

Air Operated Double Diaphragm Pumps (AODD)



Industrial applications and food
product programme

safety is our concern

Lutz double diaphragm pumps · Matchcode

1	Lutz product line	
	LDE	Lutz double diaphragm pump Evora
	LDS	Lutz double diaphragm pump Svolta
	LDM	Lutz double diaphragm pump Mova
2	Size	
	025M	1/4" mini
	0250	1/4"
	0380	3/8"
	050M	1/2" mini
	0500	1/2"
	100M	1" mini
	1000	1"
	1500	1 1/2"
	2000	2"
	3000	3"
	4000	4"
3	Design	
	00	-
	EX	Explosion protection*
	PU	PURE
	PX	PURE and explosion protection*
4	Pump housing	
	PP	Polypropylene
	PV	Polyvinylidene fluoride (PVDF)
	AL	Aluminium
	VA	Stainless steel (AISI 316L)
	PE	Polyethylene
5	Centre block	
	N	PP and GFR (glass fibre reinforced)
	X	PP and CF (carbon fibre reinforced)
	A	Aluminium
6	Diaphragm	
	M	TPV (Santoprene®)
	L	TPV and PTFE (Teflon®)
	Y	TPE (Keyflex®) and PTFE (Teflon®)
	D	EPDM
	N	NBR (Perbunan®, Buna N®)
	V	FKM (Viton®)
	R	NBR (Perbunan®, Buna N®) and PTFE (Teflon®)
7	Ball	
	T	PTFE
	S	Stainless steel (AISI 316L)
	D	EPDM
	N	NBR
	V	FKM

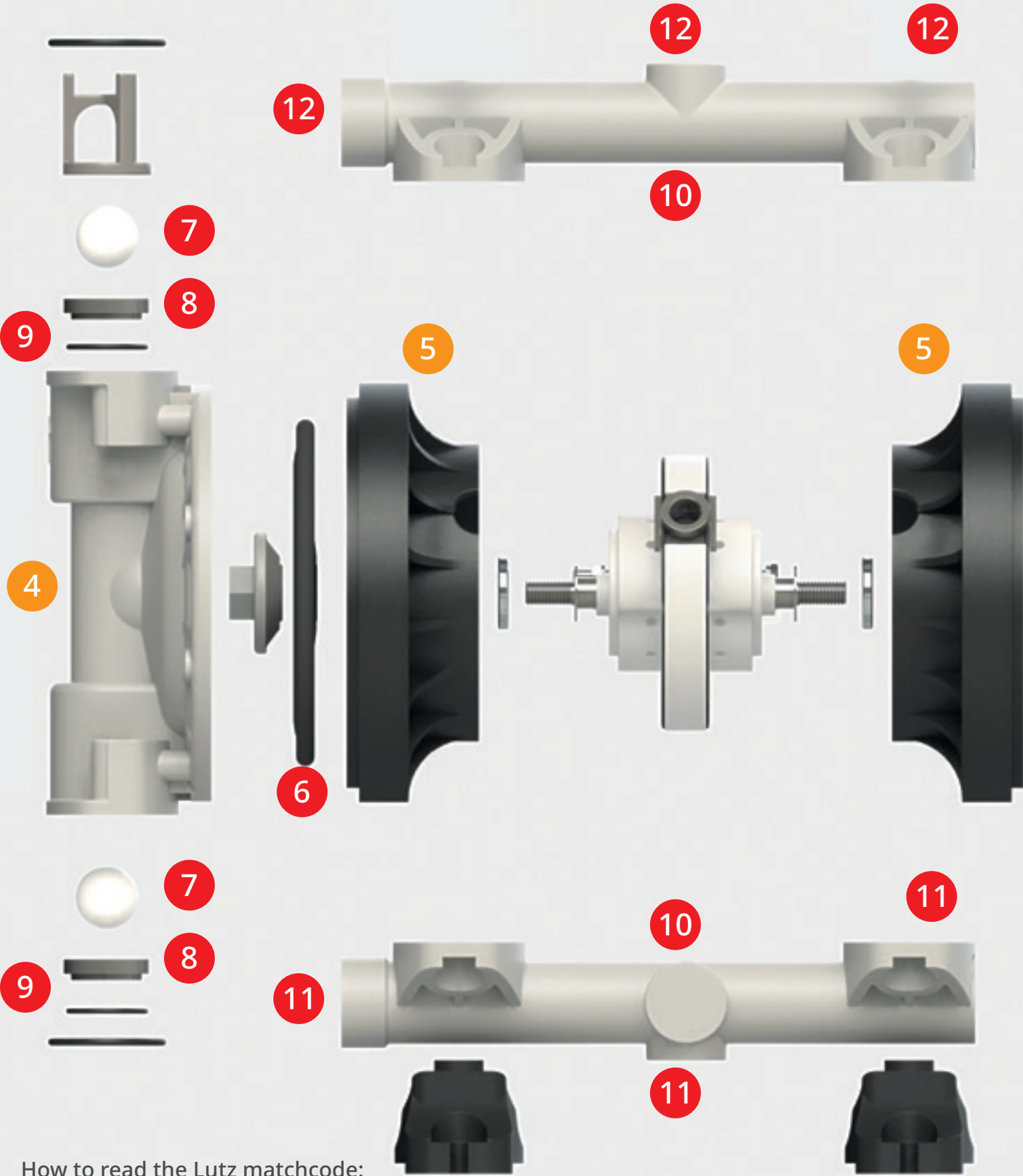
8	Ball seat	
	P	PP
	K	PVDF
	S	Stainless steel (AISI 316L)
	A	Aluminium
	Z	PE-UHMW
	O	POMc
9	Seal	
	D	EPDM
	V	FKM
	T	PTFE
	N	NBR
	K	FFKM
10	Fluid connection	
	G	Thread BSP
	N	Thread G
	I	Fl. ISO PN10
	A	Fl. ANSI #150
	C	Tri-Clamp
11	Inlet/outlet	
	L	Left
12		
	R	Right
	F	Front centre
	B	Rear centre
	V	Top centre
	X	Split

13	Modification	
	00	-
	10	Electric control valve
	20	Indirect flow measurement
	30	Diaphragm rupture monitoring

How to read the Lutz matchcode:

LDE-1500-00-PPA-MDPDGRR-00

1 2 3 4 5 6 7 8 9 10 11 12 13



How to read the Lutz matchcode:

LDE-1500-00-PPA-MDPDGRR-00

1 2 3 4 5 6 7 8 9 10 11 12 13



Matchcode

An optimum configuration is achieved using the matchcode procedure.

It enables fast, precise selection of the right pump and works as follows:

- **Determine the requirements**

The first step is to work with our experts to determine the specific requirements of your application (viscosity of the liquid, flow rate, temperature, delivery pressure, etc.).

- **Select the base model**

The matchcode begins with the selection of the appropriate basic pump model. We provide a range of pump types that differ in size, performance and design.

- **Customise the components**

After selecting the basic model, we determine the components that are best suited to the medium and the operating conditions – such as housings, diaphragms and seals.

- **Result**

At the end of the process, you will receive a customised matchcode. The code contains all the relevant details needed to optimise the pump for your application.

Lutz double diaphragm pumps · Contents

Lutz matchcode	3	Overview	24
Areas of application	10	Lutz LDE Evora	26
Advantages	12	Lutz LDE Evora PURE	32
Functions	16	Lutz mixing system AODD	40
Technical specifications	18		
Selection	22		







Lutz Jesco and Lutz Pumps – your One Stop Shop for Pumping and Metering.

Increase process stability and reduce downtime when pumping and dosing liquids – with system solutions from Lutz-Jesco and Lutz Pumpen, two companies of the Lutz Holding.

The joint portfolio from the two companies includes precise metering pumps, progressing cavity pumps, drum pumps, peristaltic and chemical centrifugal pumps and modular conveying systems for various viscosities, chemical resistances, and temperature ranges.

Our product range also includes disinfection and water treatment systems. Prefabricated “skid systems” combine pumps, dosing units and control technology on a single carrier plate. These compact assemblies save space, reduce installation effort and shorten project lead times.

The systems are used in a range of sectors such as the chemical, food, pharmaceutical, environmental technology, water treatment, electroplating and mechanical engineering industries. A worldwide service and sales network ensures fast commissioning, maintenance and support. This ensures that your systems remain reliable and your processes stable.

Lutz-Jesco and Lutz Pumps provide complete solutions that meet high quality and environmental standards. The systems are designed for a long service life and short downtimes – all from a single source.

What can our Compressed air Diaphragm Pumps transfer?



One of our specialties is air-operated diaphragm pumps for the safe and efficient transport of various liquids. These pumps are known for their high performance, reliability and durability—even under extreme conditions.

