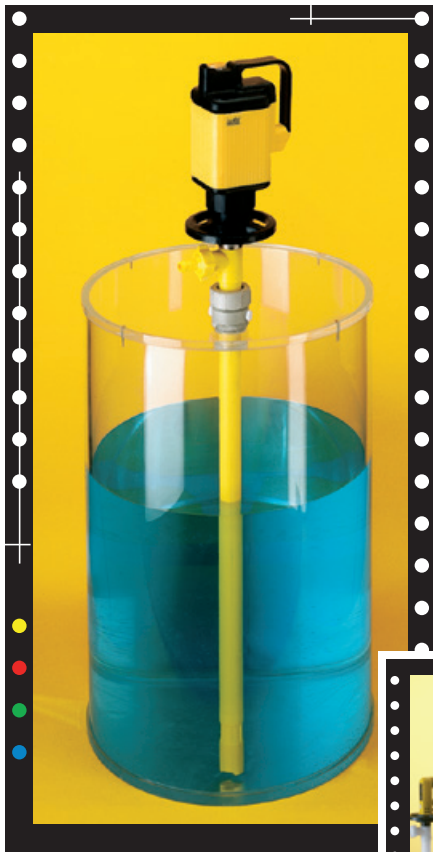


Electrical/Pneumatic

Drum and Container Pumps

The ultimate professional solution to all
your transfer needs

Drum and Container Pumps



Drum and Container Pumps



With Lutz
through thick
and thin

From the bucket to the pump



Transferring corrosive, flammable or toxic liquids presents its own challenges to personal safety and the environment.

At Lutz, we believe you will be able to find your optimum solution among the range of products which have been developed specifically to overcome the dangers and disadvantages of decanting such liquids.

1954

The company is founded by Karl Lutz.

1963

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

1972

The product innovation – a sealless pump unit introduced.

1986

First UL approved explosion proof motor B 40-UL, class I - groups C + D, Class II - groups F + G introduced for the US market

1988

The first drum pump worldwide for complete drainage.

1988

The new B 55-T generation of motors: TEFC standards that are state of the art even today.



1990

Fume barrier for enhanced safety and health protection at the work place.

1990

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



1993

Modular flow meter system for efficiency and accurate measurement.



1996

Lutz introduces IBC Pumps in lengths up to 78" for safe transfer.

1997

The new generation of explosion proof state of the art Silver Star ME I 6 motor introduced for the US and Canadian markets.



2001

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

2004

Flow meter system HDO for thin bodied to highly viscous liquids.

2007

Lutz B2 Vario pump for the laboratory and research sector.

2011

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

(*The Physikalisch-Technische Bundesanstalt (PTB), Braunschweig and Berlin, is the National Institute of natural and engineering sciences and the highest technical authority for metrology and physical safety engineering in the Federal Republic of Germany)

Lutz Drum Pumps today

The Principle with so many useful Variations.



The wide variety of fluids and container types/ dimensions necessitates an extensive range of different drum pump models. Depending on the requirement, they are available in a variety of materials, equipped with motors adapted to the output requirement for differing voltages as well as pneumatically operated, with the required delivery rate and suitable sealing system. Added to this are pump tubes in varying lengths and a wide range of accessories permitting, for example, adaptation to problem containers or application conditions.



Lutz Drum Pump Motors

Power which is convincing.



B 28

Universal motor

Power: 800 watt/1.07 HP
 Voltage: 120 volt
 Frequency: 60 Hz
 Enclosure: open drip proof
 16' cord and plug



B 36 / MI 4 or B 36-SC/MI 4 E (speed control)

Universal motor

Power: 640 watt/0.85 HP
 Voltage: 120 volt (230 V available)
 Frequency: 60 Hz
 Enclosure: open drip proof
 16' cord and plug



B 55-T-5/MA II 5" B 55-T-7/MA II 7"

Universal motor

Power: *) 510 watt/0.68 HP
 **) 700 watt/0.93 HP
 Voltage: 120 volt
 (230 V available)
 Frequency: 60 Hz
 Enclosure: TEFC
 16' cord and plug



MD-1 (Ex)/MD-2 (Ex)

Compressed air motor
 (EN 50 014)

Power: 400 watt/0.54 HP
 Operating Pressure: 87 PSI
 Air consumption: 32 CFM



4GT (Non-Ex)

Compressed air motor

Power: 220 watt/0.3 HP
 Operating Pressure: 87 PSI
 Air consumption: 14 CFM



SILVER STAR ME I 6 (Ex)

Universal motor

Power: 0.5 HP
 Voltage: 120 volt
 Frequency: 60 Hz
 Enclosure: Explosion proof
 Class I Groups C + D
 Class II Groups F + G
 Variable speed control, 16' cord



MA II 3-12 V

Universal motor

Power: 260 watt/0.35 HP
 Voltage: 12 volt DC
 Enclosure: TEFC
 10' cord with
 alligator clamps



B 4/GT Continuous Duty

Three phase gear motor

Power: 750 watt/1.0 HP
 Voltage: 230/440 volt
 Frequency: 60 Hz
 Enclosure: TEFC

Lutz Pump Tubes

All Lutz Motors are interchangeable with all Lutz Pump Tubes.

Multi-purpose Pump Tubes – Mechanical Seal (MMS) or Sealless (MSL)

