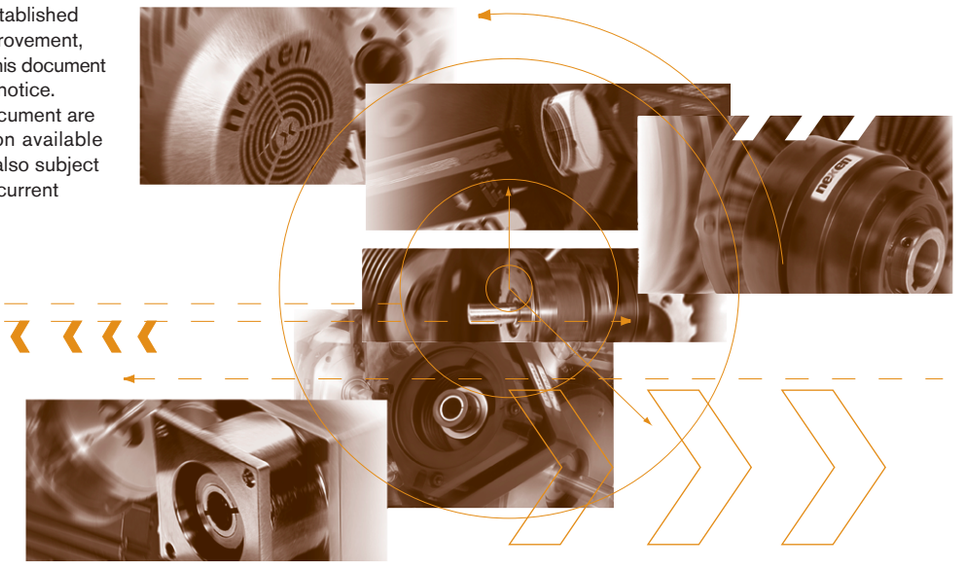
Product Function/Selection Chart

Product Groups	Friction Clutches	Tooth Clutches	Multi-Disc Clutches	Dual Plate Clutches	High Capacity Clutches
General Features Number of Model Options	15 Standard 5 Metric	40 Standard 35 Metric	7 Standard 0 Metric	4 Standard 0 Metric	16 Standard 0 Metric
Functions					
Controlled Acceleration	Yes			Yes	Yes
Inching/Jogging	Yes			Yes	Yes
Cycling/Indexing	Yes			Yes	Yes
Positioning	Yes	Yes	Yes	Yes	Yes
Reversing/Multiple Speed	Yes	Yes	Yes	Yes	Yes
Tension Control, Rewind	Yes			Yes	
Overload Protection	Yes	Yes		Yes	
Disconnect/Connect	Yes	Yes	Yes	Yes	Yes
Positive Drive		Yes			

In accordance with Nexen's established policy of constant product improvement, the specifications contained in this document are subject to change without notice. Technical data listed in this document are based on the latest information available at the time of printing and are also subject to change without notice. For current information, please consult:
www.nexengroup.com



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FRICTION CLUTCH SELECTION CHART

Friction clutch recommendation is based upon air pressure of 50 psi, transmitted horsepower and speed.

RPM

TRANSMITTED HORSEPOWER	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	2200	2600	3000	3600
1/36	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/20	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/18	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/15		BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/12		BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/10		BW/B-275	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/9		BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/8	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/6	F-450	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M	M	M	M	M
1/4	L-600	F-450	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M	M	M	M	M	M	M	M
1/3	L-600	F-450	F-450	F-450	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M	M
1/2	M-800	L-600	L-600	F-450	F-450	F-450	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275	M	M	M
1	H-1000	H-1000	L-600	L-600	L-600	L-600	F-450	F-450	F-450	F-450	F-450	F-450	F-450	F-450	F-450	F-450	F-450	BW/B-275	BW/B-275	BW/B-275	BW/B-275	BW/B-275
2	H-1000	H-1000	M-800	M-800	M-800	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	F-450	F-450	F-450	F-450	F-450
3	H-1000	H-1000	H-1000	M-800	M-800	M-800	M-800	M-800	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	L-600	F-450	F-450	F-450	F-450
5	XHW	H-1000	H-1000	H-1000	H-1000	M-800	M-800	M-800	M-800	M-800	M-800	M-800	M-800	M-800	L-600	L-600	L-600	L-600	L-600	L-600	L-600	F-450
7½		XHW	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	M-800	M-800	M-800	M-800	M-800	M-800	M-800	M-800	M-800	M-800	L-600	L-600	L-600	L-600
10		XHW	XHW	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	M-800	M-800	M-800	M-800	M-800	M-800	M-800				
15			XHW	XHW	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000				
20				XHW	XHW	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000				
25					XHW	XHW	XHW	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000	H-1000				
30					XHW	XHW	XHW	XHW														
40								XHW	XHW	XHW	XHW											
50										XHW	XHW											

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REFER TO DUAL PLATE CLUTCH PRODUCTS PAGE 43

Important Notes:

1. For static torque ratings at different air pressures, refer to individual models to ensure conformity.
2. For operating speeds over 1800 rpm, refer to individual models or consult Nexen to ensure conformity.
3. Limited to peak thermal input rates of .9 HP_T per square inch of interface area.
4. Bars equal PSI x 0.0689.

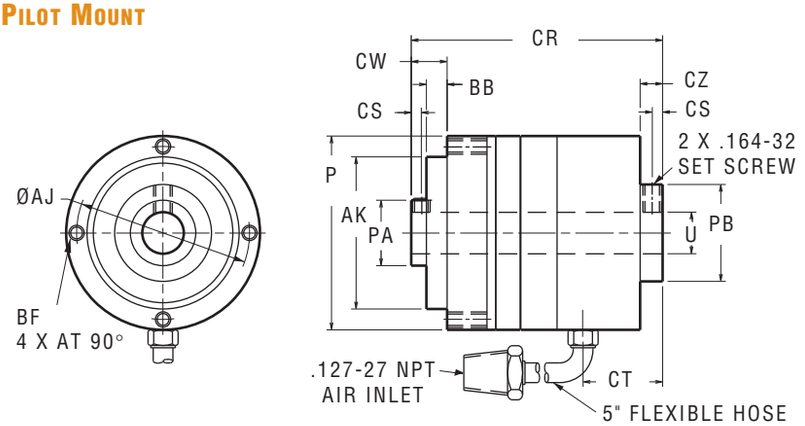
Micro Friction Clutch

Mounting Style	Product Number	Bore (In)	Shipping Wt. (Lbs)
Pilot	856800	0.375	3

For Inertia Values of components, see page 359.
Required shaft insertion into clutch hub = minimum of 1 inch from Pilot side.

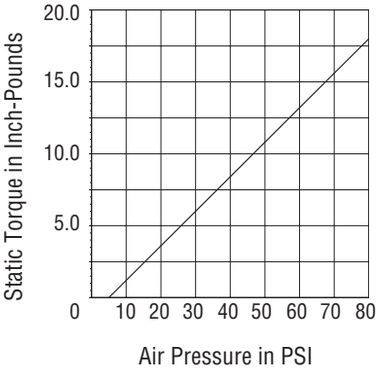
MICRO MODEL–APPROXIMATE DIMENSIONS (INCHES)

Pilot Mount



PRODUCT NUMBER	AJ	AK $^{+.000}_{-.001}$	BB	BF	CR	CS	CT	CW	CZ	P	PA	PB	U $^{+.001}_{-.000}$
856800	1.562	1.374	0.19	.138-32	2.27	0.09	0.72	0.32	0.20	1.75	0.59	0.88	0.375

Torque Vs. Air Pressure



NOTE: Dynamic torque is approximately 85% of static torque.

MICRO FRICTION CLUTCH

The Micro Friction Clutch provides high performance in a small package:

- Static Torque capacity up to 18 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 3600 rpm
- Transmitted Horsepower values from 0.06 to 0.50
- Thermal Horsepower rating of 0.06 @ 1800 rpm
- Heat Sink capacity of 1900 Ft. Lbs.

This Pilot Mount clutch mounts easily and comes with:

- 0.375 inch **Standard Bore**
- 5 inch hose with .190-32 by .125 NPT included.

BANTAM WEIGHT MODEL BW FRICTION CLUTCH

The BW Friction Clutch provides excellent performance:

- Static Torque capacity up to 100 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 3600 rpm
- Transmitted Horsepower values from 0.05 to 1.00
- Thermal Horsepower rating of 0.13 @ 1800 rpm
- Heat Sink capacity of 5650 Ft. Lbs.
- **Corrosion-Resistant** Model availiable for damp environments

This clutch is thru-shaft mounted to provide design versatility in **5 Models**:

- **4 Sheave Mount** units provide 1-"3V" or 1-"A" Groove options
- **5 Pilot Mount** units with different standard bore sizes
- **Standard Bore** sizes of 0.500 and 0.625 inches
- Customize the bore to your shaft diameter with a **Bushing** or **Coupling Half**
- Tapped holes provided for easy mounting in applications with pulleys, sprockets or gears
- 8.25 inch hose included
- **BW** is equipped with Thrust Bearings and a Single Key Splined Hub.
- **B-275** is equipped with Sealed, Radial Bearings and a Multi-tooth Splined Hub.

BW and B-275 Model Clutches

Clutch Style	Product Number	Sheave Diameter	Bore (In)	Key Size (sq)	Shipping Wt. (Lbs)
Pilot Mount, BW	800100	--	0.625	0.188	4
Pilot Mount, BW	800111	--	0.500	0.125	4
Pilot Mount Corrosion-Resistant, BW	800107	--	0.625	0.188	4
Pilot Mount, B-275	802870	--	0.625	0.188	4
Pilot Mount, B-275	802871	--	0.500	0.125	4
Sheave Mount, B-275, 1-"A"	802872	3.00 PD	0.625	0.188	4
Sheave Mount, B-275, 1-"3V"	802873	2.750 OD	0.625	0.188	4
Sheave Mount, 1-"3V"	800000	2.750 OD	0.625	0.188	4
Sheave Mount, 1-"A"	800004	3.000 PD	0.625	0.188	4
Pilot w/Coupling Half	Select a Pilot Mount and a Coupling Half to achieve this style of mount.				

For Inertia Values of components, see page 359.
Keys are included. Required shaft insertion into clutch hub = minimum of 1.50 inches from Pilot side.

Bushing Options (for 0.625 bore clutches only)

Bushings fit within the bore of the clutch, reducing the bore to the amount indicated.

Product Number	Reduces Clutch Bore Size to (In)	Shipping Wt. (Lbs)
800200	0.500	1
800900	No Bore/Customer machines	1

Coupling Half Options

A Coupling Half is used for in-line applications. To achieve a Pilot Mount with Coupling Half mounting configuration:

1. Select a Pilot Mount Clutch from above;
2. Select a Coupling Half from the chart below which fits your shaft requirements;
3. Order Clutch and Coupling Half separately.

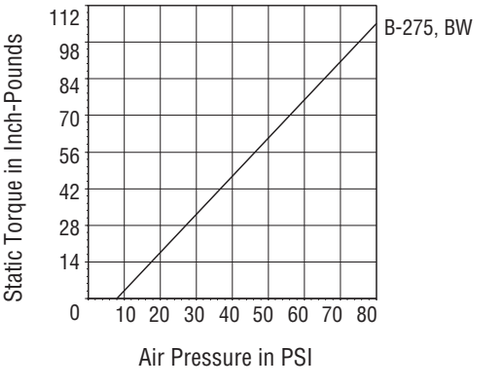
Product Number	Bore Size (In)	Key Size (sq)	Shipping Wt. (Lbs)
800300	0.500	0.125	1
800307	0.500	0.125	1①
800400	0.625	0.188	1
800500	0.750	0.188	1

①Nickle Plated

Pulleys, Sprockets, Gears

Tapped holes are provided for ease of mounting. Nexen does not furnish these items. For minimum sprocket requirements, see page 369.

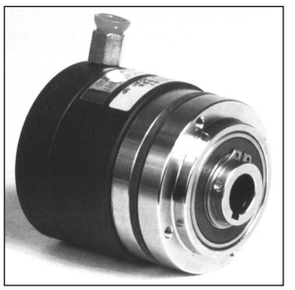
Torque Vs. Air Pressure

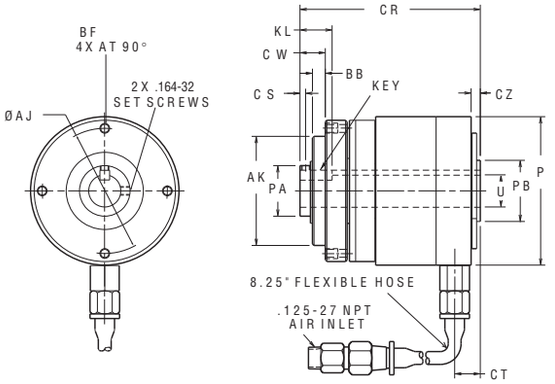


NOTE: Dynamic torque is approximately 85% of static torque.

BW AND B-275 MODEL CLUTCHES - APPROXIMATE DIMENSIONS (INCHES)

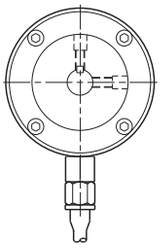
Pilot Mount

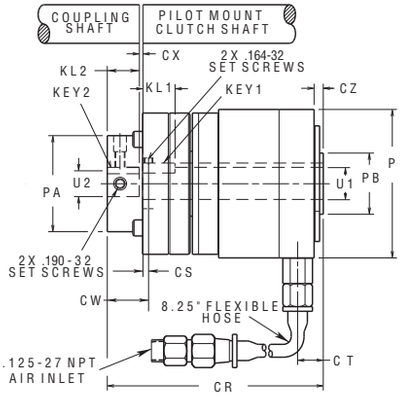




PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CS	CT	CW	CZ	KL	KEY (SQ)	P	PA	PB	U +.001 -.000
800100	2.437	2.124	0.25	.190-32	3.51	0.11	0.50	0.49	0.18	0.62	0.188	2.89	0.98	1.19	0.625
800107	2.437	2.124	0.25	.190-32	3.51	0.11	0.50	0.49	0.18	0.62	0.188	2.89	0.98	1.19	0.625
800111	2.437	2.124	0.25	.190-32	3.51	0.11	0.50	0.49	0.18	0.62	0.125	2.89	0.98	1.19	0.500
802870	2.437	2.124	0.25	.190-32	3.51	0.11	0.50	0.49	0.18	0.62	0.188	2.89	0.98	1.19	0.625
802871	2.437	2.124	0.25	.190-32	3.51	0.11	0.50	0.49	0.18	0.62	0.125	2.89	0.98	1.19	0.500

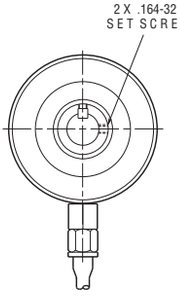
Pilot Mount w/Coupling Half

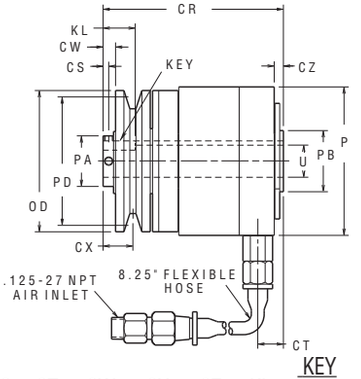




COUPLING PRODUCT NUMBER	CR	CS	CW	CX	CZ	KL1	KL2	KEY 1 (SQ)	KEY 2 (SQ)	P	PA	PB	U1 +.001 -.000	U2 +.001 -.000
800300	4.20	0.11	0.69	0.07	0.18	0.62	0.62	0.188	0.125	2.89	1.87	1.19	0.625	0.501
800307	4.20	0.11	0.69	0.07	0.18	0.62	0.62	0.188	0.125	2.89	1.87	1.19	0.625	0.501
800400	4.20	0.11	0.69	0.07	0.18	0.62	0.62	0.188	0.188	2.89	1.87	1.19	0.625	0.625
800500	4.20	0.11	0.69	0.07	0.18	0.62	0.62	0.188	0.188	2.89	1.87	1.19	0.625	0.751

Sheave Mount





PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	PD	CR	CS	CT	CW	CX	CZ	KL	KEY (SQ)	P	PA	PB	U +.001 -.000
802872	"A"	1	3.250	3.000	3.51	0.11	0.50	0.18	0.55	0.18	0.62	0.188	2.89	0.98	1.19	0.625
800000	"3V"	1	2.750	--	3.51	0.11	0.50	0.24	0.58	0.18	0.62	0.188	2.89	0.98	1.19	0.625
802873	"3V"	1	2.750	--	3.51	0.11	0.50	0.25	0.59	0.18	0.62	0.188	2.89	0.98	1.19	0.625
800004	"A"	1	3.250	3.000	3.51	0.11	0.50	0.17	0.54	0.18	0.62	0.188	2.89	0.98	1.19	0.625

FRICTION CLUTCH MODELS F-450 & L-600

- Static Torque capacity up to:
  F-450/140 In. Lbs. @ 80 psi
  L-600/370 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 3600 rpm
- Transmitted Horsepower values from:
  F-450/0.125 to 5.00
  L-600/0.25 to 10.00
- Thermal Horsepower rating of:
  F-450/0.30 @ 3600 rpm
  L-600/0.75 @ 3600 rpm
- Heat Sink capacity of:
  F-450/30,000 Ft. Lbs.
  L-600/60,000 Ft. Lbs.

8 F-450 & 8 L-600 Models offer design flexibility:

- **Sheave Mount Units:**
  F-450/4 in 1-"3V" or 1-"A" Groove styles, each in 2 sizes
  L-600/6, 4 sizes of 2-"3V" and 2 sizes of 2-"A"
- **2 Pilot Mount** units with different standard bore sizes
- **2 Rewind Clutches** Half-Torque, Precise Interface. Standard or LOCO facing, 0.875 bore size.
- **Standard Bore Sizes:**
  F-450/0.750 and 0.875 inches
  L-600/1.00 and 1.125 inches
- Customize the bore to your shaft diameter with a **Bushing** or **Coupling Half**
- **Includes:**
  F-450/Air Inlet Adapter and 8.25 in. hose.
  L-600/8.25 inch hose.
- **[1] 802864 & 802865**
  Percision Interface Clutches.
  For reduced pulsation in tension control applications.

F-450 & L-600 Model Clutches

Model	Clutch Style	Product Number	Sheave Diameter	Bore (In)	Key Size (sq)	Shipping Wt. (Lbs)
F-450	Pilot Mount	802850	--	0.875	0.188	12
F-450	Pilot Mount, Rewind (Std)	802864 [1]	--	0.875	0.188	10
F-450	Pilot Mount, Rewind (LOCO)	802865 [1]	--	0.875	0.188	10
F-450	Pilot Mount	802855	--	0.750	0.188	10
F-450	Sheave Mount 1-"3V"	802810	3.35 OD	0.875	0.188	10
F-450	Sheave Mount, 1-"3V"	802820	4.50 OD	0.875	0.188	11
F-450	Sheave Mount, 1-"A"	802830	3.80 PD	0.875	0.188	10
F-450	Sheave Mount, 1-"A"	802840	4.40 PD	0.875	0.188	10
L-600	Pilot Mount	805270	--	1.125	0.250	17
L-600	Pilot Mount	805275	--	1.000	0.250	17
L-600	Sheave Mount, 2-"3V"	805210	4.50 OD	1.125	0.250	18
L-600	Sheave Mount, 2-"3V"	805220	5.30 OD	1.125	0.250	19
L-600	Sheave Mount, 2-"3V"	805230	6.00 OD	1.125	0.250	21
L-600	Sheave Mount, 2-"3V"	805240	8.00 OD	1.125	0.250	25
L-600	Sheave Mount, 2-"A"	805250	4.40 PD	1.125	0.250	18
L-600	Sheave Mount, 2-"A"	805260	5.40 PD	1.125	0.250	20
Both	Pilot w/Coupling Half	Select a Pilot Mount and a Coupling Half to achieve this style of mount.				

For Inertia Values of components, see page 359. Keys are included. Required shaft insertion into clutch hub = minimum of F-450/2.00 inches, L-600/2.50 inches from Pilot side.

Bushing Options

(for 0.875 & 1.125 bore clutches only)

Bushings fit within the bore of the existing clutch, reducing the bore to the amount indicated.

