

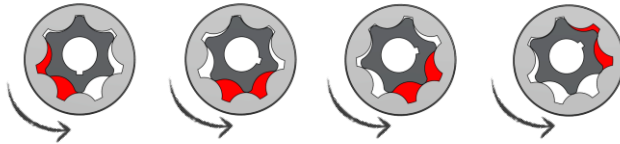
Fluid Controls

Gerotor Pump Unit Generation 2
(Bypass)

**be different.
make a difference.**

Design

The **asa Gerotor Pump Generation 2** is a compact, high-performance, constant-displacement pump that provides offline hydraulic circuits with low-pulsation flows of up to 105 liters per minute. Its modular design ensures maximum flexibility for specific applications while providing the benefits of a standardized product. With an aluminum housing, steel shaft, and NBR seals, the pump is optimized for use in lubrication, cooling, filtration, and general oil supply systems.



Advantages

- **Modular design**
Our pump design uses the same housing across all five sizes, from the smallest to the largest model. This ensures high reliability and offers one of the most economical solutions on the market. Low-noise operation and ease of connection make the asa Gerotor Pump Generation 2 an optimal choice for a highly flexible and reliable circulation supply.
- **Configuration**
Our motor / pump units are pre-engineered assemblies based on best-practice configurations. They consist of a configured gerotor pump, bell housing, mounting feet, flexible coupling and electric motor. The high-quality components are in line with the pump concept. The motor/pump unit can be used as autonomous circulation power pack. Saving space and highest cost efficiency are the most important characteristics for the available configurations.
- **Cleanliness**
Component cleanliness is critical for hydraulic system reliability and service life. Internal cleanliness levels are controlled to the highest quality standards, exceeding common industry requirements. This reduces wear and lowers maintenance costs.
- **Bypass options**
An internal bypass valve is included as standard to protect the pump and downstream components against overpressure. An optional external bypass maintains constant flow under overpressure conditions to ensure proper lubrication and cooling.
- **asa rail system**
Connectors of the **asa** rail system can be used as an alternative to the conventional SAE 1 ¼" outlet connection. They can be rotated into four different positions and provide an additional G ½" port for monitoring or other functions. An optional spin-on filter can be mounted on the outlet in combination with the hydraulic rail system (see below).
- **Filter**
Filtration is critical for hydraulic system reliability. Finer filtration improves fluid cleanliness, reduces wear, and extends service life. Depending on system requirements and flow rate, various filter options are available.

Validation plan:

- ✓ Gerotor pump test
- ✓ Salt spray chamber according DIN EN ISO 9227
- ✓ Sound Power Measurement according to DIN EN ISO 9614-2
- ✓ Vibration test acc. IEC 60068-2-6/64 and combined climate test bench ICE 60068-2-14

