GARAGE TECHNOLOGY PRODUCTS

PRESSOL

COST CONSCIOUSNESS AND COST REDUCTION...

… is one thing.
The elimination of costs and risks
to be expected in the future, is
something different. PRESSOL supplies
components and complete systems
for your garage offering competitive
prices and highest technological
performances. PRESSOL supplies
perspectives more valuable
than simple money.

Please find constantly updated product details on
www.pressol.com

PRESSOL

Company premises in Nuremberg

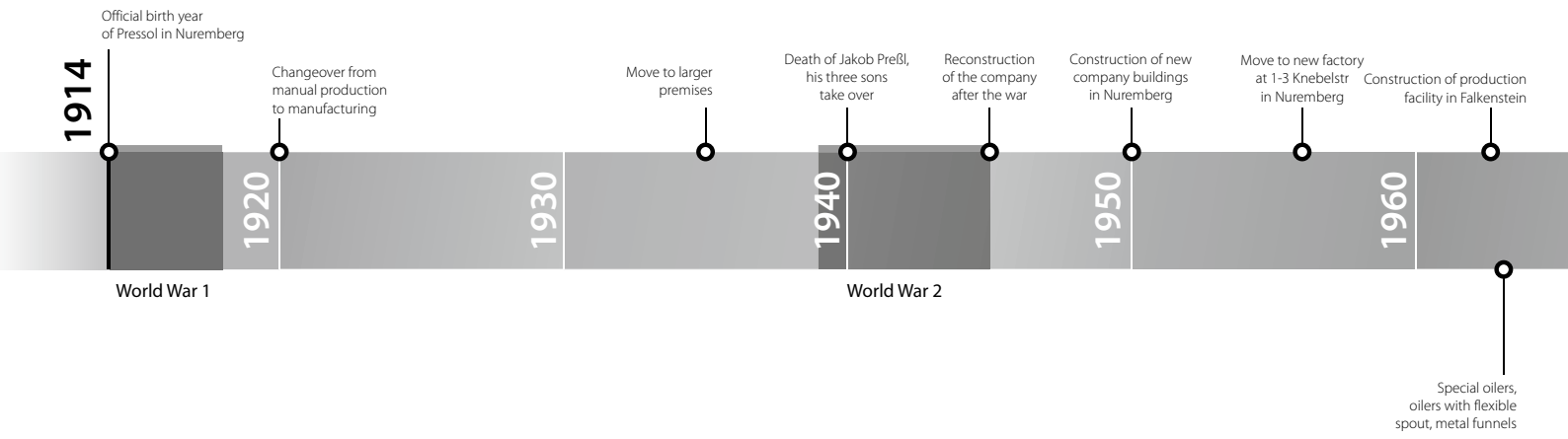
Patent certificates from 1917 and 1920

The Pressol story starts at the time when the First World War was just about to begin and horse drawn carriages were much more common on the streets than motor vehicles. On the Adriatic, steam powered ships were beginning to be replaced with diesel powered ones. A machinist, who had to lubricate the machinery, often cursed the cumbersome oil cans, with which he was often unable to reach the right places and from which, in heavy seas, a lot was spilled quickly. This man, named Jakob Preßl, could not get the idea of a "pump oiler" out of his head. He spent many long hours developing the principle of using finger pressure to "shoot" lubricating oil, without any loss, through a small curved tube to exactly the correct spot where it was required.

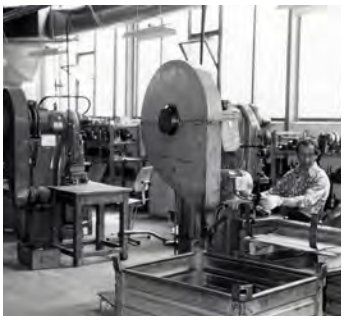
At first he had no success with his new invention – the necessary financial backing to produce the oiler was not available. Only at the end of the First World War was he able to found his small company in Nuremberg. He probably never imagined that the name that he chose would still exist as a recognized brand a hundred years later: His own name enhanced with an O. In a creative way, this combines the two key characteristics of his product: the process of "pressing or squeezing" and the oil which is thereby delivered.

The small plant grew steadily and in 1935 they moved into larger premises. However, Preßl himself did not have the pleasure of seeing the business grow for very long. At the beginning of the Second World War, on the 20th September 1942, he died in a way which, at that time, one would not have expected – he fell victim to a traffic accident. His three sons took over the business and first had to witness its complete destruction, before they were able, with a lot of effort, to rebuild it after the war.

However, the "Wirtschaftswunder" (economic miracle) was also in the air in Nuremberg in 1948 and things rapidly improved. More types of oil cans and sheet metal products increased the product range and plastic was included as a new manufacturing material. A sales network was built up and feelers were put out abroad. A new plant with production and administrative buildings was built on land purchased in 1950. The move took place in 1956. Three years later, mention was made in



PRESSOL HISTORY



Company archive photos from the 1960s

"Das Buch with alten Firmen der Stadt Nürnberg" ("The book of old companies in the city of Nuremberg") of a 120 strong workforce, an excellent reputation at home and abroad, connections in over 50 countries and an export share of 30% of sales.

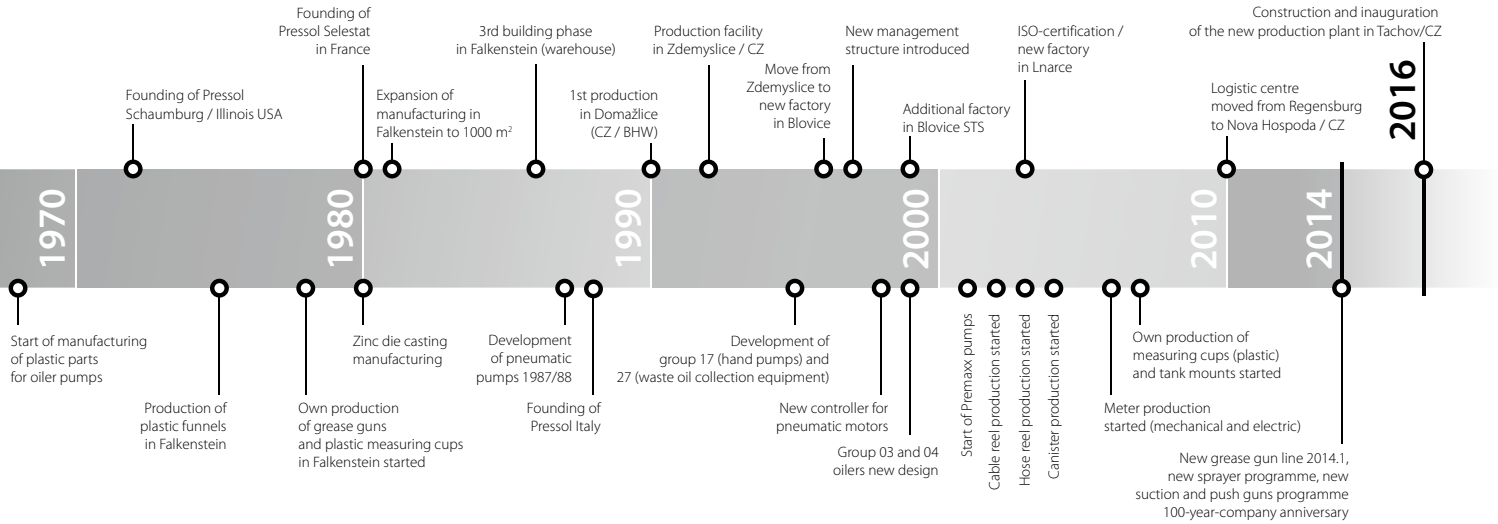
In the 1960s – in the hilly countryside of the Bayerischer Wald (Bavarian Forest) – the Falkenstein plant was created, this was where, a few years later, plastic production expanded. In the early 1970s the company expanded into the USA and in 1980 a branch was founded in Sélestat in France. In 1988 another one was founded in Italy. In the same year, manufacturing using zinc die casting was started. More and more new products required the expansion of the Falkenstein plant and after the fall of the "Iron Curtain", part of the production was moved to the neighbouring Czech Republic.

At the end of the 1990s the company was modernized bit by bit. Over the years older product groups have been updated to match the new requirements, production has been optimized and product development has been brought right up to date. During this time even the classic oiler has been given a new look. The successful design was awarded the Red Dot Design Award.

In the new millennium more changes have been made to secure the future positioning of the company: In 2009 the firm moved away from the long-term base in Nuremberg. Administration and sales moved to Umkirch near Freiburg, and thus quite close to the French head office in Sélestat. In 2010 a large logistics center was opened in the Czech Republic, from where products are delivered to all over the world.

In 2020 Pressol is a healthy company with several branches, an international distribution network and reliable partners in diesel technology and electric pump manufacturing. The continuous development of our products with reliable quality standards ensures continuous customer satisfaction – a success story, which continues even after 100 years.

Move to the new production plant in Tachov in 2016



PRODUCT OVERVIEW

A Grease Supply Systems **13**

B Fresh Oil Supply Systems **39**

C Waste Oil Disposal **87**

D Anti-freeze and Windscreen Cleaner **111**

E Compressed Air / Water Supply **117**

F Diesel and Fuel Oil **133**

G AdBlue® **191**

H Installation Accessories Garage / Workshop Equipment **233**

I Transport- and Storage Containers **241**

From the EU, into the whole world

Quality philosophy

Made by PRESSOL – these are not empty words. About 90 % of our products are manufactured in-house at our own sites. The production is subject to permanent quality control.
In our production we use only high quality materials and adhere strictly to the DIN or european safety standards. The individual components are subjected to permanent quality controls and many of our products need to withstand endurance tests to prove their utilizability before they go into production.
We reinvest the biggest part of our profits to develop new products, as well as to optimize already existing product groups. The technical know-how of our employees is our biggest asset.

Service

Irrespective of high standards, where people work mistakes cannot always be avoided. If you are affected, PRESSOL's service department will assist you quickly and easily.
The service department works according to LEANstandards and uses the FIFO-principles. This means that your service requests will be dealt with quickly. However, should you initially require a replacement unit, we can provide this for you.
We regard complaints not as a nuisance but as an opportunity. Complaints from customers provide immediate feedback and therefore the possibility of making our products even better. As the saying goes, better is the enemy of good.

Dispatch

Catalog items will be delivered within 48 hours after our order confirmation has been issued.

CONTENT

Products

13 Grease Supply Systems A

39 Fresh Oil Supply Systems B

87 Waste Oil Disposal C

111 Anti-freeze and Windscreen Cleaner D

117 Compressed Air / Water Supply E

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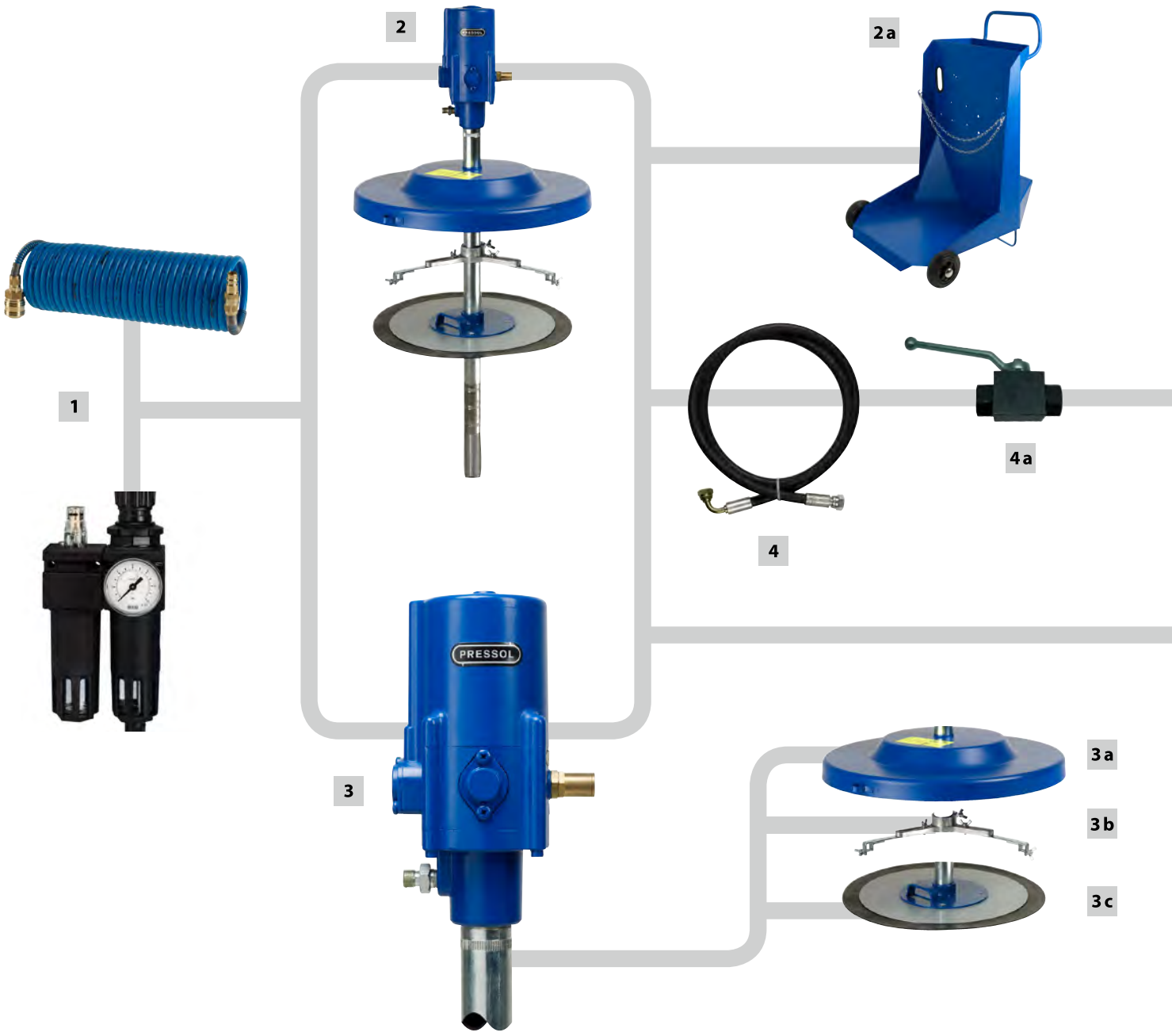
Construction Kit for Grease Supply Systems



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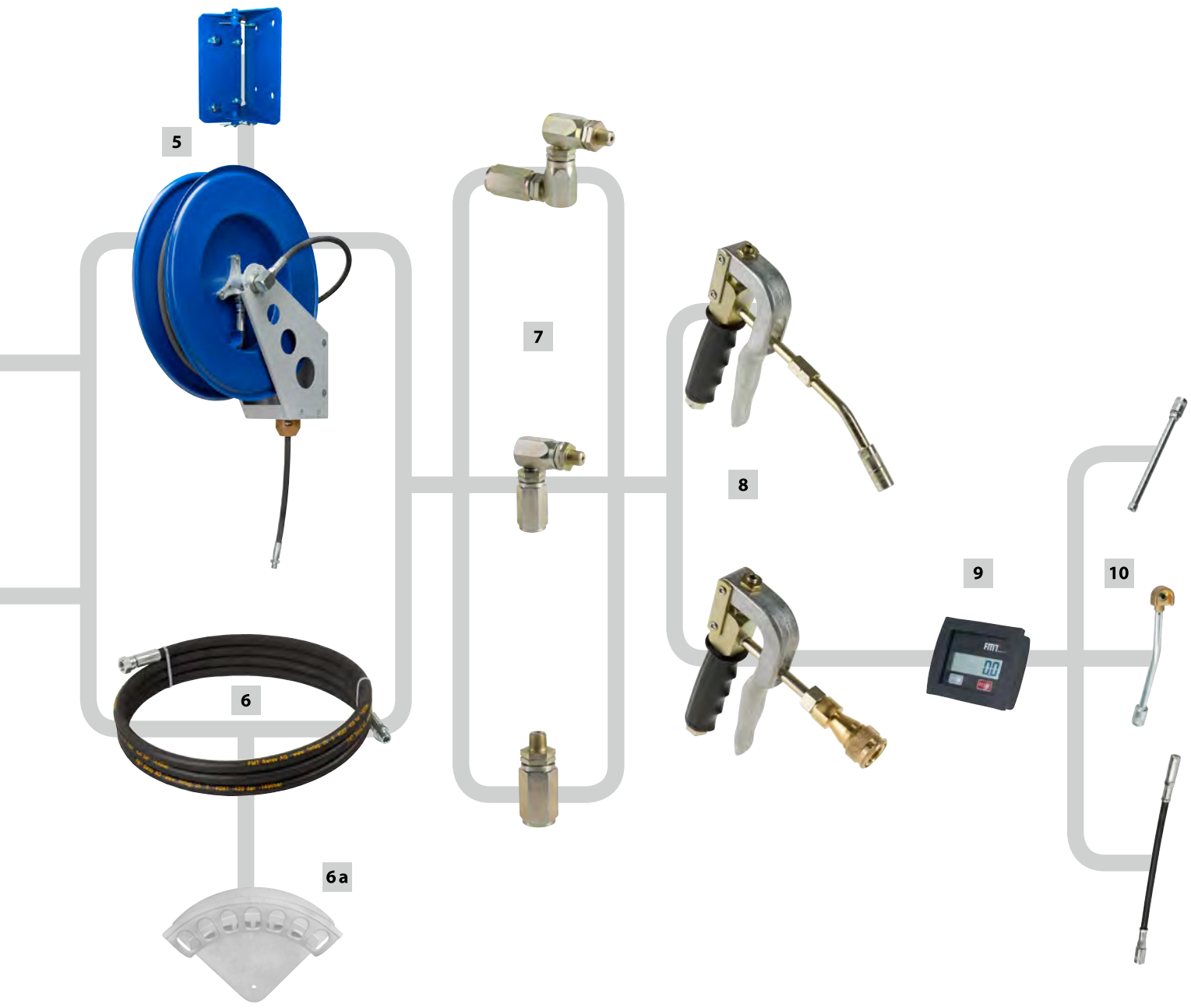

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Overview Grease Follower Plates, Container Fixing Brackets and Dust Covers

Unit	Volume of container	Inner Ø of container	Length of Suction Tube	Grease follower plates	Stabilising-fixing bracket	Dust covers	Trolleys	Pump set
Pneumatic grease pumps 10:1	200 kg	-	1000 mm	-	-	-	-	18 516 051
Pneumatic grease pumps 15:1	20-30 kg	-	600 mm	-	-	-	-	18 611 051
	50 kg	-	700 mm	-	-	-	-	18 613 051
	200 kg	-	1000 mm	-	-	-	-	18 616 051
Pneumatic grease pumps 50:1	5-15 kg	-	400 mm	-	-	-	-	18 710 950
	10-20 kg	-	468 mm	-	-	-	-	18 710 051
	20-30 kg	-	600 mm	-	-	-	-	18 711 051
	25-60 kg	-	700 mm	-	-	-	-	18 713 051
	200 kg	-	1000 mm	-	-	-	-	18 716 051
Grease supply systems 15:1	20-30 kg	270-310 mm	600 mm	17 300	17 197	17 176	-	18 640 051
	50 kg	335-385 mm	700 mm	17 350	17 199	17 198	-	18 660 051
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	-	18 680 051
Grease supply systems 50:1	5 kg	180-210 mm	400 mm	17 195	17 197	17 171	-	18 700 051
	10 kg	210-240 mm	468 mm	17 230	17 197	17 171	-	18 720 051
	15 kg	240-270 mm	468 mm	17 265	17 197	17 172	-	18 730 051
	25 kg	310-335 mm	468 mm	17 320	17 197	17 176	-	18 739 051
	20-30 kg	270-310 mm	600 mm	17 300	17 197	17 176	-	18 740 051
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	-	18 750 051
	50 kg	335-385 mm	600 mm	17 380	17 199	17 194	-	18 759 051
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	-	18 760 051
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	-	18 780 051
Grease supply	5 kg	180-210 mm	400 mm	17 195	17 197	17 171	-	18 405 051
systems 50:1 stationary	18 kg	240-290 mm	468 mm	17 275	17 197	17 176	-	18 418 051
	20 kg	270-310 mm	600 mm	17 300	17 197	17 176	-	18 419 051
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	-	18 421 051
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	-	18 421 056
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	-	18 764 051
	50 kg	335-385 mm	700 mm	17 380	17 199	17 194	-	18 764 052
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	-	18 764 056
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	-	18 785 051
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	-	18 785 056
Grease supply	10 kg	210-240 mm	468 mm	17 230	17 197	17 171	17 004	18 410 051
systems 50:1 mobile	15 kg	240-270 mm	468 mm	17 265	17 197	17 172	17 004	18 415 051
	18 kg	240-290 mm	468 mm	17 275	17 197	17 176	17 004	18 416 051
	20 kg	270-310 mm	600 mm	17 300	17 197	17 176	17 004	18 417 051
	20 kg	270-310 mm	600 mm	17 300	17 197	17 176	17 008	18 417 951
	20 kg	270-310 mm	600 mm	17 300	17 197	17 176	17 008	18 417 953
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	17 008	18 425 051
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	17 008	19 000 530
	25 kg	310-335 mm	600 mm	17 320	17 199	17 194	17 008	19 000 533
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	17 008	18 766 051
	50 kg	335-385 mm	700 mm	17 380	17 199	17 194	17 004	18 766 391
	50 kg	335-385 mm	700 mm	17 380	17 199	17 194	17 008	18 766 393
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	17 008	18 766 950
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	17 009	18 786 051
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	17 009	18 786 056
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	17 009 390	18 786 391
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	17 009	18 788 051
	200 kg	540-590 mm	1000 mm	17 401	17 201	17 200	17 075	18 788 561
Grease supply systems	18 kg	240-290 mm	468 mm	17 275	17 197	17 176	-	19 000 518
for central lubrication systems	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	17 008	19 000 532
	50 kg	335-385 mm	700 mm	17 380	17 199	17 198	17 008	19 000 535
Grease supply systems	20 kg	270-310 mm	468 mm	17 300	-	-	-	27 846 950
mobile, with barrel cover	50/60 kg	335-385 mm	700 mm	17 380	-	-	-	27 846
	50/60 kg	335-385 mm	700 mm	17 380	-	-	-	27 846 056

Overview Pneumatic Grease Pumps

10:1

15:1

50:1

Pressure Ratio	10:1	15:1	50:1
Viscosity of discharged medium:	Grease up to NLGI 3	Grease up to NLGI 3	Grease up to NLGI 2
Discharged medium:	Lubricating and silicone greases	Lubricating greases	Lubricating greases
Time duration for 1 complete container draining:	50 kg of grease in 22 min 50 kg silicone grease in 82 min	50 kg of grease in 30 min	50 kg of grease in 50 min
Pump capacity at 8 bar at a free-flow:	Grease 2300 g/min Silicone grease 610 g/min	1700 g/min	1100 g/min
Application / Feature:	Suitable for silicone grease	Suitable for grease with higher viscosity	Suitable for lubrication. Due to the high lubrication pressure (400 bar), suitable for conveying through pipe systems

Pneumatic Grease Pumps 10:1

TECHNICAL DATA

- Length of suction tube (mm): 1000
- Pressure ratio: 10:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Quantity of strokes at 8 bar at a free-flow (strokes/min): Grease 114 / silicone grease 30
- Cylinder capacity pump (cm^3): 22
- Pump capacity at 8 bar at a free-flow (g/min): Grease 2300 / silicone grease 610
- Pump pressure at 8 bar air pressure (bar): 80
- Air consumption at 8 bar air pressure (l/min): 400
- Length of discharge pipe work: Depends on size of installation
- Max. suction heigth: The pump is constructed to be operated directly at the point of suction
- Compressed air connection: G 1/4" female
- Grease connection, suction side (Ø mm): 35
- Grease connection, pressure side: G 1/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: Grease up to NLGI 3
- Classical liquids to be discharged: Lubricating and silicone greases
- Time duration for 1 complete container draining: 50 kg of grease in 22 min./ 50 kg of silicone grease in 82 min.
- Lacquering: blue, Pantone 294 C
- Length of engine (mm): 225

SPECIAL NOTES

- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only

SPECIFICATION

- For 200-kg-container, Ø 540 - 590 mm
- Suction tube
- Pressure reducing valve (pre-set at 8 bar)
- Male quick release adapter (20 062)
- To discharge silicone, lubricating and multi purpose greases NLGI 0 up to NLGI 3

PRODUCTS

Item number	Description 1	Description 2
18 516 051	Pneumatic grease + silicone pump	10:1-SRL 1000-200 kg-container

SPARE PARTS

Item number	Description 1
72 073	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor

Abbreviations

db A	Decibel, A-weighted noise level	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NLGI	Stands for viscosity class 000 to 6, as defined by the National Lubricating Grease Institute, USA	**SRL**	Suction pipe length, in mm

Pneumatic Grease Pumps 15:1

18 611 051

TECHNICAL DATA

- Pressure ratio: 15:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 220
- Cylinder capacity pump (cm^3): 13
- Pump capacity at 8 bar at a free-flow (g/min): 1700
- Pump pressure at 8 bar air pressure (bar): 120
- Air consumption at 8 bar air pressure (l/min): 400
- Length of discharge pipe work: Depends on size of installation
- Max. suction heigth: The pump is constructed to be operated directly at the point of suction
- Compressed air connection: G 1/4" female
- Grease connection, suction side (Ø mm): 35
- Grease connection, pressure side: G 1/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: Grease up to NLGI 3
- Classical liquids to be discharged: Lubricating greases
- Time duration for 1 complete container draining: 50 kg grease in 30 min
- Lacquering: blue, Pantone 294 C
- Length of engine (mm): 225

SPECIAL NOTES

- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only
- 99 % emptying of the container, 1 % residual grease in the container
- Quick and simple handling with little assembly effort
- Low noise level

SPECIFICATION

- Suction tube
- Special pump mechanism
- Pressure reducing valve (pre-set at 8 bar)
- Male quick release adapter (20 062)
- To discharge lubricating and multi purpose greases NLGI 0 up to NLGI 3

PRODUCTS

Item number	Description 1	Description 2	SRL 600	SRL 700	SRL 1000
18 611 051	Pneumatic grease pump 15:1	SRL 600-20-30-kg-container	×		
18 613 051	Pneumatic grease pump15:1	SRL 700-25-60-kg-container		×	
18 616 051	Pneumatic grease pump 15:1	SRL 1000-200 kg-container			×

SPARE PARTS

Item number	Description 1
72 074	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor

Pneumatic Grease Pumps 50:1

18 713 051

TECHNICAL DATA

- Pressure ratio: 50:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Cylinder capacity pump (cm^3): 8
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 220
- Pump capacity at 8 bar at a free-flow (g/min): 1100
- Pump pressure at 8 bar air pressure (bar): 400
- Air consumption at 8 bar air pressure (l/min): 400
- Length of discharge pipe work: depends on size of installation
- Max. suction heigth: the pump is constructed to be operated directly at the point of suction
- Compressed air connection: G 1/4" female
- Grease connection, suction side (Ø mm): 35
- Grease connection, pressure side: G 1/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: grease up to NLGI 2
- Classical liquids to be discharged: lubricating greases
- Time duration for 1 complete container draining: 50 kg of grease in 50 min
- Lacquering: blue, RAL 5010
- Length of engine (mm): 225

SPECIAL NOTES

- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only
- 99 % emptying of the container, 1 % residual grease in the container
- Quick and simple handling with little assembly effort
- Low noise level

SPECIFICATION

- Suction tube
- Special pump mechanism
- Pressure reducing valve (pre-set at 8 bar)
- Male quick release adapter (20 062)
- To discharge lubricating and multi purpose greases NLGI 0 up to NLGI 2

PRODUCTS

Item number	Description 1	Description 2	SRL 400	SRL 468	SRL 600	SRL 700	SRL 1000
18 710 950	Pneumatic grease pump 50:1	SRL 400-5-15-kg-container	×				
18 710 051	Pneumatic grease pump 50:1	SRL 468-10-20-kg-container		×			
18 711 051	Pneumatic grease pump 50:1	SRL 600-20-30-kg-container			×		
18 713 051	Pneumatic grease pump 50:1	SRL 700-25-60-kg-container				×	
18 716 051	Pneumatic grease pump 50:1	SRL 1000-200 kg-container					×

SPARE PARTS

Item number	Description 1
72 075	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor
87 352	Repair kit piston rod

OTHER SPARE PARTS:

SPECIAL NOTES

- For conversion of pneumatic grease guns 50:1 to foot valve version
- Suction effect considerably improved, 99 % container emptying
- Enables a nearly complete emptying of the barrel
- Suction opening at the lowest point of the pump

PRODUCTS

Item number	Description 1	Description 2
18 870	Conversion kit, foot valve	for pneumatic grease pumps 50:1

Grease Supply Systems with Pneumatic Grease Pumps 15:1

18 660 051

TECHNICAL DATA

- Pressure ratio: 15:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 220
- Cylinder capacity pump (cm^3): 13
- Pump capacity at 8 bar at a free-flow (g/min): 1700
- Pump pressure at 8 bar air pressure (bar): 120
- Air consumption at 8 bar air pressure (l/min): 400
- Length of discharge pipe work: depends on size of installation
- Max. suction heigth: the pump is constructed to be operated directly at the point of suction
- Compressed air connection: G 1/4" female
- Grease connection, suction side (Ø mm): 35
- Grease connection, pressure side: G 1/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: grease up to NLGI 3
- Classical liquids to be discharged: lubricating greases
- Time duration for 1 complete container draining: 50 kg of grease in 30 min
- Lacquering: blue, Pantone 294 C

SPECIAL NOTES

- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only
- 99 % emptying of the container, 1 % residual grease in the container
- Quick and simple handling with little assembly effort
- Low noise level

SPECIFICATION

- Pneumatic grease pump 15:1 (see P. 19)
- Special pump mechanism
- Male quick release adapter (20 062)
- Suction tube
- Pressure reducing valve (pre-set at 8 bar)
- Dust covers
- Stabilising-fixing bracket
- Grease follower plate

PRODUCTS

Item number	Description 1	Description 2	Ø Grease follower plate	SRL
18 640 051	Grease supply system 15:1-SRL 600	for 20/30-kg-container	270-310 mm	600
18 660 051	Grease supply system 15:1-SRL 700	for 25- to 60-kg-container	335-385 mm	700
18 680 051	Grease supply system 15:1-SRL 1000	for 200-kg-container	540-590 mm	1000

Abbreviations

dB (A)	Decibel, A-weighted noise level	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
ISO	International Organization for Standardization	**NLGI**	Stands for viscosity class 000 to 6, as defined by the National Lubricating Grease Institute, USA
SRL	Suction pipe length, in mm		

Grease Supply Systems with Pneumatic Grease Pumps 50:1

18 739 051

TECHNICAL DATA

- Pressure ratio: 50:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 220
- Cylinder capacity pump (cm^3): 8
- Pump capacity at 8 bar at a free-flow (g/min): 1100
- Pump pressure at 8 bar air pressure (bar): 400
- Air consumption at 8 bar air pressure (l/min): 400
- Length of discharge pipe work: depends on size of installation
- Max. suction heigth: the pump is constructed to be operated directly at the point of suction
- Compressed air connection: G 1/4" female
- Grease connection, suction side (Ø mm): 35
- Grease connection, pressure side: G 1/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: grease up to NLGI 2
- Classical liquids to be discharged: lubricating greases
- Time duration for 1 complete container draining: 50 kg of grease in 50 min
- Lacquering: blue, Pantone 294 C

SPECIAL NOTES

- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only
- 99 % emptying of the container, 1 % residual grease in the container
- Quick and simple handling with little assembly effort
- Low noise level

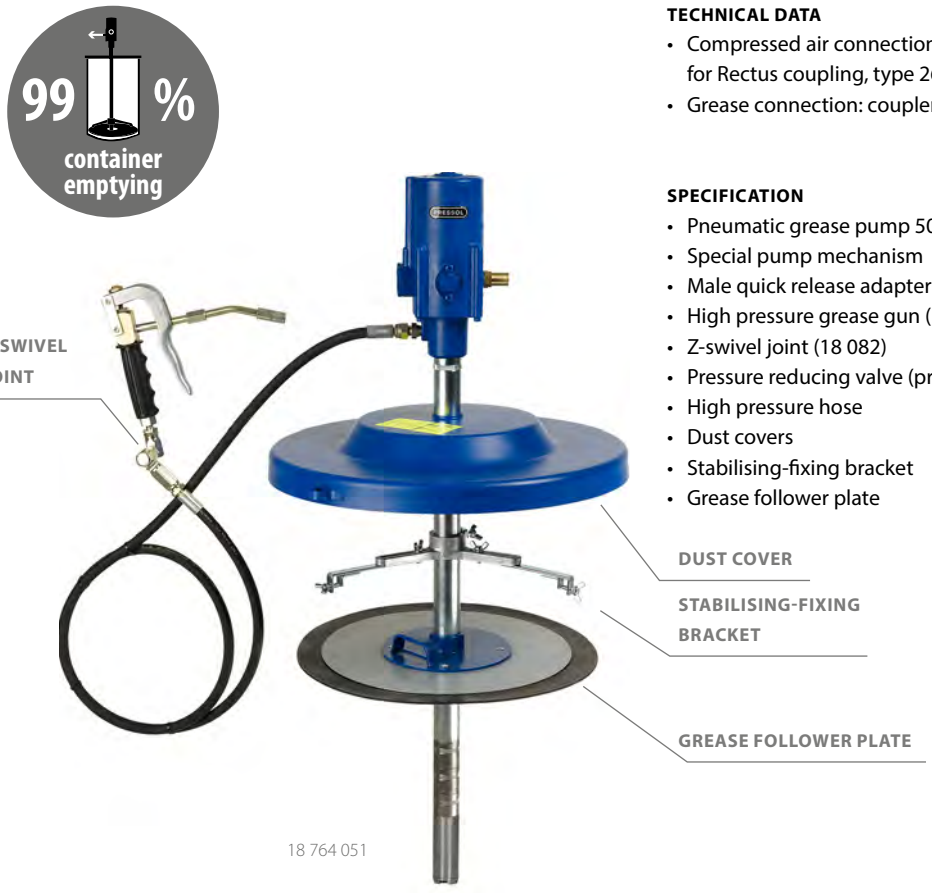
SPECIFICATION

- Pneumatic grease pump 50:1 (see P. 20)
- Special pump mechanism
- Male quick release adapter (20 062)
- Suction tube
- Pressure reducing valve (pre-set at 8 bar)
- Dust covers
- Stabilising-fixing bracket
- Grease follower plate

PRODUCTS

Item number	Description 1	Description 2	Ø Grease follower plate	SRL
18 700 051	Grease supply system 50:1-SRL 400	for 5-kg-container	180 - 210 mm	400
18 720 051	Grease supply system 50:1-SRL 468	for 10-kg-container	210 - 240 mm	468
18 730 051	Grease supply system 50:1-SRL 468	for 15-kg-container	240 - 270 mm	468
18 739 051	Grease supply system 50:1-SRL 468	for 25-kg-container	310 - 335 mm	468
18 740 051	Grease supply system 50:1-SRL 600	for 20/30-kg-container	270 - 310 mm	600
18 750 051	Grease supply system 50:1-SRL 600	for 25-kg-container	310 - 335 mm	600
18 759 051	Grease supply system 50:1-SRL 600	for 50-kg-container	335 - 385 mm	600
18 760 051	Grease supply system 50:1-SRL 700	for 25-to 60-kg-container	335 - 385 mm	700
18 780 051	Grease supply system 50:1-SRL 1000	for 200-kg-container	540 - 590 mm	1000

Grease Supply Systems with Pneumatic Grease Pumps 50:1 and Accessories



TECHNICAL DATA

- Compressed air connection: male quick release adapter, for Rectus coupling, type 26, NW 7,2 mm
- Grease connection: coupler, for hydraulic grease nipples, DIN 71412

SPECIFICATION

- Pneumatic grease pump 50:1 (see P. 20)
- Special pump mechanism
- Male quick release adapter (20 062)
- High pressure grease gun (18 104)
- Z-swivel joint (18 082)
- Pressure reducing valve (pre-set at 8 bar)
- High pressure hose
- Dust covers
- Stabilising-fixing bracket
- Grease follower plate

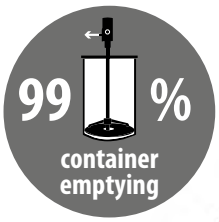
PRODUCTS

Item number	Description 1	Description 2	Ø Grease follower plate	SRL	HS	Dust covers
18 405 051	Grease supply system-with ZBH	for 5-kg-container	180 - 210 mm	400	2 m	17 171
18 418 051	Grease supply system-with ZBH	for 18-kg-JOKEY-container	240 - 290 mm	468	2 m	17 176
18 419 051	Grease supply system-with ZBH	for 20-kg-container	270 - 310 mm	600	2 m	17 176
18 421 051	Grease supply system-with ZBH	for 25-kg-container	310 - 335 mm	600	2 m	17 194
18 421 056	Grease supply system-with ZBH	for 25-kg-container	310 - 335 mm	600	6 m	17 194
18 764 051	Grease supply system-with ZBH	for 50-kg-container	335 - 385 mm	700	4 m	17 198
18 764 052	Grease supply system-with ZBH	for 50-kg-container	335 - 385 mm	700	4 m	17 194
18 764 056	Grease supply system-with ZBH	for 50-kg-container	335 - 385 mm	700	6 m	17 198
18 785 051	Grease supply system-with ZBH	for 200-kg-container	540 - 590 mm	1000	4 m	17 200
18 785 056	Grease supply system-with ZBH	for 200-kg-container	540 - 590 mm	1000	6 m	17 200

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**FB**	Mobile
HS	High pressure hose	**NW**	Nominal width = inside diameter
SRL	Suction pipe length, in mm	**WA**	Trolley
ZBH	Accessories		

Grease Supply Systems with Pneumatic Grease Pumps 50:1, Mobile



18 417 953

TECHNICAL DATA

- Compressed air connection: male quick release adapter, for Rectus coupling, type 26, NW 7,2 mm
- Grease connection: coupler, for hydraulic grease nipples DIN 71412

TROLLEY

Image	Item number	Description
	17 004	Trolley for 5-10-15 kg-containers
	17 008	Trolley for containers up to 60 kg
	17 009	Trolley for 200-kg-container
	17 009 390	Trolley for 200-kg-container ECO-Version
	17 075	Trolley for 200-kg-container can be disassembled

SPECIFICATION

- Pneumatic grease pump 50:1 (see P. 20)
- Special pump mechanism
- Male quick release adapter (20 062)
- High pressure grease gun (18 104)
- Z-swivel joint (18 082)
- Pressure reducing valve (pre-set at 8 bar)
- Dust covers
- Stabilising-fixing bracket
- Grease follower plate

PRODUCTS

Item number	Description 1	Description 2	SRL	HS					
18 410 051	Grease supply system-FB-WA (17 004)	10-kg-BE-Ø 210-240 mm-2 m-HS	468	2 m	×				
18 415 051	Grease supply system-FB-WA (17 004)	15-kg-BE-Ø 240-270 mm-2 m-HS	468	2 m	×				
18 416 051	Grease supply system-FB-WA (17 004)	18-kg-BE-Ø 240-290 mm-2 m-HS	468	2 m	×				
18 417 051	Grease supply system-FB-WA (17 004)	20-kg-BE-Ø 270-310 mm-2 m-HS	600	2 m	×				
18 417 951	Grease supply system-FB-WA (17 008)	20-kg-BE-Ø 270-310 mm-2 m-HS	600	2 m		×			
18 417 953	Grease supply system-FB-WA (17 008)	20-kg-BE-Ø 270-310 mm-4 m-HS	600	4 m		×			
18 425 051	Grease supply system-FB-WA (17 008)	25-kg-BE-Ø 310-335 mm-2 m-HS	600	2 m		×			
19 000 530	Grease supply system-FB-WA (17 008)	25-kg-BE-Ø 310-335 mm-4 m-HS	600	4 m		×			
19 000 533	Grease supply system-FB-WA (17 008)	25-kg-BE-Ø 310-335 mm-6 m-HS	600	6 m		×			
18 766 051	Grease supply system-FB-WA (17 008)	50-kg-BE-Ø 335-385 mm-4 m-HS	600	4 m		×			
18 766 391	Grease supply system-FB-WA (17 004)	50-kg-BE-Ø 335-385 mm-4 m-HS	600	4 m	×				
18 766 393	Grease supply system-FB-WA (17 008)	50-kg-BE-Ø 335-385 mm-10 m-HS	600	10 m		×			
18 766 950	Grease supply system-FB-WA (17 008)	50-kg-BE-Ø 335-385 mm-6 m-HS	600	6 m		×			
18 786 051	Grease supply system-FB-WA (17 009)	200-kg-BE-Ø 540-590 mm-4 m-HS	1000	4 m			×		
18 786 056	Grease supply system-FB-WA (17 009)	200-kg-BE-Ø 540-590 mm-6 m-HS	1000	6 m			×		
18 786 391	Grease supply system-FB-WA (17 009 390)	200-kg-BE-Ø 540-590 mm-4 m-HS	1000	4 m				×	
18 786 561	Grease supply system-FB-WA (17 075)	200-kg-BE-Ø 540-590 mm-4 m-HS	1000	4 m					×
18 788 051	Grease supply system-FB-WA (17 009)	200-kg-BE-Ø 540-590 mm-SAR	1000	SAR 10 m			×		
18 786 391	Grease supply system-FB-WA (17 009 390)	200-kg-BE-Ø 540-590 mm-4 m-HS	1000	4 m				×	
18 788 561	Grease supply system-FB-WA (17 075)	200-kg-BE-Ø 540-590 mm-SAR	1000	SAR 10 m					×

Grease Supply Systems, Mobile, with Drum Cover

27 846

TECHNICAL DATA

- Compressed air connection: male quick release adapter, for Rectus coupling, type 26, NW 7,2 mm
- Grease connection: coupler, for hydraulic grease nipples, DIN 71412
- Height of drum cover (mm): 700
- Diameter drum cover (mm): 400
- Lacquering of drum cover: window grey, satin, RAL 7040

SPECIFICATION

- Pneumatic grease pump 50:1
- Special pump mechanism
- Male quick release adapter (20 062)
- High pressure grease gun (18 104)
- Z-swivel joint (18 082)
- Pressure reducing valve (pre-set at 8 bar)
- Hose storage rack
- High pressure hose
- Follower plate
- Drip tray
- Barrel cover, removable, designed for protection of grease containers
- With robust handle
- With metal protective cover to avoid damage
- Also suitable for smaller containers, please order follower plate with smaller diameter
- Pump is easy to disassemble for cleaning purposes
- Operate pneumatic grease pump with maintenance unit 20 218 950, only
- With four castor wheels
- Pneumatic grease pump 50:1 (see P. 20)

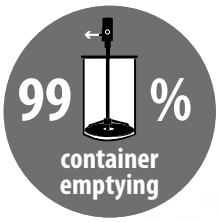
PRODUCTS

Item number	Description 1	Description 2	SRL	HS
27 846	Grease supply system-FB-FAV-50/60 kg-BE	Ø 335-385 mm-4 m-HS	700	4 m
27 846 056	Grease supply system-FB-FAV-50/60 kg-BE	Ø 335-385 mm-6 m-HS	700	6 m
27 846 950	Grease supply system-FB-FAV-20 kg-BE	Ø 270-310 mm-2 m-HS	468	2 m

Abbreviations

BE	Container	**DIN**	German Institute for Standardisation (DIN standards)
FB	mobile	**HS**	High pressure hose
NW	Nominal width = inside diameter	**SRL**	Suction pipe length, in mm
WA	Trolley	**SAR**	Hose reel
FAV	Drum cover		

Grease Supply Systems for Centralized Lubrication Systems



TECHNICAL DATA

- Compressed air connection: male quick release adapter, for Rectus coupling, type 26, NW 7,2 mm
- Grease connection: coupling Rectus, type 72, NW 6 mm, for quick release adapter Rectus

SPECIFICATION

- Pneumatic pump 50:1 (see P. 20)
- Special pump mechanism
- Male quick release adapter (20 062)
- High pressure grease gun, with universal coupler (18 105)
- Z-swivel joint (18 082)
- Pressure reducing valve (pre-set at 8 bar)
- High pressure hose
- Dust cover, stabilising-fixing bracket, grease follower plate

PRODUCTS

Item number	Description 1	Description 2	SRL	HS	Trolley
19 000 518	Grease supply system-stationary-ZSA	18-kg-BE-Ø 240-290 mm-4 m-HS	468	4 m	-
19 000 532	Grease supply system-FB-WA (17 008)-ZSA	50-kg-BE-Ø 335-385 mm-4 m-HS	700	4 m	17 008
19 000 535	Grease supply system-FB-WA (17 008)-ZSA	50-kg-BE-Ø 335-385 mm-6 m-HS	700	6 m	17 008

Accessories for Grease Supply Systems for Centralized Lubrication Systems

PRODUCTS

Image	Item number	Description 1	Description 2
	17 044	Male quick release adapter for Rectus coupler	type 72-G 1/4" female
	17 044 950	Male quick release adapter for Rectus coupler	type 72-G 1/4" female-with 2 adapters
	01 297	Rectus coupler	type 72-G 1/4" female
	17 045	Steel discharge spout	push connector-Rectus coupler-type 72

Abbreviations

BE	Container	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
HS	High pressure hose	**NW**	Nominal width = inside diameter
SRL	Suction pipe length, in mm	**ZSA**	Centralized lubrication systems

Compressed Air Accessories

20 218 950

TECHNICAL DATA

- Max. operating pressure (bar): 10

PRODUCTS

Image	Item number	Description 1	Description 2
	20 062	Male quick release adapter for KU Rectus	type 26-G 1/4" male-SW 17
	20 112	Double threaded nipple	G 1/4" male-DK 60°-both-sided
	20 185	Coiled hose 5 m	
	20 218	Air maintenance unit	G 1/4" female-G 1/4" female
	20 218 950	Air maintenance unit-complete set	G 1/4" male-for coupler Rectus-type 26

Dust Covers

17 171

TECHNICAL DATA

- Material: metal
- Inner diameter (mm): 35,5
- Lacquering: blue, RAL 5010

SPECIFICATION

- Integral grease gun holder

PRODUCTS

Item number	Description 1	Description 2
17 171	Dust covers	5-10-kg-BE-Ø 252 mm
17 172	Dust covers	5-10-kg-BE-Ø 282 mm
17 176	Dust covers	15-20-kg-BE-Ø 342 mm
17 194	Dust covers	25-60-kg-BE-Ø 385 mm
17 198	Dust covers	50-60-kg-BE-Ø 450 mm
17 200	Dust covers	200-kg-BE-Ø 600 mm
17 184	Dust covers	25-kg-BE-Ø 385 mm-conical

Abbreviations

BE Container

Container Fixing Brackets

17 197

TECHNICAL DATA
- Material: metal
- Inner diameter (mm): 35,5

SPECIFICATION
- Adjustable to suit different container sizes
- Clamp with butterfly screws, for fastening the pump pipes

PRODUCTS

Item number	Description 1	Description 2
17 197	Container fixing brackets	5-20-kg-BE-Ø 180-310 mm
17 199	Container fixing brackets	25-60-kg-BE-Ø 310-405 mm
17 201	Container fixing brackets	200-kg-BE-Ø 500-600 mm

Grease Follower Plate

17 230

TECHNICAL DATA
- Material: metal
- Inner diameter (mm): 35,5

SPECIFICATION
- Wrap-around rubber sealing lip
- Compensates even large unevenness of a container

PRODUCTS

Item number	Description 1	Description 2
17 195	Grease follower plate	5-kg-BE-Ø 180-210 mm
17 230	Grease follower plate	10-kg-BE-Ø 210-240 mm
17 265	Grease follower plate	15-kg-BE-Ø 240-270 mm
17 275	Grease follower plate	18-kg-BE-Ø 240-290 mm
17 285	Grease follower plate	20-kg-BE-Ø 270-290 mm
17 300	Grease follower plate	20-kg-BE-Ø 270-310 mm
17 320	Grease follower plate	25-kg-BE-Ø 310-335 mm
17 325	Grease follower plate	25-kg-BE-Ø 300-350 mm
17 380	Grease follower plate	50-kg-BE-Ø 335-385 mm
17 400	Grease follower plate	60-kg-BE-Ø 385-405 mm
17 401	Grease follower plate	200-kg-BE-Ø 540-590 mm

Abbreviations

BE Container

Trolleys and Accessories

17 080

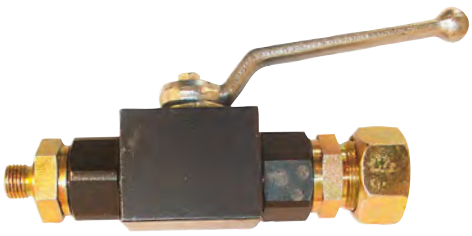
PRODUCTS

Image	Item number	Description	Specification
	17 004	Trolley for 5-/10-/15 kg container	Two wheels, robust anti-slip handle for better handling Fixation ring for drum container Wheels with solid tires
	17 008	Trolley for container up to 60 kg	Two wheels Rubber retaining strap (17 000) Hose storage rack
	17 009	Trolley for 200 kg container	Two wheels + lockable steering wheel Drip-tray integrated on the handle, with a drain screw and removable strainer
	17 009 100	Trolley for 200 kg container pneumatic tires	Two wheels + lockable steering wheel Drip-tray integrated on the handle, with a drain screw and removable strainer
	17 080	Trolley for 200 kg container can be disassembled pneumatic tires	Two fixed wheels, pneumatic tires + castor wheel with brake Control nozzle storage bracket Hose storage rack integrated on the handle
	17 075	Trolley for 200 kg container can be disassembled	Two fixed wheels (85 462) Castor wheel with brake Control nozzle storage bracket
	17 009 390	Trolley for 200 kg container ECO-Version	Three wheels
	17 021	Container mount-cross-shaped for barrels-max Ø 560 mm	For 60-/200-l-container, Ø max. 560 mm Four castor wheels, steerable Packed in carton box

ACCESSORIES

	17 000	Rubber retaining strap for trolley (17 008)
	87 547	Solid rubber wheel for trolley (17 009)
	85 462	Solid rubber wheel for trolley (17 009 390)
	87 651	Pneumatic wheel for trolley (17 009 100)

Safety and Ball Valves



18 099

TECHNICAL DATA

- Max. operating pressure (bar): 400

PRODUCTS

Image	Item number	Description 1	Description 2
	18 099	Sleeve ball valve	with connecting set
	18 095	Block-ball valve	G 1/4" female-G 1/4" female
	18 103	Safety valve	

Hose Assembly for Grease

18 021

TECHNICAL DATA

- Inner diameter of hose (mm): 6
- Max. operating pressure (bar): 400

PRODUCTS

Item number	Description 1	Description 2
18 021	Hose assembly for grease	1 m-G 1/4" female-G 1/4" male
18 022	Hose assembly for grease	2 m-G 1/4" female-G 1/4" male
18 023	Hose assembly for grease	3 m-G 1/4" female-G 1/4" male
18 024	Hose assembly for grease	4 m-G 1/4" female-G 1/4" male
18 025	Hose assembly for grease	5 m-G 1/4" female-G 1/4" male
18 026	Hose assembly for grease	6 m-G 1/4" female-G 1/4" male
18 028	Hose assembly for grease	8 m-G 1/4" female-G 1/4" male
18 030	Hose assembly for grease	10 m-G 1/4" female-G 1/4" male
18 035	Hose assembly for grease	15 m-G 1/4" female-G 1/4" male
18 050	Hose assembly for grease	1,5 m-G 1/4" female-G 1/4" female

ACCESSORIES

	19 669	Hose holder large size

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

Hose Reels for Grease

29 242

29 272

TECHNICAL DATA

- Connection discharge hose: G 1/4" female/male
- Length of connecting hose (m): 1
- Connection to connecting hose: G 1/4" female/ female
- Inner diameter of hose (DN): 6
- Max. operating pressure (bar): 400

SPECIFICATION

- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	10 m	15 m	open	closed	GDI	GDA	WB	DM
	29 242	Hose reel for grease	O-WB-400 bar-DN 6-10 m	×		×				×	
	29 243	Hose reel for grease	O-WB-400 bar-DN 6-15 m		×	×				×	
	29 252	Hose reel for grease	O-DM-400 bar-DN 6 -10 m	×		×					×
	29 253	Hose reel for grease	O-DM-400 bar-DN 6- 15 m		×	×					×
	29 272	Hose reel for grease	GDA-WB-400 bar-DN 6-10 m	×			×		×	×	
	29 273	Hose reel for grease	GDA-WB-400 bar-DN 6-15 m		×		×		×	×	
	29 262	Hose reel for grease	GDI-WB-400 bar-DN 6-10 m	×			×	×		×	
	29 263	Hose reel for grease	GDI-WB-400 bar-DN 6-15 m		×		×	×		×	
	29 292	Hose reel for grease	GDA-DM-400 bar-DN 6-10 m	×			×		×		×
	29 293	Hose reel for grease	GDA-DM-400 bar-DN 6-15 m		×		×		×		×
	29 282	Hose reel for grease	GDI-DM-400 bar-DN 6-10 m	×			×	×			×
	29 283	Hose reel for grease	GDI-DM-400 bar-DN 6-15 m		×		×	×			×

Abbreviations

DM	Ceiling mounting	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside
GDI	Encased, swivel joint, inside	**O**	open
WB	Wall and floor mounting		

Accessories for Hose Reels

29 930

PRODUCTS

Image	Item number	Description	Specification
	29 930	Wall bracket swivable-90°	Swivelling wall-mounted bracket to suit all types of hose reels
	29 976	Hose stop-1/4"	For hoses of 13,5 mm outside diameter
	29 980	Nozzle valve holder for one nozzle valve	Drip tray, with drain screw and removable strainer For wall-mounting
	29 981	Nozzle valve holder for two nozzle valves	Drip tray, with drain screw and removable strainer For wall-mounting
	29 940	Mounting bracket	Enables lateral installation of a hose reel (e.g. in garage service pits)

Hose Reels for Grease

TECHNICAL DATA

- Lacquering: window grey, satin, RAL 7040

SPECIFICATION

- Stationary mounting rack for enclosed hose reels
- Oil collecting container with oil drain plug and removable grill
- Paper roll holder
- Writing desk pad and holder for writing instruments
- Storage unit for tools under the oil collection container
- Double sided lattice grid for fastening the tools
- Waste basket on system brackets

SPECIAL NOTES

- Product discharge with encased hose reels
- Mounting of a management sytem provided
- Mounting of electric power plug or pneumatic-distributors on the colums provided
- The supply and discharge of liquid can be effected from above as well as from below.
- Mounting of compressed air connections on column provided

PRODUCTS

Item number	Description 1	Description 2
29 932	System brackets for mounting	for max. 6 hose reels

We are happy to advise you on individual solutions.

