

VALVES & PULSATION DAMPENERS

TECHNICAL CATALOGUE - REV. 00/2017

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CAPITANIO AIRPUMPS



WHO WE ARE

Since 1979 Capitano Airpumps designs and produces **double diaphragm** and **piston** air operated pumps, **valves** and **pulsation dampeners**. Suitable for every kind of fluid, adjustable flow and pressure, reversible. Every product is very High Quality and **MADE IN ITALY**.

REAL ADDED VALUE

Capitano Airpumps is a dynamic company, fast and punctual in both administration and production. Thanks to this philosophy the company is able to work on **customized projects and products**, offer **prompt technical assistance** and have **spare parts** always ready to be shipped **in stock**.

PATENTS

Capitano Airpumps owns a few patented products, like the innovative **Reverse system**, the **double diaphragm process Valve** and the active **double diaphragm Pulsation Dampener**. Other products are patent pending.

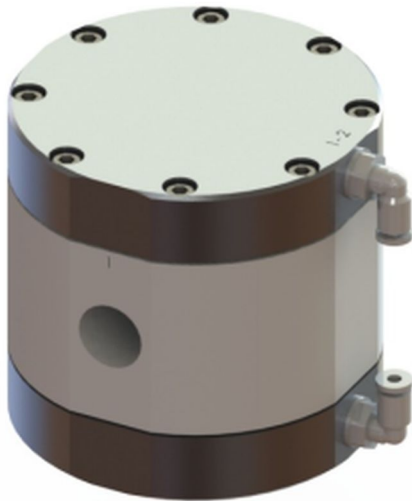


VM SERIES VALVES



DESCRIPTION

Double diaphragm poppet valve



Main Features

- High longevity
- No dragging
- No gaskets
- Available in different materials
- Sturdy design, machined from solid
- Extremely versatile
- Modular

CONFIGURATIONS

VM 15 - 1 - T D I I V

Size:

10	3/8"
15	1/2"
20	3/4"
25	1"
40	1" 1/2"
50	2"

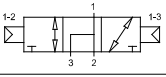
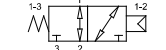
Diaphragms material:

E	EPDM
H	Hytrel
N	NBR
T	PTFE

Body / Pad material:

A	Aluminum
B	PVDF
D	POM
I	Stainless Steel
P	Polypropylene
T	PTFE
G	Conductive POM

