

## GKA Series Hydraulic Motors

### Options

- Flange and circle
- Bearingless motor
- Motor with brake
- Tacho connection
- Speed sensing
- Side and rear ports
- Straight, splined and tapered shafts
- Shaft seal for high and low pressure
- Metric and BSPP ports
- Other special features

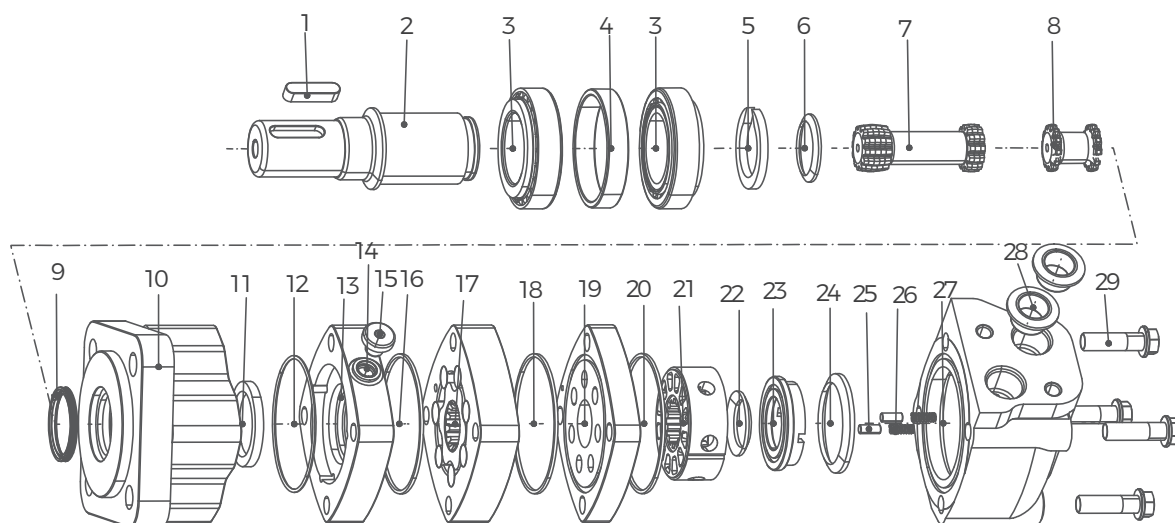
### Applications

- Conveyors
- Road building machines
- Metal working machines
- Special vehicles
- Agricultural machines
- Food industries
- Mining machines











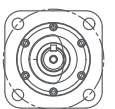








### General

Max. Displacement	cm <sup>3</sup> /rev [in <sup>3</sup> /rev]	490 [29.8]
Max. Speed	RPM	1215
Max. Torque	daNm [lb-in]	cont.: 84,5 [7470]    int.: 93,0 [8225]
Max. Pressure Drop	bar [PSI]	cont.: 205 [3000]    int.: 310 [4500]
Max. Oil Flow	lpm [GPM]	150 [30]
Pressure Fluid		Mineral based- HLP (DIN 51524) or HM (ISO 6743/4)
Temperature Range	°C [°F]	-40÷140 [-40÷284]
Optimal Viscosity range	mm <sup>2</sup> /s [SUS]	20÷75 [98÷347]
Filtration		ISO code 20/16 (Min. recommended fluid filtration of 25 microns)



- |                          |                      |                       |                            |                      |
|--------------------------|----------------------|-----------------------|----------------------------|----------------------|
| 1 Parallel Key           | 7 Transmission shaft | 13 Connecting body    | 19 Balance plate           | 25 Positioning pins  |
| 2 Output shaft           | 8 Coupling shaft     | 14 Sealing gasket     | 20 Special shape ring      | 26 Spring            |
| 3 Tapered roller bearing | 9 Anti-dust ring     | 15 Plug               | 21 Flow distribution plate | 27 Rear housing      |
| 4 Bearing retainer ring  | 10 Front Cover       | 16 O-ring             | 22 Special shape ring      | 28 Oil port plug cap |
| 5 Washers                | 11 Shaft seal        | 17 Rotor and stator   | 23 Flow pressure plate     | 29 Screw             |
| 6 Special shape ring     | 12 O-ring            | 18 Special shape ring | 24 Special shape ring      |                      |

