Here is a line of remarkably rugged and durable self-priming, double diaphragm pumps. Lube-free and non-stalling, all models will handle any product that pours, from clear water to highly viscous, abrasive and chemically aggressive materials. Proven to handle suspended solids and abrasives without damage to the product or the pump.

The unique pump design utilizes far fewer parts than other pumps on the market. This results in longer operating life and easier maintenance at a lower cost.

Since these pumps are driven by compressed air, there is no need for shielded electrical connections or explosion-proof motors. All models can run dry because there are no close fitting or sliding parts in the fluid section. Flow rates can be controlled to produce from zero to maximum flow simply by increasing or decreasing air flow or pressure.

Here are some specifications:

**Capacity:**
- Adjustable ............ 0 to 4.3 GPM (16.3 liters/min.)
- Maximum temperature:
  - PVDF model .................. 200°F (93°C)
  - Other models .................. 150°F (66°C)
- Maximum air pressure:
  - All models ..................... 100 PSI (6.8 bars)
- Dry lift capacity @ 100 PSI (6.8 bars): 15 ft. (4.5 meters)
- Maximum solids: .................. 1/16" (1.6 mm)
- Air supply:
  - Inlet .................................. 1/4" NPT
  - Outlet .................................. 1/4" NPT
  - Fluid inlet / discharge: ............. 1/4" NPT

**PLASTIC MODELS:**
- PPBN-1/4
- PPBTF-1/4
- PPBL-1/4
- NSSBTF-1/4
- NBTF-1/4
- KBTF-1/4
- KBL-1/4
**AIR OPERATED DIAPHRAGM PUMP Specifications**

### 1/2" BOLTED

**SPECIFICATIONS**
- **Capacity:** Adjustable 0-17 GPM (64.6 liters/min.)
- **Maximum temperature:**
  - PVDF, AL and SS models 200°F (93°C)
  - Other models 150°F (66°C)
- **Minimum air pressure:** 20 PSI (1.4 bars)
- **Maximum air pressure:** 120 PSI (8.0 bars)
- **Dry lift capacity @ 120 PSI (8.0 bars):** 10 ft. (3 meters)
- **Maximum solids:** 1/8" (3.2 mm)
- **Air supply:** 1/4" FNPT
- **Fluid inlet / discharge:** 1/2" FNPT (FBSP available. Specify when ordering.)

- Stock models have a side port. Optional center, top or dual ports must be specified when ordering. Fluid is not separated within the single piece manifold when dual ports are specified.

### 1/2" BAND CLAMP

**SPECIFICATIONS**
- **Capacity:** Adjustable 0 - 14 GPM (53.2 liters/min.)
- **Maximum temperature:**
  - PVDF model 200°F (93°C)
  - Other models 150°F (66°C)
- **Minimum air pressure:** 20 PSI (1.4 bars)
- **Maximum air pressure:** 100 PSI (6.8 bars)
- **Dry lift capacity @ 100 PSI (6.8 bars):** 10 ft. (3 meters)
- **Maximum solids:** 1/8" (3.2 mm)
- **Air supply:** 1/4" FNPT
- **Fluid inlet / discharge:** 1/2" FNPT

**PLASTIC MODELS:** PPBN-1/2, PPBTF-1/2, PPBL-1/2, PPBV-1/2, NBTF-1/2, KBTF-1/2, KBL-1/2, KBV-1/2, NSSBTF-1/2

**METALLIC MODELS:** ALBN-1/2, ALBTF-1/2, ALBL-1/2, SSBTF-1/2, SSBL-1/2, SSBN-1/2

---

```
# DISCHARGE FLOW-Liters/Min.
0  2  4  6  8  10  12  14  16  18  20
120 (8,2) 100 (6,8) 80 (5,4) 60 (4,1) 40 (2,7) 20 (1,3)

# DISCHARGE FLOW-U.S. Gals./Min.
15,1 22,7 30,3 37,9 45,4 53,0 60,6 68,1

# AIR CONSUMPTION (SCFM)
7,6 15,1 22,7 30,3 37,9 45,4 53,0 60,6 68,1

# AIR PRESSURE (PSI)
276 (83,9) 230 (69,9) 184 (55,9) 138 (41,9) 92 (27,9) 46 (13,9)
```