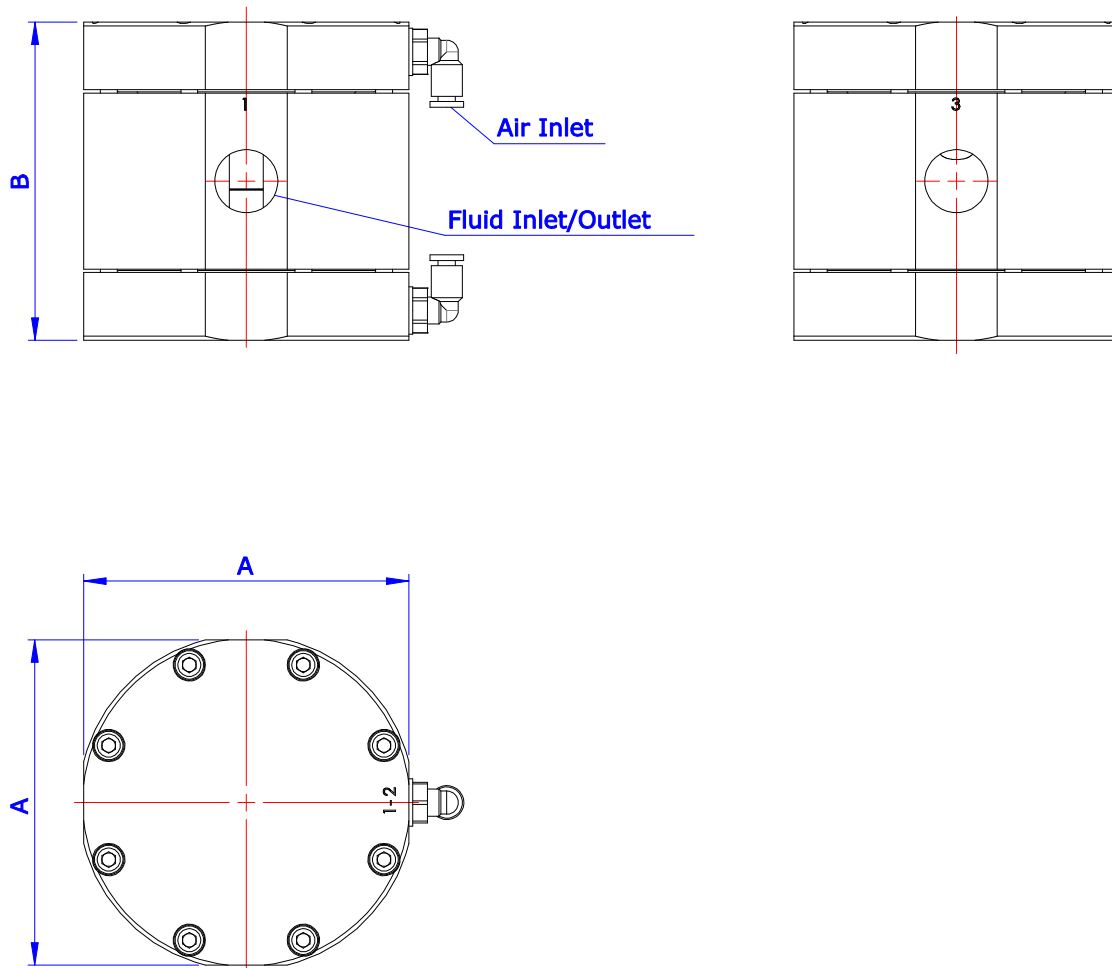
Type:

1	3 way open center valve (Standard). Pneumatically operated	
2	2 way monostable valve. Pneumatically operated	

Gaskets material:

