

# **Be in Control Every Day**

**Drum Pump Sets** 

**Laboratory and Drum Pumps** 

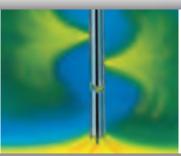


**Mixing Pumps** 

**Container Pumps** 









# **Consistent customer orientation**

You can expect no less of us

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.





Enhanced safety with Lutz





# **Contents**

# **Drum Pump Sets**

Individual sets – optimally combined for most diverse ranges of application . . . . . . 6-21

# **Drum- and Container Pumps**



# 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 quarantee 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 always 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.

# 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 the ideal solution for all these applications.



**Lutz Pump Sets** 



# **0.1** Pump Set B1 Battery (polypropylene)

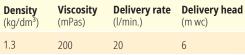
### For thin-bodied fluids

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

For removing small quantities from hobbocks, canisters and drums.

#### Motor B1 Battery,

70 Watt internally ventilated



Max. temperature of medium 40 °C



For emptying canisters

Lutz nozzle with suspension hook

and drums

Motor B1 Battery Flow meter TR3-PP Pump tube PP 25-L-SL 1,5 m PVC hose 3/4" Hose connectors 3/4" Hose clamps



Set

**B1 Battery** 

PP 25-L SL

**Pump Set B1 Battery** 

Set B1 Battery PP 25-L SL with flow meter TR3-PP
<b>~</b>
<b>✓</b>
<b>✓</b>
<b>~</b>
<b>~</b>
<b>✓</b>
<b>~</b>
1000 mm

Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	1000 mm		
Order No.	0207-112	0207-113	0207-114	0207-090	0207-091	0207-092	0207-093		
Battery 10,8 V		0332-027							
Battery charger	0335-336								

Pump

**B1 Battery** 

PP 25-L SL

Pump Set B2 Battery (polypropylene) 0.2

### For thin-bodied fluids

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

For removing small quantities from hobbocks, canisters and drums.

#### Motor B2 Battery,

260 Watt internally ventilated

Impeller	<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
Impeller	1.6	400	65 (22)	12
Rotor	1.6	400	80 (22)	8

Max. temperature of medium 50 °C

When using a nozzle the delivery rate is reduced to approximate values (information in the brackets).





For emptying canisters and drums	Pump B2 Battery PP 32-R SL / PP 32-L SL			PP	<b>Set B2 Battery</b> PP 32-R SL / PP 32-L SL with flow meter TR3-PP			
Motor B2 Battery		<b>~</b>			<b>~</b>		<b>~</b>	
Flow meter TR3-PP		-			-		<b>✓</b>	
Pump tube PP 32-R-SL / PP 32-L-SL		<b>~</b>			<b>~</b>		<b>~</b>	
1,5 m PVC hose 3/4"	-			<b>✓</b>			<b>~</b>	
Hose connectors 3/4"		<b>~</b>		<b>✓</b>			<b>✓</b>	
Hose clamps		-			<b>~</b>	<b>✓</b>		
Lutz nozzle with suspension hook		-		<b>✓</b>			<b>~</b>	
Immersion depth	500 mm	700 mm	1000 mm	500 mm 700 mm		1000 mm	1000 mm	
Order No. with pump tube PP 32-R SL	0207-100	0207-101	0207-102	0207-060	0207-060 0207-061 02		0207-063	
Order No. with pump tube PP 32-L SL	0207-103 0207-104 0207-105			0207-065 0207-066 0207-067			0207-068	
Battery 21,6 V		0332-026						
Battery charger		0335-335						

# **0.3** Pump Set B2 Battery (polyvinylidene flouride)

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



For emptying canisters and drums	<b>Pump</b> <b>B2 Battery</b> PVDF 32-R SL			S	Set B2 Batter PVDF 32-R SL	•	Set B2 Battery PVDF 32-R SL with flow meter TR3-PVDF		
Motor B2 Battery		<b>~</b>			<b>~</b>		<b>✓</b>		
Flow meter TR3-PVDF		-			-		<b>✓</b>		
Pump tube PVDF 32-R-SL		<b>~</b>			<b>✓</b>		<b>✓</b>		
1,5 m special chemical hose 3/4"	-			<b>✓</b>			<b>✓</b>		
Hose connectors 3/4"		<b>~</b>		<b>✓</b>			<b>✓</b>		
Hose clamps		-		<b>✓</b>			<b>✓</b>		
Nozzle PVDF		-			<b>✓</b>		✓		
Immersion depth	500 mm	700 mm	1000 mm	500 mm	500 mm 700 mm		1000 mm		
Order No.	0207-109 0207-110 0207-111			0207-080 0207-081 0207-082			0207-083		
Battery 21,6 V	0332-026								
Battery charger		0335-335							

Pump Set B2 Battery (stainless steel) 0.4



### For thin-bodied fluids

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

For removing small quantities from hobbocks, canisters and drums.

 Motor B2 Battery, 260 Watt internally ventilated

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
1.6	400	80 (45)	8

Max. temperature of medium 90 °C

When using a nozzle the delivery rate is reduced to approximate values (information in the bracket).







for thin-bodied fluids with universal chemical hose and nozzle stainless steel







For emptying canisters and drums	<b>Pump</b> <b>B2 Battery</b> SS 28-R SL			<b>Set B2 Battery</b> SS 28-R SL with PVC hose			<b>Set B2 Battery</b> SS 28-R SL with universal chemical hose			
Motor B2 Battery		<b>~</b>			<b>~</b>		<b>~</b>			
Pump tube SS 28-R-SL		<b>~</b>			<b>~</b>		<b>✓</b>			
1,5 m PVC hose 3/4"		-			<b>~</b>		-			
1,5 m universal chemical hose 3/4"		-			-			<b>✓</b>		
Hose connectors 3/4"		<b>~</b>		<b>~</b>			<b>~</b>			
Hose clamps		-		<b>~</b>				<b>~</b>		
Lutz nozzle with suspension hook		-		<b>~</b>			-			
Nozzle Niro		-			-			<b>~</b>		
Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	
Order No.	0207-106	0207-107	0207-108	0207-070	0207-071	0207-072	0207-050	0207-051	0207-052	
Battery 21,6 V					0332-026					
Battery charger					0335-335					

# 1 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> (l/min.)	<b>Delivery head</b> (m wc)
1.3	300	75 (22)	7

Max. temperature of medium 50 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).

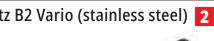




For emptying canisters and drums		Pump Lutz B2 Vario		Set Lutz B2 Vario			
Motor B2 Vario		<b>~</b>		<b>✓</b>			
Pump tube PP-SL 32		<b>~</b>		<b>✓</b>			
1,5 m PVC spiral hose 3/4"		-		<b>~</b>			
Hose connectors PP 3/4"		<b>~</b>		<b>✓</b>			
Hose clamps		-		✓			
Lutz nozzle		-		✓			
Wall bracket		-			<b>~</b>		
Immersion depth	500 mm	700 mm	1000 mm	500 mm 700 mm 1000 mm			
Order No.	0201-500	0201-501	0201-502	0205-020	0205-021	0205-022	

**Pump Set Lutz B2 Vario** 

Pump Set Lutz B2 Vario (stainless steel) 2



### 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





Max. temperature of medium 90 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).





with universal chemical hose and nozzle stainless steel

with shaft SS (stainless steel 1.4571)





For emptying canisters and drums	ı	Pump Lutz B2 Vari	0	<b>Set Lutz B2 Vario</b> with PVC hose			Set Lutz B2 Vario with universal chemical hose			
Motor B2 Vario	<b>~</b>			<b>✓</b>			<b>~</b>			
Pump tube SS-SL 28		<b>~</b>			<b>~</b>		<b>✓</b>			
1,5 m PVC spiral hose 3/4"	-			<b>✓</b>			-			
1,5 m Universal chemical hose 3/4"		-			-			<b>~</b>		
Hose connectors SS 3/4"		<b>~</b>		<b>✓</b>			<b>✓</b>			
Hose clamps		-		<b>~</b>			<b>✓</b>			
Lutz nozzle with suspension hook		-			<b>✓</b>			_		
Nozzle stainless steel		-			-		<b>~</b>			
Wall bracket	-		<b>✓</b>		<b>~</b>					
Immersion depth	500 mm	500 mm 700 mm 1000 mm		500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	
Order No.	0201-510	0201-510 0201-511 0201-512			0205-031	0205-032	0207-030	0207-031	0207-032	

# 3 Pump Set "Alkalis" (polypropylene)

#### For thin-bodied alkalis

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

- **Motor MI-4**, 500 W internally ventilated, IP 24 or optionally with
- Motor MA II 3, 460 W externally ventilated, IP 54

#### **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

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate<br/>(I/min.)Delivery head<br/>(m wc)1.650078 (45)16

Max. temperature of medium 50 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).





**Pump Set Alkalis** 

with motor MI-4

For emptying of canisters, drums and containers	Pump with motor MI-4		<b>Pump</b> with motor MA II 3		<b>Set</b> with motor MI-4		Set with motor MA II 3	
Pump tube PP 41-L-SL SS	<b>✓</b>		<b>✓</b>		<b>~</b>		·	/
2 m PVC spiral hose 3/4"	-		-		<b>✓</b>		<b>~</b>	
Drum adapter PP	-		-		<b>✓</b>		<b>✓</b>	
Hose connectors PP 3/4"	<b>~</b>		<b>✓</b>		<b>\</b>		<b>~</b>	
Hose clamps	-	-	-		<b>✓</b>		<b>✓</b>	
Nozzle PP	-	-	-		<b>✓</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-105	0205-106	0205-125	0205-126	0205-101	0205-102	0205-121	0205-122

Pump Set "Acids" (polypropylene) 4

**Pump Set** 

with motor MA II 3

#### 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, IP 54 or optionally with
- Motor MI-4, 500 W internally ventilated, IP 24

#### **Motor MAII 3**

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

Max. temperature of medium 50  $^{\circ}\text{C}$ When using a nozzle the delivery rate is reduced







For emptying of canisters, drums and containers		<b>mp</b> tor MI-4		Pump with motor MA II 3		<b>Set</b> with motor MI-4		et or MA II 3
Pump tube PP 41-L-SL HC	<b>~</b>	/	×	/	<b>\</b>	/	<b>~</b>	/
2 m PVC spiral hose 3/4"	-	-		-	<b>\</b>	/	<b>~</b>	/
Drum adapter PP	-	-		_	<b>\</b>	/	<b>~</b>	/
Hose connectors PP 3/4"	<b>~</b>		<b>\</b>		<b>\</b>	/	<b>~</b>	/
Hose clamps	-	-		-	<b>\</b>		<b>~</b>	
Nozzle PP	-	-		-	<b>\</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-115	0205-116	0205-135	0205-136	0205-111	0205-112	0205-131	0205-132

# 5 Pump Set "Concentrated Acids and Alkalis" (polyvinylidene flouride)



For emptying of canisters, drums and containers		<b>mp</b> or MA II 3	Pump with motor MA II 5		Set with motor MA II 3		<b>Set</b> with motor MA II 5	
Pump tube PVDF 41-L-SL	\ \	/	•	/	<b>\</b>	/	·	
2 m special chemical hose 3/4"		_		_	<b>\</b>	/	<b>~</b>	
Drum adapter PP		_			<b>\</b>	/	<b>~</b>	/
Hose connectors PVDF 3/4"	<b>\</b>	/		/	<b>\</b>	/	<b>~</b>	/
Hose clamps		-		-	<b>\</b>		<b>~</b>	
Nozzle PVDF		-		-	<b>\</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-215	0205-216	0205-205	0205-206	0205-211	0205-212	0205-201	0205-202

Pump Set "Mineral Oil Products" (aluminium) 6

## 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 MD2xL, 1000 W / 6 bar with stop valve and nipple

#### Motor MI-4

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

#### Motor MD2xL

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> (I/min.)	<b>Delivery head</b> (m wc)
2,8	1000	116 (60)	36

Max. temperature of medium 100 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).









For emptying of canisters, drums and containers		<b>mp</b> tor MI-4		mp or MD2xL	_	et tor MI-4		et or MD2xL
Pump tube Alu 41-L-SL	×	/	•	/	<b>\</b>	/	<b>\</b>	/
2 m PVC spiral hose 1"	-	-		-	<b>\</b>	/	<b>~</b>	
Drum adapter PP		_		_	<b>\</b>	/	<b>~</b>	
Hose connectors Alu 1"	×		<b>\</b>	/	<b>\</b>		<b>~</b>	
Hose clamps	-	-		-	<b>\</b>		<b>~</b>	
Nozzle Alu		=		-	<b>\</b>		<b>~</b>	/
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-305	0205-306	0205-325	0205-326	0205-301	0205-302	0205-321	0205-322

(For high viscous oils suitable Eccentric Screw Pumps are available, see separate leaflet)

# 7 Pump Set "Solvents" (stainless steel)

# For easily flammable hydrocarbons

such as ethanol, gasoline, butanol, isopropanol, kerosene, methanol and petroleum.

- Motor ME II 3, 460 W or optionally with
- Compressed air motor MD2xL, 1000 W / 6 bar

Explosion proof according to ATEX Directive 2014/34/EU, category 2.

#### Motor ME II 3 Viscosity **Delivery rate Delivery head Density** $(kg/dm^3)$ (mPas) (l/min.) (m wc) 1.6 95 (60) 14 Motor MD2xL **Density** Viscosity **Delivery rate Delivery head** (kg/dm<sup>3</sup>) (mPas) (l/min.) (m wc)

124 (75)

35

Max. temperature of medium 100 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).

1000

2.8



For emptying of canisters, drums and containers		<b>mp</b> or ME II 3		Pump with motor MD2xL		Set with motor ME II 3		et or MD2xL
Pump tube SS 41-L-SL	×	/	•	/	×	/	×	/
2 m solvent hose 3/4" *		-		-	<b>\</b>		<b>~</b>	
Drum adapter PP		-		-	<b>\</b>		<b>~</b>	
2 m equipotential bonding cable	<b>~</b>		<b>✓</b>		<b>✓</b>		<b>~</b>	
Nozzle brass		-		=	<b>\</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-405	0205-406	0205-475	0205-476	0205-401	0205-402	0205-471	0205-472

<sup>\*</sup>electrically conductive bound with hose connectors brass.

Pump Set "Hazardous Fluids" (stainless steel) 8

### For hazardous fluids

such as acetone, conc. formic acid, ethyl acetate, butyl acetate, conc. acetic acid, nicotine, methyl benzene (toluol) and styrol.

- Motor ME II 3, 460 W or optionally with
- Compressed air motor MD2xL, 1000 W / 6 bar

Explosion proof according to ATEX Directive 2014/34/EU, category 2.

#### Motor ME II 3

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate<br/>(l/min.)Delivery head<br/>(m wc)1.635095 (50)14

#### **Motor MD2xL**

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate<br/>(l/min.)Delivery head<br/>(m wc)2,81000124 (50)35

Max. temperature of medium 100 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).



#### **Ex-plug**

Can be optionally supplied with Ex-plug completely assembled.



For emptying of canisters, drums and containers	Pur with mot	<b>mp</b> or ME II 3	Pu with mot	<b>mp</b> or MD2xL	_	et or ME II 3	_	et or MD2xL
Pump tube SS 41-L-SL	<b>~</b>	/	<b>\</b>	/	×	/	×	/
2 m universal chemical hose 3/4" *	-	-	-	-	×	/	×	/
Drum adapter PP	-	-	-	-	<b>\</b>		×	
2 m equipotential bonding cable	<b>~</b>		<b>~</b>		<b>\</b>		×	
Nozzle in stainless steel (1.4571)	-	-	-	-	<b>\</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-405	0205-406	0205-475	0205-476	0205-411	0205-412	0205-481	0205-482

<sup>\*</sup>electrically conductive bound with hose connectors stainless steel.

# 9 Pump Set "Solvents" for complete drum drainage (stainless steel)

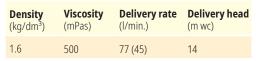
## For easily flammable hydrocarbons

such as ethanol, gasoline, butanol, isopropanol, kerosene, methanol and petroleum.

- Motor ME II 3, 460 W or optionally with
- Compressed air motor MD2xL, 1000 W / 6 bar

Explosion proof according to ATEX Directive 2014/34/EU, category 2.

#### Motor ME II 3



#### Motor MD2xL







## Motor ME II 3-

The explosion proof ideally suitable for transferring of many thin-bodied, easily liquids.



For complete drainage of drums and containers		<b>mp</b> or ME II 3		mp or MD2xL	_	et or ME II 3		et or MD2xL
Pump tube RE-SS 41-L-MS	•	/	<b>\</b>	/	<b>\</b>	/	<b>~</b>	/
2 m solvent hose 3/4" *		-		-	<b>\</b>	/	<b>~</b>	
Drum adapter PP		-		-	<b>\</b>	/	<b>~</b>	
2 m equipotential bonding cable	\ \	/	<b>\</b>		<b>\</b>		<b>~</b>	
Nozzle brass		-		=	<b>\</b>		<b>~</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-505	0205-506	0205-545	0205-546	0205-501	0205-502	0205-541	0205-542

<sup>\*</sup>electrically conductive bound with hose connectors brass.

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

Pump Set "Hazardous Fluids" for complete drum drainage (stainless steel) 10

## For hazardous fluids

such as acetone, conc. formic acid, ethyl acetate, butyl acetate, conc. acetic acid, nicotine, methyl benzene (toluol) and styrol.

- Motor ME II 3, 460 W or optionally with
- Compressed air motor MD2xL, 1000 W / 6 bar

Explosion proof according to ATEX Directive 2014/34/EU, category 2.

#### Motor ME II 3

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate<br/>(l/min.)Delivery head<br/>(m wc)1.650077 (45)14

#### **Motor MD2xL**

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate<br/>(l/min.)Delivery head<br/>(m wc)2,8100067 (40)28

Max. temperature of medium 100 °C When using a nozzle the delivery rate is reduced to approximate values (see brackets).



