

# **Be in Control Every Day**

**Drum Pump Sets** 

**Laboratory and Drum Pumps** 

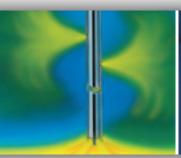
Pumps for complete drum drainage

**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





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# **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 quarantees 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, **Pump Set B1 Battery** 70 Watt internally ventilated for thin-bodied fluids Density **Viscosity** Delivery rate<sup>1</sup> **Delivery head** (kg/dm<sup>3</sup>) (mPas) (I/min.) (m wc) 1.3 200 20 Max. temperature of medium 40 °C



<sup>&</sup>lt;sup>1</sup>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. Will be delivered without battery and battery charger.

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



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	<b>Pump B2 Battery</b> PP 32-R SL / PP 32-L SL					<b>Battery</b> / PP 32-L SL		Set B2 Battery PP 32-R SL / PP 32-L SL with flow meter TR3-PP	
Motor B2 Battery		×	/			×	/		<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>
Lutz nozzle with suspension hook		-	-		<b>~</b>				<b>✓</b>
Immersion depth	500 mm	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm	1200 mm	1000 mm
Order No. with pump tube PP 32-R SL	0207-100	0207-101	0207-102	0207-120	0207-060	0207-061	0207-062	0207-064	0207-063
Order No. with pump tube PP 32-L SL	0207-103	0207-103 0207-104 0207-105 0207-121			0207-065 0207-066 0207-067 0207-069				0207-068
Battery max. 24 V, 2 Ah						0332-032			
Battery max. 24 V, 4 Ah						0332-031			
Battery charger						0335-337			

<sup>&</sup>lt;sup>1</sup>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. Will be delivered without battery and battery charger.

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



For emptying canisters and drums	<b>Pump</b> <b>B2 Battery</b> PVDF 32-R SL					<b>Battery</b> 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>		
1,5 m special chemical hose 3/4"			-			<b>\</b>			<b>✓</b>		
Hose connectors 3/4"		×	/		<b>✓</b>				✓		
Hose clamps		-	=			<b>\</b>	/		<b>✓</b>		
Nozzle PVDF			-		<b>~</b>				<b>✓</b>		
Immersion depth	500 mm	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm	1200 mm	1000 mm		
Order No.	0207-109 0207-110 0207-111 0207-122			0207-080 0207-081 0207-082 0207-084				0207-083			
Battery max. 24 V, 2 Ah						0332-032	2				
Battery max. 24 V, 4 Ah						0332-03	I				
Battery charger						0335-337	,				

<sup>&</sup>lt;sup>1</sup> 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. Will be delivered without battery and battery charger.

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,

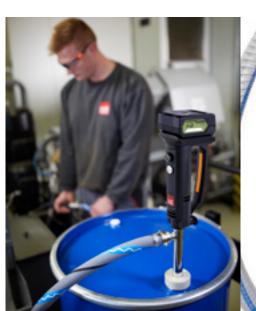
260 Watt internally ventilated

Delivery rate<sup>1</sup> **Delivery head** Density Viscosity (kg/dm<sup>3</sup>) (mPas) (I/min.) (m wc) 80 (45)

Max. temperature of medium 90 °C

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







For emptying canisters and drums	Pump B2 Battery SS 28-R SL				SS 28	Battery B-R SL /C hose		<b>Set B2 Battery</b> SS 28-R SL with universal chemical hose			
Motor B2 Battery		<b>~</b>				×	/			<b>~</b>	
Pump tube SS 28-R-SL		×	/			×				<b>~</b>	
1,5 m PVC hose 3/4"		-	-			×				-	
1,5 m universal chemical hose 3/4"		-	-			-	-		<b>✓</b>		
Hose connectors 3/4"		· ·	/		<b>~</b>				<b>✓</b>		
Hose clamps		-	-		<b>~</b>				<b>✓</b>		
Lutz nozzle with suspension hook			=		<b>~</b>					-	
Nozzle Niro			-		-				✓		
Immersion depth	500 mm	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm
Order No.	0207-106	0207-107	0207-108	0207-123	0207-070	0207-071	0207-072	0207-074	0207-050	0207-051	0207-052
Battery max. 24 V, 2 Ah				0332-032							
Battery max. 24 V, 4 Ah				0332-031							
Battery charger					0335-337						

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. Will be delivered without battery and battery charger.

# 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

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate¹<br/>(l/min.)Delivery head<br/>(m wc)1.330075 (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			mp 2 Vario		Set Lutz B2 Vario				
Motor B2 Vario		×	/		<b>✓</b>				
Pump tube PP-SL 32		·	/			<b>\</b>	/		
1,5 m PVC spiral hose 3/4"			-		<b>✓</b>				
Hose connectors PP 3/4"		<b>\</b>	/		<b>✓</b>				
Hose clamps			-			<b>\</b>			
Lutz nozzle			-		<b>✓</b>				
Wall bracket	-				<b>✓</b>				
Immersion depth	500 mm 700 mm 1000 mm 1200 mm				500 mm	700 mm	1000 mm	1200 mm	
Order No.	0201-500	0201-500 0201-501 0201-502 0201-509				0205-021	0205-022	0205-023	

<sup>&</sup>lt;sup>1</sup> 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 Lutz B2 Vario (stainless steel) 2



Pump Set Lutz B2 Vario

for thin-bodied fluids with universal chemical hose

and nozzle stainless steel

# For thin-bodied fluids

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

For filling small quantities from hobbocks, canisters and drums.

 Motor Lutz B2 Vario, 200 W internally ventilated







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









For emptying canisters and drums	Pump Lutz B2 Vario				Lutz B	et <b>2 Vario</b> /C hose		Set Lutz B2 Vario with universal chemical hose			
Motor B2 Vario			/		<b>~</b>				<b>~</b>		
Pump tube SS-SL 28		×	/			×	/			<b>~</b>	
1,5 m PVC spiral hose 3/4"			-			×	/			-	
1,5 m Universal chemical hose 3/4"			-		-			<b>✓</b>			
Hose connectors SS 3/4"		· ·	/		<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	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm	1200 mm	500 mm	700 mm	1000 mm
Order No.	0201-510	0201-511	0201-512	0201-519	0205-030	0205-031	0205-032	0205-033	0207-030	0207-031	0207-032

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.

# 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, IP24 or optionally with
- Motor MA II 3, 460 W externally ventilated, IP54

#### Motor MI-4

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> <sup>1</sup> (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 rate¹<br/>(l/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		et or MA II 3
Pump tube PP 41-L-SL SS	×	/	<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

<sup>&</sup>lt;sup>1</sup> 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 "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, IP54 or optionally with
- Motor MI-4, 500 W internally ventilated, IP24

#### Motor MA II 3

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> <sup>1</sup> (I/min.)	<b>Delivery head</b> (m wc)
1.6	500	78 (45)	16

#### Motor MI-4

<b>Density</b> (kg/dm³)	<b>Viscosity</b> (mPas)	<b>Delivery rate</b> <sup>1</sup> (I/min.)	<b>Delivery head</b> (m wc)
1.4	500	87 (50)	19

Max. temperature of medium 50 °C When using a nozzle the delivery rate is reduced





For emptying of canisters, drums and containers	Pump with motor MI-4		Pump with motor MA II 3		<b>Set</b> with motor MI-4		<b>Set</b> with motor MA II 3	
Pump tube PP 41-L-SL HC	<b>✓</b>		<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

<sup>&</sup>lt;sup>1</sup> 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.

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



For emptying of canisters, drums and containers	Pump with motor MA II 3		Pump with motor MA II 5		Set with motor MA II 3		with moto	et or MA II 5
Pump tube PVDF 41-L-SL	<b>~</b>		<b>✓</b>		<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>	/	<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

<sup>&</sup>lt;sup>1</sup>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 "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> <sup>1</sup> (I/min.)	<b>Delivery head</b> (m wc)
1.4	500	87 (50)	19

### Motor MD2xL

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate¹<br/>(l/min.)Delivery head<br/>(m wc)2,81000116 (60)36

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

When used with diesel and similar liquids, the pump is only suitable at a fluid and ambient temperature < 40°C.





and non-flammable liquids. Strong when handling mineral oil products.





For emptying of canisters, drums and containers		mp tor MI-4		mp or MD2xL		et tor MI-4	So with mot	et or MD2xL
Pump tube Alu 41-L-SL	<b>✓</b>		<b>~</b>		<b>~</b>		×	/
2 m PVC spiral hose 1"		-		_	<b>\</b>	/	<b>✓</b>	
Drum adapter PP		_	-	_	<b>\</b>	/	×	/
Hose connectors Alu 1"	<b>~</b>		<b>~</b>		<b>\</b>		×	/
Hose clamps		-	-	-	<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)

<sup>&</sup>lt;sup>1</sup>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.

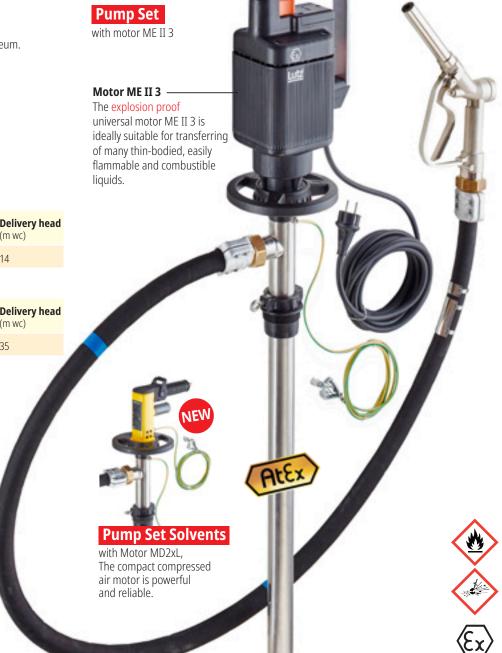
# 7 Pump Set "Solvents" (stainless steel)

# 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 Density Delivery rate<sup>1</sup> Viscosity **Delivery head** $(kg/dm^3)$ (mPas) (l/min.) (m wc) 1.6 350 95 (60) **Motor MD2xL** Density Viscosity Delivery rate<sup>1</sup> **Delivery head** (kg/dm<sup>3</sup>) (mPas) (l/min.) (m wc) 1000 2.8 124 (75) 35 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	Pump with motor ME II 3		Pump with motor MD2xL		<b>Set</b> with motor ME II 3		Set with motor MD2xL	
Pump tube SS 41-L-SL	<b>~</b>		<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>		<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.

<sup>&</sup>lt;sup>1</sup>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" (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 rate¹<br/>(l/min.)Delivery head<br/>(m wc)1.635095 (50)14

#### **Motor MD2xL**

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate¹<br/>(l/min.)Delivery hea<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	Pump with motor ME II 3		Pump II 3 with motor MD2xL		<b>Set</b> with motor ME II 3			et or MD2xL
Pump tube SS 41-L-SL	<b>~</b>		<b>✓</b>		<b>~</b>		<b>~</b>	
2 m universal chemical 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 in stainless steel (1.4571)		-		-	×		<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.

<sup>&</sup>lt;sup>1</sup>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.

# 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



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







For complete drainage of drums and containers		mp or ME II 3		<b>mp</b> or MD2xL		et or ME II 3	_	et or MD2xL	
Pump tube RE-SS 41-L-MS	<b>✓</b>		<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>			/	×		
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.

<sup>&</sup>lt;sup>1</sup>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 rate¹<br/>(l/min.)Delivery head<br/>(m wc)1.650077 (45)14

#### **Motor MD2xL**

Density<br/>(kg/dm³)Viscosity<br/>(mPas)Delivery rate¹<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).



Residual quantity < 0.10 litres



For complete drainage of drums and containers	Pump with motor ME II 3		Pump with motor MD2xL		Set with motor ME II 3		Set with motor MD2xL	
Pump tube RE-SS 41-L-MS	<b>~</b>		<b>~</b>		<b>~</b>		<b>~</b>	
2 m universal chemical 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 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.

<sup>&</sup>lt;sup>1</sup>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.

