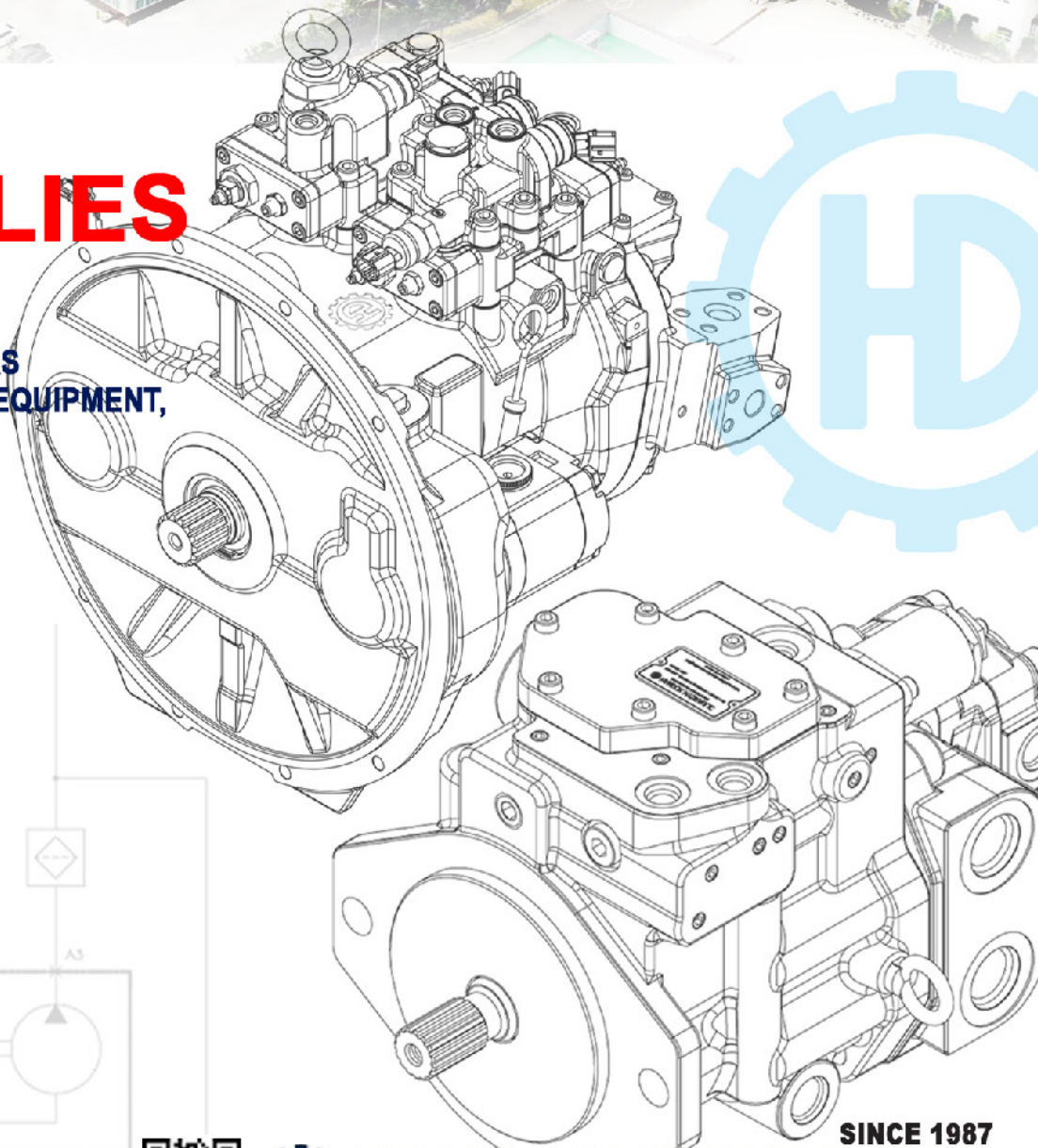




ASSEMBLIES CATALOG

HYDRAULIC PUMPS & MOTORS
FOR HEAVY CONSTRUCTION EQUIPMENT,
MARINE AND INDUSTRY



SINCE 1987
HANDOK HYDRAULIC

한독하이드로릭

Production Facilities



Shop Floor and each of Divisions



QUALITY POLICY

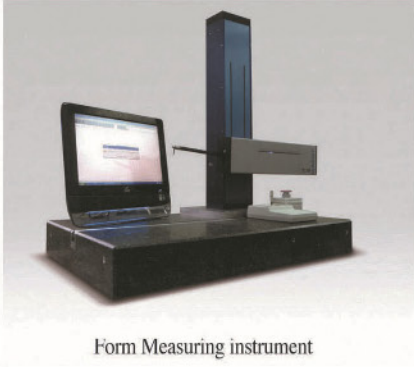


BEST QUALITY
We pursue top quality

VARIOUS ITEMS
Our various inventory can meet our esteemed customer's needs.

COMPETITIVE PRICE
To give competitive price to our customers is our goal

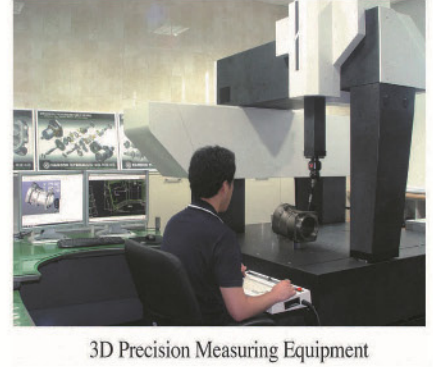
BEST SERVICE
We provide our best service for your satisfaction.



Form Measuring instrument



Coil Spring Test Machine



3D Precision Measuring Equipment



Brinell & Rock Well Hardness Tester



Quality Control for Hardness



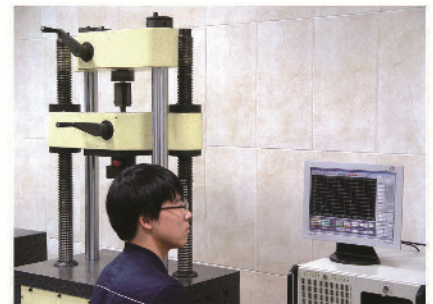
Illumination Meter & Metallurgical Microscope



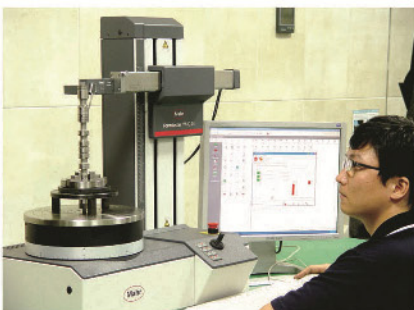
Inspection for Brass Brazing with Ultrasonic Test



Optical Emission Spectrometer



Tension And Yield Strength Test



Form Tester



Precision Measuring for Quality Control

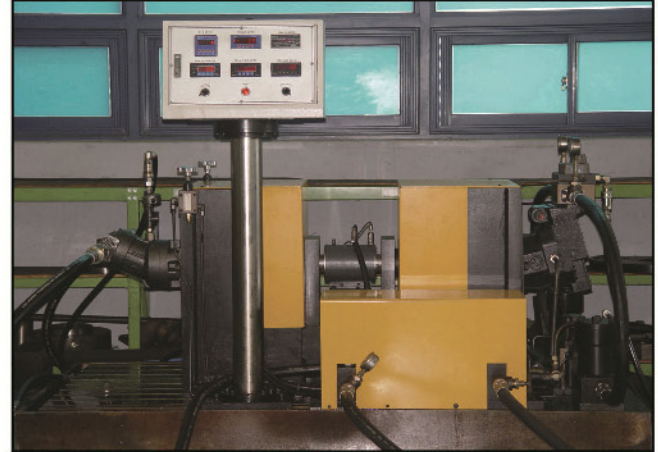


Angle Sensor Tester

BENCH PUMP TEST



BENCH MOTOR TEST



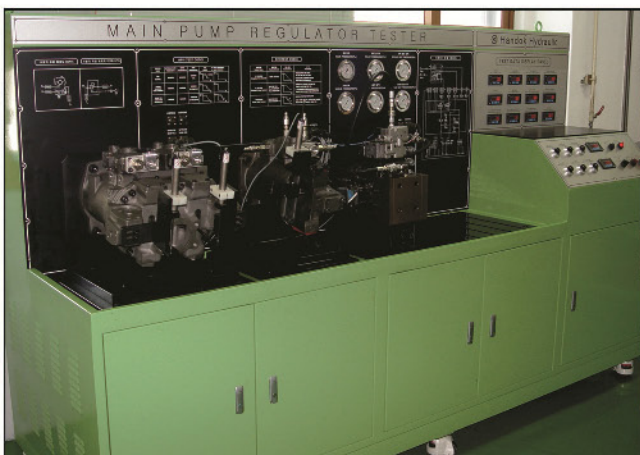
GEAR PUMP TEST



EPR TEST



REGULATOR TEST



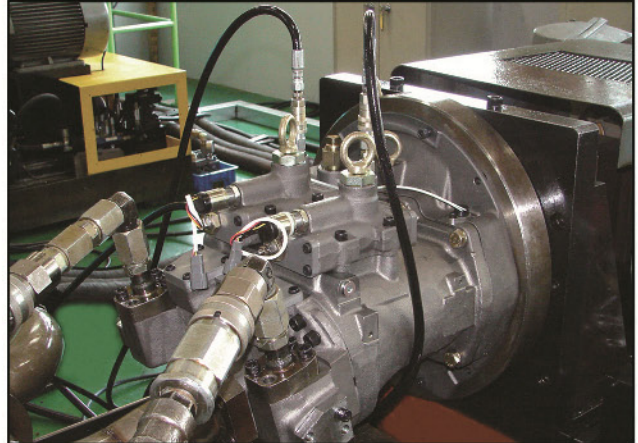
PRESSURE ENDURANCE TEST



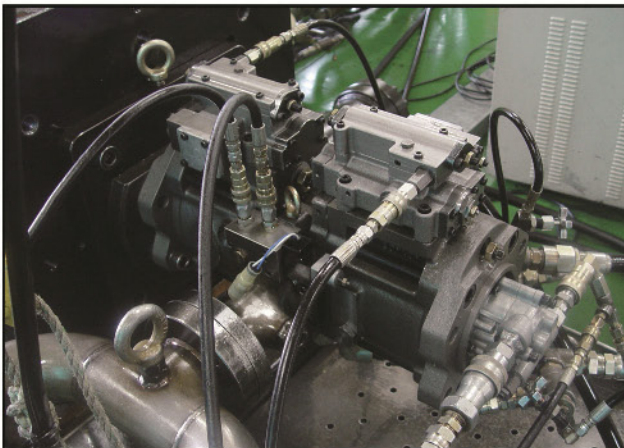
MULTI TEST MACHINERY



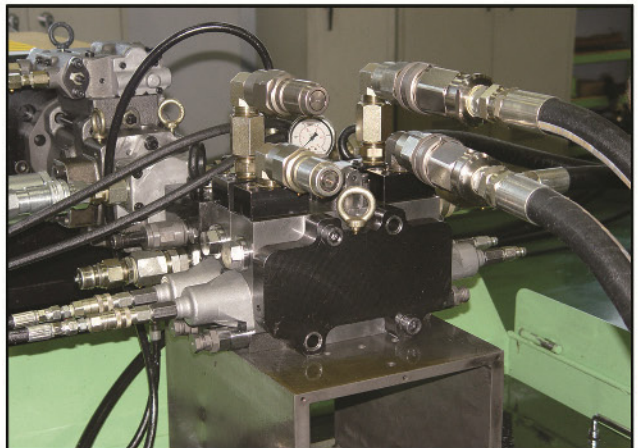
HPV050/O102/O118 PUMP



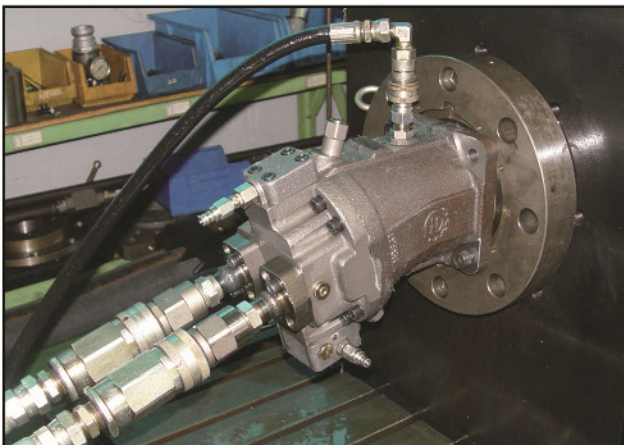
H3V112DTK PUMP



LOAD SENSING CONTROL VALVE

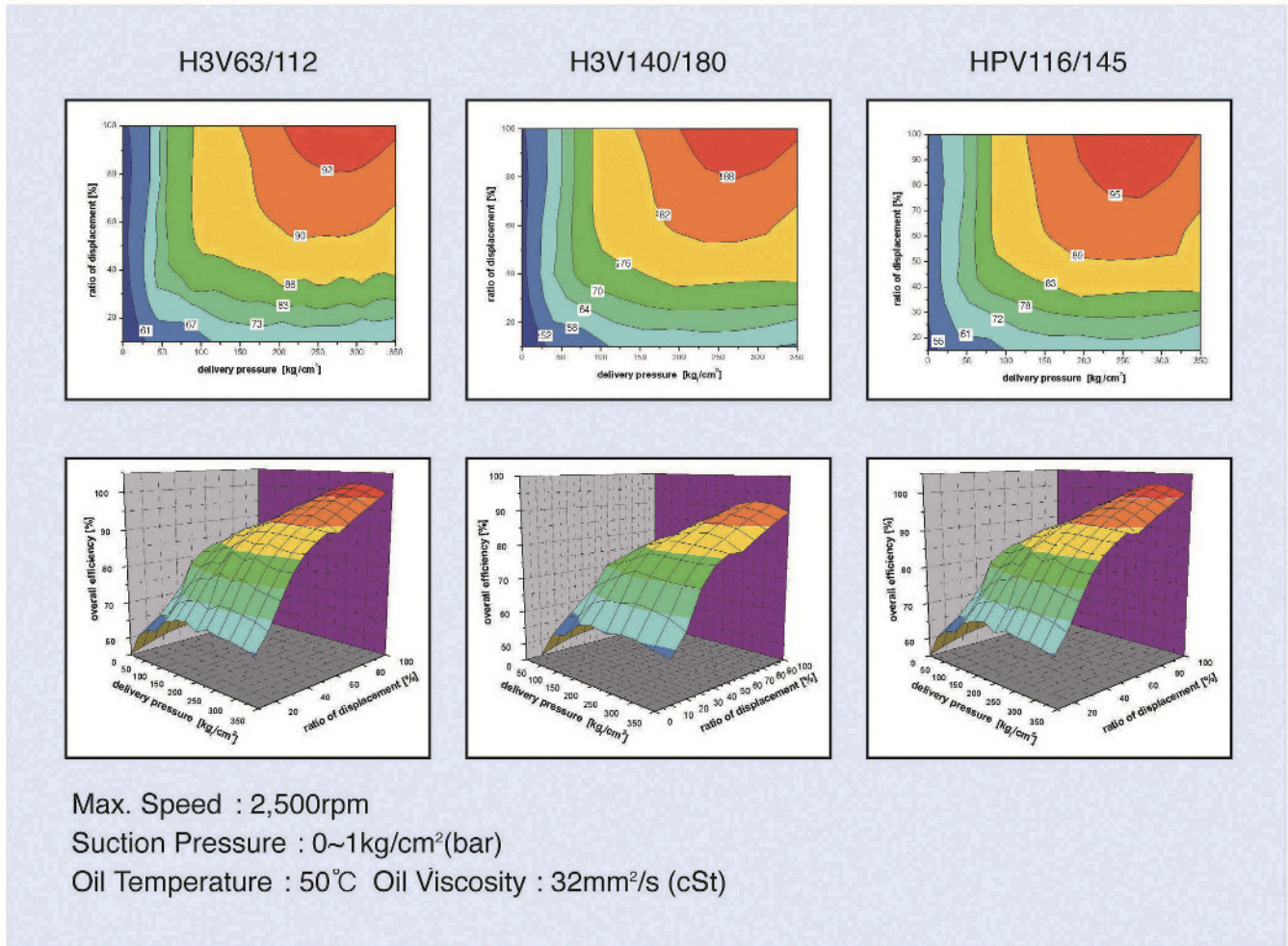


H6VM55/80/107/160/250 MOTOR



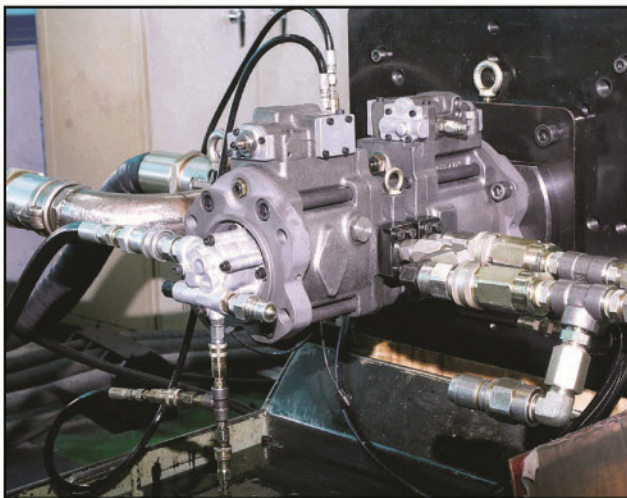
DOUBLE GEAR PUMP



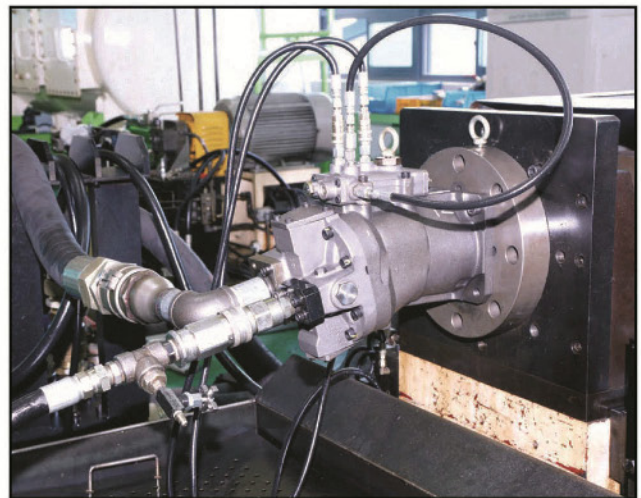


SWASH PLATE TYPE PISTON PUMPS

BENT AXIS TYPE PISTON PUMPS

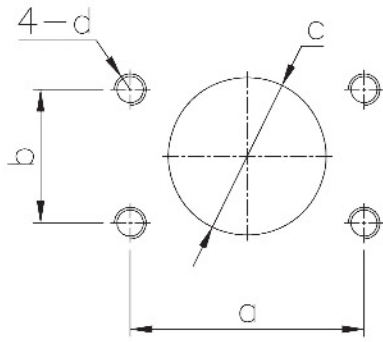


H3V PUMP SERIES (63/112/140/180/280)



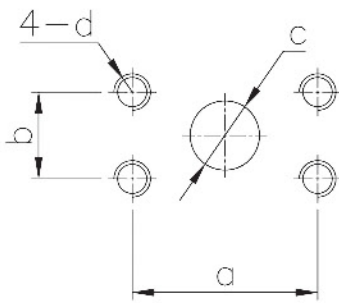
HPV 116/145 PUMP SERIES

H3V/H5V SERIES SUCTION & DELIVERY PORT



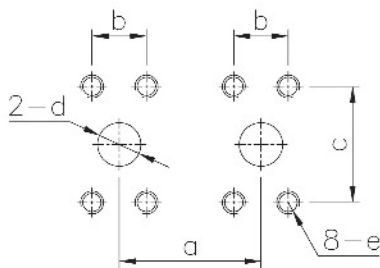
Flange Mounting face for Suction Port

MODEL	a	b	c	d	rule	
H3V63S / H5V80S	69.9	35.7	Φ38	M12X1.75P Dp18	SAE J518C (CODE61)	1-1/2"
H3V112S / H5V140S	88.9	50.8	Φ64	M12X1.75P Dp24		2-1/2"
H3V140(180)S / H5V200S	106.4	61.9	Φ76	M16X2.0P Dp24		3"
H3V140SH / H3V180SH / H5V200SH	106.4	61.9	Φ76	M16X2.0P Dp24		3"
H3V280SH	120.7	69.8	Φ80	M16X2.0P Dp24		3-1/2"
H3V63 / H3V112	88.9	50.8	Φ60	M12X1.75P Dp18		2-1/2"
H3V140 & H3V180	106.4	61.9	Φ76	M16X2.0P Dp24		3"
H3V280	130.2	77.8	Φ102	M16X2.0P Dp26		4"
H3V180DTH / H5V200DTH	106.4	61.9	Φ76	M16X2.0P Dp28		3"
H3V280DTH	120.7	69.8	Φ89	M16X2.0P Dp30		3-1/2"
H3V63DTP / H5V80DTP H3V112DTP/H5V140DTP	88.9	50.8	Φ60	M12X1.75P Dp24		2-1/2"
H3V140DTP / H5V160DTP H3V180DTP	106.4	61.9	Φ76	M16X2.0P Dp25		3"
H3VL28	58.7	30.2	Φ32	M10X1.5P Dp15		1-1/4"
H3VL80	77.8	42.9	Φ50	M12X1.75P Dp18		2"
H3VL112/H3VL140	88.9	50.8	Φ60	M12X1.75P Dp24		2-1/2"
H5V200DPH / H5V212DPH	106.4	61.9	Φ76	M16X2.0P Dp30		3"
H5V212DPH(CAT)	120.7	69.8	Φ78	M16X2.0P Dp24		3-1/2"
H3V112DP	88.9	50.8	Φ60	M12X1.75P Dp21		2-1/2"
H5V160DP	130.2	77.8	Φ102	M16X2.0P Dp26		4"
H5VG200SH	106.4	61.9	Φ76	M16X2.0P Dp30		3"



Flange Mounting face for Delivery Port

MODEL	a	b	c	d	rule	
H3V63S / H5V80S	57.2	27.8	Φ25	M10X1.5P Dp18	SAE J518C (CODE62)	1"
H3V112S / H5V140S	66.7	31.8	Φ32	M12X1.75P Dp24		1-1/4"
H3V140(180)S / H5V200S	79.4	36.5	Φ38	M16X2.0P Dp24		1-1/2"
H3V140SH / H3V180SH / H5V200SH	57.2	27.8	Φ25	M12X1.75P Dp24		1"
H3VL28	47.7	22.2	Φ19	M10X1.5P Dp15		3/4"
H3VL80	52.4	26.2	Φ25	M10X1.5P Dp17		1-1/4"
H3VL112/H3VL140	66.7	31.8	Φ32	M12X1.75P Dp24		1-1/4"
H3V280SH	66.7	31.8	Φ32	M12X1.75P Dp25		1-1/4"
H5VG200SH	57.2	27.8	Φ25	M12X1.75P Dp22		1"



Flange Mounting face for Delivery Port

MODEL	a	b	c	d	e	rule	
H3V63	62	23.8	50.8	Φ19	M10X1.5P Dp16	SAE J518C (CODE62)	3/4"
H3V112					M10X1.5P Dp23		
H3V140 & H3V180	76	27.8	57.2	Φ25	M12X1.75P Dp23		1"
H3V280	98	36.6	79.6	Φ38	M16X2.0P Dp25		1-1/2"
H3V180DTH / H5V200DTH	116	27.8	57.2	Φ25	M12X1.75P Dp22		1"
H3V280DTH	123	31.8	66.7	Φ32	M12X1.75P Dp28		1-1/4"
H3V63DTP / H5V80DTP / H3V112DTP	62	23.8	50.8	Φ19	M10X1.5P Dp20		3/4"
H5V140DTP	70	27.8	57.2	Φ25	M12X1.75P Dp22		1"
H3V140DTP / H5V160DTP H3V180DTP	84	27.8	57.2	Φ25	M12X1.75P Dp24		1"
H5V200DPH	75	27.8	57.2	Φ25	M12X1.75P Dp22		1"
H3V112DP	68	23.8	50.8	Φ19	M10X1.5P Dp20	3/4"	
H5V160DP / H5V212DPH/ H5V212DPH(CAT)	83	31.8	66.7	Φ32	M12X1.75P Dp22	1-1/4"	

H64-PTO GEAR BOX

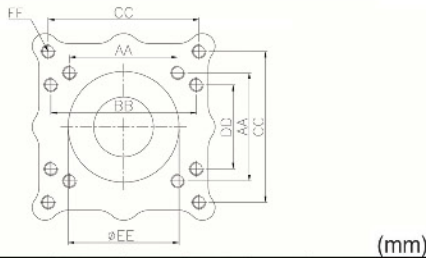


SPECIFICATIONS



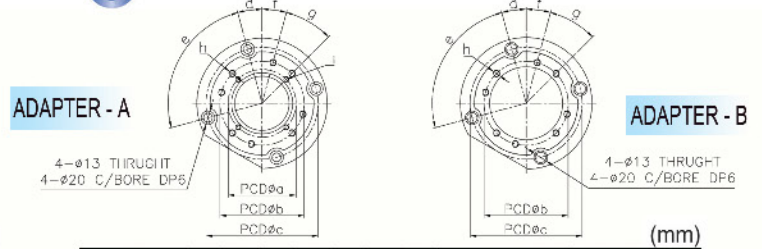
MODEL	H64-PTO GEAR BOX		
Max. Output torque of transfer case (t max.)	3,200n.m		
Max. Output speed of transfer case (n1 max.)	2,700min-1		
Output power	335kw		
Gear Ratio	0.825 : 1	0.772 : 1	0.659 : 1
Gear oil	7.3 liter CLP220 DIN51517		
Weight	150kg		

FLANGE MOUNTING SIZE



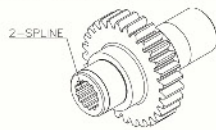
MODEL	AA	BB	CC	DD	EE	FF
H64-PTO GEAR BOX	161.6	216.6	224.5	125	165.1 180	M20x2.5P DP46

ADAPTER A & B SIZE

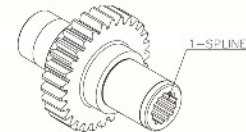


MODEL	a	b	c	d	e	f	g	h	i
ADAPTER-A	100	124	165	15	90	15	30	8-M10x1.5P DP27	4-M8x1.25P DP16
ADAPTER-B	-	-	-	-	-	-	-	-	-

Dimension of Shaft End(Spline type)

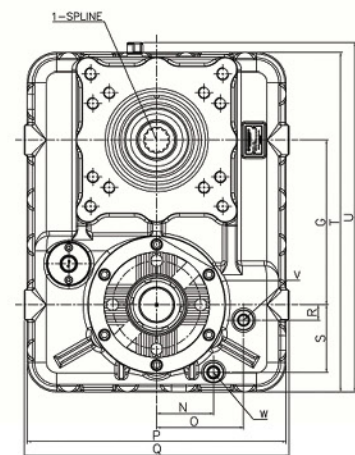
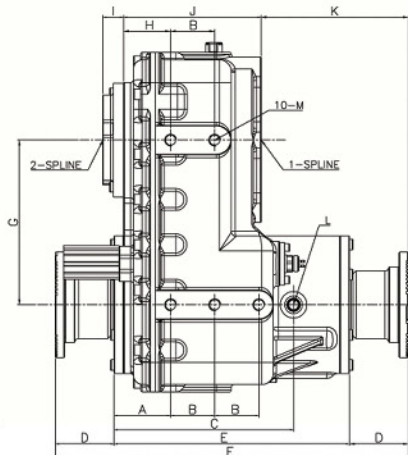
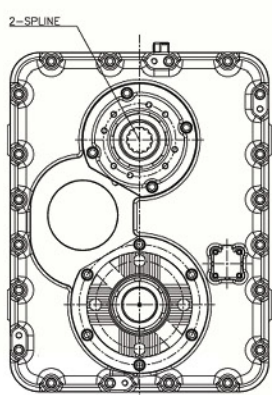


MODEL	No. of teeth	Pitch circle dia (mm)	Module	Pressure angle	STANDRAD
2-SPLINE (BOOM PUMP)	13	41.275	8/16DP	30°	SAE
	17	42.5	2.5	20°	JIS
	24	48	2.0	30°	DIN 5480
	28	56	3.0	30°	DIN 5480



MODEL	No. of teeth	Pitch circle dia (mm)	Module	Pressure angle	STANDRAD
1-SPLINE (MAIN PUMP)	13	41.275	8/16DP	30°	SAE
	17	42.5	2.5	20°	JIS
	24	48	2.0	30°	DIN 5480
	28	56	3.0	30°	DIN 5480

DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
H64-PTO GEAR BOX	96	75	305	100	400	600	280	80	35	234	250	M18x1.5P	M20x2.5P DP53	96	148	440	450	26	115	576	663	PF1/2	PF1/2

H10VO28/45/71/74(DR TYPE)

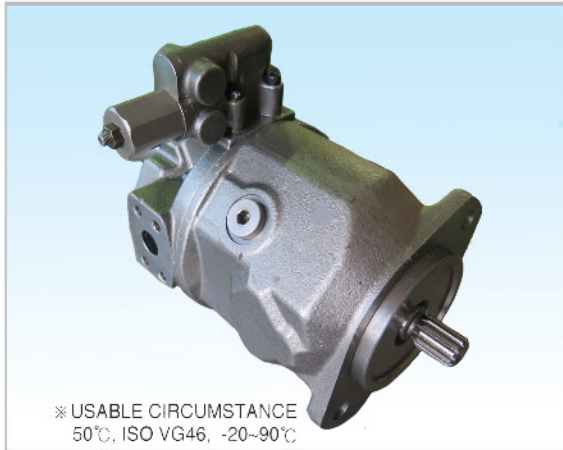
CUT-OFF CONTROL

SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H10VO28	H10VO45	H10VO71 H10VO74
	DR TYPE		
Discharge Rate(cc/rev)	28	45	71 74
Max. Pressure (kg/cm ²)	280		
Max. Speed (rpm)	3,000		

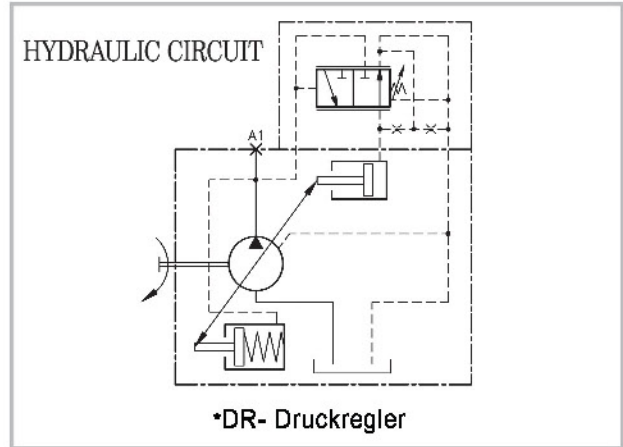


Dimensions of Shaft End(Spline Type)

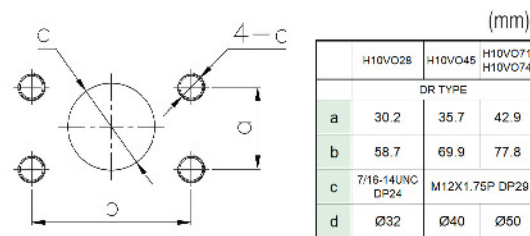
MODEL	No. of tooth	Pitch circle/mm	Module	Pressure angle	Standard
H10VO28	13	20.64	16/32	30°	SAE J498B
H10VO45	15	23.813			SAE J498B
H10VO71/74	14	28	2		DIN 5480

Dimensions of Shaft End(Key Type)

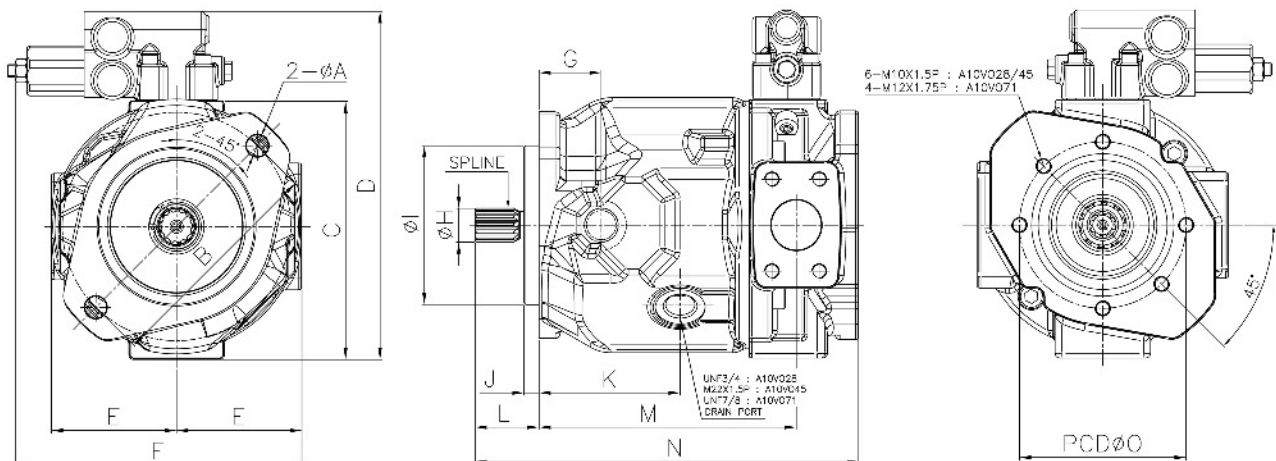
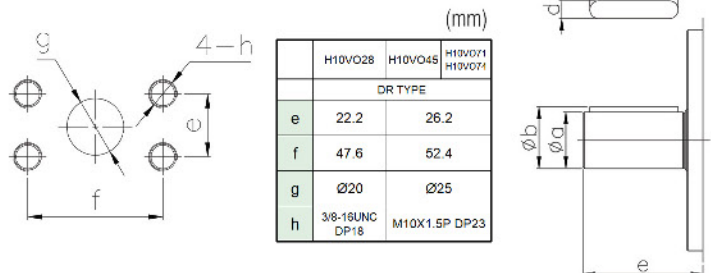
MODEL	a	b	c	d	e	Standard
H10VO28 DR TYPE	22.225	25	28.6	6.35	40.5	DIN6885



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H10VO28	14	146	165	222.5	80	183	40	21.7	101.6	9.5	90	41	164	245	106.5
H10VO45			185	241.5	90	193	45.5	25		8.5	96.5	46	183.5	266.5	
H10VO71/74	18	181	213	269	104	207	62	31.2	127	12.7	114.8	55.5	217	312	-

H10VO28/45/71/74(DFLR TYPE)

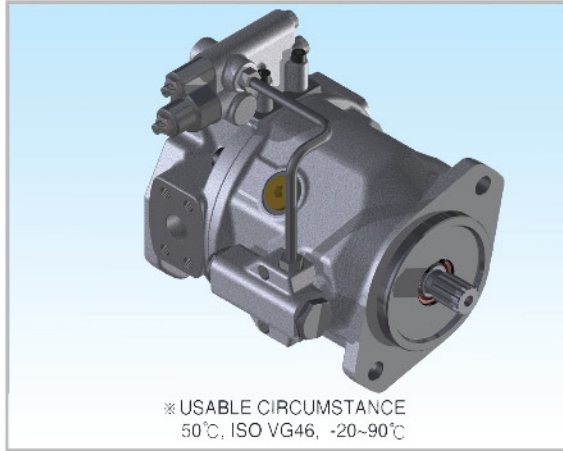
LOAD SENSING & CUT-OFF & HORSE POWER CONTROL

SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H10VO28	H10VO45	H10VO71 H10VO74
	DFLR TYPE		
Discharge Rate(cc/rev)	28	45	71 74
Max. Pressure (kg/cm ²)	280		
Max. Speed (rpm)	3,000		

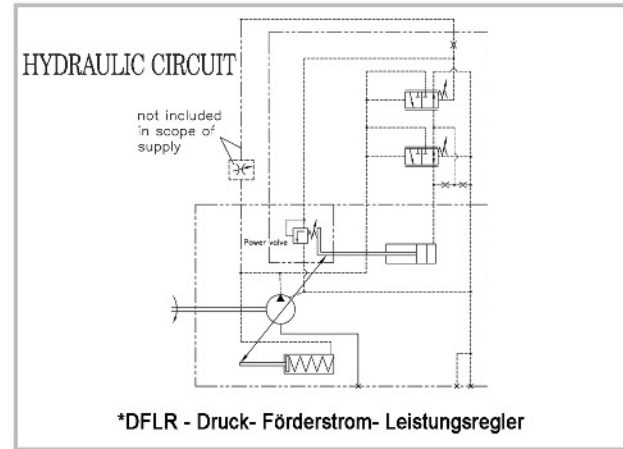


Dimensions of Shaft End(Spline Type)

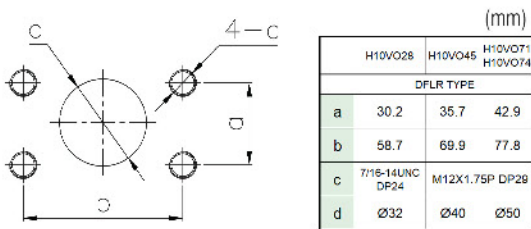
MODEL	No. of teeth	Fitch cord (dmm)	Module	Pressure angle	Standard
H10VO28	13	20.64	16/32	30°	SAE J498B
H10VO45	15	23.813			SAE J498B
H10VO71/74	14	28	2		DIN 5480

Dimensions of Shaft End(Key Type)

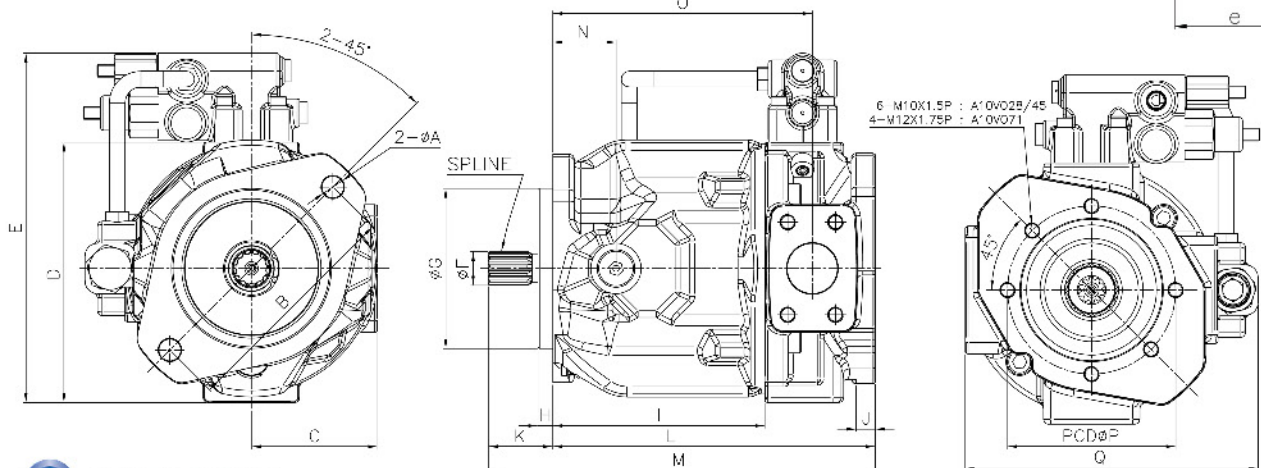
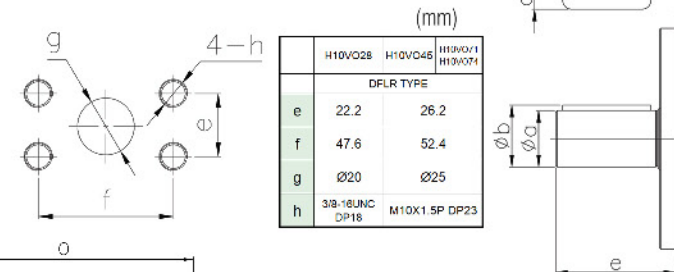
MODEL	a	b	c	d	e	Standard
H10VO28 DFLR TYPE	22.225	25	28.6	6.35	40.5	DIN6885



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H10VO28	14	146	80	165	222.5	21.7	101.6	9.5	134	12	41	204	245	40	164	108.5	185.5
H10VO45			90	185	241.5	25		8.5	149.5	22	46	220.5	266.5	45.5	183.5		205.5
H10VO71/74	18	181	104	213	269	31.2	127	12.7	177	-	55.5	257	312	62	217	-	233.5

H10VO28/45/71/74(DFR/DFR1 TYPE)

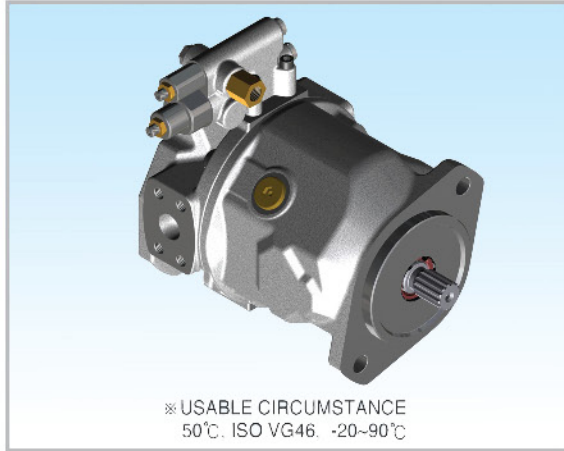
LOAD SENSING & CUT-OFF CONTROL

SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H10VO28	H10VO45	H10VO71 H10VO74
	DFR/DFR1 TYPE		
Discharge Rate(cc/rev)	28	45	71 74
Max. Pressure (kg/cm ²)	280		
Max. Speed (rpm)	3,000		

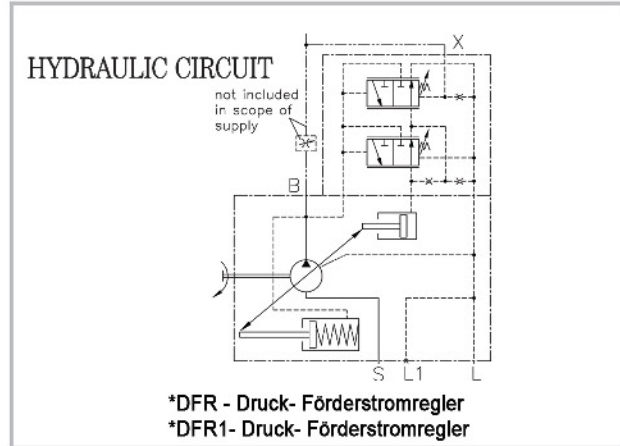


Dimensions of Shaft End(Spline Type)

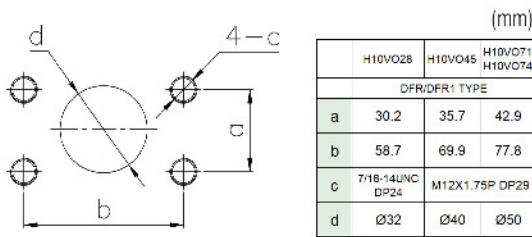
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H10VO28	13	20.64	16/32	30°	SAE J498B
H10VO45	15	23.813			SAE J498B
H10VO71/74	14	28	2		DIN 5480

Dimensions of Shaft End(Key Type)

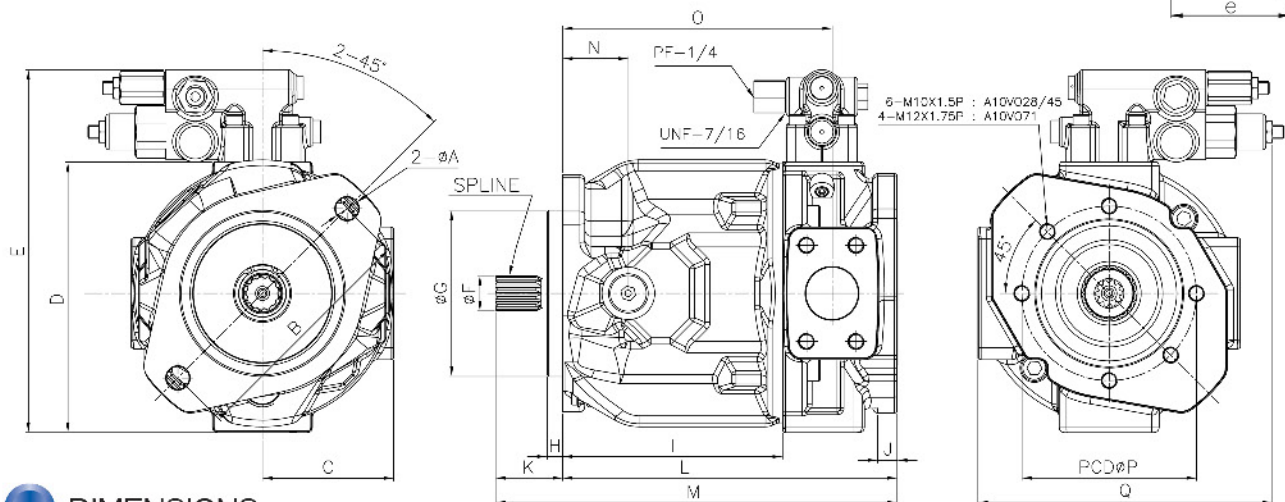
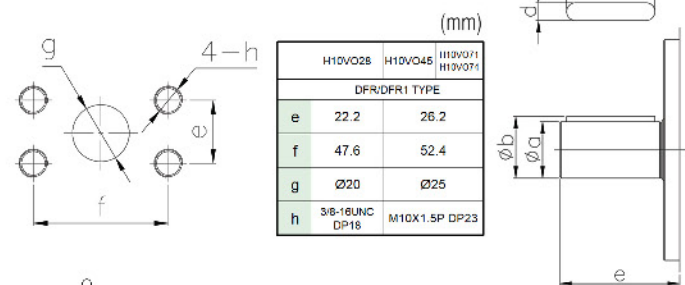
MODEL	a	b	c	d	e	Standard
H10VO28 DFR/DFR1 TYPE	22.225	25	28.6	6.35	40.5	DIN6885



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H10VO28	14	146	80	165	222.5	21.7	101.6	9.5	134	12	41	204	245	40	164	106.5	180
H10VO45			90	185	241.5	25		8.5	149.5	22	46	220.5	266.5	45.5	183.5		190
H10VO71/74	18	181	104	213	269	31.2	127	12.7	177	-	55.5	257	312	62	217	-	206

H10VO28/45/71/74(ED TYPE)

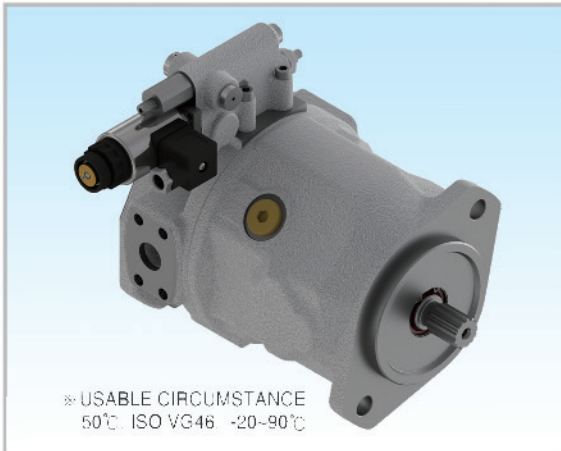
LOAD SENSING & CUT-OFF CONTROL

SWASH PLATE TYPE PISTON PUMP



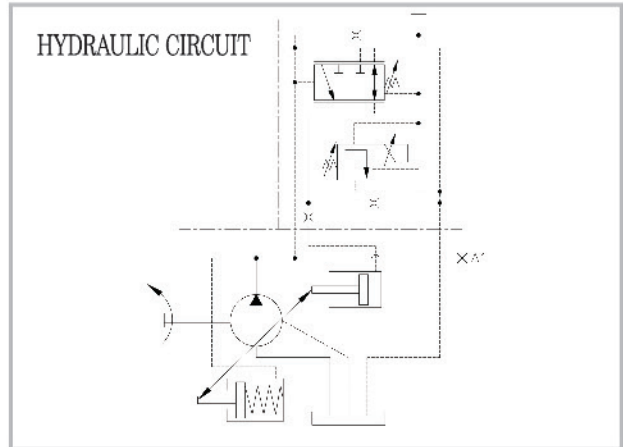
SPECIFICATIONS

MODEL	H10VO28	H10VO45	H10VO71 H10VO74
	ED TYPE		
Discharge Rate(cc/rev)	28	45	71 74
Max. Pressure (kg/cm ²)	280		
Max. Speed (rpm)	3,000		

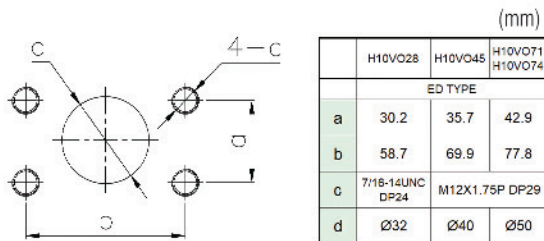


Dimensions of Shaft End(Spline Type)

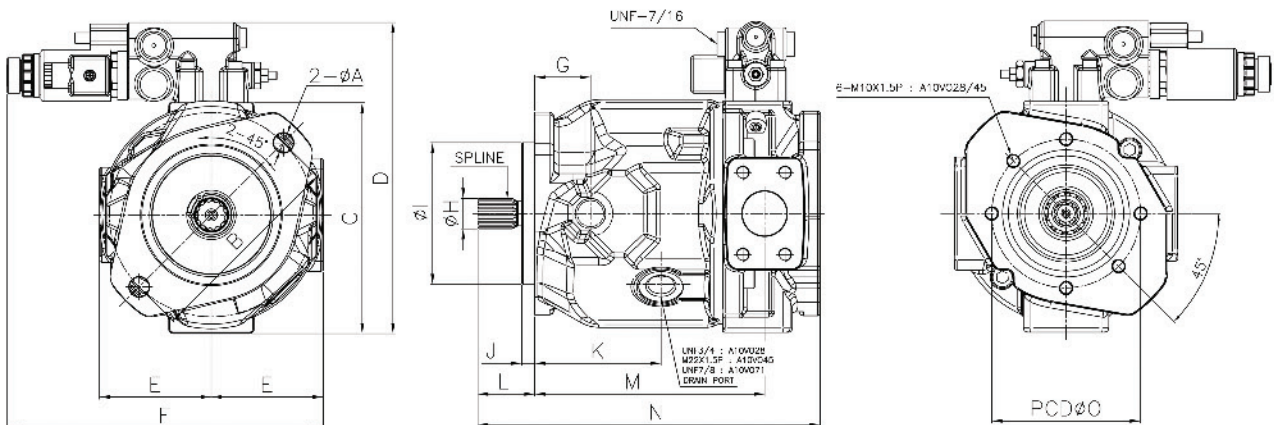
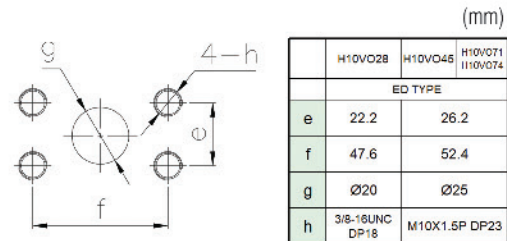
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H10VO28	13	20.64	16/32	30°	SAE J498B
H10VO45	15	23.813			SAE J498B
H10VO71/74	14	28	2		DIN 5480



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H10VO28	14	146	165	222.5	80	226	40	21.7	101.6	9.5	90	41	164	245	106.5
H10VO45			ED TYPE	185	241.5	90	236	45.5		25	8.5	96.5	46	183.5	
H10VO71/74	18	181	213	269	104	250	62	31.2	127	12.7	114.8	55.5	217	312	-

H10VO28LR FOR ZAXIS70

HORSE POWER CONTROL

SWASH PLATE TYPE PISTON PUMP

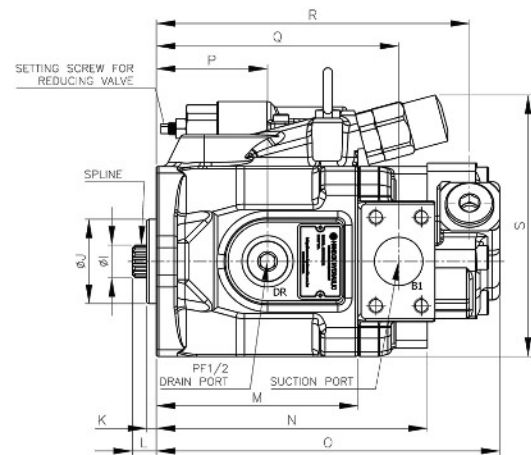
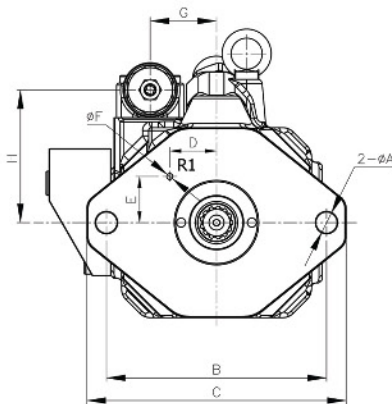
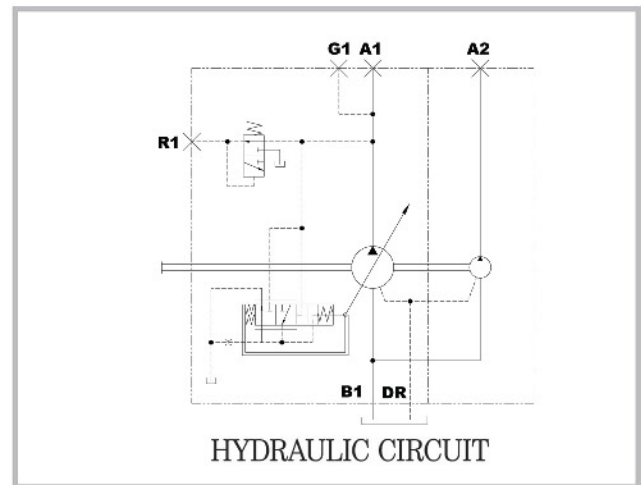
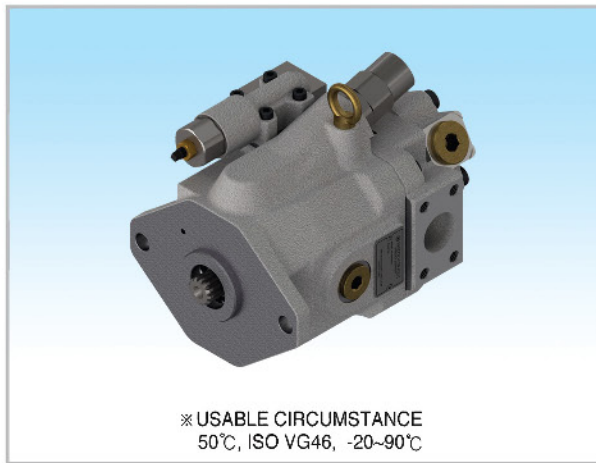


SPECIFICATIONS

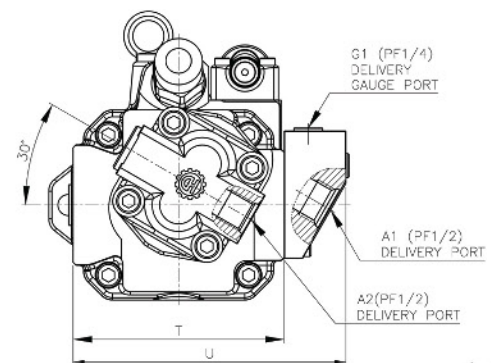
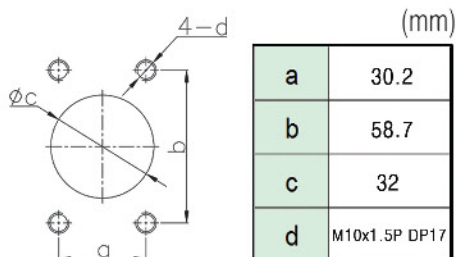
MODEL	H10VO28LR
Discharge rate(cc/rev)	28
Max. pressure (kg/cm ²)	260
Max.speed(rpm)	2300

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H10VO28LR	13	20.64	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
H10VO28LR	14	146	172	31	30.6	4	44	88	21.8	56	6.3	16	134	180	228	74	161	208	173	140	181

H10VD43 FOR SUMITOMO SWASH PLATE TYPE PISTON PUMP

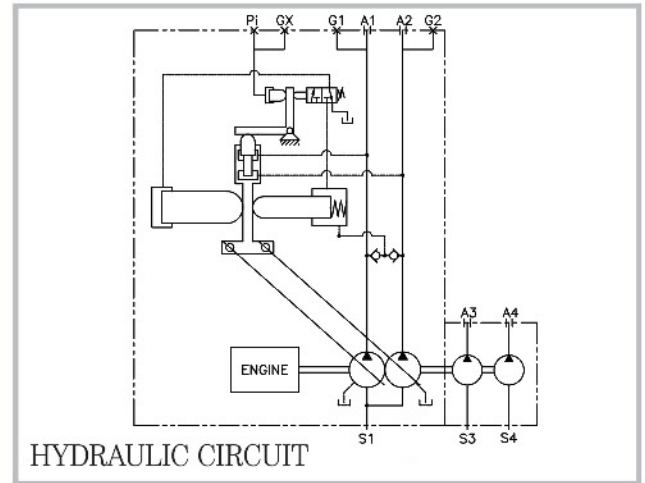
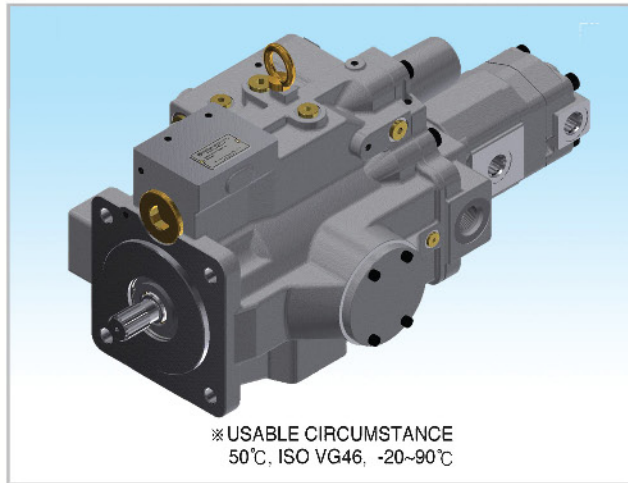


SPECIFICATIONS

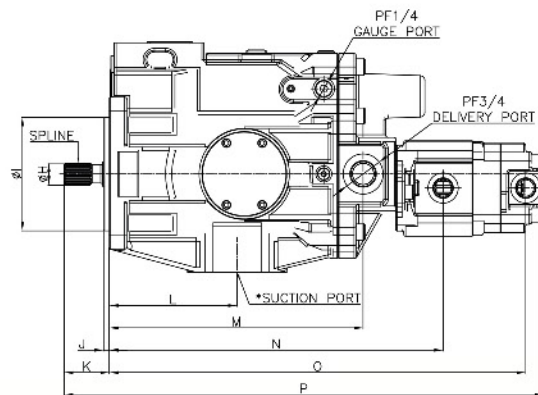
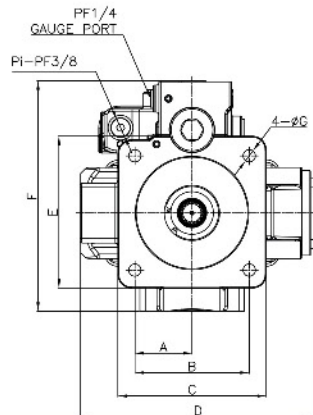
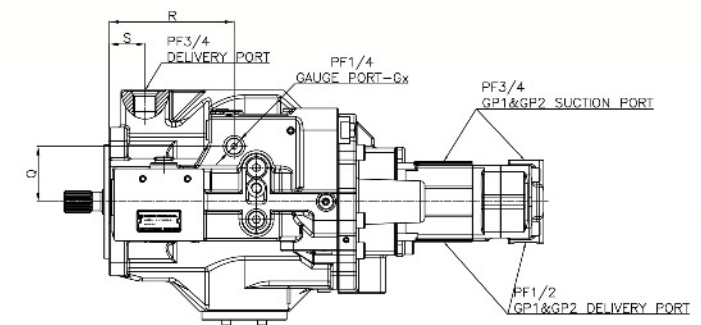
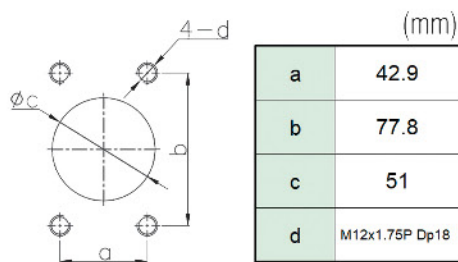
MODEL	H10VD43 (For SUMITOMO)
Discharge Rate(cc/rev)	36 x 2
Max. Pressure (kg/cm²)	260
Max. Speed (rpm)	2,200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle da(mm)	Module	Pressure angle	Standard
H10VD43 (For SUMITOMO)	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H10VD43 (For SUMITOMO)	64	128	166	263	170	258	14	24.8	127	6.5	50.7	143	284	373.5	466	537	62	139.5	40

H10VD43 FOR HITACHI SWASH PLATE TYPE PISTON PUMP

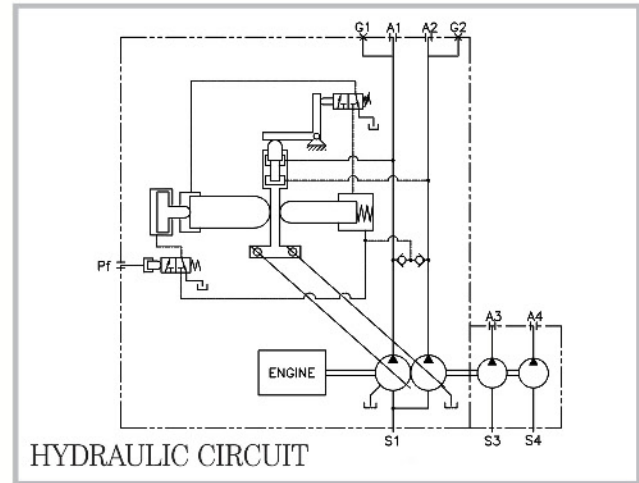
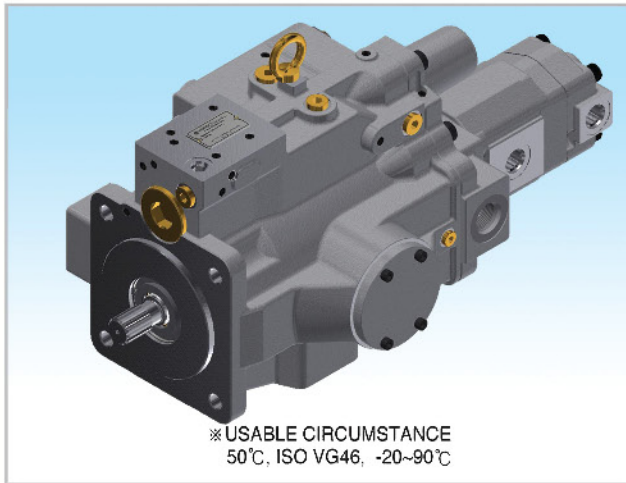


SPECIFICATIONS

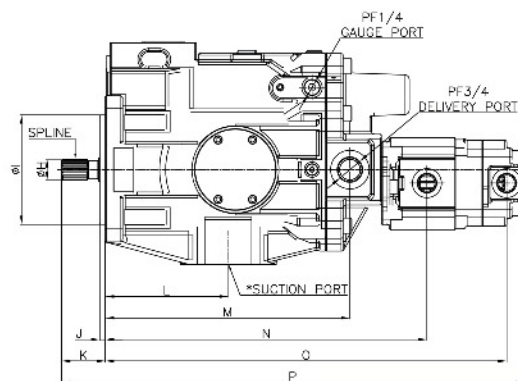
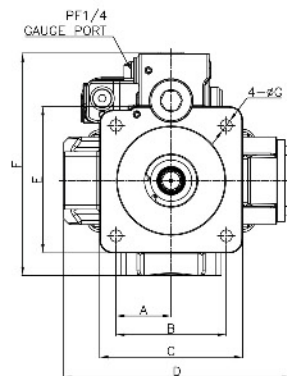
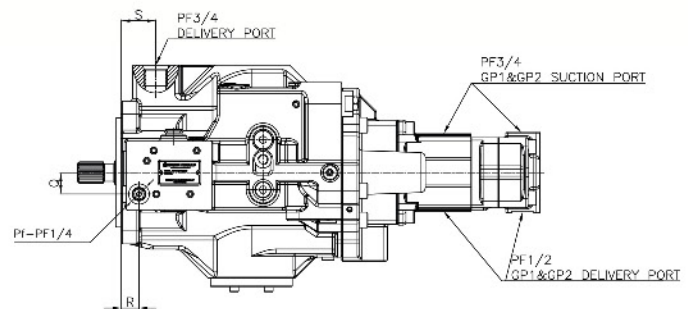
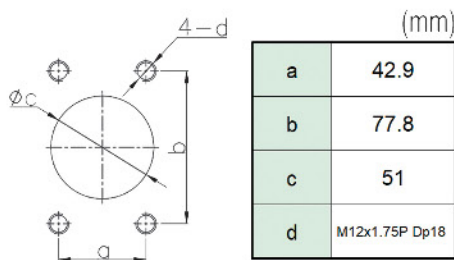
MODEL	H10VD43 (For HITACHI)
Discharge Rate(cc/rev)	36 x 2
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2,200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H10VD43 (For HITACHI)	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H10VD43 (For HITACHI)	64	128	166	263	170	258	14	24.8	127	6.5	50.7	143	284	373.5	466	537	25	20.5	40

