Зміст

ORDERING CODE

VST7CC 1 - 017 - B08 - 1 R 00 - A 1 - 11 *

Series

Mounting

1-SAE B

Cam ring for "P1 & P2"

Volumetric displacement cm^3/rev (in^3/rev)

B02 = 5.7 (0.35)

B03 = 9.8 (0.60)

B04 = 12.8 (0.78)

B05 = 15.9 (0.97)

B06 = 19.8 (1.21)

B07 = 22.5 (1.37)

B08 = 24.9 (1.52)

B09 = 28.0 (1.71)

B10 = 31.8 (1.94)

B11 = 34.9 (2.13)

B12 = 40.9 (2.50)

B14 = 45.1 (2.75)

B15 = 50.0 (3.05)

B17 = 58.3 (3.56)

B20 = 63.8 (3.89)

B22 = 70.3 (4.29)

B25 = 79.3 (4.84)

Type of shaft

1 - Keyed (no SAE)

2 - Keyed (no SAE)

3 - Splined (SAE-BB)

5 - Splined (SAE-B)

Modifications

Mounting W/connection Variables

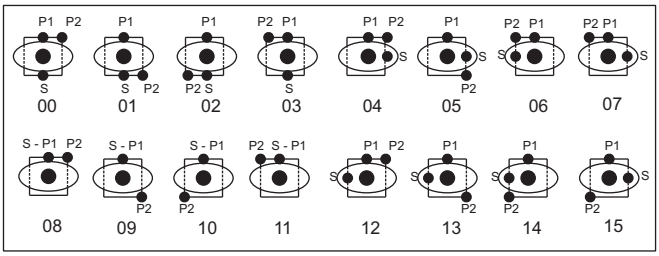
		P1=1"-S=2½"	
P2		1"	3/4"
code	Unc	10	11
	Metric	1M	W1

Seal Class

1 - S1(for mineral oil)
4 - S4(for fire resistant fluids)
5 - S5(for mineral oil and fire resistant fluids)

Design Letters

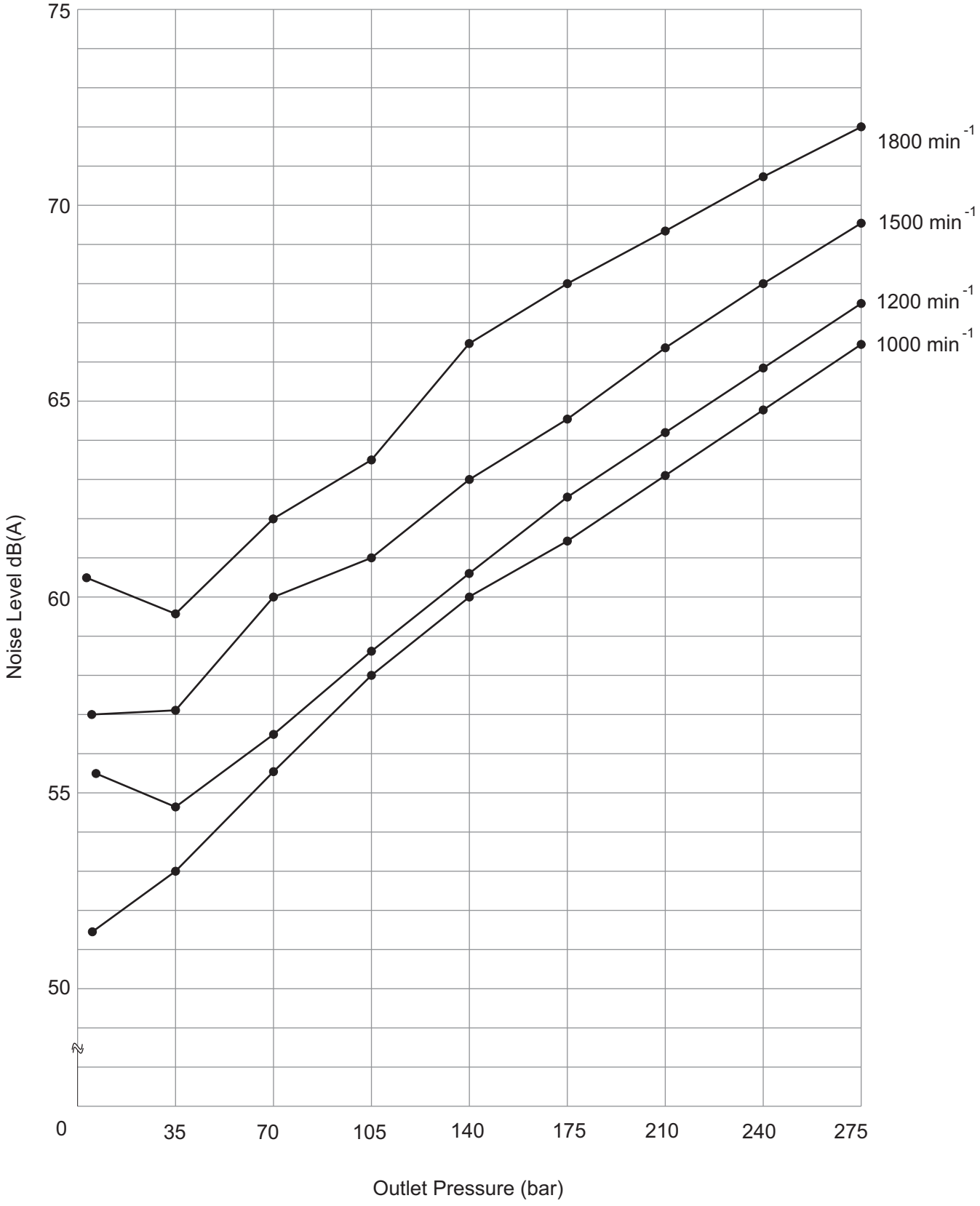
Porting Combination



Direction of rotation (view on shaft end)

R - clockwise
L - Counter - Clockwise

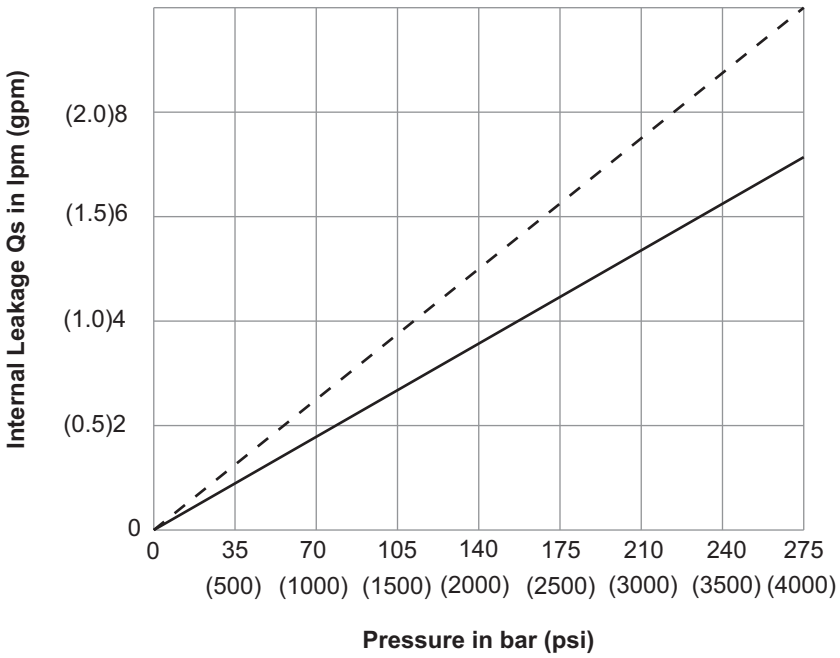
NOISE LEVEL (TYPICAL)
VST7CC - B17 - B08



Measurement Conditions: UISO VG32 oil at 50°C and measured 1m from rear of pump cover

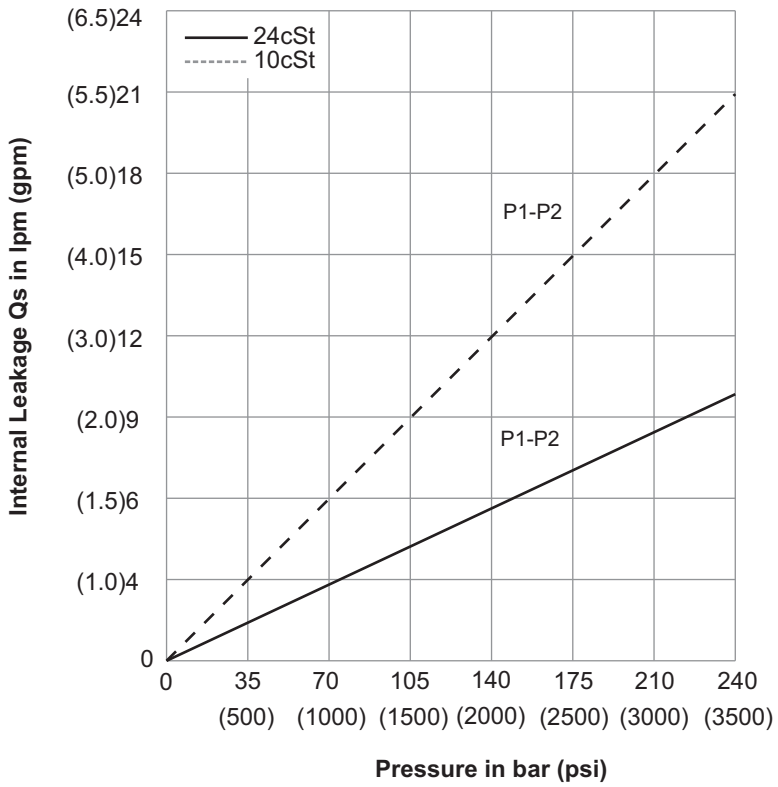
INTERNAL LEAKAGE (TYPICAL)

VST7CC B02 TO B15



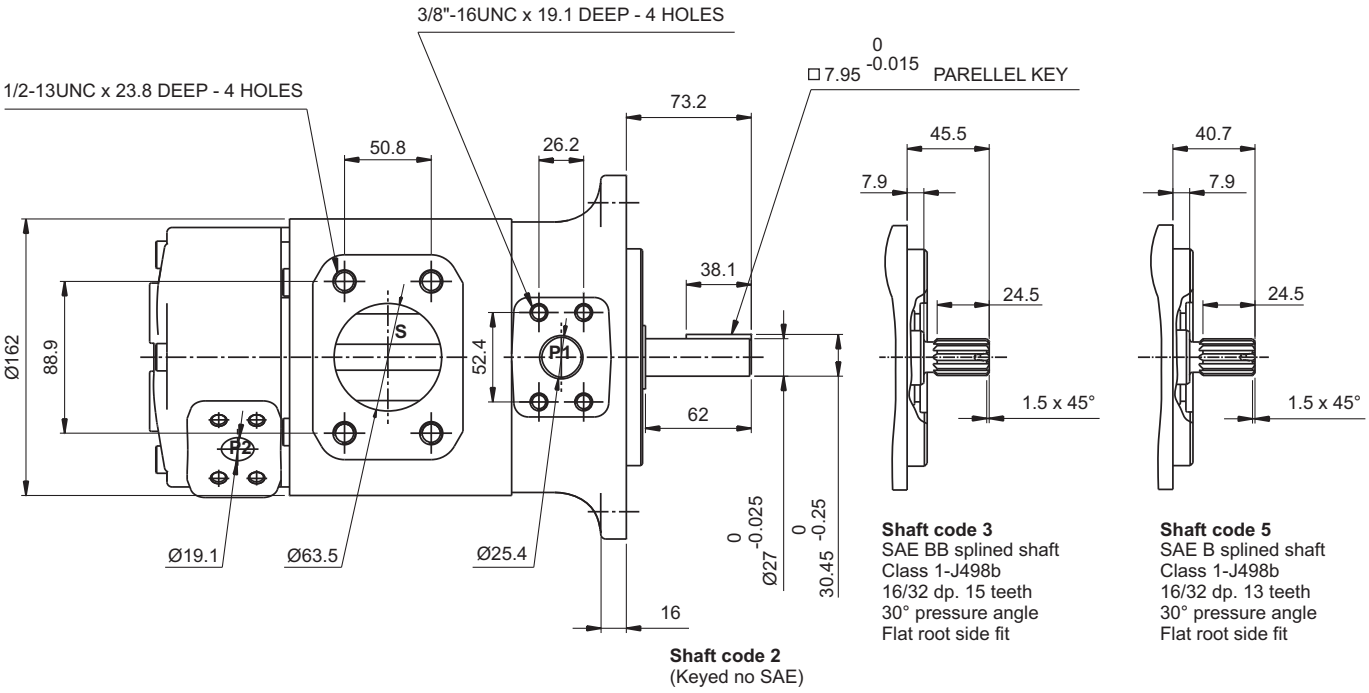
INTERNAL LEAKAGE (TYPICAL)

VST7CC B17 TO B25



INSTALLATION DRAWING

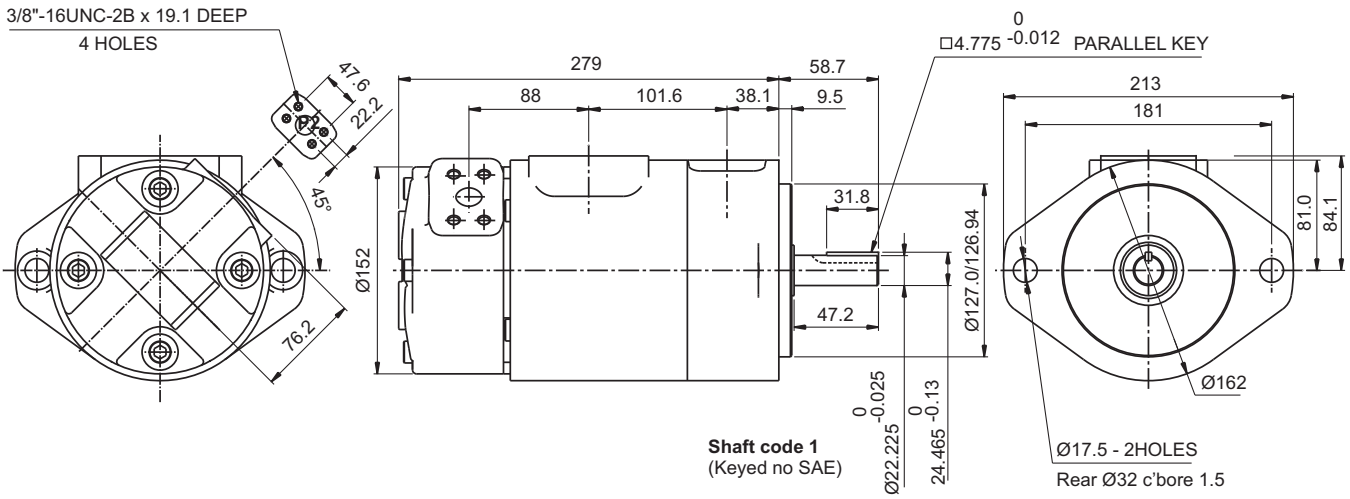
FLANGE MOUNTING



Shaft code 2
(Keyed no SAE)

Shaft code 3
SAE BB splined shaft
Class 1-J498b
16/32 dp. 15 teeth
30° pressure angle
Flat root side fit

Shaft code 5
SAE B splined shaft
Class 1-J498b
16/32 dp. 13 teeth
30° pressure angle
Flat root side fit



Shaft code 1
(Keyed no SAE)

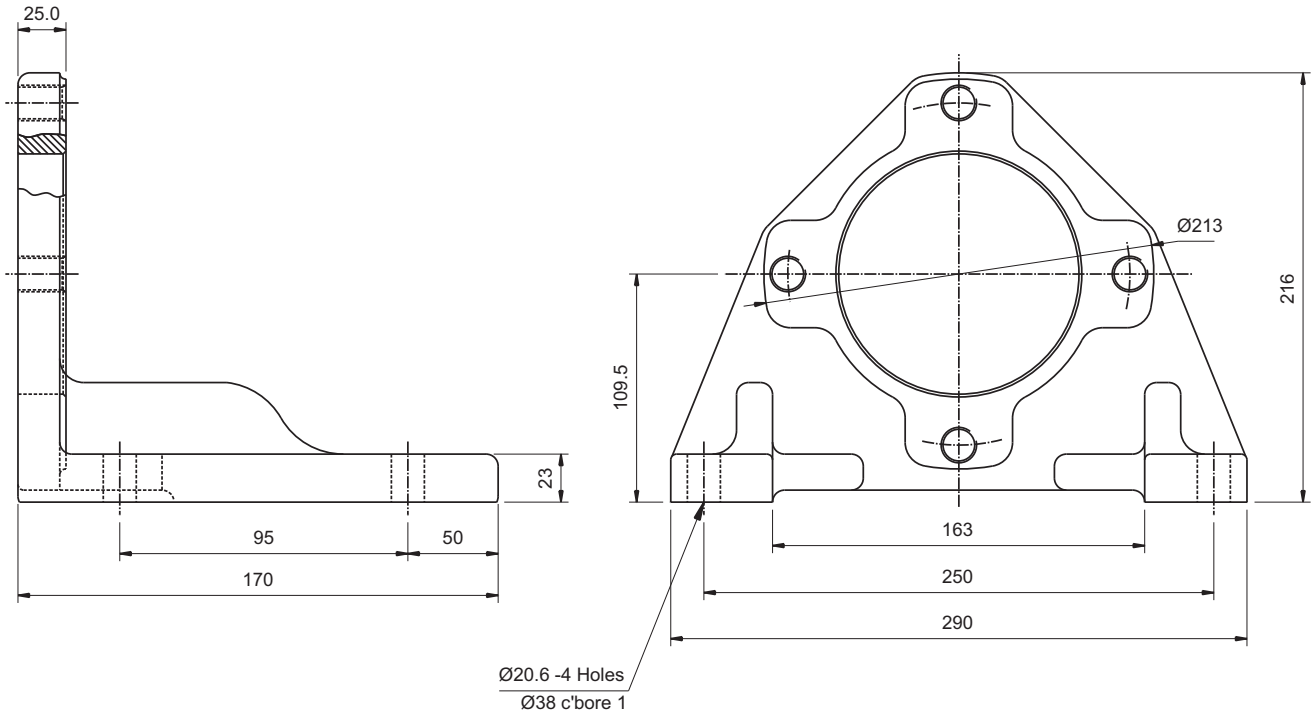
Weight - 36.5 Kgs.