Bore Size	Product Number	Reduces Clutch Bore Size to (In)	Shipping Wt. (Lbs)
0.875	827200	0.500	1
0.875	802500	0.625	1
0.875	802600	0.750	1
0.875	803100	No Bore/Customer machines	1
1.125	805100	0.625	1
1.125	804600	0.750	1
1.125	804700	0.875	1
1.125	804800	1.000	1
1.125	805000	No Bore/Customer machines	1

Pulleys, Sprockets and Gears

These can be attached to the clutch for offset shaft applications. Tapped holes are provided for ease of mounting. Nexen does not furnish these items. For minimum sprocket requirements, see page 369.

Coupling Half Options

(see page 369 for coupling specifications)

A Coupling Half is used for in-line applications. To achieve a Pilot Mount with Coupling Half mounting configuration:

1. Select a Pilot Mount Clutch;
2. Order Clutch and Coupling Half separately.
3. Coupling Half is less taper lock bushing. Use Dodge Taper Lock® #1008/F-450, #1215/L-600, (0.500 to 1.000/F-450, 0.500 to 1.125/L-600, inch bore range). Customer furnished.

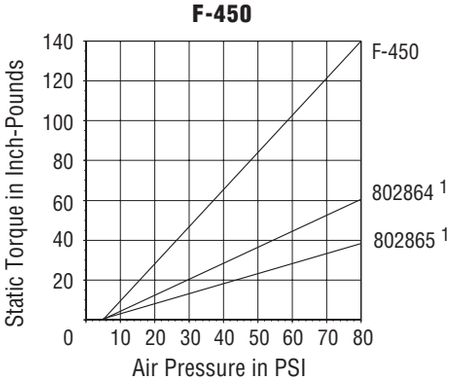
Model	Product Number	Maximum Bore Size (In)	Shipping Wt. (Lbs)
F-450	802700	1.000	3
L-600	804900	1.125	6

4. Select a Shaft Extension when the driving shaft is smaller in diameter and shorter than the length of the clutch. The Shaft Extension is the same length as the clutch and engages with the key on the pilot end. Extensions fit the driving shaft diameter.

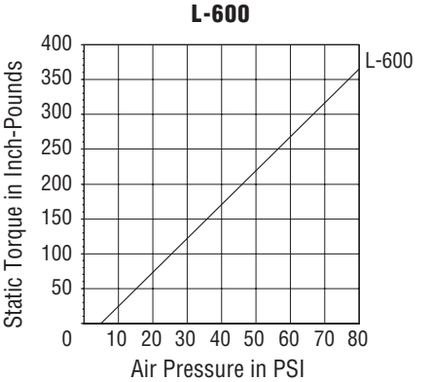
Only for Bore Size	Product Number	Driving Shaft DIA.	Shipping Wt. (Lbs)
0.875	802800	0.500	1
0.875	803000	0.625	1
1.125	805200	0.500	1.5
1.125	805300	0.625	1.5
1.125	805400	0.750	1.5
1.125	805500	0.875	1.5

Torque Vs. Air Pressure

F-450



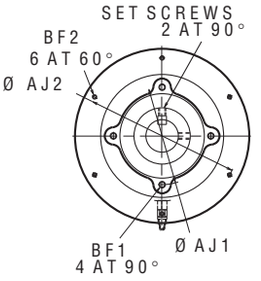
L-600

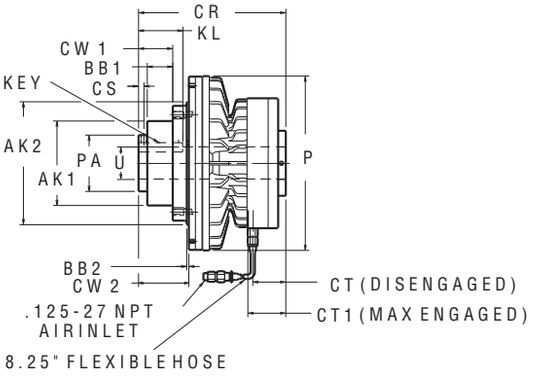


NOTE: Dynamic torque is approximately 85% of static torque.

F-450 & L-600 MODEL CLUTCHES - APPROXIMATE DIMENSIONS (INCHES)

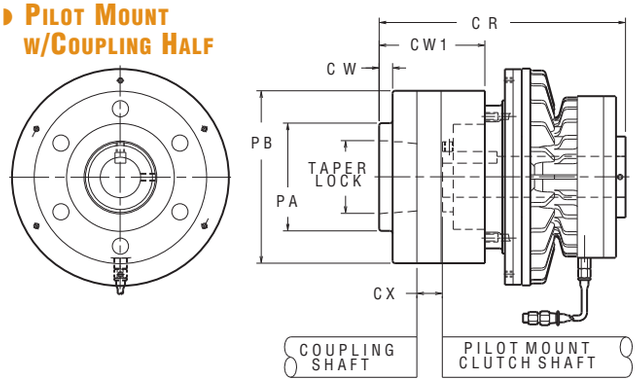
Pilot Mount





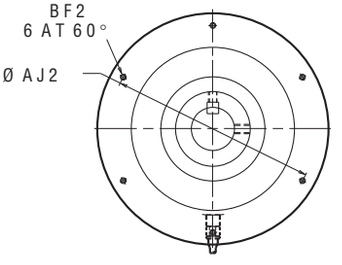
MODEL	PRODUCT NUMBER	AJ1	AJ2	AK1 ±.001	AK2 ±.001	BB1	BB2	BF1	BF2	CR	CS	CT	CT1	CW1	CW2	KL	KEY (SQ)	P	PA	SET SCREWS	U +.001 -.000
F-450	802850	3.000	4.000	2.498	3.498	0.60	0.19	.250-20	.190-24	4.75	0.25	1.33	1.42	1.04	1.23	1.062	0.188	4.56	1.38	.250-20	0.875
F-450	802855	3.000	4.000	2.498	3.498	0.60	0.19	.250-20	.190-24	4.75	0.25	1.33	1.42	1.04	1.23	1.062	0.188	4.56	1.38	.250-20	0.750
L-600	805270	3.500	5.500	2.998	4.498	0.62	0.07	.250-20	.190-24	5.56	0.25	1.79	1.94	1.23	1.55	1.37	0.250	6.06	1.84	.312-18	1.125
L-600	805275	3.500	5.500	2.998	4.498	0.62	0.07	.250-20	.190-24	5.56	0.25	1.79	1.94	1.23	1.55	1.37	0.250	6.06	1.84	.312-18	1.000

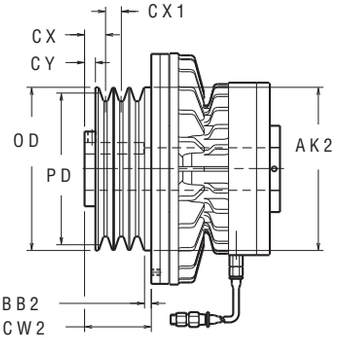
Pilot Mount w/Coupling Half



MODEL	COUPLING PRODUCT NUMBER	CR	CW	CW1	CX	PA	PB	DODGE TAPER LOCK®
F-450	802700	6.45	0.12	2.75	0.70	2.62	3.50	#1008
L-600	804900	7.70	0.94	3.37	0.64	2.62	4.38	#1215

Sheave Mount





MODEL	PRODUCT NUMBER	SHEAVE BELT	G'VE	OD	PD	AJ2	AK2 ±.001	BB2	BF2	CW2	CX	CX1	CY
F-450	802810	"3V"	1	3.35	--	4.000	3.498	0.06	.190-24	1.22	0.75	--	0.44
F-450	802820	"3V"	1	4.50	--	--	--	--	--	--	0.88	--	0.44
F-450	802830	"A"	1	4.05	3.80	--	--	--	--	--	0.88	--	0.44
F-450	802840	"A"	1	4.65	4.40	--	--	--	--	--	0.88	--	0.44
L-600	805210	"3V"	2	4.50	--	5.500	4.498	0.29	.190-24	1.55	0.68	0.41	0.43
L-600	805220	"3V"	2	5.30	--	--	--	--	--	--	0.86	0.41	0.55
L-600	805230	"3V"	2	6.00	--	--	--	--	--	--	0.86	0.41	0.55
L-600	805240	"3V"	2	8.00	--	--	--	--	--	--	0.86	0.41	0.55
L-600	805250	"A"	2	4.65	4.40	--	--	--	--	--	0.62	0.63	0.24
L-600	805260	"A"	2	5.65	5.40	--	--	--	--	--	0.62	0.63	0.24

FRICTION CLUTCH MODELS M-800 & H-1000

- Static Torque capacity up to:
  M-800/975 In. Lbs. @ 80 psi
  H-1000/2800 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1800 rpm
- Transmitted Horsepower values from:
  M-800/0.50 to 10.00
  H-1000/1.00 to 25.00
- Thermal Horsepower rating of:
  M-800/1.00 @ 1800 rpm
  H-1000/2.25 @ 1800 rpm
- Heat Sink capacity of:
  M-800/110,000 Ft. Lbs.
  H-1000/230,000 Ft. Lbs.

6 M-800 & 6 H-1000 Models offer design flexibility:

- **Sheave Mount Units:**
  M-800/2 sizes of 3-"3V" and 2 sizes of 2-"B" Groove styles.
  H-1000/2 sizes of 3-"5V" and 2 sizes of 2-"B"
- **2 Pilot Mount** units with different standard bore sizes
- **Standard Bore Sizes:**
  M-800/1.438 and 1.625 inches
  H-1000/1.688 and 1.875 inches
- Customize the bore to your shaft diameter with a **Bushing** or **Coupling Half**
- **Includes:**
  M-800/8.25 in. hose.
  H-1000/8.25 inch hose.

M-800 & H-1000 Model Clutches

Model	Clutch Style	Product Number	Sheave Diameter	Bore (In)	Key Size (sq)	Shipping Wt. (Lbs)
M-800	Pilot Mount	807650	--	1.625	0.375	38
M-800	Pilot Mount	807655	--	1.438	0.375	38
M-800	Sheave Mount, 3-"3V"	807610	5.30 OD	1.625	0.375	37
M-800	Sheave Mount, 3-"3V"	807620	6.00 OD	1.625	0.375	40
M-800	Sheave Mount, 2-"B"	807630	5.80 PD	1.625	0.375	39
M-800	Sheave Mount, 2-"B"	807640	6.80 PD	1.625	0.375	43
H-1000	Pilot Mount	810050	--	1.875	0.500	61
H-1000	Pilot Mount	810055	--	1.688	0.375	63
H-1000	Sheave Mount, 3-"5V"	810010	7.10 OD	1.875	0.500	69
H-1000	Sheave Mount, 3-"5V"	810020	8.00 OD	1.875	0.500	74
H-1000	Sheave Mount, 3-"B"	810030	7.40 PD	1.875	0.500	72
H-1000	Sheave Mount, 3-"B"	810040	8.60 PD	1.875	0.500	82
Both	Pilot w/Coupling Half	Select a Pilot Mount and a Coupling Half to achieve this style of mount.				

For Inertia Values of components, see page 359. Keys are included. Required shaft insertion into clutch hub = minimum of M-800/3.75inches, H-1000/4.00 inches from Pilot side.

Bushing Options

(for 1.625 & 1.875 bore clutches only)

Bushings fit within the bore of the existing clutch, reducing the bore to the amount indicated.

Bore Size	Product Number	Reduces Clutch Bore Size to (In)	Shipping Wt. (Lbs)
1.625	806700	1.000	2
1.625	806800	1.125	2
1.625	806900	1.188	2
1.625	807000	1.250	2
1.625	807100	1.375	2
1.625	807200	1.438	2
1.625	807300	1.500	2
1.625	807500	No Bore/Customer machines	2
1.875	805600	1.000	2
1.875	809200	1.375	2
1.875	809300	1.438	2
1.875	809400	1.500	2
1.875	809500	1.625	2
1.875	809600	1.750	2
1.875	809900	No Bore/Customer machines	2

Coupling Half Options,

see page 369 for coupling specifications

A Coupling Half is used for in-line applications. To achieve a Pilot Mount with Coupling Half mounting configuration:

1. Select a Pilot Mount Clutch;
2. Order Clutch and Coupling Half separately.
3. Coupling Half is less taper lock bushing. Use Dodge Taper Lock® #2517 (1.000 to 2.500 inch bore range). Customer furnished.

Model	Product Number	Maximum Bore Size (In)	Shipping Wt. (Lbs)
M-800	807400	2.500	25
H-1000	809700	2.500	33

4. Select a Shaft Extension when the driving shaft is smaller in diameter and shorter than the length of the clutch. The Shaft Extension is the same length as the clutch and engages with the key on the pilot end. Extensions fit the driving shaft diameter.

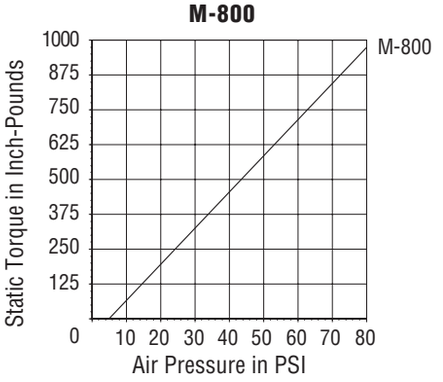
Only for Bore Size	Product Number	Driving Shaft DIA.	Shipping Wt. (Lbs)
1.625	807600	0.750	4
1.625	807700	0.875	4
1.625	807800	0.938	4
1.625	807900	1.000	4
1.625	808000	1.125	4
1.625	808100	1.250	4
1.875	810000	1.000	6
1.875	810300	1.125	6
1.875	810400	1.250	6
1.875	810500	1.375	6
1.875	810600	1.500	6

Pulleys, Sprockets and Gears

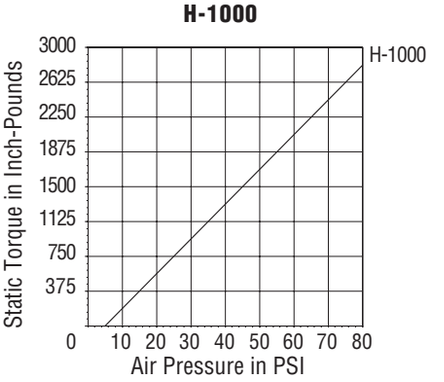
These can be attached to the clutch for offset shaft applications. Tapped holes are provided for ease of mounting. Nexen does not furnish these items. For minimum sprocket requirements, see page 369.

Torque Vs. Air Pressure

M-800



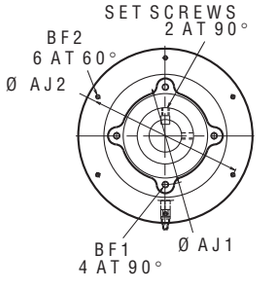
H-1000

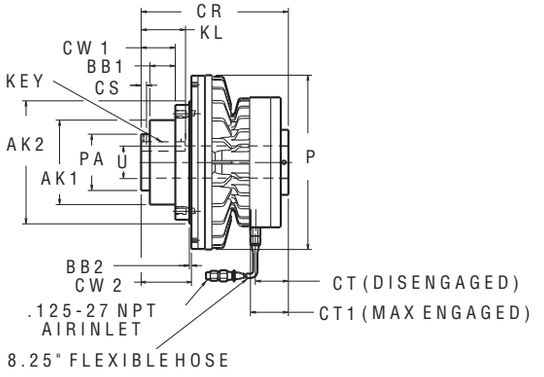


NOTE: Dynamic torque is approximately 85% of static torque.

M-800 & H-1000 MODEL CLUTCHES - APPROXIMATE DIMENSIONS (INCHES)

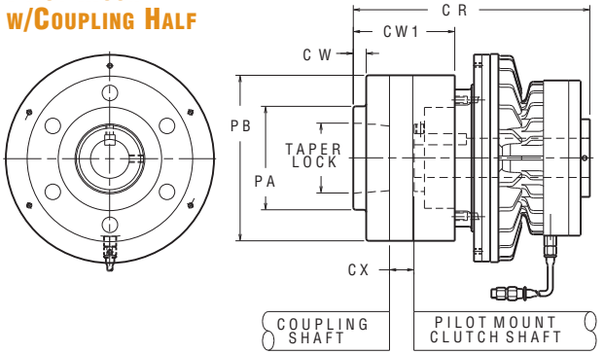
Pilot Mount





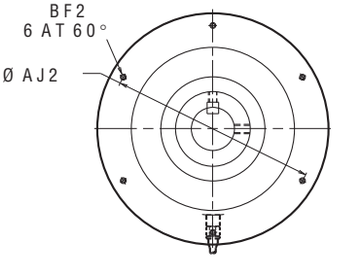
MODEL	PRODUCT NUMBER	AJ1	AJ2	AK1 ±.001	AK2 ±.001	BB1	BB2	BF1	BF2	CR	CS	CT	CT1	CW1	CW2	KL	KEY (SQ)	P	PA	SET SCREWS	U +.001 -.000
M-800	807650	4.750	6.500	3.999	5.498	0.77	0.67	.312-18	.250-20	7.31	0.38	1.62	1.71	1.62	2.31	1.69	0.375	8.06	2.63	.375-16	1.625
M-800	807655	4.750	6.500	3.999	5.498	0.77	0.67	.312-18	.250-20	7.31	0.38	1.62	1.71	1.62	2.31	1.69	0.375	8.06	2.63	.375-16	1.438
H-1000	810050	5.625	9.000	4.873	7.098	1.47	0.12	.375-16	.250-20	8.50	0.31	1.92	2.14	1.97	2.90	2.56	0.500	10.06	3.25	.375-16	1.875
H-1000	810055	5.625	9.000	4.873	7.098	1.47	0.12	.375-16	.250-20	8.50	0.31	1.92	2.14	1.97	2.90	2.56	0.375	10.06	3.25	.375-16	1.688

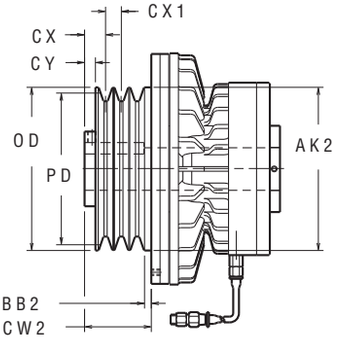
Pilot Mount w/Coupling Half



MODEL	COUPLING PRODUCT NUMBER	CR	CW	CW1	CX	PA	PB	DODGE TAPER LOCK®
M-800	807400	9.93	0.81	4.25	0.87	5.00	7.00	#2517
H-1000	809700	11.43	0.63	4.90	1.18	5.00	8.00	#2517

Sheave Mount





MODEL	PRODUCT NUMBER	SHEAVE BELT	G'VE	OD	PD	AJ2	AK2 ±.001	BB2	BF2	CW2	CX	CX1	CY
M-800	807610	"3V"	3	5.30	--	6.500	5.498	0.06	.250-20	2.30	0.96	0.41	0.68
M-800	807620	"3V"	3	6.00	--	--	--	--	--	--	0.96	0.41	0.68
M-800	807630	"B"	2	6.15	5.80	--	--	--	--	--	1.18	0.75	0.68
M-800	807640	"B"	2	7.15	6.80	--	--	--	--	--	1.18	0.75	0.68
H-1000	810010	"5V"	3	7.10	--	9.000	7.098	0.29	.250-20	2.90	0.91	0.69	0.47
H-1000	810020	"5V"	3	8.00	--	--	--	--	--	--	1.03	0.69	0.50
H-1000	810030	"B"	3	7.75	7.40	--	--	--	--	--	1.03	0.75	0.50
H-1000	810040	"B"	3	8.95	8.60	--	--	--	--	--	1.03	0.75	0.50

METRIC SERIES FRICTION CLUTCHES

The Metric Model Friction Clutch Series provides:

- Static Torque capacity up to 330 Nm
- Maximum Operating Speed up to 3600 rpm
- Heat Sink capacity of 312,000 Joules.

This clutch comes in **5 Models** for design flexibility:

- **6 Pilot Mount** units with different standard bore sizes
- **6 Standard Bore** sizes ranging from 15 to 50 millimeters
- **4 Minimum Bore** sizes ranging from 0 to 19 millimeters–you machine and assemble
- **BW** is equipped with Thrust Bearings and a Single Key Splined Hub.
- **B-275** is equipped with Sealed, Radial Bearings and a Multi-tooth, Involute Spline.