H10VD43 FOR CATERPILLAR SWASH PLATE TYPE PISTON PUMP

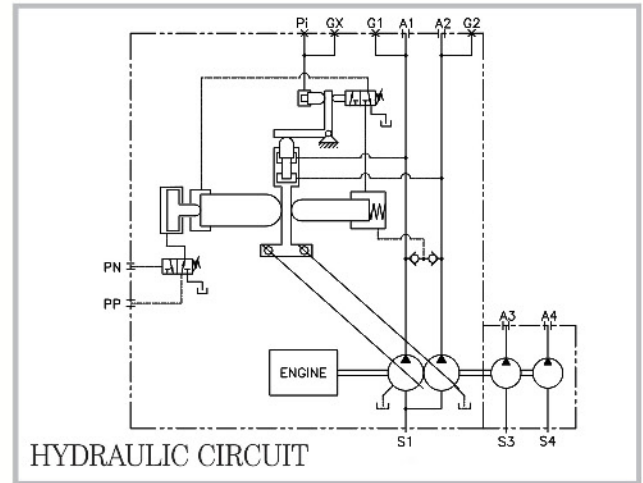
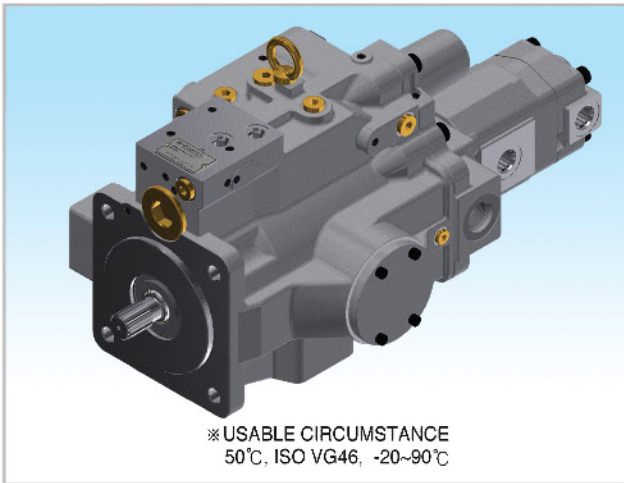


SPECIFICATIONS

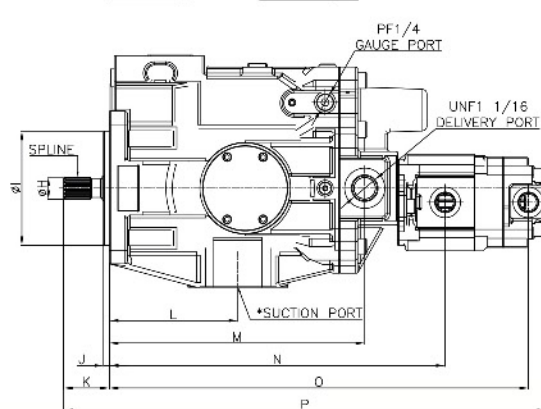
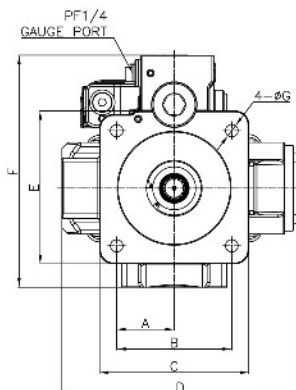
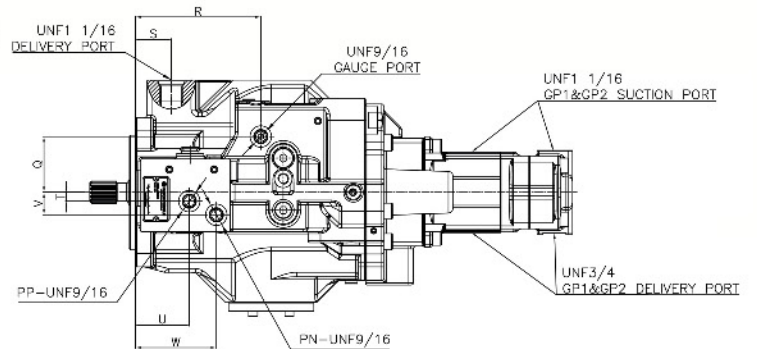
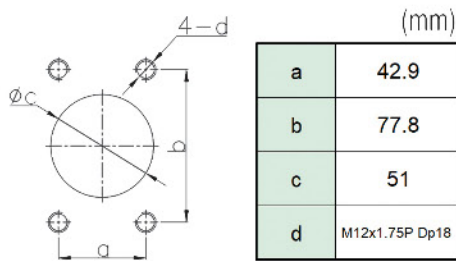
MODEL	H10VD43 (For CATERPILLAR)
Discharge Rate(cc/rev)	36 x 2
Max. Pressure (kg/cm²)	260(320)
Max. Speed (rpm)	2,200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle da(mm)	Module	Pressure angle	Standard
H10VD43 (For CATERPILLAR)	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
H10VD43 (For CATERPILLAR)	64	128	166	263	170	258	14	24.8	127	6.5	50.7	143	284	373.5	466	537	62	139.5	40	10	60	25	90

H3VL28

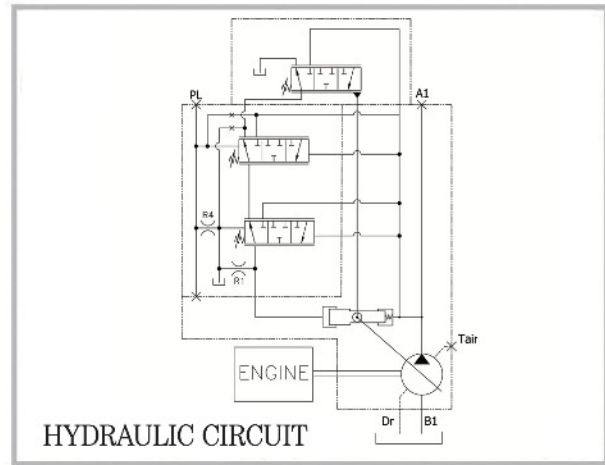
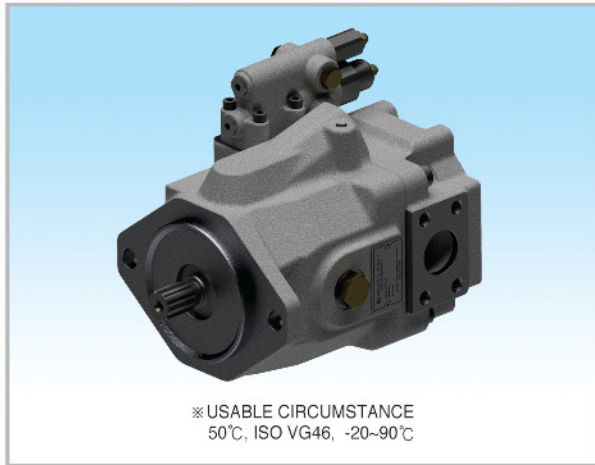
LOAD SENSING & CUT-OFF CONTROL

SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H3VL28
Discharge Rate(cc/rev)	28
Max. Pressure (kg/cm²)	340
Max. Speed (rpm)	3000

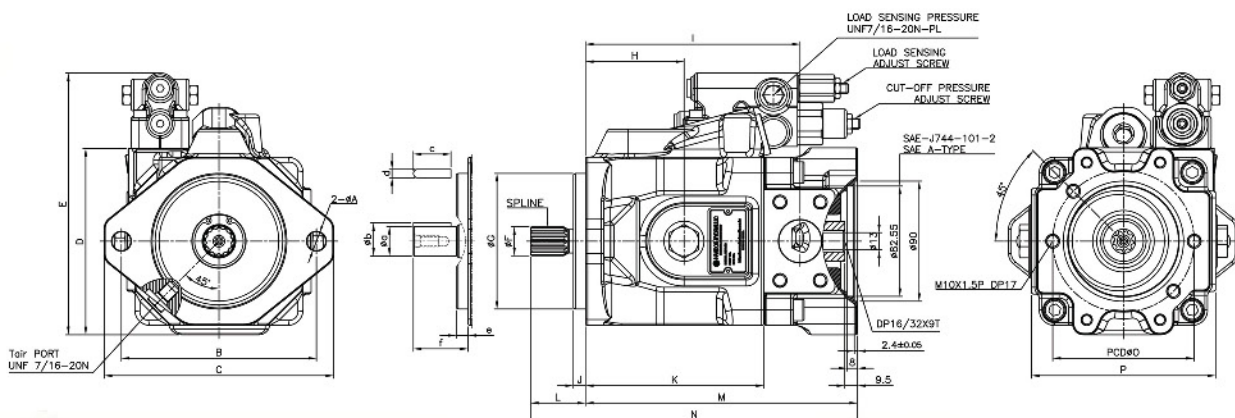


Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Mouldle	Pressure Angle	Standard
H3VL28	13	20.64	16/32	30	SAE J498B

Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL28	22.2	24.9	28	6.3	9	41	SAE J744-22-1



DIMENSIONS

(mm)

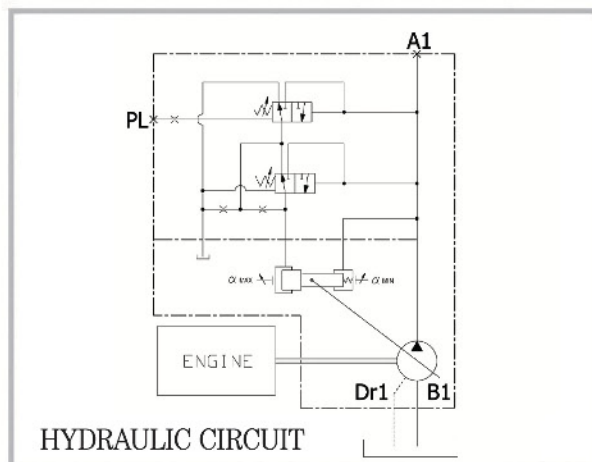
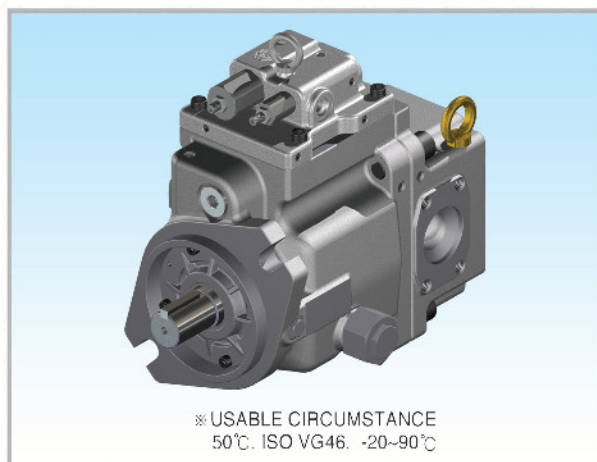
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3VL28	14	146	172	139.5	196	21.7	101.6	74	161	9	134	41	204	245	106	138

H3VL63/80 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR LC00 TYPE)

MODEL	H3VL63	H3VL80
Discharge Rate(cc/rev)	63	80
Max. Pressure (kg/cm ²)	280	350
Max. Speed (rpm)	2400	

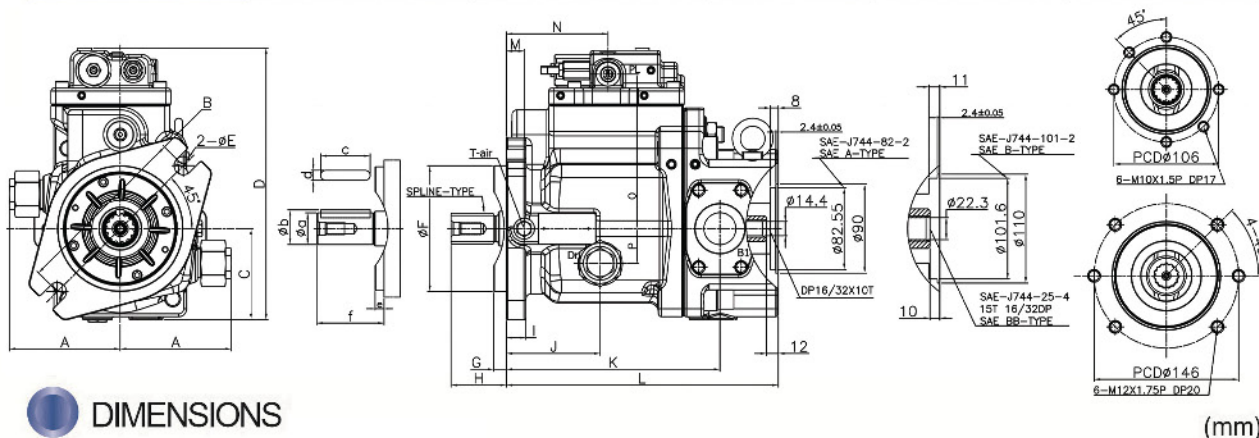


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL63/80 (SAE KEY)	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
H3VL63/80 (ISO KEY)	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL63/80	14	29.63	12/24	30°	SAE J744-32-4
H3VL63/80	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

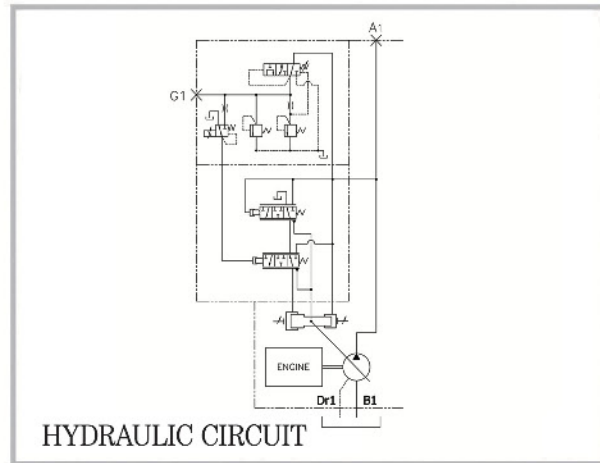
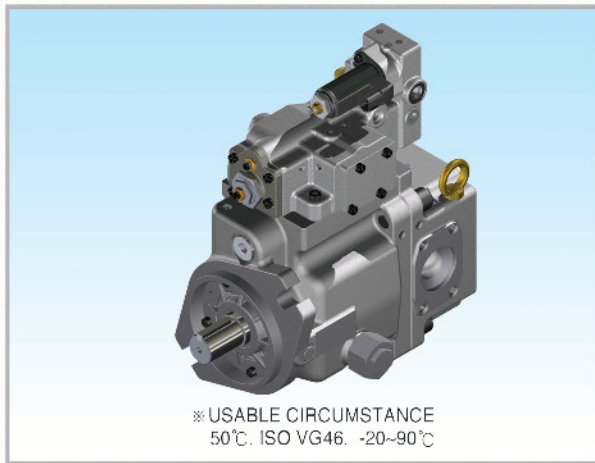
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3VL63/80	112	180	92	275	18.5	127	12.7	56	20	95	216	275	18	103	156	35

H3VL63/80 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 3E00 TYPE)

MODEL	H3VL63	H3VL80
Discharge Rate(cc/rev)	63	80
Max. Pressure (kg/cm ²)	280	350
Max. Speed (rpm)	2400	

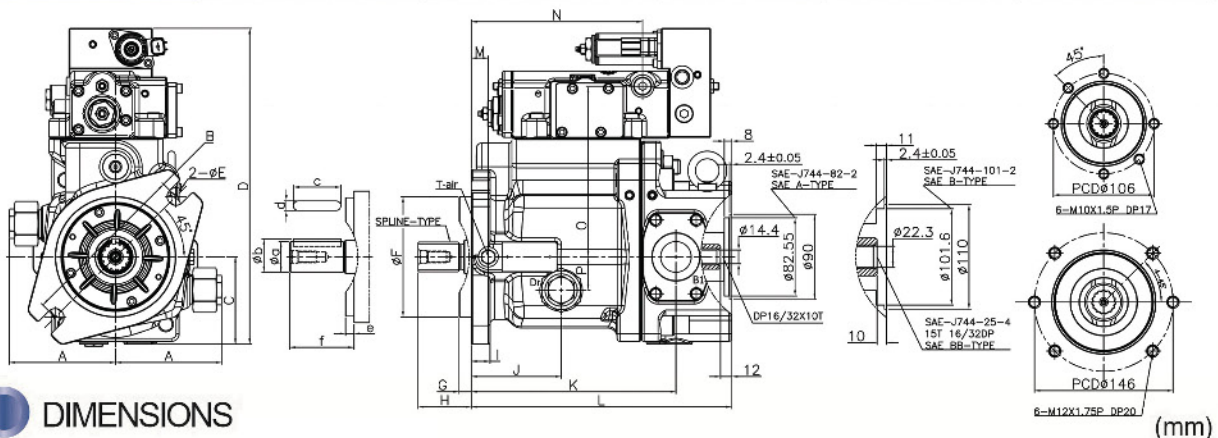


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL63/80 (SAE KEY)	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
H3VL63/80 (ISO KEY)	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL63/80	14	29.63	12/24	30°	SAE J744-32-4
H3VL63/80	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

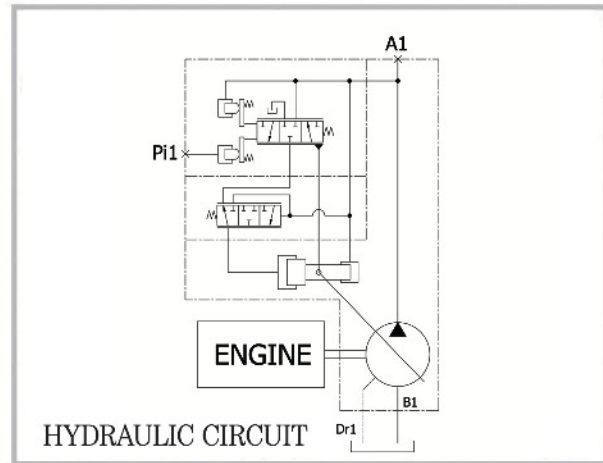
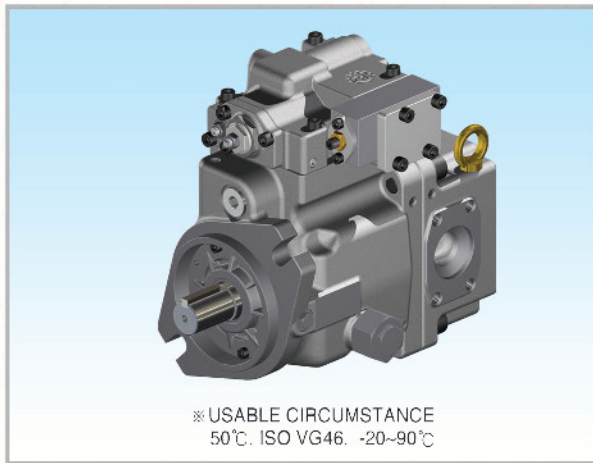
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3VL63/80	112	180	92	275	18.5	127	12.7	56	20	95	216	275	18	103	156	35

H3VL63/80 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 5N00 / 6N00 TYPE)

MODEL	H3VL63	H3VL80
Discharge Rate(cc/rev)	63	80
Max. Pressure (kg/cm ²)	280	350
Max. Speed (rpm)	2400	

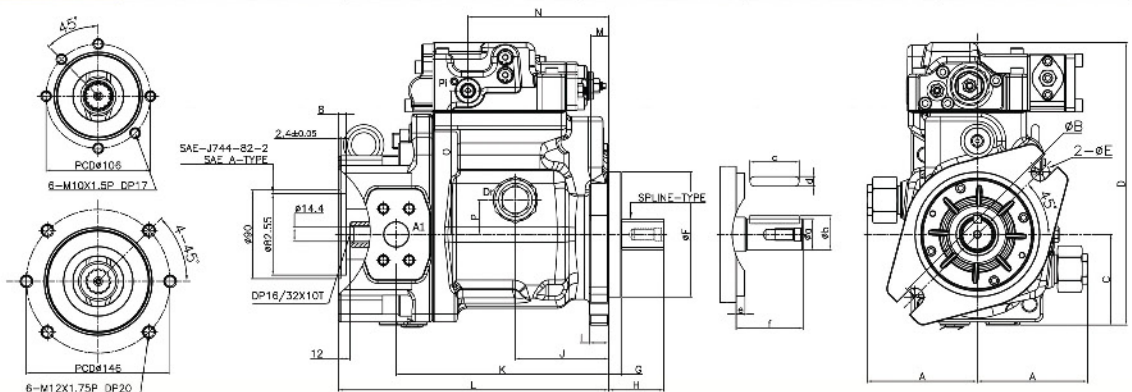


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL63/80 (SAE KEY)	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
H3VL63/80 (ISO KEY)	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL63/80	14	29.63	12/24	30°	SAE J744-32-4
H3VL63/80	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

(mm)

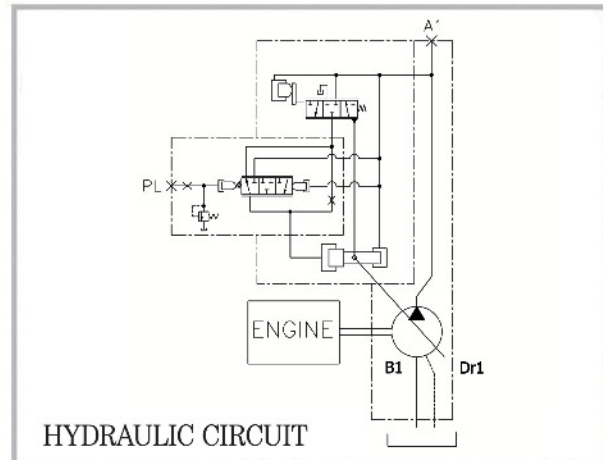
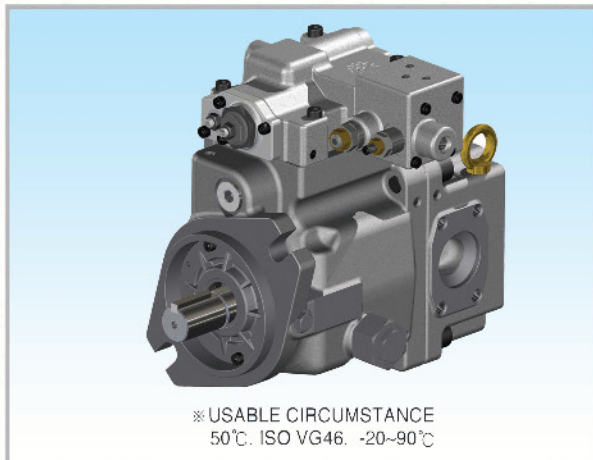
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3VL63/80	112	180	92	275	18.5	127	12.7	56	20	95	216	275	18	103	156	35

H3VL63/80 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 5L00 TYPE)

MODEL	H3VL63	H3VL80
Discharge Rate(cc/rev)	63	80
Max. Pressure (kg/cm ²)	280	350
Max. Speed (rpm)	2400	

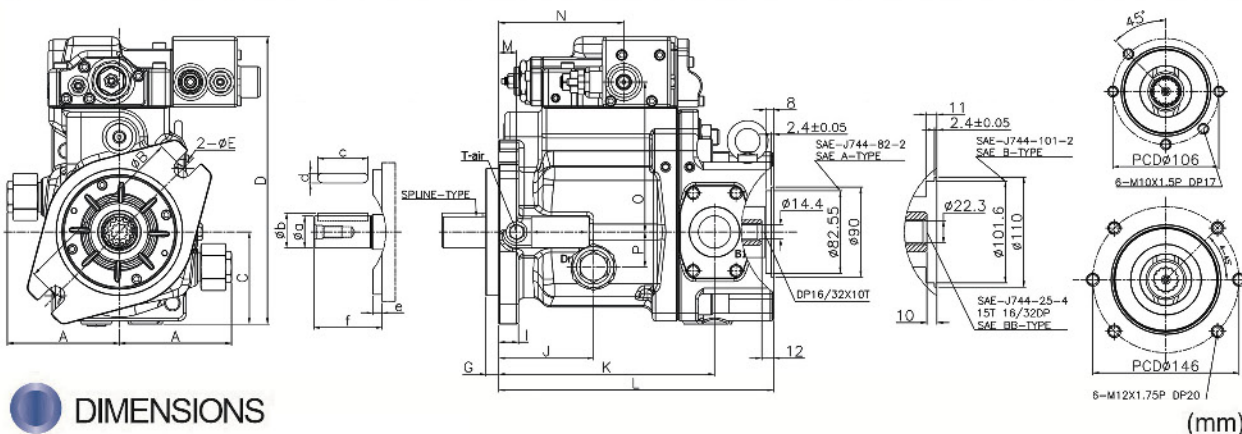


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL63/80 (SAE KEY)	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
H3VL63/80 (ISO KEY)	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL63/80	14	29.63	12/24	30°	SAE J744-32-4
H3VL63/80	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

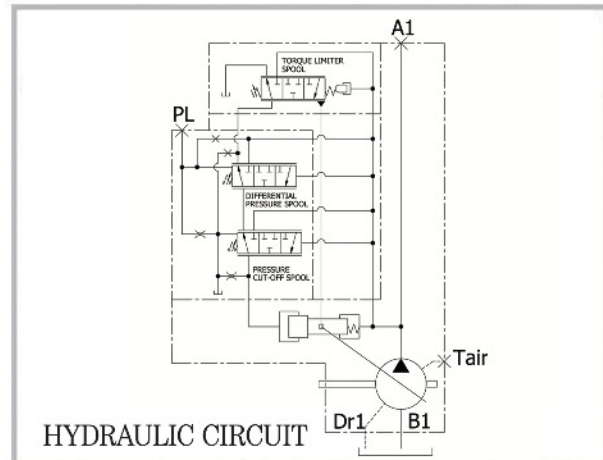
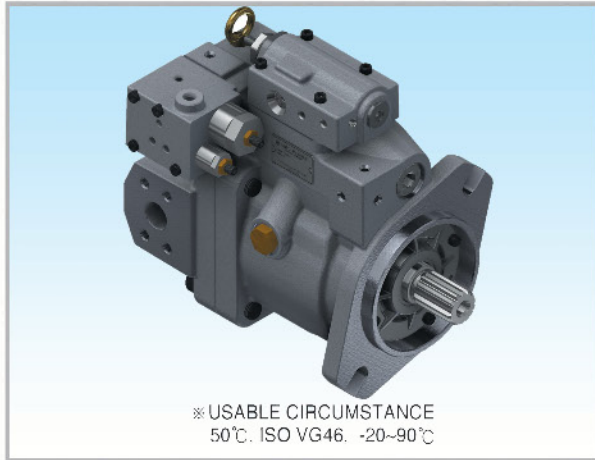
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3VL63/80	112	180	92	275	18.5	127	12.7	56	20	95	216	275	18	103	156	35

H3VL80 FOR SANY SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H3VL80 (FOR SANY)
Discharge Rate(cc/rev)	80
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	2400

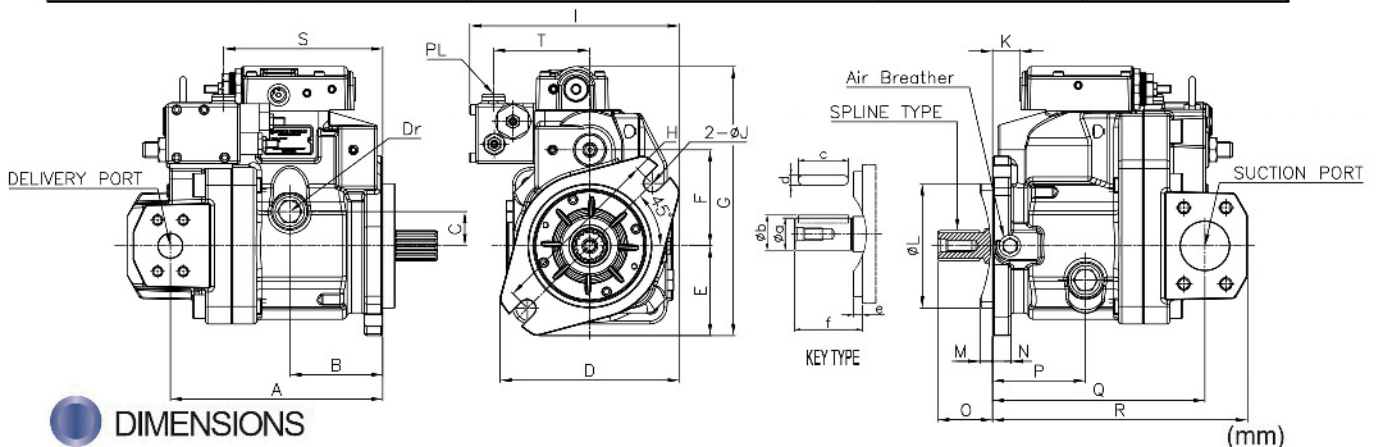


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL80	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3VL80	14	29.63	12/24	30°	SAE J744-32-4
	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

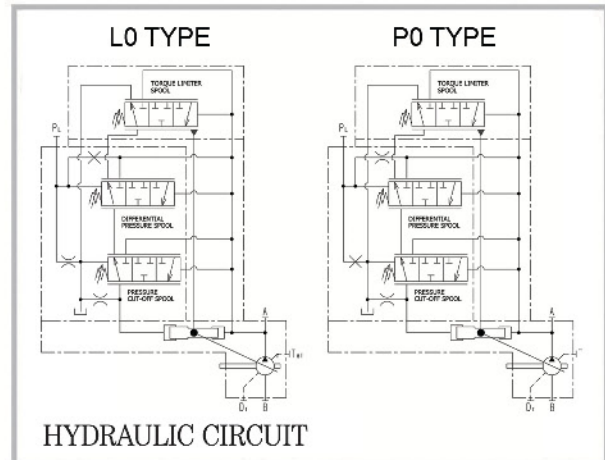
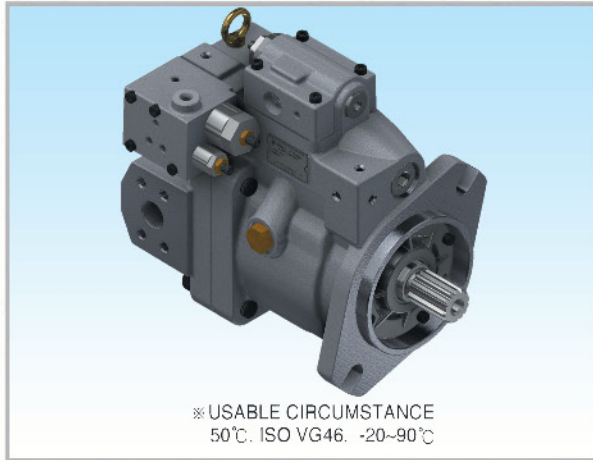
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
H3VL80 (FOR SANY)	217	95	35	184	92	98	275	180	214	17.5	27.7	127	12.7	19	56	95	217	260.5	162.5	98.5

H3VL45/80 SWASH PLATE TYPE PISTON PUMP



SPECIFICATIONS

MODEL	H3VL45	H3VL80
Discharge Rate(cc/rev)	45	
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2400	

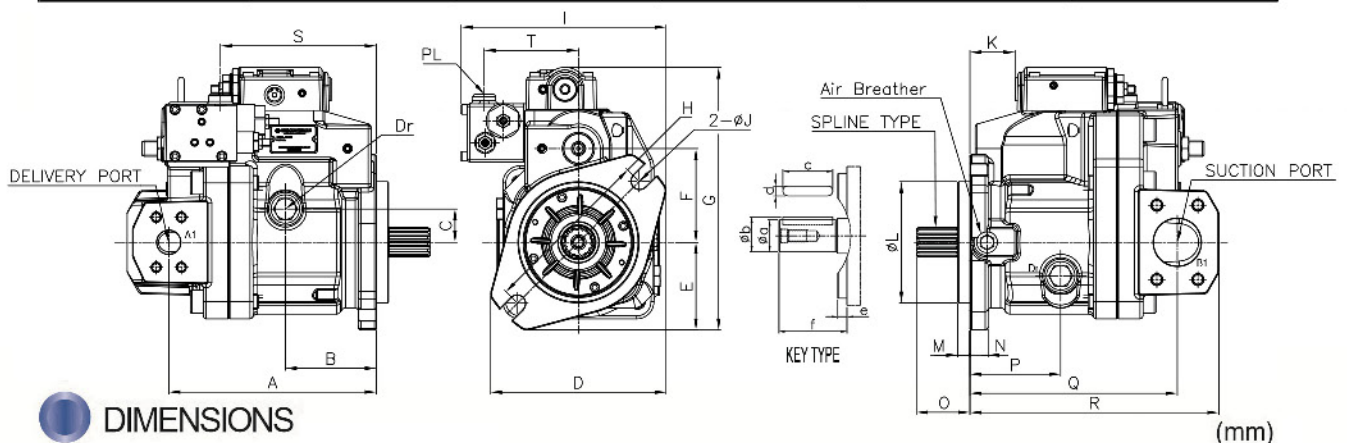


Dimensions of Shaft End(Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL45	25	28	36	8	9.7	53	SAE J744-25-1
H3VL80	31.75	35.2	44	7.94	12.7	56	SAE J744-32-1
	32	35	50	10	9	68	ISO 3019/2-G32N

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3VL45	15	24.981	16/32	30°	SAE J744-25-4
H3VL80	14	29.63	12/24	30°	SAE J744-32-4
	12	30	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

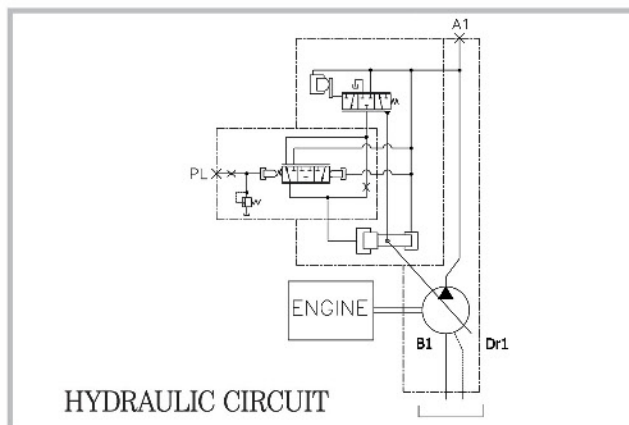
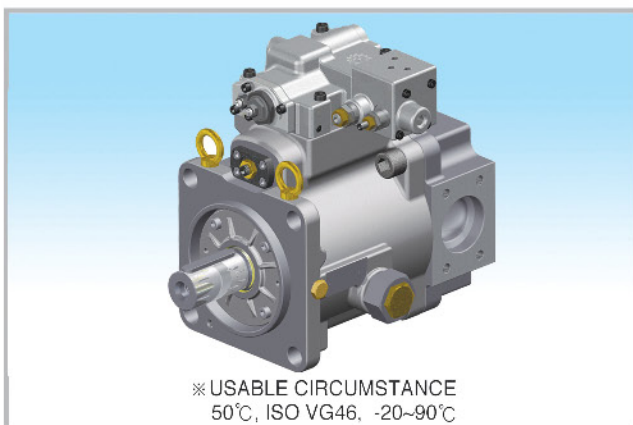
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
H3VL45	184	91	33	146	87	73	217	146	196	14.3	44.7	100	9	13	46	91	184	250	154.0	93
H3VL80	217	95	35	184	92	98	275	180	214	17.5	47.2	127	12.7	19	56	95	217	260.5	162.5	98.5

H3V112/140 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 5L00 TYPE)

MODEL	H3VL112	H3VL140
Discharge Rate (cc/rev)	112	140
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2700	2500

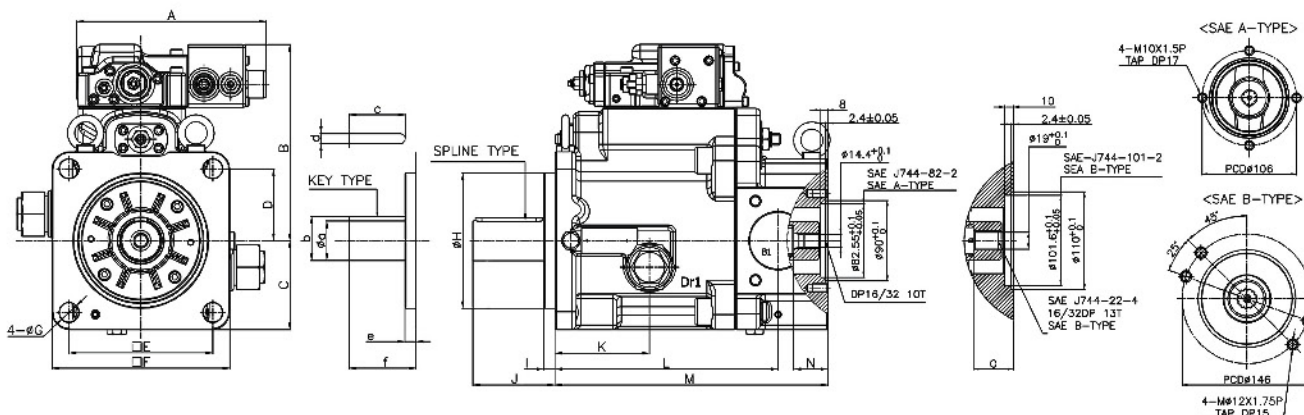


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL112 / 140	13	41.275	8/16	30°	SAE J744-44-4

Dimensions of Shaft End (Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL112 / 140	45	48.5	80	14	12.5	92	ISO 3019/2
H3VL112 / 140	44.45	49.3	63	11.11		75	SAE J744-44-1



DIMENSIONS

(mm)

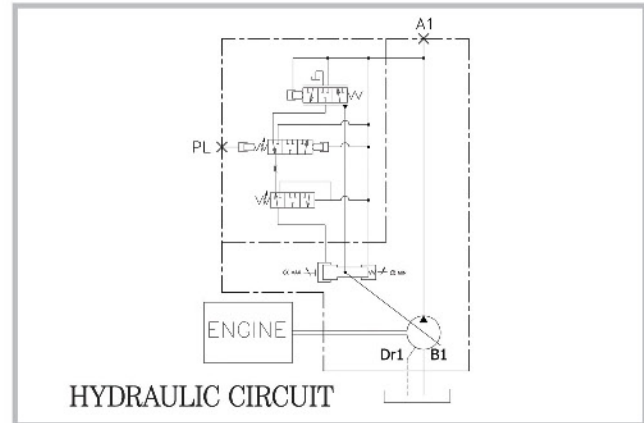
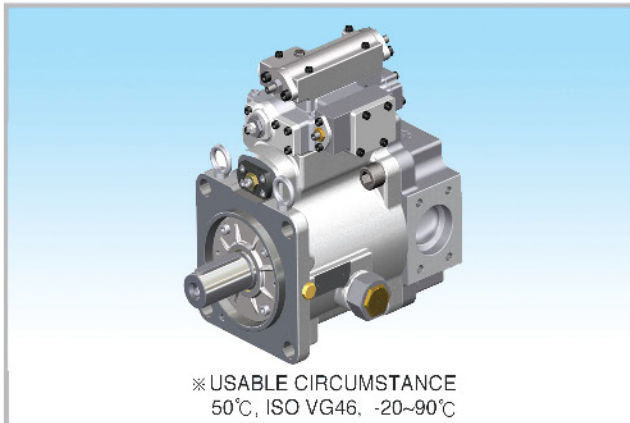
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H3VL112 / 140	213	220	100	114	161.6	200	22	152.4	12.5	92	106.5	251	307	38	45

H3VL112/140 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 3L09 TYPE)

MODEL	H3VL112	H3VL140
Discharge Rate (cc/rev)	112	140
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2700	2500

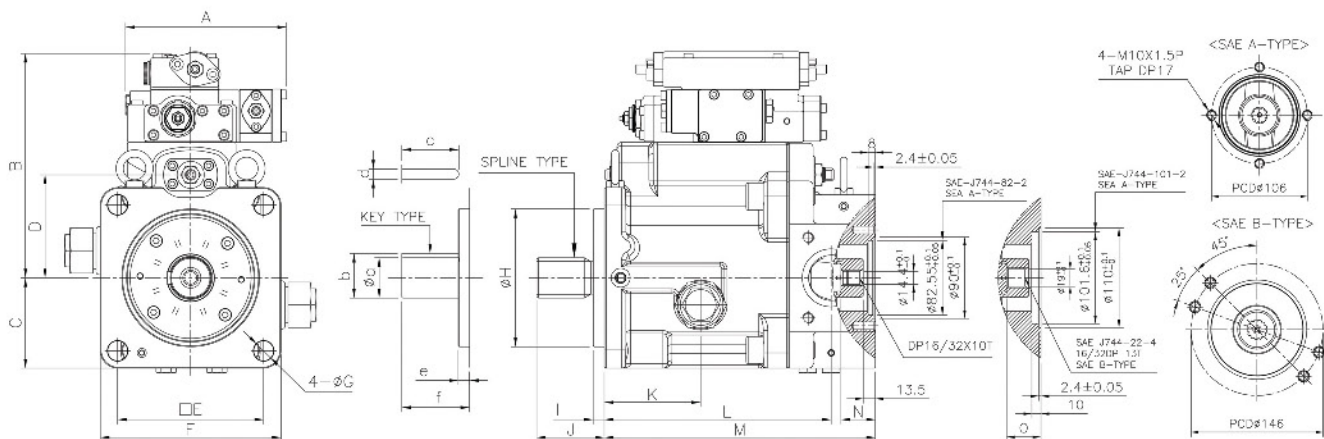


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL112 / 140	13	41.275	8/16	30°	SAE J744-44-4

Dimensions of Shaft End (Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL112 / 140	45	48.5	80	14	12.5	92	ISO 3019/2
H3VL112 / 140	44.45	49.3	63	11.11		75	SAE J744-44-1



DIMENSIONS

(mm)

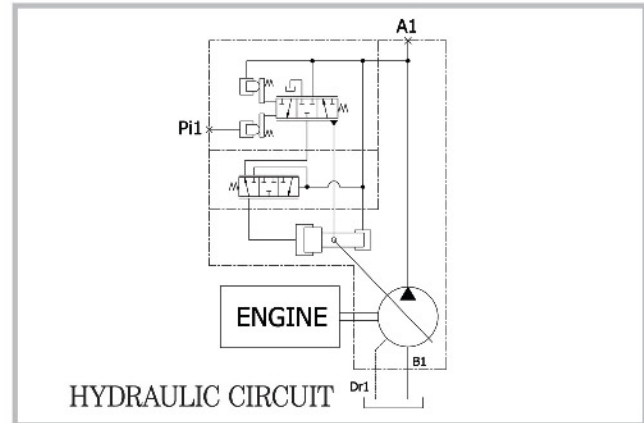
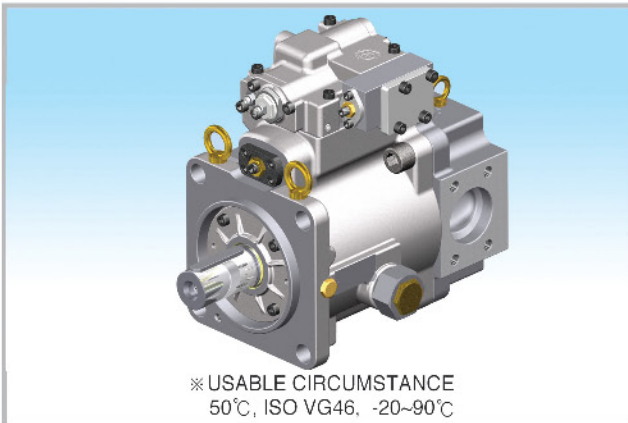
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H3VL112 / 140	178	247.5	100	114	161.6	200	22	152.4	12.5	75	106.5	251	307	38	45

H3VL112/140 SWASH PLATE TYPE PISTON PUMPS



SPECIFICATIONS (FOR 5N00 / 6N00 TYPE)

MODEL	H3VL112	H3VL140
Discharge Rate (cc/rev)	112	140
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2700	2500

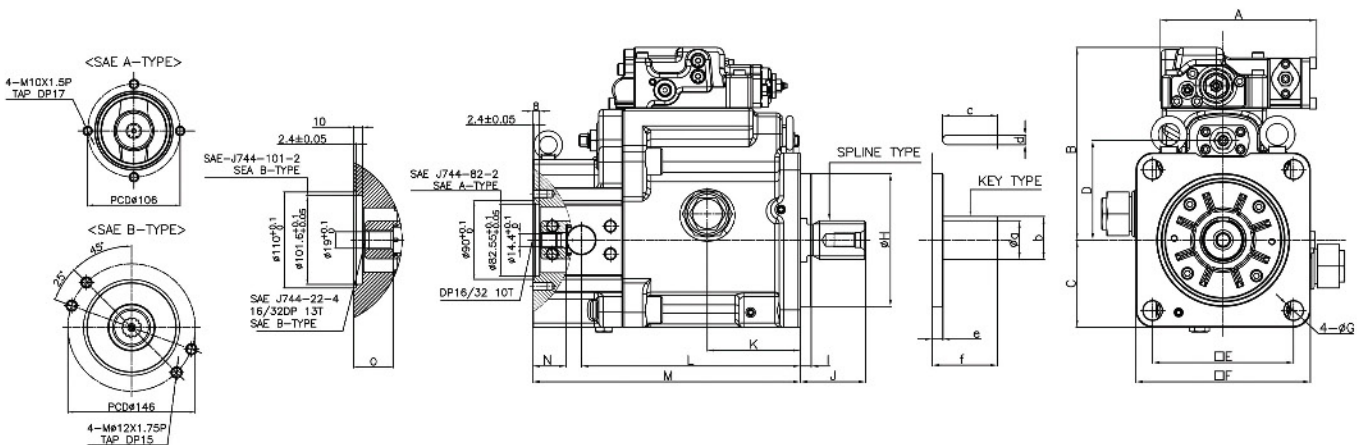


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VL112 / 140	13	41.275	8/16	30°	SAE J744-44-4

Dimensions of Shaft End (Key Type)

MODEL	a	b	c	d	e	f	Standard
H3VL112 / 140	45	48.5	80	14	12.5	92	ISO 3019/2
H3VL112 / 140	44.45	49.3	63	11.11		75	SAE J744-44-1



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H3VL112 / 140	178	220	100	114	161.6	200	22	152.4	12.5	75	106.5	251	307	38	45

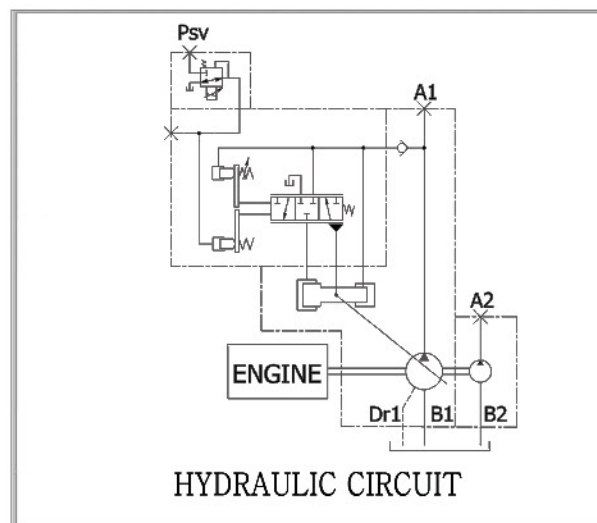
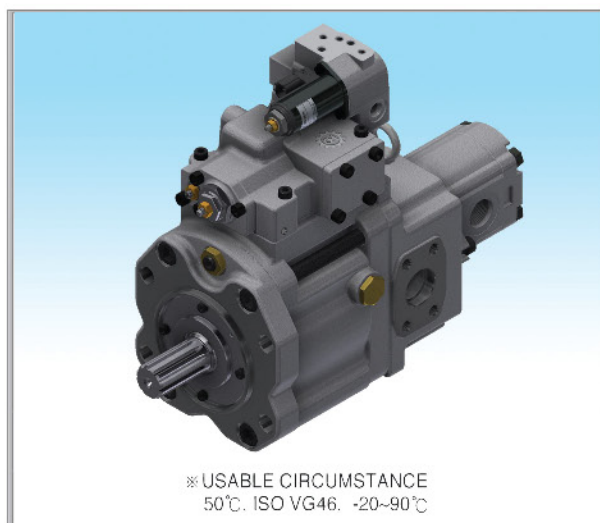
(mm)

H3V63S/H5V80S FOR HITACHI SWASH PLATE TYPE PISTON PUMPS



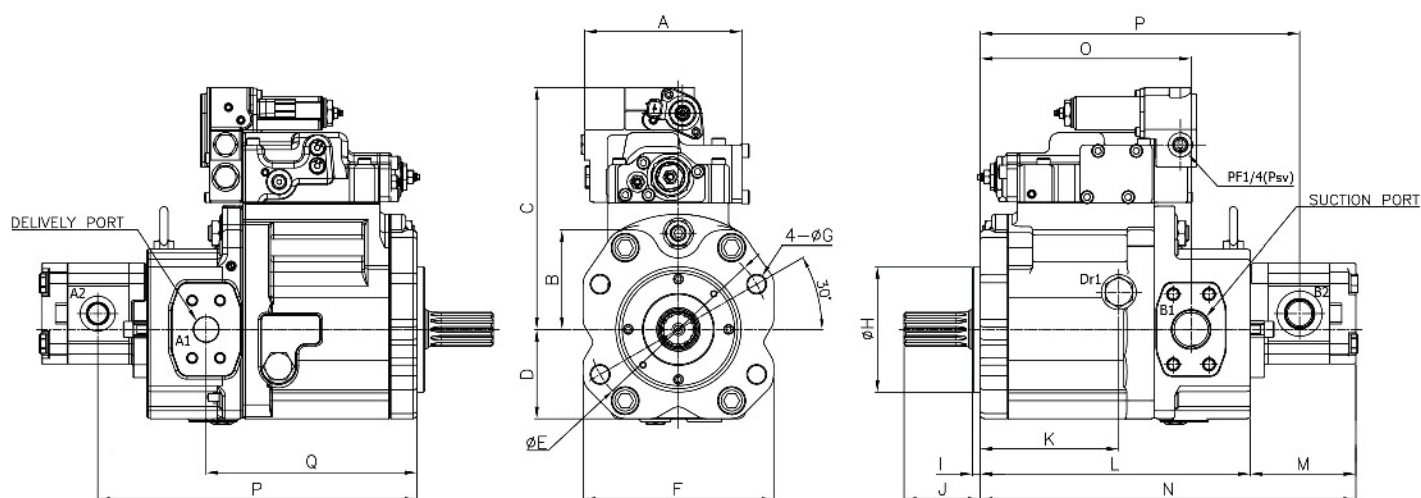
SPECIFICATIONS (FOR 1F29 TYPE)

MODEL	H3V63S	H5V80S
Discharge Rate(cc/rev)	63	80
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2150	



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V63S/H5V80S (For 1F29)	14	29.6	12 / 24	30°	SAE J744



DIMENSIONS

(mm)

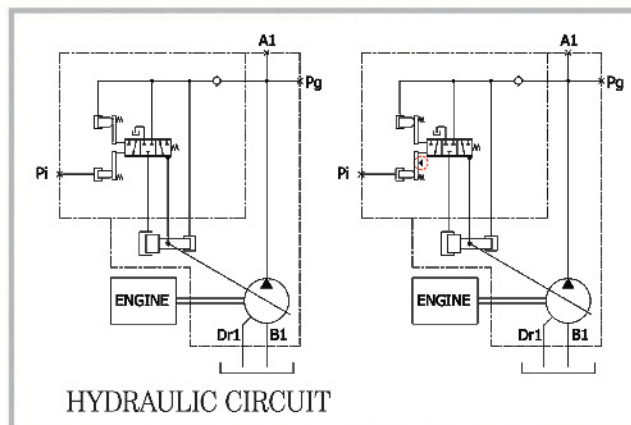
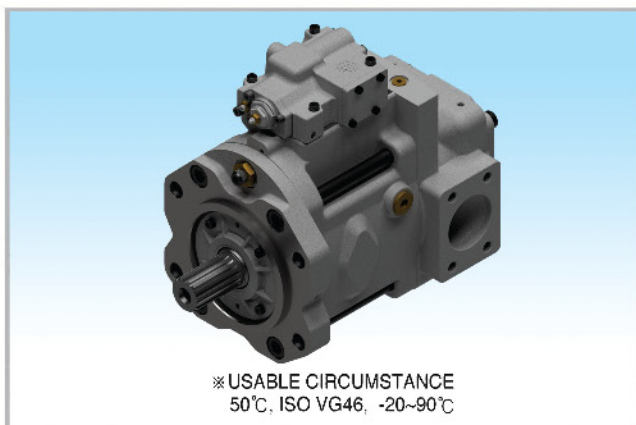
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V63S/ H5V80S (For 1F29)	156	95	240	89	180	190	18	125	8	76	138	269	105	374	82.5	318	210

H3V/H5VSHR SERIES SWASH PLATE TYPE PISTON PUMPS



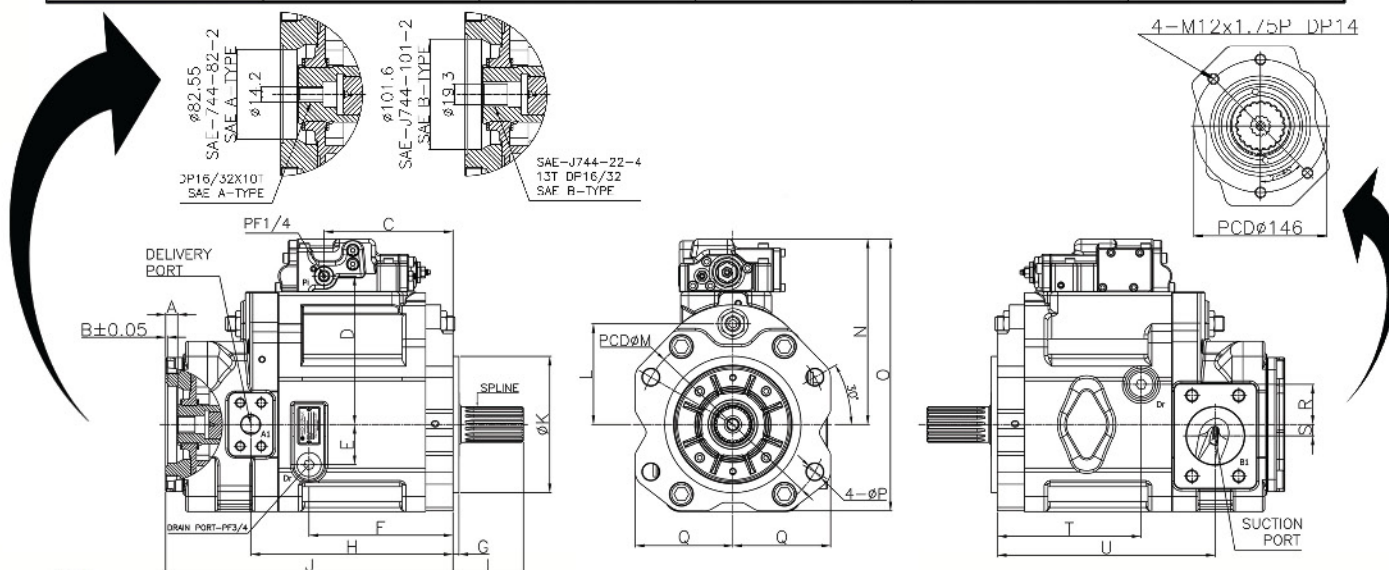
SPECIFICATIONS (FOR 2N00 / 2P00 TYPE)

MODEL	H3V140SHR	H3V180SHR	H5V200SHR	H3V280SHR
Discharge Rate(cc/rev)	140	180	200	280
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2150	2150	1900	1600
DIRECTION	CW(R)			



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V140/180SHR H5V200SHR	17	42.5	2.5	20°	JIS B 1603:1995
H3V280SHR	18	54	3	20°	JIS B 1603:1995



DIMENSIONS

(mm)

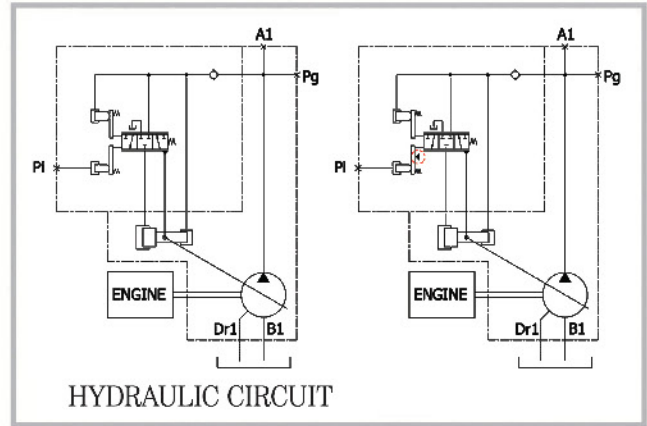
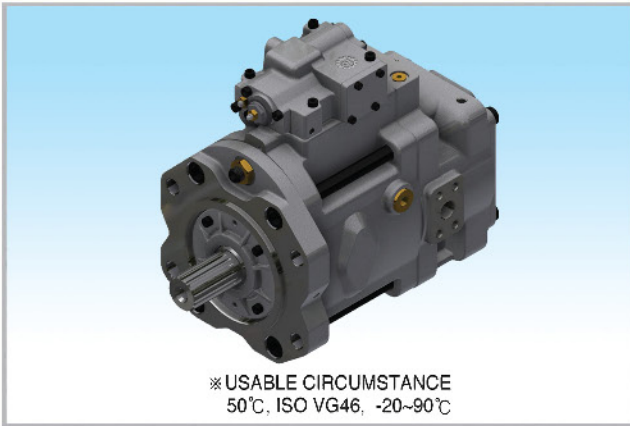
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
H3V140/180SHR H5V200SHR	16	2.4	170	196	53	190	8	267	93	379.5	180	133	250	245	359	22	129	53	15	190	288
H3V280SHR			199	236	68	166	9	330	115.2	450.5	200	158	300.2	285	415	26	151	68		203	356

H3V/H5VSHL SERIES SWASH PLATE TYPE PISTON PUMP



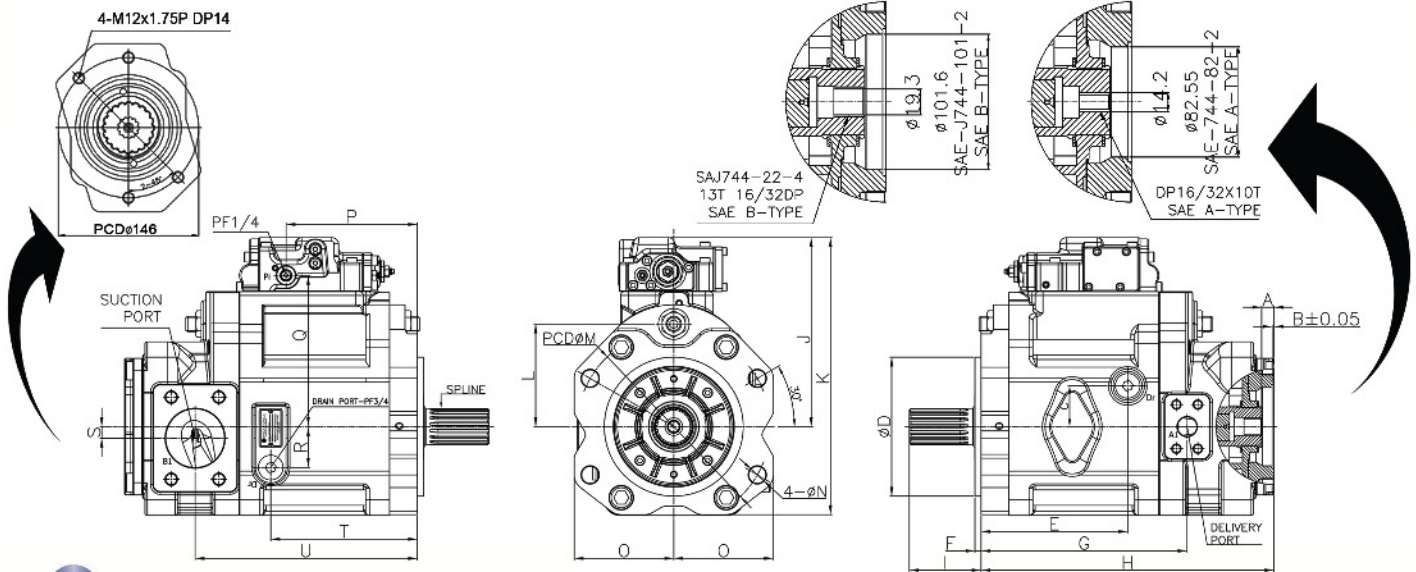
SPECIFICATIONS (FOR 2N00 / 2P00 TYPE)

MODEL	H3V140SHL	H3V180SHL	H5V200SHL	H3V280SHL
Discharge Rate(cc/rev)	140	180	200	280
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2150	2150	1900	1600
DIRECTION	CCW(L)			



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V140/180SHL H5V200SHL	17	42.5	2.5	20°	JIS B 1603:1995
H3V280SHL	18	54	3	20°	JIS B 1603:1995



DIMENSIONS

(mm)

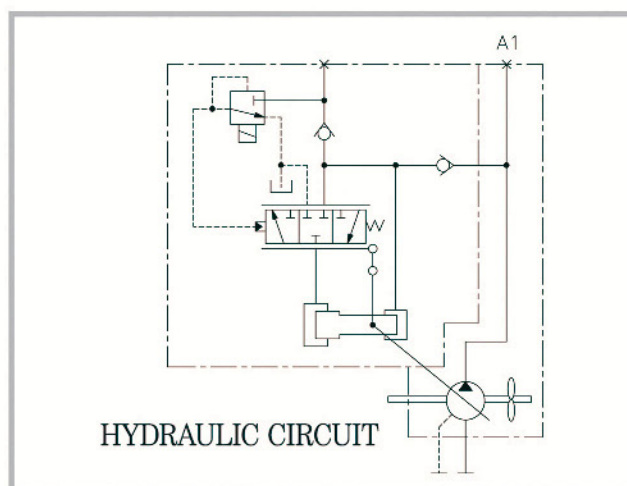
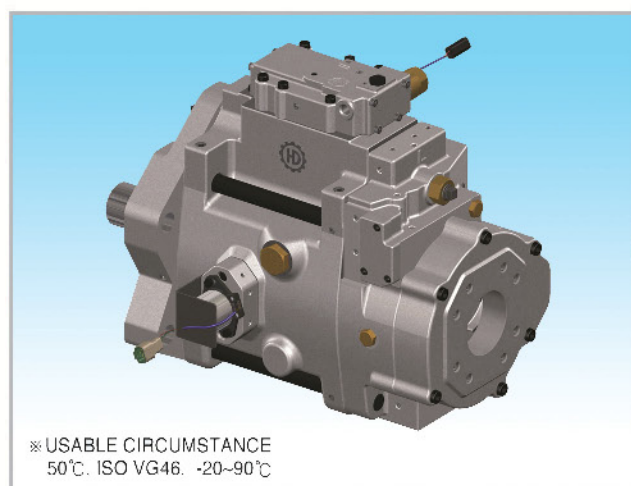
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
H3V140/180SHL H5V200SHL	16	2.4	53	180	190	8	267	379.5	93	245	359	133	250	22	129	170	196	53	15	190	288
H3V280SHL			68	200	203	9	330	450.5	115.2	285	415	158	300.2	26	151	199	236	68		166	356

H3V280SH FOR HITACHI SENSOR TYPE SWASH PLATE TYPE PISTON PUMPS



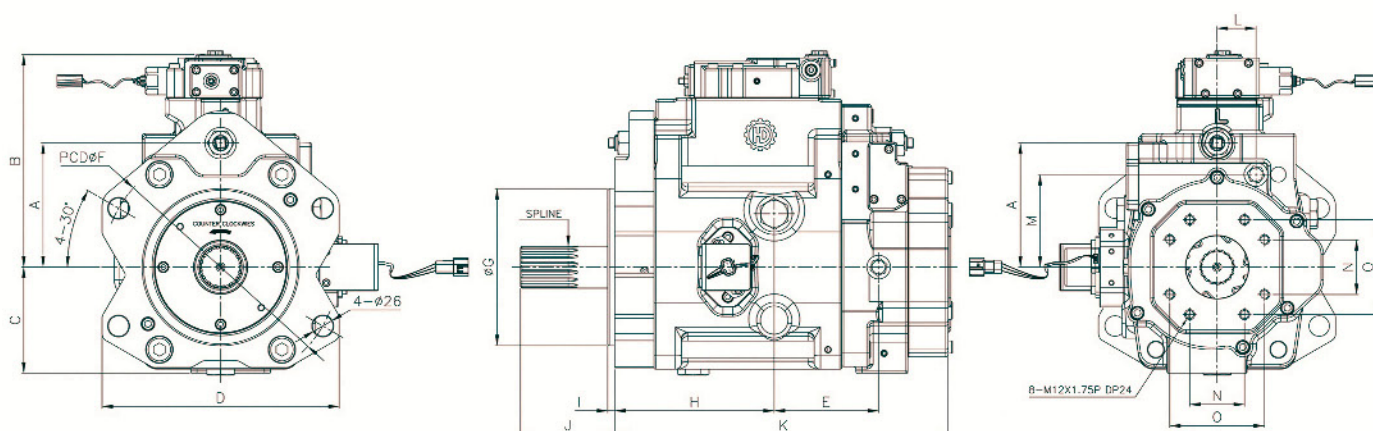
SPECIFICATIONS (FOR OE01-HITACHI TYPE)

MODEL	H3V280SH(OE01 – HITACHI TYPE)
Discharge Rate (cc/rev)	280
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	1500



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V280SH (OE01 – HITACHI TYPE)	16	48	3.0	20°	JIS B 1603 : 1995



DIMENSIONS

(mm)

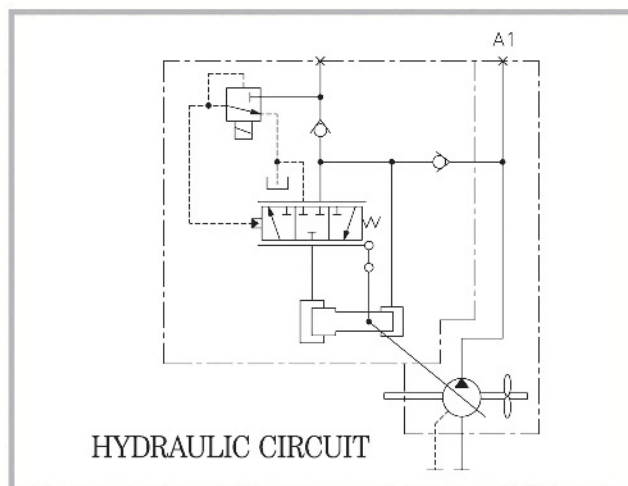
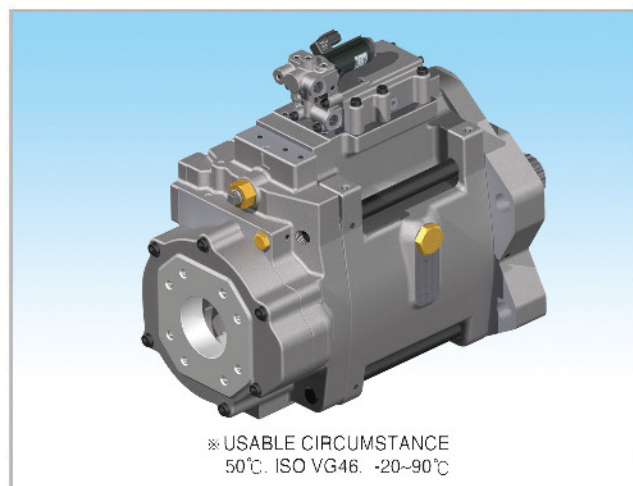
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H3V280SH (OE01 – HITACHI TYPE)	158	270	135	302	133	300	200	203	9	120	424.5	49.5	118	69.8	120.7

