Lutz® The Fluid Managers

JESCO®

Lutz Drum and Container Pumps

Be in Control Every Day

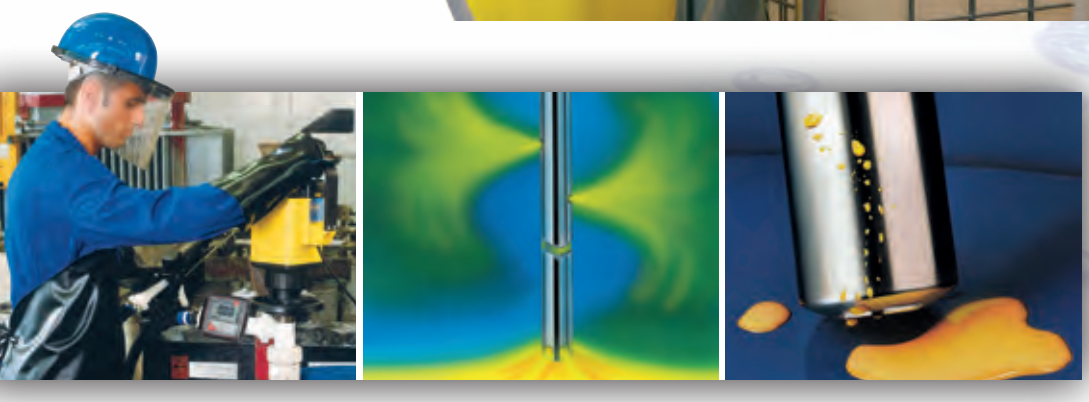
Drum Pump Sets

Laboratory and Drum Pumps

Pumps for complete drum drainage

Mixing Pumps

Container Pumps



Safety is our Concern

Consistent customer orientation

You can expect no less of us

Jürgen Lutz

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

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

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

Sincerely yours

Enhanced safety with Lutz

Contents

The Best you can do:

Decide on Lutz

Save time and money with Lutz

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

Reliable and solid

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

Confidence in tried and tested quality

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

Environmental protection is our primary concern

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

Service with system

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

A tight grip on the future

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

Lutz – and our customers will allways be on the safe side

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

Easy operator control through "punch and pump"

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

Lutz provides comprehensive solutions

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

Lutz Pump Sets

A quick solution for many applications

Fast assembly
Only few simple operations required
Immediately ready for use

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

Advantages at a glance:

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

Already pre-assembled

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

Ideal combination

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

Lutz offers the ideal solution for all these applications.

Motors

Powerful universal and compressed air motors

Nozzles

for safe filling and transferring of liquids

Drum adapter

For safe fixing the pump in the drum opening

Hoses

Resistant to the pumped medium, with practice-orientated 2 m hose

Pump tubes

Resistant to the pumped medium, in different lengths, for emptying of canisters, drums and containers

Lutz Pump Sets

0.1 Pump Set B1 Battery (polypropylene)

For thin-bodied fluids

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

For removing small quantities from hobbocks, canisters and drums.

- **Motor B1 Battery,**
  70 Watt internally ventilated

Density (kg/dm³)	**Viscosity** (mPas)	**Delivery rate** (l/min.)	**Delivery head** (m wc)
1.3	200	20	6

Max. temperature of medium 40 °C

Specified values are maximum values determined with water at 20°C, measured directly at the pressure joint. Viscosity determined with oil.

Pump Set B1 Battery
for thin-bodied fluids

For emptying canisters and drums	**Pump B1 Battery** PP 25-L SL			**Set B1 Battery** PP 25-L SL			**Set B1 Battery** PP 25-L SL with flow meter TR3-PP
Motor B1 Battery	✓			✓			✓
Flow meter TR3-PP	–			–			✓
Pump tube PP 25-L-SL	✓			✓			✓
1,5 m PVC hose 3/4"	–			✓			✓
Hose connectors 3/4"	✓			✓			✓
Hose clamps	–			✓			✓
Lutz nozzle with suspension hook	–			✓			✓
Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	1000 mm
Order No.	**0207-112**	**0207-113**	**0207-114**	**0207-090**	**0207-091**	**0207-092**	**0207-093**
Battery 10,8 V	**0332-027**						
Battery charger	**0335-336**						

For thin-bodied fluids

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

For removing small quantities from hobbocks, canisters and drums.

- **Motor B2 Battery,**
  260 Watt internally ventilated

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

Max. temperature of medium 50 °C

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

Pump Set B1 Battery

for thin-bodied fluids

For emptying canisters and drums	Pump B2 Battery PP 32-R SL / PP 32-L SL			Set B2 Battery PP 32-R SL / PP 32-L SL			Set B2 Battery PP 32-R SL / PP 32-L SL with flow meter TR3-PP
Motor B2 Battery	✓			✓			✓
Flow meter TR3-PP	–			–			✓
Pump tube PP 32-R-SL / PP 32-L-SL	✓			✓			✓
1,5 m PVC hose 3/4"	–			✓			✓
Hose connectors 3/4"	✓			✓			✓
Hose clamps	–			✓			✓
Lutz nozzle with suspension hook	–			✓			✓
Immersion depth	500 mm	700 mm	1000 mm	500 mm	700 mm	1000 mm	1000 mm
Order No. with pump tube PP 32-R SL	**0207-100**	**0207-101**	**0207-102**	**0207-060**	**0207-061**	**0207-062**	**0207-063**
Order No. with pump tube PP 32-L SL	**0207-103**	**0207-104**	**0207-105**	**0207-065**	**0207-066**	**0207-067**	**0207-068**
Battery 21,6 V	**0332-026**						
Battery charger	**0335-335**						

Lutz Pump Sets

0.3 Pump Set B2 Battery (polyvinylidene flouride)

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

For removing small quantities from hobbocks, canisters and drums.

- **Motor B2 Battery,**
  260 Watt internally ventilated

Pump Set B2 Battery
for acids and alkalis

Density (kg/dm³)	**Viscosity** (mPas)	**Delivery rate** (l/min.)	**Delivery head** (m wc)
1.6	400	80 (45)	8

Max. temperature of medium 90 °C

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

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

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

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

Max. temperature of medium 90 °C

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

Pump Set B2 Battery
for thin-bodied fluids
with PVC hose
und Lutz nozzle

Pump Set B2 Battery
for thin-bodied fluids
with universal chemical hose
and nozzle stainless steel

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

Lutz Pump Sets

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 (kg/dm³)	**Viscosity** (mPas)	**Delivery rate** (l/min.)	**Delivery head** (m wc)
1.3	300	75 (22)	7

Max. temperature of medium 50 °C

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

Pump Set Lutz B2 Vario
for thin-bodied fluids

with shaft HC
(Hastelloy C)

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

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

Pump Set Lutz B2 Vario
for thin-bodied fluids

Pump Set Lutz B2 Vario
for thin-bodied fluids with universal chemical hose and nozzle stainless steel

Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
1.3	300	66 (22)	6.7

Max. temperature of medium 90 °C

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

with shaft SS
(stainless steel 1.4571)

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

Lutz Pump Sets

3 Pump Set „Alkalis“ (polypropylene)

For thin-bodied alkalis

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

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

Motor MI-4

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

Motor MA II 3

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

Max. temperature of medium 50 °C

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

For emptying drums and containers	Pump with motor MI-4		Pump with motor MA II 3		Set with motor MI-4		Set with motor MA II 3	
Pump tube PP 41-L-SL SS	✓		✓		✓		✓	
2 m PVC spiral hose 3/4”	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
Hose connectors PP 3/4”	✓		✓		✓		✓	
Hose clamps	–		–		✓		✓	
Nozzle PP	–		–		✓		✓	
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**

For thin-bodied acids

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

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

Motor MA II 3

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

Motor MI-4

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

Max. temperature of medium 50 °C

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

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

Pump Set
with motor MA II 3
externally ventilated

mit Welle HC
(Hastelloy C)

Pump Set
with motor MI-4
internally ventilated

For emptying drums and containers	Pump with motor MI-4		Pump with motor MA II 3		Set with motor MI-4		Set with motor MA II 3	
Pump tube PP 41-L-SL HC	✓		✓		✓		✓	
2 m PVC spiral hose 3/4”	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
Hose connectors PP 3/4”	✓		✓		✓		✓	
Hose clamps	–		–		✓		✓	
Nozzle PP	–		–		✓		✓	
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**

Lutz Pump Sets

5 Pump Set „Concentrated Acids and Alkalis“ (polyvinylidene flouride)

For concentrated acids and alkalis

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

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

Pump Set Acids and Alkalis
with motor MA II 3 or
MA II 5 externally ventilated

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

Motor MA II 5

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

Max. temperature of medium 100 °C

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

For emptying drums and containers	Pump with motor MA II 3		Pump with motor MA II 5		Set with motor MA II 3		Set with motor MA II 5	
Pump tube PVDF 41-L-SL	✓		✓		✓		✓	
2 m special chemical hose 3/4”	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
Hose connectors PVDF 3/4”	✓		✓		✓		✓	
Hose clamps	–		–		✓		✓	
Nozzle PVDF	–		–		✓		✓	
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**

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

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

Motor MD2xL

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

Max. temperature of medium 100 °C

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

Pump Set Mineral Oil Products

with motor MI-4 internally ventilated

Motor MI-4

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

NEW

Pump Set Mineral Oil Products

with Motor MD2xL, the compact compressed air motor is powerful and reliable.

For emptying drums and containers	Pump with motor MI-4		Pump with motor MD2xL		Set with motor MI-4		Set with motor MD2xL	
Pump tube Alu 41-L-SL	✓		✓		✓		✓	
2 m PVC spiral hose 1”	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
Hose connectors Alu 1”	✓		✓		✓		✓	
Hose clamps	–		–		✓		✓	
Nozzle Alu	–		–		✓		✓	
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)

Lutz Pump Sets

7 Pump Set „Solvents“ (stainless steel)

For easily flammable hydrocarbons

such as ethanol, gasoline, butanol, iso-propanol, 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 (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
1.6	350	95 (60)	14

Motor MD2xL

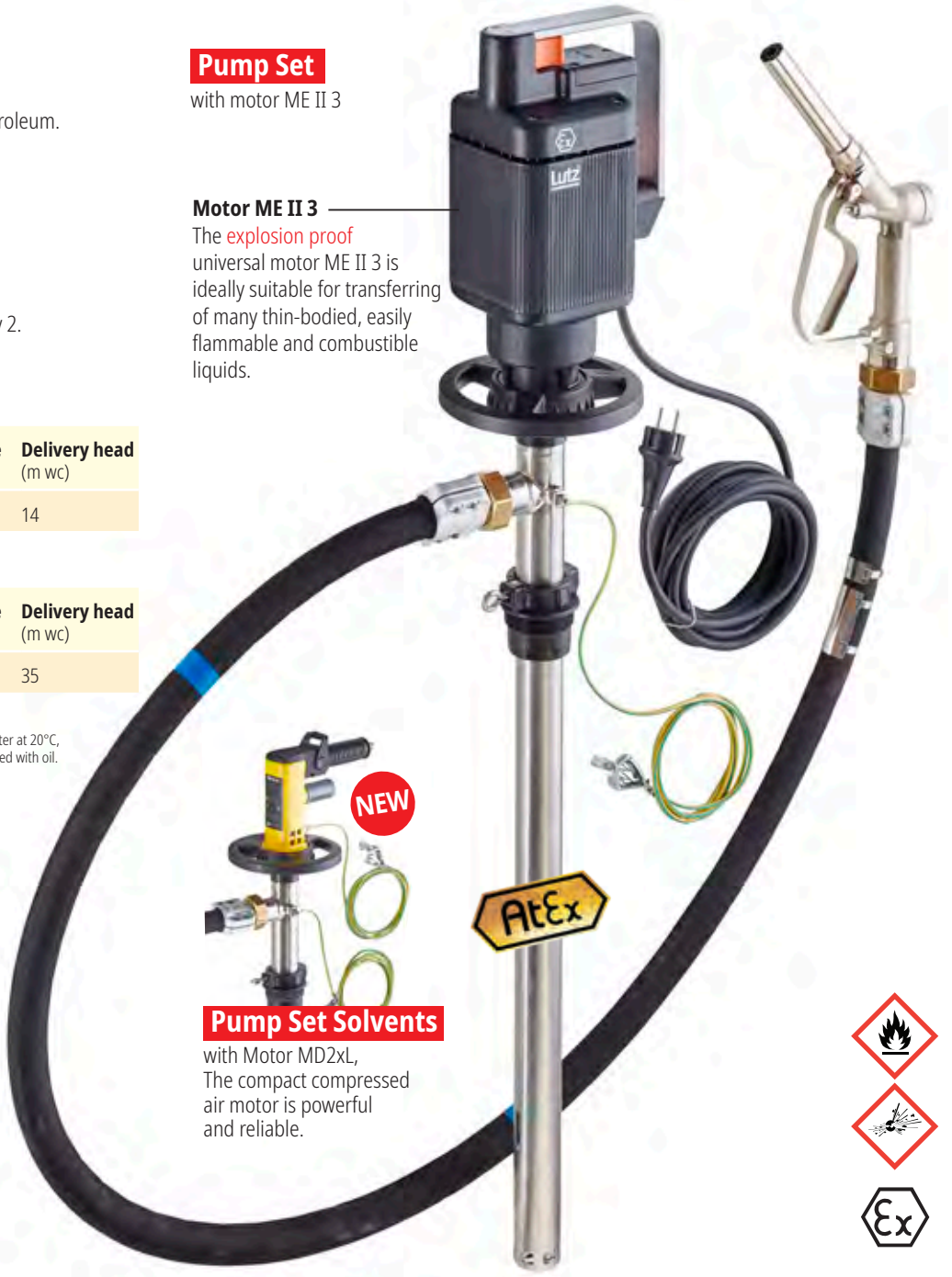
Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
2,8	1000	124 (75)	35

Max. temperature of medium 100 °C

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

Pump Set
with motor ME II 3

Motor ME II 3
The explosion proof universal motor ME II 3 is ideally suitable for transferring of many thin-bodied, easily flammable and combustible liquids.



Pump Set Solvents
with Motor MD2xL,
The compact compressed air motor is powerful and reliable.

For emptying 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 SS 41-L-SL	✓		✓		✓		✓	
2 m solvent hose 3/4" *	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
2 m equipotential bonding cable	✓		✓		✓		✓	
Nozzle brass	–		–		✓		✓	
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**

*electrically conductive bound with hose connectors brass.

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 (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
1.6	350	95 (50)	14

Motor MD2xL

Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
2,8	1000	124 (50)	35

Max. temperature of medium 100 °C

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

Ex-plug
Can be optionally supplied with Ex-plug completely assembled.

Pump Set Ex
with motor ME II 3

Motor ME II 3
The explosion proof universal motor ME II 3 is ideally suitable for transferring of many thin-bodied, easily flammable and combustible liquids.

Pump Set Ex
with Motor MD2xL,
The compact compressed air motor is powerful and reliable.

For emptying 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 SS 41-L-SL	✓		✓		✓		✓	
2 m universal chemical hose 3/4" *	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
2 m equipotential bonding cable	✓		✓		✓		✓	
Nozzle in stainless steel (1.4571)	–		–		✓		✓	
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**

*electrically conductive bound with hose connectors stainless steel.

Lutz Pump Sets

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

Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
1.6	500	77 (45)	14

Motor MD2xL

Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
2,8	1000	67 (40)	28

Max. temperature of medium 100 °C

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

Complete drainage
Residual quantity < 0.10 litres

Pump Set Solvents
with motor ME II 3

Motor ME II 3
The explosion proof universal motor ME II 3 is ideally suitable for transferring of many thin-bodied, easily flammable and combustible liquids.

Pump Set Solvents
with Motor MD2xL,
The compact compressed air motor is powerful and reliable.

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	✓		✓		✓		✓	
2 m solvent hose 3/4" *	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
2 m equipotential bonding cable	✓		✓		✓		✓	
Nozzle brass	–		–		✓		✓	
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**

*electrically conductive bound with hose connectors brass.

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 (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
1.6	500	77 (45)	14

Motor MD2xL

Density (kg/dm³)	Viscosity (mPas)	Delivery rate (l/min.)	Delivery head (m wc)
2,8	1000	67 (40)	28

Max. temperature of medium 100 °C

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

Complete drainage
Residual quantity < 0.10 litres

Motor ME II 3
The explosion proof universal motor ME II 3 is ideally suitable for transferring of many thin-bodied, easily flammable and combustible liquids.

Pump Set Ex
with motor ME II 3

Ex-plug
Can be optionally supplied with Ex-plug completely assembled.

Pump Set Ex
with Motor MD2xL,
The compact compressed air motor is powerful and reliable.

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	✓		✓		✓		✓	
2 m universal chemical hose 3/4" *	–		–		✓		✓	
Drum adapter PP	–		–		✓		✓	
2 m equipotential bonding cable	✓		✓		✓		✓	
Nozzle in stainless steel (1.4571)	–		–		✓		✓	
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**

*electrically conductive bound with hose connectors stainless steel.

Lutz Drum and Container Pumps

Lightweight, comfortable and powerful

New dimensions of flexibility

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

Features/Benefits:

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

Mobile pump unit on trolley

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

B1 Battery:

Battery life: 25 minutes at max. speed

1 Battery charge = 2 x 200 l 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

B1 Battery:

- Small to medium filling quantities
- Low power
- Low viscosity up to max. 200 mPas
- Low pressures/low flow rates
- Low density up to max. 1.3 kg/dm³
- Automatic switch-off at overload

Replaceable battery with Li-Ion technology

Infinitely variable for all demands

Good handling due to compact design and low weight

Wear-free, low noise BLDC motor

Easy disassembly with quick fastener

B2 Battery:

- Medium to large filling volume
- Particularly high performance at a low weight
- Higher viscosity up to max. 400 mPas
- Higher pressures/flow rates
- Higher density up to max. 1.6 kg/dm³
- Higher battery life
- Automatic switch-off at overload

Replaceable, high-performance Li-Ion technology

Infinitely variable for all demands

Easy handling by using a convenient carrying handle, compact design and low weight

Wear-free, low noise BLDC motor: Particularly high performance at low weight

Easy disassembly with quick fastener

Lutz Drum and Container Pumps

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

Productdetail

B1 Battery (motor and pump tube)		PP-SL
Material	Pump tube Impeller	PP PP
Type of impeller		Impeller
category 1 / 2 (according to ATEX)		no
Immersion tube diameter	max. mm	25
Hose connection	Nominal diameter mm Outer thread	19 G 1
Temperature of medium	max. °C	0 up to +40
Flow rate*	up to l/min.	20
Delivery head*	up to m wc	6
Viscosity**	up to mPas	200
Density	up to kg/dm³	1.3
Weight (kg)	Motor + pump tube	1.0
Power	watts	70
Voltage	volts	10.8
Length: 500 mm	Order No.	**0207-112**
Length: 700 mm	Order No.	**0207-113**
Length: 1000 mm	Order No.	**0207-114**

* determined with water at 20 °C ** determinded with oil Special lengths on request. Will be delivered without battery and battery charger.

Suitable battery

Order No. **0332-027** Voltage: 10.8 V capacity: 1.5 Ah, Li-Ionen battery

Battery charger

Order No. **0335-336** Input: 100-240 V, 50/60 Hz

B2 Battery (motor and pump tube)		PP-SL	PP-SL	PVDF-SL	SS-SL
Material	Pump tube Impeller	PP PP	PP PP	PVDF ETFE	1.4571 ETFE
Type of impeller		Rotor	Impeller	Rotor	Rotor
category 1 / 2 (according to ATEX)		no	no	no	no
Immersion tube diameter	max. mm	32	32	32	28
Hose connection	Nominal diameter mm Outer thread	19 G 1	19 G 1	19 G 1	19 G 1
Temperature of medium	max. °C	-15 up to +50	-15 up to +50	-15 up to +90	-15 up to +90
Flow rate*	up to l/min.	80	65	80	80
Delivery head*	up to m wc	8	12	8	8
Viscosity**	up to mPas	400	400	400	400
Density	up to kg/dm³	1.6	1.6	1.6	1.6
Weight (kg)	Motor + pump tube	1.6	1.6	2.0	2.5
Power	watts	260	260	260	260
Voltage	volts	21.6	21.6	21.6	21.6
Length: 500 mm	Order No.	**0207-100**	**0207-103**	**0207-109**	**0207-106**
Length: 700 mm	Order No.	**0207-101**	**0207-104**	**0207-110**	**0207-107**
Length: 1000 mm	Order No.	**0207-102**	**0207-105**	**0207-111**	**0207-108**

* determined with water at 20 °C ** determinded with oil Special lengths on request. Will be delivered without battery and battery charger.

