



LOTUS

MATERIALS OF COSTRUCTION:
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.

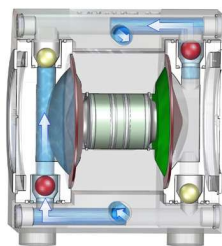


D
EPDM
OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.



PUMP OPERATION

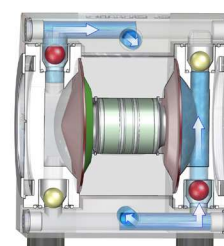
○ Fluid
○ Air



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

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.

GASKET

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.

CONNECTIONS

1

BSP THREADED

2

FLANGED

5

NPT THREADED

ATEX ZONE CERTIFICATION



ATEX ZONE 2

L10 and L15 models

II 3/3 G Ex h IIC T4 Gc

II 3 D Ex h IIB T135°C Dc X

L25 model

II 3/3 G Ex h IIB T4 Gc

II 3 D Ex h IIB 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 IIB T135°C Db X

L25 model

II 2/2 G Ex h IIB T4 Gb

II 2 D Ex h IIB T135°C Db X

PORTS

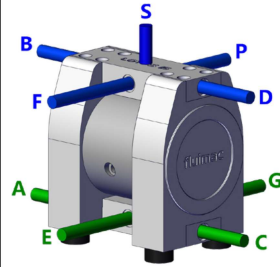


TABLE CODE

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.



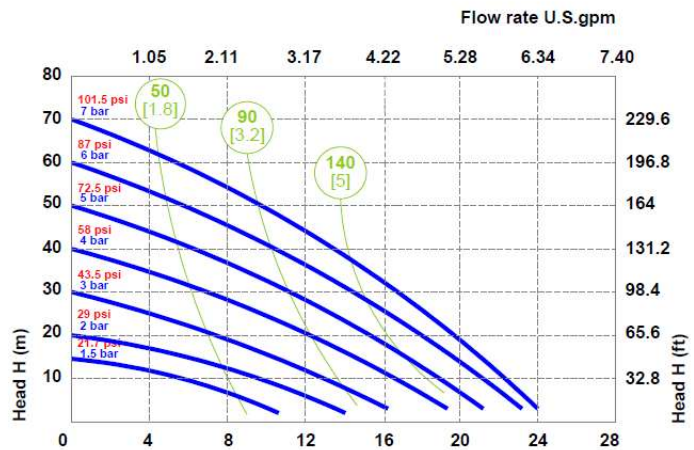
TECHNICAL DATA

| | |
|--------------------------|-------------------|
| 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

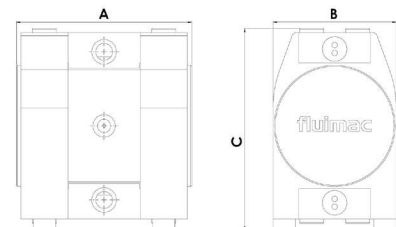


Air supply pressure
 Air consumption Nit/min [SCFM]

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 |



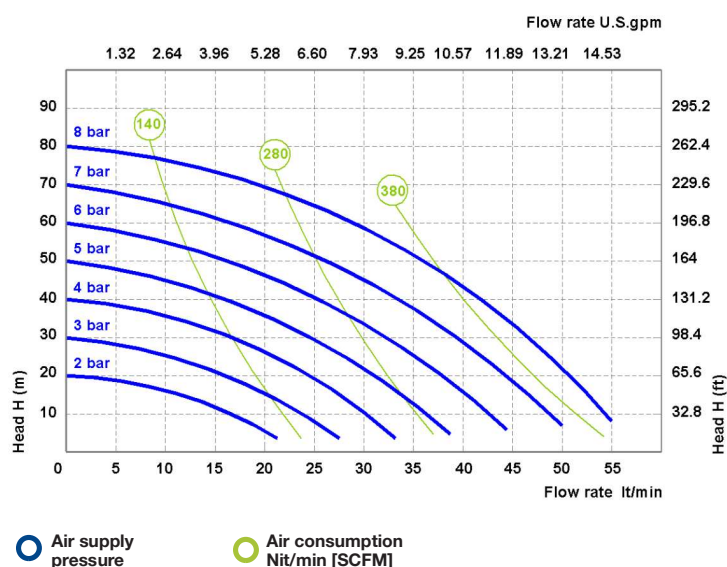
TECHNICAL DATA

| | |
|--------------------------|-------------------|
| 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.

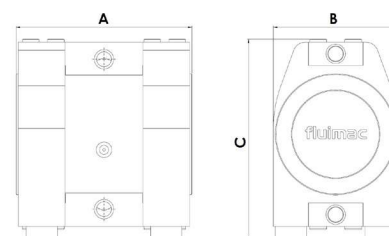
PERFORMANCE



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 |



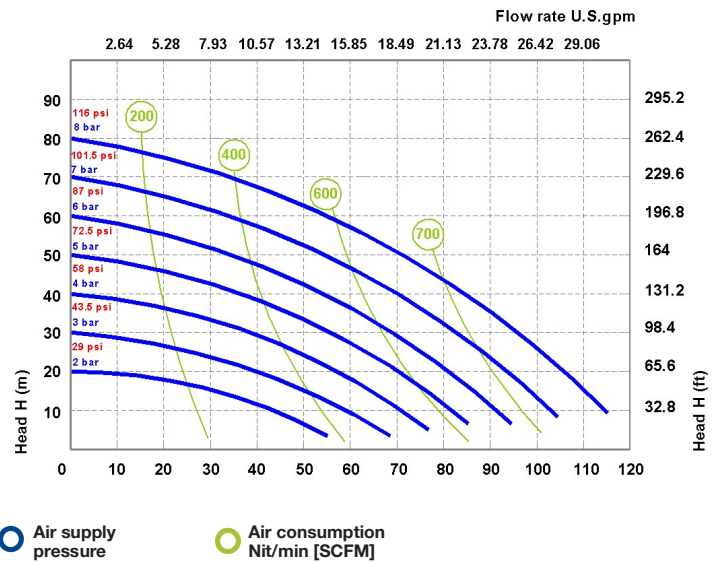
TECHNICAL DATA

| | |
|--------------------------|-------------------|
| 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 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.

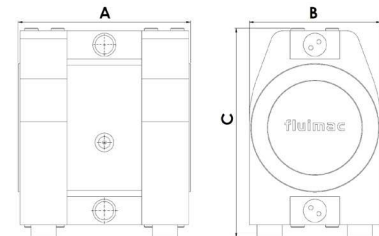
PERFORMANCE



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 |