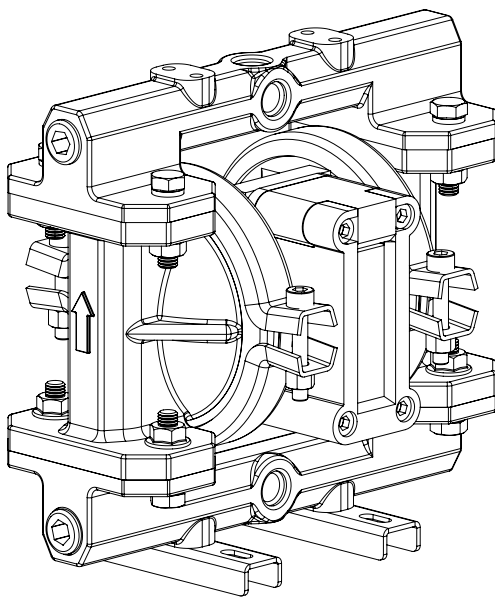
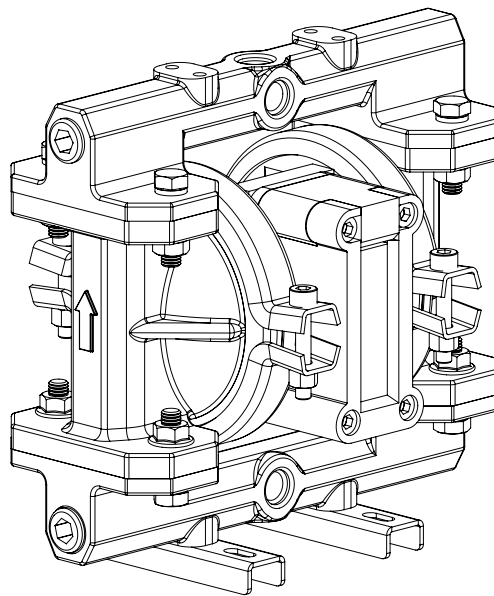




## Operation and Maintenance Guide



SDP 06 AL S/H/T



SDP 06 SS S/H/T

SDP 06 Aluminum and Stainless Steel Construction, All variants

| Models          | Descriptions   |
|-----------------|--|
| SDP 06 AL S/H/T | Aluminum with, Santoprene, Hytrel and PTFE fitments        |
| SDP 06 SS S/H/T | Stainless Steel with, Santoprene, Hytrel and PTFE fitments |

Read this manual carefully before installing, operating or servicing this equipment. It's the responsibility of the employer to ensure this manual is read by the operator. Please preserve this manual.

This document is issued with Product Serial No

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## Pump Nomenclature

| XX   | XX            | XX                        | X  | X                         | X  |
|--|---------------|---------------------------|--|---------------------------|--|
| Air Valve Type                                 | Pump Size     | Material of Construction  | Material of Diaphragm  | Bolted or Clamped         | Threading on Inlet and Outlet                  |
| DP - Classic<br>ADP - Advanced<br>SDP - MaxFlo | 06 - 1/4"     | AL - Aluminium            | B - Nitrile<br>N - Neoprene<br>S - Santoprene<br>T - PTFE<br>V - Viton<br>H - Hytrel | B - Bolted<br>C - Clamped | R - NPT<br>G - BSPT<br>P - BSPP<br>F - Flanged |
|  | 12 - 1/2"     |                           |  |                           |  |
|  | 15 - 1/2"     | SS - Stainless Steel 316L |  |                           |  |
|  | 25 - 1"       |                           |  |                           |  |
|  | 40 - 1 - 1/2" | PP - Polypropylene        |  |                           |  |
|  | 50 - 2 "      |                           |  |                           |  |
|  | 75- 3"        |                           |  |                           |  |
| 100 - 4"                                       |               |                           |  |                           |  |

## Operating and Safety

### Instructions

#### **Warning. Static Electricity**

Static sparks can cause explosion resulting in severe injury or death.

Ground the pump and the pump connections like hoses and containers into which or from the fluid is being transferred. Connect the grounding wire to any bolt on the pump.

Check continuity of electrical path to ground at regular intervals.

Consult local building and electrical codes for grounding requirements where needed.

Use hoses containing a grounding wire.

#### **Warning: Pump Exhaust**

In case of a diaphragm failure, fluid being pumped may spray out from the exhaust of the pump. This may cause severe injury depending on the fluid being pumped.

If the fluid is hazardous, pipe away the exhaust to a safe remote location using a generous diameter pipe preferably with a grounding arrangement, and refit the muffler at the end of this arrangement.

Always wear safety glasses while in the vicinity of an operating pump.

#### **Warning: Overpressure/Hazardous Pressure**

Do not exceed the max supply air pressure of 125 PSI.

Make sure all connected hoses and pipelines are rated to operate safely with the pressures generated by pump of 125 PSI.

Do not open or handle pump or hoses while pressurized.

Disconnect air supply line and relieve pressure from the system by carefully opening discharge and supply lines.

#### **Warning: Hazardous Materials**

Do not move a pump that contains hazardous fluids trapped inside it. Please observe prescribed handling and safety codes. Drain the pump safely, by turning it upside down and collecting the fluid safely, before moving the pump.

#### **Warning :Explosion**

Please check compatibility of fluids intended to be handled with the materials of construction of the pump. Severe reactions and explosions may occur if materials are incompatible. Caution: Chemical compatibility

Please check that the fluid being pumped is compatible with the wetted parts of the pump. Refer Cole Parmer compatibility (<http://www.coleparmer.in/Chemical-Resistance>) guide for details. Note that chemical compatibility may change with temperature; take this into account while selecting pump material.



### **Caution: Structural support**

Please refer figure 1 and ensure that the piping system is independently supported and does not load the pump. The pumps are not designed to take the continuous and often pulsating load of a piping system. Important to use a flexible connection between rigid piping and pump casings.



### **Caution: Running dry, disconnection of hoses when not in use**

Although these pumps can be run dry for long periods, it is advisable to avoid this as it causes unnecessary wear of wearing parts.



### **Caution: Operator understanding**

Please ensure that all operators have read this manual and have the required understanding of safe working practices and are equipped with safety equipment when working on/around the pump.



### **Caution: Using genuine teryair fittings & spares**

Use genuine teryair parts to ensure correct pump operation and maximize life.



### **Warning Conditions for Certification**

1. Control of Environmental humidity to minimize the generation of the static electricity.
2. Protection from direct airflow causing a charge transfer.
3. Touch with an insulating object to avoid electrostatic charge hazard.
4. Clean the surface with damp cloth only to avoid electrostatic charge hazard.

## **Operating Instructions**

The Teryair diaphragm pump generates a alternate stroking of the diaphragms against the fluid in the liquid chambers of the Pump. This reciprocatory action is responsible for the fluid being pumped.







It is possible to control the output of the pump by controlling the supply air pressure.

It is also possible to control the output of the pump by throttling action on the fluid flowing in the outlet piping by means of a valve. if such a valve is shut completely the pressure in the discharge piping increases to a point when the pressure at pump discharge equals it and the pump comes to a stop. This causes no damage to the pump and the pump consumes no more energy.

Upon opening of the valve, the pump starts reciprocating once again and resumes fluid delivery.



