



AIR OPERATED DIAPHRAGM PUMPS

PUMP ANYTHING THAT CAN POUR SAFELY AND RELIABLY



5

- **Wide selection of materials:**
 - SS** - 316 stainless steel
 - AL** - Aluminum
 - NSS** - Conductive nylon
 - PP** - Polypropylene
 - K** - PVDF
 - N** - Nylon
- **Selection of diaphragms and elastomers**
 - TF** - Teflon (PTFE)
 - N** - Geolast®/Nitrile
 - L** - Santoprene®/EPDM
 - V** - Viton
- **1/4" - 2" sizes** —
flows to 180 U.S. GPM (681 l/m)
- **Patented lube-free air system**
- **Will not stall at slow speeds**
- **Self-priming**
- **Runs dry**

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

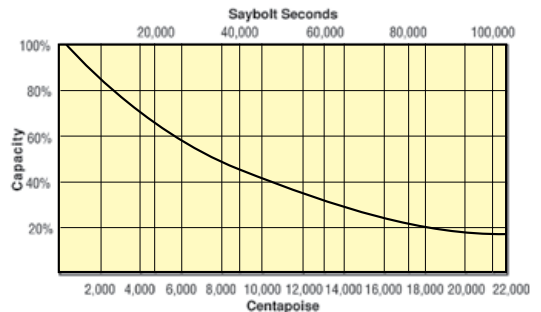
longer operating life and easier maintenance at a lower cost.

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.

INSTALLATION

1. A lube-free, clean, dry compressed air source (or any non-flammable, compressed gas) is recommended. Use a filter that is capable of filtering out particles larger than 50 microns.
2. Pumps should be mounted in an upright position with the exception of 1/4" models which may be rotated 360° to suit the application.
3. Install a particle fluid filter on the fluid suction line when particles in the fluid exceed the maximum particle size specification of the pump or particles are sharp enough to cut the diaphragms.
4. Never restrict fluid suction lines by means of reduced pipe size (smaller than pump inlet size) or control the pump with valves on the fluid inlet side of the pump.
5. Limit fluid inlet pressure to 10 PSIG or (.68 BAR)

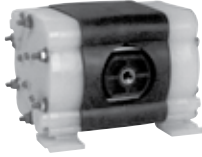
HIGH VISCOSITY APPLICATIONS





AIR OPERATED DIAPHRAGM PUMP Specifications (Cont'd)

1/4" BOLTED

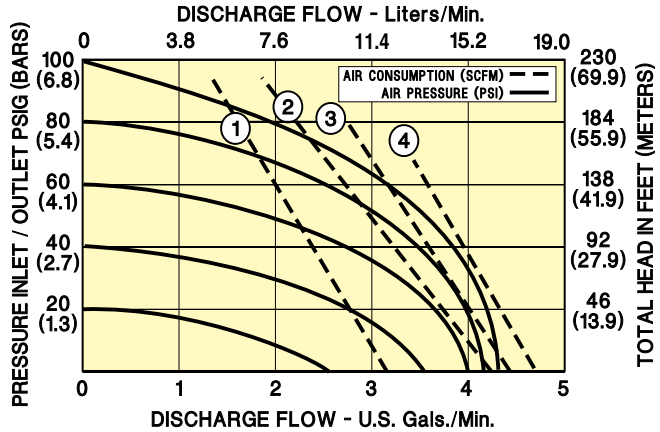


SPECIFICATIONS

- Capacity:**
 - Adjustable0-4.3 GPM (64.6 liters/min.)
- Maximum temperature:**
 - PVDF.....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" FNPT
 - Outlet.....1/4" FNPT
- Fluid inlet / discharge:**.....1/4" FNPT

PLASTIC MODELS:

- PPBN-1/4 PPBTF-1/4 PPBL-1/4 NSSBTF-1/4
- NBTF-1/4 KBTF-1/4 KBL-1/4

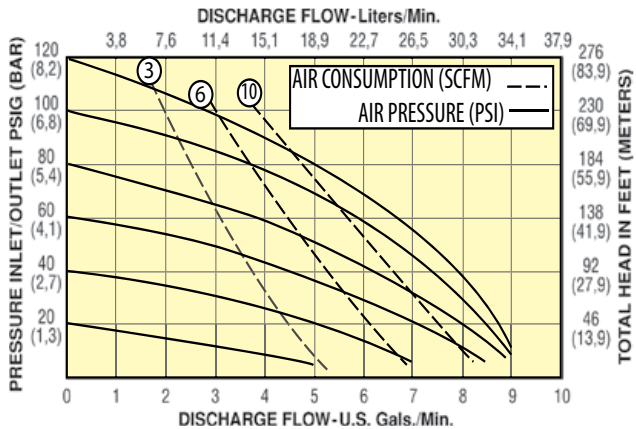


3/8" BAND CLAMP



PLASTIC MODELS:

