

# Compressed air diaphragm pumps

Industrial applications / food

Product range

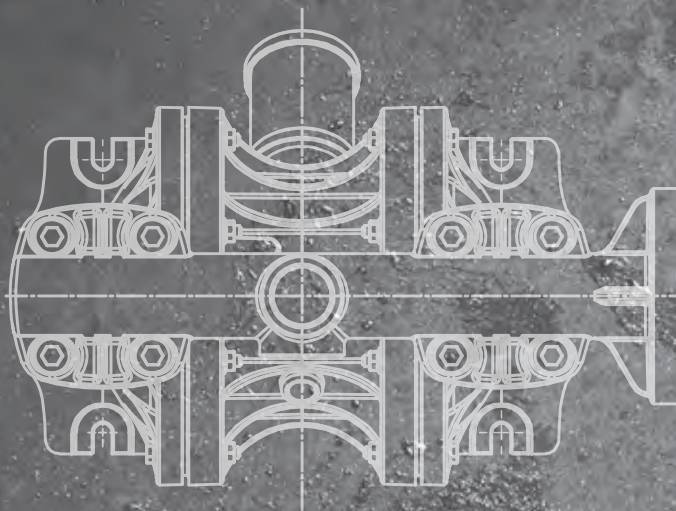


safety is our concern



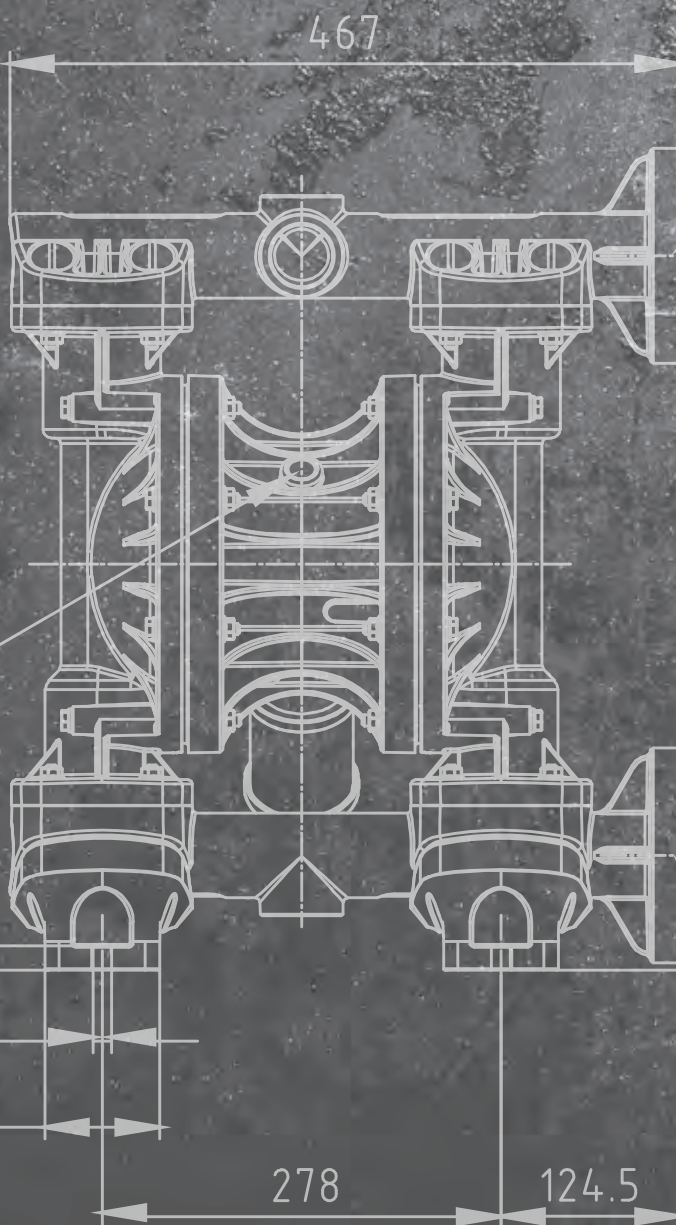
278 124.5

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  
IG/IT

418

80

13

80

278

124.5

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

<b>Lutz series</b>	<b>4</b>
<b>Benefits</b>	<b>5</b>
<b>Application</b>	<b>6</b>
<b>Non-metallic</b>	<b>10</b>
<b>Metal</b>	<b>20</b>
<b>PURE (Stainless steel)</b>	<b>28</b>
<b>Range of accessories</b>	<b>36</b>
<b>Viscosities</b>	<b>46</b>

#### **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 tested and approved according to ATEX and FDA.



## 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 materials, such as high-quality thermoplastics or different metallic versions.

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 certified according to current ATEX directives and are suitable for pumping flammable or easily flammable liquids in ATEX zone 1.

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

### Diaphragm

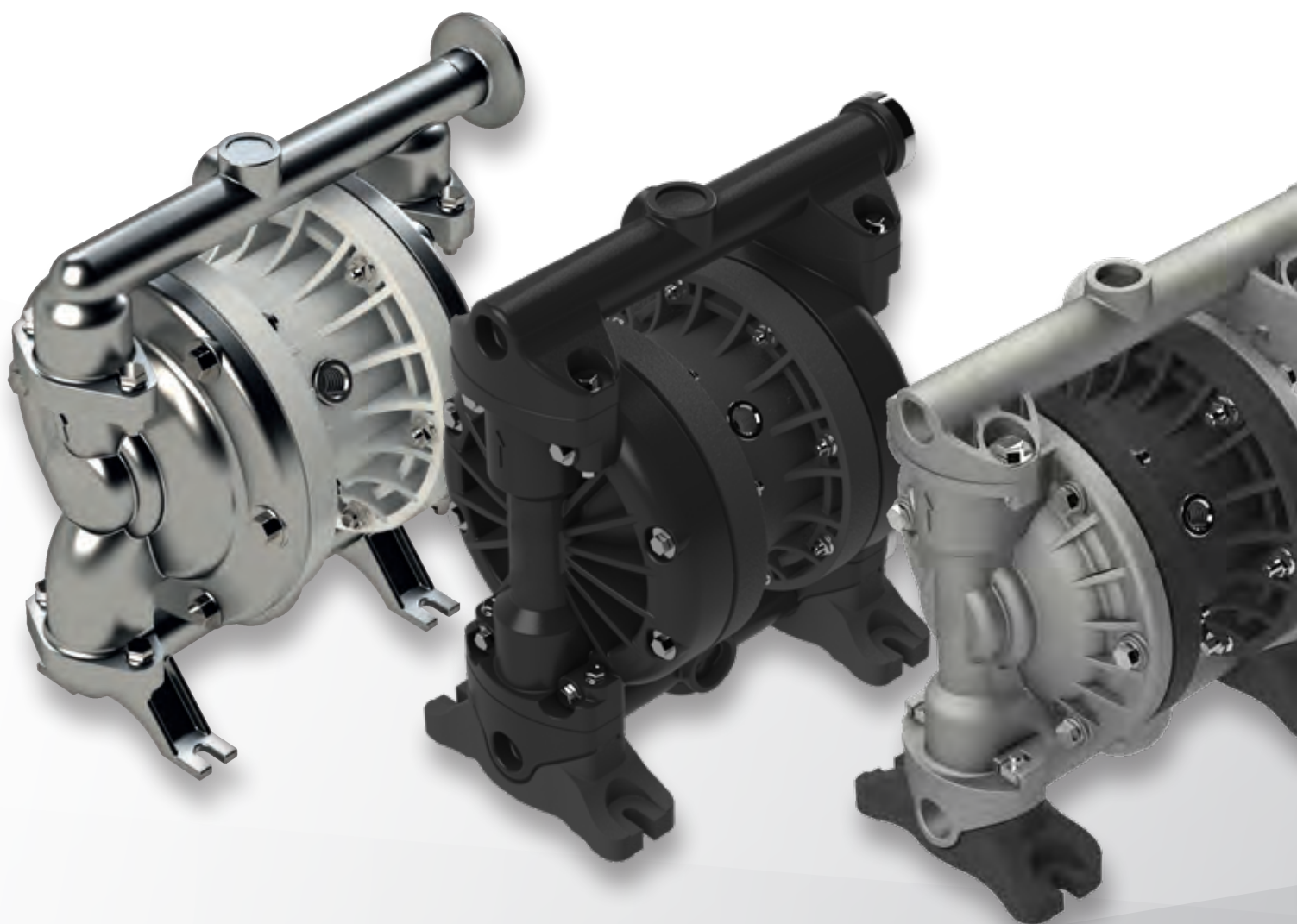
The available diaphragms made of the materials TFM (PTFE), TPV (EPDM-PP), NBR and FPM are of high quality and can be used for applications in the chemical, food and pharmaceutical industries, etc.

