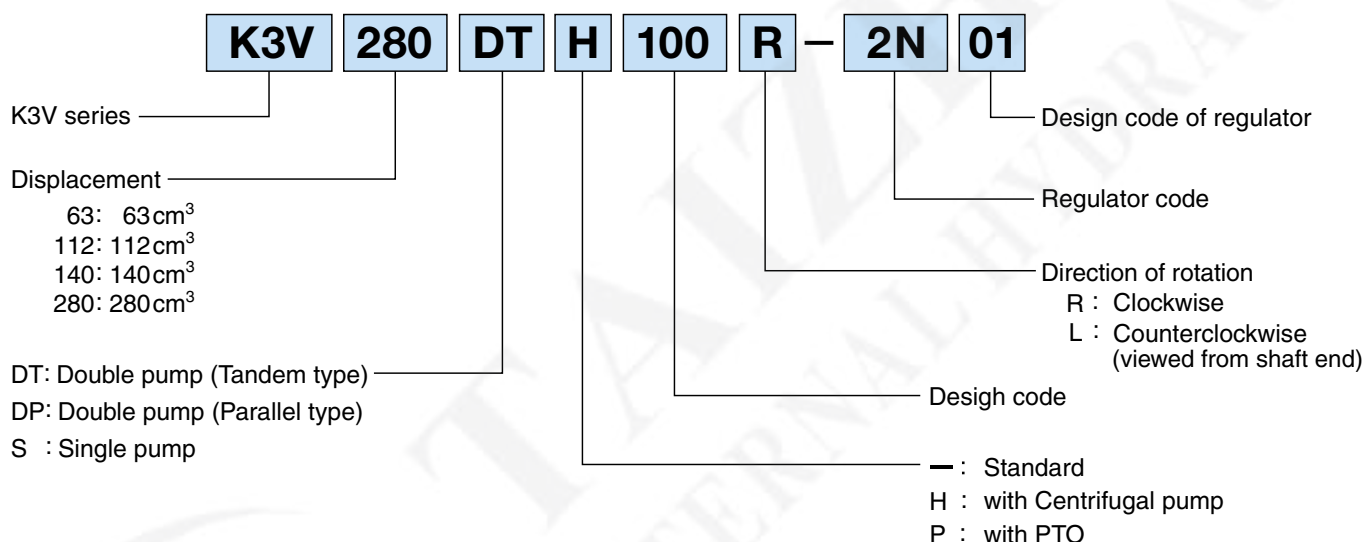


The N series pump, which was used widely as a piston pump especially for construction machines, has been modified to the K3V series, meeting the present-day requirements. This pump has optimum function design and is provided with further improved power density, efficiency, and reliability, attained from our many years of experiences with the NV series.



