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## Couplings

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# FEATURES/BENEFITS

## DODGE PARA-FLEX Couplings



### Superior "Problem Solver" Element Design

- Industry leading misalignment capabilities
- End split reinforcement for increased torque ratings and extended life
- Reinforced torque-carrying tension cords prevent unexpected downtime
- 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 PX200



### Increased Productivity

- Non-lubricated design assures trouble-free operation
- Visual inspection saves time and allows for preventive maintenance
- Split element for easy installation

### ATEX Approved

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

### TAPER-LOCK Flange Design

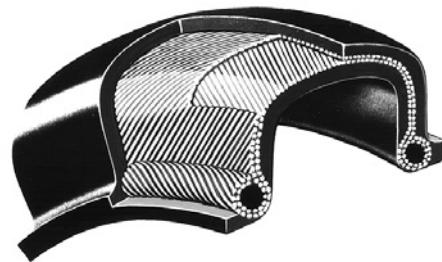
- Utilizes standard TAPER-LOCK bushings for easy installation and removal
- Reversible flanges for H and F style mounting on sizes PX50-PX120
- "TLX" extended bore capacity flanges for increased bore capacities
- Pre-assembled for quick installation

### QD Flange Design

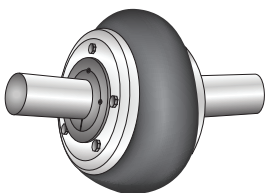
- Utilizes standard QD bushings for easy installation and removal
- Industry leading bore and torque capacities versus competitive designs
- Hardware installs from inside or outside of the hub for mounting flexibility
- Pre-assembled for quick installation

### Bored to Size

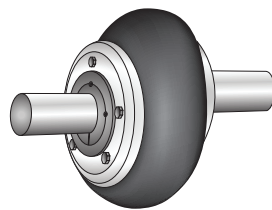
- Steel flanges are ideal for high shock load and vibration applications
- Largest bore capacity of all Para-Flex products



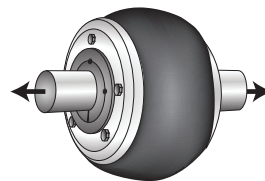
### Accommodates Misalignment



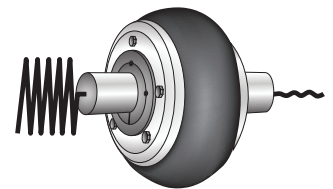
Takes 4° angular misalignment



Takes 1/8" parallel misalignment



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



Dampens vibrations



## PARA-FLEX

### 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 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.

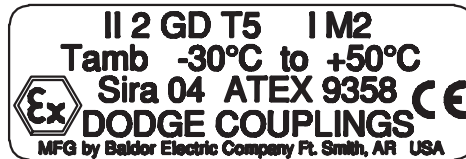
### HOW TO ORDER

Standard couplings consist of:

- (2) Flange Assemblies
- (1) Flexible Element
- (2) Bushings (TL or QD)

### ATEX Approved

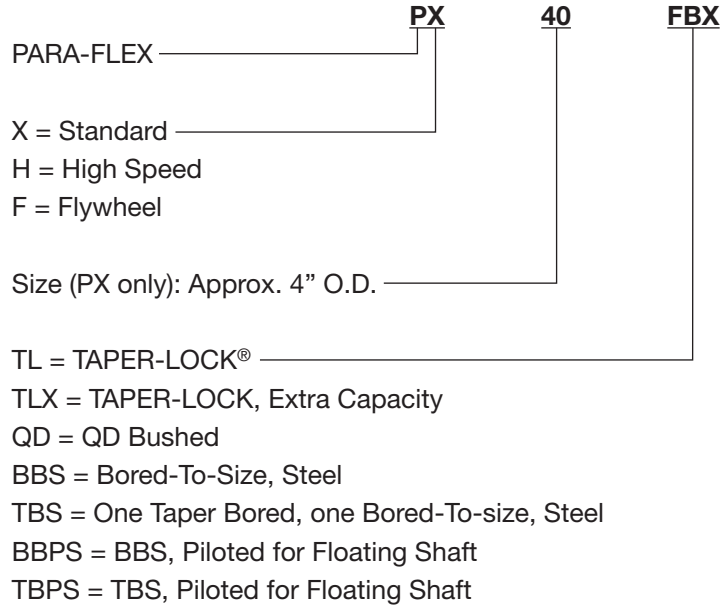
- All documents and markings included with standard product to meet ATEX requirements



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## NOMENCLATURE

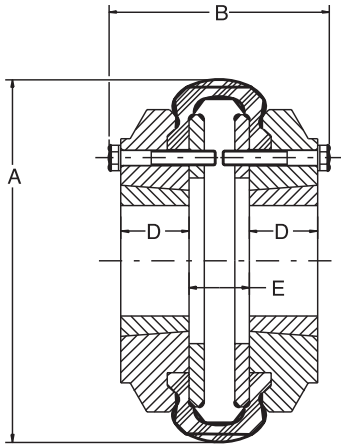


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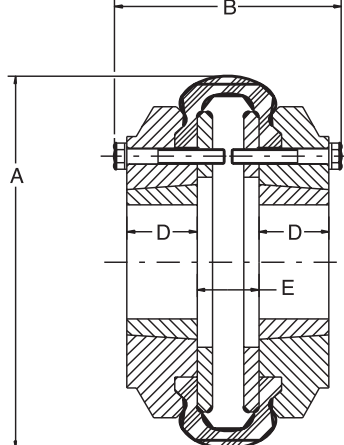


## SELECTION/DIMENSIONS

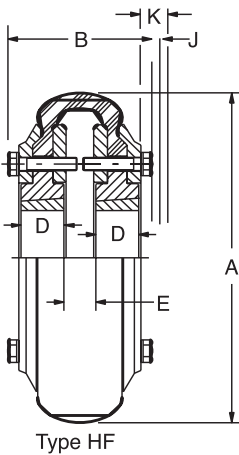
### Standard, TAPER-LOCK



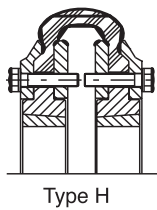
Style 1  
Type H Taper-Lock



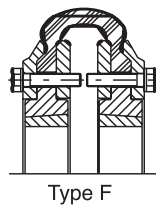
Style 1  
Type F Taper-Lock



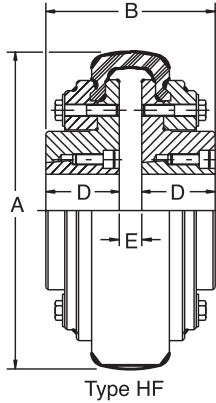
Type HF



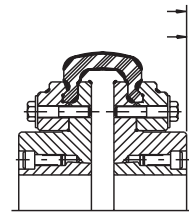
Type H



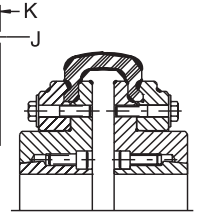
Type F



Type HF



Type H-H



Type F-F

Style 2 Taper-Lock couplings  
with reversible flange

Style 3 PARA-FLEX Taper-Lock couplings

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# SELECTION/DIMENSIONS

## Standard, TAPER-LOCK

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

- Notes:** (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 average to determine appropriate value.

PT Component Reference Guide

Couplings

Clutches and Brakes

FLEXIDYNE

Fluid Couplings

TORQUE-TAMER

Bushings

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# 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/section \_\_\_\_\_

• These flanges require a metric bushing, see page \_\_\_\_\_

### Elements

Coupling Size	Standard Part No.	Neoprene (1) Part No.	Cordless (2) 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	---

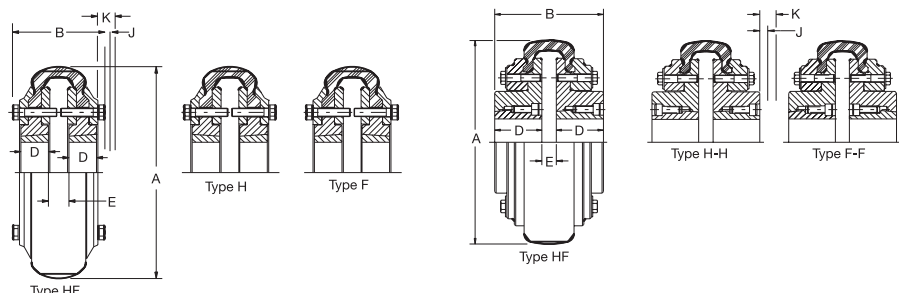
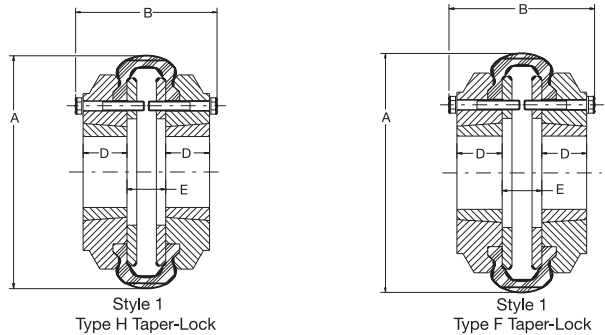
- (1) Neoprene element ratings are the same as the standard natural rubber element ratings. (Green sticker or painted mark)
- (2) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)





# SELECTION/DIMENSIONS

## Metric, TAPER-LOCK Part Numbers



### Taper-Lock Couplings\*

Coupling flange assy.	Element size	Min. bore	Max. bore	TL Bushing*	kW/100	Torque (in-lbs)	Max RPM	Style	A (in)	B = (in)	D (in)	E = (in)	J <sup>(1)</sup> (in)	K <sup>(2)</sup> (in)	Mass <sup>(3=)</sup> (lbs)	Inertia <sup>(4=)</sup> (lb-ft <sup>2</sup> )
PXM40TL	40	13	25	1008	0.51	425	4500	1	4.25	3	.88	.77	.63	.75	4.2	.05
PXM50TL	50	13	32	1210	1.07	900	4500	1	5.25	2.75	.88	.53	.63	.75	4.7	.07
PXM60TL	60	13	42	1610	2.13	180	4000	1	6.5	3.34	1	.72	.81	1.06	9.2	.21
PXM70TL	70†	13	42	1610	2.60	2200	3600	2	7.38	3.56	1	.95	.81	1.06	13	.3
PXM70TLX-F	70†	13	50	2012	2.60	2200	3600	3	7.38	3.83	1.25	.95	.94	1.38	14.8	.3
PXM80TL	80†	13	50	2012	4.27	3605	3100	2	8.38	3.75	1.25	.77	.94	1.38	19.6	.73
PXM80TLX-F	80†	13	65	2517	4.27	3605	3100	3	8.38	3.99	1.75	.77	1	1.63	24.7	.8
PXM90TL	90	13	65	2517	5.33	4502	2800	2	9.25	4.03	1.75	.33	1	1.63	28.8	1.3
PXM100TL	100†	13	65	2517	6.40	5402	2600	2	10	4.22	1.75	.52	1	1.63	38	2.2
PXM100TLX-F	100†	24	80	3020	6.40	5402	2600	3	10	4.36	2	.52	1.19	2.06	42.6	2.4
PXM110TL	110†	13	65	2517	9.18	7750	2300	2	11	4.53	1.75	.47	1	1.63	52.1	3.7
PXM110TLX-H	110†	24	80	3020	9.18	7750	2300	3	11	4.75	2	.47	1.19	2.06	57.2	3.9
PXM110TLX-F	110†	24	80	3020	9.18	7750	2300	3	11	4.75	2	.47	1.19	2.06	57.2	3.9
PXM120TL	120†	24	80	3020	14.92	12605	2100	2	12.38	5.03	2	.44	1.19	2.06	74.4	6.6
PXM120TLX-F	120†	31	100	3525	14.92	12605	2100	3	12.38	5.45	2.5	.44	1.31	2.69	88.1	7.4
PXM140TL	140	31	95/100•	3535	32.82	27590	1840	3	14.13	7.81	3.5	.81	1.31	2.69	156	18.7
PXM160TL	160	37	105/115•	4040	44.76	37800	1560	3	16.63	9.19	4	1.19	1.63	3.38	243	33.7
PXM200TL	200	50	115/125•	4545	97.73	82500	1300	3	20	10.31	4.5	1.31	1.94	4.06	417	101
PXM240TL	240	61	127	5050	179.04	151200	1080	3	24.13	11.91	5	1.91	2.31	4.81	682	231

(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  
 \* Metric hardware  
 • Requires short series bushings to achieve maximum bore.

† Flange assemblies may be combined or interchanged for a given element size. Upon combination, dimensions B & E as well as mass and inertia should be averaged for appropriate value.

H = Hub Mount  
 F = Flange Mount

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# SELECTION/DIMENSIONS

## Metric, TAPER-LOCK

Complete Para-Flex coupling consists of:  
one element, two PXMTL flange assemblies and two TL bushings

### Para-Flex Taper-Lock flange assemblies

Coupling size	Type H	Type F	
	Part Number	Part Number	Taper-Lock bushing size
PXM40TL	013095	013096	1008
PXM50TL	013041	013040	1210
PXM60TL	013043	013042	1610
PXM70TL	013044	*	1610
PXM70TLX-F	—	395277	2012
PXM80TL	013045	*	2012
PXM80TLX-F	—	395278	2517
PXM90TL	013046	*	2517
PXM100TL	013047	*	2517
PXM100TLX-F	—	395279	3020
PXM110TL	013048	*	2517
PXM110TLX-H	395281	—	3020
PXM110TLX-F	—	395280	3020
PXM120TL	013049	*	3020
PXM120TLX-F	—	395282	3525
PXM140TL	013051	013050	3535 / 3525 •
PXM160TL	013053	013052	4040 / 4030 •
PXM200TL	013055	013054	4545 / 4535 •
PXM240TL	395286	395285	5050

#### Notes:

- \* Have reversible flange for type H or F mount.
  - Requires short series bushing to achieve maximum bore.
- Metric bushing required  
For Taper-Lock designs, Taper-Lock bushings must be ordered separately.

### Elements

Coupling Size	Standard Part No.	Neoprene (1) Part No.	Cordless (2) 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	---

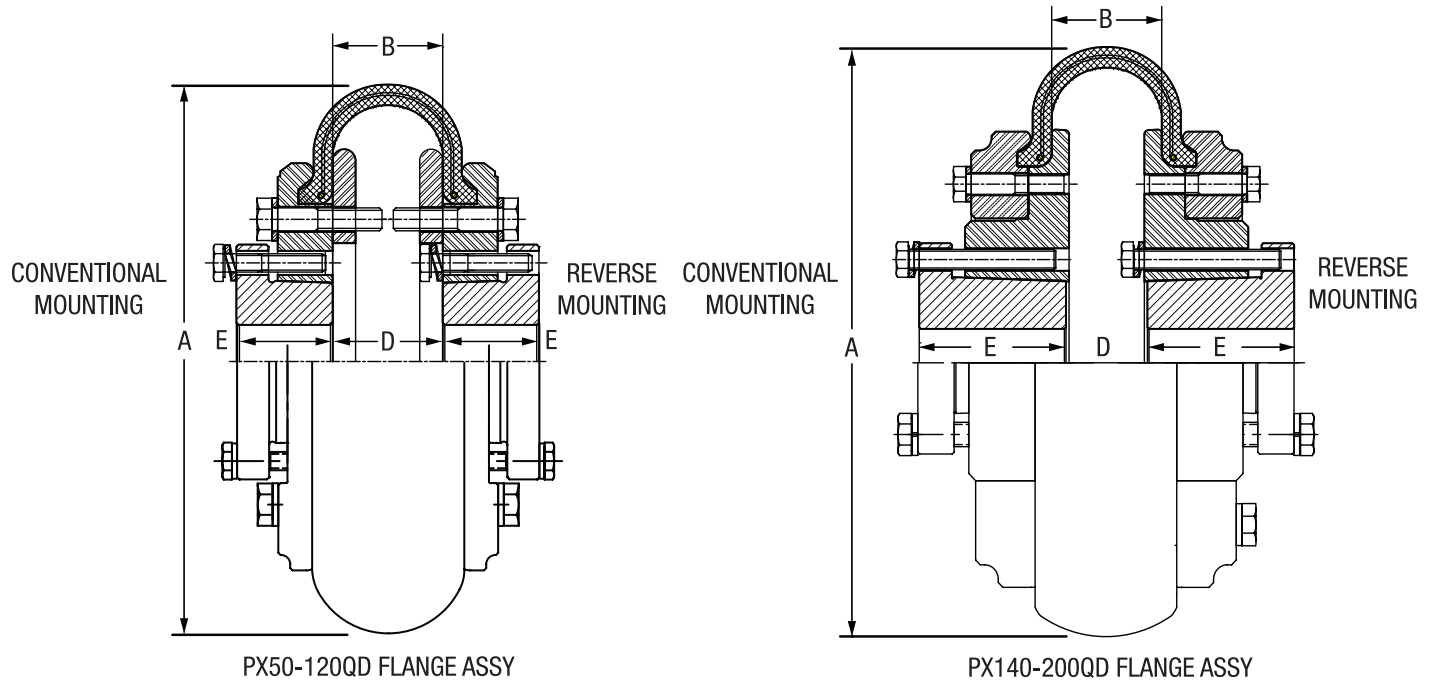
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- (2) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)

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# SELECTION/DIMENSIONS

## Standard, QD Bushed



### Dimensions

Coupling Size	Bushing Size	Max Bore (In.)			HP/100	Torque Rating (In-Lbs)	Max RPM	Style	Dimensions (In.)				Weight (1) (Lbs.)	Inertia (2) (Lb-Ft)
		Full KW	Shallow KW	No KW					A	B	D	E		
PX50QD	JA	1	1-3/16	1-1/4	1.43	900	4500	1	5 1/4	3 7/8	1	1 17/32	4.7	0.08
PX60QD	SH	1-3/8	1-5/8	1-11/16	2.86	1800	4000	1	6 1/2	4 23/32	1 1/4	1 25/32	8.0	0.24
PX70QD	SDS	1-5/8	1-15/16	2	3.49	2200	3600	1	7 3/8	4 17/32	1 5/16	1 1/2	10.7	0.45
PX80QD	SK	2-1/8	2-1/2	2-5/8	5.72	3600	3100	1	8 3/8	5 13/16	3 7/8	1 1/2	15.5	0.88
PX90QD	SK	2-1/8	2-1/2	2-5/8	7.15	4350	2800	1	9 1/4	5 7/8	3 7/8	1 9/16	22.0	1.60
PX100QD	SF	2-5/16	2-15/16	-	8.58	5250	2600	1	10	6 1/8	4 5/8	1 15/32	32.0	2.90
PX110QD	SF	2-5/16	2-15/16	-	12.3	7750	2300	1	11	5 7/8	4 5/8	1 3/16	46.0	4.30
PX120QD	E	2-7/8	3-1/2	-	20	12540	2100	1	12 3/8	7 1/4	6	1 1/4	59.8	6.70
PX140QD	F	3-1/4	3-15/16	4	44	27590	1840	2	14 1/8	9 1/2	6 5/8	1 3/8	132.5	19.50
PX160QD	J	3-3/4	4-1/2	-	60	37800	1560	2	16 5/8	11 1/2	7 1/4	1 3/8	208.7	34.60
PX200QD	J	3-3/4	4-1/2	-	131	82500	1300	2	20	11 3/4	7 1/4	1 13/16	366.0	103.00

**Notes:**

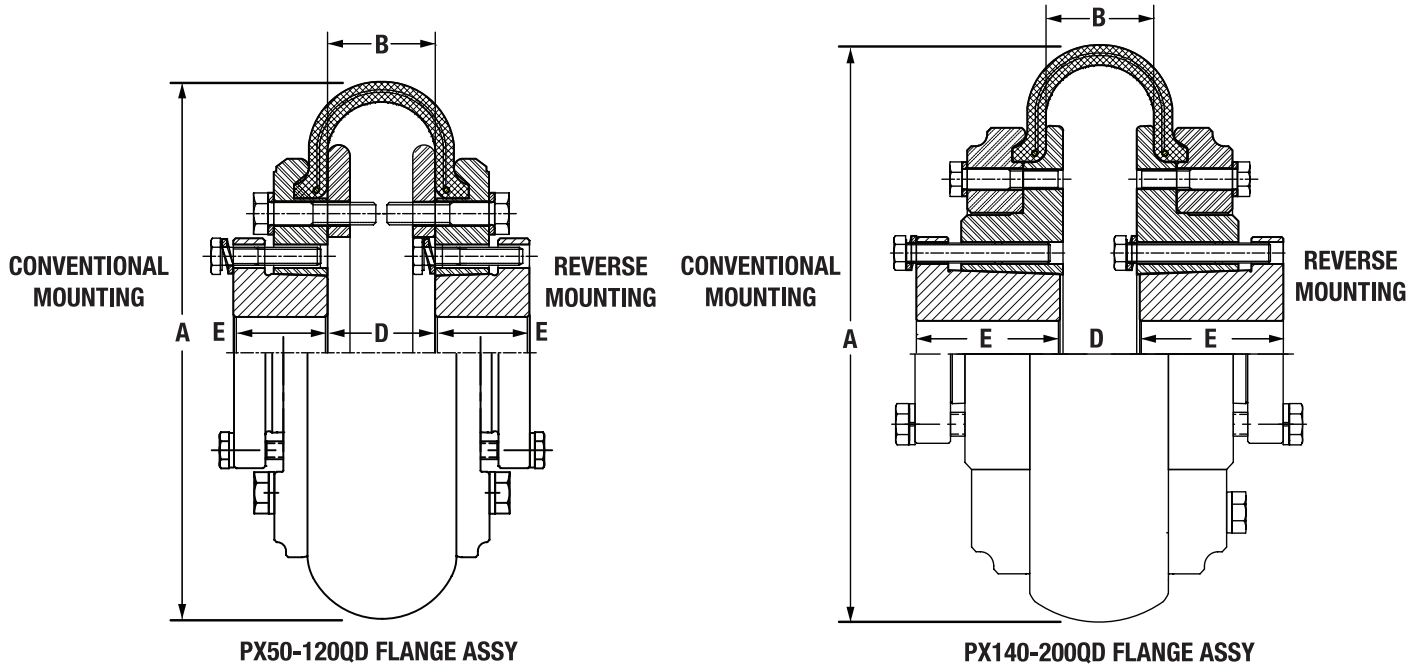
- (1) Weight of complete coupling with bushings.
- (2) Inertia of complete coupling with bushing.

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# SELECTION/DIMENSIONS

## Standard, QD Bushed



### Para-Flex QD Part Numbers

Size	PXQD Flanges		Elements		
	Description	Part No.	Standard	Neoprene (1)	Cordless (2)
PX50	PX50QD FLANGE ASSEMBLY	013210	011105	011296	011285
PX60	PX60QD FLANGE ASSEMBLY	013211	011106	011297	011286
PX70	PX70QD FLANGE ASSEMBLY	013212	011107	011298	011287
PX80	PX80QD FLANGE ASSEMBLY	013213	011108	011299	011288
PX90	PX90QD FLANGE ASSEMBLY	013214	011109	011300	011289
PX100	PX100QD FLANGE ASSEMBLY	013215	011110	011301	011290
PX110	PX110QD FLANGE ASSEMBLY	013216	011111	011302	-
PX120	PX120QD FLANGE ASSEMBLY	013217	011112	011303	011292
PX140	PX140QD FLANGE ASSEMBLY	013218	011114	011304	-
PX160	PX160QD FLANGE ASSEMBLY	013219	011117	011305	-
PX200	PX200QD FLANGE ASSEMBLY	013220	011120	011306	-

Complete Para-Flex QD coupling consists of one element, two flanges, and two QD bushings.

