
3535	-	-	-	3-1/4"	3-1/2"	3-1/2"	3-1/2"	3-15/16"	3-15/16"	-	-	-
4030	-	-	-	3-5/8"	4"	4"	4"	4-7/16"	4-7/16"	-	-	-
4040	-	-	-	3-5/8"	4"	4"	4"	4-7/16"	4-7/16"	-	-	-
4535	-	-	-	4-1/2"	4-1/2"	4-1/2"	4-1/2"	4-15/16"	4-15/16"	-	-	-
4545	-	-	-	4-1/2"	4-1/2"	4-1/2"	4-1/2"	4-15/16"	4-15/16"	-	-	-
5040	-	-	-	4-1/2"	5"	5"	5"	5-5/16"	5-5/16"	-	-	-
5050	-	-	-	4-1/2"	5"	5"	5"	5-5/16"	5-5/16"	-	-	-
6050	-	-	-	6"	6"	6"	6"	6"	6"	-	-	-
7060	-	-	-	7"	7"	7"	7"	7"	7"	-	-	-
8065	-	-	-	8"	8"	8"	8"	8"	8"	-	-	-
10085	-	-	-	10"	10"	10"	10"	10"	10"	-	-	-
120100	-	-	-	12"	12"	12"	12"	12"	12"	-	-	-

\* Verify torque capacity: Contact application engineering for assistance.

**Bushings - Taper-Lock**

Selection/dimensions

**Taper-Lock bushings - reborable**



ISO standard method for measuring keyseat depth.

▲ Depth measured at centerline

**Taper-Lock bushings - maximum bore capacities (metric)**

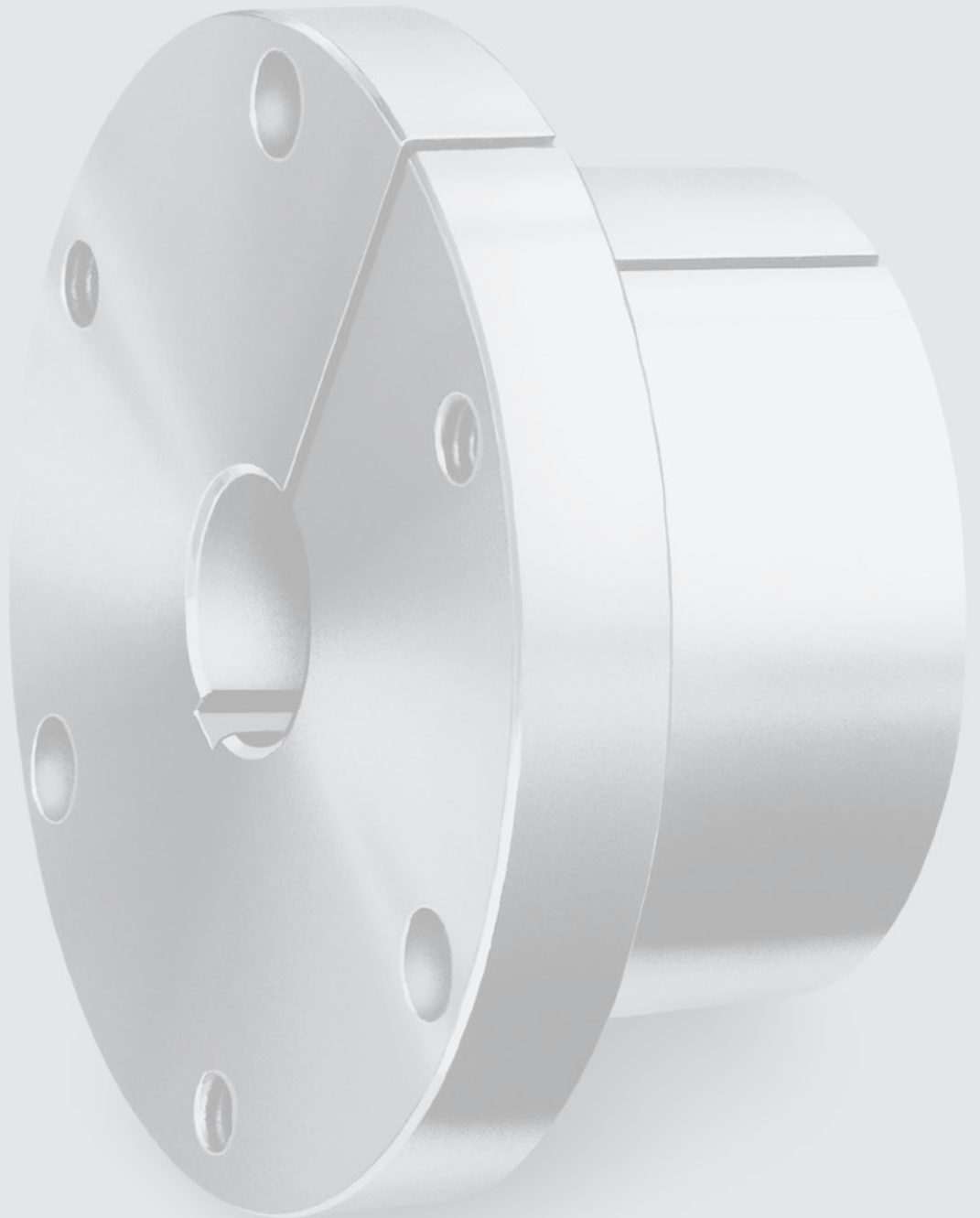
TL bush size	Min. bore	Sintered steel			Cast iron			Ductile iron			Steel		
		Full key	Shallow key	No key*	Full key	Shallow key	No key*	Full key	Shallow key	No key*	Full key	Shallow key	No key*
1008	13	22	25	25	-	-	-	-	-	-	22	22	26
1108	13	25	25	29	-	-	-	-	-	-	25	28	29
1210	13	32	32	32	-	-	-	-	-	-	32	32	32
1215	13	32	32	32	-	-	-	-	-	-	32	32	32
1310	13	35	35	35	-	-	-	-	-	-	35	35	36
1610	13	40	40	40	-	-	-	-	-	-	42	42	44
1615	13	39	39	39	-	-	-	-	-	-	42	42	44
2012	13	50	50	51	-	-	-	-	-	-	50	50	55
2517	13	60	60	64	-	-	-	-	-	-	65	65	68
2525	20	-	-	-	60	60	64	-	-	-	65	65	68
3020	24	75	75	76	-	-	-	-	-	-	80	80	82
3030	24	-	-	-	75	75	76	-	-	-	80	80	82
3525	31	-	-	-	90	90	90	95	100	100	-	-	-
3535	31	-	-	-	85	85	85	95	95	100	-	-	-
4030	37	-	-	-	100	100	102	110	115	115	-	-	-
4040	37	-	-	-	100	100	102	105	105	113	-	-	-
4535	50	-	-	-	110	110	114	125	125	125	-	-	-
4545	50	-	-	-	110	110	114	115	115	125	-	-	-
5040	61	-	-	-	125	125	127	127	127	134	-	-	-
5050	61	-	-	-	125	125	127	127	127	134	-	-	-
6050	88	-	-	-	152	152	152	152	152	152	-	-	-
7060	100	-	-	-	177	177	177	180	180	180	-	-	-
8065	117	-	-	-	203	203	203	203	203	203	-	-	-
10085	178	-	-	-	254	254	254	254	254	254	-	-	-
120100	204	-	-	-	304	304	304	304	304	304	-	-	-

Note: ISO standard method for measuring keyseat depth  
 mm bore and keyway dimensions conform to ISO standard recommendation R773, for "free" fit  
 \* Verify torque capability. Contact application engineering for assistance.

