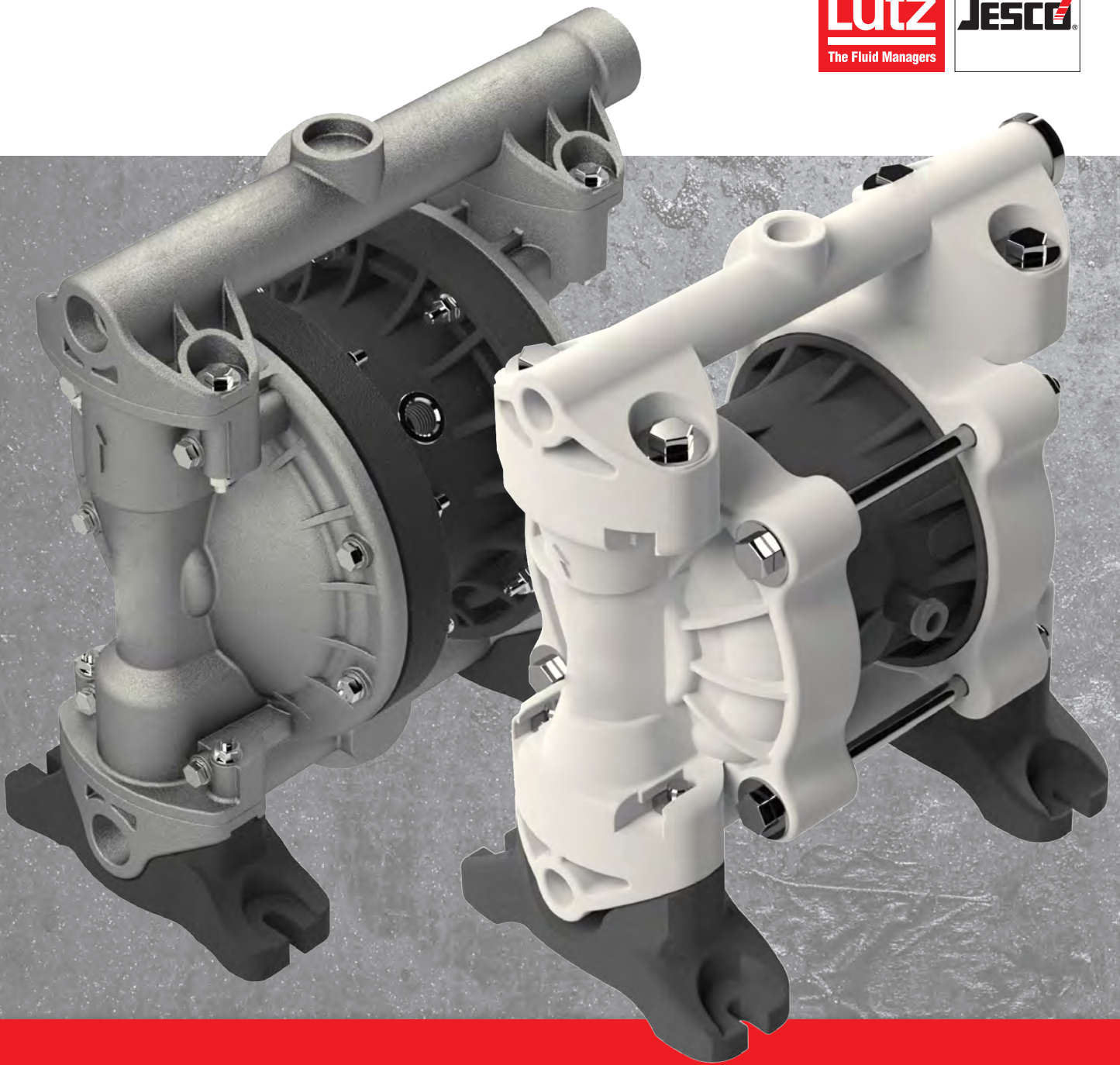




Compressed air diaphragm pumps

Industrial applications / food

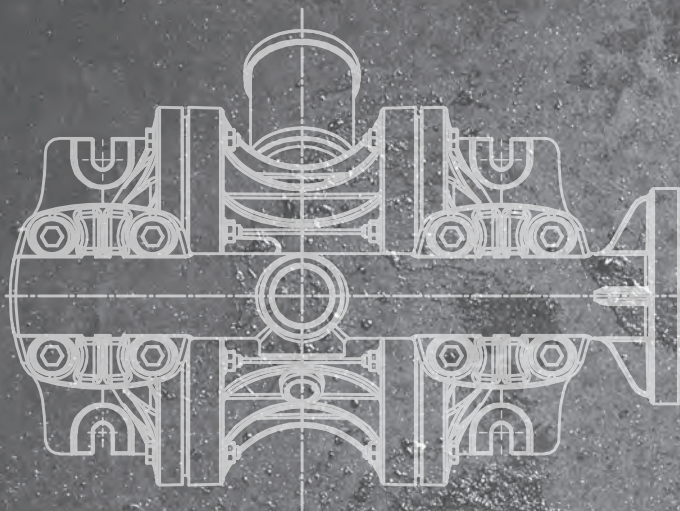
Product range



safety is our concern

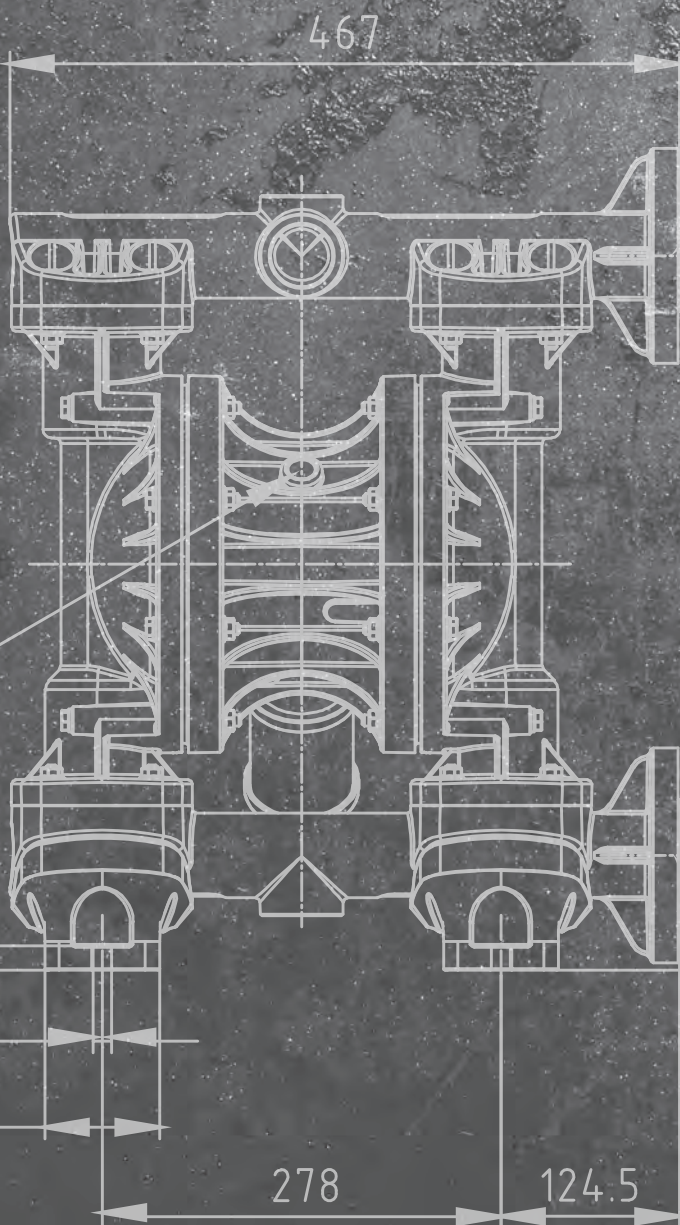
278 124.5

Flansch/flange 1 1/2"
ISO/DIN DN40, PN10/
ASME B16.5 class150



1 1/2" BSP IG/IT
oder/or

Flansch/flange 1 1/2"
ISO/DIN DN40, PN10/
ASME B16.5 class150



Einlass/
inlet
1 1/2" BSP IG/IT

418

80

13
80

Einlass/inlet
1 1/2" BSP IG/IT
oder/or
Flansch/flange 1 1/2"
ISO/DIN DN40, PN10/
ASME B16.5 class150



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Through thick and thin: Lutz Double Diaphragm Pumps

The new series of Lutz double diaphragm pumps combines the characteristics of the previous model with new technical features. They convince with high-quality materials and the latest available technology.

The application possibilities of the double diaphragm pump in sizes 1/4" to 2" are very versatile: From the automotive industry and the waste water sector, to the decanting of chemicals such as acids, alkalis, alcohols and solvents, to the feeding of large-scale plants. But the pumps also reliably solve the tasks assigned in the food sector and when pumping thin-bodied and viscous liquids. As usual, the new generation of double diaphragm pumps is also explosion-proof according to ATEX directive and FDA-compliant.

Variety is the key

Lutz double diaphragm pumps are used in almost all branches of industry.

Since the applications are becoming more and more versatile and demanding, the user can choose from a variety of material, such as high-quality thermoplastics or different metallic variants.

The pumps made of glass fibre reinforced polypropylene (PP) and carbon fibre reinforced polyvinylidene fluoride (PVDF) impress with their high mechanical strength and maximum resistance to aggressive and concentrated acids and alkalis.

In addition to some versions made of plastic all metallic pumps are also explosion-proof according to the current ATEX directive and are suitable for pumping flammable or highly flammable liquids in ATEX zone 1.

FDA-compliant double diaphragm pumps of the PURE series are available for the food sector.

Diaphragm

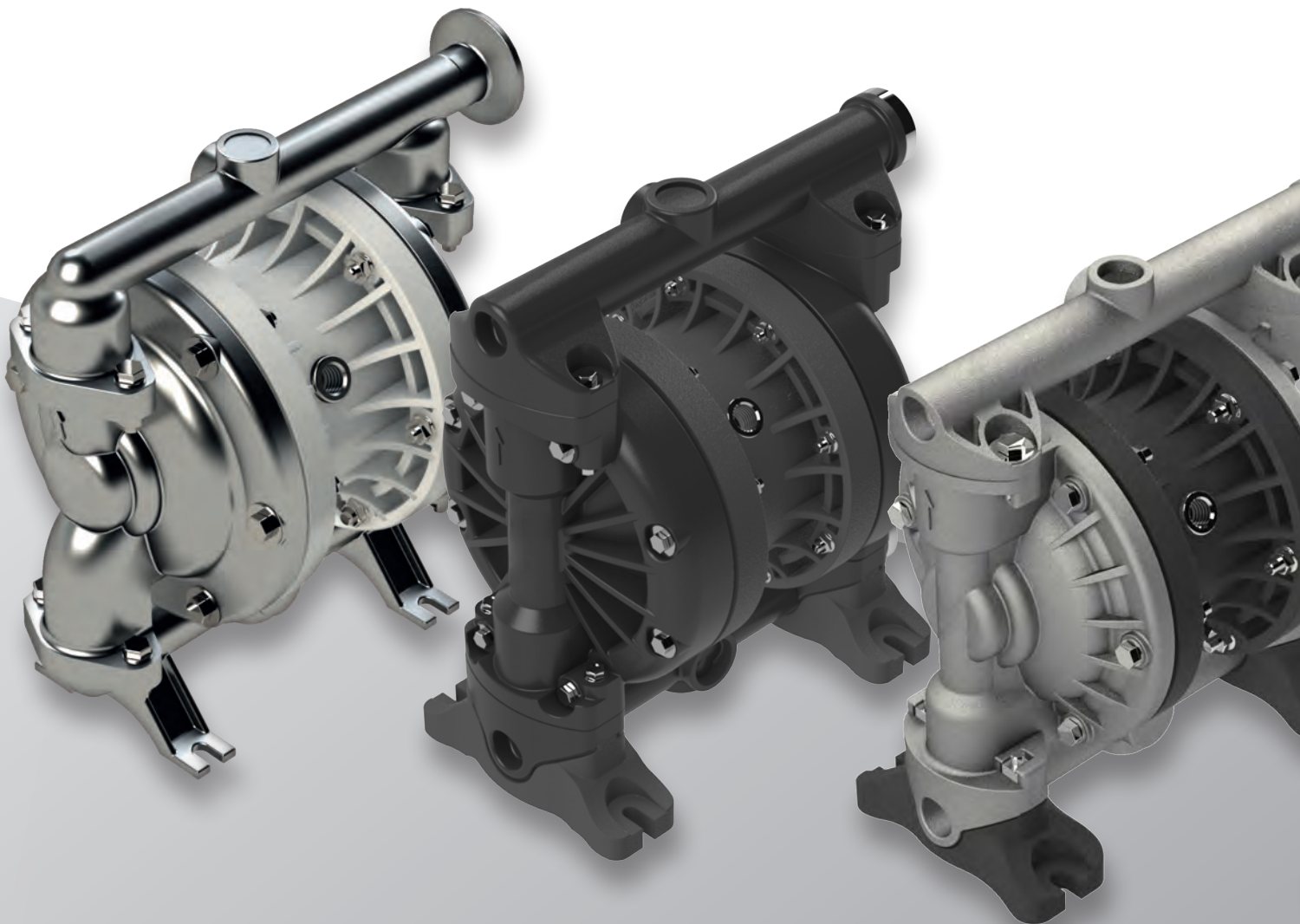
The available diaphragms made of TFM (PTFE), TPV (EPDM-PP), NBR and FPM are of high quality and can be used for applications in the chemical, food and pharmaceutical industries.

Inside design

By revising the internal geometry, the pump achieves a better and flow-optimised conveying characteristic.

Air control valve

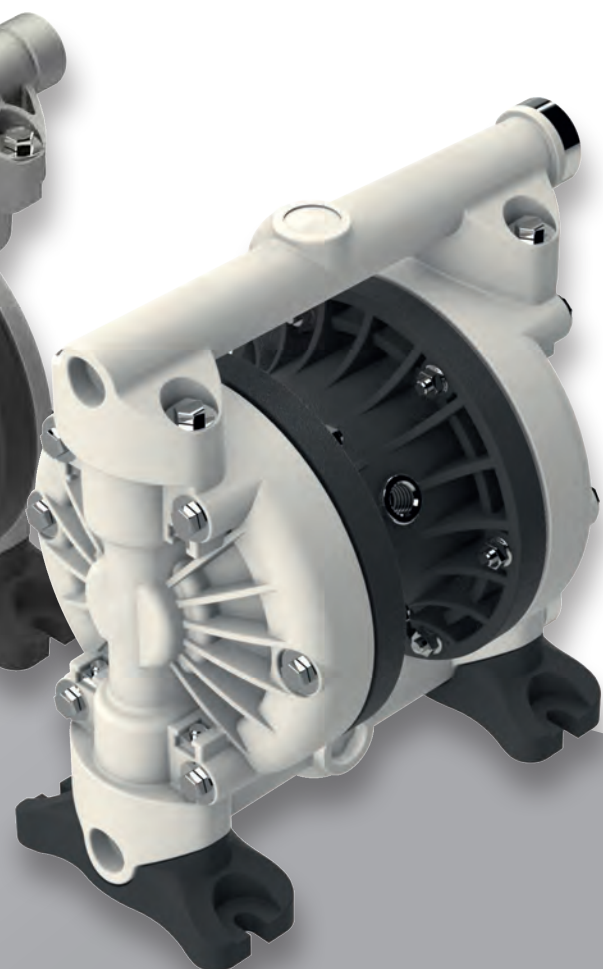
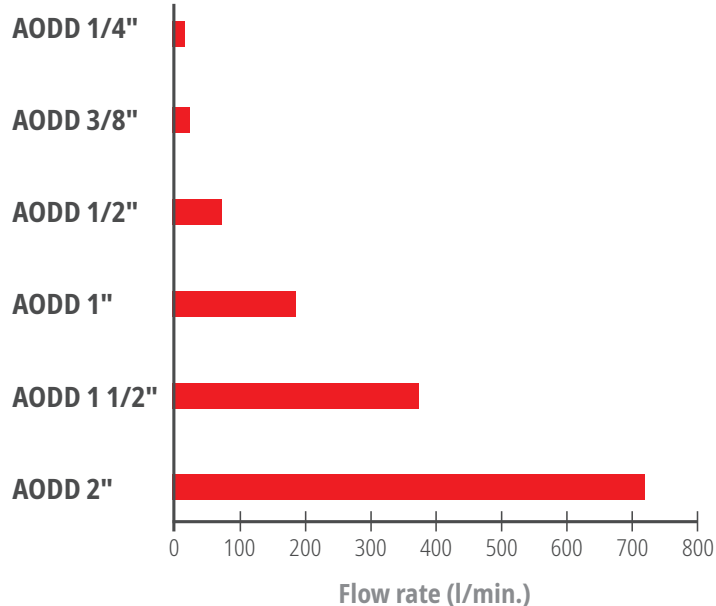
Thanks to the newly designed air control valve, the pumps achieve increased efficiency and simultaneously reduced air consumption (depending on the operating point). Maintenance is also significantly reduced by high-strength and self-lubricating polymers.



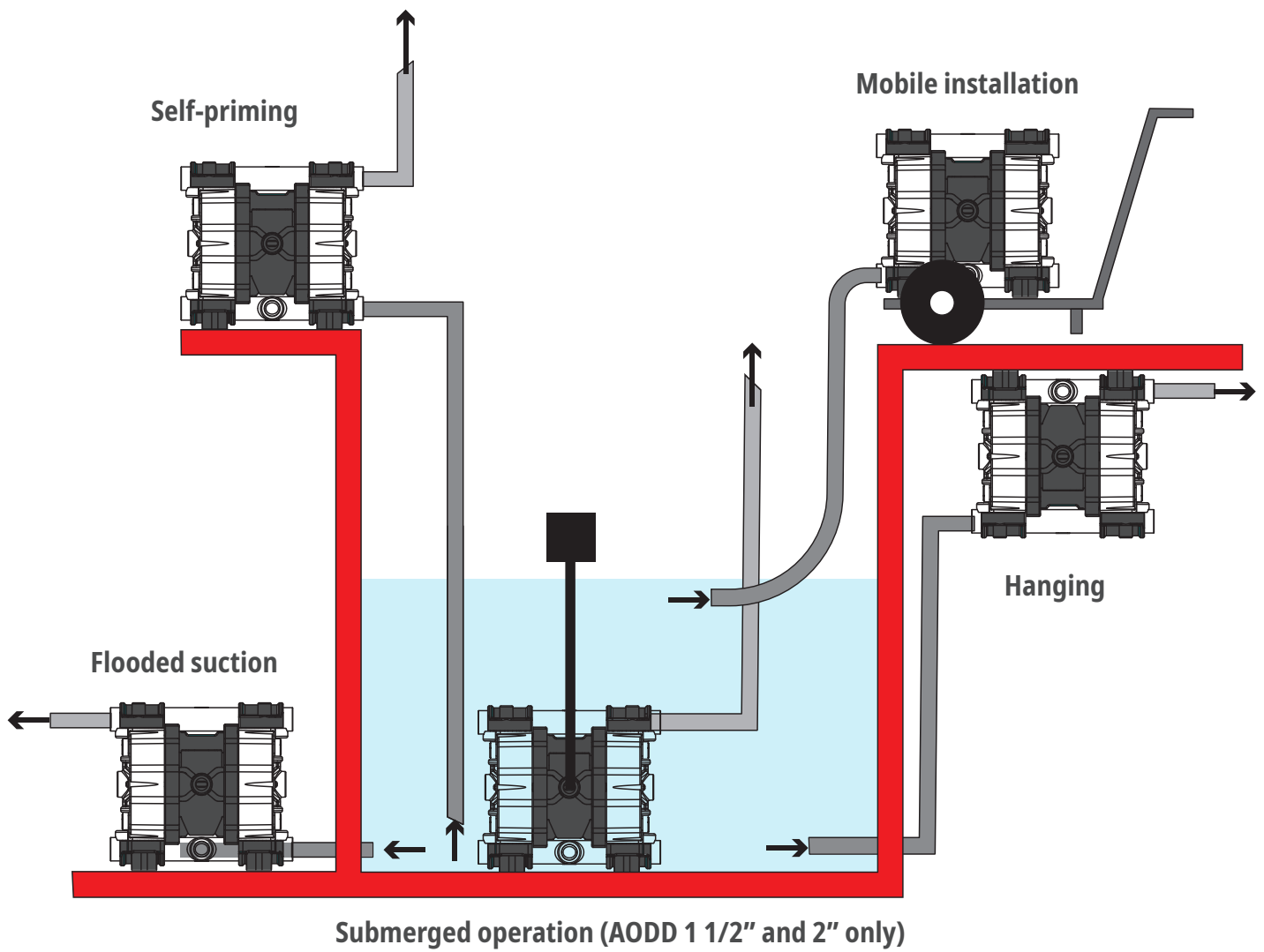
The product advantages at a glance

- High hydraulic performance and optimised air consumption
- Ice-free air system
- Maintenance-optimised design and simple installation
- Integrated muffler up to model size AODD 1"
- Highly resistant TFM (PTFE) diaphragms (modified PTFE)
- Reinforced elastomers and thermoplastic diaphragms
- Can safely run dry
- Self-priming
- PURE variants FDA-compliant
- Pumps explosion-proof according to ATEX directive (explosion protection)
- Absolutely oil-free
- Non-stalling operation

Size



Installation capabilities



Lutz Double Diaphragm Pumps are designed for a variety of industrial applications.

