

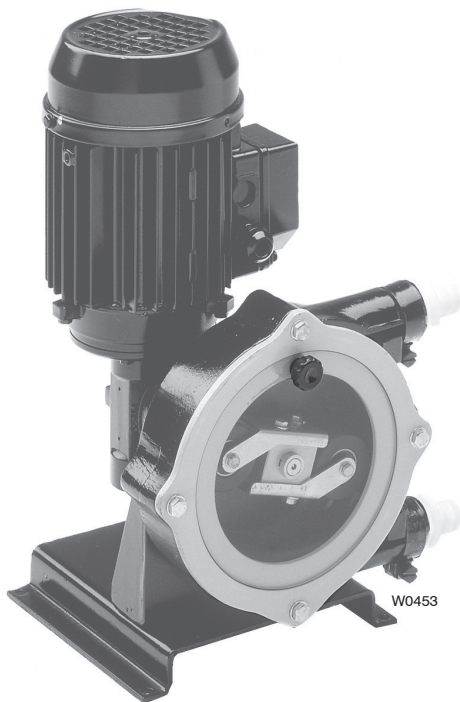
VECTOR

***Installation and
Operation Manual
VEC-991-2400E***

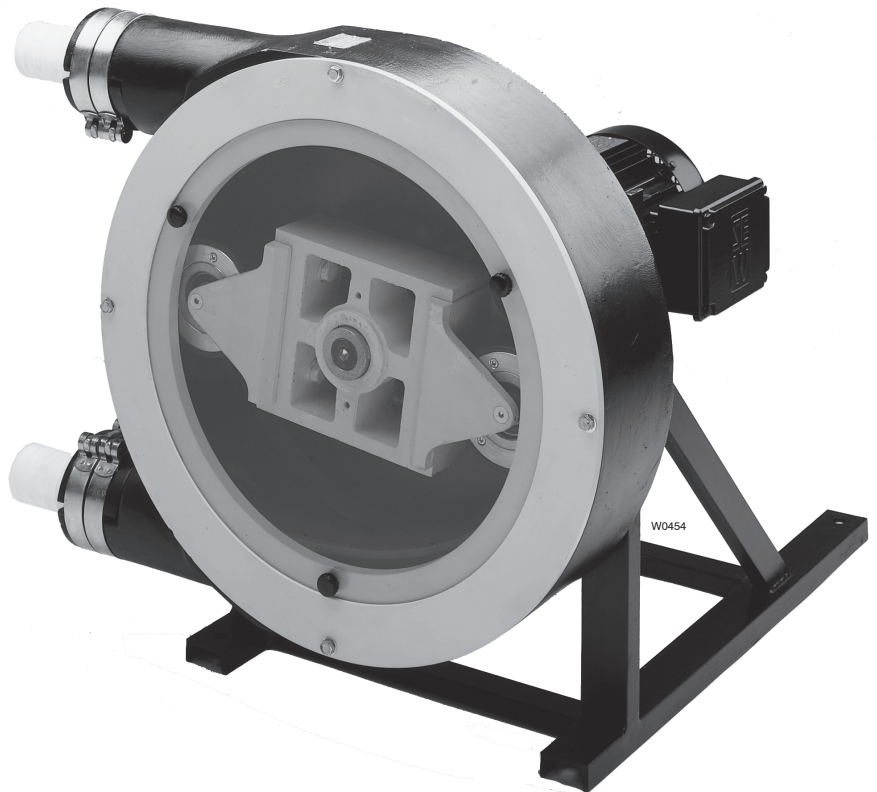
Peristaltic Pumps

Vector 2000 Series

Models: 2002, 2003, 2004, 2005, 2006, 2007



Models: 2002, 2003, 2004



Models: 2005, 2006, 2007

Vector 2000 Series Installation

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How to Use this Maintenance Manual

This technical manual covers the Vector 2000 Series pumps. The manual provides instructions on how to install, start, and maintain the pumps. All persons, installers, and users must read the manual in its entirety prior to installation and use.

Your local Wanner distributor is also available for additional information.

For a reply, please include the following information:

- Type of pump
- Pump

Also visit our website www.vectorpump.com for further information.

Principle of Operation

Two rollers, mounted on a rotor, alternately compress a thick-walled hose in a patented concentric guide. As they rotate, they push the liquid in the hose from the suction to the discharge side. The subsequent opening of the hose, after a roller passes, creates a vacuum on the suction side — resulting in continuous pumping.



CAUTION

Important Precautions

- To avoid personal injury or pump damage, follow all instructions and safety precautions carefully.
- Don't exceed the manufacturer's recommended RPM or pressure limits.
- Follow all codes and hydraulic recommendations on installation and operation of the pumping system.
- To prevent vibration, mount the pump and motor securely to a rigid, level base.
- For safety and easier servicing, provide adequate work space around the pump. Allow space to remove the front cover, hose clamps, hose, and drive unit.

W0387

Installation Planning

Inlet Piping

- Size the inlet line one or two sizes larger than pump suction opening.
- Suction lines should be as short and direct as possible.
- Size the suction line so that the velocity will not exceed 1 – 3 ft/sec.

$$\text{Velocity} = \frac{0.408 \times \text{GPM}}{\text{Pipe ID}^2}$$

- Install a 3 ft. to 4 ft. flexible hose between pump and hard piping to absorb vibrations, expansions, or contractions.
- Install an inlet pressure/vacuum gauge on the inlet side of the pump.
- To reduce turbulence and resistance, do not use 90° elbows. If turns are necessary in the suction line use 45° elbows or long sweeping elbows when required.
- Install piping supports where necessary to relieve strain on the inlet line and to minimize vibration.
- In extreme cases, a pulsation dampener may be required if hard piped.

Discharge Piping

- Size the discharge line to at least one size larger than the pump inlet connection.
- Between the pump and hard piping, install flexible a hose long enough to reduce pulsations (typically 3 ft. to 4 ft.).
- Install a pressure gauge in the discharge piping.
- In extreme cases, a pulsation dampener may be required to absorb excessive pulsation (caused by high pump speed and long discharge lines).

Vector 2000 Series Installation

Pump Test and Installation

Before you install the pump in the system, set the direction of pump rotation and the position of the pressure rollers:

1. Remove front cover from pump.
2. See Figure 1. For easier adjustment, check that pressure rollers are in position shown (one roller compressing middle of hose, and one roller free).

Note: Model 2006 and 2007 pumps use a different rotor assembly than the one shown.

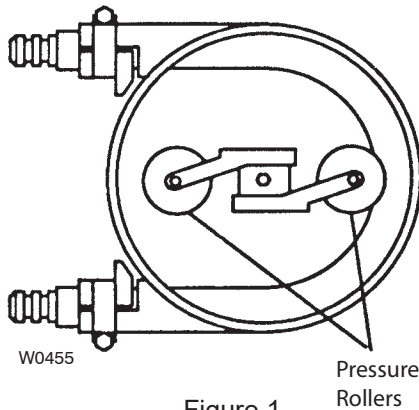


Figure 1

3. Connect incoming power supply to motor (refer to motor manufacturer's instructions).
4. See Figure 2. Run pump and check direction of rotation, "A" or "B" as shown. All pumps must rotate in direction "A" (counterclockwise). To reverse rotation, exchange two of three wires that connect incoming power to motor.

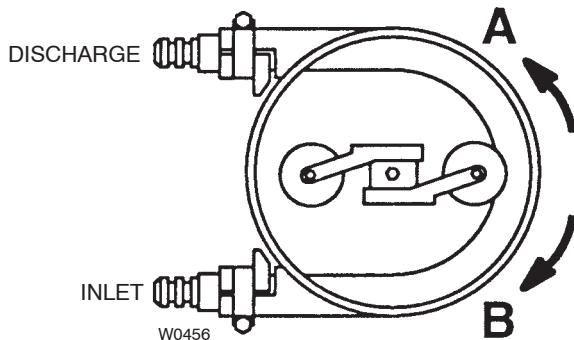


Figure 2

5. Set pressure rollers (see "Service: Setting the Roller Pressure"). Roller pressure is not set at factory, because it must be adjusted to compensate for size of inlet and discharge lines and specific gravity of fluid being pumped.
6. Verify all fasteners are properly tightened.
7. Reattach front cover.
8. Install pump in system.