**Complete drainage**Residual quantity < 0.10 litres



For complete drainage of drums and containers		<b>mp</b> or ME II 3		<mark>mp</mark> or MD2xL	_	et or ME II 3	_	et or MD2xL
Pump tube RE-SS 41-L-MS	<b>\</b>	/	×	/	<b>\</b>	/	×	/
2 m universal chemical hose 3/4" *		-		-	•	/	×	/
Drum adapter PP		-		-	•	/	×	/
2 m equipotential bonding cable	<b>\</b>	/	<b>✓</b>		<b>✓</b>		<b>✓</b>	
Nozzle in stainless steel (1.4571)	-	-		-	<b>\</b>	/	<b>\</b>	
Immersion depth	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm	1000 mm	1200 mm
Order No.	0205-505	0205-506	0205-545	0205-546	0205-511	0205-512	0205-551	0205-552

<sup>\*</sup>electrically conductive bound with hose connectors stainless steel.

# **Lutz Drum and Container Pumps**

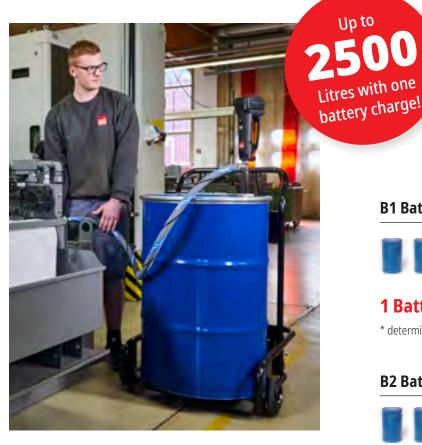
Lightweight, comfortable and powerful

### New dimensions of flexibility

With the development of the new battery pumps B1 Battery and B2 Battery, Lutz launches a new dimension of mobility, battery performance, weight, life, capacity and ergonomics and offers maximum flexibility for the user. With the combination possibilities of the pump tubes in PP, PVDF and stainless steel in different lengths, a variety of fluids from different containers can be transferred.

#### Features/Benefits:

- » BLDC motor with a high level of efficiency up to 70%
- » Infinitely varied
- » Modular construction
- » Low weight
- » High battery capacity
- » Long service life
- » Low noise ≤ 70 dBA
- Sophisticated quick-action coupling
- » Available in **polypropylene**, **polyvinylidene** fluoride and stainless steel (1.4571)



# Mobile pump unit on trolley

For flexible use, the pump and the drum can be easily and quickly brought to any location by the trolley (Order No. 0371-030).

#### **B1 Battery:**



**Battery life:** 25 minutes at max. speed

# 1 Battery charge = 2 x 200 | Container\*

\* determined with pump tube PP 25-L SL

#### **B2 Battery:**



Battery life: 34 minutes at max. speed

# 1 Battery charge = 12,6 x 200 | Container\*

\* determined with pump tube PP 32-R SL

# **Lutz Drum Pump B1/B2 Battery**





# **Lutz Drum and Container Pumps**

# Drum pump Lutz B1/B2 Battery (polypropylene, PVDF or stainless steel)

Productdetai	B1 Battery (motor a	nd pump tube)		PP	-SL			
	Material	Pump tube			P			
	T	Impeller	PP					
5	Type of impeller		Impeller					
8	category 1 / 2 (according to		no					
	Immersion tube diameter Hose connection	max. mm Nominal diameter mm Outer thread	25 19 G 1					
De	Temperature of medium	max. °C		0 up t	0 +40			
1	Flow rate	up to I/min.		2	20			
	Delivery head	up to m wc			6			
	Viscosity	up to mPas		2	00			
	Density	up to kg/dm <sup>3</sup>		1	.3			
	Weight (kg)	Motor + pump tube	1.0					
	Power	watts		7	70			
	Voltage	volts	10.8					
	Length: 500 mm*	Order No.		0207	7-112			
	Length: 700 mm*	Order No.		0207	7-113			
	Length: 1000 mm*	Order No.		0207	7-114			
_	*The lenght complies approx. to c		table. Special lengths o	n request. Will be delive	red without battery and	battery charger.		
<b>S</b>	Suitable battery	I						
	Order No. <b>0332-027</b>	Voltage: 10.8 V	capacity: 1 5 A	h, Li-Ionen battery				
A		voitage. 10.6 v	capacity. 1.3 A	ii, Li-Ionen battery				
	Battery charger							
	Order No. <b>0335-336</b>	Input: 100-240 \	/ <mark>, 50/60 Hz</mark>					
	B2 Battery (motor a	nd pump tube)	PP-SL	PP-SL	PVDF-SL	SS-SL		
	Material	Pump tube Impeller	PP PP	PP PP	PVDF ETFE	1.4571 ETFE		
THE		Pump tube Impeller		PP		1.4571 ETFE Rotor		
TE	Type of impeller	Impeller	PP Rotor	PP Impeller	ETFE Rotor	ETFE Rotor		
	Type of impeller category 1 / 2 (according to A	Impeller ATEX)	PP Rotor no	PP Impeller no	ETFE Rotor no	ETFE Rotor no		
U	Type of impeller	Impeller  ATEX)  max. mm  Nominal diameter mm	PP Rotor no 32 19	PP Impeller no 32 19	ETFE Rotor no 32 19	ETFE Rotor no 28 19		
V	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread	PP Rotor no 32 19 G 1	PP Impeller no 32 19 G 1	ETFE Rotor no 32 19 G 1	ETFE Rotor no 28 19 G 1		
W.	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection Temperature of medium	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C	PP Rotor no 32 19 G 1 -15 up to +50	PP Impeller no 32 19 G 1 -15 up to +50	ETFE Rotor no 32 19 G 1 -15 up to +90	Rotor no 28 19 G 1 -15 up to +		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.	PP Rotor no 32 19 G 1 -15 up to +50 80	PP Impeller no 32 19 G 1 -15 up to +50 65	ETFE Rotor no 32 19 G 1 -15 up to +90 80	ETFE Rotor no 28 19 G 1 -15 up to +		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head	Impeller  TEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc	PP Rotor no 32 19 G 1 -15 up to +50 80 8	PP Impeller no 32 19 G 1 -15 up to +50 65	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8	ETFE Rotor no 28 19 G 1 -15 up to + 80 8		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg)	Impeller  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5		
	Type of impeller category 1 / 2 (according to a Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  watts	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor+pump tube  watts  volts	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260 21.6		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm*	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  watts  volts  Order No.	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260 21.6		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm*	Impeller  ATEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  watts  volts  Order No.  Order No.	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 260 21.6 0207-103 0207-104	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260 21.6 0207-10		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm*	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor+pump tube  watts  volts  Order No.  Order No.  Order No.	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6  0207-103 0207-104	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260 21.6 0207-10 0207-10		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm*	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor+pump tube  watts  volts  Order No.  Order No.  Order No.	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6  0207-103 0207-104	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to + 80 8 400 1.6 2.5 260 21.6 0207-10 0207-10		
	Type of impeller category 1 / 2 (according to / Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm*	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor+pump tube  watts  volts  Order No.  Order No.  Order No.	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6  0207-103 0207-104	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to +1 80 8 400 1.6 2.5 260 21.6 0207-100 0207-100		
	Type of impeller category 1 / 2 (according to a Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm*	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to mPas  up to kg/dm³  Motor + pump tube  watts  volts  Order No.  Order No.  Order No.  imension C in the dimension	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101 0207-102 table. Special lengths of	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 0207-103 0207-104 0207-105 n request. Will be delive	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to +5 80 8 400 1.6 2.5 260 21.6 0207-100 0207-100		
	Type of impeller category 1 / 2 (according to a Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm* *The lenght complies approx. to c Suitable battery Order No. 0332-026	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to mPas  up to kg/dm³  Motor + pump tube  watts  volts  Order No.  Order No.  Order No.  imension C in the dimension	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101 0207-102 table. Special lengths of	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6  0207-103 0207-104	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to +5 80 8 400 1.6 2.5 260 21.6 0207-100 0207-100		
	Type of impeller category 1 / 2 (according to a Immersion tube diameter Hose connection  Temperature of medium Flow rate Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm* *The lenght complies approx. to c Suitable battery	Impeller  MTEX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas  up to kg/dm³  Motor + pump tube  watts  volts  Order No.  Order No.  Order No.  imension C in the dimension  Voltage: 21.6 V	PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101 0207-102 table. Special lengths of	PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 0207-103 0207-104 0207-105 n request. Will be delive	ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 0207-109 0207-110	ETFE Rotor no 28 19 G 1 -15 up to +5 80 8 400 1.6 2.5 260 21.6 0207-106		

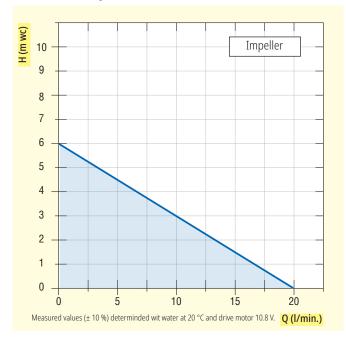
# **Drum Pump Lutz B1/B2 Battery**

Lightweight, comfortable and powerful

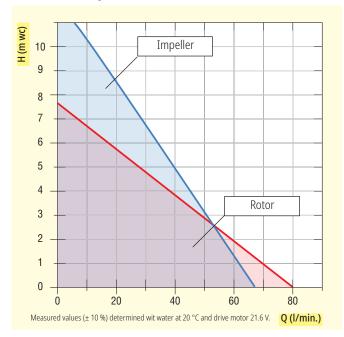
#### Materials (coming into contact with the pumped medium)

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

### **Lutz B1 Battery**



### **Lutz B2 Battery**





# **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, polyvinylidene fluoride 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

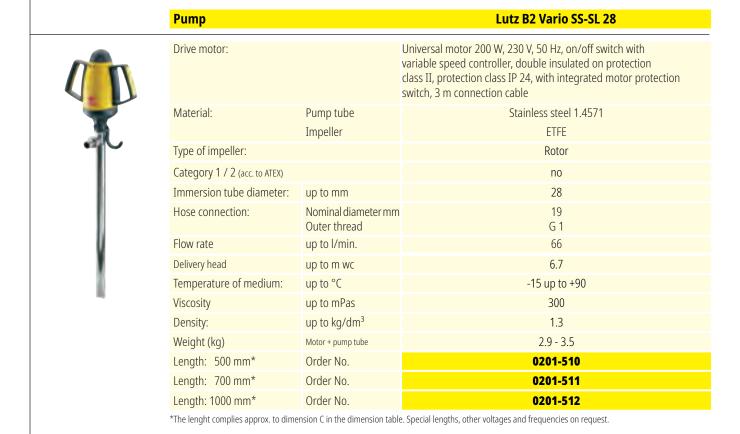


# **Lutz Drum and Container Pumps**

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

Productdetail	Pump		Lutz B2 Vario PP-SL 32	Lutz B2 Vario PVDF-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	PP	PVDF	
		Impeller	PP	ETFE	
	Type of impeller:		Rotor	Rotor	
<b>■</b>	Category 1 / 2 (acc. to ATEX)		no	no	
	Immersion tube diameter:	up to mm	32	32	
	Hose connection:	Nominal diameter mm Outer thread	19 G 1	19 G 1	
	Flow rate	up to I/min.	75	75	
	Delivery head	up to m wc	7	7	
	Temperature of medium:	up to °C	-15 up to +50	-15 up to +90	
•	Viscosity	up to mPas	300	300	
	Density:	up to kg/dm <sup>3</sup>	1.3	1.3	
	Weight (kg)	Motor + pump tube	2.2-2.5	2.3 - 2.6	
	Length: 500 mm*	Order No.	0201-500	0201-580	
	Length: 700 mm*	Order No.	0201-501	0201-581	
	Length: 1000 mm*	Order No.	0201-502	0201-582	

<sup>\*</sup>The lenght complies approx. to dimension C in the dimension table. Special lengths, other voltages and frequencies on request.



# for the laboratory and research sector

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

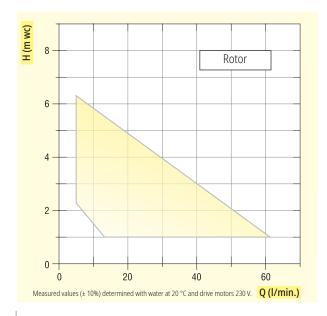
Version:	PP-SL	PVDF-SL	SS-SL
Housing:	PP/PVDF	PVDF	SS (1.4571)
Rotor:	PP	ETFE	ETFE
Seals:	none	none	none
Mechanical seals:	none	none	none
Bearing:	ETFE/PTFE	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Hastelloy C	Hastelloy C	SS (1.4571)

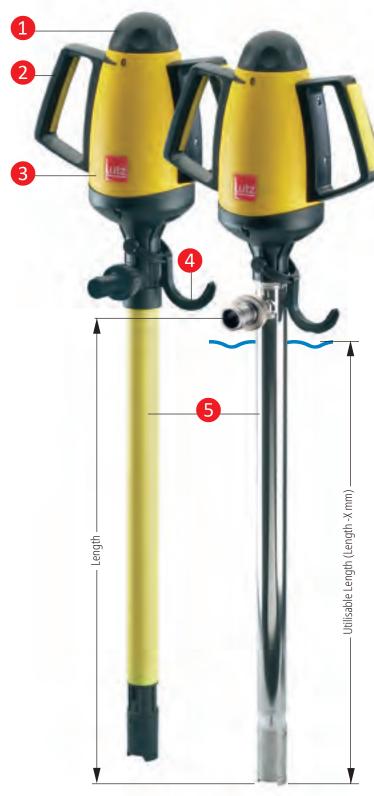
- 1 Infinitely variable speed controller for safe liquid transfer
- 2 Easy and safe to operate by ergonomically designed handles
- 3 Powerful universal motor with improved service life
- 4 Hanger for professional storage of nozzle and cable
- Modular designed sealless pump tube in polypropylene, polyvinylidene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



**IP 24** 

**(**E





X = pump tube PP/PVDF: -40 mm pump tube Inox: -50 mm



Suitable range of accessories see pages 73-75

# **Lutz Drum and Container Pumps**

# Your individual pump selection

### **Safety first**

The explosion proof models of Lutz drum pumps provide optimum protection when handling easily flammable, 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 2014/34/EU and IEC Ex.





# 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

- ✓ 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

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.

You will find more information in our separate leaflet: **Certified solutions for the food, pharmaceutical and cosmetics Industry** (Order-No. 0699-315)









### Regulation (EC) 1935/2004

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.



#### **FDA Approval**

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).



#### **Atex Directive**

Lutz pumps from the PURE series are also available in an explosion proof version in accordance with ATEX Directive 2014/34/EU. 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 suitable 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 0-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 Iife.

#### 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 rotor or impeller) is easy to detach.

#### **Practically indestructible**

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





# **Untiring: Lutz Pump Tubes**

Pump tubes: Stainless steel/Hastelloy C



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 thinbodied to slightly viscous liquids. The pump tubes stainless steel are suited for delivering neutral and aggressive, easily flammable and non-flammable liquids. HC is used especially for highly aggressive, easily flammable 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.

Stainless steel pump tubes in physiologically safe version (PU). All materials coming into contact with the pumped liquid are physiologically safe.



The pump tubes are mainly used in the food-, cosmetics- and pharmaceutical industry.

# When does one have to use an explosion proof 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 explosion proof motor must be used for easily flammable liquids.

Refer to page 37

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

diethyl ether

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

carbon disulfide



# **Pump Power: Range of Motors**



### Universal Motor: MI 4/MI 4-E

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 explosion proof.

✓ 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-flammable fluids. It demonstrates its power even when handling acids and alkalis.

### **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. We recommend the use of the MA II 5-S motor for extremely aggressive environments. More information see below.



Туре	<b>Voltage</b> V	Frequency Hz	Output 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

# Three-phase gear Motor B4/GT



(€ IP 54/IP 55

Three-phase gear motor, 0.75 kW, 230/400 V, 50 Hz, energy efficiency class IE 3. With terminal box or attached motor protection switch with ON/OFF function.

✓ Especially smooth and quiet operation

✓ Special models available

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 oil lubricated and extremely easy to maintain.

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	11.0	0004-050	0004-052

### **Universal Motor: MA II**

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-flammable fluids.

### **Double protection is even better**

Robust and durable: The inner part of the doublewall 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.





Туре	<b>Voltage</b> V	Frequency Hz	Output W	<b>Weight</b> kg	Order No. (with low-voltage release)	Order No. (without low-voltages release)
MA II 3	220-230	50	430-460	4.6	0060-008	0060-000
	100-120	50-60	430	4.6	0060-016	0060-044
MA II 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
MA II 5 S	220-230	50	540-575	5.4	-	0060-091
	100-120	50-60	510	5.4	-	0060-094
MA II 7	220-230	50	790-795	6.6	0060-010	0060-002
	100-120	50-60	700	6.6	0060-018	0060-046

# **Pump Power: Range of Motors**

MD1xL Ideal for stationary operation.



With conventient grip as standard equipment.







# **Lutz Compressed Air Motors MDxL Series**

Energy efficiency and reducing the ope**rating costs** is most important for the user of pumps. With the development of the new MDxL compressed air motors, Lutz has taken account of this requirement and set new standards. Compressed air is an expensive energy. The more important it is to achieve the highest possible efficiency.

With the oil-free, 1000 watts powerful air motor you can achieve the same delivery capacity with 20% less connection pressure and 4% less air consumption comparable to other products.

The motors have a very good start-up behaviour also with low pressure.

This saves energy and costs.

During the development of the motors, the Lutz engineers succeeded in a significant increase of performance which enable the transferring of viscous liquid up to 100,000 mPas and thus the motors are almost universally applicable.

The motors can also be used to pump easy flammable liquids and comply with the Atex guidelines. The motor is infinitely varied and this allows a smooth and controlled filling.

