



The Double Diaphragm Pumps Program With Lutz Through Thick and Thin

Oilfree, low maintenance, service-friendly

Non-metallic and metallic

Sizes 1/4" up to 3"



Safety is our Concern

Lutz Double Diaphragm Pumps

Products on which you can rely



Oilfree, low maintenance, service-friendly

The Lutz Air Operated Double Diaphragm Pumps are a natural complement to the Lutz range of pumps.

The fundamental similarities are found in their simplicity, versatility, ease of handling and maintenance.

The Lutz Air Operated Double Diaphragm Range has a size and materials of construction to suit your needs.

The pump range comprises a 1/4" (0.25) size all the way to a 3" (3.0) size.

Pumps are available in: Polypropylene (PP), polyvinylidene fluoride (PVDF), polyamide (PA), stainless steel and aluminium.

Lutz is proud to have created a Distributor Network, to provide you with quality products and an excellent After-Sales Service worldwide.

Lutz Air Operated Double Diaphragm Pumps are ATEX Certified, and Lutz Pumpen is certified to DIN EN ISO 9001.



Benefits for the customer

- ✓ High compatibility of parts
- ✓ Reduced stock of spare parts
- ✓ Service-friendly construction
- ✓ High dependability through modern valve technology
- ✓ Hermetically sealed system
- ✓ No leakage and contamination in the compressed air system due to a novel valve technique
- ✓ Reduced operating costs
- ✓ Gentle pumping of liquids and pastes

Advantages of the product

- ✓ Absolutely lube free valve
- ✓ Corrosion free materials of construction
- ✓ Non-stalling function at low pressures
- ✓ Conductive materials available

Further typical advantages of the Double Diaphragm Pumps

- ✓ Can safely run dry
- ✓ Can be regulated continuously
- ✓ Minimal product shear
- ✓ Self-priming dry or wet
- ✓ No dynamic seals
- ✓ Portable



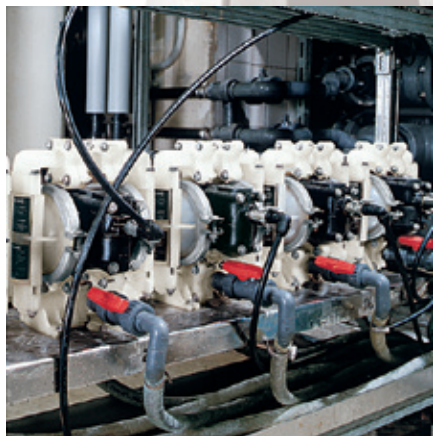
Installation capabilities

A variety of applications

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

Stationary or mobile installation

The pump can be installed either permanently or so that they can be transported from one point of application to another as required. Liquids can be pumped from drums and portable or fixed tanks to other containers, or to specific application locations.



Self-priming with portable containers

When pumping abrasive, dense and/or highly viscous liquids from drums and containers, the Lutz double diaphragm pumps are ideally suited.

To facilitate this applications, the 1/2" and 1" sizes can be supplied with suction pipe and adapter.

Self-priming

When the suction is below the level of the liquid, the pump has to prime the medium. In dry conditions, the Lutz double diaphragm pumps will prime to 4.5 m wc (PTFE versions app. 3 m wc). If the suction pipe is filled, a suction head up to 9 m wc can be reached.

Flooded suction

When the liquid level is above the suction of the pump, the pump suction is considered positive or flooded. Under this condition the intake can be regulated by a suitably sized valve.

Submerged operation

The pumps can also be operated when submerged. Care should be taken with respect to the materials in contact with the liquid, and that the air outlet is above the liquid level.

Lutz Double Diaphragm Pumps

Common examples of pump applications

DMP 1/4"

For the laboratory sector, small plants, requirements with small delivery volume at relatively high pressure.

Delivery rate: up to 16 l/min
 Delivery head: up to 6.8 bar
 Materials: PP, PVDF, PA

DMP 3/8"

Chemical recirculation and feed, liquids with solid particles, e.g. paints and lacquers, electroplating, etc.

Delivery rate: up to 34 l/min
 Delivery head: up to 8.2 bar
 Materials: PP, PVDF, PA

DMP 1/2"

200-l-drum pumping, ink recirculation and feed, chemicals, solvents, acids, soap dispensing.

Delivery rate: up to 65 l/min
 Delivery head: up to 8.2 bar
 Materials: PP, PVDF, PA, Aluminium, Stainless Steel

DMP 1"

Drum and small tank transfer, pickling solutions, chemical feed.

Delivery rate: up to 182 l/min
 Delivery head: up to 8.2 bar
 Materials: PP, PVDF, Aluminium, Stainless Steel

DMP 1 1/2"

Filter press, tank cleaning systems, pigments and resins.

Delivery rate: up to 492 l/min
 Delivery head: up to 8.2 bar
 Materials: PP, PVDF, Aluminium, Stainless Steel

DMP 2"

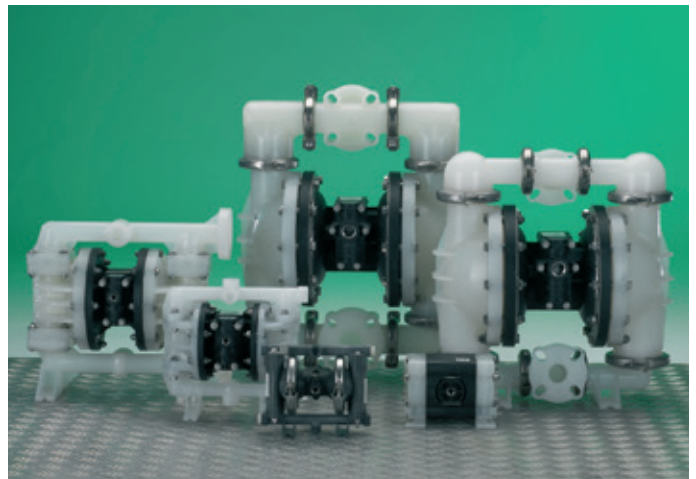
Paint, latex, ceramic slip, slurries, polymers, tank car fill and empty, foods.

Delivery rate: up to 719 l/min
 Delivery head: up to 8.2 bar
 Materials: PP, PVDF, Aluminium, Stainless Steel

DMP 3"

Paint, latex, ceramic slip, slurries, polymers, tank car fill and empty.

Delivery rate: up to 954 l/min
 Delivery head: up to 8.2 bar
 Materials: Aluminium, Stainless Steel



Size

DMP 1/4"

DMP 3/8"

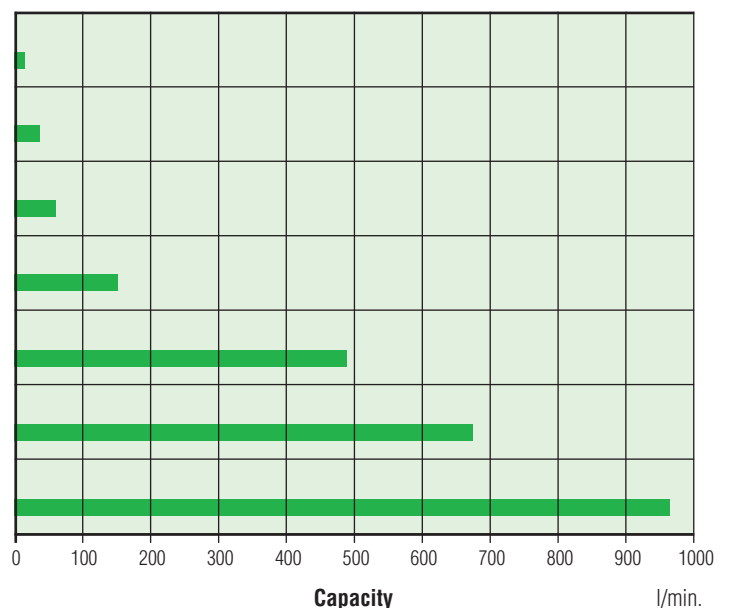
DMP 1/2"

DMP 1"

DMP 1 1/2"

DMP 2"

DMP 3"



Lutz Double Diaphragm Pumps

How it works

In design, the Lutz Double Diaphragm Pumps reflects the state of the art. The pump can be easily disassembled, repaired and reassembled in a short time.

How it works:

By supplying compressed air to the air valve, air is ported through the air valve piston (either in an upward or downward position) into the center block where two directional ports direct air to the left or right side of the pump (depending on air valve piston position). When in the air chamber, the air pressure is applied on the back side of one diaphragm forcing the product out of the liquid chamber into the discharge manifold.

As the two diaphragms are connected by a diaphragm connecting rod, or shaft, the other diaphragm is pulled toward the center of the pump. This action causes the other side to draw product into the pump on a suction stroke.

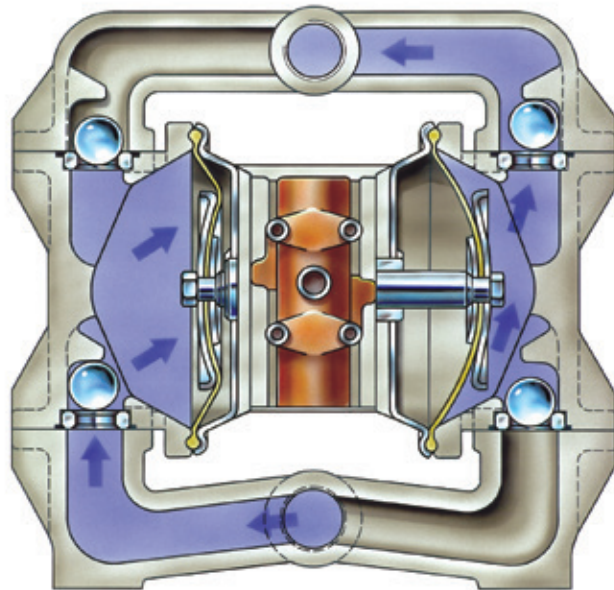
Ball valves open and close alternately to fill chambers, empty chambers, and block backflow.

At the end of the shaft stroke, the air mechanism (air valve piston) automatically shifts the air pressure to (opposite side) reverse the action of the pump, simply put a 1:1 ratio reciprocating pump.

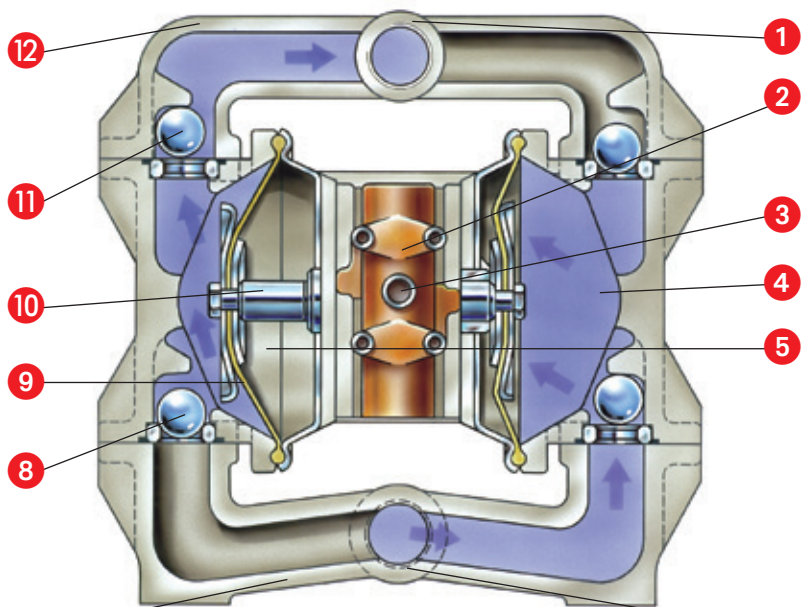
Air pressure supplied to the pump is directly related to the output of liquid and pressure (6.8 bar air in, 6.8 bar discharge).

The pump has two liquid chambers, two air chambers and two diaphragms. In each pair of chambers, the liquid and air chambers are separated by a flexible diaphragm. Each diaphragm is sandwiched between two supporting plates and bolted to a common shaft. This diaphragm-shaft assembly moves back and forth

as compressed air, directed by the air valve shuttle, enters or exhausts either the right or left air chamber. Each liquid chamber is equipped with two ball type check valves which automatically control the flow of fluid through the chambers and manifolds of the pump.



Right side: Discharge
Left side: Suction intake



Left side: Discharge
Right side: Suction intake

- 1 Discharge
- 2 Shuttle air outlet
- 3 Air inlet
- 4 Liquid chamber
- 5 Air chamber
- 6 Suction
- 7 Inlet manifold
- 8 Inlet check valve Ball type
- 9 Diaphragm
- 10 Diaphragms-connecting-shaft
- 11 Outlet check valve Ball type
- 12 Outlet manifold

Anti-Stop Valve System

The heart of the Lutz Double Diaphragm Pump



Advantages of the Product

For the entire air system of the Lutz Double Diaphragm Pumps, i. e. for the centre block as well as for the anti-stop valve, quality materials are used. Resulting in the following benefits:

Absolutely lube-free

- ✓ No contaminating of the environment or of the product itself by oil vapour
- ✓ No lubrication required
- ✓ No risk of pump failure due to poor lubrication

Non-stalling operation

- ✓ Pump works at low pressure and low stroke frequency without stalling
- ✓ Continuous operation is possible
- ✓ Immediate start up after stopping

Weight reduction

- ✓ Facilitates handling, especially with portable applications, and installation

Construction features

The valve spool is constructed of Delrin (Acetal), a material which is often and successfully used for pump bearings. The surface of the spool has a very low roughness value. This guarantees a minimal friction between spool, air valve bore and lip seals.

The shuttle valve is made of a self-lubricating polyamide compound. The valve plate is of hard-chrome plated steel, whereas the surfaces of both components are lapped. The minimisation of surface contact differences result in the least possible friction.

Description of Function

The valve spool is shifted by the supply air. This flows through the air valve and the centre block.

The supply air in the centre block is controlled by the diaphragm shaft, which simultaneously also serves as pilot shaft. From the compressed air in the centre block a constant partial current affects the valve spool. This prevents the stalling of the spool and the diaphragm shaft. The combination of materials, the shape of the shuttle valve, and the valve plate collectively reduce heating due to friction.

The use of Acetal for the pilot sleeve of the diaphragm shaft and of Polyurethane for the O-rings, result in an extraordinary lubrication-free and wear-proof air valve. The combination of self-lubricating material for the shuttle valve, the lapped and wear-proof surfaces of shuttle valve and valve plate and the correct material for the valve spool guarantee a lubrication-free operation over the entire life of the pump.

Lutz Double Diaphragm Pumps



Model 1/4" Bolted Version (non-metallic)

Operating data / Dimensions / Weights			
	DMP 1/4" PP	DMP 1/4" PVDF	DMP 1/4" PA
Housing material:	Polypropylene	Polyvinylidene fluoride	Polyamide
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	PTFE	PTFE, TPV (EPDM-PP)
Valve material:	PTFE	PTFE	PTFE
Seals:	NBR, EPDM, PTFE	PTFE	PTFE, EPDM
Max. flow rate:	16 l/min.	16 l/min.	16 l/min.
Suction lift dry:	5.2 m	5.2 m	5.2 m
Suction lift PTFE:	5 m	5 m	5 m
Operating pressure:	max. 6.8 bar	max. 6.8 bar	max. 6.8 bar
Temperature limits:	66 °C	93 °C	66 °C
Solids handling:	max. ø 1.6 mm	max. ø 1.6 mm	max. ø 1.6 mm
Air inlet:	1/4" NPSF female (G 1/2 BSP female) ¹⁾	1/4" NPSF female (G 1/2 BSP female) ¹⁾	1/4" NPSF female (G 1/2 BSP female) ¹⁾
Air outlet:	1/4" NPSF female	1/4" NPSF female	1/4" NPSF female
Suction:	1/4" BSP female	1/4" BSP female	1/4" BSP female
Discharge:	1/4" BSP female	1/4" BSP female	1/4" BSP female
Weight:	2.3 kg	3.2 kg	2.3 kg

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene

Type	Materials of construction		Order No.
	Housing	Diaphragm, Seals	
DMP 1/4" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), NBR	5700-000
DMP 1/4" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), EPDM	5700-020
DMP 1/4" PPT PP/PTFE	PP	PTFE, PTFE	5700-040
DMP 1/4" KNT PVDF/PTFE	PVDF	PTFE, PTFE	5700-100
DMP 1/4" NEC PA/TPV (EPDM-PP) 	PA	TPV (EPDM-PP), EPDM	5700-180
DMP 1/4" NTC PA/PTFE* 	PA	PTFE, PTFE	5700-140

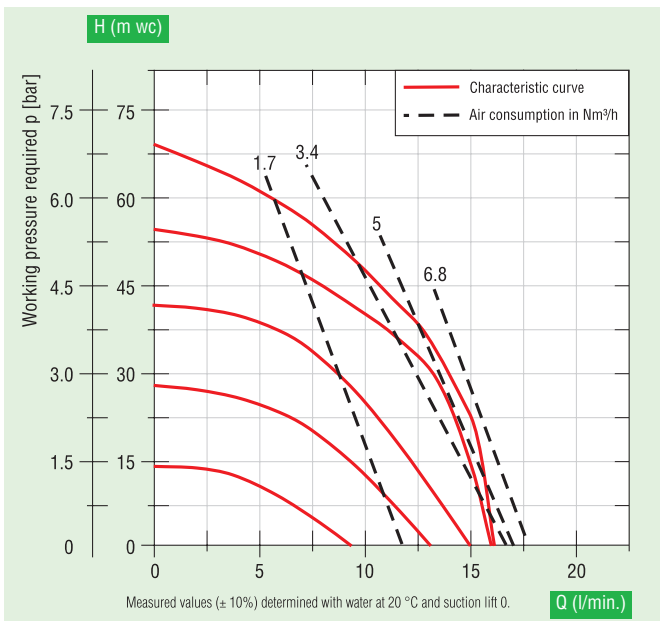
*conductive version Ex II 2 G c T4

Lutz Double Diaphragm Pumps

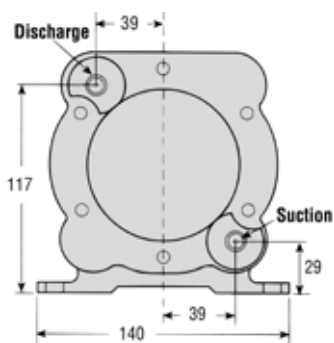
Model 1/4" Bolted Version (non-metallic)

Typical application:

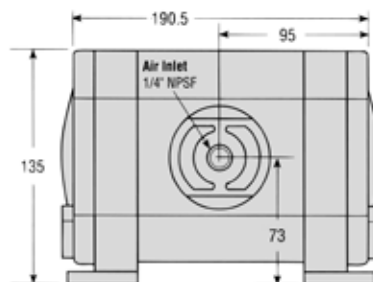
For the laboratory sector, small plants, requirements with small delivery volume at relatively high pressure



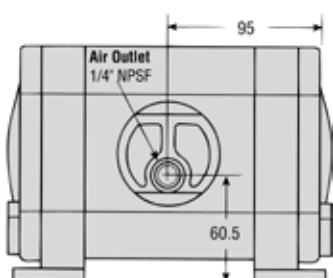
 Suitable range of accessories see pages 34-47.



