NFT, NFF, ABUKG

Технические характеристики

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Челябинск (351)202-03-61
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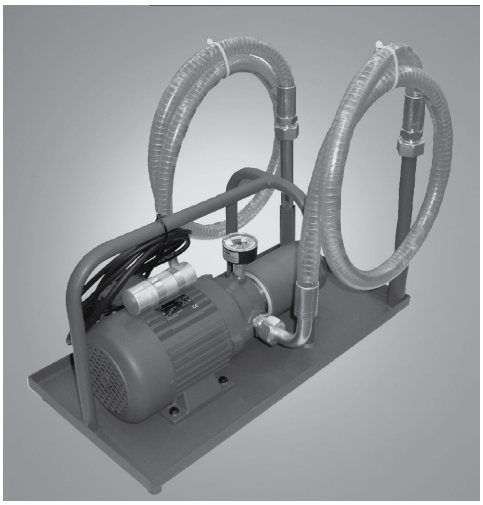


15 NFT / 35 NFT | Off-line filter system

Performance description

The 15 NFT / 35 NFT off-line filter system is a mobile filter system for the filtration of hydraulic fluids and lubricants with a viscosity of 10 - 200 mm^2/s on the bypass. Separate installation in the bypass or cooling circuit for the fine filtration and unloading of the main flow filter is just as feasible as the filtration of fresh oil and the cleaning (flushing) of polluted systems for protecting components and system against wear and tear.
The flow amounts to 15 l/min (with the 15 NFT off-line filter system) or 35 l/min (with the 35 NFT off-line filter system).
The operating temperature ranges from –10 °C to +60 °C.

Device description

The 15 NFT / 35 NFT off-line filter system consists of a supporting frame to which a filter pump unit has been attached. The latter consists of an electrically operated filter pump with exchangeable filter cartridge and a pressure gauge as maintenance indicator. The on/off switch is located at the pump motor control box. One suction and one pressure hose are in each case connected to the filter pump. At their ends, the hoses are in each case equipped with a lance. When they are not used or during transport, they can be fixed in a receiving tube.

Component overview

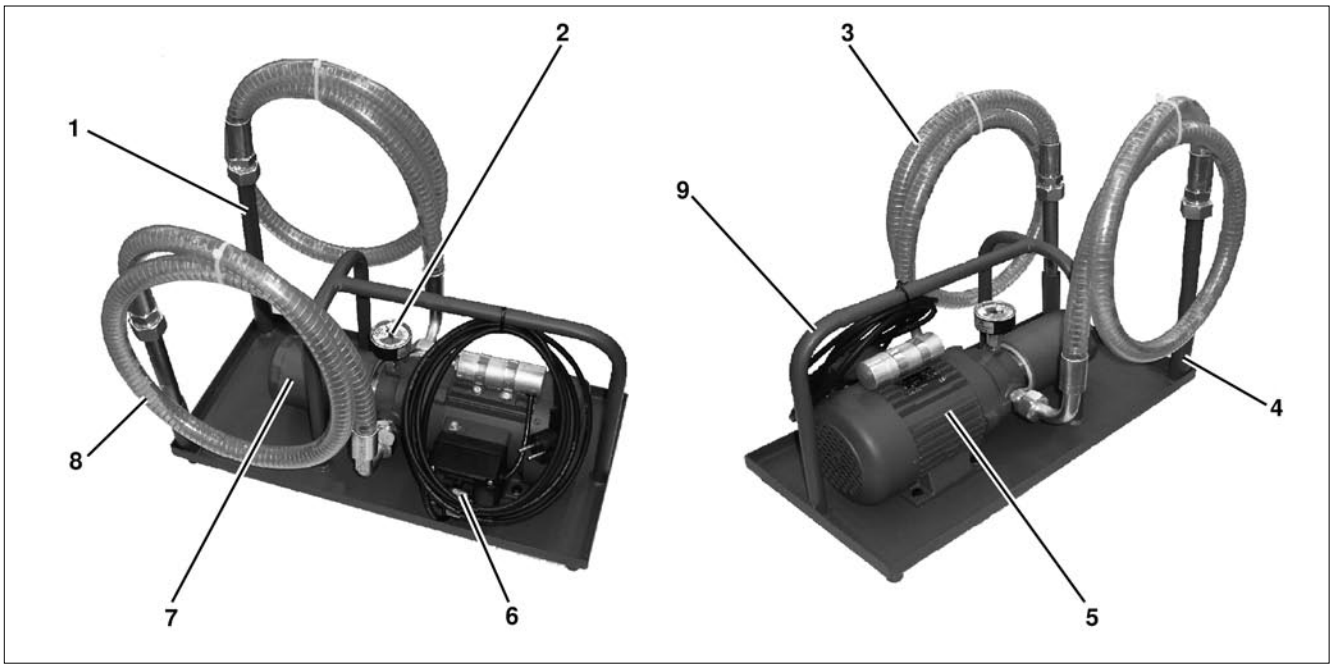


Fig. 1: Device overview 15 NFT / 35 NFT

1 Lance
2 Pressure gauge
3 Hose
4 Receiving tube for lance
5 Filter pump
6 On/off switch
7 Filter cartridge
8 Hose
9 Supporting frame

Technical data

Table 8: General data

General data	15 NFT	35 NFT
Dimensions (width x height x depth)	270 x 300 x 550 [mm]	305 x 300 x 610 [mm]
Product weight	21 kg	26 kg
Temperature range for application	–10 - +60 °C	–10 - +60 °C
Storage temperature range	+5 - +30 °C	+5 - +30 °C
Admissible viscosity	10 - 200 mm^2/s	10 - 200 mm^2/s
Max. operating pressure	4 bar	4 bar
Max. oil temperature	80 °C	80 °C
Nominal flow	15 l/min	35 l/min
Nominal width suction / pressure	DN 20	DN 25
Protection class EN 60529/IEC529	IP55	IP54
Electric data	230 V / 50 Hz	230 V / 50 Hz
Pump motor power	0.25 kW	0.55 kW

Table 9: Considered standards and directives

Considered standards and directives (Must)	
Directive 89/336 EEC	"Electromagnetic compatibility" (EMC directive)
97/23/EC	Pressure Equipment Directive

Off-line filter systems, portable

10 NFF2

- Maximum flow 10 l/min
- Filter type 40 LE 0018
- Maximum flow 10 l/min
- Filter type 40 LE 0018

Product description

The bypass filter system 10 NFF2 is a mobile filter system for the filtration of hydraulic fluids and lubricants with a viscosity of 10 - 200 mm^2/s in the bypass.

A separate installation in the bypass or cooling circuit for the fine filtration and unloading of the main flow filter is possible as is the filtration of fresh oil and the cleaning (washing) of contaminated systems for the wear protection of components and systems.

The bypass filter system consists of a supporting frame on which a filter pump unit is mounted. The latter consists of an electrically operated filter pump with exchangeable suction filter which is monitored by means of a visual maintenance indicator. A vacuum meter monitors the suction pressure of the pump and will switch below -0.5 bar. The On/Off switch is located at a control box. Der suction tube is connected at the suction-side port of the pump and the pressure tube at the output of the main filter. At their ends, the hoses are in each case equipped with a lance. When not used or during transport, they can be fixed in a receiving tube.

Certification

Directives and standardization

Product validation

Rexroth filters, the filter elements built into them and filter accessories are tested and quality-monitored according to different ISO test standards:

Pressure pulse test	ISO 10771:2015-08
Filtration performance test (multipass test)	ISO 16889:2008-06
Δ*p* (pressure loss) characteristic curves	ISO 3968:2001-12
Compatibility with hydraulic fluid	ISO 2943:1998-11
Collapse pressure test	ISO 2941:2009-04

Rexroth products are developed, manufactured and assembled as part of a certified quality management system in accordance with ISO 9001:2000.

The relevant standards and directives can be found in the CE Declaration of Conformity.

Off-line filter system

Type 30 NFF2; 50 NFF2; 80 NFF2

- Sizes 0045 ... 0120; 0270C
- Operating pressure max. 6 bar [87 psi]
- Operating temperature –10 °C ... +60 °C [+14 °F ... 140 °F]

Features

The off-line filter systems in the NFF2 series are robust off-line power units for mobile use on hydraulic and lubrication systems with large oil quantities.

They distinguish themselves by the following:

- Improvement of components and system filter life
- Very fine filtration possible
- Upstream protective pump filter for optimal system protection
- High dirt holding capacity of the filter elements
- Increased machine operation time
- Extended oil change intervals

Contents

Ordering code
Off-line filter system

01	02	03	04		05		06	07	08		09	10	11	12
	NFF2			**–**	**A00**	**–**	**0**	**7**	**B2.5**	**–**	**00**	**M**	**0**	**0**

Pump power

01	Nominal flow in l/min	**30** **50** **80**

Series

02	Off-line filter system, movable	**NFF2**

Size

03	30 NFF 2	**0045**
	50 NFF 2	**0095**
	80 NFF 2	**0120** **0270C**

Filter rating in µm

04	**Absolute** **(ISO 16889; $\beta_{x(c)} \geq 200$)**	Glass fiber material, not cleanable	**PWR3** **PWR6** **PWR10**
		Water-absorbing, not cleanable	**AS10**

Pressure difference

05	Maximum admissible pressure differential of the filter element: 30 bar *[435 psi]*	**A00**

Solenoid

06	**Without** solenoid	**0**

Bypass valve

07	**With** bypass valve – cracking pressure 3.5 bar *[50.76 psi]*	**7**

Maintenance indicator

08	Optical/electronic – switching pressure 2.5 bar *[36.26 psi]*	**B2.5**

Port

09	Standard	**00**

Seal

10	NBR seal	**M**

Material

11	Standard	**0**

Supplementary information

12	**Without** supplementary information	**0**

Order example:
30 NFF2 0045 PWR3 -A00-07B2.5-00M00

Material no. R928049231

Further versions are available on request.

Preferred types

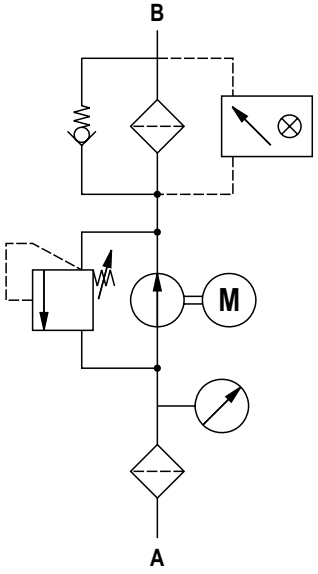
Off-line filter system, filter rating **3 µm**

Type	Material no. Filter System	Material no. Replacement element
30 NFF2 0045 PWR3-A00-07B2.5-00M00	**R928049231**	**R928005637**
50 NFF2 0095 PWR3-A00-07B2.5-00M00	**R928051661**	**R928005709**
80 NFF2 0120 PWR3-A00-07B2.5-00M00	**R928054700**	**R928005745**
80 NFF2 0270C PWR3-A00-07B2.5-00M00	**R928053678**	**R928025578**

Off-line filter system, filter rating **10 µm**

Type	Material no. Filter System	Material no. Replacement element
30 NFF2 0045 PWR10-A00-07B2.5-00M00	**R928041681**	**R928005639**
50 NFF2 0095 PWR10-A00-07B2.5-00M00	**R928031659**	**R928005711**
80 NFF2 0120 PWR10-A00-07B2.5-00M00	**R928035673**	**R928005747**
80 NFF2 0270C PWR10-A00-07B2.5-00M00	**R928047917**	**R928023931**

Symbols



Function

Off-line filtration is a proven means of keeping the hydraulic fluid at a specific level of cleanliness. The combination of pumps and correspondingly rated filters circulate the oil under constant fluid flow conditions, independent of the overall system, and thereby relieve the main flow system filter.
This off-line filter also operates when there is no oil in the main system.