High Pressure Grease Guns

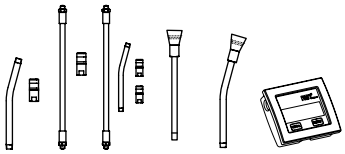
18 102

TECHNICAL DATA

- Application range: Greases NLGI 2
- Max. operating pressure (bar): 400
- Operating temperature (°C): -10 / +60

SPECIFICATION

- Ergonomic contoured safety handgrip



PRODUCTS

Item number	Description 1	Description 2						DG	SKU	for ZSA
18 104	Grease gun G 1/8" female	angled spout-coupler	×							
18 104 301	Grease gun G 1/8" female	reinforced hose-spout-2 MU		×						
18 104 390	Grease gun-DG G 1/4" female	angled spout-coupler	×					×		
18 104 958	Grease gun G 1/8" female	reinforced hose-spout-2 MU-SKU		×					×	
18 105	Grease gun G 1/8" female	GRDR-Rectus coupling-Type 72			×					×
18 105 390	Grease gun-DG G 1/4" female	GRDR-Rectus coupling-Type 26			×			×		×
18 102	Grease gun G 1/8" female-EBZD	angled spout-coupler	×				×			
18 102 952	Grease gun G 1/8" female-EBZD	GBDR-Rectus coupling-Type 72				×	×			×
18 102 950	Grease gun G 1/8" female-EBZD	high pressure hose-coupler		×			×			

Abbreviations

DG	Swivel joint	**EBZD**	In-line meter, digital
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GBDR**	Angled spout coupler
GRDR	Straight spout coupler	**M**	Metric thread, cylindrical, DIN 13
MU	Coupler	**NLGI**	Stands for viscosity class 000 to 6, as defined by the National Lubricating Grease Institute, USA
PZ	High pressure hose		
SKU	Quick coupling	**ZSA**	Centralized lubrication systems

In-line Meter

TECHNICAL DATA

- Connection 1: G 1/8'' female
- Connection 2: G 1/8'' female
- Application range: Greases NLGI 2
- Measurement unit: liters or cm^3
- Flow rate (cm^3/min): 0-1000
- Max. operating pressure (bar/psi): 700/10153
- Burst pressure (bar/psi): 1000/14504
- Temperature range (°C): - 20 /+60
- Housing material: AlSi 12 (sea water resistant)
- Surface treatment: Black electro-coating
- Accuracy of repeated processes 0-300 bar (%): 1
- Display: Partial quantity + totalisator
- Height of the digits (mm): 13
- Voltage (V): 2,3 - 3,3
- Power consumption (µA): 800
- Batteries: 2 x 1,5 V
- Battery type: 1,5 V Lady LR1 (88 431)
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C)
- Display: 5 digits, partial and total quantity, resettable

SPECIFICATION

- Grease meter with batteries, spout and retention adapters
- Spout, 80 mm, 25°, R 1/8" male, R 1/8" male (02 427)
- Retention adapter, steel, galvanized, G 1/8" female, M 10 x 1 male (12 016)
- Retention adapter, steel, galvanized, R 1/8" female, M 10 x 1 male (12 086)

SPECIAL NOTES

- Easy calibration
- The metering precision can be adjusted to the viscosity using the calibration scale
- Easy to read 5-digits display
- Resettable display
- Impact-resistant electronics
- Standby mode after 10 minutes without using the system

PRODUCTS

Item number	Description 1	Description 2
18 115	In-line meter for grease	with display-0-1000 cm^3/min

Quick Release Adaptors

12 042

PRODUCTS

Item number	Description 1	Description 2	K1	D1	M1	M4	M22	T1/B	H
12 042	Quick connecting coupler-GRDR	Hollow/universal coupler	×						
12 043	Quick connecting coupler-GRDR	Funnel type coupler		×					
12 055	Quick connecting coupler-GRDR	Button head coupler-10 mm				×			
12 044	Quick connecting coupler-GRDR	Button head coupler-16 mm			×			×	
12 054	Quick connecting coupler-GRDR	Button head coupler-22 mm					×		
12 056	Quick connecting coupler-GBDR	Hydraulic coupler							×
12 057	Quick connecting coupler-GBDR	Button head coupler-22 mm					×		
12 048	Quick connecting coupler-PZ	11 x 300 mm-precision coupler							×
12 049	Quick connecting coupler-PZ	11 x 500 mm-precision coupler							×

Rotary Swivel Couplers

18 082

TECHNICAL DATA

- Material: Steel
- Surface: yellow galvanised
- Operating pressure (bar): 400

SPECIFICATION

- Ball bearing joints, therefore easily movable at high pressure
- O-ring seal

PRODUCTS

Image	Item number	Description 1	Description 2
	18 082	Z-swivel joint-3 x 360°	G 1/8'' male-G 1/4'' female
	18 083	Swivel joint-2 x 360°	G 1/8" male-G 1/4'' female
	18 081	Swivel joint-1 x 360°	G 1/8" male-G 1/4'' female
	18 084	Swivel joint-1 x 360°	G 1/4" male-G 1/4'' female

Abbreviations

M1	Flat grease nipple, 16 mm, round head	**D1**	Funnel type grease nipple, 180°, straight
M4	Flat grease nipple, 10 mm, round head	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
M22	Flat grease nipple, 22 mm, round head	**GBDR**	Angled spout coupler
GRDR	Straight spout coupler	**H**	Taper type grease nipple
K1	Ball-type grease nipple, 180°, straight	**M**	Metric thread, cylindrical, DIN 13
NLGI	Stands for viscosity class 000 to 6, as defined by the National Lubricating Grease Institute, USA	**R**	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection
T1/B	Flat grease nipple, 16 mm, hexagonal head	**PZ**	High-pressure hose

FACTOR
FACTOR DRP 8 E
D-73730 ESSLINGEN
230 V~
460 W
001956
n.0-3000 min⁻¹
max Ø 8 mm

42 Pneumatic Pumps

46 Installation Sets for Pneumatic Pumps

48 Oil Systems

53 Electric Oil Pumps

57 Trolleys for Oil Containers

58 Oil Dispensing and Spray Systems

61 Tanks

62 Compact Systems

66 Drainage Trays

67 Filling Valves and Digital Meters

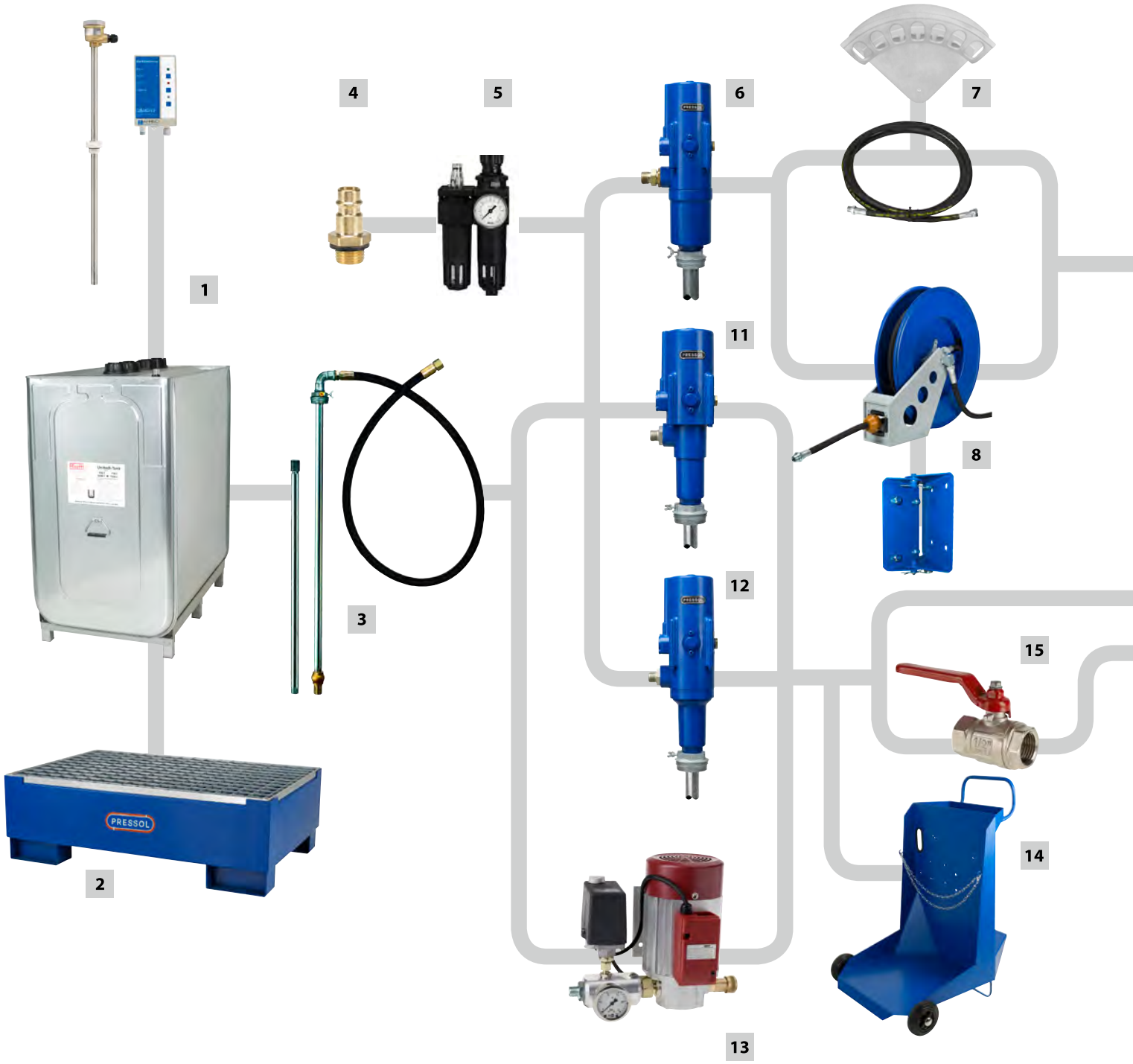
75 Hose Assembly for Oil

76 Hose Reels for Oil

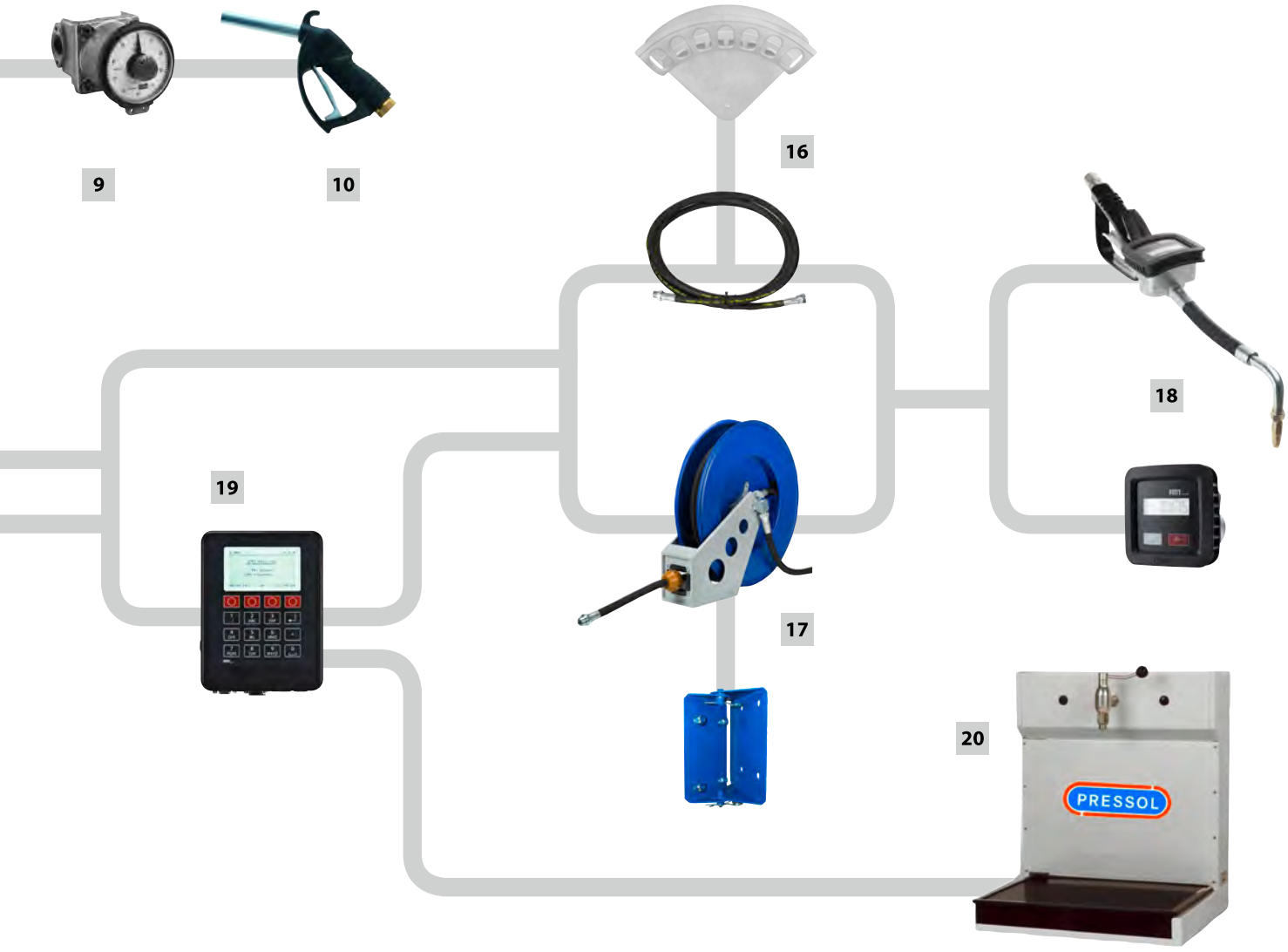
78 Accessories Fresh Oil Supply

82 Oil Management System ÖMS

Construction Kit for Fresh Oil Supply Systems

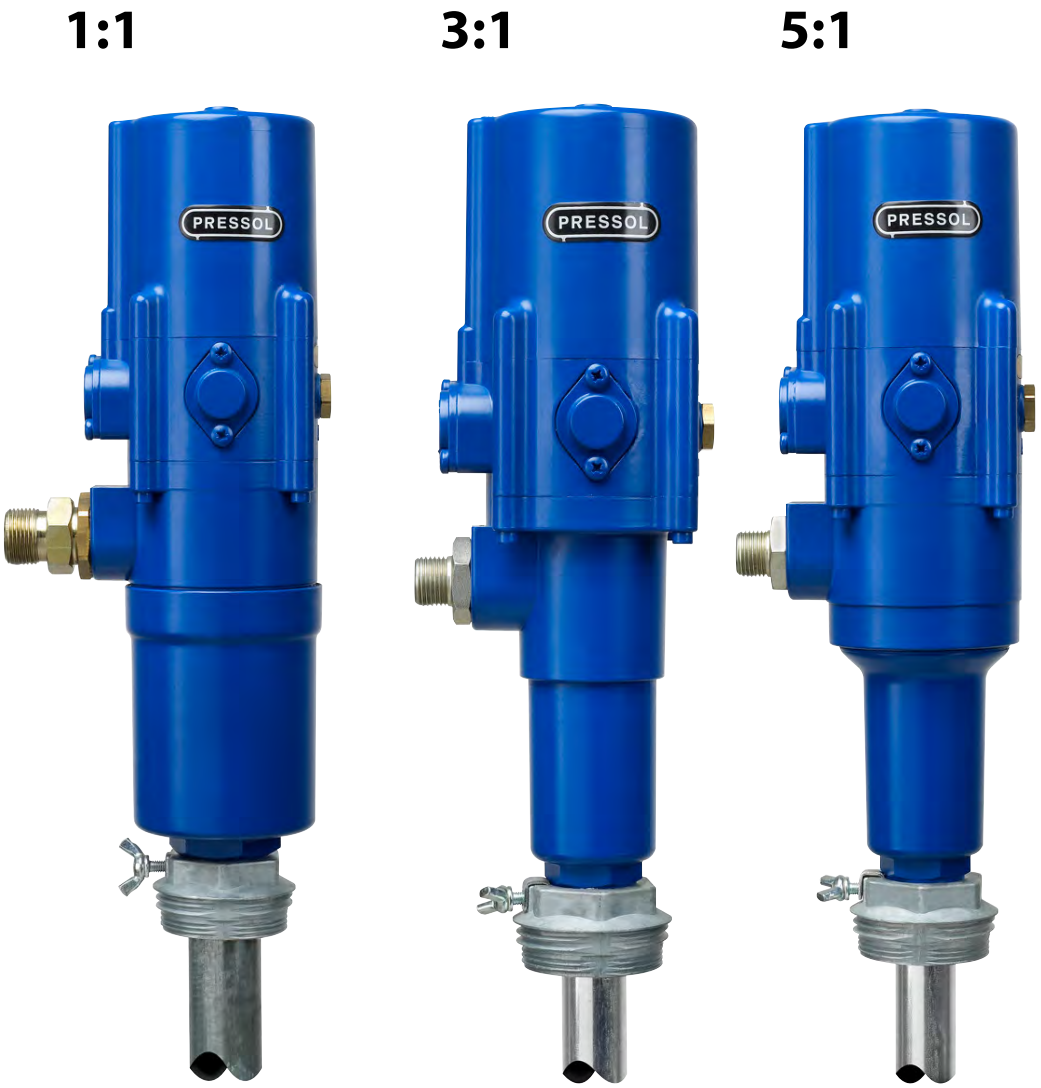


Number	Description	Page	Number	Description	Page
1	Tanks	61	6	Pneumatic and diesel pumps	43
2	Drainage trays for 60/200 l containers	66	7	Hose assembly for oil	75
3	Suction tubes and accessories	79	8	Hose reels	76
4	Compressed air accessories	80	9	Handheld meters	68-73
5	Air maintenance units	80	10	Filling valves	67



Number	Description	Page	Number	Description	Page
11	Pneumatic oil pump 3:1	44	16	Hose assembly for oil	75
12	Pneumatic oil pump 5:1	45	17	Hose reels	76
13	Electric oil pumps	53	18	Filling valves and built-in meters	67-73
14	Trolleys for oil containers and accessories	57	19	Oil Management System	84
15	Accessories for assembly pipe-works	78	20	Oil bar	81

Overview Pneumatic Pumps



Pressure Ratio	1:1	3:1	5:1
Viscosity of discharged medium:	Diesel and oil up to SAE 5	Oil up to SAE 90	Oil up to SAE 140
Discharged medium:	Diesel and oil	Engine, gear aud hydraulic oil	Engine, gear aud hydraulic oil
Time duration for 1 complete container draining:	200 l oil in 3 min	200 l oil in 9 min	200 l oil in 14 min
Pump capacity at 8 bar at a free-flow:	66 l/min	22 l/min	20 l/min
Application / Feauture:	Suitable for e.g. decanting, because of the high delivery rate	Suitable for filling of cars and commerical vehicles after oil changing	Suitable for high viscosity media and oil distribution lines

Pneumatic Oil- and Diesel Pumps 1:1

19 135

TECHNICAL DATA

- Pressure ratio: 1:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Cylinder capacity pump (cm^3): 220
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 240
- Pump capacity at 8 bar at a free-flow (l/min): 66
- Pump pressure at 8 bar air pressure (bar): 8
- Air consumption at 8 bar air pressure (l/min): 450
- Length of discharge pipe work: depends on size of installation
- Max. suction heigth: 6 m, G 1" suction tube
- Compressed air connection: G 1/4" female
- Oil connection - suction side: G 3/4"
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: oil up to ISO VG 15 SAE 5
- Classical liquids to be discharged: diesel and oil
- Time duration for 1 complete container draining: 200 l diesel in 3 min
- Lacquering: blue, RAL 5010
- Length of engine (mm): 375

SPECIFICATION

- Pneumatic oil- and diesel pump 1:1
- To discharge low viscosity self-lubricating liquids, such as diesel, fuel oil and engine oil
- Due to its high delivery rate, it can be used as a filling pump

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950)
- Required accessories for wall-mounting:
- Wall mounting bracket (19 521)
- Suction tube (19 522), (19 523), (19 523 001)
- Hose assembly for oil (19 512)

PRODUCTS

Item number	Description 1	Description 2	SRL (mm)	Oil connection - suction side	Drum adapter, G 2" male
19 135	Pneumatic pump 1:1	SRL 860-200/220 l-container	860	G 1" female	×
19 165	Pneumatic pump 1:1	SRL 1200-mounting on tanks	1200	G 1" female	×
19 185	Pneumatic pump 1:1	wall-mounting	-	G 3/4" male	

SPARE PARTS

Item number	Description 1
72 070	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor
87 354	Repair kit piston rod
87 358	Repair kit flange

Abbreviations

db A	Decibel, A-weighted noise level	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
SAE	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers	**SRL**	Suction pipe length, in mm

Pneumatic Oil Pumps 3:1

19 205

TECHNICAL DATA

- Pressure ratio: 3:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Cylinder capacity pump (cm^3): 70
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 260
- Pump capacity at 8 bar at a free-flow (l/min): 22
- Pump pressure at 8 bar air pressure (bar): 24
- Air consumption at 8 bar air pressure (l/min): 470
- Length of discharge pipe work: Depends on size of installation
- Max. suction heigth: 6 m, G 3/4" suction tube
- Compressed air connection: G 1/4" female
- Oil connection - delivery side: G 1/2" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: oil up to SAE 90
- Classical liquids to be discharged: engine, gear aud hydraulic oil
- Time duration for 1 complete container draining: 200 l oil in 9 minutes
- Lacquering: blue, RAL 5010
- Length of engine (mm): 360
- Weight of motor (kg): 3,8

SPECIFICATION

- Pneumatic oil pump 3:1
- To discharge engine, gear and hydraulic oils
- Ideal for direct connection to pipe lines up to 70 meters. We strongly recommend the use of an overflow valve ((19 648), 16 bar, or (19 506), 20 bar)
- Can be easily combined with several hose reels

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950)

PRODUCTS

Item number	Description 1	Description 2	SRL (mm)	Oil connection - suction side	G 2" male, drum adapter
19 205	Pneumatic pump 3:1	SRL 670-60-l-container	670	G 3/4" female, suction tube	×
19 235	Pneumatic pump 3:1	SRL 860-200/220 l-container	860	G 3/4" female, suction tube	×
19 265	Pneumatic pump 3:1	SRL 1200-mounting on tanks	1200	G 3/4" female, suction tube	×
19 264	Pneumatic pump 3:1	SRL 1270-mounting on tanks	1270	G 3/4" female, suction tube	×
19 266	Pneumatic pump 3:1	SRL 1500-mounting on tanks	1500	G 3/4" female, suction tube	×
19 285	Pneumatic pump 3:1	wall-mounting	-	G 3/4" male	

SPARE PARTS

Item number	Description 1
72 071	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor
87 353	Repair kit piston rod
87 357	Repair kit flange

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259) **SRL** Suction pipe length, in mm

Pneumatic Oil Pumps 5:1, Double Acting

19 305

TECHNICAL DATA

- Pressure ratio: 5:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Cylinder capacity pump (cm^3): 70
- Quantity of strokes at 8 bar at a free-flow (strokes/min): 270
- Pump capacity at 8 bar at a free-flow (l/min): 20
- Pump pressure at 8 bar air pressure (bar): 40
- Air consumption at 8 bar air pressure (l/min): 470
- Length of discharge pipe work: depends on size of installation
- Max. suction heigth: 6 m, G 3/4" suction tube
- Compressed air connection: G 1/4" female
- Oil connection - delivery side: G 1/2" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Viscosity of discharged liquid: oil up to SAE 140
- Classical liquids to be discharged: engine, gear aud hydraulic oil
- Time duration for 1 complete container draining: 200 l oil in 14 min
- Lacquering: blue, RAL 5010
- Length of engine (mm): 360
- Weight of motor (kg): 4

SPECIFICATION

- Pneumatic oil pump 5:1, double acting (DW)
- Double-acting pump, provides a continuous flow of media
- Especially designed for oil supply over long distances
- To discharge engine, gear and hydraulic oils
- Ideal for direct connection to pipe lines up to 70 meters. We strongly recommend the use of an overflow valve ((19 648), 16 bar, or (19 506), 20 bar)
- Can be easily combined with several hose reels

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950)

PRODUCTS

Item number	Description 1	Description 2	SRL (mm)	Oil connection - suction side	G 2" male, drum adapter
19 305	Pneumatic pump 5:1-DW	SRL 670-60-l-container	670	G 3/4" female, suction tube	×
19 335	Pneumatic pump 5:1-DW	SRL 860-200/220 l-container	860	G 3/4" female, suction tube	×
19 365	Pneumatic pump 5:1-DW	SRL 1200-mounting on tanks	1200	G 3/4" female, suction tube	×
19 366	Pneumatic pump 5:1-DW	SRL 1500-mounting on tanks	1500	G 3/4" female, suction tube	×
19 385	Pneumatic pump 5:1-DW	wall-mounting	-	G 3/4" male	

SPARE PARTS

Item number	Description 1
72 072	Gasket set
72 090	Repair kit control lever
87 351	Repair kit distributor
87 655	Repair kit piston rod
87 656	Repair kit flange

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

SRL Suction pipe length, in mm

Installation Sets for Pneumatic Pumps

19 185 600

TECHNICAL DATA

- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Connection container: G 2" male, drum adapter

SPECIFICATION

- Installation set
- Compressed air hose, 2 m, DN 9, with male quick connecting adapter, for Rectus coupling, type 26
- Air maintenance unit (20 218 950)
- With all adapters required for assembly

PRODUCTS

Item number	Description 1	Description 2	1:1	3:1	5:1	200-/220-l-BE	Mounting on tanks	Wall-mounting
19 135 600	Pneumatic pump 1:1-set	SRL 860-200/220-l-container	×			×		
19 165 600	Pneumatic pump 1:1-set	SRL 1200-mounting on tanks	×				×	
19 185 600	Pneumatic pump 1:1-set	SRL 860-wall-mounting	×					×
19 235 600	Pneumatic pump 3:1-set	SRL 860-200/220-l-container		×		×		
19 265 600	Pneumatic pump 3:1-set	SRL 1200-mounting on tanks		×			×	
19 285 600	Pneumatic pump 3:1-set	SRL 1200-wall-mounting		×				×
19 335 600	Pneumatic pump 5:1-DW-set	SRL 860-200/220-l-container			×	×		
19 365 600	Pneumatic pump 5:1-DW-set	SRL 1200-mounting on tanks			×		×	
19 385 600	Pneumatic pump 5:1-DW-set	SRL 1200-wall-mounting			×			×
ACCESSORIES								
03 337	Foot valve -G 3/4" female	with overpressure release hole		×	×			

Abbreviations

BE	Container	**DN**	Inner diameter, in mm
DW	double acting	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NW	Nominal width = inside diameter	**SRL**	Suction pipe length, in mm

Oil systems, stationary, IBC

19 258 563

23 346 555

TECHNICAL DATA

- Suction hose length (mm): 600

SPECIFICATION

- Stationary oil system
- Set for IBC assembled on mounting plate
- Suction hose, 0,6 m, G 3/4" female, G 3/4" female (19 530 960)
- With hose end meter, digital (19 698), swivel joint, anti-drip nozzle
- Nozzle gun holder (29 980 950)

SPECIAL NOTES

- Easy and quick replacement of the IBC container without tools
- Fluid and flow volume visible thanks to transparent hose
- The drain cock allows to almost completely empty the IBC container
- Closing the drain cock renders impossible an involuntary emptying of the tank
- Nozzle holder for safely depositing the dispensing nozzle
- Collection tray with drain plug for easy emptying and detachable strainer insert

PRODUCTS

Item number	Description 1	Description 2	PNP 3:1	Electrical oil pump	SAR
19 258 001	ÖLSYS-SR-PNP 3:1	Set for IBC-HZD-AS-4 m-FS	×		
19 258 563	ÖLSYS-SR-PNP 3:1-SAR-O	Set for IBC-HZD-AS-10 m-FS	×		×
23 346 552	ÖLSYS-SR-EZP	Set for IBC-HZD-AS-4 m-FS		×	
23 346 555	ÖLSYS-SR-EZP-SAR-O	Set for IBC-HZD-AS-10 m-FS		×	×

Abbreviations

AS	Discharge hose	**EZP**	Electric gear pump
FS	Delivery hose	**ÖLSYS**	Oil system
PNP	Pneumatic pump	**SAR**	Hose reel
SR	Stationary		

Oil Systems, Stationary, Pneumatically Operated Pump

19 242 541

TECHNICAL DATA

- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Connection container: G 2" male, drum adapter

SPECIFICATION

- Stationary oil system
- Male quick release adapter (20 062)
- Suction tube

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950), only

PRODUCTS

Image	Item number	Description 1	Description 2	1:1	3:1	5:1	SRL	FV-AR	HZD-AR	HZD-AS
With pneumatic pump 1:1 and 4 m discharge hose										
	19 135 954	ÖLSYS-SR-PNP 1:1	SRL 860-200/220-I-BE-FV-AR-4 m-FS	×			860	×		
With pneumatic pump 3:1 and 4 m discharge hose										
	19 211	ÖLSYS-SR-PNP 3:1	SRL 670-60-I-BE-FV-AR-4 m-FS		×		670	×		
	19 212	ÖLSYS-SR-PNP 3:1	SRL 670-60-I-BE-HZD-AR-4 m-FS		×		670		×	
	19 212 393	ÖLSYS-SR-PNP 3:1	SRL 670-60-I-BE-HZD-AS-4 m-FS-KU		×		670			×
	19 212 551	ÖLSYS-SR-PNP 3:1	SRL 670-60-I-BE-HZD-AS-4 m-FS		×		670			×
	19 241	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-FV-AR-4 m-FS		×		860	×		
	19 242	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-HZD-AR-4 m-FS		×		860		×	
	19 241 390	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-FV-AR-4 m-FS-KU		×		860	×		
	19 242 397	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-HZD-AS-4 m-FS-KU		×		860			×
	19 242 551	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-HZD-AS-4 m-FS		×		860			×
	19 241 568	ÖLSYS-SR-PNP 3:1	SRL 1270-mounting on tanks-FV-AR-4 m-FS		×		1270	×		
	19 242 568	ÖLSYS-SR-PNP 3:1	SRL 1270-mounting on tanks-HZD-AR-4 m-FS		×		1270		×	
	19 464 411	ÖLSYS-SR-PNP 3:1	SRL 1200-mounting on tanks-HZD-AS-4 m-FS		×		1200			×
	19 242 569	ÖLSYS-SR-PNP 3:1	SRL 1270-mounting on tanks-HZD-AS-4 m-FS		×		1270			×
	19 241 570	ÖLSYS-SR-PNP 3:1	SRL 1500-mounting on tanks-FV-AR-4 m-FS		×		1500	×		
	19 242 570	ÖLSYS-SR-PNP 3:1	SRL 1500-mounting on tanks-HZD-AR-4 m-FS		×		1500		×	
	19 242 571	ÖLSYS-SR-PNP 3:1	SRL 1500-mounting on tanks-HZD-AS-4 m-FS		×		1500			×
With pneumatic pump 3:1, 4 m discharge hose and Rectus coupling (20 022)										
	19 241 390	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-FV-AR-4 m-FS-KU		×		860	×		
	19 242 397	ÖLSYS-SR-PNP 3:1	SRL 860-200/220-I-BE-HZD-AS-4 m-FS-KU		×		860			×
With pneumatic pump 3:1, 4 m discharge hose, air maintenance unit and coiled air hose										
	19 235 888	ÖLSYS-SR-PNP 3:1-WG	SRL 860-200/220-I-BE-HZD-AS-4 m-FS		×		860			×
	19 266 888	ÖLSYS-SR-PNP 3:1-WG	SRL 1500-mounting on tanks-HZD-AS-4 m-FS		×		1500			×
With pneumatic pump 3:1 and hose reel, open										
	19 235 955	ÖLSYS-SR-PNP 3:1-SAR-0	SRL 860-200/220-I-BE-HZD-AS-10 m-FS		×		860			×
	19 464 410	ÖLSYS-SR-PNP 3:1-SAR-0	SRL 1200-mounting on tanks-HZD-AS-10 m-FS		×		1200			×
With pneumatic pump 3:1 and hose reel, closed										
	19 242 541	ÖLSYS-SR-PNP 3:1-SAR-GDA	SRL 860/1600-BE-TA-HZD-AS-10 m-FS		×		860/1600			×
	19 242 543	ÖLSYS-SR-PNP 3:1-SAR-GDA	SRL 860/1600-BE-TA-HZD-AS-15 m-FS		×		860/1600			×
With pneumatic pump 5:1 and 4 m discharge hose										
	19 335 954	ÖLSYS-SR-PNP 5:1	SRL 860-200/220-I-BE-FV-AR-4 m-FS			×	860	×		
	19 242 418	ÖLSYS-SR-PNP 5:1	SRL 860-200/220-I-BE-HZD-AS-4 m-FS			×	860			×

PRODUCTS

Image	Item number	Description 1	Description 2	1:1	3:1	5:1	SRL	FV-AR	HZD-AR	HZD-AS
With pneumatic pump 5:1 and hose reel, closed										
	19 242 540	ÖLSYS-SR-PNP 5:1-SAR-GDA	SRL 860/1600-BE-TA-HZD-AS-10 m-FS			×	860/1600			×

ACCESSORIES

Image	Item number	Description 1	Description 2	1:1	3:1	5:1
	19 701	Filling valve for diesel and oil 0 - 60 l/min	G 1" female, only for PNP 1:1	×		
	19 718	Filling valve with swivel joint 0 - 30 l/min	discharge spout 30°-G 1/2" female		×	×
	19 698	Hose end meter 0-30 l/min	discharge 90°-with swivel joint		×	×
	19 698 950	Hose end meter 0-30 l/min	angled discharge spout		×	×
	19 534	Hose assembly for oil	4 m-G 3/4" female-G 3/4" male	×		
	19 564	Hose assembly for oil	4 m-G 1/2" female-G 1/2" male		×	×
	20 022	Rectus connector coupler	type 26-G 1/4" female-SW 22	×	×	×
	20 218 950	Air maintenance unit-complete set	G 1/4" male-for KU Rectus-Type 26	×	×	×
	20 185	Coiled hose 5 m		×	×	×
	29 142	Hose reel for oil	O-WB-120 bar-DN 12-10 m		×	×
	29 172	Hose reel for oil	GDA-WB-120 bar-DN 12-10 m		×	×
	29 173	Hose reel for oil	GDA-WB-120 bar-DN 12-15 m		×	×

Abbreviations

AR	Discharge tube	**AS**	Discharge hose	**BE**	Container
DN	Inner diameter, in mm	**FS**	Delivery hose	**FV**	Filling valve
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside	**HZD**	Flow meter, digital
		KU	Coupler	**NW**	Nominal width = inside diameter
PNP	Pneumatic pump	**O**	open	**ÖLSYS**	Oil system
SAR	Hose reel	**SR**	stationary	**SRL**	Suction pipe length, in mm
SW	Width across flats	**TA**	Tanks	**WB**	Wall and floor mounting

Oil Systems, Mobile, Pneumatically Operated Pump

19 248 551

TECHNICAL DATA

- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Connection container: G 2" male, drum adapter

SPECIFICATION

- Oil system, mobile
- Male quick release adapter (20 062)
- Suction tube, G 3/4" male
- Pneumatic oil pump 3:1 (see P. 44)

SPECIAL NOTES

- Operate pneumatic pump only with maintenance unit (20 218 950)

PRODUCTS

Image	Item number	Description 1	Description 2	FV-AR	FV-AS	HZD-AR	HZD-AS	HZDV	Trolley
for 60-l-container with 4 m delivery hose									
	19 213	ÖLSYS-FB-(17 008)-PNP 3:1	SRL 670-60-l-BE-FV-AR-4 m-FS	×					17 008
	19 214	ÖLSYS-FB-(17 008)-PNP 3:1	SRL 670-60-l-BE-HZD-AR-4 m-FS			×			17 008
	19 214 551	ÖLSYS-FB-(17 008)-PNP 3:1	SRL 670-60-l-BE-HZD-AS-4 m-FS				×		17 008
	19 214 395	ÖLSYS-FB-(17 008)-PNP 3:1-KU	SRL 670-60-l-BE-HZD-AS-4 m-FS				×		17 008
	19 214 396	ÖLSYS-FB-(17 004)-PNP 3:1	SRL 670-60-l-BE-HZD-AS-4 m-FS				×		17 004
for 200-/220-l-container with 4 m delivery hose									
	19 243	ÖLSYS-FB-(17 009)-PNP 3:1	SRL 860-200/220-l-BE-FV-AR-4 m-FS	×					17 009
	19 244	ÖLSYS-FB-(17 009)-PNP 3:1	SRL 860-200/220-l-BE-HZD-AR-4 m-FS			×			17 009
	19 244 551	ÖLSYS-FB-(17 009)-PNP 3:1	SRL 860-200/220-l-BE-HZD-AS-4 m-FS				×		17 009
	19 244 553	ÖLSYS-FB-(17 009)-PNP 3:1	SRL 860-200/220-l-BE-HZDV-4m-FS					×	17 009
	19 244 396	ÖLSYS-FB-(17 009 390)-PNP 3:1	SRL 860-200/220-l-BE-HZD-AS-4 m-FS				×		17 009 390
	19 243 560	ÖLSYS-FB-(17 075)-PNP 3:1	SRL 860-200/220-l-BE-FV-AS-4 m-FS		×				17 075
	19 244 560	ÖLSYS-FB-(17 075)-PNP 3:1	SRL 860-200/220-l-BE-HZD-AR-4m-FS			×			17 075
	19 244 561	ÖLSYS-FB-(17 075)-PNP 3:1	SRL 860-200/220-l-BE-HZD-AS-4 m-FS				×		17 075
for 200-/220-l-container with 5 m delivery hose and air maintenance unit									
	19 000 960	ÖLSYS-FB-(17 009)-PNP 3:1-WG	SRL 860-200/220-l-BE-HZD-AS-5 m-FS				×		17 009
for 200-/220-l-container with hose reel, closed									
	19 246	ÖLSYS-FB-(17 009)-PNP 3:1-SAR-GDA	SRL 860-200/220-l-BE-FV-AR-10 m-FS	×					17 009
	19 248	ÖLSYS-FB-(17 009)-PNP 3:1-SAR-GDA	SRL 860-200/220-l-BE-HZD-AR-10 m-FS			×			17 009
	19 248 551	ÖLSYS-FB-(17 009)-PNP 3:1-SAR-GDA	SRL 860-200/220-l-BE-HZD-AS-10 m-FS				×		17 009

PRODUCTS

Image	Item number	Description 1	Description 2	FV-AR	FV-AS	HZD-AR	HZD-AS	HZDV	Trolley
for 200-/220-l-Container with hose reel, open									
	19 257	ÖLSYS-FB-(17 009)-PNP 3:1-SAR-0	SRL 860-200/220-l-BE-HZD-AR-10 m-FS			×			17 009
	19 257 551	ÖLSYS-FB-(17 009)-PNP 3:1-SAR-0	SRL 860-200/220-l-BE-HZD-AS-10 m-FS				×		17 009
	19 257 560	ÖLSYS-FB-(17 075)-PNP 3:1-SAR-0	SRL 860-200/220-l-BE-FV-AS-10 m-FS		×				17 075
	19 257 561	ÖLSYS-FB-(17 075)-PNP 3:1-SAR-0	SRL 860-200/220-l-BE-HZD-AS-10 m-FS				×		17 075

ACCESSORIES

Image	Item number	Description 1	Description 2	FV-AR	FV-AS	HZD-AR	HZD-AS	HZDV
	19 718	Filling valve with swivel joint 0-30 l/min	discharge spout 30° G 1/2" female	×				
	19 718 954	Filling valve with Swivel joint 0-30 l/min	discharge hose G 1/2" female		×			
	19 698	Hose end meter 0-30 l/min	discharge 90° with swivel joint				×	
	19 698 950	Hose end meter 0-30 l/min	angled discharge spout			×		
	19 730	Hose end meter-digital 0-30 l/min	oval gears presettable					×

Abbreviations

AR	Discharge tube	**AS**	Discharge hose	**BE**	Container
DN	Inner diameter, in mm	**FB**	mobile	**FS**	Delivery hose
FV	Filling valve	**G**	Whitworth Pipe Thread,	**GDA**	Encased, swivel joint, outside
HZD	Flow meter, digital		cylindrical, ISO 228 (DIN 259)	**HZDV**	Flow meter, digital, presettable
KU	Coupler	**NW**	Nominal width = inside diameter	**O**	open
ÖLSYS	Oil system	**PNP**	Pneumatic pump	**SAR**	Hose reel
SRL	Suction pipe length, in mm				

Oil Systems for Wall-Mounting, Pneumatically Operated Pump

19 000 330

TECHNICAL DATA

- Length of suction tube (mm): 860/1600
- Compressed air connection: G 1/4" female
- Connection: G 2" male, drum adapter

SPECIFICATION

- Oil system, stationary
- For wall mounting
- Pneumatic oil pump 3:1 (19 285), (see P. 44)
- Suction tube, for 200 / 220 l containers and tanks
- Connecting hose, 2 m, for connecting pneumatic pump / suction tube
- Connecting hose, 1 m, for connecting pneumatic pump / hose reel
- Pump wall-mounting bracket

PRODUCTS

Image	Item number	Description 1	Description 2	HZD-AR	HZD-AS	SAR-O	SAR-GDA
	19 000 330	ÖLSYS-SR-PNP 3:1-SAR-O	SRL 860/1600-WM-HZD-AR-10 m-FS	×		×	
	19 000 955	ÖLSYS-SR-PNP 3:1-SAR-O	SRL 860/1600-WM-HZD-AS-10 m-FS		×	×	
	19 000 332	ÖLSYS-SR-PNP 3:1-SAR-GDA	SRL 860/1600-WM-HZD-AR-10 m-FS	×			×
	19 000 957	ÖLSYS-SR-PNP 3:1-SAR-GDA	SRL 860/1600-WM-HZD-AS-10 m-FS		×		×

ACCESSORIES

Image	Item number	Description 1	Description 2	HZD-AR	HZD-AS	SAR-O	SAR-GDA
	19 698	Hose end meter 0-30 l/min	discharge 90°-with swivel joint		×		
	19 698 950	Hose end meter 0-30 l/min	angled discharge spout	×			
	29 142	Hose reel for oil	O-WB-120 bar-DN 12-10 m			×	
	29 172	Hose reel for oil	GDA-WB-120 bar-DN 12-10 m				×

Abbreviations

AR	Discharge tube	**AS**	Discharge hose	**DN**	Inner diameter, in mm
FS	Delivery hose	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside
HZD	Flow meter, digital	**O**	open	**ÖLSYS**	Oil system
PNP	Pneumatic pump	**SAR**	Hose reel	**SR**	stationary
SRL	Suction pipe length, in mm	**WB**	Wall and floor mounting	**WM**	Wall-mounting

Electric Oil Pumps

23 321

TECHNICAL DATA

- Connection cable, length (m): 1,8
- Connection suction side: G 3/4"
- Connection discharge side: G 1/2" male

Hydraulic data

- Pump design: gearwheel pump, selfpriming
- Delivery rate under free discharge (l/min): 10
- Suction height (m): 3,5
- Flow media: oils up to SAE 90

Motor data

- Frequency (Hz): 50
- Power (kW): 0,5
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Rotation speed (rpm): 1450
- Type of construction: IMB 3
- Safety class: IP 54

SPECIAL NOTES

- Internal gear pump with corrugated filling part. This construction effects:
  Marginal inhomogeneous grade of volume flow rate
  Low noise level
- Compact construction
- The longer tooth engagement provides an improved seal effect and a better suction and discharge angle
- Pump for tank and wall mounting
- Pump is designed for use in conjunction with pipelines up to 70 meters, depending on cross section of the pipeline

SPECIFICATION

- On-off switch
- Adjustable by-pass (pre-set at 7 bar)
- With venting valve
- Acc. to TRBF
- Electric oil pump

PRODUCTS

Image	Item number	Description 1	Description 2	230 V	400 V	Diaphragm switch
	23 337	Oil pump 10 l/min	230 V-1~AC-50 Hz-EUS	×		
	23 321	Oil pump 10 l/min-set	230 V-1~AC-50 Hz-EUS	×		×
	23 322	Oil pump 10 l/min-set	400 V-3~AC-50 Hz-CCE-plug		×	×

ACCESSORIES

	19 512	Hose assembly for oil	2 m-G 3/4" female-G 3/4" male
	19 522	Suction tube-G 3/4" female G 2" male	SRL 860-200/220-I-BE
	19 523	Suction tube-G 3/4" female G 2" male	SRL 860-200/220-I-BE-FUV
	19 523 001	Suction tube-G 3/4" female G 2" male	SRL 1600-mounting on tanks-FUV

Abbreviations

EUS	Euro two-pin plug	**FUV**	Foot valve
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**IP**	Safety class
SAE	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers	**SRL**	Suction pipe length, in mm
		TRBF	Technical guideline for inflammable fluids

Oil Systems, Stationary, Electrically Operated Pump

23 312 551

TECHNICAL DATA

- Connection: G 2" male, drum adapter
- Oil delivery: electrical oil pump
- Delivery rate under free discharge (l/min): 10
- Max. delivery pressure (bar): 10
- Voltage (V): 230
- Connection power (kW): 0,5
- Power connection: Euro two-pin plug, 1,8 m cable

SPECIFICATION

- Stationary oil system
- Electrical oil pump (23 337)
- Suction tube
- Suction hose
- Discharge hose

PRODUCTS

Image	Item number	Description 1	Description 2	SRL	HZD-AS	FV-AR	Discharge hose
	23 312 551	ÖLSYS-SR-EZP 4-m-FS	SRL 670-60-l-BE-HZD-AS-4 m-FS	670	×		4 m
	23 337 390	ÖLSYS-SR-EZP 2-m-FS	SRL 860/1600-BE-TA-FV-AR-2 m-FS	860/1600		×	2 m
	23 342 551	ÖLSYS-SR-EZP 4-m-FS	SRL 860/1600-BE-TA-HZD-AS-4 m-FS	860/1600	×		4 m

Abbreviations

AR	Discharge tube	**AS**	Discharge hose
BE	Container	**DN**	Inner diameter, in mm
EZP	Electric gear pump	**FS**	Delivery hose
FV	Filling valve	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
GDA	Encased, swivel joint, outside	**HZD**	Flow meter, digital
O	open	**ÖLSYS**	Oil system
PNP	Pneumatic pump	**SAR**	Hose reel
SR	stationary	**SRL**	Suction pipe length, in mm
SW	Width across flats	**TA**	Tanks
WB	Wall and floor mounting	**WM**	Wall-mounting

Oil Systems for Wall-Mounting, Electrically Operated Pump

TECHNICAL DATA

- Length of suction tube (mm): 860/1600
- Connection: G 2" male, drum adapter
- Pump design: gearwheel pump, selfpriming
- Delivery rate under free discharge (l/min): 10
- Max. delivery pressure (bar): 16
- Voltage (V): 400
- Connection power (kW): 0,5
- Power connection: Cekon plug with phase inverter

SPECIFICATION

- Stationary oil system
- For wall-mounting
- Electric oil pump (23 322)
- Suction tube, for 200 / 220 l containers and tanks
- Hose reel, open, WB, 10 m (29 142)
- Connecting hose, 2 m, pump/suction tube
- Connecting hose, 1 m, pump/hose reel
- On-off switch, diaphragm switch, 1,8 m cable
- With hose end meter, digital (19 698 950), swivel joint, anti-drip nozzle

PRODUCTS

Item number	Description 1	Description 2
23 322 950	ÖLSYS-SR-EZP-SAR-O	SRL 860/1600-WM-HZD-AR-10 m-FS

Abbreviations

AR	Discharge tube	**AS**	Discharge hose
BE	Container	**DN**	Inner diameter, in mm
EZP	Electric gear pump	**FB**	mobile
FS	Delivery hose	**FV**	Filling valve
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside
HZD	Flow meter, digital	**O**	open
ÖLSYS	Oil system	**PNP**	Pneumatic pump
SAR	Hose reel	**SR**	stationary
SRL	Suction pipe length, in mm	**SW**	Width across flats
TA	Tanks	**WB**	Wall and floor mounting
WM	Wall-mounting		

Oil Systems, Mobile, Electrically Operated Pump

23 001 970

TECHNICAL DATA

- Connection: G 2" male, drum adapter
- Oil delivery: electrical oil pump
- Delivery rate under free discharge (l/min): 10
- Max. delivery pressure (bar): 10
- Voltage (V): 230
- Connection power (kW): 0,5
- Power connection: Euro two-pin plug, 1,8 m cable

SPECIFICATION

- Oil system, mobile
- Electrical oil pump (23 337)
- Suction tube
- Suction hose
- Delivery hose

ACCESSORIES

Image	Item number	Description 1	Description 2	SRL	HZD-AR	HZD-AS	FV-AS	Trolley
	23 314 551	ÖLSYS-FB-EZP-4 m-FS	SRL 670-60-l-BE-HZD-AS	670		×		17 008 950
	23 344 551	ÖLSYS-FB-EZP-4 m-FS	SRL 860/1600-BE-TA-HZD-AS	860/1600		×		17 009
	23 001 960	ÖLSYS-FB-EZP-5 m-FS	SRL 860-200/220-l-BE-HZD-AR	860	×			17 009
	23 001 970	ÖLSYS-FB-(17 075)-EZP-5 m-FS	SRL 860-200/220-l-BE-HZD-AS	860		×		17 075
	23 001 971	ÖLSYS-FB-(17 075)-EZP-5 m-FS	SRL 860-200/220-l-BE-FV-AS	860			×	17 075

Abbreviations

AR	Discharge tube	**AS**	Discharge hose
BE	Container	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
HZD	Flow meter, digital	**ÖLSYS**	Oil system
SRL	Suction pipe length, in mm	**FB**	mobile
FV	Filling valve		

Trolleys for Oil Containers and Accessories

17 009

PRODUCTS

Image	Item number	Description	Specification
	17 004	Trolley with star-shaped grip for 5-15 kg containers	Two wheels, robust anti-slip handle for better handling Fixation ring for drum container Wheels with solid tires
	17 008 950	Trolley for 5-60 kg containers	Two wheels with adjustable foot, handle Base for 2" drum adapter Drip tray + dust protection cap
	17 008	Trolley for containers up to 60 kg	Two wheels Rubber retaining strap (17 000) Hose storage rack
	17 075	Trolley for 200 kg containers can be disassembled	Two fixed wheels (85 462) Castor wheel with brake Control nozzle storage bracket
	17 077	Trolley for 200 kg containers can be disassembled solid-rubber tires	Two fixed wheels with rubber tires (81 077) Castor wheel with brake (87 548) Control nozzle storage bracket +hose storage rack integrated on the handle
	17 080	Trolley for 200 kg containers can be disassembled containers pneumatic tires	Two fixed wheels with containers-pneumatic-tires + castor wheel with brake Control nozzle storage bracket Hose storage rack integrated on the handle
	17 009	Trolley for 200 kg containers	Two wheels + lockable steering wheel Drip-tray integrated on the handle, with a drain screw and removable strainer
	17 009 100	Trolley for 200 kg containers pneumatic tires	Two wheels + lockable steering wheel Drip-tray integrated on the handle, with a drain screw and removable strainer
	17 009 390	Trolley for 200 kg containers ECO-Version	Three wheels

ACCESSORIES

	17 000	Rubber retaining strap for trolley (17 008)
	87 547	Solid rubber wheel for trolley (17 009)
	85 462	Solid rubber wheel for trolley (17 009 390)
	87 651	Pneumatic wheel for trolley (17 009 100)
	81 280	Spare parts kit for steering wheel for trolleys (17 077) and (25 352)
	81 281	Spare parts set for solid rubber wheel for trolley (17 077)

Oil Dispensing and Spray Systems

TECHNICAL DATA

- Total volume (l): 75
- Oil delivery: manually operated pump
- Connection: G 2" male, drum adapter
- Dispensing: manual valve
- Media: engine oils and lubricants, gear oils
- Lacquering of container: window grey, satin, RAL 7040

SPECIFICATION

- Manually operated oil pump
- Discharge hose: 1,5 m
- Metal discharge spout, with lever ball valve
- Bracket, oil drip-tray
- Level indicator
- 2 fixed and 2 movable wheels
- Lacquering with water based paint, oil-resistant
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- With robust handle

PRODUCTS

Item number	Description 1	Description 2
27 832	Oil dispensing unit-mobile	75 l-manually operated

TECHNICAL DATA

- Total volume (l): 75
- Oil delivery: pneumatic pump
- Compressed air connection: G 1/4" female
- Dispensing: digital hose end meter
- Media: engine oils and lubricants, gear oils
- Lacquering of container: window grey, satin, RAL 7040

SPECIFICATION

- Pneumatic oil pump 3:1 (19 235)
- Discharge hose, 2 m, G 1/2" male/female (19 562)
- Storage bracket for hose end meter, integral drip tray
- Level indicator
- 2 fixed and 2 movable wheels
- Lacquering with water based paint, oil-resistant
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- With robust handle
- With digital hose end meter (19 698 950), swivel joint, anti-drip nozzle

PRODUCTS

Item number	Description	Description 2
27 859	Oil dispensing unit-mobile	75 l-pneumatically operated

Oil Dispensing and Spray Systems

TECHNICAL DATA

- Total volume (l): 24
- Compressed air connection: to suit male Rectus quick release airline connector, type 26
- Nominal width (mm): 7,2
- Connection filling side: G 1" female, with funnel attachment
- Discharge: by compressed air buffer, max. 7 bar
- Discharge: manual valve
- Lacquering: window grey, satin, RAL 7040
- Media: liquid cleaning agents

SPECIFICATION

- Pressure gauge
- Coiled air hose
- Spray lance with microfine spray head
- Drip tray
- 2 fixed rear wheels
- Lacquering is oil-resistant

PRODUCTS

Item number	Description 1	Description 2
19 768	Spray unit-mobile	24 l-pneumatic delivery

ACCESSORIES

Item number	Description 1	Description 2
19 789	Filling funnel	for spraying instrument

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**HDPE**	High density polyethylene
O	open	**PNP**	Pneumatic pump
SAR	Hose reel	**TRBF**	Technical guideline for inflammable fluids
WB	Wall and floor mounting		

Tanks

45 100

TECHNICAL DATA

- Material outer container: steel, hot-dip galvanized
- Material of interior container: HDPE (high density polyethylene)
- Connections: 4 x G 2" female, drum adapter

SPECIFICATION

- Mechanical float level indicator
- Optical leakage indicator
- Integral handles
- Steel pallet foot, fully detachable

SPECIAL NOTES

- Completely mounted on a solid mounting plate
- Stationary: with German government approval-no. Z-40.21-29 of DIBt, Berlin
- Mobile: with UN-approval D/BAM/6403/31HA1

Suitable for:

- Fuel oil and diesel
- Used engine- and gearbox oil (used oil) of known origin according to company safety standards
- Lubricating oil L-AN, acc. to DIN 51501 (the lubricating oils AN 5 and AN 7 are not easily inflammable liquids, hazard class A III, acc. to VbF)
- Engine- and lubricating oils acc. to DIN 51 511
- Gear oils for motor vehicles, acc. to DIN 51512
- Hydraulic oils H, HL and HL-P, acc. to DIN 51524 / 51525
- Heat transfer oil Q, acc. to DIN 51 522
- Synthetic oils
- Rapeseed oil-methyl-ester (RME)

PRODUCTS

Item number	Description 1	Description 2	SR	MO	400 l	750 l	1000 l	1500 l	Tank ventilation cap and suction tube
45 400	Tank-400 l-double walled-SR	Steel-HDPE	×		×				
45 101	Tank-750 l-double walled-SR	Steel-HDPE	×			×			
45 101 138	Tank-750 l-double walled-SR-CH	Steel-HDPE	×			×			
45 100	Tank-1000 l-double walled-SR	Steel-HDPE	×				×		
45 100 138	Tank-1000 l-double walled-SR-CH	Steel-HDPE	×				×		
45 105	Tank-1500 l-double walled-SR	Steel-HDPE	×					×	
45 108	Tank-1500 l-double walled-SR	Steel-HDPE-waste oils	×					×	×
45 090	Tank-400 l-double walled-SR-MO	Steel-HDPE	×	×	×				
45 091	Tank-750 l-double walled-SR-MO	Steel-HDPE	×	×		×			
45 093	Tank-1000 l-double walled-SR-MO	Steel-HDPE	×	×			×		
45 095	Tank-1500 l-double walled-SR-MO	Steel-HDPE	×	×				×	

Abbreviations

CH	Switzerland (approval)
O	open
SAR	Hose reel
WB	Wall and floor mounting
MO	mobile
PNP	Pneumatic pump
SR	stationary

Compact Systems

19 000 350

TECHNICAL DATA

- Material outer container: steel, hot-dip galvanized
- Material of interior container: HDPE (High density polyethylene)
- Connections: 4 x G 2" female, drum adapter
- Filling: 2" filler neck
- Application: for above ground storage of fresh oils and not easily inflammable oils, hazard class A III, overground
- Dispensing: digital hose end meter

SPECIFICATION

- Hose holder (19 669)
- Suction tube set
- Air maintenance unit (20 218 950)
- Mounting plate
- Tank with level indicator and optical leakage indicator
- With digital hose end meter (19 698 950), swivel joint, anti-drip nozzle
- Storage bracket for hose end meter, drip tray (29 980)

SPECIAL NOTES

- Completely assembled on a mounting plate
- Bunded tank
- With general construction authorities approval no. Z-40.21-288 of German DIBt-Berlin
- For above ground storage in closed rooms
- Integral handles
- Steel pallet foot, fully detachable

PRODUCTS

Image	Item number	Description 1	Description 2	Hose holder	SAR
COMPACT SYSTEM 750 l					
	19 000 250	Compact system-750 l	PNP 3:1-hose-8 m	×	
	19 000 251	Compact system-750 l	PNP 3:1-SAR-10 m-O-WB		×
COMPACT SYSTEM 1000 l					
	19 000 350	Compact system-1000 l	PNP 3:1-hose-8 m	×	
	19 000 351	Compact system-1000 l	PNP 3:1-SAR-10 m-O-WB		×
COMPACT SYSTEM 1500 l					
	19 004 350	Compact system-1500 l	PNP 3:1-hose-8 m	×	
	19 004 351	Compact system-1500 l	PNP 3:1-SAR-10 m-O-WB		×
ACCESSORIES FOR COMPACT SYSTEM					
	19 413 472	Operating time limiter	for pneumatic fresh oil systems		
	19 413	Limit sensor acc. to TRBF 511 (German regulation)	for indoor battery tanks		

Abbreviations

O	open	**PNP**	Pneumatic pump
SAR	Hose reel	**TRBF**	Technical guideline for inflammable fluids
WB	Wall and floor mounting		

Compact Systems

23 005 350

TECHNICAL DATA

- Material outer container: steel, hot-dip galvanized
- Material of interior container: HDPE (High density polyethylene)
- Connections: 4 x G 2" female, drum adapter
- Filling: G 2" tank filling coupler
- Application: for above ground storage of fresh oils and not easily inflammable oils, hazard class A III, overground
- Oil discharge: electrical oil pump

SPECIFICATION

- Hose holder (19 669)
- Suction tube set
- Air maintenance unit (20 218 950)
- Mounting plate
- Tank with level indicator and optical leakage indicator
- With digital hose end meter (19 698 950), swivel joint, anti-drip nozzle
- Storage bracket for hose end meter, drip tray (29 980)

SPECIAL NOTES

- Completely assembled on a mounting plate
- Bunded tank
- With general construction authorities approval no. Z-40.21-288 of German DIBt-Berlin
- For above ground storage in closed rooms
- Integral handles
- Steel pallet foot, fully detachable

PRODUCTS

Image	Item number	Description 1	Description 2	Hose holder	SAR
COMPACT SYSTEM 750 l					
	23 005 250	Compact system-750 l	oil pump-230 V-hose-8 m	×	
	23 005 251	Compact system-750 l	oil pump-230 V-SAR-10 m-O-WB		×
COMPACT SYSTEM 1000 l					
	23 005 350	Compact system-1000 l	oil pump-230 V-hose-8 m	×	
	23 005 351	Compact system-1000 l	oil pump-230 V-SAR-10 m-O-WB		×
COMPACT SYSTEM 1500 l					
	23 004 350	Compact system-1500 l	oil pump-230 V-hose-8 m	×	
	23 004 351	Compact system-1500 l	oil pump-230 V-SAR-15 m-O-WB		×
ACCESSORIES FOR COMPACT SYSTEM					
	19 413 473	Operating time limiter	for pneumatic fresh oil systems		
	19 413	Limit sensor acc. to TRBF 511 (German regulation)	for indoor battery tanks		

Abbreviations

HDPE	High density polyethylene	**O**	open
PNP	Pneumatic pump	**SAR**	Hose reel
WB	Wall and floor mounting		

Accessories for Tank Installations

19 669

PRODUCTS

Image	Item number	Description 1	Description 2
	19 402	Nozzle valve holder	With drip tray
	19 403	Fixing bracket	For hose suspension bracket
	19 406	Optical and acoustic	Oil/water-leakage ind. system
	19 412	Overfill prevention system acc. to German WHG	L 500 mm-3/4" -230 V 50 Hz
	19 407	Continuous tone-signal horn	For dry rooms
	19 408	Warning light and buzzer	Individ. control of each unit
	19 418	Retention adapter	G 3/4'' female-G 2'' male
	19 897	Solenoid valve-2/2-way	G 1/2" female-G 1/2" female
	19 669	Hose holder	Large size

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
HDPE	High density polyethylene	**MO**	mobile
PNP	Pneumatic pump	**R**	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection
SAR	Hose reel		
TW	Tank truck	**WHG**	Water Resources Act (Germany)

PRODUCTS

Image	Item number	Description 1	Description 2
	19 410	Venting cap-G 2" female	Polyamid With filter
	19 411	Venting cap-G 2" female	Brass Without filter
	87 638	Filling spout angled-90°	G 2" male-G 2" male
	19 414 950	Fill fitting-G 2" male-45°	Tank truck Connectors
	19 416	Tank truck coupler-TW 1501	R 2" female
	19 417	Cap for tank truck coupler	TW 1506
	19 424	Set filling- and venting fittings	G 2" male
	87 563	Venting pipe	G 2" male-500 mm
	19 426	Pipe installation set	Tank attachment
	88 079	Mounting bracket	For electric oil pumps
	88 130	Mounting plate for 750 l tank	PNP and electric oil pumps
	88 129	Mounting plate for 1000 l tank	PNP and electric oil pumps
	88 118	Mounting plate for 1500 l tank	PNP and electric oil pumps

Drainage Trays

19 802

TECHNICAL DATA
- Material: 3,5 mm, steel sheet
- Lacquering: blue, RAL 5010

SPECIFICATION
- Galvanized platform grid
- Stable
- Accessible from four sides (ground clearance: 100 mm)

SPECIAL NOTES
- For storage in ground water preservation areas, please ask your local authorities
- For above ground storage of diesel, fresh and waste oils

PRODUCTS

Image	Item number	Description 1	Description 2	for 200-/220 l BE	for 1000 l tank	German design approval acc. to § 19 WHG
	19 802	Container platform 1200x800x385 mm	for two 200-/220 l BE	×		×
	19 804	Container platform 2680x850x236 mm	for four 200-/220 l BE	×		×
	19 808	Container platform 1200x1200x340 mm	for four 200-/220 l BE	×		×
	19 805	Container platform 1340x1260x900 mm	for 1000 l tank		×	
ACCESSORIES						
	19 815	Barrel storage rack-2 containers for more details see P. 81	1370x650x850-64 kg	×		
	19 816	Barrel lift for more details see P. 80		×		

Abbreviations

AR	Discharge tube	**AS**	Discharge hose
BE	Container	**WHG**	Water Resources Act (Germany)

Filling Valve

19 718

SPECIFICATION

- Non-drip nozzle
- Swivel joint

B

PRODUCTS

Image	Item number	Description 1	Description 2	AR	AS	l/min (max.)
	19 701	Filling valve for diesel and oil	G 1" female Only for pneumatic pump 1:1	×		60
	19 718	Filling valve with swivel joint	Discharge spout 30° G 1/2" female	×		30
	19 718 954	Filling valve with swivel joint	Discharge hose G 1/2" female		×	30
	19 718 950	Filling valve with swivel joint	Discharge spout 90° G 1/2" female	×		30