**Caution: Temperature limitations and diaphragm options**

|                   |   |  |
|-------------------|---|--|
| <b>Neoprene</b>   |    | An excellent general-purpose diaphragm for use in non-aggressive applications such as water-based slurries, well water or sea water. Exhibits excellent flex life and low cost. Temperature range -18°C to +93°C (0°F to +200°F)   |
| <b>Nitile</b>     |    | Excellent for applications involving petroleum / oil-based fluids such as leaded gasolines, fuel oils, non-synthetic hydraulic oils, kerosene, turpentine and motor oils. Temperature range -12°C to +82°C (+10°F to +180°F)   |
| <b>Santoprene</b> |    | Good abrasion resistance. Low cost. Can handle mild acids and alkalis well. Excellent low cost alternative to ptf. Excellent suction capabilities Excellent general purpose diaphragm. Temperature range -40°C to +107°C (-40F to +225°F)  |
| <b>Hytrell</b>    |    | Good abrasion resistance. Low cost. . Excellent suction capabilities Good general purpose diaphragm. Temperature range -29°C to +104°C (-20°F to +220°F)   |
| <b>Viton</b>      |  | Excellent for use in applications requiring extremely hot temperatures. May also be used with aggressive fluids such as aromatic or chlorinated hydrocarbons and highly aggressive acids. Especially where high suction lift is important. Temperature range -40°C to +177°C (-40°F to +350°F) |
| <b>PTFE</b>       |  | Excellent choice when pumping highly aggressive fluids such as aromatic or chlorinated hydrocarbons, acids, caustics, ketones and acetates. Temperature range +4°C to +104°C (+40°F to +220°F)   |

**Suggested Lubricants**

| Brand          | Above 27 Deg C ( | From 5 Deg C to 27 Deg C | Below 5 Deg C |
|----------------|------------------|--------------------------|---------------|
| Shell          | Toona R 72       | Toona R 41               | Toona R 27    |
| Mobil          | Almo 529         | Almo 527                 | Almo 525      |
| Esso           | --- --           | Arox EP 65               | Arox EP 45    |
| Caltex         | Rando Oil 150    | Rando Oil 100            | Rando Oil 46  |
| Texaco         | Regal Oil F      | Regal Oil PE             | Regal Oil B   |
| Daltron        | Silkolene 881    | Silkolene 548            | Silkolene 773 |
| Burmah Castrol | RD Oil 3         | RD Oil Light             | Megna SPX     |
| BP             | RD 220 HP60C     | RD150 HP20C              | RD80 HP10C    |
| Duckham        | Garnet 7         | Garnet 6                 | Zero Flo 5    |
| Sternol        | Merlin 87        | Merlin 71                | Merlin 54     |
| Petrofina      | Purifoc 53       | Purifoc 46               | Purifoc 32    |
| Chevron        | Vistac Oil 18X   | Vistac Oil 19X           | Vistac Oil 9X |

## Suggested site selection and installation recommendations

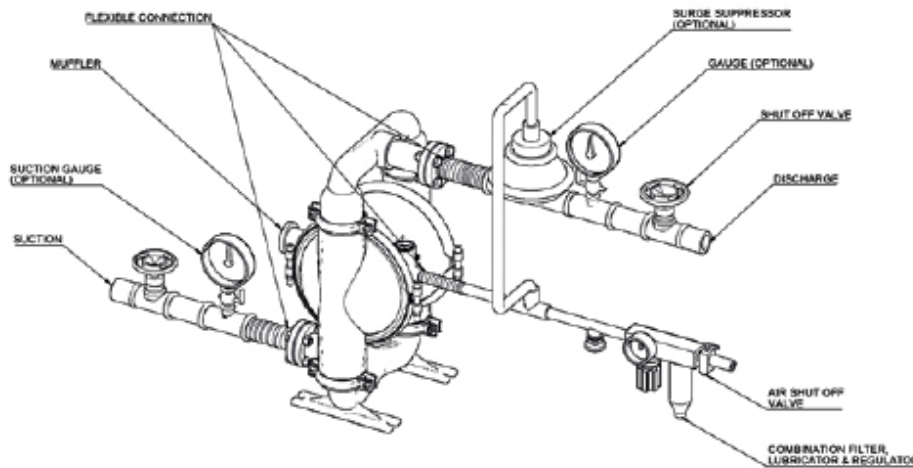


Figure 1

### Location selection

Pump location must be easily accessible with reasonable space around for maintenance operations. Pump dimensional data for each variant is available in section showing exploded views

### Air supply

Compressed air at 90 PSI ( Stroke pumps can take a max of 125PSI), free from moisture and having an oil mist is essential. Use of a filter (50 microns), a lubricator and a regulator is highly recommended and should be installed as close as possible to the pump inlet. Ensure correct grade of oil is used in the lubricator bowl. Too thick oil may slow down the valve shifting mechanism and affect pump performance. See suggested lubricants on page no 5.

### Piping

see section on safety if used in hazardous area)  
 See Figure 1.  
 Suction side ¼ inch or larger, non-collapsible  
 Delivery side ¼ inch or larger.  
 A minimum number of bends and fittings to be used.  
 A flexible connection between suction, delivery and air supply piping is highly recommended such that piping stresses and loads do not transfer to pump housing.  
 Select piping materials such that chemical compatibility is

maintained with the fluid being pumped.

### Suction

Ensure that the suction head after installation is well within the pumps suction capabilities

### Muffler

Use of supplied muffler is recommended to bring pump operation sounds down to comfortable levels, in case of hazardous fluids handling, please read section of safety regarding piping away of exhaust see (Warning: Pump Exhaust) earlier in this manual.

## Troubleshooting

| Serial No | Description   | Causes   | Remedial Action  |
|-----------|---|--|--|
| 1         | Pump stops and will not start                                       | Insufficient Air Pressure  | Check air pressure is as recommended at the pump air inlet   |
|           |   | Air Filter Blocked   | Check if debris has clogged the inlet filter on the FRL unit/pump inlet air valve ( some models have air filter on the air inlet valve ) and ensure clear passage of air |
|           |   | Internal damage or excessive wear on components  | roceed to dismantle the pump, examine component for wear, replace any worn components, re assemble carefully as instructed in this manual and re start the pump.         |
| 2         | Pumps runs slowly, poor delivery                                    | Cavitation   | Check if cavitation is occurring in the suction side, if so reduce suction vacuum by slowing down the pump.  |
|           |   | Worn Balls and Seats   | Check proper sealing action of balls against seals, these components need to be replaced as a set if they are worn.  |
|           |   | Insufficient or wrong lubricant in the air supply.                                       | Ensure that the lubricant is as per the recommended chart, a thicker lubricant often makes the air valve work sluggishly   |
|           |   | Internal damage or excessive wear on components  | Proceed to dismantle the pump, examine component for wear, replace any worn components, re assemble carefully as instructed in this manual and re start the pump.        |
| 3         | Pump air valve freezes  | Excessive moisture in supply air line.   | Ensure that the dew point of the supplied air is low enough. Install a air dryer or moisture separator on the supply line  |
| 4         | Air bubbles in pump discharge or product sprays out of exhaust vent | Broken Diaphragm   | Proceed to dismantle the pump, examine component for wear, replace any worn components, re assembly carefully as instructed in this manual and re start the pump         |
|           |   | mproper seal between inner pistons, outer pistons and shaft.                             |  |
|           |   | Air leakage into product from balls / seats area   |  |
|           |   | Air sucked into suction pipeline due to insufficiently tight joints on suction pipeline. |  |



## Maintenance

Regular inspection and maintenance schedules will greatly enhance the life of the pump and will ensure a trouble free and safe working environment with little chance of breakdowns. Follow the instructions clearly in “Disassembly and Reassembly” of the pump and in the troubleshooting section.

