



# Lutz Drum and Container Pumps Be in control every day

**Drum Pump Sets** 

**Laboratory and Drum Pumps** 

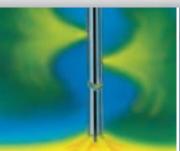
Pumps for complete drum drainage

**Mixing Pumps** 

**Container Pumps** 









# **Lutz – the Development**

### Decades of innovative and convincing pump technology

#### 1954

The company is founded by Karl Lutz.

#### 1963

Explosion-proof motor for drum pumps, approved by the PTB\*, Braunschweig.

### 1972

The product innovation - a sealless pumping unit.

### 1987

The first pumping unit worldwide for complete drum drainage.

#### 1988

The new MA/ME generation of motors: Safety standards that are state of the art even today.



### 1990

EMIGA emission-proof drum adapter for enhanced safety and health protection at the work place.

### 1990

The first compressed air motor worldwide in a flameproof enclosure with an explosion-protection classification of Ex d IIC T6.

### 1993

Modular flow meter system for efficiency and accurate measurement.



#### 1994

Compressed-air-operated oil-free double diaphragm pumps extend the range of products.



#### 2000

New development of a container pump for a safe transfer of chemicals.



#### 2000

New development of a flameproof relay module for flow meters.

#### 2001

Complete pump sets provide enhanced service and a high degree of customer-friendliness.

#### 2001

Centrifugal pumps – easy circulation even in heavy-duty applications.

#### 2001

Certification of all the motors, pumping units and flow meters for compliance with Atex.



#### 2004

HDO Flow meter series for thin bodied to highly viscous fluids.

#### 2006

Complete pump systems for the transfer of alternative fuels and additives from drums and containers.

#### 2007

Lutz B2 Vario pump for the laboratory and research sector.



#### 2010

Battery powered laboratory pump Lutz B1 for convenient and safe transfer of small liquid amounts.

#### 2011

Lutz B70V Sanitary: Designed according to the latest directives for the high requirements of the food, beverage, pharmaceutical, and cosmetics industry.

### 2012

The new Lutz Flow Meter Series: In Touch with the Future.





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### **Drum- and Container Pumps**

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### Consistent customer orientation

You can expect no less of us



Jürgen Lutz

Concern for safety and reliability plus responsible response to change have been the underlying factors which have helped us become an internationally successful company. Our faithful adherence to these concerns in fulfilling the needs of our customers has provided and will continue to provide the bedrock for sound innovative ideas.

Lutz is the reliable partner in the field of professional liquid handling. As supplier of innovative and high quality pumps and pump systems we support our customers in finding the adequate solution for their fluid handling requirements. Our products as well as our sales and service network contribute worldwide to a safe handling of fluids and the protecting of our environment.

We would be pleased to discuss with you any special requirements.

Sincerely yours,





Enhanced safety with Lutz



### The Holding Structure

A clear concept



# to innovative ideas.

The Lutz Holding GmbH has its own subsidiaries in the USA, the UK, the Netherlands, France, Switzerland, Austria, Hungary, Malaysia, China and the United Arab Emirates. Through its distribution Lutz is represented in more than 80 countries worldwide.

Professional competence and various services within the companies of the Lutz group provide clear advantages and benefits to our customers. Today, the company offers complex solutions for fluid handling, and even more. The fusion of selected enterprises considerably enlarges the product range. Additionally, the synergies resulting from the interfirm cooperation between Lutz Pumpen GmbH and MTE with Lutz-Jesco GmbH offer the customers interesting perspectives, too. Since 2003, the brand Technopool is adding water treatment equipment for pools to the product line.

# The Best you can do: Decide on Lutz.



#### Save time and money with Lutz

Not only the price/performance ratio is outstanding, the costs of maintenance are even better: With Lutz pumps you maintain durability.

#### Reliable and solid

High quality materials and a proven design guarantee a long service life and a minimum of downtime.

#### Confidence in tried and tested quality

Personal, product and customer training, certification in compliance with DIN EN ISO 9001 and accurate inspection and testing of every single unit guarantee that you are always on the safe side.

#### **Environmental protection is our primary concern**

Environment consciousness is our primary concern. For this reason, Lutz does not "do things by halves". Complete drum drainage, pump tubes without a need for grease and gas displacement devices are a matter of course. EMIGA, the special emission-proof drum adapter by Lutz offers maximum health and environmental protection when handling hazardous material.

#### Service with system

Lutz pumps have hardly no wear parts, the systems are easily detachable and compatible, everything is documented — but nevertheless if service is needed, a world-wide service net and an extensive inventory ensure you that everything gets under way as fast as possible.





### A tight grip on the future

With Lutz pumps you remain mobile and stay flexible for your future needs: The modular construction allows for a number of combinations.

#### Lutz — and our customers will allways be on the safe side

Operational safety is the most essential thing. Lutz pumps have been approved for compliance with established standards and directives. They comply with all requirements laid down by ATEX, UL, PTB, VDE and CE.

#### Easy operator control through "punch and pump"

Unpack and get started: Lutz pumps systems are absolutely user friendly constructed, easy to clean and flush and if necessary can be disassembled/ reassambled in minutes. A convenient hand wheel attaches the motor to the pump tube — connect and disconnect in seconds with no tools. The hand wheel serves as carrying handle at the same time.

#### **Lutz provides comprehensive solutions**

Irrespective of whether you want a complete set or a customised unit — Lutz provides solutions that are well-suited. A matching range of accessories guarantees efficient and safe operation in all areas of application.

### **Lutz Pump Sets**

### A quick solution for many applications



# Fast assembly Only few simple operations required Immediately ready for use

Lutz pump sets save time and money. The annoying search for the ideal pump with suitable accessories has come to an end. Lutz is now offering you a choice of different pump sets. Optionally, the pumps can be combined with a flow meter. Thus, ordering is simple and you save time for the essential things.

### Advantages at a glance:

- ✓ Ideally harmonised with the liquid being pumped
- ✓ Fast assembly
- ✓ Immediately ready for action
- ✓ Ideal for pumping and filling thin-bodied liquids
- ✓ Different pump sets for selection
- For emptying of canisters, drums and containers



### Already pre-assembled

Immediately ready for action. Just delivered, you can start with the new pump sets from Lutz to empty thin-bodied liquids from canisters, drums and containers. We have made preparatory work saving your time.

#### Ideal combination

Whether acids or alkalis, light or concentrated, mineral oil products, hazardous fluids or solvents:

Lutz offers for all these applications the ideal solution.

# More time for the essential things

**Lutz Pump Sets** 



# **Lutz Pump Sets**

### Pump Set Lutz B2 Vario (Polypropylene)

### For thin-bodied fluids

such as battery acid, ammonia solution, photographic developer/-fixer, glycols, phosphoric acid, hydrochloric acid and hydrogen peroxide.

For filling small quantities from hobbocks, canisters and drums.

• Motor Lutz B2 Vario, 200 W internally ventilated

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	Delivery head (m wc)
1,3	300	75 (22)	7

Max. temperature of medium 50 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).





For	emptying canister	s and drun	ns	Pump Lutz B2 Vario*	Pump Set Lutz B2 Vario
Ħ	Immersion depth	500 mm	Order No.	0201-500	0205-020
Ħ	Immersion depth	700 mm	Order No.	0201-501	0205-021
8	Immersion depth	1000 mm	Order No.	0201-502	0205-022









Pump Set: **Pump Lutz B2 Vario** polypropylene, **1.5 m** PCV spiral hose 3/4", Lutz-nozzle, hose clamps, wall bracket.

# More time for the essential things

2 Pump Set Lutz B2 Vario (Stainless Steel)

### For thin-bodied fluids

such as oil-based lubricants, cleaner solvent, plasticizer.

For filling small quantities from hobbocks, canisters and drums.

 Motor Lutz B2 Vario, 200 W internally ventilated

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1,3	300	68 (22)	6,5

Max. temperature of medium 90 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).





For	emptying canister	s and drun	ns	Pump Lutz B2 Vario*	Pump Set Lutz B2 Vario
Ħ	Immersion depth	500 mm	Order No.	0201-510	0205-030
Ħ	Immersion depth	700 mm	Order No.	0201-511	0205-031
8	Immersion depth	1000 mm	Order No.	0201-512	0205-032









Pump Set: **Pump Lutz B2 Vario** stainless steel, **1.5 m** PCV spiral hose 3/4", Lutz-nozzle, hose clamps, wall bracket.

### **Lutz Pump Sets**

### 3 Pump Set "Alkalis"

### For thin-bodied alkalis

such as sodium chloride, kalihydrate, ammonia solution, formic acid and acetic acid.

- **Motor MI-4**, 500 W internally ventilated or optionally with
- Motor MA II 3, 460 W externally ventilated

Motor MI-4

For individual application. For aggressive and non-flammable liquids.

#### Motor MI-4

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1,4	500	87 (50)	19

#### Motor MA II 3

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1.6	500	78 (45)	16

Max. temperature of medium 50 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).







**Pump Set Alkalis** 

with motor MI-4

internally ventilated

with shaft SS (stainless steel 1.4571)

Pump Set Alkalis
with motor MA II 3

externally ventilated

For emptying drums and conto	iiners	Pump* with MI-4	Pump* with MA II 3	Set with MI-4	Set with MA II 3
Imm. depth 1000 mm	Order No.	0205-105	0205-125	0205-101	0205-121
Imm. depth 1200 mm	Order No.	0205-106	0205-126	0205-102	0205-122

\*Motor, pump tube PP, hose connection 3/4"

Pump Set: Motor MI-4 or MA II 3, pump tube PP 41-L-SL SS poly-propylene with stainless steel shaft, 2 m PVC spiral hose 3/4" and hose connections, hose clamps, nozzle PP, drum adapter PP.

# More time for the essential things

4 Pump Set "Acids"

### For thin-bodied acids

such as hydrochloric acid, battery acid, ferric (III) chloride, phosphoric acid, chromic acid and citric acid.

- Motor MA II 3, 460 W externally ventilated or optionally with
- Motor MI-4, 500 W internally ventilated

#### Motor MA II 3

For fuming liquids or corrosive vapours. Powerful, externally ventilated universal motor.

#### Motor MA II 3

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1,6	500	78 (45)	16

#### Motor MI-4

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1.4	500	87 (50)	19

Max. temperature of medium 50 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).





For emptying drums and conto	iners	Pump* with MI-4			Set with MA II 3
Imm. depth 1000 mm	Order No.	0205-115	0205-135	0205-111	0205-131
Imm. depth 1200 mm	Order No.	0205-116	0205-136	0205-112	0205-132

\*Motor, pump tube PP, hose connection 3/4"

Pump Set: Motor MI-4 or MA II 3, pump tube PP 41-L-SL HC polypropylene with Hastelloy C shaft, 2 m PVC spiral hose 3/4" and hose connections, hose clamps, nozzle PP, drum adapter PP.

### **Lutz Pump Sets**

### Pump Set "Concentrated Acids and Alkalis"

### For concentrated acids and alkalis

such as chloric acid, chromic acid, sulphuric acid, nitric acid, hydrofluoric acid and sodium hypochlorite.

- Motor MA II 3, 460 W externally ventilated or optionally with
- Motor MA II 5, 575 W externally ventilated

# Motor MA II 3 For fuming liquids or corrosive vapours. Powerful, externally ventilated universal motor.

#### Motor MA II 3

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1,6	500	78 (45)	16

#### Motor MA II 5

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1.8	800	83 (50)	17

Max. temperature of medium 100 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).





**Pump Set Acids and Alkalis** 

with motor MA II 3 or

MA II 5 externally ventilated

For emptying drums and containers		Pump* with MA II 5		Set with MA II 5
Imm. depth 1000 mm Order I	lo. 0205-215	0205-205	0205-211	0205-201
Imm. depth 1200 mm Order I	lo. 0205-216	0205-206	0205-212	0205-202

Pump Set: Motor MA II 3 or MA II 5, pump tube PVDF 41-L-SL polyvinylidenefluoride, 2 m special chemical hose 3/4" and hose connections, hose clamps, nozzle PVDF, with swivel hose connection, drum adapter PP.

\*Motor, pump tube PVDF, hose connection 3/4"

# More time for the essential things

Pump Set Mineral Oil Products

with motor MI-4

internally ventilated or MD 1

6 Pump Set "Mineral Oil Products"

Motor MD-1

reliable.

The compact compressed

air motor is powerful and

# For light viscous mineral oil products

such as Diesel, fuel oil, hydraulic oil, machinery oil and motor oil.

 Motor MI-4, 500 W internally ventilated or optionally with

• Compressed air motor MD-1, 400 W / 6 bar

with stop valve and nipple

#### Motor MI-4

Universal motor for individual application. For aggressive and non-flammable liquids. Strong when handling mineral oil products.

#### Motor MI-4

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1,4	500	87 (50)	19

#### **Motor MD-1**

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1.8	850	90 (65)	20

Max. temperature of medium 100 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil. When using a nozzle the delivery rate is reduced to approximate values (see brackets).



For e	mptying drun	ns and conta	iners	Pump* with MI-4	Pump* with MD-1	Set with MI-4	Set with MD-1
	lmm. depth	1000 mm	Order No.	0205-305	0205-315	0205-301	0205-311
<b></b>	Imm. depth	1200 mm	Order No.	0205-306	0205-316	0205-302	0205-312

Pump Set: Motor MI-4 or MD-1, pump tube Alu 41-L-SL aluminium, 2 m PVC spiral hose 1" and hose connections, hose clamps, nozzle Alu, drum adapter PP.

<sup>\*</sup>Motor, pump tube alu, hose connection 1" (For high viscous oils suitable Eccentric Screw Pumps are available, see separate leaflet)

## **Lutz Pump Sets**

### Pump Set "Solvents"



For emptying drums and containers		Pump* with MD-2	Set with ME II 3	Set with MD-2
Imm. depth 1000 mm Order No.	0205-405	0205-425	0205-401	0205-421
Imm. depth 1200 mm Order No.	0205-406	0205-426	0205-402	0205-422

\*Motor, pump tube SS, equipotential bonding cable

Pump Set: Motor ME II 3 or MD-2, pump tube SS 41-L-SL stainless steel, 2 m solvent hose 3/4", electrically conductive bound with hose connectors brass, nozzle brass, equipotential bonding cable, drum adapter PP (without Ex-plug).

# More time for the essential things

Pump Set "Hazardous Fluids"



For emptying drums and contained		Pump* with ME II 3	Pump* with MD-2	Set with ME II 3	Set with MD-2
Imm. depth 1000 mm	Order No.	0205-405	0205-425	0205-411	0205-441
Imm. depth 1200 mm	Order No.	0205-406	0205-426	0205-412	0205-442

\*Motor, pump tube SS, equipotential bonding cable

Pump Set: Motor ME II 3 or MD-2, pump tube SS 41-L-SL stainless steel, 2 m universal chemical hose 3/4", electrically conductive bound with hose connectors stainless steel, nozzle stainless steel 1.4571, equipotential bonding cable, drum adapter PP (without Ex-plug).

### **Lutz Pump Sets**

### Pump Set "Solvents" for complete drum drainage



0205-502 \*Motor, pump tube RE-SS, equipotential bonding cable

0205-501

0205-521

0205-522

0205-505

0205-506

Order No.

Order No.

0205-525

0205-526

pump tube RE-SS 41-L-MS stainless steel, 2 m solvent hose 3/4", electrically conductive bound with hose connectors brass, nozzle brass, equipotential bonding cable, drum adapter PP (without Ex-plug)

Imm. depth 1000 mm

Imm. depth 1200 mm

# More time for the essential things

Pump Set "Hazardous Fluids" for complete drum drainage









For emptying drums and contain	ers	Pump* with ME II 3		Set with ME II 3	Set with MD-2
Imm. depth 1000 mm	Order No.	0205-505	0205-525	0205-511	0205-531
Imm. depth 1200 mm	Order No.	0205-506	0205-526	0205-512	0205-532

\*Motor, pump tube RE-SS, equipotential bonding cable

Pump Set: Motor ME II 3 or MD-2, pump tube RE-SS 41-L-MS stainless steel, 2 m universal chemical hose 3/4", electrically conductive bound with hose connectors stainless steel, nozzle stainless steel (1.4571), equipotential bonding cable, drum adapter PP (without Ex-plug)

# **Lutz Battery Pump B1 for Laboratories**

### Mobile and user friendly



# Convenient and safe transfer of small liquid amounts

Environmental protection, safety, energy and cost consciousness and easy handling: the demands which a pump has to meet are growing more and more. At Lutz, we have met this challenge and have completed our delivery program for a battery-powered pump series which lives up to these expectations. The Battery Pump B1 — which is also available as a complete pump set with accessories — incorporates the reliable and tested drum pump technology. This pump type was developed for applications where small amounts of liquids have to be filled from different containers like small cans up to 200-l-drums.

# For each application the right solution from Lutz

With the battery-powered laboratory pump B1 and the electrical-powered pump B2 Vario, Lutz offers to the market a successful duo which is ideally suitable for a convenient and safe transfer of liquids in the laboratory and research sector or whatever industry you are in.



The battery charger can be used as table unit or can be mounted onto the wall.



Pump set immediately ready for use. With 1.5 m PVC-hose and hose nozzle.

# Safe and simple in everyday practice

# Top Performance in a compact design

- ✓ Reliable and tested drum pump technique
- ✓ Modular design
- ✓ Infinitely variable speed controller for comfortable and safe filling applications
- Ergonomical design for easy handling
- ✓ Optimized complete drum drainage
- ✓ Sophisticated battery system
- Battery charger as wall bracket for safe storage
- ✓ Chemical-resistant
- Easy to service

#### **Battery Pump Set B1 comprises:**

Battery motor 9.6 V, pump tube polypropylene  $\varnothing$  25 mm, 1.5 m PVC-hose DN 12 and hose nozzle

Pump		Lutz Battery Pump B1
Drive motor		Battery motor 9,6 V, on/off switch with variable speed controller
Material:		PP
Type of impeller		R
Category 1 / 2 (acc. to ATEX)		no
Immersion tube diameter:	up to mm	25
Hose connection:	Nominal diameter mm Outer thread	12 G 3/4
Delivery rate*	up to I/min.	16
Delivery head*	up to m wc	8
Temperature of medium:	max. °C	0 up to + 40
Viscosity**	up to mPas	200
Density	up to kg/dm³	1.3
Weight (kg)	Motor + pump tube	1.2
Length: 500 mm	Order No.	0205-053
Length: 700 mm	Order No.	0205-054
Length: 1000 mm	Order No.	0205-055

### 

### Accessories

Recharger for battery motor	Order No.	0001-050
Curved spout PVC, G 3/4	Order No.	0201-094
Drum adapter (dimensions of threaded connections must be indicated)	Order No.	on request

# Immediately ready for use — only few simple operations required



Remove the motor from the charging station



Connect the motor with the pump tube





Open the nozzle and fill up the requested liquid amount infinitely variable

# **Lutz Drum and Container Pumps**

### Lutz B2 Vario: Perfect for the laboratory and research sector



Lutz B2 Vario stands for: Versatile, maximum possible safety, and optimum price-performance ratio.

## The innovation for increased safety and ease of use

Environmental protection, safety, energy and cost consciousness and easy handling: the demands which a pump has to meet are growing more and more. Simplicity and ease of handling must be inherent characteristics as well.

At Lutz, we have met this challenge and have developed a pump which lives up to these expectations. The electric drum and container pump **Lutz B2 Vario** incorporates a reliable and tested technique together with a number of functions providing perfect fluid management solutions, whatever industry you are in.

### The advantages of the B2 Vario:

- ✓ Variable speed motor with safety cut out to enable the transfer of liquids in small amounts
- ✓ Easy and safe to operate by integrated ergonomically designed handles and nozzle
- ✓ Ultra quiet, long service life
- ✓ **Different lengths** available 500,700 and 1000 mm for the use in small vessels up to 200 litre drums
- Sealless, lube free pump tube, thus no contamination of the liquid
- Wide range of applications possible due to sealless construction
- Available in **polypropylene** and **stainless steel** (1.4571)

Mounted hanger for storing nozzle and cable at the pump. Service-friendly construction, simple to dismantle and improved complete drainage function.