Before Initial Start-Up

Before you pump fluid through the system, be sure that:

1. All shutoff valves are open.
2. All connections are tightly secured.
3. See Hose Identification Table. Hose material is compatible with fluid being pumped, and hose design matches duty cycle and discharge pressures.

Hose Identification		
Extruded	Code	Description
Hypalon	HE	Black color, shiny smooth surface
Neoprene	PE	Flat black color, rough surface, rubber smell
Varprene	VE	Cream color, smooth surface
Silicone	SE	Rust color, smooth surface
Pharmed®	FE	Cream color, Pharmed® name on hose
Fiber Braided		
Hypalon	HF	Black color, yellow or blue stripe, double braided
EPDM	EF	Black color, white stripe, double braided
Natural Rubber	NF	Black color, green stripe, double braided (standard duty)
Natural Rubber	MF	Black color, no stripes, thick double braids (heavy duty)
Nitrile Rubber	BF	Black color, white inner hose
Nitrile Rubber - Oil Rated	OF	Black color, HBRF-HY-K stamped on hose

4. See Material Operating Temperatures Table. Temperature of fluid pumped is within operating temperature range of hose material installed in pump. Hose material can be identified by 5th and 6th digit of pump model number. E.g. 2007-NF-BB-D2, where 'NF' designates natural rubber.

CAUTION: Contact factory when pumping a fluid that is within 15° F of the maximum hose temperature. Take safety precautions to insure hot pumpage does not harm operators if a hose leaks.

Material Operating Temperatures	
Material	Operating Temperatures
EPDM	32 to 185° F
Hypalon	32 to 180° F
Neoprene	50 to 130° F
Silicone	14 to 185° F
Varprene	14 to 185° F
Natural Rubber	14 to 185° F
Nitrile Rubber	23 to 160° F
Pharmed®	32 to 180° F

Vector 2000 Series Installation

Routine Maintenance

Periodically inspect hose for signs of failure caused by chemical attack, material fatigue, etc.

Check non-petroleum silicone lubricant on hose, and reapply if worn off.

Inspect roller bearings for damage, and replace if necessary (See Parts List, item 11).

Check that all fasteners are properly tightened.

Troubleshooting

If the hose fails prematurely, check for:

- Chemical attack. If the hose becomes soft, spongy, or harder than when originally supplied, chemical attack may be the problem.
- Improper hose selection for the fluid being pumped.
- Improper roller setting. If flow fluctuates back and forth or up and down in the discharge line, the rollers may not be adjusted with equal pressure on the hose.
- See Figure 3. If the hose fails in area A, this may occur from operating the pump at a discharge pressure higher than the hose is rated for, or with a closed discharge line. If the hose fails in area B, this may occur from operating the pump under a higher vacuum or higher inlet pressure than the hose is rated for, or with a closed suction line.
- Line system problems — debris, closed valves, or a clogged or packed line.
- Fluid temperature too high.
- Abrasive material being pumped, or solid size too large.
- Hose connector becomes loose:
 - Wrong size connector.
 - Suction pressure too high

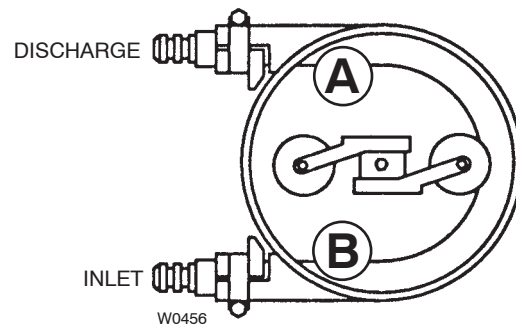


Figure 3

Service (Models 2002, 2003, 2004, 2005)

Replacing Worn Hose

Remove Old Hose

1. Turn off and lock out all power to pump motor.
2. Remove front cover from pump (four screws).
3. See Figure 4. Position pressure rollers as shown.
4. Loosen screw(s) that secure mounting bracket of pressure roller which is compressing hose. To maintain correct hose compression adjustment, **DO NOT** loosen opposite roller's mounting bracket.

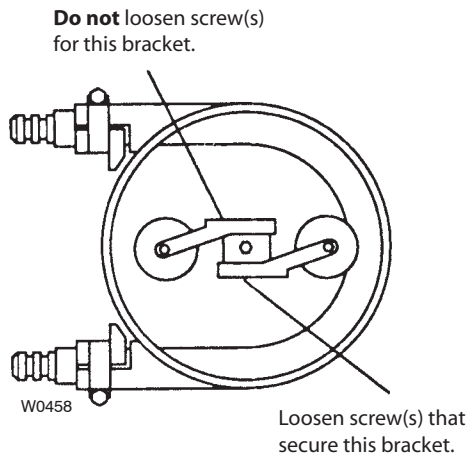


Figure 4

5. See Figure 5. Loosen hose clamp bolts. Remove hose supports and clamps that secure both ends of hose.
6. Remove hose from pump casing.
7. Pull (cut hose if needed) hose connectors from worn hose. Clean if reusable.
8. Carefully clean pump casing and front cover.

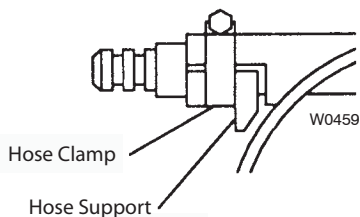


Figure 5

9. Spin each roller to determine integrity of the bearings. Replace roller and bearing assembly if either roller does not spin or either roller runs rough.

Install New Hose

1. Check for correct length of hose:
Model 2002: 13 in. (330 mm)
Model 2003: 15 3/8 in. (390 mm)
Model 2004: 23 1/4 in. (590 mm)
Model 2005: 33 7/8 in. (860 mm)
2. Install connectors in new hose.
3. Make sure that pressure rollers are in same position as before. See Remove Old Hose, Step 3.
4. Position bent hose inside pump casing.
5. Push upper connector against end of pump casing. Install top hose clamp and secure its bolt.
6. Repeat Step 5 on lower connection.
- Important:** On models 2002 through 2005, make sure the hose lays completely against the inside of the pump casing.
7. Smear non-petroleum silicone grease on inner surface of hose (where rollers contact hose).
8. Set roller pressure according to procedure following (steps 2 thru 6).

Service (Models 2002, 2003, 2004, 2005)

Setting Roller Pressure

Note: This pressure setting must be checked when a new hose is installed, because of variations in hose thickness.

1. Remove front cover from pump.
2. See Figure 6. Loosen all roller bracket screws and slide both rollers away from the hose to reduce compression on the hose. Retighten all roller bracket screws.