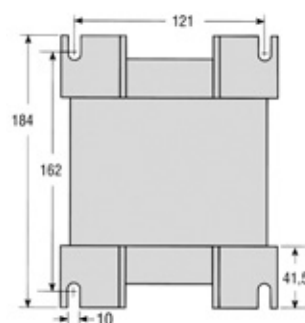
Side View



Front View



Rear View



Mounting Positions

Individual datasheets on request.
Dimensions in mm

Lutz Double Diaphragm Pumps




Model 3/8" Clamped Version (non-metallic)

Operating data / Dimensions / Weights			
	DMP 3/8" PP	DMP 3/8" PVDF	DMP 3/8" PA
Housing material:	Polypropylene	Polyvinylidene fluoride	Polyamide
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (EPDM-PP), PTFE	TPV (NBR-PP), PTFE
Valve material:	NBR, EPDM, PTFE, FPM	EPDM, PTFE, FPM	NBR, PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	EPDM, PTFE, FPM	NBR, PTFE, FPM
Valve seat PTFE:	PP	PVDF	Stainless Steel
Max. flow rate:	34 l/min.	34 l/min.	34 l/min.
Suction lift dry with Max-Pass Valve™	5.2 m	5.2 m	5.2 m
Suction lift (PTFE):	3 m	3 m	3 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar	max. 8.2 bar
Temperature limits:	66 °C	93 °C	66 °C
Solids handling: with Max-Pass Valve™	max. ø 6.4 mm	max. ø 6.4 mm	max. ø 6.4 mm
Solids handling:	max. ø 1.6 mm	max. ø 1.6 mm	max. ø 1.6 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/8" NPT female	3/8" NPT female	3/8" NPT female
Suction:	3/8" BSP female	3/8" BSP female	3/8" BSP female
Discharge:	3/8" BSP female	3/8" BSP female	3/8" BSP female
Weight:	1.7 kg	2.3 kg	2.3 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

Type	Materials of construction			Order No.
	Housing	Diaphragm	Valve balls, Seals	
DMP 3/8" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP)	NBR, NBR	5706-000
DMP 3/8" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP)	EPDM, EPDM	5706-020
DMP 3/8" PPT PP/PTFE	PP	PTFE	PTFE, PTFE	5706-040
DMP 3/8" PPV PP/FPM	PP	PTFE	FPM, FPM	5706-060
DMP 3/8" KNE PVDF/TPV (EPDM-PP)	PVDF	TPV (EPDM-PP)	EPDM, EPDM	5706-080
DMP 3/8" KNT PVDF/PTFE	PVDF	PTFE	PTFE, PTFE	5706-100
DMP 3/8" KNV PVDF/FPM	PVDF	PTFE	FPM, FPM	5706-120
DMP 3/8" NTC PA/PTFE*	 PA	PTFE	PTFE, PTFE	5706-140
DMP 3/8" NBC PA/TPV (NBR-PP)*	 PA	TPV (NBR-PP)	NBR, NBR	5706-160
DMP 3/8" NVC PA/FPM*	 PA	PTFE	FPM, FPM	5706-180

*conductive version Ex II 2 G c T4

Lutz Double Diaphragm Pumps

Model 3/8" Clamped Version (non-metallic)

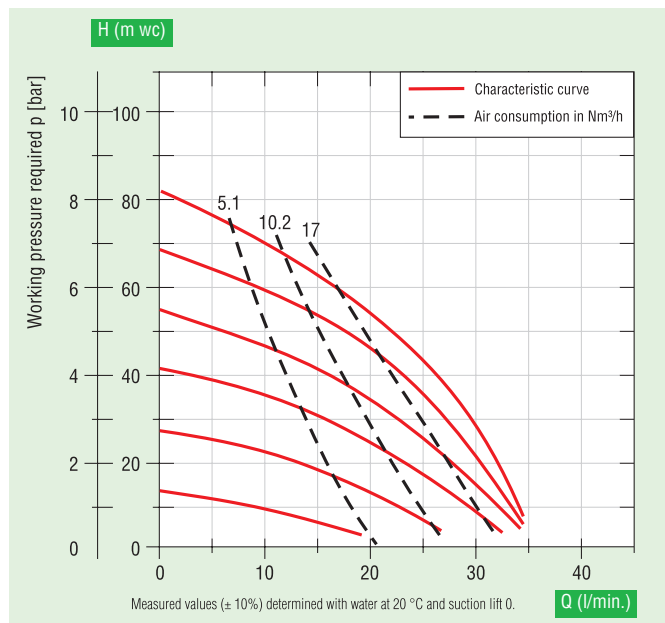
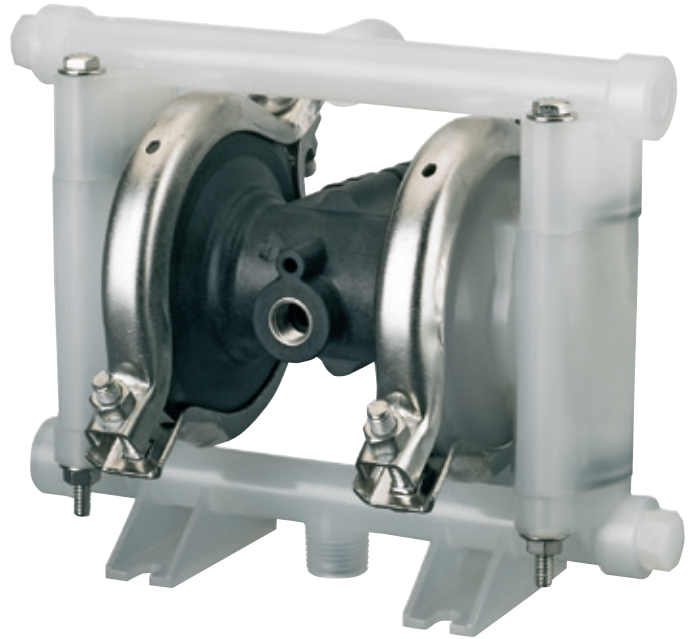
Typical application:

Chemical recirculation and feed, liquids with solid particles, e.g. paints and lacquers, electroplating, etc.

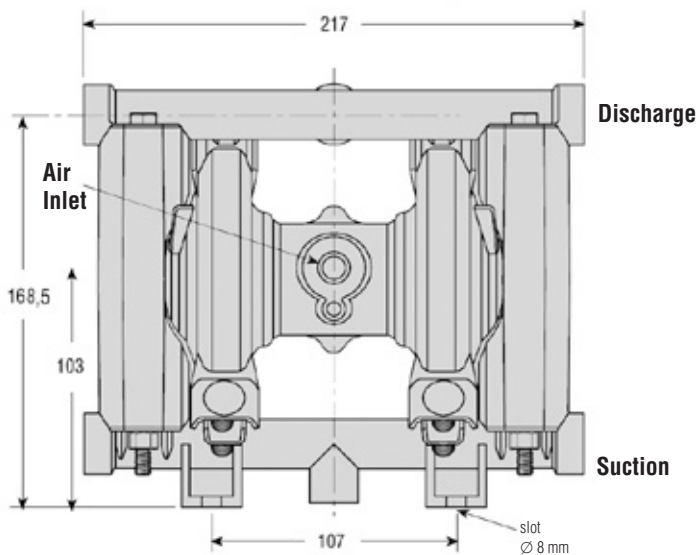


Max-Pass™ included
(Details see page 47)

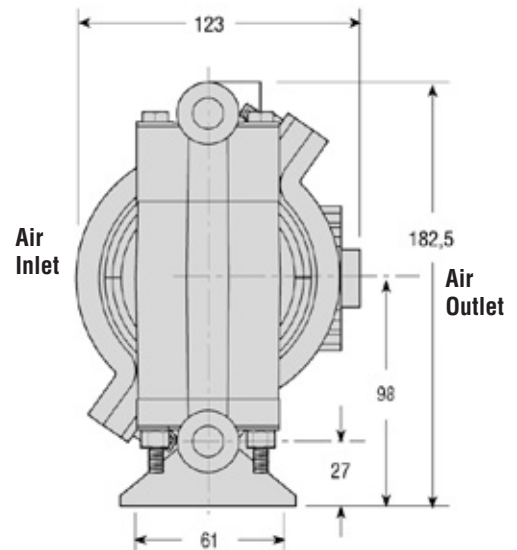
PTFE versions with ball valve.



 Suitable range of accessories see pages 34-47.



Front View



Side View

Individual datasheets
on request.
Dimensions in mm

Lutz Double Diaphragm Pumps

Model 1/2" Clamped Version (non-metallic)

Operating data / Dimensions / Weights		
	DMP 1/2" PP	DMP 1/2" PVDF
Housing material:	Polypropylene	Polyvinylidene fluoride
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE
Seals:	NBR, EPDM, PTFE, FPM	PTFE
Valve seat:	PP	PVDF
Max. flow rate:	53 l/min.	53 l/min.
Suction lift dry:	4.5 m	4.5 m
Suction lift PTFE:	3 m	3 m
Operating pressure:	max. 6.8 bar	max. 6.8 bar
Temperature limits:	66 °C	93 °C
Solids handling:	max. ø 3.1 mm	max. ø 3.1 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/8" NPT female	3/8" NPT female
Suction:	1/2" BSP female	1/2" BSP female
Discharge:	1/2" BSP female	1/2" BSP female
Weight:	3.6 kg	4.9 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

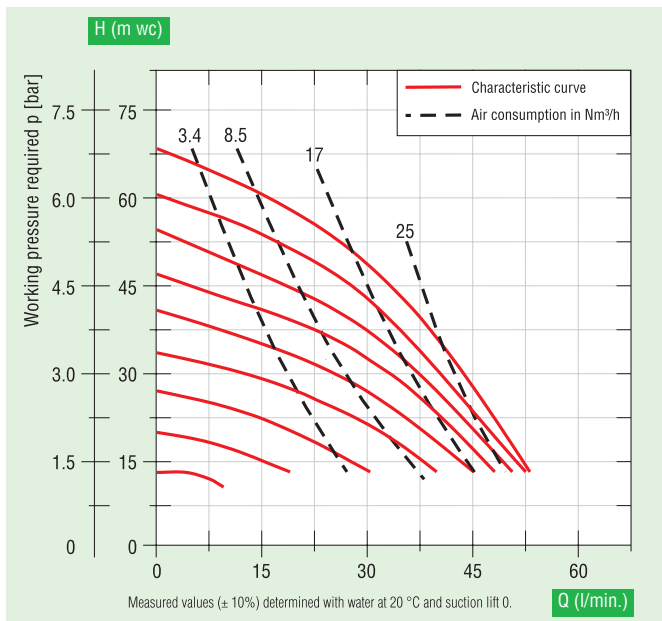
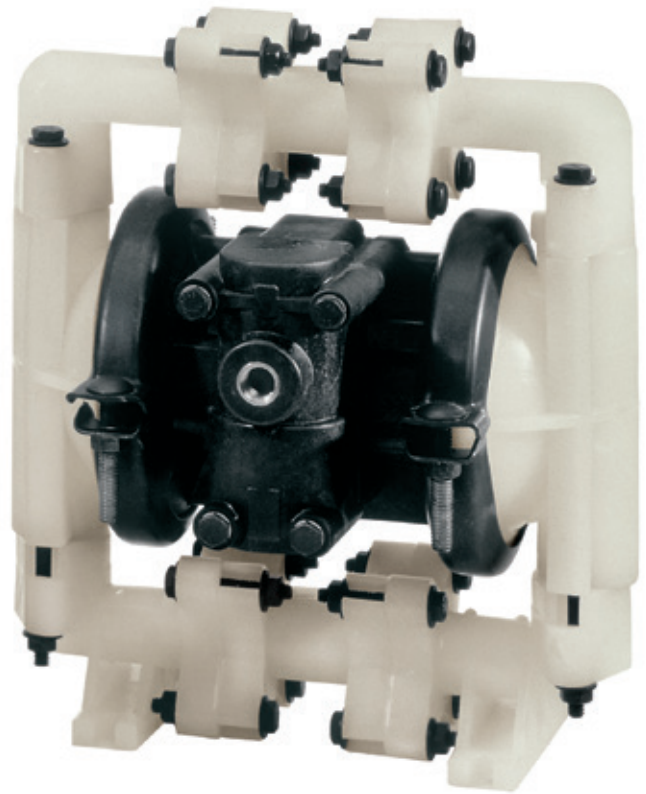
Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1/2" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5701-000
DMP 1/2" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5701-020
DMP 1/2" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5701-100
DMP 1/2" PPV PP/FPM	PP	FPM, FPM, FPM	5701-120
DMP 1/2" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5701-080

Lutz Double Diaphragm Pumps

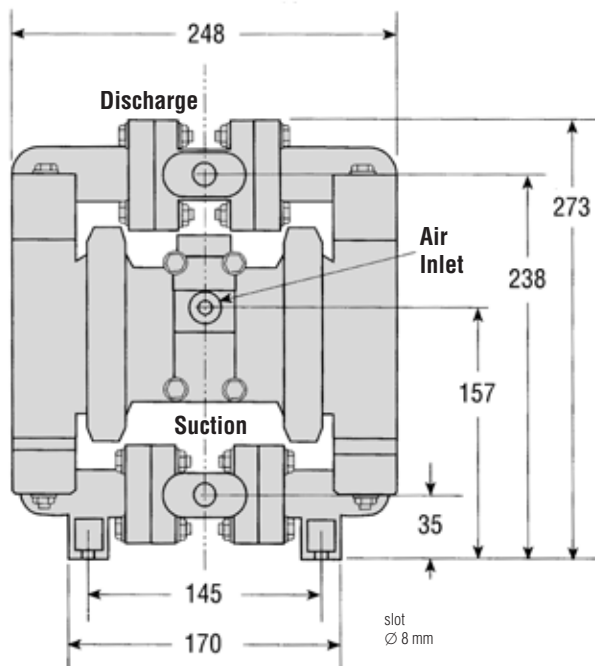
Model 1/2" Clamped Version (non-metallic)

Typical application:

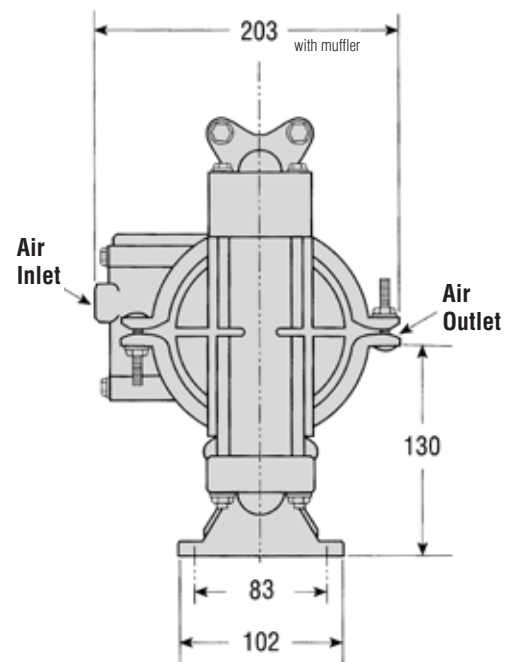
200 l-drum pumping, ink recirculation and feed, chemicals, solvents, acids, soap dispensing



 Suitable range of accessories see page 34-47.