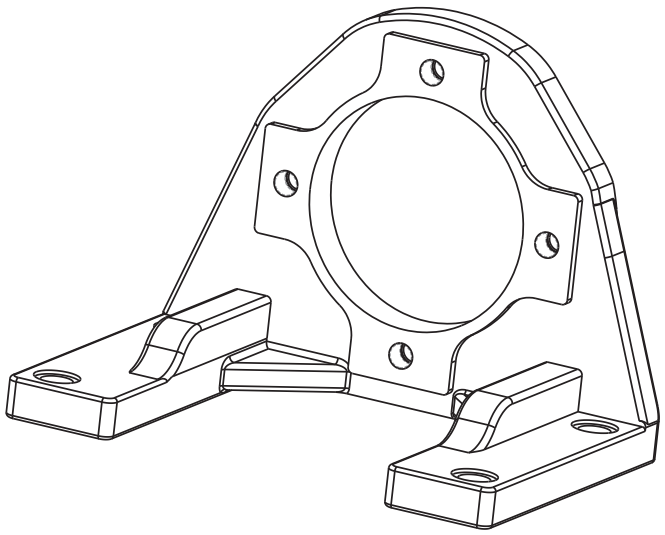
Shaft torque limits in³ / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	12666 (14300)
2	18972 (21420)
3	28937 (32670)
4	18246 (20600)

DP

INSTALLATION DRAWING

FOOT MOUNTING





Weight-9.5 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

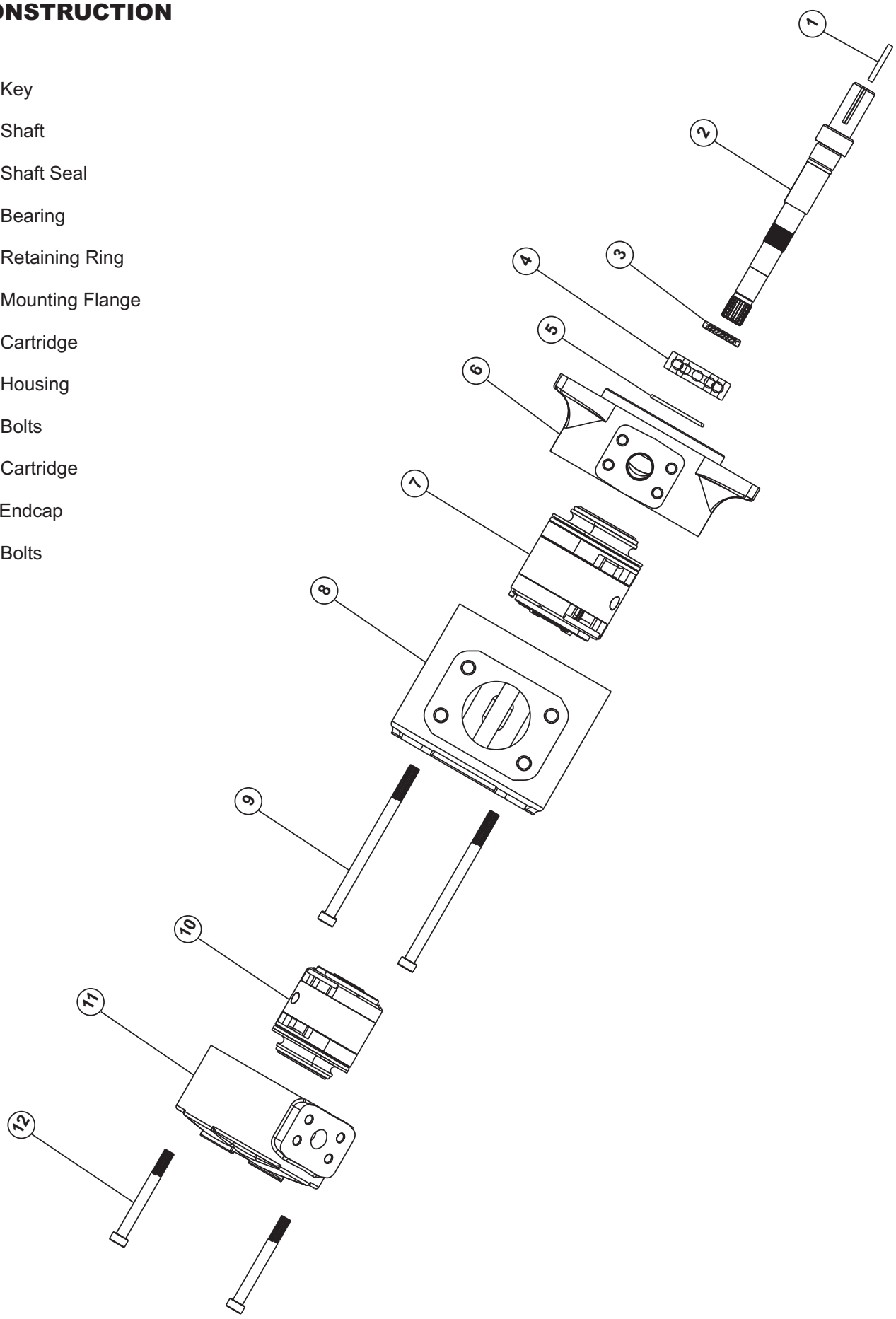
Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1 & P2	B02	0.35	5.7	2.29	8.70	1.72	6.50	–	–
	B03	0.60	9.8	3.88	14.7	3.30	12.5	2.91	11.0
	B04	0.78	12.8	5.07	19.2	4.49	17.0	4.09	15.5
	B05	0.97	15.9	6.31	23.9	5.68	21.5	5.28	20.0
	B06	1.21	19.8	7.85	29.7	7.13	27.0	6.87	26.0
	B07	1.37	22.5	8.90	33.7	8.19	31.0	7.79	29.5
	B08	1.52	24.9	9.88	37.4	9.25	35.0	8.85	33.5
	B09	1.71	28.0	11.07	41.9	10.43	39.5	10.04	38.0
	B10	1.94	31.8	12.62	47.8	11.88	45.0	11.23	42.5
	B11	2.13	34.9	13.81	52.26	13.21	50.0	12.81	48.5
	B12	2.50	40.9	16.25	61.50	15.59	59.0	15.19	57.5
	B14	2.75	45.1	17.81	67.65	17.04	64.5	16.77	63.5
	B15	3.08	50.5	20.25	76.64	19.55	74.0	19.15	72.5
	B17	3.56	58.3	23.10	87.45	22.32	84.5	22.06	83.5
	B20	3.89	63.8	25.28	95.70	24.70	93.5	24.30	92.0
	B22	4.29	70.3	27.87	105.5	27.21	103.0	26.81	101.5
	B25	4.84	79.3	31.44	119.0	31.04	117.5	30.64	116.0

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1 & P2	B02	0.35	5.7	0.62	0.46	3.08	2.30	–	–
	B03	0.60	9.8	0.71	0.53	4.96	3.70	8.35	6.23
	B04	0.78	12.8	0.78	0.58	6.37	4.75	10.77	8.03
	B05	0.97	15.9	0.86	0.64	7.78	5.80	13.18	9.83
	B06	1.21	19.8	0.95	0.71	9.49	7.08	16.40	12.23
	B07	1.37	22.5	1.01	0.75	10.74	8.01	18.28	13.63
	B08	1.52	24.9	1.06	0.79	12.00	8.95	20.42	15.23
	B09	1.71	28.0	1.14	0.85	13.39	9.99	22.84	17.03
	B10	1.94	31.8	1.23	0.92	15.13	11.28	25.25	18.83
	B11	2.13	34.9	1.30	0.97	16.69	12.45	28.46	21.23
	B12	2.50	40.9	1.45	1.08	19.51	14.55	33.29	24.83
	B14	2.75	45.1	1.54	1.15	21.23	15.83	36.52	27.23
	B15	3.08	50.5	1.68	1.25	24.21	18.05	41.34	30.83
	B17	3.56	58.3	1.85	1.38	27.49	20.50	47.24	35.23
	B20	3.89	63.8	1.98	1.48	30.31	22.60	51.80	38.63
	B22	4.29	70.3	2.13	1.59	33.27	24.81	56.89	42.43
	B25	4.84	79.3	2.35	1.75	37.82	28.20	64.68	48.23

Max, cont. pressure 240 bar upto B12 and 210 bar from B14 to B25
Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts



ORDERING CODE

VST7DB - 042 - B10 - 1 R 00 - A 1 - 00 *

P1 P2

Series

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

014 = 43.9 (2.68)
017 = 55.0 (3.36)
020 = 66.0 (4.03)
022 = 70.3 (4.29)
024 = 81.1 (4.95)
028 = 89.9 (5.49)
031 = 99.1 (6.05)
035 = 113.4 (6.92)
038 = 120.6 (7.36)
042 = 137.5 (8.39)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

B02 = 5.7 (0.35)
B03 = 9.8 (0.60)
B04 = 12.8 (0.78)
B05 = 15.9 (0.97)
B06 = 19.8 (1.21)
B07 = 22.5 (1.37)
B08 = 24.9 (1.52)
B09 = 28.0 (1.71)
B10 = 31.8 (1.94)
B11 = 34.9 (2.13)
B12 = 40.9 (2.50)

Type of shaft

1 - Keyed
2 - Keyed (no SAE)
3 - Splined (SAE C)
4 - Splined (spec. SAE C)

Modifications

Mounting W/connection Variables

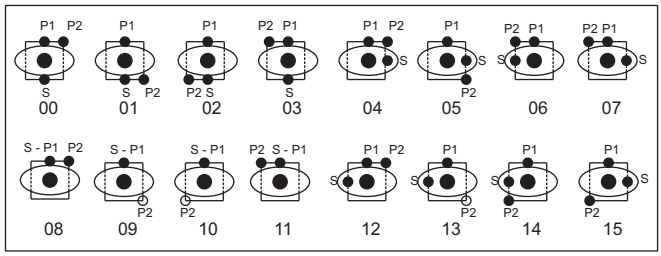
	UNC		METRIC	
	00	01	M0	M1
P2	1"	3/4"	1"	3/4"

Seal Class

1 - S1(for mineral oil)
4 - S4(for fire resistant fluids)
5 - S5(for mineral oil and fire resistant fluids)

Design Letters

Porting Combination

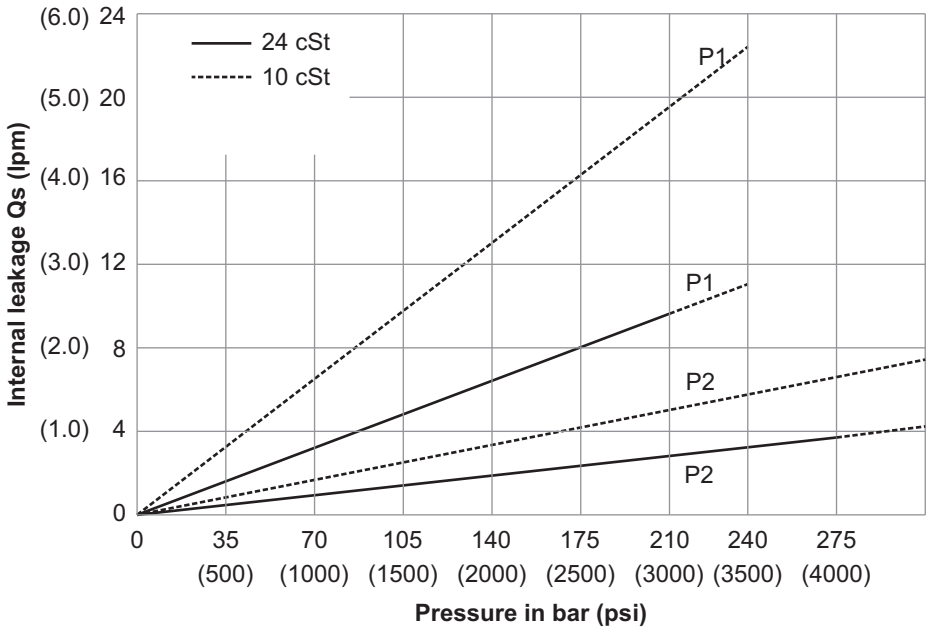


Direction of rotation (view on shaft end)

R - clockwise
L - Counter - Clockwise

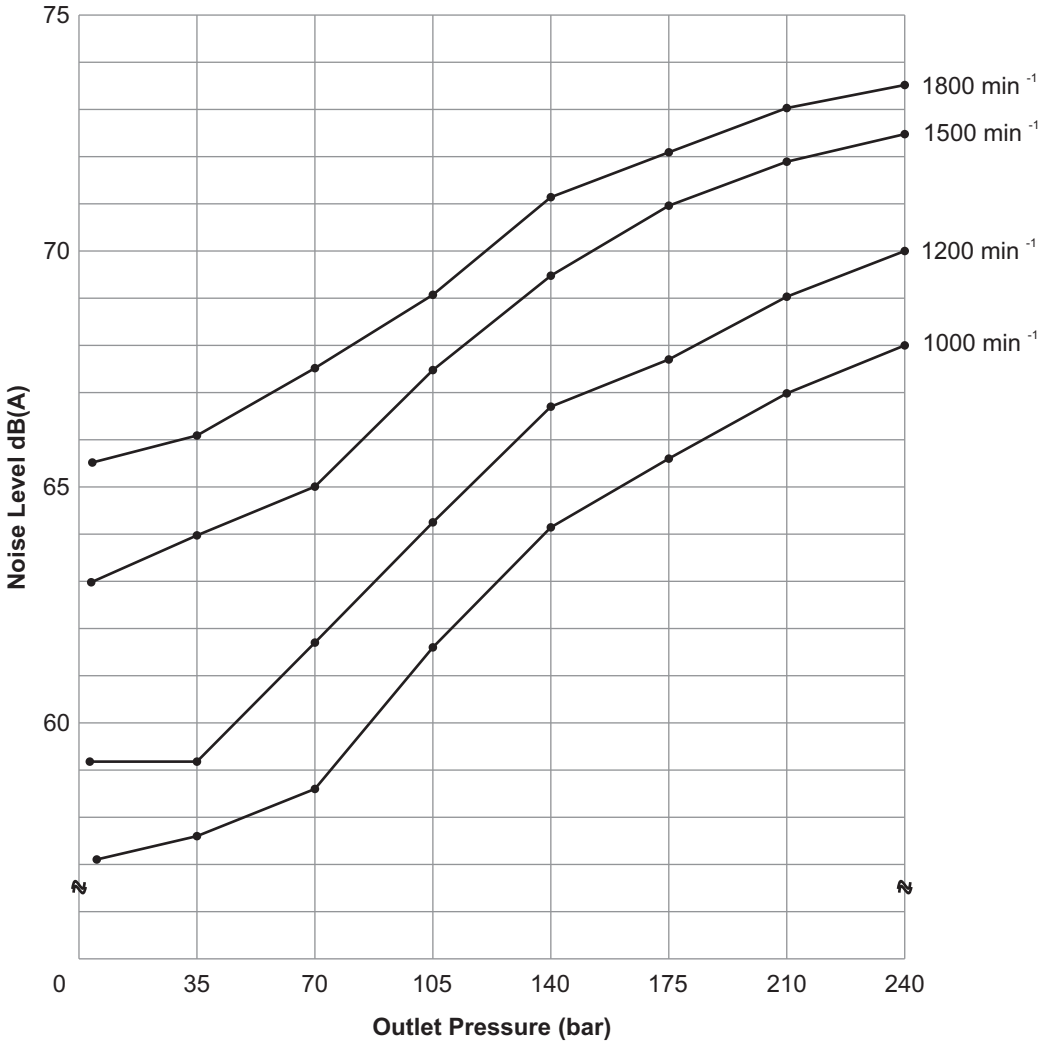
DP

INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds 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.

