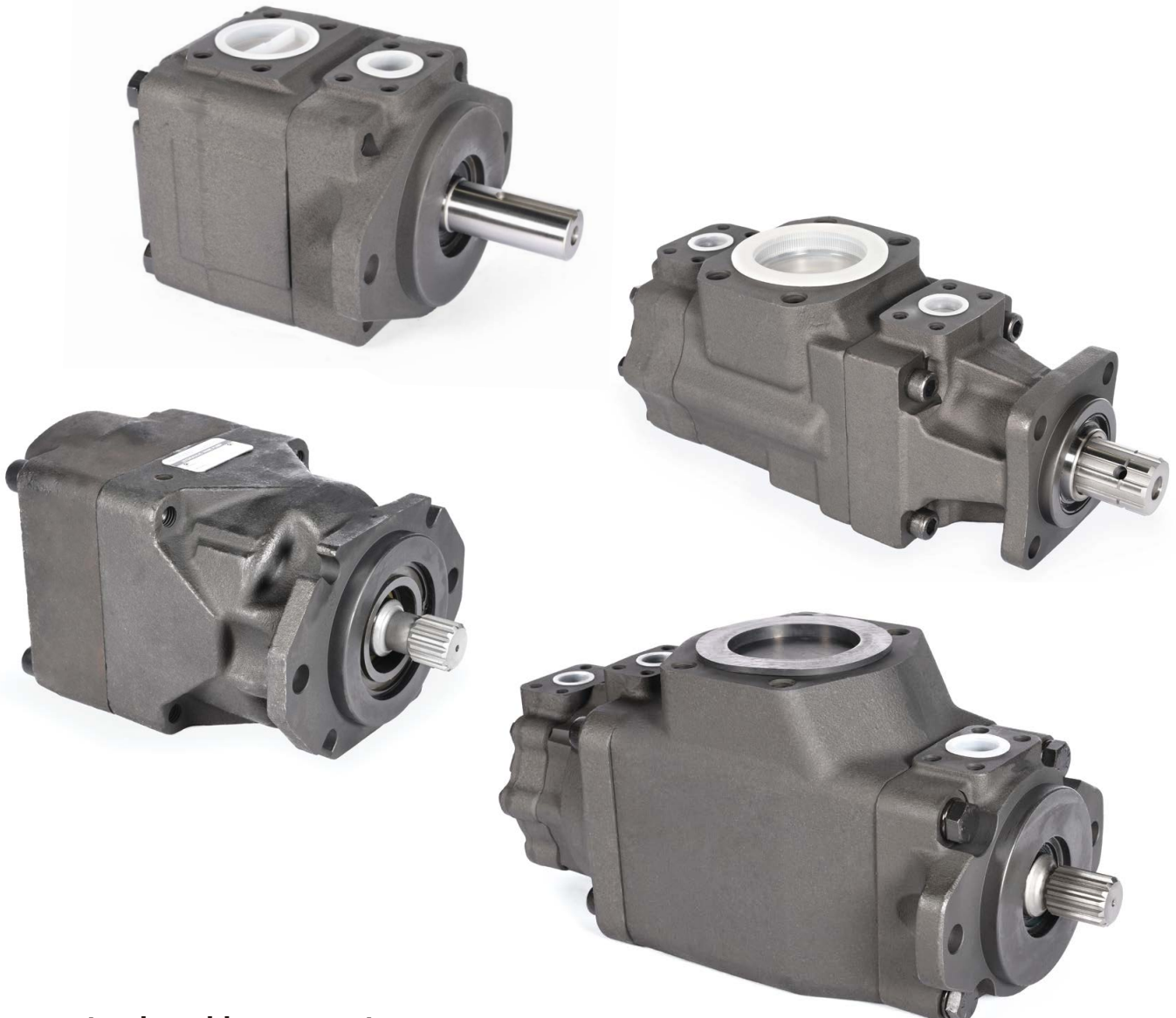


High Pressure Vane Pump & Motor

Fixed Displacement Vane Pump
Vane Motor



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High Pressure Vane Pump & Motor

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FIXED DISPLACEMENT VANE PUMP > SINGLE PUMP

Page No.	Model	Mounting Standard (SAE J477c ISO / 3019-1)	Displacement (cm ³ /rev)	Speed (r.p.m.)		Max. Pressure		Weight		SAE 4-bolt J518-ISO/DIS 6162-1	
				Max.	Min.	(psi)	(bar)	(lbs)	(kg)	Suction	Pressure
06	ST6C	SAE B	17.2 ~ 100.0	2800	600	4000	275	36.9	16.8	1 1/2"	1"
06	ST6CM	SAE B	17.2 ~ 100.0	2800	400	4000	275	36.9	16.8	1 1/2"	1"
08	ST6D	SAE C	47.6 ~ 190.5	2500	600	3500	240	61.8	28.1	2"	1 1/4"
08	ST6DM	SAE C	47.6 ~ 190.5	2500	400	3500	240	61.8	28.1	2"	1 1/4"
10	ST6E	SAE C	132.3 ~ 269.8	2200	600	3500	240	95.2	43.3	3"	1 1/2"
10	ST6EM	SAE C	132.3 ~ 269.8	2200	400	3500	240	95.2	43.3	3"	1 1/2"
12	ST6GC	R.17-102	17.2 ~ 100.0	2800	400	4000	275	39.7	18.2	1 1/2"	1" SAE
14	ST7B	ISO-3019-2, 100 A2 HW	5.7 ~ 50.0	3600	600	4650	320	51.4	23.4	1 1/2"	1" or 3/4"
14	ST7BS	SAE J744, SAE B	5.7 ~ 50.0	3600	600	4650	320	51.4	23.4	1 1/2"	1" or 3/4"
16	ST7DSW	SEA C	47.6 ~ 190.5	3000	600	4350	300	71.5	32.5	2 1/2"	1 1/4"
18	ST7DXW	SEA C	43.9 ~ 157.9	3000	600	4350	300	71.5	32.5	2 1/2"	1 1/4"

VANE MOTOR

Page No.	Model	Mounting Standard (SAE J477c ISO / 3019-1)	Displacement (cm ³ /rev)	Torque at = 2000r.p.m.		Moment of Inertia		Weight	
				at 175 bar Δp		lbsin ²	Kg m ² x 10 ⁻⁴	(lbs)	(kg)
				(in.lbs)	(Nm)				
48	SVM4C	SAE B	24.4 ~ 80.1	535.4 ~ 1752.2	60.5 ~ 198.0	2.7	7.9	35.9	16.3
52	SVM4D	SAE C	65.1 ~ 144.4	1460.0 ~ 3292.0	165.0 ~ 372.0	1.4	4.11	64.8	29.4
56	SVM4E	SAE C	158.5 ~ 222.0	3522.0 ~ 5017.7	398.0 ~ 567.0	20.0	58.7	98.3	44.6

FIXED DISPLACEMENT VANE PUMP > DOUBLE PUMP

Page No.	Model	Mounting Standard (SAE J477c ISO / 3019-1)	Displacement (cm ³ /rev)	Speed (r.p.m.)		Max. Pressure		Weight		SAE 4-bolt J518-ISO/DIS 6162-1		
										Suction	Pressure	
				Max.	Min.	(psi)	(bar)	(lbs)	(kg)		P1	P2
20	ST6CC	SAE B	P1 = 17.2 ~ 100.0 P2 = 17.2 ~ 100.0	2800	600	4000	275	58.5	26.6	2 1/2" or 3"	1"	1" or 3/4"
22	ST6DC	SAE C	P1 = 47.6 ~ 190.5 P2 = 17.2 ~ 100.0	2500	600	3500	240 275	83.8	38.1	2 1/2" or 3"	1"	1" or 3/4"
24	ST6EC	SAE C	P1 = 132.3 ~ 269.8 P2=17.2 ~ 100.0	2200	600	3500	240 275	121.0	55	3 1/2"	1 1/2"	1"
26	ST6GCC	R.17-102	P1 = 17.2 ~ 100.0 P2 = 17.2 ~ 100.0	2800	400	4000	275	60.5	27.5	2 1/2" or 3"	1"	1" or 3/4"
28	ST6DDS-X17-X17	SAE J744	P1 = 47.6 ~ 190.5 P2 = 47.6 ~ 190.5	2200	600	4350	300	165.3	75	4"	1 1/4"	1 1/4"
30	ST7QCC1	SAE B	P1 = 17.2 ~ 100.0 P2 = 17.2 ~ 100.0	3600	600	4350	300	76.7	34.9	2 1/2" or 3"	1"	1" or 3/4"
30	ST7QCC2	SAE C	P1 = 17.2 ~ 100.0 P2 = 17.2 ~ 100.0	3600	600	4350	300	76.7	34.9	2 1/2" or 3"	1"	1" or 3/4"
32	ST7BB	ISO-3019-2, 100 A2 HW	P1 = 5.7 ~ 50.0 P2 = 5.7 ~ 50.0	3600	600	4641	320	74.1	33.6	2 1/2"	1" or 3/4"	3/4"
32	ST7BBS	SAE J744, SAE B HW	P1 = 5.7 ~ 50.0 P2 = 5.7 ~ 50.0	3600	600	4641	320	74.1	33.6	2 1/2"	1" or 3/4"	3/4"
34	ST7EE	ISO-3019-2, 100 A2 HW	P1 = 132.3 ~ 269.8 P2 = 132.3 ~ 269.8	2200	600	3500	240	225.2	102.4	4"	1 1/2"	1 1/4"
34	ST7EES	SAE J744, SAE E	P1 = 132.2 ~ 268.7 P2 = 132.2 ~ 268.7	2200	600	3500	240	225.2	102.4	4"	1 1/2"	1 1/4"

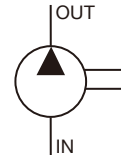
FIXED DISPLACEMENT VANE PUMP > TRIPLE PUMP

Page No.	Model	Mounting Standard (SAE J477c ISO / 3019-1)	Displacement (cm ³ /rev)	Speed (r.p.m.)		Max. Pressure		Weight		SAE 4-bolt J518-ISO/DIS 6162-1			
										Suction	Pressure		
				Max.	Min.	(psi)	(bar)	(lbs)	(kg)		P1	P2	P3
36	ST6DCC	SAE C	P1 = 47.6 ~ 190.5 P2 = 17.2 ~ 100.0 P3 = 17.2 ~ 100.0	2500	600	3500 4000 4000	240 275 275	145.4	66.1	4"	1 1/4"	1"	1" or 3/4"
39	ST6DCCS	SAE C	P1 = 47.6 ~ 190.5 P2 = 47.6 ~ 190.5 P3 = 17.2 ~ 100.0	2500	600	3500 3500 4000	240 240 275	153.2	69.5	4"	1 1/4"	1 1/4"	1" or 3/4"
42	ST6EDC	ISO-3019-2, 250 B4 HW	P1 = 132.3 ~ 269.8 P2 = 47.6 ~ 190.5 P3 = 17.2 ~ 100.0	2200	600	3500 3500 4000	240 240 275	239.1	108.5	4"	1 1/2"	1 1/4"	1" or 3/4"
42	ST6EDCM	SAE J744, SAE E	P1 = 132.3 ~ 269.8 P2 = 47.6 ~ 190.5 P3 = 17.2 ~ 100.0	2200	400	3500 3500 4000	240 240 275	239.1	108.5	4"	1 1/2"	1 1/4"	1" or 3/4"
45	ST6EDCS	ISO-3019-2, 250 B4 HW	P1 = 132.3 ~ 269.8 P2 = 47.6 ~ 190.5 P3 = 10.8 ~ 100.0	2200	600	3500 3500 4000	240 240 275	239.1	108.5	4"	1 1/2"	1 1/4"	1" or 3/4"

ST6C, ST6CM

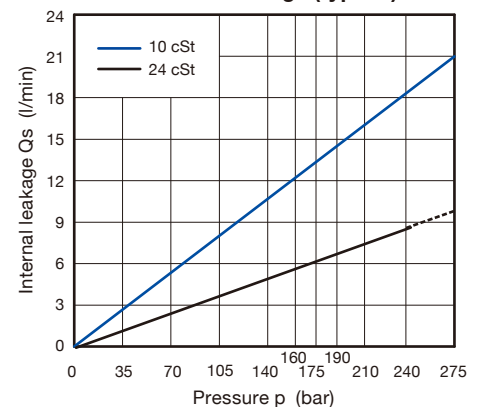


SYMBOLS



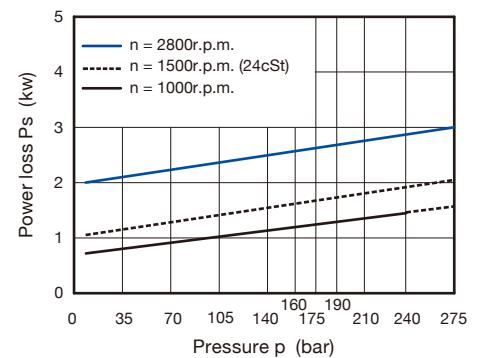
CURVES

Internal Leakage (typical)

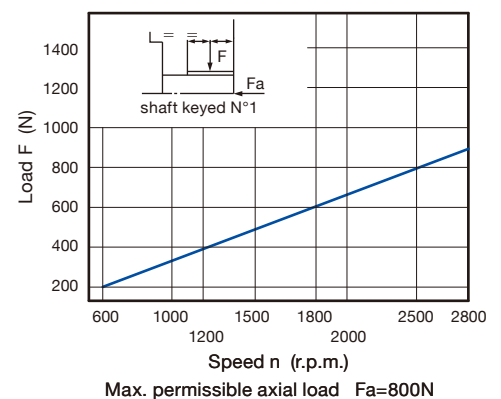


Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

Hydromechanical Power Loss (typical)



Permissible Radial Load



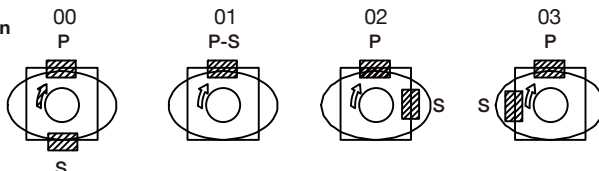
Max. permissible axial load $F_a=800N$

ORDER CODES

ST6C	*	-	014	-	1	R	00	-	B	1	*
1	2		3		4	5	6		7	8	9

1	Model Name	ST6C (min. speed 600r.p.m.)
		ST6CM (min. speed 400r.p.m.)
2	Port Connection	none
		Y metric port connection, omit for UNC
3	Cam Ring Volumetric Displacement	005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031
4	Shaft Type	1 keyed SAE B
		2 keyed no SAE
		3 spline SAE B
		4 spline SAE BB
5	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction
		L counter clockwise direction
6	Porting Combination	00 standard
7	Design Number	B
8	Seal Class	1 S1 (for mineral oil)
		4 S4 (for fire resistant fluids)
		5 S5 (for mineral oil and fire resistant fluids)
9	Modifications	*

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

Model	Volumetric Displacement Vp (cm ³ /rev)	Speed (r.p.m.)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
005	17.2	1500	25.8	20.8	17.3	1.4	7.5	12.2	275	2800
006	21.3	1500	31.9	26.9	23.4	1.5	8.9	14.7		
008	26.4	1500	39.6	34.6	31.1	1.6	10.7	17.7		
010	34.1	1500	51.1	46.1	42.6	1.7	13.4	22.3		
012	37.1	1500	55.6	50.6	47.1	1.7	14.4	24.1		
014	46.0	1500	69.0	64.0	60.5	1.9	17.6	29.5		
017	58.3	1500	87.4	82.4	78.9	2.1	21.9	36.9		
020	63.8	1500	95.7	90.7	87.2	2.2	23.8	40.2		
022	70.3	1500	105.4	100.4	96.9	2.3	26.1	44.1		
025	79.3	1500	118.9	113.9	110.4	2.5	29.2	49.5	210	2500
028	88.8	1500	133.2	128.2	125.8	2.8	32.7	48.5		
031	100.0	1500	150.0	145.0	142.6	2.8	36.5	54.4		

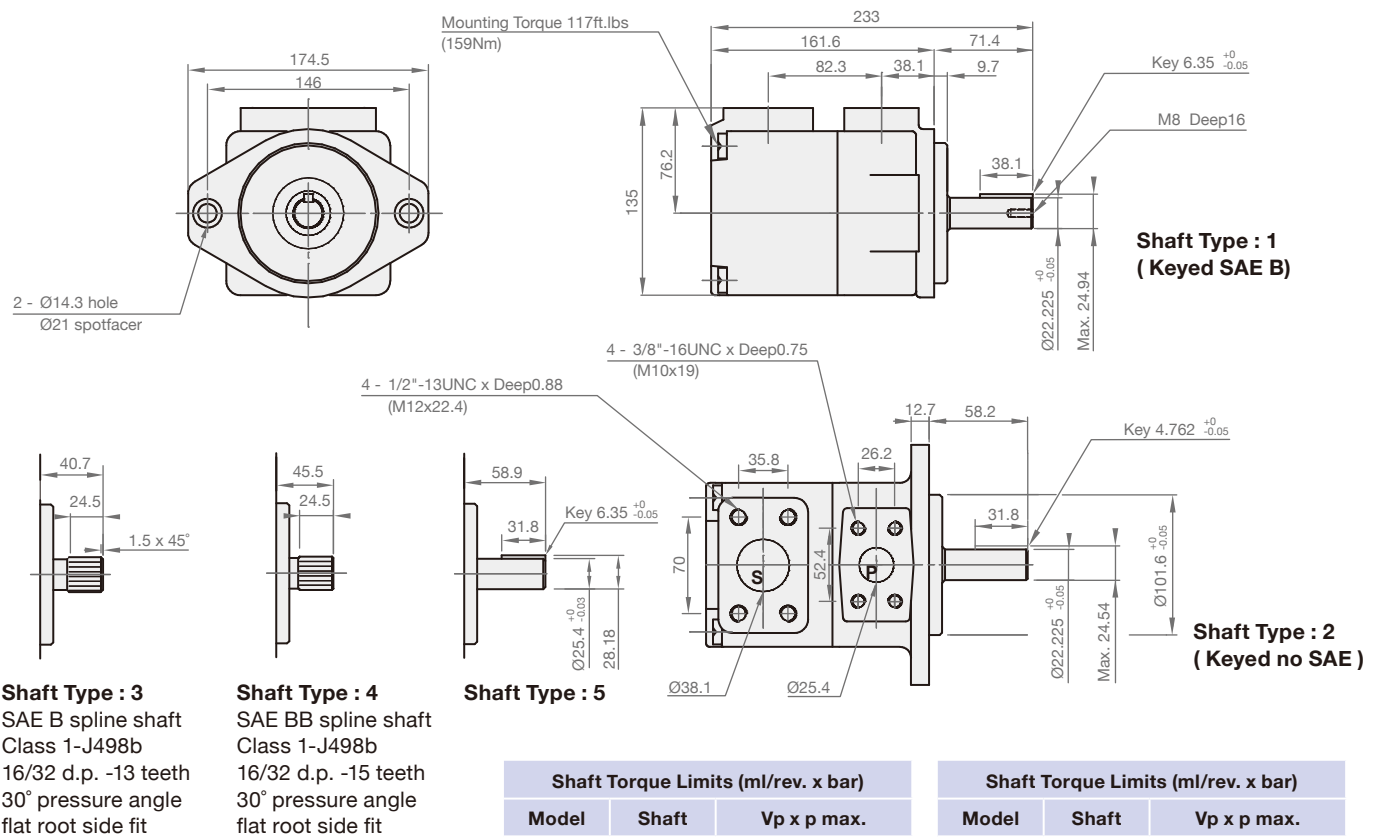
Min. speed : ST6C=600r.p.m., ST6CM=400r.p.m.

weight : 16.8kg

Typical : 24cSt

DIMENSION

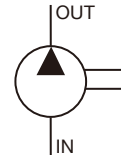
(UNIT : mm)



ST6D, ST6DM



SYMBOLS



CURVES

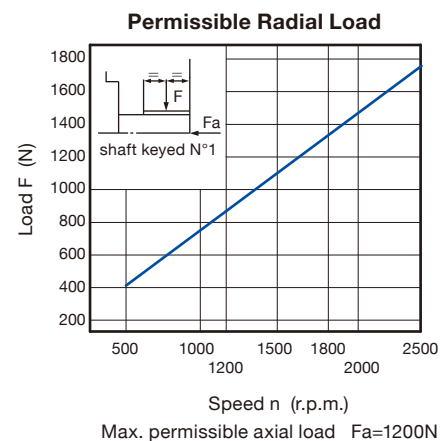
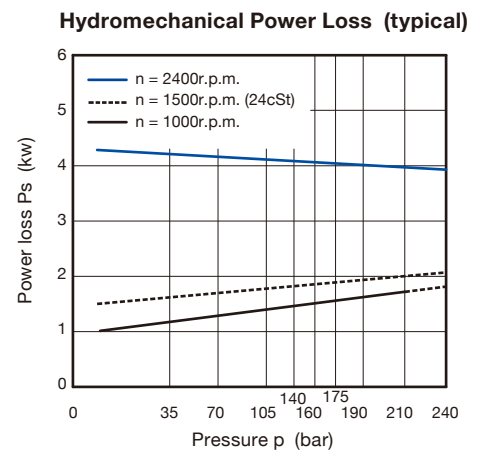
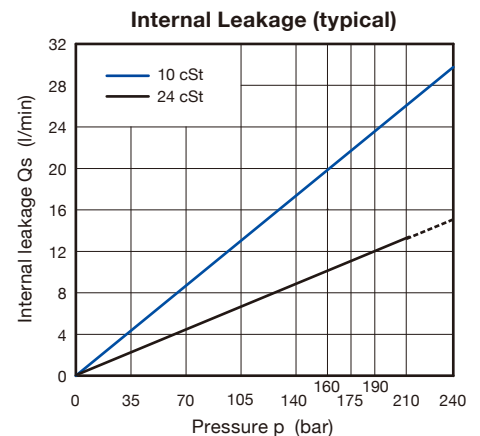
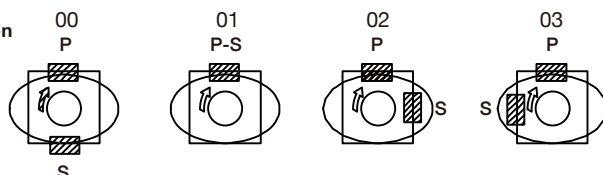
ORDER CODES

ST6D ***** - **045** - **1** **R** **00** - **B** **1** *****

1 2 3 4 5 6 7 8 9

1	Model Name	ST6D (min. speed 600r.p.m.)	
		ST6DM (min. speed 400r.p.m.)	
2	Port Connection	none	
		Y	metric port connection, omit for UNC
3	Cam Ring Volumetric Displacement	014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061	
4	Shaft Type	1	keyed SAE C
		2	keyed no SAE
		3	spline SAE C
		4	spline no SAE
5	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
6	Porting Combination	00	standard
7	Design Number	B	
8	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
9	Modifications	*	

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

Model	Volumetric Displacement Vp (cm ³ /rev)	Speed (r.p.m.)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
014	47.6	1500	71.4	62.1	55.9	2.3	18.5	30.6	240	2500
017	58.2	1500	87.3	78.0	71.8	2.5	22.2	37.0		
020	66.0	1500	99.0	89.7	83.5	2.8	24.9	41.7		
024	79.5	1500	119.3	110.0	103.8	3.0	29.6	49.8		
028	89.7	1500	134.5	125.2	119.0	3.2	33.2	55.9		
031	98.3	1500	147.5	138.1	131.9	3.3	36.2	61.0		
035	111.0	1500	166.5	157.2	151.0	3.5	40.7	68.7		
038	120.3	1500	180.4	171.1	164.9	3.7	43.9	74.3		
042	136.0	1500	204.0	194.7	188.5	4.0	49.4	83.7	210	2200
045	145.7	1500	218.5	209.2	203.0	4.1	52.8	89.5		
050	158.0	1500	237.0	227.7	224.0	4.4	57.0	85.0		
061	190.5	1500	285.7	278.0	-	4.6	60.6	-	120	

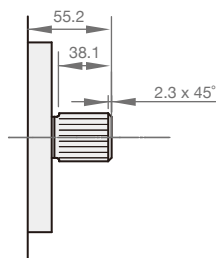
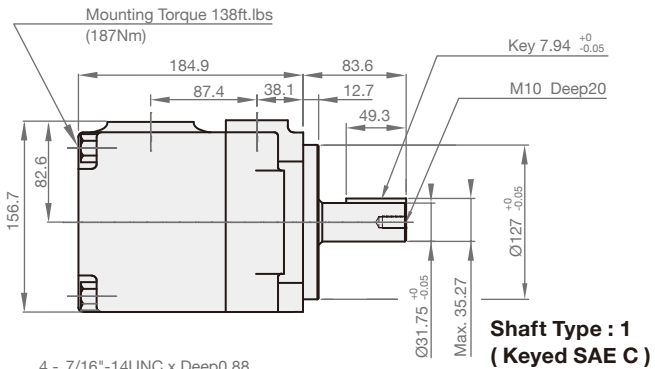
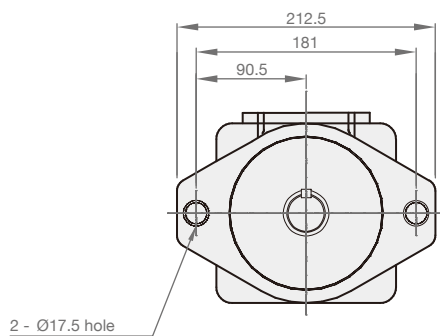
Min. speed : ST6D=600r.p.m., ST6DM=400r.p.m.

weight : 28.1kg

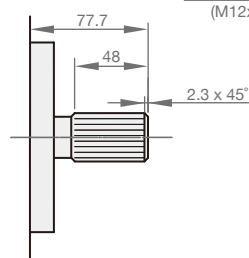
Typical : 24cSt

DIMENSION

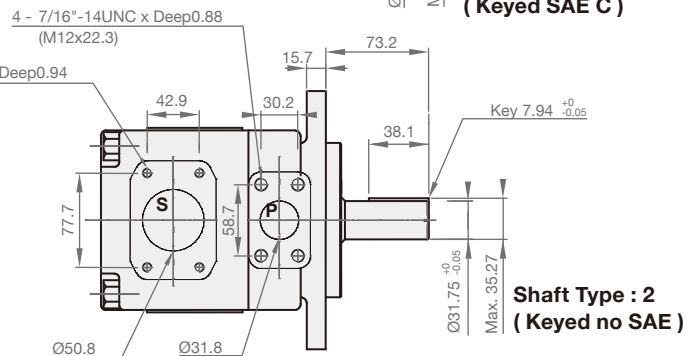
(UNIT : mm)



Shaft Type : 3
SAE C spline shaft
Class 1-J498b
12/24 d.p. -14 teeth
30° pressure angle
flat root side fit



Shaft Type : 4
No SAE spline shaft
Class 1-J498b
12/24 d.p. -14 teeth
30° pressure angle
flat root side fit



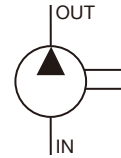
Shaft Torque Limits (ml/rev. x bar)

Model	Shaft	Vp x p max.
ST6D ST6DM	1	43283
	2	34590
	3	61200
	4	61200

ST6E, ST6EM

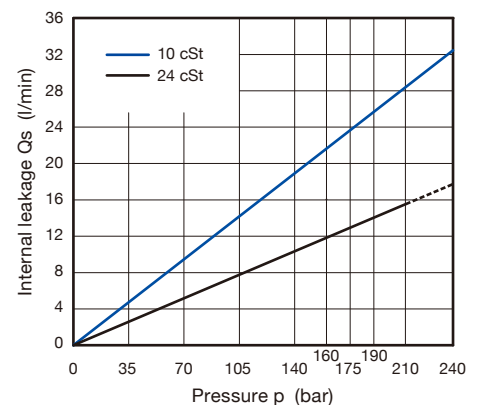


SYMBOLS

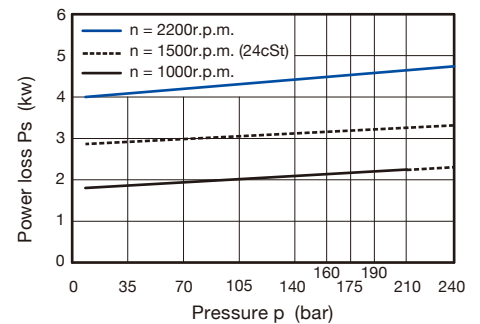


CURVES

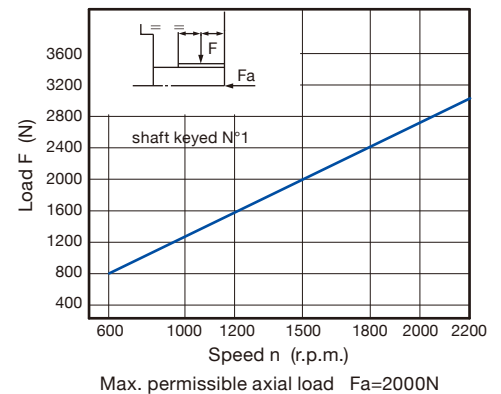
Internal Leakage (typical)



