

TYPE CODE

	K4VS	G	125DR	/	10	R	-	P	P	B	10	N00	0	N
01	02	03	04	05	06	07		08	09	10	11	12	13	14

HYDRAULIC FLUIDS

	40	71	125	180	250	355	500	750	1000	
01 Mineral oil (HM) and HFD hydraulic fluid	●	○	●	○	●	●	●	●	○	
HFA, HFB and HFC hydraulic fluids	●	○	●	○	●	●	●	-	-	E

AXIAL PISTON UNIT

02 Swash-plate design, variable, nominal pressure p_N 350 [bar], maximum pressure p_{max} 400 [bar]	K4VS
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OPERATING MODE

03 Pump, close circuit	G
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SIZE

	40	71	125	180	250	355	500	750	1000
04 Geometric displacement $q_{v,max}$ [mL/r]	40	71	125	180	250	355	500	750	1000

CONTROL DEVICE

	40	71	125	180	250	355	500	750	1000		
05 Manual control	●	○	●	○	●	●	○	○	-	MA	
Pressure control	●	○	●	○	●	●	●	-	-	DR	
Hyperbolic power control	●	○	●	○	●	●	○	-	-	LR2	
Hydraulic control	pilot-pressure related		○	○	○	○	○	●	●	-	HD
	ctrl. volume dependent		○	○	○	○	○	○	○	-	HM
	with proportional valve		○	○	○	○	○	○	○	-	HS4
Electric control	●	○	●	○	●	●	●	●	-	EO2	

SERIES

	40	71	125	180	250	355	500	750	1000	
06 Standard	●	○	●	○	●	●	●	●	-	10

DIRECTION OF ROTATION

07 View on drive shaft	clockwise	R
	counterclockwise	L
	bidirectional	W

SEALING

08 [DIN ISO 1629] Fluoroelastomer (FKM) as shaft seals; Nitrile rubber (NBR) for others.	P
	[DIN ISO 1629] Fluoroelastomer (FKM), for operation with HFD hydraulic fluid

DRIVE SHAFT

09 [DIN 6885] parallel keyed shaft	P
	[DIN 5480] splined shaft

MOUNTING FLANGE

	40	71	125	180	250	355	500	750	1000		
10 [ISO 3019-2] flange	4-hole		●	○	●	○	●	●	-	-	B
	8-hole		-	-	-	-	-	●	●	○	H

WORKING PORT

11 [SAE] working ports A and B on same side; [DIN 13] metric fastening thread.	10
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NOTE: ● available ○ upon request - unavailable ■ preferred

K4VS		G 125DR /			10	R	-	P	P	B	10	N00	0	N
01	02	03	04	05	06	07	08	09	10	11	12	13	14	

THROUGH-DRIVE

		40	71	125	180	250	355	500	750	1000	
12	Single pump without through-drive	●	○	●	○	●	●	●	●	-	N00
	2 nd pump's flange 2 nd pump's splined shaft										
	With non-pressure-resistant or pressure-resistant plugged cover, prepared for through-drive	●	○	●	○	●	●	●	●	-	K99
	[ISO 3019-1] 82-2 [SAE A] 5/8"-9T-16/32	○	○	●	○	●	●	●	○	-	K01
	[SAE A-B] 3/4"-11T-16/32	○	○	●	○	●	●	●	○	-	K52
	[ISO 3019-1] 101-2 [SAE B] 7/8"-13T-16/32	●	○	●	○	●	●	●	○	-	K68
	[SAE B-B] 1"-15T-16/32	○	○	●	○	●	●	●	○	-	K04
	[ISO 3019-1] 127-2 [SAE C] 1 1/4"-14T-12/24	-	○	●	○	●	●	●	○	-	K07
	[SAE C-C] 1 1/2"-17T-12/24	-	-	●	○	●	●	●	○	-	K24
	[ISO 3019-1] 152-4 [SAE D] 1 3/4"-13T-8/16	-	-	-	○	●	●	●	○	-	K17
	[ISO 3019-2] 80-2 [SAE A-B] 3/4"-11T-16/32	●	○	●	○	●	●	●	○	-	KB2
	[ISO 3019-2] 100-2 [SAE B] 7/8"-13T-16/32	●	○	●	○	●	●	●	○	-	KB3
	[SAE B-B] 1"-15T-16/32	●	○	●	○	●	●	●	○	-	KB4
	[ISO 3019-2] 125-2 [SAE C] 1 1/4"-14T-12/24	-	○	●	○	●	●	●	○	-	KB5
	[SAE C-C] 1 1/2"-17T-12/24	-	-	●	○	●	●	●	●	-	KB6
	[ISO 3019-2] 160-4 [SAE C] 1 1/4"-14T-12/24	-	○	○	○	○	○	○	○	-	KB8
	[ISO 3019-2] 180-4 [SAE C-C] 1 1/2"-17T-12/24	-	-	○	○	○	○	○	○	-	KB9
	[SAE D] 1 3/4"-13T-8/16	-	-	-	○	●	●	●	●	-	KB7
	[ISO 3019-2] 125-4 [DIN 5480] W32X2X14X9g	●	○	●	○	●	●	●	○	-	K31
	[ISO 3019-2] 140-4 [DIN 5480] W40X2X18X9g	-	○	●	○	●	●	●	○	-	K33
[ISO 3019-2] 160-4 [DIN 5480] W50X2X24X9g	-	-	●	○	●	●	●	○	-	K34	
[ISO 3019-2] 224-4 [DIN 5480] W60X2X28X9g	-	-	-	-	●	●	●	●	-	K35	
[DIN 5480] W70X3X22X9g	-	-	-	-	-	●	●	○	-	K77	
[ISO 3019-2] 315-8 [DIN 5480] W80X3X25X9g	-	-	-	-	-	-	●	○	-	K43	
[ISO 3019-2] 400-8 [DIN 5480] W90X3X28X9g	-	-	-	-	-	-	-	●	-	K76	
[DIN 5480] W100X3X32X9g	-	-	-	-	-	-	-	-	-	K88	
Boost pump attachment											
A piped attachment pump for the boost circuit		-	○	●	○	●	●	●	-	-	H02
A separate piped attachment pump for boost and control circuit (only HD1), with pressure relief valve.		●	○	-	-	-	-	●	●	-	H06

VALVE BLOCK

		40	71	125	180	250	355	500	750	1000	
13	Without valve block	●	○	●	○	●	●	●	●	-	0
	SDVB valve block mounted	●	○	●	○	●	●	●	●	-	9
	SDVB 16/40 valve block mounted	●	○	○	○	-	-	-	-	-	4

FILTRATION

		40	71	125	180	250	355	500	750	1000	
14	Without filter	●	○	●	○	●	●	●	●	-	N
	Filter mounted in boost circuit	●	○	●	○	●	●	●	○	-	F
	Intermediate plate filter (for HS4)	○	○	○	○	○	○	○	-	-	Z
	Filter in boost circuit & intermediate plate filter (HS4)	○	○	○	○	○	○	○	-	-	U

NOTE: ● available ○ upon request - unavailable ■ preferred

01 HYDRAULIC FLUIDS

K4VSG pump is design for operation with [DIN 51524] HLP mineral oil. Selection of environmentally acceptable hydraulic fluids, or fire-resistant, water-free hydraulic fluids HFD, or fire-resistant, water-containing hydraulic fluids HFA/HFB/HFC is allowed but must be specified when ordering.

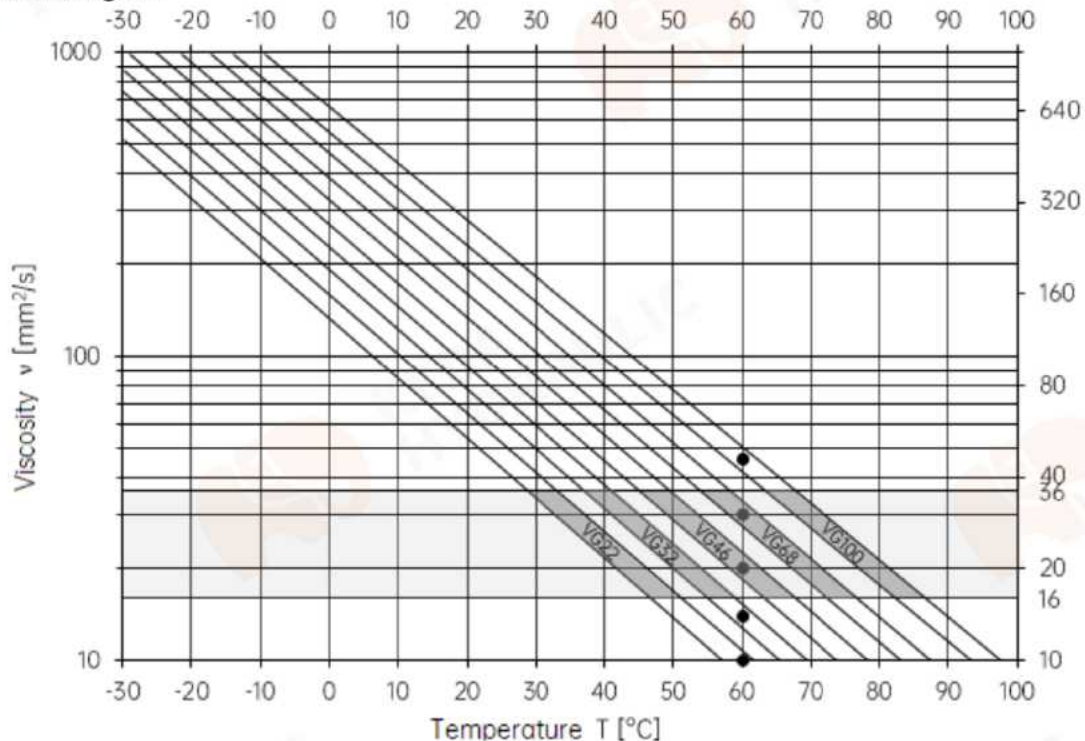
Please contact us if any technical parameter cannot be adhered to.

1. Viscosity and temperature of hydraulic fluids

Operation	Temperature	Viscosity	Remarks
Cold start	$t_{\min} = -25^{\circ}\text{C} / -40^{\circ}\text{C}^*$	$v_{\max} = 1600 \text{ mm}^2/\text{s}$	$t < 3 \text{ min}$, $p \leq 50 \text{ bar}$, $n \leq 1000 \text{ rpm}$
Warm-up		$v = 400 \sim 1600 \text{ mm}^2/\text{s}$	$t \leq 15 \text{ min}$, $p \leq 0.7 p_N$, $n \leq 0.5 n_{\max}$
Continuous	$t_{\max} = +110^{\circ}\text{C} / +85^{\circ}\text{C}^*$	$v = 10 \sim 400 \text{ mm}^2/\text{s}$	at port T
Short-term	$t_{\max} = +110^{\circ}\text{C} / +85^{\circ}\text{C}^*$	$v_{\min} = 7 \sim 10 \text{ mm}^2/\text{s}$	$t < 3 \text{ min}$, $p \leq 0.3 p_N$, at port T

NOTE: * NBR as shaft seals, please contact us.