E	EPDM
N	NBR
T	PTFE/FEP
V	Viton
X	No Gaskets

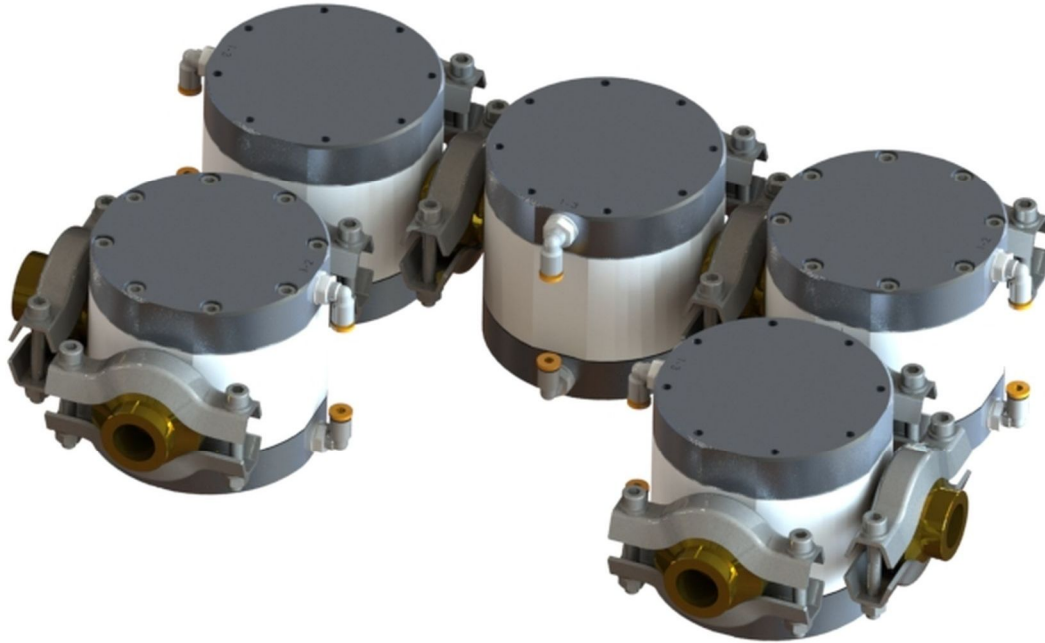
DIMENSIONS



Model	Fluid Inlet/Outlet	Air Inlet	A [mm]	B [mm]
VM 8	3/8"	Ø4	64	70
VM 15	1/2"	Ø4	99	94
VM 25	1"	Ø4	99	109
VM 40	1" 1/2"	Ø6	158	160

MODULARITY

Example of assembly of a few valves with Capitanio Airpumps clamps.