ORDERING CODE



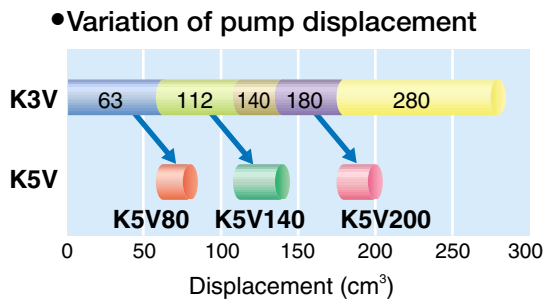
SPECIFICATIONS

1MPa = 10.197kgf/cm²
1N·m = 0.10197kgf·m

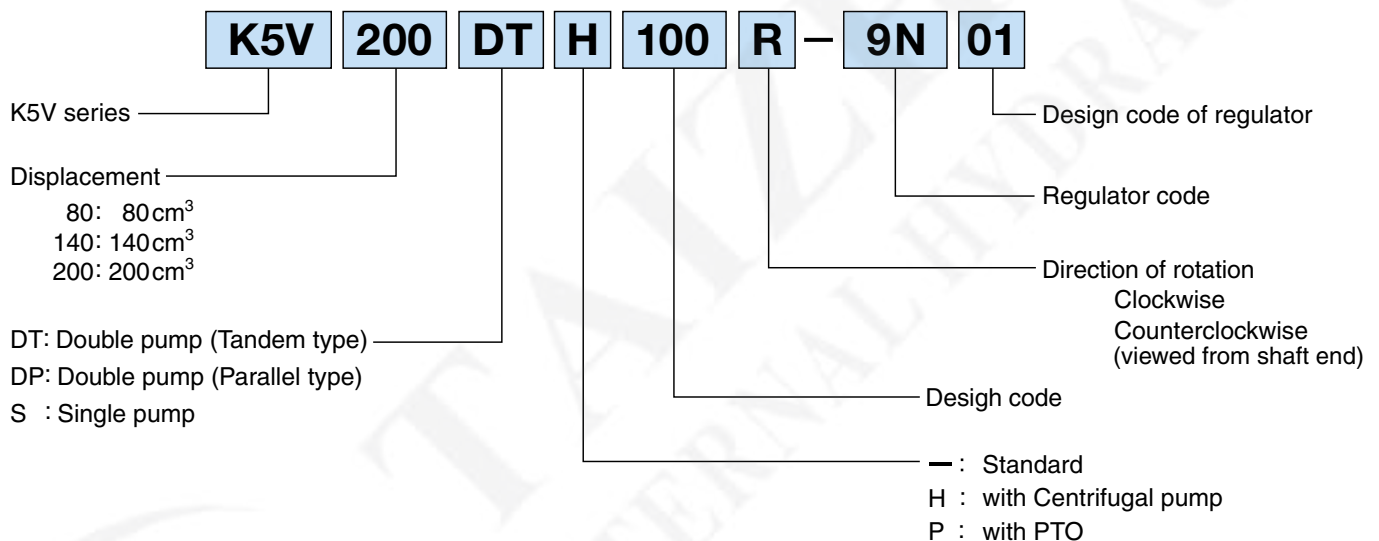
Size	63	112	140	280	
Displacement (cm ³)	63	112	140	280	
Pressure (MPa)	*1 Rated 34.3				
	Peak 39.2				
Speed (min ⁻¹)	*2 Max. for self priming				
	2,650	2,360	2,150	1,600 (2,000) *4	
*3 Max.		3,250	2,700	2,500	2,000
Max. input torque of tandem pump (N·m)		343	588	1,120	1,950
Max. input torque of attached gear pump with PTO (N·m)		125		294	—
Mass (kg)	Single	48	68	86	140
	Tandem	81	125	160	270
Hydraulic fluid	Type	*5 Antiwear hydraulic fluid			
	Oil temperature range	-20 ~ +95 °C			
	Oil viscosity range	10 ~ 1,000 mm ² /S (cSt)			
	Filtration	Suction line	80 ~ 150 mesh		
Return line		nominal 10 micron meter			

- *1. Pressure to which guarantee of performance, functions or service life is applied. Durability is unlimited (except for the bearing life).
- *2. At max. displacement. In case of engine driving, max. idling speed should be below this value. This suction pressure should be -0.01 MPa and above.
- *3. Suction pressure should be above 0.1MPa.
- *4. Max. speed with centrifugal pump
- *5. When other kinds of fluid would be used, please consult with us.

With new technology the K5V series has enabled increased power density.