Metric Series Friction Clutches, Pilot Mount Only

Standard Bore Clutch:

Model	Product Number	Speeds Up to RPM	Bore (mm)	Key Size	MIN. Shaft Insertion into Hub from Pilot Side	Heat Sink Capacity (Joules)	Shipping Wt. (kg)
BW	950700	3600	15	5 x 5	38	7660	1,8
B-275	950705	3600	15	5 x 5	38	7660	1,8
F-450	950050	3600	20	6 x 6	51	41000	4,7
L-600	950150	3600	25	7 x 8	64	81000	7,8
M-800	950250	1800	40	8 x 12	95	149000	17
H-1000	950350	1800	50	9 x 14	102	312000	28

Keys are included.

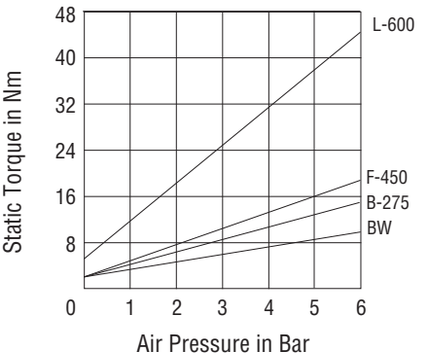
Minimum Bore Clutch:

Minimum bore clutches are supplied unassembled with machinable hubs.

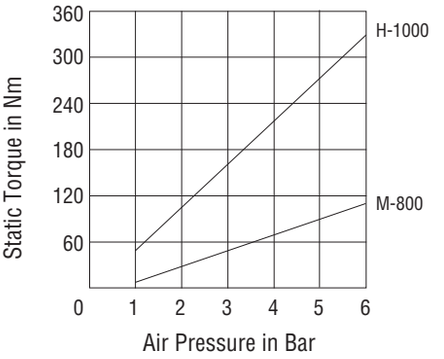
Model	Product Number	Speeds up to RPM	MIN. Bore (mm)	MIN. Shaft Insertion into Hub from Pilot Side	Heat Sink Capacity (Joules)	Shipping Wt. (kg)
F-450	950061	3600	0	51	41000	4,7
L-600	950161	3600	13	64	81000	7,8
M-800	950261	1800	18	95	149000	17
H-1000	950361	1800	19	102	312000	28

Torque Vs. Air Pressure

BW, B-275, F-450 & L-600

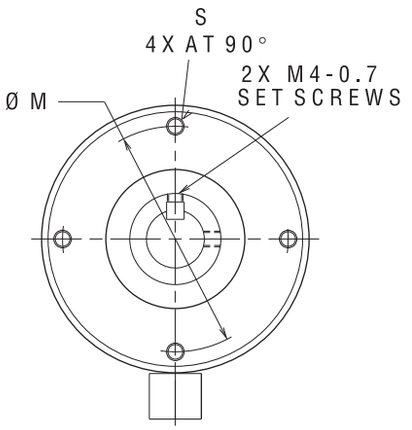


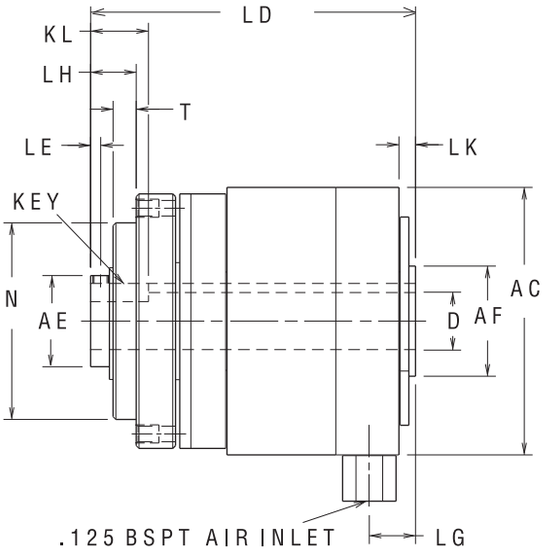
M-800 & H-1000



Torque (In. Lbs.) = Nm x 8.849
PSI = Bar ÷ .0689

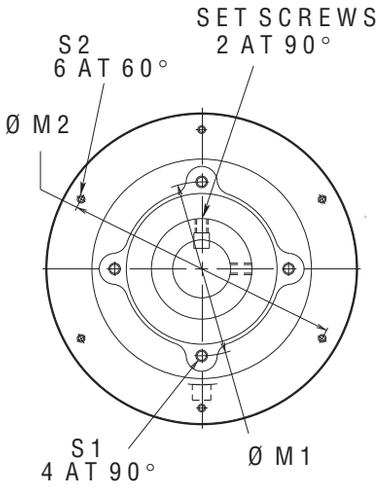
BW, B-275 PILOT MOUNT - APPROXIMATE DIMENSIONS (MILLIMETERS)

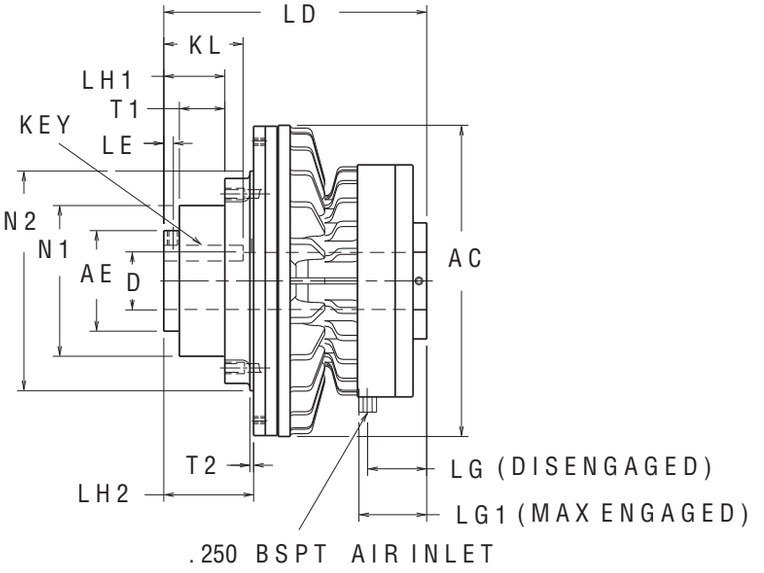




PRODUCT NUMBER	AC	AE	AF	D H7	KEY (SQ)	KL	LD	LE	LG	LH	LK	M	S	T	Nh8
950700	73	25	30	15	5	16	89	3	13	13	5	63	M5	6	54
950705	73	25	30	15	5	16	89	3	13	13	5	63	M5	6	54

F-450, L600, M-800 & H-1000 PILOT MOUNT - APPROXIMATE DIMENSIONS (MILLIMETERS)





MODEL	PRODUCT NUMBER	AC	AE	D H7	KEY	KL	LD	LE	LG	LG1	LH1	LH2	M1	M2	N1 h8	N2 h8	S1	S2	T1	T2	SET SCREWS
F-450	950050	116	35	20	6 SQ	27	121	6	34	36	26	31	78.00	101.60	62.00	88.87	M6	M5	15	5	M6
L-600	950150	154	47	25	8 x 7	35	141	6	41	43	31	39	90.00	139.70	75.00	114.27	M6	M5	16	2	M6
M-800	950250	205	67	40	12 x 8	43	186	10	46	50	42	58	120.00	165.10	100.00	139.67	M8	M6	19	16	M10
H-1000	950350	256	83	50	14 x 9	65	216	9	49	54	50	73	144.00	228.60	120.00	180.31	M10	M6	37	3	M10

NOTE: Drawings are expressed in third angle projection.

XHW, EXTRA HEAVY-WEIGHT MODEL FRICTION CLUTCH

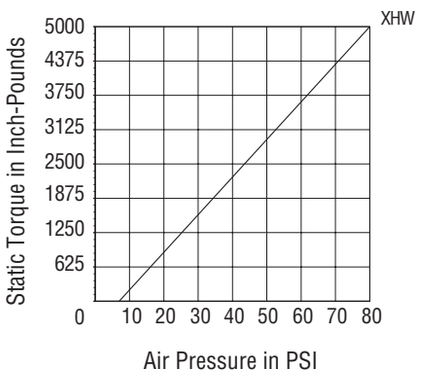
The XHW Friction Clutch provides:

- Static Torque capacity up to 5000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1200 rpm
- Transmitted Horsepower values from 5.00 to 50.00
- Thermal Horsepower rating of 2.25 @ 1200 rpm
- Heat Sink capacity of 200,000 Ft. Lbs.

2 Models offer design flexibility:

- **1 Sheave Mount** unit in a 5-"5V" Groove design
- **1 Pilot Mount** unit
- **Standard Bore** size of 2.375 inches
- Customize the bore to your shaft diameter with a **Bushing** or **Coupling Half**
- 8.25 inch hose included.

Torque Vs. Air Pressure



NOTE: Dynamic torque is approximately 85% of static torque.

XHW Model Clutch

Clutch Style	Product Number	Sheave Diameter	Bore (In)	Key Size (sq)	Shipping Wt. (Lbs)
Pilot Mount	811100	--	2.375	0.625	110
Sheave Mount, 5-"5V"	810900	8.00 OD	2.375	0.625	110
Pilot w/Coupling Half	Select a Pilot Mount and a Coupling Half to achieve this style of mount.				

For Inertia Values of components, see page 359.
Keys are included. Required shaft insertion into clutch hub = minimum of 5.625 inches from Pilot side.

Bushing Options (for 2.375 bore clutches only)

Bushings fit within the bore of the existing clutch, reducing it to the amount indicated.

Product Number	Reduces Clutch Bore Size to (In)	Shipping Wt. (Lbs)
811800	1.625	4
811900	1.688	4
811200	1.750	4
811300	1.875	4
811400	1.938	4
812200	2.125	4
811500	2.188	4
811600	2.250	4
812000	No Bore/Customer machines	4

Coupling Half Options, see page 369 for coupling specifications

A Coupling Half used for in-line applications. To achieve a Pilot Mount with Coupling Half mounting configuration:
1. Select a Pilot Mount Clutch from above;
2. Order Clutch and Coupling Half separately.
3. Coupling Half is less taper lock bushing. Use Dodge Taper Lock® #3030 (1.500–3.000 inch bore range). Customer furnished.

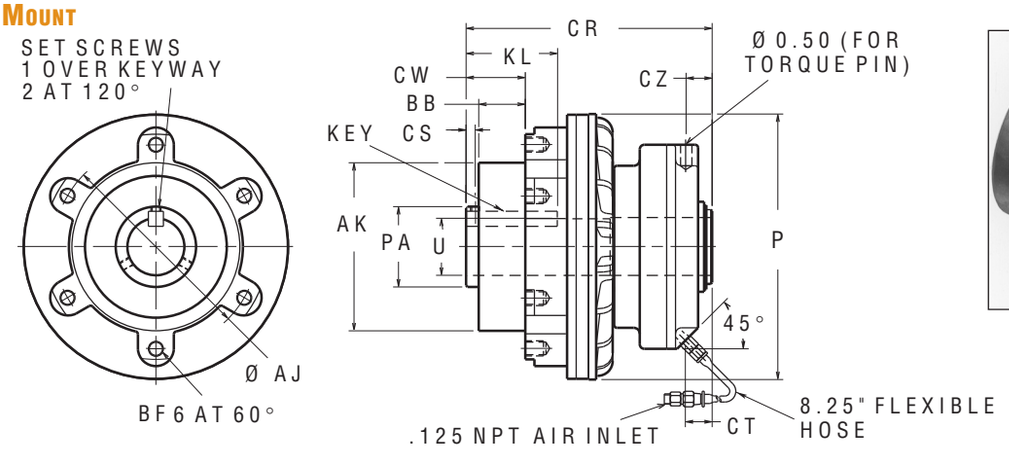
Product Number	Maximum Bore Size (In)	Shipping Wt. (Lbs)
811700	3.000	63

Pulleys, Sprockets and Gears

These can be attached to the clutch for offset shaft applications. Tapped holes are provided for ease of mounting. Nexen does not furnish these items.
For minimum sprocket requirements, see page 369.

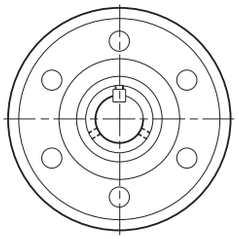
XHW MODEL CLUTCH - APPROXIMATE DIMENSIONS (INCHES)

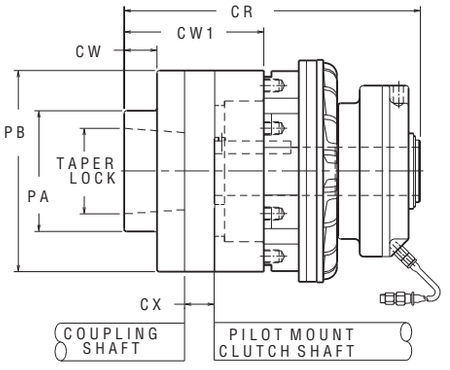
Pilot Mount



PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CS	CT	CW	CZ	KL	KEY (SQ)	P	PA	SET SCREWS	U +.001 -.000
811100	8.500	6.997	1.94	.625-11	10.25	0.38	1.12	2.47	1.09	3.81	0.625	11.06	3.35	.375-16	2.375

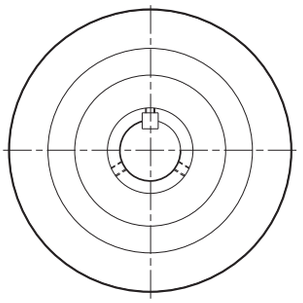
Pilot Mount w/Coupling Half

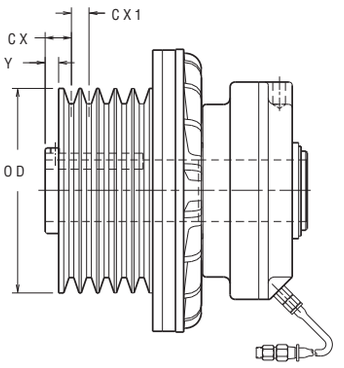




COUPLING PRODUCT NUMBER	CR	CW	CW1	CX	PA	PB	DODGE TAPER LOCK®
811700	14.72	1.63	6.69	1.47	6.00	10.00	#3030

Sheave Mount





PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	CX	CX1	CY
810900	"5V"	5	8.00	1.03	0.69	0.53

FW, LW, MW & HW MODEL SERIES

The design of this Series Friction Clutches has been improved:

- The comparable replacement can be found in each table
- Accessories for FW, LW, MW & HW Friction Clutches can be found on the comparable Clutch catalog page.
- Torque values are the same as the replacement clutches.

FW, Fly-Weight Model Clutch Series

Product Number	Clutch Style	Sheave DIA	Bore (IN)	Shipping Wt. (Lbs)	Comparable Model	Comparable Product Number
802300	Pilot Mount	--	0.875	7	F-450	802850
802311	Pilot Mount	--	0.750	7	F-450	802855
801900	Sheave Mount, 1-"3V"	3.35 OD	0.875	7	F-450	802810
802200	Sheave Mount, 1-"3V"	4.50 OD	0.875	8	F-450	802820
802100	Sheave Mount, 1-"A"	3.80 PD	0.875	8	F-450	802830
--	Sheave Mount, 1-"A"	4.40 PD	0.875	--	F-450	802840

Required shaft insertion into clutch hub = minimum of 2.00 inches from Pilot side.

LW, Light-Weight Model Clutch Series

Product Number	Clutch Style	Sheave DIA	Bore (IN)	Shipping Wt. (Lbs)	Comparable Model	Comparable Product Number
804513	Pilot Mount	--	1.000	11	L-600	805275
804500	Pilot Mount	--	1.125	11	L-600	805270
803900	Sheave Mount, 2-"3V"	4.50 OD	1.125	13	L-600	805210
804000	Sheave Mount, 2-"3V"	5.30 OD	1.125	14	L-600	805220
--	Sheave Mount, 2-"3V"	6.00 OD	1.125	--	L-600	805230
--	Sheave Mount, 2-"3V"	8.00 OD	1.125	--	L-600	805240
804300	Sheave Mount, 2-"A"	4.40 PD	1.125	13	L-600	805250
--	Sheave Mount, 2-"A"	5.40 PD	1.125	--	L-600	805260

Required shaft insertion into clutch hub = minimum of 2.50 inches from Pilot side.

MW, Middle-Weight Model Clutch Series

Product Number	Clutch Style	Sheave DIA	Bore (IN)	Shipping Wt. (Lbs)	Comparable Model	Comparable Product Number
806600	Pilot Mount	--	1.625	26	M-800	807650
806612	Pilot Mount	--	1.437	26	M-800	807655
806100	Sheave Mount, 3-"3V"	5.30 OD	1.625	27	M-800	807610
--	Sheave Mount, 3-"3V"	6.00 OD	1.625	--	M-800	807620
806400	Sheave Mount, 2-"B"	5.80 PD	1.625	29	M-800	807630
--	Sheave Mount, 2-"B"	6.80 PD	1.625	--	M-800	807640

Required shaft insertion into clutch hub = minimum of 3.75 inches from Pilot side.

HW, Heavy-Weight Model Clutch Series

Product umber	Clutch Style	Sheave DIA	Bore (IN)	Shipping Wt. (Lbs)	Comparable Model	Comparable Product Number
809100	Pilot Mount	--	1.875	48	H-1000	810050
809111	Pilot Mount	--	1.687	48	H-1000	810055
808600	Sheave Mount, 3-"5V"	7.10 OD	1.875	55	H-1000	810010
--	Sheave Mount, 3-"5V"	8.00 OD	1.875	--	H-1000	810020
808900	Sheave Mount, 3-"B"	7.40 PD	1.875	60	H-1000	810030
--	Sheave Mount, 3-"B"	8.60 PD	1.875	--	H-1000	810040

Required shaft insertion into clutch hub = minimum of 4.00 inches from Pilot side.

DUAL PLATE FRICTION CLUTCH SELECTION CHART

Friction clutch recommendation is based upon air pressure of 50 psi, transmitted horsepower and speed.

RPM

TRANSMITTED HORSEPOWER	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800
5	DPC-9T																	
7½	DPC-11T	DPC-9T																
10	DPC-11T	DPC-9T																
15	DPC-13T	DPC-11T	DPC-9T	DPC-9T														
20	DPC-13T	DPC-11T	DPC-11T	DPC-9T	DPC-9T													
25	DPC-15T	DPC-13T	DPC-11T	DPC-11T	DPC-9T	DPC-9T	DPC-9T											
30	DPC-15T	DPC-13T	DPC-11T	DPC-11T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T
40	DPC-15T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T
50		DPC-15T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T
75		DPC-15T	DPC-15T	DPC-13T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T	DPC-9T
100			DPC-15T	DPC-15T	DPC-13T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-9T
125				DPC-15T	DPC-15T	DPC-15T	DPC-13T	DPC-13T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T
150				DPC-15T	DPC-15T	DPC-15T	DPC-15T	DPC-13T	DPC-13T	DPC-13T	DPC-13T	DPC-13T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T	DPC-11T

REFER TO FRICTION CLUTCH PRODUCTS ON PAGE 30 FOR SPECIFICATIONS IN THIS AREA OR HORSEPOWER RATINGS LESS THAN 5

Important Notes:

1. For static torque ratings at different air pressures, refer to individual models to ensure conformity.
2. For operating speeds over 1800 rpm, refer to individual models or consult Nexen to ensure conformity.
3. Limited to peak thermal input rates of .9 HP_T per square inch of interface area.
4. Bars equal PSI x 0.0689.

DPC SERIES DUAL PLATE CLUTCHES

This Series, specified by component, allows you to custom design for specific application requirements:

- Static Torque capacity up to 36,000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 2200 rpm
- Thermal Horsepower values of 3.3 to 9.0 at rated speeds
- Components combine in a variety of options to fit almost any need
- Choose from Thru-Shaft or Shaft-End Mounting
- Choose between Sheave or Pilot style configurations
- Rotary Air Union is included with each Clutch Assembly.

With the DPC Model Series, tough applications are made easy. Each of the 4 Models and their many options are detailed on the next few pages.

