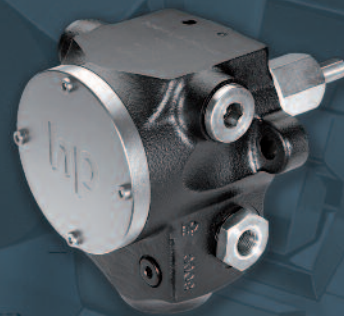
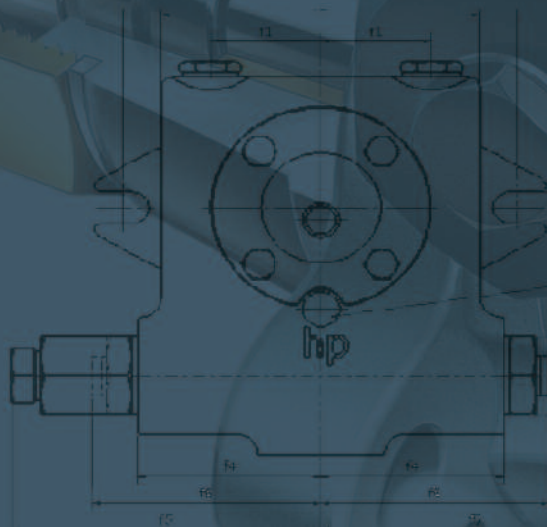
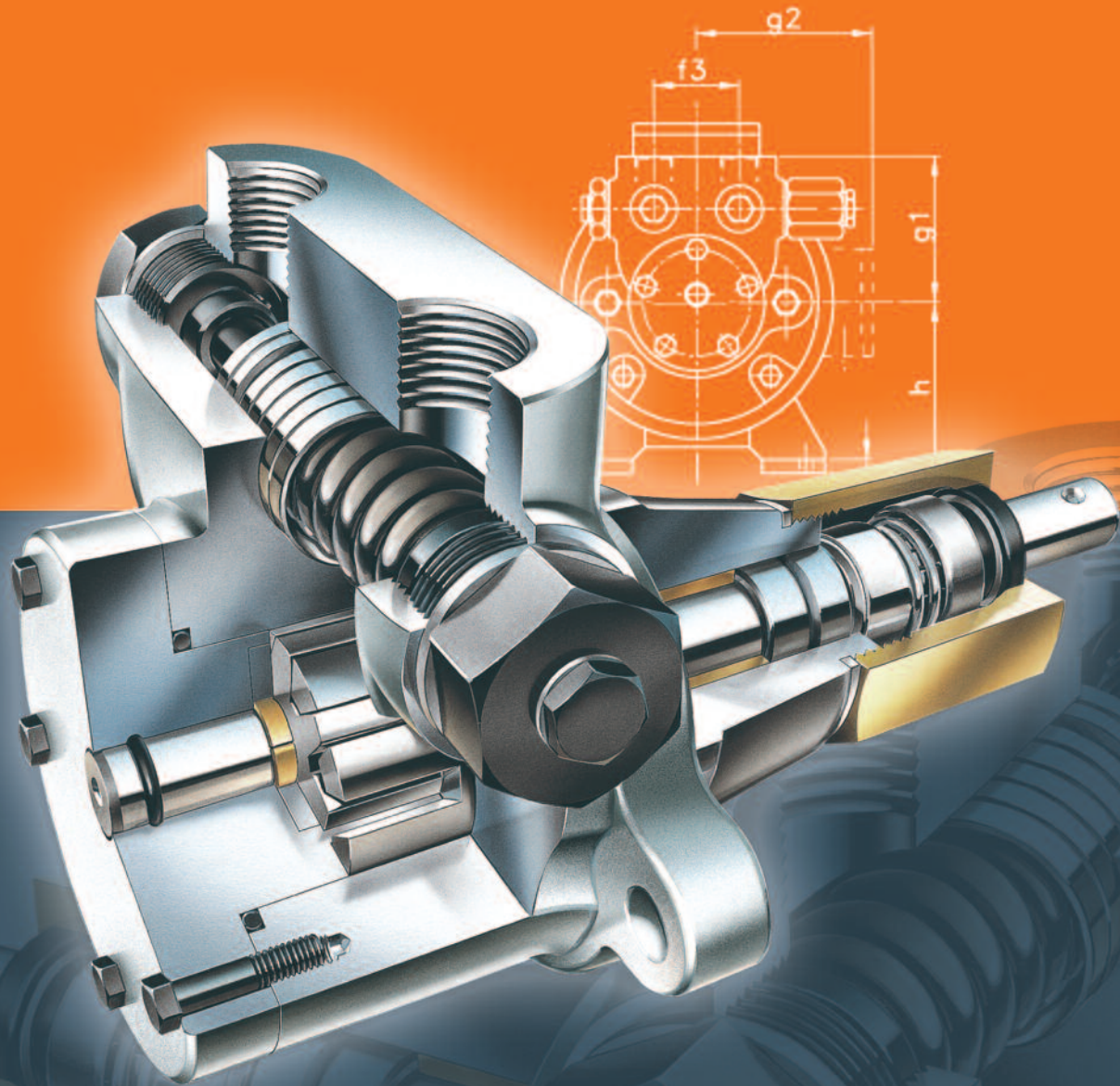