H3V280SH FOR HITACHI NORMAL TYPE SWASH PLATE TYPE PISTON PUMP



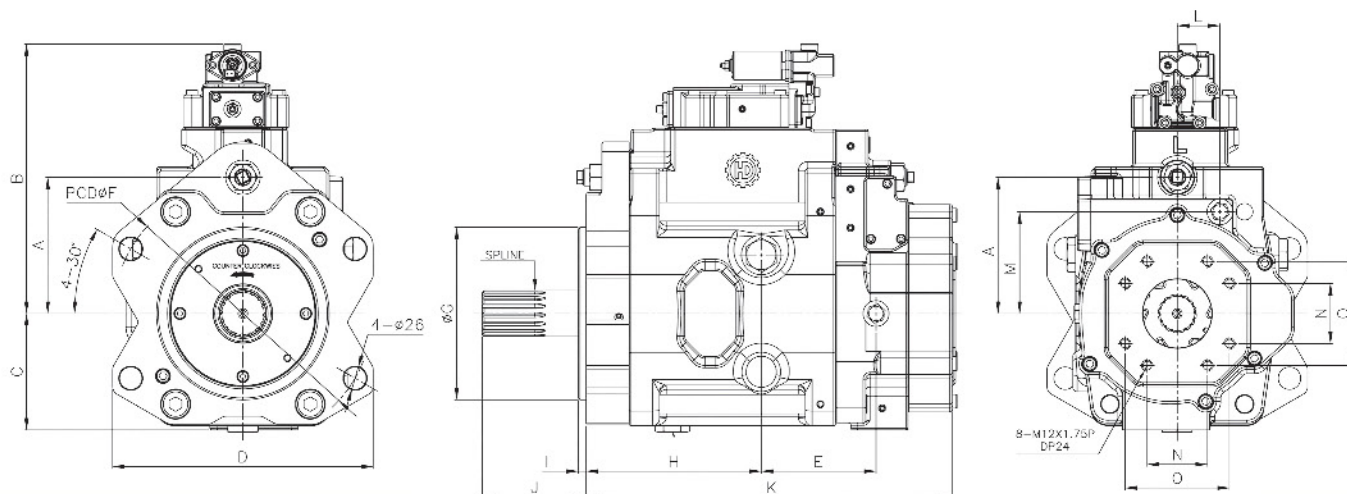
SPECIFICATIONS (FOR OE02-NORMAL TYPE)

MODEL	H3V280SH(OE02 – NORMAL TYPE)
Discharge Rate (cc/rev)	280
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	1500



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V280SH (OE02 – NORMAL TYPE)	16	48	3.0	20°	JIS B 1603 : 1995



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
H3V280SH (OE02 – NORMAL TYPE)	158	313	135	302	133	300	200	203	9	120	424.5	49.5	118	69.8	120.7

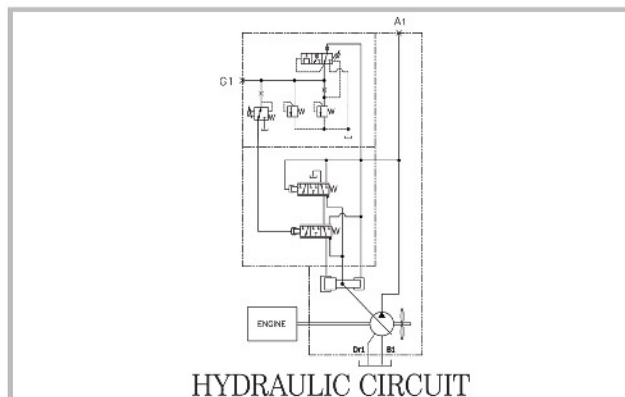
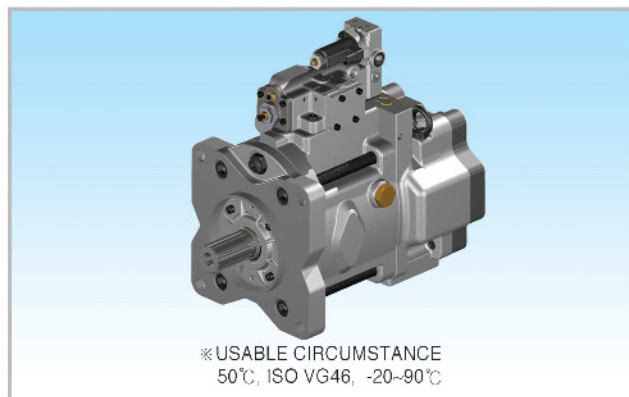
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H3VG/H5VG SH SERIES SWASH PLATE TYPE PISTON PUMPS



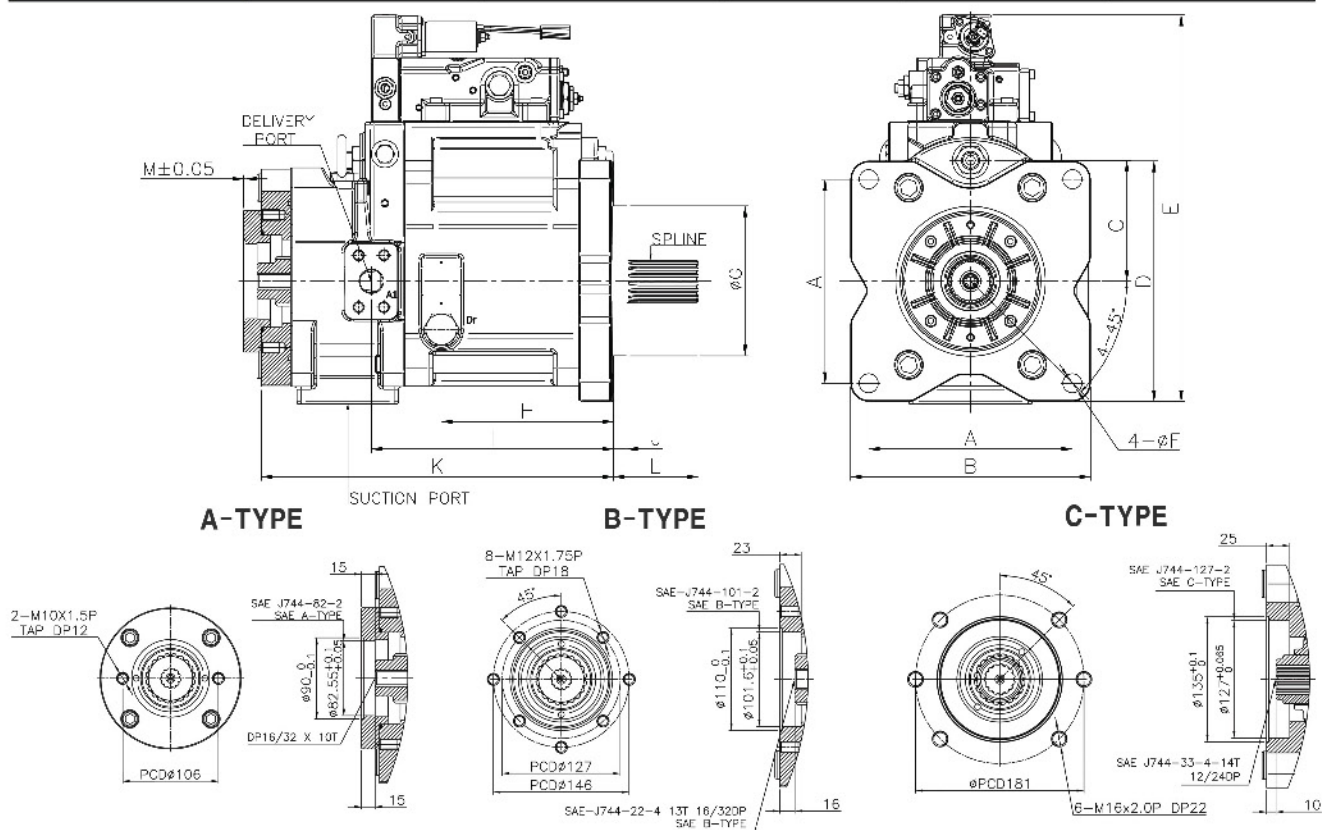
SPECIFICATIONS (FOR 3E00 TYPE)

MODEL	H3VG140SH	H3VG180SH	H5VG160SH	H5VG200SH
Discharge Rate(cc/rev)	140	180	160	200
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2150	2150	1900	1900



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3VG140/180SH H5VG160/200SH	17	42.5	2.5	20°	JIS



DIMENSIONS

(mm)

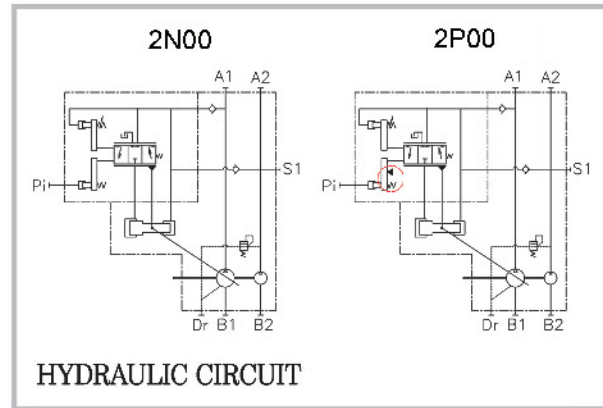
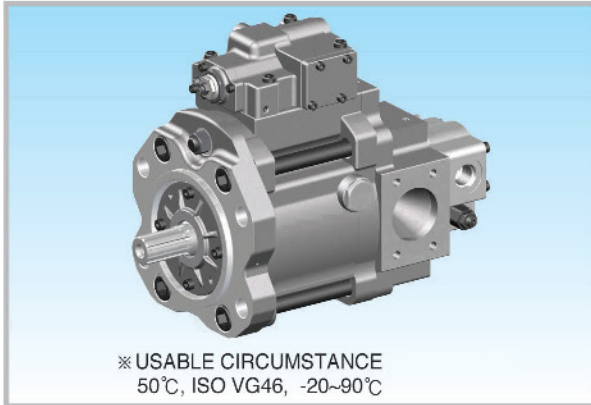
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
H3VG140/180SH H5VG160/200SH	224.5	264.5	133	264	425.3	21	165	190	267	16	386	95	2.4

H3V/H5V SERIES SWASH PLATE TYPE PISTON PUMPS



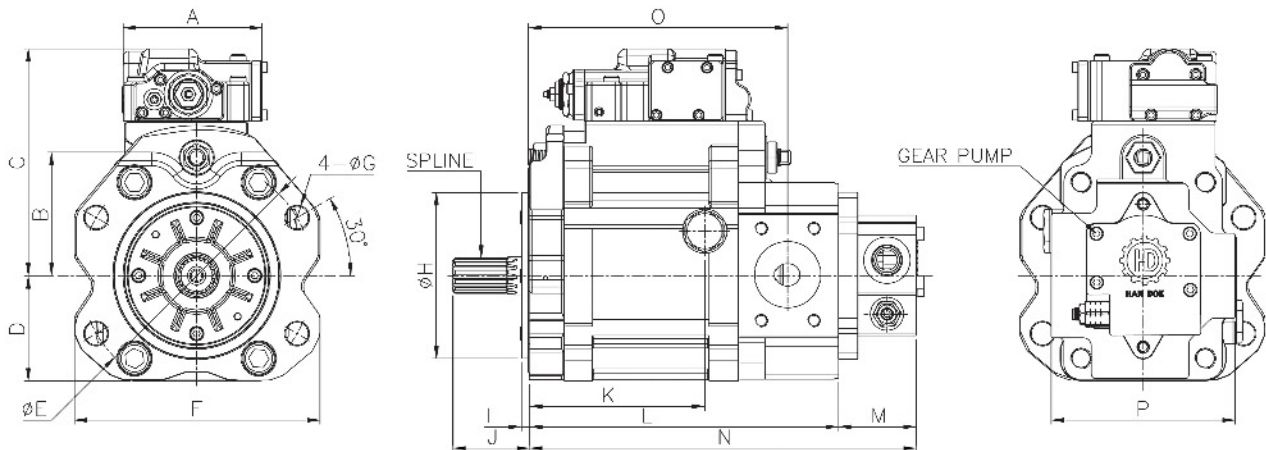
SPECIFICATIONS (FOR 2N00 / 2P00 TYPE)

MODEL	H3V63SR H3V63SL	H5V80SR H5V80SL	H3V112SR/H3V112SL H5V140SR/H5V140SL	H3V140SR H3V140SL
Discharge Rate(cc/rev)	63	80	112/140	140
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2650	2460	2360	2150
DIRECTION	CW(R) / CCW(L)			



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V63SR/H3V63SL H5V80SR/H5V80SL	14	29.6	12/24	30°	SAE J744
H3V112SR/H3V112SL H5V140SR/H5V140SL	12	30	2.5	20°	JIS B 1603 :1995
H3V140SR/H3V140SL	17	42.5	2.5	20°	JIS B 1603 :1995



DIMENSIONS

(mm)

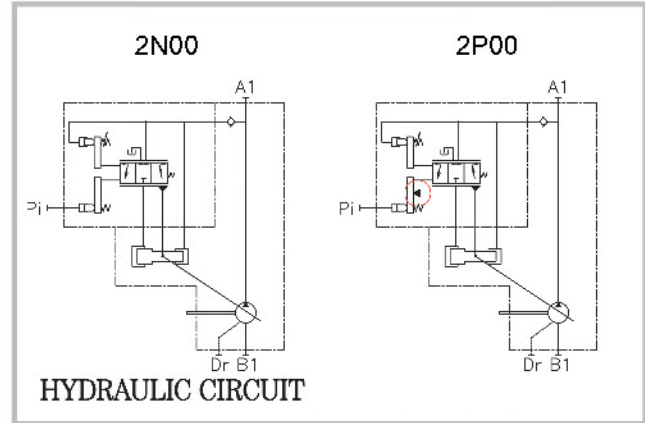
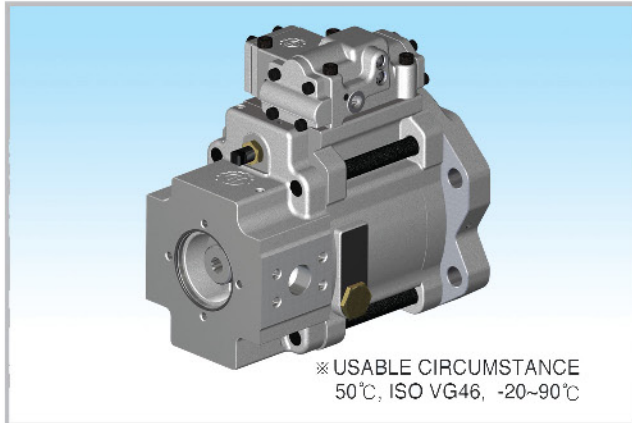
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3V63SR/H3V63SL H5V80SR/H5V80SL	140	98	195	89	180	190	18	125	8	76	138	255	93	330	210	140
H3V112SR/H3V112SL H5V140SR/H5V140SL		114	220	100	224	234	22	160		78	167	300		375	249	160
H3V140SR/H3V140SL		124	245	114	250	258	180	93		190	343	96		418	287	175

H3V/H5V(SINGLE) SWASH PLATE TYPE PISTON PUMPS



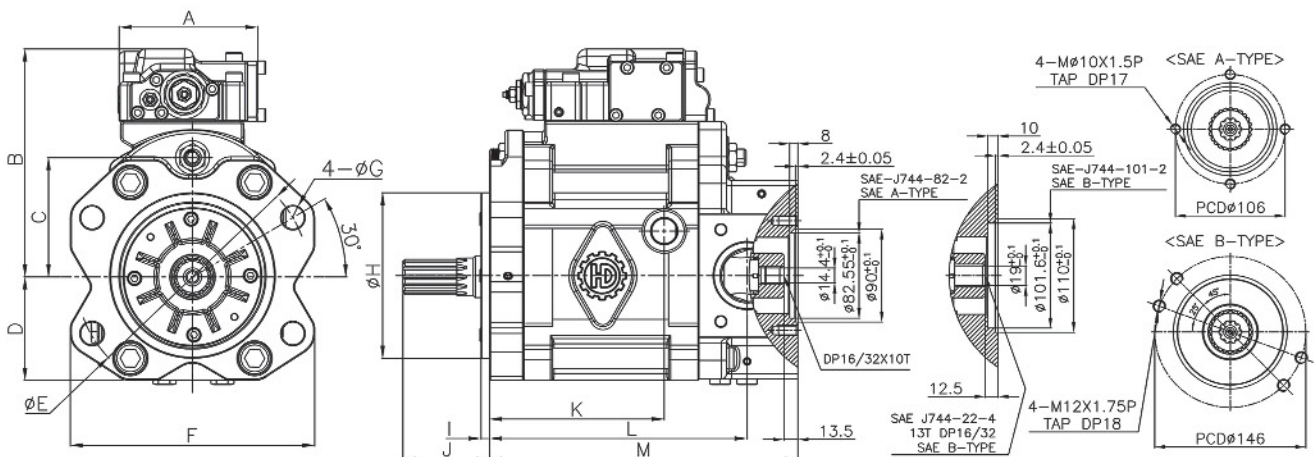
SPECIFICATIONS(FOR 2N00 / 2P00 TYPE)

MODEL	H3V63SR H3V63SL	H5V80SR H5V80SL	H3V112SR/H3V112SL H5V140SR/H5V140SL	H3V140SR H3V140SL
Discharge Rate(cc/rev)	63	80	112/140	140
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2650	2460	2360	2150
DIRECTION	CW(R) / CCW(L)			



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V63SR/H3V63SL H5V80SR/H5V80SL	14	29.6	12/24	30°	SAE J744
H3V112SR/H3V112SL H5V140SR/H5V140SL	12	30	2.5	20°	JIS B 1603 :1995
H3V140SR/H3V140SL	17	42.5	2.5	20°	JIS B 1603 :1995



DIMENSIONS

(mm)

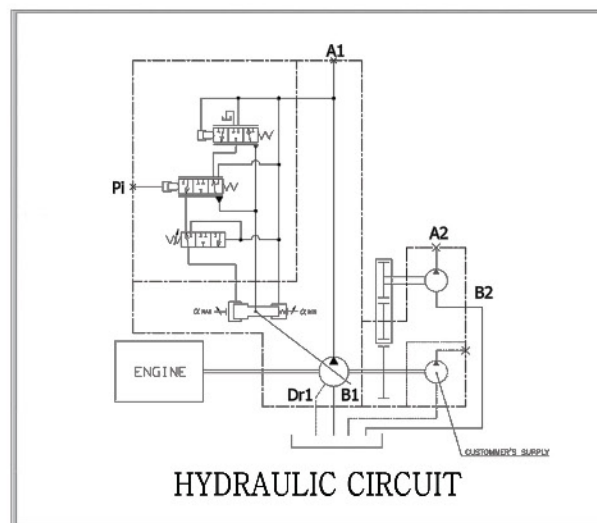
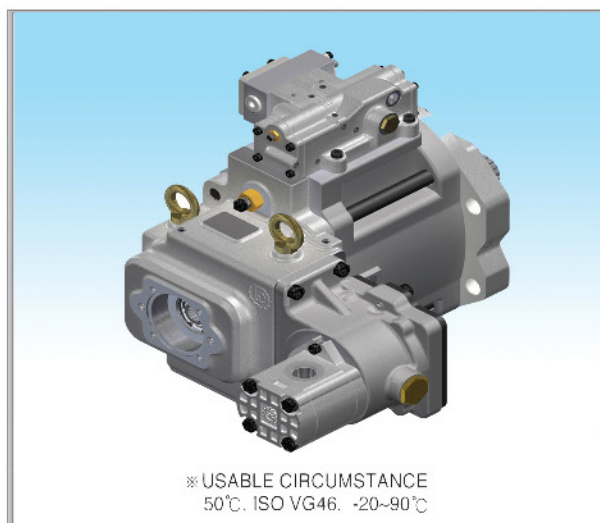
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
H3V63SR/H3V63SL H5V80SR/H5V80SL	140	195	98	89	180	190	18	125	8	76	138	210	286
H3V112SR/H3V112SL H5V140SR/H5V140SL		220	110	100	224	234	22	160		78	167	249	326
H3V140SR/H3V140SL		245	133	114	250	258	22	180		93	190	287	379

H3VSP/H5VSP(SINGLE) SWASH PLATE TYPE PISTON PUMPS



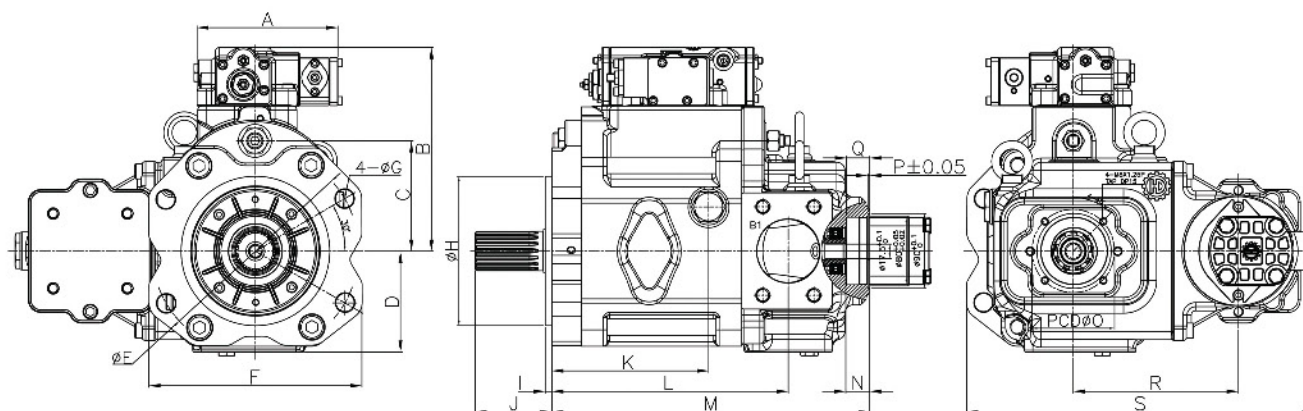
SPECIFICATIONS (FOR 3N09 TYPE)

MODEL	H3V140SP	H3V180SP	H5V160SP	H5V200SP
Discharge Rate(cc/rev)	140	180	160	200
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2500		2200	



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V140/180SP H5V160/200SP	17	42.5	2.5	20°	JIS B 1603:1995



DIMENSIONS

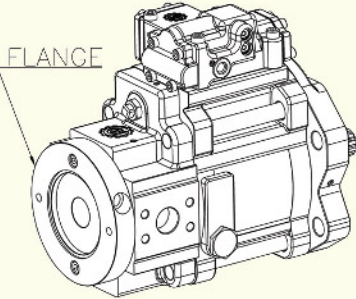
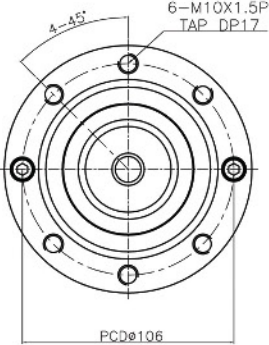
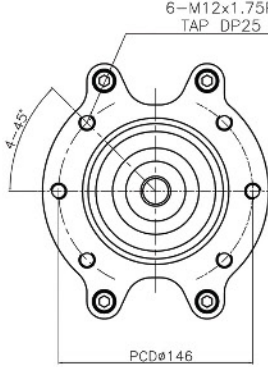
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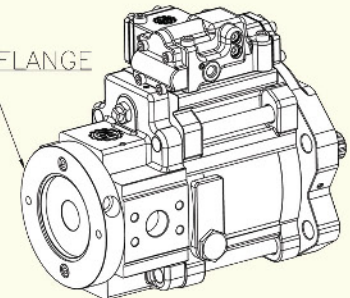
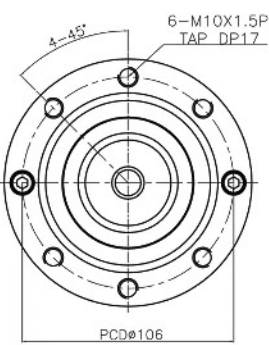
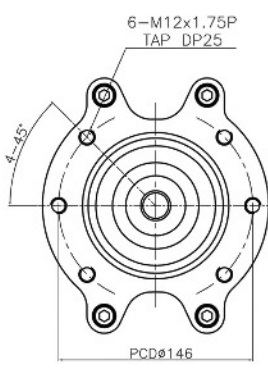
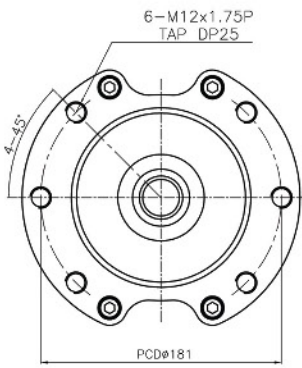
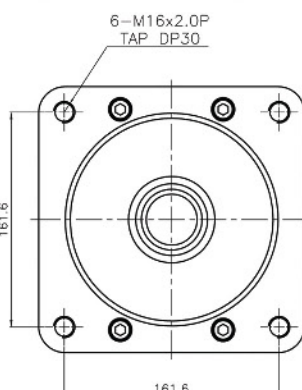
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H3V140/180SP H5V160/200SP	170.5	246	133	122	250	258	22	180	8	93	190	286.5	385	29	100	2.4	28	200	420

FLANGE MOUNTING FACE (SAE Rule) FOR H3V/H5V SERIES



Flange Mounting face for Gear Pump (H3V63/H3V112/H5V80/H5V140 Single Pump)

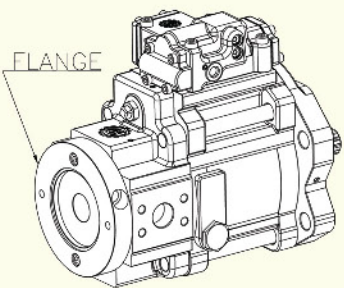
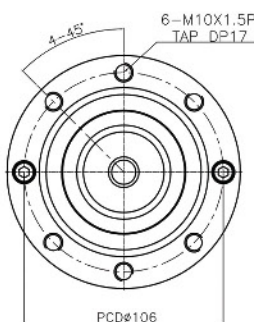
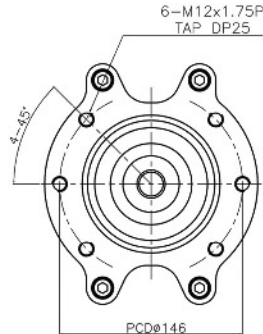
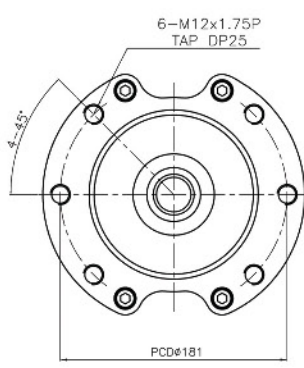
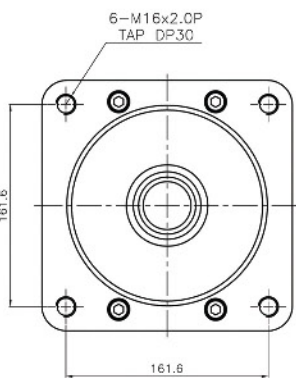
H3V63	A-TYPE SAE J744-82-2	B-TYPE SAE J744-101-2
 <p>FLANGE</p>		

H3V112	A-TYPE SAE J744-82-2	B&BB-TYPE SAE J744-101-2	
 <p>FLANGE</p>			
	<th data-bbox="521 1517 1015 1602">C&CC-TYPE SAE J744-127-2</th> <th data-bbox="1019 1517 1529 1602">D-TYPE SAE J744-152-2</th>	C&CC-TYPE SAE J744-127-2	D-TYPE SAE J744-152-2
			

FLANGE MOUNTING FACE (SAE Rule) FOR H3V/H5V SERIES



Flange Mounting face for Gear Pump (H3V140/H3V180/H5V160/H5V200 Single Pump)

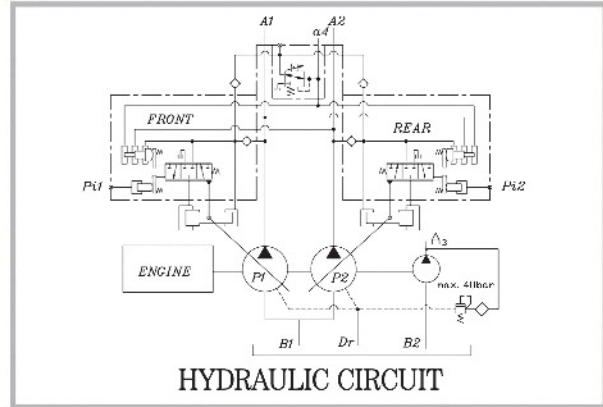
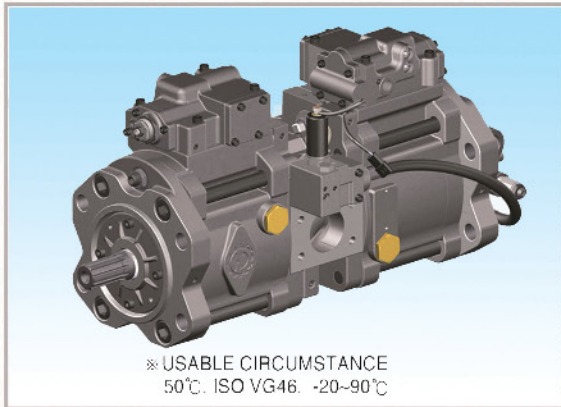
H3V140 & 180	A-TYPE SAE J744-82-2	B&BB-TYPE SAE J744-101-2
		
	C&CCTYPE SAE J744-127-2	D-TYPE SAE J744-152-2
		

H3V/H5V DT SERIES SWASH PLATE TYPE DOUBLE PISTON PUMPS



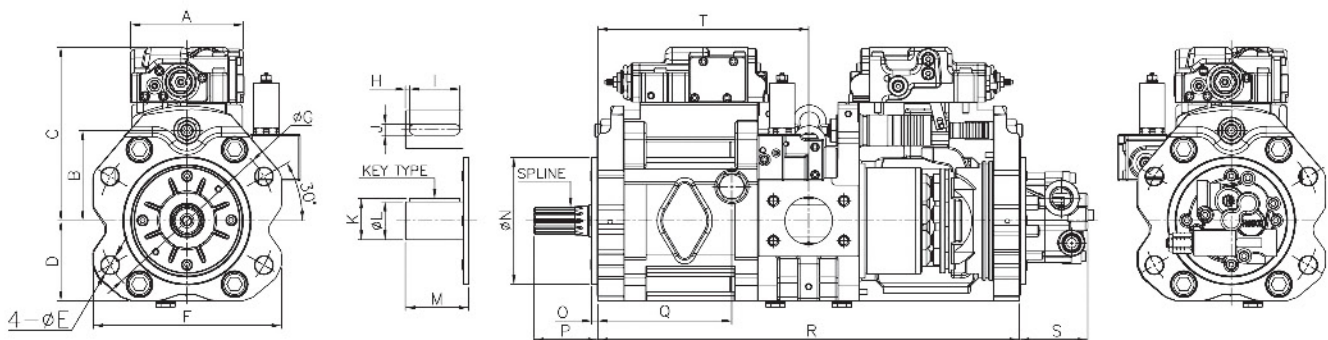
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H3V63DT	H5V112DT	H3V140DT H5V180DT	H3V280DT
Discharge Rate(cc/rev)	63	112	140 / 180	280
Max. Pressure (kg/cm ²)	350			
Max. Speed (rpm)	2650	2360	2150	1900



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia.(mm)	Module	Pressure Angle	Standard
H3V63DT	14	29.6	12/24	30°	ANSI B92.1b:1970
H3V112DT	12	30	2.5	20°	JIS B 1603 : 1995
	14	35			
H3V140&180DT	14	35	2.5	20°	
	17	42.5			
H3V180DT(KOBELCO TYPE)	14	42	3.0	20°	
H3V280DT	22	66	3.0	30°	DIN5480:1991



DIMENSIONS

(mm)

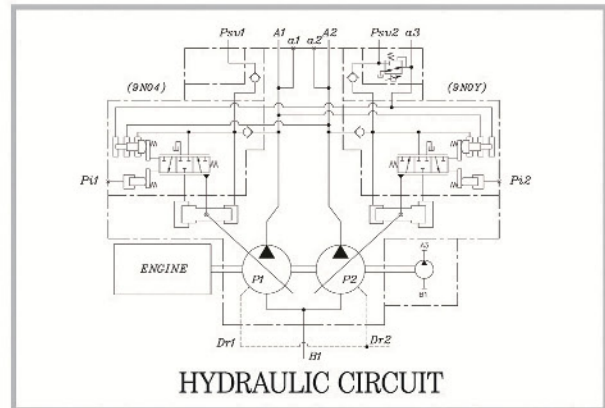
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
H3V63DT	140	98	195	89	18	190	180				-	76	125	8	76	138	456	93	203	
H3V112DT		114	220	100		234	224				-	78	160		78	167	534		269	
H3V140&180DT H3V180DT (KOBELCO TYPE)		133	245	114	22	258	250	5	95	18	64	60	93		180	93	190	610	96	305
		H3V280DT	158	286	128	26	302	300			20	74.5	70		115	200	9	115	203	748

H3V/H5V DTH SERIES SWASH PLATE TYPE DOUBLE PISTON PUMPS



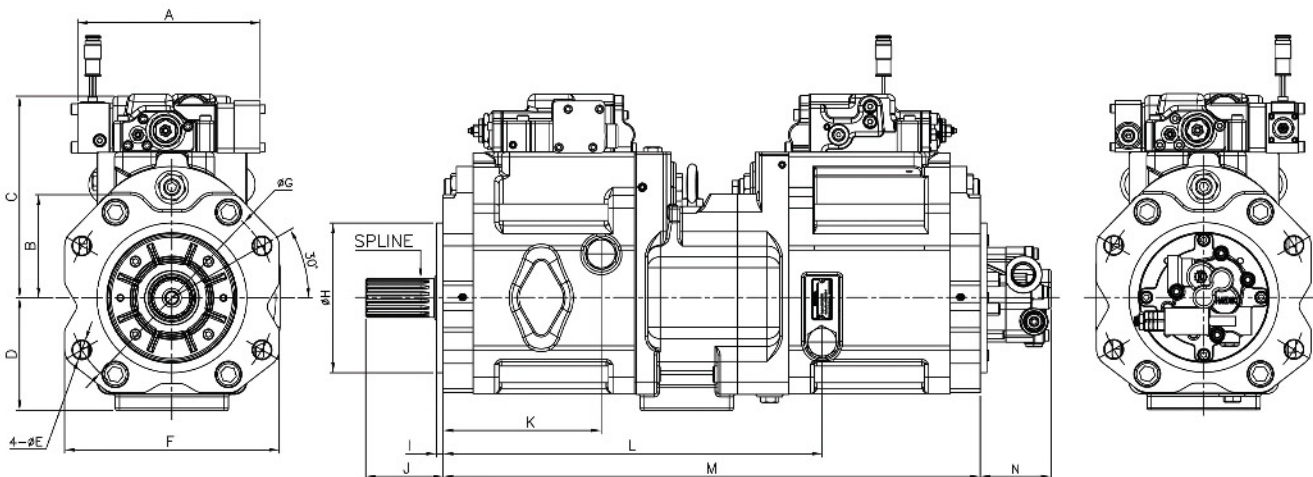
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H3V180DTH/H5V200DTH	H3V280DTH
Discharge Rate (cc/rev)	180 / 200	280
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2150	1900



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V180DTH	17	42.5	2.5	20°	JIS B 1603 : 1995
H5V200DTH					
H3V280DTH	18	54	3	20°	JIS B 1603 : 1995



DIMENSIONS

(mm)

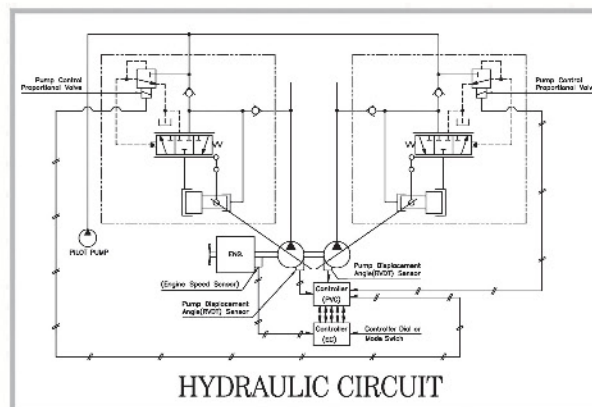
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H3V180DTH	219.6	127	245	135	22	256	250	180	8	190	456	93	646	96
H5V200DTH														
H3V280DTH		143	271	150	26	300	300	200	9	115	617	115	783	104

H3V/H5V DTH SERIES SWASH PLATE TYPE DOUBLE PISTON PUMPS



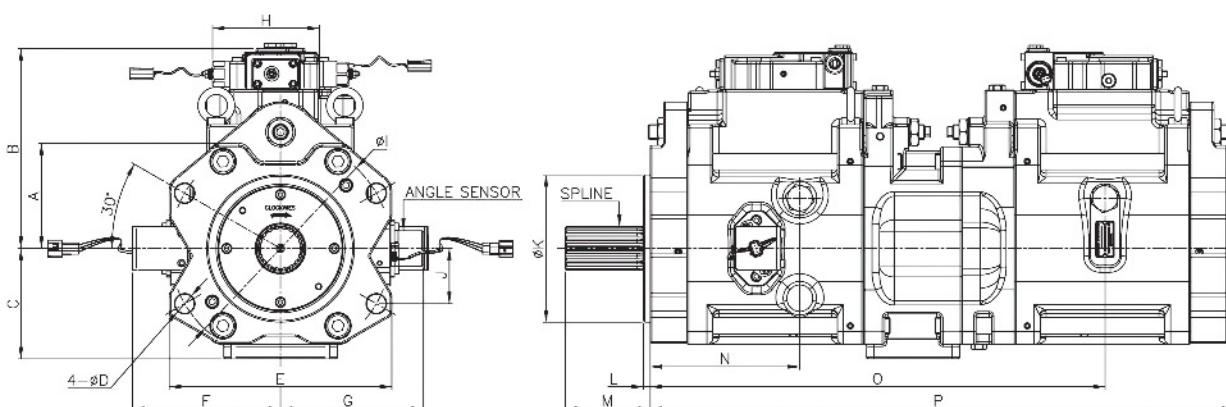
SPECIFICATIONS (FOR OE01-NORMAL & HITACHI)

MODEL	H3V180DTH/H5V200DTH	H3V280DTH
Discharge Rate (cc/rev)	180 / 200	280
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2150	1900



Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V180DTH (EX400&450)	17	42.5	2.5	20°	JIS B 1603 : 1995
H3V280DTH (EX750&800)	18	54	3	20°	JIS B 1603 : 1995

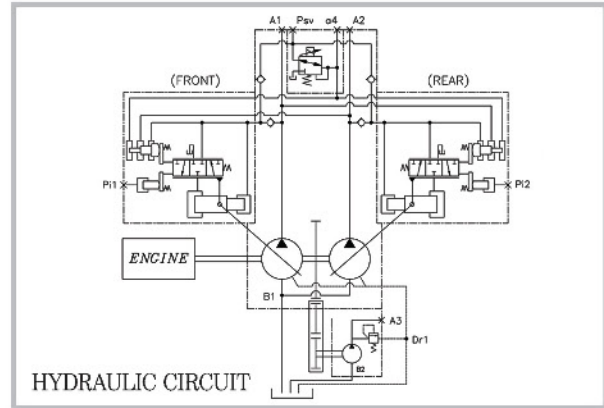
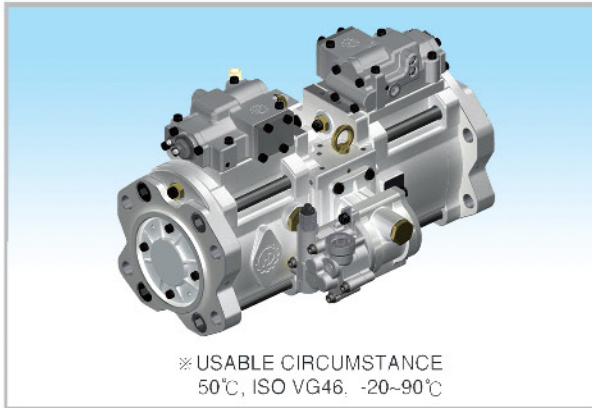


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3V180DTH (EX400&450)	127	231	135	22	258	176	231	145.2	250	62.5	180	8	93	190	420	610
H3V280DTH (EX750&800)	143	271	150	26	302	201	194		300	75	200	9	115	203	617	748

H3V/H5V DTP SERIES SWASH PLATE TYPE DOUBLE PISTON PUMPS



Dimensions of Shaft End(Spline-A) (FOR 9N00 / 9P00 TYPE)

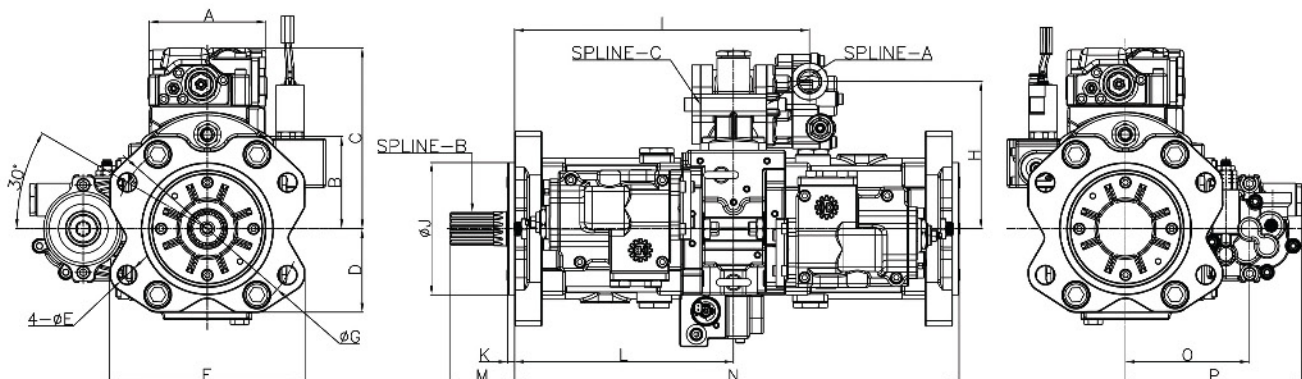
MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP / H5V80DTP H3V112DTP / H5V140DTP	13	15.8	16/32	30°	ANSI B92.1b:1970
H3V140DTP / H5V160DTP H3V180DTP / H5V200DTP	13	13	1.0	20°	JIS B 1603: 1995

Dimensions of Shaft End(Spline-B) (FOR 9N00 / 9P00 TYPE)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP	14	29.6	12/24	30°	SAE J744
H5V80DTP	12	30	2.5	20°	JIS B 1603:1995
H3V112DTP	12/14	30/35	2.5		
H3V140 / 180DTP	17	42.5	2.5		
H5V160DTP	17	42.5	2.5		
H5V200DTP	17	42.5	2.5		

Dimensions of Shaft End(Spline-C) (FOR 9N00 / 9P00 TYPE)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP / H5V80DTP H3V112DTP / H5V140DTP	13	13	1.0	20°	JIS B 1603 : 1995
H3V140DTP / H5V160DTP H3V180DTP / H5V200DTP	13	20.6	16/32	30°	SAE

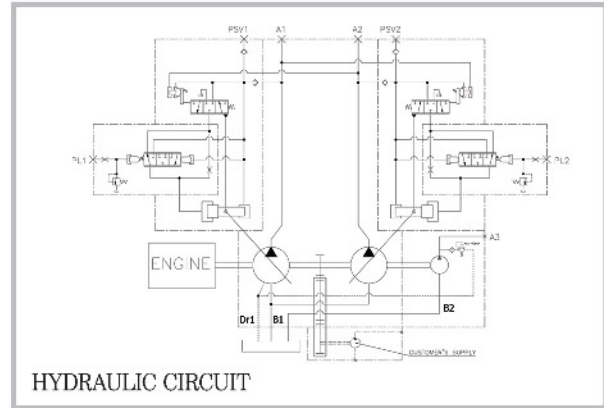
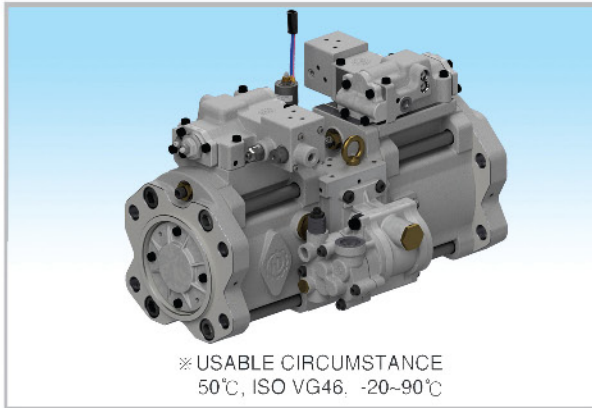


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		
H3V63DTP / H5V80DTP	140	98	195	89	18	190	180	177	91	125	8	228	76	464	150	212		
H3V112DTP / H5V140DTP		110	220	100		234	224	214	91	160		265	78	538				
H3V140DTP / H5V160DTP		124	245	114	22	256	250	257	104	180		305	93	618			201	292
H3V180DTP / H5V200DTP																		

H3V/H5V DTP SERIES SWASH PLATE TYPE DOUBLE PISTON PUMPS



Dimensions of Shaft End(Spline-A) (FOR 5L00 TYPE)

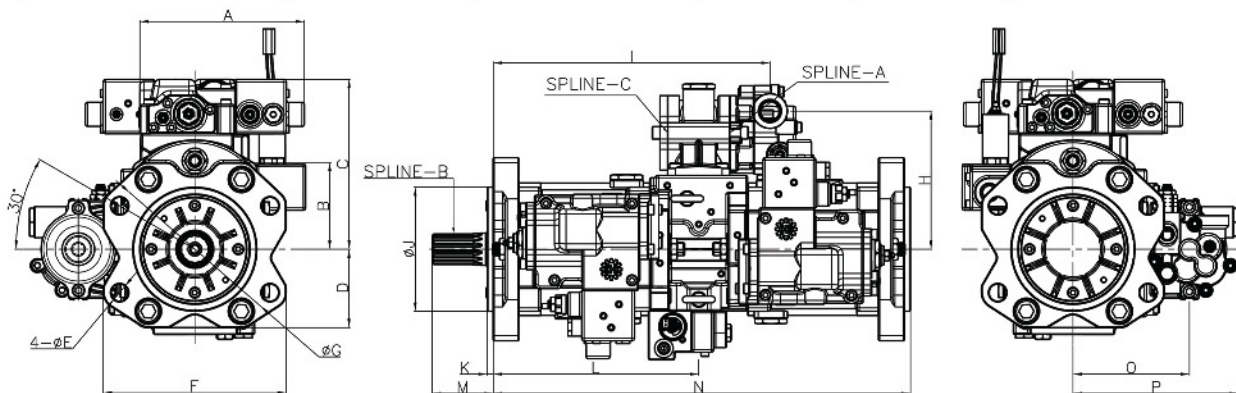
MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP / H5V80DTP H3V112DTP / H5V140DTP	13	15.8	16/32	30°	ANSI B92.1b:1970
H3V140DTP / H5V160DTP H3V180DTP / H5V200DTP	13	13	1.0	20°	JIS B 1603: 1995

Dimensions of Shaft End(Spline-B) (FOR 5L00 TYPE)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP	14	29.6	12/24	30°	SAE J744
H5V80DTP	12	30	2.5	20°	JIS B 1603:1995
H3V112DTP	12/14	30/35	2.5		
H3V140 / 180DTP	17	42.5	2.5		
H5V160DTP	17	42.5	2.5		
H5V200DTP	17	42.5	2.5		

Dimensions of Shaft End(Spline-C) (FOR 5L00 TYPE)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V63DTP / H5V80DTP H3V112DTP / H5V140DTP	13	13	1.0	20°	JIS B 1603 : 1995
H3V140DTP / H5V160DTP H3V180DTP / H5V200DTP	13	20.6	16/32	30°	SAE



DIMENSIONS

(mm)

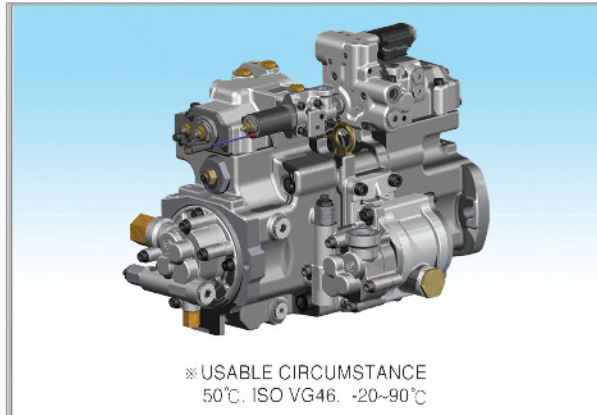
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3V63DTP / H5V80DTP	213	98	195	89	18	190	180	177	91	125	8	228	76	464	150	212
H3V112DTP / H5V140DTP		110	220	100		234	224	214	91	160		265	78	538		
H3V140DTP / H5V160DTP		124	245	114	22	256	250	257	104	180		305	93	618	201	292
H3V180DTP / H5V200DTP																

H7V63DTP SWASH PLATE TYPE DOUBLE PISTON PUMP



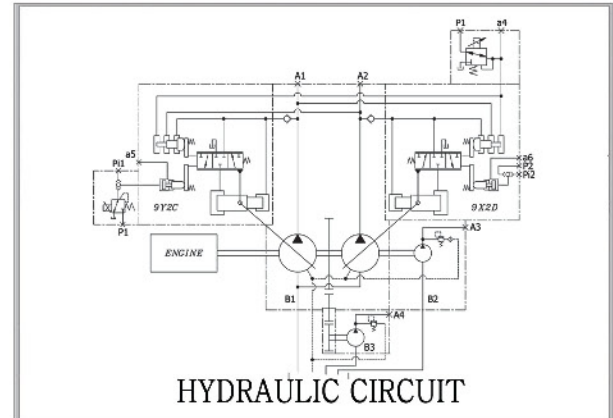
SPECIFICATIONS (FOR 9X2D / 9Y2C TYPE)

MODEL	H7V63DTP
Discharge rate(cc/rev)	63
Max. pressure (kg/cm ²)	350
Max. speed(rpm)	2400



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H7V63DTP	14	29.96	12/24	30°	SAE



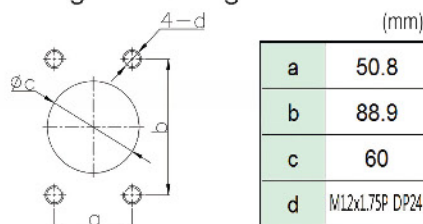
Dimensions of Shaft End(Spline-A)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H7V63DTP	10	15.88	16/32	30°	ANSI B92.1 1970

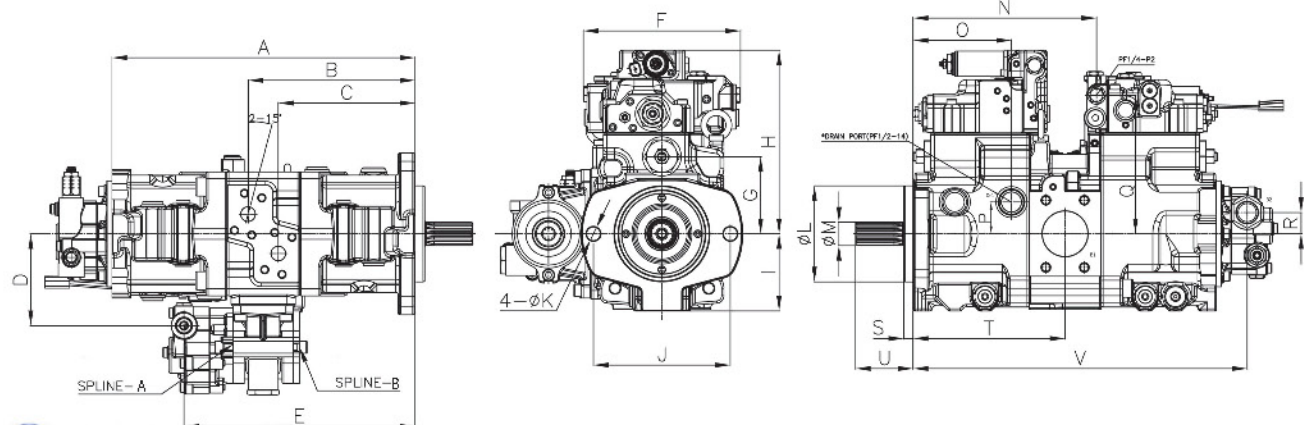
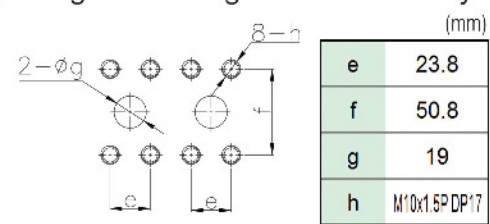
Dimensions of Shaft End(Spline-B)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H7V63DTP	13	13	1.0	30°	JIS B 1603 :1995

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
H7V63DTP	401	221	181	121	306	208	102	242	102	181	18	127	31.2	242.5	130	18	127	31.2	12.5	201	76.2	442

H7V63DTP SWASH PLATE TYPE DOUBLE PISTON PUMP

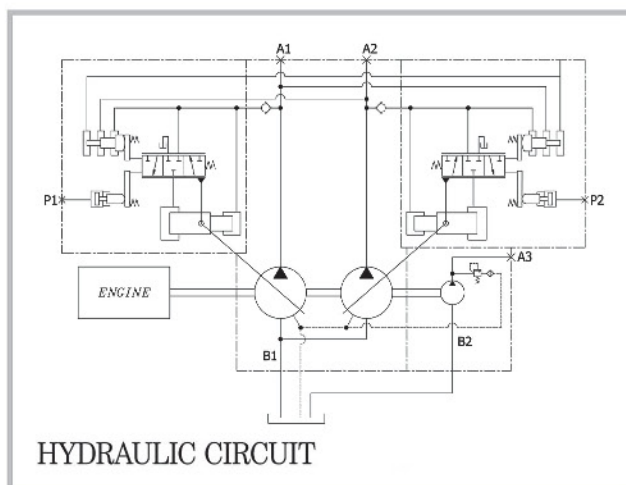
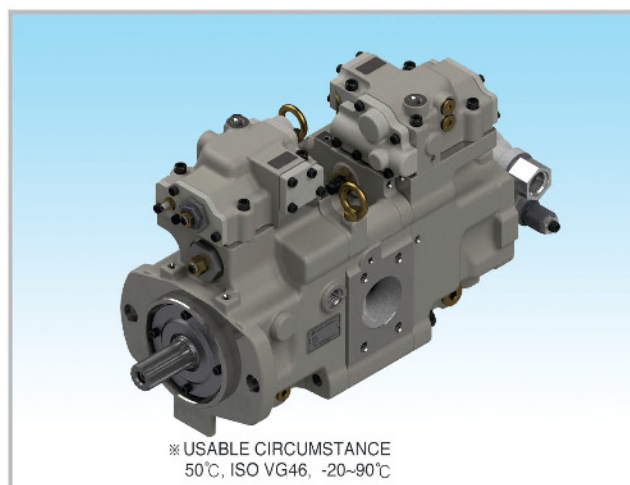


SPECIFICATIONS (FOR 9N00 TYPE)

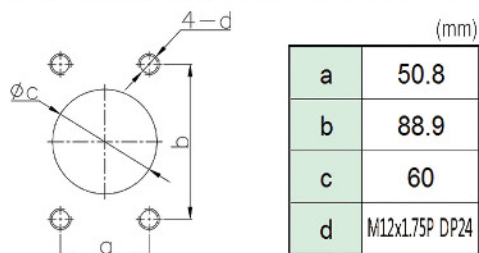
MODEL	H7V63DTP
Discharge rate(cc/rev)	63
Max. pressure (kg/cm ²)	350
Max. speed(rpm)	2400

Dimensions of Shaft End(Spline Type)

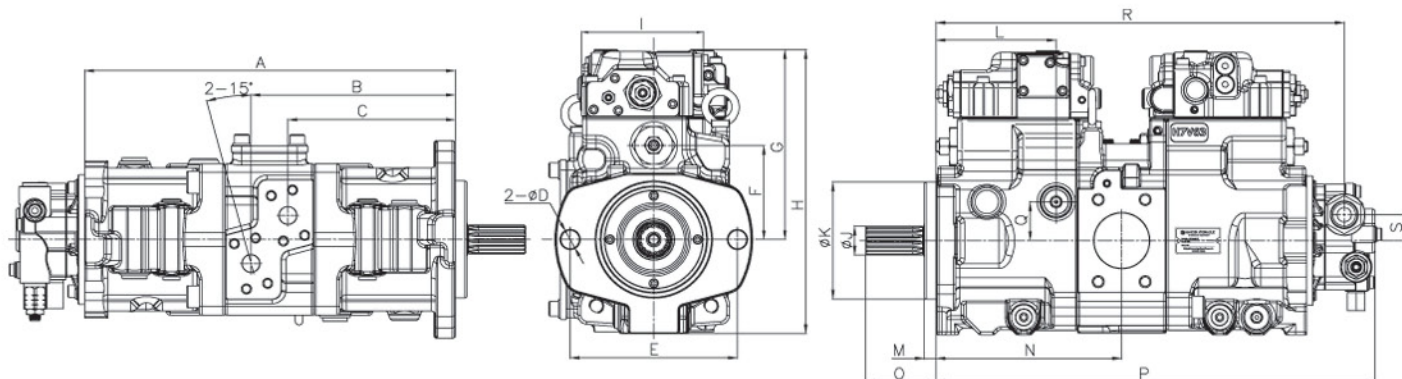
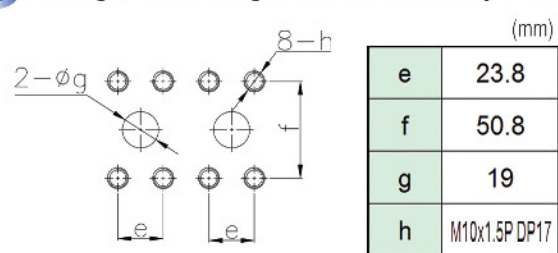
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H7V63DTP	14	29.96	12/24	30°	SAE



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H7V63DTP	401	221	181	20	181	102	205	307	131.5	31.2	127	130	12.5	201	76.2	475	42	442	28

H7V63DTP SWASH PLATE TYPE DOUBLE PISTON PUMP

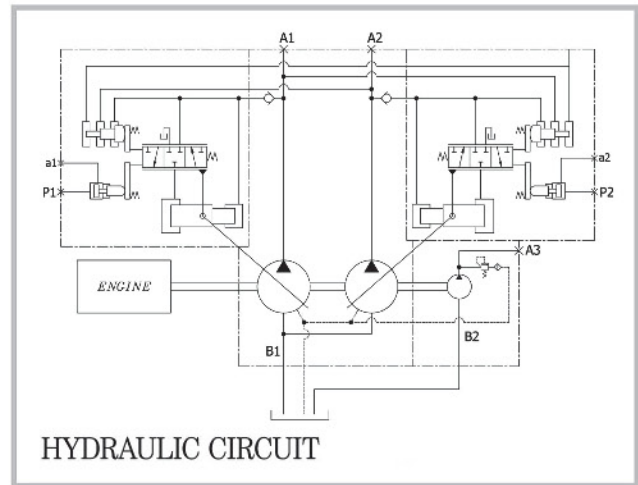
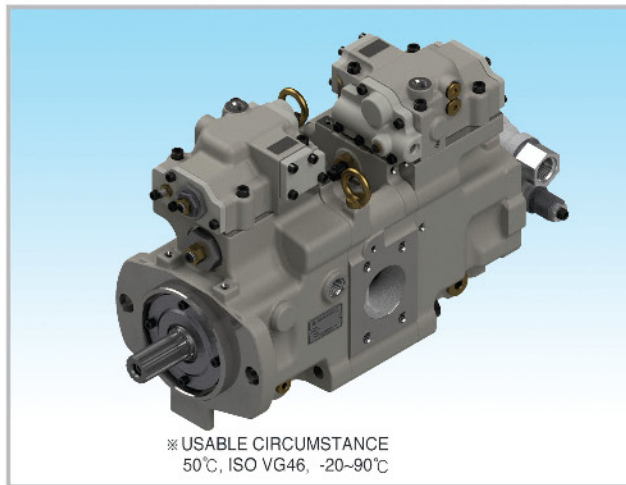


SPECIFICATIONS (FOR 9C00 TYPE)

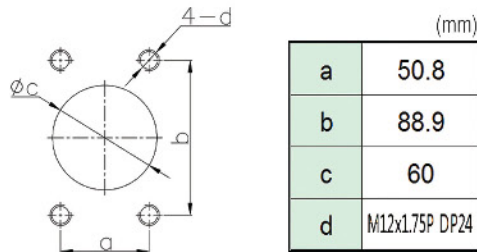
MODEL	H7V63DTP
Discharge rate(cc/rev)	63
Max. pressure (kg/cm ²)	350
Max. speed(rpm)	2400

Dimensions of Shaft End(Spline Type)

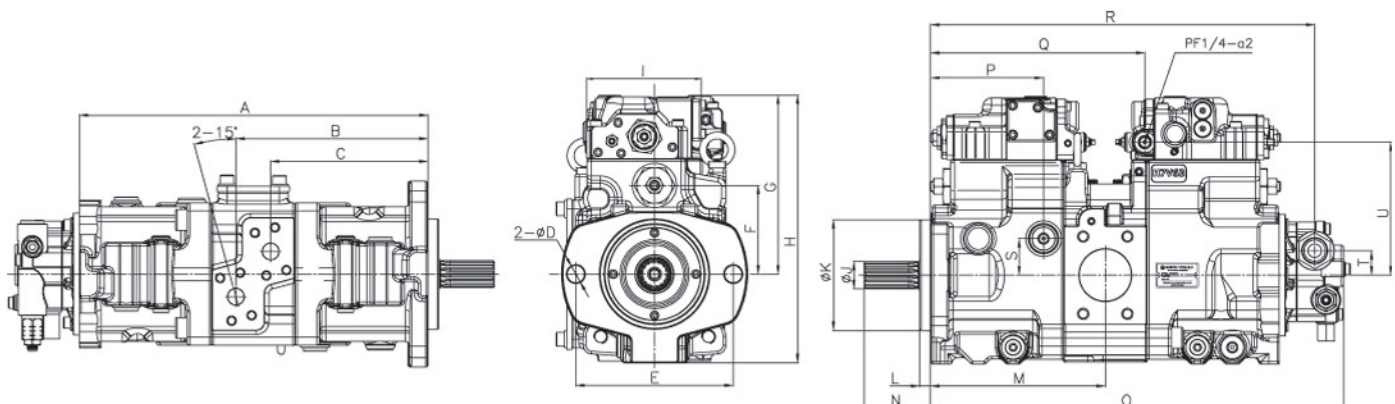
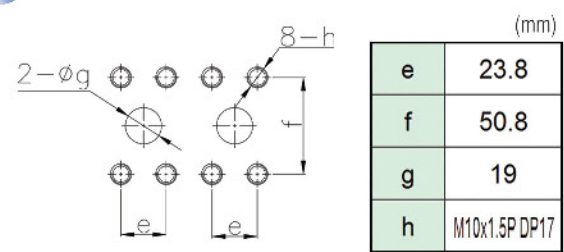
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H7V63DTP	14	29.96	12/24	30°	SAE



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

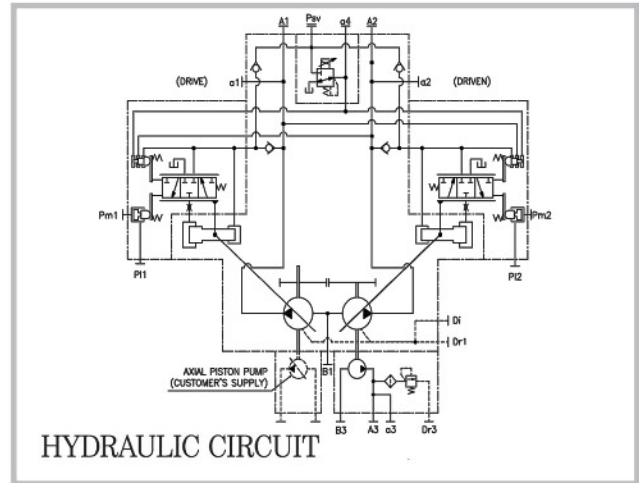
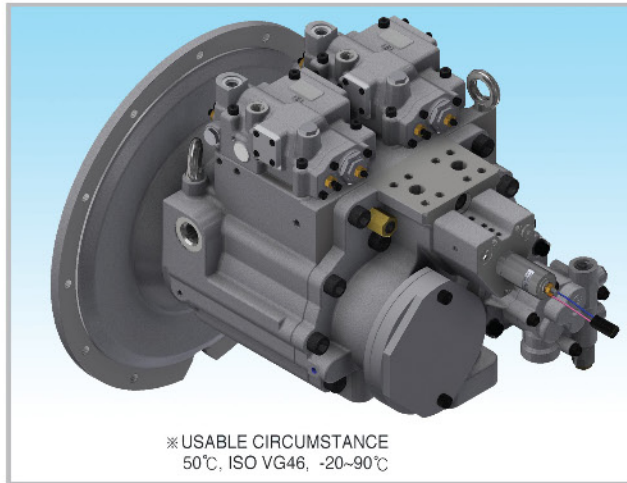
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
H7V63DTP	401	221	181	20	181	102	205	307	131.5	31.2	127	12.5	201	76.2	475	130	246.5	442	42	28	153

H3V112DP FOR SUMITOMO / CASE PARALLEL TYPE SWASH PLATE PISTON PUMP



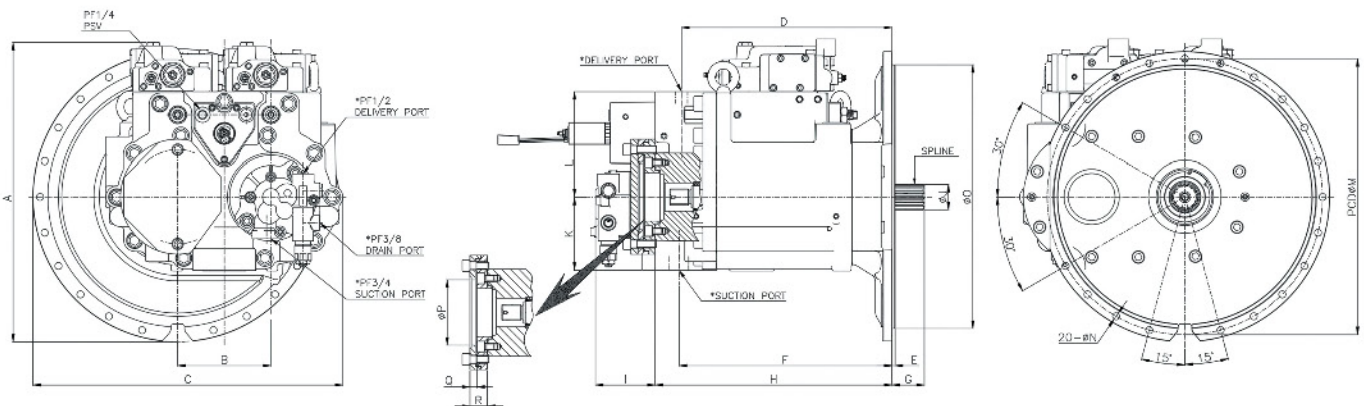
SPECIFICATIONS (FOR 9N00 / 9S09 TYPE)

