HIGH VISCOSITY DRUM & CONTAINER PUMPS

O-0196

SAFETY INFORMATION:

BEFORE OPERATING THIS EQUIPMENT, THE OPERATOR SHOULD THOROUGHLY READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY WARNING LABELS INCLUDING THE MANUFACTURER'S INSTRUCTIONS ON THE MATERIAL BEING PUMPED.

1. The operator should wear suitable protective clothing including: face mask, safety shield or goggles, gloves, apron & safety shoes.
2. Check compatibility of the pump with the product being pumped.
3. Use an air motor or explosion proof motor when operating in Zone 0 or when pumping flammable liquids.
4. Follow safety procedures outlined in National Fire Protection Code 77 when operating in Zone 0 or when pumping flammable liquids.
5. Follow all federal, state and local safety codes.
6. Make sure the nameplate information corresponds to voltage supplied.
7. Pumps and motors are packaged separately so the operator must read & understand instructions for both.

SR-700 INDUSTRIAL SERIES
SR-800 SANITARY SERIES

GENERAL:

Each – SR Series pump system is comprised of a pump end and motor drive (electric or air). Applications include viscous liquids up to 25,000 cps. –

Chemical Products: dyes, inks, varnishes, latex, silicone, cleaning agents, polymers.
Mineral Oil products: oils, greases, cutting oils, coolants.
Cosmetics & Pharmaceutical products: detergents, liquid soaps, ointments, shampoo, hand cream.

SR SERIES progressive cavity transfer pump has a SiC mechanical seal, SS316 construction, 16:1 speed reduction unit and stator material available in PTFE, Viton, BUNA (N) or BUNA Food Grade. Can be used in an explosive-hazard zone 0 if the operator obtains a corresponding permit from the relevant supervisory authority. Install the pump in a vertical position only.

MOTOR DRIVES: The SR Series speed reduction unit lowers the speed to 750 rpm (50 Hz. Operation) & 900 rpm (60 Hz. Operation).

MODEL	WATTS	ENCLOSURE	VOLTAGE	SHIPPING WEIGHT
ODP-115	825	ODP (IP44)	115VAC/ 1 / 50-60 Hz.	9 lbs. (4 kg)
ODP-S-115	825	ODP (IP44)	15VAC/ 1 / 50-60 Hz.	9 lbs. (4 kg)
ODP-240	825	ODP (IP44)	230 VAC / 1 / 50-60 Hz	9 lbs. (4 kg)
ODP-S-240	825	ODP (IP44)	230 VAC / 1 / 50-60 Hz	9 lbs. (4 kg)
ENC-115	825	TEFC (IP54)	115VAC/ 1 / 50-60 Hz	12 lbs. (5.7 kg)
ENC-S-115	825	TEFC (IP54)	115VAC/ 1 / 50-60 Hz	12 lbs. (5.7 kg)
ENC-240	825	TEFC (IP54)	230 VAC / 1 / 50-60 Hz	12 lbs. (5.7 kg)
ENC-S-240	825	TEFC (IP54)	230 VAC / 1 / 50-60 Hz	12 lbs. (5.7 kg)
ODP450-115	450	ODP (IP44)	115 VAC / 1 / 50-60 Hz	5.5 lbs. (2.5 kg)
ODP450-240	450	ODP (IP44)	230 VAC / 1 / 50-60 Hz	5.5 lbs. (2.5 kg)
EX5-240	825	Class 1, Group C & D	230 VAC / 1 / 50-60 Hz	24 lbs. (11 kg
AIR (F)	560	Pneumatic	Pneumatic	3 lbs. (1.5 kg)

COMPATIBILITY:

Use a chemical compatibility chart to match the suitability of the pump materials. Refer to pg. 5 for (SR-700 Series) & pg. 6 for (SR-800 Series).

(Item 6) Mechanical Seal: SiC
(Item 7) drive shaft SS316
(Item 8) rotor SS316
(Item 9) outer tube assembly SS316
(Item 10) Stator material: BUNA(N), BUNA Food Grade, VITON or PTFE.
(Item 11) wing nut SS316
(Item 12) hose SS316 barb

START UP:

The motor drive and pump are packed separately. Place the motor drive onto the transfer pump and secure with (Item 3) hand wheel. Make sure the couplings are seated properly and the hand wheel is threaded completely onto the motor (hand tighten).

OPERATION:

Make sure the transfer pump is not immersed below the discharge port and there is adequate liquid in the storage vessel.

Dry Run Operation

The operator should be in attendance of the pump during operation. The pump should not be " run dry". This will destroy the SiC mechanical seal and should be avoided at all times.

Cavitation

Special care must be taken when pumping viscous liquids. The intake port must be covered with the medium and flow sufficiently towards the intake port in order for proper performance.

Closed Discharge Operation

The The SR-700 & SR-800 Series is a positive displacement pump and must not be operated with closed shutoff elements, such as a nozzle, valve, etc. excessive pressure build up may result in damage to the pump or cause injury or death to the operator. The use of a bypass valve with a return line is strongly recommended, which will limit the maximum discharge pressure.