Main Catalog



hp-TECHNIK GmbH

Gablonzer Str. 21

D-76185 Karlsruhe

Phone +49 (0) 721/956 18-0

Fax +49 (0) 721/956 18-28

E-Mail info@hptechnik.com

Sales

Ms. Unger +49 (0) 721/956 18-33
unger@hptechnik.com

Ms. Wernthal +49 (0) 721/956 18-14
wernthal@hptechnik.com

Mr. Kretzler +49 (0) 721/956 18-18
kretzler@hptechnik.com

Fax Sales +49 (0) 721/956 18-28

Support

Mr. Pabst +49 (0) 721/956 18-23
pabst@hptechnik.com

Mr. Rau +49 (0) 721/956 18-25
rau@hptechnik.com

Fax Support +49 (0) 721/956 18-31



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Industrial pumps,
overflow valves

Motor pump program,
motor pump groups

Aggregates for single-
pipe installation

Feed pumps and
delivery aggregates

Accessories and
spare parts

Oil burner nozzles

Special aggregates,
terms of sale

Industrial pump program

1.0

A total of 6 series of hp-Industrial pumps and hp-Special pumps are available.

An internal gear rotor drives an eccentric, externally toothed gear.

The rotor and the toothed wheel are sealed with a fixed crescent.

Internal gear pumps have been in use for more than 40 years and are used in many areas of industry because of their favorable construction and design.



Series B



Series VB with overflow valve



Series VBR with overflow valve and bypass

Technical facts:

- Discharge range: 45 bis 6000 l/h
- Operating pressures: 0 - 40 bar
- Temperatures: up to 150° C



Series NV with overflow valve and bypass



Series PON with overflow valve, bypass and integrated filter



Series UHE with overflow valve and bypass

Applications:

Oil burning systems

As oil burner pumps, closed circular pipe and transfer pumps for all fuel oils EL, L, M, S, ES, coaltar oils, lignite tar, oils, kerosene.

Machine construction

As hydraulic pumps in hydraulic control units, as lubricating pumps for lubricating oils and greases, as cooling water pumps for water-oil emulsions.

Mineral oil industry

As feed pumps for oils, grease, tar and bitumen.

NEW Ship building

As lubricating oil pumps and booster pumps for lubricating, diesel and heavy oils. Certificate for marine available on request.

Material:

Pump castings are made of hydraulic cast iron GG 25 (for UHE GGG 40); rotor is of C 60; pinion is of 16 Mn Cr 5; axial face seal of cast iron / coal; up to 150° C viton.

Advantages:

Self-priming, self-lubricating, practically non-pulsating, quiet-running, practically maintenance-free, pressure proof and vacuum-tight shaft seals.