Suitable battery

Order No. **0332-026** Voltage: 21.6 V capacity: 4 Ah, Li-Ionen battery

Battery charger

Order No. **0335-335** Input: 100-240 V, 50/60 Hz

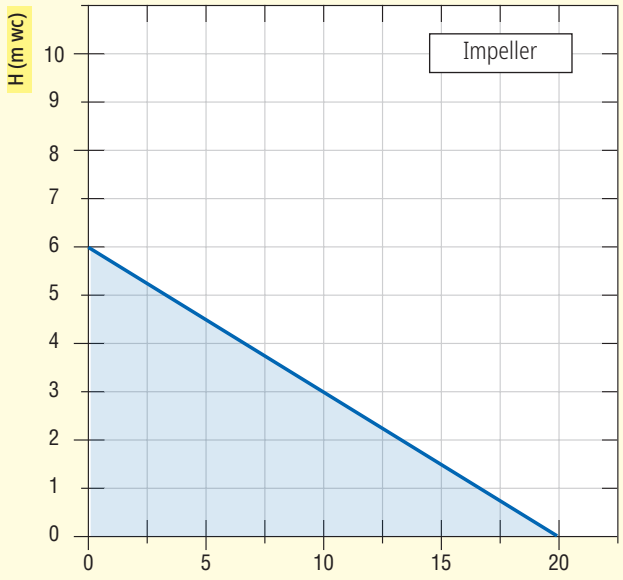
Drum Pump Lutz B1/B2 Battery

Lightweight, comfortable and powerful

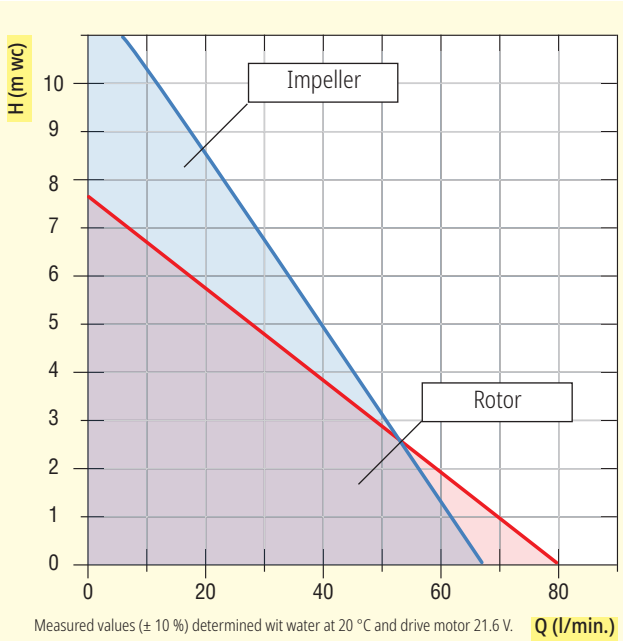
Materials (coming into contact with the pumped medium)

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



X = B1 with pump tube PP Ø 25: -30 mm
B2 with pump tube PP/PVDF Ø 32: -35 mm
B2 with pump tube SS Ø 28: -43 mm

Suitable range of accessories
see pages 77-79

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

Safety First

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

Lutz Drum and Container Pumps

Lutz B2 Vario (polypropylene, PVDF or stainless steel)

Productdetail

Pump		Lutz B2 Vario PP-SL 32	Lutz B2 Vario PVDF-SL 32
Drive motor:		Universal motor 200 W, 230 V, 50 Hz, on/off switch with variable speed controller, double insulated on protection class II, protection class IP 24, with integrated motor protection switch, 3 m connection cable	
Material:	Pump tube	PP	PVDF
	Impeller	PP	ETFE
Type of impeller:		Rotor	Rotor
Category 1 / 2 (acc. to ATEX)		no	no
Immersion tube diameter:	up to mm	32	32
Hose connection:	Nominal diameter mm Outer thread	19 G 1	19 G 1
Flow rate*	up to l/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/dm³	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**

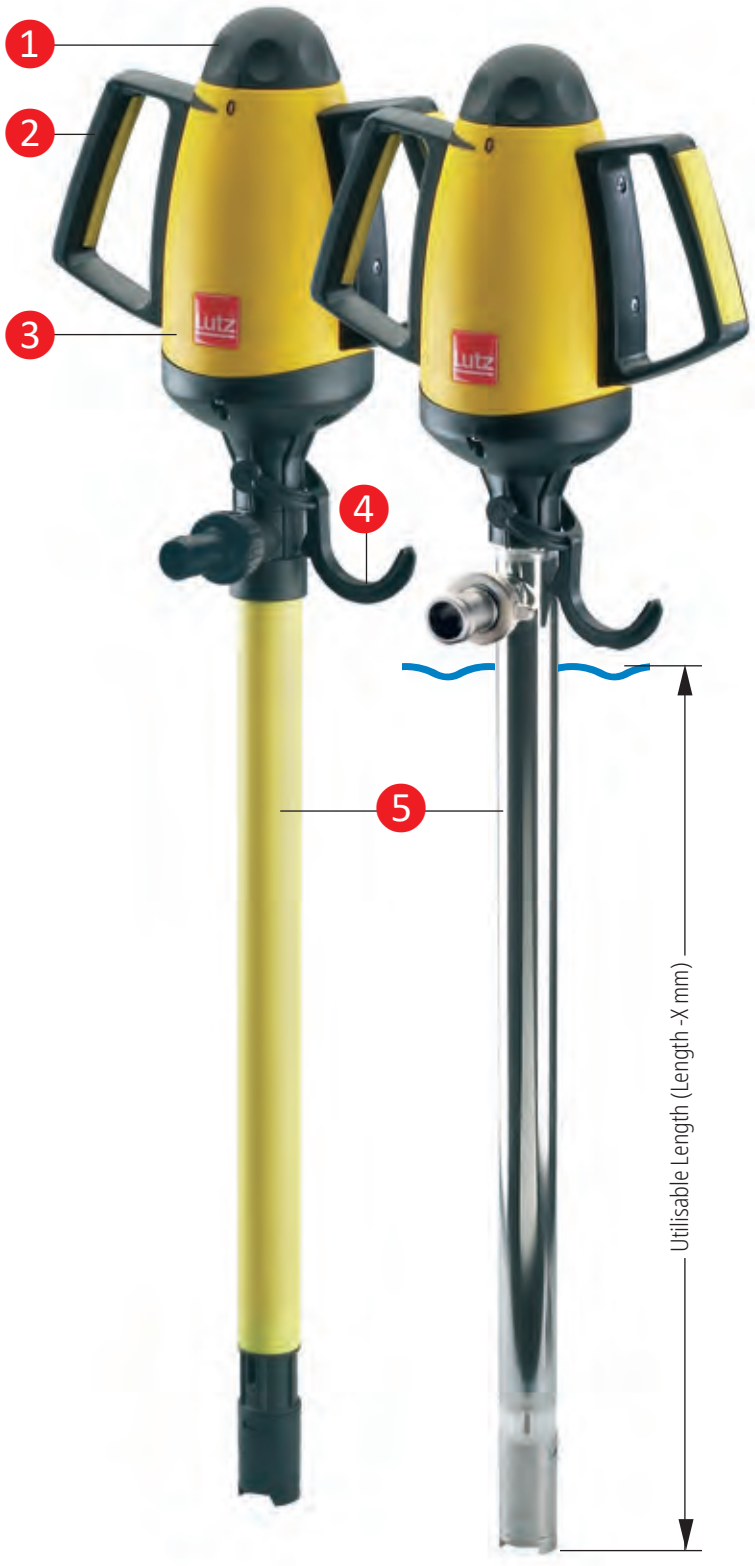
* Determined with water at 20 °C ** Determined with oil Special lengths, other voltages and frequencies on request.

Pump		Lutz B2 Vario SS-SL 28
Drive motor:		Universal motor 200 W, 230 V, 50 Hz, on/off switch with variable speed controller, double insulated on protection class II, protection class IP 24, with integrated motor protection switch, 3 m connection cable
Material:	Pump tube	Stainless steel 1.4571
	Impeller	ETFE
Type of impeller:		Rotor
Category 1 / 2 (acc. to ATEX)		no
Immersion tube diameter:	up to mm	28
Hose connection:	Nominal diameter mm Outer thread	19 G 1
Flow rate*	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**

* Determined with water at 20 °C ** Determined with oil Special lengths, other voltages and frequencies on request.

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)

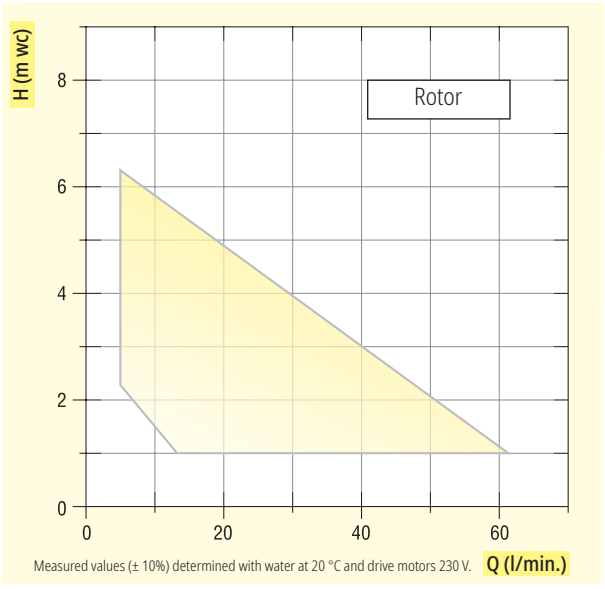


1. Infinitely variable speed controller for safe liquid transfer
2. Easy and safe to operate by ergonomically designed handles
3. Powerful universal motor with improved service life
4. Hanger for professional storage of nozzle and cable
5. Modular designed sealless pump tube in polypropylene, polyvinylidene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

IP 24

CE

X = pump tube PP/PVDF: -40 mm
pump tube Inox: -53 mm



Suitable range of accessories
see pages 73-75

Lutz Drum and Container Pumps

Your individual pump selection

Safety first

The explosion proof models of Lutz drum pumps provide optimum protection when handling easily flammable, combustible material and when working in potentially explosive environments. The drum pumps are made of stainless steel (1.4571) and Hastelloy C. They comply with all the international standards and provisions as well as with the directives according to Atex 2014/34/EU and IEC Ex.

The right solution for each and every liquid

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

Lutz Drum and Container Pumps 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 and beverage 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.

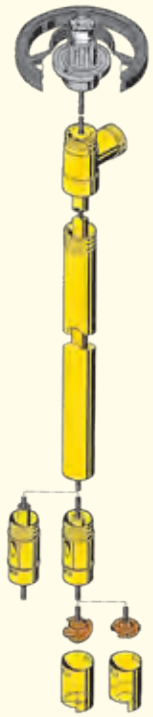
Logical decision: Service·friendly design

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.

German Patent:
DE 196 14 350

P P

P V D F

A L U

Untiring: Lutz Pump Tubes

Pump tubes: Stainless steel/Hastelloy C

Untiring: 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 thin-bodied 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.

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!

A pump tube with an explosion proof motor must be used for easily flammable liquids.
Refer to page 37

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, HasteIloy 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.

Pump Power: Range of Motors

Universal Motor: MI 4/MI 4-E

IP 24

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

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

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

Everything under control: MI 4-E

The MI 4-E motor is additionally equipped with a speed controller. This ensures controlled filling and refilling of fluids at any time.
We recommend the use of the MA II 5-S motor for extremely aggressive environments.
More information see below.

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

Three-phase gear Motor B4/GT

IP 54/IP 55

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

- ✓ Especially smooth and quiet operation
- ✓ Special models available

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

A wide range of capabilities

The B4/GT motor is suitable for stationary applications with terminal box and external protection switch in the control cabinet and equally well as a mobile multi-talent – in this case with a protection switch attached.

Absolutely undemanding

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

Type	Voltage V	Frequency Hz	Output W	Weight kg	Order No. (cable terminal box)	Order No. (protection switch)
B4/GT	230-400	50	750	11.0	**0004-050**	**0004-052**

Universal Motor: MA II

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

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

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

Double protection is even better

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

Safety and protection

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

Acid-proof version: The indestructible

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

IP 54 CE

Type	Voltage V	Frequency Hz	Output W	Weight 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

Lutz Compressed Air Motors MDxL Series

MD1xL
Ideal for stationary operation.

MD2xL
With conventient grip
as standard equipment.

Energy efficiency and **reducing the operating 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

Oil-free
for pharmaceutical, food and cosmetics industry

Two motors for almost any requirement

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

Type	Air pressure bar	Performance W	Weight kg	Order No.
MD1xL	6	1000	1.0	**0004-725**
MD2xL	6	1000	1.4	**0004-735**

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

Explosion proof Universal Motor: ME II

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

- Explosion proof in compliance with Atex and IEC Ex
- Low voltage release by default
- Optionally available without low voltage release
- Double isolation with protective conductor connection
- Optimised cooling air conduction
- Externally cooled
- Double wall housing
- Available in four power ratings

These motors are not taken back easily. The ME II explosion proof universal motor is the answer (German Patent DE 38 15427 C2) 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.

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.

German Patent:

DE 38 15427 C2

AtEx CE Ex IP 54

IECEx

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

Lutz Drum and Container Pumps

Pump tube PP (polypropylene) for corrosive and neutral liquids

Productdetail

Pump tube			PP-SL		PP-MS	
Type of impeller:			Impeller	Rotor	Impeller	Rotor
Category 1 / 2 (acc. to ATEX)			no	no	no	no
Immersion tube diameter:		up to mm	41	41	41	41
Temperature of medium:		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: 700 mm***	shaft SS	Order No.	**0110-304**	**0110-300**	**0103-504**	**0103-500**
Length: 1000 mm***	shaft SS	Order No.	**0110-305**	**0110-301**	**0103-505**	**0103-501**
Length: 1200 mm***	shaft SS	Order No.	**0110-306**	**0110-302**	**0103-506**	**0103-502**
Length: 700 mm***	shaft HC	Order No.	**0110-204**	**0110-200**	**0103-404**	**0103-400**
Length: 1000 mm***	shaft HC	Order No.	**0110-205**	**0110-201**	**0103-405**	**0103-401**
Length: 1200 mm***	shaft HC	Order No.	**0110-206**	**0110-202**	**0103-406**	**0103-402**
Length: 1400 mm***	shaft HC	Order No.	**0110-208**	**0110-213**	–	–
Length: 1500 mm***	shaft HC	Order No.	**0110-209**	**0110-214**	–	–
Length: 1600 mm***	shaft HC	Order No.	**0110-210**	**0110-215**	–	–
Length: 1700 mm***	shaft HC	Order No.	**0110-211**	**0110-216**	–	–
Length: 2000 mm***	shaft HC	Order No.	**0110-212**	**0110-217**	–	–

Choice of motors

Operating data

	MI 4	MI 4-E					
	-	with speed controller	Characteristic curve no.		101	100	101	100
			Flow rate*	up to l/min.	87	160	87	160
			Delivery head*	up to mWS	19	8.5	19	8.5
Output:	500 W	500 W	Viscosity**	up to mPas	500	150	500	150
Voltage:	230 V	230 V	Density:****	up to kg/dm³	1.4	1.1	1.4	1.1
Order No.	**0030-000**	**0030-001**	Weight (kg)	Motor + pump tube	3.9	3.9	3.9	3.9

	MA II 3						
Output:	460 W	460 W	Characteristic curve no.		103	102	103	102
Voltage:	230 V	230 V	Flow rate*	up to l/min.	78	155	78	155
LVR.:	no	yes	Delivery head*	up to mWS	16	7.5	16	7.5
			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	5.7	5.7	5.7	5.7

	MA II 5	MA II 5	MA II 5 S					
Output:	575 W	575 W	575 W	Characteristic curve no.		105	104	105	104
Voltage:	230 V	230 V	230 V	Flow rate*	up to l/min.	83	160	83	160
LVR.:	no	yes	no	Delivery head*	up to mWS	18	9	18	9
			acid proof	Viscosity**	up to mPas	800	350	800	350
				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	6.5	6.5	6.5	6.5

	MA II 7						
Output:	795 W	795 W	Characteristic curve no.		107	106	107	106
Voltage:	230 V	230 V	Flow rate*	up to l/min.	95	170	95	170
LVR.:	no	yes	Delivery head*	up to mWS	25	12	25	12
			Viscosity**	up to mPas	800	350	800	350
			Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0060-002**	**0060-010**	Weight (kg)	Motor + pump tube	7.7	7.7	7.7	7.7

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

	MD1xL	MD2xL						
Output:	1000 W	1000 W	Characteristic curve no.		109	108	109	108
Operating pressure:	6 bar	6 bar	Flow rate*	up to l/min.	116	216	116	216
		infinitely varied	Delivery head*	up to mWS	36	16	36	16
			Viscosity**	up to mPas	1000	1000	1000	1000
			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

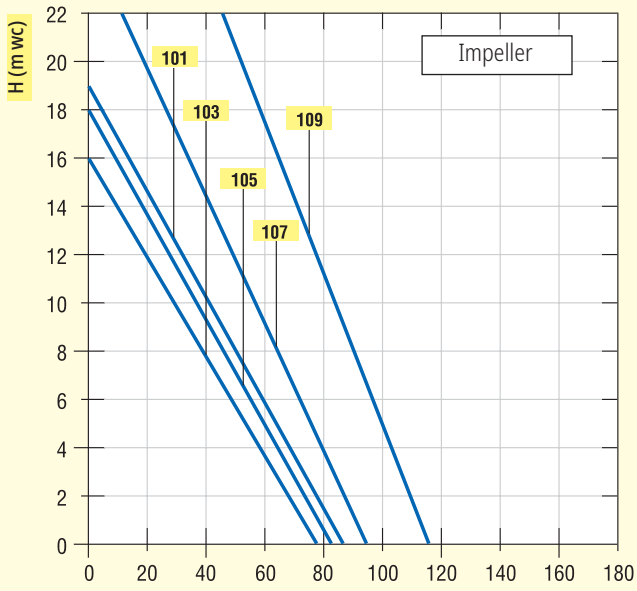
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube PP (polypropylene)

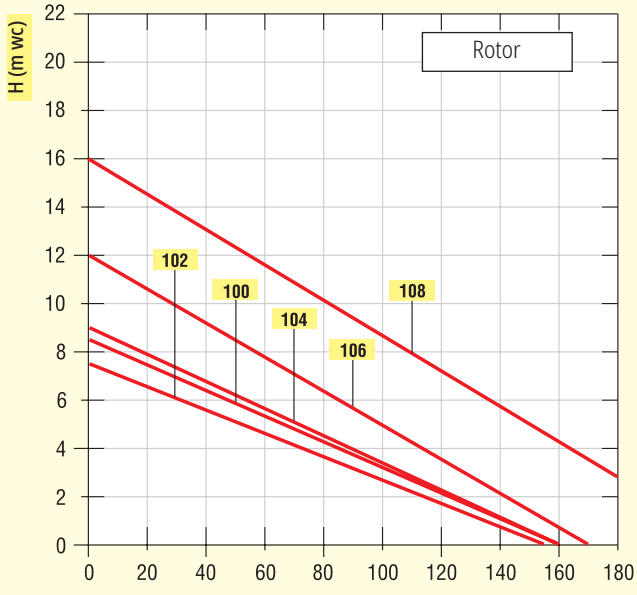
for corrosive and neutral liquids

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)

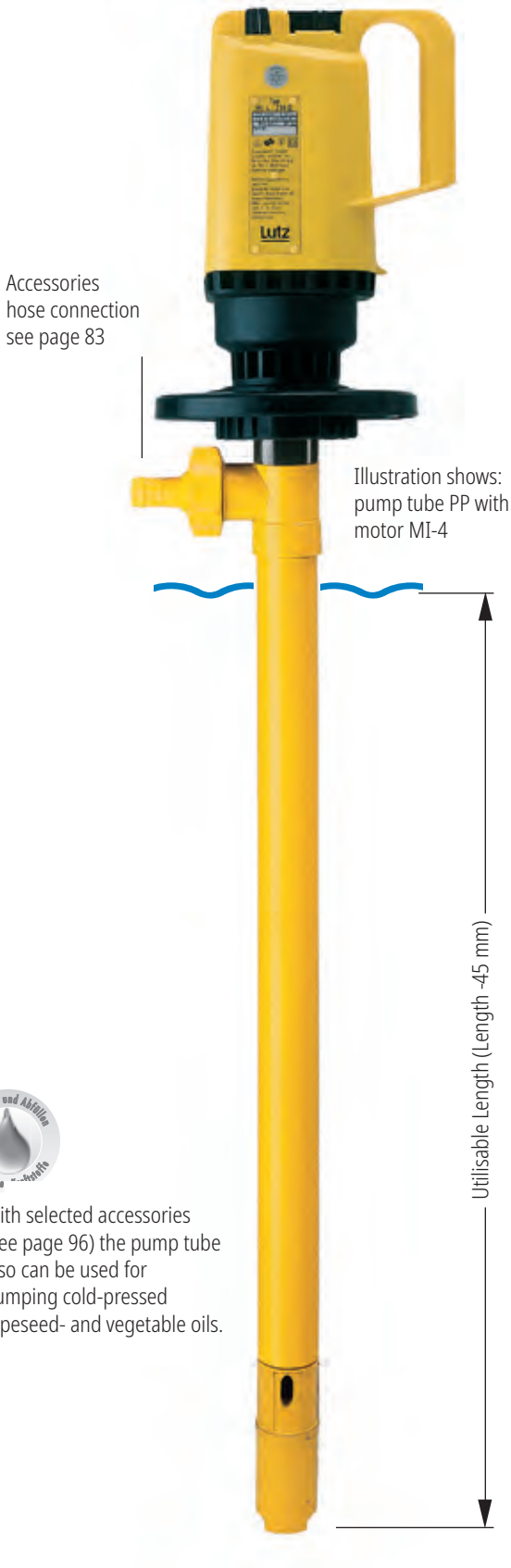


Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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



Accessories hose connection see page 83

Illustration shows: pump tube PP with motor MI-4

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

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		PVDF-SL		PVDF-MS	
Type of impeller:		Impeller	Rotor	Impeller	Rotor
Category 1 / 2 (acc. to ATEX)		no	no	no	no
Immersion tube diameter:	up to mm	41	41	41	41
Temperature of medium:	up to °C	100	100	100	100
Material:	Pump tube	PVDF	PVDF	PVDF	PVDF
	Impeller/Rotor	ETFE	ETFE	ETFE	ETFE
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: 700 mm***	Order No.	**0122-204**	**0122-200**	**0123-404**	**0123-400**
Length: 1000 mm***	Order No.	**0122-205**	**0122-201**	**0123-405**	**0123-401**
Length: 1200 mm***	Order No.	**0122-206**	**0122-202**	**0123-406**	**0123-402**

Choice of motors

Operating data

	MI 4	MI 4-E						
	-	with speed controller						
Output:	500 W	500 W	Characteristic curve no.		201	200	201	200
Voltage:	230 V	230 V	Flow rate*	up to l/min.	87	160	87	160
Order No.	**0030-000**	**0030-001**	Delivery head*	up to mWS	19	8.5	19	8.5
			Viscosity**	up to mPas	500	150	500	150
			Density:****	up to kg/dm³	1.4	1.1	1.4	1.1
			Weight (kg)	Motor + pump tube	4.5	4.5	4.5	4.5