Our double diaphragm pumps have already proven themselves in thousands of companies in the:

- Chemical industry
- Electroplating and surface treatment industry
- Paint and varnish industry
- Food and beverage industry
- Paper and pulp industry
- Automotive industry
- Metalworking and machine factories
- Iron and steel industry
- Mining industry
- Electrical industry

You can rely on the reliability of our air-operated diaphragm pumps. We rely on state-of-the-art technology, modern manufacturing processes and precise quality control.

We also provide comprehensive advice and technical support. Working together, we will find the optimal air-operated diaphragm pump to match your requirements. Moreover, we guarantee long-term, trouble-free operation of the pumps to strengthen your business over the long term.

Productivity and Reliability for your Industry!

Double Diaphragm Pumps from Lutz Pumpen.

The double diaphragm pumps from Lutz Pumpen are known for their gentle and safe pumping of liquids and other media in a range of industrial applications. Two diaphragms move simultaneously, creating a dynamic pumping chamber through their synchronous movement. A pneumatic drive controls this movement through a controlled air supply.

- **Chemicals and aggressive liquids**

Acids, alkalis, solvents, cleaning agents, coating and etching solutions

- **Paints, lacquers and adhesives**

Water-based and solvent-based paints and lacquers, adhesives and resins, inks and printing inks

- **Food and beverages**

Milk, juices, edible oils and fats, sugar and starch solutions, flavours and concentrates

- **Pharmaceutical and cosmetic products**

Creams, lotions and gels, alcohol-based solutions, shampoo, soaps and cleaning agents and disinfectants

- **Wastewater and sludge**

Industrial wastewater, sewage sludge, wastewater with solids

- **Oil and lubricants**

Hydraulic oils, engine oils, grease and lubricants

- **Mining and metal processing**

Grinding slurries, drilling fluids, coolants and lubricants

- **Ceramics and construction industry**

Concrete and cement slurries, clay and ceramic slurries and tile adhesives

- **Semiconductor industry**

High-purity liquids



Why Lutz Pumpen? Your Benefits at a Glance.

Double diaphragm pumps from Lutz look smart. Okay, but that is of only minor importance. More importantly, you will profit from the following specific advantages:

- **High level of efficiency**

A newly designed air control valve increases the efficiency of the pumps whilst reducing air consumption. After a redesign of the internal geometry, the pump now achieves a flow-optimised and therefore more efficient delivery performance.

- **Reliability**

Our double diaphragm pumps are dry self-priming and therefore do not need to be wetted during commissioning. The dry-running safety feature eliminates the risk of damage in the event of a lack of liquid; this extends the service life of the pump and reduces unplanned downtime.

- **Low maintenance**

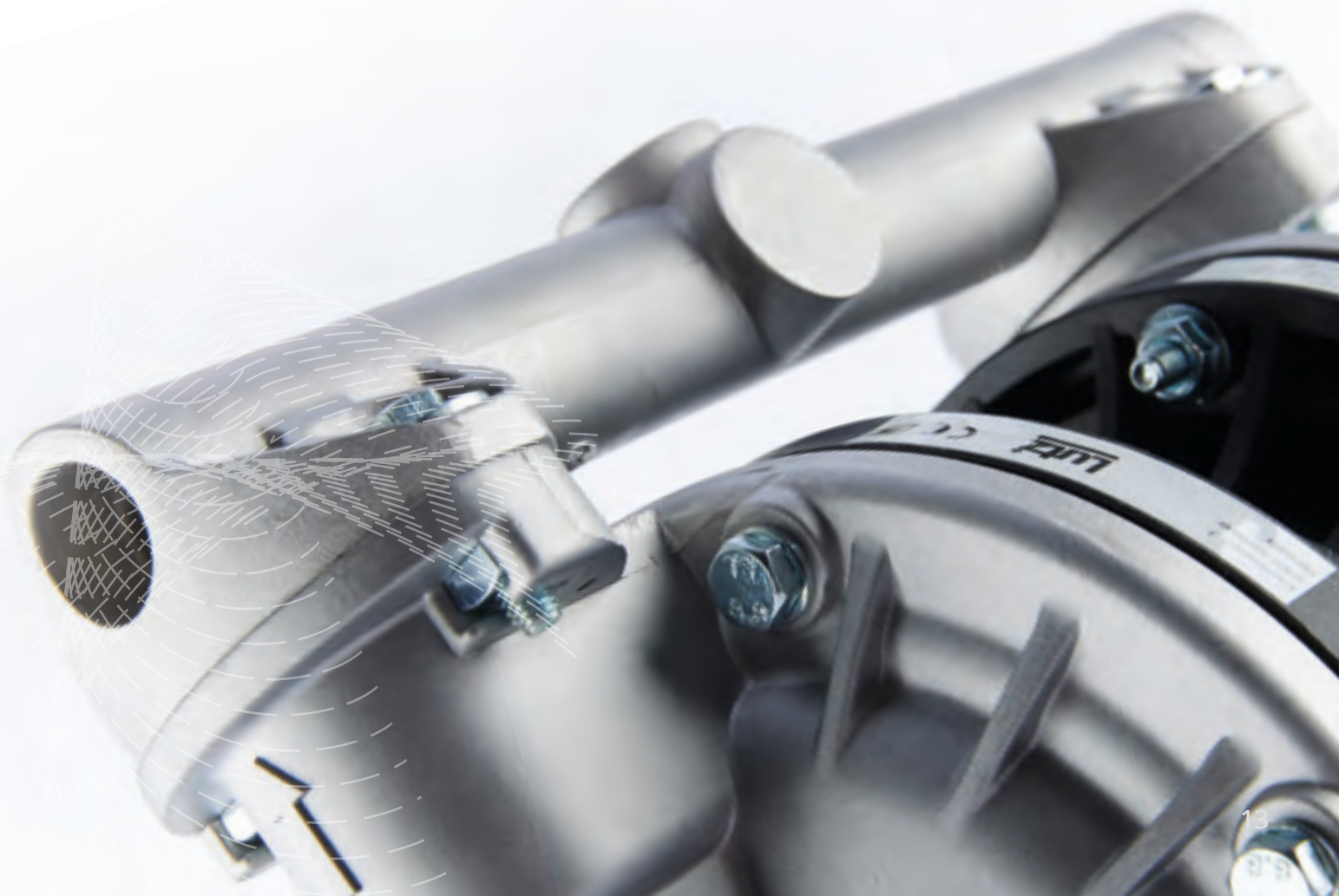
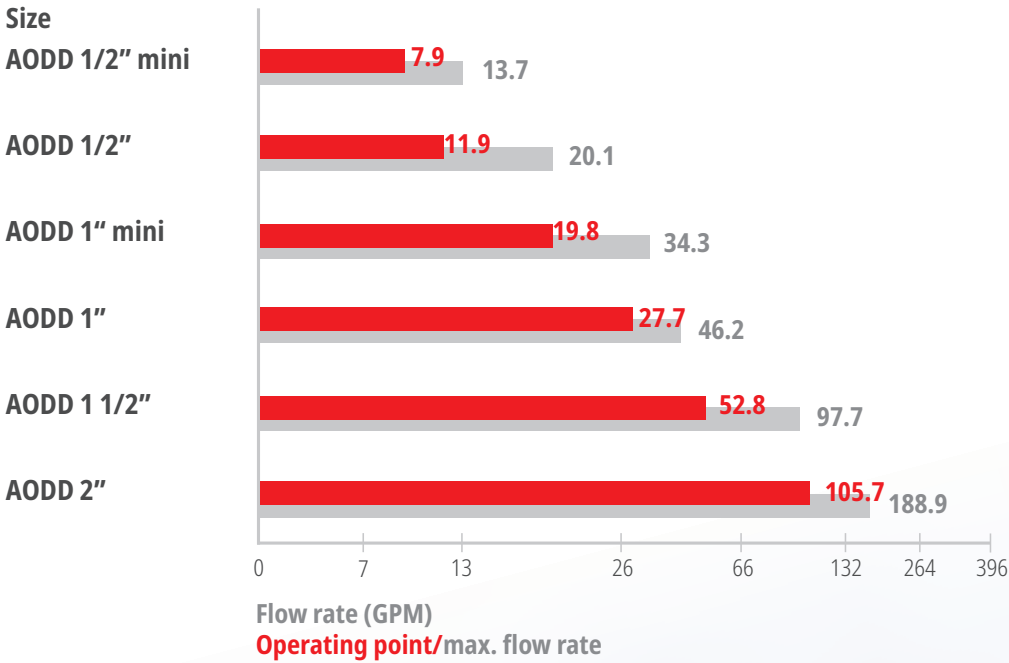
The Lutz double diaphragm pumps are particularly easy to maintain and enable economical operation – thanks in part to the use of high-strength and self-lubricating polymers.