Stationary or mobile installation

The pumps can be mounted either in a stationary position or, depending on requirements, transported mobile to different places of application to empty the liquids from different containers.

Flooded suction

If the liquid level is above the suction inlet, it is called positive inlet. If the maximum inlet pressure is exceeded, the suction line should have appropriate shut-off valves.

Self-priming

When the suction is below the level of the liquid, the pump has to prime the medium. Lutz double diaphragm pumps can self-prime dry up to 4.5 wc. If the suction pipe is filled, a suction head up to 9 m wc can be reached.

Hanging construction

For special process requirements, the pump can also be installed in a hanging position.

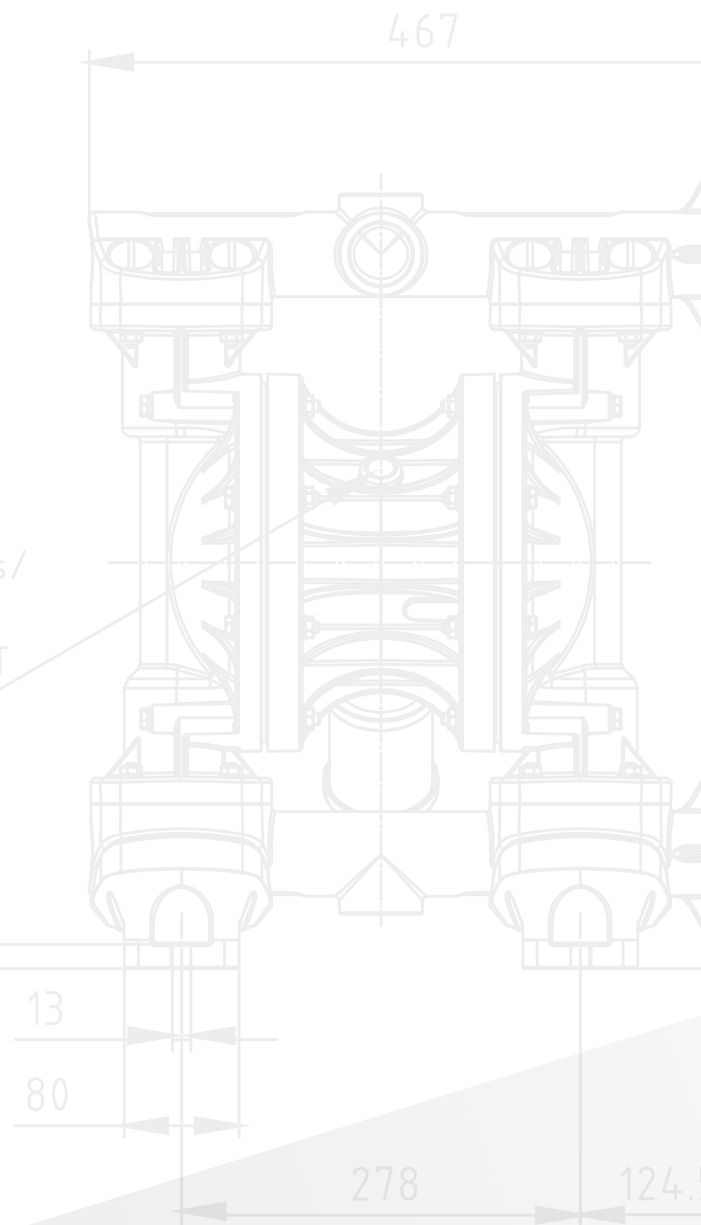
Submerged operation

Pumps of sizes 1 1/2" and 2" can be submerged in liquids and operated there, provided the pump material is sufficiently resistant and the air outlet is above the liquid level.

Accessories

Special vibration dampeners are available to absorb vibrations. Suction lances for various containers and mobile applications are also available as accessories.

Luftanschluss/
air connection
1/2" BSP IG/IT



Functions

The Lutz double diaphragm pumps operate volumetrically and belong to the category of oscillating displacement pumps. The suction and pressure cycle occur simultaneously in alternating phases. The operating principle depends on the volume change of two chambers.

As shown in the scheme below, a positive volume change takes place in one chamber, while a volume decrease occurs in the second chamber. This leads to priming resp. displacement of the pumped liquid.

In detail: The overpressure created in the chamber **(A)** closes the suction valve and opens the pressure valve so that the liquid is pumped into the pressure line. At the same moment, the same procedure occurs in the negative pressure area in the opposite order in chamber **(B)**. The pressure valve closes and the suction valve opens and enables the liquid to flow in on the suction side.

The flow rate results from the product, the number of cycles per time unit and the volume sucked in and discharged again during each cycle.

Due to the high efficiency of the pumps, they can generate delivery heads that are approximately proportional to the applied supply pressure.

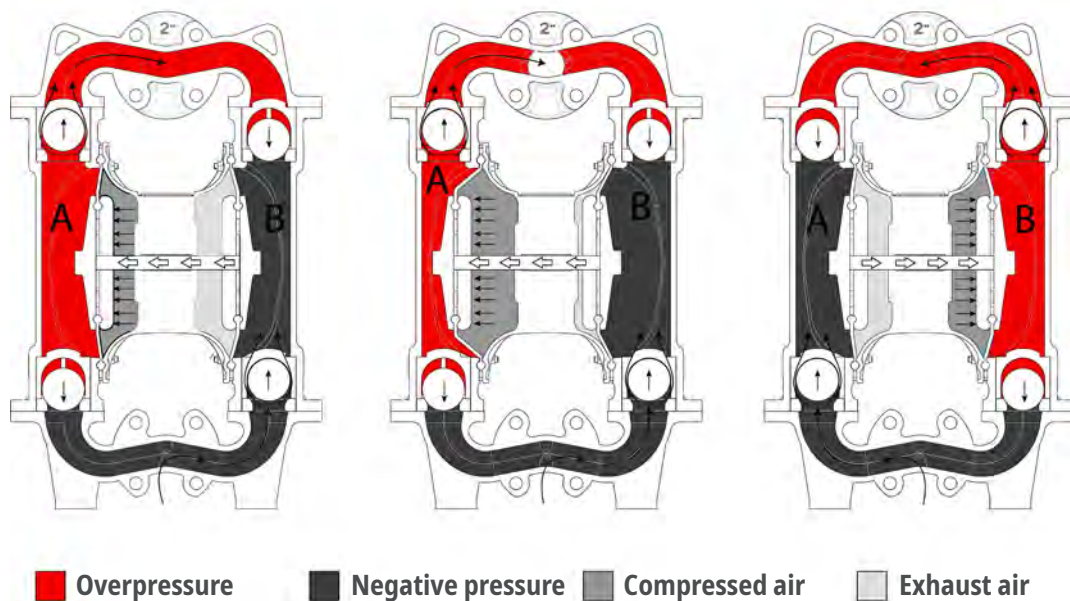
One pump cycle

The air control valve conveys compressed air behind one of the two diaphragms **(A)**, which, due to its deformation, causes a volume change in the liquid side chamber and pumps the liquid into the pressure line.

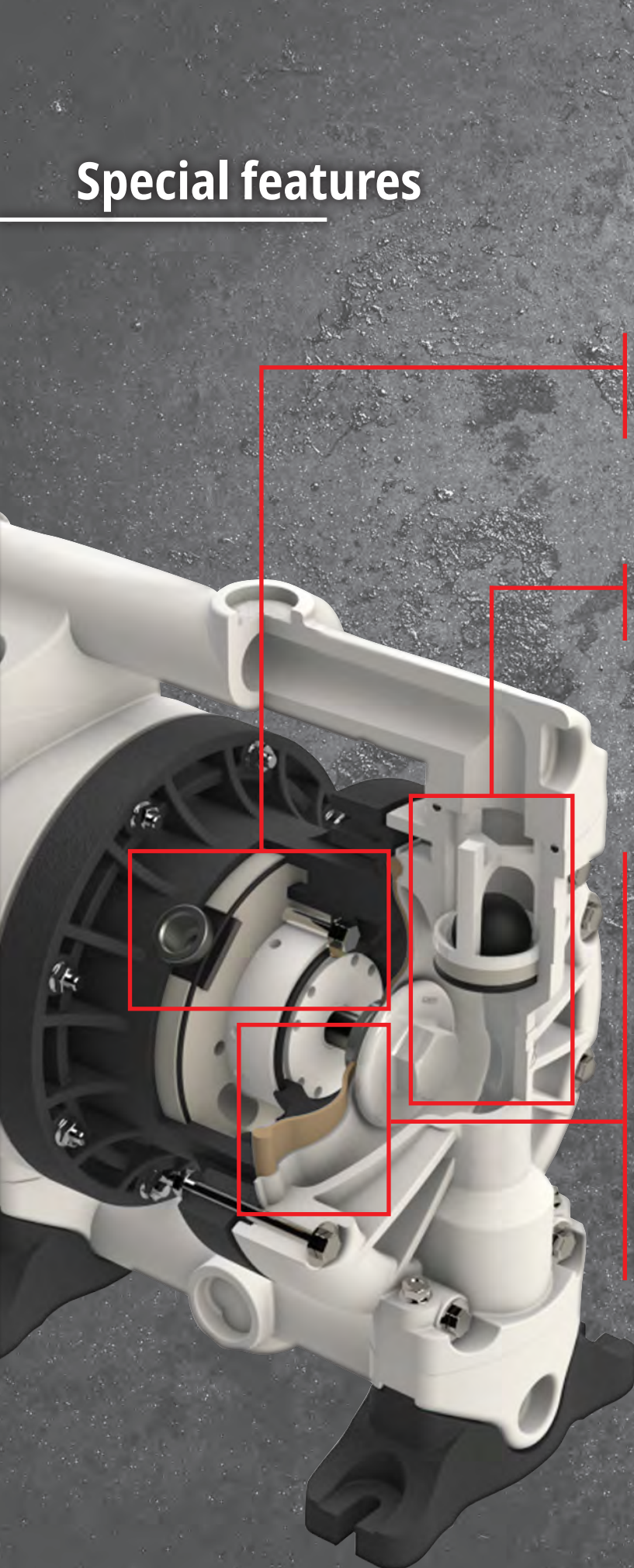
At the same time, the opposite diaphragm **(B)** is in the priming phase, as this is connected to the other diaphragm **(A)** via the diaphragm rod. The excess air behind the diaphragm in the suction cycle is released to the environment via the air control valve.

When the pressurised diaphragm **(A)** reaches the stroke limit, the air control valve switches the two inlets to the chamber on the air side of the diaphragm so that the diaphragm **(B)** is pressurised and the diaphragm **(A)** is relieved.

When the pump reaches its original starting point, each diaphragm carried out an air-side and a liquid-side delivery stroke. This sequence of movements forms a complete pump cycle.



Special features



Optimised air control valve

Increases the efficiency of the pump and reduces the air consumption (depending on the operating point).

Flow-optimised hydraulic system

Enables higher flow rates due to lower, internal pressure losses.

Elastomer diaphragms

Use of rubber compounds with embedded nylon fabric to increase mechanical strength. The most common elastomers are based on nitrile butadiene rubber (NBR)

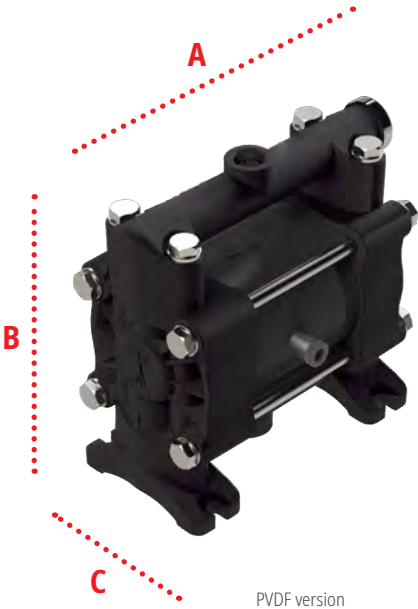
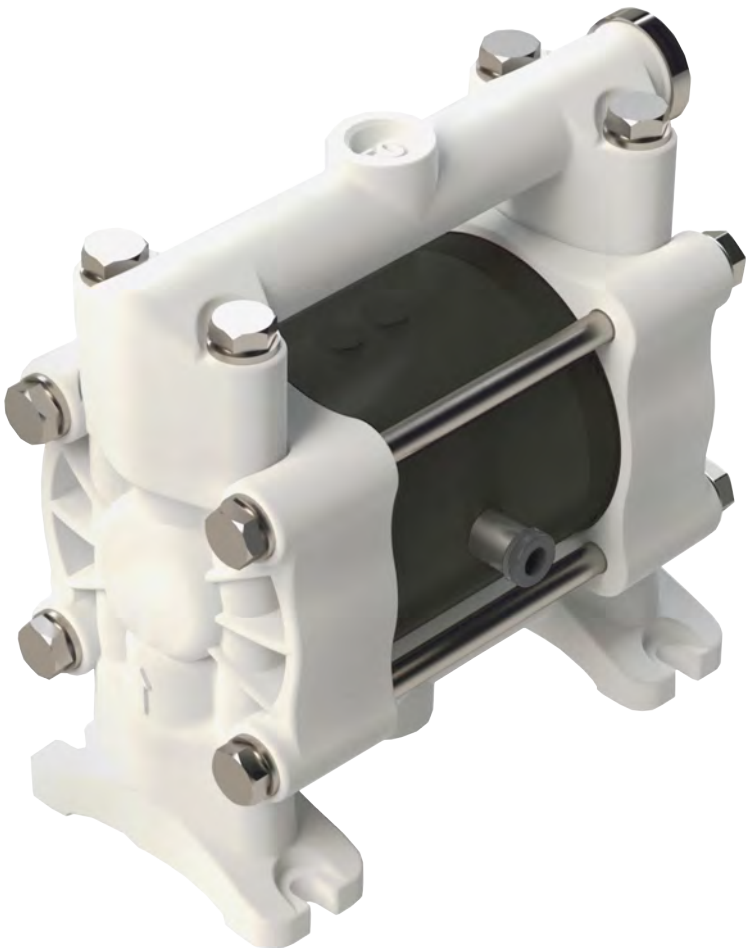
TFM membrane

Modified PTFE that is refined in its molecular structure and thus offers improved characteristics regarding safety and reliability.

In Lutz double diaphragm pumps, the TFM diaphragm is always supported (by a back-up diaphragm) made of thermoplastic rubber, which increases resistance and service life.

Model 1/4" mini non-metallic

The double diaphragm pump is suitable for pumping small quantities, in the laboratory sector and for occasional filling processes.



Dimensions

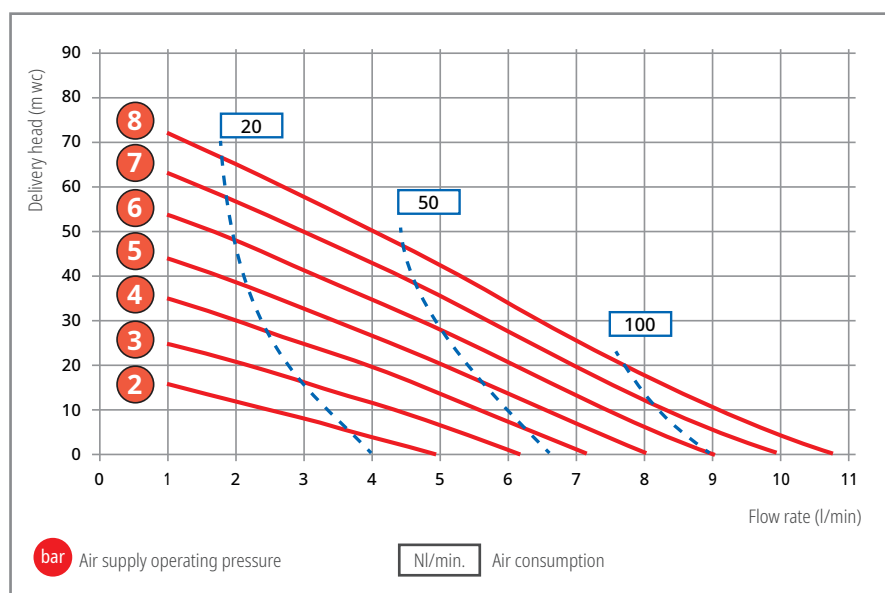
PP / PVDF
 A 128
 B 126
 C 74

Dimensions in mm
 Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/4" mini PPT	PP (glass fibre reinforced)	TFM-NBR (PTFE)	PTFE	PTFE	5260-070
AODD 1/4" mini KNT	PVDF (carbon fibre reinforced)	TFM-NBR (PTFE)	PTFE	PTFE	5261-070

Operating data / dimensions / weights

	AODD 1/4" PP	AODD 1/4" PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	TFM-NBR (PTFE)	TFM-NBR (PTFE)
Valve ball material:	PTFE	PTFE
Seals:	PTFE	PTFE
Valve seat:	PP	PVDF
Max. flow rate:	10.8 l/min.	10.8 l/min.
Max. delivery head:	80 m wc	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	3 m wc	3 m wc
Displacement per chamber:	10 cm ³	10 cm ³
Displacement per cycle:	20 cm ³	20 cm ³
Max. viscosity:	3,500 mPas	3,500 mPas
Sound pressure level (Lp):	63 dB(A)	63 dB(A)
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 1.5 mm	ø 1.5 mm
Air inlet:	ø 4 mm	ø 4 mm
Suction:	1/4" BSP inside thread	1/4" BSP inside thread
Pressure joint:	1/4" BSP inside thread	1/4" BSP inside thread
Weight:	0.7 kg	0.9 kg

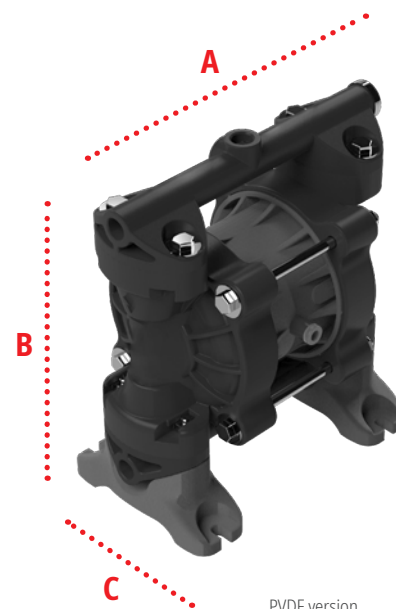


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1/4" non-metallic

The double diaphragm pump is suitable for pumping small quantities, in the laboratory sector and for occasional filling processes.



