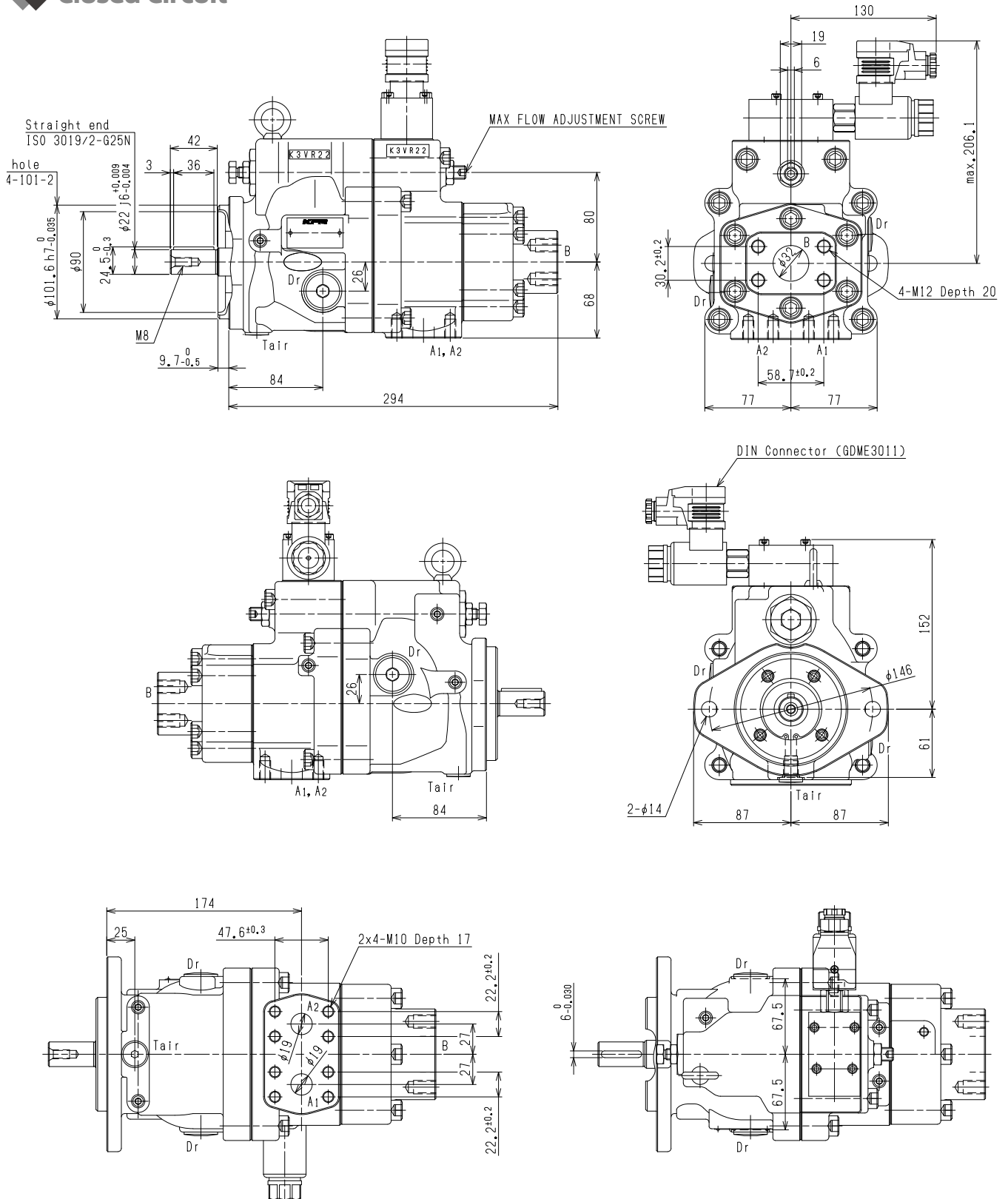


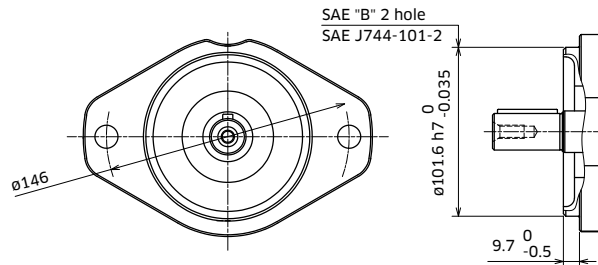
K3VR Series Variable Axial Piston Pumps Catalog

◆ Closed Circuit



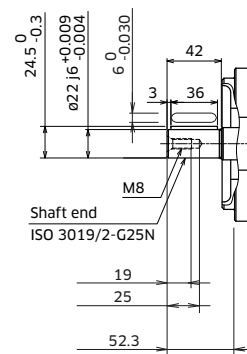
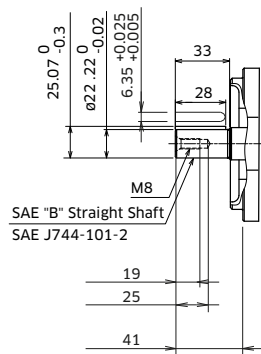
◆ Mounting Flange and Shaft Options

Closed Circuit (K3VR22)



SAE 'B' Straight Shaft - Option 'K'

ISO (JIS) Straight Shaft - Option 'J'
(with SAE Mount)



◆ Porting Details

Closed Circuit (K3VR22)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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UNF Threaded Version ('S' in position 7 of model code)

A1, A2	Suction, Delivery Port	SAE J518C Std pressure (code 61) 3/4"	40	3/8-16UNC-2B x 18 mm
B	Supply Port	SAE J518C Std pressure (code 61) 1 1/4"	60	7/16-14UNC-2B x 24 mm

Metric Threaded Version ('M' in position 7 of model code)

A1, A2	Suction, Delivery Port	SAE J518C Std pressure (code 61) 3/4"	57	M10 x 17
B	Supply Port	SAE J518C Std pressure (code 61) 1 1/4"	98	M12 x 20