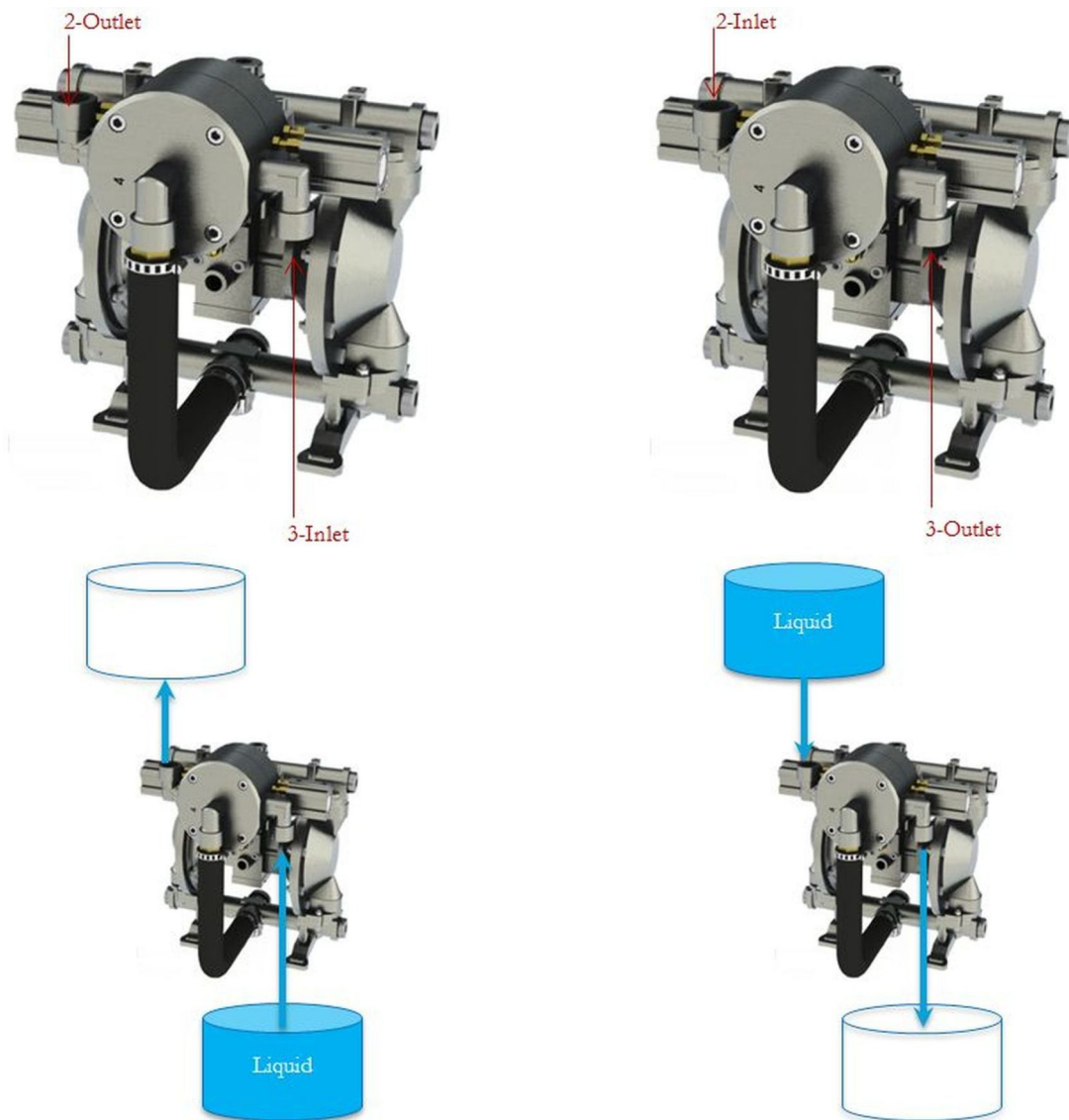
REVERSE



WHAT IS A REVERSE

The Reverse is a **Capitania Patented device**. When applied to diaphragm pumps or other types of pump, it allows to invert the flow direction; manually or pneumatically operated, inlet and outlet are reversed.

REVERSIBLE PUMPS



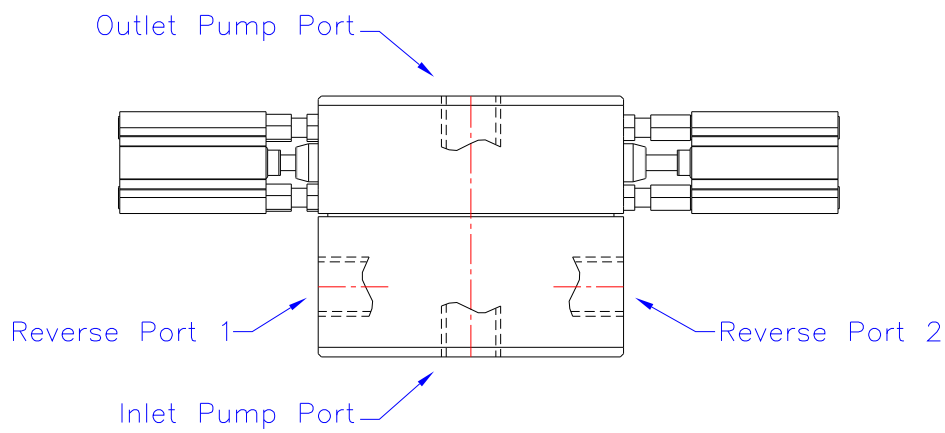
Phase A: Inlet from Port 3, Outlet from Port 2

Phase B: Inlet from Port 2, Outlet from Port 3

MAIN FEATURES

Pneumatically or manually controlled
High longevity
Sturdy design, machined from solid
Available in different materials

CONNECTIONS



CONFIGURATIONS

RV 15 - 1 - D E E

Grandezza / Size:

10	3/8"
15	1/2"
25	1"
50	2"

Materiale corpo / Body material:

A	Aluminum
D	POM
I	Acciaio Inox / Stainless Steel
P	Polypropylene
G	POM Conduttivo / Conductive