Hydromechanical Power Loss (typical)



Permissible Radial Load



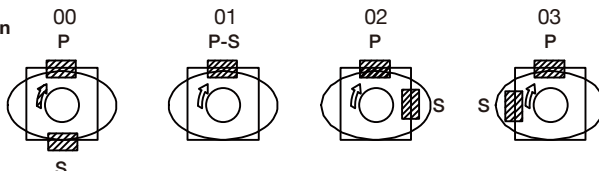
ORDER CODES

ST6E * - 066 - 3 R 00 - A 1 *

1 2 3 4 5 6 7 8 9

1	Model Name	ST6E (min. speed 600r.p.m.)	
		ST6EM (min. speed 400r.p.m.)	
2	Port Connection	none	
		Y	metric port connection, omit for UNC
3	Cam Ring Volumetric Displacement	042, 045, 050, 052, 057, 062, 066, 072, 085	
4	Shaft Type	1	keyed SAE CC
		2	keyed no SAE
		3	spline SAE C
		4	spline SAE CC
5	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
6	Porting Combination	00	standard
7	Design Number	A	
8	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
9	Modifications	*	

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

Model	Volumetric Displacement Vp (cm ³ /rev)	Speed (r.p.m.)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
042	132.3	1500	198.5	188.5	181.3	5.2	49.4	82.6	240	2200
045	142.4	1500	213.6	203.6	196.5	5.4	52.9	88.7		
050	158.5	1500	237.7	227.7	220.6	5.7	58.5	98.3		
052	164.8	1500	247.2	237.2	230.1	5.8	60.8	102.1		
057	180.7	1500	271.1	261.1	254.0	6.1	66.4	106.9		
062	196.7	1500	295.0	285.0	277.9	6.4	71.9	121.3		
066	213.3	1500	319.9	309.9	302.8	6.7	77.7	131.2		
072	227.1	1500	340.6	330.6	323.5	6.9	82.6	139.5		
085	269.8	1500	404.7	397.7	-	7.3	65.3	-	90	2000

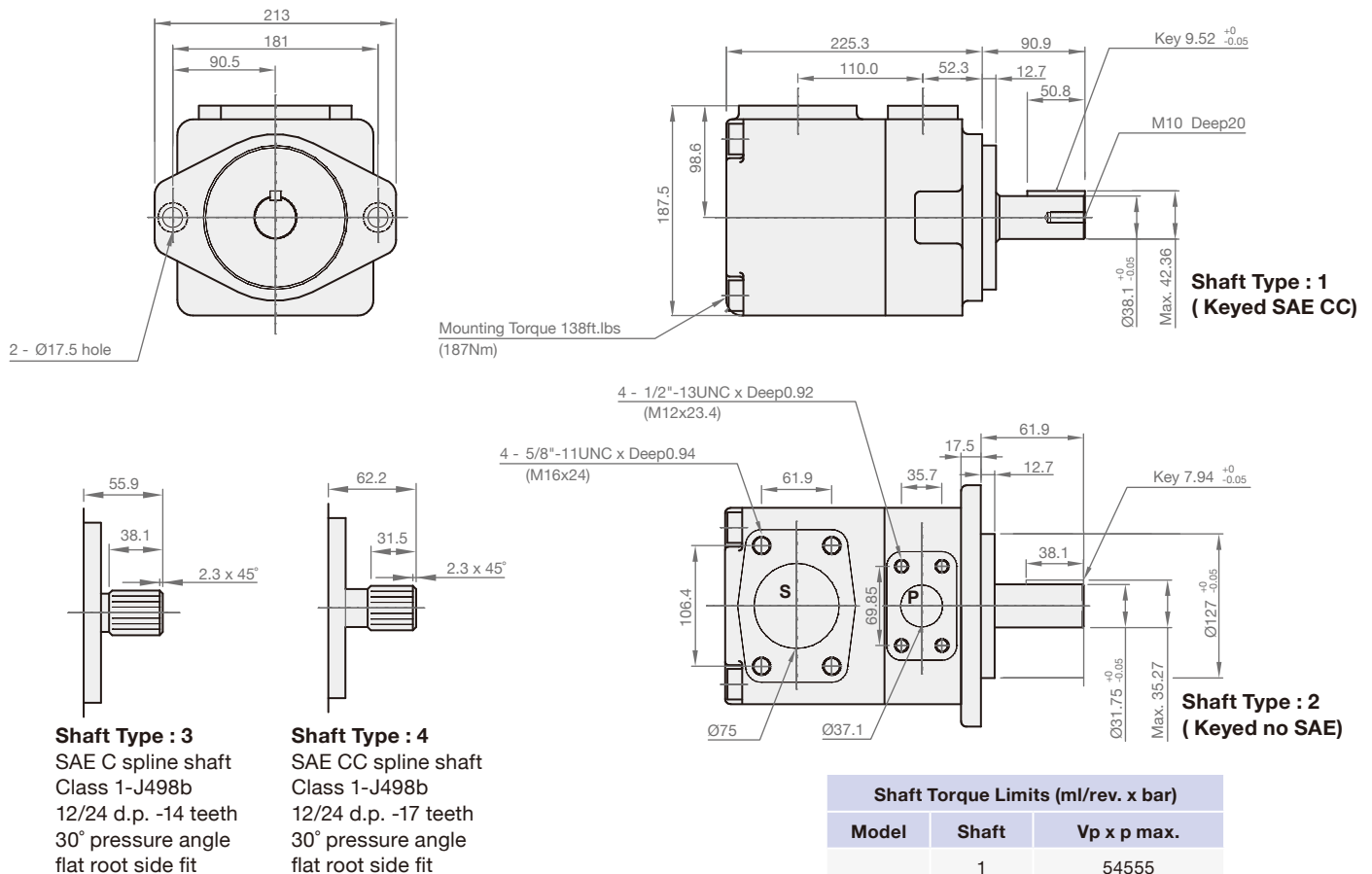
Min. speed : ST6E=600r.p.m., ST6EM=400r.p.m.

weight : 43.3

Typical : 24cSt

DIMENSION

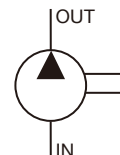
(UNIT : mm)



ST6GC

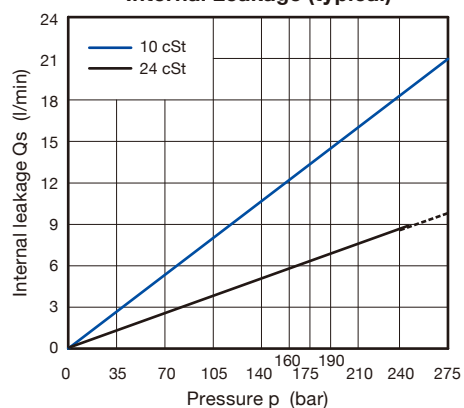


SYMBOLS



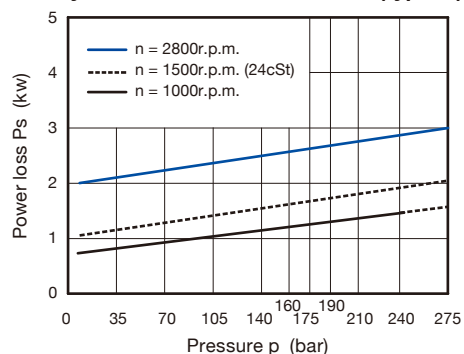
CURVES

Internal Leakage (typical)

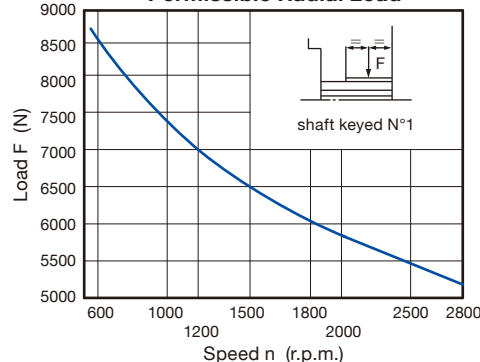


Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

Hydromechanical Power Loss (typical)



Permissible Radial Load



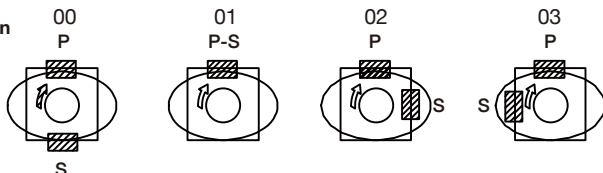
Life time 3000 hours when 70% of the time at 500N and 30% at max. load

ORDER CODES

ST6GC - **B22** - **6** **R** **00** - **A** **1** - **00** *

1	Model Name	ST6GC
2	Cam Ring Volumetric Displacement	B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31
3	Shaft Type	6 spline DIN5462
4	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction L counter clockwise direction
5	Porting Combination	00 standard
6	Design Number	A
7	Seal Class	1 S1 (for mineral oil)
8	Mounting w/connection Variables	00 flange 1" BSPP 01 flange 1" SAE 4-bolts (UNC) M1 flange 1" SAE 4-bolts (metric)
9	Modifications	*

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

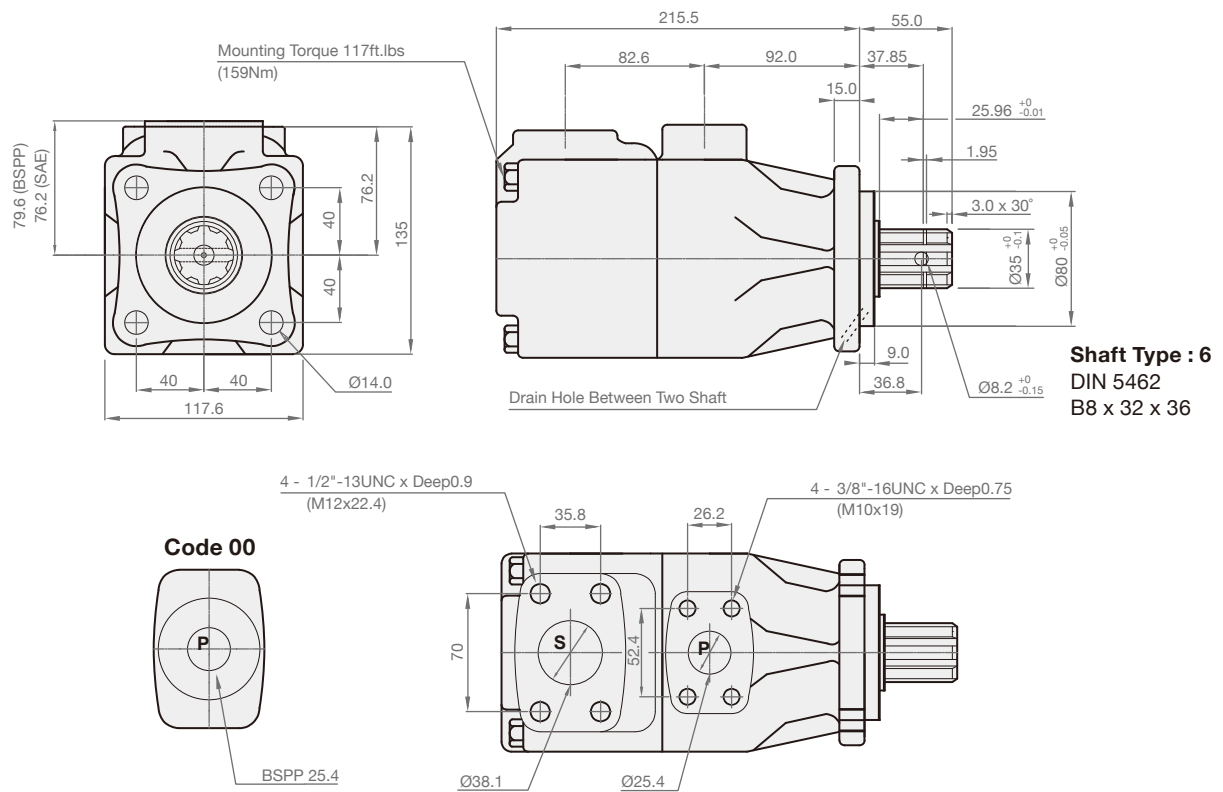
Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
		p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
B05	17.2	25.8	20.3	15.8	1.4	7.5	12.2	275	2800
B06	21.3	31.9	26.5	22.0	1.5	8.9	14.7		
B08	26.4	39.6	34.1	29.6	1.6	10.7	17.7		
B10	34.1	51.1	45.7	41.2	1.7	13.4	22.3		
B12	37.1	55.6	50.2	45.7	1.7	14.4	24.1		
B14	46.0	69.0	63.5	59.0	1.9	17.6	29.5		
B17	58.3	87.4	82.0	77.5	2.1	21.9	36.9		
B20	63.8	95.7	90.2	85.7	2.2	23.8	40.2		
B22	70.3	105.4	100.0	95.5	2.3	26.1	44.1		
B25	79.3	118.9	113.5	109.0	2.5	29.2	49.5	210	2500
B28	88.8	133.2	127.7	124.5	2.8	32.7	48.5		
B31	100.0	150.0	144.5	141.3	2.8	36.5	54.4		

Min. speed : 400r.p.m. weight : 18.2kg Typical : 24cSt

* Not to use because internal leakage greater than 50% theoretical flow.

DIMENSION

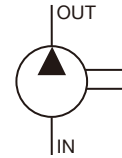
(UNIT : mm)



ST7B, ST7BS

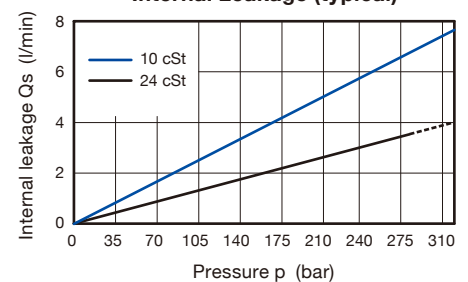


SYMBOLS

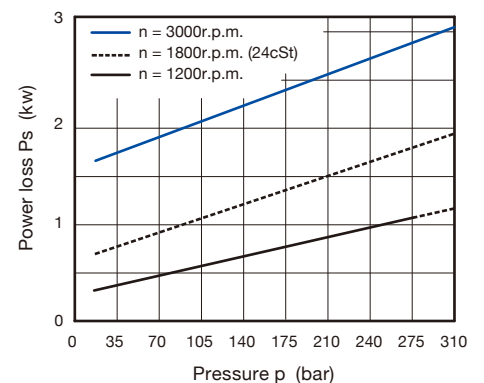


CURVES

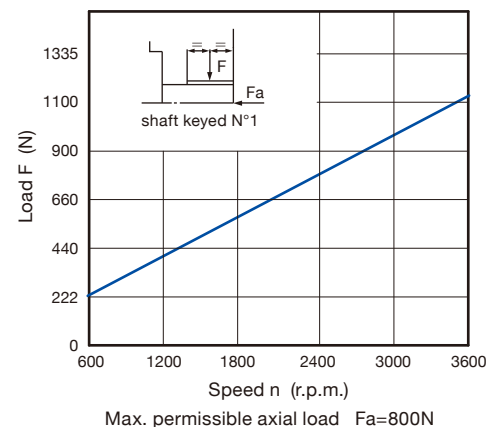
Internal Leakage (typical)



Hydromechanical Power Loss (typical)



Permissible Radial Load



ORDER CODES

ST7BS - **B10** - **1 R 00** - **A 1** - **00 ***

1 2 3 4 5 6 7 8 9

1	Model Name	ST7B : 100 A2 HW, ISO 2-bolts 3019-2 mounting flange	
		ST7BS : SAE B 2-bolts, mounting flange J744	
2	Cam Ring Volumetric Displacement	B02, B03, B04, B05, B06, B07, B08, B09, B10, B11, B12, B14, B15	
3	Shaft Type	2	keyed ISO R775
		1	keyed SAE B (ST7BS only)
		3	spline SAE B (ST7BS only)
		4	spline SAE BB (ST7BS only)
4	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
5	Porting Combination	00	standard
6	Design Number	A	
7	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
8	Mounting w/connection Variables	4-bolts SAE flange (J518C)	

MODEL SPEC.

Model	Volumetric Displacement Vp (cm³/rev)	Flow q & n [l/min]=1800r.p.m.			Input Power p & n [kw]=1800r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
		p=0bar	p=140bar	p=320bar	p=7bar	p=140bar	p=320bar		
B02	5.7	10.4	8.8	6.5	0.55	2.99	6.40	320	3600
B03	9.8	17.6	15.9	13.7	0.63	4.65	10.25		
B04	12.8	23.0	21.4	19.2	0.70	5.89	13.13		
B05	15.9	28.6	26.9	24.7	0.76	7.17	16.12		
B06	19.8	35.6	33.9	31.7	0.84	8.79	19.88		
B07	22.5	40.4	38.8	36.5	0.89	9.91	22.47		
B08	24.9	44.7	43.1	40.9	0.94	10.9	24.78		
B09	28.0	50.3	48.6	46.4	1.01	12.19	27.77		
B10	31.8	57.2	55.5	53.4	1.11	13.75	31.42		
B11	34.9	62.9	61.2	59.0	1.15	15.04	32.22	300	
B12	40.9	73.7	72.1	70.1	1.28	17.56	37.71		
B14	45.1	80.8	79.2	77.0	1.36	19.23	41.37		
B15	50.0	89.8	88.3	86.5	1.47	21.28	42.76		

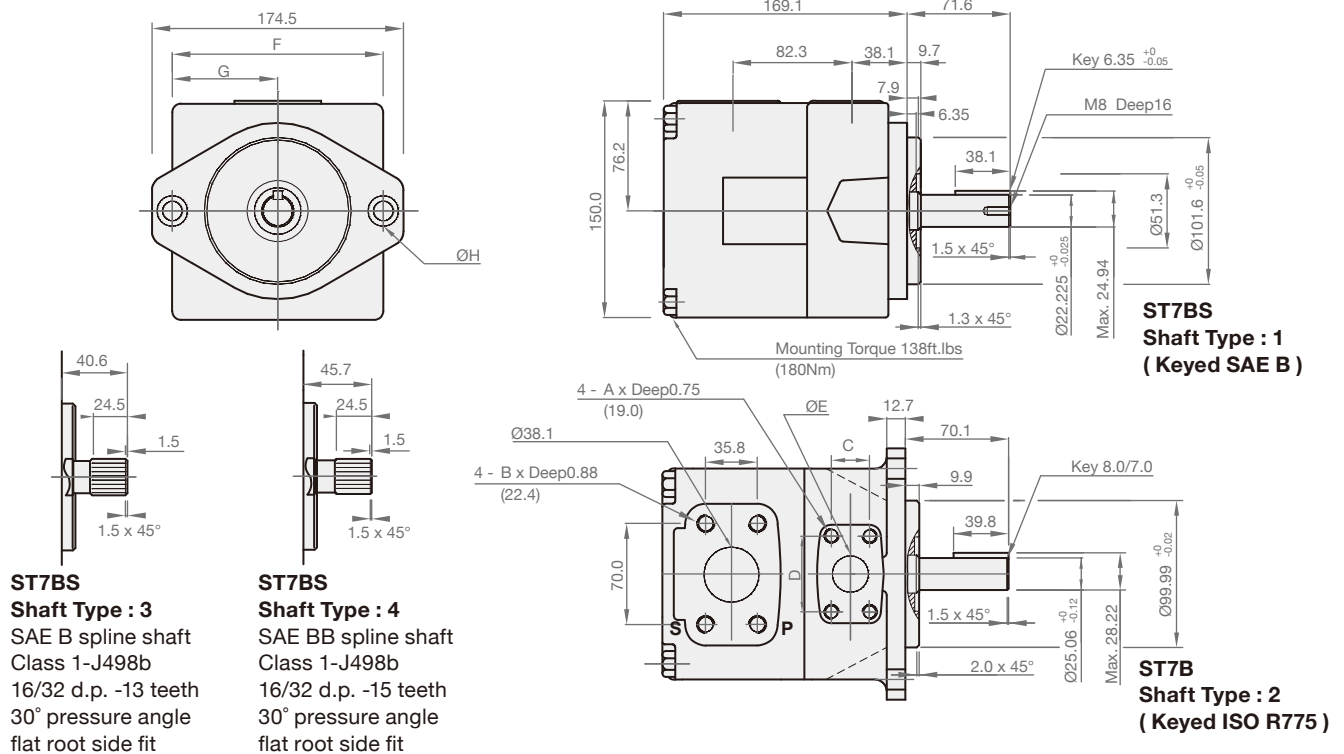
Min. speed : 600r.p.m.

weight : 23.4kg

Typical : 24cSt

DIMENSION

(UNIT : mm)



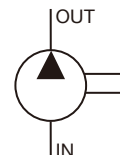
	ST7BS		ST7B	
Code	00	01	M0	M1
A	3/8"-16UNC		M10	
B	1/2"-13UNC		M12	
C	1.03 (26.2)	0.874 (22.2)	1.03 (26.2)	0.874 (22.2)
D	2.06 (52.4)	1.874 (47.6)	2.06 (52.4)	1.874 (47.6)
E	1.0 (25.4)	0.75 (19.05)	1.0 (25.4)	0.75 (19.05)
F	5.75 (146.0)		5.51 (140.0)	
G	2.87 (73.0)		2.75 (70.0)	
H	0.56 (14.3)		0.55 (14.0)	

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max.
ST7B ST7BS	1	16516
	2	20620
	3	20620
	4	20620

ST7DSW, ST7DSW2

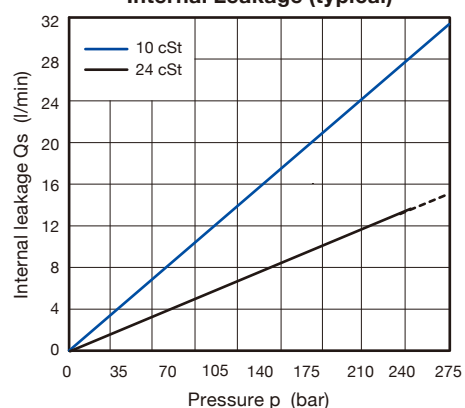


SYMBOLS

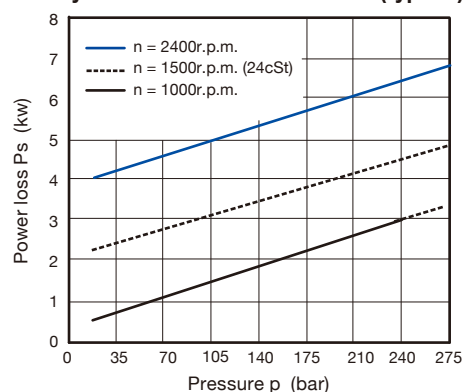


CURVES

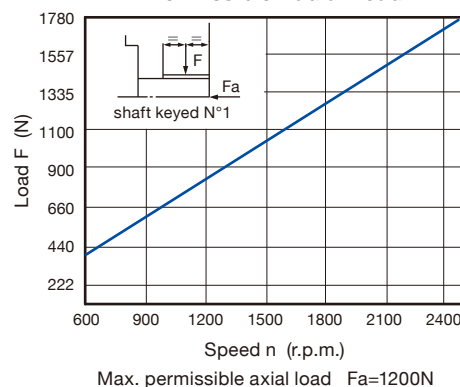
Internal Leakage (typical)



Hydromechanical Power Loss (typical)



Permissible Radial Load



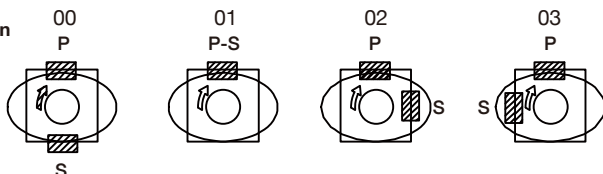
ORDER CODES

ST7DSW - **045** - **X** **R** **00** - **A** **1** **W1** *

1 2 3 4 5 6 7 8 9

1	Model Name	ST7DSW (4-bolts)	
		ST7DSW2 (6-bolts)	
2	Cam Ring Volumetric Displacement	014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050	
3	Shaft Type	2	keyed 7.94, M8 Deep16
		X	keyed 7.94, M10 Deep20
		W	keyed 9.52, M10 Deep20
4	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
5	Porting Combination	00	standard
6	Design Number	A	
7	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
8	Mounting w/connection Variables	W1	UNC, P=1 1/4", S=2 1/2" (ST7DSW, ST7DSW2)
		M0	metric, P=1 1/4", S=2 1/2" (ST7DSW only)
9	Modifications	*	

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

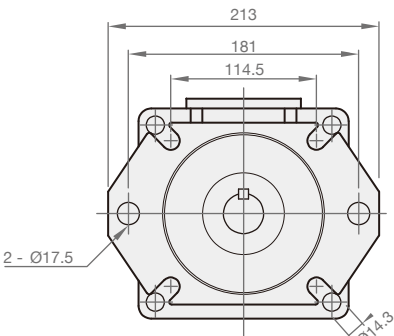
Model	Volumetric Displacement Vp (cm³/rev)	Speed (r.p.m.)	Flow qve [l/min]=1800r.p.m.			Input Power P [kw]=1800r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)	
			p=0bar	p=140bar	p=300bar	p=7bar	p=140bar	p=300bar			
014	43.9	1800	79.1	72.5	64.9	2.6	20.7	43.6	300	3000	
017	55.0	1800	98.8	92.3	84.7	2.8	25.3	53.6			
020	66.0	1800	118.6	112.0	104.5	3.0	29.8	63.6			
024	81.1	1800	145.8	139.2	131.6	3.4	36.1	77.4			
028	89.9	1800	161.8	155.2	147.6	3.5	39.7	85.5			
031	99.1	1800	178.3	171.7	164.2	3.7	43.6	93.7	280		
035	113.4	1800	203.9	197.2	190.6	4.0	49.4	97.2			
038	120.6	1800	216.8	210.2	203.6	4.2	52.4	103.2			
042	137.5	1800	247.2	240.6	234.9	4.5	59.4	111.4			260
045	145.7	1800	262.0	253.6	247.5	5.0	62.4	107.7			240
050	157.9	1800	284.0	275.8	271.3	5.3	67.5	100.3	210		

weight : 32.5kg

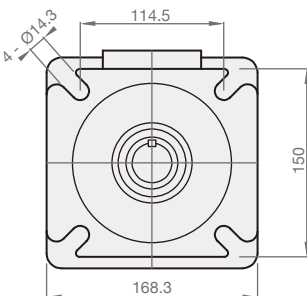
Typical : 24cSt

DIMENSION (UNIT : mm)

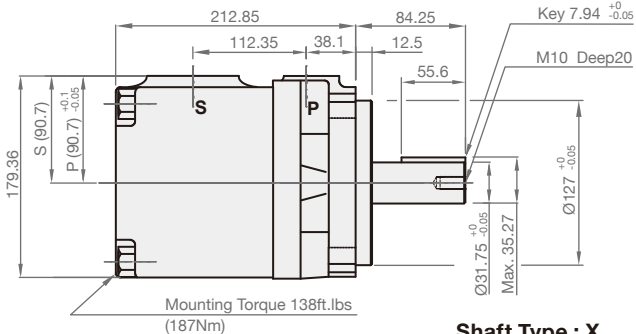
(UNIT : mm)