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
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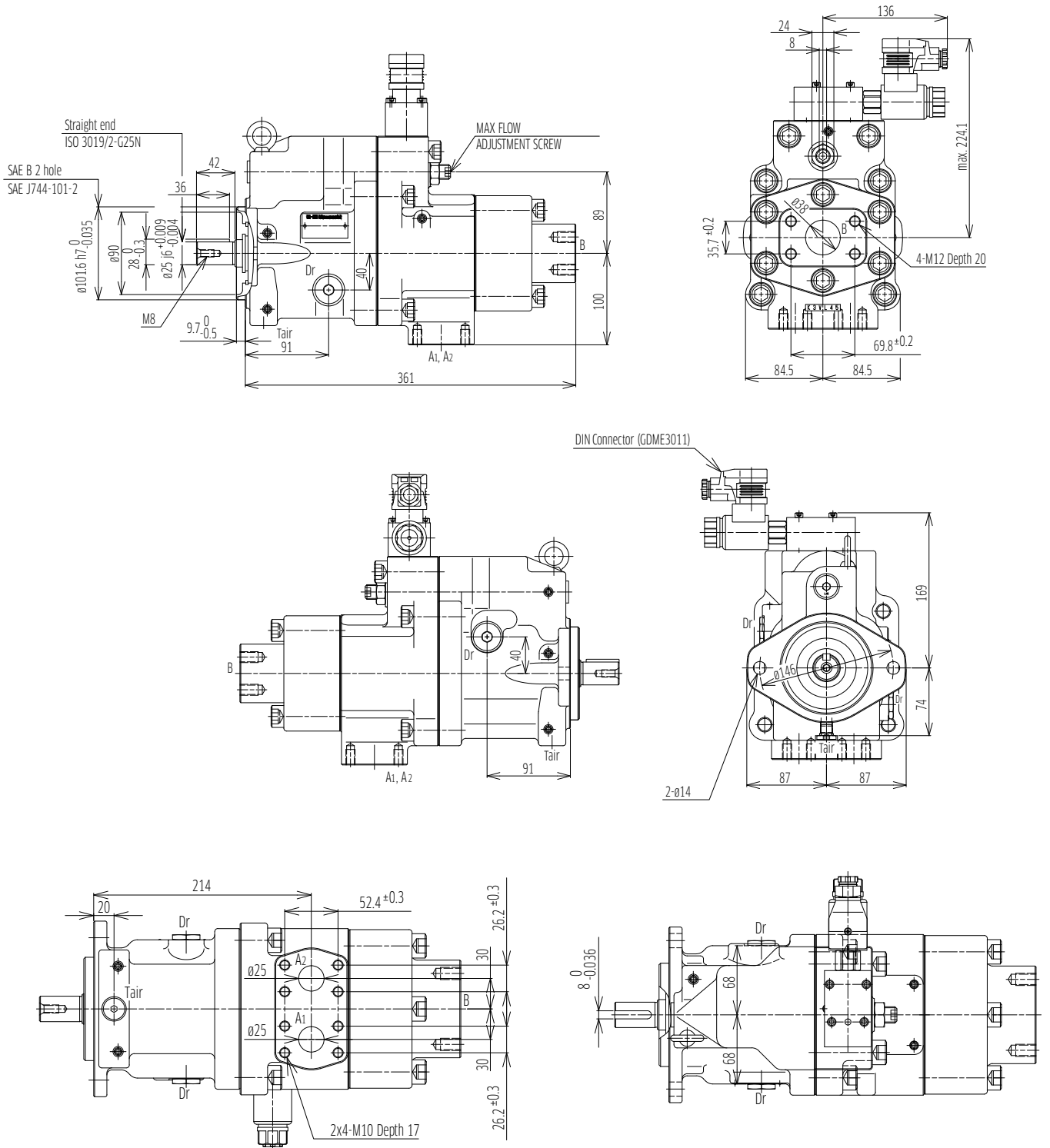
SAE Version ('K' in position 6 of model Code)

Dr	Drain Port (x2)	3/4 -16UNF -2B -14.3	98
Tair	Air Bleeder Port	7/16 -20UNF -2B -11.5	12

ISO Version ('J' in position 6 of model code)

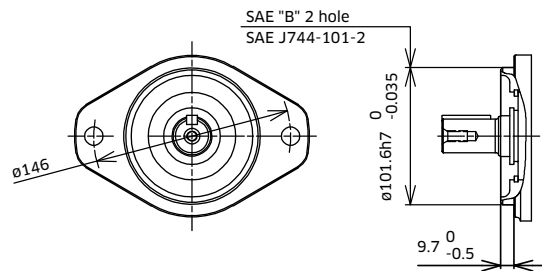
Dr	Drain Port (x2)	G 1/2 -19	110
Tair	Air Bleeder Port	G 1/4 -15	36

◆ Closed Circuit (K3VR45)

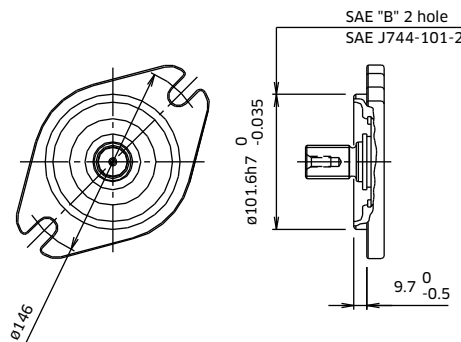


◆ Mounting Flange and Shaft Options

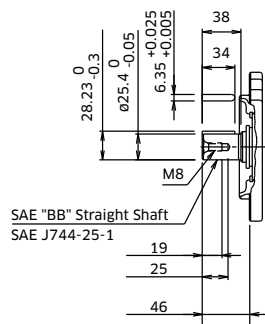
Closed Circuit (K3VR45)



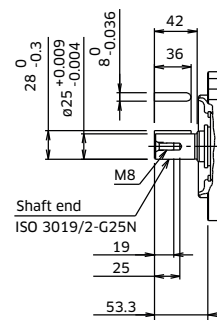
Open Circuit (K3VL45)



SAE 'BB' Straight Shaft - Option 'K'



ISO (JIS) Straight Shaft - Option 'J' (with SAE Mount)



Porting Details

Closed Circuit (K3VR45)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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UNF Threaded Version ('S' in position 7 of model code)

A1, A2	Suction, Delivery Port	SAE J518C Std pressure (code 61) 1"	57	3/8 -16UNC -2B x 18 mm
B	Supply Port	SAE J518C Std pressure (code 61) 1 1/2"	98	1/2 -13UNC -2B x 22 mm

Metric Threaded Version ('M' in position 7 of model code)