	MA II 3						
Output:	460 W	460 W	Characteristic curve no.		203	202	203	202
Voltage:	230 V	230 V	Flow rate*	up to l/min.	78	155	78	155
LVR.:	no	yes	Delivery head*	up to mWS	16	7.5	16	7.5
			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					
Output:	575 W	575 W	575 W	Characteristic curve no.		205	204	205	205
Voltage:	230 V	230 V	230 V	Flow rate*	up to l/min.	83	160	83	160
LVR.:	no	yes	no acid proof	Delivery head*	up to mWS	18	9	18	9
				Viscosity**	up to mPas	800	350	800	350
				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	7.1	7.1	7.1	7.1

	MA II 7						
Output:	795 W	795 W	Characteristic curve no.		207	206	207	206
Voltage:	230 V	230 V	Flow rate*	up to l/min.	95	170	95	170
LVR.:	no	yes	Delivery head*	up to mWS	25	12	25	12
			Viscosity**	up to mPas	800	350	800	350
			Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0060-002**	**0060-010**	Weight (kg)	Motor + pump tube	8.3	8.3	8.3	8.3

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

	MD1xL	MD2xL						
Output:	1000 W	1000 W	Characteristic curve no.		209	208	209	208
Operating pressure:	6 bar	6 bar	Flow rate*	up to l/min.	116	216	116	216
		infinitely varied	Delivery head*	up to mWS	36	16	36	16
Order No.	**0004-725**	**0004-735**	Viscosity**	up to mPas	1000	1000	1000	1000
			Density:****	up to kg/dm³	2.8	2.8	2.8	2.8
			Weight (kg)	Motor + pump tube	3.1	3.1	3.1	3.1

	B4/GT						
Output:	750 W	750 W	Characteristic curve no.		211	210	211	210
Voltage:	230/400 V	230/400 V	Flow rate*	up to l/min.	75	140	75	140
Protection switch	no	yes	Delivery head*	up to mWS	10	8.5	10	8.5
			Viscosity**	up to mPas	400	400	400	400
			Density:****	up to kg/dm³	2.2	2.0	2.2	2.0
Order No.	**0004-050**	**0004-052**	Weight (kg)	Motor + pump tube	12.5	12.5	12.5	12.5

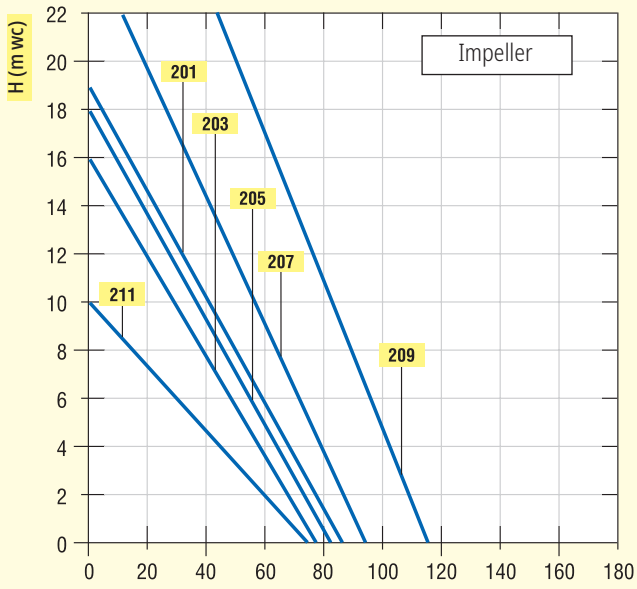
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube PVDF (polyvinylidene fluoride)

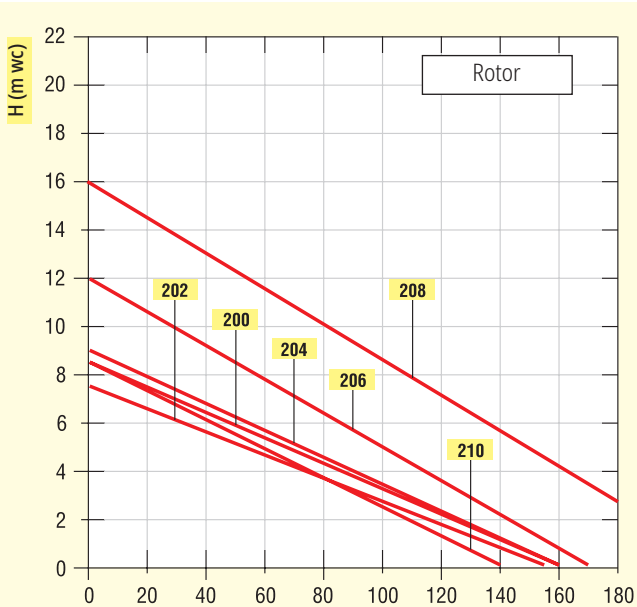
for highly corrosive chemicals and neutral liquids

Materials (coming into contact with the pumped medium):

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

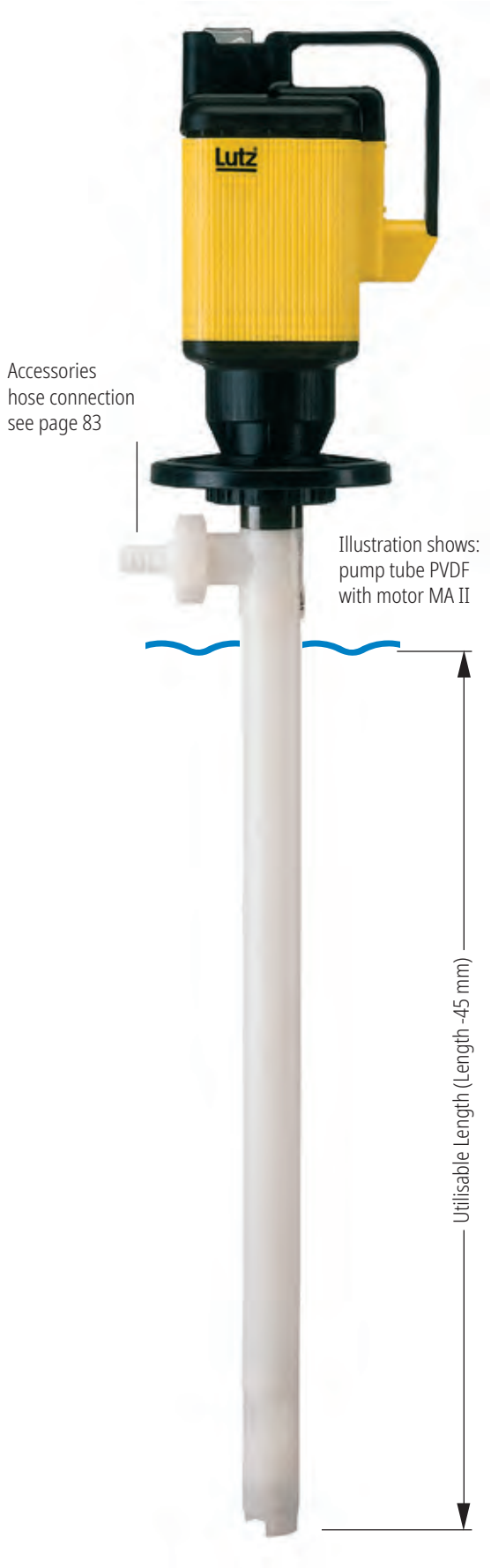


Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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



Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		Alu-SL		Alu-MS	
Type of impeller:		Impeller	Rotor	Impeller	Rotor
Category 1 / 2 (acc. to ATEX)		no	no	no	no
Immersion tube diameter:	up to mm	41	41	41	41
Temperature of medium:	up to °C	100	100	100	100
Material:	Pump tube	Alu	Alu	Alu	Alu
	Impeller/Rotor	ETFE	ETFE	ETFE	ETFE
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: 700 mm***	Order No.	**0132-304**	**0132-300**	**0133-504**	**0133-500**
Length: 1000 mm***	Order No.	**0132-305**	**0132-301**	**0133-505**	**0133-501**
Length: 1200 mm***	Order No.	**0132-306**	**0132-302**	**0133-506**	**0133-502**
Length: 1500 mm***	Order No.	**0132-309**	–	–	–

Choice of motors

Operating data

	MI 4	MI 4-E						
	-	with speed controller	Characteristic curve no.		301	300	301	300
			Flow rate*	up to l/min.	87	160	87	160
			Delivery head*	up to mWS	19	8.5	19	8.5
Output:	500 W	500 W	Viscosity**	up to mPas	500	150	500	150
Voltage:	230 V	230 V	Density:****	up to kg/dm³	1.4	1.1	1.4	1.1
Order No.	**0030-000**	**0030-001**	Weight (kg)	Motor + pump tube	4.3	4.3	4.3	4.3

	MA II 3						
Output:	460 W	460 W	Characteristic curve no.		303	302	303	302
Voltage:	230 V	230 V	Flow rate*	up to l/min.	78	155	78	155
LVR.:	no	yes	Delivery head*	up to mWS	16	7.5	16	7.5
			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					
Output:	575 W	575 W	575 W	Characteristic curve no.		305	304	305	304
Voltage:	230 V	230 V	230 V	Flow rate*	up to l/min.	83	160	83	160
LVR.:	no	yes	no acid proof	Delivery head*	up to mWS	18	9	18	9
				Viscosity**	up to mPas	800	350	800	350
				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						
Output:	795 W	795 W	Characteristic curve no.		307	306	307	306
Voltage:	230 V	230 V	Flow rate*	up to l/min.	95	170	95	170
LVR.:	no	yes	Delivery head*	up to mWS	25	12	25	12
			Viscosity**	up to mPas	800	350	800	350
			Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0060-002**	**0060-010**	Weight (kg)	Motor + pump tube	8.1	8.1	8.1	8.1

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

	MD1xL	MD2xL						
Output:	1000 W	1000 W	Characteristic curve no.		309	308	309	308
Operating pressure:	6 bar	6 bar	Flow rate*	up to l/min.	116	216	116	216
			Delivery head*	up to mWS	36	16	36	16
			Viscosity**	up to mPas	1000	1000	1000	1000
		infinitely varied	Density:****	up to kg/dm³	2.8	2.8	2.8	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	2.9	2.9	2.9	2.9

	B4/GT						
Output:	750 W	750 W	Characteristic curve no.		311	310	311	310
Voltage:	230/400 V	230/400 V	Flow rate*	up to l/min.	75	140	75	140
Protection switch	no	yes	Delivery head*	up to mWS	10	8.5	10	8.5
			Viscosity**	up to mPas	400	400	400	400
			Density:****	up to kg/dm³	2.2	2.0	2.2	2.0
Order No.	**0004-050**	**0004-052**	Weight (kg)	Motor + pump tube	12.3	12.3	12.3	12.3

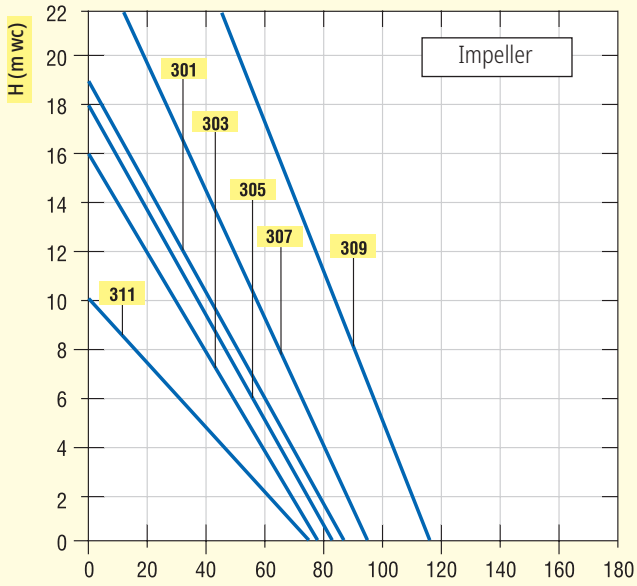
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

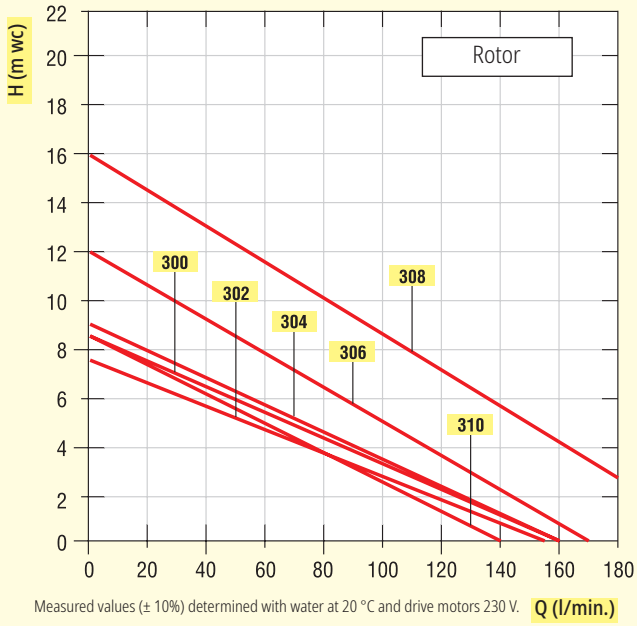
Pump Tube Alu (aluminium)

for neutral, non flammable liquids

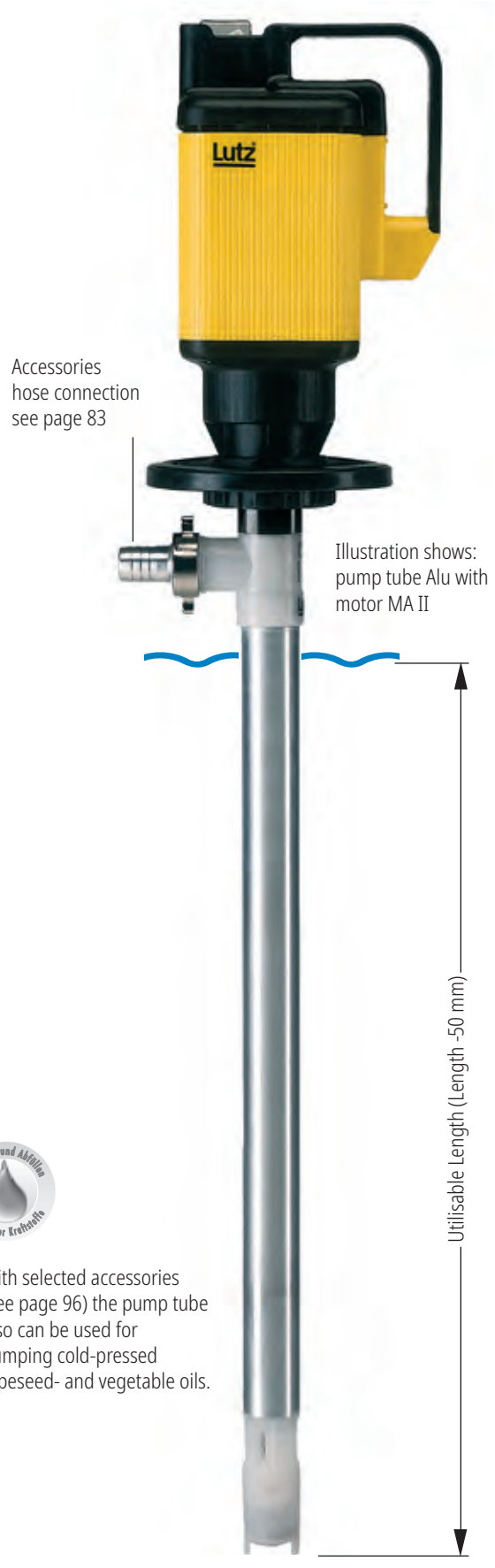
Materials (coming into contact with the pumped medium):

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





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



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

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		SS-SL		SS-MS	
Type of impeller:		Impeller	Rotor	Impeller	Rotor
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**	–	–

Choice of motors

Operating data

	MI 4	MI 4-E					
	-	with speed controller	Characteristic curve no.	401	400	401	400
			Flow rate* up to l/min.	117	210	117	210
			Delivery head* up to mWS	19	10	19	10
Output:	500 W	500 W	Viscosity** up to mPas	500	350	500	350
Voltage:	230 V	230 V	Density:**** up to kg/dm³	1.4	1.1	1.4	1.1
Order No.	**0030-000**	**0030-001**	Weight (kg) Motor + pump tube	5.7	5.7	5.7	5.7

	MA II 3					
Output:	460 W	460 W	Characteristic curve no.	403	402	403	402
Voltage:	230 V	230 V	Flow rate* up to l/min.	95	178	95	178
LVR.:	no	yes	Delivery head* up to mWS	14	9	14	9
			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				
Output:	575 W	575 W	575 W	Characteristic curve no.	405	404	405	404
Voltage:	230 V	230 V	230 V	Flow rate* up to l/min.	100	190	100	190
LVR.:	no	yes	no acid proof	Delivery head* up to mWS	16	10	16	10
				Viscosity** up to mPas	700	550	700	550
				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	8.3	8.3	8.3	8.3

	MA II 7					
Output:	795 W	795 W	Characteristic curve no.	407	406	407	406
Voltage:	230 V	230 V	Flow rate* up to l/min.	115	210	115	210
LVR.:	no	yes	Delivery head* up to mWS	20	13	20	13
			Viscosity** up to mPas	500	400	500	400
			Density:**** up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0060-002**	**0060-010**	Weight (kg) Motor + pump tube	9.5	9.5	9.5	9.5

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

	MD1xL	MD2xL					
Output:	1000 W	1000 W	Characteristic curve no.	409	408	409	408
Operating pressure:	6 bar	6 bar	Flow rate* up to l/min.	124	276	124	276
			Delivery head* up to mWS	35	20	35	20
			Viscosity** up to mPas	1000	1000	1000	1000
		infinitely varied	Density:**** up to kg/dm³	2.8	2.8	2.8	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg) Motor + pump tube	4.3	4.3	4.3	4.3

	B4/GT						
Output:	750 W	750 W	Characteristic curve no.	411	410	411	410
Voltage:	230/400 V	230/400 V	Flow rate* up to l/min.	100	180	100	180
Protection switch	no	yes	Delivery head* up to mWS	12	13	12	13
			Viscosity** up to mPas	500	400	500	400
			Density:**** up to kg/dm³	2.2	2.0	2.2	2.0
Order No.	**0004-050**	**0004-052**	Weight (kg) Motor + pump tube	14.7	14.7	14.7	14.7

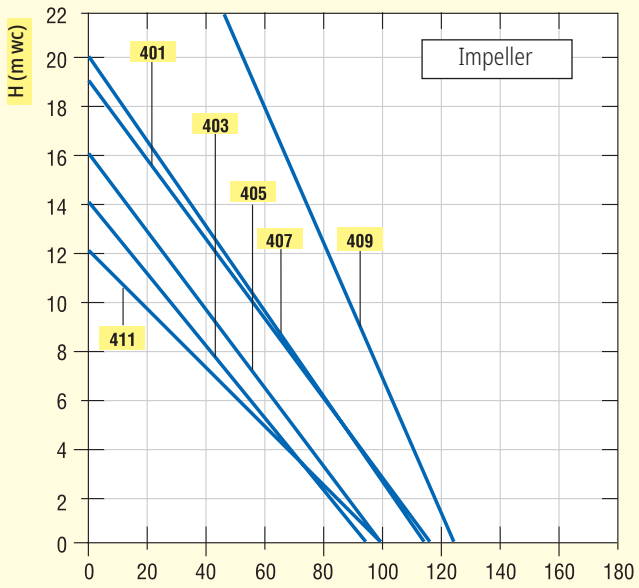
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

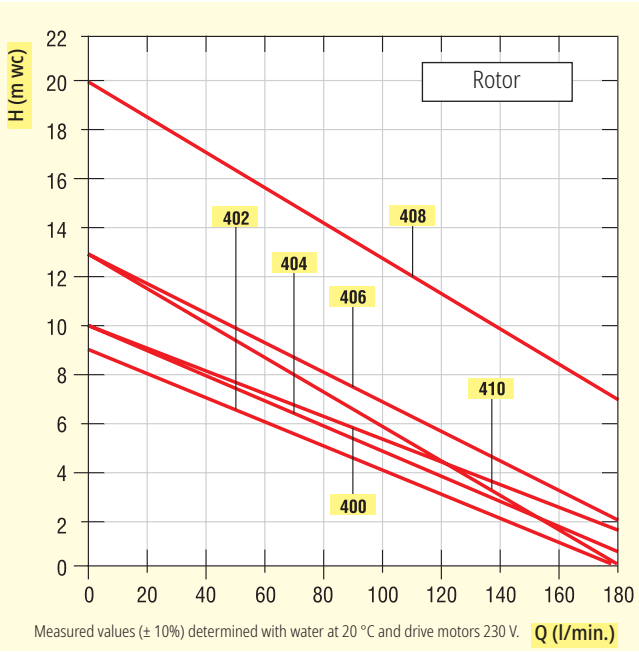
Pump Tube SS (stainless steel)

for corrosive and neutral liquids

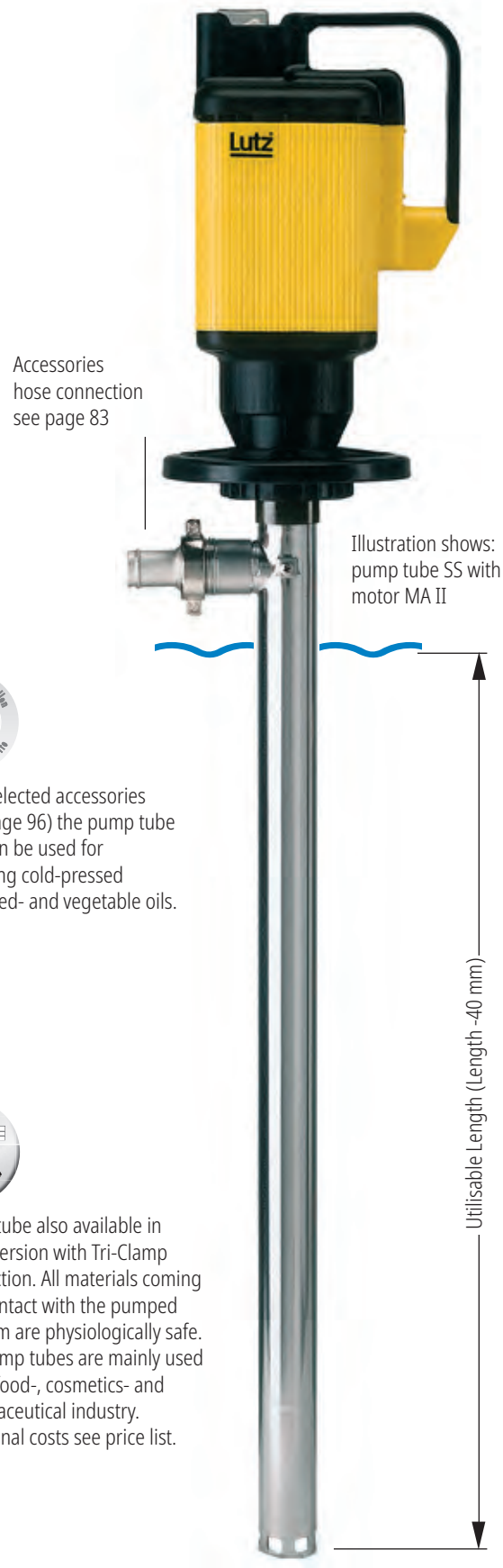
Materials (coming into contact with the pumped medium):