2. Selection diagram



Before selection, figure out the relationship between ambient temperature and oil temperature in lines in a close circuit. Make sure that any temperature in system must NOT exceed 110 °C.

The hydraulic fluid should be selected so that the operating viscosity in the operating temperature range is within the optimum range $v_{\text{opt}} = 16 \sim 36 \text{ mm}^2/\text{s}$ (shaded area in selection diagram) and its viscosity grade should be as high as possible. For example: whereat oil temperature in reservoir is 60 °C, both viscosity grades VG46 and VG68 are within the optimum range (2 spots in shaded area of selection diagram), in this case, VG68 is preferred.

3. Filtration of hydraulic fluids

Finer filtration improves the cleanliness level of the hydraulic fluid, which increases the service life of the axial piston unit. An [ISO 4406] cleanliness level of at least 20/18/15 is to be maintained during continuous operation; In case of high temperature (90~115 °C) during short-term operation, cleanliness level of 19/17/14 is required.

4. Bearing flushing

Bearing flushing is required for a safe, continuous operation for the following operating conditions:

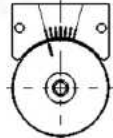
- Operation with borderline conditions for temperature and viscosity during operation with mineral oil;
- Application with special fluids (non-mineral fluids) due to limited lubricity and narrow operating temperature range;
- Recommended for lubricating the front bearing and the shaft sealing, with vertical installation and shaft upwards.

Bearing flushing is realized at port U in the area of front flange of the variable pump. The flushing fluid flows through the front bearing and discharges with the pump drain at the drain port T. Depending on individual sizes, the following flushing flows are recommended:

Size	40	71	125	180	250	355	500	750	1000
	3	4	5	7	10	15	20	30	40

02 TECHNICAL DATA

1. Flow direction (from the inlet port to the outlet port, either A or B)

DIRECTION OF ROTATION	Indicator to the left	← Swivel angle $\pm 15^\circ$ →	Indicator to the right
clockwise R	A → B		B → A
counterclockwise L	B → A		A → B

For example, when the indicator of a clockwise rotated pump R swivels to the left, flow direction is A → B, i.e. port A is the inlet and port B is the outlet.

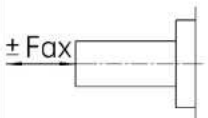
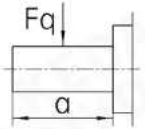
2. Working pressure range (when using hydraulic fluid based on mineral oils)

Pressure	K4VSG	Remarks
Boost/Inlet p_{sp}	16 bar 25 bar (size 500~1000 or EO2)	Minimum pressure 0.7 bar at the low-pressure side (inlet) is required to prevent damage to the axial piston unit.
Nominal p_N	350 bar	At the high-pressure side (outlet) corresponds to the maximum design pressure.
Maximum p_{max}	400 bar	At the high-pressure side (outlet) corresponds to the maximum working pressure within a single operating period.
Minimum p_{min}	15 bar	Minimum pressure at the high-pressure side (outlet) is required to prevent damage to the axial piston unit.
Case p_L	$\bar{p}_L \leq 2$ bar $p_{L, max} = 4$ bar	Case pressures at port $K_2/K_3/R(L)$ must be greater than the ambient pressure at shaft seals.

3. Other technical data

		Size	40	71	125	180	250	355	500	750	1000
		mL/r	40	71	125	180	250	355	500	750	1000
	$q_{V, max}$	n_{max} rpm	3700	3200	2600	2400	2200	2000	1800	1600	1600
Flow	n_{max}	L/min	148	227	325	432	550	710	900	1200	1600
	$n_E^{1)}$	Q_{VE} L/min	60	107	186	270	375	533	750	1125	1500
Power	n_{max}	P_{max} kW	86	132	190	252	321	414	525	700	933
	$n_E^{1)}$	P_E kW	35	62	109	158	219	311	438	656	875

NOTE: 1) $n_E=1500$ rpm; 2) $\Delta p_N=350$ bar.

Parameter		Size		Size									
				40	71	125	180	250	355	500	750	1000	
Torque	$\Delta p_N^{1)}$ $q_{V, max}$	T_{max}	Nm	223	395	696	1002	1391	1976	2783	4174	5565	
	$\Delta p_E^{2)}$ $q_{V, max}$	T	Nm	64	113	199	286	398	564	795	1193	1590	
Input torque	<i>P shaft</i>	$T_{E, max}$	Nm	380	700	1392	1400	2300	3557	5200	7513	9444	
	<i>Z shaft</i>	$T_{E, max}$	Nm	446	790	1392	2004	2782	3952	5566	8348	11130	
Through-drive torque	<i>P shaft</i>	$T_{D, max}$	Nm	380	700	1392	1400	2300	3557	5200	7513	9444	
	<i>Z shaft</i>	$T_{D, max}$	Nm	446	790	1392	2004	2782	3952	5566	8348	11130	
Rotary stiffness of drive shaft	<i>P shaft</i>	c	kNm/rad	80	146	260	328	527	800	1145	1860	2730	
	<i>Z shaft</i>	c	kNm/rad	77	146	263	332	543	770	1136	1812	2845	
Rotary moment of inertia	J	kgm ²	0.0049	0.0121	0.03	0.055	0.0959	0.19	0.3325	0.66	1.2		
Angular acceleration	α	rad/s ²	17000	11000	8000	6800	4800	3600	2800	2000	1450		
Case volume	V	L	2	2.5	5	4	10	8	14	19	27		
Weight	<i>single pump</i>	m	kg	42	60	107	112	220	235	335	500	644	
Center of gravity to mounting flange	l_1	mm	120	140	170	180	210	220	230	260	290		
	Axial force												
	$F_{ax, max}$	N	600	800	1000	1400	1800	2000	2000	2200	2200		
	Radial force (at a/2)												
	$F_{q, max}$	N	1000	1200	1600	2000	2000	2200	2500	3000	3500		

NOTE: 1) $\Delta p_N=350\text{bar}$; 2) $\Delta p_E=100\text{bar}$.

4. Determination of characteristics

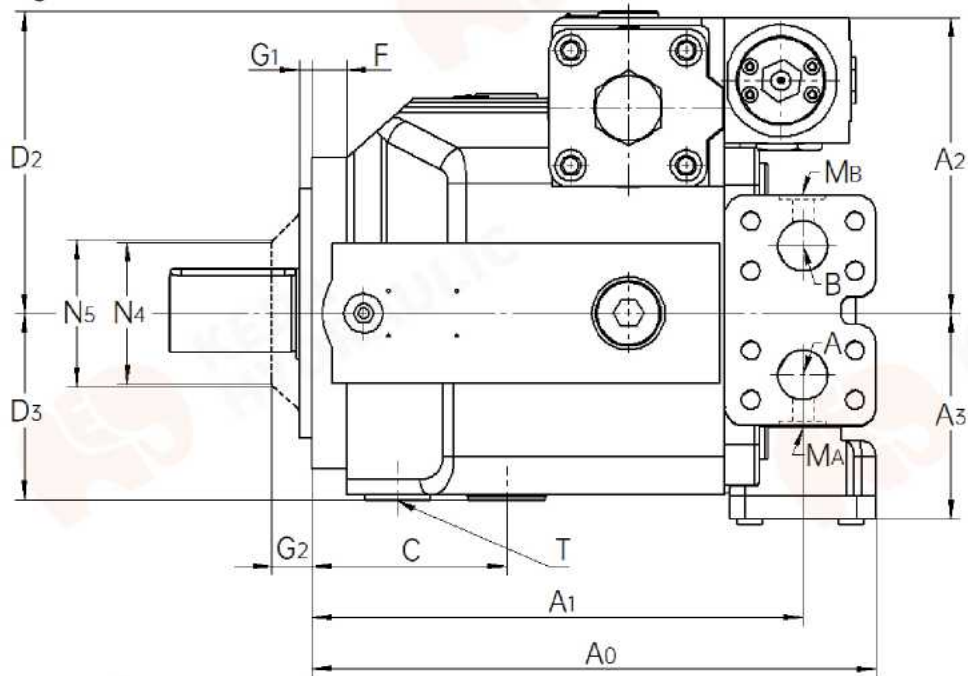
Operation above the maximum values or below the minimum values may result in loss of function, reduced service life or destruction of the axial piston unit. Check out all the permissible values by means of following calculation, etc.

Parameter	Formula	Unit
Geometric displacement per revolution	q_v	[mL/r]
Differential pressure	$\Delta p = p - p_{sp}$	[bar]
Rotational speed	n	[rpm]
Volumetric efficiency	$\eta_v = \frac{Q_v}{Q_{v, theor}}$	[%]
Hydraulic-mechanical efficiency	η_{mh}	[%]
Total efficiency	$\eta_t = \frac{Q_v \times p}{600 \times P_{Qv, max}} = \eta_v \times \eta_{mh}$	[%]
Flow	$Q_v = \frac{q_v \times n \times \eta_v}{1000}$	[L/min]
Torque	$T = \frac{q_v \times \Delta p}{20 \pi \times \eta_{mh}}$	[Nm]
Power	$P = \frac{2\pi \times T \times n}{60000} = \frac{Q_v \times \Delta p}{600 \times \eta_t}$	[kW]

04 SIZE & DIMENSIONS

Following figures are about K4VSG pumps' dimensions of all sizes.