### Inside design

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

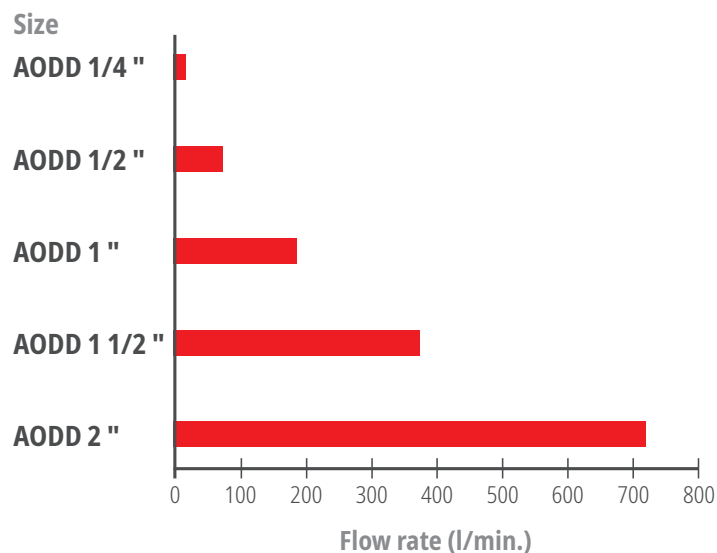
### Air control valve

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

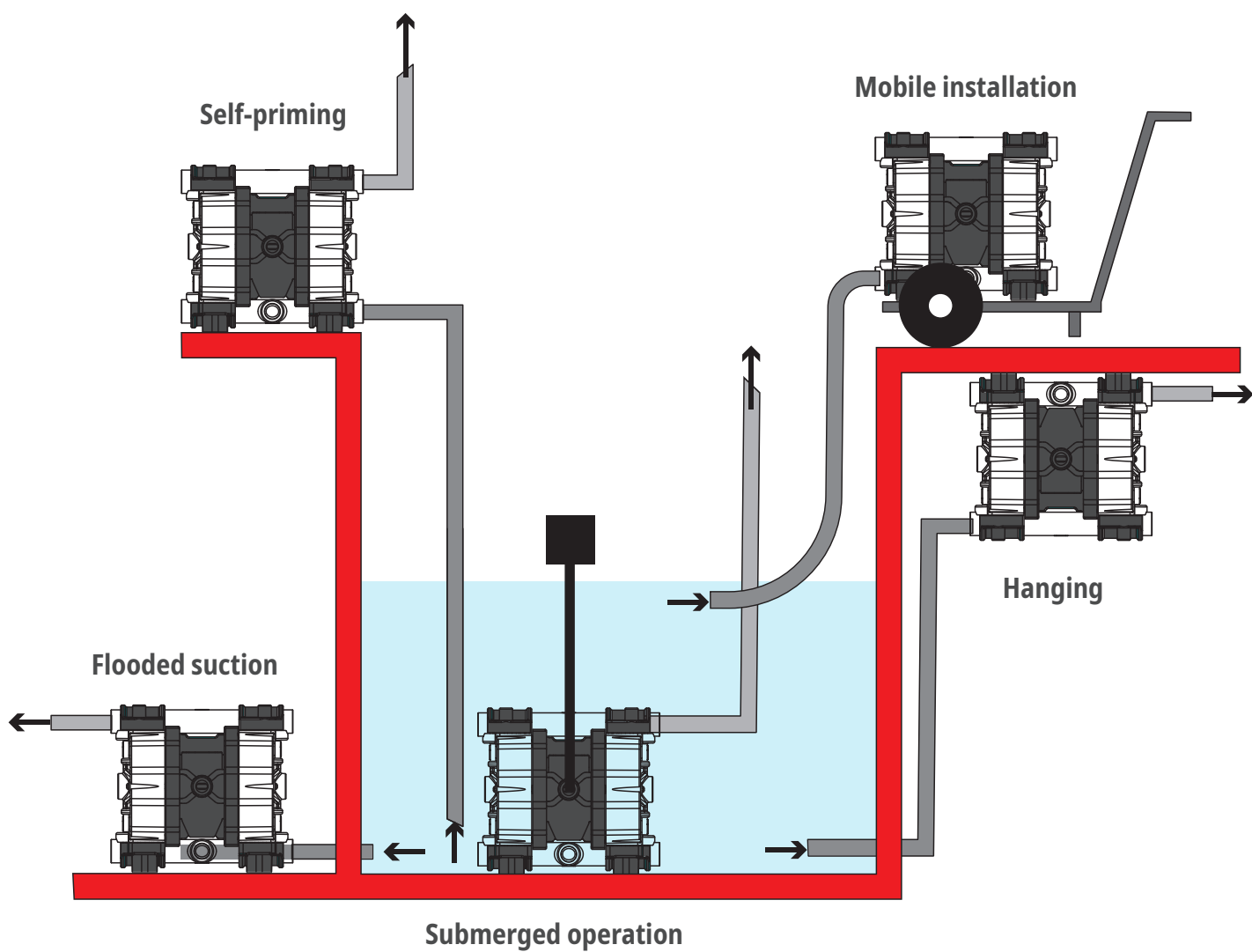


## The product advantages at a glance

- High hydraulic capacity 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-versions FDA-conform
- Pumps ATEX-approved (Ex-protection)
- Absolutely oil-free
- Non-stalling operation



## 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.

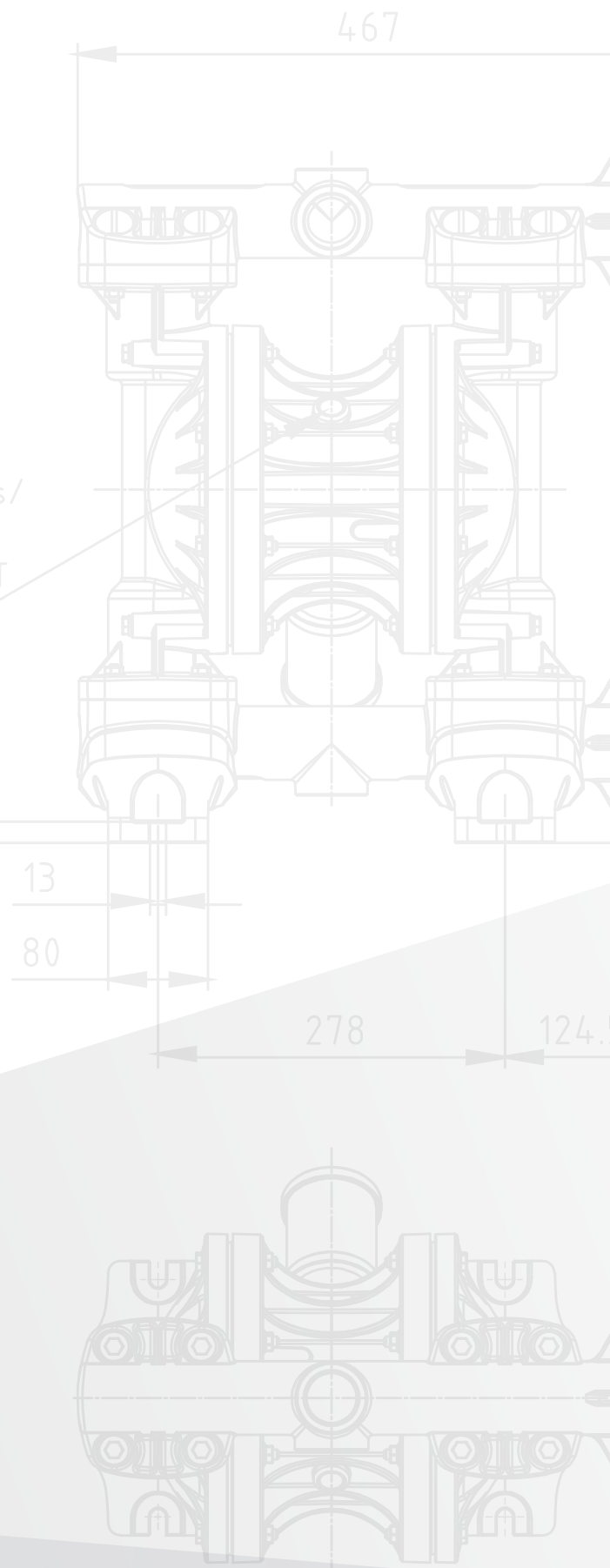
### **Submerged operation**

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.

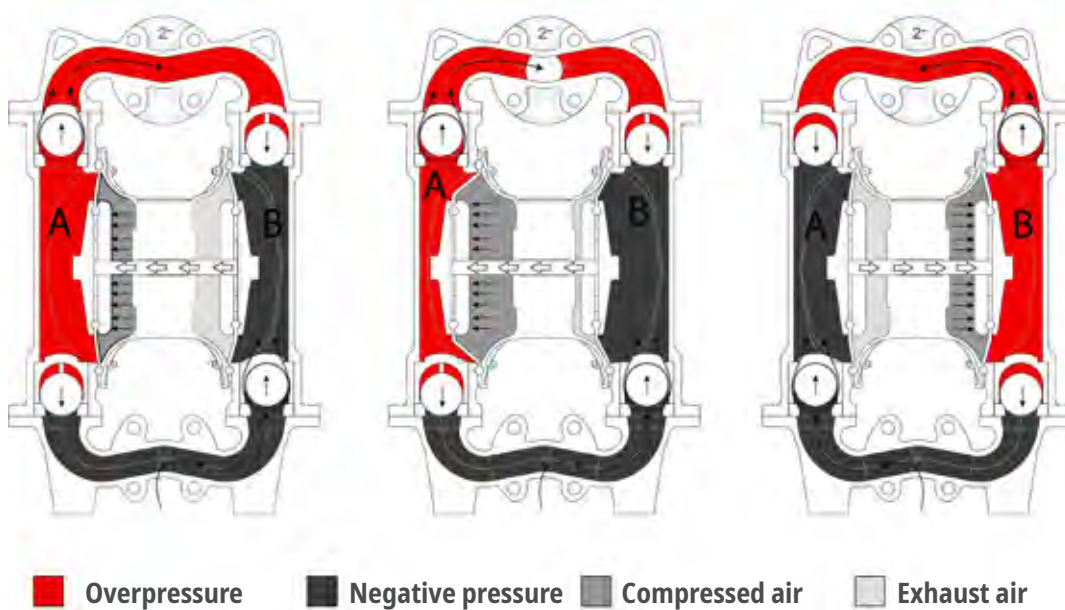
## One pump cycle

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 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

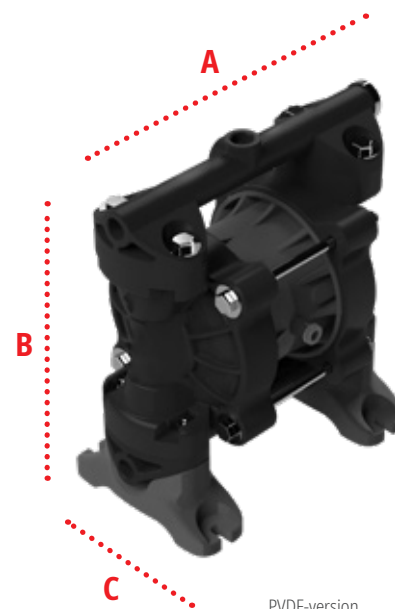
Modified PTFE that is refined in its molecular structure and thus offers improved characteristics regarding safety and reliability.

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" 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

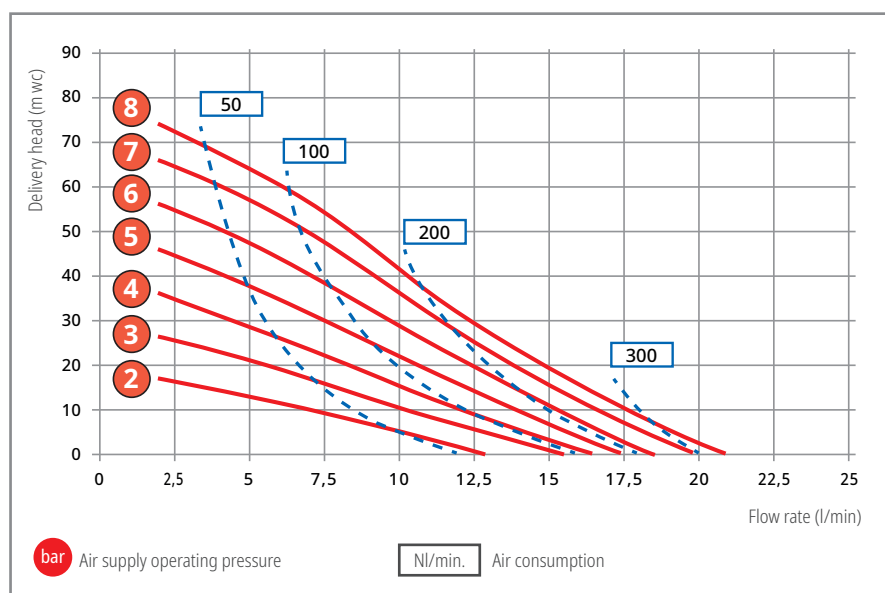
Detailed dimensioned drawings are available for download on our website.

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

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC T135°C Db

## Operating data/ dimensions/ weights

	AODD 1/4" PP	AODD 1/4" PVDF
Housing material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Diaphragm material:	NBR, TPV (EPDM-PP), TPC-ET + TFM (PTFE), FPM	TPV (EPDM-PP) + TFM (PTFE), 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	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 <sup>3</sup>	35 cm <sup>3</sup>
Displacement per cycle:	70 cm <sup>3</sup>	70 cm <sup>3</sup>
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 6 mm	ø 6 mm
Suction:	1/4" BSP inner thread	1/4" BSP inner thread
Pressure joint:	1/4" BSP inner thread	1/4" BSP inner thread
Weight:	1.5 kg	1.9 kg



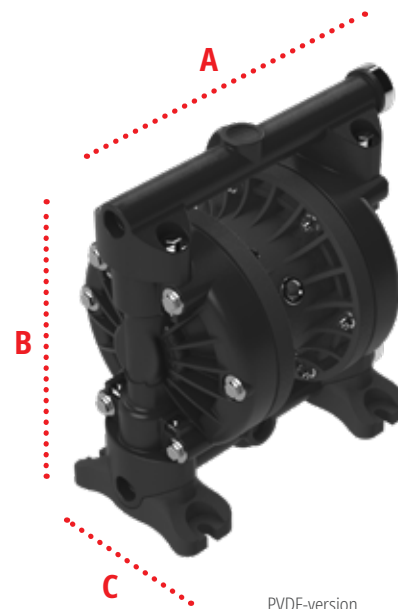
### Description of material:

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 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** 260.5 **C** 160

Dimensions in mm

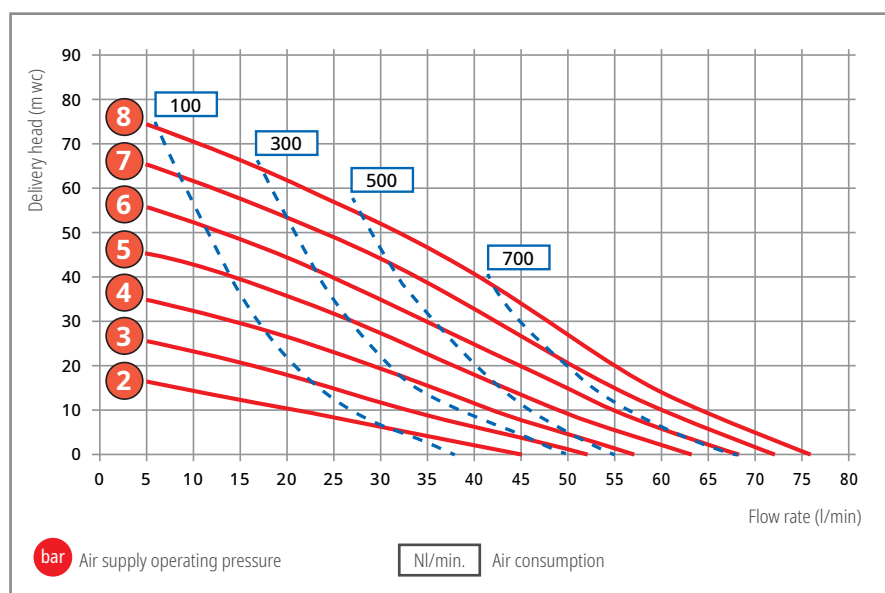
Detailed dimensioned drawings are available for download on our website.