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)





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



Accessories hose connection see page 83

Illustration shows: pump tube SS with motor MA II

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

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

Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

Pump tube SS (stainless steel) for highly flammable liquids

Productdetail

Pump tube		SS-SL		SS-MS	
Type of impeller:		Impeller	Rotor	Impeller	Rotor
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	1.4571	1.4571	1.4571	1.4571
	Impeller/Rotor	ETFE	ETFE	ETFE	ETFE
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: 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**	–	–

Choice of motors			Operating data					
	ME II 3		Characteristic curve no.		453	452	453	452
Output:	460 W	460 W	Flow rate*	up to l/min.	95	178	95	178
Voltage:	230 V	230 V	Delivery head*	up to mWS	14	9	14	9
LVR.:	yes	no	Viscosity**	up to mPas	350	200	350	200
			Density:****	up to kg/dm³	1.6	1.2	1.6	1.2
Order No.	**0050-000**	**0050-016**	Weight (kg)	Motor + pump tube	8.7	8.7	8.7	8.7
	ME II 5		Characteristic curve no.		455	454	455	454
Output:	580 W	580 W	Flow rate*	up to l/min.	100	190	100	190
Voltage:	230 V	230 V	Delivery head*	up to mWS	16	10	16	10
LVR.:	yes	no	Viscosity**	up to mPas	700	550	700	550
			Density:****	up to kg/dm³	1.8	1.3	1.8	1.3
Order No.	**0050-001**	**0050-017**	Weight (kg)	Motor + pump tube	9.6	9.6	9.6	9.6
	ME II 7		Characteristic curve no.		457	456	457	456
Output:	795 W	795 W	Flow rate*	up to l/min.	115	210	115	210
Voltage:	230 V	230 V	Delivery head*	up to mWS	20	13	20	13
LVR.:	yes	no	Viscosity**	up to mPas	500	400	500	400
			Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0050-002**	**0050-018**	Weight (kg)	Motor + pump tube	10.8	10.8	10.8	10.8
	ME II 8		Characteristic curve no.		459	458	459	458
Output:	930 W	930 W	Flow rate*	up to l/min.	123	243	123	243
Voltage:	230 V	230 V	Delivery head*	up to mWS	26	15	26	15
LVR.:	yes	no	Viscosity**	up to mPas	750	650	750	650
			Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Order No.	**0050-042**	**0050-041**	Weight (kg)	Motor + pump tube	10.8	10.8	10.8	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.

	MD1xL	**MD2xL**	Characteristic curve no.		461	460	461	460
Output:	1000 W	1000 W	Flow rate*	up to l/min.	124	276	124	276
Operating			Delivery head*	up to mWS	35	20	35	20
pressure:	6 bar	6 bar	Viscosity**	up to mPas	1000	1000	1000	1000
		infinitely varied	Density:****	up to kg/dm³	2.8	2.8	2.8	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	4.3	4.3	4.3	4.3

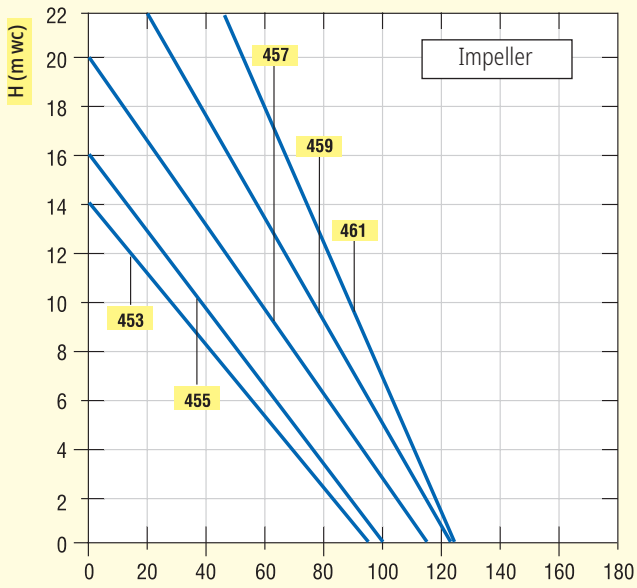
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube SS (stainless steel)

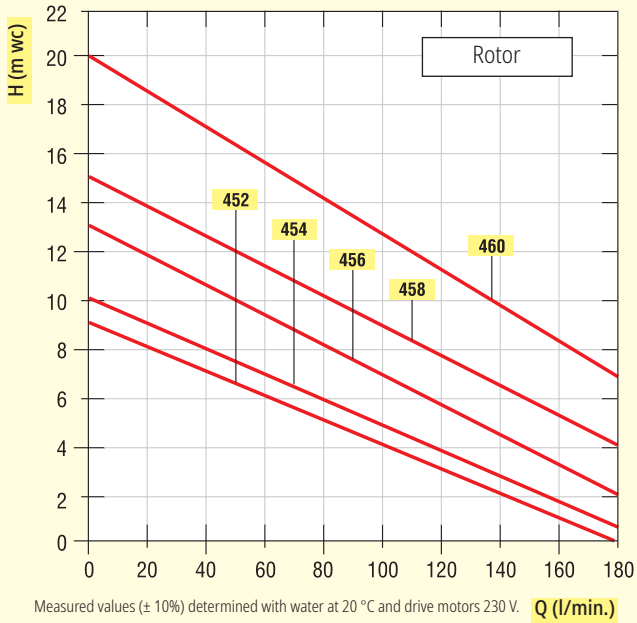
for highly flammable liquids

Materials (coming into contact with the pumped medium):

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

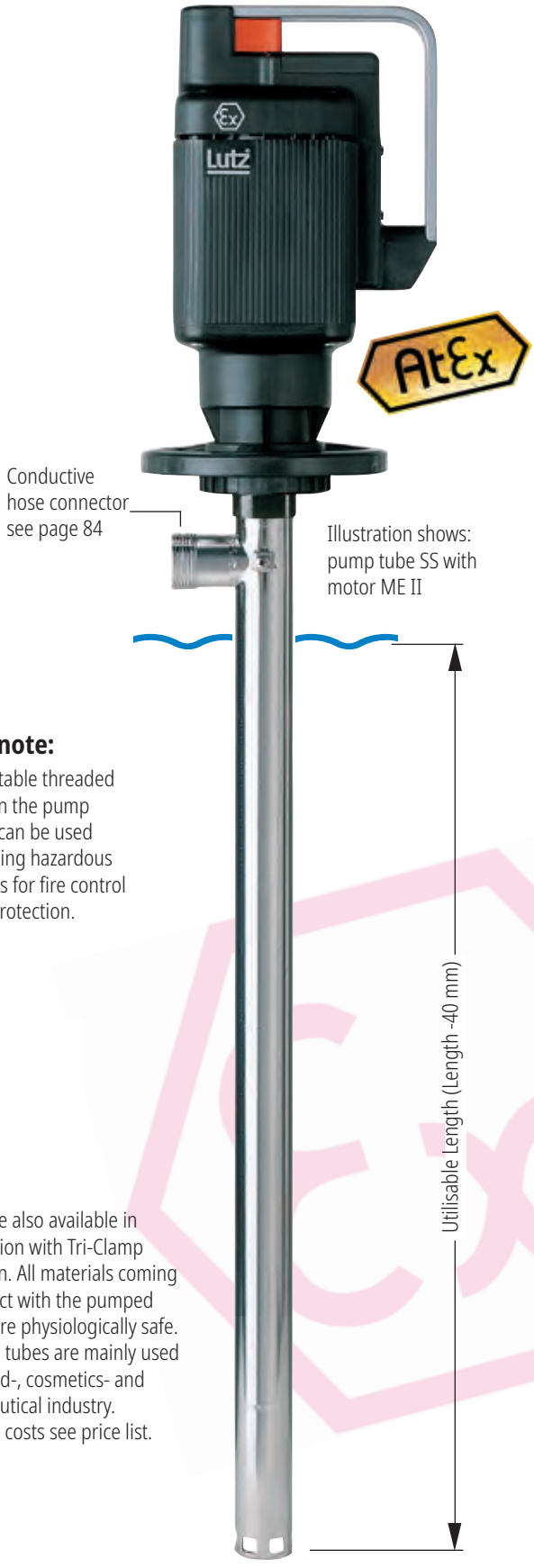


Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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



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

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

Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

Pump tube HC (Hastelloy C) for highly corrosive chemicals

Productdetail

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

Choice of motors			Operating data			
	MI 4	**MI 4-E**	Characteristic curve no.		501	500
	-	with speed controller	Flow rate*	up to l/min.	117	210
			Delivery head*	up to mWS	19	10
Output:	500 W	500 W	Viscosity**	up to mPas	500	350
Voltage:	230 V	230 V	Density:****	up to kg/dm³	1.4	1.1
Order No.	**0030-000**	**0030-001**	Weight (kg)	Motor + pump tube	7.2	7.2

	MA II 3		Characteristic curve no.		503	502
Output:	460 W	460 W	Flow rate*	up to l/min.	95	178
Voltage:	230 V	230 V	Delivery head*	up to mWS	14	9
LVR.:	no	yes	Viscosity**	up to mPas	350	200
			Density:****	up to kg/dm³	1.6	1.2
Order No.	**0060-000**	**0060-008**	Weight (kg)	Motor + pump tube	9.0	9.0

	MA II 5	**MA II 5**	**MA II 5 S**	Characteristic curve no.		505	504
Output:	575 W	575 W	575 W	Flow rate*	up to l/min.	100	190
Voltage:	230 V	230 V	230 V	Delivery head*	up to mWS	16	10
LVR.:	no	yes	no acid proof	Viscosity**	up to mPas	700	550
				Density:****	up to kg/dm³	1.8	1.3
Order No.	**0060-001**	**0060-009**	**0060-091**	Weight (kg)	Motor + pump tube	9.8	9.8

	MA II 7		Characteristic curve no.		507	506
Output:	795 W	795 W	Flow rate*	up to l/min.	115	210
Voltage:	230 V	230 V	Delivery head*	up to mWS	20	13
LVR.:	no	yes	Viscosity**	up to mPas	500	400
			Density:****	up to kg/dm³	1.9	1.4
Order No.	**0060-002**	**0060-010**	Weight (kg)	Motor + pump tube	11.0	11.0

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

	MD1xL	**MD2xL**	Characteristic curve no.		509	508
Output:	1000 W	1000 W	Flow rate*	up to l/min.	124	276
Operating pressure:	6 bar	6 bar	Delivery head*	up to mWS	35	20
		infinitely varied	Viscosity**	up to mPas	1000	1000
			Density:****	up to kg/dm³	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*	up to l/min.	100	180
Voltage:	230/400 V	230/400 V	Delivery head*	up to mWS	12	13
Protection switch	no	yes	Viscosity**	up to mPas	500	400
			Density:****	up to kg/dm³	2.2	2.0
Order No.	**0004-050**	**0004-052**	Weight (kg)	Motor + pump tube	16.2	16.2

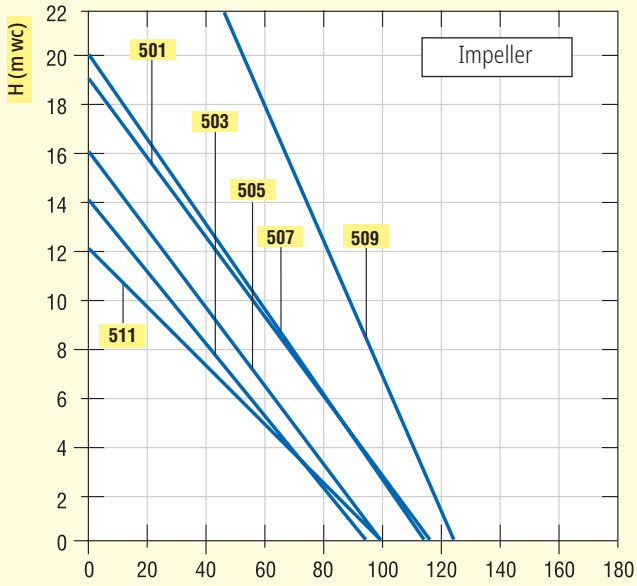
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube HC (Hastelloy C)

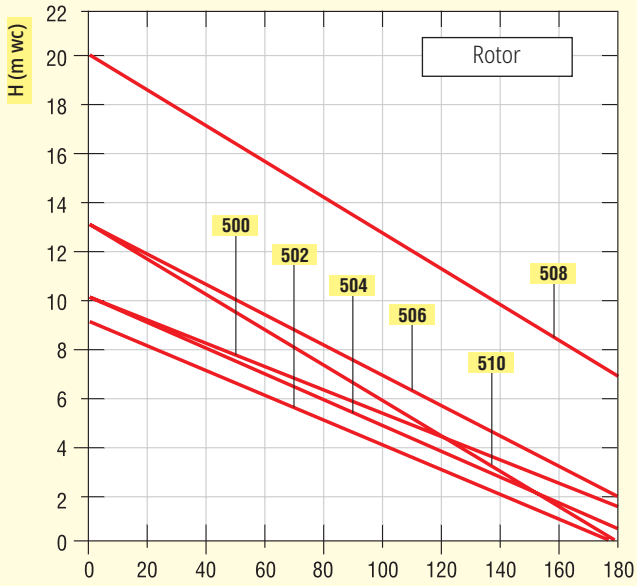
for highly corrosive chemicals

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)

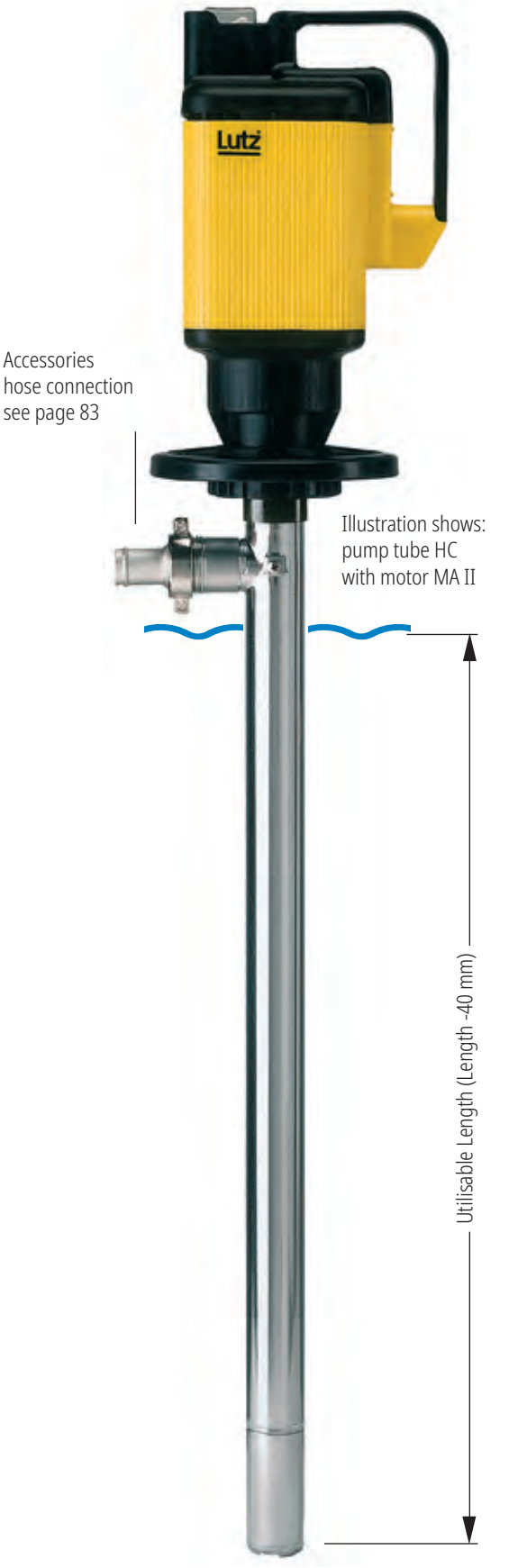


Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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



Suitable range of accessories
see pages 80-96

Lutz Drum and Container Pumps

Pump tube HC (Hastelloy C) for highly flammable chemicals

Productdetail

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

Choice of motors			Operating data			
	ME II 3		Characteristic curve no.		553	552
Output:	460 W	460 W	Flow rate*	up to l/min.	95	178
Voltage:	230 V	230 V	Delivery head*	up to mWS	14	9
LVR.:	yes	no	Viscosity**	up to mPas	350	200
			Density:****	up to kg/dm³	1.6	1.2
Order No.	**0050-000**	**0050-016**	Weight (kg)	Motor + pump tube	10.2	10.2
	ME II 5		Characteristic curve no.		555	554
Output:	580 W	580 W	Flow rate*	up to l/min.	100	190
Voltage:	230 V	230 V	Delivery head*	up to mWS	16	10
LVR.:	yes	no	Viscosity**	up to mPas	700	550
			Density:****	up to kg/dm³	1.8	1.3
Order No.	**0050-001**	**0050-017**	Weight (kg)	Motor + pump tube	11.1	11.1
	ME II 7		Characteristic curve no.		557	556
Output:	795 W	795 W	Flow rate*	up to l/min.	115	210
Voltage:	230 V	230 V	Delivery head*	up to mWS	20	13
LVR.:	yes	no	Viscosity**	up to mPas	500	400
			Density:****	up to kg/dm³	1.9	1.4
Order No.	**0050-002**	**0050-018**	Weight (kg)	Motor + pump tube	12.3	12.3
	ME II 8		Characteristic curve no.		559	558
Output:	930 W	930 W	Flow rate*	up to l/min.	123	243
Voltage:	230 V	230 V	Delivery head*	up to mWS	26	15
LVR.:	yes	no	Viscosity**	up to mPas	750	650
			Density:****	up to kg/dm³	1.9	1.4
Order No.	**0050-042**	**0050-041**	Weight (kg)	Motor + pump tube	12.3	12.3
	MD1xL	**MD2xL**	Characteristic curve no.		561	560
Output:	1000 W	1000 W	Flow rate*	up to l/min.	124	276
Operating pressure:	6 bar	6 bar	Delivery head*	up to mWS	35	20
		infinitely varied	Viscosity**	up to mPas	1000	1000
			Density:****	up to kg/dm³	2.8	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	5.8	5.8

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.