#### Features/Benefits:

- ✓ High power and high efficiency due to optimization of the flow control
- ✓ Infinitely varied
- ✓ Modular construction
- ✓ Oil-free version available
- Easy handling
- Long lifetime
- ✓ Atex-certification
- ✓ Good start behaviour



### Two motors for almost any requirement

- ✓ High performance class up to 1000 watts
- ✓ High viscosity up to 100,000 mPas
- ✓ Applicable oil-free

Туре	Air pressure bar	Performance W	<b>Weight</b> kg	Order No.
MD1xL	6	1000	1.0	0004-725
MD2xL	6	1000	1.4	0004-735

When used in Ex environments, the maximum permissible operating pressure is limited to 5 bar.

### **Explosion proof Universal Motor: ME II**

Explosion proof in compliance with II 2 G Ex db eb 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 explosion proof), optionally available with explosion proof plug.

- ✓ Explosion proof 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 are not taken back easily. The ME II explosion proof universal motor is the answer for pumping a large variety of thin-bodied, easily flammable and combustible liquids.

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, explosion proof in compliance with II 2 G Ex db eb IIC T5 or T6 and built and approved in keeping with the explosion protection Atex Directive 2014/34/EU 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 quarantees protection against spark discharge during potential equalisation, specially in explosive areas.











Туре	<b>Voltage</b> V	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

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

Productdetail	Pump tube							-SL	PP-MS	
-	Type of im	peller:					Impeller	Rotor	Impeller	Rotor
		/   / 2 (acc. to ATE	X)				no	no	no	no
		tube diamet			up to mm		41	41	41	41
		re of mediun			up to °C		50	50	50	50
	Material:	ire or mearan			Pump tube		PP	PP	PP	PP
	Widterial.				Impeller/Roto	or	PP	PP	PP	PP
	Hose conn	ection:			Nominal dian		19-32	19-32	19-32	19-32
					Outer thread	icter iiiiii	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7	'00 mm*	shaft SS		Order No.			0110-300		
	Length: 10		shaft SS		Order No.			0110-301		
	Length: 12		shaft SS		Order No.			0110-302		
	Length: 7		shaft HC		Order No.			0110-200		
	Length: 10		shaft HC		Order No.			0110-201		
	Length: 12		shaft HC		Order No.			0110-202		
	Length: 14		shaft HC		Order No.		0110-208		-	-
	Length: 15		shaft HC		Order No.			0110-214	-	-
	Length: 16		shaft HC		Order No.		0110-210		-	-
	Length: 17		shaft HC		Order No.			0110-216	-	-
	Length: 20		shaft HC		Order No.		0110-212		-	_
	_			e dimension table.		-2500 mm on request				
	Choice o	f motors			Operating	data				
		MI 4	MI 4-E		Characteristic	curve no.	101	100	101	100
100		-	with speed		Flow rate	up to l/min.	87	160	87	160
			controller		Delivery head	up to m wc	19	8.5	19	8.5
1000	Output:	500 W	500 W		Viscosity	up to mPas	500	150	500	150
1000	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	3.9	3.9	3.9	3.9
		MA II 3			Characteristic	curve no.	103	102	103	102
	Output:	460 W	460 W		Flow rate	up to l/min.	78	155	78	155
	Voltage:	230 V	230 V		Delivery head	up to m wc	16	7.5	16	7.5
A Committee of the Comm	LVR.:	no	yes		Viscosity	up to mPas	500	150	500	150
	Order No.	0060-000	0060-008		Density: Weight (kg)	up to kg/dm³	1.6 5.7	1.2 5.7	1.6 5.7	1.2 5.7
	Order No.	0000-000	0000-008		weight (kg)	Motor + pump tube	5./	5./	5.7	5.7
		MA II 5	MA II 5	MA II 5 S	Characteristic	curve no.	105	104	105	104
	Output:	575 W	575 W	575 W	Flow rate	up to l/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.	0060-001	0060-009	acid proof <b>0060-091</b>	Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.8 6.5	1.3 6.5	1.8 6.5	1.3 6.5
		MA II 7			Characteristic		107	106	107	106
	Output:	795 W	795 W		Flow rate	up to I/min.	95	170	95	170
Low-voltage release (LVR.):	Voltage:	230 V	230 V		Delivery head	up to m wc	25	12	25	12
Prevents the pump from starting up again without	LVR.:	no	yes		Viscosity	up to mPas	800	350	800	350
warning after a power failure.					Density:	up to kg/dm³	1.9	1.4	1.9	1.4
It is recommended when pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	7.7	7.7	7.7	7.7
-		MD1xL	MD2xL		Characteristic	curve no.	109	108	109	108
	Output:	1000 W	1000 W		Flow rate	up to I/min.	116	216	116	216
					Delivery head	up to m wc	36	16	36	16
	Operating								30	
1-1-	pressure:		6 bar		Viscosity	up to mPas	1000	1000	1000	1000
			6 bar infinitely va	ried	-					

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

Special voltages and frequencies on request.

## **Pump Tube PP (polypropylene)**

Accessories hose connection see page 83

### for corrosive and neutral liquids

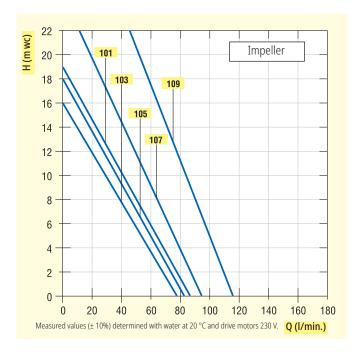
Illustration shows: pump tube PP with

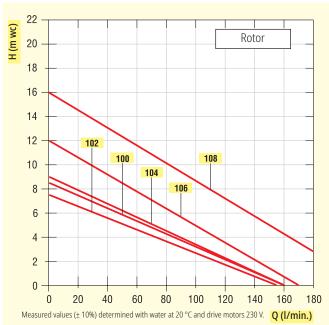
Utilisable Length (Length -44 mm)

motor MI-4

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

Version:	SL	MS
Housing:	PP/PVDF	PP/PVDF
Impeller/Rotor:	PP	PP
Seals:	none	FPM
Mechanical seals:	none	Carbon, SiC, FPM, 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)







Suitable range of accessories see pages 80-96



With selected accessories (see page 96) the pump tube also can be used for pumping cold-pressed rapeseed- and vegetable oils.

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

Productdetail	Pump tu	be					PVD	F-SL	PVD	F-MS
2	Type of imp	peller:					Impeller	Rotor	Impeller	Rotor
		/ 2 (acc. to ATE	-X)				no	no	no	no
		tube diamet			up to mm		41	41	41	41
		re of mediur			up to °C		100	100	100	100
	Material:	ic of fricular	11.		Pump tube		PVDF	PVDF	PVDF	PVDF
	iviateriai.				Impeller/Roto	or.	ETFE	ETFE	ETFE	ETFE
	Hose sonn	oction:								
	Hose conn	ection:			Nominal diam Outer thread	ieter mm	19-32	19-32 G 1 1/4	19-32 G 1 1/4	19-32 G 1 1/4
		00 +					G 1 1/4			
	Length: 7				Order No.				0123-404	
	Length: 10				Order No.				0123-405	
10	Length: 12				Order No.			0122-202	0123-406	0123-402
	Choice o				Special lengths 200–  Operating					
	Choice o	i illotors			Operating	udld				
		MI 4	MI 4-E		Characteristic	curve no.	201	200	201	200
		-	with speed		Flow rate	up to I/min.	87	160	87	160
			controller		Delivery head	up to m wc	19	8.5	19	8.5
100	Output:	500 W	500 W		Viscosity	up to mPas	500	150	500	150
	Voltage:	230 V	230 V		Density:	up to kg/dm <sup>3</sup>	1.4	1.1	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	4.5	4.5	4.5	4.5
		MA II 3			Characteristic	curve no	203	202	203	202
	Output:	460 W	460 W		Flow rate	up to I/min.	78	155	78	155
	Voltage:	230 V	230 V		Delivery head	•	16	7.5	16	7.5
	LVR.:	no	yes		Viscosity	up to mPas	500	150	500	150
					Density:	up to kg/dm³	1.6	1.2	1.6	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	6.3	6.3	6.3	6.3
		MA II 5	MA II 5	MA II 5 S	Characteristic	curve no	205	204	205	205
	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		18	9	18	9
	LVR.:	no	yes	no	Viscosity	up to mPas	800	350	800	350
	EVII	110	yes	acid proof		up to kg/dm <sup>3</sup>	1.8	1.3	1.8	1.3
	Order No.	0060-001	0060-009	0060-091	Weight (kg)	Motor + pump tube		7.1	7.1	7.1
		MA II 7	-	-			207	200	207	200
	0 1 1		705 144		Characteristic		207	206	207	206
Low-voltage release (LVR.):	Output:	795 W 230 V	795 W 230 V		Flow rate Delivery head	up to I/min.	95 25	170 12	95 25	170 12
Prevents the pump from starting up again without	Voltage: LVR.:	230 V no			Viscosity	up to m wc up to mPas	800	350	800	350
warning after a power failure.	LVI\	110	yes		Density:	up to hir as	1.9	1.4	1.9	1.4
It is recommended when pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube		8.3	8.3	8.3
						CUD IO TO				
-	Outerist	MD1xL	MD2xL		Characteristic		209	208	209	208
	Output:	1000 W	1000 W		Flow rate	up to I/min.	116	216	116	216
	Operating				Delivery head		36	16	36	16
and the same of th	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
			infinitely va	ried	Density:	up to kg/dm <sup>3</sup>	2.8	2.8	2.8	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	3.1	3.1	3.1	3.1
		B4/GT			Characteristic	CUIN/E NO	211	210	211	210
THE RESERVE	Output	750 W	750 W		Flow rate	up to I/min.	75	140	75	140
	Output: Voltage:	230/400 V	750 W 230/400 V		Delivery head	•	10	8.5	10	8.5
	VI III CI IE	4.JU/4UU V	40U V		Delivery Hedu	up to III WC	10	0.5	10	0.5
dimina.	-				,	un to mPas	400	400		400
	Protection switch	no	yes		Viscosity Density:	up to mPas up to kg/dm <sup>3</sup>	400 2.2	400 2.0	400 2.2	400 2.0

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

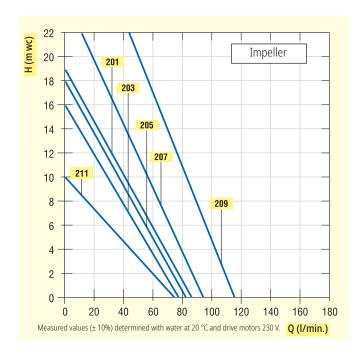
Special voltages and frequencies on request.

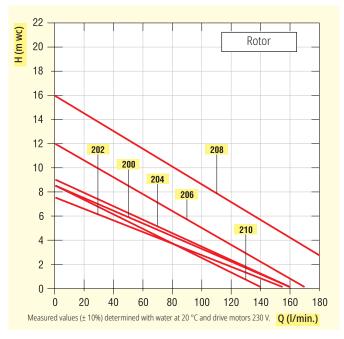
## **Pump Tube PVDF (polyvinylidene fluoride)**

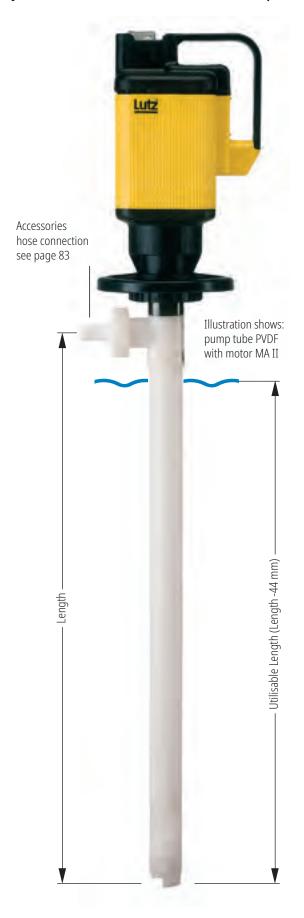
for highly corrosive chemicals and neutral liquids

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

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









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

Productdetail	Pump tu	be					Alu	ı-SL	Alu	-MS
- 1	Type of imp	oeller:					Impeller	Rotor	Impeller	Rotor
		/ 2 (acc. to ATE	X)				no	no	no	no
- 11		tube diamet			up to mm		41	41	41	41
	Temperatu	re of mediun	n:		up to °C		100	100	100	100
	Material:				Pump tube		Alu	Alu	Alu	Alu
					Impeller/Roto		ETFE	ETFE	ETFE	ETFE
	Hose conn	ection:			Nominal diam Outer thread	eter mm	19-32	19-32 G 1 1/4	19-32	19-32 G 1 1/4
	Length: 7	00 mm*			Order No.		G 1 1/4		G 1 1/4 <b>0133-504</b>	
	Length: 10				Order No.				0133-505	
	Length: 12				Order No.				0133-506	
W.	Length: 15				Order No.		0132-309	_	-	_
	_		limension C in the	dimension table.	Special lengths 200–	2500 mm on request			,	
	<b>21</b> 1									
	Choice o	t motors			<b>Operating</b>	data				
		MI 4	MI 4-E		Characteristic	curve no.	301	300	301	300
4		-	with speed		Flow rate	up to I/min.	87	160	87	160
	0	500 W	controller		Delivery head		19	8.5	19	8.5
THE REAL PROPERTY.	Output: Voltage:	500 W 230 V	500 W 230 V		Viscosity Density:	up to mPas up to kg/dm <sup>3</sup>	500 1.4	150 1.1	500 1.4	150 1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube		4.3	4.3	4.3
	Order No.		***************************************							
	0 1 1	MA II 3	460 \\		Characteristic		303	302	303	302
	Output: Voltage:	460 W 230 V	460 W 230 V		Flow rate Delivery head	up to I/min.	78 16	155 7.5	78 16	155 7.5
	LVR.:	no	yes		Viscosity	up to m wc	500	150	500	150
	241(	110	yes		Density:	up to kg/dm <sup>3</sup>	1.6	1.2	1.6	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	6.1	6.1	6.1	6.1
		MA II 5	MA II 5	MA II 5 S	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		18	9	18	9
	LVR.:	no	yes	no acid proof	Viscosity	up to mPas	800 1.8	350 1.3	800	350
	Order No.	0060-001	0060-009	acid proof <b>0060-091</b>	Density: Weight (kg)	Motor + pump tube		6.9	1.8 6.9	1.3 6.9
		MA II 7								
	Output:	795 W	795 W		Characteristic Flow rate	up to I/min.	307 95	306 170	307 95	306 170
Low-voltage release (LVR.):	Voltage:	230 V	230 V		Delivery head		25	170	25	170
Prevents the pump from starting up again without	LVR.:	no	yes		Viscosity	up to mPas	800	350	800	350
warning after a power failure. It is recommended when					Density:	up to kg/dm <sup>3</sup>	1.9	1.4	1.9	1.4
pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	8.1	8.1	8.1	8.1
-		MD1xL	MD2xL		Characteristic	curve no.	309	308	309	308
	Output:	1000 W	1000 W		Flow rate	up to I/min.	116	216	116	216
	Operating				Delivery head	up to m wc	36	16	36	16
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
<b>3</b>			infinitely va	ried	Density:	up to kg/dm³	2.8	2.8	2.8	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	2.9	2.9	2.9	2.9
		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	up to m wc	10	8.5	10	8.5
	Protection				Viscosity	up to mPas	400	400	400	400
חבם	switch	no	yes		Density:	up to kg/dm <sup>3</sup>	2.2	2.0	2.2	2.0
	Order No.	0004-050	0004-052		Weight (kg)	Motor + pump tube	12.3	12.3	12.3	12.3

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

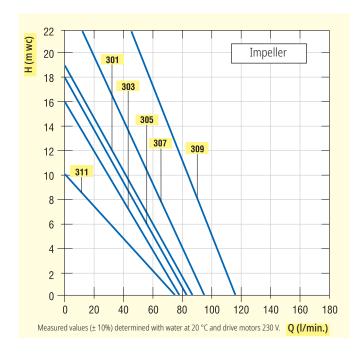
Special voltages and frequencies on request.

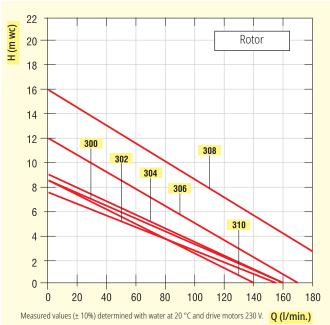
## **Pump Tube Alu (aluminium)**

### for neutral, non flammable liquids

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

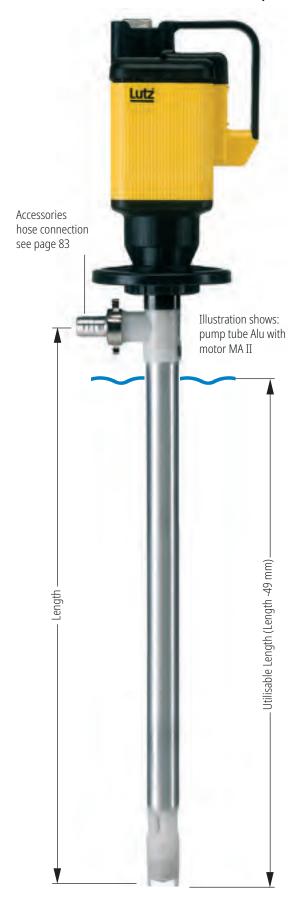
Version:	SL	MS
Housing:	Alu, PVDF	Alu, PVDF
Impeller/Rotor:	ETFE	PP ETFE
Seals:	none	FPM
Mechanical seals:	none	Carbon, SiC, FPM, HC, HC-4 (2.4610)
Bearing:	ETFE	ETFE
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)







With selected accessories (see page 96) the pump tube also can be used for pumping diesel - and biodiesel.