Reference:  
 1 inch = 25.4 millimeters  
 1 millimeter = 0.03937 inches

—  
BUSHINGS

**QD**



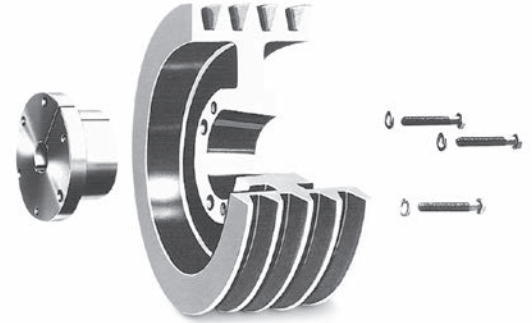


## Bushings - QD

Features/benefits - stock bore



- Flanged design
- 4 degree taper
- Easy on/easy off
- Manufactured precisely to industry standards
- Conventional or reverse mounting, Including sizes M through W - Dodge exclusive!
- QD is a registered trademark of Emerson Electric.



### Conventional mounting

#### Easy on

- Place bushing in product.
- Align clearance holes in product with threaded holes in bushing.
- Install screws and lockwashers thru clearance holes, finger tight.
- Slide assembly onto shaft, flange first.
- Locate assembly on shaft for proper drive alignment.
- Tighten cap screws alternately and evenly to specified torque.

#### Easy off

- Remove cap screws and install in product threaded holes.
- Alternately and evenly tighten screws until bushing grip is released.

### Reverse mounting

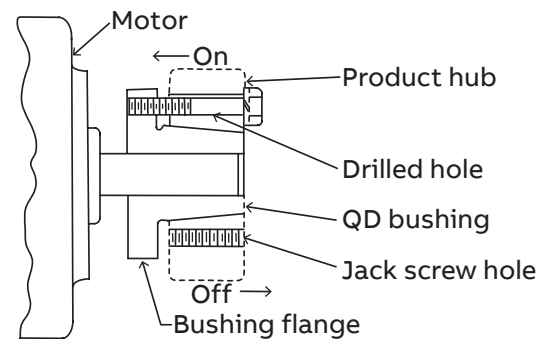
#### Easy on

- Place bushing in product.
- Align clearance holes in product with threaded holes in bushing.
- Install screws and lockwashers thru clearance holes, finger tight.
- Slide assembly onto shaft, flange outward.
- Locate assembly on shaft for proper drive alignment.
- Tighten cap screws alternately and evenly to specified torque.

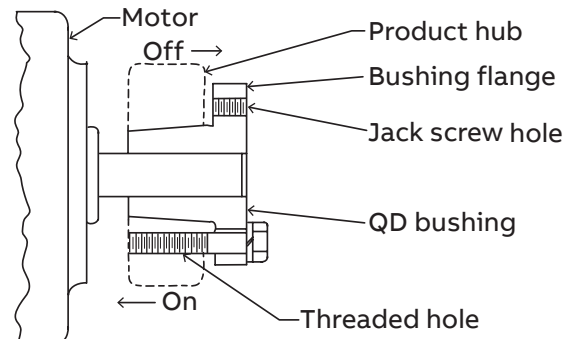
#### Easy off

- Remove cap screws and reinstall in flange threaded holes.
- Alternately and evenly tighten screws until bushing grip is released.

### Conventional



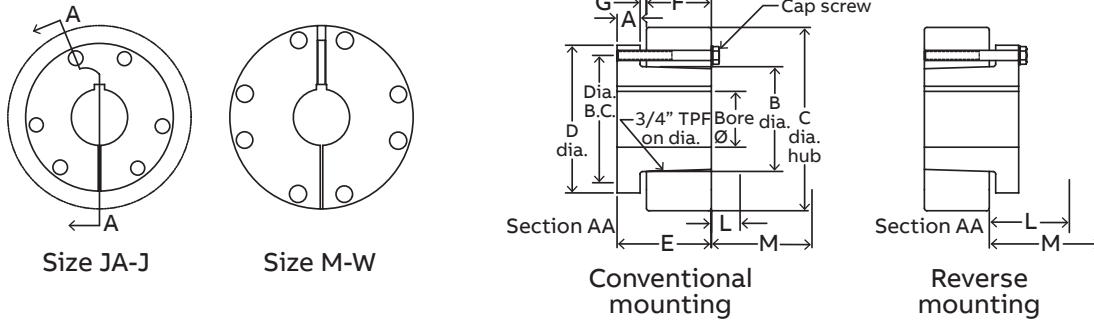
### Reverse



Important! Do not use lubricants or anti-seize compounds on tapered bore or bushing surfaces. Complete installation instructions are available at [www.dodgeindustrial.com](http://www.dodgeindustrial.com).

# Bushings - QD

Selection/dimensions - stock bore



QD bushing ratings and dimensions

Bush. symb.	Ratings (lb.-in.) bush. torque cap.*	Bore range				Dimensions							
		Min.	Max. bore for:			A	B dia.	C hub dia.		D dia.	E	F	G
			Full kW	Shallow kW	No kW			CI 30 iron	Steel				
H	1000	3/8	1-1/4	1-1/2	1-9/16	0.35	1.63	3.00	2.375	2.50	1.35	0.94	0.12
JA	1000	1/2	1	1-3/16	1-1/4	0.31	1.38	3.93	2.25	2.00	1.00	0.56	0.12
SH	3500	1/2	1-3/8	1-5/8	1-11/16	0.38	1.88	4.75	3.00	2.63	1.25	0.81	0.12
SDS	5000	1/2	1-5/8	1-15/16	2	0.43	2.18	4.75	3.50	3.18	1.31	0.75	0.12
SD	5000	1/2	1-5/8	1-15/16	2	0.43	2.18	3.81	3.50	3.18	1.81	1.25	0.12
SK	7000	1/2	2-1/8	2-1/2	2-5/8	0.50	2.81	4.75	4.50	3.88	1.88	1.25	0.22
SF	11000	1/2	2-5/16	2-15/16	-	0.50	3.13	6.38	5.50	4.63	2.00	1.25	0.22
E	20000	7/8	2-7/8	3-1/2	-	0.75	3.83	7.50	6.50	6.00	2.63	1.63	0.25
F	30000	1	3-1/4	3-15/16	4	0.81	4.43	7.75	7.25	6.63	3.63	2.50	0.34
J	45000	1-1/2	3-3/4	4-1/2	-	1.13	5.14	9.00	8.00	7.25	4.63	3.18	0.38
M	85000	2	4-3/4	5-1/2	-	1.25	6.50	11.38	10.00	9.00	6.75	5.18	0.41
N	150000	2-7/16	5	6	-	1.50	7.00	12.00	-	10.00	8.12	6.25	0.56
P	250000	2-15/16	5-15/16	7	-	1.75	8.25	14.00	-	11.75	9.38	7.25	0.63
W	375000	4	7-1/2	8-1/2	-	2.00	10.42	17.00	-	15.00	11.38	9.00	0.50
S	625000	5-1/2	9	10	-	3.25	12.13	19.00	-	17.75	15.75	12.00	0.75