A1, A2	Suction, Delivery Port	SAE J518C Std pressure (code 61) 1"	57	M10 x 17
B	Supply Port	SAE J518C Std pressure (code 61) 1 1/2"	98	M12 x 20

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
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SAE Version ('K' in position 6 of model code)

Dr	Drain Port (x2)	3/4 -16UNF-2B -14.3	98
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

ISO Version ('J' in position 6 of model code)

Dr	Drain Port (x2)	G 1/2 -19	110
Tair	Air Bleeder Port	G 1/4 -15	36

Open Circuit (K3VL45)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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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 18 mm
B	Suction Port	SAE J518C Std pressure (code 61) 1 1/2"	98	1/2 -13UNC-2B x 22 mm

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)
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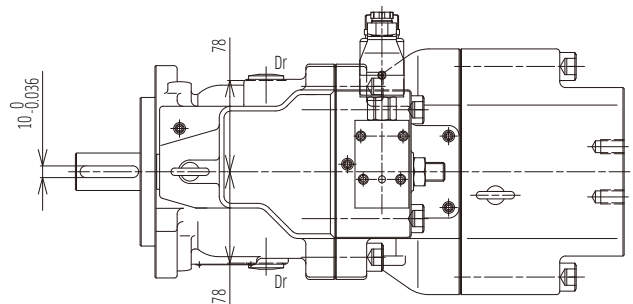
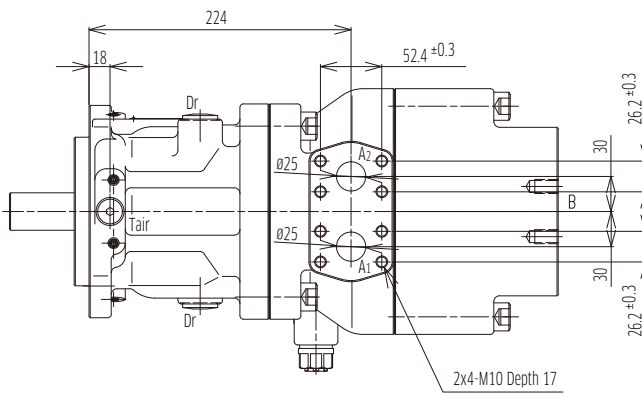
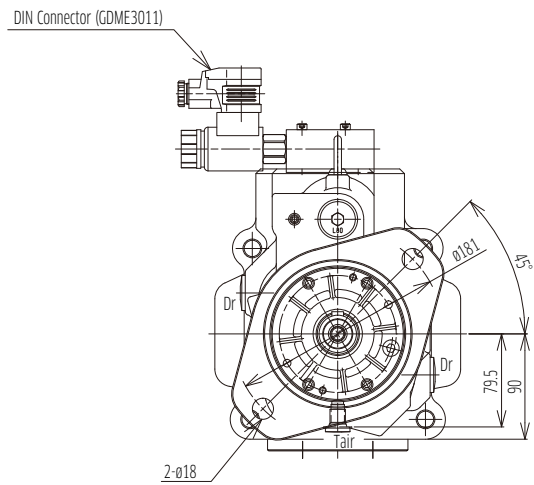
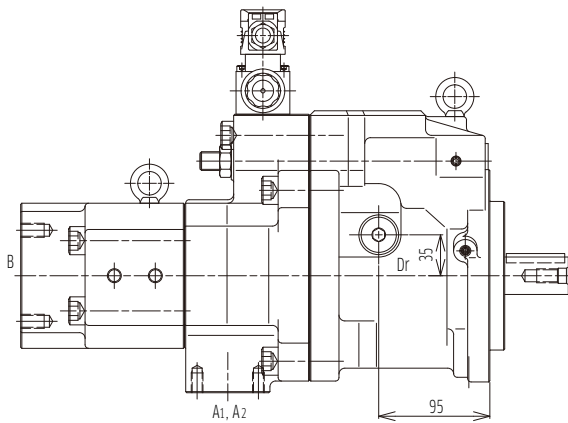
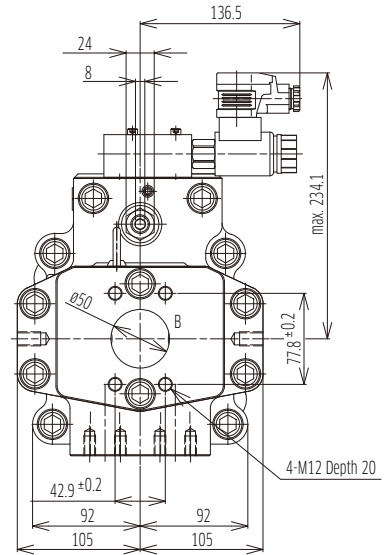
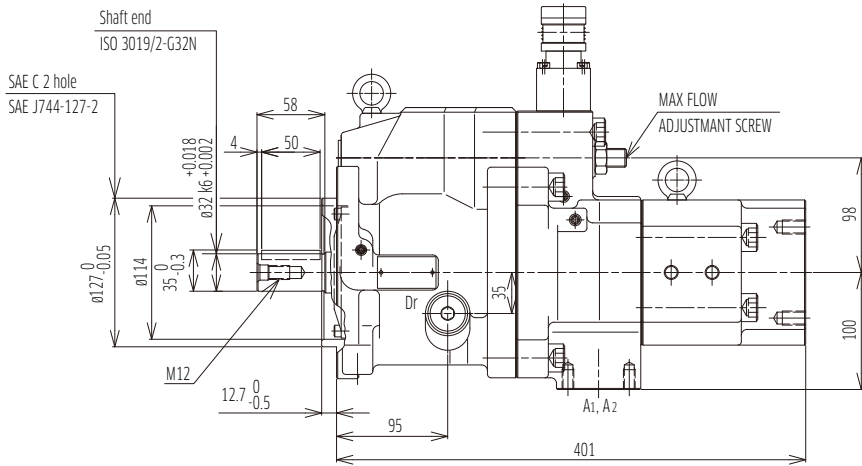
SAE Version ('K' in position 8 of model)

Dr	Drain Port (x2)	3/4 -16UNF -2B -14.3	98
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