Front View



Side View

Individual datasheets on request.
Dimensions in mm

Lutz Double Diaphragm Pumps

Model 1/2" Bolted Version (non-metallic)

Operating data / Dimensions / Weights			
	DMP 1/2" PP	DMP 1/2" PVDF	DMP 1/2" PA
Housing material:	Polypropylene	Polyvinyliden fluoride	Polyamide
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE	PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), NBR, EPDM, PTFE, FPM	PTFE	PTFE
Seals:	NBR, EPDM, PTFE, FPM	PTFE	PTFE
Valve seat:	PP	PVDF	PA, SS*
Max. flow rate:	65 l/min.	65 l/min.	65 l/min.
Suction lift dry with Max-Pass™ Valve:	6 m	6 m	6 m
Suction lift dry:	4.5 m	4.5 m	4.5 m
Suction lift (PTFE):	3 m	3 m	3 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar	max. 8.2 bar
Temperature limits:	66 °C	93 °C	66 °C
Solids handling: with Max-Pass Valve™	max. ø 9,5 mm	max. ø 9,5 mm	max. ø 9,5 mm
Solids handling:	max. ø 3,2 mm	max. ø 3,2 mm	max. ø 3,2 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/8" NPT female	3/8" NPT female	3/8" NPT female
Suction:	1/2" BSP female	1/2" BSP female	1/2" BSP female
Discharge:	1/2" BSP female	1/2" BSP female	1/2" BSP female
Weight:	4.1 kg	5.4 kg	4.1 kg

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1/2" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5701+000
DMP 1/2" PPB PP/TPV (NBR-PP) (with Max-Pass™)	PP	TPV (NBR-PP), NBR, NBR	5701+002
DMP 1/2" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5701+020
DMP 1/2" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5701+100
DMP 1/2" PPE PP/TPV (EPDM-PP) (with Max-Pass™)	PP	TPV (EPDM-PP), EPDM, EPDM	5701+102
DMP 1/2" PPV PP/FPM	PP	FPM, FPM, FPM	5701+120
DMP 1/2" PPV PP/FPM (with Max-Pass™)	PP	FPM, FPM, FPM	5701+122
DMP 1/2" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5701+080
DMP 1/2" NTC PA/PTFE*	PA	PTFE, PTFE, PTFE	5701+160

*conductive version Ex II 2 G c T4

Add. price DMP 1/2" PPT PP/PTFE PURE ^	PP	PTFE, PTFE, PTFE	5000-640
Add. price DMP 1/2" KNT PVDF/PTFE PURE ^	PVDF	PTFE, PTFE, PTFE	5000-644

^ Please choose Order-No. basic pump + Order-No. PURE additional price

Lutz Double Diaphragm Pumps

Model 1/2" Bolted Version (non-metallic)

Typical application:

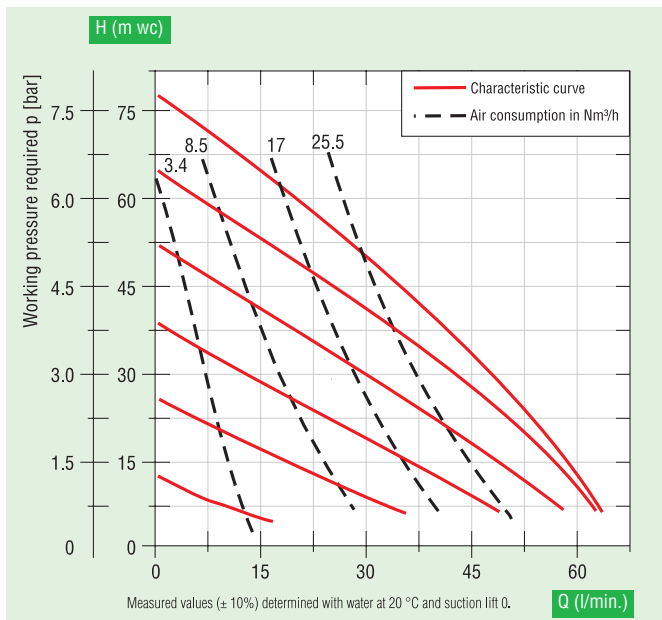
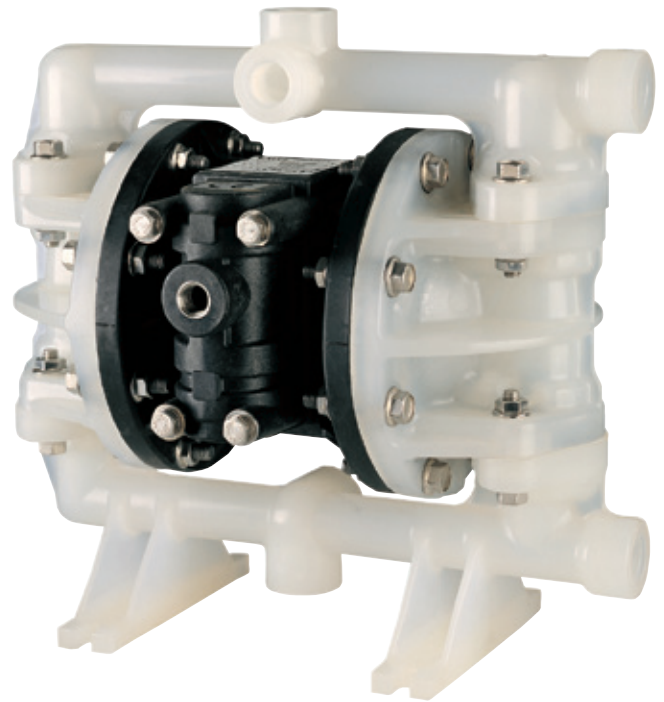
200 l-drum pumping, ink recirculation and feed, chemicals, solvents, acids, soap dispensing



Max-Pass™ optional
(Details see page 47)



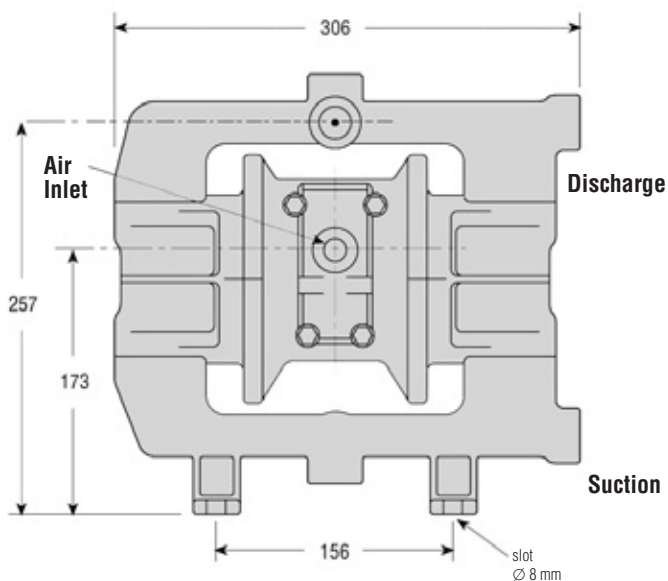
Version for emptying of drums
Additional price Ref. No. 5000-347
must be added to the chosen pump.



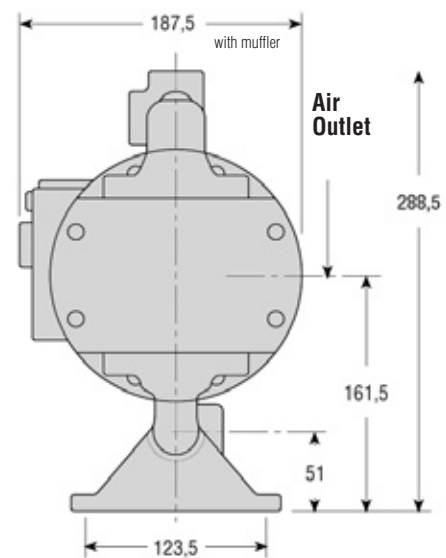
Pump tube also available in PURE version with Tri-Clamp connection. All materials coming into contact with the pumped medium are physiologically safe. The pumps are mainly used in the food-, cosmetics- and pharmaceutical industry.



Suitable range of accessories see pages 34-47.



Front View



Side View

Individual datasheets on request.
Dimensions in mm

Lutz Double Diaphragm Pumps

Model 1" Clamped Version (non-metallic)

Operating data / Dimensions / Weights		
	DMP 1" PP	DMP 1" PVDF
Housing material:	Polypropylene	Polyvinylidene fluoride
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE, FPM
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	152 l/min.	152 l/min.
Suction lift dry:	4.5 m	4.5 m
Suction lift (PTFE):	3 m	3 m
Operating pressure:	max. 6.8 bar	max. 6.8 bar
Temperature limits:	66 °C	93 °C
Solids handling:	max. ø 3.2 mm	max. ø 3.2 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/8" NPT female	3/8" NPT female
Suction:	1" BSP female	1" BSP female
Discharge:	1" BSP female	1" BSP female
Weight:	8.6 kg	9.9 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

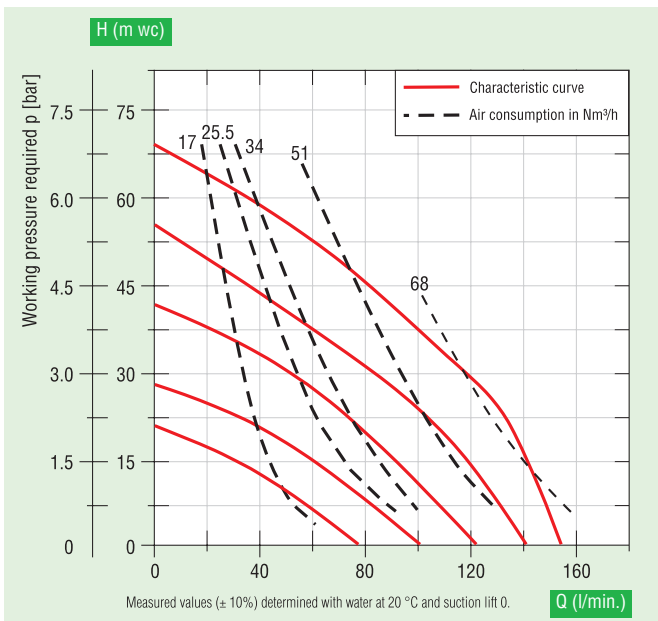
Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5702-000
DMP 1" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5702-020
DMP 1" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5702-100
DMP 1" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5702-080
DMP 1" KNV PVDF/FPM	PVDF	FPM, FPM, FPM	5702-180

Lutz Double Diaphragm Pumps

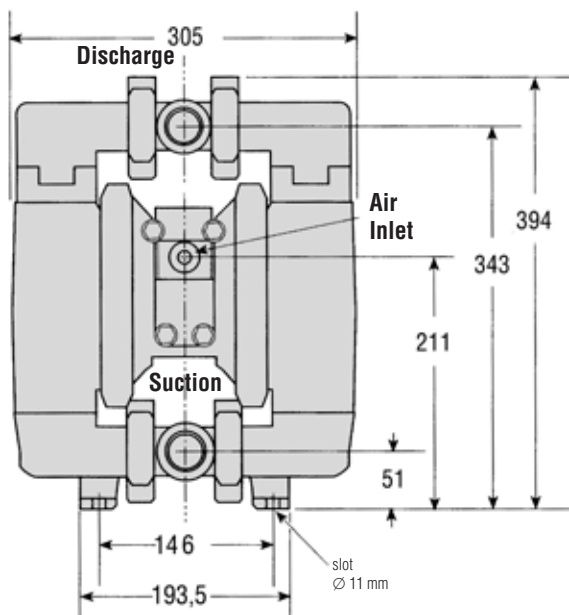
Model 1" Clamped Version (non-metallic)

Typical application:

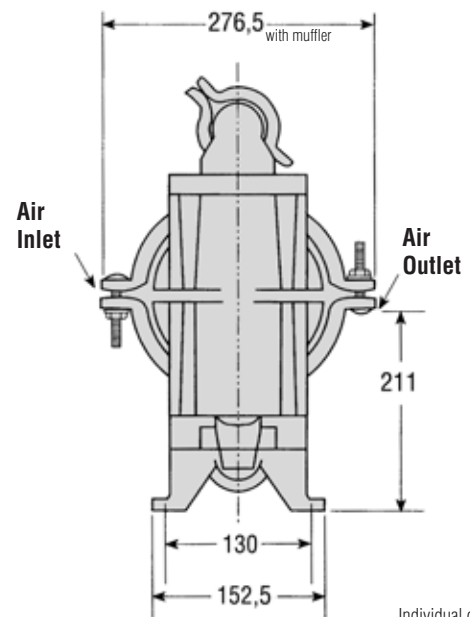
Drum and small tank transfer, pickling solutions, chemical feed



Suitable range of accessories see page 34-47.



Front View



Side View

Individual datasheets
on request.
Dimensions in mm

Lutz Double Diaphragm Pumps

Model 1" Bolted Version (non-metallic)

Operating data / Dimensions / Weights		
	DMP 1" PP	DMP 1" PVDF
Housing material:	Polypropylene	Polyvinylidene fluoride
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	PTFE, TPV (EPDM-PP), FPM
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), NBR, EPDM, PTFE, FPM	PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	PTFE, FPM
Valve seat:	PP	PVDF
Max. flow rate:	156 l/min.	156 l/min.
Suction lift dry with Max-Pass™ Valve:	5.5 m	5.5 m
Suction lift dry:	4.5 m	4.5 m
Suction lift (PTFE):	3 m	3 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	66 °C	93 °C
Solids handling: with Max-Pass™ Valve:	max. ø 19 mm	max. ø 19 mm
Solids handling:	max. ø 6,4 mm	max. ø 6,4 mm
Air inlet:	1/4" NPT female (1/2" BSP female) ¹⁾	1/4" NPT female (1/2" BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	Flansch DIN DN 25 PN 10/ ANSI B16,5 1" 150 PSI	Flansch DIN DN 25 PN 10/ ANSI B16,5 1" 150 PSI
Discharge:	Flansch DIN DN 25 PN 10/ ANSI B16,5 1" 150 PSI	Flansch DIN DN 25 PN 10/ ANSI B16,5 1" 150 PSI
Weight:	9.1 kg	13.7 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5702+000
DMP 1" PPB PP/TPV (NBR-PP) (with Max-Pass™)	PP	TPV (NBR-PP), NBR, NBR	5702+002
DMP 1" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5702+100
DMP 1" PPE PP/TPV (EPDM-PP) (with Max-Pass™)	PP	TPV (EPDM-PP), EPDM, EPDM	5702+102
DMP 1" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5702+020
DMP 1" PPV PP/FPM	PP	FPM, FPM, FPM	5702+120
DMP 1" PPV PP/FPM (with Max-Pass™)	PP	FPM, FPM, FPM	5702+122
DMP 1" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5702+080
DMP 1" KNV PVDF/FPM	PVDF	FPM, FPM, FPM	5702+180
DMP 1" KNV PVDF/FPM (with Max-Pass™)	PVDF	FPM, FPM, FPM	5702+182

Add. price DMP 1" PPT PP/PTFE PURE ^	PP	PTFE, PTFE, PTFE	5000-641
Add. price DMP 1" KNT PVDF/PTFE PURE ^	PVDF	PTFE, PTFE, PTFE	5000-645

^ Please choose Order-No. basic pump + Order-No. PURE additional price

Lutz Double Diaphragm Pumps

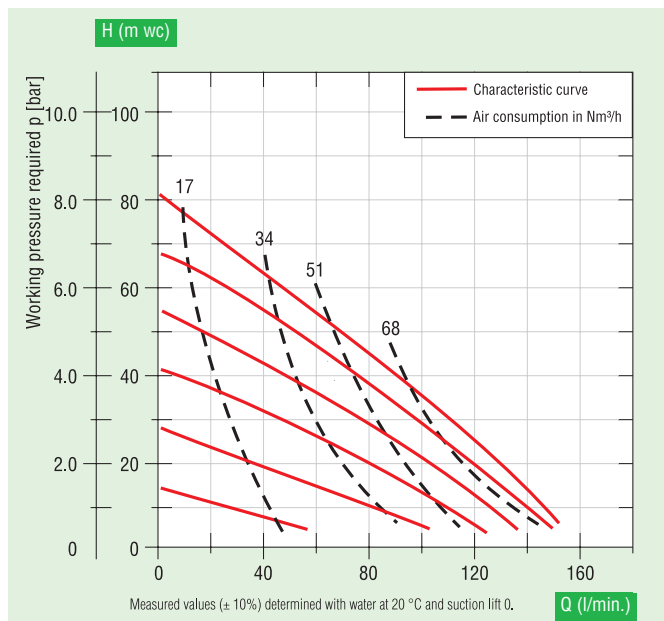
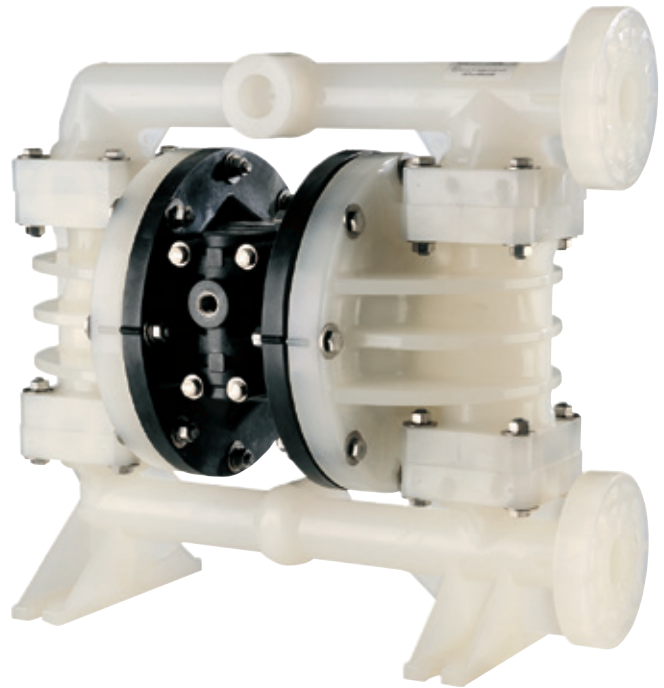
Model 1" Bolted Version (non-metallic)

Typical application:

Drum and small tank transfer, pickling solutions, chemical feed



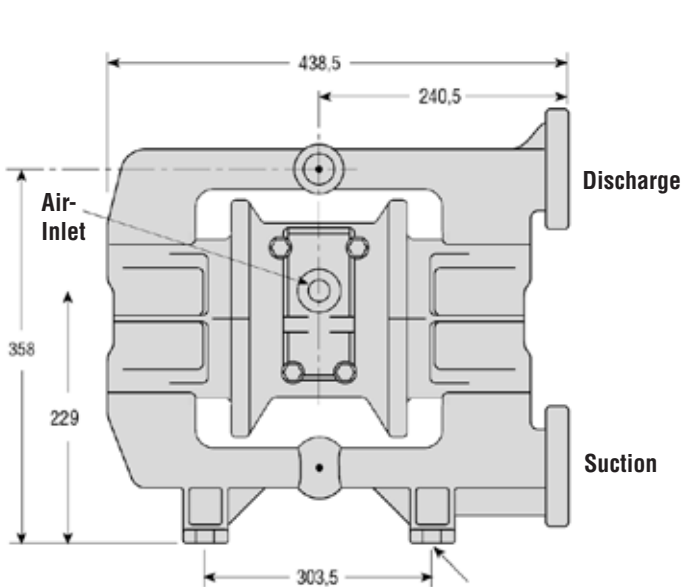
Max-Pass™ optional
(Details see page 47)



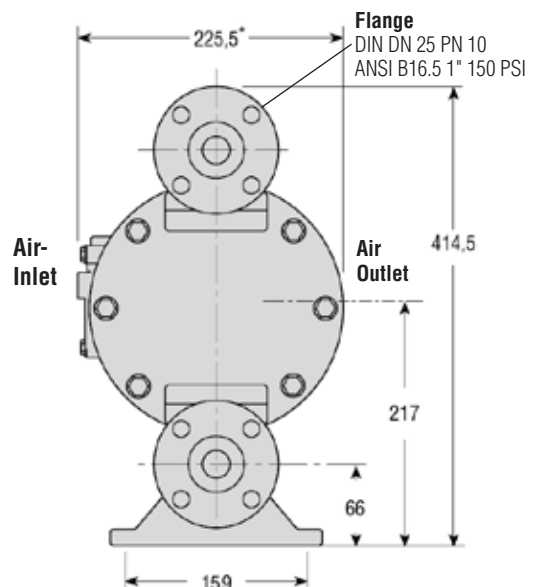
Pump tube also available in PURE version with Tri-Clamp connection. All materials coming into contact with the pumped medium are physiologically safe. The pumps are mainly used in the food-, cosmetics- and pharmaceutical industry.



Suitable range of accessories see pages 34-47.



