

# DEBEM

## Model B50 Air Operated Diaphragm Pump

Flow Rates to 50 LPM (13.2 GPM), Pressure to 70 Meters (99.7 PSI)

### DESCRIPTION

B50 diaphragm pumps are characterized by exceptional performance, power and strength, making them ideal for pumping liquids with very high apparent viscosity up to 50000 cps (at 20°C), even if containing suspended solids.

The stall-prevention pneumatic system assures a safe running pump and it does not require lubricated air. Self-priming dry capacity even with considerable suction head, fine tuning of speed without pressure loss and the possibility of dry operation without suffering damage mean that these pumps offer unrivalled versatility.

In addition, the huge choice of construction materials allows selection of optimum chemical compatibility with the fluid and/or environment without neglecting the temperature range.

They are specifically designed for demanding applications with high humidity or in potentially explosive atmospheres (ATEX certification).



B50 Aluminum

### SPECIFICATIONS

- Pump Body Materials: PP, PVDF, Aluminum, AISI 316
- Intake/delivery connections: 1/2" NPT Female
- Air Connection: 3/8" NPT Female
- Max. Self-Priming Capacity: 5 meters (16.4 ft)
- Max. Flow Rate: 50 l/min (13.2 GPM)
- Max. Head: 70 m (99.7 PSI)
- Max. Air Supply Pressure: 7 bar (102 PSI)
- Max. Diameter of Passing Solids: 4 mm (0.157")
- Net Weight: PP, 3.6 Kg; PVDF, 4.2 Kg; Alu, 4 Kg; AIS316 6.5 Kg
- Max Temperature: PP, 60°C (140°F); PVDF, ALU, AISI 316, 95°C (203°F)

#### ATEX Ratings:

STANDARD version: Made from non-conductive plastic and/or with non-conductive center casing or from metal with non-conductive center casing.  
ATEX Classification Ⓜ II 3/3 GD c IIB T135°C (for zone 2)

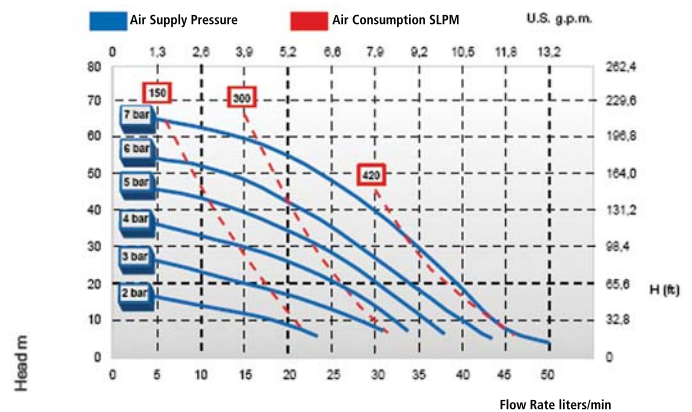
CONDUCT version: Built with pump casings and/or manifolds (PP + carbon fiber, ECTFE/PVDF + carbon fiber), made from conductive plastic and metal materials (aluminium, stainless steel). Ⓜ II 2/2 GD c IIB T135°C (for zone 1)

### ORDERING INFORMATION

#### ABCDEFGHIJ

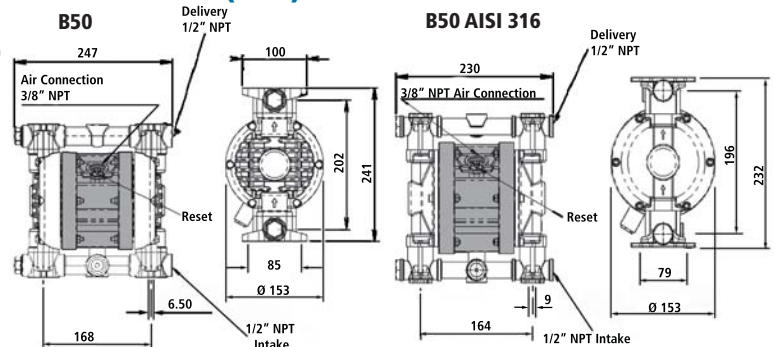
Example: B50AHTTAT

### FLOW CURVES



The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

### DIMENSIONS (MM)



A Model	B Pump Body	C Air Side Diaphragm	D Fluid Side Diaphragm	E Balls	F Ball Seats	G O Rings	H Options
B50	P= Polypropylene FC= PVDF+CF AL= Aluminum A= AISI 316	*H= Hytrel® M= Santoprene®  *Hytrel not available with PVDF pump body	T= PTFE	N= NBR A= AISI 316 T= PTFE D= EPDM  Pump Body Polypropylene T,D,N,A PVDF T, A Aluminum T,D,N,A AISI 316 SS A	P= Polypropylene F= PVDF I= PE-UHMW A= AISI 316 L= Aluminum  Pump Body Polypropylene P, A, I PVDF F, A Aluminum L, I AISI 316 SS A	D= EPDM V= Viton S= Silicone N= NBR T= PTFE	= None X= Twin Manifold C= CONDUCT ATEX Rating