PVDF version

Dimensions

PP / PVDF

A 183 **B** 203 **C** 107

Dimensions in mm

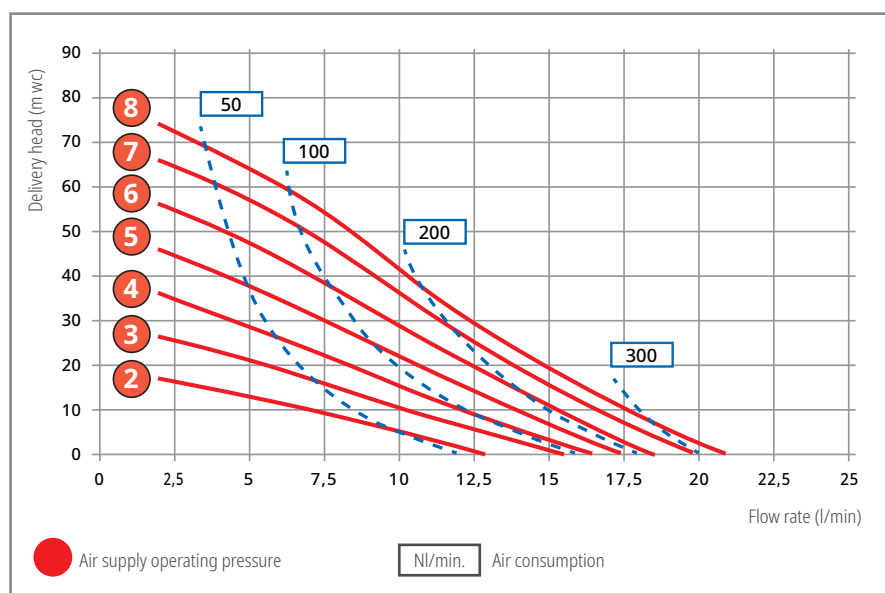
Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/4" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5200-000
AODD 1/4" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5200-020
AODD 1/4" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5200-040
AODD 1/4" PPV	PP (glass fibre reinforced)	FPM	FPM	FPM	5200-050
AODD 1/4" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5201-010
AODD 1/4" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	5201-050
AODD 1/4" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5201-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1/4" mini PP	AODD 1/4" mini PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPV (EPDM-PP), TPC-ET + TFM (PTFE), FPM	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, EPDM, PTFE, FPM	PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	21 l/min.	21 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4 m wc	4 m wc
Displacement per chamber:	35 cm ³	35 cm ³
Displacement per cycle:	70 cm ³	70 cm ³
Max. viscosity:	3,500 mPas	3,500 mPas
Sound pressure level (Lp):	72 dB(A)	72 dB(A)
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 3 mm	ø 3 mm
Air inlet:	ø 4 mm	ø 4 mm
Suction:	1/4" BSP inside thread	1/4" BSP inside thread
Pressure joint:	1/4" BSP inside thread	1/4" BSP inside thread
Weight:	1.5 kg	1.9 kg

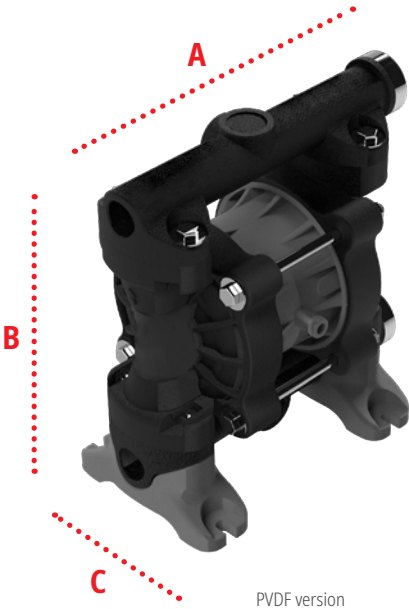
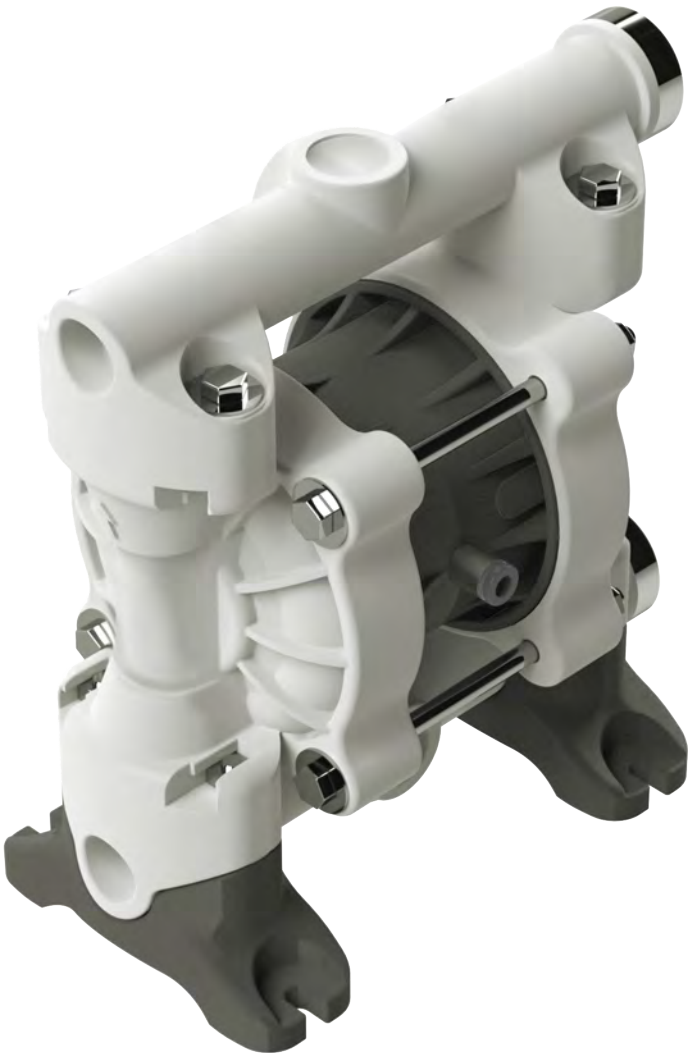


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 3/8" non-metallic

The double diaphragm pump is suitable for pumping small quantities, in the laboratory sector and for occasional filling processes.



Dimensions

PP / PVDF
 A 193
 B 209
 C 107

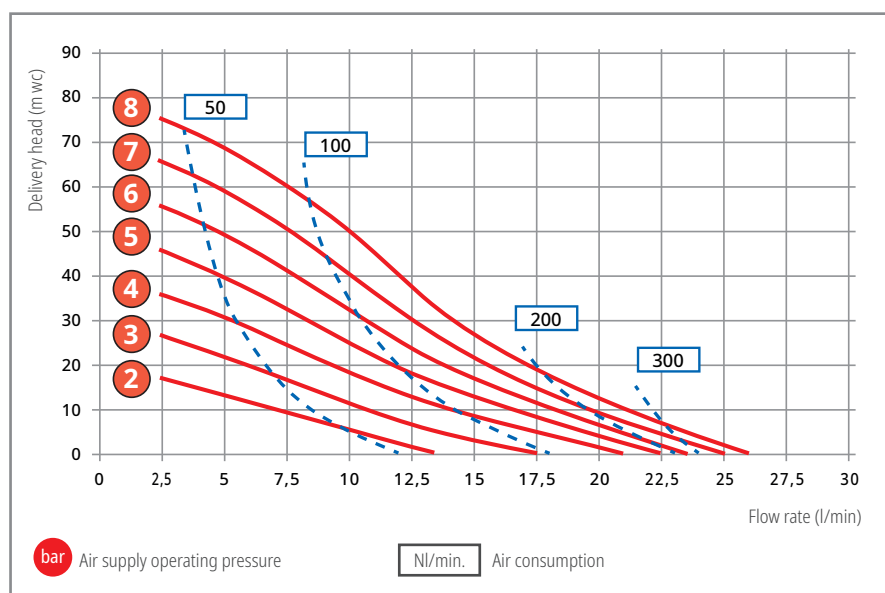
Dimensions in mm
 Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 3/8" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5210-000
AODD 3/8" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5210-020
AODD 3/8" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5210-040
AODD 3/8" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5211-010
AODD 3/8" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5211-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 3/8" PP	AODD 3/8" PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPV (EPDM-PP), TPC-ET + TFM (PTFE)	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	NBR, EPDM, PTFE	PTFE
Seals:	NBR, EPDM, PTFE	PTFE
Valve seat:	PP	PVDF
Max. flow rate:	26.0 l/min.	26.0 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4 m wc	4 m wc
Displacement per chamber:	35 cm ³	35 cm ³
Displacement per cycle:	70 cm ³	70 cm ³
Max. viscosity:	3,500 mPas	3,500 mPas
Sound pressure level (Lp):	72 dB(A)	72 dB(A)
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 3.0 mm	ø 3.0 mm
Air inlet:	ø 6 mm	ø 6 mm
Suction:	3/8" BSP inside thread	3/8" BSP inside thread
Pressure joint:	3/8" BSP inside thread	3/8" BSP inside thread
Weight:	1.6 kg	2.0 kg



Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1/2" mini non-metallic

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



Dimensions

PP / PVDF
A 193 B 209 C 107

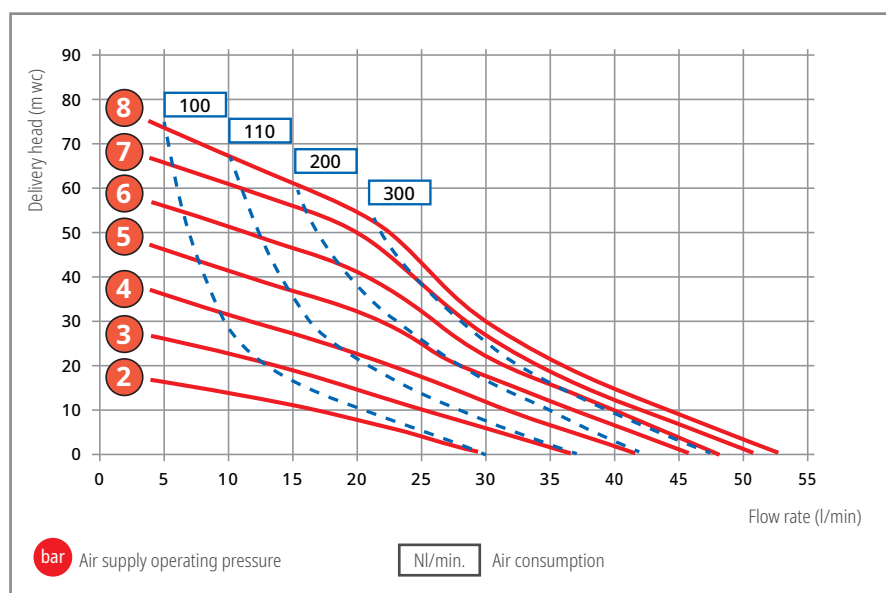
Dimensions in mm
Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5271-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1/2" mini PVDF
Housing material:	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)
Diaphragm material:	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	PVDF
Max. flow rate:	52 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4 m wc
Displacement per chamber:	35 cm ³
Displacement per cycle:	70 cm ³
Max. viscosity:	3,500 mPas
Sound pressure level (Lp):	72 dB(A)
Max. temperature:	90 °C
Max. solid size:	ø 3.0 mm
Air inlet:	ø 6 mm
Suction:	1/2" BSP inside thread
Pressure joint:	1/2" BSP inside thread
Weight:	2.0 kg

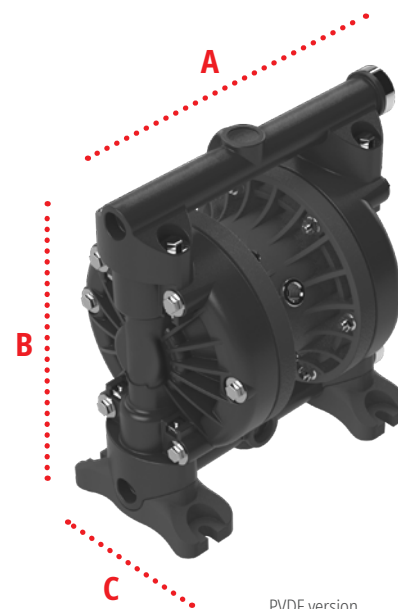


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1/2" non-metallic

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



PVDF version

Dimensions

PP / PVDF **A** 243 **B** 261 **C** 160

Dimensions in mm

Detailed dimensioned drawings are available for download on our website.

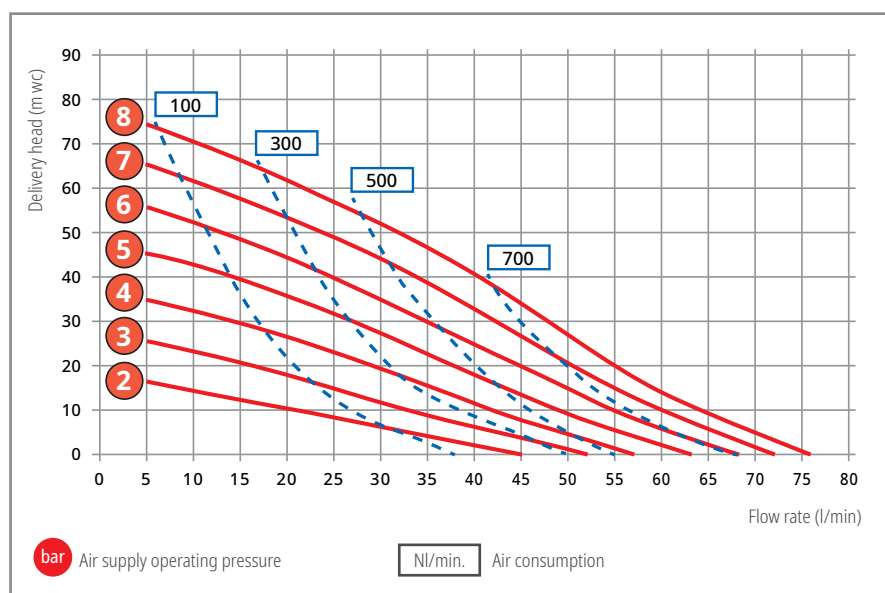
When using a needle valve, the thread extension part no. 5000-712 is required.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5220-000
AODD 1/2" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5220-020
AODD 1/2" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5220-040
AODD 1/2" PPV	PP (glass fibre reinforced)	FPM	FPM	FPM	5220-050
AODD 1/2" PPT Ex* 	PP (carbon fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5220-100
AODD 1/2" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5221-010
AODD 1/2" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	5221-050
AODD 1/2" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5221-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1/2" PP	AODD 1/2" PVDF
Housing material:	Polypropylene (glass fibre reinforced/ carbon fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP), FPM	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, PTFE, EPDM, FPM	PTFE, FPM, PTFE
Seals:	NBR, PTFE, EPDM, FPM	PTFE, FPM, PTFE
Valve seat:	PP	PVDF
Max. flow rate:	76 l/min.	76 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4 m wc	4 m wc
Displacement per chamber:	75 cm ³	75 cm ³
Displacement per cycle:	150 cm ³	150 cm ³
Max. viscosity:	7,500 mPas	7,500 mPas
Sound pressure level (Lp):	75 dB(A)	75 dB(A)
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 3.2 mm	ø 3.2 mm
Air inlet:	1/4" BSP inside thread	1/4" BSP inside thread
Suction:	1/2" BSP inside thread	1/2" BSP inside thread
Pressure joint:	1/2" BSP inside thread	1/2" BSP inside thread
Weight:	3.5 kg	4.0 kg

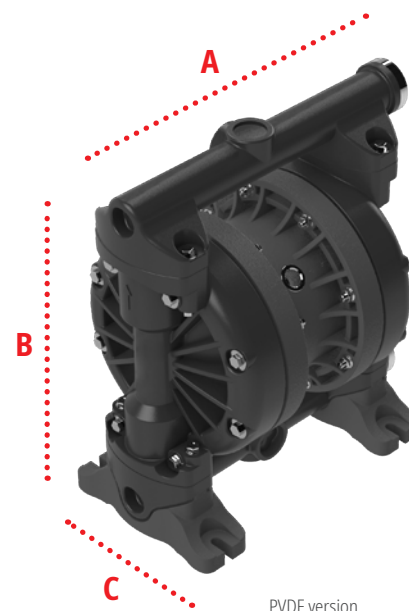


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1" non-metallic

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



PVDF version

Dimensions

PP / PVDF

A 310 **B** 345 **C** 203

Dimensions in mm

Detailed dimensioned drawings are available for download on our website.

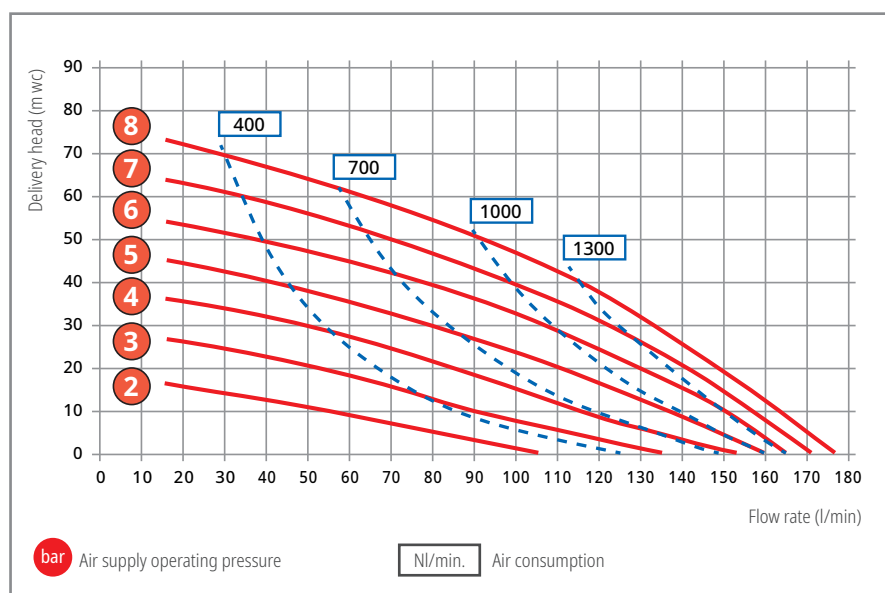
When using a needle valve, the thread extension part no. 5000-712 is required.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5230-000
AODD 1" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5230-020
AODD 1" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5230-040
AODD 1" PPV	PP (glass fibre reinforced)	FPM	FPM	FPM	5230-050
AODD 1" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5231-010
AODD 1" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	5231-050
AODD 1" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5231-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1" PP	AODD 1" PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP), FPM	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, PTFE, EPDM, FPM	PTFE, FPM
Seals:	NBR, PTFE, EPDM, FPM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	175 l/min.	175 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	220 cm ³	220 cm ³
Displacement per cycle:	440 cm ³	440 cm ³
Max. viscosity:	10,000 mPas	10,000 mPas
Sound pressure level (Lp):	80 dB(A)	80 dB(A)
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 6.0 mm	ø 6.0 mm
Air inlet:	3/8" BSP inside thread	3/8" BSP inside thread
Suction:	1" BSP inside thread	1" BSP inside thread
Pressure joint:	1" BSP inside thread	1" BSP inside thread
Weight:	6.4 kg	7.7 kg

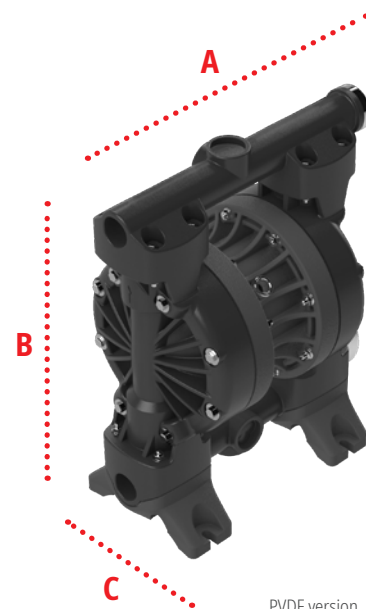
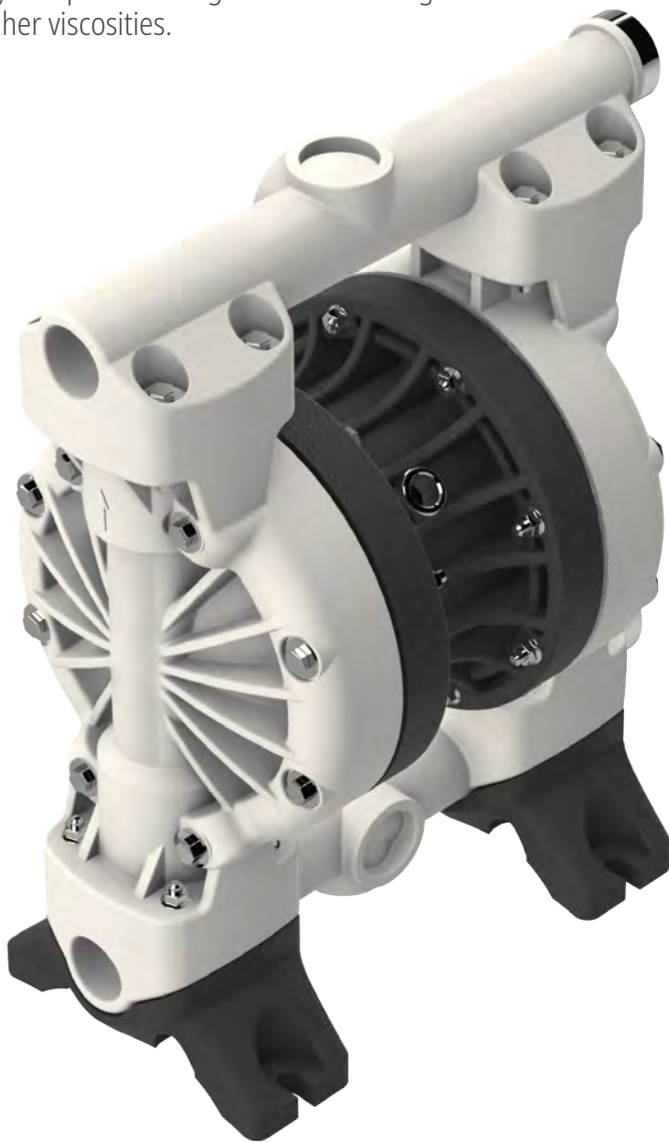


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1 1/2" non-metallic

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



PVDF version

Dimensions

PP / PVDF

A 430 B 538 C 263*

Dimensions in mm *with muffler 317 mm

Detailed dimensioned drawings are available for download on our website.