The DPC Series Clutches are designed for applications involving high inertia starts and stops. The Peak Input Rate may be the limiting factor in high inertia starts or stops, even though the Heat Sink Capacity is sufficient. The Peak Input Rate capacity is the rate at which the clutch absorbs heat at the friction interface during the acceleration period, while the interfaces are slipping or until the load and clutch are operating at the same speed. See page 368 in the Engineering Data Section for information explaining how to calculate the Peak Input Rate and how to avoid potential problems.

How to Specify and Order DPC Clutches:

1. Determine if you require Shaft-End Mounting or Thru-Shaft Mounting;
2. Determine if you require a Pilot Mount or Sheave Mount configuration;
3. Determine which bore size you will need;
4. Order each component individually, based upon your requirements.

Motor Frame, Shaft Diameters & Lengths

This chart can be used for quick selection of many criteria.
If you are using a standard motor frame and are within the rpm and horsepower requirements, the chart indicates a clutch and shaft to use.
If you know the rpm, horsepower and desired clutch, the chart will indicate a standard motor frame and shaft to use.

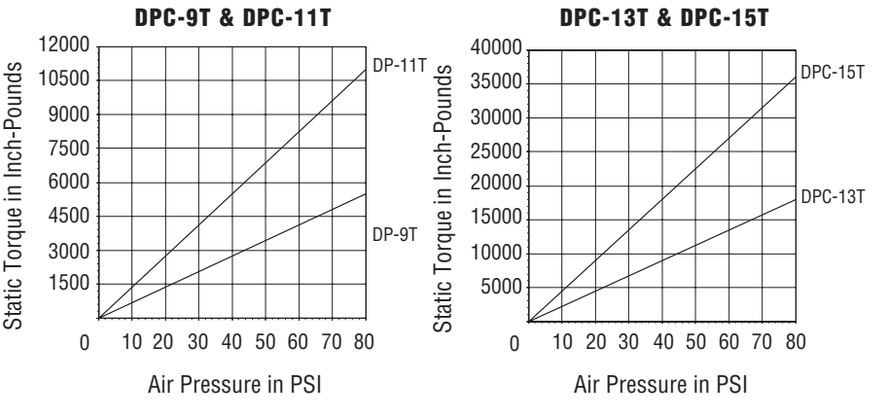
HORSEPOWER	600RPM	900RPM	1200RPM	1800RPM
50	**DPC13T**	**DPC11T**	**DPC9T**	**DPC9T**
Motor Frame	445T	404T	365T	326T
Shaft DIA./LGTH	3.375 / 8.25	2.875 / 7.0	2.375 / 5.625	2.125 / 5.0
60	--	**DPC11T**	**DPC11T**	**DPC9T**
Motor Frame	--	405T	404T	364TS, 364T
Shaft DIA./LGTH	--	2.875 / 7.0	2.875 / 7.0	2.375 / 5.625
75	**DPC13T**	**DPC13T**	**DPC11T**	**DPC9T**
Motor Frame	D5005	444T	405T	365TS, 365T
Shaft DIA./LGTH	3.5/ 10.25	3.375 / 8.25	2.875 / 7.0	2.375 / 5.625
100	**DPC15T**	**DCP13T**	**DPC13T**	**DPC11T**
Motor Frame	D5008	445T	444T	405TS, 404T
Shaft DIA./LGTH	4.0 / 11.75	3.375 / 8.25	3.375 / 8.25	2.875 / 7.0
125	--	**DPC13T**	**DPC13T**	--
Motor Frame	--	D5005	444T	--
Shaft DIA./LGTH	--	3.5/ 10.25	3.375 / 8.25	--
150	--	**DPC15T**	**DPC13T**	--
Motor Frame	--	D5005	445T, D5005	--
Shaft DIA./LGTH	--	3.5/ 10.25	3.5/ 10.25	--

Clutch Application Data

MODEL	DPC-9T	DPC-11T
Peak Input Rate	50 hp	84 hp
Effective Friction Areas	55 in^2	93 in^2

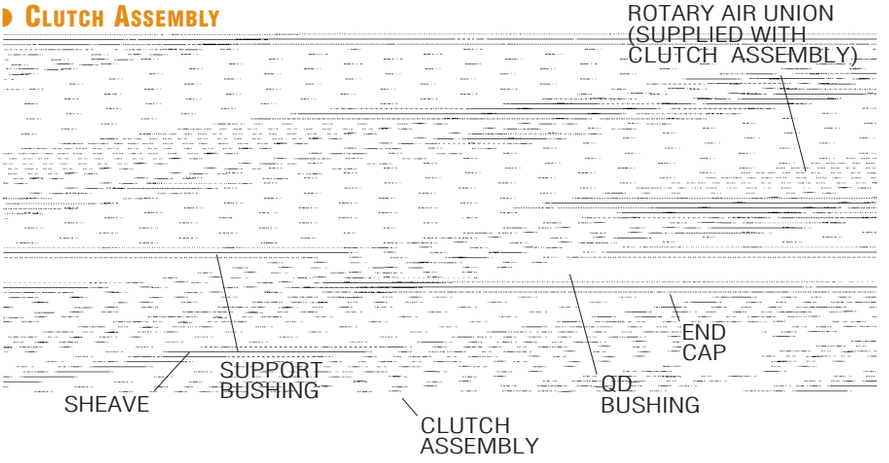
MODEL	DPC-13T	DPC-15T
Peak Input Rate	131 hp	149 hp
Effective Friction Areas	145 in^2	166 in^2

Torque Vs. Air Pressure



NOTE: Dynamic torque is approximately 85% of static torque.

Clutch Assembly



DPC Clutches

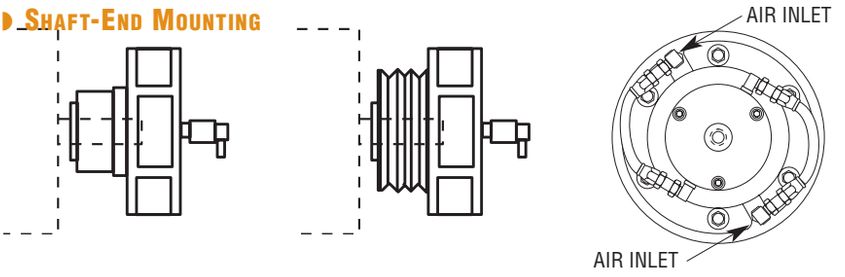
Shown are the typical components of a DPC Clutch:

- The Clutch Assembly comes with the Rotary Air Union
- Rotary Air Union, supplied with each clutch, is required for both Shaft-End and Thru Shaft mounting
- The optional End Cap is only required for Shaft-End Mounting
- The customer supplied QD Bushing is required for both Shaft-End and Thru-Shaft Mounting
- The Support Bushing is used whenever the shaft size is less than the maximum clutch bore.

Mounting/Air Inlet Connections

DPC Clutches are very flexible units because of their many mounting possibilities. Four of the more common applications are shown at left. Also refer to the Air Inlet Connection information (at left) for each mounting style.

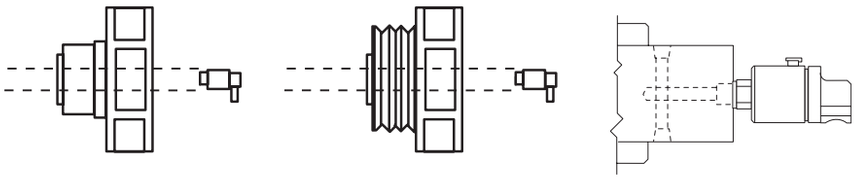
Shaft-End Mounting



Air Inlet Connection:

1. Attach the End Cap to the end of the Hub with three cap screws.
2. Install the Rotary Air union and elbow fittings in the End Cap.
3. Connect the cylinder hoses to the elbow fittings.
4. Use the flexible hose (supplied) to connect air supply to the Rotary Air Union (do not use rigid pipe or tubing for this connection).
5. Make sure that of these hoses do not interfere with the rotating parts of the unit.

Thru-Shaft Mounting



Air Inlet Connection:

1. Drill a 0.375 inch diameter hole in the center of the shaft, long enough to reach the air outlets.
2. Tap drill the air outlet holes straight through the shaft, intersecting the 0.375 diameter hole, and tap the 0.125-27 NPT on both ends.
3. The air outlet holes should be located 0.375 of an inch from the end of the Hub.
4. Tap a .625-18 inch hole, 0.625 inches deep in the end of the shaft for the Rotary Air Union.
5. Install the two elbow fittings in the air outlet holes and connect the cylinder hoses to them.
6. Install the Rotary Air Union in the end of the shaft and use the flexible hose (supplied) to connect the air supply to the shaft (do not use rigid pipe or tubing for this connection).

DPC-9T MODEL DUAL PLATE CLUTCH

This **Model**, specified by component, allows you to custom design for specific application requirements:

- Static Torque capacity up to 5500 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 2200 rpm
- Thermal Horsepower ratings up to 3.3 @ 2200 rpm
- **Pilot Mount** clutch assembly with standard support bushing bore of 2.375 inches
- **Sheave** options: 5-"5V" or 4-"C" Groove
- Support Bushings provide 6 additional bore sizes ranging from 1.87 to 2.125 inches
- Heat Sink capacity of 220,000 Ft. Lbs.
- 8.25 inch hose included
- Rotary Air Union is supplied with the clutch assembly

Review the information on this and the next page to determine the required components to build your clutch.

REQUIRED COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Clutch Assembly	1 Clutch Assembly
1 End Cap	1 QD Bushing
1 QD Bushing	

(QD Bushing customer furnished)

OPTIONAL COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Support Bushing	1 Support Bushing
1 Sheave	1 Sheave

DPC-9T, Dual Plate Clutch

Clutch Component	Product Number	Support Bushing Bore (O.D.)(In)	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Shaft-End Mounting (1 of each required)					
Clutch Assembly	960200	2.375	4.69	6.57	64
End Cap	960700	--	--	--	3
QD Bushing	Customer Supplied	SK Bore Range = 0.500 - 2.375 inches			
Thru-Shaft Mounting (1 of each required)					
Clutch Assembly	960200	--	--	--	64
QD Bushing	Customer Supplied	SK Bore Range = 0.500 - 2.375 inches			

Support Bushing/Bore Options

Support Bushings are used to reduce the clutch bore for the driven shaft.

Clutch Component	Product Number	Reduce Bore Size to/ (In)	Shipping Wt. (Lbs)
Support Bushing	960419	1.187	1
Support Bushing	960423	1.437	1
Support Bushing	960427	1.687	1
Support Bushing	960430	1.875	1
Support Bushing	960431	1.937	1
Support Bushing	960434	2.125	1
Bushing-Blank/No Bore	960400	1.131 ID MIN.	1

Sheave Options

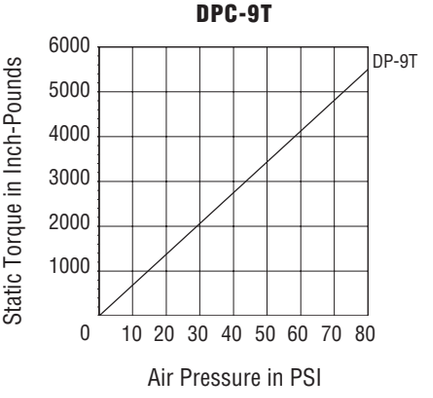
Clutch Component	Product Number	Type of Sheave Groove	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Sheave, "5V"	956700	8.0 OD, 5-"5V"	5.32	7.20	16
Sheave, "4C"	960600	9.0, OD, 4 "C"	5.51	7.39	22

Pulleys, Sprockets, Gears

These can be attached to the clutch for thru-shaft applications. Tapped holes are provided for ease of mounting. Nexen does not supply these items.

For minimum sprocket requirements, see page 369.

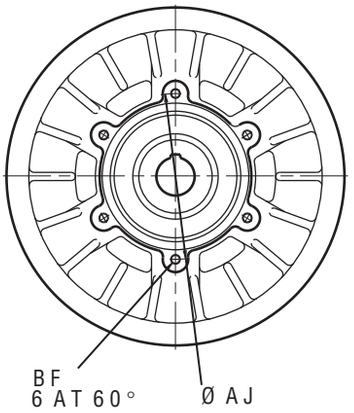
Torque Vs. Air Pressure

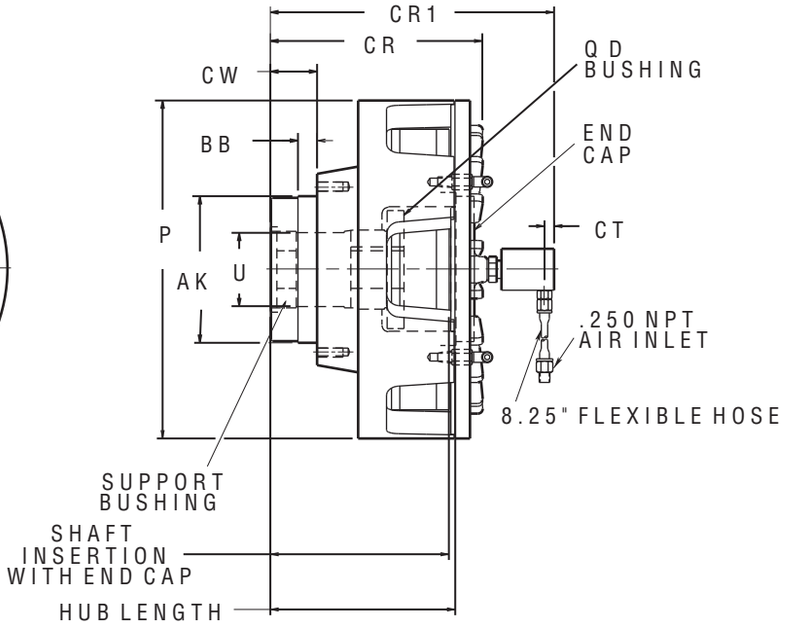


NOTE: Dynamic torque is approximately 85% of static torque.

DPC-9T, DUAL PLATE CLUTCH - APPROXIMATE DIMENSIONS (INCHES)

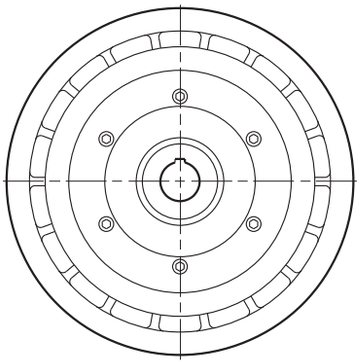
Pilot Mount

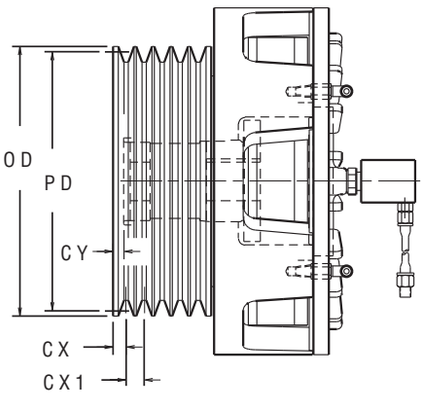




CLUTCH PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CR1	CT	CW	P	HUB LENGTH	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.	U +.002 -.000
960200	5.562	4.874	0.75	.375-16	7.42	10.76	0.38	1.62	10.75	6.82	4.69	6.57	2.375

Sheave Mount; Clutch and Sheave Combined





SHEAVE PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	PD	CX	CX1	CY
956700	"5V"	5	8.00	--	0.50	0.69	0.63
960600	"C"	4	9.00	8.60	0.56	1.00	0.82

DPC-11T MODEL DUAL PLATE CLUTCH

This **Model**, specified by component, allows you to custom design for specific application requirements:

- Static Torque capacity up to 11,000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1800 rpm
- Thermal Horsepower ratings up to 5.5 @ 1800 rpm
- **Pilot Mount** clutch assembly with standard support bushing bore of 2.875 inches
- **Sheave Mount** option in the 5-"5V" Groove design
- Support Bushings provide 7 additional bore sizes ranging from 1.188 to 2.500 inches
- Heat Sink capacity of 360,000 Ft. Lbs.
- Rotary Air Union is supplied with the clutch assembly
- 8.25 inch hose included.

Review the information on this and the next page to determine the required components to build your clutch.

REQUIRED COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Clutch Assembly	1 Clutch Assembly
1 End Cap	1 QD Bushing
1 QD Bushing	

(QD Bushing customer furnished)

OPTIONAL COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Support Bushing	1 Support Bushing
1 Sheave	1 Sheave

DPC-11T, Dual Plate Clutch

Clutch Component	Product Number	Support Bushing Bore (O.D.) (In)	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Shaft -End Mounting (1 of each required)					
Clutch Assembly	961200	2.875	5.16	7.00	100
End Cap	961700	--	--	--	3
QD Bushing	Customer Supplied	SF Bore Range = 1.500 - 2.875 inches			
Thru-Shaft Mounting (1 of each required)					
Clutch Assembly	961200	--	--	--	100
QD Bushing	Customer Supplied	SF Bore Range = 1.500 - 2.875 inches			

Support Bushing/ Bore Options

Support Bushings are used to reduce the clutch bore.

Clutch Component	Product Number	Reduce Bore Size to: (In)	Shipping Wt. (Lbs)
Support Bushing	961430	1.875	2
Support Bushing	961431	1.938	2
Support Bushing	961434	2.125	2
Support Bushing	961435	2.188	2
Support Bushing	961438	2.375	2
Support Bushing	961439	2.438	2
Support Bushing	961440	2.500	2
Bushing-Blank/No Bore	961400	1.375 ID MIN.	2

Sheave Options

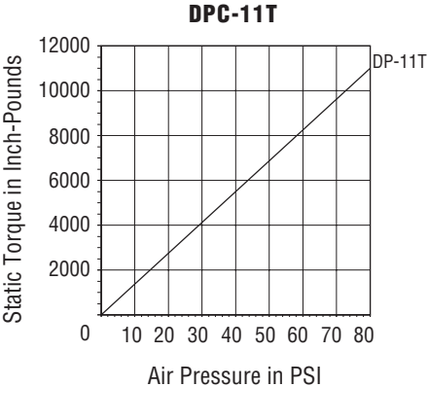
Clutch Component	Product Number	Type of Sheave Groove	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Sheave, "5V"	961600	10.3 OD, 5-"5V"	5.58	7.42	25

Pulleys, Sprockets, Gears

These can be attached to the clutch for thru-shaft applications. Tapped holes are provided for ease of mounting. Nexen does not supply these items.

For minimum sprocket requirements, see page 369.

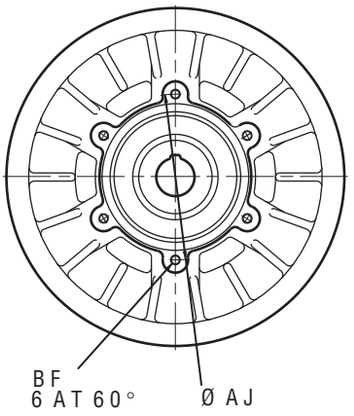
Torque Vs. Air Pressure

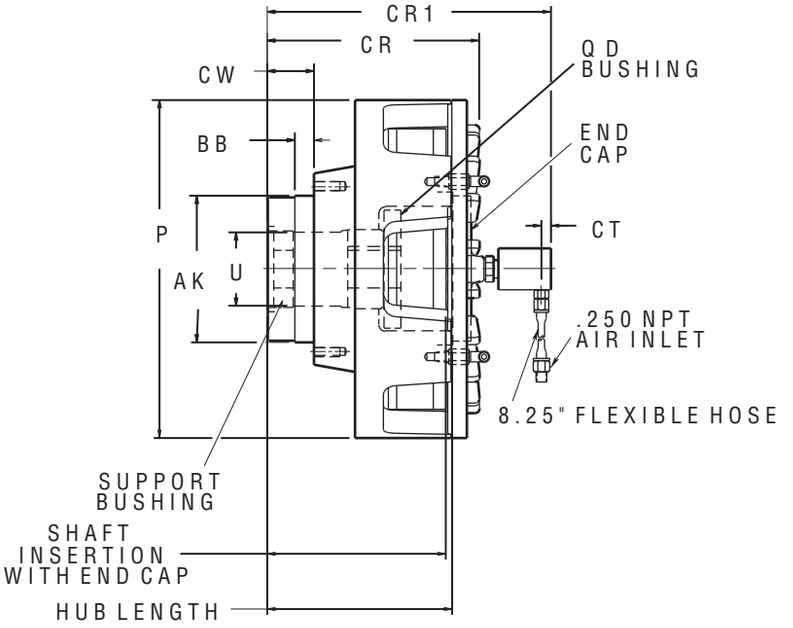


NOTE: Dynamic torque is approximately 85% of static torque.