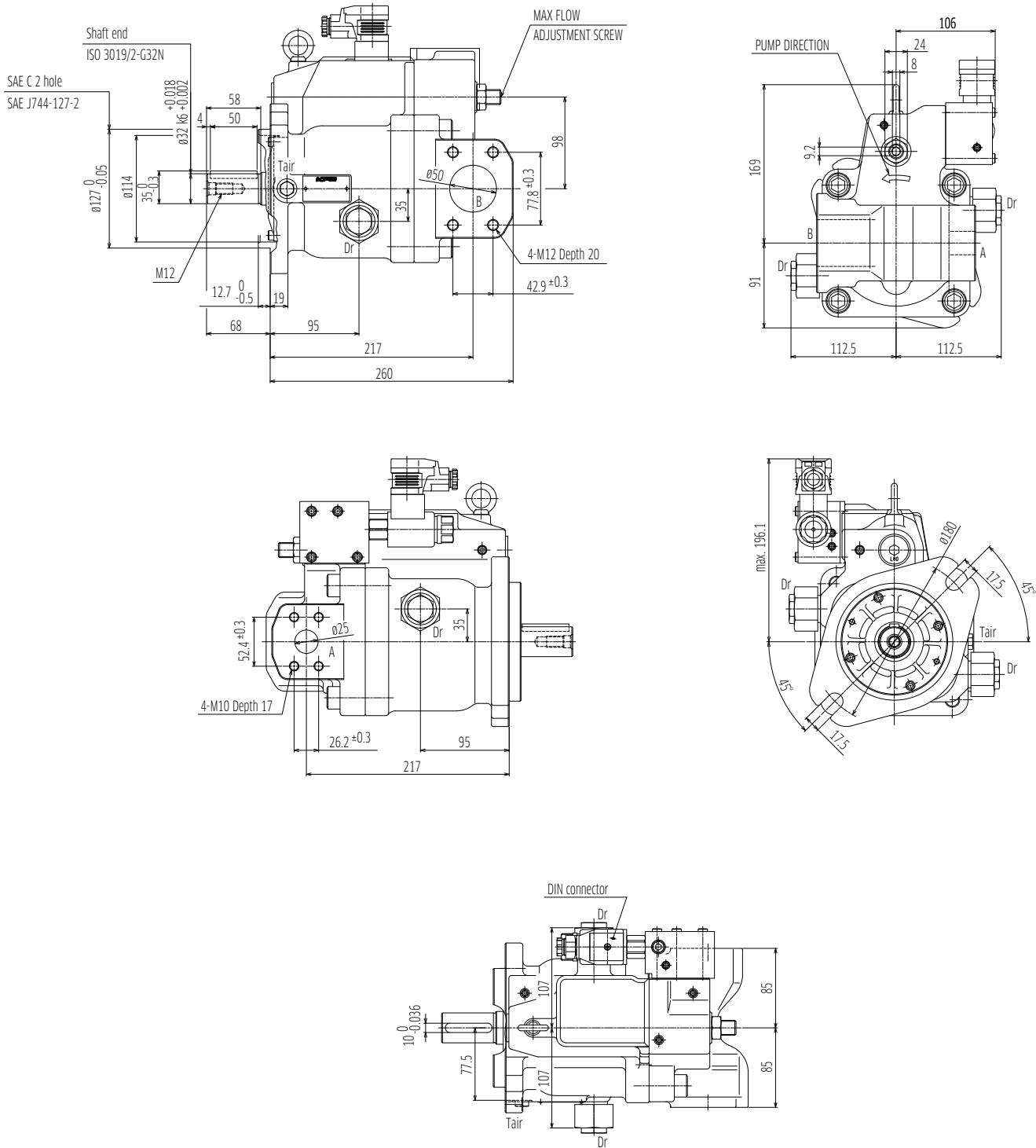
ISO Version ('J' in position 8 of model code)

Dr	Drain Port (x2)	G 1/2 -19	108
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

◆ Closed Circuit (K3VR80)

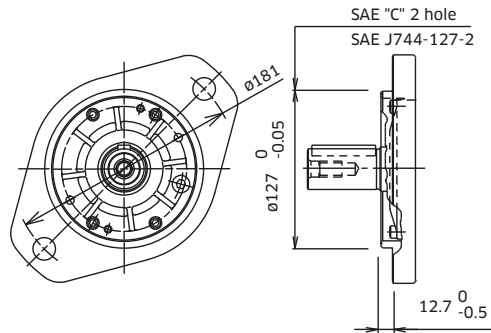


Open Circuit (K3VL80)

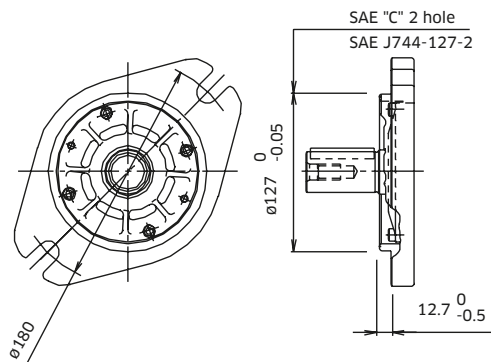


◆ Mounting Flange and Shaft Options

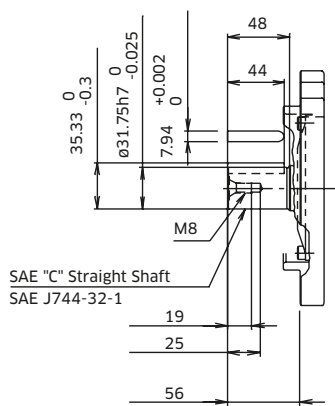
Closed Circuit (K3VR80)



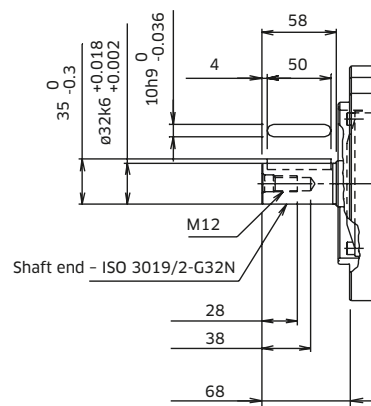
Open Circuit (K3VL80)



SAE 'C' Straight Shaft - Option 'K'



ISO (JIS) Straight Shaft - Option 'J' (with SAE Mount)



Porting Details

Closed Circuit (K3VR80)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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UNF Threaded Version ('S' in position 7 of model code)

A1, A2	Delivery Port	SAE J518C Std pressure (code 61) 1"	57	3/8-16UNC-2B x 18 mm
B	Suction Port	SAE J518C Std pressure (code 61) 2"	98	1/2-13UNC-2B x 22 mm