In addition to the applications and pumping mediums mentioned here, hp-Industrial pumps are used in many other industries – pumping a wide variety of different mediums.

Key for hp-Special pumps up to 40 bar

1.0

for determination of the order numbers:

Series				Discharge l/h		- Direction of rotation - Nozzle port (only PON) viewed from shaft		Pressure stage bar	Speed of rotation	Medium	Special execution, accessories (add code letters consecutively)
				1400 min ⁻¹ 0 bar	2800 min ⁻¹ 0 bar						
B	VB	VBR	NVBR	P	45	P	90	D = clockwise rotation	0 = 0,5 - 1,5 9 = 950 min ⁻¹	0 = fuel oil MGO/MDO	H1 = electric heating for series B, VB, VBR and NVBR
B	VB	VBR	NVBR	M	80	M	160				
B	VB	VBR	NVBR	G	120	G	240				
B	VB	VBR	NVBR	F	160	F	320				
BG	VBG	VBGR	NVBGR	PP	150	PP	300				
BG	VBG	VBGR	NVBGR	PZ	200	PZ	400				
BG	VBG	VBGR	NVBGR	P	300	P	600				
BG	VBG	VBGR	NVBGR	MZ	-	MZ	850				
BG	VBG	VBGR	NVBGR	M	450	M	900				
BG	VBG	VBGR	NVBGR	GZ	-	GZ	1100				
BG	VBG	VBGR	NVBGR	G	600	G	1200				
BH	VBH	VBHR	NVBHR	P	1000	-	-	I = counter clockwise rotation	2 = 2 - 9	1 = 1400 min ⁻¹	BH1 = drilling for H1
BH	VBH	VBHR	NVBHR	M	1500	-	-				
BH	VBH	VBHR	NVBHR	G	2000	-	-				
BHG	VBHG	VBHGR	-	P	3000	-	-	L = nozzle port left-hand side	3 = 6 - 25	5 = heavy fuel	H2 = electric heating for series UHE
BHG	VBHG	VBHGR	-	PZ	3700	-	-				
BHG	VBHG	VBHGR	-	M	4500	-	-				
BHG	VBHG	VBHGR	-	G	6000	-	-				
UHE-A2	-	-	-	PZ	200	PZ	500	R = nozzle port right-hand side	4 = 15 - 40	2 = 2800 min ⁻¹	H3 = electric heating (only for PON)
UHE-A3	-	-	-	P	300	P	700				
UHE-A4	-	-	-	M	450	M	900				
UHE-A5	-	-	-	GZ	550	GZ	1300				
PON	-	-	-	-	-	3	90				
PON	-	-	-	-	-	4	160				
PON	-	-	-	-	-	6	240				
PON	-	-	-	-	-	7	320				

Example for ordering: hp-Internal gear pump, series VB, with capacity of 450 l/h at 1400 min⁻¹, fuel oil, direction of rotation „counterclockwise“, pressure settings 4 (15-40 bar).

Series expression: VB GM – I – 4 – 10

max. permitted suction pressure on suction connection of the pump is -0,6 bar.

Caution! Gas secretions arise already at -0,4 bar.

Conversion table

Suntec		-		hp-TECHNIK	
Suntec		hp-TECHNIK		Suntec	hp-TECHNIK
E4/J4	⇒	PON3-D		E4/J4	PON3-I
E6/J6	⇒	PON4-D		E6/J6	PON4-I
E7/J7	⇒	PON6-D		E7/J7	PON6-I
		PON7-D			PON7-I
TA 2 A	⇒	UHE-A2-PZ-D		TA 2 C	UHE-A2-PZ-I
TA 3 A	⇒	UHE-A3-P-D		TA 3 C	UHE-A3-P-I
TA 4 A	⇒	UHE-A4-M-D		TA 4 C	UHE-A4-M-I
TA 5 A	⇒	UHE-A5-GZ-D		TA 5 C	UHE-A5-GZ-I

hp-Motor pump group; SMG series

3.4

Series NV with integrated overflow valve and bypass

Single systems 1400 min⁻¹ and hp industrial pumps.