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

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC T135°C Db

## Operating data/ dimensions/ weights

	AODD 1/2" PP	AODD 1/2" PVDF
Housing material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP), FPM	TPV (EPDM-PP) + TFM (PTFE), FPM, TPV (EPDM-PP) + TFM (PTFE)
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	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 <sup>3</sup>	75 cm <sup>3</sup>
Displacement per cycle:	150 cm <sup>3</sup>	150 cm <sup>3</sup>
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 inner thread	1/4" BSP inner thread
Suction:	1/2" BSP inner thread	1/2" BSP inner thread
Pressure joint:	1/2" BSP inner thread	1/2" BSP inner thread
Weight:	3.5 kg	4.0 kg

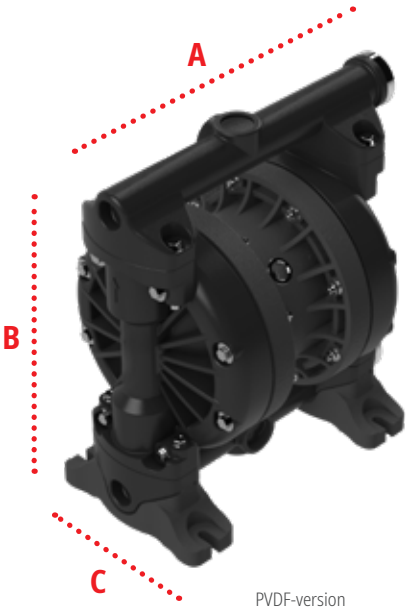


### Description of material:

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.



## Dimensions

PP / PVDF
 A 309.5
 B 344.5
 C 203

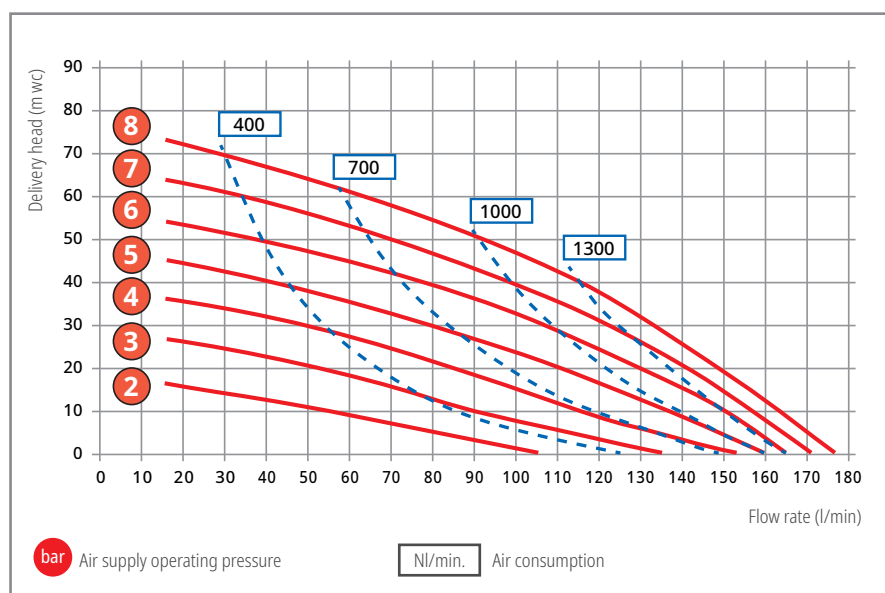
Dimensions in mm  
 Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1" PPT	PP (reinforced with fibreglass)	TPC-ET + TFM (PTFE)	PTFE	PTFE	5230-000
AODD 1" PPE	PP (reinforced with fibreglass)	TPV (EPDM-PP)	EPDM	EPDM	5230-020
AODD 1" PPB	PP (reinforced with fibreglass)	NBR	NBR	NBR	5230-040
AODD 1" PPV	PP (reinforced with fibreglass)	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



## Operating data/ dimensions/ weights

	AODD 1" PP	AODD 1" PVDF
Housing material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (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	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 <sup>3</sup>	220 cm <sup>3</sup>
Displacement per cycle:	440 cm <sup>3</sup>	440 cm <sup>3</sup>
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 inner thread	3/8" BSP inner thread
Suction:	1" BSP inner thread	1" BSP inner thread
Pressure joint:	1" BSP inner thread	1" BSP inner thread
Weight:	6.4 kg	7.5 kg

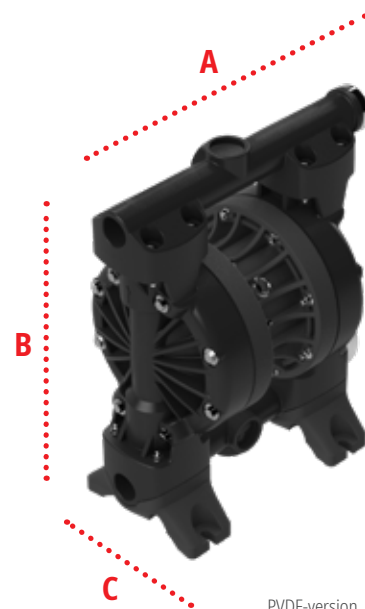


### Description of material:

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** 429.5   **B** 538   **C** 263\*

Dimensions in mm      \*with muffler 317 mm

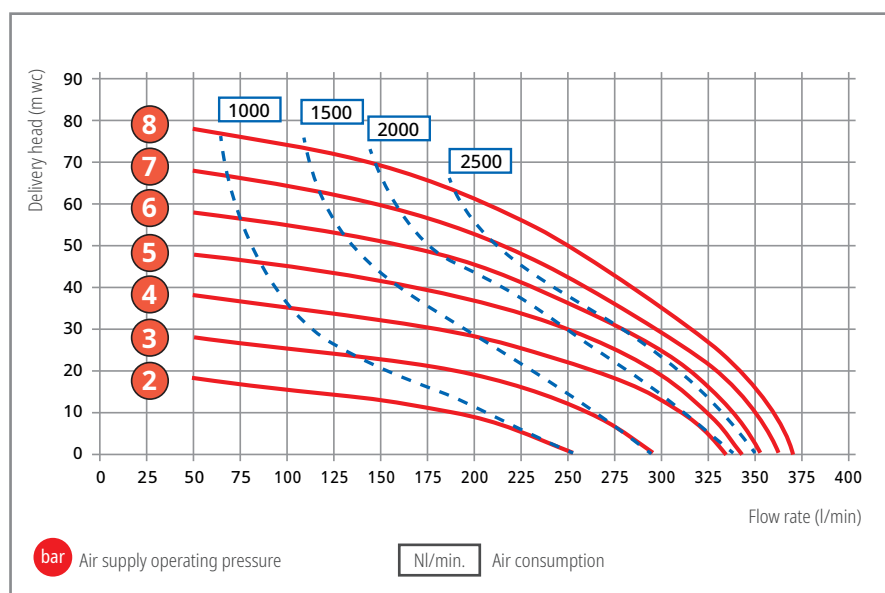
Detailed dimensioned drawings are available for download on our website.

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

## Operating data/ dimensions/ weights

	AODD 1 1/2" PP	AODD 1 1/2" PVDF
Housing material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
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, EPDM, PTFE	FPM, PTFE
Valve seat:	PP	PVDF
Max. flow rate:	370 l/min.	370 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):	4.5 m wc	4.5 m wc
Displacement per chamber:	670 cm <sup>3</sup>	670 cm <sup>3</sup>
Displacement per cycle:	1340 cm <sup>3</sup>	1340 cm <sup>3</sup>
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 inner thread	1/2" BSP inner thread
Suction:	1 1/2" BSP inner thread	1 1/2" BSP inner thread
Pressure joint:	1 1/2" BSP inner thread	1 1/2" BSP inner thread
Weight:	18.0 kg	24.0 kg

\*Measured with standard muffler mounted.



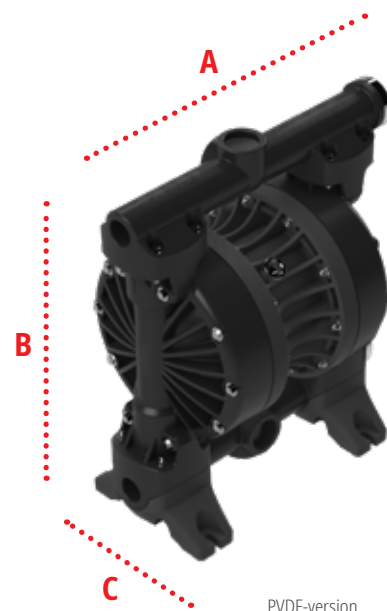
### Description of material:

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** 662.5 **C** 345\*

Dimensions in mm      \*with muffler 381 mm

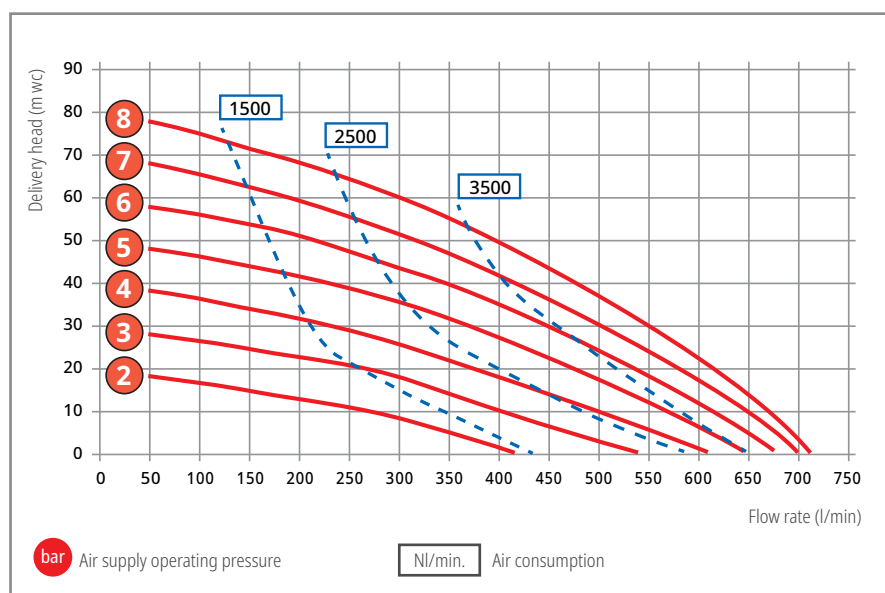
Detailed dimensioned drawings are available for download on our website.

Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" PPT	PP (reinforced with fibreglass)	TPC-ET + TFM (PTFE)	PTFE	PTFE	<b>5250-200</b>
AODD 2" PPE	PP (reinforced with fibreglass)	TPV (EPDM-PP)	EPDM	EPDM	<b>5250-220</b>
AODD 2" PPB	PP (reinforced with fibreglass)	NBR	NBR	NBR	<b>5250-240</b>
AODD 2" KNT	PVDF (carbon fibre reinforced)	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	<b>5251-310</b>
AODD 2" KNV	PVDF (carbon fibre reinforced)	FPM	FPM	FPM	<b>5251-350</b>

## Operating data/ dimensions/ weights

	AODD 2" PP	AODD 2" PVDF
Housing material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Centre block material:	Polypropylene (reinforced with fibreglass)	Polyvinylidene fluoride (carbon fibre reinforced)
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	TPV (EPDM-PP) + TFM (PTFE), FPM
Valve ball material:	NBR, PTFE, EPDM	PTFE
Seals:	NBR, EPDM, PTFE	PTFE, EPDM
Valve seat:	PP	PVDF
Max. flow rate:	715 l/min.	715 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):	4.5 m wc	4.5 m wc
Displacement per chamber:	1910 cm <sup>3</sup>	1910 cm <sup>3</sup>
Displacement per cycle:	3820 cm <sup>3</sup>	3820 cm <sup>3</sup>
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 inner thread	3/4" BSP inner thread
Suction:	2" BSP inner thread	2" BSP inner thread
Pressure joint:	2" BSP inner thread	2" BSP inner thread
Weight:	34.0 kg (PPT) / 43,0 kg (PPE, PPB)	40.0 kg

\*Measured with standard muffler mounted.

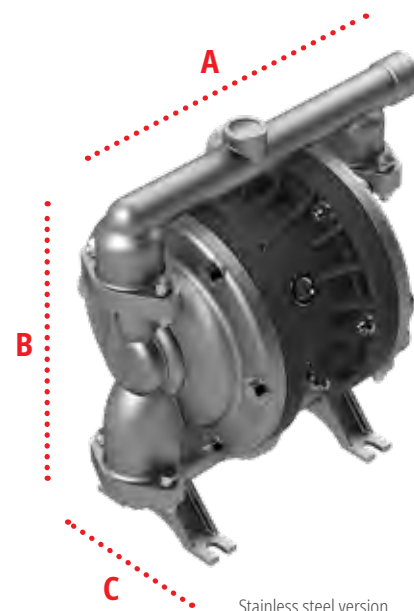


### Description of material:

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	<b>A</b> 245.5 <b>B</b> 253.5 <b>C</b> 160
Stainless steel	<b>A</b> 246.5 <b>B</b> 247.5 <b>C</b> 160

Dimensions in mm

Detailed dimensioned drawings are available for download on our website.

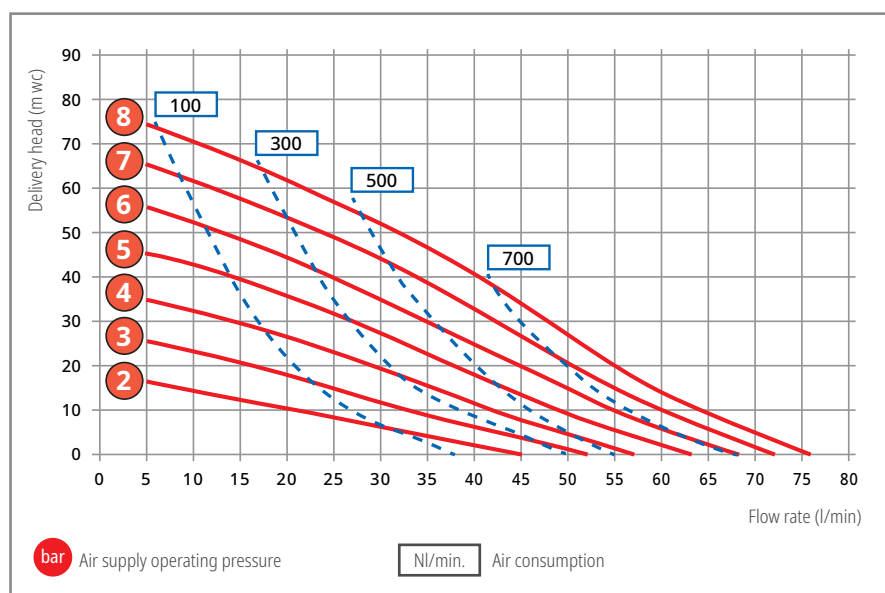
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" ALT Ex*	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	<b>5222-100</b>
AODD 1/2" ALE Ex*	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	<b>5222-120</b>
AODD 1/2" ALB Ex*	Aluminium	NBR	NBR	NBR	<b>5222-140</b>
AODD 1/2" ALV Ex*	Aluminium	FPM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

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC 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)	Stainless steel 1.4404 (316 L)
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	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 <sup>3</sup>	75 cm <sup>3</sup>
Displacement per cycle:	150 cm <sup>3</sup>	150 cm <sup>3</sup>
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 inner thread	1/4" BSP inner thread
Suction:	1/2" BSP inner thread	1/2" BSP inner thread
Pressure joint:	1/2" BSP inner thread	1/2" BSP inner thread
Weight:	4.0 kg	6.0 kg

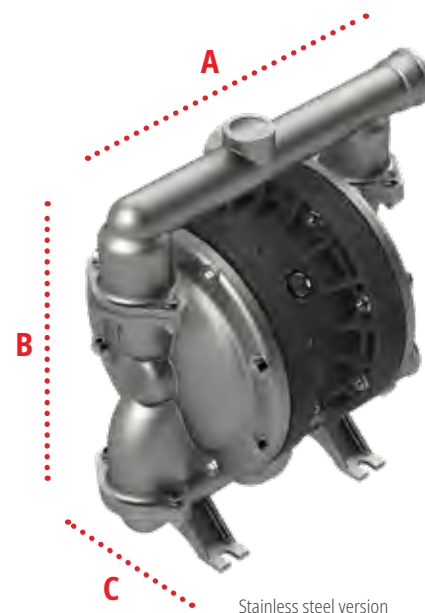


### Description of material:

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	<b>A</b> 310 <b>B</b> 335 <b>C</b> 203
Stainless steel	<b>A</b> 312 <b>B</b> 321.5 <b>C</b> 203.5

Dimensions in mm

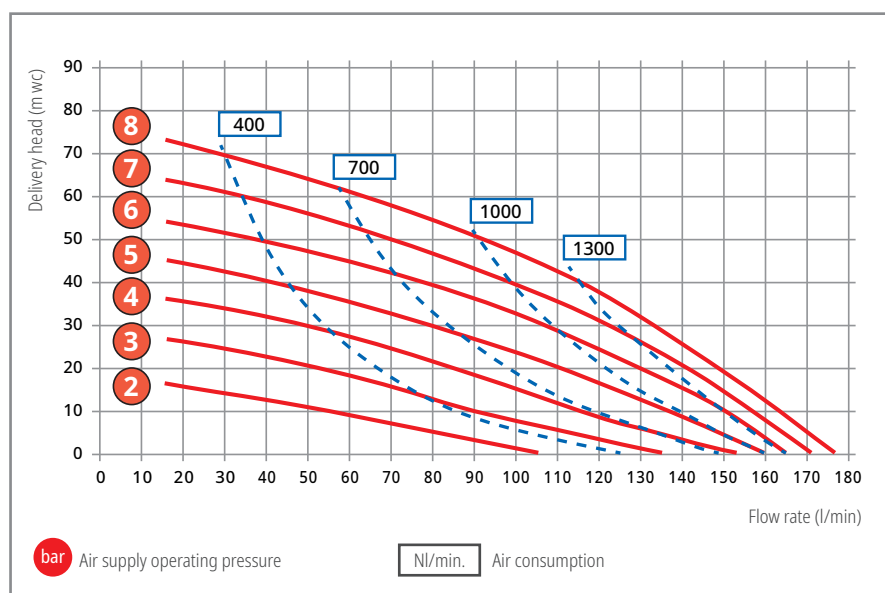
Detailed dimensioned drawings are available for download on our website.

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

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC 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)	Stainless steel 1.4404 (316 L)
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	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 <sup>3</sup>	220 cm <sup>3</sup>
Displacement per cycle:	440 cm <sup>3</sup>	440 cm <sup>3</sup>
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 inner thread	3/8" BSP inner thread
Suction:	1" BSP inner thread	1" BSP inner thread
Pressure joint:	1" BSP inner thread	1" BSP inner thread
Weight:	7.8 kg	11.0 kg

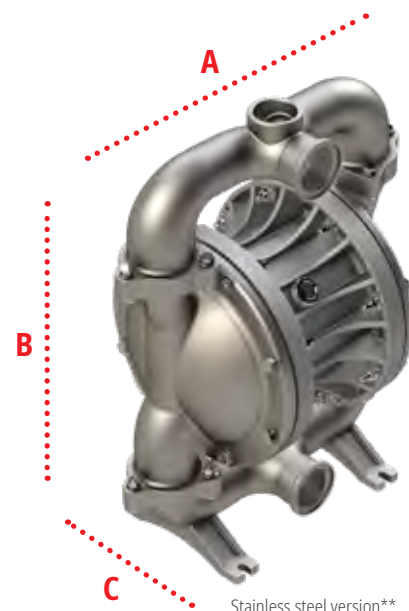


### Description of material:

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.



### Dimensions

Alu	<b>A 467 B 573 C 263.5*</b>
Stainless steel	<b>A 400 B 501 C 263*</b>

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

\*\*In contrast to the figure, 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	<b>5242-200</b>
AODD 1 1/2" ALE Ex*	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	<b>5242-220</b>
AODD 1 1/2" ALB Ex*	Aluminium	NBR	NBR	NBR	<b>5242-240</b>
AODD 1 1/2" SST Ex*	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	<b>5243-310</b>
AODD 1 1/2" SSE Ex*	Stainless steel	TPV (EPDM-PP)	EPDM	EPDM	<b>5243-320</b>
AODD 1 1/2" SSB Ex*	Stainless steel	NBR	NBR	NBR	<b>5243-340</b>
AODD 1 1/2" SSV Ex*	Stainless steel	FPM	FPM	FPM	<b>5243-350</b>

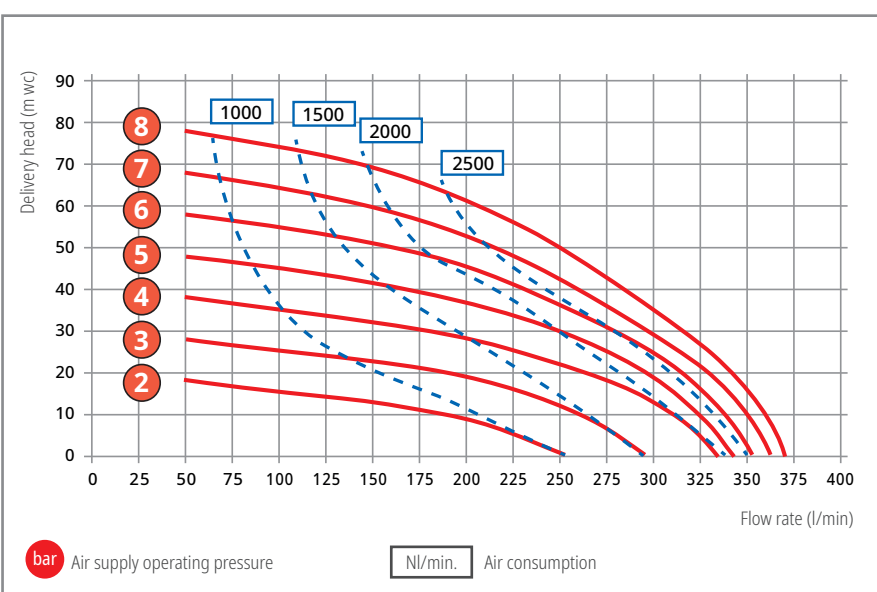
\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC T135°C Db



## 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
Diaphragm material:	NBR, TPC-ET + TFM (PTFE), TPV (EPDM-PP)	NBR, TPV (EPDM-PP) + TFM (PTFE), PV (EPDM-PP), FPM
Valve ball material:	NBR, PTFE, EPDM	NBR, PTFE, EPDM, FPM
Seals:	NBR, EPDM, PTFE, FPM	NBR, EPDM, PTFE, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	370 l/min.	370 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):	4.5 m wc	4.5 m wc
Displacement per chamber:	670 cm <sup>3</sup>	670 cm <sup>3</sup>
Displacement per cycle:	1340 cm <sup>3</sup>	1340 cm <sup>3</sup>
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 inner thread	1/2" BSP inner thread
Suction:	Flange DIN DN40 PN10/ ASME B16.5 1 1/2" class150 or 1 1/2" BSP inner thread (included)	1 1/2" BSP inner thread
Pressure joint:	Flange DIN DN40 PN10/ ASME B16.5 1 1/2" class150 or 1 1/2" BSP inner thread (included)	1 1/2" BSP inner thread
Weight:	25.0 kg	28.0 kg

\*Measured with standard muffler mounted.

