

# Powerwise

Double Diaphragm Pumps

## Models 4042, 4043

### Non-Metallic Ball Valve

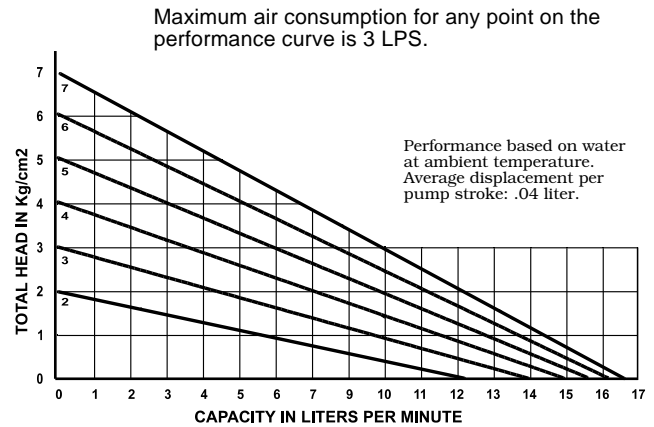
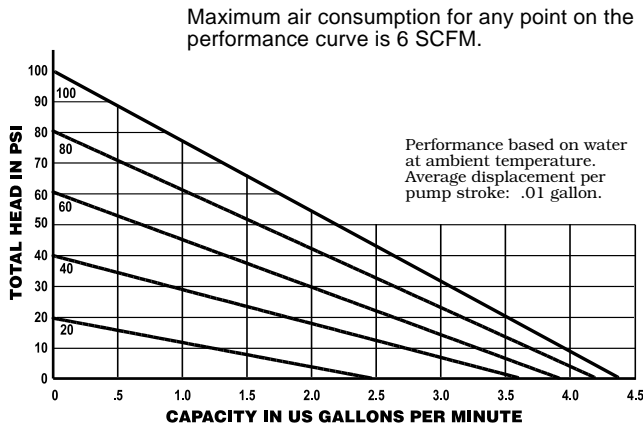
### Air-Powered Double-Diaphragm Pump

ENGINEERING, PERFORMANCE  
& CONSTRUCTION DATA

| INTAKE/DISCHARGE SIZE               | ADJUSTABLE FLOW  | AIR VALVE                 | SOLIDS HANDLING    | MAXIMUM SUCTION LIFT                           | MAXIMUM VISCOSITY      | HEADS UP TO  |
|-------------------------------------|--|---------------------------|--------------------|--|------------------------|--|
| ¼" (6mm) NPT(F)<br>½" (13mm) NPT(M) | 0 to 4 gallons per minute<br>(0 to 15 liters per minute) | No-lube, no-stall design. | Up to 1/32" (1 mm) | Dry 5.83 ft. (1.78m.)<br>Wet 25.5 ft. (7.77m.) | 10,000 SSU<br>2200 CPS | 100 psi or 230 ft. of water<br>(7 Kg/cm <sup>2</sup> or 70 meters) |

### PERFORMANCE CURVES

(Pumps are designed to be powered **only** by compressed air)  
 Temperature Limit: Polypropylene . . . . . +40°F (+4°C) min.  
 . . . . . +150°F (+66°C) max.



### MATERIALS OF CONSTRUCTION

| Model | Manifold | Outer Chamber | Outer Diaphragm Plate | Inner Diaphragm Plate | Intermediate Housing | Diaphragm Rod | Hardware  | Valve Seat | Diaphragm | Ball Valve Material | Air Valve | Cap | Shipping Weight (lbs) |
|-------|----------|---------------|-----------------------|-----------------------|----------------------|---------------|-----------|------------|-----------|---------------------|-----------|-----|-----------------------|
| 4043  | PP       | PP            | PP                    | 2011-AL               | PP*                  | 416SS         | 301/302SS | PP         | S         | S                   | PP*       | PP* | 4                     |
| 4042  | PP       | PP            | PP                    | 2011-AL               | PP*                  | 416SS         | 301/302SS | PP         | T         | T                   | PP*       | PP* | 4                     |

Vertical discharge is standard.  
 For optional horizontal discharge, order manifold 518-127-552 (polypropylene).  
 For optional vertical suction, order manifold 518-128-552 (polypropylene).

#### Meanings of Abbreviations:

AC = Acetal  
 AL = Aluminum  
 \*Designates Glass Filled

CA = Conductive Acetal  
 K = PVDF

PP = Polypropylene  
 SS = Stainless Steel

T = Teflon®/PFA  
 S = Santoprene®

Teflon® is a registered tradename of E.I. du Pont. Santoprene® is a registered tradename of Monsanto Corp.