MSL-PP
MMS-PP
Polypropylene

MSL-ALU
MMS-ALU
Aluminum

MSL-PVDF
MMS-PVDF
Polyvinylidene fluoride

MSL-SS
MMS-SS
Stainless Steel

MP-PP
Mixing Pump Tube in
Polypropylene

SL-HC
Hastelloy C

RE 88 PP
Complete drum drainage in
Polypropylene

B70V-SR
Progressive Cavity Pump in
Stainless Steel

MP-SS
Mixing Pump Tube in
Stainless Steel






RE 88 SS
Complete drum drainage in
Stainless Steel



Motors and pump tubes are purchased separately

Technical Data



Pump tubes			MMS-PP MSL-PP 41-R SS/HC	MMS-PP MSL-PP 41-L SS/HC	MMS-PVDF MSL-PVDF 41-R HC	MMS-PVDF MSL-PVDF 41-L HC	MMS-ALU MSL-ALU 41-R	MMS-ALU MSL-ALU 41-L	MMS-SS MSL-SS 41-R	MMS-SS MSL-SS 41-L
Mechanical Seal (MS) Sealless (SL)			MS / SL	MS / SL	MS / SL	MS / SL	MS / SL	MS / SL	MS / SL	MS / SL
Max. Temperature			122 °F	122 °F	212 °F	212 °F	212 °F	212 °F	212 °F	212 °F
Type of impeller			Rotor	Impeller	Rotor	Impeller	Rotor	Impeller	Rotor	Impeller
Zone 0			No	No	No	No	No	No	Yes	Yes
 B 28	Quantity*	Up to GPM	48	24	48	24	48	24	54	28.5
	Delivery head*	Up to FT	33	69	33	69	33	69	40	66
	Viscosity**	Up to cps	400/600	1000/1200	400/600	1000/1200	400/600	1000/1200	600/1000	1000/1200
	Spec. gravity***	Up to	1.5	2.0	1.5	2.0	1.5	2.0	1.5	2.0
	Weight lbs.	Motor + pump tube	9.7	9.7	10.8	10.8	10.4	10.4	13.5	13.5
 B 36 / MI 4	Quantity*	Up to GPM	45	23	45	23	45	23	54.5	29
	Delivery head*	Up to FT	31	69	31	69	31	69	36	68.5
	Viscosity**	Up to cps	300/600	500/900	300/600	500/900	300/600	500/900	300/900	500/1100
	Spec. gravity***	Up to	1.1	1.4	1.1	1.4	1.1	1.4	1.1	1.4
	Weight lbs.	Motor + pump tube	7.4	7.4	9.9	9.9	9.5	9.5	12.6	12.6
 MA II 5-120 B 55-T-5	Quantity*	Up to GPM	42	21	42	21	42	21	48	25
	Delivery head*	Up to FT	26	56	26	56	26	56	31	52.5
	Viscosity**	Up to cps	100/500	600/1000	100/500	600/1000	100/500	600/1000	100/600	400/1000
	Spec. gravity***	Up to	1.2	1.6	1.2	1.6	1.2	1.6	1.2	1.6
	Weight lbs.	Motor + pump tube	14.5	14.5	15.6	15.6	15.2	15.2	18.3	18.3
 MD-1/MD-2	Quantity*	Up to GPM	48	23	48	23	48	23	53	26
	Delivery head*	Up to FT	33	69	33	69	33	69	33	42.5
	Viscosity**	Up to cps	850/850	1100/1100	850/850	1100/1100	850/850	1100/1100	850/850	1100/1100
	Spec. gravity***	Up to	1.2	1.6	1.2	1.6	1.2	1.6	1.2	1.6
	Weight lbs.	Motor + pump tube	5.9	5.9	7	7	6.6	6.6	9.7	9.7
 4 GT	Quantity*	Up to GPM	32	18	32	18	32	18	41.5	22.5
	Delivery head*	Up to FT	20	36	20	36	20	36	24.5	43
	Viscosity**	Up to cps	400/400	900/900	400/400	900/900	400/400	900/900	300/300	600/600
	Spec. gravity***	Up to	1.2	1.6	1.2	1.6	1.3	1.6	1.2	1.6
	Weight lbs.	Motor + pump tube	4.9	4.9	6	6	5.6	5.6	8.7	8.7
 SILVER STAR ME I 6	Quantity*	Up to GPM	×	×	×	×	×	×	48.5	27
	Delivery head*	Up to FT	×	×	×	×	×	×	33	54
	Viscosity**	Up to cps	×	×	×	×	×	×	300/500	600/750
	Spec. gravity***	Up to	×	×	×	×	×	×	1.3	1.7
	Weight lbs.	Motor + pump tube	×	×	×	×	×	×	20.7	20.7
 MA 3-12V	Quantity*	Up to GPM	24	12	24	12	24	12	39.5	22
	Delivery head*	Up to FT	12	24	12	24	12	24	19.5	33
	Viscosity**	Up to cps	1/100	1/100	1/100	1/100	1/100	1/100	1/100	1/100
	Spec. gravity***	Up to	1.2	1.8	1.2	1.8	1.2	1.8	1.2	1.6
	Weight lbs.	Motor + pump tube	12.8	12.8	13.9	13.9	13.5	13.5	16.6	16.6

*Determined with water at 68 °F.

** Determined with oil.
Continuous/
intermittent duty (10 min.)

***Determined with 10 feet 3/4" hose and open discharge.
Higher densities possible for shorter operating periods.

× Not a suggested combination

Technical Data



SL-HC	SL-HC	RE 88 PP	RE 88 SS MP SL-PP	MP MS-PP	MP MS-SS	B70V-SR	B70V-SR	Pump tubes
42-R	42-L	40-L	41-L	50/41-L	41-R	25.1 PTFE	25.1 PTFE	
SL	SL	MS	MS	MS	MS	Packed Gland	MS	Mechanical Seal (MS) Sealless (SL)
248 °F	248 °F	122 °F	212 °F	122 °F	212 °F	284 °F	284 °F	Max. Temperature
Rotor	Impeller	Impeller	Impeller	Impeller	Rotor	****	****	Type of impeller
Yes	Yes	No	Yes	No	Yes	No	Yes	Zone 0
54	28.5	17.5	20	24	49	▲	▲	Quantity*Up to GPM
40	66	43	56	69	36	▲	▲	Delivery head* Up to FT
600/1000	1000/1200	1300/1500	1000/1400	1000/1200	300/600	25,000	25,000	Viscosity** Up to cps
1.5	2.0	2.1	2.0	2.0	1.5	*	*	Spec. gravity*** Up to
16.7	16.7	10	15	10	14.3	26.0	26.0	Weight lbs.
54.5	29	16	20	23	51	▲	▲	Quantity*Up to GPM
36	68.5	42.5	62	69	29.5	▲	▲	Delivery head* Up to FT
300/900	500/1100	1200/1400	500/1000	500/900	100/300	20,000	20,000	Viscosity** Up to cps
1.1	1.4	1.9	1.4	1.4	1.1	*	*	Spec. gravity*** Up to
15.9	15.9	9.1	14.1	9.1	13.5	23.5	23.5	Weight lbs.
48	25	15	16	21	45	▲	▲	Quantity*Up to GPM
31	52.5	36	46	56	28	▲	▲	Delivery head* Up to FT
100/600	400/1000	1000/1200	400/800	600/1000	100/200	20,000	20,000	Viscosity** Up to cps
1.2	1.6	1.7	1.6	1.6	1.2	*	*	Spec. gravity*** Up to
21.6	21.6	14.8	19.8	14.8	19.2	29.0	29.0	Weight lbs.
53	26	16	18	23	52	▲	▲	Quantity*Up to GPM
33	42.5	36	43	69	33	▲	▲	Delivery head* Up to FT
850/850	1100/1100	1600/1600	1200/1200	1100/1100	400/400	50,000	50,000	Viscosity** Up to cps
1.2	1.6	1.7	1.5	1.6	1.2	*	*	Spec. gravity*** Up to
13	13	6.2	11.2	6.2	10.6	20.5	20.5	Weight lbs.
41.5	22.5	12	12	18	36	–	–	Quantity*Up to GPM
24.5	43	26	31.5	36	20.5	–	–	Delivery head* Up to FT
300/300	600/600	500/500	500/500	900/900	300/300	–	–	Viscosity** Up to cps
1.2	1.6	1.7	1.5	1.6	1.2	–	–	Spec. gravity*** Up to
12	12	5.2	10.2	5.2	9.6	–	–	Weight lbs.
48.5	27	×	18.5	×	47	▲	▲	Quantity*Up to GPM
33	54	×	49	×	38	▲	▲	Delivery head* Up to FT
300/500	600/750	×	600/800	×	100/300	20,000	20,000	Viscosity** Up to cps
1.3	1.7	×	1.7	×	1.3	*	*	Spec. gravity*** Up to
24	24	×	22.2	×	21.6	31.7	31.7	Weight lbs.
39.5	39.5	12.5	14	12	37	–	–	Quantity*Up to GPM
19.5	33	16.5	23	24	16.5	–	–	Delivery head* Up to FT
1/100	1/100	1/100	1/100	1/100	1/100	–	–	Viscosity** Up to cps
1.2	1.6	1.6	1.2	1.8	1.2	–	–	Spec. gravity*** Up to
19.9	19.9	13.1	18.1	13.1	17.5	–	–	Weight lbs.



