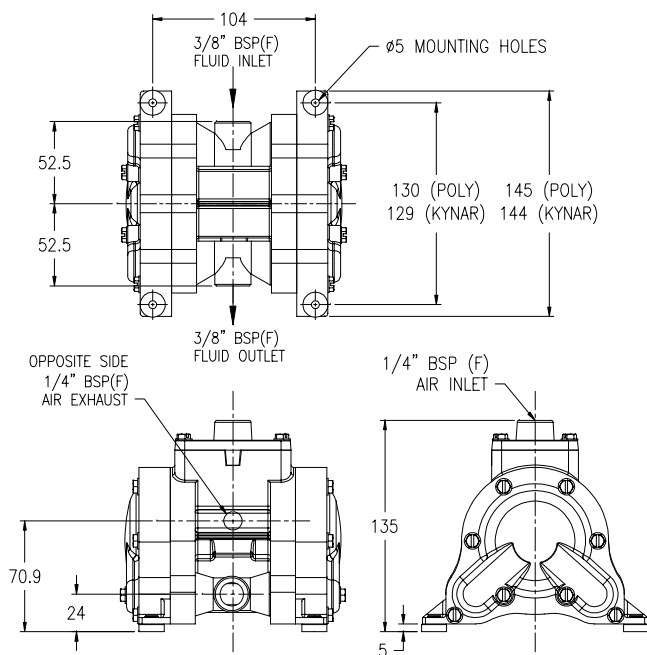


## TECHNICAL DATA

<b>Maximum Delivery:</b>	26.5 Litres/min	<b>Accessories Included:</b>	Exhaust Air Silencer
<b>Max. Working Pressure:</b>	6.9 Bar (100 psi)	<b>Shipping Weight:</b>	1.4 Kg (3.0 Lb)
<b>Max. Solid Particle Size:</b>	1.5 mm (1/16")	<b>Shipping Dimensions:</b>	160 mm x 230 mm x 120 mm
<b>Air Inlet:</b>	1/4" BSP(F)	<b>Fluid Inlet/Outlet:</b>	3/8" BSP(F)
<b>Suction Lift (Dry):</b>	3.05 M (10')	<b>Temperature Limits:</b>	Minimum -23°C (-10°F) Maximum 65°C (150°F)
<b>Suction Lift (Wet):</b>	6 M (20')	<b>dB(A) Rating</b>	78 dB(A)

FLUID CONNECTIONS	CAPACITY	MAX SOLIDS	MAX DISCHARGE HEAD	DISPLACEMENT /STROKE
3/8" BSP (F)	0 - 26.5 Liters/Minute (0 - 5.8 Gallons/Minute)	1.5 mm (1/16")	70 Meters (230 ft)	0.037 Litres (0.008 Gallons)



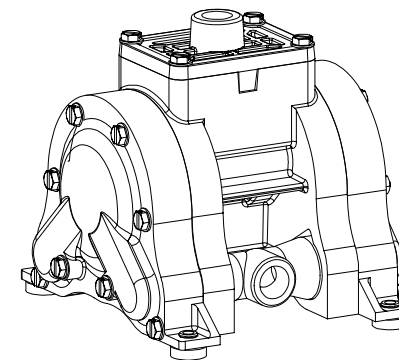
### Installation Dimensions

All dimensions are +/- 1mm



## B10

AIR OPERATED  
DOUBLE DIAPHRAGM  
PUMP



## OWNERS OPERATING & SAFETY MANUAL

### PRINCIPLE OF PUMP OPERATION

This spring loaded check valve pump is powered by compressed air and is a 1:1 ratio design. The inner side of one diaphragm chamber is alternately pressurised while simultaneously exhausting the other inner chamber. This causes the diaphragms, which are connected by a common rod, to move in a reciprocating action. (As one diaphragm performs a discharge stroke the other diaphragm is pulled to perform the suction stroke in the opposite chamber.) Air pressure is applied over the entire inner surface of the diaphragm while liquid is discharged from the opposite side of the diaphragm. The diaphragm operates in a balanced condition during the discharge stroke which allows the pump to be operated at discharge heads of over 230 feet (70 meters) of water.

For maximum diaphragm life, keep the pump as close to the liquid being pumped as possible. Positive suction head in excess of 10 feet of liquid (3.048 meters) may require a back pressure regulating device to maximize diaphragm life.

Alternate pressurising and exhausting of the diaphragm chamber is performed by an internally mounted, pilot operated, 2 way type distribution valve. When the spool shifts to one end of the centre body, inlet pressure is applied to one chamber and the other diaphragm chamber exhausts. When the spool shifts to the opposite end of the centre body, the pressure to the chambers is reversed.