Suitable range of accessories see pages 80-96

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

Productdetail	Pump tu	be					SS	-SL	SS-	·MS
¥	Type of imp	peller:					Impeller	Rotor	Impeller	Rotor
		/ 2 (acc. to ATE	X)				yes	yes	yes	yes
100		tube diamet			up to mm		41	41	41	41
		re of mediun	n:		up to °C		100	100	100	100
	Material:				Pump tube Impeller/Roto	r	1.4571 ETFE	1.4571 ETFE	1.4571 ETFE	1.4571 ETFE
	Hose conn	ection:			Nominal diam		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: 70				Order No.				0151-003	
	Length: 10 Length: 12				Order No. Order No.				0151-004 0151-005	
	Length: 14				Order No.			0150-002	-	-
	Length: 15				Order No.			0150-114	-	-
	Length: 16				Order No.		0150-110	0150-115	-	-
	Length: 17				Order No.			0150-116	-	-
	Length: 20	00 mm*	limension ( in the	dimension table	Order No. Special lengths 200–	2500 mm on request	0150-112	0150-117	-	-
	Choice o		intension e in the	differision table.	Operating (					
		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
		MA II 3			Characteristic	curve no	403	402	403	402
	Output:	460 W	460 W		Flow rate	up to I/min.	95	178	95	178
-	Voltage:	230 V	230 V		Delivery head		14	9	14	9
	LVR.:	no	yes		Viscosity	up to mPas	350	200	350	200
The second			•		Density:	up to kg/dm <sup>3</sup>	1.6	1.2	1.6	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	7.5	7.5	7.5	7.5
		MA II 5	MA II 5	MA II 5 S	Characteristic	curve no.	405	404	405	404
	Output:	575 W	575 W	575 W	Flow rate	up to I/min.	100	190	100	190
	Voltage:	230 V	230 V	230 V	Delivery head		16	10	16	10
	LVR.:	no	yes	no	Viscosity	up to mPas	700	550	700	550
	Ouglan Na	0000 004	0000 000	acid proof	Density:	up to kg/dm <sup>3</sup>	1.8	1.3	1.8	1.3
	Order No.		0000-009	0000-091	Weight (kg)	Motor + pump tube	8.3	8.3	8.3	8.3
		MA II 7			Characteristic	curve no.	407	406	407	406
Laurentea e elece (IVIS)	Output:	795 W	795 W		Flow rate	up to I/min.	115	210	115	210
Low-voltage release (LVR.): Prevents the pump from	Voltage:	230 V	230 V		Delivery head		20	13	20	13
starting up again without warning after a power failure.	LVR.:	no	yes		Viscosity	up to mPas	500	400	500	400
It is recommended when	Order No.	0060-002	0060-010		Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.9 9.5	1.4 9.5	1.9 9.5	1.4 9.5
pumping hazardous liquids.	0.301110.	MD1xL	MD2xL		Characteristic		409	408	409	408
-5-	Output:	1000 W	1000 W		Flow rate	up to I/min.	124	408 276	124	408 276
	·	1000 W	1000 W		Delivery head	·	35	20	35	276
	Operating	C h.	C ls.		-					
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
	0 1 11		infinitely var	ried	Density:	up to kg/dm³	2.8	2.8	2.8	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	4.3	4.3	4.3	4.3
		B4/GT			Characteristic		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		12	13	12	13
	Protection	no	VOC		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.	0004-050	0004-052		Weight (kg)	Motor + pump tube	14.7	14.7	14.7	14.7

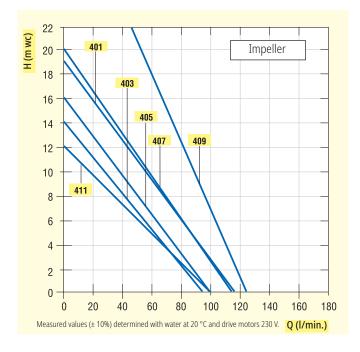
The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

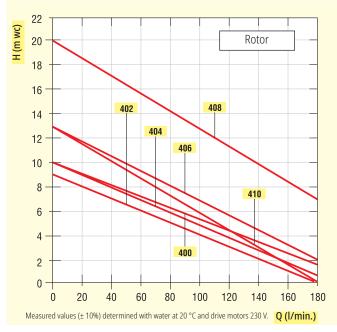
## **Pump Tube SS (stainless steel)**

### 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/Rotor:	ETFE	ETFE	PP	ETFE
Seals:	none	FPM	none	EPDM, FPM
Mechanical seal:	none	Carbon, Ceramic, FPM, Stainless steel	none	Carbon, Ceramic, FPM, 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)



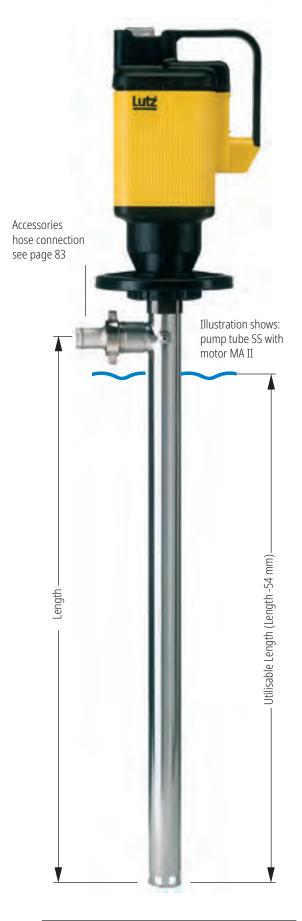




With selected accessories (see page 96) the pump tube also can be used for pumping rapeseed oil, vegetable oils, diesel - and biodiesel.



Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)





Suitable range of accessories see pages 80-96



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

Productdetail	Pump tube		SS	-SL	SS-	·MS
V.	Type of impeller:	Impeller	Rotor	Impeller	Rotor	
med II	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/Rotor	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	-	-
M.	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	-	-

 $<sup>{}^{\</sup>star}\text{The lenght complies approx. to dimension C in the dimension table. Special lengths 200-2500~mm on request}$ 

	Choice o	f motors		Operating data					
		ME II 3		Characteristic curve no.	453	452	453	452	
	Output:	460 W	460 W	Flow rate up to I/min.	95	178	95	178	
	Voltage:	230 V	230 V	Delivery head up to m wc	14	9	14	9	
7	LVR.:	yes	no	Viscosity up to mPas  Density: up to kg/dm³	350 1.6	200 1.2	350 1.6	200 1.2	
400	Order No	0050-000	0050-016	Density: up to kg/dm³ Weight (kg) Motor + pump tube	8.7	8.7	8.7	8.7	
	Order No.	0050-000	0050-010	weight (kg) Motor + pump tube	0.7	0.7	0.7	0.7	
		ME II 5		Characteristic curve no.	455	454	455	454	
THE .	Output:	580 W	580 W	Flow rate up to I/min.	100	190	100	190	
ALLX	Voltage:	230 V	230 V	Delivery head up to m wc	16	10	16	10	
	LVR.:	yes	no	Viscosity up to mPas	700	550	700	550	
				Density: up to kg/dm <sup>3</sup>	1.8	1.3	1.8	1.3	
	Order No.	0050-001	0050-017	Weight (kg) Motor + pump tube	9.6	9.6	9.6	9.6	
		ME II 7		Characteristic curve no.	457	456	457	456	
	Output:	795 W	795 W	Flow rate up to I/min.	115	210	115	210	
	Voltage:	230 V	230 V	Delivery head up to m wc	20	13	20	13	
	LVR.:	yes	no	Viscosity up to mPas	500	400	500	400	
		•		Density: up to kg/dm <sup>3</sup>	1.9	1.4	1.9	1.4	
	Order No.	0050-002	0050-018	Weight (kg) Motor + pump tube	10.8	10.8	10.8	10.8	
		ME II 8		Characteristic curve no.	459	458	459	458	
Low-voltage release (LVR.):	Output:	930 W	930 W	Flow rate up to I/min.	123	243	123	243	
Prevents the pump from starting up again without warning after a	Voltage:	230 V	230 V	Delivery head up to m wc	26	15	26	15	
power failure. In the hazardous	LVR.:	yes	no	Viscosity up to mPas	750	650	750	650	
location, motors with low- voltage release are absolutely	27	, 00		Density: up to kg/dm³	1.9	1.4	1.9	1.4	
prescribed.	Order No.	0050-042	0050-041	Weight (kg) Motor + pump tube	10.8	10.8	10.8	10.8	
10.505		MD1xL	MD2xL	Characteristic curve no.	461	460	461	460	
	Output	1000 W	1000 W	Flow rate up to I/min.	124	276	124	276	
	Output:	TUUU W	1000 W	Delivery head up to m wc	35	276	35	276	
	Operating	6 har	6 bar	, ,	1000	1000	1000	1000	
22	pressure:	U Dai		Viscosity up to mPas					
The same of the sa	0 1 1	0004 705	infinitely varied	Density: up to kg/dm³	2.8	2.8	2.8	2.8	
ALEX	Order No.	0004-725	0004-735	Weight (kg) Motor + pump tube	4.3	4.3	4.3	4.3	

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

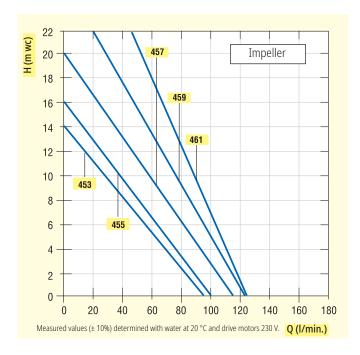
Special voltages and frequencies on request.

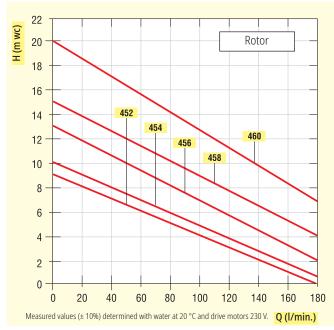
## **Pump Tube SS (stainless steel)**

### for highly flammable 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/Rotor:	ETFE	ETFE	ETFE
Seals:	none	FPM	FPM, EPDM
Mechanical seal:	none	Carbon, Ceramic, FPM, Stainless steel	Carbon, Ceramic, FPM, EPDM, Stainless steel
Bearing:	Pure Carbon	Pure Carbon	Pure Carbon
Drive shaft:	SS (1.4571)	SS (1.4571)	SS (1.4571)

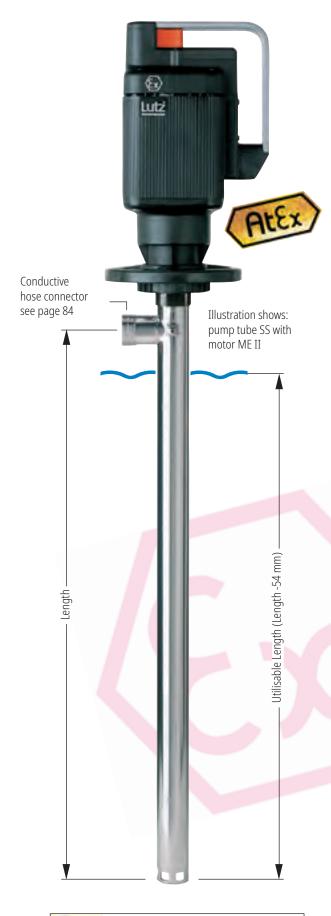




**Please note:** With a suitable threaded connection the pump tube also can be used for pumping hazardous substances for fire control and civil protection.



Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)





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

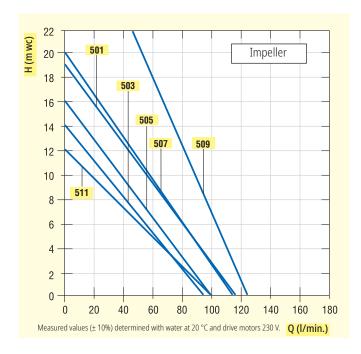
Immersion Temperatu	/ 2 (acc. to ATE tube diamet	X)				Impeller	Dotor
Category 1 Immersion Temperatu	/ 2 (acc. to ATE tube diamet	X)				THINCHEL	Rotor
Immersion Temperatu	tube diamet	,				yes	yes
Temperatu		er.		up to mm		42	42
	re of mediun			up to °C		120	120
				Pump tube		HC	HC
Waterial.				Impeller/Roto	r	ETFE	ETFE
Hose conn	ection:			Nominal diam		19-32	19-32
1103C COIIII	ccion.				eter mm		G 1 1/4
Length: 10	00 mm*						0162-201
_							0162-202
Choice o	f motors			Operating (	data		
	MI 4	MI 4-E		Characteristic	curve no.	501	500
	-			Flow rate	up to I/min.	117	210
		controller		Delivery head	up to m wc	19	10
Output:	500 W	500 W		Viscosity	up to mPas	500	350
_				Density:	up to kg/dm <sup>3</sup>	1.4	1.1
Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	7.2	7.2
	MA II 3			Characteristic	curve no.	503	502
Output:	460 W	460 W		Flow rate	up to I/min.	95	178
Voltage:	230 V	230 V				14	9
LVR.:	no	yes					200
							1.2
Order No.	0060-000	0060-008		weight (kg)	Motor + pump tube	9.0	9.0
	MA II 5	MA II 5	MA II 5 S	Characteristic	curve no.	505	504
Output:	575 W	575 W	575 W	Flow rate	up to I/min.		190
				-			10
LVR.:	no	yes			'		550
Order No.	0060-001	0060-009					1.3 9.8
Oraci No.							
							506
Output:							210
-				,			13 400
LVK	110	yes		,			1.4
Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	11.0	11.0
							508
Outnut:							276
·	1000 W	1000 W		Delivery head	·	35	20
Operating pressure:	6 har	6 bar		Viscosity	up to mPas	1000	1000
p. 55501 C.	U Dai		riod	•			
		infinitely var	ried	Density:	up to kg/dm <sup>3</sup>	2.8	2.8
Order No.	0004 725	0004 725					L 0
Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	5.8	5.8
	B4/GT			Characteristic	curve no.	511	510
Output:	<b>B4/GT</b> 750 W	750 W		Characteristic Flow rate	Curve no. up to l/min.	511 100	510 180
Output: Voltage:	B4/GT			Characteristic Flow rate Delivery head	curve no. up to I/min. up to m wc	511 100 12	510 180 13
Output:	<b>B4/GT</b> 750 W	750 W		Characteristic Flow rate	Curve no. up to l/min.	511 100	510 180
	Choice o  Choice o  Output: Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Under No.  Output: Voltage: LVR.:  Under No.  Output: Voltage: LVR.:  Under No.	Length: 1000 mm*  Length: 1200 mm*  *The lenght complies approx. to order MI 4	Length: 1000 mm*  Length: 1200 mm*  *The lenght complies approx. to dimension C in the state of the length complies approx. to dimension C in the state of the length complies approx. to dimension C in the state of the length complies approx. to dimension C in the state of the length complies approx. to dimension C in the state of the length complies approx. The length complies approx. The length controller output:    Mail 4	Length: 1000 mm*  Length: 1200 mm*  *The lenght complies approx. to dimension C in the dimension table.  MI 4	Length: 1000 mm*  Length: 1200 mm*  Choice of motors  MI 4  MI 4-E  with speed controller  Output: 500 W  Voltage: 230 V  Order No.  MA II 3  Output: 460 W  Voltage: 230 V  230 V  Density:  Order No.  MA II 5  Order No.  MA II 5  MA II 5  MA II 5  Order No.  Orde	Length: 1000 mm* Length: 1200 mm* Length: 1200 mm* The lenght complies approx. to dimension C in the dimension table. Special lengths 200–2500 mm on request of the length complies approx. to dimension C in the dimension table. Special lengths 200–2500 mm on request of the length complies approx. to dimension C in the dimension table. Special lengths 200–2500 mm on request of the length complies approx. to dimension C in the dimension table. Special lengths 200–2500 mm on request of the length complex curve no.  Characteristic:  Urve no.  Plow rate up to I/min.  Output: 500 W 500 W Viscosity up to mPas	Choice of motors

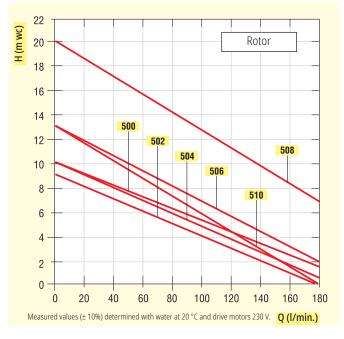
## **Pump Tube HC (Hastelloy C)**

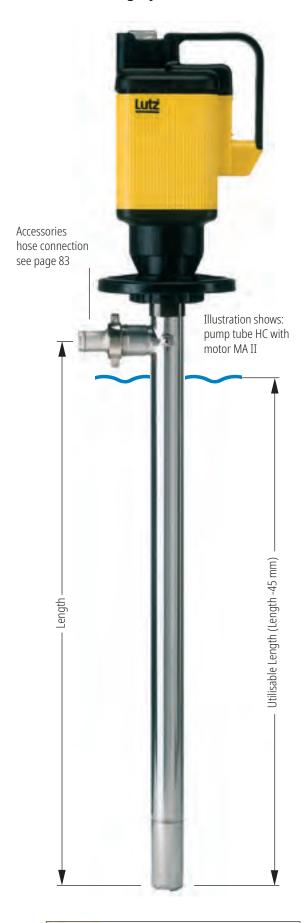
### for highly corrosive chemicals

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

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



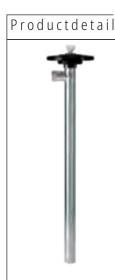






### Pump tube HC (Hastelloy C) for highly flammable chemicals





Pump tube	НС	-SL	
Type of impeller:		Impeller	Rotor
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/Rotor	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
*The lenght complies approx. to dimension C in the dimension tal	ble. Special lengths 200–2500 mm on request	t	

	Choice o	f motors		Operating data		
	Output: Voltage: LVR.: Order No.	ME II 3 460 W 230 V yes 0050-000	460 W 230 V no <b>0050-016</b>	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	553 95 14 350 1.6 10.2	552 178 9 200 1.2 10.2
ALEX	Output: Voltage: LVR.:	ME II 5 580 W 230 V yes 0050-001	580 W 230 V no <b>0050-017</b>	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	555 100 16 700 1.8 11.1	554 190 10 550 1.3 11.1
	Output: Voltage: LVR.:	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no	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	557 115 20 500 1.9 12.3	556 210 13 400 1.4 12.3
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 <b>0050-041</b>	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	559 123 26 750 1.9 12.3	558 243 15 650 1.4 12.3
ALEX	Output: Operating pressure: Order No.	MD1xL 1000 W 6 bar 0004-725	MD2xL 1000 W 6 bar infinitely varied 0004-735	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	561 124 35 1000 2.8 5.8	560 276 20 1000 2.8 5.8

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

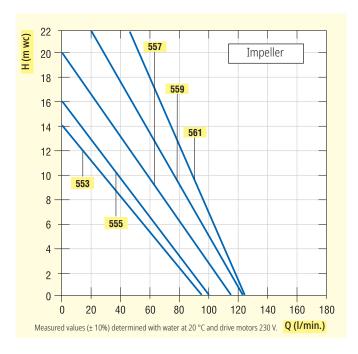
Special voltages and frequencies on request.

