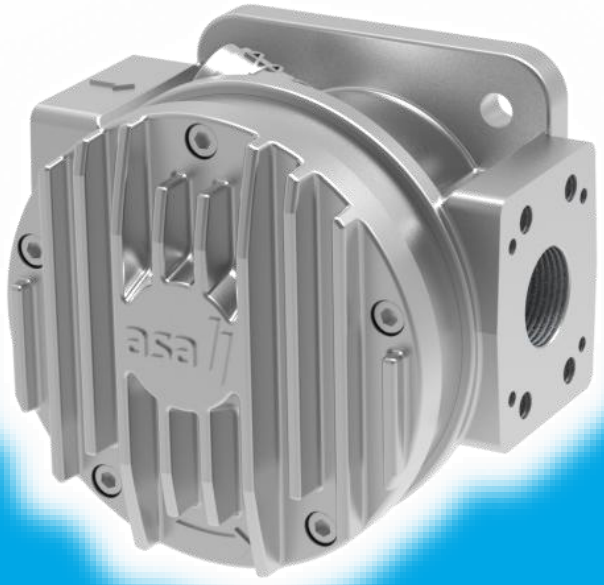


Fluid Controls

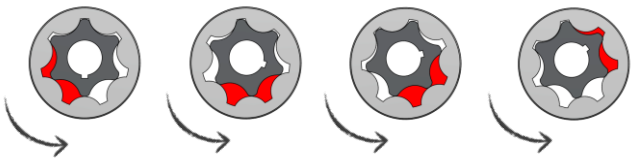
Gerotor Pump Generation 2 (Bypass)

be different.
make a difference.

Fluid Controls
Gerotor Pump Generation 2

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
One common housing across all five sizes, from the smallest to the largest model. This keeps the design reliable and cost-efficient, and makes the asa Gerotor Pump Generation 2 a flexible basis for circulation supply systems.

Operating characteristics
The single-axis design keeps the pump compact and easy to integrate. It delivers low-pulsation flow with low noise, and it is built for continuous duty with consistent performance over long operating hours. Designed for high-viscosity fluids up to 4630 SSU, it is particularly well suited for gearbox and transmission oil cooling.

Cleanliness and filtration
Internal cleanliness is controlled to quality standards above common industry requirements, which reduces wear and maintenance costs. Depending on system requirements and flow rate, various filter options are available. Finer filtration further improves fluid cleanliness and extends service life.

Bypass options
An internal bypass valve is standard and protects the pump and downstream components against overpressure. An optional external bypass maintains constant flow under overpressure to ensure proper lubrication and cooling.

asa rail system
An alternative to the conventional SAE 1 ¼" outlet connection. The connectors can be rotated into four 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 rail system.

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



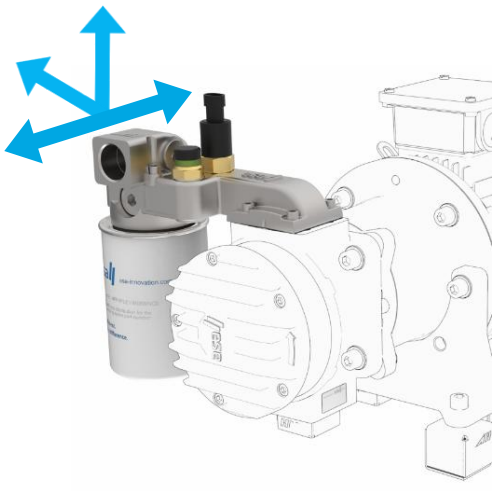
Fluid Controls
Gerotor Pump Generation 2

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
1" -12 UNF	ILLZRF11U1110U00 (10µm, 16gpm)
1" -12 UNF	ILLZRF11U1125U00 (25µm, 16glpm)
1" -12 UNF	ILLZRF12U1110U00 (10µm, 26gpm)
1" -12 UNF	ILLZRF12U1125U00 (25µm, 26gpm)
clogging indicator	electric, optical
temperature switches	ILLZTH5069KU00 ILLZTH4765KU00 ILLZTH6065KU00
90° rail connector 1" -5/16 UNF	ILLZATT53U16U00
straight rail connector SAE#16	ILLZATTS1U16U00
90° rail connector 1" -5/8 UNF	ILLZATT53U20U00