DPC-11T, DUAL PLATE CLUTCH - APPROXIMATE DIMENSIONS (INCHES)

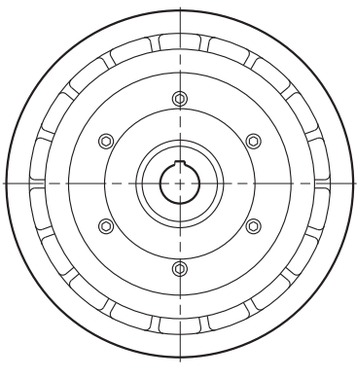
Pilot Mount

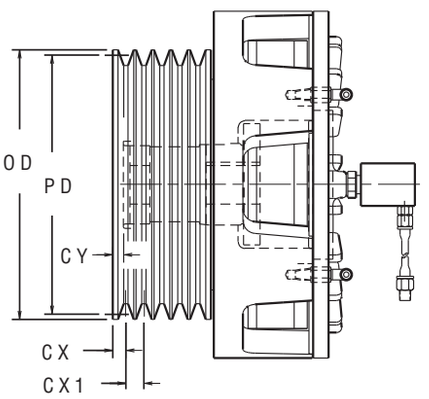




CLUTCH PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CR1	CT	CW	P	HUB LENGTH	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.	U +.002 -.000
961200	6.500	5.748	0.75	.375-16	8.31	11.12	0.38	1.83	13.25	7.25	5.16	7.00	2.875

Sheave Mount; Clutch and Sheave Combined





SHEAVE PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	PD	CX	CX1	CY
961600	"5V"	5	10.30	--	0.50	0.69	0.42

DPC-13T MODEL DUAL PLATE CLUTCH

This **Model**, specified by component, allows you to custom design tor specific application requirements:

- Static Torque capacity up to 18,000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1200 rpm
- Thermal Horsepower ratings up to 8.0 @ 1200 rpm
- **Pilot Mount** clutch assembly wth standard support bushing bore of 3.500 inches
- **Sheave Mount** option in the 4-"8V" Groove design
- Support Bushings provide 3 additional bore sizes ranging from 2.938 to 3.438 inches
- Heat Sink capacity of 690,000 Ft. Lbs.
- Rotary Air Union is supplied with the clutch assembly
- 8.25 inch hose included.

Review the information on this and the next page to determine the required components to build your clutch.

REQUIRED COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Clutch Assembly	1 Clutch Assembly
1 End Cap	1 QD Bushing
1 QD Bushing	

(QD Bushing customer furnished)

OPTIONAL COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Support Bushing	1 Support Bushing
1 Sheave	1 Sheave

DPC-13T, Dual Plate Clutch

Clutch Component	Product Number	Support Bushing Bore (O.D.) (In)	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Shaft-End Mounting (1 of each required)					
Clutch Assembly	962200	3.500	7.00	9.25	200
End Cap	962700	--	--	--	7
QD Bushing	Customer Supplied	F Bore Range = 2.00 - 3.50 inches			
Thru-Shaft Mounting (1 of each required)					
Clutch Assembly	962200	--	--	--	200
QD Bushing	Customer Supplied	F Bore Range = 2.00 - 3.50 inches			

Support Bushing/Bore Options

Support Bushings are used to reduce the clutch bore.

Clutch Component	Product Number	Reduce Bore Size to/ (In)	Shipping Wt. (Lbs)
Support Bushing	962447	2.938	2
Support Bushing	962454	3.375	2
Support Bushing	962455	3.438	2
Bushing-Blank/No Bore	962400	2.25 ID MIN.	2

Sheave Options

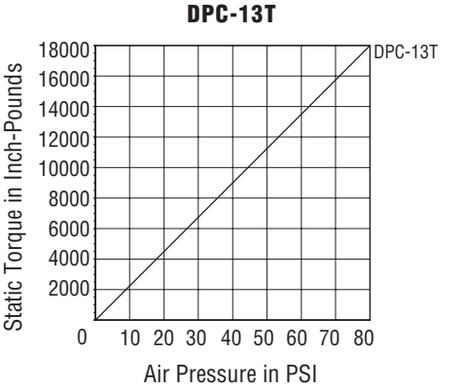
Clutch Component	Product Number	Type of Sheave Groove	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Sheave, "8V"	962600	15.0 OD, 4-"8V"	7.94	9.94	75

Pulleys, Sprockets, Gears

These can be attached to the clutch for thru-shaft applications. Tapped holes are provided for ease of mounting. Nexen does not supply these items.

For minimum sprocket requirements, see page 369.

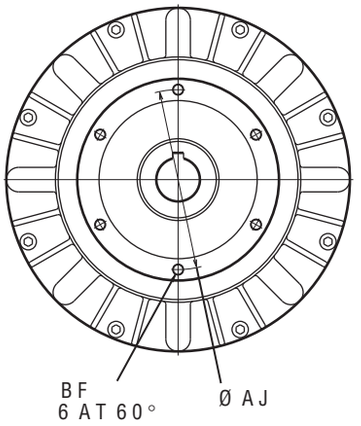
Torque Vs. Air Pressure

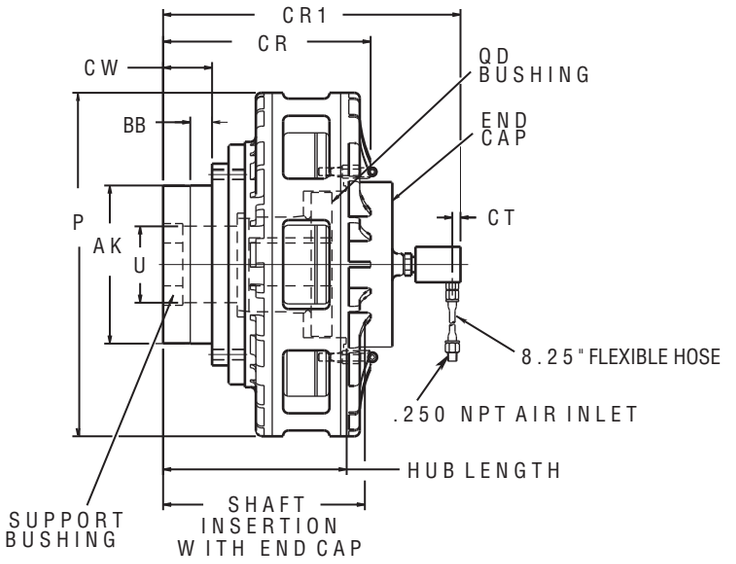


NOTE: Dynamic torque is approximately 85% of static torque.

DPC-13T, DUAL PLATE CLUTCH - APPROXIMATE DIMENSIONS (INCHES)

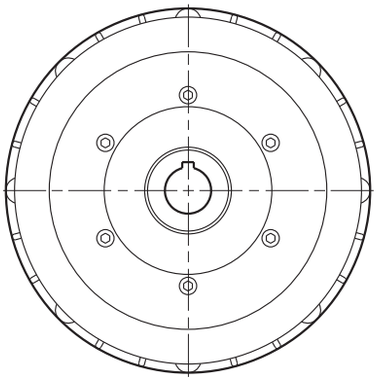
Pilot Mount

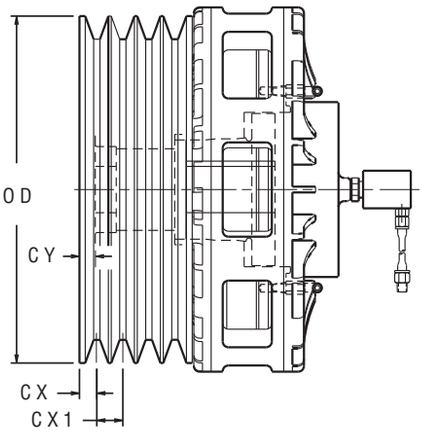




CLUTCH PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CR1	CT	CW	P	HUB LENGTH	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.	U +.002 -.000
962200	8.250	7.248	1.00	.500-13	9.52	13.63	0.38	2.24	15.75	8.42	7.25	9.25	3.500

Sheave Mount; Clutch and Sheave Combined





SHEAVE PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	CX	CX1	CY
962600	"8V"	4	15.00	0.75	1.13	0.69

DPC-15T MODEL DUAL PLATE CLUTCH

This **Model**, specified by component, allows you to custom design for specific application requirements:

- Static Torque capacity up to 36,000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 900 rpm
- Thermal Horsepower ratings up to 9.0 @ 900 rpm
- **Pilot Mount** clutch assembly with standard support bushing bore of 4.000 inches
- **Sheave Mount** option in the 4-"8V" Groove design
- Support Bushings provide 2 additional bore sizes ranging from 3.500 to 3.938 inches
- Heat Sink capacity of 820,000 Ft. Lbs.
- Rotary Air Union is supplied with the clutch assembly
- 8.25 inch hose included.

Review the information on this and the next page to determine the required components to build your clutch.

REQUIRED COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Clutch Assembly	1 Clutch Assembly
1 End Cap	1 QD Bushing
1 QD Bushing	

(QD Bushing customer furnished)

OPTIONAL COMPONENTS:

Shaft-End Mounting	Thru-Shaft Mounting
1 Support Bushing	1 Support Bushing
1 Sheave	1 Sheave

DPC-15T, Dual Plate Clutch

Clutch Component	Product Number	Support Bushing Bore (O.D.) (In)	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Shaft-End Mounting (1 of each required)					
Clutch Assembly	963200	4.000	7.00	9.50	254
End Cap	963700	--	--	--	8
QD Bushing	Customer Supplied	J Bore Range = 2.125- 4.000 inches			
Thru-Shaft Mounting (1 of each required)					
Clutch Assembly	963200	--	--	--	254
QD Bushing	Customer Supplied	J Bore Range = 2.125-4.000 inches			

Support Bushing/Bore Options

Support Bushings are used to reduce the clutch bore.

Clutch Component	Product Number	Reduce Bore Size to/ (In)	Shipping Wt. (Lbs)
Support Bushing	963456	3.500	2
Support Bushing	963463	3.938	2
Bushing-Blank/No Bore	963400	3.00 ID MIN.	2

Sheave Options

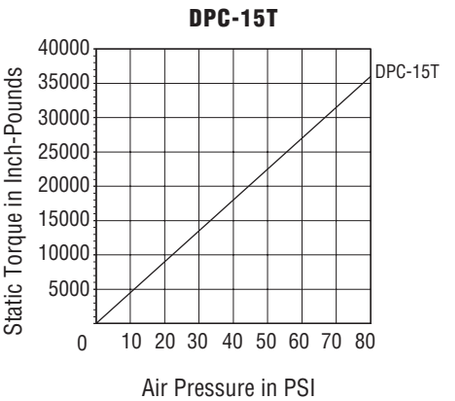
Clutch Component	Product Number	Type of Sheave Groove	Shaft Insertion MIN.	Shaft Insertion MAX.	Shipping Wt. (Lbs)
Sheave, "8V"	963600	18.0 OD, 4-"8V"	8.720	10.220	100

Pulleys, Sprockets, Gears

These can be attached to the clutch for thru-shaft applications. Tapped holes are provided for ease of mounting. Nexen does not supply these items.

For minimum sprocket requirements, see page 369.

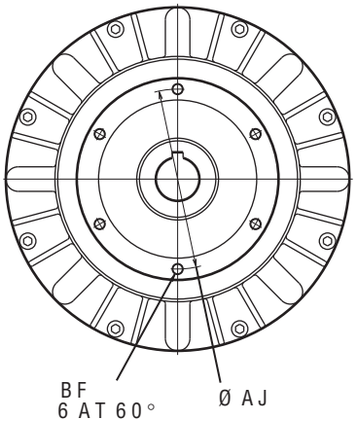
Torque Vs. Air Pressure

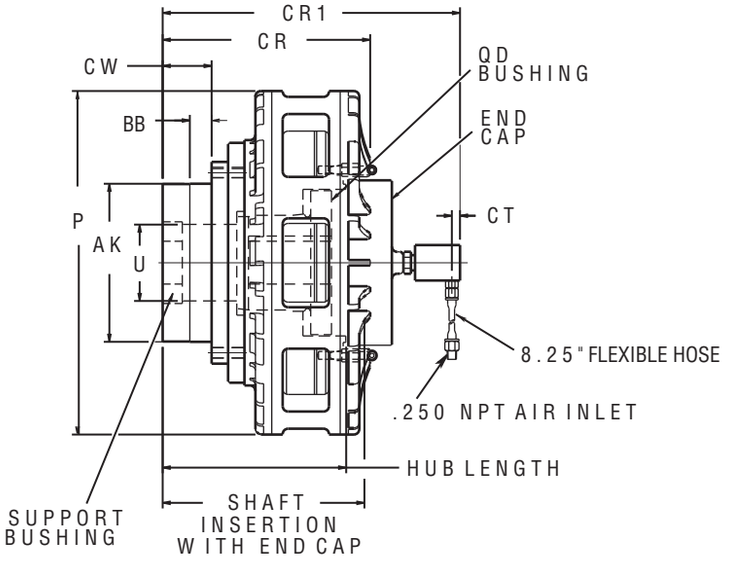


NOTE: Dynamic torque is approximately 85% of static torque.

DPC-15T, DUAL PLATE CLUTCH - APPROXIMATE DIMENSIONS (INCHES)

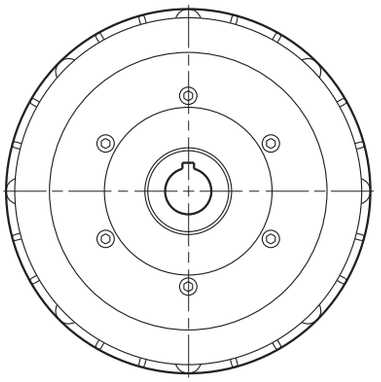
Pilot Mount

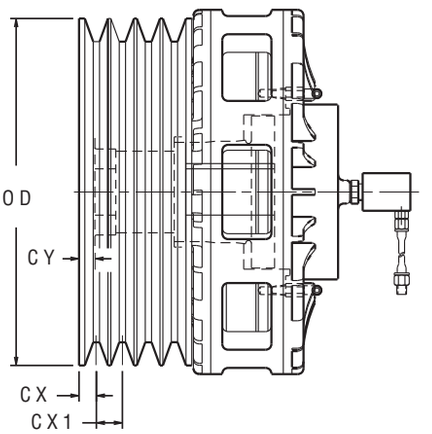




CLUTCH PRODUCT NUMBER	AJ	AK ±.001	BB	BF	CR	CR1	CT	CW	P	HUB LENGTH	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.	U +.002 -.000
963200	9.000	7.998	1.00	.500-13	9.61	13.72	0.38	2.21	18.00	8.13	7.81	9.38	4.000

Sheave Mount; Clutch and Sheave Combined





SHEAVE PRODUCT NUMBER	SHEAVE BELT	SHEAVE GROOVE	OD	CX	CX1	CY
963600	"8V"	4	18.00	0.75	1.13	0.72

DUAL-FACED FRICTION CLUTCH MODELS DFC-1650 & DFC-2200

The DFC-1650 and DFC-2200 are two models of self contained, dual-faced, air-engaged friction clutches with a bearing mounted plate for mounting pulleys or sprockets. The two models sizes fit shafts up to 3.375", and are designed for shaft-end mounts only.

The DFC Clutches operate with an air-pressurized piston moving axially to compress the friction facing against the inside of a dual-faced rotor, which is splined to a shaft-mounted hub. The rotor is locked with the pilot plate, under friction, to transmit power from the driving shaft to the driven pulley or sprocket.

- Static Torque capacity up to 66,800 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1200 rpm
- Thermal Horsepower rating of 10.0 @ 900 rpm
- Heat Sink capacity of 1,460,000 Ft. Lbs.

This clutch is shaft-end mounted to provide design versatility in **2 Models**:

- **8 Sheaves** provide 4-"5V" or 4-"8V" Groove options
- **Standard Bore** size of 3.375 inches
- Lower cost O-ring design
- Superior friction facing life
- Excellent bearing life
- Clutch envelope is within the motor diameter
- For up to 250 horsepower drives

DFC Model Clutches

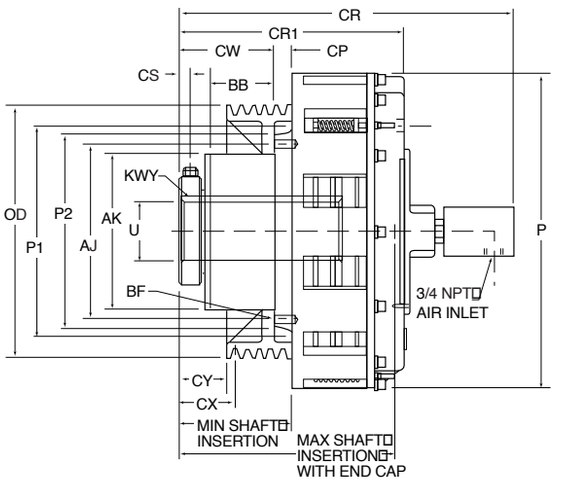
Model	Clutch Style	Product Number	Sheave Diameter	Bore (In)	Shipping Wt. (Lbs)
DFC-1650	Pilot Mount	964149	--	3.375	350
DFC-2200	Pilot Mount	964151	--	3.375	500
DFC-1650	Sheave, 6-"5V"	964152	15.00 OD		
DFC-1650	Sheave, 5-"5V"	964153	15.00 OD		
DFC-1650	Sheave, 4-"5V"	964154	14.00 OD		
DFC-2200	Sheave, 4-"8V"	964155	16.00 OD		
DFC-2200	Sheave, 6-"8V"	964156	16.00 OD		
DFC-2200	Sheave, 6-"8V"	964157	20.00 OD		
DFC-2200	Sheave, 10-"5V"	964158	14.50 OD		
DFC-2200	Sheave, 5-"8V"	964159	16.00 OD		

DFC Model Clutches

Model	Static Torque at 80 psi	Maximum RPM	Effective Facing Area	Peak Input Rate (HP)	Heat Sink Capacity (ft lbs.)	HP_t up to
DFC-1650	36,000 in. lbs.	1200	227 in^2	204 HP	870,000	8.0
DFC-2200	66,800 in.lbs.	900	330 in^2	297 HP	1,460,000	10.0

DUAL-FACED FRICTION MODEL CLUTCHES - APPROXIMATE DIMENSIONS (INCHES)

Pilot Mount



MODEL	PRODUCT NUMBER	AJ	AK ±.001	BB	BF SIZE	BF QTY	CP	CR	CR1	CS	KWY CW	KWY WD	DP	P	P1	P2	SHAFT INSERT MIN	SHAFT INSERT MAX	U +.001 -.000
DFC-1650	964149	10.375	9.248	3.848	.500-13	12	1.10	19.27	13.23	0.62	5.54	0.875	0.437	18.85	11.57	11.38	6.44	12.62	3.375
DFC-2200	964151	11.327	10.200	5.50	.500-13	8	0.40	21.21	14.79	0.62	7.19	0.875	0.437	24.50	12.45	12.45	6.94	14.21	3.375

Sheaves (Optional)

MODEL	PRODUCT NUMBER	GROOVE	QTY	OD	CX	CY
DFC-1650	964152	5V	6	15.00	2.54	2.04
DFC-1650	964153	5V	5	15.00	3.23	2.73
DFC-1650	964154	5V	4	14.00	3.91	3.41

MODEL	PRODUCT NUMBER	GROOVE	QTY	OD	CX	CY
DFC-2200	964155	8V	4	16.00	1.31	0.56
DFC-2200	964156	8V	6	16.00	0.81	0.06
DFC-2200	964157	8V	6	20.00	0.81	0.06
DFC-2200	964158	5V	10	14.50	0.53	0.03
DFC-2200	964159	8V	5	16.00	1.31	0.56

HEAVY DUTY CLUTCH & BRAKE ELEMENTS
DFE & QFE MODEL SERIES

This **16 Model** Series of air-actuated **Dual Faced** and **Quad Faced Elements** are designed for heavy duty industrial applications requiring high torque and low inertia:

- Static Torque ratings up to 302,000 In. Lbs. @ 80 psi (see chart page 60)
- Maximum Operating Speed up to 1600 rpm
- Thermal Horsepower values up to 14.7 @ 1600 rpm
- Bore range up to 6.500 inches
- Thru-Shaft or Shaft-End Mount Brake
- Horizontal Shaft-End mounted Clutch Element mounts to a customer supplied flywheel, gear or pulley
- Dual Faced Elements have single disc assemblies, Quad Faced Elements have double disc assemblies
- Available with either Standard or High coefficient friction linings
- Single or Double Disc Assemblies available in 4 disc sizes
- Rugged design ensures long product life
- Sealed O-ring piston & cylinder design reduces maintenance costs
- Air Union Bracket Assembly includes flexible hose.