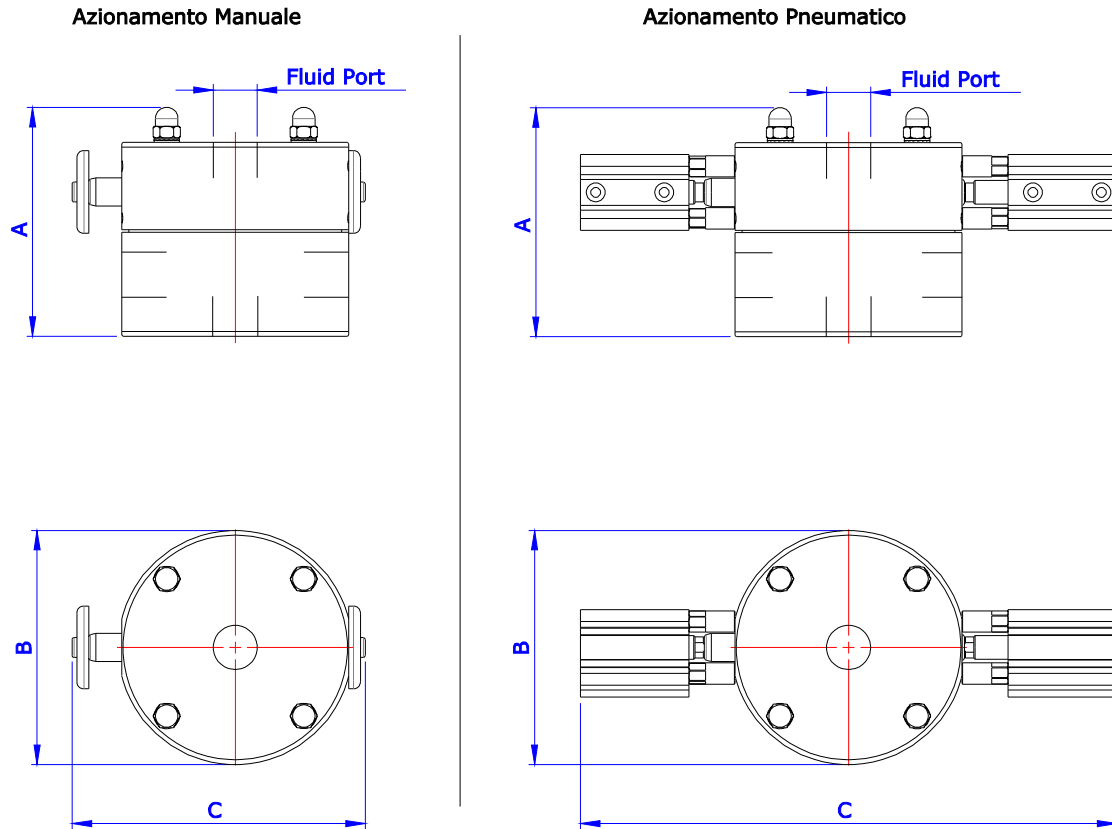
Guarnizione / Guarnizione di supporto
Gasket / Support Gasket:

E	EPDM
N	NBR
T	PTFE / FEP
V	Viton

Tipo di funzionamento / Control:

1	Commutazione Pneumatica / Pneumatic
2	Commutazione Manuale / Manual

DIMENSIONS



MANUALLY CONTROLLED

Model	Fluid Port	A [mm]	B [mm]	C [mm]
RV 10	3/8"	73	44	106
RV 15	1/2"	97	99	124
RV 25	1"	151	120	145
RV 50	2"	185	255	266

PNEUMATICALLY CONTROLLED

Model	Fluid Port	A [mm]	B [mm]	C [mm]
RV 10	3/8"	73	44	138
RV 15	1/2"	97	99	227
RV 25	1"	151	120	246
RV 50	1" 1/2"	185	255	464