- **Safety**

Models with sandwich diaphragms and optional diaphragm rupture monitoring systems prevent high follow-up costs due to leakage. This is particularly advantageous when pumping hazardous and toxic liquids.

- **FDA and ATEX compliant**

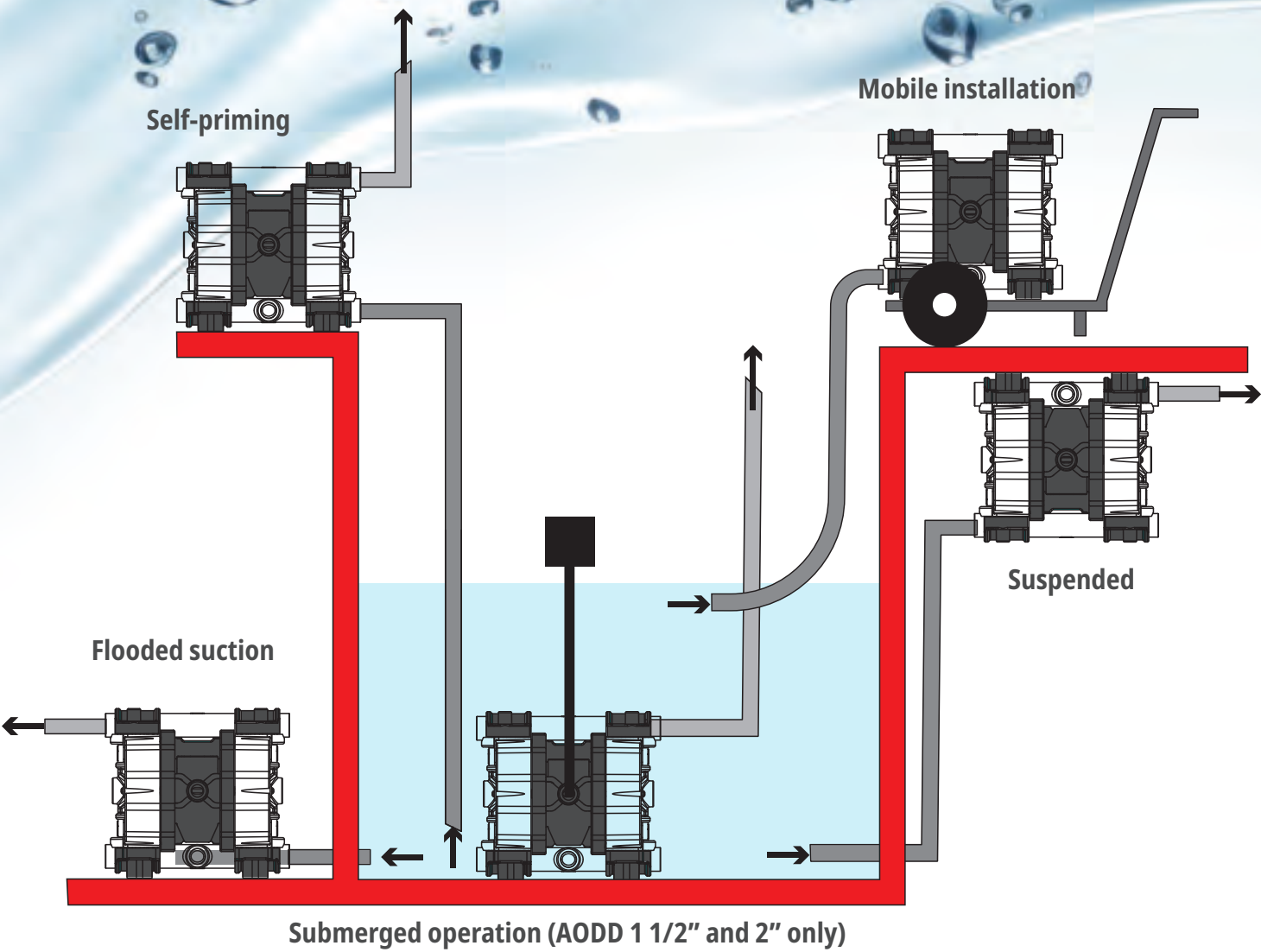
Our pumps are also available in versions that comply with the strict FDA and ATEX guidelines.



Benefit from maximum Flexibility during Installation.

Lutz Pumpen double diaphragm pumps provide versatile installation options, enabling them to be adapted flexibly to various industrial requirements. No matter whether stationary, mobile, suspended or submerged – the pumps can be optimally integrated into a wide range of processes.

- **Stationary or mobile use**
 - Stationary installation or flexible transport as required
 - Can be used at various application sites
- **Suspended construction for special requirements**
 - Space-saving installation possible
 - Ideal for processes with special space or safety requirements
- **Immersed operating mode for special applications**
 - Direct working in liquids possible
- **Accessories for perfect integration**
 - Vibration dampener for low-vibration operation
 - Suction lances for flexible use with different containers



Functions

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

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

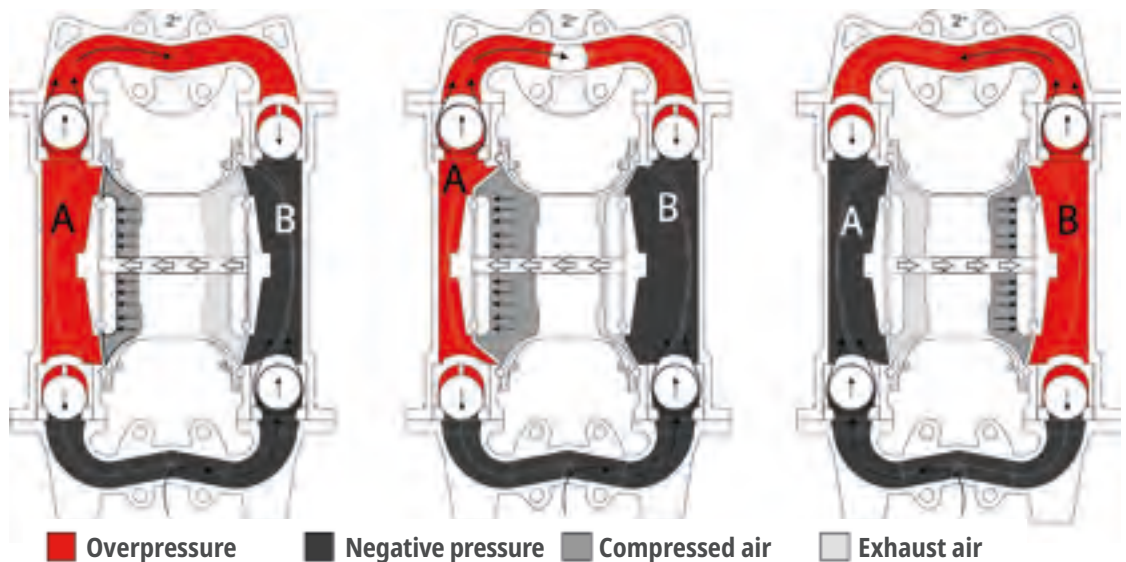
In detail: the overpressure created in the chamber (A) closes the suction valve and opens the pressure valve so that the liquid is pumped into the pressure line. At the same moment, the same procedure is performed in reverse in chamber (B) in the negative pressure area. The pressure valve closes and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

The flow rate is determined by the number of cycles per unit of time multiplied by the volume drawn in and discharged during each cycle. The high efficiency of the pumps allows them to generate an operating pressure that is approximately proportional to the supply pressure applied.



Navigate to our animation of the double diaphragm pump.

One pump cycle:



Special Features of the Air Control Valve.



Reduced
air consumption



Ice-free



Oil-free



Maintenance-free



Technical Specifications

High-quality compressed air double diaphragm pumps thanks to the choice of materials: from glass or carbon fibre-reinforced thermoplastic polymers to the new air control valve and high-quality diaphragm materials through to the optimised design. They are perfect for pumping, dosing and injecting corrosive, shear-sensitive and viscous liquids - ensuring high performance and reduced air consumption.

- Dry running
- Self-priming
- Non-icing air valve
- Ideal for shear-sensitive liquids
- Easy installation and maintenance
- Integrated muffler
- Unique component design
- High-quality diaphragm materials
- Optimised air consumption
- On request: ATEX zone 1 compliant*
with special conductive material

*Zone 1 (II 2G Ex h IIB T4 Gb X, II 2D Ex h IIIB T135°C Db X)

Special Applications



PURE version, suitable
for food applications



Ex proof version
ATEX II 2 G Ex h IIB T4 Gb / II 2 D Ex h IIIB T135°C Db



4 Housing

Plastic pumps –recommended for strong acids and caustics. Not recommended for high temperatures, sludges and solvents.