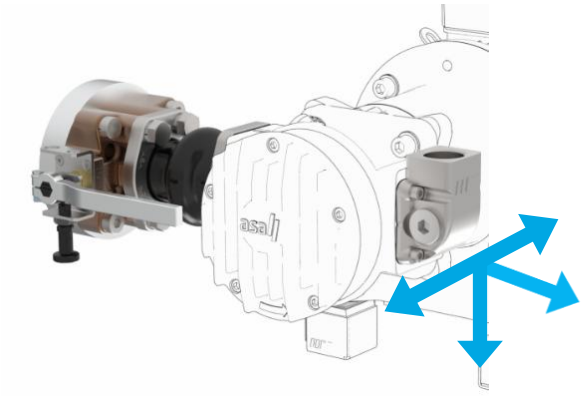
Contact us for complete data sheet



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:	SDKSS040U00
or suction unit order number	SDAK0040U00
Outlet Port	
optional rail connector order numbers	
90° rail connector 1" -5/16 UNF	ILLZATT53U16U00
straight rail connector SAE#16	ILLZATTS1U16U00
90° rail connector 1" -5/8 UNF	ILLZATT53U20U00

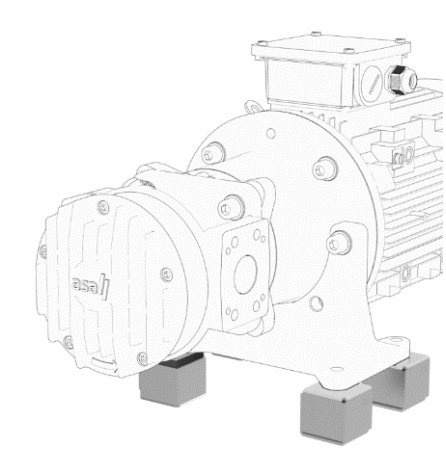
Contact us for complete data sheet



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

Vibration absorber	HYH…
50x50x45mm absorber with M10 threads	
order number 50x50x45 M10	MDGQ504510IIKU00

Contact us for complete data sheet



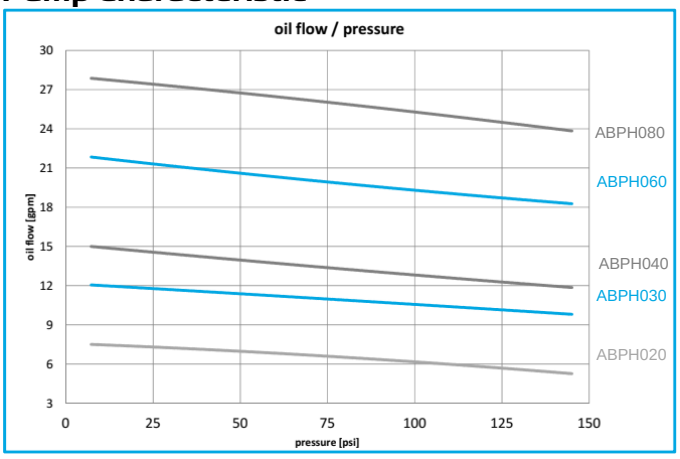
Fluid Controls
Gerotor Pump Generation 2

General Data

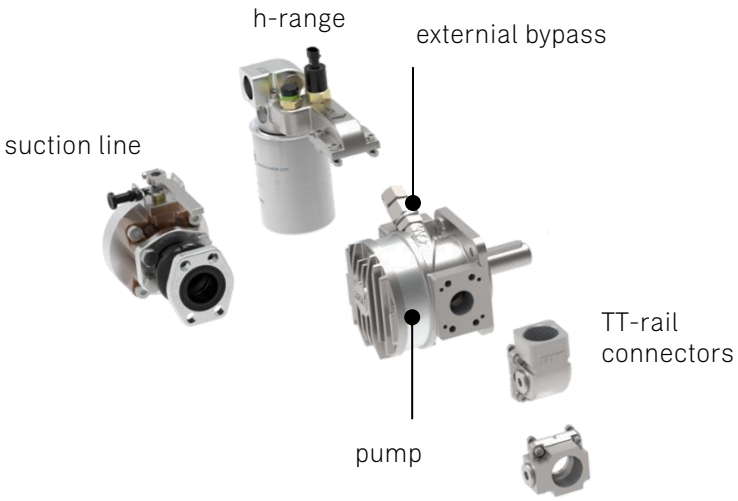
working pressure range	(relative)
suction side	-5.8 to 0 psi
pressure side	0 to 146 psi
displacement	1.22 to 4.88 in³
max. kinematic viscosity:	up to 4630 SSU (1,550 in²/s) *)
oil temperature range	-4°F to 176°F
ambient working temperature range	-4°F to 176°F **)
compatible media	any mineral oil acc. DIN 51524
housing and cover	aluminum
shaft	steel
gerotor	steel
sealings	NBR, Viton on request
centering plate	aluminum