# **Lutz Drum and Container Pumps**

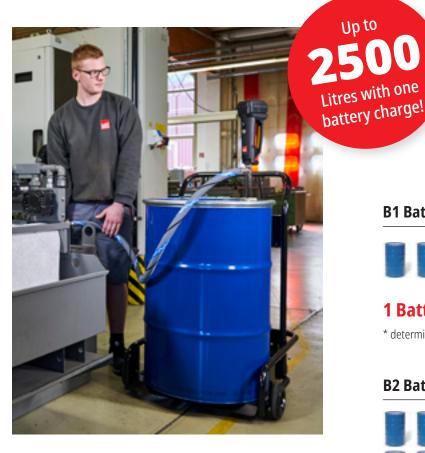
Lightweight, comfortable and powerful

# 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 l 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)

tdetail	<b>B1 Battery (motor an</b>	a pump tube)		PP	-SL		
	Material	Pump tube			PP		
8		Impeller		F	P		
	Type of impeller			Imp	eller		
	category 1 / 2 (according to AT	ΓEX)		n	10		
	Immersion tube diameter	max. mm	25				
	Hose connection	Nominal diameter mm Outer thread			19 i 1		
g-	Temperature of medium	max. °C			to +40		
<u> </u>	Flow rate <sup>1</sup>	up to I/min.			20		
	Delivery head	up to m wc			6		
	Viscosity	up to mPas			.00		
	Density	up to kg/dm <sup>3</sup>			1.3		
	Weight (kg)	Motor + pump tube			1.0		
	Power	watts			70		
	Voltage	volts			0.8		
	Length: 500 mm*	Order No.			7-112		
	Length: 700 mm*	Order No.			7-112 7-113		
	Length: 1000 mm*	Order No.			7-113 7-114		
	*The lenght complies approx. to dir		ala Caraial lagatha ag			h - + +	
-	The length compiles approx. to dif	nension C in the dimension tai	ne. special lengths on	request. Will be deliver	ed without battery and	battery charger.	
	Suitable battery	Order No. <b>0332-02</b>	7 Voltage: 10	.8 V capacity	v: 2 Ah, Li-Ionen ba	attery	
100	Battery charger	Order No. <b>0335-33</b>	Input:	100.240	) V, 50/60 Hz		
				100 2 10	7 1 30 00 112		
			'				
	B2 Battery (motor an		PP-SL	PP-SL	PVDF-SL	SS-SL	
		d pump tube)  Pump tube	PP-SL	PP	PVDF	1.4571	
	B2 Battery (motor and	d pump tube)	PP-SL PP PP	PP PP	PVDF ETFE	1.4571 ETFE	
	B2 Battery (motor and Material  Type of impeller	<b>d pump tube)</b> Pump tube Impeller	PP-SL PP PP Rotor	PP PP Impeller	PVDF ETFE Rotor	1.4571 ETFE Rotor	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT	d pump tube)  Pump tube Impeller	PP-SL  PP PP Rotor no	PP PP Impeller no	PVDF ETFE Rotor no	1.4571 ETFE Rotor no	
Ī	Material  Type of impeller  category 1 / 2 (according to AT Immersion tube diameter	d pump tube)  Pump tube Impeller  EX)  max. mm	PP-SL  PP PP Rotor no 32	PP PP Impeller no 32	PVDF ETFE Rotor no 32	1.4571 ETFE Rotor no 28	
J	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT	d pump tube)  Pump tube Impeller	PP-SL  PP PP Rotor no	PP PP Impeller no	PVDF ETFE Rotor no	1.4571 ETFE Rotor no	
	Material  Type of impeller  category 1 / 2 (according to AT Immersion tube diameter	d pump tube)  Pump tube Impeller  EX)  max. mm  Nominal diameter mm	PP-SL  PP PP Rotor no 32 19	PP PP Impeller no 32 19	PVDF ETFE Rotor no 32 19	1.4571 ETFE Rotor no 28 19 G 1	
J	Material Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection	d pump tube)  Pump tube Impeller  EX)  max. mm  Nominal diameter mm Outer thread	PP-SL  PP PP Rotor no 32 19 G 1	PP PP Impeller no 32 19 G 1	PVDF ETFE Rotor no 32 19 G 1	1.4571 ETFE Rotor no 28 19 G 1	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium	Pump tube) Pump tube Impeller  EX) max. mm Nominal diameter mm Outer thread max. °C	PP-SL  PP PP Rotor no 32 19 G 1 -15 up to +50	PP PP Impeller no 32 19 G 1	PVDF ETFE Rotor no 32 19 G 1	1.4571 ETFE Rotor no 28 19 G 1	
	Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup>	Pump tube)  Pump tube Impeller  EX)  max. mm  Nominal diameter mm Outer thread  max. °C  up to I/min.	PP-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80	PP PP Impeller no 32 19 G 1 -15 up to +50	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head	Pump tube)  Pump tube Impeller  EX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc	PP-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8	PP PP Impeller no 32 19 G 1 -15 up to +50 65	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80	
Į	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity	Pump tube)  Pump tube Impeller  EX)  max. mm  Nominal diameter mm  Outer thread  max. °C  up to I/min.  up to m wc  up to mPas	PP-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8	
Į	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate1  Delivery head  Viscosity  Density	Pump tube)  Pump tube Impeller  EX)  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-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity Density Weight (kg)	Pump tube)  Pump tube Impeller  EX)  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-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6 2.5	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity Density Weight (kg) Power	Pump tube)  Pump tube Impeller  EX)  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-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6 2.5 260	
J	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity Density Weight (kg) Power Voltage	Pump tube)  Pump tube Impeller  EX)  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-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6 2.5 260 21.6	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm*	Pump tube Impeller  EX)  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-SL  PP PP Rotor no 32 19 G 1 -15 up to +50 80 8 400 1.6 1.6 260 21.6  0207-100	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6 2.5 260 21.6	
	Material Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate¹ Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm*	Pump tube)  Pump tube Impeller  EX)  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-SL  PP 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 PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 <b>0207-103</b>	PVDF ETFE Rotor no 32 19 G 1 -15 up to +90 80 8 400 1.6 2.0 260 21.6 <b>0207-109</b> <b>0207-110</b>	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +9 80 8 400 1.6 2.5 260 21.6 <b>0207-106</b>	
	Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate¹ Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm*	Pump tube Impeller  EX)  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.  Order No.	PP-SL  PP PP Rotor no 32 19 G1 -15 up to +50 80 8 400 1.6 1.6 260 21.6 0207-100 0207-101 0207-102 0207-102	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 <b>0207-103</b> <b>0207-104</b> <b>0207-105</b>	PVDF 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 0207-111	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +9 80 8 400 1.6 2.5 260 21.6 <b>0207-106</b> <b>0207-107</b> <b>0207-108</b>	
	Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate¹ Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm* Length: 1200 mm*	Pump tube Impeller  EX)  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.  Order No.  Order No.  mension C in the dimension tal	PP-SL  PP 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 0207-102 ole. Special lengths on	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 <b>0207-103</b> <b>0207-104</b> <b>0207-105</b> <b>0207-121</b> request. Will be deliver	PVDF 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 0207-111	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +9 80 8 400 1.6 2.5 260 21.6 <b>0207-106</b> <b>0207-107</b> <b>0207-108</b> <b>0207-108</b>	
	B2 Battery (motor and Material  Type of impeller category 1 / 2 (according to AT Immersion tube diameter Hose connection  Temperature of medium Flow rate <sup>1</sup> Delivery head Viscosity Density Weight (kg) Power Voltage Length: 500 mm* Length: 700 mm* Length: 1000 mm* Length: 1200 mm*	Pump tube Impeller  EX)  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.  Order No.	PP-SL  PP 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 0207-102 ole. Special lengths on	PP PP Impeller no 32 19 G 1 -15 up to +50 65 12 400 1.6 1.6 260 21.6 <b>0207-103</b> <b>0207-104</b> <b>0207-105</b> <b>0207-121</b> request. Will be deliver	PVDF 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 0207-111	1.4571 ETFE Rotor no 28 19 G 1 -15 up to +90 80 8 400 1.6 2.5 260 21.6 0207-106 0207-107 0207-108 0207-123 battery charger.	

<sup>&</sup>lt;sup>1</sup>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.

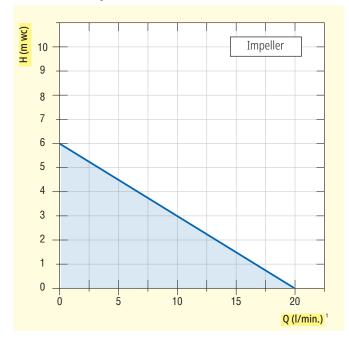
# **Drum Pump Lutz B1/B2 Battery**

# Lightweight, comfortable and powerful

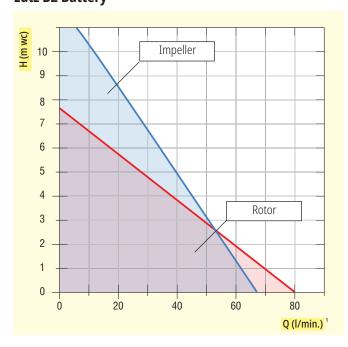
### Materials (coming into contact with the pumped medium)

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**







see pages 77-79

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.

# **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 IP24, with integrated motor protection switch, 3 m connection cable		
	Material:	Pump tube	PP	PVDF	
		Impeller	PP	ETFE	
	Type of impeller:		Rotor	Rotor	
	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 <sup>1</sup>	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	
	Length: 1200 mm*	Order No.	0201-509	0201-589	

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



Drive motor:	Universal motor 200 W, 230 V, 50 Hz, on/off switch with
Dill'e motor.	· · · ·
	variable speed controller, double insulated on protection
	class II, protection class IP24, with integrated motor protection

**Lutz B2 Vario SS-SL 28** 

Material:  Pump tube Impeller  ETFE  Type of impeller:  Rotor  Category 1 / 2 (acc. to ATEX)  Immersion tube diameter:  Nominal diameter mm Outer thread G 1  Flow rate¹  Up to I/min.  Delivery head  Up to mVC  Temperature of medium:  Up to mPas  Density:  Up to Motor + pump tube  Length: 700 mm*  Order No.  Ozoo1-510  Length: 1200 mm*  Order No.  Order No.  Ozoo1-512  Length: 1200 mm*  Order No.  Order No.  Ozoo1-519			variable speed controller, double insulated on protection class II, protection class IP24, with integrated motor protection switch, 3 m connection cable
Type of impeller:  Category 1 / 2 (acc. to ATEX)  Immersion tube diameter:  up to mm  28  Hose connection:  Nominal diameter mm Outer thread G 1  Flow rate¹  up to l/min.  Delivery head  up to m wc  Temperature of medium:  up to °C  -15 up to +90  Viscosity  up to mPas  300  Density:  up to kg/dm³  1.3  Weight (kg)  Motor + pump tube  2.9 - 3.5  Length: 500 mm*  Order No.  Order No.  0201-511  Length: 1000 mm*  Order No.  0201-512	Material:	Pump tube	Stainless steel 1.4571
Category 1 / 2 (acc. to ATEX)         Immersion tube diameter:       up to mm       28         Hose connection:       Nominal diameter mm Outer thread       19         Flow rate¹       up to l/min.       66         Delivery head       up to m wc       6.7         Temperature of medium:       up to °C       -15 up to +90         Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length: 500 mm*       Order No.       0201-510         Length: 700 mm*       Order No.       0201-511         Length: 1000 mm*       Order No.       0201-512		Impeller	ETFE
Immersion tube diameter: up to mm  Hose connection:  Nominal diameter mm Outer thread  Flow rate¹  Delivery head  Up to I/min.  Delivery head  Up to m wc  Temperature of medium:  Up to mPas  Up to mPas  Density:  Up to kg/dm³  1.3  Weight (kg)  Motor + pump tube  Length: 700 mm*  Order No.  Order No.  Density:  Up to mPas  Density:  Order No.  Ozon-511  Length: 1000 mm*  Order No.  Ozon-512	Type of impeller:		Rotor
Hose connection:  Nominal diameter mm Outer thread Flow rate¹  up to l/min.  66  Delivery head  up to m wc  6.7  Temperature of medium:  up to °C  -15 up to +90  Viscosity  up to mPas  300  Density:  up to kg/dm³  1.3  Weight (kg)  Motor + pump tube  2.9 - 3.5  Length: 500 mm*  Order No.  Density:  Length: 700 mm*  Order No.  Order No.	Category 1 / 2 (acc. to ATEX)		no
Outer thread       G 1         Flow rate¹       up to l/min.       66         Delivery head       up to m wc       6.7         Temperature of medium:       up to °C       -15 up to +90         Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length:       500 mm*       0201-510         Length:       700 mm*       07der No.         Length:       1000 mm*       07der No.	Immersion tube diameter:	up to mm	28
Flow rate¹       up to l/min.       66         Delivery head       up to m wc       6.7         Temperature of medium:       up to °C       -15 up to +90         Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length:       500 mm*       0201-510         Length:       700 mm*       07der No.         Length:       1000 mm*       0201-511         Length:       1000 mm*       0201-512	Hose connection:		· -
Delivery head       up to m wc       6.7         Temperature of medium:       up to °C       -15 up to +90         Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length:       500 mm*       0201-510         Length:       700 mm*       07der No.         Length:       1000 mm*       0201-511         Length:       1000 mm*       07der No.			G 1
Temperature of medium:       up to °C       -15 up to +90         Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length:       500 mm*       0201-510         Length:       700 mm*       0201-511         Length:       1000 mm*       0201-512	Flow rate <sup>1</sup>	up to I/min.	66
Viscosity       up to mPas       300         Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length: 500 mm*       Order No.       0201-510         Length: 700 mm*       Order No.       0201-511         Length: 1000 mm*       Order No.       0201-512	Delivery head	up to m wc	6.7
Density:       up to kg/dm³       1.3         Weight (kg)       Motor + pump tube       2.9 - 3.5         Length: 500 mm*       Order No.       0201-510         Length: 700 mm*       Order No.       0201-511         Length: 1000 mm*       Order No.       0201-512	Temperature of medium:	up to °C	-15 up to +90
Weight (kg)       Motor + pump tube       2.9 - 3.5         Length: 500 mm*       Order No.       0201-510         Length: 700 mm*       Order No.       0201-511         Length: 1000 mm*       Order No.       0201-512	Viscosity	up to mPas	300
Length:       500 mm*       Order No.       0201-510         Length:       700 mm*       Order No.       0201-511         Length:       1000 mm*       0201-512	Density:	up to kg/dm <sup>3</sup>	1.3
Length: 700 mm*       Order No.       0201-511         Length: 1000 mm*       Order No.       0201-512	Weight (kg)	Motor + pump tube	2.9 - 3.5
Length: 1000 mm* Order No. <b>0201-512</b>	Length: 500 mm*	Order No.	0201-510
	Length: 700 mm*	Order No.	0201-511
Length: 1200 mm* Order No. <b>0201-519</b>	Length: 1000 mm*	Order No.	0201-512
	Length: 1200 mm*	Order No.	0201-519

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

<sup>&</sup>lt;sup>1</sup>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.

