

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SISTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ

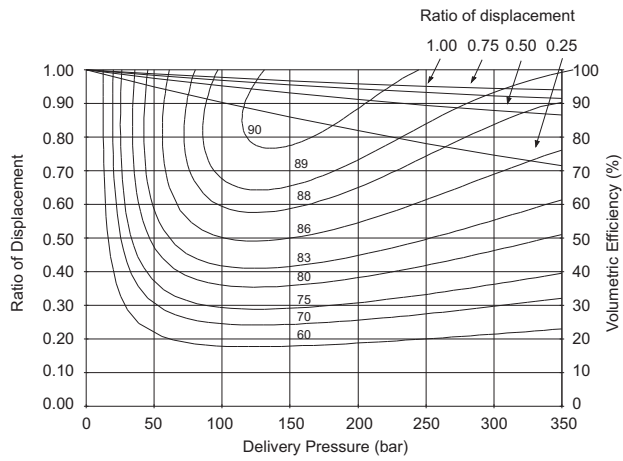
Pumps

Industrial Products

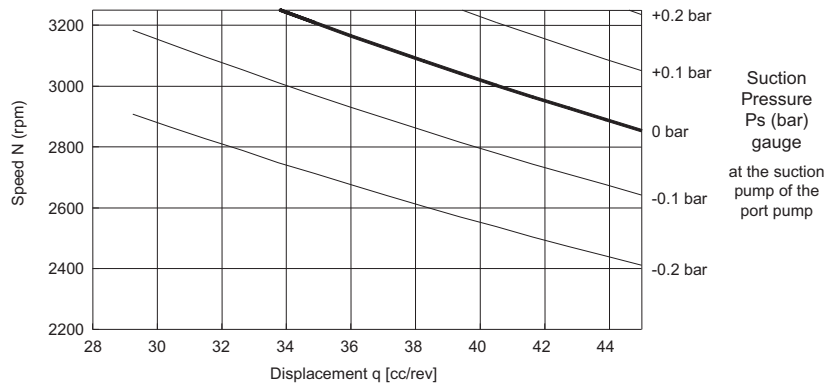
Ordering Code – K3VLSeries																																																					
<div style="text-align: center; font-family: monospace; font-size: 1.2em; margin-bottom: 10px;"> K3VL 80 / B - 1 0 R S S - L 0 A 12D - /1-H* </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>K3VL Series Pump</p> <hr/> <p>Maximum displacement</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px;">45</td><td>45 cm³/rev</td></tr> <tr><td>60</td><td>60 cm³/rev</td></tr> <tr><td>80</td><td>80 cm³/rev</td></tr> <tr><td>112</td><td>112 cm³/rev</td></tr> <tr><td>140</td><td>140 cm³/rev</td></tr> <tr><td>200</td><td>200 cm³/rev</td></tr> </table> <hr/> <p>Design series</p> <p>B</p> <hr/> <p>Hydraulic Fluid Type</p> <p>- Mineral oil W Water glycol (not K3VL 200)</p> <p><i>All other fluids contact Kawasaki</i></p> <hr/> <p>Circuit Type</p> <p>1 Open Circuit</p> <hr/> <p>Through drive & porting</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px;">0</td><td>Single pump, side ported</td></tr> <tr><td>A</td><td>SAE-A through drive, side ported</td></tr> <tr><td>B</td><td>SAE-B through drive, side ported</td></tr> <tr><td>BB</td><td>SAE-BB through drive, side ported</td></tr> <tr><td>C</td><td>SAE-C through drive, side ported</td></tr> <tr><td>D</td><td>SAE-D through drive, side ported</td></tr> <tr><td>E</td><td>SAE-E (K3VL 200 only)</td></tr> <tr><td>R</td><td>Single pump, rear ported</td></tr> <tr><td>S</td><td>Single pump with plastic cover (Stock Pump)</td></tr> <tr><td>N</td><td>Single pump with Steel cover, side ported</td></tr> </table> <hr/> <p>Direction of rotation</p> <p>R Clockwise rotation L Counter-clockwise rotation</p> <hr/> <p>Mounting angle & shaft</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 20px;">S</td><td>SAE spline & mount (see drawing for detail)</td></tr> <tr><td>M</td><td>ISO key & mount (see drawing for detail) (not 200)</td></tr> <tr><td>F</td><td>SAE-D mount with SAE-F spline shaft</td></tr> <tr><td>K</td><td>SAE key & mount (see drawing for detail)</td></tr> <tr><td>T*</td><td>SAE-B spline & SAE- B 2 bolt mount for 45 (not 80) SAE- CC spline & SAE- D 4 bolt mount for 112/140 (not 200)</td></tr> <tr><td>U*</td><td>45 only, SAE-B key & SAE-B 2 bolt mount</td></tr> <tr><td>C*</td><td>112/140 only, SAE-C spline & SAE- C 2 bolt mount</td></tr> <tr><td>R*</td><td>112/140 only, SAE- C spline & SAE- D 4 bolt mount</td></tr> <tr><td>X*</td><td>112/140 only, SAE- C key & SAE- C 2 bolt mount</td></tr> <tr><td>W*</td><td>112/140 only, SAE -CC spline & SAE- C 2 bolt mount</td></tr> </table> <p>(*Non standard options)</p> </div> <div style="width: 50%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Additional control options</p> <p>Blank Without additional limiter</p> <p>Torque limit control</p> <p>/1-S* Special low setting contact Kawasaki</p> <p>/1-L* Low setting range</p> <p>/1-M* Medium setting range</p> <p>/1-H* High setting range</p> <p>Displacement control (Without torque limit)</p> <p>/1-E0 Electrical displacement control (pilot pressure required)</p> <p>/1-Q0 Pilot operated displacement control</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Unloader solenoid (Type N below)</p> <p>blank For all other options except PN & LN</p> <p>115A 115V AC, 50.60Hz, DIN 43550 Plug</p> <p>235A 230V AC, 50.60Hz, DIN 43550 Plug</p> <p>12D 12V DC, DIN 43550 Plug</p> <p>24D 24V DC, DIN 43550 Plug</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Design</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Additional pressure control</p> <p>0 No additional control</p> <p>N With integrated unloading valve</p> <p>V With integrated remote control valve</p> <p>M With integrated unloading control valve</p> <p>1 Load sensing only (R4 plugged)</p> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>Control device con guration</p> <p>P Remote pressure compensator</p> <p>L Load sensing & pressure control</p> </div> <div style="border: 1px solid black; padding: 5px;"> <p>Porting threads</p> <p>M Metric threaded</p> <p>S UNC threaded</p> </div> </div> </div>	45	45 cm ³ /rev	60	60 cm ³ /rev	80	80 cm ³ /rev	112	112 cm ³ /rev	140	140 cm ³ /rev	200	200 cm ³ /rev	0	Single pump, side ported	A	SAE-A through drive, side ported	B	SAE-B through drive, side ported	BB	SAE-BB through drive, side ported	C	SAE-C through drive, side ported	D	SAE-D through drive, side ported	E	SAE-E (K3VL 200 only)	R	Single pump, rear ported	S	Single pump with plastic cover (Stock Pump)	N	Single pump with Steel cover, side ported	S	SAE spline & mount (see drawing for detail)	M	ISO key & mount (see drawing for detail) (not 200)	F	SAE-D mount with SAE-F spline shaft	K	SAE key & mount (see drawing for detail)	T*	SAE-B spline & SAE- B 2 bolt mount for 45 (not 80) SAE- CC spline & SAE- D 4 bolt mount for 112/140 (not 200)	U*	45 only, SAE-B key & SAE-B 2 bolt mount	C*	112/140 only, SAE-C spline & SAE- C 2 bolt mount	R*	112/140 only, SAE- C spline & SAE- D 4 bolt mount	X*	112/140 only, SAE- C key & SAE- C 2 bolt mount	W*	112/140 only, SAE -CC spline & SAE- C 2 bolt mount	
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Model K3VL	Page 12.	Data Sheet P-1002/02.09																																																			

Performance K3VL45

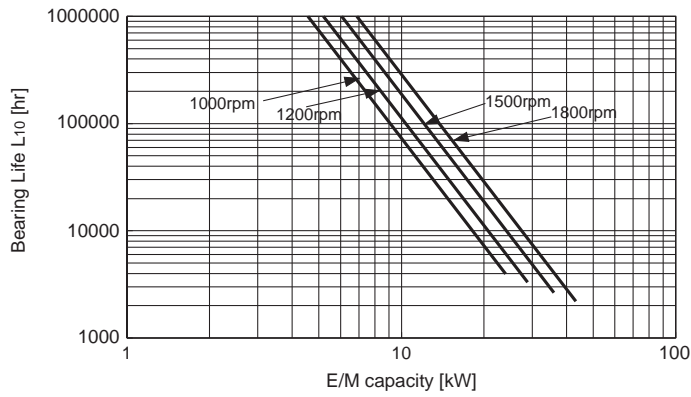
Pump Efficiency (%)



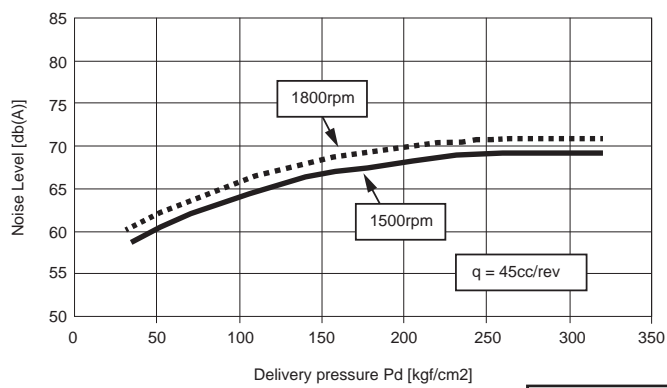
Self Priming Capability



Bearing Life

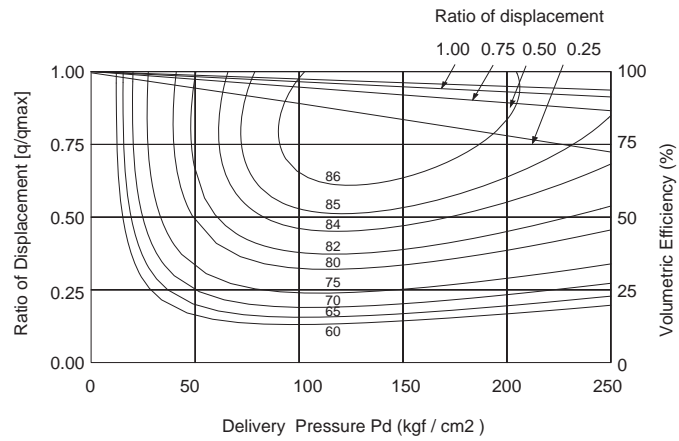


Noise Level

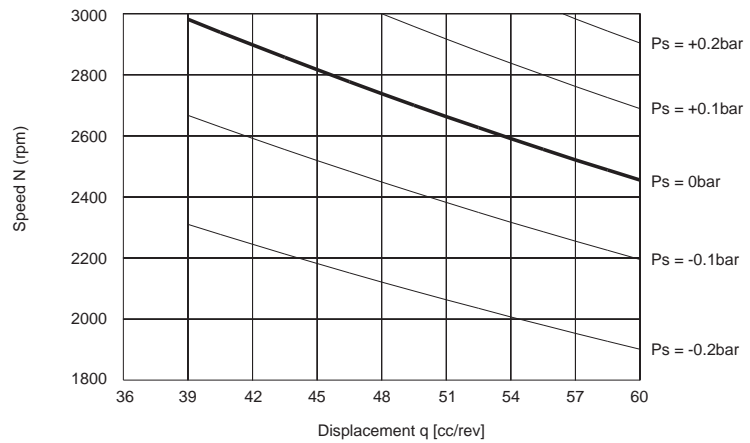


Performance K3VL60

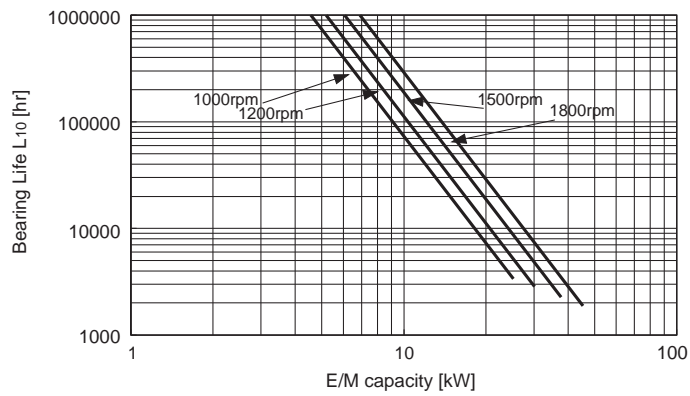
Pump Efficiency (%)