**Notes:**

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

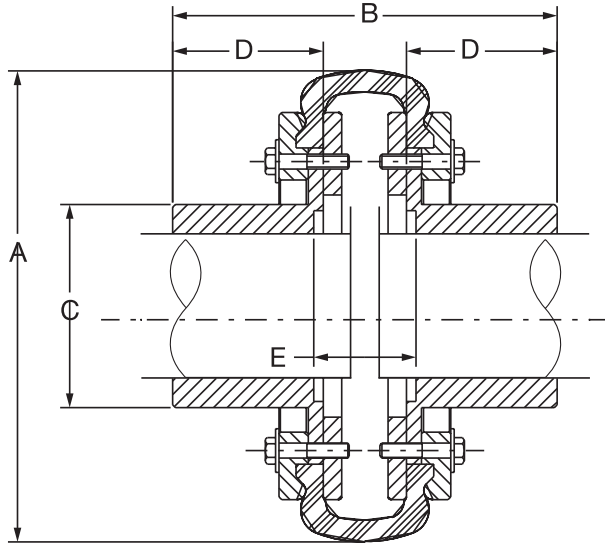
(2) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)

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# SELECTION/DIMENSIONS

## Bored to Size, Type BBS



### PX60 Thru PX320 Type BBS Couplings

Coupling Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max. RPM	A	B	C	D	E	Weight (1) (Lbs.)	Inertia (2) (Lb-Ft <sup>2</sup> )
PX60BBS	none	1-1/2	2.86	1,800	4000	6.50	4.28	2.38	1.50	1.28	8.8	.21
PX70BBS	none	2-1/8	3.49	2,200	3600	7.38	5.00	2.94	1.75	1.50	12.8	.32
PX80BBS	none	2-9/16	5.72	3,605	3100	8.38	5.50	3.69	2.00	1.50	18.4	.79
PX90BBS	none	2-3/4	7.15	4,502	2800	9.25	6.03	4.13	2.25	1.53	25.6	1.4
PX100BBS	none	3-1/4	8.58	5,402	2600	10.00	6.97	4.94	2.63	1.72	36.4	2.5
PX110BBS	none	3-15/16	12.30	7,750	2300	11.00	7.56	5.44	3.00	1.56	47.3	4.2
PX120BBS	none	4	20.00	12,605	2100	12.38	8.25	5.81	3.25	1.75	68.4	7.0
PX140BBS	2-1/4	4-1/2	44.00	27,590	1840	14.13	9.81	7.00	3.88	2.44	127.2	16.4
PX160BBS	2-1/2	6	60.00	37,800	1560	16.63	12.94	8.50	5.13	3.06	210.8	39.6
PX200BBS	2-7/8	6-3/4	131.00	82,500	1300	20.00	15.56	9.38	6.13	3.75	333.5	76.9
PX240BBS	4	7-1/2	240.00	151,200	1080	24.13	14.16	10.00	5.13	4.34	481.0	188.1
PX280BBS	4-7/16	9	480.00	302,200	910	28.50	18.47	12.00	7.13	4.66	802.0	440.8
PX320BBS	5-1/2	11	719.00	453,000	810	32.50	20.75	14.00	8.13	4.94	1074.0	709.6

(1) Weight of complete coupling at maximum bore

(2) Inertia of complete coupling at maximum bore



# SELECTION/DIMENSIONS

## Bored to Size, Type BBS



### PX60BBS - PX320BBS Part Numbers

Coupling Size	BS Flange Assemblies Rough Bore	Standard Element
PX60BBS	010300	011106
PX70BBS	010301	011107
PX80BBS	010302	011108
PX90BBS	010303	011109
PX100BBS	010304	011110
PX110BBS	010305	011111
PX120BBS	010306	011112
PX140BBS	010530	011114
PX160BBS	010531	011117
PX200BBS	010532	011120
PX240BBS	010533	011124
PX280BBS	010528	011457
PX320BBS	010529	011463

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 page \_\_ for additional details.

**Complete coupling consists of: (2) BS Flange Assemblies and (1) Element.**

### PARA-FLEX Elements - Part Numbers

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

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

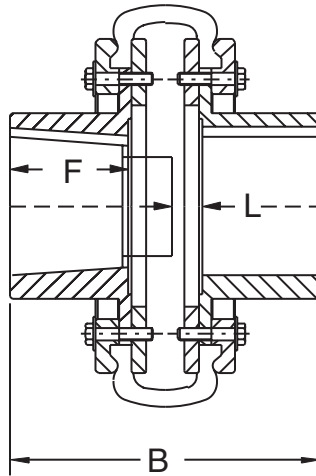
(2) Cordless elements have an average static torsional stiffness 25% of the standard element and approximately 25% of the torque rating. (White sticker or painted mark)

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# SELECTION/DIMENSIONS

## Mill Motor, Type TBS



Size	For Mill Motor Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max. RPM	B	F	L	Weight(1) (Lbs.)	Inertia(2) (Lb-Ft <sup>2</sup> )
PX60TBS	602,802*	none	1-1/2	2.86	1,800	4000	5.78	3.00	0.34	10.1	0.21
PX70TBS	603	none	2-1/8	3.49	2,200	3600	6.75	3.50	0.50	16.1	0.32
	802B,802C						6.25	3.00	0.56		
PX80TBS	603,803	none	2-9/16	5.72	3,605	3100	7.00	3.50	0.50	23.2	0.79
	604804						7.00	3.50	0.50		
PX90TBS	804	none	2-3/4	7.15	4,502	2800	7.28	3.50	0.53	29.9	1.4
PX100TBS	804	none	3-1/4	8.58	5,402	2600	7.84	3.50	0.72	44.4	2.5
PX110TBS	606,806	none	3-15/16	12.30	7,750	2300	8.56	4.00	0.59	62.3	4.2
	608						9.06	4.50	0.16		
PX120TBS	608,806	none	4	20.00	12,605	2100	9.00	4.00	0.63	81.4	7.0
	608,808						9.50	4.50	0.50		
PX140TBS	808 610-810 612	2-1/4	4-1/2	44.00	27,590	1840	10.63	4.69	1.19	136.2	16.4
							10.63	4.69	1.06		
							11.06	5.13	0.94		
PX160TBS	810 612-812 614	2-1/2	6	60.00	37,800	1560	12.50	4.69	1.69	227.8	39.6
							12.94	5.13	1.56		
							12.94	5.13	1.44		
PX200TBS	812 614-814 616-816 618-818	2-7/8	6-3/4	131.00	82,500	1300	14.63	5.19	2.19	344.5	76.9
							14.63	5.19	2.06		
							15.13	5.69	1.94		
							15.56	6.13	2.38		
PX240TBS	818 620	4	7-1/2	240.00	151,200	1080	15.22	6.19	2.97	519	188.1
							15.91	6.88	2.53		
PX280TBS	622 624	5-1/4	9	480.00	302,200	910	18.78	7.44	2.22	836	440.8
							20.78	9.44	2.22		

◆ Refer to page PT1-24 for additional envelope information

\* 1-1/4" per foot taper on diameter

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# SELECTION/DIMENSIONS

## Mill Motor, Type TBS

### PX60 - PX280 TBS Part Numbers

Coupling Size	For Mill Motor Size	TBS Flange Assembly	Standard Element	BS Flange Assembly	Coupling Size	TBS Flange Assy Rough Bore
PX60TBS	602,802*	010471	011106	See Page PT1-30	PX60TBS	010510
PX70TBS	603	010472	011107		PX70TBS	010511
	802B,802C	010473			PX80TBS	010512
PX80TBS	603,803	010474	011108		PX90TBS	010513
	604,804				PX100TBS	010514
PX90TBS	804	010475	011109		PX110TBS	010515
PX100TBS	804	010476	011110		PX120TBS	010516
PX110TBS	606,806	010477	011111		PX140TBS	010524
	608	010478			PX160TBS	010531
PX120TBS	606,806	010479	011112		PX200TBS	010532
	608,808	010480			PX240TBS	010525
PX140TBS	608,808	008980	011114		PX280TBS	010526
	610,810	008981				
	612,812	008982				
PX160TBS	610,810	008983	011117			
	612,812	008984				
	614	008985				
PX200TBS	612,812	008986	011120			
	614,814	008987				
	616,816	008988				
	618,818	008989				
PX240TBS	818	008990	011124			
	620	008991				
PX280TBS	622	008992	011457			
	624	008993				

Complete coupling consists of:

- (1) TS Flange Assembly,
- (1) BS Flange Assembly, and
- (1) Element

\* Key furnished for shallow keyways.

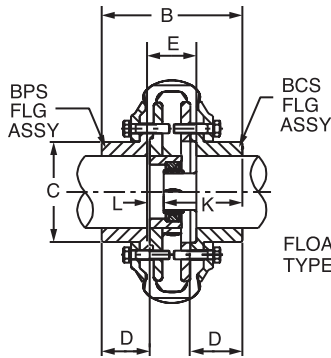
+ Part numbers are finished bore flanges to fit mill motor sizes listed.

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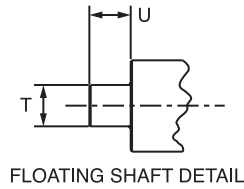


# SELECTION/DIMENSIONS

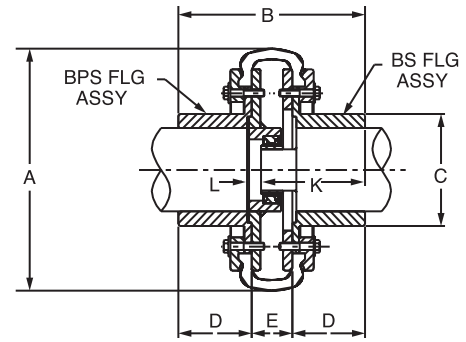
## Floating Shaft, Type BBPS



PX60-120 BBPS



FLOATING SHAFT  
TYPE BBPS



PX140-320 BBPS

Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max RPM	A	B	C	D	E	K	L	T	U	Weight (Lbs)	Inertia (Lb-Ft <sup>2</sup> )
PX60BBPS	none	1-1/2	2.86	1,800	4000	6.50	4.28	2.38	1.50	1.78	2.45	0.58	.624/.6225	1.28	9.8	0.21
PX70BBPS	none	2-1/8	3.49	2,200	3600	7.38	5.00	2.94	1.75	2.06	3.05	0.48	.999/.9975	1.58	14.6	0.32
PX80BBPS	none	2-9/16	5.72	3,605	3100	8.38	5.50	3.69	2.00	2.00	3.30	0.45	.999/.9975	1.58	26.9	0.79
PX90BBPS	none	2-3/4	7.15	4,502	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	none	3-1/4	5.85	5,402	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	none	3-15/16	12.30	7,750	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	none	4	20	12,605	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	2-1/4	4-1/2	44	27,590	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	2-1/2	6	60	37,800	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	2-7/8	6-3/4	131	82,500	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	4	7-1/2	240	151,200	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	4-7/16	9	480	302,200	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	5-1/2	11	719	453,000	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

### Complete coupling consists of:

- (1) BCS or BS Flange Assembly (depending on size of coupling),
- (1) BPS Flange Assembly, and
- (1) Element.

### BCS Flange Assembly consists of:

1. External Clamp Ring
2. Internal Clamp Ring
3. BCS Flange

### BPS Flange Assembly consists of:

1. External Clamp Ring
2. Piloted Internal Clamp Ring
  - a. Includes floating shaft bearing assembly
3. BS Flange

### 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

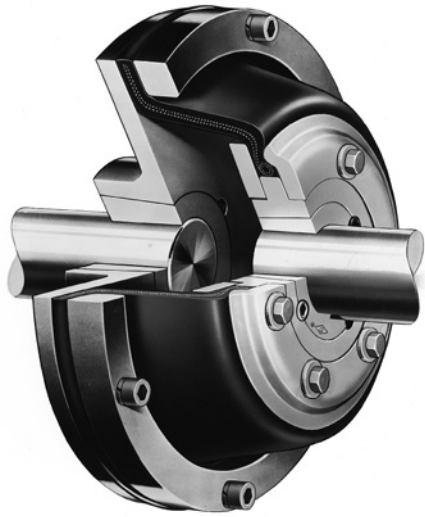
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# FEATURES/BENEFITS

## 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 sizes



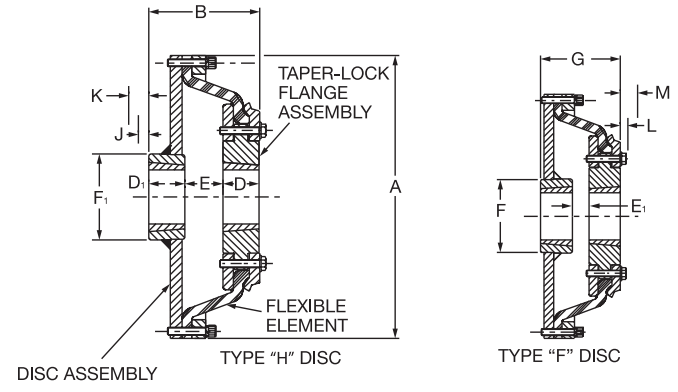
### FLYWHEEL TYPE

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

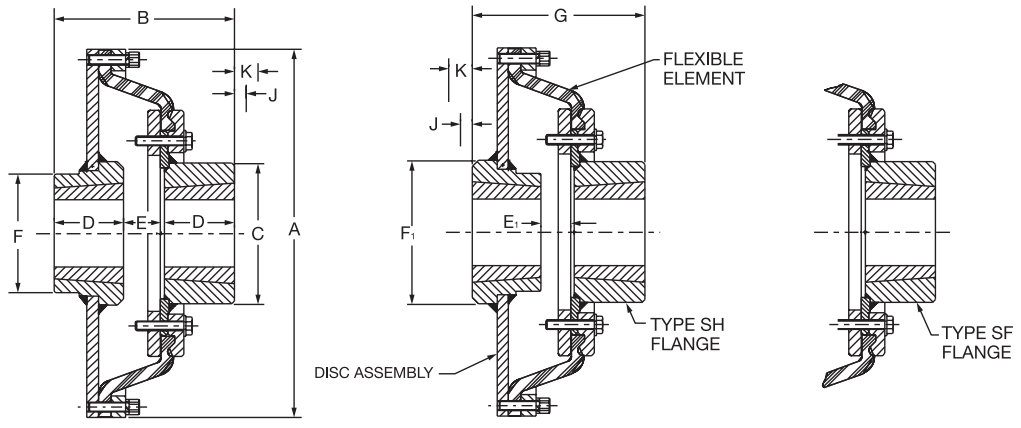


# SELECTION/DIMENSIONS

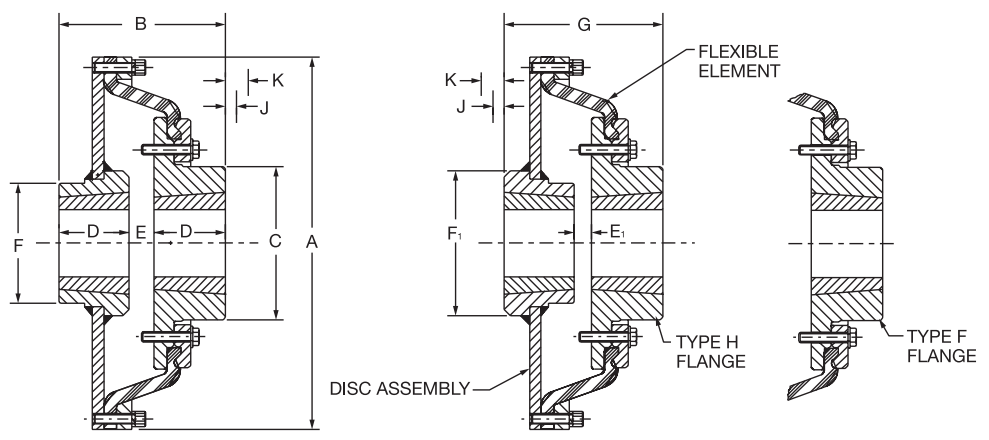
## High Speed, TAPER-LOCK



PH87 THRU PH131



PH172 thru PH252 STEEL FLANGE ASSEMBLY



PH172 & PH192 IRON FLANGE ASSEMBLY

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# SELECTION/DIMENSIONS

## High Speed, TAPER-LOCK

Coupling Size	Bushing Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max. RPM		Weight (Lbs)		Inertia (Lb-Ft <sup>2</sup> )	
						Gray Iron Flange	Steel Flange	Iron Flg	Steel Flg	Iron Flg	Steel Flg
PH87	+	1/2	+	3.0	1890	6000	.....	19.5	.....	1.32	.....
PH96	*	1/2	*	4.5	2835	5230	.....	27.2	.....	2.44	.....
PH116	2517	1/2	2-11/16	7.1	4470	4050	.....	40.8	.....	4.92	.....
PH131	2517	1/2	2-11/16	9.5	5985	3750	.....	59.7	.....	8.87	.....
PH172	3535	1-3/16	3-15/16	23.0	14490	1860	2800	138.2	128.5	31.74	29.98
PH192	4040	1-7/16	4-7/16	47.0	29610	1620	2430	219.6	219.6	51.09	50.37
PH213	4545	1-15/16	4-15/16	90.0	56700	.....	2130	.....	291.2	102.3	90.22
PH252	5050	2-7/16	5-5/16	135.0	85050	.....	1945	.....	389.9	144.1	133.7

Coupling Size	A	B		C		D	D <sup>1</sup>	E	
		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	.....
PH172	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
PH213	22.50	.....	11.31	.....	8.75	4.50	.....	.....	2.31
PH252	26.50	.....	14.31	.....	9.50	5.00	.....	.....	4.31

Coupling Size	E <sup>1</sup>		F	F <sup>1</sup>	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
PH172	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	.....	.....
PH213	.....	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	010603	PX70	.....	.....	.....	.....	011307	011227	+
PH96	010604	PX80	.....	.....	.....	.....	011308	011228	*
PH116	010606	PX100	.....	.....	.....	.....	011310	011230	2517
PH131	010607	PX110	.....	.....	.....	.....	011311	011231	2517
PH172	.....	PX140	011134	011154	010290	010294	011314	011234	3535
PH192	.....	PX160	011137	011157	010291	010295	011316	011236	4040
PH213	.....	PX190	.....	.....	010292	010296	011319	011239	4545
PH252	.....	PX220	.....	.....	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

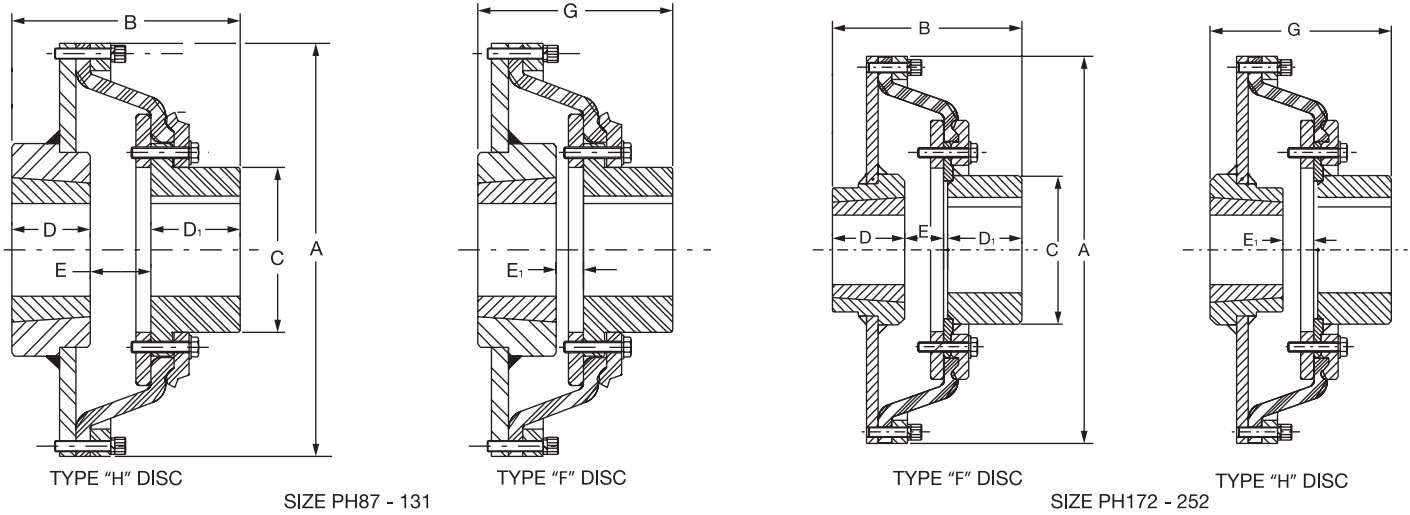
**Complete coupling consists of:**  
**(1) TAPER-LOCK Flange Assembly, (1) TAPER-LOCK Disc Assembly, & (1) High speed Element.**  
**TAPER-LOCK bushings must be ordered separately.**  
**Refer to bushing section PT6-16.**

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# SELECTION/DIMENSIONS

## High Speed, Bored to Size



Coupling Size	BS Flange Assembly		TAPER-LOCK Disc Assembly		A	B	C	D	D1	E	E1	G	Weight (Lbs)	Inertia (Lb-Ft <sup>2</sup> )
	Min Bore	Max Bore	Min Bore	Max Bore										
PH87B	none	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	none	2-9/16	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	none	3-1/4	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	none	3-15/16	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
PH172B	2-1/4	4-1/2	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
PH213B	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
PH252B	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
PH172B	010530	011314	3535	011234
PH192B	010531	011316	4040	011236
PH213B	010508	011319	4545	011239
PH252B	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 PT6-16.

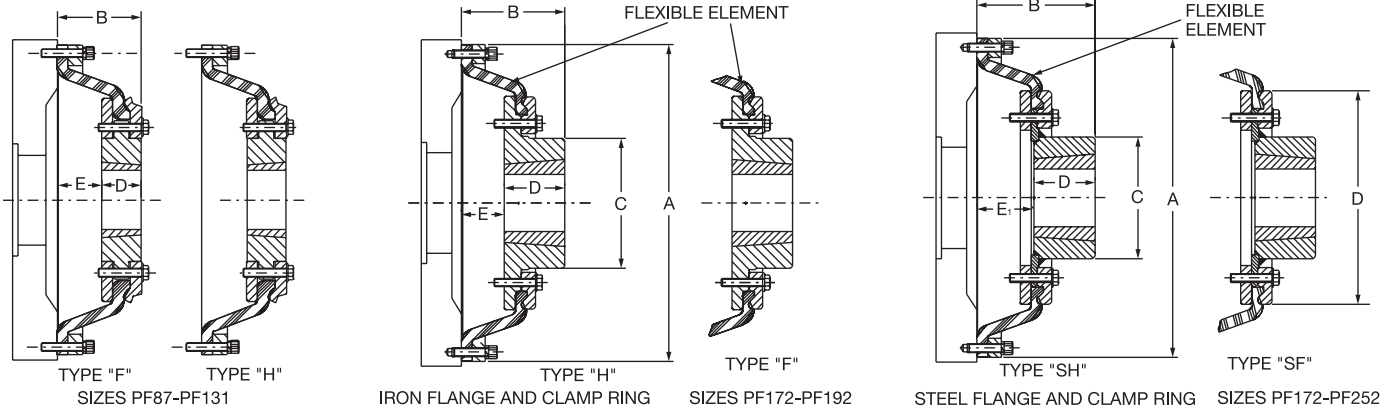
Unless otherwise specified, Size 60-120 BS flanges are clearance fit per AGMA 9002. Size 140-320 BS flanges are interference fit per AGMA 9002. See page \_\_ for additional details.