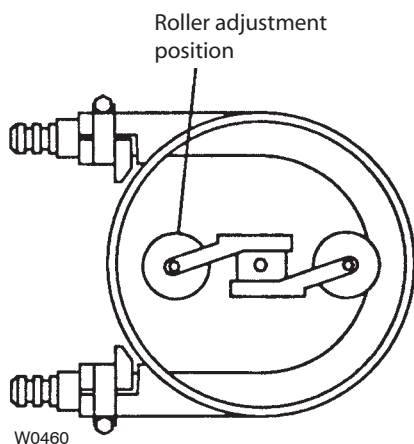


Figure 6

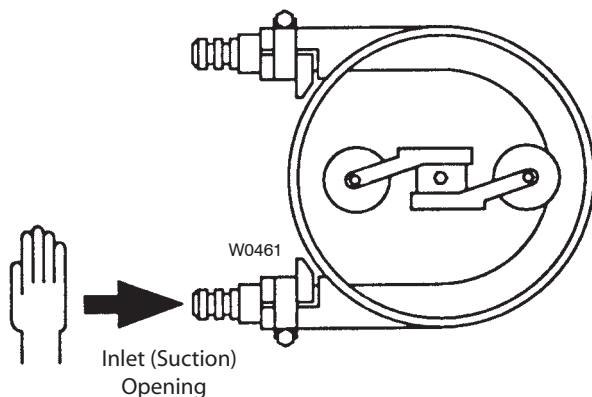


Figure 7

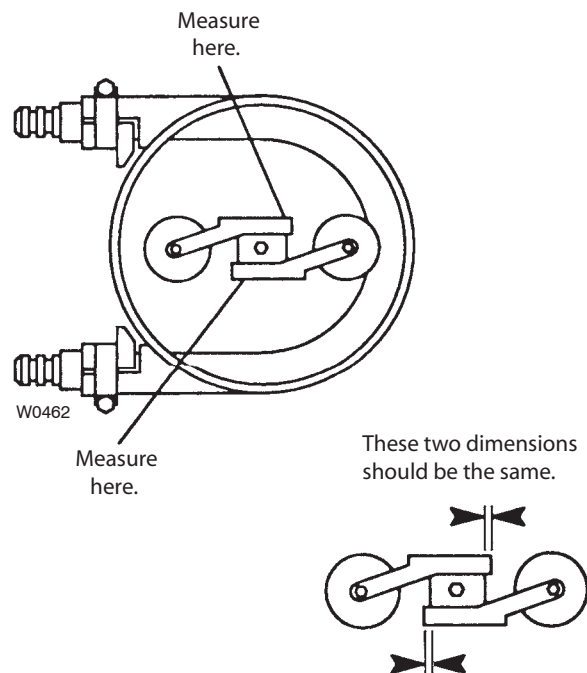


Figure 8

4. Test pump in full operation, and readjust as necessary.
5. Reattach front cover.

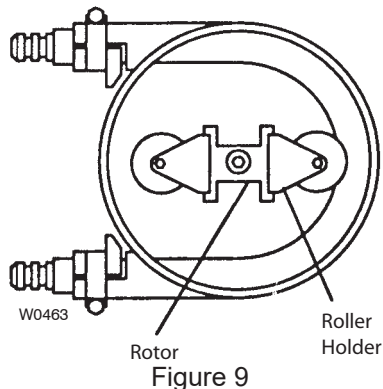
3. See Figure 7. Start pump. Place palm of hand over suction opening and check for vacuum.
 - a. If there is vacuum on first attempt, rollers are set.
 - b. See Figure 8. If not enough vacuum, gradually move rollers forward in 1/32 to 1/8 in. (0.8 to 3.0 mm) increments and repeat test until suction seems to be correct. (Make sure compression is same for both rollers by measuring roller bracket in relation to rectangular rotor block).

Service (Models 2006 and 2007)

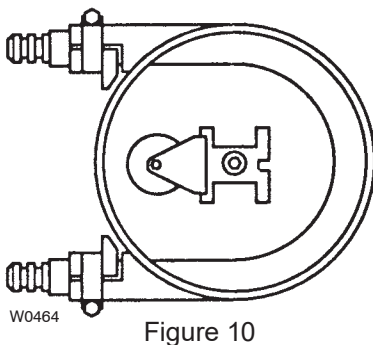
Replacing a Worn Hose

Remove Old Hose

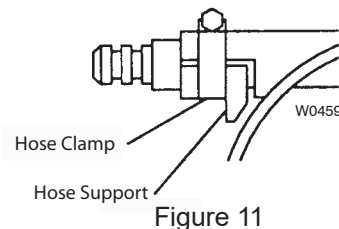
1. Turn off and lock out all power to pump motor.
2. Remove front cover from pump.
3. See Figure 9. Position rotor as shown.



4. Remove roller holder not compressing hose. Also remove any shims under it.
5. See Figure 10. Turn rotor 180° as shown.



5. See Figure 11. Loosen clamp bolts. Remove hose supports and clamps that secure both ends of hose.

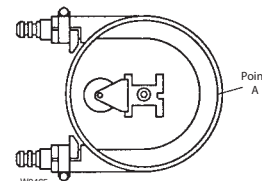


6. Remove hose from pump casing.
7. Pull (cut hose if needed) hose connectors from worn hose. Clean if reusable.
8. Carefully clean pump casing and front cover.
9. Spin each roller to determine integrity of the bearings. Replace roller and bearing assembly if either roller does not spin or either roller runs rough.

Install New Hose

1. Check for correct length of hose:
Model 2006: 45 1/4 in. (1150 mm)
Model 2007: 57 1/4 in. (1455 mm)
2. Install connectors in new hose.
3. Position bent hose inside pump casing.
4. Push upper connector against end of pump casing. Install top clamp and secure clamp bolt.
5. Repeat Step 4 on the lower connection.

Important: On models 2006 and 2007, allow a 1-1.5 mm gap between the hose and the inside of the pump casing at Point A as shown in the illustration at right.



6. Smear non-petroleum silicone grease on inner surface of hose (where rollers contact hose).
7. Turn the rotor 180°. Reinstall the roller holder without shims.
8. Set roller pressure according to procedure following (steps 3 thru 7).

Service (Models 2006 and 2007)

Setting Roller Pressure

Note: The pressure setting must be checked when a new hose is installed, because of variations in hose thickness.

1. Remove front cover from pump.
2. Remove any shims under two roller holders.
3. Be sure bolts securing roller holders are tight.
4. See Figure 12. Start pump. Place palm of hand over suction opening and check for vacuum.
 - a. If there is vacuum on first attempt, rollers are set.
 - b. If not enough vacuum, gradually add 0.02 in. (0.5 mm) shims under one of rollers and repeat test until suction seems to be correct. **Contact factory before installing more than four shims under each roller.**

