

Direct-Drive Flexible Couplings

Use with 3PFR, 5PFR, 3CP, 5CP and 7CP Plunger Pumps

Models

8210, 8215, 8220
8225, 8230
8260, 8270, 8275
8370, 8375, 8380

FEATURES

- Special urethane flexible spyder designed for extended life with high temperature and high RPM.
- For a complete drive package, combine with CAT PUMPS' Bell Housing.

SPECIFICATIONS

MODELS	8210	8215	8220
Motor Frame	145TC	56C	184TC
Max. Electric Horsepower.....	3 HP	3 HP	3 HP
Key Size.....	M5	M5	M5
Shaft to Shaft Dimension	M16.5 to 7/8"	M16.5 to 5/8"	M16.5 to 1-1/8"
Weight.....	.55 lbs.	.58 lbs.	.67 lbs.
Diameter/Length	2.17" x 3.04"	2.17" x 3.04"	2.17" x 3.04"

MODELS	8225	8230
Motor Frame	184TC	184TC
Max. Electric Horsepower	10 HP	10 HP
Key Size	M5	M6
Shaft to Shaft Dimension	M16.5 to 1-1/8"	M20 to 1-1/8"
Weight.....	1.16 lbs.	1.15 lbs.
Diameter/Length	2.56" x 3.53"	2.56" x 3.53"

MODELS	8260	8270	8275
Motor Frame	145TC	215TC	215TC
Max. Electric Horsepower.....	10 HP	20 HP	20 HP
Key Size.....	M6	M5	M6
Shaft to Shaft Dimension	M20 to 7/8"	M16.5 to 1-3/8"	M20 to 1-3/8"
Weight.....	.915 lbs.	.55 lbs.	1.07 lbs.
Diameter/Length	2.56" x 3.53"	2.56" x 3.53"	2.56" x 3.53"

MODELS	8370	8375	8380
Motor Frame	184TC	213-215TC	254TC
Max. Electric Horsepower.....	10 HP	10 HP	20 HP
Key Size.....	M8	M8	M8
Shaft to Shaft Dimension	M24 to 1-1/8"	M24 to 1-3/8"	M24 to 1-5/8"
Weight.....	4.60 lbs.	3.41 lbs.	5.91 lbs.
Diameter/Length	2.56" x 3.53"	2.56" x 3.53"	3.15" x 4.41"

DIRECT-DRIVE SELECTION CHART			
Pump Selection	Motor Frame Options	Flexible Coupling Assembly	Bell Housing Assembly
3PFR Pumps	56C	8215	34121
230, 231, 237	143-145TC	8210	34121
240, 241, 247	182-184TC 3HP	8220	34126
270, 271, 277	182-184TC 5HP	8225	34126
	213-215TC	8270	34126 and 990213*
5PFR Pumps	143-145TC	8260	N/A
340, 341, 347	182-184TC	8230	34131
350, 351, 357	213-215TC	8275	34131 and 990213*
3CP Pumps	56C	8215	34422
3CP1120, 3CP1221	143-145TC	8210	34422
3CP1130, 3CP1231	182-184TC 3HP	8220	34423
3CP1240, 3CP1241	182-184TC 5HP	8225	34423
	213-215TC	8270	34423 and 990213*
5CP Pumps	143-145TC	8260	35421
5CP2140WCS, 5CP2150W	182-184TC	8230	34424
5CP6241CS, 5CP6251	213-215TC	8275	34424 and 990213*
7CP Pumps 7CP6110	184TC	8370	31570
	213-215TC	8375	31570
	254-256TC	8380	31570 and 990213**

*Adapter Kit PN 990213 must be used with Bell Housing to convert motor frame to 213-215TC.

**Adapter Kit PN 990213 must be used with Bell Housing to convert motor frame to 254-256TC.

"Customer confidence is our greatest asset"

PARTS LIST

**8210 Flexible Coupling Assembly
145TC / 3 HP**

1	38284	Coupler, Half (M16.5)
1	38289	Coupler, Half (7/8")
1	34406	Spyder
1	30047	Key (M5x5x24)
2	6106	Lubricant, Antiseize
2	—	Screw, Set HSH (M5x6)

**8215 Flexible Coupling Assembly
56C / 3 HP**

1	38284	Coupler, Half (M16.5)
1	38283	Coupler, Half (5/8")
1	34406	Spyder
1	30047	Key (M5x5x24)
2	6106	Lubricant, Antiseize
2	—	Screw, Set HSH (M5x6)

**8220 Flexible Coupling Assembly
184TC / 3 HP**

1	38284	Coupler, Half (M16.5)
1	38285	Coupler, Half (1-1/8")
1	34406	Spyder
1	30047	Key (M5x5x24)
2	6106	Lubricant, Antiseize
1	30088	*Key (1/4x1/4x1-3/8")
2	—	Screw, Set HSH (M5x6)

*Note: Discard key that comes with motor.

**8225 Flexible Coupling Assembly
184TC / 10 HP**

1	38290	Coupler, Half (M16.5)
1	38286	Coupler, Half (1-1/8")
1	34410	Spyder
1	30047	Key (M5x5x24)
2	6106	Lubricant, Antiseize
1	30088	*Key (1/4x1/4x1-3/8")
2	—	Screw, Set HSH (M6x6)

*Note: Discard key that comes with motor.

**8230 Flexible Coupling Assembly
184TC / 10 HP**

1	38287	Coupler, Half (M20)
1	38286	Coupler, Half (1-1/8")
1	34410	Spyder
1	30057	Key (M6x6x25)
2	6106	Lubricant, Antiseize
1	30088	*Key (1/4"x1/4"x1-3/8")
2	—	Screw, Set HSH (M6x6)

*Note: Discard key that comes with motor.