B 28



B 36 / MI 4



**MA II 5-120
B 55-T-5**



MD-1/MD-2



4 GT



ME I 6



MA 3-12V

**** SS Rotor with PTFE Stator

▲ Consult Lutz Pumps

× Not a suggested combination

The Multipurpose Solution

4 Options – One pump tube

- Mech. Seal (MS)
- Seal Less (SL)
- High volume Rotor (R)
- High head Impeller (L)

50 Years of Experience ...

This brilliant design, from the top bearing housing to the discharge-T and pump tube will assure you the highest chemical resistance and minimal wear – extended service life.

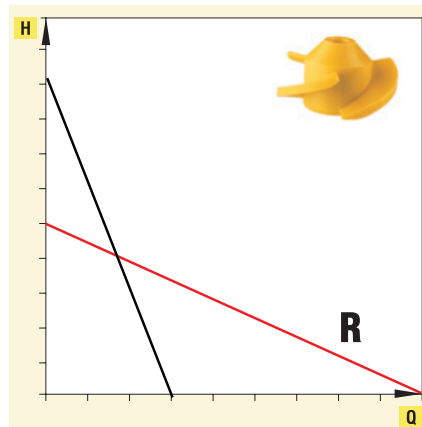
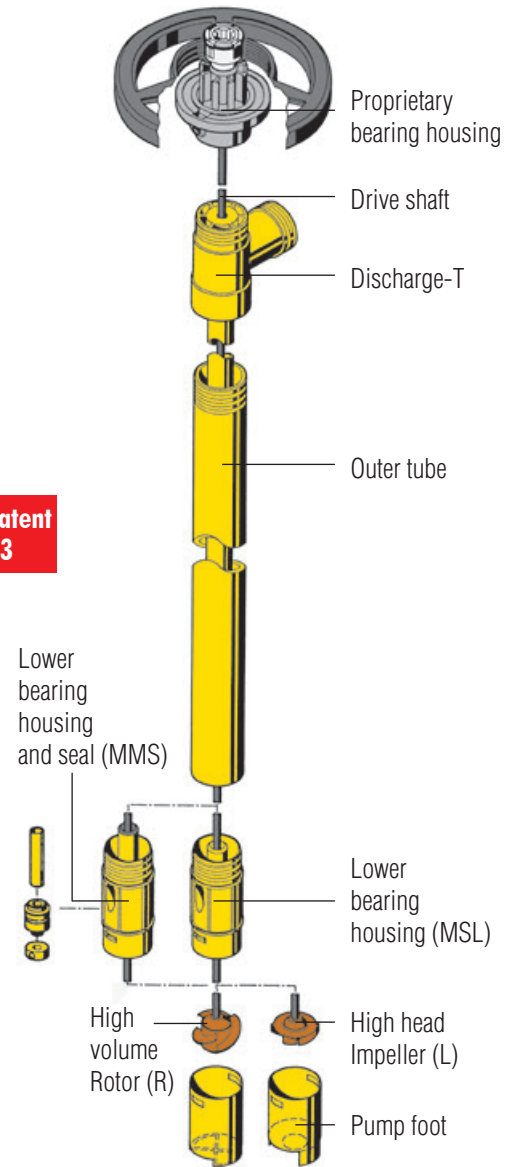
High Quality – For You

Our metal proprietary bearing housing enhances the heat dissipation of the bearing friction. The exceptionally corrosion-resistant coating ensure extended life. Due to wall thickness, the outer tube is extremely rigid. The drive shaft for PVDF and PP are in Hast. C with stainless as an option.

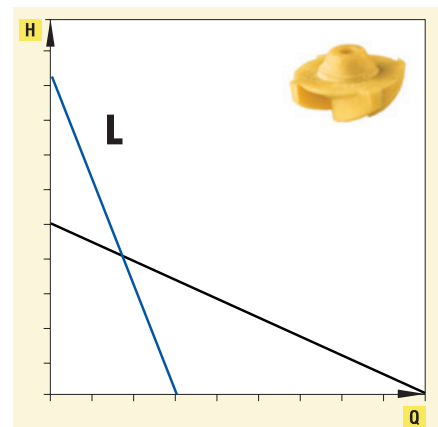
Maintenance made simple

Money and downtime reduced! The lower bearing housing with mech. seal (MS) or the sealless (SL) are easily replaced if repair or conversions are needed. That goes for changing the rotor or impeller too. The robust snap on/off pump foot is even easier to replace.

***United States Patent
No. 6,007,313**



High volume Rotor (R)



High head Impeller (L)

Lutz Polypropylene Pump Tube

For a wide range of acids and alkalis

Sealless (MSL) or with Mechanical Seal (MMS)

Applications

The robust Lutz pump tube with mechanical seal or sealless is suitable for pumping clean and dirty, thin-bodied and slightly viscous, aggressive and non-aggressive liquids out of drums and small or large containers.