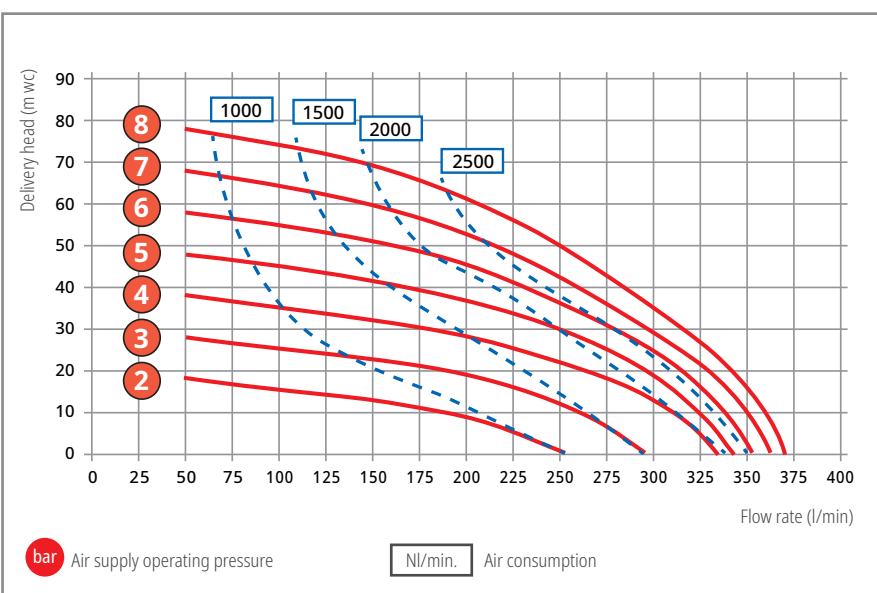
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1 1/2" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5240-200
AODD 1 1/2" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5240-220
AODD 1 1/2" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5240-240
AODD 1 1/2" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5241-310
AODD 1 1/2" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	5241-350
AODD 1 1/2" KNTC Ex* 	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5241-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1 1/2" PP	AODD 1 1/2" PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Aluminium	Aluminium (corrosion protection lacquered)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, PTFE, EPDM	PTFE, FPM
Seals:	NBR, PTFE, EPDM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	370 l/min.	370 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	670 cm ³	670 cm ³
Displacement per cycle:	1340 cm ³	1340 cm ³
Max. viscosity:	30,000 mPas	30,000 mPas
Sound pressure level (Lp):	80 dB(A)*	80 dB(A)*
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 7.0 mm	ø 7.0 mm
Air inlet:	1/2" BSP inside thread	1/2" BSP inside thread
Suction:	1 1/2" BSP inside thread	1 1/2" BSP inside thread
Pressure joint:	1 1/2" BSP inside thread	1 1/2" BSP inside thread
Weight:	18.0 kg	24.0 kg

*Measured with standard muffler mounted.

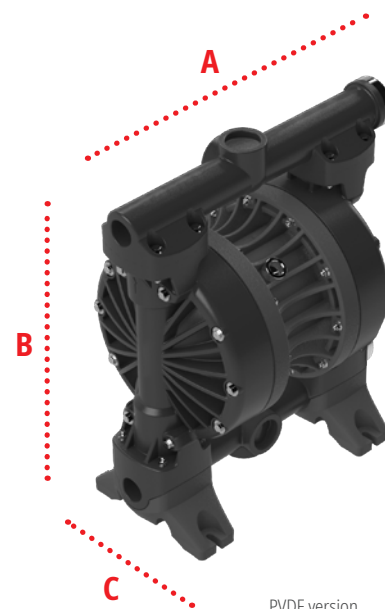


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 2" non-metallic

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



PVDF version

Dimensions

PP / PVDF

A 563 **B** 663 **C** 345*

Dimensions in mm *with muffler 381 mm

Detailed dimensioned drawings are available for download on our website.

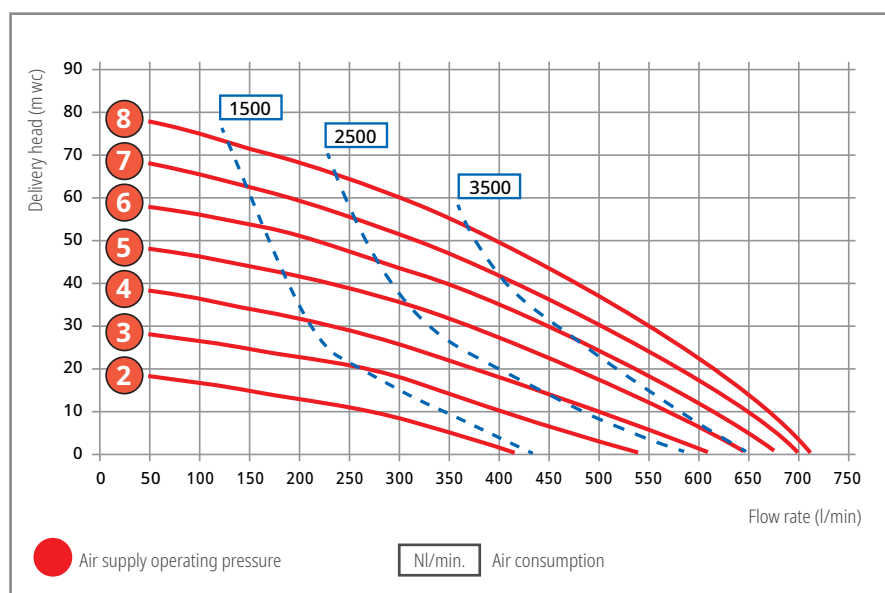
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" PPT	PP (glass fibre reinforced)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5250-200
AODD 2" PPE	PP (glass fibre reinforced)	TPV (EPDM-PP)	EPDM	EPDM	5250-220
AODD 2" PPB	PP (glass fibre reinforced)	NBR	NBR	NBR	5250-240
AODD 2" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5251-310
AODD 2" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	5251-350
AODD 2" KNTC Ex* 	PVDF (kohlefaserverstärkt)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5251-110

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 2" PP	AODD 2" PVDF
Housing material:	Polypropylene (glass fibre reinforced)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Aluminium	Aluminium (corrosion protection lacquered)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, PTFE, EPDM	PTFE, FPM
Seals:	NBR, PTFE, EPDM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	715 l/min.	715 l/min.
Max. delivery head:	80 m wc (Type PPE + PPB: max. 50 m wc)	80 m wc
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	1910 cm ³	1910 cm ³
Displacement per cycle:	3820 cm ³	3820 cm ³
Max. viscosity:	30,000 mPas	30,000 mPas
Sound pressure level (Lp):	80 dB(A)*	80 dB(A)*
Max. temperature:	60 °C	90 °C
Max. solid size:	ø 9.0 mm	ø 9.0 mm
Air inlet:	3/4" BSP inside thread	3/4" BSP inside thread
Suction:	2" BSP inside thread	Flange DIN DN50
Pressure joint:	2" BSP inside thread	Flange DIN DN50
Weight:	34.0 kg (PPT) / 43.0 kg (PPE, PPB)	40.0 kg

*Measured with standard muffler mounted.

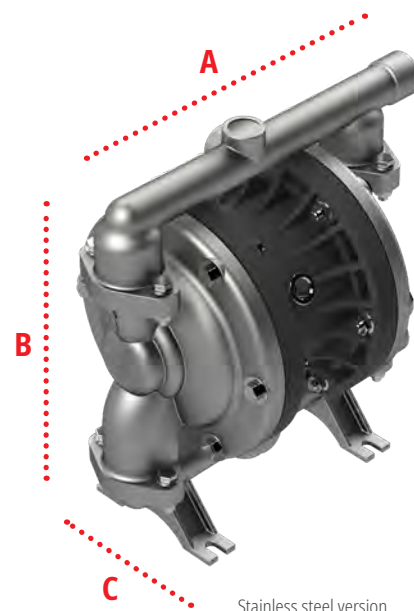


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1/2" metallic

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



Dimensions

Alu	A 246 B 254 C 160
Stainless steel	A 247 B 248 C 160

Dimensions in mm

Detailed dimensioned drawings are available for download on our website.

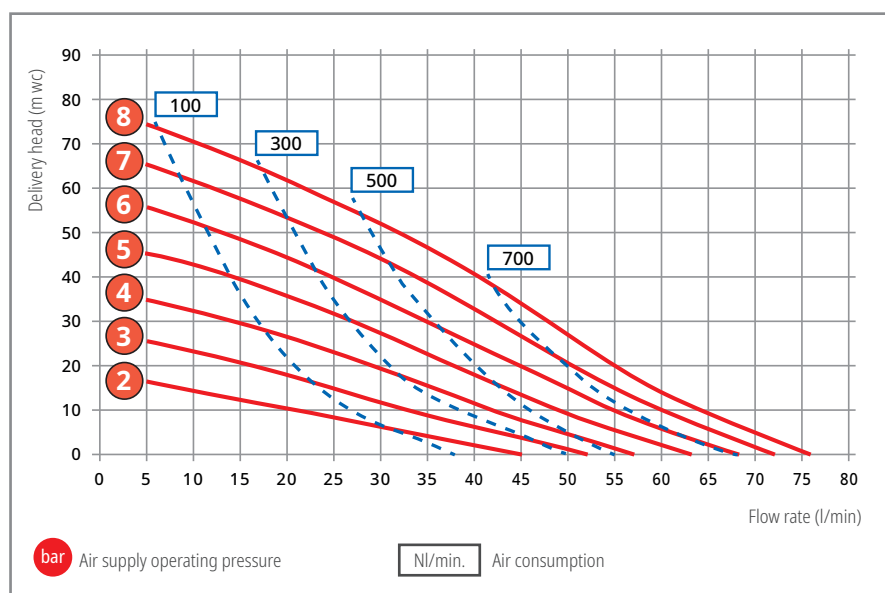
When using a needle valve, the thread extension part no. 5000-712 is required.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" ALT Ex*	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	5222-100
AODD 1/2" ALE Ex*	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	5222-120
AODD 1/2" ALB Ex*	Aluminium	NBR	NBR	NBR	5222-140
AODD 1/2" ALV Ex*	Aluminium	FPM	FPM	FPM	5222-150
AODD 1/2" SST Ex*	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5223-110
AODD 1/2" SSE Ex*	Stainless steel	TPV (EPDM-PP)	EPDM	EPDM	5223-120
AODD 1/2" SSB Ex*	Stainless steel	NBR	NBR	NBR	5223-140
AODD 1/2" SSV Ex*	Stainless steel	FPM	FPM	FPM	5223-150

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1/2" Aluminium	AODD 1/2" Stainless steel
Housing material:	Aluminium	Stainless steel 1.4404 (316 L)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP), FPM	NBR, TPV (EPDM-PP) + TFM (PTFE), TPV (EPDM-PP), FPM
Valve ball material:	NBR, PTFE, EPDM, FPM	NBR, PTFE, EPDM, FPM
Seals:	NBR, PTFE, EPDM, FPM	NBR, PTFE, EPDM, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	76 l/min.	76 l/min.
Max. delivery head:	80 m wc (Type ALE + ALB: max. 50 m wc)	80 m wc (Type SSE + SSB: max. 50 m wc)
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4 m wc	4 m wc
Displacement per chamber:	75 cm ³	75 cm ³
Displacement per cycle:	150 cm ³	150 cm ³
Max. viscosity:	7,500 mPas	7,500 mPas
Sound pressure level (Lp):	75 dB(A)	75 dB(A)
Max. temperature:	100 °C	100 °C
Max. solid size:	ø 3.2 mm	ø 3.8 mm
Air inlet:	1/4" BSP inside thread	1/4" BSP inside thread
Suction:	1/2" BSP inside thread	1/2" BSP inside thread
Pressure joint:	1/2" BSP inside thread	1/2" BSP inside thread
Weight:	4.0 kg	6.0 kg

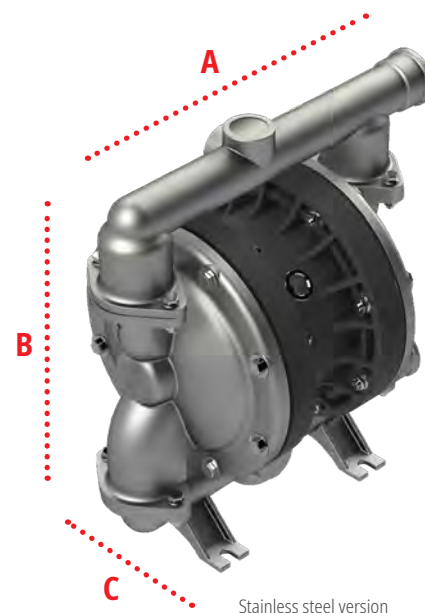
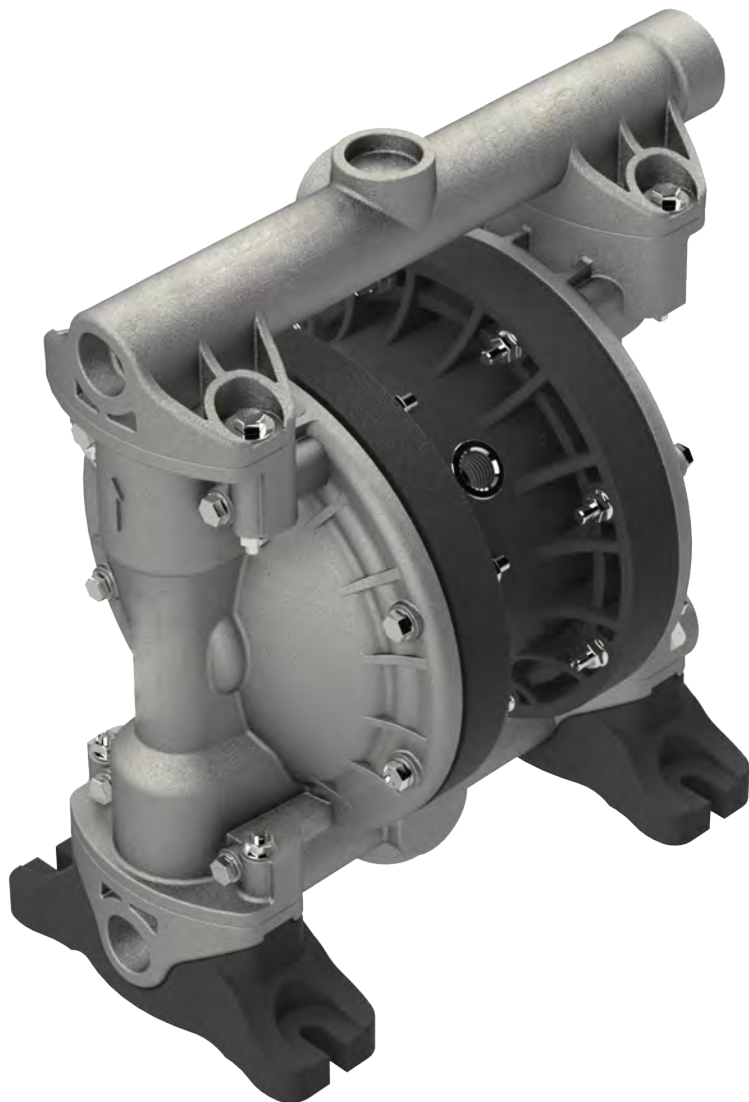


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1" metallic

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



Dimensions

Alu	A 310 B 335 C 203
Stainless steel	A 312 B 322 C 204

Dimensions in mm

Detailed dimensioned drawings are available for download on our website.

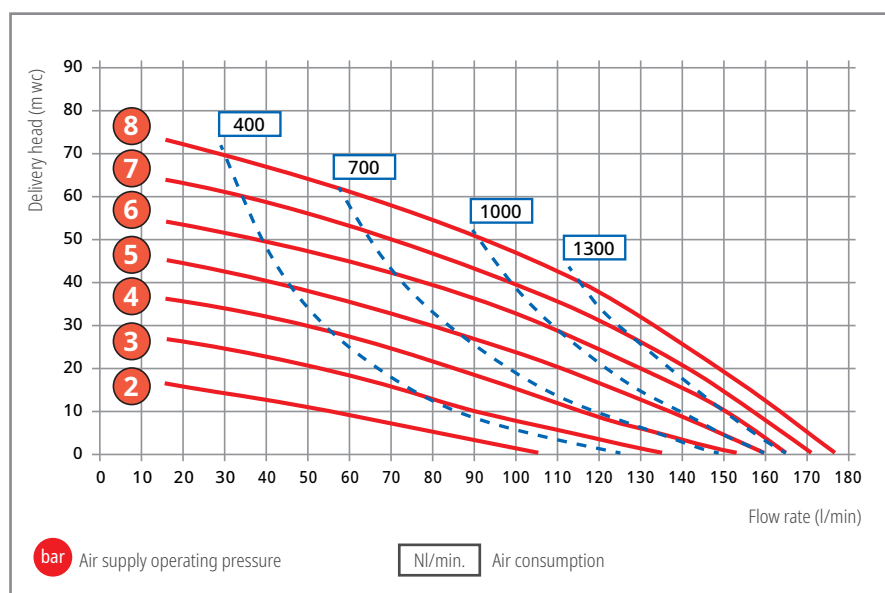
When using a needle valve, the thread extension part no. 5000-712 is required.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1" ALT Ex*	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	5232-100
AODD 1" ALE Ex*	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	5232-120
AODD 1" ALB Ex*	Aluminium	NBR	NBR	NBR	5232-140
AODD 1" ALV Ex*	Aluminium	FPM	FPM	FPM	5232-150
AODD 1" SST Ex*	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5233-110
AODD 1" SSE Ex*	Stainless steel	TPV (EPDM-PP)	EPDM	EPDM	5233-120
AODD 1" SSB Ex*	Stainless steel	NBR	NBR	NBR	5233-140
AODD 1" SSV Ex*	Stainless steel	FPM	FPM	FPM	5233-150

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1" Aluminium	AODD 1" Stainless steel
Housing material:	Aluminium	Stainless steel 1.4404 (316 L)
Centre block material:	Polypropylene (carbon fibre reinforced)	Polypropylene (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP), FPM	NBR, TPV (EPDM-PP) + TFM (PTFE), TPV (EPDM-PP), FPM
Valve ball material:	NBR, PTFE, EPDM, FPM	NBR, PTFE, EPDM, FPM
Seals:	NBR, PTFE, EPDM, FPM	NBR, PTFE, EPDM, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	175 l/min.	175 l/min.
Max. delivery head:	80 m wc (Type ALE + ALB: max. 50 m wc)	80 m wc (Type SSE + SSB: max. 50 m wc)
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	220 cm ³	220 cm ³
Displacement per cycle:	440 cm ³	440 cm ³
Max. viscosity:	10,000 mPas	10,000 mPas
Sound pressure level (Lp):	80 dB(A)	80 dB(A)
Max. temperature:	100 °C	100 °C
Max. solid size:	ø 6.0 mm	ø 6.0 mm
Air inlet:	3/8" BSP inside thread	3/8" BSP inside thread
Suction:	1" BSP inside thread	1" BSP inside thread
Pressure joint:	1" BSP inside thread	1" BSP inside thread
Weight:	7.8 kg	11.0 kg

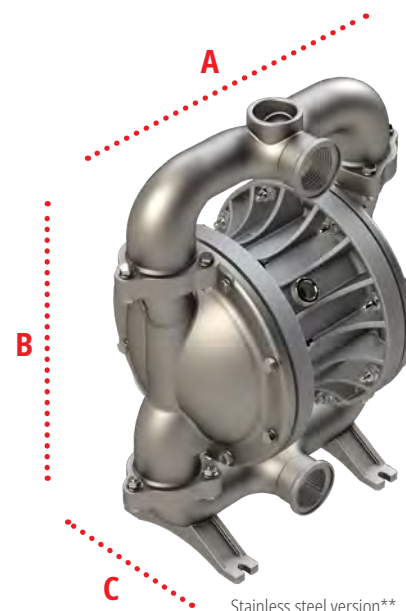
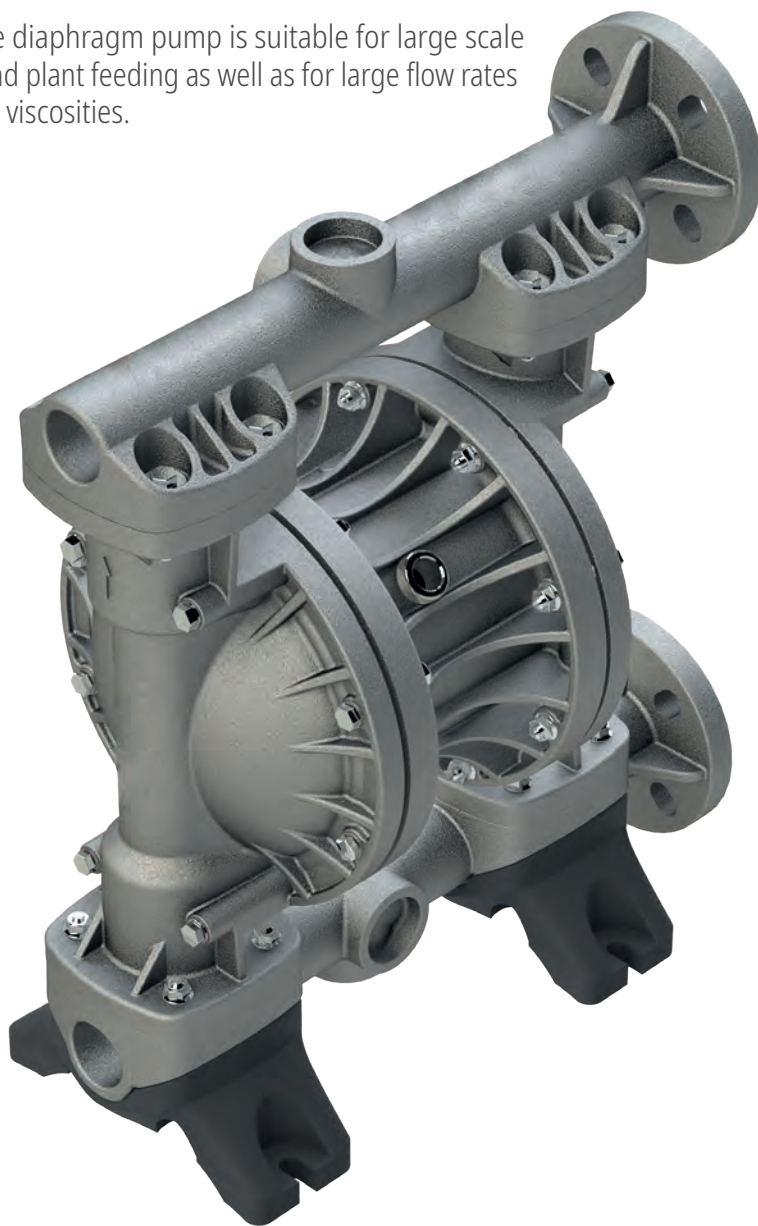


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1 1/2" metallic

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



Stainless steel version**

Dimensions

Alu	A 467 B 573 C 264*
Stainless steel	A 400 B 501 C 263*

Dimensions in mm *with muffler 317 mm

Detailed dimensioned drawings are available for download on our website.