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# SELECTION/DIMENSIONS

## Flywheel, TAPER-LOCK



Coupling Size	Bushing Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max. RPM		A	B	
						Gray Iron Flange	Steel Flange		Iron Flg.	Steel Flg.
PF87	1610	1/2	1-11/16	3.00	1890	6000	6000	9.44	2.69	.....
PF96	2012	1/2	2-1/8	4.50	2835	5230	5230	10.31	2.83	.....
PF116	2517	1/2	2-11/16	7.10	4470	4050	4050	12.31	3.14	.....
PF131	2517	1/2	2-11/16	9.50	5985	3750	3750	13.81	3.70	.....
PF172	3535	1-3/16	3-15/16	23.00	14490	1860	2800	18.31	5.81	6.72
PF192	4040	1-7/16	4-7/16	47.00	29610	1620	2430	20.31	6.56	7.50
PF213	4545	1-15/16	4-15/16	90.00	56700	.....	2130	22.50	.....	9.00
PF252	5050	2-7/16	5-5/16	135.00	85050	.....	1945	26.50	.....	10.81

Coupling Size	Bushing Size	C		D	E	E1	Weight (Lbs) Less Bushing		Inertia (Lb-FT <sup>2</sup> )	
		Iron Flg.	Steel Flg.				Iron Flgs	Steel Flgs	Iron Flgs	Steel Flgs
PF87	1610	.....	.....	1.00	1.34	.....	9.9	.....	0.6	.....
PF96	2012	.....	.....	1.25	1.58	.....	13.5	.....	1.05	.....
PF116	2517	.....	.....	1.75	1.39	.....	22.3	.....	2.35	.....
PF131	2517	.....	.....	1.75	1.95	.....	33.3	.....	4.35	.....
PF172	3535	7.50	7.00	3.50	2.31	3.12	87.2	77.5	17.49	15.73
PF192	4040	8.63	8.50	4.00	2.56	3.50	128.6	128.6	28.84	28.12
PF213	4545	.....	8.75	4.50	-	4.50	221.2	190.2	74.47	64.36
PF252	5050	.....	9.50	5.00	-	5.81	297.9	260.9	121.79	111.38

### PF87 THRU PF252 Part Numbers

Coupling Size	TAPER-LOCK Flange					Bolt Ring Assembly	High Speed Element	T-L Bushing Size
	Std Flange	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.

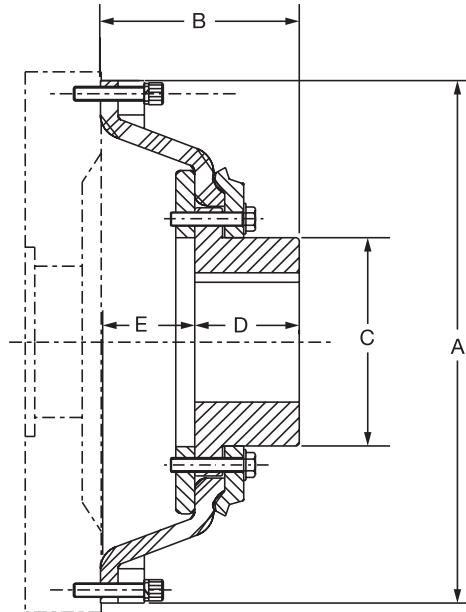
See page PT1-34 for Flywheel & Power Take Off housing information. Refer to bushing section PT6-16.

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## SELECTION/DIMENSIONS

### Flywheel, Bored to Size



#### PF87B THRU PF252B Bored-To-Size Flywheel Couplings

Coupling Size	Min. Bore	Max. Bore	HP/100	Torque (In-Lbs)	Max. RPM Steel Flg	A	B	C	D	E	Weight (Lbs)	Inertia (Lb-Ft <sup>2</sup> )
PF87B	none	2-1/8	3.0	1890	6000	9.44	3.38	2.94	1.75	1.63	10.5	0.61
PF96B	none	2-9/16	4.5	2835	5230	10.31	3.94	3.69	2.00	1.94	14.3	1.08
PF116B	none	3-1/4	7.1	4470	4050	12.31	4.68	4.94	2.63	2.00	24.3	2.47
PF131B	none	3-15/16	9.5	5980	3750	13.81	5.50	5.44	3.00	2.50	33.7	4.56
PF172B	2-1/4	4-1/2	23.0	14490	2800	18.31	6.81	7.00	3.88	3.13	84.2	16.73
PF192B	2-1/2	6	47.0	29610	2430	20.31	8.44	8.50	5.13	3.50	129.6	32.02
PF213B	2-1/2	6-1/4	90.0	56700	2130	22.50	9.00	8.75	4.69	4.50	188.2	65.76
PF252B	2-7/8	6-7/8	135.0	85050	1945	26.50	10.81	9.50	5.19	5.81	250.9	113.58

#### PF87 - PF252B Part Numbers

Coupling Size	BS Flange Assembly	Bolt Ring Assembly	High Speed Element
PF87B	010301	011247	011227
PF96B	010302	011248	011228
PF116B	010304	011250	011230
PF131B	010305	011251	011231
PF172B	010530	011254	011234
PF192B	010531	011256	011236
PF213B	010508	011259	011239
PF252B	010509	011262	011242

Complete coupling consists of: (1) BS Flange Assembly, (1) Bolt Ring Assembly, and (1) High Speed Element.

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.

See page \_\_ for additional details.

#### SAE Power Take Off & Flywheel Info.

Coupling Size	Fits Within These SAE Power Take-Off Housings	SAE Flywheel		
		Bolt Circle Diam.	Tapped Holes	
			No.	Size
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
PF172	0	17-1/4	8	1/2-13
PF192	0	19-1/4	8	1/2-13
PF213	0	21-3/8	6	5/8-11
PF252	0	25-1/4	12	5/8-11

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# FEATURES/BENEFITS

## D-FLEX Couplings



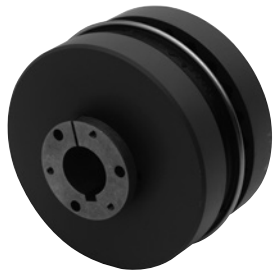
### FLEXIBLE SOLUTIONS LOW COST TYPE J COUPLINGS OFFERED IN FOUR SIZES

- 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°



### TYPE S COUPLINGS FEATURE AGMA 9 BALANCED FLANGES OFF THE SHELF

- 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 Hytel\* sleeves
- Shaft attachment with two setscrews at 65°



### TYPE B COUPLINGS OFFERED WITH STANDARD QD† BUSHING SHAFT ATTACHMENT

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



### 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
- Features AGMA 9 balanced flanges & drop-out center for easy equipment maintenance
- 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 reboring
- 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.



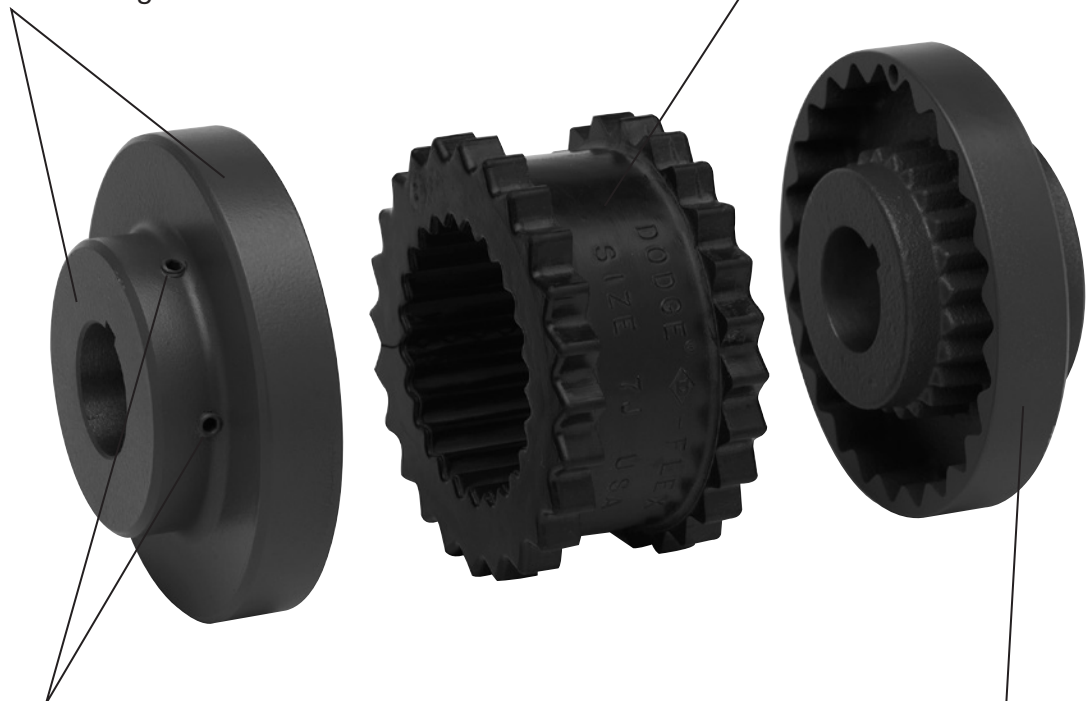
# FEATURES/BENEFITS

## D-FLEX Couplings

### ADDED VALUE

Outside diameter concentric to bore for ease in alignment

Rounded EPDM and Neoprene element edges for full tooth engagement, even load distribution, and reduced stress build up at edges



Two setscrews at 65° on Type J flanges, Type S flanges & Type SC-H hubs for optimum shaft attachment. Holding force is 10% greater than two setscrews at 90°

Type S and SC flanges are balanced to AGMA 9 specifications for reduced vibration

ATEX Approved



- All documents and markings included with standard product

### 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

**NOTE:** All instruction manuals for D-FLEX Coupling and QD and TL Bushings available on [www.baldor.com](http://www.baldor.com)





## D-FLEX

### 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 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

Spacer Couplings consist of:

- (2) Shaft Hubs
- (2) Spacer Flanges
- (1) Flexible Sleeve

### NOMENCLATURE



**6 JE / 2 - 6J X 7/8**

**SIZE** ————— 6

**SLEEVE** ————— JE  
(JE, JES, E, JN, JNS, N, H, HS)

**FLANGE QTY.** ————— 2

**FLANGE SIZE AND TYPE** ————— 6J X  
(J, S, B, SC-H)

**FLANGE BORE** ————— 7/8

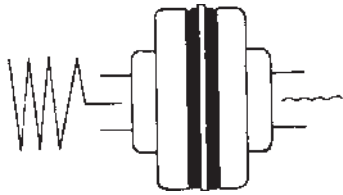
For selection method, please refer to page PT1-83

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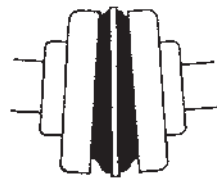
# SELECTION/DIMENSIONS

## D-FLEX Couplings FOUR-WAY FLEXING ACTION HANDLES SHOCK, VIBRATION & MISALIGNMENT



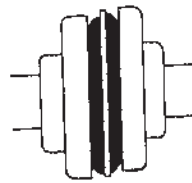
### TORSIONAL

Absorbs torsional shock, dampens torsional vibrations



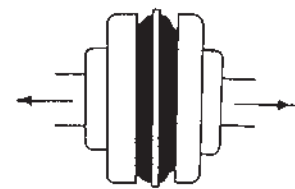
### ANGULAR

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	Hytel(1)
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 - 16 E	3 - 10 JN, JNS 4 - 14 N	6 - 12 H, 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(2)	.010" - .062"	.010" - .062"	.010" - .035"
Axial End-Float(2)(3)	.03" - .125"	.03" - .125"	.06" - .125"
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.



# SELECTION/DIMENSIONS

## D-FLEX Couplings

### 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	022190	004211	004245	022211		
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
16			021992					

### 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	√	√	√	√	√	√

### D-FLEX Section/Ratings Data

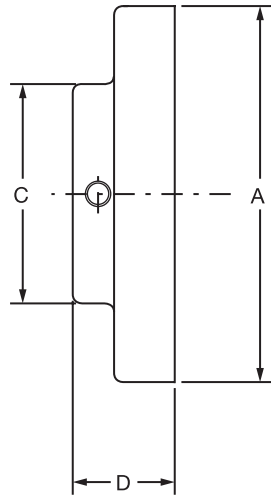
Element Size	Max. Bore				Max RPM	EPDM & Neoprene		Hytrel	
	Straight Bore			Bushes		HP/100	Rated Torque (In-Lbs)	HP/100	Rated Torque (In-Lbs)
	Type J	Type S	Type SC	Type B					
3	7/8	-	-	-	9200	0.10	60	-	-
4	1	-	-	-	7600	0.19	120	-	-
5	1-1/8	1-1/4	1-1/8	-	7600	0.38	240	-	-
6	1-3/8	1-7/8	1-3/8	1-3/16	6000	0.71	450	2.90	1,800
7	-	1-7/8	1-5/8	1-3/16	5250	1.20	725	4.60	2,875
8	-	2-3/8	1-7/8	1-5/8	4500	1.80	1,135	7.20	4,530
9	-	2-7/8	2-1/8	1-15/16	3750	2.80	1,800	11.40	7,200
10	-	3-3/8	2-3/8	2-1/2	3600	4.60	2,875	18.00	11,350
11	-	3-7/8	2-7/8	2-13/16	3600	7.20	4,530	28.60	18,000
12	-	3-15/16	2-7/8	3-1/2	2800	11.40	7,200	50.00	31,500
13	-	4-1/2	3-3/8	3-15/16	2400	18.00	11,350	75.00	47,268
14	-	5	3-7/8	3-15/16	2200	28.60	18,000	115.00	72,480
16	-	6	-	4-1/2	1500	75.00	47,250	-	-

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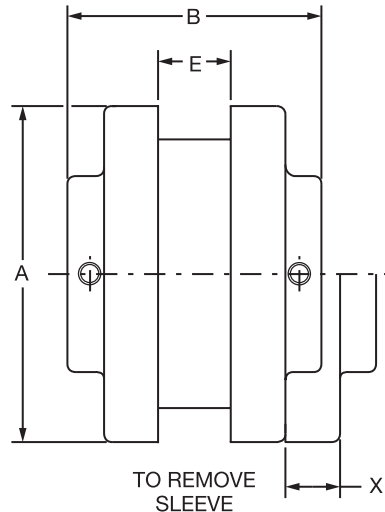


# SELECTION/DIMENSIONS

## D-FLEX Couplings TYPE "J" COUPLING DIMENSIONS



TYPE "J" FLANGE



TYPE "J" COUPLING

### Dimensions

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

6J Minimum bore - 5/8"

### 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.  
See page 101 for additional details.

Complete coupling consists of (2) J flanges, and (1) sleeve (from page PT1-39).

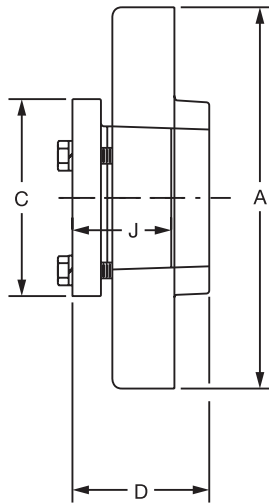
FEATURES/BENEFITS PAGE PT1-23	SPECIFICATION/HOW TO ORDER PAGE PT1-26	MODIFICATION/ACCESSORIES PAGE PT1-79	ENGINEERING/TECHNICAL PAGE PT1-81
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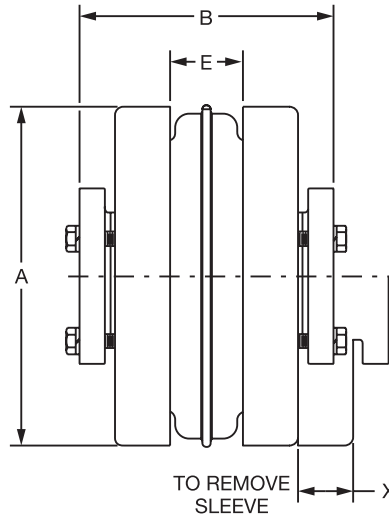
# SELECTION/DIMENSIONS

## D-FLEX Couplings

### TYPE "B" QD BUSHED COUPLING DIMENSIONS



TYPE "B" FLANGE



TYPE "B" COUPLING

#### Dimensions

Coupling Size	Bushing Type	Min. Bore	Max. Bore#	HP/100	EPDM/Neoprene Torque (in.-lbs.)	Max. RPM	A	B	C	D	E	J	X	Weight (lbs.)+		Inertia (lbs ft <sup>2</sup> )
														Flange	Bushing	
6B	JA	1/2	1-3/16	0.71	450	6000	4.00	3.31	2.00	1.53	0.88	1.00	1.09	1.30	0.40	
7B	JA	1/2	1-3/16	1.20	725	5250	4.63	3.44	2.00	1.59	1.00	1.00	1.31	1.90	0.40	
8B	SH	1/2	1-5/8	1.80	1135	4500	5.45	4.06	2.63	1.84	1.13	1.31	1.50	2.90	0.90	
9B	SD	1/2	1-15/16	2.80	1800	3750	6.35	4.63	3.19	2.19	1.44	1.81	1.75	4.80	1.60	
10B	SK	1/2	2-1/2	4.60	2875	3600	7.50	5.63	3.88	1.84	1.63	1.94	2.00	7.80	2.70	
11B	SF	1/2	2-15/16	7.20	4530	3600	8.63	6.56	4.63	2.13	1.88	2.00	2.38	12.00	3.80	
12B	E	7/8	3-1/2	11.40	7200	2800	10.00	7.94	6.00	2.69	2.31	2.75	2.69	18.00	9.00	
13B	F	1	3-15/16	18.00	11350	2400	11.75	9.31	6.63	3.69	2.69	3.75	3.00	31.20	14.00	
14B	F	1	3-15/16	28.60	18000	2200	13.88	10.44	6.63	3.69	3.25	3.75	3.50	51.40	14.00	
16B	J	1-1/2	4-1/2	75.00	47250	1500	18.88	13.25	7.25	4.75	4.75	4.63	4.50	120.00	21.00	

# Max bore with shallow key

+ Approximate weight for each flange; average weight for each bushing

#### Part Numbers

	6B	7B	8B	9B	10B	11B	12B
Part No.	022501	022502	022503	022504	022505	022506	022507

	13B	14B	16B
Part No.	022508	022509	022510

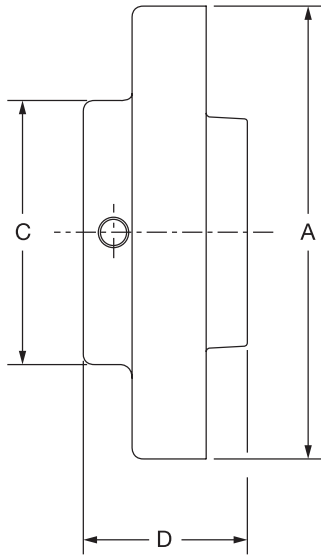
Complete coupling consists of (2) B flanges, (1) sleeve and (2) QD Bushings. QD Bushings must be ordered separately (from page PT6-16).

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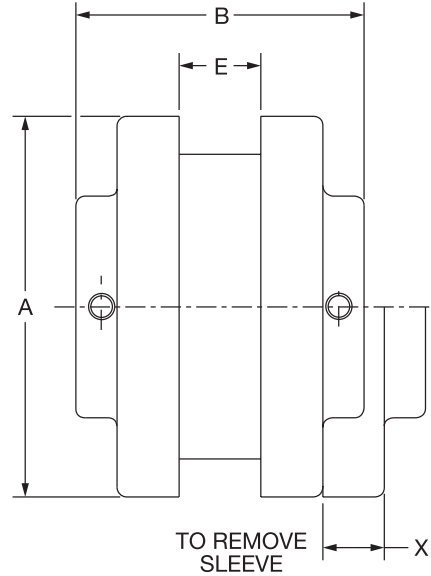


# SELECTION/DIMENSIONS

## D-FLEX Couplings TYPE "S" 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	1.1
6S	1/2	1-1/2							1.63			1.9
6S	1-9/16	1-3/4	0.71	450	6000	4	3.5	2.81	1.31	0.88	1.09	1.8
6S	1-13/16	1-7/8							1.31			1.8
7S	1/2	1-7/8	1.2	725	5250	4.63	3.94	2.81	1.84	1	1.31	2.6
8S	1/2	2-1/8	1.8	1135	4500	5.45	4.44	3.25	2.09	1.13	1.5	4.4
8S	2-3/16	2-3/8							1.66			3.7
9S	7/8	2-1/2	2.8	1800	3750	6.35	5.06	4.13	2.41	1.44	1.75	6.5
9S	2-9/16	2-7/8							1.81			6.2
10S	1-1/8	2-7/8	4.6	2875	3600	7.5	5.69	4.75	2.72	1.63	2	10.5
10S	2-15/16	3-3/8							2.03			9.8
11S	1-1/4	2-1/8							3.44			18.1
11S	2-3/16	2-3/4	7.2	4530	3600	8.63	7.13	5.63	3.44	1.88	2.38	17.9
11S	2-13/16	3-3/8							3.44			16.6
11S	3-7/16	3-7/8							2.63			16.4
12S	1-1/2	2-1/8										27.8
12S	2-3/16	2-7/8	11.4	7200	2800	10	8.25	5.75	4	2.31	2.69	27.5
12S	2-15/16	3-15/16										26.6
13S	2" Reb.	4-1/2	18	11350	2400	11.75	9.25	6.75	4.38	2.69	3.06	45.2
14S	2" Reb.	5	28.6	18000	2200	13.88	9.88	7.5	4.5	3.25	3.5	69.1
16S	2" Reb.	6	75	47250	1500	18.88	14.25	8	6	4.75	4.25	125.3

# Max bore with shallow keyway. For max bore with standard keyway, see page PT1-43

\* Ratings based on EPDM & Neoprene. For Hytrel ratings, see page PT1-39

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# SELECTION/DIMENSIONS

## D-FLEX Couplings

### Type "S" Coupling Flange - Part Numbers

Bore (in.)	Coupling Flange Size											
	5S	6S	7S	8S	9S	10S	11S	12S	13S	14S	16S	
Reborable	004976	004977	004978	004979	004980	004981	004982	004983	004993	004994	004995	
<b>Finished Bore Flanges</b>												
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			
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				
3-1/4						004653	004688	004724				
3-5/16						004654	004689	004725				
3-3/8						004655	*† 004690	004726				
3-7/16							004691	004727				
3-1/2							004692	004728				
3-5/8							004693	004730				
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 101 for additional details.

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

† Max bore for reborable flanges.