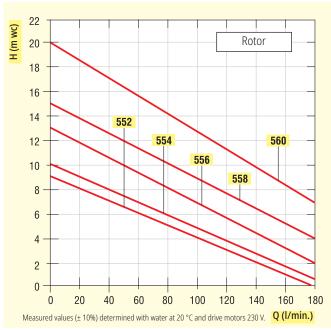
## **Pump Tube HC (Hastelloy C)**

### for highly flammable chemicals

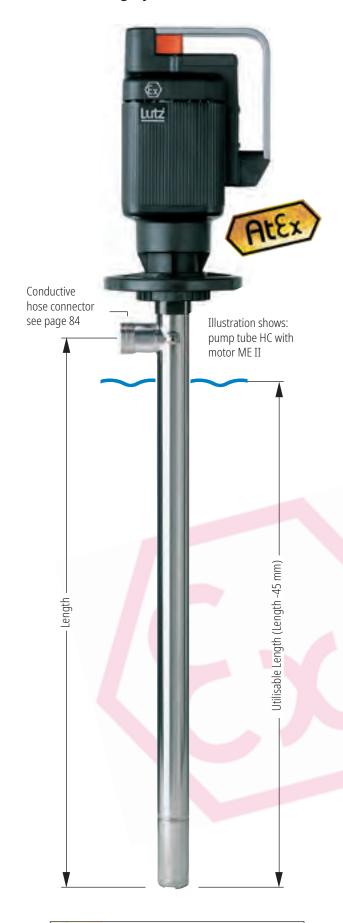
#### Materials (coming into contact with the pumped medium):

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





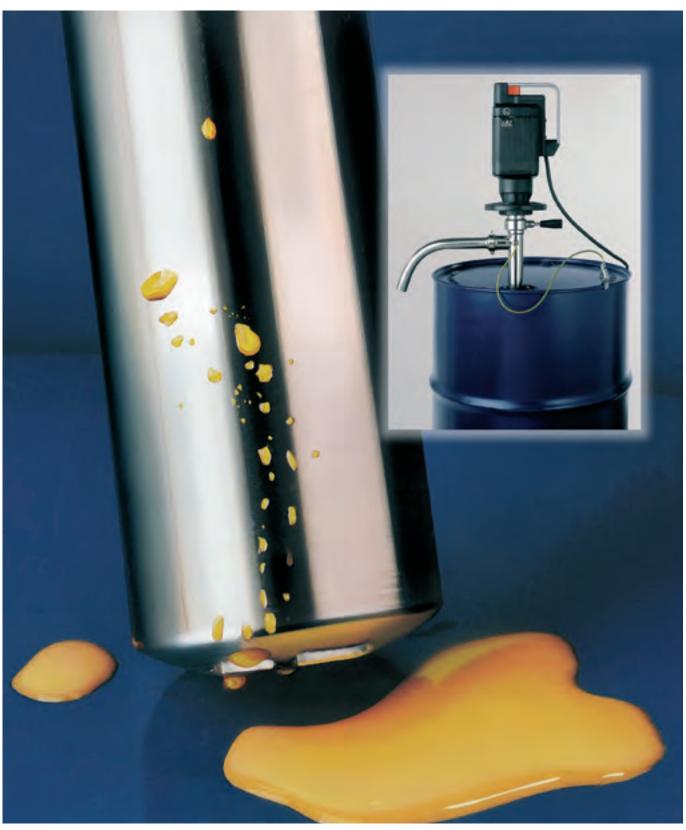
**Please note:** With a suitable threaded connection the pump tube also can be used for pumping hazardous substances for fire control and civil protection.





## **Lutz Pump Tubes RE for complete drum drainage**

In stainless steel and polypropylene



Pump tube RE: Environmentally friendly and cost-efficient. The first pump tube for complete drainage worldwide.





## Competitive edge instead of drawback

#### Experts, never tired of work:

Lutz pump tubes RE in stainless steel and polypropylene. They do not only protect the environment, but 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 convince with their simple 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 I.

Residues less than 0.10 I

### **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 their strengths in the field of aggressive, neutral, easily flammable and non flammable 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.

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 explosion proof motor with Atex certification must be used for pumping easily flammable liquids. Please refer to pages 36-37.

### **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-flammable liquids. It demonstrates its power even when handling acids and alkalis.















MI 4/MI 4-E

#### Lightweight but dependable

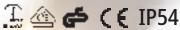
The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-flammable liquids.











**MAII** 

These motors aren't taken back easily. The ME II explosion proof universal motors are the nostrum for pumping a large variety of thin-bodied, easily flammable and combustible liquids.









**MEII** 

#### **Small Motor - Great Effect**

MDxL compressed air motors are available in two versions: MD1xL ideal for stationary operation, MD2xL infinitely variable speed with conventient grip as standard equipment. The motors can also be used to pump easy flammable liquids and comply with the Atex guidelines.





MD1xL

MD2xL





MD1xL/MD2xL compressed air motors

Tip

For detailed information on the motors please refer to pages 34-37.

#### 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 pertect 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.



**(€** IP 54/IP 55

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

### Pump tube RE-PP (polypropylene) for complete drum drainage of corrosive and neutral liquids

uctdetail	Pump tu	be					RE-PP GLRD
×	Type of im	peller:					Impeller
100		/ 2 (acc. to ATE	X)				no
W-		tube diamet			up to mm		41
-		re of mediun			up to °C		50
	Material:				Pump tube		PP
					Impeller		PP
	Hose conn	ection:			Nominal diam	neter mm	19-32
					Outer thread		G 1 1/4
	Length: 7	00 mm*	shaft SS		Order No.		0103-020
	Length: 10	100 mm*	shaft SS		Order No.		0103-021
	Length: 12	.00 mm*	shaft SS		Order No.		0103-022
	Length: 7	00 mm*	shaft HC		Order No.		0103-040
	Length: 10		shaft HC		Order No.		0103-041
	Length: 12	.00 mm*	shaft HC		Order No.		0103-042
	Choice o	f motors	NAT 4 F		Operating Characteristic		C00
	***************************************	MI 4	MI 4-E		Characteristic Flow rate		600 70
100			with speed		LIOM LUIG	up to I/min.	/ U
			controller		Delivery head	un to m wc	
	Output:	500 W	controller 500 W		Delivery head Viscosity		12
	Output: Voltage:	500 W 230 V	controller 500 W 230 V		Delivery head Viscosity Density:	up to m wc up to mPas up to kg/dm³	
	Voltage:		500 W 230 V		Viscosity	up to mPas	12 1000
	Voltage:	230 V	500 W 230 V		Viscosity Density:	up to mPas up to kg/dm³ Motor + pump tube	12 1000 1.6
	Voltage: Order No. Output:	230 V <b>0030-000</b> <b>MA II 3</b> 460 W	500 W 230 V <b>0030-001</b> 460 W		Viscosity Density: Weight (kg) Characteristic Flow rate	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to l/min.	12 1000 1.6 4.0 601 60
	Voltage: Order No. Output: Voltage:	230 V <b>0030-000</b> <b>MA II 3</b> 460 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V		Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head	up to mPas up to kg/dm³ Motor + pump tube CUrve no. up to I/min. up to m wc	12 1000 1.6 4.0 601 60 11
	Voltage: Order No. Output:	230 V <b>0030-000</b> <b>MA II 3</b> 460 W	500 W 230 V <b>0030-001</b> 460 W		Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to I/min. up to m wc up to mPas	12 1000 1.6 4.0 601 60 11 800
	Voltage: Order No.  Output: Voltage: LVR.:	230 V <b>0030-000</b> <b>MA II 3</b> 460 W 230 V no	500 W 230 V <b>0030-001</b> 460 W 230 V yes		Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density:	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	12 1000 1.6 4.0 601 60 11 800 1.7
	Voltage: Order No.  Output: Voltage: LVR.:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b>		Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube	12 1000 1.6 4.0 601 60 11 800 1.7 5.8
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b>	MA II 5 S	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic	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.	12 1000 1.6 4.0 601 60 11 800 1.7 5.8
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5 575 W	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W	575 W	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate	up to mPas up to kg/dm³ Motor + pump tube  CURVE NO. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CURVE NO. up to l/min.	12 1000 1.6 4.0 601 60 11 800 1.7 5.8
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5 575 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W 230 V	575 W 230 V	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5 575 W	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W	575 W	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate	up to mPas up to kg/dm³ Motor + pump tube  CURVE NO. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CURVE NO. up to l/min.	12 1000 1.6 4.0 601 60 11 800 1.7 5.8
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5 575 W 230 V no	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W 230 V	575 W 230 V no	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density:	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to m wc up to m wc up to m wc up to mPas	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200
	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:	230 V 0030-000 MA II 3 460 W 230 V no 0060-000 MA II 5 575 W 230 V no	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W 230 V yes	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density:	up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to m wc up to mPas up to kg/dm³ Motor + pump tube	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0
transplace (UTV)	Voltage: Order No.  Output: Voltage: LVR.: Order No.  Output: Voltage: LVR.: Order No.  Output: Order No.	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUrve no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrve no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrve no. up to l/min. up to mPas up to kg/dm³ CUrve no. up to l/min.	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6
ts the pump from	Voltage: Order No.  Output: Voltage: LVR.: Order No.  Output: Voltage: LVR.: Order No.  Output: Voltage: LVR.:	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008 MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W 230 V	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ CUIVE NO. up to I/min. up to myc up to I/min. up to I/min. up to I/min. up to I/min. up to m wc	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6
its the pump from g up again without	Voltage: Order No.  Output: Voltage: LVR.: Order No.  Output: Voltage: LVR.: Order No.  Output: Order No.	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to Mg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas	12 1000 1.6 4.0 601 600 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6
ts the pump from g up again without g after a power failure. commended when	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008 MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W 230 V	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ CUIVE NO. up to I/min. up to m wc	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6
ts the pump from g up again without g after a power failure. ommended when	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008 MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W 230 V yes	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUIVE NO. up to I/min. up to m wc up to Mas up to kg/dm³ Motor + pump tube	12 1000 1.6 4.0 601 600 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6 603 69 15 1000 2.0 7.8
oltage release (LVR.); ts the pump from g up again without ig after a power failure. commended when ing hazardous liquids.	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002  MD1xL	500 W 230 V 0030-001 460 W 230 V yes 0060-008 MA II 5 575 W 230 V yes 0060-009 795 W 230 V yes	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic	up to mPas up to kg/dm³ Motor + pump tube  Curve no. up to l/min. up to mPas up to kg/dm³ Motor + pump tube  Curve no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  Curve no. up to l/min. up to m vc up to mPas up to kg/dm³ Motor + pump tube  Curve no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  Curve no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  Curve no.	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6 603 69 15 1000 2.0 7.8
is the pump from I up again without Ig after a power failure. Iommended when	Voltage: Order No.  Output: Voltage: LVR.: Order No.	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008 MA II 5</b> 575 W 230 V yes <b>0060-009</b> 795 W 230 V yes	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³	12 1000 1.6 4.0 601 600 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6 603 69 15 1000 2.0 7.8
s the pump from up again without g after a power failure. ommended when	Voltage: Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.  Output: Voltage: LVR.:  Order No.	230 V 0030-000  MA II 3 460 W 230 V no  0060-000  MA II 5 575 W 230 V no  0060-001  MA II 7 795 W 230 V no  0060-002  MD1xL 1000 W	500 W 230 V 0030-001 460 W 230 V yes 0060-008 MA II 5 575 W 230 V yes 0060-009 795 W 230 V yes	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. up to mPas up to kg/dm³	12 1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6 603 69 15 1000 2.0 7.8

Weight (kg)

Motor + pump tube

0004-735

Order No. **0004-725** 

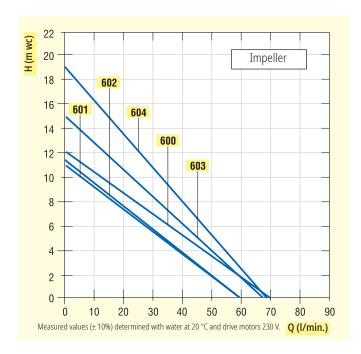
2.6

## **Pump Tube RE-PP (polypropylene)**

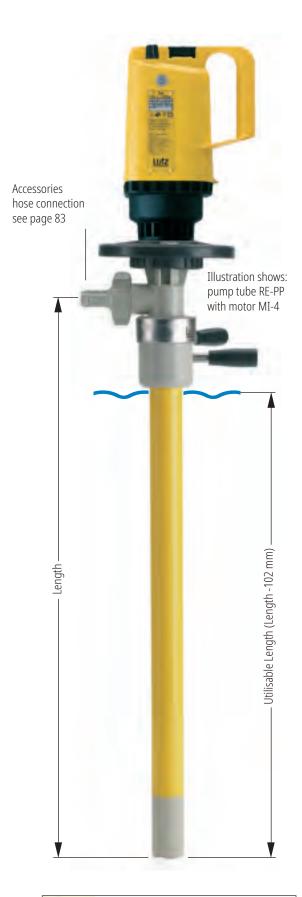
for complete drum drainage of corrosive and neutral liquids

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

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









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

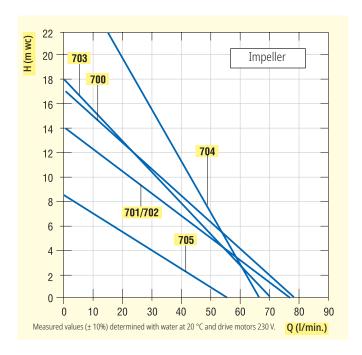
Productdetail	Pump tu	be					RE-SS GLRD
2	Type of im	peller:					Impeller
- CID	Category 1	/ 2 (acc. to ATE	EX)				yes
100	,	tube diamet			up to mm		41
		re of mediur			up to "C		100
		ie oi illeului	11.				
	Material:				Pump tube		1.4571
					Impeller		ETFE
	Hose conn	ection:			Nominal diam	eter mm	19-32
					Outer thread		G 1 1/4
	Length: 7	00 mm*			Order No.		0151-156
	Length: 10	00 mm*			Order No.		0151-157
	Length: 12	00 mm*			Order No.		0151-158
1			imension C in the	e dimension table.	Special lengths 400–		
	Choice o	f motors			<b>Operating</b>	d <mark>ata</mark>	
		MI 4	MI 4-E		Characteristic	curve no.	700
		-	with speed		Flow rate	up to I/min.	78
			controller		Delivery head		17
1000	Output:	500 W	500 W		Viscosity	up to mPas	700
	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
650		MA II 3			Characteristic	curve no.	701
	Output:	460 W	460 W		Flow rate	up to I/min.	77
	Voltage:	230 V	230 V		Delivery head		14
	LVR.:	no	yes		Viscosity	up to mPas	500
A			,		Density:	up to kg/dm <sup>3</sup>	1.6
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	
		MA II 5	MA II 5	MA II 5 S	Characteristic	curve no.	702
	Output:	575 W	575 W	575 W	Flow rate	up to I/min.	77
	Voltage:	230 V	230 V	230 V	Delivery head		14
	LVR.:	no	yes	no	Viscosity	up to m we	900
	LVI\	110	yes	acid proof	Density:	up to mr as	1.8
	Order No	0060-001	0060-009	0060-091	Weight (kg)	Motor + pump tube	
		MA II 7			3 ( 3/		703
	0 1 1		705 144		Characteristic		
ow-voltage release (LVR.):	Output:	795 W	795 W		Flow rate	up to I/min.	70
revents the pump from	Voltage:	230 V	230 V		Delivery head		18
arting up again without arning after a power failure.	LVR.:	no	yes		Viscosity	up to mPas	700
is recommended when umping hazardous liquids.	Order No.	0060-002	0060-010		Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.9 9.8
		MD1xL	MD2xL				
-	Output				Characteristic		704 67
	Output:	1000 W	1000 W		Flow rate	up to I/min.	
	Operating				Delivery head	up to m wc	28
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000
<b>3</b>			infinitely va	ried	Density:	up to kg/dm³	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	4.6
		B4/GT			Characteristic	curve no	705
A STATE OF THE PARTY OF THE PAR	Output:	750 W	750 W		Flow rate	up to I/min.	55
	Voltage:	230/400 V	230/400 V		Delivery head	•	8.5
	Protection	230/400 V	230/400 V		-	up to m wc up to mPas	8.5 600
	switch	no	VAC		Viscosity Density:	up to meas up to kg/dm <sup>3</sup>	2.2
חבים			yes				
4/1757	urger No.	0004-050	0004-052		Weight (kg)	Motor + pump tube	15.0

## **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
Sealing pot:	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)