**Contrary to the illustration, the outlet connection is delivered rotated by 180°.

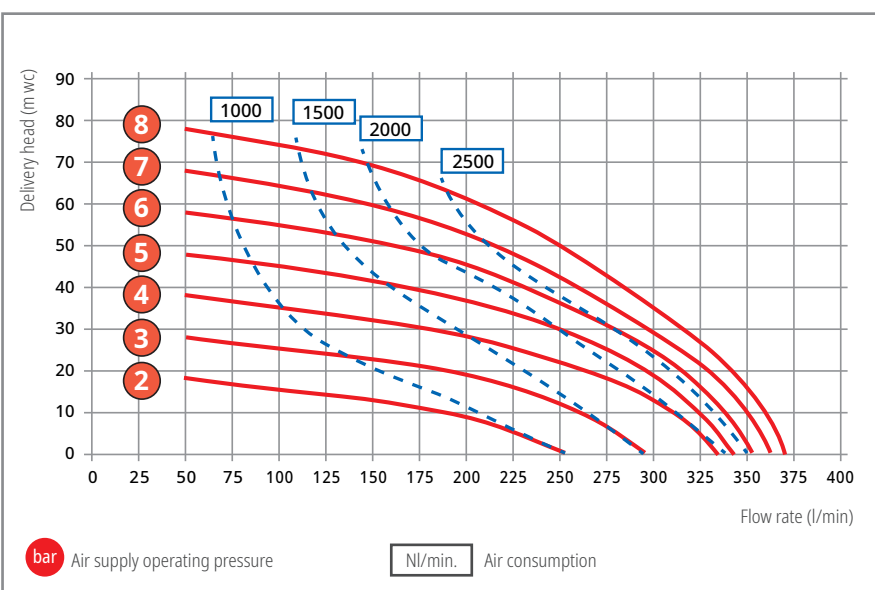
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1 1/2" ALT Ex* 	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	5242-200
AODD 1 1/2" ALE Ex* 	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	5242-220
AODD 1 1/2" ALB Ex* 	Aluminium	NBR	NBR	NBR	5242-240
AODD 1 1/2" SST Ex* 	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5243-310
AODD 1 1/2" SSE Ex* 	Stainless steel	TPV (EPDM-PP)	EPDM	EPDM	5243-320
AODD 1 1/2" SSB Ex* 	Stainless steel	NBR	NBR	NBR	5243-340
AODD 1 1/2" SSV Ex* 	Stainless steel	FPM	FPM	FPM	5243-350

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1 1/2" Aluminium	AODD 1 1/2" Stainless steel
Housing material:	Aluminium	Stainless steel 1.4404 (316 L)
Centre block material:	Aluminium	Aluminium (corrosion protection lacquered)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	NBR, TPV (EPDM-PP) + TFM (PTFE), TPV (EPDM-PP), FPM
Valve ball material:	NBR, PTFE, EPDM	NBR, PTFE, EPDM, FPM
Seals:	NBR, PTFE, EPDM	NBR, PTFE, EPDM, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	370 l/min.	370 l/min.
Max. delivery head:	80 m wc (Type ALE + ALB: max. 50 m wc)	80 m wc (Type SSE + SSB: max. 50 m wc)
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	670 cm ³	670 cm ³
Displacement per cycle:	1340 cm ³	1340 cm ³
Max. viscosity:	30,000 mPas	30,000 mPas
Sound pressure level (Lp):	80 dB(A)*	80 dB(A)*
Max. temperature:	100 °C	100 °C
Max. solid size:	ø 7.0 mm	ø 7.0 mm
Air inlet:	1/2" BSP inside thread	1/2" BSP inside thread
Suction:	Flange DIN DN40 PN10/ ASME B16.5 1 1/2" class150 or 1 1/2" BSP inside thread (included)	1 1/2" BSP inside thread
Pressure joint:	Flange DIN DN40 PN10/ ASME B16.5 1 1/2" class150 or 1 1/2" BSP inside thread (included)	1 1/2" BSP inside thread
Weight:	25.0 kg	28.0 kg

*Measured with standard muffler mounted.

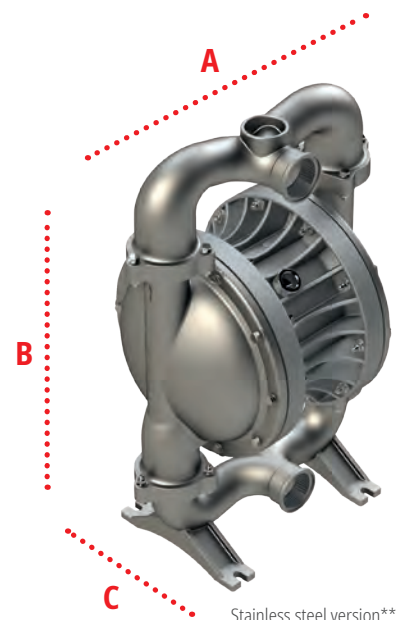
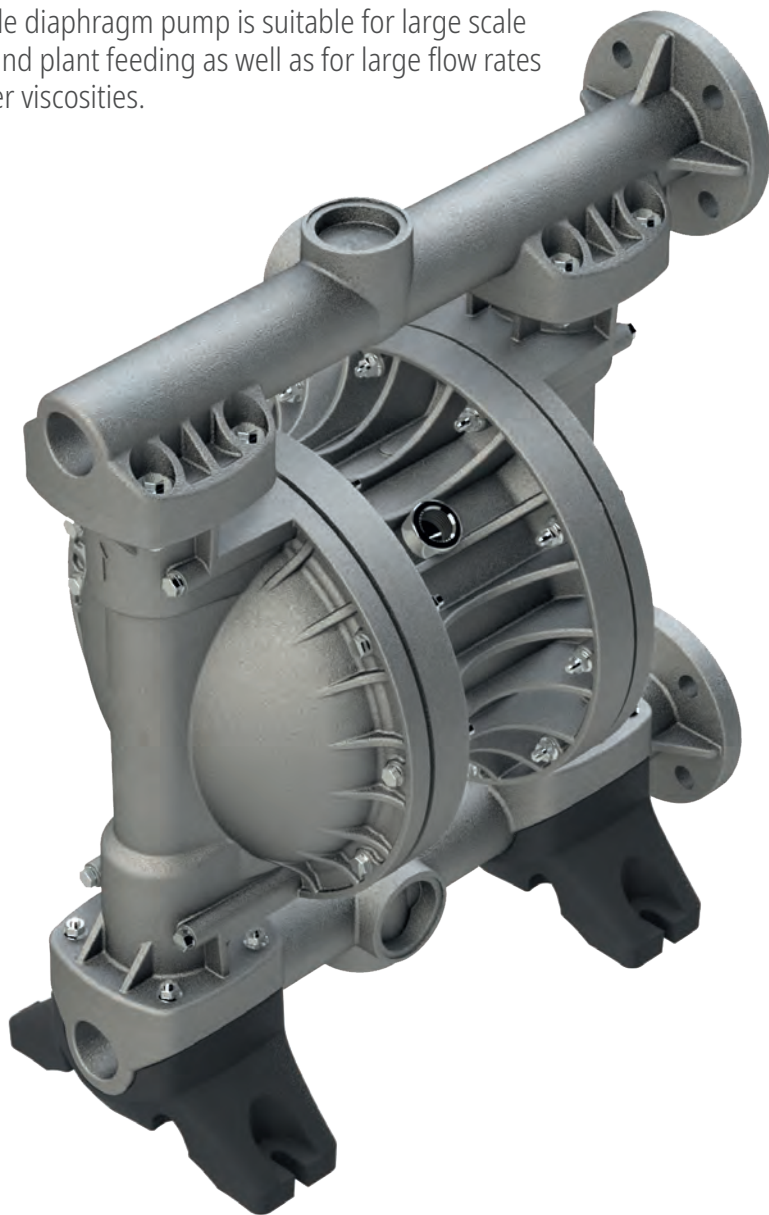


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 2" metallic

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



Dimensions

Alu	A 594 B 688 C 345*
Stainless steel	A 478 B 694 C 346*

Dimensions in mm *with muffler 381 mm

Detailed dimensioned drawings are available for download on our website.

**Contrary to the illustration, the outlet connection is delivered rotated by 180°.

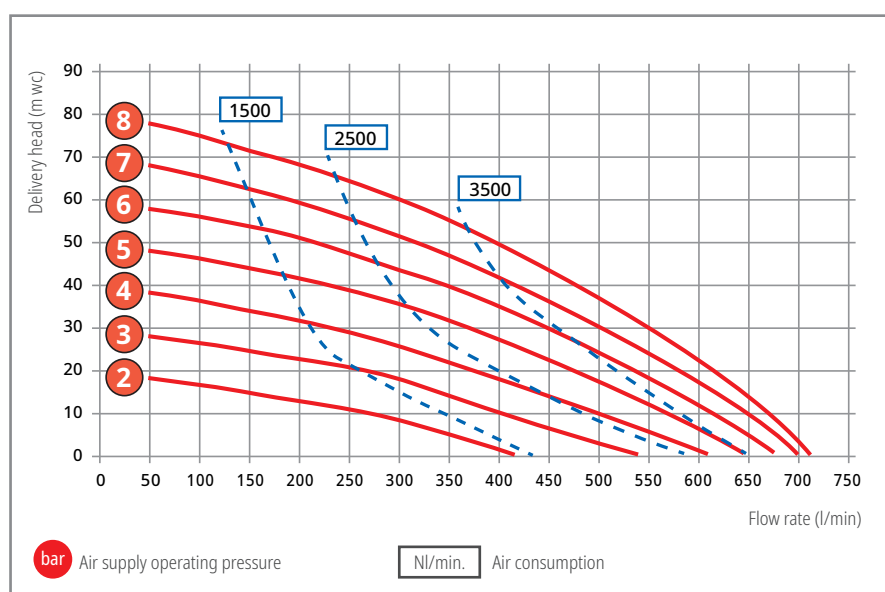
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" ALT Ex* 	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	5252-200
AODD 2" ALE Ex* 	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	5252-220
AODD 2" ALB Ex* 	Aluminium	NBR	NBR	NBR	5252-240
AODD 2" SST Ex* 	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5253-310
AODD 2" SSE Ex* 	Stainless steel	TPV (EPDM-PP)	EPDM	EPDM	5253-320
AODD 2" SSB Ex* 	Stainless steel	NBR	NBR	NBR	5253-340
AODD 2" SSV Ex* 	Stainless steel	FPM	FPM	FPM	5253-350

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 2" Aluminium	AODD 2" Stainless steel
Housing material:	Aluminium	Stainless steel 1.4404 (316 L)
Centre block material:	Aluminium	Aluminium (corrosion protection lacquered)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	NBR, TPV (EPDM-PP) + TFM (PTFE), TPV (EPDM-PP), FPM
Valve ball material:	NBR, PTFE, EPDM	NBR, PTFE, EPDM, FPM
Seals:	NBR, PTFE, EPDM	NBR, PTFE, EPDM, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	715 l/min.	715 l/min.
Max. delivery head:	80 m wc (Type ALE + ALB: max. 50 m wc)	80 m wc (Type SSE + SSB: max. 50 m wc)
Max. air pressure:	8 bar	8 bar
Min. air pressure (start-up):	2 bar	2 bar
Max. suction head (dry):	4.5 m wc	4.5 m wc
Displacement per chamber:	1910 cm ³	1910 cm ³
Displacement per cycle:	3820 cm ³	3820 cm ³
Max. viscosity:	30,000 mPas	30,000 mPas
Sound pressure level (Lp):	80 dB(A)*	80 dB(A)*
Max. temperature:	100 °C	100 °C
Max. solid size:	ø 9.0 mm	ø 9.0 mm
Air inlet:	3/4" BSP inside thread	3/4" BSP inside thread
Suction:	Flange DIN DN50 PN10/ ASME B16.5 2" class150 or 2" BSP inside thread (included)	2" BSP inside thread
Pressure joint:	Flange DIN DN50 PN10/ ASME B16.5 2" class150 or 2" BSP inside thread (included)	2" BSP inside thread
Weight:	44.0 kg	54.0 kg

*Measured with standard muffler mounted.

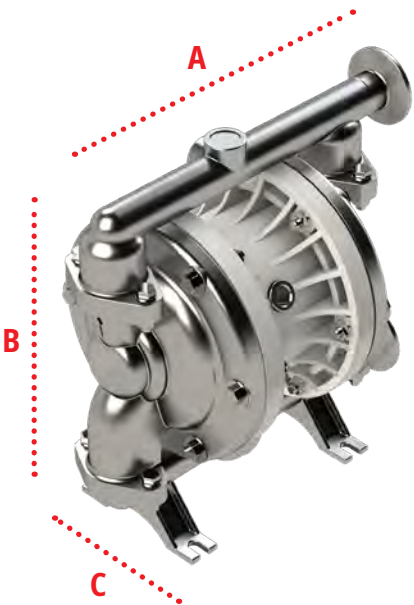


Description of material:

EPDM	= Ethylene propylene diene rubber
FPM	= Fluorine rubber
NBR	= Acrylonitrile butadiene rubber
PP	= Polypropylene
PTFE	= Polytetrafluoroethylene
TPC-ET	= Thermoplastic polyester elastomer
TFM (PTFE)	= Modified polytetrafluoroethylene
TPV (EPDM-PP)	= EPDM/PP compound

Model 1/2" PURE Stainless steel

The double diaphragm pump is suitable for the food and pharmaceutical industry as well as for emptying drums, IBCs and tanks.



Dimensions

Stainless steel | **A** 247 **B** 253 **C** 160

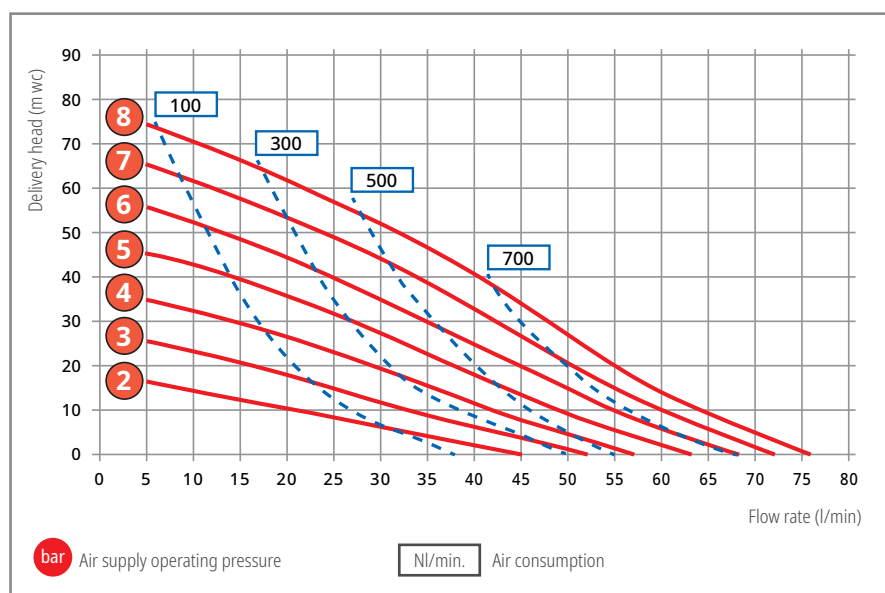
Dimensions in mm
Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" SST PURE	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5224-410

Operating data / dimensions / weights

	AODD 1/2" PURE stainless steel
Housing material:	Stainless steel 1.4404 (316 L) electropolished
Centre block material:	Polypropylene (glass fibre reinforced)
Diaphragm material:	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	Stainless steel
Max. flow rate:	76 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4 m wc
Displacement per chamber:	75 cm ³
Displacement per cycle:	150 cm ³
Max. viscosity:	7,500 mPas
Sound pressure level (Lp):	75 dB(A)
Max. temperature:	100 °C
Max. solid size:	ø 3.8 mm
Air inlet:	1/4" BSP inside thread
Suction:	Tri-Clamp 1" (flange ø 50.5 mm, groove ø 43.5 mm)
Pressure joint:	Tri-Clamp 1" (flange ø 50.5 mm, groove ø 43.5 mm)
Weight:	6.0 kg

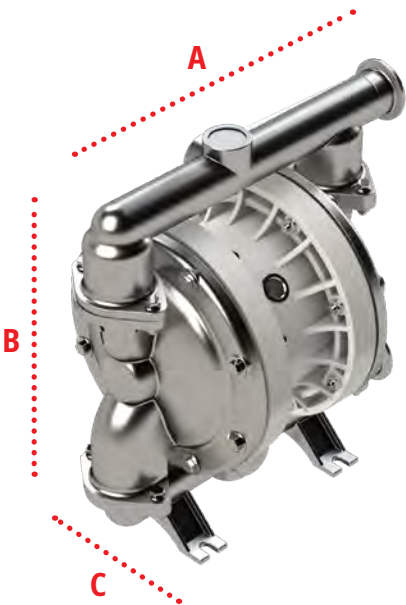


Description of material:

EPDM = Ethylene propylene diene rubber
 PP = Polypropylene
 PTFE = Polytetrafluoroethylene
 TFM (PTFE) = Modified polytetrafluoroethylene
 TPV (EPDM-PP) = EPDM/PP compound

Model 1" PURE Stainless steel

The double diaphragm pump is suitable for the food and pharmaceutical industry as well as for emptying drums, IBCs and tanks.



Dimensions

Stainless steel | **A** 310 **B** 322 **C** 204

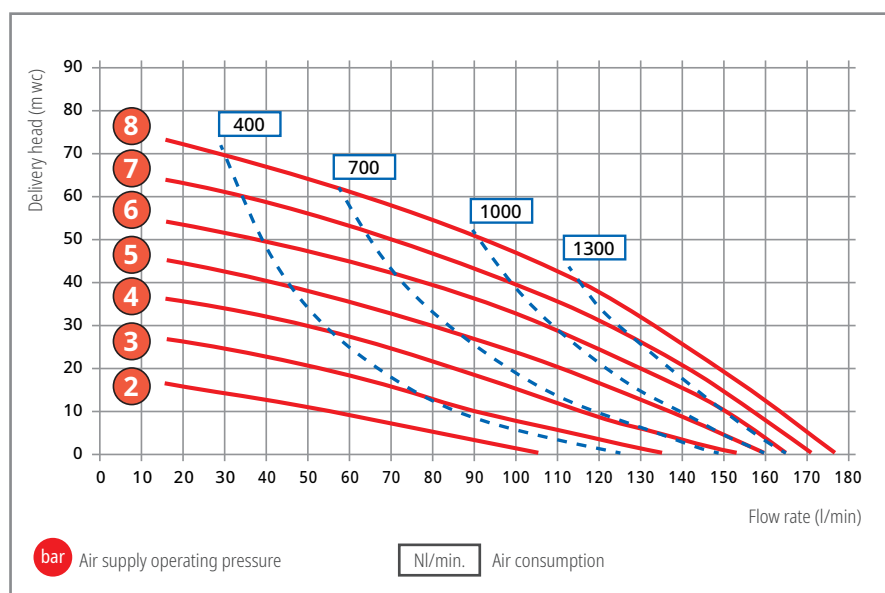
Dimensions in mm
Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1" SST PURE	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5234-410

Operating data / dimensions / weights

	AODD 1" PURE stainless steel
Housing material:	Stainless steel 1.4404 (316 L) electropolished
Centre block material:	Polypropylene (glass fibre reinforced)
Diaphragm material:	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	Stainless steel
Max. flow rate:	175 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.5 m wc
Displacement per chamber:	220 cm ³
Displacement per cycle:	440 cm ³
Max. viscosity:	10,000 mPas
Sound pressure level (Lp):	80 dB(A)
Max. temperature:	100 °C
Max. solid size:	ø 6.0 mm
Air inlet:	3/8" BSP inside thread
Suction:	Tri-Clamp 1 1/2" (flange ø 50.5 mm, groove ø 43.5 mm)
Pressure joint:	Tri-Clamp 1 1/2" (flange ø 50.5 mm, groove ø 43.5 mm)
Weight:	11.0 kg

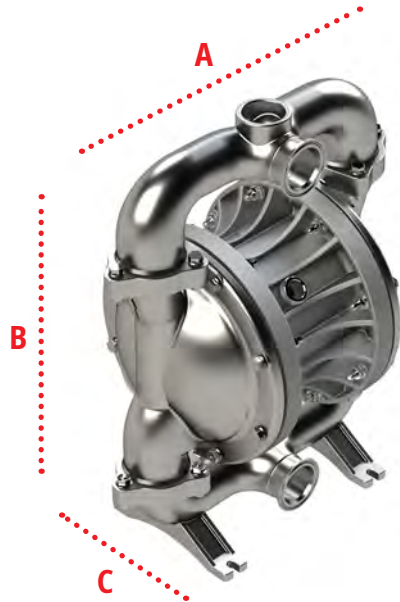


Description of material:

EPDM = Ethylene propylene diene rubber
 PP = Polypropylene
 PTFE = Polytetrafluoroethylene
 TFM (PTFE) = Modified polytetrafluoroethylene
 TPV (EPDM-PP) = EPDM/PP compound

Model 1 1/2" PURE Stainless steel

The double diaphragm pump is suitable for the food and pharmaceutical industry as well as for large flow rates and higher viscosities.