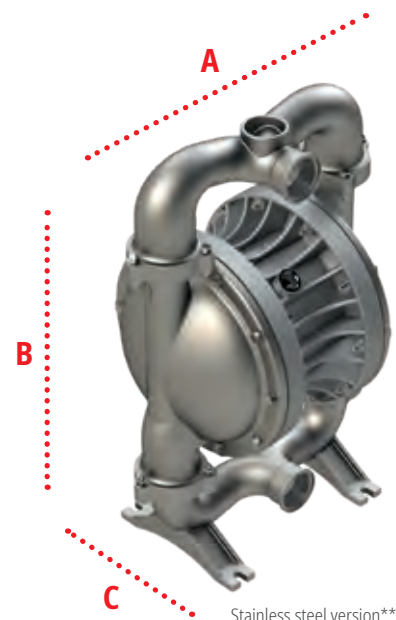
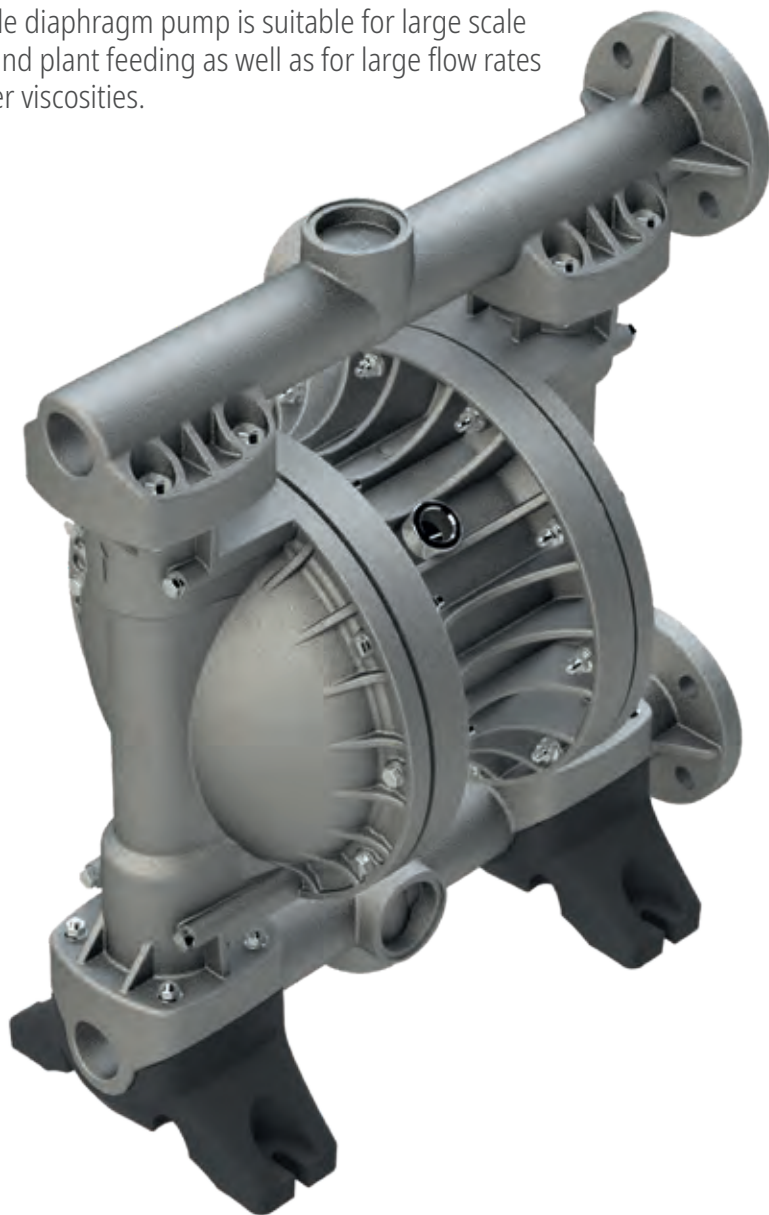


## Description of material:

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	<b>A</b> 594 <b>B</b> 688 <b>C</b> 345*
Stainless steel	<b>A</b> 478 <b>B</b> 694 <b>C</b> 346*

Dimensions in mm \*with muffler 381 mm  
Detailed dimensioned drawings are available for download on our website.

\*\*In contrast to the figure, the outlet connection is delivered rotated by 180°.

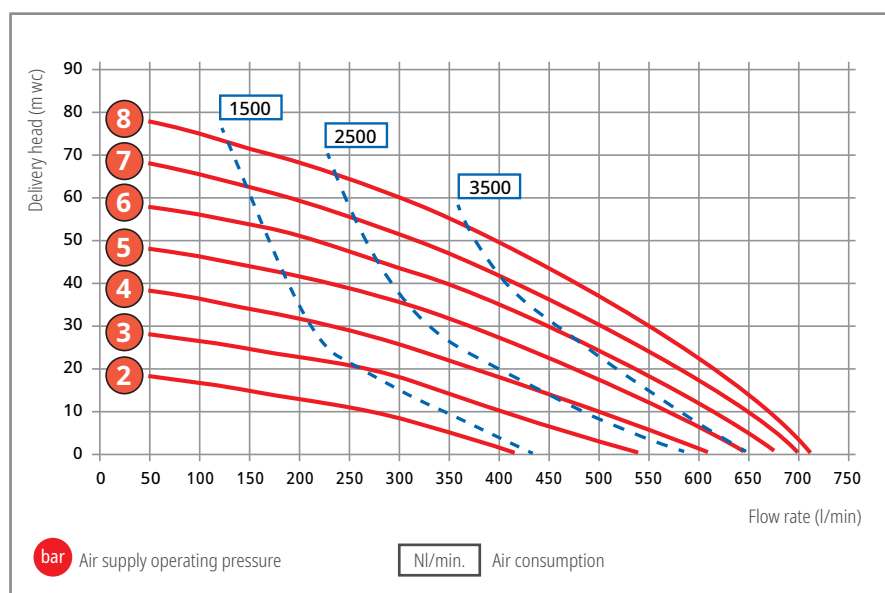
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" ALT Ex*	Aluminium	TPC-ET + TFM (PTFE)	PTFE	PTFE	<b>5252-200</b>
AODD 2" ALE Ex*	Aluminium	TPV (EPDM-PP)	EPDM	EPDM	<b>5252-220</b>
AODD 2" ALB Ex*	Aluminium	NBR	NBR	NBR	<b>5252-240</b>
AODD 2" SST Ex*	Stainless steel	TPV (EPDM-PP)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

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC 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
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, PTFE
Seals:	NBR, EPDM, PTFE	NBR, EPDM, PTFE, FPM
Valve seat:	Aluminium	Stainless steel
Max. flow rate:	715 l/min.	715 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):	4.5 m wc	4.5 m wc
Displacement per chamber:	1910 cm <sup>3</sup>	1910 cm <sup>3</sup>
Displacement per cycle:	3820 cm <sup>3</sup>	3820 cm <sup>3</sup>
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 inner thread	3/4" BSP inner thread
Suction:	Flange DIN DN50 PN10/ ASME B16.5 2" class150 or 2" BSP inner thread (included)	2" BSP inner thread
Pressure joint:	Flange DIN DN50 PN10/ ASME B16.5 2" class150 or 2" BSP inner thread (included)	2" BSP inner thread
Weight:	44.0 kg	54.0 kg

\*Measured with standard muffler mounted.

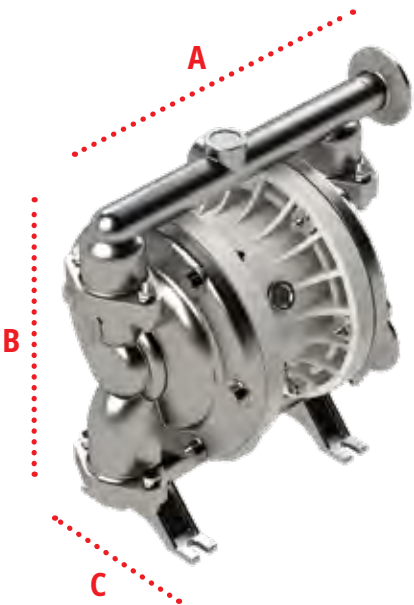


## Description of material:

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

# Modell 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 246.5 B 253 C 160

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

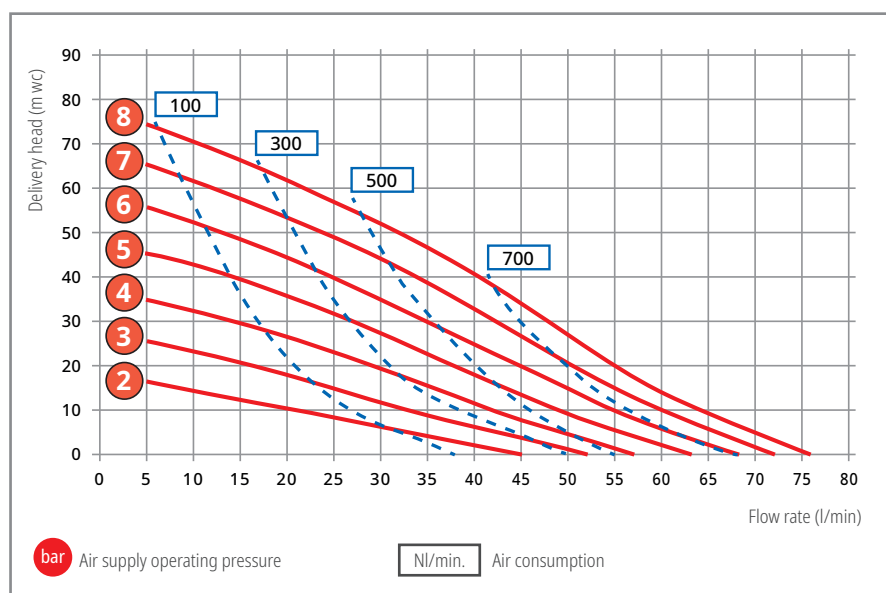


Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 1/2" SST PURE	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5224-410



## Operating data/ dimensions/ weights

	AODD 1/2" PURE (Stainless steel)
Housing material:	Stainless steel 1.4404 (316 L) electropolished
Centre block material:	Polypropylene (reinforced with fibreglass)
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 <sup>3</sup>
Displacement per cycle:	150 cm <sup>3</sup>
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 inner 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