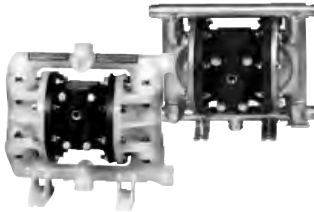
- PPN-3/8 PPTF-3/8N SSTF-3/8
- KTF-3/8 KL-3/8





AIR OPERATED DISAPHRAGM PUMP Specifications (Cont'd)

1/2" BOLTED



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, NSS-BTF-1/2

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

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 bar)
- 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.)

¹ 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.

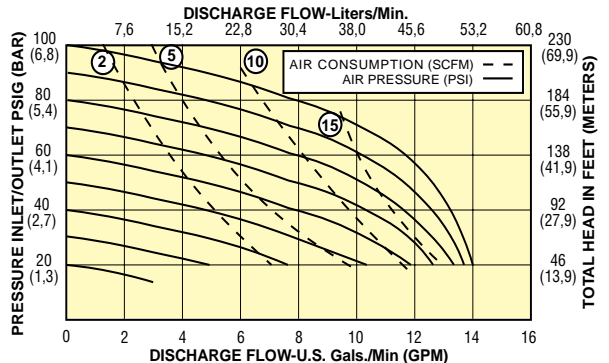
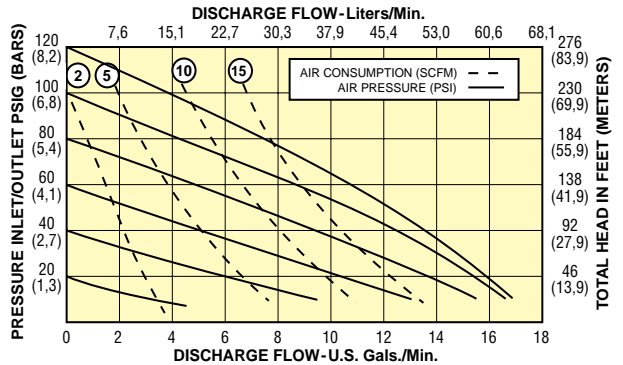
1/2" BAND CLAMP



PLASTIC MODELS: PPN-1/2, PPTF-1/2, PPL-1/2, KTF-1/2

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



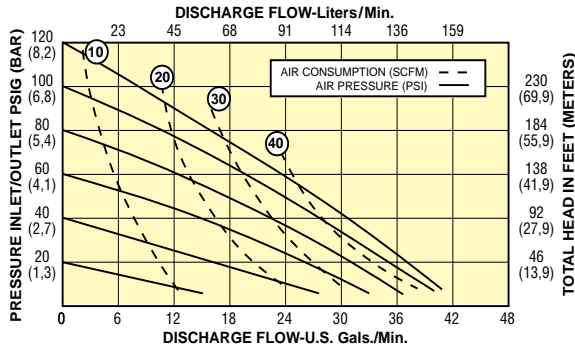
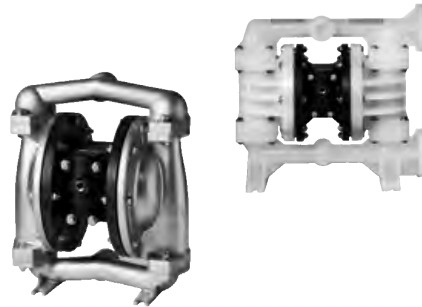


1"

BOLTED

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

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



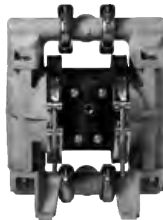
SPECIFICATIONS

- 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 air 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

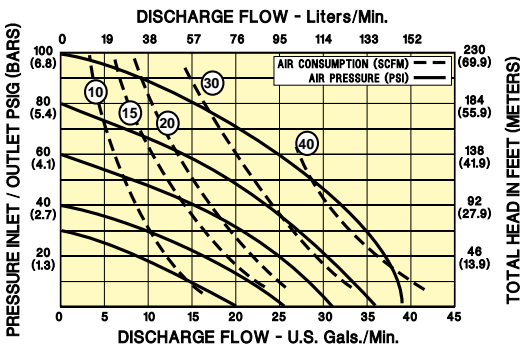


1"