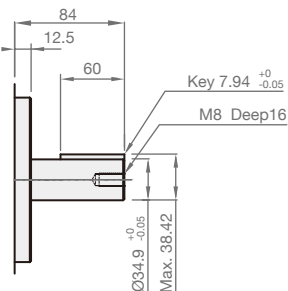
ST7DSW2



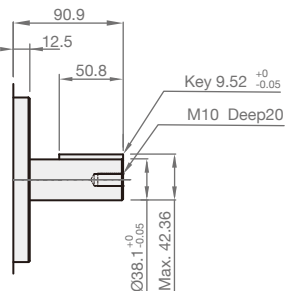
ST7DSW



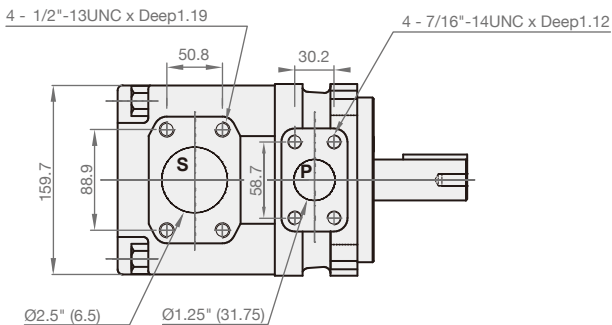
Shaft Type : X



Shaft Type : 2



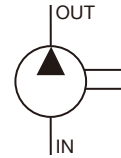
Shaft Type : W



ST7DXW

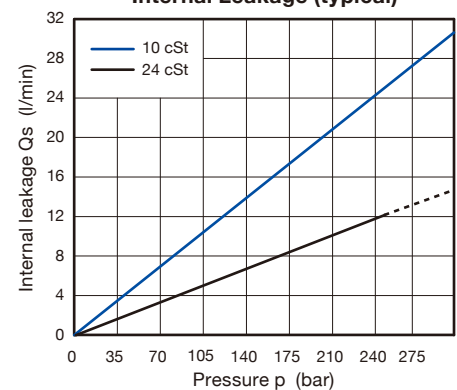


SYMBOLS

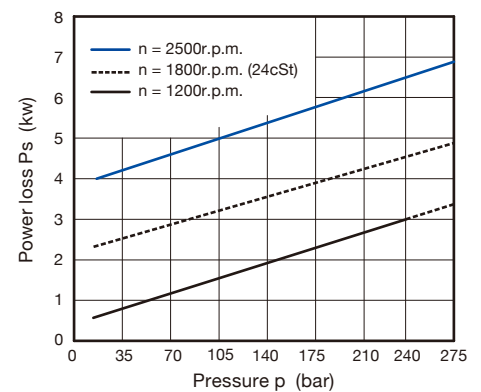


CURVES

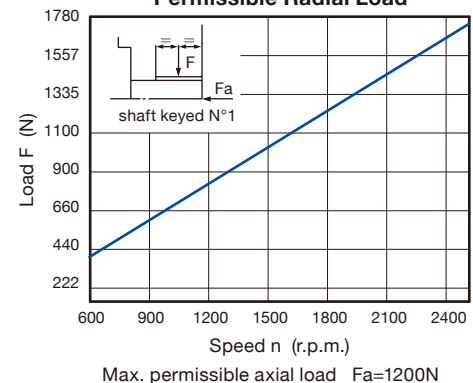
Internal Leakage (typical)



Hydromechanical Power Loss (typical)



Permissible Radial Load



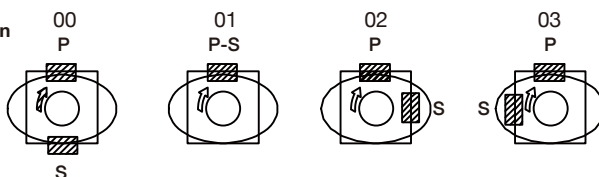
ORDER CODES

ST7DXW - **X45** - **1** **R** **00** - **A** **1** **W1** *

1 2 3 4 5 6 7 8 9

1	Model Name	ST7DXW (4-bolts)
2	Cam Ring Volumetric Displacement	X14, X17, X20, X24, X28, X31, X35, X38, X42, X45, X50
3	Shaft Type	1 keyed 7.94, M10 Deep20
		2 keyed 7.94, M8 Deep16
		W keyed 9.52, M10 Deep20
4	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction
		L counter clockwise direction
5	Porting Combination	00 standard
6	Design Number	A
7	Seal Class	1 S1 (for mineral oil)
		4 S4 (for fire resistant fluids)
		5 S5 (for mineral oil and fire resistant fluids)
8	Mounting w/connection Variables	W1 UNC, P=1 1/4", S=2 1/2"
		M0 metric, P=1 1/4", S=2 1/2"
9	Modifications	*

Porting Combination
P=Pressure port
S=suction port



MODEL SPEC.

Model	Volumetric Displacement Vp (cm ³ /rev)	Speed (r.p.m.)	Flow qve [l/min]=1800r.p.m.			Input Power P [kw]=1800r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=300bar	p=7bar	p=140bar	p=300bar		
X14	43.9	1800	79.1	72.5	64.9	2.6	20.7	43.6	300	3000
X17	55.0	1800	98.8	92.3	84.7	2.8	25.3	53.6		
X20	66.0	1800	118.6	112.0	104.5	3.0	29.8	63.6		
X24	81.1	1800	145.8	139.2	131.6	3.4	36.1	77.4		
X28	89.9	1800	161.8	155.2	147.6	3.5	39.7	85.5		
X31	99.1	1800	178.3	171.7	164.2	3.7	43.6	93.7		
X35	113.4	1800	203.9	197.2	190.6	4.0	49.4	97.2	280	2200
X38	120.6	1800	216.8	210.2	203.6	4.2	52.4	103.2		
X42	137.5	1800	247.2	240.6	234.9	4.5	59.4	111.4	260	
X45	145.7	1800	262.0	253.6	247.5	5.0	62.4	107.7	240	
X50	157.9	1800	284.0	275.8	271.3	5.3	67.5	100.3	210	

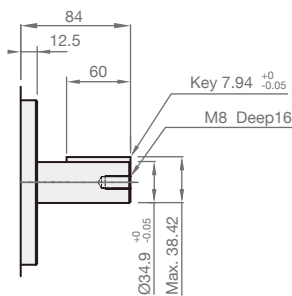
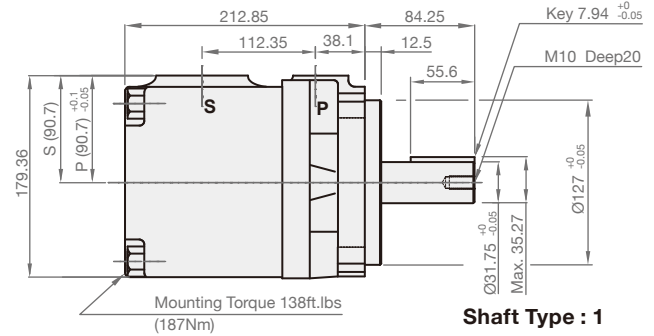
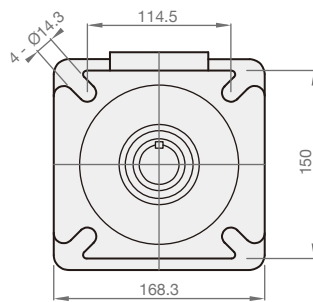
Min. speed : 600r.p.m.

weight : 32.5kg

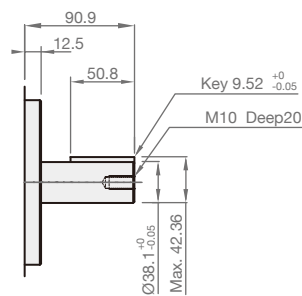
Typical : 24cSt

DIMENSION

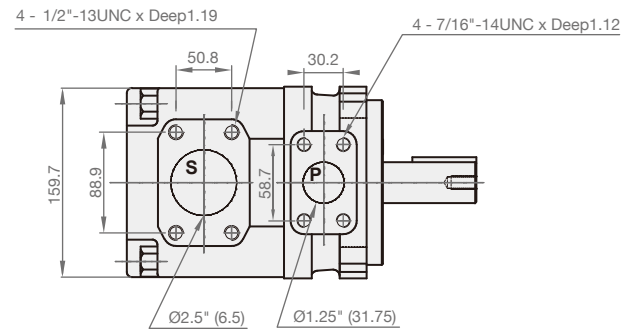
(UNIT : mm)



Shaft Type : 2



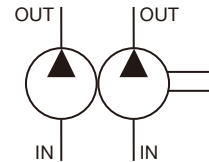
Shaft Type : W



ST6CC

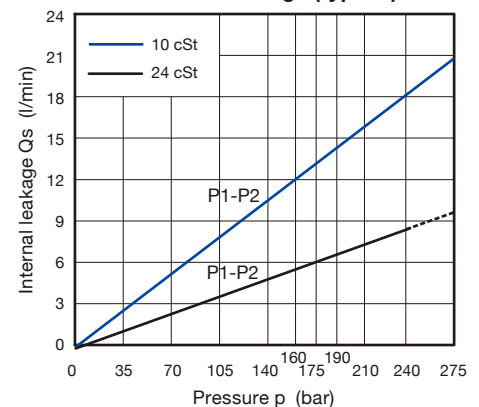


SYMBOLS



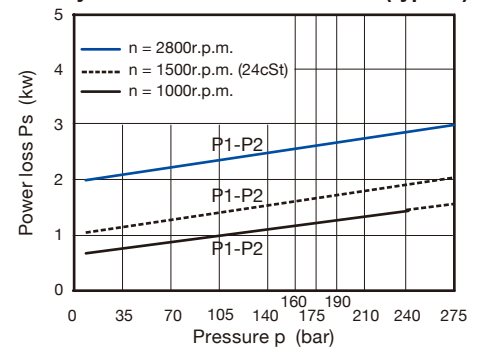
CURVES

Internal Leakage (typical)



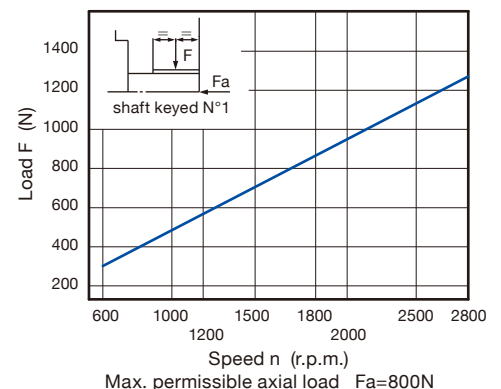
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow. Total leakage is the sum of each section loss at its operating conditions.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



ORDER CODES

ST6CC - **W** - **022** - **008** - **1 R 00** - **C 1 00**

1 2 3 P1 3 P2 4 5 6 7 8 9

1 ▶	Model Name	ST6CC			
2 ▶	Severe Duty	none			
		W	use for severe duty shaft only		
3 ▶	Cam Ring Volumetric Displacement	005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031			
4 ▶	Shaft Type	1	keyed no SAE		
		3	spline SAE BB		
		5	spline SAE B		
		2	keyed SAE BB (ST6CC-W only)		
		S	spline DIN 5462 (ST6CC-W only)		
5 ▶	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction		
		L	counter clockwise direction		
6 ▶	Porting Combination	00	standard		
7 ▶	Design Number	C			
8 ▶	Seal Class	1	S1 (for mineral oil)		
		4	S4 (for fire resistant fluids)		
		5	S5 (for mineral oil and fire resistant fluids)		
9 ▶	Mounting w/connection Variables				
	Pressure Port	P1=1", S=3"		P1=1", S=2 1/2" ⁽²⁾	
		P2=1"	P2=3/4" ⁽¹⁾	P2=1"	P2=3/4" ⁽¹⁾
	UNC	00	01	10	11
	metric	0M	W0	1M	W1

(1) For 46 ml/rev. max. (2) For 126 ml/rev. max.
The large cartridge must be always mounted in the front.

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1 P2	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2800
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	2500
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.4		

Min. speed : 600r.p.m.

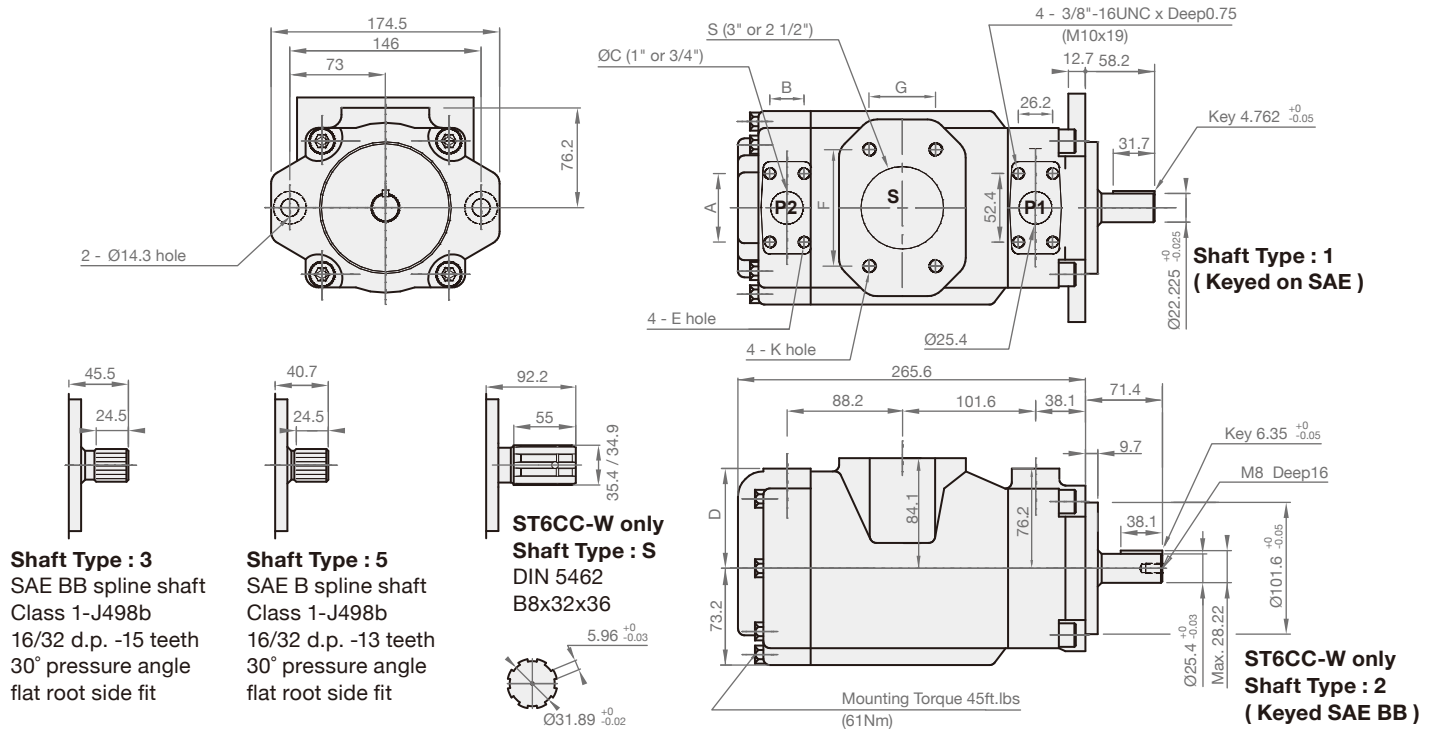
weight : 26.6kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

DIMENSION

(UNIT : mm)



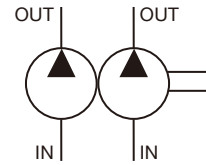
Alternate Port								
Code	00	01	0M	W0	10	11	1M	W1
	S = 3"				S = 2 1/2"			
F	106.4				88.9			
G	61.9				50.8			
ØH	76.2				63.5			
A	52.4	47.6	52.4	47.6	52.4	47.6	52.4	47.6
B	26.2	22.2	26.2	22.2	26.2	22.2	26.2	22.2
ØC	25.4	19.0	25.4	19.0	25.4	19.0	25.4	19.0
D	74.7	76.2	74.7	76.2	74.7	76.2	74.7	76.2
E	3/8"-16UNC x Deep19		M10 Deep19		3/8"-16UNC x Deep19		M10 Deep19	
K	5/8"-11UNC x Deep28.4		M16 Deep28.4		1/2"-13UNC x Deep23.9		M12 Deep24.0	

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2
ST6CC	1	14300
	2	21420
	3	32670
	4	20600

ST6DC

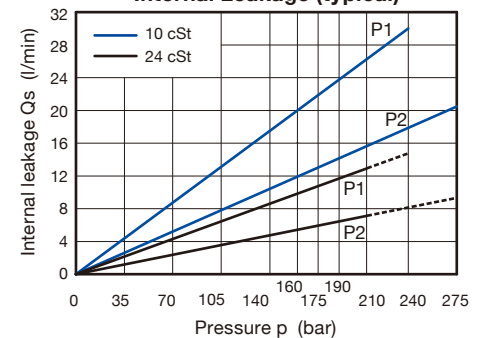


SYMBOLS



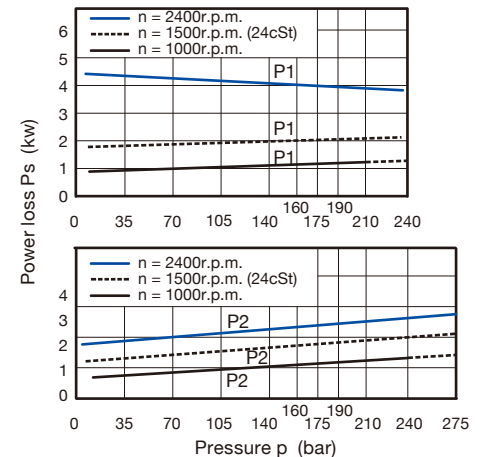
CURVES

Internal Leakage (typical)



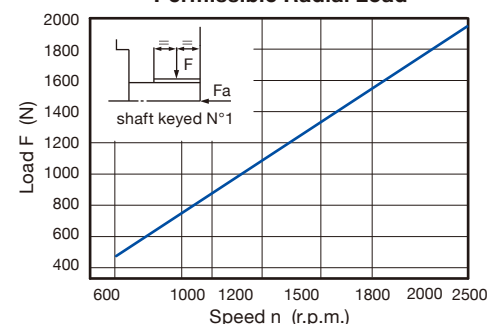
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.
Total leakage is the sum of each section loss at its operating conditions.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a=1200N$

ORDER CODES

ST6DC - **W** - **038** - **022** - **1 R 00** - **B 1** - **00**

1	Model Name	ST6DC
2	Severe Duty	none
		W use for severe duty shaft only
3	Cam Ring Volumetric Displacement	P1 = 014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 060 P2 = 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031
4	Shaft Type	1 keyed SAE CC 2 keyed no SAE 3 spline SAE C 4 spline no SAE 5 keyed no SAE (ST6DC-W only)
5	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction L counter clockwise direction
6	Porting Combination	00 standard
7	Design Number	B
8	Seal Class	1 S1 (for mineral oil) 4 S4 (for fire resistant fluids) 5 S5 (for mineral oil and fire resistant fluids)
9	Mounting w/connection Variables	00 UNC, P2=1" 01 UNC, P2=3/4" M0 metric, P2=1" M1 metric, P2=3/4"

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	240	2500
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	210	2200
	061	190.5	285.7	278.0	-	4.6	60.6	-	120	
P2	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2500
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	2500
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.4		

Min. speed : 600r.p.m.

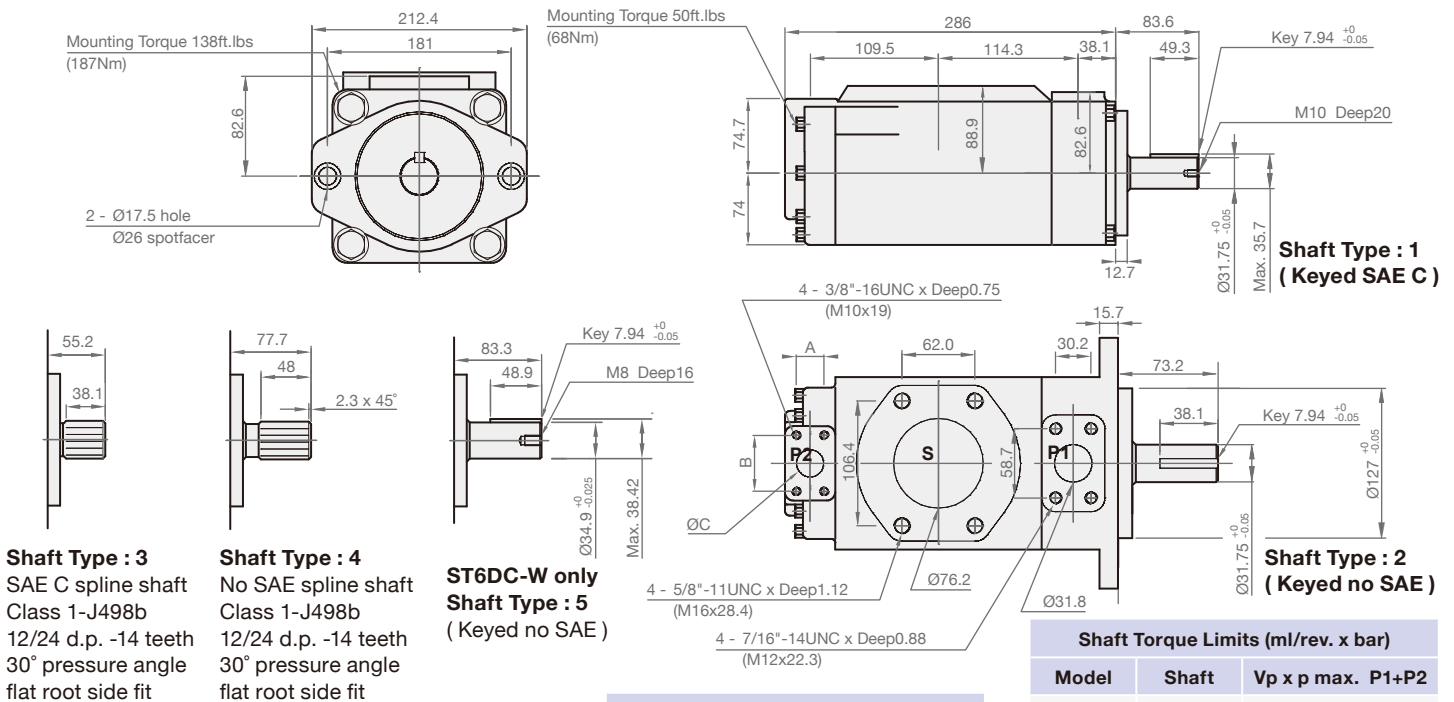
weight : 38.1kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

DIMENSION

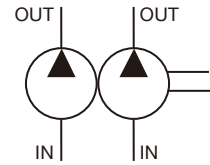
(UNIT : mm)



ST6EC

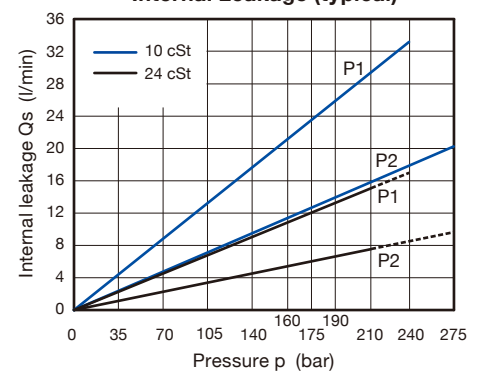


SYMBOLS



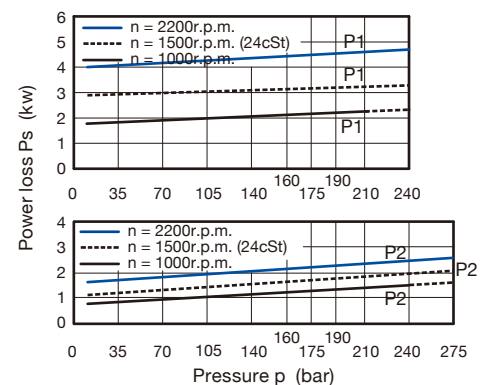
CURVES

Internal Leakage (typical)



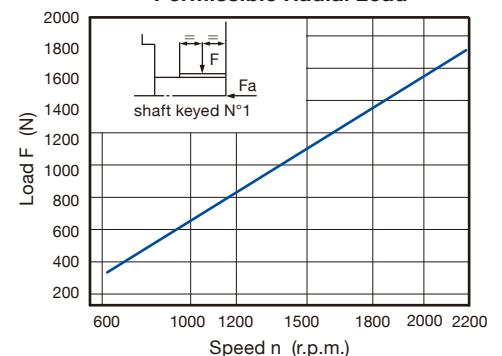
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.
Total leakage is the sum of each section loss at its operating conditions.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a=2000N$

ORDER CODES

ST6EC * - **066** - **014** - **1 R 00** - **B 1**

1	Model Name	ST6EC
2	Port Connection	none
		Y metric port connection, omit for UNC
3	Cam Ring Volumetric Displacement	P1 = 042, 045, 050, 052, 057, 062, 066, 075, 085 P2 = 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031
4	Shaft Type	1 keyed SAE CC 2 keyed no SAE 3 spline SAE C 4 spline SAE CC
5	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction L counter clockwise direction
6	Porting Combination	00 standard
7	Design Number	B
8	Seal Class	1 S1 (for mineral oil) 4 S4 (for fire resistant fluids) 5 S5 (for mineral oil and fire resistant fluids)

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1	042	132.3	198.5	188.5	181.3	5.2	49.4	82.6	240	2200
	045	142.4	213.6	203.6	196.5	5.4	52.9	88.7		
	050	158.5	237.7	227.7	220.6	5.7	58.5	98.3		
	052	164.8	247.2	237.2	230.1	5.8	60.8	102.1		
	057	180.7	271.1	261.1	254.0	6.1	66.4	106.9		
	062	196.7	295.0	285.0	277.9	6.4	71.9	121.3		
	066	213.3	319.9	309.9	302.8	6.7	77.7	131.2		
	072	227.1	340.6	330.6	323.5	6.9	82.6	139.5		
	085	269.8	404.7	397.7	-	7.3	65.3	-	90	2000
P2	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2200
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	2200
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.4		

Min. speed : 600r.p.m.