# Lutz B2 Vario: (polypropylene or stainless steel)

The perfect solution to transfer small amounts of liquid



### **Safety First**

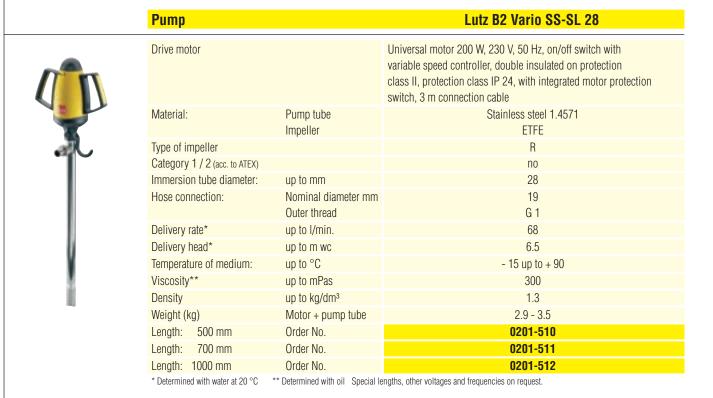


Personal safety and the environment are of vital importance when it comes to handling chemicals, acids, alkalis or other dangerous liquids, particularly when transferring small amounts of liquid. The "Lutz B2 Vario" provides a complete solution. The infinitely variable speed controller with integrated on/off switch allows a controlled and comfortable filling of smaller and larger liquid amounts. The operator can gradually regulate the delivery rate from lowest up to requested speed by one movement of the hand.

# **Lutz Drum and Container Pumps**

### Lutz B2 Vario (polypropylene or stainless steel)

Productdetail	Pump		Lutz B2 Vario PP-SL 32
	Drive motor		Universal motor 200 W, 230 V, 50 Hz, on/off switch with variable speed controller, double insulated on protection class II, protection class IP 24, with integrated motor protection switch, 3 m connection cable
	Material:	Pump tube Impeller	PP PP
	Type of impeller		R
	Category 1 / 2 (acc. to ATEX)		no
	Immersion tube diameter:	up to mm	32
	Hose connection:	Nominal diameter mm	19
		Outer thread	G 1
	Delivery rate*	up to I/min.	75
	Delivery head*	up to m wc	7
	Temperature of medium:	up to °C	- 15 up to + 50
	Viscosity**	up to mPas	300
	Density	up to kg/dm³	1.3
•	Weight (kg)	Motor + pump tube	2.2 - 2.5
	Length: 500 mm	Order No.	0201-500
	Length: 700 mm	Order No.	0201-501
	Length: 1000 mm	Order No.	0201-502
	$^{\star}$ Determined with water at 20 $^{\circ}\text{C}$	** Determined with oil Special le	ingths, other voltages and frequencies on request.



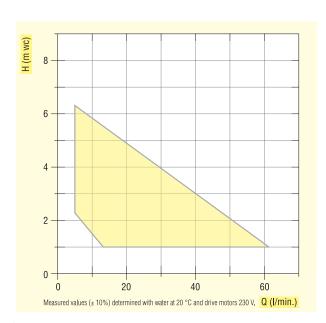
### for the laboratory and research sector

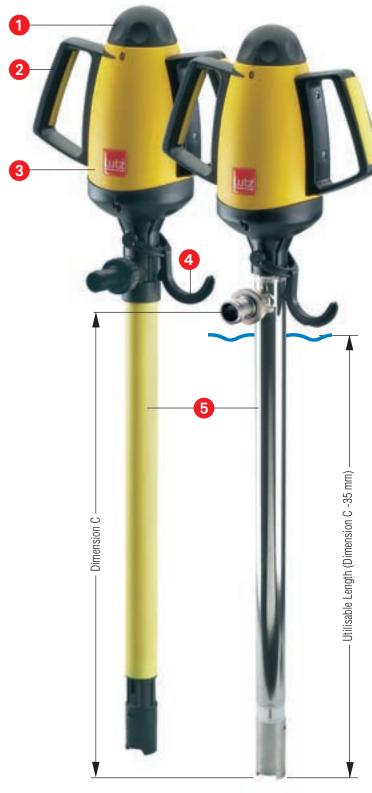
#### Materials (coming into contact with the pumped medium):

Version:	PP-SL	SS-SL
Housing:	PP/PVDF	Stainless steel (1.4571)
Impeller:	PP	ETFE
Seals:	none	none
Mechanical seals:	none	none
Bearing:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Hastelloy C	Stainless steel (1.4571)

- 1 Infinitely variable speed controller for safe liquid transfer
- 2 Easy and safe to operate by ergonomically designed handles
- 3 Powerful universal motor with improved service life
- 4 Hanger for professional storage of nozzle and cable
- Modular designed sealless pump tube in polypropylene or stainless steel with improved complete drainage function

□ IP 24 **(€** 







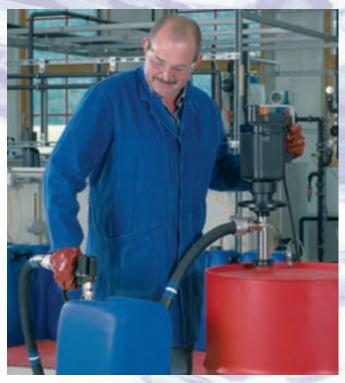
Suitable range of accessories see pages 73-75

### **Lutz Drum and Container Pumps**

### Your individual pump selection

### Safety first

The explosionproof models of Lutz drum pumps provide optimum protection when handling easily inflammable, combustible material and when working in potentially explosive environments. The drum pumps are made of stainless steel (1.4571) and Hastelloy C. They comply with all the international standards and provisions as well as with the directives according to Atex 94/9/EC and IEC Ex.



Lutz drum and container pumps are always the right choice.

# The right solution for each and every liquid

We have the pump suited to any liquid to be pumped — without compromise. Acids and alkalis have no impact on polypropylene and PVDF drum pumps. Aluminium pumps ensure unrestricted flow of diesel and oil. Stainless steel is particularly suitable for corrosive and neutral liquids, it proves especially useful in the pharmaceutics and food industry. Hastelloy C, which is extremely resistant, does not stop at highly aggressive acids or alkalis. Your choice is not restricted to the type of impeller. Lutz drum pumps are available as sealless versions and as well as versions with mechanical seals.



### **Lutz Drum and Container Pumps**

in PURE Version

### **Lutz Drum and Container Pumps PURE version**

Pumps and flow meters in contact with food products are considered to be "food contact materials" and are thus subject to strict legal regulations.

The new Lutz PURE series includes products which are in accordance with ATEX Directives as well as with FDA Regulation and European Regulation according to 1935/2004/EC.





- ✓ Physiologically safe type
- High surface quality
- ✓ Food-safe connections
- Not filled with lubricants, preventing product contamination
- Also for alcoholic food products, cosmetics and pharmaceuticals and flammable cleaning products





The "food safe" sign or "glass and fork" symbol stands for suitability for foodstuffs. This symbol denotes products which were tested to determine their physical and chemical composition

and have been found to be safe for contact with food in accordance with the requirements of Regulation (EC) 1935/2004.



The Food and Drug Administration in the USA certifies materials and substances and also defines limit values for extractable substances which must be complied with, as is the case with elastomers for aqueous or fatty food products (21 CFR 177.2600).



Lutz pumps from the PURE series are also available in an explosion-proof version in accordance with ATEX Directive 94/9/EC. They are well-suited for pumping highly flammable media in food and beverage production, such as alcohols, essential oils and flavourings, as well as cleaning products and disinfectants used for cleaning purposes.

# The frequently used universal solution

Pump tubes: PP/PVDF/ALU

Due to their carefully adapted material combinations, the modular Lutz pump tubes are auitable for almost all applications, in which thin-bodied and slightly viscous liquids need to be pumped. PP and PVDF are ideally suited for acids and alkalis, aluminium is particularly well suited for oil and cooling lubricants.

# Excellent design: Almost anything is possible

Once again, the focus is on a broad range of applications—hence the modular design. The design of the pump tubes permits a sealless version of the pump tube as well as a version with mechanical seals. The sealless versions do not feature any seals that come into contact with the medium—not even O-ring seals. In the version with mechanical seals, the drive shaft is secured with one mechanical seal with two shaft seals behind it. Depending on your requirements, the impeller is optimised either with regard to the delivery rate or the pumping head.

### We use our intelligence: Smart material selection

We select the materials with regard to the applications. PVDF offers the highest degree of chemical resistance. There are no grease fillings in the shaft tube, so there is no way that the fluid to be pumped can be contaminated. All the models are equipped with universally resistant PTFE slide bearings.

### Logical decision: Service-friendly design

Maintenance without the need for special tools — that 's what we call service-friendly. The pump tubes boast a straightforward and coherent design. The motor can be disconnected quickly through the convenient hand wheel that is also used as a carrying handle.

### How economical can you get?

A large number of standard components help save resources and keep inventory costs at bay.

# Two-to-one for your success: one pump tube, two sealing systems

#### Everything well thought out

These models are convincing in their simple design of the connecting head, of the T-fitting and of the pump tube. They guarantee a high degree of resistance and minimum wear, and thus an extended service life.

#### High quality - for you!

The metal connecting head with an exceptionally corrosion-resistant coating enhances the heat dissipation of the bearing friction. The outer tube is extremely rigid due to thick walls. You can select either a stainless steel or Hastelloy C drive shaft.

#### Assembly and replacement made simple

Save time and money. The sealing modules of the pumps with mechanical seals (MS) and of the sealless pumps (SL) can be replaced rapidly and conveniently — should they be worn. It is possible at any time to convert a pump with mechanical seal to a sealless pump. No additional modifications are required. The robust pump foot (model R or L) is easy to detach.

#### Practically indestructible

The double high-quality PTFE shaft bearing guarantees a long service life of these pumps.



#### **German Patent:**

DE 196 14 350 C2



# **Untiring: Lutz Pump Tubes**

Pump tubes: Stainless steel/Hastelloy C

### Untiring: Pump tubes: Stainless steel/Hastelloy C These "universal geniuses" don't

These "universal geniuses" don't take offence easily: robust Lutz pump tubes for a vast range of applications, even with extensive mechanical stress. Ideally suited for thin-bodied to slightly viscous liquids.

The pump tubes stainless steel are suited for delivering neutral and aggressive, easily inflammable and non-inflammable liquids. HC is used especially for highly aggressive, easily inflammable chemicals.

# Tried and tested a thousand times in practice

In this case, a broad range of applications was the primary objective of the design engineers. The sealless version does not feature any seals that come into contact with the medium. In the version with mechanical seals, the drive shaft is secured with one mechanical seal with two shaft seals behind it.

### The material is what matters

Stainless steel pump tubes feature an extremely resistant pure carbon bearing, Hastelloy C pump tubes feature an extremely resistant ceramic bearing. Another benefit: There are no grease fillings in the shaft tube, so there is no way the fluid to be pumped can be contaminated.

**New:** Stainless steel pump tubes in PURE version. All materials coming into contact with the pumped fluids are physiologically safe. The pump tubes are mainly used in the food-, cosmeticsand pharmaceutical industry.





# When does one have to use an explosionproof pump, when not?

Several factors play a role where safety is at stake. The liquid to be delivered, the circumstances of the delivery and the environment.

Explosion protection measures are imperative for flammable liquids belonging to explosion group II (according to EN/IEC 60 079-0).

The hazard imposed by the gases increases from explosion group II A and II B to II C. Accordingly, the demands placed in the operating appliances used for these explosion groups also rises.

Of course, this is the reason why operating appliances, for example, which are approved for II C, are also usable for all other explosion groups.

### Caution! Some examples:

A pump tube with an explosionproof motor must be used for easily inflammable liquids.

Refer to page 32

Group II A: e.g. acetone, gasoline, toluene e.g. ethene, ethylene oxide,

diethyl ether

Group II C: e.g. acetylene, hydrogen,

carbon disulfide

### **Pump Power: Range of Motors**



Double insulation in keeping with type of protection class II, splash water protected in keeping with IP 24, double-pole ON/OFF switch and single-pole thermal overcurrent release. 5-m connection cable with plug. Not explosionproof.

- ✓ Light and convenient
- ✓ Powerful
- ✓ Good price/performance ratio
- Optionally available with speed controller

Undemanding universal motor designed for industrial applications and suitable for pumping thin-bodied, slightly viscous, neutral, aggressive and non-inflammable fluids. It demonstrates its power even when handling acids and alkalis.

We recommend the use of the MA II 5-S motor for extremely aggressive environments.

More information see below.

### **Everything under control: MI 4-E**

The MI 4-E motor is additionally equipped with a speed controller. This ensures controlled filling and refilling of fluids at any time.

Тур	Voltage ∨	Frequency Hz	<b>Output</b> W	<b>Weight</b> kg	Order No. (with Low-voltage release)	Order No. (without low-voltages- release)
MI-4-230	220-230	50	450-500	2.8	-	0030-000
MI-4-230 E	220-230	50	450-500	2.8	-	0030-001
MI-4-230	230	60	400	2.8	-	0030-015
MI-4-230 E	230	60	400	2.8	-	0030-016
MI-4-120	110-120	50-60	550-640	2.8	-	0030-003
MI-4-120 E	110-120	50-60	550-640	2.8	-	0030-006
MI-4-100 E	100	50-60	520-550	2.8	-	0030-008



Double-pole ON/OFF switch, splash water protected in keeping with IP 54, single-pole thermal overcurrent release. 5-m connection cable with shock-proof plug. Not explosion proof

- ✓ Robust, rigid design
- ✓ Double insulation with protective conductor connection
- ✓ Integrated low voltage release (option)
- ✓ Optimised cooling air conduction
- Externally cooled
- ✓ Double wall housing
- ✓ Available in three power ratings

The convenient and powerful MA II universal motors are ideal for pumping thin-bodied to slightly viscous, aggressive and non-inflammable fluids.

### Double protection is even better

Robust and durable: The inner part of the double wall housing is made of aluminium, the outer part is made of special acid-proof plastic. Aggressive and corrosive vapours cannot intrude into the inner part of the motor. The air flow for cooling the motor is conducted between the two walls of the housing.

### Safety and protection

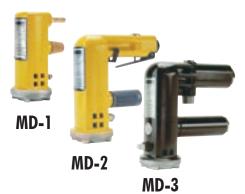
A low voltage release prevents uncontrolled starting of the motor. There is double insulation between the live parts and the outer surface of the motor and the pump tube that can be touched.

# Acid-proof version: The indestructible

The acid-proof motor version MA II 5-S is armed against all types of "aggression". The motors feature a metal housing with a special anti-acid coating, a plastic shell and additional sealing of the inner part of the motor.

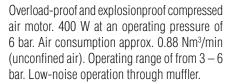
Тур	<b>Voltage</b> V	Frequency Hz	<b>Output</b> W	<b>Weight</b> kg	Order No. (with Low-voltage release)	Order No. (without low-voltages- release)
MAII 3	220-230	50	430-460	4.6	0060-008	0060-000
	100-120	50-60	430	4.6	0060-016	0060-044
MAII 5	220-230	50	540-575	5.4	0060-009	0060-001
	220-230	60	450-490	5.4	0060-043	0060-042
	100-120	50-60	510	5.4	0060-017	0060-045
	42	50	520	5.4	0060-014	0060-006
	24	=	400	5.4	0060-015	0060-007
MAII5S	220-230	50	540-575	5.4	-	0060-091
	100-120	50-60	510	5.4	-	0060-094
MAII 7	220-230	50	790-795	6.6	0060-010	0060-002
	100-120	50-60	700	6.6	0060-018	0060-046

### **Lutz: The Fluid Managers**









- Explosionproof
- ✓ Overloadproof
- ✓ Compact design
- ✓ Delivery flow is easy to control
- ✓ Optionally with/without manual operation

### MD compressed air motors

Especially in environments, in which electricity may constitute a hazard. The compact MD compressed air motors automatically adjust to the respective load. Ideal for handling thin-bodied, aggressive, slightly viscous and easily inflammable liquids assigned to explosion groups II A, II B and II C.

### Trio grande: The models

Three different versions of the MD compressed air motors are available: MD-1 without manual operation for automatic control. MD-2 with manual operation and interlock. MD-3 with on/off pushbutton. Approved according to Atex Ex II 2 G.

MD	-3:	Plo	ıy it	safe
----	-----	-----	-------	------

The first compressed air motor in an explosion-proof enclosure. Flashback arresters, spring loaded spherical safety relief valves, plastic rotors and extremely long threads guarantee even more safety when pumping easily inflammable liquids. This virtually eliminates operating errors.

Туре	Betriebsdruck W	Output W	<b>Weight</b> kg	Order No.
MD-1	6	400	1.1	0004-087
MD-2	6	400	1.5	0004-088
MD-3	6	400	2.1	0004-090



The B4/GT has a proven record of success in plant construction and as a drum pump drive. The perfect system for thin-bodied to slightly viscous liquids. These "undemanding" partners hardly ever show signs of wear. The ideal solution for long periods of operation.

### A wide range of capabilities

The B4/GT motor is suitable for stationary applications with terminal box and external

protection switch in the control cabinet and equally well as a mobile multi-talent — in this case with a protection switch attached.

### **Absolutely undemanding**

The flange mounted single-stage gears are oillubricated and extremely easy to maintain.

Three-phase gear motor, 0.75 kW, 230/400 V, 50 Hz, efficiency level IE 2. With terminal box or attached motor protection switch with ON/OFF function.

- Especially smooth and quiet operation
- ✓ Special models available

Туре	<b>Voltage</b> V	Frequency Hz	<b>Output</b> W	<b>Weight</b> kg	Order No. (cable terminal box)	Order No. (protection switch)
B4/GT	230-400	50	750	10.0	0004+019	0004+067

### Pump Power: The motors ME II







Explosionproof in compliance with II 2 G Ex de IIC T 5 or T6. Double-pole ON/OFF switch, splash water protected in keeping with IP 54, double-pole thermal overcurrent release. 5 m connection cable with safety plug (not explosionproof), optionally available with explosionproof plug.

- Explosionproof in compliance with Atex and IEC Ex
- Low voltage release by default
- Optionally available without low voltage release
- Double isolation with protective conductor connection
- Optimised cooling air conduction
- Externally cooled

Double wall housing

Available in four power ratings

These motors aren't taken aback easily. The ME II explosionproof universal motor is the answer (German Patent DE 38 15427 C2) for pumping a large variety of thin-bodied, easily inflammable and combustible liquids..

### Double walls provide optimum protection

The inner part of the double wall housing is made of aluminium, the outer part is made of special acidproof, non-conducting plastic. This prevents aggressive and corrosive vapours from intruding into the inner part of the motor. The air flow for cooling the motor is conducted between the two walls of the housing.

### Tested quality and safety

Complies with the European Standards EN/IEC 60 079-0, EN/IEC 60 079-1 and EN/IEC 60 079-7, explosionproof in compliance with II 2 G Ex de IIC T5 or T6 and built and approved in keeping with the explosion protection Atex Directive 94/9/EC and IEC Ex.

### Who is afraid of voltages?

A low voltage release prevents uncontrolled starting of the motor. All the motors of the ME II series feature a protective conductor connection. There is double insulation between the live parts and the outer surface of the motor that can be touched as well as between the live parts and the pump tube. This guarantees protection against spark discharge during potential equalisation, specially in explosive areas.

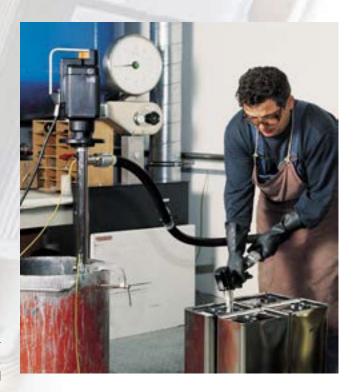
#### **German Patent:**

DE 38 15427 C2

Туре	Voltage ∨	Frequency Hz	<b>Output</b> W	<b>Weight</b> kg	Order No. (with low-voltage release)	Order No. (without low-voltage release)
ME II 3	220-230	50	430-460	5.5	0050-000	0050-016
	100-120	50	380-440	5.5	0050-003	-
	110-120	60	400-460	5.5	0050-006	0050-009
ME II 5	220-230	50	540-580	6.3	0050-001	0050-017
	220-230	60	475-515	6.3	0050-034	0050-035
	24	=	400	6.3	0050-013	0050-015
ME II 7	220-230	50	750-795	7.5	0050-002	0050-018
ME II 8	220-230	50	880-930	8.0	0050-042	0050-041

### Some like it hot

### Lutz explosionproof drum pumps



#### **Power**

Our extensive range of motors comprises explosionproof compressed air and electric motors. Both the motor and the pump tube are approved as explosionproof in keeping with Atex Directive 94/9/EC, since the motor and the pump tube form an integral assembly.

#### Handy and convenient

In the case of explosionproof pumps, the motor and the pump tube are also connected and disconnected in no time at all via the hand wheel. The hand wheel is also used as a carrying handle.

### Safety benefits from experience

For more than 50 years, explosion protection has played a major role in the philosophy of our company. This stands for experience that you as a planner and operator - can trust. In 1963, Physikalisch-Technische Bundesanstalt (PTB) granted Lutz the first approval for an explosion-proof drum pump. Today, motors and pump tubes are subject to to Atex Directive 94/9/EC. The motors and pump tubes are each awarded their own certificate. Lutz - as the manufacturer, certifies this through the EC Declaration of Conformity.

# Explosion protection is a matter of public concern!

The manufacturer is not the only one responsible for ensuring that all the requirements of the explosion protection directive are met. The plant operator is equally responsible. The commissioning regulations depend on the intended use of the pump. Apart from this, every country has its national regulations with which the plant operator must comply in everyday practice – for his own safety and the safety of his employees.