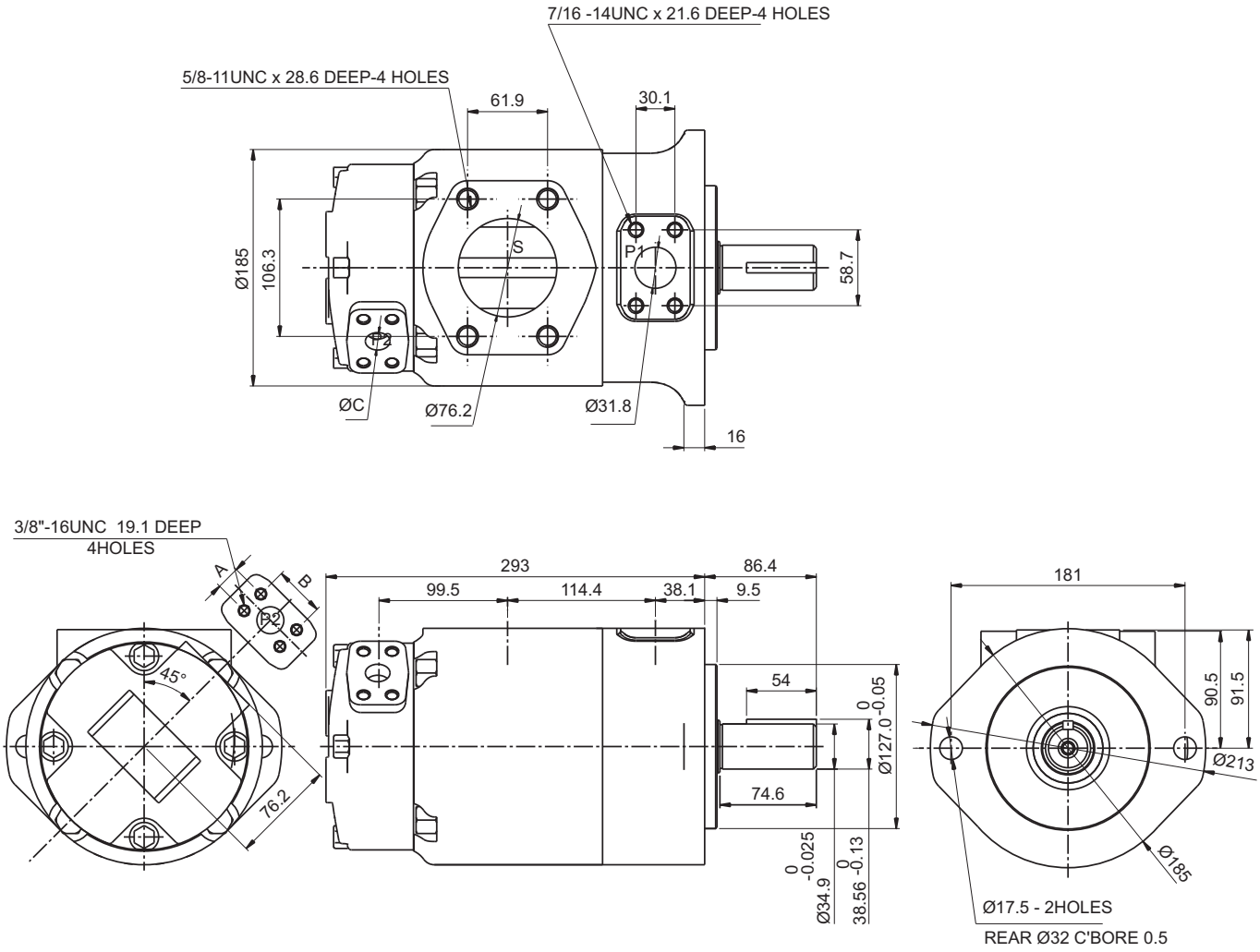
NOISE LEVEL (TYPICAL) VST7DB-035-017



Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

INSTALLATION DRAWING

FLANGE MOUNTING



Shaft code 2
(keyed no SAE)

Shaft code 3
SAE C splined shaft
Class 1-J498b
12/24 Dp. 14 Teeth
30° Pressure angle
Flat root side fit

Shaft code 4
SAE*C splined shaft
Class 1-J498b
12/24 Dp. 14 Teeth
30° Pressure angle
Flat root side fit

Shaft torque limits in³ / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	38299 (43240)
2	30638 (34590)
3	54207 (61200)
4	54207 (61200)

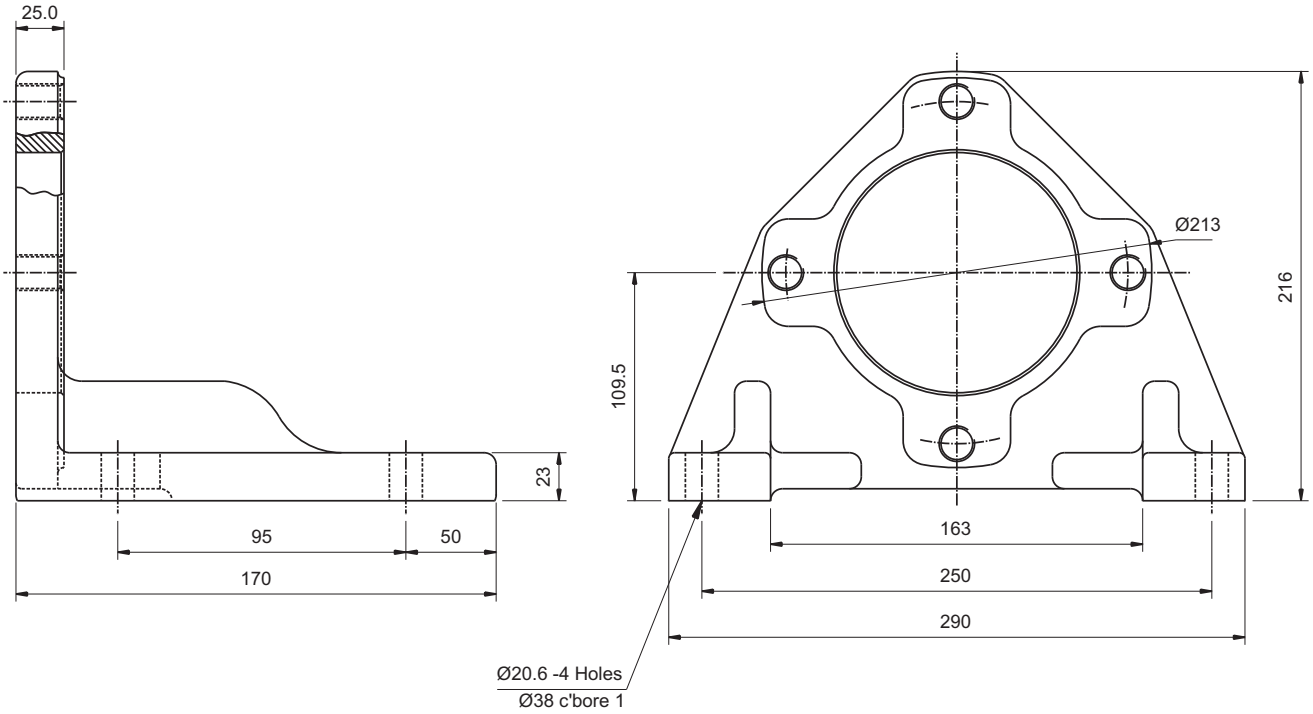
Alternate connect.variables		
	00 & M0	01 & M1
A	1.031 (26.2)	0.874 (22.2)
B	2.06 (52.4)	1.874 (47.6)
C	1.00 (25.4)	0.75 (19.05)

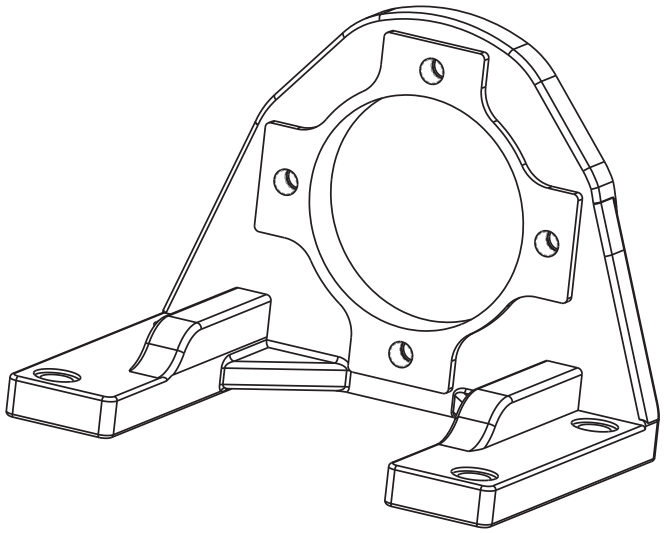
Weight - 46.0 Kgs.

DP

INSTALLATION DRAWING

FOOT MOUNTING





Weight-9.5 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1	014	2.68	43.9	18.88	71.40	16.42	62.10	14.78	55.95
	017	3.36	55.0	23.10	87.30	20.60	78.00	18.99	71.88
	020	4.03	66.0	26.19	99.00	23.73	89.70	22.08	83.58
	022	4.29	70.3	28.85	109.21	26.41	99.97	25.31	95.81
	024	4.95	81.1	31.56	119.3	29.10	110.00	27.46	103.95
	028	5.49	89.9	35.58	134.50	33.12	125.20	31.48	119.16
	031	6.05	99.1	39.00	147.50	36.53	138.10	34.89	132.07
	035	6.92	113.4	44.04	166.50	41.58	157.20	39.94	151.18
	038	7.36	120.6	47.72	180.40	45.26	171.10	43.62	165.12
	042	8.39	137.5	53.96	204.00	51.50	194.70	49.86	188.74

DP

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1	014	2.68	43.9	3.08	2.3	24.81	18.5	41.03	30.6
	017	3.36	55.0	3.35	2.5	29.77	22.2	49.62	37.0
	020	4.03	66.0	3.75	2.8	33.39	24.9	55.92	41.7
	022	4.29	70.3	4.00	2.9	36.50	27.7	63.80	46.6
	024	4.95	81.1	4.02	3.0	39.69	29.6	66.78	49.8
	028	5.49	89.9	4.29	3.2	44.52	33.2	74.96	55.9
	031	6.05	99.1	4.42	3.3	48.54	36.2	81.80	61.0
	035	6.92	113.4	4.69	3.5	54.58	40.7	92.13	68.7
	038	7.36	120.6	4.96	3.7	58.87	43.9	99.64	74.3
	042	8.39	137.5	5.36	4.0	66.25	49.4	112.24	83.7

Max, int. pressure 240 bar
Max, cont. pressure 210 bar
Measurement Conditions: ISO VG32 oil at 50°C

OPERATING CHARACTERISTICS (24 cSt)

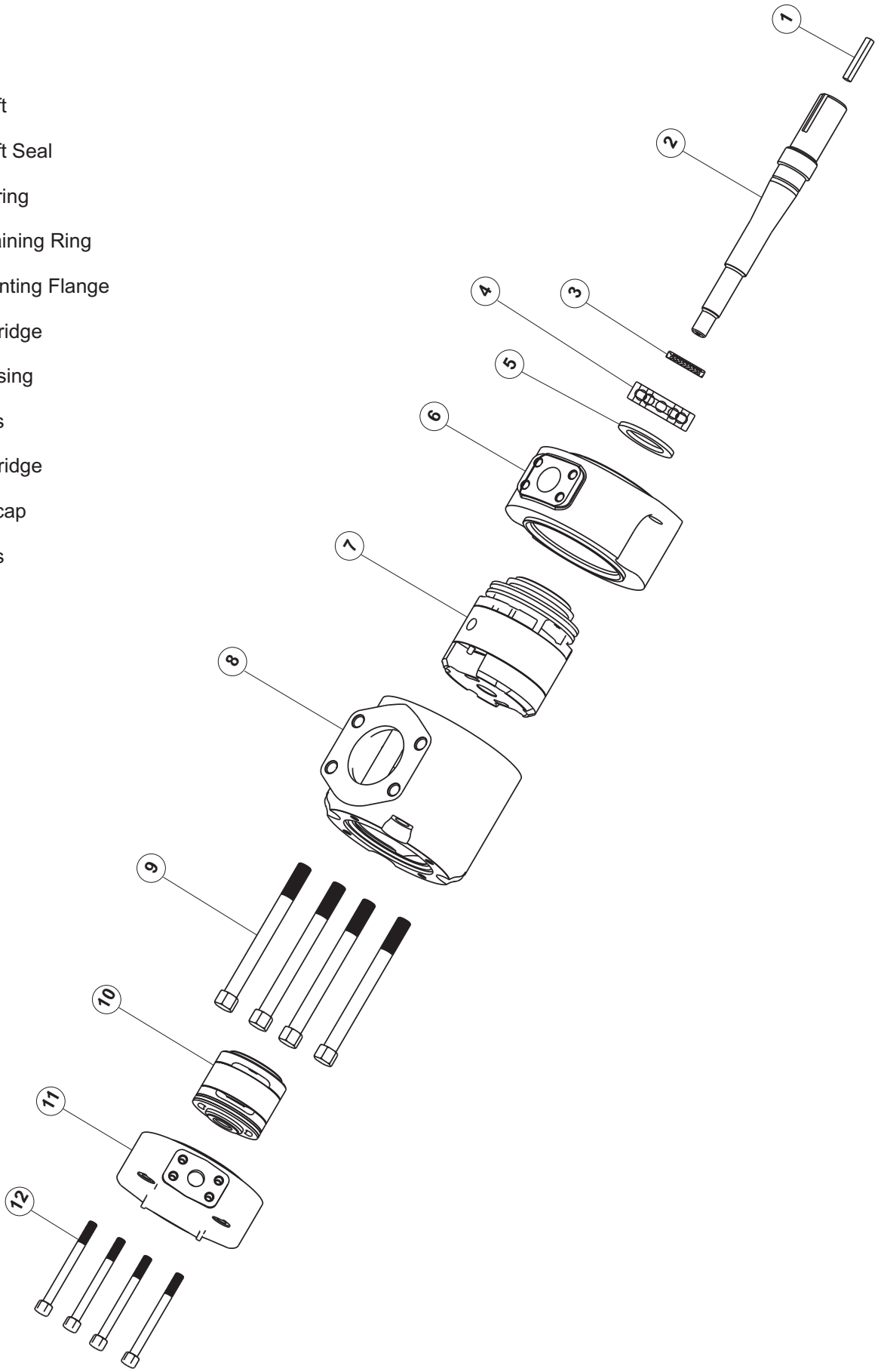
Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P2	B02	0.35	5.7	2.29	8.70	1.94	7.34	–	–
	B03	0.60	9.8	3.88	14.7	3.52	13.32	2.91	11.0
	B04	0.78	12.8	5.07	19.2	4.71	17.83	4.09	15.5
	B05	0.97	15.9	6.31	23.9	5.94	22.49	5.28	20.0
	B06	1.21	19.8	7.85	29.7	7.49	28.35	6.87	26.0
	B07	1.37	22.5	8.90	33.7	8.56	32.40	7.79	29.5
	B08	1.52	24.9	9.88	37.4	9.51	35.99	8.85	33.5
	B09	1.71	28.0	11.07	41.9	10.72	40.58	10.04	38.0
	B10	1.94	31.8	12.62	47.8	12.24	46.33	11.23	42.5
	B11	2.13	34.9	13.81	52.27	13.49	51.07	12.81	48.5
	B12	2.50	40.9	16.25	61.51	15.89	60.15	–	–

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P2	B02	0.35	5.7	0.62	0.46	3.08	2.30	–	–
	B03	0.60	9.8	0.71	0.53	4.96	3.70	8.35	6.23
	B04	0.78	12.8	0.78	0.58	6.37	4.75	10.77	8.03
	B05	0.97	15.9	0.86	0.64	7.78	5.80	13.18	9.83
	B06	1.21	19.8	0.95	0.71	9.49	7.08	16.40	12.23
	B07	1.37	22.5	1.01	0.75	10.74	8.01	18.28	13.63
	B08	1.52	24.9	1.06	0.79	12.00	8.95	20.42	15.23
	B09	1.71	28.0	1.14	0.85	13.39	9.99	22.84	17.03
	B10	1.94	31.8	1.23	0.92	15.13	11.28	25.25	18.83
	B11	2.13	34.9	1.30	0.97	16.69	12.45	28.46	21.23
	B12	2.50	40.9	1.45	1.08	19.51	14.55	–	–

B12 - 210 bar max int. and 175 bar max. cont.
Max. Speed = 3000rpm
Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts



ORDERING CODE

VST7DC - 038 - 022 - 1 R 00 - A 1 - 11 *

P1 P2

Series

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

014 = 43.9 (2.68)
017 = 55.0 (3.36)
020 = 66.0 (4.03)
022 = 70.3 (4.29)
024 = 81.1 (4.95)
028 = 89.9 (5.49)
031 = 99.1 (6.05)
035 = 113.4 (6.92)
038 = 120.6 (7.36)
042 = 137.5 (8.39)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

B02 = 5.7 (0.35)
B03 = 9.8 (0.60)
B04 = 12.8 (0.78)
B05 = 15.9 (0.97)
B06 = 19.8 (1.21)
B07 = 22.5 (1.37)
B08 = 24.9 (1.52)
B09 = 28.0 (1.71)
B10 = 31.8 (1.94)
B11 = 34.9 (2.13)
B12 = 40.9 (2.50)
B14 = 45.1 (2.75)
B15 = 50.0 (3.05)
B17 = 58.3 (3.56)
B20 = 63.8 (3.89)
B22 = 70.3 (4.29)
B25 = 79.3 (4.84)

Modifications

Mounting W/connection Variables

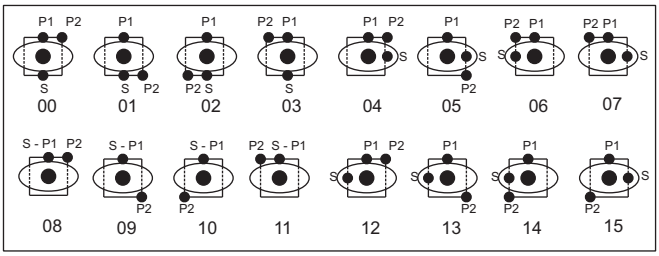
	UNC		METRIC	
	00	01	M0	M1
P2	1"	3/4"	1"	3/4"

Seal Class

1 - S1(for mineral oil)
4 - S4(for fire resistant fluids)
5 - S5(for mineral oil and fire resistant fluids)

Design Letters

Porting Combination



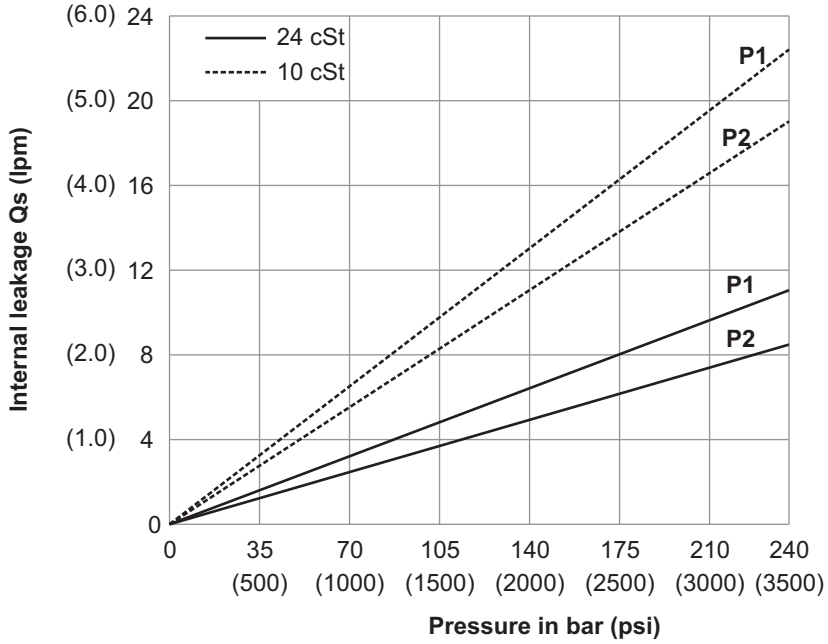
Direction of rotation (view on shaft end)

R - clockwise
L - Counter - Clockwise

Type of shaft

1 - Keyed
2 - Keyed (SAE-CC)
3 - Splined (SAE-C)