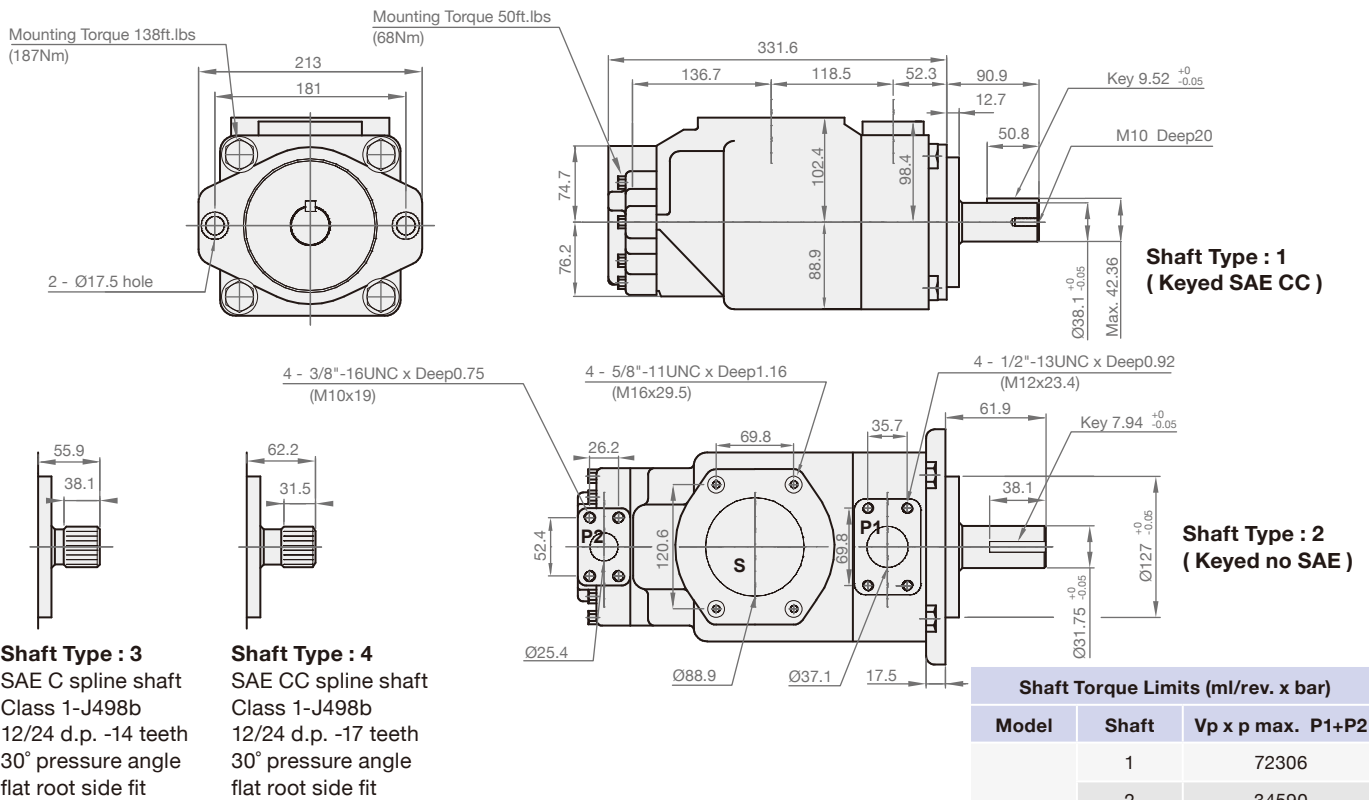
weight : 55kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

DIMENSION

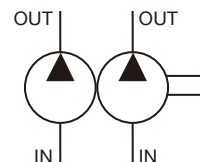
(UNIT : mm)



ST6GCC

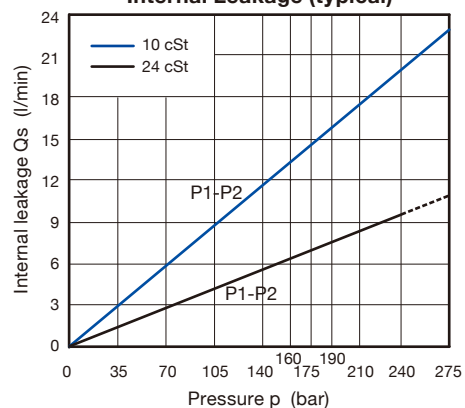


SYMBOLS



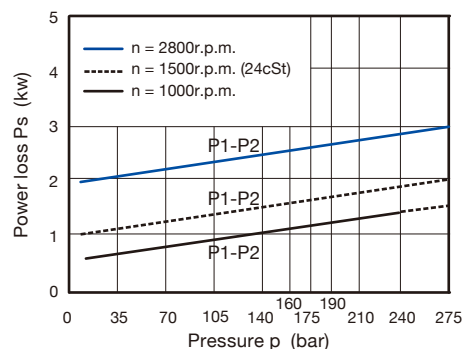
CURVES

Internal Leakage (typical)



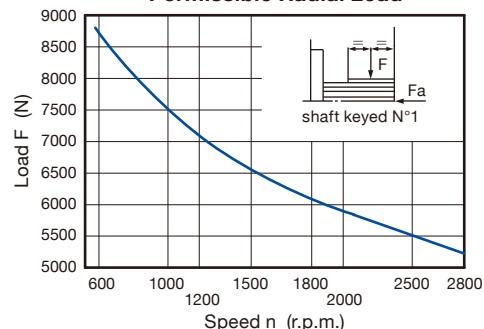
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.
Total leakage is the sum of each section loss at its operating conditions.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Life time 3000 hours when 70% of the time at 500N and 30% at max. load

ORDER CODES

ST6GCC - **B22** - **B08** - **6 R 00** - **A 1** - **00 ***

1 2 P1 2 P2 3 4 5 6 7 8 9

1 ▶	Model Name	ST6GCC			
2 ▶	Cam Ring Volumetric Displacement	B05, B06, B08, B10, B12, B14, B17, B20, B22, B25, B28, B31			
3 ▶	Shaft Type	6	spline DIN 5462		
4 ▶	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction		
		L	counter clockwise direction		
5 ▶	Porting Combination	00	standard		
6 ▶	Design Number	A			
7 ▶	Seal Class	1	S1 (for mineral oil)		
8 ▶	Mounting w/connection Variables				
	Pressure Port	P1=1", S=3"		P1=1", S=2 1/2" ⁽²⁾	
		P2=1"	P2=3/4" ⁽¹⁾	P2=1"	P2=3/4" ⁽¹⁾
	UNC	00	01	10	11
	metric	0M	W0	1M	W1
9 ▶	Modifications	*			

(1) For 46 ml/rev. max. (2) For 126 ml/rev. max.
The large cartridge must be always mounted in the front.

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm ³ /rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1 P2	B05	17.2	25.8	20.3	15.8	1.4	7.5	12.2	275	2800
	B06	21.3	31.9	26.5	22.0	1.5	8.9	14.7		
	B08	26.4	39.6	34.1	29.6	1.6	10.7	17.7		
	B10	34.1	51.1	45.7	41.2	1.7	13.4	22.3		
	B12	37.1	55.6	50.2	45.7	1.7	14.4	24.1		
	B14	46.0	69.0	63.5	59.0	1.9	17.6	29.5		
	B17	58.3	87.4	82.0	77.5	2.1	21.9	36.9		
	B20	63.8	95.7	90.2	85.7	2.2	23.8	40.2		
	B22	70.3	105.4	100.0	95.5	2.3	26.1	44.1		
	B25	79.3	118.9	113.5	109.0	2.5	29.2	49.5	210	2500
	B28	88.8	133.2	127.7	124.5	2.8	32.7	48.5		
	B31	100.0	150.0	144.5	141.3	2.8	36.5	54.4		

Min. speed : 400r.p.m.

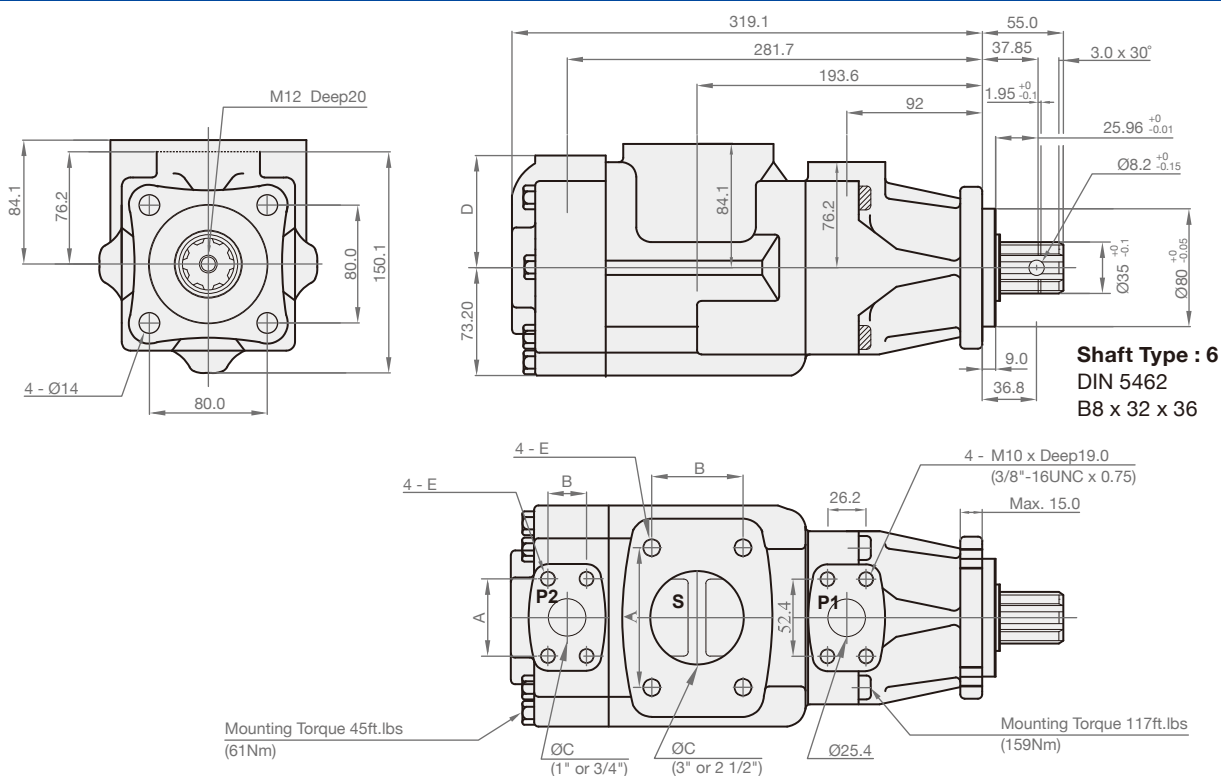
weight : 27.5kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

DIMENSION

(UNIT : mm)



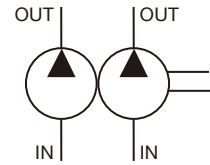
Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2
ST6GCC	6	32670

Port	S=3"	S=2 1/2"	P2=3/4"	P2=1"
A	106.4	88.9	47.7	52.4
B	61.9	50.8	22.2	26.2
C	76.2	63.5	19.0	25.4
D	-	-	76.2	74.7
E	5/8"-11UNC x 1.12 (M16 x Deep28.4)	1/2"-13UNC x 0.94 (M12 x Deep0)	3/8"-16UNC x 0.75 (M10 x Deep19.0)	

ST6DDS-X17-X17

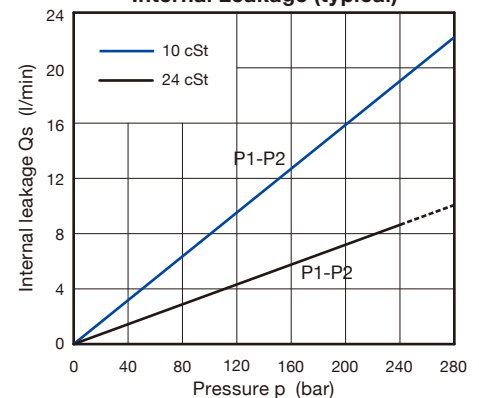


SYMBOLS



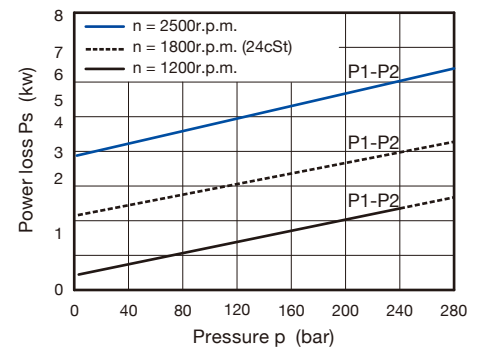
CURVES

Internal Leakage (typical)



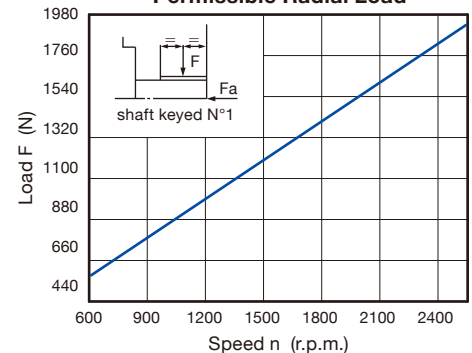
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a=800N$

ORDER CODES

ST6DDS - **038** - **022** - **1 R 00** - **A 1** - **00 X17-X17**

1 2 P1 2 P2 4 5 6 7 8 9 10

1	Model Name	ST6DDS : SAE 6-bolts mounting flange J744c	
2	Cam Ring Volumetric Displacement	014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061	
3	Shaft Type	1	keyed SAE C
		2	keyed SAE CC
		3	spline SAE C
		4	spline SAE BB
		5	keyed no SAE
4	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
5	Porting Combination	00	standard
6	Design Number	A	
7	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
9	Mounting w/connection Variables	00	UNC, P1 & P2=1 1/4", S=4"
		M0	metric, P1 & P2=1 1/4", S=4"
10	Modifications	X17-X17	

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=150bar	p=300bar	p=7bar	p=150bar	p=300bar		
P1 P2	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	300	2200
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	280	2200
	061	190.5	285.7	278.0	-	4.6	60.6	-		

Min. speed : 600r.p.m.

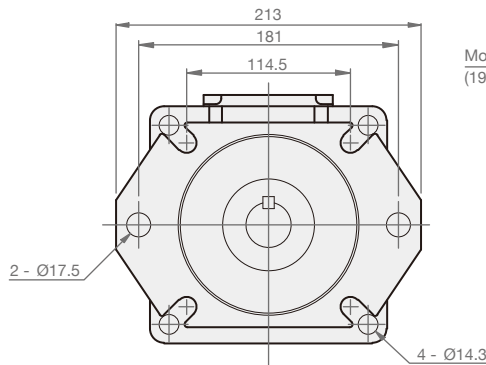
weight : 75kg

Typical : 24cSt

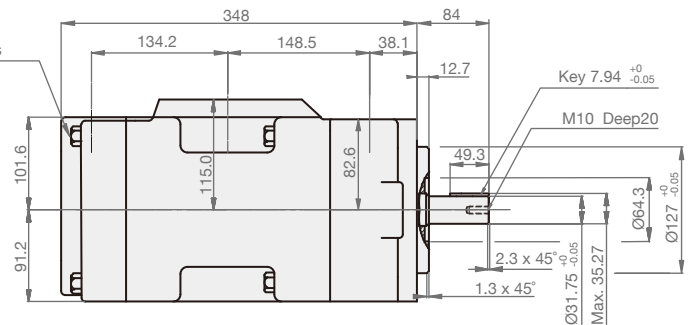
* Input powerp (kw) for one cartridge only.

DIMENSION

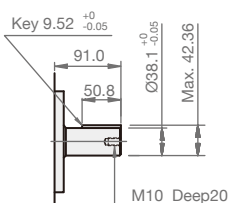
(UNIT : mm)



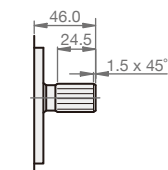
Mounting Torque 140ft.lbs
(190Nm)



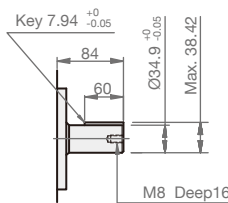
Shaft Type : 1
(Keyed SAE C)



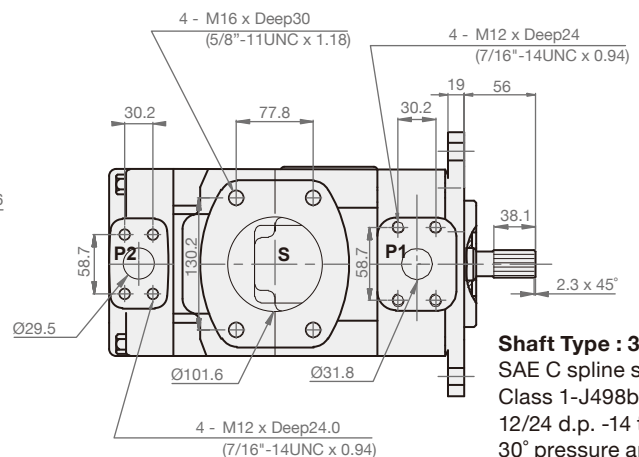
Shaft Type : 2
(Keyed SAE CC)



Shaft Type : 4
SAE BB spline shaft
Class 1-J498b
16/32 d.p. -15 teeth
30° pressure angle
flat root side fit



Shaft Type : 5
(Keyed no SAE)



Shaft Type : 3
SAE C spline shaft
Class 1-J498b
12/24 d.p. -14 teeth
30° pressure angle
flat root side fit

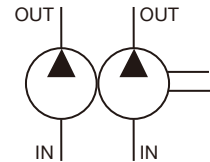
Shaft Torque Limits (ml/rev. x bar)

Model	Shaft	Vp x p max. P1+P2
ST6DDS	1	43230
	3	61200
	4	35880
	5	55600

ST7QCC

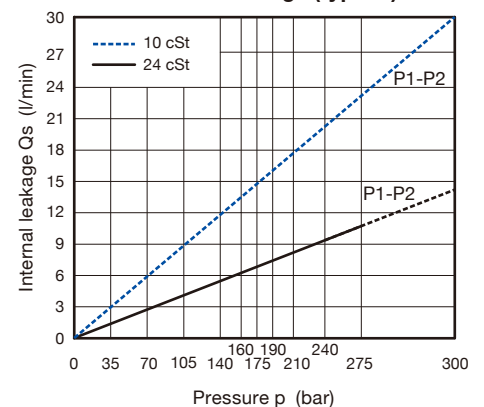


SYMBOLS



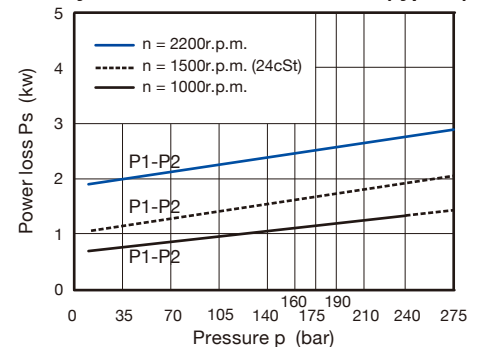
CURVES

Internal Leakage (typical)

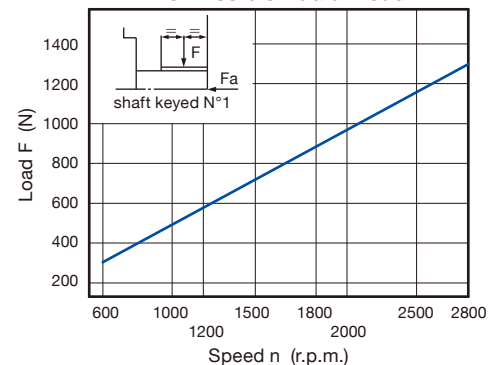


Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

Hydromechanical Power Loss (typical)



Permissible Radial Load



Max. permissible axial load $F_a=800N$

ORDER CODES

ST7QCC **1** **W** - **022** - **1** **R** **00** - **B** **1** **00** *****

1 2 3 4 5 6 7 8 9 10 11

1 ▶	Model Name	ST7QCC			
2 ▶	Mounting	1	SAE B		
		2	SAC C		
3 ▶	Severe Duty	none			
		W	use for severe duty shaft only		
4 ▶	Cam Ring Volumetric Displacement	005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031			
5 ▶	Shaft Type	1	keyed no SAE		
		3	spline SAE BB		
		5	spline SAE B		
		2	keyed SAE BB (severe duty only)		
6 ▶	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction		
		L	counter clockwise direction		
7 ▶	Porting Combination	00	standard		
8 ▶	Design Number	B			
9 ▶	Seal Class	1	S1 (for mineral oil)		
		4	S4 (for fire resistant fluids)		
		5	S5 (for mineral oil and fire resistant fluids)		
10 ▶	Mounting w/connection Variables				
	Pressure Port	P1=1", S=3"		P1=1", S=2 1/2" ⁽²⁾	
		P2=1"	P2=3/4" ⁽¹⁾	P2=1"	P2=3/4" ⁽¹⁾
	UNC	00	01	10	11
	metric	0M	W0	1M	W1
11 ▶	Modifications	*			

(1) For 46 ml/rev. max. (2) For 126 ml/rev. max.
The large cartridge must be always mounted in the front.

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1 P2	005	17.2	25.8	21.5	17.7	13.7	1.4	7.5	300	2800
	006	21.3	31.9	26.5	22.0	18.0	1.5	8.9		
	008	26.4	39.6	34.1	29.6	25.6	1.6	10.7		
	010	34.1	51.1	45.7	41.2	37.2	1.7	13.4		
	012	37.1	55.6	50.2	45.7	41.7	1.7	14.4		
	014	46.0	69.0	63.5	59.0	55.0	1.9	17.6		
	017	58.3	87.4	82.0	77.5	73.5	2.1	21.9		
	020	63.8	95.7	90.2	85.7	81.7	2.2	23.8		
	022	70.3	105.4	100.0	95.5	91.5	2.3	26.1	275	2500
	025	79.3	118.9	113.5	109.0	-	2.5	29.2	240	
	028	88.8	133.2	127.7	124.5	-	2.8	32.7	210	
	031	100.0	150.0	144.5	141.3	-	2.8	36.5		

Min. speed : 600r.p.m.

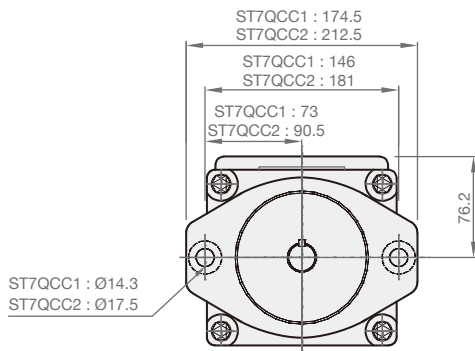
weight : 34.9kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

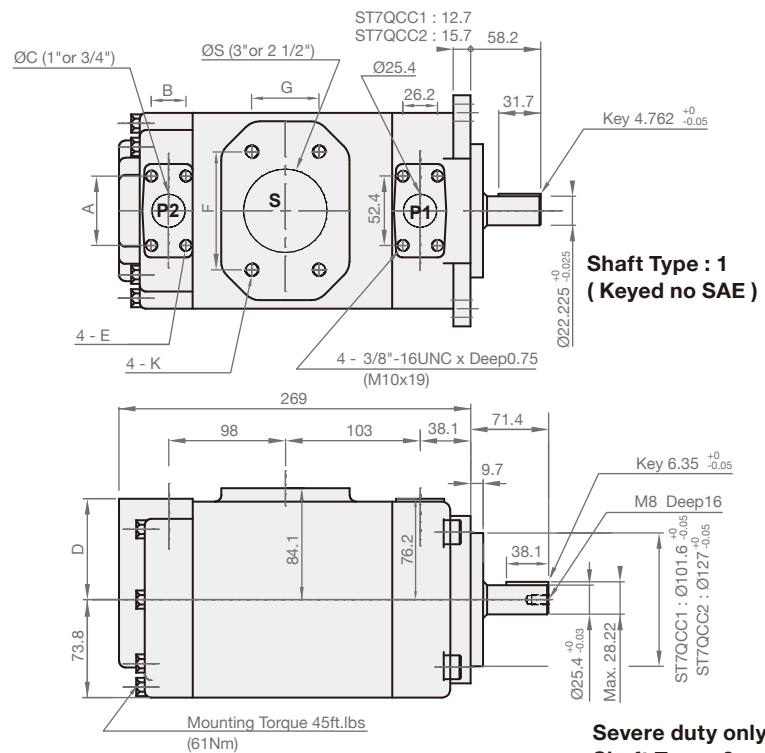
DIMENSION

(UNIT : mm)



Shaft Type : 3
SAE BB spline shaft
Class 1-J498b
16/32 d.p. -15 teeth
30° pressure angle
flat root side fit

Shaft Type : 5
SAE B spline shaft
Class 1-J498b
16/32 d.p. -13 teeth
30° pressure angle
flat root side fit



Shaft Type : 1
(Keyed no SAE)

Severe duty only
Shaft Type : 2
(Keyed SAE BB)

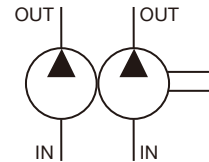
Alternate Port								
Code	00	01	0M	W0	10	11	1M	W1
	S = 3"				S = 2 1/2"			
F		106.4				88.9		
G		61.9				50.8		
ØH		76.2				63.5		
A	52.4	47.6	52.4	47.6	52.4	47.6	52.4	47.6
B	26.2	22.2	26.2	22.2	26.2	22.2	26.2	22.2
ØC	25.4	19.0	25.4	19.0	25.4	19.0	25.4	19.0
D	74.7	76.2	74.7	76.2	74.7	76.2	74.7	76.2
E	3/8"-16UNC x Deep19		M10 Deep19		3/8"-16UNC x Deep19		M10 Deep19	
K	5/8"-11UNC x Deep28.4		M16 Deep28.4		1/2"-13UNC x Deep23.9		M12 Deep24.0	

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2
ST7QCC	1	14300
	2	21420
	3	32670
	4	20600

ST7BB, ST7BBS

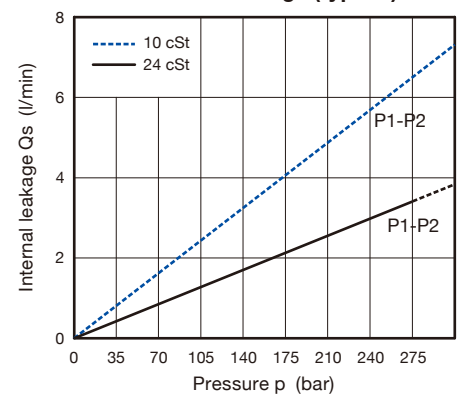


SYMBOLS



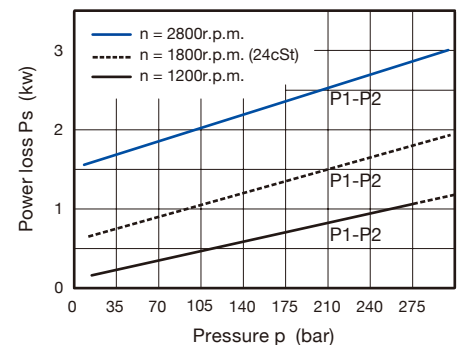
CURVES

Internal Leakage (typical)

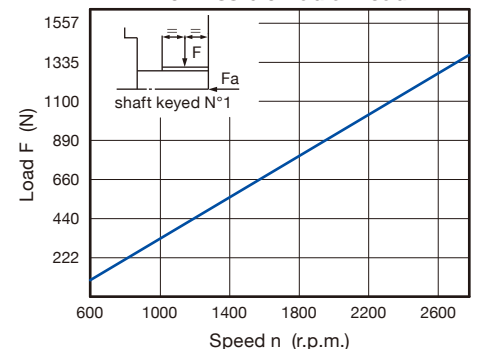


Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.

Hydromechanical Power Loss (typical)



Permissible Radial Load



Max. permissible axial load $F_a=800N$

ORDER CODES

ST7BB - **B08** - **B08** - **1** **R** **00** - **A** **1** - **00** *****

1 2 P1 2 P2 3 4 5 6 7 8 9

1 ▶	Model Name	ST7BB : 100 A2 HW, ISO 2 bolts 3019-2 mounting flange			
		ST7BBS : SAE B HW 2 bolts, mounting flange J744			
2 ▶	Cam Ring Volumetric Displacement	B02, B03, B04, B05, B06, B07, B08, B09, B10, B11, B12, B14, B15			
3 ▶	Shaft Type (ST7BB, ST7BBSS)	5	Keyed (ISO R775)		
	Shaft Type (ST7BBS)	1	keyed no SAE		
		2	keyed SAE BB		
		3	spline SAE BB		
		4	spline SAE B		
4 ▶	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction		
		L	counter clockwise direction		
5 ▶	Porting Combination	00	standard		
6 ▶	Design Number	A			
7 ▶	Seal Class	1	S1 (for mineral oil)		
		4	S4 (for fire resistant fluids)		
		5	S5 (for mineral oil and fire resistant fluids)		
8 ▶	Mounting w/connection Variables				
	4-bolts SAE flange (J518)				
		UNC thread ST7BBS		Metric thread ST7BB, ST7BBS	
		00	01	M0	M1
	P1	1"	3/4"	1"	3/4"
9 ▶	Modifications	*			

MODEL SPEC.

