fluimac®
PUMPS WE TRUST

AODD PNEUMATIC **PUMPS**

PHOENIX - LOTUS - PIEZO

INDEX

FLUIMAC.
YOUR INDUSTRY, YOUR NEEDS, OUR PUMPS

WE ARE FAST, RESPONSIVE, CURIOUS, AND EXPERIENCED.

Since 2012, we have been redefining the concept of pumping solutions by embracing speed, responsiveness, curiosity, and expertise. Our cutting-edge design and unwavering commitment to quality excellence highlight our effort to innovate in this industry.

Our flexible and dynamic approach allows us to optimize time, simplify processes and minimize waste, while staying focused on the high quality of our products and ensuring impeccable service.

Every day, we create top-quality products that are meticulously tested and certified and developed to maximize their efficiency and operational longevity. We are committed to meeting our partners' needs for customization, support, and assistance, providing solutions that represent excellence in our field.

Why we are your partner in fluid handling.

At Fluimac, everyone is aware of their role and importance in keeping our promise: being your partner for every pumping solution. To make this a reality, everyone is given the opportunity to contribute with their ideas, skills, and added values in search of outstanding solutions, both for our clients and for the improvement of our internal processes.

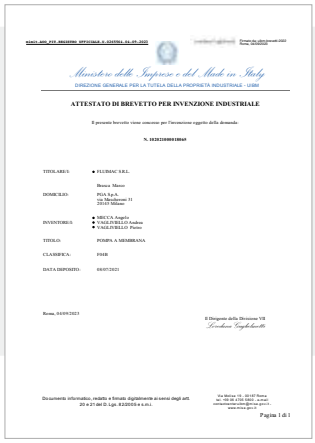
OUR APPROACH IS BASED ON:

Proactive listening
Providing the best solutions for fluid handling and industrial processes means listening to needs and turning them into products that perfectly match clients, systems, and fluid handling requirements in a constantly evolving national and international market.

Trust
We consider our clients as more than just clients: they are partners. That is why our approach is based on respect, trust, and collaboration. We make every effort to meet deadlines, communicate transparently, and integrate seamlessly into your supply chain.

360° Quality
We are Italian: for us, quality means outstanding design, ongoing investments in research and development, meticulous attention to detail throughout the production process, and client relationship management aimed at achieving maximum satisfaction.
Our Made in Italy shines throughout the entire workflow, ranging from planning to product creation, to a sense of responsibility towards timelines and results, up to internal and external company relationships.

Collaboration
Bringing innovation means knowing the market, understanding its needs, and working to turn them into concrete solutions by listening to and engaging both collaborators and clients.



Ministero delle Imprese e del Made in Italy

DIREZIONE GENERALE PER LA TUTELA DELLA PROPRIETÀ INDUSTRIALE - UIBM

ATTESTATO DI BREVETTO PER INVENZIONE INDUSTRIALE

Il presente brevetto viene concesso per l'invenzione oggetto della domanda

N. 102021000018845

TITOLARE/I: ● FLUIMAC S.R.L.
Brescia Marco

DOMICILIO: PDA S.p.A.
Via Cassanese 31
20132 Milano

INVENTORE/I: ● MECCA Angelo
● VAILIUBILLO Andrea
● VAILIUBILLO Pietro

TITOLO: POMPA A MEMBRANA

CLASSIFICA: F04B

DATA DEPOSITO: 08/07/2021

Roma, 04/09/2023

Il Dirigente della Divisione VII

Documento informatico, redatto e firmato digitalmente ai sensi degli artt. 20 e 21 del D. Lgs. 82/2005 e s.m.i.

Via Molise, 19 – 00187 Roma
tel. +39 06 4705 5566 – e-mail: comunicazione.uibm@mise.gov.it – www.mise.gov.it

Pagina 1 di 1

We create pumping solutions for every need, with a cutting-edge design and a constant pursuit of quality.

SINCE 2012 WE HAVE BEEN EXCEEDING ALL EXPECTATIONS

+1.900%

GROWTH IN PRODUCTION CAPACITY

fluimac®
PUMPS WE TRUST

AIR-OPERATED
DOUBLE-DIAPHRAGM PUMPS

Flow-rate from 4 lt/min to 1.050 lt/min.
Special versions available

IDENTIFICATION CODES TABLE

P	0120	P-	HT	T
MODEL	**SIZE**	**CASING**	**DIAPHRAGMS**	**BALLS**

P
PHOENIX

PF
PHOENIX FOOD

AP
ACCURATE PHOENIX

TP
TWIN PHOENIX

PP
POWDER PHOENIX

PS
SUBMERSIBLE PHOENIX

DP
DRUM PHOENIX

FP
FLAP PHOENIX

4
4 lt/min
1/4" BSPP

8
7 lt/min
1/4" BSPP

20
20 lt/min
3/8" BSPP

35
35 lt/min
1/2" BSPP

55
55 lt/min
1/2" BSPP

60
65 lt/min
1/2" BSPP

90
100 lt/min
3/4"BSPP

120
120 lt/min
1"BSPP

170
170 lt/min
1"BSPP/DN25

252
250 lt/min
1"1/4 BSPP

400
380 lt/min
1"1/2BSPP DN40

700
700 lt/min
2"BSPP DN50

1000
1050 lt/min
3"BSPP DN80

P
POLYPROPYLENE
Wide chemical compatibility. General usage. Reinforced with fiberglass.

PC
CONDUCTIVE POLYPROPYLENE
Wide chemical compatibility. General usage. ATEX-compliant.

KC
CONDUCTIVE PVDF
Strong chemical resistance to acids and high temperatures. ATEX-compliant.

O
ACETAL
Resistant to a wide range of solvents and hydrocarbons. Good abrasion resistance. (available only in sizes 4, 8 and 10).

OC
CONDUCTIVE ACETAL
Resistant to a wide range of solvents and hydrocarbons. Good abrasion resistance. (available only in sizes 4, 8 and 10). ATEX-compliant.

A
ALUMINUM
Resistant to a wide range of solvents and hydrocarbons. Good abrasion resistance.

S
SS - AISI 316 ELECTROPOLISHED
Excellent resistance to corrosion and abrasion. Food version available.

H
HYTREL
Good resistance to low temperatures and abrasion.

W
SANTOPRENE HIGH RESISTANCE
Solutions and diluted acids.

NBR
NBR
Suitable for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.

D
EPDM
Suitable for alkaline solutions, diluted acids, ketones and alcohols.
Good abrasion resistance.

HT
HYTREL + PTFE
Wide chemical compatibility, extreme corrosion resistance, anti-adhesive properties, and high heat resistance.

MT
SANTOPRENE + PTFE
Suitable for alkaline solutions, diluted acids, ketones and alcohols.
Good abrasion resistance.

N
NBR
Suitable for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.

D
EPDM
Suitable for alkaline solutions, diluted acids, ketones and alcohols. Good abrasion resistance.

T
PTFE
Wide chemical compatibility, extreme corrosion resistance, anti-adhesive properties, and high heat resistance.

S
SS
Excellent resistance to corrosion and abrasion. Suitable for viscous fluids.

P	V	1	-	AB
BALL SEATS	**GASKETS**	**CONNECTIONS**	**ATEX ZONE CERTIFICATION**	**PORTS**

P
POLYPROPYLENE
Wide chemical compatibility.
General usage.

K
PVDF
Strong chemical resistance to acids and high temperatures.

S
SS
Excellent resistance to corrosion and abrasion.

Z
PE
Suitable for fluids with high molecular weight. High abrasion resistance. (available only with D and N balls).

O
ACETAL
Resistant to a wide range of solvents and hydrocarbons. Good abrasion resistance.

V
VITON
High heat resistance. Good resistance to aggressive chemicals and hydrocarbons.

N
NBR
Suitable for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.

D
EPDM
Suitable for alkaline solutions, diluted acids, ketones and alcohols. Good abrasion resistance.

T
PTFE
Wide chemical compatibility, extreme corrosion resistance, anti-adhesive properties, and high heat resistance.

1
BSP THREATED

A
BSP THREADED WITH REINFORCED RING

2
FLANGED

3
TRI-CLAMP (PHOENIX FOOD)

5
NPT THREADED

E
NPT THREADED WITH REINFORCED RING

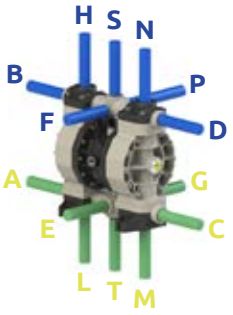
6
DIN 11851/3 (PHOENIX FOOD)

-
ATEX ZONE 2
From P4 to P120 models
Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

From P170 to P1000 models
Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

X
ATEX ZONE 1
From P4 to P120 models
Ⓔx III 2/2 G Ex h IIC T4 Gb
Ⓔx II 2 D Ex h IIIB T135°C Db X

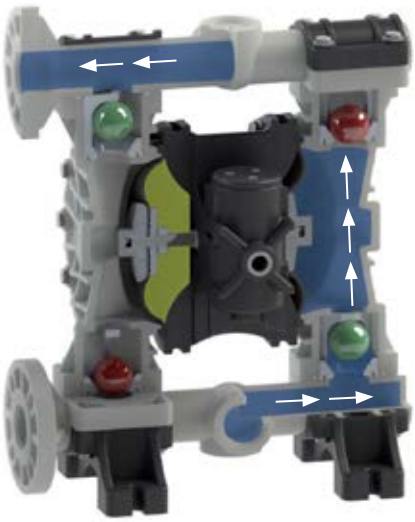
From P170 to P1000 models
Ⓔx II 2/2 G Ex h IIB T4 Gb
Ⓔx II 2 D Ex h IIIB T135°C Db X



SPECIAL FEATURES

SP STAINSTEEL PHOENIX central block made of stainless steel
SCP STROKE COUNTER PHOENIX with external pneumatic signal
PCR PHOENIX with shorter strokes
PCL PHOENIX with longer strokes

PUMP OPERATION



Fluid Air

1 - SUCTION CYCLE

Compressed air fills the right inner chamber. The movement of the opposing diaphragm lifts the lower valve ball, creating suction and drawing fluid through the inlet. At the same time, the left chamber is in the “Discharge” cycle.

2 - DISCHARGE CYCLE

Compressed air fills the left inner chamber. The opposing chamber, by lifting the upper valve, discharges fluid. At the same time, the right chamber is in the “suction” cycle.

INSTALLATION

Pump installed below head (positive suction)

Used when the tank must be completely emptied

Self-priming pump installed above head (negative suction)

Easily handles initial dry suction

Pump installed above drum or tank

Special-feature pump

Submerged pump

Chemical compatibility must be verified

Pump installed on hopper for high viscosity fluids

The hopper’s height helps the pump in moving the fluid. Air pressure has to be high, and a suction tube needs to be bigger than the pump’s size

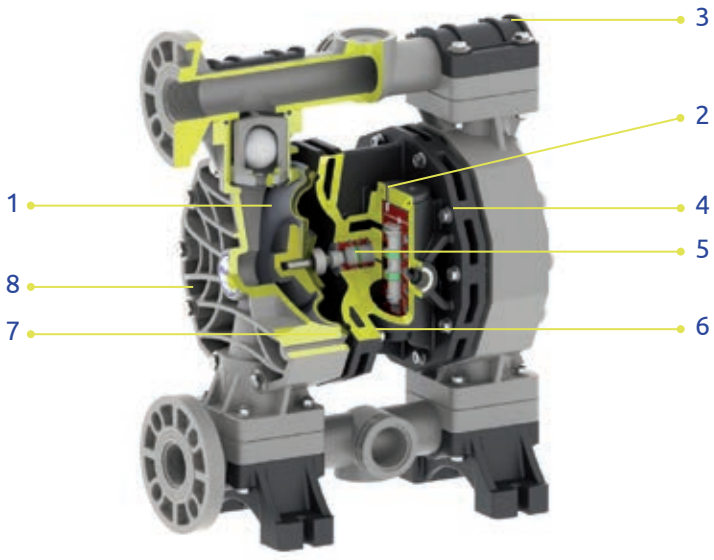
Suspended

Special version for ceiling fixing that comes with additional feet in the upper part

Pump installed on a mobile unit

The trolley or cart facilitates easy handling of the pump

TECHNICAL DATA SHEET



1 Long-lasting diaphragms that ensure a consistent performance and longer operating life.

2 Efficient design of the pneumatic exchanger ensures low air consumption. An unbalanced pilot spool precisely controls the positioning of the main power spool, eliminating stalling and increasing efficiency.

3 All-bolted design ensures effective sealing and maximum safety.

4 Solid polypropylene air chambers and plastic air valve ensure maximum chemical resistance in highly corrosive environments.

5 Acetal pneumatic exchanger and bushings provide long-lasting resistance thanks to self-lubrication.

6 The pneumatic exchanger is easily accessible from the outside for quick inspection. The air system is lube-free, antistall and antifreeze.

7 Special diaphragm clamping, designed to minimize wear and increase service life, while providing a secure, hermetic and leak-proof seal.

8 Exhaust chamber with double silencer designed to enhance diffusion passages, reduce freezing, and ensure low noise levels.