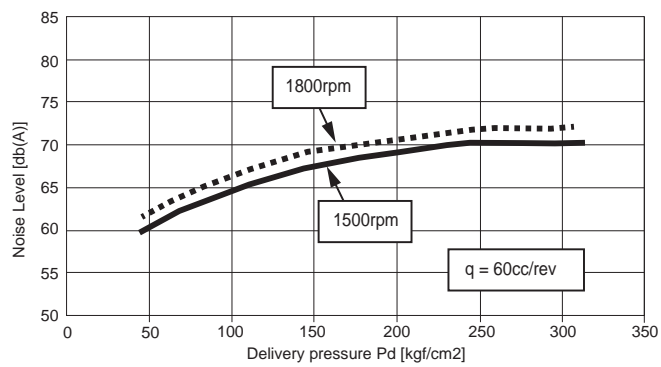
Self Priming Capability



Bearing Life

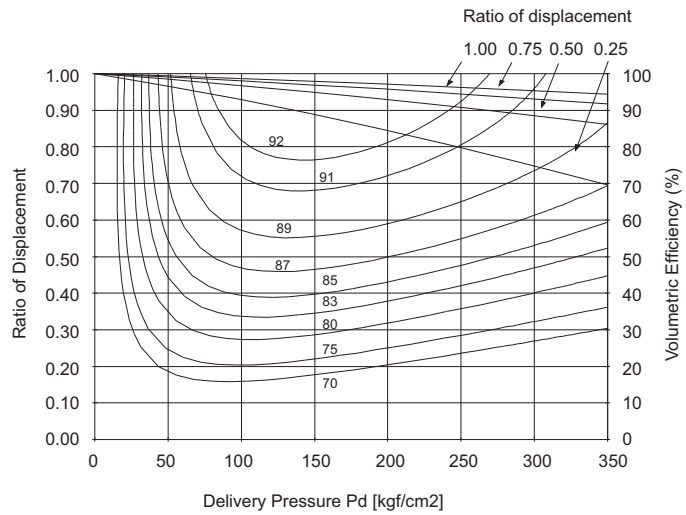


Noise Level

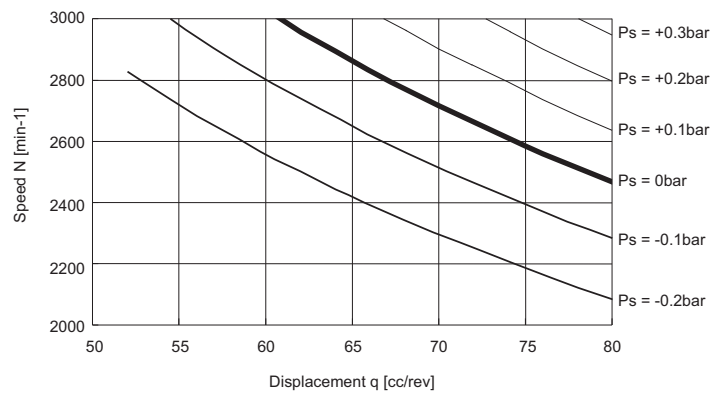


Performance K3VL80

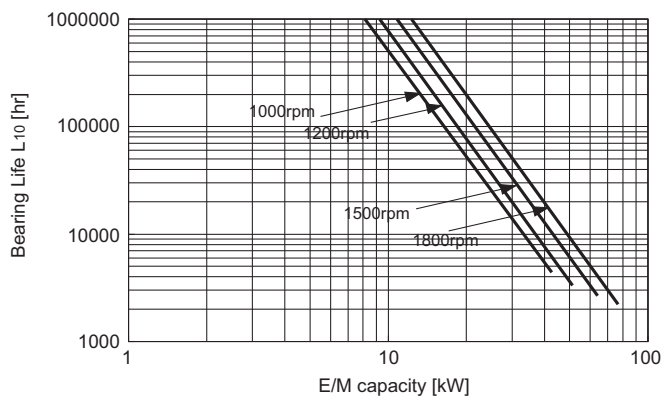
Pump Efficiency (%)



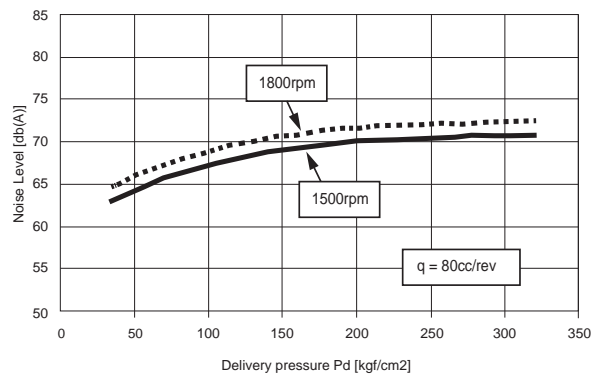
Self Priming Capability



Bearing Life

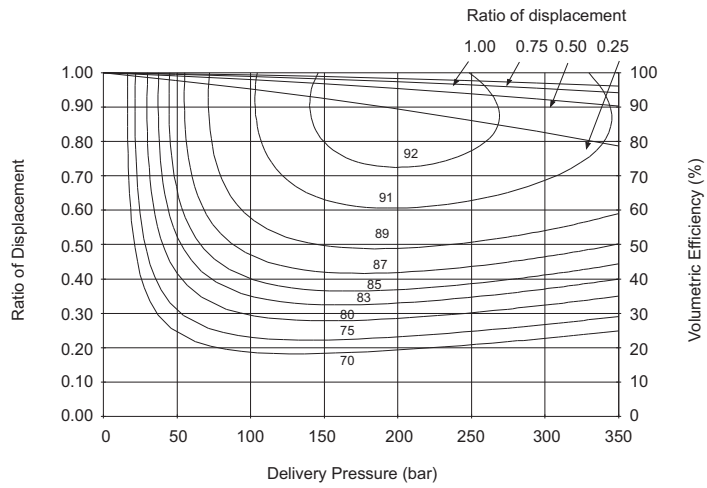


Noise Level

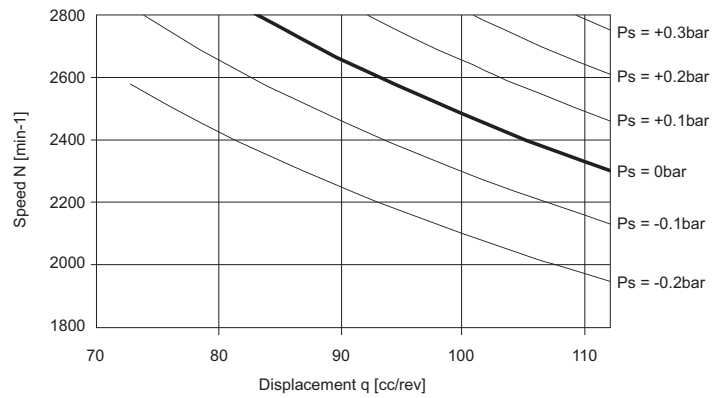


Performance K3VL112

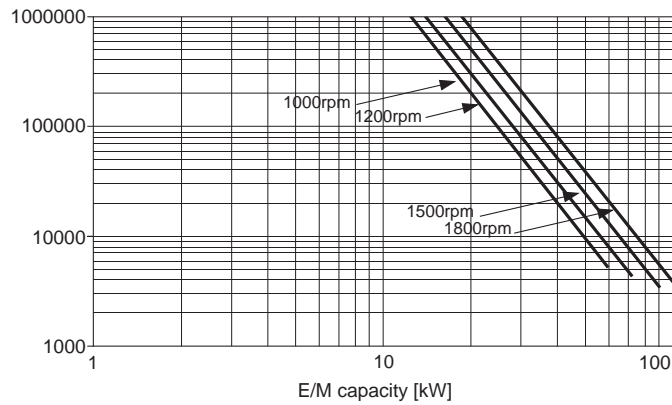
Pump Efficiency (%)



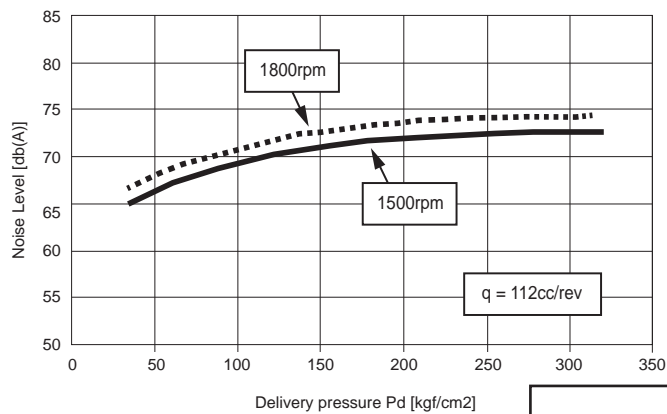
Self Priming Capability



Bearing Life

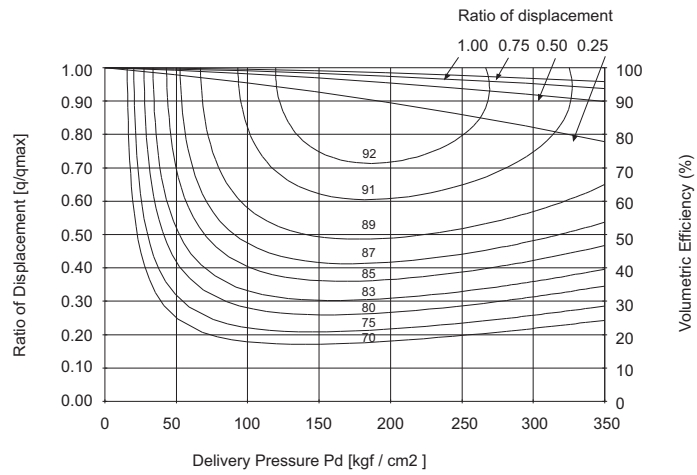


Noise Level

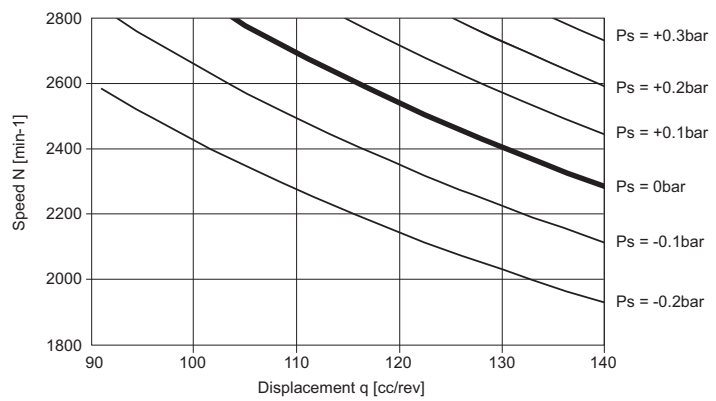


Performance K3VL140

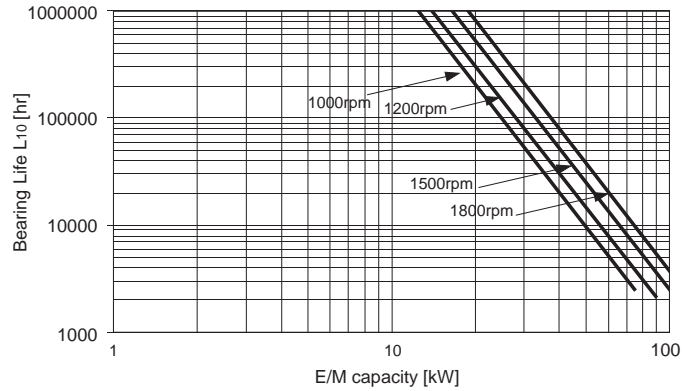
Pump Efficiency (%)



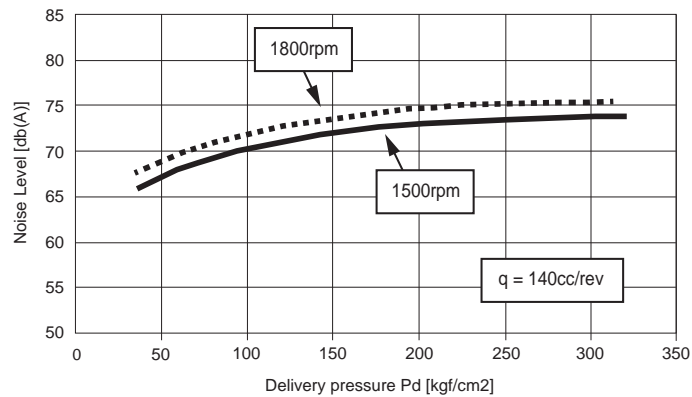
Self Priming Capability



Bearing Life

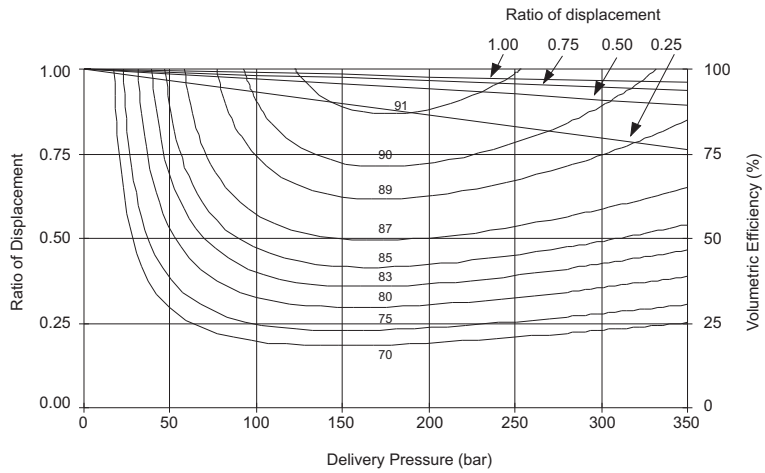


Noise Level

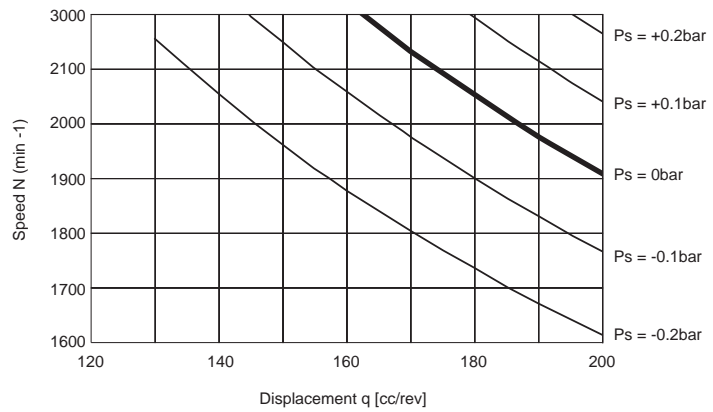


Performance K3VL200

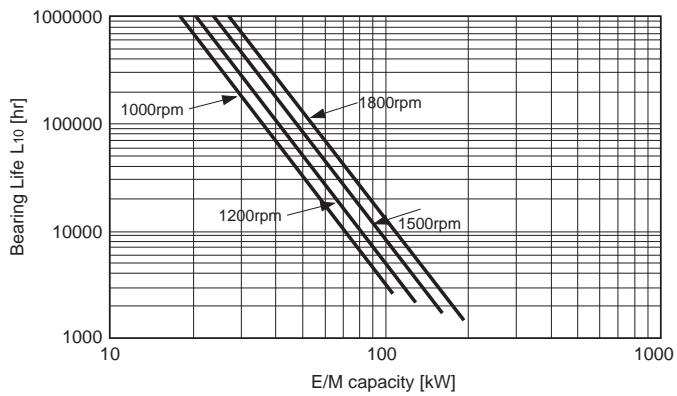
Pump Efficiency (%)



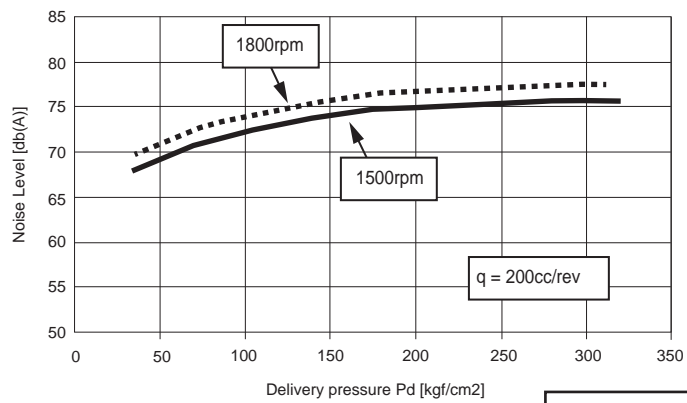
Self Priming Capability



Bearing Life



Noise Level



Torque Limiter Settings

The following tabulations show the power limitation at various electric motor speeds for a specific pump. When selecting a control setting please ensure that the power limitation of a particularly sized electric motor to your national standard is not exceeded.