MODEL	H3V112DP (FOR SUMITOMO / CASE)
Discharge Rate(cc/rev)	112
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	2,000



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DP (FOR SUMITOMO/ CASE)	14	35	2.5	20°	JIS B 1603: 1995



DIMENSIONS

(mm)

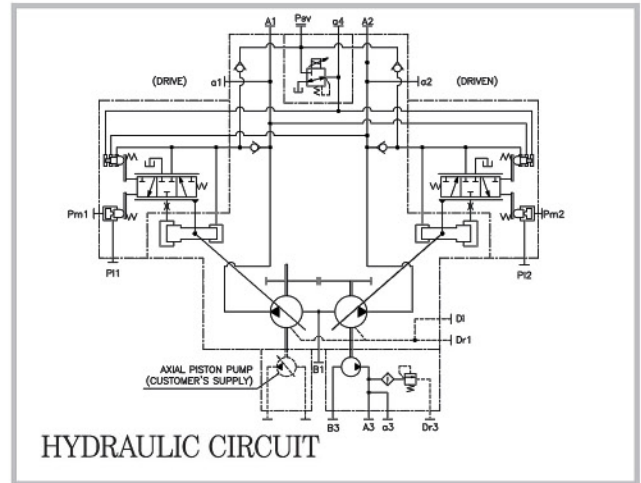
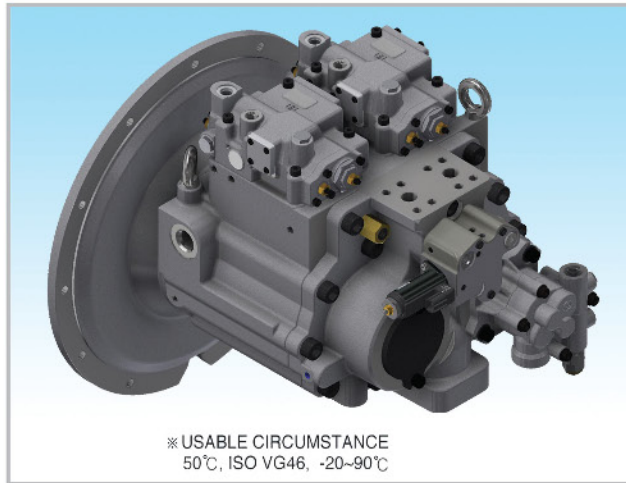
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
H3V112DP (FOR SUMITOMO/ CASE)	465	145	482.5	327.5	4.5	331.5	50	368.5	93	39.5	114	163	428.6	11	409.6	101.6	11	27

H3V112DP FOR SANY / HYUNDAI PARALLEL TYPE SWASH PLATE PISTON PUMP



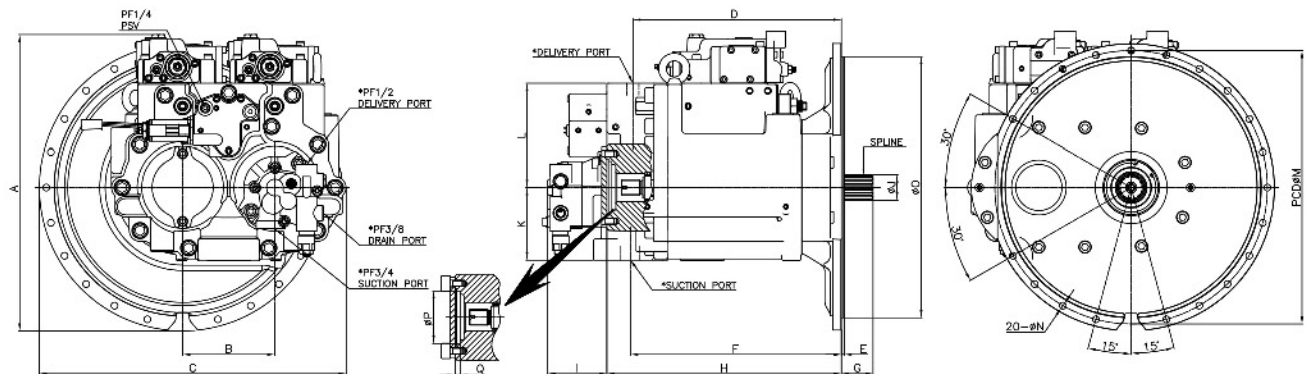
SPECIFICATIONS (FOR 9N00 / 9S09 TYPE)

MODEL	H3V112DP (FOR SANY/ HYUNDAI)
Discharge Rate(cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000



Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DP (FOR SANY/HYUNDAI)	14	35	2.5	20°	JIS B 1603: 1995



DIMENSIONS

(mm)

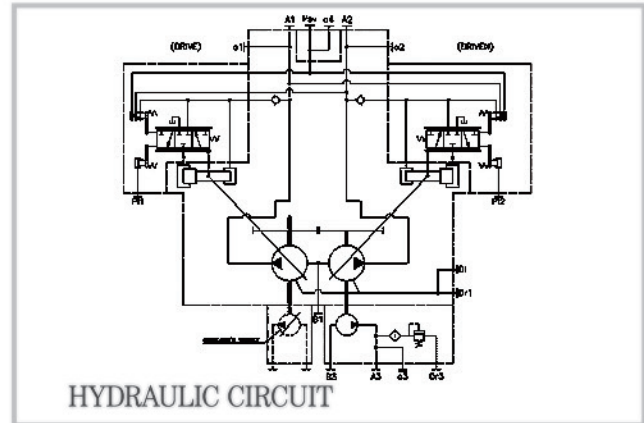
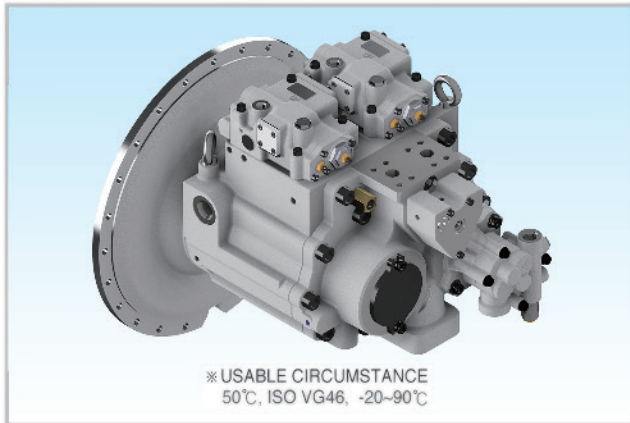
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V112DP (FOR SANY /HYUNAI)	465	145	482.5	327.5	4.5	331.5	50	368.5	93	39.5	114	163	428.6	11	409.6	82.5	8

H3V112DP(FOR SANY CRANE SC500) WITHOUT EPR SWASH PLATE TYPE PISTON PUMP



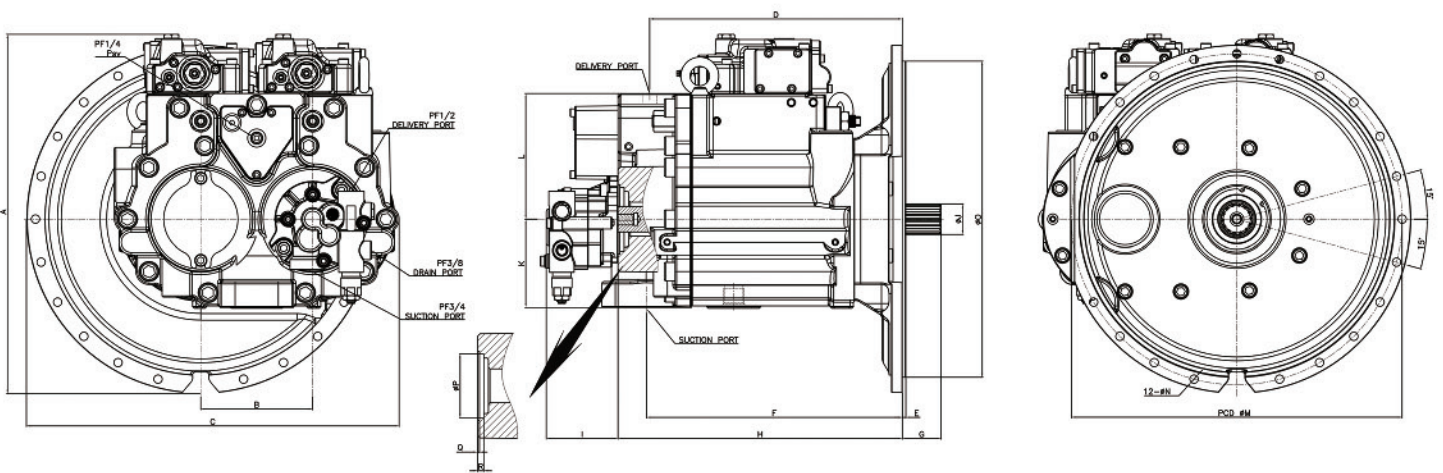
SPECIFICATIONS(FOR 9S00 TYPE)

MODEL	H3V112DP(FOR SANY CRANE SC500)
Discharge Rate(cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DP (FOR SANY CRANE) SC500	14	35	2.5	20°	JIS B 1603 :1995



DIMENSIONS

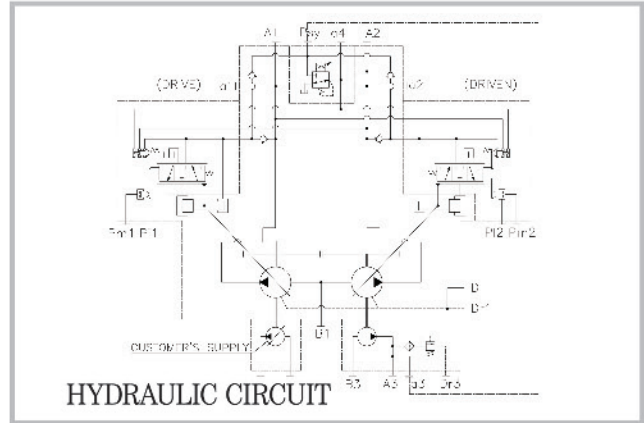
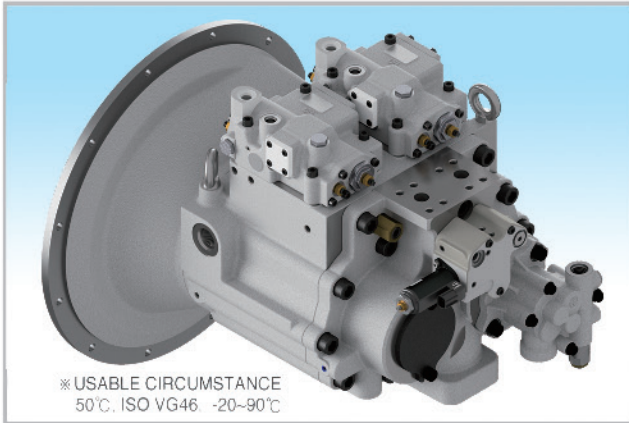
MODEL	(mm)																	
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
H3V112DP (FOR SANY CRANE) SC500	465.5	145	483	387	4.5	391	50	368.5	93	39.5	114	163	428.6	11	409.5	82.55	2.4	8

H3V112DP FOR KOBELCO / NEW HOLLAND WITH EPR PARALLEL TYPE SWASH PLATE PISTON PUMP



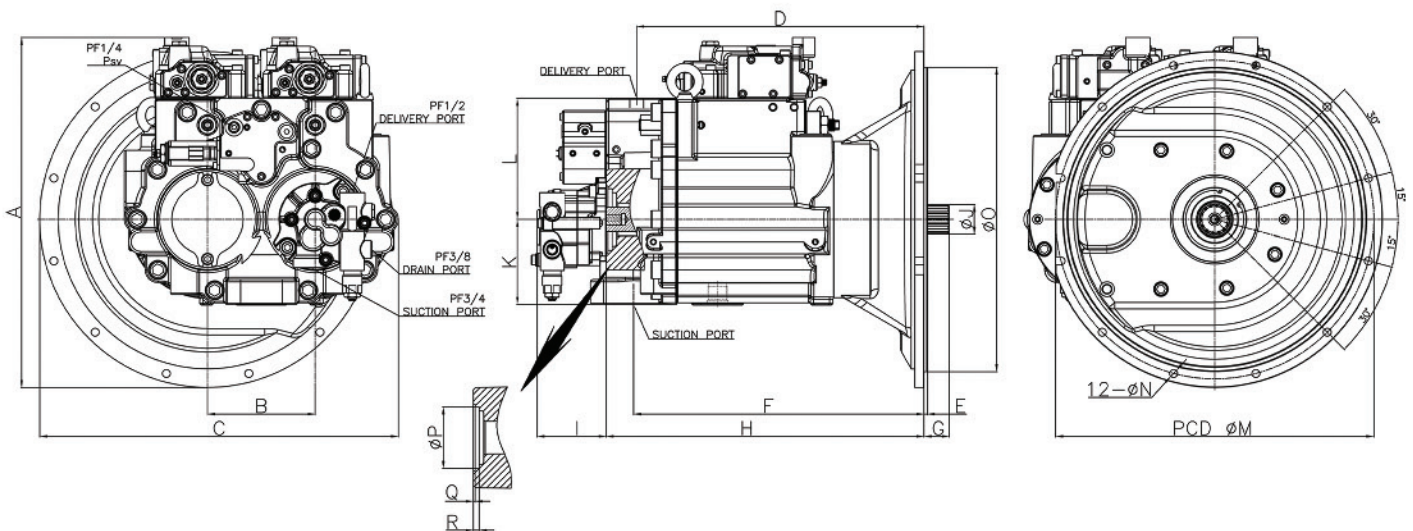
SPECIFICATIONS (FOR 9S00 TYPE)

MODEL	H3V112DP (KOBELCO / NEW HOLLAND)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000



Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch circle dia (mm)	Module	Pressure angle	Standard
H3V112DP (KOBELCO / NEW HOLLAND)	14	35	2.5	20°	JIS B 1603 :1995



DIMENSIONS

(mm)

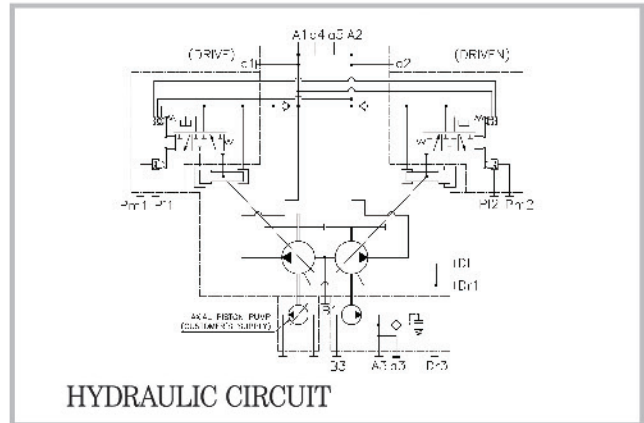
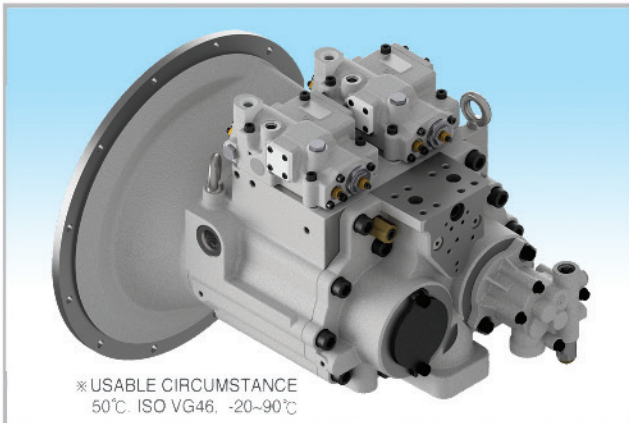
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
H3V112DP (KOBELCO / NEW HOLLAND)	471	145	483	387	4.5	391	34	428	93	39.5	114	163	428.6	11	409.5	82.6	2.4	8

H3V112DP FOR KOBELCO / NEW HOLLAND WITHOUT EPR PARALLEL TYPE SWASH PLATE PISTON PUMP



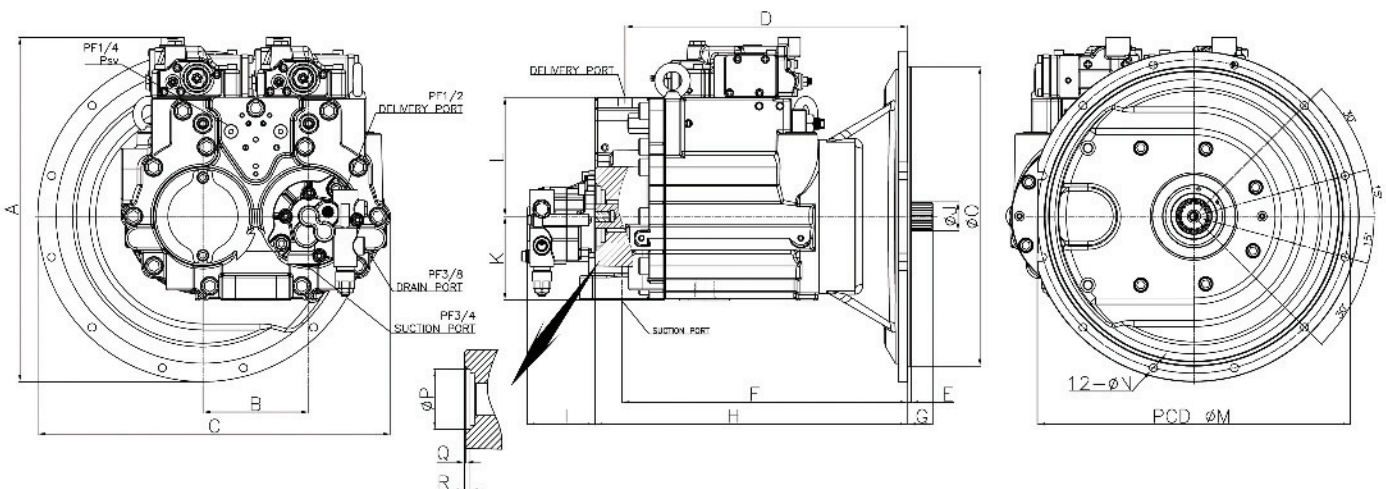
SPECIFICATIONS (FOR 9S00 TYPE)

MODEL	H3V112DP(KOBELCO / NEW HOLLAND)
Discharge Rate(cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DP (KOBELCO / NEW HOLLAND)	14	35	2.5	20°	JIS B 1603 :1995



DIMENSIONS

(mm)

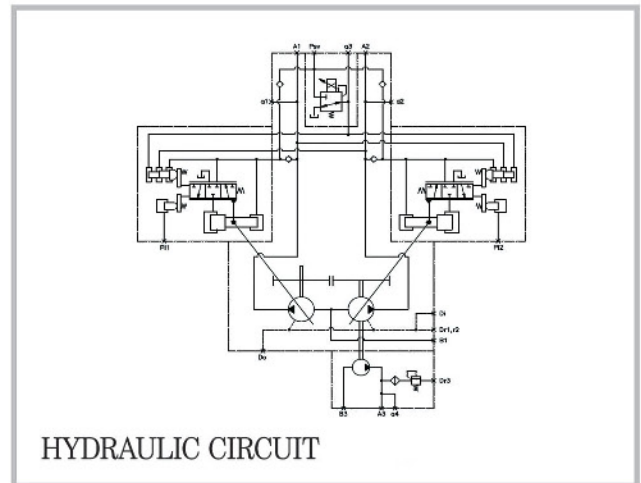
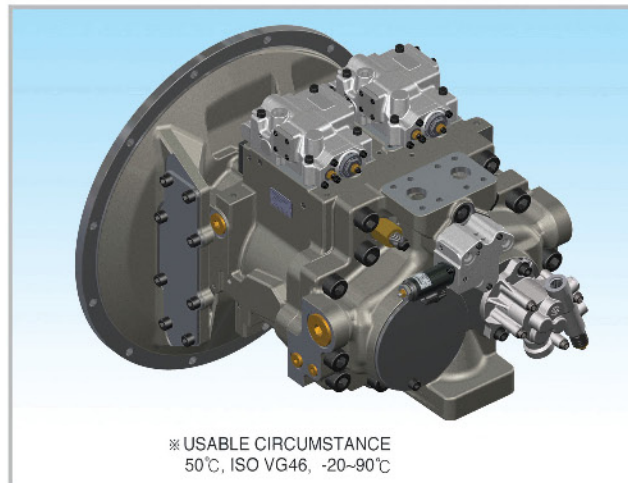
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
H3V112DP (KOBELCO / NEW HOLLAND)	471	145	483	387	4.5	391	34	428	93	39.5	114	163	428.6	11	409.5	82.6	2.4	8

H5V160DP FOR NORMAL TYPE PARALLEL TYPE SWASH PLATE PISTON PUMP



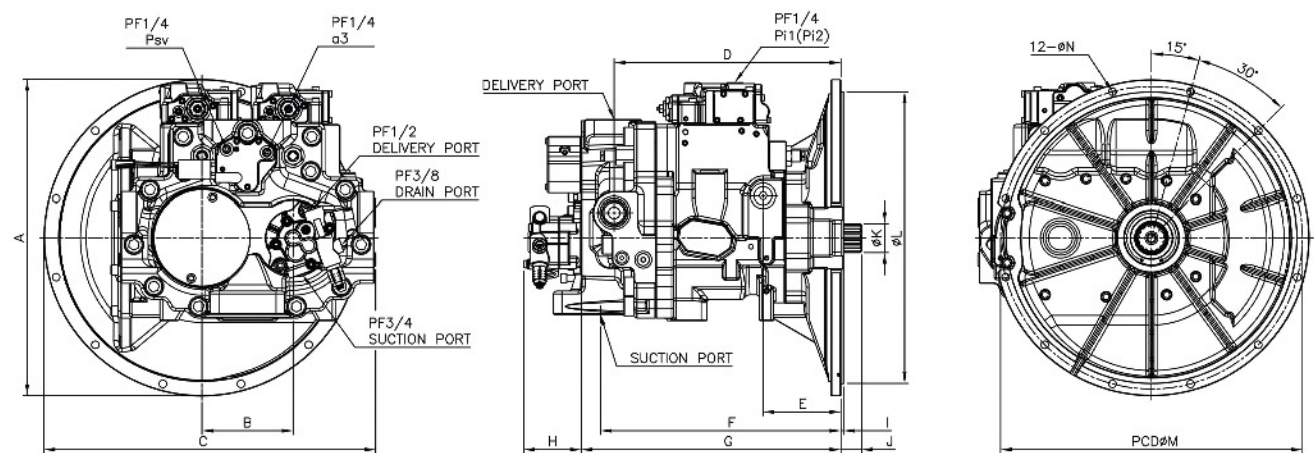
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V160DP (FOR NORMAL TYPE)
Discharge Rate(cc/rev)	160
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,350



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V160DP (FOR NORMAL TYPE)	15	47.625	8/16	30°	ANSI B92.1b :1970



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H5V160DP (FOR NORMAL TYPE)	555	160	582.5	398	136.5	422	456	93	5	34.5	50.8	511	530	13.5

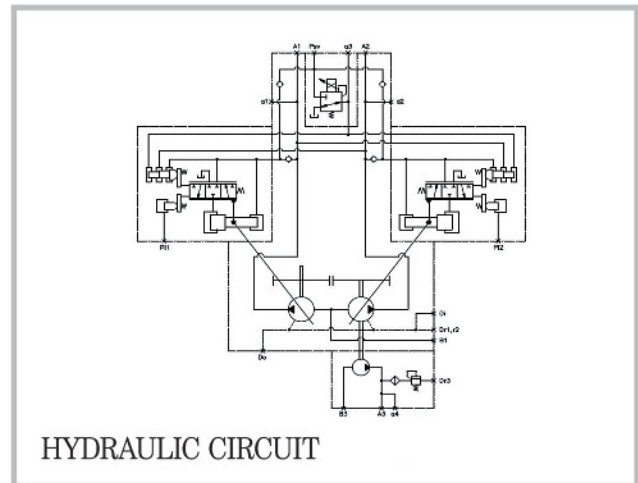
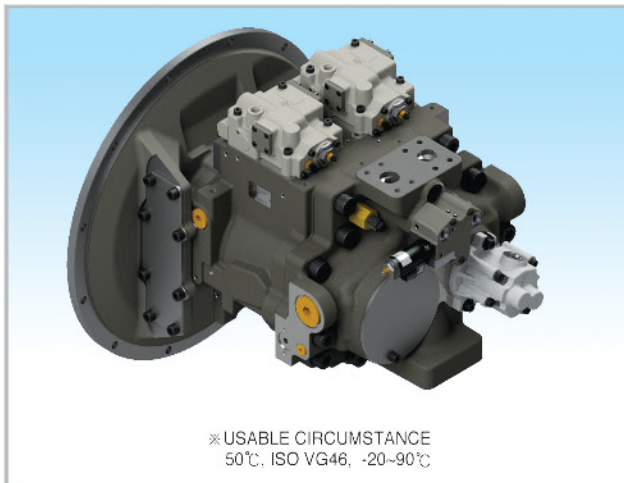
(mm)

H5V160DP FOR CATERPILLAR PARALLEL TYPE SWASH PLATE PISTON PUMP



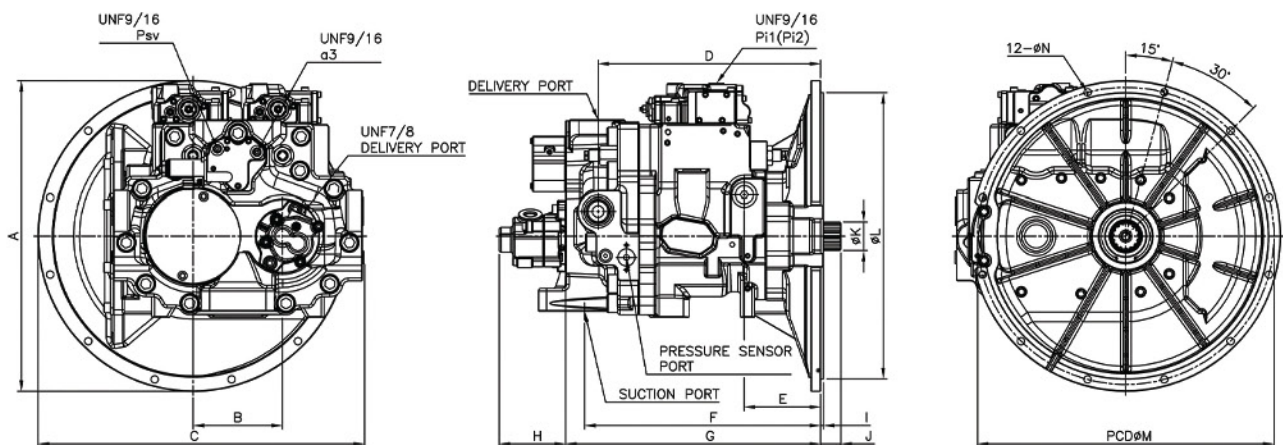
1 SPECIFICATIONS(FOR 2N00 / 9N00 / 9P00 / 9S00 TYPE)

MODEL	H5V160DP FOR CATERPILLAR
Discharge Rate(cc/rev)	160
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,350



2 Dimensions of Shaft End(Spline Type)

MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V160DP FOR CATERPILLAR	15	47.625	8/16	30°	ANSI B92.1b :1970



3 DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H5V160DP FOR CATERPILLAR	555	160	582.5	398	136.5	422	456	118.5	5	34.5	50.8	511	530	13.5

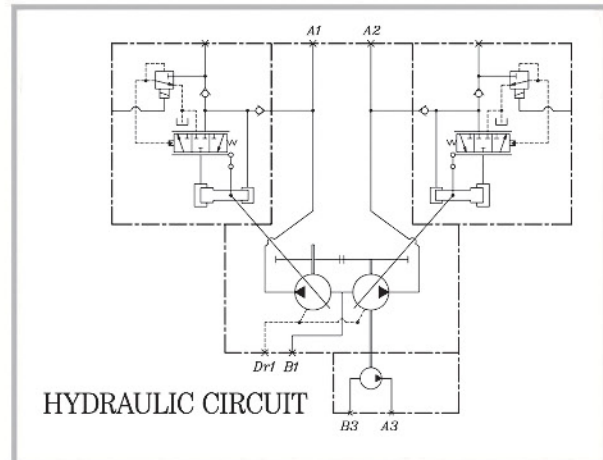
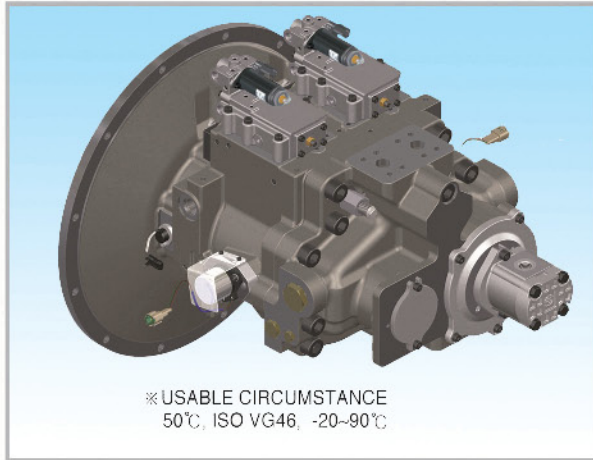
(mm)

H5V200DPH FOR HITACHI PARALLEL TYPE SWASH PLATE PISTON PUMP



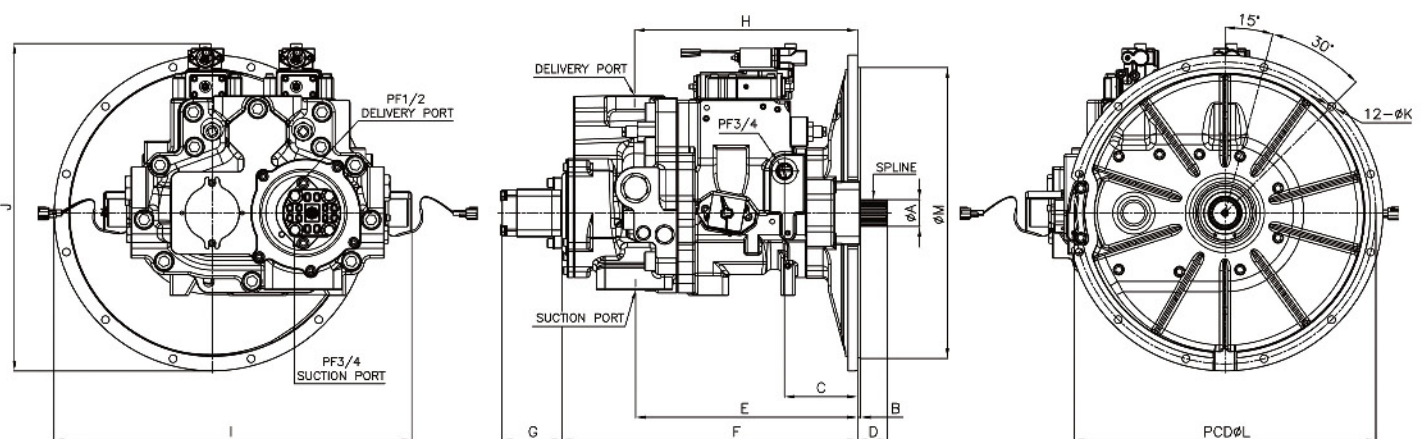
SPECIFICATIONS (FOR OE02-NORMAL & HITACHI)

MODEL	H5V200DPH (FOR HITACHI)
Discharge Rate (cc/rev)	200
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1900



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPH (FOR HITACHI)	17	42.5	2.5	20 °	JIS B 1603 : 1995



DIMENSIONS

(mm)

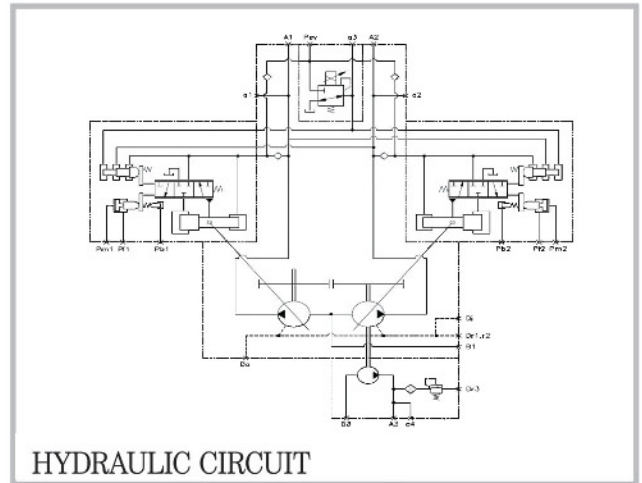
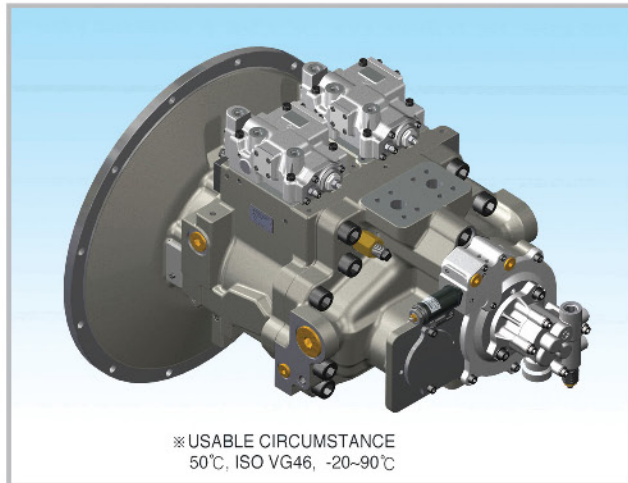
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
H5V200DPH (FOR HITACHI)	47	5	129	52.4	390	520	105	390	628	575	13.5	530	508 (SAE J617 NO.2)
													511 (SAE J617 NO.1)
		6											409.58 (SAE J617 NO.3)

H5V200DPH PARALLEL TYPE SWASH PLATE PISTON PUMP



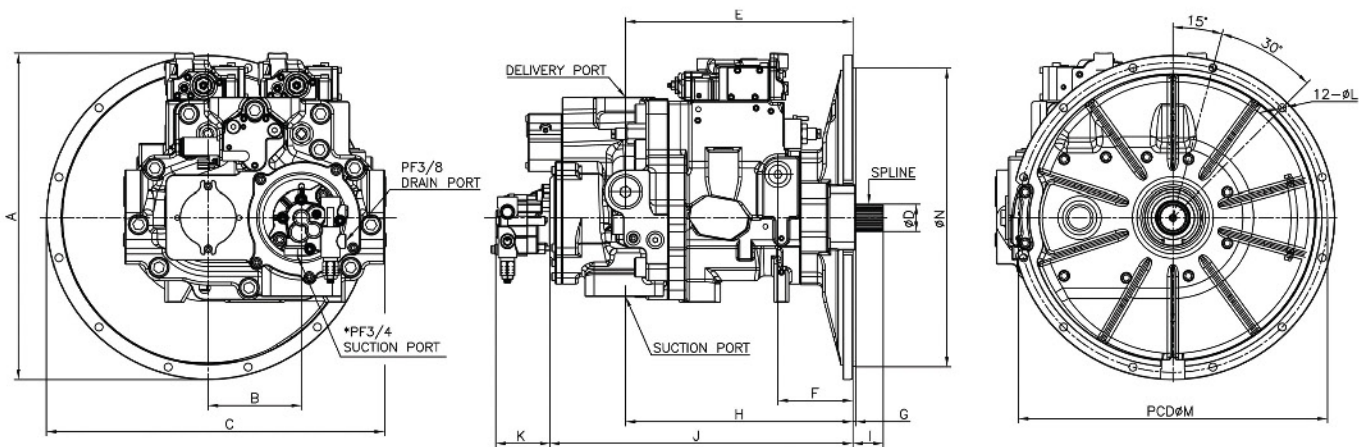
SPECIFICATIONS (FOR 9N00 / 9P00 / 9S00 / ZX00 TYPE)

MODEL	H5V200DPH
Discharge Rate (cc/rev)	200
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	1900



Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPH	17	42.5	2.5	20°	JIS B 1603 : 1995



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H5V200DPH	559	160	580	47	390	128.5	5	390	52.4	519.6	93	13.5	530	508
														511

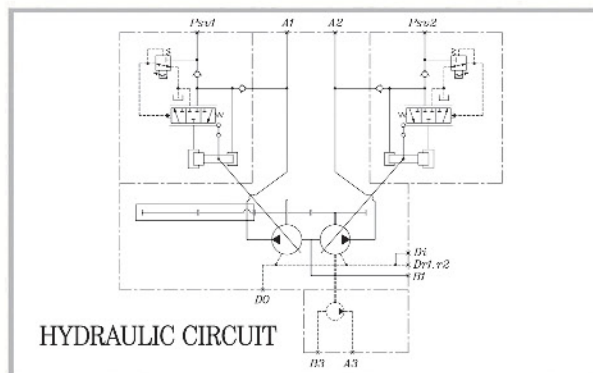
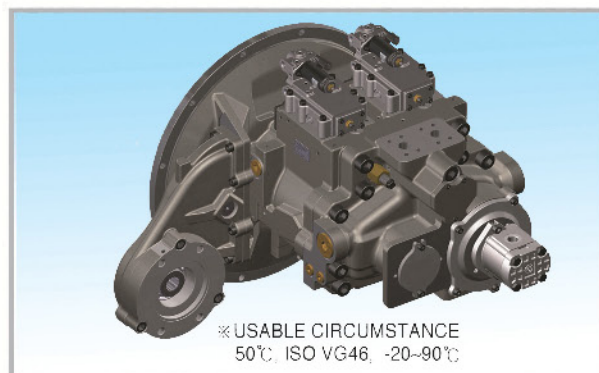
(mm)

H5V200DPH FOR HITACHI PARALLEL TYPE SWASH PLATE PISTON PUMP



SPECIFICATIONS (FOR OE02-NORMAL & HITACHI)

MODEL	H5V200DPH (FOR HITACHI)
Discharge Rate (cc/rev)	200
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1900

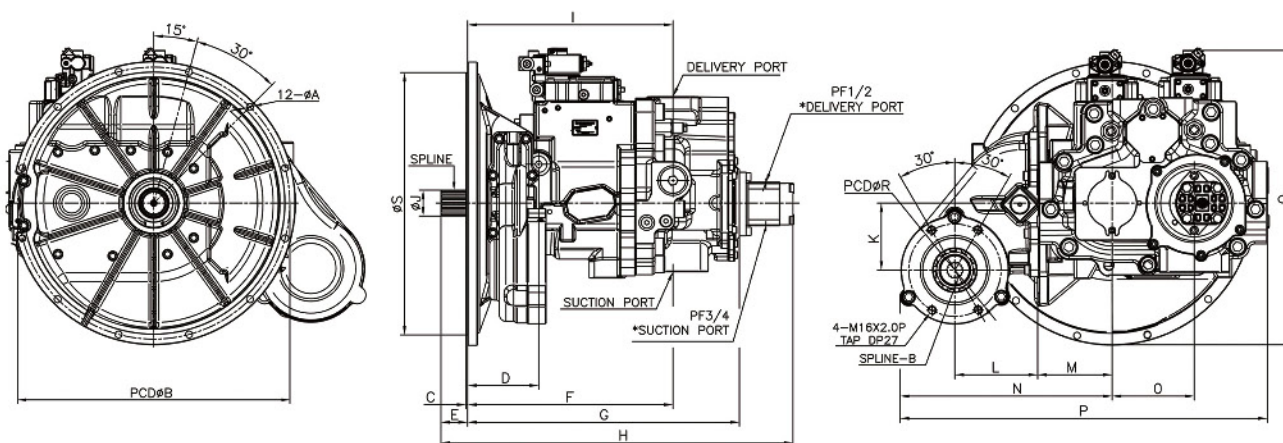


Dimensions of Shaft End(Spline-A)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPH(FOR HITACHI)	15	47.625	8/16	30°	ANSI B92.1B:1970

Dimensions of Shaft End(Spline-B)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPH(FOR HITACHI)	14	29.63	12/24	30°	SAE J744



DIMENSIONS

(mm)

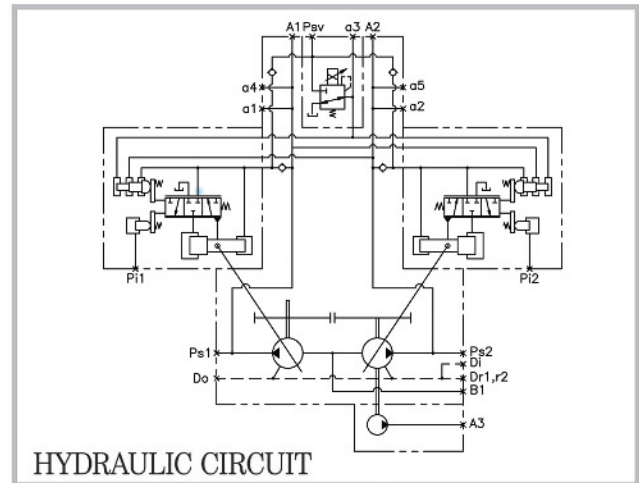
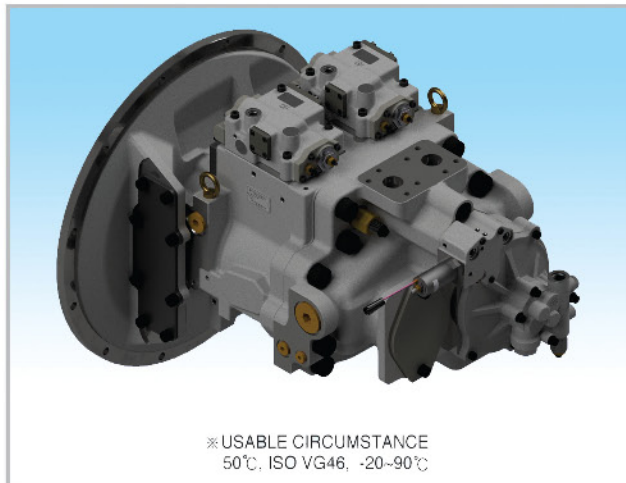
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H5V200DPH (FOR HITACHI)	13.5	530	3	138.5	52	400	529.6	686	400	50.6	103.7	161	145	413	160	716	574	180	508 (SAE J617 NO.2)
		428.62	6																511 (SAE J617 NO.1)
																			409.58 (SAE J617 NO.3)

H5V212DPH PARALLEL TYPE SWASH PLATE PISTON PUMP



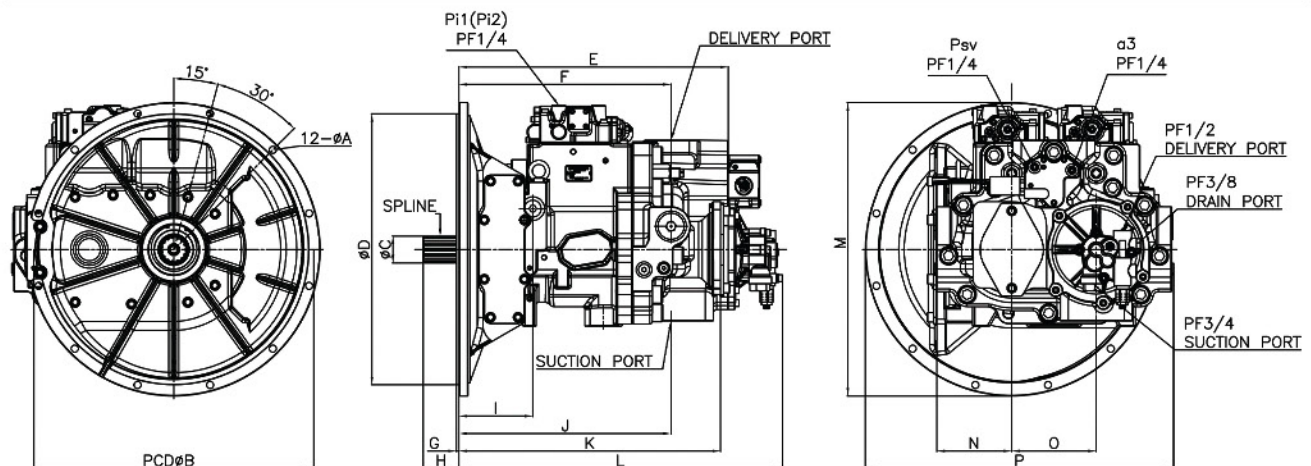
SPECIFICATIONS (FOR 2N00 / 9N00 / 9P00 / 9S00 TYPE)

MODEL	H5V212DPH
Discharge Rate(cc/rev)	212
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1,800



Dimensions of Shaft End(Spline Type)

MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V212DPH	15	47.625	8/16	30°	ANSI B92.1b :1970
	17	53.975	8/16	30°	ANSI B92.1b :1970



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H5V212DPH	13.5	530	50.7 57.15	511	590.5	401	5	68.5	139.5	401	494.5	612	554	141.8	160	583.5

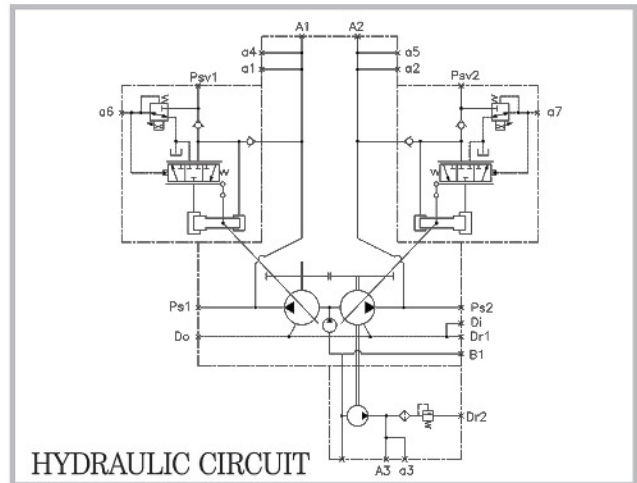
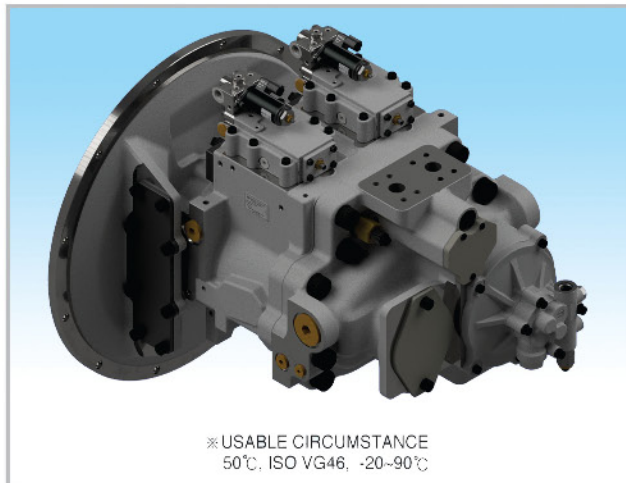
(mm)

H5V212DPH PARALLEL TYPE SWASH PLATE PISTON PUMP



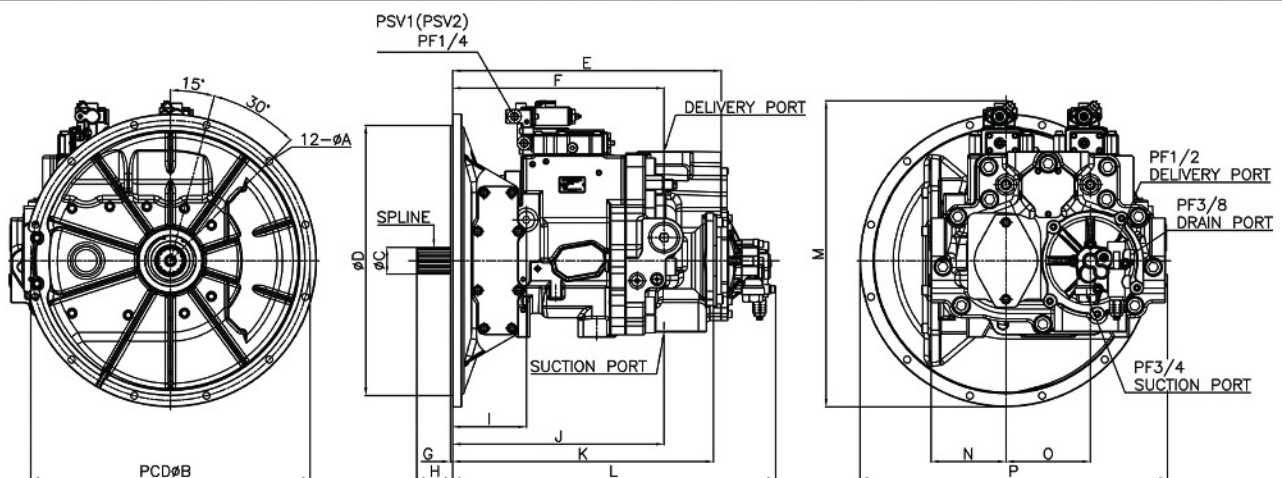
SPECIFICATIONS (FOR OE02-NORMAL & HITACHI)

MODEL	H5V212DPH
Discharge Rate(cc/rev)	212
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1,800



Dimensions of Shaft End (Spline Type)

MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V212DPH	15	47.625	8/16	30°	ANSI B92.1b :1970
	17	53.975	8/16	30°	ANSI B92.1b :1970



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H5V212DPH	13.5	530	50.7 57.15	511	590.5	401	5	68.5	139.5	401	494.5	612	579.3	141.8	160	583.5

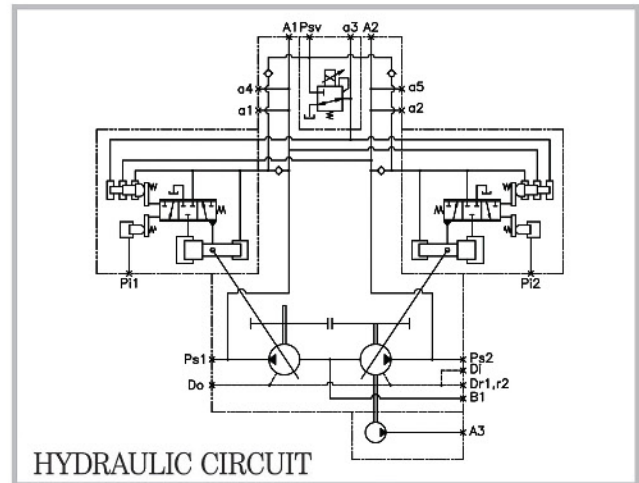
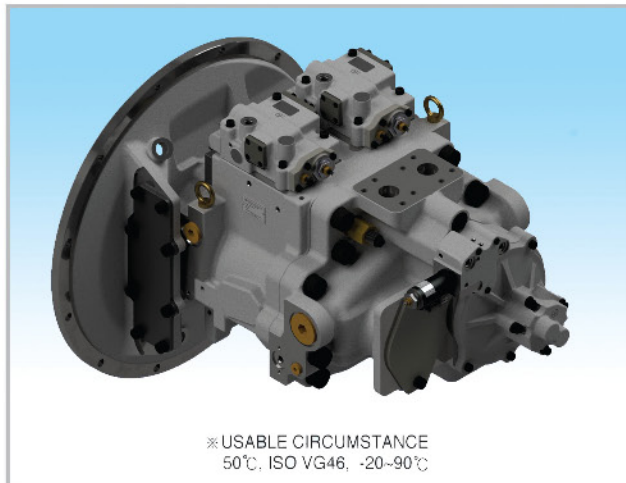
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H5V212DPH FOR CATERPILLAR PARALLEL TYPE SWASH PLATE PISTON PUMP



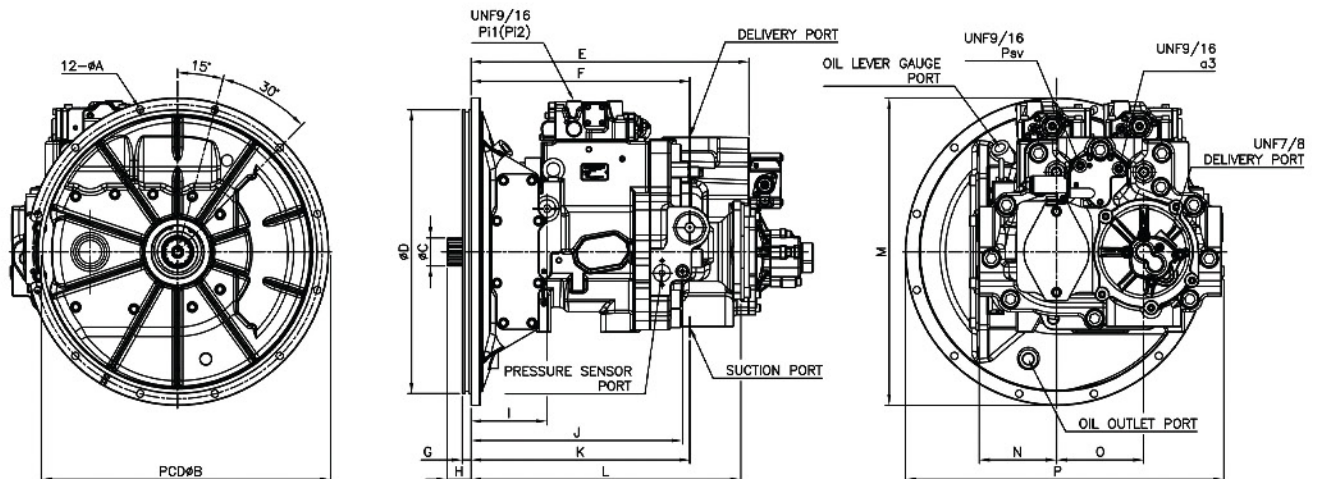
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V212DPH FOR CATERPILLAR
Discharge Rate(cc/rev)	212
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1,800



Dimensions of Shaft End(Spline Type)

MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V212DPH FOR CATERPILLAR	15	47.625	8/16	30°	ANSI B92.1b :1970



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H5V212DPH FOR CATERPILLAR	13.5	530	50.7	511	590.5	401	16	44	139.5	401	494.5	628	554	141.8	160	583.5

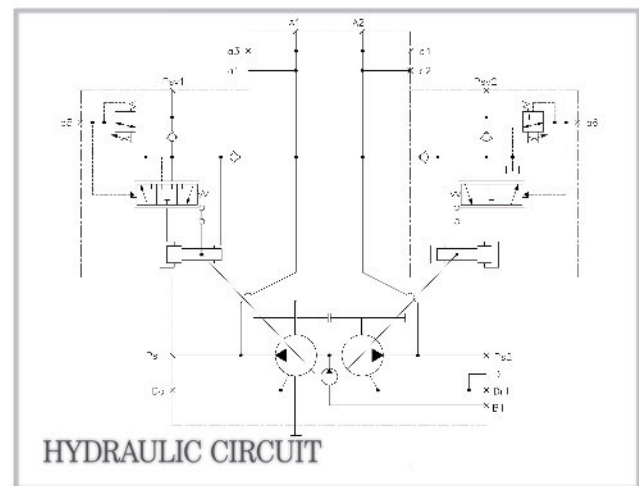
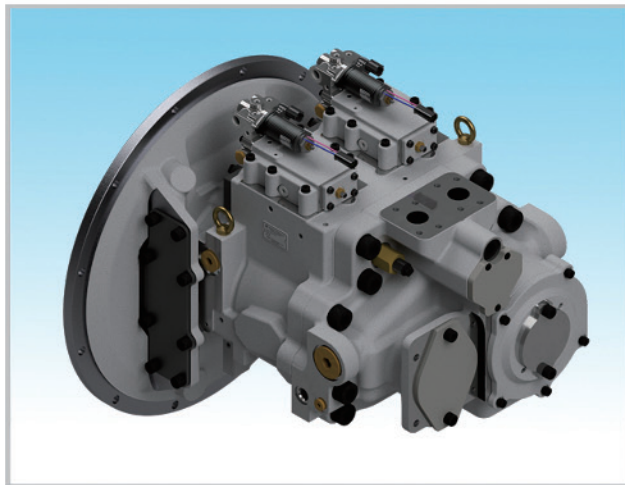
(mm)

H5V212DPH FOR VOLVO PARALLEL TYPE SWASH PLATE PISTON PUMP



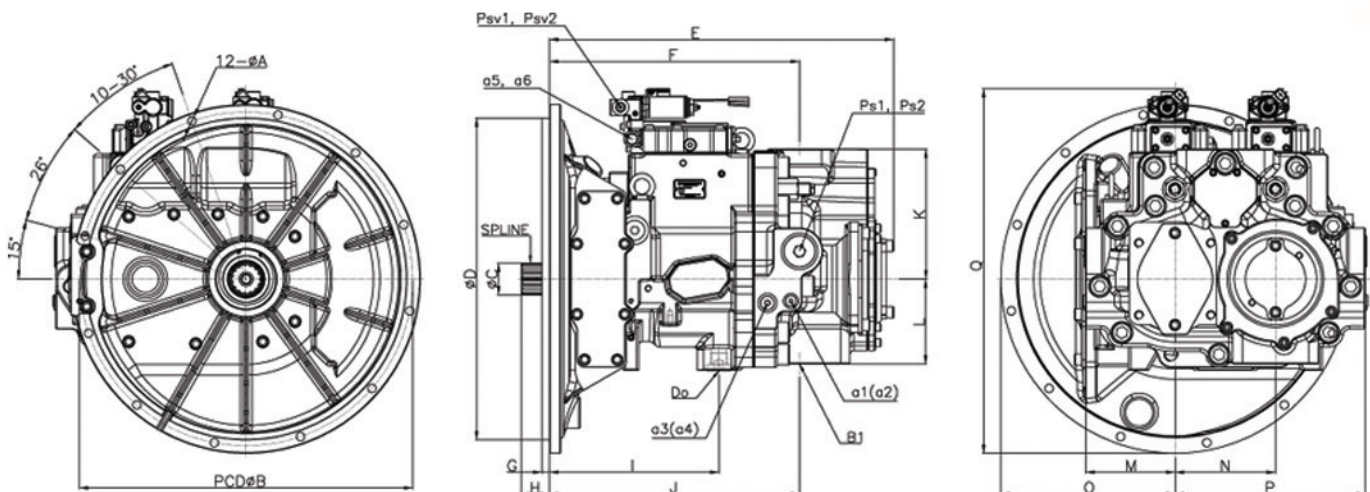
SPECIFICATIONS (FOR OE02 TYPE)

MODEL	H5V212DPH FOR VOLVO
Discharge Rate(cc/rev)	212
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	1800



Dimensions of Shaft End(Spline Type)

MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V212DPH FOR VOLVO	15	47.625	8/16	30°	ANSI B92.1b : 1970



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H5V212DPH FOR VOLVO	13.5	530	50.7	511	546.5	397	12	45	269	397	206	135	141.8	160	277	302.5	579

(mm)

H5V212DPHD FOR DOOSAN

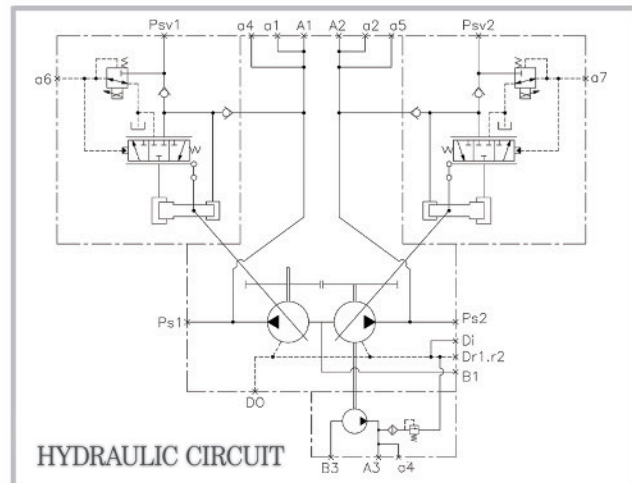
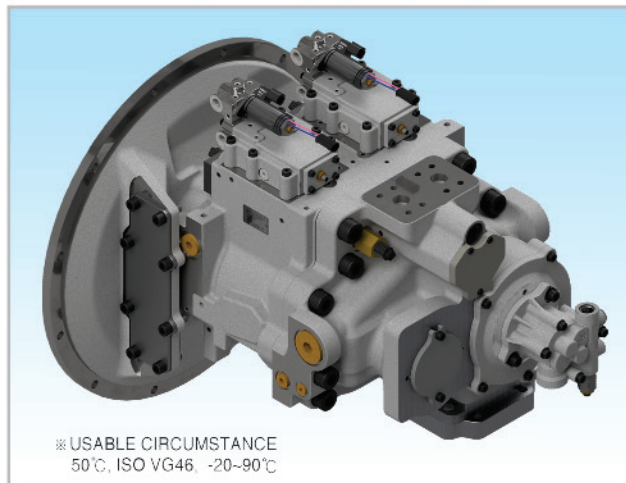
PERALLEL TYPE SWASH PLATE PISTON PUMP

H5V212DPHD can be applied on DX500LC-7&DX520LC-7 instead of A8VO215



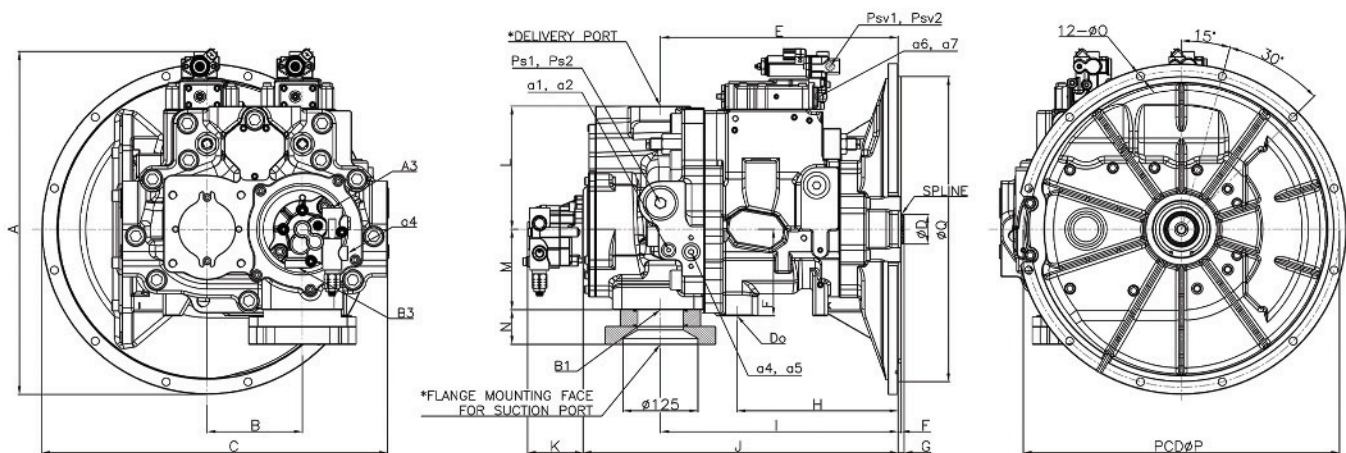
SPECIFICATIONS

MODEL	H5V212DPHD (DX500LC-7 & DX520LC-7)
Discharge Rate (cc/rev)	212
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1800



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H5V212DPHD (DX500LC-7 & DX520LC-7)	24	35	2.0	30°	DIN 5480



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H5V200DPHD (DX500LC-7 & DX520LC-7)	574.6	160	580	49.5	398	5	10	273	398	528	93	206	135	58	13.5	530	511 (SAE J617 NO.1)

H3V140DTPK FOR KOMATSU

H3V140DTPK can be applied on PC300-6, 310-6, 330-6, 350-6 instead of HPV132C PUMPS

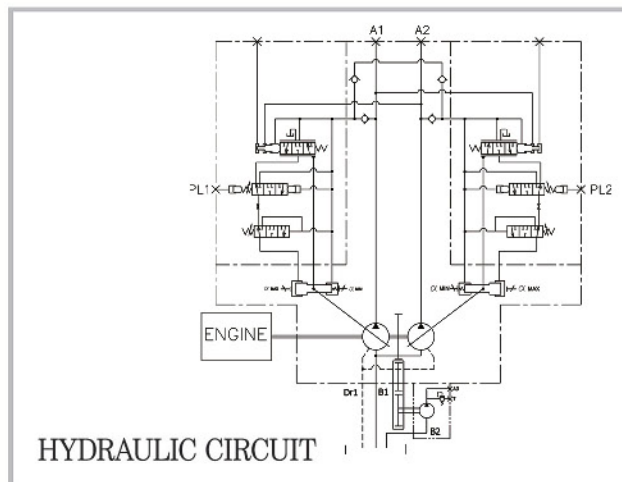
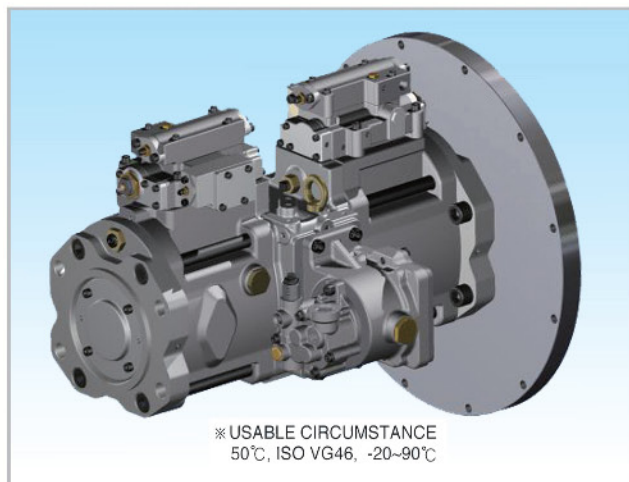


SPECIFICATIONS (FOR 3L09 TYPE)

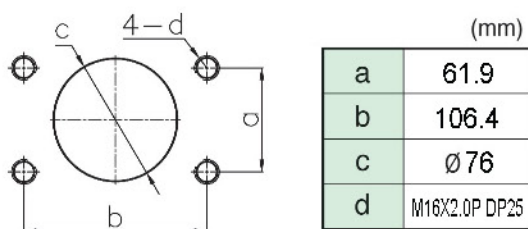
MODEL	H3V140DTPK (PC300-6, 310-6, 330-6, 350-6)
Discharge Rate (cc/rev)	140
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2500