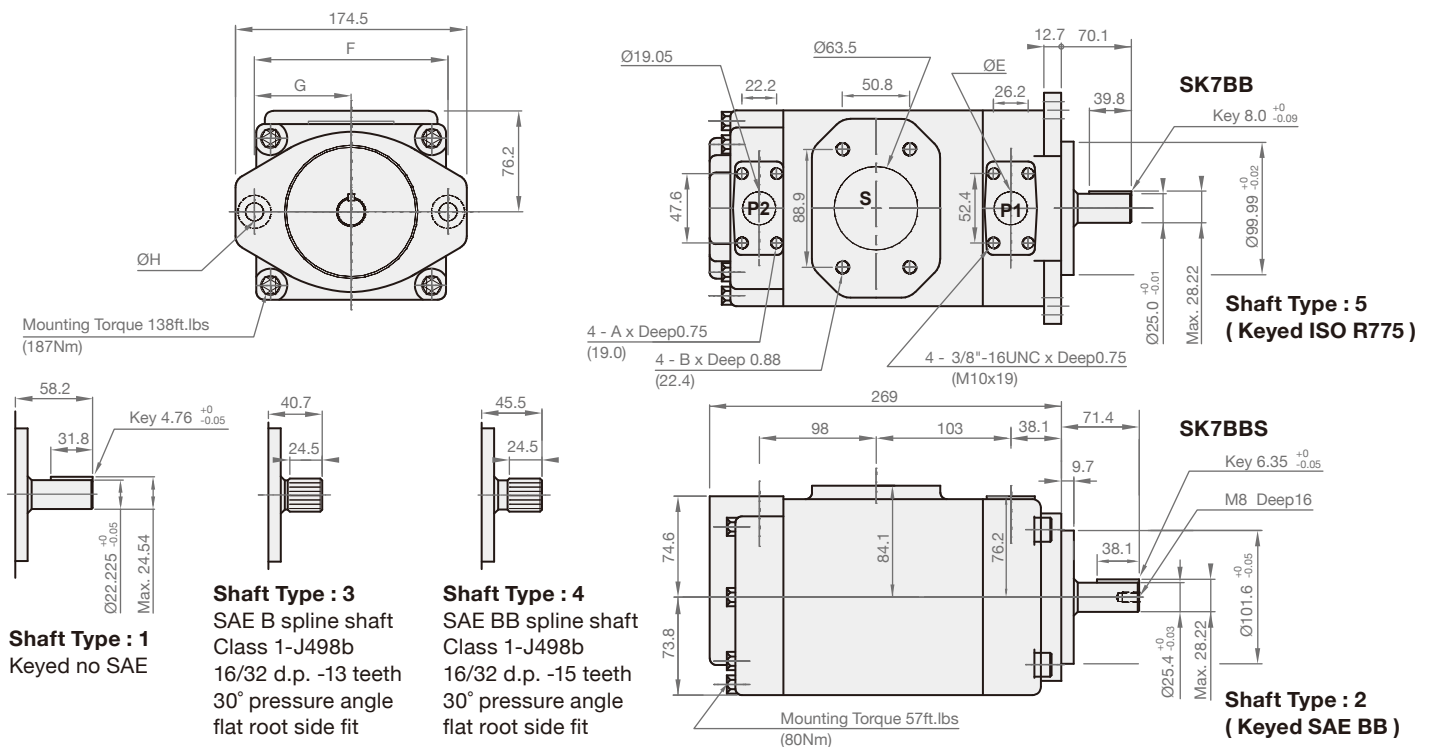
Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1800r.p.m.			Input Power P [kw]=1800r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=320bar	p=7bar	p=140bar	p=320bar		
P1 P2	B02	5.7	10.4	8.8	6.5	0.55	2.99	6.40	320	3600
	B03	9.8	17.6	15.9	13.7	0.63	4.65	10.25		
	B04	12.8	23.0	21.4	19.2	0.70	5.89	13.13		
	B05	15.9	28.6	26.9	24.7	0.76	7.17	16.12		
	B06	19.8	35.6	33.9	31.7	0.84	8.79	19.88		
	B07	22.5	40.4	38.8	36.5	0.89	9.91	22.47		
	B08	24.9	44.7	43.1	40.9	0.94	10.90	24.78		
	B09	28.0	50.3	48.6	46.4	1.01	12.19	27.77		
	B10	31.8	57.2	55.5	53.4	1.11	13.75	31.42		
	B11	34.9	62.9	61.2	59.0 *1	1.15	15.04	32.22 *1	300	
	B12	40.9	73.7	72.1	70.1 *1	1.28	17.56	37.71 *1		
	B14	45.1	80.8	79.2	77.0 *1	1.36	19.23	41.37 *1		
	B15	50.0	89.8	88.3	86.5 *2	1.47	21.28	42.76 *2	280	

Min. speed : 600r.p.m. weight : 33.6kg Typical : 24cSt

*1. B11, B12, B14 = 300 bar max. int. *2. B15 = 280 bar max. int.

DIMENSION

(UNIT : mm)



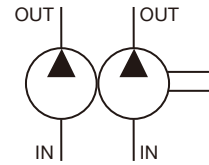
Code	ST7BBS		ST7BB	
	00	01	M0	M1
A	3/8"-16UNC deep		M10x19 deep	
B	1/2"-13UNC deep		M12x22.4 deep	
C	26.2	22.2	26.2	22.2
D	52.4	47.6	52.4	47.6
ØE	25.4	19.05	25.4	19.05
F	146.05		140.0	
G	73.0		70.0	
ØH	14.3		14.0	

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2
ST7BB	1	14300
	2	21420
	3	20620
	4	32702
	5	25325

ST7EE, ST7EES

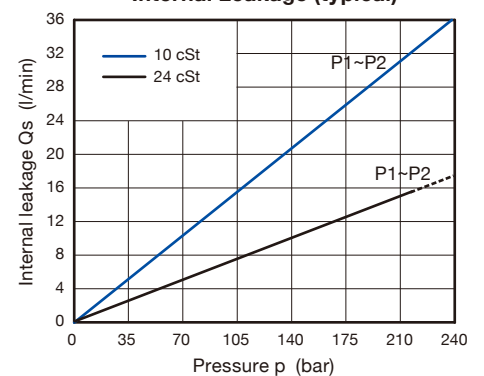


SYMBOLS



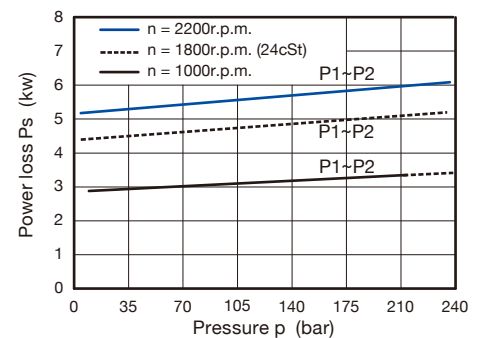
CURVES

Internal Leakage (typical)



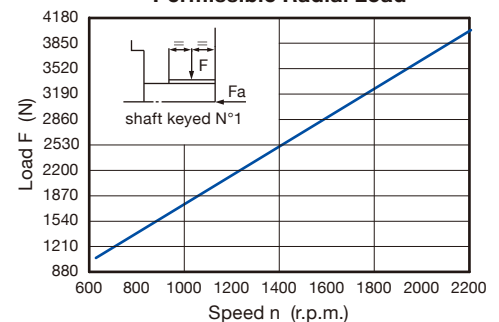
Don't operate pump more than 5 sec. at any speed or viscosity if internal leakage is more than 50% of theoretical flow.
Total leakage is the sum of each section loss at its operating conditions.

Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a=2000N$

ORDER CODES

ST7EES - **066** - **052** - **1 R 00** - **B 1 0** - **00 ***

1 2 P1 2 P2 3 4 5 6 7 8 9 10

1	Model Name	ST7EE : 250 B4HW ISO 3019-2 mounting flange	
		ST7EES : SAE 4-bolts mounting flange J744c	
2	Cam Ring Volumetric Displacement	042, 045, 050, 052, 057, 062, 066, 072, 085	
3	Shaft Type (ST7EES)	1	keyed SAE CC
		3	spline SAE CC
		4	spline SAE D&E
		5	keyed SAE D&E
		2	keyed G45N (ISO/R775-G38M)
4	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
5	Porting Combination	00	standard
6	Design Number	B	
7	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
8	Coupling Adapter	0	none
		2	SAE B
		3	SAE BB
9	Port Connection Variables	00	UNC, P1 & P2=1 1/2", S=4" (ST7EES only)
		M0	metric, P1 & P2=1 1/2", S=4" (ST7EES / ST7EE)
10	Modifications	*	

MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1 P2	042	132.3	198.5	188.5	181.3	5.2	49.4	82.6	240	2200
	045	142.4	213.6	203.6	196.5	5.4	52.9	88.7		
	050	158.5	237.7	227.7	220.6	5.7	58.5	98.3		
	052	164.8	247.2	237.2	230.1	5.8	60.8	102.1		
	057	180.7	271.1	261.1	254.0	6.1	66.4	106.9		
	062	196.7	295.0	285.0	277.9	6.4	71.9	121.3		
	066	213.3	319.9	309.9	302.8	6.7	77.7	131.2		
	072	227.1	340.6	330.6	323.5	6.9	82.6	139.5		
	085	269.8	404.7	397.7	-	7.3	65.3	-	90	2000

Min. speed : 600r.p.m.

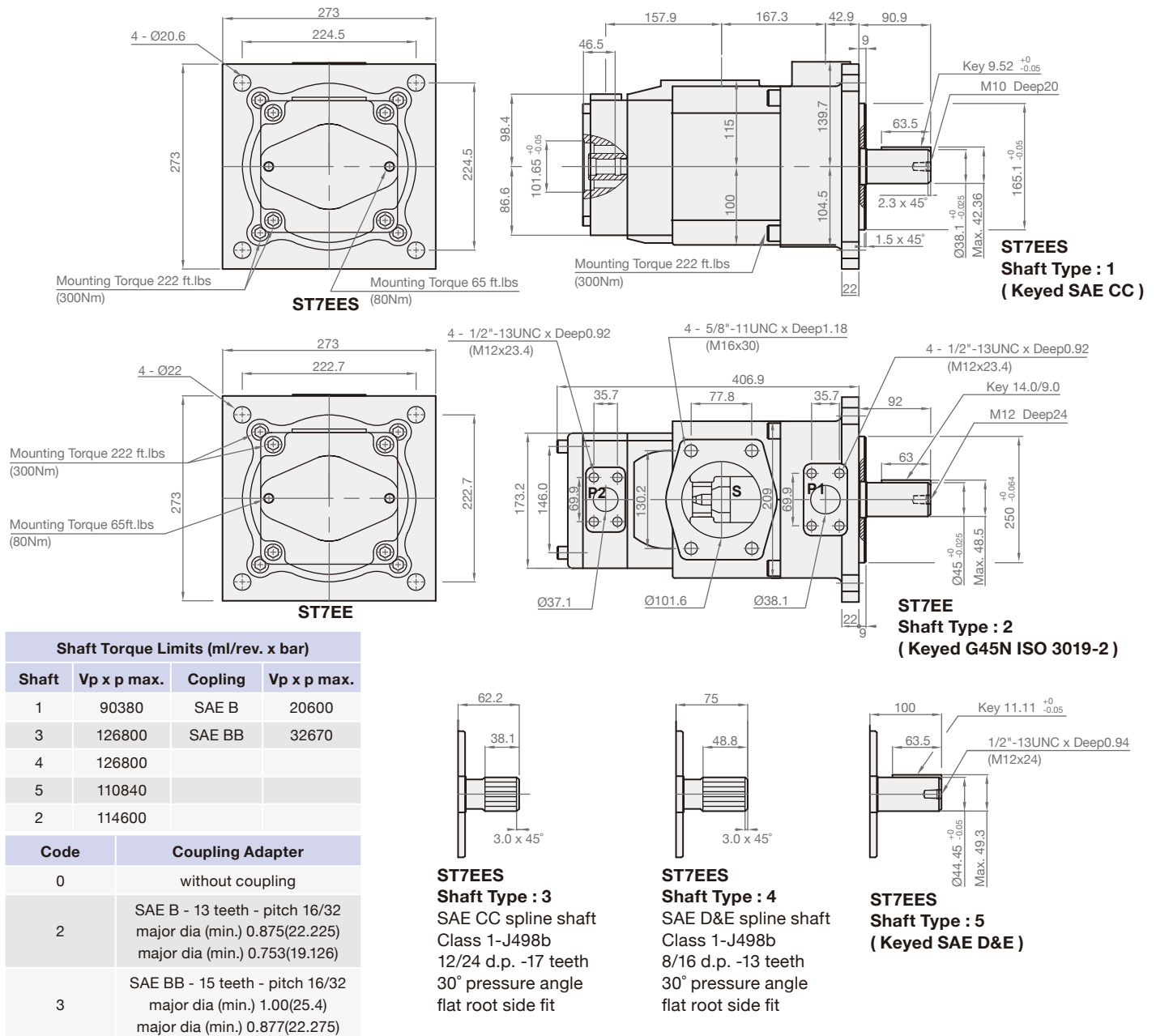
weight : 102.4kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.

DIMENSION

(UNIT : mm)



ST6DCC



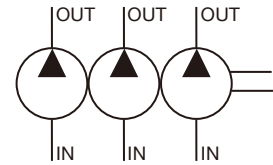
ORDER CODES

ST6DCC - **038** - **022** - **008** - **1 R 00** - **A 1** - **00**

1 2 P1 2 P2 2 P3 3 4 5 6 7 8

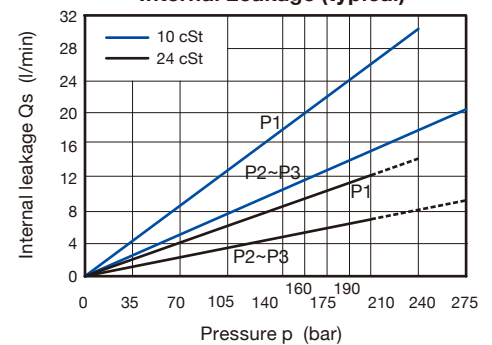
1	Model Name	ST6DCC
2	Cam Ring Volumetric Displacement	P1 = 014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061 P2 & P3 = 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031
3	Shaft Type	1 keyed no SAE 2 spline SAE CC 3 spline SAE C 4 spline SAE CC
4	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction L counter clockwise direction
5	Porting Combination	00 standard
6	Design Number	A
7	Seal Class	1 S1 (for mineral oil) 4 S4 (for fire resistant fluids) 5 S5 (for mineral oil and fire resistant fluids)
8	Mounting w/connection Variables	00 UNC, P3=1" 01 UNC, P3=3/4" M0 metric, P3=1" M1 metric, P3=3/4"

SYMBOLS

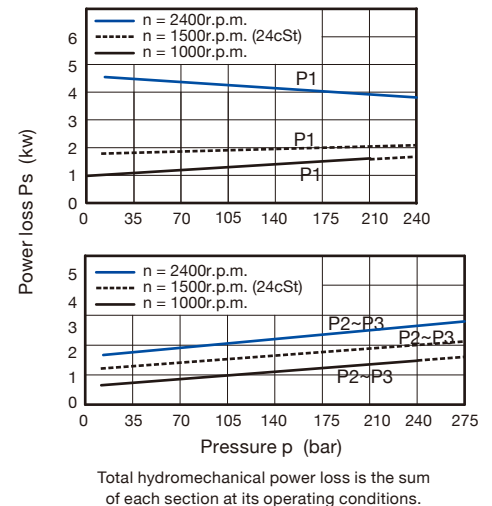


CURVES

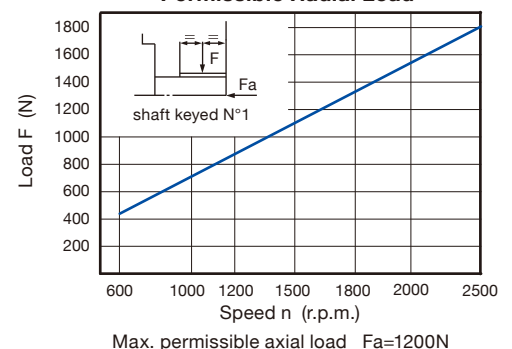
Internal Leakage (typical)



Hydromechanical Power Loss (typical)



Permissible Radial Load



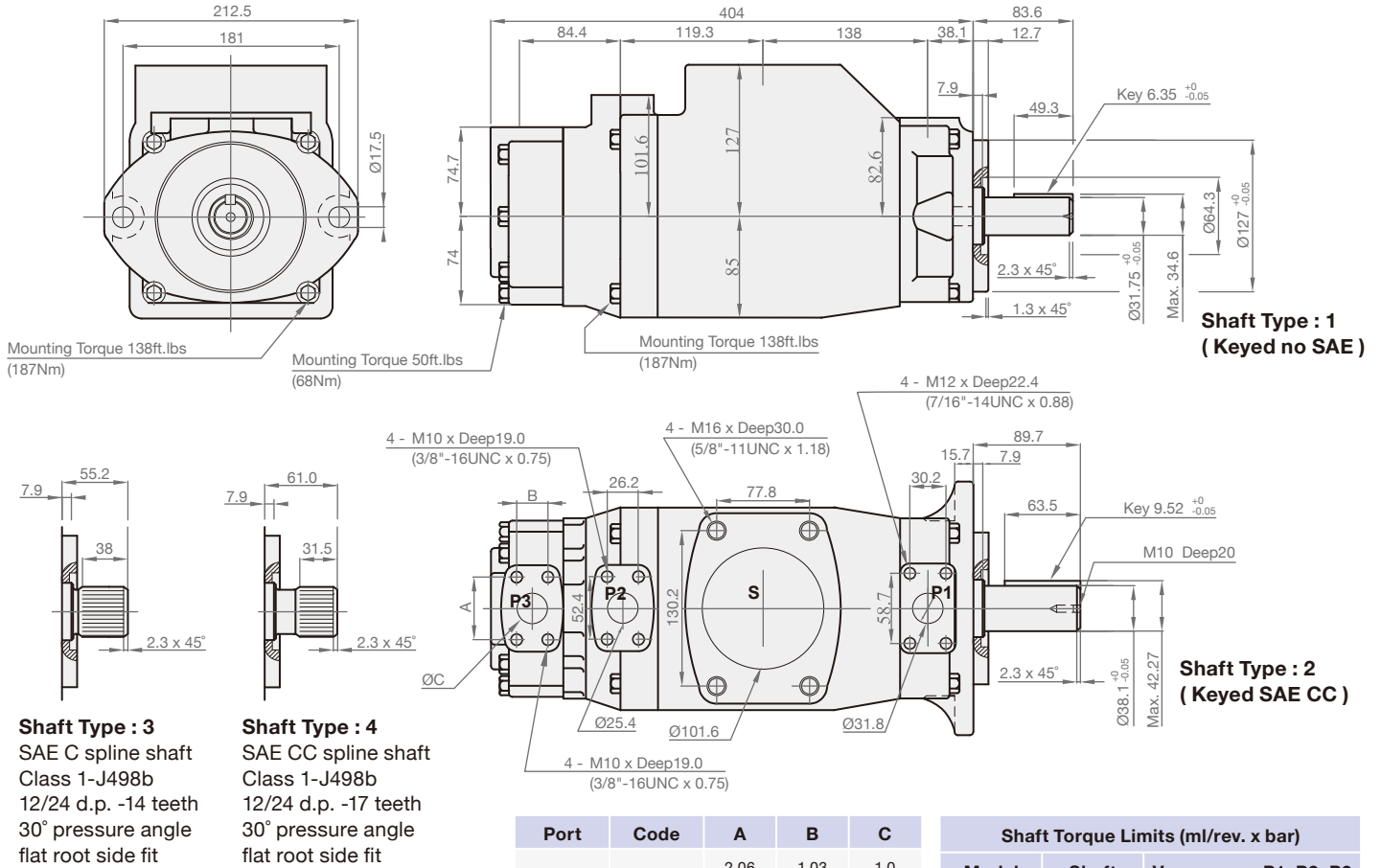
MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	240	2500
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	210	2200
	061	190.5	285.7	278.0	-	4.6	60.6	-	120	
P2 P3	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2500
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.2		

Min. speed : 600r.p.m. weight : 66.1kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.



ST6DCCS



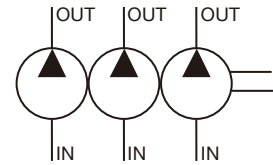
ORDER CODES

ST6DCCS - **038** - **035** - **014** - **1** **R** **00** - **B** **1** - **00**

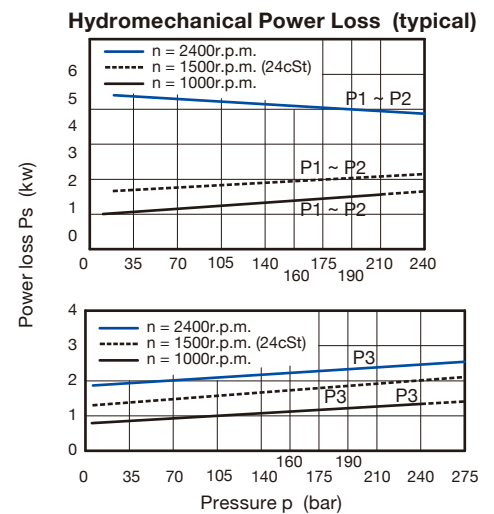
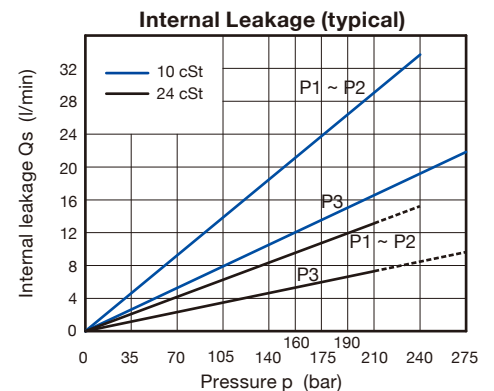
1 2 P1 2 P2 2 P3 3 4 5 6 7 8

1 ▶	Model Name	ST6DCCS : SAE C 6-bolts, mounting flange J744 SAE C	
2 ▶	Cam Ring Volumetric Displacement	P1 & P2 = 014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061 P3 = 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031	
3 ▶	Shaft Type	1	keyed SAE C
		2	keyed SAE CC
		3	spline SAE C
		4	spline SAE CC
		5	keyed no SAE
4 ▶	Direction of Rotation (Viewed from Shaft Side)	R	clockwise direction
		L	counter clockwise direction
5 ▶	Porting Combination	00	standard
6 ▶	Design Number	B	
7 ▶	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
		5	S5 (for mineral oil and fire resistant fluids)
8 ▶	Mounting w/connection Variables	SAE 4-bolts flange (J518c)	
		00	UNC, P1 & P2=1 1/4", S=4", P3=1"
		01	UNC, P1 & P2=1 1/4", S=4", P3=3/4"
		M0	metric, P1 & P2=1 1/4", S=4", P3=1"
		M1	metric, P1 & P2=1 1/4", S=4", P3=3/4"

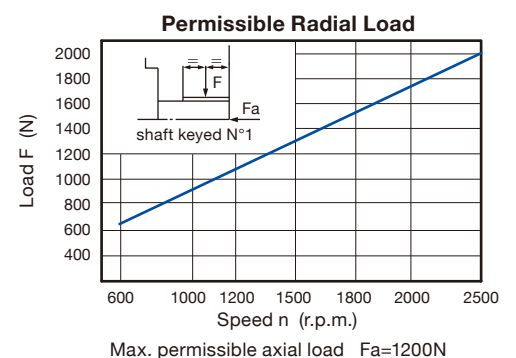
SYMBOLS



CURVES



Total hydromechanical power loss is the sum of each section at its operating conditions.



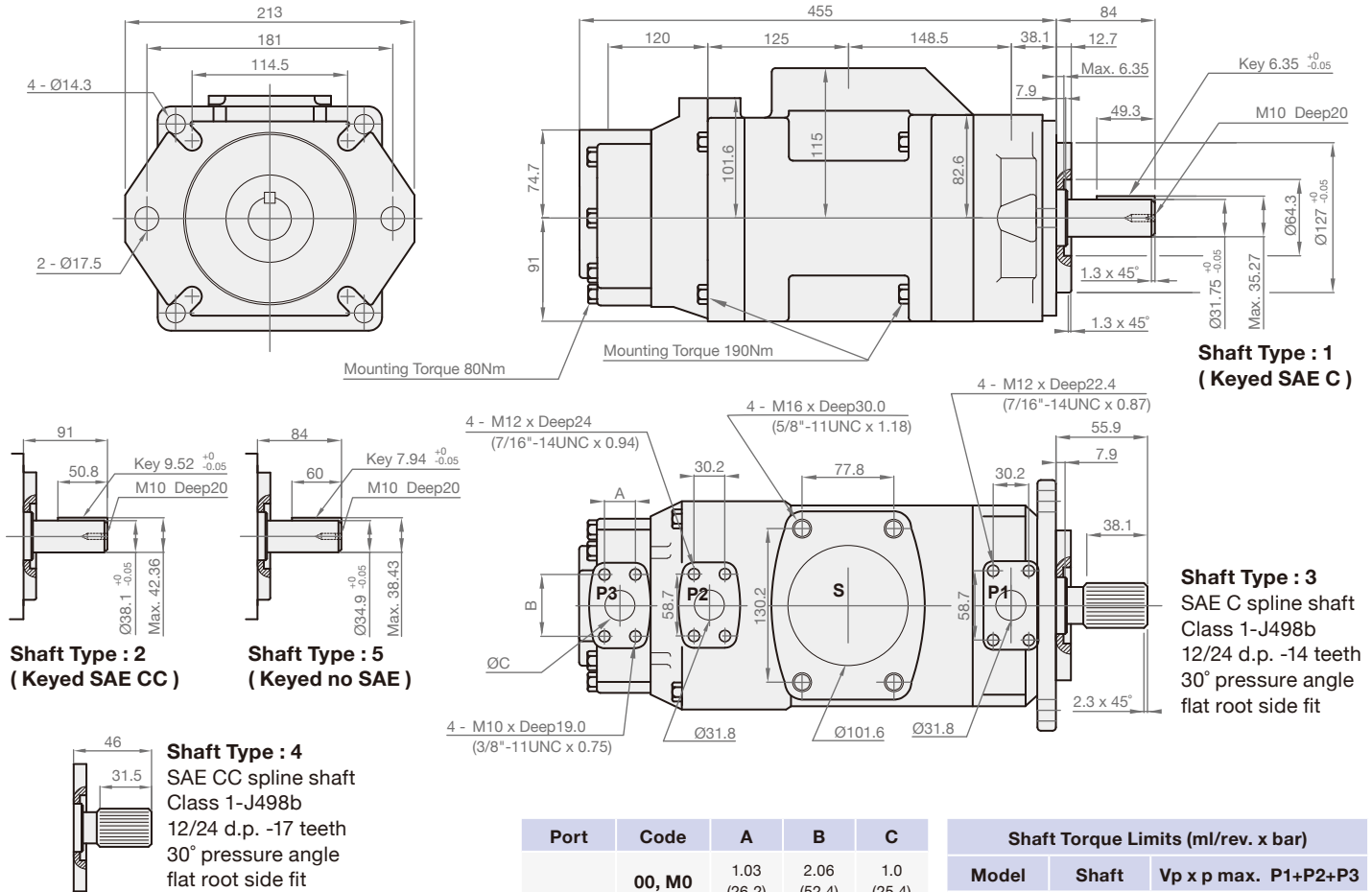
MODEL SPEC.

Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1 P2	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	240	2500
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	210	2200
	061	190.5	285.7	278.0	-	4.6	60.6	-	120	
P3	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2500
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.2		

Min. speed : 600r.p.m. weight : 69.5kg

Typical : 24cSt

* Input powerp (kw) for one cartridge only.