# **Lutz Drum and Container Pumps**

### Pump tube PP (polypropylene) for corrosive and neutral liquids

Toddotactari	Pump to	ube					PP.	-SL	PP-	MS
V	Type of im	peller					L	R	L	R
	Category 1	1 / 2 (acc. to AT	EX)				no	no	no	no
events the pump from starting again without warning after a wer failure. Its recommended					up to mm		41	41	41	41
	Temperatu	re of medium	1		up to °C	•		50	50	50
	Material		Pump tube		PP	PP	PP	PP		
			Impeller		PP	PP	PP	PP		
			Nominal diam	eter mm	19-32	19-32	19-32	19-32		
					Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7	700 mm*** s	shaft SS		Order No.		0110-304	0110-300	0103-504	0103-50
	Length: 10	)00 mm*** s	shaft SS		Order No.		0110-305	0110-301	0103-505	0103-50
	Length: 12	200 mm*** s	shaft SS		Order No.		0110-306	0110-302	0103-506	0103-50
	Length: 7	<sup>7</sup> 00 mm*** s	shaft HC		Order No.		0110-204	0110-200	L no 41 50 PP PP 19-32 G 1 1/4 0103-504 0103-505 0103-406	0103-40
	Length: 10	000 mm*** s	shaft HC		Order No.		0110-205	0110-201		0103-40
	Length: 12	200 mm*** s	shaft HC		Order No.		0110-206	0110-202	0103-406	0103-40
	Length: 14	100 mm*** s	shaft HC		Order No.		0110-208	0110-213	_	_
	-				Order No.			0110-214	_	-
	Ü							0110-215	_	_
								0110-216		_
								0110-217		_
	Choice	of motor	c		Operating	data				
	OHOICC				Operating	uata				
		MI-4	MI-4-E		Characteristic	curve no.	101	100	101	100
4		-	with speed		Flow rate*	up to I/min.	87	160		160
							19	8.5		8.5
-							500	150		150
							1.4	1.1		1.1
	Order No.	0030-000	0030-001		weight (kg)	Motor + pump tube	3.9	3.9	3.9	3.9
	0	MAII 3	100.11				103	102		102
-						•	78	155		155
100000					,		16	7.5		7.5
	LVK.:	ПО	yes		,		500 1.6	150 1.2		150
	Order No.	0060 000	0060 000		Density	up to kg/dm³	I h	1/		
	Oruel NO.	0000-000							L no 41 50 PP PP 19-32 G 1 1/4 0103-504 0103-505 0103-406 101 87 19 500 1.4 3.9 103 78 16 500 1.6 5.7 105 83 18 800 1.8 6.5	1.2
					Weight (kg)	Motor + pump tube	5.7	5.7		5.7
Temperature of medium			5.7							
		<b>MA II 5</b> 575 W	<b>MA II 5</b> 575 W	575 W	Weight (kg)  Characteristic Flow rate*	Motor + pump tube  Curve no.  up to I/min.	5.7 105 83	5.7 104 160	5.7 105 83	5.7 104 160
	Voltage:	<b>MA II 5</b> 575 W	<b>MA II 5</b> 575 W	575 W 230 V	Weight (kg)  Characteristic Flow rate*  Delivery head	Motor + pump tube  Curve no.  up to I/min.	5.7 105 83 18	5.7 104 160 9	5.7 105 83 18	5.7 104 160 9
	Voltage:	<b>MA II 5</b> 575 W 230 V	<b>MA II 5</b> 575 W 230 V	575 W 230 V no	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy**	Curve no. up to I/min. * up to m wc up to mPas	5.7 105 83 18 800	5.7 104 160 9 350	5.7 105 83 18 800	5.7 104 160 9 350
	Voltage: LVR.:	<b>MA II 5</b> 575 W 230 V no	<b>MA II 5</b> 575 W 230 V yes	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density****	Curve no.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³	5.7 105 83 18 800 1.8	5.7 104 160 9 350 1.3	5.7 105 83 18 800 1.8	5.7 104 160 9 350 1.3
	Voltage: LVR.:	MA II 5 575 W 230 V no	<b>MA II 5</b> 575 W 230 V yes	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube	5.7 105 83 18 800 1.8 6.5	5.7 104 160 9 350 1.3 6.5	5.7 105 83 18 800 1.8 6.5	5.7 104 160 9 350 1.3 6.5
	Voltage: LVR.: Order No.	MA II 5 575 W 230 V no 0060-001	MA II 5 575 W 230 V yes 0060-009	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.	5.7 105 83 18 800 1.8 6.5	5.7 104 160 9 350 1.3 6.5	5.7 105 83 18 800 1.8 6.5	5.7 104 160 9 350 1.3 6.5
ow-voltage release (LVR.):	Voltage: LVR.: Order No. Output:	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W	MA II 5 575 W 230 V yes 0060-009 795 W	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate*	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.	5.7 105 83 18 800 1.8 6.5	5.7 104 160 9 350 1.3 6.5 106 170	5.7 105 83 18 800 1.8 6.5 107 90	5.7 104 160 9 350 1.3 6.5
revents the pump from starting	Voltage: LVR.: Order No. Output: Voltage:	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V	MA II 5 575 W 230 V yes 0060-009 795 W 230 V	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head'	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc	5.7 105 83 18 800 1.8 6.5 107 90 22	5.7 104 160 9 350 1.3 6.5 106 170 12	5.7 105 83 18 800 1.8 6.5 107 90 22	5.7 104 160 9 350 1.3 6.5 106 170 12
revents the pump from starting of again without warning after a	Voltage: LVR.: Order No. Output: Voltage:	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V	MA II 5 575 W 230 V yes 0060-009 795 W 230 V	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head Viscostiy**	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas	5.7 105 83 18 800 1.8 6.5 107 90 22 800	5.7 104 160 9 350 1.3 6.5 106 170 12 350	5.7 105 83 18 800 1.8 6.5 107 90 22 800	5.7 104 160 9 350 1.3 6.5 106 170 12 350
revents the pump from starting o again without warning after a ower failure. Its recommended	Voltage: LVR.: Order No. Output: Voltage: LVR.:	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density****	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  up to kg/dm³	5.7 105 83 18 800 1.8 6.5 107 90 22	5.7 104 160 9 350 1.3 6.5 106 170 12	L	5.7 104 160 9 350 1.3 6.5 106 170 12
Prevents the pump from starting p again without warning after a lower failure. Its recommended	Voltage: LVR.: Order No. Output: Voltage: LVR.:	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to mPas  up to kg/dm³  Motor + pump tube	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7
revents the pump from starting p again without warning after a ower failure. Its recommended	Voltage: LVR.: Order No. Output: Voltage: LVR.: Order No.	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes  0060-010	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Characteristic Characteristic	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7
revents the pump from starting p again without warning after a ower failure. Its recommended	Voltage: LVR.: Order No. Output: Voltage: LVR.: Order No.	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes  0060-010	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate*	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7
revents the pump from starting p again without warning after a ower failure. Its recommended	Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Operating	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002  MD-1 400 W	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes  0060-010  MD-2 400 W	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Density**** Weight (kg)  Characteristic Flow rate* Delivery head' Delivery head'	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to mwc	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7 109 90 20	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7 109 90 20	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7 108 180 10
ow-voltage release (LVR.): Prevents the pump from starting p again without warning after a ower failure. Its recommended when pumping hazardous liquids.	Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Operating	MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002  MD-1 400 W	MA II 5 575 W 230 V yes  0060-009  795 W 230 V yes  0060-010  MD-2 400 W	575 W 230 V no acid-proof	Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy** Weight (kg)  Characteristic Flow rate* Density*** Weight (kg)  Characteristic Flow rate* Delivery head' Viscostiy**	Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  CURVE NO.  up to I/min.  * up to mPas  up to l/min.  * up to myc  up to I/min.	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7	5.7 105 83 18 800 1.8 6.5 107 90 22 800 1.9 7.7 109 90 20 850	5.7 104 160 9 350 1.3 6.5 106 170 12 350 1.4 7.7

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

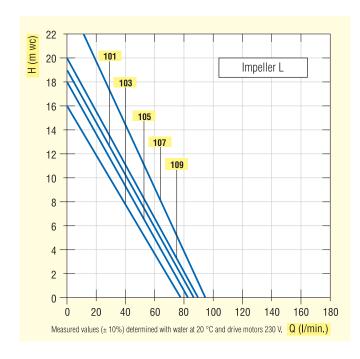
# Pump Tube PP (polypropylene)

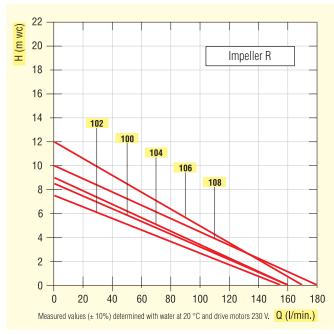
### for corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

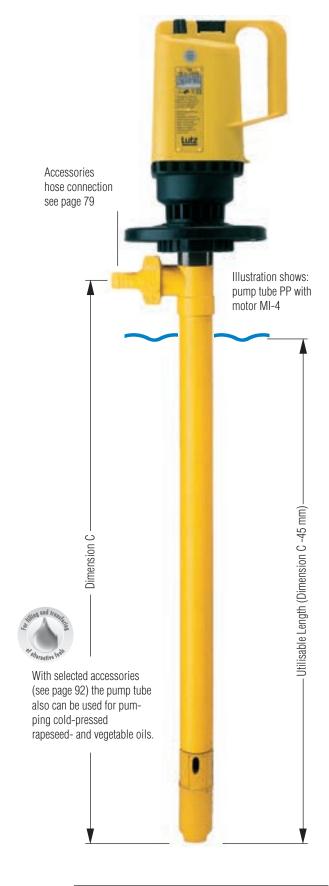
Version:	SL	MS		
Housing:	PP/PVDF	PP/PVDF		
Impeller:	PP	PP		
Seals:	none	Viton®		
Mechanical seals:	none	Carbon, SiC, Viton®, HC-4 (2.4610)		
Bearing:	ETFE/PTFE	ETFE/PTFE		
Drive shaft:	Stainless steel (1.4571) or HC-4 (2.4610)	Stainless steel (1.4571) or HC-4 (2.4610)		

Viton® is a registered trademark of DuPont Performance Elastomers.





Please remember that the flow rate is reduced as the **viscosity** increases. The **density** of the pumped liquid similarly affects the flow rate, though to a lesser extent.





# **Lutz Drum and Container Pumps**

### Pump tube PVDF (polyvinylidene fluoride) for highly corrosive chemicals and neutral liquids

Productdetail	Pump to	ube		ımp tube						F-MS
2	Type of im	peller					L	R	L	R
			EX)				no	no	no	no
-19	Immersion	tube diamet	er:		up to mm		41	41	41	41
		f impeller  ory 1 / 2 (acc. to ATEX)  sion tube diameter:  rature of medium: al:  connection:  : 700 mm*** : 1000 mm*** : 1200 mm*** : 1200 mm***  ce of motors  MI-4 MI-4-E  - with speed controller : 500 W 500 W e: 230 V 230 V No. 0030-000 0030-001  MA II 3 : 460 W 460 W e: 230 V 230 V no yes  No. 0060-000 0060-008  MA II 5 MA II 5 MA II 5 S : 575 W 575 W e: 230 V 230 V no yes no acid-proof		up to °C		100	100	100	100	
	Material:	o or modium			Pump tube		PVDF	PVDF	PVDF	PVDF
	Widtorial.				Impeller		ETFE	ETFE	ETFE	ETFE
	Hose conn	ection:			Nominal diameter	mm	19-32	19-32	19-32	19-32
					Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7	00 mm***			Order No.		0122-204	0122-200	0123-404	0123-4
	Length: 10	00 mm***			Order No.		0122-205	0122-201	0123-405	0123-4
	Length: 12	00 mm***			Order No.		0122-206	0122-202	0123-406	0123-40
	Choice	<mark>of motor</mark> s	S		Operating da	ata				
		MI-4	MI-4-E		Characteristic cur	ve no.	201	200	201	200
Carlo		-	with speed			to I/min.	87	160	87	160
					Delivery head* up		19	8.5	19	8.5
	Output:	500 W	500 W		Viscosity** up	to mPas	500	150	500	150
	Voltage:	230 V	230 V		Density**** up	to kg/dm³	1.4	1.1	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg) M	otor + pump tube	4.5	4.5	4.5	4.5
		MAII 3			Characteristic cur	VA NO	203	202	203	202
	Output:		460 W			to I/min.	78	155	78	155
166	Voltage:					to m wc	16	7.5	16	7.5
	LVR.:					to mPas	500	150	500	150
00			,,,,			to kg/dm³	1.6	1.2	1.6	1.2
	Order No.	0060-000	0060-008			otor + pump tube	6.3	6.3	6.3	6.3
		MA II 5	MAII5 MA	11159	Characteristic cur	1/0 00	205	204	205	204
	Output:						205 83	160	83	160
	Voltage:				Delivery head* up	to I/min.	os 18	9	os 18	9
	LVR.:			<i>y</i>		to mPas	800	350	800	350
	LVII	110	,	l-nroof		to kg/dm³	1.8	1.3	1.8	1.3
	Order No.	0060-001				otor + pump tube	7.1	7.1	7.1	7.1
		MA II 7			Ohamastanistis aun		007	000	007	2000
	Output:	795 W	795 W		Characteristic cur Flow rate* up		207 95	206 170	207 95	206 170
ow-voltage release (LVR.):	Voltage:	230 V	230 V		<b>5</b>	to I/min. to m wc	95 25	170	95 25	170
revents the pump from starting again without warning after a	LVR.:	no	yes			to mPas	800	350	800	350
ower failure. Its recommended	LVII	110	y03			to kg/dm³	1.9	1.4	1.9	1.4
hen pumping hazardous liquids.	Order No.	0060-002	0060-010			otor + pump tube	8.3	8.3	8.3	8.3
		MD-1	MD-2		Characteristic cur	ve no.	209	208	209	208
17	Output:	400 W	400 W			to I/min.	90	180	90	180
	Operating					to m wc	20	10	20	10
1	pressure:	6 bar	6 bar		Viscosity** up	to mPas	850	600	850	600
					,	to kg/dm³	1.8	1.3	1.8	1.3
	Order No.	0004-087	0004-088		Weight (kg) M	otor + pump tube	3.2	3.2	3.2	3.2
		B4/GT			Characteristic cur	ve no.	211	210	211	210
	Output:	750 W	750 W			to I/min.	75	140	75	140
	Voltage:	230/400 V				to m wc	10	8.5	10	8.5
4	Protection					to mPas	400	400	400	400
No.	switch:	no	yes			to kg/dm³	2.2	2.0	2.2	2.0
		110	you		Donoity up	to kg/uiii-		2.0	2.2	L.0

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

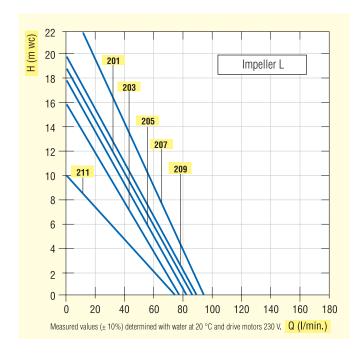
# Pump Tube PVDF (polyvinylidene fluoride)

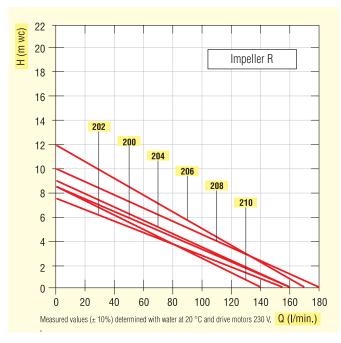
## for highly corrosive chemicals and neutral liquids

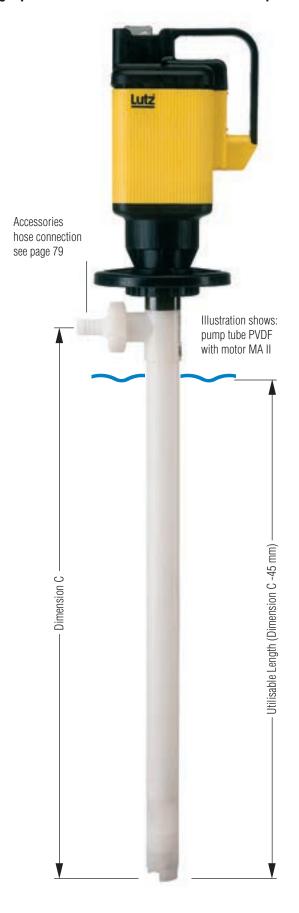
#### Materials (coming into contact with the pumped medium):

Version:	SL	MS
Housing:	PVDF	PVDF
Impeller:	ETFE	ETFE
Seals:	none	Viton®
Mechanical seals:	none	Carbon/SiC, Viton®, HC-4 (2.4610)
Bearing:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	HC-4 (2.4610)	HC-4 (2.4610)

Viton® is a registered trademark of DuPont Performance Elastomers.









## Pump tube Alu (aluminium) for neutral, non flammable liquids

Productdetail	Pump to	ube					Alu	-SL	Alu	-MS
9	Type of im	peller					L	R	L	R
		/ 2 (acc. to ATI	EX)				no	no	no	no
		tube diamet			up to mm		41	41	41	41
		re of medium			up to °C		100	100	100	100
	Material:				Pump tube		Alu	Alu	Alu	Alu
					Impeller		ETFE	ETFE	ETFE	ETFE
	Hose conn	ection:			Nominal diame	eter mm	19-32	19-32	19-32	19-32
					Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7				Order No.		0132-304		0133-504	
	Length: 10				Order No.				0133-505	
	Length: 12				Order No.			0132-302	0133-506	0133-502
- 6	Length: 15	00 mm***			Order No.		0132-309	-	-	-
	Choice	of motors	S		<b>Operating</b>	data				
		MI-4	MI-4-E		Characteristic (	curve no	301	300	301	300
		-	with speed		Flow rate*	up to I/min.	87	160	87	160
			controller			up to m wc	19	8.5	19	8.5
	Output:	500 W	500 W		Viscosity**	up to mPas	500	150	500	150
	Voltage:	230 V	230 V		Density****	up to kg/dm³	1.4	1.1	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	4.3	4.3	4.3	4.3
667		MAII3			Characteristic	curve no.	303	302	303	302
	Output:	460 W	460 W		Flow rate*	up to I/min.	78	155	78	155
940	Voltage:	230 V	230 V		Delivery head*	up to m wc	16	7.5	16	7.5
	LVR.:	no	yes		Viscosity**	up to mPas	500	150	500	150
	O 1 N	0000 000	0000 000		Density****	up to kg/dm³	1.6	1.2	1.6	1.2
100	Order No.	0000-000	0060-008		Weight (kg)	Motor + pump tube	6.1	6.1	6.1	6.1
		MA II 5	MA II 5	MAII5S	Characteristic (	curve no.	305	304	305	304
	Output:	575 W	575 W	575 W	Flow rate*	up to I/min.	83	160	83	160
	Voltage:	230 V	230 V	230 V	Delivery head*	up to m wc	18	9	18	9
	LVR.:	no	yes	no	Viscosity**	up to mPas	800	350	800	350
	Order No	0000 004	0000 000	acid-proof	Density****	up to kg/dm³	1.8	1.3	1.8	1.3 6.9
	Order No.	0000-001	0060-009	0000-091	Weight (kg)	Motor + pump tube	6.9	6.9	6.9	0.9
		MAII7			Characteristic (	curve no.	307	306	307	306
Low-voltage release (LVR.):	Output:	795 W	795 W		Flow rate*	up to I/min.	95	170	95	170
Prevents the pump from starting	Voltage:	230 V	230 V		Delivery head*	up to m wc	25	12	25	12
up again without warning after a power failure. It is	LVR.:	no	yes		Viscosity**	up to mPas	800	350	800	350
recommended when pumping hazardous liquids.	Ordor No.	0060-002	0060-010		Density**** Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.9 8.1	1.4 8.1	1.9 8.1	1.4 8.1
nazaruous nquius.	Oluci No.	MD-1	MD-2							
4	Output	400 W			Characteristic		309	308	309	308
	Output: Operating	400 W	400 W		Flow rate* Delivery head*	up to I/min. up to m wc	90 20	180 10	90 20	180 10
	pressure:	6 bar	6 bar		Viscosity**	up to m wc	850	600	850	600
:: ::	p. 1200.0.				Density****	up to kg/dm³	1.8	1.3	1.8	1.3
	Order No.	0004-087	0004-088		Weight (kg)	Motor + pump tube	3.0	3.0	3.0	3.0
		B4/GT			Characteristic	curve no	311	310	311	310
	Output:	750 W	750 W		Flow rate*	up to I/min.	75	140	75	140
	Voltage:	230/400 V	230/400 V		Delivery head*	•	10	8.5	10	8.5
	Protection				Viscosity**	up to mPas	400	400	400	400
	switch:	no	yes		Density****	up to kg/dm³	2.2	2.0	2.2	2.0
	Order No.	0004+019	0004+067		Weight (kg)	Motor + pump tube	11.3	11.3	11.3	11.3

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating jperiods.