K3VL45				
KW	970	1150	1450	1750
3.7	S3	S4		
5.5	L3	S1	S3	S4
7.5	L1	L2	L4	S2
11	M1	M3	L1	L2
15	H3	H4	M2	M4
18.5		H2	H4	M2
22			H3	H4
30				H1
37				
45				
55				
75				
90				


K3VL60				
KW	970	1150	1450	1750
3.7				
5.5	S2	S4		
7.5	L4	S1	S3	
11	M4	L2	L4	S1
15	M2	M3	L1	L3
18.5	H2	M1	M3	L1
22		H2	M2	M3
30			H1	H3
37				H1
45				
55				
75				
90				

K3VL80				
KW	970	1150	1450	1750
3.7				
5.5	S2	S4		
7.5	L6	S1	S3	
11	L2	L4	L6	S1
15	M4	L1	L3	L5
18.5	M1	M3	L1	L3
22	H3	M1	M4	L1
30	H1	H2	H4	M2
37			H2	H4
45			H1	H2
55				H1
75				
90				

K3VL112				
KW	970	1150	1450	1750
3.7				
5.5				
7.5	S5	S6		
11	S1	S3	S5	S6
15	L3	L4	S2	S4
18.5	M4	L2	L4	S2
22	M2	M4	L3	L4
30	H4	M1	M3	L1
37	H2	H3	M1	M3
45		H2	H4	M1
55			H2	H4
75				H1
90				

K3VL140				
KW	970	1150	1450	1750
3.7				
5.5				
7.5				
11	S2	S4		
15	L6	S1	S3	
18.5	L3	L5	S1	S3
22	L1	L3	L6	S1
30	M2	M3	L2	L4
37	H4	M1	M3	L2
45	H2	H4	M2	M3
55		H2	H4	M2
75			H1	H3
90				H1

K3VL200				
KW	970	1150	1450	1750
3.7				
5.5				
7.5				
11				
15				
18.5	S1			
22	L4	S1		
30	L2	L3	L5	S2
37	M3	L1	L3	L5
45	M1	M3	L2	L3
55	H5	M1	M3	L2
75	H1	H3	H6	M2
90		H1	H4	H6
110			H2	H4
132				H2

 **S-rating Springs**
Please contact Kawasaki

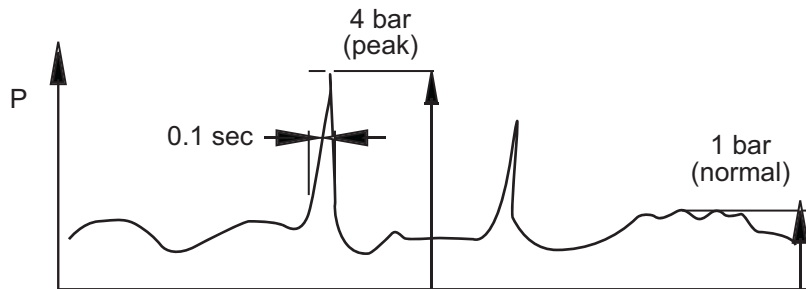


Installation

Recommended Pump Mounting

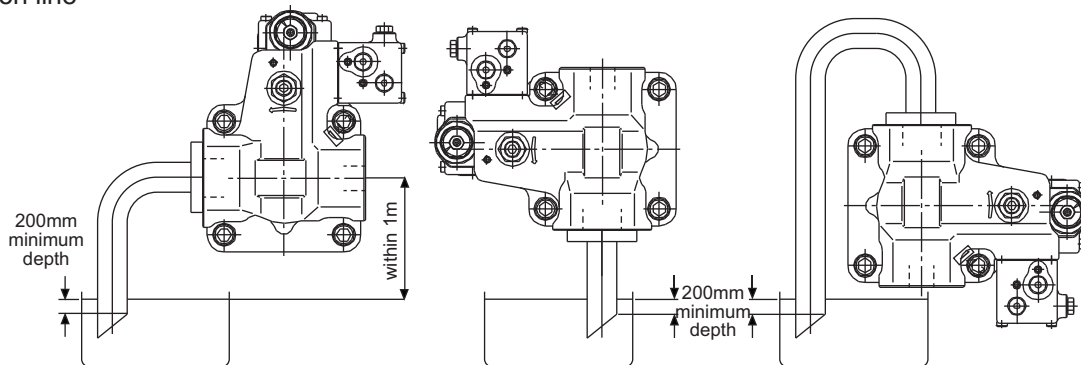
The pump should be mounted horizontally with the case drain piping initially rising above the level of the pump before continuing to the tank as shown in the illustration below. Do not connect the drain line to the suction line.

The uppermost drain port should be used and the drain piping should be equal or larger in size than the drain port to minimise pressure in the pump case. The pump case pressure should not exceed 1 bar as shown in the illustration below. (Peak pressure should never exceed 4 bar.)



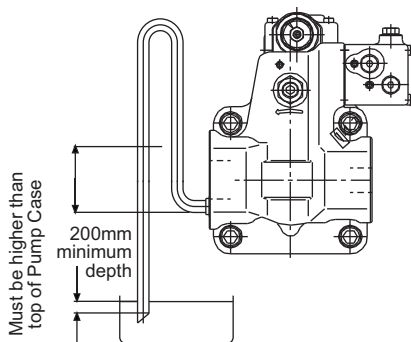
Mounting the Pump Above the Tank

Suction line



Drain line

“Goose neck” configuration is required, this prevents direct drop of oil level in the pump case.



Cautions

- A) Suction and drain pipes must be immersed by 200mm minimum from the lowest oil level under operating conditions.
- B) Height from the oil level to the centre of the shaft must be within 1m.
- C) The oil in the pump case must be refilled when the pump has not been operated for one month or longer.

Installation (continued)

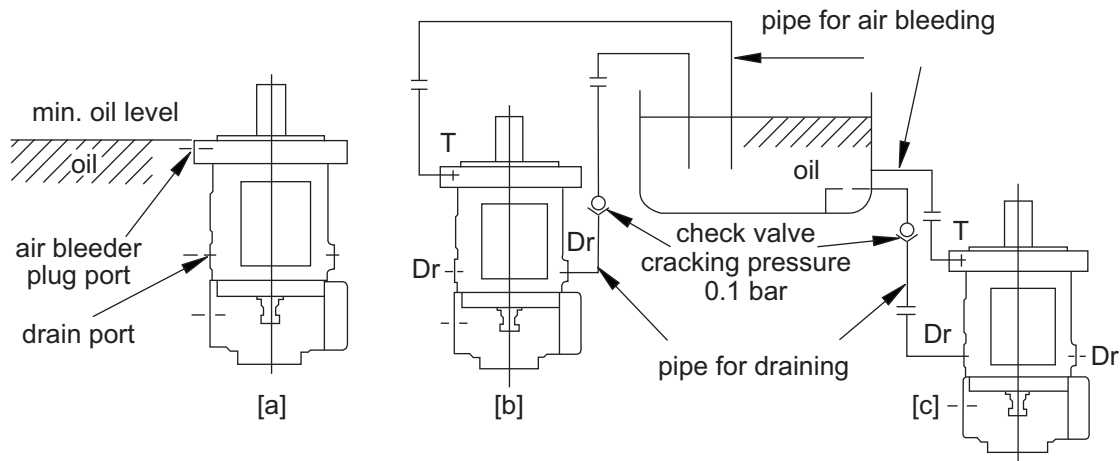
Mounting the Pump Vertically (shaft up)

For applications requiring vertical installation (shaft up) please remove the air bleed plug and connect piping as shown in the illustration below.

The oil level in the tank should be higher than the pump-mounting flange as shown in illustration [a] below. If the oil level in the tank is lower than the pump mounting flange then forced lubrication is required through the air bleed port 1 ~ 2 l/min.

When installing the pump in the tank and submerged in the oil, open the drain port and air bleed port to provide adequate lubrication to the internal components.

When installing the pump outside the tank run piping for the drain and air bleed ports to tank (see illustration [c]). If the drain or air bleed piping rise above the level of oil (see illustration [b]) fill the lines with oil before operation. motor to your national standard is not exceeded.



A check valve with cracking pressure of 0.1 bar should be fitted to the case drain line as shown. Recommended Kawasaki check valves are as follows: (refer to Kawasaki industrial valve information - data sheet C1001)

Model	Recommended Kawasaki check valve
K3VL45/60	C10G – 10/01-*
K3VL80	C15G – 10/01-*
K3VL112	C15G – 10/01-*
K3VL140	C15G – 10/01-*
K3VL200	C15G – 10/01-*

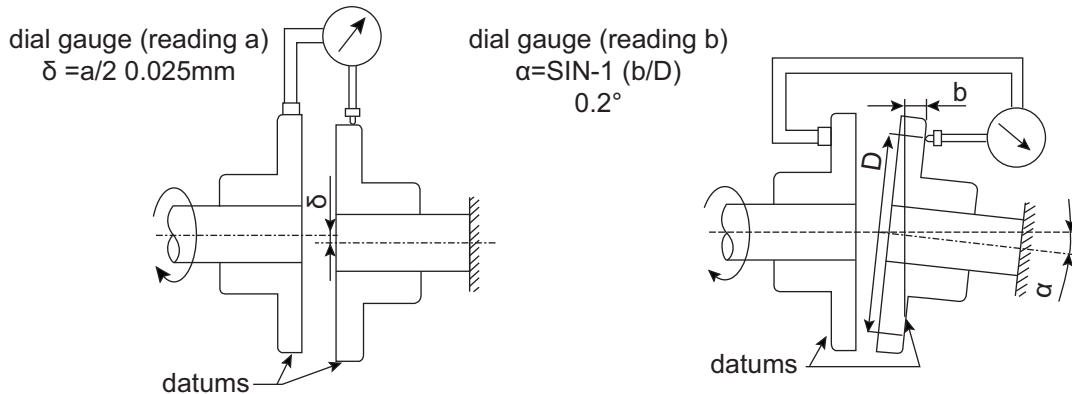


Drive Shaft Coupling

Use a flexible coupling to connect the pump shaft to an engine flywheel or electric motor shaft. Alignment should be within 0.05mm TIR as shown in the illustration below.

Do not apply any radial or axial loading to the pump shaft. For applications where radial or side loads exist please contact Kawasaki Precision Machinery (UK) Ltd. for recommendations.

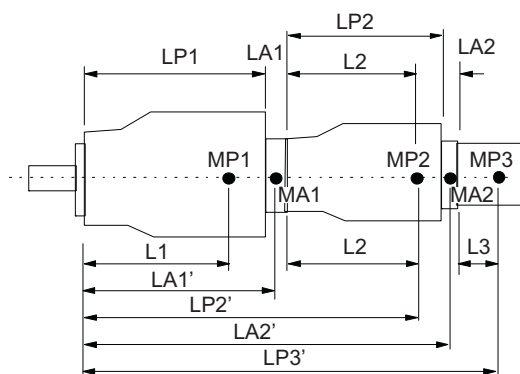
Do not force the coupling on or off the pump shaft. Use the threaded hole in the end of the pump shaft to fix or remove the coupling.



For engine drives a split type pinch bolt drive flange and flexible coupling is recommended.

Through Drive Limitations

Apart from predefined maximum throughput limitations, one must also ensure that to prevent a possible excessive bending moment occurring that the maximum combined bending moment of the combination is not exceeded as determined in the following expression



- MPX = mass of pump [kg]
- LPX = length of pump [mm]
- Lx = distance of CofG from pump mounting face [mm]
- MAX = mass of adaptor kit [kg]
- LAX = width of adaptor kit [mm]

$$\begin{aligned} \text{Bending Moment} = & ((L1 \cdot mP1) + (LA1' \cdot mA1) + (LP2' \cdot mP2) + (LA2' \cdot mA2) + LP3' \cdot mP3) + \dots / 102 [\text{Nm}] \\ & ((L1 \cdot mP1) \\ & + (LP1 + (LA1/2)) \cdot mA1 \\ & + (LP1 + LA1 + L2) \cdot mP2 \\ & + (LP1 + LA1 + LP2(LA2/2)) \cdot mA2 \\ & + (LP1 + LA1 + LP2 + LA2) \cdot mP3 \\ & + \dots) / 102 \end{aligned}$$



Through Drive Limitations (continued)**Pump overall length [mm] (Lp)**

Pump Size	Single Pump Type "0"	Stock Pump Type "S"
45/60	244	244
80	272	272
112/140	308	308
200	359	359

Pump approximate weight [kg] (Mp)

Pump Size	Without torque limiter		With torque limiter	
	Single Pump Type "0"	Stock Pump Type "S"	Single Pump Type "0"	Stock Pump Type "S"
45/60	25	28	27	30
80	35	38	37	40
112/140	65	69	67	71
200	95	103	97	105

Pump CofG from mount [mm] (L)

Pump Size	Single Pump Type "0"	Stock Pump Type "S"
45/60	120	120
80	130	130
112/140	150	150
200	190	190

Pump Size	Maximum Permissible Bending Moment (Nm)
45/60	137
80	244
112/140	462
200	930

Adaptor Kits weight (Ma) & Width (La)			
Pump size	Adaptor Kit	Weight (Max)	Width (Lax)
45/60	SAE "A"	0	0
	SAE "B" & "BB"	2	20
80	SAE "A"	0	0
	SAE "B" & "BB"	3	20
	SAE "C"	4	24.5
112 & 140	SAE "A"	0	0
	SAE "B" & "BB"	3	25
	SAE "C" & "CC"	5	30
	SAE "D"	10	43
200	SAE "A"	1	6
	SAE "B" & "BB"	8	25
	SAE "C" & "CC"	8	30
	SAE "D"	10	38
	SAE "E"	15	38

Electrical Displacement Control Application

The standard minimum flow setting for the K3VL pump is 0.5-3.0% of the maximum pump delivery. The pumps minimum displacement stop can be modified if a greater minimum flow rate is required. In order for the electronic displacement control to function, a minimum pilot pressure for 40 bar must be supplied to the Psv port on the regulator. A gear pump attached to the rear of the K3VL pump or an external pressure source can be used to provide the required pilot pressure.