Hose Requirements:

Hose rated at 4 X the maximum pump pressure should be used. contact your autorized SERFILCO distributor or SERFILCO directly at 800-323-5431 for hose quotations.

MAINTENANCE:

DISASSEMBLY/ ASSEMBLY: FOR SR-700 Industrial (pg. 5) & SR-800 Sanitary (pg.6):

Remove motor drive and secure shaft below the pump coupling (Item 1).

1. Remove stator (Item 12) from outer tube assembly (Item 11) COUNTER CLOCKWISE. Pull stator from the rotor and twist.

2. Loosen slotted connection nut . Pull outer tube assembly (Item 11) from the speed reducer & shaft assembly. (Item 4)

3. Inspect the rotor (Item 9) for wear or damage. Replace if necessary by holding drive shaft (Item 8) stationary with pliers. Secure rotor (Item 8) with pliers and unscrew from shaft (counter clockwise). Replace with new rotor.

4. Inspect stator (Item 12) for wear or damage and replace if necessary.

5. Slide speed reducer (Item 4), shaft (Item 8) & rotor (Item 9) into the outer tube assembly (Item 11). Twist clockwise and secure with the connection nut.

6. Secure drive shaft just below the pump coupling (Item 1). Twist stator (Item 12) onto rotor (Item 9) and secure onto the outer tube assembly (Item 11).

7. Place motor drive back onto pump and secure with (Item 2) hand wheel. Test pump operation on water to make sure all connections are secure and the SiC mechanical seal (Item 6) is secured. Reinstall into application.

MECHANICAL SEAL REPLACEMENT:

1. Follow steps 1- 3 from Disassembly/ Assembly steps.

2. Secure the drive shaft , underneath speed reducer(Item 4) with pliers. Secure drive shaft (Item 8). Turn counter clockwise and remove drive shaft.

3. The mechanical seal (Item 6) will be exposed in the lower portion of the mechanical seal bushing. (Item 5).

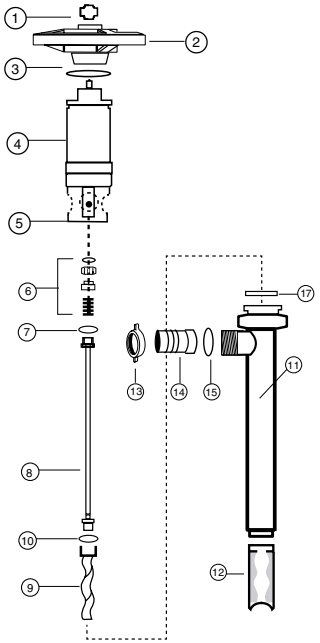
4. Remove damaged seal and replace with a new mechanical seal assembly (Item 6). Use silicone oil to lubricate the o-rings , drive shaft (Item 8) and seal bushing (Item 5).

5. Reinstall the drive shaft (Item 8) onto the speed reducer (Item 4) SS shaft.

6. Follow steps 5-7 from the Assembly / Disassembly steps.

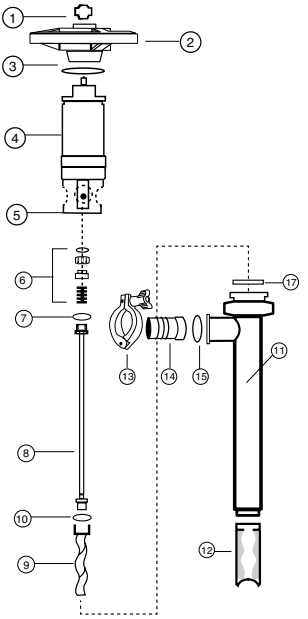
SR-700 INDUSTRIAL SERIES

ITEM NO.	DESCRIPTION		PART NUMBER
1	Pump Coupling		52-1004
2	Hand Wheel		52-1842
3	Snap Ring		52-1508
4	Gear Reduction Unit		52-0701
5	Mechanical Seal Bushing		52-0702
6	Mechanical Seal, SIC		52-0703
7	Gasket		
	BUNA		52-0734
	PTFE		52-0735
	Viton		52-0736
8	Drive Shaft, SS316		
	Pump Sizes - SR-71-27,SR-72-27,SR-181-27		52-0704
	Pump Size - SR-181-39		52-0705
	Pump Sizes -SR-71-39,SR-72-39,SR-181-47		52-0706
	Pump Sizes - SR-71-47,SR-72-47		52-0707
9	Rotor		
	Size 71		52-0708
	Size 72		52-0709
	Size 181		52-0710
10	Gasket		
	PTFE		52-0731
	Viton		52-0732
	BUNA		52-0733
11	Outer Tube Assembly		
	Pump Sizes - SR-71-27,SR-72-27,SR-181-27		52-0770
	Pump Size - SR-181-39		52-0771
	Pump Sizes -SR-71-39,SR-72-39,SR-181-47		52-0772
	Pump Sizes - SR-71-47,SR-72-47		52-0773
12	Stator		
	BUNA	Size 71	52-0713
		Size 72	52-0714
		Size 181	52-0715
	VITON	Size 71	52-0719
		Size 72	52-0720
		Size 181	52-0721
	PTFE	Size 71	52-0722
		Size 72	52-0723
		Size 181	52-0724
13	Wing Nut		52-0727
14	Hose Barb		
	1.25 (32 mm)		52-0728
	1.50 (38 mm)		52-0729
15	TFE O-Ring		52-0730
	Viton O-Ring		52-0730V
	Buna O-Ring		52-0730B
16	Optional Motors		page 7
17	Gasket		
	BUNA		52-0737
	PTFE		52-0738
	Viton		52-0739