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

Pump Characteristic



Measured on the *asa* pump test bench at 1450rpm and a viscosity 214SSU.



Pump Order Code

A B P H 0 2 0 Z N B P 2 0 U 0 0

1 2 3 4 5 6 7

1 Product Category

ABP	Pumps

2 Product Series

H	Gerotor Generation 2 for hydraulic use

3 Pump Displacement

nominal	Displ./rotation
020	1.22 in³
030	1.95 in³
040	2.44 in³
060	3.66 in³
080	4.88 in³

4 Type of Connection

Z	SAE B-B 4- hole / SAE J744
M	metric 4-hole / ISO 3019-2

5 Sealing Material

N	NBR
V	Viton (on request)

6 Bypass Options

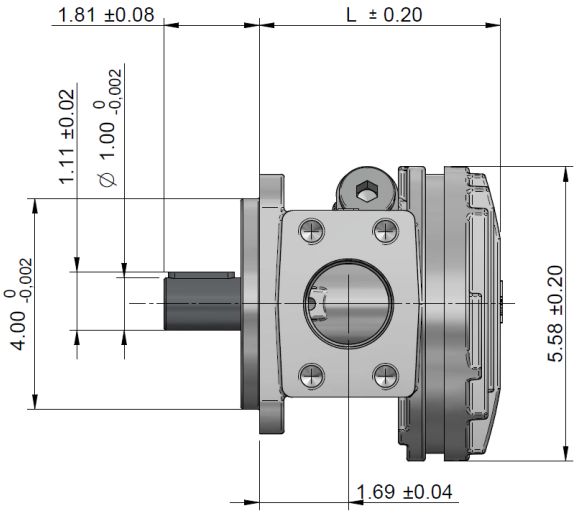
BP20	internal 29 PSI relief valve
BP60	internal 87 PSI relief valve
BP99	internal 145 PSI relief valve (standard)
EB60	external 87PSI relief valve

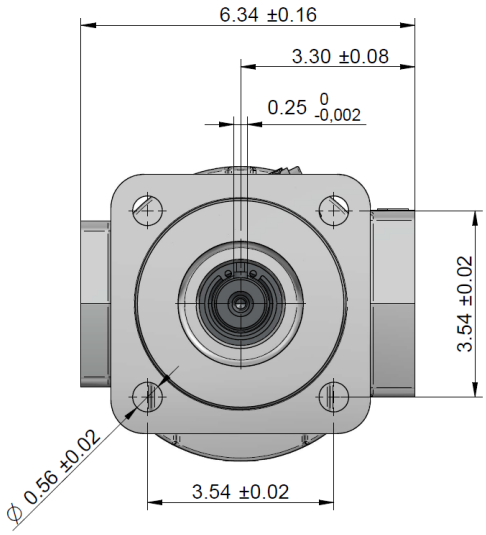
7 Index / Customized

U00	Standard US configuration
Uxx	special / customized specifications; to be advised by asa