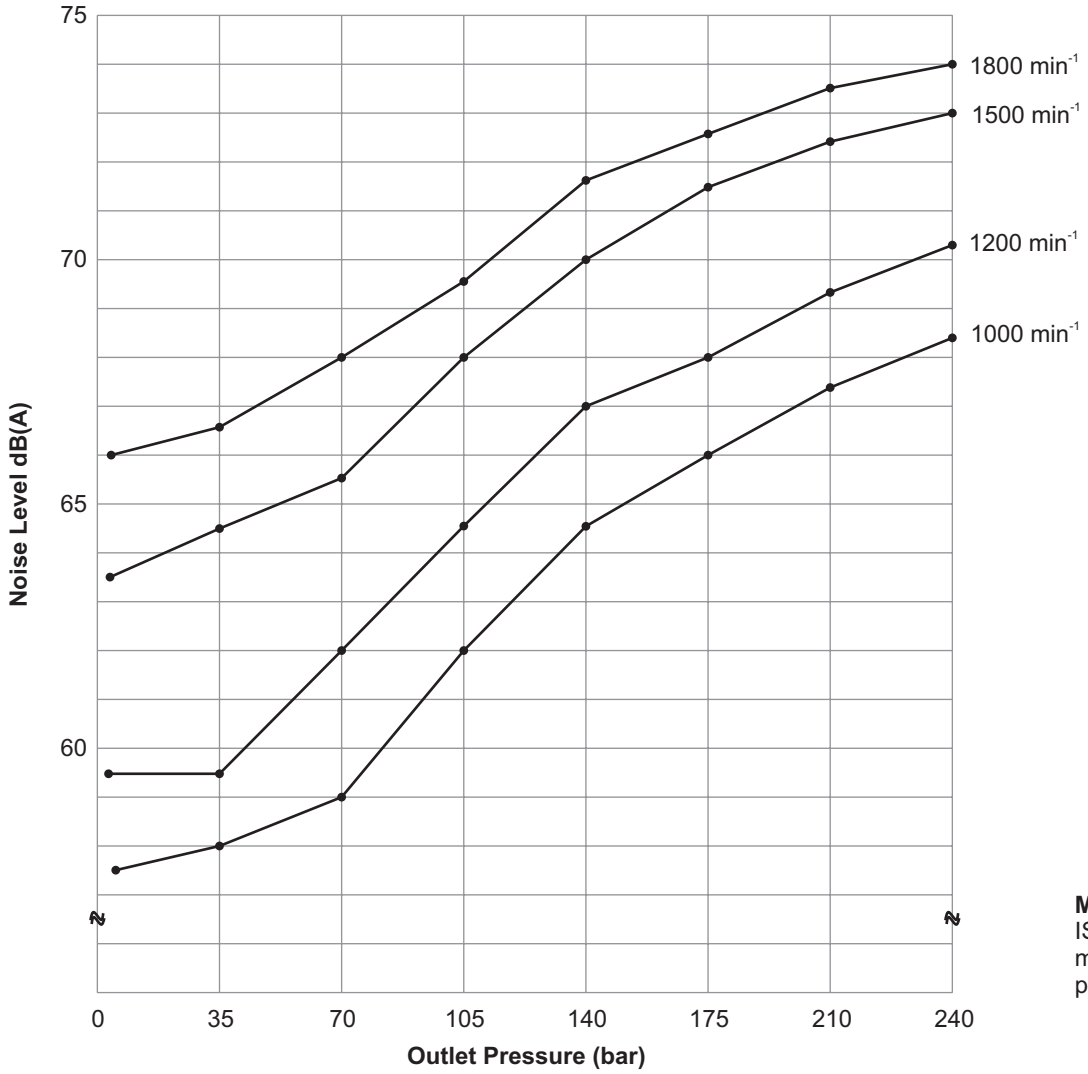
INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds 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.

DP

NOISE LEVEL (TYPICAL) VST7DC - 035 - B17

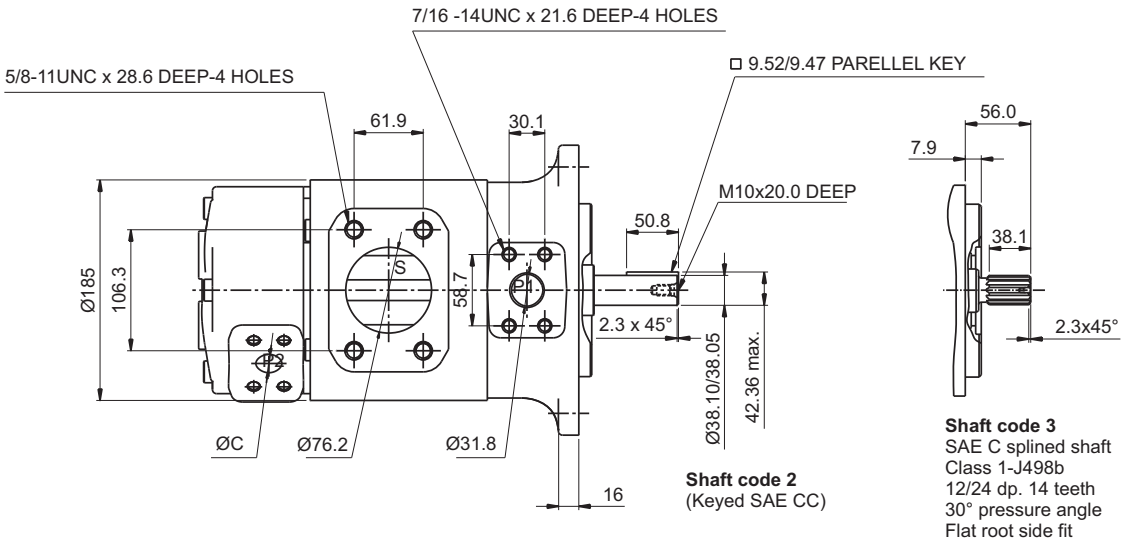


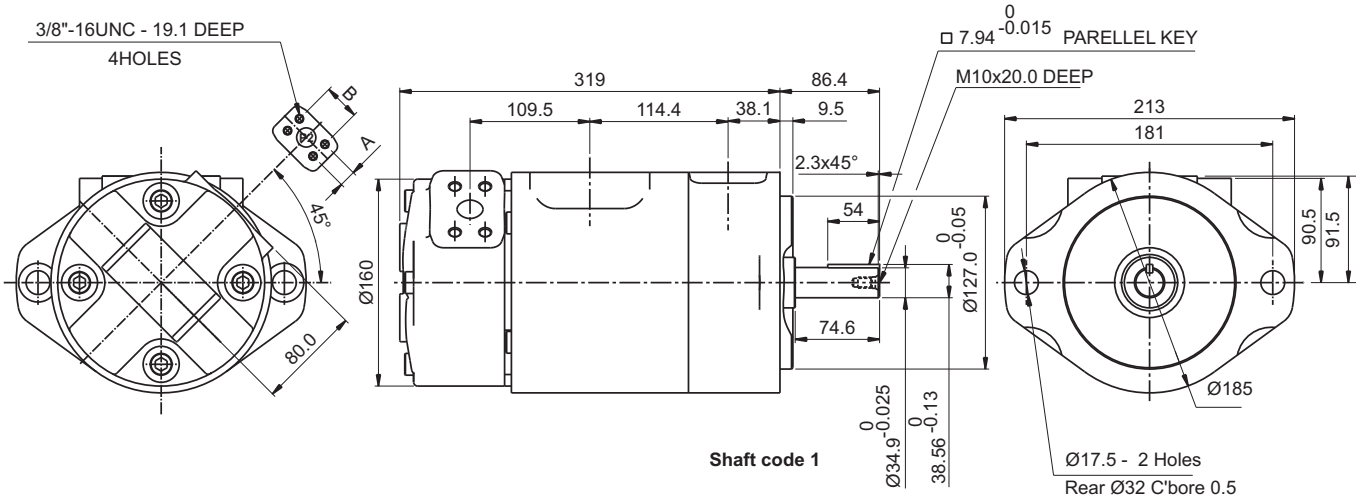
Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

DP

INSTALLATION DRAWING

FLANGE MOUNTING





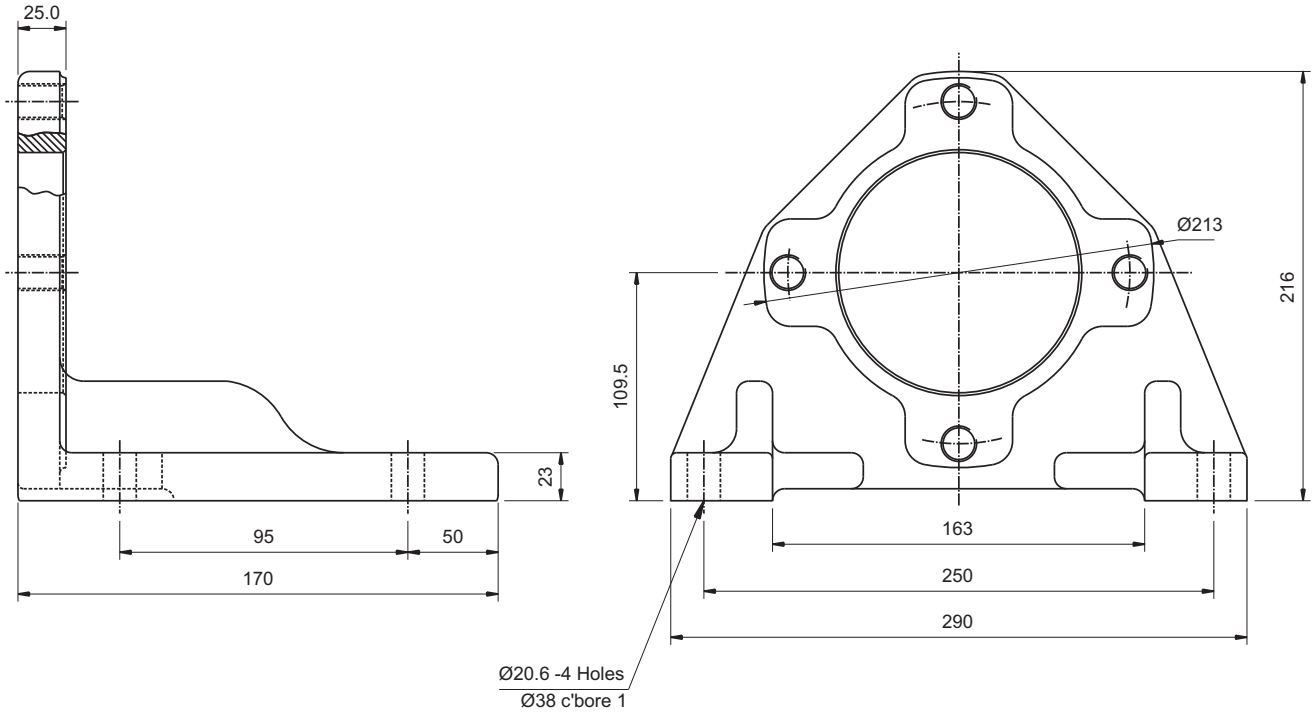
Weight - 48.0 Kgs.

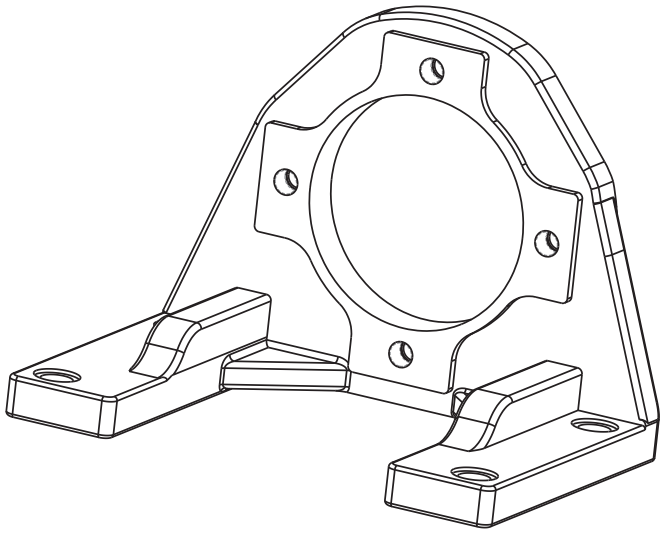
Shaft torque limits in^3 / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	38299 (43240)
2	30638 (34590)
3	54207 (61200)
4	54207 (61200)

Alternate connect.variables		
	00 & M0	01 & M1
A	1.031 (26.2)	0.874 (22.2)
B	2.06 (52.4)	1.874 (47.6)
C	1.00 (25.4)	0.75 (19.05)

INSTALLATION DRAWING

FOOT MOUNTING





Weight-9.5 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1	014	2.68	43.9	18.88	71.40	16.42	62.10	14.78	55.95
	017	3.36	55.0	23.10	87.30	20.60	78.00	18.99	71.88
	020	4.03	66.0	26.19	99.00	23.73	89.70	22.08	83.58
	022	4.29	70.3	28.85	109.21	26.41	99.97	25.31	95.81
	024	4.95	81.1	31.56	119.3	29.10	110.00	27.46	103.95
	028	5.49	89.9	35.58	134.50	33.12	125.20	31.48	119.16
	031	6.05	99.1	39.00	147.50	36.53	138.10	34.89	132.07
	035	6.92	113.4	44.04	166.50	41.58	157.20	39.94	151.18
	038	7.36	120.6	47.72	180.40	45.26	171.10	43.62	165.12
	042	8.39	137.5	53.96	204.00	51.50	194.70	49.86	188.74

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1	014	2.68	43.9	3.08	2.3	24.81	18.5	41.03	30.6
	017	3.36	55.0	3.35	2.5	29.77	22.2	49.62	37.0
	020	4.03	66.0	3.75	2.8	33.39	24.9	55.92	41.7
	022	4.29	70.3	4.00	2.9	36.50	27.7	63.80	46.6
	024	4.95	81.1	4.02	3.0	39.69	29.6	66.78	49.8
	028	5.49	89.9	4.29	3.2	44.52	33.2	74.96	55.9
	031	6.05	99.1	4.42	3.3	48.54	36.2	81.80	61.0
	035	6.92	113.4	4.69	3.5	54.58	40.7	92.13	68.7
	038	7.36	120.6	4.96	3.7	58.87	43.9	99.64	74.3
	042	8.39	137.5	5.36	4.0	66.25	49.4	112.24	83.7

* Max, int. pressure 240 bar
* Max, cont. pressure 210 bar
  Measurement Conditions: ISO VG32 oil at 50°C

OPERATING CHARACTERISTICS (24 cSt)

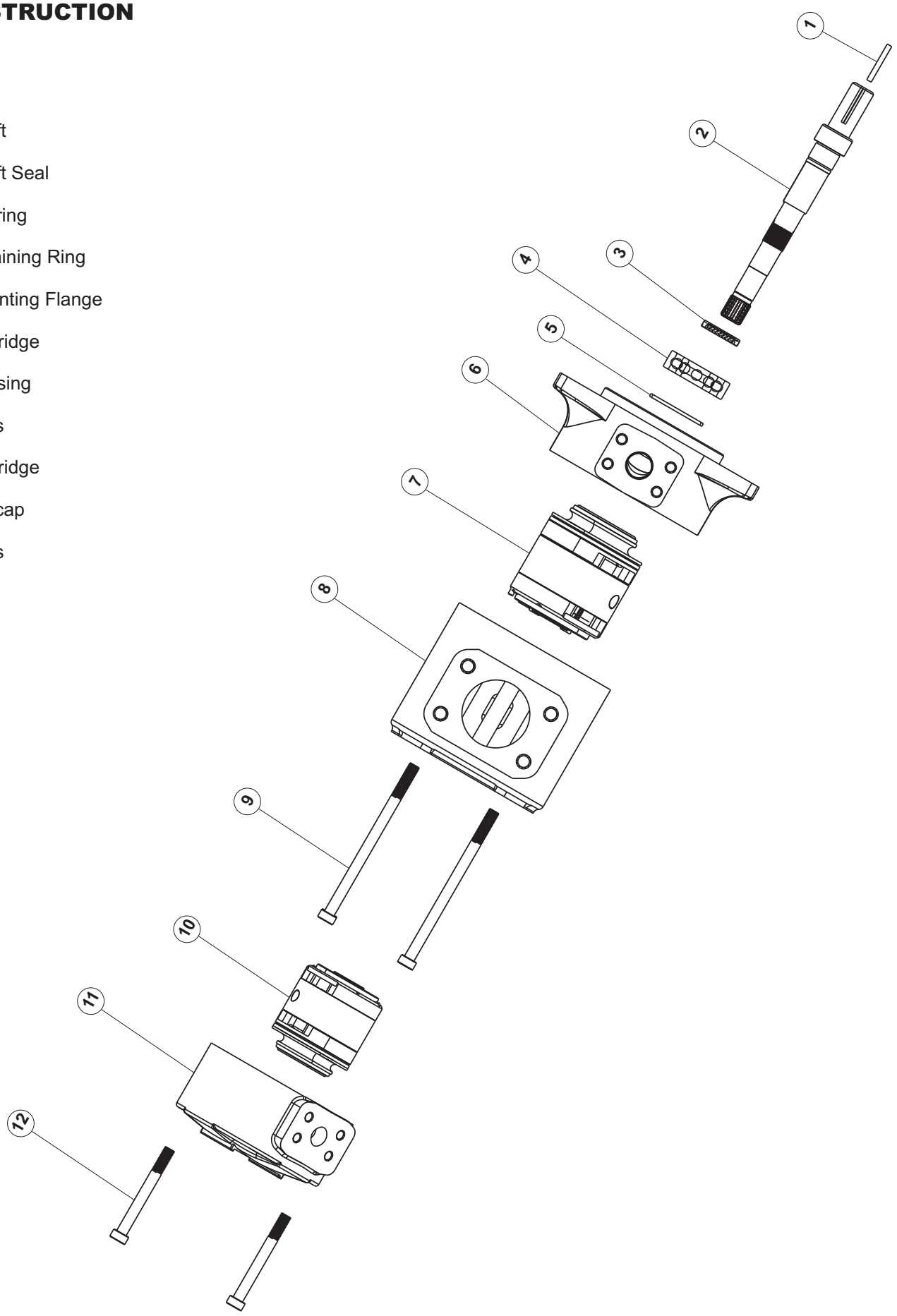
Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P2	B02	0.35	5.7	2.29	8.70	1.94	7.34	–	–
	B03	0.60	9.8	3.88	14.70	3.52	13.32	2.91	11.00
	B04	0.78	12.8	5.07	19.20	4.71	17.83	4.09	15.50
	B05	0.97	15.9	6.31	23.90	5.94	22.49	5.28	20.00
	B06	1.21	19.8	7.85	29.70	7.49	28.35	6.87	26.00
	B07	1.37	22.5	8.90	33.70	8.56	32.40	7.79	29.50
	B08	1.52	24.9	9.88	37.40	9.51	35.99	8.85	33.50
	B09	1.71	28.0	11.07	41.90	10.72	40.58	10.04	38.00
	B10	1.94	31.8	12.62	47.80	12.24	46.33	11.23	42.50
	B11	2.13	34.9	13.81	52.27	13.49	51.07	12.81	48.50
	B12	2.50	40.9	16.25	61.51	15.89	60.15	15.19	57.50
	B14	2.75	45.1	17.81	67.42	17.46	66.09	16.77	63.50
	B15	3.08	50.5	20.25	76.64	19.55	74.00	19.15	72.50
	B17	3.56	58.3	23.10	87.45	22.32	84.50	22.06	83.50
	B20	3.89	63.8	25.28	95.70	24.70	93.50	24.30	92.00
	B22	4.29	70.3	27.87	105.5	27.21	103.00	26.81	101.50
	B25	4.84	79.3	31.44	119.0	31.04	117.50	30.64	116.00