Digital Handheld Meters

19 698

SPECIFICATION

- Non-drip nozzle
- Swivel joint

PRODUCTS

Image	Item number	Description 1	Description 2	AR	AS	Oil	Anti-freeze	Cooling liquid
	19 698	Hose end meter 0-30 l/min	Discharge 90° with swivel joint		×	×		
	19 698 950	Hose end meter 0-30 l/min	Angled discharge spout	×		×		
	19 698 951	Hose end meter 0-30 l/min	Discharge hose		×	×		
	19 706	Hose end meter 0-30 l/min	Oval gears Presettable	×		×		
	19 709	Hose end meter 1-10 l/min acc. measurement range of MID approval	Oval gears	×		×		
	19 730	Hose end meter 0-30 l/min	Oval gears Presettable	×			×	
	19 700	Hose end meter 0-35 l/min	Oval gears For water-based solutions		×		×	×

Abbreviations

AR	Discharge tube	**AS**	Discharge hose
MID	Measuring Instruments Directive (2004/22/EG)		

Mechanical Handheld Meters

19 714

TECHNICAL DATA

- Connection: G 1/2" female
- Media: high viscosity mineral oils and liquid greases, motor oil SAE 5 - 50, gear oil SAE 80 - 240
- Viscosity (mPa s): 50 - 50000
- Flow capacity (l/min): 1,5 - 15
- Pressure loss at max. flow capacity (bar): 2
- Max. operating temperature (°C): 70
- Max. pressure (bar): 70
- Housing material: aluminium die casting
- Tolerance (%): ± 0,65 % effective for the complete measuring range, depending on viscosity
- Display 1: 1/10 l, can be reset to zero
- Display 2: 1 l, can be reset to zero
- Total summation: is counted in litres and at 9 999 l starts at zero

SPECIFICATION

- Mechanical flow-meter
- Anti-drip nozzle
- Swivel joint

PRODUCTS

Image	Item number	Description 1	Description 2	AR	AS
	19 714	Hose end meter-mechanical	AS-AMS-annular piston		×
	19 723	Hose end meter-mechanical	AR-AAS-annular piston	×	
	19 724	Hose end meter-mechanical	AR-AAS-annular piston	×	

Abbreviations

AAS	Anti-drip coupler, automatic shut-off	**AMS**	Anti-drop coupler, manual shut-off
AR	Discharge tube	**AS**	Discharge hose
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**SAE**	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers

Digital In-line Meter

19 692

SPECIAL NOTES

- Housing including the chamber for electronics are made of aluminium, cast-rinde will not be finished
- Impact-resistant electronics
- Easy to read 5-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts
- Displays: Indication of partial quantity equals current filling level (resettable to zero) + total quantity (resettable to zero) + total quantity (not resettable to zero)

TECHNICAL DATA

- Metering principle: oval gears
- Typical media: engine oils, diesel, cooling agents
- Viscosity (mPa s): 2 - 2000
- Measuring tolerance (%): ± 0,5
- Repetition tolerance (%): ± 0,3
- Operating pressure min. (bar): 0,30
- Store house temperature (°C): -20 / +70
- Store house humidity (%): 95
- Operating temperature (°C): -10 / +50
- Display: digital, three digits and two decimal digits
- Height of the digits (mm): 13
- Battery type: 2 x 1,5 V
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C)
- Housing material: aluminium

SPECIFICATION

- Totalisator for daily operation 5-digits with floating decimal, resettable to zero, partition 0,000 up to 99999
- Totalisator 6 digits with floating decimal, partition 0,0 up to 999999

PRODUCTS

Image	Item number	Description 1	Description 2	G 1" female	G 1 1/2" female	With remote display	Without display
	19 692	In-line meter 5-60 l/min	with display	×			
	19 692 691	In-line meter 5-60 l/min	with remote display	×		×	
	19 693	In-line meter 10-100 l/min	with display	×			
	19 693 691	In-line meter 10-100 l/min	with remote display	×		×	
	19 694	In-line meter 15-150 l/min	with display		×		
	19 694 691	In-line meter 15-150 l/min	with remote display		×	×	
	19 694 690	In-line meter 15-150 l/min	without display		×		×

ACCESSORIES

	19 690	Remote display for pulse meter	In-line meter

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

SAE Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers

TECHNICAL DATA

- Connection 1: G 1/2" female
- Connection 2: G 1/2" female
- Nominal width: DN 12
- Metering principle: oval gears
- Typical media: Engine oils SAE 5 - 50, gear oils SAE 80 - 240
- Flow capacity (l/min): 0 - 30
- Viscosity (mPa s): 8 - 5000
- Nominal pressure (bar): 70
- Operating pressure (bar): min. 0,30
- Temperature range (°C): -10 / +50
- Measuring tolerance (%): ± 0,5
- Repetition tolerance (%): ± 0,3
- Solution (l): 0,002
- Pulses (pulses/l): 216
- Housing material: aluminium die casting
- Display: digital, three digits and two decimal digits
- Height of the digits (mm): 8
- Battery type: LR1 1,5 V
- Battery lifetime: 2200 hours, equivalent to a counted quantity of approximately 3.960.000 litres of oil

SPECIFICATION

- The meter can optionally be operated with an external power supply 6 - 24 V DC.
- The pulse transmitter provides pulses utilizing a potential-free Reed-switch with 5x10 high 8 operating cycles, depending on load. Switch load 10 W, 120 V AC

SPECIAL NOTES

- Housing including the chamber for electronics is made of aluminium, cast-rinde will not be finished
- Impact-resistant electronics
- Easy to read 5-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust the following indicating units: Litres, gallons, pints, quarts

PRODUCTS

Item number	Description 1	Description 2
19 698 956	In-line meter 0-30 l/min	With display

Digital In-line Meter

TECHNICAL DATA

- Connection: G 1/2" female
- Media: lubricating oils
- Flow capacity (l/min): 0 - 35
- Viscosity (mPa s): 8 - 2000
- Nominal pressure (bar): 70
- Temperature range (°C): -10 / +50
- Housing material: aluminium die casting
- Tolerance (%): ± 0,5
- Repetition tolerance (%): ± 0,3
- Display: digital, with three digits and two decimal digits
- Battery type: Lithium 3V 1/2 AA

SPECIFICATION

- Other liquids, i.e. anti-freeze and windscreen cleaning liquid, on request

PRODUCTS

Item number	Description 1	Description 2
19 702	In-line meter-digital	Oval gears

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**SAE**	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers

Mechanical In-line Meters

TECHNICAL DATA

- Connection 1: G 3/4" female
- Connection 2: G 3/4" female
- Flow capacity (l/min): 1 - 50
- Permitted liquid temperature max. (°C): 40
- Permitted ambient temperature (°C): +10 / +50
- Nominal pressure (bar): 10
- Housing material: zinc die casting
- Display 1: 1 to 100, can be reset to zero
- Total summation: is counted in litres and at 9 999 l starts at zero
- Tolerance (%): +/- 2
- Installation position: any

SPECIFICATION

- For lubricating oils and other liquids, viscosity range 8 to 2000 mPa s

PRODUCTS

Item number	Description 1	Description 2
19 728	Annular piston meter	As built in meter

TECHNICAL DATA

- Connection: G 1/2" female
- Media: high viscosity mineral oils and liquid greases, motor oil SAE 5 - 50, gear oil SAE 80 - 240
- Viscosity (mPa s): 50 - 50000
- Flow capacity (l/min): 0 - 15
- Pressure loss at max. flow capacity (bar): 2
- Max. pressure (bar): 70
- Temperature range (°C): -10 / +70
- Housing material: aluminium die casting
- Tolerance (%): ± 0,8 % effective for the complete measuring range, depending on viscosity
- Display 1: 1/10 l, can be reset to zero
- Display 2: 1 l, can be reset to zero
- Total summation: is counted in litres and at 9 999 l starts at zero

PRODUCTS

Item number	Description 1	Description 2
19 729	Built in meter-mechanical	Annular piston

Accessories for Filling Valves and Handheld Meters

PRODUCTS

Image	Item number	Description 1	Description 2
	19 616	Swivel joint	G 1/2" female-G 1/2" male
	19 715	Filling valve wall mounting	Steel sheet
	19 721	Rubber protection ring	
	19 740	Discharge pipe straight	G 1/2" male-M 16 x 1 female
	19 741	Discharge tube 30° angled	G 1/2" male-M 16 x 1 female
	19 742	Discharge tube 90° angled	G 1/2" male-M 16 x 1 female
	19 743	Discharge tube 105° angled	G 1/2" male Anti-drip nozzle
	19 743 950	Discharge tube 105° angled	G 1/2" male Swivel joint
	19 745	Discharge hose straight	G 1/2" male With anti-drip nozzle
	19 746	Discharge hose-G 1/2" male-pipe	90° angled With anti-drip nozzle
	19 747	Anti-drip coupler	M 16 x 1 male-Ø 20 mm
	19 748	Anti-drip coupler	G 1/4" female
	19 711	Inspection glass	G 1/2" female
	19 709 954	Visual inspection segment	G 1/2" female-G 1/2" male

Hose Assembly for Oil

19 564

PRODUCTS

Item number	Description 1	Description 2	0,5 m	1 m	1,5 m	2 m	3 m	4 m	5 m	8 m	10 m	15 m	G 3/4"	G 1/2"
19 530	Hose assembly for oil	0,5 m-G 3/4" female-G 3/4" female	×										×	
19 512	Hose assembly for oil	2 m-G 3/4" female-G 3/4" male				×							×	
19 531	Hose assembly for oil	1 m-G 3/4" female-G 3/4" male		×									×	
19 533	Hose assembly for oil	3 m-G 3/4" female-G 3/4" male					×						×	
19 534	Hose assembly for oil	4 m-G 3/4" female-G 3/4" male						×					×	
19 535	Hose assembly for oil	5 m-G 3/4" female-G 3/4" male							×				×	
19 538	Hose assembly for oil	8 m-G 3/4" female-G 3/4" male								×			×	
19 550	Hose assembly for oil	1,5 m-G 3/4" female-G 3/4" female			×								×	
19 561	Hose assembly for oil	1 m-G 1/2" female-G 1/2" male		×										×
19 562	Hose assembly for oil	2 m-G 1/2" female-G 1/2" male				×								×
19 563	Hose assembly for oil	3 m-G 1/2" female-G 1/2" male					×							×
19 564	Hose assembly for oil	4 m-G 1/2" female-G 1/2" male						×						×
19 565	Hose assembly for oil	5 m-G 1/2" female-G 1/2" male							×					×
19 568	Hose assembly for oil	8 m-G 1/2" female-G 1/2" male								×				×
19 570	Hose assembly for oil	10 m-G 1/2" female-G 1/2" male									×			×
19 575	Hose assembly for oil	15 m-G 1/2" female-G 1/2" male										×		×
19 580 001	Hose assembly for oil	0,5 m-G 1/2" female-G 1/2" female	×											×
19 580	Hose assembly for oil	1,5 m-G 1/2" female-G 1/2" female			×									×
ACCESSORIES														
19 666	Flexible connecting pipe	0,5 m-G 3/4" female-G 3/4" female	×										×	
19 669	Hose holder	large size												

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

M Metric thread, cylindrical, DIN 13

Hose Reels for Oil

29 142

TECHNICAL DATA

- Connection discharge hose: G 1/2" female/male
- Length of connecting hose (m): 1
- Connection to connecting hose: G 1/2" female/female
- Inner diameter of hose (DN): 12
- Max. operating pressure (bar): 120

SPECIFICATION

- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	10 m	15 m	Open	GDI	GDA	WB	DM
	29 142	Hose reel for oil	O-WB-120 bar-DN 12-10 m	×		×			×	
	29 143	Hose reel for oil	O-WB-120 bar-DN 12-15 m		×	×			×	
	29 152	Hose reel for oil	O-DM-120 bar-DN 12-10 m	×		×				×
	29 153	Hose reel for oil	O-DM-120 bar-DN 12-15 m		×	×				×
	29 172	Hose reel for oil	GDA-WB-120 bar-DN 12-10 m	×				×	×	
	29 173	Hose reel for oil	GDA-WB-120 bar-DN 12-15 m		×			×	×	
	29 162	Hose reel for oil	GDI-WB-120 bar-DN 12-10 m	×			×		×	
	29 163	Hose reel for oil	GDI-WB-120 bar-DN 12-15 m		×		×		×	
	29 192	Hose reel for oil	GDA-DM-120 bar-DN 12-10 m	×				×		×
	29 193	Hose reel for oil	GDA-DM-120 bar-DN 12-15 m		×			×		×
	29 182	Hose reel for oil	GDI-DM-120 bar-DN 12-10 m	×			×			×
	29 183	Hose reel for oil	GDI-DM-120 bar-DN 12-15 m		×		×			×

Abbreviations

AR	Discharge tube	**DM**	Ceiling mounting
DN	Inner diameter, in mm	**FV**	Filling valve
GDA	Encased, swivel joint, outside	**GDI**	Encased, swivel joint, inside
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**HZD**	Flow meter, digital
O	open	**WB**	Wall and floor mounting

Hose Reel-Sets

29 142 601

TECHNICAL DATA

- Length of discharge hose (m): 10
- Connection discharge hose: G 1/2" male/female
- Length of connecting hose (m): 1
- Connection to connecting hose: G 1/2" female/female
- Inside diameter of hose (mm): 12
- Operating pressure max. (bar): 120

SPECIFICATION

- Open, for wall/floor mounting
- Hose reel (29 142)
- For direct connection to a fixed fresh oil delivery pipe (connection threads, reduced to G 1/2" male)
- Hose stop
- Inline filter, G 1/2" female
- Lever ball valve, G 1/2" female
- All adapters for assembly are included in the scope of delivery

PRODUCTS

Item number	Description 1	Description 2	FV-AR	HZD-AR
29 142 600	Hose reel for oil-set	O-WB-10 m-FV-AR	×	
29 142 601	Hose reel for oil-set	O-WB-10 m-HZD-AR		×

Accessories for Hose Reel

PRODUCTS

Image	Item number	Description 1	Description 2
	29 930	Wall bracket	Swivable-90°
	29 932	System brackets for mounting	For max. 6 hose reels for more details see P. 34
	29 978	Hose stop-1/2"	
	29 980	Nozzle valve holder	For one nozzle valve
	29 981	Nozzle valve holder	For two nozzle valves
	29 940	Mounting bracket	

Abbreviations

FV	Filling valve	**HZD**	Flow meter, digital	**AR**	Discharge tube

Accessories for Pipe-Work Installations

PRODUCTS

Image	Item number	Description 1	Description 2
CONNECTING PIPE			
	19 666	Flexible connecting pipe	0,5 m-G 3/4" female-G 3/4" female
	19 580 001	Hose assembly for oil	0,5 m-G 1/2" female-G 1/2" female
	19 580	Hose assembly for oil	1,5 m-G 1/2" female-G 1/2" female
	19 550	Hose assembly for oil	1,5 m-G 3/4" female-G 3/4" female
BALL VALVES			
	19 762	Lever ball valve	G 1/2" female-G 1/2" female
	19 763	Lever ball valve	G 3/4" female-G 3/4" female
REDUCING SOCKETS/ADAPTERS			
	19 619	Double threaded nipple	G 1/2" male-DK 60°-R 1/2" male
	19 636	Double threaded nipple	G 1/2" male-G 3/4'' male-DK 60° both-sided
	19 637	Double threaded nipple	G 3/4" male-DK 60°-R 3/4" male
INLINE FILTER			
	19 760	Dirt trap-strainer	G 1/2" female-G 1/2" female
	19 761	Dirt trap-strainer	G 3/4" female-G 3/4" female

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259) **DK** Sealing cone

Suction Tubes and Accessories

PRODUCTS

Image	Item number	Description 1	Description 2
	19 512	Hose assembly for oil	2 m-G 3/4" female-G 3/4" male
	19 521	Wall mounting bracket	For pneumatic pumps
	19 522	Suction tube-G 3/4" female-G 2" male	SRL 860-200/220-l-BE
	19 523	Suction tube-G 3/4" female-G 2" male	SRL 860-200/220-l-BE-FUV
	19 523 952	Suction tube-G 3/4" female-G 2" male	SRL 1100-200/220-l-BE-FUV
	19 523 001	Suction tube-G 3/4" female-G 2" male	SRL 1600-mounting on tanks-FUV
	19 523 954	Suction tube-G 3/4" female-G 2" male	SRL 2100-mounting on tanks-FUV
	19 523 002	Suction set-G 3/4" female-G 2" male	SRL 1600-mounting on tanks

Abbreviations

BE	Container	**DK**	Sealing cone
FUV	Foot valve	**FV**	Filling valve
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**R**	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection
SAE	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers	**SRL**	Suction pipe length, in mm

Compressed Air Accessories

PRODUCTS

Image	Item number	Description 1	Description 2
	20 062	Push connector for KU Rectus	Type 26-G 1/4" male-SW 17
	20 112	Double threaded nipple	G 1/4" male-DK 60°-both-sided
	20 185	Coiled hose 5 m	
	20 218	Air maintenance unit	G 1/4" female-G 1/4" female
	20 218 950	Air maintenance unit-complete set	G 1/4" male-for KU Rectus-type 26

Barrel Lift

TECHNICAL DATA

- Material: steel
- Lacquering: blue, RAL 5010
- Stroke (mm): 450

SPECIFICATION

- For transport of containers up to 200 / 220 l
- Hydraulic lifting mechanism
- Steerable trolley
- Four wheels
- Raising to the height of the container storage unit is easily achieved by means of special clamps and holders

PRODUCTS

Item number	Description
19 816	Barrel lift

Abbreviations

DK	Sealing cone	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
KU	Coupler	**SW**	Width across flats

Barrel Storage Rack

TECHNICAL DATA
- Material: steel
- Lacquering: blue, RAL 5010

SPECIFICATION
- For storage of 3 x 60-l- or 2 x 200-l-container
- For self-assembly
- Stand-alone
- Recommended in combination with an oil container storage unit (19 808) or (19 802) only
- Extensible to 2 storage levels by simply stacking two units together on top of each other (plug-in system), 700 mm and 1500 mm

PRODUCTS

Item number	Description 1	Description 2
19 815	Barrel storage rack-3 containers	1370x650x850-64 kg

Drainage trays: see P. 66

Oil Bar

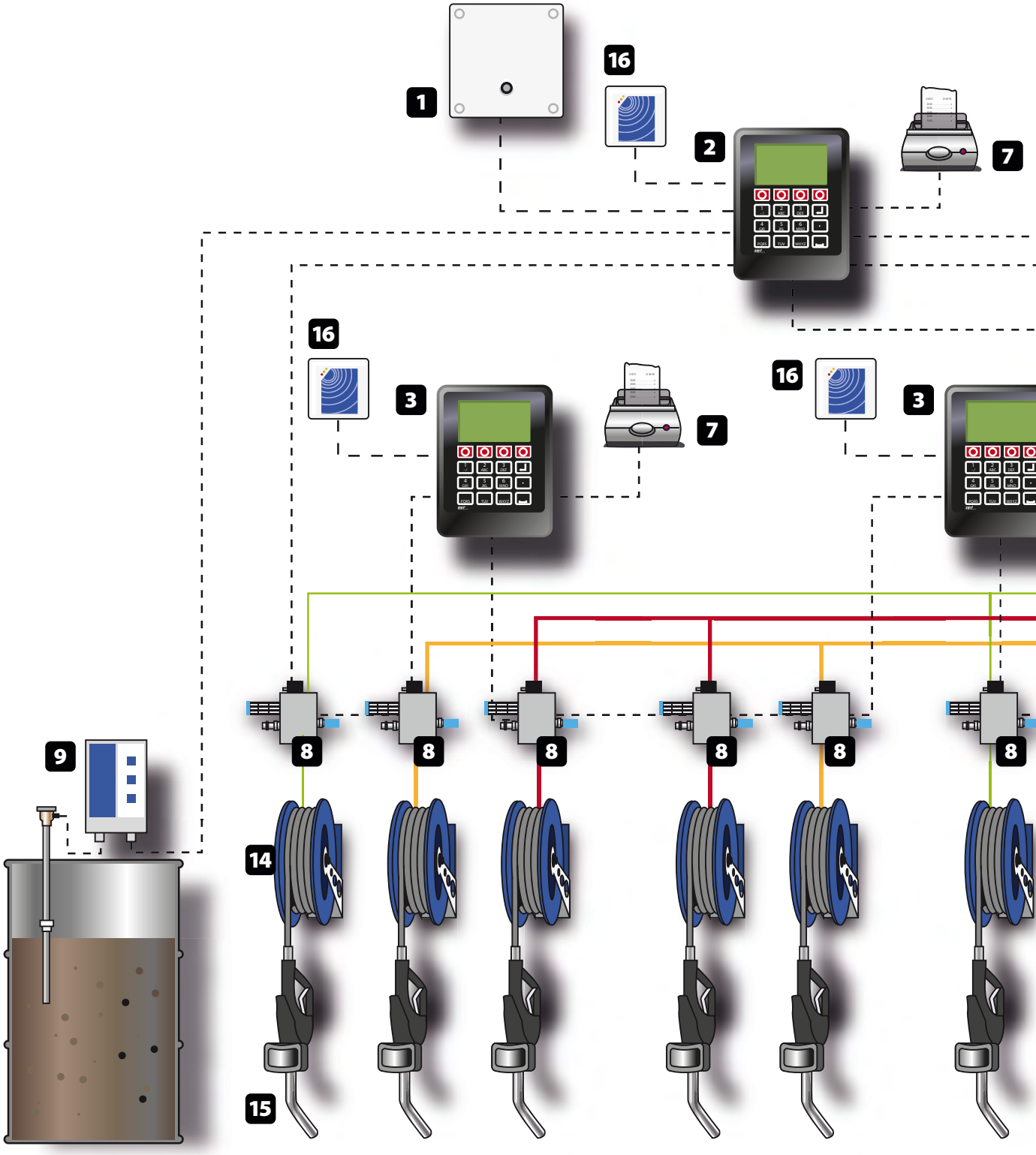
TECHNICAL DATA
- Connection: G 1/2" male
- Nominal width (mm): 12
- Lacquering: window grey, satin, RAL 7040

SPECIFICATION
- Suitable for pneumatic pumps 5:1 or electric pumps, with pressure reduction valve
- Connection to a fixed oil delivery pipe
- Connection for max. 3 dispensing points
- Drip tray, with removable grid tray
- For filling measuring jugs
- Dispensing tap (19 812)

PRODUCTS

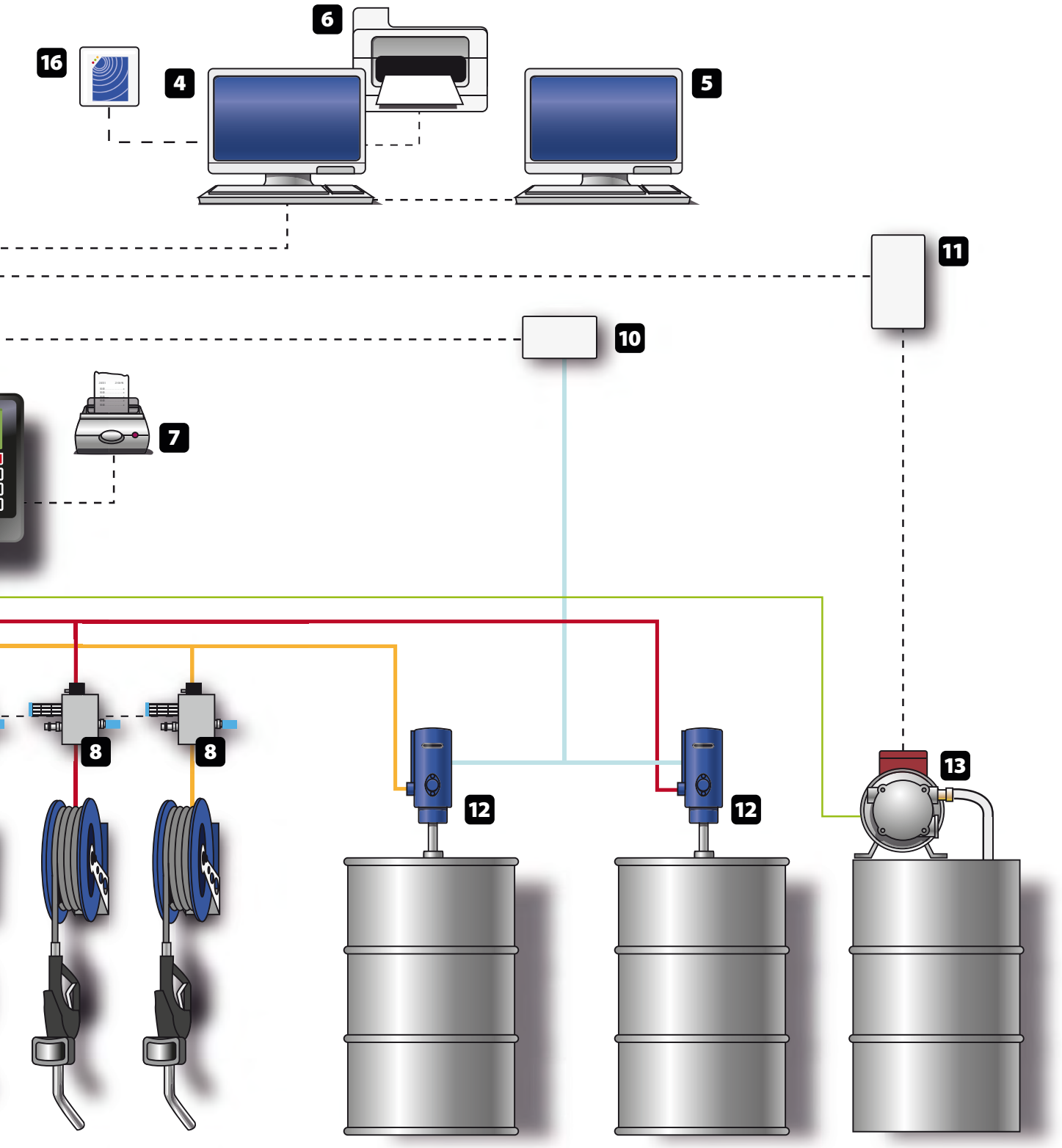
Image	Item number	Description	Description 2
	19 810	Oil bar-1 dispensing tap	Wall-mounting
ACCESSORIES			
	19 812	Dispensing tap for oil bar	
	19 580	Hose assembly for oil	1,5 m-G 1/2" female-G 1/2" female

Oil Management System ÖMS



Number	Description	Page	Number	Description	Page
1	Power supply	85	5	Host-PC	-
2	Master Terminal	84	6	Printer	85
3	Data Entry Terminal	84	7	Receipt printer	85
4	ÖMS-PC	-	8	Pulse meter / solenoid valves ZVF	85

We are happy to advise you on individual solutions.



Number	Description	Page	Number	Description	Page
9	Waste oil control	46	13	Electric pumps	53
10	Pneumatic solenoid valve	85	14	Hose reel	76
11	Relay	85	15	Flow meter	69
12	Pneumatic pump	42	16	RFID card reader	85

Oil Management System ÖMS

up to 1000 users

TECHNICAL DATA

- Power supply (V): 24 V DC
- Data transfer to the PC: Ethernet
- Data transfer to the valves: CAN-Bus
- Requirements: Java runtime environment from Version 7

Terminal

- Number of Terminals (max): 8
- Terminal designation: 20 digits (alphanumeric)
- Housing material: aluminium black anodized

User

- Type of user ID: PIN, 4 digits (num) or RFID card (optional)
- Number of users (PIN): up to 1000
- Number of uses (RFID card): up to 1000

Vehicle administration

- Number of vehicles: 300
- Vehicle designation: 10 characters (alphanumeric)

Tank administration

- Number of tanks (max): 20
- Tank designation: 20 digits (alphanumeric)
- Capacity per tank (l): 99999

Nozzle-valve-pulser

- Number of nozzle valves (max): 8
- Nozzle valve designation: 20 digits (alphanumeric)
- Maximum settable dispensing quantity (l): 999,99

SPECIAL NOTES

- Up to 8 terminals can be connected over the CAN-bus
- Up to 64 dispensing/delivery positions are possible
- Up to 10 subnets can be managed through the PC application
- User identification possible by PIN or RFID card
- User friendly PC application for configuring and setting up tanks, content, users and nozzles
- The PC application checks once a day whether an update is available (free)
- Vehicle selection list pre-settable
- Tank-level warning stop level settable
- Continuous data exchange between PC and Terminal
- All dispensing operations data can be easily read at the PC and exported to other applications for analysis
- Connection of a statement printer possible
- Connection of an RFID card reader possible

SPECIFICATION

Delivery contents:

- Software and operating instructions on CD-ROM
- SD card

PRODUCTS

Item number	Description 1	Description 2	Software	Special notes
36 700	Master Terminal	with software	×	Can be configured as Master- or Data Entry Terminal
36 701	Data Entry Terminal	without software		Function as Data Entry Terminal only in conjuction with Master Terminal

Components Oil Management System ÖMS

PRODUCTS

Image	Item number	Description 1	Description 2
	36 702	Power supply	85-264 V AC 50/60 Hz-24 V DC-240 W
	36 703	Power supply	100-240 V AC 50/60 Hz-24 V DC-480 W
	36 704	Nozzle valve-pulser	
	36 705	Pneumatic solenoid valve	3/2 closed-1,5-8 bar
	36 706	Dispensing valve IPG	for diesel
	36 707	Dispensing valve IPG	for AdBlue®
	36 708	Dispensing valve IPG	for anti-freeze
	36 710	Receipt printer	
	36 712	RFID card reader for PC	TS-HR38-USB
	36 714	RFID card reader for terminal	TS-HR38-TTL
	36 715	Door opener	Standalone RFID access control system
	36 716	RFID card	
	36 717	RFID key fob	
	36 720	Interface adapter plug	9/25-pol. SUB- for printer
	36 722	Serial data cable-1 m connector	For printer
	36 730	Relay for 230-V-pump control	24 V DC
	36 731	Relay for 400-V-pump control	24 V DC

WASTE OIL DISPOSAL

90 Waste Oil Collectors

92 Waste Oil Suction Units

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Construction Kit for Waste Oil Disposal

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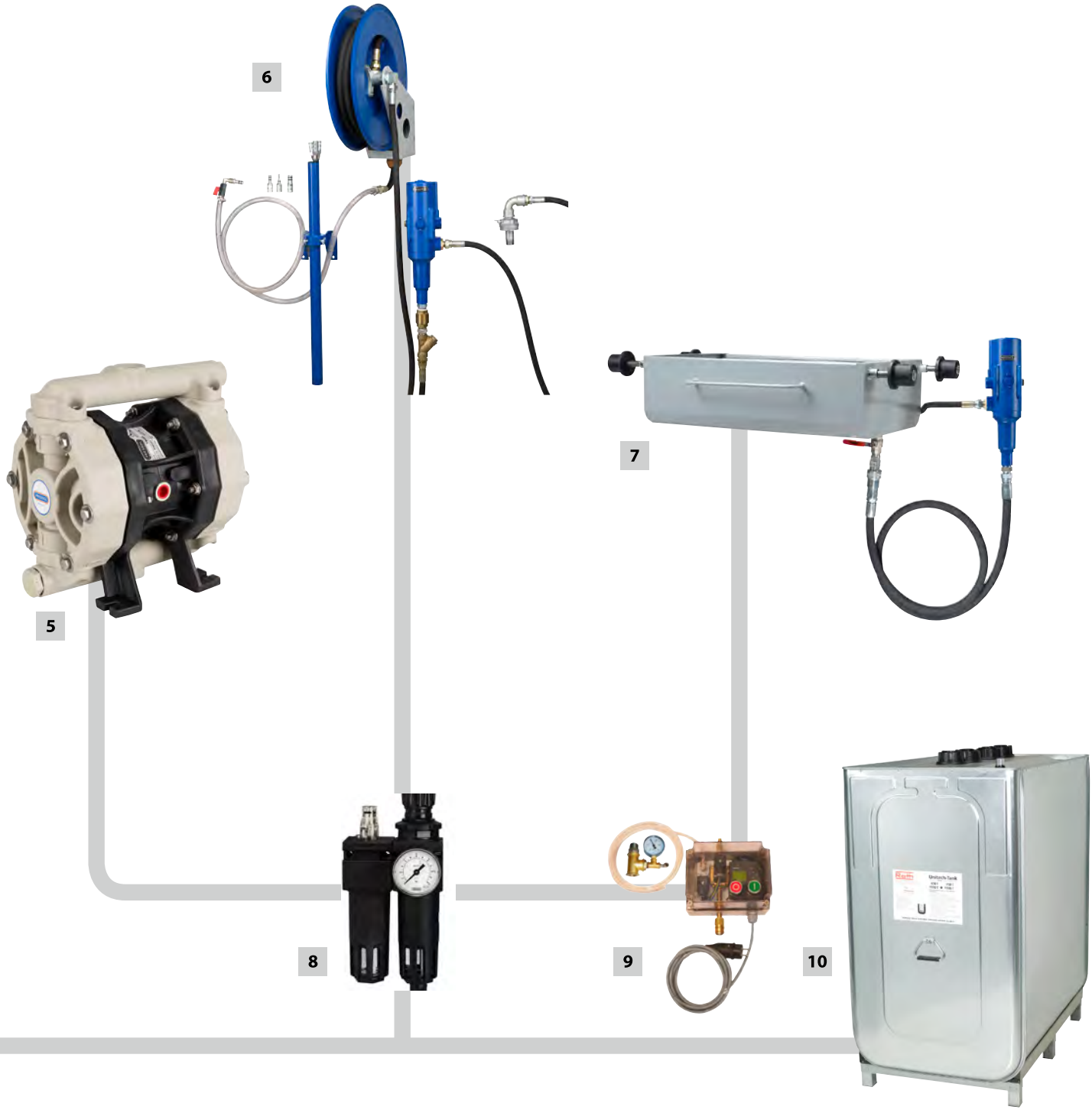


WASTE OIL DRAINAGE- AND SUCTION UNITS

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- For waste oils of hazard class A III of known origin with flash points higher than 55°C
- Not easily inflammable liquids, not suitable for highly inflammable liquids of hazard class A I, A II and B
- Container consists of 1,5 mm steel sheet
- With metal protective cover to avoid damage
- Lacquered with oil-resistant hydro-structure paint
- With 2 fixed rear wheels and 2 castor front wheels
- With robust handle
- With height adjustable drain bowl or height adjustable collection tray
- With extra removable strainer and drain grill
- Attention: When oil drainers or waste oil suction units are discharged to a waste oil collecting tank utilizing a fixed pipework, it is recommended acc. to German govt. specification to install an overflow protection valve. Adhere to regional regulations and guidelines in any case.

Waste Oil Collectors

27 070

TECHNICAL DATA

- Total volume of drain bowl (l): 18
- Diameter drain bowl (mm): 420
- Lacquering of container: window grey, satin, RAL 7040
- Lacquering of drain bowl: blue, RAL 5010
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- Float full level indicator
- 2 fixed wheels, 2 castor front wheels
- Drain bowl with removable strainer and drain grill
- Sturdy handle
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- Lacquered with oil-resistant hydro-structure paint
- With height adjustable drain bowl

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country

PRODUCTS

Image	Item number	Description 1	Description 2	75 l	95 l	Telescopic height level of drain bowl (mm)	Discharge
	27 030	Waste oil drainer unit-75 l	mobile-with discharge tap	×		1180 - 1750	through oil drainage tap
	27 035	Waste oil drainer unit-75 l	mobile-with hydraulic coupler	×		1180 - 1750	hydraulic coupling, size 4, G 3/4" female, e.g., to connect waste oil suction system (19 800)
	27 030 890	Waste oil drainer unit-95 l	mobile-with discharge tap		×	1340 - 1910	through oil drainage tap
	27 035 890	Waste oil drainer unit-95 l	mobile-with hydraulic coupler		×	1340 - 1910	hydraulic coupling, size 4, G 3/4" female, e.g., to connect waste oil suction system (19 800)
	27 040	Waste oil drainer unit-75 l	mobile-pneumatic pump 1:1	×		1180 - 1750	through pneumatic pump 1:1
	27 040 890	Waste oil drainer unit-95 l	mobile-pneumatic pump 1:1		×	1340 - 1910	through pneumatic pump 1:1
	27 070	Waste oil drainer unit-75 l	mobile-compressed air evac.	×		1180 - 1750	through mobile-compressed air evac.
	27 070 890	Waste oil drainer unit-95 l	mobile-compressed air evac.		×	1340 - 1910	through mobile-compressed air evac.

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259) **R** Whitworth thread, tapered, similar to DIN 3858, self-sealing connection

Accessories and Spare Parts for Waste Oil Collectors

PRODUCTS

Image	Item number	Description 1	Description 2
	02 804	Lever ball valve	G 3/4" female-R 3/4" male
	02 810	Soft-PVC-braided hose-DN 19	Transparent
	03 345	Lever ball valve with butterfly handle	G 1" female
	27 000	Castors set	With accessories
	04 333	Solid rubber wheel -Ø 160 mm	
	04 398	Level indicator	
	04 464	Clamping device-complete	G 2"
	04 487	Funnel-tin plate-Ø 420 mm	With discharge tap
	04 543	Strainer-Ø 320 x 1 mm-mesh 5 mm	
	19 770	Hydraulic coupler	Size 4-G 3/4" female
	19 774	Connecting plug	Size 4-G 3/4" female
	19 786	Discharge tap-G 3/4" male	Brass
	27 985	Angled tube with swivel joint	G 1" male-G 1" female
	27 988	Collection funnel with pipe	Barrel screw coupling-G 2" male
	87 003	Valve set	T-piece with safety valve

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

Waste Oil Suction Units, Powered by Compressed Air

27 622

TECHNICAL DATA

- 2 compressed air connections: male quick release adapter NW 7,2 - NW 7,8
- Recommended air pressure (bar): 6
- Suction rate probe Ø 5 mm (l/min): 1,0 - 1,5
- Suction rate probe Ø 6 mm (l/min): 2,0 - 2,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- A vacuum is generated in the container by means of a venturi system and compressed air
- Manometer / vacuum meter, for pressure and vacuum level indication
- Oil extraction through the dipstick tube
- Level indicator
- Overpressure safety valve, set at 0.5 bar, with a pressure regulating valve
- Male quick release adapter for coupling, type 26
- Suction hose, 2 m, with spiral spring
- Suction probes, Ø 5/6/8 mm
- With adapters for BMW, Mercedes, VW, Audi and Smart
- Suction probe holder
- Sturdy handle
- Transparent discharge hose, 2 m, with metal discharge spout and lever ball valve
- 2 fixed wheels, 2 castor front wheels
- Pressure discharge
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- Lacquered with oil-resistant hydro-structure paint

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country
- Venturi-Block maintenance requirements are extremely low

PRODUCTS

Item number	Description 1	Description 2	75 l	95 l	with glass measuring cylinder, 7 l
27 622	Venturi-waste oil suction unit-75 l	Mobile	×		
27 632	Venturi-waste oil suction unit-75 l	Mobile-with glass measuring cylinder	×		×
27 622 890	Venturi-waste oil suction unit-95 l	Mobile		×	
27 632 890	Venturi-waste oil suction unit-95 l	Mobile-with glass measuring cylinder		×	×

Abbreviations

NW Nominal width = inside diameter

TECHNICAL DATA

- Total volume (l): 24
- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Recommended air pressure (bar): 6
- Vacuum generation time (min): 1 - 2
- Suction volume per vacuum build up (l): 8 - 12
- Suction rate probe Ø 5 mm (l/min): 1,0 - 1,5
- Suction rate probe Ø 6 mm (l/min): 2,0 - 2,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- A vacuum is generated in the container by means of a venturi system and compressed air
- Manometer for pressure indication
- Suction is done via the dipstick tube
- Male quick release adapter NW 7,2 - NW 7,8
- Suction probes, Ø 5/6/8 mm
- With adapters for BMW, Mercedes, VW and Audi
- Carrying handle
- Hose, 1700 mm
- 2 fixed wheels
- Drainage via screw cap, G 1 1/2"

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country

PRODUCTS

Item number	Description 1	Description 2	24 l
19 782	Venturi-waste oil suction unit-24 l	Mobile	×

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

NW Nominal width = inside diameter

Spare Parts for Waste Oil Suction Units, Powered by Compressed Air

PRODUCTS

Image	Item number	Description 1	Description 2
	02 803	Threaded nozzle-G 3/4" male-SW 32	19 mm
	02 804	Lever ball valve	G 3/4" female-R 3/4" male
	02 810	Soft-PVC-braided hose-DN 19	transparent
	03 735	Elbow tubes-steel pipe	Ø 20 mm
	27 000	Castors set	With accessories
	04 333	Solid rubber wheel -Ø 160 mm	
	04 408	Discharge hose complete	
	04 426	Venturi-block	mounted
	04 545	Polyamide-hose 10 x 8 mm	L 430-1 mm
	20 156	Worm-drive hose clamp	clamping range 16-27 mm
	27 630	Glass measuring cylinder	with Venturi-block
	27 905	Suction probe-700 mm	Ø 5 mm-plastic
	27 906	Suction probe-700 mm	Ø 6 mm-plastic
	27 908	Suction probe-700 mm	Ø 8 mm-plastic
	27 963	Adapter for dipstick tube	for VW/Audi-Ø 8 mm
	27 964	Adapter for dipstick tube	for Mercedes-Ø 16 mm
	27 968	Adapter for dipstick tube	for Smart-Ø 10 mm
	87 004	Valve set lockable T-piece	Safety valve-ball valve

Abbreviations

SW Width across flats

DN Inner diameter, in mm

Waste Oil Suction Units, Electrically Powered

TECHNICAL DATA

- Total volume (l): 12
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 3,5
- Power (kW): 0,75
- Connection cable (m): Euro two-pin plug, 5-m-cable
- Suction rate probe Ø 5 mm (l/min): 1,0 - 1,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- Gearwheel pump with flow rate up to 6 l/min
- Manometer for display of vacuum level
- Suction is done via the dipstick tube
- Suction probe holder
- 4 suction probes, 2 pcs. each, Ø 5/8 mm, rigid and flexible, adapter 10 and 16 mm
- 2 fixed wheels
- Manual discharge of waste oil containers

PRODUCTS

Item number	Description 1	Description 2
19 783	Electric oil suction unit-12 l	Mobile

Waste Oil Drain Tray

TECHNICAL DATA

- Capacity (l): 95
- Connection drainage 1: connecting plug, size 4, G 3/4'' female
- Connection drainage 2: detachable drain cock, easy to clean
- Lacquering: blue, RAL 5010

SPECIFICATION

- Mobile
- Connector, size 4, G 3/4" female (19 774), for hydraulic coupling size 4, G 3/4" female (19 770)
- Discharge tap (19 786)

PRODUCTS

Item number	Description 1	Description 2
19 857	Waste oil drainer-95 l	Mobile

Waste Oil Drainage- and Suction Units with Height Adjustable Collection Funnel

27 410

TECHNICAL DATA

- Diameter drain bowl (mm): 420
- Volume of drain bowl (l): 18
- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Connection discharge: hydraulic coupler, size 4, G 3/4" female
- Suction rate probe Ø 6 mm (l/min): 2,0 - 2,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Lacquering of drain bowl: blue, RAL 5010
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- Pneumatic pump, with inline filter mounted on suction side, male quick connecting adapter, for quick connecting couplers, type 26 (20 062)
- Float full level indicator
- 3 way lever ball valve
- Suction hose, 2 m, with spiral spring
- Suction probe holder
- Suction probes Ø 5/6/8 mm
- With adapters for BMW, Mercedes, VW, Audi and Smart
- Discharge hose, 2 m, with hydraulic coupler, size 4 (19 770), and connecting plug, size 4 (19 774), fixed on a container as a counterpart
- Connecting plug, size 4 (19 774), enclosed without package, for connection to oil distribution lines or to waste oil collecting tanks
- Drain bowl with removable strainer and drain grill
- Sturdy handle
- 2 fixed wheels, 2 castor front wheels
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- Lacquered with oil-resistant hydro-structure paint
- With height adjustable drain bowl

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country

PRODUCTS

Image	Item number	Description 1	Description 2	75 l	95 l	Telescopic height level of drain bowl (mm)	PNP 1:1	PNP 3:1
	27 410	Waste oil drainer/-suction unit-75 l	Mobile-pneumatic pump 1:1	×		1180 - 1750	×	
	27 410 890	Waste oil drainer/-suction unit-95 l	Mobile-pneumatic pump 1:1		×	1340 - 1910	×	
	27 420	Waste oil drainer/-suction unit-75 l	Mobile-pneumatic pump 3:1	×		1180 - 1750		×

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GMZ**	Glass measuring cylinder
NW	Nominal width = inside diameter	**PNP**	Pneumatic pump

27 622 680

TECHNICAL DATA

- Diameter drain bowl (mm): 420
- Volume of drain bowl (l): 18
- 2 compressed air connections: male quick release adapter NW 7,2 - NW 7,8
- Recommended air pressure (bar): 6
- Suction rate probe Ø 5 mm (l/min): 1,0 - 1,5
- Suction rate probe Ø 6 mm (l/min): 2,0 - 2,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Lacquering of drain bowl: blue, RAL 5010
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- A vacuum is generated in the container by means of a venturi system and compressed air
- Manometer / vacuum meter, for pressure and vacuum level indication
- Oil extraction through the dipstick tube
- Level indicator
- Overpressure safety valve, set at 0.5 bar, with a pressure regulating valve
- Male quick release adapter for coupling, type 26
- Suction hose, 2 m, with spiral spring
- Suction probes, Ø 5/6/8 mm
- With adapters for BMW, Mercedes, VW, Audi and Smart
- Suction probe holder
- Transparent discharge hose, 2 m, with metal discharge spout and lever ball valve
- Drain bowl with removable strainer and drain grill
- Sturdy handle
- 2 fixed wheels, 2 castor front wheels
- Pressure discharge
- Container made from 1,5 mm sheet steel
- With metal protective cover to avoid damage
- Lacquered with oil-resistant hydro-structure paint
- With height adjustable drain bowl

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country
- Venturi-Block maintenance requirements are extremely low

PRODUCTS

Image	Item number	Description 1	Description 2	75 l	95 l	Telescopic height level of drain bowl (mm)
	27 622 680	Waste oil drainer/-suction unit-75 l	Venturi-mobile	×		1180 - 1750
	27 632 680	Waste oil drainer/-suction unit-75 l	Venturi-mobile with glass measuring cylinder, 7 l	×		1180 - 1750
	27 622 891	Waste oil drainer/-suction unit-95 l	Venturi-mobile		×	1550 - 2120
	27 632 891	Waste oil drainer/-suction unit-95 l	Venturi-mobile with glass measuring cylinder, 7 l		×	1550 - 2120

Waste Oil Drainage- and Suction Units with Height Adjustable Collection Tray

19 793 301

TECHNICAL DATA

- Total volume (l): 80
- Capacity of storage container (l): 15
- 2 compressed air connections: Male quick release adapter NW 7,2 - NW 7,8
- Recommended air pressure (bar): 6
- Min. oil temperature (°C): 70
- Lacquering of container: window grey, satin, RAL 7040
- Lacquering of container storage unit: blue, RAL 5010
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C; or not easily inflammable liquids, not suitable for highly inflammable liquids

SPECIFICATION

- A vacuum is generated in the container by means of a Venturi system and compressed air
- Manometer for pressure indication
- Suction is done via the dipstick tube
- Suction hose, 2 m, with spiral spring
- 4 Suction probes, 2 pieces each of Ø 5/8 mm
- With adapters for BMW, Mercedes, VW and Audi
- Transparent discharge hose, 2 m, with metal discharge spout
- Rectangular, cantilever drain tray with drain grill, can be lowered to floor level and can be drained via Venturi-technique
- Pressure discharge
- Overpressure safety valve, set at 0,5 bar
- Male quick release adapter NW 7,2 - NW 7,8
- Overflow protection and probe holder
- Sturdy handle
- 2 fixed wheels, 2 castor front wheels

SPECIAL NOTES

- The units are subject to the German government regulation for pressurized containers classification group 1 (max. pressure 0,5 bar to drain a waste oil unit)
- If the waste oil drainer is discharged via a pipe system into an oil collection tank, it is recommended to use an overflow protection valve. Please adhere to regional regulations and guidelines of your country

PRODUCTS

Item number	Description 1	Description 2	With glass measuring cylinder, 10 l
19 793 301	Waste oil drainer/-suction unit-80 l	Venturi-mobile	
19 793 391	Waste oil drainer/-suction unit-80 l	Venturi-mobile-with GMZ	×

Abbreviations

DIN	German Institute for Standardisation (DIN standards)
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
L	Length
NW	Nominal width = inside diameter
R	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection
WHG	Water Resources Act (Germany)
DN	Inner diameter, in mm
GMZ	Glass measuring cylinder
M	Metric thread, cylindrical, DIN 13
PVC	Polyvinylchlorid
SW	Width across flats
VZ	Galvanized

Accessories and Spare Parts for Waste Oil Drainage- and Suction Units

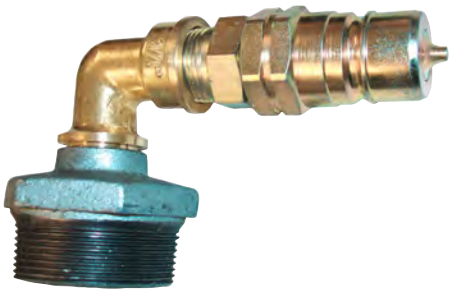
PRODUCTS

Item number	Description 1	Description 2
Accessories for waste oil drainage- and suction units		
27 985	Angled tube with swivel joint	G 1'' male-G 1'' female
27 905	Suction probe-700 mm	Ø 5 mm-plastic
27 906	Suction probe-700 mm	Ø 6 mm-plastic
27 908	Suction probe-700 mm	Ø 8 mm-plastic
27 915	Suction probe-700 mm	Ø 5 mm-copper
27 916	Suction probe-700 mm	Ø 6 mm-copper
27 918	Suction probe-700 mm	Ø 8 mm-copper
27 926	Suction probe-1000 mm	Ø 6 mm-plastic
27 928	Suction probe-1000 mm	Ø 8 mm-plastic
27 948	Suction probe-1500 mm	Ø 8 mm-plastic
27 958	Suction probe-1500 mm	Ø 8 mm-copper
27 963	Adapter for dipstick tube	for VW/Audi-Ø 8 mm
27 964	Adapter for dipstick tube	for Mercedes-Ø 16 mm
27 965	Adapter for dipstick tube	for BMW-Ø 14 mm
27 968	Adapter for dipstick tube	for Smart-Ø 10 mm
27 000	Castors set	
Spare parts for waste oil drainage- and suction units		
87 004	Valve set lockable T-piece	Safety valve-Lever ball valve
04 426	Venturi-Block	mounted
04 408	Discharge hose complete	
27 905	Suction probe-700 mm	Ø 5 mm-plastic
27 906	Suction probe-700 mm	Ø 6 mm-plastic
27 908	Suction probe-700 mm	Ø 8 mm-plastic
27 963	Adapter for dipstick tube	for VW/Audi-Ø 8 mm
27 964	Adapter for dipstick tube	for Mercedes-Ø 16 mm
27 968	Adapter for dipstick tube	for Smart-Ø 10 mm
20 156	Worm-drive hose clamp	clamping range 16-27 mm
02 803	Threaded nozzle-G 3/4" male-SW 32	19 mm
02 810	Soft-PVC-braided hose-DN 19	transparent
03 735	Elbow tubes-steel pipe	Ø 20 mm
02 804	Lever ball valve	G 3/4" female-R 3/4" male
04 332	Device-castors	with stud hole
04 333	Solid rubber wheel -Ø 160 mm	
04 545	PA-hose 10 x 8 mm	L 430-1 mm
03 345	Lever ball valve with butterfly handle	G 1" female
04 464	Clamping device-complete	G 2"
04 543	Strainer-Ø 320 x 1 mm-mesh 5 mm	
04 492	Funnel bowl-Ø 420 mm-strainer	
27 630	Glass measuring cylinder	with Venturi-block
87 125	PVC-spacer-41 x 19 mm	
87 002	Emptying bend-R 3/4''	
04 357	Hexagon screw-M 10 x 55	DIN 931 vz
03 858	Washer-Ø 10,5 female-VZ	
03 311	Self locking nut	M 10 x 1-SW 17-VZ
04 542	Half sleeve-black	
87 065	Precision steel pipe	L 790 mm

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
L	Length	**M**	Metric thread, cylindrical, DIN 13
R	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection	**SW**	Width across flats
		VZ	Galvanized

Connection Sets for Direct Draining



TECHNICAL DATA
- Connection 1: G 2" male, drum adapter
- Connection 2: connector size 4-G 3/4" female

SPECIFICATION
- Retention valve, G 2" male - G 3/4" female (19 418)
- Connector, size 4, G 3/4" female (19 774), for hydraulic coupling size 4, G 3/4" female (19 770)

SPECIAL NOTES
- To suit all waste oil drainers and suction units with air pressurized evacuation or discharge by means of a pneumatic oil pump
- Compatible with: (27 967)
- Not suitable for: (27 030), (27 035) and variations

PRODUCTS

Item number	Description 1	Description 2
27 966	Installation set for waste oil tank	connector size 4-G 3/4" female

TECHNICAL DATA
- Connection 1: hydraulic coupler, size 4
- Connection 2: for hose, 19 mm inner diameter

SPECIFICATION
- Hydraulic coupler, size 4 (19 770), for connection coupler, size 4, G 3/4" female (19 774)
- Hose nozzle, G 3/4" male (02 803)
- Hose clip (20 156)

SPECIAL NOTES
- To suit all waste oil drainers and suction units with air pressurized evacuation or discharge by means of a pneumatic oil pump
- For mounting on dispensing hose
- Compatible with: (27 966)
- Not suitable for: (27 030), (27 035), (27 410) and variations

PRODUCTS

Item number	Description 1	Description 2
27 967	Instalation set	for waste oil collection systems

Pneumatic Diaphragm Pump

19 060

TECHNICAL DATA

- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Max. suction height, dry (m): 6
- Max. suction height, wet (m): 9,8
- Max. discharge height (m): 80
- Max. particle size (mm): 3,5
- Max. operating temperature (°C): 65
- Min. operating temperature (°C): -4
- Material pump housing: PP
- Material air diaphragm: Hytrel®
- Material fluid diaphragm: PTFE
- Material ball: PTFE
- Material ball valve seat: PP

SPECIFICATION

- Suitable for: fresh and waste oils, water, AdBlue®
- Water-based liquids, to which PP and PTFE are resistant, e.g. glass cleaner and radiator antifreeze agents

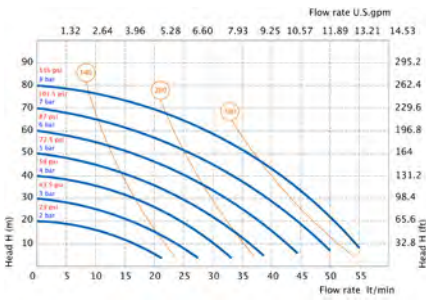
PRODUCTS

Item number	Description 1	Description 2
19 060	Pneumatic diaphragm pump	55 l/min
19 061	Pneumatic diaphragm pump	110 l/min
19 062	Pneumatic diaphragm pump	170 l/min

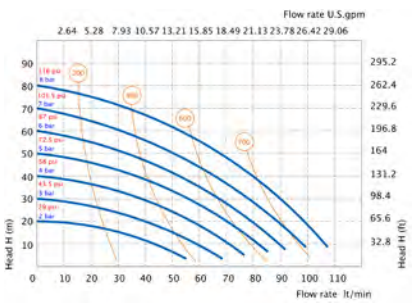
ACCESSORIES

Item number	Description 1	Description 2
87 918	Wall mounting bracket	for 19 060 and 19 061
87 919	Wall mounting bracket	for 19 062
20 062	Male quick release adapter	for 19 060
20 064	Male quick release adapter	for 19 061
20 066	Male quick release adapter	for 19 062

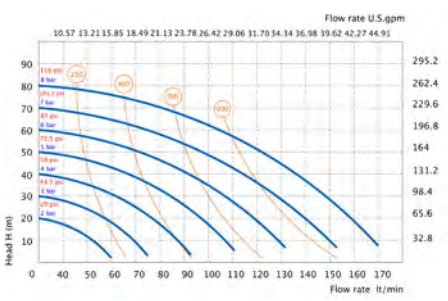
Flow rate 19 060



Flow rate 19 061



Flow rate 19 062



Abbreviations

PP Polypropylene

PTFE Polytetrafluorethylen (Teflon®)

Waste Oil Suction Systems

19 800

TECHNICAL DATA

- Compressed air connection: G 1/4" female
- Discharge: via pneumatic pump 5:1
- Connection suction hose: hydraulic coupling, size 4, G 3/4" female
- Connection discharge side: G 3/4" male
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- Stationary, for drainage of waste oil drainers (27 035), (27 035 890) or (19 857)
- For direct discharge to a waste oil collecting tank via pipe line
- Suction hose, 2 m, with inline filters and hydraulic coupling, size 4, G 3/4" female (19 770)
- Pneumatic oil pump 5:1 (19 385)
- Wall mounting bracket (19 521)
- Complete with accessories for assembly
- Female quick release connector, size 4, G 3/4" (19 774)
- Suitable for garage service pit drainage trays

SPECIAL NOTES

- Waste oil must not be stored in working areas. It is recommended, acc. to German govt. specifications, to install an overflow protection valve if waste oil discharge shall be effected by using a fixed pipework installation. Adhere to regional regulations and guidelines in any case.

PRODUCTS

Image	Item number	Description 1	Description 2
	19 800	Waste oil suction system-stationary	PNP 5:1-suction hose-2 m
ACCESSORIES			
	19 902	Installation set	For waste oil-pipe-G 3/4" male
	19 903	Drip tray for oil	With discharge tap
	27 966	Installation set for waste oil tank	Connector-size 4-G 3/4" female

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NW**	Nominal width = inside diameter
O	open	**PNP**	Pneumatic pump
SAR	Hose reel	**WB**	Wall and floor mounting
WHG	Water Resources Act (Germany)		

Waste Oil Suction Systems

19 901

TECHNICAL DATA

- Compressed air connection: male quick release adapter NW 7,2 - NW 7,8
- Discharge: via pneumatic pump 5:1
- Suction rate probe Ø 5 mm (l/min): 1,0 - 1,5
- Suction rate probe Ø 6 mm (l/min): 2,0 - 2,5
- Suction rate probe Ø 8 mm (l/min): 3,5 - 4,0
- Connection discharge side: G 3/4" male
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C, or not easily inflammable liquids; not suitable for highly inflammable liquids

SPECIFICATION

- Stationary, for direct discharge to a collecting tank via pipework
- For direct extraction from motor- and commerical vehicles
- Pneumatic-oil pump 5:1 (19 385)
- Male quick release adapter (20 062)
- Wall mounting bracket (19 521)
- Inline filter, G 3/4" female, G 3/4" female (19 761)
- Complete with accessories for assembly
- Hose, pressure side, 4 m
- Barrel screw coupling, G 2" male
- Suction probes Ø 5 / 6 / 8 mm
- With adapters for BMW, Mercedes, VW, Audi and Smart
- Suction probe holder
- Can be installed with vacuum switch-off unit (19 422)

SPECIAL NOTES

- Waste oil must not be stored in working areas. It is recommended, acc. to German govt. specifications, to install an overflow protection valve if waste oil discharge shall be effected by using a fixed pipework installation. Adhere to regional regulations and guidelines in any case.