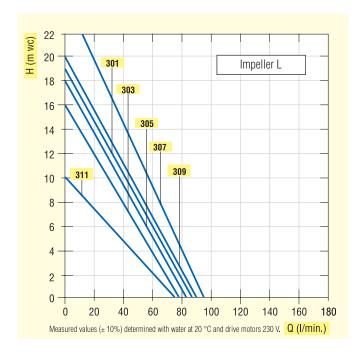
# Pump Tube Alu (aluminium)

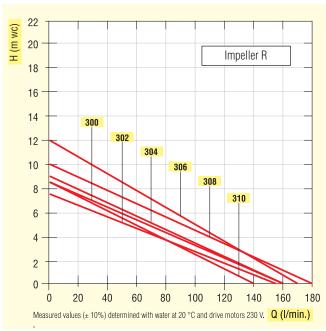
### for neutral, non flammable liquids

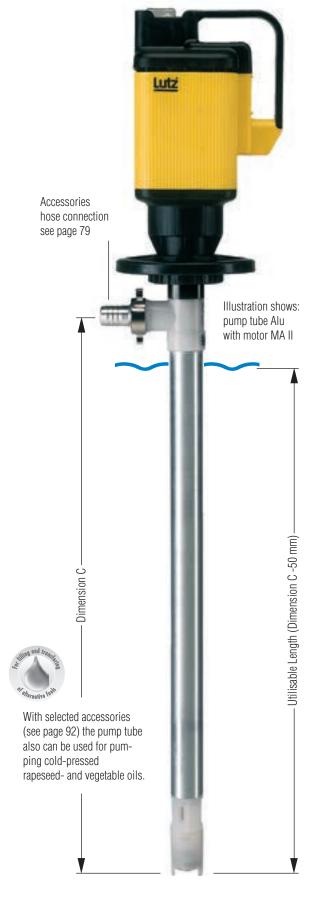
#### Materials (coming into contact with the pumped medium):

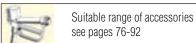
Version:	SL	MS
Housing:	Alu, PVDF	Alu, PVDF
Impeller:	ETFE	PP ETFE
Seals:	none	Viton®
Mechanical seals:	none	Carbon, SiC, Viton®, HC, HC-4 (2.4610)
Bearing:	ETFE	ETFE
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

Viton® is a registered trademark of DuPont Performance Elastomers.









## Pump tube SS (stainless steel) for corrosive and neutral liquids

Productdetail	Pump to	ıbe				SS	·SL	SS-	MS
2	Type of imp	oeller				L	R	L	R
mark III	Category 1	/ 2 (acc. to ATE	EX)			yes	yes	yes	yes
	Immersion	tube diamete	er:		up to mm	41	41	41	41
	Temperatur	re of medium	:		up to °C	100	100	100	100
	Material:				Pump tube	1.4571	1.4571	1.4571	1.4571
					Impeller	ETFE	ETFE	ETFE	ETFE
	Hose conn	ection: <b>▲</b>			Nominal diameter mm	19-32	19-32	19-32	19-32
					Outer thread	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7	00 mm***			Order No.	0150-003	0150-000	0151-003	0151-00
	Length: 10	00 mm***			Order No.	0150-004	0150-001	0151-004	0151-00°
	Length: 12	00 mm***			Order No.	0150-005	0150-002	0151-005	0151-00
	Length: 14				Order No.		0150-113	-	-
	Length: 15				Order No.	0150-109	0150-114	-	-
	Length: 16				Order No.		0150-115	-	-
	Length: 17	00 mm***			Order No.		0150-116	-	-
	Length: 20	00 mm***			Order No.	0150-112	0150-117	-	-
	Choice	of motors	S		Operating data				
		MI-4	MI-4-E		Characteristic curve no.	401	400	401	400
		_	with speed		Flow rate* up to I/min.	117	210	117	210
			controller		Delivery head* up to m wc	19	10	19	10
	Output:	500 W	500 W		Viscosity** up to mPas	500	350	500	350
	Voltage:	230 V	230 V		Density**** up to kg/dm³	1.4	1.1	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg) Motor + pump tube	5.7	5.7	5.7	5.7
		MAII3			Characteristic curve no.	403	402	403	402
	Output:	460 W	460 W		Flow rate* up to I/min.	95	178	95	178
Marin Co.	Voltage:	230 V	230 V		Delivery head* up to m wc	14	9	14	9
	LVR.:	no	yes		Viscosity** up to mPas	350	200	350	200
	Order No.	0060-000	0060-008		Density**** up to kg/dm³ Weight (kg) Motor + pump tube	1.6 7.5	1.2 7.5	1.6 7.5	1.2 7.5
<b>W</b>	01401140.	MA II 5		II 5 S					
	Output				Characteristic curve no.	405	404	405	404
	Output: Voltage:	575 W 230 V	575 W 575 230 V 230		Flow rate* up to I/min.  Delivery head* up to m wc	100 16	190 10	100 16	190 10
	LVR.:	no	yes no	V	Viscosity** up to mPas	700	550	700	550
			•	proof	Density**** up to kg/dm³	1.8	1.3	1.8	1.3
	Order No.	0060-001	0060-009 006	0-091	Weight (kg) Motor + pump tube	8.3	8.3	8.3	8.3
		MAII7			Characteristic curve no.	407	406	407	406
ow-voltage release (LVR.):	Output:	795 W	795 W		Flow rate* up to I/min.	115	210	115	210
revents the pump from starting	Voltage:	230 V	230 V		Delivery head* up to m wc	20	13	20	13
again without warning after a over failure. It is recommended	LVR.:	no	yes		Viscosity** up to mPas	500	400	500	400
hen pumping hazardous liquids.	Order No	0060 002	0060-010		Density**** up to kg/dm³ Woight (kg) Meter - pump tube	1.9 9.5	1.4 9.5	1.9 9.5	1.4 9.5
	Order No.				Weight (kg) Motor + pump tube				
	Outrot	MD-1	MD-2		Characteristic curve no.	409	408	409	408
	Output: Operating	400 W	400 W		Flow rate* up to I/min.  Delivery head* up to m wc	110 20	210 12	110 20	210 12
	pressure:	6 bar	6 bar		Delivery head* up to m wc Viscosity** up to mPas	500	400	500	400
227 22	prossure.	O Dui	o bui		Density**** up to kg/dm³	1.8	1.3	1.8	1.3
	Order No.	0004-087	0004-088		Weight (kg) Motor + pump tube	4.4	4.4	4.4	4.4
		B4/GT			Characteristic curve no.	411	410	411	410
	Output:	750 W	750 W		Flow rate* up to I/min.	100	180	100	180
	Voltage:	230/400 V	230/400 V		Delivery head* up to m wc	12	13	12	13
	Protection				Viscosity** up to mPas	500	400	500	400
	switch:	no	yes		Density**** up to kg/dm³	2.2	2.0	2.2	2.0
	Order No.	0004+019	0004+067		Weight (kg) Motor + pump tube	13.7	13.7	13.7	13.7

<sup>▲</sup> PURE version Tri-Clamp DN 32

<sup>\*</sup>Determined with water at 20 °C \*\*\* Special lengths \*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

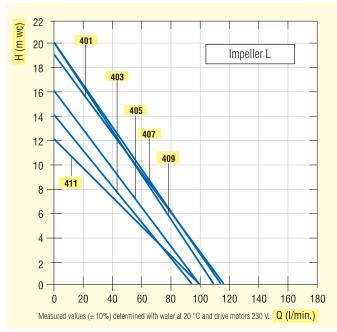
# Pump Tube SS (stainless steel)

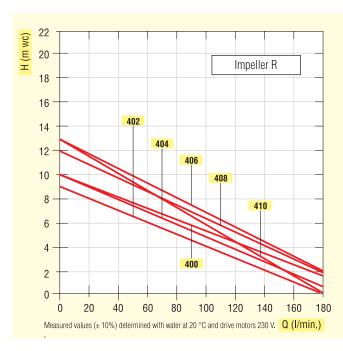
### for corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

Version:	SL	MS	SL PURE	MS PURE
Housing:	SS (1.4571)	SS (1.4571)	SS (1.4571)	SS (1.4571)
Impeller:	ETFE	ETFE	PP	ETFE
Seals:	none	Viton®	none	EPDM, Viton®
Mechanical seal:	none	Carbon, Ceramic, Viton®, Stainless steel	none	Carbon, Ceramic, Viton®, EPDM, Stainless steel
Bearing:	Pure Carbon	Pure Carbon	Pure Carbon	Pure Carbon
Drive shaft:	SS (1.4571)	SS (1.4571)	SS (1.4571)	SS (1.4571)

Viton® is a registered trademark of DuPont Performance Elastomers.





Please remember that the flow rate is reduced as the **viscosity** increases. The **density** of the pumped liquid similarly affects the flow rate, though to a lesser extent.



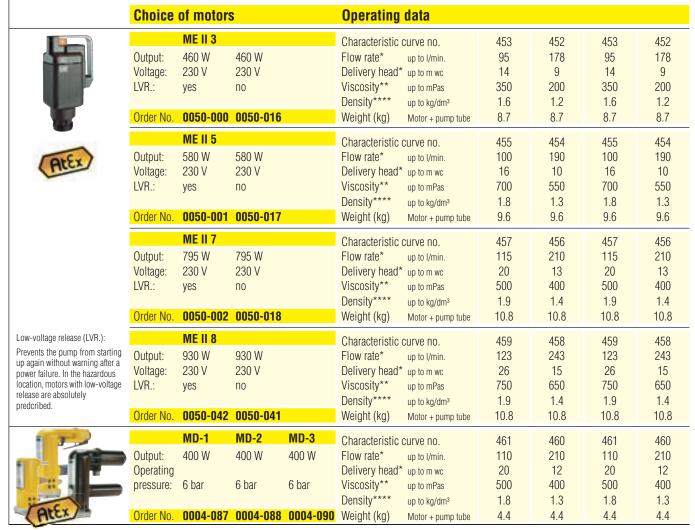
Suitable range of accessories

see pages 76-92

# (x3)

### Pump tube SS (stainless steel) for highly inflammable liquids

Productdetail	Pump tube		SS	-SL	SS-	MS
9	Type of impeller		L	R	L	R
mm 8	Category 1 / 2 (acc. to ATEX)		yes	yes	yes	yes
	Immersion tube diameter:	up to mm	41	41	41	41
	Temperature of medium:	up to °C	100	100	100	100
	Material:	Pump tube Impeller	1.4571 ETFE	1.4571 ETFE	1.4571 ETFE	1.4571 ETFE
	Hose connection:▲	Nominal diameter mm Outer thread	19-32 G 1 1/4	19-32 G 1 1/4	19-32 G 1 1/4	19-32 G 1 1/4
	Length: 700 mm***	Order No.	0150-003	0150-000	0151-003	0151-000
	Length: 1000 mm***	Order No.	0150-004	0150-001	0151-004	0151-001
	Length: 1200 mm***	Order No.	0150-005	0150-002	0151-005	0151-002
	Length: 1400 mm***	Order No.	0150-108	0150-113	-	-
	Length: 1500 mm***	Order No.	0150-109	0150-114	-	-
	Length: 1600 mm***	Order No.	0150-110	0150-115	-	-
	Length: 1700 mm***	Order No.	0150-111	0150-116	_	-
	Length: 2000 mm***	Order No.	0150-112	0150-117	-	-



<sup>▲</sup> PURE version Tri-Clamp DN 32

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths

\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

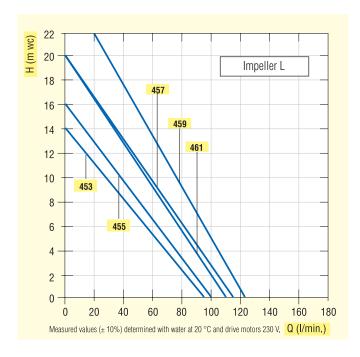
# **Pump Tube SS (stainless steel)**

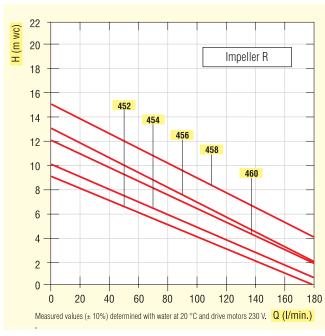
### for highly inflammable liquids

#### Materials (coming into contact with the pumped medium):

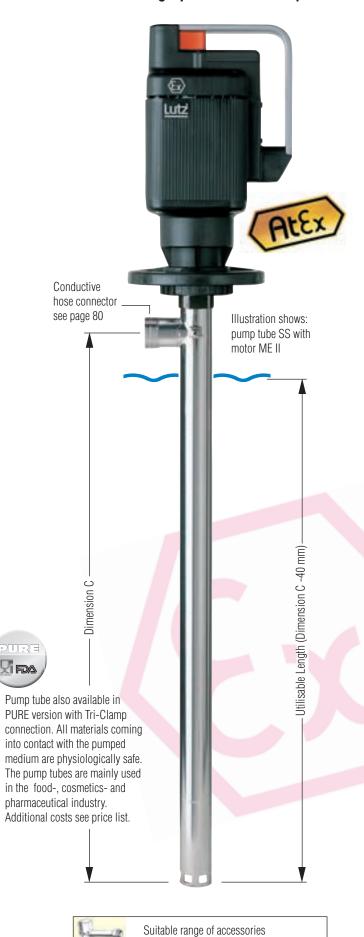
Version:	SL	MS	MS PURE
Housing:	SS (1.4571)	SS (1.4571)	SS (1.4571)
Impeller:	ETFE	ETFE	ETFE
Seals:	none	Viton®	Viton®, EPDM
Mechanical seals:	none	Carbon, Ceramic, Viton®, Stainless steel	Carbon, Ceramic, Viton®, EPDM, Stainless steel
Bearing:	Pure Carbon	Pure Carbon	Pure Carbon
Drive shaft:	SS (1.4571)	SS (1.4571)	SS (1.4571)

Viton® is a registered trademark of DuPont Performance Elastomers.





Please remember that the flow rate is reduced as the **viscosity** increases. The **density** of the pumped liquid similarly affects the flow rate, though to a lesser extent.



see pages 76-92

## Pump tube HC (Hastelloy C) for highly corrosive chemicals

Productdetail	Pump t	ube					HC	S-SL
9	Type of im	peller					L	R
mad II		/ 2 (acc. to ATI	EX)				yes	yes
	Immersion	tube diamet	er:		up to mm		42	42
	Temperatu	re of medium	1:		up to °C		120	120
	Material:				Pump tube		HC	HC
					Impeller		ETFE	ETFE
	Hose conn	ection:			Nominal diame	eter mm	19-32	19-32
		.00 +++			Outer thread		G 1 1/4	G 1 1/4
	Length: 10 Length: 12				Order No. Order No.		0162-204 0162-205	0162-201 0162-202
	Choice	of motors	S		Operating	data		
		MI 4	MI 4-E		Characteristic		501	500
		-	with speed		Flow rate*	up to I/min.	117	210
			controll		Delivery head*		19	10
	Output:	500 W	500 W		Viscosity**	up to mPas	500	350
	Voltage:	230 V	230 V		Density****	up to kg/dm³	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	7.2	7.2
	0	MA II 3			Characteristic		503	502
	Output: Voltage:	460 W 230 V	460 W 230 V		Flow rate* Delivery head*	up to I/min.	95 14	178 9
100000	LVR.:	230 V NO	yes		Viscosity**	up to m wc	350	200
en			,00		Density****	up to kg/dm³	1.6	1.2
	Order No.	0060-000	0060-008	}	Weight (kg)	Motor + pump tube	9.0	9.0
		MA II 5	MA II 5	MAII 5 S	Characteristic	curve no.	505	504
	Output:	575 W	575 W	575 W	Flow rate*	up to I/min.	100	190
	Voltage:	230 V	230 V	230 V	Delivery head*	up to m wc	16	10
	LVR.:	no	yes	no	Viscosity**	up to mPas	700	550
	Order No.	0060-001	<u> </u>	acid-proof 0060-091	Density**** Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.8 9.8	1.3 9.8
	01001110.		0000 000	0000 001				
	Output	<b>MA II 7</b> 795 W	795 W		Characteristic Flow rate*		507	506 210
Low-voltage release (LVR.): Prevents the pump from starting	Output: Voltage:	795 W 230 V	795 W 230 V		Delivery head*	up to I/min.	115 20	13
up again without warning after a	LVR.:	no	yes		Viscosity**	up to mPas	500	400
power failure. It is recommended when pumping hazardous liquids.					Density****	up to kg/dm³	1.9	1.4
- ·	Order No.		0060-010		Weight (kg)	Motor + pump tube	11.0	11.0
		MD-1	MD-2		Characteristic		509	508
	Output:	400 W	400 W		Flow rate*	up to I/min.	110	210
	Operating- pressure:		6 bar		Delivery head* Viscosity**	up to m wc up to mPas	20 500	12 400
	prossult.	υμαι	o bai		Density****	up to IIIPas up to kg/dm³	1.8	1.3
	Order No.	0004-087	0004-088	}	Weight (kg)	Motor + pump tube	5.9	5.9
		B4/GT			Characteristic	curve no.	511	510
		,					100	180
	Output:	750 W	750 W		Flow rate*	up to I/min.	100	100
	Voltage:	230/400 V	750 W 230/400 V		Delivery head*	up to m wc	12	13
		230/400 V						

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

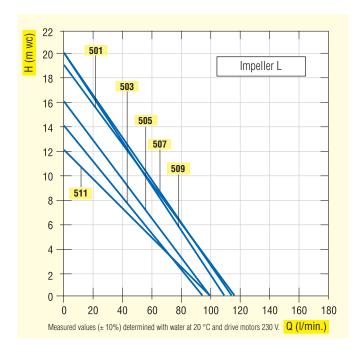
# Pump Tube HC (Hastelloy C)

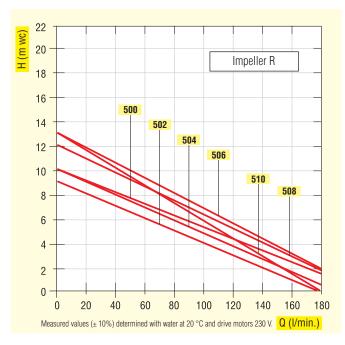
## for highly corrosive chemicals

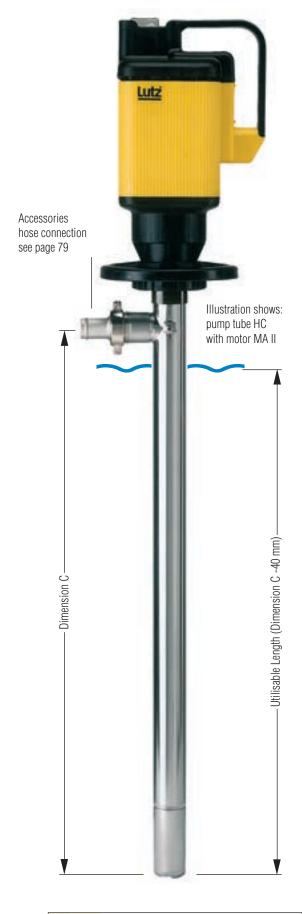
#### Materials (coming into contact with the pumped medium):

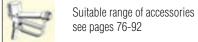
Version:	SL
Housing:	HC-22 (2.4602)
Impeller:	ETFE
Seals:	Viton® (FEP coated)
Bearing:	ETFE, Carbon
Drive shaft:	HC-4 (2.4610)

Viton® is a registered trademark of DuPont Performance Elastomers.