The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Structure and function (MMS-PP)

Lutz pump tubes are immersible centrifugal pumps. The drive shaft of this pump tube is sealed by a single-acting mechanical seal (MS). The patented mechanical seal is integral with the lower bearing housing. This position guarantees the best operating conditions and ensures the long service life of the mechanical seal.

The pump must not be allowed to run dry.

Structure and function (MSL-PP)

Lutz pump tubes are immersible centrifugal pumps.

The drive shaft of this pump tube is not sealed.

The bearing housing unit above the impeller is designed to prevent pumped liquid from rising between the shaft and the inner tube. This device guides the liquid which penetrates between the drive shaft and the shaft bearing back into the container being drained.

Length:

MMS/MSL: 27", 39", 47"

MSL only: 55", 59", 63", 67", 78"

Special length on request.



Warning:

The drum and container pump **must not** be used for flammable liquids.

Note:

Axial-flow rotor for high delivery rate and low delivery head. Radial-flow impeller for low delivery rate and high delivery head.

Type	MMS-PP (Mechanical Seal)	MSL-PP (Sealless)
Wetted parts		
Housing:	Polypropylene	Polypropylene
Mechanical seal:	Carbon, SiC, Viton®, HC-4 (2.4610)	None
Bearings:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Stainless Steel (316 Ti) HC-4 (2.4610) on request	HC-4 (2.4610) Stainless Steel (316 Ti)
Examples of liquids:	Acids, Alkalis, Vegetable Oils, Liquids, Phosphates, Sulphates, Nitrates, Chlorates, Paints and Inks, Water, Sulphites	Acids, Alkalis, Galvanic Fluids, Phosphates, Sulphates, Nitrates, Chlorates, Paints and Inks, Water, Oils, Sulphites
Type of impeller:	axial-flow rotor (R) or radial-flow impeller (L) Material: PP	axial-flow rotor (R) or radial-flow impeller (L) Material: PP

For performance information see page 6 & 7

Viton® is a registered Trademark of DuPont Dow Elastomers.



Picture shows:

Pump tube with motor B 36 / MI 4

Lutz PVDF Pump Tube

For concentrated liquids



Sealless (MSL) or with Mechanical Seal (MMS)

Applications

The robust Lutz pump tube with mechanical seal or sealless is suitable for pumping clean and dirty, thin-bodied and slightly viscous, aggressive and non-aggressive liquids out of drums and small or large containers. The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Structure and function (MMS-PVDF)

Lutz pump tubes are immersible centrifugal pumps. The drive shaft of this pump tube is sealed by a single-acting mechanical seal (MS). The patented mechanical seal is integral with the lower bearing housing. This position guarantees the best operating conditions and ensures the long service life of the mechanical seal. The pump must not be allowed to run dry.

Structure and function (MSL-PVDF)

Lutz pump tubes are immersible centrifugal pumps. The drive shaft of this pump tube is not sealed. The bearing housing unit above the impeller is designed to prevent pumped liquid from rising between the shaft and the inner tube. This device guides the liquid which penetrates between the drive shaft and the shaft bearing back into the container being drained.

Length:

27", 39", 47"
Special length on request.



Warning:

The drum and container pump **must not** be used for flammable liquids.

Note:

Axial-flow rotor for high delivery rate and low delivery head. Radial-flow impeller for low delivery rate and high delivery head.

Type	MMS-PVDF (Mechanical Seal)	MSL-PVDF (Sealless)
Wetted parts		
Housing:	PVDF	PVDF
Mechanical seal:	Carbon, SiC, Viton®, HC-4 (2.4610)	None
Bearings:	PTFE	PTFE
Drive shaft:	HC-4 (2.4610)	HC-4 (2.4610)
Examples of liquids:	Highly concentrated Acids and Alkalis, Ethyl Chloride, Chloroform, Chromic Acid, Phosphoric Acid 95%, Perchloric Acid, Sulphuric Acid, Chlorine Water etc.	Highly concentrated Acids and Alkalis, Bromic Acid, Hydrobromic Acid, Chloroform, Dimethyl Phthalate, Hydrofluoric Acid, Potassium Bromate, Sodium Perchlorate, Phosphoric Acid 95%, Nitric Acid etc.
Type of impeller:	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE

Picture shows:
Pump tube with motor B 55 T / MA II 5

Lutz Aluminum Pump Tube

For neutral liquids

Sealless (MSL) or with Mechanical Seal (MMS)

Applications

The robust Lutz pump tube with mechanical seal or sealless is so designed that it can run dry; it is suitable for pumping non-aggressive, clean, thin-bodied and slightly viscous liquids out of drums and small or large containers. The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Structure and function (MMS-ALU)

Lutz pump tubes are immersible centrifugal pumps. The drive shaft of this pump tube is sealed by a single-acting mechanical seal (MS) and two shaft seals located behind it, making a robust sealing system. The pump must not be allowed to run dry.

Structure and function (MSL-ALU)

Lutz pump tubes are immersible centrifugal pumps. The drive shaft of this pump tube is not sealed. The bearing housing unit above the impeller is designed to prevent pumped liquid from rising between the shaft and the inner tube. This device guides the liquid which penetrates between the drive shaft and the shaft bearing back into the container being drained.

Length:

27", 39", 47"
Special length on request.



Warning:

The drum and container pump **must not** be used for flammable liquids.

Note:

Axial-flow rotor for high delivery rate and low delivery head. Radial-flow impeller for low delivery rate and high delivery head.



Picture shows:
Pump tube with motor B 55 T / MA II 5

Type	MMS-ALU (Mechanical Seal)	MSL-ALU (Sealless)
Wetted parts		
Housing:	ALU, PVDF	Alu, PVDF
Seals:	Viton®	None
Mechanical seal:	Carbon, SiC, Viton®, Stainless Steel	None
Bearings:	PTFE	PTFE
Drive shaft:	Stainless Steel (316 Ti)	Stainless Steel (316 Ti)
Examples of liquids:	Thin-bodied and slightly viscous Mineral Oils, contaminated Oils, Cooling Lubricants, Vegetable Oils, Butylene Glycol, Diesel Fuel, Chlorodiphenyl, Fuel Oil, Ethereal Oils etc.	Thin-bodied and medium viscous Mineral Oils, Butylene Glycol, Diesel Fuel, Fuel Oil, Crude Oil, Phenol, Glycerine, Fatty Acid, Ethereal Oils, Linseed Oil, Paraffin Oil etc.
Type of impeller:	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE

Lutz Stainless Steel Pump Tube

For flammable and aggressive liquids



Picture shows:
Pump tube with motor Silver Star ME I 6

Sealless (MSL) or with Mechanical Seal (MMS)

Applications

The robust Lutz pump tube with mechanical seal or sealless is suitable for pumping clean and dirty, thin-bodied and slightly viscous, aggressive and non-aggressive, flammable and non-flammable liquids out of drums and small or large containers.

