

PUMP ENGINEERING

Pageboy Series SFD Pocket Size Diaphragm Pump

Pneumatically Powered Diaphragm Pumps For Liquids

DESCRIPTION

The Pageboy series SFD15 is a unique, pocket-sized, air operated pump that incorporates a stress-free diaphragm to give very high reliability and long life, even when pumping strong acids or powerful solvents (MEK, acetone, chloroform etc.).

FEATURES

AIR OPERATED-SAFE IN HAZARDOUS AREAS

SELF PRIMING

INCORPORATES STRESS-FREE DIAPHRAGM FOR LONG LIFE

STOPS AUTOMATICALLY AGAINST A CLOSED DISCHARGE

**IDEAL FOR LOW VISCOSITY SOLUTIONS, LIGHT OILS
AND SOLVENTS**

FEW MOVING PARTS

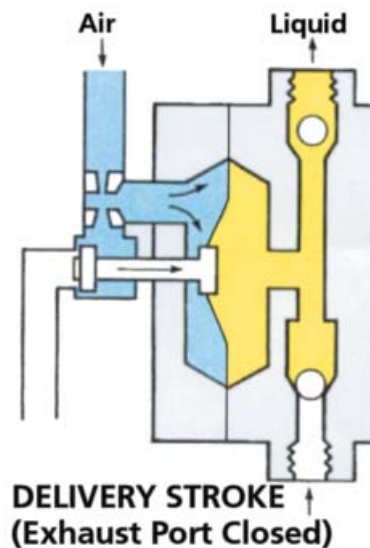
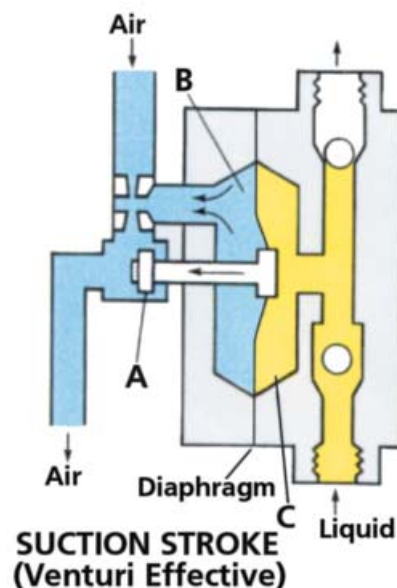
GENERAL

The pump consists of a chamber that is divided into compartments by a diaphragm. One chamber is the pneumatic pressure/vacuum chamber (B). The other is the pump chamber (C).

Compressed air enters through a venturi which reduces pressure in the pressure/vacuum chamber (B) causing the diaphragm to move away from the pump chamber (C). This is the suction stroke. The diaphragm pushes the control rod until the poppet valve (A) closes the air exhaust port. As the air pressure rises in the pressure/vacuum chamber (B) the diaphragm is forced into the pump chamber. This is the delivery stroke, during which the diaphragm pulls the control rod off its seat. This allows air through the venturi causing the suction stroke to be repeated.

The diaphragm is used simply to separate the air from the liquid and thus operates without stress. The result is very high reliability, particularly when compared with other types of diaphragm pumps. The pump is self-priming, has low air consumption and is safe to use in a hazardous area. It stops automatically against a closed valve, maintaining a delivery line pressure equal to the air supply pressure. It starts automatically when the delivery line pressure falls such as when a valve is opened.

The pump is designed for vertical-upward flow and can be mounted by the extended tie-rods supplied.



SPECIFICATIONS

Maximum Output- 3 l/m
 Maximum Pressure- 6 bar (87 psig)
 Air Supply- 80-100 psig (a 15 psi low pressure model is an available option)
 Air Consumption- Approx. 0.5 cfm
 Body Materials- polypropylene, PTFE, 316SS, or aluminum
 Diaphragm- PTFE, FEP
 Pump Valve Housing & Pin: PTFE for all models
 Valve Ball Material: PTFE (for PTFE, PDVF, or PP Bodies; Stainless Steel (for SS or Aluminum bodies)