# (x3)

### Pump tube HC (Hastelloy C) for highly inflammable chemicals

Productdetail	Pump tube		HC	-SL
· ·	Type of impeller		L	R
mad II	Category 1 / 2 (acc. to ATEX)		yes	yes
	Immersion tube diameter:	up to mm	42	42
	Temperature of medium:	up to °C	120	120
	Material:	Pump tube	HC	HC
		Impeller	ETFE	ETFE
	Hose connection:	Nominal diameter mm	19-32	19-32
		Outer thread	G 1 1/4	G 1 1/4
	Length: 1000 mm***	Order No.	0162-204	0162-201
	Length: 1200 mm***	Order No.	0162-205	0162-202
- 11				
- 18				



<sup>\*</sup> Determined with water at 20 °C \*\*\*

\*\* Determined with oil

Special lengths 200–2500 mm on request

<sup>\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

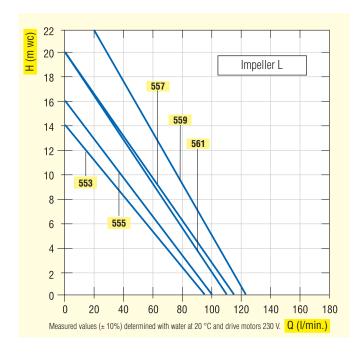
# Pump Tube HC (Hastelloy C)

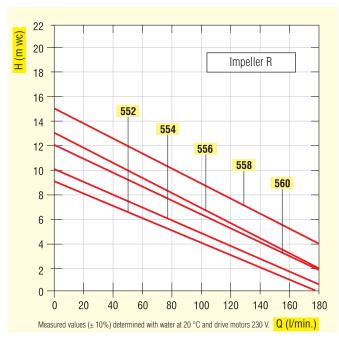
### for highly inflammable chemicals

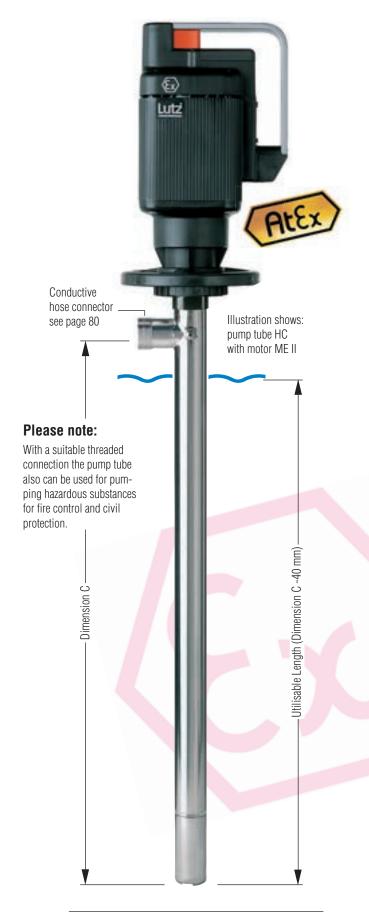
#### Materials (coming into contact with the pumped medium):

Version:	SL
Housing:	HC-22 (2.4602)
Impeller:	ETFE
Seals:	Viton® (FEP coated)
Bearing:	ETFE, Carbon
Drive shaft:	HC-4 (2.4610)

Viton® is a registered trademark of DuPont Performance Elastomers.









# Lutz Pump Tubes RE for complete drum drainage

In stainless steel and polypropylene





# Competitive edge instead of drawback

#### Experts, never tired of work:

Lutz pump tubes RE in stainless steel and polypropylene. Not only are they environmentally safe, they also help to save money. On the one hand, the liquid is used to the maximum, on the other hand, the cost for disposing of residuals is drastically reduced, since only the slightest residue remains in the containers.

# Open to everything but absolutely leak-proof...

The power is transferred to the drive shaft via a flexible coupling that is sealed well and bedded in a shaft tube. The impeller feeds the liquid safely to the hose connection on top of the pump.



The sealing cap is open — the liquid is pumped out.

The closed sealing cap prevents a return flow when the pump is removed.

#### Patented solution

With the motor running, the pump foot is closed by lowering the sealing cap within the pump tube. The sealing cap locks the pump foot and prevents the entered liquid from flowing back into the drum. Closing is done in no time at all — carried out by a small lever below the hand wheel. With the motor switched off, the pump tube holding the liquid can be removed and inserted into the next drum. A development that has rightfully been patented.

### Down-to-earth technology

RE pump tubes for complete drainage feature a simple yet very convincing concept. Simple — and that is exactly why it is ingenious — since the integration of the RE concept offers considerable advantages. Due to their technology, these pumps guarantee maximum pump out of the fluid, literally draining the container "to the dregs". The residues amount to less than 0.10 l.

Residues less than 0.10 l

#### **German Patent:**

DE 37 18325 C2

# Pump Tubes for complete drum drainage

In polypropylene (PP) and stainless steel (SS 1.4571)

These pump tubes for complete drainage are suitable for applications, in which thin-bodied liquids need to be drained almost completely from drums and other containers. PP likes to demonstrate its capabilities in handling acids and alkalis. Stainless steel pump tubes have a way with aggressive, neutral, easily inflammable and non inflammable fluids.

### Excellent design: Almost anything is possible

Like all components designed by Lutz, these pump tubes boast a straightforward and logic design. In the version with mechanical seals, the drive shaft is secured with a mechanical seal with two shaft sealing rings behind it. The motor can be disconnected quickly through the convenient Lutz hand wheel.



### The material is what matters

We select the materials with regard to the liquids to be pumped. Both the pump tube models feature an extremely resistant pure carbon bearing and there are no grease fillings in the shaft tube, so there is no way the fluid to be pumped can be contaminated. The drive shaft is optionally available in Hastelloy C4 for use with acids and alkalis. Stainless steel pump tubes have FEP coated seals.

**New:** Stainless steel pump tubes in PURE version. All materials coming into contact with the pumped fluids are physiologically safe. The pump tubes are mainly used in the food-, cosmeticsand pharmaceutical industry.



### Logical decision: Service-friendly design

Maintenance without the need for special tools — that 's what we call service-friendly.

### Important!

A stainless steel pump tube and an explosionproof motor with Atex certification must be used for pumping easily inflammable liquids. Please refer to pages 31-32.

# **Lutz Pump Power**

Choice of motors

### Small but very useful

Undemanding universal motor designed for industrial applications and suitable for pumping thin-bodied, slightly viscous, neutral, aggressive and non-inflammable liquids. It demonstrates its power even when handling acids and alkalis.











MI 4/MI 4-E

### Lightweight but dependable

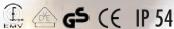
The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-inflammable liquids.











MAII

### Safety first

These motors aren't taken aback easily. The ME II explosionproof universal motors are the nostrum (German Patent DE 38 15427 C2 - for pumping a large variety of thin-bodied, easily inflammable and combustible liquids.







**€x** IP 54 (€

### Trio grande: The models

Three different versions of the MD compressed air motors are available. MD-1 without manual operation for automatic control, MD-2 with manual operation and interlock, MD-3 with on/off pushbutton. Approved according to Atex Ex II 2 G.











MD-1/MD-2/MD-3 compressed air motors



For detailed information on the motors please refer to pages 30-32.

#### Reliable and powerful, thus suitable for extreme conditions

The B4/GT has a proven record of success in plant constructions and as a drum pump drive. The perfect system for thin-bodied to slightly viscous liquids. These "undemanding" partners hardly ever show signs of wear. The ideal solution for long periods of operation.



C€ IP 54/IP 55

B4/GT three-phase gear motor

oductdetail	Pump tube			RE-PP MS
-	Type of impeller			L
-	Category 1 / 2 (acc. to AT	EX)		no
18 1-	Immersion tube diamet	er:	up to mm	41
1	Temperature of medium	1:	up to °C	50
	Material:		Pump tube	PP
			Impeller	PP
	Hose connection:		Nominal diameter mm	19-32
			Outer thread	G 1 1/4
	Length: 700 mm*** s	shaft SS	Order No.	0103-020
	Length: 1000 mm*** s		Order No.	0103-021
	Length: 1200 mm*** s		Order No.	0103-022
	Length: 700 mm*** s		Order No.	0103-040
	1 am alla . 1000 mana*** a	1 (1110	Order No	0103-041
	Length: 1000 mm*** s Length: 1200 mm*** s		Order No.	0103-042
	Length: 1200 mm*** s	shaft HC	Order No.	
	Length: 1200 mm*** s	shaft HC	Order No.  Operating data	0103-042
	Length: 1200 mm*** s	shaft HC S MI-4-E	Operating data  Characteristic curve no.	<b>0103-042</b> 600
	Length: 1200 mm*** s	shaft HC  MI-4-E  with speed	Operating data  Characteristic curve no. Flow rate* up to I/min.	<b>0103-042</b> 600 70
	Choice of motors  MI-4 -	shaft HC  MI-4-E  with speed controller	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc	600 70 12
	Choice of motors  MI-4  -  Output: 500 W	shaft HC  MI-4-E  with speed	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas	<b>0103-042</b> 600 70
	Choice of motors  MI-4  -  Output: 500 W  Voltage: 230 V	Shaft HC  MI-4-E  with speed controller 500 W	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas	600 70 12 1000
	Choice of motors  MI-4  -  Output: 500 W  Voltage: 230 V	MI-4-E with speed controller 500 W 230 V	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas Density**** up to kg/dm³	600 70 12 1000 1.6
	Choice of motors  MI-4  -  Output: 500 W Voltage: 230 V Order No. 0030-000  MA II 3 Output: 460 W	MI-4-E with speed controller 500 W 230 V 0030-001	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas Density**** up to kg/dm³ Weight (kg) Motor + pump tube  Characteristic curve no. Flow rate* up to I/min.	600 70 12 1000 1.6 4.0
	Choice of motors  MI-4  - Output: 500 W Voltage: 230 V Order No. 0030-000  MA II 3 Output: 460 W Voltage: 230 V	MI-4-E with speed controller 500 W 230 V 0030-001	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas Density**** up to kg/dm³ Weight (kg) Motor + pump tube  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc	600 70 12 1000 1.6 4.0 601 60 11
	Choice of motors  MI-4  -  Output: 500 W Voltage: 230 V Order No. 0030-000  MA II 3 Output: 460 W	MI-4-E with speed controller 500 W 230 V 0030-001	Operating data  Characteristic curve no. Flow rate* up to I/min. Delivery head* up to m wc Viscosity** up to mPas Density**** up to kg/dm³ Weight (kg) Motor + pump tube  Characteristic curve no. Flow rate* up to I/min.	600 70 12 1000 1.6 4.0

Low-voltage release (LVR.): Prevents the pump from starting up again without warning after a power failure. It is recommended when pumping hazardous liquids. Output:

Voltage:

Output:

Voltage:

LVR.:

575 W

230 V

MAII7

795 W

230 V

no

575 W

230 V

795 W

230 V

Order No. **0060-001 0060-009 0060-091** Weight (kg)

yes

575 W

230 V

acid-proof

no

Flow rate\*

Viscosity\*\*

Density\*\*\*\*

Flow rate\*

Delivery head\* up to m wc

Characteristic curve no.

Delivery head\* up to m wc

up to I/min.

up to mPas

up to kg/dm³

up to I/min.

Motor + pump tube

J I d Is.	LVR.: Order No.	no <b>0060-002</b>	yes 0060-010	Viscosity** Density*** Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube	1000 2.0 7.8
	Output: Operating pressure:		<b>MD-2</b> 400 W 6 bar	Delivery head* Viscosity** Density****	up to I/min.	604 60 12 1000 2.0
	Order No.	0004-087	0004-088	Weight (kg)	Motor + pump tube	2.7

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

60

11.5

1200

2.0

6.6

603

69

15

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

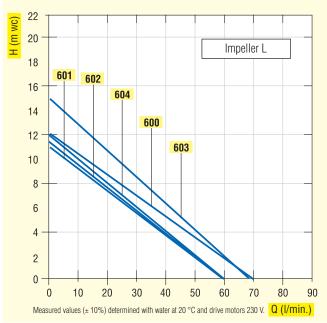
# Pump Tube RE-PP (polypropylene)

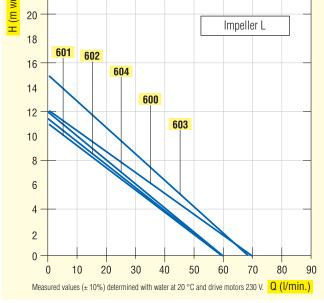
### for complete drum drainage of corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

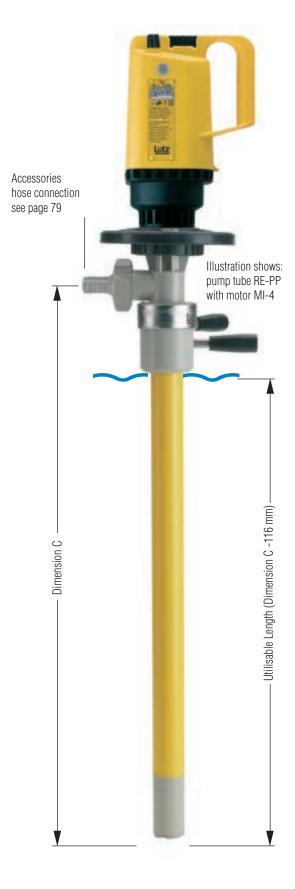
Version:	MS
Housing:	PP
Impeller:	PP
Sealing pot:	PP
Seals:	Viton®
Mechanical seals:	Carbon, Ceramic, Viton®, HC-4 (2.4610)
Bearing:	Pure Carbon
Drive shaft:	Stainless steel (1.4571)

Viton® is a registered trademark of DuPont Performance Elastomers.





Which pump for which liquid? See resistance table!





### Pump tube RE-SS (stainless steel) for complete drum drainage of corrosive and neutral liquids

Productdetail	Pump tu	ıbe					RE-SS MS
2	Type of imp	oeller					L
(10-	Category 1	/ 2 (acc. to AT	EX)				yes
-	Immersion	tube diamet	er:		up to mm		41
	Temperatur	re of medium	1:		up to °C		100
	Material:				Pump tube		1.4571
					Impeller		ETFE
	Hose conn	ection:▲			Nominal diame	eter mm	19-32
					Outer thread		G 1 1/4
	Length: 7	00 mm***			Order No.		0151-156
	Length: 10	00 mm***			Order No.		0151-157
- 1	Length: 12	00 mm***			Order No.		0151-158
	Choice	of motor:	S		Operating	data	
		MI-4	MI-4-E		Characteristic	curve no	700
The state of		-	with speed		Flow rate*	up to I/min.	78
1			controller		Delivery head*		17
	Output:	500 W	500 W		Viscosity**	up to mPas	700
1	Voltage:	230 V	230 V		Density****	up to kg/dm³	1.4
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	6.0
-		MAII3			Characteristic	curve no	701
	Output:	460 W	460 W		Flow rate*	up to I/min.	77
940	Voltage:	230 V	230 V		Delivery head*		14
	LVR.:	no	yes		Viscosity**	up to mPas	500
Q			•		Density****	up to kg/dm³	1.6
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	7.8
		MA II 5	MA II 5	MAII 5 S	Characteristic	ourvo no	702
	Output:	575 W	575 W	575 W	Flow rate*	up to I/min.	702
	Voltage:	230 V	230 V	230 V	Delivery head*		14
	LVR.:	no	yes	no	Viscosity**	up to m we	900
	2		,	acid-proof	Density****	up to kg/dm <sup>3</sup>	1.8
	Order No.	0060-001	0060-009			Motor + pump tube	8.6
		MA II 7			Characteristic	ourvo no	702
	Output:	795 W	795 W		Characteristic Flow rate*	up to I/min.	703 70
ow-voltage release (LVR.):	Voltage:	230 V	230 V		Delivery head*		18
revents the pump from tarting up again without	LVR.:	no	yes		Viscosity**	up to mPas	700
arning after a power failure.			,		Density****	up to kg/dm³	1.9
is recommended when umping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	9.8
		MD-1	MD-2		Characteristic	ourvo po	704
	Output:	400 W	400 W		Characteristic Flow rate*	curve 110. up to I/min.	704 68
	Operating	TOO W	TOU W		Delivery head*		17
	pressure:	6 bar	6 bar		Viscosity**	up to m wc	700
::- ::-	procedure.	o bai	o bui		Density****	up to kg/dm <sup>3</sup>	1.8
	Order No.	0004-087	0004-088		Weight (kg)	Motor + pump tube	4.7
		B4/GT			Characteristic	ourvo no	705
	Output	750 W	750 W		Characteristic Flow rate*		705 55
	Output: Voltage:	230/400 V	230/400 V		Delivery head*	up to I/min.	8.5
Summa	Protection	230/400 V	230/400 V		Viscosity**	up to m wc up to mPas	600
CO.	switch:	no	yes		Density****	up to IIIPas up to kg/dm³	2.2
	Officori.	.10	,		Donoity	ap to hg/uiii	L.L

<sup>▲</sup> PURE version Tri-Clamp DN 32

 $<sup>^{\</sup>star}$  Determined with water at 20 °C \*\*\* Special lengths  $^{\star\star}$  Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

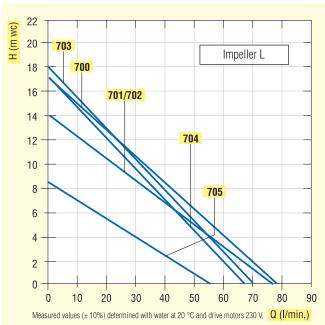
# Pump Tube RE-SS (stainless steel)

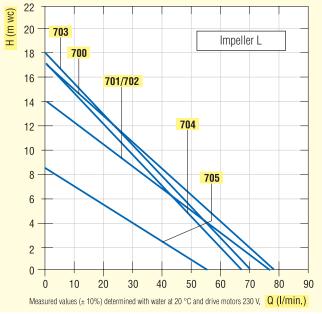
### for complete drum drainage of corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Impeller:	ETFE	PP
Verschlusstopf:	ETFE/Stainless steel (1.4571)	ETFE/Stainless steel (1.4571)
Seals:	FEP coated	EPDM
Mechanical seals:	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)
Bearing:	Pure Carbon	Pure Carbon
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

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#### Complete drum drainage

Nearly completely drained. Residual quantity < 0.10 litres.





### Pump tube RE-SS (stainless steel) for complete drum drainage of highly inflammable liquids

Productdetail	Pump tube	RE-SS MS	
2	Type of impeller	L	
	Category 1 / 2 (acc. to ATEX)		yes
	Immersion tube diameter:	up to mm	41
	Temperature of medium:	up to °C	100
	Material:	Pump tube Impeller	1.4571 ETFE
	Hose connection:▲	Nominal diameter mm Outer thread	19-32 G 1 1/4
	Length: 700 mm***	Order No.	0151-156
	Length: 1000 mm***	Order No.	0151-157
	Length: 1200 mm***	Order No.	0151-158
- 1	9		

	Choice	or motors	S		Operating	aata	
	Output: Voltage: LVR.: Order No.	ME II 3 460 W 230 V yes	460 W 230 V no <b>0050-016</b>		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	curve no.  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube	750 77 14 500 1.6 9.0
Atex	Output: Voltage: LVR.:	ME II 5 580 W 230 V yes 0050-001	580 W 230 V no		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	751 77 14 900 1.8 9.9
	Output: Voltage: LVR.:	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no <b>0050-018</b>		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	curve no. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube	752 70 18 700 1.9 11.1
Low-voltage release (LVR.): Prevents the pump from starting up again without warning after a power failure. In the hazardous location, motors with low- voltage release are absolutely prescribed.	Output: Voltage: LVR.:	ME II 8 930 W 230 V yes 0050-042	930 W 230 V no		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	curve no. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube	753 78 22 950 1.9
AtEx	Output: Operating pressure: Order No.	MD-1 400 W 6 bar 0004-087	MD-2 400 W 6 bar 0004-088	MD-3 400 W 6 bar 0004-090	Characteristic of Flow rate* Delivery head* Viscosity** Density*** Weight (kg)	curve no.  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube	754 68 17 700 1.8 4.7

<sup>▲</sup> PURE version Tri-Clamp DN 32

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 200–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

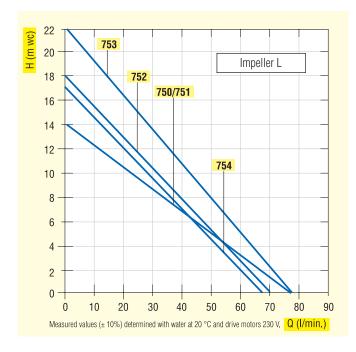
# Pump Tube RE-SS (stainless steel)

### for complete drum drainage of highly inflammable liquids

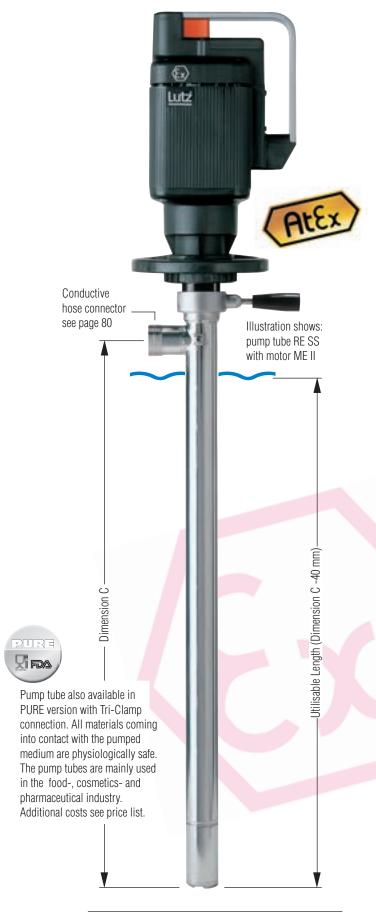
#### Materials (coming into contact with the pumped medium):

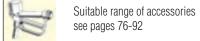
Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Impeller:	ETFE	ETFE
Verschlusstopf:	ETFE/Stainless steel (1.4571)	ETFE/Stainless steel (1.4571)
Seals:	FEP coated	Viton®
Mechanical seals:	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)
Bearing:	Pure Carbon	Pure Carbon
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

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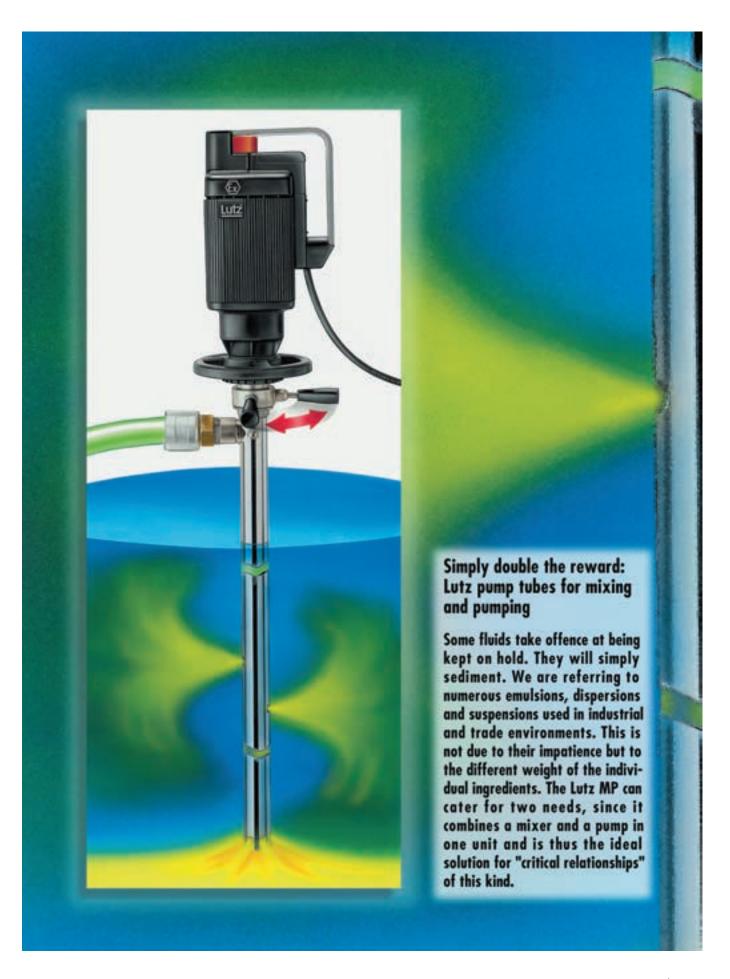
The right pump for "hot applications".