SR-800 SANITARY SERIES

ITEM NO.	DESCRIPTION	PART NUMBER
1	Pump Coupling	52-1004
2	Hand Wheel	52-1842
3	Snap Ring	52-1508
4	Gear Reduction Unit	52-0701
5	Mechanical Seal Brushing	52-0702
6	Mechanical Seal, SIC	52-0703
7	Gasket	
	BUNA	52-0734
	PTFE	52-0735
8	Drive Shaft, SS316	
	Pump Sizes - SR-71-27, SR-72-27, SR-181-27	52-0704
	Pump Size - SR-181-39	52-0705
	Pump Sizes - SR-71-39, SR-72-39, SR-181-47	52-0706
	Pump Sizes - SR-71-47, SR-72-47	52-0707
9	Rotor	
	Size 71	52-0708
	Size 72	52-0709
	Size 181	52-0710
10	Gasket	
	BUNA	52-0733
	PTFE	52-0731
11	Outer Tube Assembly	
	Pump Sizes - SR-71-27, SR-72-27, SR-181-27	52-0800
	Pump Size - SR-181-39	52-0801
	Pump Sizes - SR-71-39, SR-72-39, SR-181-47	52-0802
	Pump Sizes - SR-71-47, SR-72-47	52-0803
12	Stator	
	BUNA, FOOD, GRADE	
	Size 71	52-0716
	Size 72	52-0717
	Size 181	52-0718
	PTFE	
	Size 71	52-0722
	Size 72	52-0723
	Size 181	52-0724
13	Tri-Clamp	52-0833
14	Hose Barb	
	1.25 (32 mm)	52-0834
	1.5 (38 mm)	52-0835
15	O-Ring - PTFE	52-0837
	O-Ring - BUNA	52-0836
16	Optional Motors	page 7
17	Gasket	
	BUNA	52-0737
	PTFE	52-0738



DD-700 (DIRECT DRIVE SERIES)
DD-800 (DIRECT DRIVE SERIES)

GENERAL:

Each – DD Series pump system is comprised of a pump end and motor drive (electric or air). The DD Series is a direct drive connection from the motor drive to the pump drive shaft. DD-700 SERIES high viscosity transfer pump has a SiC mechanical seal, SS316 construction and stator material available in PTFE, Viton or BUNA (N). They may be used in an explosive-hazard zone 0 if the operator obtains a corresponding permit from the relevant supervisory authority. Install the pump in a vertical position only. A flexible coupling is used to prolong life and reduce maintenance.

Applications include viscous liquids up to 100,000 cps. –
Chemical Products: dyes, inks, varnishes, latex, silicone, cleaning agents, polymers.
Mineral Oil products: oils, greases, cutting oils, coolants.
Cosmetics & Pharmaceutical products: detergents, liquid soaps, ointments, shampoo, hand cream.

MOTOR DRIVES:

The DD Series utilizes a direct drive, flexible coupling system and is available with a high performance, TEFC electric or pneumatic motor drive. Sanitary versions include Epoxy Coated, (IP65 motors)

OPTIONAL ELECTRIC MOTORS 230/460/380-415/3/50-60 HZ. (INDUSTRIAL):

MODEL	HP	KW	RPM	ENCLOSURE	FRAME	FLANGE	SHIPPING WEIGHT
DD-500	0.75	,55	900	TEFC (IP55)	90LC	B14	40 lbs. (18 kg)
DD-510	1	,75	900	TEFC (IP55)	100LC	B14	52 lbs. (24 kg)
DD-520	1.5	1,1	900	TEFC (IP55)	100LC	B14	58 lbs.(25 kg)

OPTIONAL AIR MOTORS (INDUSTRIAL):

STAN-DARD	HP	KW	RPM	OPER. PSI	AIR CONSUMPTION	FRAME	AIR CONN.	SHIPPING WEIGHT
DD-A4	2	1,5	300-3,000	100 psi (7 bar)	80 CFM @ 100 psi	IEC #72 / D71	1/4" (6.35 mm)	12 lbs. (5Kg)
					37 L/Sec @ 7 Bar			
DD-A6	4	3,0	300-3,000	100 psi (7 bar)	130 CFM @ 100 psi	IEC # 72 / D 80	1/2" (12.7 mm)	24 lbs. (11 Kg)
					65 L/Sec @ 7 Bar			
DD-A8	5	3,7	300 -2,500	100 psi (7 bar)	170 CFM @ 100 psi	IEC #72 /D90	1/2" (12.7 mm)	26 lbs. (12 Kg)
					80 L/Sec @ 7 Bar			

OPTIONAL ELECTRIC MOTORS 230/460V/380-415/3/50-60 HZ. (FOOD PROCESSING):

MODEL	HP	KW	RPM	ENCLOSURE	FRAME	FLANGE	WEIGHT
DD-502	0.75	,55	750 / 900	Food Process,Epoxy Paint, TEFC (IP55)	90LC	B14	40 lbs.
DD-512	1	,75	750 / 900	Food Process,Epoxy Paint, TEFC (IP55)	100LC	B14	52 lbs.
DD-522	1.5	1,1	750 / 900	Food Process,Epoxy Paint, TEFC (IP55)	100LC	B14	58 lbs.