---

**TOTAL HEAD IN FEET (METERS)**

- 0  2  4  6  8  10  12  14  16  18  20
- 276 (83,9) 230 (69,9) 184 (55,9) 138 (41,9) 92 (27,9) 46 (13,9)

---

**DISCHARGE FLOW-Liters/Min.**

- 0  2  4  6  8  10  12  14  16  18  20
- 120 (8,2) 100 (6,8) 80 (5,4) 60 (4,1) 40 (2,7) 20 (1,3)

---

**DISCHARGE FLOW-U.S. Gals./Min (GPM)**

- 0  2  4  6  8  10  12  14  16  18  20
- 15,1 22,7 30,3 37,9 45,4 53,0 60,6 68,1

---

**DISCHARGE FLOW-Liters/Min.**

- 0  2  4  6  8  10  12  14  16  18  20
- 120 (8,2) 100 (6,8) 80 (5,4) 60 (4,1) 40 (2,7) 20 (1,3)

---

**DISCHARGE FLOW-U.S. Gals./Min (GPM)**

- 0  2  4  6  8  10  12  14  16  18  20
- 15,1 22,7 30,3 37,9 45,4 53,0 60,6 68,1

---

**AIR CONSUMPTION (SCFM)**

- 0  2  4  6  8  10  12  14  16  18  20
- 7,6 15,1 22,7 30,3 37,9 45,4 53,0 60,6 68,1

---

**AIR PRESSURE (PSI)**

- 0  2  4  6  8  10  12  14  16  18  20
- 276 (83,9) 230 (69,9) 184 (55,9) 138 (41,9) 92 (27,9) 46 (13,9)
**1" BOLTED**

**PLASTIC MODELS:** PPBN-1, PPBTF-1, PPBL-1, PPBV-1
KTBF-1, KBL-1, KBV-1

**METALLIC MODELS:** ALBN-1, ALBTB-1, ALBL-1,
SSBTF-1, SSBL-1, SSBN-1

**SPECIFICATIONS**

- **Capacity:** Adjustable .............................................. 0 to 41 GPM (156 liters/min.)
- **Maximum temperature:**
  - PVDF, AL and SS models .................................................200°F (93°C)
  - Other models..............................................................150°F (66°C)
- **Minimum air pressure:** ....................................................20 PSI (1.4 bar)
- **Maximum pressure:** ................................................120 PSI (8.0 bars)
- **Dry lift capacity @ 120 PSI (8.0 bars):**
  - Models w/TFE balls.......................................................10 ft. (3 meters)
  - Other models.............................................................15 ft. (4.5 meters)
- **Maximum solids:** ..........................................................1/4" (6.4 mm)
- **Air supply:**
  - Inlet.............................................................. 1/4" FNPT
  - Outlet.............................................................. 3/8" FNPT
- **Fluid inlet / discharge:**
  - Plastic Models.............................................. 1" Flange ANSI/DIN compatible
  - Metallic Models......................................................1" NPT

**DISCHARGE FLOW-Liters/Min.**

- **TOTAL HEAD IN FEET (METERS)**

**1" BAND CLAMP**

**PLASTIC MODELS:** PPN-1, PPTF-1, PPL-1,
NTF-1, KTF-1,

**SPECIFICATIONS**

- **Capacity:** Adjustable .............................................. 0 to 40 GPM (152 liters/min.)
- **Maximum temperature:**
  - PVDF model..............................................................200°F (93°C)
  - Other models..............................................................150°F (66°C)
- **Maximum air pressure:**
  - PVDF model..............................................................70 PSI (4.8 bars)
  - Other models..............................................................100 PSI (6.8 bars)
- **Dry lift capacity @ 100 PSI (6.8 bars):**
  - Models w/TFE balls.......................................................10 ft. (3 meters)
  - Other models.............................................................15 ft. (4.5 meters)
- **Maximum solids:** ..........................................................1/4" (6.4 mm)
- **Air supply:**
  - Inlet.............................................................. 1/4" FNPT
  - Outlet.............................................................. 3/4" FNPT

**Air flow control valve on plastic pumps, 1/4" FNPT**

**Fluid inlet / discharge:**

- Plastic Models..............................................................1" FNPT
1-1/2" BAND CLAMP

PLASTIC MODELS: PPN-1½, PPTF-1½, PPL-1½, KTF-1½, KL-1½
METALLIC MODELS: ALN-1½, ALTF-1½, ALL-1½, SSTF-1½, SSL-1½, SSN-1½

SPECIFICATIONS

Capacity:
- Adjustable 0 to 95 GPM (360 liters/min.)