# for the laboratory and research sector

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

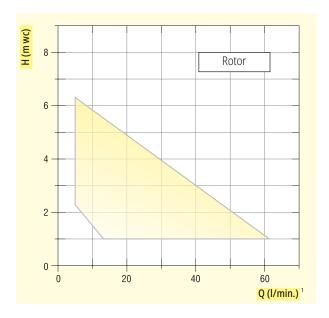
Version:	PP-SL	PVDF-SL	SS-SL
Housing:	PP/PVDF	PVDF	SS (1.4571)
Rotor:	PP	ETFE	ETFE
Seals:	none	none	none
Mechanical seals:	none	none	none
Bearing:	ETFE/PTFE	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Hastelloy C	Hastelloy C	SS (1.4571)

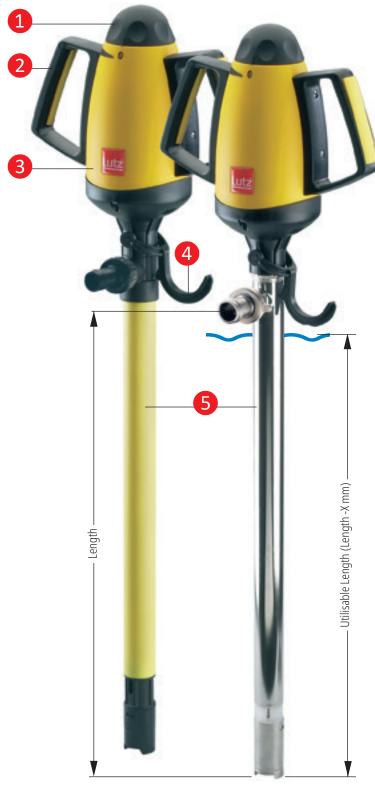
- 1 Infinitely variable speed controller for safe liquid transfer
- 2 Easy and safe to operate by ergonomically designed handles
- 3 Powerful universal motor with improved service life
- 4 Hanger for professional storage of nozzle and cable
- Modular designed sealless pump tube in polypropylene, polyvinylidene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



IP24

**(**E





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



Suitable range of accessories see pages 73-75

<sup>&</sup>lt;sup>1</sup>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.

# **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**

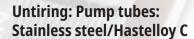
The double high-quality PTFE shaft bearing guarantees a long service life of these pumps.





# **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.

# Some examples:

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

#### **Caution!**

NIRO

A pump tube with an explosion proof motor must be used for easily flammable liquids.

Refer to page 37



# **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 IP24, 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	<b>Output</b> W	<b>Weight</b> kg	Order No. (with low-voltage release)	Order No. (without low-voltages release)
MI-4-230	220-230	50	450-500	2.8	-	0030-000
MI-4-230 E	220-230	50	450-500	2.8	-	0030-001
MI-4-230	230	60	400	2.8	-	0030-015
MI-4-230 E	230	60	400	2.8	-	0030-016
MI-4-120	110-120	50-60	550-640	2.8	-	0030-003
MI-4-120 E	110-120	50-60	550-640	2.8	-	0030-006
MI-4-100 E	100	50-60	520-550	2.8	-	0030-008

# Three-phase gear Motor B4/GT



(€ IP54/IP55

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 IP54, 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 IP54, 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.

## Double walls provide optimum protection

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

#### Type Voltage Frequency Output Weight Order No. Order No. (with low-voltage release) thout low-voltage kg release) ME II 3 220-230 50 430-460 5.5 0050-000 0050-016 5.5 100-120 50 380-440 0050-003 110-120 60 400-460 5.5 0050-006 0050-009 ME II 5 220-230 540-580 6.3 0050-001 0050-017 220-230 475-515 6.3 0050-034 0050-035 6.3 24 400 0050-013 0050-015 ME II 7 220-230 50 750-795 7.5 0050-002 0050-018 ME II 8 220-230 880-930 0050-042 0050-041

#### 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 guarantees protection against spark discharge during potential equalisation, specially in explosive areas.











## 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 mediur			up to °C		50	50	50	50
	Material:				Pump tube		PP	PP	PP	PP
					Impeller/Rot	or	PP	PP	PP	PP
	Hose conn	ection:			Nominal diar		19-32	19-32	19-32	19-32
					Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 7	00 mm*	shaft SS		Order No.		0110-304	0110-300	0103-504	0103-500
	Length: 10		shaft SS		Order No.		0110-305	0110-301	0103-505	0103-501
J.	Length: 12		shaft SS		Order No.		0110-306	0110-302	0103-506	0103-502
4	Length: 7		shaft HC		Order No.		0110-204	0110-200	0103-404	0103-400
	Length: 10		shaft HC		Order No.		0110-205	0110-201	0103-405	0103-401
	Length: 12		shaft HC		Order No.		0110-206	0110-202	0103-406	0103-402
	Length: 14		shaft HC		Order No.		0110-208	0110-213	-	-
	Length: 15		shaft HC		Order No.		0110-209	0110-214	-	-
	Length: 16		shaft HC		Order No.		0110-210	0110-215	-	-
	Length: 17	00 mm*	shaft HC		Order No.		0110-211	0110-216	-	-
	Length: 20	00 mm*	shaft HC		Order No.		0110-212	0110-217	-	-
	*The lenght con	nplies approx. to o	dimension C in the	e dimension table.	Special lengths 200-	–2500 mm on request				
	Choice o	f motors			Operating	data				
		MI 4	MI 4-E		Characteristic	curve no.	101	100	101	100
<u>.</u>		-	with speed		Flow rate <sup>1</sup>	up to I/min.	87	160	87	160
			controller		Delivery head	up to m wc	19	8.5	19	8.5
100000	Output:	500 W	500 W		Viscosity	up to mPas	500	150	500	150
	Voltage: Order No.	230 V <b>0030-000</b>	230 V <b>0030-001</b>		Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.4 3.9	1.1 3.9	1.4 3.9	1.1 3.9
	Order No.		0030-001							
	0	MA II 3	460114		Characteristic		103	102	103	102
Total Control	Output:	460 W	460 W		Flow rate <sup>1</sup>	up to I/min.	78 16	155	78 16	155
	Voltage: LVR.:	230 V	230 V		Delivery head Viscosity	up to m wc up to mPas	16 500	7.5 150	16 500	7.5 150
	LVK	no	yes		Density:	up to lileas up to kg/dm³	1.6	1.2	1.6	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube		5.7	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 <sup>1</sup>	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
				acid proof	Density:	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	6.5	6.5	6.5	6.5
		MA II 7			Characteristic	curve no.	107	106	107	106
1	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to l/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	Orden NI	0000 000	0000 040		Density:	up to kg/dm³	1.9	1.4	1.9	1.4
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		109	108	109	108
	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	116	216	116	216
	Operating	6.1	6.1		Delivery head	up to m wc	36	16	36	16
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
<u> </u>	0 1	0004 505	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	2.5	2.5	2.5	2.5

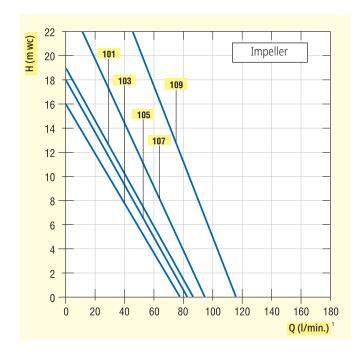
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

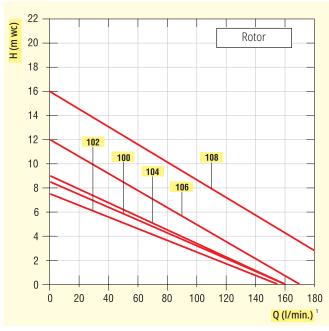
## **Pump Tube PP (polypropylene)**

## for corrosive and neutral liquids

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

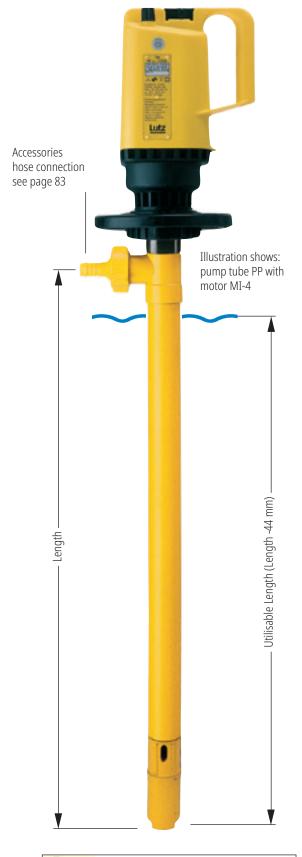
Version:	SL	MS
Housing:	PP/PVDF	PP/PVDF
Impeller/Rotor:	PP	PP
Seals:	none	FPM
Mechanical seals:	none	Carbon, SiC, FPM, HC-4 (2.4610)
Bearing:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Stainless steel (1.4571) or HC-4 (2.4610)	Stainless steel (1.4571) or HC-4 (2.4610)







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





Suitable range of accessories see pages 80-96

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

Productdetail	Pump tu	be					PVD	F-SL	PVDF-MS	
2	Type of im	peller:					Impeller	Rotor	Impeller	Rotor
		/ 2 (acc. to ATE	-X)				no	no	no	no
79		tube diamet			up to mm		41	41	41	41
		re of mediur			up to °C		100	100	100	100
	Material:	ic of fricular			Pump tube		PVDF	PVDF	PVDF	PVDF
	Material.				Impeller/Roto	or.	ETFE	ETFE	ETFE	ETFE
	Hose sonn	oction:			Nominal diam					
	Hose conn	ection:			Outer thread	ieter mm	19-32 G 1 1/4	19-32 G 1 1/4	19-32 G 1 1/4	19-32 G 1 1/4
		00 +								
	Length: 7				Order No.				0123-404	
	Length: 10 Length: 12				Order No. Order No.				0123-405 0123-406	
1			dimension C in the	dimension table.	Special lengths 200–	2500 mm on request		0122 202	0125 400	0123 40
	Choice o	f motors			Operating	data				
	CHOICE U									
		MI 4	MI 4-E		Characteristic	curve no.	201	200	201	200
		-	with speed		Flow rate <sup>1</sup>	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 <sup>1</sup>	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	cunto no	205	204	205	205
	Output				Flow rate <sup>1</sup>	up to I/min.	83	160	83	160
	Output: Voltage:	575 W 230 V	575 W 230 V	575 W 230 V	Delivery head		18	9	03 18	9
	LVR.:	230 V NO		230 V NO	Viscosity	up to mPas	800	350	800	350
	LVN	110	yes	acid proof	Density:	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
	01461110.				3 . 3.					
		MA II 7			Characteristic	curve no.	207	206	207	206
ow-voltage release (LVR.):	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to I/min.	95	170	95	170
Prevents the pump from	Voltage:	230 V	230 V		Delivery head		25	12	25	12
tarting up again without varning after a power failure.	LVR.:	no	yes		Viscosity	up to mPas	800	350	800	350
t is recommended when	0 1 1	0000 000	0000 040		Density:	up to kg/dm <sup>3</sup>	1.9	1.4	1.9	1.4
umping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	8.3	8.3	8.3	8.3
0-		MD1xL	MD2xL		Characteristic	curve no.	209	208	209	208
	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	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 va	ried	Density:	up to kg/dm³	2.8	2.8	2.8	2.8
-	Order No.	0004-725	0004-735	iicu	Weight (kg)	Motor + pump tube		3.1	3.1	3.1
	Order NO.		0004-733		weight (kg)	otor · purily tube	J. 1	J. 1	J. I	٥.١
		B4/GT			Characteristic	curve no.	211	210	211	210
	Output:	750 W	750 W		Flow rate <sup>1</sup>	up to I/min.	75	140	75	140
	Voltage:	230/400 V	230/400 V		Delivery head		10	8.5	10	8.5
Armin's	Protection				Viscosity	up to mPas	400	400	400	400
3					,					
	switch	no <b>0004-050</b>	yes <b>0004-052</b>		Density: Weight (kg)	up to kg/dm <sup>3</sup>	2.2 12.5	2.0 12.5	2.2 12.5	2.0 12.5

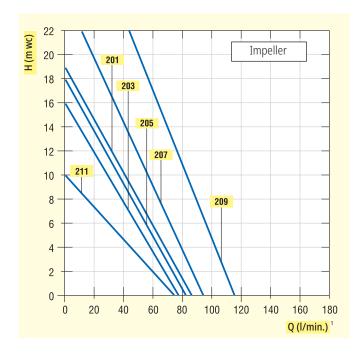
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

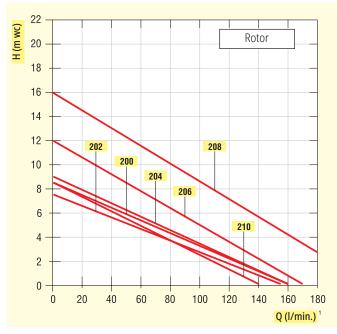
## **Pump Tube PVDF (polyvinylidene fluoride)**

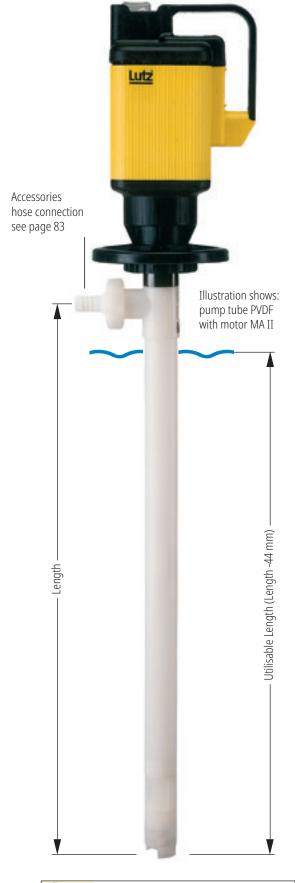
## for highly corrosive chemicals and neutral liquids

#### 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)









<sup>&</sup>lt;sup>1</sup>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 Alu (aluminium) for neutral, non flammable liquids