The Settima pumps installed in the NFF2 operate quietly and energy efficiently in the required low-pressure range.

Solid workmanship and the upstream protective pump filter guarantee a long life cycle. Contaminants which are unintentionally sucked in and which would otherwise lead to immediate failure of the power unit are retained here.

Technical data
(For applications outside these values, please consult us!)

General					
Ambient temperature range	°C *[°F]*	–10 ... +60 *[+14 ... +140°]*			
Storage conditions	°C *[°F]*	–40 ... +65 *[–40 ... +149]*; max. relative air humidity 65%			
Weight	Size	**30 NFF2 0045**	**50 NFF2 0095**	**80 NFF2 0120**	**80 NFF2 0270C**
	kg *[lbs]*	72 *[159]*	84 *[185]*	90 *[198]*	*150 [331]*

Hydraulic			
Maximum operating pressure	bar *[psi]*	6 *[87.02]*	
Hydraulic fluid temperature range	°C *[°F]*	–10 °C ... +60 °C *[+14 °F ... 140 °F]*	
Minimum conductivity of the medium	pS/m	300	
Type of pressure measurement of the maintenance indicator		Pressure differential	
Assignment: Response pressure of the maintenance indicator/Cracking pressure of the bypass valve		Response pressure of the maintenance indicator	Cracking pressure of the bypass valve
	bar *[psi]*	2.5 ± 0.25 *[36.25 ± 3.63]*	*7.0 ± 0.5 [101.5 ± 7.3]*

Filter element				
Glass fiber material PWR..		Single-use element on the basis of inorganic fiber		
		Filtration ratio according to ISO 16889 to Δp = 5 bar *[72.5 psi]*	Achievable oil cleanliness according to ISO 4406 *[SAE-AS 4059]*	
Particle separation	PWR10	$\beta_{10(c)} \geq 200$	17/14/10 ... 21/16/13	
	PWR6	$\beta_{6(c)} \geq 200$	15/12/10 ... 19/14/11	
	PWR3	$\beta_{5(c)} \geq 200$	13/10/8 ... 17/13/10	
Admissible pressure differential ▶ A00	bar *[psi]*	30 *[435]*		

Compatibility with permitted hydraulic fluids

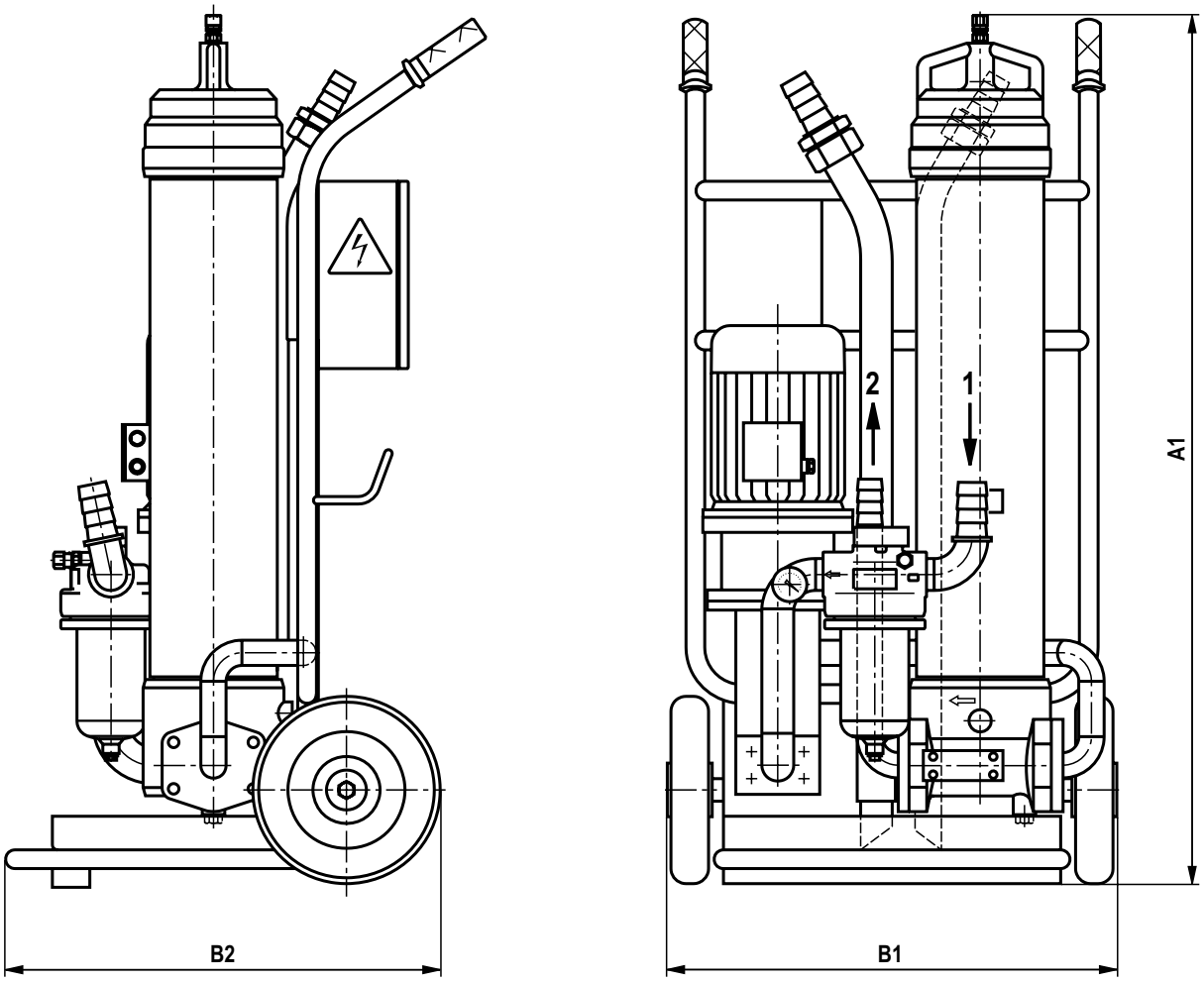
Hydraulic fluid	**Classification**	**Suitable sealing materials**	**Standards**
Mineral oil	HLP	NBR	DIN 51524

☞ **Important information about hydraulic fluids:**
▶ For more information and data on the use of other hydraulic fluids, please refer to data sheet 90220 or contact us!

Dimensions: 30 NFF2 0045; 50 NFF2 0095; 80 NFF20 0120

(Dimensions in mm *[in]*)

30 NFF2 0045
50 NFF2 0095
80 NFF20 0120



Drawn without hoses

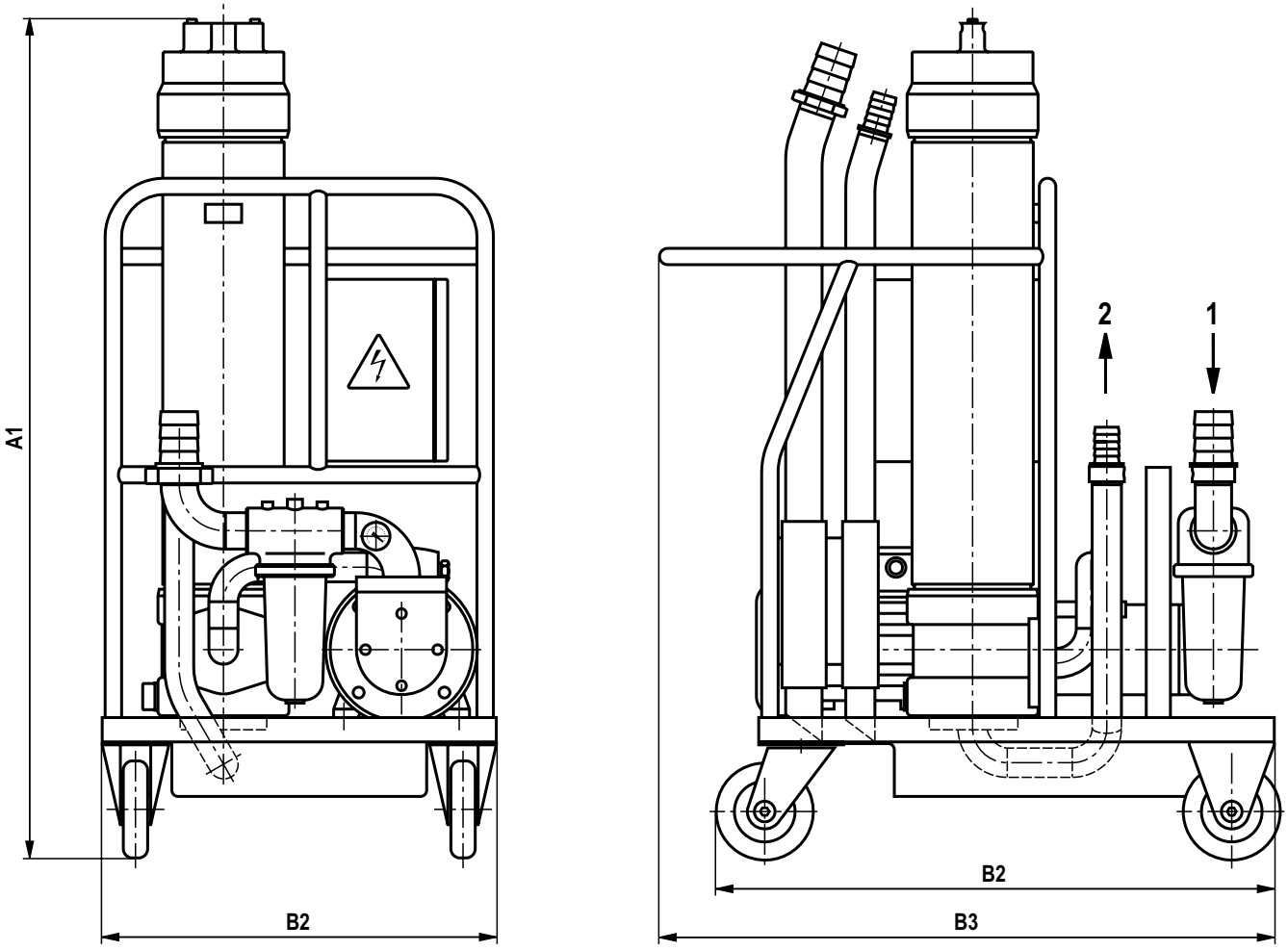
1 Suction tube port
2 Pressure tube port

Type	A1	B1	B2
30 NFF2 0045	1160 *[45.67]*	600 *[23.62]*	580 *[22.83]*
50 NFF2 0095			
80 NFF2 0120			

Dimensions: 80 NFF20 0270 C

(dimensions in mm *[in]*)

80 NFF20 0270 C



Drawn without hoses

1 Suction tube port

2 Pressure tube port

Type	A1	B1	B2	B3
80 NFF2 0270 C	1390 *[54.72]*	650 *[25.59]*	920 *[36.22]*	1020 *[40.16]*

Ordering code
Spare parts

Filter element

01	02	03		04		05		06
1.			**–**	**A00**	**–**	**0**	**–**	**M**

Filter element

01	Design	**1.**

Size

02	NFF2 ... (Filter element according to **Bosch Rexroth standard**)	**0045** **0095** **0120** **0270C**

Filter rating in µm

03	**Absolute** **(ISO 16889; $\beta_{x(c)} \geq 200$)**	Glass fiber material, not cleanable	**PWR3** **PWR6** **PWR10**
		Water-absorbing, not cleanable	**AS10**
	Nominal	Filter paper, not cleanable	**P10** **P25**

Pressure difference

04	Max. admissible pressure differential of the filter element 30 bar *[435 psi]* - filter **with** bypass valve	**A00**

Bypass valve

05	**Without** bypass valve	**0**

Seal

06	NBR seal	**M**

Order example:
1.0045 PWR3 -A00-0-M

For detailed information on Rexroth filter elements please refer to data sheet 51420.