\* Torque ratings apply when bushing installation screws are tightened to listed torque. Important: Do not over-torque screws. This can lead to hub damage. Torque values are reduced for the "No kW" option

## Installation information

Bush. sym.	Installation screws				Required wrench clearance							
	B. C. dia.	Qty.	Size	Screw torque (lb.-in.)	Conventional mounting				Reverse mounting			
					L-install		M-remove		L-install		M-remove	
					#	@	#	@	#	@	#	@
H	2	2	1/4-20 x 7/8	90	0.41	2.53	1.13	3.25	1.13	3.25	1.56	3.68
JA	1.65	3	10-24 x 1	60	0.41	2.53	1.13	3.25	1.13	3.25	1.56	3.68
SH	2.25	3	1/4-20x1-3/8	108	0.54	2.61	1.51	3.58	1.51	3.58	2.08	4.13
SDS	2.69	3	1/4-20 x 1-3/8	108	0.59	2.66	1.56	3.63	1.56	3.63	2.13	4.18
SD	2.69	3	1/4-20 x 1-7/8	108	0.66	2.72	2.06	4.13	2.06	4.13	2.63	4.68
SK	3.31	3	5/16-18 x 2	180	0.72	2.66	2.19	4.19	2.25	4.25	2.32	4.94
SF	3.88	3	3/8-16 x 2	360	0.78	2.78	2.25	4.23	2.30	4.30	3.19	5.18
E	5.00	3	1/2-13 x 2-3/4	720	1.12	3.06	3.00	4.93	3.05	5.00	4.30	6.25
F	5.63	3	9/16-12 x 3-5/8	900	1.09	2.91	3.94	5.75	3.99	5.81	5.31	7.12
J	6.25	3	5/8-11 x 4-1/2	1620	1.28	3.09	4.81	6.62	3.80	5.62	5.37	7.18
M	7.88	4	3/4-10 x 6-3/4	2700	2.16	4.03	7.69	9.56	-	-	-	-
N	8.50	4	7/8-9 x 8	3600	2.28	-	9.25	-	-	-	-	-
P	10.00	4	1-8 x 9-1/2	5400	3.13	-	10.88	-	-	-	-	-
W	12.75	4	1-1/8-7 x 11-1/2	7200	3.88	-	13.38	-	-	-	-	-
S	15.00	5	1-1/4 -7x 15	9000	3.75	-	16.50	-	-	-	-	-

# Using open-end wrench

@ Using socket wrench

Note: Installation and maintenance instructions for Dodge products available at [www.baldor.com/manuals](http://www.baldor.com/manuals).

**Bushings - QD**

Selection/dimensions - stock bore

**Bushings for bushed fhp sheave - stock bore**

QD bush. size	Bore	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
	3/8"	12112 9	0.85	None	-	-
	7/16"	1211 30	0.82			
	1/2"	1211 31	0.81			
	9/16"	1211 33	0.80	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	5/8"	122050	0.78	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16
	11/16"	1211 34	0.76			
	3/4"	121162 +	0.74			
	3/4"	122051	0.74			
	13/16"	1211 36	0.70			
	7/8"	121163 +	0.68			
	7/8"	122052	0.68			
	15/16"	1211 38	0.66			
	1"	121164 +	0.62			
	1"	122053	0.62			
H	1-1/16"	1211 40	0.59	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1-1/8"	121186 +	0.56			
	1-1/8"	122054	0.56			
	1-3/16"	121187 +	0.52			
	1-3/16"	122055	0.52	5/16 x 1/16	5/16 x 5/32	5/16 x 7/32*
	1-1/4"	122056	0.49			
	1-5/16"	1211 44	0.44			
	1-3/8"	1211 45	0.43			
	1-7/16"	1211 46	0.38	3/8 x 1/16	3/8 x 3/16	3/8 x 1/4*
	1-1/2"	1211 47	0.34			
	14 mm	1211 48	0.79	5 x 2.3mm	5 x 3mm	5 x 5mm
	19 mm	1211 49	0.74	6 x 2.8mm	6 x 3.5mm	6 x 6mm
	20 mm	121467	0.73			
	25 mm	1211 51	0.63	8 X 3.3mm	8 X 4mm	8 X 7mm
	28 mm	1211 52	0.57			
	30 mm	1211 53	0.53			
	32 mm	1211 54	0.50			
	32 mm	1211 54	0.50	10 x 3.3mm	10 X 5mm	10 X 8mm

P/N's marked (+) are integral key bushings.  
 Bore sizes marked (#) will be supplied with 1/2" wide keyway unless the 5/8" wide keyway is specified when ordering.  
 \* Key furnished for these sizes ONLY.  
 \*\* Key not furnished for mm bores sizes.

**QD bushings - stock bore**

QD bush. size	Bore	P/N keyway	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
	1/2"	120332	0.46	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	9/16"	120333	0.46			
	5/8"	120334	0.45	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16
	11/16"	120335	0.43			
	3/4"	120336	0.41			
	13/16"	120337	0.40			
	7/8"	120338	0.37			
JA	15/16"	120339	0.35	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1"	120340	0.33			
	1-1/16"	120341	0.34	1/4 x 1/16	1/4 x 1/8	1/4 x 3/16*
	1-1/8"	120342	0.31			
	1-3/16"	120343	0.29	None	-	-
	1-1/4"	120344	0.25			
	19 mm	117049	0.42			
	20 mm	120329	0.41			
	22 mm	117043	0.40	6 x 2.8mm	6 x 3.5mm	6 x 6mm
	1/2"	120345	1.16	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	9/16"	120346	1.14			
	5/8"	120347	1.14	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16
	11/16"	120348	1.14			
	3/4"	120349	1.10			
	13/16"	120350	1.07			
	7/8"	120351	1.04	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	15/16"	120352	1.00			
	1"	120353	0.98	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1-1/16"	120354	0.94			
	1-1/8"	120355	0.91			
	1-3/16"	120356	0.88			
SH	1-1/4"	120357	0.84	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16
	1-5/16"	120358	0.82			
	1-3/8"	120359	0.80			
	1-7/16"	120360	0.79			
	1-1/2"	120361	0.75	3/8 x 1/16	3/8 x 3/16	3/8 x 1/4*
	1-9/16"	120362	0.90			
	1-5/8"	120363	0.64	None	-	-
	1-11/16"	120580	0.55			
	24 mm	120088	1.00			
	25 mm	120089	0.99			
	28 mm	120090	0.93	8 X 3.3mm	8 X 4mm	8 X 7mm
	30 mm	120091	0.87	10 X 3.3mm	10 X 5mm	10 X 8mm
	32 mm	120092	0.82			
	35 mm	120093	0.74			
	1/2"	120388	1.65	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	9/16"	120389	1.65			
	5/8"	120390	1.61	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16
	11/16"	120391	1.60			
	3/4"	120392	1.58			
	13/16"	120393	1.54			
	7/8"	120394	1.54			
SDS	15/16"	120395	1.50	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1"	120396	1.46			
	1-1/16"	120397	1.43	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1-1/8"	120398	1.38			
	1-3/16"	120399	1.36	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16
	1-1/4"	120400	1.32			
	1-5/16"	120401	1.26			
	1-3/8"	120402	1.24			