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P2	B02	0.35	5.7	0.62	0.46	3.08	2.30	–	–
	B03	0.60	9.8	0.71	0.53	4.96	3.70	8.35	6.23
	B04	0.78	12.8	0.78	0.58	6.37	4.75	10.77	8.03
	B05	0.97	15.9	0.86	0.64	7.78	5.80	13.18	9.83
	B06	1.21	19.8	0.95	0.71	9.49	7.08	16.40	12.23
	B07	1.37	22.5	1.01	0.75	10.74	8.01	18.28	13.63
	B08	1.52	24.9	1.06	0.79	12.00	8.95	20.42	15.23
	B09	1.71	28.0	1.14	0.85	13.39	9.99	22.84	17.03
	B10	1.94	31.8	1.23	0.92	15.13	11.28	25.25	18.83
	B11	2.13	34.9	1.30	0.97	16.69	12.45	28.46	21.23
	B12	2.50	40.9	1.45	1.08	19.51	14.55	33.29	24.83
	B14	2.75	45.1	1.54	1.15	21.23	15.83	36.52	27.23
	B15	3.08	50.5	1.68	1.25	24.21	18.05	41.34	30.83
	B17	3.56	58.3	1.85	1.38	27.49	20.50	47.24	35.23
	B20	3.89	63.8	1.98	1.48	30.31	22.60	51.80	38.63
	B22	4.29	70.3	2.13	1.59	33.27	24.81	56.89	42.43
	B25	4.84	79.3	2.35	1.75	37.82	28.20	64.68	48.23

* Max, int. pressure 240 bar
* Max, cont. pressure 210 bar
Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts



ORDERING CODE

VST7EB - 042 - B12 - 1 R 00 - A 1 - *

P1 = 042 | P2 = B12

Series

VT7EB series-ISO 4 bolts 3019-2
Mounting flange 125-A2 HW

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

042 = 132.3 (8.07)
045 = 142.4 (8.69)
050 = 158.5 (9.67)
052 = 164.8 (10.06)
057 = 180.7 (11.02)
062 = 196.7 (12.00)
066 = 213.3 (13.02)
072 = 227.1 (13.86)
085 = 268.7 (16.40)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

B02 = 5.7 (0.35)
B03 = 9.8 (0.60)
B04 = 12.8 (0.78)
B05 = 15.9 (0.97)
B06 = 19.8 (1.21)
B07 = 22.5 (1.37)
B08 = 24.9 (1.52)
B09 = 28.0 (1.71)
B10 = 31.8 (1.94)
B11 = 34.9 (2.13)
B12 = 40.9 (2.50)

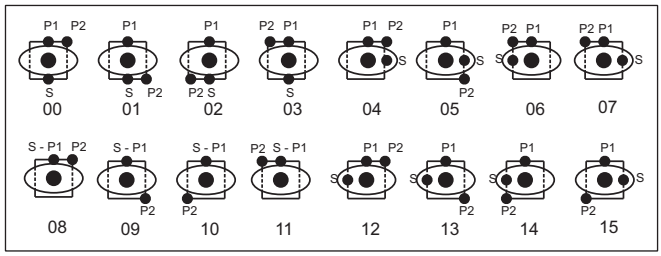
Modifications

Seal Class

1 - S1 (for mineral oil)
4 - S4 (for fire resistant fluids)
5 - S5 (for mineral oil and fire resistant fluids)

Design Letters

Porting Combination



Direction of rotation (view on shaft end)

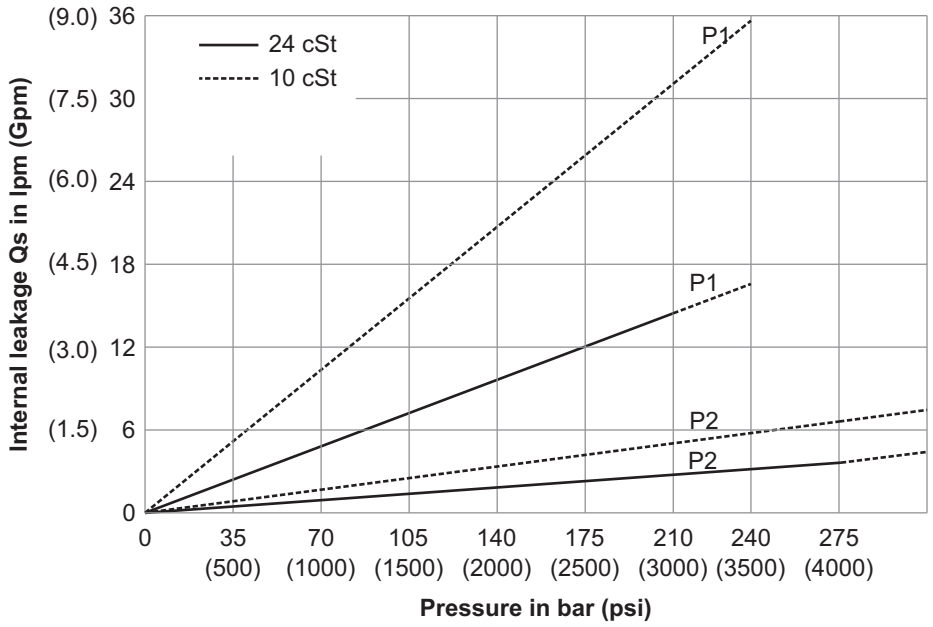
R - clockwise
L - Counter - Clockwise

Type of shaft

1 - Keyed
2 - Keyed (no SAE)
3 - Splined (SAE-C)
4 - Splined (SAE-CC)

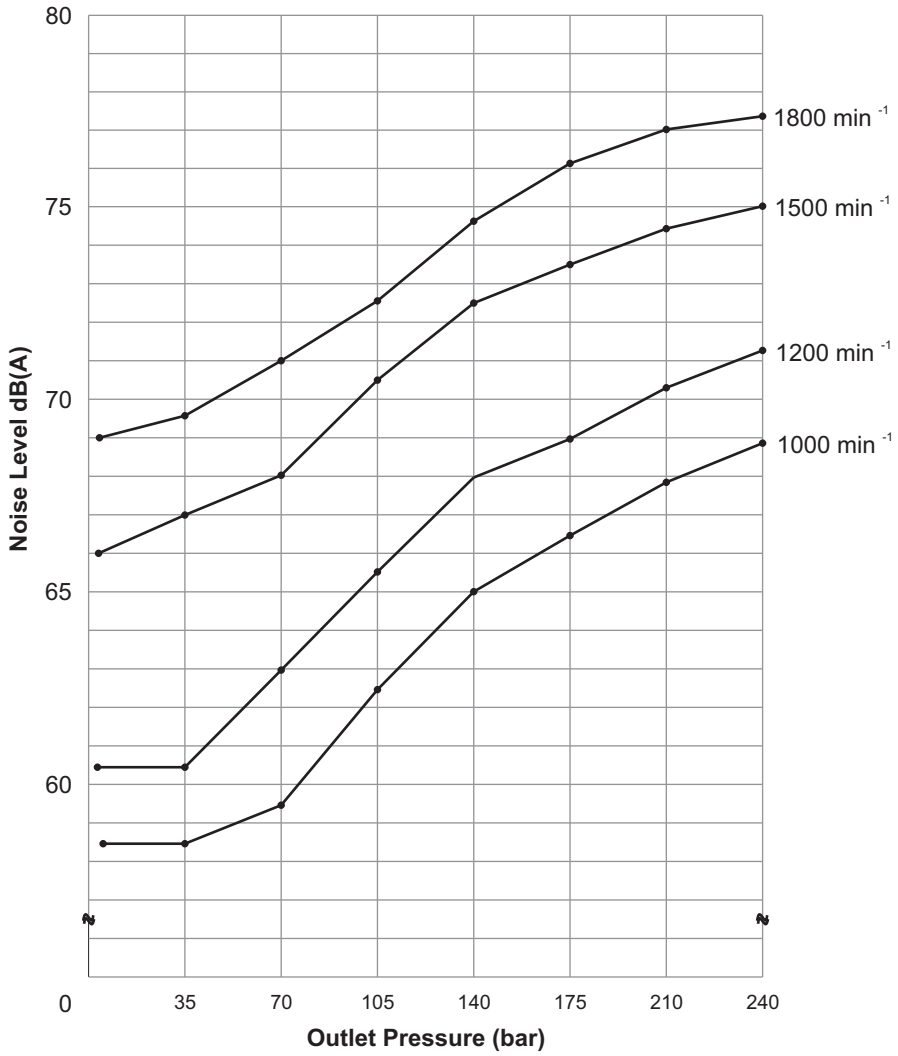
DP

INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds 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.

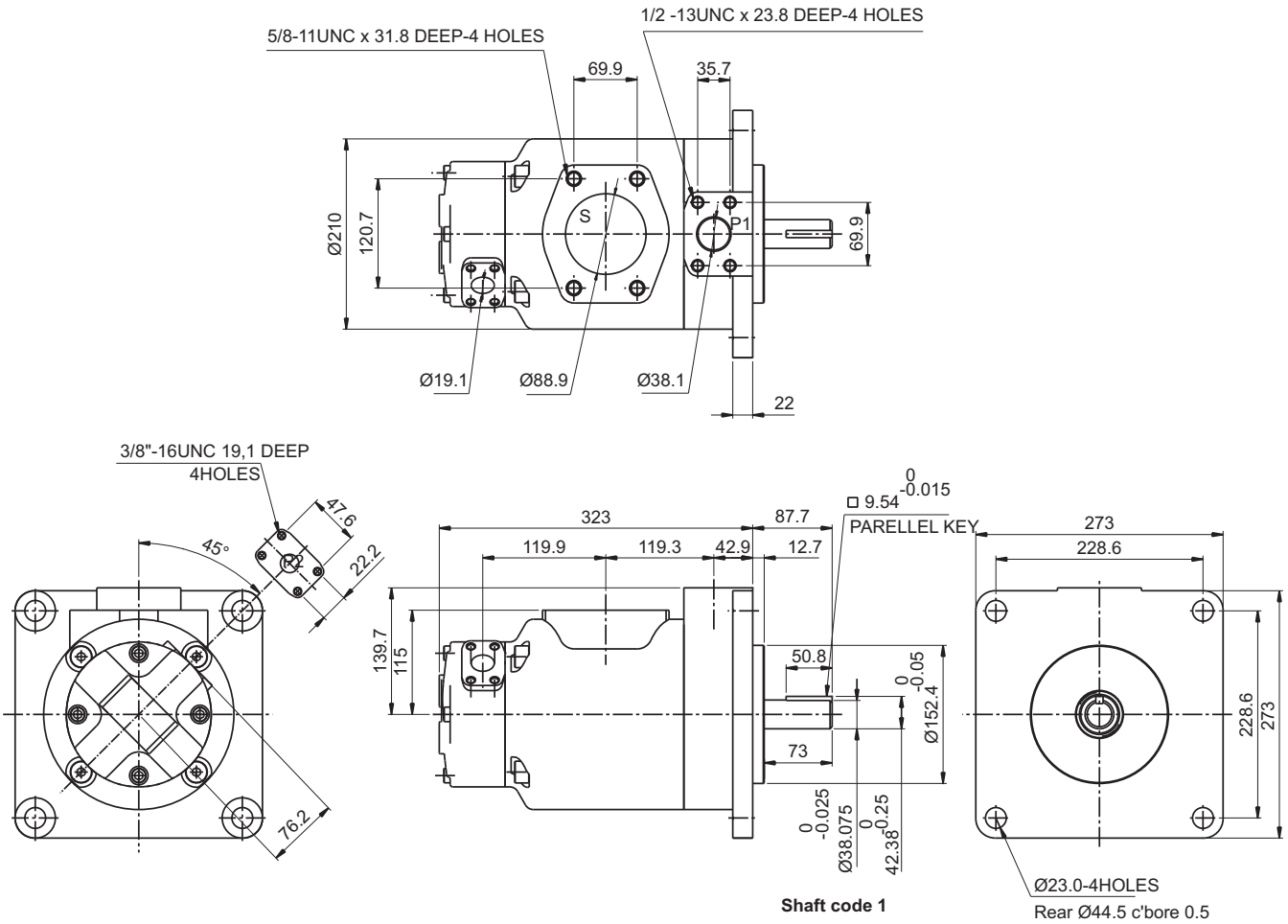
NOISE LEVEL (TYPICAL) VST7EB-050-B09



Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

INSTALLATION DRAWING

FLANGE MOUNTING

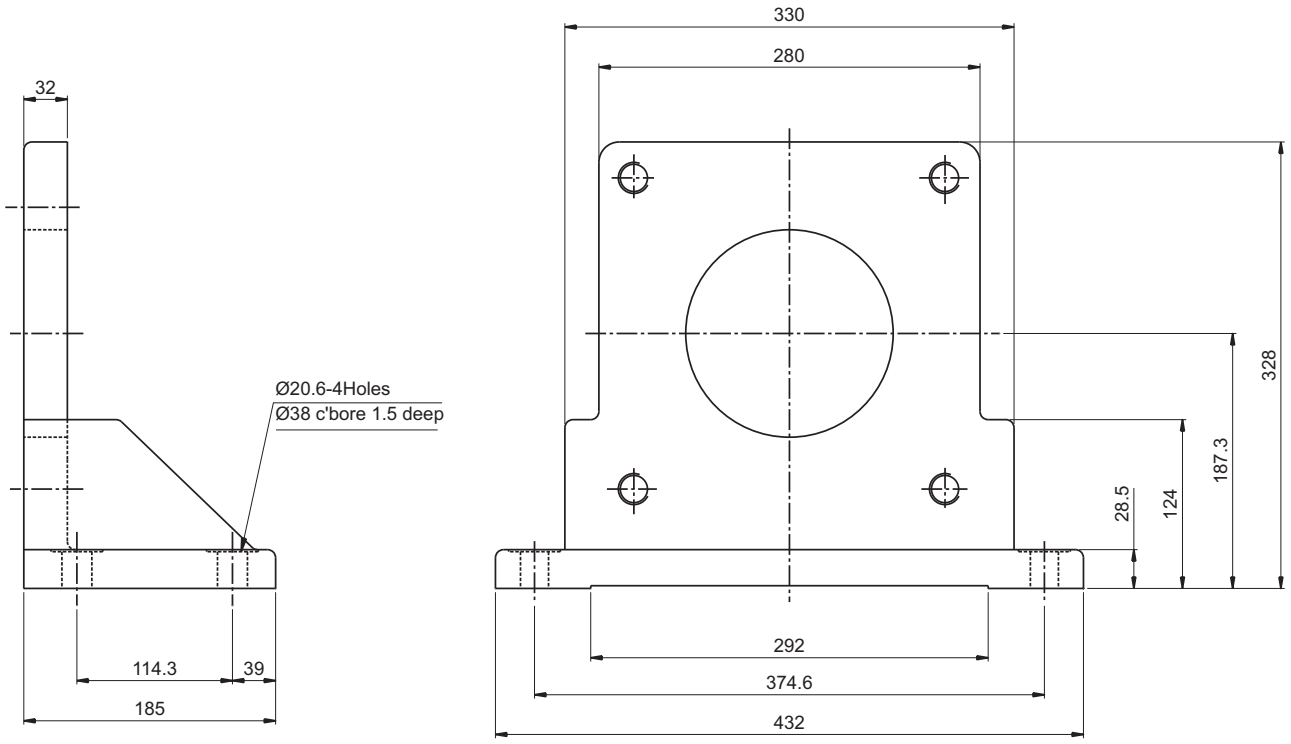


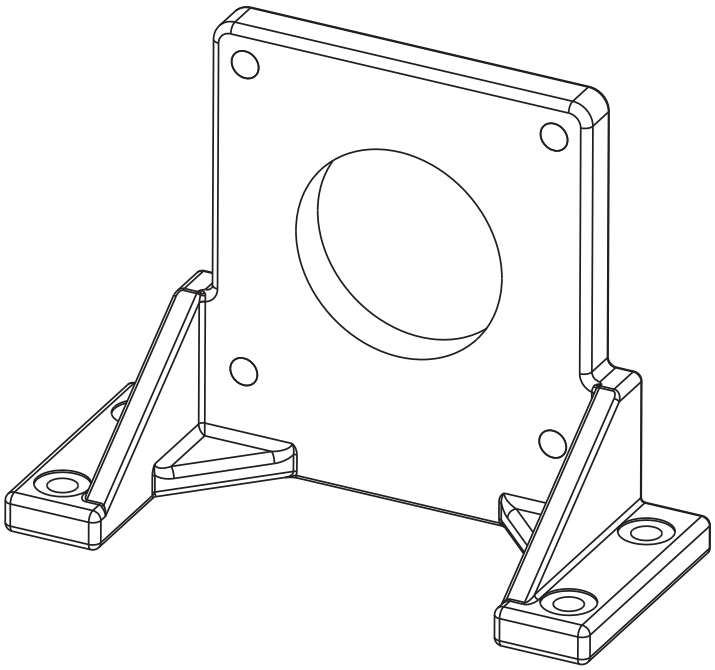
Shaft torque limits in³ / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	60673 (68568)
2	30638 (34590)
3	54207 (61200)
4	60673 (68568)

Weight - 74.0 Kgs.