Ordering code
Spare parts

Optical electronic maintenance indicator

01	02	03	04	05	06
F	**2,5**	**GW**	**02**	**00**	**M**

01	**Maintenance indicator**	**F**
02	**Switching pressure**	**2,5**

Port / port type

03	Connector / changeover	**GW**

Switching pressure

04	**Variant**	**02**

Material

05	Standard	**00**

Seal

06	NBR seal	**M**

Material no.	Optical electronic maintenance indicator
R928028778	F2.5GW0200M

Directives and standardization

Product validation

Rexroth filters, the filter elements built into them and filter accessories are tested and quality-monitored according to different ISO test standards:

Pressure pulse test	ISO 10771:2015-08
Filtration performance test (multipass test)	ISO 16889:2008-06
Δ*p* (pressure loss) characteristic curves	ISO 3968:2001-12
Compatibility with hydraulic fluid	ISO 2943:1998-11
Collapse pressure test	ISO 2941:2009-04

Rexroth products are developed, manufactured and assembled as part of a certified quality management system in accordance with ISO 9001:2000. The relevant standards and directives can be found in the CE Declaration of Conformity.

Classification according to the Pressure Equipment Directive

Off-line filter systems according to 51433 are not classified as devices or components for the purpose of the Pressure Equipment Directive 97/23/EC (PED).

Directive 94/9/EC (ATEX)

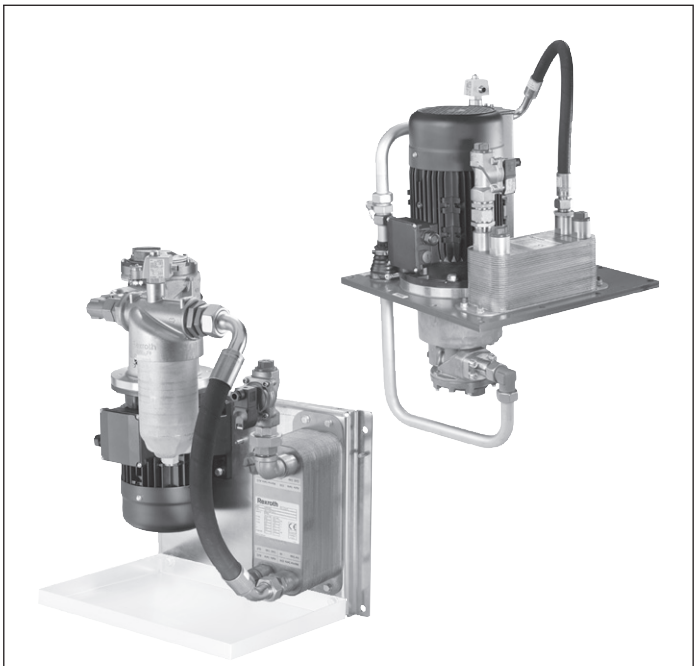
According to the assessment of the risk of ignition, the off-line filter systems must not be used in explosive areas.

Rexroth
Bosch Group

Filter cooler unit
with inline filter according to DIN24550

RE 50125

Type ABUKG



H7992+7993

Features

- Compact unit with pump, installed low-pressure filter and plate heat exchanger
- Modular design
- Mounting as required on a console or on installation plate
- Low-noise versions available
- Component series 4X
- With gerotor pump, external gear pump SILENCE PLUS or screw spindle pump
- With electric motors sizes 90 S to 132 S
- With low-pressure inline filter according to DIN 24550
- With plate heat exchanger
- Maximum operating pressure 10 bar

Contents

Features (continued)

Application range

Any hydraulic system, in which heat is generated through power losses, requires active cooling during continuousy operation.

The dissipation capacity of the tank is often not sufficient to ensure a stable heat balance during long duty cycles.

Due to their compact design, these units can be mounted to the tank walls, on top of the tank or on other machine components.

The basic element is the gerotor pump. Low-noise versions are based on external gear pumps (SILENCE PLUS) or screw spindle pumps, low-pressure filters and plate heat exchangers.

General information

The units are fitted with a low-pressure filter. Electrical maintenance indicators signal when an element has to be changed.

The water consumption depends on the utilization of the power unit and the inlet temperature difference.

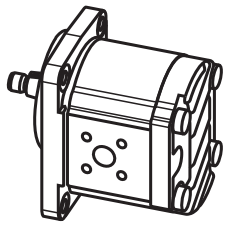
The water supply for cooling purposes is regulated by an electrically operated water valve.

Circulation units of version ABUKG-..K are optionally fitted with a collecting pan for collecting oil that is spilled during filter exchanges.

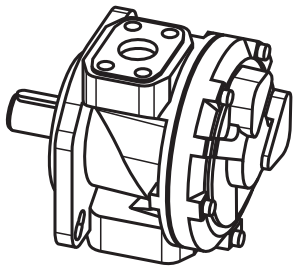
Noise guide values

	Base	Noise-optimized
Cooling power in kW [1]	**Sound pressure level in dB(A)**	
	External gear pump SILENCE PLUS	
4	59	
7.5	59	
	Gerotor pump	**Screw spindle pump**
11	64	59
15	64	59
22	66	60
30	68	62
37	70	63
45	69	63
55	72	65
75	74	66

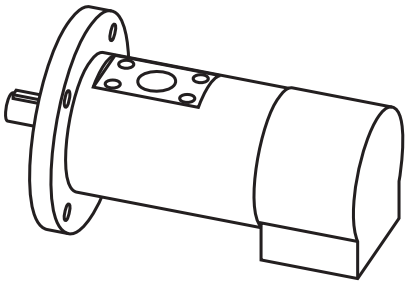
External gear pump SILENCE PLUS



Gerotor pump



Screw spindle pump



Noise levels are measured according to DIN EN ISO 11202
Accuracy class 3
Measuring distance 1 m;
Measured at 1450 min^{-1};
with an operating temperature of v = 50 °C;
Hydraulic fluid: Mineral oil HLP according to DIN 51524, part 2

[1] (Characteristic curves see page 7)

Ordering code

01		02	03		04		05	06	07		08	09		10	11	12	13		14	15	16
ABUKG	**–**			**–**	**4X**	**/**		**K**		**/**			**/**			**4**	**5**	**/**			**HOY**

01	Filter cooler unit	**ABUKG**

Cooling power with inlet temperature difference 35 K

02	4 ... 75 kW (characteristic curves see page 7)	**04 ... 75**

Design principle

03	Console mounting	**K**
	Tank top mounting	**V**

04	Component series 40 to 49 (40 to 49: Unchanged installation and connection dimensions)	**4X**

Heat exchanger

05	Size	**0**
06	Version	**K**
07	Number of plates	**48**

Pump

08	**Displacement** (in l/min with 1450 min^{-1})	
	116 l/min	**116**
09	**Noise behavior**	
	Base	**B**
	Noise-optimized	**G**

Electric motor

10	**Motor power** (in kW)	
	3 kW	**3.00**
11	**Rated voltage**	
	230/400V - 50 Hz	**CA**
	400/690V - 50 Hz	**CB**
12	**Number of pole pairs**	
	4-pole	**4**
13	**Rated frequency**	
	50 Hz	**5**

Filter

14	Size, inline filter DIN 24550 according to data sheet 51447	**160**

Oil pan

15	Without oil pan	–
	With oil pan	**T**

Motor supplier

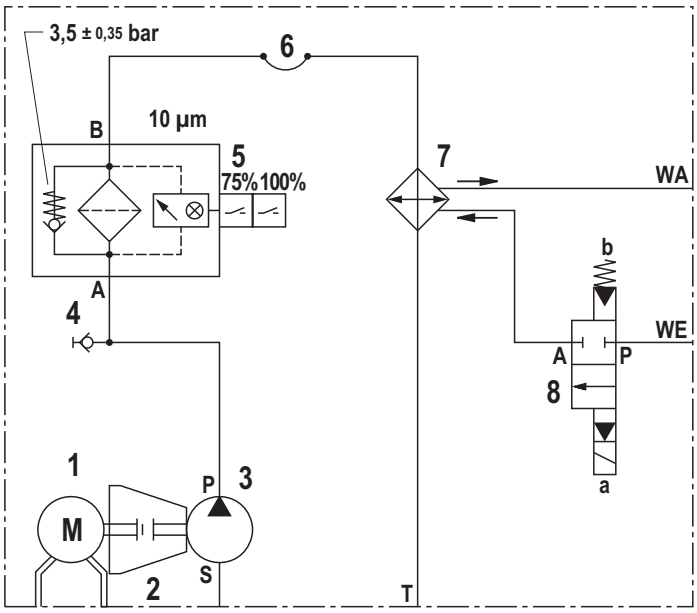
16	Hoyer Motors	**HOY**

Order example:

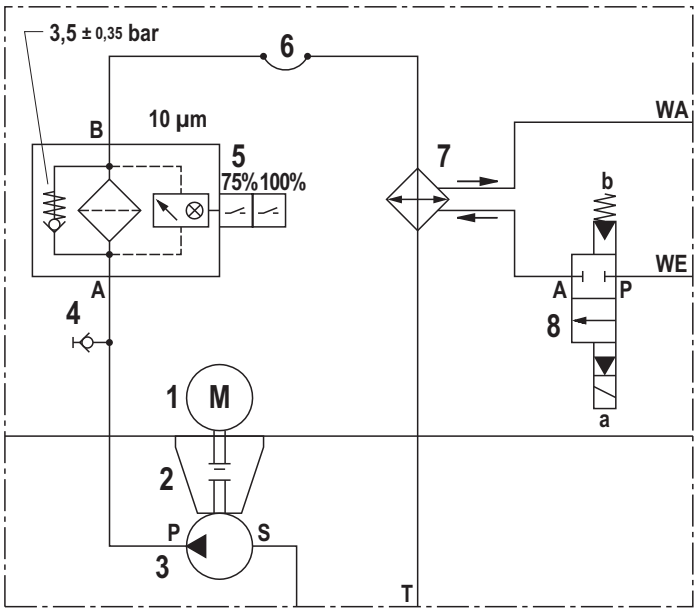
ABUKG-37K-4X/0K48/116B/3,0CA45/160 HOY

Circuit diagram

Type ABUKG-..K...