## Bushings - QD

Selection/dimensions - stock bore

## QD bushings - stock bore

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
SDS (cont.)	1-7/16"	120403	1.19	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8
	1-1/2"	120404	1.15			
	1-9/16"	120405	1.11			
	1-5/8"	120406	1.08	3/8 x 1/8	3/8 x 3/16	3/8 x 5/16*
	1-11/16"	120407	1.08			
	1-3/4"	120408	1.02			
	1-13/16"	120409	0.98	1/2 x 1/16	1/2 x 1/4	1/2 x 5/16*
	1-7/8"	120410	0.92			
	1-15/16"	120411	0.87			
	2"	120412	0.77	None	-	-
	24mm	120094	1.47	8 X 3.3mm	8 X 4mm	8 X 7mm
	25mm	120095	1.47			
	28mm	120096	1.41			
	30mm	120097	1.36			
	32mm	120098	1.31			
	35mm	120099	1.22	10 X 3.3mm	10 X 5mm	10 X 8mm
	38mm	120100	1.00			
	40mm	120101	1.01			
	42mm	120102	1.02	12 X 3.3mm	12 X 5mm	12 X 8mm
	1/2"	120364	2.07			
	9/16"	120365	2.05			
	5/8"	120366	2.03	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	11/16"	120367	2.00			
	3/4"	120368	2.00			
13/16"	120369	2.00	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16	
7/8"	120370	1.88				
15/16"	120371	1.85				
1"	120372	1.80	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
1-1/16"	120373	1.79				
1-1/8"	120374	1.72				
1-3/16"	120375	1.67	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
1-1/4"	120376	1.62				
1-5/16"	120377	1.55				
1-3/8"	120378	1.50	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
1-7/16"	120379	1.44				
1-1/2"	120380	1.36				
1-9/16"	120381	1.29	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-5/8"	120382	1.29				
1-11/16"	120383	1.20				
1-3/4"	120384	1.19	3/8 x 1/8	3/8 x 3/16	3/8 x 5/16*	
1-13/16"	120385	1.15				
1-7/8"	120386	1.07				
1-15/16"	120387	1.00	1/2 x 1/16	1/2 x 1/4	1/2 x 5/16*	
2"	120581	0.84				
24mm	120103	1.84				
25mm	120104	1.82	8 X 3.3mm	8 X 4mm	8 X 7mm	
28mm	120105	1.72				
30mm	120106	1.66				
32mm	120107	1.58				
35mm	120108	1.49				
38mm	120109	1.37	10 X 3.3mm	10 X 5mm	10 X 8mm	
40mm	120110	1.28				
42mm	120111	1.18				
42mm	120111	1.18				

P/N's marked (+) are integral key bushings.

Bore sizes marked (#) will be supplied with 1/2" wide keyway unless the 5/8" wide keyway is specified when ordering.

\* Key furnished for these sizes ONLY.

\*\* Key not furnished for mm bores sizes.

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
SK	1/2"	120413	3.77	1/8 x 1/16	1/8 x 1/16	1/8 x 1/8
	9/16"	120414	3.74			
	5/8"	120415	3.72			
	11/16"	120416	3.70	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16
	3/4"	120417	3.61			
	13/16"	120418	3.53			
	7/8"	120419	3.58	15/16"	120420	3.52
	15/16"	120420	3.52			
	1"	120421	3.45			
	1-1/16"	120422	3.41	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4
	1-1/8"	120423	3.37			
	1-3/16"	120424	3.31			
	1-1/4"	120425	3.31	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16
	1-5/16"	120426	3.18			
	1-3/8"	120427	3.12			
	1-7/16"	120428	3.08	1-7/16"	120428	3.08
	1-1/2"	120429	3.00			
	1-9/16"	120430	2.95			
	1-5/8"	120431	2.86	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8
	1-11/16"	120432	2.79			
	1-3/4"	120433	2.88			
	1-13/16"	120434	2.62	1-7/8"	120435	2.50
	1-7/8"	120435	2.50			
	1-15/16"	120436	2.42			
2"	120437	2.32	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
2-1/16"	120438	2.26				
2-1/8"	120439	2.17				
2-3/16"	120440	2.21	1/2 x 3/16	1/2 x 1/4	1/2 x 7/16*	
2-1/4"	120441	2.09				
2-5/16"	120442	2.00				
2-3/8"	120443	1.91	5/8 x 1/16	5/8 x 5/16	5/8 x 3/8*	
2-7/16"	120444	1.81				
2-1/2"	120445	1.72				
2-5/8"	120447	1.32	None	-	-	
24mm	120112	3.52	8 X 3.3mm	8 X 4mm	8 X 7mm	
25mm	120113	3.50				
28mm	120114	3.41				
30mm	120115	3.31				
32mm	120116	3.31				
35mm	120117	3.12	10 X 3.3mm	10 X 5mm	10 X 8mm	
38mm	120118	2.98				
40mm	120119	2.95				
42mm	120120	2.86	12 X 3.3mm	12 X 5mm	12 X 8mm	
45mm	120070	2.69				
48mm	120121	2.50				
50mm	120122	2.40	14 X 3.8mm	14 X 5.5mm	14 X 9mm	
55mm	120123	2.17				
1/2"	120448	5.27				
9/16"	120449	5.27	1/8 x 1/4	1/8 x 1/4	1/8 x 1/8	
5/8"	120450	5.22				
11/16"	120451	5.20				
3/4"	120452	5.17	3/16 x 3/32	3/16 x 3/32	3/16 x 3/16	
13/16"	120453	5.32				
7/8"	120454	5.08				
15/16"	120455	5.05	1"	120456	5.00	
1"	120456	5.00				
1-1/16"	120457	4.95				
1-1/8"	120458	4.90	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
1-3/16"	120459	4.83				
1-1/4"	120460	4.77				