Productdetail	Pump tu	be					Alu	ı-SL	Alu	-MS
¥	Type of im	peller:					Impeller	Rotor	Impeller	Rotor
		/ 2 (acc. to ATE	(X)				no	no	no	no
78		tube diamet			up to mm		41	41	41	41
		re of mediun			up to °C		100	100	100	100
	Material:				Pump tube		Alu	Alu	Alu	Alu
	11101011011				Impeller/Roto	r	ETFE	ETFE	ETFE	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: 7	00 mm*			Order No.		0132-304	0132-300	0133-504	0133-500
	Length: 10				Order No.		0132-305	0132-301	0133-505	0133-501
	Length: 12				Order No.		0132-306	0132-302	0133-506	0133-502
- 4	Length: 15				Order No.		0132-309	-	-	-
- 8	o .		dimension C in the	e dimension table.	Special lengths 200–	2500 mm on request				
	Choice o	f motors			Operating	<mark>data</mark>				
	2.70.00									
		MI 4	MI 4-E		Characteristic		301	300	301	300
		-	with speed		Flow rate <sup>1</sup>	up to I/min.	87	160	87	160
100	Output	E00 W	controller		Delivery head		19	8.5	19	8.5
1000	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
		MA II 3			Characteristic	curve no.	303	302	303	302
	Output:	460 W	460 W		Flow rate <sup>1</sup>	up to I/min.	78	155	78	155
to the second	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	6.1	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 <sup>1</sup>	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
	0 1 11	0050 004	2052 202	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	6.9	6.9	6.9	6.9
		MA II 7			Characteristic	curve no.	307	306	307	306
	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to I/min.	95	170	95	170
Low-voltage release (LVR.): Prevents the pump from	Voltage:	230 V	230 V		Delivery head	•	25	12	25	12
starting up again without warning after a power failure.	LVR.:	no	yes		Viscosity	up to mPas	800	350	800	350
It is recommended when pumping hazardous liquids.	Order No.	0060-002	0060-010		Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.9 8.1	1.4 8.1	1.9 8.1	1.4 8.1
parripring nazaraous inquias.		MD1xL	MD2xL		Characteristic	curve no	309	308	309	308
3	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	116	216	116	216
	Operating Operating	1000 11	1000 VV		Delivery head	·	36	16	36	16
	pressure:	6 har	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
	p. 55541C.	U Dai		riod	,	•				
<b>*</b>	Order No.	0004-725	infinitely va <b>0004-735</b>	neu	Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	2.8 2.9	2.8 2.9	2.8 2.9	2.8 2.9
	Order 140.	B4/GT	3007733				311	310	311	310
	Output	750 W	750 W		Characteristic Flow rate <sup>1</sup>	up to I/min.	75	140	75	140
	Output: Voltage:	230/400 V	230/400 V		Delivery head	•	75 10	8.5	10	8.5
diminin		230/400 V	230/400 V		-					
The state of the s	Protection				Viscosity	up to mPas	400	4()()	400	4()()
NAME OF THE OWNER, OWNE	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

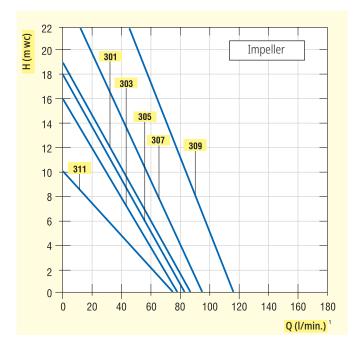
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

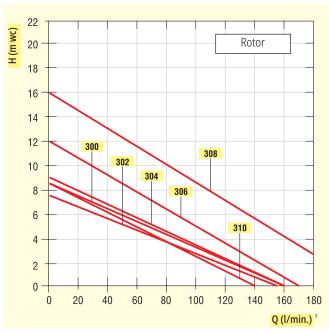
## **Pump Tube Alu (aluminium)**

#### for neutral, non flammable liquids

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

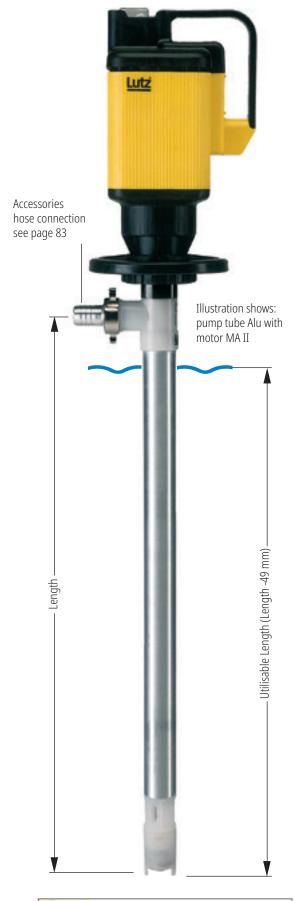
Version:	SL	MS
Housing:	Alu, PVDF	Alu, PVDF
Impeller/Rotor:	ETFE	PP ETFE
Seals:	none	FPM
Mechanical seals:	none	Carbon, SiC, FPM, HC, HC-4 (2.4610)
Bearing:	ETFE	ETFE
Drive shaft:	Stainless steel (1.4571)	Stainless steel (1.4571)







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

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

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
		00 4			Outer thread		G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
	Length: 70 Length: 10				Order No. Order No.			0150-000 0150-001		
	Length: 12				Order No.			0150-001		
	Length: 14				Order No.			0150-113	-	-
	Length: 15				Order No.		0150-109	0150-114	-	-
	Length: 16				Order No.			0150-115	-	-
	Length: 17				Order No.			0150-116	-	-
	Length: 20 *The length com	OO mm^ iplies approx. to d	limension C in the	dimension table.	Order No. Special lengths 200–	2500 mm on request		0150-117	-	-
	Choice o				<b>Operating</b>					
		MI 4	MI 4-E		Characteristic	curve no.	401	400	401	400
		-	with speed		Flow rate <sup>1</sup>	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/dm <sup>3</sup>	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 <sup>1</sup>	up to I/min.	95	178	95	178
140	Voltage:	230 V	230 V		Delivery head	up to m wc	14	9	14	9
	LVR.:	no	yes		Viscosity	up to mPas	350	200	350	200
					Density:	up to kg/dm³	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 <sup>1</sup>	up to I/min.	100	190	100	190
	Voltage:	230 V	230 V	230 V	Delivery head	up to m wc	16	10	16	10
	LVR.:	no	yes	no	Viscosity	up to mPas	700	550	700	550
	0 1 11			acid proof	Density:	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	8.3	8.3	8.3	8.3
		MA II 7			Characteristic	curve no.	407	406	407	406
	Output:	795 W	795 W		Flow rate <sup>1</sup>	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	LVR.:	no	yes		Viscosity	up to mPas	500	400	500	400
warning after a power failure. It is recommended when	0 1 1	0000 000	0060 646		Density:	up to kg/dm³	1.9	1.4	1.9	1.4
pumping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	9.5	9.5	9.5	9.5
0		MD1xL	MD2xL		Characteristic		409	408	409	408
	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	124	276	124	276
	Operating				Delivery head	up to m wc	35	20	35	20
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000	1000	1000
			infinitely vai	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	4.3	4.3	4.3	4.3
		B4/GT			Characteristic	curve no.	411	410	411	410
	Output:	750 W	750 W		Flow rate <sup>1</sup>	up to I/min.	100	180	100	180
	Voltage:	230/400 V	230/400 V		Delivery head		12	13	12	13
Trubba.	Protection				Viscosity	up to mPas	500	400	500	400
10 m	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	14.7	14.7	14.7	14.7

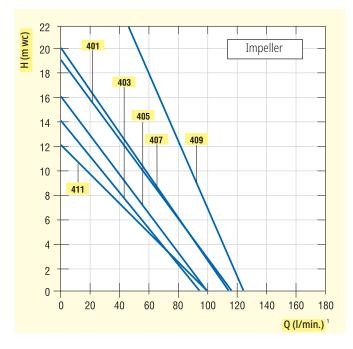
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

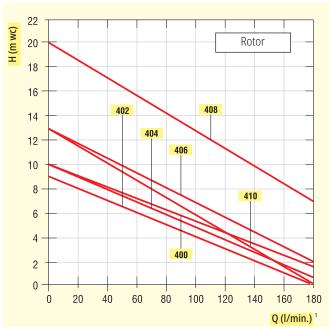
## **Pump Tube SS (stainless steel)**

#### 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)



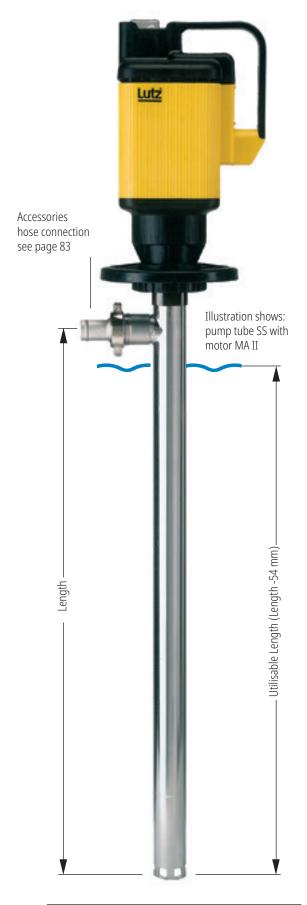




With selected accessories (see page 96) the pump tube also can be used for pumping rapeseed oil, vegetable oils, diesel - and biodiesel.



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

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.

## (Ex

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

Productdetail	Pump tube		SS	-SL	SS-	·MS
y.	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	-	-
	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>The length complies approx. to dimension C in the dimension table. Special lengths 200–2500 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 no. Flow rate¹ up to I/min. Delivery head up to m wc Viscosity up to mPas Density: up to kg/dm³ Weight (kg) Motor + pump tube	453 95 14 350 1.6 8.7	452 178 9 200 1.2 8.7	453 95 14 350 1.6 8.7	452 178 9 200 1.2 8.7
Atex	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. Flow rate¹ up to l/min. Delivery head up to m wc Viscosity up to mPas Density: up to kg/dm³ Weight (kg) Motor + pump tube	455 100 16 700 1.8 9.6	454 190 10 550 1.3 9.6	455 100 16 700 1.8 9.6	454 190 10 550 1.3 9.6
	Output: Voltage: LVR.:	ME II 7 795 W 230 V yes 0050-002	795 W 230 V no	Characteristic curve no. Flow rate¹ up to I/min. Delivery head up to m wc Viscosity up to mPas Density: up to kg/dm³ Weight (kg) Motor + pump tube	457 115 20 500 1.9 10.8	456 210 13 400 1.4 10.8	457 115 20 500 1.9 10.8	456 210 13 400 1.4 10.8
Low-voltage release (LVR.): Prevents the pump from starting up again without warning after a power failure. In the hazardous location, motors with low- voltage release are absolutely prescribed.	Output: Voltage: LVR.:	ME II 8 930 W 230 V yes 0050-042	930 W 230 V no	Characteristic curve no. Flow rate¹ up to l/min. Delivery head up to m wc Viscosity up to mPas Density: up to kg/dm³ Weight (kg) Motor + pump tube	459 123 26 750 1.9 10.8	458 243 15 650 1.4 10.8	459 123 26 750 1.9 10.8	458 243 15 650 1.4 10.8
AtEx	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 rate¹ up to I/min. Delivery head up to m wc Viscosity up to mPas Density: up to kg/dm³ Weight (kg) Motor + pump tube	461 124 35 1000 2.8 4.3	460 276 20 1000 2.8 4.3	461 124 35 1000 2.8 4.3	460 276 20 1000 2.8 4.3

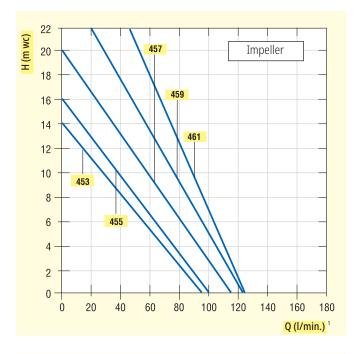
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

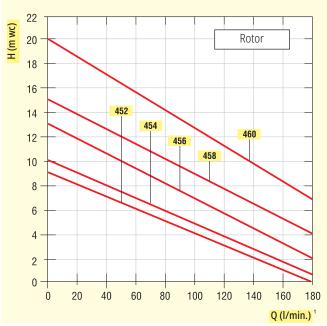
## **Pump Tube SS (stainless steel)**

### for 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)

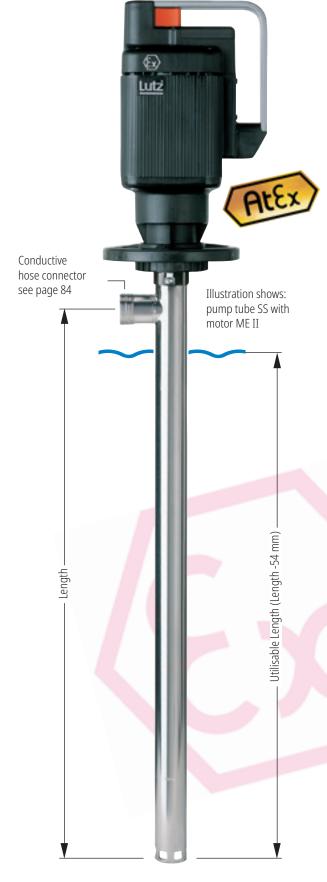




**Please note:** With a suitable threaded connection the pump tube also can be used for pumping hazardous substances for fire control and civil protection.