Type ABUKG-..V...



1 Electric motor
2 Pump carrier + coupling
3 Displacement pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve

Selection table of standard/preferred types ABUKG 4X

Console mounting

Frequency	50 Hz 1450 min^{-1}		Electric motor frame size	Power in kW	Pump	ABUKG-...K... material no (console mounting)	MKZ [2]	Weight in kg
Cooling power in kW [1]	$q_{v\,max}$ in l/min	$p_{max.}$ in bar						
4.0	17	10	90S	1.10	External gear pump SILENCE PLUS	R901337662	A2	38
7.5	23	10	90S	1.10		R901337663	A2	39
11.0	28	10	90L	1.50	Gerotor pump (base)	R901355119	A3	60
15.0	46	10	100L	2.20		R901337655	A3	62
22.0	71	10	100L	2.20		R901337656	A3	61
30.0	88	10	100L	3.00		R901337657	A3	63
37.0	116	10	100L	3.00		R901337658	A3	67
45.0	88	10	100L	3.00		R901337659	A3	83
55.0	144	10	112M	4.00		R901337660	A3	85
75.0	186	10	132S	5.50		R901337661	A3	118
11.0	29	10	90S	1.10	Screw spindle pump (noise-optimized)	R901355118	A2	48
15.0	38	10	90S	1.10		R901337664	A2	51
22.0	74	10	100L	2.20		R901337665	A2	67
30.0	89	10	100L	3.00		R901337666	A3	73
37.0	105	10	100L	3.00		R901337667	A3	73
45.0	105	10	100L	3.00		R901337668	A3	89
55.0	105	10	112M	4.00		R901337669	A3	90
75.0	166	10	132S	5.50		R901337670	A3	133

Tank top mounting

Frequency	50 Hz 1450 min^{-1}		Electric motor frame size	Power in kW	Pump	ABUKG-...V... material no (tank top mounting)	MKZ [2]	Weight in kg
Cooling power in kW [1]	$q_{v\,max}$ in l/min	$p_{max.}$ in bar						
4.0	17	10	90S	1.10	External gear pump SILENCE PLUS	R901338099	A3	47
7.5	23	10	90S	1.10		R901338103	A3	47
11.0	28	10	90L	1.50	Gerotor pump (base)	R901355121	A3	75
15.0	46	10	100L	2.20		R901338092	A3	79
22.0	71	10	100L	2.20		R901338093	A3	77
30.0	88	10	100L	3.00		R901338094	A3	82
37.0	116	10	100L	3.00		R901338095	A3	86
45.0	88	10	100L	3.00		R901338096	A3	101
55.0	144	10	112M	4.00		R901338097	A3	117
75.0	186	10	132S	5.50		R901338098	A3	141
11.0	29	10	90S	1.10	Screw spindle pump (noise-optimized)	R901355120	A3	60
15.0	38	10	90S	1.10		R901338104	A3	63
22.0	74	10	100L	2.20		R901338105	A3	80
30.0	89	10	100L	3.00		R901338106	A3	92
37.0	105	10	100L	3.00		R901338107	A3	91
45.0	105	10	100L	3.00		R901338108	A3	108
55.0	105	10	112M	4.00		R901338109	A3	132
75.0	166	10	132S	5.50		R901338111	A3	156

1) Cooling power with inlet temperature difference of approx. 35 K (characteristic curves see page 7)

2) MKZ = material mark

A2 = Preferred delivery range

A3 = Standard delivery range

Technical data

(for applications outside these parameters, please consult us!)

Line connections (see page 17)	▶ Oil side			Connection thread according to ISO 1179 Pipe connections according to DIN 2353 / ISO 8434 Flanges according to ISO 6162
	▶ Water side			Thread according to ISO 228/1
Type of piping				Fitting according to DIN 2353 light / heavy series For ABUKG-V: Precision steel pipes According to DIN 2391/C, DIN EN ISO 1127
Hydraulic fluids				Mineral oil HLP46 according to DIN 51524, part 2 (other hydraulic fluids upon request) **Please observe our specifications and data sheet 90220.**
Hydraulic fluid temperature range			°C	25 ... 80; for other temperatures please consult us
Installation position				Vertical
Coolant				Potable, process, stream and river water (filtration recommended) Min. cooling water need: $V_K = 0.5 \times V_{oil}$ [l/min] (min. 0.1 bar at water valve) Heating (H_2O): $\Delta v = 14 \times$ power loss (kW) / V_K [°K]
Adm. operating pressures at inlet (absolute)	▶ Oil side	– Gerotor pump	bar	0.7 ... 2 (short-time, upon start 0.5 bar)
		– Screw spindle pump	bar	0.3 ... 4
		– External gear pump SILENCE PLUS	bar	0.7 ... 3
		– p_{max}	bar	10
	▶ Water side		bar	16 (at least 3 ... 5 bar)
Motor voltage / frequency	▶ 4 ... 45 kW cooling power (motor 90S-100L)			230/400 V – 50 Hz
	▶ 55 ... 75 kW cooling power (motor 112M-132S)			400/690 V – 50 Hz
Direction of rotation of pump				Clockwise
Water valve				Type ABZAW-G1-G24K4 according 50235 (included in the scope of delivery)
Cleanliness classes according to ISO code				Maximum admissible degree of contamination of the hydraulic fluid according to ISO 4406 (c) and according to the pump type used. At least cleanliness class 20/18/15 must be achieved.
Filter rating			µm	10 (further ratings on request)
Surface protection				By default, all steel components and components are at least provided with temporary corrosion protection (e.g. for transport).

For assembly, commissioning and maintenance of oil hydraulic systems please observe the data sheet 07900!

Further data sheets: **AB 32-12** **Heat exchanger oil/water system: Plate heat exchanger**
51447 **Inline filter with filter element according to DIN 24550**
10545 **Gerotor pump PGZ**
10094 **External gear pump SILENCE PLUS**

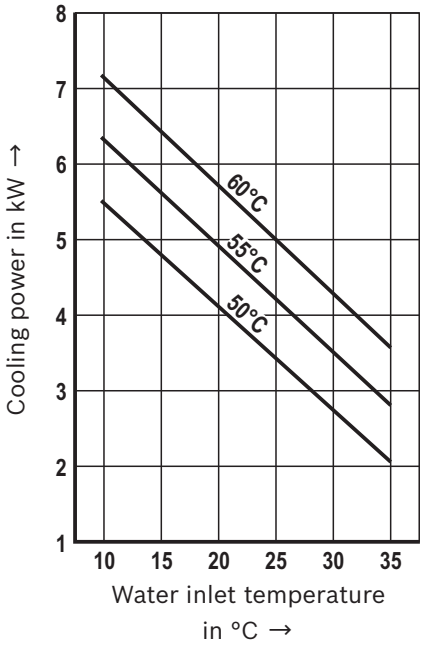
The units are designed and manufactured in accordance with the harmonized EN standards / specifications.

Cooling power characteristic curves

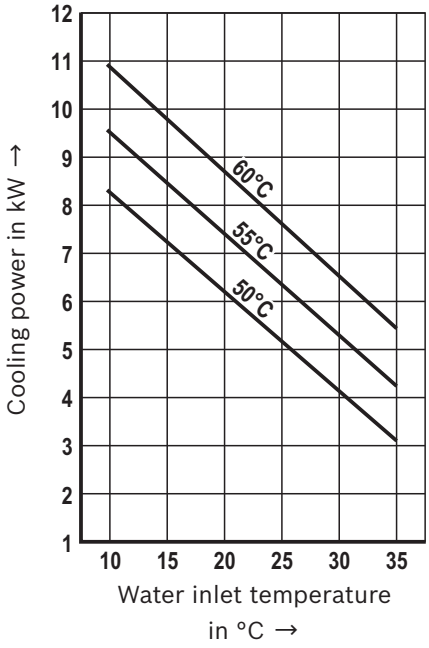
The cooling powers of the individual units differ depending on the water and oil inlet temperatures.

The selected oil inlet temperatures were 50, 55 and 60 °C.

