



Fluid Controls

Gerotor Pump Generation 2 (Bypass)

**be different.
make a difference.**

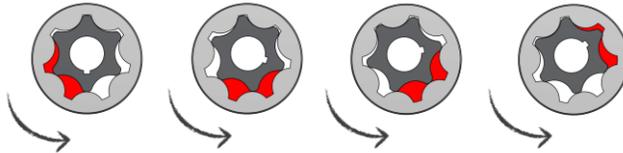
Fluid Controls

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**
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.
- **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



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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, 16gpm)
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

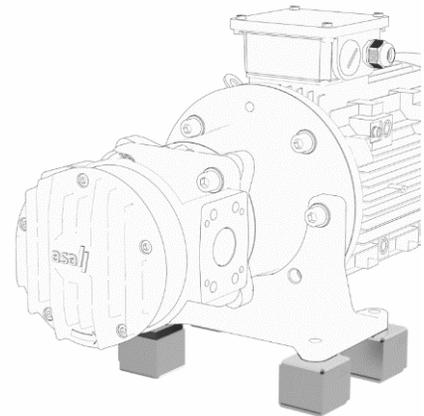
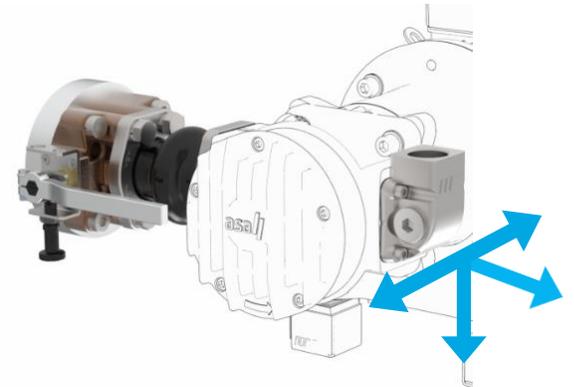
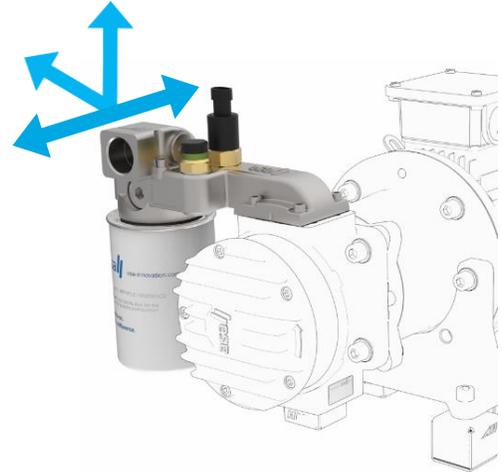
Contact us for complete data sheet

Silent Absorber

Using our patented vibration absorbers extends the lifetime of the pump unit. The unique design has highest capabilities with higher vulcanization surface than 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



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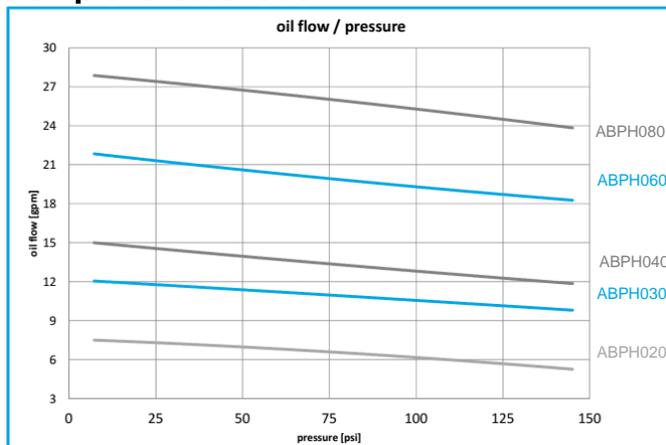
General Data

working pressure range	(relative)
suction side	-5.8 to 0 psi
pressure side	0 to 146 psi
displacement	1.22 to 4.88 in ³
max. kinematic viscosity:	up to 2316SSU (0.775 in ² /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
centering plate	aluminum