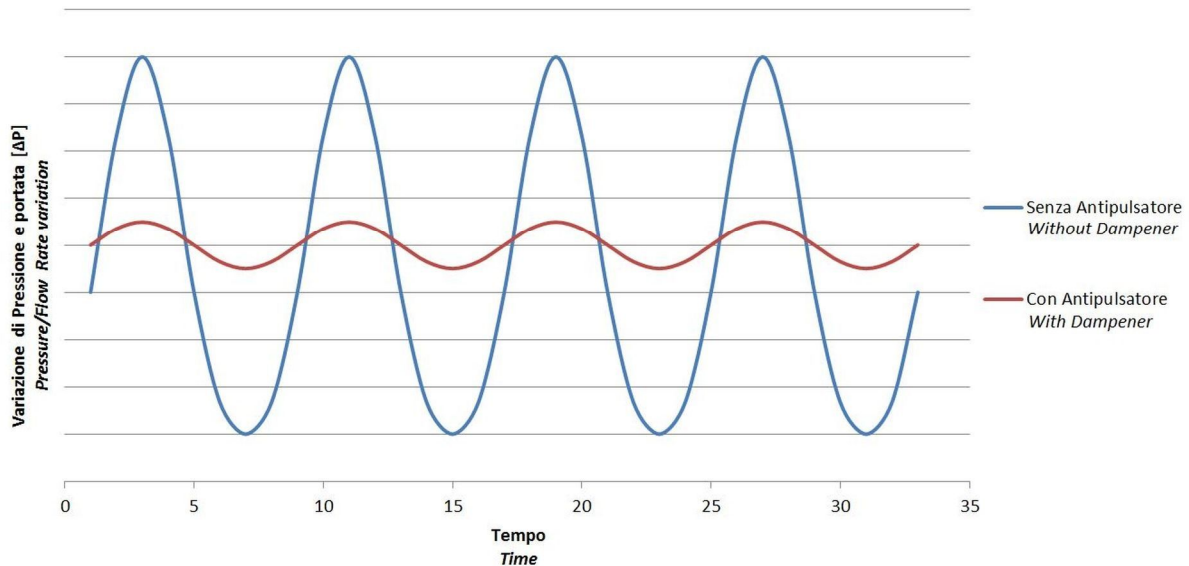
PULSATION DAMPENERS

Both electric and pneumatic reciprocating pumps, such as double diaphragm and piston ones, generate a pulsating flow. Sometimes those pulsations compromise the result of the production process, therefore, are needed some precautionary measures to lower those flow variations.

Pulsation dampeners are devices that help transform the pulsating flow into a more linear and steady flow.

GRAPHICAL SHOWING OF THE PULSATIONS OF A RECIPROCATING PUMP WITH OR WITHOUT PULSATION DAMPENER

Andamento della portata per una pompa alternativa
Flow rate curve of fluid delivered from a reciprocating pump



DYNAMIC PULSATION DAMPENER - NO PULS



DESCRIPTION

Double diaphragm pulsation dampener for fluids

MAIN FEATURES

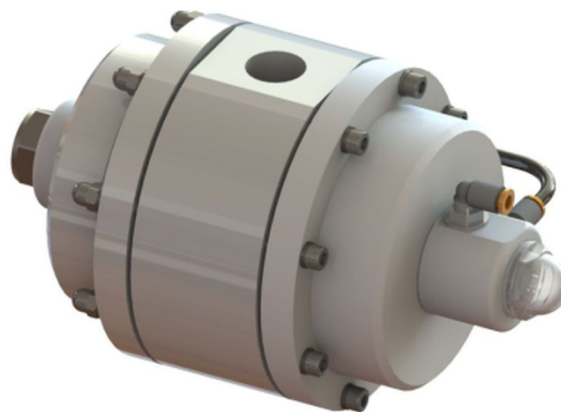
A Capitanio Airpumps Patent

Double Diaphragm: the only pulsation dampener with two diaphragms on the market. The double diaphragm gives the device high sensitivity to pressure variations and a fast reaction time.

Reduced Vibrations on pipes and pump

Available in different materials

Sturdy design, machined from solid



CONFIGURATIONS

NP 50 - D B T

Grandezza / Size:

8	3/8" - 1/2"
15	1/2" - 3/4"
25	1" - 1 1/2"
50	1 1/2" - 2"