INSTALLATION DRAWING

FOOT MOUNTING





Weight - 25 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1	042	8.07	132.3	52.50	198.5	49.87	188.5	47.96	181.3
	045	8.69	142.4	56.51	213.6	53.86	203.6	51.98	196.5
	050	9.67	158.5	62.88	237.7	60.24	227.7	58.36	220.6
	052	10.06	164.8	65.40	247.2	62.75	237.2	60.87	230.1
	057	11.02	180.7	71.71	271.1	69.07	261.1	67.19	254.0
	062	12.00	196.7	78.04	295.0	75.40	285.0	73.52	277.9
	066	13.02	213.3	84.63	319.9	81.98	309.9	80.11	302.8
	072	13.86	227.1	90.11	340.6	87.46	330.6	85.58	323.5
	085	16.40	268.7	107.00	404.7	--	--	--	--

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1	042	8.07	132.3	6.97	5.2	66.25	49.4	110.77	82.6
	045	8.69	142.4	7.24	5.4	70.94	52.9	118.95	88.7
	050	9.67	158.5	7.64	5.7	78.45	58.5	131.82	98.3
	052	10.06	164.8	7.78	5.8	81.53	60.8	136.92	102.1
	057	11.02	180.7	8.18	6.1	89.04	66.4	143.35	106.9
	062	12.00	196.7	8.58	6.4	96.42	71.9	162.67	121.3
	066	13.02	213.3	8.98	6.7	104.20	77.7	175.94	131.2
	072	13.86	227.1	9.25	6.9	110.77	82.6	187.07	139.5
	085	16.40	268.7	9.78	7.3	--	--	--	--

1) 085 = 90 bar(1300 psi) max.int. & 085 = 2000 rpm max.

Measurement Conditions: ISO VG32 oil at 50°C

OPERATING CHARACTERISTICS (24 cSt)

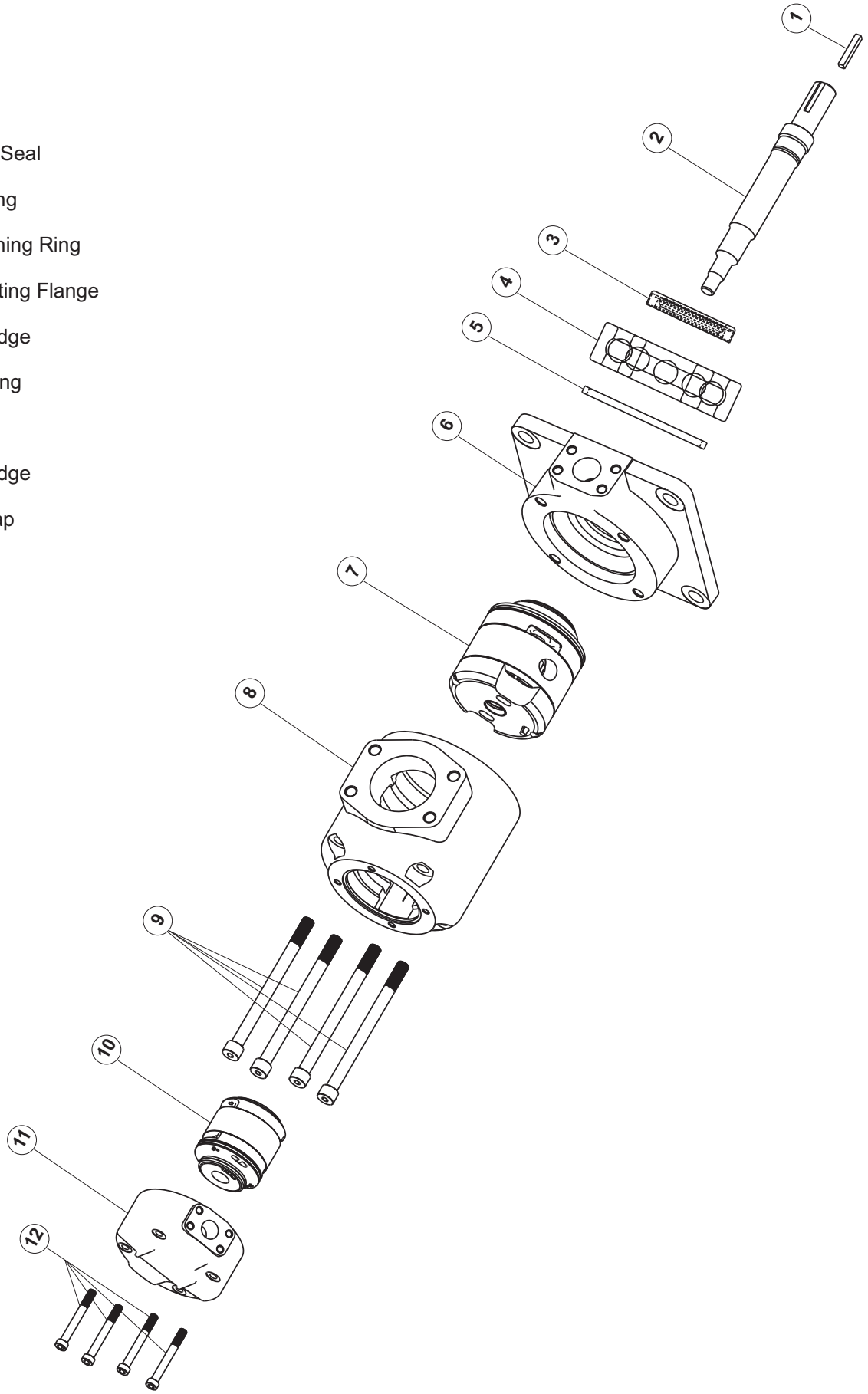
Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P2	B02	0.35	5.7	2.29	8.70	1.94	7.34	–	–
	B03	0.60	9.8	3.88	14.7	3.52	13.32	2.91	11.0
	B04	0.78	12.8	5.07	19.2	4.71	17.83	4.09	15.5
	B05	0.97	15.9	6.31	23.9	5.94	22.49	5.28	20.0
	B06	1.21	19.8	7.85	29.7	7.49	28.35	6.87	26.0
	B07	1.37	22.5	8.90	33.7	8.56	32.40	7.79	29.5
	B08	1.52	24.9	9.88	37.4	9.51	35.99	8.85	33.5
	B09	1.71	28.0	11.07	41.9	10.72	40.58	10.04	38.0
	B10	1.94	31.8	12.62	47.8	12.24	46.33	11.23	42.5
	B11	2.13	34.9	13.81	52.27	13.49	51.07	12.81	48.5
	B12	2.50	40.9	16.25	61.51	15.89	60.15	–	–

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P2	B02	0.35	5.7	0.62	0.46	3.08	2.30	–	–
	B03	0.60	9.8	0.71	0.53	4.96	3.70	8.35	6.23
	B04	0.78	12.8	0.78	0.58	6.37	4.75	10.77	8.03
	B05	0.97	15.9	0.86	0.64	7.78	5.80	13.18	9.83
	B06	1.21	19.8	0.95	0.71	9.49	7.08	16.40	12.23
	B07	1.37	22.5	1.01	0.75	10.74	8.01	18.28	13.63
	B08	1.52	24.9	1.06	0.79	12.00	8.95	20.42	15.23
	B09	1.71	28.0	1.14	0.85	13.39	9.99	22.84	17.03
	B10	1.94	31.8	1.23	0.92	15.13	11.28	25.25	18.83
	B11	2.13	34.9	1.30	0.97	16.69	12.45	28.46	21.23
	B12	2.50	40.9	1.45	1.08	19.51	14.55	–	–

Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts



ORDERING CODE

VST7EC - 066 - 022 - 1 R 00 - A 1 - *

P1 = 066, P2 = 022

Series

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

042 = 132.3 (8.07)
045 = 142.4 (8.69)
050 = 158.5 (9.67)
052 = 164.8 (10.06)
057 = 180.7 (11.02)
062 = 196.7 (12.00)
066 = 213.3 (13.02)
072 = 227.1 (13.86)
085 = 268.7 (16.40)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

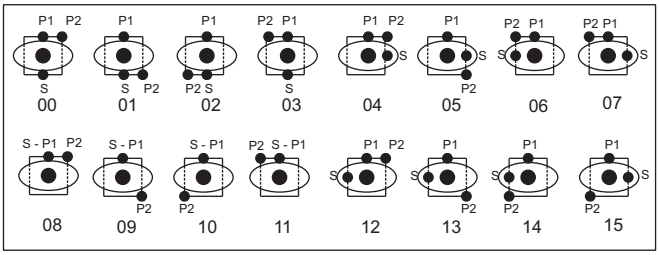
B02 = 5.7 (0.35)
B03 = 9.8 (0.60)
B04 = 12.8 (0.78)
B05 = 15.9 (0.97)
B06 = 19.8 (1.21)
B07 = 22.5 (1.37)
B08 = 24.9 (1.52)
B09 = 28.0 (1.71)
B10 = 31.8 (1.94)
B11 = 34.9 (2.13)
B12 = 40.9 (2.50)
B14 = 45.1 (2.75)
B15 = 50.0 (3.05)
B17 = 58.3 (3.56)
B20 = 63.8 (3.89)
B22 = 70.3 (4.29)
B25 = 79.3 (4.84)

Modifications

Seal Class
1 - S1(for mineral oil)
4 - S4(for fire resistant fluids)
5 - S5(for mineral oil and fire resistant fluids)

Design Letters

Porting Combination

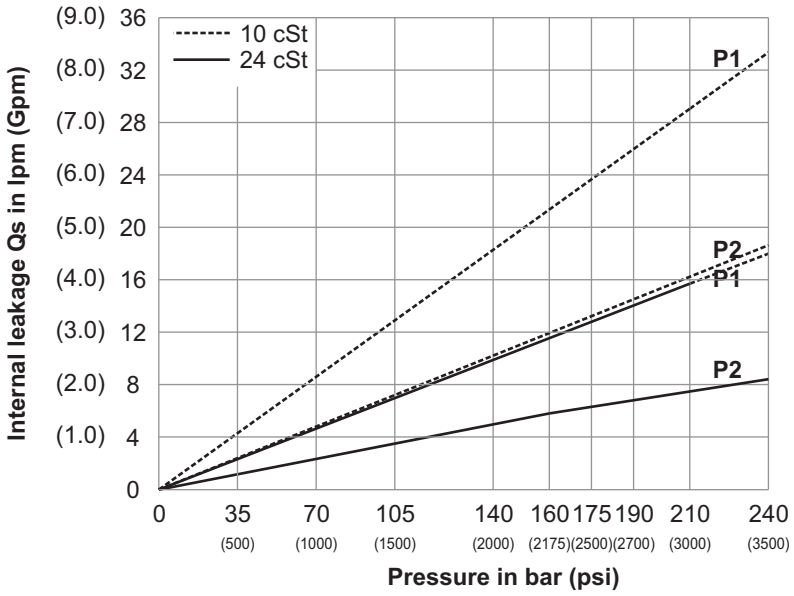


Direction of rotation (view on shaft end)
R - clockwise
L - Counter - Clockwise

Type of shaft
1 - Keyed
2 - Keyed (no SAE)
3 - Splined (SAE-C)
4 - Splined (SAE-CC)

DP

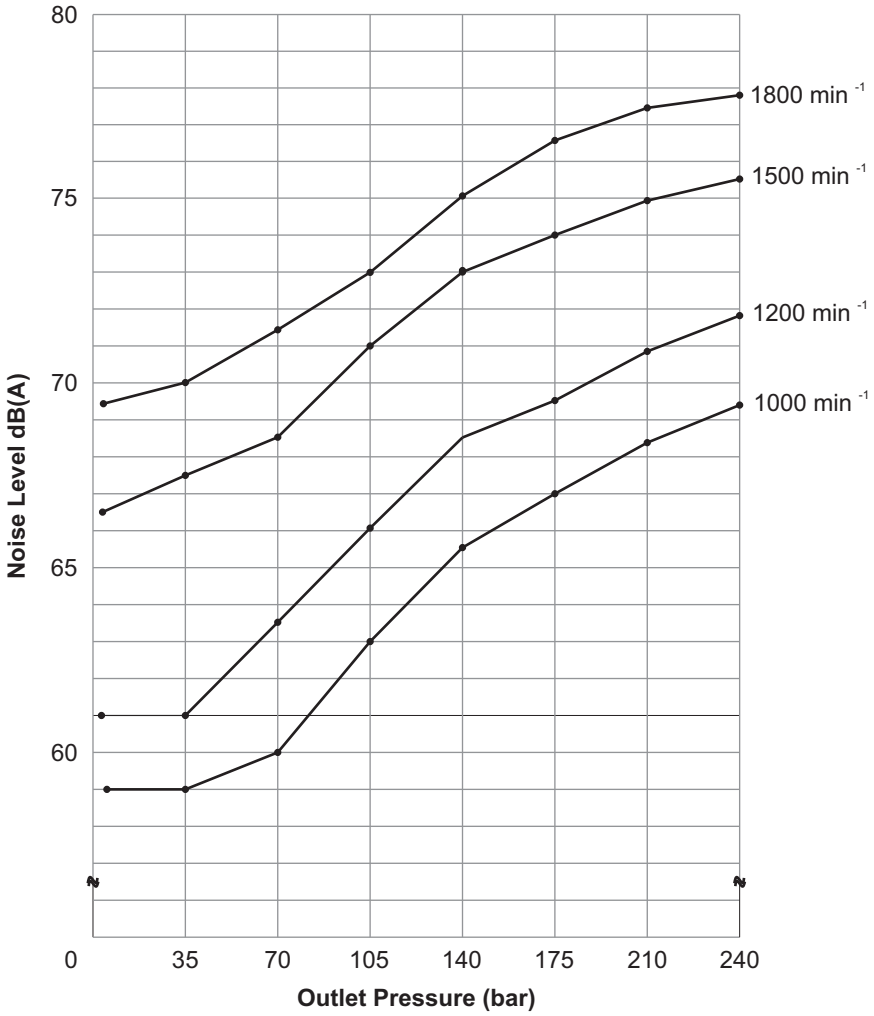
INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds 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.

DP

NOISE LEVEL (TYPICAL) VST7EC-050-B25

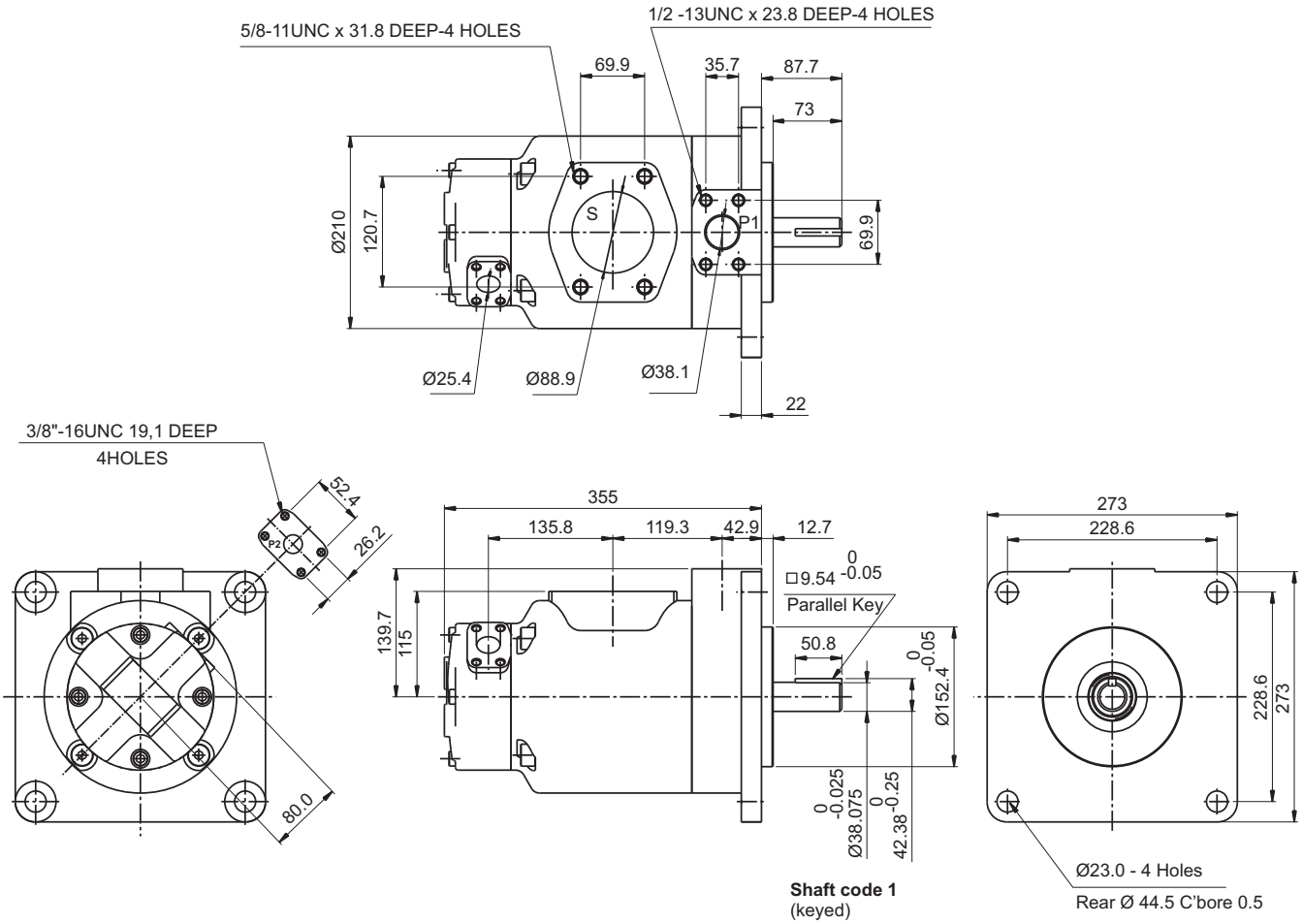


Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

DP

INSTALLATION DRAWING

FLANGE MOUNTING



Shaft code 1
(keyed)