**8260 Flexible Coupling Assembly
145TC / 10 HP**

1	38287	Coupler, Half (M20)
1	38293	Coupler, Half (7/8")
1	34410	Spyder
1	30057	Key (M8x7.5x25)
2	6106	Lubricant, Antiseize
2	—	Screw, Set HSH (M6x6)

**8270 Flexible Coupling Assembly
215TC / 20 HP**

1	38290	Coupler, Half (M16.5)
1	38292	Coupler, Half (1-3/8")
1	991903	Spyder
1	30047	Key (M5x5x24)
2	6106	Lubricant, Antiseize
2	—	Screw, Set HSH (M6x6)

**8275 Flexible Coupling Assembly
215TC / 20 HP**

1	38287	Coupler, Half (M20)
1	38292	Coupler, Half (1-3/8")
1	991903	Spyder
1	30057	Key (M6x6x25)
2	6106	Lubricant, Antiseize
2	—	Screw, Set HSH (M6x6)

**8370 Flexible Coupling Assembly
184TC / 10 HP**

1	31519	Coupler, Half (M24)
1	31528	Coupler, Half (1-1/8")
1	34410	Spyder
1	30067	Key (M8x7.5x25)
1	6106	Lubricant, Antiseize
2	—	Cross Clamp, SHS (8 mm)

**8375 Flexible Coupling Assembly
213-215TC / 10 HP**

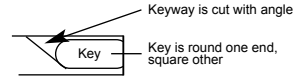
1	31519	Coupler, Half (M24)
1	31533	Coupler, Half (1-3/8")
1	34410	Spyder
1	30067	Key (M8x7.5x25)
1	6106	Lubricant, Antiseize
2	—	Cross Clamp, SHS (8 mm)

**8380 Flexible Coupling Assembly
254TC / 20 HP**

1	31538	Coupler, Half (M24)
1	31543	Coupler, Half (1-5/8")
1	31544	Spyder
1	30067	Key (M8x7.5x25)
1	6106	Lubricant, Antiseize
2	—	Cross Clamp, SHS (8 mm)

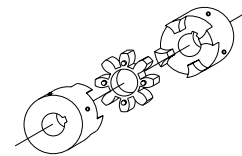
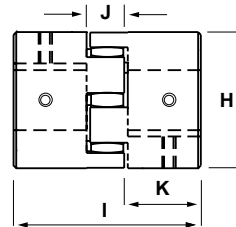
INSTALLATION

- Separate the parts which are included in the flex coupling assembly package. The flex coupling assembly is offered in separate kits to cover the various horsepower and pump models. Note: See separate data sheet for available bell housing assemblies.
- Remove bearing case screws from extended shaft side of pump and **discard**.
- Slip the bell housing over the pump shaft with the **cover to the top** and drain hole to the bottom.
- Apply Loctite® 242® to the threads of the screws provided in the assembly and torque to **50 in/lbs. (5.5 Nm)** in alternating rotation.
- Apply a light film of antiseize lubricant to pump shaft.
- Separate M16.5, M20 or M24 half of the flexible coupling and slide onto the pump shaft. Seat completely against the step on crankshaft.
- Install key into pump shaft with curved end up and towards pump.
- * Insert 3mm allen wrench into each set screw and torque to **125-150 in/lbs. (15-19 Nm)**.
- Slide 5/8, 7/8, 1-1/8, 1-3/8" or 1-5/8" half of flexible coupling **containing spyder** onto motor shaft.
- Install motor key (supplied with motor) into motor shaft keyway and apply antiseize lubricant to shaft.
- Mount pump with coupling half onto motor shaft with coupling half, lining up the two halves. Apply Loctite® 242® to threaded area of the bolts, slip lockwashers onto bolts and thread through flange into motor. Torque to **110 in/lbs. (12 Nm)** in alternating rotation.
- To secure flexible coupling with set screw, remove cover, insert screwdriver into the bell housing and **press flexible coupling towards pump**. NOTE: Flexible coupler halves should not contact each other. Ensure there is a small gap between coupler halves.
- Rotate motor shaft so set screws are lined-up with bell housing openings. NOTE: One set screw located at keyway and second at 90° from keyway.
- * Insert 3mm allen wrench into each set screw and torque to **125-150 in/lbs. (15-19 Nm)**. Replace cover.



*Note: Flexible Couplings that fit the 7CP plunger pumps do not have set screws, but a cross clamp socket head screw (6 mm Allen). Torque to 25 ft/lbs (35 Nm.).
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DIMENSIONAL



MODEL	H	I	J	K
8210	2.17 (55.12)	3.04 (77.22)	.68 (17.27)	1.18 (29.97)
8215	2.17 (55.12)	3.04 (77.22)	.68 (17.27)	1.18 (29.97)
8220	2.17 (55.12)	3.04 (77.22)	.68 (17.27)	1.18 (29.97)
8225	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	1.38 (35.05)
8230	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	1.38 (35.05)
8260	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	1.38 (35.05)
8270	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	1.38 (35.05)
8275	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	1.38 (35.05)
8370	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	2.05 (52.07)
8375	2.56 (65.02)	3.53 (89.66)	.77 (19.56)	2.05 (52.07)
8380	3.15 (80.01)	4.41 (112.01)	.86 (21.84)	2.60 (66.04)

WARRANTY

90 Day Warranty

Refer to complete CAT PUMPS Warranty for further information.

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