OPTIONAL AIR MOTORS (FOOD PROCESSING):

STAN-DARD	HP	KW	RPM	OPER. PSI	AIR CON-SUMPTION	FRAME	AIR CONN.	SHIPPING WEIGHT
DD-A4FP	2	1,5	300-3,000	100 psi (7 bar)	80 CFM @ 100 psi	IEC#72/D71	1/4" (6.35 mm)	12 lbs. (5 Kg)
					37 L/Sec @ 7 Bar			
DD-A6FP	4	3,0	300-3,000	100 psi (7 bar)	130 CFM @ 100 psi	IEC#72/D 80	1/2" (12.7 mm)	24 lbs. (11 Kg)
					65 L/Sec @ 7 Bar			
DD-A8FP	5	3,7	300 -2,500	100 psi (7 bar)	170 CFM @ 100 psi	IEC#72/D90	1/2" (12.7 mm)	26 lbs. (12 Kg)
					80 L/Sec @ 7 Bar			

START UP:

Make sure the pump and motor are securely connected and that the couplings are seated properly. The pump and motor should turn freely when in operation.

IMPORTANT: Set the switch to the OFF position before connecting the power supply for electric drives. Make sure the inlet ball valve is closed on the air motor before the airline is connected.

OPERATION:

Make sure the transfer pump is not immersed below the discharge port and there is adequate liquid in the storage vessel.

Dry Run Operation

The operator should be in attendance of the pump during operation. The pump should not be "run dry". This will destroy the SiC mechanical seal and should be avoided at all times.

Cavitation

Special care must be taken when pumping viscous liquids. The intake port must be covered with the medium and flow sufficiently towards the intake port in order for proper performance.

CLOSED DISCHARGE OPERATION

The DD Series is a positive displacement pump and must not be operated with closed shutoff elements, such as a nozzle, valve, etc. excessive pressure build up may result in damage to the pump or cause injury or death to the operator. The use of a bypass valve with a return line is strongly recommended, which will limit the maximum discharge pressure.

Hose Requirements:

Hose rated at 4 X the maximum pump pressure should be used. Contact an Authorized SERFILCO distributor or SERFILCO directly at 800-323-5481 for a hose quotation specific to your application.

MAINTENANCE:

Disassembly / Assembly: DD-700 (pg.10) & DD-800 (pg.11)

1. Remove motor drive & hangar, if applicable.
2. Secure shaft inside the Bearing Housing (Item 13).
3. Remove Stator (Item 20) from Outer Tube Assembly (Item 19) COUNTER CLOCK-WISE rotation. Pull stator from the rotor and twist. Inspect for damage and replace if necessary.
4. Loosen slotted connection nut. Outer Tube Assembly (Item 19) from the Bearing Housing (Item 13) & shaft assembly.
5. Secure Shaft above Rotor (Item 18) and Shaft inside Bearing Housing (Item 13). Secure Drive Shaft (Item 17) with a COUNTER CLOCKWISE rotation. Drive Shaft should separate above Mechanical Seal (Item 15). Slide Shaft carefully through Mechanical Seal.
6. Remove Mechanical Seal Bushing (Item 14) from Bearing Housing (Item 13) .
7. Remove Coupling Assembly (Item 5) and Bearings (Item 8) from Bearing Housing (Item 13).
8. Secure Rotor (Item 18) & Drive Shaft (Item 17) – remove rotor from shaft with a COUNTER CLOCKWISE rotation. Inspect and replace if damaged.

MECHANICAL SEAL REPLACEMENT:

1. Follow steps 1-6 from Disassembly DD-700 & DD-800 Series.
2. The (Item 15) mechanical seal will be exposed in the lower portion of the (Item 19) mechanical seal bushing.
3. Remove damaged seal and replace with a new mechanical seal. Use silicone oil to lubricate the o-rings, pump shaft and seal bushing.
4. Reinstall Mechanical Seal Bushing into Bearing Housing (Item 13).
5. Follow steps 1- below from Assembly : DD-700 & DD-800 Series