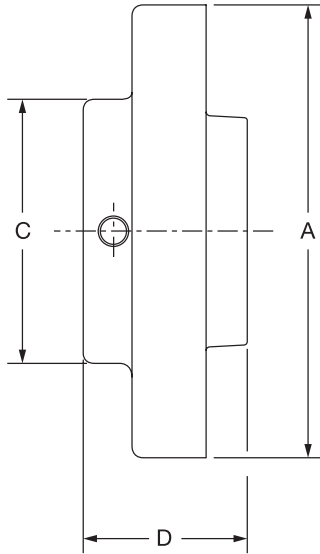
**Complete coupling consists of (2) S flanges and (1) sleeve (from page PT1-39).**

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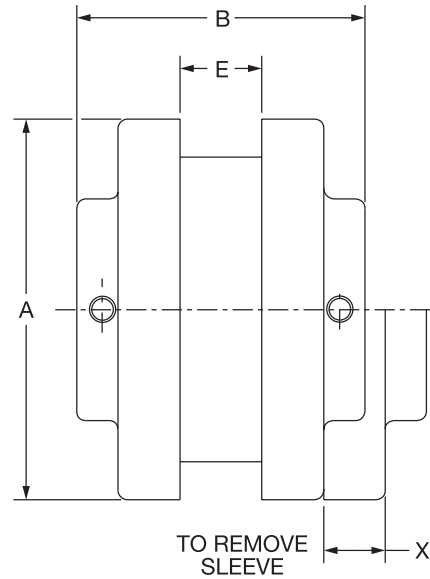


# SELECTION/DIMENSIONS

## D-FLEX Couplings TYPE "S" COUPLING DIMENSIONS - METRIC



TYPE "S" FLANGE



TYPE "S" COUPLING

### Dimensions

Coupling Size	Min. Bore (mm)	Max. Bore #	Watts/100*	Torque* (N-m)	Max. RPM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	X (mm)	Mass (kg)
5S	12.7	30	283	27.1	7600	82.6	71.4	48	34	19	25	0.5
6S	12.7	38	530	51	6000	101.6	89	71	41	22	28	0.9
7S	12.7	42	895	82	5250	117.6	100	71	47	25	33	1.2
8S	12.7	50	1343	128	4500	138.4	113	83	53	29	38	2.0
9S	22.2	60	2089	203	3750	161.3	129	92	61	37	44	2.9
10S	28.0	70	3432	325	3600	190.5	145	111	69	41	51	4.8
11S	30.0	95	5371	512	3600	219.2	181	143	87	48	60	8.2
12S	38.0	100	8504	814	2800	254.0	210	146	102	59	68	12.6
13S	50.8	114	13428	1282	2400	298.5	235	171	111	68	78	20.5
14S	50.8	127	21336	2034	2200	352.6	251	191	114	83	89	31.3
16S	50.8	140	55950	5339	1500	479.6	362	203	152	121	108	56.8

# Max bore with shallow keyway. For max bore with standard keyway, see page PT1-43

\* Ratings based on EPDM & Neoprene. For Hytrel ratings, see page PT1-39





# SELECTION/DIMENSIONS

## D-FLEX Couplings

### Type "S" Coupling Flange - Part Numbers - Metric

Bore (mm)	Coupling Flange Size							
	5S	6S	7S	8S	9S	10S	11S	12S
14mm	004856	004865	004878	004893	004911			
16mm	004857	004866	004879	004894	004912			
18mm	004858	004867	004880	004895	004913			
19mm	004859	004868	004881	004896	004914			
20mm	004860	004869	004882	004897	004915			
22mm	004861	004870	004883	004898	004916			
24mm	004862	004871	004884	004899	004917			
25mm	004863	004872	004885	004900	004918			
28mm	004864	004873	004886	004901	004919	004928		
30mm		004874	004887	004902	004920	004929	004942	
32mm		004875	004888	004903	004921	004930	004943	
35mm		004876	004889	004904	004922	004931	004944	
38mm			004890	004905	004923	004932	004945	004960
40mm			004891	004906	004924	004933	004946	004961
42mm			004892	004907	004925	004934	004947	004962
45mm				004908	004926	004935	004948	004963
48mm				004909	004927	004936	004949	004964
50mm				004910		004937	004950	004965
55mm						004938	004951	004966
60mm						004939	004952	004967
65mm						004940	004953	004968
70mm						004941	004954	004969
75mm							004955	004970
80mm							004956	004971
85mm							004957	004972
90mm							004958	004973
95mm							004959	004974
100mm								004975

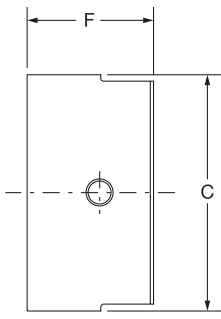
Complete coupling consists of (2) S flanges and (1) sleeve (from page PT1-39).

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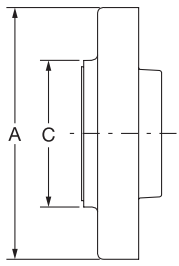


# SELECTION/DIMENSIONS

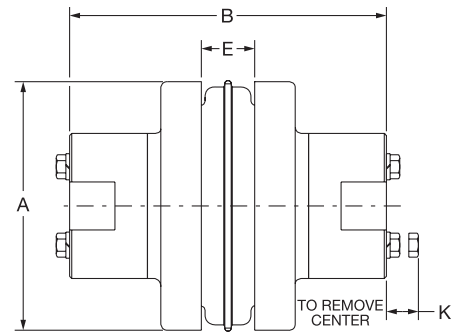
## D-FLEX Couplings TYPE "SC" COUPLING DIMENSIONS



SHAFT HUB



SPACER FLANGE



COMPLETE SPACER COUPLING

### Dimensions (1)

Cplg. Size	BSE	Flange Number	Shaft Hub		Max. Bore (2)		A	(3) B	C	E	F		K	Wt. (4) (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
	4.38	6SC44	6H	-	1-3/8	-		6.75	2.50		1.22			8.10
6SC	5.00	6SC50	6H	-	1-3/8	-		7.88	2.50		1.22			8.70
	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
7SC	5.00	7SC50	7H	-	1-5/8	-		7.88	2.81		1.47			11.40
	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
8SC	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
	5.00	8SC50-10	10H	10HS	2-3/8	1-5/8		9.63	4.38		2.34		1.19	27.20
9SC	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
10SC	5.00	9SC50-11	11H	11HS	2-7/8	1-7/8		10.38	5.25		2.72	1.91	1.19	40.40
	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
11SC	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
12SC	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
	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
13SC	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
14SC	10.00	11SC100-14	14H	-	3-7/8	-		17.63	6.50		3.84		2.00	102.70
	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
15SC	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
13SC	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
14SC	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 PT1-42.  
 (2) Check shaft hub table on next page 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.

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# SELECTION/DIMENSIONS

## D-FLEX Couplings

### Type "SC" Couplings - Spacer Flange Part Numbers

BSE (in.)	Coupling Size						
	5SC	6SC	7SC	8SC	8SC-10	9SC	9SC-11
3.50	• 022000	• 022001	• 022004	• 022007	• 022775	• 022010	
4.38		• 022002	• 022005	• 022008		• 022011	
5.00		• 022003	• 022006	• 022009	• 022776	• 022012	• 022777
7.00							• 022778
7.75							• 022779

BSE (in.)	Coupling Size							
	10SC	10SC-13	11SC	11SC-14	12SC	12SC-14	13SC	14SC
4.75	• 022013		• 022015					
5.00	• 022014		• 022016					
7.00		022780		022783	• 022017	022786		
7.75		022781		022784	• 022018	022787	021997	021998
10.00		022782		022785		022788		

• Stock flanges

### Spacer Shaft Hub Part Numbers

Bore (in.)	Coupling Size									
	5H	6H	7H	8H	9H	10H	11H	12H	13H	14H
Reborable Finished Bore Hubs	• 022220	• 022221	• 022222	• 022223	• 022224	• 022225	• 022226	• 022227	022228	
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	0022452			
1-1/8 (1)					• 022392(1)	• 022410(1)	022453(1)			
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 (1)							022462(1)			
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(1)	
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(1)								022492(1)	022814(1)	
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

• Stock hub assemblies

(1) HS (Short Hub)

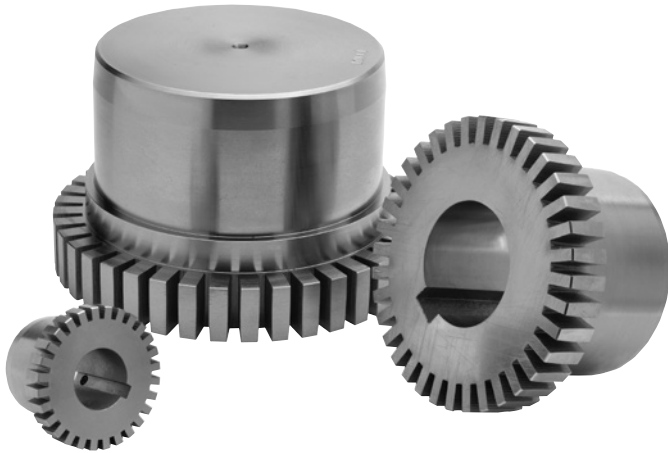
Complete coupling consists of (2) shaft hubs, (2) spacer flanges, and (1) sleeve (from page PT1-39)

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# FEATURES/BENEFITS

## GRID-LIGN



The basic GRID-LIGN coupling consists of two steel shaft hubs, a high strength spring steel tapered grid element, two seals and a cover assembly. Misalignment and end float are accommodated by the sliding action of the grid in the lubricated hub grooves.

Standard GRID-LIGN couplings operate reliably between  $-22^{\circ}$  and  $+215^{\circ}\text{F}$ . They can accept angular misalignment to  $1/2^{\circ}$ , parallel misalignment to  $.012''$ , and end float to  $.375''$ . Speed capability goes as high as 6000 RPM.

GRID-LIGN couplings can be mounted with TAPER-LOCK bushings on shafts from  $1/2''$  to  $3-15/16''$ . Straight bore hubs go up to 13" bore.



### Flexible Tapered Element

- Isolates vibration, cushions shock loads
- Allows uniform contact during light, normal and shock loading conditions
- Lengthens machine life
- Constructed from tempered spring steel for long life

### High Torque Capability

- Torque ranges from 464 to 1,650,000 in. lbs.
- Steel components allow for compact size

### Interchangeability

- Stock GRID-LIGN coupling configurations include the standard full-flex design in vertically or horizontally split covers, half spacers and full spacers
- Interchangeable with other tapered grid style couplings

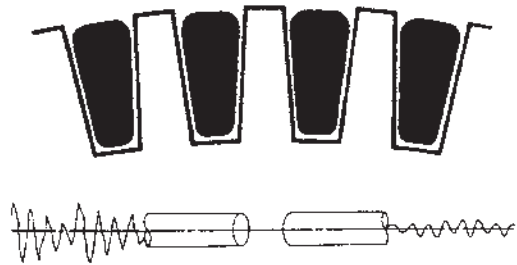
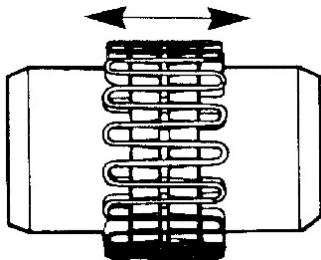
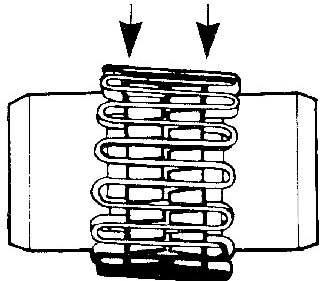
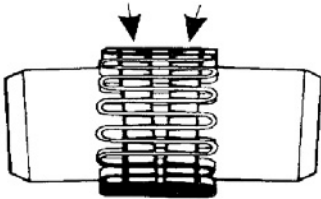


# FEATURES/BENEFITS

## GRID-LIGN

### STYLE, SIZES AND RATINGS CHART

Coupling Styles	Number of Sizes	Maximum Ratings		
		Bore	Torque	Speed
T10 Standard Coupling H Cover	19	13.0"	1,650,000	6000
T20 Standard Coupling V Cover	10	5.0"	75,000	6000
T31 Full Spacer	8	4.25"	30,000	3600
T35 Half Spacer	8	4.25"	30,000	3600



#### TAPERED GRID DESIGN

- Tapered grid element, combined with the contoured hub grooves, transmit torque efficiency while accommodating misalignment and cushioning shock loads
- Grid element made from high strength steel that is quenched and tempered for long life



## GRID-LIGN

### 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.

Spacer Couplings consist of two shaft hubs and a center assembly consisting of two spacer hubs, one grid and cover. The center assembly is readily removable to facilitate maintenance on pumps or other connected equipment. The center assembly must be replaceable without disturbing the coupled equipment and without realignment.

**NOTE:** Instruction manuals for all Dodge products available at [www.baldor.com](http://www.baldor.com)

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## GRID-LIGN

### HOW TO ORDER

<p>Standard couplings consist of:</p> <ul style="list-style-type: none"> <li>(2) Shaft Hubs</li> <li>(1) Grid &amp; Cover Assembly (T10 or T20)</li> </ul>	<p>Spacer couplings consists of:</p> <ul style="list-style-type: none"> <li>T31 Spacer                             <ul style="list-style-type: none"> <li>(2) "T" Shaft Hubs</li> <li>(2) Spacer Hubs</li> <li>(1) T10 Grid &amp; Cover Assembly</li> </ul> </li> <li>T35 Half Spacer                             <ul style="list-style-type: none"> <li>(1) Shaft Hub</li> <li>(1) Spacer Hub</li> <li>(1) "T" Shaft Hub</li> <li>(1) T10 Grid &amp; Cover Assembly</li> </ul> </li> </ul>
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### NOMENCLATURE

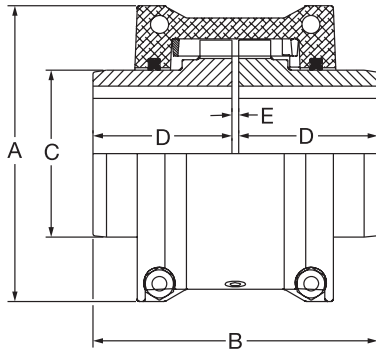
	<p>Size <u>1020</u> <u>T10</u></p>
	<p>Coupling Type</p> <ul style="list-style-type: none"> <li>T10 = Horizontal Split Cover</li> <li>T20 = Vertical Split Cover</li> <li>T31 = Full Spacer</li> <li>T35 = Half Spacer</li> </ul>



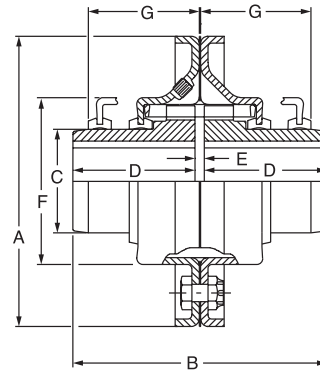
# SELECTION/DIMENSIONS

## GRID-LIGN

### RATINGS AND DIMENSIONS FOR COUPLING SIZES 1020T - 1140T



TYPE T10



TYPE T20

Coupling Size	Straight Bore			TAPER-LOCK		HP/100		TORQUE		Max. RPM	
	Min. Bore	Maximum Bore		Min. Bore	Max. Bore	Str. Hub	T-L Hub	Str. Hub (In-Lbs)	T-L Hub (In-Lbs)	T10	T20
		Sq. Key	Rec. Key								
1020T	0	1-1/8	1-3/16	N/A	N/A	0.74	-	464	-	4500	6000
1030T	0	1-3/8	1-7/16	1/2	1-1/8	2.09	1.9	1320	1200	4500	6000
1040T	0	1-5/8	1-3/4	1/2	1-1/8	3.49	2.1	2200	1300	4500	6000
1050T	0	1-7/8	2	1/2	1-1/4	6.11	5.6	3850	3500	4500	6000
1060T	0	2-1/8	2-1/4	1/2	1-11/16	9.60	6.8	6050	4300	4350	6000
1070T	0	2-1/2	2-11/16	1/2	2-1/8	13.96	11.3	8800	7150	4125	5500
1080T	0	3	3-1/4	3/4	2-11/16	28.80	17.9	18150	11300	3600	4750
1090T	0	3-1/2	3-3/4	15/16	3-1/4	52.36	38.1	33000	24000	3600	4000
1100T	0	4	4-1/4	15/16	3-1/4	88.14	38.1	55550	24000	2440	3250
1110T	0	4-1/2	4-5/8	1-13/16	3-15/16	130.90	71.1	82500	44800	2250	3000
1120T	2-3/8	5	5-3/8	*	*	191.99	*	121000	*	2025	2700
1130T	2-5/8	6	6-1/2	*	*	279.25	*	176000	*	1800	2400
1140T	2-5/8	7	7-1/4	*	*	401.43	*	253000	*	1650	2200

Coupling Size	A		B		C	D		E	Weight (Lbs.) (1)		Inertia (Lb. Ft. <sup>2</sup> ) (2)
	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	
1030T	3.88	4.75	3.89	3.39	1.94	1.9	1.6	0.1	3.8	4.0	0.1
1040T	4.22	5.06	4.13	3.36	2.25	2.0	1.6	0.1	4.7	4.9	0.1
1050T	5.09	5.81	4.88	3.89	2.63	2.4	1.9	0.1	7.3	7.5	0.2
1060T	5.47	6.38	5.13	4.38	3.00	2.5	2.1	0.1	11.0	11.0	0.3
1070T	5.92	6.81	6.13	4.38	3.44	3.0	2.1	0.1	13.8	14.0	0.4
1080T	6.92	7.88	7.13	5.39	4.13	3.5	2.6	0.1	25.1	25.6	1.01
1090T	7.70	9.13	7.88	6.39	4.88	3.9	3.1	0.1	35.1	35.6	1.7
1100T	9.88	10.50	9.69	7.19	5.59	4.8	3.5	0.2	62.6	63.2	3.7
1110T	10.63	11.25	10.19	7.45	6.31	5.0	3.6	0.2	78.5	79.0	5.6
1120T	12.13	12.56	12.00	*	7.06	5.9	*	0.3	114.0		10.8
1130T	13.63	14.88	13.00	*	8.56	6.4	*	0.3	165.0		20.2
1140T	15.13	16.38	14.75	*	10.00	7.3	*	0.3	236.0		36.4

(1) Weight of complete coupling at maximum bore

(2) Inertia of complete coupling at maximum bore

\* Priced on Request

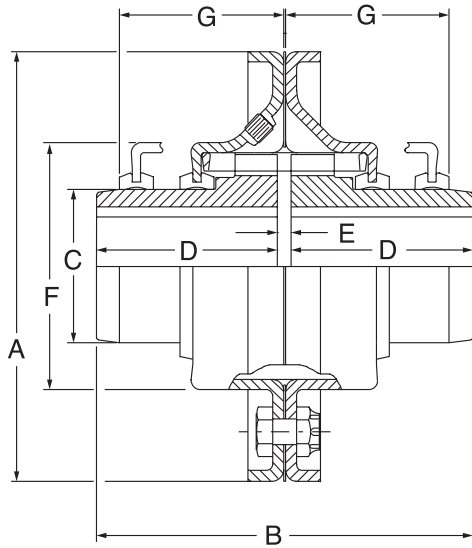
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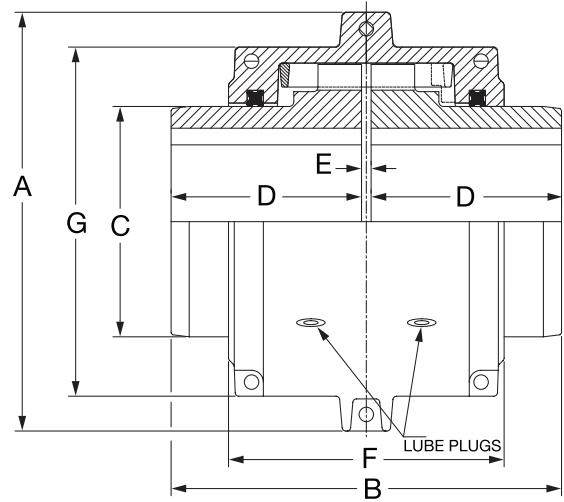


# SELECTION/DIMENSIONS

## GRID-LIGN COUPLINGS SIZES FOR 1150T - 1200T



TYPE T20



TYPE T10

Coupling Size	Straight Bore		Torque		Maximum RPM		Weight (lbs) (1)	Inertia (lb ft <sup>2</sup> ) (2)
	Minimum	Maximum	HP/100	In-Lbs	T10	T20		
1150T	4.1	8.0	558.5	352000	1500	2000	516	12387
1160T	4.6	9.0	785.4	495000	1350	1750	699	20192
1170T	5.1	10.0	1047.2	660000	1225	1600	988	35251
1180T	5.8	11.0	1451.8	915000	1110	1400	1365	63935
1190T	5.8	12.0	1919.9	1210000	1050	1300	1711	95407
1200T	6.8	13.0	2618.0	1650000	900	1100	2333	158256

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

(1) Weight of complete coupling at minimum bore

(2) Inertia of complete coupling at minimum bore



# SELECTION/DIMENSIONS

## GRID-LIGN

### Type T10 And T20 GRID-LIGN Couplings Part Numbers - Sizes 1020T Thru 1090T

Size	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		
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
3-7/8								
3-15/16								
4								

• Stock Sizes \*Priced on request

**Note:** For TAPER-LOCK design, TAPER-LOCK bushings must be ordered separately

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

**Complete coupling consists of: (2) Hubs, TAPER-LOCK or straight bore, and (1) grid & cover assembly**

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# SELECTION/DIMENSIONS

## GRID-LIGN

### Type T10 And T20 GRID-LIGN Couplings Part Numbers - Sizes 1100T Through 1200T

Size	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	*	*	*	*	*	*	*
Bushing Size	3030	3535	4040	4545	*	*	*	*	*	*	*
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									

• Stock Sizes      \*Priced on request

**Note:** For TAPER-LOCK design, TAPER-LOCK bushings must be ordered separately

**Note:** 1100T - 1200T hubs come standard as interference fit. Clearance fit available on request

**Complete coupling consists of: (2) Hubs, TAPER-LOCK or straight bore, and (1) grid & cover assembly.**

**TL Bushings on page PT6-2**

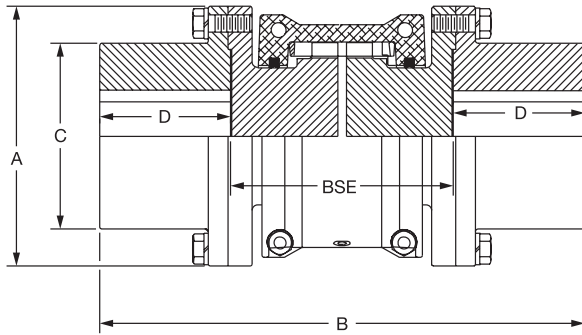
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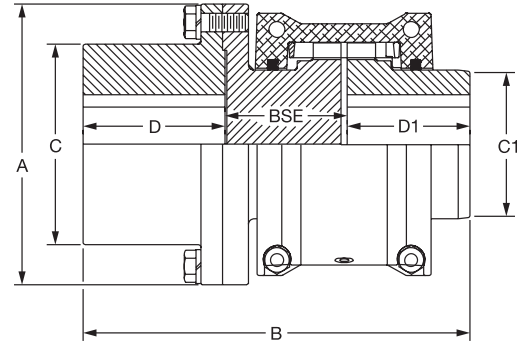
# SELECTION/DIMENSIONS