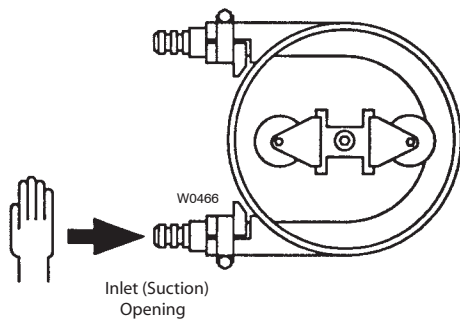
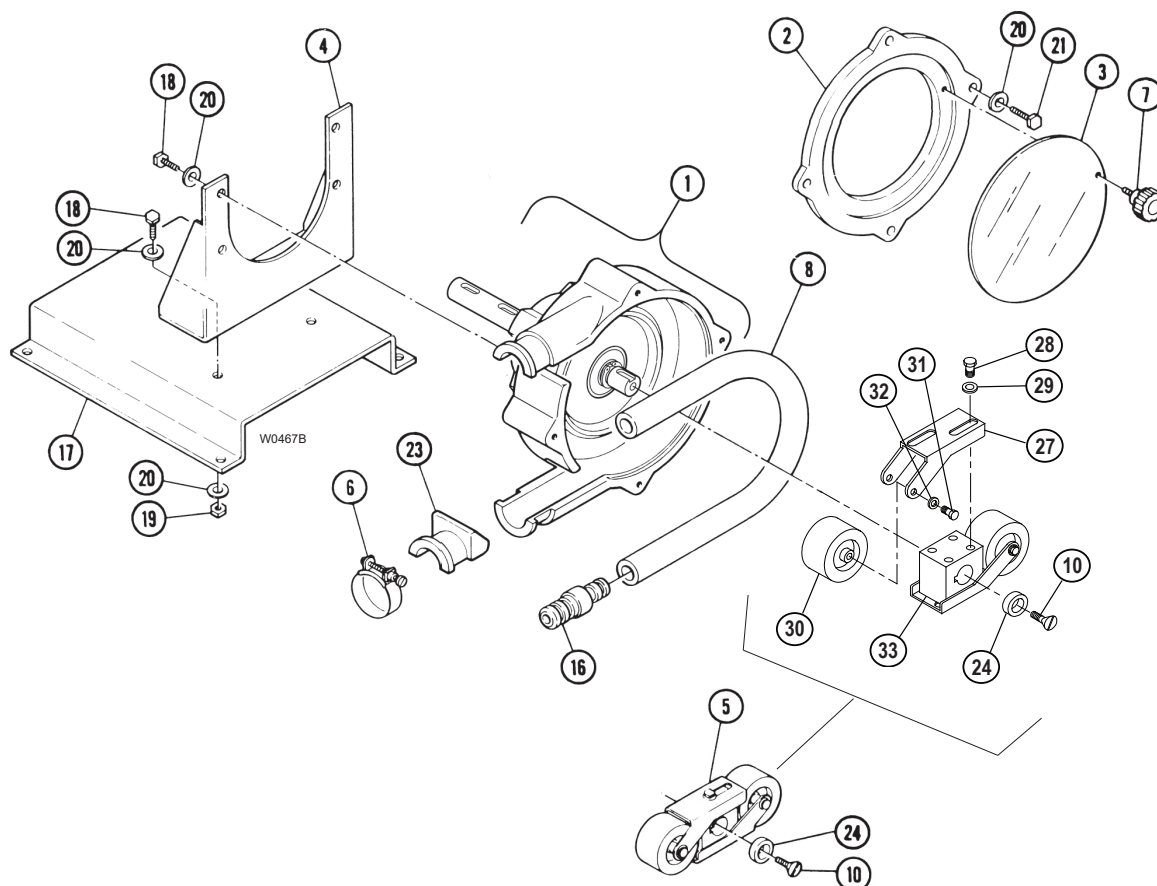


Figure 12

5. Add same number of shims under other roller.
6. Test pump in full operation, and readjust as necessary.
7. Reattach front cover.

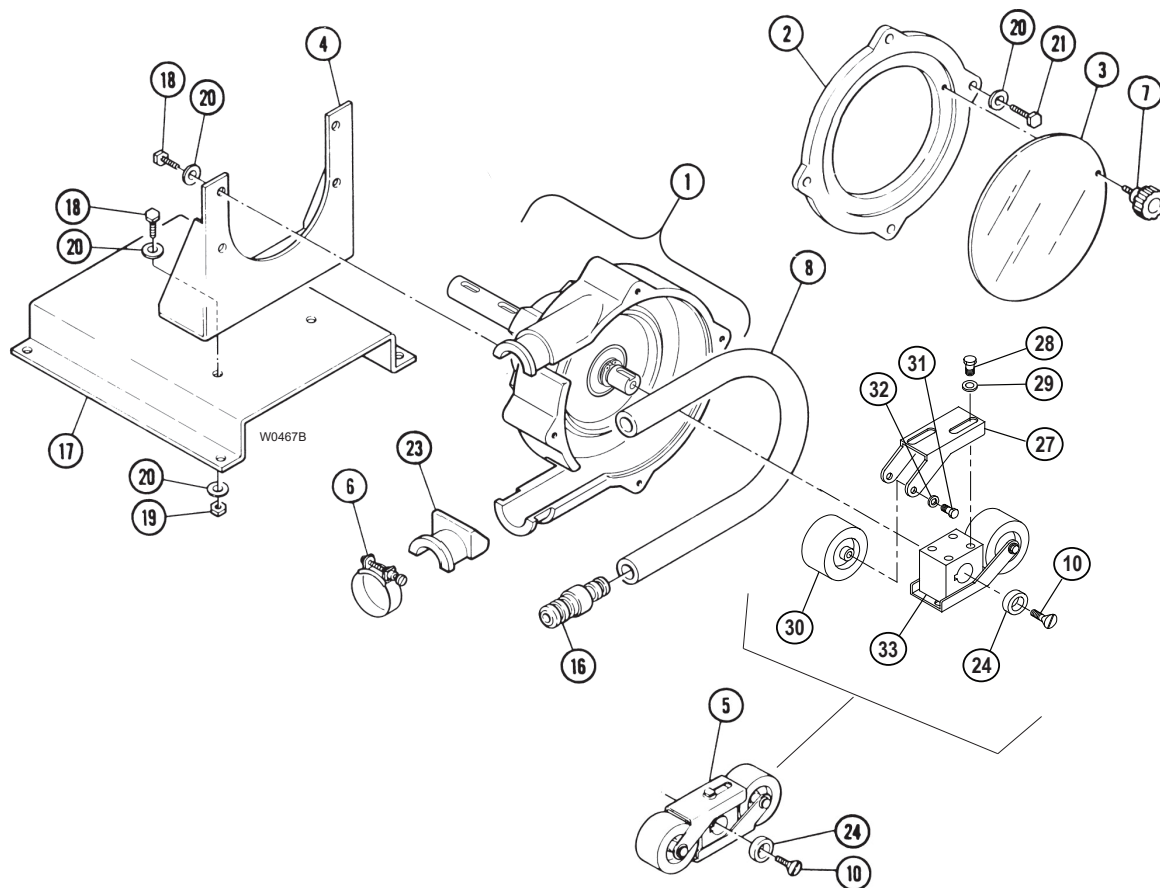
Parts - Model 2002



Ref. No.	Part Number	Description	Quantity/ Pump
1	2002-001-1001	Casing with shaft assembly.....	1
2	2002-002-1001	Cover, Front.....	1
3	2002-003-1001	Window, Cover, clear.....	1
	2002-003-1002	Window, Cover, solid	1
4	2002-004-1001	Bracket.....	1
5	2002-005-1001	Roller Assembly	1
6	100-038	Clamp, Hose.....	2
7	2004-007-1001	Screw, Cover	1
8	2002-108-2312	Hose, Neoprene	1
	2002-108-2314	Hose, Varprene	1
	2002-108-2316	Hose, Hypalon.....	1
	2002-108-2318	Hose, PharMed	1
	2002-108-2323	Hose, EPDM.....	1
	2002-108-2329	Hose, Natural Rubber.....	1
10	G20-089-2010	Screw, Roller	1
16	2002-016-1001	Connector, PTFE, 1/2".....	2
	2002-016-1102	Connector, 316 SST, 3/4"	2
	2002-016-1104	Connector, 316 SST, 3/8"	2
	2002-016-1108	Connector, Brass, 3/8"	2
	2002-016-1109	Connector, Brass, 3/8" male	2
	2002-016-1112	Connector, 316 SST, 3/8" male	2

Ref. No.	Part Number	Description	Quantity/ Pump
17	2002-017-1001	Base	1
18	2003-018-1001	Bolt, Mounting.....	6
19	2002-019-1001	Nut.....	6
20	2002-020-1001	Washer.....	16
21	2003-021-1001	Bolt, Cover.....	4
23	2002-023-1001	Support, Hose.....	2
24	2003-024-1001	Washer, Roller.....	1
27	2002-005-1004	Bracket, Roller.	2
28	2004-005-1005	Screw, Bracket	2
29	2004-005-1006	Washer, Bracket	2
30	2002-005-1003	Roller, Shaft, & Bearing Assy.....	2
31	2002-005-1006	Screw, Roller.....	4
32	2002-005-1005	Washer, Roller... ..	4
33	2002-005-1008	Rotor.....	1