### Ordering Code

CKA SERIES		DISP	FLANGE		SHAFT	PORTS		ROTATION	PAINT		FUNCTION	
CODE	DISP	CODE	FLANGE	CODE	SHAFT	CODE	PORTS	CODE	PAINT	CODE	FUNCTION	
34	34cm <sup>3</sup> /rev [2.1in <sup>3</sup> /rev]	A7	2-Hole SAE A pilot Ø82.5×6.4 	G7	Ø31.25 Splined 14-DP 12/24 	G1/2, G1/4	A	No paint	A	Standard		
41	41cm <sup>3</sup> /rev [2.5in <sup>3</sup> /rev]	H3	4- Ø13.5 Hole Square pilot Ø82.5×6.4 	S6	Ø25.4 woodruff key Ø25.4×6.35 	G1/2, 7/16-20 UNF	B	Blue	N	Big radial force		
66	66cm <sup>3</sup> /rev [4.0in <sup>3</sup> /rev]	A9	4-Hole SAE A pilot Ø82.5×6.4 	R8	Ø25.4 splined SAE 6B 	7/8-14 O-ring, 7/16-20 UNF	C	Black	D	No case drain		
80	80cm <sup>3</sup> /rev [4.9in <sup>3</sup> /rev]	W1	4- Ø13.5 Hole Square pilot Ø107.95×46.5 	S1	Ø25 parallel key 8×7×32 	7/8-14, O-ring G1/4	S	Silver grey	F	Free running		
90	90cm <sup>3</sup> /rev [5.5in <sup>3</sup> /rev]	W2	4- Ø13 Hole Square pilot Ø100×6.5 	R5	Ø22 Splined 13-DP 16/32 	Ø12.7, Ø15.8, 7/16-20 UNF manifold 3x3/8-16 UNC			L	Low speed		
100	100cm <sup>3</sup> /rev [6.2in <sup>3</sup> /rev]			S4	Ø32 parallel key 10×8×45 	Ø12.7Ø15.8, G1/4 manifoldM10x1			V	High temp.		
130	130cm <sup>3</sup> /rev [8.0in <sup>3</sup> /rev]			T2	Tapered Ø31.75 parallel key 7.96×7.96×25.4 				S	Low temp.		
160	160cm <sup>3</sup> /rev [9.6in <sup>3</sup> /rev]			SG	Ø31.75 parallel key 7.96×7.96×31.75 							
195	195cm <sup>3</sup> /rev [11.9in <sup>3</sup> /rev]			A1	Ø25 parallel key 8×7×2 							
245	245cm <sup>3</sup> /rev [14.9in <sup>3</sup> /rev]			N	Ø30 Splined 6-30×25×6 							
				Z	Ø32 Splined 6-32×26×6 							
				J	Ø30 Splined 6-30×25×8 							

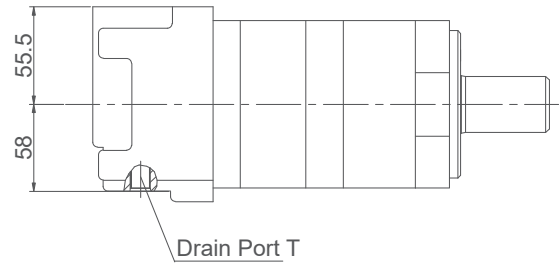
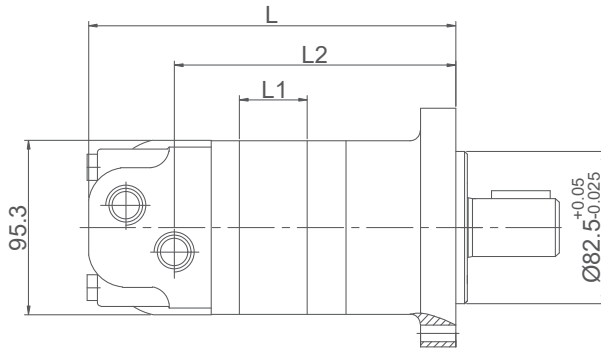
## Specifications