Standard model:

System up to 9 bar: **Pressure stage 2 = 2 to 9 bar.**

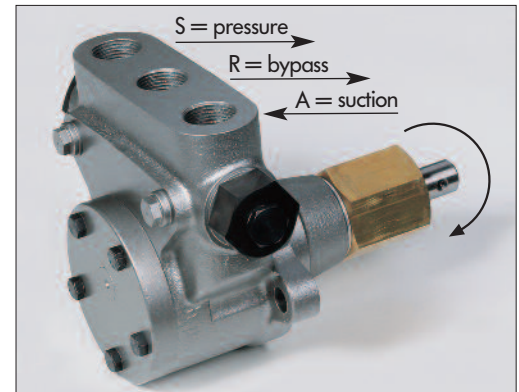
Limited as per DIN 4736 to 6 bar.

System up to 30 or 40 bar: **Pressure stage 4 = 15 to 40 bar.**

Suitable for use with hydraulic oils, lubricating oils, all fuel oils, coal and lignite tar oils, kerosene and many other self-lubricating fluids. The motor output data applies for fluids with a viscosity of up to 80 cSt. From 80 to 150 cSt, the motor must be one power stage size stronger. Available at a surcharge upon request.

The pump connections are indicated as follows:

A = suction connection **S** = delivery connection **R** = bypass connection



The standard model of the pumps is designed with a counterclockwise direction of rotation (viewed from the pump shaft).

The position of the pump connections is independent of the direction of rotation. (See illustration.)

Direction of rotation I = counterclockwise, standard model

For clockwise rotation, D, the connections A = suction and S = delivery are interchanged.

The middle connection remains unchanged.