SF

**Bushings - QD**

Selection/dimensions - stock bore

**QD bushings - stock bore**

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF	
SF (cont.)	1-5/16"	120461	4.71	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16	
	1-3/8"	12 0462	4.61				
	1-7/16"	12 0463	4.57				
	1-1/2"	120464	4.48				
	1-9/16"	12 0465	4.42	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
	1-5/8"	12 0466	4.32				
	1-11/16"	120467	4.31				
	1-3/4"	12 0468	4.16				
	1-13/16"	12 0469	4.06	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
	1-7/8"	120470	4.00				
	1-15/16"	120471	3.87				
	2"	120472	3.78				
	2-1/16"	120473	3.70	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8	
	2-1/8"	120474	3.57				
	2-3/16"	120475	3.45				
	2-1/4"	120476	3.38				
	2-5/16"	120477	3.32	5/8 x 3/16	5/8 x 5/16	5/8 x 1/2*	
	2-3/8"	120478	3.39				
	2-7/16"	120479	3.26				
	2-1/2"	12 0592	3.16				
	2-5/8"	12 0482	2.91	5/8 x 1/16	5/8 x 5/16	5/8 x 3/8*	
	2-11/16"	12 0483	2.80				
	2-3/4"	12 0484	2.59				
	2-13/16"	12 0485	2.50				
	2-7/8"	12 0486	2.35	3/4 x 1/32	3/4 x 3/8	3/4 x 13/32*	
	2-15/16"	12 0487	2.22				
	28mm	12 012 4	5.00				
	30mm	12 012 5	4.90				
	32mm	12 012 6	4.77	10 X 3.3mm	10 X 5mm	10 X 8mm	
	35mm	12 012 7	4.61				
	38mm	12 012 8	4.48				
	40mm	12 012 9	4.42				
	42mm	120130	4.32	12 X 3.3mm	12 X 5mm	12 X 8mm	
	45mm	120071	4.16				
	48mm	120131	4.00				
	50mm	120132	3.87				
	55mm	120133	3.57	16 X 4.3mm	16 X 6mm	16 X 10mm	
	60mm	120134	3.39				
	7/8"	12 0488	11.80				
	1"	12 0490	11.65				
	1-1/8"	12 0492	11.46	1/4 x 1/8	1/4 x 1/8	1/4 x 1/4	
	1-3/16"	120493	11.40				
	1-1/4"	12 0494	11.33				
	1-5/16"	12 0495	11.26				
	E	1-3/8"	12 0496	11.20	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16
		1-7/16"	12 0497	11.13			
		1-1/2"	12 0498	10.86			
		1-9/16"	12 0499	10.82			
1-5/8"		12 0500	10.69	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-11/16"		12 0501	10.56				
1-3/4"		12 0502	10.46				

P/N's marked (+) are integral key bushings.  
 Bore sizes marked (#) will be supplied with 1/2" wide keyway unless the 5/8" wide keyway is specified when ordering.  
 \* Key furnished for these sizes ONLY.  
 \*\* Key not furnished for mm bores sizes.

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF	
E (cont.)	1-13/16"	12 0503	10.16	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
	1-7/8"	12 0504	10.16				
	1-15/16"	120505	10.16				
	2"	12 0506	10.01				
	2-1/16"	12 0507	9.85	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8	
	2-1/8"	12 0508	9.73				
	2-3/16"	12 0509	9.42				
	2-1/4"	120510	9.42				
	2-5/16"	120511	9.07	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4	
	2-3/8"	12 0512	8.95				
	2-7/16"	120513	8.77				
	2-1/2"	120514	8.72				
	2-5/8"	120516	8.37	3/4 x 1/8	3/4 x 3/8	3/4 x 1/2*	
	2-11/16"	120517	8.05				
	2-3/4"	120518	7.90				
	2-13/16"	120519	7.70				
	2-7/8"	120520	7.32	7/8 x 1/8	7/8 x 7/16	7/8 x 9/16*	
	2-15/16"	120521	7.53				
	3"	12 0522	7.31				
	3-1/8"	12 0524	6.90				
	3-3/16"	12 0525	6.69	7/8 x 1/16	7/8 x 7/16	7/8 x 1/2*	
	3-1/4"	12 0526	6.48				
	3-5/16"	12 0527	6.10				
	3-3/8"	12 0528	6.21				
	3-7/16"	12 0529	5.86	8 X 3.3mm	8 X 4mm	8 X 7mm	
	3-1/2"	12 0530	5.73				
	28mm	12 0073	10.20				
	30mm	120074	10.20				
	32mm	120075	10.20	10 X 3.3mm	10 X 5mm	10 X 8mm	
	35mm	120135	10.20				
	38mm	120136	10.00				
	40mm	120137	10.88				
	42mm	120138	9.80	12 X 3.3mm	12 X 5mm	12 X 8mm	
	45mm	120141	9.60				
	48mm	120139	10.26				
	50mm	120140	10.06				
	55mm	120142	9.56	16 X 4.3mm	16 X 6mm	16 X 10mm	
	60mm	120143	9.10				
	65mm	120144	9.60				
	70mm	120145	7.87				
	75mm	120146	7.28	20 X 4.9mm	20 x 7.5mm	20 X 12mm	
	1"	120531	19.41				
	1-1/8"	12 0533	19.15				
	1-3/16"	12 0534	18.00				
	F	1-1/4"	12 0535	18.99	5/16 x 5/32	5/16 x 5/32	5/16 x 5/16
		1-3/8"	120537	18.68			
		1-7/16"	12 0538	18.56			
		1-1/2"	12 0539	18.48			
1-9/16"		12 0540	18.40	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8	
1-5/8"		120541	18.15				
1-11/16"		12 0542	17.91				
1-3/4"		12 0543	16.77				
1-13/16"		12 0544	17.62	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2	
1-7/8"		12 0545	16.41				
1-15/16"		12 0546	16.00				
2"		120547	16.00				
2-1/16"	12 0548	16.00	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2		
2-1/8"	12 0549	15.95					
2-3/16"	12 0550	15.95					
2-1/4"	120551	15.95					

