

Pump Model 56 shown  
(pump sold separately)

## Industrial Clutches

**Model** 34628  
7PFR Plunger Pumps

**Model** 34630  
7PFR Plunger Pumps

**Model** 34563  
15PFR Plunger Pumps

### FEATURES

- Special e-coating offers 3 to 6 times better corrosion resistant finish.
- Special bearings with unique grease offer more consistent viscosity at high temperatures and better water resistance for harsh environments.
- Special projection welded coil and plate offers extra durability in heavy vibration applications.
- Superior strength forged rotor, hub and armature offer superior flux and maximum torque for long life.

**SELECTION:** Select the clutch to match the pump shaft size and belt horsepower rating.

#### INSTALLATION:

1. Remove the four bearing cover screws on pump and discard.
2. On 7PFR plunger pumps, line up the clutch plate countersunk holes with the bearing cover screw holes. Secure with four countersunk head screws (M6) and lockwashers (M6) and torque per specifications. **Do not use pump bearing cover screws.**
3. On 15PFR plunger pumps, using spacer as an alignment tool, slide large diameter end of spacer first over shaft of pump. Install clutch plate over spacer until flush against crankcase. Ensure countersunk holes of clutch plate line up with bearing cover screw holes. Secure with four countersunk head screws (M6) and lockwashers (M6) and torque per specifications. **Do not use pump bearing cover screws.**
4. Remove spacer from crankshaft. Reverse the position of the spacer so that small diameter end now faces the pump.
5. Mount the coil assembly onto the clutch plate and secure with three flanged screws and torque per specifications.
6. Lubricate the pump shaft with antiseize lubricant and insert the key into the pump shaft.
7. Place clutch assembly on work surface with coil surface facing up.

### SPECIFICATIONS

MODEL	34628	34630	34563
Pump Model .....	7PFR	7PFR	15PFR
Pulley Grooves .....	1	2	2
Shaft Size .....	24 mm	24 mm	30 mm

#### COMMON SPECIFICATIONS

	U.S. Measure	Metric Measure
Pitch Diameter .....	12.4"	(315 mm)
Belt Type .....	B	(B)
Torque .....	100 ft./lbs.	(135 Nm)
Watts .....	50	(50)
Amps .....	4.2	(4.2)
Power Required .....	12 VDC	(12 VDC)
Weight (1 Pulley) .....	18.2 lbs.	(8.25 kg)
(2 Pulley) .....	22.0 lbs.	(9.97 kg)
Dimensions .....	2.45 x 12.75"	(62 x 324 mm)

8. Position pulley on clutch assembly with dish side up. On dual grooves, place second pulley with dish side down.
  9. Line up the six pulley holes with six clutch assembly holes. Secure with six socket head cap screws and torque per specifications.
  10. Slide the Clutch/Pulley assembly over shaft. Be certain keyway of pump is aligned with armature keyway. Secure with flat washer and shaft screw (M8x25) and torque per specifications.
  11. Connect the lead wire to the positive side of the electric circuit. Also be certain there is an adequate grounded connection to the coil assembly plate.
  12. Engage and disengage the clutch to assure proper functioning. If full load is required initially from the pump, allow clutch to engage 20-50 cycles before commencing normal operation for adequate burnishing.
- NOTE:** Follow standard belt mounting and center distance procedures to determine drive pulley size, speed and horsepower per belt.

**OPERATION:** The clutch works with a flow switch, pressure switch or a manual on/off switch installed in the system and connected to a 12VDC power supply. When the trigger gun is released or the unit is manually turned off, a signal is sent to the clutch to disengage and cease pump operation. When operation resumes by opening the trigger gun or manually turning the system on, the clutch will engage, starting the pump and resuming full operation.