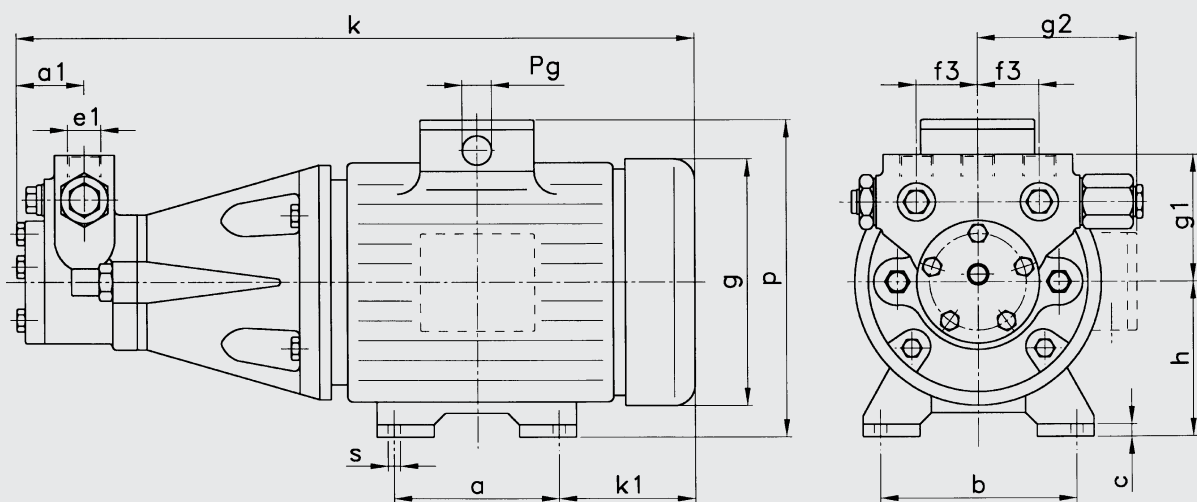
Series size	Pump type	Discharge at 1400 min ⁻¹		Motor output	Connections 1) *	H1 Heater Watt	Gear rotor/shaft	Article-no.	
		at 0 - 9 bar	at 30 bar						
SMG 1701	NVBRP	45 l/h	-	0,18 kW	G 3/8"	100	25/12	0370001	p _{max} 9 bar
SMG 1702	NVBRM	80 l/h	-	0,18 kW	G 3/8"	100	25/12	0370002	
SMG 1703	NVBRG	120 l/h	-	0,18 kW	G 3/8"	100	25/12	0370003	
SMG 1704	NVBFR	160 l/h	-	0,18 kW	G 3/8"	100	25/12	0370004	
SMG 1705	NVBGRP	300 l/h	-	0,18 kW	G 1/2"	100	38/12	0370005	
SMG 1706	NVBGRM	450 l/h	-	0,37 kW	G 1/2"	100	38/12	0370006	
SMG 1707	NVBGRG	600 l/h	-	0,37 kW	G 1/2"	100	38/12	0370007	
SMG 1708	NVBHRP	1000 l/h	-	0,75 kW	G 3/4"	160	56/18	0370008	TALEP EDİLEN p _{max} 30 bar
SMG 1709	NVBHRM	1500 l/h	-	0,75 kW	G 3/4"	160	56/18	0370009	
SMG 1710	NVBHRG	2000 l/h	-	1,1 kW	G 3/4"	160	56/18	0370010	
SMG 1721	NVBRP	45 l/h	30 l/h	0,18 kW	G 3/8"	100	25/12	0370011	
SMG 1722	NVBRM	80 l/h	60 l/h	0,18 kW	G 3/8"	100	25/12	0370012	
SMG 1723	NVBRG	120 l/h	100 l/h	0,18 kW	G 3/8"	100	25/12	0370013	
SMG 1724	NVBFR	160 l/h	140 l/h	0,37 kW	G 3/8"	100	25/12	0370014	
SMG 1725	NVBGRP	300 l/h	240 l/h	0,37 kW	G 1/2"	100	38/12	0370015	
SMG 1726	NVBGRM	450 l/h	390 l/h	0,75 kW	G 1/2"	100	38/12	0370016	
SMG 1727	NVBGRG	600 l/h	540 l/h	0,75 kW	G 1/2"	100	38/12	0370017	
SMG 1728	NVBHRP	1000 l/h	700 l/h	1,5 kW	G 3/4"	160	56/18	0370018	
SMG 1729	NVBHRM	1500 l/h	1200 l/h	2,2 kW	G 3/4"	160	56/18	0370019	
SMG 1730	NVBHRG	2000 l/h	1700 l/h	3,0 kW	G 3/4"	160	56/18	0370020	
SMG 1962	NVBRM	80 l/h	50 l/h	0,18 kW	G 3/8"	100	25/12	0390067	p _{max} 40 bar
SMG 1963	NVBRG	120 l/h	80 l/h	0,37 kW	G 3/8"	100	25/12	0390068	
SMG 1964	NVBFR	160 l/h	120 l/h	0,37 kW	G 3/8"	100	25/12	0390069	
SMG 1965	NVBGRP	300 l/h	200 l/h	0,75 kW	G 1/2"	100	38/12	0390070	
SMG 1966	NVBGRM	450 l/h	360 l/h	1,1 kW	G 1/2"	100	38/12	0390071	
SMG 1967	NVBGRG	600 l/h	480 l/h	1,5 kW	G 1/2"	100	38/12	0390072	
SMG 1968	NVBHRP	1000 l/h	600 l/h	2,2 kW	G 3/4"	160	56/18	0390073	
SMG 1969	NVBHRM	1500 l/h	1000 l/h	3,0 kW	G 3/4"	160	56/18	0390074	
SMG 1970	NVBHRG	2000 l/h	1400 l/h	4,0 kW	G 3/4"	160	56/18	0390075	

1) Cyl. Withworth pipe threading: G...A DIN ISO 228

* To insure proper pump functioning, all pipe connections must be sized as per the principles of fluid technology using the phase quantity and in accordance with the given conditions at the installation site!
The size of the pump and/or device connections is not indicative of the size of the pipe connection which must be used.

