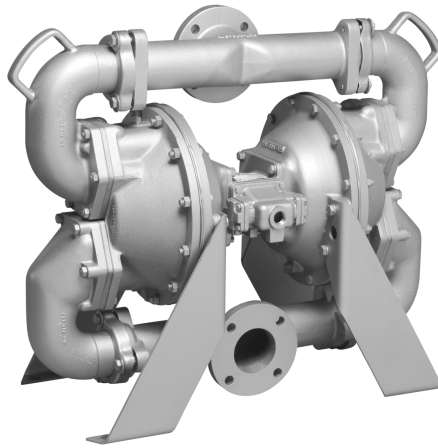


**WARREN RUPP®**

Quality System  
ISO9001 Certified

Environmental  
Management System  
ISO14001 Certified

**IDEX**  
IDEX CORPORATION



**Ex** II 2GD b T5

**CE**

**SANDPIPER®**

A WARREN RUPP PUMP BRAND

**Heavy Duty Flap Valve**

**HDF3-A Type 7**

**HDF4-A Type 7**

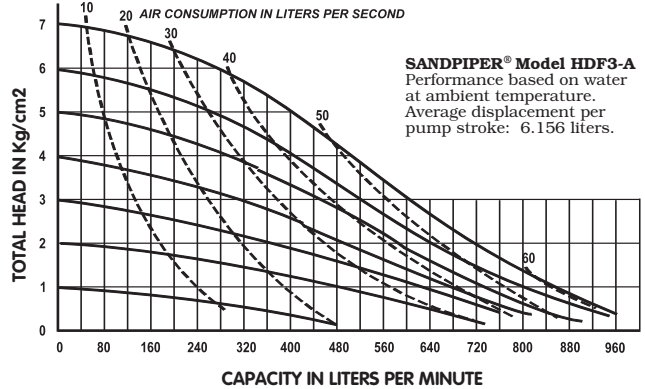
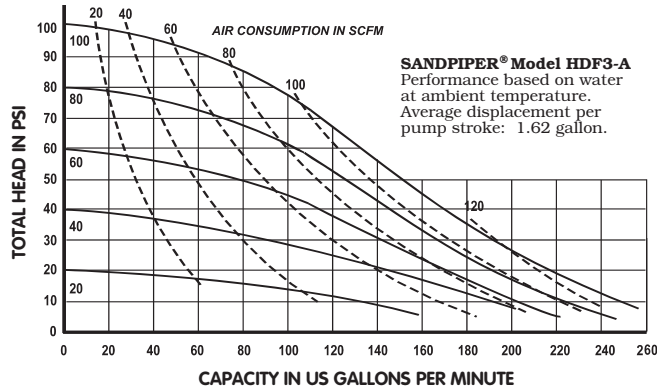
**Air-Powered  
Double-Diaphragm Pump**

ENGINEERING, PERFORMANCE  
& CONSTRUCTION DATA

|  |  |   |  |  |
|--|--|---|--|--|
| <b>INTAKE/DISCHARGE PIPE SIZE</b><br>3" (75mm) 125# ASA FLANGE | <b>CAPACITY</b><br>0 to 260 gallons per minute<br>(0 to 988 liters per minute) | <b>AIR VALVE</b><br>No-lube, no-stall design. | <b>SOLIDS-HANDLING</b><br>Up to nearly 3" (75mm) | <b>HEADS UP TO</b><br>125 psi or 289 ft. of water<br>(8.8 Kg/cm <sup>2</sup> or 88 meters) |
|--|--|---|--|--|

**PERFORMANCE CURVES**

(SANDPIPER® pumps are designed to be powered **only** by compressed air)  
Temperature Limit: 212°F - 100°C MAXIMUM



**MATERIALS OF CONSTRUCTION**

| HDF3-A Type 7 | Manifold Porting Bottom | Manifold Elbow | Outer Chamber | Inner Chamber | Outer Diaphragm Plate | Inner Diaphragm Plate | Intermediate Housing | Diaphragm Rod | Valve Seat | Hardware | Diaphragm | Flap Valve Material | Seat Gasket | Manifold Gasket Sealing Rings | Shipping Wt.(lbs) |
|---------------|-------------------------|----------------|---------------|---------------|-----------------------|-----------------------|----------------------|---------------|------------|----------|-----------|---------------------|-------------|-------------------------------|-------------------|
| DA-7          | X                       | 356-T6AL       | 356-T6AL      | 356-T6AL      | Alm35AL               | Alm35AL               | 356-T6AL             | 416SS         | SS         | PS       | N         | R                   | A           | B                             | 245               |
| DN-7          | X                       | 356-T6AL       | 356-T6AL      | 356-T6AL      | Alm35AL               | Alm35AL               | 356-T6AL             | 416SS         | SS         | PS       | N         | N                   | A           | B                             | 245               |
| DB-7          | X                       | 356-T6AL       | 356-T6AL      | 356-T6AL      | Alm35AL               | Alm35AL               | 356-T6AL             | 416SS         | SS         | PS       | B         | B                   | A           | B                             | 245               |
| DK-7          | X                       | 356-T6AL       | 356-T6AL      | 356-T6AL      | Alm35AL               | Alm35AL               | 356-T6AL             | 416SS         | SS         | PS       | N         | H                   | A           | B                             | 245               |
| DS-7          | X                       | 356-T6AL       | 356-T6AL      | 356-T6AL      | Alm35AL               | Alm35AL               | 356-T6AL             | 416SS         | SS         | PS       | S         | S                   | A           | B                             | 245               |