Shaft code 2
(Keyed no SAE)

Shaft code 3
SAE C splined shaft
Class 1-J498b
12/24 dp. 14 teeth
30° pressure angle
Flat root side fit

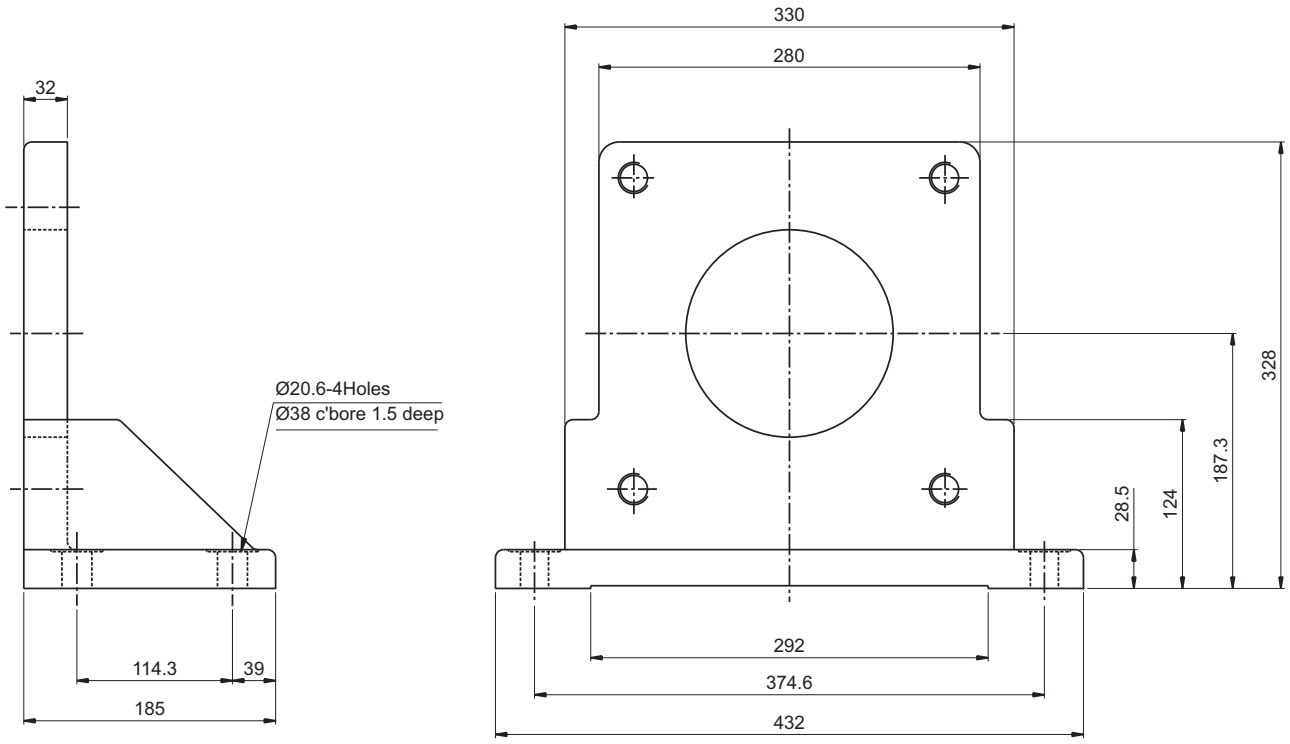
Shaft code 4
SAE CC splined shaft
Class 1-J498b
12/24 dp. 17 teeth
30° pressure angle
Flat root side fit

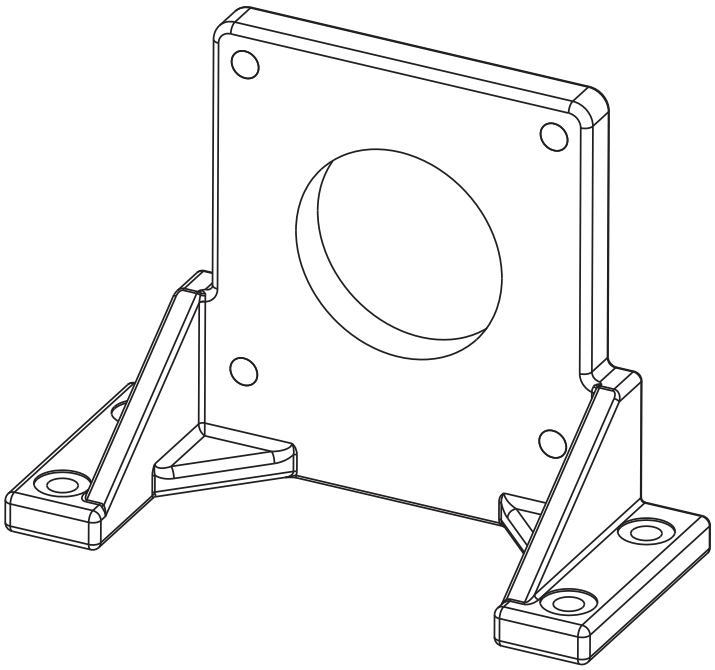
Shaft torque limits in^3 / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	64044 (72306)
2	30638 (34590)
3	54207 (61200)
4	67582 (76376)

Weight-80.0 Kgs.

INSTALLATION DRAWING

FOOT MOUNTING





Weight - 25 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1	042	8.07	132.3	52.50	198.5	49.87	188.5	47.96	181.3
	045	8.69	142.4	56.51	213.6	53.86	203.6	51.98	196.5
	050	9.67	158.5	62.88	237.7	60.24	227.7	58.36	220.6
	052	10.06	164.8	65.40	247.2	62.75	237.2	60.87	230.1
	057	11.02	180.7	71.71	271.1	69.07	261.1	67.19	254.0
	062	12.00	196.7	78.04	295.0	75.40	285.0	73.52	277.9
	066	13.02	213.3	84.63	319.9	81.98	309.9	80.11	302.8
	072	13.86	227.1	90.11	340.6	87.46	330.6	85.58	323.5
	085	16.40	268.7	107.00	404.7	--	--	--	--

Pressure port	Series	Volumetric Displacement Vp		Input Power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140bar(2000psi)		p = 240bar(3500psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1	042	8.07	132.3	6.97	5.2	66.25	49.4	110.77	82.6
	045	8.69	142.4	7.24	5.4	70.94	52.9	118.95	88.7
	050	9.67	158.5	7.64	5.7	78.45	58.5	131.82	98.3
	052	10.06	164.8	7.78	5.8	81.53	60.8	136.92	102.1
	057	11.02	180.7	8.18	6.1	89.04	66.4	143.35	106.9
	062	12.00	196.7	8.58	6.4	96.42	71.9	162.67	121.3
	066	13.02	213.3	8.98	6.7	104.20	77.7	175.94	131.2
	072	13.86	227.1	9.25	6.9	110.77	82.6	187.07	139.5
	085	16.40	268.7	9.78	7.3	--	--	--	--

* Max, int. pressure 240 bar
* Max, cont. pressure 210 bar
  Measurement Conditions: ISO VG32 oil at 50°C

Note : 085 = 90 bar (1300 psi) max. int. & 085 = 2000 rpm max.

OPERATING CHARACTERISTICS (24 cSt)

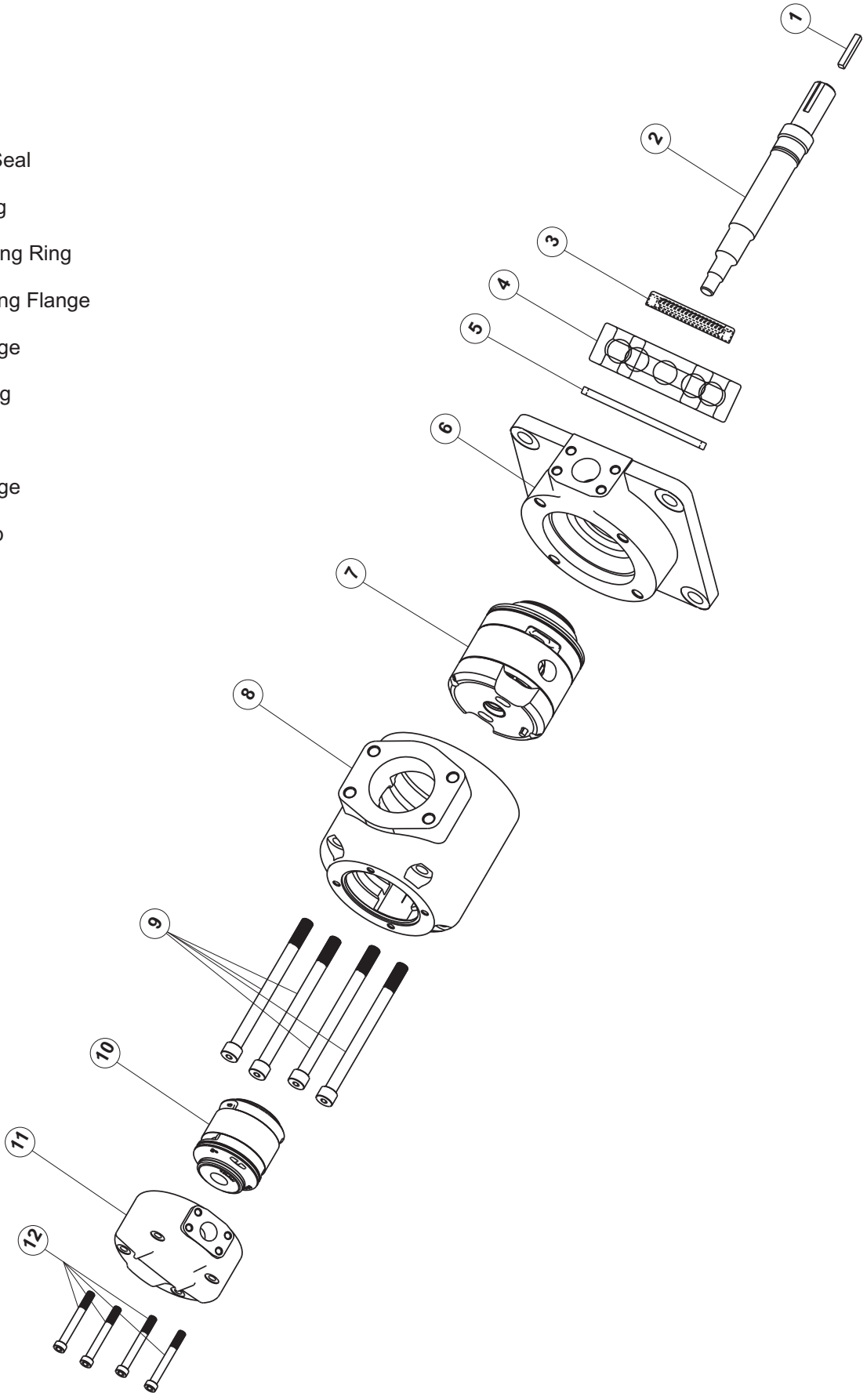
Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p = 140bar (2000psi)		p = 240bar (3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P2	B02	0.35	5.7	2.29	8.70	1.94	7.34	–	–
	B03	0.60	9.8	3.88	14.7	3.52	13.32	2.91	11.0
	B04	0.78	12.8	5.07	19.2	4.71	17.83	4.09	15.5
	B05	0.97	15.9	6.31	23.9	5.94	22.49	5.28	20.0
	B06	1.21	19.8	7.85	29.7	7.49	28.35	6.87	26.0
	B07	1.37	22.5	8.90	33.7	8.56	32.40	7.79	29.5
	B08	1.52	24.9	9.88	37.4	9.51	35.99	8.85	33.5
	B09	1.71	28.0	11.07	41.9	10.72	40.58	10.04	38.0
	B10	1.94	31.8	12.62	47.8	12.24	46.33	11.23	42.5
	B11	2.13	34.9	13.81	52.27	13.49	51.07	12.81	48.5
	B12	2.50	40.9	16.25	61.51	15.89	60.15	15.19	57.5
	B14	2.75	45.1	17.81	67.42	17.46	66.09	16.77	63.5
	B15	3.08	50.5	20.25	76.64	19.55	74.0	19.15	72.5
	B17	3.56	58.3	23.10	87.45	22.32	84.5	22.06	83.5
	B20	3.89	63.8	25.28	95.70	24.70	93.5	24.30	92.0
	B22	4.29	70.3	27.87	105.5	27.21	103.0	26.81	101.5
	B25	4.84	79.3	31.44	119.0	31.04	117.5	30.64	116.0

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100psi)		p = 140bar(2000psi)		p = 240bar(3500psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P2	B02	0.35	5.7	0.62	0.46	3.08	2.30	–	–
	B03	0.60	9.8	0.71	0.53	4.96	3.70	8.35	6.23
	B04	0.78	12.8	0.78	0.58	6.37	4.75	10.77	8.03
	B05	0.97	15.9	0.86	0.64	7.78	5.80	13.18	9.83
	B06	1.21	19.8	0.95	0.71	9.49	7.08	16.40	12.23
	B07	1.37	22.5	1.01	0.75	10.74	8.01	18.28	13.63
	B08	1.52	24.9	1.06	0.79	12.00	8.95	20.42	15.23
	B09	1.71	28.0	1.14	0.85	13.39	9.99	22.84	17.03
	B10	1.94	31.8	1.23	0.92	15.13	11.28	25.25	18.83
	B11	2.13	34.9	1.30	0.97	16.69	12.45	28.46	21.23
	B12	2.50	40.9	1.45	1.08	19.51	14.55	33.29	24.83
	B14	2.75	45.1	1.54	1.15	21.23	15.83	36.52	27.23
	B15	3.08	50.5	1.68	1.25	24.21	18.05	41.34	30.83
	B17	3.56	58.3	1.85	1.38	27.49	20.50	47.24	35.23
	B20	3.89	63.8	1.98	1.48	30.31	22.60	51.80	38.63
	B22	4.29	70.3	2.13	1.59	33.27	24.81	56.89	42.43
	B25	4.84	79.3	2.35	1.75	37.82	28.20	64.68	48.23

* Max, int. pressure 240 bar
* Max, cont. pressure 210 bar
Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts



ORDERING CODE

VST7ED - 042 - B22 - 1 R 00 - A 1 01 *

Series

Cam ring for "P1"

Volumetric displacement cm^3/rev (in^3/rev)

042 = 132.3 (8.07)
045 = 142.4 (8.69)
050 = 158.5 (9.67)
052 = 164.8 (10.06)
057 = 180.7 (11.02)
062 = 196.7 (12.00)
066 = 213.3 (13.02)
072 = 227.1 (13.86)
085 = 268.7 (16.40)

Cam ring for "P2"

Volumetric displacement cm^3/rev (in^3/rev)

B14 = 43.9 (2.68)
B17 = 55.0 (3.36)
B20 = 66.0 (4.03)
B22 = 70.3 (4.29)
B24 = 81.1 (4.95)
B28 = 89.9 (5.49)
B31 = 99.1 (6.05)
B35 = 113.4 (6.92)
B38 = 120.6 (7.36)
B42 = 137.5 (8.39)

Type of shaft

1 - Keyed
2 - Keyed (no SAE)
3 - Splined (SAE-C)
4 - Splined (SAE-CC)
5 - Keyed (ISO/R775 - G38M)

Modifications

Mounting W/connection variables 4 bolts SAE flange J518

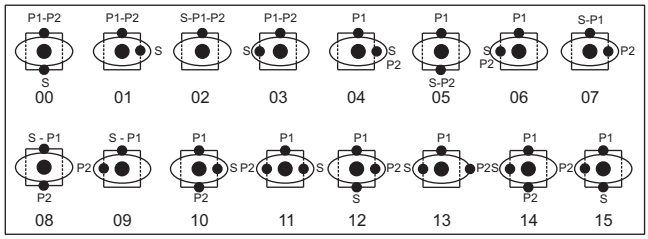
P1= 1½" P2= 1¼" S=4"		
	VST7ED	
TYPE	UNC	METRIC
Code	01	M1

Seal Class

1 - S1(for mineral oil)
4 - S4(for fire resistant fluids)
5 - S5(for mineral oil and fire resistant fluids)

Design Letters

Porting Combination

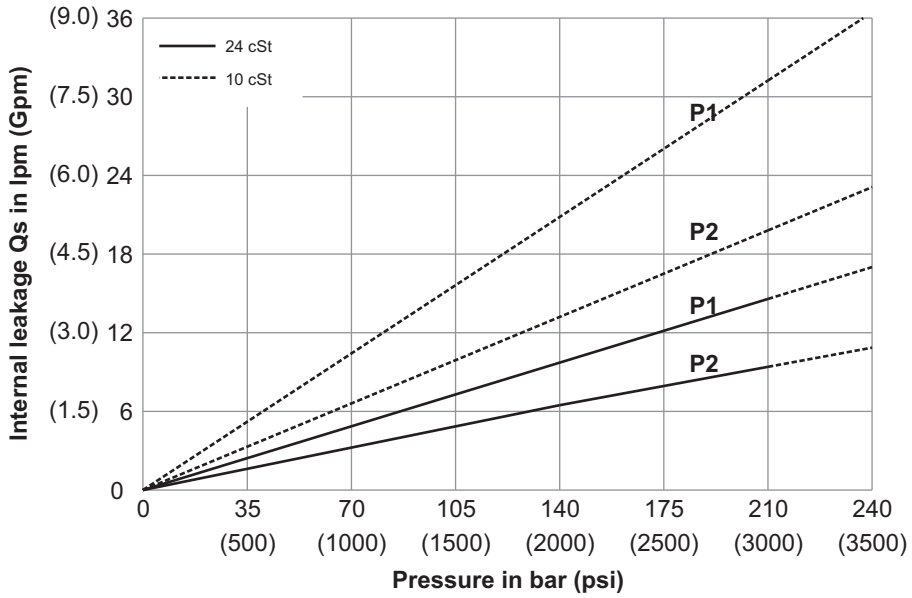


Direction of rotation (view on shaft end)