Fig. 1. RHSV (right hand side view)



Size Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
A ₀	282	306	363	375	443	464	510	591	655
A ₁	227	258.5	315	315	386	393	435	478	543
A ₂	135	154	186	186	233	233	280	317	344
A ₃	110	112.5	132.5	132.5	189	191	225	280	280
C	90	101	125	125	150	150	155	161	203
D ₂	140	159	191	191	238	238	283	322	349
D ₃	91	106	121	121	153	153	△	△	△
F	18	18	22	22	30	30	30	32	35
G ₁	8	8	8	8	8	8	16 ⁻⁵	16 ⁻⁵	16 ⁻⁵
G ₂	-	-	-	-	-	-	47	47	47
N ₄	-	-	-	-	-	-	Φ225	Φ255	Φ322
N ₅	-	-	-	-	-	-	Φ230 ⁻⁵	Φ263 ⁻⁵	Φ333 ⁻⁵
Port A/B	¾"	1"	1¼"	1¼"	1¼"	1½"	2"	2"	2"
Drain T	M22X1.5X14	M27X2X16	M33X2X18	M33X2X18	M42X2X20	M42X2X20	M48X2X20	M48X2X20	M48X2X20

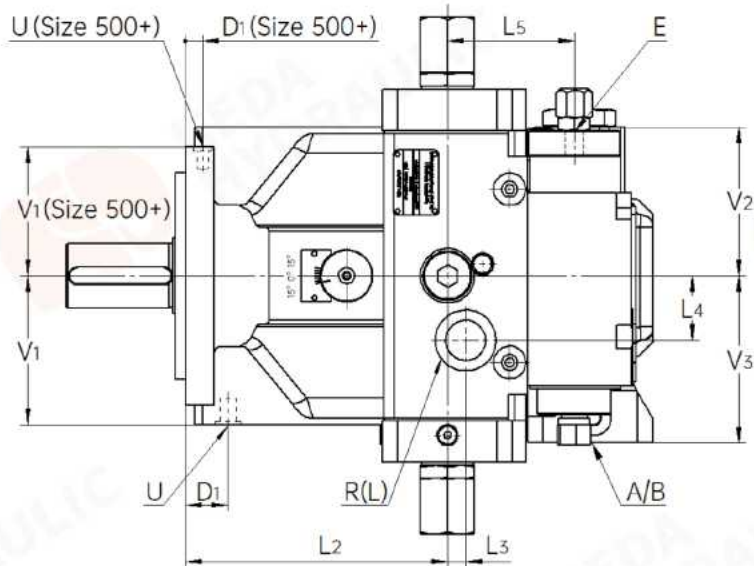
NOTE: - unavailable; △ pending.

Fig. 2. PLAN (t.b.c.)

NOTE: Dimension L'₃ & L'₄ in Fig. 2. PLAN are only valid for certain controls:

Size Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
L' ₃ & L' ₄ for	HD	HD	MA	MA	MA	-	-	-	-

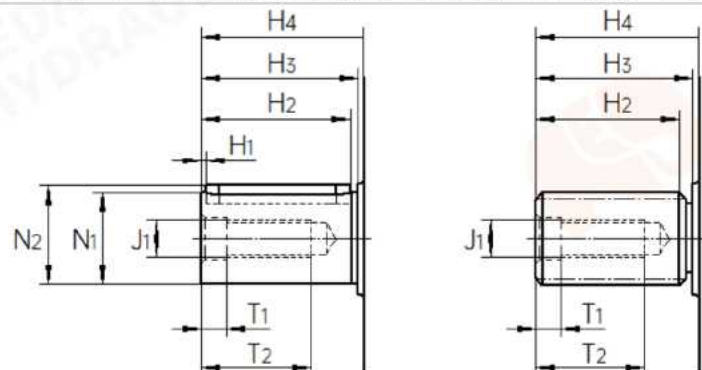
Fig. 2. PLAN



Size Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
D ₁	30	27	33	33	43	40	16	16	16
L ₂	144	166	203	203	248	248	279	301	360
L ₃ (L' ₃)	25 (16)	27 (20)	14 (36)	14 (36)	17 (47)	17	50	50	51
L ₄ (L' ₄)	30 (37)	34 (45)	50 (31)	50 (31)	55 (25)	55	50	50	55
L ₅	83	80	102	102	138	145	146	178.5	185
V ₁	79	92	112	112	144	144	189	231	231
V ₂	96.5	100.5	125	157.5	157.5	178	172	229	229
V ₃	100	110	130	140	160	180	170	210	225
Flushing U	M14X1.5X12	M14X1.5X12	M14X1.5X12	M14X1.5X12	M14X1.5X12	M18X1.5X12	M18X1.5X12	M18X1.5X12	M18X1.5X12
Drain R(L)	M22X1.5X14	M27X2X16	M33X2X18	M33X2X18	M42X2X20	M42X2X20	M48X2X20	M48X2X20	M48X2X20

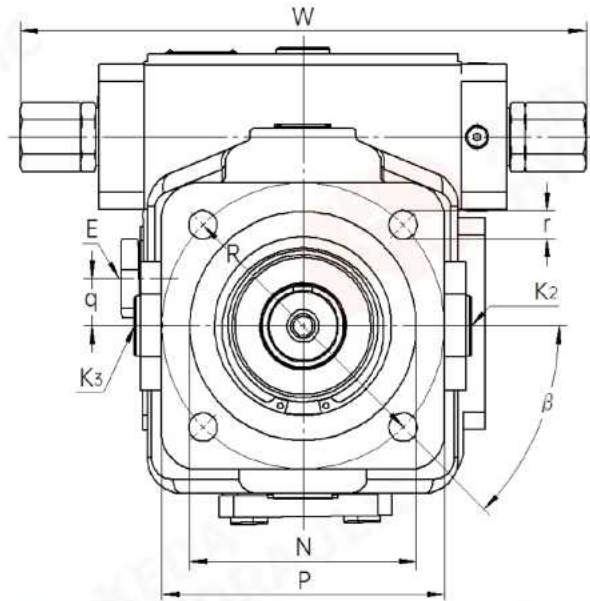
09 DRIVE SHAFT

(left: P shaft; right: Z shaft)



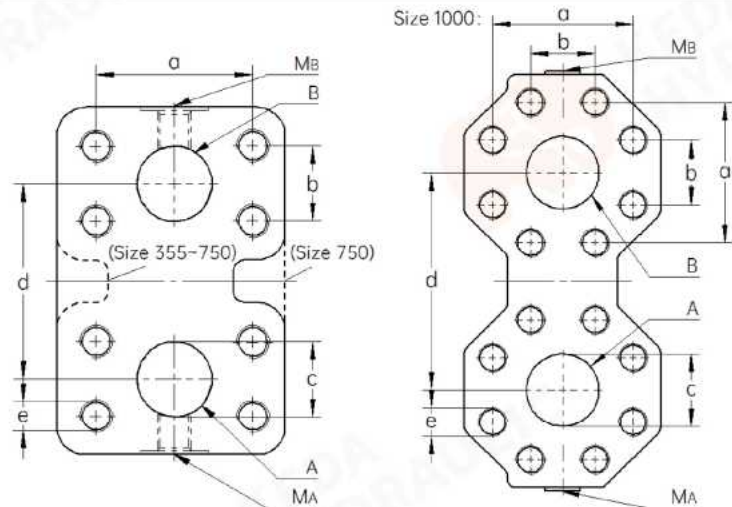
Size Dimension	K4VSG40		K4VSG71		K4VSG125		K4VSG180		K4VSG250		K4VSG355		K4VSG500		K4VSG750		K4VSG1000	
	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z	P	Z
H ₁	1.5	-	1.5	-	1.5	-	1.5	-	3	-	4.5	-	3	-	4.5	-	4.5	-
H ₂	57.5	28	69.5	37	81.5	45	81.5	45	103	59	104.5	69	128	76	129.5	91	164.5	91
H ₃	58	36	70	45	82	54	82	54	105	70	105	82	130	90	130	105	165	105
H ₄	60	38	72	47	84	56	84	56	107	72	107	84	133	93	133	108	168	108
T ₁	7.5	7.5	9.5	9.5	12	12	12	12	15	15	15	15	15	15	18	18	18	18
T ₂	22	22	28	28	36	36	36	36	42	42	42	42	42	42	50	50	50	50
J ₁	M10	M10	M12	M12	M16	M16	M16	M16	M20	M20	M20	M20	M20	M20	M24	M24	M24	M24
N ₁	Φ32 _{k6}	-	Φ40 _{k6}	-	Φ50 _{k6}	-	Φ50 _{k6}	-	Φ60 _{m6}	-	Φ70 _{m6}	-	Φ80 _{m6}	-	Φ90 _{m6}	-	Φ100 _{m6}	-
N ₂	35	-	43	-	53.5	-	53.5	-	64	-	74.5	-	85	-	95	-	106	-
Parallel key	AS10X8X56	AS12X8X68	AS14X9X80	AS14X9X80	AS18X11X100	AS20X12X100	AS22X14X125	AS25X14X125	AS28X16X160									
Spline X9g	W32X2X14	W40X2X18	W50X2X24	W50X2X24	W60X2X28	W70X3X22	W80X3X25	W90X3X28	W100X3X32									

10 MOUNTING FLANGE



Size Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
β	45° (4-hole)	45° (4-hole)	45° (4-hole)	45° (4-hole)	45° (4-hole)	45° (4-hole)	22.5° (8-hole)	22.5° (8-hole)	22.5° (8-hole)
N	Φ125 _{h8}	Φ140 _{h8}	Φ160 _{h8}	Φ160 _{h8}	Φ224 _{h8}	Φ224 _{h8}	Φ315 _{h8}	Φ400 _{h8}	Φ400 _{h8}
P	□150	□170	□200	□200	□265	□265	□380/Φ405	□464/Φ495	□464/Φ495
q	25	25	35	29	40	33.5	48	51	51
R	Φ160	Φ180	Φ200	Φ200	Φ280	Φ280	Φ360	Φ450	Φ450
r	Φ15	Φ15	Φ20	Φ20	Φ24	Φ24	Φ24	Φ22	Φ22
W	296	332	402	402	485	485	555	630	670
Flushing K	M22X1.5X14	M27X2X16	M33X2X18	M33X2X18	M42X2X20	M42X2X20	M48X2X20	M48X2X20	M48X2X20
Boost E	M18X1.5X12	M18X1.5X12	M22X1.5X14	M22X1.5X14	M33X2X18	M33X2X18	M33X2X18	M48X2X20	M48X2X20

11 WORKING PORT



Size Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
a	50.8	57.2	66.7	66.7	79.4	79.4	96.8	96.8	96.8
b	23.8	27.8	31.8	31.8	36.5	36.5	44.5	44.5	44.5
c	Φ20	Φ25	Φ32	Φ32	Φ38	Φ38	Φ50	Φ50	Φ50
d	66	75	83	83	101	101	120	120	150
e	M10X17	M12X17	M14X19	M14X19	M16X21	M16X21	M20X24	M20X24	M20X30
Measure M _A /M _B	M14X1.5X12	M14X1.5X12	M14X1.5X12	M14X1.5X12	M14X1.5X12	M14X1.5X12	M18X1.5X12	M18X1.5X12	M18X1.5X12

05 CONTROL DEVICE

K4VSG pumps can be equipped with various control devices, such as manual control MA, pressure control DR, hyperbolic power control LR2, pilot-pressure related hydraulic control HD, control volume dependent hydraulic control HM, hydraulic control with proportional valve HS4, electric control EO2 and so forth.