ORDERING CODE



SPECIFICATIONS

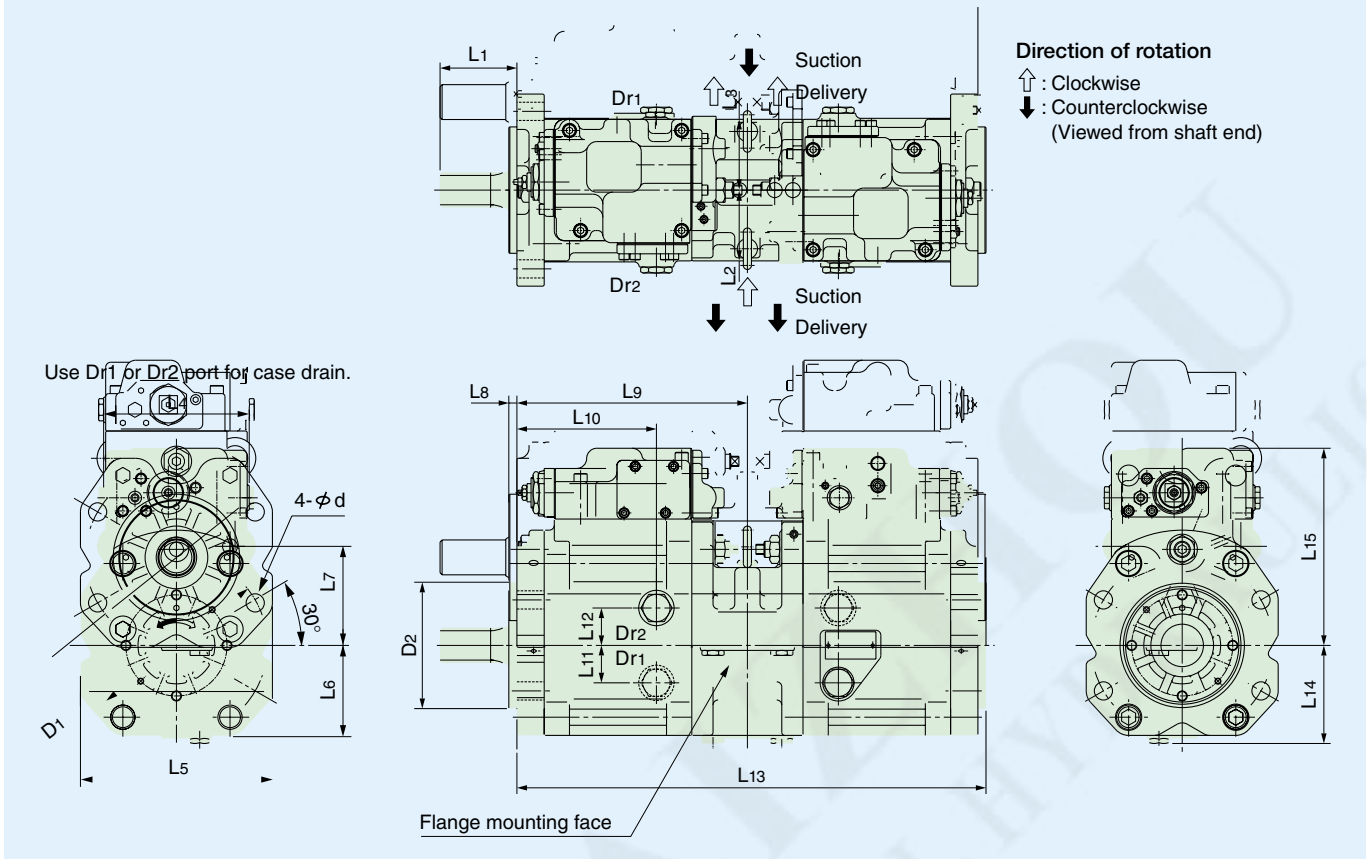
1MPa=10.197kgf/cm²
1N·m=0.10197kgf·m

Size	80	140	200
Displacement (cm ³)	80	140	200
Pressure (MPa)	*1 Rated		
	Peak		
Speed (min ⁻¹)	*2 Max. for self priming		1,900 (2,200)*4
	*3 Max.		2,200
Max. input torque of tandem pump (N·m)	529	843	1,120
Max. input torque of attached gear pump with PTO (N·m)	125		294
Mass (kg)	Single	48	68
	Tandem	81	125
Hydraulic fluid	Type	*5 Antiwear hydraulic fluid	
	Oil temperature range	-20 ~ +95 °C	
	Oil viscosity range	10 ~ 1,000 mm ² /S (cSt)	
	Filtration	Suction line	80 ~ 150 mesh
Return line		nominal 10 micron meter	