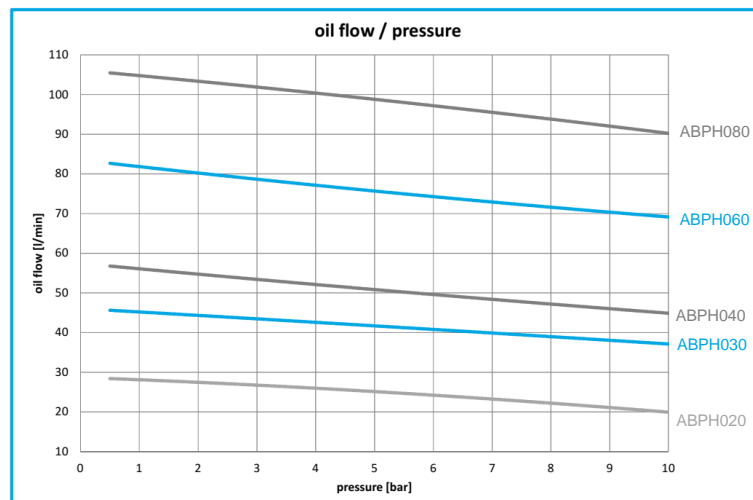
Applications



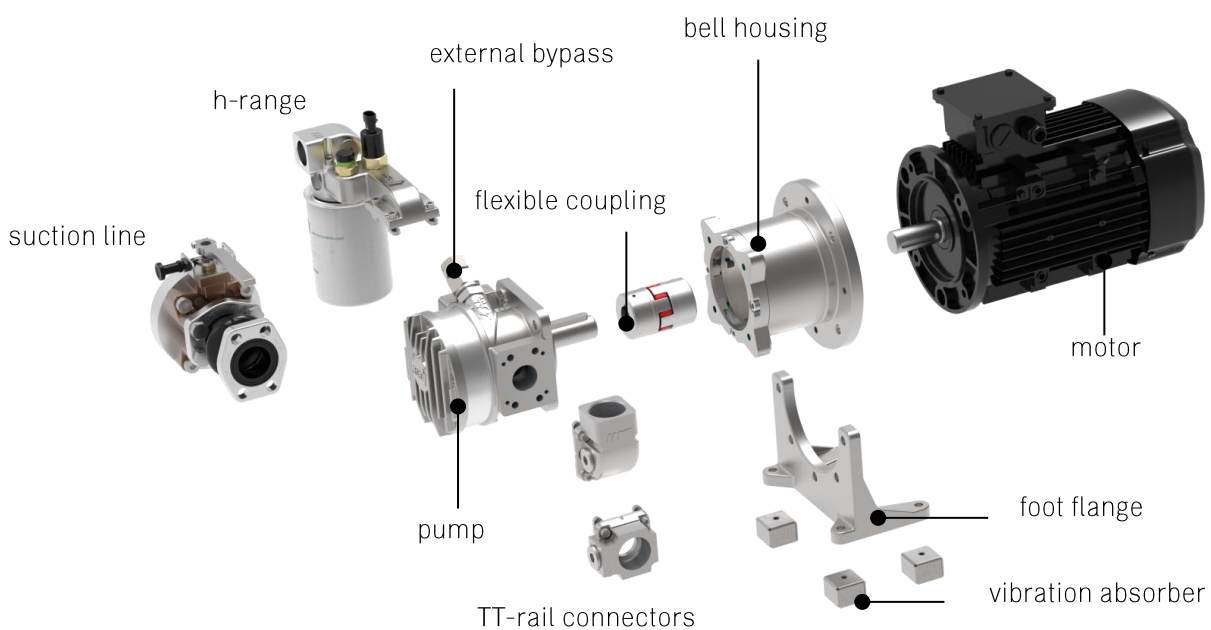
General Data

working pressure range	(relative)
suction side	-0,4 to 0 bar
pressure side	0 to 10 bar
displacement	20 to 80 cm ³
max. kinematic viscosity:	up to 500 mm ² /s
oil temperature range	-20°C to +80°C
ambient working temperature range	-20°C to +80°C
compatible media	any mineral oil acc. DIN 51524
pump housing and cover	aluminium
shaft	steel
gerotor	steel
sealings	NBR
centering plate	aluminium
flexible coupling	aluminium/polyurethan
bell housing	aluminium
feet	aluminium

Pump Characteristic



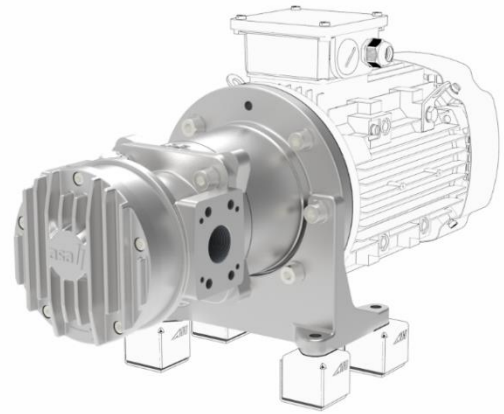
Measured on the **asa** pump test bench at 1450rpm and a viscosity 46 mm²/s



Systems

Pumpe & Bell Housing

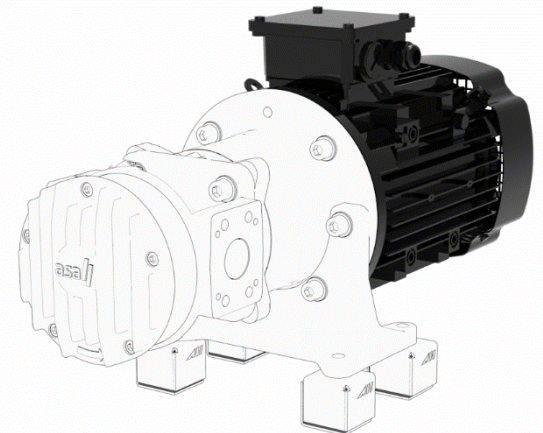
Motor flange and feet	
Pump with bell housing and foot flange	article number to be announced, for other motors on request



Motor

Our motor / pump units are pre-engineered assemblies based on best-practice configurations. They consist of a configured Gerotor Pump, bell housing, mounting feet, flexible coupling, and electric motor.