1. MA – Manual control

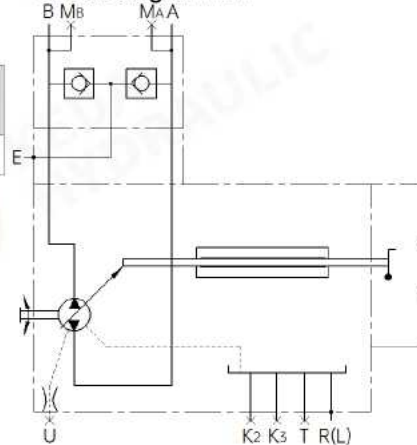
Infinite adjustment of displacement by means of a hand-wheel.

▼Availability for MA control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
MA	●	○	●	○	●	●	○	○	-

NOTE: ● available; ○ upon request; - unavailable.

▼Circuit diagram MA



2. DR – Pressure control

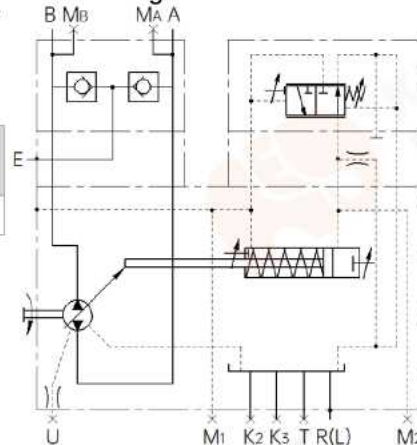
The pressure controller DR limits the maximum pressure p_{max} at pump outlet within the control range 50~350 bar (default 350 bar) of variable pump. NOT available for bidirectional rotated pump W.

▼Availability for DR control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
DR	●	○	●	○	●	●	●	-	-

NOTE: ● available; ○ upon request; - unavailable.

▼Circuit diagram DR



3. LR2 – Hyperbolic power control

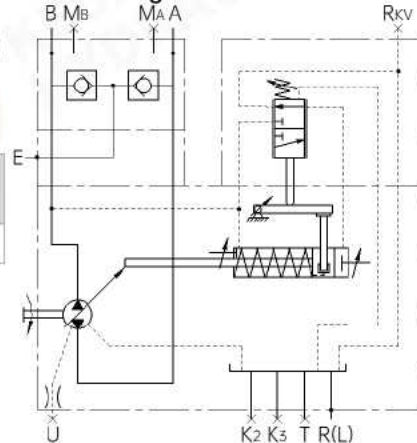
The power controller LR2 adjusts the displacement of the pump according to working pressure, keeps specified drive power constant at same drive speed, whereby the power characteristic is hyperbolic. NOT available for bidirectional rotated pump W.

▼Availability for LR2 control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
LR2	●	○	●	○	●	●	○	-	-

NOTE: ● available; ○ upon request; - unavailable.

▼Circuit diagram LR2



4. HD – Pilot-pressure related hydraulic control

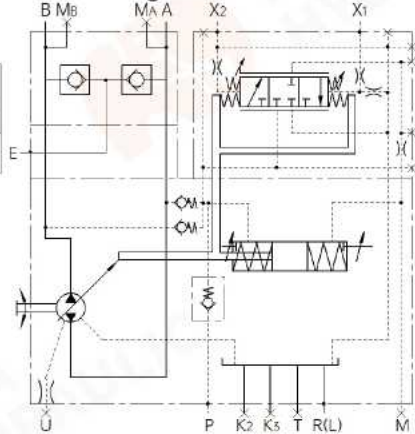
Infinite adjustment of displacement proportional to specified pilot-pressure.

▼ Availability for HD control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
HD	○	○	○	○	○	○	●	●	-

NOTE: ● available; ○ upon request; - unavailable.

▼ Circuit diagram HD



5. HM – Control volume dependent hydraulic control

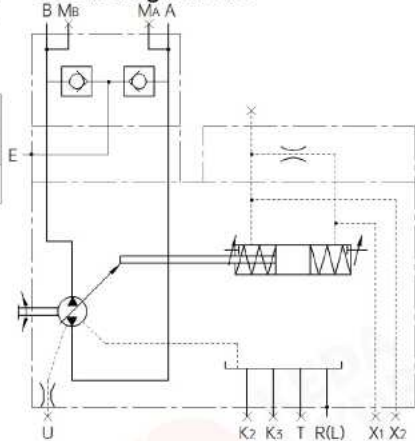
The pump displacement can be infinitely varied in relation to the control oil volume in ports X₁ and X₂. Can be applied in two-point circuit or servo control.

▼ Availability for HM control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
HM	○	○	○	○	○	○	○	-	-

NOTE: ○ upon request; - unavailable.

▼ Circuit diagram HM



6. HS4 – Hydraulic control with proportional valve

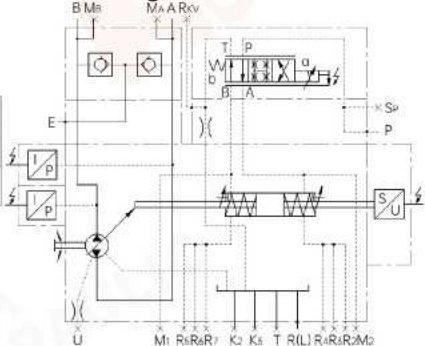
Infinite adjustment of displacement by means of a proportional valve and electrical feedback of the swivel angle.

▼ Availability for HS4 control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
HS4	○	○	○	○	○	○	○	○	-

NOTE: ○ upon request; - unavailable.

▼ Circuit diagram HS4



7. EO2 – Electric control

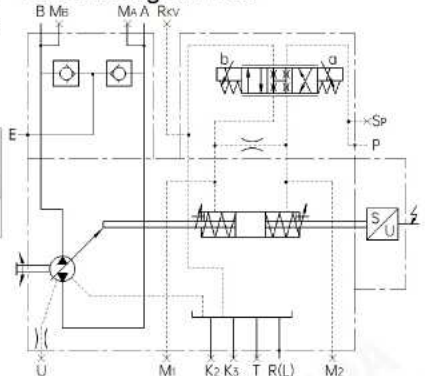
Infinite adjustment of displacement by means of a proportional valve and electrical feedback of the swivel angle. The control can be used as an electric displacement control.

▼ Availability for EO2 control of all sizes

Control \ Size	40	71	125	180	250	355	500	750	1000
EO2	●	○	●	○	●	●	●	●	-

NOTE: ● available; ○ upon request; - unavailable.

▼ Circuit diagram EO2



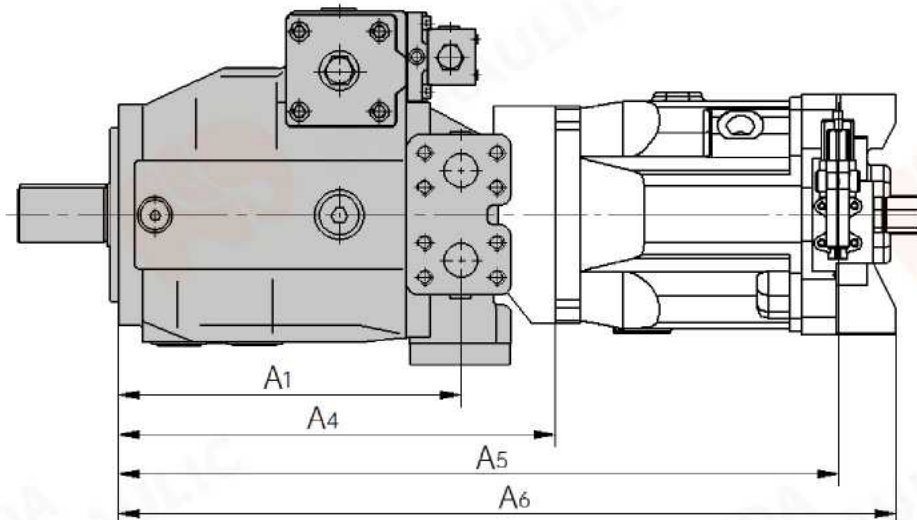
COMBINATION PUMP

K4VSG pump can be combined with K10VO, K4VSO, K4VSG or other type of pumps. A tandem pump with two pumps of equal size is permissible. Please specify the designations for the 1st and the 2nd pumps and join by a "+" when ordering. Order example:

K4VSG 250 LR2 /10 R - P P B 13 K34 0 Z + K4VSG 125 DR /10 R - P P B 13 N00 0 N

The first row of following table refers to the 1st pump (P). For informations about the through-drives (TD), see part 12.

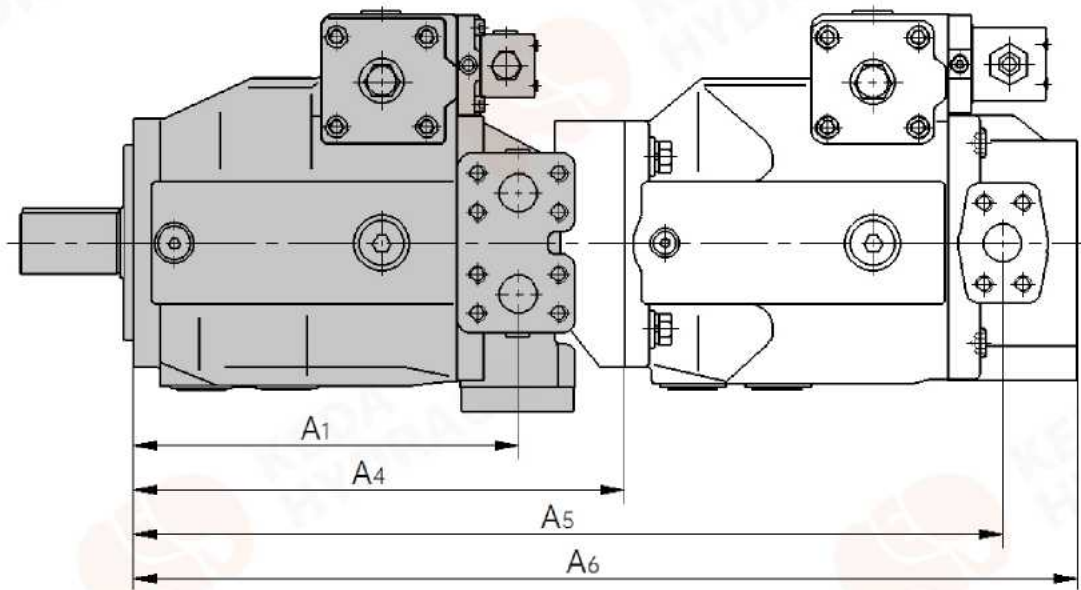
1. Dimensions of an example pump combination K4VSG+K10VO/11