Metric Threaded Version ('M' in position 7 of model code)

A1, A2	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)
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SAE Version ('K' in position 6 of model code)

Dr	Drain Port (x2)	3/4 -16UNF -2B -14.3	98
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

ISO Version ('J' in position 6 of model code)

Dr	Drain Port (x2)	G1/2 -19	110
Tair	Air Bleeder Port	G3/4 -15	36

Open Circuit (K3VL80)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
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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 18 mm
B	Suction Port	SAE J518C Std pressure (code 61) 2"	98	1/2-13UNC-2B x 22 mm

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)
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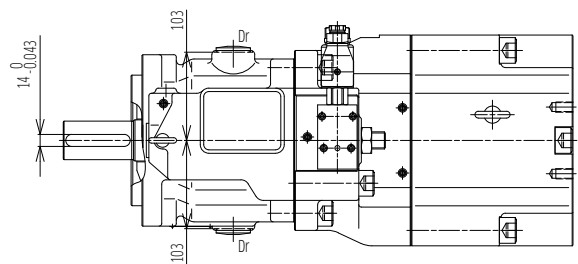
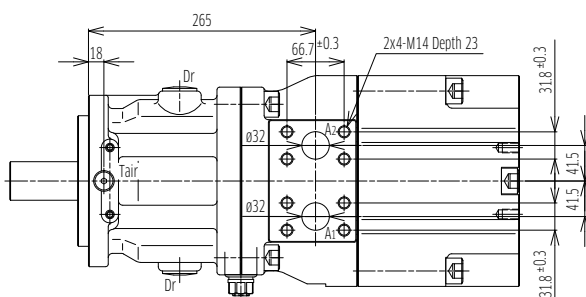
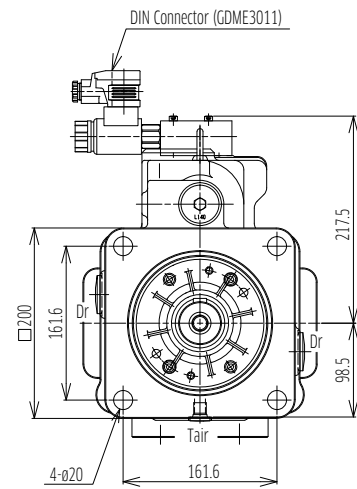
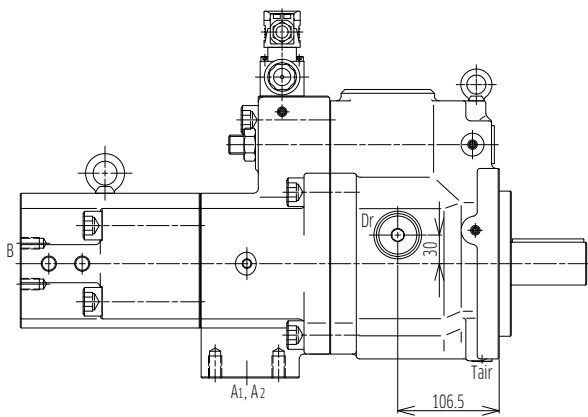
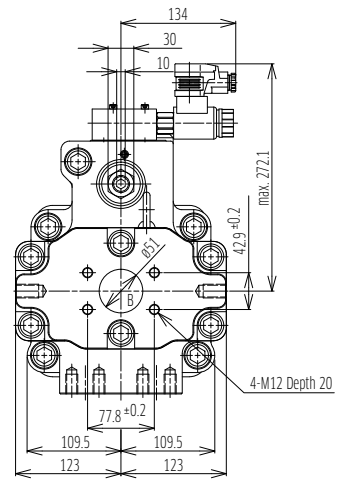
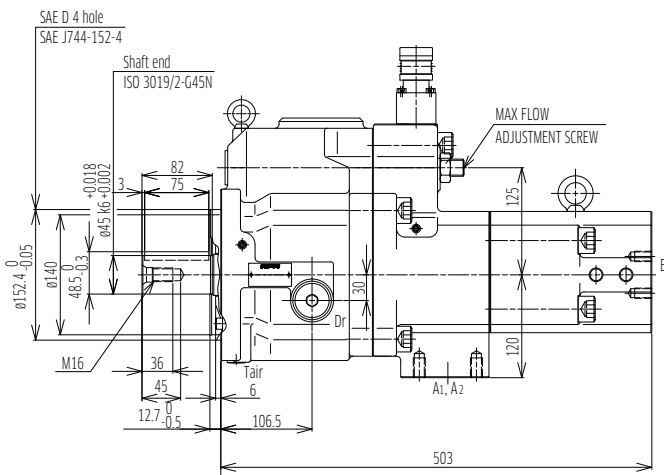
SAE Version ('K' in position 8 of model code)

Dr	Drain Port (x2)	3/4 -16UNF -2B -14.3	98
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

ISO Version ('J' in position 8 of model code)

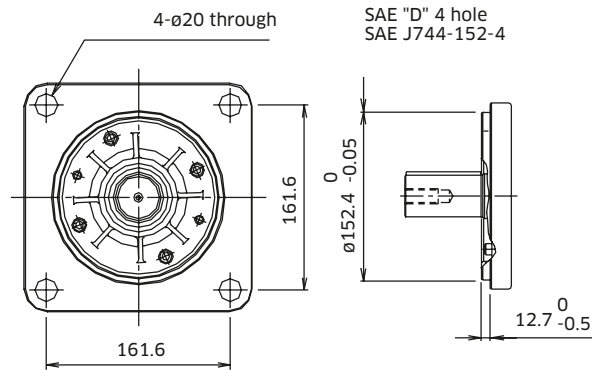
Dr	Drain Port (x2)	G1/2 -19	108
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

◆ Closed Circuit (K3VR140)

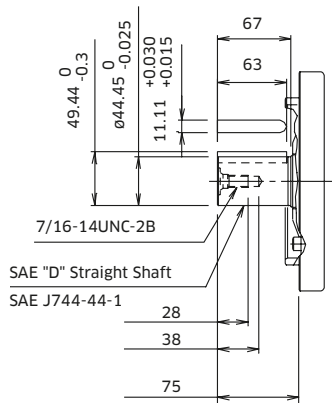


◆ Mounting Flange and Shaft Options

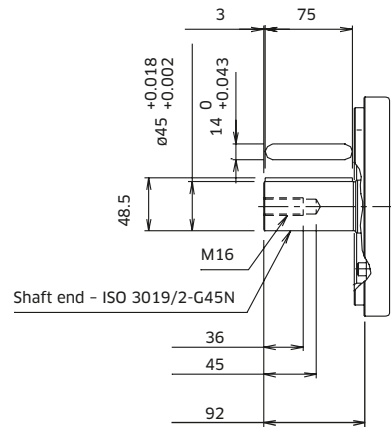
Closed Circuit (K3VR140)/Open Circuit (K3VL140)



