



TECHNICAL DATA

- Connections:
 - Fluid 1"
 - Air 1/2"
- Max Flow-rates: 170 l/min
- Max air pressure: 8 Bar
- Max delivery head: 80 mt
- Max suction head:
 - Dry 5 mt
 - Wet 9.8 mt
- Max d. passing solids: 7.5 mm
- Noise level: 75 dB
- Displacement for cycle: 700 cc
- Pump casing materials:
 - PP
 - PVDF+CF
 - SS
- Max viscosity: 35.000 cps

DUOTEK diaphragm pumps are characterized by exceptional performance, power and strength, making them ideal for pumping liquids with very high apparent viscosity up to 35.000 cps (at 20°C), even if containing suspended solids.

The stall-prevention pneumatic system assures a safe pump running and it does not need 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):

- **ATEX**  **Zone 2** in all versions: **EX II 3/3 GD c IIB T135°C**

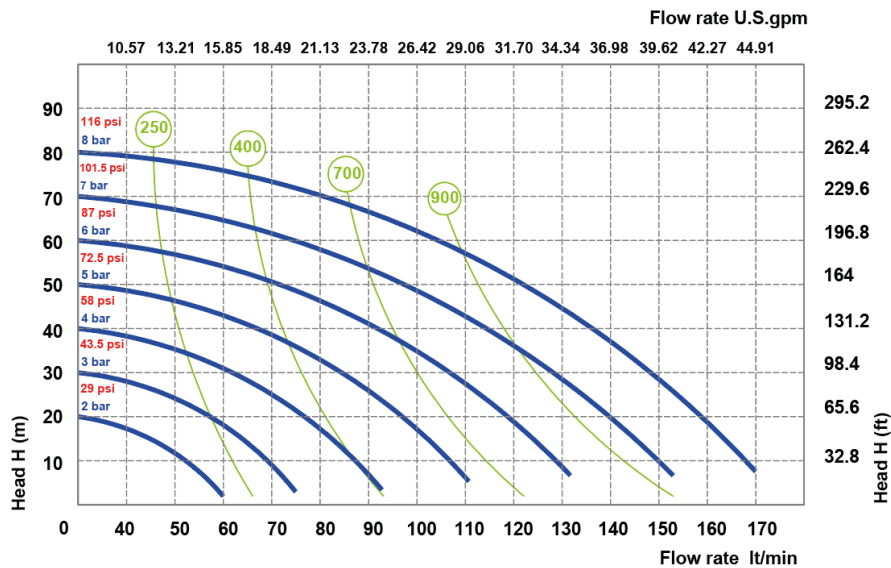
AODD PUMPS

0171 DUOTEK Series–Pneumatic Diaphragm Pumps



model										
AF		Pneumatic Diaphragm Pumps								
type										
00		ATEX Zone 2							EX II 3/3 GD c IIB T135°C	
series	flow rate [l/1']	connection [BSP]		for material	° suction lift max [m]	passing solid [Ø mm]	max viscosity [Cps]	max noise [dB]	displac./ cycle [cc]	
0171	170	1" *	1/2"	PP-PVDF-SS	5	7.5	35,000	75	700	
* FLANGED: add the cost of the related KIT										
° With DRY pump. To WET pump: 9,8 m										
body material										
P		Polypropylene + Glass fiber								
K		PVDF + Carbon fiber								
S		SS316								
AIR diaphragm										
H		Hytrel								
M		Santoprene								
D		EPDM								
N		NBR								
FLUID diaphragm										
X		WITHOUT PTFE diaphragm								
T		PTFE								
balls										
T		PTFE								
S		SS316								
D		EPDM								
N		NBR								
ball seats										
P		Polypropylene + Glass fiber								
K		PVDF + Carbon fiber								
S		SS316								
A		Aluminium								
M		POMc								
Z		PE-UHMV								
O-Rings										
D		EPDM								
V		FPM								
T		PTFE								
N		NBR								
connections										
1		BSP threaded								
2		Flanged (std for 0100 and 0250 in PP)								
4		Twin connection								
5		NPT threaded								
6		BSP threaded + metal ring								
7		Extra connections								
optional										
-		NONE (open A-B)								
--		open A-B (std) and any possible opening								
Y		External pump control WITH solenoid								
X		External pump control WITHOUT solenoid								
Z		Stroke counter on board								
AF	00	0171	P	N	T	T	P	V	1	-