Metal pumps –recommended for solvents, hydrocarbons, very good abrasion resistance and suitable for high temperatures.

Housing	Materials	Characteristics	Temperature limitations
Plastic	 PP carbon fibre reinforced	Same as fibre glass reinforced. Electrical conductivity for grounding capability.	41 °F to 140 °F
	 Aluminium	Lightweight and recyclable material. Good mechanical and chemical resistance.	14 °F to 212 °F
Metal	 Stainless steel	Ideal for solvents. Use with chemically more active liquids.	-16 °F to 392 °F
	 Electropolished stainless steel	Use with chemically more active liquids. Suitable for food use.	-20 °C to 200 °C



Technical Specifications



6 Diaphragm

Diaphragms are the heart of the pump and enable the pumping of any liquid from suction to discharge. We offer a combination of several materials to ensure safe liquid transfer.

Material	Characteristics	Temperature Limitation
NBR BUNA-N®, Perbunan®	Excellent for oil and petroleum-based solvents.	10.5 °F to 180 °F
EPDM	Great for extremely cold applications. Good resistance to acids and caustics. FDA approved for food applications.	-40 °F to 212 °F
TPE KEYFLEX®	Excellent for high-temperature liquids. Long service life. Mainly used as back-up diaphragm in food applications.	-0.5 °F to 482 °F
TPV SANTOPRENE®	Long service life. Good for abrasive materials. Good resistance to acids and caustics. Good for high-temperature applications. Used as back-up diaphragm with PTFE for general applications.	-9.5 °F to 248 °F
PTFE TEFLON®	Excellent for highly aggressive liquids. Extended service life if in the absence of abrasion. Usually in combination with TPV or TPE back-up diaphragm.	39 °F to 212 °F

7 Balls

The material of the ball is usually matched to, or is identical with that of the diaphragm. The stainless steel balls are also available to enhance suction and increase efficiency at high viscosities.

8 Ball seat

The material of the ball seats is matched to, or is identical with that of the housings. When using stainless steel balls, the noise level must be taken into account and a different material selected if necessary.

9 Sealing

The material of the seals is usually matched to, or is identical with that of the diaphragm and balls. Elastic FFKM seals can be used as an alternative to PTFE seals.

Materials available				
Ball	PTFE	Stainless steel	EPDM	NBR
Ball seat	PP	Stainless steel	AL	
Seal	PTFE	NBR		

Lutz double diaphragm pumps - Technical specifications

Material combinations and their possible applications

Housing	Diaphragm										
		Alcohols and solvents	Mild acids and alkalis	Strong acids	Strong alkalis	Chlorine hydrocarbons	Oil and gas	Water treatment	Food	Abrasion resistance	Price
Polypropylene (PP)	TPV	✓	✓				✓	✓			Ⓔ
Polypropylene (PP)	TPV + PTFE	✓	✓			✓	✓	✓			ⒺⒺ
Polypropylene (PP)	TPV + Santoprene	✓	✓	✓	✓	✓	✓	✓			ⒺⒺⒺ
Stainless steel (316L)	TPE + PTFE	✓	✓				✓	✓	✓		ⒺⒺⒺ
Aluminium (AL)	NBR						✓				Ⓔ
Aluminium (AL)	TPE + PTFE	✓					✓	✓			ⒺⒺⒺ

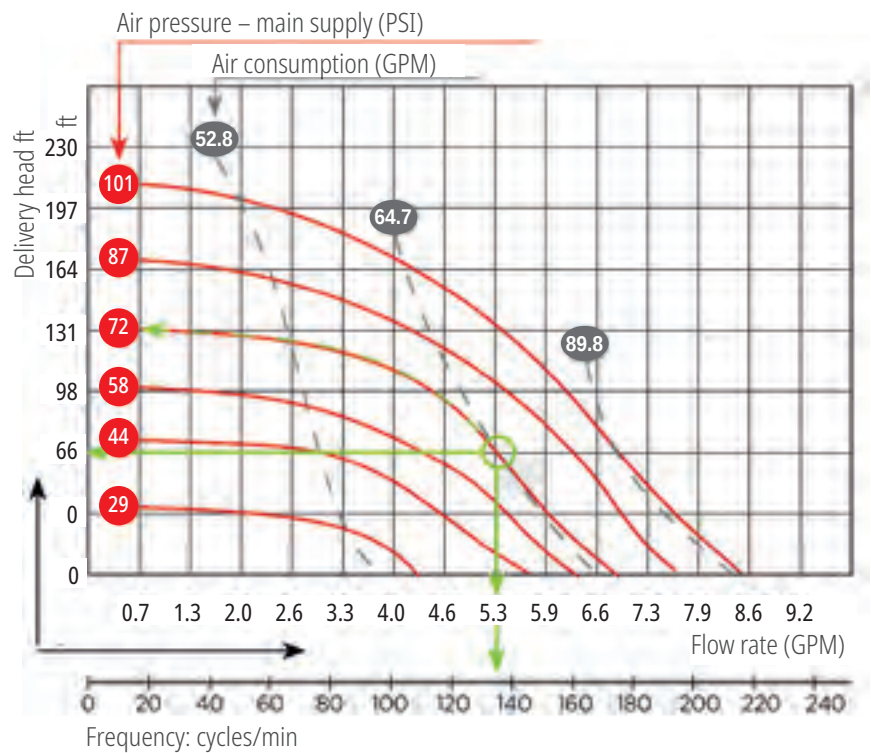


Advice for selecting an AODD

Operating point – example:

Flow rate 5.3 GPM – Delivery head 66 ft.

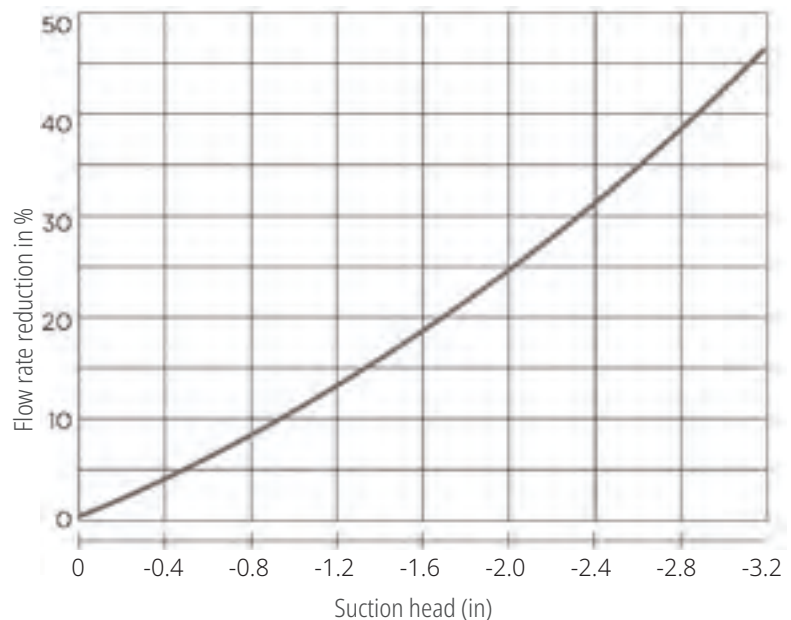
- Air pressure main supply: 72.5 PSI
- Air consumption: approx. 64.7 GPM
- Frequency: approx. 135 cycles/min