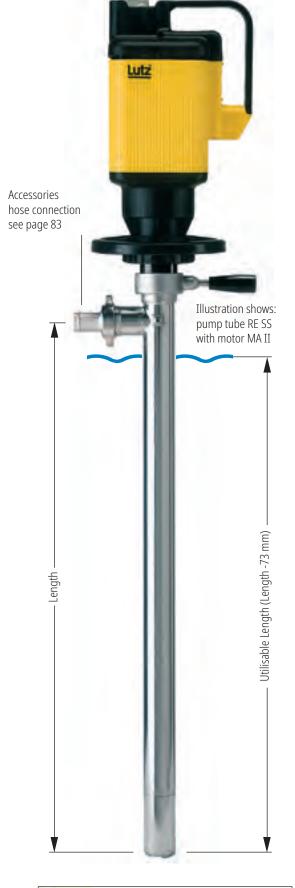


### Complete drum drainage

Nearly completely drained. **Residual quantity < 0.10 litres.** 



Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)





Suitable range of accessories see pages 80-96

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

Productdetail	Pump tube		RE-SS GLRD
- 2	Type of impeller:		Impeller
- (1)	Category 1 / 2 (acc. to ATEX)		yes
100	Immersion tube diameter:	up to mm	41
	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: 700 mm*	Order No.	0151-156
	Length: 1000 mm*	Order No.	0151-157
	Length: 1200 mm*	Order No.	0151-158
	*The lenght complies approx. to dimension C in the dimension	on table. Special lengths 400–2000 mm on request	

	Choice o	f motors		Operating data	
	Output: Voltage: LVR.: Order No.	ME II 3 460 W 230 V yes 0050-000	460 W 230 V no	Characteristic curve no. 750  Flow rate up to I/min. 77  Delivery head up to m wc 14  Viscosity up to mPas 500  Density: up to kg/dm³ 1.6  Weight (kg) Motor + pump tube 9.0	
ALEX	Output: Voltage: LVR.: Order No.	ME II 5 580 W 230 V yes 0050-001	580 W 230 V no <b>0050-017</b>	Characteristic curve no.       751         Flow rate       up to I/min.       77         Delivery head up to m wc       14         Viscosity       up to mPas       900         Density:       up to kg/dm³       1.8         Weight (kg)       Motor + pump tube       9.9	
	Output: Voltage: LVR.:	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no	Characteristic curve no. 752  Flow rate up to I/min. 70  Delivery head up to m wc 18  Viscosity up to mPas 700  Density: up to kg/dm³ 1.9  Weight (kg) Motor + pump tube 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 <b>0050-041</b>	Characteristic curve no.       753         Flow rate       up to I/min.       78         Delivery head up to m wc       22         Viscosity       up to mPas       950         Density:       up to kg/dm³       1.9         Weight (kg)       Motor + pump tube       11.1	
AKEX	Output: Operating pressure: Order No.	MD1xL 1000 W 6 bar 0004-725	MD2xL 1000 W 6 bar infinitely varied 0004-735	Characteristic curve no.       754         Flow rate       up to I/min.       67         Delivery head up to m wc       28         Viscosity       up to mPas       1000         Density:       up to kg/dm³       2.8         Weight (kg)       Motor + pump tube       4.6	

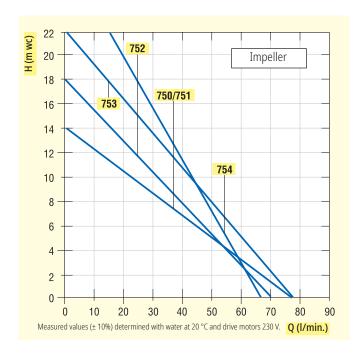
The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

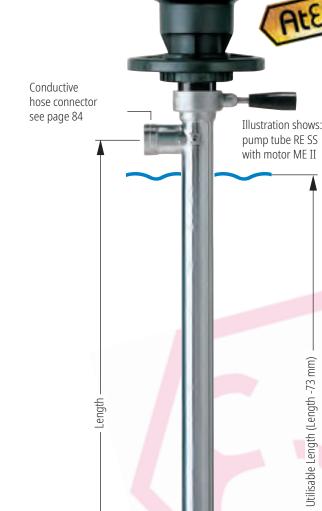
## **Pump Tube RE-SS (stainless steel)**

### for complete drum drainage of highly flammable 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
Sealing pot:	ETFE/Stainless steel (1.4571)	ETFE/Stainless steel (1.4571)
Seals:	FEP coated	FPM
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)

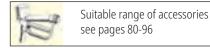




The right pump for "hot applications".



Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)



Utilisable Length (Length -73 mm)

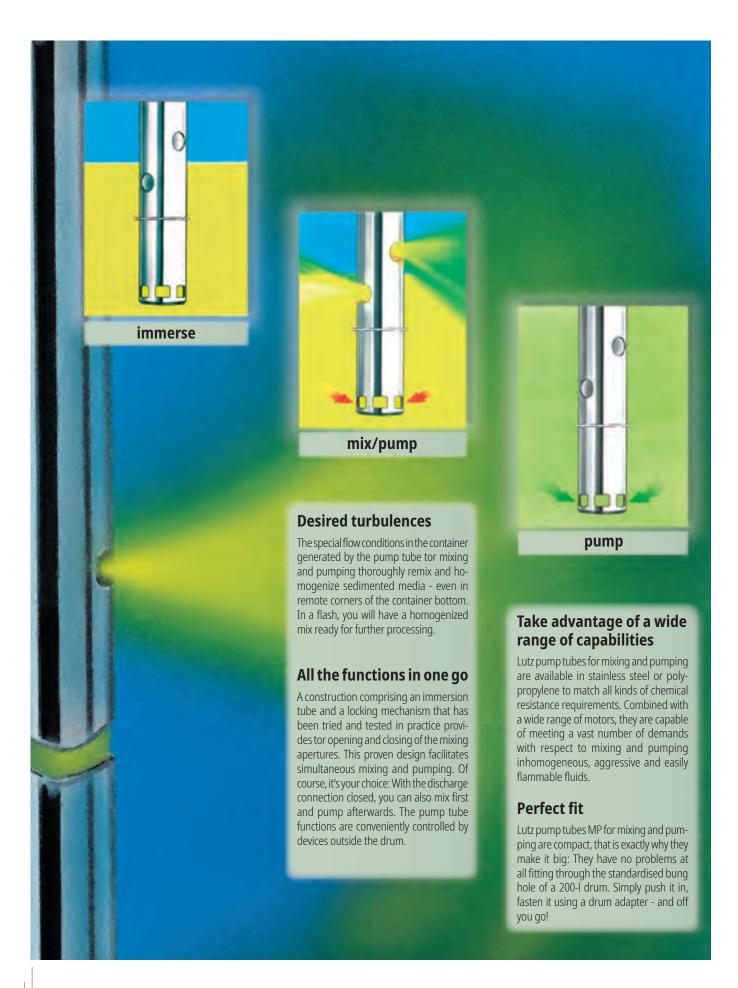
## **Pump Tubes MP for mixing and pumping**

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 thinbodied 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 flammable 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.



### **Important**

A stainless steel pump tube and an explosion proof motor with Atex certification must be used for pumping easily flammable liquids. Please refer to pages 36-37.

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.

### **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-flammable liquids. It demonstrates its power even when handling acids and alkalis.















MI 4/MI 4-E

#### Lightweight but dependable

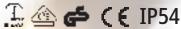
The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-flammable liquids.











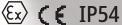
**MAII** 

### Safety first

These motors aren't taken back easily. The ME II explosion proof universal motors are the nostrum for pumping a large variety of thin-bodied, easily flammable and combustible liquids.









**MEII** 

#### **Small Motor - Great Effect**

MDxL compressed air motors are available in two versions: MD1xL ideal for stationary operation, MD2xL infinitely variable speed with conventient grip as standard equipment. The motors can also be used to pump easy flammable liquids and comply with the Atex guidelines.





MD2xL





MD1xL/MD2xL compressed air motors

Tip

For detailed information on the motors please refer to pages 34-37.

#### 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 pertect 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.



**(€** 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	Pump tube			MP-I	PP-SL	MP-P	P-MS
v.	Type of impeller:	Impeller	Rotor	Impeller	Rotor		
	Category 1 / 2 (acc. to ATEX)				no	no	no
-	Immersion tube diamet	er:	up to mm	50	50	50	50
	Temperature of mediun	n:	up to °C	50	50	50	50
	Material:		Pump tube	PP	PP	PP	PP
			Impeller/Rotor	PP	PP	PP	PP
	Hose connection:		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: 1000 mm**	shaft SS	Order No.	0110-350	*	0103-350	*
•	Length: 1200 mm**	shaft SS	Order No.	*	0110-360	*	*
	Length: 1000 mm**	shaft HC	Order No.	0110-355	*	*	*
	Length: 1200 mm**	shaft HC	Order No.	*	0110-365	*	*
X	* available on request **The lenght complies approx. to	dimension C in the dimens	ion table. Special lengths 400–2000 mm on requ	uest			

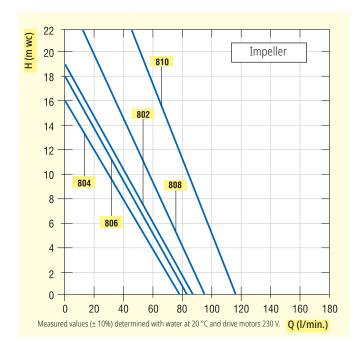
	Choice of motors									
	Choice o	t motors			<b>Operating</b>	data				
		MI 4	MI 4-E		Characteristic	curve no.	802 87	801 160	802 87	801 160
			with speed controller		Delivery head		19	8.5	19	8.5
	Output:	500 W	500 W		Viscosity	up to mPas	500	150	500	150
	Voltage:	230 V	230 V		Density:	up to kg/dm³	1.4	1.1	1.4	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	4.1	4.1	4.1	4.1
ECO		MA II 3			Characteristic	curve no.	804	803	804	803
	Output:	460 W	460 W		Flow rate	up to I/min.	78	155	78	155
1	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	160	500	160
					Density:	up to kg/dm³	1.6	1.2	1.6	1.2
	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	MA II 5 S	Characteristic	curve no.	806	805	806	805
	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
				acid proof	Density:	up to kg/dm³	1.8	1.3	1.8	1.3
	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	curve no.	808	807	808	807
	Output:	795 W	795 W		Flow rate	up to I/min.	95	170	95	170
Low-voltage release (LVR.): Prevents the pump from	Voltage:	230 V	230 V		Delivery head	up to m wc	25	12	25	12
starting up again without	LVR.:	no	yes		Viscosity	up to mPas	800	350	800	350
warning after a power failure. It is recommended when					Density:	up to kg/dm <sup>3</sup>	1.9	1.4	1.9	1.4
pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	7.9	7.9	7.9	7.9
-		MD1xL	MD2xL		Characteristic	curve no.	810	809	810	809
	Output:	1000 W	1000 W		Flow rate	up to I/min.	116	216	116	216
	Operating				Delivery head	up to m wc	36	16	36	16
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
			infinitely vai	ried	Density:	up to kg/dm³	2.8	2.8	2.8	2.8
-	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	2.7	2.7	2.7	2.7
					5 . 5,					

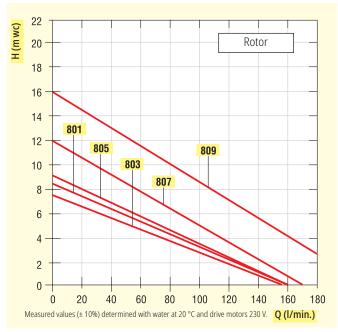
## Pump Tube MP-PP (polypropylene)

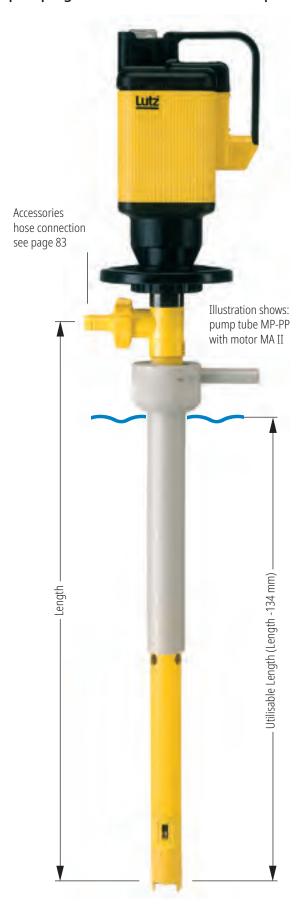
### for mixing and pumping of corrosive and neutral liquids

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

Version:	SL	MS
Housing:	PP/PVDF	PP/PVDF
Impeller/Rotor:	PP	PP
Seals:	none	FPM
Mechanical seals:	none	Carbon, SiC, FPM, 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)









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

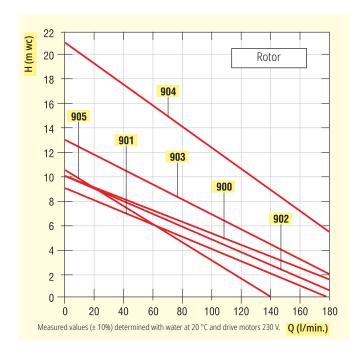
Productdetail	Pump tu	be					MP-SS GLRD
V	Type of im	peller:					Rotor
	Category 1	/ 2 (acc. to ATE	EX)				yes
	Immersion tube diameter:				up to mm		41
- 11		re of mediur			up to °C		100
	Material:	re or meanar			Pump tube		1.4571
	Material.				Rotor		ETFE
	Hose conn	oction:			Nominal diam	otor mm	19-32
	HOSE COIIII	ection.			Outer thread	eter min	G 1 1/4
III .	Length: 1000 mm*						
					Order No.		0151-240
- 1	Length: 12			P	Order No. Special lengths 600–	2500	0151-255
M	Choice o	f motors			Operating	data	
							000
		MI 4	MI 4-E		Characteristic		900
1		-	with speed		Flow rate	up to I/min.	210
	0. 1	E00.144	controller		Delivery head		10
THE REAL PROPERTY.	Output:	500 W	500 W		Viscosity	up to mPas	350
1001	Voltage:	230 V	230 V		Density:	up to kg/dm <sup>3</sup>	1.1
	Order No.	0030-000	0030-001		Weight (kg)	Motor + pump tube	6.0
-		MA II 3			Characteristic	curve no.	901
	Output:	460 W	460 W		Flow rate	up to I/min.	178
	Voltage:	230 V	230 V		Delivery head	up to m wc	9
	LVR.:	no	yes		Viscosity	up to mPas	200
					Density:	up to kg/dm³	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	7.8
		MA II 5	MA II 5	MA II 5 S	Characteristic	curve no.	902
	Output:	575 W	575 W	575 W	Flow rate	up to I/min.	190
	Voltage:	230 V	230 V	230 V	Delivery head		10
	LVR.:	no	yes	no	Viscosity	up to mPas	550
	211111		, 03		,	up to kg/dm <sup>3</sup>	1.3
	Order No.	0060-001	0060-009		Weight (kg)	Motor + pump tube	
		MA II 7			Characteristic	CURIO DO	002
	Outro et		70E W		Characteristic		903
ow-voltage release (LVR.):	Output: Voltage:	795 W 230 V	795 W 230 V		Flow rate Delivery head	up to I/min.	210 13
Prevents the pump from	LVR.:	230 V no			Viscosity	up to m wc	400
starting up again without varning after a power failure.	LVI\	110	yes		Density:	up to fileas up to kg/dm <sup>3</sup>	1.4
t is recommended when pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	
ramping nazaruous liquius.	2.2. 1.3.						
- Que		MD1xL	MD2xL		Characteristic		904
	Output:	1000 W	1000 W		Flow rate	up to I/min.	245
	Operating				Delivery head	up to m wc	21
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000
			infinitely va	ried	Density:	up to kg/dm³	2.8
-	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	
						CUDIO 22	
	0	B4/GT	750.11		Characteristic		905
	Output:	750 W	750 W		Flow rate	up to I/min.	140
	Voltage:	230/400 V	230/400 V		Delivery head		10.5
	Protection	10.0	1400		Viscosity	up to mPas	400
	switch	no	yes		Density:	up to kg/dm <sup>3</sup>	2.0
	Order No.	0004-050	0004-052		Weight (kg)	Motor + pump tube	15.0

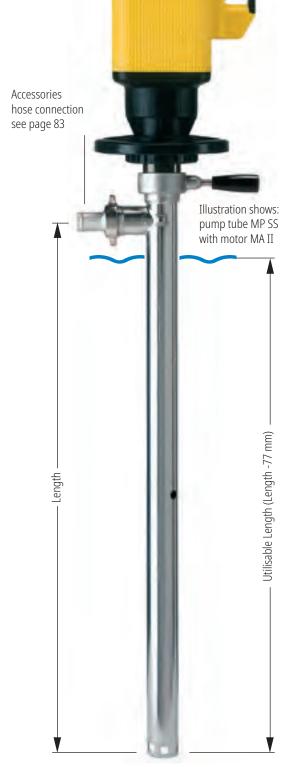
## **Pump Tube MP-SS (stainless steel)**

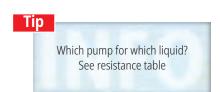
### for mixing and pumping of corrosive and neutral liquids

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

Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	ETFE	ETFE
Seals:	FPM (FEP coated)	FPM
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)









Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)



Suitable range of accessories see pages 80-96

# (x3)

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

Productdetail	Pump tube		MP-SS GLRD
V	Type of impeller:	Rotor	
	Category 1 / 2 (acc. to ATEX)	yes	
100	Immersion tube diameter:	up to mm	41
	Temperature of medium:	up to °C	100
	Material:	Pump tube	1.4571
		Rotor	ETFE
	Hose connection:	Nominal diameter mm	19-32
		Outer thread	G 1 1/4
	Length: 1000 mm*	Order No.	0151-240
	Length: 1225 mm* Order No.		0151-255
	*The lenght complies approx. to dimension C in the dimension tab	e. Special lengths 600–2500 mm on request	