Type		GKA34	GKA41	GKA66	GKA80	GKA90
Displ. cm <sup>3</sup> /rev [in <sup>3</sup> /rev]		34[2.1]	41[2.5]	66[4.0]	80[4.9]	90[5.5]
Max. Speed	Cont.	1215	1104	1075	908	836
RPM	Int.*	1215	1216	1214	908	1042
Flow	Cont.	42[11]	45[12]	72[19]	75[20]	75[20]
lpm [GPM]	Int.*	42[11]	53[14]	87[23]	75[20]	95[25]
Torque	Cont.	9,8[864]	11,2[988]	18,6[1643]	23,5[2065]	26,5[2326]
daNm [lb - in]	Int.*	14,2[1261]	16,9[1497]	27,6[2446]	34,5[3035]	39,0[3458]
Pressure	Cont.	205[3000]	205[3000]	205[3000]	205[3000]	205[3000]
bar [PSI]	Int.*	310[4500]	310[4500]	310[4500]	310[4500]	310[4500]
	Peak**	310[4500]	310[4500]	310[4500]	310[4500]	310[4500]
Weight kg [lb]	Standard or Wheel mount	8,8[19.4]	8,8[19.4]	8,8[19.4]	9,3[20.5]	9,3[20.5]
	Bearingless	6,8[15.0]	6,8[15.0]	6,8[15.0]	7,3[16.0]	7,3[16.0]

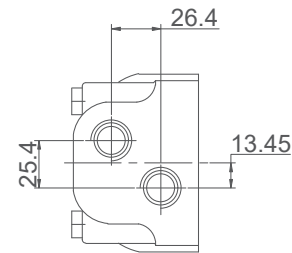
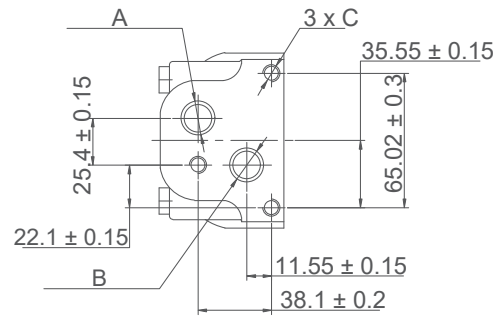
Type		GKA100	GKA130	GKA160	GKA195	GKA245
Displ. cm <sup>3</sup> /rev [in <sup>3</sup> /rev]		100[6.2]	130[8.0]	160[9.6]	195[11.9]	245[14.9]
Max. Speed	Cont.	742	576	477	385	308
RPM	Int.*	924	720	713	577	462
Flow	Cont.	75[20]	75[20]	75[20]	75[20]	75[20]
lpm [GPM]	Int.*	95[25]	95[25]	115[30]	115[30]	115[30]
Torque	Cont.	29,5[2630]	38,5[3420]	45,5[4040]	54,0[4780]	66,0[5850]
daNm [lb - in]	Int.*	44,5[3950]	56,0[4970]	57,0[5040]	66,5[5890]	82,0[7250]
Pressure	Cont.	205[3000]	205[3000]	205[3000]	205[3000]	205[3000]
bar [PSI]	Int.*	310[4500]	310[4500]	260[3750]	260[3750]	260[3750]
	Peak**	310[4500]	310[4500]	310[4500]	310[4500]	310[4500]
Weight kg [lb]	Standard or Wheel mount	9,5[21.0]	9,8[21.5]	10,0[22.0]	10,4[23.0]	11,3[25.0]
	Bearingless	7,5[16.5]	7,7[17.0]	7,9[17.5]	8,4[18.5]	9,3[20.5]

Type		GKA305	GKA395	GKA490
Displ. cm <sup>3</sup> /rev [in <sup>3</sup> /rev]		305[18.7]	395[24.0]	490[29.8]
Max. Speed	Cont.	246	191	153
RPM	Int.*	265	335	230
Flow	Cont.	75[20]	75[20]	75[20]
lpm [GPM]	Int.*	115[30]	115[30]	115[30]
Torque	Cont.	76,5[6750]	77,5[6840]	84,5[7470]
daNm [lb - in]	Int.*	88,5[7820]	92,5[2250]	93,6[8225]
Pressure	Cont.	205[3000]	155[2250]	120[1750]
bar [PSI]	Int.*	240[3500]	190[2750]	140[2000]
	Peak**	310[4500]	225[3250]	170[2500]
Weight kg [lb]	Standard or Wheel mount	11,3[25.0]	11,8[26.0]	12,2[27.0]
	Bearingless	9,3[20.5]	9,8[21.5]	10,2[22.5]