Series NV; with integrated overflow valve and bypass

3.4



Series size	Pump type	Dis-charge	Motor output	Dimensions															
				a	a1	b	c	e1	f3	g	g1	g2	h	k	k1	p	s	Pg	
SMG 1701	NVBRP	45 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1702	NVBRM	80 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1703	NVBRG	120 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1704	NVBRF	160 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1705	NVBGRP	300 l/h	0,18 kW	80	43	100	7	G 1/2"	35	124	72	-	63	362	63	163	7	11	
SMG 1706	NVBGRM	450 l/h	0,37 kW	90	43	112	7	G 1/2"	35	139	72	-	71	390	69	180	7	11	
SMG 1707	NVBGRG	600 l/h	0,37 kW	90	43	112	7	G 1/2"	35	139	72	-	71	390	69	180	7	11	
SMG 1708	NVBHRP	1000 l/h	0,75 kW	100	49	125	8	G 3/4"	50	157	105	-	80	496	77	197	9,5	11	
SMG 1709	NVBHRM	1500 l/h	0,75 kW	100	49	125	8	G 3/4"	50	157	105	-	80	496	77	197	9,5	11	
SMG 1710	NVBHRG	2000 l/h	1,1 kW	100	49	140	13	G 3/4"	50	181	105	137	90	531	92	214	11	13,5	
SMG 1721	NVBRP	45 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1722	NVBRM	80 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1723	NVBRG	120 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1724	NVBRF	160 l/h	0,37 kW	90	36	112	7	G 3/8"	32,5	139	67	-	71	376	69	180	7	11	
SMG 1725	NVBGRP	300 l/h	0,37 kW	90	43	112	7	G 1/2"	35	139	72	-	71	390	69	180	7	11	
SMG 1726	NVBGRM	450 l/h	0,75 kW	100	43	125	8	G 1/2"	35	157	72	-	80	423	77	197	9,5	11	
SMG 1727	NVBGRG	600 l/h	0,75 kW	100	43	125	8	G 1/2"	35	157	72	-	80	423	77	197	9,5	11	
SMG 1728	NVBHRP	1000 l/h	1,5 kW	125	49	140	13	G 3/4"	50	181	105	137	90	531	92	214	11	13,5	
SMG 1729	NVBHRM	1500 l/h	2,2 kW	140	49	160	14	G 3/4"	50	202	105	150	100	595	110	235	13	16	
SMG 1730	NVBHRG	2000 l/h	3,0 kW	140	49	160	14	G 3/4"	50	202	105	150	100	595	110	235	13	16	
TALEP EDİLEN																			
SMG 1962	NVBRM	80 l/h	0,18 kW	80	36	100	7	G 3/8"	32,5	124	67	-	63	348	63	163	7	11	
SMG 1963	NVBRG	120 l/h	0,37kW	90	36	112	7	G 3/8"	32,5	139	67	-	71	376	69	180	7	11	
SMG 1964	NVBRF	160 l/h	0,37 kW	90	36	112	7	G 3/8"	32,5	139	67	-	71	376	69	180	7	11	
SMG 1965	NVGRP	300 l/h	0,75 kW	100	43	125	8	G 1/2"	35	157	75	-	80	423	77	197	9,5	11	
SMG 1966	NVBGRM	450 l/h	0,75 kW	100	43	125	8	G 1/2"	35	157	75	-	80	423	77	197	9,5	11	
SMG 1967	NVBGRG	600 l/h	1,1 kW	100	43	140	13	G 1/2"	35	181	75	-	90	440	92	214	11	13,5	
SMG 1968	NVBHRP	1000 l/h	2,2 kW	140	49	160	14	G 3/4"	50	202	105	150	100	595	110	235	13	16	
SMG 1969	NVBHRM	1500 l/h	3,0 kW	140	49	160	14	G 3/4"	50	202	105	150	100	595	110	235	13	16	
SMG 1970	NVBHRG	2000 l/h	4,0 kW	140	49	190	15	G 3/4"	50	227	105	163	112	617	118	269	13	16	