Use genuine Teryair spares and if possible mention the serial number of the pump when ordering spares.

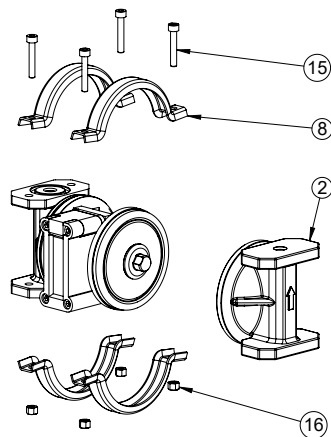
Always replace elastomers as a set, eg diaphragms, balls and seats.

## Disassembly and Re assembly

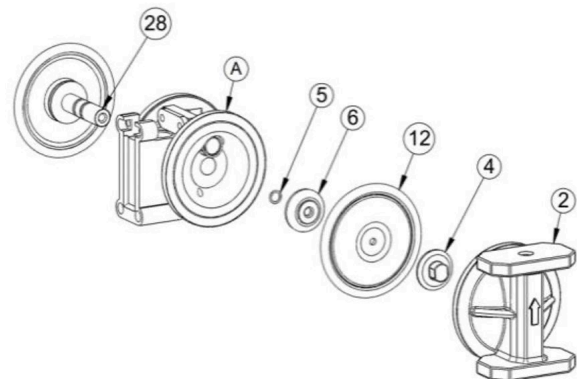
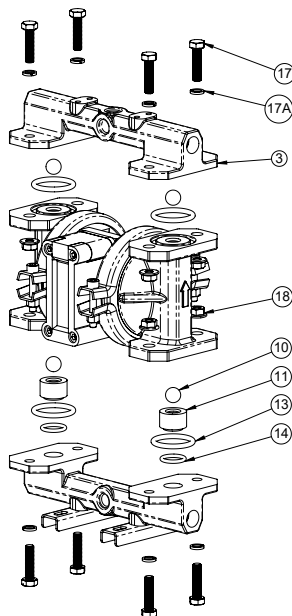
- Shut off air supply and allow residual Pressure to bleed off.
- Disconnect air supply
- Disconnect suction and discharge piping
- Turn pump upside down allow process fluid to drain away. If fluid is hazardous due care should be taken.
- Make a mark to indicate the positioning of each liquid chamber relative to the housing.

NOTE: Replace worn parts with genuine TERYAIR parts for reliable performance.

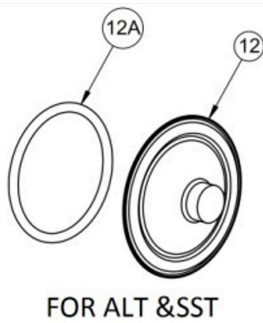
- a. Unscrew the four manifold bolts (17) & washer (17A) nuts (18). Remove the top and bottom manifolds (3).
- b. Inspect manifolds, manifold O-rings (14 &13), and valve balls (10). If swelling, cracking or other damage is apparent, these parts must be replaced with genuine TERYAIR parts.



### 1. Replacement Of Diaphragms, Ball & Ball Seat.







- c. Now unscrew hex socket head bolts (15) & nuts (16) of any one side and proceed to remove the big clamp (8). Now remove the outer chamber (2). Now repeat the same procedure to remove the second outer chamber.

- d. Now with the help of two spanner hold one of the across flat of one outer flange (4) and rotate the second outer flange (4) to disassemble it from the shaft (28). Remove the diaphragm (12), inner flange (6) & washer (5). Now pull out the shaft (28) out of the shaft housing assembly (A).

\*For ALT/SST series hold one of the across flat of one piece PTFE diaphragm (12) and rotate the second side PTFE diaphragm hex (12) to disassemble it from the shaft. Remove backup O-ring (12A), inner flange (6) & washer (5). Now pull out the shaft (28) out of the shaft housing assembly (A).

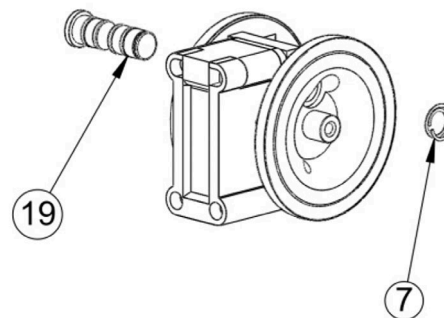
Note: After removal of this shaft (28) Inspect it for cracking or other damage is apparent on seals installed on the shaft, these parts must be replaced with genuine TERYAIR parts.

- e. For other side Diaphragm removal : hold the shaft (28) in a vice with proper packing. Care must be taken not to damage the shaft outer surface. Now remove the outer flange (4) with spanner.  
\* For ALT/SST series hold one of the across flat of one piece PTFE diaphragm (12) and rotate the second side PTFE diaphragm hex (12) to disassemble it from the shaft. Remove backup O-ring (12A), inner flange (6) & washer (5).
- f. Now replace the diaphragms (12). Ensure that diaphragm orientation is correct, (i.e. For ALB/ALN/ALV. the sticker side of the diaphragm ) (12) to be located on outer flange (4). Now assemble the inner flange (6), washer (5) & shaft

(28) in reverse manner and remove the half shaft assembly from vice.  
\* Refer image for ALT & SST model, Hold the shaft (28) in vice & install the washer (5) and inner flange (6) & install new Hex head PTFE diaphragm in reverse manner and remove the half shaft assembly from vice.  
\* For ALS/ ALH model AIR SIDE marking to be located toward the shaft housing (A).

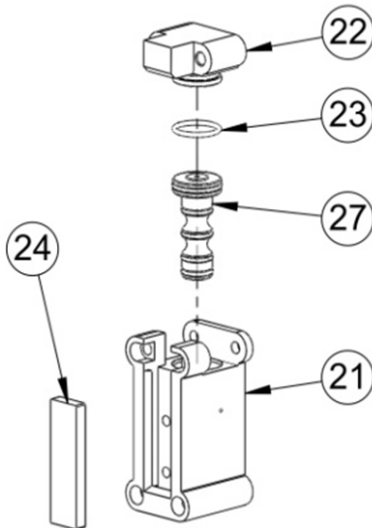
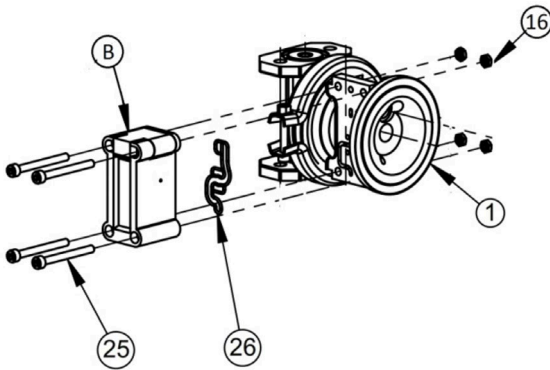
- g. Lubricate the edge of the shaft (28) with specified lubricant. Slowly insert the shaft with rotating motion. (Refer Image of step “c”)
- h. Once the half shaft open portion comes out of the bush, follow the procedure in reverse manner as described in step (c),(b) & (a) and assemble the pump. (Refer Image of steps “c, b & a”)

## 2. Replacement of Secondary Shaft Assembly



- a. For removing the secondary shaft assembly from center piece assembly, first follow the steps a, b, c, d from the diaphragm replacement and remove the outer chamber (2).
- b. Remove the snap ring (7) from one side of secondary shaft assembly (19).
- c. Now, push the secondary shaft assembly (19) from housing to remove it.
- d. During assembly make sure to push the secondary shaft assembly (19) from the smaller side only into the housing.