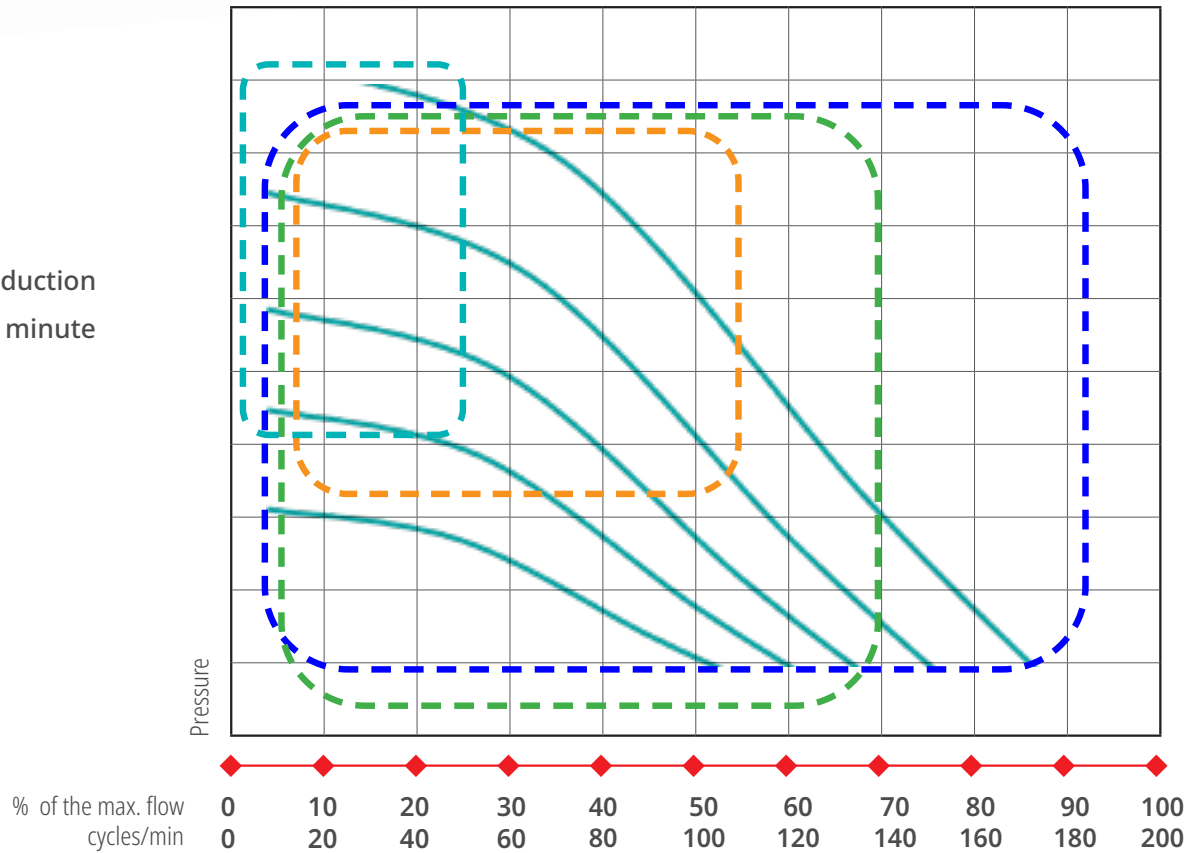
Percentage flow reduction in relation to the suction head

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 and boiling point) and the pressure difference affecting both diaphragms.



Viscosity-related reduction
of pump cycles per minute



Liquids with increasing viscosity	
Dilatant	Corn starch
	Silicone oil
Rheopectic	Raw sugar
	Collodial dispersion
	Whipped cream

Liquids with decreasing viscosity	
Pseudo plastics	Paper pulp in water
	Acrylic paint
	Latex
Thixotropic	Ketchup
	Jellified enamels
	Jellified hydrocarbons
	Lip gloss

Liquids with constant viscosity	
Examples	Sulphuric acid
	Sodium hydroxide
	Oil
	Acetyethanolamine
	Glycerine

Non viscous liquids	
Examples	Water
	Acid solutions
	Basic solutions
	Organic solvents

Lutz LDE Evora



LDE 050M (1/2")

Max. flow rate	13.7 GPM
Operating point	7.9 GPM
Max. solid size	Ø 0.12" – 0.14"
Max. suction head	29.5 ft wet (13 ft dry)
Weight	7.7 – 17.8 lbs.



LDE 0500 (1/2")

Max. flow rate	20 GPM
Operating point	11.9 GPM
Max. solid size	Ø 0.13" – 0.15"
Max. suction head	29.5 ft wet (13 ft dry)
Weight	7.7 – 13.2 lbs.



LDE 1000 (1")

Max. flow rate	46.2 GPM
Operating point	27.7 GPM
Max. solid size	Ø 0.24"
Max. suction head	29.5 ft wet (14.8 ft dry)
Weight	14 – 24.2 lbs.



LDE 2000 (2")

Max. flow rate	188.8 GPM
Operating point	105.6 GPM
Max. solid size	Ø 0.35"
Max. suction head	29.5 ft wet (14.8 ft dry)
Weight	68.2 – 107.8 lbs.

Lutz LDE Evora PURE



	LDE 050M PURE	Max. flow rate	13.7 GPM
		Operating point	7.9 GPM
		Max. solid size	Ø0.12" – 0.14"
		Max. suction head	29.5 ft wet (13 ft dry)
		Weight	8.2 lbs.
	LDE 0500 PURE	Max. flow rate	20 GPM
		Operating point	11.9 GPM
		Max. solid size	Ø0.15"
		Max. suction head	29.5 ft wet (13 ft dry)
		Weight	13.2 lbs.
	LDE 100M PURE	Max. flow rate	34.3 GPM
		Operating point	19.8 GPM
		Max. solid size	Ø0.22"
		Max. suction head	29.5 ft wet (13 ft dry)
		Weight	18.7 lbs.
	LDE 1000 PURE	Max. flow rate	46.2 GPM
		Operating point	27.7 GPM
		Max. solid size	Ø0.24"
		Max. suction head	29.5 ft wet (14.8 ft dry)
		Weight	24.3 lbs.
	LDE 1500 PURE	Max. flow rate	97.7 GPM
		Operating point	52.8 GPM
		Max. solid size	Ø0.28"
		Max. suction head	29.5 ft wet (14.8 ft dry)
		Weight	57.3 lbs.
	LDE 2000 PURE	Max. flow rate	188.8 GPM
		Operating point	105.6 GPM
		Max. solid size	Ø0.35"
		Max. suction head	29.5 ft wet (14.8 ft dry)
		Weight	107.8 lbs.

Lutz LDE Evora

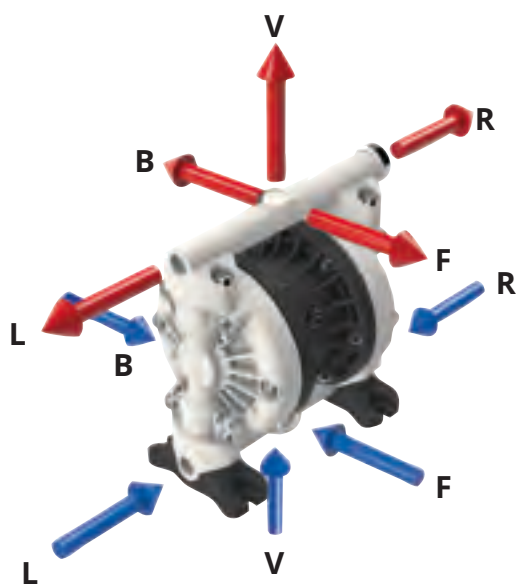
The LDE Evora series from Lutz Pumpen offers powerful, air-operated double diaphragm pumps for demanding industrial processes – with housings made of stainless steel, aluminium, glass fibre-reinforced PP and carbon fibre-reinforced PVDF. The diaphragms are available in thermoplastic materials (TPE, TPV) and reinforced elastomers (FKM, EPDM, NBR).

Benefits of the Lutz Evora pump series

- **High chemical resistance**
Safe handling of aggressive media
- **Low air consumption**
High energy efficiency for reduced operating costs
- **Dry-running and self-priming**
Maximum operational safety
- **Easy to maintain design**
Reduced downtimes and fast maintenance
- **Non-icing air valve system**
Stable performance even under extreme conditions
- **High pump capacity**
Up to 188.8 GPM
- **Variants with ATEX certification**
For safe operation in potentially explosive atmospheres in accordance with EU regulations (ATEX zone 1)



Lutz double diaphragm pumps · LDE Evora



Connections

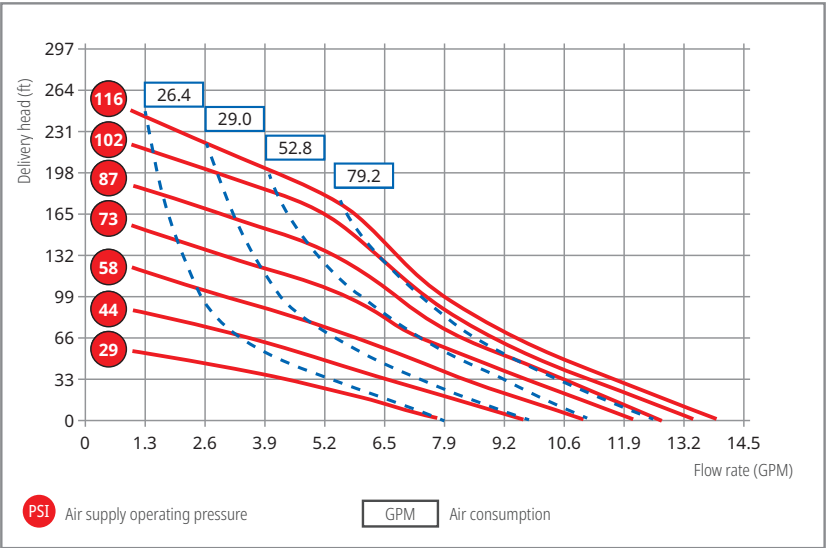
- Standard configuration with NPT thread connections for all plastic and aluminium pumps as well as for AISI 316L versions up to model LDE 1000.
- Other connections are available on request
- The LDE 2000 models made of AISI 316L are equipped with "F-F" connections.
- If you have any questions about the connection configuration, please contact our sales department.