PRODUCTS

Item number	Description 1	Description 2	Specification
19 900	Waste oil suction system stationary	PNP 5:1-suction hose-5 m	With suction hose, 5 m, including 2 m as visible transparent line, and hose storage rack (19 669)
19 901	Waste oil suction system stationary	PNP 5:1-SAR-O-WB-8 m	Suction hose (19 512) Suction hose, 2 m, transparent visible line segment with hose reel, O, WB, 8 m (29 341) Lever ball valve mounted on the suction side of the hose reel

Inspection Pit Drain Tray

19 850

TECHNICAL DATA

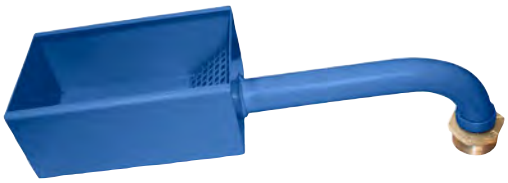
- Track width (mm): 850 - 1200
- Connection: G 3/4" male
- Material: steel sheet
- Lacquering: window grey, satin, RAL 7040

SPECIFICATION

- Suitable for all standard garage service pit profiles
- Strainer
- 4 integrated wheels
- Adjustable axles

PRODUCTS

Item number	Description 1	Description 2	40 l	60 l	100 l	Discharge tap	Drain nut
19 850	Inspection pit drain tray-40 l	H 150 mm-G 3/4" male	×			×	
19 788	Inspection pit drain tray-60 l	H 180 mm-G 3/4" male		×			×
19 852	Inspection pit drain tray-100 l	H 300 mm-G 3/4" male			×		×



TECHNICAL DATA

- Connection: drum adapter,G 2" male and M 64 x 4 male
- Total volume (l): 3,6
- Lacquering: blue, RAL 5010
- Dimensions LxWxH (mm): 570 x 160 x 230

SPECIFICATION

- In-welded wide-mesh screen
- Drum adapter (19 527)

SPECIAL NOTES

- For mounting in garage service pits on a G 2" waste oil discharge pipework for drainage of drainage trays

PRODUCTS

Item number	Description 1	Description 2
19 858	Collection funnel-swivable	3,6 l

Waste Oil Systems for Garage Service Pits

19 000 335

TECHNICAL DATA

- Connection pressure hose: G 1/2" female, 60° sealing cone, 90° tube turn
- Capacity (l): 60
- Track width (mm): 850 - 1200
- Connection: G 3/4" male
- Lacquering: window grey, satin, RAL 7040
- Media: for waste oils of hazard class A III of known origin with flash points higher than 55°C; or not easily inflammable liquids, not suitable for highly inflammable liquids

SPECIFICATION

- For the entire vehicle and commercial vehicle areas
- Suction hose, 2 m, G 3/4" male/female (19 512)
- Pressure hose, 1,5 m, G 1/2" female/male
- With all required adapters, couplings, etc.
- Drain tray (19 788), suitable for all standard garage service pit profiles

SPECIAL NOTES

- Always use a flexible metal hose (19 666) for pipework connection in non-visible areas. For installation please adhere to regional regulations and guidelines. It is recommended, acc. to German govt. specifications, to install an overflow protection valve if waste oil discharge shall be effected by using a fixed pipework installation. Adhere to regional regulations and guidelines in any case.

PRODUCTS

Image	Item number	Description	Description 2	Specification
	19 000 335	Waste oil disposal system	For inspection pits PNP 5:1	With pneumatic pump 5:1 (19 385), Pump capacity 20 l/min under free discharge, suitable for pipe-work up to 70 m Wall mounting bracket (19 521)
	19 000 435	Waste oil disposal system	For inspection pits diaphragm pump	With pneumatic diaphragm pump (19 060), capacity 60 l/min under free discharge, suitable for pipework up to 20 m

Accessories for Pneumatic Pumps

PRODUCTS

Image	Item number	Description 1	Description 2
	19 422	Vacuum switch-off	automatic-start button
	19 669	Hose holder	large size
	19 550	Hose assembly for oil	1,5 m-G 3/4" female-G 3/4" female
	19 666	Flexible connecting pipe	0,5 m-G 3/4" female-G 3/4" female
	19 637	Double threaded nipple	G 3/4" male-DK 60°-R 3/4" male
	19 763	Lever ball valve	G 3/4" female-G 3/4" female

Accessories and Maintenance Units

PRODUCTS

Image	Item number	Description 1	Description 2
	20 062	Push connector for KU Rectus	type 26-G 1/4" male-SW 17
	20 112	Double threaded nipple	G 1/4" male-DK 60°-both-sided
	20 185	Coiled hose 5 m	
	20 218	Air maintenance unit	G 1/4" female-G 1/4" female
	20 218 950	Air maintenance unit-complete set	G 1/4" male-for Rectus coupler-type 26
	20 195 390	Air maintenance unit-complete set	with hose 1,5 m-1/4"

Spare Parts for Waste Oil Disposal

PRODUCTS

Image	Item number	Description 1	Description 2
	04 426	Venturi-block	mounted
	88 318	Nozzle	Me-SW 27
	20 062	Push connector for Rectus coupler	type 26-G 1/4" male-SW 17
	20 064	Push connector for Rectus coupler	type 26-G 3/8" male-SW 19
	20 112	Double threaded nipple	G 1/4" male-DK 60°-both-sided
	88 311	Silencer	blue
	02 796	Mano-vacuum gauge-G 1/4" male	
	87 056	Sleeve ball valve	G 1/4" female

C

Tanks

45 100

TECHNICAL DATA
- Material of interior container: HDPE (high density polyethylene)
- Connections: 4 x G 2" female, drum adapter

SPECIFICATION
- Mechanical float level indicator
- Optical leakage indicator

SPECIAL NOTES
- With German government approval-no. Z-40.21-29 of DIBt, Berlin
- For above ground storage in closed rooms
- Stationary
- Suitable for: fuel oil and diesel
- Used engine- and gearbox oil (used oil) of known origin according to company safety standards
- Lubricating oil L-AN, acc. to DIN 51501 (the lubricating oils AN 5 and AN 7 are not easily inflammable liquids, hazard class A III, acc. to VbF)
- Engine- and lubricating oils acc. to DIN 51 511
- Gear oils for motor vehicles, acc. to DIN 51512
- Hydraulic oils H, HL and HL-P, acc. to DIN 51524 / 51525
- Heat transfer oil Q, acc. to DIN 51 522
- Synthetic oils
- Rapeseed oil-methyl-ester (RME)

PRODUCTS

Item number	Description 1	Description 2	400 l	750 l	1000 l	1500 l	Material outer container	Specification
45 400	Tank-400 l double walled	Steel-HDPE	×				steel, hot-dip galvanized	integral handles steel pallet foot, fully detachable
45 101	Tank-750 l double walled	Steel-HDPE		×			steel, hot-dip galvanized	integral handles steel pallet foot, fully detachable
45 100	Tank-1000 l double walled*	Steel-HDPE 1280 x 760 x 1420 mm			×		steel, hot-dip galvanized	integral handles steel pallet foot, fully detachable
45 105	Tank-1500 l double walled*	Steel-HDPE 1630 x 755 x 1870 mm				×	steel, hot-dip galvanized	integral handles steel pallet foot, fully detachable
45 108	Tank-1500 l double walled*	Steel-HDPE Waste oil				×	steel, hot-dip galvanized	integral handles steel pallet foot venting cap (45 140 950) suction tube (19 460 397)
45 058	Tank-1500 l double walled*	HDPE Waste oil				×	HDPE	venting cap (45 140 950) suction tube (19 460 397)

*From a tank size of 1000 l, an overfill protection acc. to WHG is required (see Item Number 19 412 P. 64)

Accessories for Tanks

PRODUCTS

Image	Item number	Description 1	Description 2
	02 568	Funnel with lid	PE-Ø 250 mm 3,2 l-G 2" male
	19 406	Optical and acoustic	oil/water-leakage ind. system
	19 407	Continuous tone signal horn	for dry rooms
	19 408	Warning light and buzzer	individ. control of each unit
	19 410	Venting cap-G 2" female	polyamid with filter
	19 411	Venting cap-G 2" female	brass without filter
	19 412	Overfill prevention system acc. to German WHG	L 500 mm 3/4" 230 V 50 Hz
	19 419	Waste oil suction probe G 2" male 45°	tank truck connectors
	19 426	Pipe installation set	tank attachment
	19 418	Retention adapter	G 3/4" female G 2" male
	87 638	Filling spout angled 90°	G 2" male G 2" male
	27 987	Filling container-rectangular	with lid

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
HDPE	High density polyethylene	**L**	Length
PE	Polyethylen	**WHG**	Water Resources Act (Germany)

112 Pneumatic Pumps 1:1

113 Pneumatic Pump 3:1

114 Pneumatic Diaphragm Pumps

Pneumatic Pump 1:1 for Cooling Liquid

19 135 843

TECHNICAL DATA

- Pressure ratio: 1:1
- Max. diameter (mm): 130
- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 220
- Cylinder capacity pump (cm^3): 220
- Quantity of strokes at 8 bar at free-flow (strokes/min): 240
- Pump capacity at 8 bar at free-flow (l/min): 66
- Pump pressure at 8 bar air pressure (bar): 8
- Air consumption at 8 bar air pressure (l/min): 450
- Length of discharge pipework: depends on the size of installation
- Max. suction heigth: 6 m, G 1" suction tube
- Compressed air connection: G 1/4" female
- Oil connection - delivery side: G 3/4" male
- Noise level idle running acc. to ISO 9614-2 at a distance of 2 m (db A): 78
- Noise level under load acc. to ISO 9614-2 at a distance of 2 m (db A): 77
- Typical liquids to be discharged: cooling liquid, not diluted
- Lacquering: blue, RAL 5010
- Material pump housing: brass
- Materials of parts in contact with liquid: steel, brass, FKM Viton®
- Length of engine (mm): 375

SPECIFICATION

- Pneumatic pump 1:1
- Suitable for not diluted media such as cooling liquid

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950)

PRODUCTS

Item number	Description 1	Description 2	SRL (mm)	Connection suction side	G 2" male, drum adapter
19 135 843	Pneumatic pump 1:1-Me	SRL 860-200/220 l-container	860	G 1" female	×
19 165 843	Pneumatic pump 1:1-Me	SRL 1200-mounting on tanks	1200	G 1" female	×
19 185 843	Pneumatic pump 1:1-Me	wall-mounting	-	G 3/4" male	

Abbreviations

db A	Decibel, A-weighted noise level	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
Me	Brass	**SAE**	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers
SRL	Suction pipe length, in mm		

Pneumatic Pump 3:1 for Windscreen Cleaner

TECHNICAL DATA

- Length of suction tube (mm): 910
- Pressure ratio: 3:1
- Max. diameter (mm): 75
- Max. air pressure (bar): 8
- Min. air pressure (bar): 3
- Recommended air pressure (bar): 6
- Cylinder capacity engine (cm^3): 230
- Quantity of strokes at 8 bar at free-flow (strokes/min): 250
- Pump capacity at 8 bar at free-flow (l/min): 23
- Pump pressure at 8 bar air pressure (bar): 24
- Air consumption at 8 bar air pressure (l/min): 800
- Length of discharge pipework: depends on the size of installation
- Max. suction heigth: 6 m
- Compressed air connection: G 1/4" female
- Oil connection - suction side: G 1" male
- Oil connection - delivery side: G 3/4" female
- Connection container: G 2" male, drum adapter
- Sound level when operating at a distance of 1 m (db A): 101
- Viscosity of discharged liquid: oil up to SAE 90
- Typical liquids to be discharged: gear oil, glycol, windscreen cleaner and water
- Material pump housing: aluminium
- Material suction tube: PVC
- Materials of parts in contact with liquid: stainless steel, brass, plastic
- Seals: Viton® (FKM)
- Length of engine (mm): 420

SPECIFICATION

- Pneumatic pump 3:1, aluminium/stainless steel, for windscreen cleaners
- For 200/220 l container
- Suction tube, G 1" female
- Connecting hose, 1 m, for connecting pneumatic pump / hose reel
- Can be easily combined with several hose reels
- Packed in carton box

SPECIAL NOTES

- Operate pneumatic pump with maintenance unit (20 218 950)

PRODUCTS

Item number	Description 1	Description 2	SRL (mm)	Connection suction side	G 2" male, drum adapter
19 285 843	Pneumatic pump 3:1	SRL 910-200/220-l-Container-Alu-INOX	910	G 1" male	×

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

SAE Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers

Pneumatic Diaphragm Pumps

19 060

TECHNICAL DATA

- Max. air pressure (bar): 8
- Min. air pressure (bar): 2
- Max. suction height, dry (m): 6
- Max. suction height, wet (m): 9,8
- Max. discharge height (m): 80
- Max. particle size (mm): 3,5
- Max. operating temperature (°C): 65
- Min. operating temperature (°C): -4
- Material pump housing: PP
- Material air diaphragm: Hytrel®
- Material fluid diaphragm: PTFE
- Material ball: PTFE
- Material ball valve seat: PP

SPECIFICATION

- Suitable for: fresh and waste oils, water, AdBlue®
- Water-based liquids, to which PP and PTFE are resistant, e.g. glass cleaner and radiator antifreeze agents

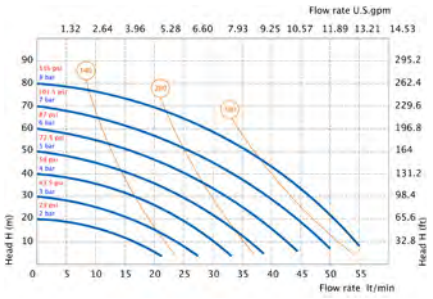
PRODUCTS

Item number	Description 1	Description 2
19 060	Pneumatic diaphragm pump	55 l/min
19 061	Pneumatic diaphragm pump	110 l/min
19 062	Pneumatic diaphragm pump	170 l/min

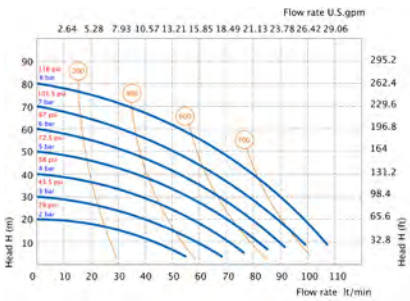
ACCESSORIES

Item number	Description 1	Description 2
87 918	Wall mounting bracket	for 19 060 and 19 061
87 919	Wall mounting bracket	for 19 062
20 062	Male quick release adapter	for 19 060
20 064	Male quick release adapter	for 19 061
20 066	Male quick release adapter	for 19 062

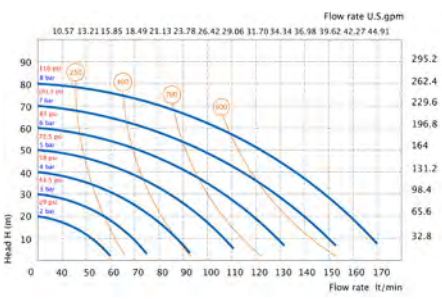
Flow rate 19 060



Flow rate 19 061



Flow rate 19 062



Abbreviations

PP Polypropylenee

PTFE Polytetrafluorethylen (Teflon®)

FACTOR DRP 8
D-73730 ESSLINGEN
230 V~
001956
n.0-3000 min
max Ø 8 mm

118 Hose Reels for Water/Air

119 Hose Reels for Coolant

120 Hose Reels, special models

121 Air Blow Guns

122 Spray Guns

123 Wash Guns

123 Accessories

Hose Reel for Water/Air

29 473

TECHNICAL DATA

- Connection discharge hose: G 3/8" female/male
- Length of connecting hose (m): 1
- Connection to connecting hose: G 3/8" female/female
- Inner diameter of hose (DN): 10
- Max. operating pressure (bar): 20

SPECIFICATION

- Hose reel for water/air
- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	10 m	15 m	Open	Closed	GDI	GDA	WB	DM
	29 442	Hose reel-water/air	O-WB-20 bar-DN 10-10 m	×		×				×	
	29 443	Hose reel-water/air	O-WB-20 bar-DN 10-15 m		×	×				×	
	29 452	Hose reel-water/air	O-DM-20 bar-DN 10-10 m	×		×					×
	29 453	Hose reel-water/air	O-DM-20 bar-DN 10-15 m		×	×					×
	29 472	Hose reel-water/air	GDA-WB-20 bar-DN 10-10 m	×			×		×	×	
	29 473	Hose reel-water/air	GDA-WB-20 bar-DN 10-15 m		×		×		×	×	
	29 462	Hose reel-water/air	GDI-WB-20 bar-DN 10-10 m	×			×	×		×	
	29 463	Hose reel-water/air	GDI-WB-20 bar-DN 10-15 m		×		×	×		×	
	29 492	Hose reel-water/air	GDA-DM-20 bar-DN 10-10 m	×			×		×		×
	29 493	Hose reel-water/air	GDA-DM-20 bar-DN 10-15 m		×		×		×		×
	29 482	Hose reel-water/air	GDI-DM-20 bar-DN 10-10 m	×			×	×			×
	29 483	Hose reel-water/air	GDI-DM-20 bar-DN 10-15 m		×		×	×			×

Abbreviations

GDI	Encased, swivel joint, inside	**DM**	Ceiling mounting
DN	Inner diameter, in mm	**O**	open
GDA	Encased, swivel joint, outside	**WB**	Wall and floor mounting

Hose Reel for Coolant

29 562

TECHNICAL DATA

- Length of discharge hose (m): 10
- Connection discharge hose: G 1/2" female/male
- Length of connecting hose (m): 1
- Connection to connecting hose: G 1/2" female/ female
- Inner diameter of hose (DN): 12
- Max. operating pressure (bar): 120

SPECIFICATION

- Hose reel for coolant
- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	10 m	15 m	Open	Closed	GDI	GDA	WB	DM
	29 542	Hose reel-coolant	O-WB-120 bar-DN 12-10 m	×		×				×	
	29 543	Hose reel-coolant	O-WB-120 bar-DN 12-15 m		×	×				×	
	29 552	Hose reel-coolant	O-DM-120 bar-DN 12-10 m	×		×					×
	29 572	Hose reel-coolant	GDA-WB-120 bar-DN 12-10 m	×			×		×	×	
	29 573	Hose reel-coolant	GDA-WB-120 bar-DN 12-15 m		×		×		×	×	
	29 562	Hose reel-coolant	GDI-WB-120 bar-DN 12-10 m	×			×	×		×	
	29 563	Hose reel-coolant	GDI-WB-120 bar-DN 12-15 m		×		×	×		×	
	29 592	Hose reel-coolant	GDA-DM-120 bar-DN 12-10 m	×			×		×		×
	29 593	Hose reel-coolant	GDA-DM-120 bar-DN 12-15 m		×		×		×		×
	29 582	Hose reel-coolant	GDI-DM-120 bar-DN 12-10 m	×			×	×			×
	29 583	Hose reel-coolant	GDI-DM-120 bar-DN 12-15 m		×		×	×			×

Accessories for Hose Reels for Water/Air, Coolant

PRODUCTS

Image	Item number	Description 1	Description 2
	29 930	Wall bracket	swivable-90°
	29 940	Mounting bracket	
	29 977	Hose stop-3/8"	
	29 932	System brackets for mounting	for max. 6 hose reels More Information: see P. 34

Hose Reel, special models

TECHNICAL DATA

- Length of discharge hose (m): 16
- Connection discharge hose: G 1/4" male
- Connection to connecting hose: G 3/8" female
- Inner diameter of hose (mm): 10
- Max. operating pressure (bar): 15
- Housing material: polyamide

SPECIFICATION

- Hose reel for compressed air
- Encased, for wall/floor mounting, outside swivel
- With hose stop

SPECIAL NOTES

- It is recommended to use the quick connecting coupler (20 022) on the discharge side

PRODUCTS

Item number	Description 1	Description 2
29 036	Hose reel-compressed air	15 bar-DN 10-16 m

Abbreviations

DN	Inner diameter, in mm	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
GE	Encased	**GS**	Tested for safety
NW	Nominal width = inside diameter	**TÜV**	Technical Inspection Agency in Germany
WD	Wall-/Ceiling mounting		

Hose Reel, Special Models

TECHNICAL DATA

- Connection voltage (V): 230
- Max. load uprolled (kW): 1,2
- Max. load unrolled (kW): 1,8
- Length of cable (m): 10
- Length of connecting cable (m): 1,5
- Inlet and outlet connectors: Euro two-pin plug
- Fuse: thermal protection switch
- Housing material: polyamide
- Quality mark: TÜV and GS

SPECIFICATION

- Encased, for wall/floor mounting
- With hose stop

PRODUCTS

Item number	Description 1	Description 2
29 051	Electric cable reel	GE-WD-10 m-swivable

Air Blow Guns

SPECIFICATION

- Male quick release adapter NW 7,2 - NW 7,8
- Removable short nozzle (concentrated air flow)

SPECIAL NOTES

- Ideal for blowing out blind holes

PRODUCTS

Item number	Description 1	Description 2
20 233	Blow out gun-aluminium	short nozzle push connector

Air Blow Guns

20 235

TECHNICAL DATA
- Flow capacity (l/min): 460 at 6 bar
- Flow capacity (l/min): 270 at 3 bar

SPECIFICATION
- Aluminium pipe

SPECIAL NOTES
- To blow out deep holes and difficult to access locations

PRODUCTS

Item number	Description 1	Description 2	Male quick release adapter NW 7,2 - NW 7,8
20 235	Blow out gun-plastic	blow pipe 105 mm-push connector	×
20 235 950	Blow out gun-plastic	blow pipe 105 mm-G 1/4" female	

Compressed Air Gun

TECHNICAL DATA
- Media: low viscosity oils

SPECIFICATION
- Male quick release adapter NW 7,2 - NW 7,8
- 1-l-container

PRODUCTS

Item number	Description 1	Description 2
20 240	Compressed air-gun	1-l-container

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**KU**	Coupler
NW	Nominal width = inside diameter		

Wash Guns

TECHNICAL DATA
- Max. operating pressure (bar): 40
- Operating temperature (°C): 0 / +90
- Connection: G 3/8'' female
- Medium: water

SPECIFICATION
- Spray jet manually controlled through a regulating wheel
- Rubber handgrip
- Suitable for hose reels

PRODUCTS

Item number	Description 1	Description 2
20 250	Wash gun with regulating wheel	G 3/8'' female

Air Maintenance Unit

20 218 950

TECHNICAL DATA
- Max. operating pressure: 10
- Working pressure max. (bar): +0,5 / +10
- Normal flow capacity (l/sec): *6,3
  * at 10 bar supply pressure, and 6 bar operating pressure Δ p = 1 bar
- Filter unit (my): 40
- Condensate volume (l): 0,017
- Temperature range (°C): 0 / +50
- Housing material. zinc die casting

SPECIFICATION
- Pressure-reducing valve, with manometer, water separator and lubricator
- Wall-mounting bracket

PRODUCTS

Item number	Description 1	Description 2	Connection 1	Connection 2
20 218	Air maintenance unit	G 1/4'' female-G 1/4'' female	G 1/4'' female	G 1/4'' female
20 218 950	Air maintenance unit-complete set	G 1/4'' male-for KU Rectus-type 26	G 1/4'' male	Male quick release adapter NW 7,2 - NW 7,8

Compressed Air Hoses

20 913

TECHNICAL DATA

- Connection 1: sleeve nut, G 3/8" female
- Connection 2: G 3/8'' male, 60° sealing cone
- Nominal width (mm): 9
- Core: rubber, flat
- Insert: reinforced
- Cover: rubber, flat, abrasion-resistant
- Colour of inner and outer material: black

SPECIFICATION

- DIN 20 018

PRODUCTS

Item number	Description 1	Description 2	Length	Outside diameter	Wall thickness
20 913	Compressed air hose line	5 m-G 3/8" female-G 3/8" male	5 m	16 mm	3,5 mm
20 914	Compressed air hose line	8 m-G 3/8" female-G 3/8" male	8 m	17 mm	4 mm
20 915	Compressed air hose line	10 m-G 3/8" female-G 3/8" male	10 m	17 mm	4 mm
20 917	Compressed air hose line	15 m-G 3/8" female-G 3/8" male	15 m	17 mm	4 mm

Coiled Air Hose

TECHNICAL DATA

- Length of hose (m): 5
- Connection 1: Rectus coupler, type 26, NW 7,2 mm, for quick release adapter Rectus
- Connection 2: male quick release adapter, for Rectus coupler, type 26, NW 7,2 mm
- Dynamic operating pressure (bar): 17

SPECIFICATION

- For connection to compressed air line / compressed air tool

PRODUCTS

Item number	Description 1	Description 2
20 185	Coiled hose 5 m	1-l-container

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
NW	Nominal width = inside diameter	**SW**	Width across flats

Quick Connection Coupler

20 026

TECHNICAL DATA

- Connection 1: Rectus coupler, type 26, NW 7,2 mm, for quick release adapter Rectus
- Function: one-way shut-off
- Temperature range (°C): -20 / +100
- Pressure range (bar): 0 - 35 and rough vacuum
- Material: brass
- Material of seal: NBR

PRODUCTS

Item number	Description 1	Description 2	Connection 2	Width across flats
20 022	Rectus connector coupler	type 26-G 1/4'' female-SW 22	G 1/4'' female	22 mm
20 024	Rectus connector coupler	type 26-G 3/8'' female-SW 22	G 3/8'' female	22 mm
20 026	Rectus connector coupler	type 26-G 1/2" female-SW 24	G 1/2" female	24 mm
20 032	Rectus connector coupler	type 26-G 1/4" male-SW 22	G 1/4" male	22 mm
20 034	Rectus connector coupler	type 26-G 3/8'' male-SW 22	G 3/8'' male	22 mm
20 036	Rectus connector coupler	type 26-G 1/2" male-SW 24	G 1/2" male	24 mm
20 043	Rectus connector coupler	type 26-6 mm-SW 21	6 mm, for hoses DN 6	21 mm
20 045	Rectus connector coupler	type 26-9 mm-SW 21	9 mm, for hoses DN 9	21 mm

Push Connector

20 064

TECHNICAL DATA

- Connection 1: male quick release adapter NW 7,2 - NW 7,8
- Material: brass

PRODUCTS

Item number	Description 1	Description 2	Connection 2	Width across flats
20 052	Push connector for KU Rectus	type 26-G 1/4'' female-SW 17	G 1/4'' female	17 mm
20 054	Push connector for KU Rectus	type 26-G 3/8'' female-SW 19	G 3/8'' female	19 mm
20 062	Push connector for KU Rectus	type 26-G 1/4" male-SW 17	G 1/4" male	17 mm
20 064	Push connector for KU Rectus	type 26-G 3/8'' male-SW 19	G 3/8'' male	19 mm
20 066	Push connector for KU Rectus	type 26-G 1/2" male-SW 22	G 1/2" male	22 mm

Push Hose Connector

20 073

TECHNICAL DATA

- Connection 1: Male hose nozzle for Rectus coupler, type 26, NW 7,2 mm
- Material: brass

PRODUCTS

Item number	Description 1	Description 2	Connection 2
20 073	Push connector for Rectus coupler	type 26-6 mm	6 mm, for hoses DN 6
20 075	Push connector for Rectus coupler	type 26-9 mm	9 mm, for hoses DN 9
20 077	Push connector for Rectus coupler	type 26-13 mm	13 mm, for hoses DN 13

Double Ended Connector

20 112

TECHNICAL DATA

- Temperature range (°C): -10 / +70
- Pressure (bar): -0,95 - 15
- Material: brass

SPECIFICATION

- With inner cone, acc. to DIN EN 560

PRODUCTS

Item number	Description 1	Description 2	Connection each end	Nominal width	Wrench size (SW)
20 112	Double threaded nipple	G 1/4" male-DK 60°-both-sided	G 1/4" male	7,2 mm	17 mm
20 114	Double threaded nipple	G 3/8" male-DK 60°-both-sided	G 3/8" male	10 mm	19 mm
20 116	Double threaded nipple	G 1/2" male-DK 60°-both-sided	G 1/2" male	12 mm	24 mm
20 118	Double threaded nipple	G 1" male-DK 60°-both-sided	G 1" male	25 mm	34 mm

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**DK**	Sealing cone
DN	Inner diameter, in mm	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NW	Nominal width = inside diameter	**SW**	Width across flats

Threaded Hose Connector

20 132

TECHNICAL DATA

- Material: brass

PRODUCTS

Item number	Description 1	Description 2	Connection 1	Connection 2	Wrench size (SW)
20 132	Threaded nozzle-G 1/4" male-SW 17	6 mm	G 1/4" male	6 mm, for hoses DN 6	17 mm
20 133	Threaded nozzle-G 1/4" male-SW 17	9 mm	G 1/4" male	9 mm, for hoses DN 9	17 mm
20 134	Threaded nozzle-G 3/8" male-SW 19	6 mm	G 3/8" male	6 mm, for hoses DN 6	19 mm
20 135	Threaded nozzle-G 3/8" male-SW 19	9 mm	G 3/8" male	9 mm, for hoses DN 9	19 mm
20 136	Threaded nozzle-G 1/2" male-SW 24	13 mm	G 1/2" male	12 mm, for hoses DN 12	24 mm
02 803	Threaded nozzle-G 3/4" male-SW 32	19 mm	G 3/4" male	19 mm, for hoses DN 19	32 mm

Hose Clamps & O-Clips

20 152

PRODUCTS

Item number	Description 1	Description 2
20 152	Worm-drive hose clamp	Clamping range 10-16 mm
20 154	Worm-drive hose clamp	Clamping range 12-22 mm
20 156	Worm-drive hose clamp	Clamping range 16-27 mm
20 162	Twin lug hose clip	Clamping range 11-13 mm
20 164	Twin lug hose clip	Clamping range 13-15 mm
20 166	Twin lug hose clip	Clamping range 15-18 mm

Threaded Sleeves

20 120

TECHNICAL DATA

- Material: brass

PRODUCTS

Item number	Description 1
20 120	Sleeve-G 1/2" female
20 121	Sleeve-G 3/4" female

PVC Reinforced Hose

20 192

TECHNICAL DATA

- Wall thickness (mm): 3
- Material of inner hose and casing: PVC 7806
- Durability acc. to DIN 53 505 (Shore A): 78 ± 3
- Tearing strength acc. to DIN 53 504 (N/mm^2): > 14
- Colour of inner hose: crystal-clear, fibre reinforced
- Colour of casing: green transparent

PRODUCTS

Item number	Description 1	Description 2
20 192	PVC-reinforced hose-DN 6	12 mm male-20 m
20 194	PVC-reinforced hose-DN 9	15 mm male-20 m
20 193	PVC-reinforced hose-DN 9	15 mm male, by the meter

Abbreviations

DIN	German Institute for Standardisation (DIN standards)	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**PVC**	Polyvinylchlorid

Lever Ball Valve

19 778

PRODUCTS

Item number	Description 1	Description 2
19 778	Lever ball valve	G 3/4" female-G 3/4" male
19 764	Lever ball valve	G 1/4" female-G 1/4" female
19 765	Lever ball valve	G 3/8" female-G 3/8" female
19 762	Lever ball valve	G 1/2" female-G 1/2" female
19 763	Lever ball valve	G 3/4" female-G 3/4" female
19 767	Lever ball valve	G 1" female-G 1" female
19 771	Lever ball valve	G 1 1/4" female-G 1 1/4" female
19 772	Lever ball valve	G 1 1/2" female-G 1 1/2" female
19 773	Lever ball valve	G 2" female-G 2" female
87 056	Sleeve ball valve	G 1/4" female

Dirt Trap Strainer

19 760

TECHNICAL DATA

- Strainer mesh width (mm): 0,5
- Operating pressure max. (bar): 16
- Material: brass
- Medium: oil

PRODUCTS

Item number	Description 1	Description 2
19 760	Dirt trap-strainer	G 1/2" female-G 1/2" female
19 761	Dirt trap-strainer	G 3/4" female-G 3/4" female

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

Retention Adapter

18 088

PRODUCTS

Item number	Description 1	Description 2	SW	overall length (mm)
20 111	Double threaded nipple	G 1/4" male-DK 60°-G 1/8" male-DK 60°	18	20
18 086	Double threaded nipple	G 1/4" male-DK 60°-R 1/2" male	24	42,9
18 087	Double threaded nipple	G 3/8'' male-DK 60°-R 1/2" male	22	38
20 251	Double threaded nipple	G 1/2" male-DK 60°-R 3/8" male	24	43
19 636	Double threaded nipple	G 1/2" male-G 3/4'' male-DK 60°-both-sided	32	38
19 638	Double threaded nipple	G 3/4" male-DK 60°-R 1" male	35	58
18 088	Double threaded nipple	G 3/8'' male-DK 60°-each end	22	32
19 619	Double threaded nipple	G 1/2" male-DK 60°-R 1/2" male	26	46
18 085	Double threaded nipple	G 1/4'' male-DK 60°-R 1/4'' male	18	35
19 637	Double threaded nipple	G 3/4" male-DK 60°-R 3/4" male	30	51
12 016	Retention adapter	G 1/8'' female-M 10 x 1 male	13	23
12 086	Retention adapter	G 1/8'' male-M 10 x 1 female	13	23
18 093	Retention adapter	G 1/4" male-G 1/8'' female	19	28
20 122	Retention adapter	G 1/4'' female-G 3/8'' male	19	14
20 124	Retention adapter	G 3/8'' female-G 1/2" male	24	18
20 126	Retention adapter	G 1/2" female-G 3/4" male	32	21
03 419	Retention adapter	G 1'' male-G 3/4'' female	38	18
19 418	Retention adapter	G 3/4'' female-G 2" male	65	48,5
19 628	Reduction sleeve	G 1" female-G 3/4" female	-	45
19 630	Reduction sleeve	G 1 1/4" female-G 3/4" female	-	50
18 016	Sleeve	M 10 x 1 female	15	24
18 017	Sleeve	G 1/8'' female	15	24
19 626	Reduction sleeve	G 1/2'' male-G 3/4'' female	-	30

Abbreviations

DK	Sealing cone	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
R	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection	**SW**	Width across flats

Check Valve

19 897

E

PRODUCTS

Item number	Description 1	Description 2	oils	water	air
19 892	Check valve	G 1" female-G 1" female	×	×	
19 897	Solenoid valve-2/2-way	G 1/2" female-G 1/2" female			×

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

134 Vane Pumps

141 Vane Pump Sets

156 PREMAxx - Axial Wheel Pumps

157 PREMAxx - Axial Wheel Pump Sets

158 Volume Meters

162 Management Systems

166 TANKFIxx - Dispensers

170 Diesel Compact Systems

173 Mobile Fuel Stations

180 Nozzle Valves and Rotary Swivel Couplers

181 Hoses and Fittings

183 Hose Reels

184 Accessories

F

MOBIFIxx 35 l/min, 12 & 24 V DC

23 012

IP54

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 3/4" female, with adapter to G 1" male
- Connection discharge side: G 3/4" female, with adapter to G 1" male

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35
- Suction height (m): 3
- Discharge pressure up to (bar): 1,6
- Flow media: fuel oil and diesel

Motor data

- Fuse (A): 25 A plug-in fuse
- Duty cycle under free discharge max. (min): 60
- Run time (min) when dispensing valve is closed max.: 5
- Type of construction: IMB 5
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: NBR 70
- Material pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: PEI 30
- Tolerance vane - pump housing (mm): ± 0,025

SPECIAL NOTES

- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200°C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- The pump can be operated mobile or stationary
- For any situation in which a battery is not available, such as construction sites, in agriculture, on boats etc.

SPECIFICATION

- Vane pump, with integral bypass
- On-off switch
- Fuse
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active

PRODUCTS

Item number	Description 1	Description 2	12 V DC	24 V DC
23 012	MOBIFIxx 35 l/min	12 V-DC-battery clips	×	
23 012 824	MOBIFIxx 35 l/min	24 V-DC-battery clips		×

Abbreviations

EUS	Euro two-pin plug	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
IP	Safety class	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
PEI	Polyetherimide	**WHG**	Water Resources Act (Germany)

MOBIFIxx Industrial Design, 12 & 24 V DC

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Vane pump, with integral bypass
- On-off switch
- Fuse
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case is completely galvanised with coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

PRODUCTS

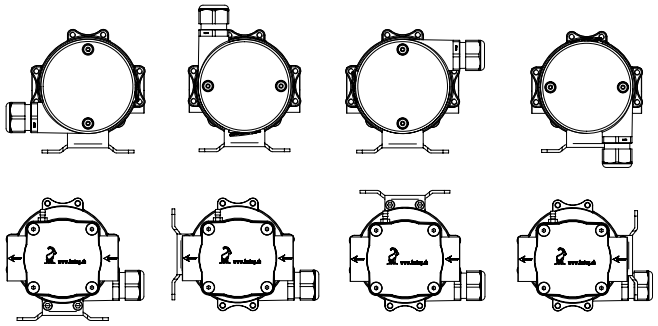
Item number	Description 1	Description 2	12 V DC	24 V DC	35 l/min	54 l/min
23 404	MOBIFIxx 35 l/min-9.2 gpm	12 V-DC-battery clips	×		×	
23 405	MOBIFIxx 35 l/min-9.2 gpm	24 V-DC-battery clips		×	×	
23 406	MOBIMAxx 54 l/min-14.3 gpm	12 V-DC-battery clips	×			×
23 407	MOBIMAxx 54 l/min-14.3 gpm	24 V-DC-battery clips		×		×

Abbreviations

EUS	Euro two-pin plug
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
WHG	Water Resources Act (Germany)
FKM	Viton®
POM	Acetal homopolymer

MOBIFIxx Industrial Design, 12 & 24 V DC, with Automatic Shut-off and Radio Shielding

23 404 002



TECHNICAL DATA

- Automatic start-up: delayed motor operation after start
- Automatic shut-off 1: the motor is automatically shut off when the vale is closed
- Automatic shut-off 2: automatic motor shut-off in case of dry running
- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Delayed start after switching on the pump
- Automatically shut off when the vale is closed
- LED fault display
- Overvoltage and undervoltage protection
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis

SPECIFICATION

- Vane pump, with integral bypass
- Electronic shut-off with relay circuit
- On-off switch
- Fuse
- Motor with RFI suppression
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active

- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case is completely galvanised with coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

PRODUCTS

Item number	Description 1	Description 2	12 V DC	24 V DC	35 l/min	54 l/min
23 404 002	MOBIFIxx 35 l/min-9.2 gpm	12 V-DC-battery clips+ASA+EST	×		×	
23 405 002	MOBIFIxx 35 l/min-9.2 gpm	24 V-DC-battery clips+ASA+EST		×	×	
23 406 002	MOBIMAxx 54 l/min-14.3 gpm	12 V-DC-battery clips+ASA+EST	×			×
23 407 002	MOBIMAxx 54 l/min-14.3 gpm	24 V-DC-battery clips+ASA+EST		×		×

ROTAxx Industrial Design 54 l/min, 12 & 24 V DC

23 901 008

IP66

3h CONTINUOUS

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge up to (l/min): 54
- Suction height up to (m): 3
- Discharge pressure up to (bar): 1,8
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Fuse (A): 40 A plug-in fuse
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Rotation speed (rpm): 2500
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case is completely galvanised with coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C

SPECIFICATION

- For 200- to 1000 l container
- Vane pump, with integral bypass
- On-off switch
- Control nozzle storage bracket
- Fuse
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Drum adapter, G 2" male, G 1" male (19 524)

- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- The pump can be operated mobile or stationary
- For any situation in which a battery is not available, such as construction sites, in agriculture, on boats etc.

PRODUCTS

Item number	Description 1	Description 2	12 V DC	24 V DC	ZVH
23 901	ROTAxx 54 l/min-14.3 gpm-12 V-DC	battery clips	×		
23 902	ROTAxx 54 l/min-14.3 gpm-24 V-DC	battery clips		×	
23 901 008	ROTAxx 54 l/min-14.3 gpm-12 V-DC	battery clips-ZVH	×		×
23 902 008	ROTAxx 54 l/min-14.3 gpm-24 V-DC	battery clips-ZVH		×	×

Abbreviations

ASA	Automatic switch-off electronics	**Dc**	Direct current
EST	Interference suppression	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
ZVH	Control nozzle storage bracket		

Vane Pump, 230 V

23 102

IP54

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 1,8
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Discharge pressure up to (bar): 1,8
- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: NBR 70
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Vane pump with integral bypass
- On-off switch
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Installation of flowmeter is possible

SPECIAL NOTES

- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200°C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min
23 100	Diesel pump 60 l/min	230 V-1~AC-50 Hz-EUS	×	
23 102	Diesel pump 100 l/min	230 V-1~AC-50 Hz-EUS		×

Abbreviations

EUS	Euro two-pin plug	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
IP	Safety class	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
PEI	Polyetherimide	**WHG**	Water Resources Act (Germany)

Vane Pump, Industrial Design, 230 V

23 430

CONTINUOUS

IP54

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height (m): 5
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- Pump case freely positionable in all 90° positions

SPECIFICATION

- Vane pump with integral bypass
- On-off switch
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Installation of flowmeter is possible

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min
23 430	Diesel pump 60 l/min	230 V-1~AC-50 Hz-EUS	×	
23 433	Diesel pump 100 l/min	230 V-1~AC-50 Hz-EUS		×

Abbreviations

EUS	Euro two-pin plug
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
WHG	Water Resources Act (Germany)
FKM	Viton®
POM	Acetal homopolymer

ROTAxx Industrial Design 60 l/min, 230 V

23 905

CONTINUOUS

IP54

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60
- Discharge pressure up to (bar): 1,8
- Suction height (m): 5
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 3
- Power (kW): 0,6
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Torque (Nm): 1,27
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

SPECIFICATION

- Vane pump with integral bypass
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Installation flowmeter is possible
- Drum adapter, G 2" male, G 1" male (19 514)
- For 200- up to 1000 l container

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min
23 905	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS	×	
23 907	ROTAxx 100 l/min-230 V-1~AC	50 Hz-EUS		×

Abbreviations

ASA	Automatic switch-off electronics
EUS	Euro two-pin plug
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
POM	Acetal homopolymer
ZVS	Nozzle valve switch
EST	Interference suppression
FKM	Viton®
IP	Safety class
WHG	Water Resources Act (Germany)
ZVH	Control nozzle storage bracket

Vane Pump Sets, Mobile Sets, MOBIFIxx / MOBIMAxx

23 006

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 60
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Duty cycle under free discharge max. (min): 60
- Run time (min) when dispensing valve is closed max.: 5
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: NBR
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: PEI 30

SPECIAL NOTES

- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200°C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- The pump can be operated mobile or stationary
- Screwed connections sealed with O-rings
- Easy to mount and disassemble pipe connections
- No damage when disassembling, as occurs when using glued connections
- For any situation in which a battery is not available, such as construction sites, in agriculture, on boats etc.

SPECIFICATION

- Vane pump with integral bypass
- On-off switch
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Discharge hose, 4 m, DN 19, G 1" male, G 1" female (23 155 957)
- Suction hose, 1,6 m, DN 25, G 1" male, G 1" female (23 156)
- Foot valve with strainer (19 890)

PRODUCTS

Item number	Description 1	Description 2	35 l/min	60 l/min	12 V	24 V	ZVD	ZVABD
23 006	MOBIFIxx 35 l/min-12 V-DC	ABK-ZVABD-4 m-set	×		×			×
23 006 824	MOBIFIxx 35 l/min-24 V-DC	ABK-ZVABD-4 m	×			×		×
23 015	MOBIFIxx 35 l/min-12 V-DC	ABK-ZVD-4 m	×		×		×	
23 015 824	MOBIFIxx 35 l/min-24 V-DC	ABK-ZVD-4 m	×			×	×	
23 007	MOBIMAxx 60 l/min-12 V-DC	ABK-ZVABD-4 m		×	×			×
23 007 824	MOBIMAxx 60 l/min-24 V-DC	ABK-ZVABD-4 m		×		×		×
23 009	MOBIMAxx 60 l/min-12 V-DC	ABK-ZVD-4 m		×	×		×	
23 009 824	MOBIMAxx 60 l/min-24 V-DC	ABK-ZVD-4 m		×		×	×	

Abbreviations

ABK	Battery clips	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NBR	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)	**PEI**	Polyetherimide
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

Vane Pump Sets, Mobile Sets, MOBIFIxx / MOBIMAxx Industrial Design

23 519

3h CONTINUOUS

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case, completely galvanised, coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips (ABK), length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Vane pump with integral bypass
- On-off switch
- Fuse
- Siphon protection acc. to WHG, continuously active
- Discharge hose, 4 m / 13.1 ft, DN 19, G 1" male, G 1" female (23 155 957)
- Suction hose, 1,6 m / 5.2 ft, DN 25, G 1" male, G 1" female (23 156)
- Foot valve with strainer (19 890)

PRODUCTS

Item number	Description 1	Description 2	35 l/min	54 l/min	12 V	24 V	ZVD	ZVABD
23 517	MOBIFIxx 35 l/min-9.2 gpm-12 V-DC	ABK-ZVD-4 m	×		×		×	
23 517 824	MOBIFIxx 35 l/min-9.2 gpm-24 V-DC	ABK-ZVD-4 m	×			×	×	
23 517 100	MOBIFIxx 35 l/min-9.2 gpm-12 V-DC	ABK-ZVABD-4 m	×		×			×
23 517 825	MOBIFIxx 35 l/min-9.2 gpm-24 V-DC	ABK-ZVABD-4 m	×			×		×
23 519	MOBIMAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVD-4 m		×	×		×	
23 519 824	MOBIMAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVD-4 m		×		×	×	
23 519 100	MOBIMAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVABD-4 m		×	×			×
23 519 825	MOBIMAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVABD-4 m		×		×		×

Abbreviations

PEI Polyetherimide
WHG Water Resources Act (Germany)
ZVD Manual nozzle valve, Al, with swivel joint
POM Acetal homopolymer
ZVABD Automatic nozzle valve for diesel with German type approval and swivel joint

Industrial design 60 l/min or 100 l/min, Drum Adapter

23 510 350

CONTINUOUS

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Vane pump with integral bypass
- On-off switch
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Discharge hose, 4 m, DN 19, G 1" male, G 1" female (23 155 957)
- Suction hose, 1,6 m, DN 25, G 1" male, G 1" female (23 156)
- Foot valve with strainer (19 890)

PRODUCTS

Image	Item number	Description 1	Description 2	60 l/min	Specification
	23 510 350	FZP 60 l/min 230 V-1~AC-50 Hz	ZVD-4 m-for steel-/HDPE-tanks	×	Manual nozzle valve, with swivel joint ZVD (23 171)
	23 510 351	FZP 60 l/min- 30 V-1~AC-50 Hz	ZVAD-4 m-for steel-/HDPE-tanks	×	Automatic nozzle valve for diesel with swivel joint, ZVAD (23 176)

Abbreviations

DN	Inner diameter, in mm	**FZP**	Vane pump
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**POM**	Acetal homopolymer
ZVAD	Automatic nozzle valve for diesel with swivel joint		

MOBIFIxx / MOBIMAxx Industrial Design, Drum Adapter

23 517 090

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case, completely galvanised, coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C / 392 °F
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Drum adapter, G 2" male, G 1" male (19 524)
- On-off switch
- Siphon protection acc. to WHG, continuously active
- Automatic nozzle valve with swivel joint, ZVAD (23 176)
- Discharge hose, 4 m / 13.1 ft, DN 19, G 1" male, G 1" female (23 155 957)
- Suction hose, 1,6 m / 5.2 ft, DN 25, G 1" male, G 1" female (23 156)
- Foot valve with strainer (19 890)
- Universal-Control nozzle storage bracket (23 174)

PRODUCTS

Item number	Description 1	Description 2	ZVAD	EBZM
23 517 090	MOBIFIxx 35 l/min-9.2 gpm-12 V-DC	ABK-ZVAD-4 m	×	
23 517 091	MOBIFIxx 35 l/min-9.2 gpm-12 V-DC	ABK-ZVAD-EBZM-4 m	×	×
23 517 086	MOBIFIxx 35 l/min-9.2 gpm-24 V-DC	ABK-ZVAD-4 m	×	
23 517 087	MOBIFIxx 35 l/min-9.2 gpm-24 V-DC	ABK-ZVAD-EBZM-4 m	×	×
23 519 092	MOBIMAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-4 m	×	
23 519 093	MOBIMAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-EBZM-4 m	×	×
23 519 088	MOBIMAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-4 m	×	
23 519 089	MOBIMAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-EBZM-4 m	×	×

Abbreviations

ABK	Battery clips	**EBZM**	In-line meter, mechanical
EUS	Euro two-pin plug	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
POM	Acetal homopolymer	**ZVABD**	Automatic nozzle valve for diesel
ZVAD	Automatic nozzle valve for diesel with swivel joint with German type approval and swivel joint		

Industrial Design Vane Pump Sets ROTAxx 54 l/min, 12 & 24 V DC

23 917 008

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case, completely galvanised, coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C / 392 °F
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- The pump can be operated mobile or stationary
- For any situation in which a battery is not available, such as construction sites, in agriculture, on boats etc.

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge up to (l/min): 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Fuse (A): 40 A plug-in fuse
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Rotation speed (rpm): 2500
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- For 200- up to 1000 l containers
- Drum adapter, G 2" male, G 1" male (19 524)
- On-off switch
- Fuse
- Siphon protection acc. to WHG, continuously active
- Filter strainer prevents dirt from being sucked up into the pump
- Discharge hose, 4 m / 13.1 ft, DN 19, G 1" male, G 1" female (23 155 957)
- Suction hose, 1,6 m / 5.2 ft, DN 25, G 1" male, G 1" female (23 156)
- Foot valve with strainer (19 890)

PRODUCTS

Item number	Description 1	Description 2	12 V	24 V	ZVPP	ZVAD	ZVABD	EBZM	ZVH
23 911	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVPP-4 m	×		×				
23 912	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVPP-EBZM-4 m	×		×			×	
23 914	ROTAxx 54 l/min-14,3 gpm-12 V-DC	ABK-ZVABD-4 m	×				×		
23 915	ROTAxx 54 l/min-14,3 gpm-12 V-DC	ABK-ZVABD-EBZM-4 m	×				×	×	
23 917	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-4 m	×			×			
23 918	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-EBZM-4 m	×			×		×	
23 921	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVPP-4 m		×	×				
23 922	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVPP-EBZM-4 m		×	×			×	
23 924	ROTAxx 54 l/min-14,3 gpm-24 V-DC	ABK-ZVABD-4 m		×			×		
23 925	ROTAxx 54 l/min-14,3 gpm-24 V-DC	ABK-ZVABD-EBZM-4 m		×			×	×	
23 927	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-4 m		×		×			
23 928	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-EBZM-4 m		×		×		×	
23 917 008	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-4 m-ZVH	×			×			×
23 918 008	ROTAxx 54 l/min-14.3 gpm-12 V-DC	ABK-ZVAD-EBZM-4 m-ZVH	×			×		×	×
23 914 008	ROTAxx 54 l/min-14,3 gpm-12 V-DC	ABK-ZVABD-4 m-ZVH	×				×		×
23 915 008	ROTAxx 54 l/min-14,3 gpm-12 V-DC	ABK-ZVABD-EBZM-4 m-ZVH	×				×	×	×
23 927 008	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-4 m-ZVH		×		×			×
23 928 008	ROTAxx 54 l/min-14.3 gpm-24 V-DC	ABK-ZVAD-EBZM-4 m-ZVH		×		×		×	×
23 924 008	ROTAxx 54 l/min-14,3 gpm-24 V-DC	ABK-ZVABD-4 m-ZVH		×			×		×
23 925 008	ROTAxx 54 l/min-14,3 gpm-24 V-DC	ABK-ZVABD-EBZM-4 m-ZVH		×			×	×	×

Industrial Design Vane Pump Sets ROTAxx 60 l/min, 230 V

23 938

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Small tolerances provide a high suction- and pressure performance
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

SPECIFICATION

- For 200- up to 1000 l containers
- Drum adapter, G 2" male, G 1" male (19 524)
- Vane pump with integral bypass
- Siphon protection acc. to WHG, continuously active
- Filter strainer prevents dirt from being sucked up into the pump
- Foot valve with strainer (19 890)
- Valuable sales package

PRODUCTS

Item number	Description 1	Description 2	ZVPP	ZVAD	ZVABD	EBZM	60 l/min	100 l/min
23 931	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS-ZVPP-4 m	×				×	
23 932	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS-ZVPP-EBZM-4 m	×			×	×	
23 934	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS-ZVABD-4 m			×		×	
23 937	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS-ZVAD-4 m		×			×	
23 938	ROTAxx 60 l/min-230 V-1~AC	50 Hz-EUS-ZVAD-EBZM-4 m		×		×	×	
23 959	ROTAxx 100 l/min-230 V-1~AC	50 Hz-EUS-EBZM-ZVAD-4 m		×		×		×

Abbreviations

ABK	Battery clips	**EBZM**	In-line meter, mechanical
EUS	Euro two-pin plug	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
POM	Acetal homopolymer	**WHG**	Water Resources Act (Germany)
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint
		ZVH	Control nozzle storage bracket
ZVPP	Nozzle valve, polypropylene	**ZVS**	Nozzle valve switch

Vane Pump Sets for Wall-mounting, MOBIFIxx / MOBIMAxx Industrial Design

23 517 391

SPECIAL NOTES

- First class construction of electric machines and pumps
- Continuous operation - 3 hours - with open valve
- Lapped shaft on the sealing point
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Switch case freely positionable in all 90° positions
- Switch case made of shock resistant, die-cast zinc, coated by cataphoresis
- Pump case made of seawater resistant, die-cast aluminium, coated by cataphoresis
- Motor case, completely galvanised, coated external parts
- Small tolerances provide a high suction- and pressure performance
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200 °C
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35 or 54
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 12 V DC
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIFICATION

- Vane pump with integral bypass
- Automatic shut-off (ASA)
- On-off switch
- Fuse
- Siphon protection acc. to WHG, continuously active
- Pre-assembled on mounting plate (GPM) for wall and tank mounting
- Automatic nozzle valve with swivel joint, ZVAD (23 176)
- Discharge hose, 6 m, DN 19, G 1" male, G 1" female (23 155 958)
- Foot valve with strainer (19 890)

PRODUCTS

Image	Item number	Description 1	Description 2	35 l/min	54 l/min	EBZM	EBZD
	23 517 390	FZP 35 l/min-9.2 gpm-12 V-DC	ASA-ABK-GPM-EBZM-ZVAD-6 m	×		×	
	23 517 391	FZP 35 l/min-9.2 gpm-12 V-DC	ASA-ABK-GPM-EBZD-ZVAD-6 m	×			×
	23 519 390	FZP 54 l/min-14.3 gpm-12 V-DC	ASA-ABK-GPM-EBZM-ZVAD-6 m		×	×	
	23 519 391	FZP 54 l/min-14.3 gpm-12 V-DC	ASA-ABK-GPM-EBZD-ZVAD-6 m		×		×

Abbreviations

EBZD	In-line meter, digital
EBZM	In-line meter, mechanical
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
GPM	Assembled on mounting plate
POM	Acetal homopolymer
WHG	Water Resources Act (Germany)
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD	Automatic nozzle valve for diesel with swivel joint

Industrial Design 60 l/min, Wall-mounting

23 510 001

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60
- Discharge pressure up to (bar): 1,8
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 3
- Power (kW): 0,6
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Torque (Nm): 1,27
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance

SPECIFICATION

- Vane pump with integral bypass (23 430)
- On-off switch
- Siphon protection acc. to WHG, continuously active
- Assembled on mounting plate
- In-line meter NUMERIxx[3], three digits (23 192)
- Foot valve with strainer (19 890)

PRODUCTS

Image	Item number	Description 1	Description 2	ZVD	ZVAD	ZVABD	Filter	Discharge hose
	23 510 001	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVD-4 m	×				4 m
	23 510 398	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVD-6 m	×				6 m
	23 510 951	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVABD-4 m			×		4 m
	23 510 390	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVAD-6 m		×			6 m
	23 510 955	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVD-4 m	×			×	4 m
	23 510 396	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVD-6 m	×			×	6 m
	23 510 957	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVABD-4 m			×	×	4 m
	23 510 397	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVAD-6 m		×		×	6 m
	23 510 447	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVAD-8 m		×		×	8 m

Abbreviations

EBZM	In-line meter, mechanical	**EUS**	Euro two-pin plug	**F**	Filter

Industrial Design 100 l/min, Wall-mounting

23 511 959

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 100
- Discharge pressure up to (bar): 2,2
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 5,7
- Power (kW): 1,2
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Torque (Nm): 4,1
- Rotation speed (rpm): 1400
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance

SPECIFICATION

- Vane pump with integral bypass (23 433)
- On-off switch
- Siphon protection acc. to WHG, continuously active
- Assembled on mounting plate
- In-line meter NUMERIxx[3], three digits (23 192)
- Foot valve with strainer (19 890)

PRODUCTS

Image	Item number	Description 1	Description 2	ZVD	ZVAD	ZVABD	Filter
	23 511 001	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVD-4 m	×			
	23 511 398	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVD-6 m	×			
	23 511 953	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVABD-4 m			×	
	23 511 390	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-ZVAD-6 m		×		
	23 511 955	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVD-4 m	×			×
	23 511 392	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVD-6 m	×			×
	23 511 959	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVABD-4 m			×	×
	23 511 393	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-EBZM-F-ZVAD-6 m		×		×

Abbreviations

FZP	Vane pump	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
GPM	Assembled on mounting plate	**POM**	Acetal homopolymer
WHG	Water Resources Act (Germany)	**ZVABD**	Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD	Automatic nozzle valve for diesel with swivel joint		
ZVD	Manual nozzle valve, Al, with swivel joint		

Vane Pump Sets, Industrial Design 60 l/min and 100 l/min & Fluid Management System

23 510 960

up to 1000 users

up to 1000 vehicles

50 vehicles per user

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

SPECIFICATION: FLUID MANAGEMENT SYSTEM (FMS)

- For complete control and evaluation of tank systems and tank operations
- User identification by PIN and/or by iButton
- Entry of license plate, mileage and user for optimal evaluation
- The data of any refilling process can be read out on a PC
- Configuration and installation of storage tanks, tank volumes, users and vehicles
- Two tanks can be operated with the FMS

*more information about FMS: see P. 164

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- The diesel exchange-filter filters out particles exeeding 30 µm and absorbs water up to a total volume of 130 ml.
- Powder coated surfaces, 10 µm thickness
- Pre-assembled on mounting plate (GPM) for wall and tank mounting
- Shapely housing

SPECIFICATION

- Vane pump with integral bypass
- On/Off switch through control valve
- Siphon protection acc. to WHG, continuously active
- In-line meter/pulse meter, IPG, digital (23 820)
- Fluid Management System* (FMS) in aluminium housing (23 499)
- Diesel-exchange filter, 30 µm
- Foot valve with strainer (19 890)
- Suction hose for mounting recommended: 1,6 m (23 156), 2,0 m (23 158 959), 4,0 m (23 155 950), 6,0 m (23 155 956)
- Packed in carton box

PRODUCTS

Image	Item number	Description 1	Description 2	60 l/min	100 l/min	ZVAD	ZVABD	Discharge hose
	23 510 960	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-IPG-FMS-F-ZVAD-6 m	×		×		6 m
	23 510 961	FZP 60 l/min-230 V-1~AC-50 Hz	EUS-GPM-IPG-FMS-F-ZVAD-4 m	×		×		4 m
	23 511 960	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-IPG-FMS-F-ZVAD-6 m		×	×		6 m
	23 511 961	FZP 100 l/min-230 V-1~AC-50 Hz	EUS-GPM-IPG-FMS-F-ZVABD-4 m		×		×	4 m

Abbreviations

EBZD	In-line meter, digital
EUS	Euro two-pin plug
FZP	Vane pump
WHG	Water Resources Act (Germany)
EBZM	In-line meter, mechanical
F	Filter
IPG	Pulse generator

DIESELFIxx / DIESELMAxx with In-line Meter NUMERIxx[3]

23 513 002

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Rotor: sintered metal
- Vane: POM

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- The diesel exchange-filter filters out particles exeeding 30 µm and absorbs water up to a total volume of 130 ml
- Can be directly wall mounted or completed with column used as filling station
- Powder coated surfaces, 10 µm thickness
- Shapely housing

SPECIFICATION

- Vane pump with integral bypass
- On/Off switch through control valve
- Siphon protection acc. to WHG, continuously active
- In-line meter NUMERIxx[3], three digits (23 192)
- Foot valve with strainer (19 890)
- Drum adapter, G 2" male, G 1" male
- Suction hose for mounting recommended: 1,6 m (23 156), 2,0 m (23 158 959), 4,0 m (23 155 950), 6,0 m (23 155 956)
- Packed in carton box

PRODUCTS

Image	Item number	Description 1	60 l/min	100 l/min	ZVAD	ZVABD	Discharge hose, G 1" m, G1" f	Filter	Extra accessories column
	23 513 001	DIESELFIxx 60 l/min-230 V 50 Hz-EUS	×			×	4 m DN 19		23 070 010
	23 513	DIESELFIxx 60 l/min-230 V 50 Hz-EUS	×		×		6 m DN 19		23 070 010
	23 513 011	DIESELFIxx 60 l/min-230 V 50 Hz-EUS	×		×		4 m DN 19	×	23 070 010
	23 513 002	DIESELFIxx 60 l/min-230 V 50 Hz-EUS	×		×		6 m DN 19	×	23 070 010
	23 515 001	DIESELMAxx 100 l/min-230 V 50 Hz-EUS		×	×		4 m DN 25		23 070 012
	23 515	DIESELMAxx 100 l/min-230 V 50 Hz-EUS		×	×		6 m DN 25		23 070 012
	23 515 003	DIESELMAxx 100 l/min-230 V 50 Hz-EUS		×		×	6 m DN 25		23 070 012
	23 515 011	DIESELMAxx 100 l/min-230 V 50 Hz-EUS		×	×		4 m DN 25	×	23 070 012
	23 515 002	DIESELMAxx 100 l/min-230 V 50 Hz-EUS		×	×		6 m DN 25	×	23 070 012

ZVABD: AUTOMATIC NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL AND SWIVEL JOINT

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**f**	female
m	male	**ZVABD**	Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD	Automatic nozzle valve for diesel with swivel joint		

DIESELFIxx / DIESELMAxx with Fluid Management System

up to 1000 users

up to 1000 vehicles

50 vehicles per user

23 513 100

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

SPECIFICATION: FLUID MANAGEMENT SYSTEM (MORE INFORMATION: P. 164)*

- For complete control and evaluation of tank systems and tank operations
- User identification by PIN and/or by iButton
- Entry of license plate, mileage and user for optimal evaluation
- The data of any refilling process can be read out on a PC
- Configuration and setup of tank, content, users and vehicles
- Two tanks can be operated with the FMS

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- Can be directly wall mounted or completed with column used as filling station
- Powder coated surfaces, 10 µm thickness
- Shapely housing

SPECIFICATION

- Vane pump with integral bypass
- On/Off switch through control valve
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Fluid Management System* (FMS) in aluminium housing (23 499)
- In-line meter/pulse meter, IPG, digital (23 820)
- Automatic nozzle valve with swivel joint, ZVAD
- Foot valve with strainer (19 890)
- Drum adapter, G 2" male, G 1" male
- Suction hose for mounting recommended: 1,6 m (23 156), 2,0 m (23 158 959), 4,0 m (23 155 950), 6,0 m (23 155 956)

PRODUCTS

Image	Item number	Description 1	60 l/min	100 l/min	ZVABD	ZVAD	Discharge hose G 1" m, G1" f	Filter	Extra accessories column
	23 513 103	DIESELFIxx 60 l/min-230 V 50 Hz-EUS-FMS	×		×		6 m DN 19		23 070 011
	23 513 111	DIESELFIxx 60 l/min-230 V 50 Hz-EUS-FMS	×			×	4 m DN 19		23 070 011
	23 513 101	DIESELFIxx 60 l/min-230 V 50 Hz-EUS-FMS	×			×	6 m DN 19		23 070 011
	23 513 102	DIESELFIxx 60 l/min-230 V 50 Hz-EUS-FMS	×			×	4 m DN 25	×	23 070 011
	23 513 100	DIESELFIxx 60 l/min-230 V 50 Hz-EUS-FMS	×			×	6 m DN 19	×	23 070 011
	23 515 111	DIESELMAxx 100 l/min-230 V 50 Hz-EUS-FMS		×		×	4 m DN 25		23 070 013
	23 515 101	DIESELMAxx 100 l/min-230 V 50 Hz-EUS-FMS		×		×	6 m DN 25		23 070 013
	23 515 103	DIESELMAxx 100 l/min-230 V 50 Hz-EUS-FMS		×	×		6 m DN 25		23 070 013
	23 515 102	DIESELMAxx 100 l/min-230 V 50 Hz-EUS-FMS		×		×	4 m DN 25	×	23 070 013
	23 515 100	DIESELMAxx 100 l/min-230 V 50 Hz-EUS-FMS		×		×	6 m DN 25	×	23 070 013

ZVABD: AUTOMATIC NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL AND SWIVEL JOINT

Abbreviations

G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**f**	female
IPG	Pulse generator	**m**	male
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

DIESELFIxx / DIESELMAxx Accessories

23 070 010

TECHNICAL DATA

- Material: steel
- Lacquering: light grey, RAL 7035
- Size (mm): 1,5

SPECIFICATION

- Surface protected with Duracryl (good resistance against light-, heat- and weather conditions, durable and scratch resistant surface, very good slovent resistancy, grafiti-resistant)

SPECIAL NOTES

- Shapely housing

F

PRODUCTS

Item number	Description 1	LxWxH (mm)	Weight (kg)	for DIESELFIxx / DIESELMAxx
23 070 010	Column for DIESELFIxx	340x231x1040	15	DIESELFIxx (23 513), (23 513 001), (23 513 002), (23 513 011)
23 070 011	Column for DIESELFIxx	356x208x1040	15	DIESELFIxx (23 513 100), (23 513 101), (23 513 102), (23 513 103), (23 513 111)
23 070 012	Column for DIESELMAxx	410x231x1040	17	DIESELMAxx (23 515), (23 515 001), (23 515 002), (23 515 003), (23 515 011)
23 070 013	Column for DIESELMAxx	386x208x1040	16	DIESELMAxx (23 515 100), (23 515 101), (23 515 102), (23 515 103), (23 515 111)

Application Example Column with DIESELFIxx

SPECIFICATION

- Photo shows application example of the column (23 070 011) with DIESELFIxx (23 513 103)

Solar Powered Sets SOLARTEC

23 009 895

SPECIFICATION

- Vane pump, with integral bypass
- Pump with on-off switch
- Automatic solar charge controller (84 859)
- Charger, 230 VAC-12 VDC (84 862)
- Connection cable with 2 battery pole terminals, length 1.7 m
- Cable gland, adhesive pad and cable tie for connection between module and controller
- Pump and accessories integrated on a compact, painted steel plate
- Safety cover for controller and charger
- Developed and tested with Optima Yellowtop battery, 55 Ah (84 904)

SPECIAL NOTES

- Installation on different tank types possible without major modifications
- The material composition of the vane-stator (runner ring) guarantees form-stability of the vanes up to 200°C
- Solar module secured in a steel housing with polycarbonate cover
- Pump integrated on a compact and secured plate
- Pump switch with cover
- Status of charger and controller visible through transparent cover
- Solar module with painted steel holder
- Charger and controller integrated and secured on pump plate

EFFICIENT REFUELLING WITH THE POWER OF THE SUN

The SOLARTEC diesel refuelling system offers high reliability at high loads thanks to the highest quality components. It is easy to retrofit and is compatible with all tanks. The automatic nozzle enables safe and flexible refuelling of all types of vehicles.