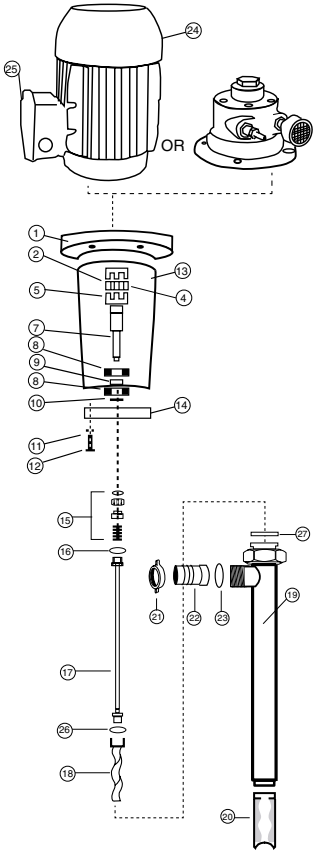
ASSEMBLY : DD-700 & DD-800 SERIES

1. Insert Coupling (Item 5) and Bearing Assembly (Item 7-10) into the Bearing Housing (Item 13). (Be careful not to damage Mechanical Seal when placing shaft through Seal.)
2. Connect Drive Shaft (Item 17) to Bearing Shaft (Item 7).
3. Connect Outer Tube Assembly (Item 19) to Bearing Housing (Item 13)
4. Connect Rotor (Item 18) to Drive Shaft (Item 17).
5. Secure Drive Shaft (Item 17) inside Bearing Housing (Item 13)
6. Twist Stator (Item 20) onto Rotor (item 18) and secure to Outer Tube Assembly (Item 19)
7. Secure Motor Drive & Hangar if applicable.
8. Test pump operation on water to make sure all connections are secure and the SiC, mechanical seal is not damaged. Reinstall into application.

CLEANING:

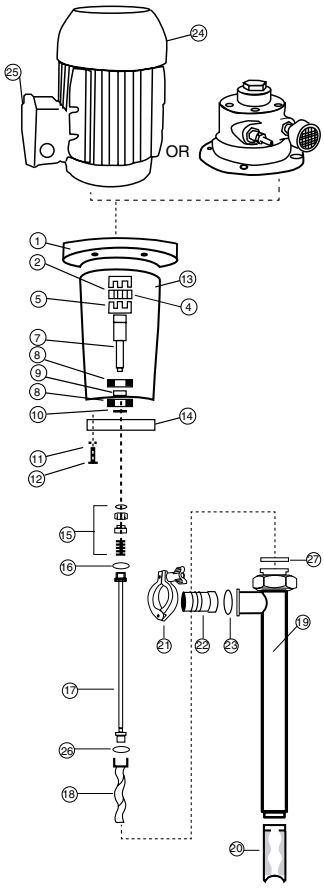
Inspect all components and thoroughly clean. For DD-800 Sanitary pumps, follow 3-A and FDA guidelines.

DD-700 INDUSTRIAL SERIES



ITEM NO.	DESCRIPTION		PART NUMBER
1	Flange Sizes		
	DD-500 model		52-0760
	DD-510 & DD-520 models		52-0761
	DD-A4 model		52-0762
	DD-A6 & DD-A8 models		52-0763
2	Motor Coupling		
	DD-500 & DD-A8 models- 24mm		52-0740
	DD-4 model - 14mm		52-0744
	DD-A6 model - 18 mm		52-0747
	DD-510 & DD-520 models - 28mm		52-0746
3	Coupling Key -- Not Shown		
	DD-A4 model - 5 mm X 20 mm		52-0840
	DD-A6 model - 6 mm X 20 mm		52-0841
	DD-A8 model - 8 mm X 20 mm		52-0842
	DD-500, DD-510 & DD-520 models - 8 mm X 30 mm		52-0843
4	Coupling Insert		52-0745
5	Pump Coupling- 24mm		52-0740
6	Hangar -- Not Shown		52-0743
7	Bearing Shaft		52-0750
8	Bearing		52-0751
9	Bearing Spacer		52-0752
10	Bearing Clip		52-0753
11	Washer (4 required)		52-0755
12	Bolt (4 required)		52-0756
13	Bearing Housing, Aluminum		52-0754
14	Mechanical Seal Bushing		52-0702
15	Mechanical Seal, SIC		52-0703
16	Gasket		
	PTFE		52-0735
	Viton		52-0736
	BUNA		52-0734
17	Drive Shaft		
	Pump Sizes - SR-71-27,SR-72-27,SR-181-27		52-0704
	Pump Size - SR-181-39		52-0705
	Pump Sizes -SR-71-39,SR-72-39,SR-181-47		52-0706
	Pump Sizes - SR-71-47,SR-72-47		52-0707
18	Rotor		
	Size 71		52-0708
	Size 72		52-0709
	Size 181		52-0710
19	Outer Tube Assembly		
	Pump Sizes - SR-71-27,SR-72-27,SR-181-27		52-0770
	Pump Size - SR-181-39		52-0771
	Pump Sizes -SR-71-39,SR-72-39,SR-181-47		52-0772
	Pump Sizes - SR-71-47,SR-72-47		52-0773
20	Stator		
	BUNA	Size 71	52-0713
		Size 72	52-0714
		Size 181	52-0715
	VITON	Size 71	52-0719
		Size 72	52-0720
		Size 181	52-0721
	PTFE	Size 71	52-0722
		Size 72	52-0723
		Size 181	52-0724
21	Wing Nut		52-0727
22	Hose Barb	1.25 (32 mm)	52-0728
		1.50 (38 mm)	52-0729
23	TFE O-Ring		52-0730
	Buna O-Ring		52-0730B
	Viton O-Ring		52-0730V
24	Motor		PAGE 7
25	DD Series Motor Switch		52-0570
26	Gasket	BUNA	52-0733
		PTFE	52-0731
		Viton	52-0732
27	Gasket	BUNA	52-0737
		PTFE	52-0738
		Viton	52-0739