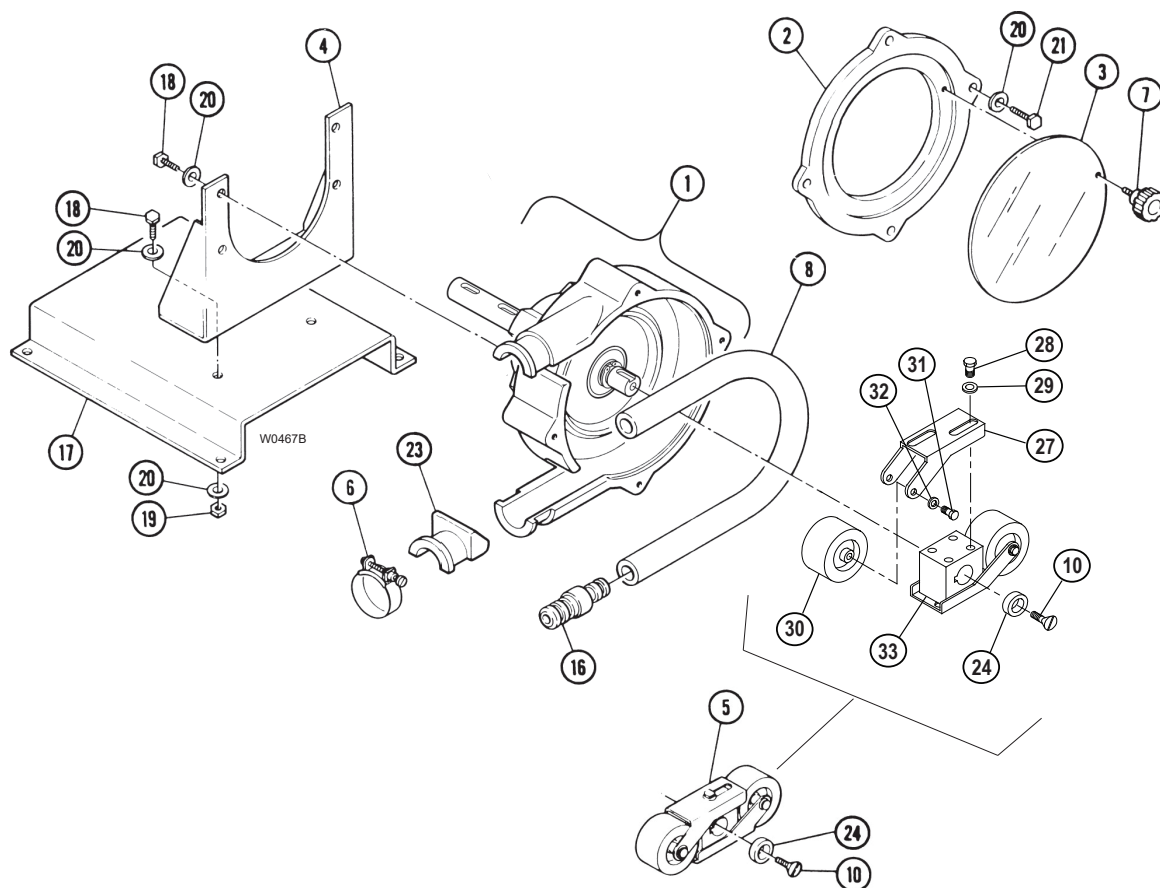
Parts - Model 2003



Ref. No.	Part Number	Description	Quantity/ Pump
1	2003-001-1001	Casing with shaft assembly.....	1
2	2003-002-1001	Cover, Front.....	1
3	2003-003-1001	Window, Cover, clear.....	1
	2003-003-1002	Window, Cover, solid.....	1
4	2003-004-1001	Bracket	1
5	2003-005-1001	Roller Assembly	1
6	2003-006-1001	Clamp, Hose.....	2
7	2004-007-1001	Screw, Cover.....	1
8	2003-108-2314	Hose, Varprene	1
	2003-108-2316	Hose, Hypalon.....	1
	2003-108-2317	Hose, Silicone.....	1
	2003-108-2318	Hose, PharMed.. ..	1
	2003-108-2323	Hose, EPDM.....	1
	2003-108-2329	Hose, Natural Rubber.....	1
10	G20-089-2010	Screw, Roller.....	1
16	2003-016-1001	Connector, PTFE, 3/4".....	2
	2003-016-1102	Connector, 316 SST, 3/4"	2
	2003-016-1104	Connector, 316 SST, 1/2"	2
	2003-016-1108	Connector, Brass, 1/2"	2
	2003-016-1109	Connector, Brass, 1/2" male.....	2
	2003-016-1112	Connector, 316 SST, 3/4" male	2

Ref. No.	Part Number	Description	Quantity/ Pump
17	2003-017-1001	Base	1
18	2003-018-1001	Bolt, Mounting.....	6
19	2003-019-1001	Nut	6
20	2002-020-1001	Washer	16
21	2003-021-1001	Bolt, Cover	4
23	2003-023-1001	Support, Hose	2
24	2003-024-1001	Washer, Roller.....	1
27	2003-005-1006	Bracket, Roller.....	2
28	2004-005-1005	Screw, Bracket	2
29	2004-005-1006	Washer, Bracket	2
30	2003-005-1005	Roller, Shaft, & Bearing Assy.....	2
31	2002-005-1006	Screw, Roller.....	4
32	2002-005-1005	Washer, Roller.....	4
33	2003-005-1009	Rotor	1