Front View



Side View

*Approximate Dimension with Muffler (272.5)

Individual datasheets on request.
Dimensions in mm

Lutz Double Diaphragm Pumps

Model 1 1/2" Bolted Version (non-metallic)

Operating data / Dimensions / Weights		
	DMP 1 1/2" PP	DMP 1 1/2" PVDF
Housing material:	Polypropylene	Polivinyliidene fluoride
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (EPDM-PP), PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (EPDM-PP), PTFE
Seals:	NBR, EPDM, PTFE	EPDM, PTFE
Valve seat:	PP	PVDF
Max. flow rate:	492 l/min.	492 l/min.
Suction lift dry:	4.5 m	4.5 m
Suction lift (PTFE):	3 m	3 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	66 °C	93 °C
Solids handling:	max. ø 6.4 mm	max. ø 6.4 mm
Air inlet:	3/4" NPT IG (3/4" BSP female) ¹⁾	3/4" NPT IG (3/4" BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	Flansch DIN DN 40 PN 10/ ANSI B16,5 1 1/2" 150 PSI	Flansch DIN DN 40 PN 10/ ANSI B16,5 1 1/2" 150 PSI
Discharge:	Flansch DIN DN 40 PN 10/ ANSI B16,5 1 1/2" 150 PSI	Flansch DIN DN 40 PN 10/ ANSI B16,5 1 1/2" 150 PSI
Weight:	21 kg	29.5 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PP	= Polypropylene
PTFE	= Polytetrafluorethylene

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1 1/2" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5703+000
DMP 1 1/2" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5703+020
DMP 1 1/2" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5703+100
DMP 1 1/2" KNE PVDF/TPV (EPDM-PP)	PVDF	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5703+070
DMP 1 1/2" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5703+080

Add. price DMP 1 1/2" PPT PP/PTFE PURE ^	PP	PTFE, PTFE, PTFE	5000-642
Add. price DMP 1 1/2" KNT PVDF/PTFE PURE ^	PVDF	PTFE, PTFE, PTFE	5000-646

^ Please choose Order-No. basic pump + Order-No. PURE additional price

Lutz Double Diaphragm Pumps

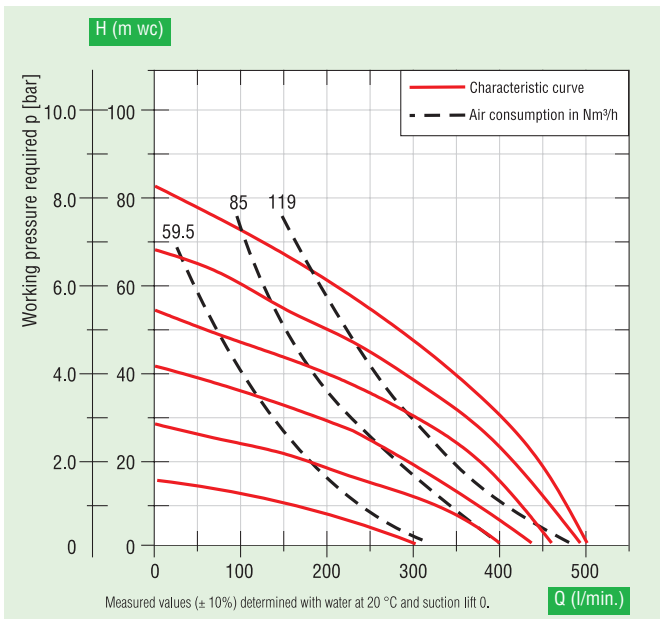
Model 1 1/2" Bolted Version (non-metallic)

Typical application:

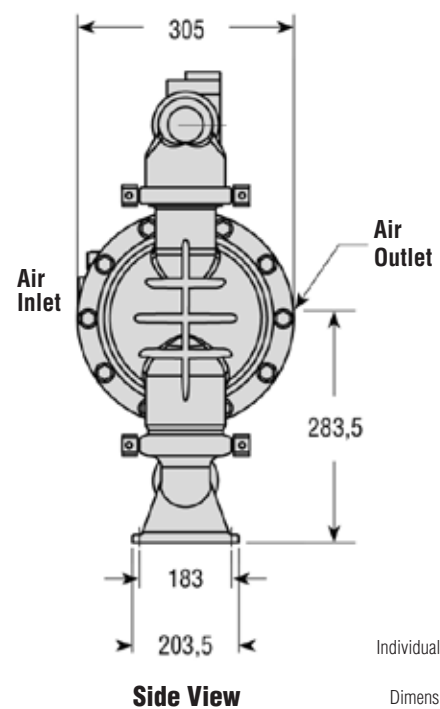
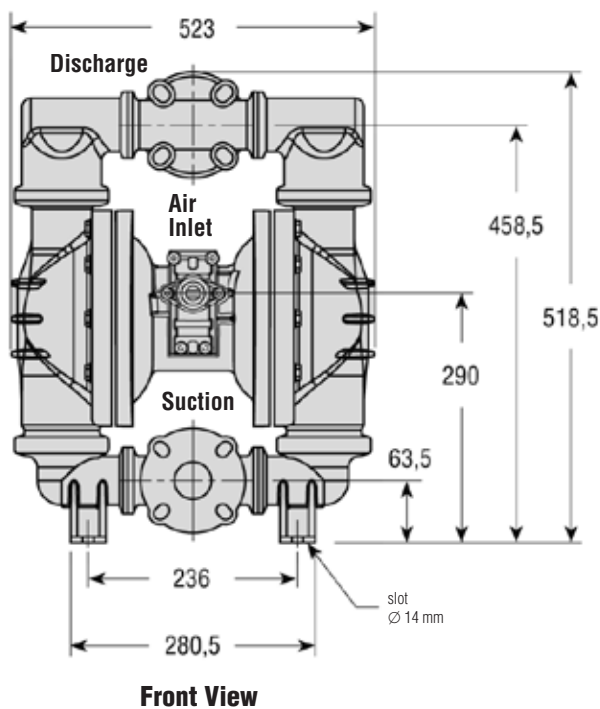
Filter press, tank cleaning systems, pigments and resins



Pump tube also available in PURE version with Tri-Clamp connection. All materials coming into contact with the pumped medium are physiologically safe. The pumps are mainly used in the food-, cosmetics- and pharmaceutical industry.



 Suitable range of accessories see pages 34-47.



Individual datasheets on request. Dimensions in mm

Lutz Double Diaphragm Pumps

Model 2" Bolted Version (non-metallic)

Operating data / Dimensions / Weights		
	DMP 2" PP	DMP 2" PVDF
Housing material:	Polypropylene	Polyvinylidene fluoride
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	PTFE
Seals:	NBR, EPDM, PTFE	PTFE
Valve seat:	PP	PVDF
Max. flow rate:	605 l/min.	605 l/min.
Suction lift dry:	5.2 m	5.2 m
Suction lift (PTFE):	4.6 m	4.6 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	66 °C	93 °C
Solids handling:	max. ø 6.4 mm	max. ø 6.4 mm
Air inlet:	3/4" NPT female (3/4" BSP female) ¹⁾	3/4" NPT female (3/4" BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	Flansch DIN DN 50 PN 10/ ANSI B16,5 2" 150 PSI	Flansch DIN DN 50 PN 10/ ANSI B16,5 2" 150 PSI
Discharge:	Flansch DIN DN 50 PN 10/ ANSI B16,5 2" 150 PSI	Flansch DIN DN 50 PN 10/ ANSI B16,5 2" 150 PSI
Weight:	25 kg	38 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PVDF	= Polyvinylidene fluoride
PP	= Polypropylene
PTFE	= Polytetrafluorethylene

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

* See operating curves

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 2" PPB PP/TPV (NBR-PP)	PP	TPV (NBR-PP), TPV (NBR-PP), NBR	5604+000
DMP 2" PPT PP/PTFE	PP	PTFE, PTFE, PTFE	5604+020
DMP 2" PPE PP/TPV (EPDM-PP)	PP	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5604+100
DMP 2" PPT PP/PTFE**	PP	PTFE, PTFE, PTFE	5604+220
DMP 2" KNT PVDF/PTFE	PVDF	PTFE, PTFE, PTFE	5604+060
DMP 2" KNT PVDF/PTFE**	PVDF	PTFE, PTFE, PTFE	5604+240

**Teflon-coated clamp fittings and bolts

Add. price DMP 2" PPT PP/PTFE PURE ^	PP	PTFE, PTFE, PTFE	5000-643
Add. price DMP 2" KNT PVDF/PTFE PURE ^	PVDF	PTFE, PTFE, PTFE	5000-647

^ Please choose Order-No. basic pump + Order-No. PURE additional price

Lutz Double Diaphragm Pumps

Model 2" Bolted Version (non-metallic)

Typical application:

Paint, latex, ceramic slip, slurries, polymers, tank car fill and empty, foods

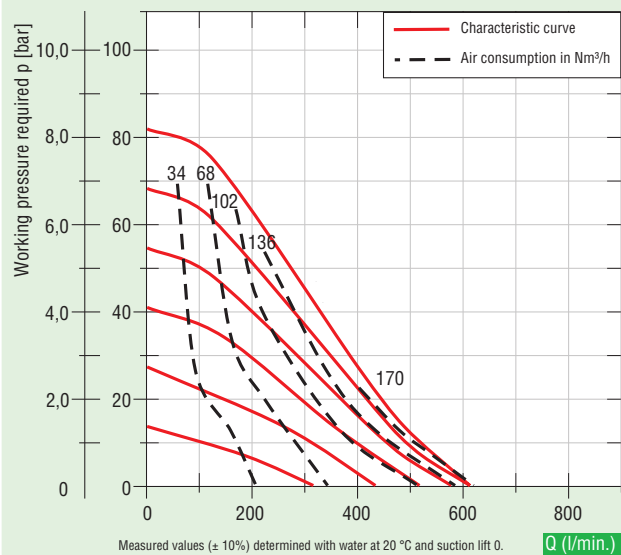


Pump tube also available in PURE version with Tri-Clamp connection. All materials coming into contact with the pumped medium are physiologically safe. The pumps are mainly used in the food-, cosmetics- and pharmaceutical industry.

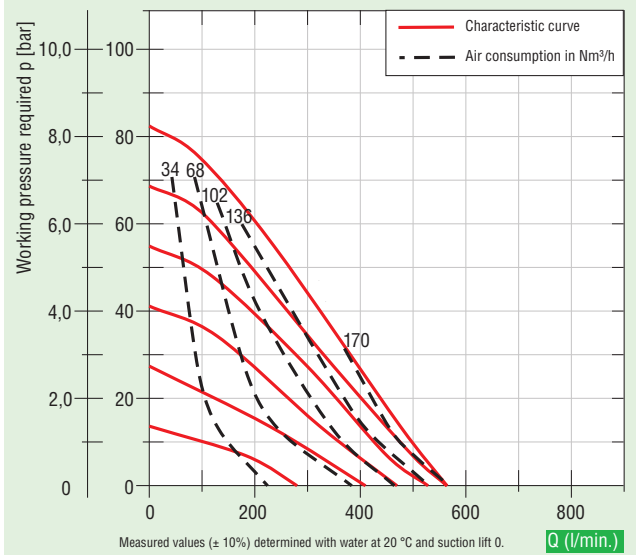


Suitable range of accessories see pages 34-47.

H (m wc) Diaphragm materials: TPV (EPDM-PP), TPV (NBR-PP)



H (m wc) Diaphragm materials: PTFE



Individual datasheets on request.

Lutz Double Diaphragm Pumps









Model 1/2" Bolted Version (metallic)

Operating data / Dimensions / Weights		
	DMP 1/2" Aluminium	DMP 1/2" Stainless Steel
Housing material:	Aluminium	Stainless Steel 1,4404 (316)
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	NBR, EPDM, PTFE, FPM
Valve seat:	PP, PA	Stainless Steel
Max. flow rate:	57 l/min.*	57 l/min.*
Suction lift dry:	4.5 m	4.5 m
Suction lift (PTFE):	4.3 m	4.3 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	93 °C	93 °C
Solids handling:	max. ø 3.2 mm	max. ø 3.2 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/8" NPT female	3/8" NPT female
Suction:	1/2" BSP female	1/2" BSP female
Discharge:	1/2" BSP female	1/2" BSP female
Weight:	4.5 kg	9.1 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PP	= Polypropylene
PA	= Polyamide
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).
*See operating curves

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1/2" ALB Alu/TPV (NBR-PP)** 	Aluminium	TPV (NBR-PP), TPV (NBR-PP), NBR	5611+000
DMP 1/2" ALE Alu/TPV (EPDM-PP)** 	Aluminium	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5611+040
DMP 1/2" ALT Alu/PTFE** 	Aluminium	PTFE, PTFE, PTFE	5611+020
DMP 1/2" ALV Alu/FPM** 	Aluminium	FPM, FPM, FPM	5611+060
DMP 1/2" SSB SS/TPV (NBR-PP)** 	Stainless Steel	TPV (NBR-PP), TPV (NBR-PP), NBR	5621+040
DMP 1/2" SSE SS/TPV (EPDM-PP)** 	Stainless Steel	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5621+020
DMP 1/2" SST SS/PTFE** 	Stainless Steel	PTFE, PTFE, PTFE	5621+000
DMP 1/2" SSV SS/FPM** 	Stainless Steel	FPM, FPM, FPM	5621+060

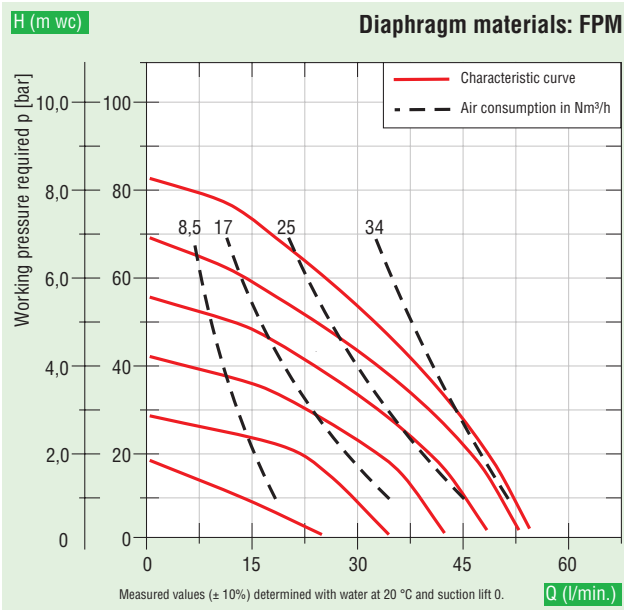
**Ex II 2 GD c TX

Lutz Double Diaphragm Pumps

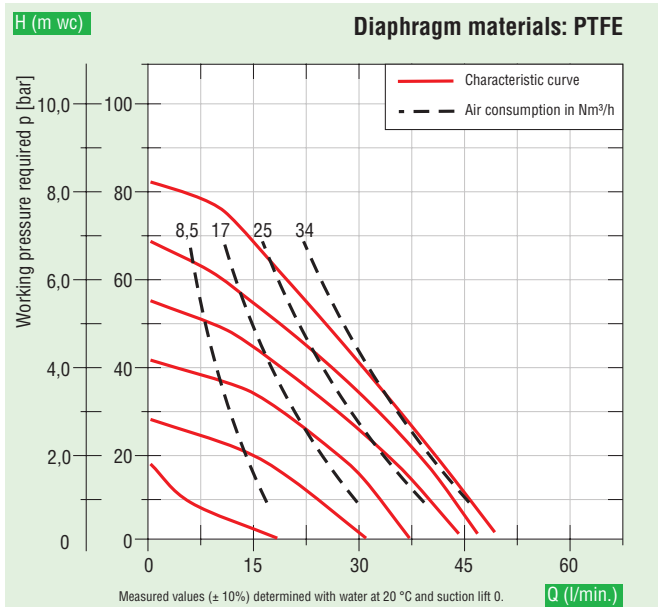
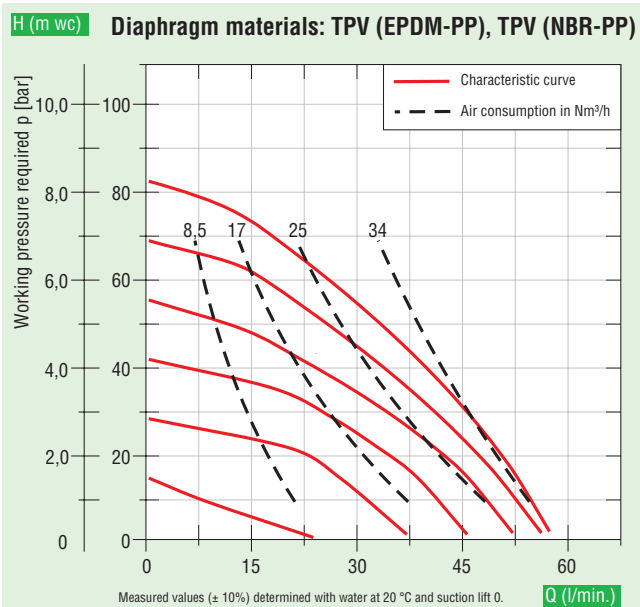
Model 1/2" Bolted Version (metallic)

Typical application:

200 l-drum pumping, ink recirculation and feed, chemicals, solvents, acids, soap dispensing



Suitable range of accessories for avoiding electrostatic charge see pages 34-47.



Individual datasheets on request.

