AODD PUMPS

0400 DUOTEK Series–Pneumatic Diaphragm Pumps



TECHNICAL DATA

- Connections:
  - Fluid 1” ½ - DN40
  - Air 1/2”
- Max Flow-rates: 380 l/min
- Max air pressure: 8 Bar
- Max delivery head: 80 mt
- Max suction head:
  - Dry 5 mt
  - Wet 9.8 mt
- Max solid passing: 8 mm
- Noise level: 78 dB
- Displacement per stroke: 1.200 cc
- Pump casing materials:
  - PP
  - PVDF+CF
  - ALUMINIUM
  - SS
- Max viscosity: 40.000 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 40.000 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**

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] fluid	connection [BSP] air	° suction lift [m]	passing solid [Ø mm]	max viscosity [Cps]	max noise [dB]	displac./cycle [cc]
0400	380	PP-PVDF-ALU	DN40 - 1"1/2	1/2"	5	8	40.000	78	1200
		SS	1"1/2 *						

* **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
A	Aluminium
S	SS316
M	POMc

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
K	PVDF
S	SS316
A	Aluminium
M	POMc
Z	PE-UHMV

O-Rings

D	EPDM
V	FPM
T	PTFE
N	NBR

connections

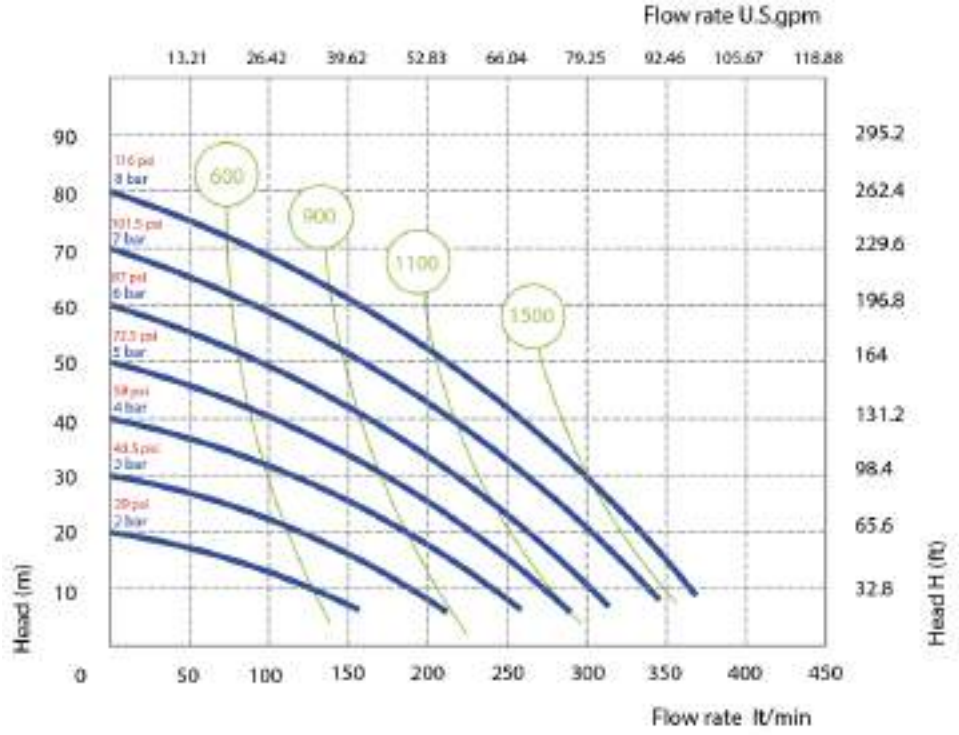
1	BSP threaded
2	Flanged
4	Twin connection
5	NPT threaded
7	Extra connections

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	predisposition for Stroke Counter

AF	00	0400	P	N	T	T	P	V	1	-

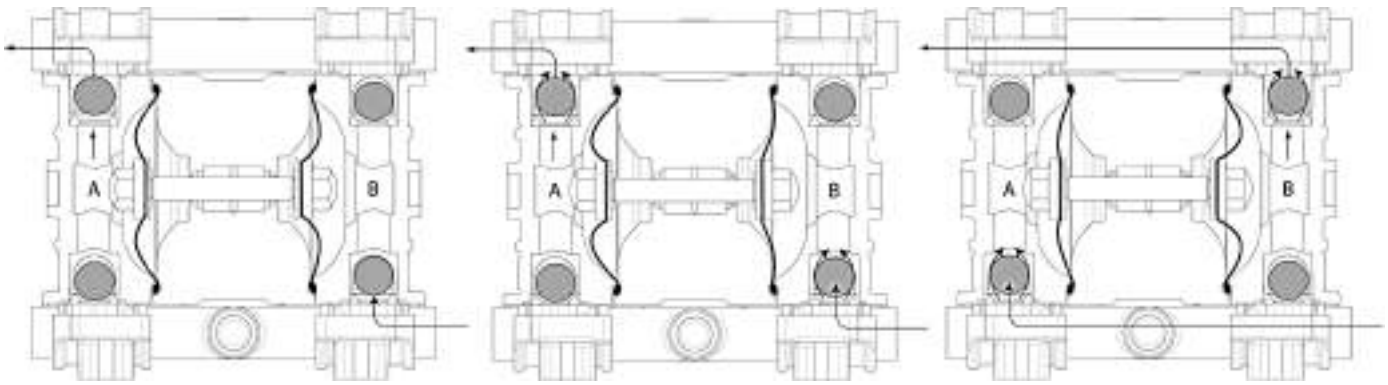
HYDRAULIC CHARACTERISTICS



* 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.

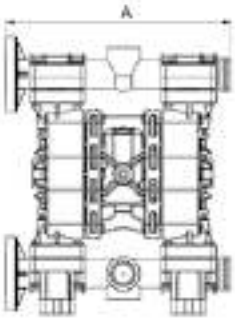
OPERATING PRINCIPLE

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	454 mm	260 mm	564 mm	20 kg	- 4°C	+ 65°C
PVDF	454 mm	260 mm	564 mm	20 kg	- 20°C	+ 95°C
ALU	445 mm	260 mm	563 mm	24 kg	- 20°C	+ 95°C
SS	361 mm	260 mm	502 mm	27 kg	- 20°C	+ 95°C





AVAILABLE CONNECTIONS

Standard = A B

IN = A-E-T-C-G

OUT =B-S-D-F-P