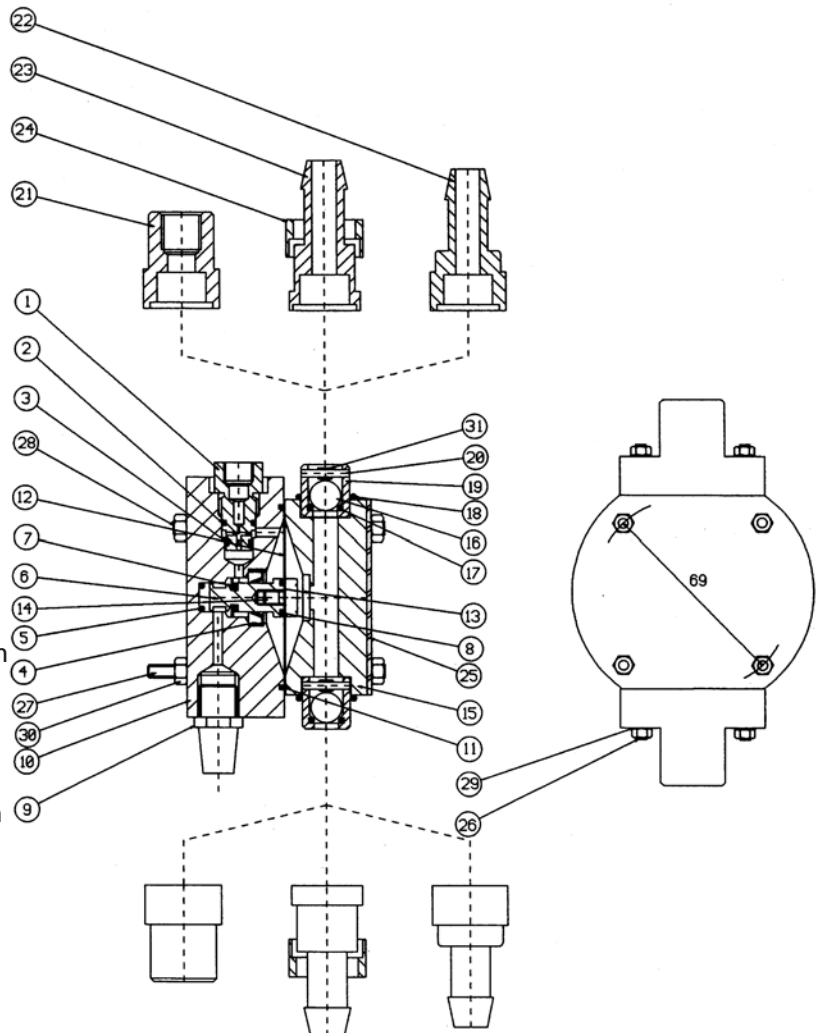
Seals- EPDM (some chemicals and solvents)
 Nitrile (for water, caustic soda and mineral oils)
 FPM (for acids, oils and fats, hydrocarbons)
 Chemraz® (for MEK, THF, DMF, toluene, amines, etc.)

Connections-
 Stainless/Aluminum body- 1/4" BSP, NPT
 Polypropylene/PTFE body- 1/2" hose barb
 Air Inlet- 1/8" BSP (NPT Adaptor Available)

Dimensions-
 Height- 133 mm
 Body- Approx. 80 mm
 Depth- 56 mm
 Weight- 0.33 -1kg (depending upon materials of construction).

SDF15 PARTS

- 1 Venturi complete
- 2 O ring, inner venturi
- 3 O ring, outer venturi
- 4 U Seal
- 5 O Ring
- 6 Control Rod
- 7 Poppet
- 8 O Ring
- 9 Silencer
- 10 Body, Air Motor
- 11 Seal, Diaphragm edge
- 12 Diaphragm
- 13 Washer
- 14 Center Screw
- 15 Body Block
- 16 Ball
- 17 O ring, valve seat
- 18 O ring, valve seal
- 19 Housing, valve
- 20 Stop pin
- 21 Connector
- 22 Connector
- 23 Connector
- 24 Clamp
- 25 Backing plate
- 26 Tie- rod, 105mm
- 27 Tie-rod, 85mm
- 28 Tie-rod, 75mm
- 29 Washer
- 30 Nut
- 31 Collar, valve pin



ORDERING INFORMATION

ORDER NUMBER

ABCDEF

EXAMPLE- SFD15PVTNLP

A Model	B Pump Body	C Seals	D Diaphragm	E Body Connections	F Options
SFD15	P=Polypropylene S=316 stainless steel T=PTFE A=Aluminum	V=FPM Z=Chemraz® E=EPDM N=Nitrile (NBR)	T=PTFE F=FEP	B=1/2" Hose Barb (PP & PTFE Bodies) N= NPT (SS & Al Bodies) B= BSP (SS & Al Bodies)	LP=15 psi supply pressure (PTFE Diaphragm Only)
P/N 112170- Adaptor, Stainless Steel, 1/8" BSP to 1/8" NPT Male					

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