TECHNICAL DATA

Hydraulic data
- Pump design: vane pump, selfpriming
- Delivery rate max. (l) at a battery discharge: 5400
- Discharge pressure up to (bar): 1,8
- Suction height up to (m): 3
- Flow media: fuel oil and diesel

Motor data
- Voltage (V): 12
- Power consumption (A): 30
- Fuse (A): 40
- Operating time max. (min) at a battery charge: 120
- Torque (Nm): 0,66
- Rotation speed (rpm): 2500
- Type of construction: IMB 5
- Safety class: IP 66

Solar module
- Safety class: IP 54
- Operating temperature range (°C): -45 / +86

Solar charge controller
- Type of control: line
- Solar module power max. (W): 55
- Battery voltage (V): 12
- Suitable battery: lead
- Nominal voltage (V): 12
- Charging voltage (V): 13,8
- Module current (A): 4
- Load current (A): 4
- Power consumption (mA): 1,5
- Operating temperature range (°C): -10 / +50
- Dimensions LxWxH (mm): 68 x 57 x 28
- Weight (kg): 0,15

Charger
- Charging function: eight-step (1 - 8)
- Charging time (h): charge of approx. 11 to 80 %
- Discharge function: no
- Battery voltage (V): 12
- Battery capacity (Ah): 1,2 – 110
- Suitable battery: open, maintenance-free AGM, gel or lead calcium batteries
- Nominal voltage (V): 230
- Charging voltage (V): 14,7
- Charging current max. (A): 0,8 or 5
- Return current max. (mA): 1,3
- Operating temperature range (°C): -20 / +50
- Dimensions LxWxH (mm): 168 x 65 x 38
- Weight (kg): 0,5

PRODUCTS

Item number	Description 1/Image	Description 2	Specification
23 009 884	SOLARMAxx 54 l/min-12 V-DC	10 W-ZVAD-6 m	Solar module with cable, length 2,5 m (84 864) Polycarbonate cover for solar module, UV stable (85 547) Hose assembly for diesel, 0,38 m, G 1" male, G 1" male, DN 19 (23 152 899) Angle 90°, G 1" male, G 1" male (85 370 777) Discharge hose, 6 m, DN 19, G 1" male, G 1" female (23 155 958) Automatic nozzle valve with swivel joint, ZVAD (23 176)
23 009 885	SOLARMAxx 54 l/min-12 V-DC	30 W-ZVAD-6 m	Solar module with cable, length 2,5 m (85 292) Polycarbonate cover for solar module, UV stable (85 548) Hose assembly for diesel, 0,38 m, G 1" male, G 1" male, DN 19 (23 152 899) Angle 90°, G 1" male, G 1" male (85 370 777) Discharge hose, 6 m, DN 19, G 1" male, G 1" female (23 155 958) Automatic nozzle valve with swivel joint, ZVAD (23 176)
23 009 886	SOLARMAxx 54 l/min-12 V-DC-ASA	10 W-ZVAD-6 m	Solar module with cable, length 2,5 m (84 864) Polycarbonate cover for solar module, UV stable (85 547) Accessories for modification with integrated manual pump: 3-ways-lever ball valve, G 1" (18 095 393) Hose assembly for diesel, 2 m, G 1" male, G 1" female, DN 25 (23 158 959) Angle 90°, G 1" male, G 1" male (85 370 777) Adapter, G 1" male, G 1" male (85 358) Crimp nipple, GD AlSi 12, DN 20 - 60° Sealing cone, G 1", SW 36 (85 363) T-piece, G 1" female, brass (85 544)
23 009 887	SOLARMAxx 54 l/min-12 V-DC-ASA	30 W-ZVAD-6 m	Solar module with cable, length 2,5 m (85 292) Polycarbonate cover for solar module, UV stable (85 548) Accessories for modification with integrated manual pump: 3-ways-lever ball valve, G 1" (18 095 393) Hose assembly for diesel, 2 m, G 1" male, G 1" female, DN 25 (23 158 959) Angle 90°, G 1" male, G 1" male (85 370 777) Adapter, G 1" male, G 1" male (85 358) Crimp nipple, GD AlSi 12, DN 20 - 60° Sealing cone, G 1", SW 36 (85 363) T-piece, G 1" female, brass (85 544)
23 009 894	SOLARMAxx 54 l/min-12 V-DC	10 W-ZVAD-6 m	Electronic shut-off with relay circuit Solar module with cable, length 2,5 m (84 864) Polycarbonate cover for solar module, UV stable (85 547) Hose assembly for diesel, 0,38 m, G 1" male, G 1" male, DN 19 (23 152 899) Angle 90°, G 1" male, G 1" male (85 370 777) Discharge hose, 6 m, DN 19, G 1" male, G 1" female (23 155 958) Automatic nozzle valve with swivel joint, ZVAD (23 176)
23 009 895	SOLARMAxx 54 l/min-12 V-DC	30 W-ZVAD-6 m	Electronic shut-off with relay circuit Solar module with cable, length 2,5 m (85 292) Polycarbonate cover for solar module, UV stable (85 548) Hose assembly for diesel, 0,38 m, G 1" male, G 1" male, DN 19 (23 152 899) Angle 90°, G 1" male, G 1" male (85 370 777) Discharge hose, 6 m, DN 19, G 1" male, G 1" female (23 155 958) Automatic nozzle valve with swivel joint, ZVAD (23 176)

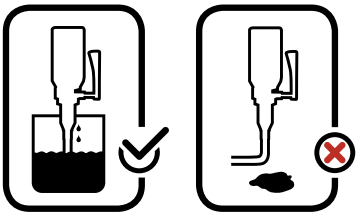
ACCESSORIES FOR SOLAR POWERED SETS: SEE P. 189

Abbreviations

ASA	Automatic switch-off electronics	**PEI**	Polyetherimide
POM	Acetal homopolymer	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

PREMAxx

23 730



TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection container: G 2" male, drum adapter
- Connection suction side: Hose fitting DN 19
- Connection discharge side: G 1" male

Hydraulic data

- Suction height (m): 2,5
- Discharge height max. (m): 15
- Flow media: fuel oil and diesel

Motor data

- Thermal protection: self resetting
- Duty cycle (min): 30
- Rotation speed at 0,5 bar counterpressure (rpm): 7500
- Type of construction: IMB 5
- Safety class: IP 34

Materials of parts in contact with liquid

- Material pump housing and pump: PA 6

SPECIFICATION

- For 200- to 1000 l containers
- Drum adapter, G 2" male
- Siphon protection acc. to WHG, continuously active
- Motor with thermal protection switch, self resetting
- Illuminated on/off switch
- Valuable sales package

SPECIAL NOTES

- The pump is lightweight and very quiet in operation
- Resistant against small dirt particles in the liquid to be discharged
- The liquid column is to be established via manual pumping
- Can be manually operated in case of electric power blackout
- Pump can only be utilized as barrel pump

PRODUCTS

Item number	Description 1	Description 2	230 V	12 V DC	24 V DC	38 l/min	43 l/min	52 l/min
23 730	PREMAxx 48 l/min	230 V-1~AC-50 Hz-EUS	×					×
23 710	PREMAxx 35 l/min-10 gpm	12 V-DC-battery clips		×		×		
23 720	PREMAxx 40 l/min-11.4 gpm	24 V-DC-battery clips			×		×	

Abbreviations

DN	Inner diameter, in mm
FKM	Viton®
IP	Safety class
POM	Acetal homopolymer
ZVH	Control nozzle storage bracket
EUS	Euro two-pin plug
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
PA	Polyamide
WHG	Water Resources Act (Germany)

PREMAxx Axial Wheel Pump Sets

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection container: G 2" male, drum adapter
- Connection suction side: hose fitting DN 19
- Connection discharge side: G 1" male

Hydraulic data

- Suction height (m): 2,5
- Discharge height max. (m): 15
- Flow media: fuel oil and diesel

Motor data

- Thermal protection: self resetting
- Duty cycle (min): 30
- Rotation speed at 0,5 bar counterpressure (rpm): 7500
- Type of construction: IMB 5
- Safety class: IP 34

Materials of parts in contact with liquid

- Material pump housing and pump: PA 6

SPECIAL NOTES

- The pump is lightweight and very quiet in operation
- Resistant against small dirt particles in the liquid to be discharged
- The liquid column is to be established via manual pumping
- Can be manually operated in case of electric power blackout
- Pump can only be utilized as barrel pump
- Replace the carbons when the pump has delivered a volume of 100,000 l

SPECIFICATION

- For 200- to 1000 l containers
- Illuminated on/off switch
- Motor with thermal protection switch, self resetting
- Siphon protection acc. to WHG, continuously active
- Hose assembly, with angle 90° G 1" male, G 1" female, DN 19 (23 144 100)
- Suction hose with brass strainer, 1,6 m / 5.2 ft
- Drum adapter, G 2" male
- Valuable sales package

PRODUCTS

Item number	Description 1	Description 2	12 V DC	24 V DC	230 V	ZVPP	ZVABD	ZVAD
23 711	PREMAxx 35 l/min	12 V-DC-ABK-ZVPP-4 m	×			×		
23 714	PREMAxx 35 l/min	12 V-DC-ABK-ZVABD-4 m	×				×	
23 717	PREMAxx 35 l/min	12 V-DC-ABK-ZVAD-4 m	×					×
23 721	PREMAxx 40 l/min	24 V-DC-ABK-ZVPP-4 m		×		×		
23 724	PREMAxx 40 l/min	24 V-DC-ABK-ZVABD-4 m		×			×	
23 727	PREMAxx 40 l/min	24 V-DC-ABK-ZVAD-4 m		×				×
23 731	PREMAxx 48 l/min	230 V-1~AC-50 Hz-EUS-ZVPP-4 m			×	×		
23 734	PREMAxx 48 l/min	230 V-1~AC-50 Hz-EUS-ZVABD-4 m			×		×	
23 737	PREMAxx 48 l/min	230 V-1~AC-50 Hz-EUS-ZVAD-4 m			×			×

Abbreviations

ABK	Battery clips
ZVPP	Nozzle valve, polypropylene
ZVA	Automatic nozzle valve for diesel
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
ZVAD	Automatic nozzle valve for diesel with swivel joint

Overview Volume Meters

PRODUCTS

Image	Item number	Description 1	Description 2	Measuring tolerance (%)	Flow capacity (l/min)
	23 190	NUMERIxx³ G 1" female-G 1" female	Oval gear meter-digital	+/- 0,5	2 - 100
	23 820	Pulse generator G 1" female-G 1" female	Oval gear meter	+/- 0,5	2 - 100
	23 829	Pulse meter G 1" female-G 1" female	With display	+/- 0,5	2 - 100
	23 830	Remote display for pulse meter	NUMERIxx³-oval gear meter-digital		
	23 192	NUMERIxx³ G 1" female-G 1" female	Oval gear meter-mechanical	+/- 1	2 - 100
	23 287	In-line meter-digital	Vane-G 1" female-G 1" male	+/- 1	10 - 55
	23 295	In-line meter-digital-Al	Turbine wheel G 1" female-G 1" female	+/- 1	15 - 100
	23 298	Counter-spare part	For NUMERIxx³ (23 192) G 1" female-G 1" female-NBR	+/- 1	15 - 100

Oval Gear Meter-Digital

23 190

TECHNICAL DATA

- Distance in-/out flange (mm): 95
- Connection on both ends: G 1" female
- Media: diesel, fuel oil, selflubricating low viscosity liquids
- Flow capacity min. (l/min): 2
- Flow capacity max. (l/min): 100
- Pre-set flow direction: horizontal
- Permitted liquid temperature max. (°C): 40
- Permitted ambient temperature (°C): -10 / +60
- Measuring tolerance (%): 0,5
- Nominal pressure (bar): 3,5
- Burst pressure (bar): 28
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C))

Materials of parts in contact with liquid

- Meter housing: AlSi 12 (sea water resistant)
- Oval gears: POM
- Seals: NBR 70
- External dimensions LWH (mm): 100 x 100 x 65
- Weight (kg): 0,58

SPECIFICATION

- Totalisator for daily operation 5-digits with floating decimal, resettable to zero, partition 0,000 up to 99999
- Totalisator 6 digits with floating decimal, partition 0,0 up to 999999

SPECIAL NOTES

- Easy to read 5-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts
- Displays: Indication of partial quantity equals current filling level (resettable to zero) + total quantity (resettable to zero) + total quantity (not resettable to zero)

PRODUCTS

Item number	Description 1	Description 2
23 190	NUMERIxx[3] G 1" female-G 1" female	Oval gear meter-digital

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NBR Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
POM Acetal homopolymer

Oval Gear Meter-Mechanical

23 192

TECHNICAL DATA

- Distance in-/out flange (mm): 95
- Connection on both ends: G 1" female
- Pre-set flow direction: from left to right
- Media: diesel, fuel oil, selflubricating low viscosity liquids
- Flow capacity min. (l/min): 2
- Flow capacity max. (l/min): 100
- Permitted liquid temperature max. (°C): -10 / +60
- Permitted ambient temperature (°C): -10 / +80
- Measuring tolerance (%): +/- 1
- Nominal pressure (bar): 3,5
- Burst pressure (bar): 28

Materials of parts in contact with liquid

- Meter housing: AlSi 12 (sea water resistant)
- Oval gears: POM
- Gear mechanism: ABS-plastic
- Seals: NBR 70
- External dimensions LWH (mm): 145 x 120 x 125
- Weight (kg): 1,14

SPECIFICATION

- Meter: daily meter with 3 digits, resettable, partition 100 ml
- Totalisator 6 digits, accounts in litres
- Totalisator re-starts after 999 999 l with zero

SPECIAL NOTES

- Meter for various in-line installation

PRODUCTS

Item number	Description 1	Description 2
23 192	NUMERIxx[3] G 1" female-G 1" female	Oval gear meter-mechanical

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NBR Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
POM Acetal homopolymer

In-line Meter-Digital

23 295

TECHNICAL DATA

- Distance in-/out flange (mm): 110
- Connection on both ends: G 1" female
- Media: diesel, fuel oil, selflubricating low viscosity liquids
- Flow capacity min. (l/min): 15
- Flow capacity max. (l/min): 100
- Permitted liquid temperature max. (°C): 40
- Permitted ambient temperature (°C): -10 / +50
- Measuring tolerance (%): 1
- Nominal pressure (bar): 3,5
- Burst pressure (bar): 28

Materials of parts in contact with liquid

- Meter housing: AlSi 12 (sea water resistant)
- Turbine: POM
- Seals: NBR 70
- External dimensions LWH (mm): 110 x 85 x 55
- Weight (kg): 0,48

SPECIFICATION

- Totalisator for daily operation 5-digits with floating decimal, resettable to zero, partition 0,0 up to 99999
- Totalisator 5 digits with floating decimal, partition 0,0 up to 999999
- The display can be adapted to the direction of flow in 90° steps

SPECIAL NOTES

- Easy to read 4-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts
- Displays: Indication of partial quantity equals current filling level (resettable to zero) + total quantity (resettable to zero) + total quantity (not resettable to zero)

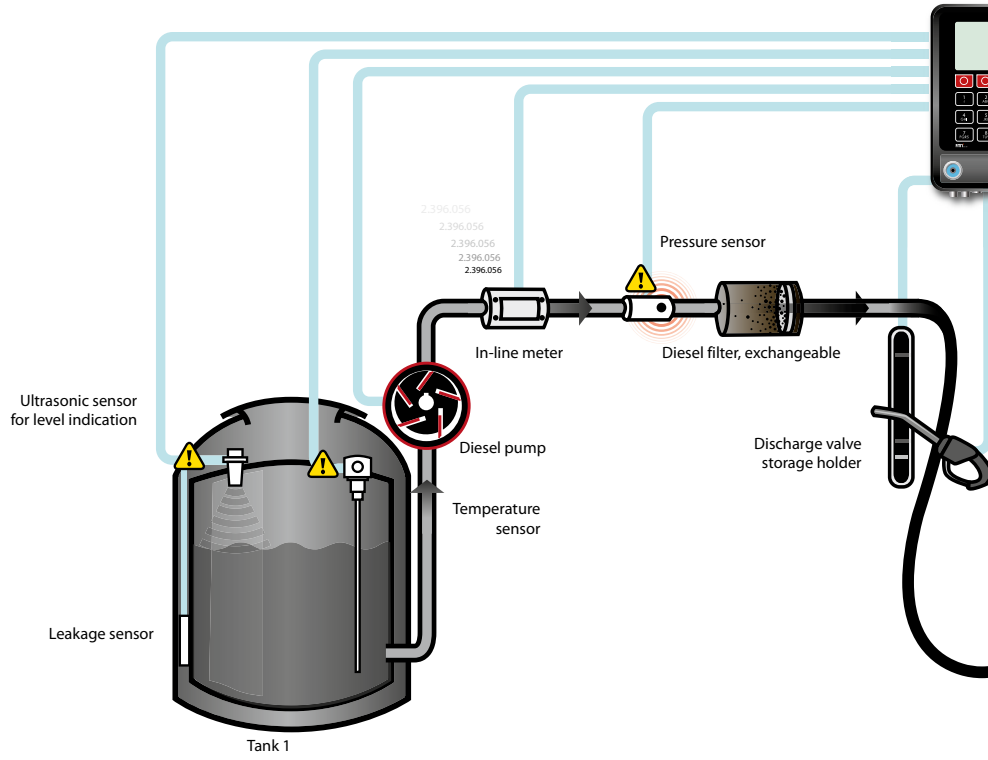
PRODUCTS

Item number	Description 1	Description 2
23 295	In-line meter-digital-Al	Turbine wheel-G 1" female-G 1" female

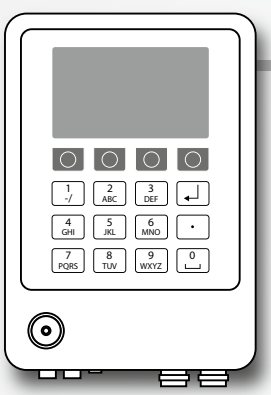
Abbreviations

Al	Aluminum	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NBR	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)	**POM**	Acetal homopolymer

Overview Fluid Management System



Data flow FMS



FMS 1-n

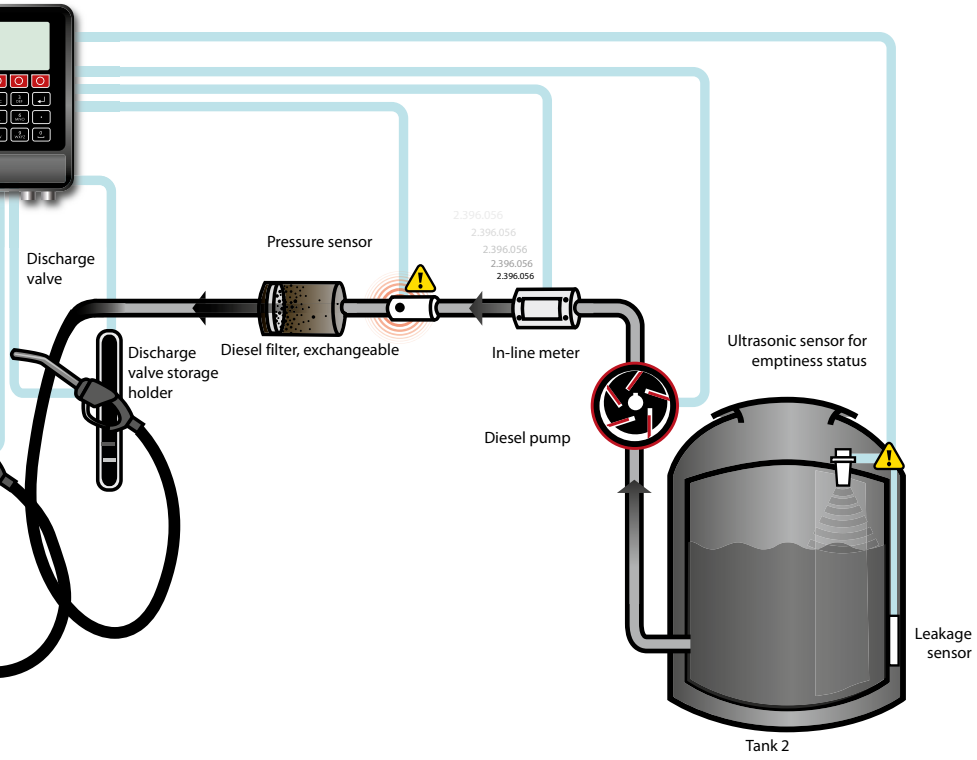
SD card

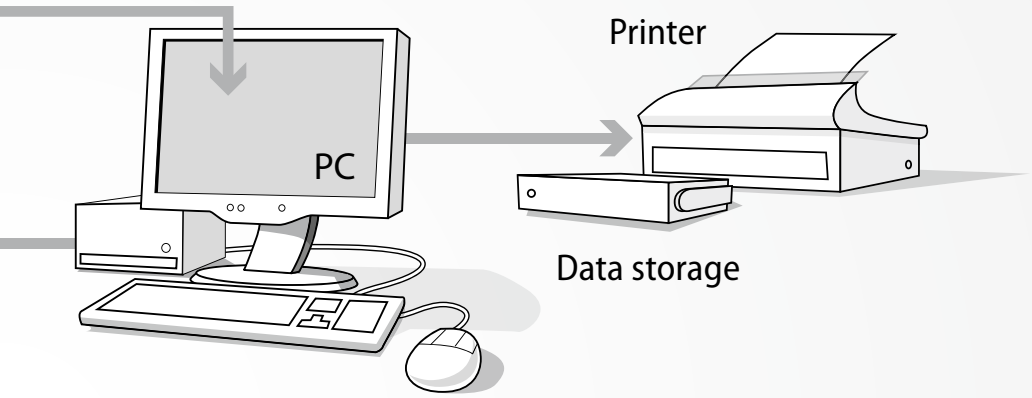
Import to PC adminstration software

FMS from SD card

- ➜ FMS No. …
- ➜ Description of place
- ➜ Tank / refilling station No. ...
- ➜ Data of refilling station
- ➜ Time of refilling process
- ➜ Name
- ➜ Litres
- ➜ Mileage
- ➜ Vehicle license number
- ➜ Operating hours

The configuration of the system will be transmitted with the SD card to the FMS





Reporting

➜ Choice 1	specific time period
➜ Choice 2	name of refuelling person
➜ Choice 3	vehice license number
➜ Choice 4	FMS 1 … n
➜ Choice 5	tank / refilling station
➜ Result indication 1	date
➜ Result indication 2	time
➜ Result indication 3	FMS No.
➜ Result indication 4	tank
➜ Result indication 5	description of tank (optional)
➜ Result indication 6	fuel type (optional)
➜ Result indication 7	mileage (optional)
➜ Result indication 8	operating hours (optional)
➜ Result indication 9	name
➜ Result indication 10	vehicle license number
➜ Result indication 11	vehicle description (optional)
➜ Result indication 12	litres
➜ Result indication 13	fuel price (optional)

The configuration of the system will be generated on a PC and stored on the SD card

- ➜ Names of users
- ➜ Configuration of iButton ident
- ➜ Assignation of the iButton ident to a user
- ➜ Correlation of the iButton to a vehicle
- ➜ Correlation of a fuel type to a price (for a certain period of time)
- ➜ Number of permitted input failures (PIN)
- ➜ Time-out after permitted input failiures (min)
- ➜ Time between refuelling and non-operative time (sec)
- ➜ Configuration of user passwords
- ➜ Type of user, user related
- ➜ Classification of vehicles, user related
- ➜ Decription of vehicles
- ➜ Classification of refilling station = tank, user related
- ➜ Decription of refilling station = tank
- ➜ Minimum refilling level for empty tank 1: metered
- ➜ Volume calibration = tank 1
- ➜ Volume adjustments
- ➜ Language
- ➜ Font
- ➜ Mileage input yes/no, user related
- ➜ Input of operating hours yes/no user related
- ➜ Max. refuelling voulme, all users

➜ Pressure = refilling station 1: yes/no	optional
➜ Pressure = refilling station 1 = FMS 1: minimum pressure	optional
➜ Pressure = refilling station 1 = FMS 1: maximum pressure	optional
➜ Pressure = refilling station 1 = FMS 1: pressure threshold	optional
➜ Liquid level tank 1: yes/no = FMS 1	
➜ Integral leakage sensor: yes/no = FMS 1 = tank 1	optional
➜ Leakage: yes/no = FMS 1 = tank 1	optional
➜ Pressure = refilling station 2 = FMS 1: pressure threshold	optional
➜ Tank empty = tank 2 = FMS 1	optional
➜ Tank leakage = tank 2 = FMS 1	optional
➜ Temperature of tank 1: yes/no = FMS 1	optional
➜ Temperature of tank 1: min = FMS 1	optional
➜ Temperature of tank 1: max = FMS 1	optional
➜ Temperature of tank 1: threshold = FMS 1	optional
➜ FMS heating switch-on at (°C)	
➜ FMS heating switch-off at (°C)	
➜ Background illumination (min)	
➜ Time delay of pump operation (sec)	
➜ Liquid flow check time (sec)	

Fluid Management System FMS

TECHNICAL DATA

- Number of users (iButton): 1000
- Number of vehicles: 1000
- Number of vehicles per user: 50
- Type of user ID: PIN and/or iButton
- Type of display and size: illuminated 5"-LCD display
- Compatible operating systems: Linux, MAC, Windows
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 0,25
- Safety class: IP54
- Maximum settable dispensing quantity (l): 0-999
- The tank level for re-filling can be adjusted when the tank is empty (l): 0-999
- Number of filling stations: 2

SPECIFICATION

- SD card (84 023)
- SD card reader for USB port (84 235)
- Software and operating instructions on CD-ROM
- 7 iButtons in black for users (5 pcs), red for service (1 pc) and green for supervisor (1 pc)
- Fluid Management System in aluminium housing

SPECIAL NOTES

- An integral heating in the FMS provide operation and clearness of the display even at low temperatures (tested until -25 °C).
- Two tanks can be operated with the FMS
- User identification by PIN and/or by iButton
- User friendly PC application for configuration and installation of storage tanks, tank volumes, users and vehicles
- The PC application checks for available updates every 10 days
- All data can be installed on a PC and can be transferred with a SD card to the FMS
- The data of any refilling process can be read out on a PC and can be exported for special analysis. A USB adapter for the SD card is part of the product.
- The SD card supplied offers space for the storage of several thousands of refilling processes.

PRODUCTS

Item number	Description 1	Specification
23 499	Fluid Management System FMS	
23 497	FMS-set for diesel	Control nozzle storage bracket (23 066) with cable, 3 m and connecting plug (83 012) for connection with FMS Pulse meter (IPG) (23 820) with cable, 3 m and connecting plug (83 012)

Accessories for Fluid Management System

PRODUCTS

Image	Item number	Description 1	Description 2
	19 690	Remote display for pulse meter	In-line meter
	23 494	Code-box *	
	23 495	PIN-code-block *	
	23 067	Pulse meter FMS	0 - 60 l
	23 058	Pulse meter FMS	10 - 100 l
	23 059	Pulse meter FMS	15 - 150 l
	23 066	Nozzle support FMS	With on-off switch
	23 068	Level indicator and leak indicator	For FMS
	23 069	iButton for user-black	Set for 10 users
	83 410	iButton reader	
	81 306	Sensor cordset-M 4	4-pin-2 x cable plug-1 m
	81 307	Sensor cordset-M 4	4-pin-2 x cable plug-2 m
	81 308	Sensor cordset-M 4	4-pin-2 x cable plug-5 m
	81 309	Sensor cordset-M 4	4-pin-2 x cable plug-10 m
	83 012	Sensor cable-PVC-M 8	4 pin-4 x 0,25 mm^2-3 m

*more information about Code-box : see P. 219

F

Special Notes TANKFIxx

TANKFIxx

QUALITY THAT LEADS

Lid can be lowered. Overlapping prevents ingress of sprayed water.

Hose holder adjustable for various hose lengths.

Lid and housing lockable with special Tubus key.

Drip tray for leakage of medium during filter change.

Stable base - can be removed and separately secured to floor.

TANKFIxx with Digital Display

23 370

TECHNICAL DATA

- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Type of construction: IMB 3
- Safety class: IP 54

Materials of parts in contact with liquid

- Seals: FKM (Viton®)
- Pump housing: AlSi 12 (sea water resistant)
- Vane: POM

SPECIFICATION

- On/Off switch through control valve
- Lockable door
- Siphon protection acc. to WHG, continuously active
- Diesel-exchange filter, 30 µm
- In-line meter/pulse meter, IPG, digital (23 820)
- Automatic nozzle valve with swivel joint (DAZ)
- Automatic nozzle valve with swivel joint (ZVAD)
- Discharge hose, DN 19, G 1" male, G 1" female
- Packed in a safe transport box

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Continuous operation – a real endurance runner
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- The diesel exchange-filter filters out particles exeeding 30 µm and absorbs water up to a total volume of 130 ml
- Overlapping lid on housing, thereby ingress of splashing water is avoided
- Lockable aluminium housing
- Surface of all structural parts, including the housing, powder coated, 10µ thickness
- Connection for suction tube on housing bottom
- Stable base which can be secured to the floor
- Side mounted hose holder

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min	Discharge hose	ZVAD
23 370	TANKFIxx 60 l/min-filter	230 V-50 Hz-DAZ-ZVAD-4 m	×		4 m	×
23 370 001	TANKFIxx 60 l/min-filter	230 V-50 Hz-DAZ-ZVAD-6 m	×		6 m	×
23 372	TANKFIxx 100 l/min-filter	230 V-50 Hz-DAZ-ZVAD-4 m		×	4 m	×
23 372 001	TANKFIxx 100 l/min-filter	230 V-50 Hz-DAZ-ZVAD-6 m		×	6 m	×

Abbreviations

DAZ Automatic nozzle valve with swivel joint
FMS Fluid Management System
G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)

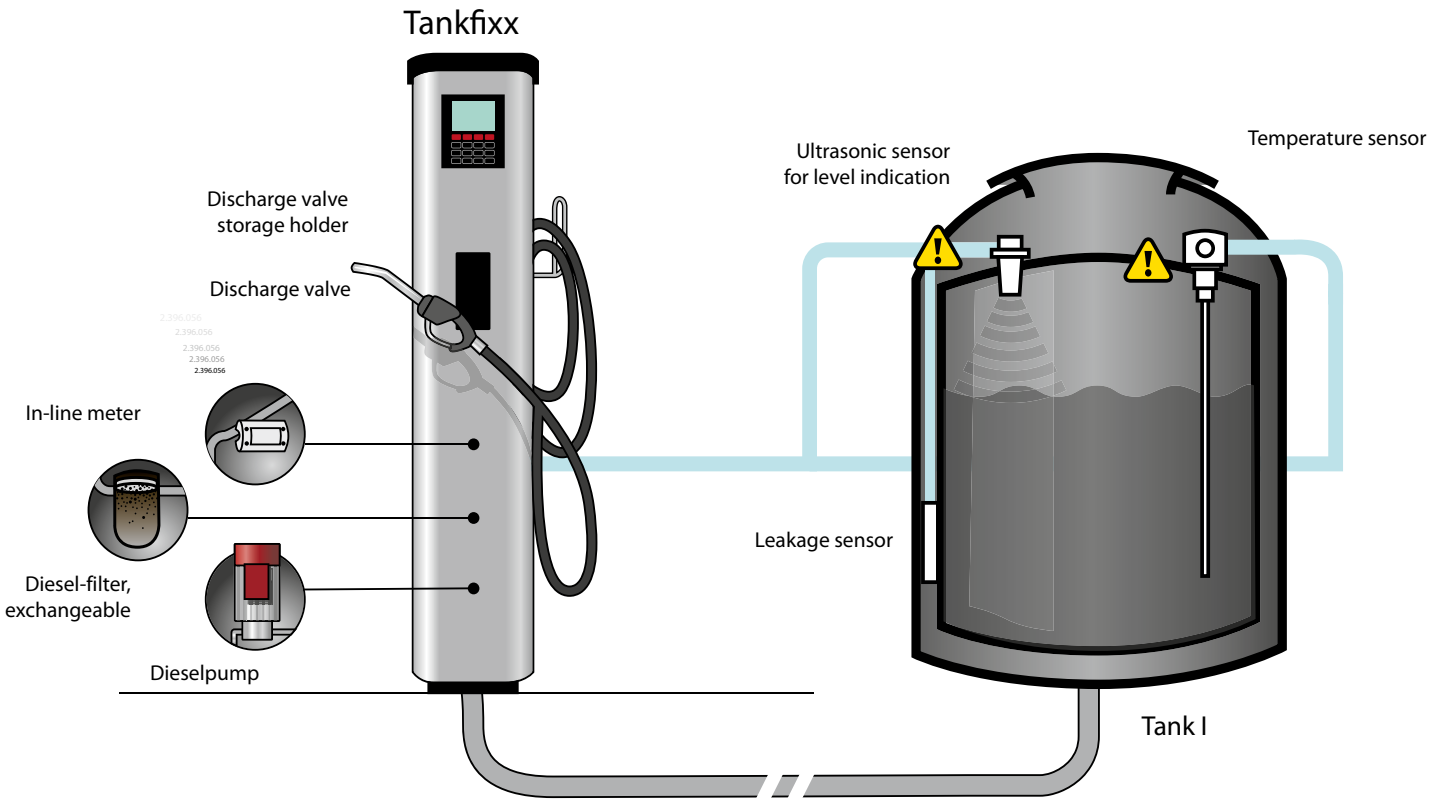
Overview FMS

Use our FMS, a professional management system for fluid delivery. There are already numerous applications in the areas of workshops, agriculture and industry and it can be used for diesel and AdBlue®.

The system allows you to manage two tanks with one delivery point each. Users, vehicles, delivery quantities and fill levels can be monitored and evaluated. The user is identified via PIN and / or iButton.

The user-friendly software runs under the operating systems Windows, Mac OS and Linux. All data can be set up on the PC and transferred to the FMS via SD card. This provides space for the storage of thousands of refuelling operations.

The data of refuelling operations can be easily read on a PC and exported to other applications for analysis, an USB adapter for SD memory card is included.



TANKFIxx with Fluid Management System

up to 1000 users

up to 1000 vehicles

50 vehicles per user

23 371

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 5 m
- Small tolerances provide a high suction- and pressure performance
- The diesel exchange-filter filters out particles exeeding 30 µm and absorbs water up to a total volume of 130 ml.
- Overlapping lid on housing, thereby ingress of splashing water is avoided
- Lockable aluminium housing

TECHNICAL DATA

- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 60 or 100
- Suction height up to (m): 5
- Flow media: fuel oil and diesel

SPECIFICATION: FLUID MANAGEMENT SYSTEM (FMS)

- For complete control and evaluation of tank systems and tank operations
- User identification by PIN and/or by iButton
- Entry of license plate, mileage and user for optimal evaluation
- The data of any refilling process can be readout on a PC
- Configuration and installation of storage tanks, tank volumes, users and vehicles
- Two tanks can be operated with the FMS

*more infomation FMS: see P. 164

SPECIFICATION

- On/Off switch through control valve
- Lockable door
- Siphon protection acc. to WHG, continuously active
- Diesel-exchange filter, 30 µm
- Fluid Management System* (FMS) in aluminium housing with integrated heating (23 499)
- In-line meter/pulse meter, IPG, digital (23 820)
- Automatic nozzle valve with swivel joint, ZVAD
- Packed in a safe transport box
- Surface of all structural parts, including the housing, are powder coated, 10µ thickness
- Connection for suction tube on housing bottom
- Stable base which can be secured to the floor
- Side mounted hose holder

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min	Discharge hose	ZVAD
23 371	TANKFIxx 60 l/min-filter	230 V-50 Hz-FMS-ZVAD-4 m	×		4 m	×
23 371 001	TANKFIxx 60 l/min-filter	230 V-50 Hz-FMS-ZVAD-6 m	×		6 m	×
23 373	TANKFIxx 100 l/min-filter	230 V-50 Hz-FMS-ZVAD-4 m		×	4 m	×
23 373 001	TANKFIxx 100 l/min-filter	230 V-50 Hz-FMS-ZVAD-6 m		×	6 m	×

Abbreviations

POM Acetal homopolymer
WHG Water Resources Act (Germany)
ZVAD Automatic nozzle valve for diesel with swivel joint

Compact Systems / Double Walled Tanks 400 l, 750 l, 1000 l, 1500 l

45 400

TECHNICAL DATA

- Material outer container: steel, hot-dip galvanized
- Material of interior container: HDPE (high density polyethylene)
- Connections: 4 x G 2" female, drum adapter

SPECIFICATION

- Mechanical float level indicator
- Optical leakage indicator
- Integral handles
- Steel pallet foot, fully detachable

SPECIAL NOTES

- For above ground storage in closed rooms
- Stationary
- Suitable for: fuel oil and diesel
- Used engine- and gearbox oil (used oil) of known origin according to company safety standards
- Lubricating oil L-AN, acc. to DIN 51501 (the lubricating oils AN 5 and AN 7 are not easily inflammable liquids, hazard class A III, acc. to VbF)
- Engine- and lubricating oils acc. to DIN 51 511
- Gear oils for motor vehicles, acc. to DIN 51512
- Hydraulic oils H, HL and HL-P, acc. to DIN 51524 / 51525
- Heat transfer oil Q, acc. to DIN 51 522
- Synthetic oils
- Rapeseed oil-methyl-ester (RME)
- Possible accessories: Kit Tank connection for diesel with non-return valve (45 165)

PRODUCTS

Image	Item number	Description 1	Description 2	L x B x H (mm)	Mobile
	45 400	Tank-400 l-double walled-SR	Steel-HDPE	730 x 700 x 1180	
	45 090	Tank-400 l-double walled-SR-MO	Steel-HDPE	730 x 700 x 1180	×
	45 101	Tank-750 l-double walled-SR	Steel-HDPE	980 x 760 x 1420	
	45 101 138	Tank-750 l-double walled-SR	Steel-HDPE-CH-approval	980 x 760 x 1420	
	45 091	Tank-750 l-double walled-SR-MO	Steel-HDPE-980 x 760 x 1420 mm	980 x 760 x 1420	×
	45 100	Tank-1000 l-double walled-SR	Steel-HDPE-1280 x 760 x 1420 mm	1280 x 760 x 1420	
	45 100 138	Tank-1000 l-double walled-SR	Steel-HDPE-CH-approval	1280 x 760 x 1420	
	45 093	Tank-1000 l-double walled-SR-MO	Steel-HDPE	1280 x 760 x 1420	×
	45 105	Tank-1500 l-double walled-SR	Steel-HDPE-1630 x 755 x 1870 mm	1630 x 755 x 1870	
	45 095	Tank-1500 l-double walled-SR-MO	Steel-HDPE	1630 x 755 x 1870	×

23 063

TECHNICAL DATA

- Material outer container: steel, hot-dip galvanized
- Material of interior container: HDPE
- Filling: G 2" tank filling coupler
- Discharge: automatic nozzle valve
- Application: for above ground storage of fresh oils and not easily inflammable oils

Pump

- Brand: FMT Swiss AG

Hydraulic data

- Flow media: fuel oil and diesel

Motor data

- Voltage (V): 230
- Frequency (Hz): 50
- Thermal protection: self resetting

SPECIFICATION

- Suction tube set
- Mounting plate
- Tank with level indicator and optical leakage indicator

SPECIAL NOTES

- Completely assembled on a mounting plate
- With general construction authorities approval no. Z-40.21-288 of German DIBt-Berlin
- With steel pallet and level indicator

PRODUCTS

Image	Item number	Description 1	L x W x H (mm)	ZVABD	ZVAD	EBZM	EBZD	FS	Filter
TANKS WITH ACCESSORIES AND SET 750 l									
	23 061	Tank-750 l-FZP 60 l/min-230 V-50 Hz-EUS	980 x 800 x 1720	×		×		4 m	
	23 063	Tank-750 l-FZP 60 l/min-230 V-50 Hz-EUS	980 x 800 x 1720	×				4 m	
TANKS WITH ACCESSORIES AND SET 1000 l									
	23 000 734	Tank-1000 l-PREMAxx 52 l/min-230 V-50 Hz-EUS	1280 x 800 x 1620	×				4 m	
	23 000 735	Tank-1000 l-PREMAxx 52 l/min-230 V-50 Hz-EUS	1280 x 800 x 1620	×			×	4 m	

Abbreviations

CH	Switzerland	**EBZD**	In-line meter, digital
EBZM	In-line meter, mechanical	**EUS**	Euro two-pin plug
GPM	Assembled on mounting plate	**FS**	Delivery hose
MO	mobile	**SR**	stationary
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

PRODUCTS

Image	Item number	Description 1	L x W x H (mm)	ZVABD	ZVAD	EBZM	EBZD	FS	Filter
TANKS WITH ACCESSORIES AND SET 1000 l									
	23 000 736	Tank-1000 l-FZP 60 l/min-230 V-50 Hz-EUS	1280 x 800 x 1620	×				4 m	
	23 000 737	Tank-1000 l-FZP 60 l/min-230 V-50 Hz-EUS	1280 x 800 x 1620	×		×		4 m	
	23 062	Tank-1000 l-FZP 60 l/min-230 V-50 Hz-EUS	1280 x 800 x 1750	×				4 m	
	23 060	Tank-1000 l-FZP 60 l/min-230 V-50 Hz-EUS	1280 x 800 x 1750	×		×		4 m	
	23 003 397	Tank-1000 l-FZP 60 l/min-230 V-50 Hz-EUS-GPM	1800 x 800 x 1420		×	×		6 m	
	23 003 400	Tank-1000 l-DIESELFIxx-230 V-60 l/min-ZVAD	1800 x 800 x 1420		×	×		6 m	×
	23 003 401	Tank-1000 l-DIESELFIxx-230 V-60 l/min-ZVABD	1800 x 800 x 1420	×		×		4 m	×
TANKS WITH ACCESSORIES AND SET 1500 l									
	23 004 397	Tank-1500 l-FZP-230 V-60 l/min-50 Hz-EUS-GPM	1630 x 800 x 1870		×			6 m	×
	23 004 400	Tank-1500 l-DIESELFIxx-230 V-60 l/min-50 Hz-EUS	1630 x 800 x 1870		×	×		6 m	×
	45 056	Compact system-diesel-1500 l-FZP 60 l/min-230 V-1~AC-50 Hz-EBZM **Technical data of the tank:** Material inner/ outer tank: PEHD Color outer tank: grey Connections: 4 x G 2" female, drum adapter Media: diesel and fuel oil **Special notes:** Stationary Bunded tank UV-resistant Completely assembled on a mounting plate Integral control nozzle storage bracket CE Declaration DP-DIV I-001 according EN 13341	1900 x 813 x 1880		×	×		8 m	×

ZVABD: AUTOMATIC NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL AND SWIVEL JOINT

mobiMASTER

45 314

TECHNICAL DATA

- Tank volume (l): 450
- UN-approval: un 31H2/Z/..../CZ/IMET 1427/0/
- Material of container: LLDPE
- Material of end caps: LLDPE
- Wall thickness (mm): 7
- Colour of container: black RAL 7021
- Colour of cover: red RAL 3020
- Empty weight (kg): 48
- Dimensions LxWxH (mm): 1200 x 800 x 912

SPECIFICATION

- Suction hose, suction foot-filter with back-flow valve
- Lever ball valve
- Single-walled tank
- Level indicator (04 402)
- Ventilation valve (45 140)
- Movable under load
- Universal securing trap for shackle
- Diffusion resistant
- UV-resistant
- 2" filler neck with tank cap
- Lockable cap
- Suitable for: fuel oil and diesel

SPECIAL NOTES

- Can be moved with a forklift
- All parts fixed against brass-thread-inserts in tank-wall
- European ADR Certificate for transportation of dangerous liquids on public roads
- UN-approval
- Production under permanent control of the German TÜV

PRODUCTS

Item number	Description 1	Description 2
45 314	mobiMASTER-450 l	With tank accessories

Abbreviations

CH	Switzerland	**EBZD**	In-line meter, digital
EBZM	In-line meter, mechanical	**EUS**	Euro two-pin plug
GPM	Assembled on mounting plate	**FS**	Delivery hose
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

mobiMASTER

26 400

TECHNICAL DATA
- Tank volume (l): 450
- Material tank: LLDPE (linear low density polyethylene)
- UN-approval: un 31H2/Z/..../CZ/IMET 1427/0/

Pump
- Brand: FMT Swiss AG
- Connecting cable with battery terminal clips, length (m): 3

Hydraulic data
- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35
- Discharge pressure up to (bar). 1,6
- Pumping media: fuel oil and diesel

Motor data
- Voltage (V): 12 V DC
- Safety class: IP54
- Dimensions LxWxH (mm): 1200 x 800 x 912

SPECIAL NOTES
- Storage of petrol in the tank is strictly forbidden.
- A leakage test is recommended to be effected every 2 1/2 years, a general test every 5 years
- UN/ADR approval for ares® mobiMASTER tanks and FMT® diesel pump systems
- UN-approval
- Production under permanent control of the German TÜV

SPECIFICATION
- Single-walled tank (45 314)
- Movable under load
- Universal fixation loops for integral shackles
- Diffusion resistant
- UV-resistant
- Ventilation valve (45 140)
- Level indicator (04 402)
- Safety valve between tank and pump
- Foot valve with filter (19 890)
- Off switch
- Siphon protection acc. to WHG (German government regulation for environmental care), continuously active
- Discharge hose, 4 m, DN 19, G 1" male, G 1" female (23 155 957)
- Lockable protection cap
- Automatic nozzle valve with swivel joint, ZVAD (23 176))

Abbreviations

EBZD In-line meter, digital
ZVABD Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD Automatic nozzle valve for diesel with swivel joint

PRODUCTS

Item number	Description 1	Description 2	35 l/min	60 l/min	12 V	24 V	230 V	ZVAD	ZVABD	EBZD
26 400	mobiMASTER-450 l-ZVAD	12 V-35 l/min	×		×			×		
26 401	mobiMASTER-450 l-ZVAD	24 V-35 l/min	×			×		×		
26 402	mobiMASTER-450 l-ZVAD	12 V-60 l/min		×	×			×		
26 403	mobiMASTER-450 l-ZVAD	24 V-60 l/min		×		×		×		
26 404	mobiMASTER-450 l-ZVAD	230 V-50 Hz-EUS-60 l/min		×			×	×		
26 410	mobiMASTER-450 l-ZVAD	12 V-35 l/min-EBZD	×		×			×		×
26 410 100	mobiMASTER-450 l-ZVAD	12 V-35 l/min-EBZD	×		×			×		×
26 411	mobiMASTER-450 l-ZVAD	24 V-35 l/min-EBZD	×			×		×		×
26 411 100	mobiMASTER-450 l-ZVAD	24 V-35 l/min-EBZD	×			×		×		×
26 412	mobiMASTER-450 l-ZVAD	12 V-60 l/min-EBZD		×	×			×		×
26 412 100	mobiMASTER-450 l-ZVAD	12 V-60 l/min-EBZD		×	×			×		×
26 413	mobiMASTER-450 l-ZVAD	24 V-60 l/min-EBZD		×		×		×		×
26 413 100	mobiMASTER-450 l-ZVAD	24 V-60 l/min-EBZD		×		×		×		×
26 414	mobiMASTER-450 l-ZVAD	230 V-50 Hz-EUS-60 l/min-EBZD		×			×	×		×
mobiMASTER WITH NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL										
26 420	mobiMASTER-450 l-ZVABD	12 V-35 l/min	×		×				×	
26 421	mobiMASTER-450 l-ZVABD	24 V-35 l/min	×			×			×	
26 422	mobiMASTER-450 l-ZVABD	12 V-60 l/min		×	×				×	
26 423	mobiMASTER-450 l-ZVABD	24 V-60 l/min		×		×			×	
26 424	mobiMASTER-450 l-ZVABD	230 V-50 Hz-EUS-60 l/min		×			×		×	
26 430	mobiMASTER-450 l-ZVABD	12 V-35 l/min-EBZD	×		×				×	×
26 431	mobiMASTER-450 l-ZVABD	24 V-35 l/min-EBZD	×			×			×	×
26 432	mobiMASTER-450 l-ZVABD	12 V-60 l/min-EBZD		×	×				×	×
26 433	mobiMASTER-450 l-ZVABD	24 V-60 l/min-EBZD		×		×			×	×
26 434	mobiMASTER-450 l-ZVABD	230 V-50 Hz-EUS-60 l/min-EBZD		×			×		×	×

mobiFITT

45 480

TECHNICAL DATA

- Material of container: LLDPE
- Material of end caps: LLDPE
- UN-approval: un 31H2/Z/..../CZ/IMET 1359-ARES/0/
- Wall thickness (mm): 7
- Colour of container: black RAL 7021
- Colour of cover: red RAL 3020

SPECIFICATION

- Suction hose, suction foot-filter with back-flow valve
- Lever ball valve
- Level indicator
- Ventilation valve (45 140)
- Single-walled tank
- Movable under load
- Universal securing trap for shackle
- Diffusion resistant
- UV-resistant
- 2" filler neck with tank cap
- Lockable cap
- Suitable for: fuel oil and diesel

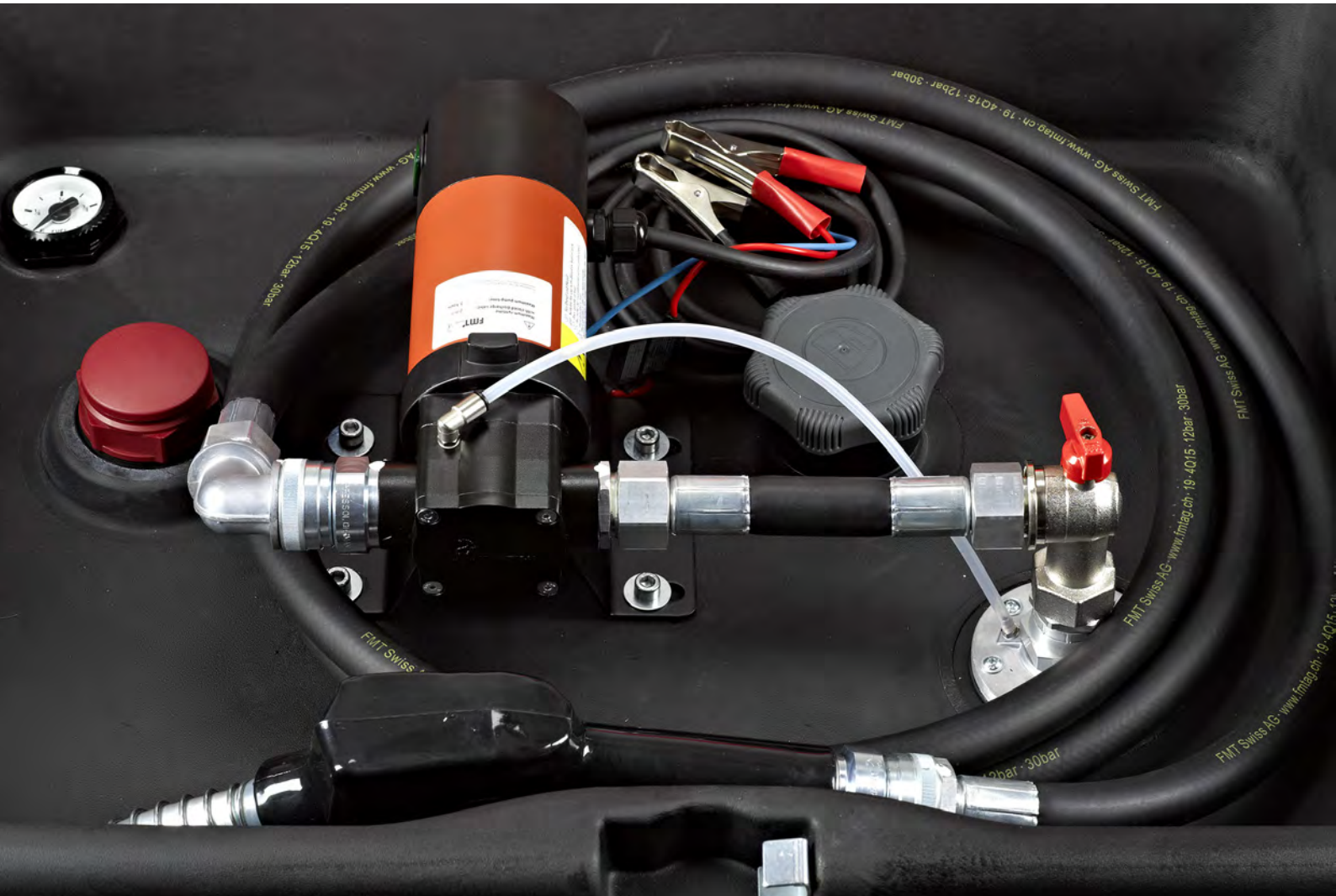
SPECIAL NOTES

- Can be moved with a forklift
- All parts fixed against brass-thread-inserts in tank-wall
- European ADR Certificate for transportation of dangerous liquids on public roads
- UN-approval
- Production under permanent control of the German TÜV