## GRID-LIGN

### SPACER, STRAIGHT BORE & TAPER-LOCK DIMENSIONS/RATINGS



TYPE T31



TYPE T35

Coupling Size	Straight Bore			TAPER-LOCK		HP/100 (5)		TORQUE (5)		Max. RPM	T31 Weight*	
	Min. Bore	Maximum Bore		Min. Bore	Max. Bore	Str. Hub	T-L Hub	Str. Hub (In-Lbs)	T-L Hub (In-Lbs)		(1)	(2)
		Sq. Key	Rec. Key									
1020T	---	1-3/8	1-7/16	1/2	1-1/8	0.67	0.67	422	422	3600	8.1	.54
1030T	---	1-5/8	1-3/4	1/2	1-1/8	1.90	1.90	1200	1200	3600	11.1	.83
1040T	---	2-1/8	2-1/4	1/2	1-7/16	3.20	3.20	2000	2000	3600	18.0	1.11
1050T	---	2-3/8	2-1/2	1/2	1-11/16	5.60	5.60	3500	3500	3600	26.6	1.52
1060T	---	2-7/8	3-1/8	1/2	2-1/8	8.70	8.70	5500	5500	3600	42.7	1.98
1070T	---	3-1/8	3-1/4	3/4	2-11/16	13.00	13.00	8000	8000	3600	52.3	2.60
1080T	---	3-1/2	3-3/4	3/4	2-11/16	26.00	17.90	16,500	11,300	3600	84.8	3.70
1090T	---	4	4-1/4	15/16	3-1/4	48.00	38.10	30,000	24,000	3600	130.0	5.20

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	8.00	1.78	4.03	0.07	0.001
1030T	3.69	2.34	1.94	1.63	1.88	3.50	8.50	1.78	4.28	0.11	0.003
1040T	4.44	3.11	2.25	2.13	2.00	3.50	8.50	1.78	4.28	0.21	0.005
1050T	4.94	3.44	2.63	2.38	2.38	4.38	8.50	2.22	4.28	0.51	0.010
1060T	5.69	4.06	3.00	2.88	3.50	5.00	13.00	2.53	6.53	0.88	0.020
1070T	6.00	4.31	3.44	3.13	3.00	5.00	13.00	2.53	6.53	1.23	0.030
1080T	7.00	4.81	4.13	3.50	3.50	7.25	16.00	3.66	8.03	2.49	0.060
1090T	8.25	5.63	4.88	4.00	3.88	7.25	16.00	3.66	8.03	5.01	0.110

- (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 PT1-52 for standard T-L style shaft hubs

\* For weight and inertia of T35 use 1/2 of T31 value (this page) and 1/2 T10 value (page PT1-52)

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# SELECTION/DIMENSIONS

## GRID-LIGN

Type T 31 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
T10Grid/Cover	• 006750	• 006751	• 006752	• 006753	• 006754	• 006755	• 006756	• 006757
Grid	• 006275	• 006276	• 006277	• 006278	• 006279	• 006280	• 006281	• 006282
T10 Cover	• 006250	• 006251	• 006252	• 006253	• 006254	• 006255	• 006256	• 006257
T-L Hubs	• 006328	• 006329	• 006330	• 006331	• 006332	• 006333	• 006334	• 006335
Bushing Size	1108	1108	1310	1615	2012	2525	2525	3030
Reborable	• 006305	• 006306	• 006307	• 006308	• 006309	• 006310	• 006311	• 006312
Finished Bore Hubs								
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	006455

• Stock Sizes

Complete spacer couplings consists of:

- T31 Spacer - (2) "T" Shaft Hubs  
(2) Spacer Hubs (Page PT1-58)  
(1) T10 Grid & Cover Assembly
- T35 Half Spacer - (1) Shaft Hub (Page PT1-49)  
(1) Spacer Hub (Page PT1-59)  
(1) "T" Shaft Hub  
(1) T10 Grid & Cover Assembly

**NOTE:** For TAPER-LOCK designs, TAPER-LOCK bushings must be ordered separately. Refer to bushing section PT6-16.

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

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# SELECTION/DIMENSIONS

## GRID-LIGN

### Type T31 - Full Spacer

PT Component Reference Guide

Couplings

Clutches and Brakes

FLEXIDYNE

Fluid Couplings

TORQUE-TAMER

Bushings

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

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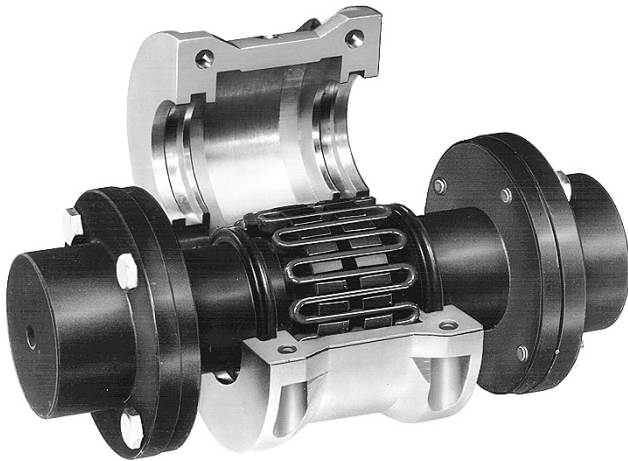
# SELECTION/DIMENSIONS

## GRID-LIGN

### Type T35 - Half 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.
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

T31 - Full Spacer



T35 - Half Spacer



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# FEATURES/BENEFITS

## Gear Couplings

### 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 interchangeable half couplings
- Low backlash (well suited for reversing applications)
- Crowned tooth profile for longer life and improved performance

#### DODGE Benefits

- Coupling solutions for any application
  - Choose from DODGE coupling family: Gear (DGF), PARA-FLEX, GRID-LIGN, D-FLEX, Rigid and Fluid - all available from stock
- Combine DODGE couplings with any DODGE speed reducer for unmatched performance
  - Choose from thousands of combinations to get a package tailored to meet your needs
- Years of application expertise
  - DODGE engineers can help specify products to achieve maximum results from your equipment

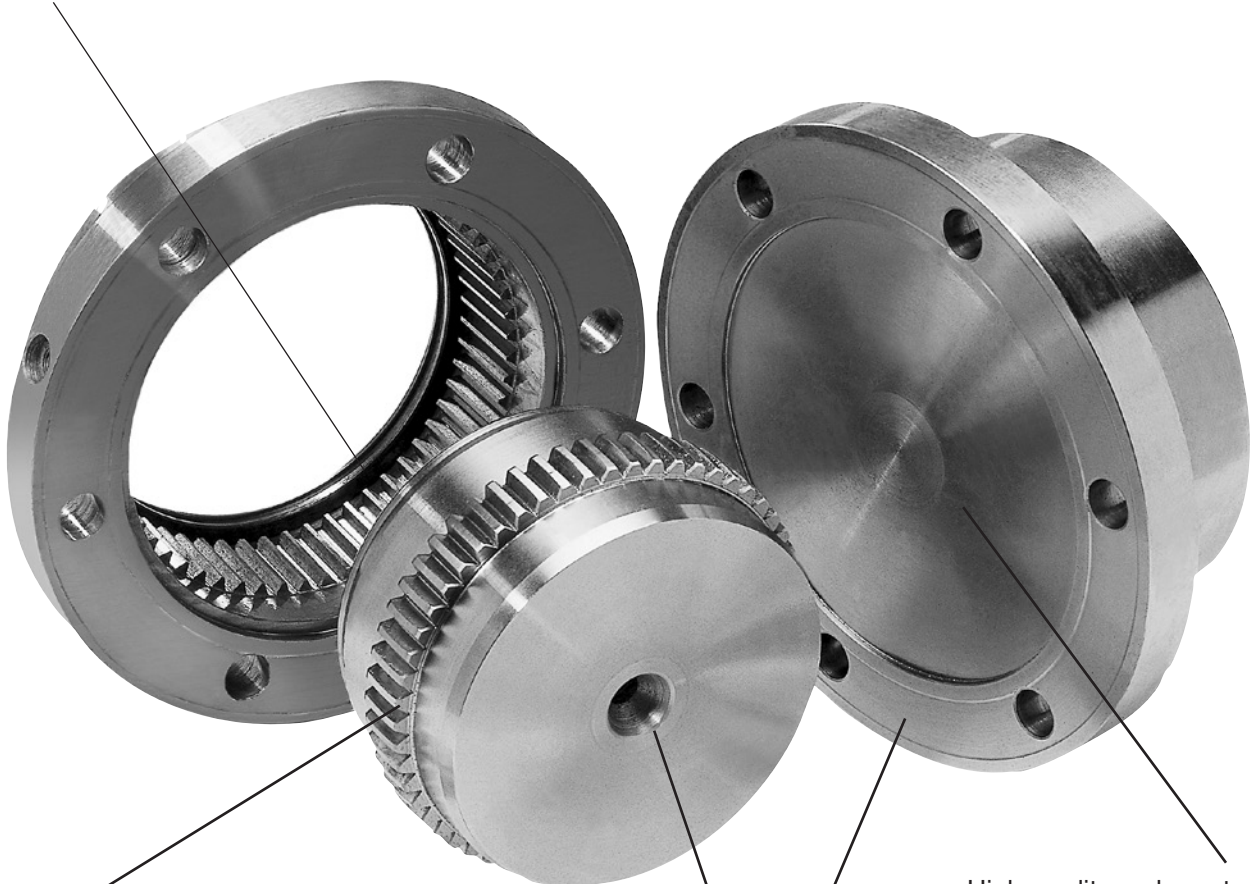




# FEATURES/BENEFITS

## Gear Couplings

Reliable O-ring design effectively seals against contaminants



High pressure angle provides large tooth base; results in high safety factor

Flexible, rigid hub styles available

High-quality carbon steel ensures longer service life



## Gear Couplings

### 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 steel.

### HOW TO ORDER

Standard couplings consist of:

- (2) Flex Hubs
- (2) Sleeves
- (1) Hardware Kit

### NOMENCLATURE



**DGF**

**1.0**

DODGE Gear coupling \_\_\_\_\_

Size \_\_\_\_\_

### COMPETITOR INTERCHANGE

DODGE DGF	FALK LIFELIGN	KOP-FLEX KOPPERS SERIES H	AMERIGEAR ZURN F SERIES	LOVEJOY/SIER-BATH
1	1010G20 *	1	201	-
1.5	1015G20	1-1/2	201-1/2	1.5
2	1020G20	2	202	2
2.5	1025G20	2-1/2	202-1/2	2.5
3	1030G20	3	203	3
3.5	1035G20	3-1/2	203-1/2	3.5
4	1040G20	4	204	4
4.5	1045G20	4-1/2	204-1/2	4.5
5	1050G20	5	205	5
5.5	1055G20	5-1/2	205-1/2	5.5
6	1060G20	6	206	6
7	1070G20	7	207	-

\* G20 - FLEX-FLEX  
G52 - FLEX-RIGID

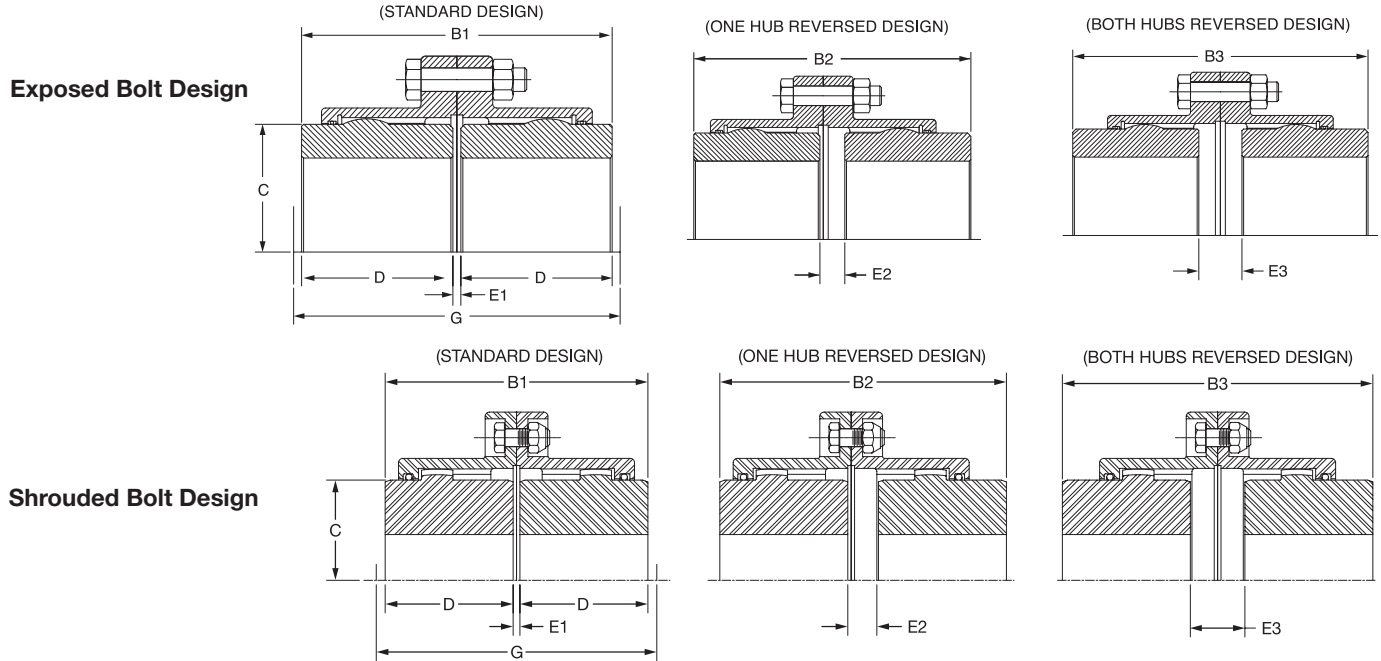
**NOTE:** Instruction manual for Gear Couplings available on [www.baldor.com](http://www.baldor.com)

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## SELECTION/DIMENSIONS

### Gear Couplings



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	7500	6000	0.055	9
1.5	0.690	2.125	2.813	2.250	3.063	30	18900	5500	0.060	19
2	0.940	2.750	3.500	3.000	3.750	50	31500	5000	0.085	34
2.5	1.440	3.250	4.250	3.375	4.500	90	56700	4400	0.105	55
3	1.440	4.000	4.875	4.250	5.250	150	94500	4000	0.115	86
3.5	1.810	4.625	5.625	4.875	6.125	240	151300	3500	0.130	135
4	2.440	5.375	6.500	5.625	6.875	350	220600	3000	0.150	195
4.5	3.000	6.000	7.375	6.438	8.000	480	302500	2700	0.175	268
5	3.000	6.500	8.375	7.000	8.875	690	434900	2500	0.200	394
5.5	4.000	7.500	9.250	7.875	9.875	910	573500	2200	0.220	526
6	4.000	8.250	10.125	8.750	11.000	1190	750000	2100	0.120	687
7	5.000	9.500	11.250	9.750	12.250	1600	1008400	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	6-29/32	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.

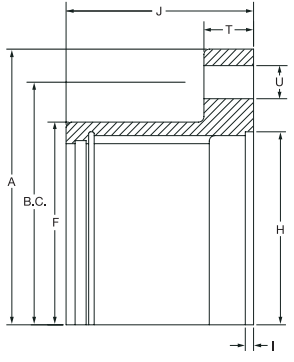
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# SELECTION/DIMENSIONS

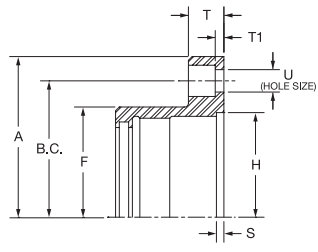


## Gear Couplings

(FLANGED SLEEVE AND RIGID HUB DETAILS)



Exposed Bolt Design



Shrouded Bolt Design

Size	Outside Diameter	Flange Width	Flange Thickness		Hub Diameter	Undercut Depth	Undercut Diameter	Hole Diameter	Bolt Circle B.C.	Number of Bolts
	A	J	T	T1	F	I	H	U	B.C.	
All Dimensions in Inches										
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	3/8	13-3/16	14
5.5 EB	16-3/4	6	1-1/2	-	10-1/2	3/16	12-1/8	7/8	14-1/2	14
5.5 SB	16-3/4	6	1-1/2	9/16	10-1/2	3/16	12-1/8	3/4	14-7/16	16
6 EB*	18	6-11/16	1	-	13-15/16	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  
 \* Sizes 6 & 7 only available in exposed bolt pattern

### Part Numbers

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	DGF 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.

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# FEATURES/BENEFITS

## Disc Couplings



The Dodge Disc coupling offers industry leading torque capacity and misalignment capability resulting in longer life and improved reliability.

Disc couplings have become the preferred design for pumping and compressor applications used in the oil and gas industry due to their high torque, speed, misalignment, and maintenance-free features. The advantages of the disc style coupling have also driven the API 610 specification, which can be met by all Dodge Disc couplings. Dodge Disc Couplings meeting API 671 requirements are available upon request.

In addition to the high torque and misalignment capabilities, the Dodge Disc coupling also provides features for customers to save money by downsizing with a large hub option, and prevent unexpected downtime costs with strobe light inspection during operation.

The Dodge Disc coupling can be specified into any API 610 or API 671 pumping application due to its wide range of capabilities, as seen in Table 1. Dodge drives, Dodge motors, and Baldor•Reliance motors have become the standard in the oil and gas industry due to their reliability and long life. Now oil and gas users can realize the same reliability and long life by packaging Dodge Disc Couplings, Dodge or Baldor•Reliance motors, and Dodge drives, into one complete pump driver system.

**Table 1 – Dodge Disc Coupling Ratings\***

Coupling style	Size range	Max torque*	Power per 100 RPM*	Max speed*	Max bore	Misalignment capability (Angular)	Misalignment capability (Parallel)	Misalignment capability (End-Float)
		In-lbs	HP/100		Inch		Inch	Inch
Disc (Standard)	94-310	177,000	280	9,100/22,700**	7.88	1° - 1.5°	0.107	0.224
Disc (Made-to-Order)	333-702	2,292,000	3636	1,360/3,400**	15.25	0.5° - 1°	N/A	0.299

\*Listed values represent the range of the entire product line. Ratings listed are the maximum ratings for the largest coupling size. Ratings are dependent upon coupling size.

See Dodge engineering catalog and appropriate selection methods during sizing or contact application engineering for assistance.

\*\*Balanced

Note (1): Anti-corrosive options including Black Oxide, Zinc or Manganese Phosphating, Electroless Nickel, and Stainless Steel are available upon request.

Note (2): Anti-sparking options available upon request.

Note (3): Temperature range: -40°F to +450°F



# FEATURES/BENEFITS

## Disc Couplings

### Oil and Gas Industry Focus

#### API 610 Design

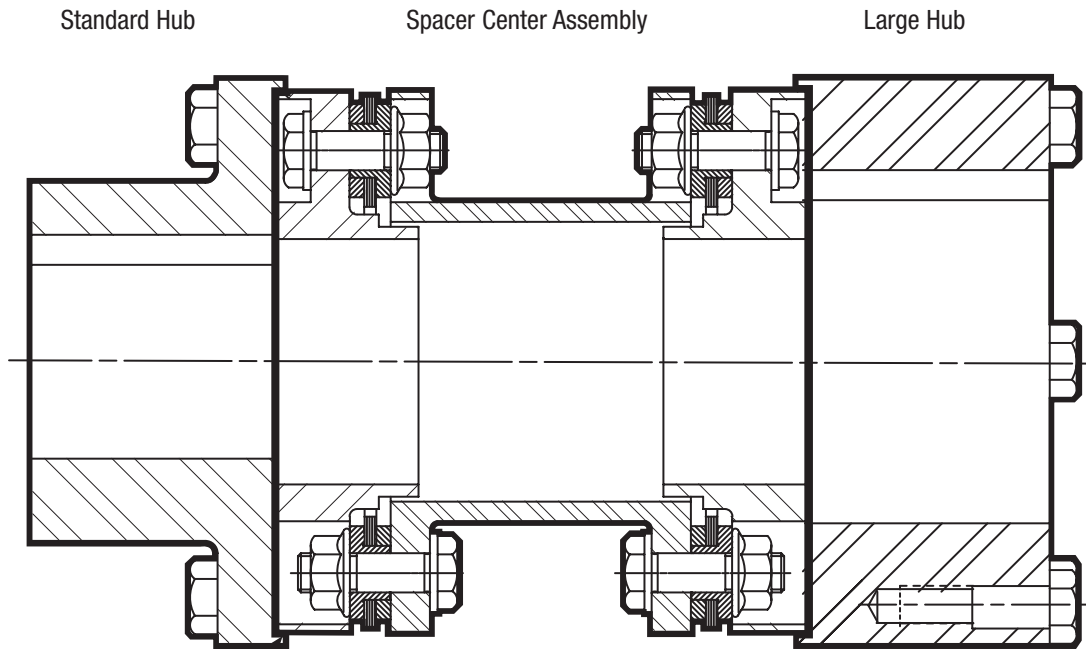
The Oil and Gas industry recognizes the importance of reliability and uptime by specifying products that reduce maintenance requirements, increase productivity, and prevent unexpected downtime. As a result, the American Petroleum Institute developed the API 610 specification as the standard for pumping applications across the industry.

All Dodge Disc Couplings can meet the API 610 specification, which includes:

- The spacer center assembly must be positively retained if the flexible element ruptures. As seen in Figure 1, the pilot machined in the disc coupling shaft hub positively retains the spacer center assembly, preventing the spacer center assembly from rotating free if a catastrophic bolt failure were to occur during operation.
- Coupling must be capable of rotating at 3800 rpm. All Dodge Disc Couplings are capable of operation at 3800 rpm.
- Flexible element should be made of corrosion resistant material. The Dodge Disc Coupling design utilizes flexible discs made of corrosion 301 stainless steel.
- Coupling hubs are made of 1045 steel.
- Coupling hubs are manufactured in accordance with AGMA 9000 Class 9 balance specifications.
- Spacer center assembly is removable without disturbing connected equipment.

In addition to meeting API 610 specification requirements, the Dodge Disc Coupling is also capable of meeting API 671 requirements upon request.

**Figure 1: Dodge Disc Coupling Configuration**



Piloted connections between spacer center assembly and shaft hubs allow the spacer center assembly to be positively retained during operation



## FEATURES/BENEFITS

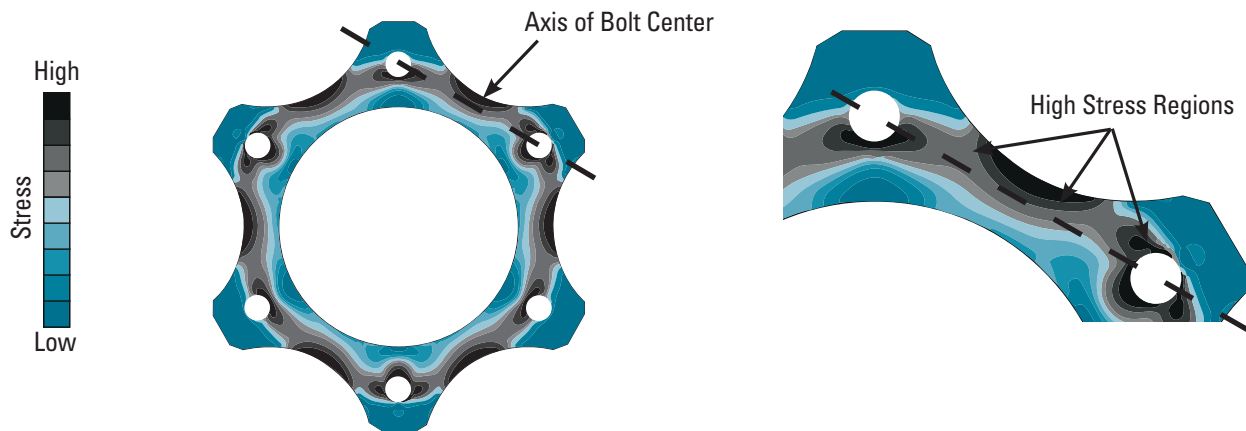
### Disc Couplings

#### Longer Life, Improved Reliability

##### Competitor Disc Geometry

Many disc coupling competitors utilize the disc geometry seen below, featuring a scalloped outside diameter and circular inside diameter. As seen in Figure 2, this single scalloped design unevenly distributes material along the “axis of bolt center”, which negatively impacts the torque ratings and the misalignment capability of the coupling. Figure 2 shows large peak stress areas (as indicated) are created around the bolt holes and along the outside diameter of each leg between bolts, resulting in lower torque ratings. Additionally, the uneven distribution of material along the “axis of bolt center” drastically reduces misalignment capability during operation.