- Wide range of flow rates and materials suitable for various conditions and fluids
- Safe “dead head” operation: with a closed discharge the pump will not be damaged
- Suitable for handling of liquids containing solids particles
- Fully submersible: can be entirely immersed, depending on fluid compatibility
- Serviceability: easily and quickly maintained with no special tools required
- High performance thanks to an optimal and functional design
- Self-priming: capable of dry suction up to 6 meters
- Seal-less design: dry-run without damaging the pumping system

QUALITY 100% of the pumps are tested with water after final assembly

SAFETY Atex certification on all versions: conductive plastic pumps available

FLEXIBILITY Multiple porting options and connection types available

PUMP SELECTION

To select the appropriate pump model based on the intended application, the following factors should be considered in order to optimize performance, extend service life, and minimize maintenance costs:

- The nature of the fluid to be pumped, its viscosity, and the solids particles it may contain;
- The pump capacity in relation to the required flow rate;
- Suction and discharge (head) conditions;

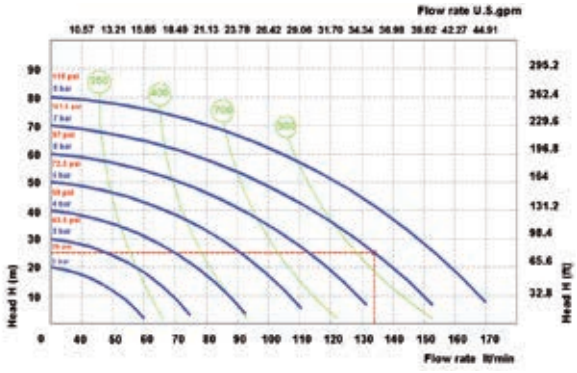
Taking these parameters into account, the correct pump is selected when the intersection of the “head” and “flow rate” axes on the performance curve is near the center section of the graph.

PERFORMANCE CURVES

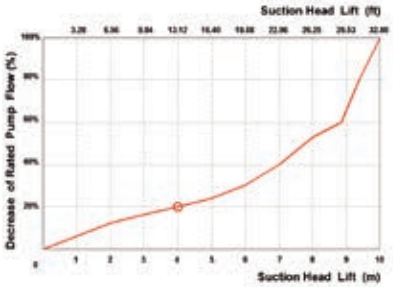
To determine the compressed air requirements and the proper size for a FLUIMAC AODD pump, two pieces of information are necessary:

1 Required flow rate 2 Total delivery head

For example, consider the P170 pump performance curve, which has a pumping capacity of approximately 135 l/min at 25m. Point A on the performance curve is the intersection between the required flow rate and the total delivery head, and it determines the compressed air requirements for this pump. At point A, the pump will require approximately 7 bar of air inlet pressure for proper operation. To verify this, follow the blue curve on the left to read the air pressure in BAR. Then, by following the nearest green curve, it can be seen that the pump will require approximately 900 nl/min (Normal Liter per minute) of air consumption.

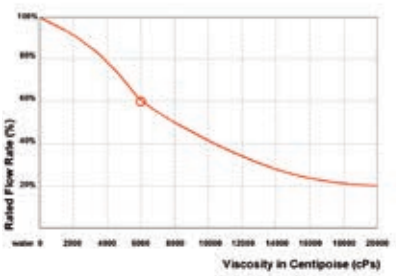


SPECIFIED SUCTION LIFT



With a suction lift of 4 m, the pump’s flow rate decreases by approximately 20%. This applies to pumps of 3/4” and larger; data varies depending on the pump configuration.

VISCOUS LIQUIDS PERFORMANCE DATA



When pumping a fluid with a viscosity of 6000 cps, the pump’s flow rate decreases by 60% of its rated value (100% = water). This applies to pumps of 3/4” and larger.

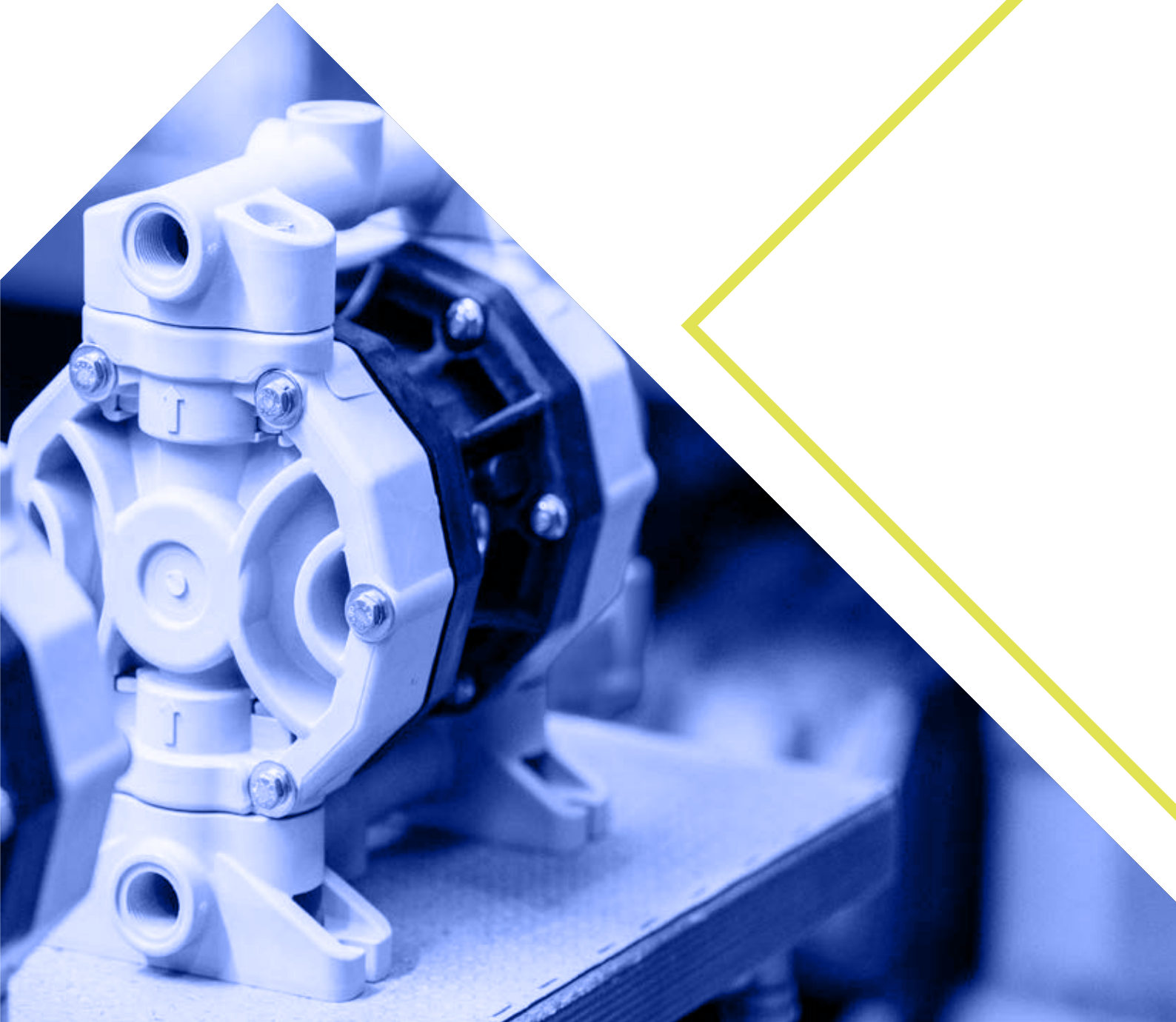
Pump Type	AODD	Centrifugal	Lobe	Gear	Screw	Peristaltic	Piston
							
Variable Flow & Head Control	◆	◆	◆	◆	◆	◆	◆
Deadhead Safety	◆	◆	◆	◆	◆	◆	◆
Dry-Running	◆	◇	◇	◇	◇	◆	◇
Dry Self-Priming	◆	◇	◇	◆	◇	◆	◆
No Mechanical Alignment	◆	◇	◇	◇	◇	◇	◇
No Electrical Installation	◆	◇	◇	◇	◇	◇	◇
Portability	◆	◆	◆	◆	◆	◆	◆
Submersible	◆	◆	◇	◇	◇	◇	◆
Sealless	◆	◆	◆	◆	◆	◆	◆
Cavitation Tolerance	◆	◇	◆	◆	◆	◆	◆
Low Shear & Degradation	◆	◇	◆	◆	◆	◆	◆

◆ = Suitable ◆ = With limitations ◇ = Not recommended

fluimac®
PUMPS WE TRUST

PHOENIX
PNEUMATIC PUMPS

AODD pneumatic pumps
Flow-rate from 4 lt/min to 1.050 lt/min.



PHOENIX SERIES

PP

PVDF+CF

POMc

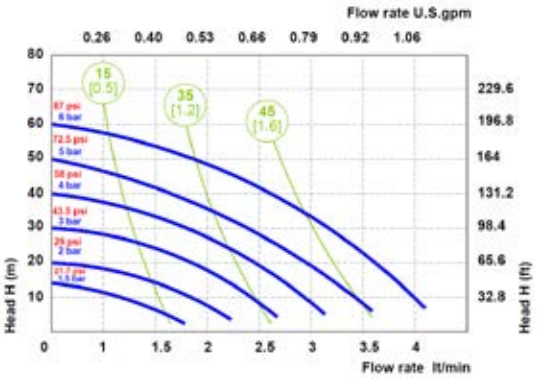
TECHNICAL DATA

- Fluid connections **1/4" BSPP**
- Air connection **1/8" BSPP**
- Max flow rate **4 lt/min**
- Max air pressure **6 bar**
- Max delivery head **60 mt**
- Max suction lift dry **3 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **2 mm**
- Noise level **62 dB**
- Max viscosity **5.000 cps**
- Displacement per stroke **18 CC ~**

II 3/3 G Ex h IIC T4 Gc
II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



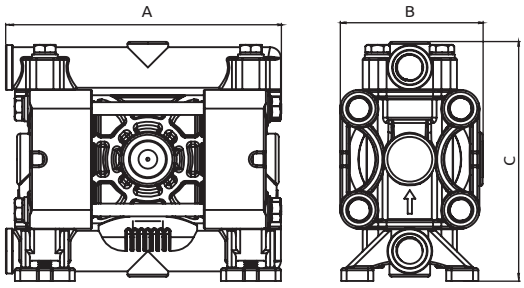
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	129 mm	67 mm	112 mm	0,84 kg	- 4 °C	+ 65 °C
PVDF	129 mm	67 mm	112 mm	0,84 kg	- 20 °C	+ 95 °C
POMc	129 mm	67 mm	112 mm	0,84 kg	- 5 °C	+ 80 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0004	**P** = PP **KC** = PVDF+CF **O** = POMc	**NT** = NBR+PTFE	**T** = PTFE **S** = SS	**P** = PP **K** = PVDF **O** = POMc	**D** = EPDM **V** = VITON **N** = NBR **T** = PTFE	**1** = BSP **A** = BSP with ring **5** = NPT **E** = NPT with ring	**-** = zone 2	**AB** = STANDARD

PHOENIX SERIES

PP

PVDF+CF

POMc

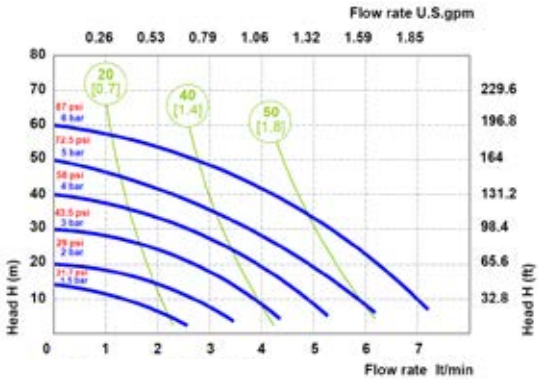
TECHNICAL DATA

- Fluid connections **1/4" BSPP**
- Air connection **1/8" BSPP**
- Max flow rate **7 lt/min**
- Max air pressure **6 bar**
- Max delivery head **60 mt**
- Max suction lift dry **3 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **2 mm**
- Noise level **62 dB**
- Max viscosity **5.000 cps**
- Displacement per stroke **18 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



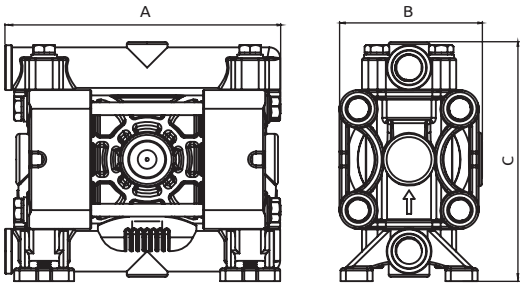
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	129 mm	67 mm	112 mm	0,84 kg	- 4 °C	+ 65 °C
PVDF	129 mm	67 mm	112 mm	0,84 kg	- 20 °C	+ 95 °C
POMc	129 mm	67 mm	112 mm	0,84 kg	- 5 °C	+ 80 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0008	**P** = PP **KC** = PVDF+CF **O** = POMc	**NT** = NBR+PTFE	**T** = PTFE **S** = SS	**P** = PP **K** = PVDF **O** = POMc	**D** = EPDM **V** = VITON **N** = NBR **T** = PTFE	**1** = BSP **A** = BSP with ring **5** = NPT **E** = NPT with ring	**-** = zone 2	**AB** = STANDARD