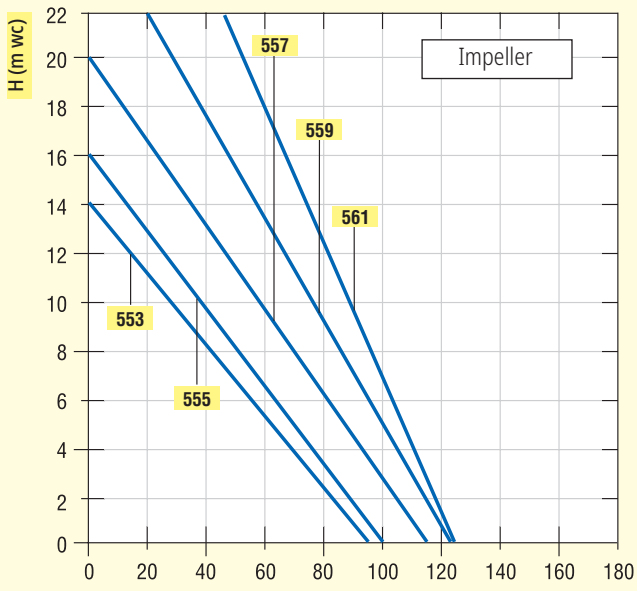
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 200–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube HC (Hastelloy C)

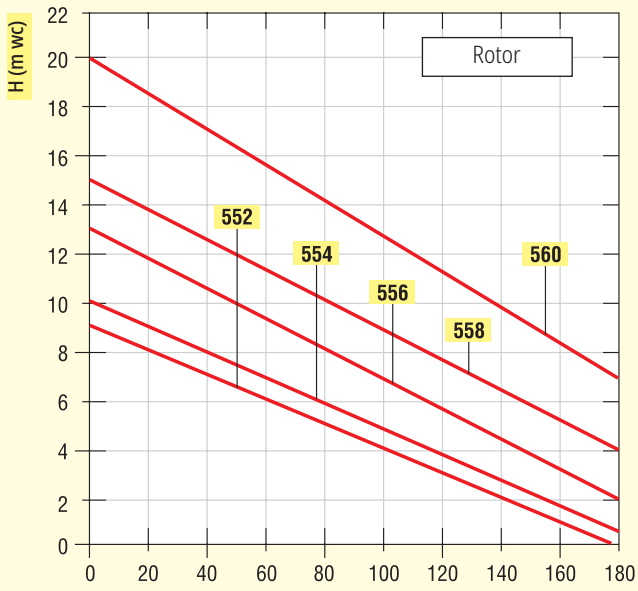
for highly flammable chemicals

Materials (coming into contact with the pumped medium):

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

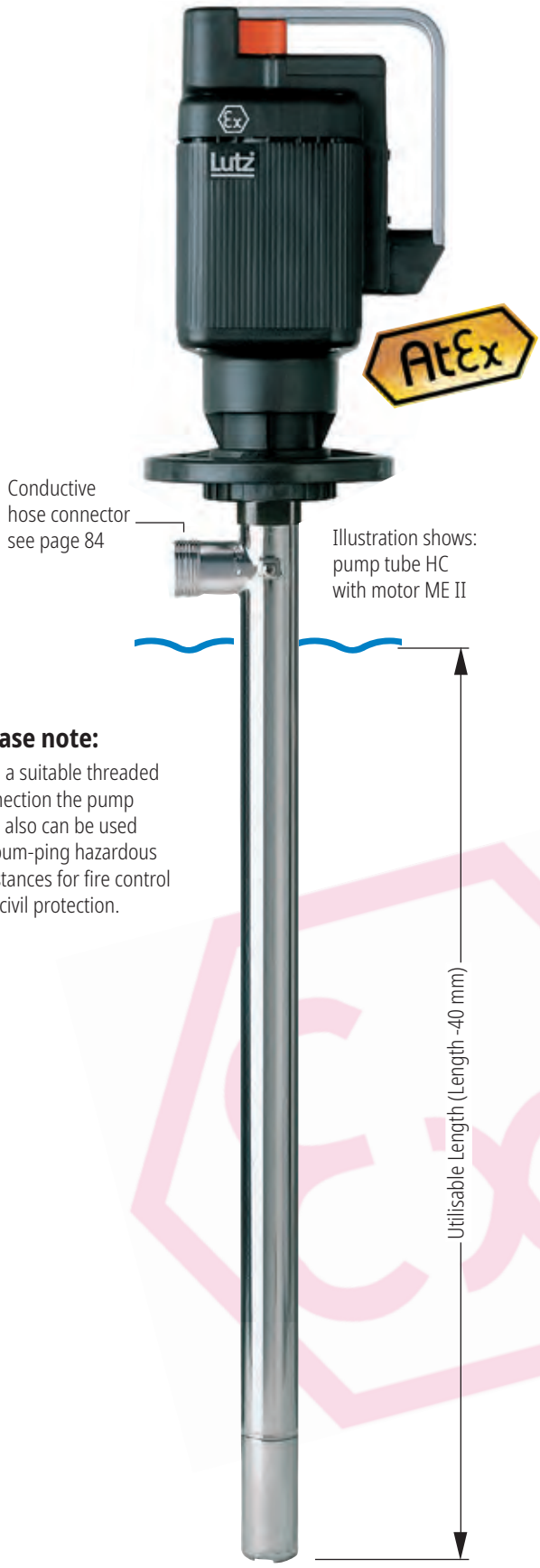


Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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



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

Suitable range of accessories 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.**

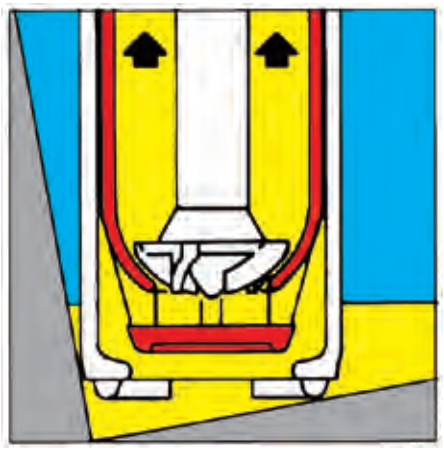
Competitive edge instead of drawback

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.



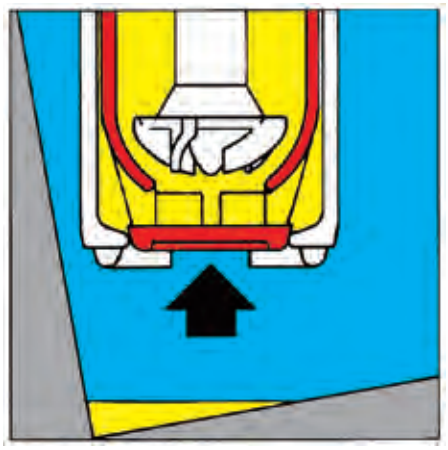
The sealing cap is open - the liquid is pumped out.

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.

German Patent:

DE 37 18325 C2



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

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 l.

Residues less than 0.10 l

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.

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.

IP24

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.

IP54

MA II

These motors aren't taken back easily. The ME II explosion proof universal motors are the nostrum (German Patent DE 3815427 C2 - for pumping a large variety of thin-bodied, easily flammable and combustible liquids.

IP54

ME II

Small Motor - Great Effect

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

MD1xL

MD2xL

MD1xL/MD2xL compressed air motors

Tip

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

Reliable and powerful, thus suitable for extreme conditions

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

IP 54/IP 55

B4/GT three-phase gear motor

Lutz Drum and Container Pumps

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

Productdetail

Pump tube			RE-PP GLRD
Type of impeller:			Impeller
Category 1 / 2 (acc. to ATEX)			no
Immersion tube diameter:		up to mm	41
Temperature of medium:		up to °C	50
Material:		Pump tube	PP
		Impeller	PP
Hose connection:		Nominal diameter mm	19-32
		Outer thread	G 1 1/4
Length: 700 mm***	shaft SS	Order No.	**0103-020**
Length: 1000 mm***	shaft SS	Order No.	**0103-021**
Length: 1200 mm***	shaft SS	Order No.	**0103-022**
Length: 700 mm***	shaft HC	Order No.	**0103-040**
Length: 1000 mm***	shaft HC	Order No.	**0103-041**
Length: 1200 mm***	shaft HC	Order No.	**0103-042**

Choice of motors	MI 4	MI 4-E	Operating data		
	-	with speed controller	Characteristic curve no.		600
			Flow rate*	up to l/min.	70
			Delivery head*	up to mWS	12
Output:	500 W	500 W	Viscosity**	up to mPas	1000
Voltage:	230 V	230 V	Density:****	up to kg/dm³	1.6
Order No.	**0030-000**	**0030-001**	Weight (kg)	Motor + pump tube	4.0

	MA II 3		Characteristic curve no.		601
Output:	460 W	460 W	Flow rate*	up to l/min.	60
Voltage:	230 V	230 V	Delivery head*	up to mWS	11
LVR.:	no	yes	Viscosity**	up to mPas	800
			Density:****	up to kg/dm³	1.7
Order No.	**0060-000**	**0060-008**	Weight (kg)	Motor + pump tube	5.8

	MA II 5	MA II 5	MA II 5 S	Characteristic curve no.		602
Output:	575 W	575 W	575 W	Flow rate*	up to l/min.	60
Voltage:	230 V	230 V	230 V	Delivery head*	up to mWS	11.5
LVR.:	no	yes	no	Viscosity**	up to mPas	1200
			acid proof	Density:****	up to kg/dm³	2.0
Order No.	**0060-001**	**0060-009**	**0060-091**	Weight (kg)	Motor + pump tube	6.6

	MA II 7		Characteristic curve no.		603
Output:	795 W	795 W	Flow rate*	up to l/min.	69
Voltage:	230 V	230 V	Delivery head*	up to mWS	15
LVR.:	no	yes	Viscosity**	up to mPas	1000
			Density:****	up to kg/dm³	2.0
Order No.	**0060-002**	**0060-010**	Weight (kg)	Motor + pump tube	7.8

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

	MD1xL	MD2xL	Characteristic curve no.		604
Output:	1000 W	1000 W	Flow rate*	up to l/min.	69
Operating			Delivery head*	up to mWS	19
pressure:	6 bar	6 bar	Viscosity**	up to mPas	1000
		infinitely varied	Density:****	up to kg/dm³	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	2.6

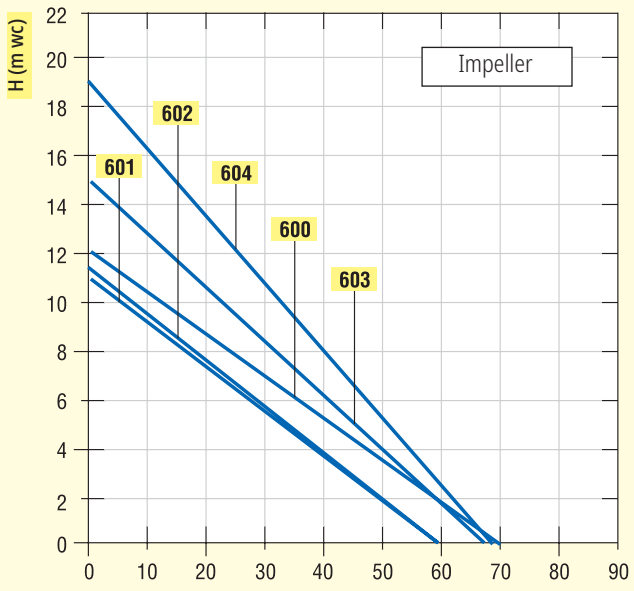
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 400–1500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

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)



Accessories
hose connection
see page 83

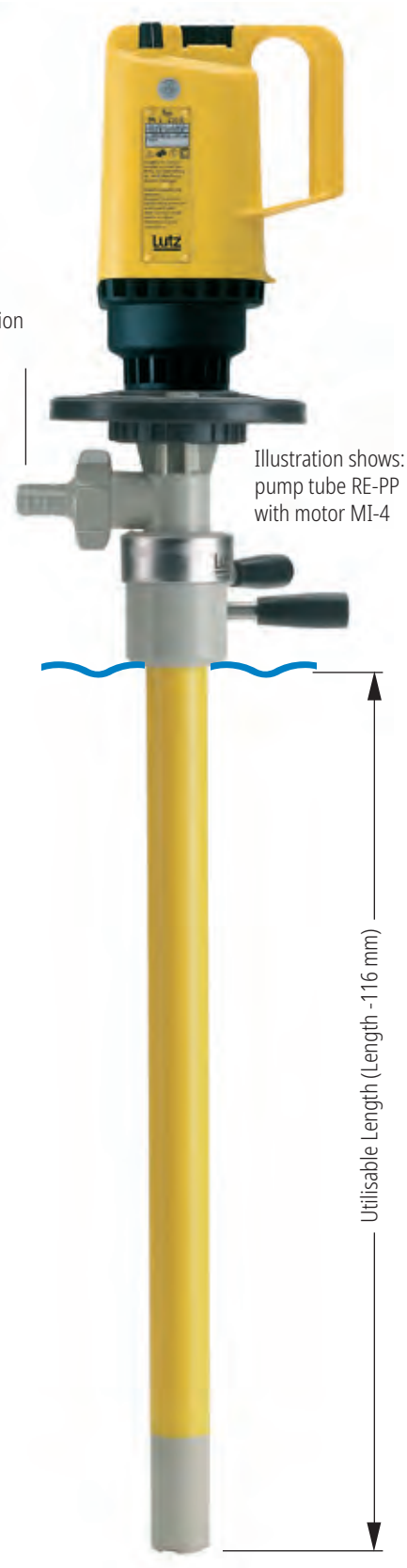


Illustration shows:
pump tube RE-PP
with motor MI-4

Tip

Which pump for which liquid?
See resistance table !

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

Suitable range of accessories
see pages 80-96

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		RE-SS GLRD
Type of impeller:		Impeller
Category 1 / 2 (acc. to ATEX)		yes
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**

Choice of motors — Operating data

	MI 4	MI 4-E		
	-	with speed controller	Flow rate* up to l/min.	78
			Delivery head* up to mWS	17
Output:	500 W	500 W	Viscosity** up to mPas	700
Voltage:	230 V	230 V	Density:**** up to kg/dm³	1.4
Order No.	**0030-000**	**0030-001**	Weight (kg) Motor + pump tube	6.0

Characteristic curve no.: 700

	MA II 3		
Output:	460 W	460 W	Flow rate* up to l/min. 77
Voltage:	230 V	230 V	Delivery head* up to mWS 14
LVR.:	no	yes	Viscosity** up to mPas 500
			Density:**** up to kg/dm³ 1.6
Order No.	**0060-000**	**0060-008**	Weight (kg) Motor + pump tube 7.8

Characteristic curve no.: 701

	MA II 5	MA II 5	MA II 5 S	
Output:	575 W	575 W	575 W	Flow rate* up to l/min. 77
Voltage:	230 V	230 V	230 V	Delivery head* up to mWS 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

Characteristic curve no.: 702

	MA II 7		
Output:	795 W	795 W	Flow rate* up to l/min. 70
Voltage:	230 V	230 V	Delivery head* up to mWS 18
LVR.:	no	yes	Viscosity** up to mPas 700
			Density:**** up to kg/dm³ 1.9
Order No.	**0060-002**	**0060-010**	Weight (kg) Motor + pump tube 9.8

Characteristic curve no.: 703

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

	MD1xL	MD2xL	
Output:	1000 W	1000 W	Flow rate* up to l/min. 67
Operating pressure:	6 bar	6 bar	Delivery head* up to mWS 28
			Viscosity** up to mPas 1000
		infinitely varied	Density:**** up to kg/dm³ 2.8
Order No.	**0004-725**	**0004-735**	Weight (kg) Motor + pump tube 4.6

Characteristic curve no.: 704

	B4/GT		
Output:	750 W	750 W	Flow rate* up to l/min. 55
Voltage:	230/400 V	230/400 V	Delivery head* up to mWS 8.5
Protection switch	no	yes	Viscosity** up to mPas 600
			Density:**** up to kg/dm³ 2.2
Order No.	**0004-050**	**0004-052**	Weight (kg) Motor + pump tube 15.0

Characteristic curve no.: 705

* Determined with water at 20 °C
** Determined with oil
*** Special lengths 400–2000 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

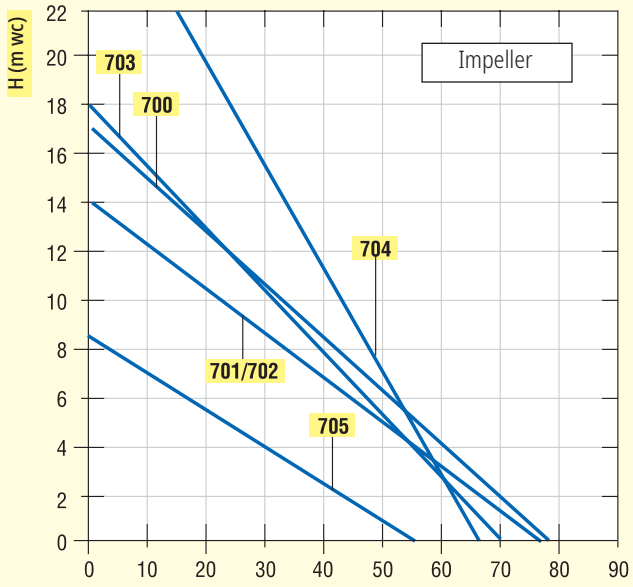
Special voltages and frequencies on request.

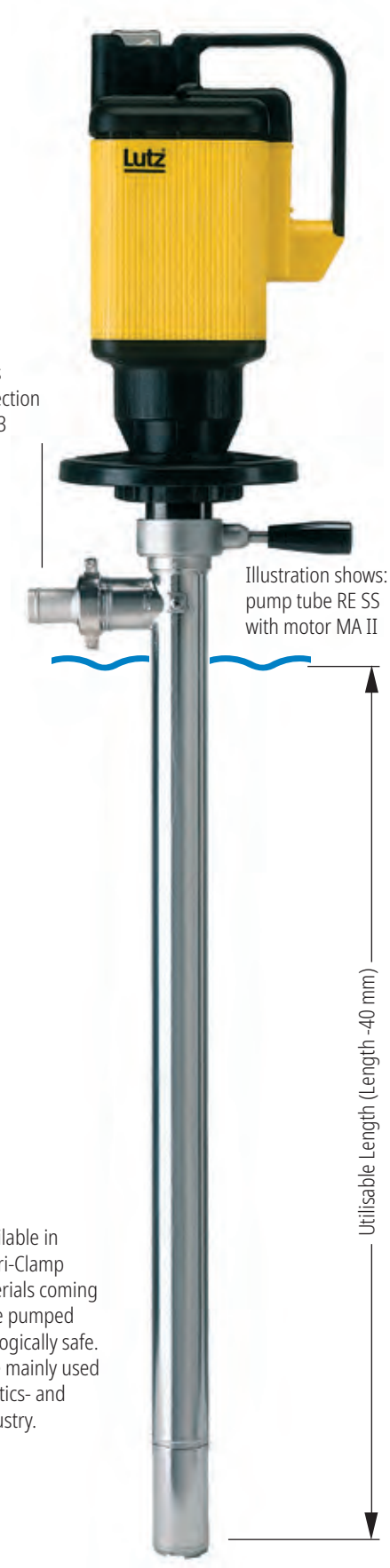
Pump Tube RE-SS (stainless steel)

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)





Accessories hose connection see page 83

Illustration shows: pump tube RE SS with motor MA II

PURE FDA

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

Complete drum drainage

Nearly completely drained.
Residual quantity < 0.10 litres.

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

Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		RE-SS GLRD
Type of impeller:		Impeller
Category 1 / 2 (acc. to ATEX)		yes
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**

Choice of motors			Operating data		
	ME II 3		Characteristic curve no.		750
Output:	460 W	460 W	Flow rate*	up to l/min.	77
Voltage:	230 V	230 V	Delivery head*	up to mWS	14
LVR.:	yes	no	Viscosity**	up to mPas	500
			Density:****	up to kg/dm³	1.6
Order No.	**0050-000**	**0050-016**	Weight (kg)	Motor + pump tube	9.0
	ME II 5		Characteristic curve no.		751
Output:	580 W	580 W	Flow rate*	up to l/min.	77
Voltage:	230 V	230 V	Delivery head*	up to mWS	14
LVR.:	yes	no	Viscosity**	up to mPas	900
			Density:****	up to kg/dm³	1.8
Order No.	**0050-001**	**0050-017**	Weight (kg)	Motor + pump tube	9.9
	ME II 7		Characteristic curve no.		752
Output:	795 W	795 W	Flow rate*	up to l/min.	70
Voltage:	230 V	230 V	Delivery head*	up to mWS	18
LVR.:	yes	no	Viscosity**	up to mPas	700
			Density:****	up to kg/dm³	1.9
Order No.	**0050-002**	**0050-018**	Weight (kg)	Motor + pump tube	11.1
	ME II 8		Characteristic curve no.		753
Output:	930 W	930 W	Flow rate*	up to l/min.	78
Voltage:	230 V	230 V	Delivery head*	up to mWS	22
LVR.:	yes	no	Viscosity**	up to mPas	950
			Density:****	up to kg/dm³	1.9
Order No.	**0050-042**	**0050-041**	Weight (kg)	Motor + pump tube	11.1
	MD1xL	**MD2xL**	Characteristic curve no.		754
Output:	1000 W	1000 W	Flow rate*	up to l/min.	67
Operating pressure:	6 bar	6 bar infinitely varied	Delivery head*	up to mWS	28
			Viscosity**	up to mPas	1000
			Density:****	up to kg/dm³	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	4.6

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.