Manufactured in the U.S.A. under license of Coremo Ocemea - Italy

With this Heavy Duty Model Series, tough applications are made easy. Each of the 16 Models are detailed on the next few pages.

Peak Input Rate

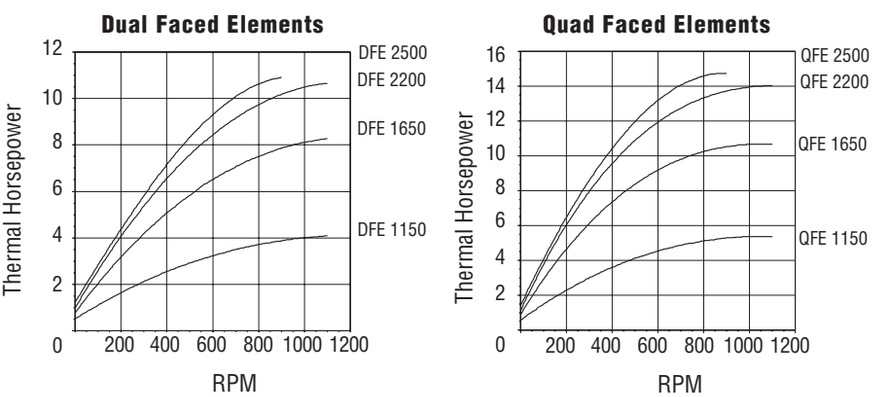
The DFE and QFE Series of Clutches and Brakes are designed for applications requiring high torque and low inertia. The peak input rate may be the limiting factor in high inertia starts or stops, even though the Heat Sink Capacity is efficient.

The peak input rate capacity is the rate at which the clutch absorbs heat at the friction interface during the acceleration period while interfaces are slipping, or until the load and the clutch are operating at the same speed. See page 368 the Engineering Data Section for information explaining how to calculate the Peak Input Rate and how to avoid potential problems.

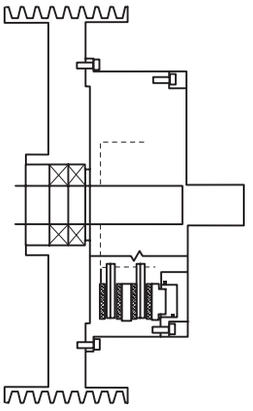
Heat Sink Capacities & Peak Input Rate

Model	Heat Sink Capacity (Ft Lbs)	Peak Input Rate (HP)	Effective Interface Areas
DFE 1150-S/H	390,000	105	117 in^2
DFE 1650-S/H	870,000	204	227 in^2
DFE 2200-S/H	1,187,000	297	330 in^2
DFE 2500-S/H	1,460,000	363	404 in^2
QFE 1150-S/H	780,000	210	234 in^2
QFE 1650-S/H	1,740,000	408	454 in^2
QFE 2200-S/H	2,374,000	594	660 in^2
QFE 2500-S/H	2,920,000	727	808 in^2

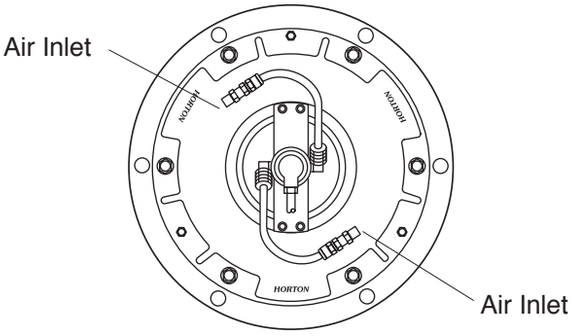
Continuous Rated Thermal Horsepower Dissipation Vs. RPM



Clutch Element Mounted to Bearing Supported Pulley



Clutch Air Connection



When Element is Used as a Clutch:

Element must be Shaft-End Mounted in a horizontal position.

The housing is flange mounted to a bearing supported component (flywheel, gear, pulley).

The Hub is keyed to the shaft.

Air is supplied through a Rotary Air Union and flexible hoses.

NOTE: Not suitable for Thru-Shaft mounting.

Clutch Air Connection:

Attach the Rotary Air Union Bracket to the cylinder with four cap screws.

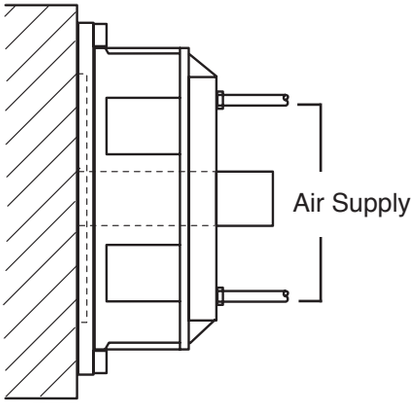
Install a flexible hose in the Rotary Air Union and in the Air Union Bracket.

Install elbow fittings in the cylinder and Air Union Bracket.

Connect the cylinder hoses to the fittings.

Do not use rigid pipe or tubing for these connections.

Shaft-End Mounted Brake Element



When Element is Used as a Brake:

Element must be Shaft-End Mounted in a horizontal position.

The housing is flange mounted to the machine frame.

The Hub is keyed to the shaft.

Air is supplied directly at the cylinder air inlets.

Brake Air Connection:

Connect the air supply directly to the two air ports, located 180 degrees apart in the cylinder.

See page 150-161 for Spring Engaged Brake.

NOTE: DFE & QFE units are intended for horizontal mounting only.

DFE MODEL CLUTCH & BRAKE ELEMENTS

This **8 Model** Series of air-actuated Dual Faced Elements are designed for heavy-duty industrial applications requiring high torque and low inertia:

- Static Torque ratings up to 151,000 In. Lbs. @ 80 psi (see chart)
- Maximum Operating Speed up to 1600 rpm
- Thermal Horsepower values up to 10.9 @ 900 rpm
- Bore range up to 6.500 inches
- Shaft-End Mount Clutch
- Thru-Shaft or Shaft-End Mount Brake
- Horizontal Shaft-End mounted Clutch Element mounts to a customer supplied flywheel, gear or pulley
- Dual Faced Elements have single disc assemblies
- Available with either Standard or High coefficient friction linings
- Single Disc Assemblies available in 4 Disc sizes
- Rugged design ensures long product life
- Sealed O-ring piston and cylinder design reduces maintenance costs
- Air Union Bracket Assembly includes flexible hose.

Manufactured in the U.S.A. under license of Coremo Ocemea - Italy

NOTE: Dynamic torque is approximately 85% of static torque.

How to Specify and Order DFE Clutch & Brake Elements:

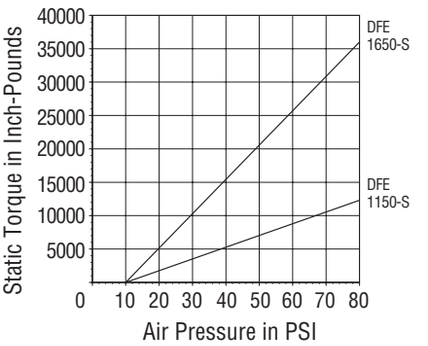
1. Determine which bore size you will need;
2. If you require a bore size other than the standard Hub bore, you can either order this special size from Nexen or machine it yourself;
3. Order the matching Air Union Bracket Assembly for Shaft-End mounting applications.

Model	Product Number	Disc Size	PILOT HUB BORE +.001/-.000 w/o Keyway	HUB BORE RANGE w/o Keyway (In) MIN.	MAX.	Speeds Up to RPM Disc	Housing	Shipping Wt. (Lbs)
Standard Coefficient Friction Linings								
DFE 1150-S	964000	11.50	1.000	1.000	2.500	2200	1600	143
DFE 1650-S	964003	16.50	2.000	2.000	4.000	1500	1200	252
DFE 2200-S	964006	22.00	2.500	2.500	6.000	1100	900	439
DFE 2500-S	964009	25.00	2.500	3.000	6.000	1000	800	542
High Coefficient Friction Linings								
DFE 1150-H	964001	11.50	1.000	1.000	2.500	2200	1600	143
DFE 1650-H	964004	16.50	2.000	2.000	4.000	1500	1200	252
DFE 2200-H	964007	22.00	2.500	2.500	6.000	1100	900	439
DFE 2500-H	964010	25.00	2.500	3.000	6.000	1000	800	542

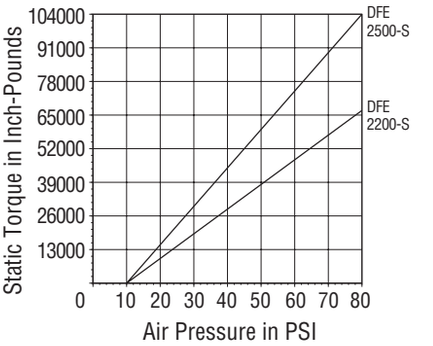
Model	Product Number	Air Union Bracket Assembly Product Number	NPT Size	Shipping Wt. (Lbs)
DFE 1150-S	964000	964012	0.250	1
DFE 1650-S	964003	964013	0.750	2
DFE 2200-S	964006	964014	0.750	3
DFE 2500-S	964009	964015	0.750	3
DFE 1150-H	964001	964012	0.250	1
DFE 1650-H	964004	964013	0.750	2
DFE 2200-H	964007	964014	0.750	3
DFE 2500-H	964010	964015	0.750	3

Torque Vs. Air Pressure

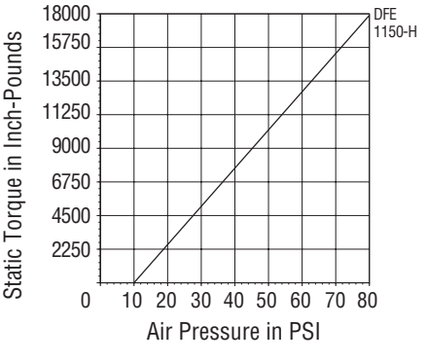
Standard Coefficient Linings



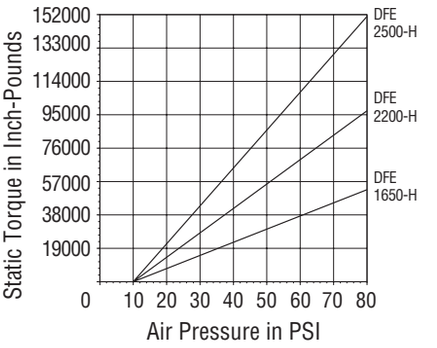
Standard Coefficient Linings



High Coefficient Linings

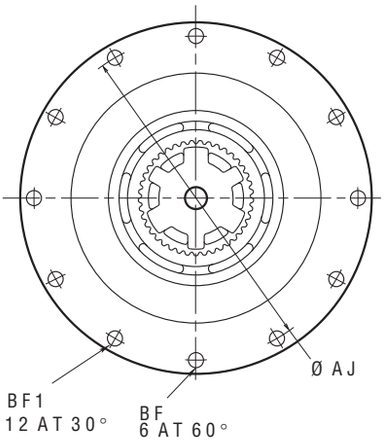


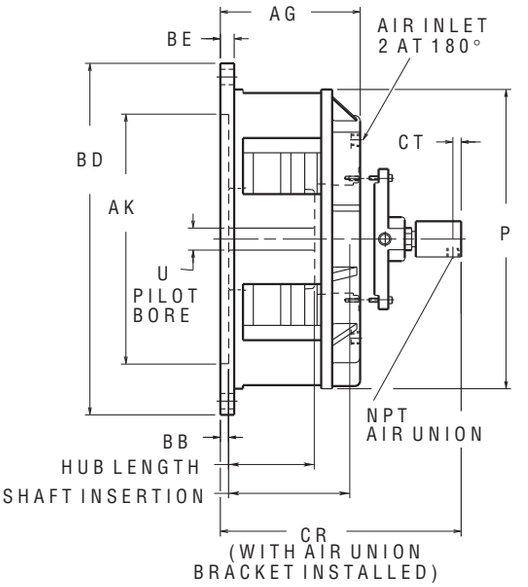
High Coefficient Linings



DFE MODEL CLUTCH & BRAKE ELEMENTS - APPROXIMATE DIMENSIONS (INCHES)

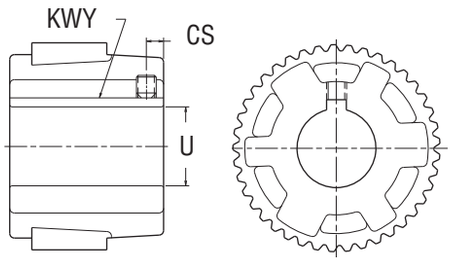
DFE Element With Air Union Bracket Assembly





MODEL	PRODUCT NUMBER	AIR INLET NPT	HUB LENGTH	AG	AJ	AK ±.001	BB	BD	BE	BF	BF1	CR	CT	P	AIR UNION NPT	U +.001 -.000	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.
DFE 1150-S	964000	.250	3.90	6.36	14.750	11.376	0.38	16.00	0.63	0.69	--	10.04	0.38	13.62	.250	1.000	3.90	5.52
DFE 1150-H	964001	.250	3.90	6.36	14.750	11.376	0.38	16.00	0.63	0.69	--	10.04	0.38	13.62	.250	1.000	3.90	5.52
DFE 1650-S	964003	.500	4.70	6.74	20.000	16.251	0.38	21.25	0.62	--	0.69	12.78	0.62	18.75	.750	2.000	4.70	5.91
DFE 1650-H	964004	.500	4.70	6.74	20.000	16.251	0.38	21.25	0.62	--	0.69	12.78	0.62	18.75	.750	2.000	4.70	5.91
DFE 2200-S	964006	.500	6.00	7.19	25.500	21.376	0.31	27.00	0.75	--	0.69	13.23	0.62	24.50	.750	2.500	6.00	6.47
DFE 2200-H	964007	.500	6.00	7.19	25.500	21.376	0.31	27.00	0.75	--	0.69	13.23	0.62	24.50	.750	2.500	6.00	6.47
DFE 2500-S	964009	.500	6.00	7.22	28.750	24.376	0.25	30.00	0.75	--	0.69	13.26	0.62	27.50	.750	2.500	6.00	6.50
DFE 2500-H	964010	.500	6.00	7.22	28.750	24.376	0.25	30.00	0.75	--	0.69	13.26	0.62	27.50	.750	2.500	6.00	6.50

DFE Hub Only



MODEL	CS
DFE 1150	0.44
DFE 1650	0.62
DFE 2200	0.75
DFE 2500	0.75

Hub Bore Information

All standard Hubs are furnished in the bore listed in dimension "U" and without keyway or set screw. The Hub bore can be increased to a size equal to the maximum diameter indicated in the table. If you need to increase the bore size of the Hub, you have two options:

1. Nexen can supply you with a specified bore and matching keyway at your request for an extra charge.
2. You can machine your own bore and keyway, with the limits listed in the table.

The following table indicates bore sizes and corresponding key and set screw sizes.

Bore Size	Key Size (SQ)	Set Screw Size
1.000-1.250	0.250	0.312-18
1.312-1.375	0.312	0.375-16
1.437-1.750	0.375	0.375-16
1.812-2.250	0.500	0.500-13
2.312-2.750	0.625	0.500-13
2.812-3.250	0.750	0.625-11
3.312-3.750	0.875	0.750-10
3.812-4.500	1.000	0.750-10
4.562-5.500	1.250	0.875-9
5.562-6.500	1.500	1.000-8

QFE MODEL CLUTCH & BRAKE ELEMENTS

This **8 Model** Series of air-actuated Quad Faced Elements are designed for heavy-duty industrial applications requiring high torque and low inertia:

- Static Torque ratings up to 302,000 In. Lbs. @ 80 psi (see chart)
- Maximum Operating Speed up to 1600 rpm
- Thermal Horsepower values up to 14.7 @ 900 rpm
- Bore range up to 6.500 inches
- Shaft-End Mount Clutch
- Thru-Shaft or Shaft-End Mount Brake
- Horizontal Shaft-End mounted Clutch Element mounts to a customer supplied flywheel, gear or pulley
- Quad Faced Elements have single disc assemblies
- Available with either Standard or High coefficient friction linings
- Double Disc Assemblies available in 4 Disc sizes
- Rugged design ensures long product life
- Sealed O-ring piston and cylinder design reduced maintenance costs
- Air Union Bracket Assembly includes flexible hose.

Manufactured in the U.S.A. under license of Coremo Ocemea - Italy

NOTE: Dynamic torque is approximately 85% of static torque.

How to Specify and Order QFE Clutch & Brake Elements:

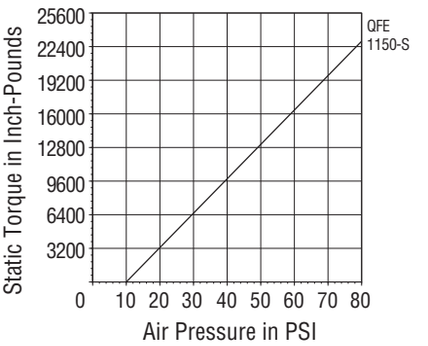
1. Determine which bore size you will need;
2. If you require a bore size other than the standard Hub bore, you can either order this special size from Nexen or machine it yourself;
3. Order the matching Air Union Bracket Assembly for Shaft-End mounting applications.