PHOENIX SERIES

P 20

PP

PVDF+CF

POMc

SS

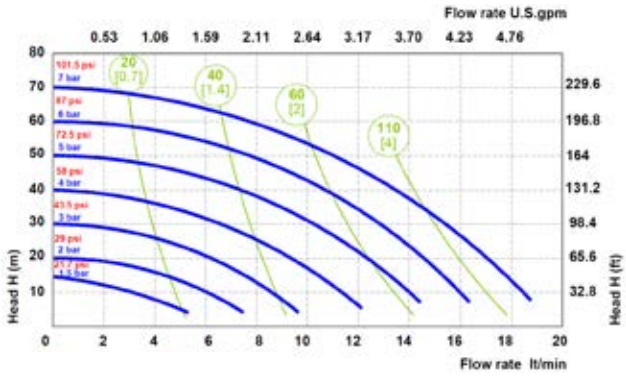
TECHNICAL DATA

- Fluid connections **3/8" BSPP**
- Air connection **1/4" BSPP**
- Max flow rate **20 lt/min**
- Max air pressure **7 bar**
- Max delivery head **70 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **2,5 mm**
- Noise level **65 dB**
- Max viscosity **10.000 cps**
- Displacement per stroke **30 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



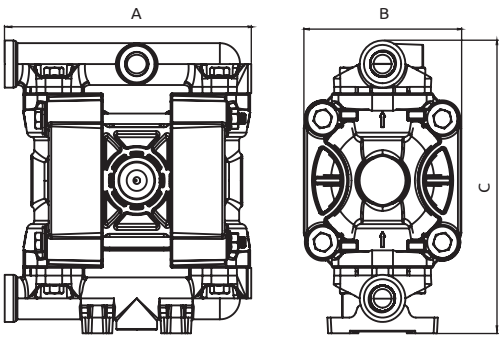
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	147 mm	93 mm	170 mm	1,3 kg	- 4 °C	+ 65 °C
PVDF	147 mm	93 mm	170 mm	1,6 kg	- 20 °C	+ 95 °C
POMc	147 mm	93 mm	170 mm	1,5 kg	- 5 °C	+ 80 °C
SS	148 mm	85 mm	152 mm	2,3 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0020	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE+PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	O = POMc	**H** = HYTREL		**O** = POMc	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.		**S** = SS	**T** = PTFE	**E** = NPT with ring		

PHOENIX SERIES

P 35

PP

PVDF+CF

ALU

SS

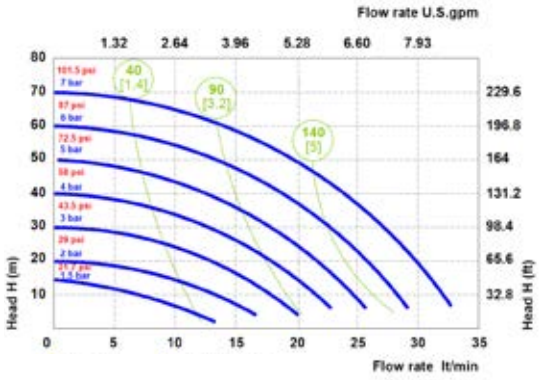
TECHNICAL DATA

- Fluid connections **1/2" BSPP**
- Air connection **1/4" BSPP**
- Max flow rate **35 lt/min**
- Max air pressure **7 bar**
- Max delivery head **70 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **3 mm**
- Noise level **65 dB**
- Max viscosity **15.000 cps**
- Displacement per stroke **65 CC ~**

⟨Ex⟩ II 3/3 G Ex h IIC T4 Gc
⟨Ex⟩ II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



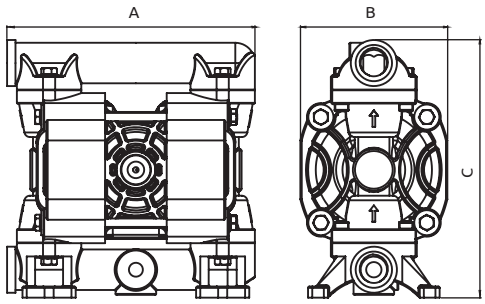
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	177 mm	105 mm	186 mm	1,8 kg	- 4 °C	+ 65 °C
PVDF	177 mm	105 mm	186 mm	2,3 kg	- 20 °C	+ 95 °C
ALU	183 mm	110 mm	189 mm	2,8 kg	- 20 °C	+ 95 °C
SS	181 mm	106 mm	192 mm	3,8 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0035	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	A = ALU	**H** = HYTREL	**D** = EPDM	**O** = POMc	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**E** = NPT with ring		
				S = SS				

PHOENIX SERIES

P 55

PP

PVDF+CF

ALU

SS

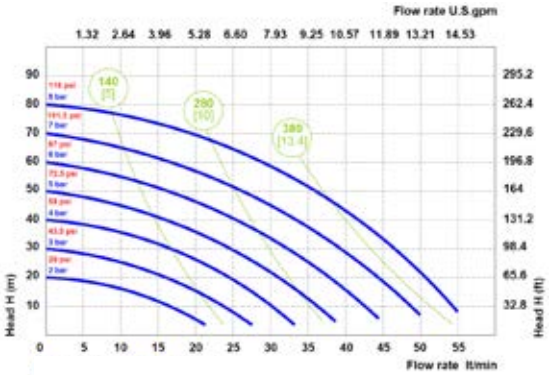
TECHNICAL DATA

- Fluid connections **1/2" BSPP**
- Air connection **1/4" BSPP**
- Max flow rate **55 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **3,5 mm**
- Noise level **70 dB**
- Max viscosity **15.000 cps**
- Displacement per stroke **140 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



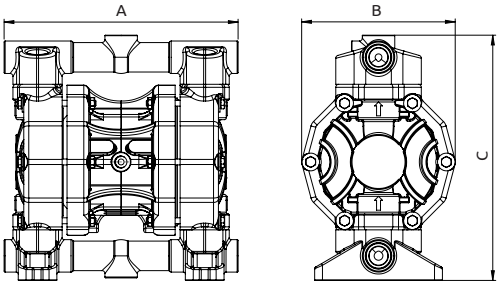
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	238 mm	156 mm	249 mm	3,8 kg	- 4 °C	+ 65 °C
PVDF	238 mm	156 mm	249 mm	4,8 kg	- 20 °C	+ 95 °C
ALU	234 mm	156 mm	245 mm	3,8 kg	- 20 °C	+ 95 °C
SS	234 mm	156 mm	269 mm	6,8 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0055	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**2** = FLANGED		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**5** = NPT		
		D = EPDM				**E** = NPT with ring		
		N = NBR						

PHOENIX SERIES

P 60

PP

PVDF+CF

ALU

SS

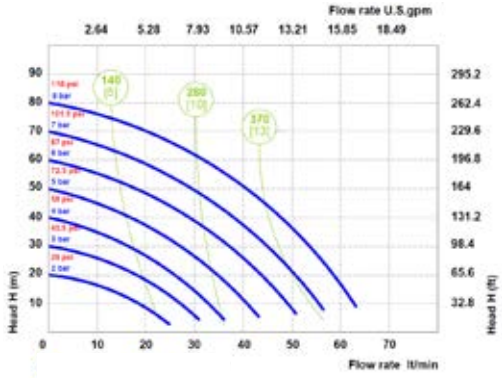
TECHNICAL DATA

- Fluid connections **1/2" BSPP**
- Air connection **1/4" BSPP**
- Max flow rate **65 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **3,5 mm**
- Noise level **72 dB**
- Max viscosity **20.000 cps**
- Displacement per stroke **140 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



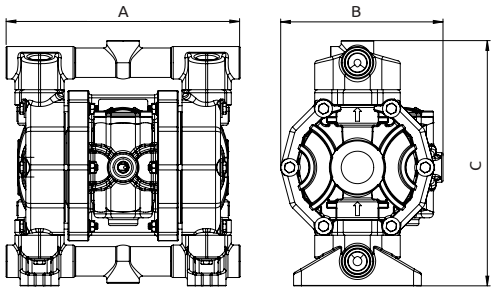
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	238 mm	165 mm	249 mm	4,3 kg	- 4 °C	+ 65 °C
PVDF	238 mm	165 mm	249 mm	5,3 kg	- 20 °C	+ 95 °C
ALU	234 mm	165 mm	245 mm	4,3 kg	- 20 °C	+ 95 °C
SS	234 mm	165 mm	269 mm	7,3 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0060	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	S = SS	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**2** = FLANGED		
	A = ALU	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**5** = NPT		
		D = EPDM				**E** = NPT with ring		
		N = NBR						

PHOENIX SERIES

P 90

PP

PVDF+CF

ALU

SS

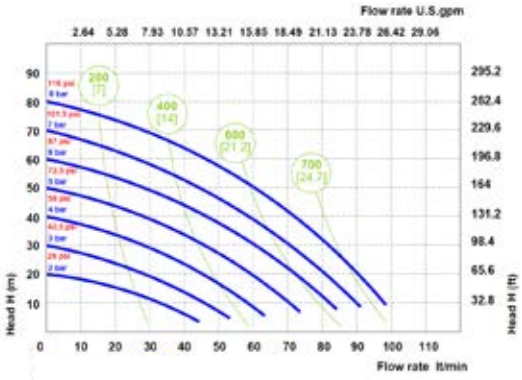
TECHNICAL DATA

- Fluid connections **3/4" BSPP**
- Air connection **3/8" BSPP**
- Max flow rate **100 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **4 mm**
- Noise level **72 dB**
- Max viscosity **25.000 cps**
- Displacement per stroke **200 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



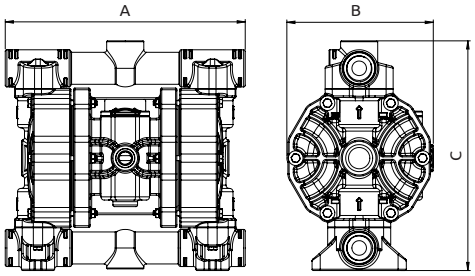
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	293 mm	179 mm	267 mm	5,1 kg	- 4 °C	+ 65 °C
PVDF	293 mm	179 mm	267 mm	6,6 kg	- 20 °C	+ 95 °C
ALU	293 mm	178 mm	290 mm	5,6 kg	- 20 °C	+ 95 °C
SS	280 mm	178 mm	291 mm	7,6 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0090	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**2** = FLANGED		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**5** = NPT		
		D = EPDM				**E** = NPT with ring		
		N = NBR						

PHOENIX SERIES

P 120

PP

PVDF+CF

ALU

SS

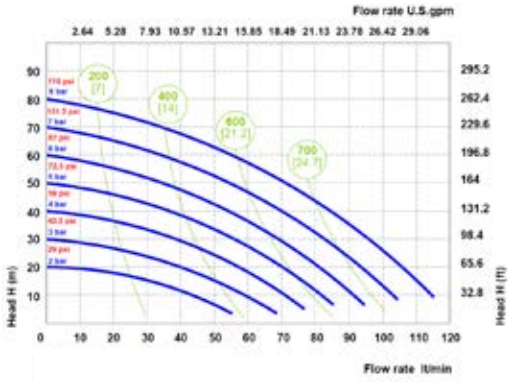
TECHNICAL DATA

- Fluid connections **1" BSPP**
- Air connection **3/8" BSPP**
- Max flow rate **120 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **4 mm**
- Noise level **72 dB**
- Max viscosity **25.000 cps**
- Displacement per stroke **200 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



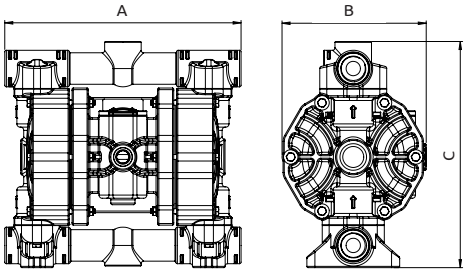
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	293 mm	179 mm	280 mm	5,6 kg	- 4 °C	+ 65 °C
PVDF	293 mm	179 mm	280 mm	7,6 kg	- 20 °C	+ 95 °C
ALU	293 mm	178 mm	301 mm	5,6 kg	- 20 °C	+ 95 °C
SS	280 mm	178 mm	291 mm	9,6 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0120	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**2** = FLANGED		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**5** = NPT		
		D = EPDM				**E** = NPT with ring		
		N = NBR						

PHOENIX SERIES

P 170

PP

PVDF+CF

ALU (P 160)

SS

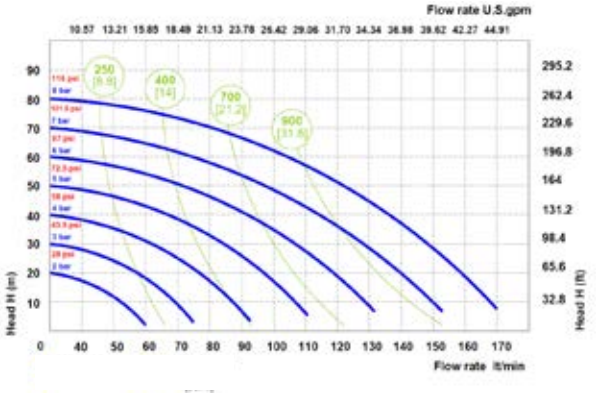
TECHNICAL DATA

- Fluid connections **1" BSPP-DN25**
- Air connection **1/2" BSPP**
- Max flow rate **170 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **7,5 mm**
- Noise level **75 dB**
- Max viscosity **35.000 cps**
- Displacement per stroke **700 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