### 3. Replacement of Air Valve, Gasket, O-Rings of End Cap & Filter



- Unscrew Allen bolts (25) and nuts (16) from shaft housing (1) and remove Air valve Assembly (B) from housing (1). Now remove the gasket (26) from Air valve assembly (B). While re-assembling replace gasket (26) with new one.
- Remove the end cap (22) with O-ring (23) by pulling it out of the air valve body (21).
- Use the same bolt to pull the air piston assembly (27) with all its seals. This piston assembly (27) needs to be replaced as a single piece.

- Now remove O-ring (23) from End cap (22) and replace it with new one.
- Now remove the filter (24) from air valve body (21) & inspect it for chocking (If found chock, replace it with new one).

### 4. Replacement Of Shaft O-Rings

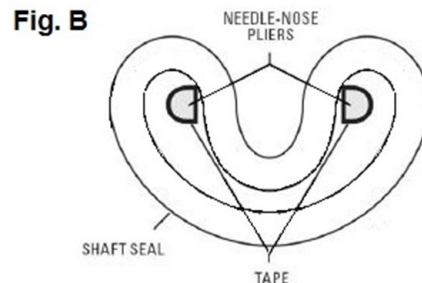
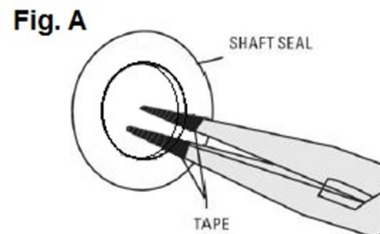
For removing the rubber rings from bush, first follow the steps a, b c & d from the diaphragm replacement.

Now remove the seals (14) with the help of needle Nose pliers. Care should be taken not to damage the inner face of bush.

Once all the old seals are have been removed, the inside of the bushing should be cleaned to ensure no debris is left that may damage to new seals (Pressurized air is preferable).

These following tools can be used to aid in the installation of new seals:

- Needle Nose pliers
- Phillips Screwdriver
- Electrical Tape



Wrap electrical tape around each leg of the needle nose pliers (heat shrink may also be used) . This is done to prevent damaging the inside portion of the new seals.

With a new seal in hand, place the two legs of the nose pliers inside the seal ring. Open the pliers as wide as the seal diameter will allow, then two fingers pull down on the top portion of the seal to form kidney bean shape. (Refer Fig. A)

Lightly clamp the pliers together to hold the seal into the kidney shape. Be sure to pull the seal into as tight of a kidney shape as possible, this will allow the seal to travel down the bushing bore easier. (Refer Fig. B)

With the seal clamped in the pliers, insert the seal into the bushing bore and position the bottom of the seal into the correct groove. Once the bottom of the seal is seated in the groove, release the clamp pressure on the pliers. This will allow the seal to partially snap back to its original shape.

After the pliers are removed, you will notice a slight bump in the seal shape. Before the seal can be properly re-sized, the bump in the seal should be removed as much as possible. This can be done with either the Phillips screw driver or your finger, apply light pressure to the peak of the bump. This pressure will cause the bump to be almost completely eliminated.

Lubricate the edge of the shaft with specified lubricant.

Slowly insert the shaft with rotating motion. This will complete the re-sizing of the seals.

Perform these steps for the remaining seals.

**NOTE:** PTFE-fitted pumps employ an integral piston diaphragm. Add a small amount of Loctite 242 to the bore of the main shaft (28). Set up time is 20 minutes. Tighten outer piston (4 & in case of PTFE 12) to torque value.

### Maximum torque specifications

| DESCRIPTION OF PART                     | MAX TORQUE        |
|---|-------------------|
| Air Valve                               | 2.3 Nm (20 in-lb) |
| Outer Piston, Rubber and TPE Diaphragms | 4.6 Nm (40 in-lb) |
| Clamp Band                              | 2.3 Nm (20 in-lb) |
| Manifold Bolt                           | 5.6 Nm (50 in-lb) |