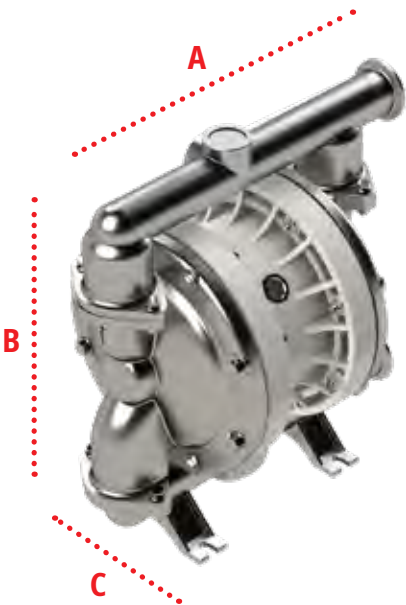


### Description of material:

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

# Modell 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** 321.5 **C** 203.5

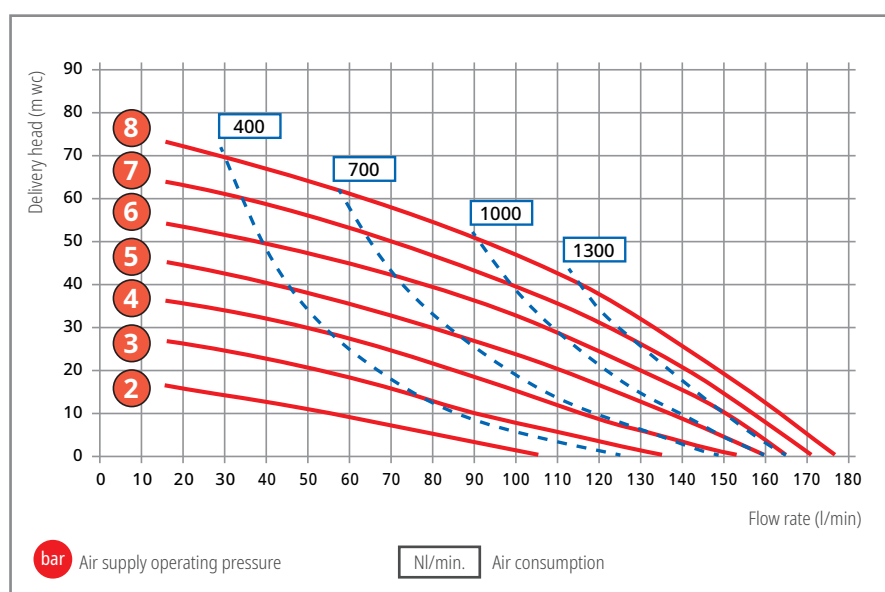
Dimensions in mm  
Detailed dimensioned drawings are available for download on our website.



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 (reinforced with fibreglass)
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 <sup>3</sup>
Displacement per cycle:	440 cm <sup>3</sup>
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 inner 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

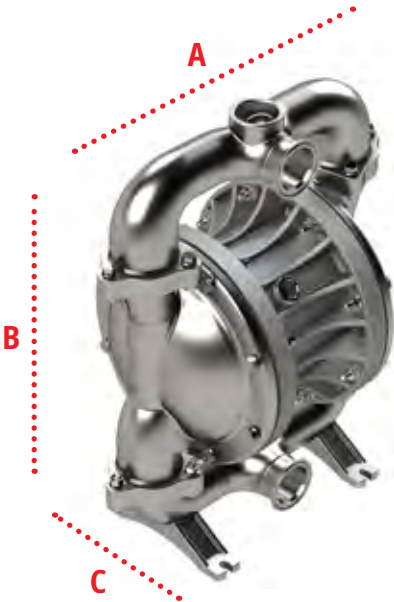


## Description of material:

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.



In contrast to the figure, 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

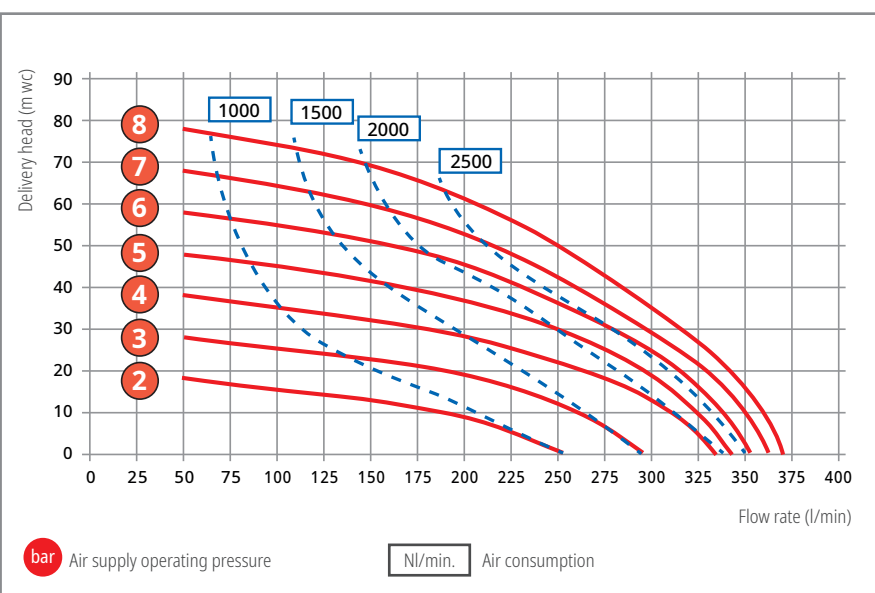
\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC T135°C Db



## 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 <sup>3</sup>
Displacement per cycle:	1340 cm <sup>3</sup>
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 inner 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.

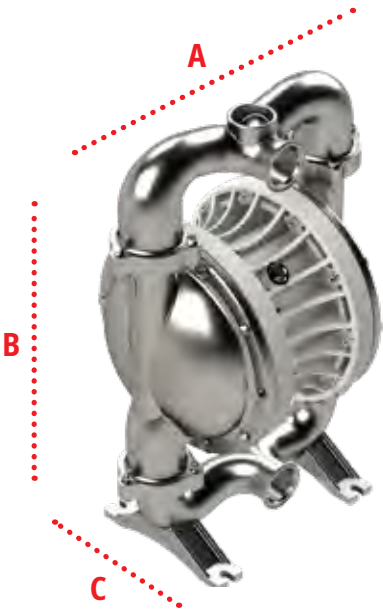


### Description of material:

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

# Modell 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.



In contrast to the figure, the outlet connection is delivered rotated by 180°.

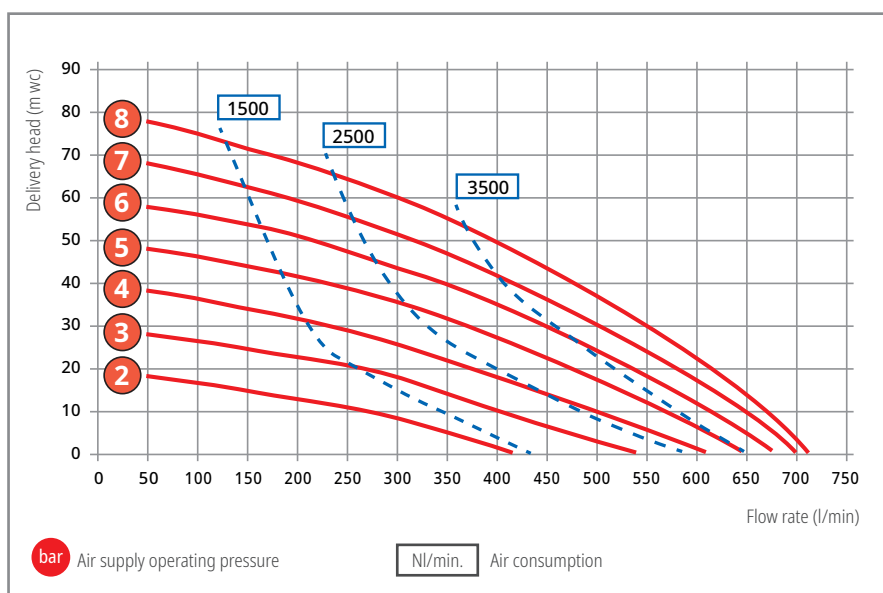
Pump type	Materials				Order No.
	Housing	Diaphragms	Check balls	Seals	
AODD 2" SST Ex PURE* 	Stainless steel	TPV (EPDM-PP) + TFM (PTFE)	PTFE	PTFE	5254-410

\*II 2 G Ex h IIC T4 Gb / II 2 D Ex h IIIC 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 <sup>3</sup>
Displacement per cycle:	3820 cm <sup>3</sup>
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 inner 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



Product detail	Specification	Order No.
<b>Pipe fitting</b>		
	Permits direct connection of hoses on pressure joint/suction joint of the pump.	
	PP DN 8 x G 1/4 OT AODD 1/4" PVDF DN 8 x G 1/4 OT AODD 1/4"	5000-314 5000-315
<b>Coupling connector</b>		
	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 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
<b>Hose connections</b>		
	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
<b>Hose connections</b>		
	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.
 	<b>Hose connections with Tri-clamp</b>	
	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:	
	Tri-Clamp 1" and 1 1/2"      DN 19 (3/4")      EPDM      1/2" and 1" PURE	<b>0204-870</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 19 (3/4")      FPM      1/2" and 1" PURE	<b>0204-871</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 25 (1")      EPDM      1/2" and 1" PURE	<b>0204-872</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 25 (1")      FPM      1/2" and 1" PURE	<b>0204-873</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 32 (1 1/4")      EPDM      1/2" and 1" PURE	<b>0204-874</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 32 (1 1/4")      FPM      1/2" and 1" PURE	<b>0204-875</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 38 (1 1/2")      EPDM      1/2" and 1" PURE	<b>0204-876</b> ■
	Tri-Clamp 1" and 1 1/2"      DN 38 (1 1/2")      FPM      1/2" and 1" PURE	<b>0204-877</b> ■
	Tri-Clamp 2"      DN 38 (1 1/2")      EPDM      1 1/2" PURE	<b>0172-746</b> ■
	Tri-Clamp 2"      DN 38 (1 1/2")      FPM      1 1/2" PURE	<b>0204-878</b> ■
	Tri-Clamp 2"      DN 50 (2")      EPDM      1 1/2" PURE	<b>0204-879</b> ■
	Tri-Clamp 2"      DN 50 (2")      FPM      1 1/2" PURE	<b>0204-880</b> ■
	<b>Reducing nipple (product side)</b>	
	PP      G 1/2 OT x G 1 1/4 OT      AODD 1/2"	<b>5000-060</b>
	PVC      G 1/2 OT x G 1 OT      AODD 1/2"	<b>5000-065</b>
	PVC      G 1/2 OT x G 1 1/4 OT      AODD 1/2"	<b>5000-066</b>
	PVDF      G 1/2 OT x G 1 1/4 OT      AODD 1/2"	<b>5000-061</b>
	Stainless steel (1.4571)      G 1/2 OT x G 3/4 OT      AODD 1/2"	<b>5000-067</b>
	Stainless steel (1.4571)      G 1/2 OT x G 1 OT      AODD 1/2"	<b>5000-068</b>
	Stainless steel (1.4571)      G 1/2 OT x G 1 1/4 OT      AODD 1/2"	<b>5000-063</b>
	Brass      G 1/2 OT x G 1 1/4 OT      AODD 1/2"	<b>5000-064</b>
	PP      G 1 OT x G 1 1/4 OT      AODD 1"	<b>0373-076</b>
	PVC      G 1 OT x G 1 1/4 OT      AODD 1"	<b>5000-069</b>
	PVDF      G 1 OT x G 1 1/4 OT      AODD 1"	<b>5000-071</b>
	Brass      G 1 OT x G 1 1/4 OT      AODD 1"	<b>5000-072</b>
	Stainless steel (1.4571)      G 1 OT x G 1 1/4 OT      AODD 1"	<b>5000-073</b>
	<b>Hexagonal double nipple (product side)</b>	
	Stainless steel (1.4571)      G 1/2 OT      AODD 1/2"	<b>0300-008</b>
	Stainless steel (1.4571)      G 1 OT      AODD 1"	<b>0300-143</b>
	Stainless steel (1.4571)      G 1 1/2 OT      AODD 1 1/2"	<b>0300-134</b>
	Stainless steel (1.4571)      G 2 OT      AODD 2"	<b>0300-105</b>
	<b>Threaded flanges</b>	
	Complete with screws and seals	
	PP      DN 40 x G 1 1/2 OT      AODD 1 1/2"	<b>5000-620</b>
	PVDF      DN 40 x G 1 1/2 OT      AODD 1 1/2"	<b>5000-621</b>
	Alu      DN 38 x G 1 1/2 OT      AODD 1 1/2"	<b>5000-260</b>
	Stainless steel (1.4571)      DN 40 x G 1 1/2 OT      AODD 1 1/2"	<b>5000-261</b>
	PP      DN 50 x G 2 OT      AODD 2"	<b>5000-262</b>
	Alu      DN 50 x G 2 OT      AODD 2"	<b>5000-263</b>
	Stainless steel (1.4571)      DN 50 x G 2 OT      AODD 2"	<b>5000-264</b>
	PVDF      DN 50 x G 2 OT      AODD 2"	<b>5000-265</b>