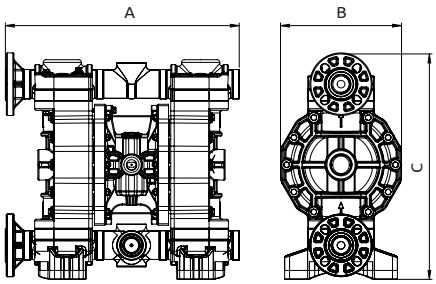
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	430 mm	222 mm	414 mm	14,2 kg	- 4 °C	+ 65 °C
PVDF	430 mm	222 mm	414 mm	16,2 kg	- 20 °C	+ 95 °C
ALU	370 mm	222 mm	364 mm	13,2 kg	- 20 °C	+ 95 °C
SS	357 mm	222 mm	371 mm	17,2 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0170 **P0160 (ONLY ALU)**	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**2** = FLANGED		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE			
		D = EPDM						
		N = NBR						

PHOENIX SERIES

P 252

PP

PVDF+CF

ALU (P 250)

SS

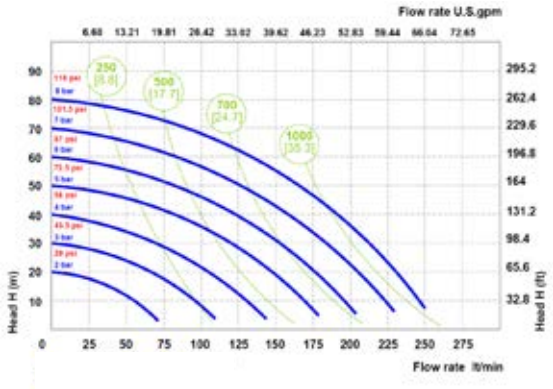
TECHNICAL DATA

- Fluid connections **1" 1/4" BSPP**
- Air connection **1/2" BSPP**
- Max flow rate **250 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **7,5 mm**
- Noise level **75 dB**
- Max viscosity **35.000 cps**
- Displacement per stroke **700 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

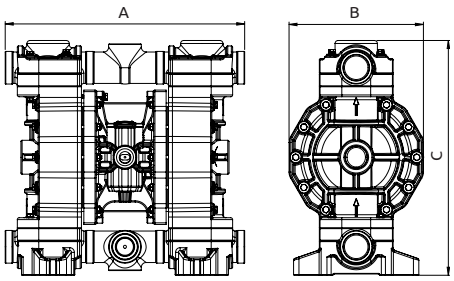
PERFORMANCE



The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	396 mm	222 mm	388 mm	14,2 kg	- 4 °C	+ 65 °C
PVDF	396 mm	222 mm	388 mm	16,2 kg	- 20 °C	+ 95 °C
ALU	370 mm	222 mm	365 mm	13,2 kg	- 20 °C	+ 95 °C
SS	357 mm	222 mm	371 mm	17,2 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0252 **P0250** **(ONLY ALU)**	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**A** = BSP with ring		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**2** = FLANGED		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE	**5** = NPT		
		D = EPDM				**E** = NPT with ring		
		N = NBR						

PHOENIX SERIES

P 400

PP

PVDF+CF

ALU

SS

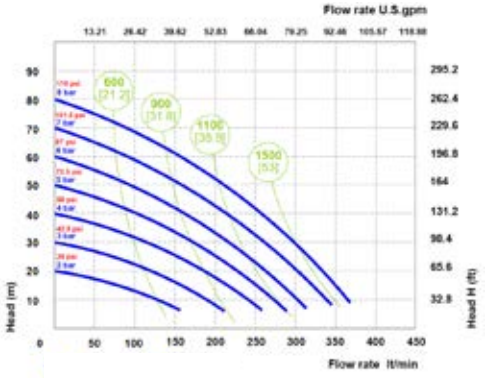
TECHNICAL DATA

- Fluid connections **1" 1/2" BSPP-DN40**
- Air connection **1/2" BSPP**
- Max flow rate **380 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **8 mm**
- Noise level **78 dB**
- Max viscosity **40.000 cps**
- Displacement per stroke **1200 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

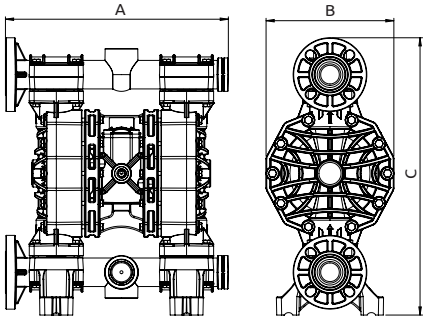
PERFORMANCE



The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	454 mm	260 mm	564 mm	14,2 kg	- 4 °C	+ 65 °C
PVDF	454 mm	260 mm	564 mm	16,2 kg	- 20 °C	+ 95 °C
ALU	444 mm	260 mm	563 mm	13,2 kg	- 20 °C	+ 95 °C
SS	361 mm	260 mm	502 mm	17,2 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0400	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**2** = FLANGED		**EF** = STANDARD SS
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE			
		D = EPDM						
		N = NBR						

PHOENIX SERIES

P 700

PP

PVDF+CF

ALU

SS

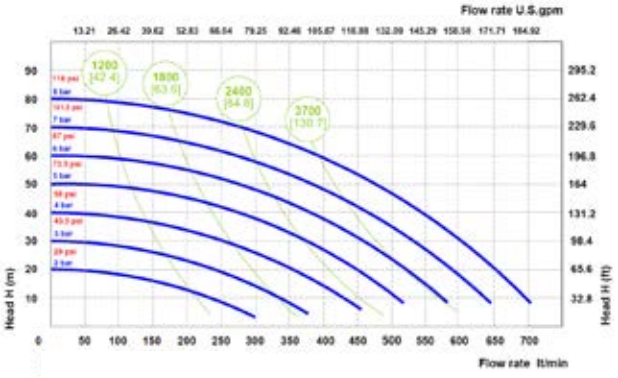
TECHNICAL DATA

- Fluid connections **2" BSPP-DN50**
- Air connection **3/4" BSPP**
- Max flow rate **700 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **8,5 mm**
- Noise level **78 dB**
- Max viscosity **50.000 cps**
- Displacement per stroke **3050 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



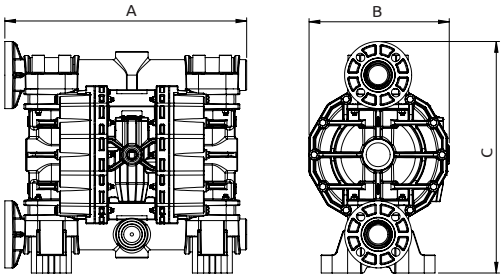
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	595 mm	345 mm	570 mm	30,6 kg	- 4 °C	+ 65 °C
PVDF	595 mm	345 mm	570 mm	41,6 kg	- 20 °C	+ 95 °C
ALU	595 mm	340 mm	567 mm	37,6 kg	- 20 °C	+ 95 °C
SS	487 mm	340 mm	599 mm	51 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P0700	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**2** = FLANGED		**EF** = STANDARD SS
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE			
		D = EPDM						
		N = NBR						

PHOENIX SERIES

P 1000

PP

PVDF+CF

ALU

SS

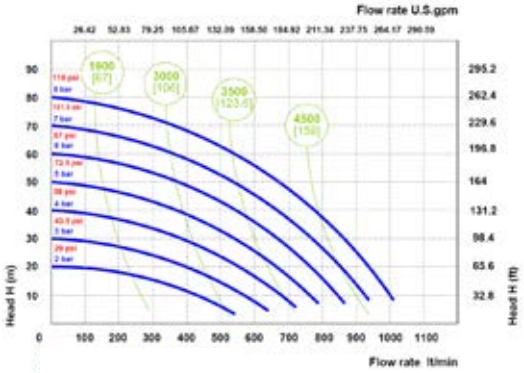
TECHNICAL DATA

- Fluid connections **3" BSPP-DN80**
- Air connection **3/4" BSPP**
- Max flow rate **1050 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max suction lift dry **5 mt**
- Max suction lift wet **9,8 mt**
- Max solid passing **12 mm**
- Noise level **82 dB**
- Max viscosity **55.000 cps**
- Displacement per stroke **9750 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



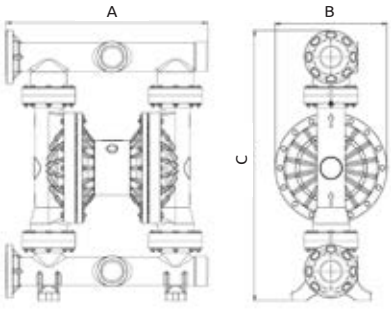
Air supply pressure

Air consumption Nlt/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PP	780 mm	417 mm	1024 mm	62 kg	- 4 °C	+ 65 °C
PVDF	780 mm	417 mm	1024 mm	77 kg	- 20 °C	+ 95 °C
ALU	710 mm	417 mm	940 mm	84 kg	- 20 °C	+ 95 °C
SS	672 mm	417 mm	946,5 mm	122 kg	- 20 °C	+ 95 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
P1000	**P** = PP	**HT** = HYTREL+PTFE	**T** = PTFE	**P** = PP	**D** = EPDM	**1** = BSP	**-** = zone 2	**AB** = STANDARD
	KC = PVDF+CF	**MT** = SANTOPRENE +PTFE	**S** = SS	**K** = PVDF	**V** = VITON	**2** = FLANGED		
	A = ALU	**H** = HYTREL	**D** = EPDM	**S** = SS	**N** = NBR	**5** = NPT		
	S = SS	**W** = SANTOPRENE H.R.	**N** = NBR	**Z** = PE-UHMWE	**T** = PTFE			
		D = EPDM						
		N = NBR						

fluimac®
PUMPS WE TRUST

PHOENIX FOOD
PNEUMATIC PUMPS

Double diaphragm pneumatic pumps
Flow rate from 20 l/min to 1,050 l/min.

PHOENIX FOOD SERIES

PHOENIX FOOD 20

PF 20

SS 316L

FDA COMPLIANT

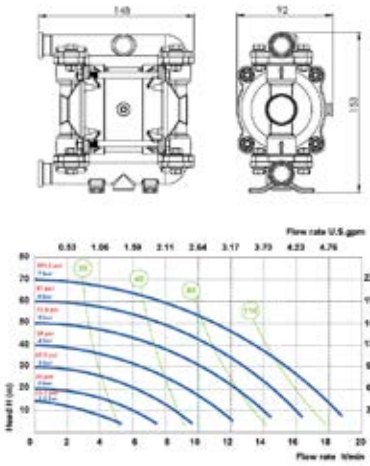
TECHNICAL DATA

Fluid connections **3/4" TRI-CLAMP**
DN 3/4" BS 4825
Air connection **6 mm**
Max flow rate **20 lt/min**
Max air pressure **7 bar**
Max delivery head **70 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **2,5 mm**
Noise level **65 dB**
Max viscosity **10.000 cps**
Displacement per stroke **30 CC ~**

II 3/3 G Ex h IIC T4 Gc
II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
2,3 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0020	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD 35

PF 35

SS 316L

FDA COMPLIANT

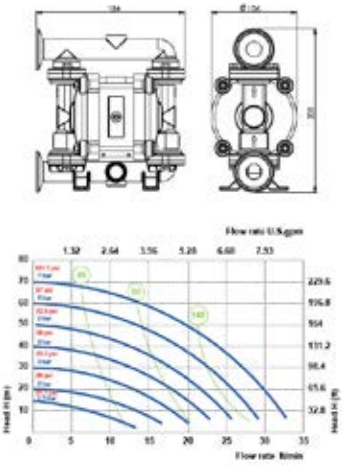
TECHNICAL DATA

Fluid connections **1" TRI-CLAMP**
DN 1" BS 4825
Air connection **6 mm**
Max flow rate **35 lt/min**
Max air pressure **7 bar**
Max delivery head **70 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **3 mm**
Noise level **65 dB**
Max viscosity **15.000 cps**
Displacement per stroke **65 CC ~**

II 3/3 G Ex h IIC T4 Gc
II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
3,8 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0035	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD SERIES

PHOENIX FOOD 60

PF 60

SS 316L

FDA COMPLIANT

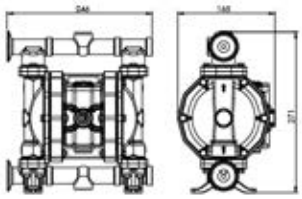
TECHNICAL DATA

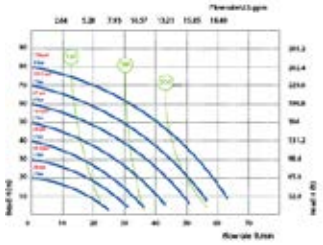
Fluid connections **1" TRI-CLAMP**
DN 1" BS 4825
Air connection **1/4" BSP**
Max flow rate **65 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **3,5 mm**
Noise level **72 dB**
Max viscosity **20.000 cps**
Displacement per stroke **140 CC ~**

Ex II 3/3 G Ex h IIC T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
7,3 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0060	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD 120

PF 120

SS 316L

FDA COMPLIANT

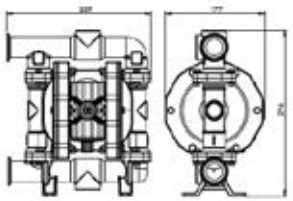
TECHNICAL DATA

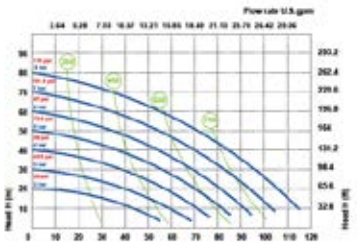
Fluid connections **1" TRI-CLAMP**
DN 25 ISO 2852
Air connection **1/4" BSP**
Max flow rate **120 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **4 mm**
Noise level **72 dB**
Max viscosity **25.000 cps**
Displacement per stroke **200 CC ~**

Ex II 3/3 G Ex h IIC T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
9,6 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0120	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD SERIES