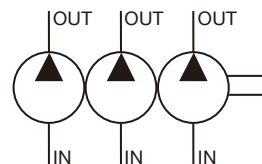
Port	Code	A	B	C
P3	00, M0	1.03 (26.2)	2.06 (52.4)	1.0 (25.4)
	01, M1	0.874 (22.2)	1.874 (47.6)	0.75 (19.05)

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2+P3
ST6DCCS	1	43240
	2	72306
	3	61200
	4	55600

ST6EDC, ST6EDCM

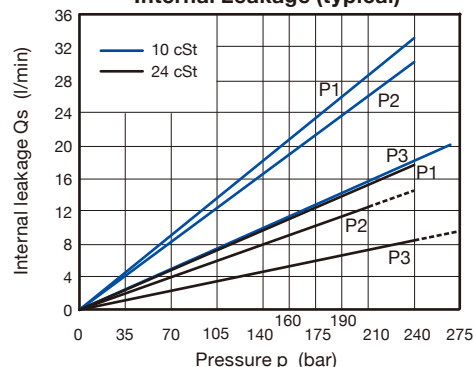


SYMBOLS

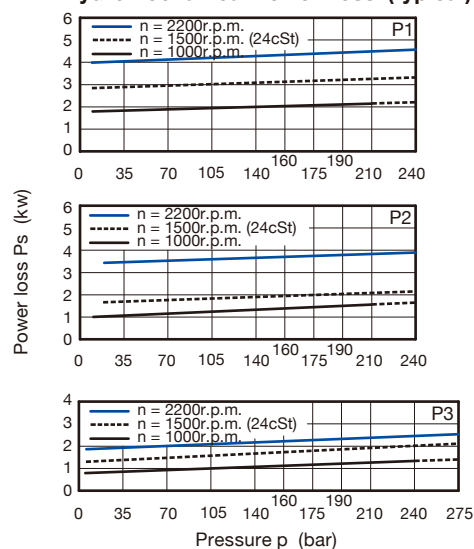


CURVES

Internal Leakage (typical)

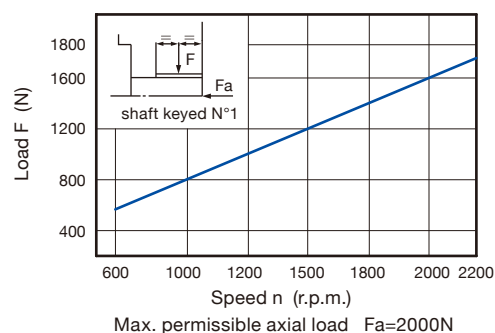


Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a=2000N$

ORDER CODES

ST6EDC - **066** - **038** - **008** - **1 R 00** - **C 1** - **P** - **0**

1 2 P1 2 P2 2 P3 3 4 5 6 7 8 9

1 ▶	Model Name	ST6EDC (min. speed 600r.p.m.)	
		ST6EDCM (min. speed 400r.p.m.)	
2 ▶	Cam Ring Volumetric Displacement	P1 = 042, 045, 050, 052, 057, 062, 066, 072, 085	
		P2 = 014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061	
3 ▶	Shaft Type	P3 = 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031	
		1	keyed G45N-ISO 3019-2
4 ▶	Direction of Rotation (Viewed from Shaft Side)	2	keyed SAE D & E
		3	spline SAE D & E
5 ▶	Porting Combination	00	standard
6 ▶	Design Number	C	
7 ▶	Seal Class	1	S1 (for mineral oil)
		4	S4 (for fire resistant fluids)
8 ▶	Mounting (Pump)	5	S5 (for mineral oil and fire resistant fluids)
		P	pedestal mounting
9 ▶	Mounting w/connection Variables	F	face mounting
		0	P3=1" SAE
		1	P3=3/4" SAE

MODEL SPEC.

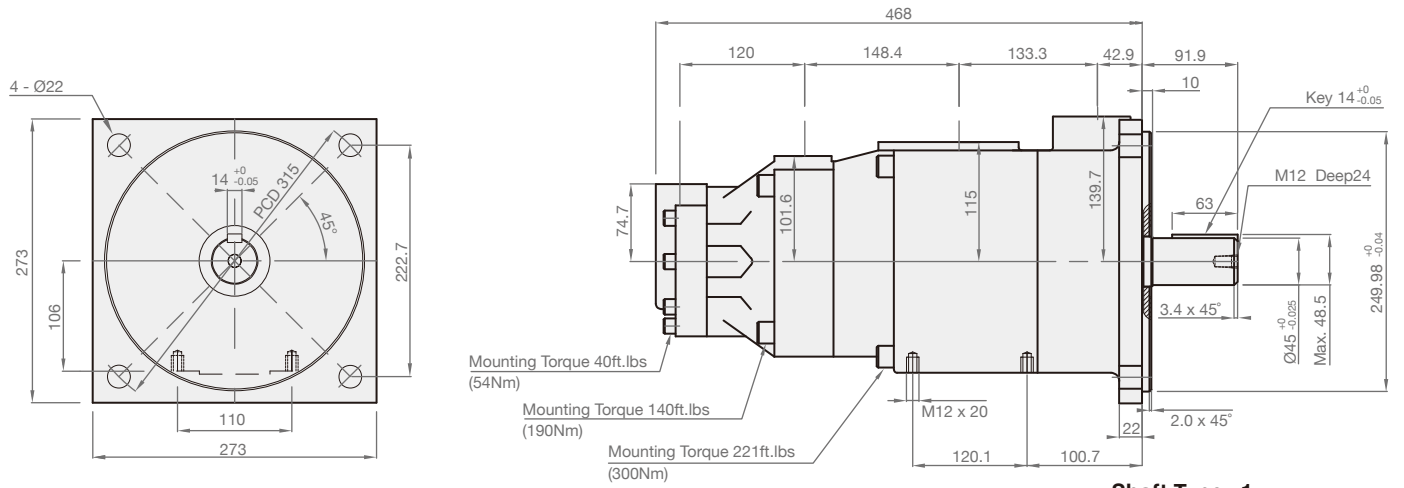
Pressure Port	Model	Volumetric Displacement Vp (cm ³ /rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm ²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1	042	132.3	198.5	188.5	181.3	5.2	49.4	82.6	240	2200
	045	142.4	213.6	203.6	196.5	5.4	52.9	88.7		
	050	158.5	237.7	227.7	220.6	5.7	58.5	98.3		
	052	164.8	247.2	237.2	230.1	5.8	60.8	102.1		
	057	180.7	271.1	261.1	254.0	6.1	66.4	106.9		
	062	196.7	295.0	285.0	277.9	6.4	71.9	121.3		
	066	213.3	319.9	309.9	302.8	6.7	77.7	131.2		
	072	227.1	340.6	330.6	323.5	6.9	82.6	139.5		
	085	269.8	404.7	397.7	-	7.3	65.3	-	90	2000
P2	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	240	2200
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	210	2200
	061	190.5	285.7	278.0	-	4.6	60.6	-	120	
P3	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2	275	2200
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	2200
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.2		

Min. speed : ST6EDC=600r.p.m., ST6EDCM=400r.p.m.

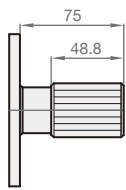
weight : 108.5kg

Typical : 24cSt

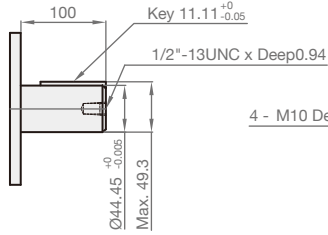
* Input powerp (kw) for one cartridge only.



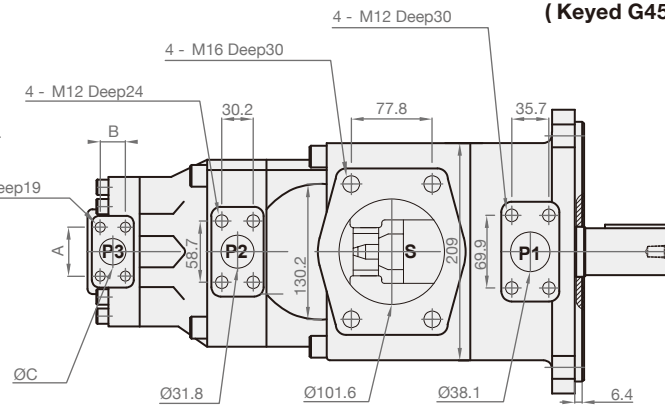
Shaft Type : 1
(Keyed G45N-ISO-3019-2)



Shaft Type : 3
SAE D & E splined shaft
Class 1-J498b
8/16 d.p. -13 teeth
30° pressure angle
flat root side fit



Shaft Type : 2
(Keyed SAE D & E)



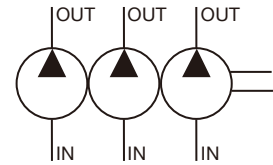
Port	Code	A	B	C
P3	0	2.06 (52.4)	1.03 (26.2)	1.0 (25.4)
	1	1.874 (47.6)	0.874 (22.2)	0.75 (19.05)

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2+P3
ST6EDC ST6EDCM	1	114715

ST6EDCS

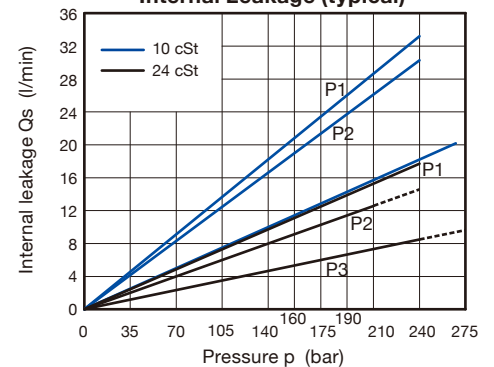


SYMBOLS

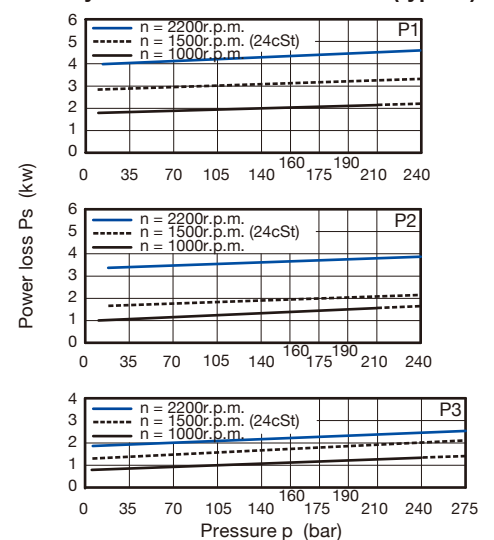


CURVES

Internal Leakage (typical)

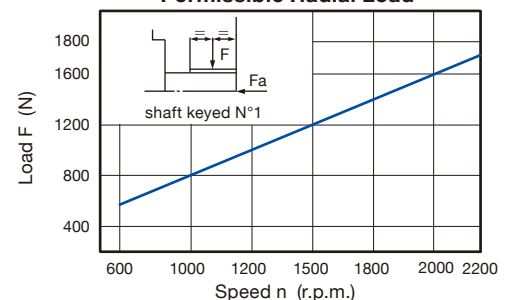


Hydromechanical Power Loss (typical)



Total hydromechanical power loss is the sum of each section at its operating conditions.

Permissible Radial Load



Max. permissible axial load $F_a = 2000\text{N}$

ORDER CODES

ST6EDCS - **066** - **038** - **008** - **1 R 00** - **C 1** - **P** - **0**

1 2 P1 2 P2 2 P3 3 4 5 6 7 8 9

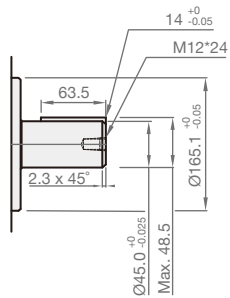
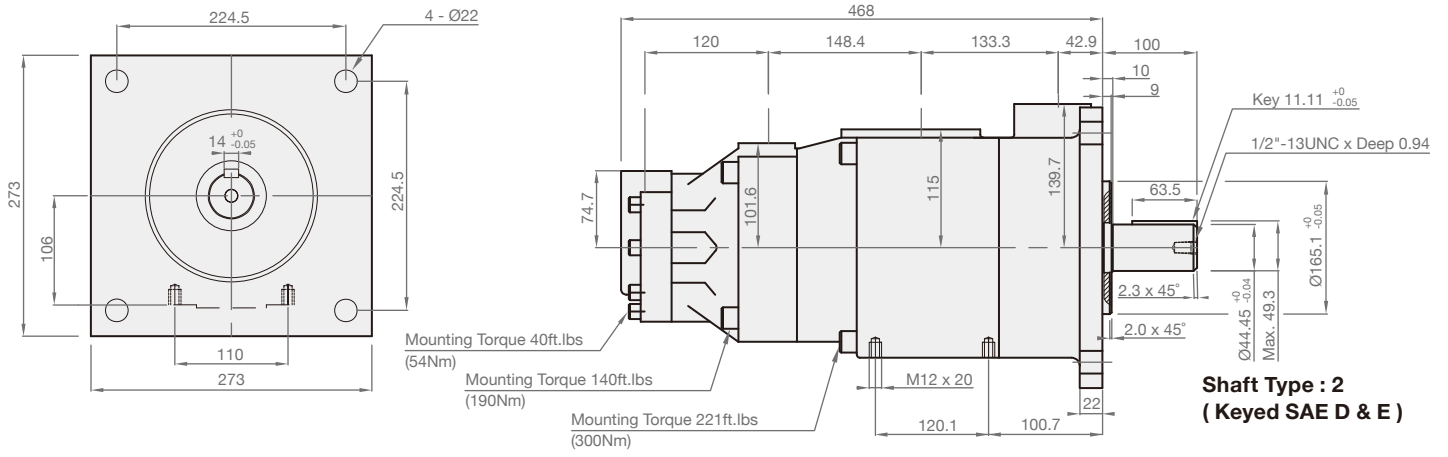
1	Model Name	ST6EDCS
2	Cam Ring Volumetric Displacement	P1 = 042, 045, 050, 052, 057, 062, 066, 072, 085 P2 = 014, 017, 020, 024, 028, 031, 035, 038, 042, 045, 050, 061 P3 = 003, 005, 006, 008, 010, 012, 014, 017, 020, 022, 025, 028, 031
3	Shaft Type	1 keyed G45N-ISO 3019-2 2 keyed SAE D & E 3 spline SAE D & E
4	Direction of Rotation (Viewed from Shaft Side)	R clockwise direction L counter clockwise direction
5	Porting Combination	00 standard
6	Design Number	C
7	Seal Class	1 S1 (for mineral oil) 4 S4 (for fire resistant fluids) 5 S5 (for mineral oil and fire resistant fluids)
8	Mounting (Pump)	P pedestal mounting F face mounting
9	Mounting w/connection Variables	0 P3=1" SAE 1 P3=3/4" SAE

MODEL SPEC.

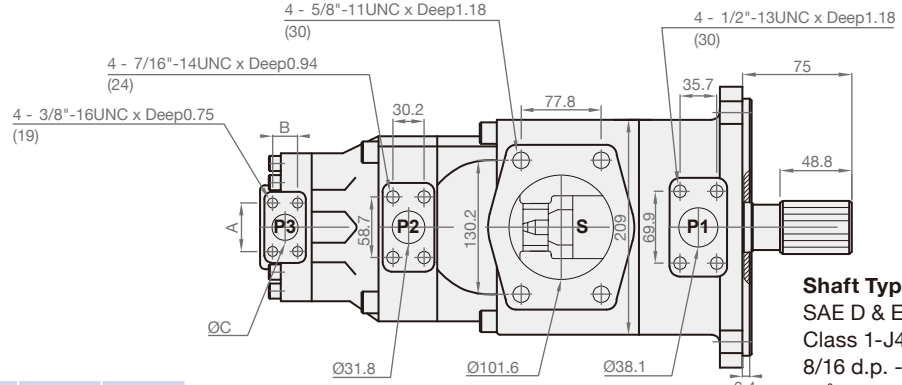
Pressure Port	Model	Volumetric Displacement Vp (cm³/rev)	Flow qve [l/min]=1500r.p.m.			Input Power P [kw]=1500r.p.m.			Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
			p=0bar	p=140bar	p=240bar	p=7bar	p=140bar	p=240bar		
P1	042	132.3	198.5	188.5	181.3	5.2	49.4	82.6	240	2200
	045	142.4	213.6	203.6	196.5	5.4	52.9	88.7		
	050	158.5	237.7	227.7	220.6	5.7	58.5	98.3		
	052	164.8	247.2	237.2	230.1	5.8	60.8	102.1		
	057	180.7	271.1	261.1	254.0	6.1	66.4	106.9		
	062	196.7	295.0	285.0	277.9	6.4	71.9	121.3		
	066	213.3	319.9	309.9	302.8	6.7	77.7	131.2		
	072	227.1	340.6	330.6	323.5	6.9	82.6	139.5		
	085	269.8	404.7	397.7	-	7.3	65.3	-	90	2000
P2	014	47.6	71.4	62.1	55.9	2.3	18.5	30.6	240	2200
	017	58.2	87.3	78.0	71.8	2.5	22.2	37.0		
	020	66.0	99.0	89.7	83.5	2.8	24.9	41.7		
	024	79.5	119.3	110.0	103.8	3.0	29.6	49.8		
	028	89.7	134.5	125.2	119.0	3.2	33.2	55.9		
	031	98.3	147.5	138.1	131.9	3.3	36.2	61.0		
	035	111.0	166.5	157.2	151.0	3.5	40.7	68.7		
	038	120.3	180.4	171.1	164.9	3.7	43.9	74.3		
	042	136.0	204.0	194.7	188.5	4.0	49.4	83.7		
	045	145.7	218.5	209.2	203.0	4.1	52.8	89.5		
	050	158.0	237.0	227.7	224.0	4.4	57.0	85.0	210	
	061	190.5	285.7	278.0	-	4.6	60.6	-	120	
P3	003	10.8	16.2	11.2	7.7	1.3	5.3	8.4	275	2200
	005	17.2	25.8	20.8	17.3	1.4	7.5	12.2		
	006	21.3	31.9	26.9	23.4	1.5	8.9	14.7		
	008	26.4	39.6	34.6	31.1	1.6	10.7	17.7		
	010	34.1	51.1	46.1	42.6	1.7	13.4	22.3		
	012	37.1	55.6	50.6	47.1	1.7	14.4	24.1		
	014	46.0	69.0	64.0	60.5	1.9	17.6	29.5		
	017	58.3	87.4	82.4	78.9	2.1	21.9	36.9		
	020	63.8	95.7	90.7	87.2	2.2	23.8	40.2		
	022	70.3	105.4	100.4	96.9	2.3	26.1	44.1		
	025	79.3	118.9	113.9	110.4	2.5	29.2	49.5		
	028	88.8	133.2	128.2	125.8	2.8	32.7	48.5	210	
	031	100.0	150.0	145.0	142.6	2.8	36.5	54.2		

weight : 108.5kg Typical : 24cSt

* Input powerp (kw) for one cartridge only.



Shaft Type : 1



Port	Code	A	B	C
P3	0	2.06 (52.4)	1.03 (26.2)	1.0 (25.4)
	1	1.874 (47.6)	0.874 (22.2)	0.75 (19.05)

Shaft Torque Limits (ml/rev. x bar)		
Model	Shaft	Vp x p max. P1+P2+P3
ST6EDCS	1	114715

SVM4C



SYMBOLS



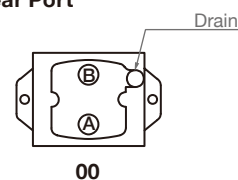
ORDER CODES

SVM4C	-	055	-	1	N	00	-	A	1	02	*
1		2		3	4	5		6	7	8	9

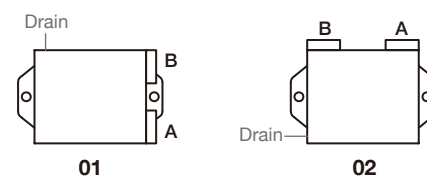
1	Model Name	SVM4C : external drain	
		SVM4C1 : internal drain, drain port is plugged	
		SVM4SC : external drain, severe duty motor	
		SVM4SC1 : internal drain, severe duty motor, drain port is plugged	
2	Torque	024, 027, 031, 043, 055, 067, 075	
3	Shaft Type	1	keyed SAE B
		2	keyed no SAE
		3	spline SAE B
		4	spline SAE BB
		5	keyed
4	Rotation	N	bi-directional
5	Porting Combination	00=standard, 01, 02, 03, 04	
6	Design Number	A	
7	Seal Class	1	S1 (for SVM4C)
		5	S5 (for SVM4SC)
8	Port Connections	01	SAE threaded port SAE drain
		02	SAE 4-bolt flange UNC threaded - SAE drain
		04	SAE 4-bolt flange UNC threaded - BSPP drain
		M4	SAE 4-bolt flange metric threaded - BSPP drain
9	Modifications	*	

PORTING COMBINATION

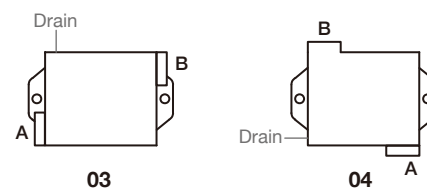
Rear Port



Side Ports



Opposite Ports



MODEL SPEC.

Model	Volumetric Displacement Vi (cm³/rev)	Input Flow at n = 2000r.p.m.		Torque at = 2000r.p.m.		Power Output at = 2000r.p.m.		Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
		Theoretical	at 175 bar Δp	at 175 bar Δp		at 175 bar Δp			
		(l/min)	(l/min)	(in.lbs)	(Nm)	(HP)	(kW)		
024	24.4	49.0	67.0	535.4	60.5	17.0	12.7	175	4000
027	28.2	56.0	74.0	619.5	70.0	19.7	14.7		
031	34.5	69.0	87.0	768.0	86.8	24.0	18.0		
043	46.5	93.0	111.0	1062.0	120.0	33.6	25.1		
055	58.8	118.0	136.0	1318.6	149.0	41.8	31.2		
067	71.1	142.0	160.0	1504.5	170.0	47.7	35.6		
075	80.1	160.0	178.0	1752.2	198.0	55.6	41.5		

Typical : 24cSt

Model	Mounting Standard (SAE J477c ISO/3019-1)	Option for Inlet & Outlet Port (SAE 4-bolt SAE threaded J781c ISO/DIS 6162-1)	Moment of Inertia		Weight (kg)
			lbsin ²	Kg m ² x 10 ⁻⁴	
SVM4C series	SAE B	1"	2.7	7.9	16.3

Model	Speed (r.p.m.)									
	500		1000		2000		3000		3600	
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
SVM4C series	10	0.7	20	1.4	45	3.1	80	5.5	135	9.3

Model		Max. Pressure (bar)					Operating Pressure Range Drain (bar)	Max Speed for Low Loaded Condition *1 (r.p.m.)	Max. Speed for Max. Pressure Ratings (r.p.m.)					
		HF-0 HF-2	HF-2A	HF-1	HF-3 HF-5	HF-4			HF-0, HF-2		HF-2A		HF-1	
									Cont.	Int *2	Cont.	Int *2	Cont.	Int *2
SVM4C SVM4C1	024						3.5	4000	2500	3600	2500	3000	2000	2500
	027													
	031													
	043	175	175	175	-	-								
	055													
	067													
	075													
SVM4SC SVM4SC1	024						3.5	4000	2500	3600	2500	3000	2000	2500
	027													
	031	230	230											
	043			175	175	140								
	055													
	067	210	210											
	075	175	175											

*1. Low loaded condition 35 bar for SVM4C series, 80 bar max. for SVM4SC.

*2. Intermittent speed - Don't exceed 6 second per minute of operation.

HF-0, HF-2 = antiwear petroleum base.

HF-2A = crankcase.

HF-1 = new antiwear petroleum base.

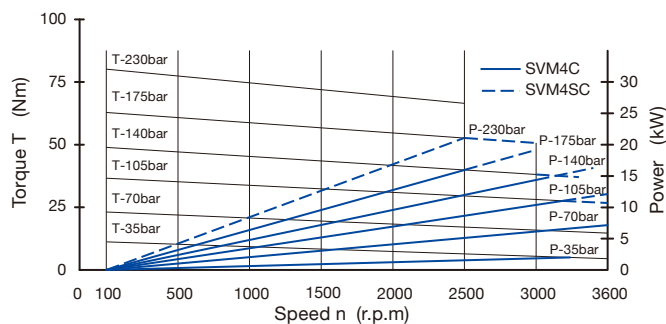
HF-3 = water in oil emulsion.

HF-5 = synthetic fluids.

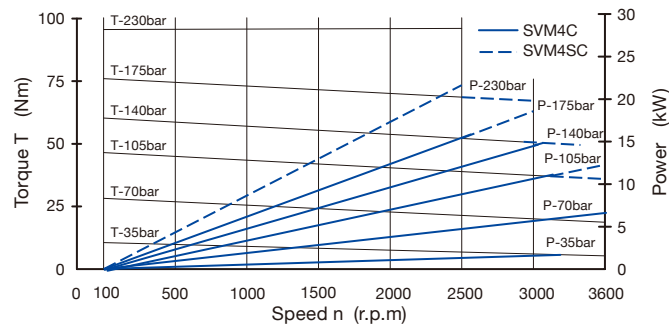
HF-4 = water glycols.

Internal drain : all these motors may be equipped with internal drain. Then the model numbers will be SVM4C1, SVM4SC1.