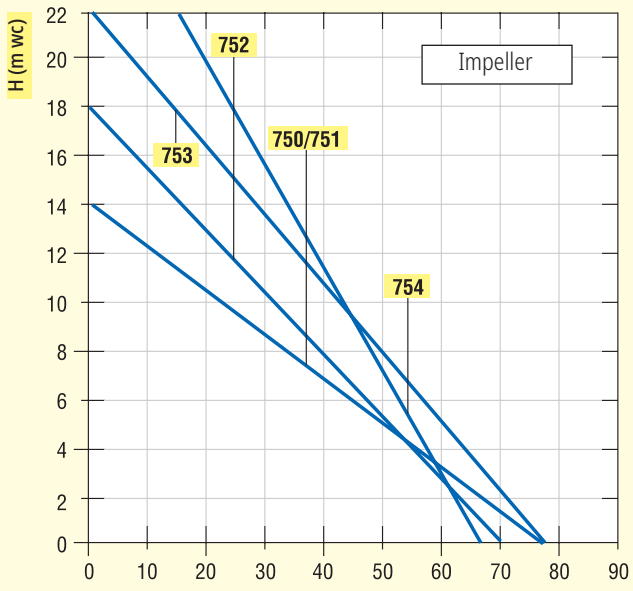
* Determined with water at 20 °C
** Determined with oil
***Special lengths 400–2000 mm on request
****Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

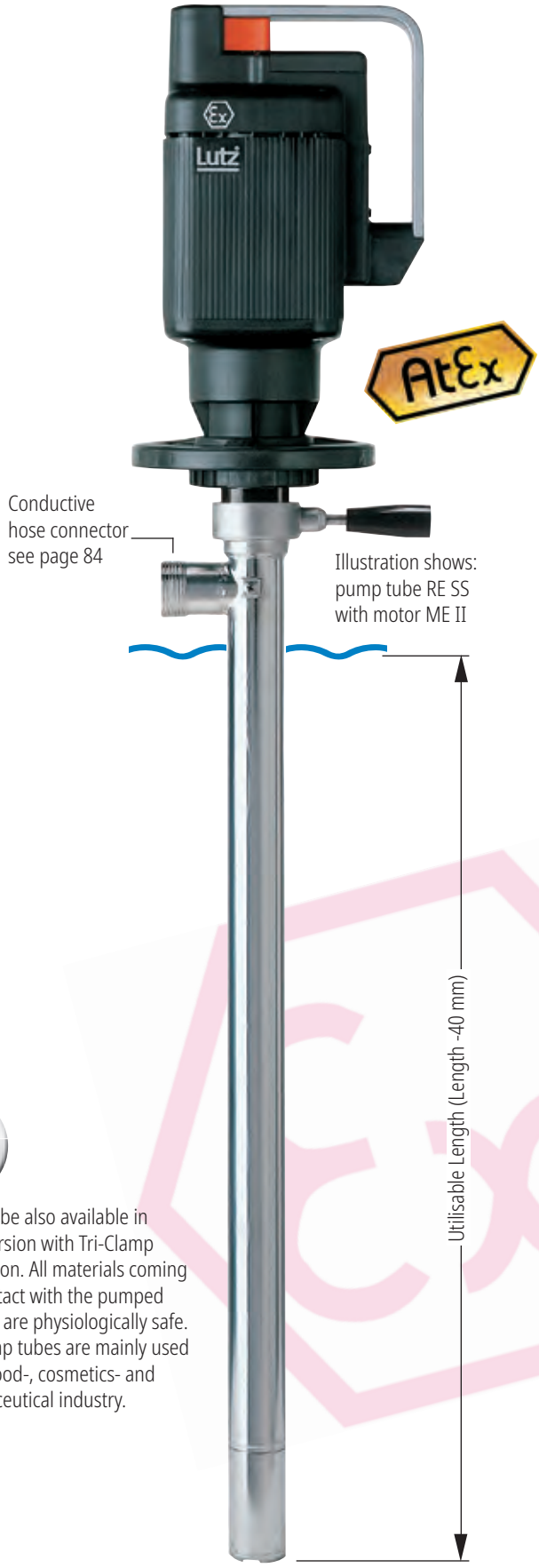
Pump Tube RE-SS (stainless steel)

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)





PURE FDA

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

Tip

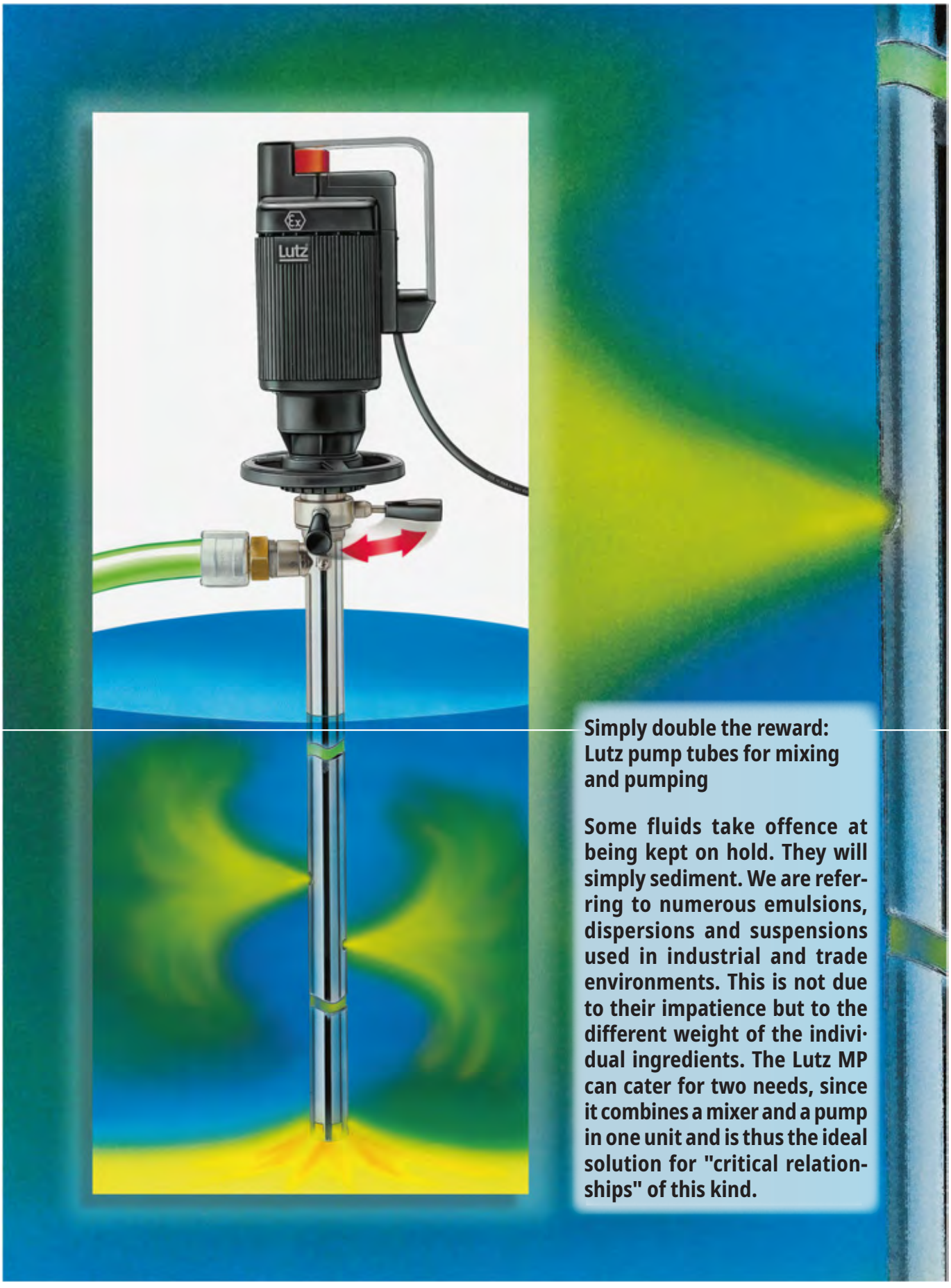
The right pump for "hot applications".

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

Suitable range of accessories see pages 80-96

Pump Tubes MP for mixing and pumping

Multi talent: Lutz pump tube MP for mixing and pumping

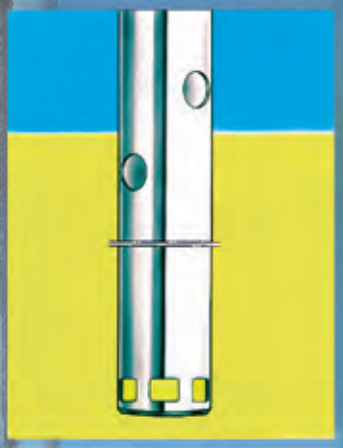


Simply double the reward: Lutz pump tubes for mixing and pumping

Some fluids take offence at being kept on hold. They will simply sediment. We are referring to numerous emulsions, dispersions and suspensions used in industrial and trade environments. This is not due to their impatience but to the different weight of the individual ingredients. The Lutz MP can cater for two needs, since it combines a mixer and a pump in one unit and is thus the ideal solution for "critical relationships" of this kind.

Universally Applicable

"Mixer" and Pump in a single unit



immerse

mix/pump

pump

Desired turbulences

The special flow conditions in the container generated by the pump tube tor mixing and pumping thoroughly remix and homogenize sedimented media - even in remote corners of the container bottom. In a flash, you will have a homogenized mix ready for further processing.

All the functions in one go

A construction comprising an immersion tube and a locking mechanism that has been tried and tested in practice provides tor opening and closing of the mixing apertures. This proven design facilitates simultaneous mixing and pumping. Of course, it's your choice: With the discharge connection closed, you can also mix first and pump afterwards. The pump tube functions are conveniently controlled by devices outside the drum.

Take advantage of a wide range of capabilities

Lutz pump tubes for mixing and pumping are available in stainless steel or polypropylene to match all kinds of chemical resistance requirements. Combined with a wide range of motors, they are capable of meeting a vast number of demands with respect to mixing and pumping inhomogeneous, aggressive and easily flammable fluids.

Perfect fit

Lutz pump tubes MP for mixing and pumping are compact, that is exactly why they make it big: They have no problems at all fitting through the standardised bung hole of a 200-l drum. Simply push it in, fasten it using a drum adapter - and off you go!

Pump Tubes for mixing and pumping

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

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

The material is what matters

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

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

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.

IP24

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.

IP54

MA II

Safety first

These motors aren't taken back easily. The ME II explosion proof universal motors are the nostrum (German Patent DE 3815427 C2 - for pumping a large variety of thin-bodied, easily flammable and combustible liquids.

IP54

ME II

Small Motor - Great Effect

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

MD1xL

MD2xL

MD1xL/MD2xL compressed air motors

Tip

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

Reliable and powerful, thus suitable for extreme conditions

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

IP 54/IP 55

B4/GT three-phase gear motor

Lutz Drum and Container Pumps

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

Productdetail

Pump tube			MP-PP-SL		MP-PP-MS	
Type of impeller:			Impeller	Rotor	Impeller	Rotor
Category 1 / 2 (acc. to ATEX)			no	no	no	no
Immersion tube diameter:		up to mm	50	50	50	50
Temperature of medium:		up to °C	50	50	50	50
Material:		Pump tube	PP	PP	PP	PP
		Impeller/Rotor	PP	PP	PP	PP
Hose connection:		Nominal diameter mm	19-32	19-32	19-32	19-32
		Outer thread	G 1 1/4	G 1 1/4	G 1 1/4	G 1 1/4
Length: 1000 mm***	shaft SS	Order No.	**0110-350**	*	**0103-350**	*
Length: 1200 mm***	shaft SS	Order No.	*	**0110-360**	*	*
Length: 1000 mm***	shaft HC	Order No.	**0110-355**	*	*	*
Length: 1200 mm***	shaft HC	Order No.	*	**0110-365**	*	*

*available on request

Choice of motors

	MI 4	MI 4-E
	-	with speed controller
Output:	500 W	500 W
Voltage:	230 V	230 V
Order No.	**0030-000**	**0030-001**

	MA II 3	
Output:	460 W	460 W
Voltage:	230 V	230 V
LVR.:	no	yes
Order No.	**0060-000**	**0060-008**

	MA II 5	MA II 5	MA II 5 S
Output:	575 W	575 W	575 W
Voltage:	230 V	230 V	230 V
LVR.:	no	yes	no
			acid proof
Order No.	**0060-001**	**0060-009**	**0060-091**

	MA II 7	
Output:	795 W	795 W
Voltage:	230 V	230 V
LVR.:	no	yes
Order No.	**0060-002**	**0060-010**

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

	MD1xL	MD2xL
Output:	1000 W	1000 W
Operating pressure:	6 bar	6 bar infinitely varied
Order No.	**0004-725**	**0004-735**

Operating data

Characteristic curve no.		802	801	802	801
Flow rate*	up to l/min.	87	160	87	160
Delivery head*	up to mWS	19	8.5	19	8.5
Viscosity**	up to mPas	500	150	500	150
Density:****	up to kg/dm³	1.4	1.1	1.4	1.1
Weight (kg)	Motor + pump tube	4.1	4.1	4.1	4.1

Characteristic curve no.		804	803	804	803
Flow rate*	up to l/min.	78	155	78	155
Delivery head*	up to mWS	16	7.5	16	7.5
Viscosity**	up to mPas	500	160	500	160
Density:****	up to kg/dm³	1.6	1.2	1.6	1.2
Weight (kg)	Motor + pump tube	5.9	5.9	5.9	5.9

Characteristic curve no.		806	805	806	805
Flow rate*	up to l/min.	83	160	83	160
Delivery head*	up to mWS	18	9	18	9
Viscosity**	up to mPas	800	350	800	350
Density:****	up to kg/dm³	1.8	1.3	1.8	1.3
Weight (kg)	Motor + pump tube	6.7	6.7	6.7	6.7

Characteristic curve no.		808	807	808	807
Flow rate*	up to l/min.	95	170	95	170
Delivery head*	up to mWS	25	12	25	12
Viscosity**	up to mPas	800	350	800	350
Density:****	up to kg/dm³	1.9	1.4	1.9	1.4
Weight (kg)	Motor + pump tube	7.9	7.9	7.9	7.9

Characteristic curve no.		810	809	810	809
Flow rate*	up to l/min.	116	216	116	216
Delivery head*	up to mWS	36	16	36	16
Viscosity**	up to mPas	1000	1000	1000	1000
Density:****	up to kg/dm³	2.8	2.8	2.8	2.8
Weight (kg)	Motor + pump tube	2.7	2.7	2.7	2.7

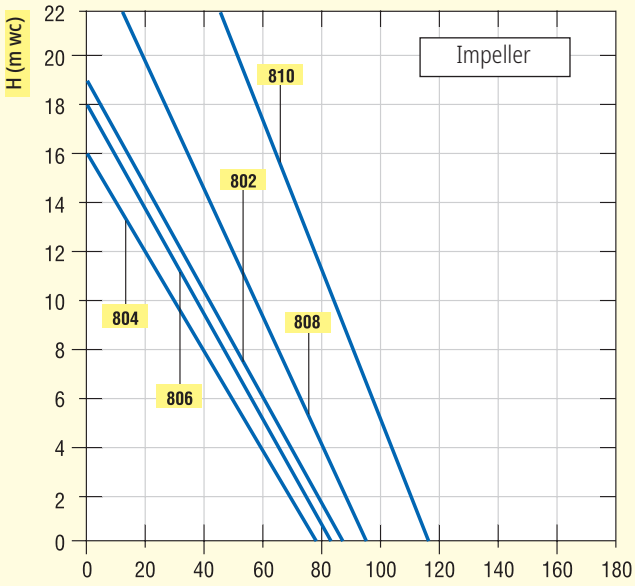
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 400–2000 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

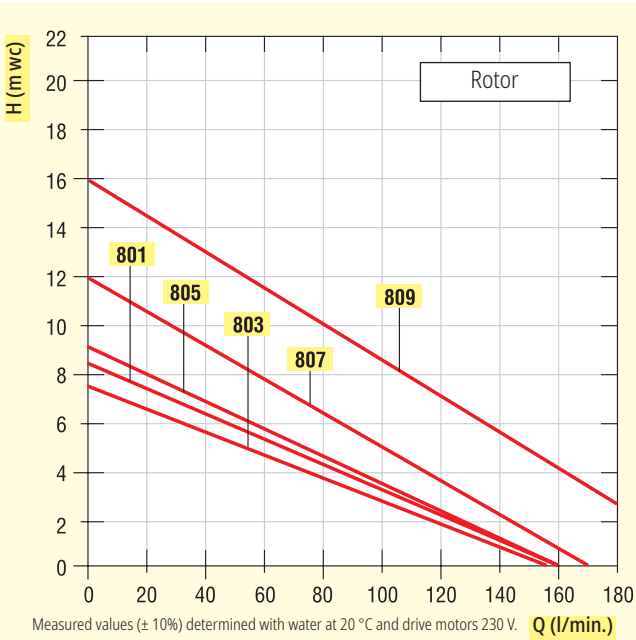
Pump Tube MP-PP (polypropylene)

for mixing and pumping of corrosive and neutral liquids

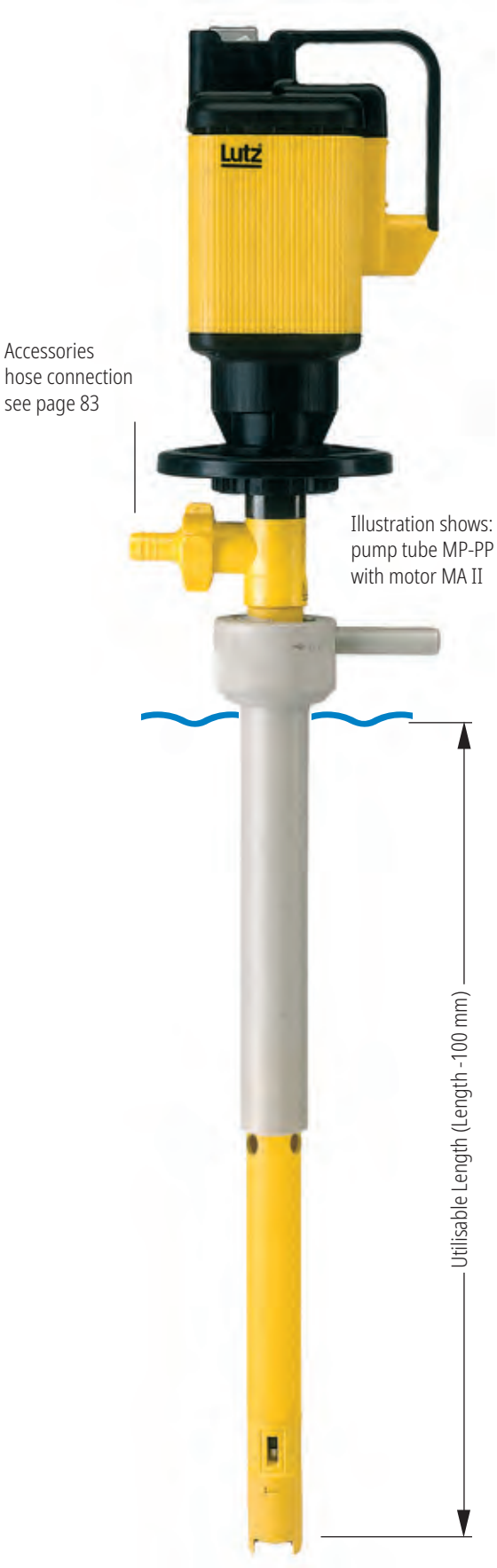
Materials (coming into contact with the pumped medium):

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)





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



Accessories hose connection see page 83

Illustration shows: pump tube MP-PP with motor MA II

Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		MP-SS GLRD
Type of impeller:		Rotor
Category 1 / 2 (acc. to ATEX)		yes
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**

Choice of motors

Operating data

	MI 4	MI 4-E		
	-	with speed controller		
Output:	500 W	500 W		
Voltage:	230 V	230 V		
Order No.	**0030-000**	**0030-001**		

Characteristic curve no.		900
Flow rate*	up to l/min.	210
Delivery head*	up to mWS	10
Viscosity**	up to mPas	350
Density:****	up to kg/dm³	1.1
Weight (kg)	Motor + pump tube	6.0

	MA II 3			
Output:	460 W	460 W		
Voltage:	230 V	230 V		
LVR.:	no	yes		
Order No.	**0060-000**	**0060-008**		

Characteristic curve no.		901
Flow rate*	up to l/min.	178
Delivery head*	up to mWS	9
Viscosity**	up to mPas	200
Density:****	up to kg/dm³	1.2
Weight (kg)	Motor + pump tube	7.8

	MA II 5	MA II 5	MA II 5 S
Output:	575 W	575 W	575 W
Voltage:	230 V	230 V	230 V
LVR.:	no	yes	no acid proof
Order No.	**0060-001**	**0060-009**	**0060-091**

Characteristic curve no.		902
Flow rate*	up to l/min.	190
Delivery head*	up to mWS	10
Viscosity**	up to mPas	550
Density:****	up to kg/dm³	1.3
Weight (kg)	Motor + pump tube	8.6

	MA II 7		
Output:	795 W	795 W	
Voltage:	230 V	230 V	
LVR.:	no	yes	
Order No.	**0060-002**	**0060-010**	

Characteristic curve no.		903
Flow rate*	up to l/min.	210
Delivery head*	up to mWS	13
Viscosity**	up to mPas	400
Density:****	up to kg/dm³	1.4
Weight (kg)	Motor + pump tube	9.8

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

	MD1xL	MD2xL		
Output:	1000 W	1000 W		
Operating pressure:	6 bar	6 bar infinitely varied		
Order No.	**0004-725**	**0004-735**		

Characteristic curve no.		904
Flow rate*	up to l/min.	245
Delivery head*	up to mWS	21
Viscosity**	up to mPas	1000
Density:****	up to kg/dm³	2.8
Weight (kg)	Motor + pump tube	4.6

	B4/GT	
Output:	750 W	750 W
Voltage:	230/400 V	230/400 V
Protection switch	no	yes
Order No.	**0004-050**	**0004-052**

Characteristic curve no.		905
Flow rate*	up to l/min.	140
Delivery head*	up to mWS	10.5
Viscosity**	up to mPas	400
Density:****	up to kg/dm³	2.0
Weight (kg)	Motor + pump tube	15.0

* Determined with water at 20 °C
** Determined with oil
*** Special lengths 600–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.

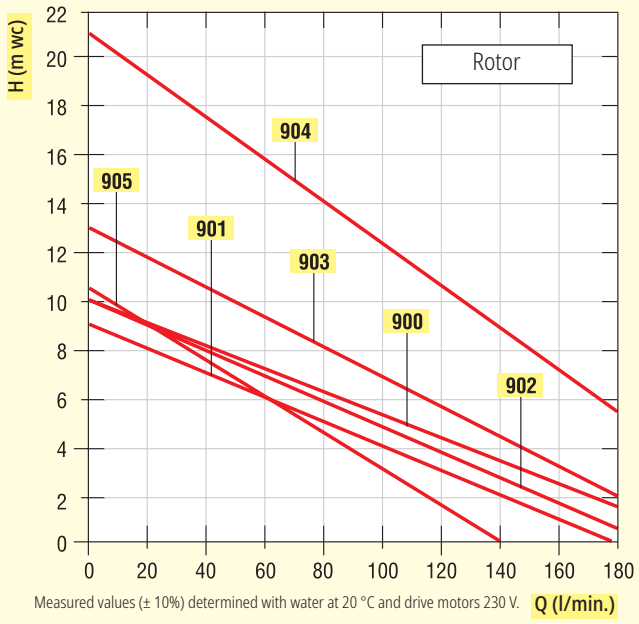
Special voltages and frequencies on request.