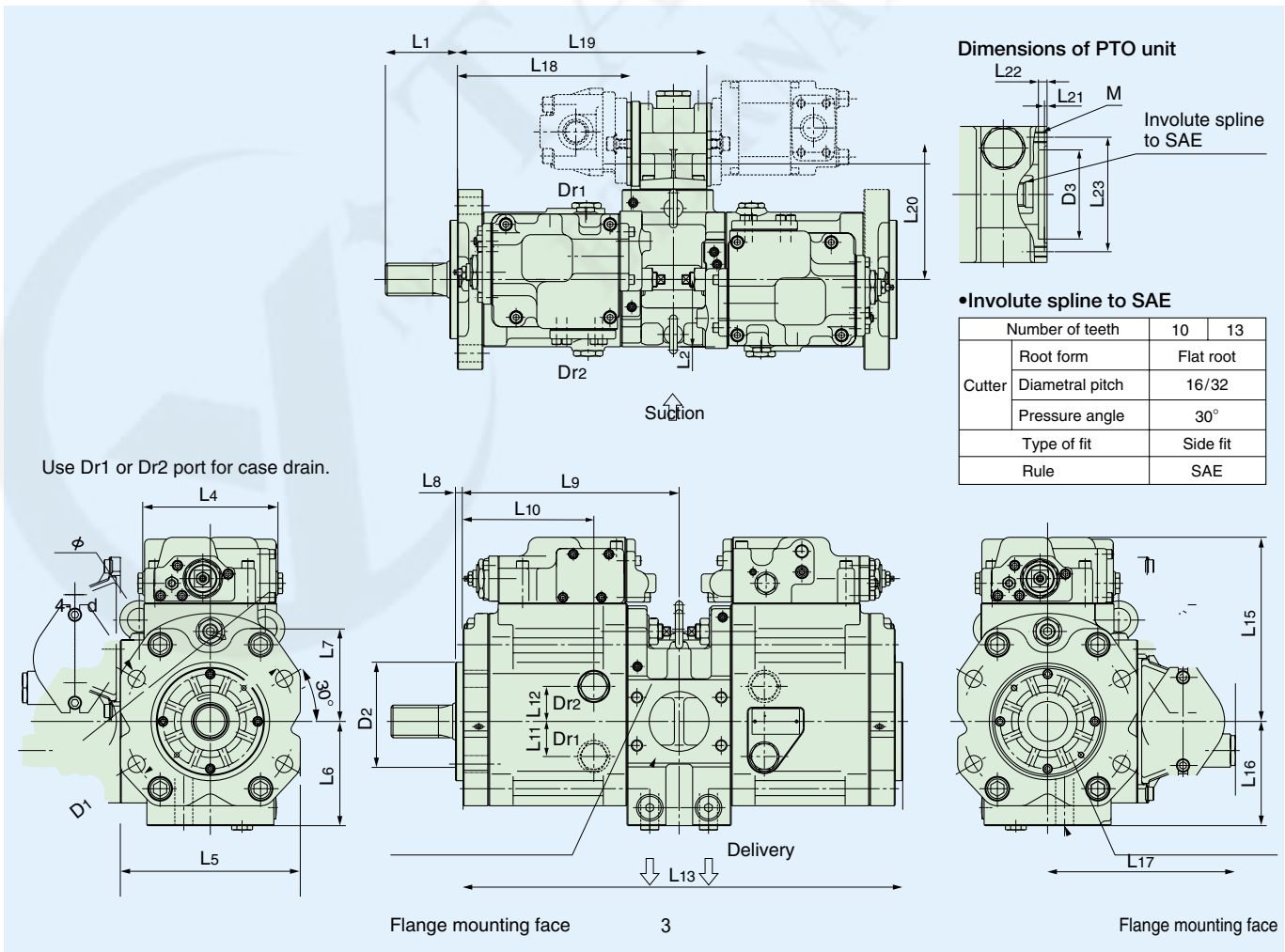
- *1. Pressure to which guarantee of performance, functions or service life is applied. Durability is unlimited (except for the bearing life).
- *2. At max. displacement. In case of engine driving, max. idling speed should be below this value. This suction pressure should be -0.0 1MPa and above.
- *3. Suction pressure should be above 0.1MPa.
- *4. Max. speed with centrifugal pump
- *5. When other kinds of fluid would be used, please consult with us.

DIMENSIONS

• Tandem Type



• Tandem Type (with PTO)



Dimensions

Size	D1	D2	D3	d	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
K3V63	180	125	82.55	18	76	70	70	142	190	89	98	8	228	138	37	37	464	97	195
K3V112	224	160	82.55	22	78	80	80	142	234	100	110	8	265	167	41	41	538	109	220
K3V140	250	180	101.6	22	93	92	92	142	256	112	123	8	305	190	53	53	618	121	245
K3V280	300	200	—	26	115	150	125	142	300	127	140	8	356	203	70	70	792	150	286
K5V80	180	125	82.55	18	76	70	70	142	190	89	98	8	228	138	37	37	464	97	195
K5V140	224	160	82.55	22	78	80	80	142	234	100	110	8	265	167	41	41	538	109	220
K5V200	250	180	101.6	22	93	92	92	142	256	112	123	8	305	190	53	53	618	121	245

(mm)

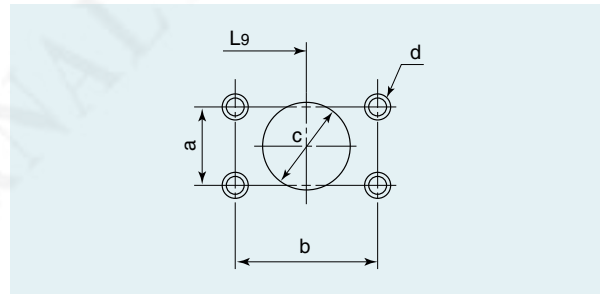
Size	L16	L17	L18	L19	L20	L21	L22	L23	M
K3V63	110	213	177	268	150	2.4	8	106	2-M10-25
K3V112	110	213	214	305	150	2.4	8	106	2-M10-25
K3V140	122	292	257	361	200	2.4	15	127	4-M12-22
K5V80	110	213	177	268	150	2.4	8	106	2-M10-25
K5V140	110	213	214	305	150	2.4	8	106	2-M10-25
K5V200	122	292	257	361	200	2.4	15	127	4-M12-22

Dimensions of shaft end

Size	Spec.	No. of teeth	Pitch circle dia (mm)	Pressure angle	Module	Rule
K3V63		14	29.6	30°	12/24	SAE
K3V112		14	35.0	20°	2.5	JIS B 1603
K3V140		17	42.5	20°	2.5	JIS B 1603
K3V280		18	54.0	20°	3.0	JIS B 1603
K5V80		12	30.0	20°	2.5	JIS B 1603
K5V140		17	42.5	20°	2.5	JIS B 1603
K5V200		17	42.5	20°	2.5	JIS B 1603