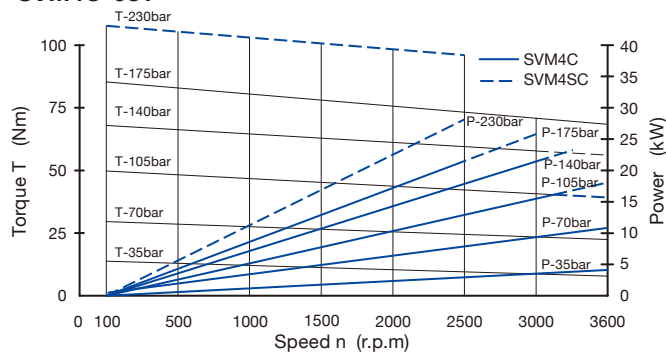
► SVM4C-024



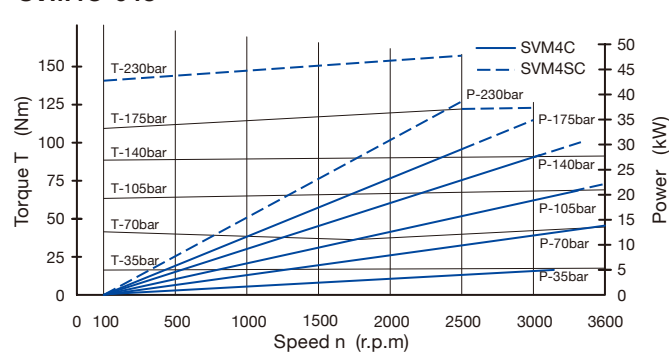
► SVM4C-027



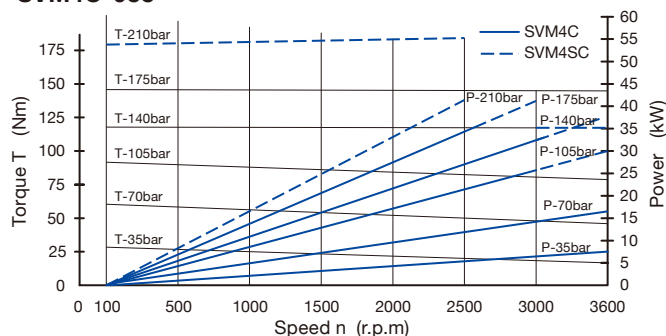
► SVM4C-031



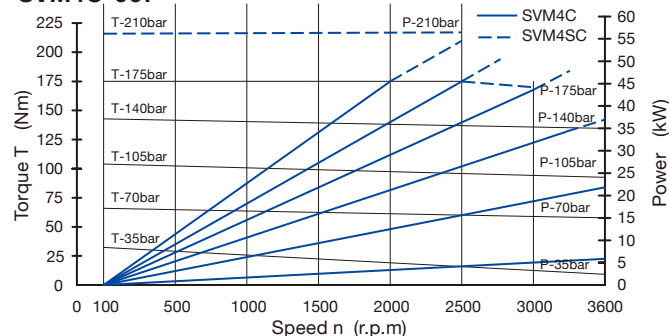
► SVM4C-043



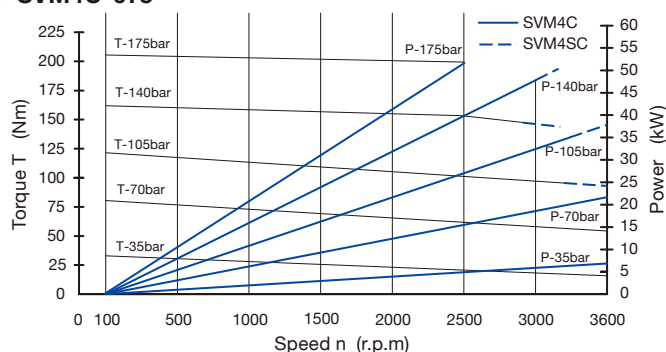
► SVM4C-055



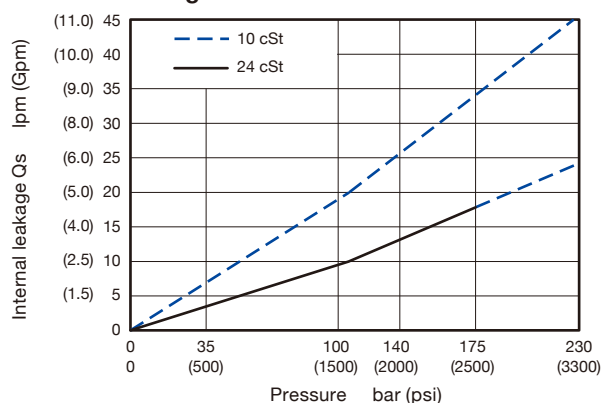
► SVM4C-067



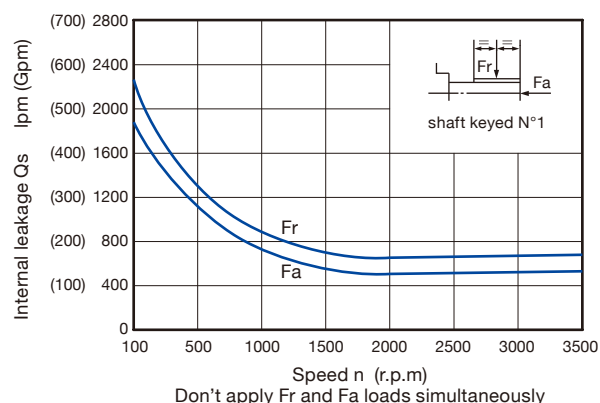
► SVM4C-075



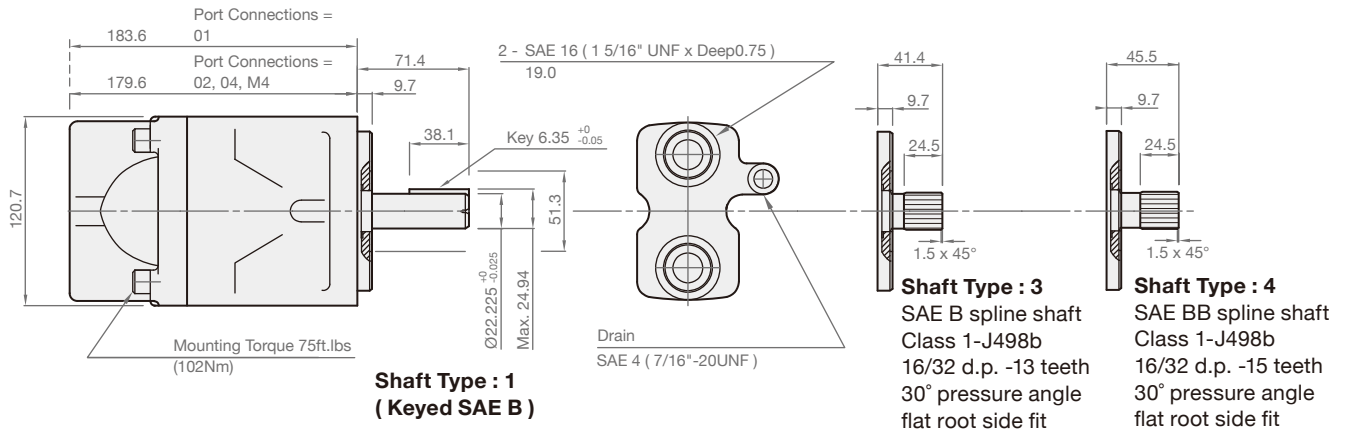
► Internal Leakage



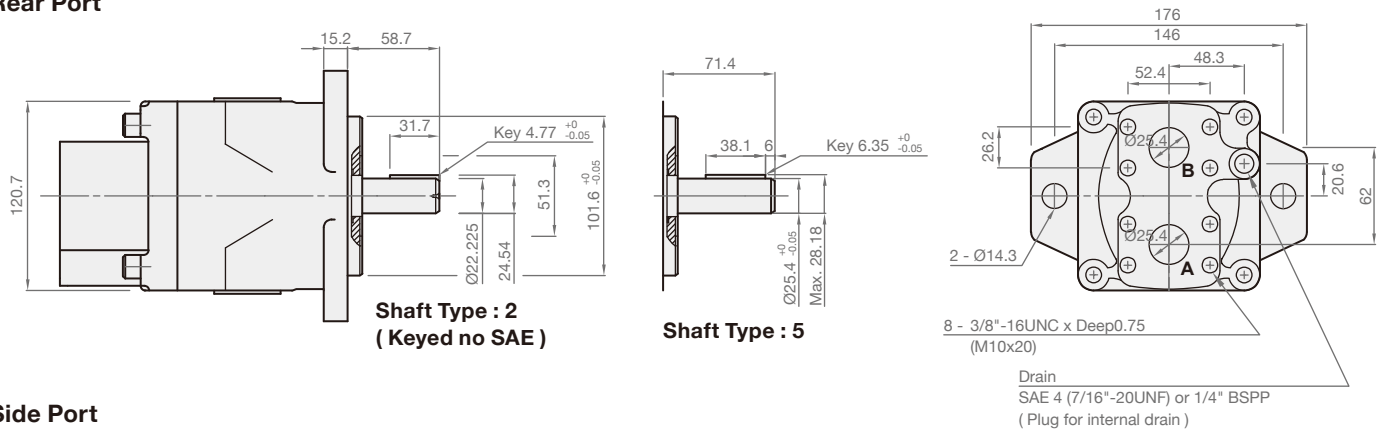
► Permissible Radial and Axial Loads



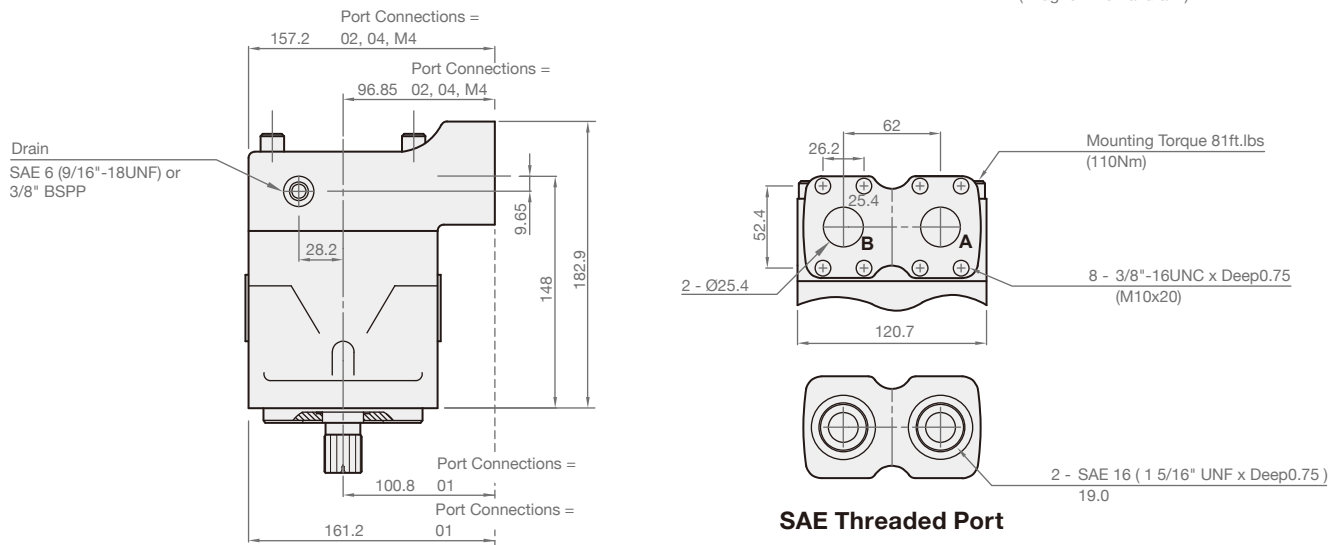
► SAE Threaded Port



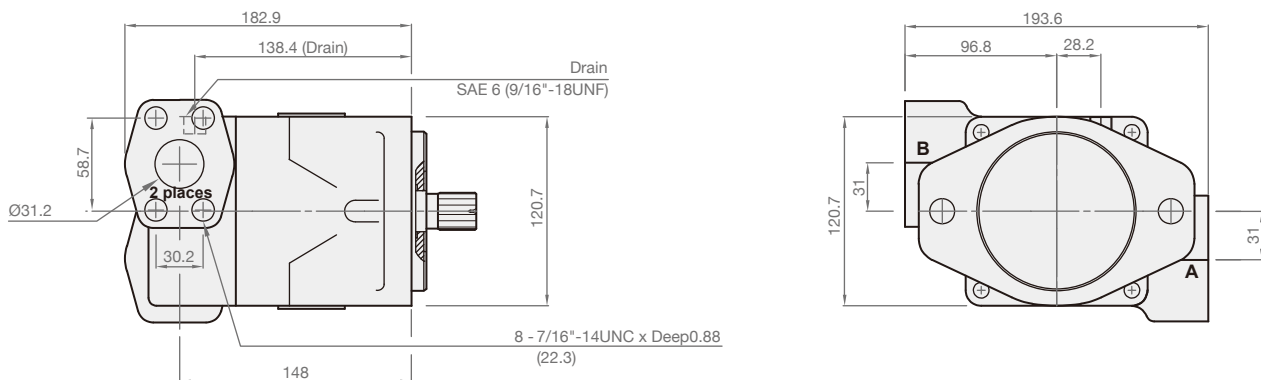
► Rear Port



► Side Port



► Opposite Port



SVM4D



SYMBOLS



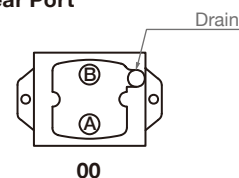
ORDER CODES

SVM4D	-	138	-	1	N	00	-	B	1	02	*
1		2		3	4	5		6	7	8	9

1 ▶	Model Name	SVM4D : external drain	
		SVM4D1 : internal drain, drain port is plugged	
		SVM4SD : external drain, severe duty motor	
		SVM4SD1 : internal drain, severe duty motor, drain port is plugged	
2 ▶	Torque	062, 074, 088, 102, 113, 128, 138	
3 ▶	Shaft Type	1	keyed SAE C
		3	spline SAE C
		S	spline SAE J718C
4 ▶	Rotation	N	bi-directional
5 ▶	Porting Combination	00	standard
6 ▶	Design Number	B	
7 ▶	Seal Class	1	S1 (for SVM4D)
		5	S5 (for SVM4SD)
8 ▶	Port Connections	01	SAE threaded port SAE drain
		02	SAE 4-bolt flange UNC threaded - SAE drain
		04	SAE 4-bolt flange UNC threaded - BSPP drain
		M4	SAE 4-bolt flange metric threaded - BSPP drain
9 ▶	Modifications	*	

PORTING COMBINATION

Rear Port



MODEL SPEC.

Model	Volumetric Displacement Vi (cm³/rev)	Input Flow at n = 2000r.p.m.		Torque at = 2000r.p.m.		Power Output at = 2000r.p.m.		Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
		Theoretical	at 175 bar Δp	at 175 bar Δp		at 175 bar Δp			
		(l/min)	(l/min)	(in.lbs)	(Nm)	(HP)	(kW)		
062	65.1	130.0	154.0	1460.0	165.0	46.4	34.6	175	4000
074	76.8	154.0	178.0	1770.0	200.0	56.2	41.9		
088	91.1	182.0	206.0	2088.5	236.0	66.2	49.4		
102	105.5	211.0	241.0	2336.3	264.0	74.1	55.3		
113	116.7	233.0	257.0	2655.0	300.0	84.2	62.8		
128	132.4	265.0	289.0	3009.0	340.0	95.5	71.2		
138	144.4	289.0	313.0	3292.0	372.0	104.5	77.9		

Typical : 24cSt

Model	Mounting Standard (SAE J477c ISO/3019-1)	Option for Inlet & Outlet Port (SAE 4-bolt SAE threaded J781c ISO/DIS 6162-1)	Moment of Inertia		Weight (kg)
			lbsin ²	Kg m ² x 10 ⁻⁴	
SVM4D series	SAE C	1 1/4"	1.4	4.11	29.4

Model	Speed (r.p.m.)									
	500		1000		2000		3000		3600	
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
SVM4D series	10	0.7	20	1.4	45	3.1	80	5.5	135	9.3

Model		Max. Pressure (bar)					Operating Pressure Range Drain (bar)	Max Speed for Low Loaded Condition *1 (r.p.m.)	Max. Speed for Max. Pressure Ratings (r.p.m.)					
		HF-0 HF-2	HF-2A	HF-1	HF-3 HF-5	HF-4			HF-0, HF-2		HF-2A		HF-1	
									Cont.	Int *2	Cont.	Int *2	Cont.	Int *2
SVM4D SVM4D1	062						3.5	4000	2500	3600	2500	2800	2000	2500
	074													
	088													
	102	175	175	140	-	-								
	113													
	128													
	138													
SVM4SD SVM4SD1	062						3.5	4000	2500	3600	2500	2800	2000	2500
	074	230	190											
	088													
	102	210	190	140	140	140								
	113													
	128	190	190											
	138	175	175											

*1. Low loaded condition 35 bar for SVM4D series, 80 bar max. for SVM4SD.

*2. Intermittent speed - Don't exceed 6 second per minute of operation.

HF-0, HF-2 = antiwear petroleum base.

HF-2A = crankcase.

HF-1 = new antiwear petroleum base.

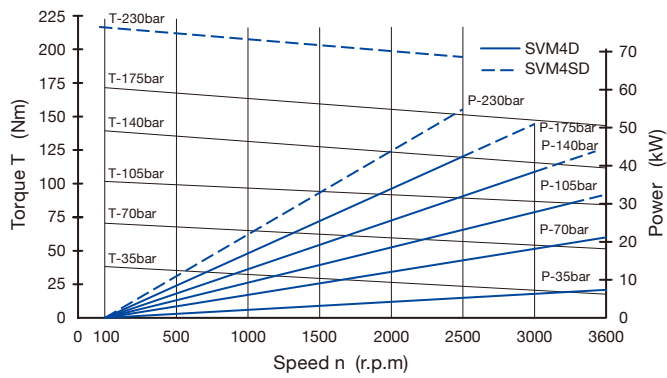
HF-3 = water in oil emulsion.

HF-5 = synthetic fluids.

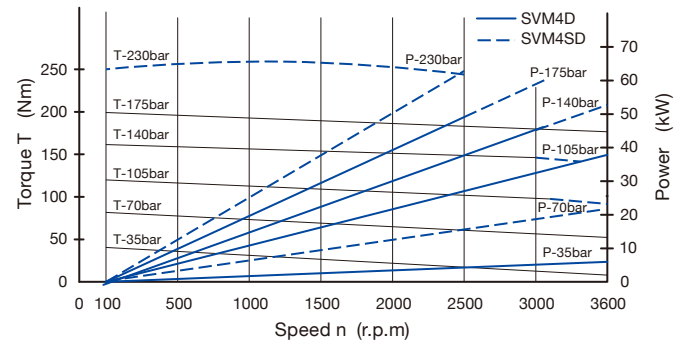
HF-4 = water glycols.

Internal drain : all these motors may be equipped with internal drain. Then the model numbers will be SVM4D1, SVM4SD1.

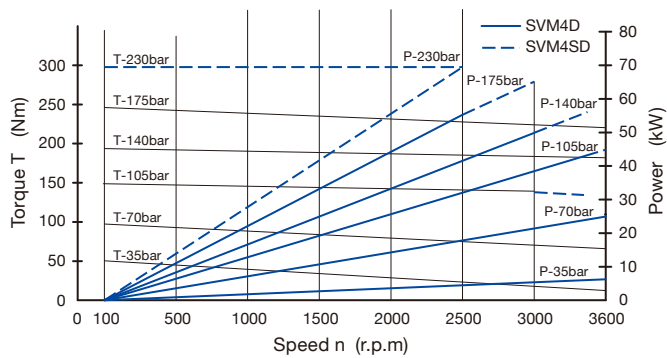
► SVM4D-062



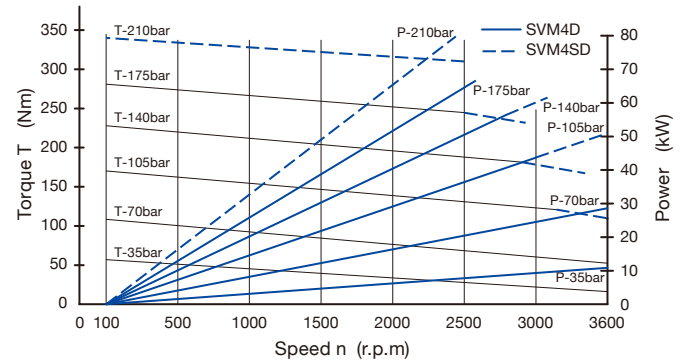
► SVM4D-074



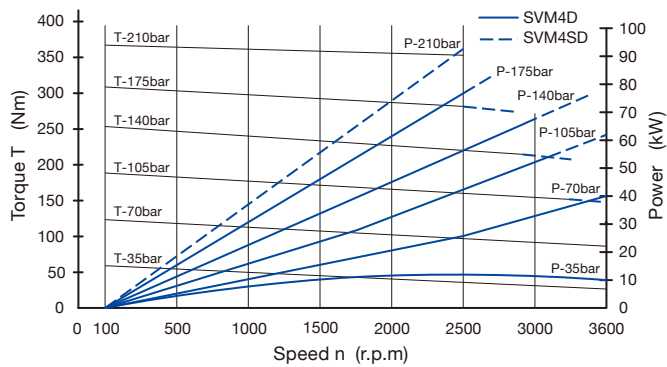
► SVM4D-088



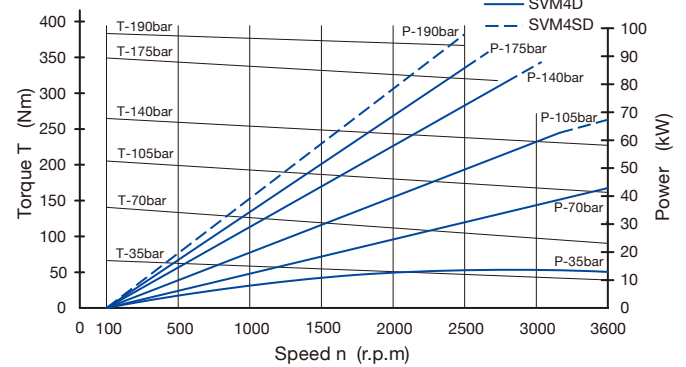
► SVM4D-102



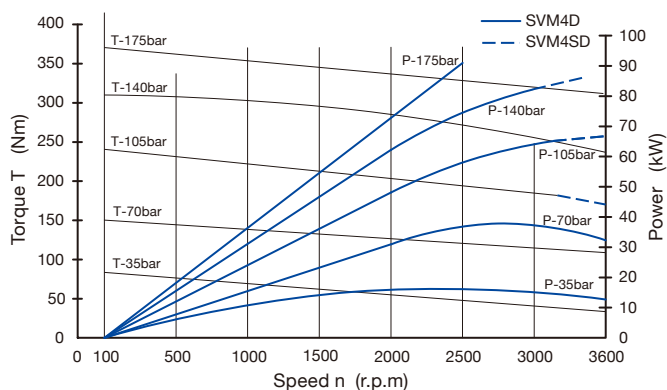
► SVM4D-113



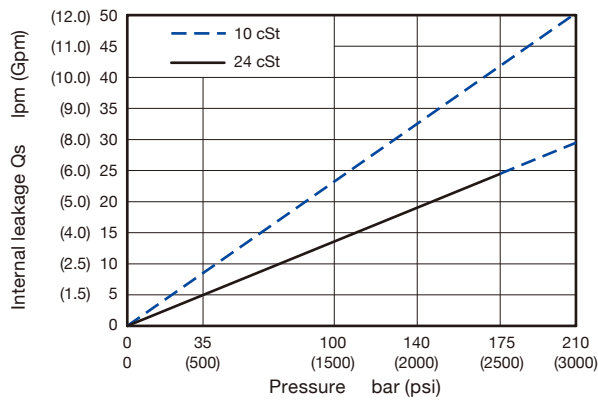
► SVM4D-128



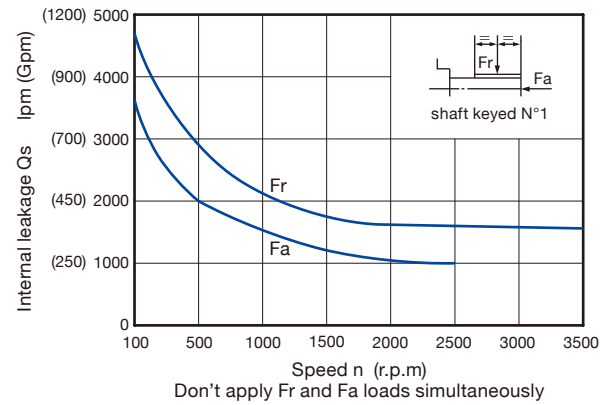
► SVM4D-138



► Internal Leakage

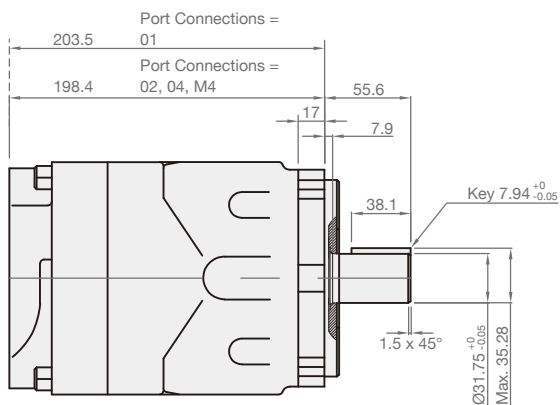


► Permissible Radial and Axial Loads

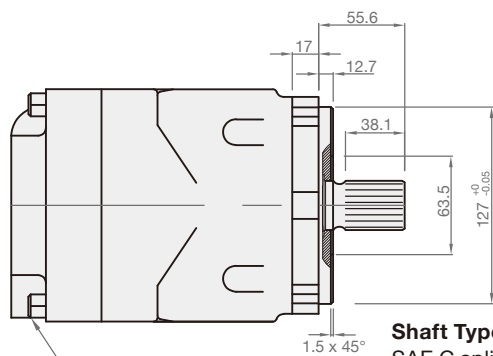
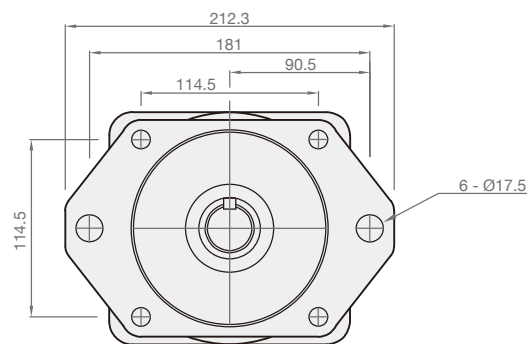


DIMENSION

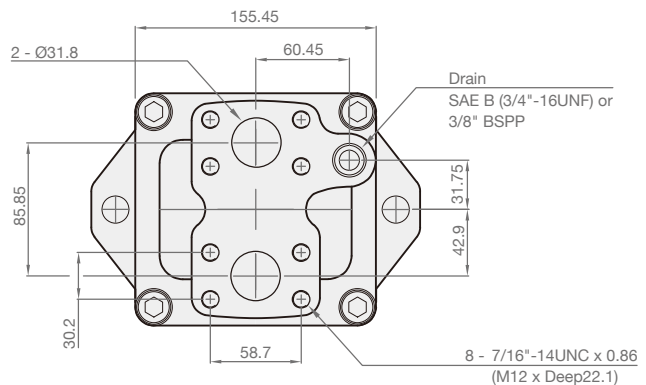
(UNIT : mm)



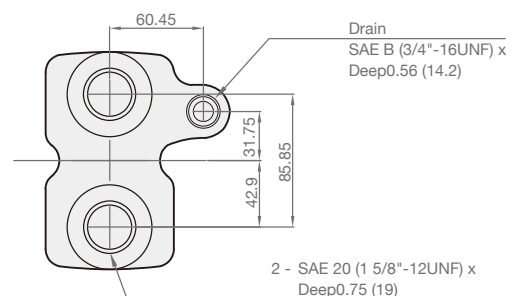
Shaft Type : 1
(Keyed SAE C)



Shaft Type : 3
SAE C spline shaft
Class 1-J498b
12/24 d.p. -14 teeth
30° pressure angle
flat root side fit



SAE Threaded Port



SVM4E



SYMBOLS



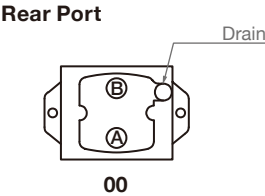
ORDER CODES

SVM4E - **214** - **1** **N** **00** - **B** **5** **02** *****

1 2 3 4 5 6 7 8 9

1	Model Name	SVM4E : external drain	
		SVM4E1 : internal drain, drain port is plugged	
		SVM4SE : external drain, severe duty motor	
		SVM4SE1 : internal drain, severe duty motor, drain port is plugged	
2	Torque	153, 185, 214	
3	Shaft Type	1	keyed SAE C
		3	spline SAE C
4	Rotation	N	bi-directional
5	Porting Combination	00	standard
6	Design Number	B	
7	Seal Class	5	S5
8	Port Connections	01	SAE threaded port SAE drain
		02	SAE 4-bolt flange UNC threaded - SAE drain
		04	SAE 4-bolt flange UNC threaded - BSPP drain
9	Modifications	*	

PORTING COMBINATION



MODEL SPEC.

Model	Volumetric Displacement Vi (cm³/rev)	Input Flow at n = 2000r.p.m.		Torque at = 2000r.p.m.		Power Output at = 2000r.p.m.		Max. Pressure (kgf/cm²)	Max. Speed (r.p.m.)
		Theoretical	at 175 bar Δp	at 175 bar Δp		at 175 bar Δp			
		(l/min)	(l/min)	(in.lbs)	(Nm)	(HP)	(kW)		
153	158.5	316.4	343.0	3522.0	398.0	111.8	83.4	175	3600
185	191.6	382.5	409.0	4283.2	484.0	136.0	101.4		
214	222.0	443.4	470.0	5017.7	567.0	159.3	118.8		

Typical : 24cSt

Model	Mounting Standard (SAE J477c ISO/3019-1)	Option for Inlet & Outlet Port (SAE 4-bolt SAE threaded J781c ISO/DIS 6162-1)	Moment of Inertia		Weight (kg)
			lbsin ²	Kg m ² x 10 ⁻⁴	
SVM4E series	SAE C	2"	20.0	58.7	44.6

Model	Speed (r.p.m.)									
	500		1000		2000		3000		3600	
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
SVM4E series	20	1.4	40	2.8	75	5.2	160	11	-	-

Model		Max. Pressure (bar)					Operating Pressure Range Drain (bar)	Max Speed for Low Loaded Condition *1 (r.p.m.)	Max. Speed for Max. Pressure Ratings (r.p.m.)					
		HF-0 HF-2	HF-2A	HF-1	HF-3 HF-5	HF-4			HF-0, HF-2		HF-2A		HF-1	
									Cont.	Int *2	Cont.	Int *2	Cont.	Int *2
SVM4E SVM4E1	153						3.5	3600						
	185	175	175	140	-	-								
	214								2500	3000	2500	2800	1800	2200
SVM4SE SVM4SE1	153	190												
	185	180	175	140	140	140								
	214	175												

*1. Low loaded condition 35 bar for SVM4E series, 80 bar max. for SVM4SE.

*2. Intermittent speed - Don't exceed 6 second per minute of operation.

HF-0, HF-2 = antiwear petroleum base.

HF-2A = crankcase.

HF-1 = new antiwear petroleum base.

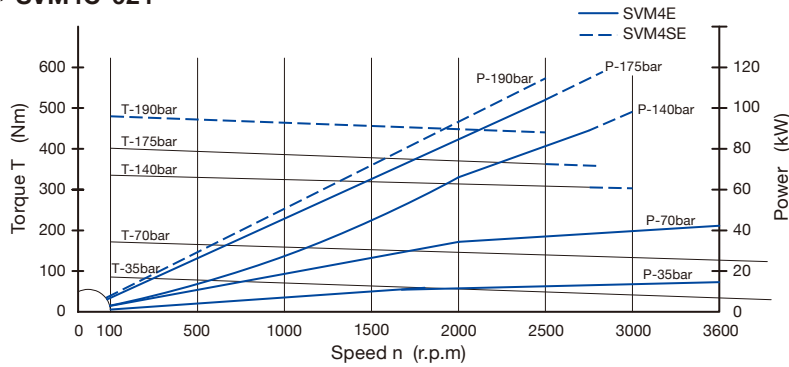
HF-3 = water in oil emulsion.