**Bushings - QD**

Selection/dimensions - stock bore

**QD bushings - stock bore**

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
	2-5/16"	12 0552	15.95			
	2-3/8"	12 0553	15.50			
	2-7/16"	12 0554	15.50			
	2-1/2"	120555	15.37	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8
	2-5/8"	12 0557	14.86			
	2-11/16"	12 0558	14.50			
	2-3/4"	12 0559	14.37			
	2-13/16"	120560	14.00			
	2-7/8"	120561	14.02			
	2-15/16"	120562	13.47			
	3"	120563	13.20	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4
	3-1/8"	120565	12.67			
	3-3/16"	120566	12.50			
	3-1/4"	120567	12.00			
	3-3/8"	120569	12.00			
	3-7/16"	12 0570	11.88			
	3-1/2"	120571	11.40	7/8 x 3/16	7/8 x 7/16	7/8 x 5/8*
	3-5/8"	12 0573	10.53			
	3-11/16"	120574	14.00			
	3-3/4"	120575	9.89			
	3-7/8"	12 0577	9.26	1 x 1/8	1 x 1/2	1 x 5/8*
	3-15/16"	12 0578	9.23			
	4"	12 0579	7.96	None	-	-
	45mm	120076	16.20			
	48mm	120147	16.00	14 X 3.8mm	14 X 5.5mm	14 X 9mm
	50mm	120148	15.80			
	55mm	120149	15.80	16 X 4.3mm	16 X 6mm	16 X 10mm
	60mm	120150	15.80	18 X 4.4mm	18 X 7 mm	18 X 11mm
	65mm	120151	14.30			
	70mm	120152	14.30	20 X 4.9mm	20 x 7.5mm	20 X 12mm
	75mm	120153	13.50			
	80mm	120154	12.55	22 X 5.4mm	22 X 9mm	22 X 14mm
	85mm	120155	10.60			
	90mm	12 0077	10.50	25 X 5.4mm	25 X 9mm	25 X 14mm
	1-1/2"	12 0600	28.97			
	1-5/8"	120601	28.61	3/8 x 3/16	3/8 x 3/16	3/8 x 3/8
	1-3/4"	12 0603	28.28			
	1-7/8"	12 0604	27.79			
	1-15/16"	12 0605	27.53			
	2"	120606	27.33	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2
	2-1/8"	12 0607	26.74			
	2-3/16"	12 0608	26.37			
	2-1/4"	12 0609	26.32			
	2-3/8"	120610	25.65			
	2-7/16"	120611	25.52			
	2-1/2"	12 0612	25.05	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8
	2-5/8"	120613	24.50			
	2-11/16"	120614	24.18			
	2-3/4"	120615	23.86			

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\*\* Key not furnished for mm bores sizes.

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
	2-7/8"	120617	23.15			
	2-15/16"	120618	23.07			
	3"	120619	22.43			
	3-1/8"	120620	21.68	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4
	3-3/16"	120621	21.35			
	3-1/4"	12 0622	20.98			
	3-3/8"	12 0623	20.33			
	3-7/16"	12 0624	21.13			
	3-1/2"	12 0625	19.58	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8
	3-5/8"	12 0626	18.44			
	3-11/16"	12 0627	18.04			
	3-3/4"	12 0628	17.62			
	3-7/8"	120629	17.94			
	3-15/16"	12 0630	17.38			
	4"	12 0631	16.62			
	4-1/8"	12 0632	15.69			
	4-3/16"	12 0633	14.55	1 x 1/8	1 x 1/2	1 x 5/8*
	4-1/4"	12 0634	14.68			
	4-3/8"	12 0635	14.00			
	4-7/16"	12 0636	13.49			
	4-1/2"	12 0637	12.67			
	50mm	120157	26.50	14 X 3.8mm	14 X 5.5mm	14 X 9mm
	55mm	120158	25.60	16 X 4.3mm	16 X 6mm	16 X 10mm
	60mm	120159	25.82			
	65mm	120160	25.25	18 X 4.4mm	18 X 7 mm	18 X 11mm
	70mm	120161	24.04			
	75mm	120162	21.90	20 X 4.9mm	20 x 7.5mm	20 X 12mm
	80mm	120163	20.90			
	85mm	120164	20.52	22 X 5.4mm	22 X 9mm	22 X 14mm
	90mm	120165	18.10			
	95mm	120166	16.80	25 X 5.4mm	25 X 9mm	25 X 14mm
	100mm	120167	16.50	28 X 6.4mm	28 X 10mm	28 X 16mm
	2"	11 9900	62.65			
	2-1/8"	11 9901	62.65	1/2 x 1/4	1/2 x 1/4	1/2 x 1/2
	2-3/16"	11 9902	61.58			
	2-1/4"	11 9903	61.14			
	2-3/8"	11 9904	59.50			
	2-7/16"	11 9905	59.35			
	2-1/2"	11 9906	59.21	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8
	2-5/8"	11 9907	58.69			
	2-3/4"	11 9908	57.86			
	2-7/8"	11 9909	56.57			
	2-15/16"	119910	56.17			
	3"	11 9911	56.10	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4
	3-1/8"	11 9912	55.82			
	3-3/16"	11 9913	53.84			
	3-1/4"	11 9914	53.42			
	3-3/8"	11 9915	52.06			
	3-7/16"	11 9916	52.04			
	3-1/2"	119917	51.12	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8
	3-5/8"	119918	50.08			
	3-11/16"	119919	49.00			
	3-3/4"	11 9920	48.47			
	3-7/8"	11 9921	47.03			
	3-15/16"	11 9922	46.26			
	4"	11 9923	46.09	1 x 1/2	1 x 1/2	1 x 1
	4-1/8"	11 9924	44.31			
	4-3/16"	11 9925	43.64			
	4-1/4"	11 9926	42.81			

**Bushings - QD**

Selection/dimensions - stock bore

**QD bushings - stock bore**

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
M (cont.)	4-3/8"	119927	41.46			
	4-7/16"	119928	40.60	1 x 1/2	1 x 1/2	1 x 1
	4-1/2"	119929	40.27			
	4-11/16"	119930	37.12	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4
	4-3/4"	119931	37.00			
	4-7/8"	119932	36.89			
	4-15/16"	119933	36.13			
	5"	119934	35.66			
	5-1/8"	119899	35.00	1-1/4 x 1/4	1-1/4 x 5/8	1-1/4 x 7/8*
	5-3/16"	119894	35.00			
	5-1/4"	119935	30.00			
	5-7/16"	119936	30.00			
	5-1/2"	119937	29.00			
	2-7/16"	119940	87.57	5/8 x 5/16	5/8 x 5/16	5/8 x 5/8
	2-15/16"	119941	83.00	3/4 x 3/8	3/4 x 3/8	3/4 x 3/4
	3-7/16"	119942	80.00			
	3-1/2"	119980	80.00	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8
	3-3/4"	119943	80.00			
	3-7/8"	119944	80.00			
	3-15/16"	119945	80.00			
4"	119946	80.00				
4-3/16"	119947	80.00	1 x 1/2	1 x 1/2	1 x 1	
4-1/4"	119948	80.00				
4-3/8"	119982	79.00				
4-7/16"	119949	78.00				
4-1/2"	119950	77.00				
N	4-11/16"	119983	76.00			
	4-3/4"	119951	75.00			
	4-7/8"	119952	74.00	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4
	4-15/16"	119953	73.00			
	5"	119954	72.00			
	5-1/8"	119955	71.00			
	5-3/16"	119986	70.50			
	5-1/4"	119956	70.00	1-1/4 x 1/4	1-1/4 x 5/8	1-1/4 x 7/8*
	5-7/16"	119957	52.19			
	5-1/2"	119958	49.02			
	5-3/4"	119959	49.00			
	5-7/8"	119960	44.00			
	5-15/16"	119961	43.00	1-1/2 x 1/8	1-1/2 x 3/4	1-1/2 x 7/8*
	6"	119962	42.00			