PHOENIX FOOD 170

PF 170

SS 316L

FDA COMPLIANT

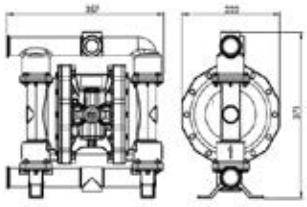
TECHNICAL DATA

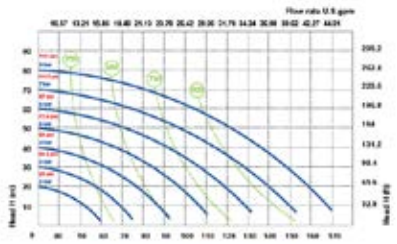
Fluid connections **1" 1/2 TRI-CLAMP**
DN 1" 1/2 BS 4825
Air connection **1/2" BSP**
Max flow rate **170 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **7,5 mm**
Noise level **75 dB**
Max viscosity **35.000 cps**
Displacement per stroke **700 CC ~**

Ex II 3/3 G Ex h IIB T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
17,2 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0170	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD 400

PF 400

SS 316L

FDA COMPLIANT

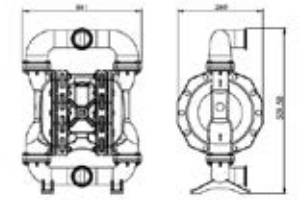
TECHNICAL DATA

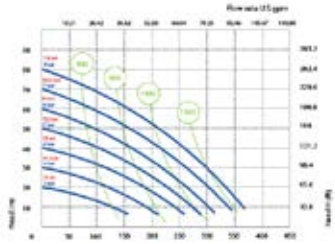
Fluid connections **2" TRI-CLAMP**
DN 40 ISO 2852
Air connection **1/2" BSP**
Max flow rate **380 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **8 mm**
Noise level **78 dB**
Max viscosity **40.000 cps**
Displacement per stroke **1200 CC ~**

Ex II 3/3 G Ex h IIB T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with sub-merged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
25,3 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0400	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD SERIES

PHOENIX FOOD 700

PF 700

SS 316L

FDA COMPLIANT

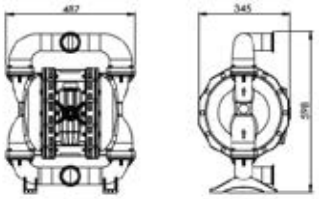
TECHNICAL DATA

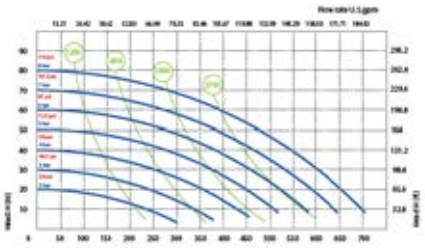
Fluid connections **2" 1/2 TRI-CLAMP**
DN 50 ISO 2852
Air connection **3/4" BSP**
Max flow rate **700 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **8,5 mm**
Noise level **78 dB**
Max viscosity **50.000 cps**
Displacement per stroke **3050 CC ~**

Ex II 3/3 G Ex h IIB T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
51 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF0700	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

PHOENIX FOOD 1000

PF 1000

SS 316L

FDA COMPLIANT

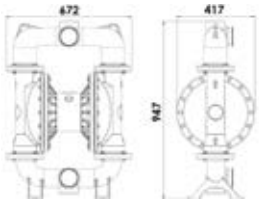
TECHNICAL DATA

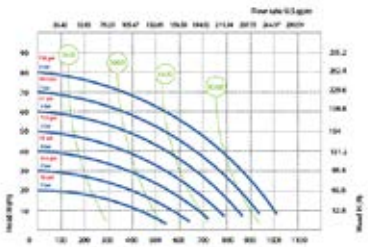
Fluid connections **3" TRI-CLAMP**
DN 80 ISO 2852
Air connection **3/4" BSP**
Max flow rate **1050 lt/min**
Max air pressure **8 bar**
Max delivery head **80 mt**
Max suction lift dry **5 mt**
Max suction lift wet **9,8 mt**
Max solid passing **12 mm**
Noise level **82 dB**
Max viscosity **55.000 cps**
Displacement per stroke **9750 CC ~**

Ex II 3/3 G Ex h IIB T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE





Air supply pressure
Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and free delivery outlet, with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

Weight Kg	Temperature
122 kg	- 20 °C + 95 °C

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PF1000	**S** = SS 316L	**HT** = HYTREL+PTFE	**T** = PTFE **S** = SS	**S** = SS	**T** = PTFE	**3** = TRI-CLAMP **1** = BSP **6** = DIN	**-** = zone 2 **X** = zone 1	**AB** = STANDARD

fluimac®
PUMPS WE TRUST

SPECIAL
PNEUMATIC PUMPS

Phoenix Atex, Accurate Phoenix, Flap Phoenix, Steel Phoenix, Drum Phoenix, Twin Phoenix, Submersible Phoenix and Power Phoenix

PHOENIX ATEX Ex ZONE I

PUMPS	MAIN APPLICATIONS
ALL RANGE	- Petrol-chemical industry - Flexographic industry - Food industry - Painting industry - Automotive industry

ATEX MARKING

For the product design and conformity evaluation we used following documents:
- 2014/34/EU: ATEX Directive, on the approximation of European Member States laws concerning protection equipment and systems to be used in potentially explosive environments.
- UNI CEI EN ISO 80079-36:2016 - Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements.
- UNI CEI EN ISO 80079-37:2016 – Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k".

To follow the ATEX marking referred to the equipment for explosive GAS atmosphere:
II 2/2 G Ex h IIC T4 Gb (P01-P03-P07-P18-P30-P50-P55-P60-P65-P90-P100-P101- P120)
II 2/2 G Ex h IIB T4 Gb (P160-P170-P171-P250-P252-P400-P700-P1000)
To follow the ATEX marking referred to the equipment for explosive DUST atmosphere:
II 2 D Ex h IIIB T 135°C Db X (all models)

Ex	Safety symbol.
II	Equipment group for surface.
2/2 G	Category 2 equipment that can be installed in the presence of an explosive atmosphere consisting of zone 1 gas, even indoors.
2 D	Category 2 equipment that can be installed in the presence of an explosive atmosphere consisting of zone 21 dusts.
Ex	Symbol to identify it as approved under the IECEx scheme.
h	Type of protection according to ISO IEC 80079-36:2016.
IIB o IIC	Product suitable for installation in the presence of Group IIB or IIC gas (depending on the model).
IIIB	Product suitable for installation in presence of Group IIIB dusts (excluding conductive dusts).
T4	Temperature class.
T135°C	Maximum surface temperature.
Gb	EPL Gb protection level in accordance with EN 60079-0: 12 and EN 80079-36: 16 Standards.
Db	EPL Gb protection level in accordance with EN 60079-0: 12 and EN 80079-36: 16 Standards.
X	Special Condition for safe use: the pump can't process explosive dust inside.

Fluimac has filed with the BUREAU VERITAS certification body the documentation certifying ATEX compliance pursuant to Directive 2014/34 / UE for its ranges of AODD pumps and pulsation dampeners, with special construction materials to have zone 1 certification. The equipment user is responsible for classifying their installation zone. Before installation the equipment user always must check the compliance with the classification of the installation zone.

IECEx MARKING

For the product design and conformity evaluation we used following documents:
- UNI CEI EN ISO 80079-36:2016 - Explosive atmospheres - Part 36: Non-electrical equipment for explosive atmospheres - Basic method and requirements.
- UNI CEI EN ISO 80079-37:2016 – Explosive atmospheres - Part 37: Non-electrical equipment for explosive atmospheres - non- electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k".

To follow the IECEx marking referred to the equipment for explosive GAS atmosphere:
Ex h IIC T4 Gb (P01-P03-P07-P18-P30-P50-P55-P60-P65-P90-P100-P101- P120)
Ex h IIB T4 Gb (P160-P170-P171-P250-P252-P400-P700-P1000)
To follow the IECEx marking referred to the equipment for explosive DUST atmosphere:
Ex h IIIB T 135°C Db (all models)

II	Safety symbol.
h	Type of protection according to ISO IEC 80079-36:2016.
IIB o IIC	Product suitable for installation in the presence of Group IIB or IIC gas (depending on the model).
IIIB	Product suitable for installation in presence of Group IIIB dusts (excluding conductive dusts).
T4	Temperature class.
T135°C	Maximum surface temperature.
Gb	EPL Gb protection level in accordance with EN 60079-0: 12 and EN 80079-36: 16 Standards.
Db	EPL Gb protection level in accordance with EN 60079-0: 12 and EN 80079-36: 16 Standards.
X	Special Condition for safe use: the pump can't process explosive dust inside.

Fluimac technical file is deposited with the certifying body IEC EUROFINS.
The equipment user is responsible for classifying their installation zone. Before installation the equipment user always must check the compliance with the classification of the installation zone.

PHOENIX ATEX FOR MINES

PUMPS	MAIN APPLICATIONS
ALL RANGE	- Petrol - chemical industry - Flexographic industry - Food industry - Painting industry - Automotive industry

I M2 Ex h I Mb X

I	Mines.
M2	Category M2 equipment that can be installed in mines in “hazardous condition 2” that is in a potentially explosive atmosphere consisting of firedamp and coal dust.
Ex	Conventional symbol Ex.
h	Protection mode for constructional safety “c”.
I	Equipment for use in mine.
Mb	Protection level EPL Mb in accordance with EN 60079-0:12 and EN 80079-36:16 standards.
X	The internal area of the pump is not ATEX, i.e., it cannot process explosive fluids when installed in mines. The pumps must be installed in areas with low impact risk.

NB: aluminium versions excluded



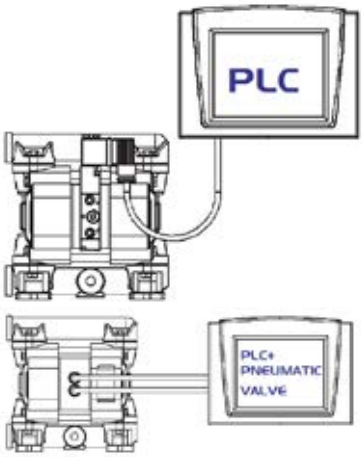

TECHNICAL DATA

Fluimac technical file is deposited with the certifying body IEC EUROFINS. The equipment user is responsible for classifying their installation zone. Before installation the equipment user always must check the compliance with the classification of the installation zone.

ACCURATE PHOENIX

PUMPS		MAIN APPLICATIONS	
AP7	AP90	- Chemical industry	- Painting industry
AP18	AP120	- Waste disposal technology	- Printing industry
AP30	AP170	- Flexographic industry	- Water treatment
AP60	AP252		





TECHNICAL DATA

ACCURATE PHOENIX are Pumps that give you the external pump control necessary for exacting applications such as batching. Featuring a direct electrical interface that utilizes electrical impulses to stroke the pump instead of differential pressure, the ACCURATE PHOENIX provides a variable stroke rate that you can easily control as needed.
Note: PLC and computer system not included.

FLAP PHOENIX

PUMPS		MAIN APPLICATIONS
FP0170	FPF0170	- Waste disposal technology
FP0400	FPF0170	- Food industry
FP0700	FPF0170	- Ceramic
FP1000	FPF0170	

TECHNICAL DATA

FLAP PHOENIX are heavy duty flap valve pump has a proven design that solves the most common challenges in bad applications, sump applications, mine dewatering, food applications and any liquid application involving solids. Thanks to the FLAP valve the solid passing increase up to 30mm.

STEEL PHOENIX

PUMPS	MAIN APPLICATIONS
from SP0018 to SP0700 MODELS from SPF0018 to SPF0700 MODELS	- Chemical industry - Automotive industry - Food industry

TECHNICAL DATA

The entire construction of the central block is made of Stainless Steel 316 making the PHOENIX STEEL air operated double diaphragms pumps series extremely resistant to corrosion, guaranteeing at the same time robust and solid solution for continuous operations, also with low or high temperature.

DRUM PHOENIX

PUMPS

DP18 - DP30 - DP60 - DP120 - DP170

MAIN APPLICATIONS

- Chemical industry
- Waste disposal technology
- Automotive industry
- Food industry

TECHNICAL DATA

DRUM PHOENIX are designed for emptying drums and containers and provide an economical and wear resistant alternative to other pumping systems. To handle a wide range of fluids, DP pumps are available in all materials. The pump can be quickly and easily mounted on the drum with its feet. The drum will be completely emptied with a suction pipe.

SUBMERSIBLE PHOENIX

PUMPS

ALL RANGE

MAIN APPLICATIONS

- Chemical industry
- Waste disposal technology
- Food industry
- Petrol-chemical industrypumpsmain

TECHNICAL DATA

SUBMERSIBLE pumps may be submerged into the liquid. It is important to make sure that all components which are in contact with the liquid are chemically compatible. The air exhaust must be led to the atmosphere by means of a hose. **NOTE: check the compatibility chart for all materials.**

TWIN PHOENIX

PUMPS

ALL RANGE

MAIN APPLICATIONS

- Painting industry
- Wastewater technology
- Printing industry
- Paper processing
- Flexographic industry

TECHNICAL DATA

TWIN PHOENIX are mainly used in the textile and paper processing industry. These dual action pumps can transfer two different media independently and simultaneously. This is accomplished by using separate connections on the suction and discharge ports, keeping two pumped media isolated from each other, preventing unwanted mixing.