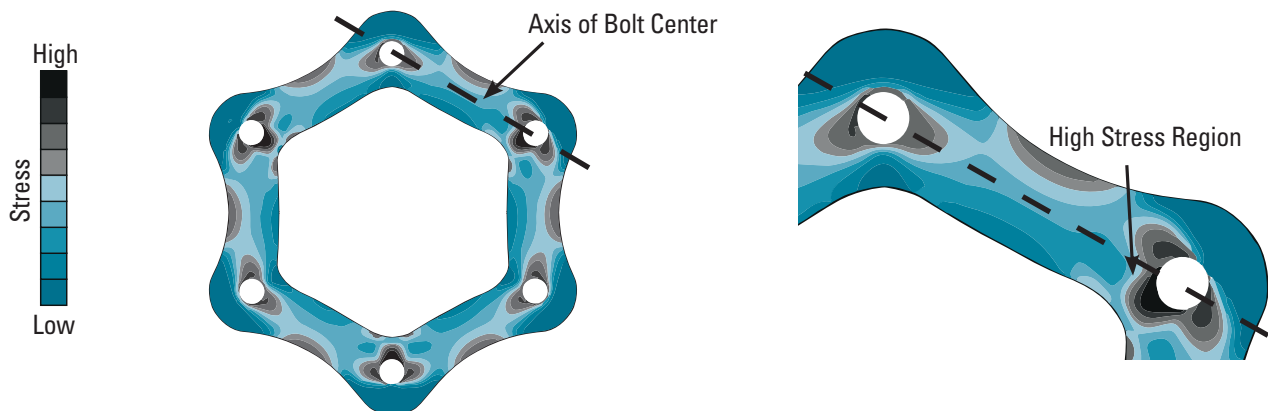
**Figure 2: Competitor Disc Geometry - Single Scalloped Design**



##### Dodge Disc Geometry

The Dodge Disc coupling utilizes the newest generation of disc geometry, a dual scalloped design, which offers an even distribution of material along the “axis of bolt center”. Figure 3 shows a drastically reduced number of high stress areas within the disc limited to only a small area around the bolt hole. Also, the peak stress shown in the Dodge Disc geometry is 13% less than the competitor’s geometry, resulting in an average of double the torque capacity. Additionally, an even distribution of material along the “axis of bolt center” maximizes misalignment capability and offers up to three times the misalignment of the leading competitor. Industry leading torque ratings and misalignment capability will ultimately lead to longer coupling life, improved reliability, and reduced unexpected downtime.

**Figure 3: Dodge Disc Geometry - Dual Scalloped Design**





# FEATURES/BENEFITS

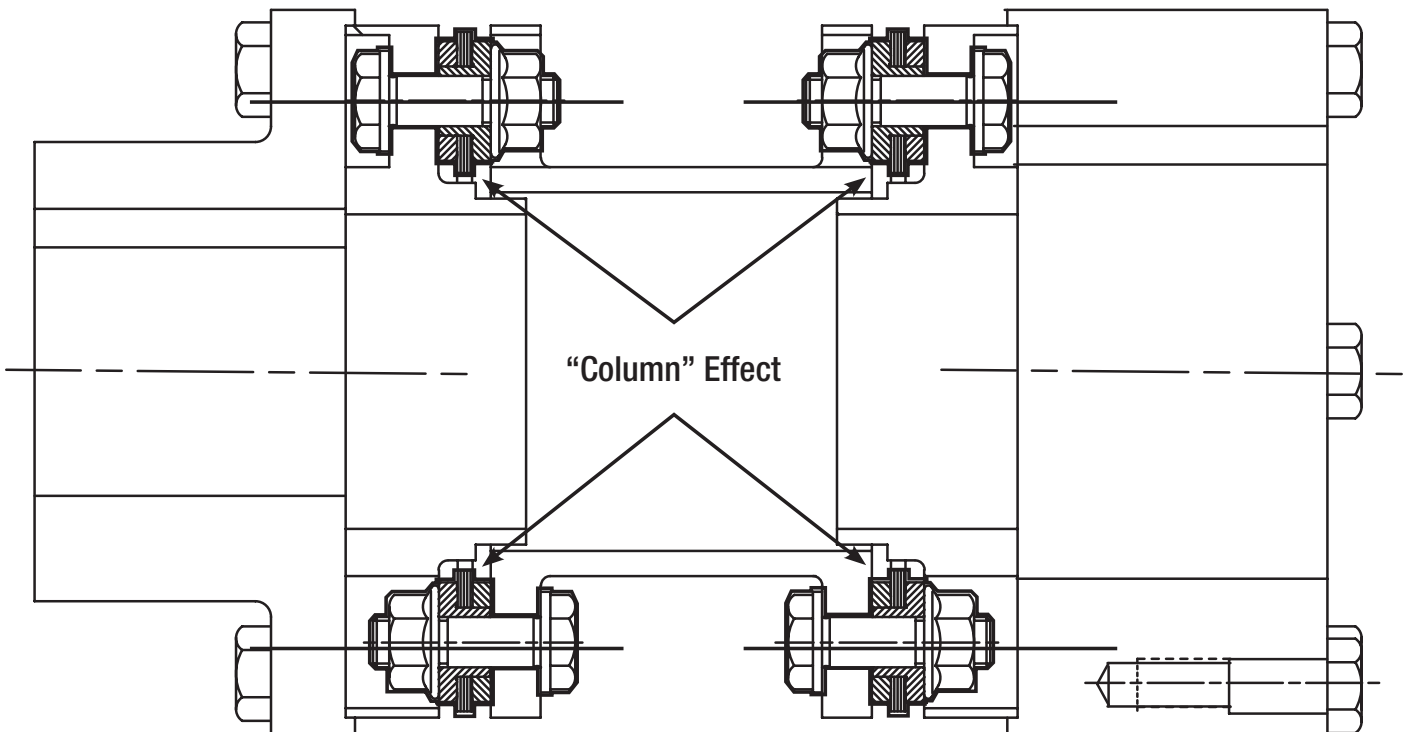
## Disc Couplings

### Longer Life, Improved Reliability

#### *Unitized Assembly Design*

All Dodge Disc coupling spacer center assemblies are factory assembled and include a spacer, two disc packs, and two guard rings. Pre-assembling the spacer center assembly not only ensures that the system is assembled with the required tolerances, but also allows the customer to order a single part number and receive a single unit. Utilizing a custom, tight tolerance bushing and bolt to connect the spacer, disc pack, and guard ring, results in torque being transmitted through the entire assembly. The unitized assembly or “column” effect, which can be seen in Figure 4 below, prevents any single component from transmitting the application torque alone. Competitive designs that offer loose discs for assembly risk improper installation which can cause the bolt to quickly shear. The unitized assembly is just another reason why Dodge Disc couplings can offer users higher torque ratings, increased misalignment capability, and longer life.

**Figure 4: Unitized Assembly Column Effect**







# FEATURES/BENEFITS

## Disc Couplings

### Increased Productivity

#### Maintenance Free

The Dodge Disc coupling offers the power density, large bore capacity, and high speed capabilities of a metallic coupling while eliminating the need for maintenance. Traditional gear and grid style couplings require additional grease multiple times per year in order to lubricate gear teeth and looping segments. However, the Dodge Disc coupling does not have relative movement between mating parts which allows for increased maintenance productivity. Additionally, by not having any moving components, the Dodge Disc coupling is torsionally rigid, prevents backlash, and is perfect for applications needing precise positioning such as paper machines.

When comparing a metallic coupling that requires maintenance with an elastomeric, maintenance free design, the customer must sacrifice space since the maintenance free option would be much larger than the metallic design. However, Table 2 lists three common application examples driven by NEMA and IEC motors. Table 3 reveals that the Dodge Disc coupling selection has a smaller outside diameter than the grid and gear selection. Additionally, the Dodge Disc coupling selection has equal angular misalignment to the gear and more than the grid.

**Table 3 shows that the maintenance-free Dodge Disc Coupling offers comparable size and angular misalignment capability as other metallic coupling designs requiring maintenance.**

**Table 2: Application Details for Metallic Coupling Comparison**

	Application 1		Application 2		Application 3	
	NEMA	IEC	NEMA	IEC	NEMA	IEC
Motor Frame Size	256T	160	365T	250	445T	315
Motor Shaft Size	1 5/8"	42 mm	2 3/8"	65 mm	3 3/8"	80 mm
HP / kW	20 HP	15 kW	75 HP	55 kW	150 HP	110 kW
RPM	1750	1500	1750	1500	1750	1500
Service Factor	2.0	2.0	2.0	3.0	2.0	4.0
Torque	1,441 in-lbs	191 N-m	5,402 in-lbs	1,051 N-m	10,804 in-lbs	2,801 N-m

**Table 3: Coupling Size Details for Metallic Coupling Comparison**

		Application 1			Application 2			Application 3		
		Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment	Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment	Outside Diameter (inch)	Outside Diameter (mm)	Angular Misalignment
Disc Coupling	NEMA Motor	3.70	94.00	1.5°	5.47	139.00	1.5°	7.59	193.00	1.5°
	IEC Motor	3.70	94.00	1.5°	5.47	139.00	1.5°	7.59	193.00	1.5°
Gear Coupling	NEMA Motor	4.56	115.82	1.5°	7.00	177.80	1.5°	9.44	239.78	1.5°
	IEC Motor	6.00	152.40	1.5°	7.00	177.80	1.5°	9.44	239.78	1.5°
Grid Coupling	NEMA Motor	4.22	107.19	0.5°	5.92	2336.80	0.5°	7.70	195.58	0.5°
	IEC Motor	5.09	129.29	0.5°	6.92	175.77	0.5°	7.70	195.58	0.5°



## FEATURES/BENEFITS

### Disc Couplings

#### Lower Costs, Reduce Unexpected Downtime

##### *Downsizing Capability*

Many disc coupling competitors utilize the disc geometry seen below which features a scalloped outside diameter and circular inside diameter. As seen in Figure 2, this single scalloped design unevenly distributes material along the “axis of bolt center”, which negatively impacts the torque ratings and the misalignment capability of the coupling. Figure 2 shows large peak stress areas are created around the bolt holes and along the outside diameter of each leg between bolts, resulting in lower torque ratings. Additionally, the uneven distribution of material along the “axis of bolt center” drastically reduces misalignment capability during operation.

**Figure 5: Large Hub Configurations**



Dodge Disc Coupling  
size 115 with  
two large hubs



Dodge Disc Coupling  
size 115 with one large hub  
and one standard hub

#### Reduce Unexpected Downtime with Strobe Light Inspection

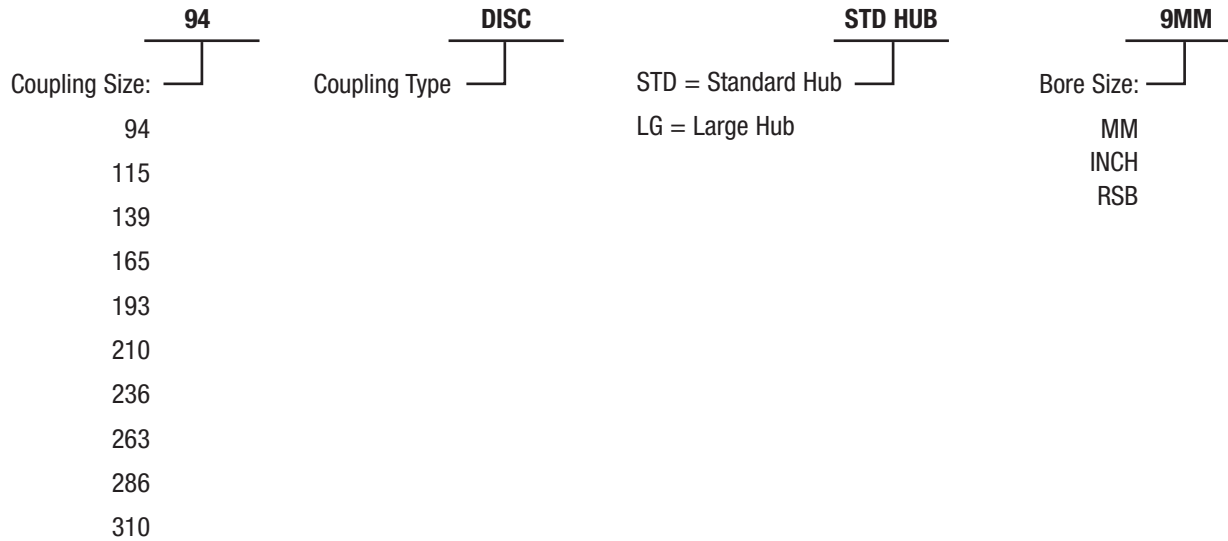
The Dodge Disc coupling has the ability to be inspected during operation. By observing the disc pack under a strobe light during operation, users can diagnose potential application issues before they experience costly, unexpected downtime. Cracks in the discs clearly communicate to the user that the driver and driven shafts are severely misaligned. Also, an “S” condition, the buckling of a disc leg between the driver and driven connecting bolts, tells the user the application is experiencing a torque overload situation. With this information, modifications can be made to the application to extend the life of the coupling or the spacer center assembly can be changed out, depending on the severity of the deformation. The ability to perform predictive maintenance during operation will greatly reduce plant costs by eliminating unexpected downtime associated with couplings.



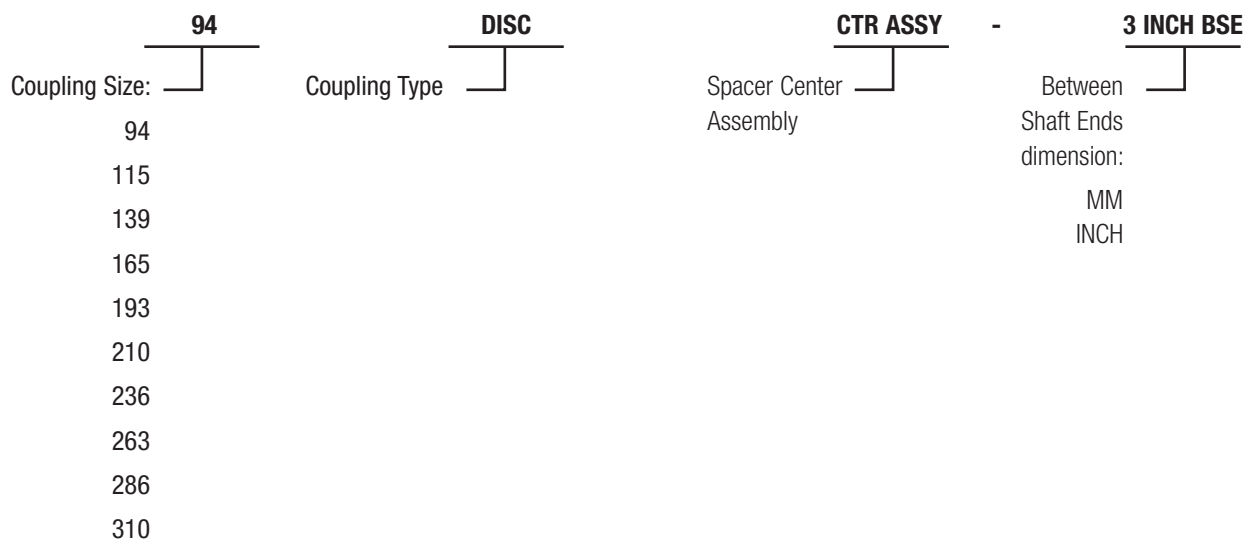
## Disc Couplings

Complete Dodge Disc Coupling Consists of:  
Quantity two hubs (standard or large) and quantity one spacer center assembly

### DISC COUPLING HUB NOMENCLATURE



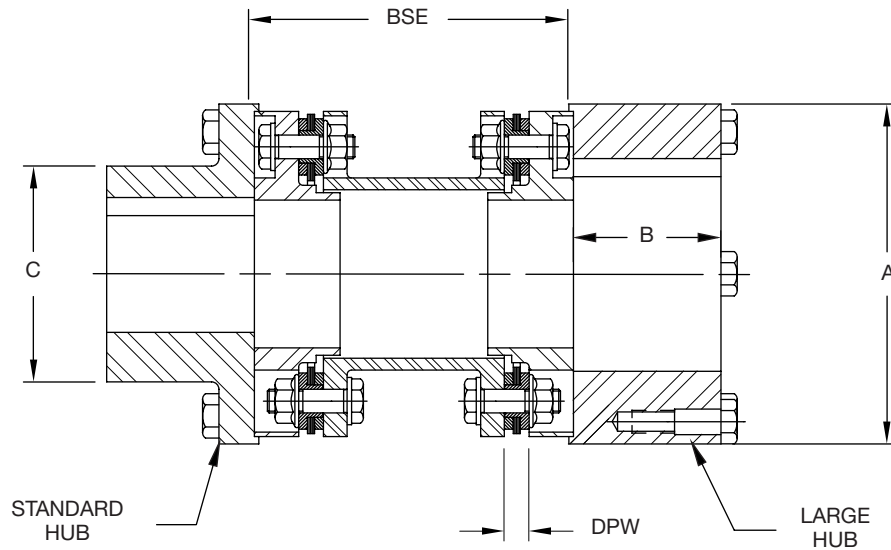
### DISC COUPLING SPACER CENTER ASSEMBLY NOMENCLATURE



# SELECTION/DIMENSIONS



## Disc Couplings



Dimensions (in)

Coupling Size	A	B	C	DPW
94	3.70	1.57	2.36	0.295
115	4.53	1.97	2.87	0.331
139	5.47	2.36	3.74	0.331
165	6.50	2.76	4.41	0.441
193	7.60	3.15	5.28	0.551
210	8.27	3.54	5.67	0.610
236	9.29	3.94	6.30	0.689
263	10.35	4.53	6.89	0.807
286	11.26	4.92	7.68	0.835
310	12.20	5.31	8.40	0.961

## Ratings (Imperial Units)

Coupling Size	Max Bore		Torque			Max RPM		Axial Misalignment (in) (4)	Angular Misalignment (5)	Weight (lbs) (3)
	Standard Hub (in)	Large Hub (in)	HP/100	Nominal (in.-lbs.)	Peak (in.-lbs.)	Standard (1)	Balanced (2)			
94	1.68	2.25	3.33	2100	4200	9100	22700	0.059	1.5°	8
115	2.06	2.94	8.09	5100	10200	7200	18000	0.083		12
139	2.69	3.56	15.39	9700	19500	5840	14600	0.102		22
165	3.13	4.13	28.08	17700	35400	4920	12300	0.122		40
193	3.75	4.94	46.33	29200	58400	4200	10500	0.146		62
210	4.06	5.38	64.58	40700	81400	3840	9600	0.150	1.0°	84
236	4.50	5.94	98.37	62000	123900	3400	8500	0.165		121
263	4.94	6.63	143.28	90,300	180600	3080	7700	0.185		159
286	5.50	7.31	199.44	125700	251400	2800	7000	0.205		223
310	6.13	7.88	280.84	177000	354000	2560	6400	0.224		293

### Notes:

- (1) Coupling operational speed must be equal to or less than the allowable speed that is limited by the weight and critical speed of the spacer.
- (2) Standard Dodge Disc couplings will meet the maximum speed listed in the "Standard" column. Speed capabilities listed in the "Balanced" column require special balancing by Dodge.
- (3) Weight of complete coupling at maximum bores.
- (4) Axial misalignment for two disc packs.
- (5) Angular misalignment for one disc pack.
- (6) Anti-corrosive options including Black Oxide, Zinc or Manganese Phosphating, Electroless Nickel, and Stainless Steel are available upon request.
- (7) Standard BSE's are listed on page 9



## Disc Couplings

### Dodge Disc Coupling Inch and Metric Spacer Center Assembly Part Numbers

Complete Dodge Disc Coupling Consists of:  
Quantity two hubs (standard or large) and quantity one spacer center assembly

BSE Distance		Pump Standard	Coupling Size									
(mm)	(inch)		94	115	139	165	193	210	236	263	286	310
76	3.00	ANSI	138452									
79	3.10	ANSI	138453	138458								
89	3.50	ANSI	138454	138459	138463							
100	3.94	ISO	138482	138484	138487							
111	4.38	ANSI	138455	138460	138464	138467						
127	5.00	ANSI	138456	138461	138465	138468	138471					
140	5.51	ISO	138483	138485	138488	138490	138493	138496				
178	7.00	ANSI	138457	138462	138466	138469	138472	138475	138477			
180	7.09	ISO		138486	138489	138491	138494	138497				
229	9.00	ANSI				138470	138473	138476	138478	138480	138481	138503
250	9.84	ISO				138492	138495	138498	138499	138500	138501	138502

**Note:** (1) In addition to the listed standard between shaft end (BSE) dimensions, spacer center assemblies with custom BSE dimensions are available upon request.