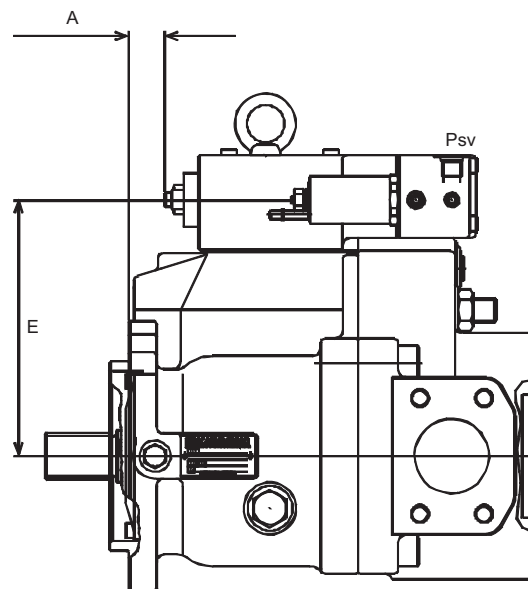
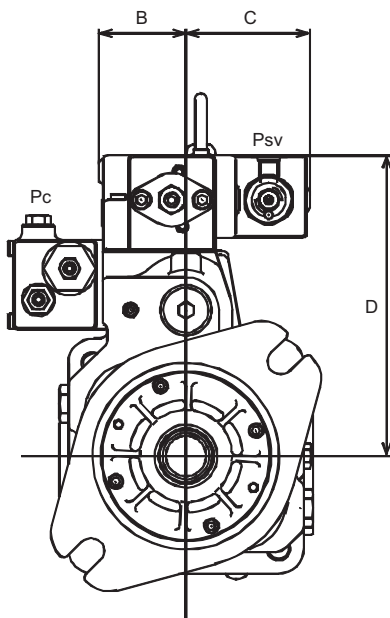
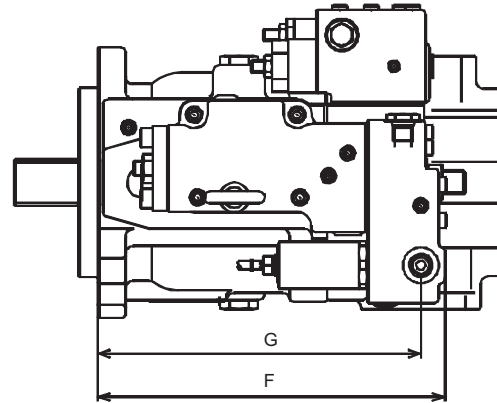
Proportional Pressure Reducing Valve Specification

Maximum Pilot Pressure	:	50 bar If higher pressure required contact KPM
Max Flow	:	10 l/min
Hydraulic oil	:	Mineral oil
Oil temp range	:	-20~+90°C
Viscosity range	:	5~500 cst
Allowable contamination	:	NAS grade 10 and below
Electrical specifications,		
Rated current	:	700 mA
Recommended dither	:	80 Hz / 200 mAp-p
Coil resistance	:	17.5 (at 20°C)
Ambient temperature range	:	-30~+80°C
Water resistance	:	According to JIS D 0203 S2



Unit Dimensions (continued)

Electrical Displacement Control



Installation Dimensions (mm)

Pump Size	A	B	C	D	E	F	G
K3VL45/60	21	52	90	187	157	226	210
K3VL80	25	59	83	202	172	233	217
K3VL112/140	38	64	78	244	214	247	231
K3VL200	57	61	80	258	229	257	249



Unit Dimensions (continued)

Unloading valve module (Type N,M)

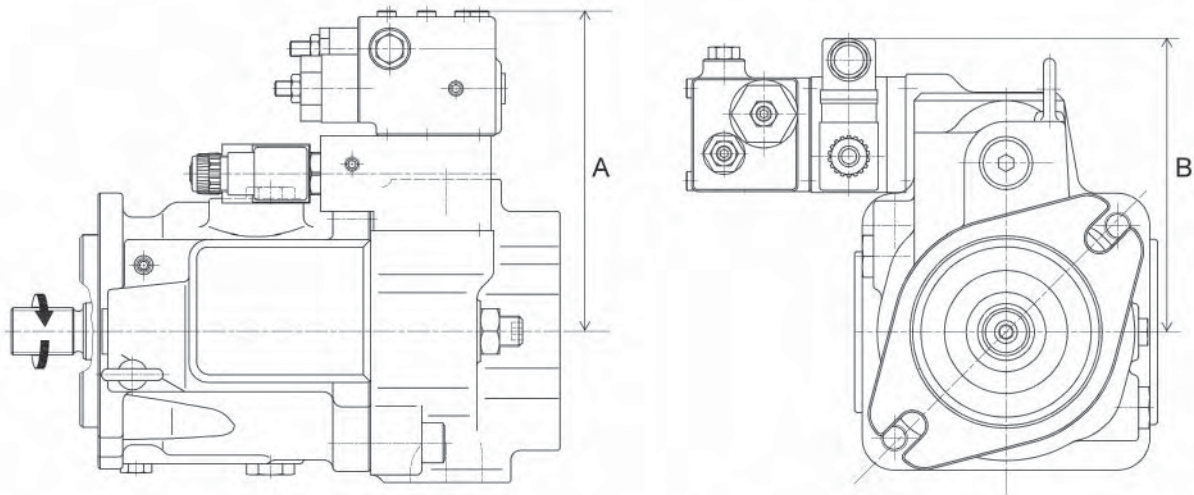
	A	B
K3VL45-60	169	155
K3VL80	169	166
K3VL112/140	202	190
K3VL200	212	205

Proportional pressure module (*V)

	A	B
K3VL45-60	179	233
K3VL80	179	244
K3VL112/140	212	280
K3VL200	222	295

A: Distance between the centre line of the pump and the top of the bolt head for the cut off regulator.

B: Distance between the centre line of the pump and top of the solenoid valve.

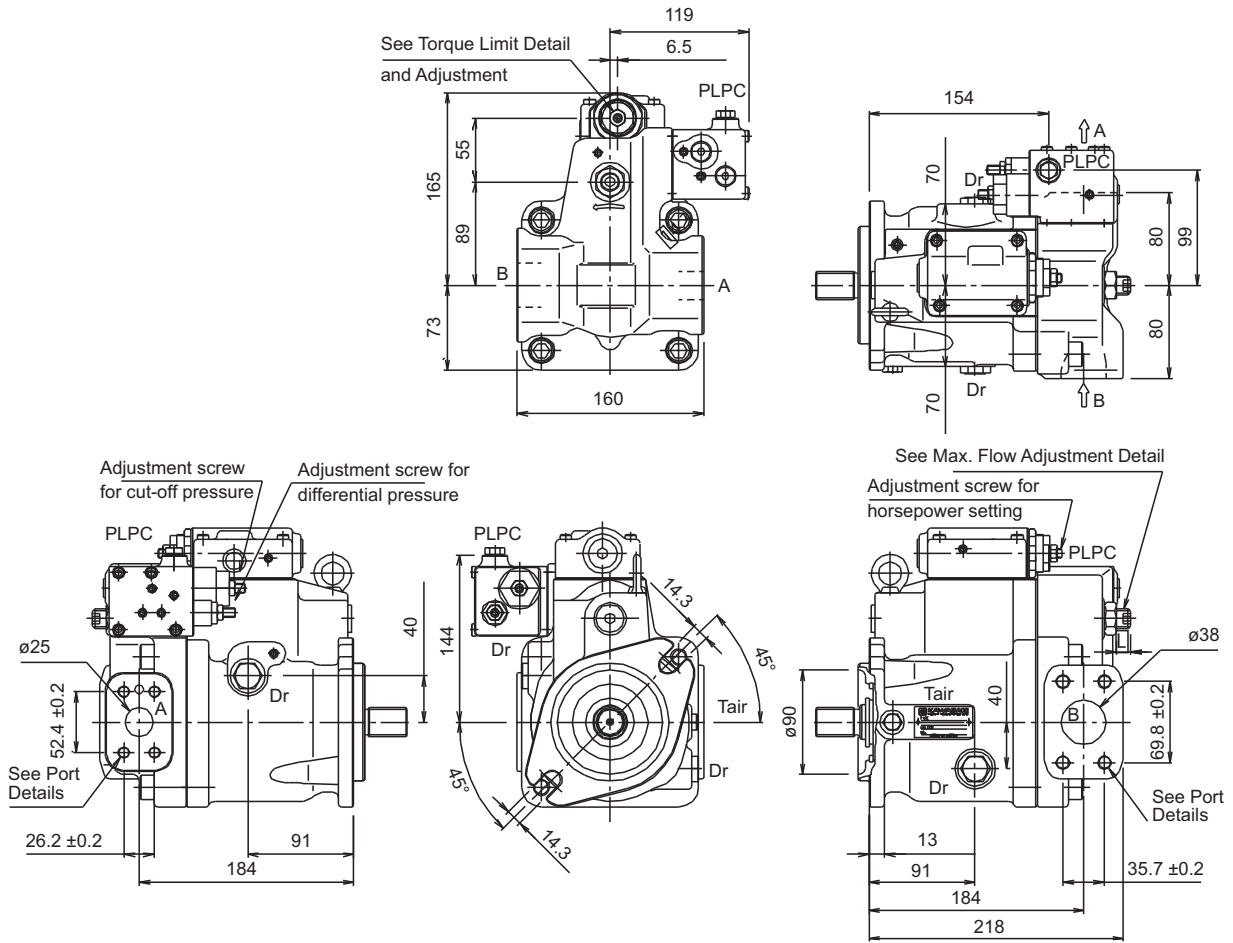


Unit Dimensions

K3VL45/60 Installation

K3VL45 with Cut-Off / Load Sense Control
& Torque Limit Module (Clockwise Rotation)

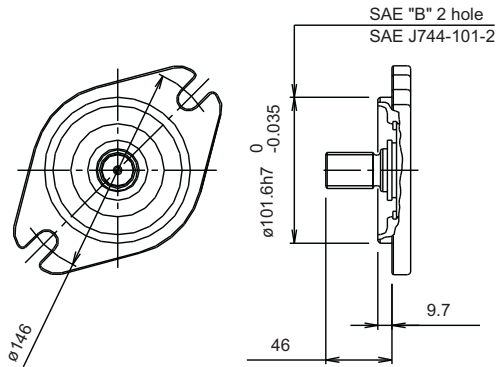
Note
for counter clockwise rotation,
the suction port "B" and the
delivery port "A" are reversed



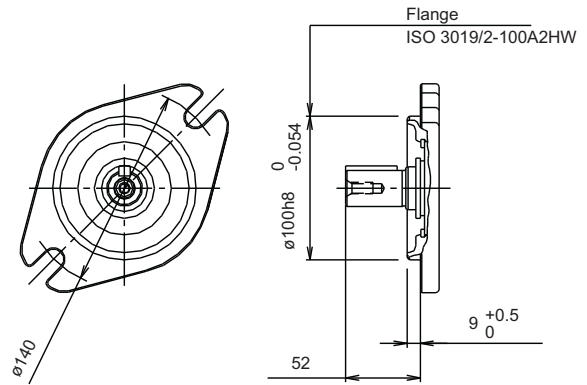
Unit Dimensions (continued)

K3VL45/60 Mounting Flange and Shaft Options

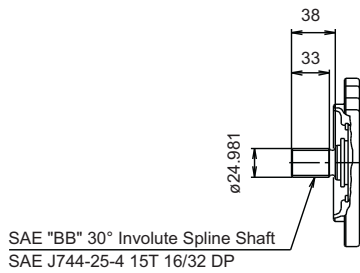
SAE Type



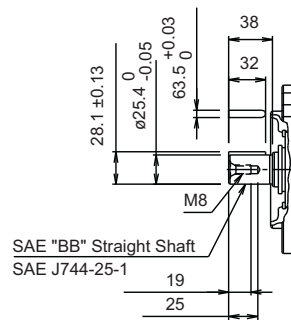
ISO Type



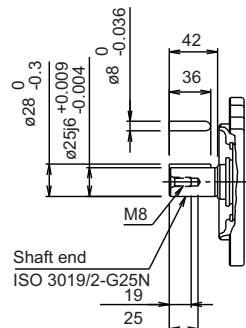
SAE Spline Shaft



SAE Straight Shaft

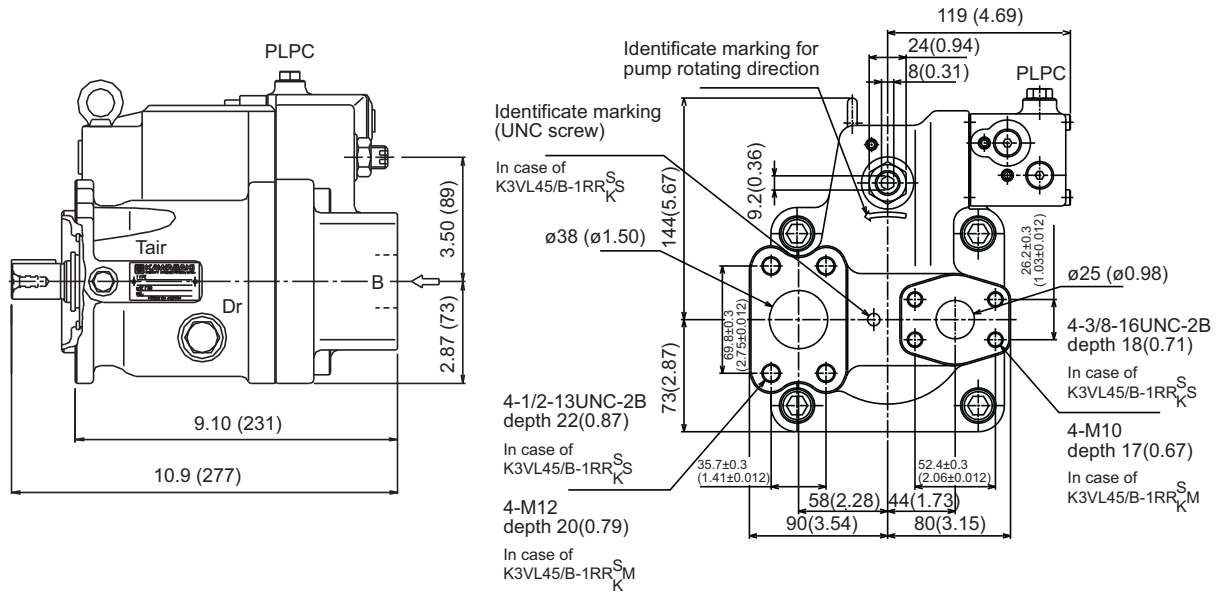


ISO Straight Shaft



Unit Dimensions (continued)