Dimensions

Stainless steel A 400 B 501 C 263*

Dimensions in mm *with muffler 317 mm
 Detailed dimensioned drawings are available for download on our website.



Contrary to the illustration, the outlet connection is delivered rotated by 180°.

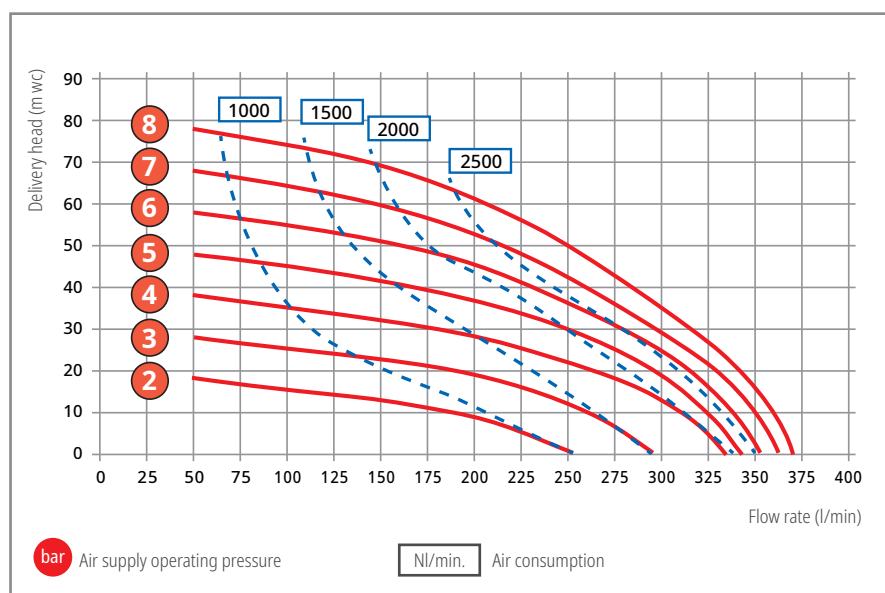
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1 1/2" SST Ex PURE* 	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5244-410

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 1 1/2" PURE stainless steel
Housing material:	Stainless steel 1.4404 (316 L) electropolished
Centre block material:	Aluminium (food paintwork)
Diaphragm material:	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	Stainless steel
Max. flow rate:	370 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.5 m wc
Displacement per chamber:	670 cm ³
Displacement per cycle:	1340 cm ³
Max. viscosity:	30,000 mPas
Sound pressure level (Lp):	80 dB(A)*
Max. temperature:	100 °C
Max. solid size:	ø 7.0 mm
Air inlet:	1/2" BSP inside thread
Suction:	Tri-Clamp 2" (flange ø 64 mm, groove ø 56.5 mm)
Pressure joint:	Tri-Clamp 2" (flange ø 64 mm, groove ø 56.5 mm)
Weight:	26.0 kg

*Measured with standard muffler mounted.

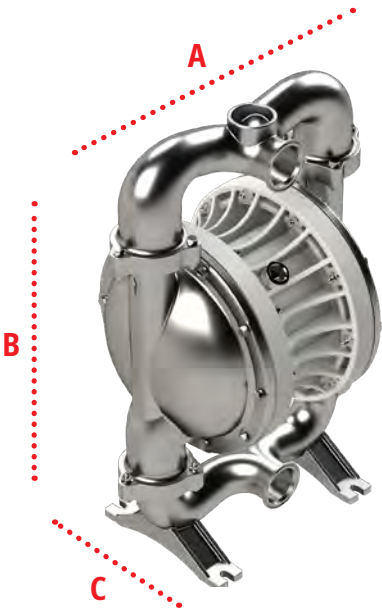


Description of material:

EPDM = Ethylene propylene diene rubber
 PP = Polypropylene
 PTFE = Polytetrafluoroethylene
 TFM (PTFE) = Modified polytetrafluoroethylene
 TPV (EPDM-PP) = EPDM/PP compound

Model 2" PURE Stainless steel

The double diaphragm pump is suitable for the food and pharmaceutical industry as well as for large flow rates and higher viscosities.



Dimensions

Stainless steel A 478 B 694 C 346*
 Dimensions in mm *with muffler 381 mm
 Detailed dimensioned drawings are available for download on our website.



Contrary to the illustration, the outlet connection is delivered rotated by 180°.

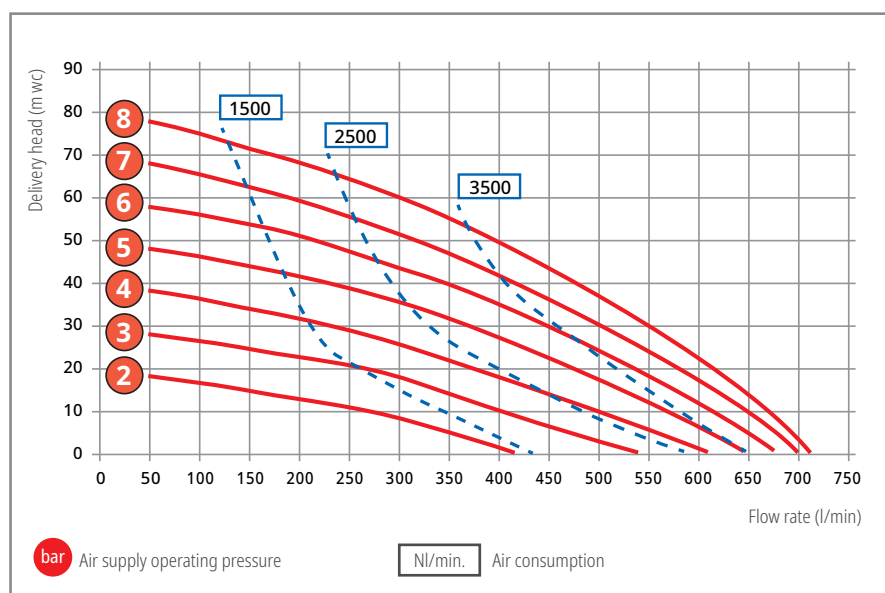
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" SST Ex PURE* 	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5254-410

*II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db

Operating data / dimensions / weights

	AODD 2" PURE stainless steel
Housing material:	Stainless steel 1.4404 (316 L) electropolished
Centre block material:	Aluminium (food paintwork)
Diaphragm material:	TPV (EPDM-PP) + TFM (PTFE)
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	Stainless steel
Max. flow rate:	715 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.5 m wc
Displacement per chamber:	1910 cm ³
Displacement per cycle:	3820 cm ³
Max. viscosity:	30,000 mPas
Sound pressure level:	80 dB(A)*
Max. temperature:	100 °C
Max. solid size:	ø 9.0 mm
Air inlet:	3/4" BSP inside thread
Suction:	Tri-Clamp 2 1/2" (flange ø 77.5 mm, groove ø 70.5 mm)
Pressure joint:	Tri-Clamp 2 1/2" (flange ø 77.5 mm, groove ø 70.5 mm)
Weight:	49.0 kg

*Measured with standard muffler mounted.

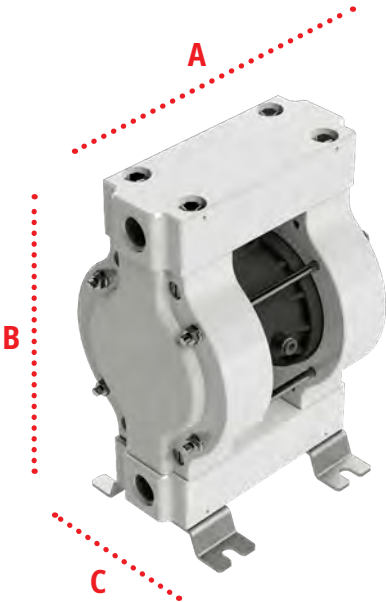


Description of material:

EPDM = Ethylene propylene diene rubber
 FPM = Fluorine rubber
 NBR = Acrylonitrile butadiene rubber
 PP = Polypropylene
 PTFE = Polytetrafluoroethylene
 TFM (PTFE) = Modified polytetrafluoroethylene
 TPV (EPDM-PP) = EPDM/PP compound

Model 1/2" mini PET PURE

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



Dimensions

PE | **A 170 B 140 C 260**

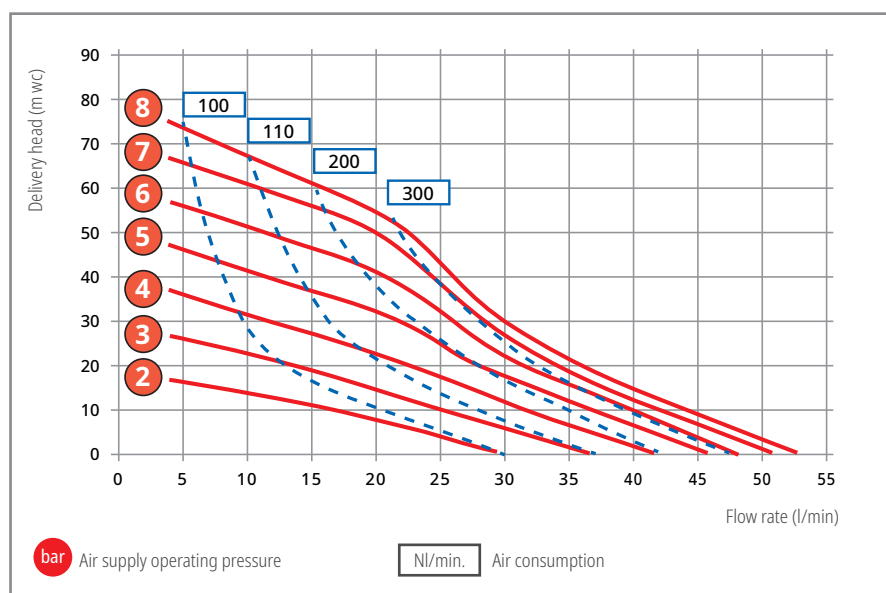
Dimensions in mm
Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" mini PET PURE	PE	PTFE	PTFE	PTFE	5278-000

Operating data / dimensions / weights

	AODD 1/2" mini PET PURE
Housing material:	PE
Centre block material:	GFR-PP
Diaphragm material:	PTFE
Valve ball material:	PTFE
Seals:	PTFE
Valve seat:	PE
Max. flow rate:	52 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.0 m wc
Displacement per chamber:	35 cm ³
Displacement per cycle:	70 cm ³
Max. viscosity	7,500 mPas
Sound pressure level (Lp):	75 dB(A)
Max. temperature:	60 °C
Max. solid size:	ø 3.0 mm
Air inlet	ø 6 mm
Suction:	1/2" BSP inside thread
Pressure joint:	1/2" BSP inside thread
Weight:	3.2 kg

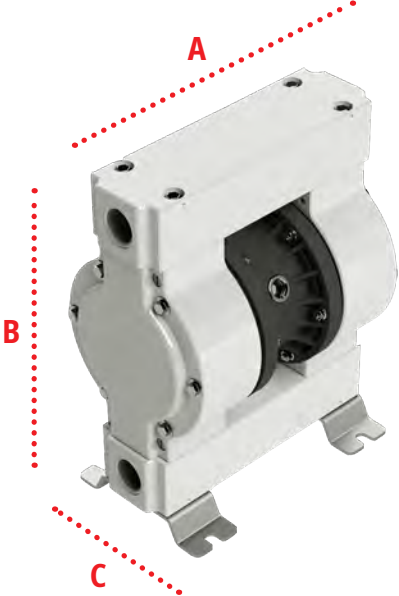


Description of material:

PE	= Polyethylene
PTFE	= Polytetrafluoroethylene
EPDM	= Ethylene propylene diene rubber
FKM	= Fluorelastomer
PP	= Polypropylene
GFR-PP	= Glass fibre reinforced polypropylene

Model 1" PEE PURE

The double diaphragm pump is suitable for industrial applications as well as for emptying drums, IBCs and tanks.



Dimensions

PE | **A** 285 **B** 170 **C** 349

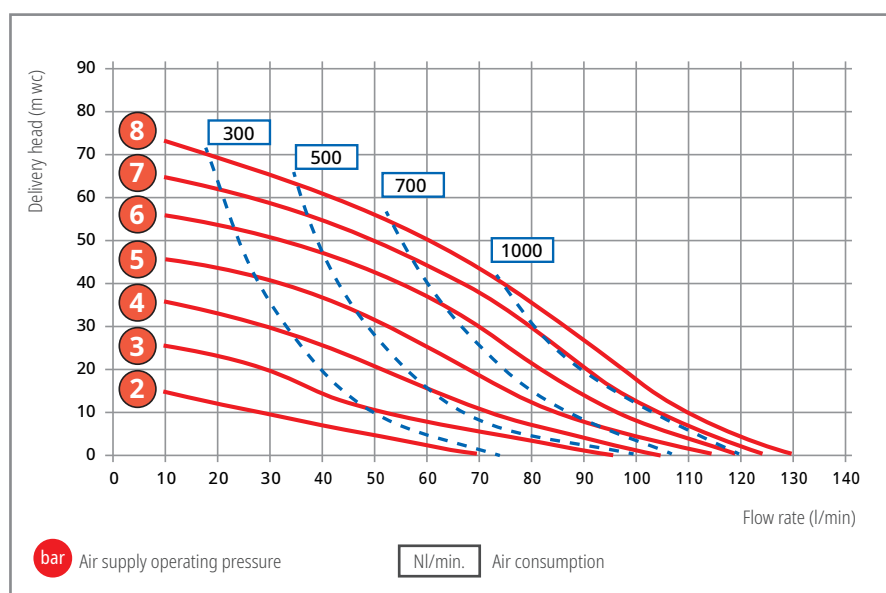
Dimensions in mm
Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1" PEE PURE	PE	PTFE	PTFE	EPDM	5238-030

Operating data / dimensions / weights

	AODD 1" PEE PURE
Housing material:	PE
Centre block material:	GFR-PP
Diaphragm material:	PTFE
Valve ball material:	PTFE
Seals:	EPDM
Valve seat:	PE
Max. flow rate:	130 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4 m wc
Displacement per chamber:	120 cm ³
Displacement per cycle:	240 cm ³
Max. viscosity	10,000 mPas
Sound pressure level (Lp):	80 dB(A)
Max. temperature:	60 °C
Max. solid size:	ø 5.5 mm
Air inlet	3/8" BSP inside thread
Suction:	1" BSP inside thread
Pressure joint:	1" BSP inside thread
Weight:	8.2 kg

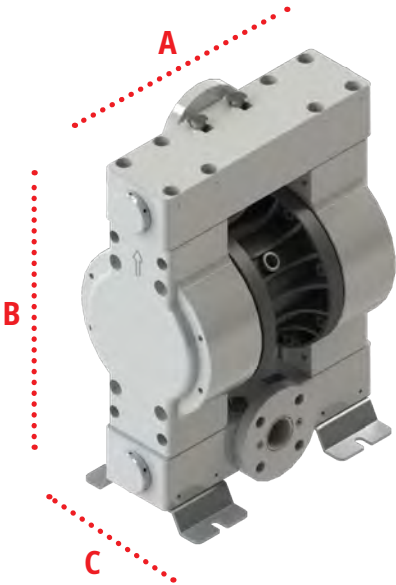


Description of material:

PE	= Polyethylene
PTFE	= Polytetrafluoroethylene
EPDM	= Ethylene propylene diene rubber
FKM	= Fluorelastomer
PP	= Polypropylene
GFR-PP	= Glass fibre reinforced polypropylene

Model 1 1/2" PEE PURE

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



Dimensions

PE
 A 443 B 605 C 230

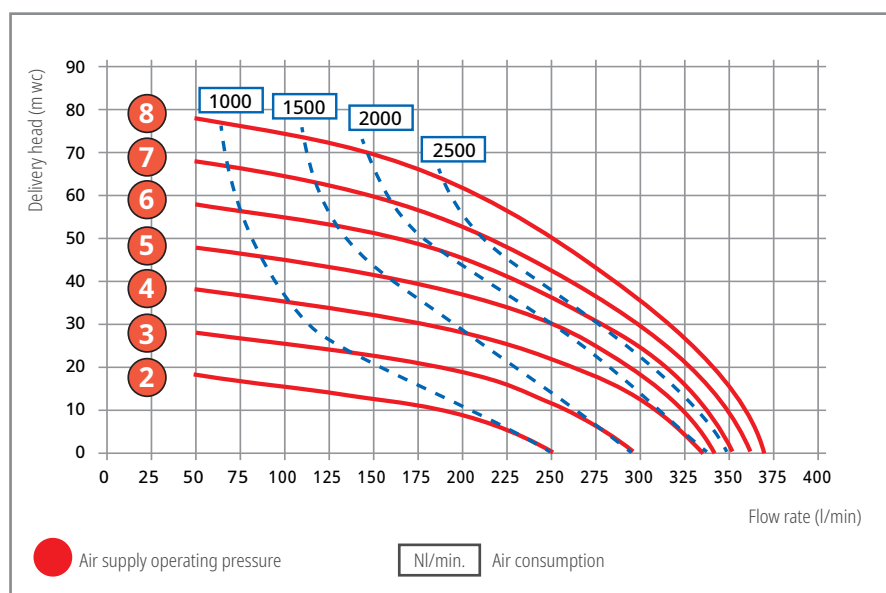
Dimensions in mm
 Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1 1/2" PEE PURE	PE	PTFE	PTFE	EPDM	5248-030

Operating data / dimensions / weights

	AODD 1 1/2" PEE PURE
Housing material:	PE
Centre block material:	GFR-PP
Diaphragm material:	PTFE
Valve ball material:	PTFE
Seals:	EPDM
Valve seat:	PE
Max. flow rate:	370 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.5 m wc
Displacement per chamber:	670 cm ³
Displacement per cycle:	1340 cm ³
Max. viscosity	30,000 mPas
Sound pressure level (Lp):	80 dB(A)
Max. temperature:	60 °C
Max. solid size:	ø 7.0 mm
Air inlet	1/2" BSP inside thread
Suction:	1 1/2" ISO/DIN DN40 PN10
Pressure joint:	1 1/2" ISO/DIN DN40 PN10
Weight:	32.0 kg

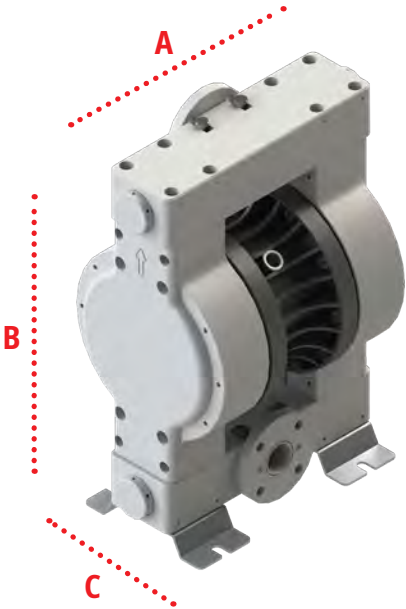


Description of material:

PE	= Polyethylene
PTFE	= Polytetrafluoroethylene
EPDM	= Ethylene propylene diene rubber
FKM	= Fluorelastomer
PP	= Polypropylene
GFR-PP	= Glass fibre reinforced polypropylene

AODD 2" PEE PURE

The double diaphragm pump is suitable for large scale industry and plant feeding as well as for large flow rates and higher viscosities.