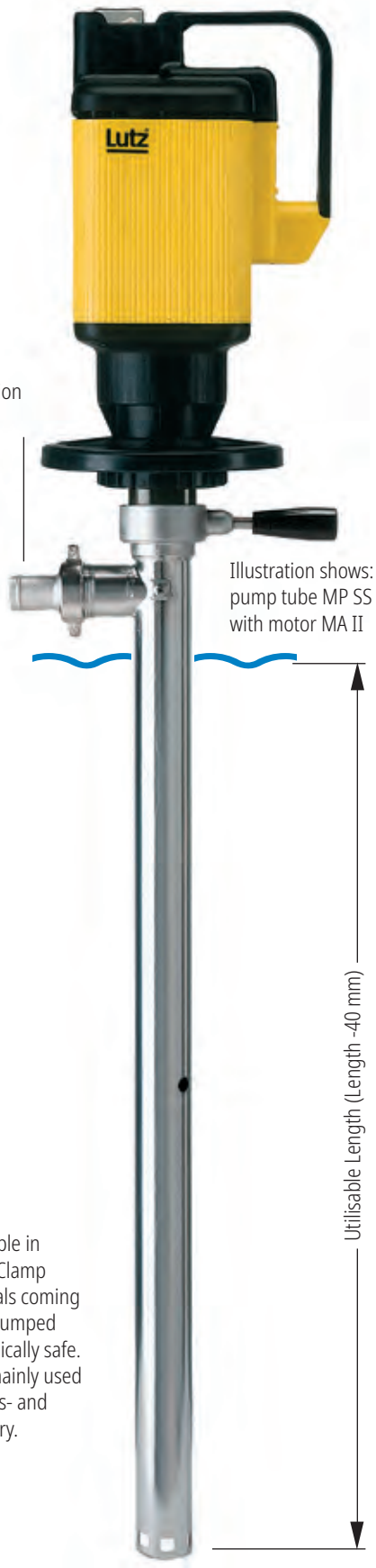
Pump Tube MP-SS (stainless steel)

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)





Accessories hose connection see page 83

Illustration shows: pump tube MP SS with motor MA II

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

Tip

Which pump for which liquid?
See resistance table

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

Suitable range of accessories
see pages 80-96

Lutz Drum and Container Pumps

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

Productdetail

Pump tube		MP-SS GLRD
Type of impeller:		Rotor
Category 1 / 2 (acc. to ATEX)		yes
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**

Choice of motors			Operating data		
	ME II 3		Characteristic curve no.		950
Output:	460 W	460 W	Flow rate*	up to l/min.	178
Voltage:	230 V	230 V	Delivery head*	up to mWS	9
LVR.:	yes	no	Viscosity**	up to mPas	200
			Density:****	up to kg/dm³	1.2
Order No.	**0050-000**	**0050-016**	Weight (kg)	Motor + pump tube	9.0
	ME II 5		Characteristic curve no.		951
Output:	580 W	580 W	Flow rate*	up to l/min.	190
Voltage:	230 V	230 V	Delivery head*	up to mWS	10
LVR.:	yes	no	Viscosity**	up to mPas	550
			Density:****	up to kg/dm³	1.3
Order No.	**0050-001**	**0050-017**	Weight (kg)	Motor + pump tube	9.9
	ME II 7		Characteristic curve no.		952
Output:	795 W	795 W	Flow rate*	up to l/min.	210
Voltage:	230 V	230 V	Delivery head*	up to mWS	13
LVR.:	yes	no	Viscosity**	up to mPas	400
			Density:****	up to kg/dm³	1.4
Order No.	**0050-002**	**0050-018**	Weight (kg)	Motor + pump tube	11.1
	ME II 8		Characteristic curve no.		953
Output:	930 W	930 W	Flow rate*	up to l/min.	216
Voltage:	230 V	230 V	Delivery head*	up to mWS	14.5
LVR.:	yes	no	Viscosity**	up to mPas	650
			Density:****	up to kg/dm³	1.4
Order No.	**0050-042**	**0050-041**	Weight (kg)	Motor + pump tube	11.1
	MD1xL	**MD2xL**	Characteristic curve no.		954
Output:	1000 W	1000 W	Flow rate*	up to l/min.	245
Operating pressure:	6 bar	6 bar infinitely varied	Delivery head*	up to mWS	21
			Viscosity**	up to mPas	1000
			Density:****	up to kg/dm³	2.8
Order No.	**0004-725**	**0004-735**	Weight (kg)	Motor + pump tube	4.6

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.

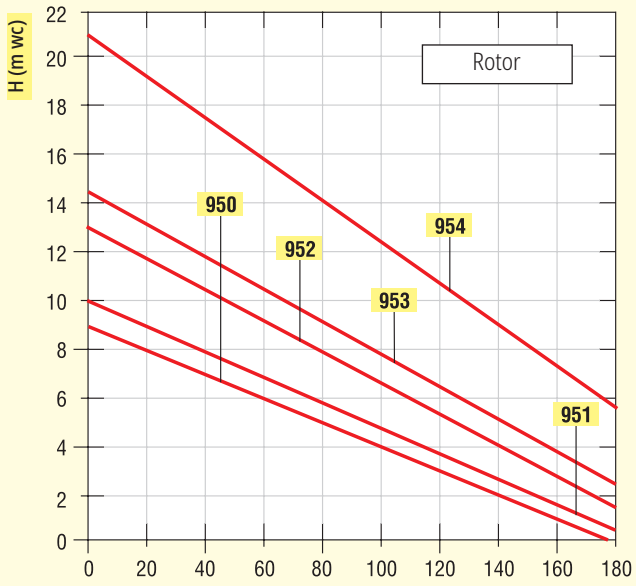
* Determined with water at 20 °C
** Determined with oil
*** Special lengths 600–2500 mm on request
**** Determined with 3 m hose 3/4" and open nozzle 3/4". Higher densities possible for shorter operating periods.
Special voltages and frequencies on request.

Pump Tube MP-SS (stainless steel)

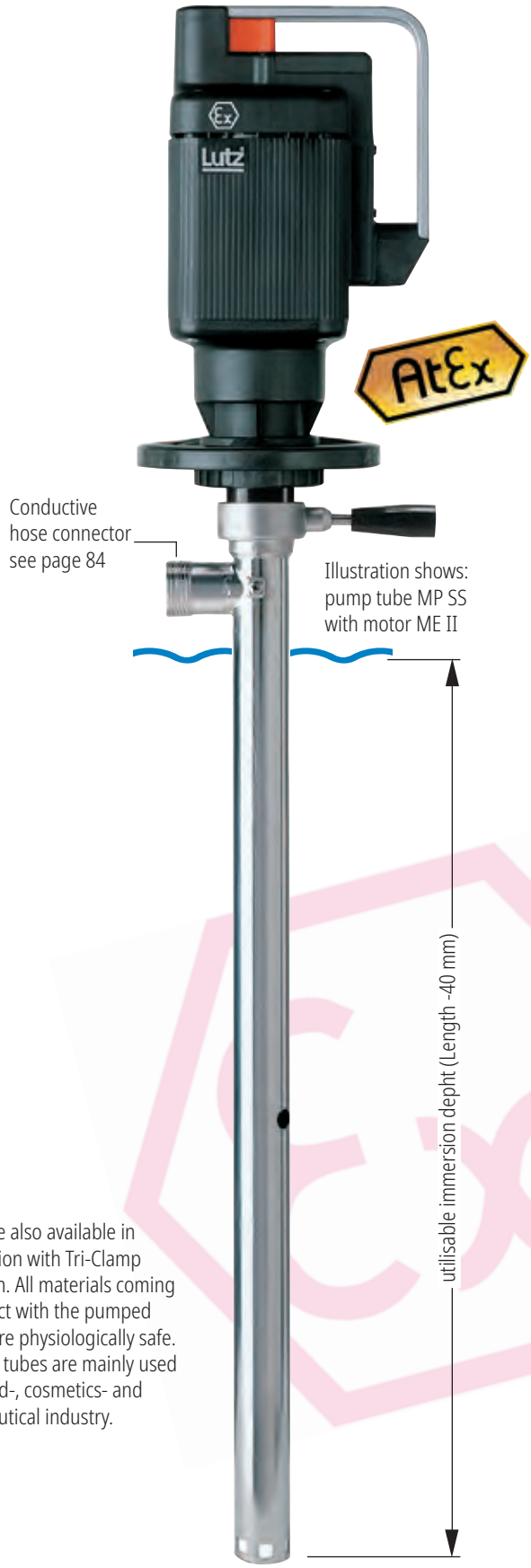
for mixing and pumping of highly flammable liquids

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)



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.



PURE FDA

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

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

Suitable range of accessories see pages 80-96

Lutz Drum and Container Pumps

Container Pump B50

Saves time when emptying containers

Container Pump B50

The solution you can safely rely on

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.

Practice-oriented design

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

The 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.

- ✓ 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 quick installation.

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

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

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

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

Product detail

Container pump		B50 PP/HC	B50 PP/SS
Category 1 / 2 (acc. to ATEX)		no	no
Immersion tube diameter:	up to mm	100	100
Temperature of medium:	up to °C	40	40
Material:	Pump tube	PP	PP
	Impeller/diffuser material	PPO / PPE	PPO / PPE
	Drive shaft	Hastelloy C (2.4610)	Stainless steel (1.4571)
Nominal diameter container:		DN 150	DN 150
Outrun piece:		G 1 1/2 Outer thread	G 1 1/2 Outer thread
Length: 1100 mm	Order No.	**0180-001**	**0180-501**
Screw cover PE/PP, DN 150 (Basis)	Order No.	**0208-311**	
Screw cover PE/PP, DN 225 (optional)	Order No.	**0208-312**	

Choice of motors			Operating data			
Single phase motor						
Output:	0.55 KW	0.75 KW	Flow rate*	up to l/min.	200	200
Density:	up to 1.3 kg/dm³	up to 1.8 kg/dm³	Delivery head*	up to mWS	22	22
Speed:	2800 1/min.	2700 1/min.	Viscosity	up to mPas	100	100
Prot. class:	IP 54	IP 54	Weight (kg)	Motor + pump tube)	10.5 up to 13.5	10.5 up to 13.5
Order No.	**0180-030**	**0180-031**				

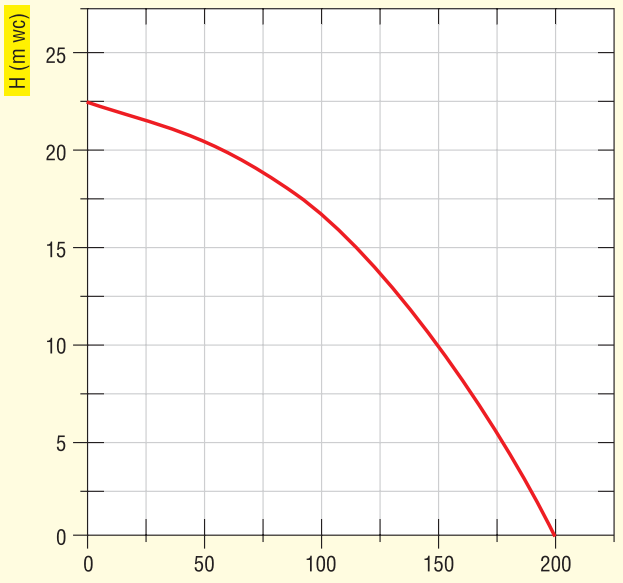
*Determined with water at 20 °C

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



Measured values (± 10%) determined with water at 20 °C and drive motors 230 V.

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.

Suitable range of accessories
see page 97

Accessories Lutz Drum and Container Pumps

"Getting started"

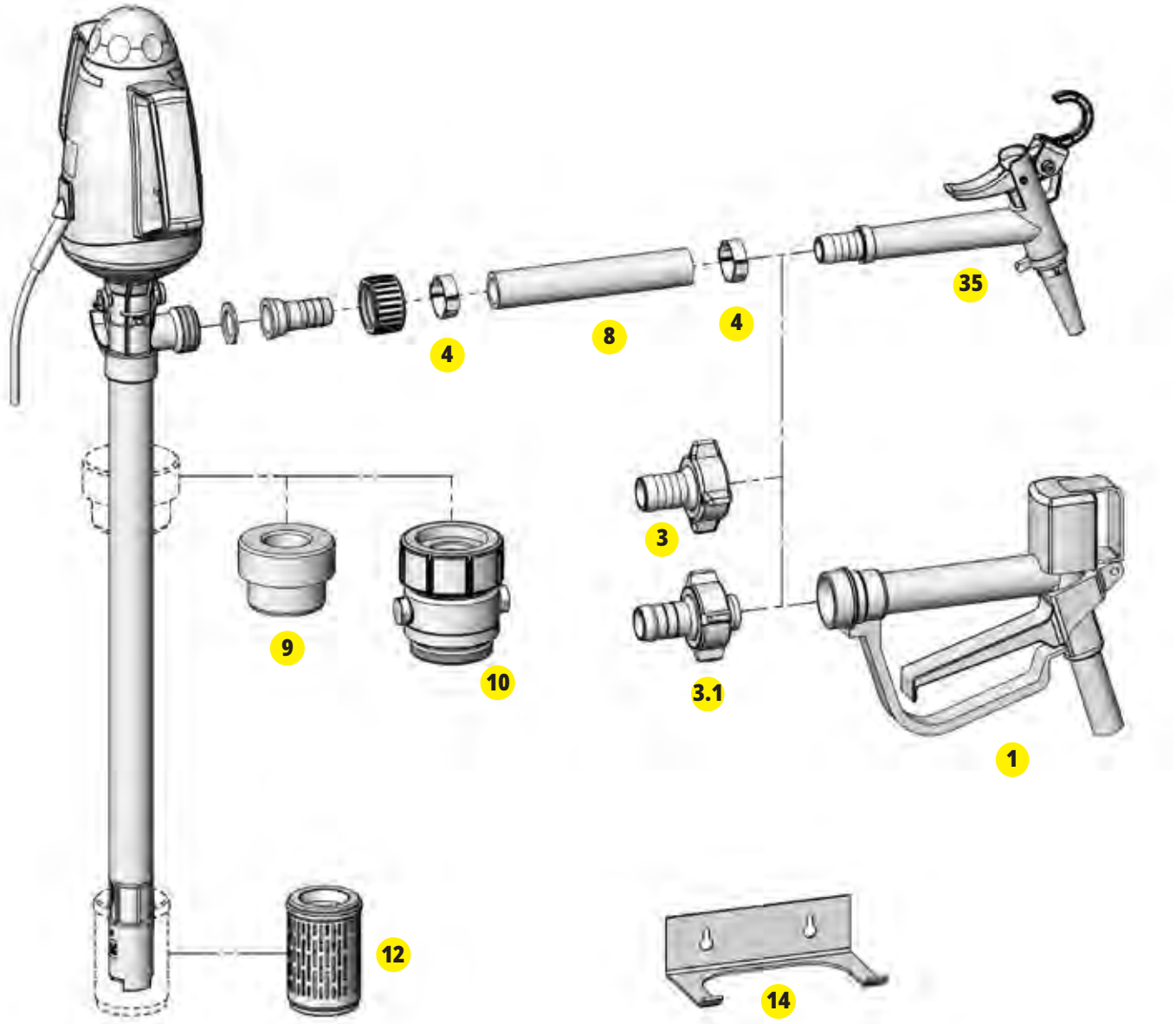
Perfectly equipped with the range of Lutz accessories

In keeping with our philosophy of making life safe and simple, we have a complete range of accessories available for you suitable for both mobile and stationary applications. The range of Lutz accessories makes your pump a perfect filling system.

Available e.g. are:
Nozzles
Hoses
Emission-proof drum adapters
Flow meters
Foot strainers
Installation flanges
and much more

The full range of Lutz accessories caters to your specific needs.

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

Accessories

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

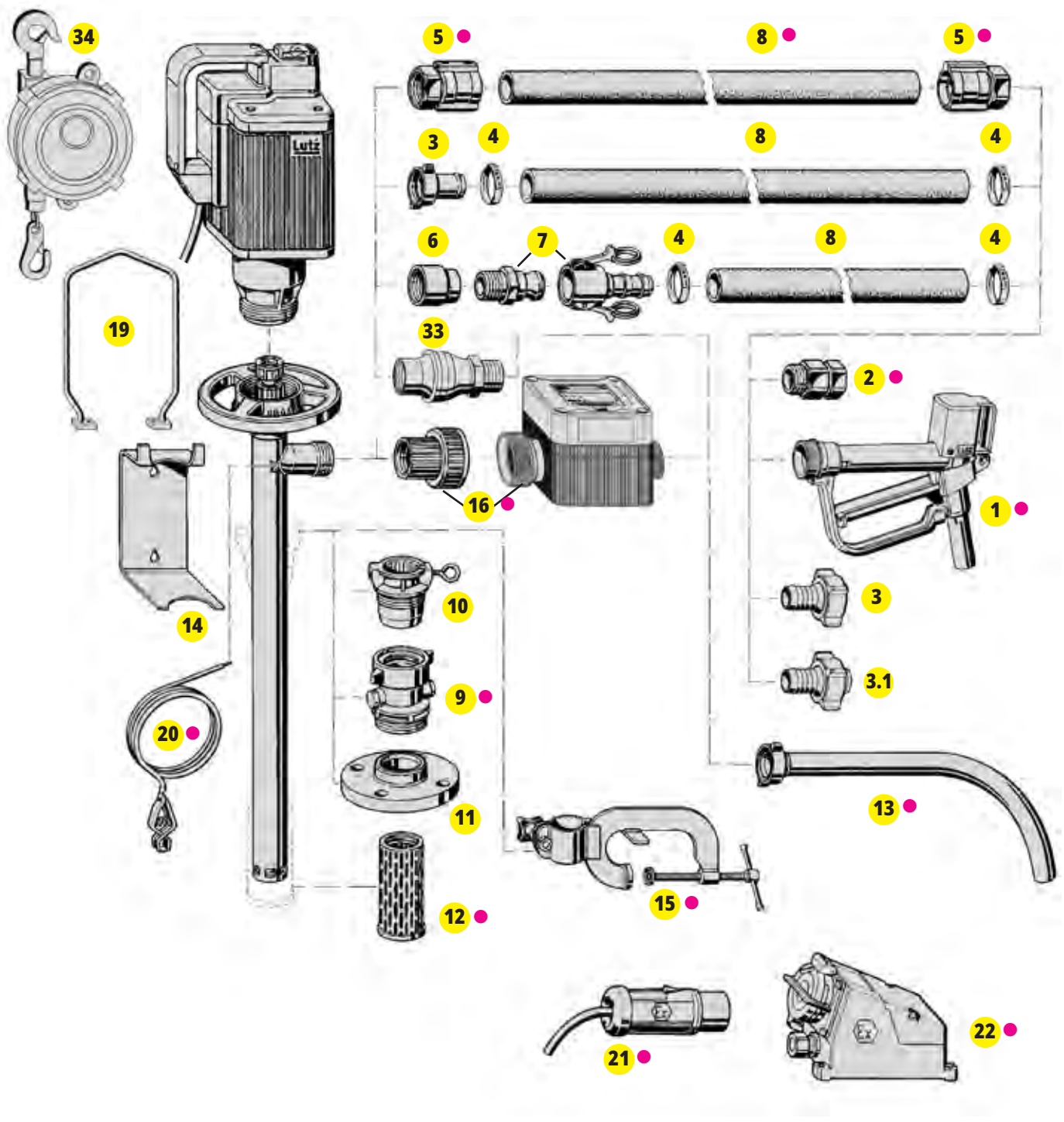
Productdetail	Specification	Order-No.
	**Set-accessories** Comprises of: Lutz nozzle, 1.5 mtr. PVC hose 3/4", hose connection, hose clamps, wall bracket For pump Lutz B2 Vario PP-SL ø 32	**0201-550**
	**Hose fitting for pump tube PP** Comprises of: Lutz nozzle, 1.5 m PVC hose 3/4", hose connector with 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**
	**35 Lutz nozzle PP** 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: max. 1 bar at 20 °C Viscosity: max. 300 mPas Flow rate: max. 40 l/min. (water) Temperature of medium: max. 50 °C Weight: approx. 0.1 kg Connection: Hose liner DN 19 (3/4")	**0201-215**
	**4 Hose clamp** Stainless steel hose clamp to fix hoses at the pump outlet connection and accessories. Nominal diameter: Ear clamp DN 19 (3/4")	**0301-257**

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**	
Universal line adapter				
For Europe, UK, USA, Australia, China 100-240 V, max. 2.5 A			**0336-195**	
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**	

Nozzles, hoses and hose connections 81-87.

Accessories

At a glance



1 ●	Nozzle	8 ●	Hose	16 ●	Flow meter
2 ●	Turning knuckle	9 ●	Emission proof drum adapter	19	Lifting device
3	Hose connection	10	Drum adapter	20 ●	Equipotential bonding cable
3.1	Hose connection, rotatable	11	Installation flange	21 ●	Ex-plug
4	Hose clamp	12 ●	Foot strainer	22 ●	Ex-socket
5 ●	Hose connector	13 ●	Discharge spout	33	Check valve
6	Reducing sleeve	14	Wall bracket	34	Hoist
7	Quick-action hose coupling	15 ●	Clamping device		

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

Specification		Order-No.	Productdetail

1 PP nozzle

For filling and transferring neutral and aggressive liquids.
With hoop guard and two outlet spouts ø 23 mm (cylindrical) and ø 12 mm (conical).
Polypropylene (PP) housing and valve tappet.

Operating pressure:	max. 3 bar at 20 °C	
Viscosity:	max. 760 mPas	
Flow rate:	max. 50 l/min. (Water)	
Temperature of medium:	max. 50 °C	
Weight:	approx. 0.25 kg	
Connection:	outer thread G 1 1/4	
Seal:	FPM (FPM)	**0204-380**
	EPDM	**0204-385**
	FEP/FPM	**0204-387**

1 PVDF nozzle

For filling and transferring neutral and aggressive liquids.
With hoop guard and two outlet spouts ø 23 mm (cylindrical) and ø 12 mm (conical).
Polyvinylidenfluoride (PVDF) housing and valve tappet. FPM (FPM) seals.
Additional costs for seals FFPM or FEP/FPM see price list.

Operating pressure:	max. 3 bar at 20 °C	
Viscosity:	max. 760 mPas	
Flow rate:	max. 50 l/min. (Water)	
Temperature of medium:	max. 80 °C	
Weight:	approx. 0.3 kg	
Connection:	outer thread G 1 1/4	**0204-390**

1 Stainless steel nozzle

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 and rotating joint. Additional costs for seals EPDM.
Nozzle in PURE-version available.