Model	Product Number	Disc Size	PILOT HUB BORE +.001/-.000 w/o Keyway	HUB BORE RANGE w/o Keyway (In) MIN.	MAX.	Speeds Up to RPM Disc	Housing	Shipping Wt. (Lbs)
Standard Coefficient Friction Linings								
QFE 1150-S	964060	11.50	1.500	1.500	3.250	2200	1600	202
QFE 1650-S	964063	16.50	2.000	2.000	5.000	1500	1200	358
QFE 2200-S	964066	22.00	3.000	3.000	6.500	1100	900	643
QFE 2500-S	964069	25.00	3.500	3.500	6.500	1000	800	787
High Coefficient Friction Linings								
QFE 1150-H	964061	11.50	1.500	1.500	3.250	2200	1600	202
QFE 1650-H	964064	16.50	2.000	2.000	5.000	1500	1200	358
QFE 2200-H	964067	22.00	3.000	3.000	6.500	1100	900	643
QFE 2500-H	964070	25.00	3.500	3.500	6.500	1000	800	787

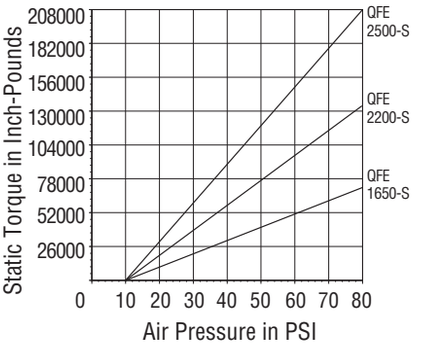
Model	Product Number	Air Union Bracket Assembly Product Number	NPT Size	Shipping Wt. (Lbs)	Max Torque (in-lb)
QFE 1150-S	964060	964012	0.250	1	24,600
QFE 1650-S	964063	964013	0.750	2	72,000
QFE 2200-S	964066	964014	0.750	3	133,000
QFE 2500-S	964069	964015	0.750	3	208,000
QFE 1150-H	964061	964012	0.250	1	35,800
QFE 1650-H	964064	964013	0.750	2	104,900
QFE 2200-H	964067	964014	0.750	3	194,600
QFE 2500-H	964070	964015	0.750	3	302,000

Torque Vs. Air Pressure

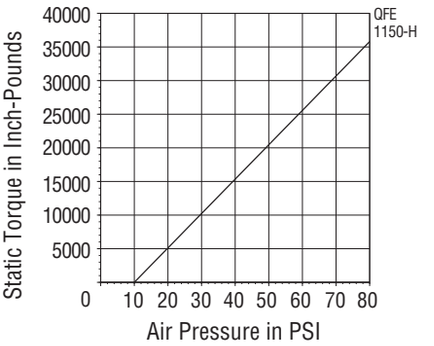
Standard Coefficient Linings



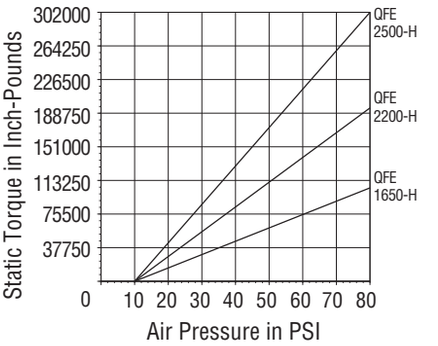
Standard Coefficient Linings



High Coefficient Linings

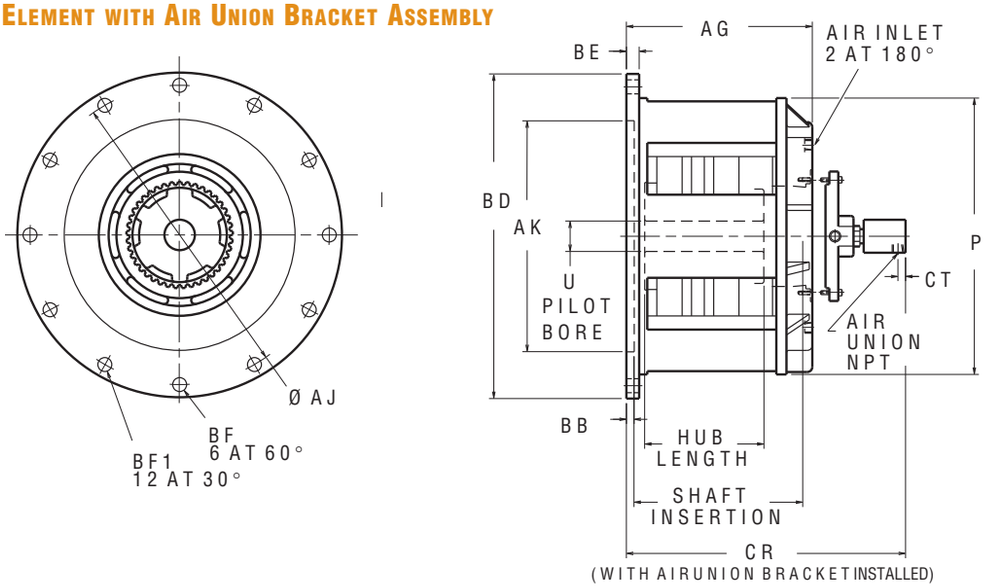


High Coefficient Linings



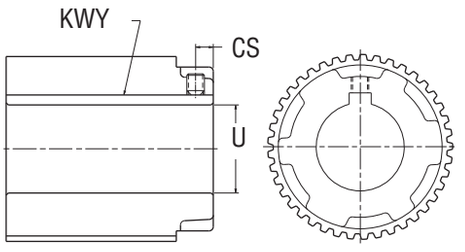
QFE MODEL CLUTCH & BRAKE ELEMENTS - APPROXIMATE DIMENSIONS (INCHES)

QFE Element with Air Union Bracket Assembly



MODEL	PRODUCT NUMBER	AIR INLET NPT	HUB LENGTH	AG	AJ	AK ±.001	BB	BD	BE	BF	BF1	CR	CT	P	AIR UNION NPT	U +.001 -.000	SHAFT INSERTION MIN.	SHAFT INSERTION MAX.
QFE 1150-S	964060	.250	5.88	9.16	14.750	11.376	0.38	16.00	0.63	0.69	--	12.83	0.38	13.62	.250	1.500	5.88	7.79
QFE 1150-H	964061	.250	5.88	9.16	14.750	11.376	0.38	16.00	0.63	0.69	--	12.83	0.38	13.62	.250	1.500	5.88	7.79
QFE 1650-S	964063	.500	6.75	9.55	20.000	16.251	0.38	21.25	0.62	--	0.69	15.60	0.63	18.75	.750	2.000	6.75	8.20
QFE 1650-H	964064	.500	6.75	9.55	20.000	16.251	0.38	21.25	0.62	--	0.69	15.60	0.63	18.75	.750	2.000	6.75	8.20
QFE 2200-S	964066	.500	7.88	10.39	25.500	21.376	0.31	27.00	0.75	--	0.69	16.43	0.63	24.50	.750	3.000	7.88	8.92
QFE 2200-H	964067	.500	7.88	10.39	25.500	21.376	0.31	27.00	0.75	--	0.69	16.43	0.63	24.50	.750	3.000	7.88	8.92
QFE 2500-S	964069	.500	7.88	10.42	28.750	24.376	0.25	30.00	0.75	--	0.69	16.46	0.63	27.50	.750	3.500	7.88	8.86
QFE 2500-H	964070	.500	7.88	10.42	28.750	24.376	0.25	30.00	0.75	--	0.69	16.46	0.63	27.50	.750	3.500	7.88	8.86

QFE Hub Only



Model	CS
QFE 1150	0.50
QFE 1650	0.75
QFE 2200	0.75
QFE 2500	0.75

Hub Bore Information

All standard Hubs are furnished in the bore listed in dimension "U" and without keyway. The Hub bore can be increased to a size equal to the maximum diameter indicated in the table. If you need to increase the bore size of the Hub, you have two options:

1. Nexen can supply you with a specified bore and matching keyway at your request for an extra charge.
2. You can machine your own bore and keyway, within the limits listed in the table.

The following table indicates bore sizes and corresponding key and screw sizes.

Bore Size	Key Size (SQ)	Set Screw Size
1.00-1.250	0.250	0.312-18
1.312-1.375	0.312	0.375-16
1.437-1.750	0.375	0.375-16
1.812-2.250	0.500	0.500-13
2.312-2.750	0.625	0.500-13
2.812-3.250	0.750	0.625-11
3.312-3.750	0.875	0.750-10
3.812-4.500	1.000	0.750-10
4.562-5.500	1.250	0.875-9
5.562-6.500	1.500	1.000-8

LSCC STRAIGHT BORE CONVEYOR CLUTCHES

Nexen's air-engaged, straight-bore series of conveyor clutches offer high torque in a small package. The LSCC line is ideal for soft starts on accumulating, chain-driven live-roller, or in-line conveyor applications. With a maximum torque rating of 452 Nm [4000 in-lb] and a bore range from 12 to 38 mm [0.500-1.500 in], these products can outperform the competition at a lower cost. Nexen's conveyor lines comes standard with a pilot designed for easy sprocket mounting or can be configured for a variety of mounting applications (double-single sprocket, timing belt sprocket, v-belt sheave, plate, etc.).

- High torque: 452 Nm [4000 in-lb] at 5.5 bar [80 psi]
- Bore range: 12-38 mm [0.500-1.500 in]
- Through-shaft design with three set screws for easy mounting
- Variable mounting configurations: plate or double-single sprocket, timing belt sprocket, plate, or sheave
- Open design, improved airflow, high thermal horsepower
- Internal spline drive for trouble free disengagement performance
- Shielded ball bearings for low disengagement drag

  -sealed bearings also available
- No rotary air union required
- Compact size
- Spring biased for complete disengagement
- Field repairable o-rings, facings and springs

LSCC-32, 44, 54 Straight Bore Conveyor Clutch Specifications

Model	Torque Nm [in-lb]	Product Number	Bore mm [in]	Mounting Style	Sprocket Style	Sprocket Pitch	Sprocket Teeth
LSCC-32	85 [750]	923553	22,2 [0.875]	Pilot	--	--	--
		923564	15,9 [0.625]		--	--	--
		923565	19,1 [0.750]		--	--	--
		923583	22,2 [0.875]	Sprocket	Single	40	26
		923582	22,2 [0.875]		Single	60	19
		923566	19,1 [0.750]		Double/Single	50	18
LSCC-44	238 [2110]	923550	28,6 [1.250]	Pilot	--	--	--
		923554	30,2 [1.188]		--	--	--
		923557	25,4 [1.00]		--	--	--
		923562	28,6 [1.125]		--	--	--
		923590	28,0 [1.1]		--	--	--
		923556	25,4 [1.00]	Sprocket	Single Plate	50	19
		923567	25,4 [1.00]				20
		923569	30,2 [1.188]			60	21
		923563	25,4 [1.00]				18
		923586	25,4 [1.00]		Double/Single	40	24
		923568	25,4 [1.00]			50	20
		923587	28,6 [1.125]				22
		923581	30,2 [1.188]			60	21
LSCC-54	452 [4000]	923576	38,1 [1.500]	Pilot	--	--	--
		923588	36,5 [1.4375]		--	--	--

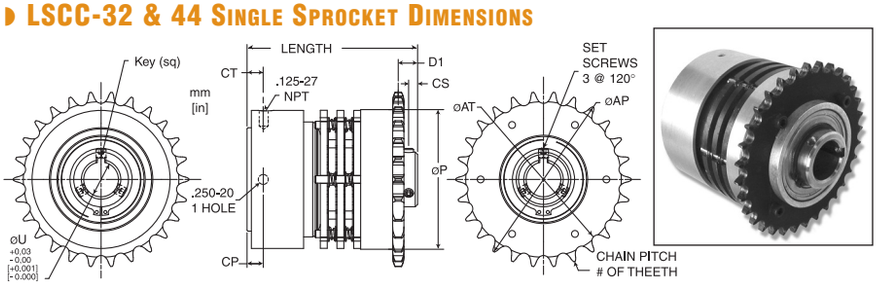
Single - Type 'A' Sprocket Sizes

Sprocket Mounting Sizes Using Standard Single Strand Roller Chain

Model	Pilot Diameter	Mounting Style	Sprocket Pitch / Minimum Number of Teeth				
			35	40-41	50	60	80
LSCC-32	63,5 mm [2.500 in]	Pilot Mount	33	26	21	**	--
		Intregral Sprocket	25	22	19	**	--
LSCC-44	76,2 mm [3.000 in]	Pilot Mount	**	31	25	22	**
		Intregral Sprocket	**	20	17	14	**
LSCC-54	101,6 mm [4.000 in]	Pilot Mount	**	**	32	26	21
		Intregral Sprocket	**	**	24	21	23

Units can be configured with plate or double-single sprocket, timing belt sprocket, or v-belt sheave. Nexen can also configure an optional integral brake, Please consult factory for details.
** Consult the Nexen Custom Business Unit at 800-843-7445 before using the starred chain sizes.

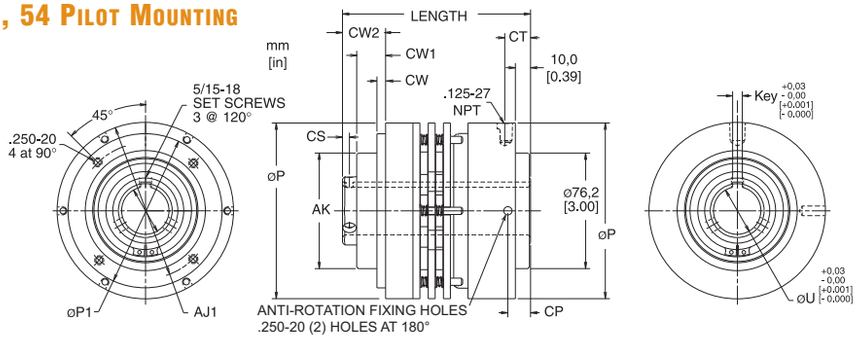
LSCC-32 & 44 Single Sprocket Dimensions



MODEL PRODUCT NO.	øAP	øAT	CP	CS	CT	D1	øU	Key	Length	Pitch	Teeth
LSCC-32	97.44	112.22	10.4	5.76	12.0	12.36	22.22	4.78	109.2	#40	26
923583	[3.836]	[4.418]	[0.41]	[0.227]	[0.47]	[0.487]	[0.875]	[0.188]	[4.30		
LSCC-32	103.83	125.60	163.72	5.76	12.0	14.59	22.22	4.78	109.2	#60	19
923582	[4.088]	[4.945]	[6.446]	[0.227]	[0.47]	[0.574]	[0.875]	[0.188]	[4.30]		
LSCC-44	91.32	109.76	14.7	4.57	16.7	13.6	25.40	6.35	127.42	#50	20
923567	[3.595]	[4.321]	[0.58]	[0.180]	[0.66]	[0.53]	[1.000]	[0.250]	[5.016]		
LSCC-44	115.90	137.83	14.7	4.57	16.7	15.2	30.162	6.35	127.42	#60	21
923569	[4.563]	[5.426]	[0.58]	[0.180]	[0.66]	[0.60]	[1.1875]	[0.250]	[5.016]		

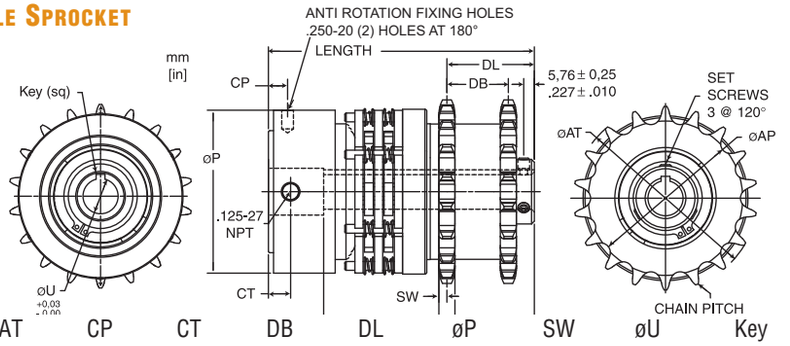
STRAIGHT-BORE CONVEYOR CLUTCH - APPROXIMATE DIMENSIONS METRIC [INCHES]

LSCC-32,44, 54 Pilot Mounting



MODEL PRODUCT NO.	øAJ1	øAK	CP	CS	CT	CW	CW1	CW2	øP	øP1	øU	Key	Length
LSCC-32 923553	76,20 [3.000]	63,50 [2.500]	10,4 [4.1]	5,76 [0.227]	12,0 [4.7]	2,54 [0.10]	15,24 [0.60]	24,00 [0.945]	89,4 [3.52]	88,4 [3.52]	22,22 [0.875]	4,80 [0.189]	109,2 [4.3]
LSCC-32 923564	76,20 [3.000]	63,50 [2.500]	10,4 [4.1]	5,76 [0.227]	12,0 [4.7]	2,54 [0.10]	15,24 [0.60]	24,00 [0.945]	89,4 [3.52]	88,4 [3.52]	15,88 [0.625]	4,80 [0.189]	109,2 [4.3]
LSCC-32 923565	76,20 [3.000]	63,50 [2.500]	10,4 [4.1]	5,76 [0.227]	12,0 [4.7]	2,54 [0.10]	15,24 [0.60]	24,00 [0.945]	89,4 [3.52]	88,4 [3.52]	19,05 [0.750]	4,80 [0.189]	109,2 [4.3]
LSCC-44 923550	88,90 [3.500]	76,20 [3.000]	14,7 [0.58]	4,57 [0.180]	16,7 [0.66]	5,70 [0.22]	19,05 [0.750]	28,4 [1.12]	115,8 [4.56]	101,6 [4.00]	31,75 [1.250]	6,35 [0.250]	127,42 [5.016]
LSCC-44 923554	88,90 [3.500]	76,20 [3.000]	14,7 [0.58]	4,57 [0.180]	16,7 [0.66]	5,70 [0.22]	19,05 [0.750]	28,4 [1.12]	115,8 [4.56]	101,6 [4.00]	30,162 [1.1875]	6,35 [0.250]	127,42 [5.016]
LSCC-44 923557	88,90 [3.500]	76,20 [3.000]	14,7 [0.58]	4,57 [0.180]	16,7 [0.66]	5,70 [0.22]	19,05 [0.750]	28,4 [1.12]	115,8 [4.56]	101,6 [4.00]	25,40 [1.000]	6,35 [0.250]	127,42 [5.016]
LSCC-44 923562	88,90 [3.500]	76,20 [3.000]	14,7 [0.58]	4,57 [0.180]	16,7 [0.66]	5,70 [0.22]	19,05 [0.750]	28,4 [1.12]	115,8 [4.56]	101,6 [4.00]	28,52 [1.125]	6,35 [0.250]	127,42 [5.016]
LSCC-44 923590	102,00 [4.016]	88,00 [3.465]	14,7 [0.58]	4,57 [0.180]	16,7 [0.66]	N/A	19,05 [0.750]	28,4 [1.12]	115,8 [4.56]	N/A	28,00 [1.102]	8,00 [0.315]	127,42 [5.016]
LSCC-54 923576	120,65 [4.750]	101,60 [4.000]	21,7 [0.85]	6,9 [0.27]	24,8 [0.98]	7,54 [0.30]	26,7 [1.05]	40,1 [1.58]	145,5 [5.73]	139,7 [5.50]	38,10 [1.500]	9,55 [0.376]	160.1 [6.30]
LSCC-54 923588	120,65 [4.750]	101,60 [4.000]	21,7 [0.85]	6,9 [0.27]	24,8 [0.98]	7,54 [0.30]	26,7 [1.05]	40,1 [1.58]	145,5 [5.73]	139,7 [5.50]	36,51 [1.438]	9,55 [0.376]	160,1 [6.30]

LSCC-32, 44 Double Sprocket



MODEL PRODUCT NO.	øAP	øAT	CP	CT	DB	DL	øP	SW	øU	Key	Length	Pitch	Teeth
LSCC-32 923566	81,26 [3.199]	99,55 [3.919]	11,4 [0.45]	12,1 [0.47]	33,3 [1.31]	47,4 [1.87]	88,39 [3.480]	4,36 [0.172]	19,05 [0.750]	4,78 [0.188]	144,3 [5.68]	#50	18
LSCC-44 923556	85,96 [3.384]	104,66 [4.120]	14,7 [0.58]	16,7 [0.66]	33,32 [1.312]	47,2 [1.86]	115,8 [4.56]	4,36 [0.172]	25,40 [1.000]	6,35 [0.250]	163,72 [6.446]	#50	19
LSCC-44 923563	97,79 [3.85]	119,46 [4.703]	14,7 [0.58]	16,7 [0.66]	37,54 [1.478]	51,4 [2.02]	115,8 [4.56]	5,79 [0.228]	25,40 [1.000]	6,35 [0.250]	163,72 [6.446]	#60	18
LSCC-44 923586	89,37 [3.519]	104,09 [4.089]	14,7 [0.58]	16,7 [0.66]	28,57 [1.125]	44,4 [1.75]	115,8 [4.56]	3,61 [0.142]	25,40 [1.000]	6,35 [0.250]	163,72 [6.446]	#40	24
LSCC-44 923568	91,32 [3.595]	109,76 [4.321]	14,7 [0.58]	16,7 [0.66]	33,33 [1.312]	47,2 [1.86]	115,8 [4.56]	4,36 [0.172]	25,40 [1.000]	6,35 [0.250]	163,72 [6.446]	#50	20
LSCC-44 923587	101,39 [3.992]	119,94 [4.722]	14,7 [0.58]	16,7 [0.66]	33,33 [1.312]	47,2 [1.86]	115,8 [4.56]	4,36 [0.172]	28,58 [1.125]	6,35 [0.250]	163,72 [6.446]	#50	22
LSCC-44 923581	115,90 [4.563]	137,83 [5.426]	14,7 [0.58]	16,7 [0.66]	37,69 [1.484]	51,4 [7.02]	115,8 [4.56]	5,79 [0.228]	30,175 [1.188]	6,35 [0.250]	163,72 [6.446]	#60	21

4HP SERIES, MULTIPLE DISC CLUTCHES

The 4HP Series provides:

- Static Torque up to 10,000 In. Lbs. @ 80 psi
- Maximum Operating Speed up to 1800 rpm
- **12 Bore** sizes ranging from 0.750 to 2.188 inches
- For in-line applications to accommodate misalignment, we recommend use of Nexen Single and Double Flexible Couplings

7 Models offer design flexibility:

- Clutch and Driving Shell as one unit
- 3 or 4 Friction Disc Packs provide High Torque
- **Pilot Mount** design with tapped mounting holes
- Thru-shaft mounting design uses a full-length keyway
- Ability to mount a pulley, sprocket, gear or Nexen Flexible Coupling

CAUTION! Do not use these clutches in applications where soft starts, sustained slipping or high cyclic performance is required. Such applications are best handled by standard "Air Champ" Clutches, Brakes or Clutch-Brakes.