Motor – pump - unit	
motor power	1,10 kW, 6 pole
50Hz, 230/400V	1,50 kW, 6-pole / 4-pole
IP 55	2,20 kW, 6-pole / 4-pole
IE3	3,00 kW, 4-pole
	4,00 kW, 4-pole



Contact us for complete data sheet

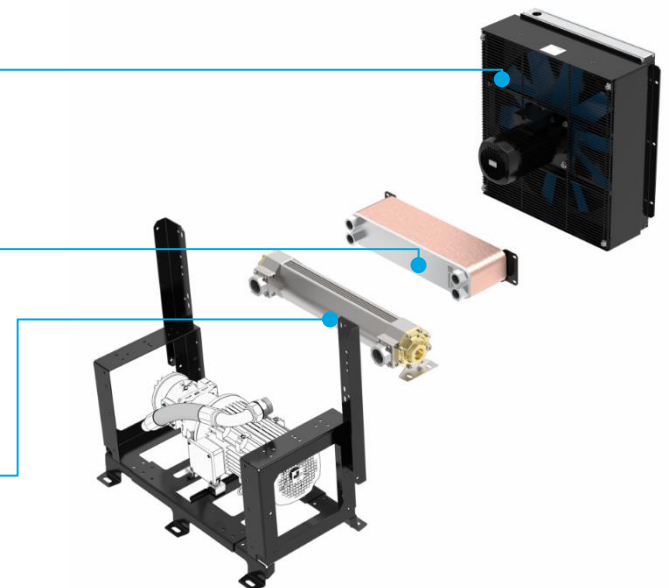
Modular Cooling Unit

These modular cooling units provide a compact, offline cooling solution, combining high-performance pumps and heat exchangers within an adjustable steel frame.

Air cooled range	
1T-Line	spec. cooling power
ILL1TMP25....	0,67 kW/°C
ILL1TMP36....	0,77 kW/°C

Water cooled range	
PHE series	spec. cooling power
ILWPLMP45....	1,43 kW/°C
ILWPLMP53....	1,14 kW/°C
ILWPLMP65....	1,42 kW/°C
ILWPLMP70....	1,21 kW/°C

Water cooled range	
Shell & Tube serie	spec. cooling power
ILWSTMP03....	1,45 kW/°C
ILWSTMP05....	1,92 kW/°C



Contact us for the complete datasheet

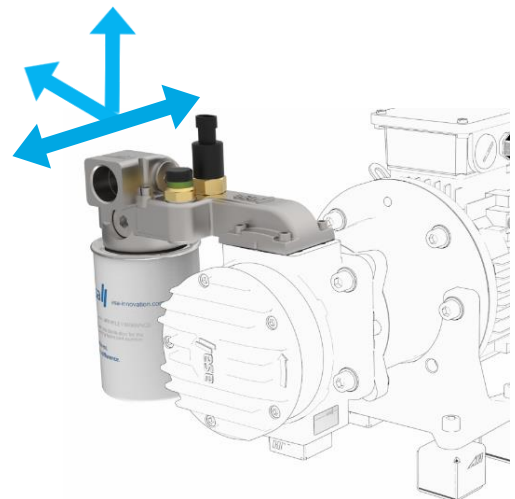
Montage

Filtration

We offer an optional spin on filter kit to mount on the outlet port in combination with our hydraulic rail connection system, see below.

Spin on filter kit	ILLZRF
BSP ¾"	ILLZRF11G2010 (10µm, 60lpm)
BSP ¾"	ILLZRF11G2025 (25µm, 60lpm)
	ILLZRF12G2010 (10µm, 100lpm)
	ILLZRF12G2025 (25µm, 100lpm)
clogging indicator	electric, optical
temperature switches	ILLZTH5069K, ILLZTH4765K ILLZTH6065K
90° rail connector BSP 1"	ILLZATT53G25
straight rail connector BSP 1"	ILLZATTS1G25
90° rail connector BSP 1 ¼"	ILLZATT53G32

Contact us for the complete datasheet

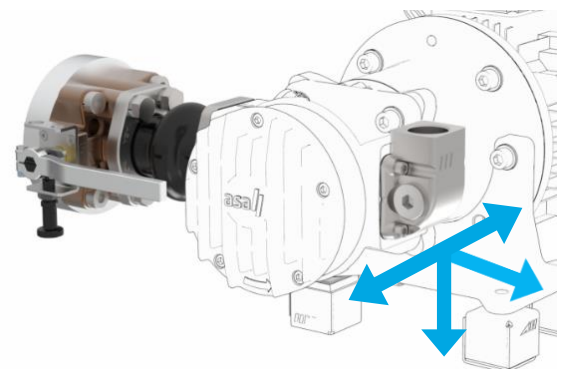


Port / Tank connection

For the suction side, a flexible rubber compensator with SAE flanges can be selected from our connection technology program. For the outlet port, any of our rail connectors can be used, with the option to rotate the port direction as indicated as indicated in the depiction to the right.