PRODUCTS

Item number	Description 1	Description 2	Dimensions LxWxH (mm)
45 480	mobiFITT-125 l	With tank accessories	1000 x 654 x 387
45 481	mobiFITT-200 l	With tank accessories	1000 x 654 x 547
45 482	mobiFITT-300 l	With tank accessories	1000 x 654 x 727

FMT


FMT Swiss AG · www.fmtag.ch · 19 · 4Q15 · 12bar · 30bar

mobiFITT

26 440

TECHNICAL DATA

- Material tank: LLDPE (linear low density polyethylene)
- UN-approval: un 31H2/Z/..../CZ/IMET 1359-ARES/0/

Pump

- Brand: FMT Swiss AG
- Connecting cable with battery terminal clips, length (m): 3

Hydraulic data

- Pump design: vane pump, selfpriming
- Delivery rate under free discharge (l/min): 35
- Discharge pressure up to (bar): 1,6
- Flow media: fuel oil and diesel

Motor data

- Fuse (A): 25 A plug-in fuse
- Duty cycle (min): continuous operation – a real endurance runner
- Safety class: IP54

SPECIFICATION

- Single-walled tank (45 480)
- Movable under load
- Universal fixation loops for integral shackles
- Diffusion resistant
- UV-resistant
- Ventilation valve (45 140)
- Level indicator
- Safety valve between tank and pump
- Foot valve with filter (19 890)
- On/Off switch
- Siphon protection acc. to WHG, continuously active
- Discharge hose, 4 m, DN 19, G 1" male, G 1" female (23 155 957)
- Lockable protection cap

SPECIAL NOTES

- Storage of petrol in the tank is strictly forbidden.
- A leakage test is recommended to be effected every 2 1/2 years, a general test every 5 years
- UN/ADR approval for ares® mobiFITT tanks and FMT® diesel pump systems
- UN-approval
- Production under permanent control of the German TÜV

Abbreviations

ZVAD Automatic nozzle valve for diesel with swivel joint

ZVABD Automatic nozzle valve for AdBlue® with swivel joint

PRODUCTS

Image	Item number	Description 1	Description 2	12 V	24 V	EBZD	ZVAD	ZVABD
TANKS WITH ACCESSORIES AND SET 125 l, Dimensions LxWxH (mm): 1000 x 654 x 387								
	26 440	mobiFITT-125 l	ZVAD-12 V-35 l/min	×			×	
	26 441	mobiFITT-125 l	ZVAD-24 V-35 l/min		×		×	
	26 445	mobiFITT-125 l	ZVAD-12 V-35 l/min-EBZD	×		×	×	
	26 446	mobiFITT-125 l	ZVAD-24 V-35 l/min-EBZD		×	×	×	
	mobiFITT WITH NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL							
	26 450	mobiFITT-125 l	ZVABD-12 V-35 l/min	×				×
	26 451	mobiFITT-125 l	ZVABD-24 V-35 l/min		×			×
	26 455	mobiFITT-125 l	ZVABD-12 V-35 l/min-EBZD	×		×		×
	26 456	mobiFITT-125 l	ZVABD-24 V-35 l/min-EBZD		×	×		×
TANKS WITH ACCESSORIES AND SET 200 l, Dimensions LxWxH (mm): 1000 x 654 x 547								
	26 460	mobiFITT-200 l	ZVAD-12 V-35 l/min	×			×	
	26 461	mobiFITT-200 l	ZVAD-24 V-35 l/min		×		×	
	26 465	mobiFITT-200 l	ZVAD-12 V-35 l/min-EBZD	×		×	×	
	26 465 100	mobiFITT-200 l	ZVAD-12 V-35 l/min-EBZD	×		×	×	
	26 466	mobiFITT-200 l	ZVAD-24 V-35 l/min-EBZD		×	×	×	
	mobiFITT WITH NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL							
	26 470	mobiFITT-200 l	ZVABD-12 V-35 l/min	×				×
	26 471	mobiFITT-200 l	ZVABD-24 V-35 l/min		×			×
	26 475	mobiFITT-200 l	ZVABD-12 V-35 l/min-EBZD	×		×		×
	26 476	mobiFITT-200 l	ZVABD-24 V-35 l/min-EBZD		×	×		×
TANKS WITH ACCESSORIES AND SET 300 l, Dimensions LxWxH (mm): 1000 x 654 x 727								
	26 480	mobiFITT-300 l	ZVAD-12 V-35 l/min	×			×	
	26 481	mobiFITT-300 l	ZVAD-24 V-35 l/min		×		×	
	26 485	mobiFITT-300 l	ZVAD-12 V-35 l/min-EBZD	×		×	×	
	26 485 100	mobiFITT-300 l	ZVAD-12 V-35 l/min-EBZD	×		×	×	
	26 486	mobiFITT-300 l	ZVAD-24 V-35 l/min-EBZD		×	×	×	
	mobiFITT WITH NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL							
	26 490	mobiFITT-300 l	ZVABD-12 V-35 l/min	×				×
	26 491	mobiFITT-300 l	ZVABD-24 V-35 l/min		×			×
	26 495	mobiFITT-300 l	ZVABD-12 V-35 l/min-EBZD	×		×		×
	26 496	mobiFITT-300 l	ZVABD-24 V-35 l/min-EBZD		×	×		×

Abbreviations

EBZD In-line meter, digital
ZVABD Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD Automatic nozzle valve for diesel with swivel joint

F

Nozzle Valves

PRODUCTS

Image	Item number	Description 1	Description 2	Application
NOZZLE VALVE FOR DIESEL				
	23 161	Nozzle valves-G 1" female-80 l/min • Suitable for transfer • No refuelling valve		
	23 171	Nozzle valves-G 1" female-100 l/min • With swivel joint (19 625) • Suitable for transfer • No refuelling valve	Alu	
	23 176	ZVAD-G 3/4" female-60 l/min • With swivel joint (19 621) • Automatic shutdown	Alu-DG-G 1" female-G 3/4" male	Car
	23 178	ZVAD-G 1" female-100 l/min • With Swivel joint (19 625) • Automatic shutdown	Alu-DG-G 1" female-G 1" male	Truck, heavy equipment
NOZZLE VALVE FOR DIESEL WITH GERMAN AND AUSTRIAN TYPE APPROVAL				
	23 168 155	ZVABD-G 1" female-60 l/min • With swivel joint (19 621) • Automatic shutdown	Aluminium-ATEX	Car
	23 160	ZVABD-G 1" female-100 l/min • With swivel joint (19 625) • Automatic shutdown	Aluminium-D design approval	Truck, heavy equipment

Abbreviations

DG	Swivel joint	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint	**ZVAD**	Automatic nozzle valve for diesel with swivel joint

Hoses for Diesel, By The Metre

80 371

TECHNICAL DATA

- Measuring tolerance inside diameter (mm): ± 0,5
- Measuring tolerance outside diameter (mm): ± 0,5
- Material of inner hose and casing. Perbunan (NBR)
- Casing: oil and weather resistant, abrasion-proof
- Colour of casing: black
- Reinforcement: stretch resistant textile reinforcement
- Resistance: diesel, gasoline and oil resistant
- Temperature stability (°C): -30 up to +60
- Working pressure max. (bar): 3
- Test pressure (bar): 12
- Burst pressure (bar): 30
- Bend radius (mm): ≤ 150

SPECIFICATION

- Low increase of volume under pressure
- Ideal as hose for reels

PRODUCTS

Item number	Description 1	Nominal diameter	Inner diameter	Outside diameter
80 371	Hoses for diesel-DN 19	19 mm	4 mm	27 mm
80 372	Hoses for diesel-DN 25	25 mm	5 mm	35 mm

Hoses for Diesel with Fittings, By The Metre

TECHNICAL DATA

- Connection 1: G 1" male
- Connection 2: G 1" female with sleeve nut
- Total length (m): Acc. to customer's demands
- Inner diameter (mm): 25
- Outside diameter (mm): 37
- Material outer side of hose: SBR is abrasion-resistant and weatherproof
- Material inner side of hose: NBR swelling-resistant, lixiviation-resistant and freeze-resistant, not hardening, corresponds to material NBR 1 of EN 12115
- Carcase: two stretch resistant textile reinforcements
- Colour of inner and outer material: black
- Low-pressure max. (bar): 0,6
- Operating pressure max. (bar): 10
- Material of connection parts: AlSi 12 (sea water resistant)
- Material of seal: NBR 70
- Design of sealing: O-ring

SPECIFICATION

- Marking: acc. to DIN
- Low increase of volume under pressure
- Ideal as hose for reels

SPECIAL NOTES

- Hose connection by cap-nut screw connection

PRODUCTS

Item number	Description 1	Description 2
23 143	Hose for diesel	G 1" male-G 1" female-DN 25

Hoses for Diesel with Fittings, Fixed Lengths

23 155 957

TECHNICAL DATA

- Connection 1: G 1" male
- Material outer side of hose: SBR is abrasion-resistant and weatherproof
- Material inner side of hose: NBR swelling-resistant, lixiviation-resistant and freeze-resistant, not hardening, corresponds to material NBR 1 of EN 12115
- Carcase: two stretch resistant textile reinforcements
- Colour of inner and outer material: black
- Low-pressure max. (bar): 0,6
- Operating pressure max. (bar): 10
- Material of connection parts: AlSi 12 (sea water resistant)
- Material of seal: NBR 70
- Design of sealing: O-ring

SPECIFICATION

- Marking: Acc. to DIN
- Low increase of volume under pressure
- Ideal as hose for reels

PRODUCTS

Item number	Description 1	Description 2	Length	Connection 2	DN 19	DN 25
23 155 953	Hose assembly for diesel	4 m-G 1" male-G 1" male-DN 19	4 m	G 1" male	×	
23 155 954	Hose assembly for diesel	6 m-G 1" a-G 1" a-DN 19	6 m	G 1" a	×	
23 155 957	Hose assembly for diesel	4 m-G 1" male-G 1" female-DN 19	4 m	G 1" female with sleeve nut	×	
23 155 958	Hose assembly for diesel	6 m-G 1" male-G 1" female-DN 19	6 m	G 1" female with sleeve nut	×	
23 155 966	Hose assembly fo diesel	8 m-G 1" male-G 1" male-DN 19	8 m	G 1" male	×	
23 155 979	Hose assembly for diesel	8 m-G 1" male-G 1" female-DN 19	8 m	G 1" female with sleeve nut	×	
23 157 957	Hose assembly for diesel	10 m-G 1" male-G 1" female-DN 19	10 m	G 1" female with sleeve nut	×	
23 154	Hose assembly for diesel	0,5 m-G 1" male-G 1" female-DN 25	0,5 m	G 1" female with sleeve nut		×
23 156	Hose assembly for diesel	1,6 m-G 1" male-G 1" female-DN 25	1,6 m	G 1" female with sleeve nut		×
23 158 959	Hose assembly for diesel	2 m-G 1" male-G 1" female-DN 25	2 m	G 1" female with sleeve nut		×
23 155 950	Hose assembly for diesel	4 m-G 1" male-G 1" female-DN 25	4 m	G 1" female with sleeve nut		×
23 155 956	Hose assembly for diesel	6 m-G 1" male-G 1" female-DN 25	6 m	G 1" female with sleeve nut		×
23 157 864	Hose assembly for diesel	8 m-G 1" male-G 1" female-DN 25	8 m	G 1" female with sleeve nut		×
23 157 950	Hose assembly for diesel	10 m-G 1" male-G 1" female-DN 25	10 m	G 1" female with sleeve nut		×
HOSE FITTINGS-SETS						
23 140	Hose fittings-set-DN 19	G 1" male-G 1" female-60° DK			×	
23 141	Hose fittings-set-DN 25	G 1" male-G 1" female-60° DK				×

Abbreviations

D	Ceiling mounting	**DG**	Swivel joint
DK	Sealing cone	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside
GDI	Encased, swivel joint, inside	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
O	open	**WB**	Wall and floor mounting

Hose Reel for Diesel/Fuel Oil

29 341

TECHNICAL DATA

- Length of discharge hose (m): 8
- Connection discharge hose: G 3/4" female/male
- Length of connecting hose (m): 1
- Connection to connecting hose: G 3/4" female/ female
- Inner diameter of hose (DN): 16
- Max. operating pressure (bar): 60

SPECIFICATION

- Hose reel for diesel and heating oil
- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	Open	GDI	GDA	WB	DM
	29 341	Hose reel-diesel/fuel oil	O-WB-60 bar-DN 16-8 m	×			×	
	29 351	Hose reel-diesel/fuel oil	O-DM-60 bar-DN 16-8 m	×				×
	29 371	Hose reel-diesel/fuel oil	GDA-WB-60 bar-DN 16-8 m			×	×	
	29 361	Hose reel-diesel/fuel oil	GDI-WB-60 bar-DN 16-8 m		×		×	
	29 391	Hose reel-diesel/fuel oil	GDA-DM-60 bar-DN 16-8 m			×		×
	29 381	Hose reel-diesel/fuel oil	GDI-DM-60 bar-DN 16-8 m		×			×

ACCESSORIES

	29 930	Wall bracket	Swivable-90°
	29 979	Hose stop-5/8"	
	29 980	Nozzle valve holder	For one nozzle valve
	29 981	Nozzle valve holder	For two nozzle valves
	29 940	Mounting bracket	
	29 932	System brackets for mounting	For max. 6 hose reels

System brackets for mounting : see P. 34

Abbreviations

DM	Ceiling mounting	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GDA**	Encased, swivel joint, outside
GDI	Encased, swivel joint, inside	**O**	open
WB	Wall and floor mounting		

Filter

23 209

PRODUCTS

Item number	Description 1	Description 2	60 l/min	100 l/min	110 l/min	Connection
23 209	Diesel in-line filter	30 µm-100 l/min-G 1 1/2" female		×		G 1 1/2" female
23 290	Diesel in-line filter	10 µm-60 l/min-G 1 1/2" female	×			G 1 1/2" female
23 291	Diesel in-line filter	10 µm-100 l/min-G 1 1/2" female		×		G 1 1/2" female
23 292	Diesel-Wechselfilter	30 µm-110 l/min-G 1 1/2" i			×	G 1 1/2" female
23 810	Filter accessories	for DIESELFIxx / DIESELMAxx		×		G 1 1/2" female
23 811	Filter accessories	for DIESELMAxx		×		G 1 1/2" female
23 198	Plastic in-line filter	G 1" female-G 1" female-10 bar				G 1" female
ADAPTER FOR FILTER						
23 207	Adapter-Al-filter	G 1" female-G 1" female-G 1 1/2" male				

Suction Tube

23 177

SPECIFICATION

- Foot valve with strainer (19 890)
- Drum adapter (19 526)

PRODUCTS

Item number	Description 1	Description 2	860 mm	1250 mm	1600 mm	1650 mm	1700 mm	2100 mm
23 177	Suction tube-G 1" female-G 2" male	SRL 860-200/220 l-container	×					
23 177 950	Suction tube-G 1" female-G 2" male	SRL 1600-for mounting on tanks			×			
23 177 951	Suction tube-G 1" female-G 2" male	SRL 1250-for mounting on tanks		×				
23 177 952	Suction tube-G 1" female-G 2" male	SRL 2100-for mounting on tanks						×
23 177 961	Suction tube-G 1" female-G 2" male	SRL 1700-for mounting on tanks					×	
SUCTION TUBE WITH CONNECTING HOSE								
23 177 953	Suction set-G 1" female-G 2" male	SRL 1250-for mounting on tanks		×				
23 177 954	Suction set-G 1" female-G 2" male	SRL 1600-for mounting on tanks			×			
23 177 955	Suction set-G 1" female-G 2" male	SRL 1650-for mounting on tanks				×		

Foot Valves and Suction Filters

19 890

PRODUCTS

Item number	Description 1	Description 2
19 890	Foot valve with strainer	G 1" female
19 892	Check valve	G 1" female-G 1" female
23 180	Suction strainer	G 1" male

Swivel Joints

19 621

TECHNICAL DATA

- Connection 1: G 1" female
- Length (mm): 58
- Diameter (outside) (mm): 44,8
- Nominal pressure (bar): 5
- Spanner flat (mm): 41
- Materials of gaskets in contact with liquid
- O-ring: NBR 70
- Rod seal: PU 90
- Flat gasket: FKM

SPECIFICATION

- To suit automatic control guns for diesel

PRODUCTS

Item number	Description 1	Connection 1	Connection 2
19 621	Swivel-DN 19	G 1" female-G 3/4" male	G 3/4" male
19 625	Swivel-DN 25	G 1" female-G 1" male	G 1" male

Abbreviations

DN	Inner diameter, in mm	**FKM**	Viton®
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
SRL	Suction pipe length, in mm		

Barrel Screw Mountings

19 524

TECHNICAL DATA

- Connection 1:G 2" male
- Connection 2: G 1" male with sealing ring
- Connection 3: G 1" female
- Material: aluminium

SPECIFICATION

- For container with G 2" inside threads

PRODUCTS

Item number	Description 1	Description 2	100 l/min	Connection
19 524	Drum adapter	G 2" male-G 1" male-Alu	×	G 1" and G 2" male

Nozzle Valve Holder

23 066

PRODUCTS

Item number	Description 1	Description 2	Material	With on-off switch
23 174	Universal control nozzle storage bracket	For barrells or tanks	Steel	
23 066	Nozzle support FMS	With on-off switch	VA, Alu	×

Special Connectors

23 217

PRODUCTS

Item number	Description 1	Description 2
23 217	Counter nut	G 2" female-SW 75-Alu
01 039	O-Ring-NBR 70-70x2	
23 125	Quick coupling	For diesel hose-G 1" female

Press Type Fittings for Diesel Hoses

23 225

F

PRODUCTS

Item number	Description 1	Description 2
23 225	Positioning fitting	NW 25-G 1" female-G 1" female
23 226	Positioning fitting	left-NW 25-Al-G1" female-G1" female
23 229	Positioning fitting	G 3/4" male-G 1" female
23 218	Positioning fitting-Al	NW 25-G 1" male-G 1" female
23 225 950	Positioning fitting	NW 25-G 1" female-G 1" female
23 140 950	Hose fittings-set-DN 19	60° cone-G 1" female-SW 36
23 140 952	Hose fittings-set-DN 19	60° cone-G 1" male-SW 36
23 141 950	Hose fittings-set-DN 25	60° cone-G 1" female-SW 36
23 141 952	Hose fittings-set-DN 25	60° cone-G 1" male-SW 36
23 140	Hose fittings-set-DN 19	G 1" male-G 1" female-60° DK
23 141	Hose fittings-set-DN 25	G 1" male-G 1" female-60° DK
85 393	Nipple-GD-AlSi 12-DN 19	G 3/4"-SW36
85 360	Nipple-DN 19	60° cone
85 359	Nipple-DN 19	60° cone-G 1" -SW 36
85 364	Nipple-DN 25	60° cone
85 363	Nipple-DN 25	60° cone-G 1" -SW 36
85 365	Cap nut-G 1" female-SW 36	
89 111	O-Ring-NBR 70	29 x 2,5 mm
89 111 878	O-Ring-FKM 80	29 x 2,5 mm

Abbreviations

Alu	Aluminium	**DK**	Sealing cone
DN	Inner diameter, in mm	**FKM**	Viton®
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NBR**	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
NW	Nominal width = inside diameter	**SW**	Width across flats
VA	Stainless steel		

Adapter

00 928

PRODUCTS

Item number	Description 1	Description 2
00 926	Adapter-G 3/4" male-G 3/4" male	Cone 60° female-SW 32
00 928	Adapter-G 3/4" male-G 1/2" male	Cone 60° female-SW 32
83 143	Adapter G 3/4" / 1" NPT	
83 144	Adapter G 1" / 1" NPT	
85 358	Adapter-G 1" male-G 1" male	Cone 60° female-SW 37
85 369	Adapter-Al-G 1" male-G 3/4" male	Cone 60° female-SW 36
85 370 777	Adapter 90°-Al-DN 19	G 1" male-G 1" male-DK 60°
88 412	Adapter 1/2" -1/2" male-SW 27-L 34	
89 070	Threaded nipple-Al -G1" female -G1" male	L=30,3
89 071	Threaded nipple-Al -G1" female-G1" male	L=60,3

Valves

45 140

PRODUCTS

Item number	Description 1	Description 2
45 140	Airing and venting valve	G 2" male-PA 6 for mobile tanks
45 140 950	Venting valve-G 2" male	For stationary tanks

Abbreviations

AMS	Anti-drop coupler, manual shut-off	**Alu**	Aluminium
DK	Sealing cone	**DN**	Inner diameter, in mm
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**NPT**	National Taper Pipe, non-sealing and pressure-resistant tapered pipe thread
M	Metric thread, cylindrical, DIN 13	**PA**	Polyamide
SW	Width across flats		

Accessories for Solar Powered Sets

84 864

PRODUCTS

Image	Item number	Description 1	Description 2
	18 095 393	3-way ball valve	Rp 1" female-Rp 1" female-Rp 1" female
	23 152 899	Hose for diesel	0,38 m-G 1" male-G 1" female-DN 19
	23 155 958	Hose for diesel	6 m-G 1" male-G 1" female-DN 19
	23 158 959	Hose for diesel	2 m-G 1" male-G 1" female-DN 25
	23 176	ZVAD-G 3/4" female-60 l/min	Alu-DG-G 1" female-G 3/4" male
	84 864	Solar module-power 10 W-12 V	356x301x28
	84 859	Solar charge controller-12/4 A	70x58x29
	84 862	Automatic charger	CTEK MXS 5.0-165x61x38
	84 904	Battery-12 V-55 Ah	254x175x200
	85 292	Solar module-power-30 W Power-12 V	540x430x30
	85 358	Adapter-G 1" male-G 1" male	Cone 60° female-SW 37
	85 363	Nipple-DN 20	60° cone-G 1" -SW 36
	85 370 777	Adapter 90°-Al-DN 19	G 1" male-G 1" male-DK 60°
	85 544	T-piece	G 1" female-G 1" female-G 1" female brass
	85 547	Polycarbonate cover	For 10-W-solar module-357x302x5
	85 548	Polycarbonate cover	For 30-W-solar module-541x436x5

MORE INFORMATION ABOUT SOLAR POWERED SETS: SEE P. 154

194 AdBlue®-Pumps

202 AdBlue®-Pump Sets

209 AdBlue®-Trolleys

212 AdBlue®-Hose Reels

214 mobiBLUE

217 Compact Systems

218 Fluid Management System for AdBlue®

220 TANKFIxx for AdBlue®

221 AdBlue®-Volume Meters/Pulse Generators

225 AdBlue®-Nozzle Valves

226 AdBlue®-Filters and Filter Cartridges

227 AdBlue®-Fittings

228 AdBlue®-Hoses and Hose Sets

229 AdBlue®-Accessories

230 AdBlue®-Cans

AdBlue®- Electrical Diaphragm Pump
30 l/min-7.9 gpm

12/24 V | 3h CONTINUOUS | IP66

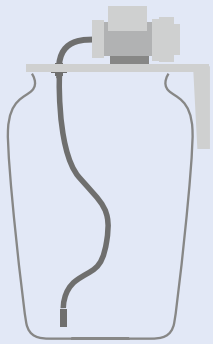
Pump housing can be positioned freely in all 90 ° positions. Endurance of 3 hours - at open valve.

These two models are designed for all areas where power supply is available by battery only, such as on construction sites, in agriculture or on boats. They can be used both in mobile and stationary settings.

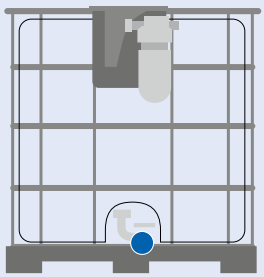
230 V | CONTINUOUS | IP66

AdBlue®- Electrical Diaphragm Pump
35 l/min-230 V-1~AC-50 Hz

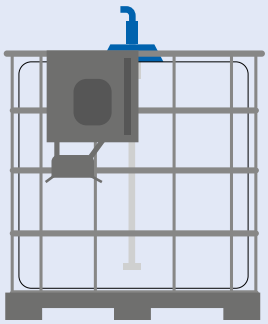
A true endurance runner for stationary installation with a power connector. Robust, powerful and durable even under heavy strain.



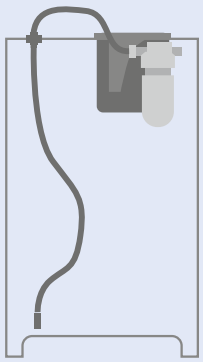
**Pump sets
for barrel assembly,
mounted on base plate**



**Pump sets,
mounted on base plate,
IBC mounting**



**Pump sets with filter,
IBC mounting**



**Pump sets,
mounted on base plate,
tank mounting**

AdBlue®-Pumps 30 l/min, 12 & 24 V

25 281

IP66

3h CONTINUOUS

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Pump case freely positionable in all 90° positions
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation - 3 hours - with open valve
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- The pump can be operated mobile or stationary
- For any situation in which a battery is not available, such as construction sites, in agriculture, on boats etc.

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Delivery rate under free discharge up to (l/min): 30
- Suction height up to (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529
- Power (W): 220
- Fuse (A): 25
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Rotation speed (rpm): 2800
- Type of construction: IMB 5

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

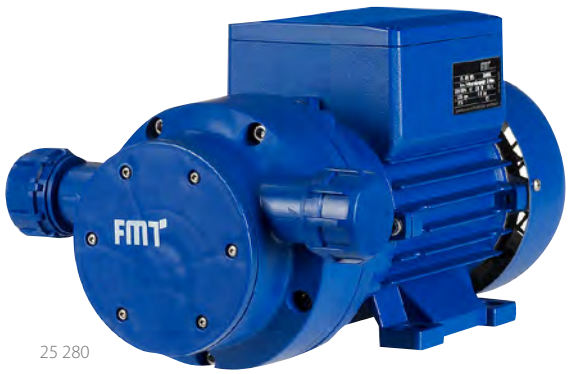
SPECIFICATION

- AdBlue® electrical diaphragm pump with integrated bypass
- Connecting cable with battery terminal clips and fuse holder (80 725) (80 725)

PRODUCTS

Item number	Description 1	Description 2	12 V DC	24 V DC
25 281	AdBlue®-electric diaphragm pump	30 l/min-7.9 gpm-12 V-DC	×	
25 282	AdBlue®-electric diaphragm pump	30 l/min-7.9 gpm-24 V-DC		×
SPARE PARTS				
80 864	Membrane spare part	Preassembled	×	×
80 888	Spare kit, fittings		×	×
80 889	Spare kit, O-rings		×	×

AdBlue®-Pumps 14 l/min and 35 l/min, 230 V



25 280

IP66

CONTINUOUS

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2,8
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 1,5
- Power (kW): 0,36
- Thermal protection: self resetting
- Duty cycle: continuous operation – a real endurance runner
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

SPECIFICATION

- AdBlue® electrical diaphragm pump with integrated bypass
- On-off switch

PRODUCTS

Item number	Description 1	Description 2	35 l/min	14 l/min
25 280	AdBlue®-electric diaphragm pump	35 l/min-230 V-1~AC-50 Hz	×	
25 284	AdBlue®-electric diaphragm pump	14 l/min-230 V-1~AC-50 Hz		×
SPARE PARTS				
80 864	Membrane spare part	Preassembled	×	
80 864 020	Membrane spare part	Preassembled-for EMP 14 l/min		×
80 888	Spare kit, fittings		×	×
80 889	Spare kit, O-rings		×	×

Abbreviations

EMP	electric diaphragm pump	**EPDM**	Ethylene propylene diene rubber
FKM	Viton®	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
IP	Safety class	**PA**	Polyamide

AdBlue®-Pumps PREMAxx

23 739

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2
- Connection container: G 2" male, drum adapter
- Connection suction side: hose fitting DN 19
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: axial gear
- Suction height (m): 2,5
- Discharge height max. (m): 15
- Flow media: AdBlue®

Motor data

- Thermal protection: self resetting
- Duty cycle: continuous operation
- Rotation speed at 0,5 bar counterpressure (rpm): 7500
- Type of construction: IMB 5
- Safety class: IP 34

- Material of pump housing and pump: PA 6
- Material motor shaft: stainless steel 1.4021

SPECIFICATION

- For 200- to 1000 l containers
- Drum adapter, G 2" male
- Motor with thermal protection switch, self resetting
- Illuminated on/off switch
- Valuable sales package

SPECIFICATION

- The pump is lightweight and very quiet in operation
- Resistant against small dirt particles in the liquid to be discharged
- The liquid column is to be established via manual pumping
- Can be manually operated in case of electric power blackout
- Pump can only be utilized as barrel pump
- Replace the carbons when the pump has delivered a volume of 100,000 l

PRODUCTS

Item number	Description 1	Description 2	52 l/min	38 l/min	Specification
23 739	PREMAxx 48 l/min - AdBlue®	230 V-1~AC-50 Hz-EUS	×		Euro two-pin plug, 2-m-cable
23 760	PREMAxx 35 l/min-10 gpm - AdBlue®	12 V-DC-battery clips		×	Battery clips, 2 m cable

AdBlue®-Pump Sets PREMAxx for Barrel Screw Mounting

TECHNICAL DATA

- Connection container: G 2" male, drum adapter
- Connection suction side: Hose fitting DN 19
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: axial gear
- Flow media: AdBlue®

Motor data

- Thermal protection: self resetting
- Duty cycle: continuous operation
- Rotation speed at 0,5 bar counterpressure (rpm): 7500
- Type of construction: IMB 5
- Safety class: IP 34

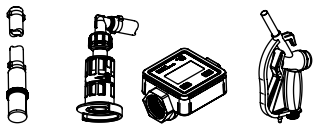
- Material of pump housing and pump: PA 6
- Material motor shaft: stainless steel 1.4021

SPECIFICATION

- For 200- to 1000 l containers
- Axial wheel pump with manual pump assembly (23 739)
- Illuminated on/off switch
- Motor with thermal protection switch, self resetting
- Drum adapter, G 2" male
- Mechanical control nozzle for AdBlue® (23 161 879)
- AdBlue®-discharge hose, DN 19, 4 m / 13.1 ft, with hose fitting G 1" female and swivel joint for ZVMUD (25 674)
- Valuable sales package

SPECIAL NOTES

- The pump is lightweight and very quiet in operation
- Resistant against small dirt particles in the liquid to be discharged
- The liquid column is to be established via manual pumping
- Can be manually operated in case of electric power blackout
- Pump can only be utilized as barrel pump
- Replace the carbons when the pump has delivered a volume of 100,000 l



PRODUCTS

Item number	Description 1	Description 2	230 V	12 V		SEC	EBZDU	ZVMUD
23 740	PREMAxx 48 l/min - AdBlue®	230 V-1~AC-50 Hz-EUS-ZVMUD-SEC-/IBC-adapter-4 m	×			×		×
23 741	PREMAxx 48 l/min - AdBlue®	230 V-1~AC-50 Hz-EUS-ZVMUD-4 m	×		×			×
23 742	PREMAxx 48 l/min - AdBlue®	230 V-1~AC-50 Hz-EUS-ZVMUD-EBZDU-4 m	×		×		×	×
23 761	PREMAxx 35 l/min-10 gpm - AdBlue®	12 V-DC-ABK-ZVMUD-4 m		×	×			×

Abbreviations

ABK	Battery clips	**EBZDU**	In-line meter, digital, for AdBlue®
EMP	electric diaphragm pump	**EUS**	Euro two-pin plug
GPM	Assembled on mounting plate	**PA**	Polyamide
ZVAUD	Automatic nozzle valve for AdBlue® with swivel joint	**ZVMUD**	Mechanical control nozzle for AdBlue® with swivel joint

Manual Pump

TECHNICAL DATA

- Delivery rate (l/stroke): 0,4
- Delivery rate (l/min): ca. 12
- Flow media: AdBlue®
- Usage: container 60/200/220 l
- Length, three-part suction pipe (mm): 355 - 955

Materials of parts in contact with liquid

- Pump housing: ABS+PA6
- Seals: Viton® + Hydrogenated nitrile butadiene rubber

SPECIFICATION

- Telescopic suction tube (13 094), adjustable in length (from 355 to 955 mm)
- Packed in single carton box

SPECIAL NOTES

- Positive locking allows precise positioning of the pump on the barrel
- Pump can be dismantled completely
- All individual parts available as spare parts

PRODUCTS

Image	Item number	Description 1	Description 2	SRL (mm)	ZVMUD
	13 040	Barrel pump for AdBlue® G 2''		355 - 955	
	13 040 950	Barrel pump for AdBlue® S 56 x 4		355 - 955	
	13 040 001	Barrel pump for AdBlue® G 2''	Discharge hose-6 m-ZVMUD	355 - 955	×
	13 040 002	Barrel pump for AdBlue® S 56 x 4	Discharge hose-6 m-ZVMUD	355 - 955	×

ACCESSORIES

	Item number	Description 1
	13 085	Drum adapter G 2'' male
	13 085 001	Drum adapter S 56 x 4
	13 085 002	Drum adapter S 69,5 x 5,5
	13 085 006	Drum adapter S 64 x 5

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
S Thickness
ZVMUD Mechanical nozzle valve for AdBlue® with swivel joint

Rotary Pump

13 065

TECHNICAL DATA

- Delivery rate (l/rotation): 0,18
- Delivery rate (l/min): ca. 22
- Pumping media: thin liquids, such as windshield washer, diesel, water, AdBlue®
- Media resistance: see resistance table
- Usage: container, for 60 / 200 / 220 l
- Application: for filling measuring vessels, storage cans and canisters
- Length of suction tube (mm): 1050
- Barrel screw coupling: G 2'' male

Materials of parts in contact with liquid

- Pump housing: PP
- Seals: FKM
- Suction tube: PP

SPECIFICATION

- With suction filter
- Adjustable height through barrel screw coupling
- Packed in carton box

SPECIAL NOTES

- Information: In the case of the formation of crystals, clean the pump with warm water until all crystals are dissolved
- According to consistency table
- Suitable for thin liquids, such as windshield washer, diesel, water, AdBlue®

PRODUCTS

Image	Item number	Description 1	Description 2
	13 065	Rotary pump-PP-FKM	SRL 1050-22 l/min

ACCESSORIES

Image	Item number	Description 1	Description 2
	13 083	Adapter-G 2'' female	Mauser 2'' male
	13 080 390	Adapter-G 2" female	M 56 x 4 male

Abbreviations

FKM	Viton®	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
M	Metric thread, cylindrical, DIN 13	**PP**	Polypropylene
SRL	Suction pipe length, in mm		

Manual Pump Sets

13 004 950

TECHNICAL DATA

- Delivery rate (l/stroke): 0,5
- Delivery rate (l/min): ca. 50
- Flow media: AdBlue®, non-aggressive liquids such as detergents, soaps, anti-freeze, windscreen wash, hydraulic oils, herbicides and pesticides
- Usage: container for 60/200/220 l
- Length of suction tube (mm): 1000
- Drum adapter: G 2" male

Materials of parts in contact with liquid

- Pump body: PP
- Seals: FKM
- Suction tube: PP

SPECIFICATION

- Packed in single carton box

SPECIAL NOTES

- For AdBlue®, non-aggressive liquids such as detergents, soaps, anti-freeze, windscreen wash, hydraulic oils, herbicides and pesticides
- Not suitable for fuels, thinners, solvents or any flammable liquids
- Lock screw allows precise positioning of the pump on the barrel
- Can also be used for pumping from canisters with adapter (17 095)
- Note: After use, clean the pump with warm water in order to prevent the formation of crystals which may damage the pump

PRODUCTS

Image	Item number	Description 1	Description 2
	13 004	Barrel pump-PP-FKM	SRL 1000-50 l/min
	13 004 950	Barrel pump-PP-FKM	SRL 1000-50 l/min-ZVMUD

ACCESSORIES

Image	Item number	Description 1	Description 2
	13 083	Adapter-G 2" female	Mauser 2" male
	13 080 390	Adapter-G 2" female	M 56 x 4 male

Abbreviations

FKM	Viton®	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
M	Metric thread, cylindrical, DIN 13	**PP**	Polypropylene
SRL	Suction pipe length, in mm	**ZVMUD**	Mechanical control nozzle for AdBlue® with swivel joint

AdBlue®-Pump Sets for Barrel Mounting 35 l/min, 230 V

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2,8
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Delivery rate under free discharge (l/min): 35
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 1,5
- Power (kW): 0,36
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

SPECIFICATION

- Diaphragm pump, selfpriming (25 280)
- On-off switch
- AdBlue®-suction hose, DN 19, 2 m, with bend 90° G 1" female and foot valve (25 663)

PRODUCTS

Item number	Description 1	Description 2	ZVMUD	ZVAUD	EBZDU
25 233 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVMUD	×		
25 234 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD		×	
25 235 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-EBZDU		×	×

Abbreviations

EBZDU	In-line meter, digital, for AdBlue®	**EMP**	electric diaphragm pump
EPDM	Ethylene propylene diene rubber	**FKM**	Viton®
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)	**GPM**	Assembled on mounting plate
PA	Polyamide	**ZVAUD**	Automatic nozzle valve for AdBlue® with swivel joint
ZVMUD	Mechanical control nozzle for AdBlue® with Swivel joint		

AdBlue®-Pump Sets for Barrel Mounting, Mounted on Base Plate

TECHNICAL DATA
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data
- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data
- Insulation class: F
- Rotation speed (rpm): 2800

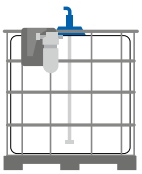
Materials of parts in contact with liquid
- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

SPECIFICATION
- Diaphragm pump, selfpriming
- Base plate for mounting barrel (82 883)
- Control nozzle storage bracket (85 036)
- Foot valve with filter (23 200)
- AdBlue®-suction hose, DN 19, 2 m / 6.56 ft, with bend 90° G 1" female and foot valve (25 663)

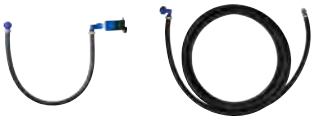
SPECIAL NOTES
- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

PRODUCTS

Item number	Description 1	Description 2	230 V	12 V	24 V	ZVMUD	ZVAUD	EBZDU
25 223 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVMUD-GPM	×			×		
25 224 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-GPM	×				×	
25 225 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-EBZDU-GPM	×				×	×
25 243 001	AdBlue®-EMP-30 l/min-7.9 gpm-12 V-DC	ZVMUD-GPM		×		×		
25 244 001	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-GPM		×			×	
25 245 001	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-EBZDU-GPM		×			×	×
25 263 001	AdBlue®-EMP-30 l/min-7.9 gpm-24 V-DC	ZVMUD-GPM			×	×		
25 264 001	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-GPM			×		×	
25 265 001	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-EBZDU-GPM			×		×	×



AdBlue®-Pump Sets for Installation on IBC Containers, Suction Point at the Top 12 V & 24 V



TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 3
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Power (kW): 0,22
- Fuse (A): 25
- Duty cycle under free discharge max. (min): 180
- Run time (min) when dispensing valve is closed max.: 2
- Rotation speed (rpm): 2800
- Type of construction: IMB 5
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

SPECIAL NOTES

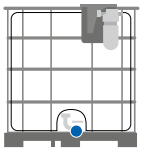
- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation - 3 hours - with open valve
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

SPECIFICATION

- Diaphragm pump, selfpriming
- Mounting plate for IBC-Container (80 837)
- Control nozzle storage bracket (85 036 001)
- Connecting cable with battery terminal clips and fuse holder (80 725) (80 725)
- AdBlue®-suction hose, DN 19, 1 m, with bend 90° G 1" female, straight hose fitting and SEC adapter (25 658)

PRODUCTS

Item number	Description 1	Description 2	12 V	24 V	ZVMUD	ZVAUD	EBZDU
25 246 001	AdBlue®-EMP-30 l/min-7.9 gpm-12 V-DC	ZVMUD-SEC-adapter-GPM	×		×		
25 247 001	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-SEC-adapter-GPM	×			×	
25 248 001	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-SEC-adapter-EBZDU-GPM	×			×	×
25 266 001	AdBlue®-EMP-30 l/min-7.9 gpm-24 V-DC	ZVMUD-SEC-adapter-GPM		×	×		
25 267 001	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-SEC-adapter-GPM		×		×	
25 268 001	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-SEC-adapter-EBZDU-GPM		×		×	×



AdBlue®-Pump Sets for Installation on IBC Containers, Suction Point at the Bottom

TECHNICAL DATA

- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Rotation speed (rmp): 2800

Materials of parts in contact with liquid

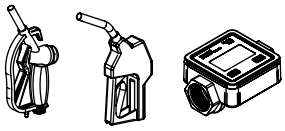
- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

SPECIFICATION

- Diaphragm pump, selfpriming
- On-off switch
- Mounting plate for IBC-Container (80 837)
- Control nozzle storage bracket (85 036 001)
- AdBlue®-connecting hose, DN19, 2 m, with 2x bend 90° G 1" female (25 654)
- Adapter M64 x 4 for IBC container with adapter (25 640)

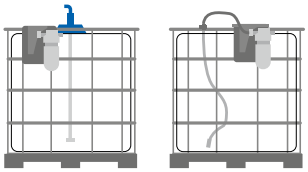
SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency



PRODUCTS

Item number	Description 1	Description 2	230 V	12 V	24 V	ZVMUD	ZVAUD	EBZDU
25 229	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVMUD-suction set-GPM	×			×		
25 230	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-suction set-GPM	×				×	
25 231	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-suction set-EBZDU-GPM	×				×	×
25 249	AdBlue®-EMP-30 l/min-7.9 gpm-12 V-DC	ZVMUD-suction set-GPM		×		×		
25 250	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-suction set-GPM		×			×	
25 251	AdBlue®-EMP-18 l/min-4.8 gpm-12 V-DC	ZVAUD-suction set-EBZDU-GPM		×			×	×
25 269	AdBlue®-EMP-30 l/min-7.9 gpm-24 V-DC	ZVMUD-suction set-GPM			×	×		
25 270	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-suction set-GPM			×		×	
25 271	AdBlue®-EMP-18 l/min-4.8 gpm-24 V-DC	ZVAUD-suction set-EBZDU-GPM			×		×	×



AdBlue®-Pump Sets for Installation on IBC Containers, Suction Point at the Top

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 3 m
- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2,8
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Delivery rate under free discharge (l/min): 35
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

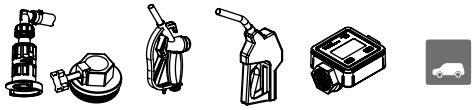
- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 1,5
- Power (kW): 0,36
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

SPECIFICATION

- Diaphragm pump, selfpriming (25 280)
- On-off switch
- Mounting plate for IBC-Container (80 837)
- Control nozzle storage bracket (85 036 001)

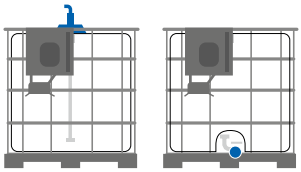


PRODUCTS

Item number	Description 1	Description 2	SEC		ZVMUD	ZVAUD	EBZDU	For cars
25 226 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVMUD-SEC-adapter-GPM	×		×			
25 227 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-SEC-adapter-GPM	×			×		
25 228 001	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-SEC-adapter-EBZDU-GPM	×			×	×	
25 228 002	AdBlue®-EMP-14 l/min-230 V-1~AC	ZVAUD-SEC-adapter-EBZDU-GPM	×			×	×	
25 228 836	AdBlue®-EMP-8 l/min-230 V-1~AC	ZVAUD-SEC-adapter-EBZDU-GPM	×			×	×	×
25 227 301	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-drum adapter-GPM		×		×		
25 228 301	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-drum adapter-EBZDU-GPM		×		×	×	

Abbreviations

EBZDU	In-line meter, digital, for AdBlue®	**EMP**	Electric diaphragm pump
EPDM	Ethylene propylene diene rubber	**FKM**	Viton®
GPM	Assembled on mounting plate	**PA**	Polyamide
ZVAUD	Automatic nozzle valve for AdBlue® with swivel joint	**ZVMUD**	Mechanical control nozzle for AdBlue® with swivel joint



AdBlue®-Pump Sets with Filter for Mounting on IBC Containers

SPECIAL NOTES

- Standard filter cartridge easily replaceable
- System can be operated without filter cartridge
- Continuous operation – a real endurance runner
- Designed for a long service life
- First class construction of electric machines and pumps
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- For direct attachment to IBC containers by retaining tabs

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2,8
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 1,5
- Power (kW): 0,36
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Filter

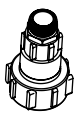
- Separation efficiency (µ): 50
- Filter surface (cm^2): 190

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PA 6 GF 30

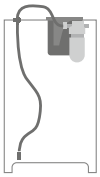
SPECIFICATION

- On-off switch
- Control nozzle storage bracket
- In-line meter, digital, turbine for AdBlue® (EBZDU) (23 295 870)
- AdBlue®-discharge hose, DN 19, 6 m, with bend 90° G 1" female and swivel joint for ZVAUD (25 672)
- Filter unit (25 180)
- Filter candle (25 185) replaceable via unscrewable filter cap



PRODUCTS

Item number	Description 1	Description 2	35 l/min	14 l/min	SEC	
25 236	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-SEC-adapter-EBZDU-F-96mm	×		×	
25 238	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-EBZDU-F-96mm-suction set	×			×
25 236 002	AdBlue®-EMP-14 l/min-230 V-1~AC	ZVAUD-SEC-adapter-EBZDU-F-96mm		×	×	
SPARE PARTS						
80 864 010	Membrane spare part	Preassembled-for (25 236) and (25 238)	×			



AdBlue®-Pump Sets for Tank Installation, Suction Point at the Top

TECHNICAL DATA

- Connecting cable with battery terminal clips, length (m): 2,8
- Connection suction side: G 1" male
- Connection discharge side: G 1" male

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Suction height (m): 3
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data

- Insulation class: F
- Highest permissible limit temperature (°C): 155
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 1,5
- Power (kW): 0,36
- Thermal protection: self resetting
- Duty cycle (min): continuous operation – a real endurance runner
- Rotation speed (rpm): 2800
- Type of construction: IMB 3
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

Filter

- Separation efficiency (µ): 50
- Filter surface (cm^2): 190

Materials of parts in contact with liquid

- Diaphragm and sealings: EPDM / FKM
- Pump housing: PP

SPECIAL NOTES

- Continuous operation – a real endurance runner
- Designed for a long service life
- First class construction of electric machines and pumps
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Mounting plate for IBC-container

SPECIFICATION

- Diaphragm pump, selfpriming (25 280)
- On-off switch
- Control nozzle storage bracket
- In-line meter, digital, turbine for AdBlue® (EBZDU) (23 295 870)
- Stainless steel foot valve (23 188)

PRODUCTS

Item number	Description 1	Description 2	ZVMUD	ZVAUD	EBZDU
25 272	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVMUD-mounting on tank kit-GPM	×		
25 273	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-mounting on tank kit -GPM		×	
25 274	AdBlue®-EMP-35 l/min-230 V-1~AC	ZVAUD-mounting on tank kit-EBZDU-GPM		×	×

Abbreviations

EBZDU	In-line meter, digital, for AdBlue®	**EMP**	Electric diaphragm pump
EPDM	Ethylene propylene diene rubber	**FKM**	Viton®
GPM	Assembled on mounting plate	**PA**	Polyamide
ZVAUD	Automatic nozzle valve for AdBlue® with swivel joint	**ZVMUD**	Mechanical control nozzle for AdBlue® with Swivel joint

AdBlue®-Trolleys

TECHNICAL DATA

Pumpe
- Connecting cable with battery terminal clips, length (m): 2

Hydraulic data
- Pump design: diaphragm pump, selfpriming
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data
- Voltage (V): 230
- Frequency (Hz): 50/60
- Power consumption (A): 1,5
- Duty cycle (min): continuous operation – a real endurance runner
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

SPECIFICATION
- Mobile AdBlue®-supply system
- For 200-/220l container
- Diaphragm pump, selfpriming (25 284)
- Suction tube for IBC (83 396)
- AdBlue®-suction hose, DN 19, 1 m, with SEC-adapter and bend 90° with spout (25 657)

PRODUCTS

Item number	Description 1	Description 2	8 l/min	10 l/min	35 l/min	ZVAUD	Elaflex	EBZDU
25 338 836	AdBlue®-trolley-200 l-8 l/min	Elaflex-ISO-22241-5-EBZDU-230 V-50 Hz	×				×	×
25 338 770	AdBlue®-trolley-200 l-10 l/min	ZVAUD-PP-EBZDU-230 V-50 Hz		×*		×		×
25 337 836	AdBlue®-trolley-200 l-8 l/min	Elaflex-ISO-22241-5-230 V-50 Hz	×				×	
25 337 760	AdBlue®-trolley-200 l-10 l/min	ZVAUD-PP-230 V-50 Hz		×*		×		
25 335 770	AdBlue®-trolley-200 l-35 l/min	ZVAUD-VA-EBZDU-230 V-50 Hz			×	×		×
25 334 760	AdBlue®-trolley-200 l-35 l/min	ZVAUD-VA-230 V-50 Hz			×	×		

*Only conditionally suitable for cars (Refuelling not ISO-compliant).

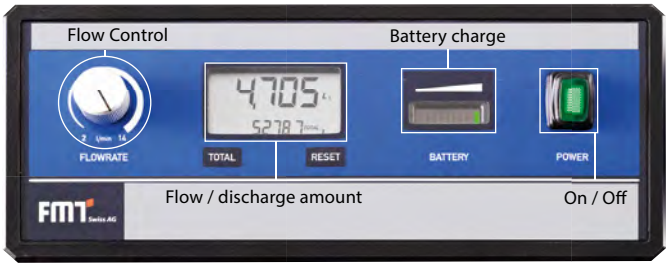
Abbreviations

DN	Inner diameter, in mm
GDA	Encased, swivel joint, outside
O	open
VA	Stainless steel
ZVAUD	Automatic nozzle valve for AdBlue® with swivel joint
EBZDU	In-line meter, digital, for AdBlue®
NW	Nominal width = inside diameter
PP	Polypropylene

Cars

Truck/ heavy equipment

mobiSERVE



Expand your workshop inventory with an easy-to-use mobile helper. Wherever passenger and small commercial vehicles must be refueled with AdBlue®, the stable trolley with its smooth-running wheels is on the spot in no time.
Easily adjust the flow rate via the practical dashboard, and be reassured that nothing can go wrong during refuelling. The handy nozzle, with ISO 22241-5 compliant filler neck, is equipped with overfill and misfuelling protection.
The powerful battery ensures mobile freedom for approximately 1,000 liters displacement.

TECHNICAL DATA

Pump
Hydraulic data
- Pump design: diaphragm pump, selfpriming
- Discharge pressure up to (bar): 1,7
- Flow media: AdBlue®, water

Motor data
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529
- Power consumption (A): 18
- Voltage (V): 12 V DC
- Fuse (A): 25

Charger
- Operating voltage (V): 230 V AC
- Frequency (Hz): 50-60
- Power consumption (A): 0,6
- Charging current (A): 5

Battery
- Voltage (V): 12 V DC
- Capacity (Ah): 24
- Charging time when battery completely empty (h): 5
- Connecting cable with battery terminal clips, length (m): 2

- Pumping capacity (l): 1000
- Duty cycle under free discharge max. (min): 180

SPECIAL NOTES

- Mobile + agile + narrow + lightweight
- Network-independant, one battery charge is sufficient for the delivery of AdBlue® 1000 l
- Delivery rate (liters/minute) freely adjustable at the user display
- Space on the trolley usable for advertising
- Dispensing valve exchange container with water reservoir
- Battery charge indicator on the user display
- Charge cycle of the maintenance-free battery when the battery is completely empty: 5 hours
- Precise oval gear meter over entire discharge amount made of stainless steel
- Displays: Indication of partial quantity equals current filling level (resettable to zero) + total quantity (resettable to zero) + total quantity (not resettable to zero)

SPECIFICATION

- Handle and sides made of stainless steel
- Base frame powder coated
- Stainless steel pulse meter (IPG) (23 823)
- Battery charge indicator
- Maintenance-free lead acid AGM (81 120)
- 2 solid rubber tires (81 047)
- 2 swivel castors solid rubber, with parking brake (80 966)
- 60 l plastic container (25 695)
- Diaphragm pump 12 Volts, selfpriming (25 281)
- Suction tube with SEC-adapter (83 396)

Abbreviations

PP Polypropylene
ZVAUD Automatic nozzle valve for AdBlue® with swivel joint
VA Stainless steel

PRODUCTS

Image	Item number	Description 1	Description 2	60 l	200 l	Specification
	25 353 836	mobiSERVE-60 l-4,5-9 l/min	Elaflex-ISO-22241-5-Battery	×		
	25 353	mobiSERVE-60 l-6-12 l/min	ZVAUD-PP-Battery	×		
	25 352 836	mobiSERVE-200 l-4,5-9 l/min	Elaflex-ISO-22241-5-Battery		×	
	25 352	mobiSERVE-200 l-10-20 l/min	ZVAUD-VA-Battery		×	
	25 352 010	mobiSERVE-200 l-6-12 l/min	ZVAUD-PP-Battery		×	

4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 l/min

Abbreviations/Piktogramme

Refuelling
of cars/trucks/ heavy equipment

Power
Battery

Nozzle with swivel joint
automatic, ISO Compliant

AdBlue®-Hose Reel

29 821

TECHNICAL DATA

- Length of discharge hose (m) / (ft): 6 / 19.69
- Connection discharge hose: hose NW 16
- Inner diameter of hose (DN): 16
- Max. operating pressure (bar/psi): 10 / 145.04

SPECIFICATION

- Hose reel for AdBlue® in steel sheet construction, surface-coated
- With hose stop

SPECIAL NOTES

- Pressol hose reels are exceedingly robust and are notable for their compact design
- All metal parts are phosphatized, undercoated and painted
- The high quality surface treatment of all steel parts ensures high corrosion resistance
- Axis (Ø 40 mm) of die cast parts. Dimensions selected by our engineers ensure almost unlimited life range
- The material combination axis / bearing and the spring unit are maintenance-free
- Easy assembly because the weight of the hose reel does not need to be supported while mounting
- All swivel joints are ball bearing based
- High pressure in the supply system does not influence the power needed to rotate the drum
- The hose can be engaged by rotating 1/4 turn

PRODUCTS

Image	Item number	Description 1	Description 2	Open	Closed	GDA	WB
	29 821	Hose reel for AdBlue®	O-WB-10 bar-DN 16-6 m	×			×
	29 841	Hose reel for AdBlue®	GDA-WB-10 bar-DN 16-6 m		×	×	×

Abbreviations

NW	Nominal width = inside diameter	**DN**	Inner diameter, in mm
GDA	Encased, swivel joint, outside	**O**	open
WB	Wall and floor mounting		

mobiBLUE

45 317

TECHNICAL DATA

- Material tank: LLDPE (linear low density polyethylene)
- Color tank: white
- Colour of cover: blue, RAL 5015

SPECIFICATION

- Single-walled tank
- Universal fixation loops for integral shackles
- Lockable protection cap
- Filler tube with AdBlue® filter/magnet unit and cover
- Ventilation valve (45150)

SPECIAL NOTES

- Movable under load
- Diffusion resistant
- UV-resistant

PRODUCTS

Image	Item number	Description 1	Description 2
	45 317	mobiBLUE-250 l	With tank accessories
	45 319	mobiBLUE-450 l	With tank accessories

26 907

26 908

TECHNICAL DATA

- Tank volume (l): 250
- Material tank: LLDPE (linear low density polyethylene)
- Color tank: white
- Colour of cover: blue, RAL 5015

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Discharge pressure up to (bar): 1,6
- Flow media: AdBlue®

Motor data

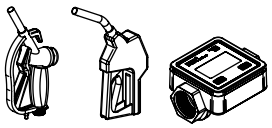
- Duty cycle (min): continuous operation – a real endurance runner
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

SPECIFICATION

- Single-walled tank
- Universal fixation loops for integral shackles
- Lockable protection cap
- Filler tube with AdBlue® filter/magnet unit and cover
- Ventilation valve (45 150)
- On-off switch
- Discharge hose 4 m, DN 19
- Foot valve with swivel (23 188)

SPECIAL NOTES

- Movable under load
- Diffusion resistant
- UV-resistant



PRODUCTS

Item number	Description 1	Description 2	30 l/min	35 l/min	12 V	24 V	230 V	ZVMUD	ZVAUD	EBZDU
26 907	mobiBLUE-250 l-ZVMUD	230 V-35 l/min		×			×	×		
26 908	mobiBLUE-250 l-ZVMUD	12 V-30 l/min	×		×			×		
26 909	mobiBLUE-250 l-ZVMUD	24 V-30 l/min	×			×		×		
26 917	mobiBLUE-250 l-ZVAUD	230 V-35 l/min		×			×		×	
26 918	mobiBLUE-250 l-ZVAUD	12 V-30 l/min	×		×				×	
26 919	mobiBLUE-250 l-ZVAUD	24 V-30 l/min	×			×			×	
26 927	mobiBLUE-250 l-ZVMUD	230 V-35 l/min-EBZDU		×			×	×		×
26 928	mobiBLUE-250 l-ZVMUD	12 V-30 l/min-EBZDU	×		×			×		×
26 929	mobiBLUE-250 l-ZVMUD	24 V-30 l/min-EBZDU	×			×		×		×
26 937	mobiBLUE-250 l-ZVAUD	230 V-35 l/min-EBZDU		×			×		×	×
26 938	mobiBLUE-250 l-ZVAUD	12 V-30 l/min-EBZDU	×		×				×	×
26 939	mobiBLUE-250 l-ZVAUD	24 V-30 l/min-EBZDU	×			×			×	×

Abbreviations

DN Inner diameter, in mm
ZVMUD Mechanical control nozzle for AdBlue® with Swivel joint
EBZDU In-line meter, digital, for Urea
ZVAUD Automatic nozzle valve for AdBlue® with swivel joint

mobiBLUE

26 911

TECHNICAL DATA

- Tank volume (l): 450
- Material tank: LLDPE (linear low density polyethylene)
- Color tank: white
- Colour of cover: blue, RAL 5015

Hydraulic data

- Pump design: diaphragm pump, selfpriming
- Discharge pressure up to (bar): 1,6
- Flow media: AdBlue®

Motor data

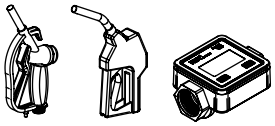
- Duty cycle (min): continuous operation – a real endurance runner
- Safety class: IP 66 - dust tight and protected against strong jets of water - according to EN 60529

SPECIFICATION

- Single-walled tank
- Universal fixation loops for integral shackles
- Lockable protection cap
- Filler tube with AdBlue® filter/magnet unit and cover
- Ventilation valve (45 150)
- On-off switch
- Discharge hose 4 m, DN 19
- Foot valve with swivel (23 188)

SPECIAL NOTES

- Movable under load
- Diffusion resistant
- UV-resistant



PRODUCTS

Item number	Description 1	Description 2	30 l/min	35 l/min	12 V	24 V	230 V	ZVMUD	ZVAUD	EBZDU
26 900	mobiBLUE-450 l-ZVMUD	230 V-35 l/min		×			×	×		
26 901	mobiBLUE-450 l-ZVMUD	12 V-30 l/min	×		×			×		
26 902	mobiBLUE-450 l-ZVMUD	24 V-30 l/min	×			×		×		
26 910	mobiBLUE-450 l-ZVAUD	230 V-35 l/min		×			×		×	
26 911	mobiBLUE-450 l-ZVAUD	12 V-30 l/min	×		×				×	
26 912	mobiBLUE-450 l-ZVAUD	24 V-30 l/min	×			×			×	
26 920	mobiBLUE-450 l-ZVMUD	230 V-35 l/min-EBZDU		×			×	×		×
26 921	mobiBLUE-450 l-ZVMUD	12 V-30 l/min-EBZDU	×		×			×		×
26 922	mobiBLUE-450 l-ZVMUD	24 V-30 l/min-EBZDU	×			×		×		×
26 930	mobiBLUE-450 l-ZVAUD	230 V-35 l/min-EBZDU		×			×		×	×
26 931	mobiBLUE-450 l-ZVAUD	12 V-30 l/min-EBZDU	×		×				×	×
26 932	mobiBLUE-450 l-ZVAUD	24 V-30 l/min-EBZDU	×			×			×	×

Abbreviations

DN Inner diameter, in mm
ZVMUD Mechanical control nozzle for AdBlue® with swivel joint
EBZDU In-line meter, digital, for AdBlue®
ZVAUD Automatic nozzle valve for AdBlue® with swivel joint

Compact System-AdBlue®-1500 l

TECHNICAL DATA

- Tank volume (l): 1500
- Material tank: HDPE
- Color outer tank: grey
- Dimensions LxWxH (mm): 1690 x 813 x 1876
- Empty weight (kg): 100

SPECIFICATION

- Tank, 1500 l, with level indicator and visual leakage indicator
- Venting valve G 2" male
- Stainless steel check valve
- Plastic adapter G 2" male, 20 mm male, 20 mm male 90°
- Pump plate, INOX
- Photo shows application example with Set (25 274)

SPECIAL NOTES

- Stationary
- Double-walled tank
- UV-resistant
- Suction line and mounting plate for pump set delivered pre-assembled

PRODUCTS

Item number	Description 1	Description 2
26 851	Compact system-AdBlue®-1500 l	Suction set-pump plate-level indicator

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259) **HDPE** High density polyethylene

Fluid Management System for AdBlue®

up to 1000 users

up to 1000 vehicles

50 vehicles per user

TECHNICAL DATA

- Number of users (iButton): 1000
- Number of vehicles: 1000
- Number of vehicles per user: 50
- Type of user ID: PIN and/or iButton
- Type of display and size: illuminated 5"-LCD display
- Compatible operating systems: Linux, MAC, Windows
- Voltage (V): 230
- Frequency (Hz): 50
- Power consumption (A): 0,25
- Safety class: IP54
- Maximum settable dispensing quantity (l): 0-999
- The tank level for re-filling can be adjusted when the tank is empty (L): 0-999
- Number of filling stations: 2

SPECIFICATION

- SD card (84 023)
- SD card reader for USB port (84 235)
- Software and operating instructions on CD-ROM
- 7 iButtons in black for users (5 pcs), red for service (1 pc) and green for supervisor (1 pc)
- Fluid Management System in aluminium housing

SPECIAL NOTES

- Benefit from our professional management system FMS for liqiud dispensing
- It is already widely used in workshops, agriculture and industry and can be used for diesel and AdBlue®
- An integral heating in the FMS provides an operation and a clearness of the display even at low temperatures (tested until -25 °C)
- Two tanks can be operated with the FMS
- Users, vehicles, discharge quantities and levels can be checked and evaluated
- User identification by PIN and/or by iButton
- User friendly PC application for configuration and installation of storage tanks, tank volumes, users and vehicles
- The PC application checks for available updates every 10 days
- All data can be installed on a PC and can be transferred with a SD card to the FMS
- The data of any refilling process can be read out on a PC and exported for special analysis. An USB adapter for the SD card is part of the scope of delivery.
- The SD card supplied offers space for the storage of several thousands of refilling processes.