Lutz Double Diaphragm Pumps

Model 1" Bolted Version (metallic)

Operating data / Dimensions / Weights









	DMP 1" Aluminium	DMP 1" Stainless Steel
Housing material:	Aluminium	Stainless Steel 1.4404 (316)
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM	TPV (NBR-PP), TPV (EPDM-PP), PTFE, FPM
Seals:	NBR, EPDM, PTFE, FPM	NBR, EPDM, PTFE, FPM
Valve seat:	PP, PA	Stainless Steel
Max. flow rate:	182 l/min.*	182 l/min.*
Suction lift dry:	5.2 m	5.2 m
Suction lift (PTFE):	5.2 m	5.2 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	93 °C	93 °C
Solids handling:	max. ø 6,4 mm	max. ø 6,4 mm
Air inlet:	1/4" NPT female (G 1/2 BSP female) ¹⁾	1/4" NPT female (G 1/2 BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	1" BSP female	1" BSP female
Discharge:	1" BSP female	1" BSP female
Weight:	8 kg	17 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

*See operating curves

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1" ALB Alu/TPV (NBR-PP)** 	Aluminium	TPV (NBR-PP), TPV (NBR-PP), NBR	5612+000
DMP 1" ALE Alu/TPV (EPDM-PP)** 	Aluminium	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5612+040
DMP 1" ALT Alu/PTFE** 	Aluminium	PTFE, PTFE, PTFE	5612+020
DMP 1" ALV Alu/FPM** 	Aluminium	FPM, FPM, FPM	5612+060
DMP 1" SSB SS/TPV (NBR-PP)** 	Stainless Steel	TPV (NBR-PP), TPV (NBR-PP), NBR	5622+040
DMP 1" SSE SS/TPV (EPDM-PP)** 	Stainless Steel	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5622+020
DMP 1" SST SS/PTFE** 	Stainless Steel	PTFE, PTFE, PTFE	5622+000
DMP 1" SSV SS/FPM** 	Stainless Steel	FPM, FPM, FPM	5622+060

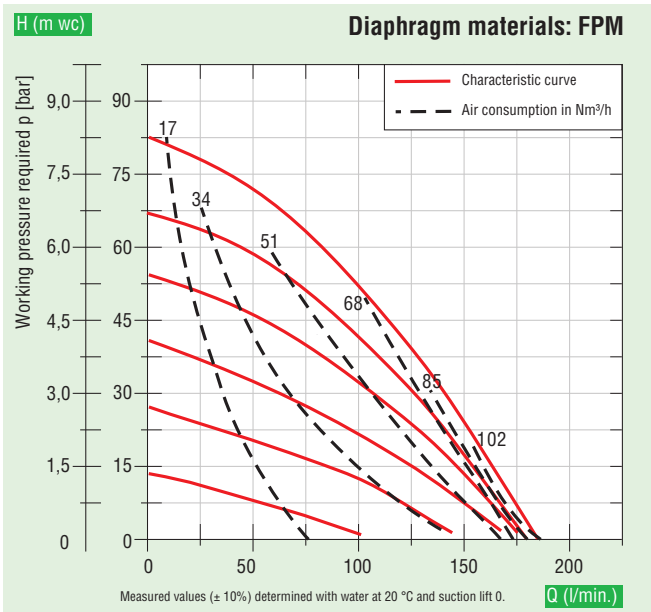
**Ex II 2 GD c TX

Lutz Double Diaphragm Pumps

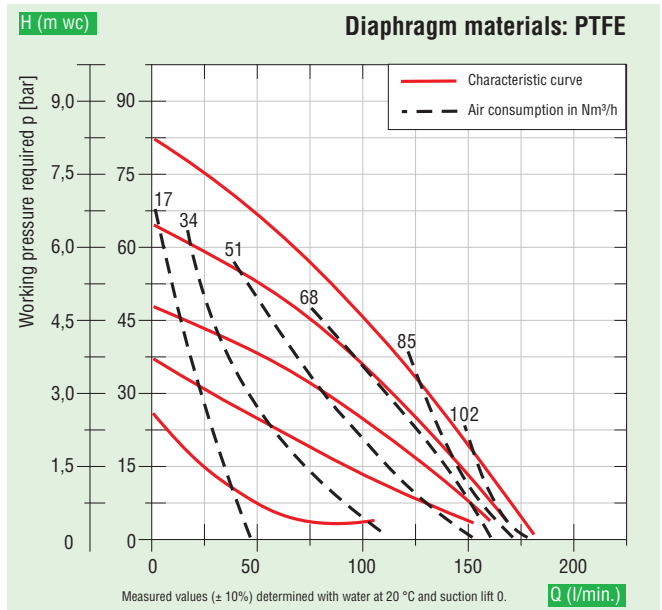
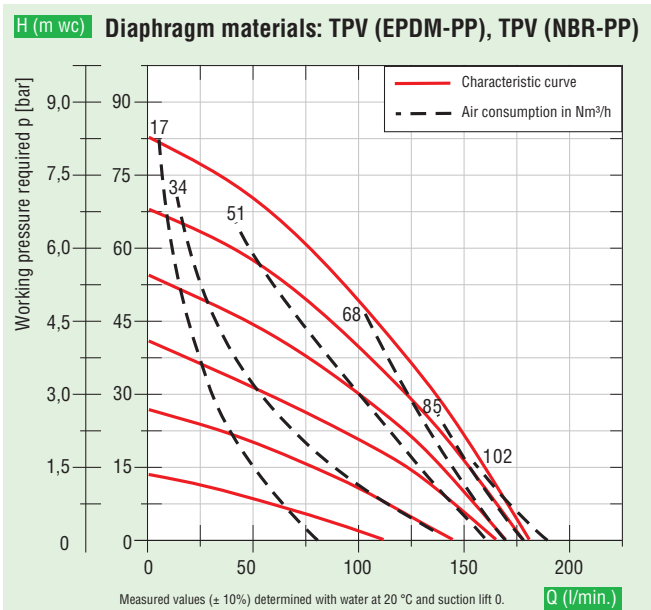
Model 1" Bolted Version (metallic)

Typical application:

Drum and small tank transfer, pickling solutions, chemical feed



Suitable range of accessories for avoiding electrostatic charge see pages 34-47.



Individual datasheets on request.

Lutz Double Diaphragm Pumps

Model 1 1/2" Bolted Version (metallic)

Operating data / Dimensions / Weights		
	DMP 1 1/2" Aluminium	DMP 1 1/2" Stainless Steel
Housing material:	Aluminium	Stainless Steel 1.4404 (316)
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (NBR-PP), TPV (EPDM-PP), PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (NBR-PP), TPV (EPDM-PP), PTFE
Seals:	NBR, EPDM, PTFE	NBR, EPDM, PTFE
Valve seat:	PP, PA	Stainless Steel
Max. flow rate:	435 l/min.*	435 l/min.*
Suction lift dry:	6.7 m	6.7 m
Suction lift (PTFE):	5.5 m	5.5 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	93 °C	93 °C
Solids handling:	max. ø 6,4 mm	max. ø 6,4 mm
Air inlet:	3/4" NPT female (3/4" BSP female) ¹⁾	3/4" NPT female (3/4" BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	1 1/2" BSP female	1 1/2" BSP female
Discharge:	1 1/2" BSP female**	1 1/2" BSP female**
Weight:	20 kg	32 kg







Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾ if the air flow control valve is used (not included in the delivery extent – see page 39).

* See operating curves

** Discharge to top 1 1/4" BSP IG (Reduction of the characteristic measured value is 10% when using the discharge on top).

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 1 1/2" ALB Alu/TPV (NBR-PP)*** 	Aluminium	TPV (NBR-PP), TPV (NBR-PP), NBR	5613+000
DMP 1 1/2" ALT Alu/PTFE*** 	Aluminium	PTFE, PTFE, PTFE	5613+020
DMP 1 1/2" ALE Alu/TPV (EPDM-PP)*** 	Aluminium	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5613+040
DMP 1 1/2" SSB SS/TPV (NBR-PP)*** 	Stainless Steel	TPV (NBR-PP), TPV (NBR-PP), NBR	5623+000
DMP 1 1/2" SST SS/PTFE*** 	Stainless Steel	PTFE, PTFE, PTFE	5623+020
DMP 1 1/2" SSE SS/TPV (EPDM-PP)*** 	Stainless Steel	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5623+040

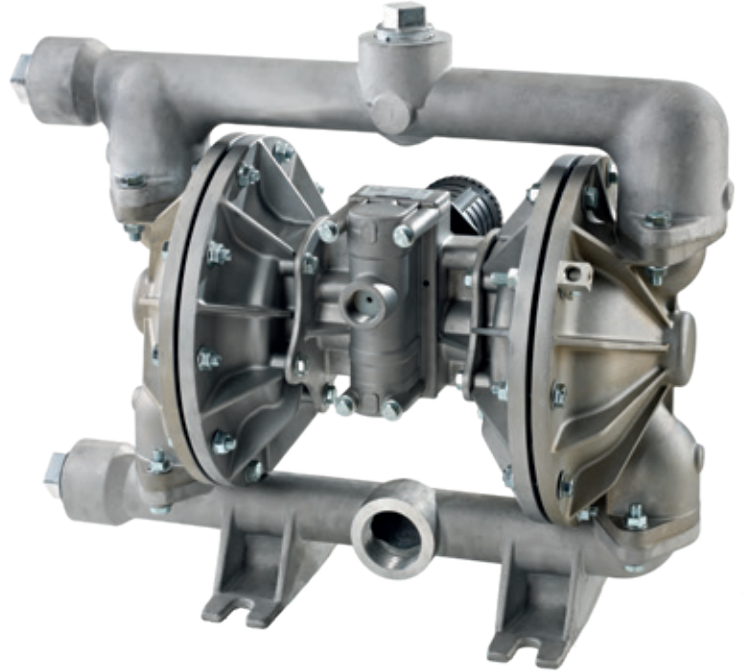
***Ex II 2 GD c TX

Lutz Double Diaphragm Pumps

Model 1 1/2" Bolted Version (metallic)

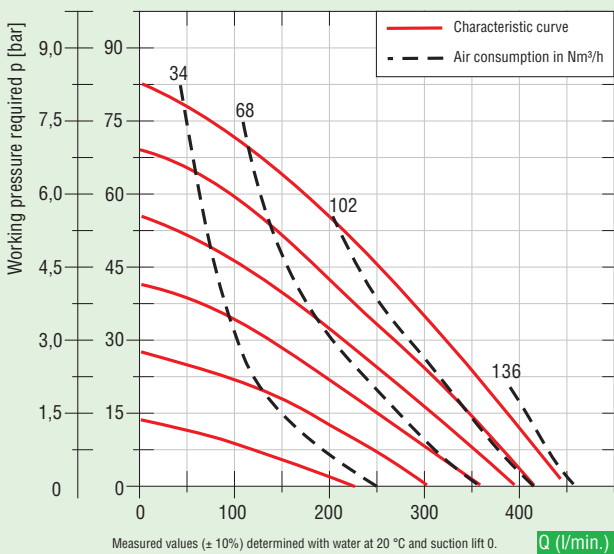
Typical application:

Filter press, tank cleaning systems, pigments and resins

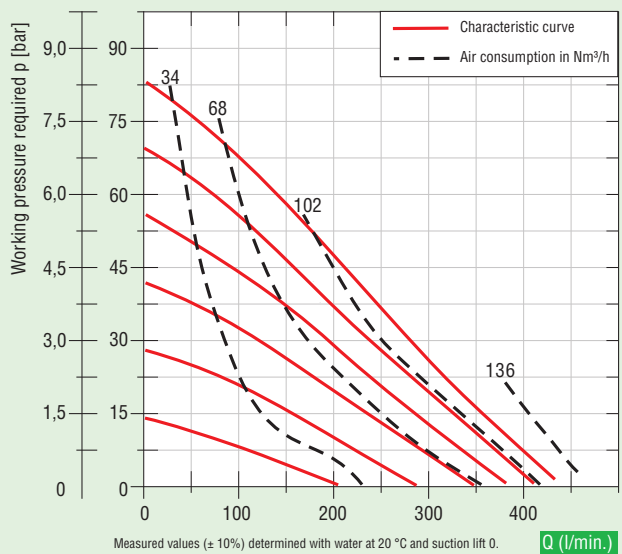


Suitable range of accessories for avoiding electrostatic charge see pages 34-47.

H (m wc) Diaphragm materials: TPV (EPDM-PP), TPV (NBR-PP)



H (m wc) Diaphragm materials: PTFE



Individual datasheets on request.

Lutz Double Diaphragm Pumps

Model 2" Bolted Version (metallic)







Operating data / Dimensions / Weights		
	DMP 2" Aluminium	DMP 2" Stainless Steel
Housing material:	Aluminium	Stainless Steel 1.4404 (316)
Diaphragm materials:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (NBR-PP), TPV (EPDM-PP), PTFE
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), PTFE	TPV (NBR-PP), TPV (EPDM-PP), PTFE
Seals:	NBR, EPDM, PTFE	NBR, EPDM, PTFE
Valve seat:	PP, PA	Stainless Steel
Max. flow rate:	719 l/min.*	719 l/min.*
Suction lift dry:	7.4 m	7.4 m
Suction lift (PTFE):	5.8 m	5.8 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	93 °C	93 °C
Solids handling:	max. ø 6.4 mm	max. ø 6.4 mm
Air inlet:	3/4" NPT female (3/4" BSP female) ¹⁾	3/4" NPT female (3/4" BSP female) ¹⁾
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	2" BSP female	Flansch DIN DN 50 PN 10 / ANSI B 16,5 2" 150, PSI
Discharge:	2" BSP female	Flansch DIN DN 50 PN 10 / ANSI B 16,5 2" 150, PSI
Weight:	28 kg	59 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer

¹⁾if the air flow control valve is used (not included in the delivery extent – see page 39).

*See operating curves

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 2" ALB Alu/TPV (NBR-PP)** 	Aluminium	TPV (NBR-PP), TPV (NBR-PP), NBR	5614+000
DMP 2" ALT Alu/PTFE** 	Aluminium	PTFE, PTFE, PTFE	5614+020
DMP 2" ALE Alu/TPV (EPDM-PP)** 	Aluminium	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5614+040
DMP 2" SST SS/PTFE** 	Stainless Steel	PTFE, PTFE, PTFE	5624+000
DMP 2" SSE SS/TPV (EPDM-PP)** 	Stainless Steel	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5624+020
DMP 2" SSB SS/TPV (NBR-PP)** 	Stainless Steel	TPV (NBR-PP), TPV (NBR-PP), NBR	5624+040

**Ex II 2 GD c TX

Lutz Double Diaphragm Pumps

Model 2" Bolted Version (metallic)

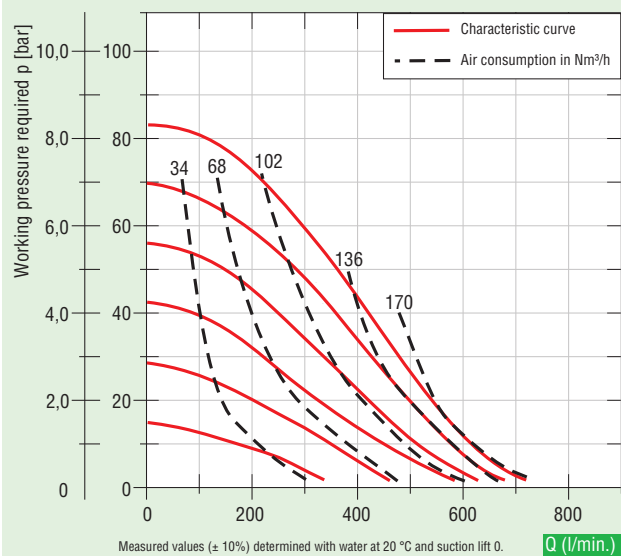
Typical application:

Paint, latex, ceramic slip, slurries, polymers, tank car fill and empty, foods

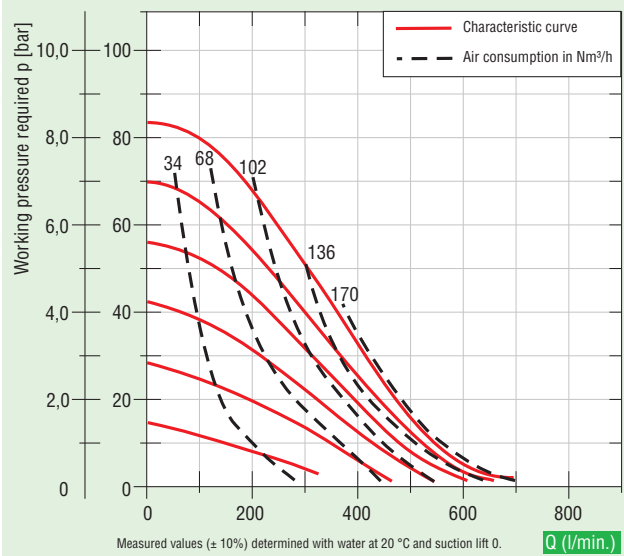


Suitable range of accessories for avoiding electrostatic charge see pages 34-47.

H (m wc) Diaphragm materials: TPV (EPDM-PP), TPV (NBR-PP)



H (m wc) Diaphragm materials: PTFE



Individual datasheets on request.

Lutz Double Diaphragm Pumps

Model 3" Bolted Version (metallic)









Operating data / Dimensions / Weights		
	DMP 3" Aluminium	DMP 3" Stainless Steel
Housing material:	Aluminium	Stainless Steel 1.4404 (316)
Diaphragm materials:	AU, PTFE, TPV (EPDM-PP), FPM	AU, PTFE, TPV (EPDM-PP), FPM
Valve material:	TPV (NBR-PP), TPV (EPDM-PP), FPM, PTFE	TPV (NBR-PP), TPV (EPDM-PP), FPM, PTFE
Seals:	NBR, EPDM, FPM, PTFE	NBR, EPDM, FPM, PTFE
Valve seat:	PA, EPDM, FPM, NBR	Stainless Steel
Max. flow rate:	954 l/min.*	954 l/min.*
Suction lift dry:	6.1 m	6.1 m
Suction lift (PTFE):	5.2 m	5.2 m
Operating pressure:	max. 8.2 bar	max. 8.2 bar
Temperature limits:	93 °C	93 °C
Solids handling:	max. ø 11 mm	max. ø 11 mm
Air inlet:	3/4" NPT female	3/4" NPT female
Air outlet:	3/4" NPT female	3/4" NPT female
Suction:	3" BSP female	Flansch DIN DN 80 PN 10 / ANSI B 16,5 3" 150 PSI
Discharge:	3" BSP female	Flansch DIN DN 80 PN 10 / ANSI B 16,5 3" 150 PSI
Weight:	62 kg	136 kg

Material description:

TPV (NBR-PP)	= NBR/PP-Compound
TPV (EPDM-PP)	= EPDM/PP-Compound
PA	= Polyamide
PP	= Polypropylene
PTFE	= Polytetrafluorethylene
FPM	= Fluor Elastomer
AU	= Urethan

*if the air flow control valve is used (not included in the delivery extent – see page 39).