BAND CLAMP



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



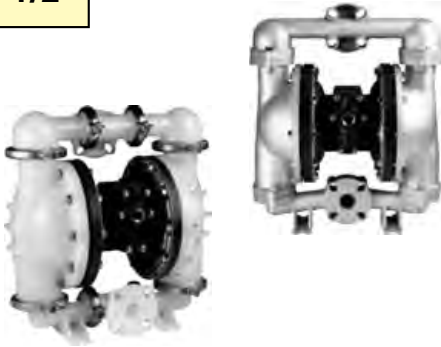
SPECIFICATIONS

- 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:** 1" FNPT



1-1/2"

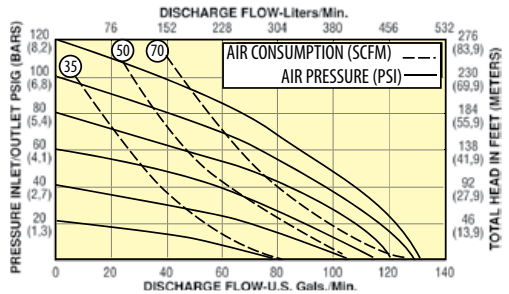
BOLTED



- PLASTIC MODELS:** PPBN-1 1/2, PPBTF-1 1/2, PPBL-1 1/2, KBTF-1 1/2, KBL-1 1/2
- METALLIC MODELS:** ALBN-1 1/2, ALBTF-1 1/2, ALBL-1 1/2, SSBTF-1 1/2, SSBL-1 1/2, SSBN- 1 1/2

SPECIFICATIONS

- Capacity:**
Adjustable 0 to 130 GPM (492 liters/min.)
- Maximum temperature:**
PVDF, AL & SS models.....200°F (93°C)
Other models.....150°F (66°C)
- Minimum air pressure:**.....20 PSI (1.2 bars)
- Maximum air pressure:**
All model.....120 PSI (8.2 bars)
- Dry lift capacity @ 100 PSI (6.8 bars):**
Model w/PTFE balls.....10 ft. (3 meters)
Other Models.....15 ft. (4.5 meters)
- 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:**
All Models.....1 1/2" flange (38 mm)
(ANSI & DIN compatible)

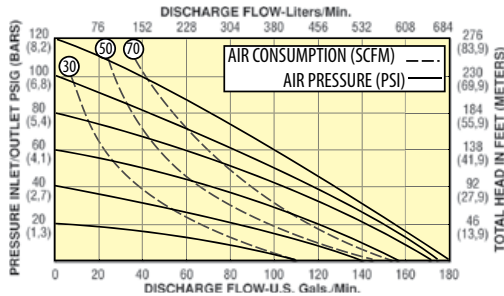


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2"

BOLTED

- PLASTIC MODELS:** PPBN-2, PPBTF-2, PPBL-2, KTBF-2, KBL-2
- METALLIC MODELS:** ALBN-2, ALBTF-2, ALBL-2, SSBTF-2, SSBL-2, SSBN-2



SPECIFICATIONS

- Capacity:**
Adjustable .0 to 180 GPM (681 liters/min.)
- Maximum temperature:**
PVDF, AL & SS models.....200°F (93°C)
Other models.....150°F (66°C)
- Minimum air pressure:** 20 PSI (1.3 bars)
- Maximum air pressure:**
All model.....120 PSI (8.2 bars)
- Dry lift capacity @ 100 PSI (6.8 bars):**
Models w/PTFE balls.....10 ft. (3 meters)
Other Models.....15 ft. (4.5 meters)
- 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:**2" flange (51mm)
(ANSI & DIN compatible)



TO ORDER, Use Price Code No.