The chambers are connected with rotatable manifolds with a spring loaded suction and discharge check valve for each chamber, maintaining flow in one direction through the pump.

### INSTALLATION

Your installation will depend on the type of fluid being pumped and your application needs. To reduce the risk of serious bodily injury and damage to property, never use fluids in this pump which are not compatible with the wetted components. Contact your local distributor or the manufacturer for system design assistance & compatibility if necessary.

The pump is fitted with spring loaded check valves, as a result the pump can be mounted in any position to suit the application needs. Ensure the pump is securely mounted to avoid movement and possible risk of bodily injury.

**PRESSURE** The pump delivers the same pressure at the discharge outlet as the air pressure applied at the air inlet.

**NOTE:** A Pressure Regulator should be installed where air supply could exceed 100 psi.

# P.H.A. sas

14 Z.A. LES PIBOULES  
84300 LES TAILLADES  
FRANCE  
TEL. 04.90.78.19.99  
FAX 04.90.78.09.00  
E-Mail : contact@pha.fr

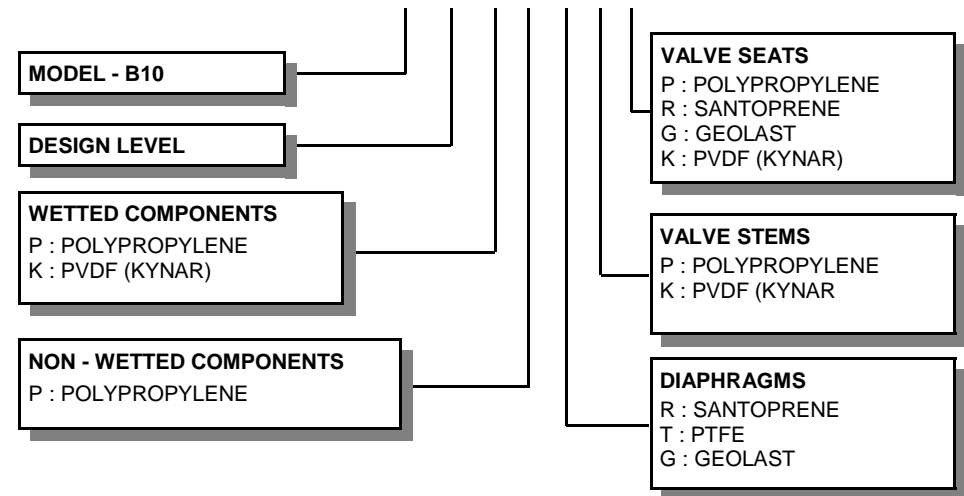