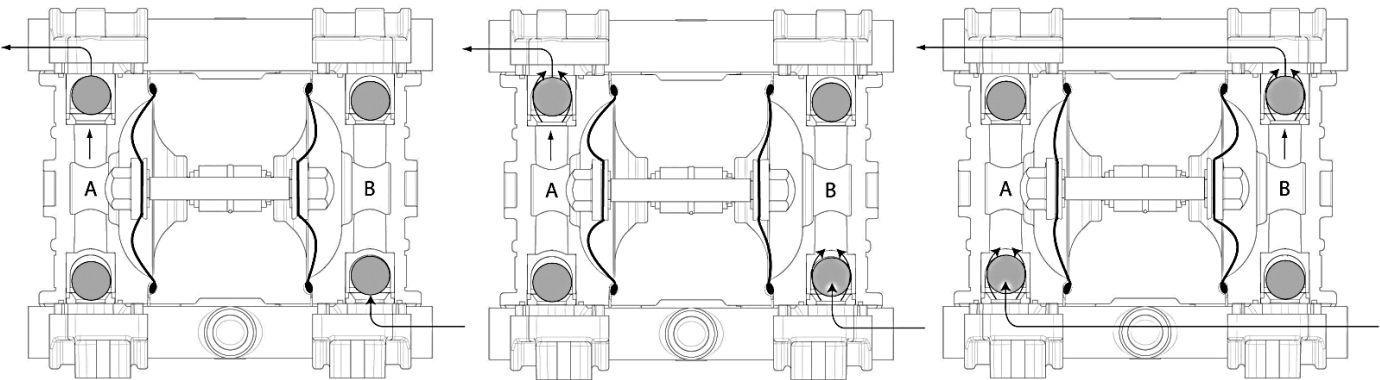
HYDRAULIC CHARACTERISTICS



* 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.

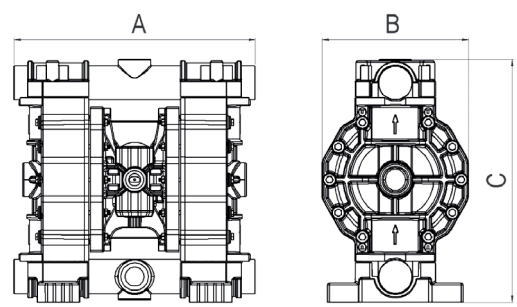
OPERATING PRINCIPLE

The pneumatic distribution system sends compressed air behind one of the two diaphragms (A), which pushes the fluid towards the delivery circuit. Simultaneously, the opposing diaphragm (B) is located, creating a vacuum in the chamber B, in the suction phase, moved from the shaft that connect the diaphragm to the other (A). In this way the product is sucked from the intake manifold, thanks to de-pressure created in the fluid chamber. When the diaphragm (A), under pressure, reaches the limit of the stroke the distributor switches the two inputs, and the cycle starts again. At the same time, the balls open and close, alternating the chamber A and B, in the closed situation for suction and open delivery in the situation.



DIMENSIONS (ALL materials)

	A	B	C	Weight	Temperature	
PP	430 mm	222 mm	416 mm	15 kg	- 4°C	+ 65°C
PVDF	430 mm	222 mm	416 mm	16 kg	- 20°C	+ 95°C
SS	357 mm	222 mm	371 mm	20 kg	- 20°C	+ 95°C

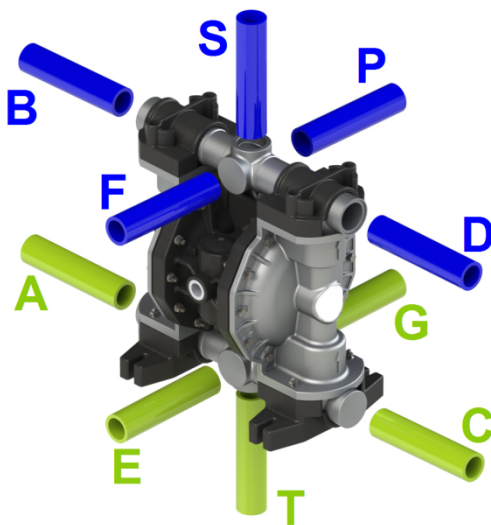


AVAILABLE CONNECTIONS

Standard = A B

IN = A-E-T-C-G

OUT =B-S-D-F-P



(ATEX)

Standard = A B

IN = A-E-T-C-G

OUT =B-S-D-F-P