Product detail	Specification	Order No.
<b>Hose connections</b>		
 	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"	<b>5000-102</b> ■
	Stainless steel (1.4571) DN 13 x G 1/2 IT AODD 1/2"	<b>5000-103</b> ■
	Brass DN 19 x G 3/4 IT AODD 1/2"	<b>5000-104</b> ■
	Stainless steel (1.4571) DN 19 x G 3/4 IT AODD 1/2"	<b>5000-105</b> ■
	Brass DN 25 x G 1 OT AODD 1"	<b>0302-010</b> ■
	Brass for mineral oil hose DN 25 x G 1 IT AODD 1"	<b>0302-112</b> ■
	Stainless steel (1.4571) DN 25 x G 1 OT AODD 1"	<b>0302-013</b> ■
	Brass DN 38 x G 1 1/2 IT AODD 1 1/2"	<b>0302-091</b> ■
	Stainless steel (1.4571) DN 38 x G 1 1/2 IT AODD 1 1/2"	<b>0302-092</b> ■
	Brass DN 50 x G 2 IT AODD 2"	<b>5000-100</b> ■
	Stainless steel (1.4571) DN 50 x G 2 IT AODD 2"	<b>5000-101</b> ■
<b>Hose coupling with Tri-clamp</b>		
  	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 <sup>6</sup> 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 	<b>0204-868</b> ■ ■
	Tri-Clamp 2" DN 50 (2") FPM AODD 1 1/2" Ex PURE 	<b>0204-869</b> ■ ■
<b>Suction tube</b>		
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1000 mm Connection: G 1 OT	<b>0204-229</b>
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 OT	<b>0204-355</b>
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1000 mm Connection: G 1 1/4 OT	<b>0204-228</b>
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	<b>0204-356</b>
	PP Outer-Ø 41 mm, Length 1000 mm Connection: G 1 1/4 OT	<b>5000-120</b>
	PP Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	<b>5000-119</b>
	PVDF Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	<b>5000-118</b>
<b>Suction pipe complete drum drainage</b>		
	Stainless steel (1.4571) Outer-Ø 41 mm, Length 1200 mm Connection: G 1 1/4 OT	<b>5000-294</b>
<b>Foot strainer</b>		
	Suitable for suction pipe	
	Stainless steel (1.4571) Outer-Ø 55 mm Mesh size 20 x 2 mm	<b>0204-617</b>
	PP Outer-Ø 55 mm Mesh size 20 x 2 mm	<b>0343-177</b>
	PVDF Outer-Ø 55 mm Mesh size 20 x 2 mm	<b>0343-187</b>



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



■ Suitable for food and luxury foodstuffs, 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.
<b>Suction strainer</b>		
	<p>Suitable for suction hose</p> <p>Stainless steel (1.4571) / PA Stainless steel (1.4571)</p> <p>G 1 1/4 OT G 1 1/4 OT</p>	<p><b>5000-283</b> <b>5000-284</b></p>
<b>Vibration dampener set</b>		
	<p>For vibration damping for free-standing installation consisting of 4 vibration dampeners incl. fixing material</p> <p>with thread M6      AODD 1/4" to AODD 1/2" with thread M8      AODD 1"</p> <p>for vibration damping for foot mounting consisting of 4 vibration dampeners including fixing material AODD 1/4" and AODD 1/2" AODD 1 " AODD 1 1/2" and AODD 2"</p>	<p><b>5000-219</b> <b>5000-218</b></p> <p><b>5000-216</b> <b>5000-215</b> <b>5000-217</b></p>
<b>Equipotential bonding cable</b>		
	<p>Serves to create electrically conductive connection between explosion-proof pump and container as earthing and equipotential bonding function.</p> <p>2 m long      AODD 1/4" to AODD 1" 2 m long      AODD 1 1/2" to AODD 2"</p>	<p><b>5000-700 ■</b> <b>5000-701 ■</b></p>
<b>Hose clips</b>		
	<p>Hose clips made of stainless steel with threaded screw for connecting the different types of hoses to the hose connection.</p> <p>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")</p>	<p><b>0301-156</b> <b>0301-403</b> <b>0301-400</b> <b>0301-401</b> <b>0302-402</b> <b>0302-403</b></p>









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



Product detail	Specification	Order No.
<b>PVC spiral hose, fabric reinforced</b>		
	<p>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.</p> <p>Operating pressure: max. 14 bar Temperature of liquid: -5 up to +65°C</p> <p>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</p>	<p><b>0374-466</b> <b>0374-467</b> <b>0374-468</b> <b>0374-469</b> <b>0374-470</b></p>
<b>PTFE hose</b>		
	<p>Temperature range of application: -30 to +100 °C Operating pressure: max. 6.5 bar at 20 °C</p> <p>Material: PTFE Nominal diameter: DN 8, DN 13</p>	<p>Low pressure: max. 0.7 bar (0.3 bar abs.)</p> <p><b>0374-444</b> <b>0374-445</b></p>
<b>Mineral oil hose</b>		
 	<p>Inner rubber made of NBR, outer rubber made of NBR. Not suitable for the suction operation. Electrically conductive: Type Ω-CL (&lt;10<sup>6</sup> Ohm between the fittings) according to TRbF 50 appendix B (TRbF 131/2).</p> <p>Temperature of liquid: -25 up to +65°C Material: NBR Nominal diameter: DN 13, DN 19, DN 25 Operating pressure: max. 10 bar</p>	<p><b>0374-446</b> ■ <b>0374-461</b> ■ <b>0374-462</b> ■</p>
	<p>Inner rubber NBR, outer rubber chloroprene. Not suitable for the suction operation. Electrically conductive: Type Ω/T (&lt;10<sup>6</sup> Ohm between the fittings, &lt;10<sup>9</sup> Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of liquid: -30 up to +90°C Material: NBR Nominal diameter: DN 32, DN 38, DN 50 Operating pressure: max. 16 bar</p> 	<p><b>0374-413</b> ■ <b>0374-414</b> ■ <b>0374-448</b> ■</p>





Product detail	Specification	Order No.																												
Solvent hose																														
 	<p>Inner rubber made of NBR special, outer rubber made of NBR/PVC-Compound. Electrically conductive: Type Ω/T (&lt;10<sup>6</sup> Ohm between the fittings, &lt;10<sup>9</sup> Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of liquid: -20 up to +80°C</p> <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Low 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:	Low 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.)	<p><b>0374-449</b> ■</p> <p><b>0374-416</b> ■</p> <p><b>0374-417</b> ■</p> <p><b>0374-418</b> ■</p> <p><b>0374-450</b> ■</p> <p><b>0374-451</b> ■</p>
Material:	Nominal diameter:	Operating pressure:	Low 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																														
  	<p>Inner rubber made of cross-linked polyethylene (U-PE), outer rubber made of EPDM. Electrically conductive: Type Ω/T (&lt;10<sup>6</sup> Ohm between the fittings, &lt;10<sup>9</sup> Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of liquid: -30 up to +100°C</p> <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Low 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:	Low 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.)	<p><b>0374-474</b> ■ ■</p> <p><b>0374-475</b> ■ ■</p> <p><b>0374-476</b> ■ ■</p> <p><b>0374-477</b> ■ ■</p> <p><b>0374-478</b> ■ ■</p> <p><b>0374-479</b> ■ ■</p>
Material:	Nominal diameter:	Operating pressure:	Low 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																														
	<p>Inner rubber made of FEP, outer rubber made of EPDM. Electrically conductive: Type Ω-C (&lt;10<sup>6</sup> Ohm between the fittings) according to DIN EN 12115:2011. <b>(NOT suitable for non-conductive, flammable liquids!)</b></p> <p>Temperature of liquid: -30 up to +100°C</p> <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Low 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:	Low 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.)	<p><b>0374-428</b></p> <p><b>0374-429</b></p> <p><b>0374-430</b></p> <p><b>0374-455</b></p> <p><b>0374-456</b></p>				
Material:	Nominal diameter:	Operating pressure:	Low 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																														
 	<p>Inner rubber made of PTFE, outer rubber made of EPDM. Electrically conductive: Type Ω/T (&lt;10<sup>6</sup> Ohm between the fittings, &lt;10<sup>9</sup> Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of liquid: -30 up to +150°C</p> <table><tr><td>Material:</td><td>Nominal diameter:</td><td>Operating pressure:</td><td>Low 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:	Low 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.)	<p><b>0374-481</b> ■</p> <p><b>0374-482</b> ■</p>																
Material:	Nominal diameter:	Operating pressure:	Low 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.)																											



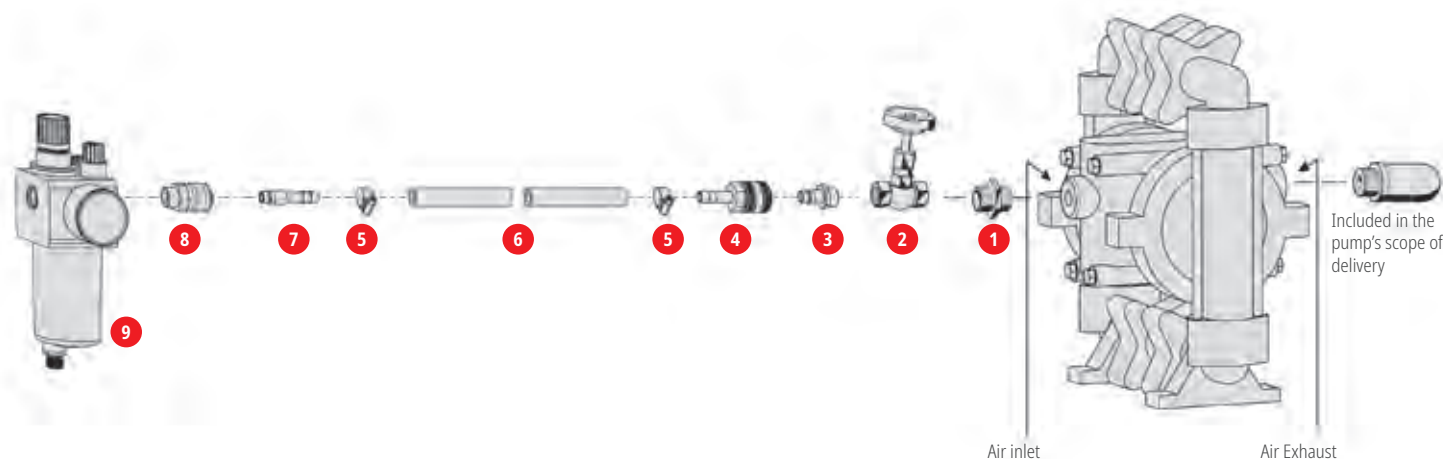
■ Suitable for transferring flammable and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.