Maximum temperature:
- PVDF, AL & SS models: 200°F (93°C)
- Other models: 150°F (66°C)

Minimum air pressure:
- PVDF: 20 PSI (1.2 bars)
- Other models: 100 PSI (6.8 bars)

Dry lift capacity @ 100 PSI (6.8 bars):
- Plastic pumps: 10 ft. (3 meters)
- Metal pump: 1½" flange (38 mm) (ANSI & DIN compatible)

Maximum solids: 1/4" (6.4 mm)

Air supply:
- Inlet: 3/4" FNPT
- Outlet: 3/4" FNPT
(Air flow control valve on plastic pumps, 3/4" FNPT)

Fluid inlet / discharge:
- Plastic pumps: 1½" flange
- Metal pump: 1½" flange (38 mm)
(ANSI & DIN compatible)

BAND CLAMP

2" BAND CLAMP

PLASTIC MODELS: PPN-2, PPTF-2, PPL-2, NTF-2, KTF-2, KL-2
METALLIC MODELS: ALN-2, ALTF-2, ALL-2, SSTF-2, SSL-2, SSN-2

SPECIFICATIONS

Capacity:
- Adjustable 0 to 150 GPM (569 liters/min.)

Maximum temperature:
- PVDF, AL & SS models: 200°F (93°C)
- Other models: 150°F (66°C)

Minimum air pressure for AL & SS pumps:
- PVDF model: 30 PSI (2.0 bars)
- Other models: 100 PSI (6.8 bars)

Dry lift capacity @ 100 PSI (6.8 bars):
- Plastic pumps: 10 ft. (3 meters)
- Metal pump: 2" flange (51 mm) (ANSI & DIN compatible)

Maximum solids: 1/4" (6.4 mm)

Air supply:
- Inlet: 3/4" FNPT
- Outlet: 3/4" FNPT
(Air flow control valve on plastic pumps, 3/4" FNPT)

Fluid inlet / discharge:
- Plastic pumps: 2" flange
- Metal pump: 2" flange (51 mm) (ANSI & DIN compatible)
# AIR OPERATED DIAPHRAGM PUMP Specifications and ordering information

## BOLTED MODELS

<table>
<thead>
<tr>
<th>MODEL NUMBER *</th>
<th>MATERIAL OF CONSTRUCTION</th>
<th>PRICE CODE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPBN- * *</td>
<td>Polypropylene</td>
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<tr>
<td>PPBL- * *</td>
<td>Polypropylene</td>
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<tr>
<td>PPBV- * *</td>
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<td>KBTF- * *</td>
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* Insert pump size to complete Model Number: i.e. PPBN - 1/4

** See Material notes on page 6

## TO ORDER, Use Price Code No.

### BAND CLAMP MODELS

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<thead>
<tr>
<th>MODEL NUMBER</th>
<th>MATERIAL OF CONSTRUCTION</th>
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<td>PPBN- * *</td>
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<tr>
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<td>NBTF- * *</td>
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<tr>
<td>NSSBTF- *</td>
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<tr>
<td>SSBN- * *</td>
<td>Stainless steel</td>
<td></td>
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</tbody>
</table>

* Insert pump size to complete Model Number: i.e. PPN-1/2

** See Material notes on page 6
Material notes:
1. Geolast is a nitrile blend and is a replacement for Buna-N or Neoprene®. Use chemical resistance information for Buna-N.
2. Santoprene is an EPDM blend and is highly resistant to some acids and bases. Use the chemical resistance information for EPDM.
3. Aluminum pumps have polypropylene valve seats, except aluminum w/ TFE models which have nylon valve seats.
4. All pumps built with TFE contain a backup diaphragm of Santoprene.
5. NSSTF pumps are constructed of 316SS filled nylon and include ground / bond lugs.
6. Air system constructed of polypropylene, except nylon and aluminum w/TFE models which have nylon air systems.