K3VL45/60 Rear Port



K3VL45 Porting Details

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
------	-----------	-----------	------------------------	----------------

UNF Threaded Version ("S" in position 9 of model code)

A	Delivery Port	SAE J518C Std pressure (code 61) 1"	57	3/8-16UNC-2B x 18mm
B	Suction Port	SAE J518C Std pressure (code 61) 1 1/2"	98	1/2-13UNC-2B x 22mm

Metric Version ("M" in position 9 of model code)

A	Delivery Port	SAE J518C Std pressure (code 61) 1"	57	M10 x 17
B	Suction Port	SAE J518C Std pressure (code 61) 1 1/2"	98	M12 x 20

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
------	-----------	-----------	------------------------

SAE Version ("S", "K", "U" or "T" in position 8 of model)

Dr	Drain Port (x2)	SAE J1926/1 Straight thread O ring boss 1/2" OD Tube 3/4-16UNF-2B	98
PLPC	Load Sensing Port Pressure Control Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12
Tair	Air Bleeder Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12

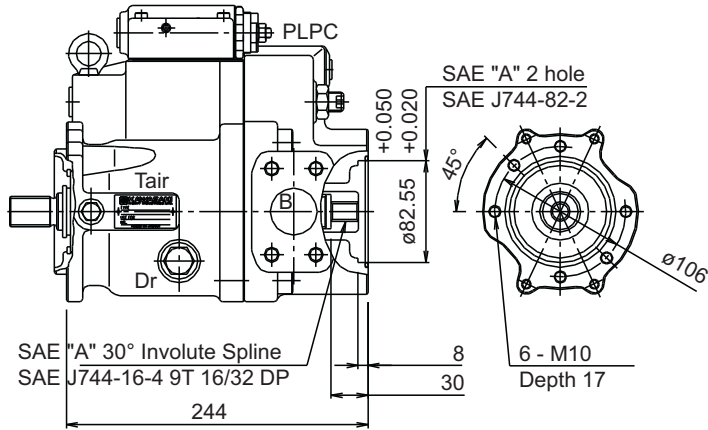
ISO Version ("M" in position 8 of model code)

Dr	Drain Port (x2)	M22 x 1.5 DIN 3852	98
PLPC	Load Sensing Port Pressure Control Port	M14 x 1.5 DIN 3852	25
Tair	Air Bleeder Port	M14 x 1.5 DIN 3852	25

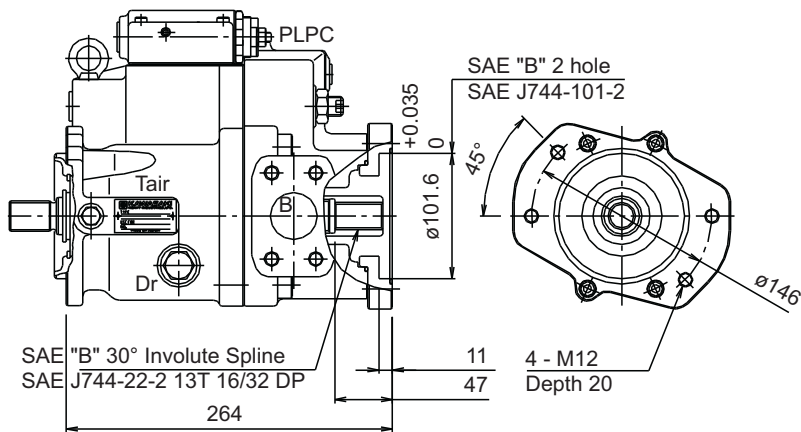
Unit Dimensions (continued)

K3VL45/60 Through Drive Options

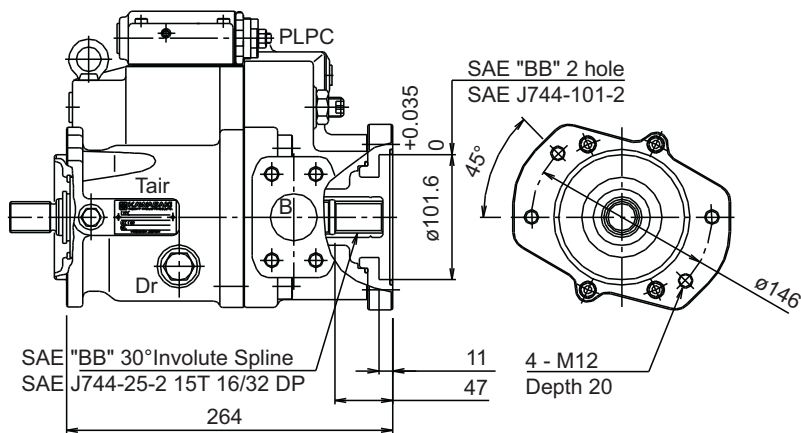
Through Drive "A"



Through Drive "B"

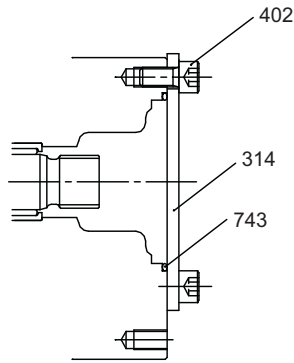


Through Drive "BB"

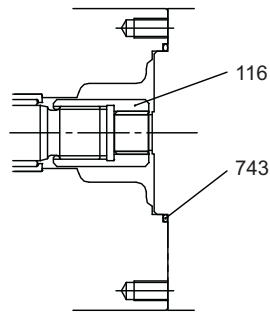


Unit Dimensions (continued)

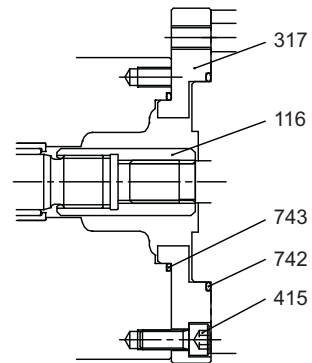
K3VL45/60 Adaptor Kits



Cover Kit



SAE "A"
T/D Kit



SAE "B" & "BB"
T/D Kit

No.	Part Name	QTY	Cover Kit	SAE "A" T/D Kit	SAE "B" T/D Kit	SAE "BB" T/D Kit
—	T/D Kit		29L8TN	29L4TA	29L4TB	29L4T2
743	T/D Kit	1	00RBG85	00RBG85	00RBG85	00RBG85
742	T/D Kit	1			00RBG105	00RBG105
415	T/D Kit	4			0SBM825	0SBM825
402	T/D Kit	2	0SBM1020			
317	T/D Kit	1			2924750-0358	2924750-0358
314	T/D Kit	1	2923150-0316			
116	T/D Kit	1		2903150-0264	2903150-0265	2903150-0266

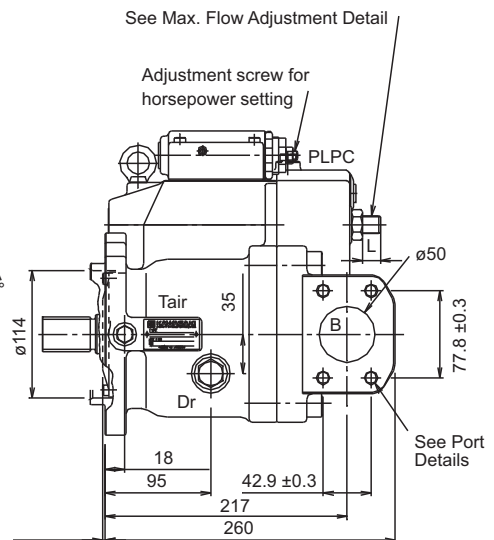
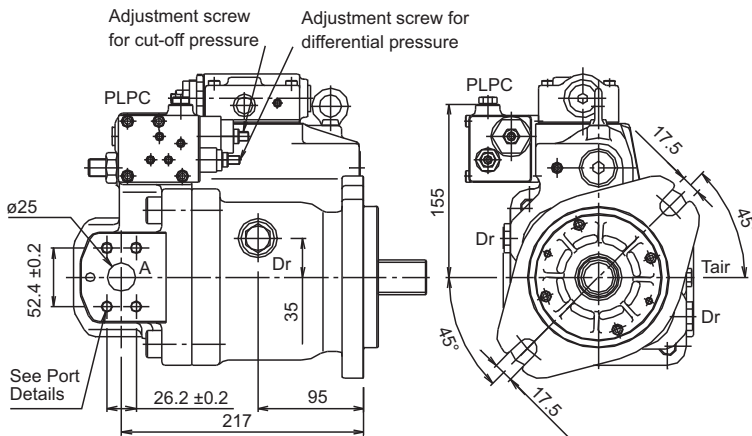
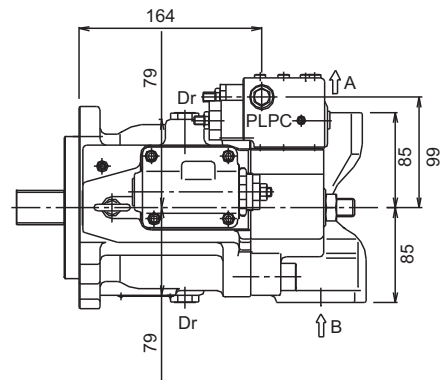
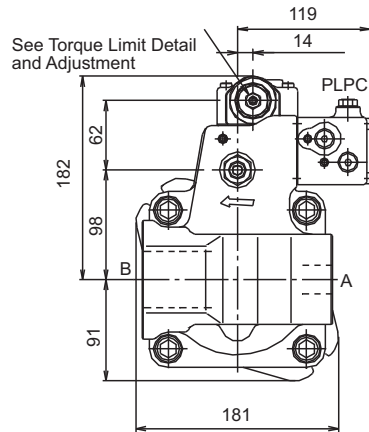


Unit Dimensions (continued)

K3VL80 Installation

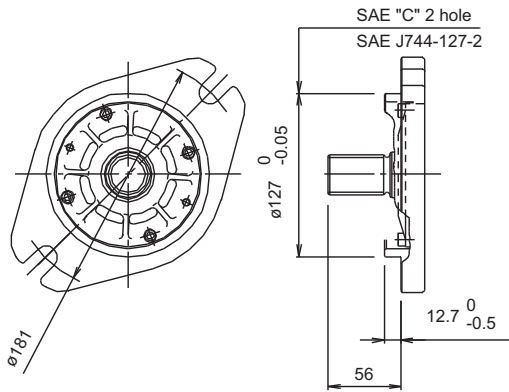
K3VL80 with Cut-Off / Load Sense Control
& Torque Limit Module (Clockwise Rotation)

Note
for counter clockwise rotation,
the suction port "B" and the
delivery port "A" are reversed

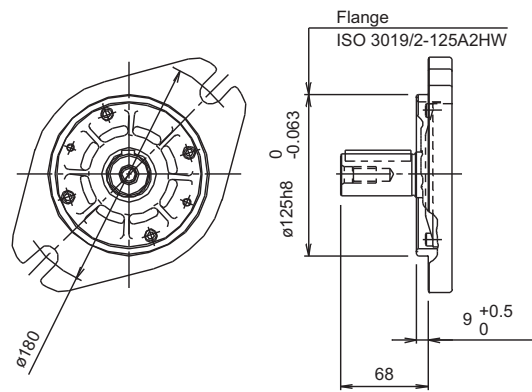


Unit Dimensions (continued)
K3VL80 Mounting Flange and Shaft Options

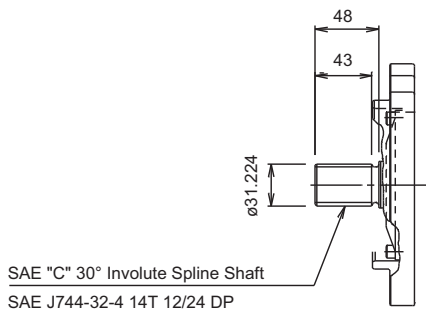
SAE Type



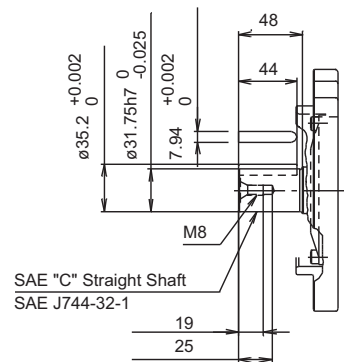
ISO Type



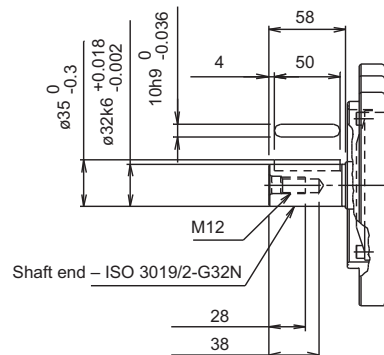
SAE Spline Shaft



SAE Straight Shaft

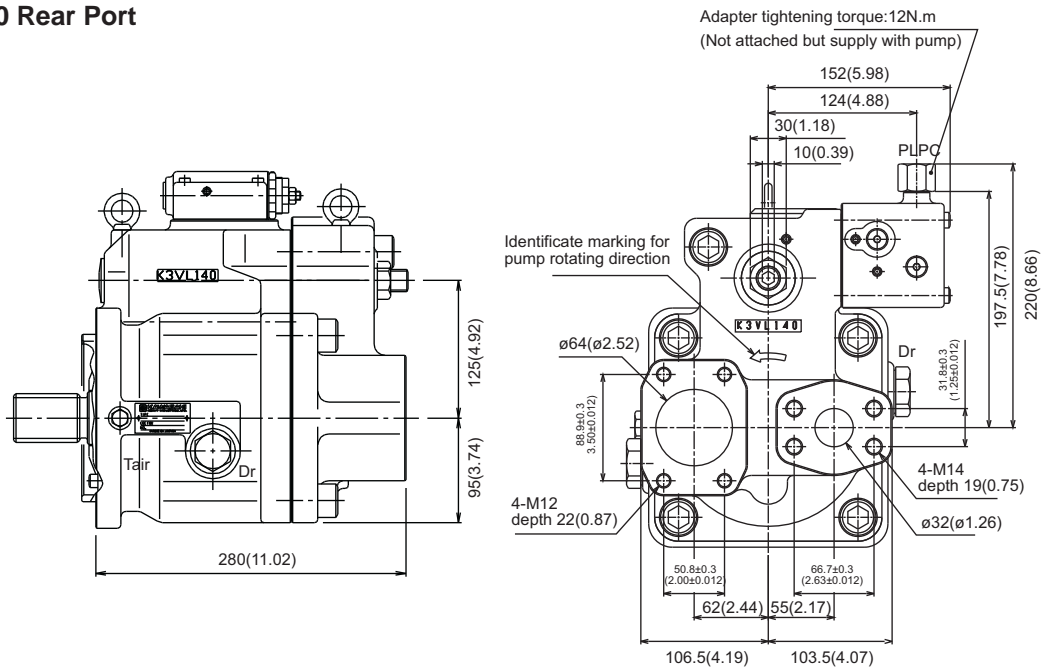


ISO Straight Shaft



Unit Dimensions (continued)