Inlet port	
SAE rubber compensator NBR/CR, NG 40, SAE 1 ½"	
order number:	SDKSS040
or suction unit order number	SDAK0040
Outlet Port	
optional rail connector order numbers	
90° rail connector BSP 1"	ILLZATT53G25
straight rail connector BSP 1"	ILLZATTS1G25
90° rail connector BSP 1 ¼"	ILLZATT53G32

Contact us for the complete datasheet

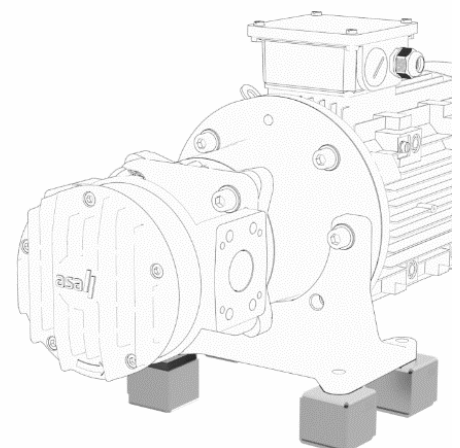


Absorber-Silence

Using our patented vibration absorbers extends the lifetime of the pump unit. The unique design has highest capabilities with higher vulcanization surface than conventional products. The shear load capabilities can be maximized by the given arrow system on the product.

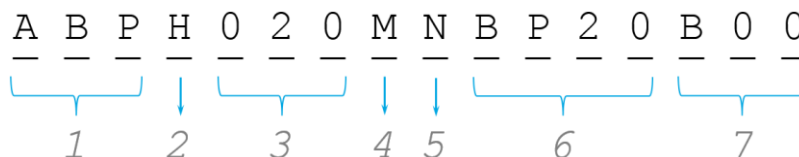
Vibration absorber	
50x50x45mm absorber with M10 threads.	
order number	MDGQ504510IIK

Contact us for the complete data sheet



Pump

Order Code



1 Product Category

ABP Pumps

2 Product Series

H Gerotor Generation 2 for hydraulic use

3 Pump Displacement

nominal	Displ./rotation
O20	20 cm ³
O30	32 cm ³
O40	40 cm ³
O60	60 cm ³
O80	80 cm ³

4 Type of Connection

M metric 4-hole / ISO 3019-2

Z SAE B-B 4- hole / SAE J744

5 Sealing Material

N NBR

6 Bypass Options

BP20	internal 2 bar relief valve
BP60	internal 6 bar relief valve
BP99	internal 10 bar relief valve (standard)
EB60	external 6 bar relief valve

7 Index / Customized

B00 special / customized specifications; to be advised by asa

General Data

max. outlet pressure:	10 bar (relative)
max. kinematic viscosity:	up to 500 mm ² /s *)
oil temperature range	-20°C to +80°C
ambient working temperature range	-20°C to +80°C **)
compatible media	any mineral oil acc. DIN 51524

*) depending on motor power

**)...consider the maximum ambient temperature of the used electric motor

Materials

housing and cover	aluminium
shaft	steel
gerotor	steel
sealings	NBR
centering plate	aluminium

Technical Data

order number	description	displacement	oil flow ¹⁾	min. required motor power ²⁾
		[cm ³ /rotation]	[l/min]	[kW]
ABPH020MNB P99	Gerotor pump 2, 20cm ³ , metric, bypass 10 bar	20	29	1,1
ABPH030MNB P99	Gerotor pump 2, 32cm ³ , metric, bypass 10 bar	32	47	1,1
ABPH040MNB P99	Gerotor pump 2, 40cm ³ , metric, bypass 10 bar	40	58	1,5
ABPH060MNB P99	Gerotor pump 2, 60cm ³ , metric, bypass 10 bar	60	87	1,5
ABPH080MNB P99	Gerotor pump 2, 80cm ³ , metric, bypass 10 bar	80	110	1,5