## GKA Dimensions and Mountings

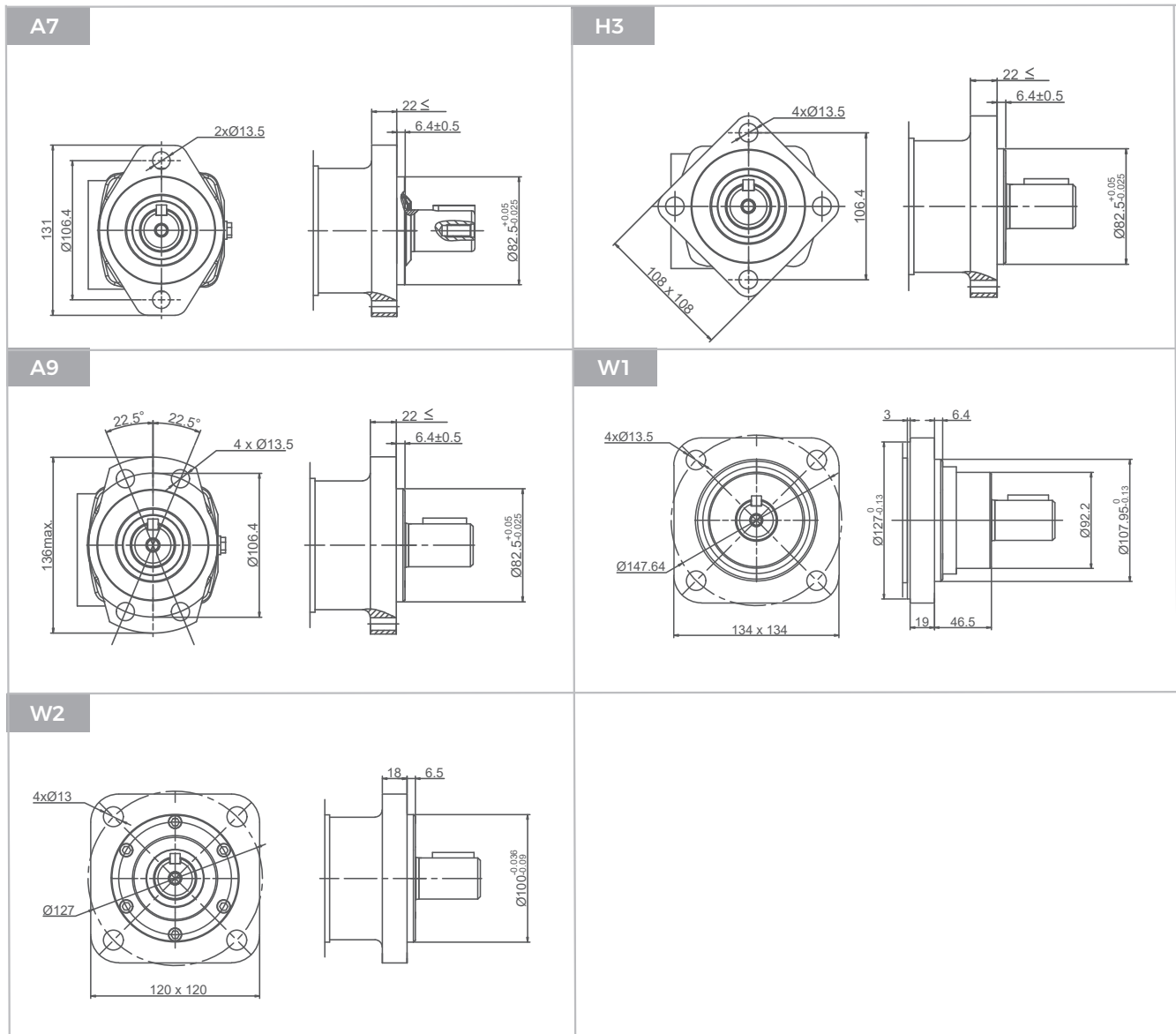


Model	L	L1	L2
GKA34	182	14.5	133.5
GKA41	185	17.8	136.5
GKA66	189.5	22.5	141.5
GKA80	196	28.9	148
GKA90	196	28.9	148
GKA100	202.5	35.6	154.5
GKA130	211.5	44.6	163.5
GKA160	223	56	175
GKA195	235.3	72	188.3
GKA245	256.5	89.3	208.5
GKA305	277.8	107.8	212.5
GKA395	296.5	125.5	237.5
GKA490	313.8	142.3	245