SAE 'D' Straight Shaft - Option 'K'



ISO (JIS) Straight Shaft - Option 'J' (with SAE Mount)



Porting Details

Closed Circuit (K3VR140)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
UNF Threaded Version ('S' in position 7 of model code)				
A1, A2	Delivery Port	SAE J518C high pressure (code 62) 1¼"	157	½ -13UNC -2B x 22 mm
B	Suction Port	SAE J518C Std pressure (code 61) 2½"	98	½ -13UNC -2B x 22 mm
Metric Threaded Version ('M' in position 7 of model code)				
A1, A2	Delivery Port	SAE J518C high pressure (code 62) 1¼"	157	M14 x 23
B	Suction Port	SAE J518C Std pressure (code 61) 2½"	98	M12 x 20

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
SAE Version ('K' in position 6 of model code)			
Dr	Drain Port (x2)	1¼ -12UNF -2B -19	167
T _{air}	Air Bleeder Port	7/16 -20UNF -2B -14	12
ISO Version ('J' in position 6 of model code)			
Dr	Drain Port (x2)	G ¾ -20	170
T _{air}	Air Bleeder Port	G ¾ -15	36

Open Circuit (K3VL140)

Main SAE Flanged Ports

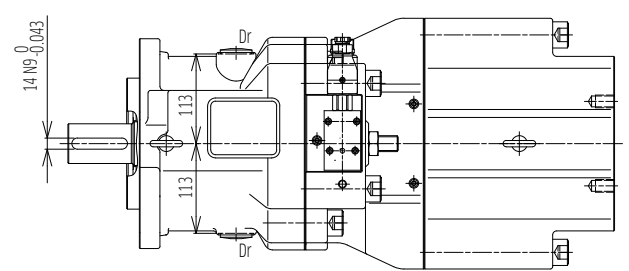
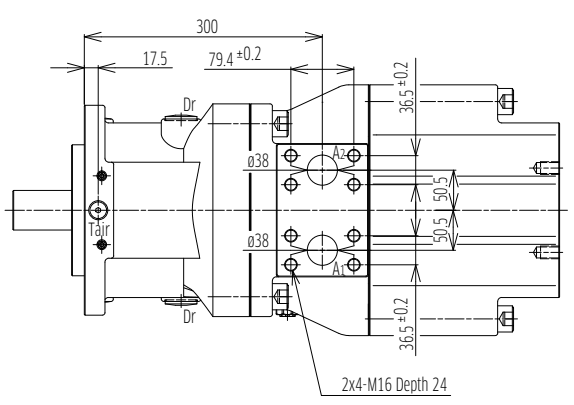
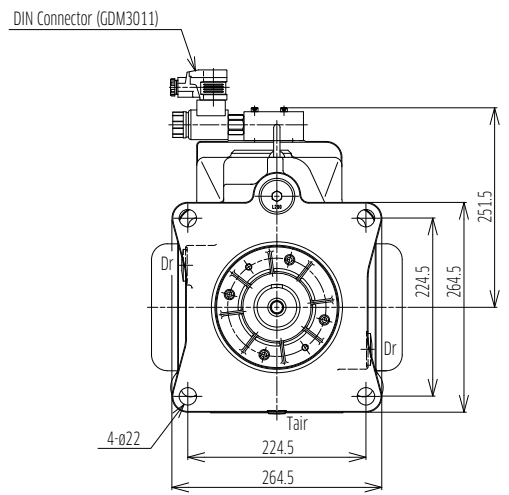
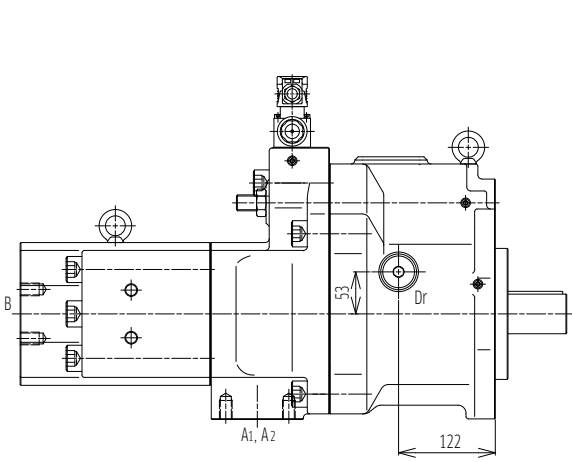
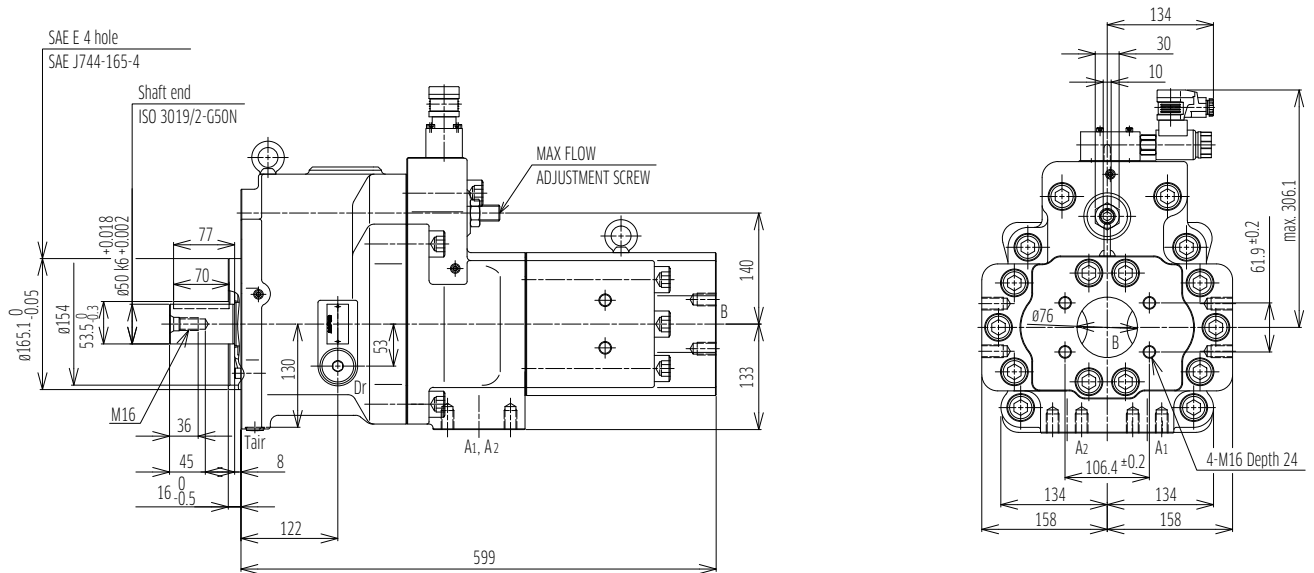
Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
UNF Threaded Version ('S' in position 9 of model code)				
A	Delivery Port	SAE J518C high pressure (code 62) 1¼"	157	½ -13UNC -2B x 22 mm
B	Suction Port	SAE J518C Std pressure (code 61) 2½"	98	½ -13UNC -2B x 22 mm
Metric Threaded Version ('M' in position 9 of model code)				
A	Delivery Port	SAE J518C high pressure (code 62) 1¼"	157	M14 x 19 *
B	Suction Port	SAE J518C Std pressure (code 61) 2½"	98	M12 x 17