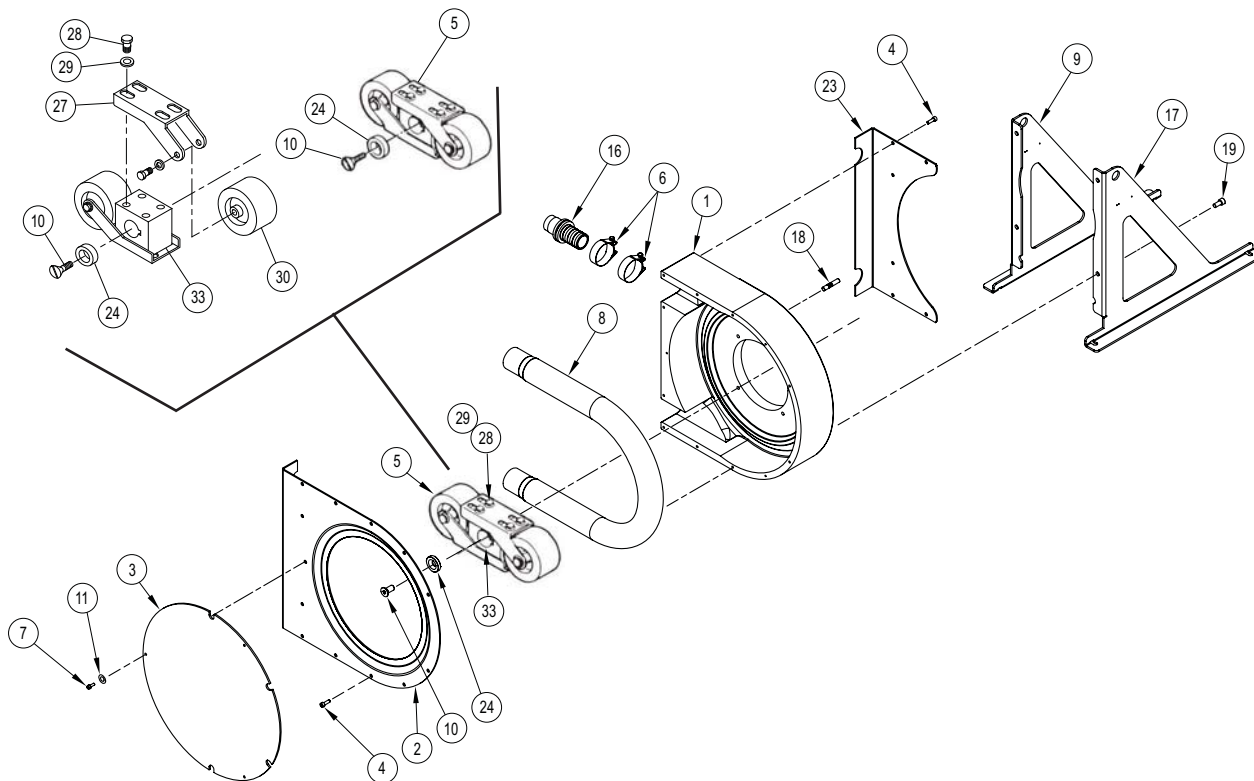
Parts - Model 2004



Ref. No.	Part Number	Description	Quantity/ Pump
1	2004-001-1001	Casing with shaft assembly.....	1
	2004-001-1002	Casing only.....	1
	2004-011-1001	Bearing.....	1
	2004-001-1004	Shaft only.....	1
2	2004-002-1001	Cover, Front.....	1
3	2004-003-1001	Window, Cover, clear	1
	2004-003-1002	Window, Cover, solid.....	1
4	2004-004-1001	Bracket	1
5	2004-005-1001	Roller Assembly	1
6	2004-006-1001	Clamp, Hose.....	2
7	2004-007-1001	Screw, Cover.....	3
8	2004-108-2312	Hose, Neoprene	1
	2004-108-2314	Hose, Varprene.....	1
	2004-108-2316	Hose, Hypalon.....	1
	2004-108-2317	Hose, Silicone.....	1
	2004-108-2323	Hose, EPDM.....	1
	2004-108-2329	Hose, Natural Rubber.....	1
	2004-108-2332	Hose, Nitrile.....	1
	2004-108-2349	Hose, Natural Rubber, HD	1
	2004-108-2332	Hose, Nitrile.....	1
10	G20-089-2010	Screw, Roller.....	1

Ref. No.	Part Number	Description	Quantity/ Pump
16	2004-016-1001	Connector, PTFE, 1".....	2
	2004-016-1102	Connector, 316 SST, 1"	2
	2004-016-1104	Connector, 316 SST, 3/4"	2
	2004-016-1107	Connector, Carbon Steel, 3/4".....	2
	2004-016-1108	Connector, Brass, 3/4".....	2
	2004-016-1109	Connector, Brass, 3/4" male.....	2
	2004-016-1112	Connector, 316 SST, 3/4" male	2
17	2004-017-1001	Base	1
18	2004-018-1001	Bolt, Mounting.....	6
19	2004-019-1001	Nut	6
20	2007-020-1001	Washer.....	16
21	2004-021-1001	Bolt, Cover.....	4
23	2004-023-1001	Support, Hose.....	2
24	2004-024-1001	Washer, Roller.....	1
27	2004-005-1004	Bracket, Roller	2
28	2005-005-1005	Screw, Bracket.....	2
29	2005-005-1006	Washer, Bracket.....	2
30	2004-005-1003	Roller, Shaft, & Bearing Assy	2
31	2004-005-1005	Screw, Roller.....	4
32	2004-005-1006	Washer, Roller.....	4
33	2004-005-1008	Rotor	1