*See operating curves

Type	Materials of construction		Order No.
	Housing	Diaphragm, Valve balls, Seals	
DMP 3" ALU Alu/AU* 	Aluminium	AU, TPV (NBR-PP), NBR	5615+000
DMP 3" ALE Alu/TPV (EPDM-PP)* 	Aluminium	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5615+020
DMP 3" ALT Alu/PTFE* 	Aluminium	PTFE, PTFE, PTFE	5615+040
DMP 3" ALV Alu/FPM* 	Aluminium	FPM, FPM, FPM	5615+060
DMP 3" SSU SS/AU 	Stainless Steel	AU, TPV (NBR-PP), NBR	5625+000
DMP 3" SSE SS/TPV (EPDM-PP) 	Stainless Steel	TPV (EPDM-PP), TPV (EPDM-PP), EPDM	5625+020
DMP 3" SST SS/PTFE* 	Stainless Steel	PTFE, PTFE, PTFE	5625+040
DMP 3" SSV SS/FPM 	Stainless Steel	FPM, FPM, FPM	5625+060

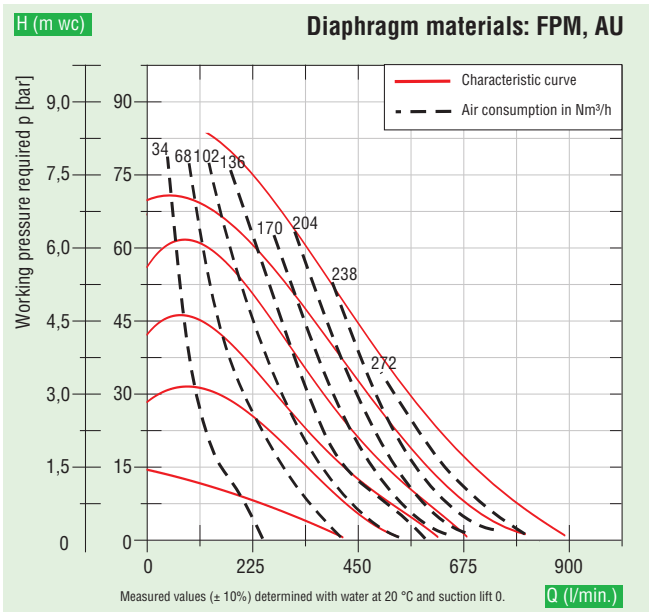
*Ex II 2 GD c TX

Lutz Double Diaphragm Pumps

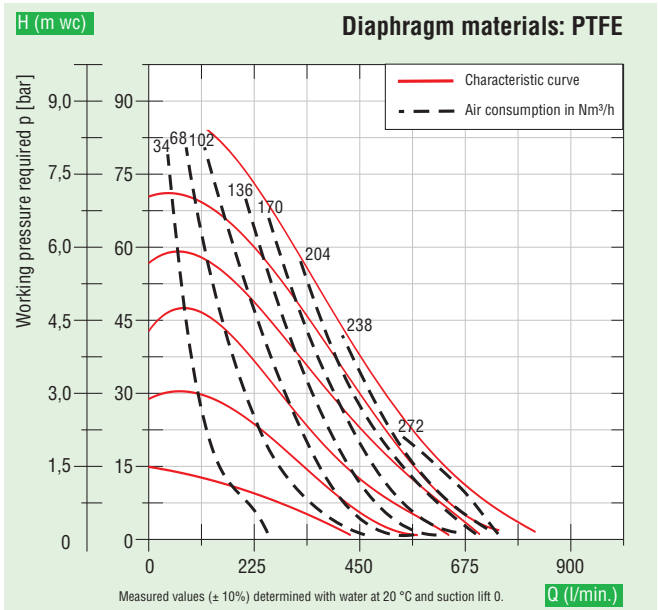
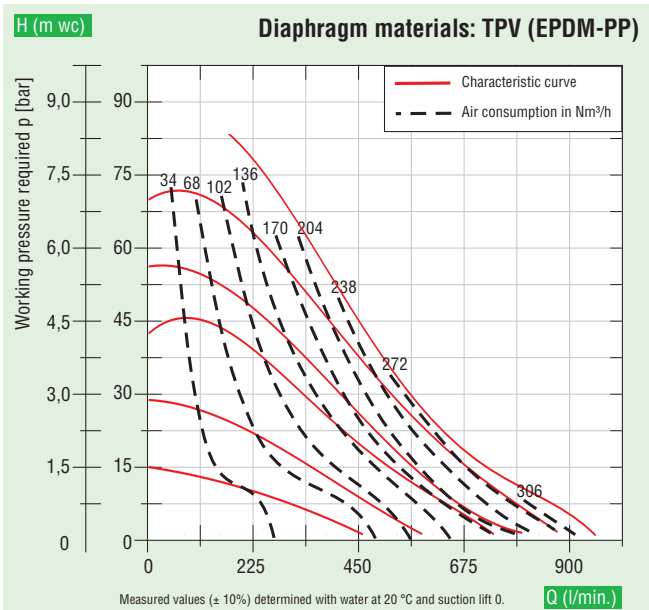
Model 3" Bolted Version (metallic)

Typical application:

Paint, latex, ceramic slip, slurries, polymers, tank car fill and empty





Suitable range of accessories see pages 34-47.






Individual datasheets on request.

Accessories

Pipe fitting, coupling connector, hose connection

Product detail	Specification	Order-No.	
	Pipe fitting Allows the direct connection of hoses at pressure-/suction piece of the double diaphragm pump.		
	PP DN 8 x G 1/4 male DMP 1/4" 5000-314		
	PVDF DN 8 x G 1/4 male DMP 1/4" 5000-315		
	PP DN 8 x G 3/8 male DMP 3/8" 5000-316		
	PVDF DN 8 x G 3/8 male DMP 3/8" 5000-317		
	Coupling connector Allows the direct connection of hoses at pressure-/suction piece of the double diaphragm pump.		
	PP DN 8 x G 1/4 male DMP 1/4" 5000-020		
	PVDF DN 8 x G 1/4 male DMP 1/4" 5000-021		
	Brass DN 9 x G 1/4 male DMP 1/4" 5000-022		
	SS (1.4571) DN 9 x G 1/4 male DMP 1/4" 5000-023		
	PP DN 12 x G 1/4 male DMP 1/4" 5000-024		
	PP DN 12 x G 3/8 male DMP 3/8" 5000-034		
	PVDF DN 12 x G 3/8 male DMP 3/8" 5000-035		
	PP DN 12 x G 1/2 male DMP 1/2" 5000-030		
	PP DN 20 x G 1/2 male DMP 1/2" 5000-036		
	PVDF DN 12 x G 1/2 male DMP 1/2" 5000-031		
	Brass DN 12 x G 1/2 male DMP 1/2" 5000-032		
	SS (1.4571) DN 12 x G 1/2 male DMP 1/2" 5000-033		
	SS (1.4571) DN 20 x G 1/2 male DMP 1/2" 0300-215		
	PP DN 25 x G 1 male DMP 1" 5000-037		
	SS (1.4571) DN 25 x G 1 male DMP 1" 5000-038		
		Hose connection Hose connector with wing nut (+ seal with metal-connections) For direct connection of the hoses with different diameter at pressure-/suction piece of the double diaphragm pump.	
		PP DN 13 x G 1 1/4 DMP 1/2" 0204-409*	
PP DN 19 x G 1 1/4 DMP 1/2" 0204-410*			
PP DN 25 x G 1 1/4 DMP 1/2" 0204-411*			
PP DN 19 x G 1 DMP 1/2" 0204-438*			
PVDF DN 19 x G 1 1/4 DMP 1/2" 0204-421*			
PVDF DN 25 x G 1 1/4 DMP 1/2" 0204-422*			
PP DN 19 x G 1 1/4 DMP 1" 0204-410*			
PP DN 25 x G 1 1/4 DMP 1" 0204-411*			
PP DN 32 x G 1 1/4 DMP 1" 0204-412*			
PVDF DN 19 x G 1 1/4 DMP 1" 0204-421*			
PVDF DN 25 x G 1 1/4 DMP 1" 0204-422*			
Alu DN 19 x G 1 1/4 DMP 1" 0204-403*			
Alu DN 25 x G 1 1/4 DMP 1" 0204-404*			
Alu DN 32 x G 1 1/4 DMP 1" 0204-405*			
SS (1.4571) DN 19 x G 1 1/4 DMP 1" 0204-400*			
SS (1.4571) DN 25 x G 1 1/4 DMP 1" 0204-401*			
SS (1.4571) DN 32 x G 1 1/4 DMP 1" 0204-402*			
*) can be used only in connection with reducing piece			
		Hose connection Hose connector with wing nut and seal	
	SS (1.4571) DN 38 x G 1 1/2 DMP 1 1/2" 0204-418***		
	PP DN 50 x G 2 DMP 2" 5000-250**		
	PVDF DN 50 x G 2 DMP 2" 5000-251**		
	SS (1.4571) DN 50 x G 2 DMP 2" 5000-253**		
**) can be used only in connection with flange			
***) can be used only in connection with double nipple			

Reducing pieces, Double nipple, flange, hose connector, foot strainer, suction pipe

Specification	Order-No.	Product detail	
Reducing piece (product side)			
SS (1.4571)	G 3/8 male x G 1/2 male DMP 3/8" 5000-074		
PP	G 1/2 male x G 1 1/4 male DMP 1/2" 5000-060		
PVC	G 1/2 male x G 1 male DMP 1/2" 5000-065		
PVC	G 1/2 male x G 1 1/4 male DMP 1/2" 5000-066		
PVDF	G 1/2 male x G 1 1/4 male DMP 1/2" 5000-061		
SS (1.4571)	G 1/2 male x G 3/4 male DMP 1/2" 5000-067		
SS (1.4571)	G 1/2 male x G 1 male DMP 1/2" 5000-068		
SS (1.4571)	G 1/2 male x G 1 1/4 male DMP 1/2" 5000-063		
Brass	G 1/2 male x G 1 1/4 male DMP 1/2" 5000-064		
PP	G 1 male x G 1 1/4 male DMP 1" 0373-076		
PVC	G 1 male x G 1 1/4 male DMP 1" 5000-069		
PVDF	G 1 male x G 1 1/4 male DMP 1" 5000-071		
Brass	G 1 male x G 1 1/4 male DMP 1" 5000-072		
SS (1.4571)	G 1 male x G 1 1/4 male DMP 1" 5000-073		
Double nipple (product side)			
SS (1.4571)	G 1/2 male DMP 1/2" 0300-008		
SS (1.4571)	G 1 1/2 male DMP 1 1/2" 0300-134		
SS (1.4571)	G 2 male DMP 2" 0300-105		
Flange			
Compl. with screws and seals			
PP	DN 25 x G 1 1/4 male DMP 1" 5000-610		
PVDF	DN 25 x G 1 1/4 male DMP 1" 5000-611		
PP	DN 40 x G 1 1/2 male DMP 1 1/2" 5000-620		
PVDF	DN 40 x G 1 1/2 male DMP 1 1/2" 5000-621		
Alu	DN 38 x G 1 1/2 male DMP 1 1/2" 5000-260		
SS (1.4571)	DN 40 x G 1 1/2 male DMP 1 1/2" 5000-261		
PP	DN 50 x G 2 male DMP 2" 5000-262		
Alu	DN 50 x G 2 male DMP 2" 5000-263		
SS (1.4571)	DN 50 x G 2 male DMP 2" 5000-264		
PVDF	DN 50 x G 2 male DMP 2" 5000-265		
Hose connector			
Security hose connector for mineral oil hose, solvent hose, universal chemical hose, chemical hose with different connection threads.			
Brass	DN 13 x G 1/2 female DMP 1/2" 5000-102 ●		
SS (1.4571)	DN 13 x G 1/2 female DMP 1/2" 5000-103 ●		
Brass	DN 19 x G 3/4 female DMP 1/2" 5000-104 ●		
SS (1.4571)	DN 19 x G 3/4 female DMP 1/2" 5000-105 ●		
Brass	DN 25 x G 1 male DMP 1" 0302-010 ●		
Brass for mineral oil hose	DN 25 x G 1 female DMP 1" 0302-112 ●		
SS (1.4571)	DN 25 x G 1 male DMP 1" 0302-013 ●		
Brass	DN 38 x G 1 1/2 female DMP 1 1/2" 0302-091 ** ●		
SS (1.4571)	DN 38 x G 1 1/2 female DMP 1 1/2" 0302-092 ** ●		
Brass	DN 50 x G 2 female DMP 2" 5000-100 ** ●		
SS (1.4571)	DN 50 x G 2 female DMP 2" 5000-101 ** ●		
**) can be used only in connection with flange			

Accessories

Suction pipe, foot strainer, strainer, vibration dampener, equipotential bonding cable, drum pump set




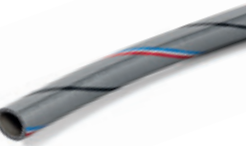

Product detail	Specification	Order-No.																																
	<p>Suction pipe</p> <table border="0"> <tr> <td>SS (1.4571)</td> <td>Outer diameter 41 mm, Length 1000 mm</td> <td>Connection: G 1 male</td> <td>0204-229</td> </tr> <tr> <td>SS (1.4571)</td> <td>Outer diameter 41 mm, Length 1200 mm</td> <td>Connection: G 1 male</td> <td>0204-355</td> </tr> <tr> <td>SS (1.4571)</td> <td>Outer diameter 41 mm, Length 1000 mm</td> <td>Connection: G 1 1/4 male</td> <td>0204-228</td> </tr> <tr> <td>SS (1.4571)</td> <td>Outer diameter 41 mm, Length 1200 mm</td> <td>Connection: G 1 1/4 male</td> <td>0204-356</td> </tr> <tr> <td>PP</td> <td>Outer diameter 41 mm, Length 1000 mm</td> <td>Connection: G 1 1/4 male</td> <td>5000-120</td> </tr> <tr> <td>PP</td> <td>Outer diameter 41 mm, Length 1200 mm</td> <td>Connection: G 1 1/4 male</td> <td>5000-119</td> </tr> <tr> <td>PVDF</td> <td>Outer diameter 41 mm, Length 1200 mm</td> <td>Connection: G 1 1/4 male</td> <td>5000-118</td> </tr> </table> <p>Suction pipe for complete drum drainage</p> <table border="0"> <tr> <td>SS (1.4571)</td> <td>Outer diameter 41 mm, Length 1200 mm</td> <td>Connection: G 1 1/4 male</td> <td>5000-294</td> </tr> </table>	SS (1.4571)	Outer diameter 41 mm, Length 1000 mm	Connection: G 1 male	0204-229	SS (1.4571)	Outer diameter 41 mm, Length 1200 mm	Connection: G 1 male	0204-355	SS (1.4571)	Outer diameter 41 mm, Length 1000 mm	Connection: G 1 1/4 male	0204-228	SS (1.4571)	Outer diameter 41 mm, Length 1200 mm	Connection: G 1 1/4 male	0204-356	PP	Outer diameter 41 mm, Length 1000 mm	Connection: G 1 1/4 male	5000-120	PP	Outer diameter 41 mm, Length 1200 mm	Connection: G 1 1/4 male	5000-119	PVDF	Outer diameter 41 mm, Length 1200 mm	Connection: G 1 1/4 male	5000-118	SS (1.4571)	Outer diameter 41 mm, Length 1200 mm	Connection: G 1 1/4 male	5000-294	
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	<p>Suction pipe with strainer</p> <p>Consisting of: Foot strainer with hose piece and Suction pipe PP Outer diameter 21.5 mm, Length 980 mm</p> <p>Connection: G 1/2 male</p>	5000-220																																
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	<p>Equipotential bonding cable</p> <p>Serves to create electrically conductive connection between explosion proof pump and container as earthing and equipotential bonding function.</p>	0204-994 ●																																
	<p>Drum pump kit</p> <p>Suction pipe and bung hole adapter for emptying of 200 l-drums. Length: 1000 mm (is directly screwed into the suction manifold of the double diaphragm pump)</p> <table border="0"> <tr> <td>PP</td> <td>DMP 1/2" (Clamped Version)</td> <td>5000-174</td> </tr> <tr> <td>Alu</td> <td>DMP 1/2"</td> <td>5000-175</td> </tr> <tr> <td>SS (1.4571)</td> <td>DMP 1/2"</td> <td>5000-221</td> </tr> <tr> <td>PP</td> <td>DMP 1" (Clamped Version)</td> <td>5000-176</td> </tr> </table>	PP	DMP 1/2" (Clamped Version)	5000-174	Alu	DMP 1/2"	5000-175	SS (1.4571)	DMP 1/2"	5000-221	PP	DMP 1" (Clamped Version)	5000-176																					
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● Suitable for transferring combustible and easy inflammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

Specification	Order-No.	Product detail
<p>Hose clips</p> <p>Stainless steel hose clips with threaded screw for fixing hoses of various nominal bore at 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>0301-156 0301-403 0301-400 0301-401 0302-402 0302-403</p>	
<p>PVC spiral hose, fabric reinforced</p> <p>Hose made of PVC, with woven layer and imbedded galvanized steel helix. For aggressive, non-flammable liquids.</p> <p>Operating pressure: max. 14 bar Temperature of medium: -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><small>*Hose for food liquids, inside and outside smooth, complies with EU-regulations 10/2011 and 1935/2004.</small></p>	<p>0374-466* 0374-467* 0374-468* 0374-469* 0374-470*</p>	
<p>PVC-hose</p> <p>Fabric reinforced</p> <p>Operating pressure: max. 8 bar at 20 °C</p> <p>Material: Nominal diameter: PVC DN 9 PVC DN 13</p>	<p>0373-153 0373-154</p>	
<p>PTFE-hose</p> <p>Temp. range of application: - 30 up to + 100 °C Operating pressure: max. 6.5 at 20 °C</p> <p>Material: Nominal diameter: PTFE DN 8 PTFE DN 13</p> <p>Low pressure: max. 0.7 bar (0.3 bar abs.)</p>	<p>0374-444 0374-445</p>	