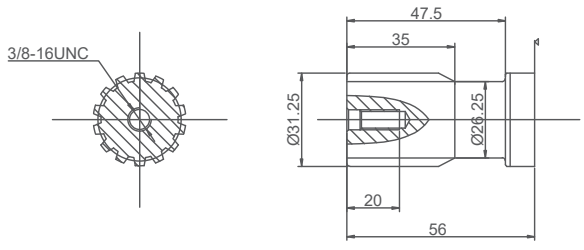
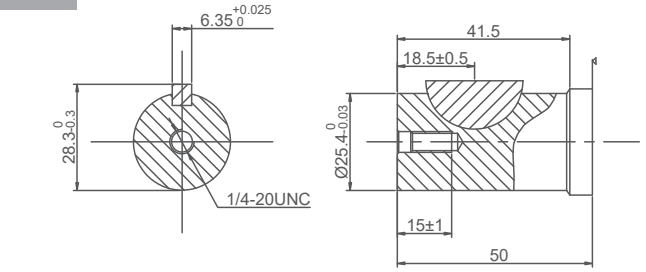
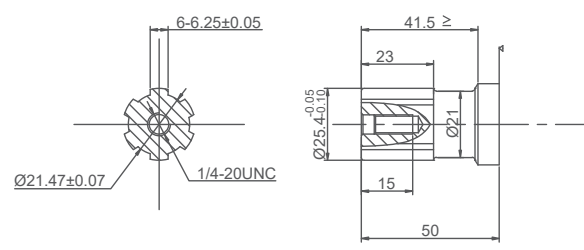
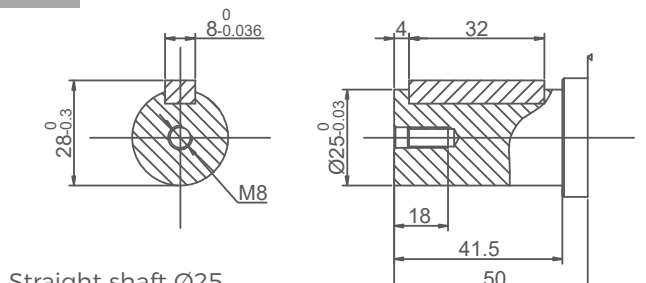
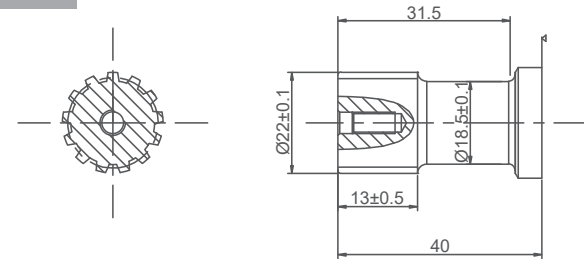
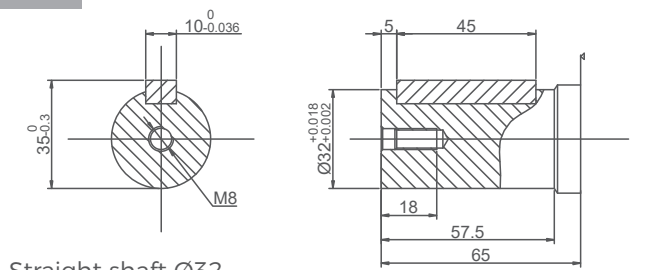


Mounting	G7 (depth)	DU (depth)	U9 (depth)	SB (depth)	M4 (depth)	MU (depth)	MM (depth)
P(A, B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (17)	7/8-14 O-ring (17)	M22 x 1.5 (15)	Ø12.7, Ø158	Ø12.7, Ø158
T	G1/4(12)	7/16-20 UNF (12)	7/16-20 UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20 UNF (12)	G1/4 (12)
C	—	—	—	—	—	3/8-16 UNC (15)	M10 x 1(15)