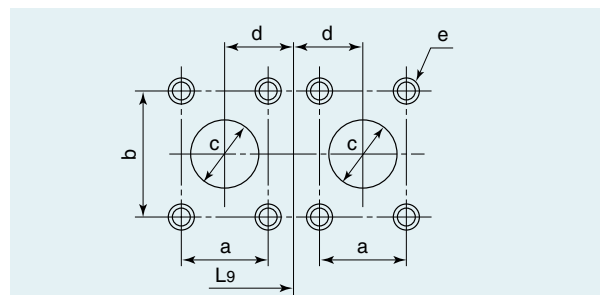
Flange mounting face for Suction port (SAE Rule) (mm)

Size	a	b	c	d-Screw depth
K3V63	50.8	88.9	∅60	M12-18
K3V112	50.8	88.9	∅60	M12-18
K3V140	61.9	106.4	∅76	M16-24
K3V280	69.8	120.7	∅89	M16-24
K5V80	50.8	88.9	∅60	M12-18
K5V140	50.8	88.9	∅60	M12-18
K5V200	61.9	106.4	∅76	M16-24



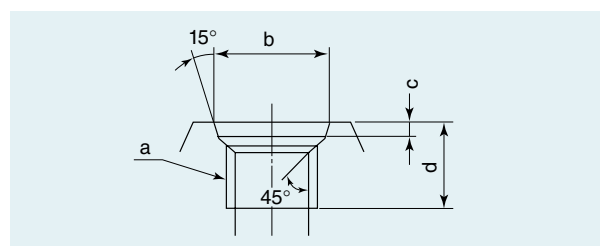
Flange mounting face for Delivery port (SAE Rule) (mm)

Size	a	b	c	d	e-Screw depth
K3V63	23.8	50.8	∅19	31.0	M10-16
K3V112	23.8	50.8	∅19	31.0	M10-16
K3V140	27.8	57.2	∅25	37.5	M12-22
K3V280	31.8	66.7	∅32	61.5	M12-20
K5V80	23.8	50.8	∅19	31.0	M10-16
K5V140	23.8	50.8	∅19	31.0	M10-16
K5V200	27.8	57.2	∅25	37.5	M12-22