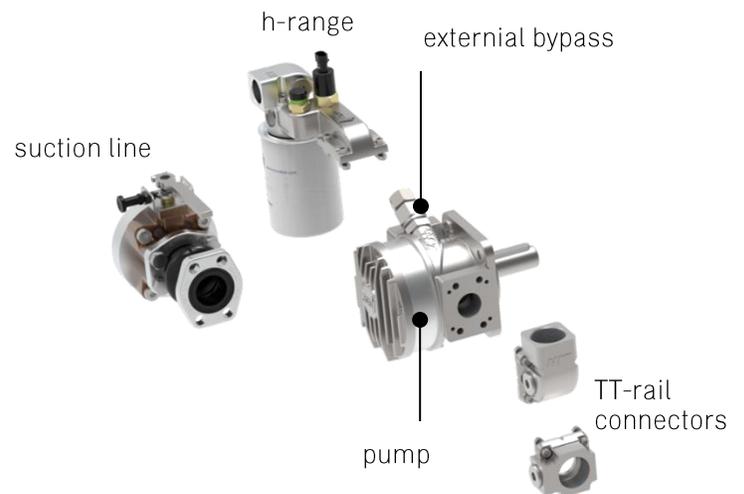
*) depending on motor power

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

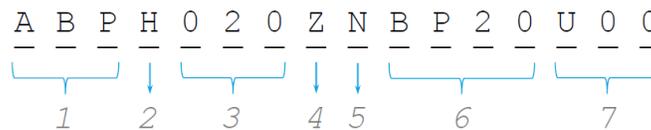
Pump Characteristic



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



Pump Order Code



1 Product Category

ABP Pumps

2 Product Series

H Gerotor Generation 2 for hydraulic use

3 Pump Displacement

nominal	Displ./rotation
O20	1.22 in ³
O30	1.95 in ³
O40	2.44 in ³
O60	3.66 in ³
O80	4.88 in ³

4 Type of Connection

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

5 Sealing Material

N NBR

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

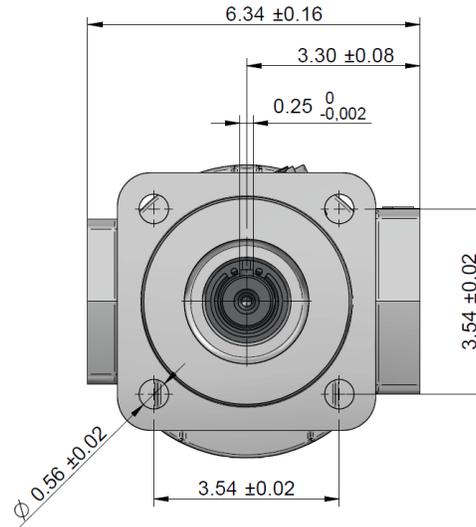
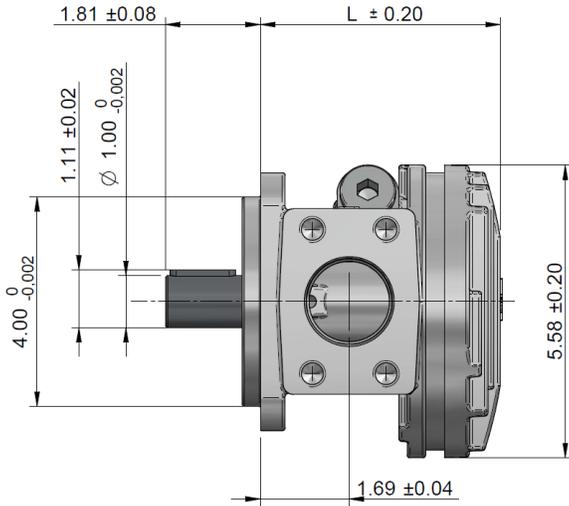
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SAE version