POWDER PHOENIX

PUMPS

ALL RANGE

MAIN APPLICATIONS

- Painting industry
- Wastewater technology
- Printing industry
- Food industry
- Chemical industry

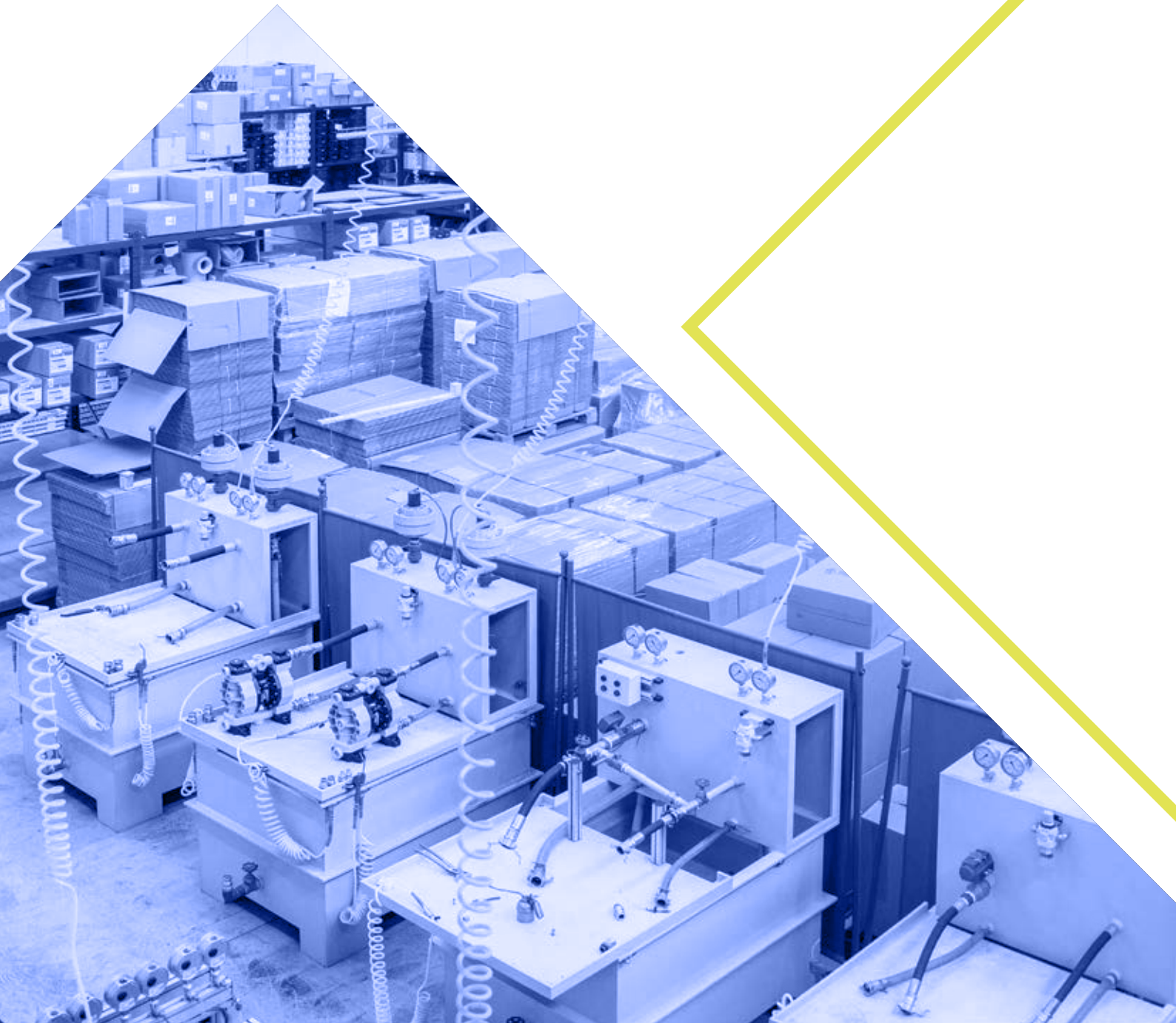
TECHNICAL DATA

POWDERS pumps are designed to move bulk powders more effectively throughout your process vs. other unsafe and labour-intensive means. These heavy-duty pumps will consistently transfer fine-grained, low-bulk density dry powders in a dust-free operation.

fluimac®
PUMPS WE TRUST

DAMPER
PNEUMATIC DAMPENERS

Pneumatic, automatic pulsation dampeners
Applicable to all size of pumps
Available also in ATEX and FOOD version



DAMPER

The active pulsation dampener is the most efficient way to remove pressure variations on the discharge of the pump. Fluimac pulsation dampener works actively with compressed air and a diaphragm, setting automatically the correct pressure to minimize the pulsations. Pulsation dampeners require minimum maintenance and are, subject to the requirements of the application, available in the same housing and diaphragm materials as the pump.

HOW IT WORKS

Il fluido pulsante della mandata spinge la membrana verso l'alto dove è ammortizzata dall'aria nella camera pneumatica. La flessione della membrana assorbe la pulsazione creando un flusso costante.

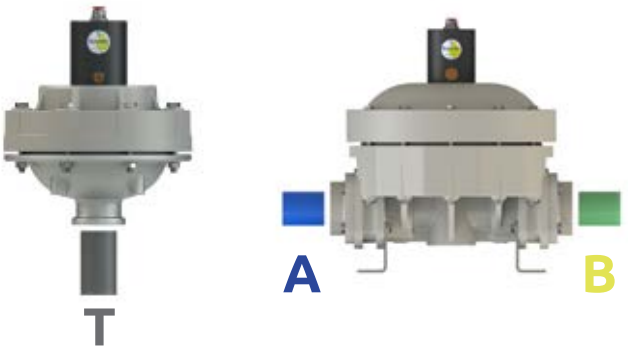
Significant Pulsation Reduction with an average 70% - 80% pulsation reduction in high back pressure applications.

APPLICATIONS

- METERING/ INJECTION/DOSING:
  Equalizes discharge pressure spikes, increasing accuracy
- FILTER PRESS/INLINE FILTERS
  Increases filter efficiency and life by providing a smooth flow
- SPRAYING
  Smooth, consistent spray pattern
- FILLING
  Eliminates inconsistent filling and splashing
- TRANSFER
  Eliminates harmful water hammer, preventing pipe and valve damage

INSTALLATION

PORT POSITION



DAMPER

DAMPER 20

D20

PP

PVDF+CF

POMc

SS

SS (DF020)

TECHNICAL DATA

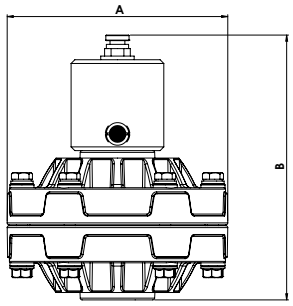
Fluid connections **3/4" BSP**
Air connection **6 mm**
Max air pressure **8 bar**
Capacity Volume **80 CC ~**

Ex II 3/3 G Ex h IIC T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

USABLE WITH:
4 - 8 - 20 - 35

DIMENSIONS

	PP	PVDF	POMc	SS
A (mm)	119	119	119	119
B (mm)	143	143	143	143
Weight Kg	0,65	0,7	0,65	2
Max Temp.	+65°C	+95°C	+80°C	+95°C
Min Temp.	-4°C	-20°C	-5°C	-20°C



MODEL	CASING	DIAPHRAGM	CONNECTIONS	PORTS
D020	**P** = PP **KC** = PVDF+CF **O** = POMc **S** = SS	**HT** = HYTREL+PTFE **MT** = SANTOPRENE+PTFE **H** = HYTREL **W** = SANTOPRENE H.R.	**1** = BSP **2** = FLANGED **5** = NPT	**T** = STANDARD
DF020	**S** = SS	**HT** = HYTREL+PTFE	**3** = TRI-CLAMP	**T** = STANDARD

DAMPER 25

D25

PP

PVDF+CF

POMc

SS

SS (DF025)

TECHNICAL DATA

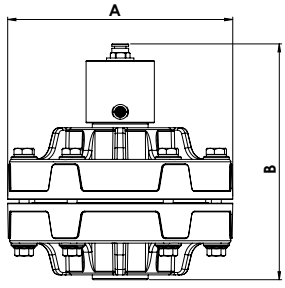
Fluid connections **1" BSP**
Air connection **8 mm**
Max air pressure **8 bar**
Capacity Volume **200 CC ~**

Ex II 3/3 G Ex h IIC T4 Gc
Ex II 3 D Ex h IIIB T135°C Dc X

USABLE WITH:
55 - 60 - 90 - 120

DIMENSIONS

	PP	PVDF	POMc	SS
A (mm)	181	181	181	181
B (mm)	195	195	195	195
Weight Kg	1,75	2	1,9	6,7
Max Temp.	+65°C	+95°C	+80°C	+95°C
Min Temp.	-4°C	-20°C	-5°C	-20°C



MODEL	CASING	DIAPHRAGM	CONNECTIONS	PORTS
D025	**P** = PP **KC** = PVDF+CF **O** = POMc **S** = SS	**HT** = HYTREL+PTFE **MT** = SANTOPRENE+PTFE **H** = HYTREL **W** = SANTOPRENE H.R. **D** = EPDM **N** = NBR	**1** = BSP **2** = FLANGED **3** = TRI-CLAMP **5** = NPT	**T** = STANDARD
DF025	**S** = SS	**HT** = HYTREL+PTFE	**3** = TRI-CLAMP	**T** = STANDARD

DAMPER

DAMPER 40

D40

PP

PVDF+CF

POMc

SS

SS (DF040)

TECHNICAL DATA

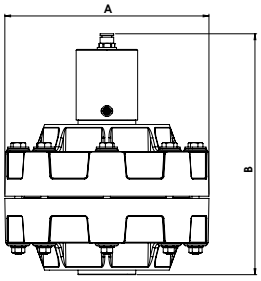
Fluid connections **1" 1/2 BSP**
Air connection **10 mm**
Max air pressure **8 bar**
Capacity Volume **700 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

USABLE WITH:
170 - 252 - 400

DIMENSIONS

	PP	PVDF	POMc	SS
A (mm)	231	231	231	231
B (mm)	270	270	270	267
Weight Kg	4	4,6	4,2	5,6
Max Temp.	+65°C	+95°C	+80°C	+95°C
Min Temp.	-4°C	-20°C	-5°C	-20°C



MODEL	CASING	DIAPHRAGM	CONNECTIONS	PORTS
D040	**P** = PP **KC** = PVDF+CF **O** = POMc **S** = SS	**HT** = HYTREL+PTFE **MT** = SANTOPRENE+PTFE **H** = HYTREL **W** = SANTOPRENE H.R. **D** = EPDM **N** = NBR	**1** = BSP **2** = FLANGED **5** = NPT	**T** = STANDARD
DF040	**S** = SS	**HT** = HYTREL+PTFE	**3** = TRI-CLAMP	**T** = STANDARD

DAMPER 50

D50

PP

PVDF+CF

ALU

SS

SS (DF050)

TECHNICAL DATA

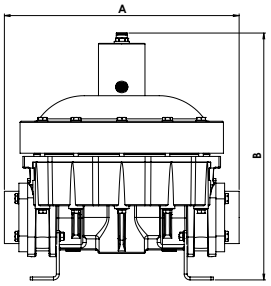
Fluid connections **2 " BSP**
Air connection **12 mm**
Max air pressure **8 bar**
Capacity Volume **2900 CC ~**

Ⓔx II 3/3 G Ex h IIB T4 Gc
Ⓔx II 3 D Ex h IIIB T135°C Dc X

USABLE WITH:
700

DIMENSIONS

	PP	PVDF	POMc	SS
A (mm)	404	404	400	402
B (mm)	425	425	425	408
Weight Kg	14	17	14,5	21,6
Max Temp.	+65°C	+95°C	+80°C	+95°C
Min Temp.	-4°C	-20°C	-5°C	-20°C



MODEL	CASING	DIAPHRAGM	CONNECTIONS	PORTS	POSIZIONE
D050	**P** = PP **KC** = PVDF+CF **A** = ALU **S** = SS	**HT** = HYTREL+PTFE **MT** = SANTOPRENE+PTFE **H** = HYTREL **W** = SANTOPRENE H.R. **D** = EPDM **N** = NBR	**D** = EPDM **V** = VITON **N** = NBR **T** = PTFE	**1** = BSP **2** = FLANGED **3** = TRI-CLAMP **5** = NPT	**T** = STANDARD
DF050	**S** = SS	**HT** = HYTREL+PTFE	**T** = PTFE	**3** = TRI-CLAMP	**T** = STANDARD

fluimac®
PUMPS WE TRUST

LOTUS
PNEUMATIC PUMPS

Pure double diaphragm pneumatic pumps
Flow-rate from 10 lt/min to 290 lt/min.