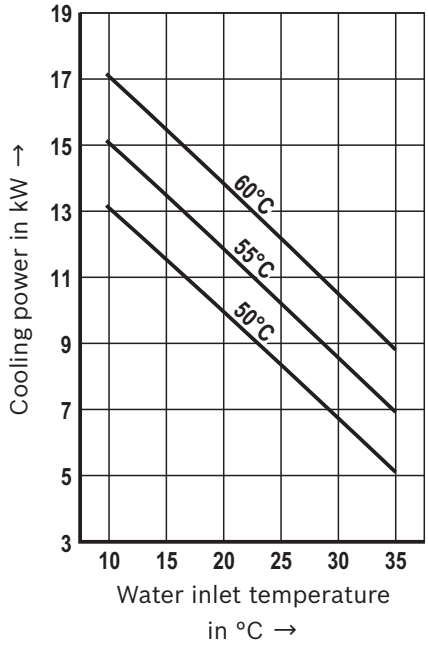
ABUKG 4 kW



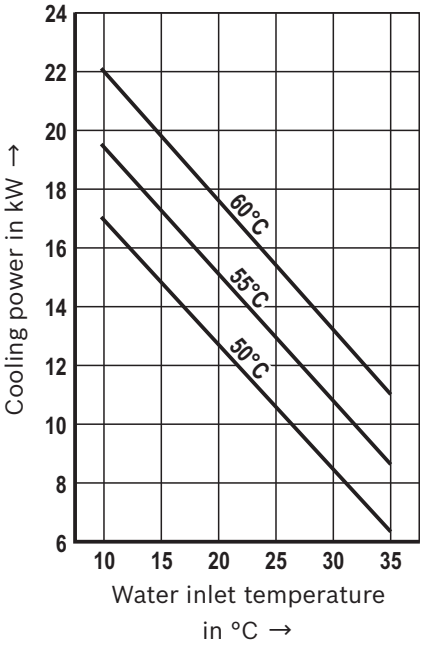
ABUKG 7.5 kW



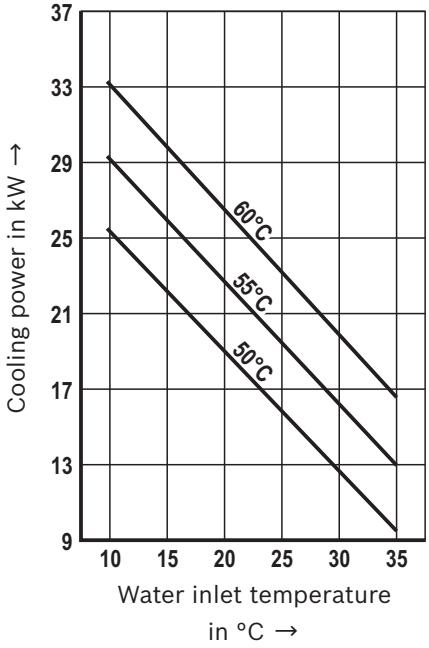
ABUKG 11 kW



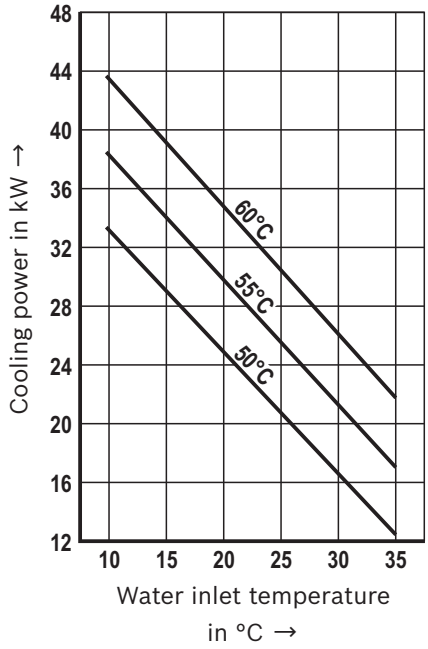
ABUKG 15 kW



ABUKG 22 kW



ABUKG 30 kW

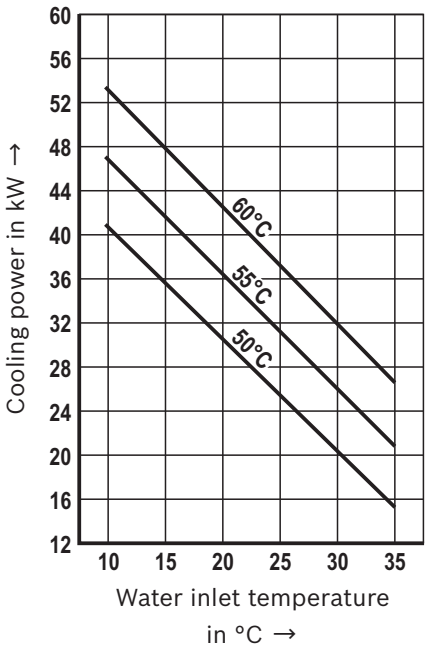


Cooling power characteristic curves

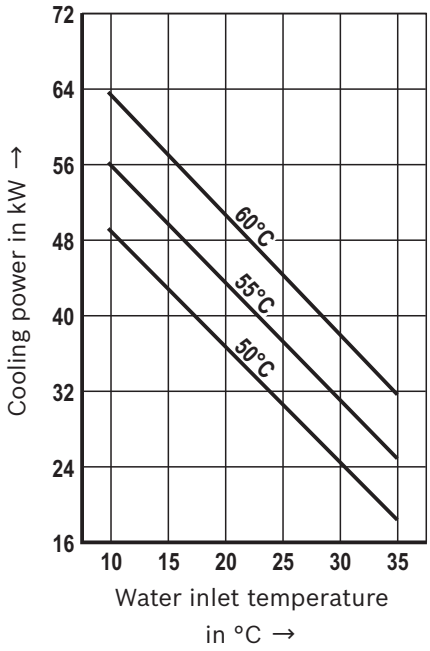
The cooling powers of the individual units differ depending on the water and oil inlet temperatures.

The selected oil inlet temperatures were 50, 55 and 60 °C.

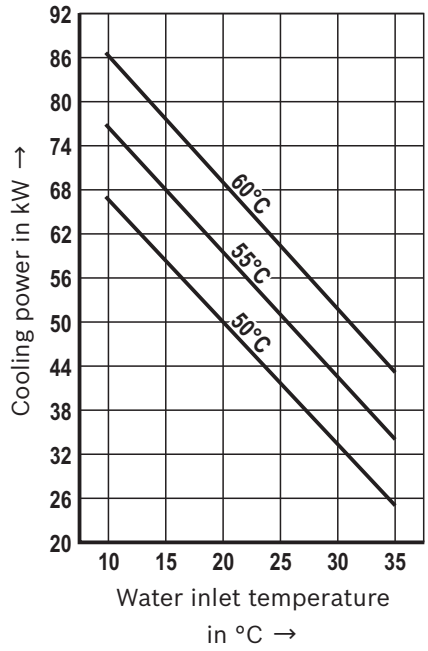
ABUKG 37 kW



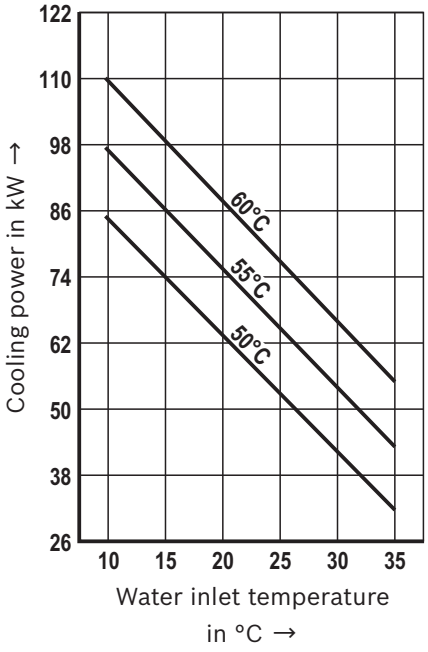
ABUKG 45 kW



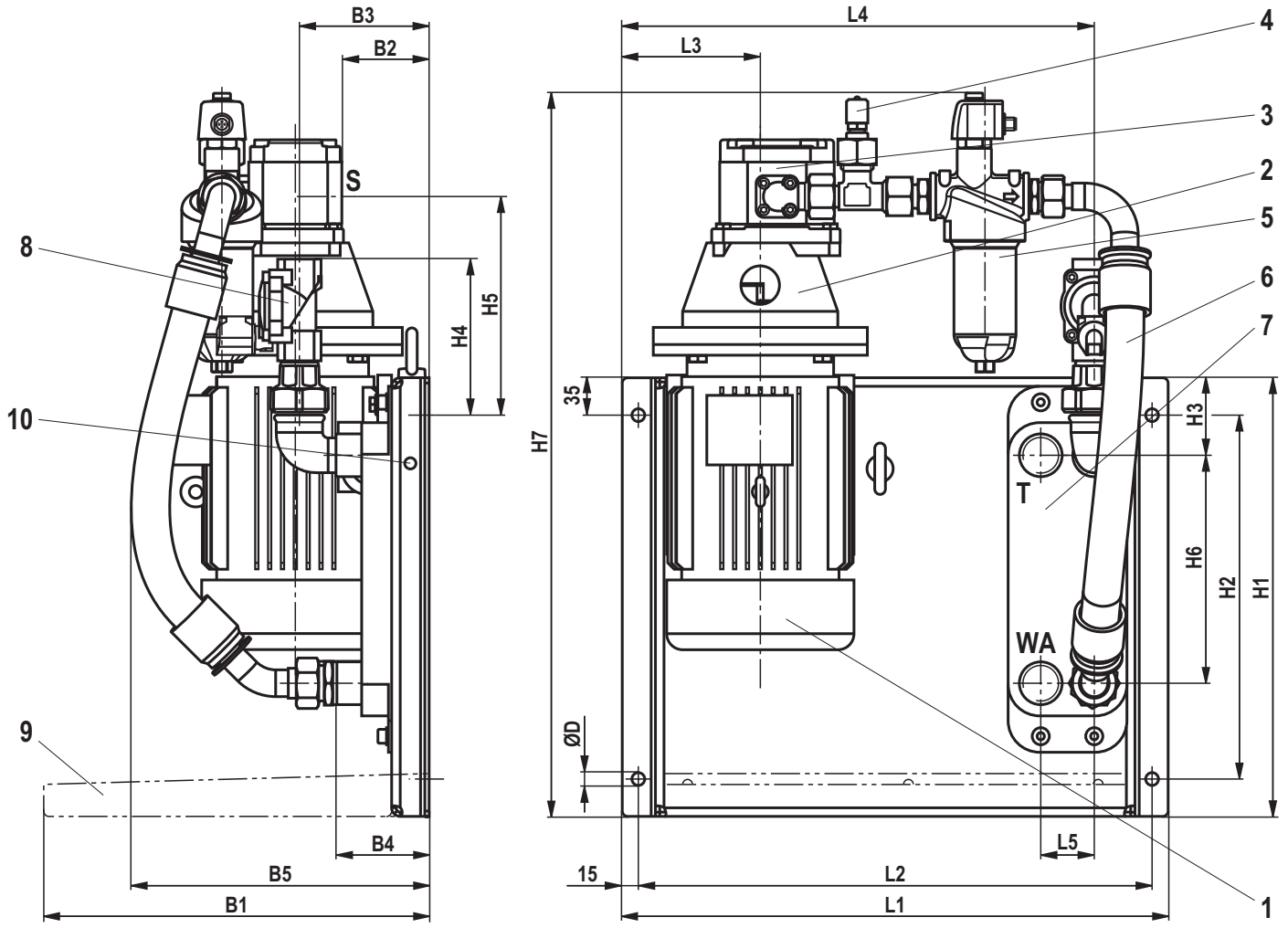
ABUKG 55 kW



ABUKG 75 kW



Dimensions: Type ABUKG-..K... 4 and 7.5 kW (dimensions in mm)



1 Electric motor
2 Pump carrier + coupling
3 Silence Plus pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Oil pan (optional)
10 Equipotential bonding