The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Structure and function (MMS-SS)

Lutz pump tubes are immersible centrifugal pumps.

The drive shaft of this pump tube is sealed by a single-acting mechanical seal (MS) and two shaft seals located behind it, making a robust sealing system. The pump tube must not be allowed to run dry.

Structure and function (MSL-SS)

Lutz pump tubes are immersible centrifugal pumps.

The drive shaft of this pump is not sealed. The bearing housing insert above the impeller is designed to prevent the pumped liquid from rising between the shaft and the inner tube. This insert guides the liquid which penetrates between the drive shaft and the shaft bearing back into the container being drained.

Length:

MMS/MSL: 27", 39", 47"

MSL only: 55", 59", 63", 67", 78"

Special length on request.



The pump tube is "Zone 0" approved in combination with the original Lutz motors Silver Star / MD-1 / MD-2 in accordance with standards for use in hazardous locations.

Note:

Axial-flow rotor for high delivery rate and low delivery head. Radial-flow impeller for low delivery rate and high delivery head.

For correct bonding and grounding see page 13.

Type	MMS-SS (Mechanical Seal)	MSL-SS (Sealless)
Wetted parts		
Housing:	Stainless Steel (316 Ti)	Stainless Steel (316 Ti)
Seals:	Viton®	None
Mechanical seal:	Carbon, Ceramic, Viton®, Stainless Steel (316 Ti)	None
Bearings:	Carbon	Carbon
Drive shaft:	Stainless Steel (316 Ti)	Stainless Steel (316 Ti)
Examples of liquids:	Gasoline, thin-bodied Oils, Solvents, Chlorine Carbon Hydrogens, Alcohols, Amines, Benzoles, Phenoles, Toluol, Xylol, Fruit Juices, Paints and Inks, Vegetable Oils etc.	Alcohols, Aceton, Acetonitrile, Acetates, Ether, Diethanolamine, Freon, Frigen, Methylene Chloride, Dimethyl Phthalate, Dioxane, Diethylamine, Pyridine etc.
Type of impeller:	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE	axial-flow rotor (R) or radial-flow impeller (L) Material: ETFE

Lutz Hastelloy C Pump Tube

For extremely corrosive applications

SL-HC Sealless

Applications

The robust Lutz pump tube is suitable for pumping nearly all kinds of liquids, whether extremely aggressive or flammable, clean or dirty, thin-bodied or slightly viscous out of drums and small or large containers

Structure and function (SL-HC)

Lutz pump tubes are immersible centrifugal pumps.

The drive shaft of this pump is not sealed. The bearing housing insert above the impeller is designed to prevent the pumped liquid from rising between the shaft and the inner tube.

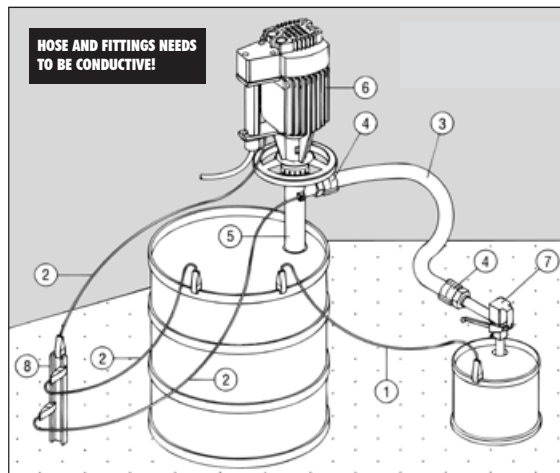
This insert guides the liquid which penetrates between the drive shaft and the shaft bearing back into the container being drained.

Length:

39", 47", Special length on request.



The pump tube is "Zone 0" approved in combination with the original Lutz motors Silver Star / MD-1 / MD-2 in accordance with standards for use in hazardous locations.



*Zone "0": Defines a constant hazardous explosive atmosphere. Covers interior of drum/container used for storing or transporting of explosive liquids. Equipment approved for zone "0" must be specially tested and certified.

Required accessories when using explosion proof pumps in hazardous locations.

Explosion proof plug and socket outlets, bonding and grounding cable, conductive hoses and nozzles in Stainless Steel. Ex-Motor (ME I, MD-1, MD-2)

Bonding and Grounding Diagram

- ① Bonding wire
- ② Ground wire
- ③ Conductive hose, (10° Ohm)
- ④ Conductive fitting of the hose into hose connector
- ⑤ Metal pump tube for zone "0" in Stainless Steel or Hastelloy "C"
- ⑥ Explosion proof motor ME I / MD-1 / MD-2
- ⑦ Nozzle in Stainless Steel
- ⑧ Grounding rod

Type	SL-HC (Sealless)
Wetted parts	
Housing:	HC-4 (2.4610)
Seals:	Viton®
Mechanical seal:	None
Bearings:	ETFE, Carbon
Drive shaft:	HC-4 (2.4610)
Examples of liquids:	Bromine, Chlorosulphonic Acid, Butylchloride, Chlorine Water and nearly all kinds of liquids
Type of impeller:	axial-flow rotor (R) or radial-flow impeller (L), Material: ETFE

Picture shows: Pump tube with air motor MD-2

Lutz Pump Tubes RE for complete drum drainage

in stainless steel and polypropylene



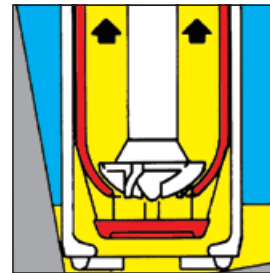
Head Start – Nothing Left Behind

Not only more money in your pocket, but a huge contribution to our environment.

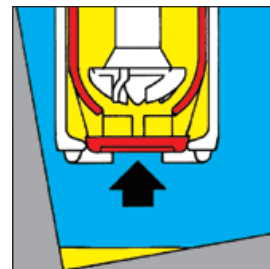
Ignoring waste and costs are things of the past. The RE pump provides the solution for reducing waste and avoiding costs through product loss and waste disposal. Use the RE means almost no residue left in drum.