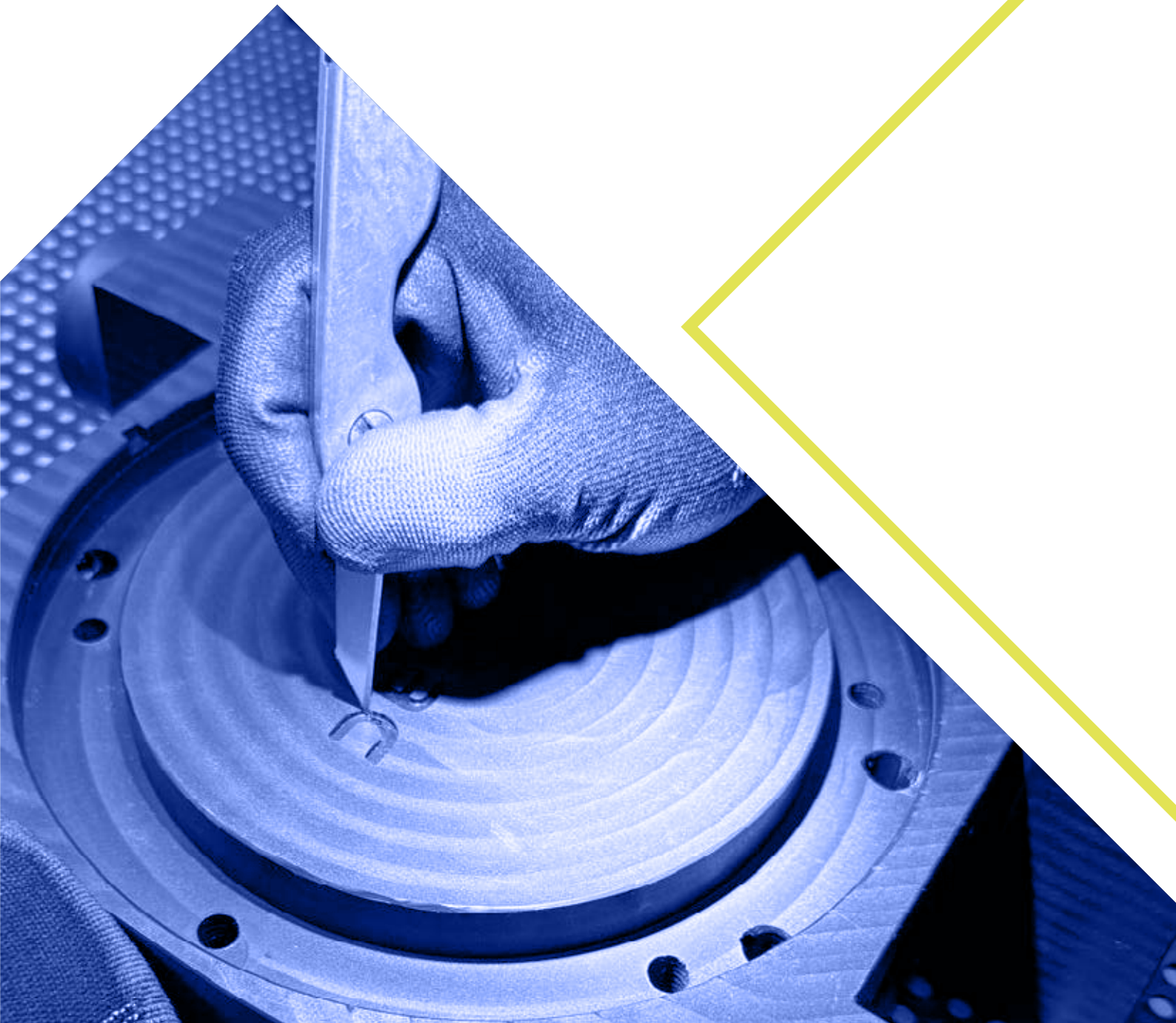


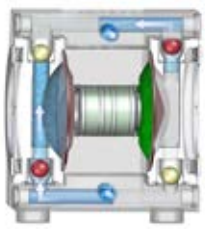
TABLE CODES

L	0015	T-	DT	T
MODEL	**SIZE**	**CASING**	**DIAPHRAGM**	**BALL**
L LOTUS Standard central block in POLYETHYLENE, available, on request, in PTFE. 	**10** 10 lt/min 3/8" BSPP **15** 55 lt/min 1/2" BSPP **25** 110 lt/min 1" BSPP **40** 290 lt/min 1" 1/2 BSPP	 **T** PTFE Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.  **TC** CONDUCTIVE PTFE Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance. Ground able.  **Z** PE With high molecular weight: High level of abrasion resistance.  **ZC** CONDUCTIVE PE With high molecular weight: High level of abrasion resistance. Ground able.  **PP** PURE Wide chemical compatibility. General purpose.	**DT** EPDM+PTFE Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.  **D** EPDM OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance. 	**T** PTFE Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.  **S** SS High level of corrosion and abrasion resistance. Good for viscous fluids  **D** EPDM OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance. 

PUMP OPERATION

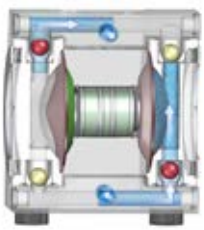
Fluid

Air



1 - SUCTION CYCLE

Compressed air fills right inner chamber, causing the opposing diaphragm to create suction, lifting the lower valve ball, pulling in fluid at inlet. Simultaneously, the right chamber is in "Discharge" cycle.



2 - DISCHARGE CYCLE

Compressed air fills left inner chamber, causing upper valve ball to open and discharge fluid. Simultaneously, the right chamber is in "Suction" cycle.

T	T	1	-	EF
BALL SEAT	**GASKET**	**CONNECTIONS**	**ATEX ZONE CERTIFICATION**	**PORTS**

T
PTFE
Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.

Z
PE
With high molecular weight: High level of abrasion resistance.

PP
PURE POLYPROPYLENE
Wide chemical compatibility.
General purpose.

T
PTFE
Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.

F
FEP-FKM
With high molecular weight: High level of abrasion resistance.

D
EPDM
Good with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.

1
BSP THREATED

2
FLANGED

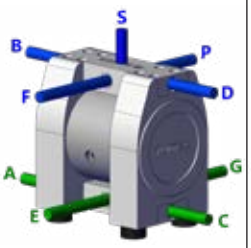
5
NPT THREATED

- ATEX ZONE 2
L10 and L15 models
II 3/3 G Ex h IIC T4 Gc
II 3 D Ex h IIIB T135°C Dc X

L25 and L40 models
II 3/3 G Ex h IIB T4 Gc
II 3 D Ex h IIIB T135°C Dc X

X ATEX ZONA 1
L10 and L15 models
III 2/2 G Ex h IIC T4 Gb
II 2 D Ex h IIIB T135°C Db X

L25 and L40 models
II 2/2 G Ex h IIB T4 Gb
II 2 D Ex h IIIB T135°C Db X



SPECIAL FEATURES
TL PTFE LOTUS CENTRAL BLOCK IN PTFE

INSTALLATION

Pump installed below head (positive suction)
when it is necessary to empty completely the container

Self-priming pump installed above head (negative suction)
pump initially works with dry column without problem

Pump installed above drum or tank
with special featuring pump

Chemical System
pumps are suitable to be integrated in dosing systems for concentrated acids at high temperature

Pump installed on a mobile unit
with a trolley or cart when pump must be often moved

TECHNICAL FEATURES

The materials of construction of the Lotus series are PTFE, CONDUCTIVE PTFE, PE, CONDUCTIVE PE and PURE POLYPROPYLENE. The Lotus pumps are suitable to work with hazardous chemicals such as acids, caustics, and solvents.

FEATURES AND BENEFITS

- Machined plastic design
- Increased capacity
- Increased safety
- Decreased air consumption
- Easy cleanability
- Reduced noise level
- Decreased downtime
- Optimized flow pattern
- Increased quality
- Long service life
- Increased reliability
- Used in demanding process applications
- Robust plastic design with reinforcement ring for enhanced sealing and torque retention

APPLICATIONS

- Abrasive Slurries
- Solar Cell
- Biopharmaceutical
- Chemicals
- Etching Agents
- Ceramic
- Sludge Transfer
- Glazes Transfer
- Paints
- Varnish
- High Concentrated Acids and Bases
- Grinding and Drilling Emulsions
- Paper and Printing
- Glue Transport
- Printing Inks Transport
- Industrial Water Treatment
- Sample Analysis
- Wastewater Neutralization
- Feeding Filter Presses with Sludge
- Chemical Treatment of Wafers
- Corrosive, Hazardous or Toxic Chemicals

Machined for Precision

FLUIMAC's solid plastic block increases the pump's strength and life cycle while eliminating many maintenance concerns. The LOTUS Series CNC machined solid block of PTFE, PE or PP allows to deal with the harshest environments. The LOTUS Series solid plastic block construction is mechanically machined rather than injection moulded. The CNC technology enables tight tolerances, along with reduced vibration, less risk of leakage, and greater stability and durability. The high static mass leads to smooth operation with reduced vibration.

LOTUS SERIES

L 10

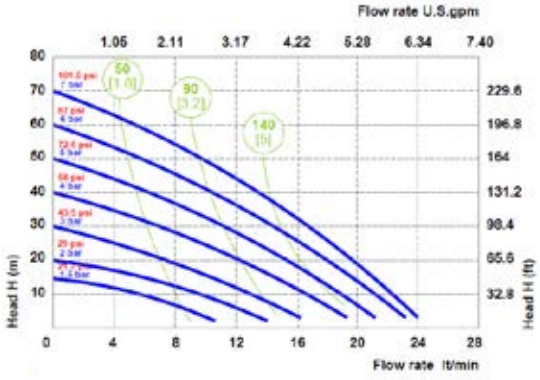
TECHNICAL DATA

- Fluid connections **3/8" BSP**
- Air connection **1/4" BSP**
- Max. Flow rate **24 lt/min**
- Max air pressure **7 bar**
- Max delivery head **70 mt**
- Max Suction Lift Dry **4 mt**
- Max Suction Lift Wet **9,8 mt**
- Max Solid passing **3 mm**
- Noise level **65 dB**
- Max Viscosity **15.000 cps**
- Displacement per Stroke **65 CC ~**

⟨Ex⟩ II 3/3 G Ex h IIC T4 Gb
⟨Ex⟩ II 3 D Ex h IIIB T135°C Db X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



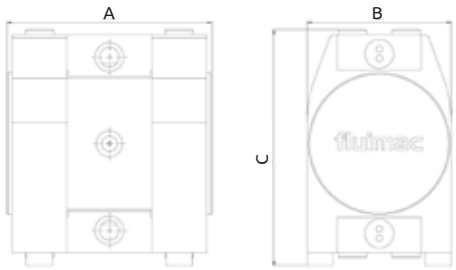
Air supply pressure

Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PTFE	157 mm	110 mm	180 mm	5 kg	- 20 °C	+ 120 °C
PTFE+CF	157 mm	110 mm	180 mm	5 kg	- 20 °C	+ 120 °C
PE	157 mm	110 mm	180 mm	2,5 kg	- 4 °C	+ 65 °C
PE+CF	157 mm	110 mm	180 mm	2,5 kg	- 4 °C	+ 65 °C
PP	157 mm	110 mm	180 mm	2,5 kg	- 4 °C	+ 65 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
L010	**T** = PTFE	**DT** = EPDM+PTFE	**T** = PTFE	**T** = PTFE	**T** = PTFE	**1** = BSP	**-** = zone 2	**EF** = STANDARD
	TC = PTFE+CF	**D** = EPDM	**S** = SS	**Z** = PE	**F** = FEP+FKM	**2** = FLANGED	**X** = zone 2	
	Z = PE		**D** = EPDM	**PP** = PURE PP	**D** = EPDM	**5** = NPT		
	ZC = PE+CF							
	PP = PURE PP							

Central block in POLYETHYLENE, available, on request, in PTFE

LOTUS SERIES

L 15

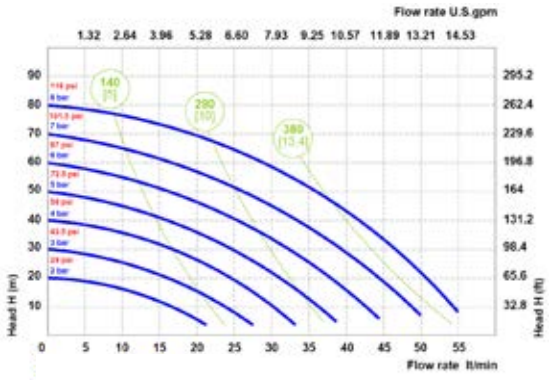
TECHNICAL DATA

- Fluid connections **1/2" BSP**
- Air connection **1/4" BSP**
- Max. Flow rate **55 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max Suction Lift Dry **4 mt**
- Max Suction Lift Wet **9,8 mt**
- Max Solid passing **3,5 mm**
- Noise level **70 dB**
- Max Viscosity **20.000 cps**
- Displacement per Stroke **140 CC ~**

II 3/3 G Ex h IIC T4 Gb
II 3 D Ex h IIIB T135°C Db X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



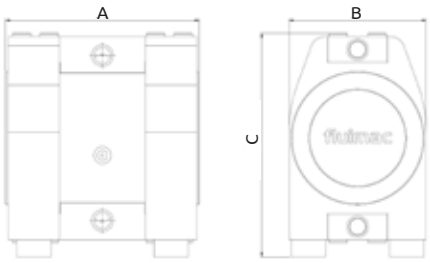
Air supply pressure

Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PTFE	226 mm	160 mm	260 mm	14 kg	- 20 °C	+ 95 °C
PTFE+CF	226 mm	160 mm	260 mm	14 kg	- 20 °C	+ 95 °C
PE	226 mm	160 mm	260 mm	6,7 kg	- 4 °C	+ 65 °C
PE+CF	226 mm	160 mm	260 mm	6,7 kg	- 4 °C	+ 65 °C
PP	226 mm	160 mm	260 mm	6,7 kg	- 4 °C	+ 65 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
L015	**T** = PTFE	**DT** = EPDM+PTFE	**T** = PTFE	**T** = PTFE	**T** = PTFE	**1** = BSP	**-** = zone 2	**EF** = STANDARD
	TC = PTFE+CF	**D** = EPDM	**S** = SS	**Z** = PE	**F** = FEP+FKM	**2** = FLANGED	**X** = zone 2	
	Z = PE		**D** = EPDM	**PP** = PURE PP	**D** = EPDM	**5** = NPT		
	ZC = PE+CF							
	PP = PURE PP							