* Note: ISO 6162 quotes M12

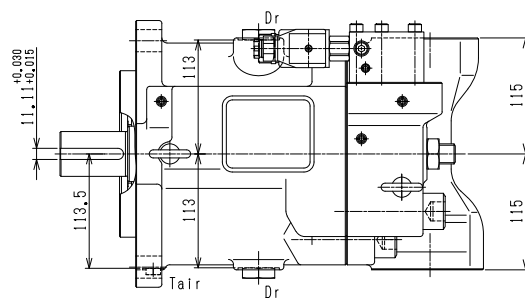
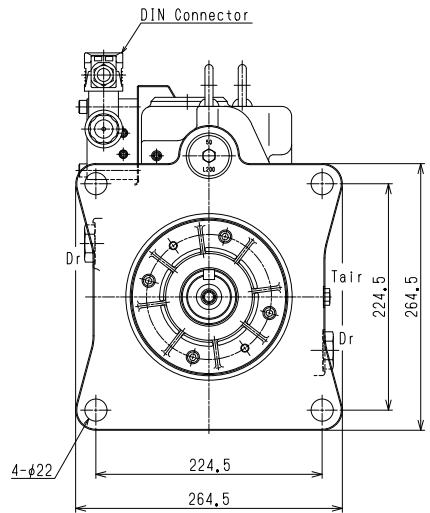
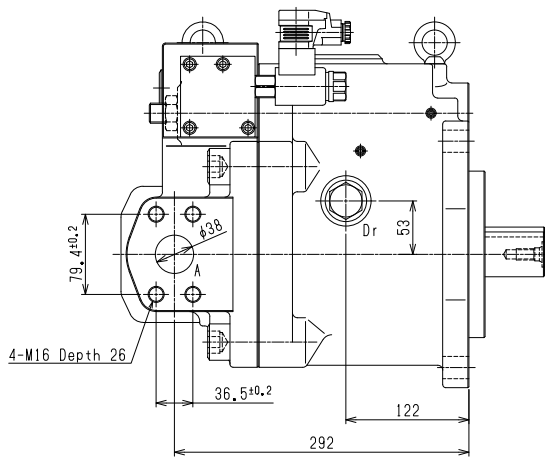
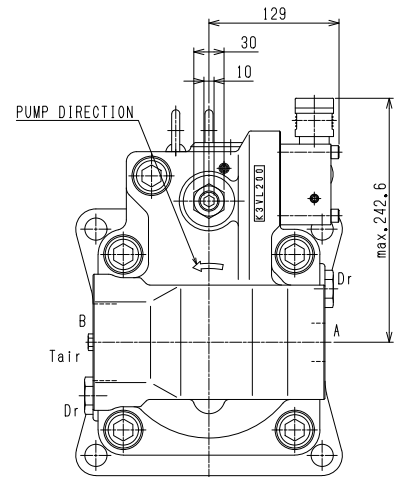
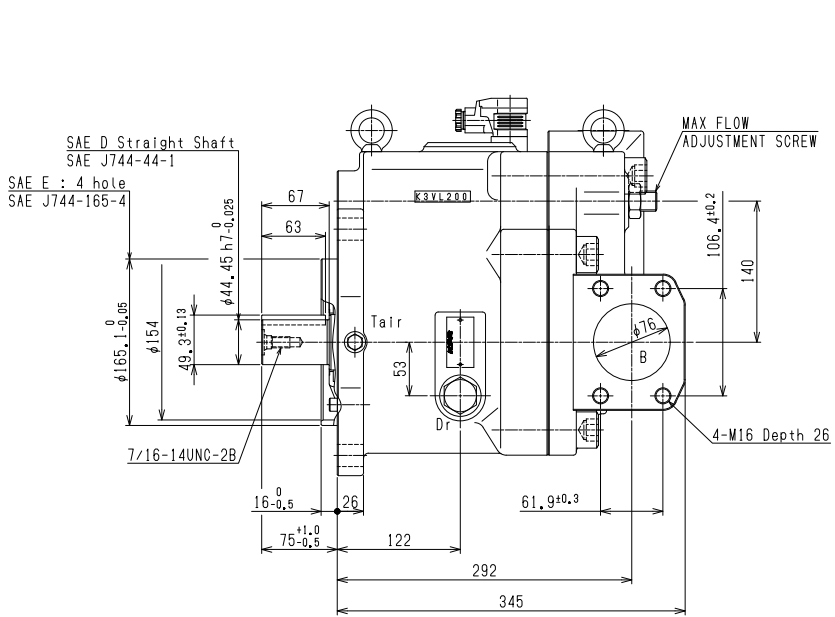
Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
SAE Version ('K' in position 8 of model code)			
Dr	Drain Port (x2)	1¼ -12UNF -2B -19	167
T _{air} *	Air Bleeder Port	7/16 -20UNF -2B -14	12
ISO Version ('J' in position 8 of model code)			
Dr	Drain Port (x2)	G ¾ -20	167
T _{air}	Air Bleeder Port	7/16 -20UNF -2B -14	12