Dimensions of Shaft End(Spline Type)

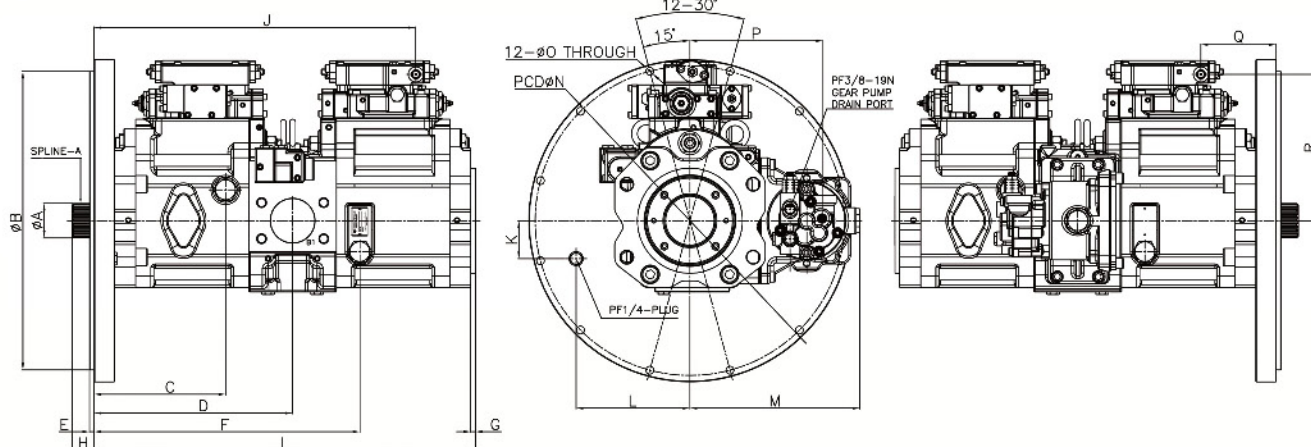
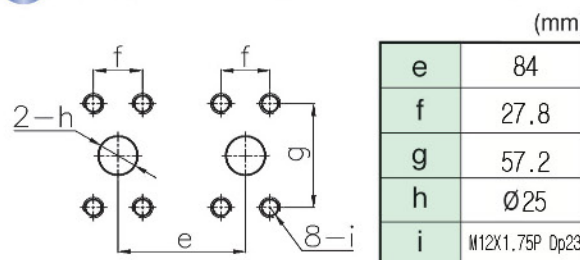
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V140DTPK (PC300-6, PC310-6) (PC330-6, PC350-6)	22	55	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
H3V140DTPK (PC300-6, PC310-6) (PC330-6, PC350-6)	59.2	511.2	225	340	8	455	8	38	653	551	65	195	291	530.2	13.5	228	129	251

H3V140DTK FOR KOMATSU

H3V140DTK can be applied on PC300-7/8, 310-7/8, 320-7/8, 330-7/8, 350-7/8 instead of HPV140 PUMPS

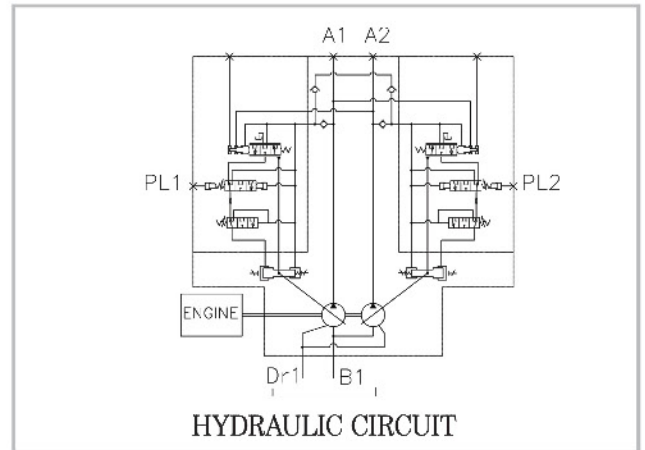


SPECIFICATIONS (FOR 3L00 TYPE)

MODEL	H3V140DTK (PC300-7/8, 310-7/8, 320-7/8, 330-7/8, 350-7/8)
Discharge Rate(cc/rev)	160
Max. Pressure	350
Max. Speed (rpm)	2150

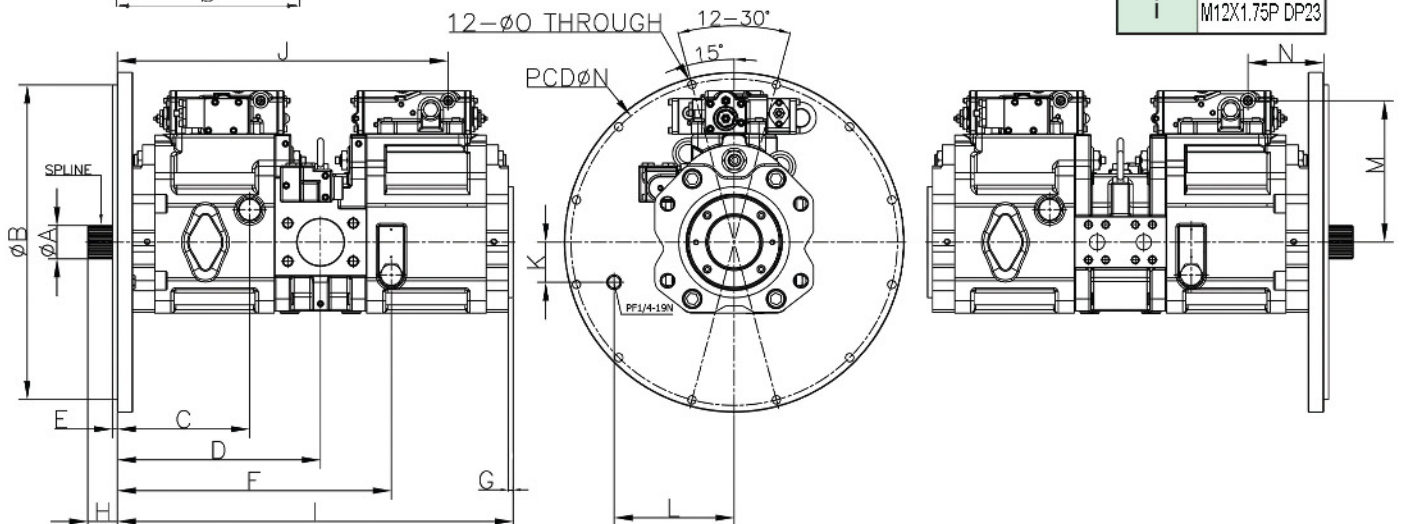
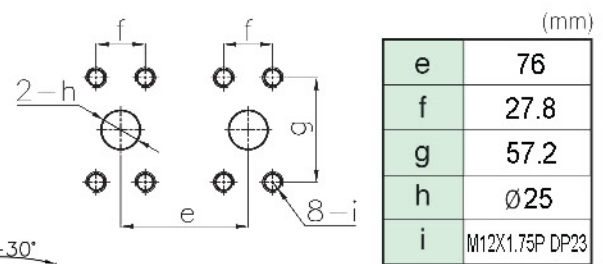
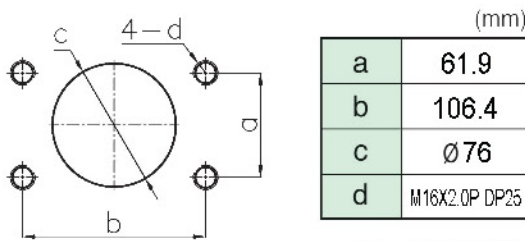
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V140DTK (PC300-7/8, 310-7/8) (PC320-7/8, 330-7/8) (PC350-7/8)	20	50	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port

Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H3V140DTK (PC300-7/8, 310-7/8) (PC320-7/8, 330-7/8) (PC350-7/8)	54.5	511.2	215	330	8	445	8	48	643	541	65	195	251	119

H5V160DPC FOR CATERPILLAR

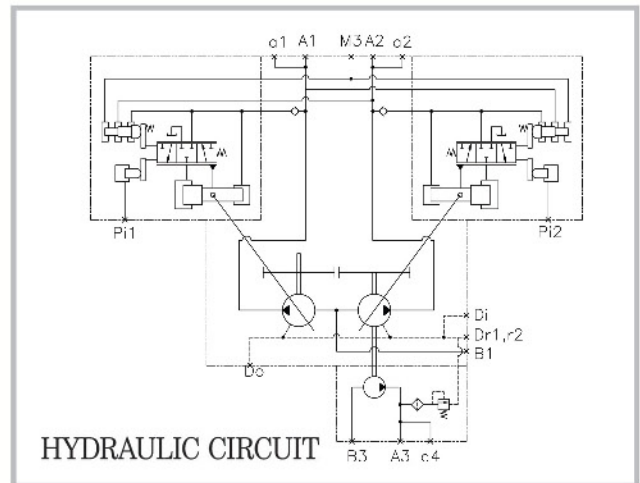
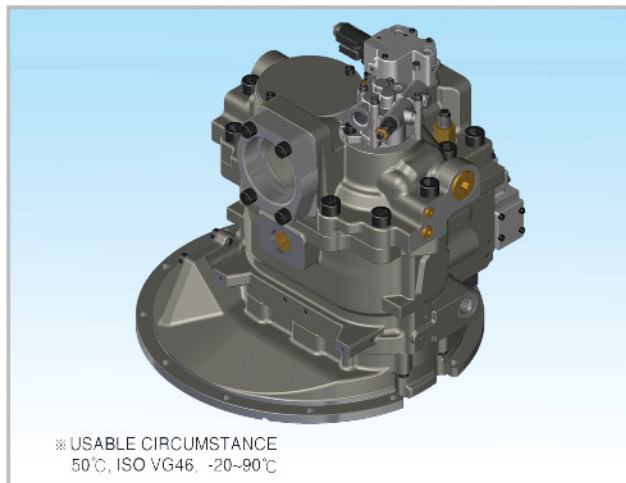
PARALLEL TYPE SWASH PLATE PISTON PUMP

H5V160DPC can be applied on CAT330L/B instead of A8V0160 PUMP



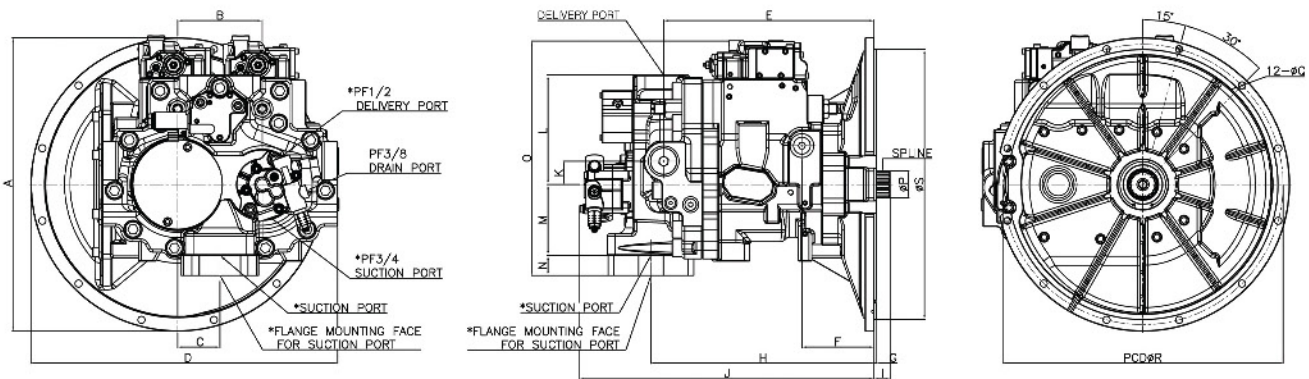
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V160DPC(CAT330L/B)
Discharge Rate (cc/rev)	160
Max. Pressure (kg/cm ²)	350
Max. Speed(rpm)	2200



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V160DPC (CAT330L/B)	15	45	3.0	20°	JIS B 1603: 1995



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H5V160DPC (CAT330L/B)	555	160	80	580	398	137	5	422	30	557	44	207	134	38	443	50.4	13.5	530	508
																			511

H5V200DPC FOR CATERPILLAR

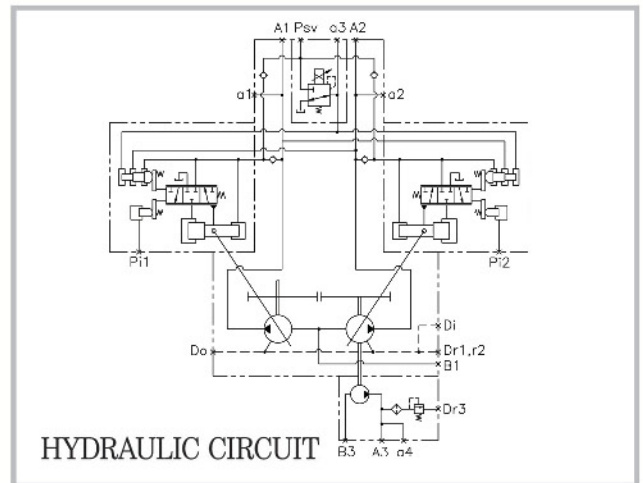
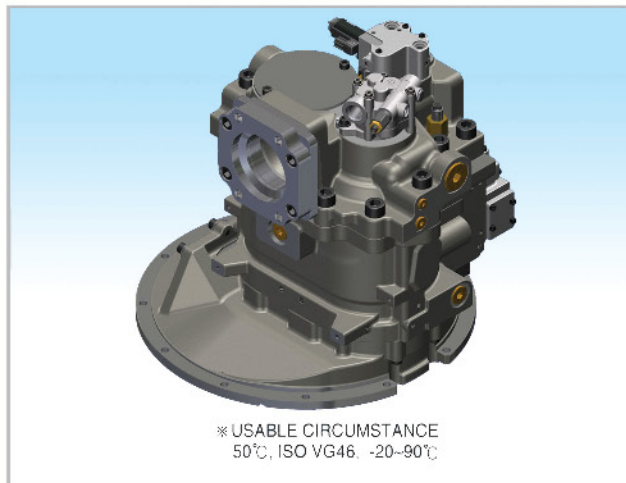
PARALLEL TYPE SWASH PLATE PISTON PUMP

H5V200DPC can be applied on CAT345L/B instead of A8V0200 PUMP



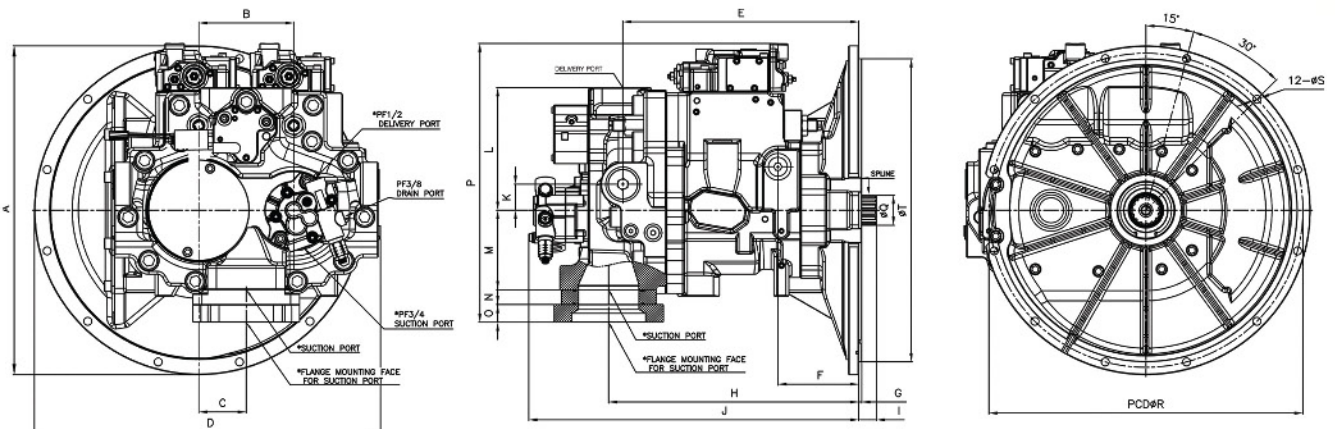
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V200DPC(CAT 345L/B)
Discharge Rate (cc/rev)	200
Max. Pressure (kg/cm ²)	350
Max. Speed(rpm)	2150



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPC(CAT345L/B)	15	45	3.0	20°	JIS B 1603 :1995



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
H5V200DPC (CAT345L/B)	555	160	80	584	398	136.5	5	422	30	557	44	207	134	25	30	470.5	50.4	530	13.5	508
																				511

H5V140DPD FOR DOOSAN

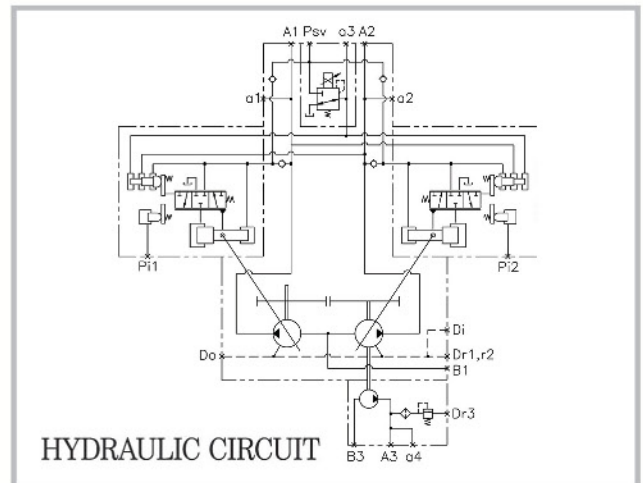
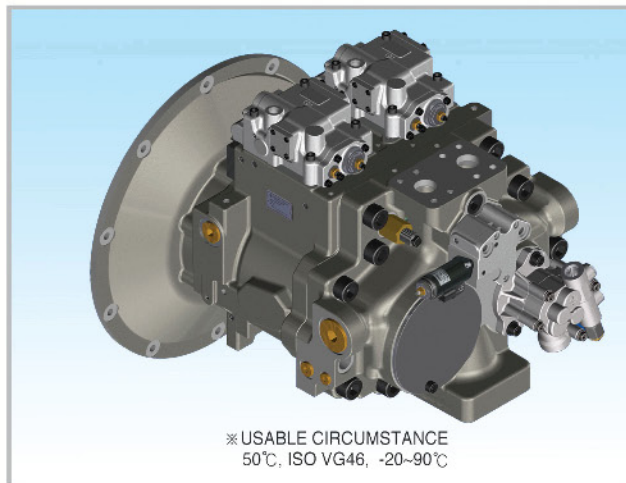
PARALLEL TYPE SWASH PLATE PISTON PUMP

H5V140DPD can be applied on DX330/340/350/380 instead of A8V0140 PUMP



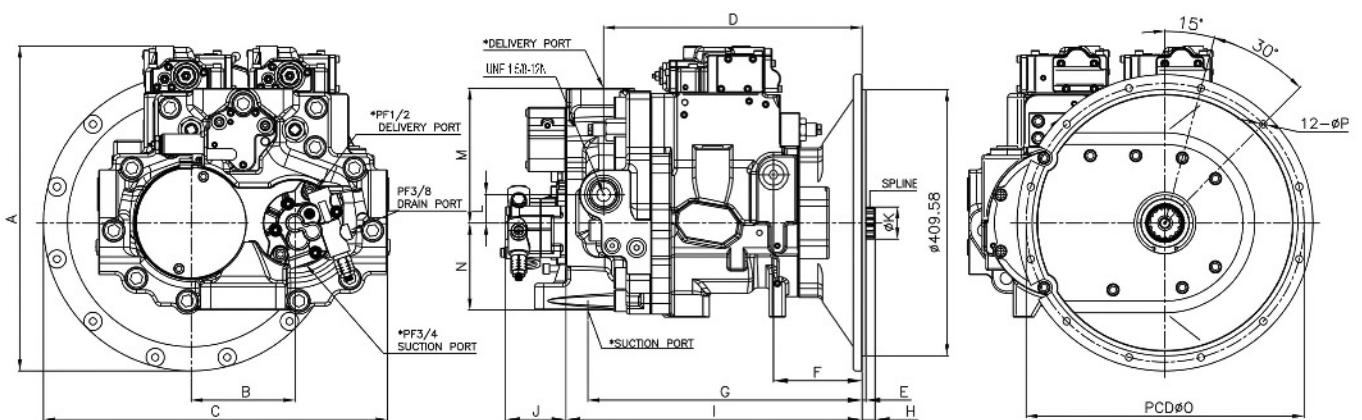
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V140DPD(DX330/340/350/380)
Discharge Rate (cc/rev)	140
Max. Pressure (kg/cm²)	350
Max. Speed(rpm)	2450



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V140DPD (DX330/340/350/380)	24	48	2.0	30°	DIN5480 :1991



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	P
H5V140DPD (DX330/340/350/380)	500	160	530.5	398	6	136.5	422	20	456	93	49.5	44	207	134	428.6	11	530	44	11

H5V200DPD FOR DOOSAN

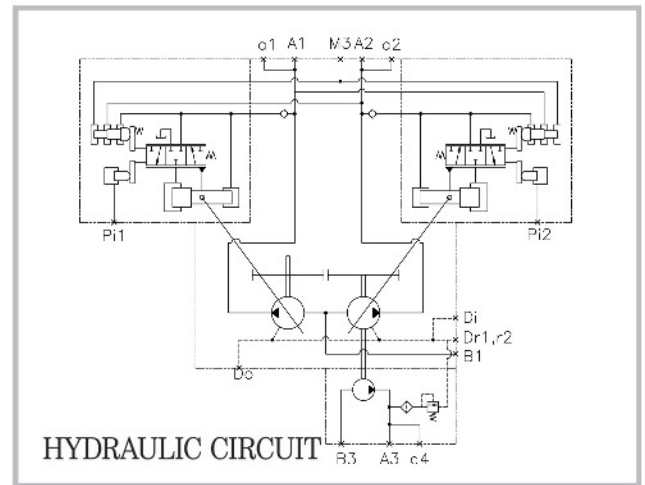
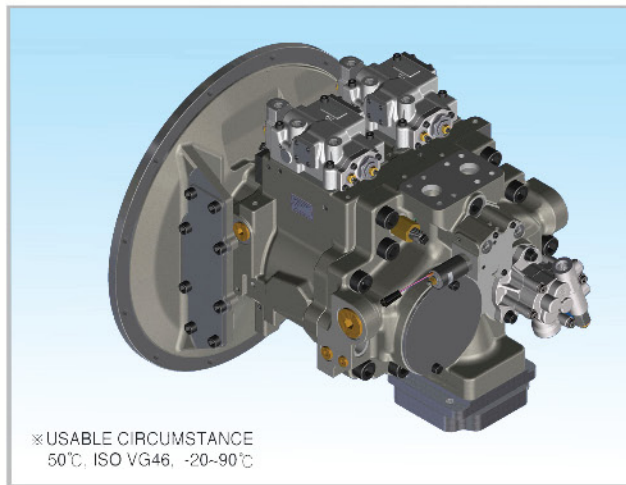
PARALLEL TYPE SWASH PLATE PISTON PUMP

H5V200DPD can be applied on DX400/420/450/470 instead of A8V0200 PUMP



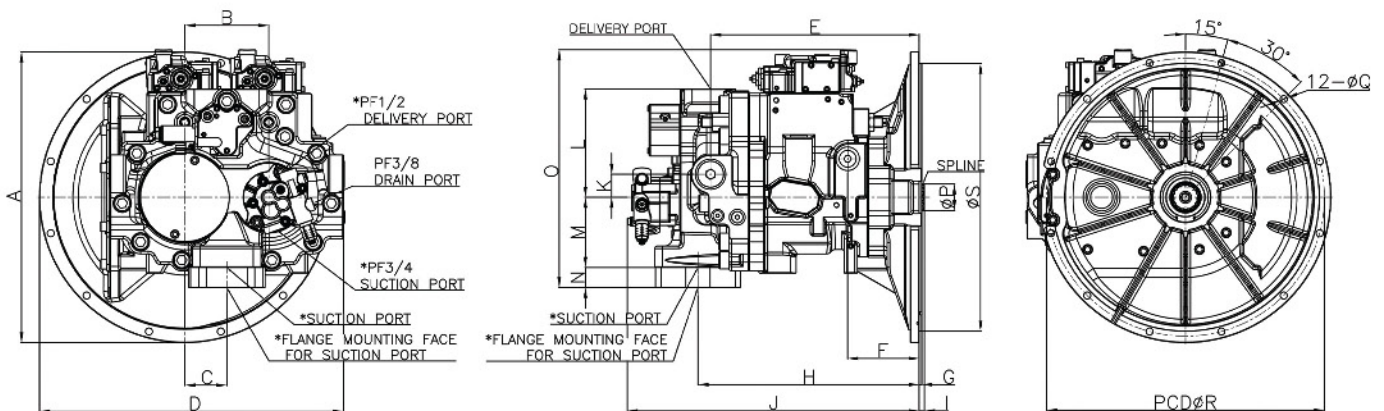
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H5V200DPD(DX400/420/450/470)
Discharge Rate (cc/rev)	200
Max. Pressure (kg/cm ²)	350
Max. Speed(rpm)	2200



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H5V200DPD (DX400/420/450/470)	24	48	2.0	30°	DIN5480:1991



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
H5V200DPD (DX400/420/450/470)	555	160	80	580	398	137	5	422	10	557	44	207	134	38	454	49.5	13.5	530	508
																			511

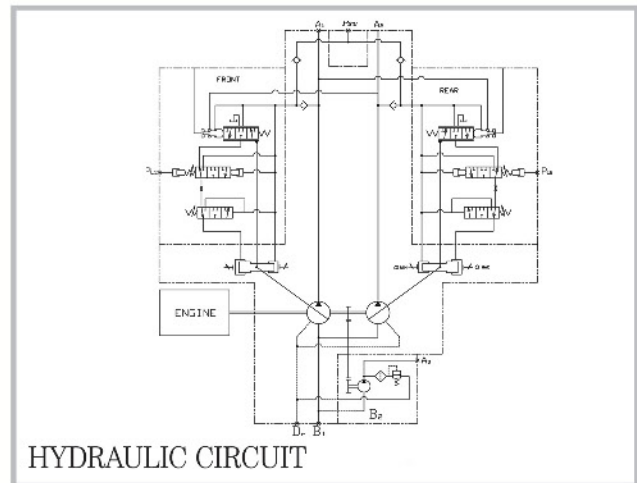
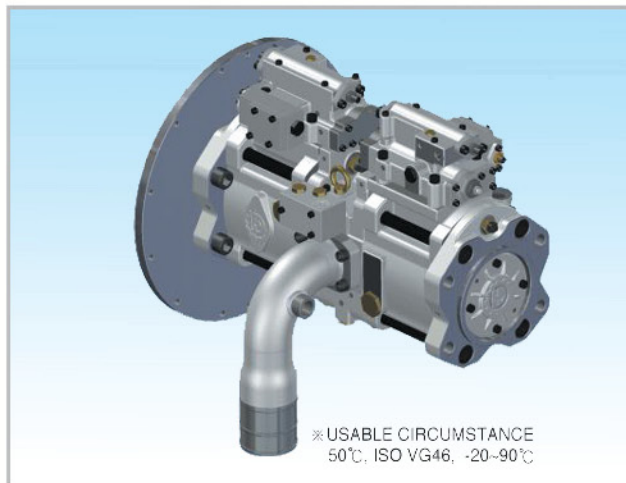
H3V112DTPE FOR HITACHI

H3V112DTPE can be applied on EX200-2/3, EX210-2/3, EX220-2/3 instead of HPVO91DW/EW PUMPS



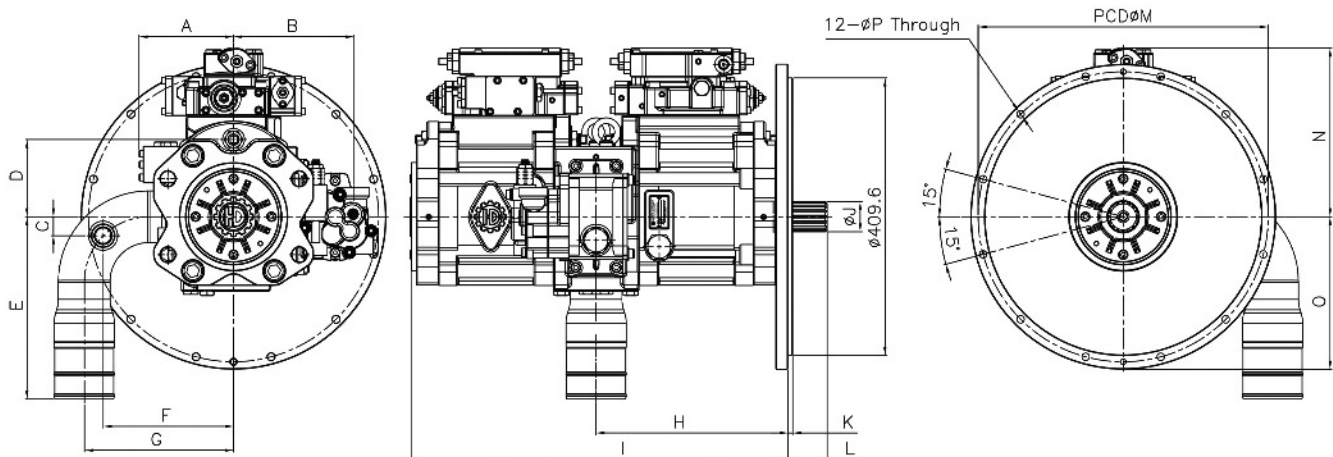
SPECIFICATIONS (FOR 3L09 TYPE)

MODEL	H3V112DTPE(EX200-2/3, EX210-2/3, EX220-2/3)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm²)	350
Max. Speed(rpm)	1900



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V112DTPE (EX200, 210, 220-2/3)	16	40	2.5	20°	JIS B 1603: 1995



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
H3V112DTPE (EX200-2/3) (EX210-2/3) (EX220-2/3)	139	178	28	114	269.2	192	220	283	556	44.4	7	58	428	248.6	225	11

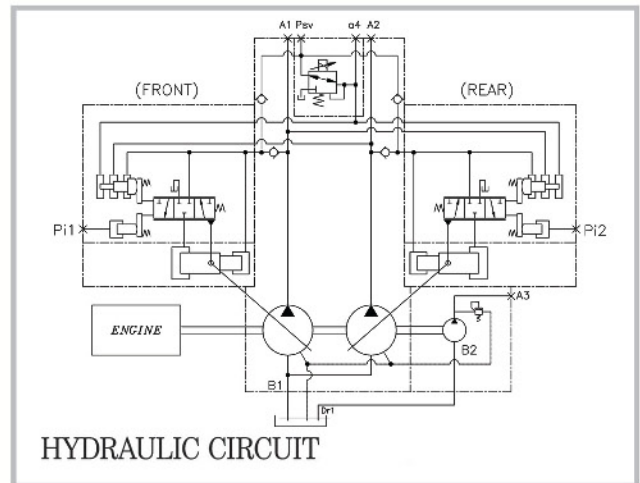
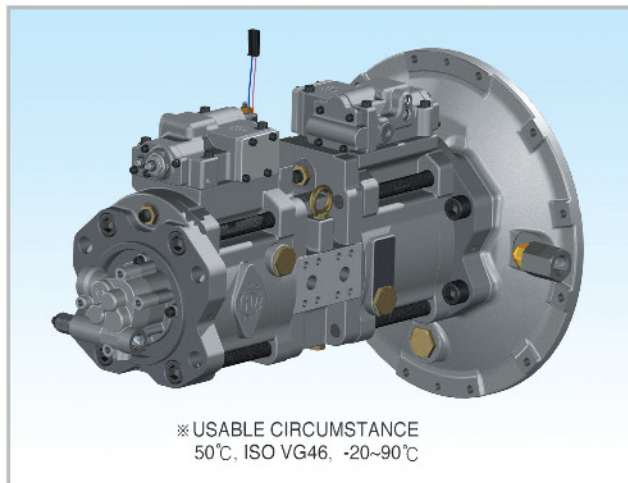
H3V112DTE FOR HITACHI

H3V112DTE can be applied on EX200-1, EX210-1, EX220-1 instead of HPV116 PUMPS



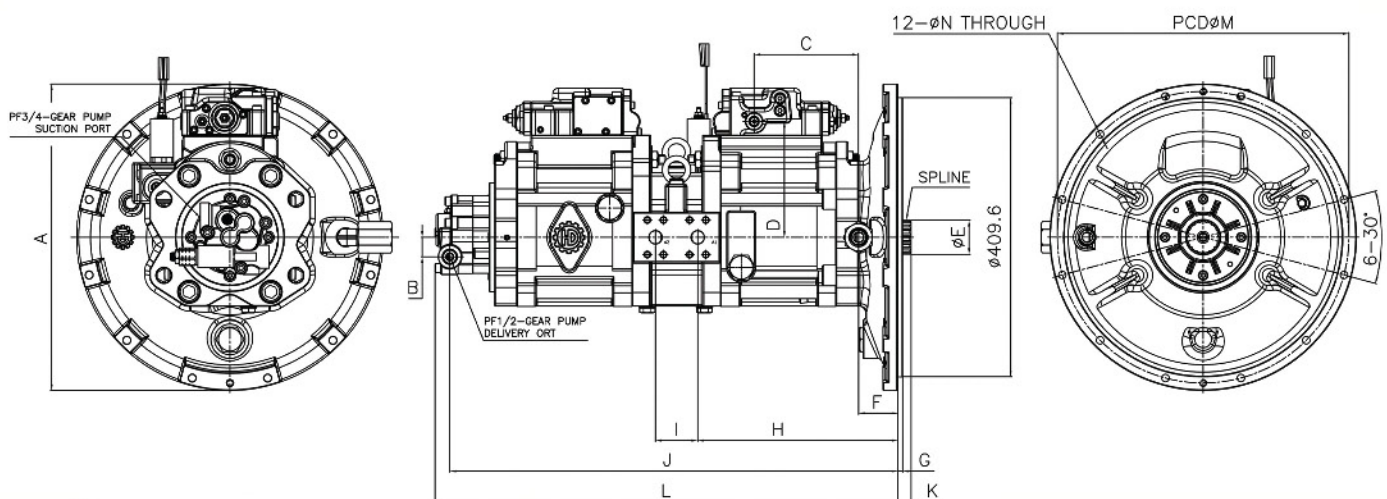
SPECIFICATIONS (FOR 9N00 / 9P00 TYPE)

MODEL	H3V112DTE(EX200-1, EX210-1, EX220-1)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm²)	350
Max. Speed(rpm)	2150



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H3V112DTE (EX200-1, EX210-1, EX220-1)	15	45	3.0	20°	JIS B 1603 :1995



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
H3V112DTE (EX200-1, EX210-1) (EX220-1)	450	29	153	170	50	58	7	294	62	657.8	19.4	679.6	428	11

H3V112DTK FOR KOMATSU

H3V112DTK can be applied on PC180, 190-3/5, PC200, 210, 220-3/5 instead of HPV90 PUMPS

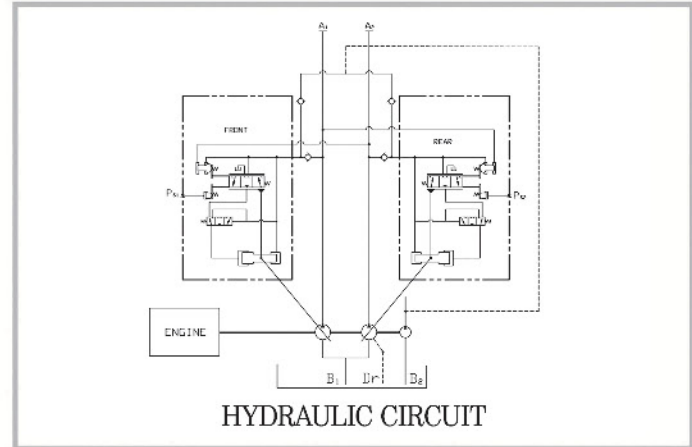
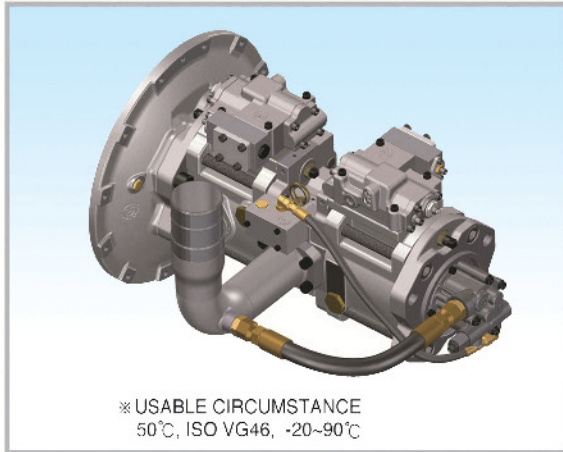


SPECIFICATIONS (FOR 5N00 / 6N00 TYPE)

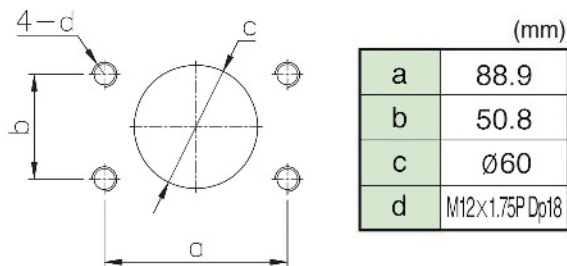
MODEL	H3V112DTK (PC180,190-3/5, PC200, 210, 220-3/5)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1900

Dimensions of Shaft End(Spline Type)

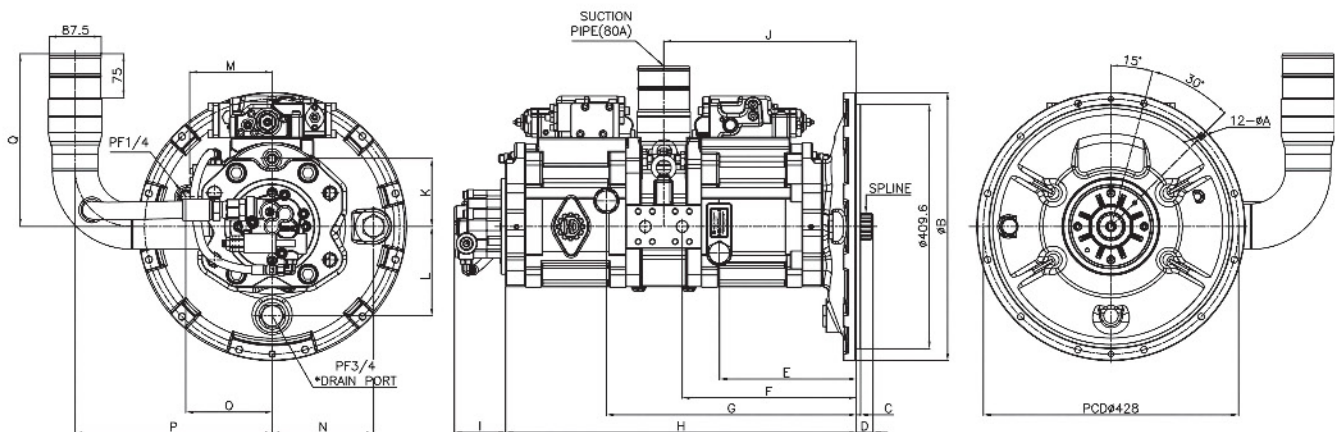
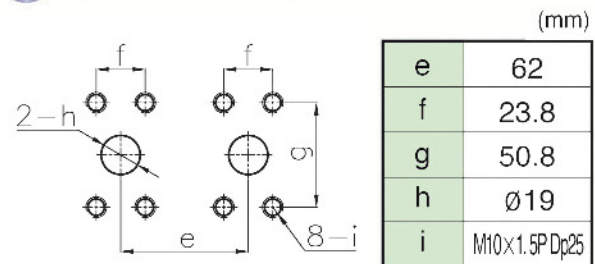
MODEL	No. of teeth	Pitch circle diam.(mm)	Module	Pressure angle	Standard
H3V112DTK (PC180, 190-3/5) (PC200, 210, 220-3/5)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V112DTK (PC180,190-3/5) (PC200, 210, 220-3/5)	11	450	7	28	229.5	292	419	588	86	323	114	150	138	170	145	330.4	290

H3V112DTK FOR KOMATSU

H3V112DTK can be applied on PC200-6, PC210-6, PC220-6 instead of HPV95C PUMPS

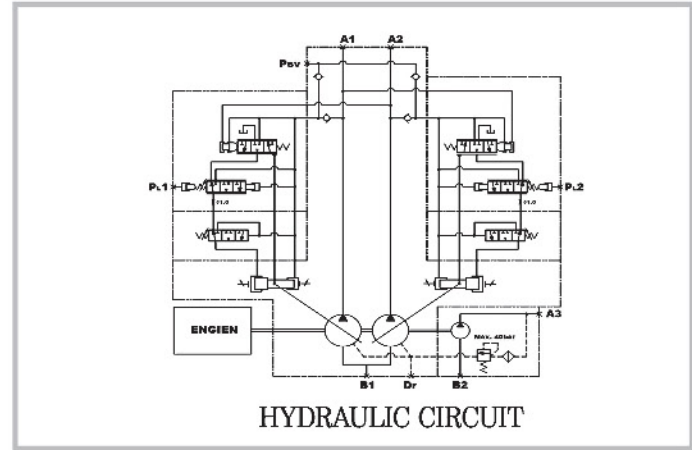
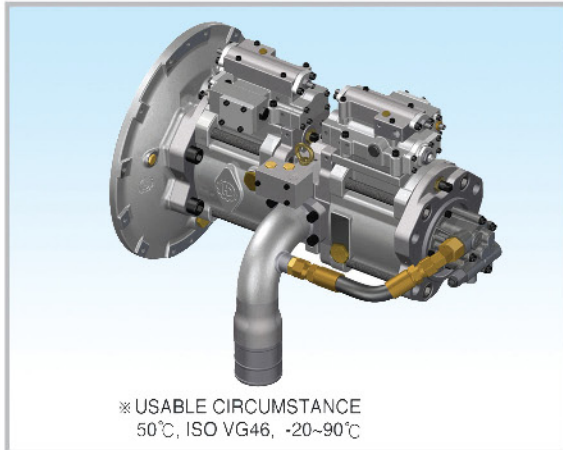


SPECIFICATIONS(FOR 3L00 TYPE)

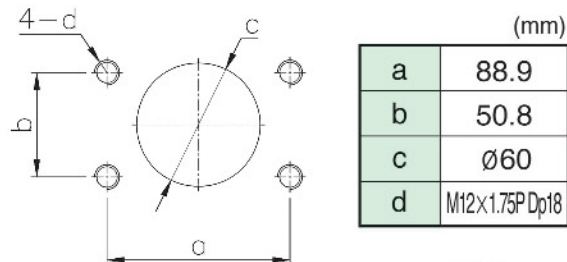
MODEL	H3V112DTK (PC200, 210, 220-6)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	1900

Dimensions of Shaft End(Spline Type)

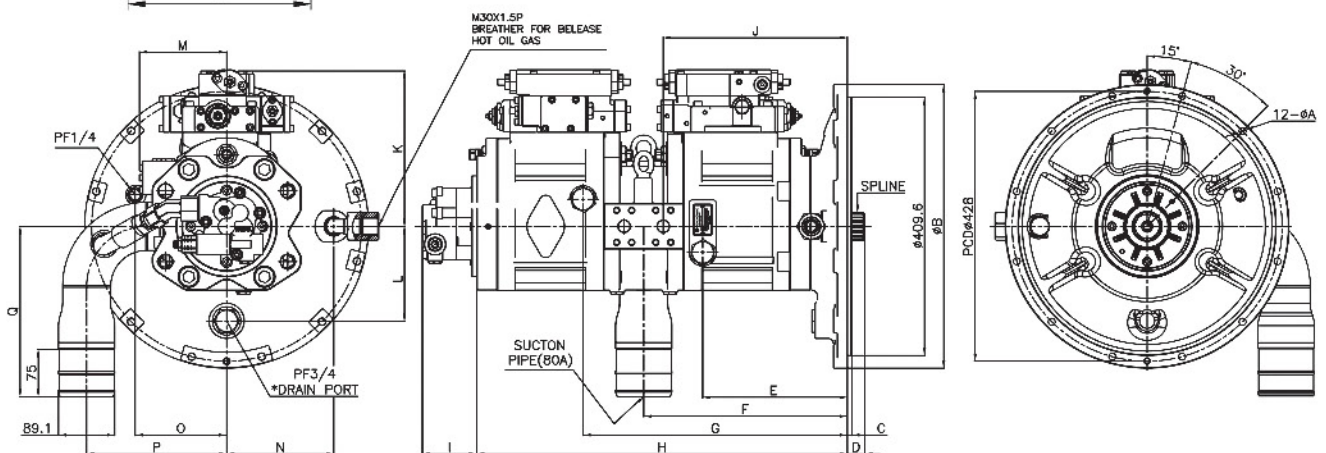
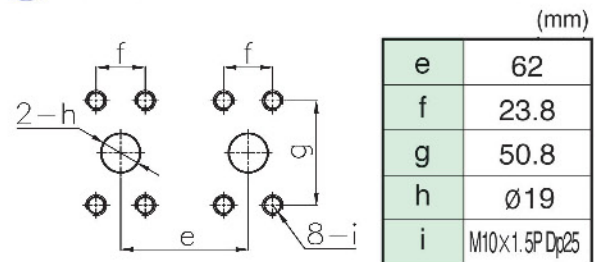
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DTK (PC200, 210, 220-6)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V112DTK (PC200, 210, 220-6)	11	450	7	28	229.5	323	419	588	86	292	246.6	150	138	170	145	222	270

H3V112DTK FOR KOMATSU

H3V112DTK can be applied on PC200-7/8, PC210-7/8, PC220-7/8 instead of HPV95A PUMPS

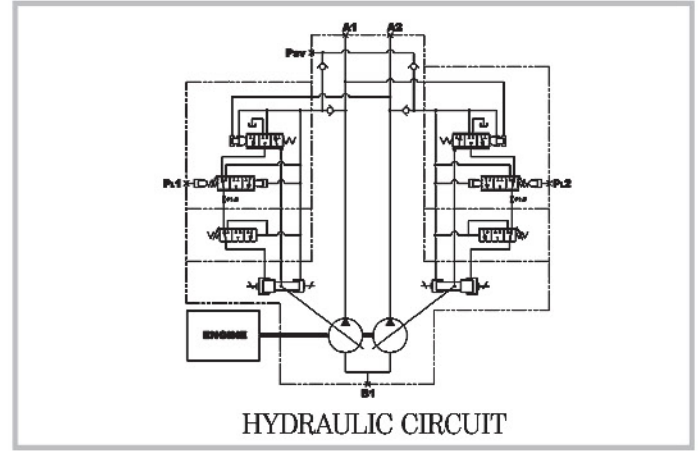
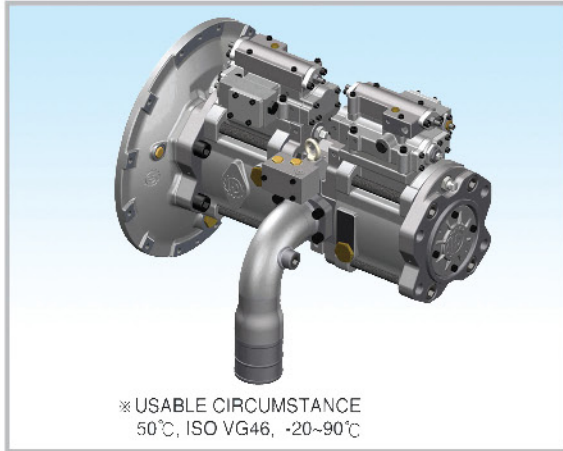


SPECIFICATIONS(FOR 3L00 TYPE)

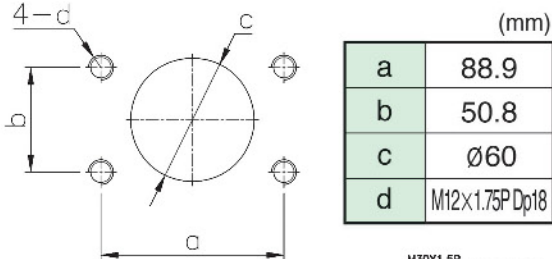
MODEL	H3V112DTK (PC200, 210, 220-7/8)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1900

Dimensions of Shaft End(Spline Type)

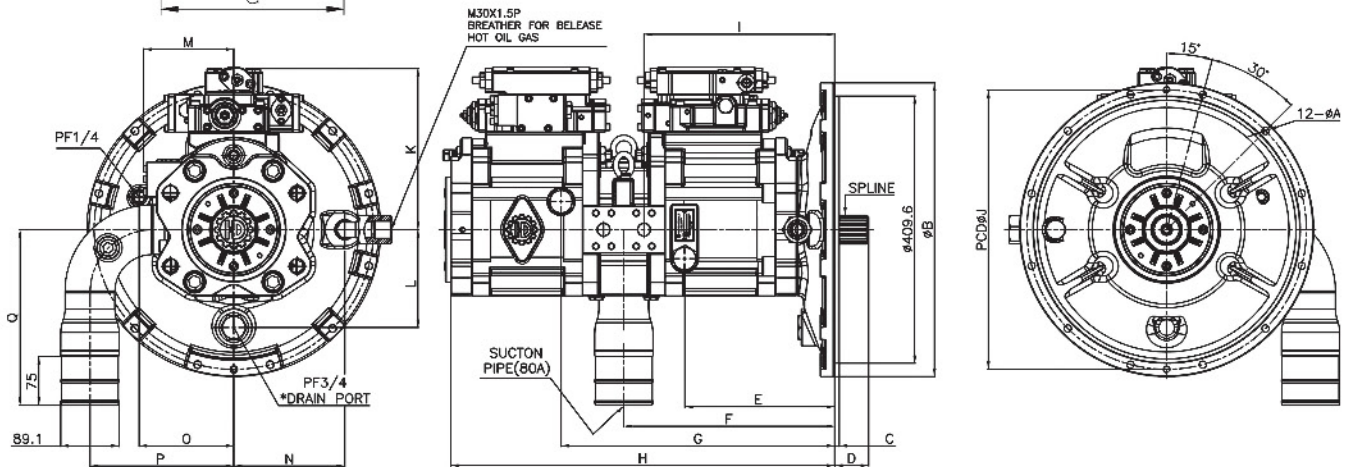
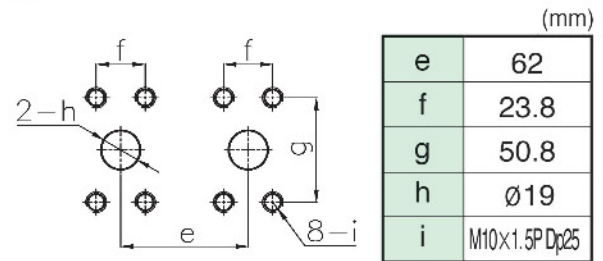
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DTK (PC200, 210, 220-7/8)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V112DTK (PC200, 210, 220-7/8)	11	450	7	52	229.5	323	419	588	292	428	247	150	138	170	145	220	269

H3V112DTK-E FOR KOMATSU

H3V112DTK-E can be applied on PC200-6, PC210-6, PC220-6 instead of HPV95C PUMP

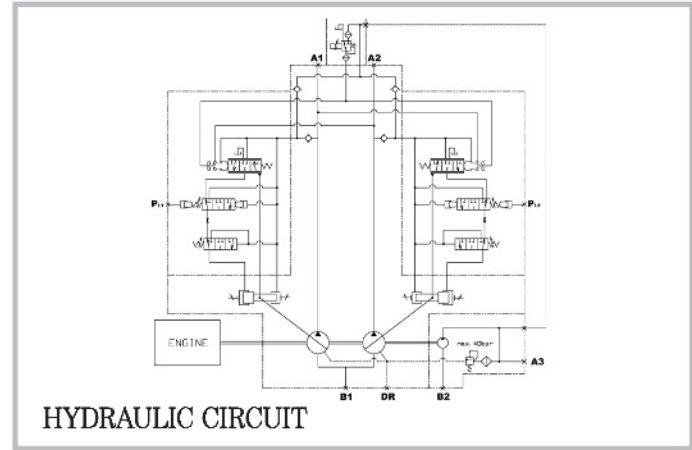
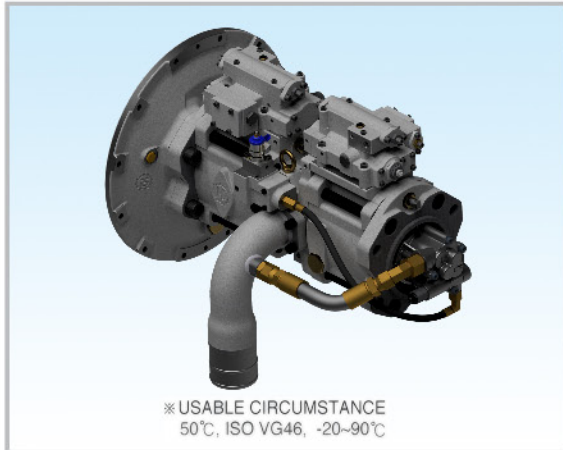


SPECIFICATIONS(FOR 3L00 TYPE)

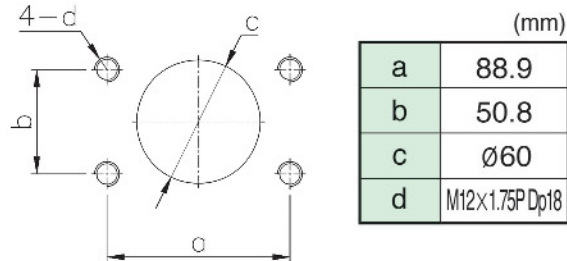
MODEL	H3V112DTK-E (PC200, 210, 220-6)
Discharge Rate (cc/rev)	112
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	1900

Dimensions of Shaft End(Spline Type)

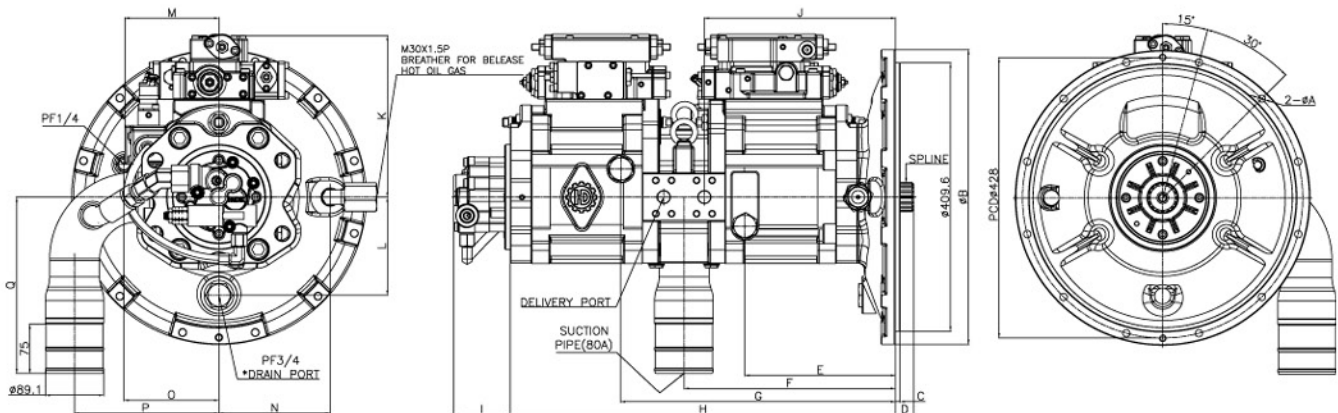
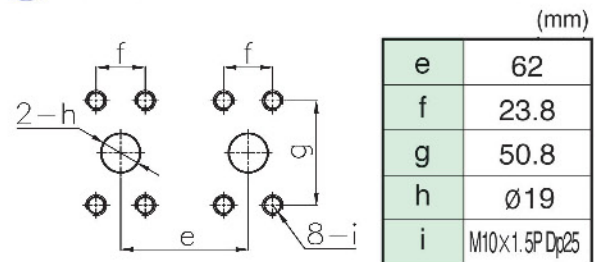
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3V112DTK-E (PC200, 210, 220-6)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
H3V112DTK-E (PC200, 210, 220-6)	11	450	7	28	229.5	323	419	588	86	292	246.6	150	144	170	145	222	270

H3SP30/36 SWASH PLATE TYPE PISTON PUMPS

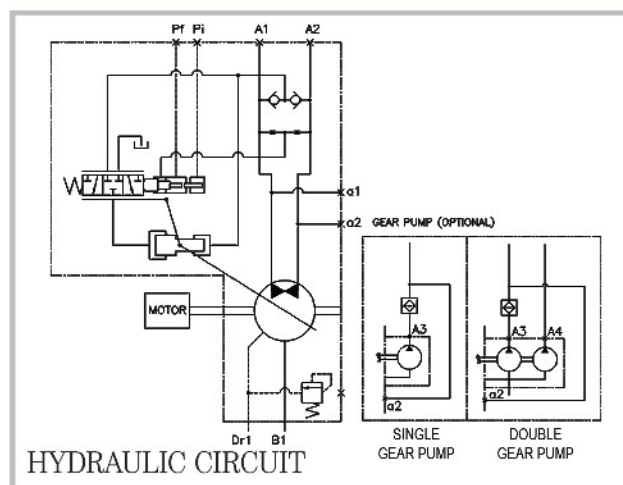
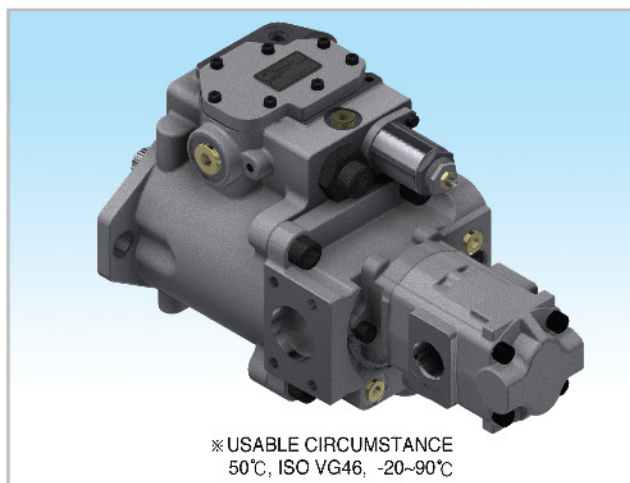


SPECIFICATIONS

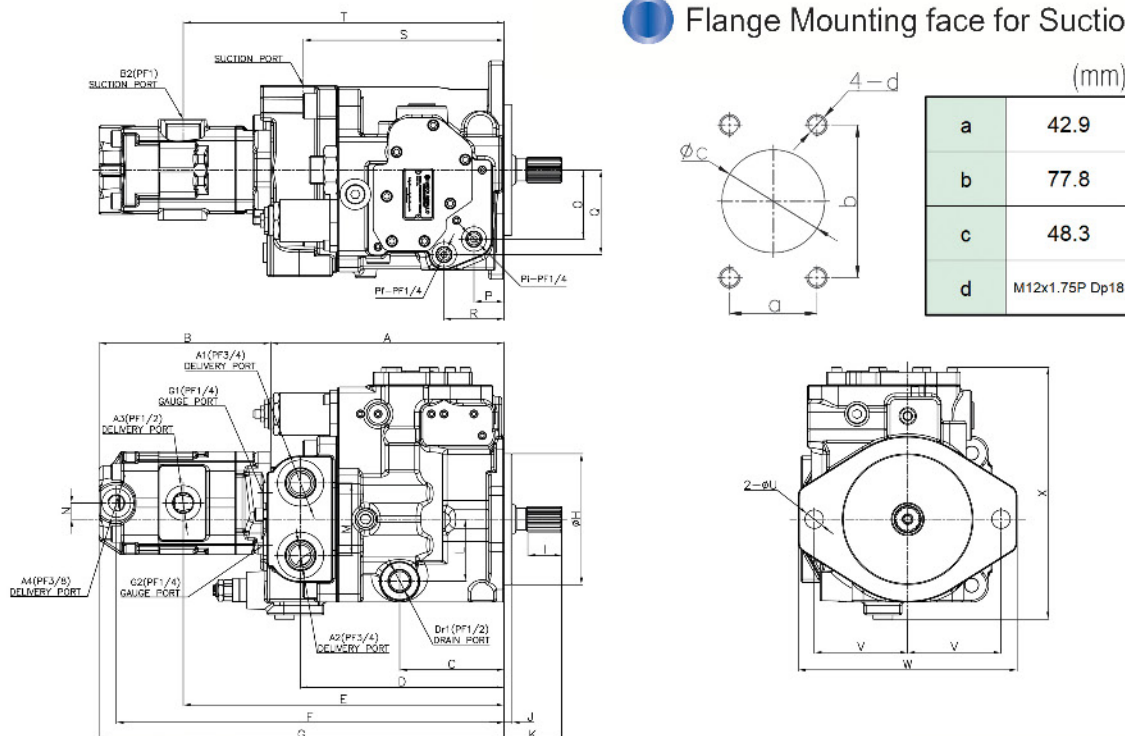
MODEL	H3SP30	H3SP36
Discharge Rate(cc/rev)	30 x 2	36 x 2
Max. Pressure (kg/cm ²)	260	
Max. Speed (rpm)	2,300	

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
H3SP30/36	15	22.5	1.5	20°	JIS B 1603



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
H3SP30/36 SINGLE GEAR PUMP	226	92.5	101	197	301.5	-	318.5	127	33	8	56	60	70	16	67	29	82	58	194	311	18	90.5	212	244
H3SP30/36 DOUBLE GEAR PUMP		166.5																						

H3SP36 FOR TAKEUCHI SWASH PLATE TYPE PISTON PUMP

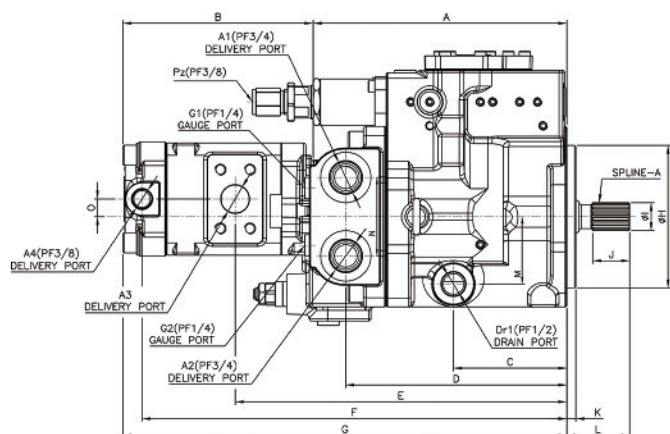
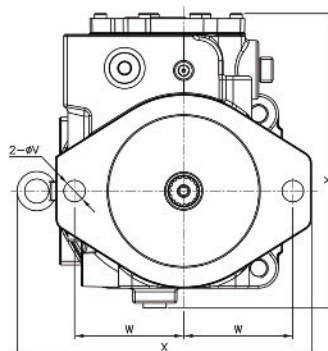
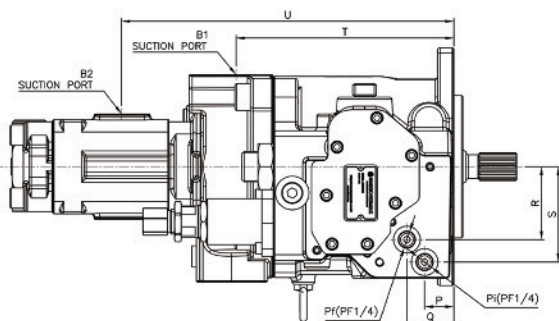
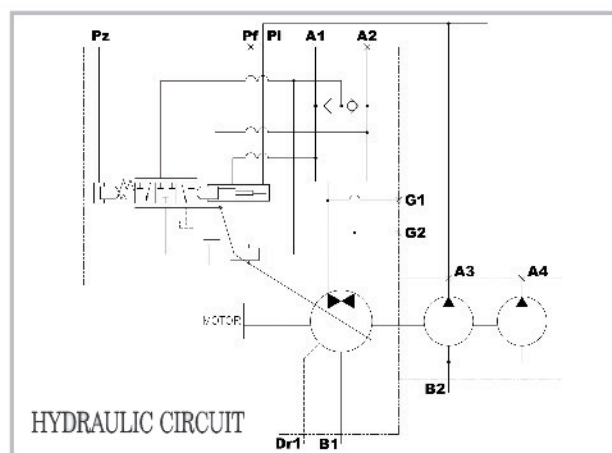
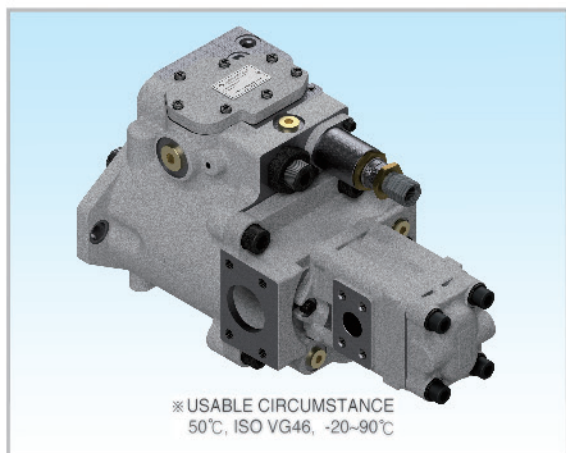


SPECIFICATIONS

MODEL	H3SP36 (FOR TAKEUCHI)
Discharge Rate (cc/rev)	36 X 2
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2,300

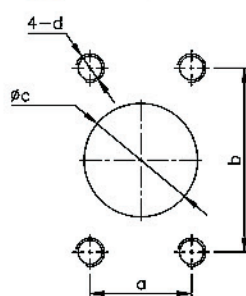
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia.(mm)	Module	Pressure angle	Standard
H3SP36 (FOR TAKEUCHI)	15	22.5	1.5	20°	JIS



Flange Mounting face for Suction Port

(mm)



	B1 (SUCTION PORT)	B2 (SUCTION PORT)	A3 (DELIVERY PORT)
a	42.9	30.2	26.2
b	77.9	58.7	52.4
c	48	32	24
d	M12x1.75P Dp18	M10x1.5P Dp15	M10x1.5P Dp15

DIMENSIONS

(mm)