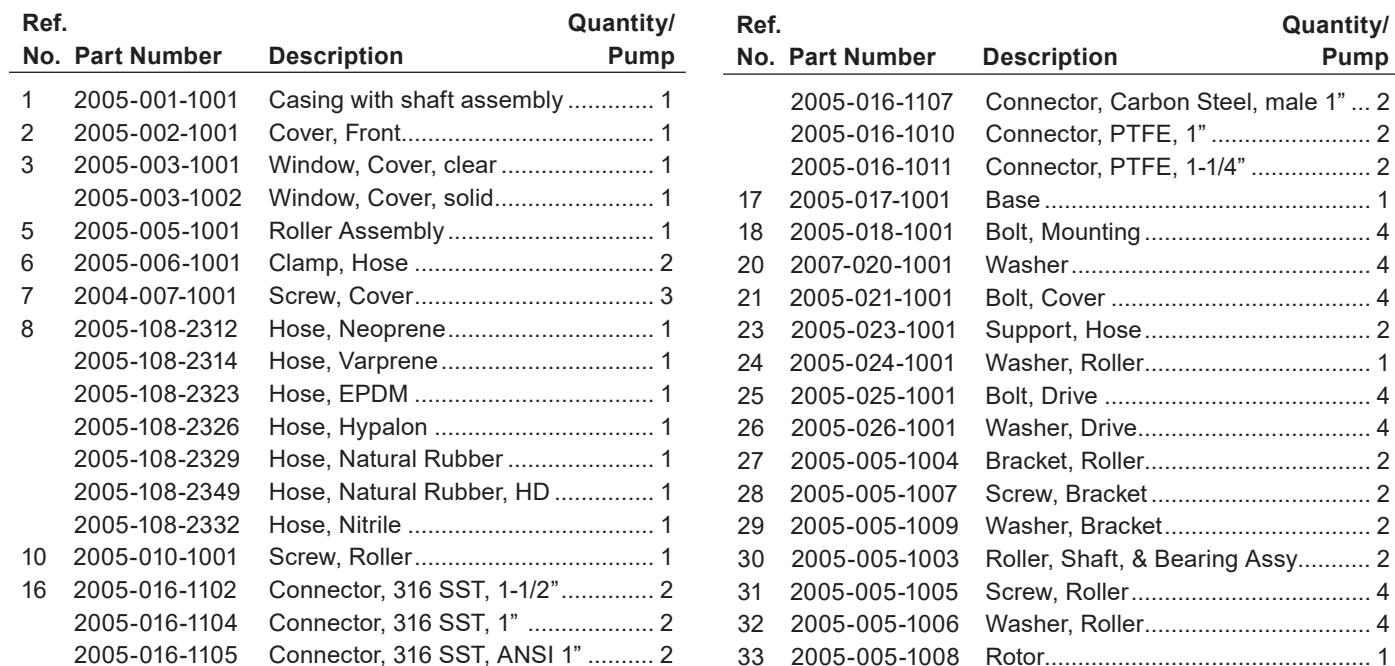
Parts - Model 2005



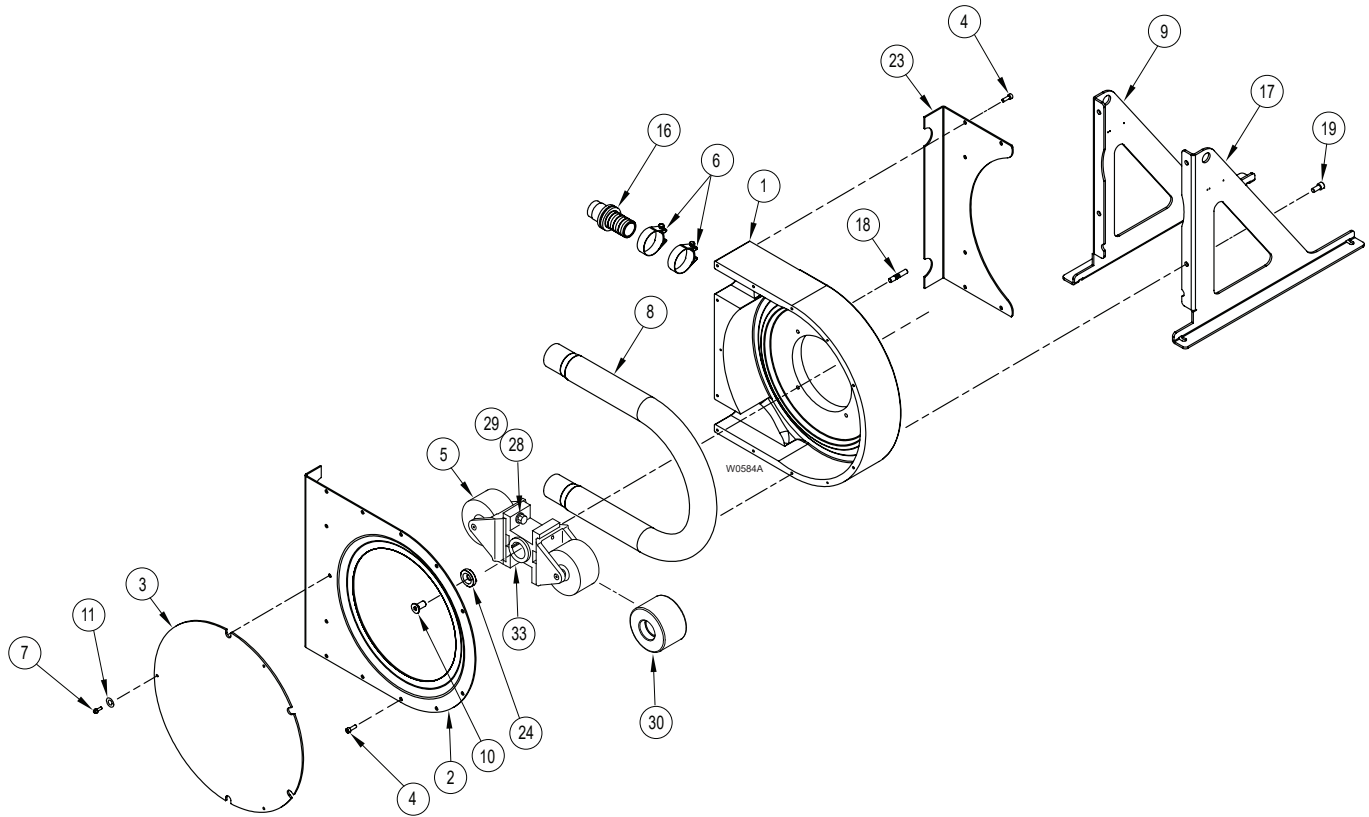
Ref. No.	Part Number	Description	Quantity/ Pump
1	2005-001-1001	Casing (old).....	1
	2005-001-2001	Casing (new 2018).....	1
2	2005-002-1001	Cover, front (old).....	1
	2005-002-2001	Bracket, front (new 2018)	1
3	2005-003-1001	Window, cover (old).....	1
	2005-003-2001	Window, cover (new 2018)	1
4	STD HDW	CHC Screw, M8x20, SST.....	11
5	2005-005-1001	Roller Assembly	1
6	2005-006-1001	Clamp, Hose (old).....	2
	2005-006-2001	Clamp, Hose (new 2018).....	4
7	STD HDW	SHC Screw, M6x20, SST.....	3
8	2005-108-2312	Hose, Neoprene	1
	2005-108-2314	Hose, Varprene	1
	2005-108-2323	Hose, EPDM.....	1
	2005-108-2326	Hose, Hypalon.....	1
	2005-108-2329	Hose, Natural Rubber.....	1
	2005-108-2332	Hose, Nitrile.....	1
	2005-108-2349	Hose, Natural Rubber, HD.....	1
9	2005-017-1004	Frame, Left (new 2018).....	1
10	2005-010-1001	Screw, Roller.....	1
11	STD HDW	Washer, M6, SST	3

Ref. No.	Part Number	Description	Quantity/ Pump
16	2005-016-2102	Connector, 316 SST, tri, 1-1/2"	2
	2005-016-2104	Connector, 316 SST, barb, 1"	2
	2005-016-2105	Connector, 316 SST, ANSI, 1"	2
	2005-016-2106	Connector, Carb stl, ANSI, 1-1/4"	2
	2005-016-2107	Connector, Carb stl, male, 1"	2
	2005-016-2011	Connector, PTFE, 1-1/4"	2
17	2005-017-1005	Frame, Right (new 2018).....	1
18	STD HDW	Stud, M10x30, SST.....	4
19	STD HDW	SHC Screw, M8x20	4
23	2005-017-2003	Bracket, Rear (new 2018)	1
24	2005-024-1001	Washer, Roller	1
27	2005-005-1004	Bracket, Roller	2
28	2005-005-1005	Screw, Bracket.....	8
29	2005-005-1006	Washer, Bracket.....	8
30	2005-005-1003	Roller, Shaft, & Bearing Assy	2
33	2005-005-1004	Rotor	1
-	2005-099-1001	Shim, 0.5 mm.....	8