Pumps from the LDE Evora series are suitable for:

- Chemical production
- Surface treatment
- Water and wastewater treatment
- Aerospace and aeronautics
- Pulp and paper
- Automotive industry
- Flexographic printing
- Pharmaceutical industry
- Acids, concentrated liquids
- Liquids containing solids
- Industrial processes
- Residual waste, cleaning solutions
- Cleaning solutions, acid mixtures, inks
- Paints and adhesives
- Seawater, brine, coolant



LDE 050M (1/2")

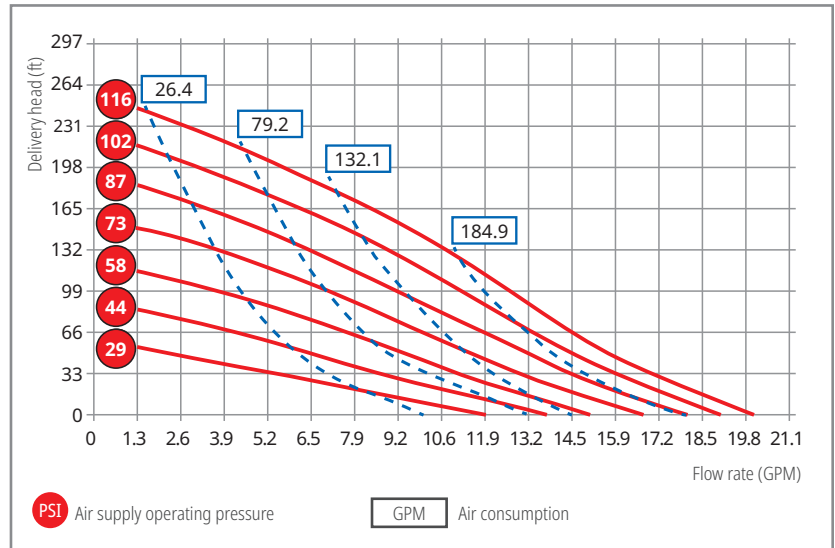


Technical data		Material	Weight	Package size
Max. flow rate	13.7 GPM	PP	3.52 lbs.	L 5.1 × W 9 × H 9 in
Operating point	7.9 GPM			
Max. delivery head	262 ft			
Max. suction head	29.5 ft wet (13 ft dry)			
Connection	1/2" NPT (F)			
Air connection	Ø 0.24"			
Max. air pressure	116 PSI			
Displacement volume	2.14 in ³			
Max. solid size	Ø 0.12" – 0.14"			
Max. viscosity	3,500 cps			
Max. temperature (medium)	140 °F (PP)			



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5270-010-US	AODD 1/2" mini PPT	LDE - 050M - 00 - PPN - LTPTNLL - 00	PP	TPV + PTFE	PTFE	NPT thread

LDE 0500 (1/2")



Technical data

Max. flow rate	20 GPM
Operating point	11.9 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (13 ft dry)
Connection	1/2" NPT (F)
Air connection	1/4" NPT (F)
Max. air pressure	116 PSI
Displacement volume	4.6 in ³
Max. solid size	Ø 0.13" – 0.15"
Max. viscosity	7,500 cps
Max. temperature (medium)	140 °F (PP) 212 °F (Alu) 212 °F (stainless steel)

Material

PP	7.8 lbs.
Alu	8.8 lbs.
Stainless steel	13.2 lbs.

Weight

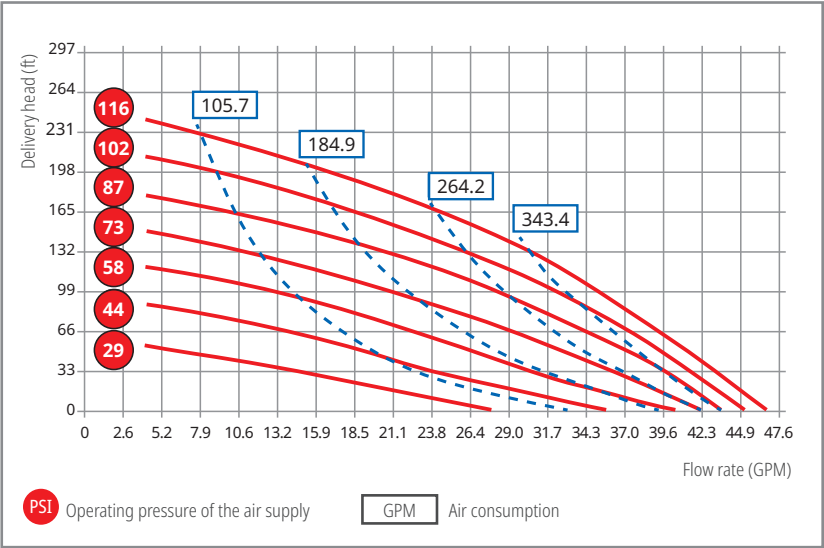
Package size

L 7.5 × W 11.2 × H 11.4 in



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5220-210-US	AODD 1/2" PPT	LDE-0500-00-PPN-LTPTNLL-00	PP	TPV + PTFE	PTFE	NPT thread
5220-020-US	AODD 1/2" PPT	LDE-0500-00-PPN-MDPDNLL-00	PP	TPV-Santoprene	EPDM	NPT thread
5222-100-US	AODD 1/2" ALT	LDE-0500-00-ALN-YTATNLL-00	Alu	TPE + PTFE	PTFE	NPT thread
5223-100-US	AODD 1/2" SST	LDE-0500-00-VAN-YTSTNLL-00	AISI 316L	TPE + PTFE	PTFE	NPT thread

LDE 1000 (1")

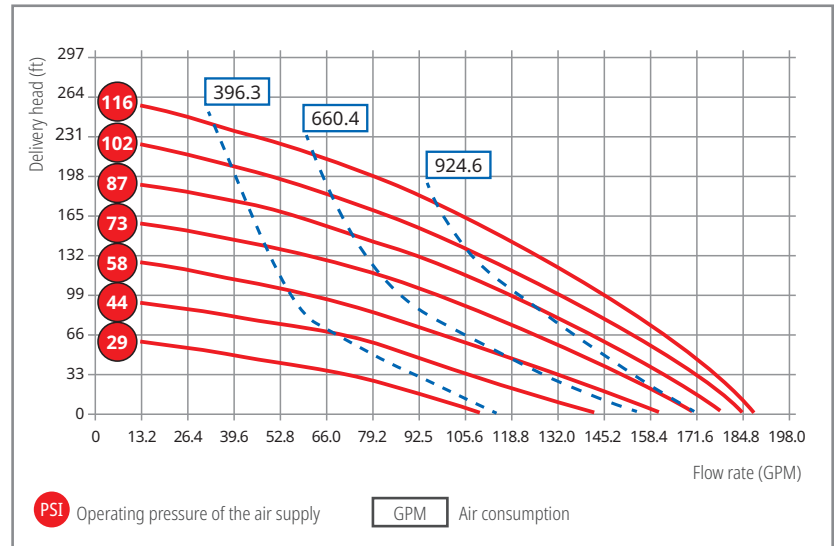


Technical data		Material	Weight	Package size	
Max. flow rate	46.2 GPM	PP	14 lbs.	L 10.2 × W 14.2 × H 15.2 in	
Operating point	27.7 GPM	Alu	17.2 lbs.		
Max. delivery head	262.5 ft	Stainless steel	24.2 lbs.		
Max. suction head	29.5 ft wet (14.8 ft dry)				
Connection	1" NPT (F)				
Air connection	3/8" NPT (F)				
Max. air pressure	116 PSI				
Displacement volume	13.4 in ³				
Max. solid size	Ø 0.24"				
Max. viscosity	10,000 cps				
Max. temperature (medium)	140 °F (PP) 212 °F (Alu) 212 °F (stainless steel)				



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5230-020-US	AODD 1" PPB	LDE-1000-00-PPN-NNPNLL-00	PP	NBR	NBR	NPT thread
5230-010-US	AODD 1" PPE	LDE-1000-00-PPN-LTPTNLL-00	PP	TPV + PTFE	PTFE	NPT thread
5232-040-US	AODD 1" ALB	LDE-1000-00-ALN-NNANNLL-00	Alu	NBR	NBR	NPT thread
5233-100-US	AODD 1" SST	LDE-1000-00-VAN-YTSTNLL-00	AISI 316L	TPE + PTFE	PTFE	NPT thread

LDE 2000 (2")



Technical data

Max. flow rate	188.8 GPM
Operating point	105.6 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (14.8 ft dry)
Connection	2" NPT (F) (DN 50)
Air connection	3/4" NPT (F)
Max. air pressure	116 PSI
Displacement volume	116.5 in ³
Max. solid size	Ø 0.35"
Max. viscosity	30,000 cps
Max. temperature (medium)	212 °F (Alu) 212 °F (stainless steel)

Material

Alu
Stainless steel

Weight

88 lbs.
107.8 lbs.