1 st P	TD	K4VSG40				K4VSG71				K4VSG125				K4VSG180				K4VSG250			
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆
+2 nd P	K52 KB2	227	△	△	△	258.5	△	△	△	315	△	△	△	315	△	△	△	386	△	△	△
	KB3	227	290	454	496	258.5	△	△	△	315	378	542	584	315	△	△	△	386	431	595	637
	KB4	227	△	△	△	258.5	316	500	540	315	△	△	△	315	371	555	595	386	431	615	655
	KB5	-	-	-	-	258.5	321	538	578	315	378	595	635	315	402	619	659	386	431	648	688
	KB6	-	-	-	-	-	-	-	-	315	378	653	707	315	402	677	731	386	451	726	780
	KB7	-	-	-	-	-	-	-	-	315	395	670	732	315	419	694	756	386	△	△	△
1 st P	TD	K4VSG355				K4VSG500				K4VSG750				K4VSG1000							
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆				
+2 nd P	K52 KB2	393	460	605	655	435	△	△	△	478	△	△	△	543	△	△	△				
	KB3	393	△	△	△	435	△	△	△	478	△	△	△	543	△	△	△				
	KB4	393	△	△	△	435	△	△	△	478	△	△	△	543	△	△	△				
	KB5	393	460	677	717	435	505	722	762	478	△	△	△	543	△	△	△				
	KB6	393	480	755	809	435	505	780	834	478	555	830	884	543	△	△	△				
	KB7	393	498	773	835	435	△	△	△	478	580	855	917	543	△	△	△				

NOTE: - unavailable; △ pending.

2. Dimensions of an example pump combination K4VSG+K4VSO

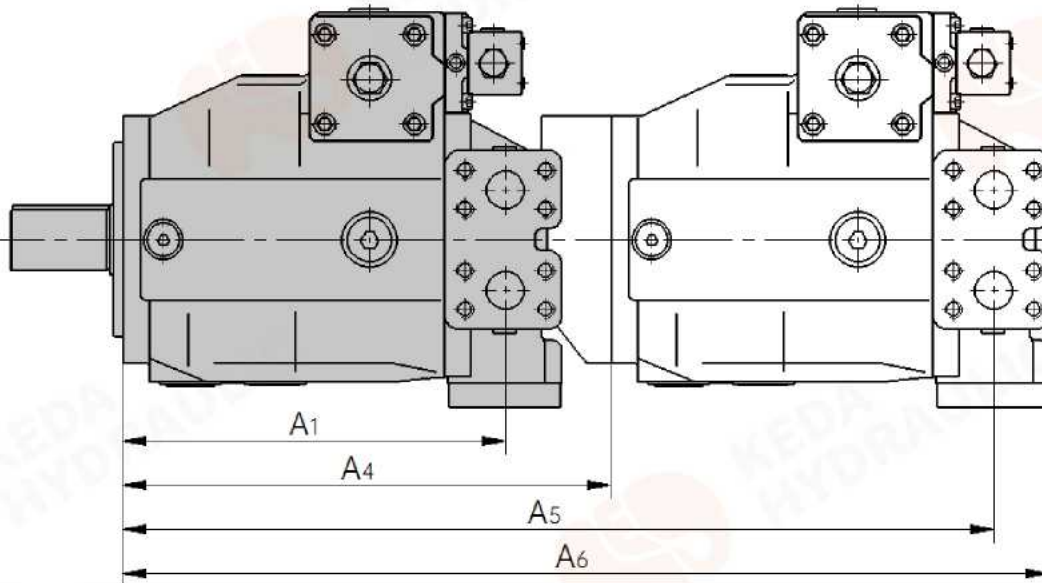


1 st P	TD	K4VSG40				K4VSG71				K4VSG125				K4VSG180				K4VSG250				
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	
+2 nd P																						
K4VSO40	K31	227	288	515	554	258.5	316	543	582	315	373	600	639	315	397	624	663	386	431	658	697	
K4VSO71	K33	-	-	-	-	258.5	316	570	611	315	373	627	668	315	397	651	692	386	431	685	726	
K4VSO80	K33	-	-	-	-	-	-	-	-	315	373	627	668	315	397	651	692	386	431	685	726	
K4VSO125	K34	-	-	-	-	-	-	-	-	315	380	690	735	315	403	713	758	386	469	779	824	
K4VSO180	K34	-	-	-	-	-	-	-	-	-	-	-	-	315	403	721	778	386	469	787	844	
K4VSO200	K34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	386	469	787	844	
K4VSO250	K35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	386	469	849	904	

1 st P	TD	K4VSG355				K4VSG500				K4VSG750				K4VSG1000			
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆
+2 nd P																	
K4VSO40	K31	393	△	△	△	435	△	△	△	478	△	△	△	543	△	△	△
K4VSO71	K33	393	460	714	755	435	505	759	800	478	△	△	△	543	628	882	923
K4VSO80	K33	393	460	714	755	435	505	759	800	478	△	△	△	543	628	882	923
K4VSO125	K34	393	498	808	853	435	505	815	860	478	△	△	△	543	△	△	△
K4VSO180	K34	393	498	816	873	435	505	823	880	478	△	△	△	543	△	△	△
K4VSO200	K34	393	498	816	873	435	505	823	880	478	△	△	△	543	△	△	△
K4VSO250	K35	393	498	878	933	435	541	921	976	478	591	971	1026	543	664	1044	1099
K4VSO355	K77	393	498	891	962	435	541	934	1005	478	△	△	△	543	△	△	△
K4VSO370	K77	-	-	-	-	435	541	934	1005	478	△	△	△	543	△	△	△
K4VSO500	K43	-	-	-	-	435	590	1031	1110	478	△	△	△	543	△	△	△

NOTE: - unavailable; △ pending.

3. Dimensions of an example pump combination K4VSG+K4VSG



1 st P +2 nd P	TD	K4VSG40				K4VSG71				K4VSG125				K4VSG180				K4VSG250			
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆
K4VSG40	K31	227	288	515	570	258.5	316	543	598	315	373	600	655	315	397	624	679	386	431	658	713
K4VSG71	K33	-	-	-	-	258.5	316	574.5	622	315	373	631.5	679	315	397	655.5	703	386	431	689.5	737
K4VSG125	K34	-	-	-	-	-	-	-	-	315	380	695	743	315	403	718	766	386	469	784	832
K4VSG180	K34	-	-	-	-	-	-	-	-	-	-	-	-	315	403	718	778	386	469	784	844
K4VSG250	K35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	386	469	855	912
1 st P +2 nd P	TD	K4VSG355				K4VSG500				K4VSG750				K4VSG1000							
		A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆	A ₁	A ₄	A ₅	A ₆				
K4VSG40	K31	393	△	△	△	435	△	△	△	478	△	△	△	543	△	△	△				
K4VSG71	K33	393	460	718.5	766	435	505	763.5	811	478	△	△	△	543	628	886.5	934				
K4VSG125	K34	393	498	813	861	435	505	820	868	478	△	△	△	543	△	△	△				
K4VSG180	K34	393	498	813	873	435	505	820	880	478	△	△	△	543	△	△	△				
K4VSG250	K35	393	498	884	941	435	541	927	984	478	591	977	1034	543	664	1050	1107				
K4VSG355	K77	393	498	891	962	435	541	934	1005	478	△	△	△	543	△	△	△				
K4VSG500	K43	-	-	-	-	435	590	1025	1110	478	△	△	△	543	△	△	△				
K4VSG750	K76	-	-	-	-	-	-	-	-	478	655	1133	1246	543	728	1206	1319				
K4VSG1000	K88	-	-	-	-	-	-	-	-	-	-	-	-	543	728	1271	1383				

NOTE: - unavailable; △ pending.

4. For dimensions of K4VSG+other type of pumps, such as a gear pump or radial piston pump, please contact us for further information before ordering.

12 THROUGH-DRIVE

K4VSG pump can be combined with K10VO, K4VSO, K4VSG or other type of pumps. Hub for splined shaft, mounting bolts, O-rings and mounting plates (when available) are in the scope of delivery.

The first rows of following tables refer to the 1st pumps, while the second rows after "+" refer to the 2nd pumps and their drive shafts.

1. Available through-drives for K4VSG+K10VO

1 st P	K4VSG40			K4VSG71				K4VSG125					K4VSG180					K4VSG250								
TD	+	18	28	45	18	28	45	71	18	28	45	71	100	140	18	28	45	71	100	140	18	28	45	71	100	140
K52		○	-	-	○	-	-	-	●	-	-	-	-	-	○	-	-	-	-	-	●	-	-	-	-	-
K68		-	●	-	-	○	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	●	-	-	-	-
K04		-	-	○	-	-	○	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	●	-	-	-
K07		-	-	-	-	-	-	○	-	-	-	●	-	-	-	-	-	○	-	-	-	-	●	-	-	-
K24		-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	●	-
K17		-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	●

NOTE: ● available; ○ upon request; - unavailable.

1 st P	K4VSG355						K4VSG500					K4VSG750					K4VSG1000									
TD	+	18	28	45	71	100	140	18	28	45	71	100	140	18	28	45	71	100	140	18	28	45	71	100	140	
K52		●	-	-	-	-	-	●	-	-	-	-	-	○	-	-	-	-	-	○	-	-	-	-	-	-
K68		-	●	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	○	-	-	-	-	-
K04		-	-	●	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	○	-	-	-	-
K07		-	-	-	●	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	○	-	-	-
K24		-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	○	-
K17		-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	○	-	-	-	-	-	○

NOTE: ● available; ○ upon request; - unavailable.

2. Available through-drives for K4VSG+K4VSO

1 st P	K4VSG40	K4VSG71		K4VSG125				K4VSG180				K4VSG250					K4VSG355											
TD	+	40	40	71	40	71	80	125	40	71	80	125	180	40	71	80	125	180	200	250	40	71	80	125	180	200	250	355
K31		●	-	○	-	●	-	-	-	○	-	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-	-	-
K33		-	-	○	-	●	●	-	-	○	○	-	-	●	●	-	-	-	-	-	-	●	●	-	-	-	-	-
K34		-	-	-	-	-	-	●	-	-	-	○	○	-	-	●	●	●	-	-	-	-	●	●	●	-	-	
K35		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	●	
K77		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	

NOTE: ● available; ○ upon request; - unavailable.