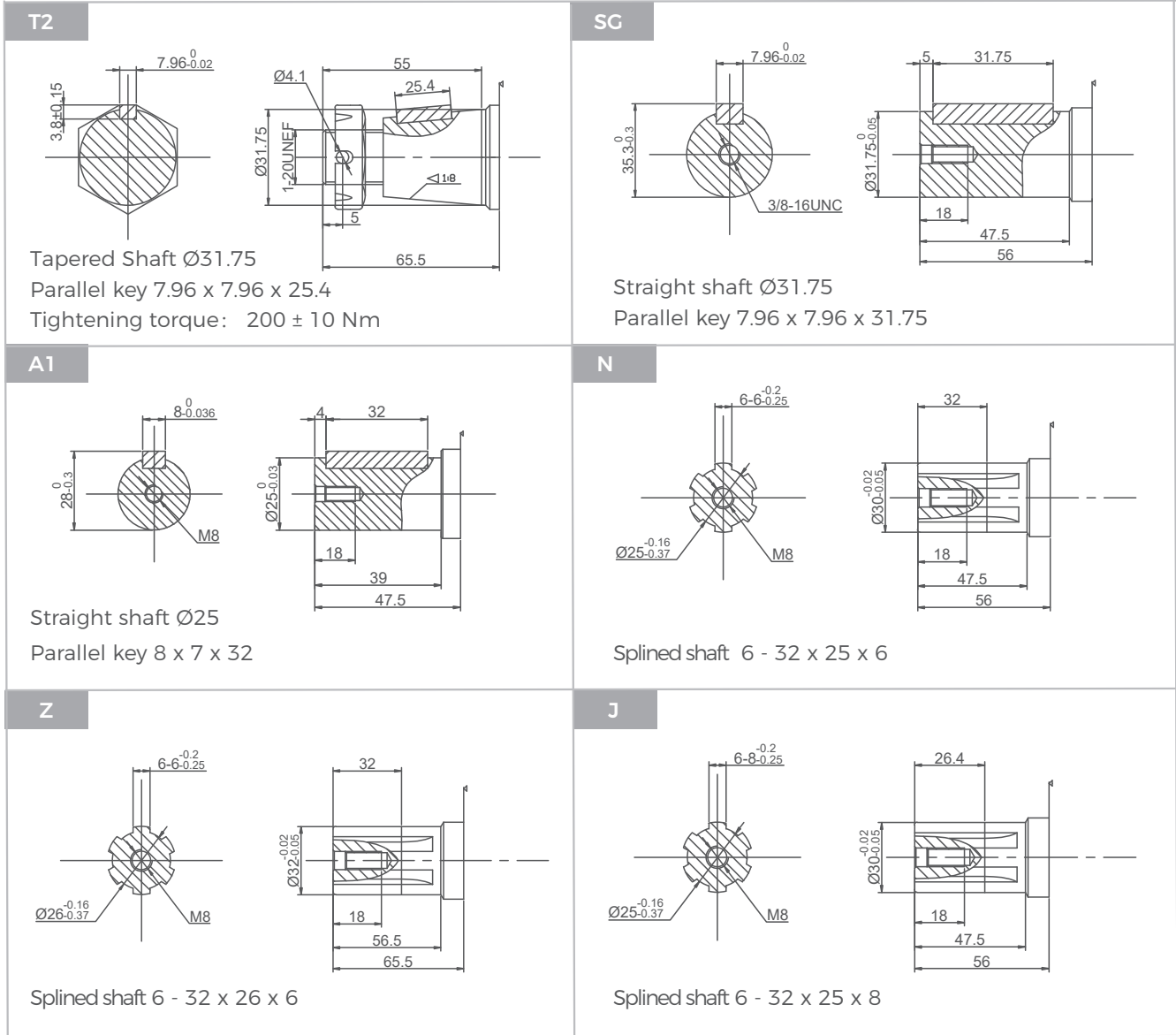
### GKA Flange Covers Dimensions



## GKA Shafts Dimensions

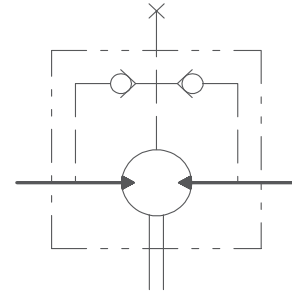
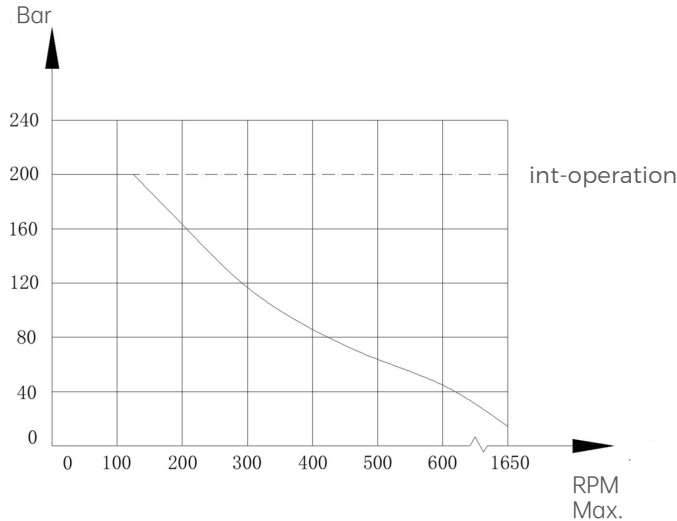
<p><b>R6</b></p>  <p>Splined shaft 14-DP 12/24</p>	<p><b>S6</b></p>  <p>Straight shaft Ø25.4 Woodruff key 25.4 x 6.35</p>
<p><b>R8</b></p>  <p>Splined shaft Ø25.4 SAE 6B</p>	<p><b>S1</b></p>  <p>Straight shaft Ø25 Parallel key 8 x 7 x 32</p>
<p><b>R5</b></p>  <p>Splined shaft 13-DP 16/32</p>	<p><b>S4</b></p>  <p>Straight shaft Ø32 Parallel key 10 x 8 x 45</p>

### GKA Shafts Dimensions



## GKA Series Hydraulic Motors

### Permissible shaft seal pressure



GKA with standard shaft seal check valves and without use of drain connection: The pressure on the shaft seal never exceeds the pressure in the return line.

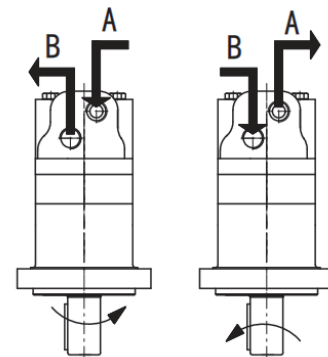