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# EASY SELECTION

## Disc Couplings

### Dodge Disc Coupling Inch Bore Hub Part Numbers

Complete Dodge Disc Coupling Consists of:  
Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Inch Bore (in)	94		115		139		165		193	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138000	138020	138023	138046	138051	138076	138081	138103	138106	138129
1/2	138225									
5/8	138226									
3/4	138227									
7/8	138228		138240							
15/16	138229		138241							
1	138230		138242		138258		138284			
1 1/8	138231		138243		138259		138285			
1 3/16	138232		138244		138260		138286			
1 1/4	138233		138245		138261		138287		138313	
1 3/8	138234		138246		138262		138288		138314	
1 7/16	138235		138247		138263		138289		138315	
1 1/2	138236		138248		138264		138290		138316	
1 5/8	138237		138249		138265		138291		138317	
1 11/16			138250		138266		138292		138318	
1 3/4			138251		138267		138293		138319	
1 7/8			138252		138268		138294		138320	
1 15/16			138253		138269		138295		138321	
2			138254		138270		138296		138322	
2 1/8		138239		138255	138271		138297		138323	
2 3/16					138272		138298		138324	
2 1/4					138273		138299		138325	
2 3/8				138256	138274		138300		138326	
2 7/16					138275		138301		138327	
2 1/2					138276		138302		138328	
2 5/8					138277		138303		138329	
2 11/16					138278		138304		138330	
2 3/4							138305		138331	
2 7/8				138257		138280	138306		138332	
2 15/16						138281	138307		138333	
3						138282	138308		138334	
3 1/8							138309		138335	
3 1/4									138336	
3 3/8						138283		138312	138337	
3 7/16									138338	
3 1/2									138339	
3 5/8									138340	
3 3/4									138341	
3 7/8										
3 15/16										
4										
4 3/8										
4 3/4										

Unless otherwise specified, all Dodge Disc Couplings are interference fit per AGMA 9002.  
See page \_\_\_ for additional details

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## Disc Couplings

### Dodge Disc Coupling Inch Bore Hub Part Numbers

Complete Dodge Disc Coupling Consists of:  
 Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Inch Bore (in)	210		236		263		286		310	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138130	138154	138155	138178	138179	138200	138201	138221	138223	138224
1/2										
5/8										
3/4										
7/8										
15/16										
1										
1 1/8										
1 3/16										
1 1/4	138345									
1 3/8	138346									
1 7/16	138347									
1 1/2	138348									
1 5/8	138349									
1 11/16	138350									
1 3/4	138351		138380		138409					
1 7/8	138352		138381		138410					
1 15/16	138353		138382		138411					
2	138354		138383		138412		138439			
2 1/8	138355		138384		138413		138440			
2 3/16	138356		138385		138414		138441			
2 1/4	138357		138386		138415		138442			
2 3/8	138358		138387		138416		138443			
2 7/16	138359		138388		138417		138444			
2 1/2	138360		138389		138418		138445			
2 5/8	138361		138390		138419		138446			
2 11/16	138362		138391		138420		138447			
2 3/4	138363		138392		138421		138448			
2 7/8	138364		138393		138422		138449			
2 15/16	138365		138394		138423		138450			
3	138366		138395		138424		138451			
3 1/8	138367		138396		138425					
3 1/4	138368		138397		138426					
3 3/8	138369		138398		138427					
3 7/16	138370		138399		138428					
3 1/2	138371		138400		138429					
3 5/8	138372		138401		138430					
3 3/4	138373		138402		138431					
3 7/8	138374		138403		138432					
3 15/16	138375		138404		138433					
4	138376		138405		138434					
4 3/8			138406		138435					
4 3/4					138436					

Unless otherwise specified, all Dodge Disc Couplings are interference fit per AGMA 9002.  
 See page \_\_\_ for additional details

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# EASY SELECTION

## Disc Couplings

### Dodge Disc Coupling Metric Bore Hub Part Numbers

Complete Dodge Disc Coupling Consists of:  
Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Metric Bore (mm)	94		115		139		165		193		210	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138000	138020	138023	138046	138051	138076	138081	138103	138106	138129	138130	138154
9	138001		138024									
11	138002		138025									
12	138003		138026									
14	138004		138027		138052							
16	138005		138028		138053							
17	138006		138029		138054							
18	138007		138030		138055							
19	138008		138031		138056							
20	138009		138032		138057							
22	138010		138033		138058							
24	138011		138034		138059		138082					
25	138012		138035		138060		138083					
28	138013		138036		138061		138084		138107			
30	138014		138037		138062		138085		138108		138131	
32	138015		138038		138063		138086		138109		138132	
35	138016		138039		138064		138087		138110		138133	
38	138017		138040		138065		138088		138111		138134	
40	138018		138041		138066		138089		138112		138135	
42	138019		138042		138067		138090		138113		138136	
45			138043		138068		138091		138114		138137	
48		138022	138044		138069		138092		138115		138138	
50			138045		138070		138093		138116		138139	
55				138048	138071		138094		138117		138140	
56					138072		138095		138118		138141	
60				138049	138073		138096		138119		138142	
63					138074		138097		138120		138143	
65				138050	138075		138098		138121		138144	
70							138099		138122		138145	
71							138100		138123		138146	
75						138079	138101		138124		138147	
80						138080	138102		138125		138148	
85									138126		138149	
90									138127		138150	
95									138128		138151	
100											138152	
105											138153	
110												
120												
125												
130												

Unless otherwise specified, all Dodge Disc Couplings are supplied with interference fits per ISO R775.  
See page \_\_\_ for additional details

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# EASY SELECTION

## Disc Couplings

### Dodge Disc Coupling Metric Bore Hub Part Numbers

Complete Dodge Disc Coupling Consists of:  
 Quantity two hubs (standard or large) and quantity one spacer center assembly

Size Metric Bore (mm)	236		263		286		310	
	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub	Standard Hub	Large Hub
Reborable	138155	138178	138179	138200	138201	138221	138223	138224
9								
11								
12								
14								
16								
17								
18								
19								
20								
22								
24								
25								
28								
30								
32								
35	138156							
38	138157							
40	138158							
42	138159							
45	138160		138180					
48	138161		138181					
50	138162		138182		138202			
55	138163		138183		138203			
56	138164		138184		138204			
60	138165		138185		138205			
63	138166		138186		138206			
65	138167		138187		138207			
70	138168		138188		138208			
71	138169		138189		138209			
75	138170		138190		138210			
80	138171		138191		138211			
85	138172		138192		138212			
90	138173		138193		138213			
95	138174		138194		138214			
100	138175		138195		138215			
105	138176		138196		138216			
110	138177		138197		138217			
120			138198		138218			
125			138199		138219			
130					138220			

Unless otherwise specified, all Dodge Disc Couplings are supplied with interference fits per ISO R775.  
 See page \_\_\_ for additional details

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# NEW PRODUCT

## DODGE Moment Couplings

DODGE Moment Couplings are specifically designed to make the rigid connection between the output shaft of a gearbox and an overhung driven load, commonly a head pulley. 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 a drive package, including the gearbox, motor, high-speed coupling, and swing base.

Moment Coupling hubs are designed to maximize the bore range of the driver and driven shafts. The male and female hubs are manufactured from 4140 alloy steel and are assembled with Grade 8 bolts. Suitable for a wide range of applications, DODGE Moment Couplings span a torque range of 100,000 to 920,000 inch-pounds and may be used in DODGE MagnaGear packages and in other operations.

### Information needed from the customer for DODGE engineering to select the appropriate Moment Coupling for an application:

- Horse Power / Torque / Speed Requirements
- Driver and Driven Shaft Sizes
- Overhung Load
- Length of Lever Arm
- Application Specifics: Type of Operation; Required Stops and Starts; Shock Loads and Vibration

For more information on Couplings contact your authorized DODGE distributor or log onto [www.baldor.com](http://www.baldor.com).

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# FEATURES/BENEFITS

## Chain Couplings



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 reboreable 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
- Slip 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



**NOTE:** Instruction manual for Chain Couplings and TAPER-LOCK Bushings available on [www.baldor.com](http://www.baldor.com)



## Chain Couplings

### 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 PT1-68)

### NOMENCLATURE

FB = Finished Bore

B = Reborable

Blank = TAPER-LOCK

Chain Size

Number of Teeth

# EASY SELECTION



## Chain Couplings

Basic Size No.	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
10020	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

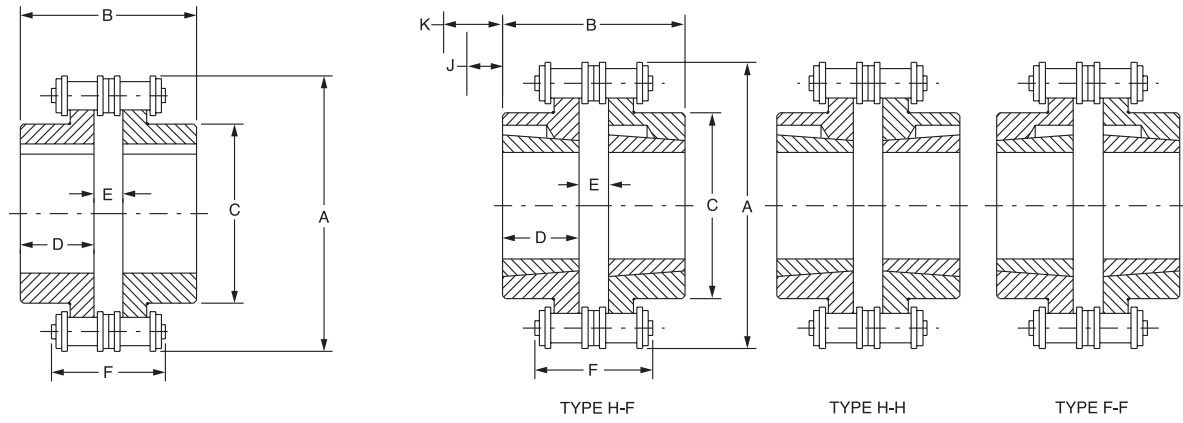
Basic Size No.	Max. Bore			Max. RPM		HP Ratings at Various RPM 1.0 Service Factor									
	TAPER-LOCK	Finished Bore	Reborable	Without Covers	With Covers	350	400	500	600	800	1000	1200	1400	160	1800
4012	..	3/4	7/8	875	5000	5.10	5.57	6.55	7.56	9.42	11.3	13.1	14.9	16.6	18.2
4016	1-1/8	1-1/8	1-5/16	875	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
10020	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	...

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# SELECTION/DIMENSIONS

## Chain Couplings STANDARD, 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 (lbs.) (1)	
	Min.	Max.	Min.	Max.	Without Cover	With Cover	Str.	TL
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
10020	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

Coupling Size	A	B		C	D		E		K (2)	J (3)
		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	666	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
10020	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.

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# SELECTION/DIMENSIONS

## Chain Couplings

### 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"										• 099224		
3-3/8"										• 099225		
3-7/16"												

• 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

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# SELECTION/DIMENSIONS

## Chain Couplings

### CHAIN COUPLING COVERS

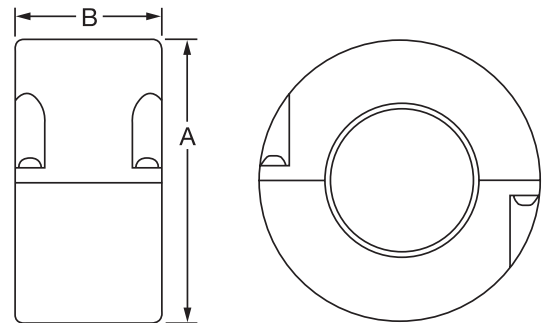
Chain coupling covers are recommended for use when couplings are operating under abrasive or moist conditions, or when coupling speeds exceed the RPM listed in the table below.

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
10020	450
12020	400



### Chain Coupling Cover Assemblies ▲

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
10020	100	099024	12.2	10.13	5.25
12020	120	099025	19.5	12.25	6.13

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







## POLY-DISC

### 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.

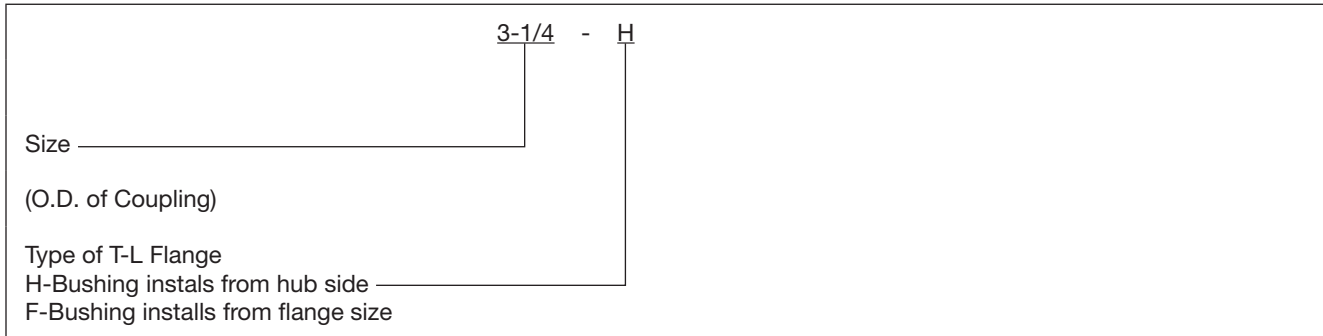
The flexible disc is captured through metallic pins, utilizing a light press fit over the pins to prevent the accumulation of abrasive particles between the disc and pins. The pin holes are barreled to allow 2° angular misalignment and the flexible disc allows 1/32" parallel misalignment. The disc has 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



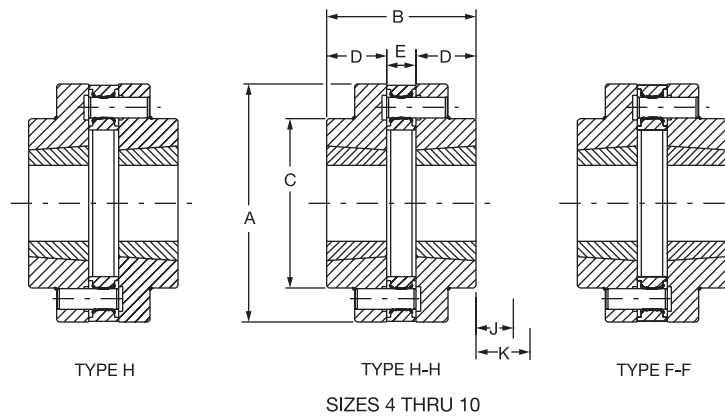
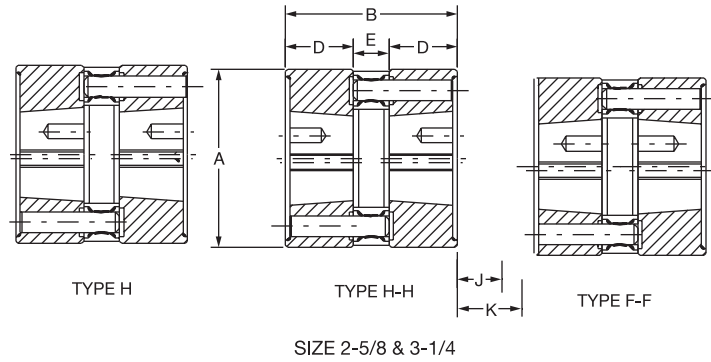
**NOTE:** Instruction manuals for POLY-DISC Couplings available on [www.baldor.com](http://www.baldor.com)

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# SPECIFICATION/HOW TO ORDER NOMENCLATURE



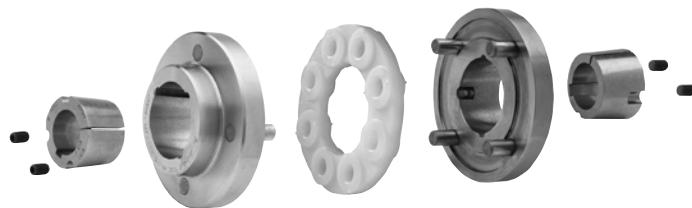
## POLY-DISC



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

### 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 section PT6-15

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## RIGID COUPLINGS

### TAPER-LOCK Rigid

#### TAPER-LOCK RIGID SPECIFICATION

Rigid Couplings provide a connection between two perfectly aligned shafts. Flanged Rigid Couplings consist of two flanges joined by bolts and are taper bored for TAPER-LOCK bushings to connect shafts of the same or different diameters.

#### HOW TO ORDER

TAPER-LOCK consist of:  
(1) Male Flange Assembly  
(1) Female Flange

#### NOMENCLATURE

T-L Rigid R 35  
Size \_\_\_\_\_  
(Designated size of TAPER-LOCK Bushing)

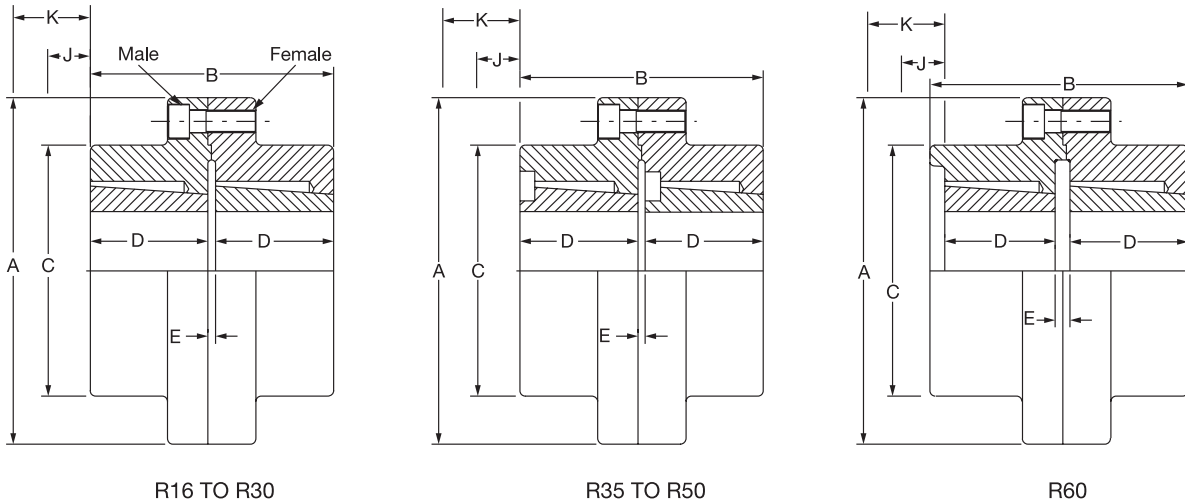
**NOTE:** Instruction manuals for TAPER-LOCK Bushings available on [www.baldor.com](http://www.baldor.com)

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# SELECTION/DIMENSIONS

## TAPER-LOCK RIGID



R16 TO R30

R35 TO R50

R60

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

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



### 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

Available in reverse mount

NOTE: TAPER-LOCK bushings ordered separately.

Refer to bushing section PT6-16

TL Rigid couplings are capable of accommodating keyless locking devices for use with non-keyed shafting. Please contact DODGE for further details.

NOTE: Instruction manuals for TAPER-LOCK Rigid Couplings and TAPER-LOCK Bushings available on [www.baldor.com](http://www.baldor.com)

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## Rigid Couplings

### RIBBED RIGID

#### RIBBED RIGID 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

TAPER-LOCK consist of:  
(1) Ribbed Rigid Coupling Assembly  
(Complete, by bore size)

#### NOMENCLATURE

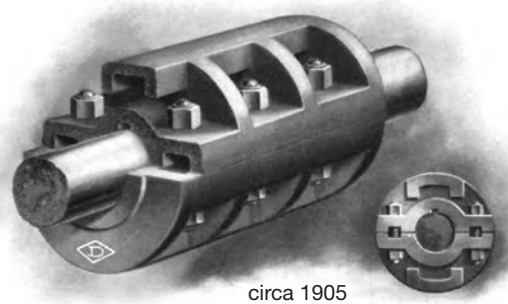
Ribbed Rigid \_\_\_\_\_ 2-3/4  
Bore Size of Coupling

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# SELECTION/DIMENSIONS

## Ribbed Rigid



circa 1905

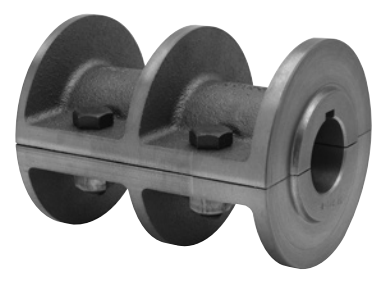


Figure 1  
Today's Ribbed Rigid Coupling

**“Grim Death” Compression Coupling** as presented in the 1905 Dodge Catalog, is an original Dodge design. “Grim Death” is a substantial safety coupling adapted to any class of service, and complies with all legal requirements as to safety by having bolt heads and nuts protected. “Grim Death” coupling is finished and polished on periphery and faced on ends.

For Nominal Shaft of:	Style Cplg. Figure no.	Part Number	Max RPM	Torque (In-Lb)	Weight	Coupling Dia x Length	Keyway Size	Key Furnished	Bolts	
									No.	Dia.
1	1	009001	5360	1200	6.0					
1-3/16	1	009002	5360	2000	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	1	009003	5360	2300	5.2					
1-3/8	1	009004	4130	3100	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	1	009005	4130	3500	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	1	009006	4130	4000	10.2					
1-11/16	1	009007	3965	5700	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	1	009008	3965	6300	13.3					
1-7/8		009009	3635	7800	19.4					
1-15/16	★	009010	3635	8600	20.6	5-1/4 x 7-15/16	1/2 x 1/4	1/2 x 1/2 x 7-15/16	4	1/2
2		009011	3635	9400	20.0					
2-3/16		009013	3180	12400	29.1					
2-1/4	★	009012	3180	13400	29.0	6 x 8-5/8	1/2 x 1/4	1/2 x 1/2 x 8-5/8	4	5/8
2-7/16	2	009015	2965	17100	37.3					
2-1/2	2	009016	2965	18400	36.6	6-7/16 x 9-11/16	5/8 x 5/16	5/8 x 5/8 x 9-11/16	6	5/8
2-11/16	2	009017	2830	22900	43.4					
2-3/4	2	009014	2830	24500	43.0	6-3/4 x 10-9/16	5/8 x 5/16	5/8 x 5/8 x 10-9/16	6	5/8
2-15/16	2	009019	2545	29900	58.7					
3	2	009020 *	2545	31800	56.2	7-1/2 x 11-3/8	3/4 x 3/8	3/4 x 3/4 x 11-3/8	6	3/4
3-3/16	2	009022	2315	38200	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	2	009021 *	2315	40500	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	2	009023	2165	47900	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	2	009024 *	2165	50500	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	2	009025	1900	72000	146.6	10-1/16 x 15-1/4	1 x 1/2	1 x 1 x 15-1/4	6	1
4	2	009027 *	1900	75400	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	3	009026	1775	103000	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	3	009031 *	1775	107400	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	3	009028	1625	142000	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	3	009043 *	1625	147500	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	4	009029	1390	190000	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	4	009050 *	1390	196000	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	3	009042 *	1365	247000	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	3	009054 *	1365	255000	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	4	009044 *	1230	404000	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

★ Same as Fig. 1 except with a rib parallel to the bore between each pair of flanges  
 \* Standard non-stock size. Consult DODGE Engineering for delivery

**Note: Coupled shafts must be the same diameters**

**NOTE: Instruction manuals for Ribbed Rigid Couplings available on [www.baldor.com](http://www.baldor.com)**

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## PARA-FLEX Elements - Part Numbers

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

High Speed/Flywheel Elements			
Element Size	Standard Part No.	Neoprene Part No. (1)	Weight (lbs)
PH87	011227	011266	1.20
PH96	011228	011267	1.80
PH116	011230	011268	2.00
PH131	011231	011269	3.50
PH172	011234	011270	7.50
PH192	011236	011271	9.30
PH213	011239	011272	13.90
PH252	011242	011273	27.00

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

- (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)

### Elastomer Compatibility

Ratings: 1- Minor Effect 2-Moderate Effect 3-Severe Effect nd-No Data

Substance	Nat. Rubber	Neo-prene	EPDM	Hytrel	Substance	Nat. Rubber	Neo-prene	EPDM	Hytrel
Acetic Acids	2	1	1	1	Hydrobromic Acid (40%)	1	2	1	nd
Acetic Anhydride	2	1	2	nd	Kerosene	3	2	3	nd
Alcohols, Monohydric	2	1	2	nd	Lacquers	3	3	3	2
Ammonia Anhydrous	3	1	1	nd	Lead Sulfamate	2	1	1	nd
ASTM A Oils	3	1	1	1	Mineral Oil	3	2	2	1
Animal Fats	3	2	2	nd	Naphtha	3	2	3	1
Benzene	3	3	3	2	Nickel Chloride	1	2	1	nd
Carbonic Acid	3	2	2	nd	Nitric Acid (10%)	1	2	2	2
Calcium Bisulfite	2	1	3	nd	Ozone	3	2	1	nd
Chloroacetone	2	2	1	2	Petroleum (<250°F)	3	2	3	nd
Chloroacetic Acid	2	1	1	nd	Potassium Dichromate	2	1	1	nd
Copper Sulphate	2	1	1	1	Salt Water	1	2	1	1
Corn Oil	2	2	2	nd	Silicone Oils	1	1	1	1
Diesel Oil	3	2	3	1	Sulfuric Acid (Conc.)	3	3	3	3
Fuel Oil	3	2	3	1	Vinegar	2	1	1	nd
Gasoline	2	2	3	1	Zinc Sulfate	2	1	1	nd



## GRID-LIGN Replacement Grids, Covers, and Seals - Part Numbers

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

## Chain Coupling: Chain Assemblies And Covers - Part Numbers

Coupling Size	Chain Assembly	Chain Assembly Weight (Lbs.)	Cover Assembly (1)	Cover Assembly Weight (Lbs.)
4012	100480	.4	099026	1.0
4016	100490	.6	099026	1.0
5012	100489	.9	N/A	N/A
5016	100481	1.4	099027	1.3
5018	100491	1.4	099027	1.3
6018	100482	2.7	099028	2.6
6020	100492	2.7	099028	2.6
8018	100483	6.1	099029	5.1
8020	100493	6.1	099029	5.1
10020	100495	11.0	099024	12.2
12018	100497	20.0	N/A	N/A
12020	100496	20.0	099025	19.5

(1) Cover assemblies consist of cover halves, screws, seals, and cover gaskets.