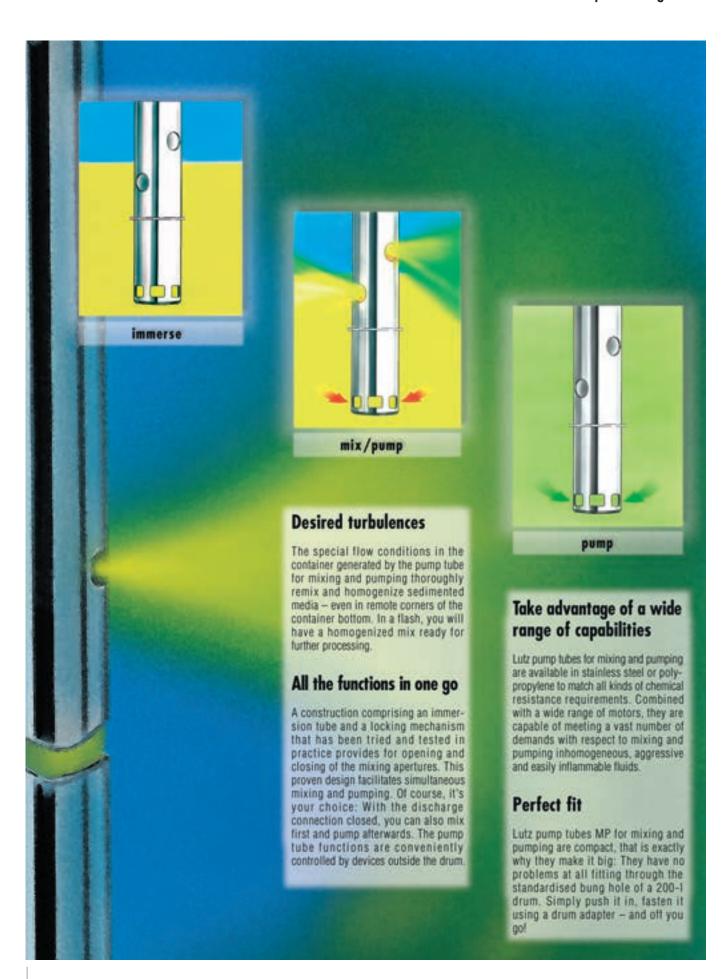
# Pump Tubes MP for mixing and pumping

Multi talent: Lutz pump tube MP for mixing and pumping



# **Universally Applicable**

"Mixer" and Pump in a single unit



# Pump Tubes for mixing and pumping

In polypropylene (PP) and stainless steel (SS 1.4571)

These pump tubes for mixing and pumping are suitable for applications, in which thin-bodied liquids in drums and other containers need to be remixed and homogenised before being pumped. PP likes to demonstrate its capabilities in handling acids and alkalis. Stainless steel pump tubes have a way with aggressive, neutral and easily inflammable fluids.

### **Excellent** design: Almost anything is possible

Like all components designed by Lutz, these pump tubes boast a straightforward and logic design. In the version with mechanical seals, the drive shaft is secured with a mechanical seal with two shaft sealing rings behind it. The motor can be disconnected quickly through the convenient Lutz hand wheel. If you want to mix only, a shut-off device must be provided on the discharge side.



be pumped. Both the pump tube models feature an extremely resistant pure carbon bearing and there are no grease fillings in the shaft tube, so there is no way the fluid to be pumped can be contaminated. The drive shaft is optionally available in Hastelloy C4 for use with acids and alkalis. Stainless steel pump tubes have FEP coated seals.

New: Stainless steel pump tubes in PURE version. All materials coming into contact with the pumped fluids are physiologically safe. The pump tubes are mainly used in the food-, cosmetics and pharmaceutical industry.

### **Logical decision:** Service-friendly design

Maintenance without the need for special tools that 's what we call service-friendly.

#### Important!

A stainless steel pump tube and an explosionproof motor with Atex certification must be used for pumping easily inflammable liquids. Please refer to pages 31-32.

# **Lutz Pump Power**

Choice of motors

### Small but very useful

Undemanding universal motor designed for industrial applications and suitable for pumping thin-bodied, slightly viscous, neutral, aggressive and non-inflammable liquids. It demonstrates its power even when handling acids and alkalis.













MI 4/MI 4-E

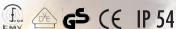
### Lightweight but dependable

The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-inflammable liquids.









MA II

### Safety first

These motors aren't taken aback easily. The ME II explosionproof universal motors are the nostrum -German Patent DE 38 15427 C2-for pumping a large variety of thin-bodied, easily inflammable and combustible liquids.







⟨€x⟩ IP 54 C€

### Trio grande: The models

Three different versions of the MD compressed air motors are available. MD-1 without manual operation for automatic control, MD-2 with manual operation and interlock, MD-3 with on/off bushbutton. Approved according to Atex Ex II 2 G.









MD-2

MD-1/MD-2/MD-3 compressed air motors



Œx> **(€** 

For detailed information on the motors please refer to pages 30-32.

# Reliable and powerful, thus suitable for extreme conditions

The B4/GT has a proven record of success in plant constructions and as a drum pump drive. The perfect system for thin-bodied to slightly viscous liquids. These "undemanding" partners hardly ever show signs of wear. The ideal solution for long periods of operation.



**C**€ IP 54/IP 55

**B4/GT three-phase** gear motor

## Pump tube MP-PP (polypropylene) for mixing and pumping of corrosive and neutral liquids

Productdetail P	<mark>ump tu</mark>	ıbe					MP-P	P-SL	MP-P	P MS
Tv	ype of imp	eller					L	R	L	R
		/ 2 (acc. to ATE	EX)				no	no	no	no
In	Immersion tube diameter:			up to mm		50	50	50	50	
Te	emperatur	e of medium	:		up to °C		50	50	50	50
	/laterial:				Pump tube		PP	PP	PP	PP
					Impeller		PP	PP	PP	PP
H	lose conne	ection:			Nominal diame	ter mm	19-32	19-32	19-32	19-32
1					Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	-	00 mm*** s			Order No.		0110-150	0110-160		0103-160
	-	00 mm*** s			Order No.		-	0110-152	-	-
	-	00 mm*** s			Order No.			0110-180	-	-
Le	ength: 120	00 mm*** s	haft HC		Order No.		-	0110-172	-	-
C	<mark>choice (</mark>	of motors	S		<b>Operating</b>	data				
		MI-4	MI-4-E		Characteristic o	curve no.	802	801	802	801
4		-	with speed		Flow rate*	up to I/min.	87	160	87	160
			controller		Delivery head*		19	8.5	19	8.5
		500 W	500 W		Viscosity**	up to mPas	500	150	500	150
		230 V <b>0030-000</b>	230 V		Density**** Weight (kg)	up to kg/dm³	1.4 4.1	1.1 4.1	1.4 4.1	1.1 4.1
			0000-001		Weight (kg)	Motor + pump tube	4.1	4.1	4.1	4.1
		MA II 3			Characteristic of	curve no.	804	803	804	803
		460 W	460 W		Flow rate*	up to I/min.	78	155	78	155
		230 V no	230 V		Delivery head* Viscosity**	up to m wc up to mPas	16 500	7.5 160	16 500	7.5 160
	VII	110	yes		Density****	up to hiras up to kg/dm³	1.6	1.2	1.6	1.2
0	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	5.9	5.9	5.9	5.9
		MA II 5	MA II 5	MAII5S			000	005	000	005
0		575 W	575 W	575 W	Characteristic of Flow rate*	urve no. up to I/min.	806 80	805 160	806 80	805 160
		230 V	230 V	230 V	Delivery head*		17	9	17	9
	-	no	yes	no	Viscosity**	up to mPas	800	350	800	350
				acid-proof	Density****	up to kg/dm³	1.8	1.3	1.8	1.3
0	Order No.	0060-001	0060-009	0060-091	Weight (kg)	Motor + pump tube	6.7	6.7	6.7	6.7
		MA II 7			Characteristic o	curve no.	808	807	808	807
		795 W	795 W		Flow rate*	up to I/min.	90	170	90	170
Prevents the pump from starting Vo	_	230 V	230 V		Delivery head*	up to m wc	22	12	22	12
up again without warning after a power failure. It is recommended	.VR.:	no	yes		Viscosity** Density****	up to mPas	800 1.9	350 1.4	800 1.9	350 1.4
when pumping hazardous liquids.		0060-002	0060-010		Weight (kg)	up to kg/dm³ Motor + pump tube	7.9	7.9	7.9	7.9
	Order No.									
			MD-2		Characteristics	ouruo no	010	000	010	000
		MD-1	<b>MD-2</b> 400 W		Characteristic of		810 90	809 180	810 90	809 180
	Output:		<b>MD-2</b> 400 W		Flow rate*	up to I/min.	90	180	90	809 180 10
0	Output: Operating	MD-1			Flow rate* Delivery head* Viscosity**		90 20 850	180 10 600	90 20 850	180 10 600
O <sub>l</sub>	Output: Operating oressure:	<b>MD-1</b> 400 W	400 W 6 bar		Flow rate* Delivery head*	up to I/min. up to m wc	90 20	180 10	90 20	180 10

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 400–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

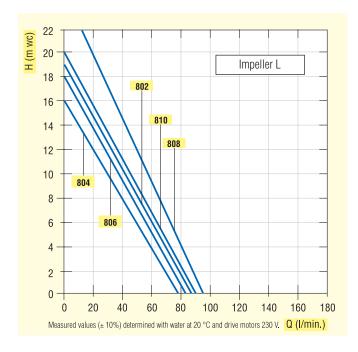
# Pump Tube MP-PP (polypropylene)

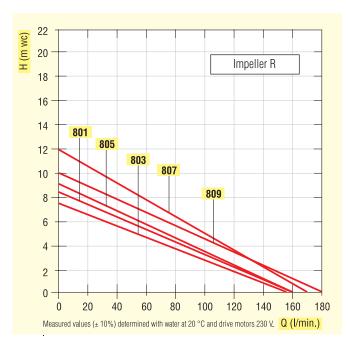
### for mixing and pumping of corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

Version:	SL	MS
Housing:	PP/PVDF	PP/PVDF
Impeller:	PP	PP
Seals:	none	Viton®
Mechanical seals:	none	Carbon, SiC, Viton®, HC
Bearing:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Stainless steel (1.4571) or HC-4 (2.4610)	Stainless steel (1.4571) or HC-4 (2.4610)

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### Pump tube MP-SS (stainless steel) for mixing and pumping of corrosive and neutral liquids

Productdetail	Pump to	ube					MP-SS MS
- 2	Type of imp	peller					R
	Category 1	/ 2 (acc. to AT	EX)				yes
	Immersion	tube diamet	er:		up to mm		41
	Temperatu	re of medium	1:		up to °C		100
	Material:				Pump tube		1.4571
					Impeller		ETFE
	Hose conn	ection: <b>▲</b>			Nominal diame	ter mm	19-32
III.		22 +++			Outer thread		G 1 1/4
	Length: 10				Order No.		0151-240
	Length: 12	OO IIIIII			Order No.		0151-255
	Choice	of motors	S		Operating	data	
		MI-4	MI-4-E		Characteristic of	nurva no	900
		-	with speed		Flow rate*	up to I/min.	210
			contoller		Delivery head*	•	10
	Output:	500 W	500 W		Viscosity**	up to mPas	350
	Voltage:	230 V	230 V		Density****	up to kg/dm³	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	6.0
		MA II 3			Characteristic of	rurve no	901
	Output:	460 W	460 W		Flow rate*	up to I/min.	178
346	Voltage:	230 V	230 V			up to m wc	9
	LVR.:	no	yes		Viscosity**	up to mPas	200
					Density****	up to kg/dm³	1.2
200	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	7.8
		MA II 5	MAII 5 N	IA II 5 S	Characteristic of	rurve no	902
	Output:	575 W		75 W	Flow rate*	up to I/min.	190
	Voltage:	230 V		30 V		up to m wc	10
	LVR.:	no	yes n	0	Viscosity**	up to mPas	550
			a	cid-proof	Density****	up to kg/dm³	1.3
	Order No.	0060-001	0060-009 0	060-091	Weight (kg)	Motor + pump tube	8.6
		MA II 7			Characteristic of	rurva no	903
Laurenteen L. (1991)	Output:	795 W	795 W		Flow rate*	up to I/min.	210
Low-voltage release (LVR.): Prevents the pump from starting	Voltage:	230 V	230 V		Delivery head*	up to m wc	13
up again without warning after a	LVR.:	no	yes		Viscosity**	up to mPas	400
power failure. Its recommended when pumping hazardous liquids.					Density****	up to kg/dm³	1.4
mion pumping nazaraoao nquiao.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	9.8
		MD-1	MD-2		Characteristic of	urva no	904
	Output:	400 W	400 W		Flow rate*	up to I/min.	200
	Operating	100 11	100 11		Delivery head*	up to m wc	11
		6 bar	6 bar		Viscosity**	up to mPas	400
# #					Density****	up to kg/dm³	1.3
	Order No.	0004-087	0004-088		Weight (kg)	Motor + pump tube	4.7
		B4/GT			Characteristic of	rurve no	905
	Output:	750 W	750 W		Flow rate*	up to I/min.	140
	Voltage:	230/400 V	230/400 V		Delivery head*	up to m wc	10.5
	Protection	, , , .			Viscosity**	up to mPas	400
	switch:	no	yes		Density****	up to kg/dm³	2.0
	Order No.		0004+067		Weight (kg)	Motor + pump tube	14.0

<sup>▲</sup> PURE version Tri-Clamp DN 32

 $<sup>^{\</sup>star}$  Determined with water at 20 °C \*\*\* Special lengths  $^{\star\star}$  Determined with oil 600–2500 mm on request

<sup>\*\*\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

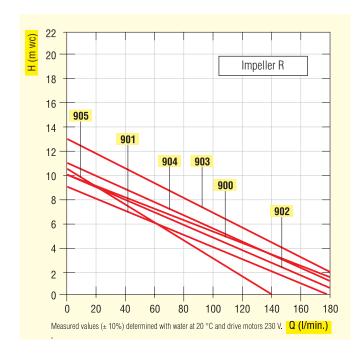
# Pump Tube MP-SS (stainless steel)

### for mixing and pumping of corrosive and neutral liquids

#### Materials (coming into contact with the pumped medium):

Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Impeller:	ETFE	ETFE
Seals:	Viton® (FEP coated)	Viton®
Mechanical seals:	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)
Bearing:	Pure Carbon	Pure Carbon
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

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## Pump tube MP-SS (stainless steel) for mixing and pumping of highly inflammable liquids

roductdetail	Pump tube		MP-SS MS	
y	Type of impeller		R	
(4)	Category 1 / 2 (acc. to ATEX)		yes	
-	Immersion tube diameter:	up to mm	41	
III.	Temperature of medium:	up to °C	100	
	Material:	Pump tube	1.4571	
		Impeller	ETFE	
	Hose connection:▲	Nominal diameter mm	19-32	
		Outer thread	G 1 1/4	
	Length: 1000 mm***	Order No.	0151-240	
III.	Length: 1200 mm***	Order No.	0151-255	

	Choice of motors			Operating data			
Atex	Output: Voltage: LVR.:	ME II 3 460 W 230 V yes 0050-000	460 W 230 V no <b>0050-016</b>		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	950 178 9 200 1.2 9.0
	Output: Voltage: LVR.:	ME II 5 580 W 230 V yes 0050-001	580 W 230 V no		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	951 190 10 550 1.3 9.9
	Output: Voltage: LVR.:	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no <b>0050-018</b>		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	952 210 13 400 1.4 11.1
Low-voltage release (LVR.): Prevents the pump from starting up again without warning after a power failure. In the hazardous location, motors with low- voltage release are absolutely predcribed.	Output: Voltage: LVR.:	ME II 8 930 W 230 V yes 0050-042	930 W 230 V no <b>0050-041</b>		Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	953 216 14.5 650 1.4 11.1
Atex	Output: Operating pressure: Order No.	MD-1 400 W 6 bar 0004-087	MD-2 400 W 6 bar 0004-088	MD-3 400 W 6 bar 0004-090	Characteristic of Flow rate* Delivery head* Viscosity** Density**** Weight (kg)	up to I/min.	954 200 11 400 1.3 4.7

<sup>▲</sup> PURE version Tri-Clamp DN 32

<sup>\*</sup> Determined with water at 20 °C \*\*\* Special lengths
\*\* Determined with oil 600–2500 mm on request

<sup>\*\*</sup> Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

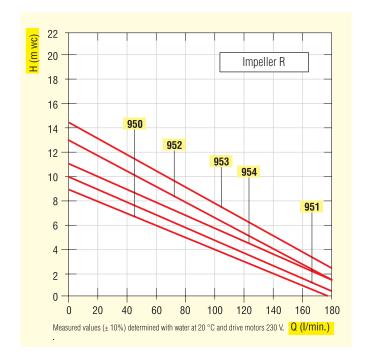
# Pump Tube MP-SS (stainless steel)

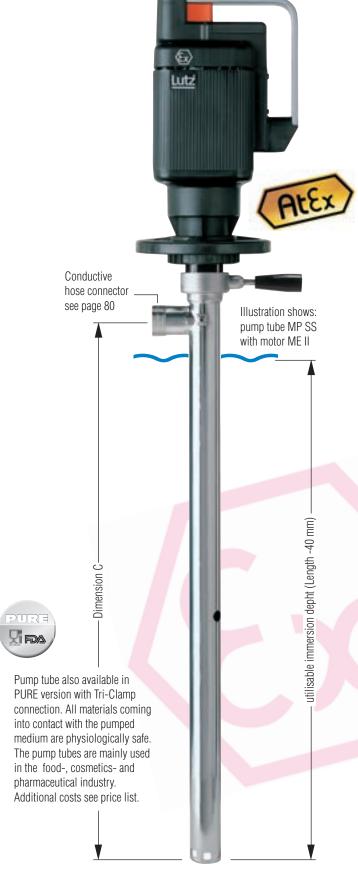
### for mixing and pumping of highly inflammable liquids

#### Materials (coming into contact with the pumped medium):

Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Impeller:	ETFE	ETFE
Seals:	Viton® (FEP coated)	Viton®
Mechanical seals:	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)	Carbon, Ceramic, PTFE, HC-4 (2.4610), Stainless steel 1.4571)
Bearing:	Pure Carbon	Pure Carbon
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)

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Container Pump B50



# **Container Pump B50**

### The solution you can safely rely on

#### **Practice-oriented design**

These pumps meet all criteria for an optimal emptying of container by their vertical wet-set-up design. Thus also the necessity for floor drains is void — thereby fewer leckage risks. They are suitable for endurance run, have a low weight, work with low speeds and offer highest industrial safety.