	Choice o	f motors		Operating data		
	Output: Voltage: LVR.: Order No.	ME II 3 460 W 230 V yes 0050-000	460 W 230 V no <b>0050-016</b>	Characteristic curve of Flow rate up to I/Delivery head up to move the Constitution of	/min. 178 m wc 9 mPas 200	
AREX	Output: Voltage: LVR.: Order No.	ME II 5 580 W 230 V yes 0050-001	580 W 230 V no <b>0050-017</b>	Characteristic curve of Flow rate up to I/Delivery head up to move the Viscosity up to move the Density: up to keep the Viscosity weight (kg) Motor +	/min. 190 m wc 10 mPas 550	
	Output: Voltage: LVR.: Order No.	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no <b>0050-018</b>	Characteristic curve of Flow rate up to I/Delivery head up to moving to see the consisty up to move the consisty: up to kee the consisty: up to kee the consisty up to kee the consisty when the consist of the consist	/min. 210 m wc 13 mPas 400	
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 <b>0050-041</b>	Characteristic curve of Flow rate up to I/Delivery head up to move the Viscosity up to move the Density: up to kg Weight (kg) Motor +	/min. 216 n wc 14.5 nPas 650	
ALEX	Output: Operating pressure: Order No.	MD1xL 1000 W 6 bar 0004-725	MD2xL 1000 W 6 bar infinitely varied 0004-735	Characteristic curve of Flow rate up to I/O Delivery head up to move the Viscosity up to move the Density: up to kg Weight (kg) Motor +	/min. 245 n wc 21 nPas 1000	

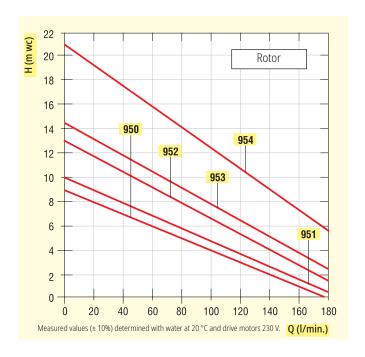
The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

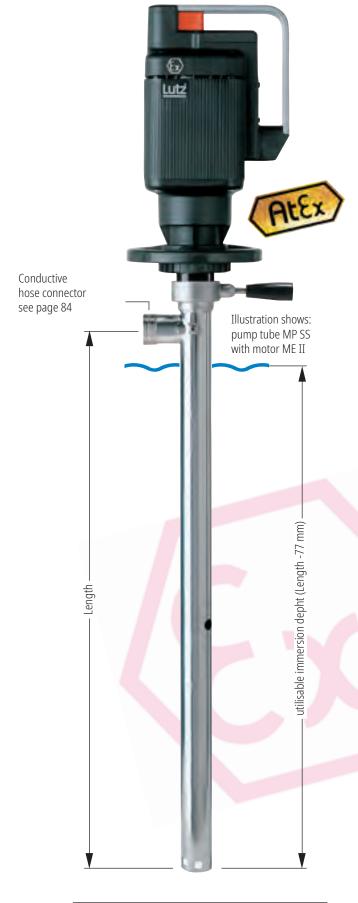
## **Pump Tube MP-SS (stainless steel)**

### for mixing and pumping of highly flammable liquids

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

Version:	MS	MS PURE
Housing:	Stainless steel (1.4571)	Stainless steel (1.4571)
Rotor:	ETFE	ETFE
Seals:	FPM (FEP coated)	FPM
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)







Pump tube also available in PURE version with Tri-Clamp connection. You will find more information in our leaflet: Certified solutions for the food, pharmaceutical and cosmetics Industry (Order-No. 0699-315)



Container Pump B50



Saves time when emptying containers

# **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 wetset-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 B50 can be adapted to all common IBC containers via the quick-change system of the container caps.

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.

# 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.

### **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.

- ✓ 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
- ✓ Driven by a powerful capacitor start motor (230 V, 50 Hz, with a 5 m connecting cable and pluq)
- Quick-change system for container caps for nominal sizes DN 150 and DN 225.



## **Lutz Drum and Container Pumps**

### **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.

Product detail	Containe	r pump			B50 PP/HC	B50 PP/SS
*	Category 1	/ 2 (acc. to ATEX)			no	no
- 3	Immersion t	tube diameter:		up to mm	100	100
	Temperature	e of medium:		up to °C	40	40
	Material:			Pump tube	PP	PP
				Impeller/diffuser material	PPO / PPE	PPO / PPE
				Drive shaft	Hastelloy C (2.4610)	Stainless steel (1.4571)
()	Nominal dia	meter container			DN 150	DN 150
	Outrun piec	e:			G 1 1/2 Outer thread	G 1 1/2 Outer thread
	Length: 110	00 mm		Order No.	0180-001	0180-501
			on C in the dimension ta		0200	244
100		PE/PP, DN 150 (	·	Order No.		3-311
	Screw cover	PE/PP, DN 225 (	optional)	Order No.	0208	3-312
	<b>Choice of</b>	motors		Operating data		
	Single pha	se motor				
	Output: Density:	0.55 KW up to 1.3 kg/dm <sup>3</sup> 2800 1/min.	0.75 KW <sup>3</sup> up to 1.8 kg/dm <sup>3</sup> 2700 1/min. IP 54	Flow rate up to I/min. Delivery head up to m wc Viscosity up to mPas Weight (kg) Motor + pump tube)	200 22 100 10.5 up to 13.5	200 22 100 10.5 up to 13.5
	Order No.	0180-030	0180-031			

The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower and depends on the individual application, the media properties and the configuration of the pump. The max. delivery head is also dependent on the pump design, motor and medium. Viscosity determined with oil.

# **Container Pump B50**

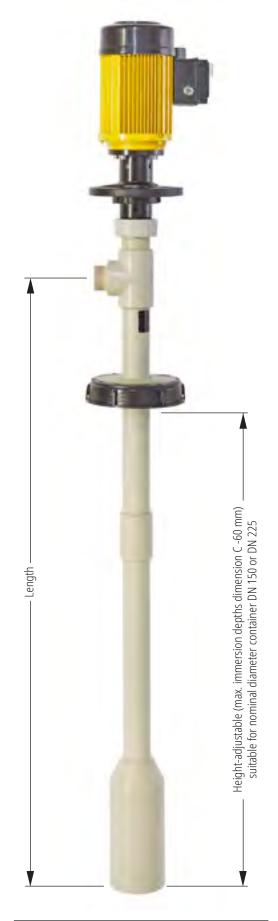
## for bulk transfer of chemicals

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

Version:	B50 PP/HC	B50 PP/SS
Pump tube:	Polypropylen (PP)	Polypropylen (PP)
Impeller/diffuser material	PPO / PPE	PPO / PPE
Mechanical seals:	Carbon / SiC / HC	Carbon / SiC / HC
Secondary seal:	FPM (EPDM)	FPM (EPDM)
Drive shaft:	Hastelloy C (2.4610)	Stainless steel (1.4571)
Container cap:	PE/PP	PE/PP



The quick-change system of the container caps makes it possible to adapt the B50 pump to the nominal diameter of the IBC container in just a few simple steps and then securely fix it there.



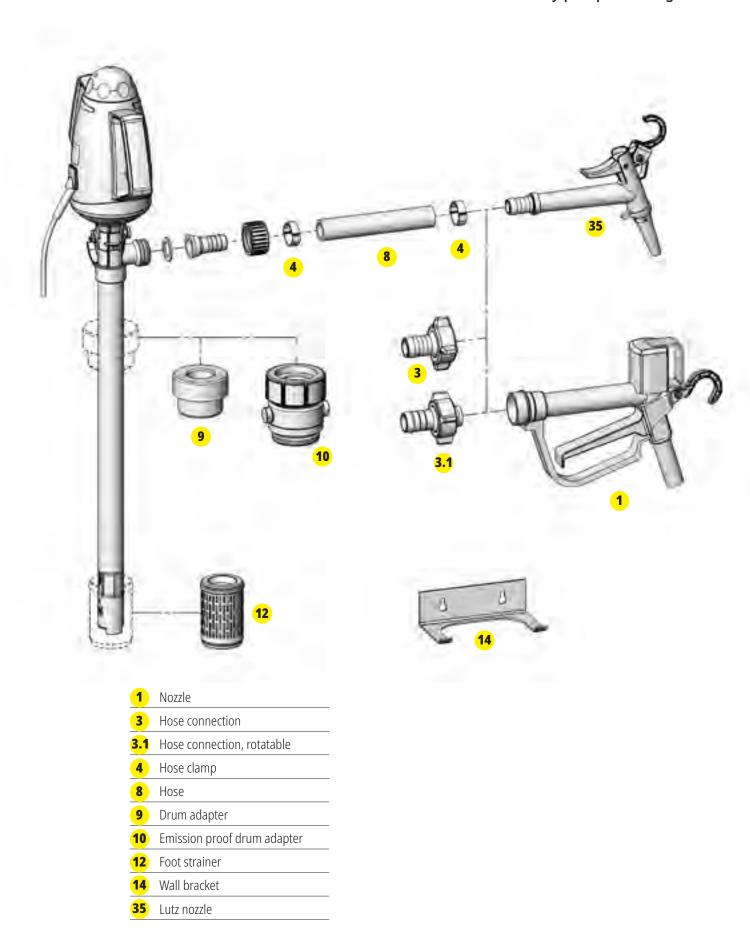


# **Accessories Lutz Drum and Container Pumps**

"Getting started"



Accessories for drum and laboratory pump B 2 at a glance



## for drum and laboratory pump B1/B2 Battery and 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
0	Hose fitting for pump tube PP  Comprises of: Lutz nozzle, 1.5 m PVC hose 3/4", hose connector with wing nut, hose clamps  For pump tube B1/B2 Battery PP	0201-551
5	Hose fitting for pump tube PVDF  Comprises of: Nozzle PVDF, 1.5 m special chemical hose 3/4", hose connector with wing nut, hose clamps  For pump tube B1/B2 Battery PVDF	0201-554
	Hose fitting for pump tube SS  Comprises of: Nozzle SS/FEP, 1.5 m universal chemical hose 3/4", hose connector with wing nut, hose clamps  For pump tube B1/B2 Battery stainless steel	0201-556
	Flow rate:  Temperature of medium:  Temperature of med	0201-215
Q	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

### for drum and laboratory pump B1/B2 Battery and Lutz B2 Vario

**Specification** Order-No. Productdetail

9 Drum adapter PP

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	0204-328
ø 32 mm	PP-SL 32	ø 56.7 mm	0208-009
ø 28 mm	SS-SL 28	ø 56.7 mm	0208-010
ø 32 mm	PP-SL 32	BCS 70 x 6	0208-027
ø 32 mm	PP-SL 32	BCS 56 x 4	0208-051
ø 28 mm	SS-SL 28	BCS 56 x 4	0208-050
ø 28 mm	SS-SL 28	BCS 70 x 6	0208-053



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: FPM

Material: For pump type:

P PP-SL 32 **0204-251** 



12 Foot strainer

Made of PP for mounting onto the pump foot. Keeps impurities away

from the rotating parts.

Material: For pump tube: PP Ø 32 mm

0204-539



14 Wall bracket

For storage of drum and laboratory pump Lutz B2 Vario.

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

For pump Lutz B2 Vario 0102-079



Electronical flow meter, TR series

For efficient flow rate measuring of various liquids. Ease of handling, compact design, available in polypropylene (PP)

or polyvinylidenefluoride (PVDF).

TR3-PP Connection G1 **0213-051**TR3-PVDF Connection G1 **0213-061** 

For more details see separate flow meter leaflet.



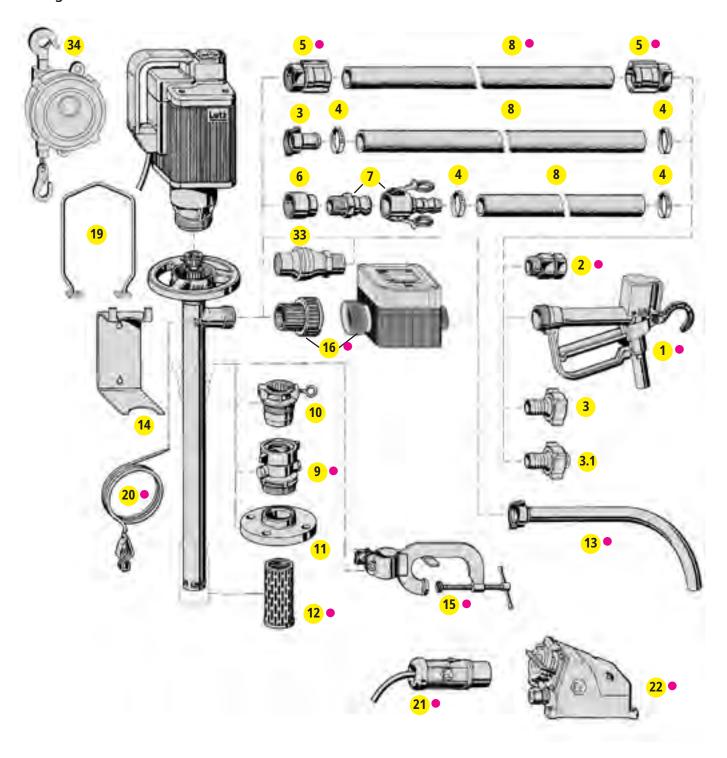
#### Trolley for steel and plastic drums

Suitable for 200-litre drum, with 2 swivel castors and 2 fixed castors made of painted tubular steel frame, with holder for pozzla, bose and cable

with holder for nozzle, hose and cable **0371-030** 



## 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
10	Drum adapter
11	Installation flange
<b>12</b> •	Foot strainer
<b>13</b> •	Discharge spout
14	Wall bracket
<b>15</b> •	Clamping device

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

Suitable for transferring combustible and easy flammable 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, suspension hook 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 Viscosity: max. 760 mPas Flow rate: max. 50 l/min. (Water)

Temperature of medium: max. 50 °C
Weight: approx. 0.25 kg
Connection: outer thread G 1 1/4

Seal: FPM (FPM) **0204-380** 

 EPDM
 0204-385

 FEP/FPM
 0204-387



### 1 PVDF nozzle

For filling and transferring neutral and aggressive liquids.

With hoop guard, suspension hook and two outlet spouts ø 23 mm (cylindrical) and ø 12 mm (conical). Polyvinylidenfluoride (PVDF) housing and valve tappet. FPM (FPM) seals.

Additional costs for seals FFPM or FEP/FPM 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

0204-390



#### 1 Stainless steel nozzle

Seal:

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

Stainless steel (1.4571) housing and valve tappet.

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

Nozzle in PURE-version available.

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

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

FPM (FPM) **0204-370 ●** FEP/FPM **0204-377 ●** 





### Nozzles, check valves

#### Productdetail

#### **Specification**

Order-No.



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
Flow rate: max. 80 l/min. (Water)
Temperature of medium: max. 80 °C

Weight: approx. 0.6 kg
Connection: outer thread G 1 1/4

0372-502



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



1 Automatic aluminium nozzle

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

Operating pressure: min. 0.5 up to 4 bar
Viscosity: max. 7 mPas
Flow rate: max. 80 l/min. (Water)

Temperature of medium: max. 60 °C
Weight: approx. 1.1 kg
Connection: outer thread G 1

Seal: PTFE **0372-245** •



2 Rotating joint

Rotating connection between hose connector and nozzle.

FEP/FPM seals.

Material: Nominal diameter:

Brass inner thread G 1/outer thread G 1
Stainless steel inner thread G 1/outer thread G 1
Stainless steel outer thread G 1/outer thread G 1
Stainless steel outer thread G 1/outer thread G 1



33 Check valve

Prevents backflow of the liquid at downtime of the pump.

Material: Nominal diameter: Operating pressure: Stainless steel 1.4301 inner thread G 1 1/4 max. 16 bar

 Stainless steel 1.4301
 inner thread G 1 1/4
 max. 16 bar
 0372-017

 Stainless steel 1.4401
 inner thread G 1 1/4, seal PTFE
 max. 16 bar
 0372-050

 Stainless steel 1.4401
 inner thread G 1 1/4/outer thread G 1 1/4 max. 16 bar
 0204-516

seal PTFE (preferred for horizontal fitting)

PVC inner thread G 1 1/4/outer thread G 1 1/4 max. 6 bar **0204-517** 

seal EPDM (preferred for horizontal fitting)

## Hose connections

<b>Specification</b>			Order-No.	Productdet
Hose connection Hose connector with wi to the pump tube or no	ng nut for connecting the zzle.	e hoses		
Connection: inner threa Material: PP	Nominal diameter: DN 13 (1/2")		0204-409	
PP PP PP PP grey	DN 19 (3/4") DN 25 (1") DN 32 (1 1/4") DN 19 (3/4")		0204-410 0204-411 0204-412 0204-419	
PVDF PVDF PVDF	DN 19 (3/4") DN 25 (1") DN 32 (1 1/4")		0204-421 0204-422 0204-423	
Alu Alu Alu	DN 19 (3/4") DN 25 (1") DN 32 (1 1/4")		0204-403 0204-404 0204-405	
Stainless steel Stainless steel Stainless steel	DN 19 (3/4") DN 25 (1") DN 32 (1 1/4")		0204-400 0204-401 0204-402	
НС	DN 25 (1")		0204-407	
Connection: outer threa Material: Brass Brass	nd G 1 Nominal diameter: DN 19 (3/4") DN 25 (1")		0204-428 0204-429	
Hose connection rotal Hose connector with will to the PP and PVDF noz	ng nut for connecting the zle.	e hoses		
Material: PP PP PP PP PP PP	Nominal diameter: DN 19 (3/4") DN 25 (1") DN 32 (1 1/4") DN 19 (3/4") DN 25 (1") DN 19 (3/4")	Seal FPM/FPM Seal FPM/FPM Seal FPM/FPM Seal FEP/FPM Seal FEP/FPM Seal FEP/FPM	0204-424 0204-434 0204-367 0204-430 0204-431 0204-432	
PP PVDF PVDF PVDF	DN 25 (1")  DN 19 (3/4")  DN 25 (1")  DN 32 (1 1/4")	Seal EPDM Seal FPM/FPM Seal FPM/FPM Seal FPM/FPM	0204-433 0204-435 0204-425 0204-368	
Connecting sleeve	PP PVDF	G 1 1/4" G 1 1/4"	0204-353* 0204-354*	

### Hose clips, hose connections

### Productdetail

### Specification



4 Hose clips

Stainless steel hose clips with threaded screw for fixing hoses of various nominal bore at the hose connection.