Patented solution

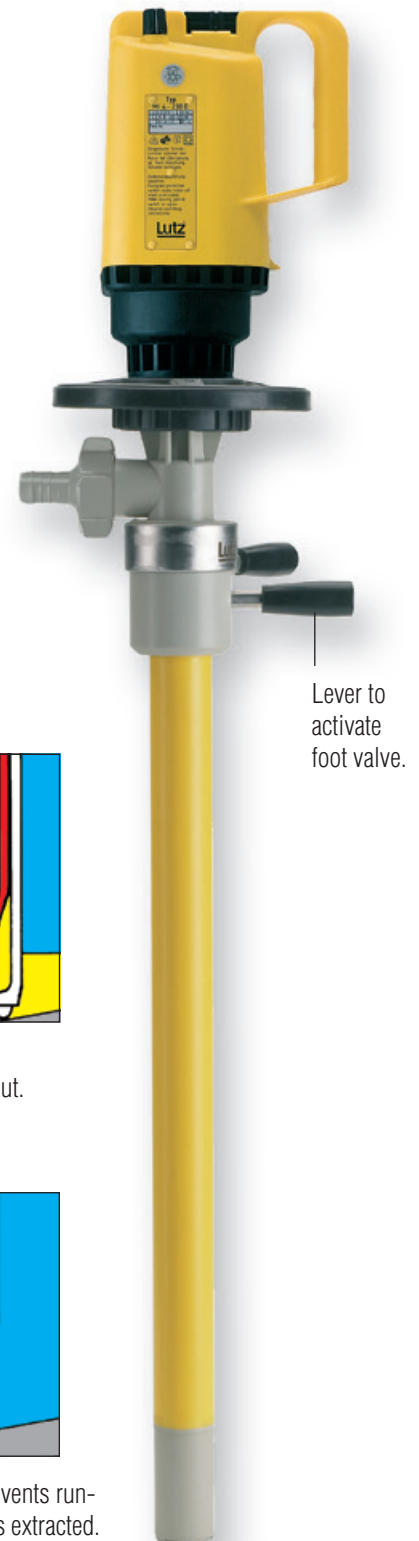
Simple to operate. When the impeller picks up air, the valve is closed by moving lever 90°. Then motor is shut down. With the liquid captured, the pump tube can be moved to next drum or liquid being disposed.



Sealing pot is open - the liquid is pumped out.



Closed sealing pot prevents run-back when the pump is extracted.



Picture shows:
RE pump tube with motor B 36 / MI 4

Lutz Pump Tube RE 88 in PP and Stainless Steel

For complete drainage of highly toxic, expensive and sensitive liquids

RE 88 PP / RE 88 SS Mechanical Seal

Applications

The pump tube RE-88 PP and RE-88 SS is designed to be used where drums or other containers have to be completely drained. The relatively small pump tube diameter of 41 mm also makes the unit ideal for use in narrow-necked containers or in drums with a 2" bunghole.

The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Structure and function

Lutz pump tubes are immersible centrifugal pumps.

The drive shaft of this pump is sealed by a single-acting mechanical seal (MS) above the impeller, making a robust sealing system.

The pump tube must not be allowed to run dry.

Length:

27", 39", 47"

Special length on request.



Warning:

The RE 88 Polypropylene pump **must not** be used for flammable liquids.



The pump tube is "Zone 0" approved in combination with the original Lutz motors Silver Star / MD-1 / MD-2 in accordance with standards for use in hazardous locations.

For correct bonding and grounding see page 13.

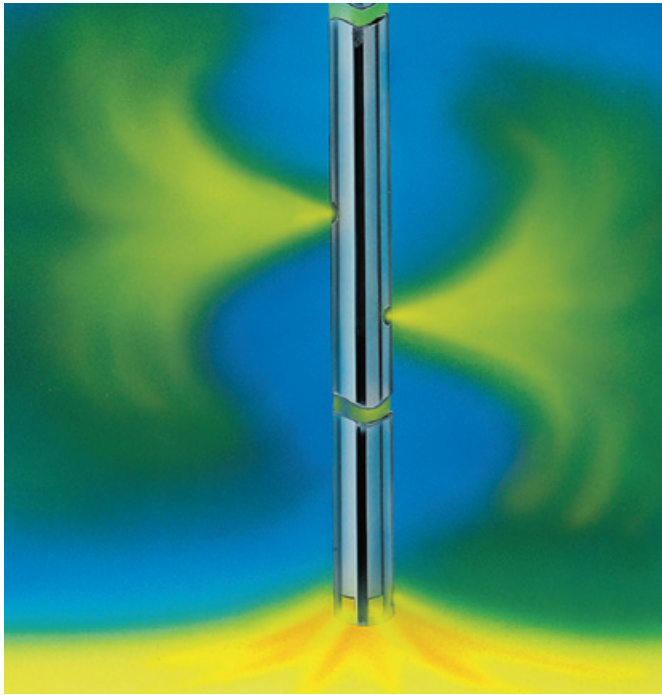
Type	RE-88 PP (Mechanical Seal)	RE-88 SS (Mechanical Seal)
Wetted parts		
Housing:	PP	Stainless Steel (316 Ti)
Seals:	Viton®	FEP coated
Mechanical seal:	Carbon, Ceramic, Viton®, HC-4 (2.4610)	Carbon, Ceramic, PTFE, HC-4 (2.4610)
Bearings:	Carbon	Carbon
Drive shaft:	Stainless Steel (316 Ti)	Stainless Steel (316 Ti)
Examples of liquids:	Water, Acids, Alkalis, Hydrazine, Oils, Fruit Juices, Galvanic Fluids, Phosphates, Sulphates, Nitrates etc.	Petrol, Fuel Oil, Diesel Oil, thin-bodied Oils, Solvents, Chlorine Carbon Hydrogens, Alcohols, Amines, Benzoles, Phenoles etc.
Type of impeller:	radial-flow impeller (L) Material: PP	radial-flow impeller (L) Material: ETFE

Picture shows:

RE Pump tube with motor MD-2

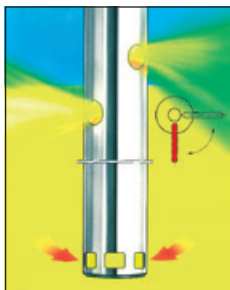
Two in One

Mixing pump tube for corrosive and neutral liquids

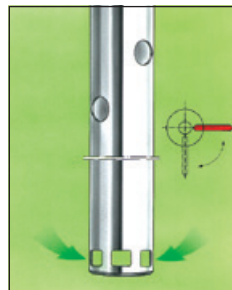


First mix then pump

When it comes to handling emulsions or suspensions which tend to settle out at the bottom of the containers, the MP, mix and pump tube, is an invaluable aid in ensuring that your liquids are gently re-mixed and homogenized.