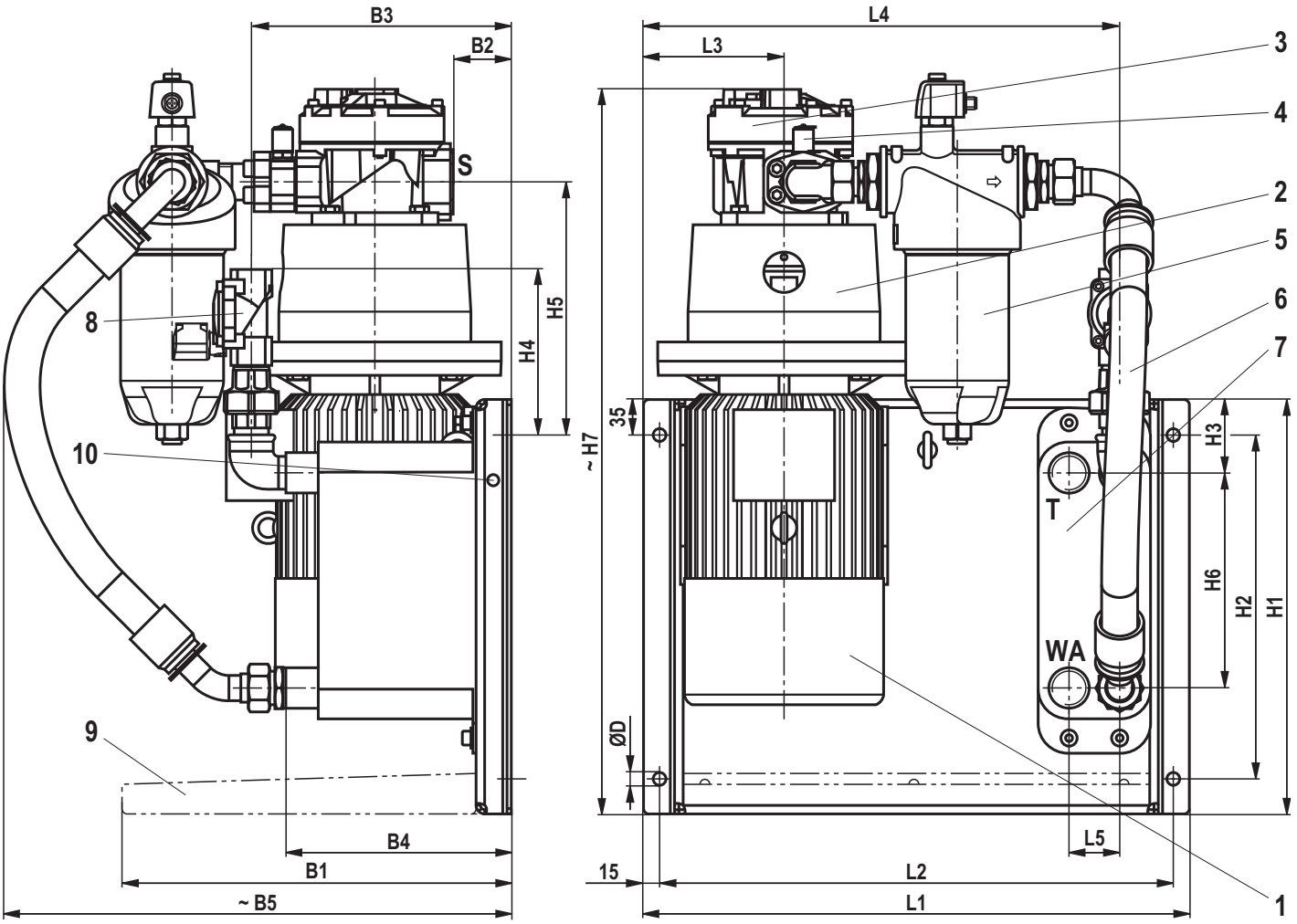
Cooling power in kW	Dimensions																	
	L1	L2	L3	L4	L5	B1	B2	B3	B4	B5	H1	H2	H3	H4	H5	H6	H7	D1
4	510	480	129	441	50	385	81.5	118	87	300	410	340	72.5	146	205	213	700	12
7.5	510	480	129	441	50	385	81.5	122	111	350	410	340	72.5	146	209	213	700	12

Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

Dimensions: Type ABUKG-..K... base (dimensions in mm)



1 Electric motor
2 Pump carrier + coupling
3 Gerotor pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Oil pan (optional)
10 Equipotential bonding

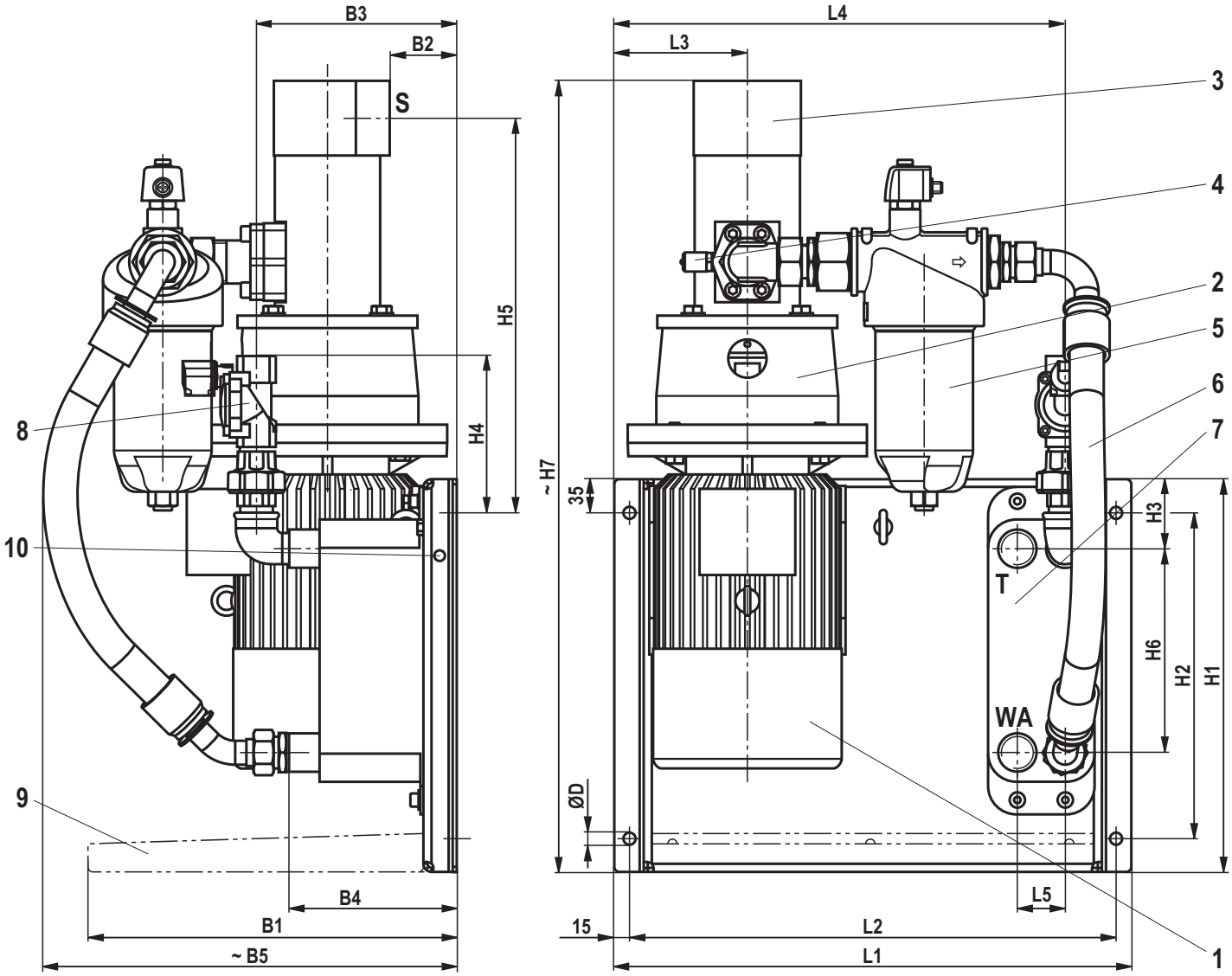
Cooling power in kW	Dimensions																	
	L1	L2	L3	L4	L5	B1	B2	B3	B4	B5	H1	H2	H3	H4	H5	H6	H7	D1
11	510	480	129	471	50	385	58	195	159	500	410	340	72.5	146	250.5	213	740	12
15	510	480	129	441	50	385	58	226	191	500	410	340	72.5	146	250.5	213	740	12
22	540	510	139	471	50	385	58	210	175	500	410	340	72.5	164	250.5	213	740	12
30	540	510	139	471	50	385	58	258	223	550	410	340	72.5	164	250.5	213	740	12
37	540	510	139	471	50	385	58	258	223	550	410	340	72.5	164	250.5	213	740	12
45	710	680	144	630	94	395	70	297	247	600	550	480	79	159	235.5	309	850	14
55	710	680	149	630	94	395	84	317	271	600	550	480	79	159	242.5	309	870	14
75	710	680	172	630	94	395	105	345	295	650	550	480	79	159	282.5	309	920	14

Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

Dimensions: Type ABUKG-..K... noise-optimized (dimensions in mm)



1 Electric motor
2 Pump carrier + coupling
3 Screw spindle pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Oil pan (optional)
10 Equipotential bonding

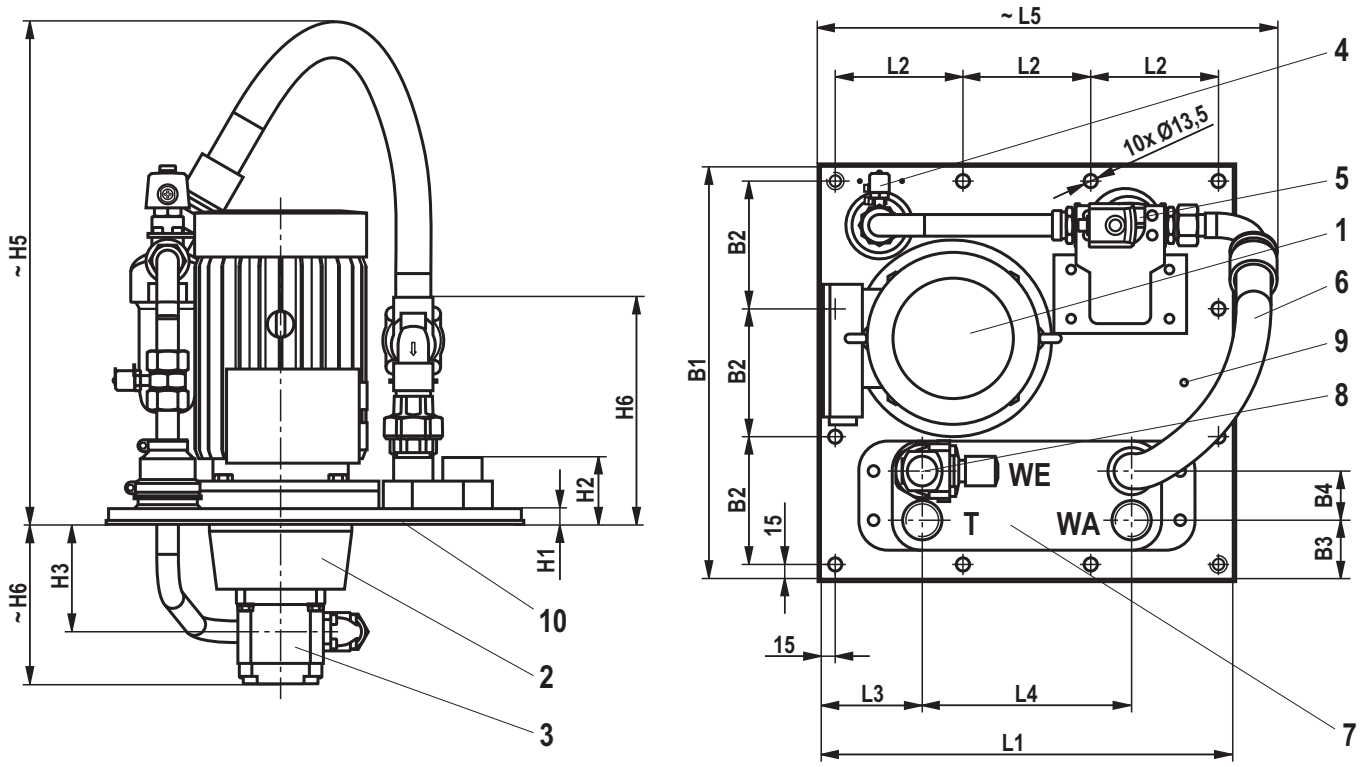
Cooling power in kW	Dimensions																	
	L1	L2	L3	L4	L5	B1	B2	B3	B4	B5	H1	H2	H3	H4	H5	H6	H7	D1
11	510	480	129	471	50	385	70	195	159	500	410	340	72.5	146	360	213	770	12
15	540	480	129	441	50	385	70	226	191	500	410	340	72.5	164	360	213	770	12
22	540	510	139	471	50	385	70	210	175	500	410	340	72.5	164	412.5	213	827	12
30	540	510	139	471	50	385	50	258	223	550	410	340	72.5	164	486.5	213	907	12
37	540	510	139	471	50	385	51.5	258	223	550	410	340	72.5	164	486	213	907	12
45	710	680	144	630	94	395	61.5	297	247	600	550	480	79	159	471	309	1032	14
55	710	680	149	630	94	395	73.5	317	271	600	550	480	79	159	478	309	1039	14
75	710	680	172	630	94	395	82	345	295	650	550	480	79	159	539.5	309	1007	14

Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

Dimensions: Type ABUKG-..V... 4 and 7.5 kW (dimensions in mm)



1 Electric motor
2 Pump carrier + coupling
3 Silence Plus pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Equipotential bonding
10 Cork seal according to AB03333

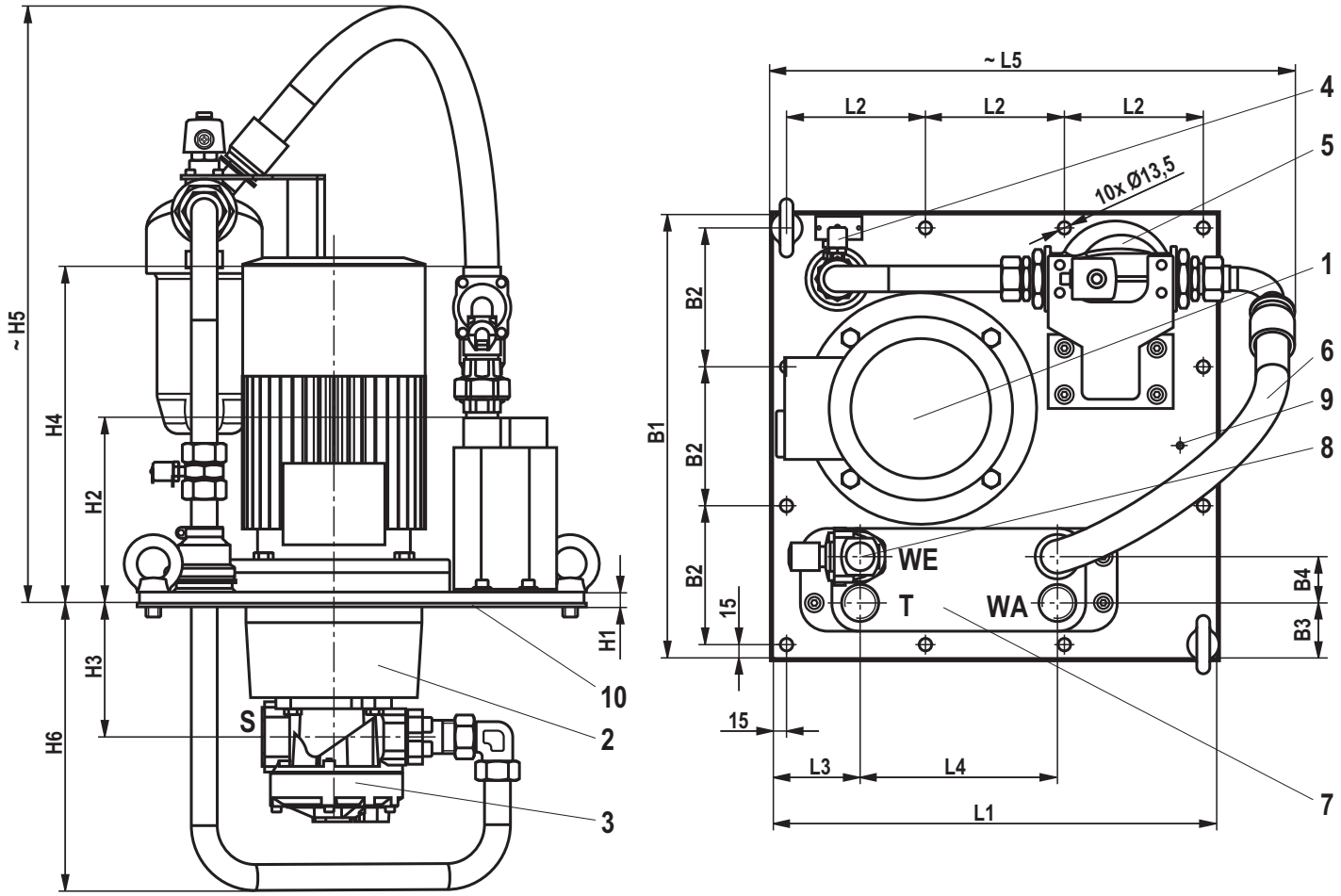
Cooling power in kW	Dimensions														
	L1	L2	L3	L4	L5	B1	B2	B3	B4	H1	H2	H3	H4	H5	H6
4	420	130	103.5	213	500	420	130	60	50	16	68	109.5	231	550	163
7.5	420	130	103.5	213	500	420	130	60	50	16	92	113.5	255	600	170

Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

Dimensions: Type ABUKG-..V... base (dimensions in mm)



1 Electric motor
2 Pump carrier + coupling
3 Gerotor pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Equipotential bonding
10 Cork seal according to AB03333

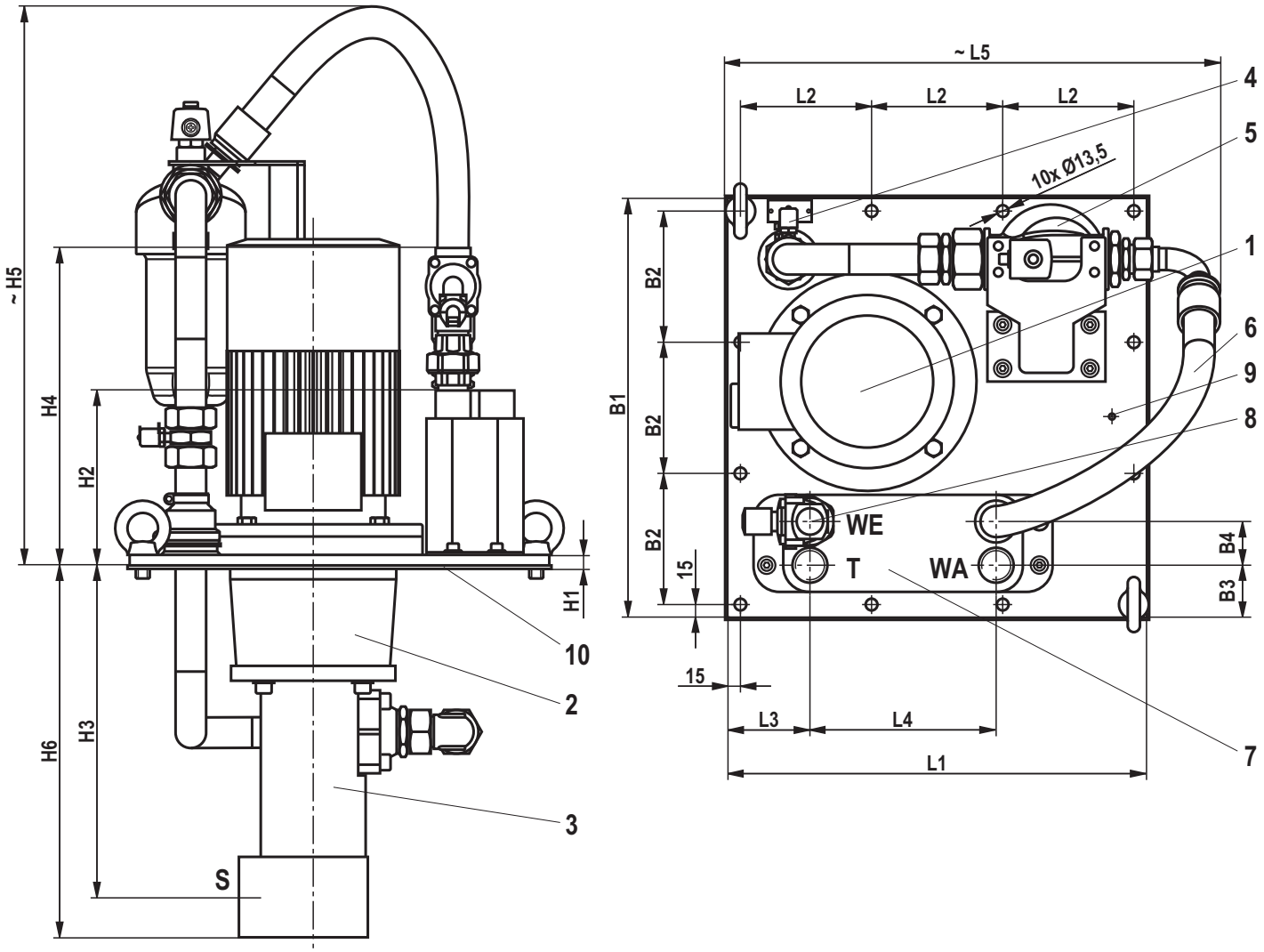
Cooling power in kW	Dimensions														
	L1	L2	L3	L4	L5	B1	B2	B3	B4	H1	H2	H3	H4	H5	H6
11	420	130	103.5	213	550	420	130	60	50	16	172	140.5	335	650	320
15	420	130	103.5	213	550	420	130	60	50	16	172	140.5	335	650	320
22	480	150	94.5	213	600	480	150	60	50	16	156	140.5	318	650	320
30	480	150	94.5	213	600	480	150	60	50	16	204	140.5	367	650	320
37	480	150	94.5	213	600	480	150	60	50	16	244	140.5	407	750	320
45	570	180	116	309	700	570	180	64	94	16	194	140.5	372	750	320
55	570	180	116	309	700	570	180	64	94	16	242	140.5	420	850	350
75	630	200	126	309	700	630	200	71	94	16	266	159.5	444	950	400

Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

Dimensions: Type ABUKG-..V... noise-optimized (dimensions in mm)

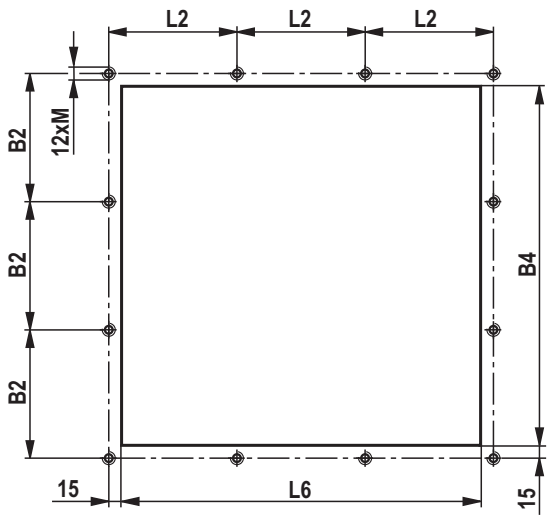


1 Electric motor
2 Pump carrier + coupling
3 Screw spindle pump
4 Pressure measuring port
5 Inline filter with maintenance indicator
6 Hose line
7 Oil-water heat exchanger
8 Electrically operated water valve
9 Equipotential bonding
10 Cork seal according to AB03333

Cooling power in kW	Dimensions														
	L1	L2	L3	L4	L5	B1	B2	B3	B4	H1	H2	H3	H4	H5	H6
11	420	130	103.5	213	550	420	130	60	50	16	172	260	335	650	294
15	420	130	103.5	213	550	420	130	60	50	16	172	260	335	650	294
22	480	150	94.5	213	600	480	150	60	50	16	156	302	318	650	341
30	480	150	94.5	213	600	480	150	60	50	16	204	376.5	367	650	421.5
37	480	150	94.5	213	600	480	150	60	50	16	244	376	407	750	421.5
45	570	180	116	309	700	570	180	64	94	16	194	376	372	750	421.5
55	570	180	116	309	700	570	180	64	94	16	242	376	420	850	421.5
75	630	200	126	309	700	630	200	71	94	16	266	419.5	444	950	469

Dimensions: Type ABUKG-..V... noise-optimized (dimensions in mm)

Recommended tank break-through for ABUKG-..V-...