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)





Suitable range of accessories see pages 80-96

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 HC (Hastelloy C) for highly corrosive chemicals

roductdetail	Pump tu	be					НС	C-SL
V	Type of imp	peller:					Impeller	Rotor
med III		/ 2 (acc. to ATE	EX)				yes	yes
		tube diamet			up to mm		42	42
III		re of mediun			up to °C		120	120
III	Material:				Pump tube		HC	HC
	widterial.				Impeller/Roto	r	ETFE	ETFE
	Hose conn	action:			Nominal diam		19-32	19-32
	LIOSE COUL	ection.			Outer thread	CCCI IIIIII	G 1 1/4	G 1 1/4
	Length: 10	00 mm*			Order No.		0162-204	0162-201
III	Length: 12				Order No.		0162-205	0162-201
	*The lenght con	iplies approx. to o	dimension C in the	dimension table.	Special lengths 200–	2500 mm on request		
	Choice o	f motors			<b>Operating</b>	data		
		MI 4	MI 4-E		Characteristic	curve no	501	500
		-	with speed		Flow rate <sup>1</sup>	up to I/min.	117	210
<b>**</b>			controller		Delivery head		19	10
4	Output:	500 W	500 W		Viscosity	up to mPas	500	350
1	Voltage:	230 V	230 V		Density:	up to kg/dm³	1.4	1.1
	_	0030-000	0030-001		Weight (kg)	Motor + pump tube	7.2	7.2
		MA II 3			Characteristic	CUIN/A NO	503	502
	Output:	460 W	460 W		Flow rate <sup>1</sup>	up to I/min.	95	178
	Voltage:	230 V	230 V		Delivery head		14	9
	LVR.:	no	yes		Viscosity	up to m we	350	200
	LVIV	110	ycs		Density:	up to kg/dm <sup>3</sup>	1.6	1.2
	Order No.	0060-000	0060-008		Weight (kg)	Motor + pump tube	9.0	9.0
			MA II 5	NAA TI C C				
	0 + +	MA II 5		MA II 5 S	Characteristic		505	504
	Output:	575 W 230 V	575 W 230 V	575 W 230 V	Flow rate <sup>1</sup> Delivery head	up to I/min.	100 16	190 10
	Voltage: LVR.:	230 V NO		230 V NO	Viscosity	up to mPas	700	550
	LVI\	110	yes	acid proof	Density:	up to kg/dm <sup>3</sup>	1.8	1.3
	Order No.	0060-001	0060-009	0060-091	Weight (kg)	Motor + pump tube	9.8	9.8
	014011101							
		MA II 7			Characteristic		507	506
v-voltage release (LVR.):	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to I/min.	115	210
vents the pump from	Voltage:	230 V	230 V		Delivery head		20	13
rting up again without rning after a power failure.	LVR.:	no	yes		Viscosity Density:	up to mPas up to kg/dm³	500 1.9	400 1.4
s recommended when mping hazardous liquids.	Order No	0060-002	0060-010		Weight (kg)	Motor + pump tube	11.0	11.0
	0.461110.							
-	Out-	MD1xL	MD2xL		Characteristic		509	508
	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	124	276
	Operating				Delivery head		35	20
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000	1000
			infinitely vai	ried	Density:	up to kg/dm <sup>3</sup>	2.8	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	5.8	5.8
		B4/GT			Characteristic	curve no.	511	510
	Output:	750 W	750 W		Flow rate <sup>1</sup>	up to I/min.	100	180
	Voltage:	230/400 V	230/400 V		Delivery head		12	13
	_				Viscosity	up to mPas	500	400
C. Land	Protection				Viscosity			
Topics .	switch	no	yes		Density:	up to kg/dm³	2.2	2.0

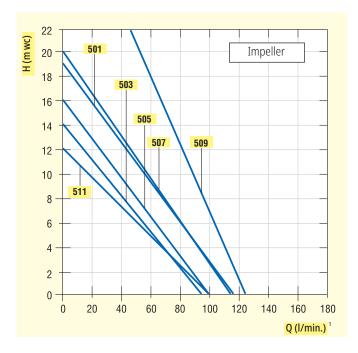
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

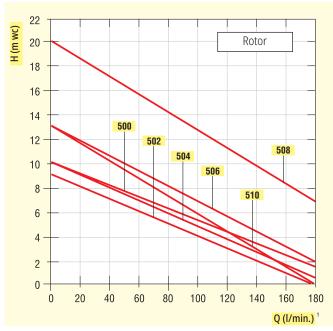
## **Pump Tube HC (Hastelloy C)**

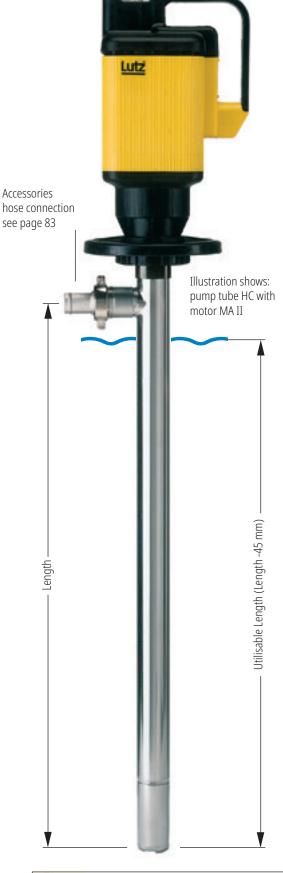
## for highly corrosive chemicals

#### 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)



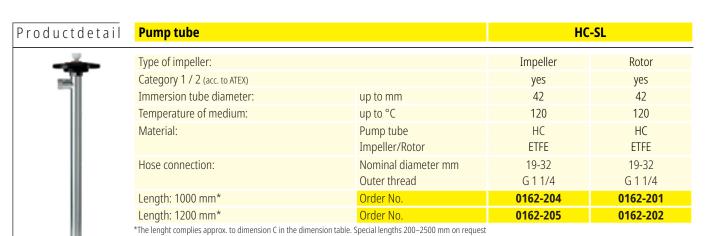




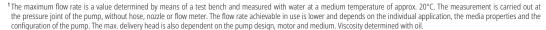


<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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 HC (Hastelloy C) for highly flammable chemicals



	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 rate¹ 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		
AtEx	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 rate¹ 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 rate¹ 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 rate¹ 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 rate¹ 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		

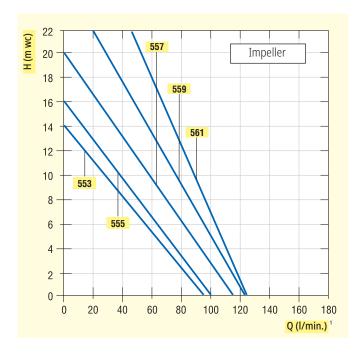


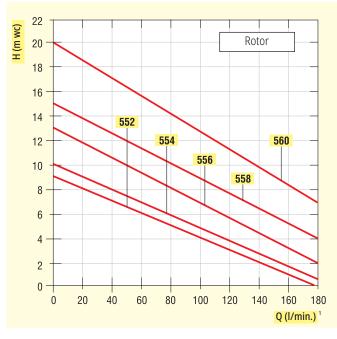
## **Pump Tube HC (Hastelloy C)**

## for highly flammable chemicals

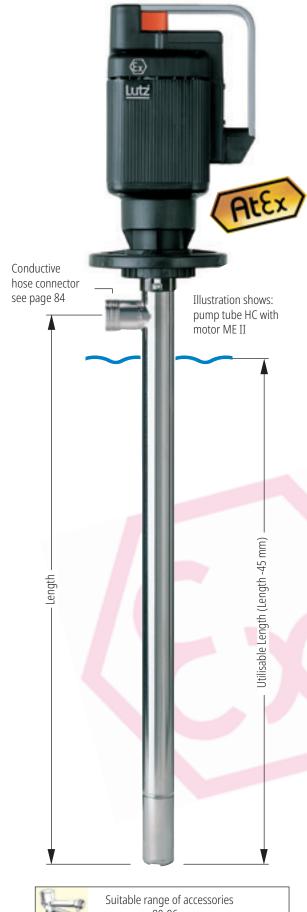
#### Materials (coming into contact with the pumped medium):

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.

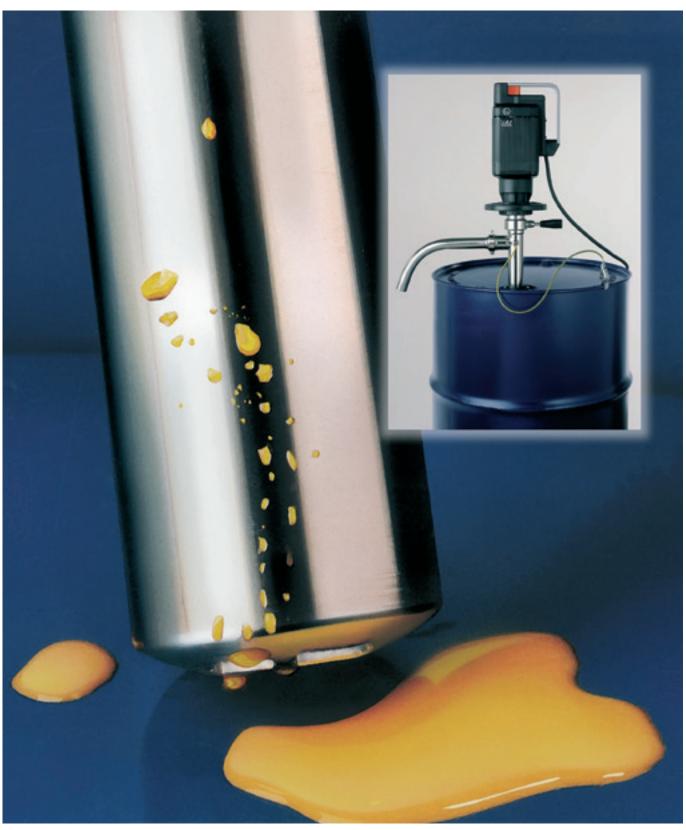




see pages 80-96

## **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.





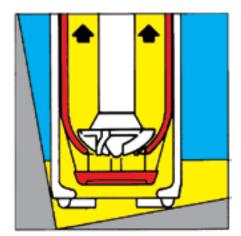
## Competitive edge instead of drawback

**Experts, never tired of work:** 

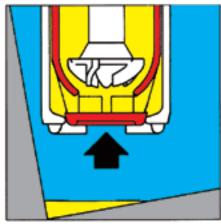
Lutz pump tubes RE in stainless steel and polypropylene. They do not only protect the environment, but also help to save money. On the one hand, the liquid is used to the maximum, on the other hand, the cost for disposing of residuals is drastically reduced, since only the slightest residue remains in 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

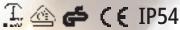
The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-flammable liquids.



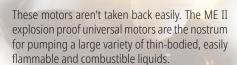






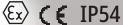


**MAII** 











**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 grIPas 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.



**C** € IP54/IP55

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

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

roductdetail	Pump tu	ibe					RE-PP GI	LRD
-	Type of im	peller:					Impelle	er
100	Category 1	/ 2 (acc. to ATE	EX)				no	
-	Immersion	tube diamet	ter:		up to mm		41	
T -	Temperatu	re of mediur	n:		up to °C		50	
	Material:				Pump tube		PP	
- 1	Hose conn	action:			Impeller Nominal diam	neter mm	PP 19-32	
	Tiose comi	ection.			Outer thread	ietei iiiiii	G 1 1/4	
	Length: 7		shaft SS		Order No.		0103-02	
	Length: 10		shaft SS		Order No.		0103-02	
	Length: 12		shaft SS		Order No.		0103-02	
	Length: 7		shaft HC		Order No.		0103-04	
	Length: 10		shaft HC		Order No.		0103-04	
	Length: 12		shaft HC		Order No.	1500 mm on request	0103-04	<b>42</b>
	Choice o	f motors			Operating	data		
		MI 4	MI 4-E		Characteristic	curve no.	600	
2		-	with speed		Flow rate <sup>1</sup>	up to I/min.	70	
100								
1 200 1			controller		Delivery head	l up to m wc	12	
	Output:	500 W	500 W		Viscosity	up to mPas	1000	
1	Voltage:	230 V	500 W 230 V		Viscosity Density:	up to mPas up to kg/dm³	1000 1.6	
	Voltage:		500 W		Viscosity	up to mPas	1000	
	Voltage: Order No.	230 V 0030-000 MA II 3	500 W 230 V <b>0030-001</b>		Viscosity Density: Weight (kg) Characteristic	up to mPas up to kg/dm³ Motor + pump tube Curve no.	1000 1.6 4.0	
<b>F</b>	Voltage: Order No.  Output:	230 V 0030-000 MA II 3 460 W	500 W 230 V <b>0030-001</b> 460 W		Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup>	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to I/min.	1000 1.6 4.0 601 60	
	Voltage: Order No. Output: Voltage:	230 V 0030-000 MA II 3 460 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V		Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to l/min. l up to m wc	1000 1.6 4.0 601 60 11	
	Voltage: Order No.  Output:	230 V 0030-000 MA II 3 460 W	500 W 230 V <b>0030-001</b> 460 W		Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head Viscosity	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to l/min. up to m wc up to mPas	1000 1.6 4.0 601 60 11 800	
	Voltage: Order No.  Output: Voltage: LVR.:	230 V 0030-000 MA II 3 460 W 230 V	500 W 230 V <b>0030-001</b> 460 W 230 V		Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head	up to mPas up to kg/dm³ Motor + pump tube Curve no. up to l/min. l up to m wc	1000 1.6 4.0 601 60 11	
	Voltage: Order No.  Output: Voltage: LVR.:	230 V 0030-000 MA II 3 460 W 230 V no	500 W 230 V <b>0030-001</b> 460 W 230 V yes	MA II 5 S	Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head Viscosity Density: Weight (kg)	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	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	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b>	MA II 5 S 575 W	Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> 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 Motor + pump tube	1000 1.6 4.0 601 60 11 800 1.7	
	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	500 W 230 V <b>0030-001</b> 460 W 230 V yes <b>0060-008</b> <b>MA II 5</b>		Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head	up to mPas up to kg/dm³  Motor + pump tube  CUrVe no. up to l/min. l up to m wc up to mPas up to kg/dm³  Motor + pump tube  CUrVe no. up to l/min.	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 230 V no	Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head Viscosity	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 myc up to myc up to l/min.	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 <sup>1</sup> Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate <sup>1</sup> Delivery head Viscosity Density:	up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. l up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. l up to m wc up to myc up to myc up to kg/dm³	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0	
	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 0060-001	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 rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)	up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. l up to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe no. up to l/min. l up to m wc up to m wc up to m wc up to myas up to kg/dm³ Motor + pump tube	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
	Voltage: 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	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 rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Characteristic Flow rate¹ Characteristic Characteristic	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. cup to l/min. cup to mPas up to kg/dm³ Motor + pump tube  Curve no.	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
	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 0030-001 460 W 230 V yes 0060-008 MA II 5 575 W 230 V yes 0060-009	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 Motor + pump tube  CUrVe no. up to l/min.	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
events the pump from	Voltage: 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	500 W 230 V 0030-001 460 W 230 V yes 0060-008 MA II 5 575 W 230 V yes 0060-009	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Characteristic Flow rate¹ Characteristic Characteristic	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.	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
revents the pump from arting up again without arning after a power failure.	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	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 rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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. lup to m wc up to mPas up to kg/dm³ Motor + pump tube  CUrVe nO. up to l/min. lup to m wc up to mPas up to kg/dm³ CUrVe nO. up to l/min. lup to m wc	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
revents the pump from arting up again without arning after a power failure. is recommended 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 0030-001 460 W 230 V yes 0060-008 MA II 5 575 W 230 V yes 0060-009	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 m wc up to mPas up to kg/dm³  Motor + pump tube  CUrVe no. up to l/min. up to m wc up to l/min. up to m wc up to mPas	1000 1.6 4.0 601 60 11 800 1.7 5.8 602 60 11.5 1200 2.0 6.6	
revents the pump from arting up again without arning after a power failure. is recommended 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	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 rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 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 m wc up to m wc up to m yc up to m	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	
revents the pump from arting up again without arning after a power failure. is recommended 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 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 rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 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.	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	
ow-voltage release (LVR.): revents the pump from tarting up again without arning after a power failure. is recommended when umping hazardous liquids.	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  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 0060-010 MD2xL 1000 W	575 W 230 V no acid proof	Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 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 CUrVe no. up to l/min. up to mwc up to l/min. up to m wc	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	
revents the pump from arting up again without arning after a power failure. is recommended 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  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 <b>0060-091</b>	Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ Delivery head Viscosity Density: Weight (kg)  Characteristic Flow rate¹ 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 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.	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	

