

LOTUS

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

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 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

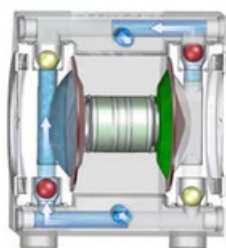
OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.



PUMP OPERATION

Fluid

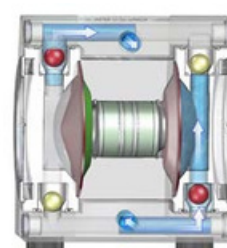
Air



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 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 THREADED

2

FLANGED

5

NPT THREADED

**ATEX ZONE 2**

L10 and L15 models

Ex II 3/3 G Ex h IIC T4 Gc

Ex II 3 D Ex h IIIB T135°C Dc X

L25 model

Ex II 3/3 G Ex h IIB T4 Gc

Ex II 3 D Ex h IIIB T135°C Dc X

X ATEX ZONE 1

L10 and L15 models

Ex II 2/2 G Ex h IIC T4 Gb

Ex II 2 D Ex h IIIB T135°C Db X

L25 model

Ex II 2/2 G Ex h IIB T4 Gb

Ex II 2 D Ex h IIIB T135°C Db X

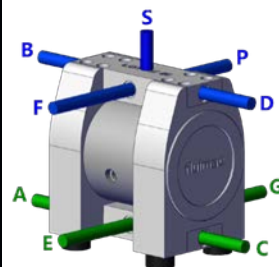


TABLE CODE

SPECIAL FEATURES**TL PTFE LOTUSCENTRALBLOCKINPTFE**

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.



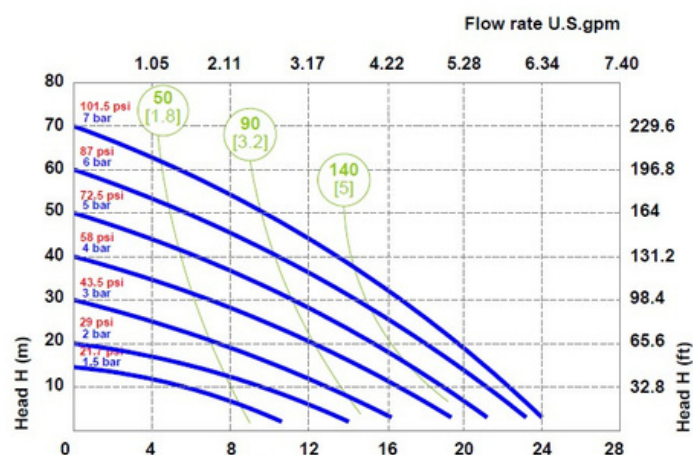
TECHNICAL DATA

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 ~

Ex II 3/3 G Ex h IIB T4Gb
Ex II 3 D Ex h IIB T135°C Db X

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

PERFORMANCE



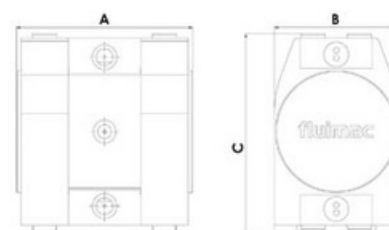
○ Air supply pressure

○ 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



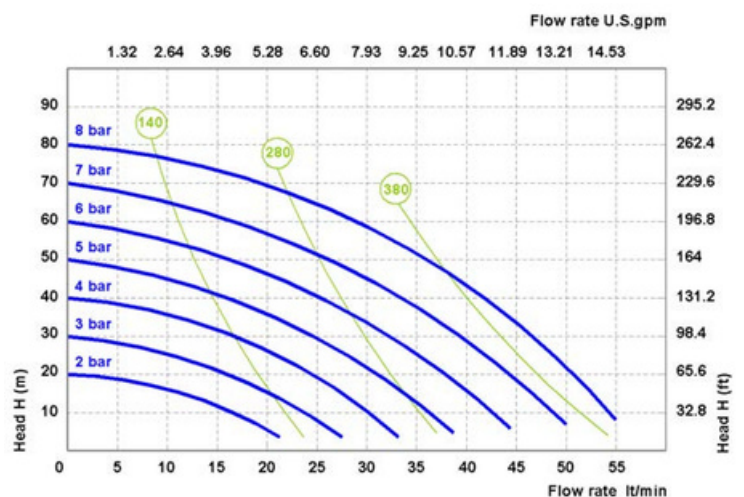
TECHNICAL DATA

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 ~

Ex II 3/3 G Ex h IIB T4Gb
Ex II 3 D Ex h IIB T135°C Db X

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

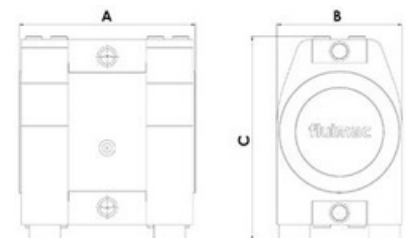
PERFORMANCE



The curves and performance values refer to pumps with submerged suction and 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



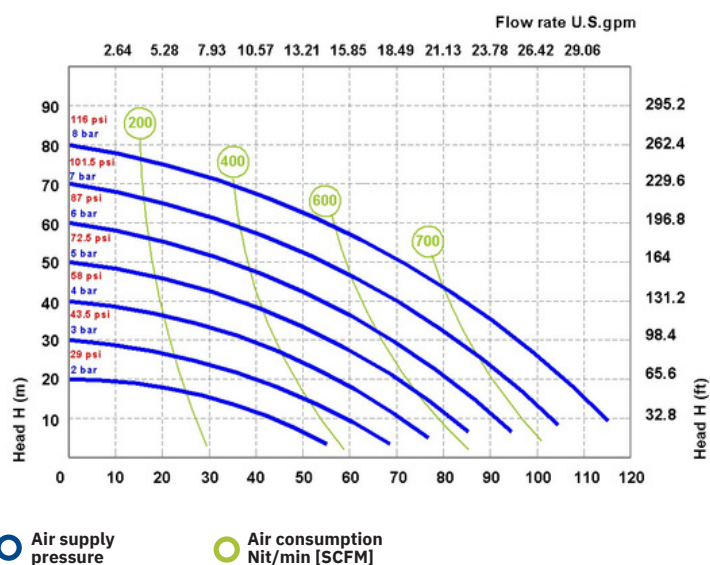
TECHNICAL DATA

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 ~

II 3/3 G Ex h IIB T4Gb
 II 3 D Ex h IIB T135°C Db X

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

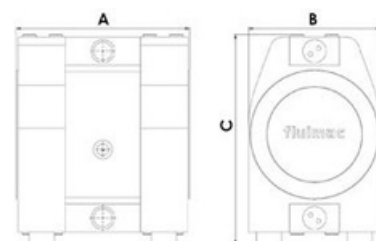
PERFORMANCE



The curves and performance values refer to pumps with submerged suction and 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