Mix



Pump



Picture shows:
Mixing pump tube with motor B 55 T / MA II 5

Lutz MP Pump Tube in PP and Stainless Steel

For mixing and pumping of emulsions and suspensions

MP-PP / MP-SS Mechanical Seal

Applications

The Lutz mixing pump tube is designed to be used in any situation where it is necessary to mix and pump in a single operation.

The relatively small pump tube diameter of 50 mm (Polypropylene) and 41 mm (Stainless Steel) also makes the unit ideal for use in narrow-necked containers or in drums with a 2" bunghole.

The rate of flow, viscosity and density of the medium determine the mixing intensity and the delivery rate of the mixing pump tube. Experience has shown that the mixture quantity should preferably not exceed 55 Gallons if the medium is thin-bodied.

The drive shaft of this pump tube is sealed by a single-acting mechanical seal (MS) above the impeller, making a robust sealing system. The pump tube must not be allowed to run dry.

The pump tube is non-lubricated, thus preventing contamination of the liquids pumped.

Length:

39", 47"

Special length on request.



Warning:

The mixing pump tube in Polypropylene (PP) **must not** be used for flammable liquids.



The mixing pump tube in Stainless Steel is "Zone 0" approved in combination with the original Lutz motors Silver Star / MD-1 / MD-2 in accordance with standards for use in hazardous locations.

For correct bonding and grounding see page 13.

Type	MP MS-PP (Mechanical Seal)	MP SL-PP (Sealless)	MP MS-SS (Mechanical Seal)
Wetted parts			
Housing:	PP	PP	Stainless Steel (316 Ti)
Seals:	–	–	FEP coatet
Mechanical seal:	Carbon, SiC, Viton®, HC	–	Ceramic, PTFE, Stainless Steel (316 Ti)
Bearings:	ETFE/PTFE	ETFE/PTFE	Carbon
Drive shaft:	Stainless Steel (316 Ti)	Stainless Steel (316 Ti) optional HC-4 (2.4610)	Stainless Steel (316 Ti)
Examples of liquids:	Chemical, pharmaceutical and metalworking industries, in food production, in printing works, in car repair workshops and in painting/decorating firms.		
Type of impeller:	radial-flow impeller (L) Material: PP	radial-flow impeller (L) Material: PP	axial-flow rotor (R) Material: ETFE



Picture shows:

Mixing pump tube with motor Silver Star ME I 6

With Lutz through thick and thin

Latest edition for sanitary applications: New B70V-H-SR Sanitary

NEW

Lutz B70V-H-SR Sanitary

Practical, reliable and ready for use

The design of the Lutz B70V-H-SR Sanitary pump emphasises practical use: only manually detachable, thread-free connections have been used in the areas in contact with the medium.

The Lutz B70V-H-SR Sanitary is easy and fast to dismantle for thorough mechanical cleaning and to reassembly.

An open type spring loaded mechanical seal is available or optionally, a closed version to avoid direct contact with the product.

All materials and the seal designs conform to 3-A Sanitary Standard.

Tube diameter: 54 mm (2.12")

Length: 1100 mm (43.3")

Connection: Tri-Clamp 2"

Thanks to the hand wheel connection, the drive motor can be quickly separated from the pump flange. This facilitates handling, cleaning and transferring the pump to a new container.

Operating Data

Quantity: up to 13 GPM
 Delivery head: up to 200 FT (87 PSI)
 Temperature of medium: up to 284 °F
 Viscosity: up to 50,000 cps (with MD-2 air motor)



Accessories:
Tri-Clamp fitting
and spout 2"



Type	Lutz B70V Sanitary
Wetted parts	
Housing:	Stainless Steel (316 L)
Rotor:	Stainless Steel (316 Ti)
Seals:	EPDM (FDA compliant)
Mechanical seal:	SiC/hard carbon/EPDM (acc. to 3-A standard) opt. SiC/SiC/EPDM or closed version for stricter requirements
Drive shaft:	Stainless Steel (316 Ti)
Stator materials:	PTFE
Examples of liquids:	Cosmetics industry: creams, soaps, toothpaste, shampoos and raw materials for soaps Confectionery industry: honey, syrups and preserves Food industry: milk, whey, cheese, spread and ketchup

Lutz Progressive Cavity Pump B70V-SR

Smooth pumping of highly viscous liquids

B70V-SR (Portable, 32 lbs with motor)

Applications

For applications in the food, pharmaceutical and cosmetics industry, no special shaft joint protection is needed.

Pump Tubes

Pump tubes with different flow rates and length are available for the Lutz B70V-SR. The speed reducer is mounted directly on the pump tube. This reduces the relatively high speeds of the universal or compressed-air motors to a suitable speed for the pump tube of around 690 rpm. The pump tube, drive shaft and eccentric screw are made of Stainless Steel (316 Ti).

Do not run dry or against closed valve.

Tube diameter: 54 mm (2.12")

Length: 1000 mm (39.4") or 1100 mm (43.3")

Drive Motors

A variety of electric and compressed air motors are available. (see page 4)

Operating Data

Quantity: up to 13 GPM
 Delivery head: up to 200 FT (87 PSI)
 Temperature of medium: up to 284 °F
 Viscosity: up to 50,000 cps (with MD-2 air motor)

Accessories

Bypass valves, hoses, hose clips, dosing devices, electronic flow meters, batch dosing appliance with time control and other accessories are available on request.



1 1/2" male BSP or
 1 1/4" SS hose barb
 options:
 1 1/2" NPTF adapter
 or Tri Clamp

Type	B70V-SR
Wetted parts	
Housing and Rotor:	Stainless Steel (316 Ti)
Seals:	Viton® (FPM)
Mechanical seal:	Carbon/SS, Viton® or SiC/SiC, Viton®
Packing gland:	PTFE soft packing, safe for use with foodstuffs
Drive shaft:	Stainless Steel (316 Ti)
Stator materials:	NBR light, Viton®, PTFE
Examples of liquids:	Chemical industry: acids, lyes, sludge, viscous pastes, dispersions, adhesives, etc. Cosmetics industry: creams, soaps, toothpaste, shampoos and raw materials for soaps Confectionery industry: honey, syrups and preserves Paint and lacquer factories: paints, lacquers and pastes Food industry: milk, whey, cheese, spread and ketchup Mineral oil industry: high-viscosity oils and fluid greases.