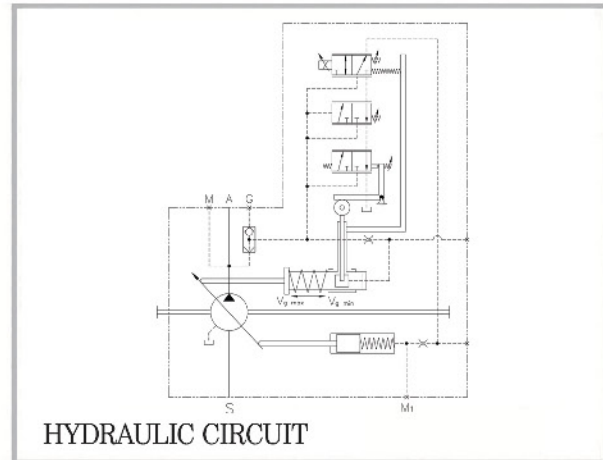
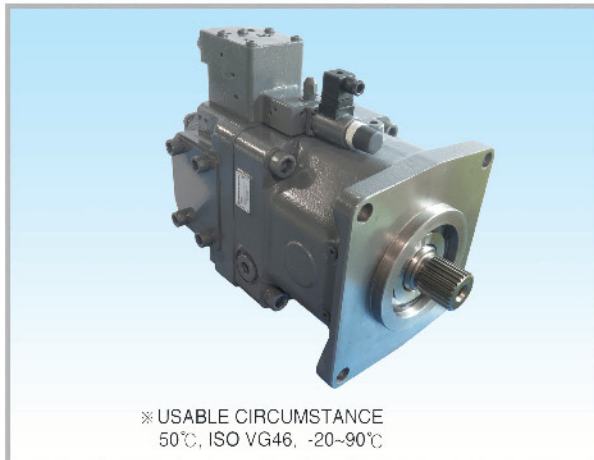
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
H3SP36 (FOR TAKEUCHI)	226	169.4	101	197	295.5	378.5	395.4	127	25	33	8	56	60	70	16	26	42	65	85	194	296	18	91	244	244

H11VLO190/260 SWASH PLATE TYPE PISTON PUMPS

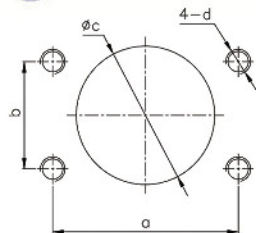


SPECIFICATIONS (FOR H11VLO190 & O260LRDU)

MODEL	H11VLO190/260
Discharge Rate(cc/rev)	190 / 260
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	2500 / 2300

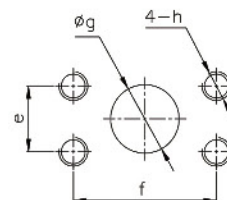


Flange Mounting face for Suction Port

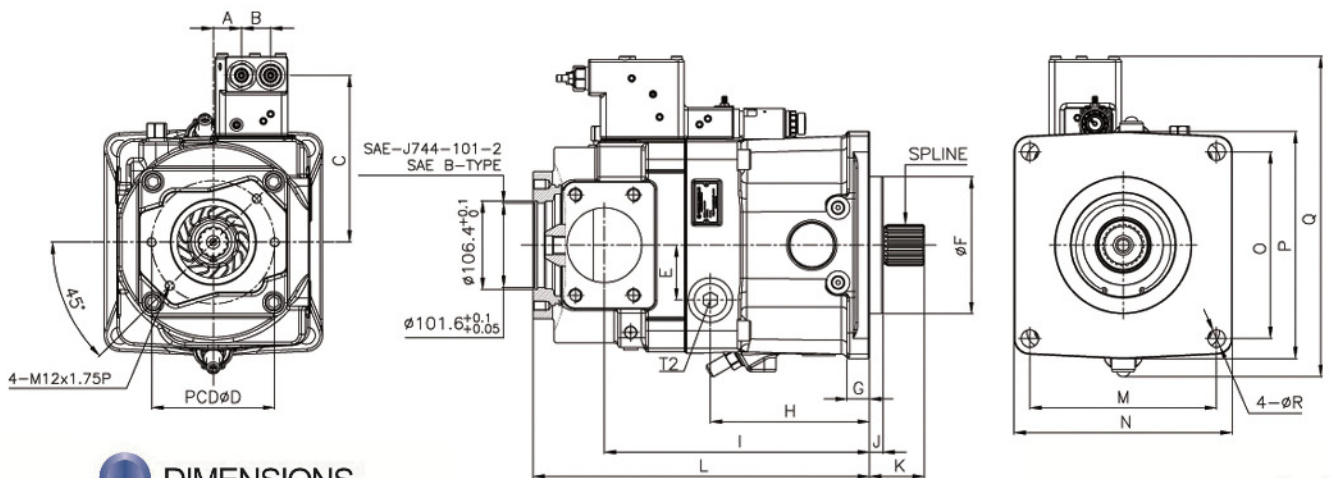


	(mm)	
	H11VLO190	H11VLO260
a	120.7	130.2
b	69.9	77.8
c	90	100
d	M16x2.0P	

Flange Mounting face for Delivery Port



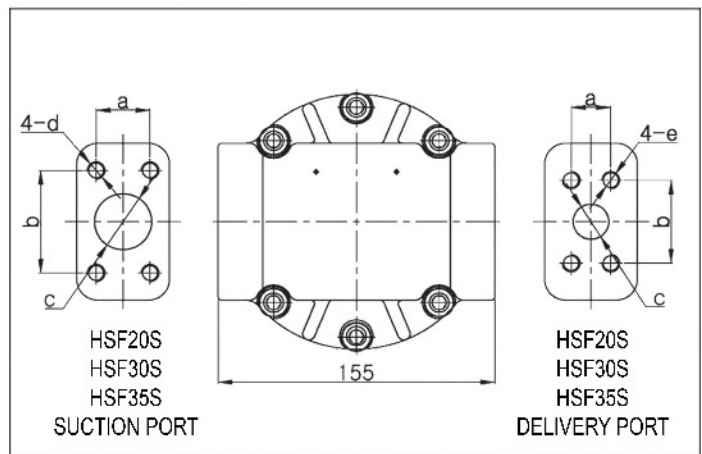
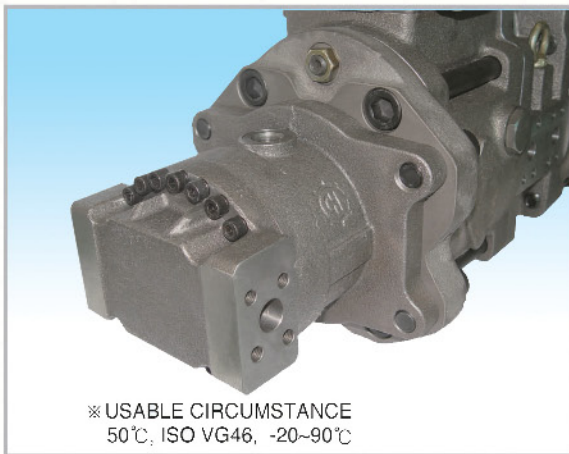
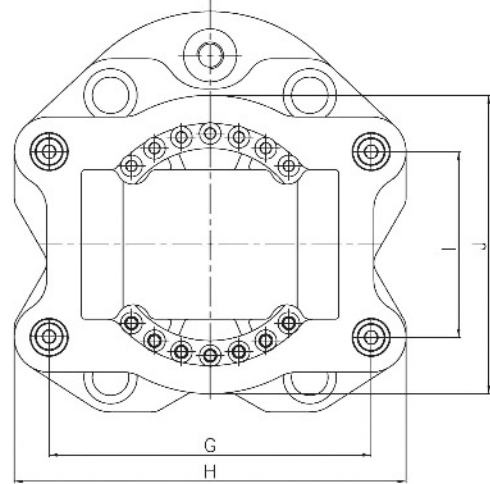
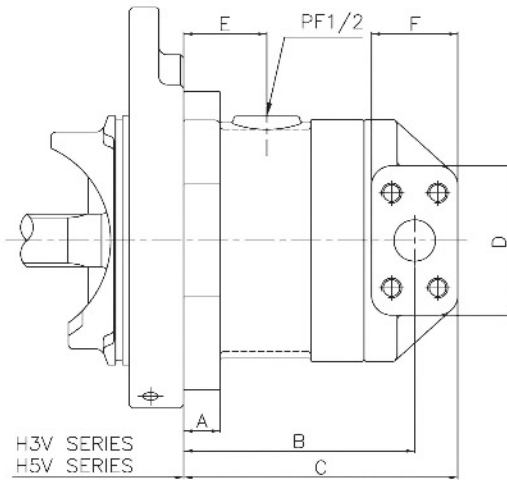
	(mm)	
	H11VLO190	H11VLO260
e	36.5	
f	79.4	
g	38	
h	M16x2.0P	



DIMENSIONS

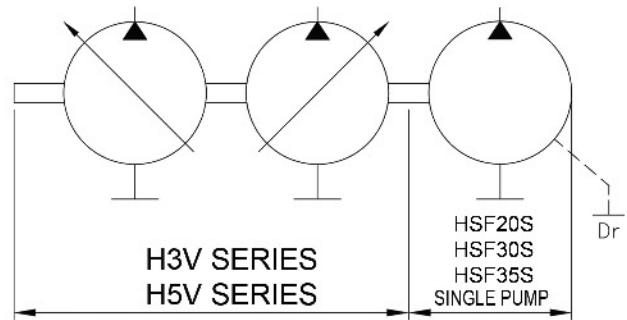
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	SPLINE
H11VLO190	34	35	200.5	146	66	165.1	27	196.5	321	15.9	65	410	224.5	262.5	224.5	273	385.2	21	24T
H11VLO260	40	35	212		72		30	214	346		437.5								28T

HSF20S/30S/35S SWASH PLATE TYPE PISTON PUMPS FOR DRILL & BORING MACHINE



SPECIFICATIONS

MODEL	HSF20S	HSF30S	HSF35S
Discharge Rate(cc/rev)	20	30	35
Max. Pressure (kg/cm ²)	250		
Max. Speed (rpm)	2360		



Flange Mounting face for Suction Port (mm)

MODEL	a	b	c	d
HSF20S	30.2	59	Ø32	M10X1.5P Dp20
HSF30S				
HSF35S				

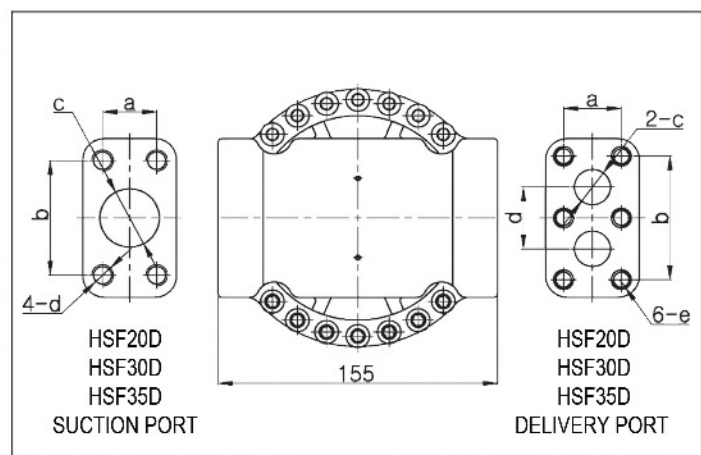
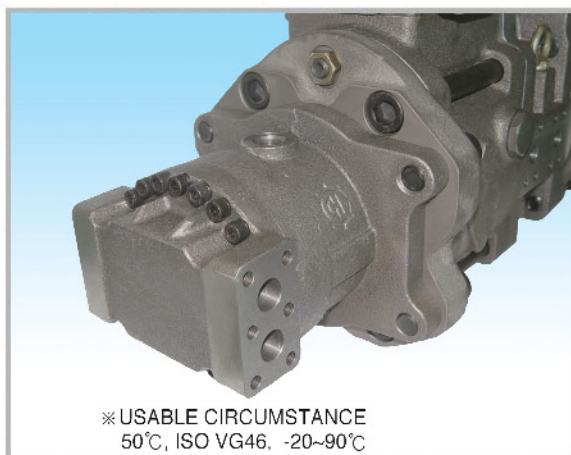
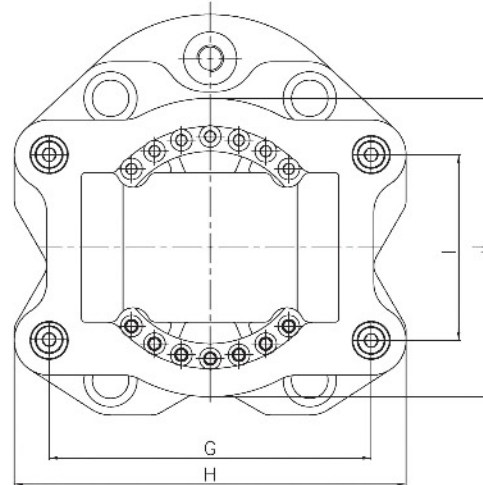
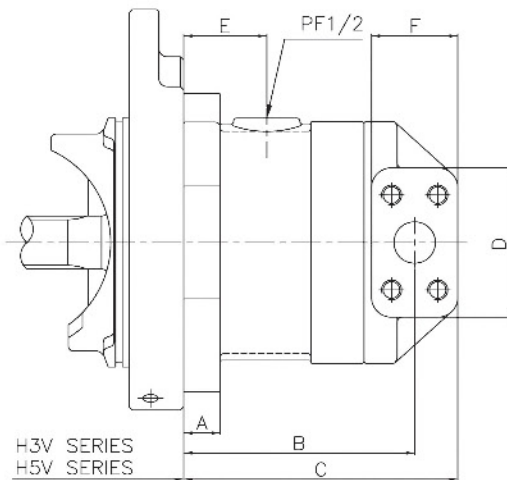
Flange Mounting face for Delivery Port (mm)

MODEL	a	b	c	d	e
HSF20S	23.9	51	Ø19	-	M10X1.5P Dp20
HSF30S					
HSF35S					

DIMENSIONS (mm)

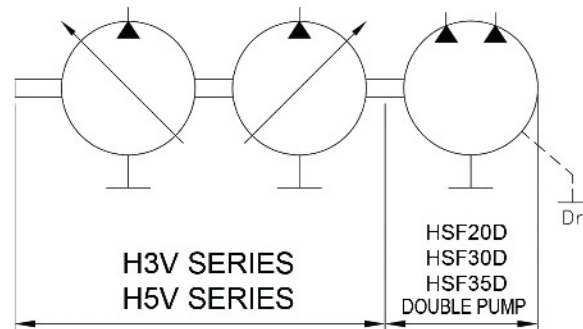
MODEL	A	B	C	D	E	F	G	H	I	J
HSF20S	22	138.6	164.6	90	52	50	194	236	112	154
HSF30S										
HSF35S										

HSF20D/30D/35D SWASH PLATE TYPE PISTON PUMPS FOR DRILL & BORING MACHINE



SPECIFICATIONS

MODEL	HSF20D	HSF30D	HSF35D
Discharge Rate(cc/rev)	20x2	30x2	35x2
Max. Pressure (kg/cm ²)	250		
Max. Speed (rpm)	2650	2360	



Flange Mounting face for Suction Port (mm)

MODEL	a	b	c	d
HSF20D	30	65	Ø33	M12X1.75P Dp20
HSF30D				
HSF35D				

Flange Mounting face for Delivery Port (mm)

MODEL	a	b	c	d	e
HSF20D	32	70	Ø20	35	M10X1.5P Dp20
HSF30D					
HSF35D					

DIMENSIONS (mm)

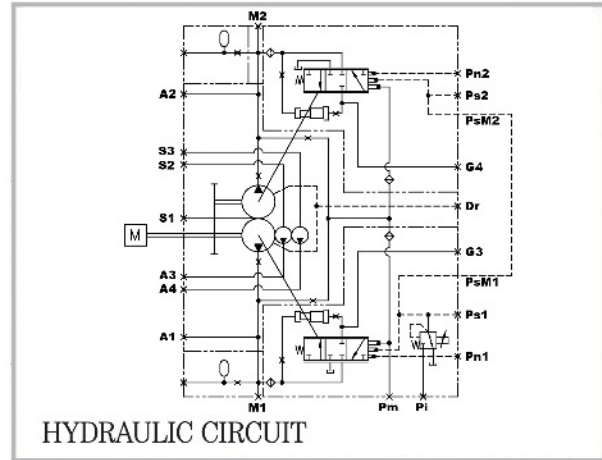
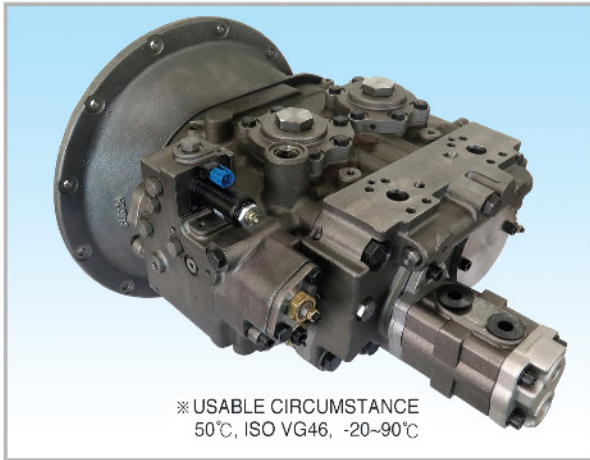
MODEL	A	B	C	D	E	F	G	H	I	J
HSF20D	22	138.6	164.6	90	52	50	194	236	112	154
HSF30D										
HSF35D										

HBS80/120/140 FOR CATERPILLAR PARALLEL TYPE SWASH PLATE PISTON PUMPS



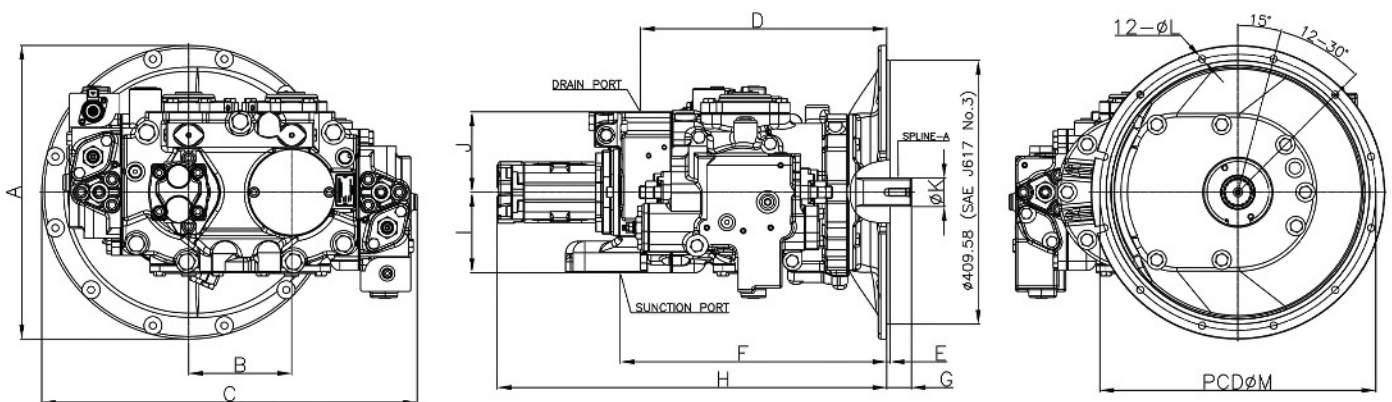
SPECIFICATIONS

MODEL	HBS80	HBS120	HBS140
Discharge Rate(cc/rev)	80	120	140
Max. Pressure (kg/cm ²)	350		
Max. Speed (rpm)	2150	2500	



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
HBS80	14	29.63	12/24	30°
HBS120/140	17	43.18	2.54	30°



DIMENSIONS

(mm)

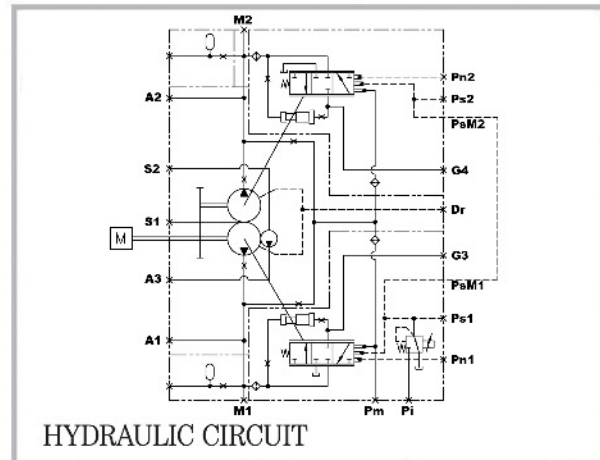
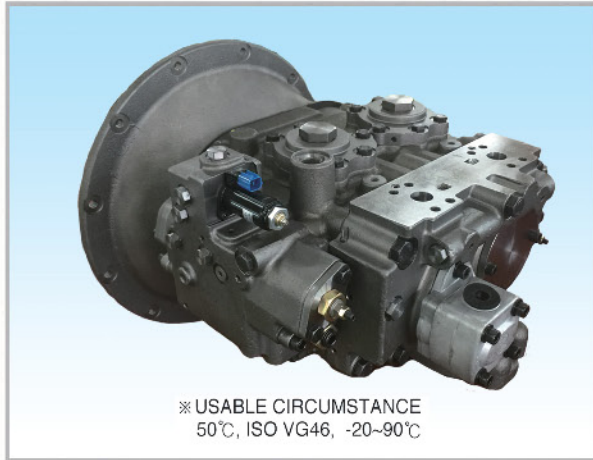
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
HBS80	450	126	548.5	316.5	7	326.5	32	454.4	143	123	31	11	428.6
HBS120/140	456	160	583	383	5	414	38	605	125	125	44.8	11	428.6

HBS80/120/140 FOR CATERPILLAR PARALLEL TYPE SWASH PLATE PISTON PUMPS



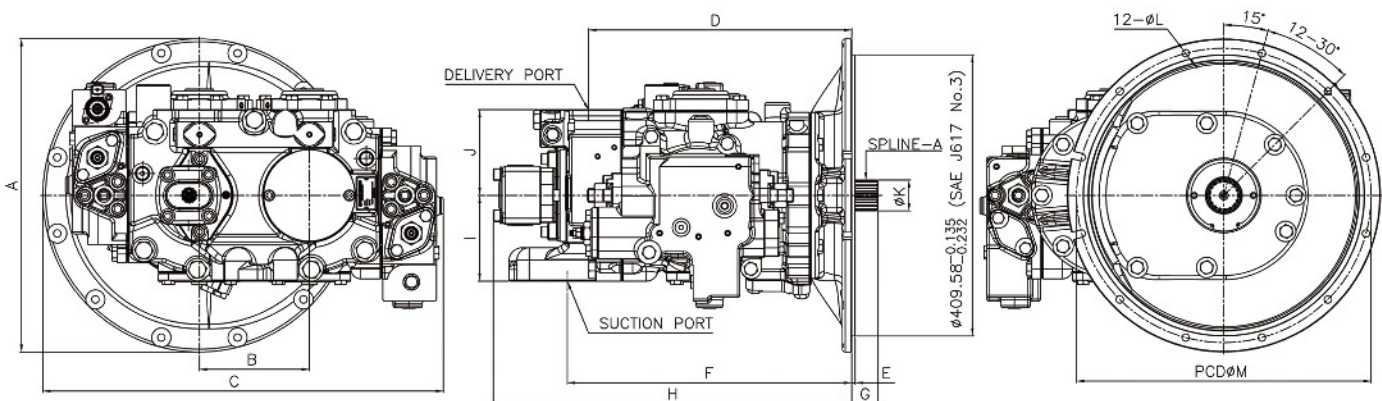
SPECIFICATIONS

MODEL	HBS80	HBS120	HBS140
Discharge Rate(cc/rev)	80	120	140
Max. Pressure (kg/cm ²)	350		
Max. Speed (rpm)	2150	2500	



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
HBS80	14	29.63	12/24	30°
HBS120/140	17	43.18	2.54	30°

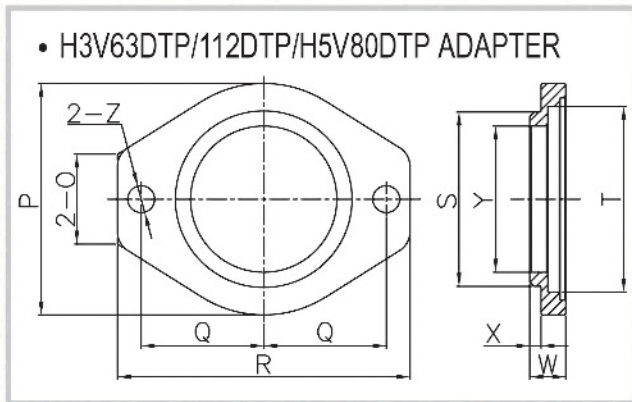
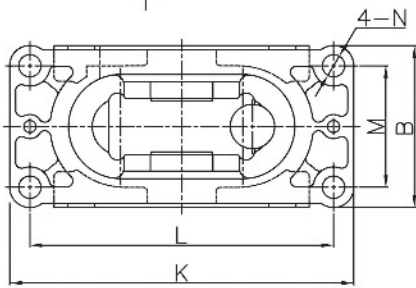
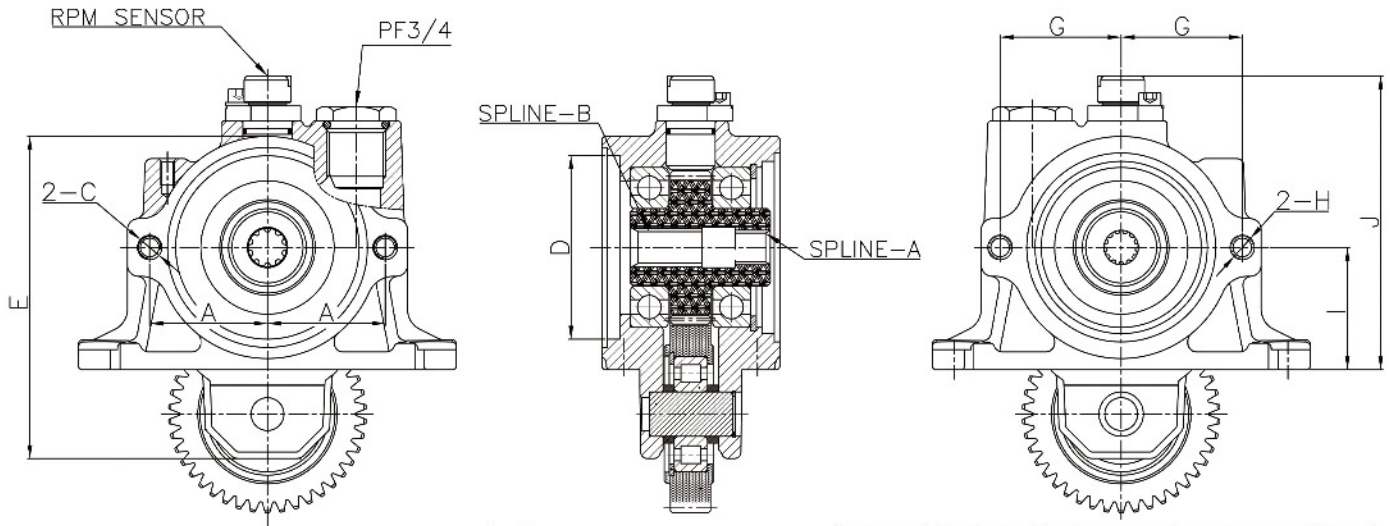


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
HBS80	450	126	548.5	316.5	7	326.5	32	454.4	143	123	31	11	428.6
HBS120/140	456	160	583	383	5	414	38	521.5	125	125	44.8	11	428.6

PTO BOX FOR H3V/H5V DTP SERIES (WITH SENSOR TYPE FOR HITACHI)



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia.(mm)	Module	Pressure angle	Standard
SPLINE-A	13	13	M1.0	20°	JIS
SPLINE-B	10	15.875	16/32	30°	SAE

Dimensions for H3V63DTP/112DTP/H5V80DTP Adapter

(mm)

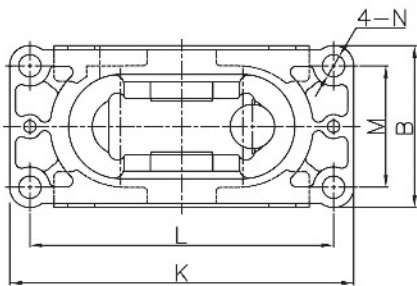
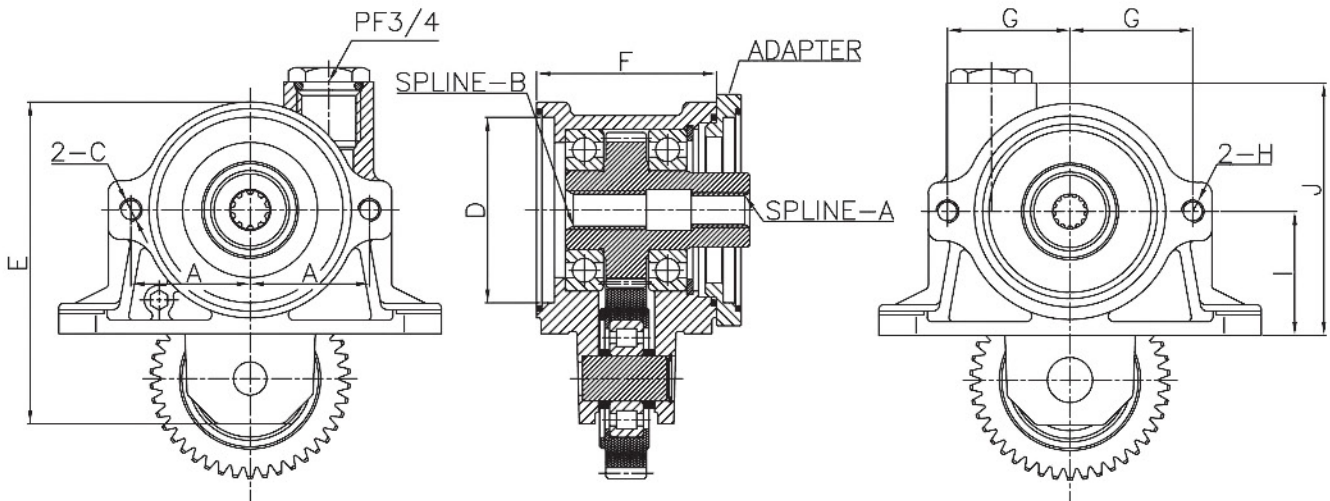
MODEL	O	P	Q	R	S	T	W	X	Y	Z
H3V63DTP	40	∅103	54.5	130	∅77.5	∅82.5	16	5	65	∅12
H3V112DTP										
H5V80DTP										

Dimensions for H3V63DTP/112DTP/H5V80DTP/140DTP

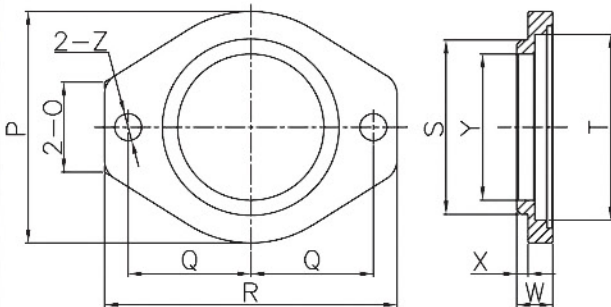
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE-A	SPLINE-B
H3V63DTP	53	80	M10X1.5P	∅82.5	143	80	54.5	M10X1.5P	55	132	170	150	60	∅11	Z13	Z10
H3V112DTP																
H5V80DTP																
H5V140DTP																

PTO BOX FOR H3V/H5V DTP SERIES (WITHOUT SENSOR TYPE FOR NORMAL)



• H3V63DTP/112DTP/H5V80DTP ADAPTER



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
SPLINE-A	13	13	M1.0	20°	JIS
SPLINE-B	10	15.875	16/32	30°	SAE

Dimensions for H3V63DTP/112DTP/H5V80DTP Adapter

(mm)

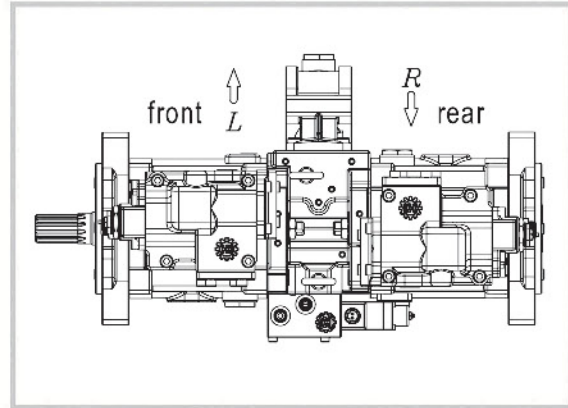
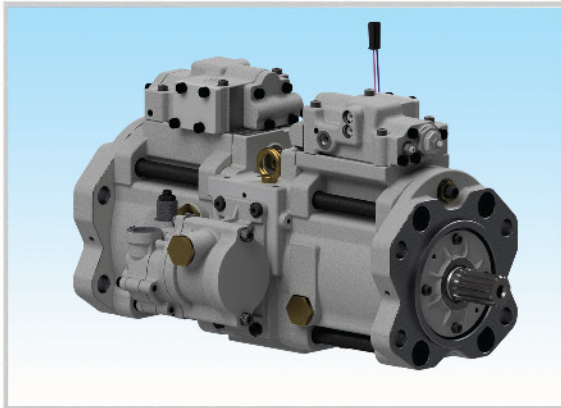
MODEL	O	P	Q	R	S	T	W	X	Y	Z
H3V63DTP	40	∅103	54.5	130	∅77.5	∅82.5	16	5	65	∅12
H3V112DTP										
H5V80DTP										

Dimensions for H3V63DTP/112DTP/H5V80DTP/140DTP/160DTP/180DTP

(mm)

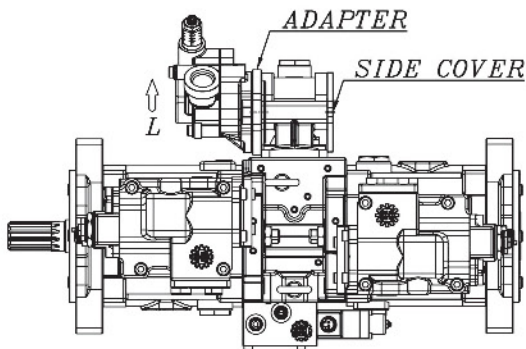
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE-A	SPLINE-B
H3V63DTP	53	80	M10X1.5P	∅82.5	143	80	54.5	M10X1.5P	55	112	170	150	60	∅11	Z13	Z10
H3V112DTP																
H5V80DTP																
H5V140DTP	54.5	94	M10X1.5P	∅77.5	205	104	73	M12X1.75P	80	165	216	192	70	∅14	Z13	Z13
H5V160DTP																
H5V180DTP																

Various Gear Pump Applies in P.T.O BOX

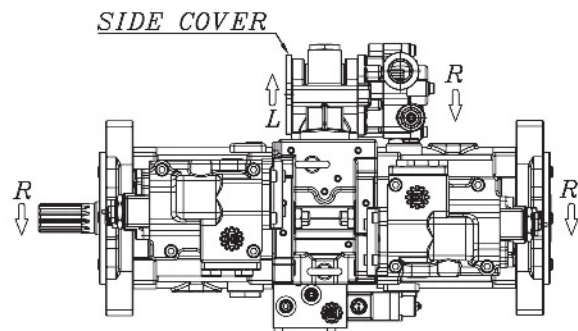


● Applies in Front Type

● Applies in Rear Type

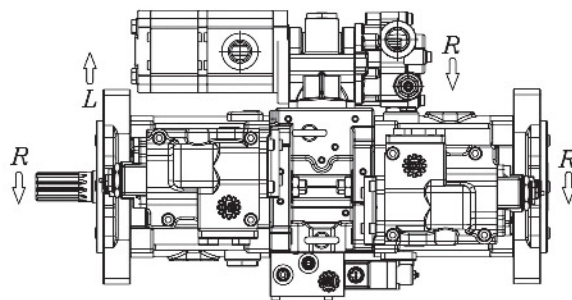


H3V63&H5V80

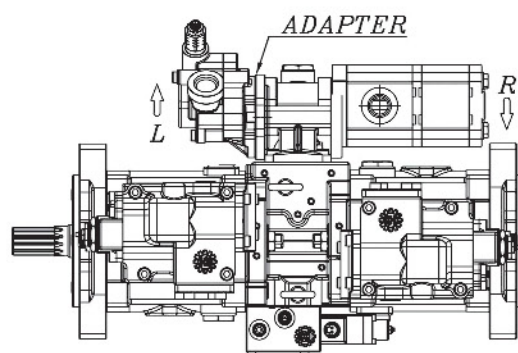


H3V63/H3V112&H5V80/H5V140

● Applies in H3V112DTP & H5V140DTP for Wheel Type Excavator



● Applies in H3V63DTP & H5V80DTP for Wheel Type Excavator



HP2D10/12/14/16/18 SWASH PLATE TYPE PISTON PUMPS

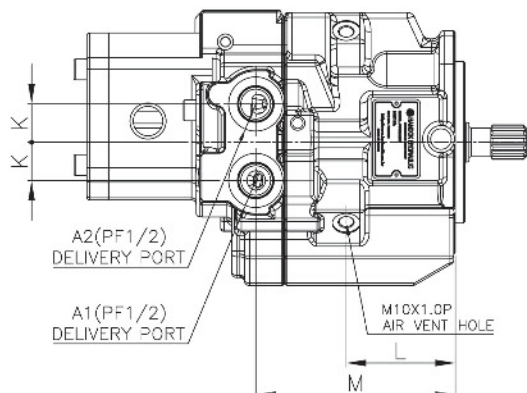
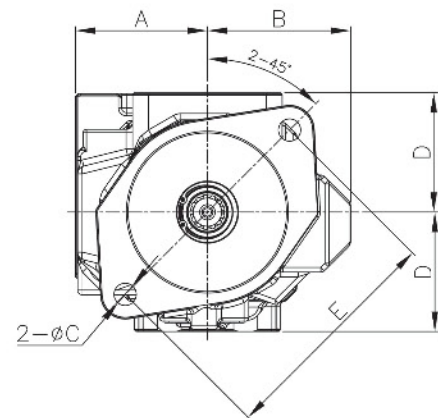
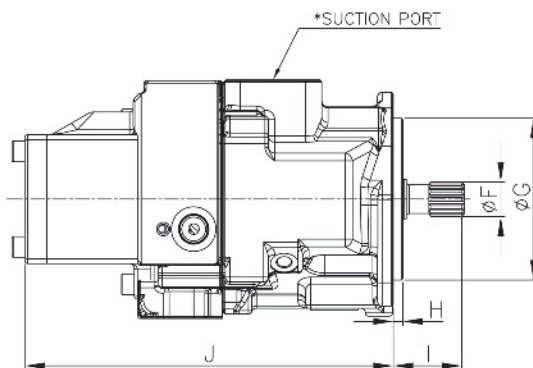
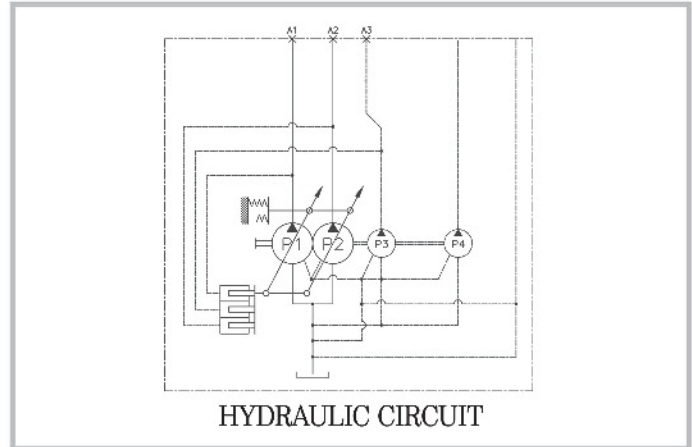
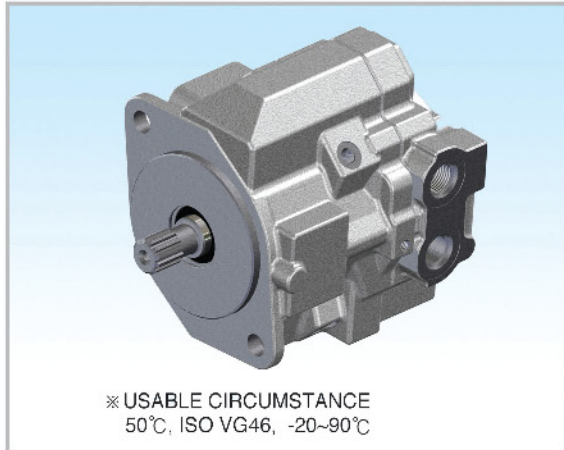


SPECIFICATIONS

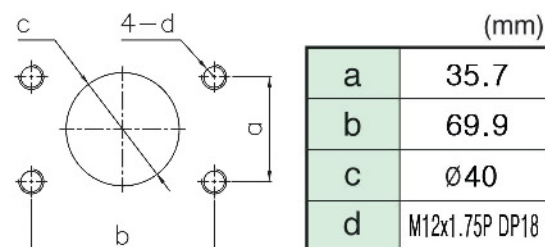
MODEL	HP2D10	HP2D12	HP2D14	HP2D16	HP2D18
Discharge rate(cc/rev)	10	12	14	16	18
Max. pressure (kg/cm ²)	245				
Max. speed(rpm)	2800		2600		

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D10/12/14/16/18	13	20.64	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M
HP2D10/12	13T	83	90	14	75	146	21.7	101.6	6	43	231.5	24	68.5	125.6
HP2D14/16/18		91.8	101		90				5	49.2	256	25	75	154

HP2D21/25/28 SWASH PLATE TYPE PISTON PUMPS

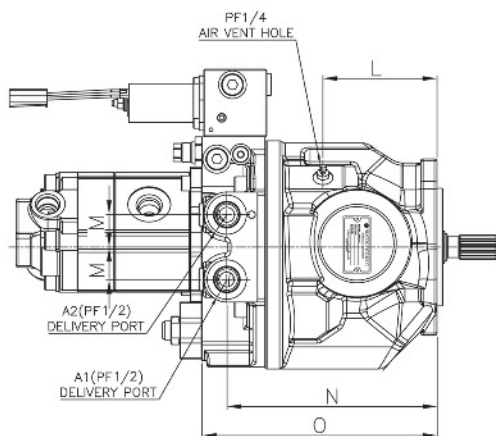
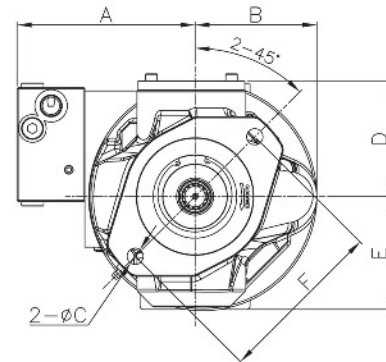
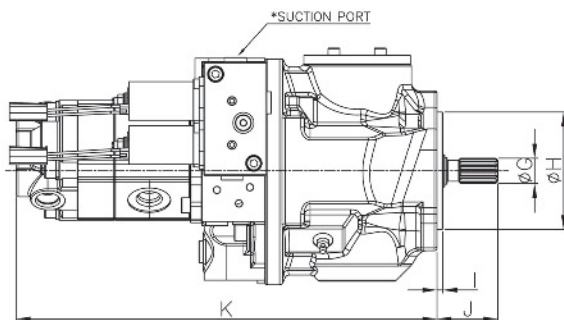
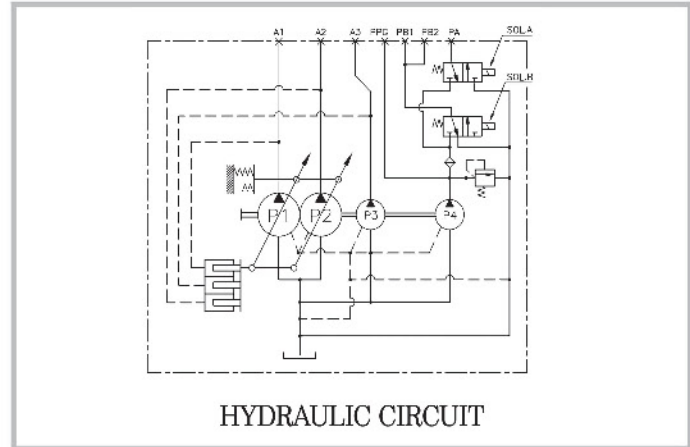
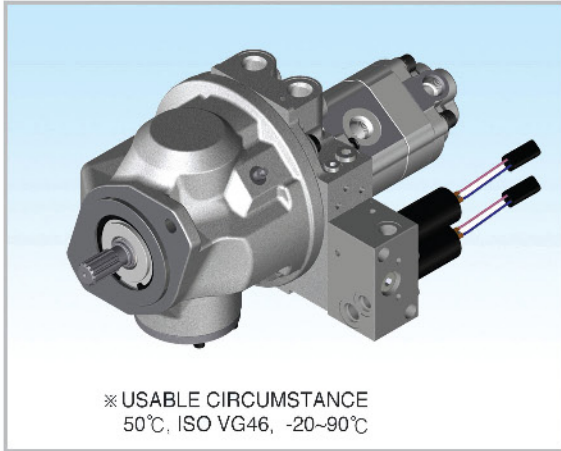


SPECIFICATIONS

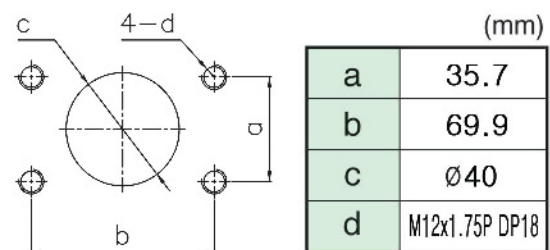
MODEL	HP2D21/25/28		
Discharge rate(cc/rev)	21	25	28
Max. pressure (kg/cm ²)	260		
Max. speed(rpm)	2600		

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D21/25/28	13	20.64	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

(mm)

MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HP2D21/25/28	13T	153.5	105	14	100	97.5	146	21.7	101.6	5	52.5	363.5	98.5	28	181.5	203

HP2D21/25/28-POWER SHIFT TYPE SWASH PLATE TYPE PISTON PUMPS

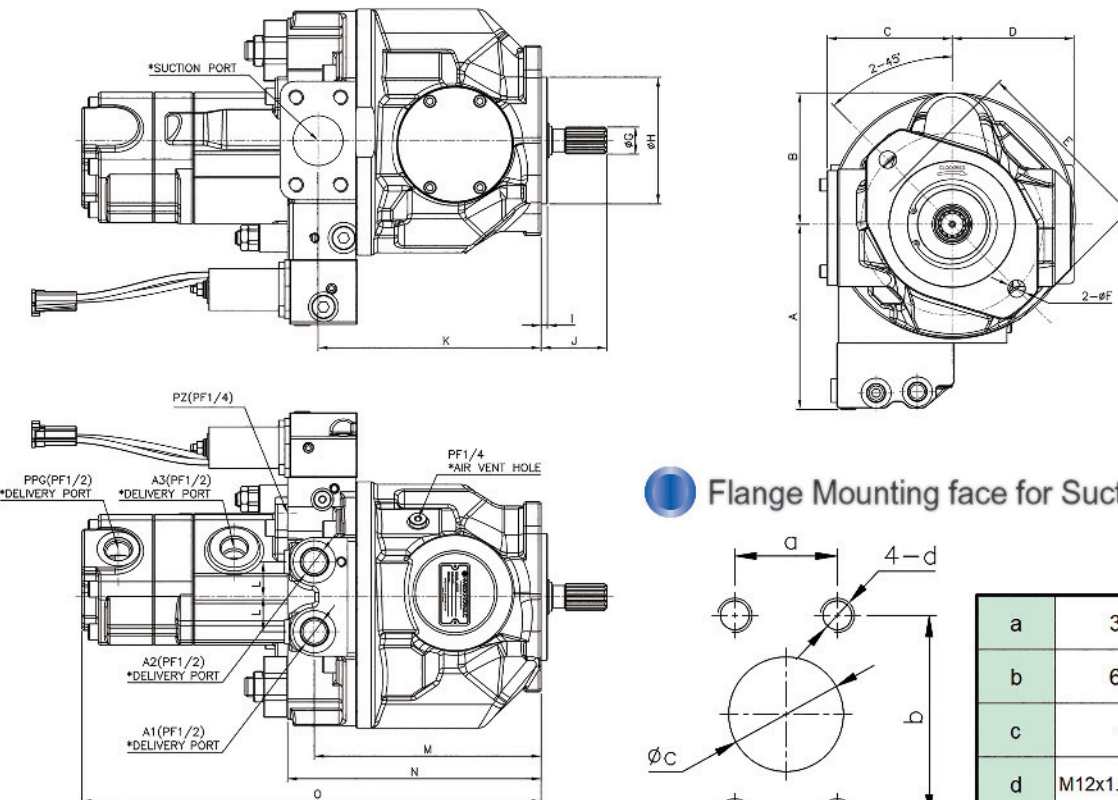
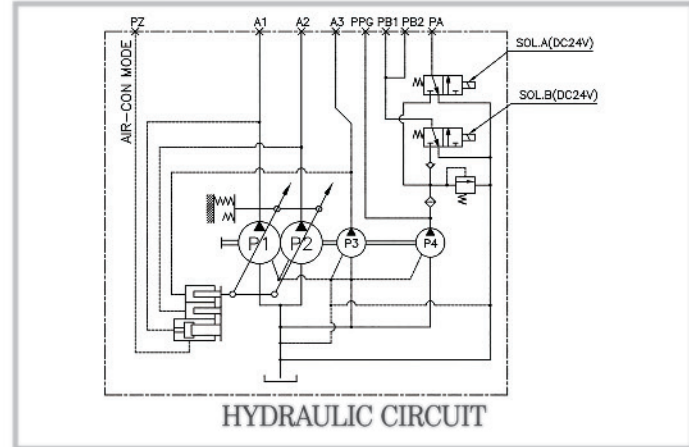
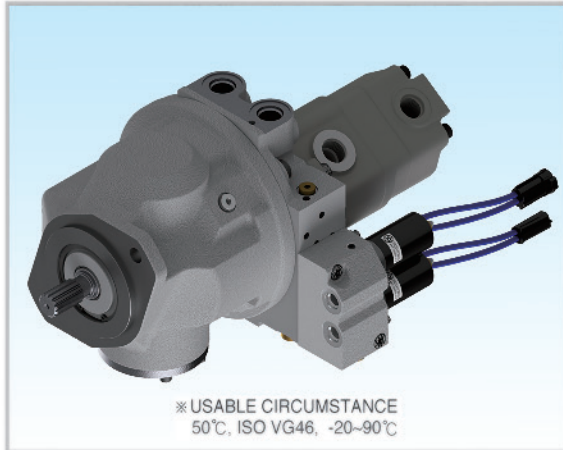


SPECIFICATIONS

MODEL	HP2D21/25/28 (POWER SHIFT TYPE)
Discharge Rate (cc/rev)	21/25/28
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2,600

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D21/25/28 (POWER SHIFT TYPE)	13	20.64	16/32	30°	SAE J498B



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HP2D21/25/28 (POWER SHIFT TYPE)	148.2	105.2	100	97.5	146	14	21.7	101.6	5	52.5	178.5	28	181.5	203	367.5

(mm)

HP2D36 SWASH PLATE TYPE PISTON PUMP

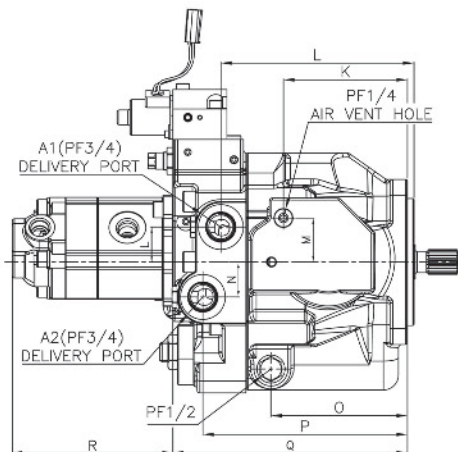
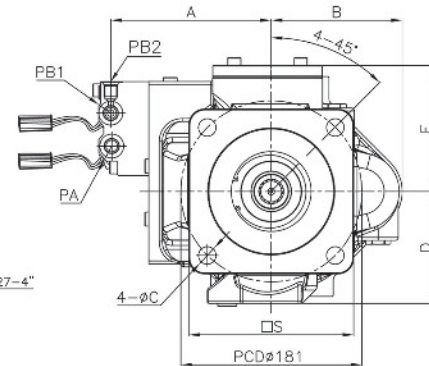
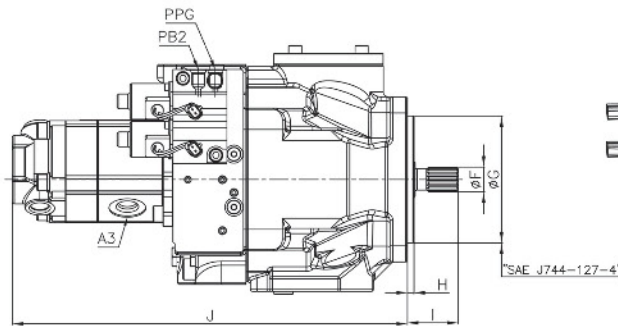
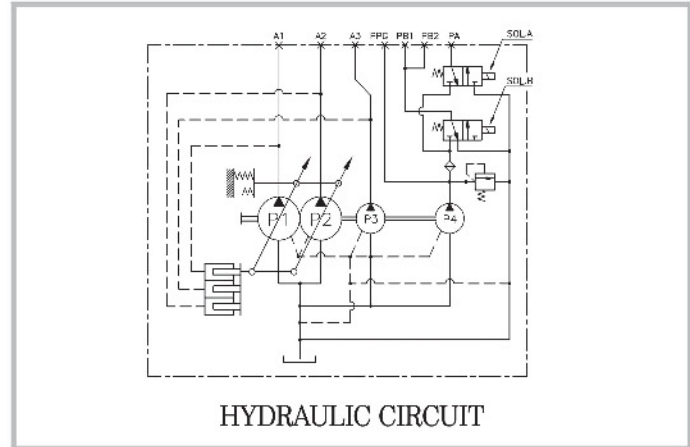
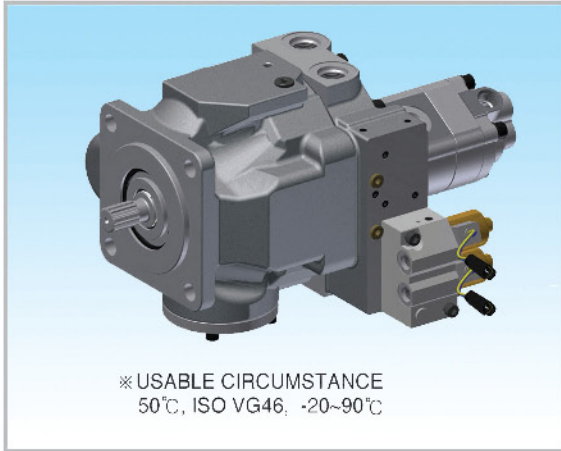


SPECIFICATIONS

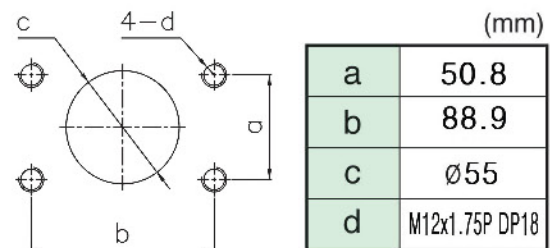
MODEL	HP2D36
Discharge Rate(cc/rev)	36
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D36	14	29.634	12/24	30°	SAE J498B
	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
HP2D36	14T	160.5	131	21	112	126	31.2	127	6.5	50.8	395	124	186.6	44	35	136.5	204.6	234.5	160.5	165
	15T						25													

HP2D36 SWASH PLATE TYPE PISTON PUMP

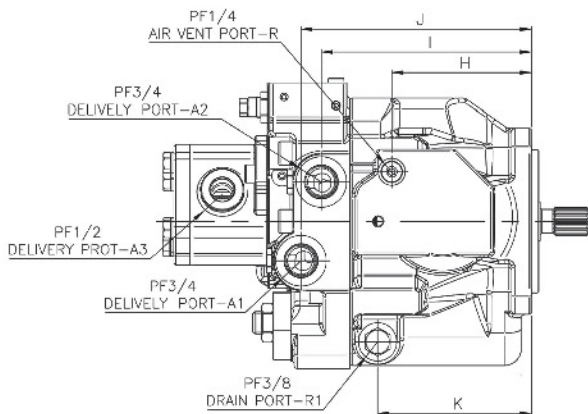
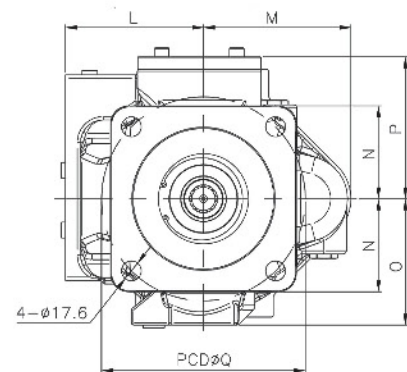
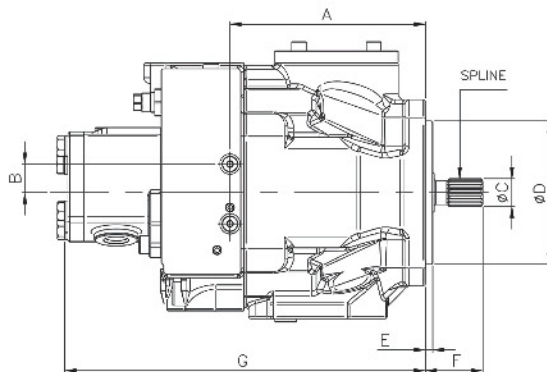
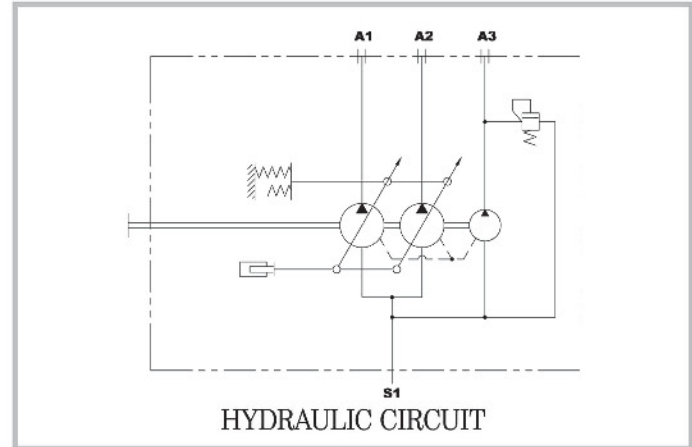
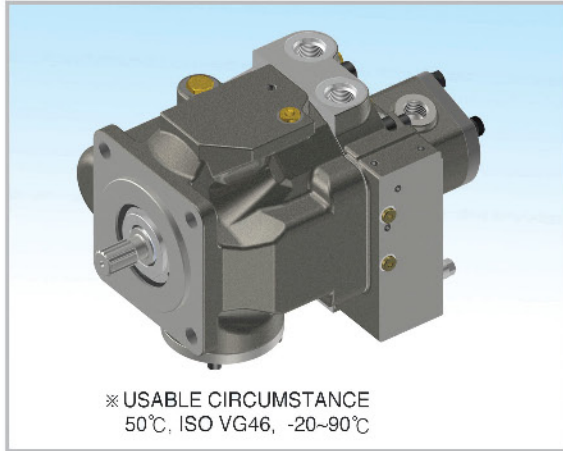


SPECIFICATIONS

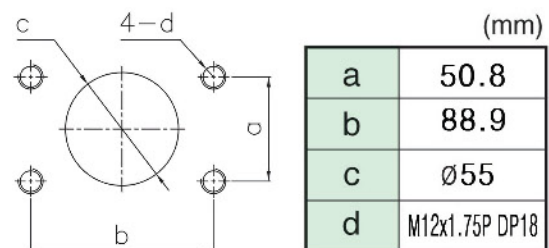
MODEL	HP2D36
Discharge Rate(cc/rev)	36
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D36	14	29.634	12/24	30°	SAE J498B
	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HP2D36	14T	173.5	25.5	31.2	127	6.5	51	317.5	124	186.6	204.6	136.5	122.5	131	82.5	112	126	181
	15T			25														

HP2D36 FOR HITACHI SWASH PLATE TYPE PISTON PUMP

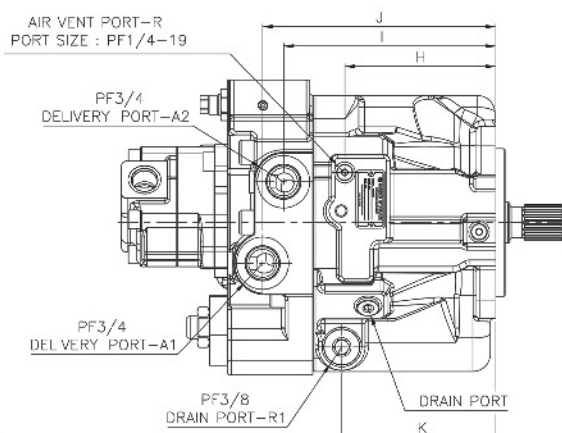
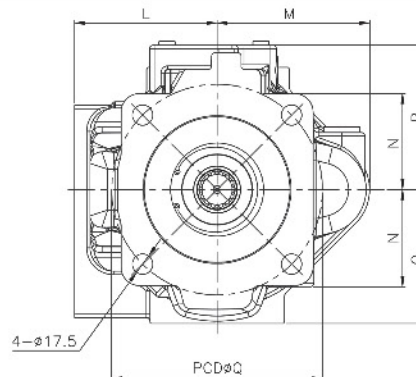
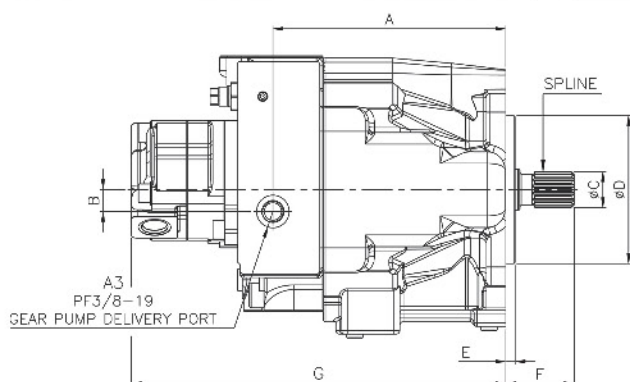
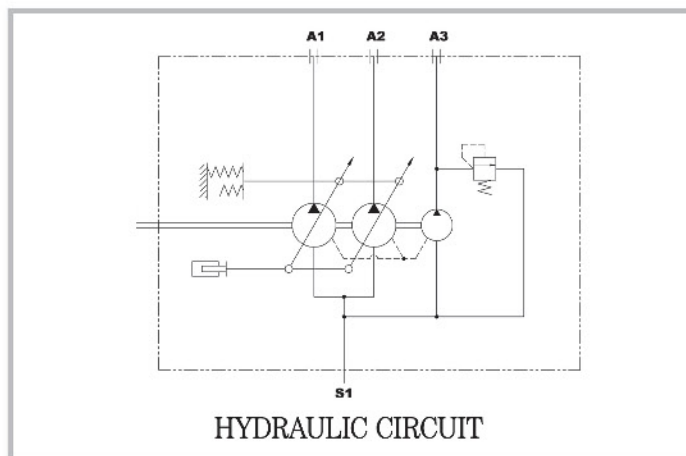
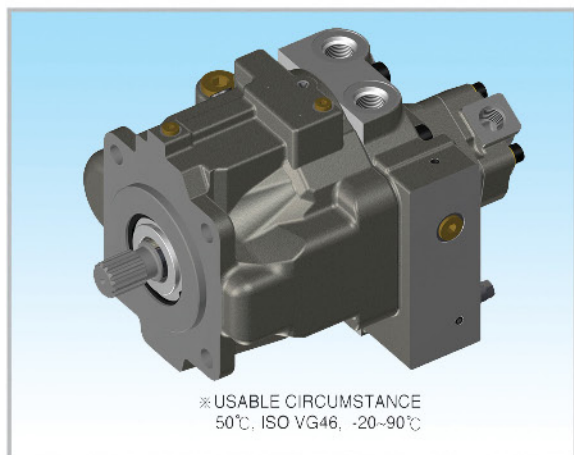


SPECIFICATIONS

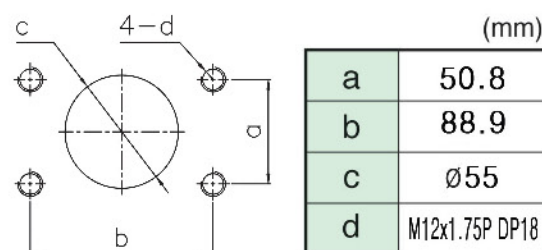
MODEL	HP2D36(HITACHI)
Discharge Rate (cc/rev)	36
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2200

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D36 (HITACHI)	14	29.634	12/24	30°	SAE J498B
	15	23.813	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HP2D36 (HITACHI)	14T	200	18.8	31.2	127	8	58.8	321.7	129.7	182.2	200.2	132.3	122.5	131	82.5	115	124	181
	15T			25														