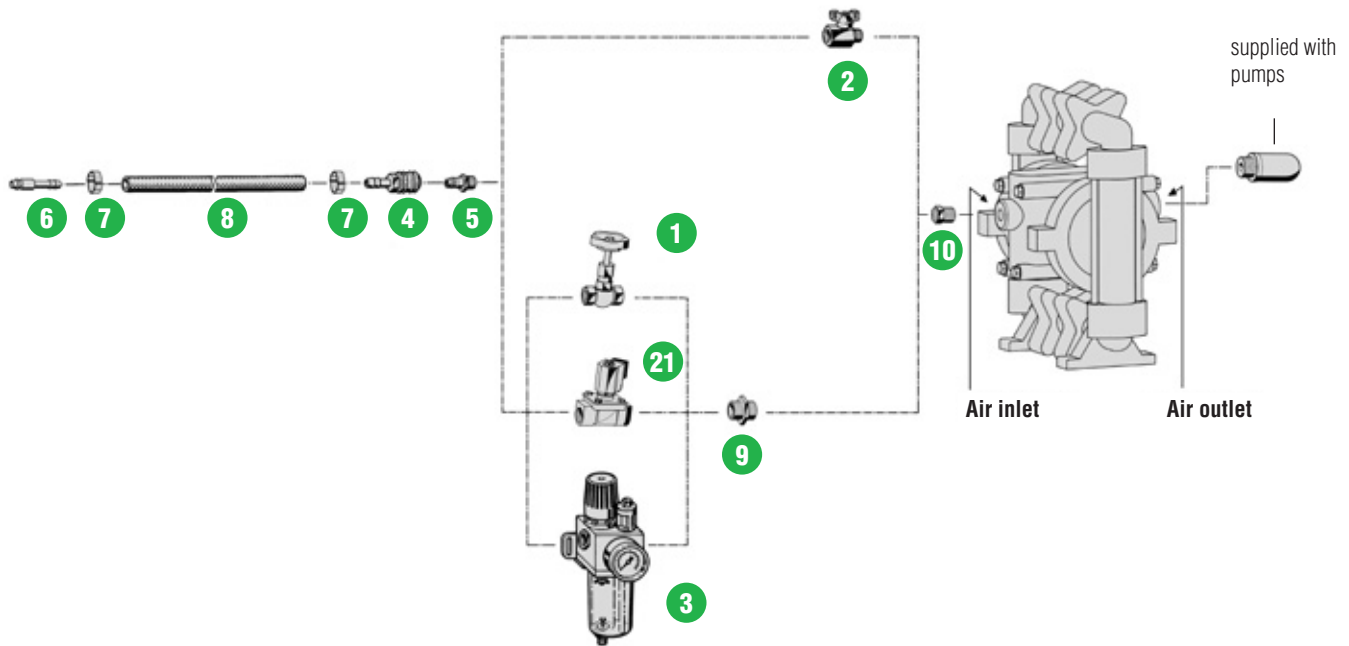
Accessories


Mineral oil hose, solvent hose, universal chemical hose, special chemical hose


Product detail	Specification	Order-No.																																													
	<p>Mineral oil hose</p> <p>Inner rubber of NBR, outer rubber of NBR. Not suitable for suction operation. Electrically conductive: Type Ω-CL (<10⁶ Ohm between the fittings) according to TRbF 50 appendix B (TRbF 131/2).</p> <p>Temperature of medium: -25 up to +65 °C</p> <table border="0"> <tr> <td>Material:</td> <td>Nominal diameter:</td> <td>Operating pressure:</td> <td></td> </tr> <tr> <td>NBR</td> <td>DN 13</td> <td>max. 10 bar</td> <td>0374-446 ●</td> </tr> <tr> <td>NBR</td> <td>DN 19</td> <td>max. 10 bar</td> <td>0374-461 ●</td> </tr> <tr> <td>NBR</td> <td>DN 25</td> <td>max. 10 bar</td> <td>0374-462 ●</td> </tr> </table> <p>Inner rubber of NBR, outer rubber of chloroprene. Not suitable for suction operation. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of medium: -30 up to +90 °C</p> <table border="0"> <tr> <td>Material:</td> <td>Nominal diameter:</td> <td>Operating pressure:</td> <td></td> </tr> <tr> <td>NBR</td> <td>DN 32</td> <td>max. 16 bar</td> <td>0374-413 ●</td> </tr> <tr> <td>NBR</td> <td>DN 38</td> <td>max. 16 bar</td> <td>0374-414 ●</td> </tr> <tr> <td>NBR</td> <td>DN 50</td> <td>max. 16 bar</td> <td>0374-448 ●</td> </tr> </table>	Material:	Nominal diameter:	Operating pressure:		NBR	DN 13	max. 10 bar	0374-446 ●	NBR	DN 19	max. 10 bar	0374-461 ●	NBR	DN 25	max. 10 bar	0374-462 ●	Material:	Nominal diameter:	Operating pressure:		NBR	DN 32	max. 16 bar	0374-413 ●	NBR	DN 38	max. 16 bar	0374-414 ●	NBR	DN 50	max. 16 bar	0374-448 ●														
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	<p>Solvent hose</p> <p>Inner rubber of NBR special, outer rubber 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.</p> <p>Temperature of medium: -20 up to +80 °C</p> <table border="0"> <tr> <td>Material:</td> <td>Nominal diameter:</td> <td>Operating pressure:</td> <td>Low pressure:</td> <td></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> <td>0374-449 ●</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> <td>0374-416 ●</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> <td>0374-417 ●</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> <td>0374-418 ●</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> <td>0374-450 ●</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> <td>0374-451 ●</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.)	0374-449 ●	NBR special	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-416 ●	NBR special	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-417 ●	NBR special	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-418 ●	NBR special	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-450 ●	NBR special	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-451 ●											
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	<p>Universal chemical hose</p> <p>Inner rubber of ultra high molecular polyethylene (U-PE), outer rubber of EPDM. Electrically conductive: Type Ω/T (<10⁶ Ohm between the fittings, <10⁹ Ohm through the hose wall) according to DIN EN 12115:2011.</p> <p>Temperature of medium: -30 up to +100 °C</p> <table border="0"> <tr> <td>Material:</td> <td>Nominal diameter:</td> <td>Operating pressure:</td> <td>Low pressure:</td> <td></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> <td>0374-474 ●</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> <td>0374-475 ●</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> <td>0374-476 ●</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> <td>0374-477 ●</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> <td>0374-478 ●</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> <td>0374-479 ●</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.)	0374-474 ●	U-PE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-475 ●	U-PE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-476 ●	U-PE	DN 32	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-477 ●	U-PE	DN 38	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-478 ●	U-PE	DN 50	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-479 ●											
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Material:	Nominal diameter:	Operating pressure:	Low pressure:																																												
PTFE	DN 19	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-481 ●																																											
PTFE	DN 25	max. 16 bar	max. 0.9 bar (0.1 bar abs.)	0374-482 ●																																											


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


Specification	Order-No.	Product detail
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1 Needle valve	Regulates the air extent to the double diaphragm pump.			
	Brass	G 3/8	DMP 1/4" DMP 3/8" DMP 1/2" DMP 1"	
Brass	G 3/4	DMP 1 1/2" DMP 2" DMP 3"	5000-161	






2 Air flow control valve	PVC	3/4 NPT male x G 3/4 female	DMP 1 1/2" up to 3"	5303-429	
	PVC	1/4 NPT male x G 1/2 female	DMP 1/4" up to 1"	5303-430	

3 Filter pressure regulator	Inlet pressure:	max. 16 bar	Ambient temp.:	max. 60 °C	
	Filter element:	5 µm, Cellpor	Diaphragms and seals:	NBR	
	Housing:	Zinc-Pressure cast			
		G 3/8	DMP 1/4" up to DMP 1"	5000-178	
	Inlet pressure:	max. 16 bar	Ambient temp.:	max. 60 °C	
	Filter element:	40 µm, sinter bronze	Diaphragms and seals:	NBR	
	Housing:	Aluminium			
		G 3/4	DMP 1 1/2" up to DMP 3"	5000-173	

4 Air hose coupling	Self-closing				
	Brass (NW 7.2)	DN 9	DMP 1/4" and 3/8"		0372-166
	Brass (NW 7.2)	DN 13	DMP 1/2" and 1"		0372-167
	Brass (NW 10)	DN 13	DMP 1 1/2" and 3"		5000-165

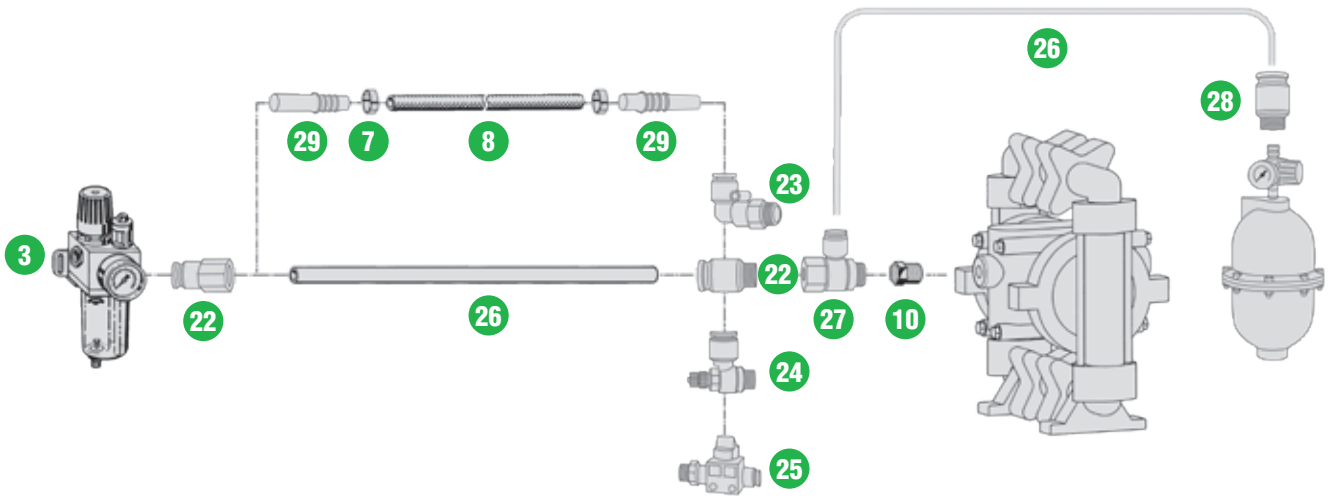
Accessories

for compressed air supply

Product detail	Specification	Order-No.
	<p>5 Air coupling connector</p> <p>Brass (NW 7.2) G 3/8 male DMP 1/4" DMP 3/8" DMP 1/2" DMP 1"</p> <p>Brass (NW 7.2) G 1/2 male (when using a regulation valve) DMP 1/4" DMP 3/8" DMP 1/2" DMP 1"</p> <p>Brass (NW 10) G 3/4 male DMP 1 1/2" DMP 2" DMP 3"</p>	<p>0372-045</p> <p>5000-179</p> <p>5000-172</p>
	<p>6 Air hose nozzle</p> <p>For connection into coupling (NW 7.2) For compressed air hose</p> <p>DN 9 DN 13</p>	<p>0372-155</p> <p>0372-039</p>
	<p>7 Hose clamp</p> <p>(Chrome steel: 1.4016) For compressed air hose</p> <p>DN 9 DN 13</p>	<p>0301-156</p> <p>0301-403</p>
	<p>8 Compressed air hose</p> <p>PVC-hose with woven layer Max. operating pressure: 8 bar at 20 °C</p> <p>DN 9 DN 13</p>	<p>0373-153</p> <p>0373-154</p>
	<p>9 Double nipple</p> <p>Brass G 3/8 male Brass G 3/4 male</p> <p>10 Reducing piece</p> <p>Brass G 1/4 female x 1/4 NPT male Brass G 1/4 female x 1/2 NPT male Brass G 3/8 female x 1/4 NPT male Brass G 3/8 female x 1/2 NPT male Brass G 3/4 female x 3/4 NPT male Brass G 3/8 male x G 3/4 male Brass 3/4 NPT female x 1/2 NPT male</p>	<p>0302-157</p> <p>5000-171</p> <p>5000-225</p> <p>5000-226</p> <p>5000-177</p> <p>5000-227</p> <p>5000-170</p> <p>5000-210</p> <p>5000-228</p>

Push-in fittings for compressed air supply

Specification	Order-No.	Product detail
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<p>22 Male connector</p> <p>For connecting to the pump Brass, nickel-plated G 1/4 male x DN 12 mm DMP 1/4" up to 1" 5000-400</p> <p>For connecting to a pressure regulator Brass, nickel-plated G 3/8 male x Ø 12 mm DMP 3/8" up to 1" 5000-401</p>	
<p>23 Male elbow</p> <p>Rotatable, for connecting to the pump Plastic / Brass, nickel-plated G 1/4 male x Ø 12 mm DMP 1/4" up to 1" 5000-402</p>	
<p>24 Flow control valve</p> <p>Regulates the air extent to the pump, rotatable, for connecting to the pump Plastic / Brass, nickel-plated G 1/4 male x Ø 12 mm DMP 1/4" up to 1" 5000-403</p>	
<p>25 Stop valve</p> <p>For connecting to the pump Plastic / Brass, nickel-plated G 1/4 male x Ø 12 mm DMP 1/4" up to 1" 5000-404</p>	
<p>26 Polyurethane hose</p> <p>For use with plug-type connectors</p> <p>Range of temperature: - 40 °C up to + 60 °C Max. operating pressure: 10 bar at 23 °C PUR Outer-Ø 12 mm, Inner-Ø 9 mm DMP 1/4" up to 1" 5000-405</p>	
<p>27 Elbow tee</p> <p>Optional branch when using a pulsation dampener, rotatable Plastic / Brass, nickel-plated G 1/4 male x Ø 12 mm x G 1/4 female DMP 1/4" up to 1" 5000-406</p>	
<p>28 Female connector</p> <p>Optional for connecting a pulsation dampener Brass, nickel-plated G 1/4 male x Ø 12 mm 5000-407</p>	
<p>29 Nipple with hose liner</p> <p>for PVC hose DN 9 Plastic Ø 10 mm x Ø 12 mm 5000-408</p>	

Accessories

Non-contacting volume measurement

Product detail	Specification	Order-No.
	<p>supplied with pump</p>	
	<p>12 Impulse set For counting the strokes of double diaphragm pump</p> <p>Electronic impulse connection Consisting of: Impuls adapter with 0.6 m 2-pole connecting cable and 7-pole coupling socket Additional price* DMP 1/4" up to DMP 3"</p> <p>13 Data cable pulse connection Connects the pulse connection electronically with the operating unit or the pulse converter. Data line 7-pole to 14-pole.</p> <p>*(When ordering a pump, please also advise ref.no. for the additional price)</p>	<p>5000-345 ●</p> <p>5000-349 ●</p>
	<p>14 Operating unit Serves to count the impulses and shows the volume on a digital display.</p> <p>Operating unit BE10 Operating unit BE10V (electronic moulded) Operating unit Ex-BE10B Operating unit Ex-BE10BV (electronic moulded)</p>	<p>0230-000 0230-001 0230-010 ● 0230-011 ●</p>

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

Specification	Order-No.	Product detail
<p>16 Intermediate plate Necessary for fixing the operating unit.</p> <p>PP</p>	0230-304	
<p>Accessories optional</p> <p>17 Relay module Allows a preselected volume.</p> <p>Type RM10, 220-240 V, 50-60 Hz, II (2) G [Ex ib] II C Type Ex RM10mK 220-240 V, 50-60 Hz, II 2 G Ex ebmb [ib] IIC T4</p>	0230-200 on request ●	
<p>18 Mains unit NG10 230 V Includes a power supply or the operating unit.</p> <p>220-240 V, 50-60 Hz, II (2) G [Ex ib] IIC</p>	0230-230	
<p>19 Connecting cable Length 5 m 2/2-way-solenoid valve, 230 V</p>	0211-150	
<p>20 Mains supply 230 V Relay module, 230 V Length 5 m</p>	0211-155	
<p>21 2/2-Way solenoid valve Shuts off the air supply to the double diaphragm pump. Control via the relay module.</p> <p>Brass G 3/8 female Brass, Ex G 3/8 female</p>	5000-167 5000-168 ●	
<p>Protective cap Allows a separate installation from relay module and/or control unit.</p> <p>SH10 with 1 data socket SH20 with 2 data sockets</p>	0230-350 0230-351	

Adjustable pulsation dampener

Product detail

Specification

Order-No.

Automatic pulsation dampener

Operation

The pulsation dampener is a vessel filled with compressed gas. The gas is entrapped by the elastomeric bladder, which prevents contact between the process fluid and compressed gas. When a pulse is created, fluid enters the wetted chamber of the dampener, displacing the bladder, compressing the gas and absorbing the shock. When the liquid pressure decreases, the gas expands pushing the fluid back to the process line. The pump's discharge will produce an almost steady fluid flow.

Advantages of the pulsation dampener

- Dampeners avoid vibrations of the pipeline, which cause material fatigues and pipe breaks.
- Compensation of hydraulic surge ("water hammer") protects integrated fittings.
- Create a nearly steady and continuous fluid flow, which increases the accuracy of the flow meter systems.
- Explosion proof models with ATEX approval

Installation

Mount pulsation dampener as close to the pump as possible. For models with automatic air control it is not necessary to regulate the dampener pressure and to adjust the dampener if there are pressure variations. They regulate themselves in dependence on the system pressure. The air supply of the dampener and of the air operated double diaphragm pump are parallel.