◆ Closed Circuit (K3VR200)

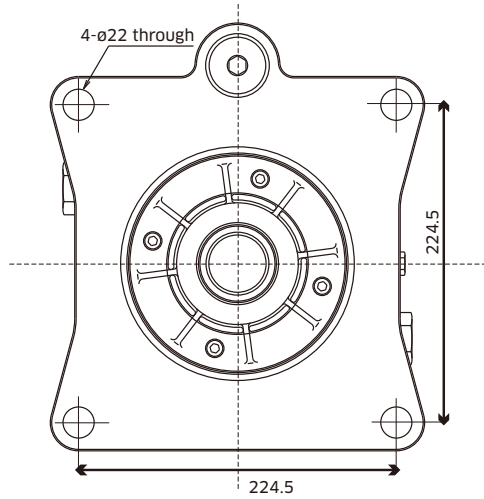


Open Circuit (K3VL200)

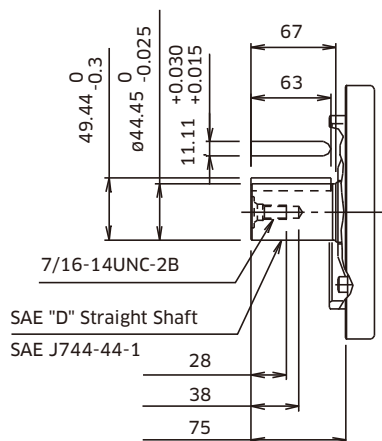


◆ Mounting Flange and Shaft Options

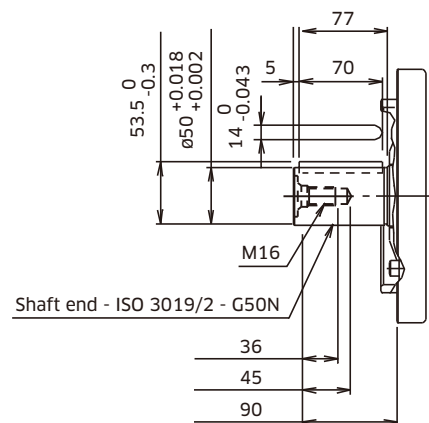
Closed Circuit (K3VR200)/Open Circuit (K3VL200)



SAE 'D' Straight Shaft - Option 'K'



ISO (JIS) Straight Shaft - Option 'J' (with SAE Mount) *only for K3VR



Porting Details

Closed Circuit (K3VR200)

Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
UNC Threaded Version ('S' in position 7 of model code)				
A1, A2	Delivery Port	SAE J518C high pressure (code 62) 1½"	235	⅝ -11UNC -2B x 25mm
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	⅝ -11UNC -2B x 25mm
Metric Threaded Version ('M' in position 7 of model code)				
A1, A2	Delivery Port	SAE J518C high pressure (code 62) 1½"	235	M16 x 24
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	M16 x 24

Auxiliary Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)
SAE Version ('K' in position 6 of model code)			
Dr	Drain Port (x2)	1⅙ -12UNF -2B -19	170
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12
ISO Version ('J' in position 6 of model code)			
Dr	Drain Port (x2)	G ¾ -20	170
Tair	Air Bleeder Port	G ¼ -15	36

Open Circuit (K3VL200)

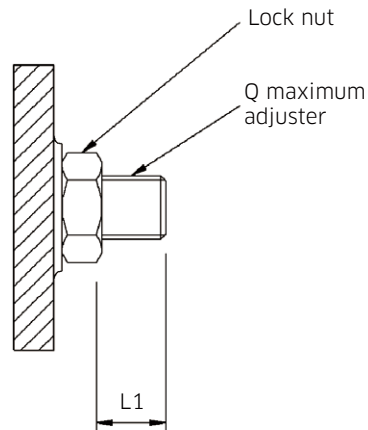
Main SAE Flanged Ports

Des.	Port Name	Port Size	Tightening Torque (Nm)	Flange Threads
UNC Threaded Version ('S' in position 9 of model code)				
A	Delivery Port	SAE J518C high pressure (code 62) 1½"	235	⅝ -11UNC -2B x 25mm
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	⅝ -11UNC -2B x 25mm
Metric Threaded Version ('M' in position 9 of model code)				
A	Delivery Port	SAE J518C high pressure (code 62) 1½"	235	M16 x 24
B	Suction Port	SAE J518C Std pressure (code 61) 3"	235	M16 x 24

Auxiliary Ports

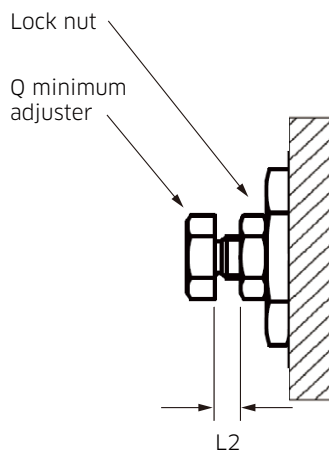
Des.	Port Name	Port Size	Tightening Torque (Nm)
SAE Version ('K' in position 8 of model code)			
Dr	Drain Port (x2)	1⅙ -12UNF -2B -19	170
Tair	Air Bleeder Port	7/16 -20UNF -2B -14	12

◆ Maximum displacement



Maximum displacement adjustment	Pump	K3VR22	K3VR45 K3VL45	K3VR80 K3VL80	K3VR140 K3VL140	K3VR200 K3VL200
Adj. screw Allen key size	mm	6	8	8	10	10
Displacement change per turn	cm ³	3.1	4.9	6.0	12.0	15.3
Adjustable range of displacement	cm ³	11-22	16-45	35-80	70-140	100-200
Length of adjustment range (L1)	mm	4.6-10.7	0.5-12.1	0.5-15.0	1.0-16	8.9-25.3
Lock nut size	mm	19	24	24	30	30
Lock nut tightening torque	Nm	57	128	128	235	235

◆ Minimum displacement



Minimum displacement adjustment	Pump	K3VR22	
	Setting	Low	High
Adj. screw Allen key size	mm	17	
Displacement change per turn	cm ³	2.7	
Adjustable range of displacement	cm ³	4-11	11-18
Length of adjustment range (L2)	mm	5.2-1.3	5.2-1.3
Lock nut size	mm	17	
Lock nut tightening torque	Nm	30	