HP2D36 FOR HITACHI SWASH PLATE TYPE PISTON PUMP

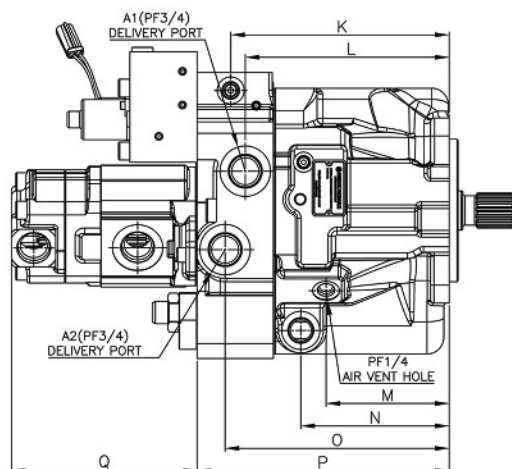
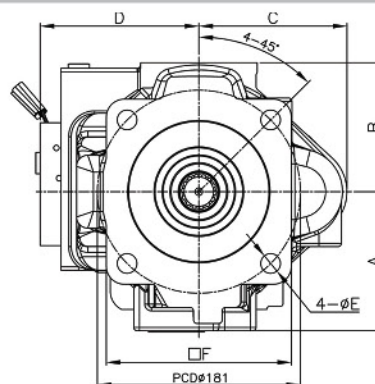
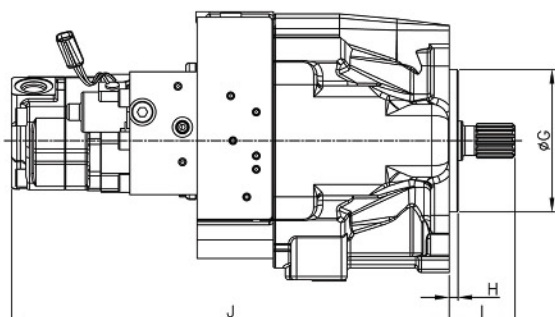
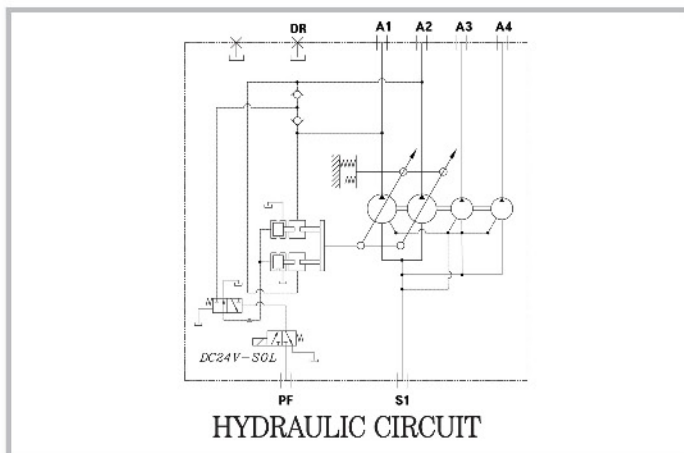
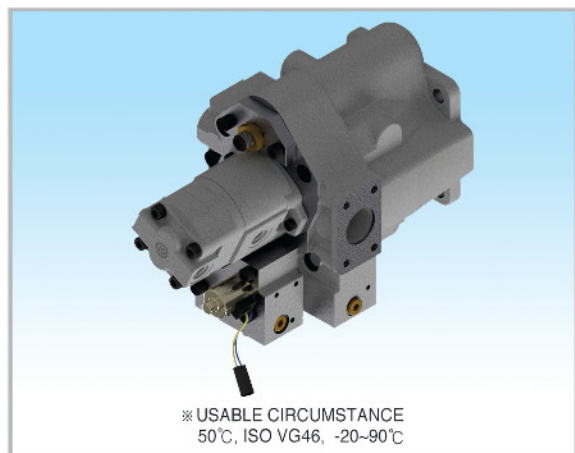


SPECIFICATIONS

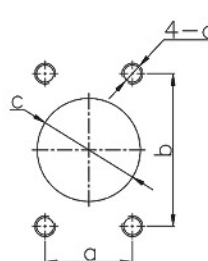
MODEL	HP2D36(EX75)
Discharge Rate (cc/rev)	36
Max. Pressure (kg/cm ²)	260
Max. Speed (rpm)	2300

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D36 (EX75)	14	29.634	12/24	30°	SAE 498B



Flange Mounting face for Suction Port



	(mm)
a	42.9
b	77.8
c	Ø45
d	M12x1.75P Dp18

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HP2D36 (EX75)	124	115	132	141.5	17.5	165	127	8	58.7	390	195	182	110	132	200	225	165.5

HP2D36 FOR HITACHI SWASH PLATE TYPE PISTON PUMP

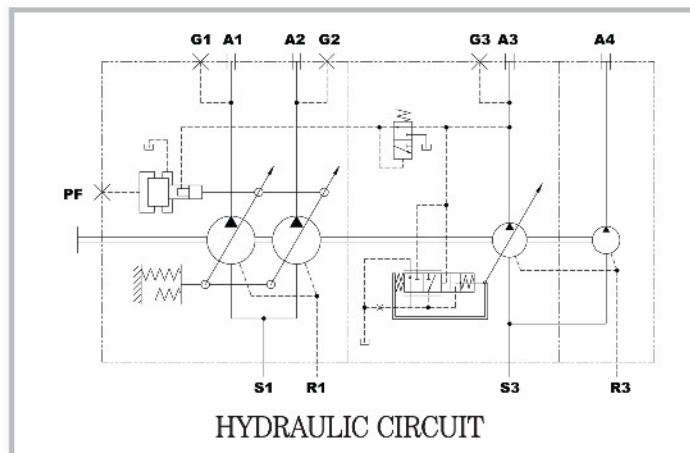
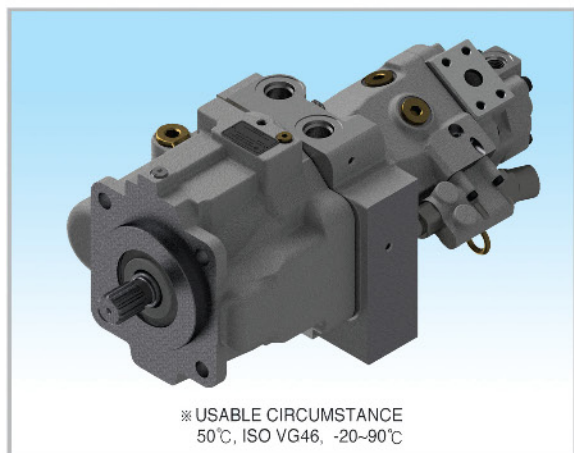


SPECIFICATIONS

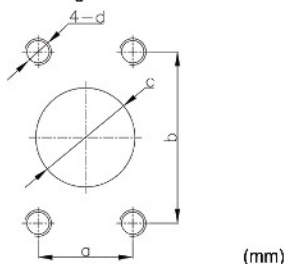
MODEL	HP2D36(ZX70)
Discharge Rate (cc/rev)	36 / 28
Max. Pressure (kg/cm²)	260
Max. Speed (rpm)	2300

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HP2D36 (ZX70)	14	29.634	12/24	30°	SAE 498B

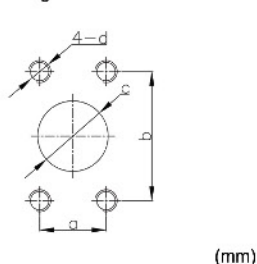


Flange Mounting face for Suction Port



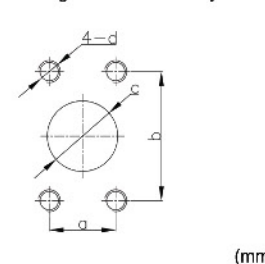
MODEL	a	b	c	d
HP2D36(ZX70)	42.9	77.8	∅39	M12x1.75P Dp20

Flange Mounting face for Suction Port

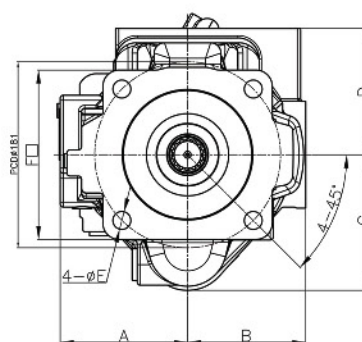
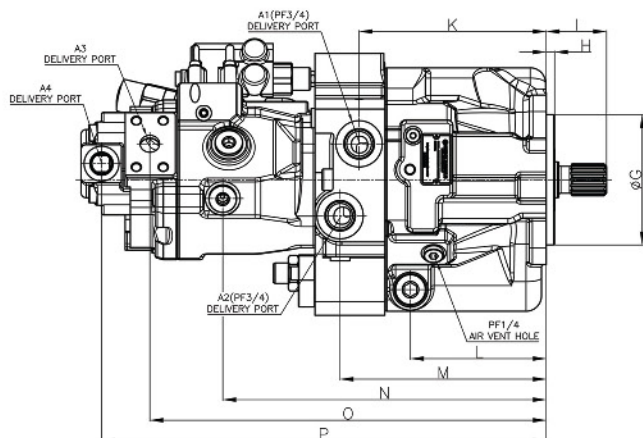


MODEL	a	b	c	d
A10VO28LR	30.2	58.7	∅32	M10x1.5P Dp18

Flange Mounting face for Delivery Port



MODEL	a	b	c	d
A10VO28LR	26.2	52.2	∅19	M8x1.0P Dp18



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
HP2D36 (ZX70)	124	115	132	141.5	17.5	165	127	8	58.7	453	182.2	132.2	200.7	315	386	433

HP2D36 FOR YANMAR SWASH PLATE TYPE PISTON PUMP

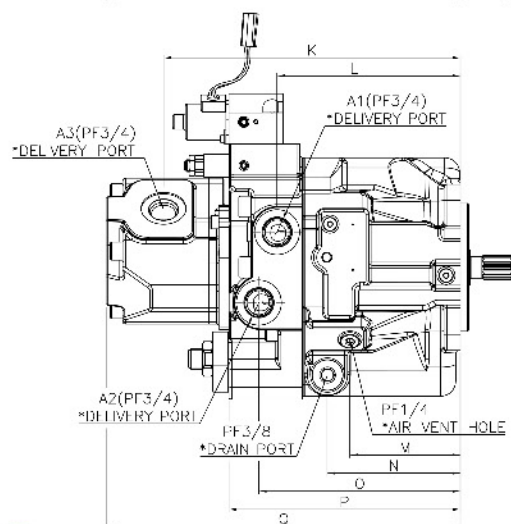
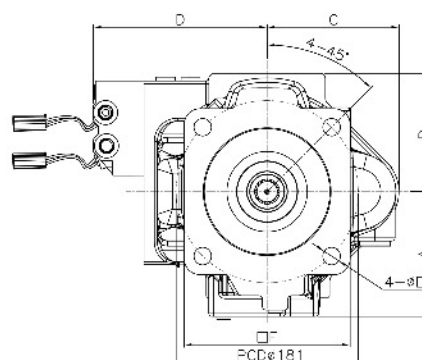
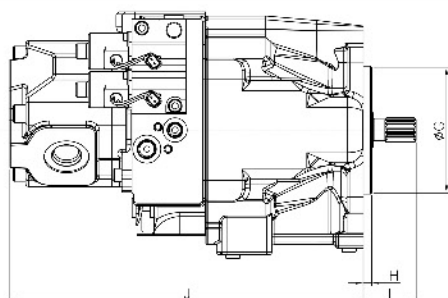
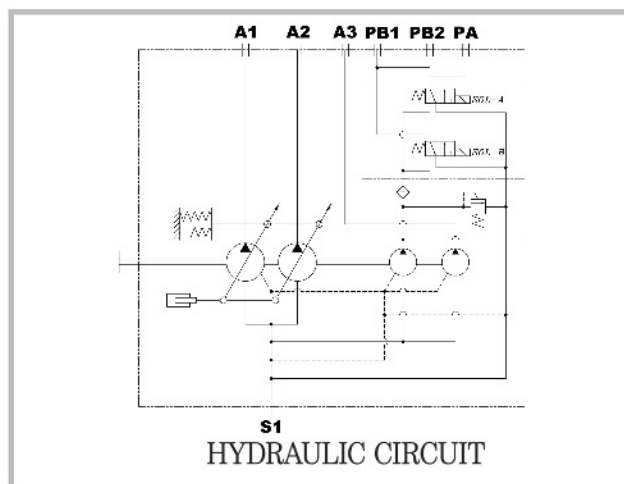
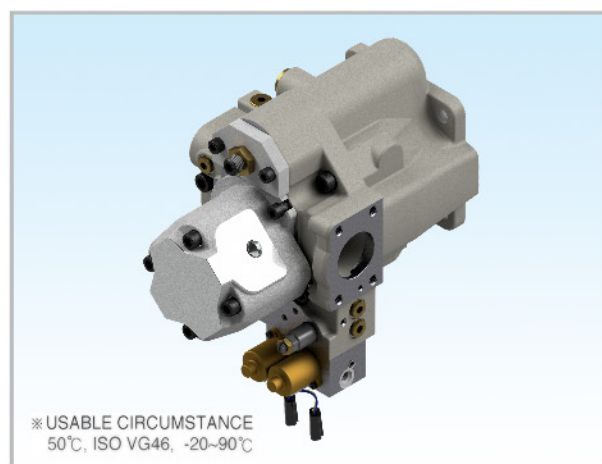


SPECIFICATIONS

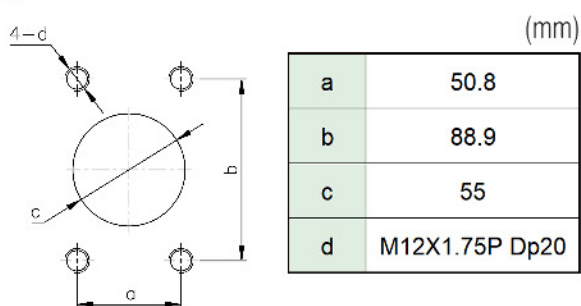
MODEL	HP2D36 (YANMAR-VIO70/75)
Discharge Rate(cc/rev)	36
Max. Pressure (kg/cm²)	260
Max. Speed (rpm)	2,300

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia (mm)	Module	Pressure angle	Standard
HP2D36 YANMAR VIO70/75	15	22.5	1.5	20°	JIS



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HP2D36 YANMAR VIO70/75	124	117	131	172.5	17.5	165	125	8	52.3	351	295	182	110	132	200	230	351 356

(mm)

HPC35 FOR CLOSE CIRCUIT SWASH PLATE PISTON PUMP

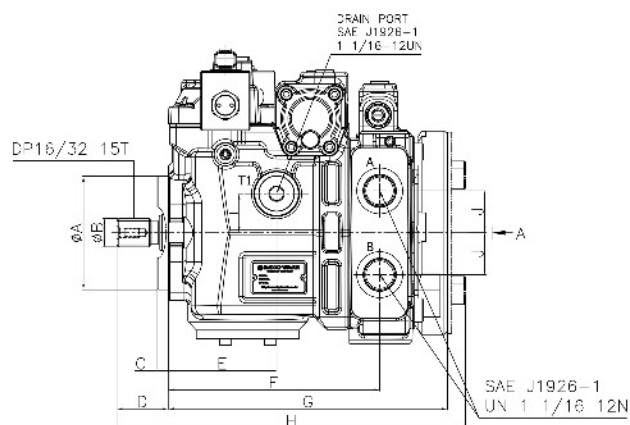
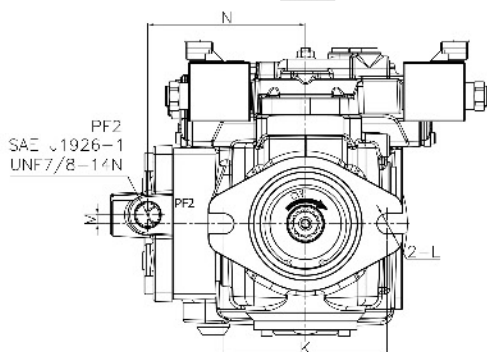
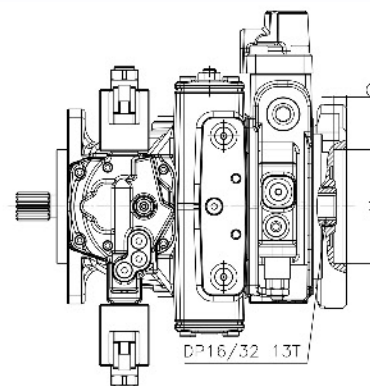
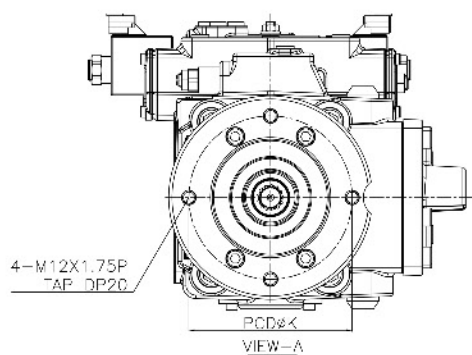
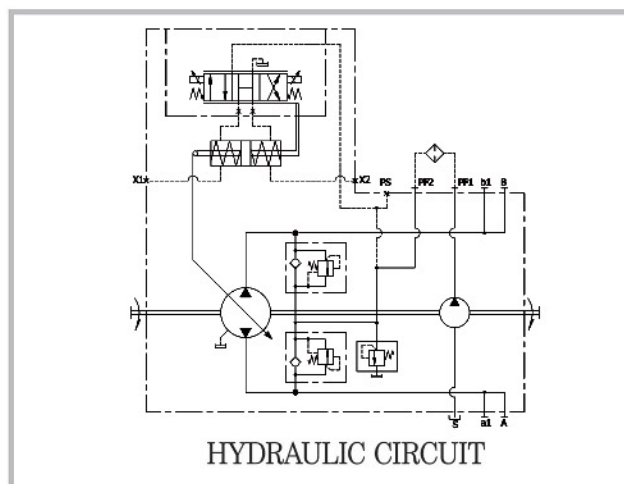


SPECIFICATIONS

MODEL	HPC35
Discharge Rate(cc/rev)	35.4
Max. Pressure (kg/cm ²)	310
Max. Speed (rpm)	4,500

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPC35	13	20.638	16/32	30°	ANSI



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HPC35	101.6	25.4	9.5	46	97	189	250	312	35	37.5	146	18	8	141	12

HPC90 FOR CLOSE CIRCUIT SWASH PLATE TYPE PISTON PUMP

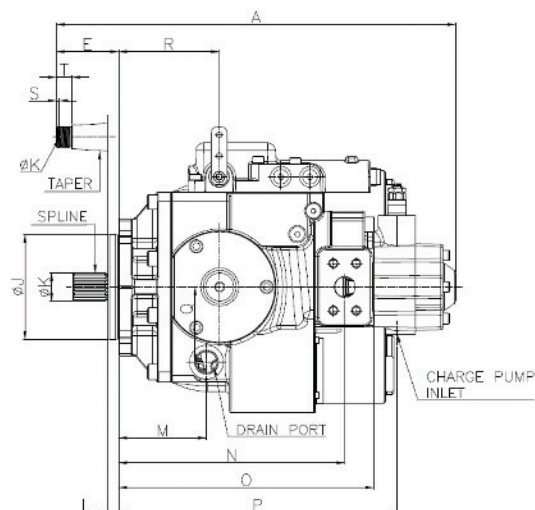
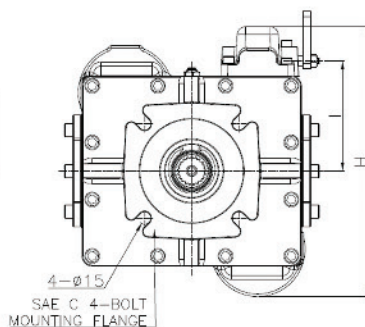
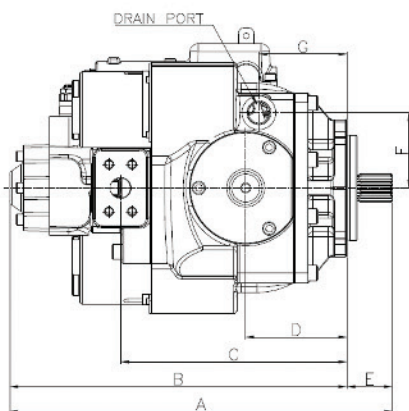
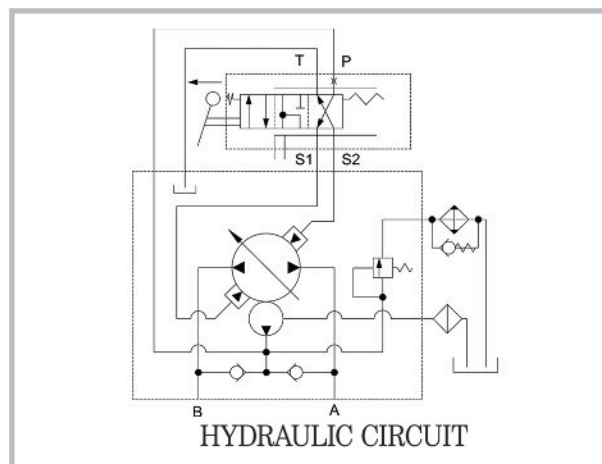
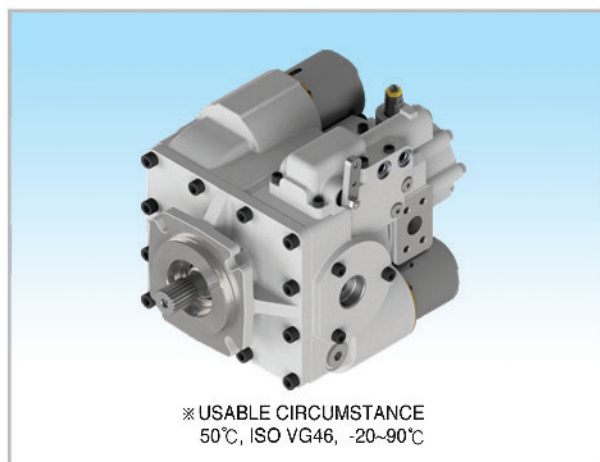


SPECIFICATIONS

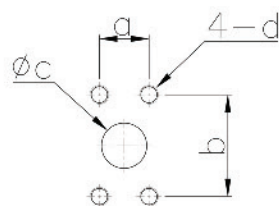
MODEL	HPC90 (SPLINE)	HPC90 (TAPER)
Discharge Rate(cc/rev)	89	
Max. Pressure (kg/cm ²)	415	
Max. Speed (rpm)	3,720	

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPC90	21	33.337	16/32	30°	SAE



Flange Mounting face for Suction Port



	(mm)
a	27.76
b	57.15
c	25.4
d	UNC7/16 DP30

Dimensions of Shaft End(Taper Type)



	(mm)
a	35.1
b	29
c	3.6
d	36
e	9.5
f	7.2

DIMENSIONS

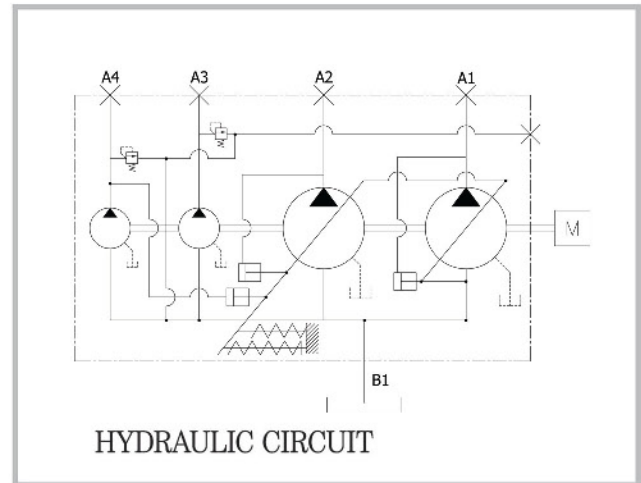
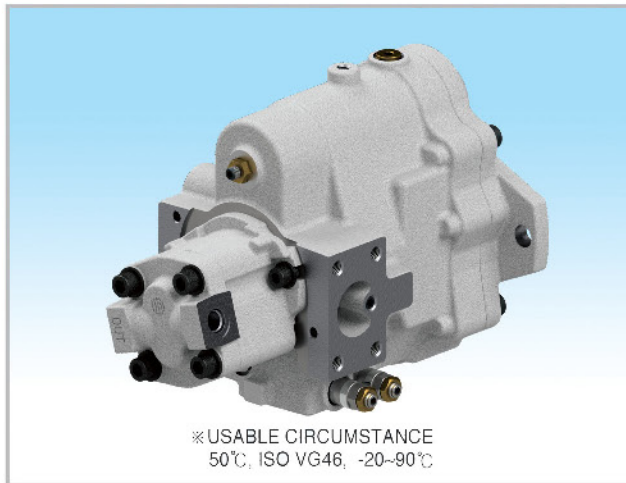
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HPC90 (SPLINE)	463.4	408.3	274	122.5	55	91	106.5	326.5	133.3	127	34.5	12.5	106.5	274	309	337	91	121.8	-	-
HPC90 (TAPER)	483.8				75.5						4									

HSVD2-17/21/27E(WITHOUT SOLENOID TYPE) SWASH PLATE TYPE PISTON PUMPS



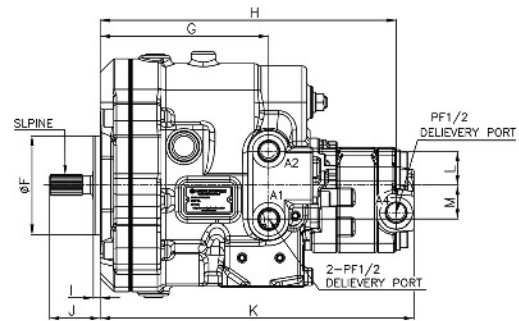
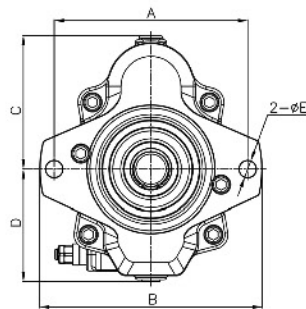
SPECIFICATIONS

MODEL	HSVD2-17E	HSVD2-21E	HSVD2-27E
Discharge Rate (cc/rev)	17	21	27
Max. Pressure (kg/cm ²)	250		
Max. Speed (rpm)	2500	2400	



Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch circle Dia(mm)	Module	Pressure Angle	Standard
HSVD2-17E	13	20.6375	13	30°	SAE J744
HSVD2-21E					
HSVD2-27E					



Flange Mounting face for Suction Port

		(mm)	
a	HSVD2-17&21E	35.7	HSVD2-27E 42.9
b		69.9	77.8
c		38	45
d		M12x1.75P DP18	M12x1.75P DP18

DIMENSIONS

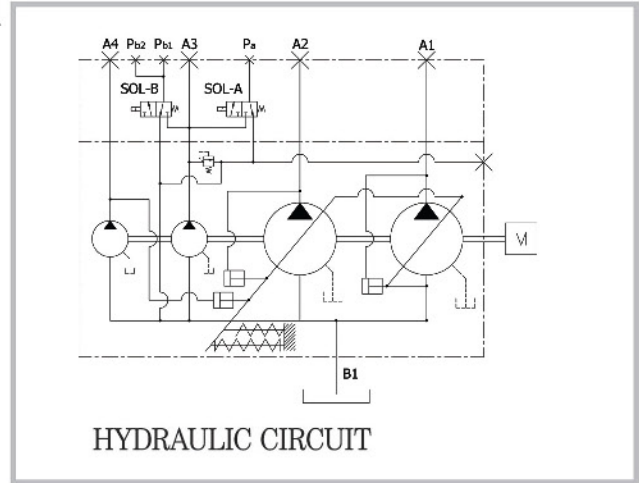
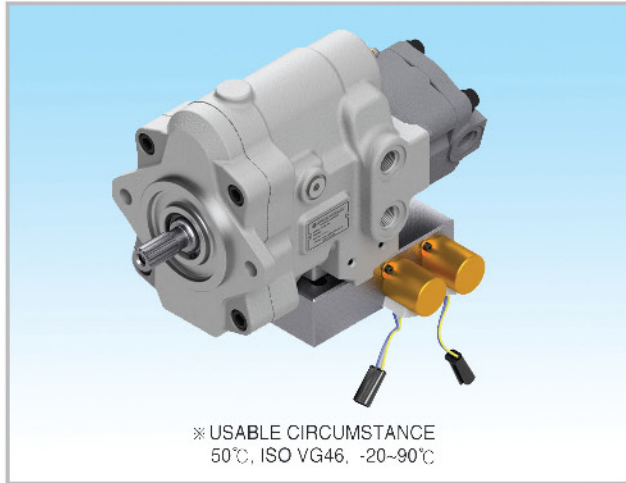
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HSVD2-17E	146	181	120.5	105	14		145	256		46	279	28	28	154
HSVD2-21E		181	120.5	108		101.6	161	276	7	45	300			163.5
HSVD2-27E	200	234	136	116	17.5		174	301		47	324	35	35	183

HSVD2-17/21/27E(WITH SOLENOID TYPE) SWASH PLATE TYPE PISTON PUMPS



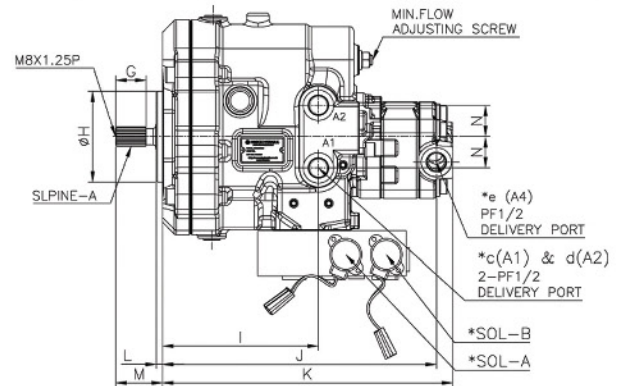
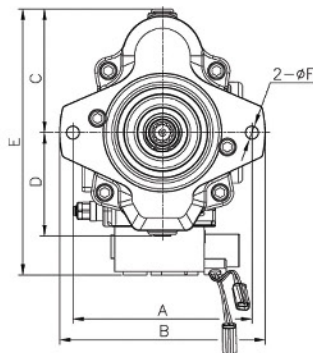
SPECIFICATIONS

MODEL	HSVD2-17E	HSVD2-21E	HSVD2-27E
Discharge Rate (cc/rev)	17	21	27
Max. Pressure (kg/cm ²)	250		
Max. Speed (rpm)	2500	2400	

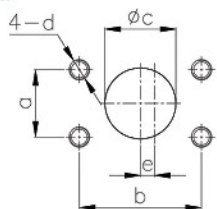


Dimensions of Shaft End (Spine Type)

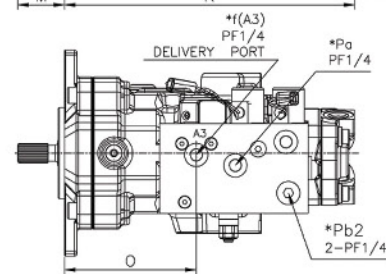
MODEL	No. of teeth	Pitch circle Dia(mm)	Module	Pressure Angle	Standard
HSVD2-17E	13	20.6375	13	30°	SAE J744
HSVD2-21E					
HSVD2-27E					



Flange Mounting face for Suction Port



	HSVD2-17&21E	HSVD2-27E
a	35.7	42.9
b	69.9	77.8
c	38	45
d	M12x1.75P DP18	M12x1.75P DP18
e	9 / 12	14



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HSVD2-17E	146	180	120	105	260	14	30	101.6	145	255	279	7	46	28	154
HSVD2-21E		192	121	108	264				161	276	300		55		163.5
HSVD2-27E	200	230	135.5	115.5	293	17.5	34		174	306	324	52	35	183	

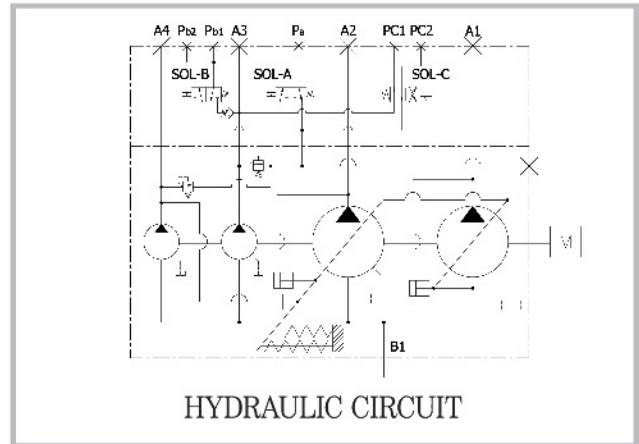
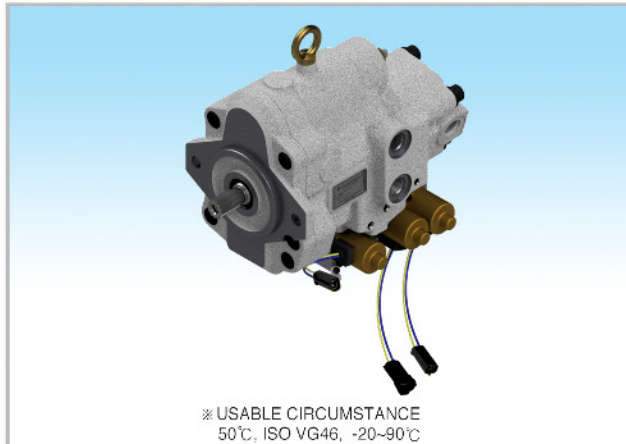
(mm)

HSVD2-17/21/27E FOR KAYABA(WITH SOLENOID TYPE-3STAGE) SWASH PLATE TYPE PISTON PUMPS



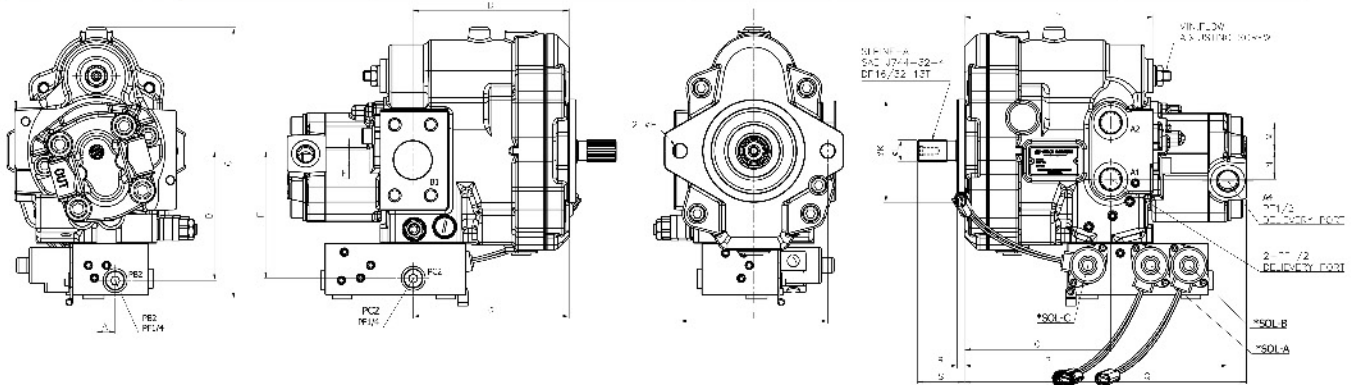
SPECIFICATIONS

MODEL	HSVD2-17E	HSVD2-21E	HSVD2-27E
Discharge Rate (cc/rev)	17	21	27
Max. Pressure (kg/cm ²)	250		
Max. Speed (rpm)	2500	2400	

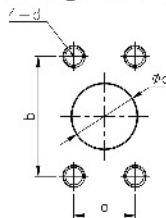


Dimensions of Shaft End (Spline Type)

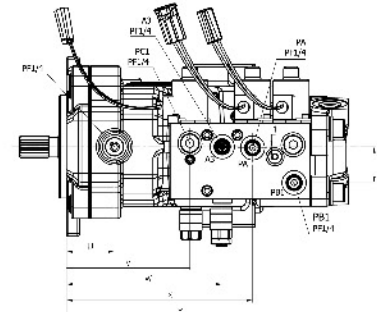
MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
HSVD2-17E	13	20.6375	13	30°	SAE J744
HSVD2-21E					
HSVD2-27E					



Flange Mounting face for Suction Port



	HSVD2-17&21E		HSVD2-27E
a	35.7		42.9
b	69.9		77.8
c	38		45
d	M12x1.75P DP18		M12x1.75P DP18
e	9 / 12		14



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
HSVD2-17E		128	268.5	155	9	126	154			187						260	279		46.4	35.5	47.5	122	154	184	225
HSVD2-21E	18.5	132	275.5	173	11	130	166.5	14	146	206	101.6	21.7	28	28	161	286	304	7	57.2	36.5	53.5	134.5	166.5	196.5	237.5
HSVD2-27E		143	299.5	188	14	141	183.5	17.5	200	220			35	35	174	306	324		52.3	35.5	55	151	183	213	254

(mm)

HSV-42 FOR KUBOTA / CATERPILLAR SWASH PLATE TYPE PISTON PUMP

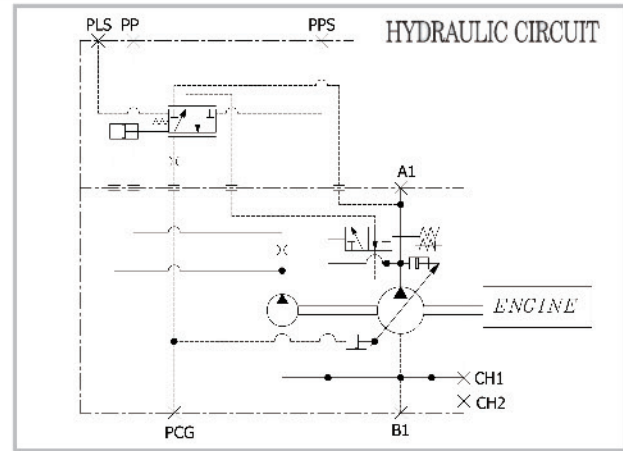
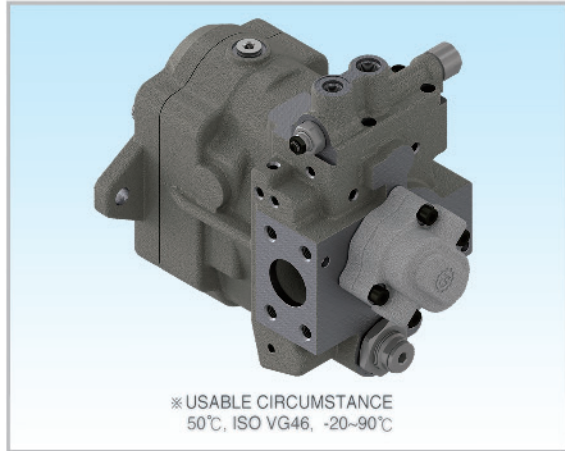


SPECIFICATIONS

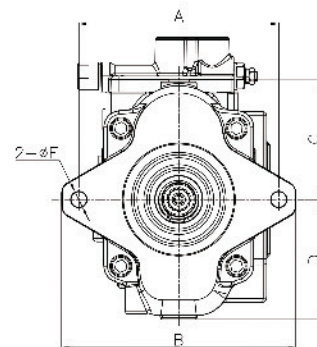
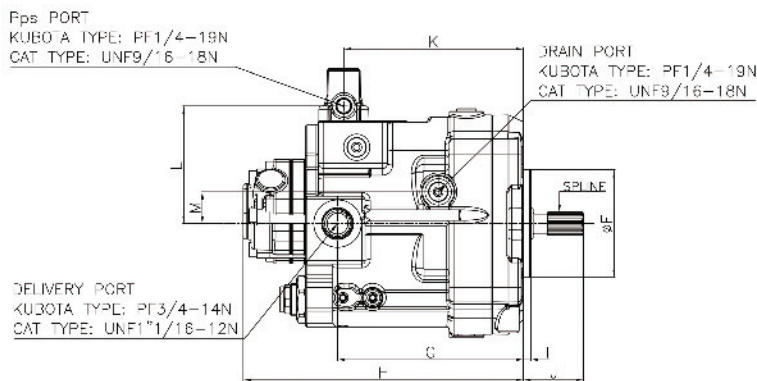
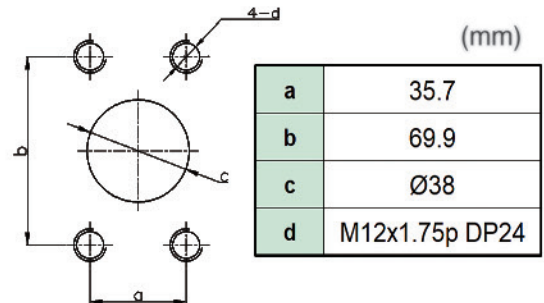
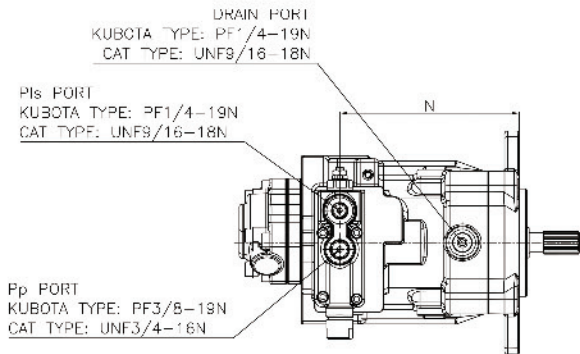
MODEL	HSV-42	
	KUBOTA TYPE	CATERPILLAR TYPE
Discharge Rate (cc/rev)	42	36
Max. Pressure (kg/cm ²)	250	
Max. Speed (rpm)	2250	

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Min. circle dia.(mm)	Module	Pressure angle	Standard	
HSV-42	KUBOTA TYPE	13	20.638	16/32	30°	SAE J498B
	CATERPILLAR TYPE	15	23.813			



Flange Mounting face for Suction Port



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	
HSV-42	KUBOTA TYPE	180	211	109	108	14	101.6	175.3	264.3	7	56.7	169.5	111	30
	CATERPILLAR TYPE										47.6			

HVD-00B/0B/1B (WITHOUT SOLENOID) SWASH PLATE TYPE PISTON PUMPS

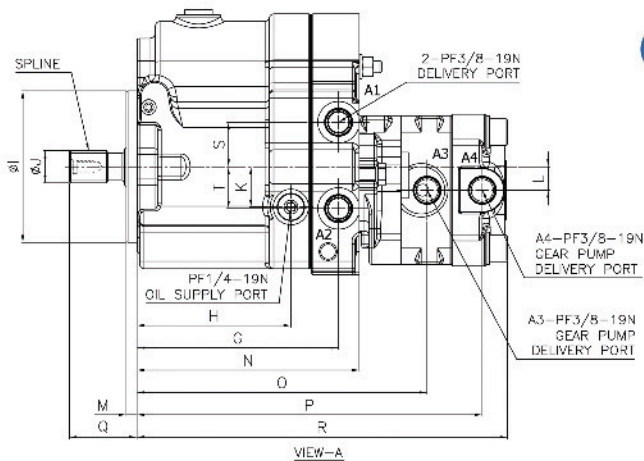
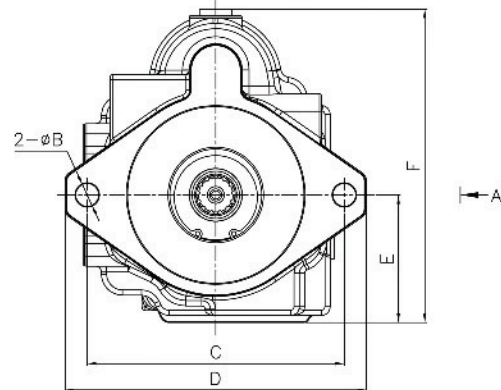
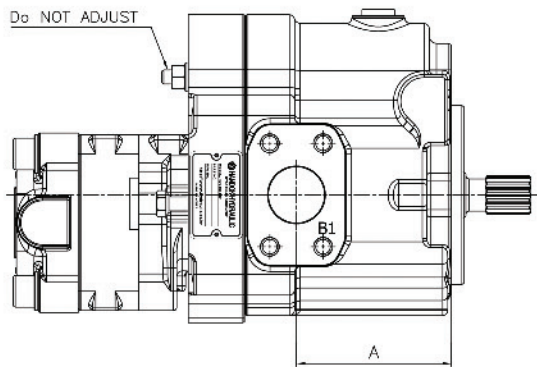
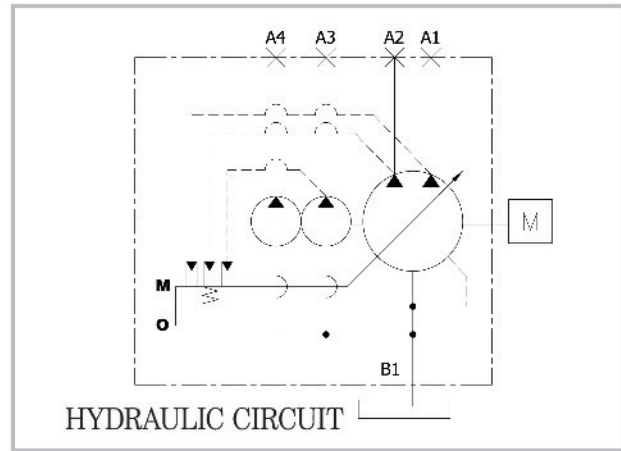
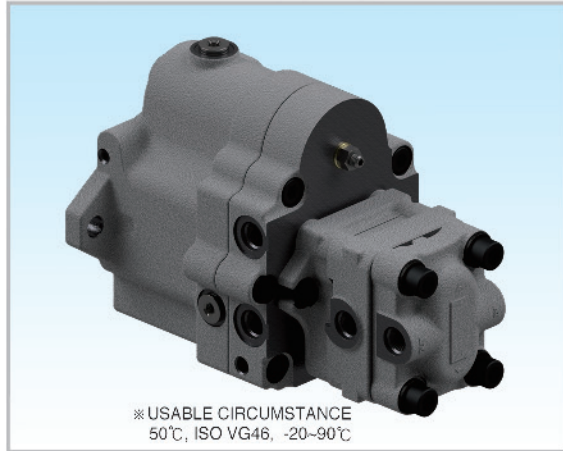


SPECIFICATIONS

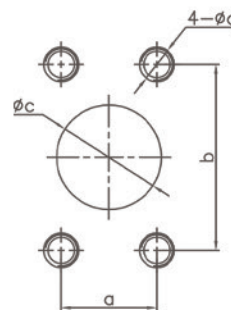
MODEL	HVD-00B	HVD-0B	HVD-1B
Discharge Rate(cc/rev)	8 x 2	9 x 2	16 x 2
Max. Pressure (kg/cm ²)	240		
Max. Speed (rpm)	2,800		

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVD-00B	10	15.875	16/32	30°	SAE J498B
HVD-0B&1B	13	20.64			



Flange Mounting face for Suction Port



(mm)

	HVD-00B	HVD-0B & 1B
a	26.2	30.2
b	52.4	58.7
c	28	32
d	SAE J518 1 1/4 M10x1.5P DP20	SAE J518 1 1/4 M10x1.5P DP17

DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HVD-00B	73			170	67	147	110			16.9				129	170	211		229	25	19
HVD-0B	88	13	146	171	68.5	178	135.5	103.5	101.6	21.7	27	15.7	7	150	195	232	45	249	30	28
HVD-1B							136.5							159	204	241				

HVD-0B/1B (WITH SOLENOID) SWASH PLATE TYPE PISTON PUMPS

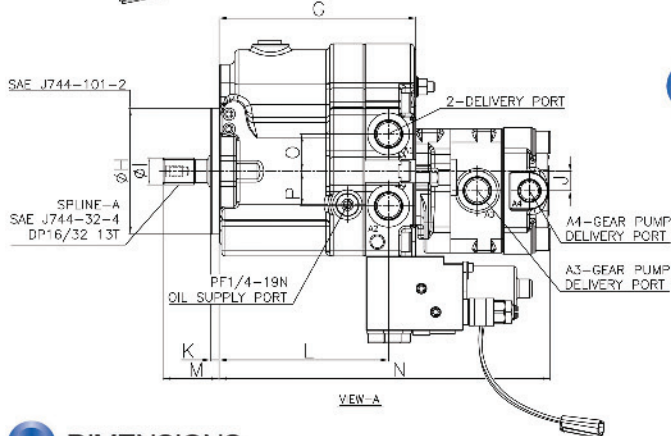
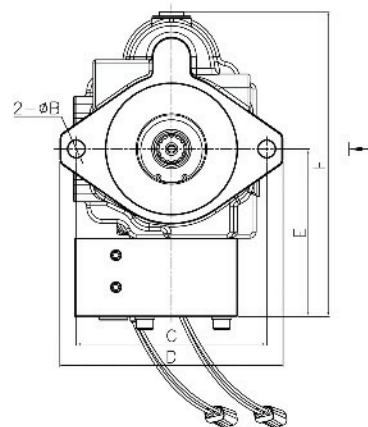
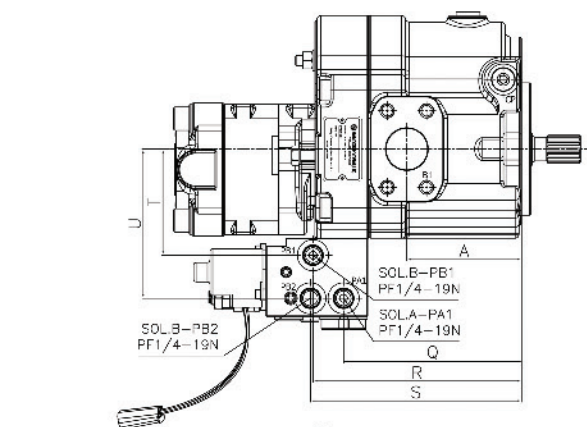
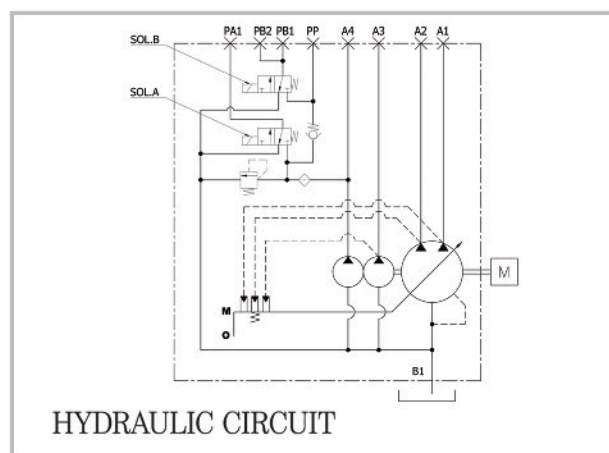
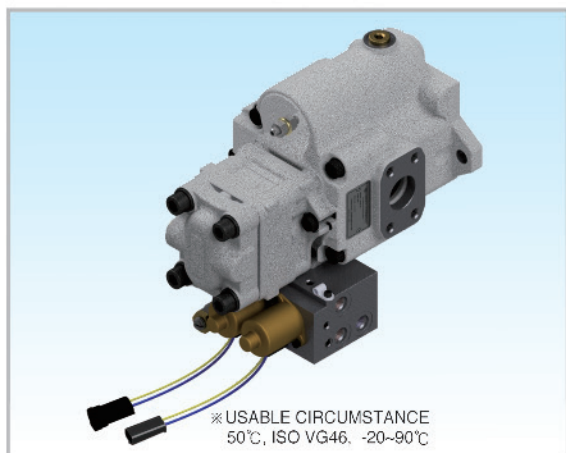


SPECIFICATIONS

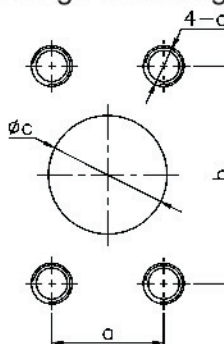
MODEL	HVD-0B	HVD-1B
Discharge Rate(cc/rev)	9 x 2	16 x 2
Max. Pressure (kg/cm ²)	210	
Max. Speed (rpm)	2,300	

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVD-0B HVD-1B	13	20.64	16/32	30°	SAE



Flange Mounting face for Suction Port (mm)



a	30.2
b	58.7
c	32 SAE J518 1 1/4
d	M10x1.5P DP17

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
HVD-0B	88	13	146	171	128.5	234	158.5	101.6	21.7	15.7	7	136.5	45.3	267	30	28	136.5	160	162	81.5	114.5
HVD-1B																					

HVD-1B-32P/32CP (WITH SOLENOID TYPE) SWASH PLATE TYPE PISTON PUMPS

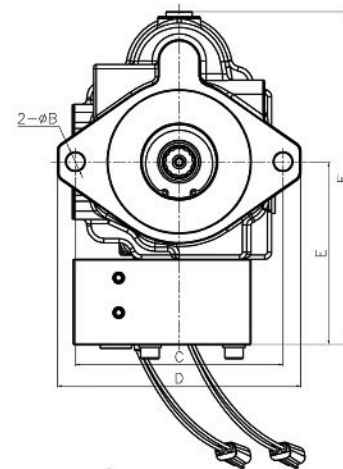
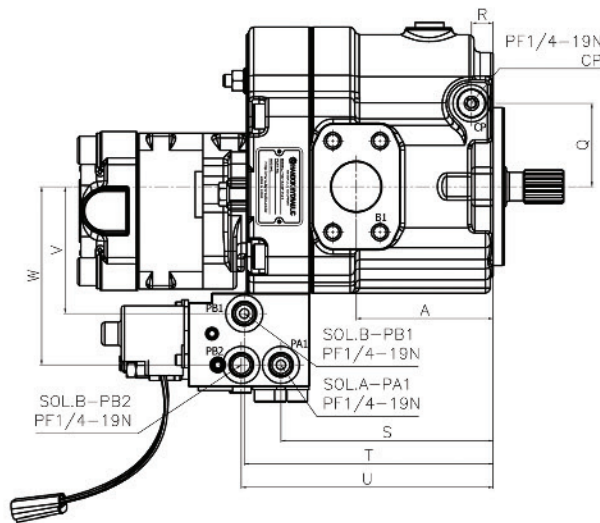
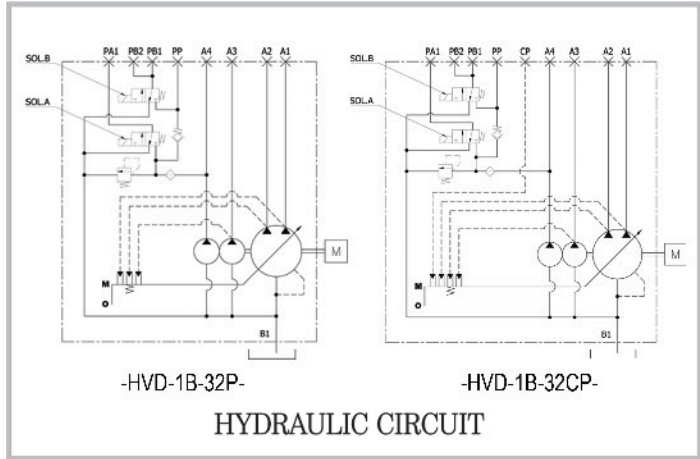
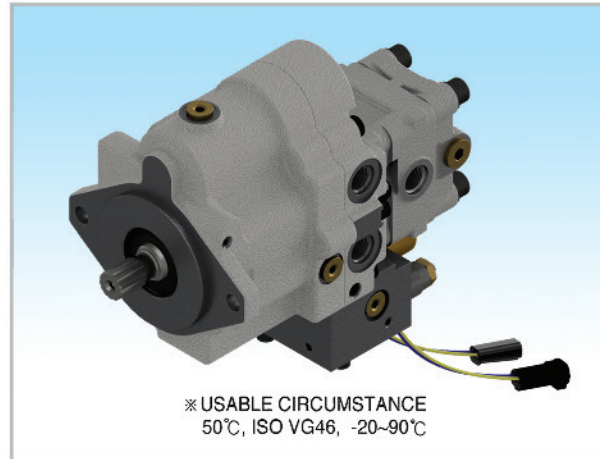


SPECIFICATIONS

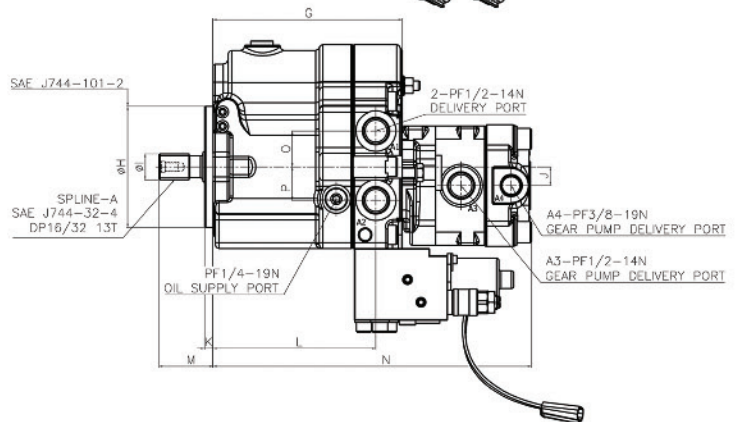
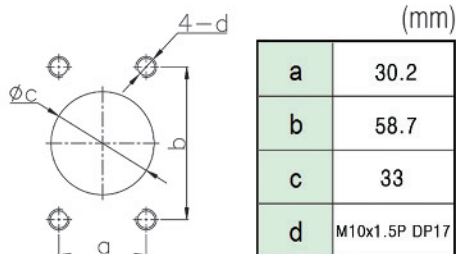
MODEL	HVD-2B-32P	HVD-2B-32CP
Discharge Rate(cc/rev)	16 x 2	
Max. Pressure (kg/cm ²)	210	
Max. Speed (rpm)	2,300	

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVD-1B-32P HVD-1B-32CP	13	20.64	16/32	30°	SAE



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
HVD-1B-32P	88	13	146	171	72.5	178	158.5	101.6	21.7	15.7	7	136.5	45.3	266.9	30	28	-	-	136.5	160	162	81.5	114.5
HVD-1B-32CP																	53.5	14					

HVD-1B-32P/32CP (WITHOUT SOLENOID TYPE) SWASH PLATE TYPE PISTON PUMPS

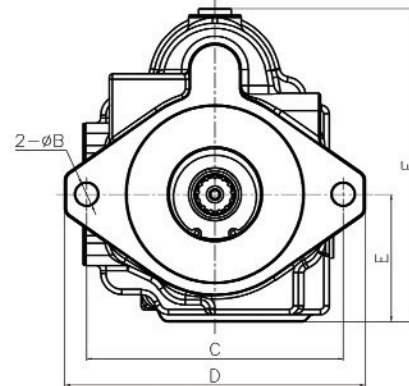
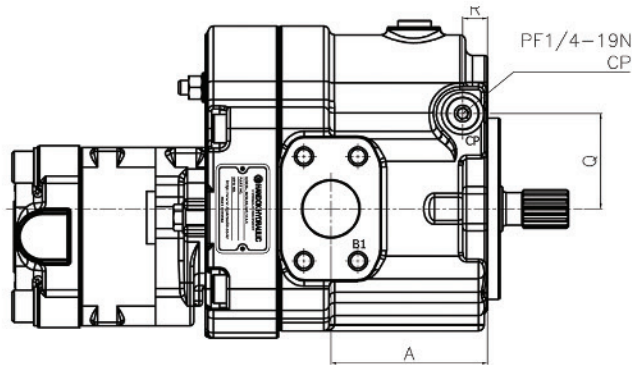
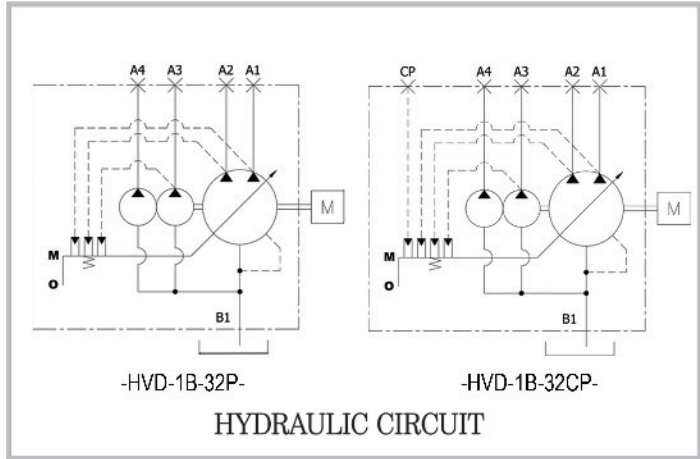
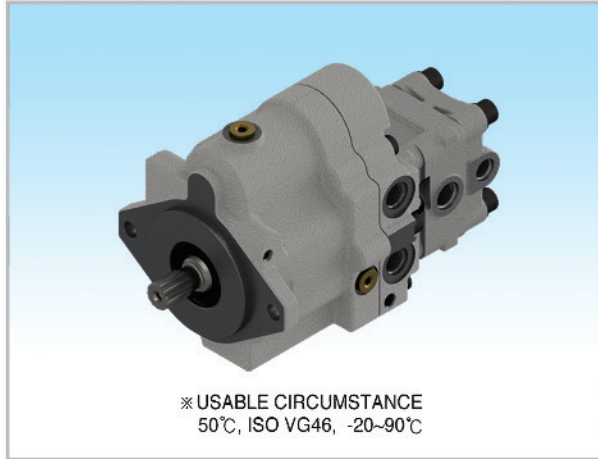


SPECIFICATIONS

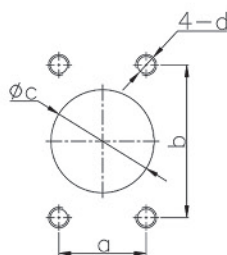
MODEL	HVD-2B-32P	HVD-2B-32CP
Discharge Rate(cc/rev)	16 x 2	
Max. Pressure (kg/cm ²)	210	
Max. Speed (rpm)	2,300	

Dimensions of Shaft End(Spline Type)

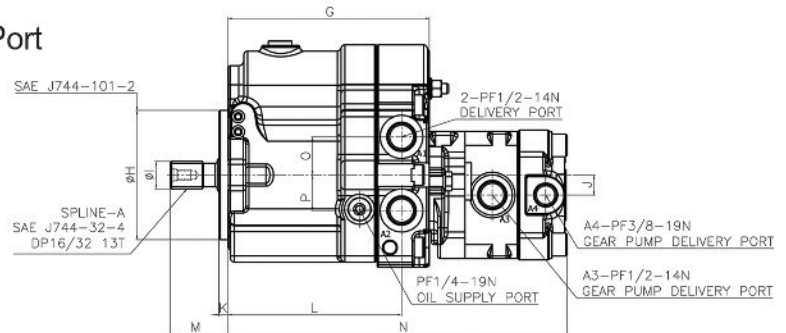
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVD-1B-32P HVD-1B-32CP	13	20.64	16/32	30°	SAE



Flange Mounting face for Suction Port



	(mm)
a	30.2
b	58.7
c	33
d	M10x1.5P DP17



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
HVD-1B-32P	88	13	146	171	72.5	178	158.5	101.6	21.7	15.7	7	136.5	45.3	266.9	30	28	-	-
HVD-1B-32CP																	53.5	14

HVD-2B-32/36/38/40/42

SWASH PLATE TYPE PISTON PUMPS

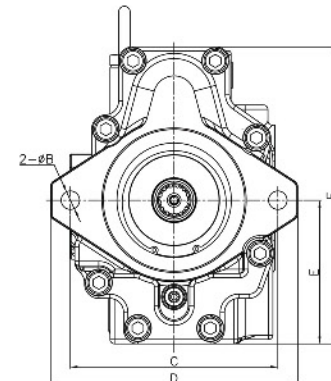
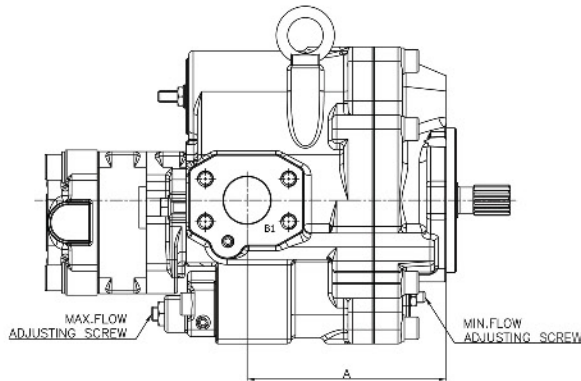
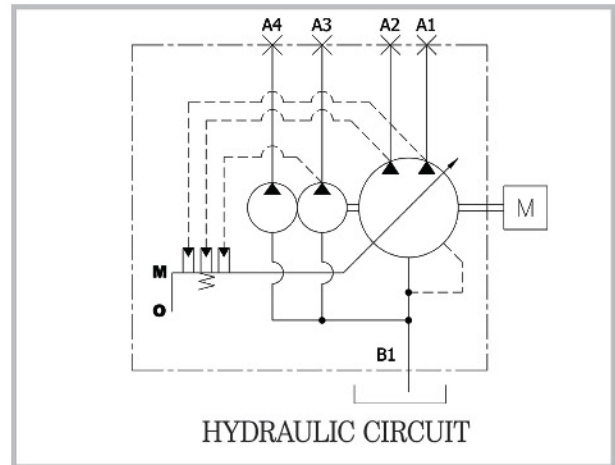
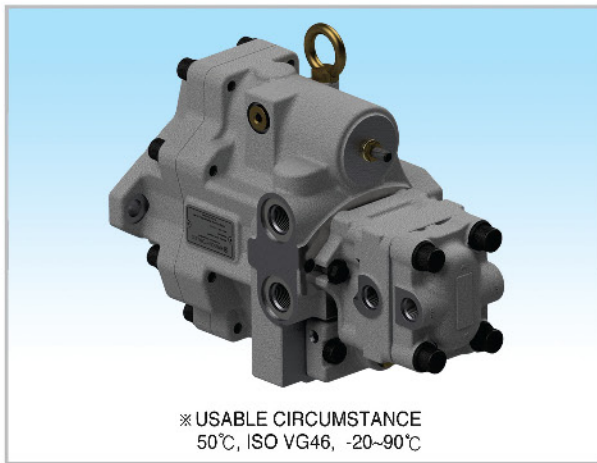


SPECIFICATIONS

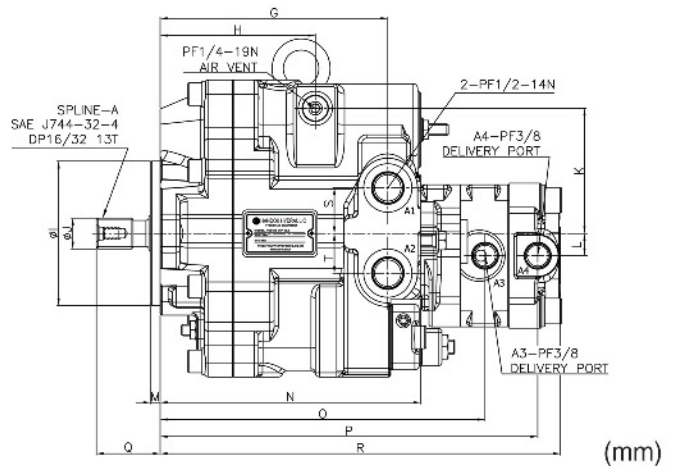
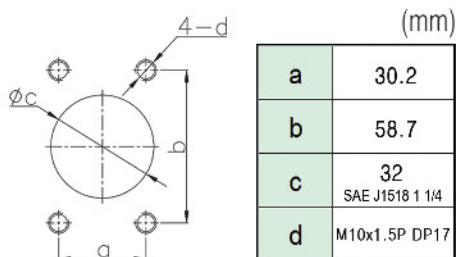
MODEL	HVD-2B				
	32	36	38	40	42
Discharge Rate(cc/rev)	16 x 2	18 x 2	19 x 2	20 x 2	21 x 2
Max. Pressure (kg/cm ²)	230				
Max. Speed (rpm)	2200				

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVD-2B-32/36/38/40/42	13	20.64	16/32	30°	SAE J498B



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HVD-2B-32/36/38/40/42	140	13	146	174	101	209	160	109	101.6	21.7	88	15.7	7	183	229	266	45	282	32	28