R - clockwise
L - Counter - Clockwise

DP

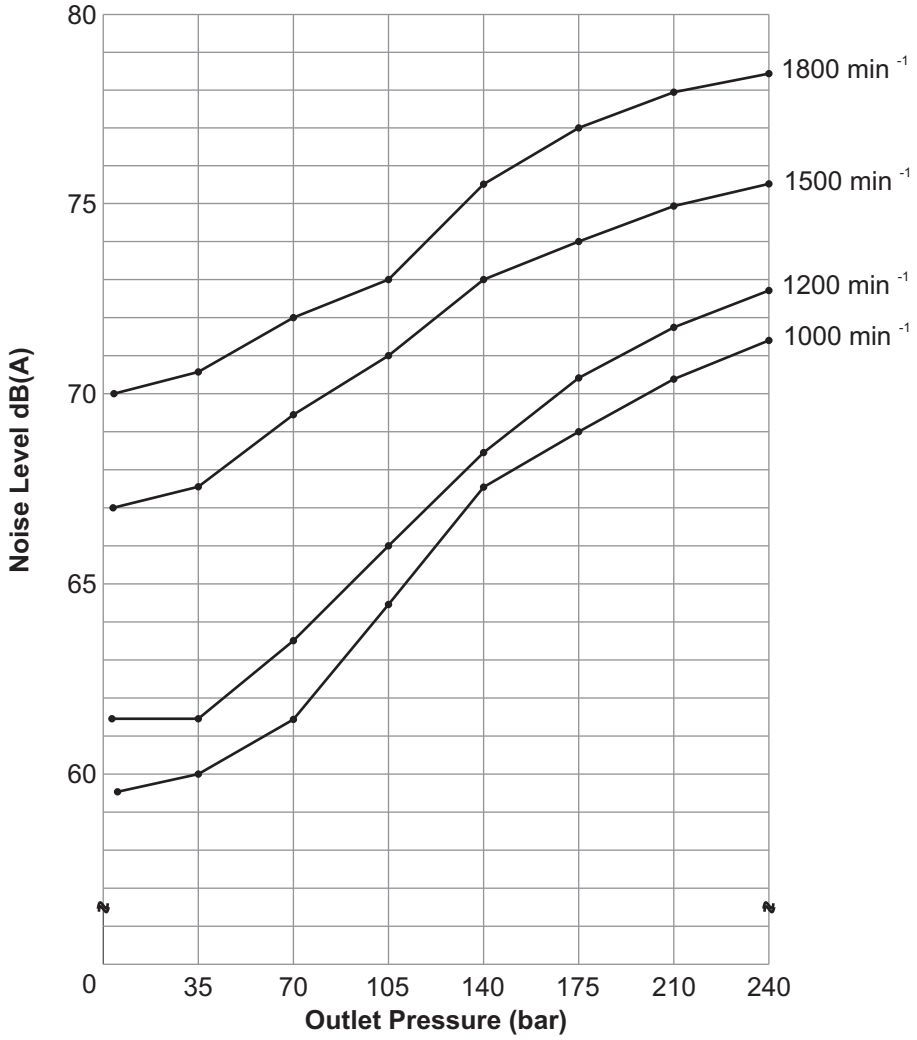
INTERNAL LEAKAGE (TYPICAL)



Do not operate pump more than 5 seconds 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.

DP

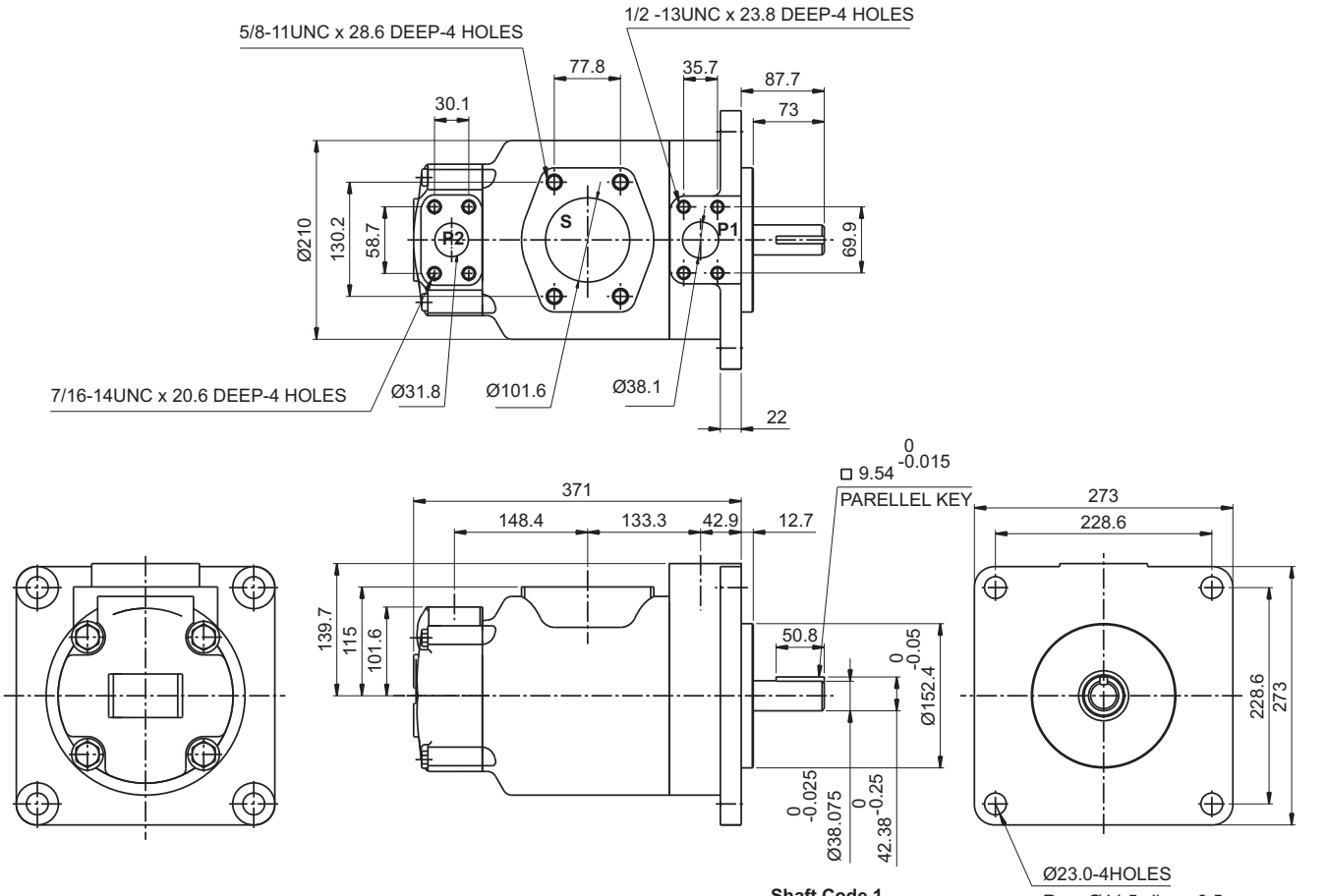
NOISE LEVEL (TYPICAL) VST7ED-050-B31



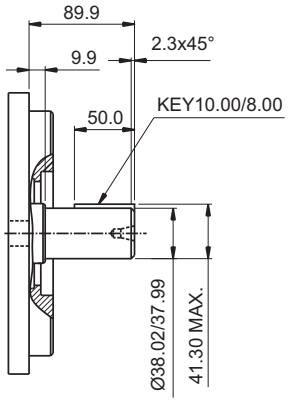
Measurement Conditions:
ISO VG32 oil at 50°C and measured 1m from rear of pump cover

INSTALLATION DRAWING

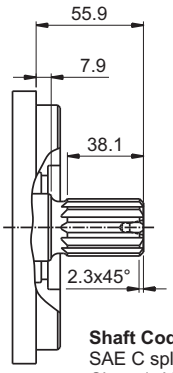
FLANGE MOUNTING



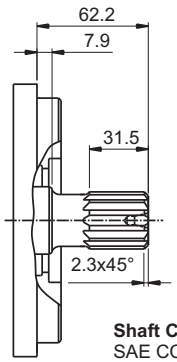
Shaft Code 1
(keyed)



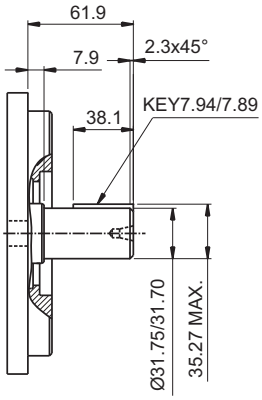
Shaft Code 5
(Keyed Iso/R775-G38M)



Shaft Code 3
SAE C splined shaft
Class 1-J498b
12/24 dp. 14 teeth
30° pressure angle
Flat root side fit



Shaft Code 4
SAE CC splined shaft
Class 1-J498b
12/24 dp. 17 teeth
30° pressure angle
Flat root side fit



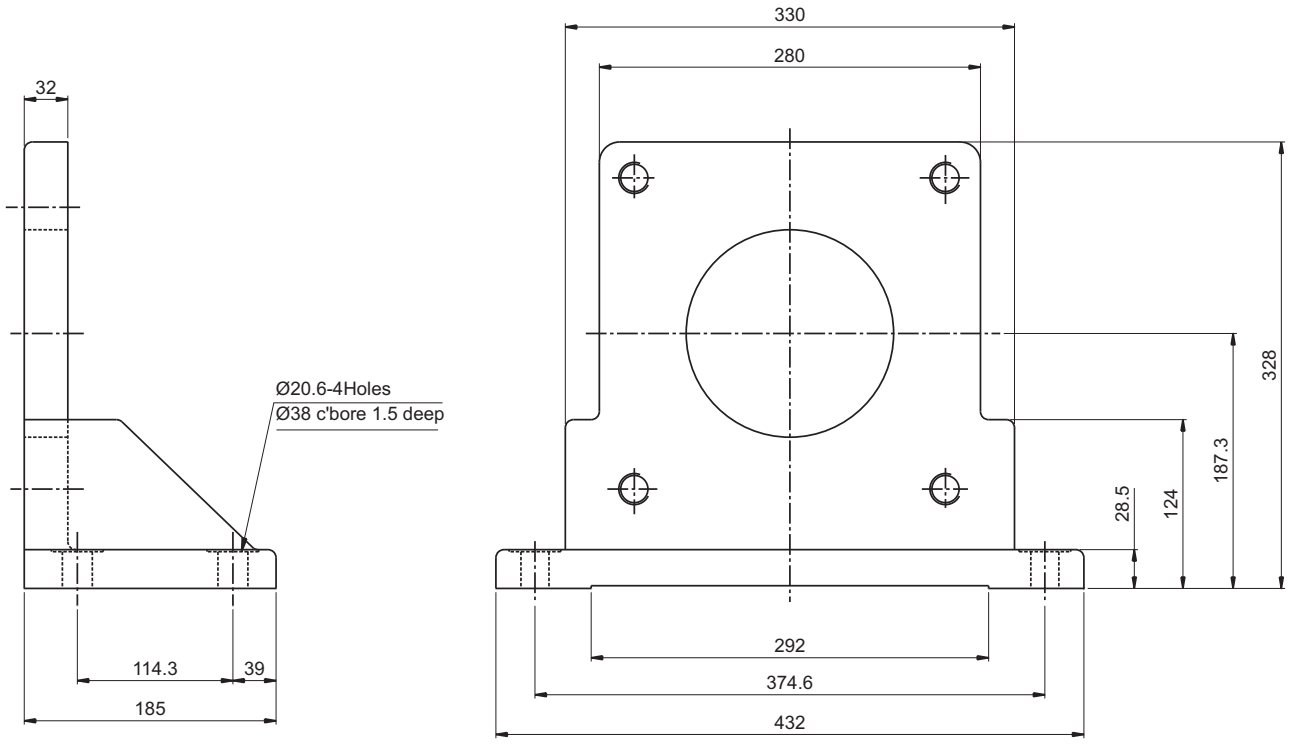
Shaft Code 2
(Keyed non SAE)

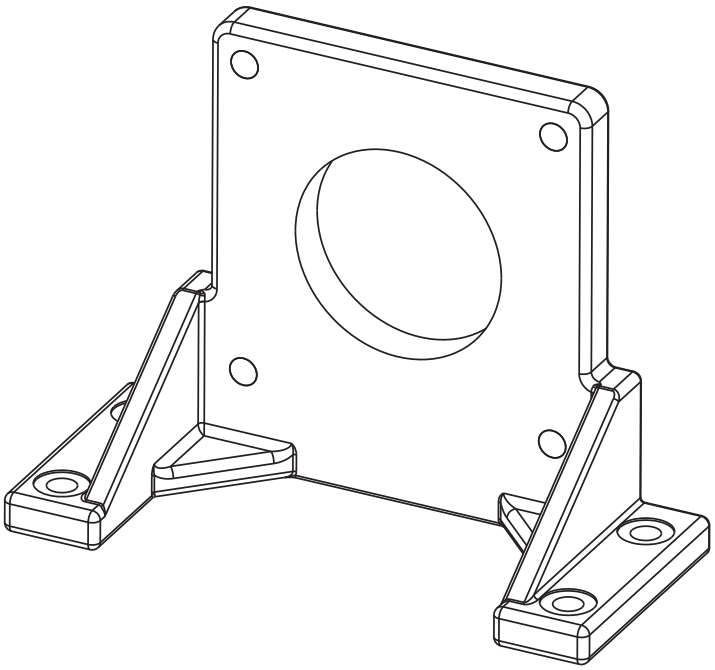
Shaft torque limits in^3 / rev x psi (ml / rev x bar)	
Shaft	Vp x p max. (P1+P2)
1	64039 (72372)
2	30638 (34590)
3	54207 (61200)
4	60673 (68568)
5	60673 (68568)

Weight-88.5 Kgs.

INSTALLATION DRAWING

FOOT MOUNTING





Weight - 25 Kgs.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P1	042	8.07	132.3	52.50	198.5	49.87	188.5	47.96	181.3
	045	8.69	142.4	56.51	213.6	53.86	203.6	51.98	196.5
	050	9.67	158.5	62.88	237.7	60.24	227.7	58.36	220.6
	052	10.06	164.8	65.40	247.2	62.75	237.2	60.87	230.1
	057	11.02	180.7	71.71	271.1	69.07	261.1	67.19	254.0
	062	12.00	196.7	78.04	295.0	75.40	285.0	73.52	277.9
	066	13.02	213.3	84.63	319.9	81.98	309.9	80.11	302.8
	072	13.86	227.1	90.11	340.6	87.46	330.6	85.58	323.5
	085	16.40	268.7	107.00	404.7	105.21	397.7	--	--

Pressure port	Series	Volumetric Displacement Vp		Input power p&n at 1500rpm					
				p = 7 bar (100 psi)		p = 140bar(2000psi)		p = 240bar(3500psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P1	042	8.07	132.3	6.97	5.2	66.25	49.4	110.77	82.6
	045	8.69	142.4	7.24	5.4	70.94	52.9	118.95	88.7
	050	9.67	158.5	7.64	5.7	78.45	58.5	131.82	98.3
	052	10.06	164.8	7.78	5.8	81.53	60.8	136.92	102.1
	057	11.02	180.7	8.18	6.1	89.04	66.4	143.35	106.9
	062	12.00	196.7	8.58	6.4	96.42	71.9	162.67	121.3
	066	13.02	213.3	8.98	6.7	104.20	77.7	175.94	131.2
	072	13.86	227.1	9.25	6.9	110.77	82.6	187.07	139.5
	085	16.40	268.7	9.78	7.3	87.56	65.3	--	--

* Max, int. pressure 240 bar
* Max, cont. pressure 210 bar

Measurement Conditions: ISO VG32 oil at 50°C

Note : 085 = 90 bar (1300 psi) max. int. & 085 = 2000 rpm max.

OPERATING CHARACTERISTICS (24 cSt)

Pressure port	Series	Volumetric Displacement Vp		Flow q (lpm) & n = 1500 rpm					
				p = 0 bar (0 psi)		p=140bar(2000psi)		p=240bar(3500psi)	
		in^3/rev	cm^3/rev	gpm	lpm	gpm	lpm	gpm	lpm
P2	B14	2.68	43.9	18.88	71.40	16.42	62.10	14.78	55.95
	B17	3.36	55.0	23.10	87.30	20.60	78.00	18.99	71.88
	B20	4.03	66.0	26.19	99.00	23.73	89.70	22.08	83.58
	B22	4.29	70.3	28.85	109.21	26.41	99.97	25.31	95.81
	B24	4.95	81.1	31.56	119.3	29.10	110.00	27.46	103.95
	B28	5.49	89.9	35.58	134.50	33.12	125.20	31.48	119.16
	B31	6.05	99.1	39.00	147.50	36.53	138.10	34.89	132.07
	B35	6.92	113.4	44.04	166.50	41.58	157.20	39.94	151.18
	B38	7.36	120.6	47.72	180.40	45.26	171.10	43.62	165.12
	B42	8.39	137.5	53.96	204.00	51.50	194.70	49.86	188.74

Pressure port	Series	Volumetric Displacement Vp		Input power p & n = 1500 rpm					
				p = 7 bar (100 psi)		p = 140 bar (2000 psi)		p = 240 bar (3500 psi)	
		in^3/rev	cm^3/rev	hp	kw	hp	kw	hp	kw
P2	B14	2.68	43.9	3.08	2.3	24.81	18.5	41.03	30.6
	B17	3.36	55.0	3.35	2.5	29.77	22.2	49.62	37.0
	B20	4.03	66.0	3.75	2.8	33.39	24.9	55.92	41.7
	B22	4.29	70.3	4.00	2.9	36.50	27.7	63.80	46.6
	B24	4.95	81.1	4.02	3.0	39.69	29.6	66.78	49.8
	B28	5.49	89.9	4.29	3.2	44.52	33.2	74.96	55.9
	B31	6.05	99.1	4.42	3.3	48.54	36.2	81.80	61.0
	B35	6.92	113.4	4.69	3.5	54.58	40.7	92.13	68.7
	B38	7.36	120.6	4.96	3.7	58.87	43.9	99.64	74.3
	B42	8.39	137.5	5.36	4.0	66.25	49.4	112.24	83.7

Max, int. pressure 240 bar
Max, cont. pressure 210 bar
Measurement Conditions: ISO VG32 oil at 50°C

CONSTRUCTION

1. Key
2. Shaft
3. Shaft Seal
4. Bearing
5. Retaining Ring
6. Mounting Flange
7. Cartridge
8. Housing
9. Bolts
10. Cartridge
11. Endcap
12. Bolts