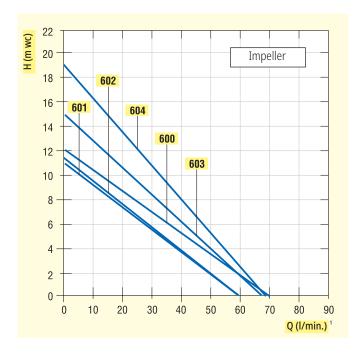
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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-PP (polypropylene)**

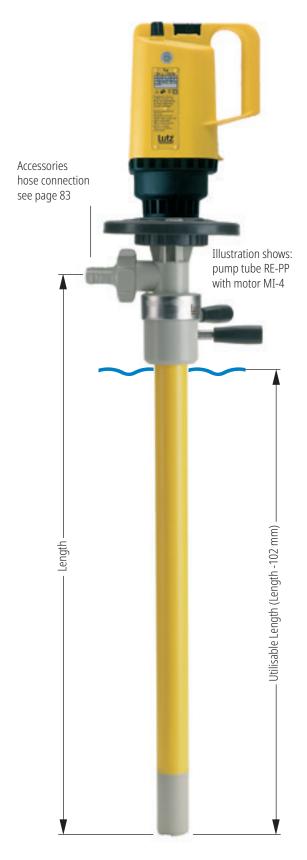
## for complete drum drainage of corrosive and neutral liquids

#### 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

roductdetail	Pump tu	be					RE-SS GLRD
- V	Type of im	peller:					Impeller
(10-		/ 2 (acc. to ATE	EX)				yes
100		tube diamet			up to mm		41
		re of mediur			up to °C		100
		ic of fricular	11.				1.4571
	Material:				Pump tube		
					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 *The lenght com		limension C in the	dimension table.	Order No. Special lengths 400-	2000 mm on request	0151-158
- 1							
	Choice o	f motors			<b>Operating</b>	data	
		MI 4	MI 4-E		Characteristic	curve no.	700
2		-	with speed		Flow rate <sup>1</sup>	up to I/min.	78
- E			controller		Delivery head		17
	Output:	500 W	500 W		Viscosity	up to mPas	700
	Voltage:	230 V	230 V		Density:	up to kg/dm³	1.4
	_	0030-000	0030-001			Motor + pump tube	6.0
							701
	0	MA II 3	150111		Characteristic		701
	Output:	460 W	460 W		Flow rate <sup>1</sup>	up to I/min.	77
	Voltage:	230 V	230 V		Delivery head		14
	LVR.:	no	yes		Viscosity	up to mPas	500
					Density:	up to kg/dm <sup>3</sup>	1.6
100	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.	702
	Output:	575 W	575 W	575 W	Flow rate <sup>1</sup>	up to I/min.	77
	Voltage:	230 V	230 V	230 V	Delivery head	up to m wc	14
	LVR.:	no	yes	no	Viscosity	up to mPas	900
				acid proof	Density:	up to kg/dm³	1.8
	Order No.	0060-001	0060-009	0060-091	Weight (kg)	Motor + pump tube	8.6
		MA II 7			Characteristic	curve no	703
	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to I/min.	70
w-voltage release (LVR.):	Voltage:	230 V	230 V		Delivery head		18
events the pump from arting up again without	LVR.:	no	yes		Viscosity	up to m we	700
arning after a power failure.	L V I \	110	,03		Density:	up to kg/dm <sup>3</sup>	1.9
is recommended when Imping hazardous liquids.	Order No.	0060-002	0060-010			Motor + pump tube	9.8
9000		MD1xL	MD2xL		Characteristic	CUIVE NO	704
-	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	67
		1000 W	1000 W				28
	Operating	6.1	6.1		Delivery head		
	pressure:	6 bar	6 bar		Viscosity	up to mPas	1000
			infinitely varied		Density:	up to kg/dm³	2.8
			,				
3	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	4.6
	Order No.						
		B4/GT	0004-735		Characteristic	curve no.	705
	Output:	<b>B4/GT</b> 750 W	<b>0004-735</b> 750 W		Characteristic Flow rate <sup>1</sup>	Curve no. up to l/min.	705 55
	Output: Voltage:	B4/GT	0004-735		Characteristic Flow rate <sup>1</sup> Delivery head	curve no. up to I/min. up to m wc	705 55 8.5
	Output:	<b>B4/GT</b> 750 W	<b>0004-735</b> 750 W		Characteristic Flow rate <sup>1</sup>	Curve no. up to l/min.	705 55

<sup>&</sup>lt;sup>1</sup>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

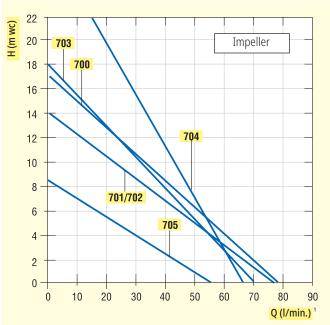
frequencies on request.

## **Pump Tube 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)

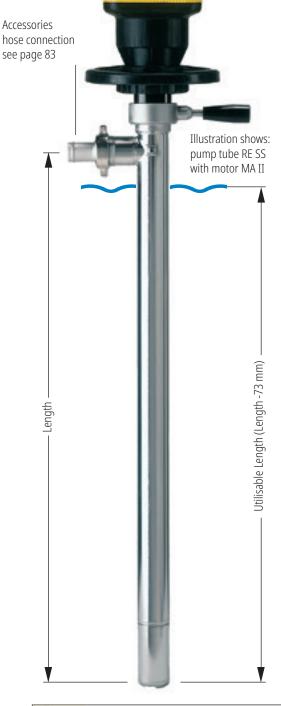


#### Complete drum drainage

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

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

Productdetail	Pump tube		RE-SS GLRD
V.	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 table.	Special lengths 400–2000 mm on request	

	Choice o	f motors		<b>Operating</b>	data	
	Output:	<b>ME II 3</b> 460 W	460 W	Characteristic Flow rate <sup>1</sup>	curve no.	750 77
	Voltage:	230 V	230 V	Delivery head	up to m wc	14
	LVR.:	yes	no	Viscosity Density:	up to mPas up to kg/dm³	500 1.6
	Order No.	0050-000	0050-016	Weight (kg)	Motor + pump tube	9.0
		ME II 5		Characteristic	curve no.	751
	Output: Voltage:	580 W 230 V	580 W 230 V	Flow rate <sup>1</sup> Delivery head	up to I/min.	77 14
ALEX	LVR.:	yes	no	Viscosity	up to mPas	900
	Order No.	0050-001	0050-017	Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.8 9.9
	Order No.		0030-017	3 . 3.		
	Output:	<b>ME II 7</b> 795 W	795 W	Characteristic Flow rate <sup>1</sup>	curve no. up to l/min.	752 70
	Voltage:	230 V	230 V	Delivery head	up to m wc	18
	LVR.:	yes	no	Viscosity Density:	up to mPas up to kg/dm <sup>3</sup>	700 1.9
	Order No.	0050-002	0050-018	Weight (kg)	Motor + pump tube	11.1
		ME II 8		Characteristic	curve no.	753
Low-voltage release (LVR.): Prevents the pump from starting	Output: Voltage:	930 W 230 V	930 W 230 V	Flow rate <sup>1</sup> Delivery head	up to I/min.	78 22
up again without warning after a power failure. In the hazardous location, motors with low-voltage	LVR.:	yes	no	Viscosity	up to mPas	950
release are absolutely prescribed.	Order No.	0050-042	0050-041	Density: Weight (kg)	up to kg/dm <sup>3</sup> Motor + pump tube	1.9 11.1
(445)	Oraci No.	MD1xL	MD2xL			754
-	Output:	1000 W	1000 W	Characteristic Flow rate <sup>1</sup>	up to I/min.	754 67
	Operating			Delivery head	up to m wc	28
20	pressure:	6 bar	6 bar infinitely varied	Viscosity Density:	up to mPas up to kg/dm <sup>3</sup>	1000 2.8
AtEx	Order No.	0004-725	0004-735	Weight (kg)	Motor + pump tube	4.6

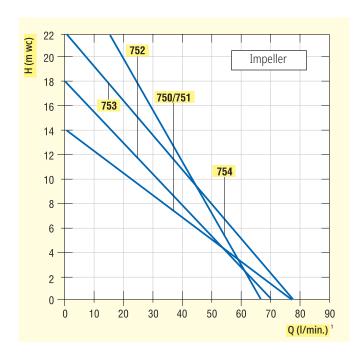
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

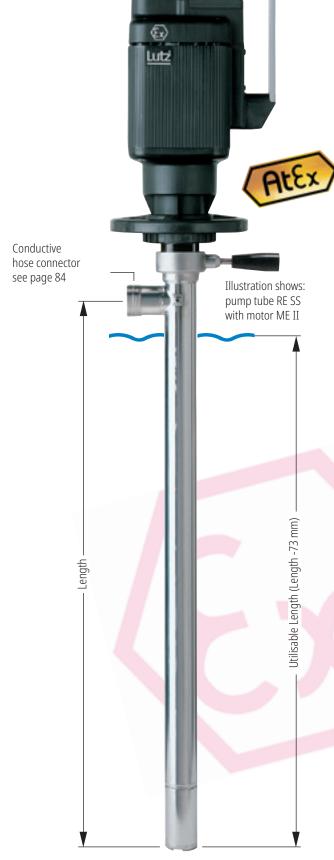
## **Pump Tube RE-SS (stainless steel)**

## 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)





Tip

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)



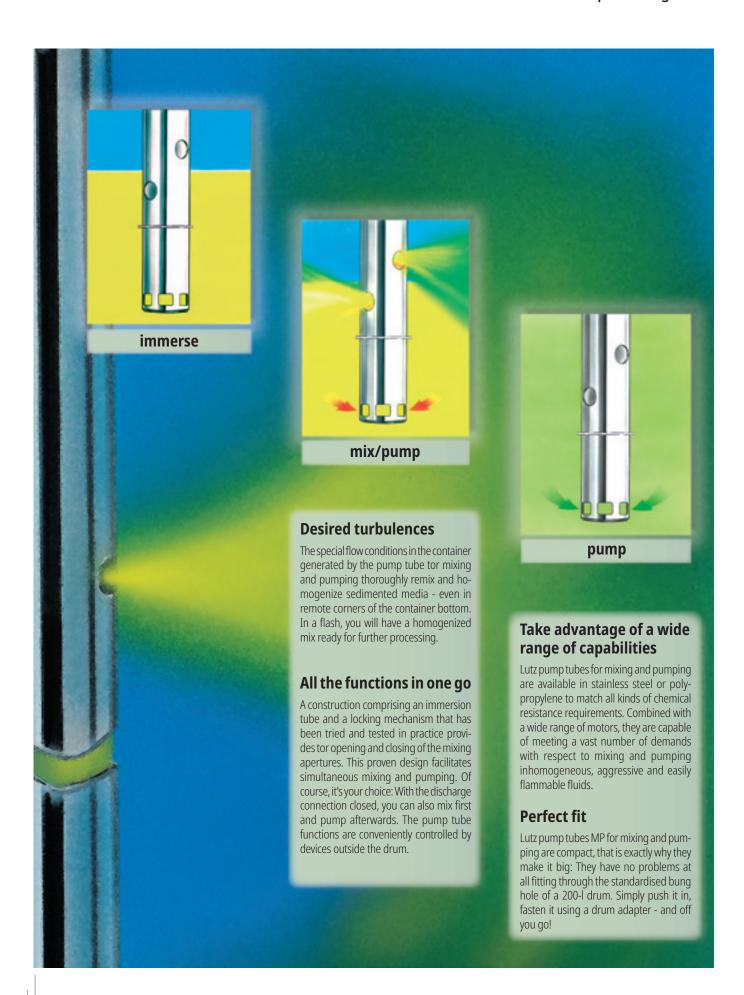
## **Pump Tubes MP for mixing and pumping**

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.

















#### Lightweight but dependable

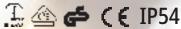
The convenient and powerful MA II universal motors. Ideal for pumping thin-bodied to slightly viscous, aggressive and non-flammable liquids.