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

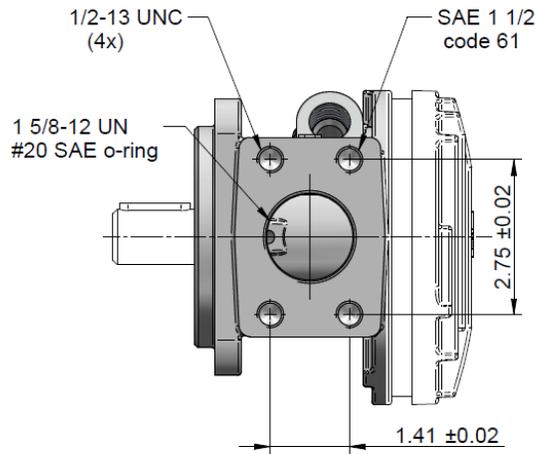


Dimensions

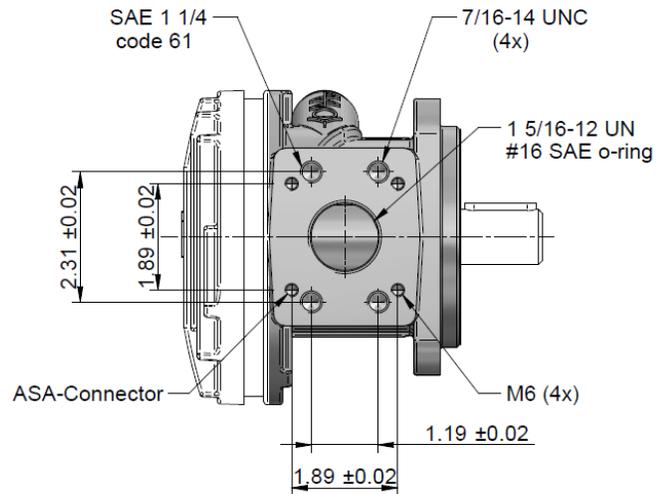
Nominal size	L [inch]
20	4.61
30	4.88
40	5.04
60	5.47
80	5.91

Hydraulic connection

Inlet Port



Outlet Port



Specific Data

order number	description	displacement [in ³ /rotation]	oil flow ¹⁾ [gpm]	min. required motor power ²⁾ [HP]	weight [lbs]
ABPH020ZNP99U00	Gerotor pump 2, 1.22 in ³ , SAE, int.BP, 145PSI	1.22	7.7	1.78	9.5
ABPH030ZNP99U00	Gerotor pump 2, 1.95 in ³ , SAE, int.BP, 145PSI	1.95	12.4	1.78	10.6
ABPH040ZNP99U00	Gerotor pump 2, 2.44 in ³ , SAE, int.BP, 145PSI	2.44	15.3	2.41	11.2
ABPH060ZNP99U00	Gerotor pump 2, 3.66 in ³ , SAE, int.BP, 145PSI	3.66	23.0	2.41	13.2
ABPH080ZNP99U00	Gerotor pump 2, 4.88 in ³ , 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



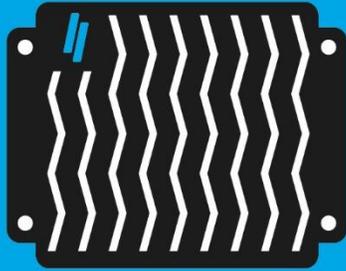
Company

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

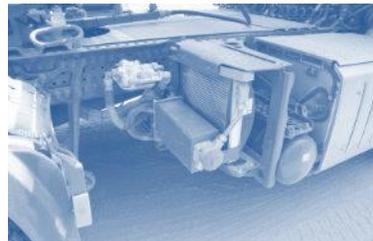
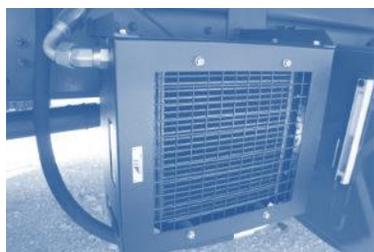
Our connection product collection fills technological gaps in various markets and applications.

- 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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