Package size

L 23.4 × W 15.4 × H 28.9 in



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5252-200-US	AODD 2" ALT	LDE-2000-00-ALA-YTATNLL-00	Alu	TPE + PTFE	PTFE	NPT thread
5253-300-US	AODD 2" SST EX	LDE-2000-EX-VAN-YTSTNFF-00	AISI 316L	TPE + PTFE	PTFE	NPT thread

PURE

Lutz LDE Evora PURE

The Lutz Pumpen Evora PURE series was specially developed to meet the high demands of the food, cosmetics and pharmaceutical industries. It complies with FDA and EU guidelines and deploys food-safe materials to guarantee maximum product safety. Electropolished stainless steel surfaces are ideal for use in areas with maximum hygiene and cleanliness requirements. An Atex zone 1 version is also available on request.

Advantages of the Lutz Evora PURE pump series

- **Food-safe materials**
Maximum product safety and purity
- **Gentle pumping without shear forces**
Ideal for sensitive media
- **FDA and EU certification**
Safe use in sensitive areas
- **No heat development**
No change in the liquid properties
- **High temperature resistance**
For use up to 212 °F
- **High pump capacity**
Up to 189 GPM
- **Variants with ATEX certification**
For safe operation in potentially explosive atmospheres in accordance with EU regulations (ATEX zone 1)



Lutz double diaphragm pumps · LDE Evora PURE



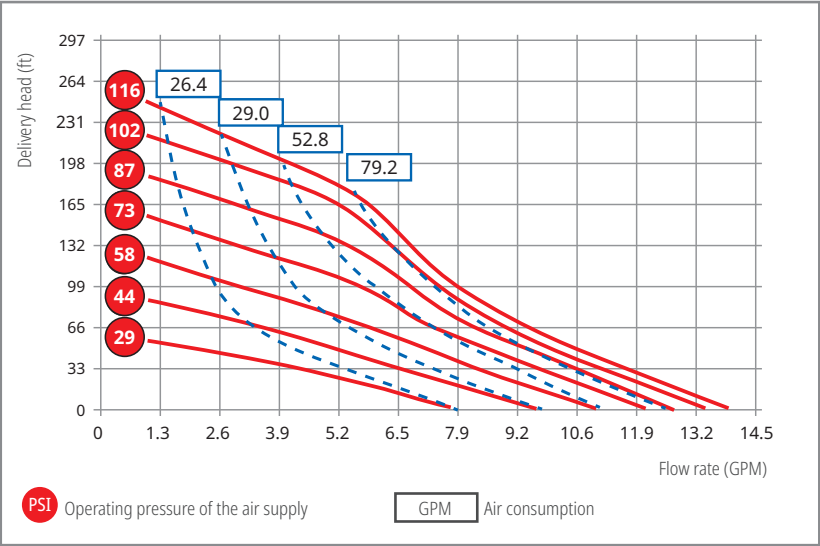
Pumps of the LDE Evora series are suitable for

- Food and beverage industry
- Cosmetics industry
- Pharmaceutical industry
- Distilleries
- Laboratories

Industry	Fluid
Food industry	Chili sauce
	Chocolate
	Spirits
	Beer
	Mayonnaise
	Honey
	Jam
	Yogurt
	Olive oil
Cosmetics	Shampoo
	Wax
	Face and body lotions, hand cream
	Detergent



LDE 050M PURE



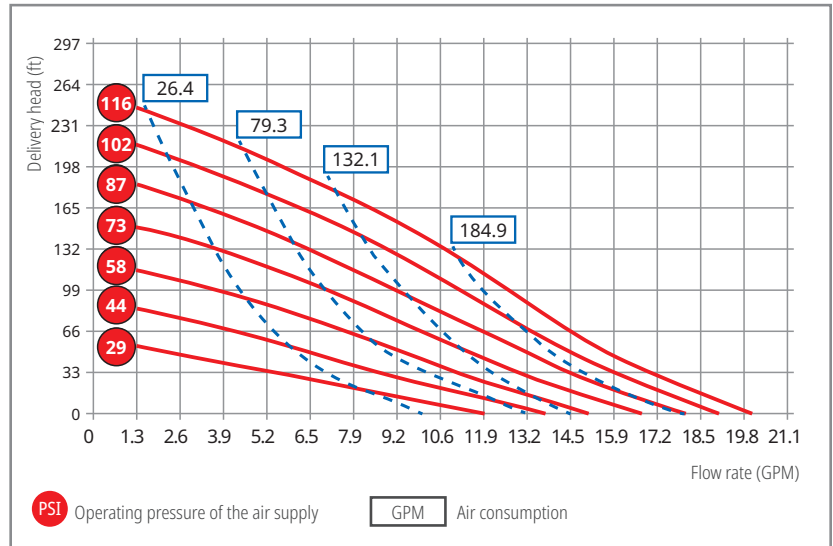
Technical data		Material	Weight	Package size
Max. flow rate	14 GPM	Stainless steel	8.1 lbs	L 5.12 × W 9 × H 9 in
Operating point	8 GPM			
Max. delivery head	262.5 ft			
Max. suction head	29.5 ft wet (13.1 ft dry)			
Connection	Tri-Clamp 1"			
Air connection	Ø 0.236 in (Ø 6 mm)			
Max. air pressure	116 PSI			
Displacement volume	2.14 in³			
Max. solid size	Ø 0.14"			
Max. viscosity	3,500 cps			
Max. temperature (medium)	212 °F			



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5274-400-US*	AODD 1/2" mini SST PURE	LDE - 050M - PU - VAN - YTSTCRR - 00	AISI 316L ep	TPE + PTFE	PTFE	Tri-Clamp 1"

*Preconfigured version without Ex

LDE 0500 PURE



Technical data

Max. flow rate	20 GPM
Operating point	12 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (13.1 ft dry)
Connection	Tri-Clamp 1"
Air connection	1/4" NPT (F)
Max. air pressure	116 PSI
Displacement volume	4.6 in ³
Max. solid size	Ø 0.15"
Max. viscosity	7,500 cps
Max. temperature (medium)	212 °F

Material

Stainless steel

Weight

13.2 lbs.

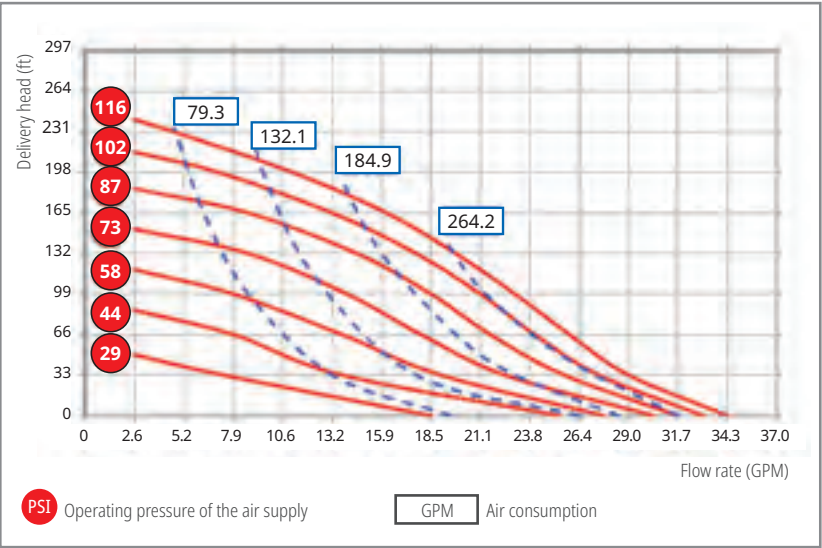
Package size

L 7.5 × W 11.2 × H 11.4 in



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5224-100-US	AODD 1/2" SST Ex PURE	LDE-0500-PX-VAX-YTSTCRR-00	AISI 316L ep	TPE + PTFE	PTFE	Tri-Clamp 1"

LDE 100M PURE



Technical data

Max. flow rate	34 GPM
Operating point	20 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (13.1 ft dry)
Connection	Tri-Clamp 1 1/2"
Air connection	3/8" NPT (F)
Max. air pressure	116 PSI
Displacement volume	7.3 in ³
Max. solid size	Ø 0.22"
Max. viscosity	7,500 cps
Max. temperature (medium)	212 °F

Material

Stainless steel



Weight

18.7 lbs.