QD bush. size	Bore	P/N	Wt.	Bushing keyway	Shaft keyway REF	Key size REF
P	3-7/16"	119965	13 4.00	7/8 x 7/16	7/8 x 7/16	7/8 x 7/8
	3-15/16"	119966	12 2.00			
	4"	119987	12 2.00	1 x 1/2	1 x 1/2	1 x 1
	4-7/16"	119967	122.40			
	4-1/2"	119968	121.00			
	4-3/4"	119969	12 0.00			
	4-7/8"	119985	12 0.00			
	4-15/16"	119970	11 9.00			
	5"	119971	11 5.00	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4
	5-3/16"	119984	11 4.00			
	5-7/16"	119972	11 3.00			
	5-1/2"	119973	100.00			
	5-15/16"	119974	94.00	1/2 x 3/4	1/2 x 3/4	1/2 x 1/2
	6"	119975	93.70			
	6-7/16"	119976	83.50	1-1/2 x 1/4	1-1/2 x 3/4	1-1/2 x 1*
	6-1/2"	119977	80.50			
	7"	119978	68.00	1-3/4 x 1/8	1-3/4 x 3/4	1-3/4 x 7/8*
	4-1/4"	120180	260.00			
	4-7/16"	120181	256.60	1 x 1/2	1 x 1/2	1 x 1
	4-1/2"	120182	255.40			
4-3/4"	120183	250.00				
5"	120186	244.30	1-1/4 x 5/8	1-1/4 x 5/8	1-1/4 x 1-1/4	
5-3/8"	120188	235.30				
5-1/2"	120189	232.20				
5-3/4"	120190	225.70				
5-7/8"	120191	222.30				
W	5-15/16"	120192	220.00	1-1/2 x 3/4	1-1/2 x 3/4	1-1/2 x 1-1/2
	6"	120193	218.90			
	6-1/2"	120194	215.00			
	6-3/4"	120328	210.00			
	7"	120196	18 4.90	1-3/4 x 3/4	1-3/4 x 3/4	1-3/4 x 1-1/2
	7-1/4"	120197	18 4.40			
	7-1/2"	120198	17 5.80			
	7-3/4"	120199	17 2.00			
	8"	120200	159.70	2 x 1/4	2 x 3/4	2 x 1*
	S	▼ Bushings size available please call Dodge for information				

P/N's marked (+) are integral key bushings.

Bore sizes marked (#) will be supplied with 1/2" wide keyway unless the 5/8" wide keyway is specified when ordering.

\* Key furnished for these sizes ONLY.

\*\* Key not furnished for mm bores sizes.

**Bushings - QD**

Selection/dimensions - stock bore

**QD reborable**

QD bush. size	Sintered steel		Cast iron		Ductile iron	
	Bore	P/N	Bore	P/N	Bore	P/N
H	3/8"	12 0595	-	-	-	-
JA	1/2"	12 0050	-	-	-	-
SH	1/2"	120051	-	-	1/2"	119876
SDS	1/2"	12 0052	-	-	1-7/16"	119877
SD	1/2"	12 0053	-	-	1-9/16"	119878
SK	1/2"	12 0054	-	-	2"	119879
SF	1/2"	12 0055	-	-	2-5/16"	119880
E	-	-	7/8"	120056	7/8"	119881
F	-	-	1"	12 0057	1"	119882
J	-	-	1-1/2"	12 0058	1-1/2"	119883
M	-	-	2"	119938	2"	119884
N	-	-	2-7/16"	119963	2-7/16"	119885
P	-	-	3-7/16"	119979	3-7/16"	119886
W	-	-	4"	120276	-	-
S	-	-	5-1/2"	394059	-	-

Note: All reborable bushings are stocked without sawsplit to facilitate re-machining. Sawsplit must be made in bushing to allow it to compress for proper gripping of the shaft. Factory rebore and keyseat service as listed in MLP price book includes sawsplit.

**QD - maximum bore capacities**

QD bush. size	Sintered steel			Cast iron			Ductile iron			
	Full key	Shallow key	Metric	Full key	Shallow key	Metric	Full key	Shallow key	No key*	Metric
H	-	-	-	-	-	-	-	-	-	-
JA	1"	1-1/16"	25	-	-	-	1"	1-3/16"	1-1/4"	25
SH	1-1/4"	1-1/4"	30	-	-	-	1-3/8"	1-5/8"	1-11/16"	35
SDS	1-9/16"	1-5/8"	40	-	-	-	1-5/8"	1-15/16"	2"	42
SD	1-9/16"	1-9/16"	40	-	-	-	1-11/16"	1-15/16"	2"	42
SK	2"	2-1/16"	50	-	-	-	2-1/2"	2-1/2"	2-5/8"	55
SF	2-1/4"	2-3/8"	55	-	-	-	2-5/16"	2-15/16"	2-15/16"	65
E	-	-	-	2-3/4"	3"	70	2-7/8"	3-1/2"	3-1/2"	89
F	-	-	-	3-1/4"	3-7/16"	90	3-1/4"	3-15/16"	4"	101
J	-	-	-	3-3/4"	3-7/8"	100	3-3/4"	4-1/2"	4-1/2"	114
M	-	-	-	4-3/4"	5"	120	4-3/4"	5-1/2"	5-1/2"	139
N	-	-	-	5"	5-1/4"	130	5"	6"	6"	149
P	-	-	-	5-1/2"	7"	160	5-1/2"	7"	7"	177
W	-	-	-	6-1/2"	7"	165	6-1/2"	8-1/2"	8-1/2"	216
S	-	-	-	8-1/4"	8-1/4"	209	8-1/4"	10"	10"	250

Note: ISO standard method for measuring keyseat depth  
mm bore and keyway dimensions conform to ISO standard recommendation  
R773, for "free" fit

Reference:

1 inch = 25.4 millimeters

1 millimeter = .03937 inches

\* Verify torque capacity: Contact application engineering for assistance.