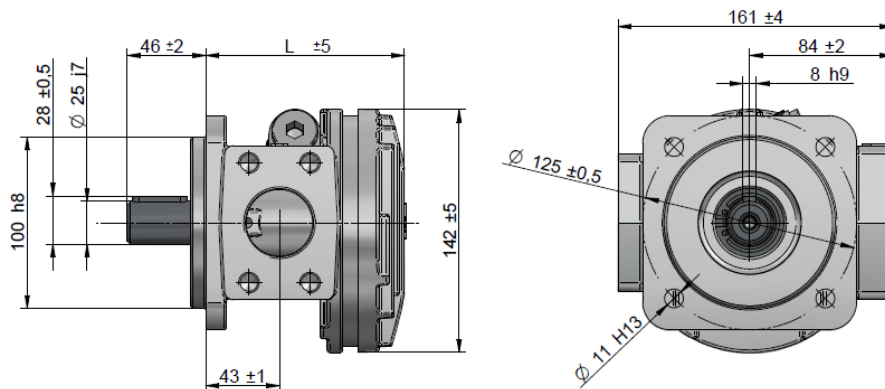
¹⁾...measured at rotation of 1450rpm, pressure 0,5bar and viscosity of 46mm²/s / for 60Hz oil flow values to be multiplied by 1,2

²⁾...check page 6 for max.pressure and viscosity

Pump

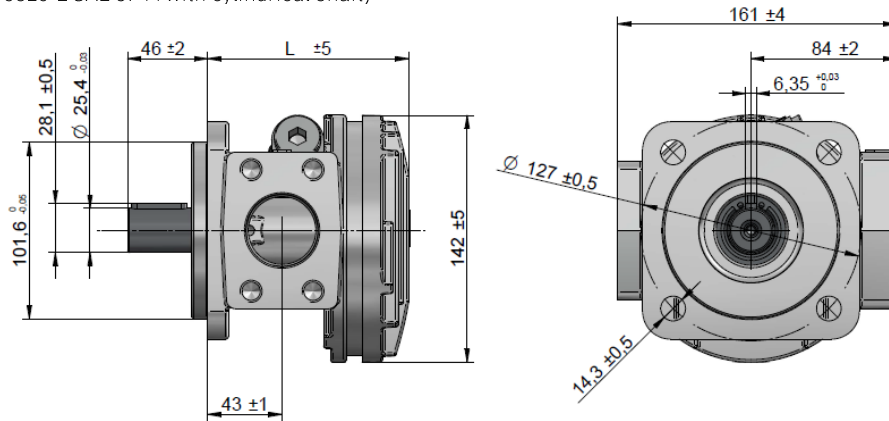
Metric version

(4-hole flange acc. ISO 3019-2 100B4HW with cylindrical shaft)



SAE version

(4-hole flange acc. ISO 3019-1 SAE J744 with cylindrical shaft)

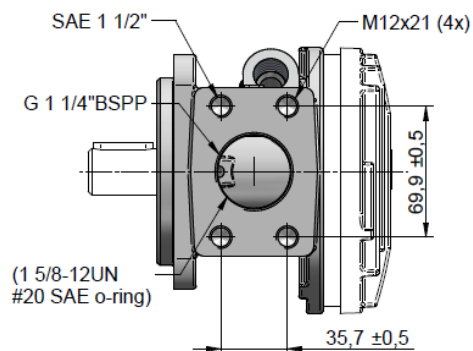


Dimensions

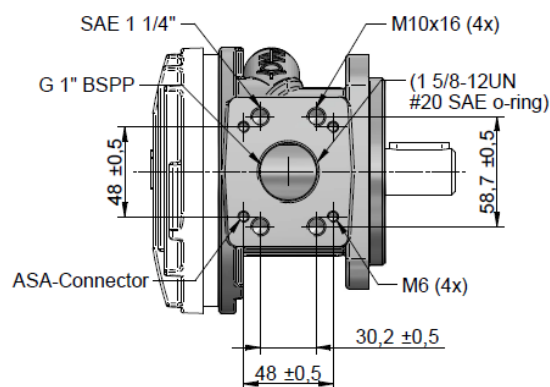
Nominal size	L [mm]	weight [kg]
20	117	4,3
30	124	4,8
40	128	5,1
60	139	6,0
80	150	7,0

Hydraulic connection

Inlet Port



Outlet Port



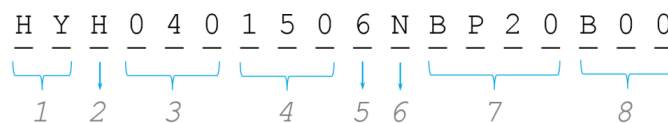
Fluid Controls

Gerotor Pump Generation 2

Motor / Pump Unit



Order Code



1 Product Category

HY	motor/pump unit
----	-----------------

2 Product Series

H	gerotor generation 2 for hydraulic use
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3 Pump Displacement

nominal	Displ./rotation
O20	20 cm ³
O30	32 cm ³
O40	40 cm ³
O60	60 cm ³
O80	80 cm ³