PRODUCTS

Item number	Description 1	Specification
23 499	Fluid Management System FMS	
25 497	FMS-set for AdBlue®	Control nozzle storage bracket (23 166) with cable, 3 m, and connecting plug (83 012) for connection with FMS Stainless steel pulse meter (IPG) (23 823) with cable 3 m, and connecting plug (83 012)

Accessories for Fluid Management System for AdBlue®

PRODUCTS

Image	Item number	Description 1	Description 2
	23 494	Code-box	Access control
	23 495	PIN-code-block	Access control
	23 823	Pulse generator-G 1" female-G 1" female-AdBlue®	Oval gear meter-stainless steel
	23 829 870	Pulse generator G 1" female-G 1" female-AdBlue®	With display
	23 166	Control nozzle storage bracket made of stainless steel	With on-off switch
	83 012	Sensor cable-PVC-M 8	4-pin-4 x 0,25 mm²-3 m

Code-Box

23 494

TECHNICAL DATA

- Number of users: 96
- Type of user ID: PIN
- Voltage (V): 230
- Power input: 8 A continuous
- Power input: 10 A power
- Safety class: IP 54
- Switching contact: 2-pin
- Radio shielding: relay contact
- Connecting cable (m): 2, EUS
- Fuse: 2-pin safety
- Temperature range (°C): -40 / +40
- Dimensions LxWxH (mm): 150 x 100 x 42
- Weight (kg): 1,2

PIN-Code-Block

23 495

TECHNICAL DATA

- Number of users: 96
- Type of user ID: PIN or iButton
- Voltage (V): 230
- Power input: 8 A continuous
- Power input: 10 A power
- Safety class: IP 54
- Switchingcontact: 2-pin
- Radio shielding: relay contact
- Connecting cable (m): 2, EUS
- Fuse: 2-pin safety
- Temperature range (°C): -40 / +40
- Dimensions LxWxH (mm): 150 x 100 x 42
- Weight (kg): 1,2

TANKFIxx with Display & Fluid Management System

25 400 007

up to 1000 users

up to 1000 vehicles

50 vehicles per user

SPECIAL NOTES

- First class construction of electric machines and pumps
- Designed for a long service life
- Encapsulation of the electric motor, which, in case of extreme temperature fluctuations, largely prevents the formation of condensed water and of short-circuits resulting thereof
- Motor and switch case made of shock resistant, die-cast aluminium
- Continuous operation – a real endurance runner
- Suction height 3 m
- Small tolerances provide a high suction- and pressure performance

TECHNICAL DATA

- Connection suction side: G 1" female
- Connection discharge side: G 1" female

Hydraulic data

- Delivery rate under free discharge (l/min): 35
- Discharge pressure up to (bar): 1,7
- Suction height (m): 3
- Flow media: AdBlue®, water

SPECIFICATION: FLUID MANAGEMENT SYSTEM (FMS)

- For complete control and evaluation of tank systems and tank operations
- User identification by PIN and/or by iButton
- Entry of license plate, mileage and user for optimal evaluation
- The data of any refilling process can be readout on a PC
- Configuration and installation of storage tanks, tank volumes, users and vehicles
- Two tanks can be operated with the FMS

More information about FMS: see P. 216

SPECIFICATION

- Diaphragm pump, selfpriming (25 280)
- On/Off switch through control valve
- Lockable door
- Stainless steel-pulse generator (IPG) (23 823)
- Packed in a safe transport box

- Materials guarantee a low weight and an exceptional lifetime with optimized efficiency
- Overlapping lid on housing, thereby ingress of splashing water is avoided
- Lockable aluminium housing
- Surface of all structural parts, including the housing is powder coated, 10µ thickness
- Connection for suction tube on housing bottom
- Stable base which can be secured to the floor

PRODUCTS

Item number	Description 1	Description 2	Specification
25 400	TANKFIxx AdBlue®	230 V-50 Hz-FMS-ZVAUD-4 m	Fluid Management System (FMS) in aluminium housing with integrated heating (23 499)
25 400 007	TANKFIxx AdBlue®	230 V-50 Hz-FMS-ZVAUD-SAR-6 m	Fluid Management System (FMS) in aluminium housing with integrated heating (23 499) With hose reel (29 841) mounted on bracket
25 408	TANKFIxx AdBlue®	230 V-50 Hz-DAZ-ZVAUD-4 m	Automatic nozzle valve with swivel joint (DAZ)

AdBlue®-Volume Meters / Pulse Meters

23 295 870

TECHNICAL DATA

- Distance in-/out flange (mm): 110
- Connection on both ends: G 1" female
- Media: AdBlue®
- Flow capacity min. (l/min): 15
- Flow capacity max. (l/min): 100
- Permitted liquid temperature max. (°C): 40
- Permitted ambient temperature (°C): -10 / +50
- Measuring tolerance (%): 1
- Nominal pressure (bar): 15
- Burst pressure (bar): 60
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C)

Materials of parts in contact with liquid

- Meter housing: stainless steel
- Turbine: POM
- Seals: NBR 70

SPECIFICATION

- Turbine wheel counter in stainless steel with display
- Totalisator for daily operation 5-digits with floating decimal, resettab le to zero, partition 0,0 up to 99999
- Totalisator 5 digits with floating decimal, partition 0,0 up to 999999

SPECIAL NOTES

- Easy to read 4-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts
- The display can be adapted to the direction of flow in 90° steps

PRODUCTS

Item number	Description 1	Description 2	Specification
23 295 870	In-line meter-digital-VA	Turbine wheel-G 1" female-G 1" female	
23 295 871	In-line meter-digital-VA	Turbine wheel-G 1" female-G 1" female-with fittings	Manifold connection short, for AdBlue® (25 612) Double nipple, for AdBlue® (25 615)

Abbreviations

DAZ	Automatic nozzle valve with swivel joint
FKM	Viton®
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
PA	Polyamide
SAR	Hose reel
ZVAUD	Automatic nozzle valve for AdBlue® with swivel joint
EPDM	Ethylene propylene diene rubber
FMS	Fluid Management System
NBR	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
POM	Acetal homopolymer
VA	Stainless steel

AdBlue®-Volume Meters / Pulse Meters

23 190 870

TECHNICAL DATA

- Distance in-/out flange (mm): 95
- Connection on both ends: G 1" female
- Medium: AdBlue®
- Flow capacity min. (l/min): 2
- Flow capacity max. (l/min): 100
- Pre-set flow direction: horizontal
- Permitted liquid temperature max. (°C): 35
- Permitted ambient temperature (°C): -5 / +35
- Measuring tolerance (%): 0,5
- Nominal pressure (bar): 3,5
- Burst pressure (bar): 28
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C)

Materials of parts in contact with liquid

- Meter housing: stainless steel
- Oval gears: POM
- Seals: NBR 70

SPECIFICATION

- Totalisator for daily operation 5-digits with floating decimal, resettable to zero, partition 0,000 up to 99999
- Totalisator 6 digits with floating decimal, partition 0,0 up to 999999

SPECIAL NOTES

- Suitable for use with AdBlue®
- Easy to read 5-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts

PRODUCTS

Image	Item number	Description 1	Description 2	Display	for FMS
	23 190 870	NUMERIxx^3-G 1" female-G 1" female	Oval gear meter-digital-AdBlue®	×	
	23 829 870	Pulse generator-G 1" female-G 1" female-AdBlue®	With Display	×	×
	23 823	Pulse generator-G 1" female-G 1" female-AdBlue®	Oval gear meter-stainless steel		×
	23 830	Remote display for pulse meter	NUMERIxx^3-oval gear meter-digital	×	

19 690

TECHNICAL DATA

- Housing material: aluminium
- Display: digital, three digits and two decimal digits
- Height of the digits (mm): 13
- Surface treatment: black, coated by cataphoresis
- Battery type: 2 x 1,5 V
- Lifetime of battery: approx. 2 years at 0.5 hours per day (20 °C)

SPECIFICATION

- Totalisator for daily operation 5-digits with floating decimal, resettable to zero, partition 0,000 up to 99999
- Totalisator 6 digits with floating decimal, partition 0,0 up to 999999

SPECIAL NOTES

- Housing including the chamber for electronics are made of aluminium, cast-rinde will not be finished
- Impact-resistant electronics
- Easy to read 5-digits display
- Resettable display
- The metering precision can be adjusted to the viscosity using the calibration scale
- The user can adjust following indicating units: Litres, gallons, pints, quarts

PRODUCTS

Item number	Description 1	Description 2
19 690	Remote display for pulse meter	Built-in meter

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
NBR Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
POM Acetal homopolymer

AdBlue®-Volume Meters / Pulse Meters

TECHNICAL DATA

- Flow capacity (l/min): 10 - 55
- Temperature range (°C): -10 / +60
- Max. pressure (bar): 2
- Burst pressure (bar): 4
- Housing material: POM
- Display: 4-digits, with 2 decimal digits
- Partial summation: 9 different part sums individually callable, each part sum can be reset to zero.
- Total summation: is counted in litres and at 99 999 l start at zero, with 1 decimal digit
- Measuring tolerance (%): ± 1 %
- Metering unit: can be easily calibrated (set to PREMAxx at factory)
- Installation position: optional in 90° steps
- Batteries: Lithium SeZe AA, 3,6 V

SPECIFICATION

- Packed in carton box
- With EAN bar code

PRODUCTS

Item number	Description 1	Description 2
23 287 870	In-line meter-digital	Vane-G 1" female-G 1" male-AdBlue®

AdBlue®-Nozzle Valve

PRODUCTS

Image	Item number	Description 1	Description 2	5-15 l	10 l	60 l	80 l
	23 161 878	Mechanical nozzle valve-AdBlue®	G 1" female-80 l-PP				×
	23 161 879	Mechanical nozzle valve-AdBlue®	G 1" female-80 l-without DG				×
	23 171 960	Automatic-nozzle valve-AdBlue®	G 3/4" female-60 l-stainless steel-DG			×	
	23 171 980	Automatic-nozzle valve-AdBlue®	G 3/4" female-60 l-stainless steel-without DG			×	
	23 171 961	Automatic-nozzle valve-AdBlue®	G 1" male-5-15 l-PP	×			
	23 171 836	Automatic-nozzle valve-AdBlue®	R 1" male-10 l-ISO 22241-5		×		

ACCESSORIES

Image	Item number	Description 1	Description 2
	19 635	Swivel joint DN 19-stainless steel	G 3/4" male-FKM-AdBlue®

Abbreviations

Refuelling
of cars / trucks / heavy equipment

Power
Battery

Nozzle with swivel joint
automatic, ISO Compliant

PP	Polypropylene	**FKM**	Viton®
DN	Inner diameter, in mm	**red**	Reduction
DG	Swivel joint		

AdBlue®-Filters and Filter Cartridges

25 180

TECHNICAL DATA

Casing
- Inlet, top: G 1" female
- Outlet, side: G 1" female
- Material, housing, upper part: polyamide
- Material, housing, lower part: plexiglas
- Seal material: Viton® (FKM)
- Operating temperature area (°C): -5 / +60
- Operating pressure max. (bar): 2,5
- Media: AdBlue®, water

Filtering candle
- Material: Polypropylene
- Outside diameter (mm): 63
- Inner diameter (mm): 28
- Separation efficiency (µm): 5

SPECIFICATION
- Filter unit with filter
- Seal kit for filter housing and fittings
- Packed in carton box

SPECIAL NOTES
- Visual filter check
- Tool-free filter replacement
- Easy to clean
- Filter can be also operated without filter cartridge
- Dual sealing system, axial + radial, no crystal formation due to leaking AdBlue®
- Dual seal system for all fittings and connecting parts
- Standard filter cartridge size

PRODUCTS

Item number	Description 1	Description 2
25 180	AdBlue®-filter unit	Filter length 92 mm
25 181	AdBlue®-filter unit	Filter length 156 mm
25 185	AdBlue®-filtering candle	Filter length 95,5 mm
25 186	AdBlue®-filtering candle	Filter length 156 mm

AdBlue®-Fittings

PRODUCTS

Image	Item number	Description 1	Description 2
	25 600	Bend 90°-2 x union nut	AdBlue®-G 1" female-G 1" female
	25 601	Bend 90° with spout-AdBlue®	G 1" female-DN 19
	25 602	Bend 90° with spout-AdBlue®	G 1" female-DN 13,5
	25 605	Hose fitting DN 13,5-AdBlue®	G 1" female-Ø 9,5 mm
	25 606	Hose fitting DN 19-AdBlue®	G 1" female
	25 607	Threaded nozzle DN 19-AdBlue®	G 1" male
	25 608	Threaded nozzle DN 13-AdBlue®	G 1" male
	25 610	Connection fitting-AdBlue®	G 1" female-G 1" female
	25 611	Manifold connection long-AdBlue®	G 1" female-G 1" male
	25 612	Manifold connection short-AdBlue®	G 1" female-G 1" male
	25 615	Double nipple-AdBlue®	G 1" male-G 1" male
	25 620	Accessory kit, fittings-AdBlue®	

G

AdBlue®-Hoses and Hose Sets

PRODUCTS

Item number	Description 1	Description 2	DN 13	DN 19	length (m)
80 911	AdBlue®-hose-50 m-164.04 ft	DN 13-EPDM	×		50
80 371 878	AdBlue®-hose-50 m-164.04 ft-reel	Ø inner 19 mm-0.75 inch		×	50
25 190	AdBlue®-suction hose-2 m-6.56 ft			×	2
25 616	AdBlue®-suction hose-3 m-9.84 ft	DN 19-with foot valve and filter		×	3
25 650	AdBlue®-suction hose-1 m-3.28 ft	DN 19-for 200-l-barrel-S70x6-FUV PA		×	1
25 653	AdBlue®-suction hose-1,1 m-3.61 ft	DN 19-IBC-suction, buttom-2 x bend 90° G 1" female		×	1,1
25 656	AdBlue®-suction hose-2,3 m-7.55 ft	DN 19-for tank-S70x6-FUV VA		×	2,3
25 682	AdBlue®-suction hose-2 m-6.6 ft	DN 13-with SEC-adapter-bend 90°	×		2
25 663	AdBlue®-suction hose-2 m-6.6 ft	DN 19-bend 90° G 1" female-FUV PA		×	2
25 657	AdBlue®-suction hose-1 m-3.28 ft	DN 19-with SEC-adapter-bend 90°		×	1
25 658	AdBlue®-suction hose-1 m-3.28 ft	DN 19-with SEC-adapter-fitting G 1" female		×	1
25 660	AdBlue®-suction hose-0,7 m-2.3 ft	DN 19-for mobiBLUE 250 l-G 1" male-FUV VA		×	0,7
25 661	AdBlue®-suction hose-0,9 m-2.95 ft	DN 19-for mobiBLUE 450 l-G 1" male-FUV VA		×	0,9
25 662	AdBlue®-suction hose-1,6 m-5.25 ft	DN 19-for PREMAxx		×	1,6
25 680	AdBlue®-suction hose-1 m-3.28 ft	DN 13-for 200-l-barrel-S70x6-FUV PA	×		1
25 651	AdBlue®-connecting hose-0,5 m-1.64 ft	DN 19-bend 90° G 1" female-fitting G 1" female		×	0,5
25 652	AdBlue®-connecting hose-0,5 m-1.64 ft	DN 19-2 x bend 90° G 1" female		×	0,5
25 654	AdBlue®-connecting hose-2 m-6.6 ft	DN 19-2 x bend 90° G 1" female		×	2
25 655	AdBlue®-connecting hose-1,1 m-3.61 ft	DN 19-bend 90° G 1" female-fitting G 1" female		×	1,1
25 659	AdBlue®-connecting hose-1,5 m-4.92 ft	DN 19-3 x bend 90° G 1" female		×	1,5
25 681	AdBlue®-connecting hose-0,5 m-1.64 ft	DN 13-2 x bend 90° G1" female	×		0,5
25 191	AdBlue®-discharge hose-6 m-19.69 ft			×	6
25 671	AdBlue®-discharge hose-6 m-19.7 ft	DN 19-bend 90° G 1" female-DG-ZVMUD		×	6
25 672	AdBlue®-discharge hose-6 m-19.7 ft	DN 19-bend 90° G 1" female-DG for ZVAUD		×	6
25 673	AdBlue®-discharge hose-6 m-19.7 ft	DN 19-fitting G 1" female-DG for ZVAUD		×	6
25 674	AdBlue®-discharge hose-4 m-13.1 ft	DN 19-bend 90° G 1" female-DG for ZVMUD		×	4
25 675	AdBlue®-discharge hose-4 m-13.1 ft	DN 19-fitting G 1" female-DG for ZVAUD		×	4
25 683	AdBlue®-discharge hose-4 m-13.1 ft	DN 13-bend 90° G 1" female-DG-ZVAUD-10l	×		4
25 684	AdBlue®-discharge hose-4 m-13.1 ft	DN 13-bend 90° G 1" female-DG-ZVAUD 3-12l	×		4
25 685	AdBlue®-discharge hose-4 m-13.1 ft	DN 13-bend 90° G 1" female-fitting G 1" female	×		4

AdBlue®-Accessories

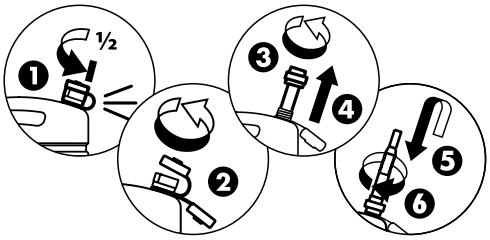
PRODUCTS

Image	Item number	Description 1	Description 2
	25 320	IBC AdBlue®-extraction kit	With nozzle and accessories
	25 640	Adapter M64 x 4	For IBC containers With double threaded nipple
	83 324	SEC-adapter for IBC containers	DN 19
	83 324 001	SEC-adapter for IBC containers	DN 13
	25 690	Suction set for 60 l container	
	83 396	Suction tube for IBC	Compatible with SEC-adapter
	23 200	Foot valve with filter-G 1" female	
	23 188	Stainless steel foot valve	
	45 150	Venting valve-G 2" male for AdBlue®	For mobile tanks
	45 150 950	Venting valve-G 2" male for AdBlue®	For stationary tanks
	80 875	IBC-adapter S60x6	With hose fitting DN 19
	83 462	Barrel screw coupling	For AdBlue®
	13 080 390	Adapter-G 2" female and	M 56 x 4 male
	13 083	Adapter-G 2" female and	Mauser 2" male
	80 920	Adapter G 1"	For plastic barrel
	80 920 100	Adapter G 2" male-G 1" female-G 1" male	
	25 695	60 l container for AdBlue®	

G

AdBlue®-Cans

21 143 870



TECHNICAL DATA

- Material jerrycan: HDPE (high density polyethylene)
- Colour of can: blue, Pantone 294 C
- Material jerrycan locking cap and adapter: Polypropylene
- Material discharge spout and fixation strap: LDPE (polyethylene of low density)
- Colour of locking cap, fixation strap and adapter: steel-grey, RAL 7011
- Colour discharge spout: white, transparent
- Diameter discharge spout outside (mm): 20

SPECIFICATION

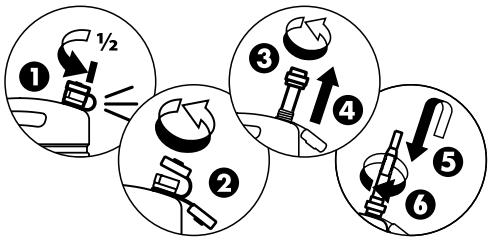
- Flexible discharge spout with integral ventilation
- Spout is stored inside jerrycan
- Cover cap is secured against loss with flexible band
- With EAN bar code

SPECIAL NOTES

- Suitable for use with AdBlue®
- Foodstuff-compatible
- Robust and resistant against impact
- Not usable for petrol

PRODUCTS

Image	Item number	Description 1	Description 2	5 l	10 l	20 l
	21 141 870	Universal can 5 l for AdBlue®	PE-with flexible spout	×		
	21 143 870	Universal can 10 l for AdBlue®	PE-with flexible spout		×	
	21 147 870	Universal can 20 l for AdBlue®	PE-with flexible spout			×



TECHNICAL DATA

- Capacity (l): 20
- Material jerrycan: HDPE (high density polyethylene)
- Colour of can: white, transparent
- Material jerrycan locking cap and adapter: Polypropylene
- Material discharge spout and fixation strap: LDPE (polyethylene of low density)
- Colour jerrycan locking cap: blue
- Colour fixation strap and adapter: blue
- Colour discharge spout: white, transparent
- Length of discharge tube (mm): 245
- Diameter discharge spout outside (mm): 20

SPECIFICATION

- With flexible spout
- Spout is stored inside jerrycan
- Spout with integrated ventilation
- Cover cap is secured against loss with flexible band
- With EAN bar code

SPECIAL NOTES

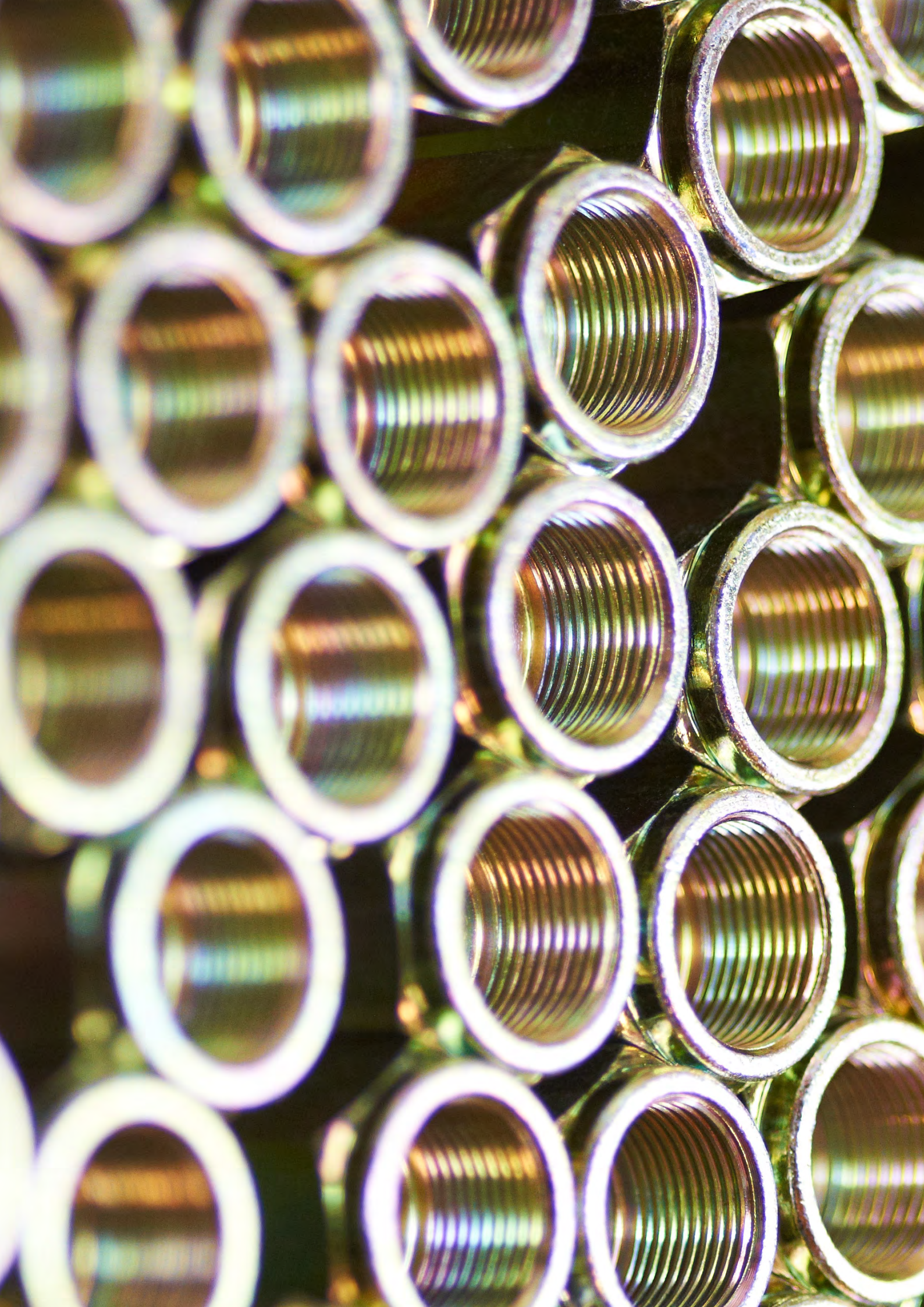
- Suitable for use with AdBlue®
- Less water condensate in the jerrycan
- Integral discharge spout to be stored in the jerrycan complete with patented jerrycan locking cap
- No contamination of the discharge spout when storing the jerrycan in a vehicle
- Dimensions compatible with military jerrycans
- Robust and resistant against impact
- Suitable for cars

PRODUCTS

Item number	Description 1	Description 2
21 127 870	Army can for water+AdBlue®	20 l-PE-with flexible spout

Abbreviations

EAN European Article Number Code (bar code)
PE Polyethylene



234 Threaded Hose Connectors

234 Hose Clamps & O-Clips

235 PTFE Tape

235 Strainers / Filters

236 Lever Ball Valves, Sleeve

236 Non Return Valves

237 Reduction Pieces / Adaptors

238 Barrel Screw Couplings

238 Small Part Cleaners

239 Brake Bleeding Equipment

Threaded Hose Connector

20 132

TECHNICAL DATA

- Material: brass

PRODUCTS

Item number	Description 1	Description 2	DN 6	DN 9	DN 13	DN 19
20 132	Threaded nozzle-G 1/4" male-SW 17	6 mm	×			
20 133	Threaded nozzle-G 1/4" male-SW 17	9 mm		×		
20 134	Threaded nozzle-G 3/8" male-SW 19	6 mm	×			
20 135	Threaded nozzle-G 3/8" male-SW 19	9 mm		×		
20 136	Threaded nozzle-G 1/2" male-SW 24	13 mm			×	
02 803	Threaded nozzle-G 3/4" male-SW 32	19 mm				×

Hose Clamps & O-Clips

20 152

PRODUCTS

Item number	Description 1	Description 2
20 152	Worm-drive hose clamp	Clamping range 10-16 mm
20 154	Worm-drive hose clamp	Clamping range 12-22 mm
20 156	Worm-drive hose clamp	Clamping range 16-27 mm
20 162	Twin lug hose clip	Clamping range 11-13 mm
20 164	Twin lug hose clip	Clamping range 13-15 mm
20 166	Twin lug hose clip	Clamping range 15-18 mm

PTFE Tape

TECHNICAL DATA

- Length (m): 12
- Width (mm): 12
- Size (mm): 0,10
- Colour: white

PRODUCTS

Item number	Description 1	Description 2
20 178	Teflon tape-PTFE	roll length 12 m

Strainers / Filters

19 760

TECHNICAL DATA

- Strainer mesh wide (mm): 0,5
- Operating pressure max. (bar): 16
- Material: brass
- Medium: oil

PRODUCTS

Item number	Description 1	Description 2
19 760	Dirt trap-strainer	G 1/2" female-G 1/2" female
19 761	Dirt trap-strainer	G 3/4" female-G 3/4" female

Abbreviations

DN	Inner diameter, in mm	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
PTFE	Polytetrafluorethylen (Teflon®)	**SW**	Width across flats

Lever Ball Valves, Sleeve

19 778

PRODUCTS

Item number	Description 1	Description 2	Grease	Oil	Air
18 095	Block-ball valve	G 1/4" female-G 1/4" female	×		
18 096	Block-ball valve	G 3/8" female-G 3/8" female	×		
18 097	Block-ball valve	G 1/2" female-G 1/2" female	×		
19 778	Lever ball valve	G 3/4" female-G 3/4" male		×	×
13 093	Lever ball valve	G 3/8" female-G 3/8" male		×	×
19 764	Lever ball valve	G 1/4" female-G 1/4" female		×	×
19 765	Lever ball valve	G 3/8" female-G 3/8" female		×	×
19 762	Lever ball valve	G 1/2" female-G 1/2" female		×	×
19 763	Lever ball valve	G 3/4" female-G 3/4" female		×	×
19 767	Lever ball valve	G 1" female-G 1" female		×	×
19 771	Lever ball valve	G 1 1/4" female-G 1 1/4" female		×	×
19 772	Lever ball valve	G 1 1/2" female-G 1 1/2" female		×	×
19 773	Lever ball valve	G 2" female-G 2" female		×	×
87 056	Sleeve ball valve	G 1/4" female		×	×

Non Return Valve

19 897

PRODUCTS

Item number	Description 1	Description 2	Oil	Water	Air
19 892	Check valve	G 1" female-G 1" female	×	×	
19 897	Solenoid valve-2/2-way	G 1/2" female-G 1/2" female			×

Reduction Pieces / Adaptors

18 088

PRODUCTS

Item number	Description 1	Description 2	SW	Overall length (mm)
18 016	Sleeve	M 10 x 1 female	15	24
18 017	Sleeve	G 1/8'' female	15	24
12 016	Retention adapter	G 1/8'' female-M 10 x 1 male	13	23
12 086	Retention adapter	G 1/8'' male-M 10 x 1 female	13	23
18 093	Retention adapter	G 1/4" male-G 1/8'' female	19	28
19 418	Retention adapter	G 3/4'' female-G 2'' male	65	48,5
19 626	Reduction sleeve	G 1/2'' male-G 3/4'' female	-	30
19 628	Reduction sleeve	G 1" female-G 3/4" female	-	45
19 630	Reduction sleeve	G 1 1/4" female-G 3/4" female	-	50
20 122	Retention adapter	G 1/4'' female-G 3/8'' male	19	14
20 124	Retention adapter	G 3/8'' female-G 1/2" male	24	18
20 126	Retention adapter	G 1/2" female-G 3/4" male	32	21
03 419	Retention adapter	G 1" male-G 3/4" female	38	18
18 085	Double threaded nipple	G 1/4'' male-DK 60°-R 1/4'' male	18	35
18 086	Double threaded nipple	G 1/4" male-DK 60°-R 1/2" male	24	42,9
18 087	Double threaded nipple	G 3/8'' male-DK 60°-R 1/2" male	22	38
18 088	Double threaded nipple	G 3/8'' male-DK 60°-each end	22	32
19 619	Double threaded nipple	G 1/2" male-DK 60°-R 1/2" male	26	46
19 636	Double threaded nipple	G 1/2" male-G 3/4'' male-DK 60°-each end	32	38
19 637	Double threaded nipple	G 3/4" male-DK 60°-R 3/4" male	30	51
19 638	Double threaded nipple	G 3/4" male-DK 60°-R 1" male	35	58
20 111	Double threaded nipple	G 1/4" male-DK 60°-G 1/8" a-DK 60°	18	20
20 251	Double threaded nipple	G 1/2" male-DK 60°-R 3/8" male	24	43
85 589	Ball seat valve-M 10 x 1	galvanized	15	26,2
85 627	Ball seat valve-G 1/8"	galvanized	15	26,2
13 083	Adapter-G 2'' female and	Mauser 2'' male	-	44

Abbreviations

DK	Sealing cone	**G**	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
R	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection	**SW**	Width across flats

Barrel Screw Coupling

19 527

TECHNICAL DATA
- Material: zinc die casting

SPECIFICATION
- Locking screw

PRODUCTS

Item number	Description 1	Description 2	For metal containers, with thread G 2" female	For plastic containers with male thread
13 080	Barrel screw coupling-G 2" and	M 64 x 4 male-for pipe-Ø 32 mm	×	
19 526	Barrel screw coupling-G 2" and	M 64 x 4 male-for pipe-Ø 35,5 mm	×	
19 527	Barrel screw coupling-G 2" and	M 64 x 4 male-for pipe-Ø 40 mm	×	
19 528	Barrel screw coupling-G 2" and	M 64 x 4 male-for pipe-Ø 27,5 mm	×	
19 529	Barrel screw coupling-M 60 x 5 female	For pipe-Ø 35,5 mm		×
19 519	Barrel screw coupling-M 62,5 x 4 female	For pipe-Ø 35,5 mm		×

Brake Bleeding Equipment

TECHNICAL DATA
- Volume of air chamber (l): 5
- Operating pressure of air chamber (bar): 10,5
- Volume of brake fluid tank (l): 5
- Operating pressure of brake fluid container (bar): 2,5

SPECIFICATION
- To vent brake systems and vehicle clutches
- Internal rubber diaphragm effectively isolates air and brake fluid from each other
- Automatic shut-off, at 0,5 l
- Universal adapter

SPECIAL NOTES
- Use the car manufacturer's recommended break fluid, only

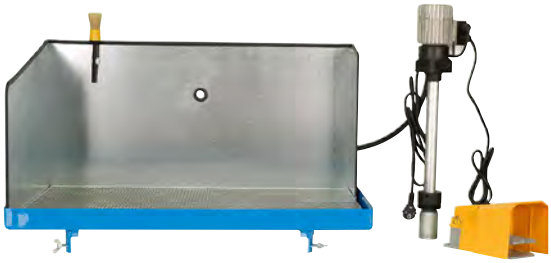
PRODUCTS

Item number	Description 1
19 776	Brake bleeding system

Abbreviations

G Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259) **M** Metric thread, cylindrical, DIN 13

Small Part Cleaners



TECHNICAL DATA

- Working surface LxW (mm): 800 x 550
- Height (mm): 300
- Max. load (kg): 30
- Motor data
- Voltage (V): 230
- Frequency (Hz): 50
- Power connection: Euro two-pin plug
- Media: for cleaning liquids, not exceeding the flashpoint temperature of 55 °C (65 °C to 70 °C)
- Delivery rate under free discharge (l/min): 3
- Pump weight (kg): 4,5

SPECIFICATION

- Safety foot switch, cleaning brush, selfpriming electric pump, with thermal protection switch
- Drum bung hole connector, as attachment unit, for 200 l standard container
- Deep drawn tray (to be screwed to the container)
- Galvanized drain grill
- Anti splash guard, with edge protection on three sides
- Connecting cable with Euro two-pin plug
- Suitable for 200 l containers

SPECIAL NOTES

- For liquids hazardous to waters, a separate container storage unit (19 802) or (19 804) is required
- For disposal please attend to local regulation

PRODUCTS

Item number	Description 1	Description 2
23 137	Small part cleaner	Electric pump

TECHNICAL DATA

- Working surface LxW (mm): 650 x 550
- Working height (mm): 1060
- Operating pressure max. (bar): 0,5
- Material of container: steel
- Lacquering of container: window grey, satin, RAL 7040
- Media: for cleaning liquids, not exceeding the flashpoint temperature of 55 °C (65 °C to 70 °C)

SPECIFICATION

- 80 l container, with level indicator and 54 l stainless steel collecting and cleaning tray, with galvanised drain grill
- Cleaning brush
- 2 fixed rear wheels, 2 castor front wheels
- Discharge tap, pressure regulator and blow-out nozzle

SPECIAL NOTES

- For disposal please attend to local regulation

PRODUCTS

Item number	Description 1	Description 2
23 139	Small part cleaner	Pneumatically operated

242 mobiBOXX

mobiBOXX

30 678

TECHNICAL DATA

- Material: polyethylene
- Colour of container: jet black, RAL 9005
- Colour of cover: fern green, RAL 6025

SPECIFICATION

- Lockable lid
- Watertight due to sealings in the lid

SPECIAL NOTES

- For use in workshops, construction and landscaping
- For secured storage of tools and building materials
- Sturdy and resistant against any weather condition
- Impact-resistant

PRODUCTS

Item number	Description 1	Description 2	300 l	450 l	Specification
30 678	mobiBOXX-300 l-25 kg	1200x600x550 mm	×		
30 679	mobiBOXX-450 l-38 kg	1710x650x550 mm		×	Lockable side opening

1. Scope of application

1. Our General Terms and Conditions apply for all current and future business relationships with our customers, in particular for our deliveries and services. Any additional, different or opposing terms and conditions of our customers, even if we have knowledge thereof, will not become part of the business relationship, unless we have expressly consented to their validity.
2. Customers as referred to in our General Terms and Conditions are exclusively entrepreneurs, i.e. natural or legal persons or judicable partnerships, who/which are acting within the scope of their commercial or freelance professional activity when establishing the business relationship.

2. Conclusion of a contract

1. Our offers are subject to change. We reserve the right to make technical modifications as well as changes to the shape, colour and/or weight within the scope of reasonableness.
2. With the placement of an order, the customer declares his binding intention to buy the goods. We are entitled to accept the offer contained in the order within 14 days after receipt by our company. The acceptance can either be declared in writing or by delivering the merchandises to the customer.

3. Delivery

1. We are entitled to make partial deliveries or to provide partial services at any time, unless the partial delivery or the partial service is of no interest for the customer.
2. Delivery terms are only binding insofar as we have explicitily agreed to them to be binding. The delivery deadline shall be deemed complied with when the goods have left our factory/warehouse within the period of delivery. If dispatch or collection is delayed for reasons for which we are not responsible, the delivery deadline shall be deemed to have been met when the purchaser has been notified to the readiness of dispatch within the period agreed upon.
3. In case of non-compliance with the delivery time due to strike or lockout – also at our suppliers – due to delays in delivery or untimely delivery by our suppliers or due to mobilization, war, riot or other unforeseen impediments which lie beyond our will, the period of delivery will be extended for the duration of the impediment.
4. Our duty to deliver shall be suspended as long as any due payment of the buyer is delayed. If the delivery of products is to be taken gradually over a certain period of time, the delivery shall be spread equally over the entire period of time.

4. Payment

1. The price lists and sheets of terms applicable at that time shall govern the terms of payment as well as the packaging and freight charges and are thus an integral part of these General Terms and Conditions. Unless otherwise agreed, the packaging and freight charges shall be born by the customer.
2. The sales tax valid at the date of delivery shall be added to the agreed price.
3. After receipt of the goods, the customer undertakes to pay the purchase price within 10 days. Upon expiry of that period of time, the customer will come into default of payment. During the period of payment delay, the customer is obliged to pay interest at 8 % above the base rate. We reserve the right to prove and to enforce higher damages due to the arrears.
4. Payment terms shall be deemed met, if we have access to the amount payable within the specified period. Promises of discount depend on the payment of all due demands. Bills of exchanges are only accepted after agreement and on account of performance. All associated expenses shall be born by the customer.
5. The customer shall be only entitled to offset against our claims if his counterclaims are undisputed or have been established in law. Uncontested claims can only be deducted by means of a credit note issued to the customer. The customer's right of retention shall only be applied when his counterclaim is based on the same contractual relationship.
6. If the customer stops making payments, if there is a debt overload, if insolvency proceedings have been opened against his assets, or if the customer comes into arrears with the cashing of due bills of exchange or cheques, then all claims we have against the customer shall become due for payment immediately. The same applies for a considerable deterioration of the customer's economic situation. In such cases we are entitled to demand adequate security or to rescind from the contract.
7. TURNOVER: The calculation of the turnover includes: net turnover (without VAT), less potential discounts, del credere commissions and costs for freight, packaging and insurances.
8. BONUSES: the calculation of the bonuses include: net turnover (without VAT) of the paid invoices, less potential discounts, del credere commissions and costs for freight, packaging and insurances.

5. Transfer of risk

1. The risk (transportation and payment risk) shall pass to the customer at the latest when the goods have been given to the forwarding agent or have left our plant/warehouse for dispatch purposes. If dispatch is delayed at the customer's request or due to circumstances for which the customer is responsible, the risk passes to the customer with our notifiction of the readiness for shipment.
2. The choice of the shipping route and method of transportation is subject to our discretion, without guarantee for the cheapest means of transportation.
3. At the request of the customer, the desired insurance is concluded at his expenses.

6. Reservation of title

1. The goods supplied remain our property until satisfaction of all claims against the customer to which we are entitled from the business relationship.
2. The customer shall be obliged to treat the goods delivered with care and in accordance with their intended conditions of use. When maintenance and inspection work is required, the customer shall perform it on a regular basis at his own expense.
3. The customer shall be obliged to inform us immediately if a third party has access to the goods, or if the goods are damaged or destroyed. Furthermore, the customer undertakes to report to us without delay any change in ownership as well as changes to his personal domicile.
4. If the customer acts in a way contrary to the contractual obligations, in particular in the event of a default in payment or in case of breach of a duty according to paragraph 2 and/or 3 of these provisions, we shall be entitled to cancel the contract and to demand the return of the goods.
5. Any processing and modification of the goods by the customer occurs

always in the name and on behalf of us. If the goods are processed or combined with other items that are not our property, we shall acquire joint ownership in the ratio of the objective value of the goods we have supplied to the other objects processed at the time of processing. The same applies if the goods are mixed with other items that do not belong to us.

6. The customer shall be entitled to resell or rent out the goods in the proper course of business. He assigns to us already at this time all claims which accrue to him through the resale or renting against others, in the amount of the value of our final invoice (including value-added tax). This shall apply irrespective of whether the customer resells or rents out the goods without or after further processing, mixing or other alterations. We accept the assignment. After the assignment, the customer shall remain authorized to collect the debt. Our allowance to draw the demands ourself shall remain unaffected thereby. We, however, undertake not to collect the debt as long as the customer duly complies with his payment obligations towards us and does not fall under default of payment. We further undertake to release the securities due to us on demand of the customer, as far as the realizable values of these securities exceed the debts to be safeguarded by more than 20 %; the choice of the securities to be released is within our scope of responsibility.

7. Determination of defects

1. For defective goods, we will provide rectification or replacement of the defect items in accordance to the customer's choice. We are, however, entitled to refuse the type of the subsequent performance chosen, if it is only possible with disproportionate costs or if the other type of the subsequent performance remains without considerable disadvantage for the customer.
2. In the event the subsequent fulfilment fails, the customer may, at his option, require a reduction of the purchase price (reduction) or the cancellation of the contract (recission). In the event of a minor infringement of the contract agreement, in particular in case of only insignificant defects, the customer shall not have the right of recission.
3. The customer must notify us in writing of apparant defects within a period of 2 weeks from receipt of the goods, in case of shortfalls immediately upon receipt of the items; otherwise the enforcement of the liability for defects is excluded, in particular with regard to subsequent fulfilment, reduction or recission. Sending the notice in time is sufficient for compliance with the deadline. The customer shall bear the full burden of proof for all pre-requisites for claims, in particular for the defect itself, for the date of detection of the defect and for the timely report of the defect.
4. Should the customer choose to withdraw from the contract because of the failure of attempts to rectify a fault, he will not have a right to compensation of damages on acount of the fault. If, following failed subsequent performance, the customer should opt to compensation, the goods shall remain with the customer, if this can be reasonably expected of him. The compensation shall be limited to the difference between the purchase price and the value of the defective goods. This shall not apply if the violation of contract is due to fraudulent intent on our part.
5. As far as the customer uses the goods for his own purposes or sells the goods completely to entrepreneurs, the period of limitation for warranty claims shall be one year from the dispatch of the goods, provided that the customer has notified us of the defect in good time according to paragraph 3 of these provisions.
6. If the customer is in default as regards a payment or a loan, we shall not be obliged to satisfy claims for defects as long as the customer fulfils his obligations corresponding to the invoice value of the goods delivered by us, less a reduction of the purchase price in proportion to the defects.
7. The above paragraphs 1 to 6 of these provisions shall not constitute any guarantee declaration from our side. Any claims based on the warranty provided separately by us shall remain unaffected.

8. Limitation of liability

1. In case of slightly negligent violations of obligations, our liability shall be limited to foreseeable, direct and average damage typical for the contractual nature of goods. This shall also apply to minor breaches of duty owing to negligence by our statutory representatives or vicarious agents.
2. The aforementioned liabilty restrictions do not apply to claims of the customers arising from product liability. Furthermore, the limitations of liability shall not apply for physical injury, or for the impairment of health or death of the customer, if this can be attributed to us.
3. Claims for damages by customers due to defects are limited to one year from the date of dispatch of the goods. This shall not apply if we can be accused of malice.

9. Prohibition of assignment and pledging

1. Claims of the customer under the business relationship with us must not be assigned or pledged without our prior express written consent.

10. Place of jurisdiction

1. The exclusive place of jurisdiction for all disputes arising out of the business relationship shall be Freiburg.
2. The same applies if the customer has no general place of jurisdiction in Germany or if his domicile or habitual abode is not known when the suit is filed.
3. We are, however, entitled to call upon any legally competent court.

11. Applicable law

1. Solely the laws of the Federal Republic of Germany shall apply.
2. Neither the Hague Convention relating to Uniform International Sales Laws of July 1, 1964 nor the United Nations Convention on Contracts for the International Sale of Goods (UN Sales Law) of April 11, 1980 shall find application.

Abbreviations

°C	Degree Celsius
°F	Degree Fahrenheit
1 SN	High pressure hose, DIN 20 022 (EN 853), part 3 corresp. to SAE 100 R1T, with one braid enforcement
1~AC	1-phase alternating current
2 SN	High pressure hose, DIN 20 022 (EN 853), part 4, corresp. to SAE 100 R2T, with two braid enforcements
3~AC	3-phase alternating current
a	Outer / Male
AAS	Anti-drip coupler, automatic shut-off
ABK	Battery clips
ABM	Dimensions
ABSV	Shut-off valve
AC	Alternating current
AD	Outside diameter, in millimetres
Ah	Ampere hour
ALH	Discharge tap
ALNI	Aluminium nickel
Alu	Aluminium
AMS	Anti-drop coupler, manual shut-off
AR	Discharge tube
AS	Discharge hose
ASA	Automatic switch-off electronics
B	Product size
BA	Jaws
BD	Operating pressure
BE	Container
BHHP	Lever-operated gun for concrete work
BSF	British standard fine/Whitworth thread, quality: fine
BSP	British Standard Pipe
CDS	Code lock
CDSP	PIN code lock
CSM	Hypalon®
D	Ceiling mounting
D1	Funnel type grease nipple, 180°, straight
D1 A	Funnel type grease nipple, 180°, straight, drive-in nipple
DAZ	Digital display, access with code
dB (A)	Decibel, A-weighted noise level
DC	Direct current
DG	Swivel joint
DH	Double strokes
DIN	Deutsches Institut für Normung (German Institute for Standardisation) (DIN standards)
DK	Sealing cone
DL	Compressed air
DLFP	Air-operated grease gun
DMS	Diesel Management System
DN	Inner diameter, in millimetres
DW	Double-acting
DWMP	Double-acting brass pump
EAN-Code	European Article Number Code (bar code)
EBZD	In-line meter, digital
EBZDU	In-line meter, digital, for urea
EBZM	In-line meter, mechanical
E-CTFE	Ethylene chlortrifluorethyhlene (Halar®)
ED	Operating time
EF	Calibratable
EFA	Calibratable for Austria
EFL	Calibratable, with unit to prevent air measurement
EFS	Calibratable, float valve technology
EHFP	One-hand grease gun
EMP	Electric diaphragm pump
EN	European standard
EP	Extreme-pressure lubricants
EPDM	Ethylene propylene diene rubber
ESN	Drive-in nipple
EST	Interference suppression
ETV	Venting valve
EUS	Euro plug
EW	Single-acting
EWKP	Single-acting plastic pump
EWMP	Single-acting brass pump
EWZP	Single-acting die-cast zinc pump
EZP	Electric gear pump
F	Filter
FA	Flat design
FAV	Drum cover
FB	Mobile
FCKW	Fluorinated hydrocarbons
FEP	Tetrafluorethylene perfluorpropylene (Teflon® FEP)
FKM	Viton®

FLA	Flexible spout
FLMA	Flexible metal spout
FMS	Fluid Management System
FN	Filling nipple
FPM	Fluoropolymer (Viton®)
FRSM	Anti-freeze
FS	Delivery hose
ft	Foot (measure of length)
FUV	Foot valve
FV	Filling valve
FZP	Vane pump
G	Whitworth Pipe Thread, cylindrical, ISO 228 (DIN 259)
gal.	gallon
GBDR	Angled spout coupler
GDA	Encased, swivel joint, outside
GDE	Container
GDI	Encased, swivel joint, inside
GE	Encased
GG	Gray cast iron
GLN	Global location number
GMZ	Glass measuring cylinder
gpm	Gallons per minute
GPM	Assembled on mounting plate
GRDR	Straight spout coupler
GRS	Straight safety spout
GS	Tested for safety
GTIN	Global Trade Item Number
H	Coupler for taper type grease nipple acc. to DIN 71 412
H1	Taper type grease nipple, 180°, straight
H1 A	Taper type grease nipple, 180°, straight, drive-in nipple
H2	Taper type grease nipple, 45°
H2 A	Taper type grease nipple, 45 °, drive-in nipple
H3	Taper type grease nipple, 90 °
H3 A	Taper type grease nipple, 90°, drive-in nipple
HD	High pressure
HDPE	High density polyethylene
HHFP	Manual lever grease gun
HHFP-DG	Manual lever grease gun with closed cover, not detachable
HHÖP	Oil press designed as manual lever gun
HS	High pressure hose
Hyrtel®	Hyrtel® is a registered trademark of the Du Pont company
Hz	Hertz
HZ	Flow meter
HZD	Flow meter, digital
HZM	Flow meter, mechanical
HZMV	Flow meter, mechanical, pre-adjustable
i	Inside / Female
IBC	Intermediate Bulk Container (for transport and storage of liquids and pourable matters)
ILN	International location number
INOX	Stainless steel
IP	Protection class
IPG	Pulse generator
IPGU	Pulse generator for urea
ISO VG	International Organization for Standardization; standard relating to degree of viscosity
K1	Ball-type grease nipple, 180°, straight
kg	Kilogram
KK	Plastic canister
KØ	Diameter of head
KSAK	Plastic discharge spout
KSD	Plastic nozzle
KU	Coupler
kW	Kilowatt
l/min	Liters per minute
lb	Pound
LBH	Length x width x height, in millimetres
LDPE	Low density polyethylene
LGA	Office of Trade and Industry, Bavaria, Nuremberg
LLDPE	Linear low density polyethylene
LW	Clear width
m	Meter
M	Metric thread, cylindrical, DIN 13
M1	Flat grease nipple, 16 mm, round head
M22	Flat grease nipple, 22 mm, round head
M4	Flat grease nipple, 10 mm, round head
MDPE	Medium density polyethylene
Me	Brass
M-Ein Aus	Manual on/off control by switch
mm	Millimeter

Abbreviations

MO	Mobile
MoS2	Molybdenum disulfide
mPas	Millipascal per second
MSD	Brass nozzle
MU	Coupler
NBR	Nitrile butadiene caoutchouc (Perbunan® Buna-N®)
ND	Nominal pressure
NEF	Non-calibratable
NEOP	Neoprene
NLGI	Stands for viscosity class 000 to 6, as defined by the National Lubricating Grease Institute, USA
NPS	National Straight Pipe, non-sealing and pressure-resistant cylindrical pipe thread
NPSF	National Straight Pipe, sealing and pressure-resistant cylindrical pipe thread
NPT	National Taper Pipe, non-sealing and pressure-resistant tapered pipe thread
NPTF	National Taper Pipe Fuel and Oil, sealing and pressure-resistant tapered pipe thread
NW	Nominal width = inside diameter
O	Open
Ø	Diameter
ÖDT	Oil can funnel
ÖLSYS	Oil system
ÖMS	Oil management system
PA	Polyamide
PC	Polycarbonate
PE	Polyethylene
PEI	Polyetherimide
PFA	Perfluoralkoxy (Teflon® PFA)
PMP	Polymethylpentene (TPX®)
PN	Nominal pressure or operating pressure
PNFP	Pneumatic grease pump
PNÖP	Pneumatic oil pump
PNP	Pneumatic pump
POM	Acetal homopolymer
PP	Polypropylene
PPGF	Polypropylene, glass fiber reinforced
PPS	Polyphenylene sulfide
PS	Polystyrol
PSF	Polysulfone
psi	Pound-force per square inch
PTB	Phyiscal Technical Institute of Germany
PTF	Pipe Taper Fuel and Oil, sealing and pressure-resistant tapered pipe thread
PTFE	Polytetrafluorethylene (Teflon®)
PVC	Polyvinyle chloride
PVC-U	Polyvinylchlorid-unplasticized
PVDF	Polyvinylidene fluoride
PZ	High pressure hose
Q	Heat transfer oil
R	Whitworth thread, tapered, similar to DIN 3858, self-sealing connection
red	Reduction
RF	Radio frequency system
RK	Round head
RÖLSYS	Rape oil system
RST	High-quality steel
S	Thickness
SAE	Classification of viscosity grades for automotive lubricants by the Society of Automotive Engineers
SAN	Styrene acrylonitrile
SAR	Hose reel
SB	Self-service
SBV	Packaging for self-service
SD	Diesel hose
SF	Wrench flat
SFG	Self-forming thread
SI	Silicone rubber
SK	Hexagon
SKK	Hexagonal head
SKU	Quick coupling
SOT	Slide-on type
SPK	Spray head
SR	Stationary
SRL	Suction pipe length, in mm
St	Steel
STAK	Steel outlet bend
STV	Check valve
SW	Width across flats
T1/B	Flat grease nipple, 16 mm, hexagonal head
TA	Storage tanks
TRBF	Technical guideline for inflammable fluids
TÜV	Technical Inspection Agency in Germany

TW	Tank truck
UN	United Nations
UNF	Unified Fine Thread
Ust.-IdNr.	Sales tax identifcation number
UV	Ultraviolet
V	Volt
VA	Stainless steel
VDF	Cover, fixed
VE	Packaging unit
VK	Square
VÖR	Connection oil pump/pipework
VRSAR	For connection pipework/hose reel
VSK	Cap
VSTB	Galvanized sheet steel
VVP	Sales packaging
VZ	Galvanized
W	Watt
WA	Trolley
WAL	Angle spout
WB	Wall and floor mounting
WD	Wall and ceiling mounting
WG	Maintenance unit
WHG	Water Resources Act (Germany)
WHIT	Whitworth thread
WM	Wall mounting
ZBH	Accessories
ZDG	Die-cast zinc
ZHFP	Two-hand grease gun
ZSA	Centralized lubrication systems
ZVA	Automatic nozzle valve for diesel
ZVAB	Automatic nozzle valve for diesel with German type approval
ZVABD	Automatic nozzle valve for diesel with German type approval and swivel joint
ZVAD	Automatic nozzle valve for diesel with swivel joint
ZVAUD	Automatic nozzle valve for urea with swivel joint
ZVD	Manual nozzle valve, Al, with swivel joint
ZVH	control gun storage rack
ZVMUD	Mechanical nozzle valve for urea with swivel joint
ZVPP	Nozzle valve, polypropylene
ZVS	Nozzle valve switch

DIN-Norms

DIN 1283	Grease guns; Grease guns and accessories, version 1990-11
DIN 1284	Grease guns; Grease cartridges for grease guns; main dimensions, version 1990-11
DIN 3404	Button head grease nipples, version 1988-01
DIN 3405	Funnel type grease nipples, version 1986-05
DIN 71412	Hydraulic grease nipples, version 1987-11

Consistency classes

Consistency class DIN 51818 (NLGI)	Worked penetration DIN ISO 2137 (0,1 mm)	Structure
000	445 up to 475	flowing
00	400 up to 430	almost flowing
0	355 up to 385	extremely soft
1	310 up to 340	very soft
2	265 up to 295	soft
3	220 up to 250	middle
4	175 up to 205	hard
5	130 up to 160	very hard
6	85 up to 115	extremely hard