**Parts List**



14 Z.A. LES PIBOULES  
 84300 LES TAILLADES  
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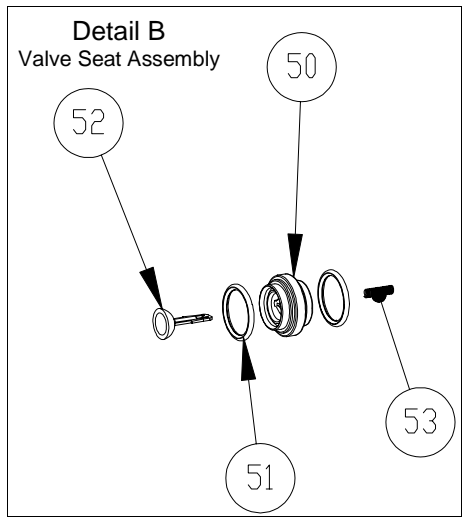
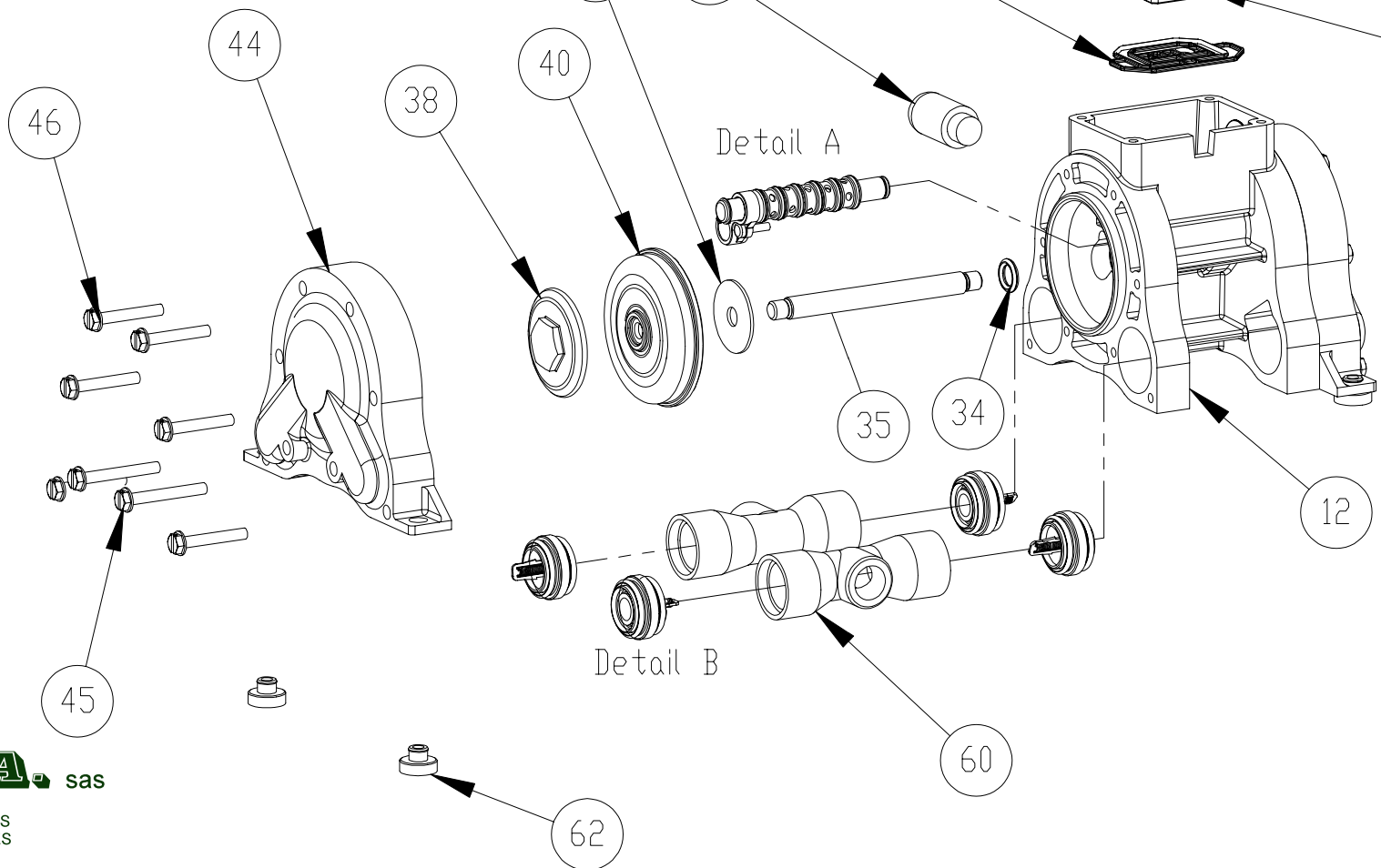
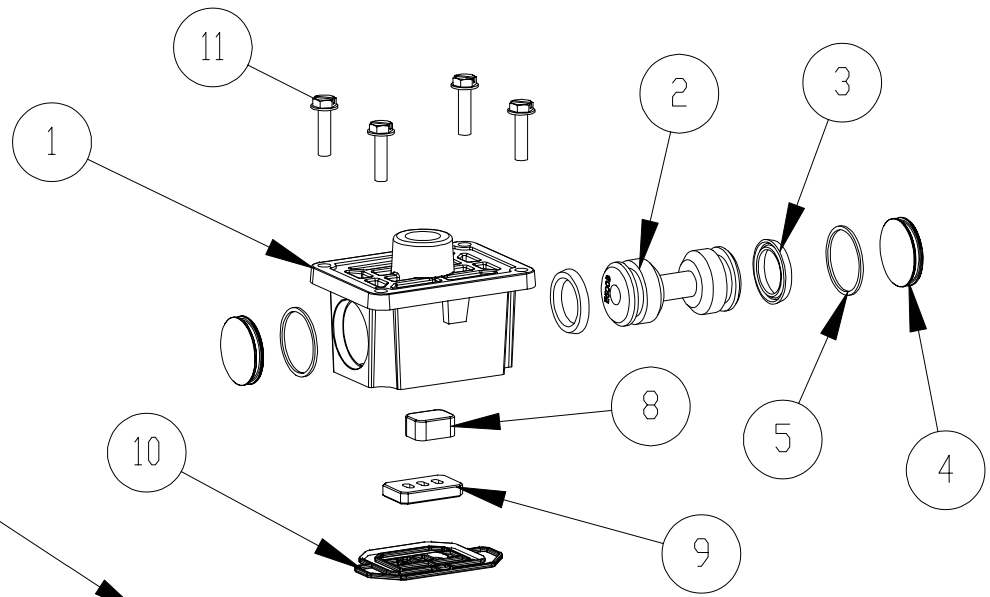
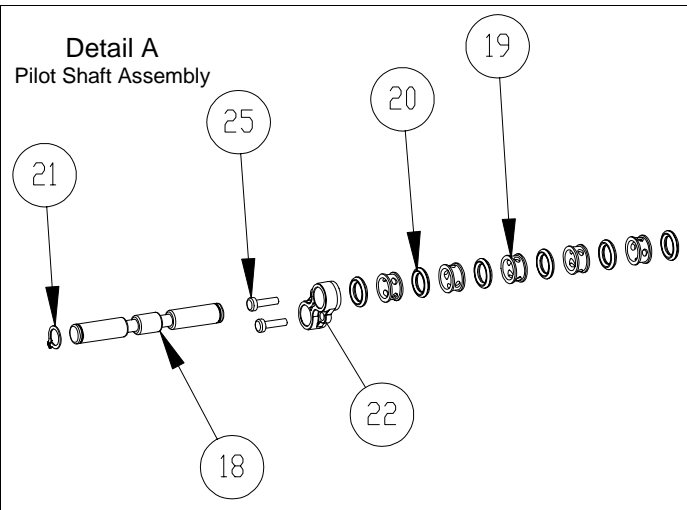
Item	Description	Qty.	Standard: Polypropylene			
	Air Valve Assembly (Includes items 1-10)		E800			
1	Valve Body	1	E800A			
2	Valve Spool	1	E500B			
3	Valve Spool U-Cup	2	P98-104A			
4	End Cap	2	E800D			
5	End Cap O-Ring	2	E800E			
8	Air Diverter	1	E500G			
9	Valve Insert	1	E500H			
10	Valve Gasket	1	E800J			
11	Valve Screw	4	10-050			
			<b>AIR VALVE ASSEMBLY</b>			
Item	Description	Qty.			Standard: Polypropylene	
12	Center Section	1			E801A	
18	Pilot Shaft	1			E803A	
19	Pilot Shaft Spacer	5			E503C	
20	Pilot Shaft O-Ring	6			E503B	
21	Pilot Shaft Snap Ring	2			E503D	
22	Shaft Retainer	2			E801A	
25	Shaft Retainer Screw	4			E501C	
33	Muffler	1			06-034	
DIAPHRAGM ASSEMBLY						
Item	Description	Qty.	TPE	Teflon		
34	Main Shaft O-Ring	2	E503B	E503B		
35	Main Shaft	1	10-028	10-028		
37	Inner Diaphragm Plate	2	C126	C126		
38	Outer Diaphragm Plate	2	10-023(poly) 10-040(kynar)	10-023(poly) 10-040(kynar)		