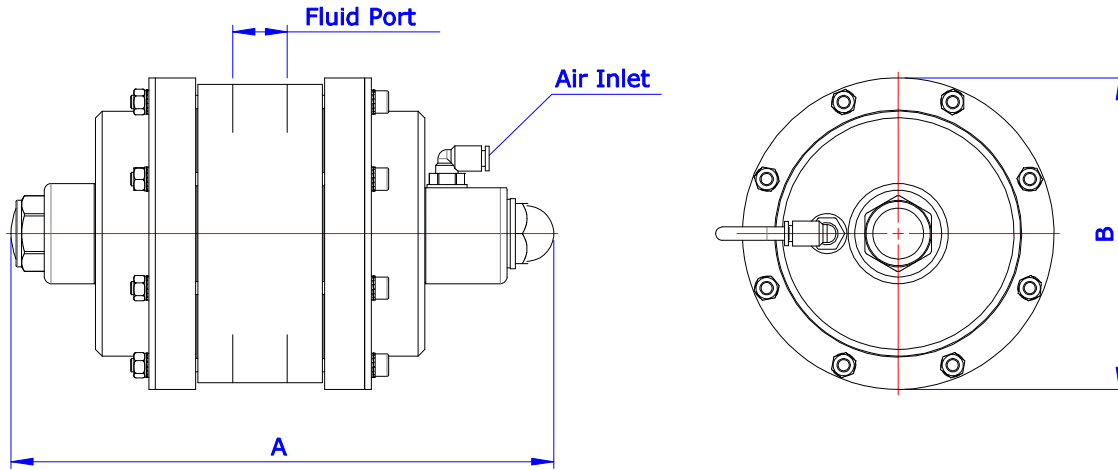
Materiale corpo / Disco esterno
Body material / Fluid plate:

A	Aluminum
D	POM
I	Acciaio Inox / Stainless Steel
P	Polypropylene
G	POM Conduttivo / Conductive

Materiale membrana
Diaphragm material

E	EPDM
N	NBR
T	PTFE / FEP
V	Viton

DIMENSIONS

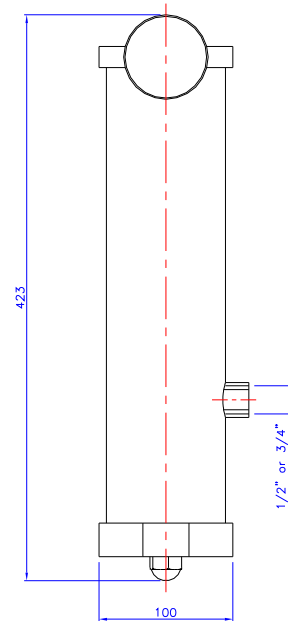


Model	Fluid Port	Air Inlet	A [mm]	B [mm]
NP 8	3/8"	1/4"	184	96
NP 15	1/2"	1/4"	243	140
NP 25	1" 1/2"	1/4"	332	206
NP 50	2"	1/4"	483	270

STATIC PULSATION DAMPENERS

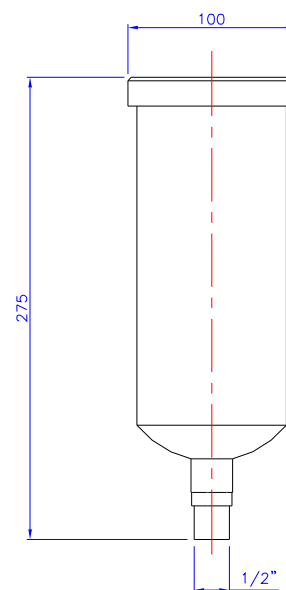
2,5 LITERS STATIC PULSATION DAMPENER, IN STAINLESS STEEL

Stainless Steel tank, inspectionable, with manometer. Capacity 2,5 liters. Ports: 1/2" or 3/4" Gas.



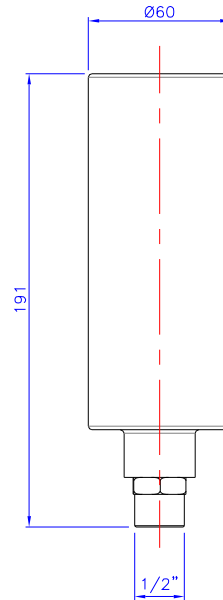
1 LITER STATIC PULSATION DAMPENER, IN STAINLESS STEEL

Stainless Steel tank, inspectionable. Capacity 1 liter. 1/2" Gas Port.