Dimensions

PE
A 511 B 743 C 270

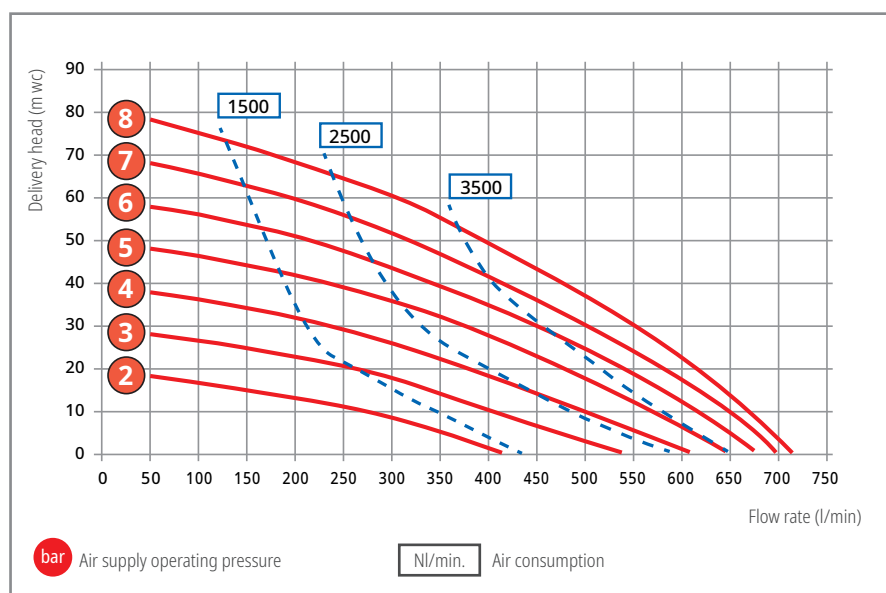
Dimensions in mm
 Detailed dimensioned drawings are available for download on our website.



Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" PEE PURE	PE	PTFE	PTFE	EPDM	5258-030

Operating data / dimensions / weights

	AODD 2" PEE PURE
Housing material:	PE
Centre block material:	GFR-PP
Diaphragm material:	PTFE
Valve ball material:	PTFE
Seals:	EPDM
Valve seat:	PE
Max. flow rate:	715 l/min.
Max. delivery head:	80 m wc
Max. air pressure:	8 bar
Min. air pressure (start-up):	2 bar
Max. suction head (dry):	4.5 m wc
Displacement per chamber:	1910 cm ³
Displacement per cycle:	3820 cm ³
Max. viscosity	30,000 mPas
Sound pressure level (Lp):	80 dB(A)
Max. temperature:	60 °C
Max. solid size:	ø 9.0 mm
Air inlet	3/4" BSP inside thread
Suction:	2" ISO/DIN DN50 PN10
Pressure joint:	2" ISO/DIN DN50 PN10
Weight:	49.0 kg



Description of material:

PE	= Polyethylene
PTFE	= Polytetrafluoroethylene
EPDM	= Ethylene propylene diene rubber
FKM	= Fluorelastomer
PP	= Polypropylene
GFR-PP	= Glass fibre reinforced polypropylene



Product detail	Specification			Order No.
	Pipe fitting			
	Permits direct connection of hoses on pressure joint/suction joint of the pump.			
	PP	DN 8 x G 1/4 OT	AODD 1/4"	5000-314
	PVDF	DN 8 x G 1/4 OT	AODD 1/4"	5000-315
	Coupling connector			
	Permits direct connection of hoses on pressure joint/suction joint of the pump.			
	PP	DN 8 x G 1/4 OT	AODD 1/4"	5000-020
	PVDF	DN 8 x G 1/4 OT	AODD 1/4"	5000-021
	Brass	DN 9 x G 1/4 OT	AODD 1/4"	5000-022
	Stainless steel (1.4571)	DN 9 x G 1/4 OT	AODD 1/4"	5000-023
	PP	DN 12 x G 1/4 OT	AODD 1/4"	5000-024
	PP	DN 12 x G 3/8 OT	AODD 3/8"	5000-034
	PVDF	DN 12 x G 3/8 OT	AODD 3/8"	5000-035
	PP	DN 12 x G 1/2 OT	AODD 1/2"	5000-030
	PP	DN 20 x G 1/2 OT	AODD 1/2"	5000-036
	PVDF	DN 12 x G 1/2 OT	AODD 1/2"	5000-031
	Brass	DN 12 x G 1/2 OT	AODD 1/2"	5000-032
	Stainless steel (1.4571)	DN 12 x G 1/2 OT	AODD 1/2"	5000-033
	Stainless steel (1.4571)	DN 20 x G 1/2 OT	AODD 1/2"	0300-215
	PP	DN 25 x G 1 OT	AODD 1"	5000-037
	Stainless steel (1.4571)	DN 25 x G 1 OT	AODD 1"	5000-038
	Hose connections			
	Hose connector with union nut (+ seal for metal connections) For the direct connection of hoses with different diameters to the pressure/suction joint of the double diaphragm pump.			
	PP	DN 13 x G 1 1/4 IT	AODD 1/2"	0204-409
	PP	DN 19 x G 1 1/4 IT	AODD 1/2"	0204-410
	PP	DN 25 x G 1 1/4 IT	AODD 1/2"	0204-411
	PP	DN 19 x G 1 IT	AODD 1/2"	0204-438
	PVDF	DN 19 x G 1 1/4 IT	AODD 1/2"	0204-421
	PVDF	DN 25 x G 1 1/4 IT	AODD 1/2"	0204-422
	PP	DN 19 x G 1 1/4 IT	AODD 1"	0204-410
	PP	DN 25 x G 1 1/4 IT	AODD 1"	0204-411
	PP	DN 32 x G 1 1/4 IT	AODD 1"	0204-412
	PVDF	DN 19 x G 1 1/4 IT	AODD 1"	0204-421
	PVDF	DN 25 x G 1 1/4 IT	AODD 1"	0204-422
	Alu	DN 19 x G 1 1/4 IT	AODD 1"	0204-403
	Alu	DN 25 x G 1 1/4 IT	AODD 1"	0204-404
	Alu	DN 32 x G 1 1/4 IT	AODD 1"	0204-405
	Stainless steel (1.4571)	DN 19 x G 1 1/4 IT	AODD 1"	0204-400
	Stainless steel (1.4571)	DN 25 x G 1 1/4 IT	AODD 1"	0204-401
	Stainless steel (1.4571)	DN 32 x G 1 1/4 IT	AODD 1"	0204-402
	Hose connections			
	Hose connector with union nut and seal			
	Stainless steel (1.4571)	DN 38 x G 1 1/2 IT	AODD 1 1/2"	0204-418
	PP	DN 50 x G 2 IT	AODD 2"	5000-250
	PVDF	DN 50 x G 2 IT	AODD 2"	5000-251
	Stainless steel (1.4571)	DN 50 x G 2 IT	AODD 2"	5000-253

Product detail	Specification	Order No.			
 	Hose connections with Tri-clamp				
	For connecting the delivery hose to the PURE stainless steel double diaphragm pumps. Consisting of: Hose connector, locking clamp and seal. Material: Stainless steel (1.4404)				
	Connection:	Hose nominal diameter:	Seal:	for pump:	0204-870 ■
	Tri-Clamp 1" and 1 1/2"	DN 19 (3/4")	EPDM	1/2" and 1" PURE	0204-871 ■
	Tri-Clamp 1" and 1 1/2"	DN 19 (3/4")	FPM	1/2" and 1" PURE	0204-872 ■
	Tri-Clamp 1" and 1 1/2"	DN 25 (1")	EPDM	1/2" and 1" PURE	0204-873 ■
	Tri-Clamp 1" and 1 1/2"	DN 25 (1")	FPM	1/2" and 1" PURE	0204-874 ■
	Tri-Clamp 1" and 1 1/2"	DN 32 (1 1/4")	EPDM	1/2" and 1" PURE	0204-875 ■
	Tri-Clamp 1" and 1 1/2"	DN 32 (1 1/4")	FPM	1/2" and 1" PURE	0204-876 ■
	Tri-Clamp 1" and 1 1/2"	DN 38 (1 1/2")	EPDM	1/2" and 1" PURE	0204-877 ■
Tri-Clamp 1" and 1 1/2"	DN 38 (1 1/2")	FPM	1/2" and 1" PURE	0172-746 ■	
Tri-Clamp 2"	DN 38 (1 1/2")	EPDM	1 1/2" PURE	0204-878 ■	
Tri-Clamp 2"	DN 38 (1 1/2")	FPM	1 1/2" PURE	0204-879 ■	
Tri-Clamp 2"	DN 50 (2")	EPDM	1 1/2" PURE	0204-880 ■	
Tri-Clamp 2"	DN 50 (2")	FPM	1 1/2" PURE		
	Reducing nipple (product side)				
	PP	G 1/2 OT x G 1 1/4 OT	AODD 1/2"	5000-060	
	PVC	G 1/2 OT x G 1 OT	AODD 1/2"	5000-065	
	PVC	G 1/2 OT x G 1 1/4 OT	AODD 1/2"	5000-066	
	PVDF	G 1/2 OT x G 1 1/4 OT	AODD 1/2"	5000-061	
	Stainless steel (1.4571)	G 1/2 OT x G 3/4 OT	AODD 1/2"	5000-067	
	Stainless steel (1.4571)	G 1/2 OT x G 1 OT	AODD 1/2"	5000-068	
	Stainless steel (1.4571)	G 1/2 OT x G 1 1/4 OT	AODD 1/2"	5000-063	
	Brass	G 1/2 OT x G 1 1/4 OT	AODD 1/2"	5000-064	
	PP	G 1 OT x G 1 1/4 OT	AODD 1"	0373-076	
PVC	G 1 OT x G 1 1/4 OT	AODD 1"	5000-069		
PVDF	G 1 OT x G 1 1/4 OT	AODD 1"	5000-071		
Brass	G 1 OT x G 1 1/4 OT	AODD 1"	5000-072		
Stainless steel (1.4571)	G 1 OT x G 1 1/4 OT	AODD 1"	5000-073		
	Hexagonal double nipple (product side)				
	Stainless steel (1.4571)	G 1/2 OT	AODD 1/2"	0300-008	
	Stainless steel (1.4571)	G 1 OT	AODD 1"	0300-143	
	Stainless steel (1.4571)	G 1 1/2 OT	AODD 1 1/2"	0300-134	
	Stainless steel (1.4571)	G 2 OT	AODD 2"	0300-105	
	Threaded flanges				
	Complete with screws and seals				
	PP	DN 40 x G 1 1/2 OT	AODD 1 1/2"	5000-620	
	PVDF	DN 40 x G 1 1/2 OT	AODD 1 1/2"	5000-621	
	Alu	DN 38 x G 1 1/2 OT	AODD 1 1/2"	5000-260	
	Stainless steel (1.4571)	DN 40 x G 1 1/2 OT	AODD 1 1/2"	5000-261	
	PP	DN 50 x G 2 OT	AODD 2"	5000-262	
	Alu	DN 50 x G 2 OT	AODD 2"	5000-263	
	Stainless steel (1.4571)	DN 50 x G 2 OT	AODD 2"	5000-264	
	PVDF	DN 50 x G 2 OT	AODD 2"	5000-265	



Product detail	Specification	Order No.
Hose connections		
 	Safety connection for mineral oil hose, solvent hose, universal chemical hose with different connection threads.	
	Brass DN 13 x G 1/2 IT AODD 1/2"	5000-102 ■
	Stainless steel (1.4571) DN 13 x G 1/2 IT AODD 1/2"	5000-103 ■
	Brass DN 19 x G 3/4 IT AODD 1/2"	5000-104 ■
	Stainless steel (1.4571) DN 19 x G 3/4 IT AODD 1/2"	5000-105 ■
	Brass DN 25 x G 1 OT AODD 1"	0302-010 ■
	Brass for mineral oil hose DN 25 x G 1 IT AODD 1"	0302-112 ■
	Stainless steel (1.4571) DN 25 x G 1 OT AODD 1"	0302-013 ■
	Brass DN 38 x G 1 1/2 IT AODD 1 1/2"	0302-091 ■
	Stainless steel (1.4571) DN 38 x G 1 1/2 IT AODD 1 1/2"	0302-092 ■
	Brass DN 50 x G 2 IT AODD 2"	5000-100 ■
	Stainless steel (1.4571) DN 50 x G 2 IT AODD 2"	5000-101 ■
Hose coupling with Tri-clamp		
  	For connecting conductive delivery hoses to the AODD 1 1/2" PURE stainless steel, in potentially explosive atmospheres. The hose coupling must ensure a highly conductive transition between conductive hose and pump/armature. The ohmic resistance between the fittings must be less than 10 ⁶ Ohm. Consisting of: Hose connector, clamp collars, locking clamp and seal. Material: Stainless steel (1.4404)	
	Connection: for hose nominal diameter: Seal: Pump:	
	Tri-Clamp 2" DN 50 (2") EPDM AODD 1 1/2" Ex PURE 	0204-868 ■ ■
	Tri-Clamp 2" DN 50 (2") FPM AODD 1 1/2" Ex PURE 	0204-869 ■ ■
Suction tube		
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1000 mm Connection: G 1 OT	0204-229
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 OT	0204-355
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1000 mm Connection: G 1 1/4 OT	0204-228
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	0204-356
	PP Outer-Ø 41 mm, Length 1000 mm Connection: G 1 1/4 OT	5000-120
	PP Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	5000-119
	PVDF Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	5000-118
Suction pipe complete drum drainage		
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	5000-294
Foot strainer		
	Suitable for suction pipe	
	Stainless steel (1.4571) Outer-Ø 55 mm Mesh size 20 x 2 mm	0204-617
	PP Outer-Ø 55 mm Mesh size 20 x 2 mm	0343-177
	PVDF Outer-Ø 55 mm Mesh size 20 x 2 mm	0343-187



■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.



■ Suitable for food and luxury foods, pharmaceuticals, cosmetics and hygiene products. Meets requirements of EC 1395/2004 as well as EC 10/2011 or FDA 21 CFR 177.

Product detail	Specification	Order No.
Suction strainer		
	Suitable for suction hose Stainless steel (1.4571) / PA Stainless steel (1.4571) G 1 1/4 OT G 1 1/4 OT	5000-283 5000-284
Vibration dampener set		
	For vibration damping for free-standing installation consisting of 4 vibration dampeners incl. fixing material with thread M6 with thread M8 For vibration damping for foot mounting consisting of 4 vibration dampeners incl. fixing material with thread M6 with thread M8 with thread M12	5000-219 5000-218 5000-216 5000-215 5000-217
Equipotential bonding cable		
	Serves to create electrically conductive connection between explosion-proof pump and container as earthing and equipotential bonding function. 2 m long AODD 1/4" to AODD 1" 2 m long AODD 1 1/2" to AODD 2"	5000-700 ■ 5000-701 ■
Hose clips		
	Hose clips made of stainless steel with threaded screw for connecting the different types of hoses to the hose connection. Nominal diameter: DN 9 (3/8") DN 13 (1/2") DN 19 (3/4") DN 25 (1") DN 32 - 38 (1 1/4" - 1 1/2") DN 50 (2")	0301-156 0301-403 0301-400 0301-401 0302-402 0302-403
Hose bracket		
	Hose bracket for easy attachment of loose hose ends to the drum or container. Nominal hose diameter: DN 19 (3/4") DN 25 (1") DN 32 (1 1/4")	0204-665 0204-666 0204-667

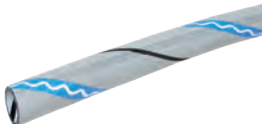


■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.



Product detail	Specification	Order No.
PVC spiral hose, fabric reinforced		
	Hose is made of PVC, with woven layer and embedded galvanized steel helix. For aggressive, non-flammable liquids. Hose for food liquids, smooth inside and outside, complies with EU regulations 10/2011 and 1935/2004. Operating pressure: max. 14 bar Temperature of liquid: -5 up to +65°C Nominal diameter: Weight: DN 19 (3/4") 0.45 kg/m DN 25 (1") 0.67 kg/m DN 32 (1 1/4") 0.80 kg/m DN 38 (1 1/2") 1.15 kg/m DN 50 (2") 1.60 kg/m	0374-466 0374-467 0374-468 0374-469 0374-470
PTFE hose		
	Temperature range of application: -30 to +100 °C Operating pressure: max. 6.5 bar at 20 °C Material: PTFE Nominal diameter: DN 8, DN 13 Negative pressure: max. 0.7 bar (0.3 bar abs.)	0374-444 0374-445
Mineral oil hose		
 	Inner rubber made of NBR, outer rubber made of NBR. Not suitable for the suction operation. Electrically conductive: Type Ω-CL (<10⁶ Ohm between the fittings) according to TRbF 50 appendix B (TRbF 131/2). Temperature of liquid: -25 up to +65°C Material: NBR Nominal diameter: DN 13, DN 19, DN 25 Operating pressure: max. 10 bar	0374-446 ■ 0374-461 ■ 0374-462 ■
	Inner rubber NBR, outer rubber chloroprene. Not suitable for the suction operation. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011. Temperature of liquid: -30 up to +90°C Material: NBR Nominal diameter: DN 32, DN 38, DN 50 Operating pressure: max. 16 bar 	0374-413 ■ 0374-414 ■ 0374-448 ■



Product detail	Specification	Order No.																												
Solvent hose																														
 	Inner rubber made of NBR special, outer rubber made of NBR/PVC-Compound. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011. Temperature of liquid: -20 up to +80°C <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Negative pressure:</td></tr><tr><td>NBR special</td><td>DN 13</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>NBR special</td><td>DN 19</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>NBR special</td><td>DN 25</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>NBR special</td><td>DN 32</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>NBR special</td><td>DN 38</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>NBR special</td><td>DN 50</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr></table>	Material:	Nominal diameter:	Operating pressure:	Negative pressure:	NBR special	DN 13	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	NBR special	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	NBR special	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	NBR special	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	NBR special	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	NBR special	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-449 ■ 0374-416 ■ 0374-417 ■ 0374-418 ■ 0374-450 ■ 0374-451 ■
Material:	Nominal diameter:	Operating pressure:	Negative pressure:																											
NBR special	DN 13	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
NBR special	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
NBR special	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
NBR special	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
NBR special	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
NBR special	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
Universal chemical hose																														
  	Inner rubber made of cross-linked polyethylene (U-PE), outer rubber made of EPDM. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011. Temperature of liquid: -30 up to +100°C <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Negative pressure:</td></tr><tr><td>U-PE</td><td>DN 13</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>U-PE</td><td>DN 19</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>U-PE</td><td>DN 25</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>U-PE</td><td>DN 32</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>U-PE</td><td>DN 38</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>U-PE</td><td>DN 50</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr></table>	Material:	Nominal diameter:	Operating pressure:	Negative pressure:	U-PE	DN 13	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	U-PE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	U-PE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	U-PE	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	U-PE	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	U-PE	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-474 ■ ■ 0374-475 ■ ■ 0374-476 ■ ■ 0374-477 ■ ■ 0374-478 ■ ■ 0374-479 ■ ■
Material:	Nominal diameter:	Operating pressure:	Negative pressure:																											
U-PE	DN 13	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
U-PE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
U-PE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
U-PE	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
U-PE	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
U-PE	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
Special chemical hose FEP																														
	Inner rubber made of FEP, outer rubber made of EPDM. Electrically conductive: Type Ω-C (<10⁶ Ohm between the fittings) according to DIN EN 12115:2011. (NOT suitable for non-conductive, flammable liquids!) Temperature of liquid: -30 up to +100°C <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Negative pressure:</td></tr><tr><td>FEP</td><td>DN 19</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>FEP</td><td>DN 25</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>FEP</td><td>DN 32</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>FEP</td><td>DN 38</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>FEP</td><td>DN 50</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr></table>	Material:	Nominal diameter:	Operating pressure:	Negative pressure:	FEP	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	FEP	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	FEP	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	FEP	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	FEP	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-428 0374-429 0374-430 0374-455 0374-456				
Material:	Nominal diameter:	Operating pressure:	Negative pressure:																											
FEP	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
FEP	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
FEP	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
FEP	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
FEP	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
Special chemical hose PTFE																														
 	Inner rubber made of PTFE, outer rubber made of EPDM. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011. Temperature of liquid: -30 up to +150°C <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Negative pressure:</td></tr><tr><td>PTFE</td><td>DN 19</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr><tr><td>PTFE</td><td>DN 25</td><td>max. 16 bar</td><td>max. 0.9 bar (0.1 bar abs.)</td></tr></table>	Material:	Nominal diameter:	Operating pressure:	Negative pressure:	PTFE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	PTFE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-481 ■ 0374-482 ■																
Material:	Nominal diameter:	Operating pressure:	Negative pressure:																											
PTFE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											
PTFE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)																											



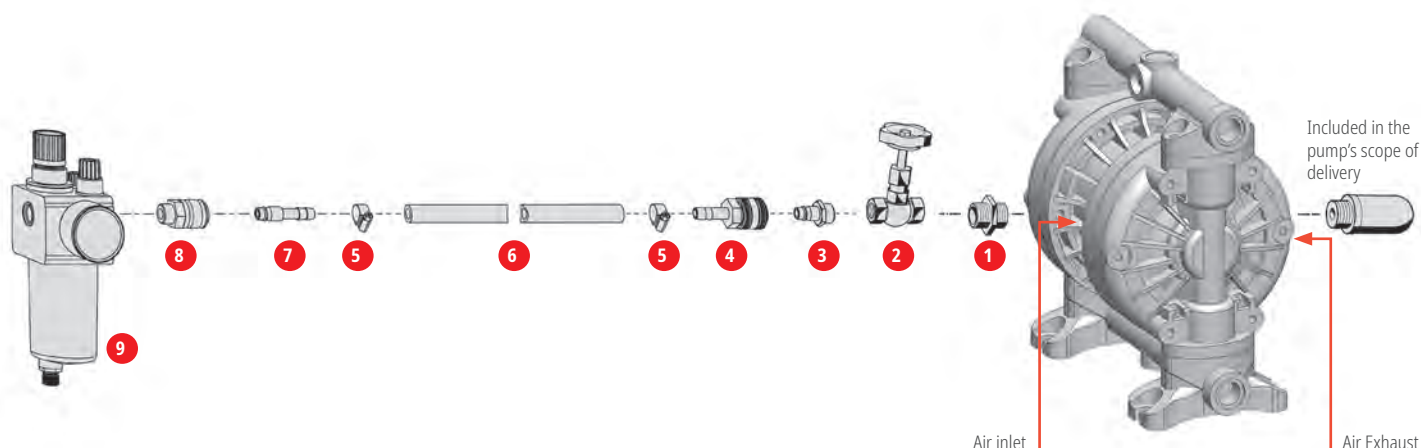
■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.