Package size

L 7.5 × W 12.8 × H 13 in



Part number

Description

Lutz matchcode

Housing/ball seat

Diaphragm

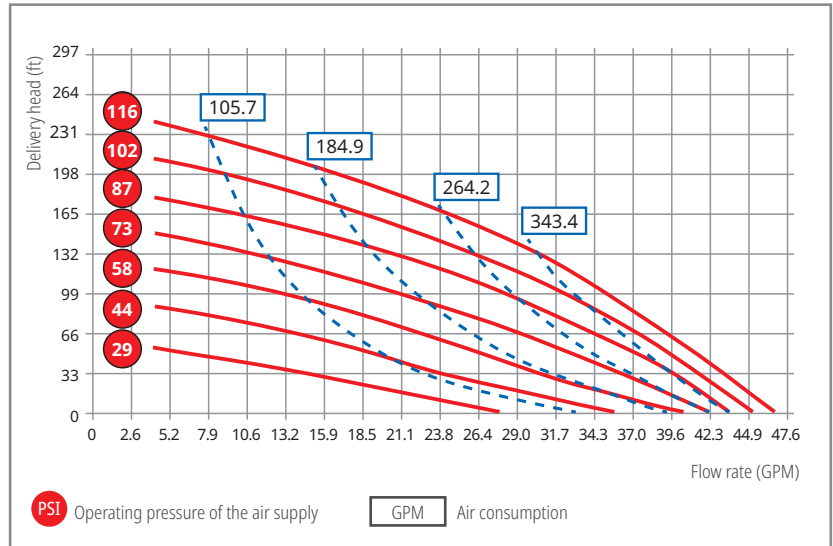
Ball/seal

Connection

5284-410-US*	AODD 1" mini SST PURE	LDE-100M-PU-VAN-LTSTCRR-00	AISI 316L ep	TPV + PTFE	PTFE	Tri-Clamp 1 1/2"
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*Preconfigured version without Ex

LDE 1000 PURE



Technical data

Max. flow rate	46 GPM
Operating point	28 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (14.8 ft dry)
Connection	Tri-Clamp 1 1/2"
Air connection	3/8" NPT (F)
Max. air pressure	116 PSI
Displacement volume	13.4 in ³
Max. solid size	Ø 0.24"
Max. viscosity	10,000 cps
Max. temperature (medium)	212 °F

Material

Stainless steel

Weight

24.3 lbs.

Package size

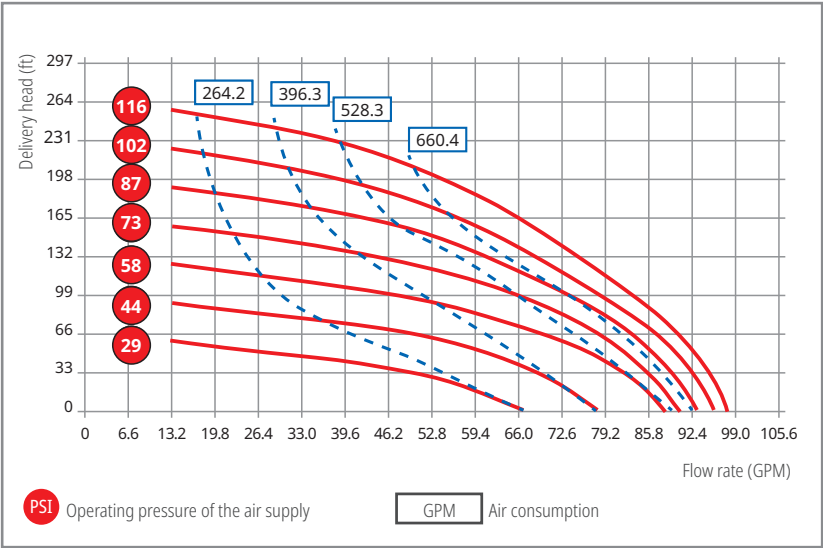
L 10.2 × W 14.2 × H 15.2 in



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5234-400-US*	AODD 1" SST PURE	LDE-1000-PU-VAN-YTSTCRR-00	AISI 316L ep	TPE + PTFE	PTFE	Tri-Clamp 1 1/2"

*Preconfigured version without Ex

LDE 1500 PURE



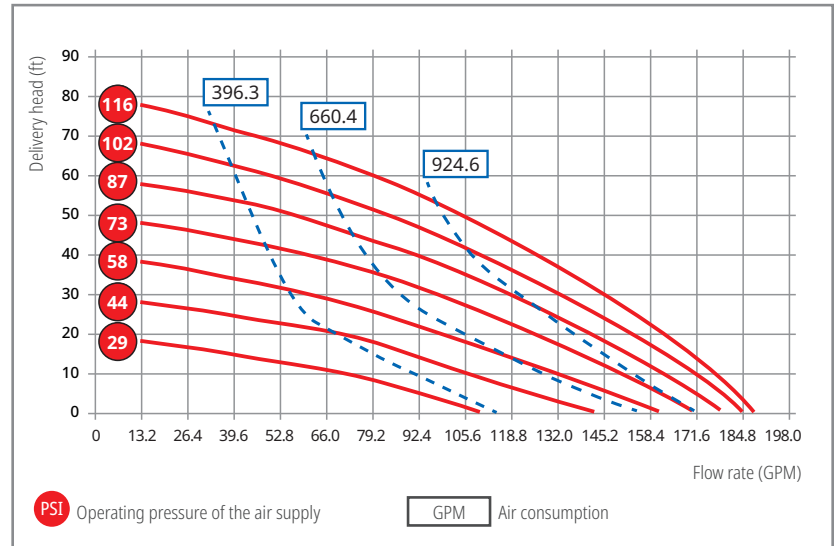
Technical data		Material	Weight	Package size
Max. flow rate	98 GPM	Stainless steel	57.3 lbs.	L 19.3 × W 11.4 × H 23 in
Operating point	53 GPM			
Max. delivery head	262.5 ft			
Max. suction head	29.5 ft wet (14.8 ft dry)			
Connection	Tri-Clamp 2"			
Air connection	1/2" NPT (F)			
Max. air pressure	116 PSI			
Displacement volume	40.9 in³			
Max. solid size	Ø 0.28"			
Max. viscosity	30,000 cps			
Max. temperature (medium)	212 °F			



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5244-400-US*	AODD 1 1/2" SST PURE	LDE-1500-PU-VAN-YTSTCFB-00	AISI 316L ep	TPE + PTFE	PTFE	Tri-Clamp 2"

*Preconfigured version without Ex

LDE 2000 PURE



Technical data

Max. flow rate	189 GPM
Operating point	106 GPM
Max. delivery head	262.5 ft
Max. suction head	29.5 ft wet (14.8 ft dry)
Connection	Tri-Clamp 2 1/2"
Air connection	3/4" NPT (F)
Max. air pressure	116 PSI
Displacement volume	116.6 in ³
Max. solid size	Ø 0.35"
Max. viscosity	30,000 cps
Max. temperature (medium)	212 °F

Material

Stainless steel

Weight

108 lbs.

Package size

L 23.4 × W 15.4 × H 28.9 in



Part number	Description	Lutz matchcode	Housing/ball seat	Diaphragm	Ball/seal	Connection
5254-400-US*	AODD 2" SST PURE	LDE-2000-PU-VAN-YTSTCFB-00	AISI 316L ep	TPE + PTFE	PTFE	Tri-Clamp 2 1/2"

*Preconfigured version without Ex

Lutz AODD Mixing System

Mixing and conveying in one

With its integrated air-operated double diaphragm pump, the new Lutz AODD mixing system is the perfect solution for liquids that require mixing prior to processing and subsequent conveying, and also liquids containing small solids.

The mixing and pumping process is performed via a suction and mixing pipe and a 3-way valve.

The pre-assembled system is ready for immediate operation in just a few steps and is also suitable for potentially explosive liquids.

Advantages of the Lutz AODD mixing system

- **Mixing and pumping in a single system**

No additional mixer required. Save time thanks to quick installation and easy handling.

- **Also suitable for higher viscosities and liquids containing solids**

Pump housing, connection fittings, and piping made of high-quality stainless steel.

- **Compact design**

Easily inserted into the 2" bunghole of the container using a balancer or an overhead crane. The baseplate provides good stability on the container lid.



Lutz AODD mixing system



The Lutz AODD mixing system is suitable for:

- Paints and varnishes
- Emulsions
- Dispersions
- Suspensions
- Water/oil mixtures
- Liquids with a higher viscosity and solid content.





Find out more about our
double diaphragm pumps.

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