Nominal diameter: DN 19 (3/4") DN 25 (1") DN 32 - 38 (1 1/4" - 1 1/2")

0301-400 0301-401

Order-No.

0302-402



5 Hose connector

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

บเนวว
-------

for hose DN 19 (3/4")	inner thread G 1 (EN12 115)	0302-073
for hose DN 19 (3/4")	outer thread G 1 (EN12 115)	0302-074
for hose DN 19 (3/4")	inner thread G 1 1/4 (EN12 115)	0302-106
for hose DN 25 (1")	inner thread G 1 (EN12 115)	0302-011
for hose DN 25 (1")	outer thread G 1 (EN12 115)	0302-010
for hose DN 25 (1")	inner thread G 1 1/4 (EN12 115)	0302-012
for hose DN 32 (1 1/4")	outer thread G 1 1/4 (EN12 115)	0302-093
for hose DN 32 (1 1/4")	inner thread G 1 1/4 (EN12 115)	0302-107

### 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)

3taiiiic33 3tcci (1.437 i)		
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

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

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

### Specification Order-No.

Productdetail

#### Double nipple

Stainless steel (1.4571) G 1 1/4 outer thread **0300-106** 



### 6 Reducing sleeve

To connect quick action hose coupling with pump tube. Inner thread G 1 1/4 and G 1

Material:

 PP
 0204-072

 Brass
 0372-018

 Stainless steel
 0372-019



### 7 Quick-action hose coupling

Ensure rapid, water-tight and leakproof connection between pump and hose. Available in aluminium, brass, stainless steel and polypropylene.

Alu Alu Brass Brass Stainless steel (1.4571) Stainless steel (1.4571) PP	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")	Seal NBR Seal FPM Seal FEP/EPDM	0372-020 0372-021 0372-022 0372-023 0372-024 0372-025
PP	female element DN 25 (1")	Seal FPM	0372-026



A complete quick-action hose coupling is consisting of reducing sleeves plus female and male coupling element.

### PVC hoses, mineral oil hoses, solvent hoses

#### Productdetail

#### **Specification**

#### Order-No.

0374-413



#### 8 PVC-spiral hose

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

Temperature of medium: -5 up to +65 °C
Nominal diameter: Weight: Operating pressure:

 DN 19 (3/4")
 0.31 kg/m
 max. 5 bar
 0374-457\*

 DN 25 (1")
 0.51 kg/m
 max. 5 bar
 0374-440\*

 DN 32 (1 1/4")
 0.66 kg/m
 max. 4.5 bar
 0374-441\*

\*Hose for food liquids, made of PVC with imbedded galvanized steel helix, inside and outside smooth, complies with EU-regulations 10/2011 and 1935/2004.



### 8 PVC hose, fabric reinforced

Hose made of PVC, fabric reinforced. For aggressive, non-flammable liquids.

Temperature of medium: -10 up to +60 °C Nominal diameter: Weight: Operating pressure:

DN 32 (1 1/4") 0.715 kg/m max. 7 bar **0374-425** 



#### 8 Mineral oil hose

Colour coding: "yellow".

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

Inner rubber NBR and outer rubber chloroprene (CR).

Electrically conductive: Type  $\Omega/T$  (<10 $^{6}$  Ohm between the fittings, <10 $^{9}$  Ohm through the hose wall) according to DIN EN 12115:2011.

Operating pressure: max. 16 bar
Temperature of medium: -30 up to +90 °C
Nominal diameter: Weight:
DN 32 (1 1/4") 1.0 kg/m

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

Inner rubber NBR (conductive) and outer rubber NBR (not conductive). Electrically conductive: Type  $\Omega$ -CL (<10 $^{\circ}$  Ohm between the fittings)

according to TRbF 50 appendix B (TRbF 131/2).

Operating pressure: max. 10 bar Temperature of medium: -25 up to +65 °C Nominal diameter: Weight:

DN 19 (3/4") 0.4 kg/m **0374-461** DN 25 (1") 0.5 kg/m **0374-462** 



### 8 Solvent hose

Colour coding: "blue".

Hose suitable for a wide range of commercial solvents.

Inner rubber of special coating and outer rubber of NBR/PVC-Compound.

(starting from DN 32 with galvanized steel helix, it is suitable as suction and pressure hose).

Electrically conductive: Type  $\Omega/T$  (<10<sup>6</sup> Ohm between the fittings, <10<sup>9</sup> Ohm through the hose wall) according to DIN EN 12115:2011.

Operating pressure: max. 16 bar

Range of temperature: -20 up to +80 °C (dependent on the liquid),

steaming out up to 130 °C for max. 30 minutes (open ends)

Nominal diameter: Weight:

DN 19 (3/4") 0.6 kg/m 0374-416 • DN 25 (1") 0.8 kg/m 0374-417 • DN 32 (1 1/4") 1.2 kg/m 0374-418 •

### Universal chemical hoses, special chemical hoses

**Specification** Order-No. Productdetail

### 8 Universal chemical hose

Colour coding: "blue/white/blue".

Suitable for clean chemicals, cosmetics, photo-chemicals, paints and glues, washing and cleaning products, hygienic products as well as foodstuffs and luxury foodstuffs, (for more information see resistance table). Conform to FDA and USP class VI. Complies with EU-regulations 10/2011 and 1935/2004. Internal finish: UPE light with spiraled OHM conductive stripes UPE black, smooth, non-bleeding, abrasion-resistant. Intermediate layer: EPDM conductive (complies with the requirements of the

recommendation XXI category 2 of the BfR and FDA standards). External finish: EPDM light grey, conductive, non-bleeding, ozone- and UV resistant, hardly flammable,

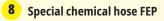
(starting from DN 25 with galvanized steel helix, suitable as suction and pressure hose). Electrically conductive: Type  $\Omega/T$  (<10 $^6$  Ohm between the fittings, <109 Ohm through the hose wall) according to DIN EN 12115:2011.

Operating pressure: max. 16 bar

-30 up to +100 °C (dependent on the liquid), Range of temperature:

steaming out up to 130°C for max. 30 minutes (open ends)

Nominal diameter: Weight: DN 19 (3/4") 0.6 kg/m 0374-475 DN 25 (1") 0.8 kg/m 0374-476 DN 32 (1 1/4") 0.9 kg/m0374-477



Colour coding: "blue/white/red".

Suitable for all commonly used media, ideal also for very pure products. Suitable as suction and pressure hose. Internal finish: FEP transparent, smooth, seamless, non-leaching, non-dyeing, not electrically conductive (in conformity with FDA and USP Class VI demands).

External finish: EPDM electrically conductive. Light grey with OHM conductive stripes, with galvanized steel helix.

Electrically conductive: Type  $\Omega$ -C (<10 $^6$  Ohm between the fittings) according to DIN EN 12115:2011.

(**NOT** suitable for non-conductive, flammable liquids!)

Operating pressure: max. 16 bar

-30 up to +100 °C (dependent on the liquid), Range of temperature:

steaming out for cleaning and sterilisation permissible up to 150°C

for max. 30 minutes (open ends)

Nominal diameter: Weight: DN 19 (3/4") 0.7 kg/m0374-428 DN 25 (1") 1.0 kg/m 0374-429 DN 32 (1 1/4")  $1.1 \, \text{kg/m}$ 0374-430

#### **Special chemical hose PTFE**

Colour coding: "blue/white/red".

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

Suitable as suction and pressure hose.

Internal finish: PTFE black, smooth, seamless, electrically conductive

(Conform to FDA and USP class VI. Complies with EU-regulations 10/2011 and 1935/2004).

External finish: EPDM electrically conductive. Black, galvanized steel helix.

Electrically conductive: Type  $\Omega/T$  (<10<sup>6</sup> Ohm between the fittings, <109 Ohm through the hose wall) according to DIN EN 12115:2011.

-30 up to +150 °C (dependent on the liquid), Range of temperature:

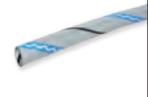
steaming out for cleaning and sterilisation permissible up to 150°C

for max. 30 minutes (open ends)

Nominal diameter: Weight:

Operating pressure:

0.7 kg/m DN 19 (3/4") 0374-481 0374-482 DN 25 (1") 1.0 kg/m







### **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: FPM 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

PP, brass, stainless steel Tri-Sure 2", BCS 56 x 4 OT, Mauser 2", BCS 70 x 6 OT

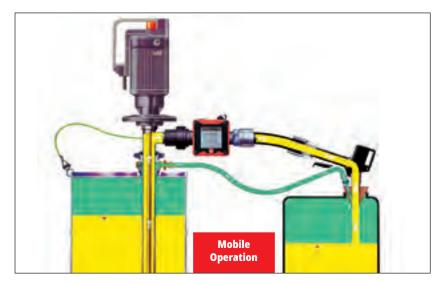
Brass, stainless steel M 64 x 4 OT

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 88

0204-202

0204-253



### 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

Shown in addition here:
Emission proof drum adapter stainless steel

Other emission proof drum adapters see page 84

Nozzle stainless steel, G 1 1/4

Gas sealing hose:
PVC hose DN 9

O373-153

Alternatively for flammable liquids:
Solvent hose DN 9

O374-415

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

Emission proof hose

comprises of: Conical sealing plug, check valve for gas displacement pipe, 0204-201 screw-in nipple with wing nut and connection piece, hose clamps 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 Discharge pipe cpl. for automatic nozzle Alu 0204-274 (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)

Productdetail

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

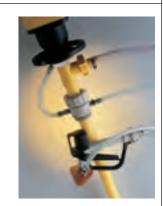
#### **Specification** Order-No.

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

Application with pump tube PP 41 und nozzle PP

#### Gas sealing kit for nozzle

comprises of: Conical sealing plug, check valve for gas displacement pipe, pipe fitting	0204-510
Shown in addition here: Emission proof drum adapter PP	0204-250
Nozzle PP/FPM (FPM) G 1 1/4	0204-380
Nozzle outlet spout PP	0204-297
Gas sealing hose: PVC hose DN 9	0373-153
Additional costs: Emission proof hose with connection flange PVDF* (serving to return with sealless pump tubes arising gases	0204-511



### 10 Drum adapter in PP

back into the container)

Drum adapter for continuous pump tube diameters. For fixing the pump in the drum opening. Outer thread G 2 0208-007



#### 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

0208-055 0208-052 0208-054



### 11 Installation flange

SS

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: ø 41 mm **PVDF** ø 41 mm Alu

ø 41 mm ø 41 mm 0110-191 0122-001 0132-120 0151-622



in connection with a new pump tube

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.

Material: For pump tube:

 PP
 PP Ø 41 mm
 0343-177

 PVDF
 PVDF and Alu Ø 41 mm
 0343-187

 Stainless steel
 SS Ø 41 mm
 0204-617



#### **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:
 Wing 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 Not suitable for pump tube RE-PP

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



#### 16 Oval gear flow meter MDO 2

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

Housing: Aluminium Range of temperature:-10 up to 80 °C
Oval gears: LCP Display: 2-lines, 6- and 5-digits

Seal: FPM Protection class: IP 67

Nominal pressure: 4 bar Battery: Lithium, CR123A, 3V

Range of measurement: 3 - 80 l/min. Weight approx.: 1.4 kg Range of viscosity: 1 - 1000 mPas Connection: G 1 1/4"

Accuracy of measurement: +/- 0.5 %

### 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.

H05 RN-F, 3 x 1 mm<sup>2</sup> for motor MA II H07 RN-F, 2 x 2.5 mm<sup>2</sup> for motor MA II (42 V, 24 V) H07 RN-F, 3 x 1.5 mm<sup>2</sup> for motor ME II H07 RN-F, 4 x 1.5 mm<sup>2</sup> for three-phase motors



#### Cekon-plug

5-pole - 16 A

For three-phase gear motors B4/GT

0336-415

0466-000

0466-003

0336-074



### 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) CEAG 3-pole (alternating current) STAHL for motor ME II for motor ME II 0336-536 **•** 0336-540 **•** 



#### 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 0336-531 **0**336-542 **0** 



#### **Monitoring module SafetyBox**

Detects minimum residual quantity in containers of conductive liquids, alarms by visual and acoustic alarm in case of dry running /overflow (siren/lamp). Emergency stop function of the motor in case of critical filling level.

Consisting of monitoring module and point level probe

0208-455

#### Drum adapter PP for point level probe

For fixing the point level probe in the drum opening. Outer thread G 3/4

## for compressed air supply of motors MD1xL, MD2xL

Specification	Order-No.	 Productdetai
25 26 28 31 30 31 3	2 27 29	0) 60
Maintenance unit  For cleaning and oiling the supply air. With manometer for setting operating pressure. Operating pressure: max. 10 bar	0204-152	
Filter pressure regulator for oil-free operation  With manometer for setting operating pressure.  Inlet pressure: max. 16 bar Ambient temp.: max. 60 °C  Filter element: 5 $\mu$ m, Cellpor Diaphragms and seals: NBR  Housing: Zinc-Pressure cast G 3/8	5000-178	-
Coupling (female part)  Self-disconnecting in brass. For screwing in the maintenance unit.  Brass (DN 7.2) G 3/8 AG  Brass (DN 10) G 3/8 AG	0372-154 0372-138	-
Prass (DN 7.2) G 3/8 AG Brass (DN 10) G 3/8 AG * Sealring 0314-309 is addionally required.	0372-045* 0372-053	
Air hose coupling connector  For connection to a coupling.  Brass (DN 7.2) for compressed air hose DN 9  Brass (DN 10) for compressed air hose DN 13	0372-155 0372-153	
29 Stop valve  Nickel-plated brass for regulating the compressed air as well as the speed of the compressed air as the speed of the compres	essed air motors. <b>0372-043</b>	
Compressed air hose  PVC-hose with intermediate woven layer, DN 9, for air supply to compressed air motors.  Operating pressure: max. 14 bar at 20 °C DN 9 max. 10 bar at 20 °C DN 13	0373-153 0373-154	
31 Hose clamp (Chromated steel: 1.4016) For compressed air hose DN 9 DN 13	0301-156 0301-403	Q
Coupling with hose connector (female part)  Self-disconnecting in brass, with hose connector DN 9.  Brass (DN 7.2) for compressed air hose DN 9  Brass (DN 10) for compressed air hose DN 13	0372-166 5000-165	

### 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 **0205-805** Length: 4.0 m **0205-806** Length: 6.0 m **0205-807** 



#### PP nozzle

For filling and transferring. With hoop guard, suspension hook 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 Weight: approx. 0,.5 kg Connection: outer thread G 1 1/4

Seal: FPM (FPM) **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 2.

0208-007

#### Container cap

DN 150 0373-060 DN 225 0373-061



#### Wall bracket

For storage of drum pumps.

This facility helps to protect pumps from damage, and maintains their value. **020** 

0204-308



#### Oval gear flow meter MDO 2

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

Housing: Aluminium Range of temperature:-10 up to 80 °C
Oval gears: LCP Display: 2-lines, 6- and 5-digits

Seal: FPM Protection class: IP 67

Nominal pressure: 4 bar Battery: Lithium, CR123A, 3V

Range of measurement: 3 - 80 l/min. Weight approx.: 1.4 kg
Range of viscosity: 1 - 1000 mPas Connection: G 1 1/4"

Accuracy of measurement: +/- 0.5 %

## for container pump B50

Specification		Order-No.	Productdetail
<b>Lifting device</b> To simplify the process of lifting the pump in and and containers.	d out of drums	0155-154	
Hose connection  Hose connector with wing nut for connecting th to the pump tube or nozzle.	e hoses		
Material: PP	Nominal diameter: DN 38	0180-161	0
<b>Reducing sleeve</b> 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	
<b>Foot strainer</b> Keeps impurities away from the rotating parts.			650
Material: PP		0180-174	
Acid proof coating In aggressive atmosphere the three phase moto by a special acid proof coating. If customer requ			
is possible.  Acid proof coating		0006-516	
<b>PVC hose</b> Fabric reinforced PVC hose for aggressive, non-f	lammable liquids.		
Operating pressure: max. 6 bar Temperature of medium: 0 up to +60 °C Nominal diameter: Weight: DN 38 (1 1/2") 0.84 kg/m		0374-431	
Screw cover Material: PE/PP			
DN 150 DN 225		0208-311 0208-312	

Hoses, hose clamps and hose connections see pages 83-87

# Twice the **COMPETENCE**...







# Professional Fluid Management

Drum pump sets

Drum and container pumps

Eccentric screw drum pumps

Flow meter systems

Air operated double diaphragm pumps

Vertical and horizontal centrifugal pumps











**Lutz Pumpen GmbH** 

Erlenstraße 5-7 · D-97877 Wertheim · Phone: (+49 93 42) 8 79-0 · Fax: (+49 93 42) 87 94 04 · E-Mail: info@lutz-pumpen.de

www.lutz-pumpen.de

# ...simply UNIQUE











# A Measured Step Forward



Dosing pumps and accessories Chlorinators

Measuring and control technology

System and process technology
Chemical centrifugal pumps
Water disinfection











Lutz-Jesco GmbH

 $Am\ Bostelberge\ 19 \cdot D-30900\ Wedemark \cdot Phone\ (+49\ 51\ 30)\ 58\ 02-0 \cdot Fax\ (+49\ 51\ 30)\ 58\ 02\ 68 \cdot E-Mail: info@lutz-jesco.com$ 

www.lutz-jesco.com





## Lutz Pumpen GmbH

Erlenstraße 5-7 D-97877 Wertheim Phone: +49 93 42 / 8 79-0

Fax: +49 93 42 / 87 94 04 E-Mail: info@lutz-pumpen.de