Pulsation dampener PD III D for DMP 1/4" and DMP 3/8"

Housing materials:	PP, PVDF and SS (1.4571)
Diaphragms:	PTFE, EPDM, NBR and FPM
Connection:	G 1/2 female
Air supply:	1/4 NPT male
Operating pressure:	max. 10 bar
Volume:	approx. 0.16 dm ³ , respectively approx. 0.13 dm ³ with PTFE-diaphragm
Air control:	adjustable
Weight:	approx. 1 up to 1.8 kg

Type	Housing materials	Diaphragms	Order No.
PD III D – P – B	PP (in contact with the product) PP (not in contact with the product)	NBR	5000-350
PD III D – P – ND	PP (in contact with the product) PP (not in contact with the product)	EPDM	5000-351
PD III D – P – T	PP (in contact with the product) PP (not in contact with the product)	PTFE	5000-352
PD III D – P – V	PP (in contact with the product) PP (not in contact with the product)	FPM	5000-353
PD III D – K – T	PVDF (in contact with the product) PVDF (not in contact with the product)	PTFE	5000-354
PD III D – S – T Ex II 2 GD IIB T4	SS, 1.4571 (in contact with the product) SS, 1.4571 (not in contact with the product)	PTFE	5000-357 ●

Specification		Order-No.	Product detail	
Pulsation dampener for DMP 1/2" DT 50 / DTX 70		PD II F		
Housing materials: Diaphragms: Connection: Air supply: Operating pressure: Air control: Weight:	PE, PTFE and SS (1.4571) PTFE, EPDM, NBR G 1/2 female / G 3/4 SS G 1/4 female max. 8 bar automatically approx. 1.4 up to 2.1 kg	SS (1.4571) FPM G 3/4 female 1/4 NPT male max. 10 bar adjustable approx. 4.5 kg		
Type	Housing materials	Diaphragms	Order No.	
DT 50 PN	PE (in contact with the product)	NBR	5000-410	
DT 50 PE	PE (in contact with the product)	EPDM	5000-411	
DT 50 PT	PE (in contact with the product)	PTFE	5000-412	
DT 50 TT	PTFE (in contact with the product)	PTFE	5000-413	
DT X 70 ST Ex II 2 GD IIB T4	SS, 1.4404 (in contact with the product)	PTFE	5000-414 ●	
PD II F – S – V Ex II 2 GD IIB T4	SS, 1.4571 (in contact with the product)	FPM	5000-363 ●	
Pulsation dampener for DMP 1" DT 100 / DTX 120		PD II D		
Housing materials: Diaphragms: Connection: Air supply: Operating pressure: Air control: Weight:	PE, PTFE and SS (1.4404) PTFE, EPDM, NBR G 1 female G 1/4 female max. 8 bar automatically approx. 2.8 up to 4.6 kg	SS (1.4571) FPM G 3/4 female 1/4 NPT male max. 10 bar adjustable approx. 6 kg		
Type	Housing materials	Diaphragms	Order No.	
DT 100 PN	PE (in contact with the product)	NBR	5000-415	
DT 100 PE	PE (in contact with the product)	EPDM	5000-416	
DT 100 PT	PE (in contact with the product)	PTFE	5000-417	
DT 100 TT	PTFE (in contact with the product)	PTFE	5000-418	
DT X 120 ST Ex II 2 GD IIB T4	SS, 1.4404 (in contact with the product)	PTFE	5000-419 ●	
PD II D – S – V Ex II 2 GD IIB T4	SS, 1.4571 (in contact with the product)	FPM	5000-369 ●	

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

Accessories

Adjustable pulsation dampener, pressure relief valve

Product detail	Specification	Order-No.																																												
  	<p>Pulsation dampener PD I D for DMP 1 1/2“ and DMP 2“</p> <p>Housing materials: PP, PVDF and SS (1.4571) Diaphragms: PTFE, EPDM, NBR and FPM Connection: G 2 female Air supply: 1/4 NPT male Operating pressure: max. 10 bar Volume: approx. 6 dm³, respectively approx. 5.8 dm³ with PTFE-diaphragm Air control: adjustable Weight: approx. 7.2 up to 19 kg</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Housing materials</th> <th>Diaphragms</th> <th>Order No.</th> </tr> </thead> <tbody> <tr> <td>PD I D – P – B</td> <td>PP (in contact with the product) PP (not in contact with the product)</td> <td>NBR</td> <td>5000-370</td> </tr> <tr> <td>PD I D – P – ND</td> <td>PP (in contact with the product) PP (not in contact with the product)</td> <td>EPDM</td> <td>5000-371</td> </tr> <tr> <td>PD I D – P – T</td> <td>PP (in contact with the product) PP (not in contact with the product)</td> <td>PTFE</td> <td>5000-372</td> </tr> <tr> <td>PD I D – K – T</td> <td>PVDF (in contact with the product) PP (not in contact with the product)</td> <td>PTFE</td> <td>5000-373</td> </tr> <tr> <td>PD I D – C – B Ex II 2 GD IIB T4</td> <td>C-Steel (in contact with the product) C-Steel (not in contact with the product)</td> <td>NBR</td> <td>5000-374 ●</td> </tr> <tr> <td>PD I D – S – T Ex II 2 GD IIB T4</td> <td>SS, 1.4571 (in contact with the product) SS, 1.4571 (not in contact with the product)</td> <td>PTFE</td> <td>5000-375 ●</td> </tr> <tr> <td>PD I D – S – V Ex II 2 GD IIB T4</td> <td>SS, 1.4571 (in contact with the product) SS, 1.4571 (not in contact with the product)</td> <td>FPM</td> <td>5000-376 ●</td> </tr> </tbody> </table> <p>Pulsation dampener PD IV D for DMP 3“</p> <p>Housing materials: Aluminium Diaphragms: EPDM and FPM Connection: Flange DIN DN 75 PN 10 or ANSI 150 Air supply: 1/4 NPT male Operating pressure: max. 10 bar Volume: approx. 18 dm³ Air control: adjustable Weight: approx. 18 kg</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Housing materials</th> <th>Diaphragms</th> <th>Order No.</th> </tr> </thead> <tbody> <tr> <td>PD IV D – A – ND Ex II 2 GD IIB T4</td> <td>Alu (in contact with the product) Alu (not in contact with the product)</td> <td>EPDM</td> <td>5000-203 ●</td> </tr> <tr> <td>PD IV D – A – V Ex II 2 GD IIB T4</td> <td>Alu (in contact with the product) Alu (not in contact with the product)</td> <td>FPM</td> <td>5000-377 ●</td> </tr> </tbody> </table>	Type	Housing materials	Diaphragms	Order No.	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) PP (not 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	C-Steel (in contact with the product) C-Steel (not in contact with the product)	NBR	5000-374 ●	PD I D – S – T Ex II 2 GD IIB T4	SS, 1.4571 (in contact with the product) SS, 1.4571 (not in contact with the product)	PTFE	5000-375 ●	PD I D – S – V Ex II 2 GD IIB T4	SS, 1.4571 (in contact with the product) SS, 1.4571 (not in contact with the product)	FPM	5000-376 ●	Type	Housing materials	Diaphragms	Order No.	PD IV D – A – ND Ex II 2 GD IIB T4	Alu (in contact with the product) Alu (not in contact with the product)	EPDM	5000-203 ●	PD IV D – A – V Ex II 2 GD IIB T4	Alu (in contact with the product) Alu (not in contact with the product)	FPM	5000-377 ●	
Type	Housing materials	Diaphragms	Order No.																																											
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PD IV D – A – V Ex II 2 GD IIB T4	Alu (in contact with the product) Alu (not in contact with the product)	FPM	5000-377 ●																																											
	<p>Pressure relief valve</p> <p>Provides for a defined working pressure and supports the pump when operating under unfavourable geodetic conditions (e.g. large suction heads, open discharge). The set pressure of the valve produces the necessary positive pressure difference between pressure- and suction side of the pump.</p> <p>Housing material: PVC, PP, PVDF, SS Setting range: 0.3 - 10 bar DN 10 - DN 50</p>	<p>on request</p>																																												

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

Max-Pass™ Valve, electric solenoid control valve

Specification	Order-No.	Product detail										
<p>Max-Pass™-Valve</p> <p>Designed to transfer fluids containing large solids and highly viscous fluids, e.g. adhesives, paints, inks or slurries. Special construction features offer numerous advantages compared with traditional ball or cone valves:</p> <ul style="list-style-type: none"> • For fluids with solid particles: <table style="margin-left: 20px;"> <tr> <td>DMP 1/2"</td> <td>up to 9.6 mm</td> </tr> <tr> <td>DMP 1"</td> <td>up to 19 mm</td> </tr> </table> • For abrasive fluids • For viscous fluids up to 22.000 mPas • Creates a 25% increase of the suction capability of the pump • Greater freedom of installation of the pump • Developed and tested for long service life > 20 millions of strokes 	DMP 1/2"	up to 9.6 mm	DMP 1"	up to 19 mm								
DMP 1/2"	up to 9.6 mm											
DMP 1"	up to 19 mm											
<p>Electric solenoid control valve</p> <p>The electric solenoid control valve is used for controlling the operating cycles of the diaphragm pump. When energized, air is delivered to one side of the diaphragm while simultaneously exhausting the other side. The reverse occurs when the solenoid is de-energized by delivering air to the side of the pump previously being exhausted. Via the frequency and the number of electromagnetic impulses the flow rate or the batch can be optionally set. The pump stops exactly on the given setting.</p> <p>Control voltage: 230V AC/50 Hz, 120V AC/60 Hz or 24V DC.</p> <ul style="list-style-type: none"> • Pump control via electric impulses • For remote control of the pump via SPS, relay and switch • Ideal for batching and simple metering applications • Non-stalling operation • Absolutely oil-free <p>Available at add. price in following versions*</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">220V AC/50Hz</td> <td style="width: 30%;">DMP 1/2" and 1"</td> <td style="width: 30%; text-align: right;">5000-322</td> </tr> <tr> <td>120V AC/60Hz</td> <td>DMP 1/2" and 1"</td> <td style="text-align: right;">5000-321</td> </tr> <tr> <td>24V DC</td> <td>DMP 1/2" and 1"</td> <td style="text-align: right;">5000-320</td> </tr> </table> <p>* (To order a pump, please advise the respective ref.-no. for add. price to the pump order-no.)</p>	220V AC/50Hz	DMP 1/2" and 1"	5000-322	120V AC/60Hz	DMP 1/2" and 1"	5000-321	24V DC	DMP 1/2" and 1"	5000-320			
220V AC/50Hz	DMP 1/2" and 1"	5000-322										
120V AC/60Hz	DMP 1/2" and 1"	5000-321										
24V DC	DMP 1/2" and 1"	5000-320										
<p>Diaphragm Control</p> <p>In case of a diaphragm rupture, the pumped liquid can enter the air side of the pump and exit through the air exhaust. Such a leakage can be avoided when using a diaphragm control. Both air chambers have sensors which register entering liquid. These sensors transmit an impulse to a level controller which stops the pump and/or activates an alarm signal. The use of a diaphragm control is only possible with conductive liquids.</p> <p>The diaphragm control is available for following types at extra costs*</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Diaphragm control DMP 3/8"</td> <td style="width: 40%; text-align: right;">5000-624</td> </tr> <tr> <td>Diaphragm control DMP 1/2"</td> <td style="text-align: right;">5000-625</td> </tr> <tr> <td>Diaphragm control DMP 1"</td> <td style="text-align: right;">5000-626</td> </tr> <tr> <td>Diaphragm control DMP 1 1/2" and DMP 2"</td> <td style="text-align: right;">5000-627</td> </tr> <tr> <td>Diaphragm control DMP 3"</td> <td style="text-align: right;">5000-628</td> </tr> </table> <p>* (To order a pump please advise respective Ref. No. for additional price to the pump order-no.)</p>	Diaphragm control DMP 3/8"	5000-624	Diaphragm control DMP 1/2"	5000-625	Diaphragm control DMP 1"	5000-626	Diaphragm control DMP 1 1/2" and DMP 2"	5000-627	Diaphragm control DMP 3"	5000-628		
Diaphragm control DMP 3/8"	5000-624											
Diaphragm control DMP 1/2"	5000-625											
Diaphragm control DMP 1"	5000-626											
Diaphragm control DMP 1 1/2" and DMP 2"	5000-627											
Diaphragm control DMP 3"	5000-628											

Materials of the Lutz Double Diaphragm Pumps

Materials of the pump housings

Type	Polypropylene	PVDF	PA-C	Stainless Steel	Aluminium
DMP 1/4"	●	●	●		
DMP 3/8"	●	●	●		
DMP 1/2"	●	●	●	●	●
DMP 1"	●	●		●	●
DMP 1 1/2"	●	●		●	●
DMP 2"	●	●		●	●
DMP 3"				●	●

Temperature limit values

Diaphragms:

TPV (NBR-PP)	-12 °C to 82 °C
TPV (EPDM-PP)	-40 °C to 107 °C
FPM	-40 °C to 176 °C
PTFE	4 °C to 105 °C

Metallic Pumps:

Can operate past 100°C. However, if you are operating above these limits, consult the factory for assistance.

Plastic Pumps:

Can operate to the following temperature limits:

PP:	-0 °C to 66 °C
PVDF:	-18 °C to 93 °C
PA:	-18 °C to 66 °C
Aluminium:	-23 °C to 93 °C
Stainless Steel:	-23 °C to 93 °C

Caution: Temperature limits are based upon mechanical stress only. Certain chemicals will significantly reduce maximum safe operating temperatures. Always consult engineering guides for chemical limits and chemical compatibility.

Note:

These are average temperatures. Chemicals and solvents can have an effect on temperature limits.

Housing and pump seat materials

Polypropylene (PP)

Polypropylene is a thermoplast, which is obtained from Propene by means of catalyzers through low pressure polymerisation. Polypropylene shows high resistance to organic acids and bases, alcohol and the most water-soluble inorganic chemicals.

Caution: Chlorinated compounds, hydrocarbons and organic solvents will cause swelling or attack polypropylene and should be avoided.

Polyvinylidene fluoride (PVDF)

A tough thermoplastic which exhibits good mechanical strength, high abrasion resistance, high thermal stability and high dielectric strength. Resistant to most chemicals and solvents.

Polyamide (PA)

Polyamide compounds with very high resistance to impact and scuff resistance, a very good resistance especially in the solvent sector. This material is additionally available in conductive version (PA-C).

Aluminium

Offers fair corrosion resistance with most organic acids and is excellent for use in general industrial and marine environments.

Stainless Steel

Exhibits the highest degree of chemical resistance and compatibility with corrosive fluids.

Materials of the Lutz Double Diaphragm Pumps

Materials of the diaphragms, valve balls and o-rings

PTFE Diaphragms

All Double Diaphragm Pumps fitted with PTFE diaphragms have back-up diaphragms made of TPV (EPDM-PP).

PTFE is only conditionally flexible and requires a back-up diaphragm in order to guarantee the flexibility.

PTFE: Highest chemical resistance. Excellent choice when pumping highly aggressive fluids such as aromatic or chlorinated hydrocarbons, acids, caustics, ketones and acetates.

FPM Diaphragms

FKM: A polymer of vinylidene fluoride and hexafluoropropylene. Advantages are the high temperature resistance and the chemical stability.

These result in a large resistance to aggressive fluids, e. g. aliphatic and aromatic hydrocarbons or acids.

Thermoplast Diaphragms

These diaphragms are made up entirely of man-made compound and require no fabric reinforcement due to the dimensional stability and tensile strength inherent in TPV compounds.

TPV (NBR-PP): Is a compound of NBR and PP. The chemical resistance is comparable with NBR. Perfectly suitable for oils and oil based liquids. Excellent for working under cold temperatures and is a cost saving alternative when pumping thin-bodied inorganic acids or caustics.

TPV (EPDM-PP): Is a compound of EPDM and PP. The chemical resistance is comparable with EPDM. When pumping acids and alkalis, TPV (EPDM-PP) is an excellent alternative to PTFE on many applications. It exhibits high abrasion resistance.

Pumping characteristics with viscous media

Viscous liquids

As an empirical rule, any liquid that will flow can be pumped by the Lutz Double Diaphragm Pumps.

It is noteworthy that some liquids, in addition to being viscous, may also be sticky. This characteristic may in some cases cause the ball valves to „hang-up“ and not seat properly, in these cases a simple remedy is to use compatible balls of a heavier material e.g. stainless steel.

The flow speed is also critical. Lower speeds reduce the flow resistance.

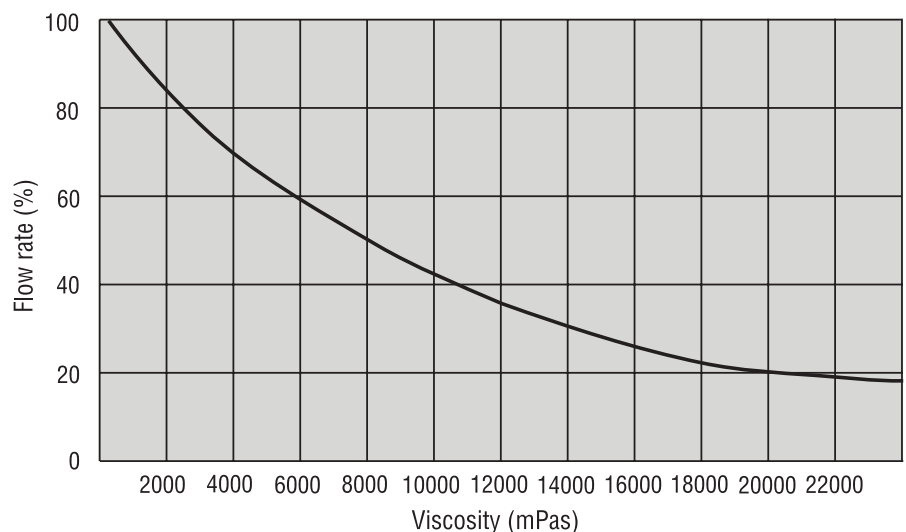
The following is for guidance only:

Type	Viscosity
DMP 1/4"	2000 mPas to 3000 mPas
DMP 3/8"	4000 mPas
DMP 1/2"	5000 mPas
DMP 1"	5000 mPas to 6000 mPas
DMP 1 1/2"	15000 mPas to 20000 mPas
DMP 2"	20000 mPas
DMP 3"	22000 mPas

Values without Max-Pass™ -Valve

Flow rate reduction in relation to viscosity

The diagram shows the approximate flow rate reduction with respect to viscosity, the reduction can also be attributable to suction lift, density as well as pipes and fittings on the suction and discharge.



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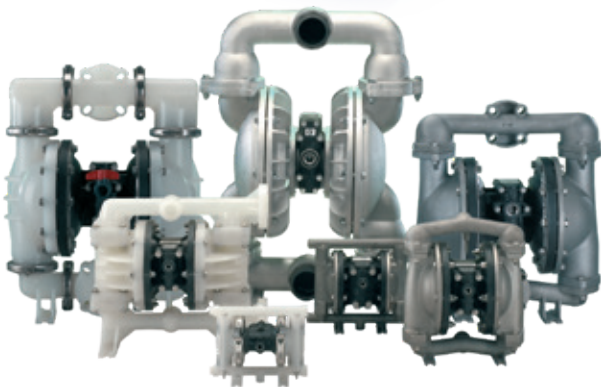
Drum and container pumps

Eccentric screw drum pumps

Flow meter systems

Air operated double diaphragm pumps

Vertical and horizontal centrifugal pumps



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P.O. Box 14 62 · D-97864 Wertheim · Phone: (+49 93 42) 8 79-0 · Fax: (+49 93 42) 87 94 04 · E-Mail: info@lutz-pumpen.de

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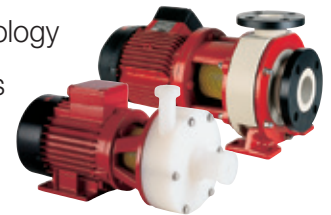


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www.lutz-jesco.com



Lutz Pumpen GmbH

P.O. Box 14 62 · D-97864 Wertheim

Tel.: (+49 93 42) 8 79-0 · Fax: (+49 93 42) 87 94 04

e-mail: info@lutz-pumpen.de

www.lutz-pumpen.de