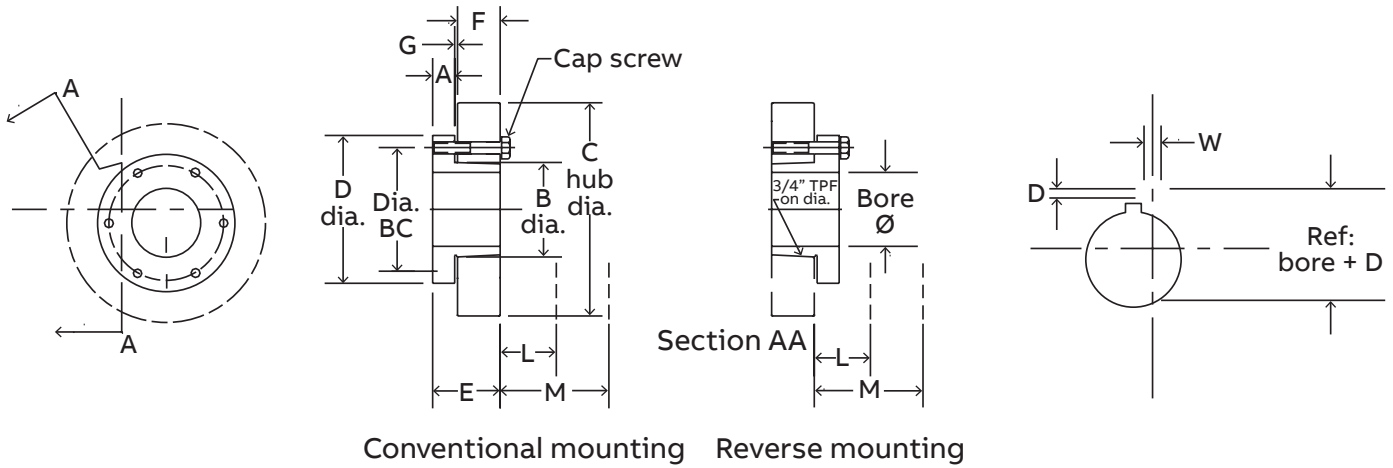
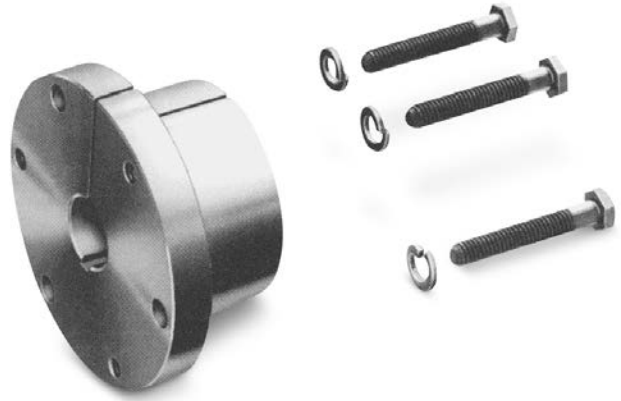
## Bushings - QD

Features/benefits - metric hardware

### QD bushing - metric bore/metric hardware

#### Features

- Dodge QD-style bushings stocked in popular finish bore sizes and minimum plain bore, for custom re boring.
- Dodge metric QD bushings supplied with metric hex-head cap screws and lock washers.
- Stock reborable bushings available for custom re boring.
- Re boring and sawsplit available from Dodge for nominal extra charge.  
Note: Re bore by others must be sawsplit after re bore.
- Can be used with Dodge HTD sprockets for conventional mounting only. (English thread hardware required for demounting)



## Bushings - QD

Selection/dimensions - metric bore

### QD bushing - metric bore/metric hardware

#### Stock reborable bushings & specifications

Bush. sym.	Ductile iron			Dimensions (mm)							
	Part no.	Max. bore	Stock bore	A mm	B mm	C hub dia.		D mm	E mm	F mm	G mm
						Iron	Steel				
H	119861	35	10.00	6.40	41.40	76.20	69.90	63.50	33.30	22.20	4.80
JA	119860	25	12.70	7.90	35.10	99.80	57.20	50.80	25.40	14.20	3.10
SH	119862	36	12.70	10.90	47.80	120.70	76.20	66.80	33.30	20.60	3.10
SDS	119863	42	12.70	10.90	55.40	120.70	88.90	80.80	33.30	19.10	3.10
SD	119864	42	12.70	10.90	55.40	96.80	88.90	80.80	46.00	31.80	3.10
SK	119865	55	12.70	14.20	71.40	120.70	114.30	98.60	49.00	31.80	5.60
SF	119866	60	12.70	16.00	79.50	162.10	139.70	117.60	52.30	31.80	5.60
E	119867	82	22.20	22.40	97.30	190.50	165.10	152.40	69.90	41.40	6.40
F	119868	92	25.40	25.40	115.50	196.90	184.20	168.40	95.30	63.50	8.60
J	119869	104	38.10	28.70	130.60	228.60	203.20	184.20	117.60	80.80	9.70
M	119870	130	50.80	31.80	165.10	289.10	254.00	228.60	171.50	131.60	10.40

Type	Bushing				Size	Bolt torque (Nm)
	Torque capacity (Nm)	Center dia. (mm)	Qty.	Length (mm)		
H	113	50.8	2	22	M6 x 1	9.6
JA	113	42.3	3	25	M5 x 0.8	5.6
SH	395	57.2	3	35	M6 x 1	11.5
SDS	565	68.3	3	35	M6 x 1	11.5
SD	565	68.3	3	50	M6 x 1	11.5
SK	781	84.1	3	50	M8 x 1.25	20.5
SF	1243	98.4	3	50	M10 x 1.5	34.0
E	2260	127.0	3	70	M12 x 1.75	77.0
F	3390	142.9	3	100	M14 x 2	100.0
J	5085	158.8	3	120	M16 x 2	194.5
M	9600	200.0	4	180	M20 x 2.5	256.0

### QD bushing - metric series

#### Metric QD bushing - metric hardware

mm bore	Bushing no.										mm keyway	
	H	JA	SH	SDS	SD	SK	SF	E	F	W	D	
14	-	117 377	-	-	-	-	-	-	-	5	2.30	
19	-	117 371	-	-	-	-	-	-	-	6	2.80	
20	-	117 372	117 378	117 385	-	-	-	-	-	6	2.80	
24	-	117373	117 379	117 386	117 531	117 540	-	-	-	8	3.30	
25	117 356	117 374*	117 380	117387	117 532	117 541	117 553	-	-	8	3.30	
28	-	-	117 381	117 388	117 533	117 542	117 554	-	-	8	3.30	
30	117 357	-	117 382	117389	117 534	117 543	117555	-	-	8	3.30	
32	117 358*	-	117 383*	117 390	117 535	117 544	117 556	-	-	10	3.30	
35	-	-	117 384*	117 391	117 536	117 545	117 557	-	-	10	3.30	
38	-	-	-	117 392	117537	117 546	117 558	-	-	10	3.30	
40	-	-	-	117 393	117 538	117 547	117 559	117 571*	117 583*	12	3.30	
42	-	-	-	117 394*	117 539*	117 548	117 560	-	117 584*	12	3.30	
45	-	-	-	-	-	117 549	117 561	-	-	14	3.80	
48	-	-	-	-	-	117 550	117 562	-	-	14	3.80	
50	-	-	-	-	-	117 551	117 563	117575*	117 587*	14	3.80	
55	-	-	-	-	-	117 552*	117 564	117 576*	117 588*	16	4.30	
60	-	-	-	-	-	-	117 565*	-	117 589*	18	4.40	

Part numbers marked (\*) are ductile iron.

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