K3VL80 Rear Port



K3VL80 Porting Details

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
------	-----------	-----------	------------------------	----------------

UNF Threaded Version ("S" in position 9 of model code)

A	Delivery Port	SAE J518C Std pressure (code 61) 1"	57	3/8-16UNC-2B x 18mm
B	Suction Port	SAE J518C Std pressure (code 61) 2"	98	1/2-13UNC-2B x 22mm

Metric Version ("M" in position 9 of model code)

A	Delivery Port	SAE J518C Std pressure (code 61) 1"	57	M10 x 17
B	Suction Port	SAE J518C Std pressure (code 61) 2"	98	M12 x 20

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
------	-----------	-----------	------------------------

SAE Version ("S", "K", or "T" in position 8 of model)

Dr	Drain Port (x2)	SAE J1926/1 Straight thread O ring boss 1/2" OD Tube 3/4-16UNF-2B	98
PLPC	Load Sensing Port Pressure Control Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12
Tair	Air Bleeder Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12

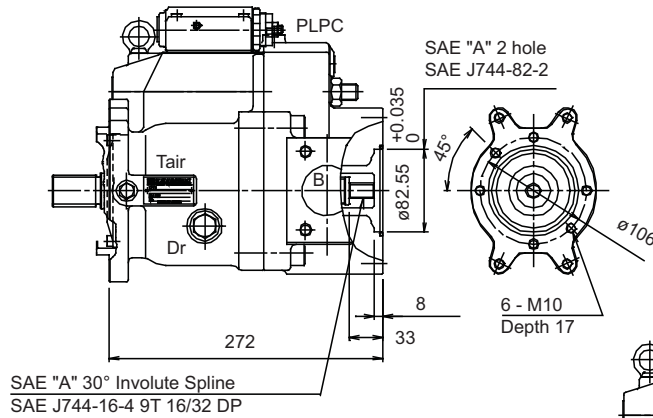
ISO Version ("M" in position 8 of model code)

Dr	Drain Port (x2)	M22 x 1.5 DIN 3852	98
PLPC	Load Sensing Port Pressure Control Port	M14 x 1.5 DIN 3852	25
Tair	Air Bleeder Port	M14 x 1.5 DIN 3852	25

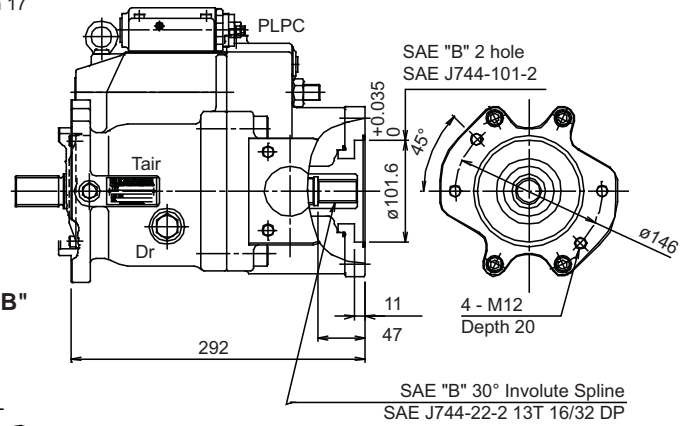
Unit Dimensions (continued)

K3VL80 Through Drive Options

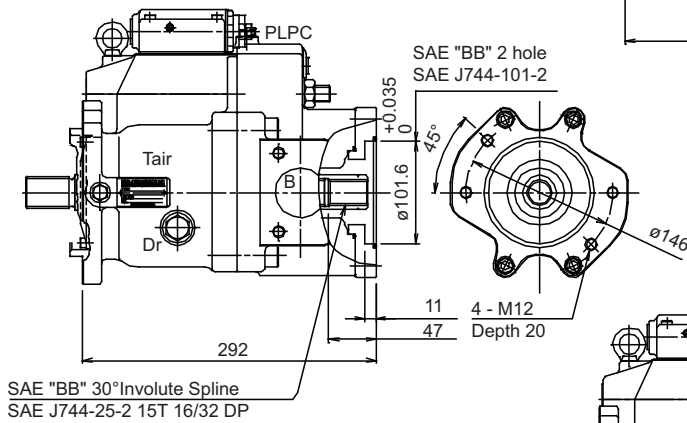
Through Drive "A"



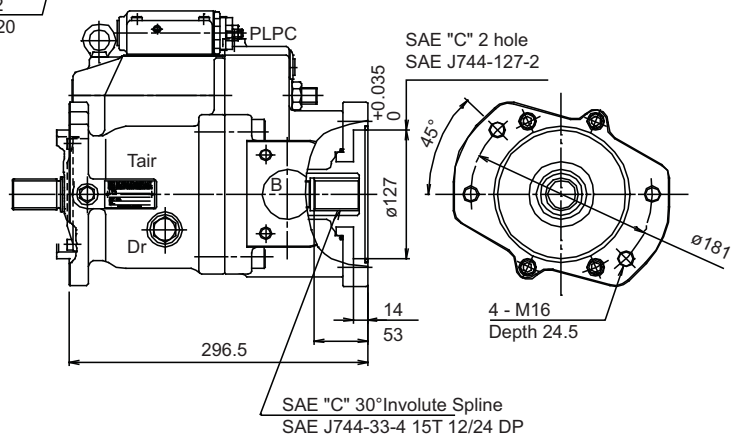
Through Drive "B"



Through Drive "BB"

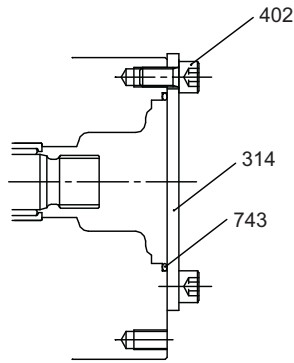


Through Drive "C"

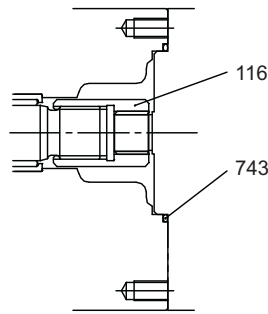


Unit Dimensions (continued)

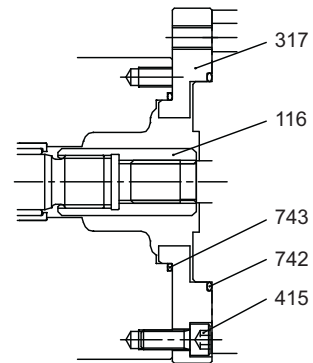
K3VL80 Adaptor Kits



Cover Kit



SAE "A"
T/D Kit



SAE "B", "BB" & "C"
T/D Kit

No.	Part Name	QTY	Cover Kit	SAE "A" T/D Kit	SAE "B" T/D Kit	SAE "BB" T/D Kit	SAE "C" T/D Kit
—	T/D Kit		29L8TN	29L8TA	29L8TB	29L8T2	29L8TC
743	O-Ring	1	00RBG85	00RBG85	00RBG85	00RBG85	00RBG85
742	O-Ring	1			00RBG105	00RBG105	00RBG130
415	Screw Hex SHC	4			0SBM1025	0SBM1025	0SBM1030
402	Screw Hex SHC	2	0SBM1020				
317	Subplate	1			2924750-0354	2924750-0354	2924750-0355
314	Cover	1	2923150-0316				
116	Coupling	1		2903150-0241	2903150-0262	2903150-0267	2903150-0263

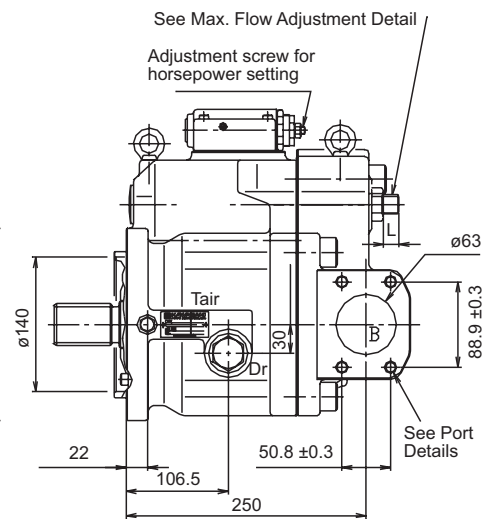
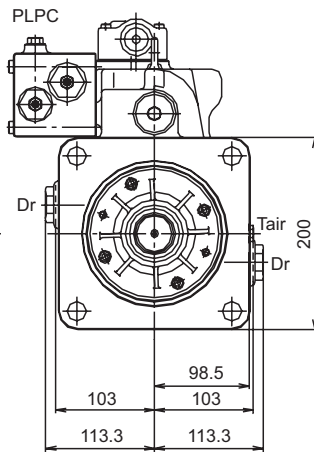
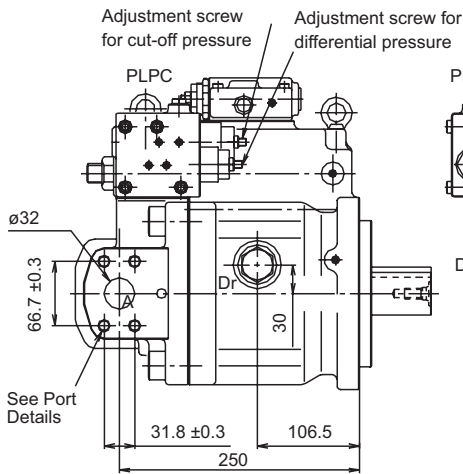
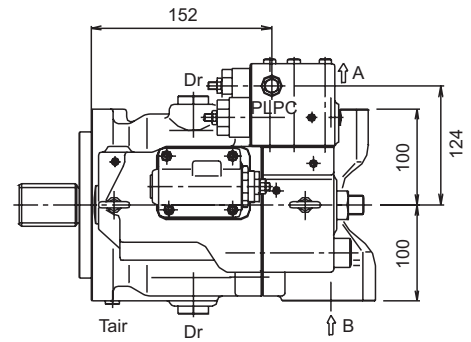
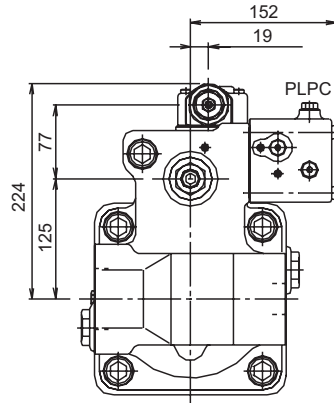


Unit Dimensions (continued)

K3VL112/140 Installation

K3VL112/140 with Cut-Off / Load Sense Control
& Torque Limit Module (Clockwise Rotation)

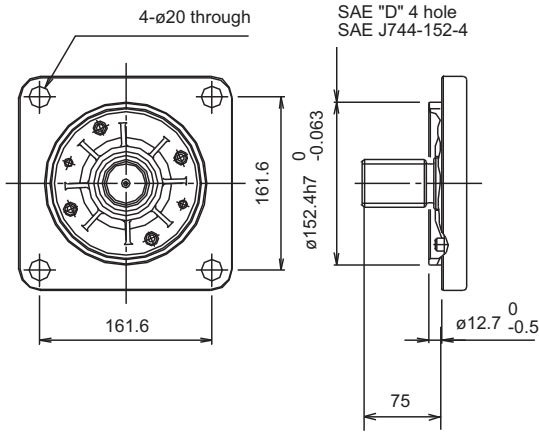
Note
for counter clockwise rotation,
the suction port "B" and the
delivery port "A" are reversed



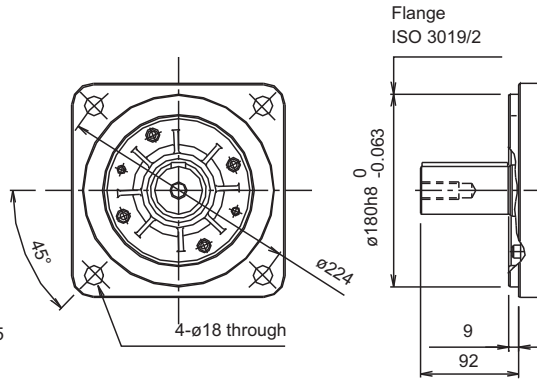
Unit Dimensions (continued)