The Lutz container pump is so conceived that it can almost immersed and fixed into each container opening without the necessity of adjustment. The advantages by the cartridge of the Lutz container pump B50 is in the cost reduction by fast emptying, in the omission of redundant hose connectors and an improved environmental protection.

### The solution you can salely lely of

### Great development: Container pump

Safety, fast, economically: container pumps convince in the liquid transfer by low wear, high delivery rates and fast emptying. The model B50 is the functional answer to changed requirements in practice to the trend to ever larger bundles — up to 1200-litres-containers.

#### **Responsible Care**

The B50 container pump, is the contribution of Lutz to "Responsible Care". Responsible Care is the chemical industry's voluntary commitment to continual improvement in all aspects of health, safety and environmental (HS&E) performance and to openness in communication about its activities and its achievements.

- Easy and fast disassembly
- Convenient to clean
- ✓ Smooth running
- ✓ High pump capacity
- ✓ Short emptying times
- ✓ Low degree of wear
- Ease of handling
- Few components
- Low weight, mobile unit
- Convenient Lutz hand-wheel for disconnecting the motor and for use as a handle
- Due to the adapter, it can be attached to almost any container filler neck
- Driven by a powerful capacitor start motor (230 V, 50 Hz, with a 5-m connecting cable and plug)



### **Container Pump B50**



# Simplicity and maximum working safety

Bulk chemical transfer or filling is made light work of with the B50 with flows up to 200 l/min. and quick installation.

The B50 is constructed along the lines of a drum pump in order to maintain the proven features. These include: long life, reliability, low maintenance, reduced downtime, process and transfer time savings and not least enhanced safety and efficiency.

The vertically mounted pump runs at low speed with a direct coupled motor. The motor is secured with the Lutz hand wheel for quick assembly and disassembly, and with power to cover densities from 1.0 to 1.9 kg/dm³ and viscosities up to 100 mPas without penalty. The pump is positively mounted into the container with a specially designed adaptor.

The pump is designed and constructed with proven centrifugal hydraulics guaranteeing stable performance characteristics.

The single robust housing design with an immersion depth of 1100 mm successfully achieves weight reduction and the minimisation of parts.

Productdetail	Container pump		B50 PP/HC	B50 PP/SS
-	Category 1 / 2 (acc. to ATEX)		no	no
-30	Immersion tube diameter:	max. mm	100	100
- 1	Temperature of medium:	max. °C	40	40
	Material:	Pump tube Impeller/diffuser material Drive shaft	PP PPO / PPE Hastelloy C (2.4610)	PP PPO / PPE Stainless steel (1.4571)
	Outrun piece:		G 1 1/2 Outer thread	G 1 1/2 Outer thread
	Length: 1100 mm	Order No.	0180-001	0180-501

	Choice of motors			Operating data		
	Single ph	ase motor				
	Output: Density: Speed:	2800 1/min.	0.75 kW up to 1.8 kg/dm³ 2700 1/min.	Flow rate* up to I/min. Delivery head* up to m wc Viscosity up to mPas	200 22 100	200 22 100
T.	Prot. class: Order No.	IP 54 <b>0180-030</b>	IP 54 <b>0180-031</b>	Weight (kg) Motor + pump tube	10.5 – 13.5	10.5 – 13.5

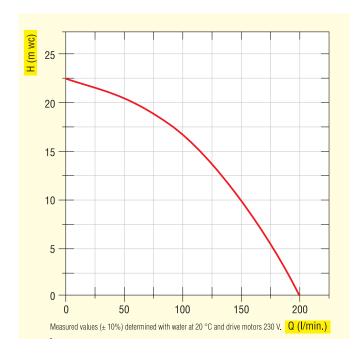
# **Container Pump B50**

### for bulk transfer of chemicals

#### Materials (coming into contact with the pumped medium):

Version:	B50 PP/HC	B50 PP/SS
Pumpwerk:	Polypropylen (PP)	Polypropylen (PP)
Laufrad / Leitrad:	PPO / PPE	PPO / PPE
Mechanical seals:	Carbon / SiC / HC	Carbon / SiC / HC
Sekundärdichtung:	Viton® (EPDM)	Viton® (EPDM)
Drive shaft:	Hastelloy C (2.4610)	Hastelloy C (2.4610)

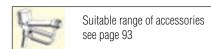
Viton® is a registered trademark of DuPont Performance Elastomers.



# Suitable accessories: Flow meter for easy volume preselection

With the modular flow meter system Lutz offer an economic solution for safe and rational volume measurement of your liquids. Flow meters, type ST and SL, convince by their easy operation, compact construction and easy connection to the container pump. By using a relay module easy volume presetting is possible. For more information, please refer to separate flow meter leaflet.



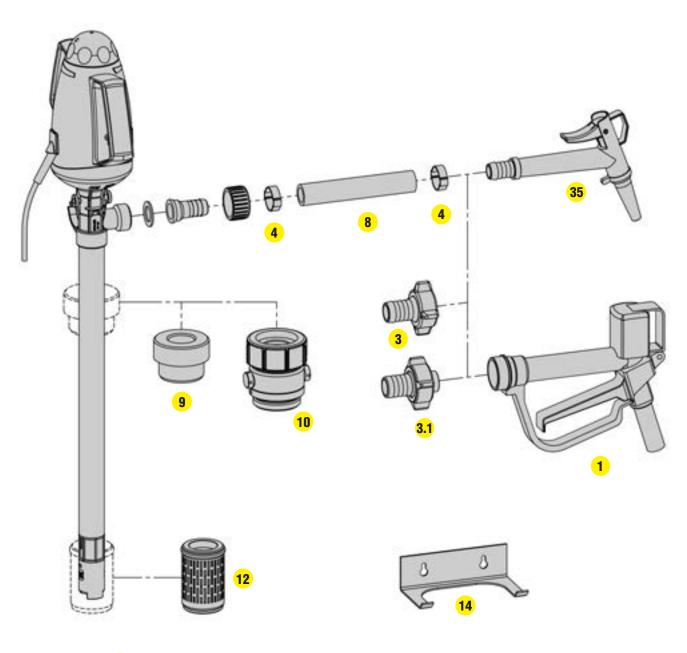


# **Accessories Lutz Drum and Container Pumps**

"Getting started"



## Accessories for drum and laboratory pump B 2 at a glance



- 1 Nozzle
- 3 Hose connection
- **3.1** Hose connection, rotatable
- 4 Hose clamp
- 8 Hose
- **9** Drum adapter
- 10 Emission proof drum adapter
- 12 Foot strainer
- 14 Wall bracket
- **35** Lutz nozzle

## for drum and laboratory pump Lutz B2 Vario

Productdetail

## **Specification**

Order-No.



### **Set-accessories**

Comprises of:

Lutz nozzle, 1.5 mtr. PVC-hose 3/4", hose connection,

hose clamps, wall bracket

For pump Lutz B2 Vario PP-SL ø 32

0201-550



### 35 Lutz nozzle PP for Lutz B2 Vario

For filling and transferring neutral and aggressive liquids. The liquid stream can be regulated by a turnlock fastener. Outlet spout ø 12 mm (conical).

Polypropylene (PP) housing. FPM (Viton®) seals.

Operating pressure: max. 1 bar at 20 °C viscosity: max. 300 mPas Flow rate: max. 40 l/min. (water) Temperature of medium: max. 50 °C

Weight: max. 50 °C approx. 0.1 kg

Connection: hose liner DN 19 (3/4") **0201-215** 



## 4 Hose clamp

Stainless steel hose clamp to fix hoses at the pump outlet connection and accessories.

Nominal diameter:

Ear clamp DN 19 (3/4") **0301-257** 

BCS 56 x 4



## 9 Drum adapter PP

ø 32 mm

For fixing the pump B2 in the drum or container opening.

 For pump tube:
 For pump type:

 Ø 32 mm
 PP-SL 32
 G 2 outer thread

 Ø 32 mm
 PP-SL 32
 Ø 56,7 mm

 Ø 28 mm
 SS-SL 28
 Ø 56,7 mm

 Ø 32 mm
 PP-SL 32
 BCS 70 x 6

PP-SL 32



### 10 Emission proof drum adapter

To prevent emission of dangerous gases when using a drum pump, so protecting the operator, the environment and the drive motor from hazardous, aggressive gases and vapours. Two venting valves ensure pressure compensation between inside of the drum and surrounding atmosphere.

Connection for gas displacement pipe: G 3/8 Screw-in thread: G 2 outer thread

Seals: Viton®

Material: For pump type: PP-SL 32

0204-251

0204-328

0208-009

0208-010

0208-027

0208-028

## for drum and laboratory pump Lutz B2 Vario

Specification

Order-No.

Productdetail

Productdetail

Productdetail

Productdetail

Productdetail

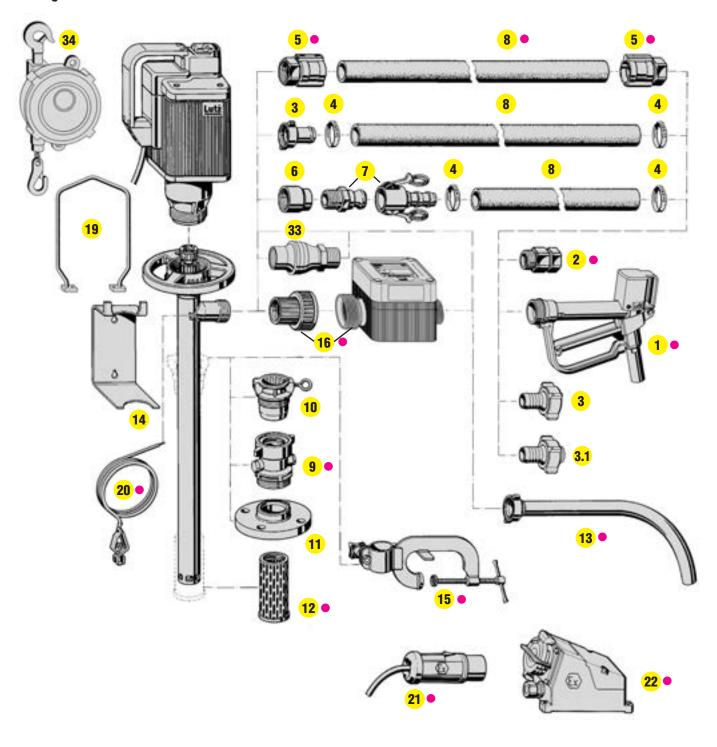
Productdetail

Outer-No.

Productdetail

Nozzles, hoses and hose connections see pages 77-83.

## At a glance



1.	Nozzle
2 •	Turning knuckle
3	Hose connection
3.1	Hose connection, rotatable
4	Hose clamp
5 •	Hose connector
6	Reducing sleeve
7	Quick-action hose coupling

8 •	Hose
9 •	Emission proof drum adapter
<mark>10</mark>	Drum adapter
11	Installation flange
<b>12</b> •	Foot strainer
<b>13</b> •	Discharge spout
14	Wall bracket
<mark>15</mark> •	Clamping device

<mark>16</mark> •	Flow meter
19	Lifting device
20 •	Equipotential bonding cable
21 •	Ex-plug
<b>22</b> •	Ex-socket
33	Check valve
34	Hoist

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

## **Nozzles**

Specification Order-No. Productdetail

1 PP nozzle

For filling and transferring neutral and aggressive liquids.

With hoop guard and two outlet spouts ø 23 mm (cylindrical) and ø 12 mm (conical).

Polypropylene (PP) housing and valve tappet.

Operating pressure: max. 3 bar at 20 °C
Viscosity: max. 760 mPas
Flow rate: max. 50 l/min. (Water)
Temperature of medium: max. 50 °C
Weight: max. 50 °C

Weight: approx. 0.25 kg
Connection: outer thread G 1 1/4
Seal: FPM (Viton®)

FPM (Viton®) **0204-380**EPDM **0204-385**FEP/Viton® **0204-387** 

S

1 PVDF nozzle

For filling and transferring neutral and aggressive liquids.

With hoop guard and two outlet spouts  $\emptyset$  23 mm (cylindrical) and  $\emptyset$  12 mm (conical).

Polyvinylidenfluoride (PVDF) housing and valve tappet. FPM (Viton®) seals.

Additional costs for seals Kalrez® or FEP/Viton® see price list.

Operating pressure: max. 3 bar at 20 °C
Viscosity: max. 760 mPas
Flow rate: max. 50 l/min. (Water)

Temperature of medium: max. 80 °C
Weight: approx. 0.3 kg
Connection: outer thread G 1 1/4

nnection: outer thread G 1 1/4 **0204-390** 



1 Stainless steel nozzle

Ideally suitable for filling and transferring liquids - also for combustible and easy inflammable liquids - in food and pharmaceutical industry.

Stainless steel (1.4571) housing and valve tappet.

With hoop guard and rotating joint. Additional costs for seals EPDM.

NEW: Nozzle in PURE-version available.

Additional costs see price list.

Operating pressure: max. 3 bar
Viscosity: max. 760 mPas
Flow rate: max. 50 l/min. (Water)

Temperature of medium:

Weight:

Connection:

Seal:

max. 80 °C

approx. 1 kg

outer thread G 1 1/4

FPM (Viton®)

FPM (Viton®) **0204-370 •** FEP/Viton® **0204-377 •** 





Viton® and Kalrez® are registered trade marks of DuPont Performance Elastomers.

Hose connection (item 3) or hose connector (item 5) for quick starting up.

## Nozzles, check valves

Productdetail

**Specification** 



1 Brass nozzle

Brass housing and valve tappet, nickel-plated. PTFE seals. With hoop guard and rotating joint. For filling and transferring solvents and neutral liquids.

Operating pressure: max. 4 bar Viscosity: max. 760 mPas max. 80 I/min. (Water) Flow rate: Temperature of medium: max. 80 °C Weight: approx. 0.6 kg

Connection: outer thread G 1 1/4 0372-502

Order-No.

0372-017

0372-050

0204-516

0204-517



### 1 Aluminium nozzle

For filling and transferring fuel and diesel oil. Aluminium housing and valve tappet. NBR seals. With hoop guard and rotating joint.

Operating pressure: max. 4 bar Viscosity: max. 760 mPas Flow rate: max. 60 l/min. (Water)

Temperature of medium: max. 60 °C Weight: approx. 0.5 kg Connection:

inner thread G 1 0372-250



### Automatic aluminium nozzle

Automatic switch-off with ball-tilt safety release. Housing in aluminium, internal components in brass/Delrin. Swivel hose connection is possible.

outer thread G 1

Operating pressure: max. 0.5 up to 4 bar Viscosity: max. 7 mPas max. 80 I/min. (Water) Flow rate: Temperature of medium: max. 60 °C approx. 1.1 kg Weight:

PTFE 0372-245 Seal:



### 2 Rotating joint

Connection:

Rotating connection between hose connector and nozzle.

FEP/Viton® seals.

Material: Nominal diameter:

inner thread G 1/outer thread G 1 Brass 0372-120 Stainless steel inner thread G 1/outer thread G 1 0370-012 Stainless steel outer thread G 1/outer thread G 1 0370-011



### 33 Check valve

Prevents backflow of the liquid at downtime of the pump.

Material: Nominal diameter: Stainless steel inner thread G 1 1/4 inner thread G 1 1/4, seal PTFE Stainless steel

inner thread G 1 1/4/outer thread G 1 1/4 Stainless steel seal PTFE (preferred for horizontal fitting) PVC inner thread G 1 1/4/outer thread G 1 1/4

seal EPDM (preferred for horizontal fitting)

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

## **Hose connections**

<b>Specification</b>			Order-No.	Productdet
Hose connection				
Hose connector with wing to the pump tube or nozz		noses		-
Connection: inner thread	G 1 1/4			
Material:	Nominal diameter:			
PP	DN 13 (1/2")		0204-409	
PP PP	DN 19 (3/4") DN 25 (1")		0204-410 0204-411	
PP	DN 32 (1 1/4")		0204-412	and a
PP grey	DN 19 (3/4")		0204-419	
PVDF	DN 19 (3/4")		0204-421	
PVDF	DN 25 (1")		0204-422	
PVDF	DN 32 (1 1/4")		0204-423	
Alu	DN 19 (3/4")		0204-403	
Alu Alu	DN 25 (1") DN 32 (1 1/4")		0204-404 0204-405	
Stainless steel	DN 19 (3/4")		0204-400	
Stainless steel	DN 19 (3/4 ) DN 25 (1")		0204-400 0204-401	
Stainless steel	DN 32 (1 1/4")		0204-402	
НС	DN 25 (1")		0204-407	
Connection: outer thread				
Material:	Nominal diameter:		0004 400	
Brass Brass	DN 19 (3/4") DN 25 (1")		0204-428 0204-429	
Hose connection rota Hose connector with wind to the PP and PVDF nozz	g nut for connecting the h	noses		
Connection: inner thread Material:	G 1 1/4 Nominal diameter:			
PP	DN 19 (3/4")	Seal FPM/Viton®	0204-424	Pare .
PP	DN 25 (1")	Seal FPM/Viton®	0204-434	
PP	DN 32 (1 1/4")	Seal FPM/Viton®	0204-367	A STATE OF THE PARTY OF THE PAR
PP PP	DN 19 (3/4") DN 25 (1")	Seal FEP/Viton® Seal FEP/Viton®	0204-430 0204-431	
PP	DN 19 (3/4")	Seal EPDM	0204-431	
PP	DN 25 (1")	Seal EPDM	0204-433	
PVDF	DN 19 (3/4")	Seal FPM/Viton®	0204-435	
PVDF	DN 25 (1")	Seal FPM/Viton®	0204-425	
PVDF	DN 32 (1 1/4")	Seal FPM/Viton®	0204-368	
	PP	G 1 1/4"	0204-353*	
Connecting sleeve	PVDF	G 1 1/4"	0204-354*	
Connecting sleeve	I VDI	<b>3</b> 1 1/1		
		otatable at the pump tube.		

## Hose clamps, hose connections

Productdetail	Specification	Order-No.
---------------	---------------	-----------



## 4 Stepless 1-ear hose clamp

1-ear hose clamp of stainless steel for the safe fixing of different hoses onto the hose connection. (Advices for selecting the suitable hose clamp - see hoses).

	'	9	
0300-415	26.3 - 29.5 mm		Size:
0301-257	28.0 - 31.0 mm		
0300-420	28.3 - 31.5 mm		
0300-425	30.3 - 33.5 mm		
0300-430	30.8 - 34.0 mm		
0300-435	31.5 - 35.0 mm		
0300-440	32.8 - 36.0 mm		
0300-445	35.8 - 39.0 mm		
0300-450	39.8 - 43.0 mm		
0300-455	42.3 - 45.5 mm		
0300-460	43.8 - 47.0 mm		
0300-465	49.8 - 53.0 mm		
0300-470	60.3 - 63.5 mm		

64.8 - 68.0 mm

0300-475



## 5 Hose connector

The use of conductive hoses is obligatory in explosion hazard areas. The ohmic resistance between the armatures must be less than 10<sup>6</sup> ohm. The hose connection must ensure a highly conductive transition between hose and pump tube.

D	-	_	•
n	ги	S	s

for hose DN 19 (3/4")	inner thread G 1 (EN12 115)	0302-073
for hose DN 19 (3/4") for hose DN 25 (1")	inner thread G 1 1/4 (EN12 115) inner thread G 1 (EN12 115)	0302-106 • 0302-011 •
for hose DN 25 (1")	outer thread G 1 (EN12 115)	0302-010 <b>•</b>
for hose DN 25 (1")	inner thread G 1 1/4 (EN12 115)	0302-012 <b>•</b>
for hose DN 32 (1 1/4")	outer thread G 1 1/4 (EN12 115)	0302-093 <b>•</b>
for hose DN 32 (1 1/4")	inner thread G 1 1/4 (EN12 115)	0302-107 <b>•</b>

### Brass for mineral oil hose DN 19 / DN 25

for mineral oil hose DN 19 (3/4")	inner thread G 1 (EN12 115)	0302-111
for mineral oil hose DN 25 (1")	inner thread G 1 (EN12 115)	0302-112
for mineral oil hose DN 25 (1")	inner thread G 1 1/4 (EN12 115)	0302-113

## Stainless steel (1.4571)

for hose DN 19 (3/4")	inner thread G 1 (EN12 115)	0302-108
for hose DN 19 (3/4")	inner thread G 1 1/4 (EN12 115)	0302-109
for hose DN 25 (1")	inner thread G 1 (EN12 115)	0302-014
for hose DN 25 (1")	outer thread G 1 (EN12 115)	0302-013
for hose DN 25 (1")	inner thread G 1 1/4 (EN12 115)	0302-015
for hose DN 32 (1 1/4")	outer thread G 1 1/4 (EN12 115)	0302-094
for hose DN 32 (1 1/4")	inner thread G 1 1/4 (EN12 115)	0302-110

## Double nipple, reducing sleeves, quick-action hose couplings

	Specification		Order-No.	Productdetail
	<b>Double nipple</b> Stainless steel (1.4571)	G 1 1/4 outer thread	0300-106	
6	, <b>g</b>	ose coupling with pump tube. G 1	0204-072 0372-018 0372-019	
7	Ensure rapid, water-tight a	pling and leakproof connection between places, stainless steel and polypropy male element DN 25 (1") female element DN 25 (1") male element DN 25 (1") female element DN 25 (1") male element DN 25 (1") female element DN 25 (1")	0372-020 0372-021 0372-022 0372-023 0372-024 0372-025 0372-026 0372-027	A complete quick-action hose coupling is consisting of reducing sleeves plus female and male coupling element.