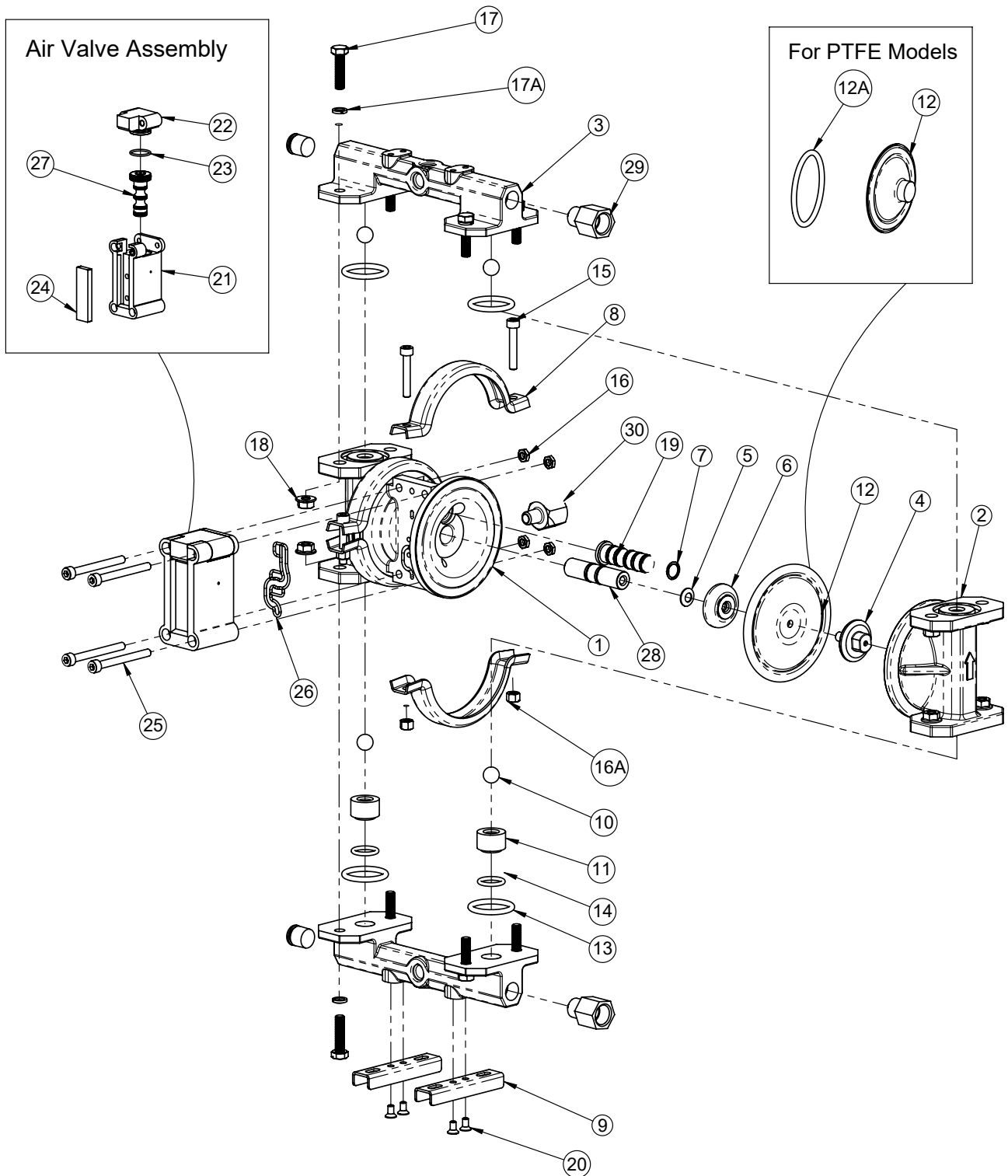
## Re-Assembly

Upon performing applicable maintenance to the air distribution system, the pump can now be reassembled. Please refer to the disassembly instructions for images and parts placement. To reassemble pump, follow the disassembly instructions in reverse order. The air distribution system needs to be assembled first, then the diaphragms, the balls Seats, balls parts and finally inlet & outlet. Please find applicable torque specifications in this section.

## PTFE Diaphragm Configuration

Lubricate the main shaft assembly with grease (as specified) and insert through main shaft bore in center section. Assemble the other side and torque to proper value as listed below. Please review the photos above for proper alignment

### Exploded View for SDP 06 Pump



## Bill of Materials for SDP 06 ALS Pumps

| ITEM NO. | PART NUMBER | DESCRIPTION              | QTY |
|----------|-------------|--------------------------|-----|
| 1        | 179 10 01   | HOUSING                  | 1   |
| 2        | 179 10 05   | LIQUID CHAMBER           | 2   |
| 3        | 179 98 04   | INLET & OUTLET WITH PLUG | 2   |
| 4        | 179 10 07   | OUTER FLANGE WITH STUD   | 2   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE  | 2   |
| 6        | 179 20 03   | INNER FLANGE             | 2   |
| 7        | 179 90 05   | SPIRAL SNAP RING         | 1   |
| 8        | 179 31 01   | CLAMP                    | 4   |
| 9        | 179 31 02   | FOOT                     | 2   |
| 10       | 179 36 05   | VALVE BALL               | 4   |
| 11       | 179 20 02   | BALL SEAT                | 2   |
| 12       | 179 41 01   | DIAPHRAGM (SANTOPRENE)   | 2   |
| 13       | 179 36 06   | O' RING (PTFE)           | 4   |
| 14       | 179 36 07   | O' RING (PTFE)           | 2   |
| 15       | 179 90 02   | HEX BOLT                 | 4   |
| 16       | 179 90 08   | HEX NUT                  | 4   |
| 16A      | 195 90 54   | HEX NUT                  | 8   |
| 17       | 469 90 21S  | BOLT                     | 8   |
| 17A      | 171 27 23S  | WASHER                   | 8   |
| 18       | 175 90 05S  | HEX NUT                  | 8   |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY    | 1   |
| 20       | 179 90 06S  | CSK SCREW                | 4   |
| 21       | 179 10 02   | AIR VALVE BODY           | 1   |
| 22       | 179 10 03   | END CAP                  | 1   |
| 23       | 179 40 03   | O RING                   | 1   |

| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|---------------------|-----|
| 24       | 179 08 04   | MUFFLER             | 1   |
| 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps.  
The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 171 04 03   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 171 04 05   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |

## Bill of Materials for SDP 06 ALH Pumps

| ITEM NO. | PART NUMBER | DESCRIPTION              | QTY |
|----------|-------------|--------------------------|-----|
| 1        | 179 10 01   | HOUSING                  | 1   |
| 2        | 179 10 05   | LIQUID CHAMBER           | 2   |
| 3        | 179 98 04   | INLET & OUTLET WITH PLUG | 2   |
| 4        | 179 10 07   | OUTER FLANGE WITH STUD   | 2   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE  | 2   |
| 6        | 179 20 03   | INNER FLANGE             | 2   |
| 7        | 179 90 05   | SPIRAL SNAP RING         | 1   |
| 8        | 179 31 01   | CLAMP                    | 4   |
| 9        | 179 31 02   | FOOT                     | 2   |
| 10       | 179 36 05   | VALVE BALL               | 4   |
| 11       | 179 20 02   | BALL SEAT                | 2   |
| 12       | 179 43 01   | DIAPHRAGM (HYTREL)       | 2   |
| 13       | 179 36 06   | O' RING (PTFE)           | 4   |
| 14       | 179 36 07   | O' RING (PTFE)           | 2   |
| 15       | 179 90 02   | HEX BOLT                 | 4   |
| 16       | 179 90 08   | HEX NUT                  | 4   |
| 16A      | 195 90 54   | HEX NUT                  | 8   |
| 17       | 469 90 21S  | BOLT                     | 8   |
| 17A      | 171 27 23S  | WASHER                   | 8   |
| 18       | 175 90 05S  | HEX NUT                  | 8   |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY    | 1   |
| 20       | 179 90 06S  | CSK SCREW                | 4   |
| 21       | 179 10 02   | AIR VALVE BODY           | 1   |
| 22       | 179 10 03   | END CAP                  | 1   |
| 23       | 179 40 03   | O RING                   | 1   |

| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|---------------------|-----|
| 24       | 179 08 04   | MUFFLER             | 1   |
| 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps.  
The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 171 04 03   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 171 04 05   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |

## Bill of Materials for SDP 06 ALT Pumps

| ITEM NO. | PART NUMBER | DESCRIPTION                  | QTY |
|----------|-------------|------------------------------|-----|
| 1        | 179 10 01   | HOUSING                      | 1   |
| 2        | 179 10 05   | LIQUID CHAMBER               | 2   |
| 3        | 179 98 04   | INLET & OUTLET WITH PLUG     | 2   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE      | 2   |
| 6        | 179 20 03   | INNER FLANGE                 | 2   |
| 7        | 179 90 05   | SPIRAL SNAP RING             | 1   |
| 8        | 179 31 01   | CLAMP                        | 4   |
| 9        | 179 31 02   | FOOT                         | 2   |
| 10       | 179 36 05   | VALVE BALL                   | 4   |
| 11       | 179 20 02   | BALL SEAT                    | 2   |
| 12       | 179 36 04   | DIAPHRAGM WITH FLANGE (PTFE) | 2   |
| 12A      | 179 40 10   | O RING-BACK UP               | 2   |
| 13       | 179 36 06   | O' RING (PTFE)               | 4   |
| 14       | 179 36 07   | O' RING (PTFE)               | 2   |
| 15       | 179 90 02   | HEX BOLT                     | 4   |
| 16       | 179 90 08   | HEX NUT                      | 4   |
| 16A      | 195 90 54   | HEX NUT                      | 8   |
| 17       | 469 90 21S  | BOLT                         | 8   |
| 17A      | 171 27 23S  | WASHER                       | 8   |
| 18       | 175 90 05S  | HEX NUT                      | 8   |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY        | 1   |
| 20       | 179 90 06S  | CSK SCREW                    | 4   |
| 21       | 179 10 02   | AIR VALVE BODY               | 1   |
| 22       | 179 10 03   | END CAP                      | 1   |
| 23       | 179 40 03   | O RING                       | 1   |

| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|---------------------|-----|
| 24       | 179 08 04   | MUFFLER             | 1   |
| 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps. The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 171 04 03   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 171 04 05   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |



## Bill of Materials for SDP 06 SSS Pumps

| ITEM NO. | PART NUMBER | DESCRIPTION              | QTY |
|----------|-------------|--------------------------|-----|
| 1        | 179 07 01   | HOUSING                  | 1   |
| 2        | 179 07 02   | LIQUID CHAMBER           | 2   |
| 3        | 179 98 04S  | INLET & OUTLET WITH PLUG | 2   |
| 4        | 179 27 03   | OUTER FLANGE WITH STUD   | 2   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE  | 2   |
| 6        | 179 20 03   | INNER FLANGE             | 2   |
| 7        | 179 90 05   | SPIRAL SNAP RING         | 1   |
| 8        | 179 82 01   | CLAMP                    | 4   |
| 9        | 179 82 02   | FOOT                     | 2   |
| 10       | 179 36 05   | VALVE BALL               | 4   |
| 11       | 179 27 05   | BALL SEAT                | 2   |
| 12       | 179 41 01   | DIAPHRAGM (SANTOPRENE)   | 2   |
| 13       | 179 36 06   | O' RING (PTFE)           | 4   |
| 14       | 179 36 07   | O' RING (PTFE)           | 2   |
| 15       | 179 90 02S  | HEX BOLT                 | 4   |
| 16       | 179 90 08S  | HEX NUT                  | 12  |
| 17       | 469 90 21S  | BOLT                     | 8   |
| 17A      | 171 27 23S  | WASHER                   | 8   |
| 18       | 175 90 05S  | HEX NUT                  | 8   |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY    | 1   |
| 20       | 179 90 06S  | CSK SCREW                | 4   |
| 21       | 179 10 02   | AIR VALVE BODY           | 1   |
| 22       | 179 10 03   | END CAP                  | 1   |
| 23       | 179 40 03   | O RING                   | 1   |

| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|---------------------|-----|
| 24       | 179 08 04   | MUFFLER             | 1   |
| 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps.  
The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 179 07 04   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 612 07 19   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |

## Bill of Materials for SDP 06 SSH Pumps

| ITEM NO. | PART NUMBER | DESCRIPTION              | QTY |
|----------|-------------|--------------------------|-----|
| 1        | 179 07 01   | HOUSING                  | 1   |
| 2        | 179 07 02   | LIQUID CHAMBER           | 2   |
| 3        | 179 98 04S  | INLET & OUTLET WITH PLUG | 2   |
| 4        | 179 27 03   | OUTER FLANGE WITH STUD   | 2   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE  | 2   |
| 6        | 179 20 03   | INNER FLANGE             | 2   |
| 7        | 179 90 05   | SPIRAL SNAP RING         | 1   |
| 8        | 179 82 01   | CLAMP                    | 4   |
| 9        | 179 82 02   | FOOT                     | 2   |
| 10       | 179 36 05   | VALVE BALL               | 4   |
| 11       | 179 27 05   | BALL SEAT                | 2   |
| 12       | 179 43 01   | DIAPHRAGM (HYTREL)       | 2   |
| 13       | 179 36 06   | O' RING (PTFE)           | 4   |
| 14       | 179 36 07   | O' RING (PTFE)           | 2   |
| 15       | 179 90 02S  | HEX BOLT                 | 4   |
| 16       | 179 90 08S  | HEX NUT                  | 12  |
| 17       | 469 90 21S  | BOLT                     | 8   |
| 17A      | 171 27 23S  | WASHER                   | 8   |
| 18       | 175 90 05S  | HEX NUT                  | 8   |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY    | 1   |
| 20       | 179 90 06S  | CSK SCREW                | 4   |
| 21       | 179 10 02   | AIR VALVE BODY           | 1   |
| 22       | 179 10 03   | END CAP                  | 1   |
| 23       | 179 40 03   | O RING                   | 1   |

| ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|---------------------|-----|
| 24       | 179 08 04   | MUFFLER             | 1   |
| 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps.  
The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 179 07 04   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 612 07 19   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |

## Bill of Materials for SDP 06 SST Pumps

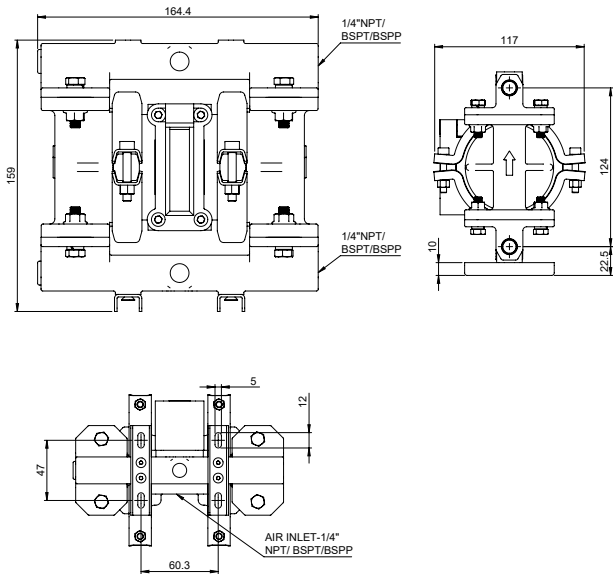
| ITEM NO. | PART NUMBER | DESCRIPTION                  | QTY | ITEM NO. | PART NUMBER | DESCRIPTION         | QTY |
|----------|-------------|------------------------------|-----|----------|-------------|---------------------|-----|
| 1        | 179 07 01   | HOUSING                      | 1   | 24       | 179 08 04   | MUFFLER             | 1   |
| 2        | 179 07 02   | LIQUID CHAMBER               | 2   | 25       | 179 90 01S  | ALLEN BOLT          | 4   |
| 3        | 179 98 04S  | INLET & OUTLET WITH PLUG     | 2   | 26       | 179 40 06   | SKELETON SEAL       | 1   |
| 5        | 179 21 01   | SPACER FOR INNER FLANGE      | 2   | 27       | 179 98 01   | SPOOL ASSEMBLY      | 1   |
| 6        | 179 20 03   | INNER FLANGE                 | 2   | 28       | 179 98 02   | PRIMARY SHAFT ASSLY | 1   |
| 7        | 179 90 05   | SPIRAL SNAP RING             | 1   |          |             |                     |     |
| 8        | 179 82 01   | CLAMP                        | 4   |          |             |                     |     |
| 9        | 179 82 02   | FOOT                         | 2   |          |             |                     |     |
| 10       | 179 36 05   | VALVE BALL                   | 4   |          |             |                     |     |
| 11       | 179 27 05   | BALL SEAT                    | 2   |          |             |                     |     |
| 12       | 179 36 04   | DIAPHRAGM WITH FLANGE (PTFE) | 2   |          |             |                     |     |
| 12A      | 179 40 10   | O RING-BACK UP               | 2   |          |             |                     |     |
| 13       | 179 36 06   | O' RING (PTFE)               | 4   |          |             |                     |     |
| 14       | 179 36 07   | O' RING (PTFE)               | 2   |          |             |                     |     |
| 15       | 179 90 02S  | HEX BOLT                     | 4   |          |             |                     |     |
| 16       | 179 90 08S  | HEX NUT                      | 12  |          |             |                     |     |
| 17       | 469 90 21S  | BOLT                         | 8   |          |             |                     |     |
| 17A      | 171 27 23S  | WASHER                       | 8   |          |             |                     |     |
| 18       | 175 90 05S  | HEX NUT                      | 8   |          |             |                     |     |
| 19       | 179 98 03   | SECONDARY SHAFT ASSLY        | 1   |          |             |                     |     |
| 20       | 179 90 06S  | CSK SCREW                    | 4   |          |             |                     |     |
| 21       | 179 10 02   | AIR VALVE BODY               | 1   |          |             |                     |     |
| 22       | 179 10 03   | END CAP                      | 1   |          |             |                     |     |
| 23       | 179 40 03   | O RING                       | 1   |          |             |                     |     |