Port sizes S, T, WE and WA see page 17 bottom.

Tolerances according to:

- General tolerances ISO 2768-mK
- Tolerancing principle ISO 8015

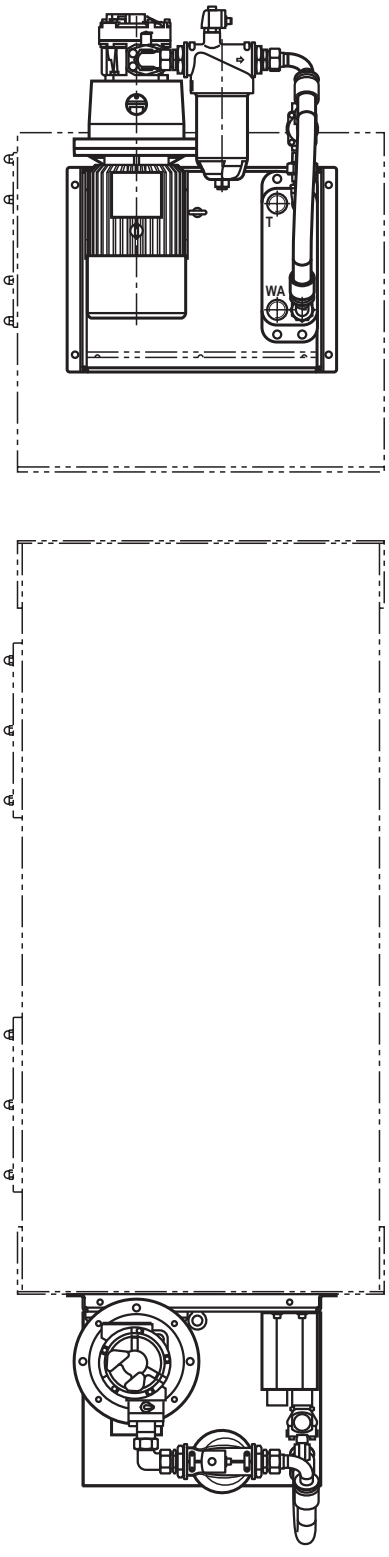
Cooling power in kW	Dimensions				
	L2	L6	B2	B5	M
4 / 7.5 / 11 / 15 [1]	130	360	130	360	M12
15 [2] **/ 22 / 30 / 37**	150	420	150	420	M12
45 / 55	180	510	180	510	M12
75	200	570	200	570	M12

[1] Noise-optimized

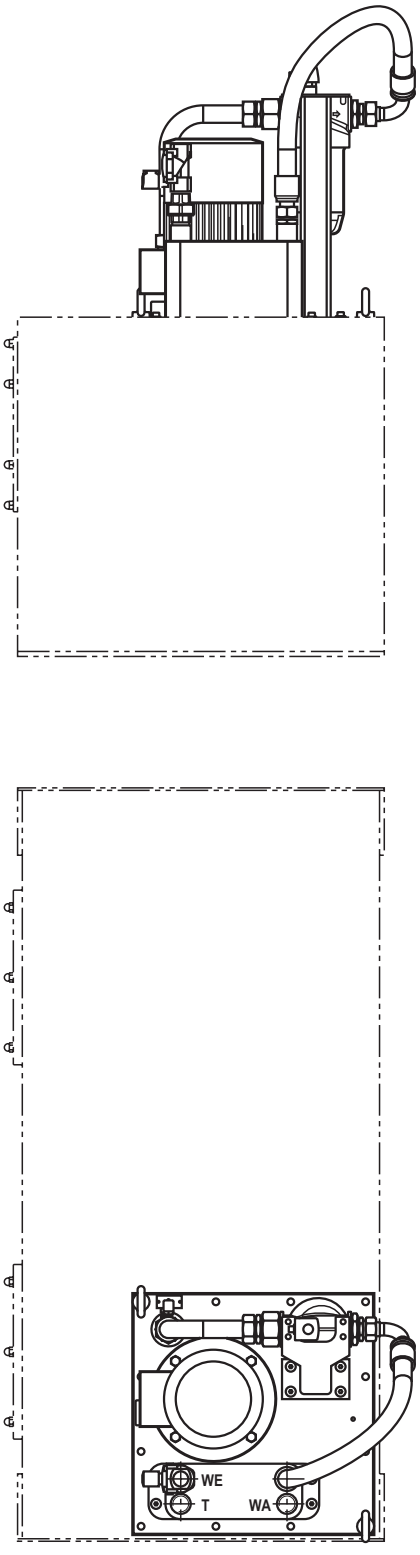
[2] Base

Mounting option

The filter cooler unit version **ABUKG-..K-...** is to **be mounted preferably to the side** of a hydraulic tank.
It may also be mounted separately.



The filter cooler unit version **ABUKG-..V-...** is to **be mounted preferably on top** of a hydraulic tank.
It cannot be mounted separately without an appropriate bracket.

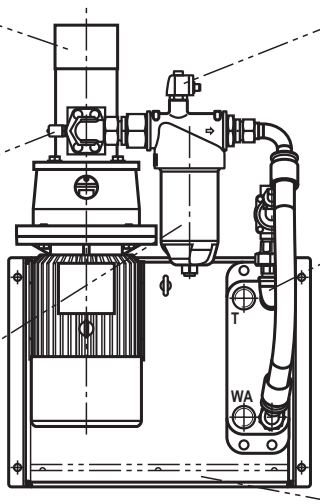


Optional accessories and spare parts

Suction port
Flange connections for suction line
(see page 18)

Measuring port
Pressure gauge data sheet 50205
DC-FS measurement technology data sheet 51501

Filters and filter elements
(included in the scope of delivery)
Data sheet 51447



Maintenance indicator
Electronic switching element
Data sheet 51450 (included in the scope of delivery)
Mating connectors data sheet 08006

Water on
Pressure gauge data sheet 50205
DC-FS measurement technology data sheet 51501
Isolator valve data sheet 50235
(included in the scope of delivery)
Dirt trap AB 42-25

Oil pan

4 - 15 [1] kW	R901343957
15 [2] - 37 kW	R901343958
45 - 75 kW	R901343959

Port sizes for flanges and fittings

Cooling power in kW	Type ABUKG-.. base				Type ABUKG-.. noise-optimized			
	Suction port S	Oil outlet T	Water on WE	Water off WA	Suction port S	Oil outlet T	Water on WE	Water off WA
4	–	–	–	–	Square flange 20X40 M6x13	G1	G1	G1
7.5	–	–	–	–				
11	SAE 1 1/2"	G1	G1	G1	SAE 1 1/4"			
15								
22					SAE 1 1/2"			
30					SAE 2"			
37								
45		G1 1/2	G1 1/2	G1 1/2		G1 1/2	G1 1/2	G1 1/2
55	SAE 2"							
75					SAE 2 1/2"			

[1] Noise-optimized

[2] Base

Flange connections for suction line (dimensions in mm)

Figure 1

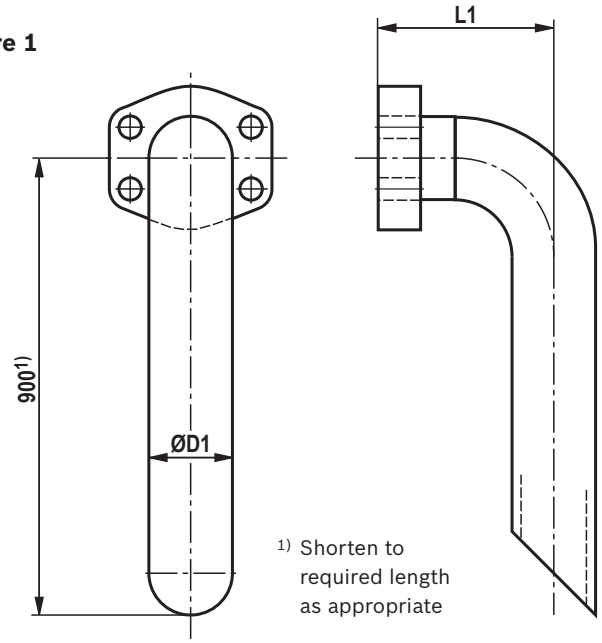


Figure 2

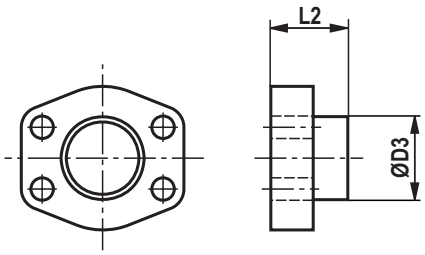
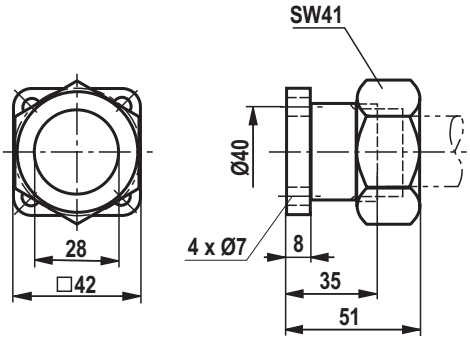


Figure 3



ABUKG-..K-...

Cooling power in kW	Base			Noise-optimized			Figure
	Material no.	L1	ØD1	Material no.	L1	ØD1	
4	R900323237	–	–	–			3
7.5							
11	R900026561	103.5	48.3	R900722888	100	42	1
15							
22				R900026561	103.5	48.3	
30				R900026562	123	60.3	
37							
45							
55	R900026562	123	60.3				
75				R900026563	147	76.1	

ABUKG-..V-...

Cooling power in kW	Base			Noise-optimized			Figure
	Material no.	L2	ØD2	Material no.	L2	ØD2	
4	R900323237	–		–			3
7.5							
11	R900013501	57	42	R900012341	41	42	2
15							
22				R900013501	57	42	
30				R901013502	42	60.3	
37							
45							
55	R900013502	42	60.3				
75				R901013503	50	77	

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