Viton® is a registered Trademark of DuPont Performance Elastomers. Perbunan® is a registered Trademark of Bayer AG Leverkusen.

## PVC hoses, mineral oil hoses, solvent hoses

Productdetail

**Specification** 

Order-No.



8 PVC-spiral hose

PVC hose, with steel helix for aggressive, non-flammable liquids.

Operating pressure: max. 10 bar Temperature of medium: -15 up to +65 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 19 (3/4") 0.33 kg/m 0300-415 **0374-457** DN 25 (1") 0.52 kg/m 0300-435 **0374-440** 



8 PVC hose

Fabric reinforced PVC hose for aggressive, non-flammable liquids.

Operating pressure: max. 6 bar Temperature of medium: 0 up to +60  $^{\circ}$ C

Nominal diameter: Weight: Suitable hose clamp:

DN 32 (1 1/4") 0.5 kg/m 0300-450 **0374-425** DN 38 (1 1/2") 0.6 kg/m 0300-460 **0374-431** 



8 Electrically conductive hoses

Caution: Electrical conductivity is assured through the assigned materials and their composition. If correctly installed, resistance during the entire life of the hoses will remain with type  $\Omega$  smaller  $10^6$  ohm and with type  $\Omega$  smaller  $10^2$  ohm (to EN 12115).

### Mineral oil hose

Colour coding: "yellow".

Hose for mineral oil products of all kinds up to 50 % aromatics and methanol content.

Inner rubber NBR (antistatic) and outer rubber chloroprene (CR).

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar Temperature of medium: -35 up to +60 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 32 (1 1/4") 1.0 kg/m 0300-455 **0374-413 •**DN 38 (1 1/2") 1.2 kg/m 0300-465 **0374-414 •** 

Hose for mineral oil products of all kinds up to 50 % aromatics and methanol content.

Inner rubber NBR (antistatic) and outer rubber NBR.

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar
Temperature of medium: -30 up to +65 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 19 (3/4") 0.6 kg/m 0300-415 **0374-461** • DN 25 (1") 0.8 kg/m 0300-440 **0374-462** •



## 8 Solvent hose

Colour coding: "blue".

Hose suitable for a wide range of commercial solvents.

Inner rubber of special coating (not conductive) and outer rubber of chloroprene (CR).

Type  $\Omega$  smaller 10<sup>6</sup> ohm (to EN 12115)

Operating pressure: max. 10 bar
Temperature of medium: -35 up to +60 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 19 (3/4") 0300-430 0374-416 0.6 kg/m 0374-417 DN 25 (1") 0300-445 0.8 kg/m DN 32 (1 1/4") 1.2 kg/m 0300-455 0374-418 DN 38 (1 1/2") 1.5 kg/m 0300-465 0374-450

## Universal chemical hoses, special chemical hoses and hoses for foodstuffs

Specification Order-No. Productdetail

## 8 Universal chemical hose

Colour coding: "blue/white/blue".

Suitable for 95% of all customary industrial chemicals such as almost all acids and alkalis,

mineral oil products and solvents of all kinds.

Internal finish: Smooth special lining of ultra high molecular polyethylene (U-PE)

and white intermediate safety layer.

External finish: Electrically conductive EPDM. Intermediate layers: Textile mesh in tinplated copper fibres and tin-plated steel wire filament. If correctly installed, resistance during the entire

life of the hose will remain under 10 $^6$  ohm. Type  $\Omega$  smaller 10 $^6$  Ohm (to EN 12115).

Operating pressure: max. 10 bar
Temperature of medium: -30 up to +100 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 19 (3/4") 0300-425 0374-420 0.8 kg/m DN 25 (1") 0300-445 0374-419 0.9 kg/m DN 32 (1 1/4") 1.2 kg/m 0300-455 0374-421 DN 38 (1 1/2") 0300-465 0374-453 1.5 kg/m



## 8 Special chemical hose

Colour coding: "blau/white/red".

Suitable for all commonly used chemicals, ideal also for very pure media.

Internal finish: Teflon® FEP transparent, smooth, seamless, non-leaching, non-dyeing

(in conformity with FDA and USP Class VI demands).

Intermed. layer: EPDM conductive.

External finish: EPDM electrically conductive with OHM conductive stripes.

Type  $\Omega$  smaller than 10<sup>6</sup> Ohm (to EN 12115)

Operating pressure: max. 16 bar
Temperature of medium: -30 up to +100 °C

Nominal diameter: Weight: Suitable hose clamp:

DN 19 (3/4") 0.6 kg/m 0300-430 0374-428 DN 25 (1") 0.9 kg/m 0300-445 0374-429 DN 32 (1 1/4") 1.1 kg/m 0300-455 0374-430 DN 38 (1 1/2") 1.5 kg/m 0300-465 0374-455 DN 50 (2") 2.3 kg/m 0300-475 0374-456



### 8 Food hose

Color coding: "white".

Materials according to FDA regulations, electrically not conductive.

Suitable for all food products, milk, dairy products

and fatty foodstuffs.

Internal finish: White special rubber, flavourless and odourless.

External finish: Synthetic caoutchouc, blue, abrasion- and ageing-resistant.

Operating pressure: max. 16 bar
Temperature of medium: -20 up to +90 °C

Nominal diameter: Weight: Suitable hose clamp:

 DN 25 (1")
 0.8 kg/m
 0300-445
 0374-463

 DN 32 (1 1/4")
 0.9 kg/m
 0300-455
 0374-464

 DN 38 (1 1/2")
 1.3 kg/m
 0300-465
 0374-465



## Emission proof drum adapters



To permit reliable application, emission protection for "on site" pumping operations must be made as convenient as possible under practical conditions. The Lutz EMIGA system achieves more for the user while involving less work:

- All that is needed is a single drum adapter with two integrated valves.
- Due to "active seal", emission protection is guaranteed even in the event to wear and tear, damage or pump tube diameter tolerances.
- The lower part of the adapter can be adapted to varying thread and diameter sizes in container openings.
- Simple installation using a plug-in-connection for individual adaption.
- Stability ensured by integrated spring loaded mechanism.
- Suitable container cup for container emptying available.
- Larger dimensioned air valves cater for pressure equalisation by the fast emptying of containers.

### Productdetail

## Specification

Order-No.



9 Emission proof drum adapter

To prevent emission of dangerous gases when using a drum pump, so protecting the operator, the environment and the drive motor from hazardous, aggressive gases and vapours. Two venting valves ensure pressure compensation between inside of the drum and surrounding atmosphere.

Connection for gas displacement pipe: G 3/8; Screw-in thread: G 2 outer thread Seals: Viton® or EPDM.

Other threads and seal materials on request.

Material: Pump tube diameter:

PP 41 mm 0204-250
PVDF 41 mm 0204-465
Brass 41 mm 0204-252 •
Stainless steel 41 mm 0204-253 •

## Following special threads are available without additional costs

PP S 71 x 6 OT, S 70 X 6 OT, S 69 x 5.5 OT, S 57 x 4 OT

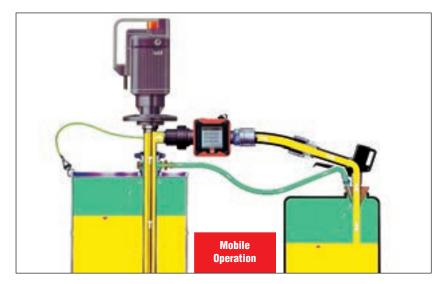
Stainless steel S 57 x 4 OT, S 60 x 5 IT, M 64 x 4 OT

Air valve for emptying of containers (additional costs see price list) **0204-364** 

Container cap

DN 150 0373-060 DN 225 0373-061

## EMIGA: emission proof drum adapters with gas displacement system





Concern about air pollution has never been so widespread as it is today. Acting on its sense of environmental responsibility, Lutz has further developed its emission proof drum adapter as a complete gas displacement system. Harmful gases and vapours created when transporting hazardous media remain practically in a closed system while themselves ensuring the necessary pressure compensation.

- Prevents emissions of harmful gases and vapours when filling **and** emptying.
- Protects the operator as well as the environment from noxious, toxic and/or severely oxidising emissions.
- All advantages of the reliable Lutz-EMIGAsystem will be maintained.
- For flexible operation with nozzle or stationary operation by fixed union.
- A check valve integrated into the gas displacement pipe, prevents the gas from back-flow at standstill of the pump.

Specification Order-No. Productdetail

### Gas sealing kit with union for stationary operation

Reliable connection by fixed union on the container.

Stop valve and fast-action coupling ensure as fast and safe changing of drum.

### Gas sealing kit with union

comprising of:

Stop valve, connection fittings, sealing plug, drip-free fast action coupling closing on two sides, hose connection with wing nut

Shown in addition here:

Emission drum adapter stainless steel

Gas sealing hose:

PVC-hose DN 9

Other emission proof drum adapters see page 84

0204-202

0204-253

0373-153



## EMIGA: for safe handling of hazardous liquids

## Product detail Specification Order-No.

### Gas sealing kit with nozzle for flexible operation

The sealing plug adapts on different drum and container openings (D = 40-75 mm). Combined with a nozzle a safe transferring even into small vessels ist possible.

A valve integrated into the gas displacement pipe,

prevents the gas from back-flow at standstill of the pump or changing the drum.



### Application with pump tube SS 41 and nozzle SS

Variable system for use with a nozzle in such areas as fuels and solvents, etc.

### Gas sealing kit for nozzle

comprises of: Conical sealing plug, check valve for gas displacement pipe, screw-in nipple with wing nut and connection piece, hose clamps

O204-201

Shown in addition here:
Emission proof drum adapter stainless steel

O204-253

Other emission proof drum adapters see page 84

Nozzle stainless steel, G 1 1/4

O204-370

Gas sealing hose:
PVC hose DN 9

O373-153

Alternatively for flammable liquids:

0374-415 0204-272



### Application with pump tube SS 41 and automatic nozzle Alu

In conjunction with an automatic nozzle, the flow rate is cut off automatically when the maximum level is reached.

(serving to return with sealless pump tubes arising gases back into the container)

### Gas sealing kit for nozzle

Solvent hose DN 9

Emission proof hose

comprises of: Conical sealing plug, check valve for gas displacement pipe, screw-in nipple with wing nut and connection piece, hose clamps 0204-201 Shown in addition here: 0204-253 Emission proof drum adapter stainless steel Other emission proof adapters see page 84 Automatic nozzle in aluminium DN 25, seal PTFE 0372-245 0204-274 Discharge pipe cpl. for automatic nozzle Alu (necessary when using a valve pad) Gas sealing hose: PVC hose DN 9 0373-153 Alternatively for flammable liquids: Solvent hose DN 9 0374-415 0204-272 Emission proof hose (serving to return with sealless pump tubes arising gases back into the container)

## EMIGA: emission proof drum adapters with gas displacement system, drum adapters, installation flanges

#### **Specification** Order-No. Productdetail

0373-153

0204-511

0208-007

0208-055

0208-052 0208-054

### Application with pump tube PP 41 und nozzle PP

Prevents emissions when handling severely oxidising or fuming acids and alkalis.

### Gas sealing kit for nozzle

comprises of: Conical sealing plug, check valve for gas displacement pipe, 0204-510 pipe fitting Shown in addition here: Emission proof drum adapter PP 0204-250 Nozzle PP/FPM (Viton®) G 1 1/4 0204-380 Nozzle outlet spout PP 0204-297

Gas sealing hose: PVC hose DN 9

Additional costs: Emission proof hose with connection flange PVDF\* (serving to return with sealless pump tubes arising gases

back into the container)

\*in connection with a new pump tube



### 10 Drum adapter in PP

Drum adapter for continuous pump tube diameters. For fixing the pump in the drum opening. Outer thread G 2

## 10 Drum adapter in ST 37

Separable drum adapter for pump tubes with enlarged pump foot. For fixing the pump in the drum opening.

Thread G 2 and M 64 x 4 0204-215

### 10 Drum adapter in steel, galvanized

For fixing the pump in the drum opening. Outer thread G 2

For mixing pump tube PP

0208-013

## 10 Drum adapter PE (electrically conductive)

For fixing the pump in the drum opening. Outer thread G 2

Outer thread BCS 56 x 4 Outer thread BCS 70 x 6



### 11 Installation flange

For fixing the drum and container pump according to DIN 2573, DN 50, PN 6 to a companion flange. The flange is welded onto the pump tube.

Material:	For pump tube:	
PP	ø 41 mm	0110-191
PVDF	ø 41 mm	0122-001
Alu	ø 41 mm	0132-120
SS	ø 41 mm	0151-622
HC	ø 42 mm	0169-613



## Foot strainers, pump security rack, discharge spouts, wall bracket, clamping device, oval gear flow meter

## Productdetail

## **Specification**

### Order-No.



## 12 Foot strainer

Available in PP, PVDF and stainless steel, for mounting on the pump foot. Keeps impurities away from the rotating parts.

For pump tube:

PP PP Ø 41 mm 0343-177 **PVDF** PVDF and Alu Ø 41 mm 0343-187 0204-617 Stainless steel SS Ø 41 mm



### **Pump security rack**

For pump tubes up to Ø 50 mm

0204-093



## 13 Discharge spout

Serving to transfer and fill liquids directly into other vessels. They are available in PP, alu and stainless steel and are threaded onto the pump outlet connection.

Material: Nominal diameter: Wina nut: PP DN 19 (3/4") G 1 1/4

0204-200 Alu DN 25 (1") G 1 1/4 0204-373 SS DN 25 (1") G 1 1/4 0204-225



## 14 Wall bracket

For storage of drum pumps. This facility helps protect pumps from damage, and maintains their value.

For pump tubes with hand wheel 0204-308



### 15 Clamping device

To fasten the drum pumps in open-topped drums and containers. Suitable for different pump tube diameters.

For pump tubes:

PP, PVDF, Alu, SS and HC

0205-040

0211-600



### 16 Oval gear flow meter MDO 1

For efficient flow measurement of mineral oils and alternative fuels. Easy handling, compact construction and quick assembly onto the pump.

Measuring principle: Oval gear 3 - 80 l/min. Range of measurement: Range of viscosity: 1 - 2000 mPas Accuracy of measurement: ± 0,5%

Connection: G 1 1/4

## Electronical flow meters, lifting devices, hoist, electrical accessories

Specification Order-No. Productdetail

## 16 Electronical flow meter, TR series

For easy and precise flow rate measuring of various liquids. Ease of handling, compact design and ideally to combine with all drum and container pumps (connection G 1 or G 1 1/4), available in polypropylene (PP) or polyvinylidenefluoride (PVDF).

For more details see separate flow meter leaflet.



## 16 Modular electronical flow meter system, TS series

For metering all kinds of liquids. Wide range of applications: Directly at the drum pump, remote or in-line operation possible. Convenient pre-setting of required volume using a touch screen display. Multilingual menues and simple plain-text operation. A comprehensive range of system components offers practical problem solutions.

For more details see separate flow meter leaflet.



## 19 Lifting device

To simplify the process of lifting the pump in and out of drums and containers.

For motors MA II and ME II

For motors B4/GT

0211-047

0214-196



### 34 Hoist

for drum pump, with infinitely adjustable load balancer for easy lifting and moving of the pump.

Load bearing capacity: 10-14 kg Tackle: 2 m





### **Connecting cable**

For extension of the connecting line for universal motors, 2 or 3-wired (three-phase motors 4-wired). According to requirements the cable is available in every necessary length.



### Cekon-plug

5-pole - 16 A

For three-phase gear motors B4/GT

0336-415

0466-000

0466-003

0336-074

0336-339



## for explosion proof applications

Productdetail

**Specification** 

Order-No.



20 Equipotential bonding cable

Serves to create electrically conductive connection between explosion proof pump and container as earthing and equipontential bonding function.

2 m long with fastening clip

0204-994



21 Ex-plug

CEE round plug in accordance with EEx de IIC T6, splash proof in compliance with IP 65.

3-pole (alternating current) for motor ME II 3-pole (alternating current) STAHL for motor ME II 0336-536

0336-540

0336-531

0336-542



22 Ex-socket

CEE-socket in accordance with EEx de IIC T6, splash proof in compliance with IP 65.

3-pole (alternating current) for motor ME II
3-pole (alternating current) STAHL for motor ME II

## for compressed air supply of motors MD-1, MD-2 and MD-3

0372-166

**Specification** Order-No. Productdetail 30 25 Maintenance unit For cleaning and oiling the supply air. With manometer for setting operating pressure. Operating pressure: max. 10 bar 0204-152 26 Coupling (female part) Self-disconnecting in brass. For screwing in the maintenance unit. G 3/8 outer thread 0372-154 27 Nipple (male part) In brass 0372-045 G 3/8 outer thread 28 Air hose coupling connector For connection to a coupling. For compressed air hose DN 9 0372-155 29 Stop valve Chromium-plated brass for regulating the compressed air as well as the speed of the compressed air motors. G 3/8 outer thread/inner thread 0372-043 30 Compressed air hose PVC-hose with intermediate woven layer, DN 9, for air supply to compressed air motors. 0373-153 Operating pressure: max. 14 bar at 20 °C 31 Hose clamp (Chromated steel: 1.4016) For compressed air hose DN 9 0301-156 32 Coupling with hose connector (female part) Self-disconnecting in brass, with hose connector DN 9.

For compressed air hose DN 9

## for vegetable oil pumps

## Productdetail

## Specification

Order-No.



### Hose set SL-Bio

Hose Slimline Bio with two textile braids and plain surface. Hose clamp and hose connection from polypropylene (PP) G 1 1/4 for assembly onto the pump tube or nozzle.

Nominal diameter:

DN 21 (7/8") 0.55 kg/m

Length: 2.5 m Length: 4.0 m 0205-805 0205-806

Length: 6.0 m **0205-807** 



### PP nozzle

For filling and transferring. With hoop guard and two outlet spouts  $\emptyset$  23 mm (cylindrical) and  $\emptyset$  12 mm (conical). Polypropylene (PP) housing and valve tappet.

Operating pressure: max. 3 bar at 20 °C
Weight: approx. 0,.5 kg
Connection: outer thread G 1 1/4
Seal: FPM (Viton®)

0204-380



### Drum adapter in PP

Drum adapter for continuous pump tube diameters.

For fixing the pump in the drum opening.

Prevents the drum pump from tiping over in the empty drum. Thread G  $\ensuremath{\text{2}}.$ 

0208-007

### Container cap

NW 150 **0373-060** NW 225 **0373-061** 



### Wall bracket

For storage of drum pumps.

This facility helps to protect pumps from damage, and maintains their value.

0204-308



## Oval gear flow meter MDO 1

For efficient flow measurement of mineral oils and alternative fuels. Easy handling, compact construction and quick assembly onto the pump.

 $\begin{tabular}{lll} Measuring principle: & Oval gear \\ Range of measurement: & 3 - 80 l/min. \\ Range of viscosity: & 1 - 2000 mPas \\ Accuracy of measurement: & <math>\pm 0,5\% \\ \end{tabular}$ 

Connection: G 1 1/4

0211-600

## for container pump B50

Specification		Order-No.	Productdet
Lifting device To simplify the process of lifting the pump in and out of drums and containers.		0155-154	
Hose connection			
Hose connector with wing nut for connecting t to the pump tube or nozzle.	he hoses		-
Material: PP	Nominal diameter: DN 38	0180-161	A STATE OF THE PARTY OF THE PAR
Reducing sleeve G 1 1/2 inner thread to G 1 1/4 outer thread	for connection of a flow meter	0180-167	
<b>Reducing sleeve</b> G 1 1/2 outer thread to G 1 1/4 inner thread	for hose diameter DN 38 when using a flow meter	0180-169	
Foot strainer Keeps impurities away from the rotating parts.			550
Material: PP		0180-174	
Acid proof coating			
In aggressive atmosphere the three phase mot by a special acid proof coating. If customer recis possible.			
Acid proof coating		0006-516	

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