DD-800 Sanitary Series



ITEM NO.	DESCRIPTION	NUMBER
1	Flange Sizes	
	DD-500 model	52-0760
	DD-510 & DD-520 models	52-0761
	DD-A4 model	52-0762
	DD-A6 & DD-A8 models	52-0763
2	Motor Coupling	
	DD-500 & DD-A8 models- 24mm	52-0740
	DD-4 model - 14mm	52-0744
	DD-A6 model - 18 mm	52-0747
	DD-510 & DD-520 models - 28mm	52-0746
3	Coupling Key -- Not Shown	
	DD-A4 model - 5 mm X 20 mm	52-0840
	DD-A6 model - 6 mm X 20 mm	52-0841
	DD-A8 model - 8 mm X 20 mm	52-0842
	DD-500, DD-510 & DD-520 models - 8 mm X 30 mm	52-0843
4	Coupling Insert	52-0745
5	Pump Coupling- 24mm	52-0740
6	Hangar -- Not Shown	52-0743
7	Bearing Shaft	52-0750
8	Bearing	52-0751
9	Bearing Spacer	52-0752
10	Bearing Clip	52-0753
11	Washer (4 required)	52-0755
12	Bolt (4 required)	52-0756
13	Bearing Housing, Aluminum	52-0754
14	Mechanical Seal Bushing	52-0702
15	Mechanical Seal, SIC	52-0703
16	Gasket	
	PTFE	52-0735
	BUNA	52-0734
17	Drive Shaft	
	Pump Sizes - SR-71-27, SR-72-27, SR-181-27	52-0704
	Pump Size - SR-181-39	52-0705
	Pump Sizes -SR-71-39,SR-72-39,SR-181-47	52-0706
	Pump Sizes - SR-71-47,SR-72-47	52-0707
18	Rotor	
	Size 71	52-0708
	Size 72	52-0709
	Size 181	52-0710
19	Outer Tube Assembly	
	Pump Sizes - SR-71-27, SR-72-27, SR-181-27	52-0800
	Pump Size - SR-181-39	52-0801
	Pump Sizes -SR-71-39, SR-72-39, SR-181-47	52-0802
	Pump Sizes - SR-71-47, SR-72-47	52-0803
20	Stator	
	BUNA , FOOD GRADE Size 71	52-0716
	Size 72	52-0717
	Size 181	52-0718
	PTFE Size 71	52-0722
	Size 72	52-0723
	Size 181	52-0724
21	Tri-Clamp	52-0833
22	Hose Barb 1.25 (32 mm)	52-0834
	1.50 (38 mm)	52-0835
23	Buna O-Ring (Sanitary)	52-0836
	TFE O-Ring (Sanitary)	52-0837
24	Motor	PAGE 7
25	DD Series Motor Switch	52-0570
26	Gasket	
	BUNA	52-0733
	PTFE	52-0731
27	Gasket	
	BUNA	52-0737
	PTFE	52-0738

MAINTENANCE- PNEUMATIC MOTORS

LUBRICATION
Use Gast #AD220 or a detergent SAE #10 automotive engine oil for lubricating. Lubricating is necessary to prevent rust on all moving parts. Excessive moisture in the air line may cause rust or ice to form in the muffler when air expands as it passes through the motor. Install a moisture separator in the air line and an after cooler between compressor and air receiver to help prevent moisture problems.

MANUAL LUBRICATION
Shut the air motor down and oil after every 8 hours of operation. Add 10-20 drops of oil to the air motor intake port.

AUTOMATIC LUBRICATION
Adjust inline oiler to feed 1 drop of oil per minute for high speed or continuous duty usage. Do not overfeed oil or exhaust air may become contaminated.

Check intake and exhaust filters after first 500 hours of operation. Clean filters and determine how frequently filters should be checked during future operation. This one procedure will help assure the product's performance and service life.

FLUSHING
Flushing this product to remove excessive dirt, foreign particles, moisture or oil that occurs in the operating environment will help to maintain proper vane performance. Flush the motor if it is operating slowly or inefficiently.

Use only Gast #AH255B Flushing solvent. DO NOT use kerosene or ANY other combustible solvents to flush this product.

1. Disconnect air line and muffler
2. Add flushing solvent directly into motor. If using liquid solvent, pour several tablespoons directly into the intake port. If using Gast #AH255B, spray solvent for 5-10 seconds into intake port.
3. Rotate the shaft by hand in both directions for a few minutes.
4. You must wear eye protection for this step. Cover exhaust with a cloth and reconnect the air line. Slowly apply pressure until there is no trace of solvent in the exhaust air.
5. Listen for changes in the sound of the motor. If motor sounds smooth, you are finished. If motor does not sound like it is running smoothly, installing a service kit will be required. (See "Service Kit Installation").