## PARA-FLEX Nickel Plated Screws

Flange Assembly Size	Screw Size (2)	Part Number	Number per Flange (3)
PX70, PX80	5/16-18X1-1/2	411767	5, 6
PX90, PX100	3/8-16X1-3/4	411768	6
PX120	1/2-13X2	411770	6
PX140	1/2-13X2-1/4	411771	8

(2) Nickel plated Grade 8 hex head cap screws. Screws not available from stock for PX140 with iron flanges. For sizes not listed, contact DODGE.

(3) 5 required for PX70; 6 for PX80.

**NOTE:** Product installation and maintenance instructions can be found at [www.baldor.com](http://www.baldor.com)





## Selection Methods:

### D-FLEX, PARA-FLEX, GRID-LIGN, GEAR, POWER-PLUS, POLY-DISC, & RIGID COUPLINGS

#### HP/100 METHOD

**Step 1:** Obtain required service factor from Service Factor Tables on pages PT1-83 and PT1-84.

**Step 2:** Determine the application HP per 100 RPM:

$$\text{HP} / 100 \text{ RPM} = \frac{\text{Motor HP} \times 100 \times \text{Service Factor}}{\text{Coupling RPM}}$$

**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

**Step 6:** If the GT Adapter System is utilized then ensure the keyless torsional holding power exceeds the application demands. From the application tables listed on PT1-10 and PT1-11, ensure the **Maximum Adapter Torque** for the shaft size exceeds the application torque that was calculated in Step 2.

#### TORQUE METHOD:

**Step 1:** Obtain required service factor from Service Factor Tables on pages PT1-83 and PT1-84

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

$$\text{Torque (In - lbs)} = \frac{63025 \times \text{HP} \times \text{SF}}{\text{Coupling RPM}}$$

**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

### CHAIN COUPLINGS

#### DESIGN HP METHOD:

**Step1:** Obtain required service factor from Service Factory Tables on pages PT1-84 and PT1-85

**Step 2:** Determine application HP:  
HP Design = HP x SF

**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.

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

**NOTE:** 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

**NOTE:** Selection program "Couple" available on [www.ptwizard.com](http://www.ptwizard.com)



## SERVICE FACTOR

Table 1

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>AGITATORS</b>					
Paddle or Propeller (Vert. or Horiz.)	1.00	1.00	1.25	1.00	1.25
Screw	1.00	1.00	1.25	1.00	1.25
<b>BLOWERS</b>					
Centrifugal	1.00	1.00	1.25	1.00	1.00
Lobe	1.50	1.25	1.50	1.25	1.50
Vane	1.00	1.25	1.25	1.25	1.25
<b>BREWING &amp; DISTILLING</b>					
Bottling Machinery, Brew Kettle	1.00	1.00	1.25	1.00	1.00
Cooker (Continuous Duty)	1.00	1.00	1.25	1.00	1.25
Mash Tub	1.00	1.00	1.25	1.00	1.25
Scale Hopper-Frequent Starting Peaks	1.50	1.75	◆	1.75	1.75
<b>CAN FILLING MACHINE</b>	1.00	1.00	1.25	1.00	1.00
<b>CAR DUMPER</b>	1.50	2.50	2.00	2.50	2.00
<b>CAR PULLER</b>	1.50	1.50	1.50	1.50	1.50
<b>CLARIFIER</b>	1.00	1.00	1.25	1.00	1.25
<b>CLASSIFIER</b>	1.00	1.00	1.25	1.00	1.25
<b>CLAY-WORKING MACHINES</b>					
Brick Press, Briquette Mach., Clay Working Mach., Pug Mill	1.50	1.50	1.50	1.75	1.75
<b>COMPRESSORS**</b>					
Centrifugal, Lobe, Screw	1.00	1.00	1.25	1.00	1.00
Lobe, Rotary	2.00	1.25	2.00	1.25	1.50
Reciprocating					
1 cylinder - single acting	3.50	3.00	◆	3.00	3.50
1 cylinder - double acting	3.00	3.00	◆	3.00	3.00
2 cylinder - single acting	3.00	3.00	◆	3.00	3.00
2 cylinder - double acting	2.50	3.00	◆	3.00	2.50
3 cl. or more - single acting	2.50	3.00	◆	3.00	2.50
3 cl. or more - double acting	2.00	2.00	◆	2.00	2.00
<b>CONVEYORS</b>					
Apron, Assembly, Belt, Chain, Flight, Oven	1.00	1.00	1.25	1.00	1.25
Reciprocating	2.50	3.00	◎	3.00	2.50
Screw	1.00	1.00	1.25	1.00	1.25
<b>CRANES AND HOISTS</b>					
Main Hoist-Medium Duty	1.50	1.75	1.50	1.75	1.75
Main Hoist-Heavy Duty	2.00	2.00	2.00	2.00	2.50
Skip Hoist, Travel Motion, Trolley	1.50	1.75	1.00	1.75	2.00
Motion, Slope	1.50	1.75	1.00	1.75	1.75
<b>CRUSHERS</b>					
Cane	2.00	2.00	2.00	2.00	2.00
Gyratory	2.50	2.50	◆	2.50	2.50

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>DREDGES</b>					
Cable Reel, Screen Drive, Stackler	1.50	1.75	1.50	1.75	1.75
Conveyor	1.50	1.75	1.50	1.25	1.75
Cutter Head Drive, Jig Drive	2.50	2.00	2.00	2.00	2.00
Pump, Utility Winch	1.50	1.75	1.50	1.50	1.75
<b>DYNAMOMETER</b>	1.00	1.00	1.25	1.00	1.00
<b>ELEVATORS</b>					
Bucket, Freight	2.00	1.25	2.00	1.25	2.00
<b>EXCITER</b>	1.00	1.00	1.25	1.00	1.00
<b>FANS</b>					
Centrifugal	1.00	1.00	1.25	1.00	1.00
Cooling Tower	2.00	2.00	2.00	2.00	2.00
Heavy Duty (Forced Draft)	1.50	1.50	2.00	1.50	1.50
Induced Draft	1.50	1.50	2.00	1.50	2.00
Light	1.00	1.00	1.25	1.00	1.00
Propeller Indoor	1.50	1.50	2.00	1.50	1.50
<b>FOOD INDUSTRY</b>					
Beet Slicer	1.50	1.75	1.50	1.75	1.75
Cereal Cooker	1.00	1.25	1.25	1.25	1.25
Dough Mixer, Meat Grinder	1.50	1.75	1.50	1.75	1.75
<b>GENERATORS</b>					
Even Load	1.00	1.00	1.25	1.00	1.00
Hoist or Railway Service	1.50	1.50	1.50	1.50	1.50
Welder Load	2.00	2.00	2.00	2.00	2.00
<b>GRIZZLY</b>	2.00	2.00	2.00	2.00	2.00
<b>KILN</b>	2.00	2.00	2.00	2.00	2.00
<b>LAUNDRY MACHINES</b>					
Tumbler Washer	2.00	2.00	2.00	2.00	2.00
<b>LINE SHAFTS</b>					
Driving Processing Machinery	1.00	1.50	1.25	1.50	1.50
Light	1.00	1.50	1.25	1.50	1.50
<b>LUMBER INDUSTRY</b>					
Band Resaw	1.50	1.50	1.50	1.50	1.50
Circular Resaw	1.50	1.50	1.50	1.75	1.50
Edger Head Rig, Hog, Log Haul	2.00	2.00	2.00	2.00	2.00
Planer	1.50	1.75	1.50	1.75	1.75
Rolls Non-Reversing	1.50	1.25	1.50	1.25	1.25
Rolls Reversing	2.00	2.00	2.00	2.00	2.00
Sawdust Conveyor	1.00	1.25	1.25	1.25	1.25
Slab Conveyor	1.50	1.75	1.50	1.75	1.50
Sorting Table	1.50	1.75	1.50	1.50	1.50
<b>MACHINE TOOLS</b>					
Auxiliary	1.00	1.00	1.25	1.00	1.00

Note: Selection program "Couple" available on [www.ptwizard.com](http://www.ptwizard.com)



## SERVICE FACTOR

Table 1 (continued)

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>MACHINE TOOLS (continued)</b>					
Main Drive	1.50	1.75	1.50	1.50	1.75
Notching Press, Planer (Reversing), Plate Planer, Punch Press	1.50	1.75	1.50	1.75	1.75
Traverse	1.00	1.00	1.25	1.00	1.00
<b>METAL FORMING MACHINES</b>					
Draw Bench, Carriage, Main Drive, Extruder,	2.00	2.00	1.50	2.00	2.00
Wire Drawing, Flattening Machine	2.00	2.00	1.50	1.75	2.00
<b>MILLS Rotary Type</b>					
Ball or Pebble direct or	2.50	2.00	2.00	2.00	2.25
on LS Shaft Gear Reducer	2.50	2.00	2.00	2.00	2.25
on HS Shaft Gear Reducer	2.00	1.50	1.50	1.50	1.75
Dryer and Cooler	1.50	1.75	1.50	1.75	2.00
Rod or Tube direct or	2.50	2.00	2.00	2.00	2.25
on LS Shaft Gear Reducer	2.50	2.00	2.00	2.00	2.25
on HS Shaft Gear Reducer	2.00	1.50	1.50	1.50	1.75
Tumbling Barrel	1.50	1.75	2.00	1.75	1.75
<b>MIXERS</b>					
Concrete (Continuous or intermittent)	1.50	1.75	1.50	1.75	1.75
Muller-Simpson type	1.50	1.75	1.50	1.50	1.75
<b>OIL INDUSTRY</b>					
Chiller	1.00	1.25	1.25	1.25	1.25
Oil Well Pumping (Not over 150% peak torque)	2.00	2.00	2.00	2.00	2.00
Paraffin Filter Press	1.50	1.50	1.50	1.50	1.50
<b>PAPER MILLS</b>					
Agitator	1.00	2.00	1.25	2.00	2.00
Barking Drum	2.50	2.50	2.00	2.50	2.25
Beater and Pulper	1.50	1.75	1.50	1.75	1.75
Bleacher	1.00	1.00	1.25	1.00	1.00
Calender	2.00	1.75	2.00	1.75	2.00
Chipper	3.00	2.50	2.00	2.50	2.50
Couch Cylinder Dryer	1.50	1.75	1.50	1.75	1.75
Felt Stretcher	1.00	1.25	1.25	1.25	1.25
Fourdrinier	1.50	1.75	1.50	1.75	1.75
Jordan	2.00	2.00	2.00	2.00	2.00
Press	2.00	1.75	1.50	1.75	1.75
Pulp Grinder	2.00	1.75	2.00	1.75	1.75
Stock Chest	1.50	1.50	1.50	1.50	1.50
Stock Pump					
Reciprocating	2.00	2.00	◆	2.00	2.00

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>PAPER MILLS (continued)</b>					
Suction Roll	2.00	1.75	1.50	1.75	1.75
Winder	1.50	1.50	1.50	1.50	1.50
<b>PARAFFIN FILTER PRESS</b>					
	1.50	1.50	1.50	1.50	1.50
<b>PRINTING PRESS</b>					
	1.50	1.50	1.50	1.50	1.50
<b>PROPELLER Marine</b>					
	1.50	1.50	◆	1.50	1.50
<b>PULLERS</b>					
Barge Hall	2.50	2.00	2.00	1.50	2.00
<b>PULVERIZERS</b>					
Hammermill-Light Duty	1.50	1.50	1.50	1.50	1.50
Hammermill-Heavy Duty	2.00	1.75	2.00	1.75	1.75
Hog	2.00	1.75	2.00	1.75	1.75
Roller	1.50	1.50	1.50	1.50	1.50
<b>PUMPS</b>					
For Stock Pumps See Paper Mills					
Centrifugal	1.00	1.00	1.25	1.00	1.00
Descaling Gear Type	1.50	1.25	1.50	1.25	1.50
Oil Well Pumping (Not over 150% peak torque)	2.00	2.00	2.00	2.00	2.00
Rotary -other than gear	1.50	1.25	1.50	1.25	1.50
<b>Reciprocating</b>					
1 cylinder-single acting	2.50	3.00	◆	3.00	2.25
1 cylinder-double acting	2.00	3.00	◆	3.00	2.00
2 cylinder-single acting	2.00	2.00	◆	2.00	2.25
2 cylinder-double acting	1.50	1.75	◆	1.75	2.00
3 cylinder or more	1.50	1.50	◆	1.50	1.75
<b>RUBBER INDUSTRY</b>					
Banbury Mixer	2.50	2.50	2.00	2.50	2.50
Calender	2.00	2.00	2.00	2.00	2.00
Cracker Mixing Mill Plasticator	2.50	2.50	2.00	2.50	2.50
Refiner, Sheeter	2.00	2.50	2.00	2.50	2.00
Tire-Building Machine	2.00	2.50	2.00	2.50	2.50
Tire and Tube Press Opener Based on Peak Torque	1.00	1.00	1.25	1.00	1.00
Tuber and Strainer	1.50	1.75	1.50	1.75	1.75
Warming Mill	2.00	2.00	2.00	2.00	2.00
Washer	2.50	2.50	2.00	2.50	2.50
<b>SCREENS</b>					
Air Washing	1.00	1.00	1.25	1.00	1.00
Coal and Sand Rotary	1.50	1.50	1.50	1.50	1.50
Vibrating	2.50	2.50	2.00	2.50	2.50
Water	1.00	1.00	1.25	1.00	1.25

Note: Selection program "Couple" available on [www.ptwizard.com](http://www.ptwizard.com)



## SERVICE FACTOR

Table 1 (continued)

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>SEWAGE DISPOSAL EQUIPMENT</b>	1.00	1.00	1.25	1.00	1.25
<b>SHOVEL</b>	2.00	2.00	2.00	2.00	2.00
<b>SHREDDER</b>	1.50	1.50	1.50	1.50	1.50
<b>STEEL INDUSTRY</b>					
Cold Mills					
Coiler up or down	1.50	2.00	◆	1.50	2.00
Strip, Temper	2.00	2.00	◆	2.00	2.00
Hot Mills					
Coiler up or down	1.50	2.00	◆	1.50	2.00
Edger Drive	1.50	2.00	◆	1.50	2.00
Feed Roll Blooming	3.00	2.50	◆	3.00	3.50
Roughing Mill Delivery	3.00	2.50	◆	2.50	3.00
Non-reversing, Sheet Strip	3.00	2.50	◆	2.50	3.00
Rod Mill	2.50	2.50	◆	2.00	2.25
Soaking Pit Cover Drive Lift	3.00	1.50	◆	1.00	3.00
Soaking Pit Cover Drive Travel	3.00	1.50	◆	2.00	3.00

Application (Read Footnotes)	Factor Δ				
	PARA-FLEX/ Poly-Disc	Grid Chain Rigid	D-FLEX	Gear	Power-Plus
<b>STEERING GEAR</b>	1.00	1.00	1.25	1.00	1.25
<b>STOKER</b>		1.00	1.25	1.00	1.25
<b>TEXTILE MILLS</b>					
Batcher	1.00	1.25	1.25	1.25	1.25
"Calender, Card Machine, D Can"	1.50	1.50	1.50	1.50	1.50
Dyeing Machine	1.00	1.25	1.25	1.25	1.25
Loom	1.50	1.50	1.50	1.50	1.50
Mangel, Napper, Soaper	1.00	1.25	1.25	1.25	1.25
Spinner, Tenter Frame	1.50	1.50	1.50	1.50	1.50
<b>WINDLASS</b>	1.50	1.50	1.50	1.50	1.50
<b>WOODWORKING MACHINES</b>	1.00	1.00	1.25	1.00	1.25

### 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.

$$\text{Driven S.F.} + \text{Driver S.F. Adder} = \text{System S.F.}$$

$$2.5 + .5 = 3.0$$

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	Reciprocating Engine Number of Cylinders				
				12 or More	8 to 11	6 to 7	4 to 5	Less than 4
PARA-FLEX	0.00	0.00	0.00	0.00	0.50	0.50	0.50	◆
METALLIC	0.00	0.00	0.00	0.00	0.50	0.50	1.00	◆
D-FLEX	0.00	IF SF < 1.25 ADD 0.25 IF SF > 1.25 ADD 0.5	IF SF < 1.5 SUBTRACT 0.25 IF SF > 1.5 SUBTRACT 0.5	IF SF < 1.25 ADD 0.25  IF SF > 1.25 ADD 0.5				◆  ◆

Note: Selection program "Couple" available on [www.ptwizard.com](http://www.ptwizard.com)



## Comparative Table

Coupling Type	Misalignment		End Float
	Angular	Parallel	
PARA-FLEX (PX, PS) (1) (2)	4°	.125"	± 0.156"
PARA-FLEX (PH, PF)	1°	0.0625"	± 0.094"
GRID-LIGN	1/2°	0.012"	0.375"
CHAIN	2°	.015"	0.300"
POLY-DISC	2°	0.032"	
POWERPLUS	Please refer to instruction manual #MN4025 on www.baldor.com		

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

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

## Temperature Range

Coupling Type	°F
PARA-FLEX	
PX, PS	-45°F (1) to +180°F(1)
PH, PF	-45°F (1) to +180°F(1)
D-FLEX	
EPDM	-30°F to +275°F
NEOPRENE	0°F to +200°F
HYTREL	-65°F to +250°F
GRID-LIGN	-35°F to +210°F
CHAIN	-30°F to +225°F
GEAR	-30°F to +250°F
POLY-DISC	-90°F to +170°F
NYLIGN	0°F to +170°F
POWERPLUS	-22°F to 176°F

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

## D-Flex Misalignment (1)

Size	Types JE, JN, E & N			Types H & HS (4)		
	Parallel (1)	Angular (2)	End Float (3)	Parallel (1)	Angular (2)	End Float (3)
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°	-

**NOTE:** (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



## PARA-FLEX Couplings Bolt Torque Information

Size	Standard				
	Clamp Ring Bolts (5) Torque (In.-Lbs.)			PS Shaft Hub Bolts (3)	
	No.	2-Piece Assy	3-Piece Assy	No.	Torque (In.-Lbs.)
PX40	4	130	130	4	130
PX50	5	130	130	4	180
PX60	5	290	290	5	180
PX70	5	290	290	5	180
PX80	6	290	290	5	300
PX90	6	480	480	6	300
PX100	6	480	480	6	300
PX110	6	480	480	6	300
PX120	6	1080	1080	6	720
PX140	8	1080	1080	5	720
PX160 (2)	8	2160	1150	6	1296
PX200	12	2160	2400	8	1296
PX240	12	3600	4020	-	-
PX280	14	4320	6600	-	-
PX320	16	4320	6600	-	-

(2) PX160 steel flanges have 10 clamp ring bolts

(3) SAE Grade 8

(5) SAE Grade 8. FB style couplings utilize class 10.9 metric clamping ring bolts

## PARA-FLEX High Speed & Fly Wheel Bolt Torque Information (in-lb)

Size	For Flange (3)		For Bolt Ring (3)
	Iron Fig.	Steel Fig.	
87	290	290	180
96	290	290	300
116	480	480	360
131	480	480	420
172	1080	1150	600
192	2160	1150	780
213	2160	2160	840
252	3600	3600	2880

(3) SAE Grade 8

## Torsional Stiffness

PARA-FLEX		HIGH SPEED PARA-FLEX	
Size	In-Lbs/Degree (4)	Size	In-Lbs/Degree (4)
PX40	120	PH 87	1000
PX50	224	PH 96	1190
PX60	414	PH 116	2182
PX70	544	PH 131	2566
PX80	876	PH 172	6737
PX90	1088	PH 192	13893
PX100	1530	PH 213	23143
PX110	2420	PH 252	39008
PX120	4014		
PX140	8296		
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 Torsional Stiffness\*

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

## D-Flex Spacer Bolt Torques

Size	Shaft Hub Bolts (1)	
	Number	Torque Ft-Lbs
5SCH	4	4
6SCH	4	9
7SCH	4	9
8SCH	4	18
9SCH	4	31
10SCH	4	50
11SCH	4	75
12SCH	4	150
13SCH	4	150
14SCH	4	150

(1) SAE Grade 8



## AGMA Class 1 Fits

Nom. Shaft Diameter (In.)	Bore Dimensions			
	Clearance		Interference	
	Nom. Shaft Dia. Less	Bore Tolerance	Nom. Shaft Dia. Less	Bore Tolerance
0 - 1-1/2	.000	+ .001 -.000	.001	+ .0005 -.000
1-1/2 - 2	.000	+ .001 -.000	.002	+ .001 -.000
2 - 3	.000	+ .0015 -.000	.002	+ .0015 -.000
3 - 4	.000	+ .0015 -.000	.003	+ .0015 -.000
4 - 5	.000	+ .002 -.000	.0035	+ .0015 -.000
5 - 6	.000	+ .002 -.000	.004	+ .0015 -.000

## Standard Keyways

Keyway Bore Size	Width	For Sq. Key	For Rec. Key
7/16	3/32	3/64	...
1/2 - 9/16	1/8	1/16	...
5/8 - 7/8	3/16	3/32	...
15/16 - 1-1/4	1/4	1/8	...
1-5/16 - 1-3/8	5/16	5/32	...
1-7/16 - 1-3/4	3/8	3/16	1/8
1-13/16 - 2-1/4	1/2	1/4	3/16
2-5/16 - 2-3/4	5/8	5/16	7/32
2-13/16 - 3-1/4	3/4	3/8	1/4
3-5/16 - 3-3/4	7/8	7/16	5/16
3-13/16 - 4-1/2	1	1/2	3/8
4-9/16 - 5-1/2	1-1/4	5/8	7/16

## Metric Bore Standard

MM Bore	MM Keyway Width	MM Hub Keyseat	MM Key
14	5	2.3	5x5
16	5	2.3	5x5
18	6	2.8	6X6
19	6	2.8	6X6
20	6	2.8	6X6
22	6	2.8	6X6
24	8	3.3	8X7
25	8	3.3	8X7
28	8	3.3	8X7
30	8	3.3	8X7
32	10	3.3	10X8
35	10	3.3	10X8
38	10	3.3	10X8
40	12	3.3	12X8
42	12	3.3	12X8
45	14	3.8	14X9
48	14	3.8	14X9
50	14	3.8	14X9
55	16	4.3	16X10
60	18	4.4	18X11
65	18	4.4	18X11
70 & 75	20	4.9	20X12
80 & 85	22	5.4	22X14
90	25	5.4	25X14
95	25	5.4	25X14
100	28	6.4	28X16

MM bore and keyway conform to ISO standard recommendation R773, for "FREE" fit