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
00 926	188	1		0,038		
00 928	188	1		0,039		
01 039	186	1		0,0024		
01 297	26	1		0,137		29 x 58
02 568	109	1		0,58	330 x 265 x 215	
02 796	107	1		0,151		
02 803	94, 99, 127, 234	1		0,055		27 x 48
02 804	91, 94, 99	1		0,337		
02 810	91, 94, 99	1		0,641		
03 311	99	1		0,01		
03 337	46	1		0,217		
03 345	91, 99	1		0,403		
03 419	130, 237	1		0,0768		42 x 21
03 735	94, 99	1		0,148		
03 858	99	1		0,0058		
04 332	91, 94, 99	1		0,207		
04 333	91, 94, 99	1		0,629		
04 357	99	1		0,041		
04 398	91	1		0,62	30 x 2 x 200	
04 408	94, 99	1		0,594		
04 426	94, 99, 107	1		1,01		
04 464	91,99	1		0,316		
04 487	91	1		2,83		
04 492	99	1		2,9		
04 542	99	1		0,217		
04 543	91, 99	1		0,3		
04 545	94, 99	1		0,013		
12 016	130, 237	1		0,014		15 x 23
12 042	37	1		0,072		18 x 184
12 043	37	1		0,071		18 x 188
12 044	37	1		0,16	202 x 23 x 20	
12 048	37	1		0,132		18 x 360
12 049	37	1		0,149		18 x 560
12 054	37	1		0,226	203 x 35 x 30	
12 055	37	1		0,117	205 x 20 x 26	
12 056	37	1		0,095		18 x 210
12 057	37	1		0,226	210 x 30 x 60	
12 086	130, 237	1		0,012		15 x 23

ITEM NUMBERS - DIMENSIONS - WEIGHTS

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
13 004	201	1	4103810130045	1,1	230 x 150 x 395	
13 004 950	201	1	4103810704840	2,3		
13 040	198					
13 040 001	198					
13 040 002	198					
13 040 950	198					
13 065	199	1	4103810130656	1,12	360 x 180 x 165	
13 080	238	1		0,165		66 x 36
13 080 390	199, 201, 229	1	4103810421297	0,06	70 x 70 x 44	
13 083	199, 201, 229, 237	1	4103810130830	0,06	70 x 70 x 44	
13 085	198					
13 085 001	198					
13 085 002	198					
13 085 006	198					
13 093	236	12		0,157	110 x 50 x 25	
17 000	29,57	1		0,16	800 x 35 x 35	
17 004	24, 29, 57	1	4103810170041	3,94	200 x 350 x 1004	
17 008	24, 29, 57	1		9		
17 008 950	57	1	4103810429767	7,8	570 x 530 x 200	
17 009	24, 29, 57	1	4103810170096	38		
17 009 100	29,57					
17 009 390	24, 29, 57	1	4103810424427	15		
17 021	29	1	4103810170218	6,26	560 x 560 x 175	
17 044	26	1		0,039		19 x 38,4
17 044 950	26	1	4103810426599	0,086	45 x 40 x 20	
17 045	26	1		0,12	215 x 80 x 20	
17 075	24, 29, 57	1	4103810170751	16	841 x 818 x 986	
17 077	57	1	4103810170775	29		
17 080	29,57	1	4103810170805	29		
17 171	27	1		0,85		
17 172	27	1		1,25		
17 176	27	1		1,43		
17 184	27	1		1,38		
17 194	27	1		1,22	415 x 395 x 75	
17 195	28	1		0,65		
17 197	28	1		0,53	250 x 210 x 55	
17 198	27	1		1,66		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
17 199	28	1		0,58		
17 200	27	1		3,94		
17 201	28	1		0,688	380 x 200 x 40	
17 230	28	1		0,8		
17 265	28	1		0,96		
17 275	28	1		0,98		
17 285	28	1		1,13		
17 300	28	1		1,27		
17 320	28	1		1,64		
17 325	28	1		1,36		
17 380	28	1		1,88		
17 400	28	1		2,03		
17 401	28	1		5,56		
18 016	130, 237	1		0,022		17 x 24
18 017	130, 237	1		0,022		17 x 24
18 021	31	1		0,49	300 x 300 x 22	
18 022	31	1		0,815	300 x 300 x 35	
18 023	31	1		1,16	300 x 300 x 50	
18 024	31	1		1,2352	300 x 300 x 50	
18 025	31	1		1,58	300 x 300 x 60	
18 026	31	1		3,5	300 x 300 x 60	
18 028	31	1		3,23	300 x 300 x 70	
18 030	31	1		3,8	350 x 350 x 70	
18 035	31	1		5,8	400 x 400 x 70	
18 050	31	1		0,656	300 x 300 x 35	
18 081	37	1		0,15	210 x 150 x 19	
18 082	37	1		0,242	150 x 60 x 23	
18 083	37	1		0,162	150 x 60 x 23	
18 084	37	1		0,087		
18 085	130, 237	1		0,033		21 x 34
18 086	130, 237	1		0,063		27 x 43
18 087	130, 237	1		0,14		27 x 44
18 088	130, 237	1		0,052		25 x 32
18 093	130, 237	1		0,0366		22 x 28
18 095	30, 236	1		0,36	140 x 65 x 26	
18 095 393	189	1		0,095		
18 096	236	1		0,535	145 x 80 x 32	
18 097	236	1		0,528	120 x 70 x 32	

ITEM NUMBERS - DIMENSIONS - WEIGHTS

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
18 099	30	1		0,86	165 x 35 x 68	
18 102	35	1	4103810181023	1,23	270 x 165 x 120	
18 102 950	35	1	4103810424960	1,4		
18 102 952	35	1	4103810424977	1,5		
18 103	30	1		0,92		
18 104	35	1	4103810181047	0,889	220 x 220 x 35	
18 104 301	35	1	4103810424915	0,69	300 x 220 x 35	
18 104 390	35	1	4103810424953	0,897	220 x 220 x 35	
18 104 958	35	1	4103810424885	1,02	220 x 220 x 35	
18 105	35	1	4103810181054	1,05	220 x 210 x 35	
18 105 390	35	1		1,05	220 x 210 x 35	
18 115	36	1	4048358181152	0,437	85 x 73 x 57	
18 405 051	23	1	4103810184055	9	790 x 480 x 105	
18 410 051	24	1	4103810184109	13,5	1010 x 480 x 270	
18 415 051	24	1	4103810184154	12,8	1010 x 480 x 270	
18 416 051	24	1	4103810424984	13,45	1010 x 480 x 270	
18 417 051	24	1	4103810424809	15,56	790 x 480 x 105	
18 417 951	24	1	4103810426308	19,7	1010 x 480 x 270	
18 417 953	24	1	4103810426315	12,859	1010 x 480 x 270	
18 418 051	23	1	4103810424991	10,52	1010 x 480 x 270	
18 419 051	23	1	4103810429699	11,44	1010 x 480 x 105	
18 421 051	23	1	4103810429705	12,18	1010 x 480 x 105	
18 421 056	23	1	4103810425004	10,8	1010 x 480 x 105	
18 425 051	24	1	4103810184253	19,9	1060 x 480 x 550	
18 516 051	18	1		8	1290 x 170 x 170	
18 611 051	19	1		7	1000 x 170 x 170	
18 613 051	19	1		7,8		
18 616 051	19	1		9,5	1290 x 170 x 170	
18 640 051	21	1	4103810705670	7,4	790 x 480 x 105	
18 660 051	21	1	4103810427732	12		
18 680 051	21	1		21,3	1260 x 650 x 130	
18 700 051	22	1		5,9		
18 710 051	20	1	4103810424328	5,9	750 x 170 x 170	
18 710 950	20	1		7,7	750 x 170 x 170	
18 711 051	20	1	4103810424373	6,56	1000 x 170 x 170	
18 713 051	20	1	4103810424342	7,12	1000 x 180 x 180	
18 716 051	20	1		8,5	1290 x 170 x 170	
18 720 051	22	1		8,5	790 x 480 x 105	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
18 730 051	22	1		9	790 x 480 x 105	
18 739 051	22	1		9,5	790 x 480 x 105	
18 740 051	22	1	4103810424380	9,5	790 x 480 x 105	
18 750 051	22	1	4103810425066	12,1	1010 x 480 x 105	
18 759 051	22	1		9,8	1000 x 180 x 180	
18 760 051	22	1	4103810424823	9,4	1000 x 180 x 180	
18 764 051	23	1	4103810429712	13,54	1010 x 480 x 105	
18 764 052	23	1	4103810705687	13,54		
18 764 056	23	1	4103810425011	16,6	1010 x 480 x 105	
18 766 051	24	1	4103810187667	22,7	1010 x 480 x 550	
18 766 391	24	1	4103810426636	18,5	1090 x 375 x 230	
18 766 393	24	1	4103810425042	28	500 x 500 x 1000	
18 766 950	24	1	4103810424847	25	1060 x 480 x 500	
18 780 051	22	1	4103810424311	21,3	1260 x 650 x 130	
18 785 051	23	1	4103810424854	21,08	1260 x 650 x 130	
18 785 056	23	1	4103810425028	24,9	1310 x 650 x 130	
18 786 051	24	1	4103810424861	52,5	870 x 760 x 1420	
18 786 056	24	1	4103810426438	53,1	870 x 760 x 1420	
18 786 391	24	1	4103810426575	42	700 x 800 x 1200	
18 786 561	24	1		52,5		
18 788 051	24	1	4103810424878	80,5	870 x 760 x 1420	
18 788 561	24	1		80,5		
18 870	20	1	4103810188701	0,496		
19 000 250	62	1		93,6	1150 x 770 x 1720	
19 000 251	62	1		105	1150 x 770 x 1920	
19 000 330	52	1		35	615 x 510 x 420	
19 000 332	52	1		34	615 x 510 x 420	
19 000 335	105	1		25,8	960 x 570 x 340	
19 000 350	62	1		111	1450 x 770 x 1720	
19 000 351	62	1		122	1450 x 770 x 1920	
19 000 435	105	1		25,86	960 x 570 x 340	
19 000 518	26	1		11	1010 x 480 x 270	
19 000 530	24	1	4103810425073	23,7	1060 x 480 x 500	
19 000 532	26	1	4103810429200	24,9	1060 x 480 x 500	
19 000 533	24	1	4103810426377	24,4	1060 x 480 x 500	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 000 535	26	1		23,5	1060 x 480 x 500	
19 000 955	52	1		28	615 x 510 x 420	
19 000 957	52	1		38,2	615 x 510 x 420	
19 000 960	50	1		45	1040 x 760 x 870	
19 004 350	62	1				
19 004 351	62	1	4103810425134	193	1630x770x1950	
19 060	101	1	4103810190605	4	320 x 200 x 310	
19 061	101	1	4103810190612	6,5	320 x 200 x 310	
19 062	101	1	4103810190629	15	410 x 225 x 405	
19 135	43	1	4103810191350	6,92	1310 x 190 x 195	
19 135 600	46	1		10,32	1310 x 190 x 195	
19 135 843	112	1		5,92	1310 x 190 x 195	
19 135 954	48	1	4103810420214	7	1310 x 190 x 195	
19 165	43	1		7,76	1635 x 190 x 195	
19 165 600	46	1		12,3	1635 x 190 x 195	
19 165 843	112	1		8	1635 x 190 x 195	
19 185	43	1		4,88	400 x 360 x 150	
19 185 600	46	1		10,4	1000 x 190 x 195	
19 185 843	112	1		5,92	400 x 360 x 150	
19 205	44	1		5,38	1000 x 190 x 195	
19 211	48	1		9,6	1000 x 190 x 195	
19 212	48	1		10,6	1000 x 190 x 195	
19 212 393	48	1		9,7		
19 212 551	48	1		10,9	1000 x 190 x 195	
19 213	50	1		19	500 x 500 x 1000	
19 214	50	1		20,1	1000 x 190 x 195	
19 214 395	50	1	4103810426414	20,1		
19 214 396	50	1		19	500 x 500 x 1000	
19 214 551	50	1		21	1000 x 190 x 195	
19 235	44	1	4103810192357	5,65	1310 x 190 x 195	
19 235 600	46	1		8,42	1310 x 190 x 195	
19 235 888	48	1	4103810425462	10		
19 235 955	48	1	4103810425080	25,16	600 x 500 x 400	
19 241	48	1	4103810192418	8	1310 x 190 x 195	
19 241 390	48	1		10,5		
19 241 568	48	1		8		
19 241 570	48	1		8		
19 242	48	1		11,3		
19 242 397	48	1		15,1		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 242 418	48	1		15,1		
19 242 540	49	1		100		
19 242 541	48	1		11,3		
19 242 551	48	1		8,98	1000 x 190 x 195	
19 242 568	48	1		11,3		
19 242 569	48	1		8,98		
19 242 570	48	1		11,3		
19 242 571	48	1		8,98		
19 243	50	1		36,2	870 x 760 x 1400	
19 243 560	50	1		36,2		
19 244	50	1		36,9		
19 244 396	50	1	4103810428357	26		
19 244 551	50	1	4103810425219	40,2		
19 244 553	50	1		39,9		
19 244 560	50	1		36,9		
19 244 561	50	1		40,2		
19 246	50	1		53,5	870 x 760 x 1400	
19 248	50	1		53,7	870 x 760 x 1400	
19 248 551	50	1		53,4	870 x 760 x 1400	
19 257	51	1		51,4	870 x 760 x 1400	
19 257 551	51	1		51,4	870 x 760 x 1400	
19 257 560	51	1		51,4		
19 257 561	51	1		51,4		
19 258 001	47	1		17		
19 258 563	47	1		38,5		
19 264	44	1		8,4	1635 x 190 x 195	
19 265	44	1		6,4	1635 x 190 x 195	
19 265 600	46	1		11	1635 x 190 x 195	
19 266	44	1		6,78	1310 x 190 x 195	
19 266 888	48	1		7		
19 285	44	1		4,48	400 x 360 x 150	
19 285 600	46	1		9,5	1310 x 190 x 195	
19 285 843	113	1		3,5		
19 305	45	1		6,24	1100 x 190 x 195	
19 335	45	1		6,37	1310 x 190 x 195	
19 335 600	46	1		8,88	1310 x 190 x 195	
19 335 954	48	1		8,5	1310 x 190 x 195	
19 365	45	1		8,2	1635 x 190 x 195	
19 365 600	46	1		11	1635 x 190 x 195	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 366	45	1		8,6	1310 x 190 x 195	
19 385	45	1		5,28	1100 x 190 x 195	
19 385 600	46	1		12	1310 x 190 x 195	
19 402	64	1		1,57	703 x 90 x 150	
19 403	64	1		1,4	350 x 330 x 2	
19 406	64,109	1		0,4	320 x 175 x 155	
19 407	64,109	1		0,214	180 x 84 x 72	
19 408	64,109	1				
19 410	65,109	1		0,04		
19 411	65,109	1		0,562		
19 412	64,109	1		1,334	645 x 175 x 155	
19 413	62, 63	1		0,674	500 x 200 x 60	
19 413 472	62	1		2,3	200 x 260 x 200	90 x 40
19 413 473	63	1		2,5	200 x 260 x 200	102 x 45
19 414 950	65	1		1,871	140 x 220 x 100	102 x 45
19 416	65	1		0,334		
19 417	65	1		0,162		
19 418	64,109,130, 237	1		0,3266		
19 419	109	1		7	1650 x 90 x 150	
19 422	106	1		4,2	350 x 345 x 255	
19 424	65	1		3,122	250 x 230 x 70	110 x 45
19 426	65,109	1		0,231		80 x 60
19 464 410	48	1		31		
19 464 411	48	1		13		
19 512	53,7 5, 79	1		1,76		
19 519	238	1		0,171		
19 521	79	1		0,559	155 x 48 x 127	
19 522	53, 79	1		1,99	950 x 90 x 65	
19 523	53, 79	1		1,86	1110 x 85 x 85	
19 523 001	53, 79	1		2,94	1110 x 85 x 85	
19 523 002	79	1		4,7	1000 x 80 x 80	
19 523 952	79	1		1,86	950 x 90 x 65	
19 523 954	79	1		2,94	1110 x 85 x 85	
19 524	186	1		0,354	100 x 100 x 60	
19 526	238	1	4103810195266	0,16	80 x 65 x 37	
19 527	238	1		0,147		
19 528	238	1		0,175		
19 529	238	1		0,26	105 x 85 x 45	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 530	75	1		0,596		
19 531	75	1		1,02		
19 533	75	1		2		
19 534	49, 75	1		2,85		80 x 450
19 535	75	1		3,058		65 x 550
19 538	75	1		5,533		110 x 450
19 550	75, 78,106	1		1,56		65 x 350
19 561	75	1		0,65		50 x 250
19 562	75	1		1,082		60 x 300
19 563	75	1		1,5		70 x 300
19 564	49,75	1		1,6978		70 x 330
19 565	75	1		2,405		60 x 350
19 568	75	1		3,52		60 x 550
19 570	75	1		3,47		85 x 400
19 575	75	1		6,5		125 x 420
19 580	75, 78, 81	1		0,9		55 x 300
19 580 001	75,78	1		0,9		30 x 250
19 616	74	1		0,151		29 x 52
19 619	78, 130, 237	1		0,09		
19 621	185	1	4048358196217	0,2878	71 x 47 x 47	
19 625	185	1		0,032		
19 626	130, 237	1		0,15		
19 628	130, 237	1		0,238		30 x 46
19 630	130, 237	1		0,21		
19 635	225	1	4048358196354	0,1		
19 636	78,130, 237	1		0,11		32 x 38
19 637	78, 106, 130, 237	1		0,161		35 x 51
19 638	130, 237	1		0,064		40 x 58
19 666	75, 78, 106	1		0,47		37 x 515
19 669	31, 64, 75, 106	1		1,3	348 x 144 x 257	
19 690	70, 165, 223	1	4048358196903	0,58	106 x 91 x 24,5	
19 692	70	1	4048358196927	2,07	185 x 165 x 150	
19 692 691	70	1		2,3	185 x 165 x 150	
19 693	70	1	4048358196934	2,46	185 x 165 x 150	
19 693 691	70	1		2,5	185 x 165 x 150	
19 694	70	1	4048358196941	2,8	185 x 165 x 150	
19 694 690	70	1		2,7	185 x 165 x 150	
19 694 691	70	1		2,9	185 x 165 x 150	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 698	49, 51, 52, 68	1	4048358196989	1,92	590 x 120 x 155	
19 698 950	49, 51, 52, 68	1	4048358427694	1,68		
19 698 951	68	1	4048358427700	1,6538		
19 698 956	71	1		0,705	160 x 180 x 160	
19 700	68	1	4048358197009	1,92		
19 701	49,67	1		0,56	430 x 175 x 45	
19 702	72	1		0,78	280 x 210 x 140	
19 706	68	1		2,001	285 x 160 x 145	
19 709	68	1		2,051	385 x 145 x 165	
19 709 954	74	1		0,134	250 x 190 x 110	
19 711	74	1		0,08		
19 714	69	1		1,734	268 x 173 x 98	
19 715	74	1		0,8	270 x 130 x 50	
19 718	49, 51, 67	1		0,775	300 x 120 x 30	
19 718 950	67	1		0,34	300 x 120 x 300	
19 718 954	51, 67	1		0,863	300 x 120 x 30	
19 721	74	1		0,222		125 x 55
19 723	69	1		1,616		
19 724	69	1		1,925		
19 728	73	1		1,553	120 x 120 x 170	
19 729	73	1		1	220 x 110 x 130	
19 730	51, 68	1		1,7	340 x 160 x 160	
19 740	74	1		0,176		
19 741	74	1		0,15	126 x 21 x 35	
19 742	74	1		0,24	120 x 120 x 21	
19 743	74	1		0,205	220 x 100 x 21	
19 743 950	74	1		0,145	227 x 81 x 24	
19 745	74	1		0,244		
19 746	74	1		0,273	280 x 110 x 25	21 x 120
19 747	74	1		0,025		
19 748	74	1		0,044		
19 760	78, 129, 235	1		0,152	58 x 53 x 31	
19 761	78, 129, 235	1		0,208	70 x 66 x 38	
19 762	78, 129, 236	1		0,178	106 x 57 x 30,5	25 x 280
19 763	78, 106,129, 236	1		0,353	135 x 75 x 42	
19 764	129, 236	1		0,1314	102 x 49 x 24	18 x 28
19 765	129, 236	1		0,145	102 x 49 x 24	20 x 55
19 767	129, 236	1		0,584	170 x 85 x 50	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
19 768	60	1		10,5	950 x 400 x 400	
19 770	91	1		0,707		
19 771	129, 236	1		0,986	215 x 100 x 61	
19 772	129, 236	1		1,48	220 x 100 x 70	
19 773	129, 236	1		2,54	235 x 125 x 86	
19 774	91	1		0,18		
19 776	238	1		8,99	350 x 270 x 710	
19 778	129, 236	1		0,156	113 x 55 x 37	
19 782	93	1		8,48	380 x 360 x 950	
19 783	95	1		22,1	630 x 300 x 325	
19 786	91	1		0,25	90 x 50 x 97	
19 788	104	1		30	960 x 570 x 340	
19 789	60	1		0,156		
19 793 301	98	1		56,5	1700 x 600 x 600	
19 793 391	98	1		61	1700 x 600 x 600	
19 800	102	1		9,14	400 x 360 x 150	
19 802	66	1		66,5	1340 x 850 x 340	
19 804	66	1		112	2680 x 850 x 236	
19 805	66	1		180	1340 x 1260 x 900	
19 808	66	1		93	1200 x 1200 x 340	
19 810	81	1		24,06	700 x 560 x 300	
19 812	81	1		1,4028	165 x 165 x 41	
19 815	66, 81	1		64	650 x 900 x 1470	
19 816	66, 80	1	4103810198168	65,5	1110 x 483 x 345	
19 850	104	1		23	960 x 570 x 340	
19 852	104	1		35,65	960 x 570 x 360	
19 857	95	1	4103810198571	45	1400 x 750 x 250	
19 858	104	1		3,36	570 x 160 x 230	
19 890	185	1	4048358198907	0,3	48 x 48 x 115	
19 892	131,185, 236	1		0,22		
19 897	64, 131, 236	1		0,255	88 x 72 x 33	
19 900	103	1	4103810199004	13,9	610 x 400 x 205	
19 901	103	1	4103810199011	32,05	610 x 580 x 365	
19 902	102	1		0,862	400 x 140 x 75	
19 903	102	1		1,5	200 x 200 x 240	
20 022	49,125	1		0,088		20 x 41

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
20 024	125	1		0,094		25 x 41
20 026	125	1		0,0918		28 x 44
20 032	125	1		0,073		25 x 41
20 034	125	1		0,09		41 x 28
20 036	125	1		0,085		25 x 44
20 043	125	1		0,084		25 x 58
20 045	125	1		0,086		27 x 60
20 052	125	1		0,024		20 x 34
20 054	125	1		0,03		20 x 34
20 062	27, 80, 101,106, 107, 125	1		0,02		19 x 33
20 064	101, 107, 125	1		0,022		19 x 33
20 066	101,125	1		0,051		28 x 38
20 073	126	1		0,014		12 x 48
20 075	126	1		0,018		12 x 48
20 077	126	1		0,024		15 x 48
20 111	130, 237	1		0,016		19 x 20
20 112	27, 80, 106, 107, 126	1		0,02		19 x 25
20 114	126	1		0,023		22 x 23
20 116	126	1		0,053		28 x 30
20 118	126	1		0,103		39 x 36
20 120	128	1		0,066		
20 121	128	1		0,08		
20 122	130, 237	1		0,013		22 x 14
20 124	130, 237	1		0,025		28 x 18
20 126	130, 237	1		0,063		
20 132	127, 234	1		0,018		19 x 35
20 133	127, 234	1		0,018		22 x 36
20 134	127, 234	1		0,024		22 x 36
20 135	127, 234	1		0,025		
20 136	127, 234	1		0,049		
20 152	127, 234	1		0,01		
20 154	127, 234	1		0,01		
20 156	94, 99, 127, 234	1		0,013		
20 164	127, 234	1		0,003		
20 166	127, 234	1		0,005		26 x 7
20 178	235	1	4103810201783	0,014		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
20 185	27, 49, 80, 106, 124	1		0,26		
20 192	128	1		1,9		
20 193	128	1		0,14		
20 194	106, 128	1		0,145		
20 195 390	106	1		0,727	155 x 125 x 80	
20 218	27, 80, 123, 106	1		0,445		
20 218 950	27, 49, 80, 106, 123	1	4103810428920	0,516	190 x 95 x 55	
20 233	121	1		0,2546	165 x 90 x 18	
20 235	122	1		0,0235	280 x 100 x 20	
20 235 950	122	1		0,09	235 x 100 x 27	
20 240	122	1		0,571	380 x 190 x 110	
20 250	123	1		0,951	185 x 90 x 90	
20 251	130, 237	1		0,078		
20 913	124	1		1,3		
20 914	124	1		1,521		
20 915	124	1		5,4		
20 917	124	1		2,6		
21 127 870	231	1	4103810424564	1,45		
21 141 870	230	1	4103810424533	0,44		
21 143 870	230	1	4103810424540	0,57		
21 147 870	230	1	4103810424557	0,95		
23 000 734	171	1		109,55		
23 000 735	171	1		109,55		
23 000 736	172	1		106		
23 000 737	172	1		9,1		
23 001 960	56	1		56	840 x 750 x 1030	
23 001 970	56	1		37		
23 001 971	56	1		56		
23 003 397	172	1		120		
23 003 400	172	1		147		
23 004 350	63	1		135		
23 004 351	63	1		135		
23 004 397	172	1		120		
23 004 400	172	1		190		
23 005 250	63	1		102		
23 005 251	63	1		113		
23 005 350	63	1		137		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 005 351	63	1		134		
23 006	141		4048358230065	7,3	200 x 150 x 150	
23 006 824	141		4048358427762	7,3	200 x 150 x 150	
23 007	141	1	4048358230072	4,3	200 x 150 x 150	
23 007 824	141	1	4048358427779	4,3	200 x 150 x 150	
23 009	141	1	4048358230096	4	400 x 400 x 180	
23 009 824	141	1	4048358427793	4	400 x 400 x 180	
23 009 884	155	1	4048358424716	17,7	120 x 120 x 280	
23 009 885	155	1	4048358424723	21,1	540 x 430 x 30	
23 009 886	155	1		17,7		
23 009 887	155	1		21,1		
23 009 894	155	1	4048358424730	13,7	356 x 301 x 28	
23 009 895	155	1	4048358424747	17,1	540 x 430 x 30	
23 012	134	1	4048358230126	3,38	300 x 170 x 160	
23 012 824	134	1	4048358427823	3,5		
23 015	141	1	4048358230546	7,14	400 x 400 x 220	
23 015 824	141	1	4048358230553	7,16	400 x 400 x 220	
23 058	165	1		2,4		
23 059	165	1		2,8		
23 060	172	1		109,55		
23 061	171	1		92,95		
23 062	172	1		119		
23 063	171	1		6,3		
23 066	165	1		1,3		
23 067	165	1		1,7	180 x 160 x 150	
23 068	165	1		0,3		
23 069	165	1		0,03		
23 070 010	153	1		15	340 x 231 x 1040	
23 070 011	153	1		15	356 x 208 x 1040	
23 070 012	153	1		17	410 x 231 x 1040	
23 070 013	153	1		16	386 x 208 x 1040	
23 100	138	1	4048358231000	6,4	280 x 115 x 170	
23 102	138	1	4048358231024	10,08	320 x 135 x 190	
23 125	186	1		450		
23 137	239	1	4103810231377	22,2	970 x 590 x 180	
23 139	239	1		31	680 x 650 x 1085	
23 140	182	1		0,85		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 140 950	187			0,091	100 x 30 x 45	
23 140 952	187			0,073	73 x 38 x 56	
23 141	187	1		0,14		
23 141 950	187	1		0,106	92 x 41,5 x 49	
23 141 952	187	1		0,093		
23 143	181	1		1		
23 152 899	189	1				
23 154	182	1		0,6		
23 155 950	182	1		2,8		
23 155 953	182	1		1,6		
23 155 956	182	1		4,6		
23 155 957	182, 189	1		1,8		
23 155 958	182, 189	1		2,42		
23 155 966	182	1		2,9		
23 155 979	182	1		3,32		
23 156	182	1		1,1		
23 157 864	182	1		8,2		
23 157 950	182	1		6,9		
23 157 957	182	1		4,8		
23 158 959	189	1		1,8		
23 160	180	1		1,6	420 x 200 x 65	
23 161	180	1		0,326	280x190x50	
23 161 878	225	1	4048358706904	0,43	330 x 170 x 50	
23 161 879	225			0,2	330 x 170 x 50	
23 166	219	1	4048358231666	1,1		
23 168	180	1	4048358231680	1,549	420 x 200 x 60	
23 171	225	1		0,658	400 x 175 x 60	
23 171 836	225	1		1		
23 171 960	225	1	4048358706911	2	400 x 175 x 57	
23 171 961	225	1		0,84		
23 171 980	225	1		1,92		
23 174	186	1		1,2944	405 x 50 x 120	
23 176	189	1	4048358231765	1,4	400 x 175 x 60	
23 177	184	1		2,7392		
23 177 950	184	1		3,6		
23 177 951	184	1		3,77		
23 177 952	184	1		4,53		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 177 953	184	1		5		
23 177 954	184	1		6,5		
23 177 961	184	1		3,77		
23 178	180	1		1,43		
23 180	185	1	4048358231888	0,014		
23 188	229	1		0,3		
23 190	158	1	4048358231901	0,58	145 x 126 x 78	
23 190 870	222	1	4048358426697	1,26	145 x 126 x 78	
23 192	158	1	4048358231925	1,14		
23 198	184	1		0,18		
23 200	229	1		0,474		
23 207	184	1		0,343	100 x 89 x 80	
23 209	184	1	4048358232090	0,54	98 x 98 x 140	
23 217	186	1		0,247		
23 218	187	1		0,237	50 x 50 x 50	
23 225	187	1		0,067		
23 225 950	187	1		0,011		
23 226	187	1		0,067		
23 229	187	1		0,0755		
23 287	158	1	4048358232878	0,39	220 x 160 x 75	
23 287 870	224	1	4048358426765	0,39	120 x 110 x 60	
23 290	184	1		0,6	98 x 98 x 220	
23 291	184	1		0,54	98 x 98 x 140	
23 295	158	1	4048358232953	0,48	145 x 126 x 78	
23 295 870	221	1	4048358424792	0,96		
23 295 871	221	1	4048358706959	0,96		
23 298	158	1	4048358232984	0,31	220 x 160 x 75	
23 312 551	54	1	4048358428080	23	610 x 415 x 310	
23 314 551	56	1	4048358428097	37	700 x 460 x 570	
23 321	53	1	4048358233219	14,7	380 x 360 x 250	
23 322	53	1	4103810233227	11,8		
23 322 950	55	1	4048358426772	43,62	615 x 510 x 420	
23 337	53	1	4048358233370	12,6	370x220x200	
23 337 390	54	1	4048358426796	18,7	510 x 410 x 330	
23 342 551	54	1	4048358428103	27	1020 x 550 x 220	
23 344 551	56	1	4048358428110	62	900 x 750 x 1120	
23 346 552	47	1	24,5			
23 346 555	47	1	50,5			
23 370	167	1		55	350 x 350 x 1670	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 370 001	167	1		55		
23 371	169	1		55	350 x 350 x 1670	
23 371 001	169	1		55		
23 372	167	1		61	1790 x 445 x 525	
23 372 001	167	1		61		
23 373	169	1		61	350 x 350 x 1670	
23 373 001	169	1		61		
23 404	135	1	4048358234049	5	270 x 120 x 120	
23 404 002	136	1	4048358707079	5	270 x 120 x 120	
23 405	135	1	4048358234056	5	300 x 170 x 160	
23 405 002	136	1	4048358707093	5	270 x 120 x 120	
23 406	135	1	4048358234063	5,58	120 x 120 x 290	
23 406 002	136	1	4048358707116	6,42	120 x 120 x 290	
23 407	135	1	4048358234070	5,6	338 x 200 x 196	
23 407 002	136	1	4048358707130	6,42	120 x 120 x 290	
23 430	139	1		0,005		
23 433	139	1		0,005		
23 494	165, 219	1	4048358234940	1,2	150 x 100 x 42	
23 495	165, 219	1	4048358234957	1,2	150 x 100 x 42	
23 497	164	1		4,15		
23 499	164	1		13,36		
23 510 001	148	1	4048358708595	13,6		
23 510 350	143	1	4048358707789	11,2		
23 510 351	143	1		12,1		
23 510 390	148	1	4048358707406	15,5		
23 510 396	148	1	4048358707420	17,5		
23 510 397	148	1	4048358707444	21		
23 510 398	148	1	4048358707383	14,7		
23 510 447	148	1	4048358707451	18,8		
23 510 951	148	1	4048358707390	15,5		
23 510 955	148	1	4048358707413	17,5		
23 510 957	148	1	4048358707437	18		
23 510 960	150	1	4048358707550	16		
23 510 961	150	1		18		
23 511 001	149	1	4048358708601	22,5		
23 511 390	149	1	4048358707499	16		
23 511 392	149	1	4048358707505	22,5		
23 511 393	149	1	4048358707482	17		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 511 398	149	1	4048358707475			
23 511 953	149	1	4048358707482	17		
23 511 955	149	1	4048358707536			
23 511 959	149	1	4048358707512	18		
23 511 960	150	1	4048358707567	27,6		
23 511 961	150	1	4048358707574			
23 513	151	1	4048358235138	27		
23 513 001	151	1	4048358707642	26,2		
23 513 002	151	1	4048358707659	23		
23 513 011	151	1	4048358707666	22,2		
23 513 100	152	1	4048358707727	29,5		
23 513 101	152	1	4048358707703	28,14		
23 513 102	152	1	4048358707734			
23 513 103	152	1	4048358707888	28,6		
23 513 111	152	1	4048358707710			
23 515	151	1	4048358235152	28		
23 515 001	151	1	4048358707673	27,5		
23 515 002	151	1	4048358707680	37,5		
23 515 003	151	1	4048358707871	27,8		
23 515 011	151	1	4048358707697	28,5		
23 515 100	152	1	4048358707765	32		
23 515 101	152	1	4048358707741	38,9		
23 515 102	152	1	4048358707772			
23 515 103	152	1	4048358707895	38,7		
23 515 111	152	1	4048358707758			
23 517	142	1	4048358235176	8,86		
23 517 086	144	1	4048358707321	11		
23 517 087	144	1	4048358707314	11		
23 517 090	144	1	4048358707307	11		
23 517 091	144	1		11		
23 517 100	142	1	4048358707598	9,3		
23 517 390	147	1		15,5		
23 517 391	147	1		15,5		
23 517 824	142	1	4048358707581	8,86		
23 517 825	142	1	4048358707604	9,3		
23 519	142	1	4048358235190	9,5		
23 519 088	144	1	4048358707352	12,4		
23 519 089	144	1	4048358707369	12,4		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 519 092	144	1	4048358707338	12,4		
23 519 093	144	1	4048358707345	12,4		
23 519 100	142	1	4048358707628	4		
23 519 390	147	1		15,5		
23 519 391	147	1		15,5		
23 519 824	142	1		10,26	400 x 400 x 220	
23 519 825	142	1		9,7	400 x 400 x 220	
23 710	156	1	4048358237101	2,5	130 x 130 x 350	
23 711	157	1	4103810237119	4,5	400 x 400 x 220	
23 714	157	1	4103810237140	5,52		
23 717	157	1	4103810237171	5,52		
23 720	156	1	4048358237200	2,5	330 x 260 x 220	
23 721	157	1	4103810237218	4,7	400 x 400 x 220	
23 724	157	1	4103810237249	5,52		
23 727	157	1	4103810237270	5,52	400 x 400 x 220	
23 730	156	1	4048358237309	2,5	330 x 260 x 220	
23 731	157	1	4103810237317	4,26		
23 734	157	1	4103810237348	5,52		
23 737	157	1	4103810237379	2,5		
23 739	196	1	4048358237392	2,5		
23 740	197	1	4048358237408	5,1	400 x 400 x 220	
23 741	197	1	4048358237415	5		
23 742	197	1	4048358237422	5	400 x 400 x 220	
23 760	196	1	4048358237606	2,5		
23 761	197	1	4048358237613	4,5		
23 810	184	1	4048358238108	1,36	98 x 98 x 140	
23 820	158	1	4048358238207	0,65		
23 823	219	1	4048358238238	1,38	145 x 126 x 78	
23 829	158	1	4048358238290	0,65	145 x 126 x 78	
23 829 870	219	1		1,41		
23 830	158, 222	1	4048358238306			
23 901	137	1	4048358239013	6,6		
23 901 008	137	1	4048358707208	6,6		
23 902	137	1	4048358239020	6,6		
23 902 008	137	1	4048358707215	6,6		
23 905	140	1	4048358239051	6,6		
23 911	145	1	4103810239113	9,54	350 x 350 x 300	
23 912	145	1		6		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
23 914	145	1	4103810239144	6	202 x 125 x 138	
23 914 008	145	1		6		
23 915	145	1	4103810239151	7	200 x 350 x 140	
23 915 008	145	1		7		
23 917	145	1	4103810239175	12,6	200 x 130 x 140	
23 917 008	145	1		12,8		
23 918	145	1	4103810239182	14	200 x 350 x 140	
23 918 008	145	1		14,2		
23 921	145	1	4103810239212	9,54	350 x 350 x 300	
23 922	145	1	4103810239229	10,94	202 x 326 x 138	
23 924	145	1	4103810239243	6	202 x 126 x 138	
23 924 008	145	1		6		
23 925	145	1	4103810239250	8	202 x 326 x 138	
23 925 008	145	1		8		
23 927	145	1	4103810239274	12,6	202 x 126 x 138	
23 927 008	145	1		12,8		
23 928	145	1	4103810239281	14	202 x 326 x 138	
23 928 008	145	1		14,2		
23 931	146	1	4103810239311	9,54	350 x 350 x 300	
23 932	146	1	4103810239328	8,1	320 x 180 x 255	
23 934	146	1	4103810239342	7,2	350 x 350 x 300	
23 937	146	1	4103810239373	12,6		
23 938	146	1	4103810239380	14		
25 180	226	1	4048358251800	0,42		
25 181	226	1	4048358251817	0,45		
25 185	226	1	4048358251855	0,054		
25 186	226	1	4048358251862	0,085		
25 190	228	1	4048358251909	0,5		
25 191	228	1	4048358251916	1,6		
25 223 001	203	1	4048358708625	11,3		
25 224 001	203	1	4048358708359	13,6		
25 225 001	203	1	4048358708632	14,6		
25 226 001	206	1	4048358707901	11,9		
25 227 001	206	1	4048358708649	14,2		
25 227 301	206	1	4048358708977	13,6	270 x 190 x 160	
25 228 001	206	1	4048358708366	14,94		
25 228 002	206	1	4048358707918	15,2		
25 228 301	206	1	4048358708960	14	270 x 190 x 160	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
25 228 836	206	1	4048358707970	14,62		
25 229	205	1	4048358252296	13,84		
25 230	205	1	4048358252302	14,3		
25 231	205	1	4048358252319	15,2		
25 233 001	202	1	4048358707925	10,03		
25 234 001	202	1	4048358707932	12,33		
25 235 001	202	1	4048358707949	13,33		
25 236	207	1	4048358252364	19,9		
25 236 002	207	1	4048358708687	19,9		
25 238	207	1	4048358252388	13,84		
25 243 001	203	1	4048358708984	11,5		
25 244 001	203	1	4048358709035	13,5		
25 245 001	203	1		11,3		
25 246 001	204	1	4048358708656	11,9		
25 247 001	204	1	4048358708663	13,9		
25 248 001	204	1	4048358708670	14,3		
25 249	205	1		11,9		
25 250	205	1		11,9		
25 251	205	1		11,9		
25 263 001	203	1	4048358708991	10,3		
25 264 001	203	1	4048358709011	12,1		
25 265 001	203	1	4048358709066	12,5		
25 266 001	204	1	4048358708823	10,3		
25 267 001	204	1	4048358708830	12,3		
25 268 001	204	1	4048358708847	14,3		
25 269	205	1		10,3		
25 270	205	1		10,3		
25 271	205	1		10,3		
25 272	208	1	4048358252722	10,3		
25 273	208	1	4048358252739	10,3		
25 274	208	1	4048358252746	10,3		
25 280	195	1	4048358252807	6,86	310 x 180 x 160	
25 281	194	1	4048358252814	6,8		
25 282	194	1	4048358252845	6,86		
25 284	195	1	4048358252852	6,8		
25 320	229	1	4103810253201	1,85	500 x 275 x 220	
25 334 760	209	1	4048358709042	48		
25 335 770	209	1	4048358709059	42,22		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
25 337 760	209	1	4048358708588	37		
25 337 836	209	1		39		
25 338 770	209	1		41,3		
25 338 836	209	1	4048358708953	40,5		
25 352	211	1	4048358253521	48		
25 352 010	211	1	4048358708946	48		
25 352 836	211	1	4048358708915	85		
25 353	211	1	4048358253538	48		
25 353 836	211	1	4048358708922	48		
25 400	220	1		61		
25 400 007	220	1		61		
25 408	220	1		61		
25 497	218	1	4048358254979	5,5		
25 600	227	1	4048358256003	65		
25 601	227	1	4048358256010	47		
25 602	227	1	4048358256027	47		
25 605	227	1	4048358256058	29,8		
25 606	227	1	4048358256065	0,031		
25 607	227	1	4048358256072	18,6		
25 608	227	1	4048358256089	18,6		
25 610	227	1	4048358256102	54,6		
25 611	227	1	4048358256119	45,4		
25 612	227	1	4048358256126	40,8		
25 615	227	1	4048358256157	18		
25 616	228	1		1,15		
25 620	227	1		0,072		
25 640	229	1		0,007		
25 650	228	1	4048358256508			
25 651	228	1	4048358256515	0,267		
25 652	228	1	4048358256522			
25 653	228	1				
25 654	228	1		0,7536		
25 655	228	1	4048358256553			
25 656	228	1	4048358256560			
25 657	228	1		0,66		
25 658	228	1	4048358256584	587		
25 659	228	1	4048358256591	0,675		
25 660	228	1				

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
25 661	228	1	4048358256614			
25 662	228	1		0,76		
25 663	228	1		1,344		
25 671	228	1		2,068		
25 672	228	1		1,67		
25 673	228	1		1,79		
25 674	228	1		1,481		
25 675	228	1		1,6		
25 680	228	1		0,932		
25 681	228	1	4048358256812	0,68		
25 682	228	1	4048358256829	0,706		
25 683	228	1				
25 684	228	1				
25 685	228	1		1,1		
25 690	229	1		0,29		
25 695	229	1		2,7		
26 400	175	1	4250979600015	56,3	1200 x 800 x 912	
26 401	175	1	4250979600022	56	1200 x 800 x 912	
26 402	175	1	4250979600039	59,5	1200 x 800 x 912	
26 403	175	1	4250979600046	59	1200 x 800 x 912	
26 404	175	1	4250979600053	59,2	1200 x 800 x 912	
26 410	175	1	4250979600060	56,5	1200 x 800 x 912	
26 411	175	1	4250979600077	56,2	1200 x 800 x 912	
26 412	175	1	4250979600084	59,7	1200 x 800 x 912	
26 413	175	1	4250979600091	59,2	1200 x 800 x 912	
26 414	175	1	4250979600107	59,4	1200 x 800 x 912	
26 420	175	1	4250979600114	57	1200 x 800 x 912	
26 421	175	1	4250979600121	56	1200 x 800 x 912	
26 422	175	1	4250979600138	56,5	1200 x 800 x 912	
26 423	175	1	4250979600145	57	1200 x 800 x 912	
26 424	175	1	4250979600152	57,2	1200 x 800 x 912	
26 430	175	1	4250979600169	56,5	1200 x 800 x 912	
26 431	175	1	4250979600176	56,2	1200 x 800 x 912	
26 432	175	1	4250979600183	56,7	1200 x 800 x 912	
26 433	175	1	4250979600190	56,2	1200 x 800 x 912	
26 434	175	1	4250979600206	56,4	1200 x 800 x 912	
26 440	179	1	4250979600220	33	1000 x 654 x 387	
26 441	179	1	4250979600237	33	1000 x 654 x 387	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
26 445	179	1	4250979600244	32,5	1000 x 654 x 387	
26 446	179	1	4250979600251	32,5	1000 x 654 x 387	
26 450	179	1	4250979600268	33	1000 x 654 x 387	
26 451	179	1	4250979600275	32,5	1000 x 654 x 387	
26 455	179	1	4250979600282	33,5	1000 x 654 x 387	
26 456	179	1	4250979600299	33,5	1000 x 654 x 387	
26 460	179	1	4250979600305	36	1000 x 654 x 547	
26 461	179	1	4250979600312	35	1000 x 654 x 547	
26 465	179	1	4250979600329	34,5	1000 x 654 x 547	
26 466	179	1	4250979600336	34,5	1000 x 654 x 547	
26 470	179	1	4250979600343	34,5	1000 x 654 x 547	
26 471	179	1	4250979600350	34,5	1000 x 654 x 547	
26 475	179	1	4250979600367	34	1000 x 654 x 547	
26 476	179	1	4250979600374	34	1000 x 654 x 547	
26 480	179	1	4250979600381	41	1000 x 654 x 727	
26 481	179	1	4250979600398	38	1000 x 654 x 727	
26 485	179	1	4250979600404	38	1000 x 654 x 727	
26 486	179	1	4250979600411	41	1000 x 654 x 727	
26 490	179	1	4250979600428	38	1000 x 654 x 727	
26 491	179	1	4250979600435	38	1000 x 654 x 727	
26 495	179	1	4103810267963	563	1500 x 1180 x 1285	
26 496	179	1	4103810427343	563	1500 x 1180 x 1285	
26 851	217	1		120	1690 x 813 x 1876	
26 900	216	1	4250979602125	56	1200 x 800 x 912	
26 901	216	1	4250979602132	56	1200 x 800 x 912	
26 902	216	1	4250979602149	56	1200 x 800 x 912	
26 907	215	1	4250979602002	43	1200 x 800 x 625	
26 908	215	1	4250979602019	43	1200 x 800 x 625	
26 909	215	1	4250979602026	43	1200 x 800 x 625	
26 910	216	1	4250979602156	56	1200 x 800 x 912	
26 911	216	1	4250979602163	56	1200 x 800 x 912	
26 912	216	1	4250979602170	56	1200 x 800 x 912	
26 917	215	1	4250979602033	43	1200 x 800 x 625	
26 918	215	1	4250979602040	43	1200 x 800 x 625	
26 919	215	1	4250979602057	43	1200 x 800 x 625	
26 920	216	1	4250979602187	56	1200 x 800 x 912	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
26 921	216	1	4250979602194	56	1200 x 800 x 912	
26 922	216	1	4250979602200	56	1200 x 800 x 912	
26 927	215	1	4250979602064	43	1200 x 800 x 625	
26 928	215	1	4250979602071	43	1200 x 800 x 625	
26 929	215	1	4250979602088	43	1200 x 800 x 625	
26 930	216	1	4250979602217	56	1200 x 800 x 912	
26 931	216	1	4250979602224	56	1200 x 800 x 912	
26 932	216	1	4250979602231	56	1200 x 800 x 912	
26 937	215	1	4250979602095	43	1200 x 800 x 625	
26 938	215	1	4250979602101	43	1200 x 800 x 625	
26 939	215	1	4250979602118	43	1200 x 800 x 625	
27 000	91	1	4103810270000	0,76		
27 030	90	1		31,2	780 x 580 x 630	
27 030 890	90	1		34,7	630 x 580 x 1000	
27 035	90	1		31,3	780 x 580 x 630	
27 035 890	90	1		30	630 x 580 x 1000	
27 040	90	1		33,5	780 x 580 x 630	
27 040 890	90	1		43	630 x 580 x 1000	
27 070	90	1	4103810270703	26,5	780 x 580 x 630	
27 070 890	90	1		31,2	630 x 580 x 1000	
27 410	96	1	4103810274107	35	600 x 580 x 1150	
27 410 890	96	1		40	630 x 580 x 1000	
27 420	96	1		43	780 x 580 x 630	
27 622	92	1		28	780 x 580 x 630	
27 622 680	97	1		29,8	780 x 580 x 630	
27 622 890	92	1		26,5	630 x 580 x 1000	
27 622 891	97	1		38,38	780 x 580 x 630	
27 630	94	1		6,875		
27 632	92	1		32,6	780 x 580 x 630	
27 632 680	97	1		37,5	780 x 580 x 630	
27 632 890	92	1		33	630 x 580 x 1000	
27 632 891	97	1		38,5	780 x 580 x 630	
27 832	58	1		22,5	780 x 580 x 630	
27 846	25	1		32		
27 846 056	25	1		32		
27 846 950	25	1		20,54		
27 859	59	1		35,6	580 x 800 x 1300	
27 905	94	1		0,059		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
27 906	94,99	1		0,064		
27 908	94,99	1		0,068		
27 915	99	1		0,098		
27 916	99	1		0,112		
27 918	99	1		0,123		
27 926	99	1		0,075		20 x 1045
27 928	99	1		0,079		20 x 1045
27 948	99	1		0,108		20 x 1545
27 958	99	1		0,207		20 x 1545
27 963	94,99	1		0,033		18 x 57
27 964	94,99	1		0,053		18 x 54
27 965	99	1		0,034		20 x 40
27 966	100, 102	1		0,649	160 x 100 x 65	
27 967	100	1		0,9	160 x 100 x 65	
27 968	94	1		0,044		18 x 54
27 985	99	1		0,802	230 x 150 x 40	
27 987	109	1		9,427	650 x 350 x 100	
27 988	91	1		5,58	1110 x 510 x 260	
29 036	120	1	4103810290367	7,8	390 x 370 x 240	
29 051	121	1		3,93	300 x 300 x 150	
29 142	49	1	4103810291425	16,6	540 x 580 x 160	
29 142 600	77	1	4103810428623	18,687	570 x 530 x 230	
29 142 601	77	1	4103810428630	19,656	570 x 530 x 300	
29 143	76	1	4103810291432	19,7	472 x 152 x 498	
29 152	76	1	4103810291524	20,96	475 x 158 x 520	
29 153	76	1	4103810291531	24,3	475 x 158 x 520	
29 162	76	1	4103810291623	24,5	495 x 170 x 508	
29 163	76	1	4103810291630	29,86	495 x 170 x 508	
29 172	52	1	4103810291722	23,08	495 x 158 x 508	
29 182	76	1	4103810291821	23,9	495 x 170 x 520	
29 183	76	1	4103810291838	25,9	495 x 170 x 520	
29 192	76	1	4103810291920	24,3	495 x 158 x 520	
29 193	76	1	4103810291937	26,3	495 x 158 x 520	
29 242	32	1	4103810292422	16,8	540 x 580 x 160	
29 243	32	1	4103810292439	18,8	472 x 152 x 498	
29 252	32	1	4103810292521	20,4	540 x 580 x 160	
29 253	32	1	4103810292538	23,1	475 x 158 x 520	
29 262	32	1	4103810292620	23,8	495 x 170 x 508	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
29 263	32	1	4103810292637	25,8	495 x 170 x 508	
29 272	32	1	4103810292729	23,4	540 x 580 x 160	
29 273	32	1	4103810292736	25	495 x 158 x 508	
29 282	32	1	4103810292828	23,2	495 x 170 x 520	
29 283	32	1	4103810292835	28,38	495 x 170 x 520	
29 292	32	1	4103810292927	23,6	495 x 158 x 520	
29 293	32	1	4103810292934	25,6	495 x 158 x 520	
29 341	183	1	4103810293412	17,2	540 x 580 x 160	
29 351	183	1	4103810293511	22,3	475 x 158 x 520	
29 361	183	1	4103810293610	25,7	495 x 170 x 508	
29 371	183	1	4103810293719	23,8	540 x 580 x 160	
29 381	183	1	4103810293818	25,1	495 x 170 x 520	
29 391	183	1	4103810293917	25,5	495 x 158 x 520	
29 442	118	1	4103810294426	16,02	540 x 580 x 160	
29 443	118	1	4103810294433	19,56	472 x 152 x 498	
29 452	118	1	4103810294525	20,8	540 x 580 x 160	
29 453	118	1	4103810294532	22,8	475 x 158 x 520	
29 462	118	1	4103810294624	24,2	540 x 580 x 190	
29 463	118	1	4103810294631	26,38	495 x 170 x 508	
29 472	118	1	4103810294723	23,8	540 x 580 x 160	
29 473	118	1	4103810294730	24,33	495 x 158 x 508	
29 482	118	1	4103810294822	23,6	540 x 580 x 190	
29 483	118	1	4103810294839	25,6	495 x 170 x 520	
29 492	118	1	4103810294921	24	540 x 580 x 160	
29 493	118	1	4103810294938	26	495 x 158 x 520	
29 542	119	1	4103810295423	17,5	540 x 580 x 160	
29 543	119	1	4103810295430	19,5	472 x 152 x 498	
29 552	119	1	4103810295522	21,1	540 x 580 x 160	
29 562	119	1	4103810295621	24,5	540 x 580 x 195	
29 563	119	1	4103810295638	26,5	495 x 170 x 508	
29 572	119	1	4103810295720	24,1	540 x 580 x 160	
29 573	119	1	4103810295737	26,1	495 x 158 x 508	
29 582	119	1	4103810295829	23,9	540 x 580 x 195	
29 583	119	1	4103810295836	25,9	495 x 170 x 520	
29 592	119	1	4103810295928	24,3	540 x 580 x 160	
29 593	119	1	4103810295935	26,3	495 x 158 x 520	
29 821	212	1	4103810298219	17,2	472 x 152 x 498	
29 841	212	1	4103810298417	23,8	472 x 152 x 498	

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
29 930	33, 77, 120, 183	1		1,8		
29 932	34, 77, 120,183	1	4103810299322	215		
29 940	33, 77, 120, 183	1		11,28	300 x 250 x 540	
29 977	120	1	4103810299773	0,06		
29 978	77	1	4103810299780	0,062		
29 979	183	1	4103810299797	0,06		
29 980	33,77, 183	1		3,67	170 x 170 x 650	
29 981	33,77, 183	1		5,513	340 x 170 x 650	
30 678	242	1		20,5	1200 x 600 x 550	
30 679	242	1		38	1710 x 650 x 550	
36 700	84	1	4048358367006	1,9	370 x 220 x 205	
36 701	84	1		1,8	212 x 156 x 57	
36 702	85	1	4048358367020	3,14	370 x 220 x 205	
36 703	85	1	4048358367037	8,5	300 x 300 x 155	
36 704	85	1	4048358367044	2,9	370 x 220 x 205	
36 705	85	1	4048358367051	0,267	160 x 105 x 65	
36 706	85	1	4048358367068	4,4	370 x 220 x 205	
36 707	85	1	4048358367075	8,96	370 x 220 x 205	
36 708	85	1	4048358367082	4,96		
36 710	85	1	4048358367105	1,6	195 x 145 x 148	
36 712	85	1	4048358367129	0,1414	160 x 105 x 65	
36 714	85	1	4048358367143	0,1424	160 x 105 x 65	
36 715	85	1	4048358367150	0,52	125 x 83 x 21,7	
36 716	85	1	4048358367167	0,058	160 x 105 x 65	
36 717	85	1	4048358367174	0,004	39 x 31 x 4	
36 720	85	10		0,03	62,5 x 57,5 x 17,3	
36 722	85	1		0,1	160 x 105 x 65	
36 730	85	1		0,35	110 x 110 x 90	
36 731	85	1		0,57	110 x 110 x 90	
45 056	172	1		139		
45 058	108	1		108		
45 090	170	1		55		
45 091	61,170	1		82		
45 093	61,170	1		110		
45 095	61,170	1		165		
45 100	61,108	1		94		
45 100 138	61,170	1		92		
45 101	61,108	1		72		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
45 101 138	170,61	1		72		
45 105	61, 108, 170	1		165		
45 108	61,108	1		180		
45 140	188	1		0,152		
45 140 950	188	1		0,08		
45 150	229	1		0,03		
45 150 950	229	1		74,6		
45 165	170	1				
45 314	173	1		48		
45 317	214	1	4250979602248	33	1200 x 800 x 625	
45 319	214	1		50		
45 400	108	1		50		
45 480	176	1	4250979600466	25	1000 x 654 x 387	
45 481	176	1	4250979600473	28,5		
45 482	176	1	4250979600480	31,5		
72 070	43	1	4103810720703	0,195		
72 071	44	1	4103810720710	0,2076		
72 072	45	1	4103810720727	0,206		
72 073	18	1	4103810720734			
72 074	19	1	4103810720741	0,204		
72 075	20	1	4103810720758	0,204		
72 090	18	1	4103810720901	0,006		
80 371	181	1		0,273	720 x 720 x 150	
80 371 878	228	1	4048358709943	0,38	720 x 720 x 150	
80 372	181	1		0,273		
80 864	194	1	4048358808646	0,833		
80 864 010	207	1	4048358709905	0,833		
80 864 020	195	1	4048358709912	0,832		
80 875	229	1	4048358808752	0,1		
80 888	194,195	1	4048358808882	51,7		
80 889	194,195	1	4048358808899	0,002		
80 911	195,228	1	4048358809117	0,196		
80 920	229	1	4048358809209	0,11		
80 920 100	229		4048358709936	0,13		
81 280	57		4103810812804	3,08		
81 281	57		4103810812811	2,15		
81 306	165			0,19		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
81 307	165	1		0,076		
81 308	165	1		0,19		
81 309	165	1		0,38		
83 012	165,219	1		0,119		
83 143	188	1		55,7		
83 144	188	1		53,7		
83 324	229	1		0,209	85 x 89,7 x 190	
83 324 001	229	1		0,209		
83 396	229	1		0,168	75 x 75 x 955	
83 410	165	1		0,07		
83 462	229	1		0,072		
84 859	189	1		0,15	70 x 58 x 29	
84 862	189	1		0,5	168 x 65 x 38	
84 864	189	1		1,5	356 x 301 x 28	
84 904	189	1		19,5	254 x 175 x 200	
85 292	189	1		3,4	540 x 430 x 30	
85 358	188	1		0,0454		
85 359	187	1		0,042		
85 360	187	1		0,023		
85 363	187	1		0,0468		
85 364	187	1		0,023		
85 365	187	1		0,034	41,6 x 41,6 x 23	
85 369	188	1		0,0424		
85 370 777	188	1		0,0906	61 x 61 x 41,5	
85 393	187	1		0,043		
85 462	29	1		1,37		
85 544	57,189	1		0,220		
85 547	189	1		4,22	357 x 302 x 5	
85 548	189	1		9,24	541 x 436 x 5	
85 589	237	1		0,0151		
85 627	237	1		0,015		
87 002	99	1		0,421		
87 003	91	1		0,19		
87 004	94	1		0,89		
87 056	99,107	1		0,071		
87 065	99,129	1		1,81	33,5 x 2 x 790	
87 125	99	1		0,032		
87 351	18	1	4103810873515	0,026		

Item number	Page	VE	EAN Code	Weight VE (kg)	Dimensions VE LxWxH (mm)	Dimensions Ø x L (mm)
87 352	20	1	4103810873522	0,182		
87 353	44	1	4103810873539	0,267		
87 354	43	1	4103810873546	0,267		
87 357	44	1	4103810873577	0,88		
87 358	43	1	4103810873584	0,931		
87 547	29	1		0,84		
87 563	65	1		2,184		
87 638	109	1		1,335		
87 651	29,57	1		1,5		
87 655	45	1	4103810876554	0,193		
87 656	45	1	4103810876561	0,0378		
87 918	101	1		1,7		
87 919	101	1		4,23		
88 079	65	1		1,549	200 x 175 x 290	
88 118	65	1		8,5	725 x 635 x 90	
88 129	65	1		7,5	735 x 565 x 75	
88 130	65	1		6,5	735 x 475 x 75	
88 318	107	1		0,0972		
88 412	188	1		0,16		
89 070	188	1		0,05		
89 071	188	1		0,05		
89 111	187	1		0,039		
89 111 878	187	1		0,001		

Notes

J

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