LEGACY VERSION WITH OLDER HOUSING STYLE



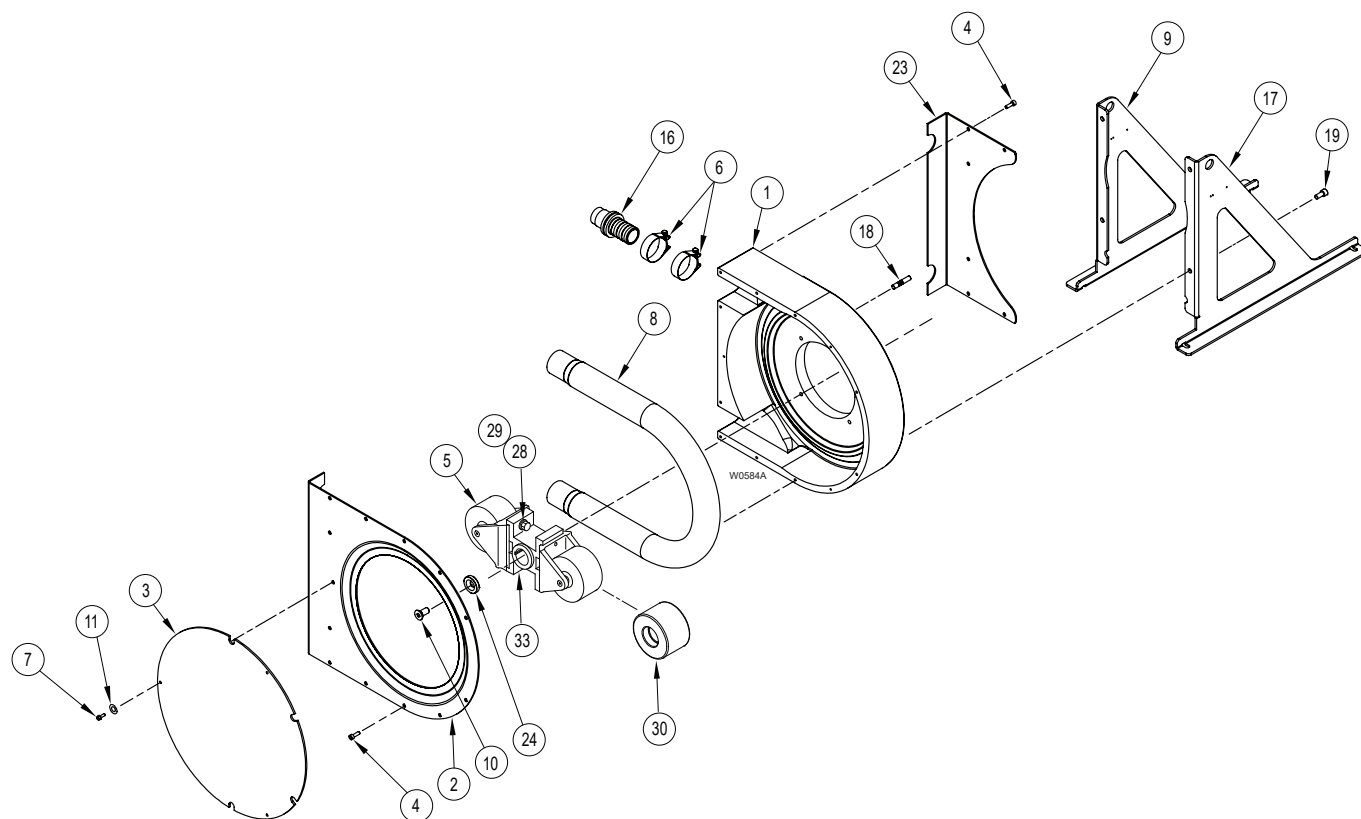
Parts - Model 2006



Ref. No.	Part Number	Description	Quantity/ Pump
1	2006-001-1001	Casing (old).....	1
	2006-001-2001	Casing (new 2018).....	1
2	2006-002-1001	Cover, front (old).....	1
	2006-002-2001	Bracket, front (new 2018)	1
3	2006-003-1001	Window, cover (old).....	1
	2006-003-2001	Window, cover (new 2018)	1
4	STD HDW	SHC Screw, M8x20, SST	16
5	2006-005-1001	Roller Assembly	1
6	2006-006-1001	Clamp, Hose (old).....	4
	2006-006-2001	Clamp, Hose (new 2018)	4
7	STD HDW	SHC Screw, M6x20, SST	3
8	2006-108-2312	Hose, Neoprene	1
	2006-108-2314	Hose, Varprene	1
	2006-108-2317	Hose, Silicone.....	1
	2006-108-2323	Hose, EPDM.....	1
	2006-108-2326	Hose, Hypalon.....	1
	2006-108-2329	Hose, Natural Rubber.....	1
	2006-108-2332	Hose, Nitrile.....	1
	2006-108-2349	Hose, Natural Rubber, HD.....	1
9	2006-017-1004	Frame, Left (new 2018).....	1
10	2006-010-1001	Screw, Roller.....	1
11	STD HDW	Washer, M6, SST	3

Ref. No.	Part Number	Description	Quantity/ Pump
16	2006-016-2102	Connector, 316 SST, tri, 1-1/2"	2
	2006-016-2104	Connector, 316 SST, barb, 1-1/4"	2
	2006-016-2105	Connector, 316 SST, ANSI, 1-1/4"	2
	2006-016-2103	Connector, 316 SST, 1-1/2" male	2
	2006-016-2106	Connector, Carb stl, ANSI, 1-1/4"	2
	2006-016-2007	Connector, Carb stl, male, 1-1/2"	2
	2006-016-2110	Connector, PTFE, 1-1/4"	2
	2006-016-2111	Connector, PTFE, 1-1/4"	2
17	2006-017-1005	Frame, Right (new 2018).....	1
18	STD HDW	Stud, M12x40, SST	4
19	STD HDW	SHC Screw, M12x25	4
23	2006-017-2003	Bracket, Rear (new 2018)	1
24	2006-024-1001	Washer, Roller	1
28	2006-005-1005	Screw, Bracket.....	4
29	2006-005-1006	Washer, Bracket.....	4
30	2006-005-1003	Roller, Shaft, & Bearing Assy	2
33	2006-005-1004	Rotor	1
-	2006-099-1001	Shim, 0.5 mm.....	8

Parts - Model 2007



Ref. No.	Part Number	Description	Quantity/ Pump	Ref. No.	Part Number	Description	Quantity/ Pump
1	2007-001-1001	Casing (old).....	1	16	2007-016-2102	Connector, 316 SST, tri, 2"	2
	2007-001-2001	Casing (new 2017).....	1		2007-016-2104	Connector, 316 SST, barb, 2-1/2"	2
2	2007-002-1001	Cover, front (old).....	1		2007-016-2105	Connector, 316 SST, ANSI, 2"	2
	2007-001-2002	Bracket, front (new 2017)	1		2007-016-2106	Connector, Carb stl, ANSI, 2"	2
3	2007-003-1001	Window, cover (old).....	1		2007-016-2107	Connector, Carb stl, male, 2"	2
	2007-003-1002	Window, cover (new 2017)	1		2007-016-2010	Connector, PTFE, 2"	2
4	STD HDW	SHC Screw, M8x25, SST	16		2007-016-2011	Connector, PTFE, 2"	2
5	2007-005-1001	Roller Assembly	1	17	2007-017-1005	Frame, Right (new 2017).....	1
6	2007-006-1001	Clamp, Hose (old).....	4	18	STD HDW	Stud, M12x40, SST	4
	2007-006-2001	Clamp, Hose (new 2017)	4	19	STD HDW	SHC Screw, M12x25	4
7	STD HDW	SHC Screw, M6x20, SST	3	23	2007-001-2003	Bracket, Rear (new 2017)	1
8	2007-108-2314	Hose, Varprene	1	24	2007-024-1001	Washer, Roller	1
	2007-108-2323	Hose, EPDM.....	1	28	G35-081-2010	Screw, Bracket.....	4
	2007-108-2326	Hose, Hypalon.....	1	29	G35-084-2010	Washer, Bracket.....	4
	2007-108-2329	Hose, Natural Rubber.....	1	30	2007-005-1002	Roller, Shaft, & Bearing Assy	2
	2007-108-2332	Hose, Nitrile.....	1	33	2007-005-1009	Rotor	1
	2007-108-2349	Hose, Natural Rubber, HD.....	1	-	3007-017-1005	Shim, 0.5 mm.....	8
9	2007-017-1004	Frame, Left (new 2017).....	1				
10	2007-010-1001	Screw, Roller.....	1				
11	STD HDW	Washer, M6, SST	3				

Warranty

Limited Warranty

Wanner Engineering, Inc. ("Wanner") extends to the original purchaser of equipment supplied or manufactured by Wanner and bearing its name, a limited one-year warranty from the date of purchase against defects in material or workmanship, under normal use and service, and provided the equipment is installed, operated and maintained in accordance with instructions supplied by Wanner. Wanner will repair or replace, at its option, defective parts without charge if: (a) you provide written notice of any defect within thirty (30) days from the discovery of the defect; (b) the claim is received by Wanner before the expiration of the warranty period; and (c) such parts are returned with transportation charges prepaid to Wanner Engineering, Inc., 1204 Chestnut Avenue, Minneapolis, Minnesota 55403. A return goods authorization must be received prior to the return of the defective part. No allowance will be made for repairs undertaken without Wanner written consent or approval.

Notwithstanding anything to the contrary, this warranty does not cover:

1. Electric motors (if applicable) not manufactured by Wanner. The warranties, if any, on such equipment are assigned to you by Wanner (without recourse) at the time of purchase.
2. Normal wear and/or damage caused by or related to abrasion, corrosion, abuse, negligence, accident, faulty installation or tampering which impairs normal operation.
3. Transportation costs.

This limited warranty is exclusive, and is in lieu of any other warranties (oral, express, implied or statutory) including, but not limited to, implied warranties of merchantability and fitness for a particular purpose; warranties of non-infringement; warranties arising from course of dealing or usage of trade or any other matter. Any descriptions of the equipment, drawings, specifications, and any samples, models, bulletins, or similar material used in connection with the sale of equipment are for the sole purpose of identifying the equipment and are not to be construed as an express warranty that the equipment will conform to such description. Any field advisory or installation support is advisory only. Every form of liability for direct, special, incidental or consequential damages or loss is expressly excluded and denied. All liability of Wanner shall terminate one (1) year from the date of purchase of the equipment.

Use Of The Pump

The pump was defined for specific application. Any other use which does not comply with this use invalidates the warranty. Wanner cannot be held responsible for damage or possible injury incurred during the use of the pump. The pump was designed in accordance with applicable norms and directives. Use the pump only for applications represented above. If you want to change your application, first contact your Wanner distributor.

Responsibility

Wanner will be under no circumstances responsible for damage or wounds caused by non respect of security directives and maintenance instructions contained in this manual, or by negligence during the installation, use, service or repair of Wanner hose pumps. Moreover, additional directives of security can be necessary according to working conditions or according process. Contact your Wanner distributor if you notice a potential danger during the use of the pump.

User Training And Instruction

Every person who installs, uses, or performs any operations or maintenance on the pump must be qualified. The person must also read and be familiar with this technical manual. Any temporary personnel must be supervised by skilled users. The order of operational steps defined in this manual must be followed. Store this manual next to the pump so that it can be consulted at any time.