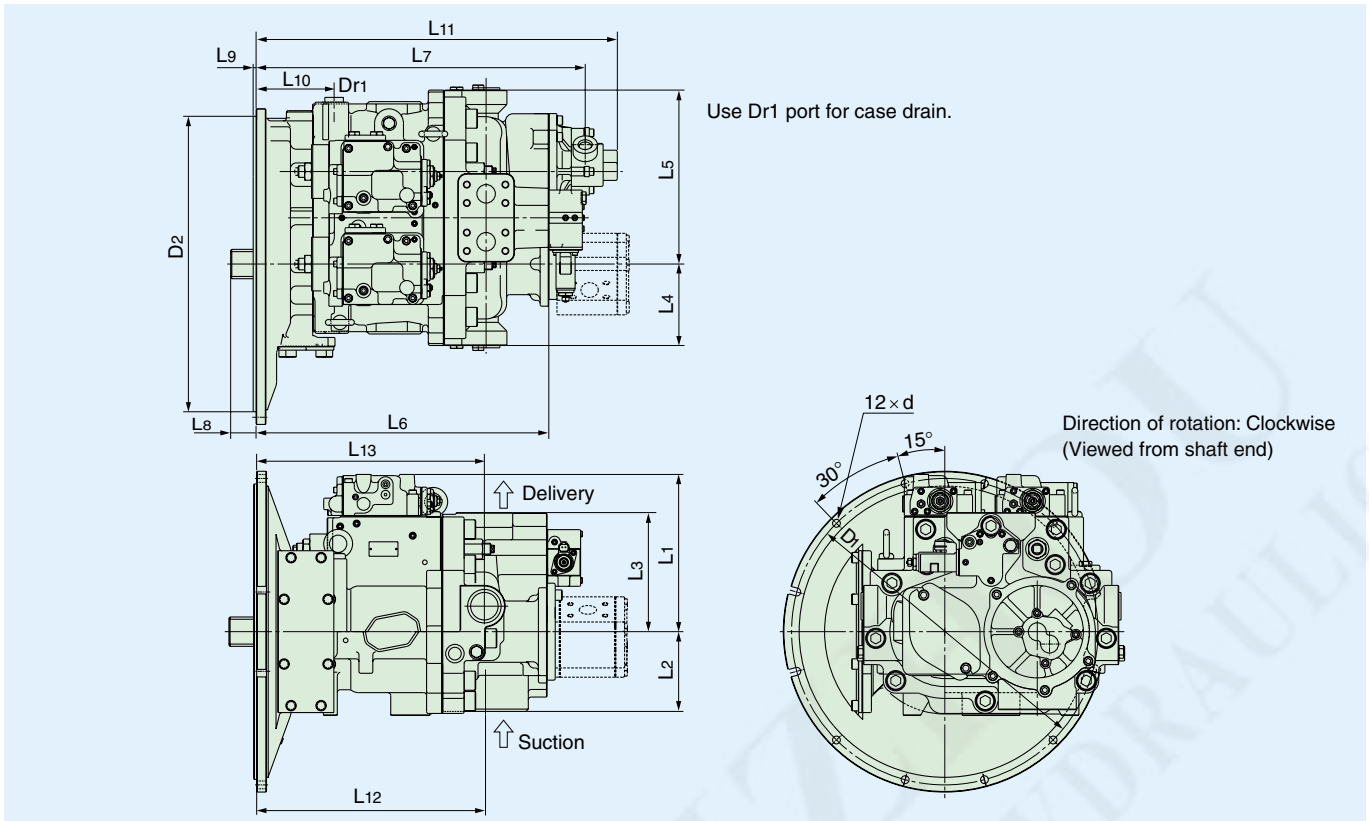


Drain port (Rule: JIS B 2351) (mm)

Size	a	b	c	d
K3V63	G 1/2	22.6	2.5	19
K3V112	G 3/4	30.8	3.5	20
K3V140	G 3/4	30.8	3.5	23
K3V280	G 3/4	30.8	3.5	23
K5V80	G 1/2	22.6	2.5	19
K5V140	G 3/4	30.8	3.5	20
K5V200	G 3/4	30.8	3.5	23



Parallel type



Dimensions

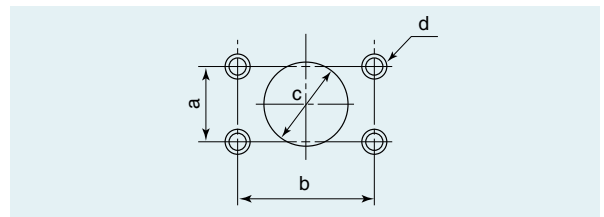
Size	D1	D2	d	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
K3V112	429	410	11	235	113	163	111	256	428	493	34	5	148	522	391	385
K5V140	429	410	11	235	113	163	111	256	428	493	34	5	148	522	391	385
K5V200	530	511	14	272	138	206	141	301	507	570	34	5	135	625	400	398

Dimensions of shaft end

Size	Spec.	No. of teeth	Pitch circle dia (mm)	Pressure angle	Module	Rule
K3V112		14	35.0	20°	2.5	JIS B 1603
K5V140		17	42.5	20°	2.5	JIS B 1603
K5V200		15	47.6	30°	8/16	ANSI

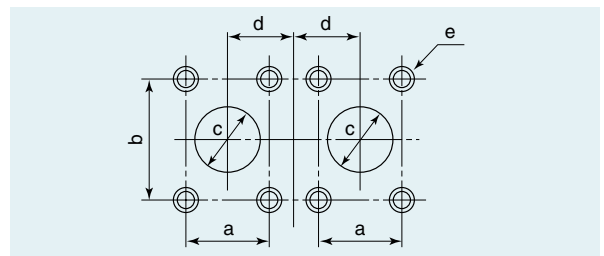
Flange mounting face for Suction port (SAE Rule) (mm)

Size	a	b	c	d—Screw depth
K3V112	50.8	88.9	φ60	M12-18
K5V140	50.8	88.9	φ60	M12-18
K5V200	69.9	120.7	φ83	M16-24



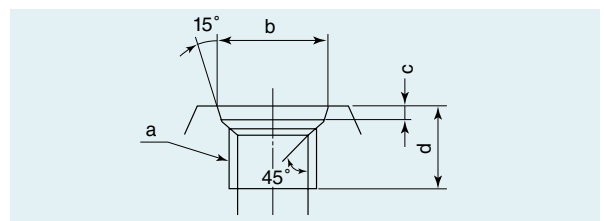
Flange mounting face for Delivery port (SAE Rule) (mm)

Size	a	b	c	d	e—Screw depth
K3V112	23.8	50.8	φ19	34.0	M10-16
K5V140	23.8	50.8	φ19	34.0	M10-16
K5V200	31.8	66.7	φ32	41.5	M12-22



Drain port (Rule: JIS B 2351) (mm)