4 Motor power

110	1,10 kW	6-pole motor
150	1,50 kW	6-pole / 4-pole motor
220	2,20 kW	6-pole / 4-pole motor
300	3,00 kW	4-pole motor
400	4,00 kW	4-pole motor

5 No. of Poles

4	4-pole motor
6	6-pole motor

6 Sealing Material

N	NBR
---	-----

7 Bypass Options

BP20	internal 2 bar relief valve
BP60	internal 6 bar relief valve
BP99	internal 10 bar relief valve (standard)
EB60	External 6 bar relief valve

8 Index / Customized

B00	special / customized specifications; to be advised by asa
-----	---

General Data

frequency	50Hz
voltage	230/400V
protection	IP 55
efficiency electric motor	IE3
ambient working temperature range	-15°C to +40°C
max. oil temperature	80°C
compatible media	mineral oil acc . DIN51524

Materials

pump	aluminium
flexible coupling	aluminium/polyurethan
bell housing	aluminium
feet	aluminium

Technical Data

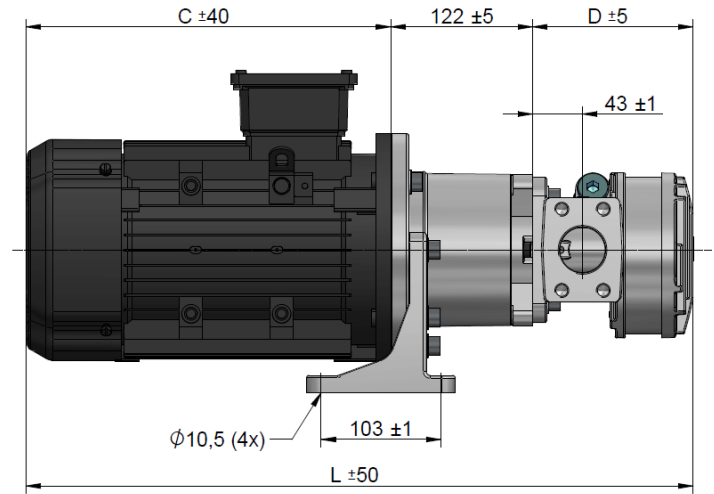
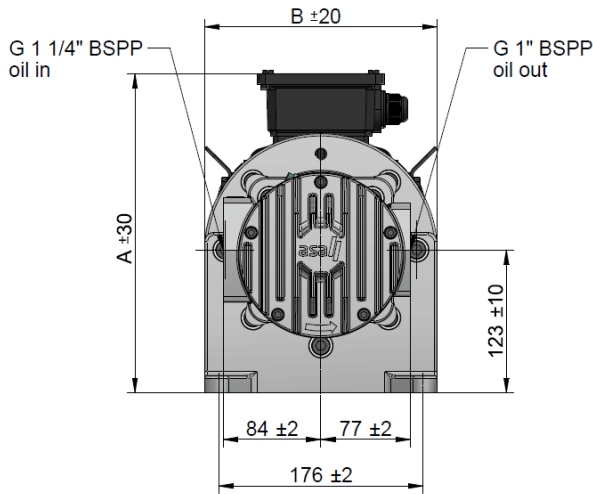
order number	description	motor power	motor size	poles	oil flow	max. pressure	max. viscosity	noise level *)
		[kW]	IEC		[lpm]	[bar]	[cSt]	[dB(A)]
HYH0201106NBP99	Gero pump unit 50Hz 20cm ³ 1,1kW 6-pol. BP	1,10	90L	6	18	8	150	58
HYH0201506NBP99	Gero pump unit 50Hz 20cm ³ 1,5kW 6-pol. BP	1,50	100L	6	18	8	250	58
HYH0201504NBP99	Gero pump unit 50Hz 20cm ³ 1,5kW 4-pol. BP	1,50	90L	4	28	10	250	58
HYH0202204NBP99	Gero pump unit 50Hz 20cm ³ 2,2kW 4-pol. BP	2,20	100L	4	28	10	500	58
HYH0301106NBP99	Gero pump unit 50Hz 30cm ³ 1,1kW 6-pol. BP	1,10	90L	6	29	8	150	60
HYH0301506NBP99	Gero pump unit 50Hz 30cm ³ 1,5kW 6-pol. BP	1,50	100L	6	29	8	250	60
HYH0301504NBP99	Gero pump unit 50Hz 30cm ³ 1,5kW 4-pol. BP	1,50	90L	4	44	10	250	60
HYH0302204NBP99	Gero pump unit 50Hz 30cm ³ 2,2kW 4-pol. BP	2,20	100L	4	44	10	500	60
HYH0401106NBP99	Gero pump unit 50Hz 40cm ³ 1,1kW 6-pol. BP	1,10	100L	6	35	8	150	61
HYH0401506NBP99	Gero pump unit 50Hz 40cm ³ 1,5kW 6-pol. BP	1,50	100L	6	35	8	250	61
HYH0402204NBP99	Gero pump unit 50Hz 40cm ³ 2,2kW 4-pol. BP	2,20	100L	4	54	10	250	61
HYH0403004NBP99	Gero pump unit 50Hz 40cm ³ 3,0kW 4-pol. BP	3,00	100L	4	54	10	500	61
HYH0601506NBP99	Gero pump unit 50Hz 60cm ³ 1,5kW 6-pol. BP	1,50	100L	6	52	8	150	62
HYH0602206NBP99	Gero pump unit 50Hz 60cm ³ 2,2kW 6-pol. BP	2,20	112M	6	52	8	250	62
HYH0602204NBP99	Gero pump unit 50Hz 60cm ³ 2,2kW 4-pol. BP	2,20	100L	4	80	10	150	62
HYH0603004NBP99	Gero pump unit 50Hz 60cm ³ 3,0kW 4-pol. BP	3,00	100L	4	80	10	250	62
HYH0604004NBP99	Gero pump unit 50Hz 60cm ³ 4,0kW 4-pol. BP	4,00	112M	4	80	10	500	62
HYH0801506NBP99	Gero pump unit 50Hz 80cm ³ 1,5kW 6-pol. BP	1,50	100L	6	69	8	150	63
HYH0802206NBP99	Gero pump unit 50Hz 80cm ³ 2,2kW 6-pol. BP	2,20	112M	6	69	8	250	63
HYH0802204NBP99	Gero pump unit 50Hz 80cm ³ 2,2kW 4-pol. BP	2,20	100L	4	105	10	150	63
HYH0803004NBP99	Gero pump unit 50Hz 80cm ³ 3,0kW 4-pol. BP	3,00	100L	4	105	10	250	63
HYH0804004NBP99	Gero pump unit 50Hz 80cm ³ 4,0kW 4-pol. BP	4,00	112M	4	105	10	500	63