GKA with standard shaft seal, check valves and with drain connection: The shaft seal pressure equals the pressure on the drain line.

### Drain Port

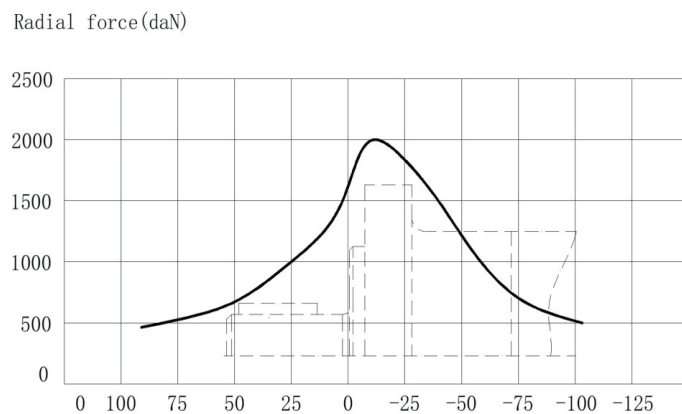
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. In applications using the drain line, the pressure of output shaft seal equals the pressure in drain line.

### Standard direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:  
Clockwise. When port A is pressurized.  
Counter-clockwise when port B is pressurized.



### Output shaft stand radial force



The distance between the force point and the flange surface(mm)

This radial force curve is derived from the permissible bearing life B10 load at rated torque (2,000 hours or 12x10<sup>6</sup> revolutions at 150 rpm) and must be multiplied by a factor for other speeds.