Check that all external accessories such as relief valves or gauges are attached and are not damaged before operating product.

SHUTDOWN
It is your responsibility to follow proper shutdown procedures to prevent product damage.
1. Turn off air intake supply.
2. Disconnect plumbing
3. Remove air motor from connected machinery.
4. Wear eye protection. Keep away from air stream. Use clean, dry air to remove condensation.
5. Lubricate motor with a small amount of oil in chamber. Rotate shaft by hand several times.
6. Plug or cap each port.
7. Coat output shaft with oil or grease
8. Store motor in a dry environment.

SERVICE KIT INSTALLATION

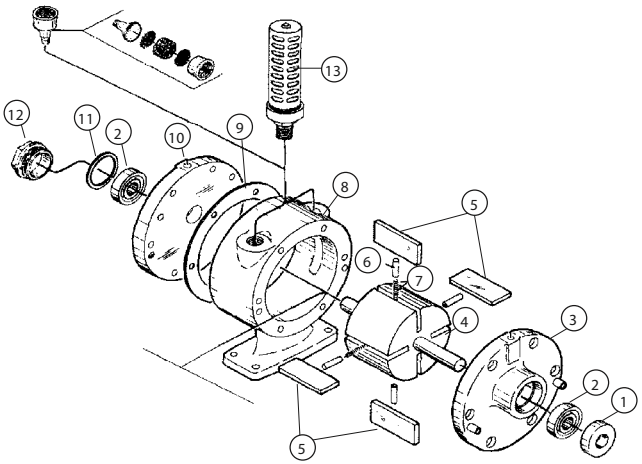
Gast will NOT guarantee field-rebuilt product performance. For performance guarantee, the product must be returned to a Gast authorized service facility.

Service kit contents vary. Most contain vanes, end cap gasket, body gasket, bearings and a muffler element or felt.

REBUILDS
Tool kits which include a more in-depth rebuild manual are available through your Gast distributor. These kits include the tools required to remove and reassemble end plates, bearings and shaft seals, and to set the proper end clearance. The rebuild manual also includes step by step instructions, including illustrations, to help achieve a successful rebuild. Gast Manufacturing, Inc. highly recommends using the air motor rebuild manual and tool kit when attempting a minor or major rebuild to your Gast air motor.

REBUILD:
1. Remove the end cap.
2. Remove dead end plate bolts.
3. Remove dead end plate. (Use factory issued tool, do not use screwdriver to remove the end plate.)
4. Remove the dowel pins from the body and push back into end plate until flush or just below the machined surface of the end plate.
5. Remove vanes.
6. Clean parts. Check for scoring on the end plate and rotor assembly. If scoring exists, send unit to a Gast authorized service facility.
7. Lubricated models only: Lightly oil and reinstall vanes.
8. Place the proper end plate gasket on the end plate. If the original is damaged, replace with a new one supplied in the Service Kit.
9. Place the dead end plate on the body.
10. Press the bearing onto the shaft using a factory supplied bearing pusher.
11. Tap dowel pins into body and install end plate bolts. Tighten bolts to 75-100 in-lbs.
12. Set end clearance as required by model: 1AM-4AM and NL22-NL52 models - use the bearing taper from kit to lightly tap on inner face of the dead end bearing to free up and center the rotor in the body.
    6AM-8AM models - lightly strike the drive end shaft with a soft hammer to push the rotor away from the drive end plate. The rotor must NOT rub on either end plate.
13. Reattach end cap.
14. If the air motor is lubricated, apply a few drops of Gast #AD220 lubricant into ports. Rotate shaft by hand for a few rotations.

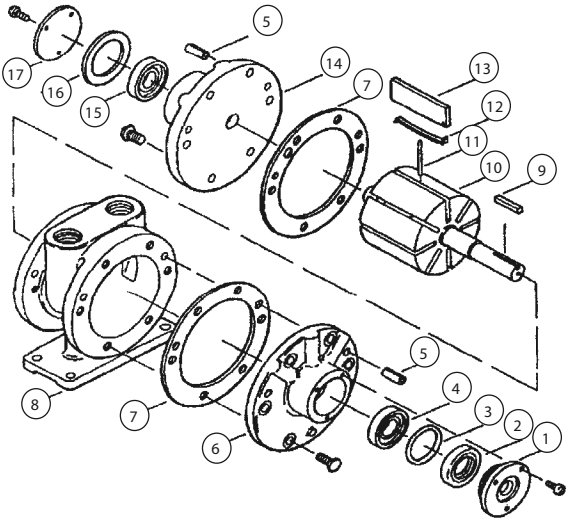
DD-A4
DD-A4FP



ITEM NO.	DESCRIPTION	QTY	PART #
1*	Shaft Seal	1	B2328
2*	Drive End Bearing	1	AB519
2A*	Drive End Bearing	1	AA299J
3	Drive End Plate	1	AG707
4	Rotor Assembly	1	AM455A
5*	Vane	4	AB876
6*	Push Pins	4	AM467
7*	Vane Spring	2	AM466
8	Body	1	AM410
	Body for SP-A4WD	1	AM410WD
9*	Shims	2	B330
10	Dead End Plate	1	AC728
11*	End Cap Gasket	1	AA46
12	Dead End Cap	1	AM307D
13	Muffler	1	AC980
14*	Service Kit	1	K206A