40	Diaphragm	2	10-032(XL) (10-033)Geolast	10-034		
40A	Packing Ring	2	10-043	10-043		
41	Back-Up Diaphragm	2	NR	10-032(XL)		
WET END ASSEMBLY						
Item	Description	Qty.	Standard: Polypropylene	Option 1: Kynar		
44	Water Chamber	2	10-002	10-036		
45	Water Chamber Bolt (Long)	4	10-052	10-052		
46	Water Chamber Bolt (Short)	12	10-051	10-051		
50	Valve Seat	4	10-022(Poly) 10-012(XL) 10-029(Geolast) **_*** (Viton)	10-039(Kynar) 10-012(XL) 10-029(Geolast) **_*** (Viton)		
51	Valve Seat O-Ring (not required with TPE valve seats)	8	G541	G541		
52	Valve Stem	4	10-005	10-038		
53	Spring	4	10-030	10-030		
60	Manifold	2	10-003	10-037		
62	Foot Pad	4	10-035	10-035		

**TYPICAL ORDER CODE = B10. 01. P P. R P P**



ASK1001P - AIR SIDE KIT			
ITEM	DESCRIPTION	QTY	PART NUMBER
3	VALVE SPOOL U-CUP	2	P98-104A
5	END CAP O-RING	2	E800E
8	AIR DIVERTER	1	E500G
9	VALVE INSERT	1	E500H
10	VALVE GASKET	1	E800J
20	PILOT SHAFT O-RING	6	E503B
34	MAIN SHAFT O-RING	2	E503B

WETTED END KITS	
PART NO.	DESCRIPTION
SA10RPP	SANTOPRENE/POLY.
SA10RPR	SANTOPRENE/SANTOPRENE
SA10TPP	PTFE/POLY.
SA10GPG	GEOLAST/GEOLAST
SA10GPP	GEOLAST/POLY.
SA10TKK	PTFE/KYNAR



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