**Meanings of Abbreviations:**

A = Compressed Fibre  
AL = Aluminum  
Alm = Almag 35 Aluminum  
B = Buna-N

CI = Cast Iron  
H = Hytrel®  
N = Neoprene

PS = Plated Steel  
R = Ruppion®  
SS = Stainless Steel  
S = Santoprene

Hytrel® is a registered tradename of E.I. du Pont. ©Warren Rupp, SANDPIPER and Ruppion are registered tradenames of Warren Rupp, Inc.

# HDF3-A HDF4-A

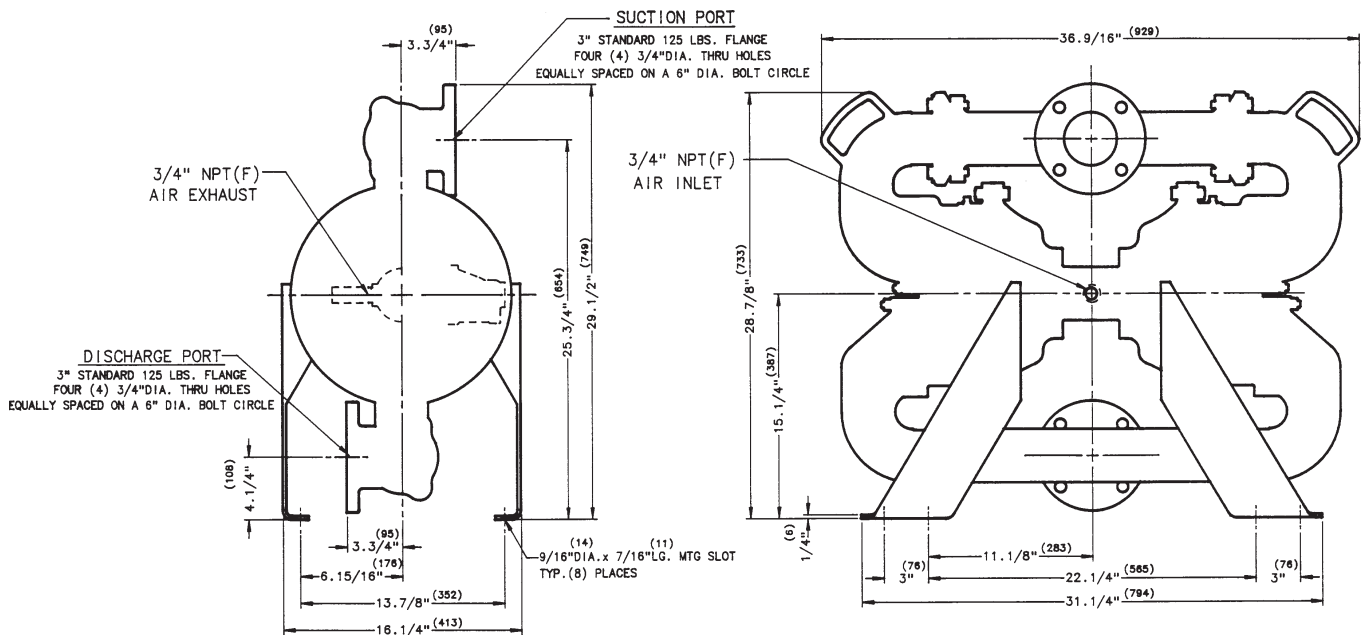


| MATERIALS  | Operating Temperatures |                |
|--|------------------------|----------------|
|  | Maximum                | Minimum        |
| <b>BUNA-N</b> General purpose, oil-resistant. Shows good solvent, oil, water and hydraulic fluid resistance. Should not be used with highly polar solvents like acetone and MEK, ozone, chlorinated hydrocarbons and nitro hydrocarbons.                                   | 190°F<br>88°C          | -10°F<br>-23°C |
| <b>NEOPRENE</b> All purpose. Resistant to vegetable oils. Generally not affected by moderate chemicals, fats, greases and many oils and solvents. Generally attacked by strong oxidizing acids, ketones, esters, nitro hydrocarbons and chlorinated aromatic hydrocarbons. | 170°F<br>77°C          | -35°F<br>-37°C |
| <b>HYTREL®</b> Good on acids, bases, amines and glycols at room temperature only.  | 190°F<br>88°C          | -10°F<br>-23°C |
| <b>RUPPLON®</b> (Urethane) Shows good resistance to abrasives. Has poor resistance to most solvents and oils.  | 150°F<br>88°C          | 32° F<br>0°C   |
| <b>Santoprene®</b> Injection molded thermoplastic elastomer with no fabric layer. Long mechanical flex life. Excellent abrasion resistance.  |                        |                |

For specific applications, always consult the Warren Rupp Chemical Resistance Chart.

\*Definite reduction in service life.  
\*\*Minimal reduction in service life at ends of range.

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



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