fluimac
pump solution

BESTPUMP

HYGIENIC PUMPING SPECIALISTS

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LOTUS

MATERIALS OF CONSTRUCTION:
PTFE, PTFE+CF, PE, PE+CF, PP
Flow-rate from 10 lt/min to 110 lt/min
ATEX VERSION AVAILABLE

FDA COMPLIANT

L 0015 T- DT T

MODEL	SIZE	CASING	DIAPHRAGM	BALL

L
LOTUS

10
10 lt/min
3/8” BSPP

15
55 lt/min
1/2” BSPP

25
110 lt/min
1 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. Groundable.

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

ZC
CONDUCTIVE PE
With high molecular weight: High level of abrasion resistance. Groundable.

PP
PURE POLYPROPYLENE
Wide chemical compatibily. 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.

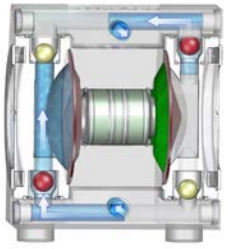
S
SS
High level of corrosion and abrasion resistance. Good for viscous fluids.

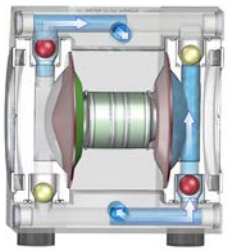
D
EPDM
OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.

PUMP OPERATION

Fluid

Air





Suction Cycle

1

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.

Discharge Cycle

2

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 compatibily.
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 THREADED

2
FLANGED

5
NPT THREADED

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

X ATEX ZONE 1
L10 and L15 models
II 2/2 G Ex h IIC T4 Gb
II 2 D Ex h IIIB T135°C Db X
L25 model
II 2/2 G Ex h IIB T4 Gb
II 2 D Ex h IIIB T135°C Db X

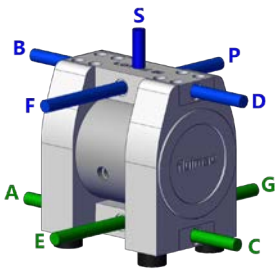


TABLE CODE

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

Pump installed above drum or tank
with special featuring pump

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

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

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

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.

L 10

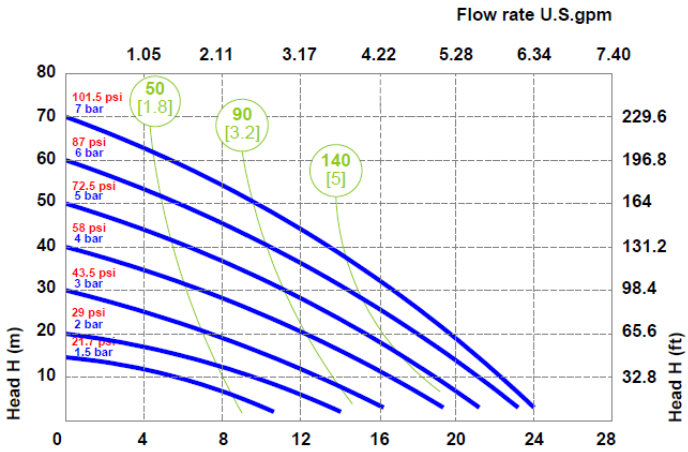
TECHNICAL DATA

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 m**
Max Suction Lift Dry	**4 m**
Max Suction Lift Wet	**9,8 m**
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 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



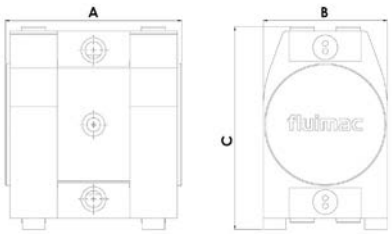
Air supply pressure

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	Net Weight	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 **TC** = PTFE+CF **Z** = PE **ZC** = PE+CF **PP** = PURE PP	**DT** = EPDM+PTFE **D** = EPDM	**T** = PTFE **S** = SS **D** = EPDM	**T** = PTFE **Z** = PE **PP** = PURE PP	**T** = PTFE **F** = FEP+FKM **D** = EPDM	**1** = BSP **2** = FLANGED **5** = NPT	**-** = zone 2 **X** = zone 2	**EF** = STANDARD