#### No-Stall Air Valve Guarantee

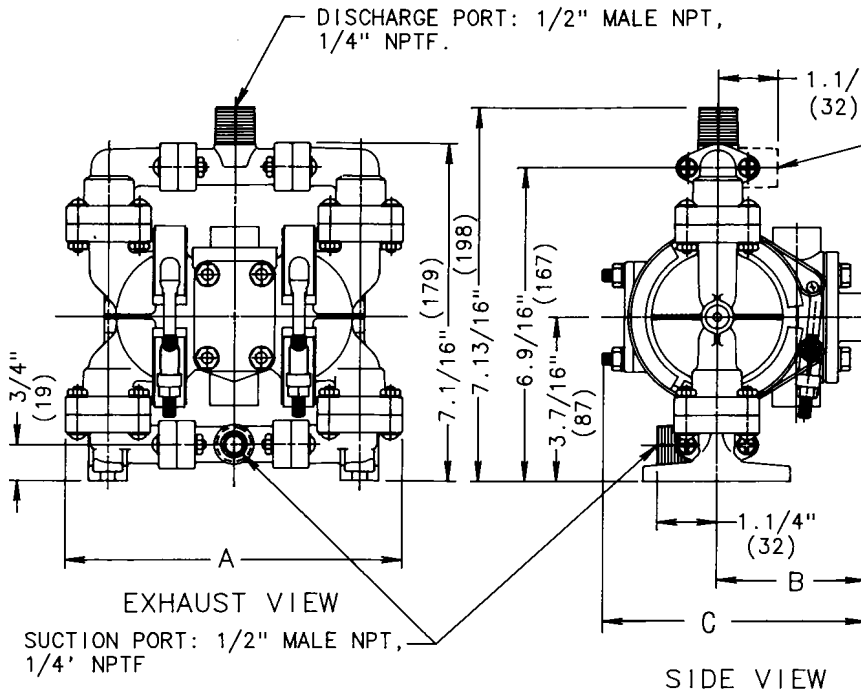
This pump is covered by a no-stall guarantee. If this pump should stall, it can be returned for repair, replacement or refund.

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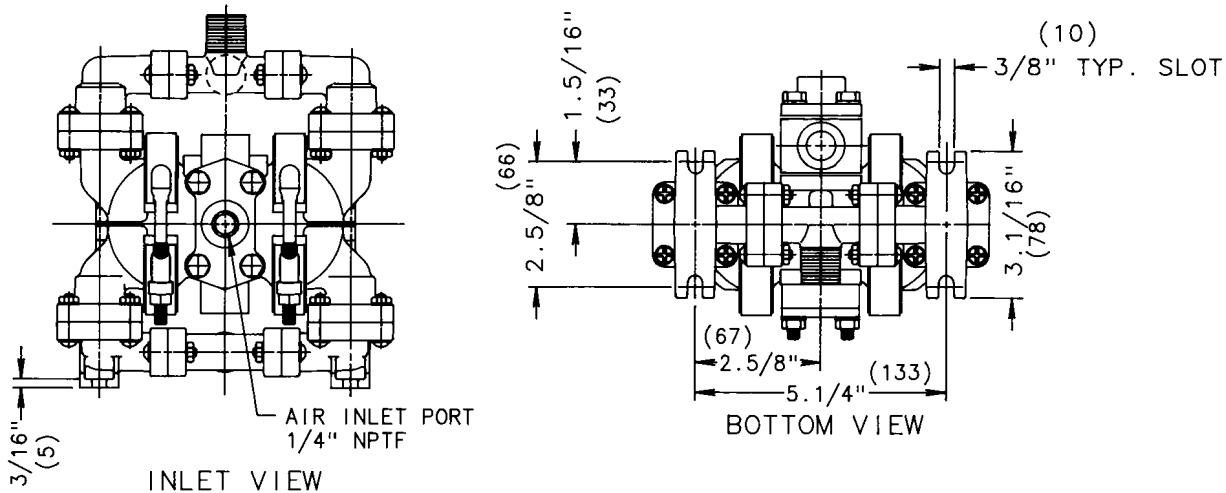
| MATERIALS  | Operating Temperatures  |                |                                |
|--|---|----------------|--------------------------------|
|  | Maximum*  | Minimum*       | Optimum**                      |
| <b>TEFLON®</b> Chemically inert, virtually impervious. Very few chemicals are known to chemically react with Teflon®: molten alkali metals, turbulent liquid or gaseous fluorine and a few fluoro-chemicals such as chlorine trifluoride or oxygen difluoride which readily liberate free fluorine at elevated temperatures. | 212°F+<br>100°C+  | -35°F<br>-37°C | 50°F to 212°F<br>10°C to 100°C |
| <b>SANTOPRENE®</b> Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.  | 212°F+<br>100°C+  | -10°F<br>-23°C | Insufficient data available    |
| For specific applications, always consult a "Chemical Resistance Chart".   | *Definite reduction in service life.<br>**Minimal reduction in service life at ends of range. |                |                                |

Dimensions are ± 1/8"  
Figures in parenthesis = millimeters

| Dimension     | A        | B           | C            |
|---------------|----------|-------------|--------------|
| Standard Pump | 7" (178) | 3.1/8" (79) | 5.1/2" (140) |



- SERVICE AND ACCESSORY KITS**
- 031-107-000 Main Air Valve Body Assembly
  - 031-101-000 Pilot Valve Assembly
  - 475-145-000 Air Exhaust Conversion Kit
  - 475-149-552 Pail Transfer Kit in Polypropylene
  - 476-117-354 Wetted End Kit Santoprene® Diaphragms & Balls
  - 476-117-600 Wetted End Kit Teflon® Diaphragms & Balls
  - 476-117-644 Wetted End Kit Santoprene® Diaphragms & Teflon® Balls
  - 476-122-000 Air End Kit



3/4" NPT(F) AND 1/2" NPT(M) SUCTION AND DISCHARGE • 1/4" NPT(F) AIR INLET PORT

Specifications are subject to improvement without notice.