HF-5 = synthetic fluids.

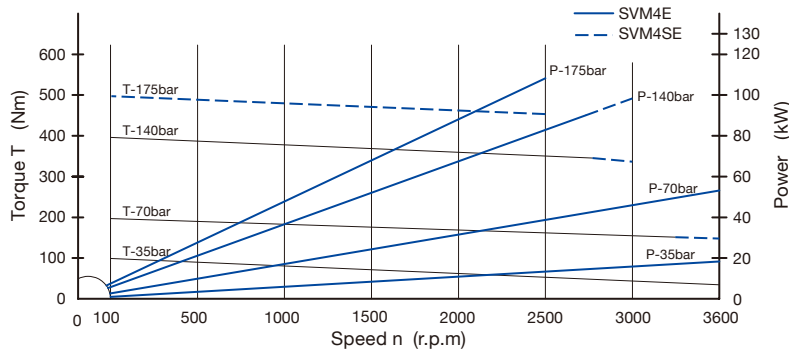
HF-4 = water glycols.

Internal drain : all these motors may be equipped with internal drain. Then the model numbers will be SVM4E1, SVM4SE1.

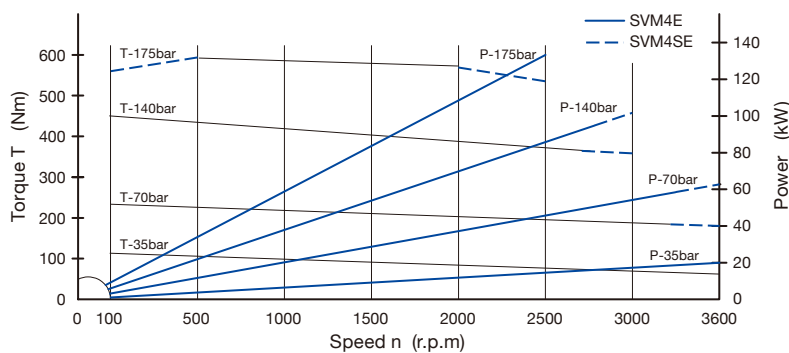
► SVM4C-024



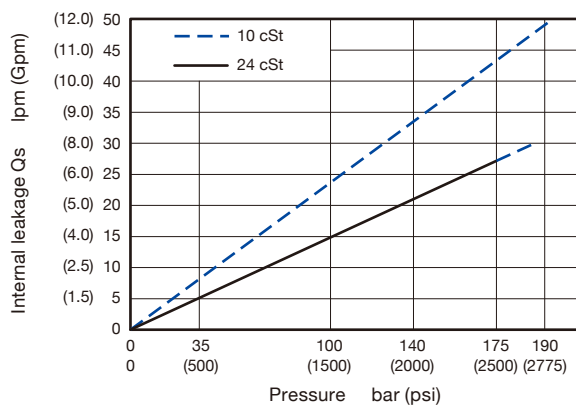
► SVM4C-031



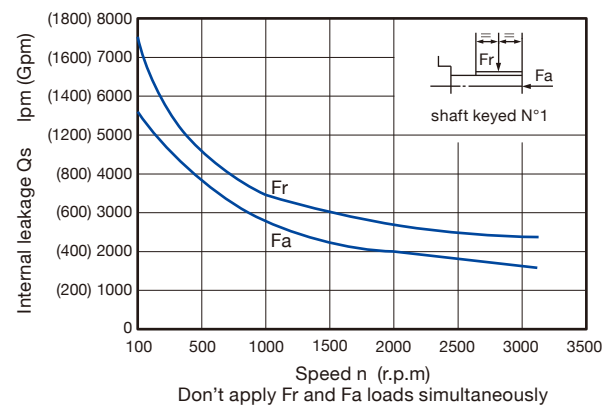
► SVM4C-055

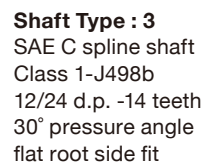


► Internal Leakage



► Permissible Radial and Axial Loads





63.5

99.2

49.6

Drain
SAE B (3/4"-16UNF) x
Deep 0.56 (14.2)

2 - SAE 32 (2 1/2"-12UNF) x
Deep 0.75 (19)

Motor Selection

MOTOR CALCULATIONS

Required Performance:

Torque : T(Nm) 140
 Pump flow available at 24 cSt : Qp (l/min) 115
 Speed : n (r.p.m.) 1500
 Pressure : p (bar) 175

Check that available power is compatible with required power (0.85 estimated overall efficiency)

$$0.85 \times \frac{Q_p \times p}{600} \geq \frac{T \times \pi \times 1500}{30 \times 100}$$

$$0.85 \times \frac{115 \times 175}{600} \geq \frac{T \times \pi \times 1500}{30 \times 100}$$

$$28.5 > 22$$

FORMULA AND EXAMPLE

Vi = Volumetric displacement (cm³/rev)

Qs = Motor internal leakage (l/min)

Qm = Actual pump flow used by motor (l/min)

Qp = Pump available flow (l/min)

Two ways to calculate :

2a. Calculate Vi from T required torque

$$V_i = \frac{20 \pi \times T}{P} = \frac{20 \pi \times 140}{175} = 50.26 \text{ cm}^3/\text{rev}$$

3a. Choose motor from T Vi immediately greater than

Vi calculated

SVM4C-055 Vi = 58.8 cm³/rev

4a. Check motor pressure for

T = 140Nm n=1500r.p.m.

SVM4C-055 T=140Nm n=500r.p.m. P=163bar

5a. Flow loss SVM4C-055 at 163 bar at 24 cSt

Qs = 16 l/min

Read flow used by the motor :

Qm = Qp - Qs = 115-16 = 99 l/min

6a. Read speed of motor :

$$n = \frac{Q_m \times 1000}{V_i} = \frac{99 \times 1000}{58.8} = 1684 \text{ r.p.m.}$$

SVM4C-055 real performance :

Vi = 58.8 cm³/rev

n = 1684 r.p.m.

T = 140 Nm

p = 163 bar

2b. Calculate Vi from Qp available pump flow

$$V_i = \frac{1000 \times 115}{1500} = 76.6 \text{ cm}^3/\text{rev}$$

3b. Choose motor from T Vi immediately less than Vi

calculated

SVM4C-067 Vi = 71.1 cm³/rev

4b. Check motor pressure with T= 140Nm at 1500r.p.m.

SVM4C-067 T=140Nm n=500r.p.m. P=140bar

5b. Flow loss SVM4C-067 at 140 bar at 24 cSt

Qs = 14 l/min

Read flow used by the motor :

Qm = Qp - Qs = 115-14 = 101 l/min

6b. Read speed of motor :

$$n = \frac{Q_m \times 1000}{V_i} = \frac{101 \times 1000}{71.1} = 1420 \text{ r.p.m.}$$

SVM4C-067 real performance :

Vi = 71.1 cm³/rev

n = 1420 r.p.m.

T = 140 Nm

p = 140 bar

Throughout this catalog you will find dimensions, flows, power, pressure and loads in metric terms, to convert please use the following conversion guid.

To convert mm to inches divide by 25.4

To convert liter into gallons multiply by .2624

To convert bar to psi multiply by 14.5

10 cSt = 60 SUS, 24 cSt = 115 SUS

To convert kW to HP multiply by 1.341

To convert newtons to pounds force multiply by .2248

To convert cm³/rev divide by 16.387

SR5V



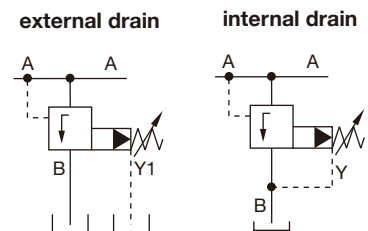
ORDER CODES

SR5V - 08 - 5 2 5 - 3 2 - 1 - A 1 *

1 2 3 4 5 6 7 8 9 10 11

1	Model Name	SR5V	
		SAR5V	top mounting type
2	Thread Connection	06	3/4"
		08	1"
		10	1 1/4"
		12	1 1/2"
3	Max. Pressure of Interface	3	3000 psi (210 bar)
		4	4000 psi (280 bar)
		5	5000 psi (350 bar)
		6	6000 psi (420 bar)
4	Gauge Port	1	1/4" NPTF
		2	SAE-4 (7/16"-20UNF)
		9	G 1/4"
5	Pressure Setting Range	1	100 ~ 1500 psi (7 ~ 105 bar)
		3	100 ~ 3000 psi (7 ~ 210 bar)
		5	100 ~ 5000 psi (7 ~ 350 bar)
		6	100 ~ 6000 psi (7 ~ 420 bar)
6	Control Type	3	acom nut with lead seal
7	Pilot Connection	2	internal PP
		4	external
8	Unit System	1	metric unit
		2	UNC
9	Design Number	A	
10	Material of Seal	1	buna-N (standard)
		5	viton
11	Modifications	*	

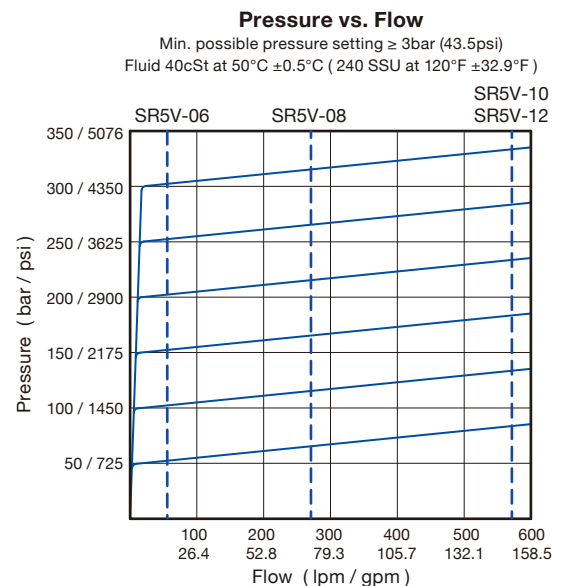
SYMBOLS



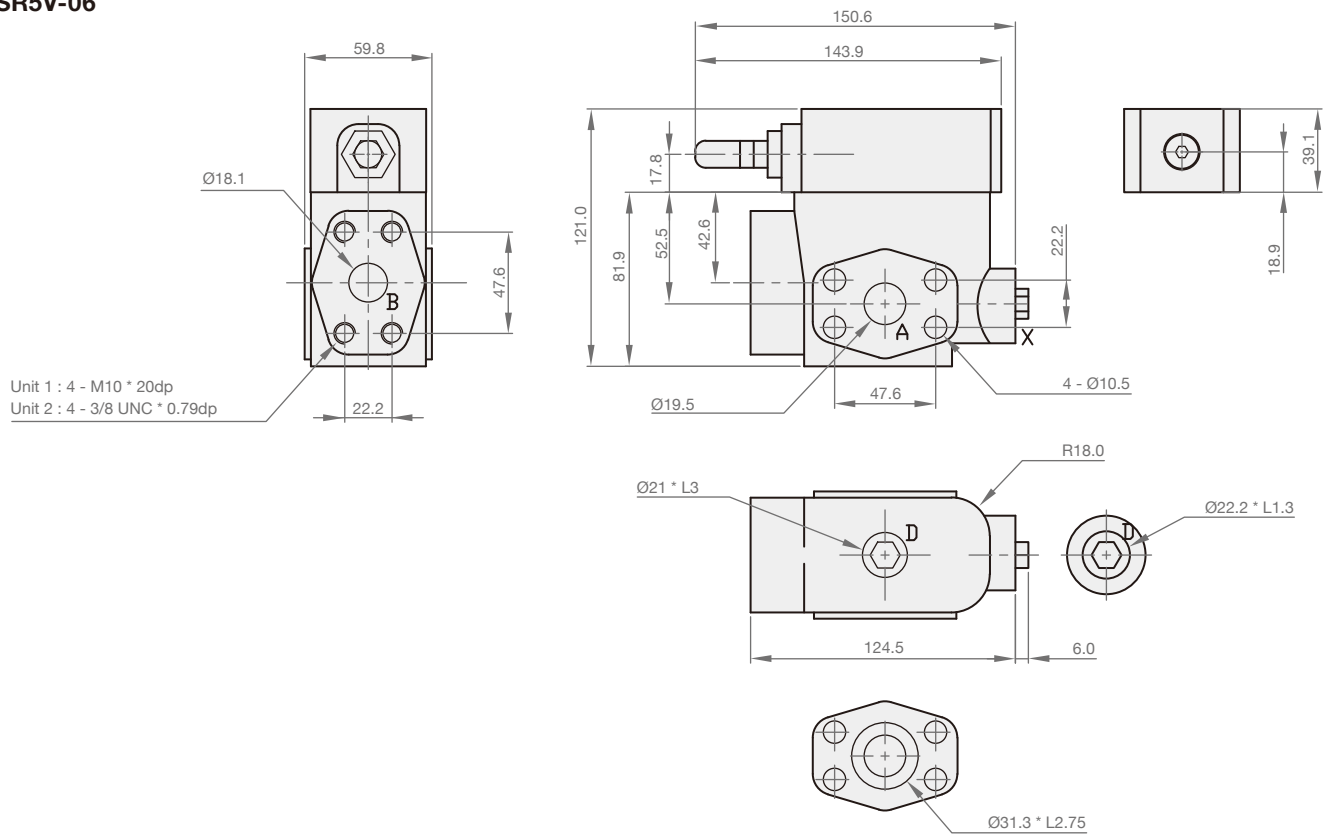
MODEL SPEC.

Model	Thread Connection	Weight (kg)
SR5V-06	3/4"	4.1
SR5V-08	1"	4.7
SR5V-10	1 1/4"	5.7
SR5V-12	1 1/2"	9.0

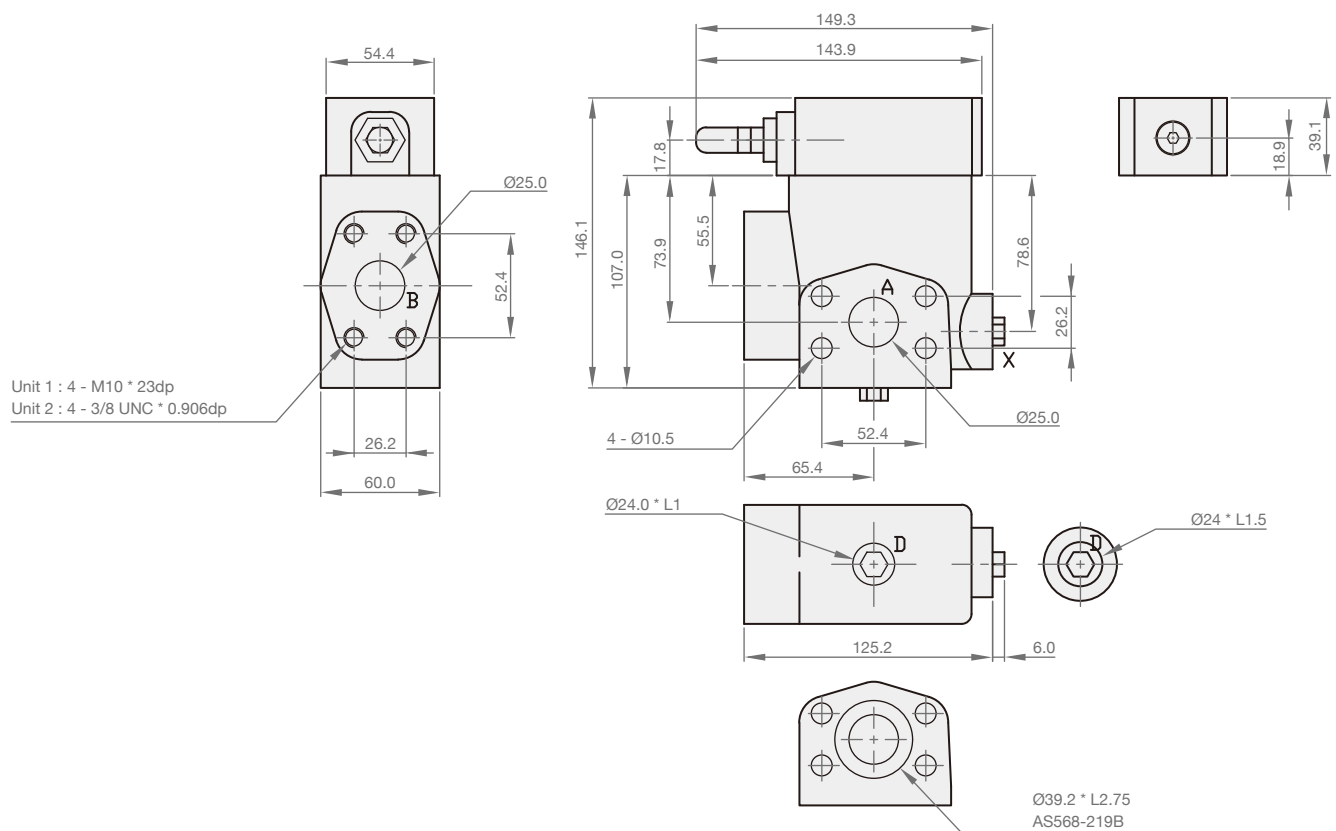
CURVES



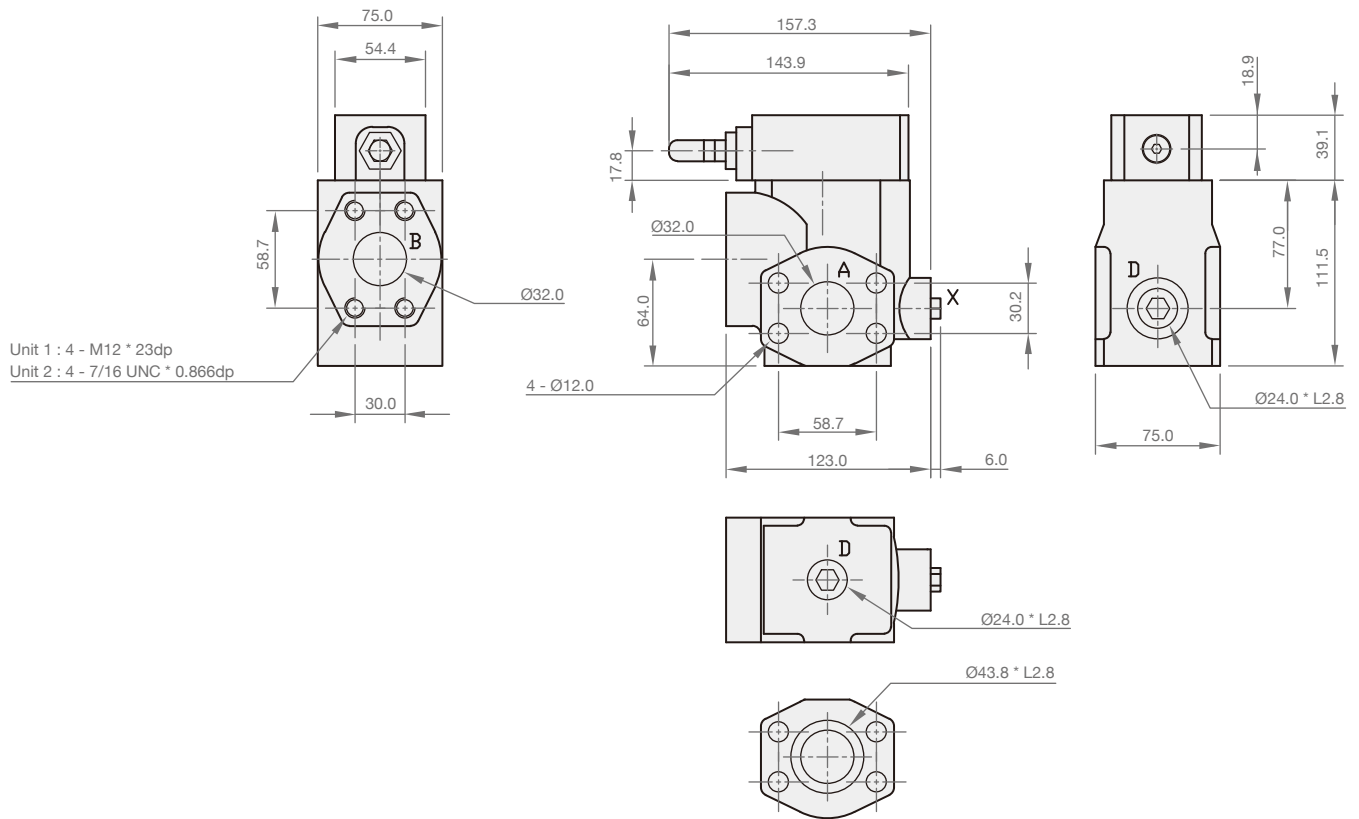
► SR5V-06



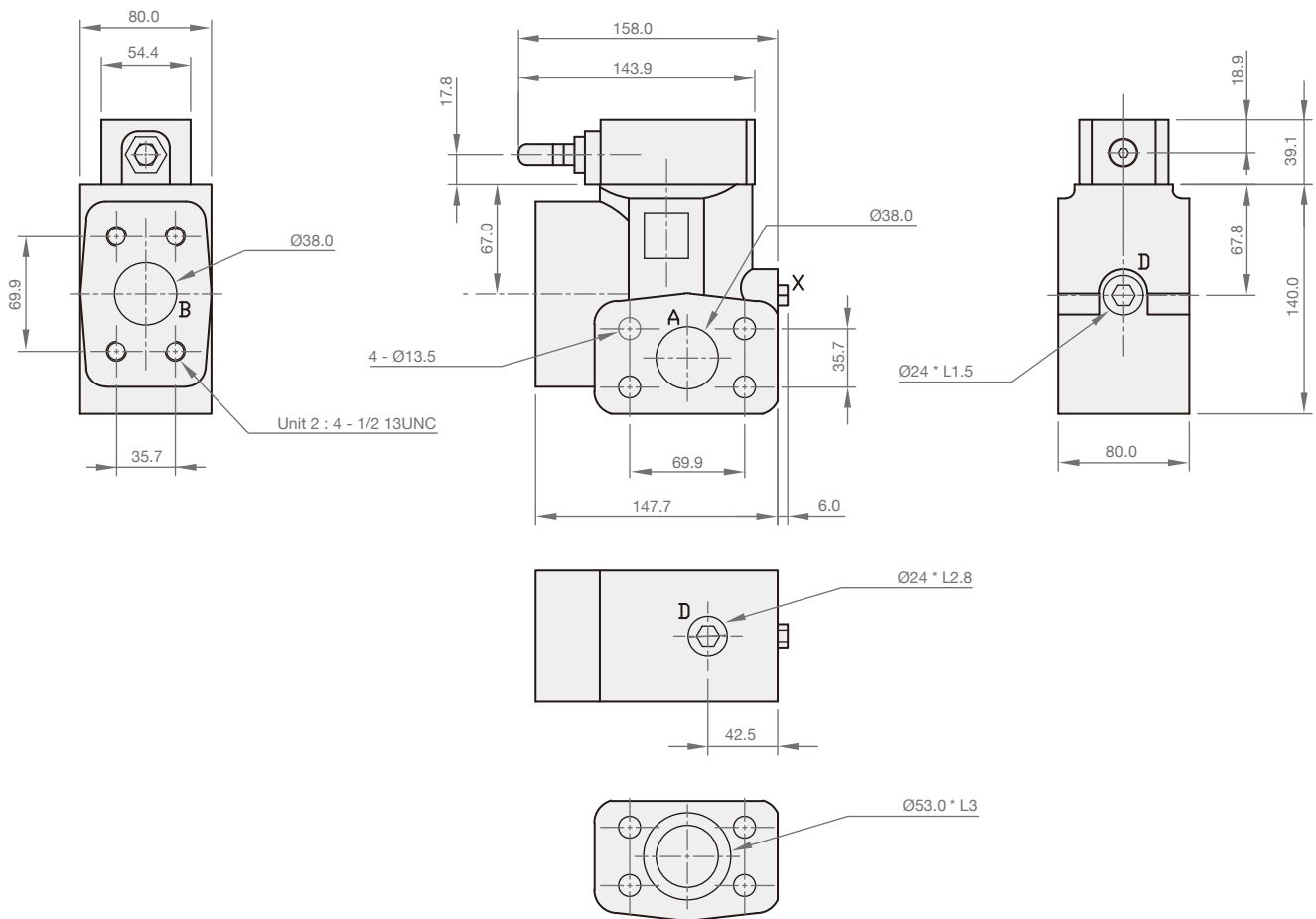
► SR5V-08



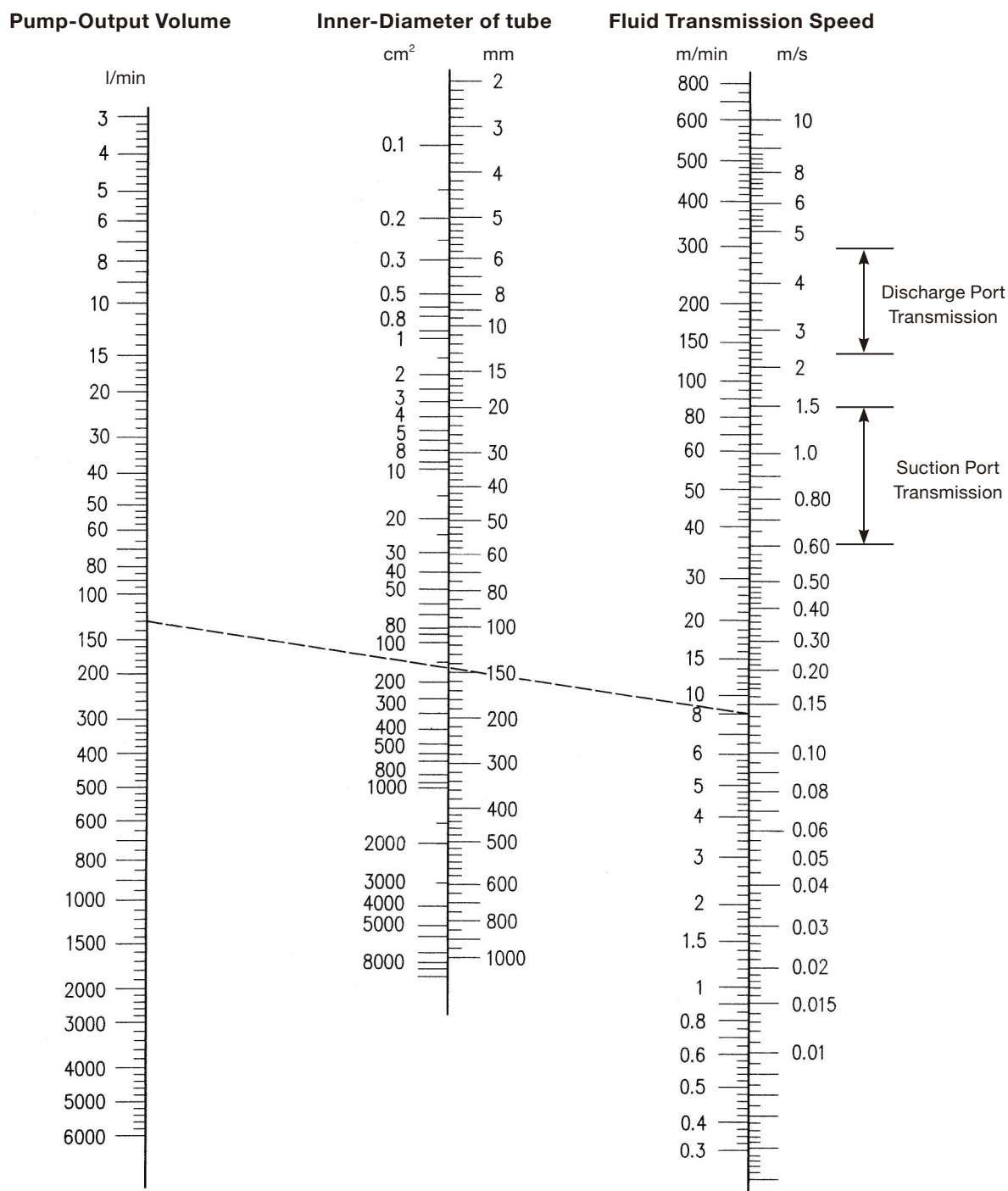
► SR5V-10



► SR5V-12



Piping Diameter - Fluid Transmission - Flow Volume Drawing



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