Operating pressure:	max. 3 bar	
Viscosity:	max. 760 mPas	
Flow rate:	max. 50 l/min. (Water)	
Temperature of medium:	max. 80 °C	
Weight:	approx. 1 kg	
Connection:	outer thread G 1 1/4	
Seal:	FPM (FPM)	**0204-370** ●
	FEP/FPM	**0204-377** ●

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

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

Accessories

Nozzles, check valves

Productdetail	Specification	Order-No.

1 **Brass nozzle**

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

Operating pressure:	max. 4 bar
Viscosity:	max. 760 mPas
Flow rate:	max. 80 l/min. (Water)
Temperature of medium:	max. 80 °C
Weight:	approx. 0.6 kg
Connection:	outer thread G 1 1/4

0372-502 ●

1 **Aluminium nozzle**

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

Operating pressure:	max. 4 bar
Viscosity:	max. 760 mPas
Flow rate:	max. 60 l/min. (Water)
Temperature of medium:	max. 60 °C
Weight:	approx. 0.5 kg
Connection:	inner thread G 1

0372-250

1 **Automatic aluminium nozzle**

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

Operating pressure:	min. 0.5 up to 4 bar
Viscosity:	max. 7 mPas
Flow rate:	max. 80 l/min. (Water)
Temperature of medium:	max. 60 °C
Weight:	approx. 1.1 kg
Connection:	outer thread G 1
Seal:	PTFE

0372-245 ●

2 **Rotating joint**

Rotating connection between hose connector and nozzle.
FEP/FPM seals.

Material:	Nominal diameter:	
Brass	inner thread G 1/outer thread G 1	**0372-120** ●
Stainless steel	inner thread G 1/outer thread G 1	**0370-012** ●
Stainless steel	outer thread G 1/outer thread G 1	**0370-011** ●

33 **Check valve**

Prevents backflow of the liquid at downtime of the pump.

Material:	Nominal diameter:	Operating pressure:	
Stainless steel 1.4301	inner thread G 1 1/4	max. 16 bar	**0372-017**
Stainless steel 1.4401	inner thread G 1 1/4, seal PTFE	max. 16 bar	**0372-050**
Stainless steel 1.4401	inner thread G 1 1/4/outer thread G 1 1/4 seal PTFE (preferred for horizontal fitting)	max. 16 bar	**0204-516**
PVC	inner thread G 1 1/4/outer thread G 1 1/4 seal EPDM (preferred for horizontal fitting)	max. 6 bar	**0204-517**

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

Specification			Order-No.

Productdetail

3 Hose connection

Hose connector with wing nut for connecting the hoses to the pump tube or nozzle.

Connection: inner thread G 1 1/4			
Material:	Nominal diameter:		
PP	DN 13 (1/2")		**0204-409**
PP	DN 19 (3/4")		**0204-410**
PP	DN 25 (1")		**0204-411**
PP	DN 32 (1 1/4")		**0204-412**
PP grey	DN 19 (3/4")		**0204-419**
PVDF	DN 19 (3/4")		**0204-421**
PVDF	DN 25 (1")		**0204-422**
PVDF	DN 32 (1 1/4")		**0204-423**
Alu	DN 19 (3/4")		**0204-403**
Alu	DN 25 (1")		**0204-404**
Alu	DN 32 (1 1/4")		**0204-405**
Stainless steel	DN 19 (3/4")		**0204-400**
Stainless steel	DN 25 (1")		**0204-401**
Stainless steel	DN 32 (1 1/4")		**0204-402**
HC	DN 25 (1")		**0204-407**
Connection: outer thread G 1			
Material:	Nominal diameter:		
Brass	DN 19 (3/4")		**0204-428**
Brass	DN 25 (1")		**0204-429**

3.1 Hose connection rotatable

Hose connector with wing nut for connecting the hoses to the PP and PVDF nozzle.

Connection: inner thread G 1 1/4			
Material:	Nominal diameter:		
PP	DN 19 (3/4")	Seal FPM/FPM	**0204-424**
PP	DN 25 (1")	Seal FPM/FPM	**0204-434**
PP	DN 32 (1 1/4")	Seal FPM/FPM	**0204-367**
PP	DN 19 (3/4")	Seal FEP/FPM	**0204-430**
PP	DN 25 (1")	Seal FEP/FPM	**0204-431**
PP	DN 19 (3/4")	Seal EPDM	**0204-432**
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***
	PVDF	G 1 1/4"	**0204-354***

* Necessary when using a hose connection rotatable at the pump tube.

Accessories

Hose clips, hose connections

Productdetail	Specification	Order-No.

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")	**0301-400**
DN 25 (1")	**0301-401**
DN 32 - 38 (1 1/4" - 1 1/2")	**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)

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.

Specification			Order-No.
Double nipple			
Stainless steel (1.4571)	G 1 1/4 outer thread		**0300-106**

Productdetail

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

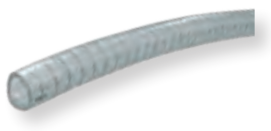
A complete quick-action hose coupling is consisting of reducing sleeves plus female and male coupling element.

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

Accessories

PVC hoses, mineral oil hoses, solvent hoses

Productdetail	Specification	Order-No.



8 **PVC-spiral hose**

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

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 Ω/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	**0374-413** ●

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 Ω-CL (<10^6 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 Ω/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
Range of temperature: -20 up to +80 °C (dependant 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** ●

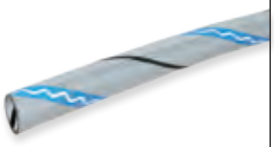
● Suitable for transferring combustible and easy flammable liquids (e.g. ethanol, petrol) or in explosive hazard area.

Specification	Order-No.

Productdetail

8 Universal chemical hose

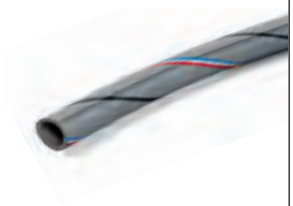
Colour coding: “blue/white/blue”.
Suitable for clean chemicals, cosmetics, photo-chemicals, paints and glues, washing and cleaning products, hygienic products as well as foodstuffs and luxury foodstuffs, (for more information see resistance table).
Conform to FDA and USP class VI. Complies with EU-regulations 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 Ω/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	
Range of temperature:	-30 up to +100 °C (dependant 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** ●

8 Special chemical hose FEP

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 Ω-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 (dependant 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 Ω/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	
Range of temperature:	-30 up to +150 °C (dependant 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** ●

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

Accessories

Emission proof drum adapters

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

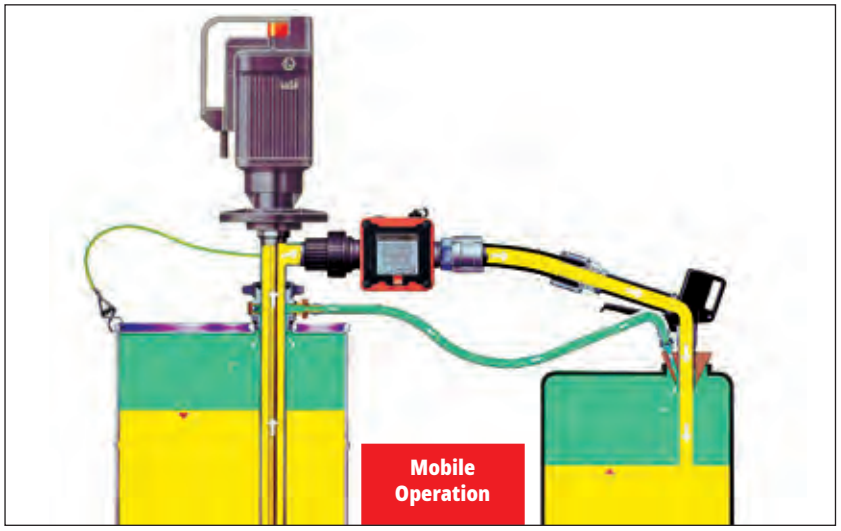
- ✓ All that is needed is a single drum adapter with two integrated valves.
- ✓ Due to „active seal", emission protection is guaranteed even in the event to wear and tear, damage or pump tube diameter tolerances.
- ✓ The lower part of the adapter can be adapted to varying thread and diameter sizes in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

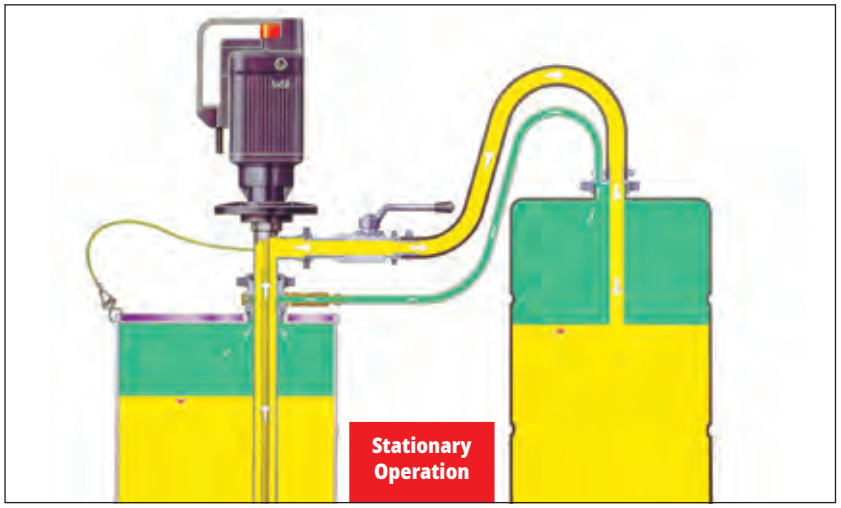
Productdetail

Specification		Order-No.
9 Emission proof drum adapter		
To prevent emission of dangerous gases when using a drum pump, so protecting the operator, the environment and the drive motor from hazardous, aggressive gases and vapours. Two venting valves ensure pressure compensation between inside of the drum and surrounding atmosphere. Connection for gas displacement pipe: G 3/8; Screw-in thread: G 2 outer thread Seals: FPM or EPDM. Other threads and seal materials on request.		
Material:	Pump tube diameter:	
PP	41 mm	**0204-250**
PVDF	41 mm	**0204-465**
Brass	41 mm	**0204-252** ●
Stainless steel	41 mm	**0204-253** ●
Following special threads are available		
PP, brass, stainless steel	Tri-Sure 2", BCS 56 x 4 OT, Mauser 2", BCS 70 x 6 OT	
Brass, stainless steel	M 64 x 4 OT	
Air valve for emptying of containers (additional costs see price list)		**0204-364**
Container cap		
DN 150		**0373-060**
DN 225		**0373-061**

● 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-EMIGA-system 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.
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	**0204-202**
Shown in addition here: Emission drum adapter stainless steel	**0204-253**
Gas sealing hose: PVC-hose DN 9	**0373-153**

Other emission proof drum adapters see page 88

Productdetail

Accessories

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 **0204-201**

Shown in addition here:
Emission proof drum adapter stainless steel **0204-253**

Other emission proof drum adapters see page 84

Nozzle stainless steel, G 1 1/4 **0204-370**

Gas sealing hose:
PVC hose DN 9 **0373-153**

Alternatively for flammable liquids:
Solvent hose DN 9 **0374-415**

Emission proof hose **0204-272**
(serving to return with sealless pump tubes arising gases back into the container)

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.

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 **0204-201**

Shown in addition here:
Emission proof drum adapter stainless steel **0204-253**

Other emission proof adapters see page 84

Automatic nozzle in aluminium DN 25, seal PTFE **0372-245**

Discharge pipe cpl. for automatic nozzle Alu **0204-274**
(necessary when using a valve pad)

Gas sealing hose:
PVC hose DN 9 **0373-153**

Alternatively for flammable liquids: Solvent hose DN 9 **0374-415**

Emission proof hose **0204-272**
(serving to return with sealless pump tubes arising gases back into the container)

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

Specification	Order-No.
Application with pump tube PP 41 und nozzle PP	
Prevents emissions when handling severely oxidising or fuming acids and alkalis.	
Gas sealing kit for nozzle	
comprises of: Conical sealing plug, check valve for gas displacement pipe, pipe fitting	**0204-510**
Shown in addition here:	
Emission proof drum adapter PP	**0204-250**
Nozzle PP/FPM (FPM) G 1 1/4	**0204-380**
Nozzle outlet spout PP	**0204-297**
Gas sealing hose:	
PVC hose DN 9	**0373-153**
Additional costs: Emission proof hose with connection flange PVDF* (serving to return with sealless pump tubes arising gases back into the container)	**0204-511**

Productdetail

10 Drum adapter in PP	
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	**0208-055**
Outer thread BCS 56 x 4	**0208-052**
Outer thread BCS 70 x 6	**0208-054**

11 Installation flange		
For fixing the drum and container pump according to DIN 2573, DN 50, PN 6 to a companion flange. The flange is welded onto the pump tube.		
Material:	For pump tube:	
PP	ø 41 mm	**0110-191**
PVDF	ø 41 mm	**0122-001**
Alu	ø 41 mm	**0132-120**
SS	ø 41 mm	**0151-622**

*in connection with a new pump tube

Accessories

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 — **0204-308**
Not suitable for pump tube RE-PP

15 Clamping device

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

For pump tubes:
PP, PVDF, Alu, SS and HC — **0205-040** ●

16 Oval gear flow meter MDO 2

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

Housing:	Aluminium	Range of temperature:	-10 up to 80 °C
Oval gears:	LCP	Display:	2-lines, 6- and 5-digits
Seal:	FPM	Protection class:	IP 67
Nominal pressure:	4 bar	Battery:	Lithium, CR123A, 3V
Range of measurement:	3 - 80 l/min.	Weight approx.:	1.4 kg
Range of viscosity:	1 - 1000 mPas	Connection:	G 1 1/4"
Accuracy of measurement:	+/- 0.5 %		**0211-610**

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

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	**0211-047**
For motors B4/GT	**0214-196**

34 **Hoist**

for drum pump, with infinitely adjustable load balancer for easy lifting and moving of the pump. **0371-012**

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^2	for motor MA II	**0466-000**
H07 RN-F, 2 x 2.5 mm^2	for motor MA II (42 V, 24 V)	**0466-003**
H07 RN-F, 3 x 1.5 mm^2	for motor ME II	**0336-074** ●
H07 RN-F, 4 x 1.5 mm^2	for three-phase motors	**0336-339** ●

Cekon-plug

5-pole - 16 A
For three-phase gear motors B4/GT **0336-415**

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

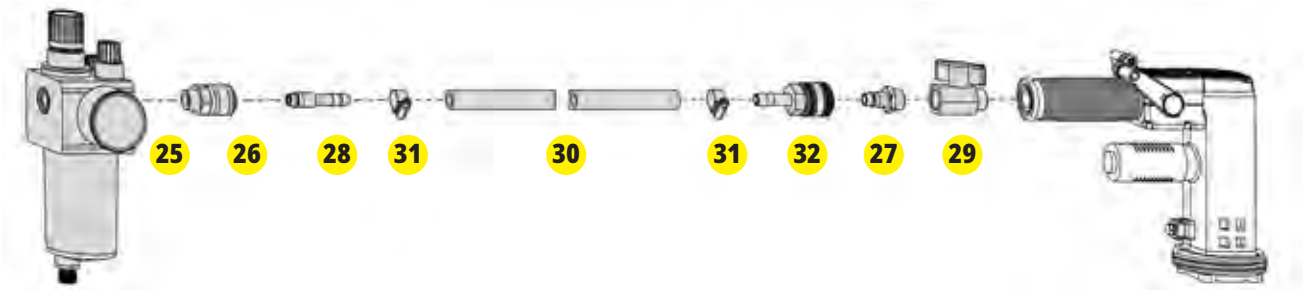
Accessories

for explosion proof applications

Productdetail	Specification	Order-No.
	**20** **Equipotential bonding cable** Serves to create electrically conductive connection between explosion proof pump and container as earthing and equipontential bonding function. 2 m long with fastening clip	**0204-994** ●
	**21** **Ex-plug** CEE round plug in accordance with EEx de IIC T6, splash proof in compliance with IP 65. 3-pole (alternating current) CEAG for motor ME II 3-pole (alternating current) STAHL for motor ME II	**0336-536** ● **0336-540** ●
	**22** **Ex-socket** CEE-socket in accordance with EEx de IIC T6, splash proof in compliance with IP 65. 3-pole (alternating current) for motor ME II 3-pole (alternating current) STAHL for motor ME II	**0336-531** ● **0336-542** ●

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

Specification	Order-No.	Productdetail



25 Maintenance unit

For cleaning and oiling the supply air.
With manometer for setting operating pressure.

Operating pressure:	max. 10 bar	**0204-152**

25 Filter pressure regulator for oil-free operation

With manometer for setting operating pressure.

Inlet pressure:	max. 16 bar	Ambient temp.:	max. 60 °C
Filter element:	5 µm, Cellpor	Diaphragms and seals:	NBR
Housing:	Zinc-Pressure cast		
	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)

Brass (DN 7.2)	G 3/8 AG	**0372-045***
Brass (DN 10)	G 3/8 AG	**0372-053**

* 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

Chromium-plated brass for regulating the compressed air as well as the speed of the compressed air motors.
G 3/8 outer thread/inner thread **0372-043**

30 Compressed air hose

PVC-hose with intermediate woven layer, DN 9, for air supply to compressed air motors.

Operating pressure:	max. 14 bar at 20 °C	DN 9	**0373-153**
	max. 10 bar at 20 °C	DN 13	**0373-154**

31 Hose clamp

(Chromated steel: 1.4016)

For compressed air hose	DN 9	**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**
Brass (DN 10)	for compressed air hose DN 13	**5000-165**

Accessories

for vegetable oil pumps

Productdetail	Specification	Order-No.

Hose set SL-Bio

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

Nominal diameter:

DN 21 (7/8")	0.55 kg/m	Length: 2.5 m	**0205-805**
		Length: 4.0 m	**0205-806**
		Length: 6.0 m	**0205-807**

PP nozzle

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

Operating pressure:	max. 3 bar at 20 °C	
Weight:	approx. 0,.5 kg	
Connection:	outer thread G 1 1/4	
Seal:	FPM (FPM)	**0204-380**

Drum adapter in PP

Drum adapter for continuous pump tube diameters.
For fixing the pump in the drum opening.
Prevents the drum pump from tiping over in the empty drum. Thread G 2. **0208-007**

Container cap

DN 150	**0373-060**
DN 225	**0373-061**

Wall bracket

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

Oval gear flow meter MDO 2

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

Housing:	Aluminium	Range of temperature:	-10 up to 80 °C
Oval gears:	LCP	Display:	2-lines, 6- and 5-digits
Seal:	FPM	Protection class:	IP 67
Nominal pressure:	4 bar	Battery:	Lithium, CR123A, 3V
Range of measurement:	3 - 80 l/min.	Weight approx.:	1.4 kg
Range of viscosity:	1 - 1000 mPas	Connection:	G 1 1/4"
Accuracy of measurement:	+/- 0.5 %		**0211-610**

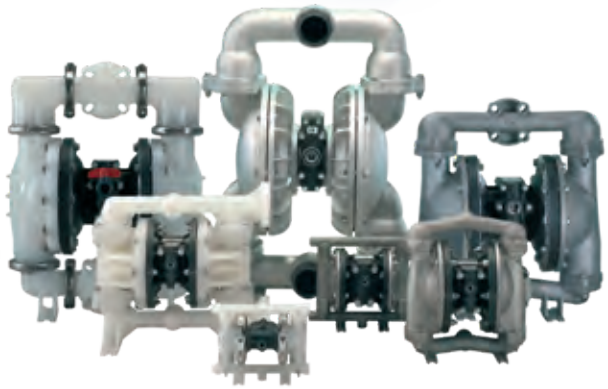
Specification		Order-No.	Productdetail
Lifting device To simplify the process of lifting the pump in and out of drums and containers.		**0155-154**	
Hose connection Hose connector with wing nut for connecting the hoses to the pump tube or nozzle. Material: PP	Nominal diameter: DN 38	**0180-161**	
Reducing sleeve G 1 1/2 inner thread to G 1 1/4 outer thread	for connection of a flow meter	**0180-167**	
Reducing sleeve G 1 1/2 outer thread to G 1 1/4 inner thread	for hose diameter DN 38 when using a flow meter	**0180-169**	
Foot strainer Keeps impurities away from the rotating parts. Material: PP		**0180-174**	
Acid proof coating In aggressive atmosphere the three phase motor should be protected by a special acid proof coating. If customer requires, a special varnish is possible. Acid proof coating		**0006-516**	
PVC hose Fabric reinforced PVC hose for aggressive, non-flammable liquids. Operating pressure: max. 6 bar Temperature of medium: 0 up to +60 °C Nominal diameter: Weight: DN 38 (1 1/2") 0.84 kg/m		**0374-431**	
Screw cover Material: PE/PP DN 150 DN 225		**0208-311** **0208-312**	

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

Twice the **COMPETENCE**...

Professional Fluid Management

- Drum pump sets
- Drum and container pumps
- Eccentric screw drum pumps
- Flow meter systems
- Air operated double diaphragm pumps
- Vertical and horizontal centrifugal pumps



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

...simply **UNIQUE**

Lutz® The Fluid Managers

Jesco®

A Measured Step Forward

Dosing pumps and accessories

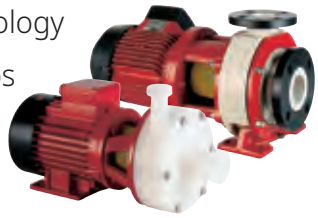
Chlorinators

Measuring and control technology

System and process technology

Chemical centrifugal pumps

Water disinfection



Jesco®

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

www.lutz-jesco.com

Lutz Pumpen GmbH

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

www.lutz-pumpen.de

State of art: 02.2020 Order-No. 0699-302