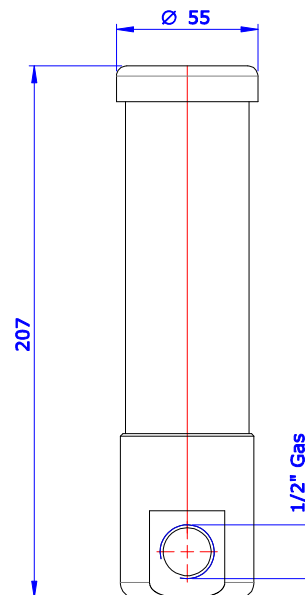
0,5 LITER STATIC PULSATION DAMPENER

Steel Tank. Capacity 0,5 liter. 1/2" Gas Port.



0,5 LITER STATIC PULSATION DAMPENER, IN STAINLESS STEEL

Stainless Steel tank, inspectionable. Capacity 0,5 liter. 1/2" Gas Ports.



PRESSURE STABILIZER - SPACE PULS

DESCRIPTION

The Space Puls device is a diaphragm pressure stabilizer for fluidodynamics circuits.

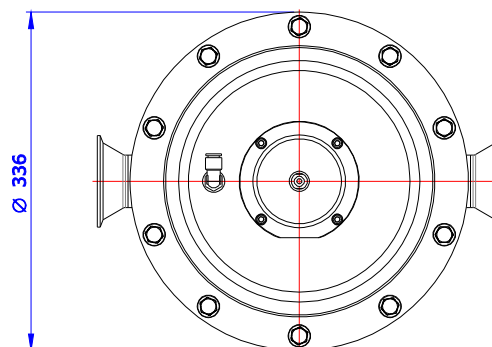
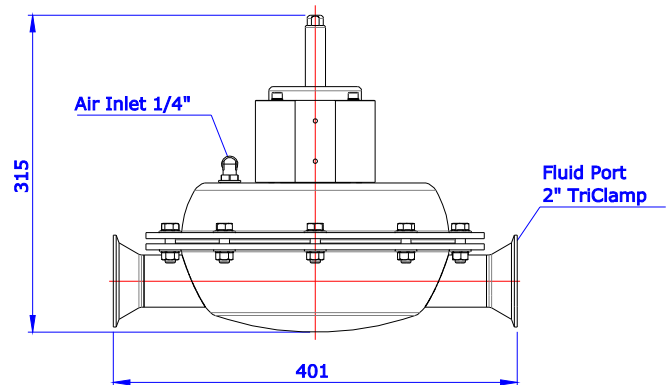
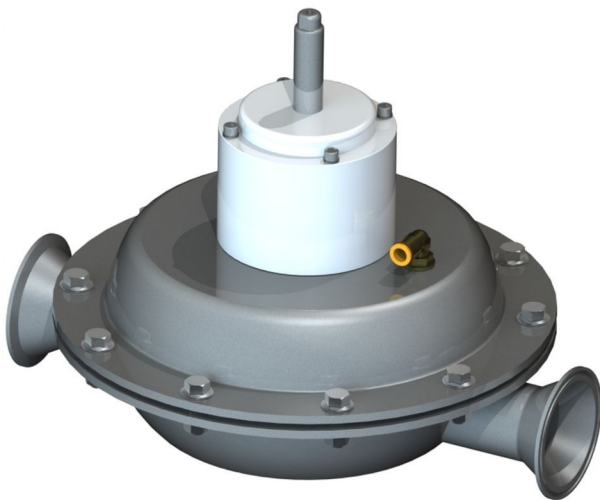
The the pressure used to supply the device, it is transmitted to the processed fluid with a 1:1 pressure ratio

Available in different materials, standard diaphragm in PTFE

Designed with the possibility to add an electronic control device

POSSIBLE APPLICATIONS

- Filling machines
- Dosing machines



Space Puls 2" - Tri Clamp ports