1 st P	K4VSG500										K4VSG750										K4VSG1000											
TD	+	40	71	80	125	180	200	250	355	370	500	40	71	80	125	180	200	250	355	370	500	40	71	80	125	180	200	250	355	370	500	
K31		●	-	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	-	-
K33		-	●	●	-	-	-	-	-	-	-	-	○	○	-	-	-	-	-	-	-	-	○	○	-	-	-	-	-	-	-	-
K34		-	-	-	●	●	●	-	-	-	-	-	-	-	○	○	○	-	-	-	-	-	-	○	○	○	-	-	-	-	-	-
K35		-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	○	-	-	
K77		-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	○	-
K43		-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	

NOTE: ● available; ○ upon request; - unavailable.

3. Available through-drives for K4VSG+K4VSG

1 st P	K4VSG40				K4VSG71			K4VSG125				K4VSG180				K4VSG250					K4VSG355				
	TD	+	40	40	71	40	71	125	40	71	125	180	40	71	125	180	250	40	71	125	180	250	355		
K31	●	○	-	●	-	-	○	-	-	-	-	●	-	-	-	-	●	-	-	-	-	-	-		
K33	-	-	○	-	○	-	○	-	○	-	-	-	-	○	-	-	-	-	○	-	-	-	-		
K34	-	-	-	-	-	●	-	-	○	○	-	-	-	●	○	-	-	-	-	●	○	-	-		
K35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
K77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		

NOTE: ● available; ○ upon request; - unavailable.

1 st P	K4VSG500							K4VSG750							K4VSG1000											
	TD	+	40	71	125	180	250	355	500	40	71	125	180	250	355	500	750	40	71	125	180	250	355	500	750	1000
K31	●	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-
K33	-	○	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-
K34	-	-	●	○	-	-	-	-	-	-	○	○	-	-	-	-	-	-	-	○	○	-	-	-	-	-
K35	-	-	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	○	-	-	-	-	-
K77	-	-	-	-	-	●	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	○	-	-	-
K43	-	-	-	-	-	-	●	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	○	-	-
K76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	-	○	-
K88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	

NOTE: ● available; ○ upon request; - unavailable.

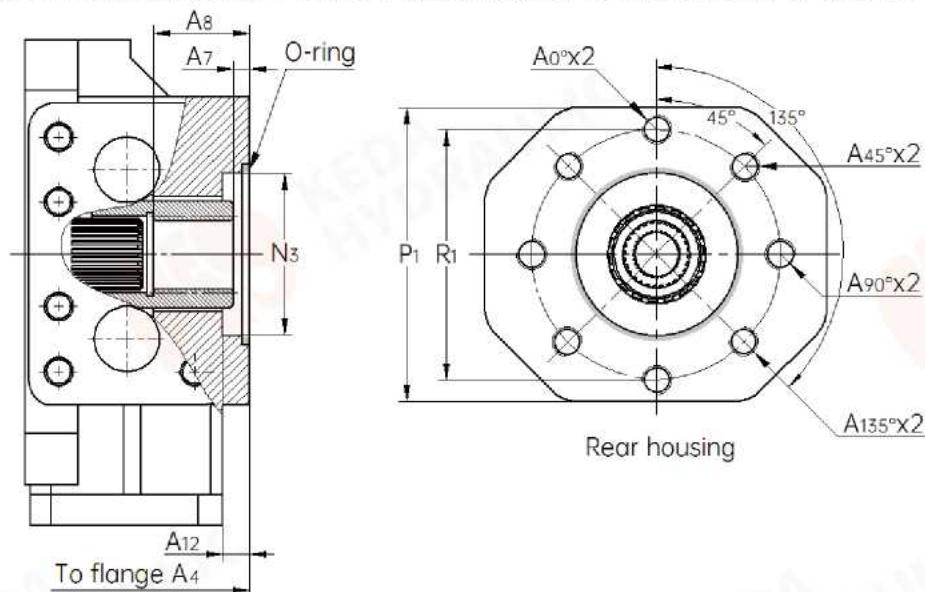
4. Available through-drives for K4VSG+other type of pumps

1 st P	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
	TD	+	other	other	other	other	other	other	other
K99	●	○	●	○	●	●	●	●	○
K01	●	○	●	○	●	●	●	○	○
K68	●	○	●	○	●	●	●	○	○
K04	●	○	●	○	●	●	●	○	○
K24	-	-	●	○	●	●	●	○	○

NOTE: ● available; ○ upon request; - unavailable.

▼ Dimensions of mounting plate/2nd pump's flange/hub for splined shaft/... of all sizes

5.



Code K01 (2nd pump gear pump F series 4~22; 2nd pump's flange ISO 3019-1 – 82-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₅ ^{+0.05} / _{-0.02}	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55
A ₄	263	291	347	371	431	460	505	555	△
A ₇	9	10.5	10.3	9	9	10	10	10	△
A ₈	34.9	35.9	38.3	37	39	40	43	43	△
A ₁₂	10	10	10	10	10	10	10	10	△
A _{45°}	-	-	-	M10	M10	M10	M10	-	-
A _{90°}	M10	M10	M10	M10	M10	M10	M10	M10	M10
R ₁	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5
P ₁	130	140	150	△	200	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32 3/8"-9T-16/32								

NOTE: - unavailable; △ pending.

Code K52 (2nd pump K10VO18; 2nd pump's flange ISO 3019-1 – 82-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₅ ^{+0.05} / _{-0.02}	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55	Φ82.55
A ₄	△	△	△	△	△	460	△	△	△
A ₇	△	△	△	△	△	11	△	△	△
A ₈	△	△	△	△	△	43.4	△	△	△
A ₁₂	△	△	△	△	△	10	△	△	△
A _{45°}	M10	M10	M10	M10	M10	M10	M10	M10	M10
A _{90°}	M10	M10	M10	M10	M10	M10	M10	M10	M10
R ₁	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5	Φ106.5
P ₁	△	△	△	△	△	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32 3/4"-11T-16/32								

NOTE: △ pending.

Code K68 (2nd pump K10VO28 or gear pump N series 20~32; 2nd pump's flange ISO 3019-1 – 101-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₅ ^{+0.05} / _{-0.02}	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6
A ₄	290	322	347	371	431	460	505	△	△
A ₇	11	11	11	11	20.5	19.2	11	△	△
A ₈	44.2	45.4	46.3	49.7	49.9	52.1	52	△	△
A ₁₂	10	10	10	10	10	10	10	△	△
A _{0°}	-	-	-	-	M12	M12	M12	-	-
A _{45°}	M12	M12	-	M12	M12	M12	M12	-	-
A _{90°}	M12	M12	M12	M12	M12	M12	M12	M12	M12
R ₁	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146
P ₁	△	△	150	△	200	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32 7/8"-13T-16/32								

NOTE: - unavailable; △ pending.

Code K04 (2nd pump K10VSO45 or gear pump PGH4; 2nd pump's flange ISO 3019-1 – 101-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.05 +0.02}	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6	Φ101.6
A ₄	△	322	379	371	431	460	505	△	△
A ₇	△	11	12.4	11	11	11	11	△	△
A ₈	△	46.1	49.9	46.3	52.4	52.4	55	△	△
A ₁₂	△	10	10	10	10	10	10	△	△
A _{0°}	-	-	-	M12	M12	M12	M12	-	-
A _{45°}	-	-	M12	M12	M12	M12	M12	-	-
A _{90°}	M12	M12	M12	M12	M12	M12	M12	M12	M12
R ₁	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146	Φ146
P ₁	130	△	△	△	200	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32								

NOTE: - unavailable; △ pending.

Code K07 (2nd pump K10VO71; 2nd pump's flange ISO 3019-1 – 127-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07 +0.02}	-	Φ127	Φ127	Φ127	Φ127	Φ127	Φ127	Φ127	Φ127
A ₄	-	△	377	401	431	460	505	555	628
A ₇	-	△	10.4	10.4	10.4	10.4	11.3	11.3	10.4
A ₈	-	△	60.4	60.4	61.4	61.4	63	63	65
A ₁₂	-	△	13	13	13	13	13	13	13
A _{0°}	-	-	-	-	-	-	M16	M16	M16
A _{45°}	-	M16	M16	M16	M16	M16	M16	M16	M16
A _{90°}	-	-	-	-	-	-	M16	M16	M16
A _{135°}	-	-	-	-	-	M16	-	-	-
R ₁	-	Φ181	Φ181	Φ181	Φ181	Φ181	Φ181	Φ181	Φ181
P ₁	-	△	△	△	200	△	△	250	280
HubX8H	- N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 - 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24 1¼"-14T-12/24								

NOTE: - unavailable; △ pending.

Code KB2 (2nd pump K10VO18; 2nd pump's flange ISO 3019-2 – 80A2HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.05 +0.02}	Φ80	Φ80	Φ80	Φ80	Φ80	Φ80	Φ80	Φ80	Φ80
A ₄	△	△	△	△	△	△	△	△	△
A ₇	△	△	△	△	△	△	△	△	△
A ₈	△	△	△	△	△	△	△	△	△
A ₁₂	△	△	△	△	△	△	△	△	△
A _{45°}	M10	M10	M10	M10	M10	M10	M10	M10	M10
R ₁	Φ109	Φ109	Φ109	Φ109	Φ109	Φ109	Φ109	Φ109	Φ109
P ₁	△	△	△	△	△	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32 ¾"-11T-16/32								

NOTE: △ pending.

Code KB3 (2nd pump K10VO28; 2nd pump's flange ISO 3019-2 – 100A2HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.05 +0.02}	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100
A ₄	290	△	378	△	431	△	△	△	△
A ₇	20.4	△	20.3	△	20.5	△	△	△	△
A ₈	43.4	△	44.8	△	43.5	△	△	△	△
A ₁₂	10	△	10	△	10	△	△	△	△
A _{45°}	M12	M12	M12	M12	M12	M12	M12	M12	M12
R ₁	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140
P ₁	△	△	△	△	200	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32 ⅜"-13T-16/32								

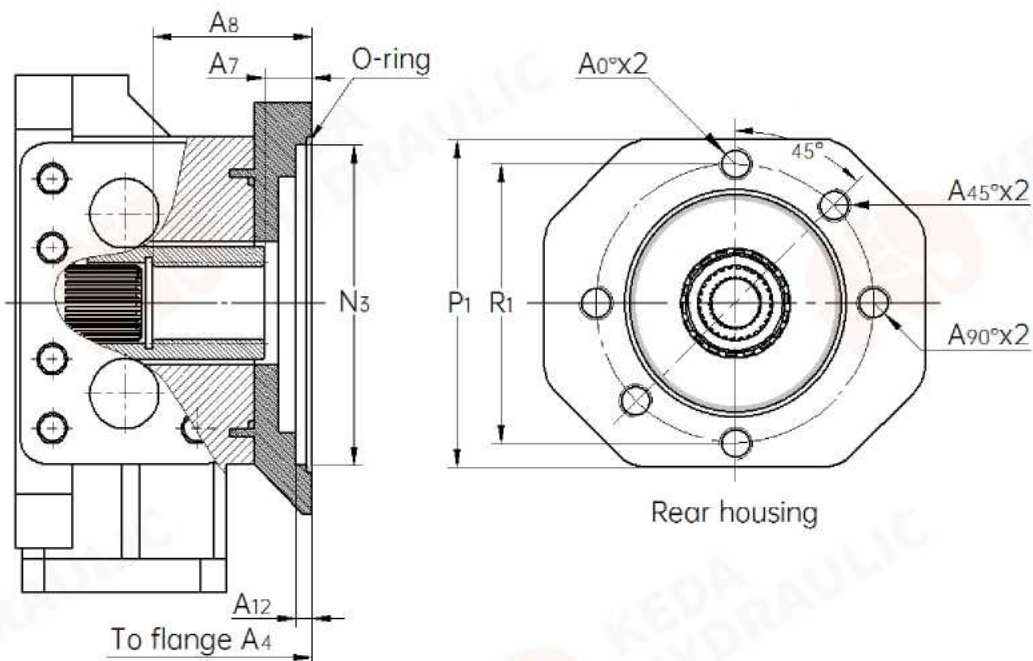
NOTE: △ pending.