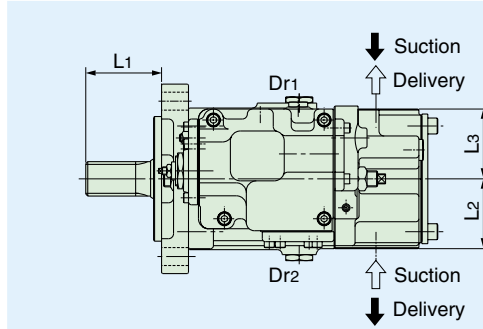
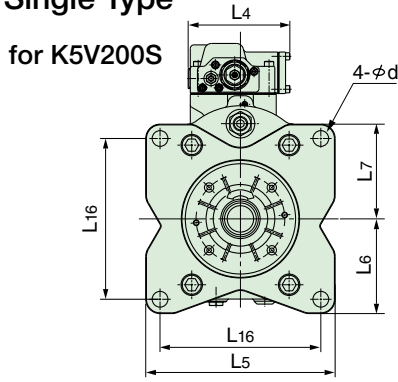
Size	a	b	c	d
K3V112	G 3/4	30.8	3.5	20
K5V140	G 3/4	30.8	3.5	20
K5V200	G 3/4	30.8	3.5	23



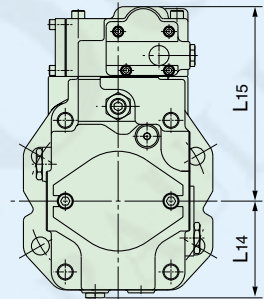
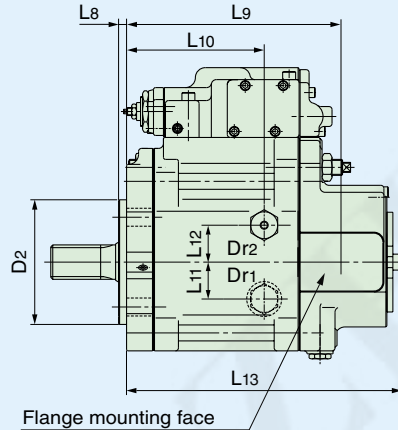
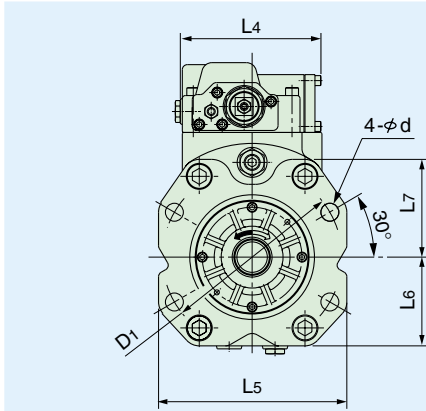
K3V/K5V系列柱塞泵 K3V/K5V Series Piston Pump



Single type



Direction of rotation
 ↑ : Clockwise
 ↓ : Counterclockwise
 (Viewed from shaft end)



Use Dr1 or Dr2 port for case drain.

Dimensions

(mm)

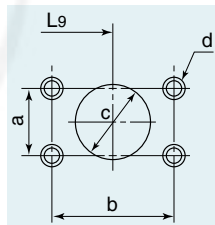
Size	D1	D2	d	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16
K3V63	180	125	18	76	70	70	142	190	89	98	8	210	138	37	37	277	89	195	—
K3V112	224	160	22	78	80	80	142	234	100	110	8	250	167	41	41	309	109	220	—
K3V140	250	180	22	93	92	92	142	256	112	123	8	292	190	53	53	366	121	245	—
K3V280	300	200	22	115	150	125	142	300	127	140	8	343	203	70	70	433	135	286	—
K5V80	180	125	18	76	70	70	142	190	89	98	8	210	138	37	37	277	89	195	—
K5V140	224	160	22	78	92	92	142	234	100	110	8	264	167	41	41	338	109	220	—
K5V200	—	165	22	75	92	92	142	265	132	132	16	300	190	53	53	389	121	245	225

Dimensions of shaft end

Size	Spec.	No. of teeth	Pitch circle dia (mm)	Pressure angle	Module	Rule
K3V63		14	29.6	30°	12/24	SAE
K3V112		14	35.0	20°	2.5	JIS B 1603
K3V140		17	42.5	20°	2.5	JIS B 1603
K3V280		18	54.0	20°	3.0	JIS B 1603
K5V80		12	30.0	20°	2.5	JIS B 1603
K5V140		17	42.5	20°	2.5	JIS B 1603
K5V200		13	41.3	30°	8/16	SAE

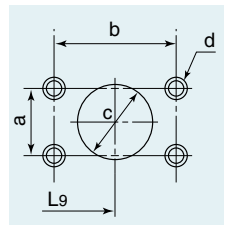
Flange mounting face for Suction port (SAE Rule) (mm)