Fluid Controls
Gerotor Pump Generation 2

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



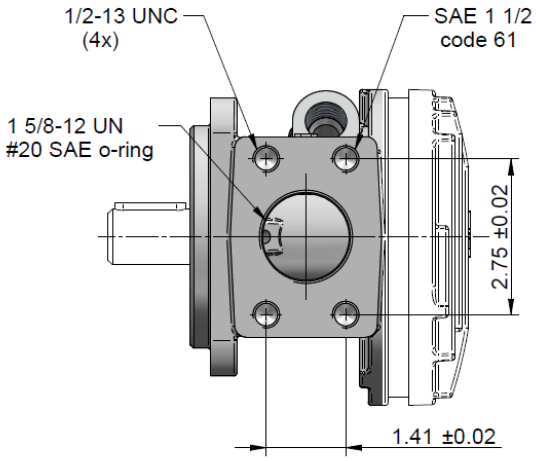


Dimensions

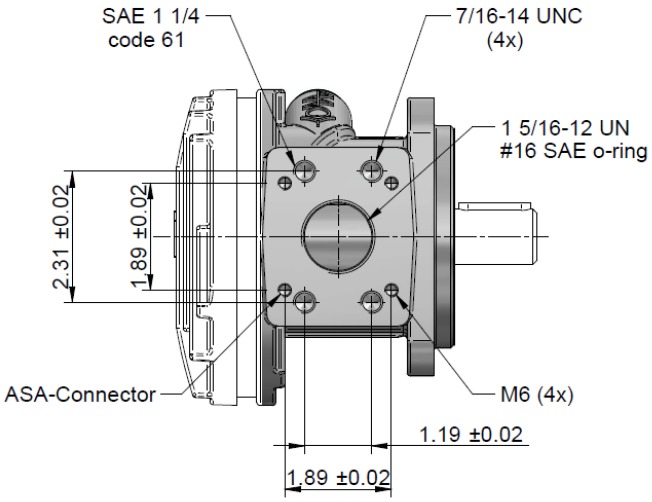
Nominal size	L [inch]
20	4.61
30	4.88
40	5.04
60	5.47
80	5.91

Hydraulic connection

Inlet Port



Outlet Port



Specific Data

order number	description	displacement	oil flow[1)]	min. required motor power[2)]	weight
		[in³/rotation]	[gpm]	[HP]	[lbs]
ABPH020ZNBP99U00	Gerotor pump 2, 1.22 in³, SAE, int.BP, 145PSI	1.22	7.7	1.78	9.5
ABPH030ZNBP99U00	Gerotor pump 2, 1.95 in³, SAE, int.BP, 145PSI	1.95	12.4	1.78	10.6
ABPH040ZNBP99U00	Gerotor pump 2, 2.44 in³, SAE, int.BP, 145PSI	2.44	15.3	2.41	11.2
ABPH060ZNBP99U00	Gerotor pump 2, 3.66 in³, SAE, int.BP, 145PSI	3.66	23.0	2.41	13.2
ABPH080ZNBP99U00	Gerotor pump 2, 4.88 in³, SAE, int.BP, 145PSI	4.88	29.0	2.41	15.4

[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 4 for max,pressure and viscosity

This data sheet and the corresponding technical drawings serve solely as a general guideline and a technical overview of our products. Please contact us for additional information. We always try to keep the technical data up to date. However, due to constant development, no guarantee can be given for the correctness of the information (or printing errors). This applies to general properties such as dimensions, colors and weight. Any cooling performances and general technical values indicated in this catalogue are measured at a test benches according to asa testing procedures or calculated based on such tests and may therefore deviate from values obtained by test procedures from other manufacturers. The performance can vary by around +/- 15%. All information and calculation values are provided to the best of our knowledge, they do not represent intrinsic product properties and it is strongly recommended that the product is tested under the actual operating conditions. All drawings shown here are to be understood as schematic representations. For exact dimensions and the applicable tolerances, please ask for the corresponding scale drawings. Any form of liability is excluded for the information included in this datasheet. asa GmbH reserves the right to modify the product without any separate notification. This refers to both technical data and the product itself. Furthermore, it is herewith specified that the datasheet and the corresponding scale drawings are not a substitute for the assembly, installation and operating instructions.

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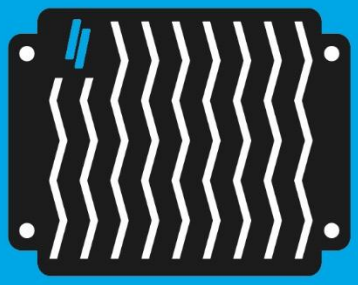
Company

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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