Code KB4 (2nd pump K10VO45; 2nd pump's flange ISO 3019-2 – 100A2HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.05 +0.02}	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100
A ₄	△	316	△	371	431	△	△	△	△
A ₇	△	20.8	△	21.8	20.9	△	△	△	△
A ₈	△	48.3	△	49.7	48.4	△	△	△	△
A ₁₂	△	8	△	10	10	△	△	△	△
A _{45°}	M12	M12	M12	M12	M12	M12	M12	M12	M12
R ₁	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140
P ₁	△	△	△	△	200	△	△	△	△
HubX8H	N25X1.25X18 N30X1.25X22 N35X1.25X26 N35X1.25X26 N42X1.25X32 N42X1.25X32 N55X1.25X42 N55X1.25X42 N65X1.25X50 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32 1"-15T-16/32								

NOTE: △ pending.

6.



Code K24 (2nd pump K10VO100; 2nd pump's flange ISO 3019-1 – 127-2)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{+0.02}	-	-	Φ127	Φ127	Φ127	Φ127	Φ127	Φ127	Φ127
A ₄	-	-	377	401	451	480	505	555	628
A ₇	-	-	10.4	10.4	10.5	10.5	10.3	10.3	10.4
A ₈	-	-	64.1	64.4	68.1	68.1	67	67	67
A ₁₂	-	-	13	13	13	13	13	13	13
A _{0°}	-	-	-	-	-	-	M16	M16	M16
A _{45°}	-	-	-	-	-	-	M16	M16	M16
A _{90°}	-	-	M16	M16	M16	M16	M16	M16	M16
R ₁	-	-	Φ181	Φ181	Φ181	Φ181	Φ181	Φ181	Φ181
P ₁	-	-	△	△	△	△	△	250	280
HubX8H	-	-	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24

NOTE: - unavailable; △ pending.

Code KB5 (2nd pump K10VO71; 2nd pump's flange ISO 3019-2 – 125A2HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{+0.02}	-	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125
A ₄	-	321	378	402	431	460	505	△	△
A ₇	-	23.1	23.7	23.7	22	22	19.3	△	△
A ₈	-	61.2	61.8	61.8	58.1	58.1	59.7	△	△
A ₁₂	-	10	10	10	10	10	10	△	△
A _{45°}	-	M16	M16	M16	M16	M16	M16	M16	M16
R ₁	-	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180
P ₁	-	-	-	-	200	△	△	-	-
HubX8H	-	N30X1.25X22	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24	1¼"-14T-12/24

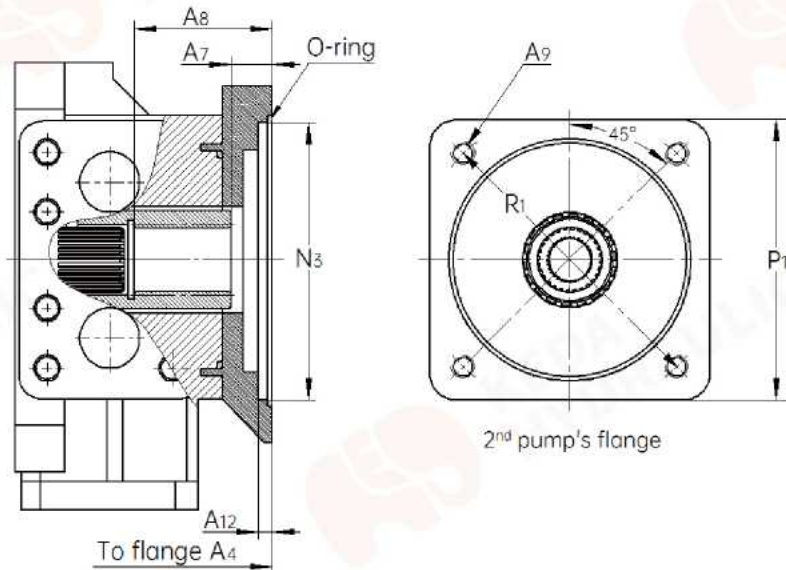
NOTE: - unavailable; △ pending.

Code KB6 (2nd pump K10VO100; 2nd pump's flange ISO 3019-2 – 125A2SW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{+0.02}	-	-	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125
A ₄	-	-	378	402	451	480	505	555	△
A ₇	-	-	11.4	11.4	11	11	11	11	△
A ₈	-	-	65.4	65.4	68.1	68.1	67	67	△
A ₁₂	-	-	10	10	10	10	10	10	△
A _{45°}	-	-	-	-	-	-	M16	M16	-
A _{90°}	-	-	M16	M16	M16	M16	M16	M16	M16
R ₁	-	-	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180
HubX8H	-	-	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24	1½"-17T-12/24

NOTE: - unavailable; △ pending.

7.



Code K17 (2nd pump K10VO140; 2nd pump's flange ISO 3019-1 – 152-4)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{-0.02}	-	-	Φ152.4	Φ152.4	Φ152.4	Φ152.4	Φ152.4	Φ152.4	Φ152.4
A ₄	-	-	382	406	469	498	530	580	△
A ₇	-	-	10.4	10.4	10.4	10.5	10.4	10.4	△
A ₈	-	-	77.4	77.4	72.4	72.5	74	74	△
A ₉	-	-	M16	M16	M16	M16	M16	M16	M16
A ₁₂	-	-	13	13	13	13	13	13	△
R ₁	-	-	Φ228.5	Φ228.5	Φ228.5	Φ228.5	Φ228.5	Φ228.5	Φ228.5
HubX8H	-	-	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16

NOTE: - unavailable; △ pending.

Code KB7 (2nd pump K10VO140; 2nd pump's flange ISO 3019-2 – 180B4HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{-0.02}	-	-	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180
A ₄	-	-	395	419	△	498	△	580	△
A ₇	-	-	10.5	10.5	△	11	△	11	△
A ₈	-	-	55.5	55.5	△	80.3	△	74	△
A ₉	-	-	M16	M16	M16	M16	M16	M16	M16
A ₁₂	-	-	10	10	△	10	△	10	△
R ₁	-	-	Φ224	Φ224	Φ224	Φ224	Φ224	Φ224	Φ224
HubX8H	-	-	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16	1/4"-13T-8/16

NOTE: - unavailable; △ pending.

Code K31 (2nd pump K4VSO40, K4VSG40; 2nd pump's flange ISO 3019-2 – 125B4HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{-0.02}	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125	Φ125
A ₄	288	316	373	397	431	△	△	△	△
A ₇	12.5	12.5	12.5	12.5	12.5	△	△	△	△

A ₈	53.9	46.1	54.5	54.5	50.4	△	△	△	△
A ₉	M12	M12	M12	M12	M12	M12	M12	M12	M12
A ₁₂	10	10	10	10	10	△	△	△	△
R ₁	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160
P ₁	△	△	△	△	200	△	△	△	△
HubX8H	N25X1.25X18	N30X1.25X22	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	N32X2X14	N32X2X14	N32X2X14	N32X2X14	N32X2X14	N32X2X14	N32X2X14	N32X2X14	N32X2X14

NOTE: △ pending.

Code K33 (2nd pump K4VSO71/80, K4VSG71; 2nd pump's flange ISO 3019-2 – 140B4HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{+0.02}	-	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140	Φ140
A ₄	-	316	373	397	431	460	505	△	628
A ₇	-	12	12.5	12.5	12.5	12.5	12.5	△	12.5
A ₈	-	56	62.5	56.3	61.5	61.5	56.5	△	77
A ₉	-	M12	M12	M12	M12	M12	M12	M12	M12
A ₁₂	-	9	10	10	10	10	10	△	10
R ₁	-	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180	Φ180
P ₁	-	△	△	△	200	△	△	△	280
HubX8H	-	N30X1.25X22	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	N40X2X18	N40X2X18	N40X2X18	N40X2X18	N40X2X18	N40X2X18	N40X2X18	N40X2X18

NOTE: - unavailable; △ pending.

Code K34 (2nd pump K4VSO125/180/200, K4VSG125/180; 2nd pump's flange ISO 3019-2 – 160B4HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.07} _{+0.02}	-	-	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160
A ₄	-	-	380	403	469	498	505	△	△
A ₇	-	-	12.5	12.5	12.5	12.5	12.5	△	△
A ₈	-	-	70.5	70.5	72.5	72.5	72.5	△	△
A ₉	-	-	M16	M16	M16	M16	M16	M16	M16
A ₁₂	-	-	10	10	10	10	10	△	△
R ₁	-	-	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200	Φ200
HubX8H	-	-	N35X1.25X26	N35X1.25X26	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	N50X2X24	N50X2X24	N50X2X24	N50X2X24	N50X2X24	N50X2X24	N50X2X24

NOTE: - unavailable; △ pending.