*) Values measured at 5bar, sound pressure level also depends on the electric motor.

Fluid Controls

Gerotor Pump Generation 2

Motor / Pump Unit



Dimensions

order number	description	A	B	C *	D	L	weight
		[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
HYH0201106NBP99	Gero pump unit 50Hz 20cm ³ 1,1kW 6-pol. BP	265	200	270	117	509	25
HYH0201506NBP99	Gero pump unit 50Hz 20cm ³ 1,5kW 6-pol. BP	282	200	335	117	573	36
HYH0201504NBP99	Gero pump unit 50Hz 20cm ³ 1,5kW 4-pol. BP	265	200	295	117	533	26
HYH0202204NBP99	Gero pump unit 50Hz 20cm ³ 2,2kW 4-pol. BP	277	200	315	117	553	25
HYH0301106NBP99	Gero pump unit 50Hz 30cm ³ 1,1kW 6-pol. BP	265	200	270	124	515	25
HYH0301506NBP99	Gero pump unit 50Hz 30cm ³ 1,5kW 6-pol. BP	282	200	335	124	580	37
HYH0301504NBP99	Gero pump unit 50Hz 30cm ³ 1,5kW 4-pol. BP	265	200	295	124	540	26
HYH0302204NBP99	Gero pump unit 50Hz 30cm ³ 2,2kW 4-pol. BP	277	200	315	124	560	30
HYH0401106NBP99	Gero pump unit 50Hz 40cm ³ 1,1kW 6-pol. BP	265	200	270	128	520	26
HYH0401506NBP99	Gero pump unit 50Hz 40cm ³ 1,5kW 6-pol. BP	282	200	335	128	585	37
HYH0402204NBP99	Gero pump unit 50Hz 40cm ³ 2,2kW 4-pol. BP	277	200	315	128	565	30
HYH0403004NBP99	Gero pump unit 50Hz 40cm ³ 3,0kW 4-pol. BP	282	200	335	128	585	33
HYH0601506NBP99	Gero pump unit 50Hz 60cm ³ 1,5kW 6-pol. BP	282	200	335	139	595	38
HYH0602206NBP99	Gero pump unit 50Hz 60cm ³ 2,2kW 6-pol. BP	300	230	335	139	595	40
HYH0602204NBP99	Gero pump unit 50Hz 60cm ³ 2,2kW 4-pol. BP	277	200	315	139	575	31
HYH0603004NBP99	Gero pump unit 50Hz 60cm ³ 3,0kW 4-pol. BP	282	200	335	139	595	34
HYH0604004NBP99	Gero pump unit 50Hz 60cm ³ 4,0kW 4-pol. BP	300	230	335	139	595	45
HYH0801506NBP99	Gero pump unit 50Hz 80cm ³ 1,5kW 6-pol. BP	282	200	335	150	605	39
HYH0802206NBP99	Gero pump unit 50Hz 80cm ³ 2,2kW 6-pol. BP	300	230	335	150	605	41
HYH0802204NBP99	Gero pump unit 50Hz 80cm ³ 2,2kW 4-pol. BP	277	200	314	150	585	32
HYH0803004NBP99	Gero pump unit 50Hz 80cm ³ 3,0kW 4-pol. BP	282	200	335	150	606	35
HYH0804004NBP99	Gero pump unit 50Hz 80cm ³ 4,0kW 4-pol. BP	300	230	335	150	606	46