K3VL112/140 (SAE D 4 BOLT) Mounting Flange & Shaft Options

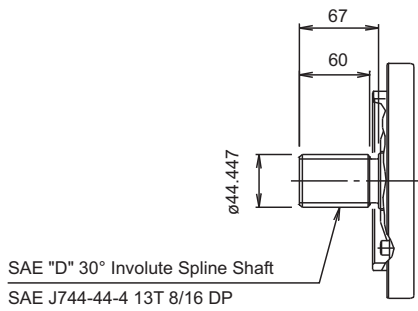
SAE "D" Type



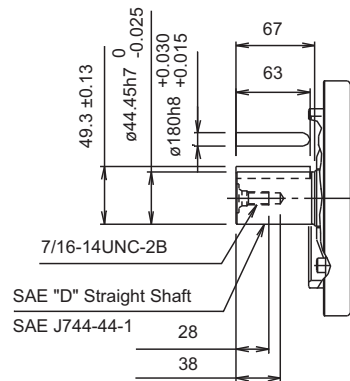
ISO Type



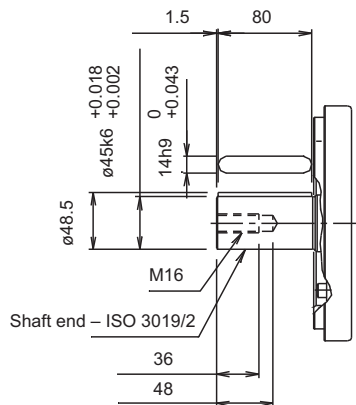
SAE Spline Shaft



SAE Straight Shaft

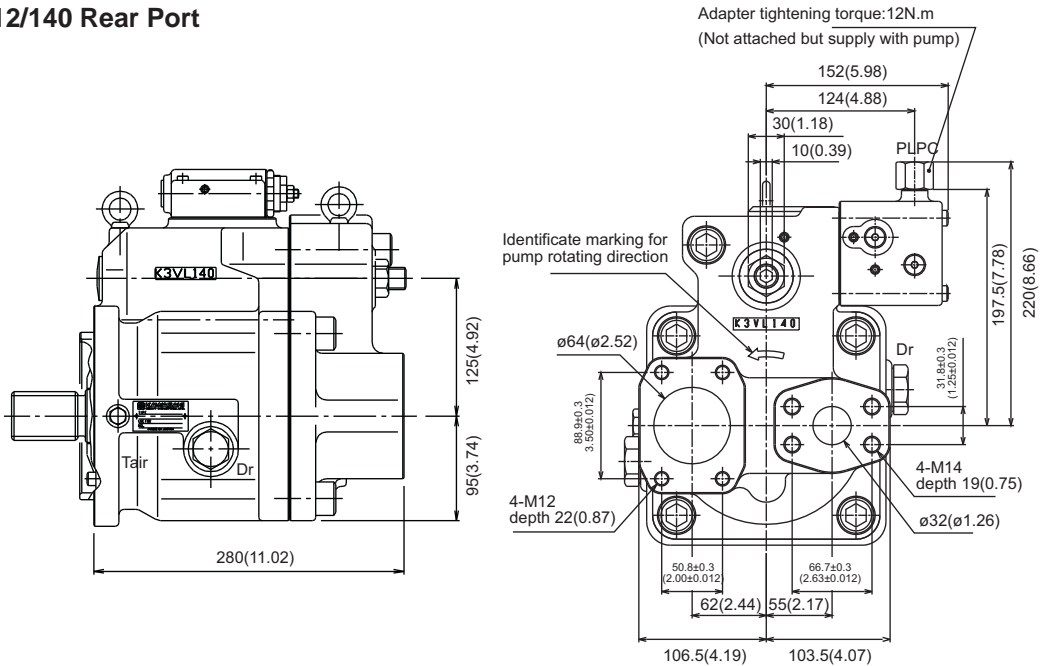


ISO Straight Shaft



Unit Dimensions (continued)

K3VL112/140 Rear Port



K3VL112/140 Porting Details

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
------	-----------	-----------	------------------------	----------------

UNF Threaded Version ("S" in position 9 of model code)

A	Delivery Port	SAE J518C high pressure (code 62) 1 1/4"	98	1/2-13UNC-2B x 22mm
B	Suction Port	SAE J518C Std pressure (code 61) 2 1/2"	98	1/2-13UNC-2B x 22mm

Metric Version ("M" in position 9 of model code)

A	Delivery Port	SAE J518C high pressure (code 62) 1 1/4"	157	M14 x 19
B	Suction Port	SAE J518C Std pressure (code 61) 2 1/2"	98	M12 x 17

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
------	-----------	-----------	------------------------

SAE Version ("S", "K", "C", "R", "U", "X" or "T" in position 8 of model)

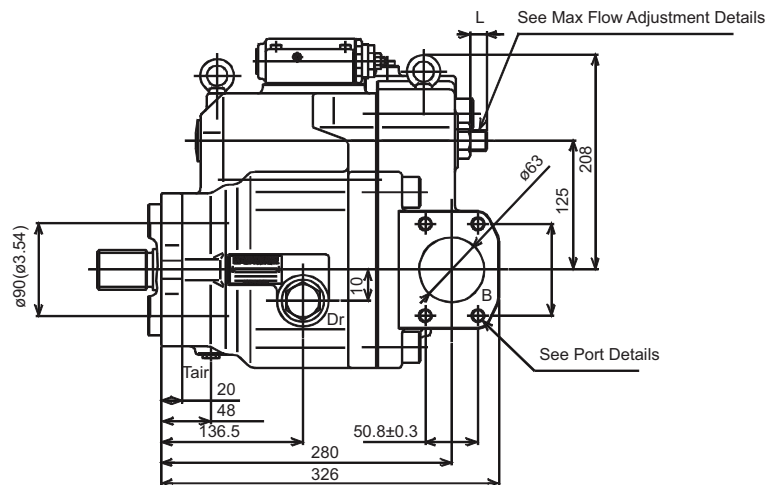
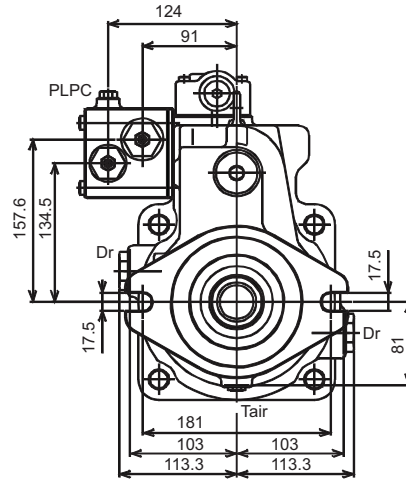
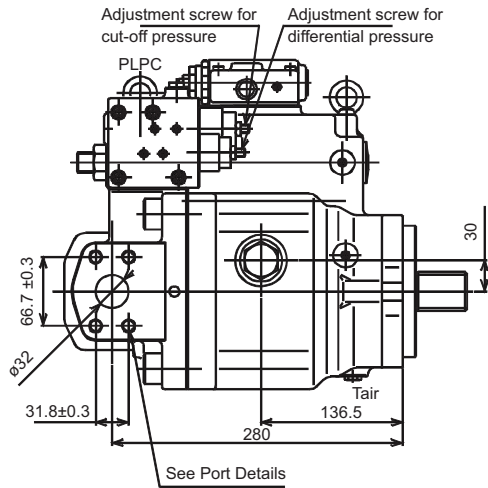
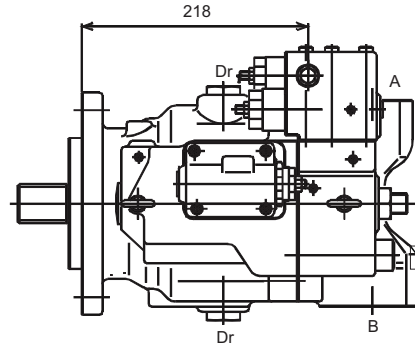
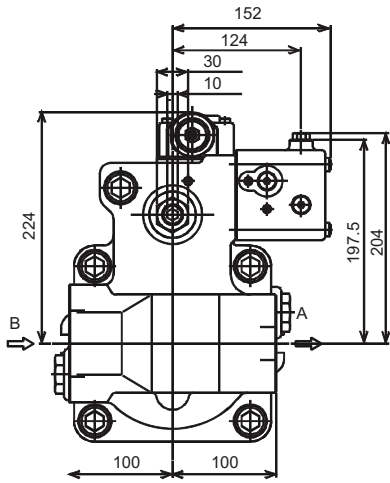
Dr	Drain Port (x2)	SAE J1926/1 Straight thread O ring boss 3/4" OD Tube 1 1/16-12UN-2B	167
PLPC	Load Sensing Port Pressure Control Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12
Tair	Air Bleeder Port	SAE J1926/1 Straight thread O ring boss 1/4" OD Tube 7/16-20UNF-2B	12

ISO Version ("M" in position 8 of model code)

Dr	Drain Port (x2)	M27 x 2 DIN 3852	167
PLPC	Load Sensing Port Pressure Control Port	M14 x 1.5 DIN 3852	25
Tair	Air Bleeder Port	M14 x 1.5 DIN 3852	25

Unit Dimensions (continued)

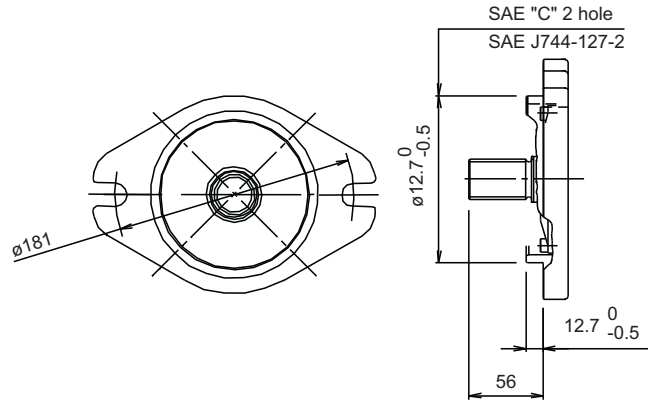
K3VL112/140 (2 Bolt) Installation



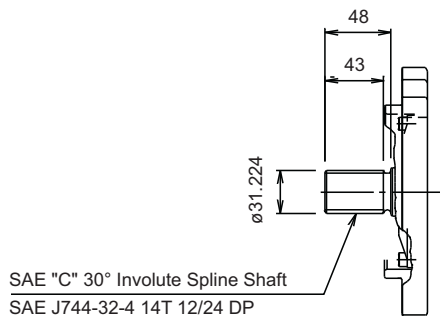
Unit Dimensions (continued)

K3VL112/140 Mounting Flange (2 Bolt) and Shaft Options

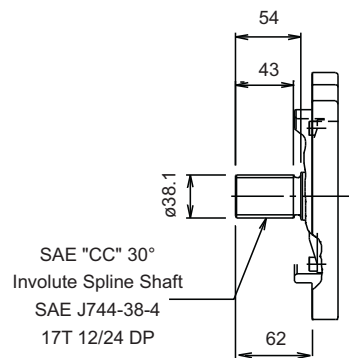
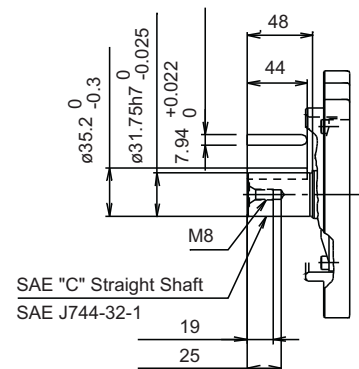
SAE "C" Type



SAE "C" Spline Shaft



SAE "C" Straight Shaft



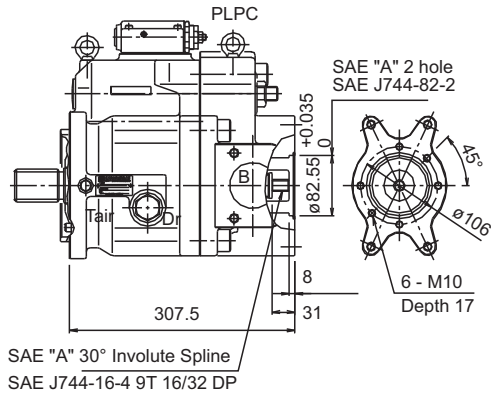
Shaft Detail – SAE "CC" Spline



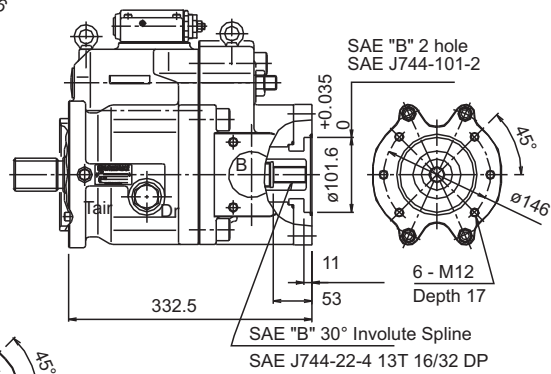
Unit Dimensions (continued)

K3VL112/140 Through Drive Options

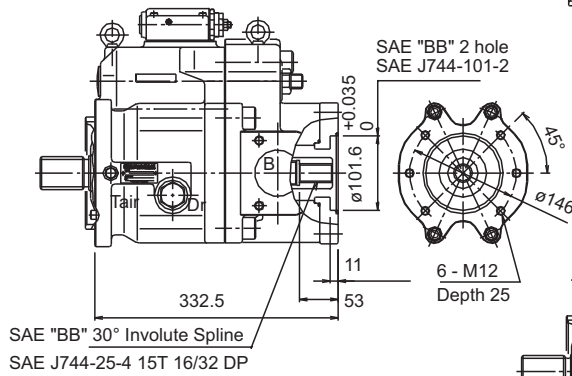
Through Drive "A"



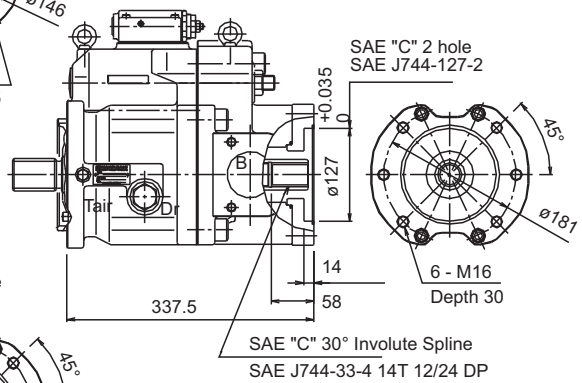
Through Drive "B"