Lutz Rechargeable Pump B1 for Laboratories

Mobile and user friendly

Top Performance in a compact design



Battery Pump Set B1 comprises:

Battery motor 9.6 V, pump tube polypropylene 1", 5' (1.5 m) PVC-hose 1/2", charger and hose nozzle

Model	Lutz Batterz Pump B1
Material:	PP
Pump shaft:	Hastelloy
Flow rate:	4 GPM
Delivery head:	25 ft
Viscosity:	200 cps
Spec. gravity	1.3
Temp. of medium:	32 °F up to 104 °F

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

Immediately ready for use: Only few simple operations required

- Remove the motor from the charging station
- Connect the motor with the pump tube
- Open the nozzle and fill up the requested liquid amount infinitely variable



Accessories:

Charger for battery motor, curved spout PVC, 3/4" drum adapter

Lutz B2 Vario Drum and Laboratory Pump

B2 Vario (polypropylene or stainless steel)

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 new "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.

From Pump only to complete system, for safe and accurate transfer.

- **Laboratory pump** with hose connection
- **Set:** pump, 5' (1,5 m) PVC-hose, Lutz nozzle, 2 hose clips, wall bracket.



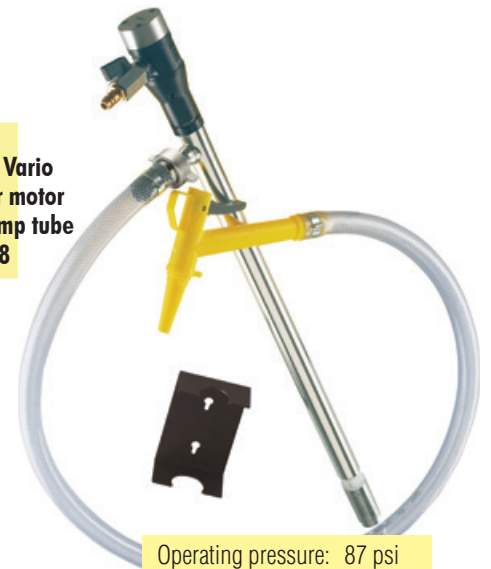
Variable speed motor 110 V with safety cut-off to enable the transfer of liquids in small amounts

Set:
Lutz B2 Vario with 110 V motor and pump tube PP-SL 32



- Easy and safe to operate by integrated ergonomically designed handles and nozzle
- Ultra quiet, long service life
- **Different lengths available** 19", 27" and 39" for the use in small vessels up to 55 gal. drums
- Wide range of applications possible due to sealless construction
- Service-friendly and simple to dismantle
- Available in **110 V** or **air motor**
- Available in **polypropylene** or **stainless steel 316**

Set:
Lutz B2 Vario with air motor and pump tube SS-SL 28



Operating pressure: 87 psi
Air consumption: 13 CFM

Model	Lutz B2 Vario PP-SL 32	Lutz B2 Vario SS-SL 28
Wetted parts		
Housing:	PP	Stainless Steel (316 Ti)
Seals:	None	None
Mechanical seal:	None	None
Bearings:	ETFE/PTFE	ETFE/PTFE
Drive shaft:	Hastelloy C	Stainless Steel (316 Ti)
Examples of liquids:	Battery acid, ammonia solution, glycols, photographic developer/-fixer, phosphoric acid, hydrochloric acid and hydrogen peroxide, etc.	Oil-based lubricants, cleaner solvent plasticizer, etc.
Type of impeller:	axial-flow rotor (R) Material: PP	axial-flow rotor (R) Material: ETFE

For more details request literature
Lutz B2 Vario (Ref. no. 9000-117)

Lutz Flow meter TR-Series

Quick, easy and precise

Features:

- ✓ Chemical resistance against corrosive and aggressive liquids
- ✓ Easy calibration
- ✓ Proven radial turbine technology
- ✓ Totalizer function
- ✓ Light weight, compact design with rotatable (90°) display
- ✓ For all drum and container pumps



PP for neutral and aggressive liquids

such as glycol, ferric (III) chloride, hydrochloric acid, phosphoric acid, etc.



PVDF for highly aggressive fluids

such as chlorine solution, nitric acid, sulphuric acid, etc.

For more details request literature:
Lutz Flow Control System (Ref. no. 9000-123)



The TR series flow meter can be combined with all drum and container pumps with the 1" or 1 1/4" connection. Simply attach the union fitting – and it is ready for use.

Model		TR90-PP	TR90-PVDF
Material (in contact with the medium)	Housing top	PP	PVDF
	Keypad	PES	PES
	Turbine	PP	PVDF
	Shaft	HC C-2000 (2.4675)	HC C-2000 (2.4675)
	Seal	FPM	FPM
Range of measurement	GPM	1.3-23.8	1.3-23.8
Range of viscosity	cps	0.8-40	0.8-40
Maximum pressure	PSI	58 (at 68 °F)	58 (at 68 °F)
Connection*		1 or 1 1/4	1 1/4
Temperature range	°F	14-122	14-122

*Inline fittings 1" available

Viton® is a registered Trademark of DuPont Dow Elastomers.

Lutz Modular Flow Control System

Totalizing and batch control at your fingertip

There are a lot of measuring devices for fluids. But the advantages of the new Lutz flow meters stand out from them all. Their precision, flexibility and user-friendliness will win you over.

Discover the pluses of innovative Lutz technology:

- ✓ Touch screen display
- ✓ Multilingual menus
- ✓ Simple plain-text operation
- ✓ Integrated help function
- ✓ High precision through overrun correction and characteristic adjustment
- ✓ Safety and monitoring functions
- ✓ Simple system connection
- ✓ Plug & play modular design

For more details request literature:
Lutz Flow Control System (Ref. no. 9000-124)



**You have got the choice:
Plastic or stainless steel design**

Type ST for neutral liquids

such as water, heating oil, diesel and hydraulic fluid

Type SL for aggressive acids and caustic solutions

such as hydrochloric acid, sulphuric acid and caustic

Type LM for highly flammable solvents

such as ethanol, petrol, isopropanol, kerosene

Type UN for highly flammable and aggressive media

such as formic acid, acetic acid, tetrahydrofuran

Type VA I for highly flammable and aggressive media

such as ether, styrene, xylene, nitric acid, tetrahydrofuran





Lutz offers the
optimum
solution for
professional
Fluid Management



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Drum and Container Pumps · Flow Meters · Double Diaphragm Pumps