■ Suitable for food and luxury foodstuffs, 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.
<b>1</b>	<b>Double nipple</b>	
	Brass G 3/8 OT	<b>0302-157</b>
	Brass G 3/4 OT	<b>5000-171</b>
	<b>Reducing nipple</b>	
	Brass G 1/4 OT x 3/8 IT*	<b>5000-710</b>
	Brass G 1/2 OT x 3/8 IT *	<b>5000-711</b>
	Red cast iron G 1/2 OT x 3/4 OT	<b>0372-007</b>
* Depending on the size, a combination of double and reducing nipple is required		
<b>2</b>	<b>Needle valve</b>	
	Regulates the air volume to the double diaphragm pump	
	Brass G 3/8	AODD 1/4" AODD 1/2 " AODD 1 "
	Brass G 3/4	AODD 1 1/2" AODD 2 "
<b>3</b>	<b>Nipple (male part)</b>	
	Brass (NW 7,2) G 3/8 OT	AODD 1/4" AODD 1/2 " AODD 1 "
	Brass (NW 7,2) G 1/2 OT (When using an air flow control valve)	AODD 1/4" AODD 1/2" AODD 1 "
	Brass (NW 10) G 3/4 OT	AODD 1 1/2" AODD 2 "

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



# 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)		
		PP (in contact with the product)	EPDM	5000-351
	PD III D – P – T	PP (not in contact with the product)		
		PP (in contact with the product)	PTFE	5000-352
	PD III D – P – V	PP (not in contact with the product)		
		PP (in contact with the product)	FPM	5000-353
	PD III D – K – T	PVDF (in contact with the product)	PTFE	5000-354
		PVDF (not in contact with the product)		
	PD III D – S – T Ex II 2 GD IIB T4	Stainless steel, 1.4571 ( in contact with the product)	PTFE	5000-357 ■
		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.

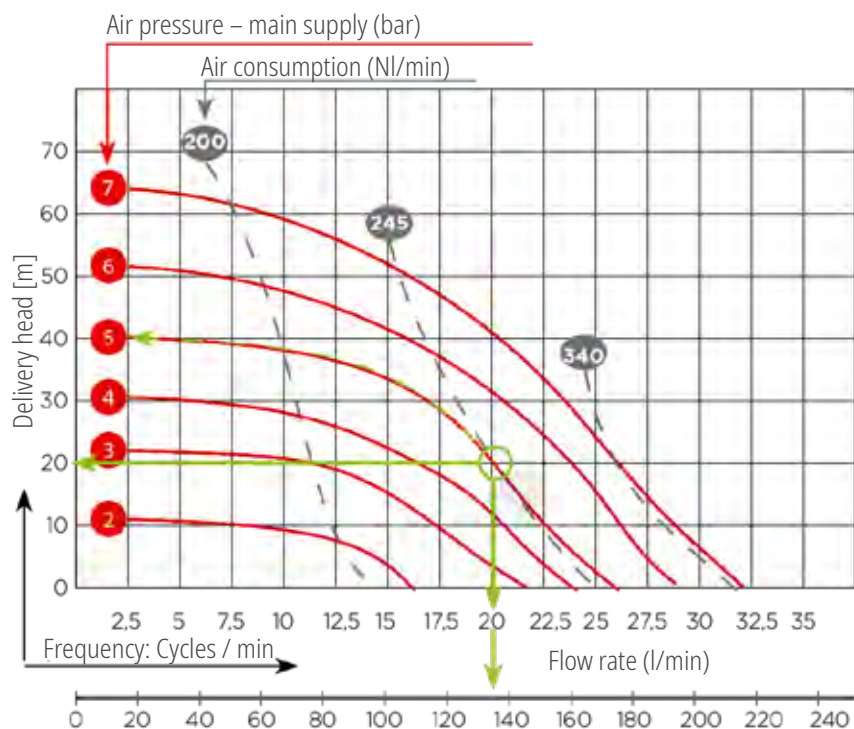
Product detail	Specification			Order No.
 	<b>Type</b>	<b>Housing material</b>	<b>Diaphragms</b>	
	DT 50 PN DT 50 PE DT 50 PT DT 50 TT	PE (in contact with the product) PE (in contact with the product) PE (in contact with the product) PTFE (in contact with the product)	NBR EPDM PTFE PTFE	<b>5000-410</b>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



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



# Advices for selecting a double diaphragm pump

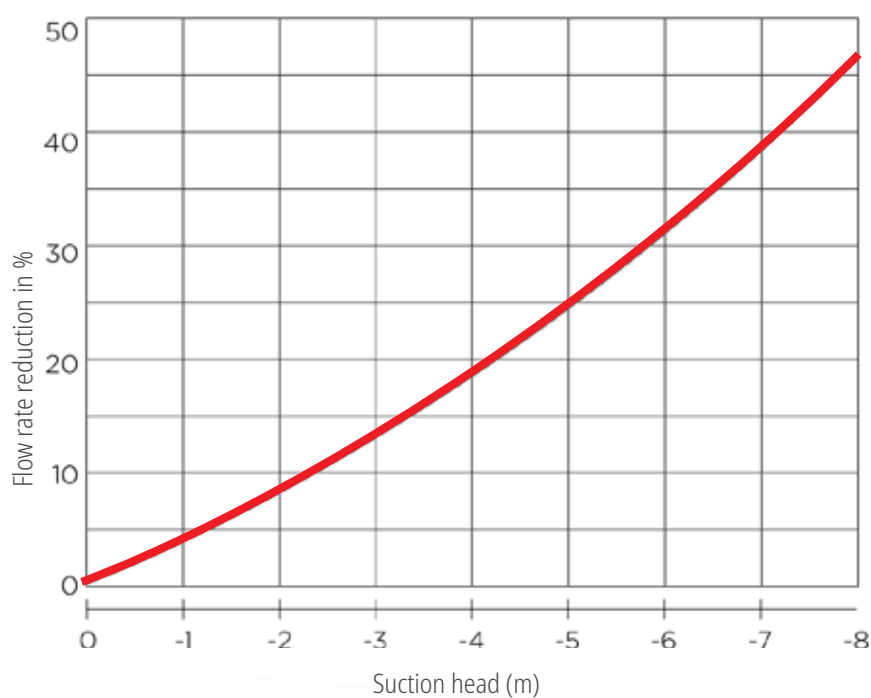


## Operating point – Example:

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

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

## Percentage flow reduction in relation to the suction head

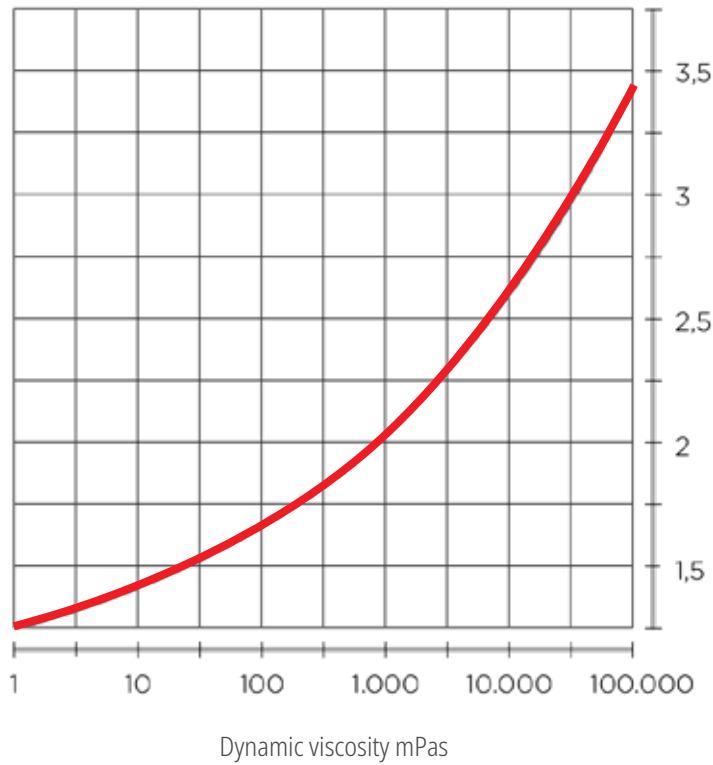


If liquids have to be sucked in from a lower level, this reduces the flow rate of the pump.

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

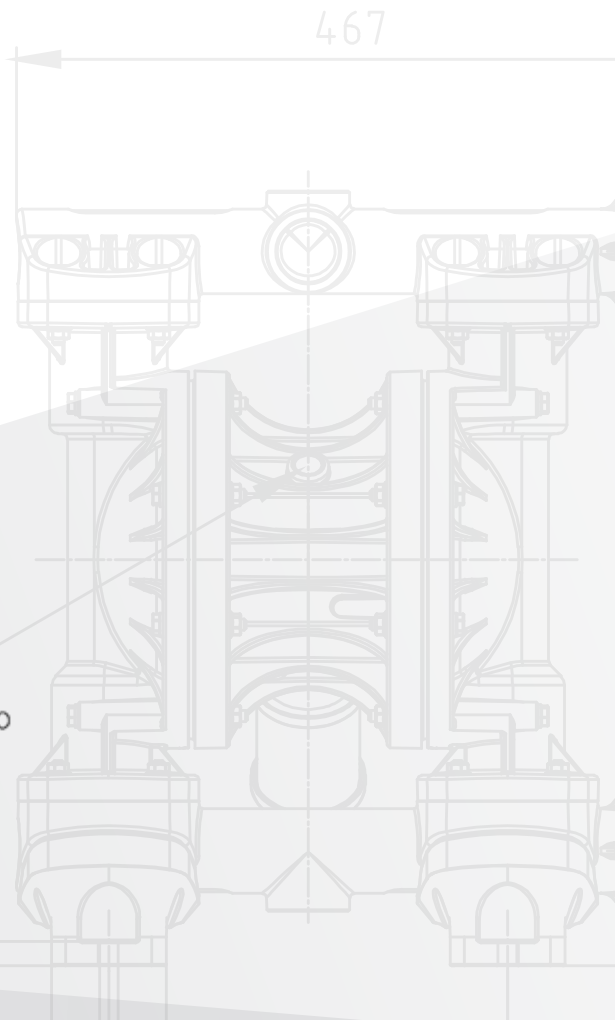
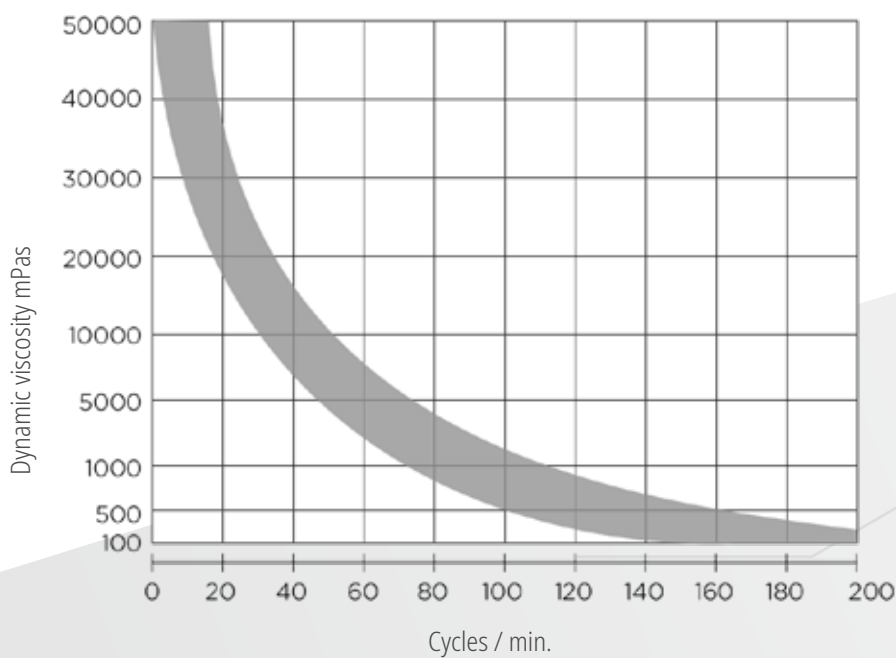
**Multiplication coefficient for  
pipe line diameter**



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**





State of the art 04.2022 Order No. 0699-382

**Now to the newsletter**  
and never miss any news!



Follow  
us on:



**Lutz Pumpen GmbH**

Erlenstraße 5-7 | D-97877 Wertheim | Telefon 0 93 42 / 8 79-0 | [info@lutz-pumpen.de](mailto:info@lutz-pumpen.de) | [www.lutz-pumpen.de](http://www.lutz-pumpen.de)