### Note.

Above all parts are common for CR (NPT), CG (BSPT) & CP (BSPP) Pumps.  
The additional parts for CG (BSPT) & CP (BSPP) pumps model are as follows

| ITEM NO | PART NUMBER | DESCRIPTION          | CG MODELS | CP MODELS |
|---------|-------------|----------------------|-----------|-----------|
| 29      | 179 07 04   | Adaptor 1/4" BSPT(F) | 2         |           |
| 29      | 612 07 19   | Adaptor 1/4" BSPP(F) |           | 2         |
| 30      | 811 04 03   | Adaptor 1/8" BSPT(F) | 1         |           |
| 30      | 179 04 01   | Adaptor 1/8" BSPP(F) |           | 1         |

### Dimensional Data



SDP 06 AL/S/H/T

### Repair Kits for SDP 06 ALX/SSX Pumps

Repair Kits consist of everything you need to quickly restore the pump. Repair Kits contain one set of Diaphragms, one set of balls, one set of seats or seats+Orings, secondary shaft complete with seals, air valve spool complete with fitted seals, all gaskets, end caps with fitted rings and other wear parts needed to rebuild the pump. Repair kits are threading independant

| Repair KIT Ordering No | Suitable for     |
|------------------------|------------------|
| 179 97 04S             | SDP 06 ALS / SSS |
| 179 97 04H             | SDP 06 ALH / SSH |
| 179 97 04T             | SDP 06 ALT / SST |

### Air Valve Replacement Kits for SDP 06 ALX Pumps

Air Valve Replacement Kit consists of a complete operational air valve assembly complete. Consisting of Air Valve Body, End Plates, Spool and all seals, o rings and gaskets.

| Replacement KIT Ordering No | Suitable for  |
|-----------------------------|---|
| 179 97 03                   | NPT Fitted ALX Pumps With Any Diaphragm Variant<br>BSPT Fitted ALX Pumps With Any Diaphragm Variant<br>BSPP Fitted ALX Pumps With Any Diaphragm Variant |

### Air Valve Replacement Kits for SDP 06 SSX Pumps

Air Valve Replacement Kit consists of a complete operational air valve assembly complete. Consisting of Air Valve Body, End Plates, Spool and all seals, o rings and gaskets.

| Repair KIT Ordering No | Suitable for  |
|------------------------|---|
| 179 97 05              | NPT Fitted SSX Pumps With Any Diaphragm Variant<br>BSPT Fitted SSX Pumps With Any Diaphragm Variant<br>BSPP Fitted SSX Pumps With Any Diaphragm Variant |

### Repair and Replacement Kits

| ITEM NO. | PART NO.   | DESCRIPTION                  | AL                        | SS                        | ALX/SSX Pumps       |                     |                     |
|----------|------------|------------------------------|---------------------------|---------------------------|---------------------|---------------------|---------------------|
|          |            |                              | 179 97 03 replacement Kit | 179 97 05 replacement kit | Repair Kit 1799704S | Repair Kit 1799704H | Repair Kit 1799704T |
| 7        | 179 90 05  | SPIRAL SNAP RING             |                           |                           | 1                   | 1                   | 1                   |
| 10       | 179 36 05  | VALVE BALL                   |                           |                           | 4                   | 4                   | 4                   |
| 12       | 179 41 01  | DIAPHRAGM (SANTOPRENE)       |                           |                           | 2                   |                     |                     |
| 12       | 179 43 01  | DIAPHRAGM (HYTREL)           |                           |                           |                     | 2                   |                     |
| 12       | 179 36 04  | DIAPHRAGM WITH FLANGE (PTFE) |                           |                           |                     |                     | 2                   |
| 12A      | 179 40 10  | O RING-BACK UP               |                           |                           |                     |                     | 2                   |
| 13       | 179 36 06  | O' RING (PTFE)               |                           |                           | 4                   | 4                   | 4                   |
| 14       | 179 36 07  | O' RING (PTFE)               |                           |                           | 4                   | 4                   | 4                   |
| 16       | 179 90 08S | HEX NUT                      | 4                         | 4                         |                     |                     |                     |
| 19       | 179 98 03  | SECONDARY SHAFT ASSLY        |                           |                           | 1                   | 1                   | 1                   |
| 21       | 179 10 02  | AIR VALVE BODY               | 1                         |                           |                     |                     |                     |
| 21       | 179 27 01  | AIR VALVE BODY               |                           | 1                         |                     |                     |                     |
| 22       | 179 10 03  | END CAP                      | 1                         |                           |                     |                     |                     |
| 22       | 179 27 02  | END CAP                      |                           | 1                         |                     |                     |                     |
| 23       | 179 40 03  | O RING                       | 1                         | 1                         | 1                   | 1                   | 1                   |
| 24       | 179 08 04  | MUFFLER                      | 1                         | 1                         | 1                   | 1                   | 1                   |
| 25       | 179 90 01S | ALLEN BOLT                   | 4                         | 4                         | 4                   | 4                   | 4                   |
| 26       | 179 40 06  | SKELETON SEAL                | 1                         | 1                         | 1                   | 1                   | 1                   |
| 27       | 179 98 01  | SPOOL ASSEMBLY               | 1                         | 1                         | 1                   | 1                   | 1                   |
| 28       | 179 98 02  | PRIMARY SHAFT ASSLY          |                           |                           | 1                   | 1                   | 1                   |

## EU DECLARATION OF CONFORMITY

### Object of declaration

**PRODUCT** : AIR OPERATED DOUBLE DIAPHRAGM PUMP

**MODEL** :

**MANUFACTURER'S NAME** : TERYAIR EQUIPMENT PVT. LTD.

**ADDRESS** : SITE - 1 : BUILDING A - 1/2, 102 TO 105 & BUILDING C 12 & 13,  
TIRUPATI UDYOG NAGAR, SATIVALI ROAD, VASAI (E),  
PALGHAR: 401208.  
SITE - 2: AUGUSTINE - II, COLACO INDUSTRIAL COMPLEX,  
GALA NO - 101 TO 107, SATIVALI ROAD, VILLAGE WALIV,  
VASAI (E), PALGHAR: 401208

To provide presumption of conformity in order to directive 2014/34/EU; the following harmonized standards and/or other normative documents as referenced within the following official journals are applied:

**APPLICABLE DIRECTIVE: ATEX DIRECTIVE (2014/34/EU)**

#### APPLICABLE STANDARDS:

**EN ISO 80079-36: 2016** : Explosive atmospheres —Part 36: Non-electrical equipment for explosive atmospheres —Basic method and requirements.

**EN ISO 80079-37:2016** : Explosive atmospheres —Part 37: Non-electrical equipment for explosive atmospheres —Non- electrical type of protection constructional safety 'c', control of ignition sources 'b', liquid immersion 'k'.