*“Customer confidence is our greatest asset”*

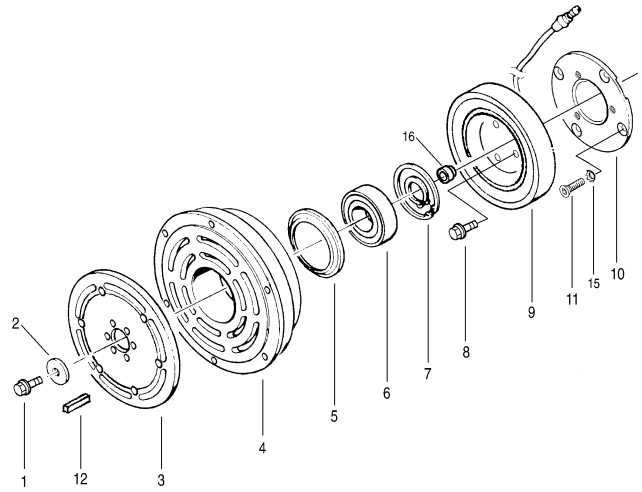
## PARTS LIST

ITEM	MATL	DESCRIPTION	QTY
1	STZP	Screw, Shaft, HH 7PFR (M8x25), 15PFR (M8x20)	1
2	STZP	Washer, Flat (M8)	1
3	—	Armature	1
4	—	Rotor	1
5	—	Seal	1
6	—	Bearing	1
7	—	Ring, Snap	1
8	STZP	Screw, Flanged Coil Assembly	3
9	—	Assembly, Coil	1
10	AL	Plate, Clutch	1
11	S	Screw, FH, 7PFR (M6x25), 15PFR (M6x40)	4
12	STL	Key (M8x7x40)	1
	STL	Key (M8x6.35x40) Model 34563 Only	1
13	STZP	Screw, HSH (1/4-20x3/4) - Not Shown	6
14	STZP	Pulley, "B" (12.4") - Not Shown	1/2
15	—	Lockwasher (M6)	4
16	AL	Spacer, Model 34563 Only	1
17	—	Lubricant, Antiseize - Not Shown	1

Material Codes (Not Part of Part No.):

AL=Aluminum S=304SS STL=Steel STZP=Steel/Zinc Plated

## EXPLODED VIEW



## TORQUE REQUIREMENTS

Item	Thread Size	Tool Size	in. lbs.	ft. lbs.	Nm
Plate Screws	M6	M8 Allen	55	4.4	6.2
Coil Assembly Screws	1/4"	3/8" Hex	55	4.4	6.2
Shaft Screw	M8	M13 Hex	115	9.4	13
Hub/Pulley Screws	1/4"	3/16" Allen	55	4.4	6.2

## TROUBLESHOOTING

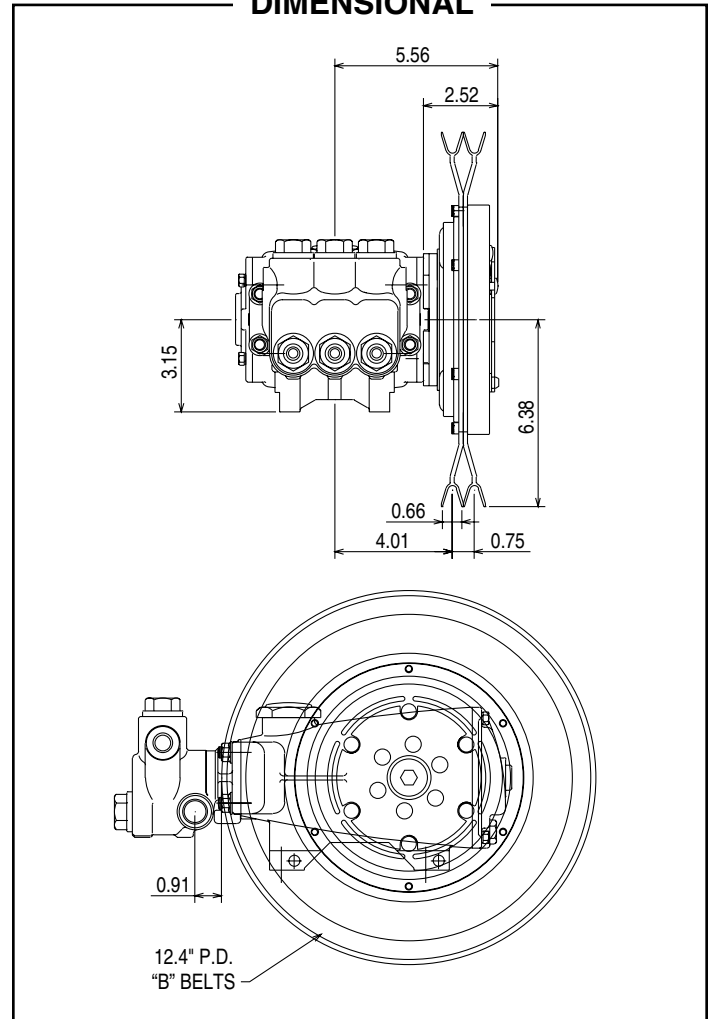
Clutch will not engage.	<ul style="list-style-type: none"> <li>• Check positive and ground connections.</li> <li>• Check for 12 VDC.</li> </ul>
Squealing belt(s).	<ul style="list-style-type: none"> <li>• Check belt slippage or belt tension.</li> </ul>
Short belt life.	<ul style="list-style-type: none"> <li>• Check side-to-side alignment and belt tension.</li> </ul>
Excessive noise when clutch disengaged.	<ul style="list-style-type: none"> <li>• Worn bearing; replace clutch assembly.</li> </ul>
Clutch cycling.	<ul style="list-style-type: none"> <li>• Check for adequate voltage.</li> <li>• Worn rotor or discolored rotor surface; replace clutch assembly.</li> </ul>
Scraping noise when clutch engaged and/or disengaged.	<ul style="list-style-type: none"> <li>• Check alignment of coil and rotor assembly.</li> </ul>

## WARRANTY

### 90 Day Warranty

Refer to complete CAT PUMPS Warranty for further information.

## DIMENSIONAL



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The Pumps with Nine Lives

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