*...depending engine type



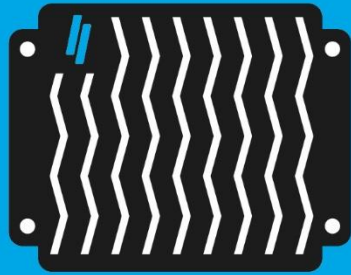
Company

asa stands for innovations and reliable solutions that are already being used by our customers in various mobile and stationary applications. With over 40 years of experience in thermal systems, connection technology, and fluid control, we have become a global leader in advanced fluid power solutions. Our experience fosters progress to grant you competitive pricing, consistent product performance, and exceptional reliability.

History

1980-1990

- Hydraulic components distribution, service and system integration
- Manufacture of valves and components
- Heat exchanger Shell & Tube platform "Silver ST80"



Thermal Management Systems

Our heat exchangers are designed and produced with an innovative spirit and a passion for technology, ensuring highest performance and quality.

- Bar & Plate: oil and water/glycol coolers
- Tube & Fin: coolant cooler, silent pump, electronics cooler
- Shell & Tube

1990 - 2000

- Specializing on heat exchanger market
- Manufacture first modular cooler system in plate & bar "OKO" (2 brazing lines)
- Foundation of asa hydraulic of America Inc./ USA



Ventilation & Drive

We offer a broad range of ventilation solutions. The installation space influences the choice of the most suitable airflow technology, thus ensuring the optimal configuration for volume flow, efficiency and noise reduction.

- Ventilation: adjustable fan blade systems
- Six phase sensorless VR-motor
- Electronic fan speed control, temperature control

2000 - 2010

- Foundation of asa Products Pty Ltd / Australia
- Foundation of asa Hydraulik Technology
- Patents:
 - AUC - 1st flexible connectors
 - ABP - 1st intergated bypass tube
 - ATT - asa extruded profil



Fluid Controls

The asa gerotor pumps meet the demands of modern fluid power systems, while our centrifugal water pump units are designed primarily to create compact, cost-efficient cooling circuits for electric devices, such as battery packs and electric motors.

- Gerotor pumps
- Centrifugal water pumps

2010 - 2020

- New R&D Center / Austria
- Manufacture of water/oil pumps
- Foundation of asa heat exchanger Pvt. Ltd / India
- Patents:
 - x-changer "Fusion of heat exchanger & ventilation"
 - Multiaxial silent absorber



Connection Technology

Our connection product collection fills technological gaps in various markets and applications.

- Silent absorbers
- Multi-axle vibration absorbers
- Expansion joints
- Hybrid SAE/DIN shut-off valves

2020 - today

- New technology of six phase sensorless
- VR-motors
- Manufacture ST heat exchanger
- Manufacture X wings (new lead fins)
- Foundation of asahydraulic do Brasil Pvt. Ltd /Brazil
- Patents:
 - META - microchannel with flexible lead fins
 - AHM - hybrid shell tube heat exchanger

discover reliable
technology!





**Thermal Systems
Connection Technology
Fluid Controls**



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