**Notified body to whom Technical file has logged with: - Technicka Inspekcia (Ref: 1354).**

**DECLARATION: - TERYAIR EQUIPMENT PVT. LTD.,** declare that under our sole responsibility for the supply of the product defined above, the said product complies with all the applicable Directives, Regulations and all essential Health and Safety requirements applying to it.

I, the undersigned, hereby declare that the product specified above conforms to the above standard(s).



**ATEX MARKING APPLIED** :

Please Refer ATEX Rating for **Teryair Aodd Models Table**

Signed for and on behalf of

TERYAIR EQUIPMENT PVT. LTD.

Place of Issue:

Date:

**SUMMARY FOR THE ATEX RATING FOR TERYAIR AODD MODELS**

| Pump Size    | Series   | Wetted Materials            | Center Section  | Diphargm Materials | ATEX Rating  |
|--------------|----------|-----------------------------|-----------------|--------------------|--|
| 06<br>(1/4") | SDP      | Aluminium                   | Aluminium       | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                  |
|              |          |                             |                 | Buna-N             |  |
|              |          |                             |                 | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                 |
|              |          |                             |                 | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                 |
|              |          |                             |                 | Hytrel             |  |
|              |          | PTFE                        |                 |                    |  |
|              |          | Stainless Steel             | Stainless Steel | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db<br><b>I M2 Ex h I Mb (IP65)</b>         |
|              |          |                             |                 | Buna-N             |  |
|              |          |                             |                 | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b> |
|              |          |                             |                 | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b> |
| Hytrel       |          |                             |                 |                    |  |
| PTFE         |          |                             |                 |                    |  |
| 12<br>(1/2") | DP/SDP   | Aluminium                   | Aluminium       | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                  |
|              |          |                             |                 | Buna-N             |  |
|              |          |                             |                 | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                 |
|              |          |                             |                 | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                 |
|              |          |                             |                 | Hytrel             |  |
|              | PTFE     |                             |                 |                    |  |
|              | SDP      | Stainless Steel             | Stainless Steel | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db<br><b>I M2 Ex h I Mb (IP65)</b>         |
|              |          |                             |                 | Buna-N             |  |
|              |          |                             |                 | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b> |
|              |          |                             |                 | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b> |
| Hytrel       |          |                             |                 |                    |  |
| PTFE         |          |                             |                 |                    |  |
| 25 (1")      | DP / SDP | Aluminium / Stainless Steel | Aluminium       | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                  |
|              |          |                             |                 | Buna-N             |  |
|              |          |                             |                 | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                 |
|              |          |                             |                 | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                 |
|              |          |                             |                 | Hytrel             |  |
| PTFE         |          |                             |                 |                    |  |



**SUMMARY FOR THE ATEX RATING FOR TERYAIR AODD MODELS**

| Pump Size      | Series      | Wetted Materials                 | Center Section | Diphargm Materials | ATEX Rating  |
|----------------|-------------|----------------------------------|----------------|--------------------|--|
| 40<br>(1-1/2") | DP /<br>SDP | Aluminium / Stain-<br>less Steel | Aluminium      | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                    |
|                |             |                                  |                | Buna-N             |  |
|                |             |                                  |                | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                   |
|                |             |                                  |                | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                   |
|                |             |                                  |                | Hytrel             |  |
|                |             |                                  |                | PTFE               |  |
| 50 (2")        | DP /<br>SDP | Aluminium / Stain-<br>less Steel | Aluminium      | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                    |
|                |             |                                  |                | Buna-N             |  |
|                |             |                                  |                | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                   |
|                |             |                                  |                | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                   |
|                |             |                                  |                | Hytrel             |  |
|                | PTFE        |                                  |                |                    |  |
|                | SDP         | Cast Iron                        | Cast Iron      | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db<br><b>I M2 Ex h I Mb (IP65)</b>           |
|                |             |                                  |                | Buna-N             |  |
|                |             |                                  |                | Viton-FKM          | "II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)"</b> |
|                |             |                                  |                | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b>   |
| Hytrel         |             |                                  |                |                    |  |
| PTFE           |             |                                  |                |                    |  |
| 75 (3")        | DP /<br>SDP | Aluminium                        | Aluminium      | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db (IP65)                                    |
|                |             |                                  |                | Buna-N             |  |
|                |             |                                  |                | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)                                   |
|                |             |                                  |                | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)                                   |
|                |             |                                  |                | Hytrel             |  |
|                | PTFE        |                                  |                |                    |  |
|                | SDP         | Cast Iron                        | Cast Iron      | Neoprene           | II 2 GD Ex h IIC T6 Gb<br>Ex h IIIC T85°C Db<br><b>I M2 Ex h I Mb (IP65)</b>           |
|                |             |                                  |                | Buna-N             |  |
|                |             |                                  |                | Viton-FKM          | II 2 GD Ex h IIC T3 Gb<br>Ex h IIIC T200°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b>   |
|                |             |                                  |                | Sentoprene         | II 2 GD Ex h IIC T5 Gb<br>Ex h IIIC T100°C Db (IP65)<br><b>I M2 Ex h I Mb (IP65)</b>   |
|                |             |                                  |                | Hytrel             |  |
| PTFE           |             |                                  |                |                    |  |



# Warranty Certificate

Every product manufactured by Teryair  
is built to meet the highest standards of quality.

Teryair warrants that the Products, accessories and parts manufactured or supplied by the company be free from defects in material and workmanship for a period of six months from date of Teryair authorized dealer invoice to customer, or one year from date of Teryair invoice to dealer, whichever is earlier. Failure due to normal wear, misapplication, or abuse is, of course, excluded from this warranty.

Since the use of Teryair products and parts is beyond our control, Teryair cannot guarantee the suitability of any product or part for a particular application and Teryair shall not be liable for any consequential damage or expense arising from the use or misuse of its products on any application. Teryair does not warranty bought out products or components such as electric motors and hardware but will assist in directing warranty queries to the dealer/manufacturer responsible. Teryair responsibility is limited solely to replacement or repair of defective Teryair products or components.

Dealer/End User shall have no right or remedy and Teryair shall have no liability or obligation under the warranty, if: (i) a Product is altered, changed, modified or tampered with in any way, (ii) a Product is damaged after deposit with the transporter for shipment; (iii) a Product is not properly preserved, packaged, stored, processed or handled after receipt; (iv) a Product is not used and maintained in accordance with Teryair's recommended operating and maintenance manuals, instructions and procedures, if any; (v) a Product is not properly incorporated or installed in, or not properly combined with, an Other Product; (vi) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, a failure, substandard performance or other issue with another product, material, component or part not supplied by Teryair; (vii) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, compliance with any design, specification or other specific requirement of Dealer/End User; (viii) a Product is used in a manner, with a substance or for a purpose other than the normal manner, substance and purpose for which it is intended or is otherwise subjected to abnormal use or service; (ix) a Product is subjected to a power surge, brown out or other similar occurrence; (x) the issue with a Product is directly or indirectly attributable to, or directly or indirectly results from or arises out of, normal wear and tear of such Product (including, without limitation, things such as worn seals, diaphragms, balls, O rings, gaskets, chisels, cutters, hoses and other such wearing components; (xi) the issue with a Product is directly or indirectly.

Model Number :  
Serial Number :  
Dated :

Ajay Bhagat, Q.A. Manager  
(Company Seal)

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