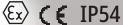
**MAII** 

#### 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 grIPas 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.



**C** € IP54/IP55

**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-PP-MS		
¥	Type of impeller:			Impeller	Rotor	Impeller	Rotor
	Category 1 / 2 (acc. to AT	EX)		no	no	no	no
	Immersion tube diame	ter:	up to mm	50	50	50	50
	Temperature of mediu	m:	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	*
<u>''</u>	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	*	*
•	* available on request **The lenght complies approx. to	o dimension C in the dime	ension table. Special lengths 400–2000 mm on rec	uest			

	Chaire a	6 h			0	1.4.				
	Choice o	f motors			<b>Operating</b>	gata				
		MI 4	MI 4-E		Characteristic	curve no.	802	801	802	801
4		-	with speed		Flow rate <sup>1</sup>	up to I/min.	87	160	87	160
100			controller		Delivery head		19	8.5	19	8.5
1000	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
EFF.		MA II 3			Characteristic	curve no.	804	803	804	803
	Output:	460 W	460 W		Flow rate <sup>1</sup>	up to I/min.	78	155	78	155
NAT.	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/dm <sup>3</sup>	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 <sup>1</sup>	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/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	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 <sup>1</sup>	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/dm³	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
0-		MD1xL	MD2xL		Characteristic	curve no.	810	809	810	809
	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	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
	0 1 11	0004-725	0004-735		Weight (kg)	Motor + pump tube	2.7	2.7	2.7	2.7

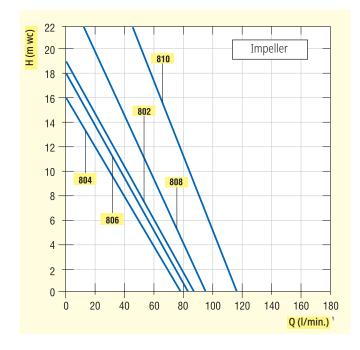
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

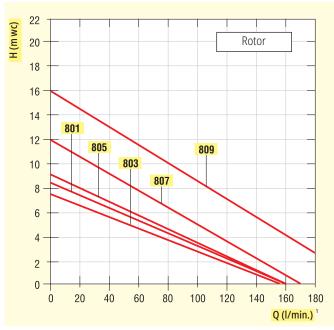
## Pump Tube MP-PP (polypropylene)

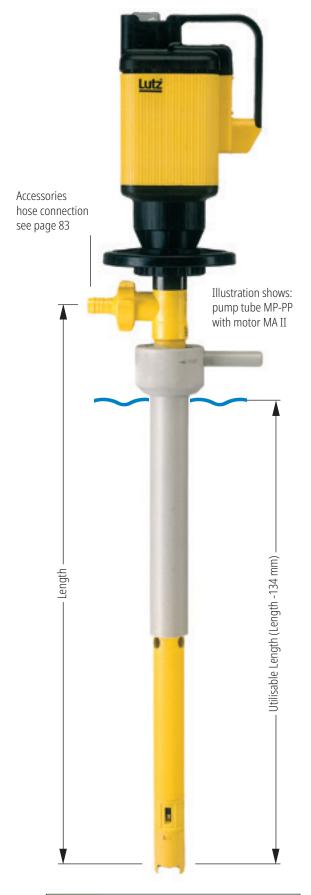
### for mixing and pumping of corrosive and neutral liquids

#### 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)









<sup>&</sup>lt;sup>1</sup>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 corrosive and neutral liquids

roductdetail	Pump tu	be					MP-SS GLRD
V.	Type of im	oeller:					Rotor
(1)-		/ 2 (acc. to ATE	EX)				yes
<b>=</b>		tube diamet			up to mm		41
- 1	Temperature of medium:			up to °C		100	
	Material:			Pump tube		1.4571	
	acc.i.a.i			Rotor		ETFE	
					Nominal diam	eter mm	19-32
					Outer thread		G 1 1/4
- 11					Order No.		0151-240
	Length: 12				Order No.		0151-255
	*The lenght con	nplies approx. to o	dimension C in the	dimension table.	Special lengths 600–:	2500 mm on request	
	Choice o	f motors			<b>Operating</b>	data	
		MI 4	MI 4-E		Characteristic		900
		-	with speed			up to I/min.	210
费			controller		Delivery head		10
1	Output:	500 W	500 W		Viscosity	up to mPas	350
	Voltage:	230 V	230 V		Density:	up to kg/dm <sup>3</sup>	1.1
		0030-000	0030-001		,	Motor + pump tube	6.0
		MA II 3			Charastaristis	5111710 100	901
	0		4CO M		Characteristic		
	Output:	460 W 230 V	460 W 230 V		Flow rate <sup>1</sup>	up to I/min.	178 9
	Voltage: LVR.:	230 V NO	yes		Delivery head Viscosity	up to m wc	200
	LVI\	110	yes		Density:	up to IIII as up to kg/dm <sup>3</sup>	1.2
	Order No.	0060-000	0060-008			Motor + pump tube	7.8
		MA II 5	MA II 5	MA II 5 S	Characteristic	curvo no	902
	Output				Flow rate <sup>1</sup>		
	Output: Voltage:	575 W 230 V	575 W 230 V	575 W 230 V	Delivery head	up to I/min.	190 10
	LVR.:	no	yes	no	Viscosity	up to m wc	550
	LVIV	110	ycs	acid proof	Density:	up to kg/dm <sup>3</sup>	1.3
	Order No.	0060-001	0060-009	0060-091		Motor + pump tube	8.6
	0	MA II 7	705111		Characteristic		903
ow-voltage release (LVR.):	Output:	795 W	795 W		Flow rate <sup>1</sup>	up to I/min.	210
revents the pump from	Voltage: LVR.:	230 V	230 V		Delivery head	up to m wc up to mPas	13 400
arting up again without arning after a power failure.	LVK	no	yes		Viscosity Density:	up to meas	1.4
is recommended when umping hazardous liquids.	Order No.	0060-002	0060-010		Weight (kg)	Motor + pump tube	9.8
umping nazardous ilquids.	014011101						
-0-	0	MD1xL	MD2xL		Characteristic		904
- T	Output:	1000 W	1000 W		Flow rate <sup>1</sup>	up to I/min.	245
	Operating				Delivery head		21
	pressure:	6 bar	6 bar	riod	Viscosity	up to mPas	1000
<u> </u>			infinitely va	rieu	Density:	up to kg/dm <sup>3</sup>	2.8
	Order No.	0004-725	0004-735		Weight (kg)	Motor + pump tube	4.6
		B4/GT			Characteristic	curve no.	905
	Output:	750 W	750 W		Flow rate <sup>1</sup>	up to I/min.	140
	Voltage:	230/400 V	230/400 V		Delivery head		10.5
	30.				-		
A COLUMN	Protection				Viscosity	up to mPas	400
Wage .	Protection switch	no	yes		Density:	up to meas up to kg/dm <sup>3</sup>	400 2.0

<sup>&</sup>lt;sup>1</sup>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

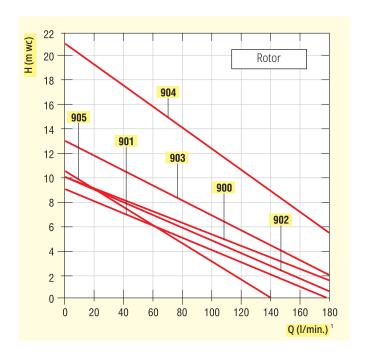
frequencies on request.

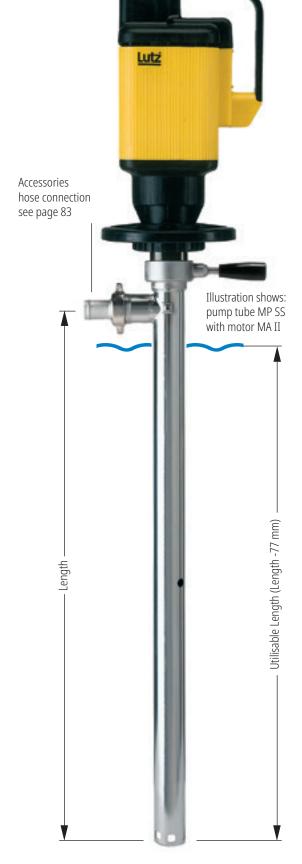
## **Pump Tube MP-SS (stainless steel)**

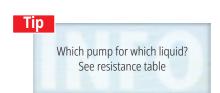
## for mixing and pumping of corrosive and neutral liquids

#### 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)



# (Ex)

## 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	
(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
		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 tabl	e. Special lengths 600–2500 mm on request	

	Choice of motors			Operating data		
ALEX	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.         950           Flow rate¹ up to I/min.         178           Delivery head up to m wc         9           Viscosity up to mPas         200           Density: up to kg/dm³         1.2           Weight (kg)         Motor + pump tube         9.0		
	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.       951         Flow rate¹ up to I/min.       190         Delivery head up to m wc       10         Viscosity up to mPas       550         Density: up to kg/dm³       1.3         Weight (kg) Motor + pump tube       9.9		
	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 no. 952 Flow rate¹ up to I/min. 210 Delivery head up to m wc 13 Viscosity up to mPas 400 Density: up to kg/dm³ 1.4 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.       953         Flow rate¹ up to I/min.       216         Delivery head up to m wc       14.5         Viscosity up to mPas       650         Density: up to kg/dm³       1.4         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.       954         Flow rate¹ up to I/min.       245         Delivery head up to m wc       21         Viscosity up to mPas       1000         Density: up to kg/dm³       2.8         Weight (kg)       Motor + pump tube       4.6		

<sup>1</sup>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.

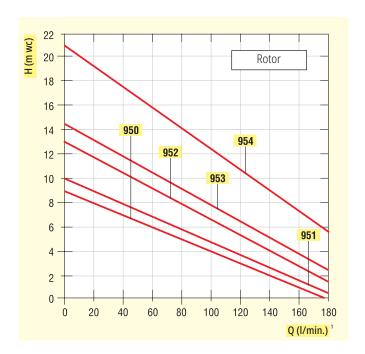
Special voltages and frequencies on request.

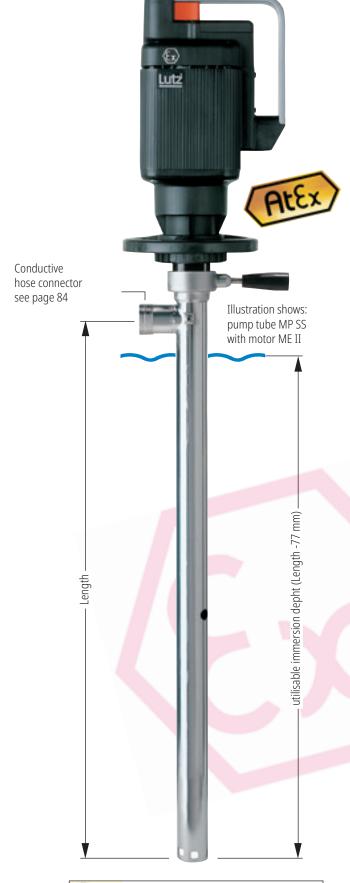
## **Pump Tube MP-SS (stainless steel)**

## 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)



Suitable range of accessories see pages 80-96

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 plug)
- 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 guick 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	
	Immersion	tube diameter:		up to mm		100	100
-	Temperatur	re of medium:		up to °C		40	40
	Material:			Pump tube		PP	PP
T				Impeller/diffuser material Drive shaft	ial	PPO / PPE Hastelloy C (2.4610)	PPO / PPE Stainless steel (1.4571)
	Nominal dia	ameter container				DN 150	DN 150
	Outrun pied	ce:				G 1 1/2 Outer thread	G 1 1/2 Outer thread
	Length: 11	00 mm		Order No.		0180-001	0180-501
	*The lenght com	plies approx. to dimensi	on C in the dimension ta	ble.			
	Screw cover PE/PP, DN 150 (Basis)		Order No.		0208-311		
	Screw cove	r PE/PP, DN 225 (	optional)	Order No.		0208-312	
	Choice of	motors		Operating data			
-	Single pha	ase motor					
	Output: Density: Speed: Prot. class:	2800 1/min.	0.75 KW <sup>3</sup> up to 1.8 kg/dm <sup>3</sup> 2800 1/min. IP54	Delivery head up to	o l/min. o m wc o mPas ube)	200 22 100 17 up to 19	200 22 100 17 up to 19
Ш	Order No.	0180-030	0180-031				

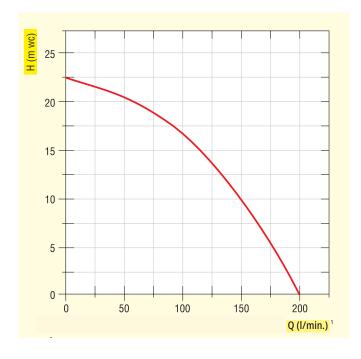
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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**

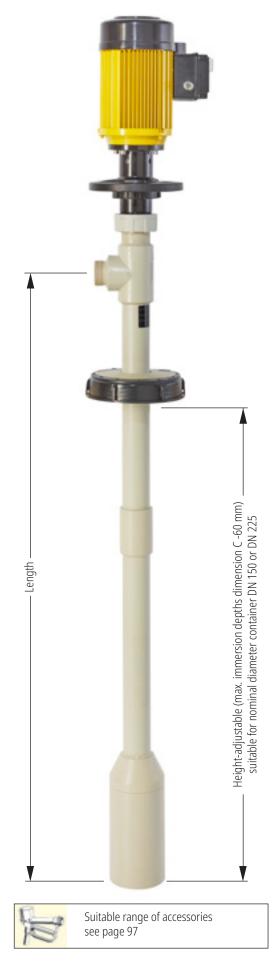
### for bulk transfer of chemicals

### 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.



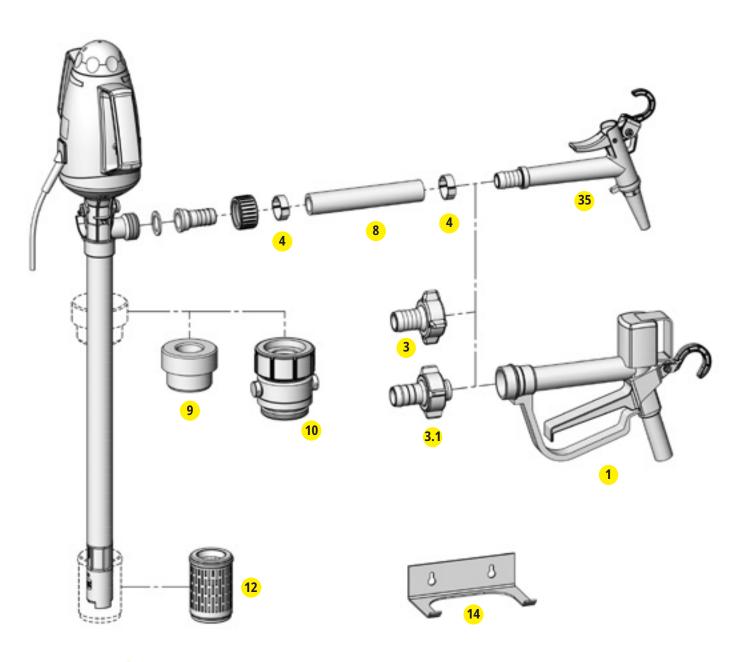
<sup>&</sup>lt;sup>1</sup>The maximum flow rate is a value determined by means of a test bench and measured with water at a medium temperature of approx. 20°C. The measurement is carried out at the pressure joint of the pump, without hose, nozzle or flow meter. The flow rate achievable in use is lower 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.