Code K35 (2nd pump K4VSO250, K4VSG250; 2nd pump's flange ISO 3019-2 – 224B4HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.10} _{+0.05}	-	-	-	-	Φ224	Φ224	Φ224	Φ224	Φ224
A ₄	-	-	-	-	469	498	541	591	664
A ₇	-	-	-	-	12.5	12.5	12.5	12.5	12.5
A ₈	-	-	-	-	87.5	87.5	86.5	86.5	82
A ₉	-	-	-	-	M20	M20	M20	M20	M20
A ₁₂	-	-	-	-	10	10	10	10	10
R ₁	-	-	-	-	Φ280	Φ280	Φ280	Φ280	Φ280
HubX8H	-	-	-	-	N42X1.25X32	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	-	-	N60X2X28	N60X2X28	N60X2X28	N60X2X28	N60X2X28

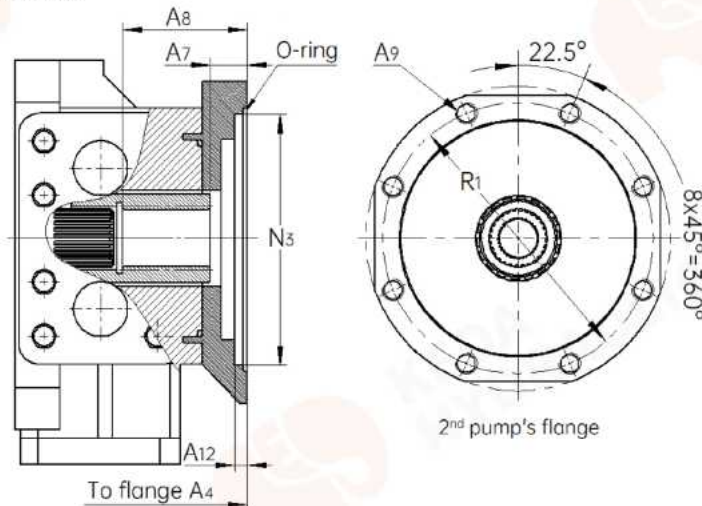
NOTE: - unavailable.

Code K77 (2nd pump K4VSO355/370, K4VSG355; 2nd pump's flange ISO 3019-2 – 224B4HW))

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.10} _{+0.03}	-	-	-	-	-	Φ224	Φ224	Φ224	Φ224
A ₄	-	-	-	-	-	498	541	△	△
A ₇	-	-	-	-	-	12.5	12.5	△	△
A ₈	-	-	-	-	-	94.5	94.5	△	△
A ₉	-	-	-	-	-	M20	M20	M20	M20
A ₁₂	-	-	-	-	-	9	10	△	△
R ₁	-	-	-	-	-	Φ280	Φ280	Φ280	Φ280
HubX8H	-	-	-	-	-	N42X1.25X32	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	-	-	-	N70X3X22	N70X3X22	N70X3X22	N70X3X22

NOTE: - unavailable; △ pending.

8.



Code K43 (2nd pump K4VSO500, K4VSG500; 2nd pump's flange ISO 3019-2 – 315D8HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.10} _{+0.03}	-	-	-	-	-	-	Φ315	Φ315	Φ315
A ₄	-	-	-	-	-	-	590	△	△
A ₇	-	-	-	-	-	-	53.5	△	△
A ₈	-	-	-	-	-	-	125.4	△	△
A ₉	-	-	-	-	-	-	M20	M20	M20
A ₁₂	-	-	-	-	-	-	19	△	△
R ₁	-	-	-	-	-	-	Φ360	Φ360	Φ360
HubX8H	-	-	-	-	-	-	N55X1.25X42	N55X1.25X42	N65X1.25X50
	-	-	-	-	-	-	N80X3X25	N80X3X25	N80X3X25

NOTE: - unavailable; △ pending.

Code K76 (2nd pump K4VSG750; 2nd pump's flange ISO 3019-2 – 400D8HW)

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
N ₃ ^{+0.10} _{+0.03}	-	-	-	-	-	-	-	Φ400	Φ400
A ₄	-	-	-	-	-	-	-	655	728
A ₇	-	-	-	-	-	-	-	53	53
A ₈	-	-	-	-	-	-	-	157	162
A ₉	-	-	-	-	-	-	-	M20	M20
A ₁₂	-	-	-	-	-	-	-	19	19
R ₁	-	-	-	-	-	-	-	Φ450	Φ450

HubX8H	-	-	-	-	-	-	-	N55X1.25X42	N65X1.25X50
	-	-	-	-	-	-	-	N90X3X28	N90X3X28

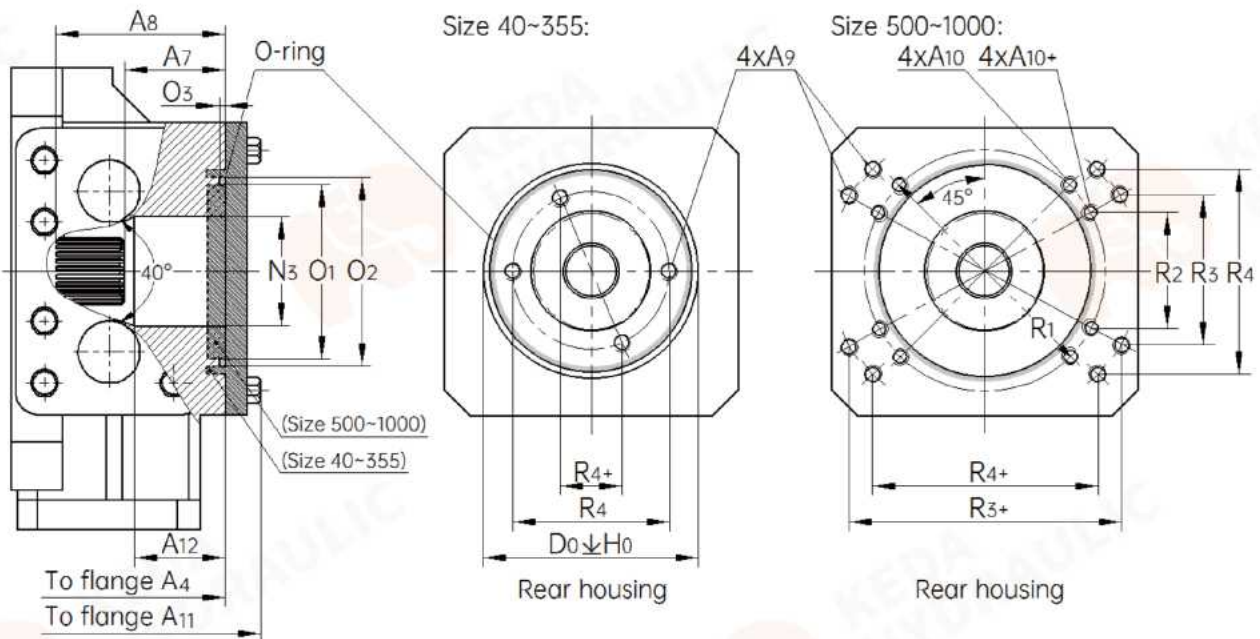
NOTE: - unavailable.

Code K88 (2nd pump K4VSG1000; 2nd pump's flange ISO 3019-2 - 400D8HW)

1 st P	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
Dimension									
N ₃	^{+0.10} _{+0.03}	-	-	-	-	-	-	-	Φ400
A ₄	-	-	-	-	-	-	-	-	728
A ₇	-	-	-	-	-	-	-	-	53
A ₈	-	-	-	-	-	-	-	-	159
A ₉	-	-	-	-	-	-	-	-	M20
A ₁₂	-	-	-	-	-	-	-	-	19
R ₁	-	-	-	-	-	-	-	-	Φ450
HubX8H	-	-	-	-	-	-	-	-	N65X1.25X50
	-	-	-	-	-	-	-	-	N100X3X32

NOTE: - unavailable.

9.



Code K99 (with non-pressure-resistant or pressure-resistant plugged cover, prepared for through-drive)

1 st P	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
Dimension									
N ₃	Φ52	Φ63	Φ70	Φ70	Φ88	Φ88	Φ115	Φ115	Φ142
D ₀	Φ118	Φ130	Φ137	Φ137	Φ180	Φ180	-	-	-
H ₀	9	9	7	7	9	9	11	11	11
A ₄	263	291	347	371	431	460	505	555	628
A ₇	51.3	48	49.7	49.7	61.4	61.4	73	73	75
A ₈	65.3	64	71.7	74.7	95.6	95.7	114	114	125
A ₁₁	280	310	368	392	458	487	520	577	653
A ₁₂	44	39	46	57	64	64	75	75	65
R ₁	-	-	-	-	-	-	Φ200	Φ200	Φ200
A ₁₀	-	-	-	-	-	-	4XM16X24	4XM16X24	4XM16X24

1 st P Dimension	K4VSG40	K4VSG71	K4VSG125	K4VSG180	K4VSG250	K4VSG355	K4VSG500	K4VSG750	K4VSG1000
R ₂	-	-	-	-	-	-	94	94	94
A ₁₀₊	-	-	-	-	-	-	4XM16X30	4XM16X30	4XM16X30
R ₃	-	-	-	-	-	-	120	120	120
R ₃₊	-	-	-	-	-	-	224	224	224
R ₄	Φ74	Φ90	Φ94	Φ94	Φ126	Φ126	200	200	200
R ₄₊	0	30.8±0.3	0	0	0	0	144	144	144
A ₉	4XM12X25	4XM12X25	4XM14X30	4XM14X30	4XM20X40	4XM20X40	4XM20X24	4XM20X24	4XM20X30
O ₁	Φ97.6 _{-0.4}	Φ106.4 _{-0.4}	Φ116 _{-0.4}	Φ116 _{-0.4}	Φ157 _{-0.4}	Φ157 _{-0.4}	Φ160 ^{+0.7} _{+0.2}	Φ160 ^{+0.7} _{+0.2}	Φ160 ^{+0.7} _{+0.2}
O ₂	Φ105 _{g6}	Φ116 _{g6}	Φ124 _{g6}	Φ124 _{g6}	Φ165 _{g6}	Φ165 _{g6}	Φ169 ^{+0.4}	Φ169 ^{+0.4}	Φ169 ^{+0.4}
O ₃ ^{+0.1}	2.3	2.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3
O-ring	99X3	110.72X3.53	119X3	119X3	160X3	160X3	165X3	165X3	165X3
Keyed shaft X9g	W25X1.25X18	W30X1.25X22	W35X1.25X26	W35X1.25X26	W42X1.25X32	W42X1.25X32	W55X1.25X42	W55X1.25X42	W65X1.25X50

NOTE: - unavailable.

COUPLING ASSEMBLY

1. Install the specified coupling half onto the drive shaft of the axial piston unit following instructions.
2. Clamp the coupling hub onto the drive shaft or ensure a permanent lubrication of the drive shaft. This prevents the formation of frictional corrosion and the associated wear.
3. Transport the axial piston unit to the installation location and remove dirt and contaminants there.
4. Install the coupling on the drive shaft of the machine/system in accordance with the specifications. Fix the axial piston unit (may not be bolted down until the coupling has been correctly installed).
5. Do not install the coupling hub onto the drive shaft of the axial piston unit by striking it.

TRANSPORTATION



▲ via lifting strap



▲ via hooks



▲ via forklift