L 15

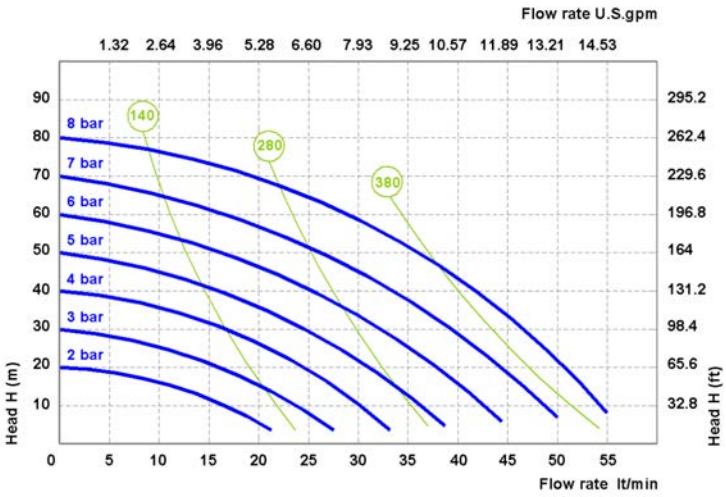
TECHNICAL DATA

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 m**
Max Suction Lift Dry	**4 m**
Max Suction Lift Wet	**9,8 m**
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 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



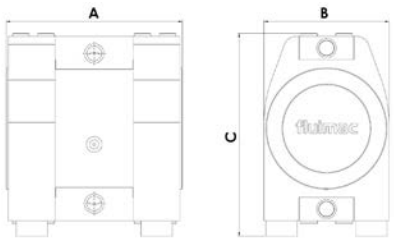
Air supply pressure

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	Net Weight	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 **TC =** PTFE+CF **Z =** PE **ZC =** PE+CF **PP =** PURE PP	**DT =** EPDM+PTFE **D =** EPDM	**T =** PTFE **S =** SS **D =** EPDM	**T =** PTFE **Z =** PE **PP =** PURE PP	**T =** PTFE **F =** FEP+FKM **D =** EPDM	**1 =** BSP **2 =** FLANGED **5 =** NPT	**- =** zone 2 **X =** zone 2	**EF =** STANDARD

L 25

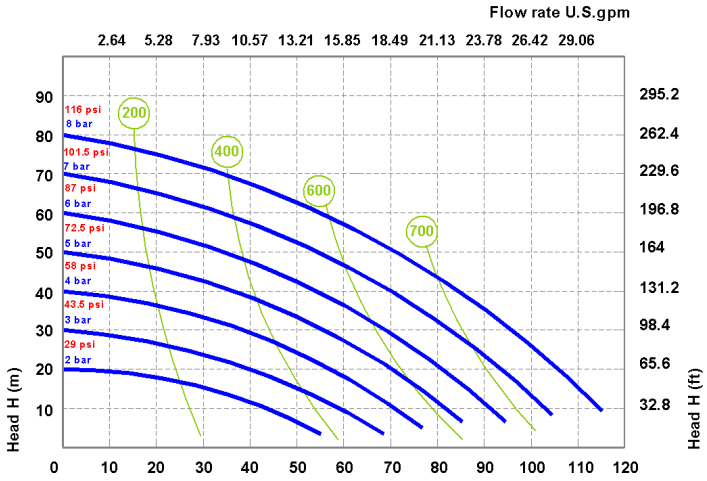
TECHNICAL DATA

Fluid connections	**1” BSP**
Air connection	**1/2” BSP**
Max. Flow rate	**110 lt/min**
Max air pressure	**8 bar**
Max delivery head	**80 m**
Max Suction Lift Dry	**5 m**
Max Suction Lift Wet	**9,8 m**
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 IIB 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



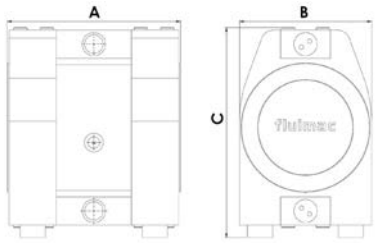
Air supply pressure

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	Net Weight	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	- 4 °C	+ 65 °C
PP	275 mm	210 mm	334 mm	13,83	- 4 °C	+ 65 °C



COMPOSITION

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