# **Accessories Lutz Drum and Container Pumps**

"Getting started"



Accessories for drum and laboratory pump B 2 at a glance



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

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

Productdetail	Specification	Order-No.
I	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
	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
	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
	For filling and transferring neutral and aggressive liquids. The liquid stream can be regulated by a turnlock fastener. Outlet spout ø 12 mm (conical). With suspension hook. Polypropylene (PP) housing. FPM (FPM) seals.  Operating pressure:  Wiscosity:  Temperature of medium:  Temperature of medium:  Weight:  Connection:  max. 1 bar at 20 °C  max. 300 mPas  max. 40 l/min. (water)  Temperature of medium:  max. 50 °C  approx. 0.1 kg  Hose liner DN 19 (3/4")	0201-215
Q	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:

PP 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 nozzle, hose and cable **0371-030** 



### Leakage protection

For drip-free transport of the pump by simply slipping it over the pump foot.

Material: for pump tube:

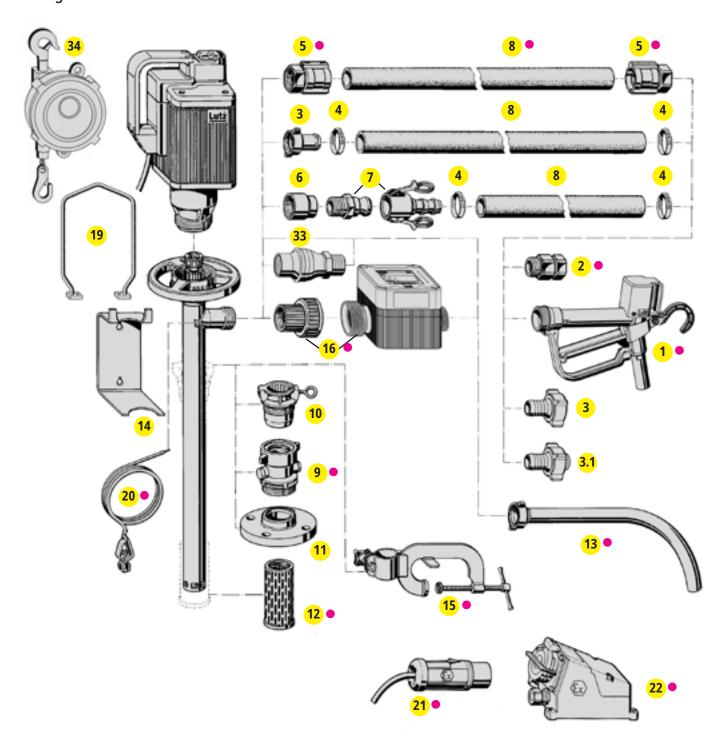
 PVC
 Ø 28 mm
 0204-452

 PVC
 Ø 32 mm
 0204-453



Nozzles, hoses and hose connections 81-87.

# At a glance



1	•	Nozzle
2	•	Turning knuckle
3		Hose connection
<mark>3.1</mark>		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
13 •	Discharge spout
14	Wall bracket
15 •	Clamping device

<b>16</b> •	Flow meter
19	Lifting device
20 •	Equipotential bonding cable
21 •	Ex-plug
22 •	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 ø 23 mm (cylindrical) and ø 12 mm (conical). Polypropylene (PP) housing and valve tappet.

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

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

FPM (FPM) 0204-380 Seal:

**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. Seals FFPM or FEP/FPM on request.

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



Stainless steel nozzle

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. Seals EPDM on request.

Nozzle in PURE-version available.

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

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

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





### Nozzles, check valves

#### Productdetail

### Specification



#### 1 Brass nozzle

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

Operating pressure: max. 4 bar
Viscosity: max. 760 mPas
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

Order-No.



#### 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

0370-011



#### 33 Check valve

Prevents backflow of the liquid at downtime of the pump.

Material:Nominal diameter:Operating pressure:Stainless steel 1.4301inner thread G 1 1/4max. 16 bar0372-017Stainless steel 1.4401inner thread G 1 1/4, seal PTFEmax. 16 bar0372-050Stainless steel 1.4401inner thread G 1 1/4/outer thread G 1 1/4max. 16 bar0204-516

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

Specification			Order-No.	P r o d u c t d e t a
Hose connection				
Hose connector with wing nut for connecting the hoses				_
to the pump tube or no	zle.			
	Connection: inner thread G 1 1/4			Control of the Contro
Material: PP	Nominal diameter: DN 13 (1/2")		0204-409	
PP	DN 19 (3/4")		0204-410	
PP PP	DN 25 (1") DN 32 (1 1/4")		0204-411 0204-412	3
PP grey	DN 32 (1 1/4 ) DN 19 (3/4")		0204-419	
PVDF	DN 19 (3/4")		0204-421	
PVDF	DN 25 (1")		0204-422	
PVDF	DN 32 (1 1/4")		0204-423	
Alu	DN 19 (3/4")		0204-403	
Alu Alu	DN 25 (1") DN 32 (1 1/4")		0204-404 0204-405	
			0204-403	
Stainless steel Stainless steel	DN 19 (3/4") DN 25 (1")		0204-400 0204-401	
Stainless steel	DN 32 (1 1/4")		0204-402	
НС	DN 25 (1")		0204-407	
Connection: outer threa				
Material:	Nominal diameter:		0204-428	
Brass Brass	DN 19 (3/4") DN 25 (1")		0204-428	
Hose connection rota				
Hose connector with win		ne hoses		
Connection: inner threa				
Material: PP	Nominal diameter: DN 19 (3/4")	Seal FPM/FPM	0204-424	40
PP	DN 19 (3/4 ) DN 25 (1")	Seal FPM/FPM	0204-424	
PP	DN 32 (1 1/4")	Seal FPM/FPM	0204-367	Name of the last
PP	DN 19 (3/4")	Seal FEP/FPM Seal FEP/FPM	0204-430 0204-431	
PP PP	DN 25 (1") DN 19 (3/4")	Seal EPDM	0204-431	
PP	DN 25 (1")	Seal EPDM	0204-433	
PVDF	DN 19 (3/4")	Seal FPM/FPM	0204-435	
PVDF	DN 25 (1")	Seal FPM/FPM	0204-425	
PVDF	DN 32 (1 1/4")	Seal FPM/FPM	0204-368	
Connecting sleeve	PP	G 1 1/4"	0204-353*	
<b>5</b>	PVDF	G 1 1/4"	0204-354*	
* Necessary when usi	ng a hose connection	rotatable at the pump tube.		

### 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

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.

#### **Brass**

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)

Juliness steel (1.457 1)		
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, hose bracket

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)	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")	Seal NBR Seal FPM	0372-020 0372-021 0372-022 0372-023 0372-024
Stainless steel (1.4571)	female element DN 25 (1")	Seal FEP/EPDM Seal FPM	0372-025
PP	male element DN 25 (1")		0372-026
PP	female element DN 25 (1")		0372-027



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

### Hose bracket

Hose bracket for easy attachment of loose hose ends to the drum or container.

Nominal hose diameter:



#### Leakage protection

For drip-free transport of the pump by simply slipping it over the pump foot.

Material: for Pump tube: PVC Ø 41 mm

0204-454



### 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<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: -30 up to +100 °C (dependent on the liquid),

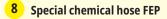
steaming out up to 130°C for max. 30 minutes (open ends)

 Nominal diameter:
 Weight:

 DN 19 (3/4")
 0.6 kg/m
 0374-475 •

 DN 25 (1")
 0.8 kg/m
 0374-476 •

 DN 32 (1 1/4")
 0.9 kg/m
 0374-477 •



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

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

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/m
 0374-428

 DN 25 (1")
 1.0 kg/m
 0374-429

 DN 32 (1 1/4")
 1.1 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,

<10° Ohm through the hose wall) according to DIN EN 12115:2011.

Operating pressure: max. 16 bar

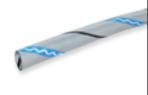
Range of temperature: -30 up to +150 °C (dependent on the liquid),

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/m **0374-481** • DN 25 (1") 1.0 kg/m **0374-482** •





### **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 Valve ball/seal: FPM

 Valve ball/seal:
 FPM
 0204-364

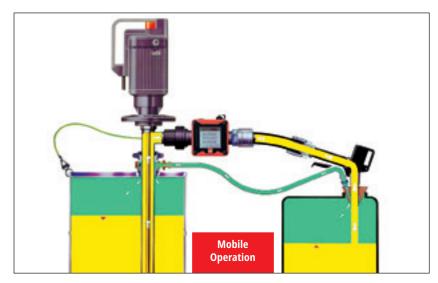
 EPDM
 0204-459

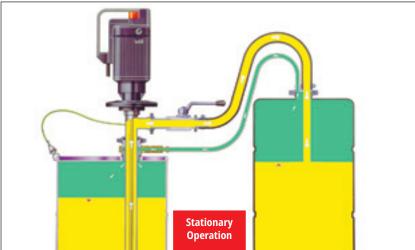
**Container cap** 

DN 150 0373-250 DN 225 0373-251

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

### 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

0204-202

0204-253

0373-153

#### 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



### EMIGA: for safe handling of hazardous liquids

### Productdetail Specification Order-No.

#### Gas sealing kit with nozzle for flexible operation

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

A valve integrated into the gas displacement pipe,

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



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

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

#### Gas sealing kit for nozzle

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

O204-201

Shown in addition here:
Emission proof drum adapter stainless steel

Other emission proof drum adapters see page 84

Nozzle stainless steel, G 1 1/4

O204-370

Gas sealing hose:
PVC hose DN 9

O373-153

Alternatively for flammable liquids:
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 0372-245 Automatic nozzle in aluminium DN 25, seal PTFE 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)

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

## **Specification**

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

Emission proof hose with connection flange PVDF\*

(serving to return with sealless pump tubes arising gases

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, 0204-510 pipe fitting Shown in addition here: Emission proof drum adapter PP 0204-250 Nozzle PP/FPM (FPM) G 1 1/4 0204-380 0204-297 Nozzle outlet spout PP Gas sealing hose: PVC hose DN 9

0373-153

on request

Order-No.



### 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



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

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



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: IP67

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 % **0211-610** 

### 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

0336-339

0371-012



### 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 II 2G Ex db eb IIC T6 Gb, splash proof in compliance with IP66.

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 II 2G Ex db eb IIC T6 Gb, splash proof in compliance with IP66.

3-pole (alternating current) for motor ME II 3-pole (alternating current) STAHL for motor ME II 0336-531

0336-542



#### 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

0208-498

### for compressed air supply of motors MD1xL, MD2xL

**Specification** Order-No. Productdetail 25 Maintenance unit For cleaning and oiling the supply air. With manometer for setting operating pressure. 0204-152 max. 10 bar Operating pressure: 25 Filter pressure regulator for oil-free operation With manometer for setting operating pressure. max. 60 °C Inlet pressure: max. 16 bar Ambient temp.: Filter element: 5 μm, Cellpor Diaphragms and seals: NBR Zinc-Pressure cast Housing: G 3/8 5000-178 26 Coupling (female part) Self-disconnecting in brass. For screwing in the maintenance unit. Brass (DN 7.2) G 3/8 AG 0372-154 Brass (DN 10) G 3/8 AG 0372-138 27 Nipple (male part) 0372-045\* Brass (DN 7.2) G 3/8 AG G 3/8 AG 0372-053 Brass (DN 10) \* Sealring 0314-309 is addionally required. 28 Air hose coupling connector For connection to a coupling. Brass (DN 7.2) for compressed air hose DN 9 0372-155 Brass (DN 10) for compressed air hose DN 13 0372-153 29 Stop valve Nickel-plated brass for regulating the compressed air as well as the speed of the compressed air motors. G 3/8 outer thread/inner thread 0372-043 **30** Compressed air hose PVC-hose with intermediate woven layer, DN 9, for air supply to compressed air motors. max. 14 bar at 20 °C DN 9 0373-153 Operating pressure: max. 10 bar at 20 °C **DN 13** 0373-154 31 Hose clamp (Chromated steel: 1.4016) For compressed air hose DN9 0301-156 DN 13 0301-403 **32** 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 0372-166 5000-165 Brass (DN 10) for compressed air hose DN 13

### for vegetable oil pumps

### Productdetail

#### **Specification**

#### Order-No.

0208-007



#### **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)

al: 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.



#### **Container cap**

DN 150 **0373-250** DN 225 **0373-251** 



#### Wall bracket

For storage of drum pumps.

This facility helps to protect pumps from damage, and maintains their value. **0204-308** 



#### Oval gear flow meter MDO 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: IP67

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 %

0211-610

# for container pump B50

Specification	Orde	er-No.	Productdetail
<b>Lifting device</b> To simplify the process of lifting the pump in and out of drur and containers.	ns <b>0155</b> -	154	
Hose connection  Hose connector with wing nut for connecting the hoses to the pump tube or nozzle.			
Material: Nominal di PP DN 38	ameter: <b>0180</b> -	-161	Oliver
<b>Reducing sleeve</b> G 1 1/2 inner thread to G 1 1/4 outer thread for connect	ion of a flow meter <b>0180</b> -	-167	
	a flow meter <b>0180</b> -	169	
<b>Foot strainer</b> Keeps impurities away from the rotating parts.			150
Material: PP	0180-	-174	
Acid proof coating  In aggressive atmosphere the three phase motor should be by a special acid proof coating. If customer requires, a special spossible.  Acid proof coating		-516	
PVC hose			- 1
Fabric reinforced PVC hose for aggressive, non-flammable li Operating pressure: max. 6 bar	quids.		
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- 0208-		

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

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