4HP Series, Multiple Disc Clutches

Model	Product Number	Bore (In)	Key Size (SQ)	Shipping Wt. (Lbs)	COUPLING ASSEMBLIES SINGLE FLEX Product Number	COUPLING ASSEMBLIES DOUBLE FLEX Product Number
4H30P	923412	0.750	0.188	6	909980	909981
4H30P	923400	0.875	0.188	6	909980	909981
4H35P	923511	1.000	0.250	9	910080	910081
4H35P	923500	1.125	0.250	9	910080	910081
4H40P	923611	1.188	0.250	12	910180	910181
4H40P	923600	1.250	0.250	12	910180	910181
4H45P	923712	1.438	0.375	16	910280	910281
4H45P	923700	1.500	0.375	16	910280	910281
4H50P	923812	1.688	0.375	19	910380	910381
4H50P	923800	1.750	0.375	19	910380	910381
4H60P	923900	1.938	0.500	32	910480	910481
4H70P	924000	2.188	0.500	49	910580	910581

Keys are customer furnished and must be full-length.

Bushings

Bushings fit within the bore of the existing clutch, reducing the bore to the size indicated. Keys are provided with each Bushing.
For quick selection of compatible Bushings, refer to the chart below.

Product Number	Reduces Clutch Bore Size to (In)	Fits Clutch Product Number	Shipping Wt. (Lbs.)
920400	0.750	923400	1
920500	1.000	923500	1
920600	1.125	923600	1
920700	1.375	923700	2
920800	1.625	923800	2
920900	1.750	923900	4
921000	1.938	924000	5

Attachment Options

Flexible Coupling Assemblies

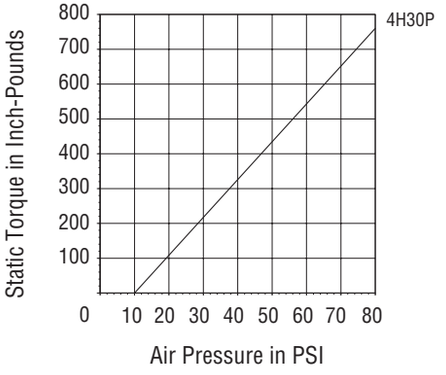
Flexible Coupling Assemblies are required for in-line coupling applications and are available in single or double flex designs to provide **high misalignment capabilities with high torque**. Turn to pages 66 and 67 for Flexible Coupling details.
For quick selection of Flexible Couplings, refer to the chart above.

Pulleys, Sprockets, Gears

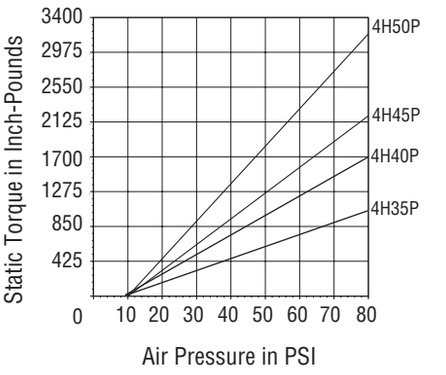
These can be attached to the clutch for off set shaft applications. Tapped holes are provided for ease of mounting. Nexen does not furnish these items.
For minimum sprocket requirements, see pages 369.

Torque Vs. Air Pressure

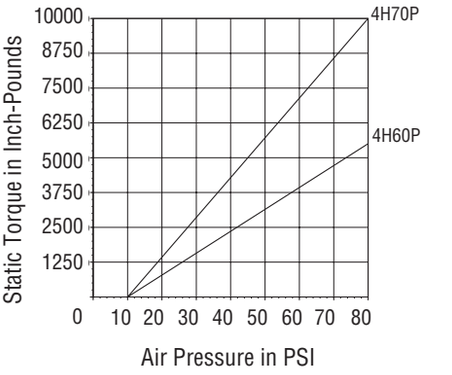
4H30P



4H35P, 4H40P, 4H45P & 4H50P



4H60P & 4H70P



NOTE: Dynamic torque is approximately 85% of static torque.

Study the Clutch Application Data, Torque Charts and RPM/Air Pressure information for these clutches carefully to ensure you have selected the proper 4HP Model for your requirements. If not properly used, failure or poor performance can occur. Please consult Nexen if you are unsure of your applications suitability.

Shown are maximum rpm values (based on 10,000 hours of bearing life) for various air pressures at which the 4HP Clutch Models can be run. For any other rpm at any other air pressure, please consult Nexen

Clutch Application Data

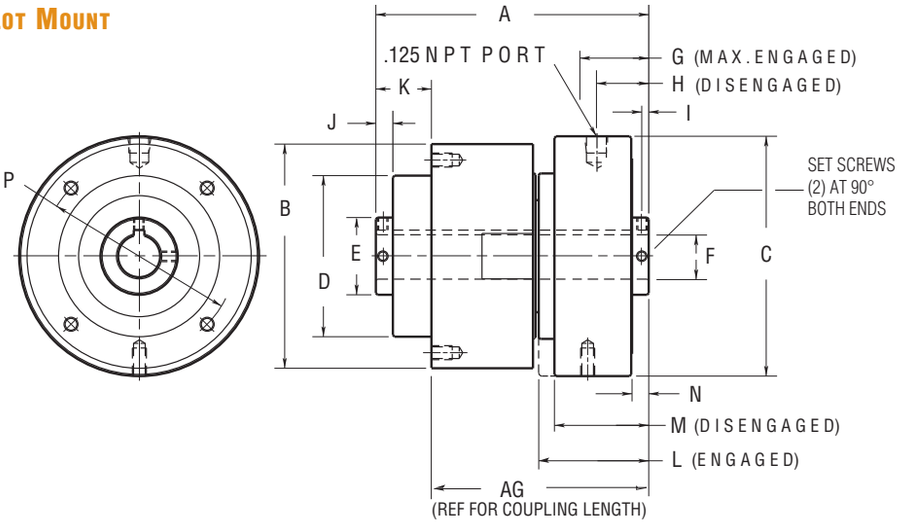
MODEL	MAX. Ft. Lbs. of Energy per Engagement	MAX. Ft. Lbs. of Energy per Minute	HP_T Up to
4H30P	5900	2950	.09
4H35P	8100	4050	.12
4H40P	9590	4795	.15
4H45P	11800	5900	.18
4H50P	12540	6270	.19
4H60P	14750	7375	.22
4H70P	18440	9220	.28

Maximum RPM for Various Air Pressures

Air Pressure PSI	Clutch Sizes 30	35	40	45	50	60	70
80	1400	1200	800	1000	900	700	700
70	1600	1400	1100	1400	1200	900	900
60	1800	1800	1400	1800	1800	1200	1200
50	--	--	1800	--	--	1800	1800
40	--	--	--	--	--	--	--

4HP SERIES, MULTIPLE DISC CLUTCHES - APPROXIMATE DIMENSIONS (INCHES)

Pilot Mount



MODEL	PRODUCT NUMBER	A	AG	B	C	D +.000 -.001	E	F +.001 -.000 MAX. BORE	G	H	I	J	K	L	M	N	P TAP	P B.C.
4H30P	923412	4.88	3.88	4.00	4.29	2.875	1.38	0.750	1.26	0.93	0.12	0.32	1.00	2.02	1.68	0.32	(4) .250-20	3.437
4H30P	923400	4.88	3.88	4.00	4.29	2.875	1.38	0.875	1.26	0.93	0.12	0.32	1.00	2.02	1.68	0.32	(4) .250-20	3.437
4H35P	923511	5.25	4.22	4.50	4.88	3.500	1.77	1.000	1.29	0.94	0.12	0.29	1.03	2.03	1.69	0.29	(4) .250-20	4.062
4H35P	923500	5.25	4.22	4.50	4.88	3.500	1.77	1.125	1.29	0.94	0.12	0.29	1.03	2.03	1.69	0.29	(4) .250-20	4.062
4H40P	923611	5.25	4.22	5.00	5.00	3.500	1.77	1.188	1.32	0.94	0.12	0.29	1.03	2.06	1.69	0.29	(4) .250-20	4.25
4H40P	923600	5.25	4.22	5.00	5.00	3.500	1.77	1.250	1.32	0.94	0.12	0.29	1.03	2.06	1.69	0.29	(4) .250-20	4.25
4H45P	923712	5.65	4.50	5.75	5.91	4.125	2.36	1.438	1.33	0.95	0.12	0.32	1.16	2.18	1.80	0.32	(4) .250-20	4.750
4H45P	923700	5.66	4.50	5.75	5.91	4.125	2.36	1.500	1.33	0.95	0.12	0.32	1.16	2.18	1.80	0.32	(4) .250-20	4.750
4H50P	923812	6.02	4.86	6.25	6.25	4.500	2.56	1.688	1.20	1.03	0.16	0.38	1.16	2.39	2.07	0.38	(4) .312-18	5.250
4H50P	923800	6.02	4.86	6.25	6.25	4.500	2.56	1.750	1.20	1.03	0.16	0.38	1.16	2.39	2.07	0.38	(4) .312-18	5.250
4H60P	923900	6.81	5.59	7.25	6.94	5.250	2.95	1.938	1.61	1.17	0.16	0.38	1.22	2.77	2.33	0.38	(4) .312-18	6.125
4H70P	924000	7.66	6.09	8.38	8.12	5.750	3.35	2.188	1.78	1.19	0.16	0.38	1.56	3.08	2.48	0.34	(4) .500-13	7.000

SINGLE AND DOUBLE FLEXIBLE COUPLING ASSEMBLIES

Both Single and Double Flexible Couplings are available for the 4HP Multiple Disc Clutch. See the following pages for details.

4HP CLUTCH FLEXIBLE COUPLING ASSEMBLIES

Couple your shaft to a 4HP Multiple Disc Clutch with a Flexible Coupling Assembly. There are 14 Single Flex and 14 Double Flex Couplings, each designed to fit a specific 4HP Clutch. Whatever the design style, you'll get:

- High Misalignment Capability
- Torque ratings up to 32,000 In. Lbs.
- Nickel-plated surfaces
- Coupling discs made from composite materials provide the benefits of both a steel disc and elastomeric coupling.

Other benefits include:

- Corrosion resistant
- Requires no lubrication
- Coupling adds no backlash to the drive
- Provides torsional stiffness
- Dampens shock and vibration through the power train
- Reverse Bushing Tapers for bushing installation from the inside of the coupling.

Find the Flexible Coupling that matches your clutch and your application specifications on this page.

4HP Clutch Single & Double Flexible Coupling Selection Chart

1. Determine the Clutch required for your application and find it on the chart below;
2. Find the matching Flexible Coupling Assembly at the top of the column;
3. Double check the Flexible Coupling specifications to ensure conformity with all mating components;
4. A Taper Lock Bushing is required, see chart below for recommended part. This is customer furnished.
5. Clutch and Flexible Coupling Assembly must be ordered separately.

Single Flex #: / Double Flex #:	909980 / 909981	910080 / 910081	910180 / 910181	910280 / 910281	910380 / 910381	910480 / 910481	910580 / 910581
Model Size:	4H30P	4H35P	4H40P	4H45P	4H50P	4H60P	4H70P
Clutch Product #:	923412 / 923400	923511 / 923500	923611 / 923600	923712 / 923700	923812 / 923800	923900	924000

Single & Double Flexible Coupling Product Details

Single Flex Product Number	Double Flex Product Number	Dodge Taper Lock® Bushing Number	Bore Range MIN. (In)	Bore Range MAX. (In)	Single Flex Shipping Wt. (Lbs)	Single Flex Inertia (lb-in/in)	Double Flex Shipping Wt. (Lbs)	Double Flex Inertia (lb-in/in)
909980	909981	1215	0.500	1.250	8	2.6	10	3.2
910080	910081	1615	0.500	1.625	10	6.7	13	8.2
910180	910181	2012	0.500	2.000	12	14.2	15	17.5
910280	910281	2517	0.500	2.500	14	30.2	16	36.3
910380	910381	2517	0.500	2.500	22	54.3	25	64.3
910480	910481	3030	0.938	3.000	29	240.7	34	285.7
910580	910581	3535	1.188	3.938	70	254.0	82	629.3

Single Flexible Coupling Misalignment Capacity

Product Number	Angular (Degrees)	Axial (In)	Parallel (In)
909980	1.5	0.065	0.011
910080	1.5	0.070	0.012
910180	1.5	0.080	0.013
910280	1.5	0.090	0.014
910380	1.5	0.105	0.017
910480	1.5	0.120	0.019
910580	1.5	0.135	0.022

Double Flexible Coupling Misalignment Capacity

Product Number	Angular (Degrees)	Axial (In)	Parallel (In)
909981	3.0	0.130	0.063
910081	3.0	0.140	0.078
910181	3.0	0.160	0.085
910281	3.0	0.180	0.091
910381	3.0	0.210	0.104
910481	3.0	0.240	0.117
910581	3.0	0.270	0.137

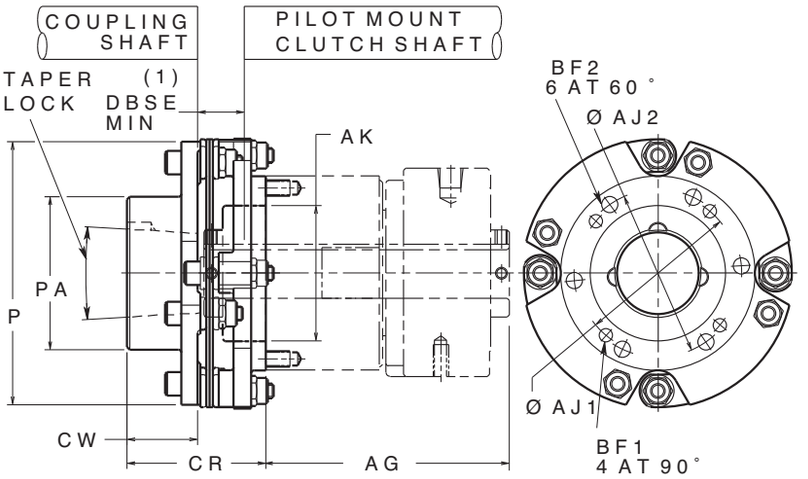
NOTE: If parallel, angular and axial misalignment are all required, be certain that the combined percentage of each does not exceed 100%. For instance, if 100% of the parallel misalignment rating is required, no angular or axial misalignment is allowed. If 50% of the parallel misalignment rating is required, only 50% of the angular misalignment OR 50% of the axial rating will be available.

Reverse Bushing Tapered Couplings

Single Flex #: / Double Flex #:	909984 / 909985	910084 / 910085	910184 / 910185	910284 / 910285	910384 / 910385	910484 / 910485	910584 / 910585
Model Size:	4H30P	4H35P	4H40P	4H45P	4H50P	4H60P	4H70P
Clutch Product #:	923412 / 923400	923511 / 923500	923611 / 923600	923712 / 923700	923812 / 923800	923900	924000

4HP CLUTCH FLEXIBLE COUPLING ASSEMBLIES - APPROXIMATE DIMENSIONS (INCHES)

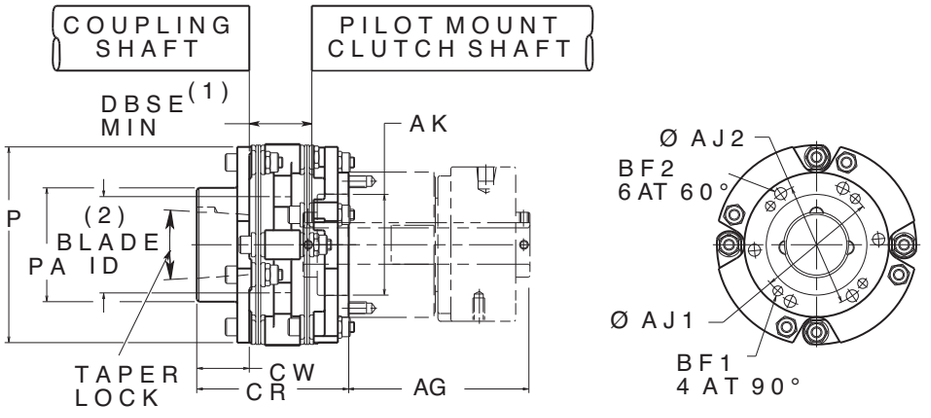
Single Flex



DBSE (1) = Distance Between Shaft Ends. Less than MIN requires equipment removal for service; the MAX distance is dependent on the clutch.

PRODUCT NUMBER	AG	AJ1	AJ2	AK +.001 -.000	HOLE SIZE BF1	HOLE SIZE BF2	BF1 BOLT SIZE	BF2 BOLT SIZE	CR	CW	P	PA	DBSE MIN.	DBSE MAX.
909980	3.88	3.437	3.562	2.875	0.265	0.327	.250-20 x 1.00	.312-18 x 1.25	2.95	1.50	5.75	3.25	0.39	2.59
910080	4.22	4.062	4.062	3.500	0.265	0.327	.250-20 x 1.00	.312-18 x 1.25	3.17	1.50	6.38	3.88	0.52	2.23
910180	4.22	4.250	4.250	3.500	0.265	0.327	.250-20 x 1.25	.312-18 x 1.25	2.97	1.25	6.75	4.38	0.59	1.76
910280	4.50	4.750	4.750	4.125	0.265	0.390	.250-20 x 1.25	.375-16 x 1.50	3.70	1.75	7.25	4.88	0.59	1.75
910380	4.86	5.250	5.375	4.500	0.327	0.515	.312-18 x 1.25	.500-13 x 1.50	4.61	2.50	8.38	5.00	0.86	1.45
910480	5.59	6.125	6.125	5.250	0.327	0.515	.312-18 x 1.50	.500-13 x 1.75	5.31	3.00	9.50	5.75	0.88	1.47
910580	6.09	7.000	7.000	5.750	0.515	0.640	.500-13 x 1.75	.625-11 x 2.00	6.23	3.53	11.38	6.75	1.02	—

Double Flex



DBSE (1) = Distance Between Shaft Ends. Less than MIN requires equipment removal for service; the MAX distance is dependent on the clutch.

(2) Blade ID is the diameter of the hole in the intermediate member

PRODUCT NUMBER	AG	AJ1	AJ2	AK +.001 -.000	HOLE SIZE BF1	HOLE SIZE BF2	BF1 BOLT SIZE	BF2 BOLT SIZE	CR	CW	P	PA	BLADE ID (2)	DBSE MIN.	DBSE MAX.
909981	3.88	3.437	3.562	2.875	0.265	0.327	.250-20 x 1.00	.312-18 x 1.25	4.34	1.50	5.75	3.25	2.75	1.78	3.98
910081	4.22	4.062	4.062	3.500	0.265	0.327	.250-20 x 1.00	.312-18 x 1.25	4.86	1.50	6.38	3.88	3.00	2.20	3.92
910181	4.22	4.250	4.250	3.500	0.265	0.327	.250-20 x 1.25	.312-18 x 1.25	4.81	1.25	6.75	4.38	3.12	2.44	3.61
910281	4.50	4.750	4.750	4.125	0.265	0.390	.250-20 x 1.25	.375-16 x 1.50	5.70	1.75	7.25	4.88	3.38	2.59	3.75
910381	4.86	5.250	5.375	4.500	0.327	0.515	.312-18 x 1.25	.500-13 x 1.50	6.92	2.50	8.38	5.00	4.12	3.17	3.75
910481	5.59	6.125	6.125	5.250	0.327	0.515	.312-18 x 1.50	.500-13 x 1.75	7.89	3.00	9.50	5.75	4.38	3.45	4.05
910581	6.09	7.000	7.000	5.750	0.515	0.640	.500-13 x 1.75	.625-11 x 2.00	9.28	3.53	11.38	6.75	5.25	3.81	—