BOLTED MODELS

MODEL NUMBER *	MATERIAL OF CONSTRUCTION		PRICE CODE NUMBER				
	WETTED HOUSINGS**	DIAPHRAGM ELASTOMERS/ VALVE SEATS**	1/4"	1/2"	1"	1 1/2"	2"
			0-4 GPM (16 l/m)	0-14 GPM (53 l/m)	0-40 GPM (152 l/m)	0-130 GPM (492 l/m)	0-18 GPM (681 l/m)
PPBN-_*	Polypropylene	Geolast® / Nitrile	55-7244B	55-7287	55-7602	55-7615	55-7626
PPBTf-_*	Polypropylene	PTFE	55-7245	55-7288	55-7603	55-7616	55-7627
PPBL-_*	Polypropylene	Santoprene® / EPDM	55-7270	55-7289	55-7604	55-7617	55-7628
PPBV-_*	Polypropylene	Viton	—	55-7290	55-7605	—	—
NBTf-_*	Nylon	PTFE	55-7246	55-7291	—	—	—
NSSBTf-_*	Conductive Nylon	PTFE	55-7271	55-7292	—	—	—
KBTF-_*	PVDF	PTFE	55-7247	55-7293	55-7606	55-7618	55-7629
KBL-_*	PVDF	Santoprene® / EPDM	55-7286	55-7294	55-7607	55-7619	55-7630
KBV-_*	PVDF	Viton	—	55-7295	55-7608	—	—
ALBN-_*	Aluminum	Geolast® / Nitrile	—	55-7296	55-7609	55-7620	55-7631
ALBTf-_*	Aluminum	PTFE / nylon	—	55-7297	55-7610	55-7621	55-7632
ALBL-_*	Aluminum	Santoprene® / EPDM / PP	—	55-7298	55-7611	55-7622	55-7633
SSBTf-_*	Stainless steel	PTFE	—	55-7600	55-7612	55-7623	55-7634
SSBL-_*	Stainless steel	Santoprene® / EPDM	—	55-7601	55-7613	55-7624	55-7635
SSBN-_*	Stainless steel	Geolast® / Nitrile	—	55-7299	55-7614	55-7625	55-7636

* Insert pump size to complete Model Number: i.e. PPBN - 1/4

** See Material notes on page 6

BAND CLAMP MODELS

MODEL NUMBER *	MATERIAL OF CONSTRUCTION		PRICE CODE NUMBER		
	WETTED HOUSINGS**	DIAPHRAGM ELASTOMERS/ VALVE SEATS**	3/8"	1"	1 1/2"
			0- ()	0-40 GPM (152 l/m)	0-95 GPM (360 l/m)
PPN-_*	Polypropylene	Geolast® / Nitrile	55-7637	55-7120B	55-7144B
PPTf-_*	Polypropylene	PTFE	55-7638	55-7118A	55-7145A
PPL-_*	Polypropylene	Santoprene® / EPDM	55-7639	55-7248	55-7249
NSSTf-_*	Conductive Nylon	PTFE	55-7640	—	—
KTF-_*	PVDF	PTFE	55-7641	55-7110A	55-7147A
KL-_*	PVDF	Santoprene® / EPDM	55-7642	—	—

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

** See Material notes below



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 1 1/2" and 2" sizes only, are slotted for DIN or ANSI compatibility.

SHIPPING WEIGHTS

HOUSING MATERIAL	SHIPPING WEIGHT LBS (kg)						
	1/4"	1/2" BOLTED	1/2" CLAMP	1" BOLTED	1" CLAMP	1 1/2" CLAMP	2" CLAMP
Polypropylene, Nylon	5 (2.3)	9 (4.1)	8 (3.6)	20 (9.1)	19 (8.6)	52 (24)	54 (25)
Conductive Nylon, PVDF	7 (3.2)	12 (5.4)	11 (4.9)	30 (13.7)	22 (9.9)	66 (30)	68 (31)
Aluminum	—	10 (4.5)	—	23 (10.5)	—	61 (28)	63 (29)
Stainless Steel	—	19 (8.6)	—	45 (20.4)	—	113 (51)	131 (59)

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.	PUMP SIZE	PRICE CODE NUMBER		
		PP	PVDF	AL
	1/2"	44-7236	44-7239	44-7628
	1"	44-7237	44-7240	—

AIR PRESSURE REGULATOR	INLET FNPT	CFM @ 100 PSI	PRICE CODE NO.
Tamper-proof design with special removable key. Maximum inlet pressure is 250 PSIG. Outlet pressure range is 5 to 125 PSIG.	1/4"	20	79-0305
	1/2"	50	79-0306
	3/4"	120	79-0307

REPAIR KIT	PRICE CODE NUMBER
Typically includes ball and valve seats manifested O-rings and diaphragms (may vary depending on a model)	Add -k to pugs price code number