General product notes:
1. All pumps are lube-free and non-stalling. A clean, dry compressed air supply is all that is needed.
2. BSP thread models available. Consult Sales Department.
3. Flanges, available on 1½" and 2" sizes only, are slotted for DIN or ANSI compatibility.

### SHIPPING WEIGHTS

<table>
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<tr>
<th>HOUSING MATERIAL</th>
<th>¼&quot; BOLTED</th>
<th>¼&quot; CLAMP</th>
<th>½&quot; BOLTED</th>
<th>½&quot; CLAMP</th>
<th>1&quot; BOLTED</th>
<th>1&quot; CLAMP</th>
<th>1½&quot; CLAMP</th>
<th>2&quot; CLAMP</th>
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<td>Aluminum</td>
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<tr>
<td>Stainless Steel</td>
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<td>45 (20.4)</td>
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<td>113 (51)</td>
<td>131 (59)</td>
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</tbody>
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### OPTIONAL EQUIPMENT

**ACCESSORY KIT for drum transfer applications**

Turns diaphragm pump into an ideal drum pump.

Includes: polypropylene or PVDF suction tube with 2" NPT polypropylene barrel adapter.

<table>
<thead>
<tr>
<th>PUMP SIZE</th>
<th>PRICE CODE NUMBER</th>
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<tbody>
<tr>
<td>PP</td>
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<tr>
<td>PVDF</td>
<td>44-7239</td>
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<tr>
<td>AL</td>
<td>44-7628</td>
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</tbody>
</table>

**AIR PRESSURE REGULATOR**

Tamper-proof design with special removable key. Maximum inlet pressure is 250 PSIG. Outlet pressure range is 5 to 125 PSIG.

<table>
<thead>
<tr>
<th>INLET FNPT</th>
<th>CFM @ 100 PSI</th>
<th>PRICE CODE NO.</th>
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<tbody>
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<td>79-0305</td>
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<td>50</td>
<td>79-0306</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>120</td>
<td>79-0307</td>
</tr>
</tbody>
</table>

Registered trademarks:
Viton - DuPont Dow Elastomers; Santoprene - Advanced Elastomer Systems, L.P.; Geolast - F.C. Witt Assoc., Inc.
Pulsation dampeners are uniquely designed to eliminate 97% of all types of fluid flow pressure spikes. The unwanted result of these pressure spikes is hydraulic shock, material foaming or material splashing.

Pulsation dampeners reliably protect diaphragm pumps, pipes, fittings and equipment from vibration and fatigue. Pumps and filter chambers last longer and are more reliable when they are not exposed to harmful fluid shock waves. Installation is easy. Connect to fluid line via tee and supply compressed air or nitrogen to charge the dampener.

The highly efficient dampening provided by these devices makes them ideal for use as a suction stabilizer on all types of pumps or after valves to also protect downstream equipment.

Pulsation dampeners come in two models — Manual adjustment for continuous dampening requirements and Automatic adjusting for variable pump discharge pressures. Models are available in three sizes.

### TYPICAL INSTALLATION

**SUCTION SIDE** -
Dampener acts as an accumulator to provide a close source of product when pump inlet check balls are opened. Helps prevent cavitation. Acts as a dampener when high inlet pressures are generated as pump's inlet check valves are closed. Minimizing stress and shock on pipes, fittings, manifolds and extends diaphragm life.

**DISCHARGE SIDE** -
Dampener acts as a shock absorber to minimize pulsations and water hammer. Should be mounted as close to pump discharge as possible to absorb shock at its source. Will prevent leaking joints and fittings due to pulsation. Allows meters to be used without damage and extends the life and reliability of pump components.

### TO ORDER

<table>
<thead>
<tr>
<th>NPT SIZE</th>
<th>MODEL</th>
<th>PRICE CODE NO.</th>
<th>MATERIAL</th>
<th>ADD TO MODEL NO.</th>
<th>ADD TO ADJUSTMENT</th>
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<th>ADD TO PRICE CODE NO.</th>
<th>ADD TO PRICE CODE NO.</th>
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<td>B</td>
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</tbody>
</table>
THERE'S A RIGHT SERFILCO PUMP FOR YOU!