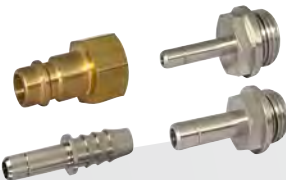
■ Suitable for food and luxury foods, pharmaceuticals, cosmetics and hygiene products. Meets requirements of EC 1395/2004 as well as EC 10/2011 or FDA 21 CFR 177.



Accessories for compressed air supply



Product detail	Specification	Order No.
	1 Double nipple Brass G 3/8 OT Brass G 3/4 OT	0302-157 5000-171
	Reducing nipple Brass G 1/4 OT x 3/8 IT* Brass G 1/2 OT x 3/8 IT* Red cast iron G 1/2 OT x 3/4 OT * Depending on the size, a combination of double and reducing nipple is required	5000-710 5000-711 0372-007
	Thread extension Brass G 3/8 Length: 40 mm When using a needle valve with 1/2" and 1" pump sizes	5000-712
	2 Needle valve Regulates the air volume to the double diaphragm pump Brass G 3/8 AODD 1/4" AODD 1/2" AODD 1"	5000-160
	Brass G 3/4 AODD 1 1/2" AODD 2"	5000-161
	3 Nipple (male part) Brass (NW 7.2) G 3/8 OT AODD 1/4" AODD 1/2" AODD 1"	0372-045
	Brass (NW 7.2) G 1/2 OT (When using an air flow control valve) AODD 1/4" AODD 1/2" AODD 1"	5000-179
	Brass (NW 10) G 3/4 OT AODD 1 1/2" AODD 2"	5000-172

Product detail	Specification	Order No.
4	Hose coupling	
	Self-closing Brass (NW 7.2) DN 9 AODD 1/4" Brass (NW 7.2) DN 13 AODD 1/2" and 1" Brass (NW 10) DN 13 AODD 1 1/2" and 2"	0372-166 0372-167 5000-165
5	Hose clamp	
	(Chromated steel: 1.4016) for compressed air hose DN 9 DN 13	0301-156 0301-403
6	Compressed air hose	
	PVC hose with intermediate woven layer max. operating pressure 8 bar at 20 °C DN 9 DN 13	0373-153 0373-154
7	Coupling connector	
	For connecting on coupling (NW 7.2) for compressed air hose DN 9 DN 13	0372-155 0372-039
8	Coupling	
	Self-locking in brass. For screwing into the filter pressure regulator Brass (NW 7.2) G 3/8 OT	0372-154
9	Filter pressure regulator	
	Inlet pressure: max. 16 bar Filter element: 5 µm, Cellpor Housing: Zinc-Pressure cast G 3/8 Ambient temp.: max. 60 °C Diaphragms and seals: NBR for AODD 1/4" to AODD 1"	5000-178
	Inlet pressure: max. 16 bar Filter element: 40 µm, sinter bronze Housing: Aluminium G 3/4 Ambient temp.: max. 60 °C Diaphragms and seals: NBR for AODD 1 1/2" to AODD 2"	5000-173
Air connection set for 1/4" mini, 1/4", 3/8", 1/2" mini		
	Air connection set with adapter for coupling (NW 7.2) or compressed air hose with inner diameter 9mm*. *only available as set	5000-300



Adjustable pulsation dampeners

Mode of operation

Pulsation dampeners are containers filled with a gas cushion. A diaphragm separates the gas cushion from the system fluid. The dampeners store and discharge a part of the stroke volume in the stroke rhythm of the diaphragm pump, whereby the gas cushion is compressed or decompressed accordingly. This makes the pulsating flow rate of the pump almost uniform.

Benefits of pulsation dampeners

- Prevents pipe vibrations that cause material fatigue and pipe bursts.
- Compensation of pressure surges (water hammer) protects built-in fittings.
- Ensure almost uniform volume flow, which increases the accuracy of flow meters.
- Explosion-proof models with approval according to ATEX.

Installation

Pulsation dampeners should be installed as close as possible to the pump. On models with adjustable air control the dampener pressure can be adjusted or readjusted in case of pressure fluctuations. The air supply is parallel to the air supply of the double diaphragm pump.

Product detail	Specification			Order No.
Pulsation dampener PD III D for AODD 1/4"				
 	Housing materials:	PP, PVDF and stainless steel (1.4571)		
	Diaphragms:	PTFE, EPDM, NBR and FPM		
	Connection medium:	G 1/2 IT		
	Connection air:	1/4 NPT OT		
	Operating pressure:	max. 10 bar		
	Volume:	approx. 0.16 dm³, respectively approx. 0.13 dm³ with PTFE-diaphragm		
	Air control:	adjustable		
	Weight:	approx. 1 up to 1.8 kg		
	Type	Housing material	Diaphragms	
	PD III D – P – B	PP (in contact with the product)	NBR	5000-350
	PD III D – P – ND	PP (not in contact with the product)	EPDM	5000-351
	PD III D – P – T	PP (in contact with the product)	PTFE	5000-352
	PD III D – P – V	PP (not in contact with the product)	FPM	5000-353
	PD III D – K – T	PP (in contact with the product)	PTFE	5000-354
	PD III D – S – T Ex II 2 GD IIB T4	PVDF (in contact with the product)	PTFE	5000-357 ■
		PVDF (not in contact with the product)		
		Stainless steel, 1.4571 (in contact with the product)		
		Stainless steel, 1.4571 (not in contact with the product)		
Pulsation dampener for AODD 1/2" DT 50 / DTX 70 PD II F				
	Housing materials:	PE, PTFE and SS (1.4571)	SS (1.4571)	
	Diaphragms:	PTFE, EPDM, NBR	FPM	
	Connection medium:	G 1/2 IT / G 3/4 stainless steel	G 3/4 IT	
	Connection air:	G 1/4 IT	1/4 NPT OT	
	Operating pressure:	max. 8 bar	max. 10 bar	
	Air control:	automatically	adjustable	
	Weight:	approx. 1.4 up to 2.1 kg	approx. 4.5 kg	



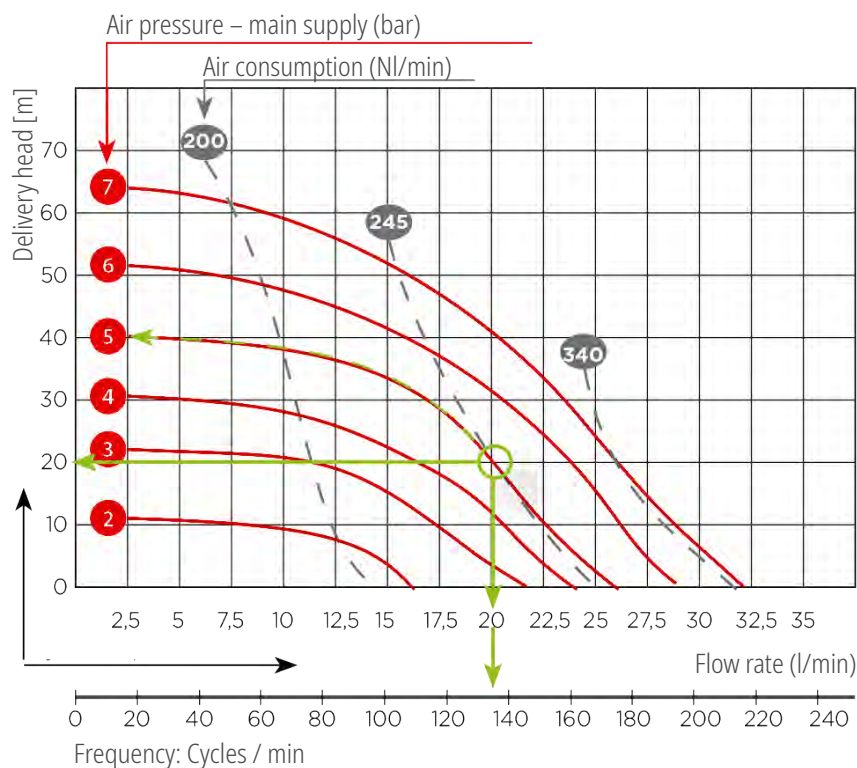
■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

Product detail	Specification			Order No.
 	Type	Housing material	Diaphragms	
	DT 50 PN DT 50 PE DT 50 PT DT 50 TT	PE (in contact with the product) PE (in contact with the product) PE (in contact with the product) PTFE (in contact with the product)	NBR EPDM PTFE PTFE	5000-410 5000-411 5000-412 5000-413
	DT X 70 ST Ex II 2 GD IIB T4 PD II F – S – V Ex II 2 GD IIB T4	Stainless steel, 1.4404 (in contact with the product) Stainless steel, 1.4571 (in contact with the product)	PTFE FPM	5000-414 ■ 5000-363 ■
Pulsation dampener for AODD 1" DT 100 / DTX 120				
  	Housing materials:	PE, PTFE and SS (1.4571)	SS (1.4571)	
	Diaphragms:	PTFE, EPDM, NBR	FPM	
	Connection medium:	G 1 IT	G 3/4 IT	
	Connection air:	G 1/4 IT	1/4 NPT OT	
	Operating pressure:	max. 8 bar	max. 10 bar	
	Air control:	automatically	adjustable	
	Weight:	approx. 2.8 up to 4.6 kg	approx. 6 kg	
	Type	Housing material	Diaphragms	
	DT 100 PN DT 100 PE DT 100 PT DT 100 TT	PE (in contact with the product) PE (in contact with the product) PE (in contact with the product) PTFE (in contact with the product)	NBR EPDM PTFE PTFE	5000-415 5000-416 5000-417 5000-418
	DT X 120 ST Ex II 2 GD IIB T4 PD II D – S – V Ex II 2 GD IIB T4	Stainless steel, 1.4404 (in contact with the product) Stainless steel, 1.4571 (in contact with the product)	PTFE FPM	5000-419 ■ 5000-369 ■
Pulsation dampener PD I D for AODD 1 1/2" and AODD 2"				
  	Housing materials:	PP, PVDF and stainless steel (1.4571)		
	Diaphragms:	PTFE, EPDM, NBR and FPM		
	Connection medium:	G 2 IT		
	Connection air:	1/4 NPT OT		
	Operating pressure:	max. 10 bar		
	Volume:	approx. 6 dm ³ , respectively approx. 5.8 dm ³ with PTFE-diaphragm		
	Air control:	adjustable		
	Weight:	approx. 7.2 up to 19 kg		
	Type	Housing material	Diaphragms	
	PD I D – P – B	PP (in contact with the product) PP (not in contact with the product)	NBR	5000-370
	PD I D – P – ND	PP (in contact with the product)	EPDM	5000-371
	PD I D – P – T	PP (in contact with the product) PP (not in contact with the product)	PTFE	5000-372
	PD I D – K – T	PVDF (in contact with the product) PP (not in contact with the product)	PTFE	5000-373
	PD I D – C – B Ex II 2 GD IIB T4	Stainless steel, 1.4571 (in contact with the product) Stainless steel, 1.4571 (not in contact with the product)	NBR	5000-374 ■
	PD I D – S – T Ex II 2 GD IIB T4	Stainless steel, 1.4571 (in contact with the product) Stainless steel, 1.4571 (not in contact with the product)	PTFE	5000-375 ■
	PD I D – S – V Ex II 2 GD IIB T4	Stainless steel, 1.4571 (in contact with the product) Stainless steel, 1.4571 (not in contact with the product)	FPM	5000-376 ■



■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

Advices for selecting a double diaphragm pump

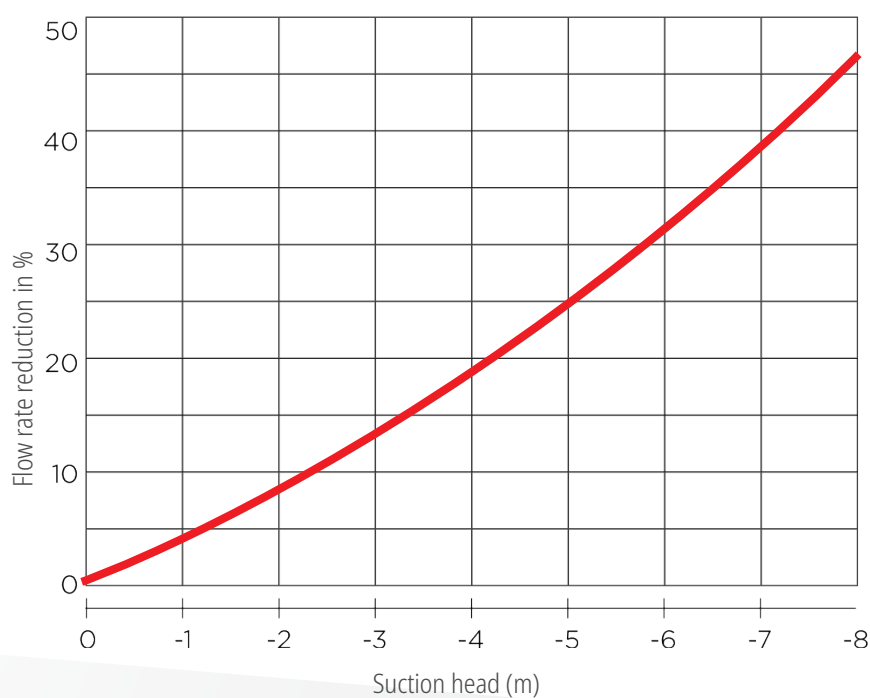


Operating point – Example:

Flow rate 20 l/min – Delivery head 20 m.

- Air pressure – main supply: 5 bar
- Air consumption: approx. 245 NI/min
- Frequency: approx. 135 cycles/min.

Percentage flow reduction in relation to the suction head

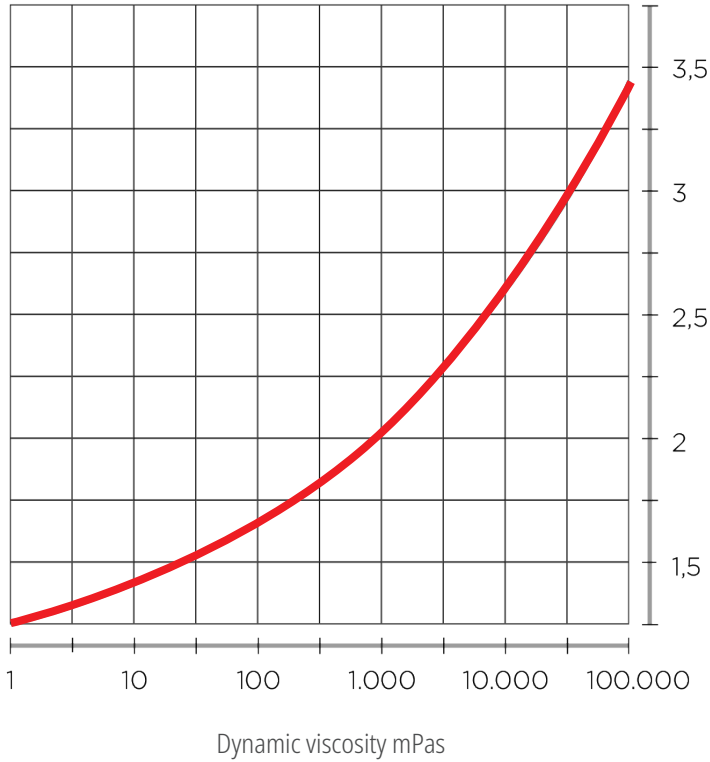


If liquids have to be sucked in from a lower level, this reduces the flow rate of the pump.

The maximum suction head is a function of the system characteristics (hydraulic losses), the physical properties of the liquid (density, viscosity, boiling point) and the pressure difference affecting both diaphragms.

Viscous liquids

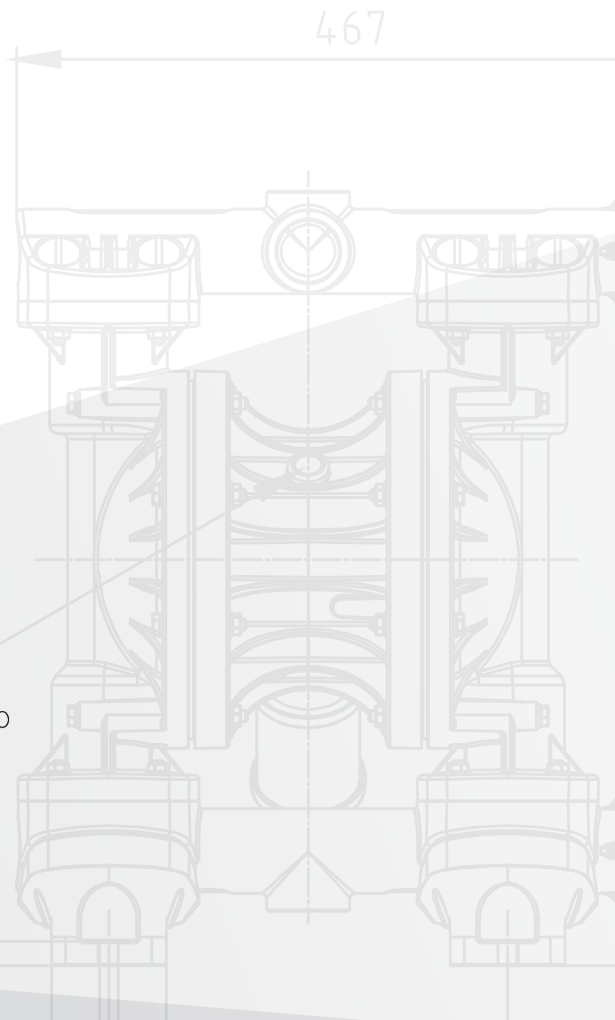
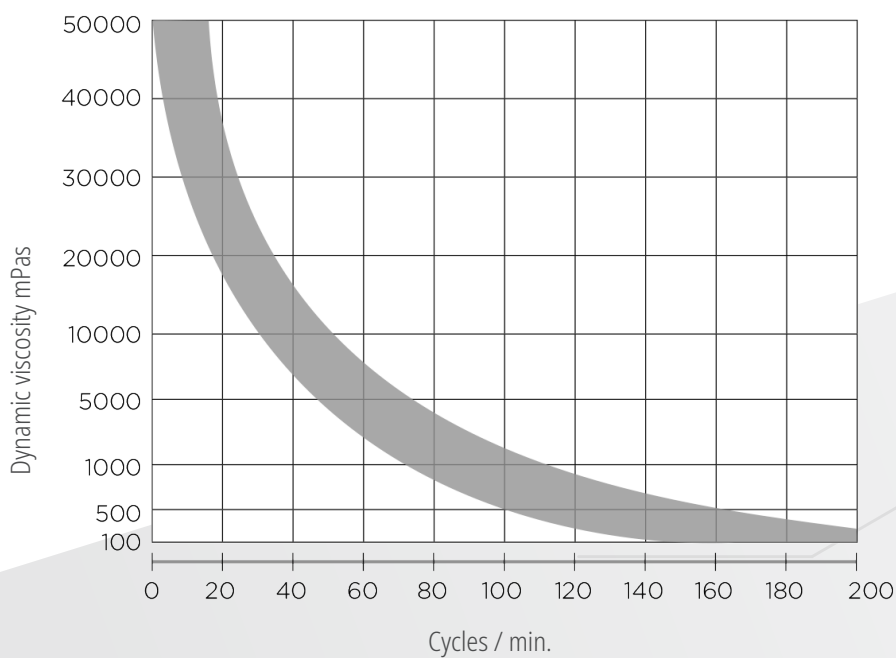
**Multiplication coefficient for
pipe line diameter**



Multiplication coefficient for pipe diameter related to a non-viscous liquid and constant hydraulic losses.

For pumping viscous liquids, we recommend enlarging the suction and pressure side piping/hosing according to the multipliers mentioned.

**Viscosity-related reduction
of pump cycles per minute**









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