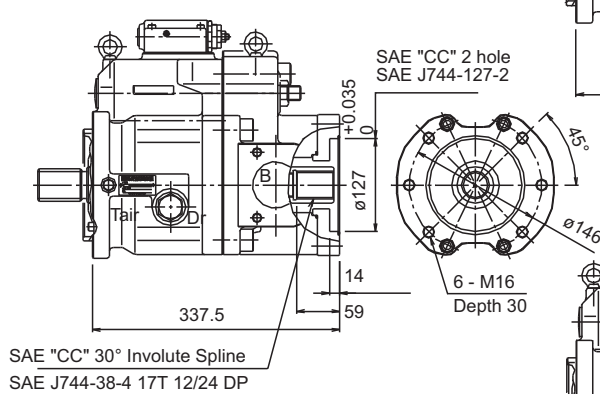
Through Drive "BB"



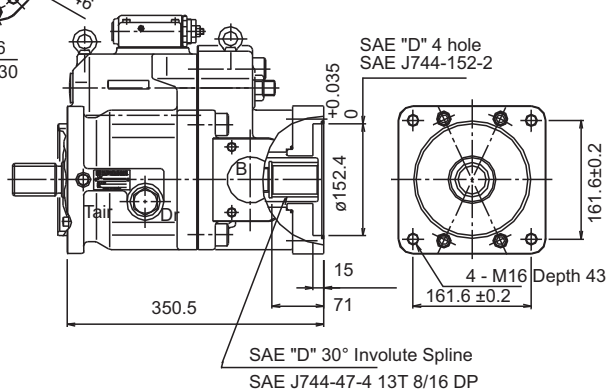
Through Drive "C"



Through Drive "CC"

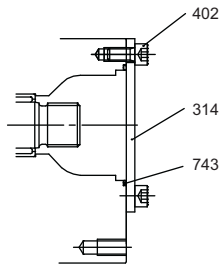


Through Drive "D"

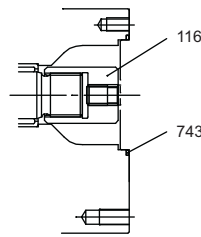


Unit Dimensions (continued)

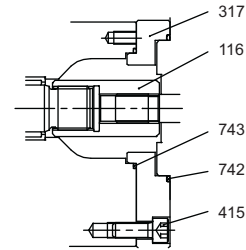
K3VL112/140 Adaptor Kits



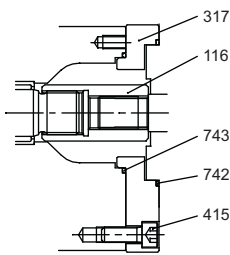
Cover Kit



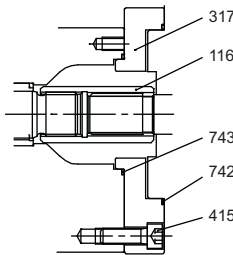
SAE "A" T/D Kit



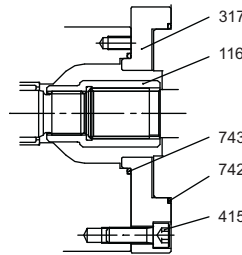
SAE "B" T/D Kit



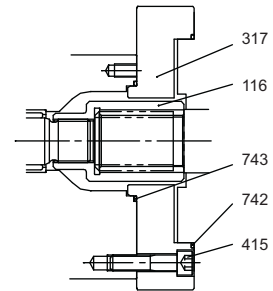
SAE "BB" T/D Kit



SAE "C" T/D Kit



SAE "CC" T/D Kit



SAE "D" T/D Kit

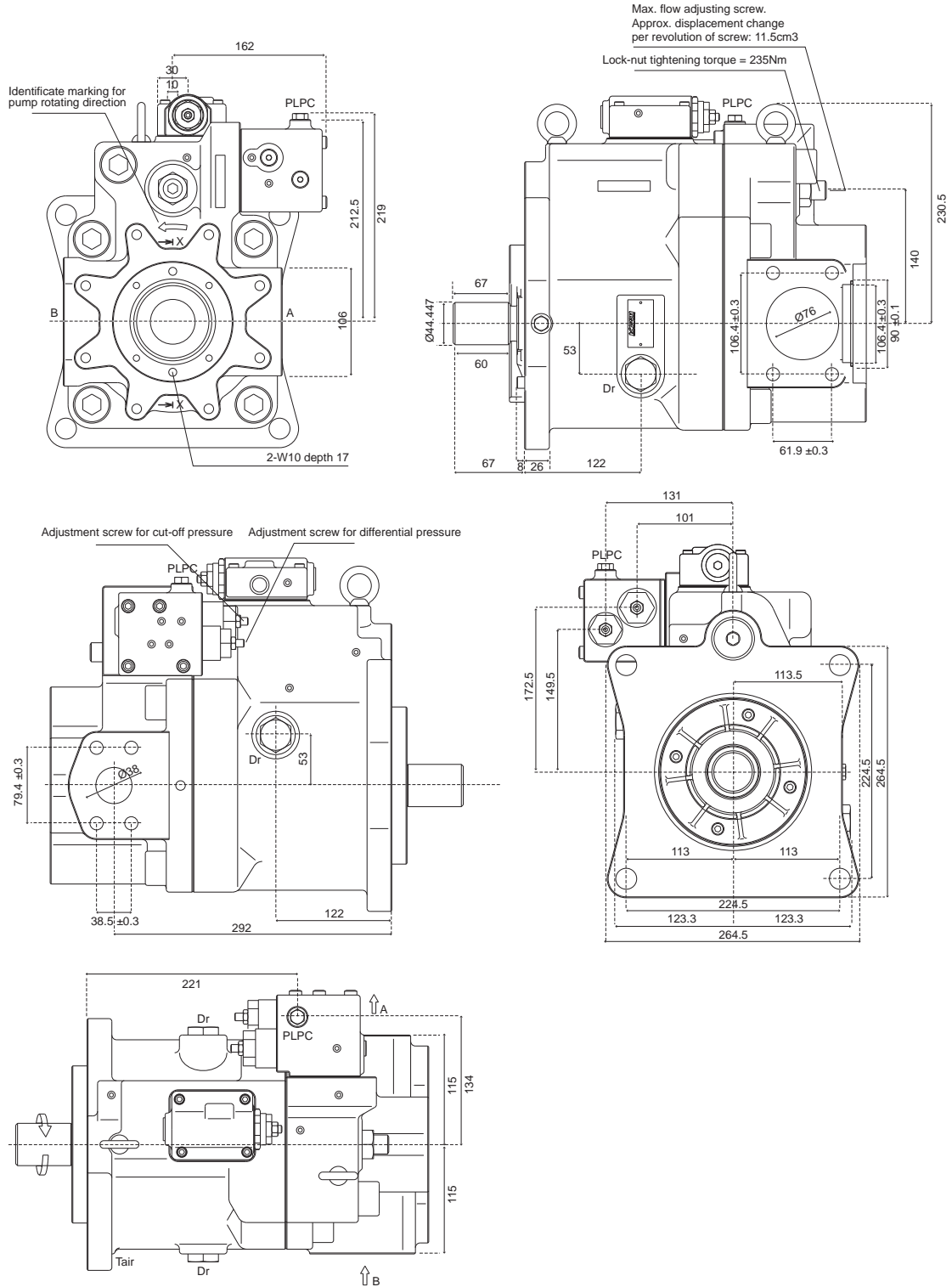
No.	Part Name	QTY	Cover Kit	SAE "A" T/D Kit	SAE "B" T/D Kit	SAE "BB" T/D Kit
—	T/D Kit		29L8TN	29LHTA	29LHTB	29LHT2
743	O-Ring	1	00RBG85	00RBG85	00RBG85	00RBG85
742	O-Ring	1			00RBG105	00RBG105
415	Screw Hex SHC	4			0SBM1230	0SBM1230
402	Screw Hex SHC	2	0SBM1020			
317	Subplate	1			2924750-0360	2924750-0360
314	Cover	1	2923150-0316			
116	Coupling	1		2903150-0268	2903150-0269	2903150-0270

No.	Part Name	QTY	SAE "C" T/D Kit	SAE "CC" T/D Kit	SAE "D" T/D Kit
—	T/D Kit		29LHTC	29L8TB	29L8T2
743	O-Ring	1	00RBG85	00RBG85	00RBG85
742	O-Ring	1	00RBG130	00RBG130	00RBG150
415	Screw Hex SHC	4	0SBM1235	0SBM1235	0SBM1250
	Screw Hex SHC	2			
317	Subplate	1	2924750-0361	2924750-0361	2924750-0362
314	Cover	1			
116	Coupling	1	2903150-0271	2903150-0272	2903150-0273

Unit Dimensions (continued)

K3VL200 Installation

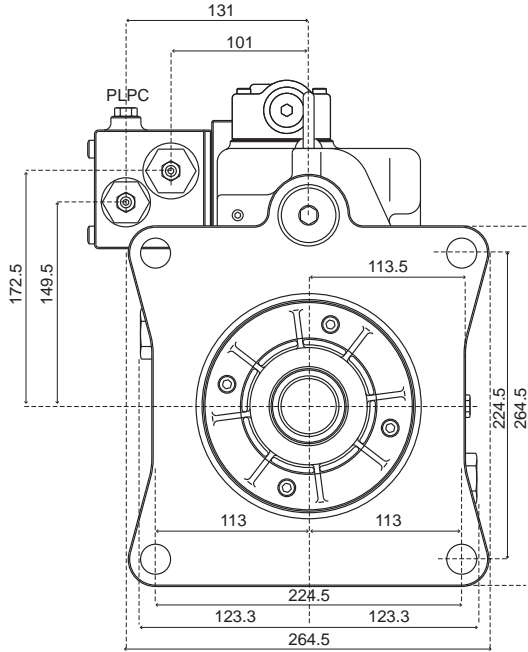
K3VL with Cut-Off / Load Sense Control
& Torque Limit Module (Clockwise Rotation)



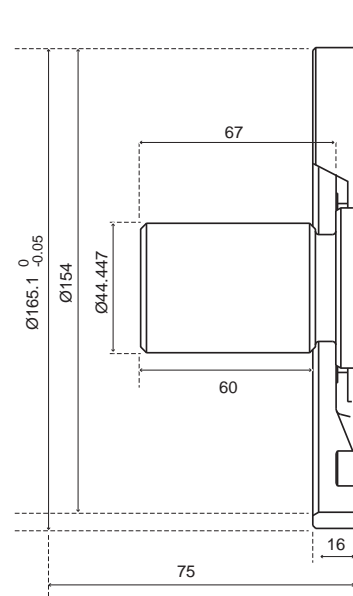
Unit Dimensions (continued)

K3VL200 Mounting Flange and Shaft Options

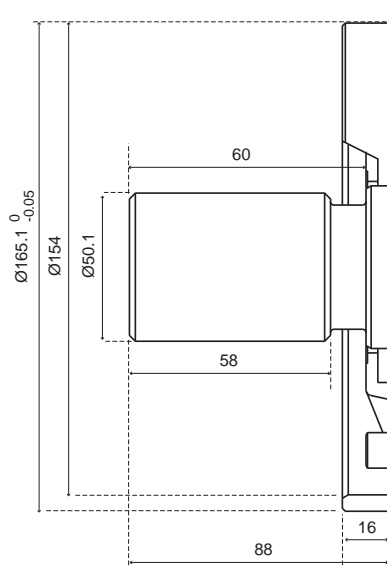
SAE Type



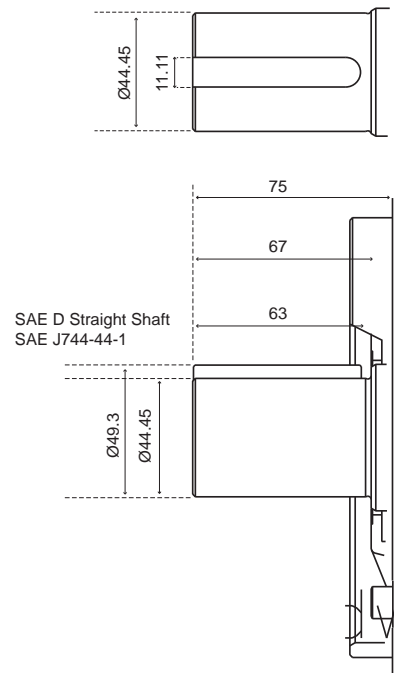
SAE Spline "D" Shaft



SAE Spline "F" Shaft



SAE Straight Shaft



Unit Dimensions (continued)

K3VL200

No.	Part Name	QTY	SAE "A"
—	T/D Kit		29LKTA
116	Coupling K3VL 200	1	2903150-0761
317	Sub Plate K3VK 200	1	2924750-0674
407	SHCS	4	0SBM825
712	O-Ring 84.4 I/D x 3.1 Sec	1	0SBM85
742	O-Ring 84.4 I/D x 3.1 Sec	1	00RBG85

No.	Part Name	QTY	SAE "B"	SAE "C"	SAE "D"	SAE "E"
—	T/D Kit		29LKTB	29LKTC	LKTD	29LKTE
116	Coupling K3VL 200	1	2903150-0762	2903150-0763	2903150-0764	2903150-0764
317	Sub Plate K3VK 200	1	2924750-0675	2924750-0667	2924750-0677	2924750-0686
407	SHCS	8	0SBM1230	0SBM1230	0SBM1245	0SBM1245
712	O-Ring	1	00RBG120	00RBG125	00RBG125	00RBG125
742	O-Ring	1	00RBG105	00RBG130	PCPP155	PCPP170

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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UNC Threaded Version ("S", "K" in position 9 of model code)

A	Delivery Port	SAE J518C high pressure (code 62) 1 1/2"	235	5/8-11UNC-2B
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	5/8-11UNC-2B

Metric Version ("M" in position 9 of model code)

A	Delivery Port	SAE J518C high pressure (code 62) 1 1/2"	235	M16
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	M16

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
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SAE Version ("S", "K" in position 8 of model)

Dr	Drain Port (x2)	SAE J1926 Straight thread O ring boss 3/4" O.D Tube 1.1/16-12UNF-2B	167
PLPC	Load Sensing Port Pressure Control Port	SAE J1926 Straight thread O ring boss 1/4" O.D Tube 7/16-20UNF-2B	12
Tair	Air Bleeder Port	SAE J1926 Straight thread O ring boss 1/4" O.D Tube 7/16-20UNF-2B	12

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Model K3VL

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