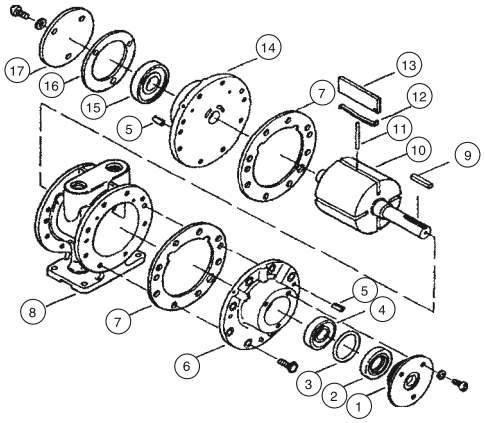
* Included with Service Kit

DD-A6
DD-A6FP



ITEM NO.	DESCRIPTION	QTY	PART #
1	Drive End Cap	1	AD642A
2*	Shaft Seal	1	AC849
3*	O-Ring	1	AD649
4*	Drive End Bearing	1	AD638A
5	Dowel Pin	4	AB612C
6	Drive End Plate	1	AD667
7*	Body Gasket	2	AD641
8	Body	1	AD665
	Body, SP-A6WD	1	AD665WD
9	Key	1	AB136
10	Rotor Assembly	1	AD648
11*	Push Pin	2	AD6552
12*	Vane Spring	4	AD692
13*	Vane	4	AD691
14	Dead End Plate	1	AD651
15*	Dead End Bearing	1	AB519
16*	End Cap Gasket	1	AD644
17	Dead End Cap	1	AD643
Muffler	Muffler	1	AC990
Service Kit	**Service Kit**	1	K208

DD-A8
DD-A8FP



ITEM NO.	DESCRIPTION	QTY	PART #
1	Drive End Cap	1	AC998
2*	Shaft Seal	1	AB936
3*	O-Ring	1	AC989
4*	Drive End Bearing	1	AB927
5	Dowel Pin	4	AB162
6	Drive End Plate	2	AC965
7*	Body Gasket	2	AC888
8	Body	1	AC878C
	Body, SP-A8WD	1	AC878CWD
9	Key	1	AB136D
10	Rotor Assembly	1	AC986
11*	Push Pin	2	AC879
12*	Vane Spring	4	AC817
13*	Vane	4	AC816
14	Dead End Plate	1	AC964
15*	Dead End Bearing	1	AC894B
16*	End Cap Gasket	1	AC837
17	Dead End Cap	1	AC836
Muffler	Muffler	1	AC990
Service Kit	Service Kit	1	K211

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Declarations

Declaration of Conformity	**When this unit is used as a stand alone unit it complies with: Machinery Directive 98/37/EC EN60204, EN60335-2-41, EN60335-1, Low Voltage Directive 73/23/Eec EN61010-1, EMC Directive 89/336/ Eec EN55014, EN 550104EN50081-1, EN50082-1**
Declaration of Incorporation	**When this pump unit is to be installed into machine or is to be assembled with other machines for installations, it must not be put into service until the EN60335-2-41, EN60335-1, relevant machinery has been declared in conformity with Machine Directive 98/37/EC EN60204, EN60335-2-41, EN60335-1.**

Three year warranty

SERFILCO Ltd. warrants, subject to the conditions below, through either SERFILCO Ltd., it's subsidiaries, or its authorized distributors, to repair or replace free of charge, including labor, any part of this equipment which fails within three years of delivery of the product to the end user. Such failure must have occurred because of defect in material or workmanship and not as a result of operation of the equipment other than in accordance with the instructions given in this material. Specific exceptions include:

- **consumable items such as motor brushes, bearings, couplings and impellers.**

Conditions of exceptions include:

- **Equipment must be returned by prepaid carriage to SERFILCO Ltd., it's subsidiary or authorized distributor.**
- **All repairs, modifications must have been made by or with express written permission by SERFILCO Ltd., it's subsidiary or authorized distributor.**
- **Equipment which have been abused, misused, or subject to malicious or accidental damage or electrical surge are excluded.**

Warranties purporting to be on behalf of SERFILCO Ltd. made by any person, including representatives of SERFILCO Ltd., it's subsidiaries, or its distributors, which do not fall within the terms of this warranty shall not be binding upon SERFILCO Ltd. unless expressly approved in writing by a Director or Manager of SERFILCO Ltd..

Information for returning pumps

Equipment which has been contaminated with, or exposed to, bodily fluids, toxic chemicals or any other substance hazardous to health must be decontaminated before it is returned to Standard Pump, Inc, or its distributor.

A returned goods authorization number (RGA #) issued by SERFILCO Ltd., it's subsidiary or authorized distributor, must be included with the returned equipment. The RGA # is required if the equipment has been used. If the equipment has been used, the fluids that have been in contact with the pump and the cleaning procedure must be specified along with a statement that the equipment has been decontaminated.

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