Central block in POLYETHYLENE, available, on request, in PTFE

LOTUS SERIES

L 25

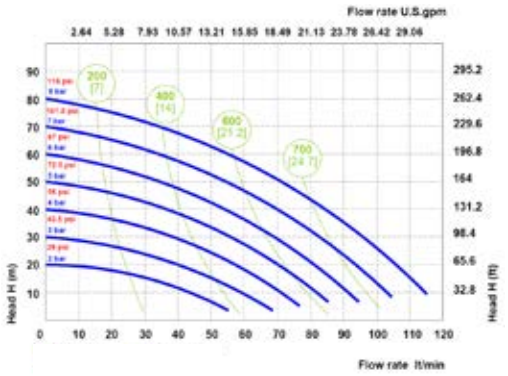
TECHNICAL DATA

- Fluid connections **1" BSP**
- Air connection **1/2" BSP**
- Max. Flow rate **110 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max Suction Lift Dry **5 mt**
- Max Suction Lift Wet **9,8 mt**
- Max Solid passing **4 mm**
- Noise level **72 dB**
- Max Viscosity **25.000 cps**
- Displacement per Stroke **200 CC ~**

II 3/3 G Ex h IIB T4 Gb
II 3 D Ex h IIIB T135°C Db X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



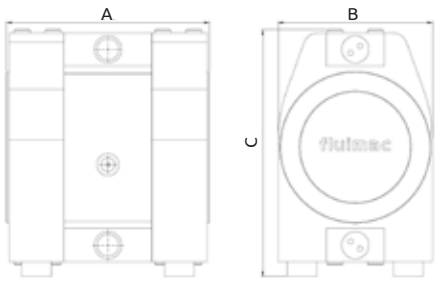
Air supply pressure

Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PTFE	275 mm	210 mm	334 mm	28,3 kg	- 20 °C	+ 95 °C
PTFE+CF	275 mm	210 mm	334 mm	28,3 kg	- 20 °C	+ 95 °C
PE	275 mm	210 mm	334 mm	28,3 kg	- 20 °C	+ 95 °C
PE+CF	275 mm	210 mm	334 mm	13,83 kg	- 4 °C	+ 65 °C
PP	275 mm	210 mm	334 mm	13,83 kg	- 4 °C	+ 65 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
L025	**T** = PTFE	**DT** = EPDM+PTFE	**T** = PTFE	**T** = PTFE	**T** = PTFE	**1** = BSP	**-** = zone 2	**EF** = STANDARD
	TC = PTFE+CF	**D** = EPDM	**S** = SS	**Z** = PE	**F** = FEP+FKM	**2** = FLANGED	**X** = zone 2	
	Z = PE		**D** = EPDM	**PP** = PURE PP	**D** = EPDM	**5** = NPT		
	ZC = PE+CF							
	PP = PURE PP							

Central block in POLYETHYLENE, available, on request, in PTFE

LOTUS SERIES

L 40



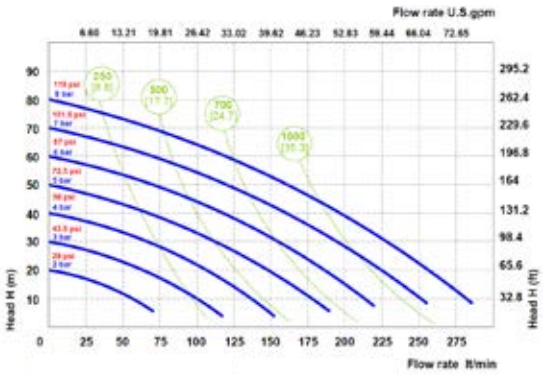
TECHNICAL DATA

- Fluid connections **1" 1/2 BSP**
- Air connection **1/2" BSP**
- Max. Flow rate **290 lt/min**
- Max air pressure **8 bar**
- Max delivery head **80 mt**
- Max Suction Lift Dry **5 mt**
- Max Suction Lift Wet **9,8 mt**
- Max Solid passing **4,5 mm**
- Noise level **75 dB**
- Max Viscosity **35.000 cps**
- Displacement per Stroke **650 CC ~**

II 3/3 G Ex h IIC T4 Gb
II 3 D Ex H IIIB T135°C Db X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



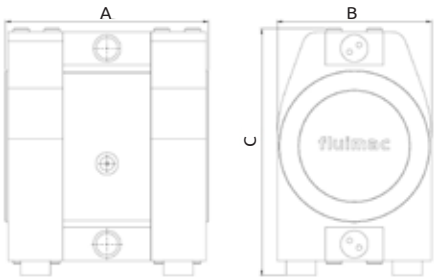
Air supply pressure

Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	C	Weight Kg	Temperature	
PTFE	359 mm	291 mm	465 mm	80 kg	- 20 °C	+ 120 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
L0040	**T** = PTFE	**DT** = EPDM+PTFE	**T** = PTFE	**T** = PTFE	**FP** = FEP	**1** = BSP **2** = FLANGED	**-** = zone 2	**EF** = STANDARD

Central block in POLYETHYLENE, available, on request, in PTFE

fluimac®
PUMPS WE TRUST

PIEZO
PNEUMATIC PUMPS

Pneumatic system
Flow-rate 8 lt/min.

CODES TABLE

PZ — MODEL

PZ
PIEZO PUMP

0001 — SIZE

1
8 lt/min
1/4" BSPP

P- — CASING

P
POLYPROPYLENE
Wide chemical compatibility. General purpose. Reinforced with glass-Fiber.

K
PVDF
Strong chemical resistance to acids. High temperature resistance. Ground able.

O
ACETAL
Wide range of solvent and hydrocarbons resistance. Good level of abrasion resistance.

OC
CONDUCTIVE ACETAL
Wide range of solvent and hydrocarbons. Good level of abrasion resistance. Ground able.

TT — DIAPHRAGM

N
NBR
Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals.

T
PTFE
Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.

S — BALL

T
PTFE
Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.

S
SS
High level of corrosion and abrasion resistance. Good for viscous fluids.

O — BALL SEAT

P
POLYPROPYLENE
Wide chemical compatibility. General purpose.

K
PVDF
Strong chemical resistance to acids. High temperature resistance.

O
ACETAL
Wide range of solvent and hydrocarbons resistance. Good level of abrasion resistance.

V — GASKET

V
VITON
High heat resistance. Good resistance to aggressive chemicals and hydrocarbons.

N
NBR
Good for petroleum-based fluids, water, oils, hydrocarbons and MILD chemicals.

1 — CONNECTIONS

1
BSP THREATED

- — ATEX ZONE CERTIFICATION

-
ATEX ZONE 2
II 3/3 G Ex h IIC T4 Gc
II 3 D Ex h IIIB T135°C Dc X

X
ATEX ZONE 1
III 2/2 G Ex h IIC T4 Gb
II 2 D Ex h IIIB T135°C Db X

TS — PORTS

PIEZO

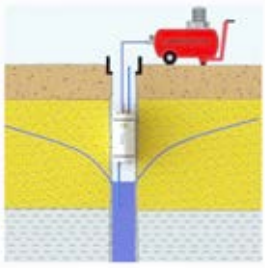
FLUIMAC developed and patented a new pump model, PIEZO PUMP, a unique pump, designed for the environmental remediation applications. PIEZO PUMP is an easily transportable pneumatic system, which can be installed inside wells with a minimum internal diameter of 4" for the following purposes:

- Groundwater pumping as part of remediation activities or remediation plants.
- Recovery Technology for LNAPL / DNALP (light / dense non-aqueous phase liquid).
- Oil handling in ATEX classified areas.
- Low-flow representative sampling at different depths inside environmental monitoring wells.
- Excellent tool for environmental emergency response activities.

FEATURES

- Operation with high subsidence value of water level (max. approx. 50 m).
- Possibility to work both above and below the water level.
- Can work with solids in the water flow (max. approx. 2.5 mm).
- Constant pumping at low flow rates (approx. 0.25-4.00 l/min).
- Easy flow management through compressed air supply.
- Lightweight, compact and compatible with 4" wells.
- Possibility to send the air exhaust out of the well.

INSTALLATION



1. Eye Bolt
2. Air Inlet
3. Fluid Outlet
4. Fluid Chambers
5. Fluid Inlet
6. Air Chamber
7. Air Exhaust

PIEZO PUMP

PZ 1

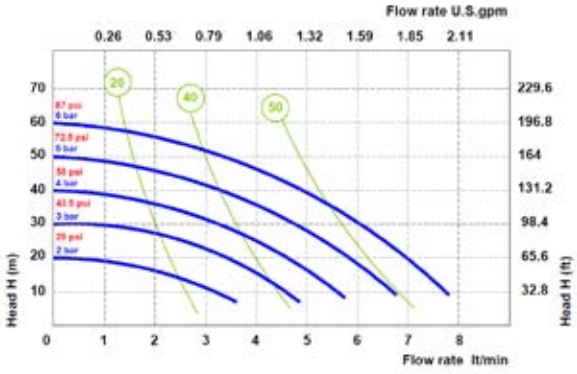
TECHNICAL DATA

- Fluid connections **1/4" BSP**
- Air connection **1/4" BSP**
- Max. Flow rate **8 lt/min**
- Max air pressure **6 bar**
- Max delivery head **60 mt**
- Max Suction Lift Dry **3 mt**
- Max Solid passing **2 mm**
- Noise level **65 dB**
- Max Viscosity **5.000 cps**
- Displacement per Stroke **24 CC ~**

Ⓔx II 3/3 G Ex h IIC T4 Gc
Ⓔx II -/3 D Ex h IIIB T135°C Dc X

Displacement per stroke may vary based on suction condition, discharge head, air pressure and fluid type.

PERFORMANCE



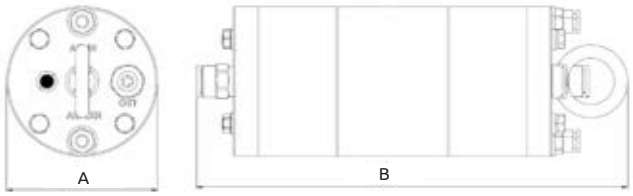
Air supply pressure

Air consumption Nit/min [SCFM]

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C. These data may vary according to the construction materials and hydraulic conditions.

DIMENSIONS

	A	B	Weight Kg	Temperature	
POMC+CF	90 mm	242 mm	1,7 kg	- 5 °C	+ 80 °C
POMc	90 mm	242 mm	1,7 kg	- 5 °C	+ 80 °C
PVDF	90 mm	242 mm	2,2 kg	- 20 °C	+ 69 °C
PP	90 mm	242 mm	1,7 kg	- 4 °C	+ 65 °C



COMPOSITION

MODEL	CASING	DIAPHRAGM	BALLS	SEATS	GASKET	CONNECTIONS	ATEX	PORTS
PZ001	**O** = POMc **P** = PP **K** = PVDF **OC** = POM+CF	**N** = NBR **TT** = PTFE+PTFE	**T** = PTFE **S** = SS	**O** = POMc **P** = PP **K** = PVDF	**N** = NBR **V** = VITON **D** = EPDM	**1** = BSP	**-** = zone 2 **X** = zone 1	**TS** = STANDARD

ACCESSORIES

AIR REGULATION KIT
Adjust and set air pressure and air flowrate with a filter regulator, pressure gauge and air valve unit.

SWITCH VALVES
Remotely start and stop with a solenoid or pneumatic valve for the pump's airline.

STROKE COUNTER
Count the number of strokes, connected to a control. It allows various type of monitoring.

DIAPHRAM FAILURE DETECTION FLUID-GUARD
The Leak Detector provide a signal, and the pump can be shut down when diaphragms fail.

PNEUMATIC BATCH CONTROL
Pneumatic batcher can control any FLUIMAC AODD pump allowing you to set the cycles amount and count the strokes.

ELECTRONIC BATCH CONTROL
Electronic batcher can control any FLUIMAC AODD pump allowing you to set the cycles amount and count the strokes.

BASKET STRAINER FILTERS IN PP
Installed on the suction of the pumps, protects them from suspended solids and impurity.

PRESSURE BOOSTER
Where the line pressure is not enough, this system doubles the inlet pressure to supply correctly the air to the pump.

INOX TROLLEY
It makes pumps transportable.

ANTI VIBRATION FEET KIT
Reduces physical vibration from AODD pump operation.

PP, PVDF, ALU SS NOOZLE
Dispenser to delivery control and batching.

REINFORCED PVC HOSE
With metal reinforcement for suction/discharge, also food-grade.

FOOT BALL VALVE
Realized in PP and PVDF. Size available 1"- 1" ¼ - 1" ½ - 2". Used to prevent the suction hose from emptying.

VALVES FITTINGS AND CONNECTIONS IN PP, PVC, INOX

FLANGE CONNECTION KIT
It modifies a pump with BSP connection into a flanged pump.

WALL FIXING BRACKET
Wall fixing bracket for diaphragm pumps, for all sizes.

Italian excellence in the world

fluimac®
PUMPS WE TRUST

Fluimac Italy
Via Brescia 1 21049 - Tradate (VA)
Tel. +39-0331-866688

info@fluimac.com
fluimac.com