Size	a	b	c	d—Screw depth
K3V63	35.7	69.9	φ38	M12-18
K3V112	30.2	58.7	φ38	M12-18
K3V140	50.8	88.9	φ60	M12-18
K3V280	69.9	120.7	φ80	M12-20
K5V80	35.7	69.9	φ38	M12-18
K5V140	50.8	88.9	φ60	M12-18
K5V200	61.9	106.4	φ76	M16-24



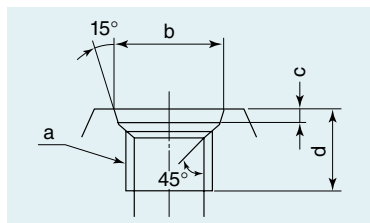
Flange mounting face for Delivery port (SAE Rule) (mm)

Size	a	b	c	d—Screw depth
K3V63	27.8	57.2	φ25	M12-16
K3V112	23.8	50.8	φ19	M10-16
K3V140	31.8	66.7	φ32	M12-18
K3V280	31.8	66.7	φ32	M12-20
K5V80	27.8	57.2	φ25	M12-16
K5V140	31.8	66.7	φ32	M12-18
K5V200	36.5	79.4	φ38	M16-24



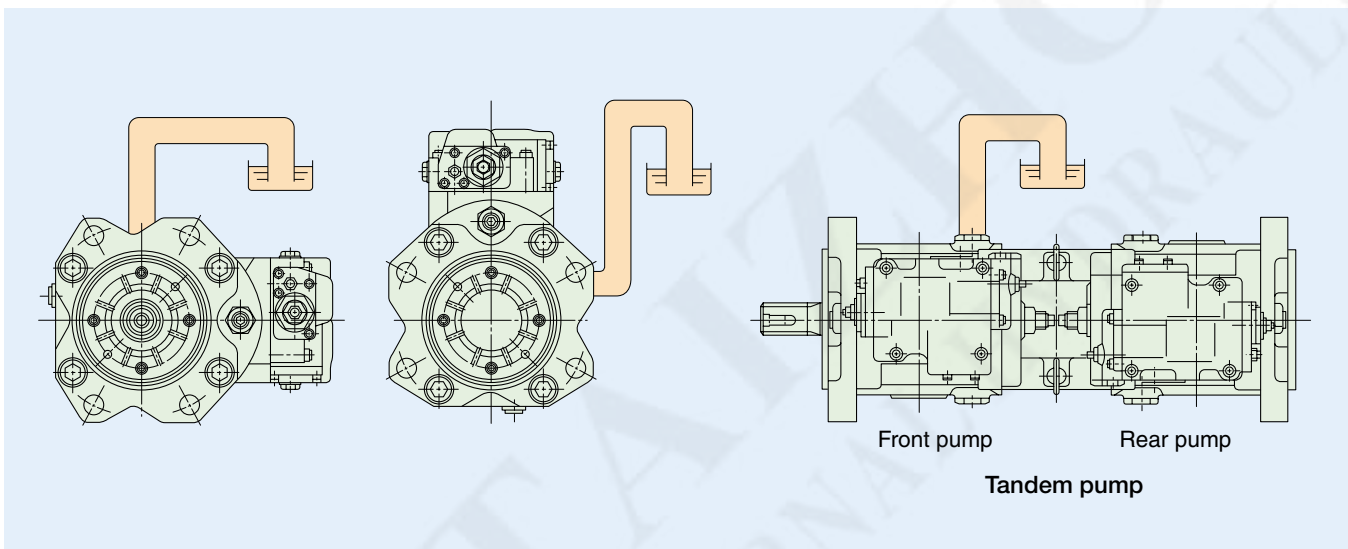
Drain port (Rule: JIS B 2351) (mm)

Size	a	b	c	d
K3V63	G 1/2	22.6	2.5	19
K3V112	G 3/4	30.8	3.5	20
K3V140	G 3/4	30.8	3.5	23
K3V280	G 3/4	30.8	3.5	23
K5V80	G 1/2	22.6	2.5	19
K5V140	G 3/4	30.8	3.5	20
K5V200	G 3/4	30.8	3.5	23



1 Mounting Direction and Drain Piping

- The pump shaft should be mounted in the horizontal direction as shown in the figure below.
- The drain line loop must be extended above the top of the pump case.
- The upper drain port should be used, and the drain pipe size must be equal to or larger than the drain port size.
- In case of the pumps with centrifugal pump, the drain lines must be settled on each pump.



2 Filtration

- For satisfactory service life of these pumps in application, the operating fluid should be continuously filtered to keep at least the cleanliness level of NAS 1638 Class 9.
- A 10 μm filter must be used in the return line and a 80 ~ 150 mesh strainer in the suction lines.