HVD-2B-50 FOR HITACHI SWASH PLATE TYPE PISTON PUMP

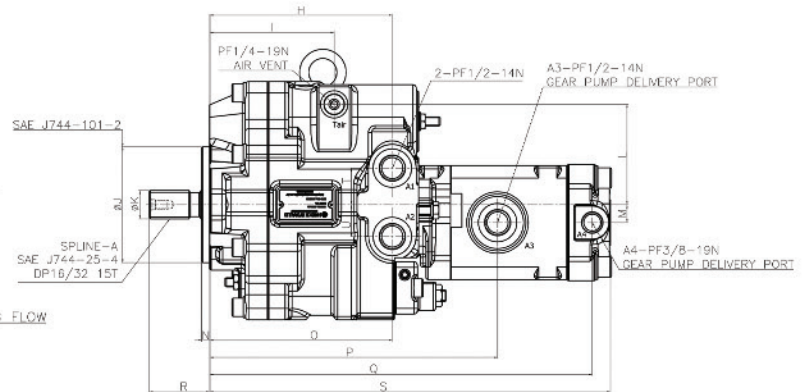
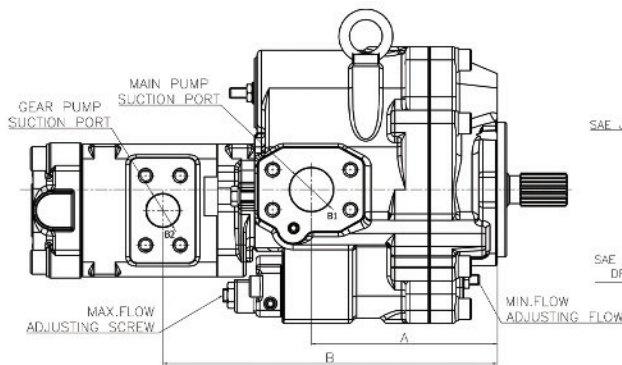
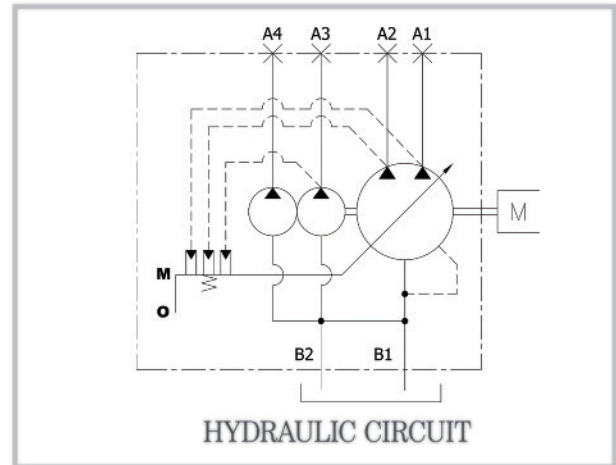
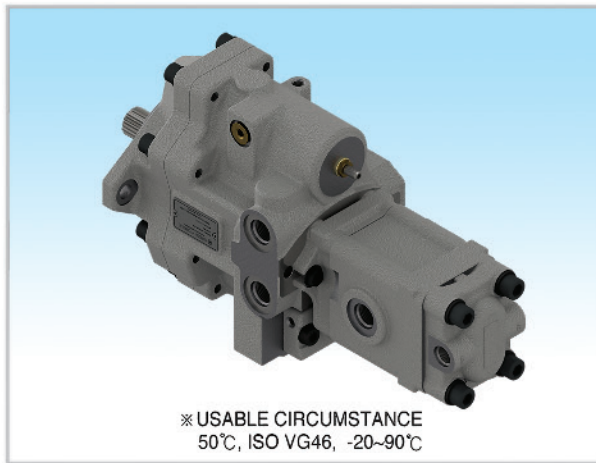


SPECIFICATIONS

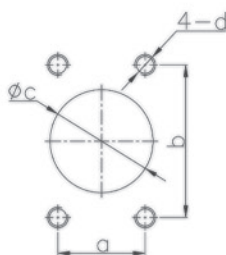
MODEL	HVD-2B-50(ZX60-5G)
Discharge Rate(cc/rev)	25 x 2
Max. Pressure (kg/cm ²)	230
Max. Speed (rpm)	2,200

Dimensions of Shaft End(Spline Type)

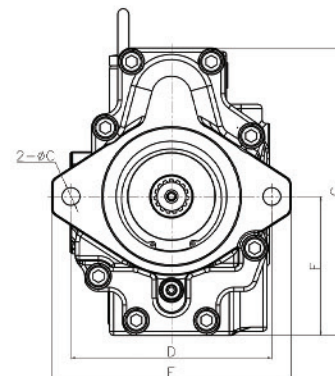
MODEL	No. of teeth	Pitch circle diam(mm)	Module	Pressure angle	Standard
HVD-2B-50 (ZX60-5G)	15	23.813	16/32	30°	SAE



Flange Mounting face for Suction Port



	(mm)	
	GEAR PUMP	MAIN PUMP
a	26.2	58.7
b	52.4	30.2
c	25 SAE J518-1	33 SAE J518 1 1/4
d	M10x1.5P DP17	M10x1.5P DP17



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
HVD-2B-50 (ZX60-5G)	140	253	13	146	174	101	209	160	109	102	25	88	15.7	7	160	253	336	53	352	32	28

HVK-2B-385/505-N(2-STAGE) FOR HITACHI SWASH PLATE TYPE PISTON PUMP

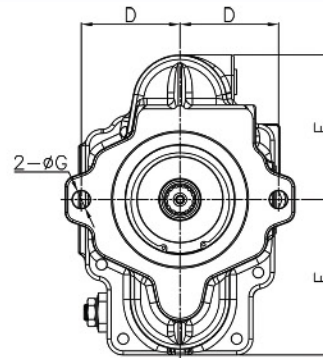
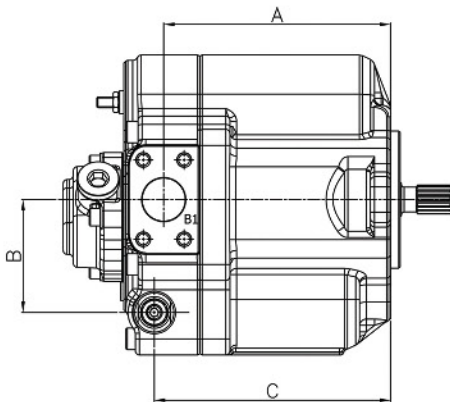
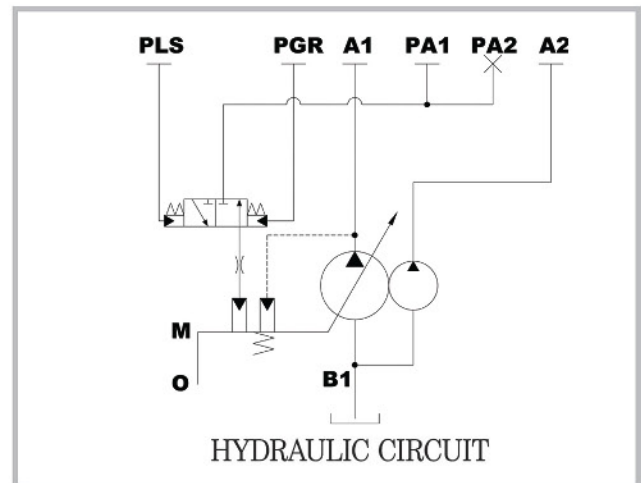
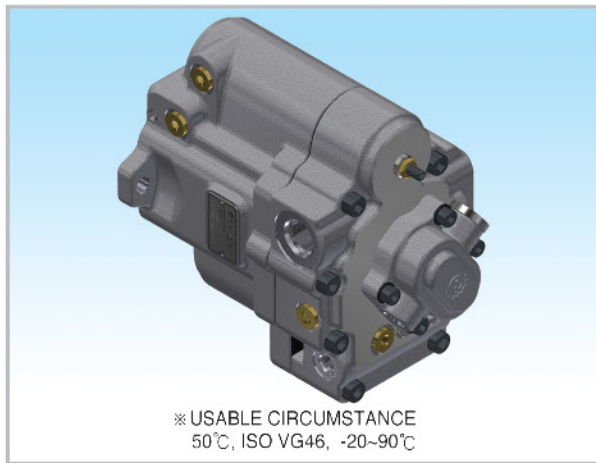


SPECIFICATIONS

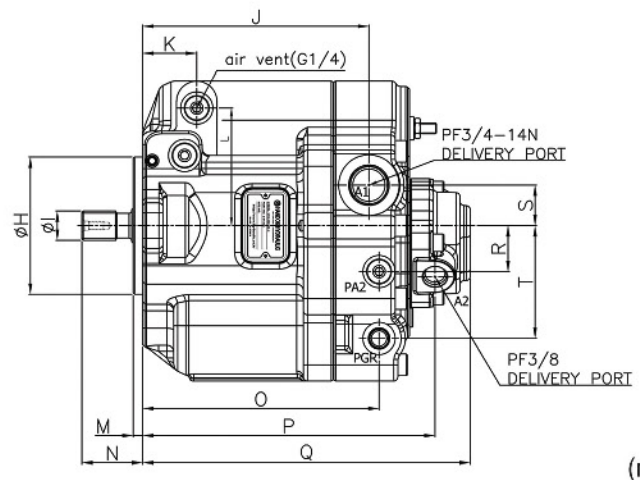
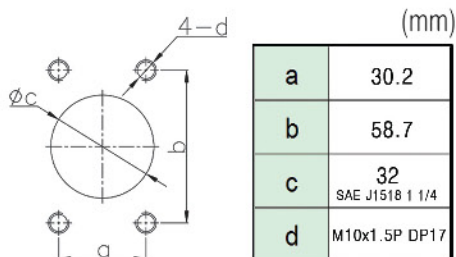
MODEL	HVK-2B-385/505-N (2-STAGE)
Discharge Rate(cc/rev)	50
Max. Pressure (kg/cm²)	260
Max. Speed (rpm)	2400

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVK-2B-385/505-N (2-STAGE)	13	20.64	16/32	30°	SAE J744



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
HVK-2B-385/505-N (2-STAGE)	168	83.5	175	73	107	115	13	101.6	21.7	168	40	87	7	45	175	217	243	34	30	83.5

HVK-2B-385/505-CN(3-STAGE)-POWER SHIFT FOR HITACHI SWASH PLATE TYPE PISTON PUMP

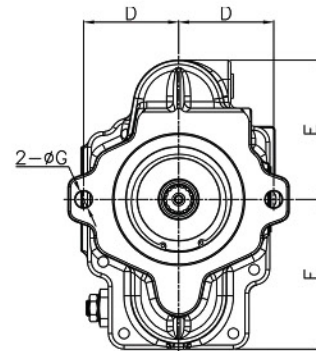
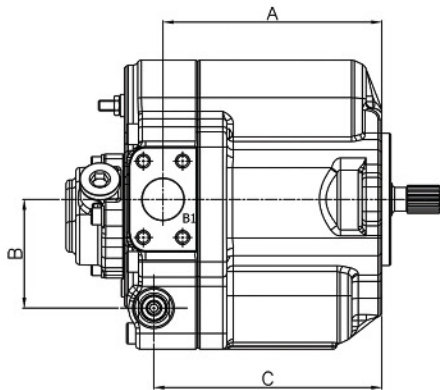
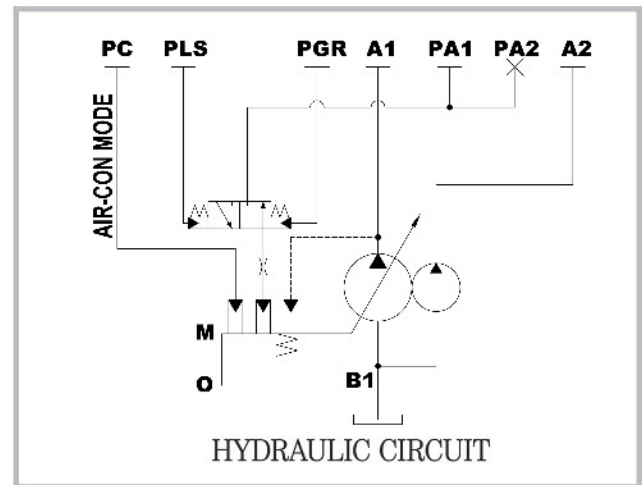
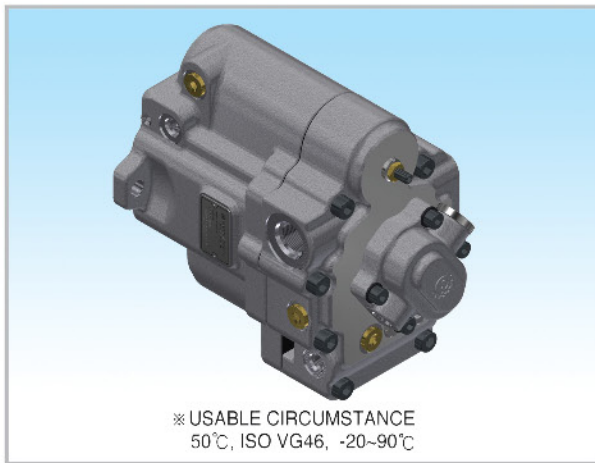


SPECIFICATIONS

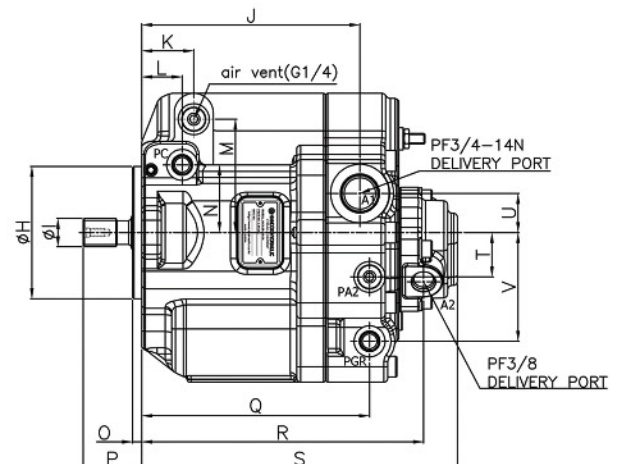
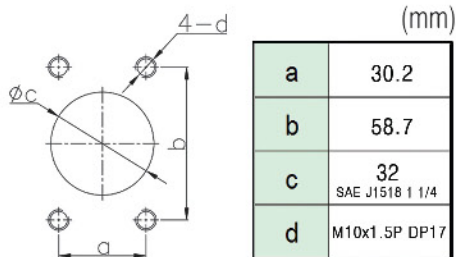
MODEL	HVK-2B-385/505-CN (POWER SHIFT TYPE)
Discharge Rate(cc/rev)	50
Max. Pressure (kg/cm²)	260
Max. Speed (rpm)	2400

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HVK-2B-385/505-CN (POWER SHIFT TYPE)	13	20.64	16/32	30°	SAE J744



Flange Mounting face for Suction Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
HVK-2B-385/505-CN (POWER SHIFT TYPE)	168	83.5	175	73	107	115	13	101.6	21.7	168	40	31	87	52	7	45	175	217	243	34	30	83.5

LPD45 FOR KOMATSU SWASH PLATE TYPE PISTON PUMP

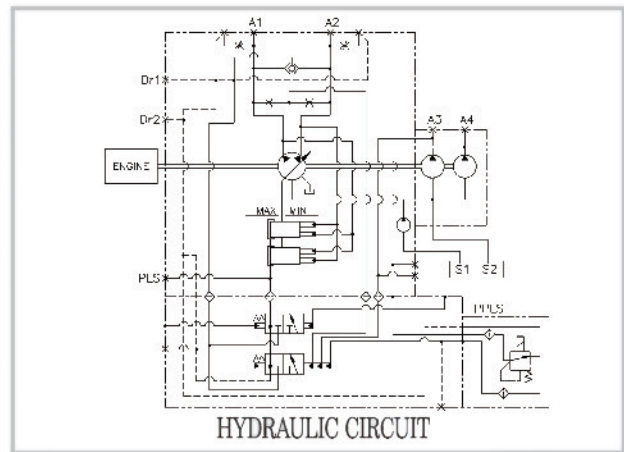
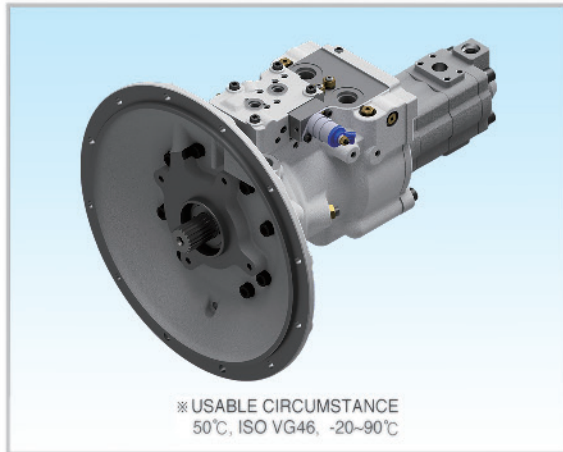


SPECIFICATIONS

MODEL	LPD45 (PC60-8,70UU,70-8,75-3,78,78US-6,88)
Discharge Rate(cc/rev)	43.2
Max. Pressure (kg/cm ²)	270
Max. Speed (rpm)	1,850

Dimensions of Shaft End(Spline Type)

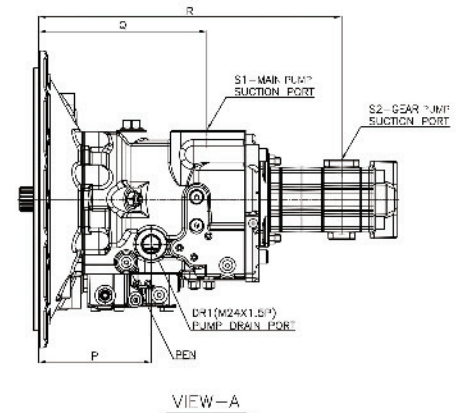
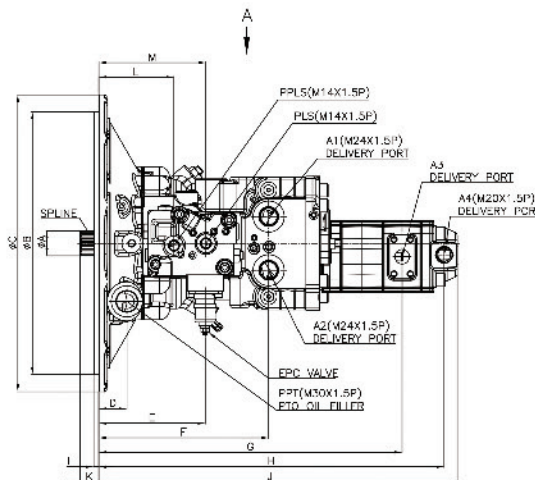
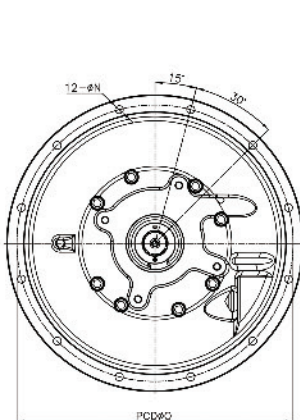
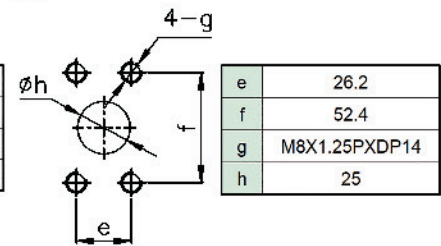
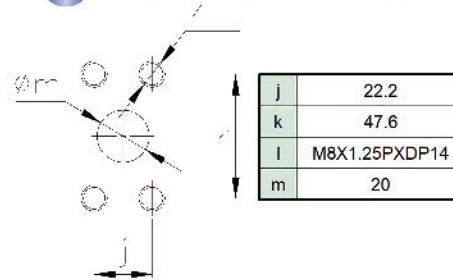
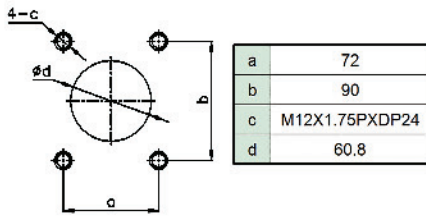
MODEL	No of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
LPD45 (PC60-8,70UU,70-8,75-3,78,78US-6,88)	19	31.667	1.667	20°	JIS



Flange Mounting face for Suction Port -S1

Flange Mounting face for Delivery Port

Flange Mounting face for Suction Port -S2



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
LPD45 (PC60-8,70UU,70-8,75-3,78,78US-6,88)	34.5	361.95	409	38.8	146.8	234.3	417.8	475.8	7	493.8	26	103.8	147.8	11	381	155.3	232	417.8

HPV95A FOR KOMATSU

LOAD SENSING & HORSE POWER CONTROL

SWASH PLATE TYPE PISTON PUMP

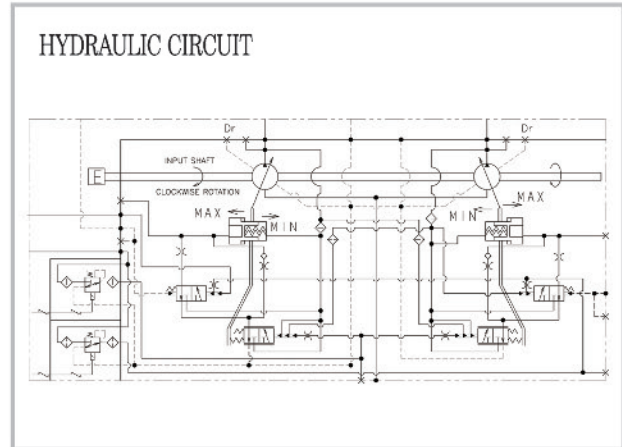
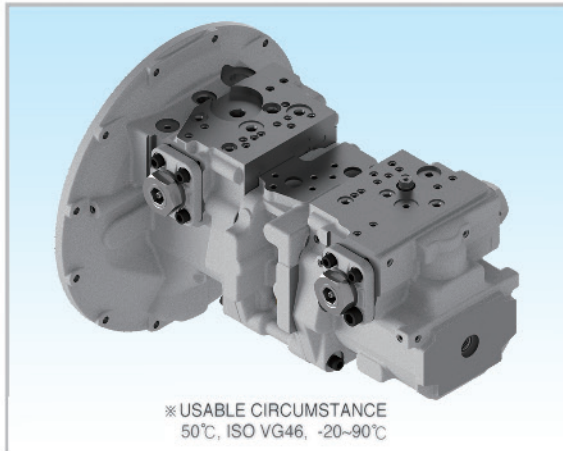


SPECIFICATIONS

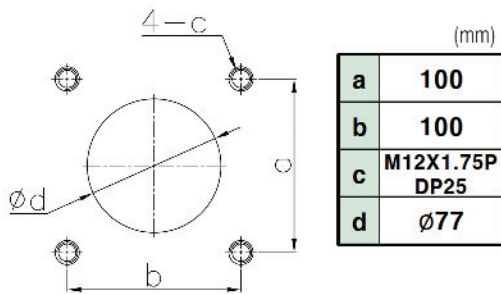
MODEL	HPV95A (FOR KOMATSU)
Discharge Rate(cc/rev)	95+95
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000

Dimensions of Shaft End(Spline Type)

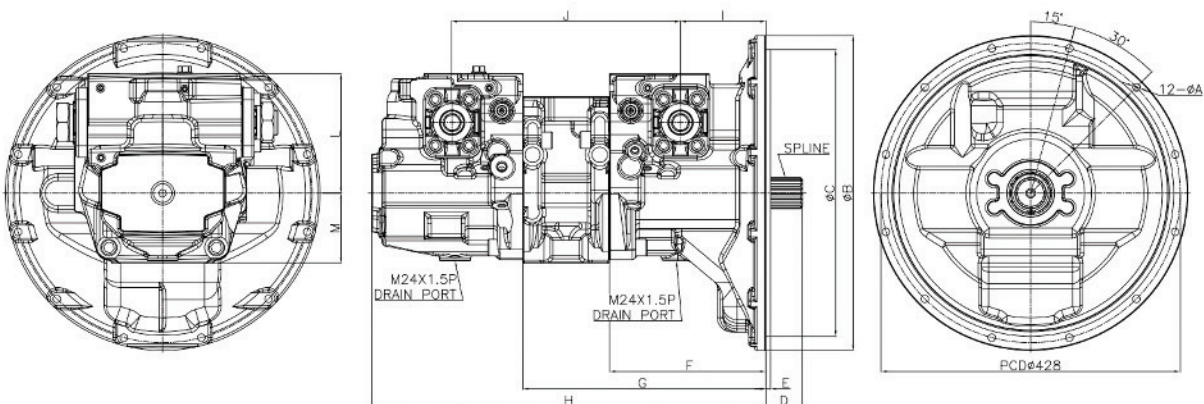
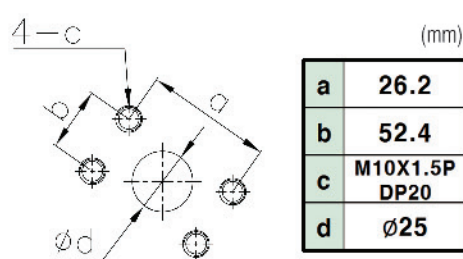
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPV95A (FOR KOMATSU)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
HPV95A (FOR KOMATSU)	11	450	409.6	52.3	7	223	347	563	122	327	170.5	100

(mm)

HPV95H FOR KOMATSU

LOAD SENSING & HORSE POWER CONTROL

SWASH PLATE TYPE PISTON PUMP

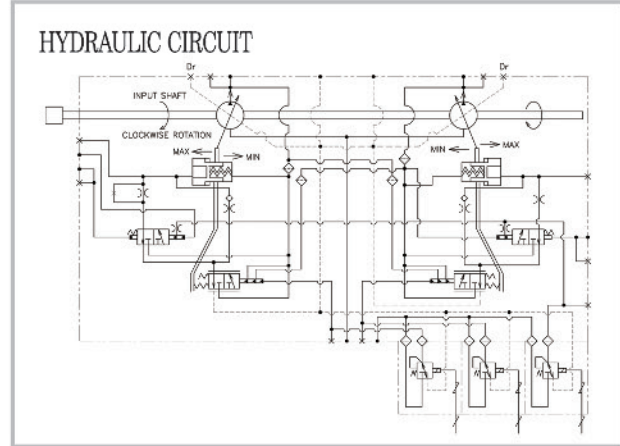
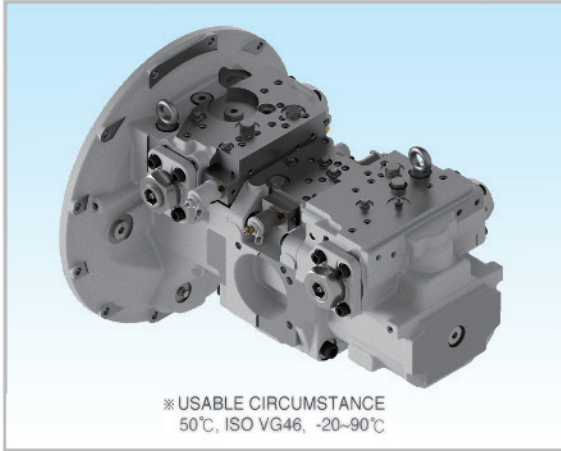


SPECIFICATIONS

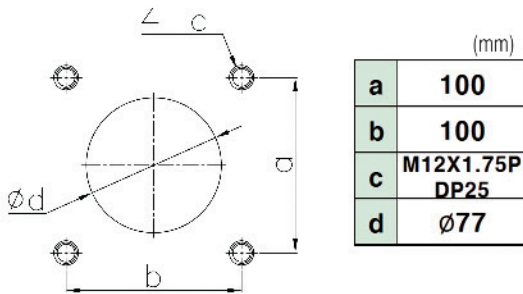
MODEL	HPV95H (FOR KOMATSU)
Discharge Rate(cc/rev)	95+95
Max. Pressure (kg/cm ²)	350
Max. Speed (rpm)	2,000

Dimensions of Shaft End(Spline Type)

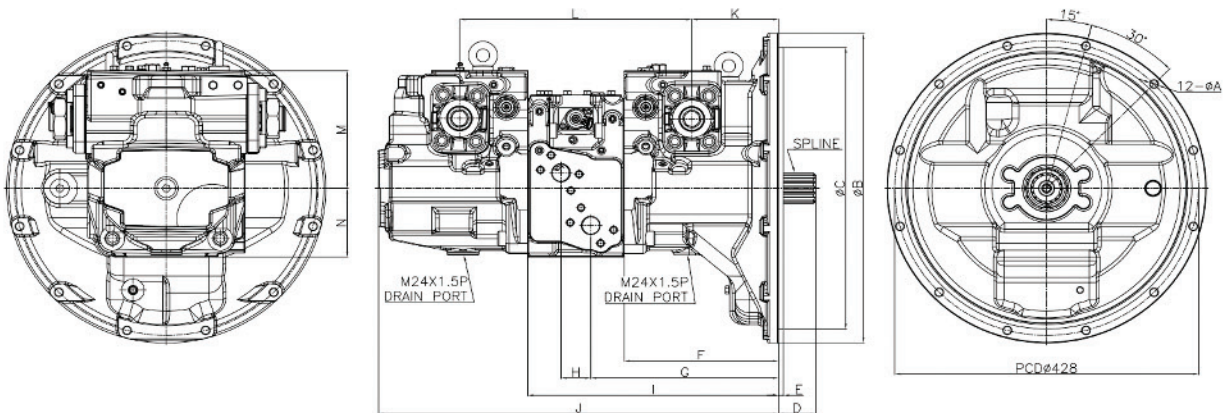
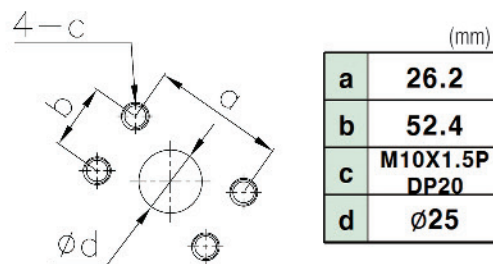
MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPV95H (FOR KOMATSU)	16	40	2.5	20°	JIS B 1603 :1995



Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HPV95H (FOR KOMATSU)	11	450	409.69	52.3	7	217	264	42	353	563	122	327	170.5	100

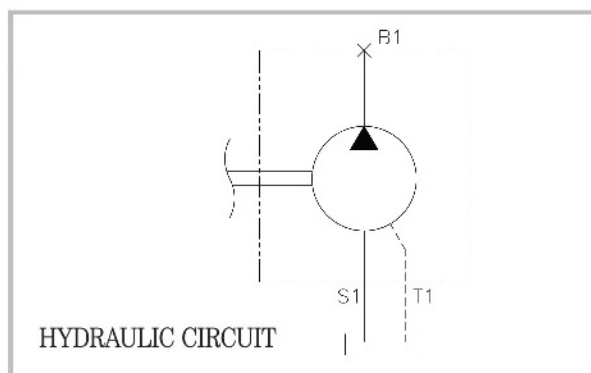
(mm)

H2FO10/12/16 BENT AXIS TYPE AXIAL PISTON PUMPS



SPECIFICATIONS

MODEL	H2FO10	H2FO12	H2FO16
Discharge Rate (cc/rev)	10	12	16
Max. Pressure (kg/cm ²)	400		
Max. Speed (rpm)	3150		

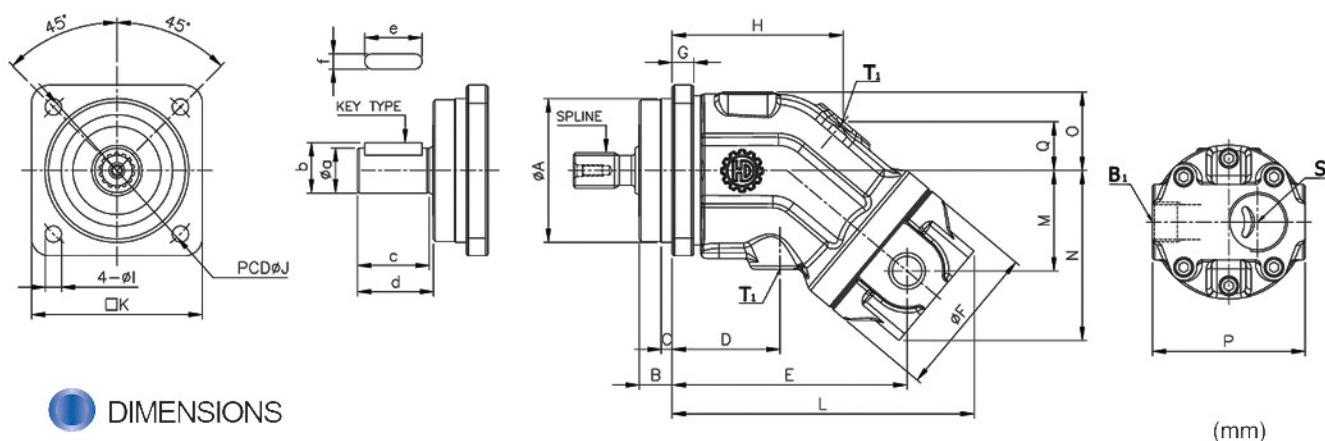


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H2FO10/12/16	18	22.5	1.25	30	DIN 5480
H2FO10/12	14	17.5	1.25	30	DIN 5480

Dimensions of Shaft End (Key Type)

MODEL	a	b	c	d	e	f	Standard
H2FO10/12	20	22.5	39	40	32	6	DIN 6885
H2FO10/12/16	25	28	39	40	32	8	DIN 6885



DIMENSIONS

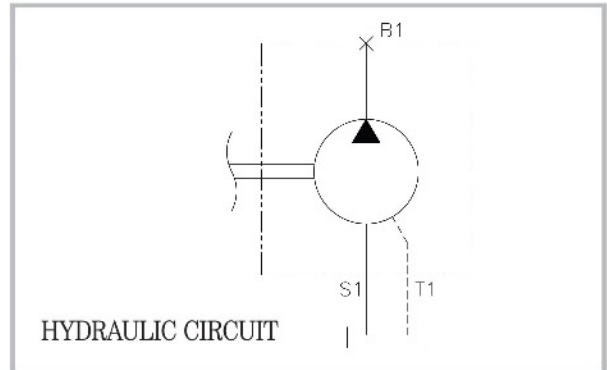
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	T1	B1	S1
H2FO10/12/16	80	18.2	6	60	131	85	12	95	9	100	95	168	56	95	44	140	29	M12X1.5	M22X1.5	M33X2.0

H2FO23/28/32 BENT AXIS TYPE AXIAL PISTON PUMPS



SPECIFICATIONS

MODEL	H2FO23	H2FO28	H2FO32
Discharge Rate (cc/rev)	23	28	32
Max. Pressure (kg/cm ²)	400		
Max. Speed (rpm)	2500		

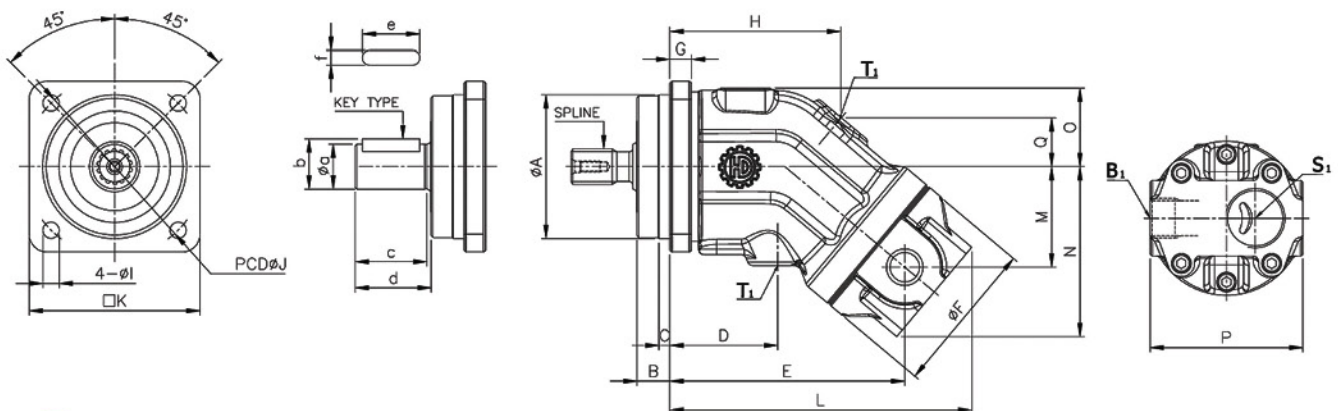


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia(mm)	Module	Pressure Angle	Standard
H2FO23/28/32	14	28	2	30	DIN 5480
H2FO23/28	18	22.5	1.25	30	DIN 5480

Dimensions of Shaft End (Key Type)

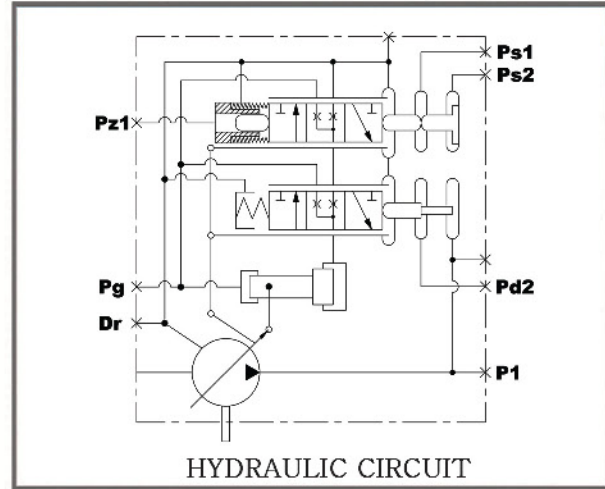
MODEL	a	b	c	d	e	f	Standard
H2FO23/28	25	28	49	50	40	8	DIN 6885
H2FO23/28/32	30	33	49	50	40	8	DIN 6885



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	T1	B1	S1
H2FO23/28/32	100	23.2	8	42	144	106	18	106	11	125	118	193	70	120	55	120	25	M16X1.5	M27X2.0P	M42X2.0P

HPV116/145 FOR HITACHI / JOHN DEERE BENT AXIS TYPE AXIAL PISTON PUMPS



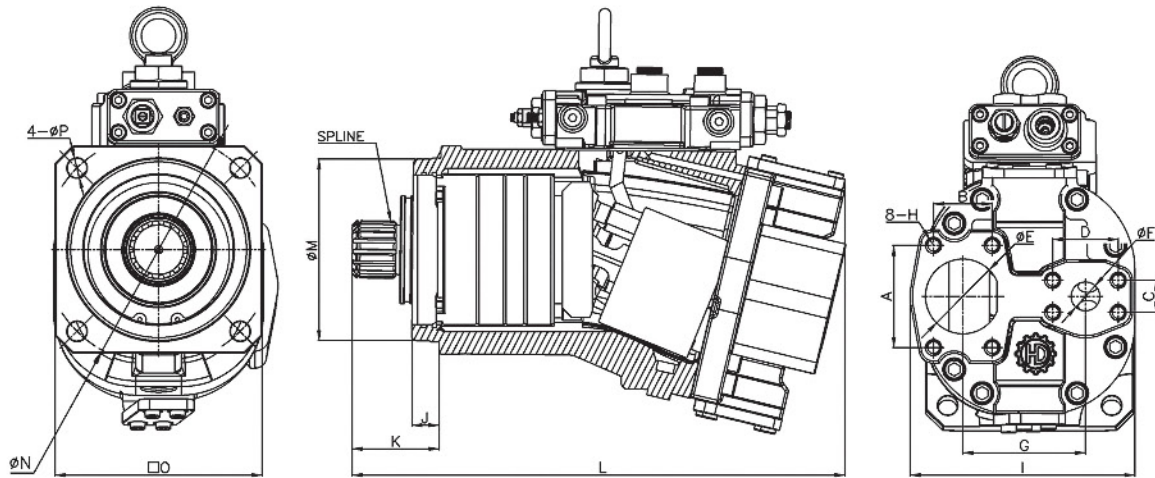
SPECIFICATION

MODEL	HPV116	HPV145
Discharge Rate (cc/rev)	116	145
Max. Pressure (kg/cm ²)	350	
Max. Speed (rpm)	2000	

※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia (mm)	Module	Pressure angle	Standard
HPV116	15	47.6	DP8/16	30°	ANSI B92.1b :1970
HPV145					



Flange Mounting face for Suction & Delivery port

(mm)

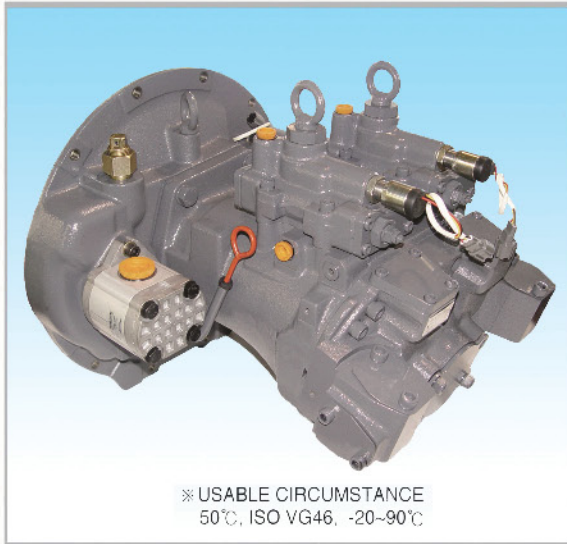
MODEL	A	B	C	D	E	F	G	H
HPV116	89	51	28	57	65	25	107	M12X1.75P Dp30
HPV145					64	26	114.5	M12X1.75P Dp25

DIMENSIONS

(mm)

MODEL	I	J	K	L	M	N	O	P
HPV116	197.7	24	73.6	432	160	∅200.8	180	17
HPV145	208	21	75.5	458.5	184	∅220.6	200	

HPVO102 FOR HITACHI / JOHN DEERE BENT AXIS TYPE AXIAL PISTON PUMP

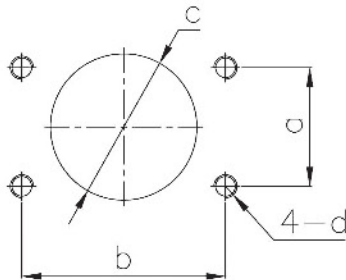


SPECIFICATIONS

MODEL	HPVO102
Discharge Rate (cc/rev)	102
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	2000

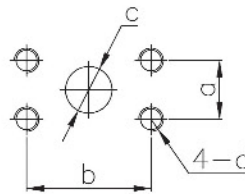
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPVO102	15	37.5	2.5	20°	JIS B 1603 : 1995



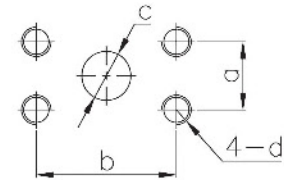
Flange Mounting face for Suction Port (mm)

MODEL	a	b	c	d
HPVO 102	62	106.4	∅76.5	M12X1.75P



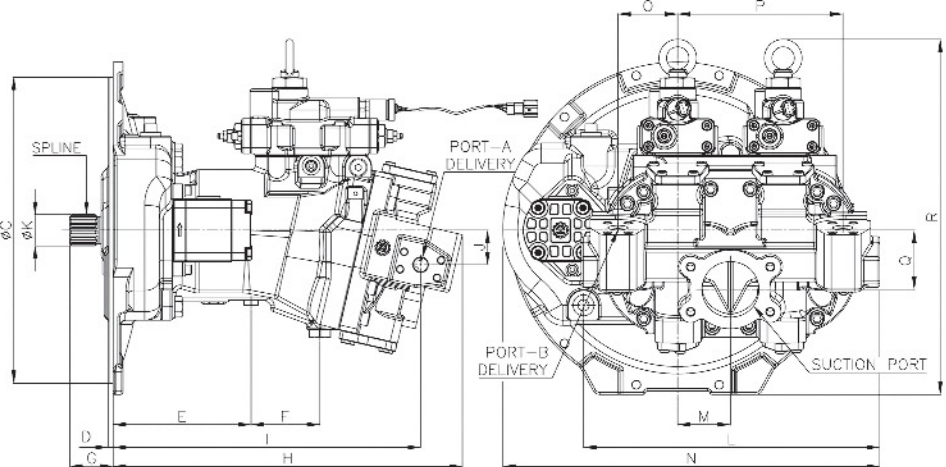
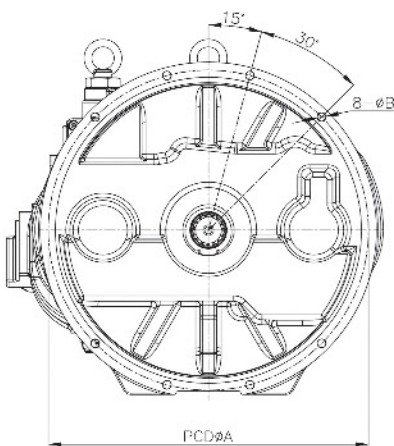
Flange Mounting face for Delivery Port-A (mm)

MODEL	a	b	c	d
HPVO 102	24	50.8	∅19	M10X1.5P



Flange Mounting face for Delivery Port-B (mm)

MODEL	a	b	c	d
HPVO 102	27.8	57.2	∅20	M12X1.75P

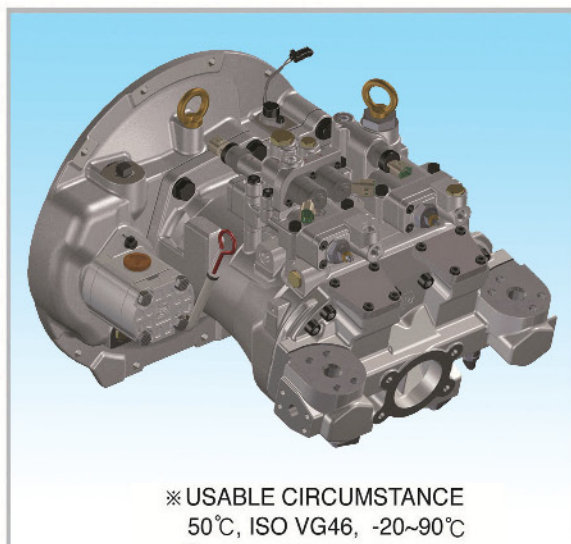


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
HPVO102	428.5	11.3	409.6	6.5	184.5	92	58	467	411.3	46.3	42	396.5	70.6	504	80	221	79.3	477

HPVO118 FOR HITACHI / JOHN DEERE BENT AXIS TYPE AXIAL PISTON PUMP

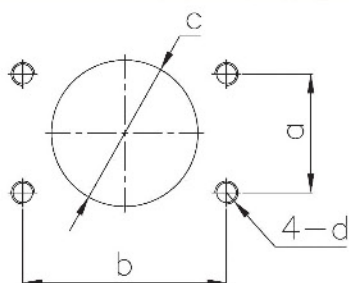


SPECIFICATIONS

MODEL	HPVO118
Discharge Rate (cc/rev)	118
Max. Pressure (kg/cm²)	350
Max. Speed (rpm)	2000

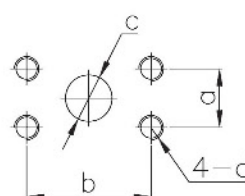
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HPVO118	15	37.5	2.5	20°	JIS B 1603 : 1995



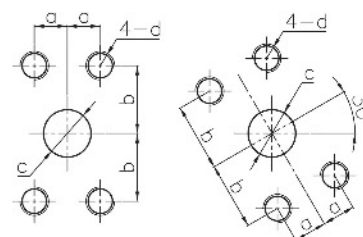
Flange Mounting face for Suction Port (mm)

MODEL	a	b	c	d
HPVO118	62	106.4	∅76.5	M12X1.75P



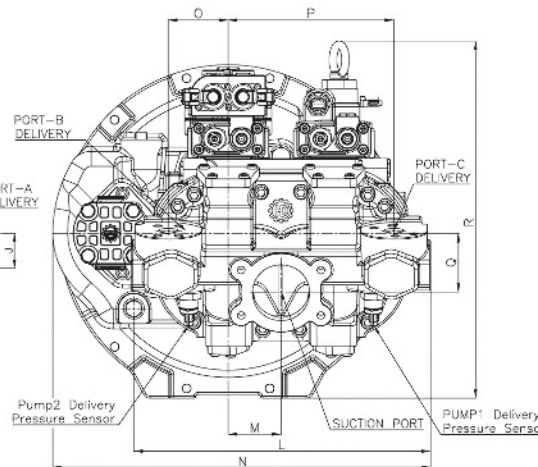
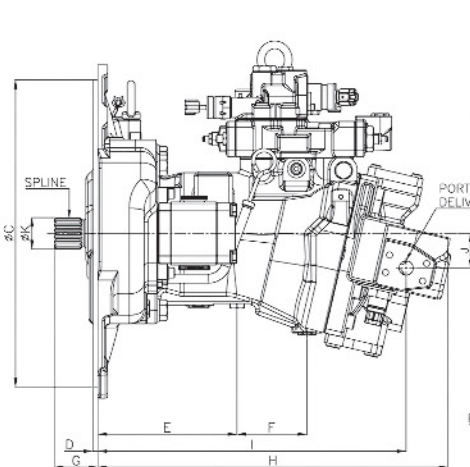
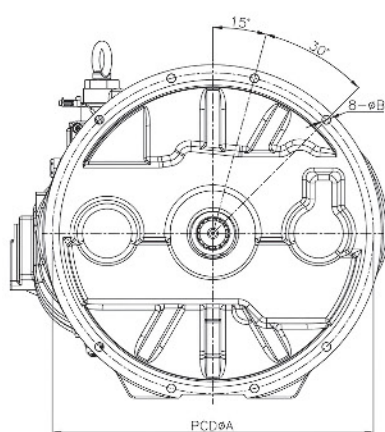
Flange Mounting face for Delivery Port-A (mm)

MODEL	a	b	c	d
HPVO118	24	50.8	∅19	M10X1.5P



Flange Mounting face for Delivery Port-B&C (mm)

MODEL	a	b	c	d
HPVO118	27.8	57.2	∅20	M12X1.75P

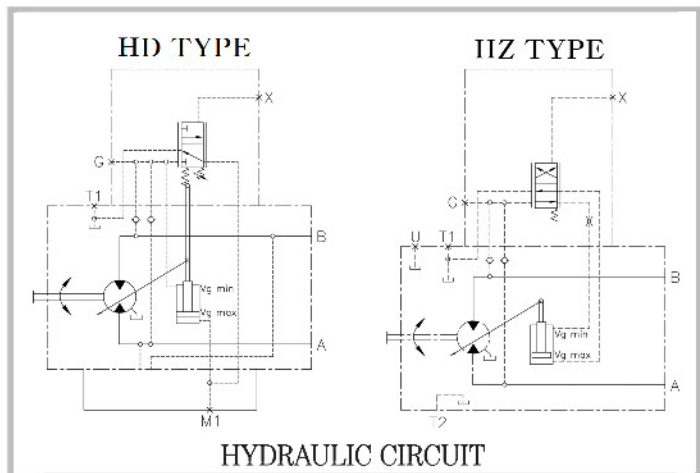
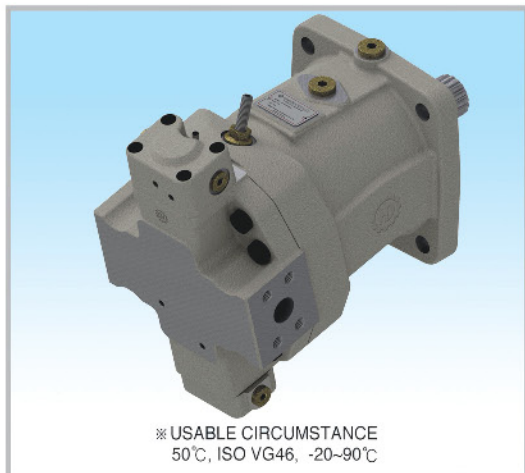
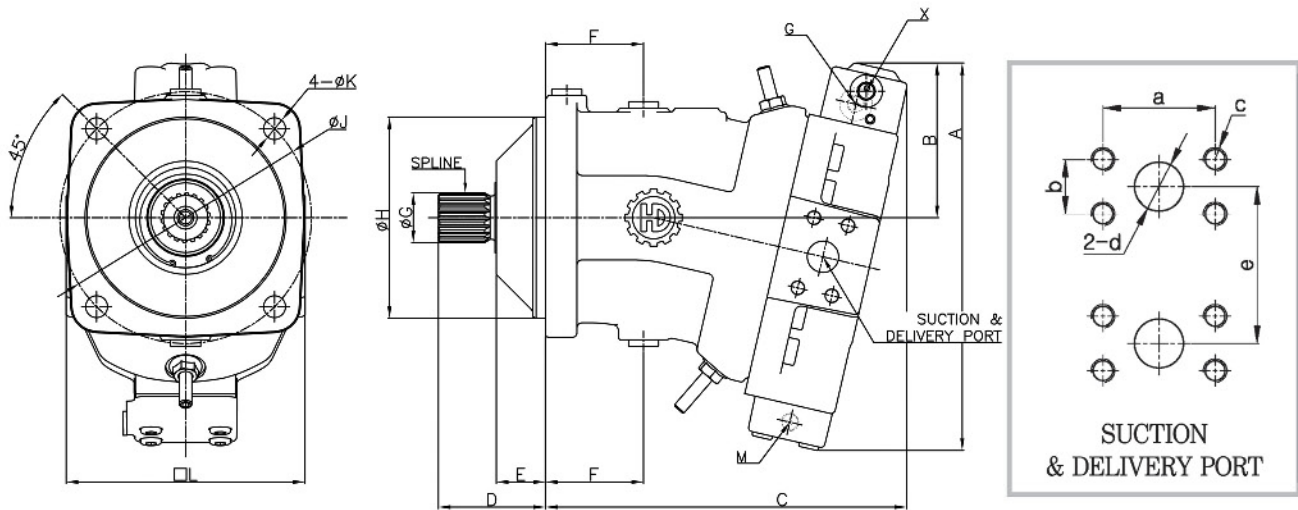


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
HPVO118	428.5	11.3	409.6	6.5	184.5	92	58	467	411.3	46.3	42	396.5	70.6	504	80	221	79.3	477

H6VM55/80/107/160/200/250 - FOR HD TYPE BENT AXIS TYPE AXIAL PISTON MOTORS



Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e
H6VM55	50.8	23.8	M10x1.5P Dp20	19	108
H6VM80	57.2	27.8	M12x1.75P Dp20	25	108
H6VM107	57.2	27.8	M12x1.75P Dp20	25	130
H6VM160	66.7	31.8	M14x2.0P Dp20	32	152
H6VM200	66.7	31.8	M14x2.0P Dp20	32	164
H6VM250	66.7	31.8	M14x2.0P Dp20	32	112

SPECIFICATIONS

MODEL	DISPLACEMENT (cc/rev)		MAX PRESSURE (Kg/cm ²)	TORQUE (Nm)	R.P.M		FLOW MAX (L/min)
	MAX	MIN			MAX	MIN	
H6VM55	55	35	350	349	4450	7000	244
H6VM80	80	51		509	3900	6150	312
H6VM107	107	68		681	3500	5600	380
H6VM160	160	101		1019	3100	4900	496
H6VM200	200	126		1273	2900	4600	580
H6VM250	250	188		1391	2700	3600	675

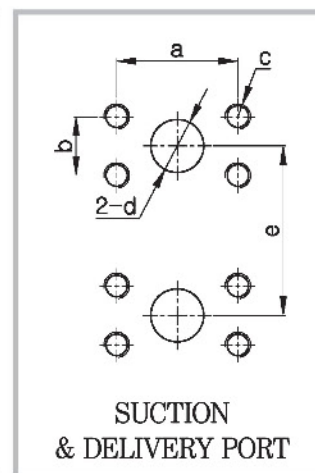
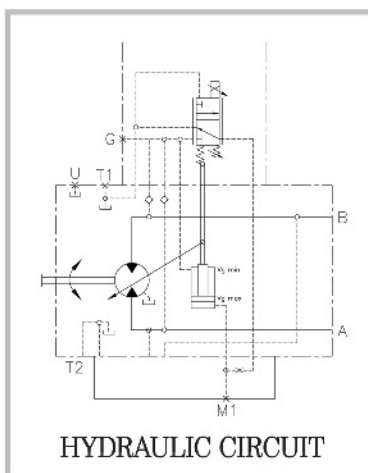
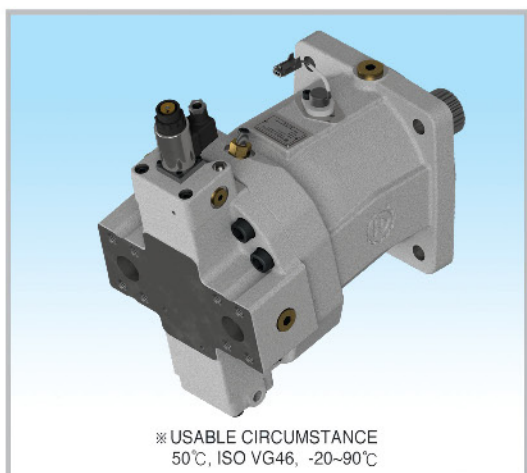
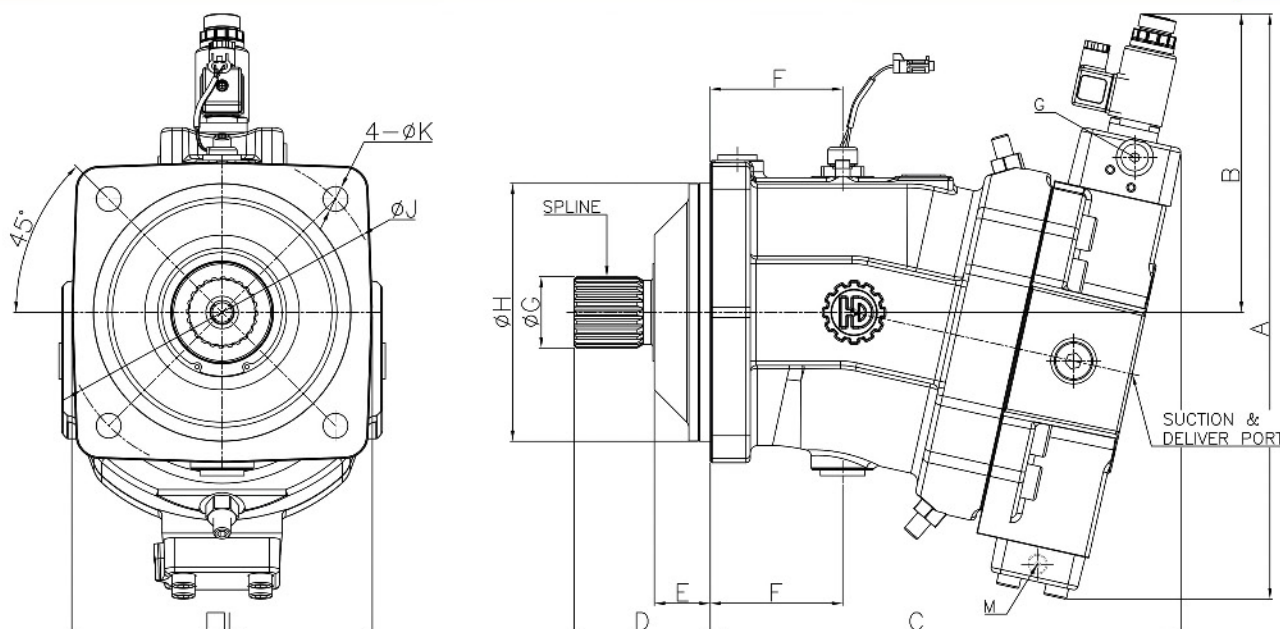
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
H6VM55	14	28	2.0	30°
H6VM80	16	32	2.0	30°
H6VM107	18	36	2.0	30°
H6VM160	24	48	2.0	30°
H6VM200	24	48	2.0	30°
H6VM250	24	48	2.0	30°

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
H6VM55	262	111	238	67	31	67	30	125	160	13.5	150
H6VM80	283	116	269	72	31	76	35	140	180	13.5	165
H6VM107	304	123	289	85	39	78	40	160	200	17.5	190
H6VM160	331	129	328	95	39	92.5	50	180	224	17.5	210
H6VM200	352	143	345	95	39	96	50	200	250	22	236
H6VM250	449	189	383	108	48	82	50	200	250	22	236

H6VM55/80/107/160/200/250 - FOR EP TYPE BENT AXIS TYPE AXIAL PISTON MOTORS



Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e
H6VM55	50.8	23.8	M10x1.5P Dp20	19	108
H6VM80	57.2	27.8	M12x1.75P Dp20	25	108
H6VM107	57.2	27.8	M12x1.75P Dp20	25	130
H6VM160	66.7	31.8	M14x2.0P Dp20	32	152
H6VM200	66.7	31.8	M14x2.0P Dp20	32	164
H6VM250	66.7	31.8	M14x2.0P Dp20	32	112

SPECIFICATIONS

MODEL	DISPLACEMENT (cc/rev)		MAX PRESSURE (Kg/cm ²)	TORQUE (Nm)	R.P.M		FLOW MAX (L/min)
	MAX	MIN			MAX	MIN	
H6VM55	55	35	350	349	7000	4450	244
H6VM80	80	51		509	6150	3900	312
H6VM107	107	68		681	5600	3500	380
H6VM160	160	101		1019	4900	3100	496
H6VM200	200	126		1273	4600	2900	580
H6VM250	250	188		1391	3600	2700	675

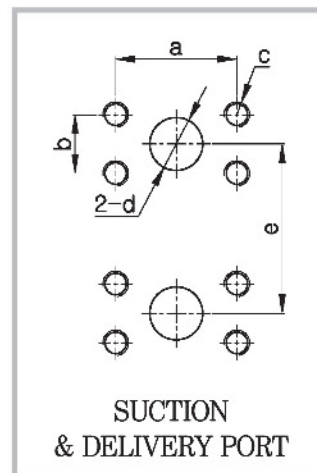
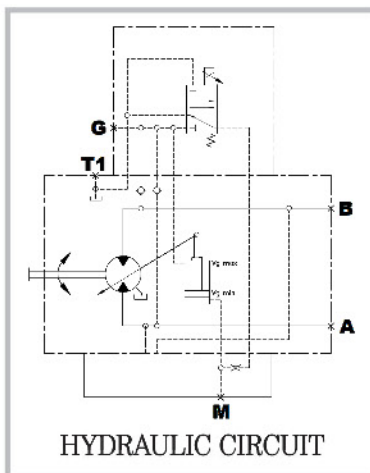
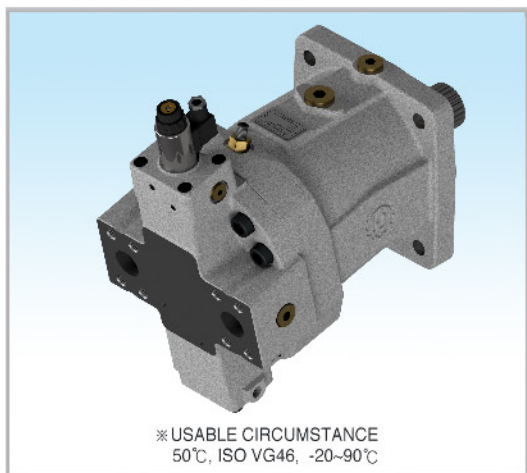
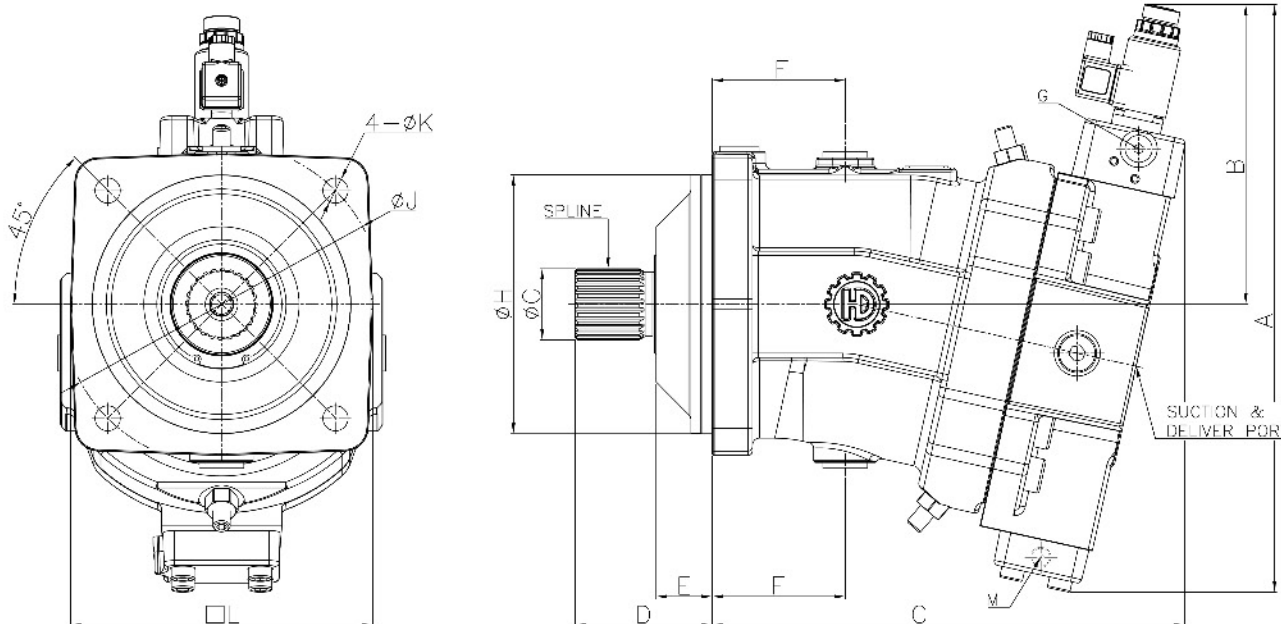
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
H6VM55	14	28	2.0	30°
H6VM80	16	32	2.0	30°
H6VM107	18	36	2.0	30°
H6VM160	24	48	2.0	30°
H6VM200	24	48	2.0	30°
H6VM250	24	48	2.0	30°

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
H6VM55	327	176	243	67	31	67	30	125	160	13.5	150
H6VM80	349	182	271	72	31	76	35	140	180	13.5	165
H6VM107	362	187	287	85	39	78	40	160	200	17.5	190
H6VM160	408	195	328	95	39	92.5	50	180	224	17.5	210
H6VM200	408	199	346	95	39	96	50	200	250	22	236
H6VM250	436	188	383	108	48	82	50	200	250	22	236

H6VM55/80/107/160/200/250 - FOR EZ TYPE BENT AXIS TYPE AXIAL PISTON MOTORS



Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e
H6VM55	50.8	23.8	M10x1.5P Dp20	19	75
H6VM80	57.2	27.8	M12x1.75P Dp20	25	84
H6VM107	57.2	27.8	M12x1.75P Dp20	25	84
H6VM160	66.7	31.8	M14x2.0P Dp20	32	152
H6VM200	66.7	31.8	M14x2.0P Dp20	32	164
H6VM250	66.7	31.8	M14x2.0P Dp20	32	112

SPECIFICATIONS

MODEL	DISPLACEMENT (cc/rev)		MAX PRESSURE (Kg/cm ²)	TORQUE (Nm)	R.P.M		FLOW MAX (L/min)
	MAX	MIN			MAX	MIN	
H6VM55	55	35	350	349	7000	4450	244
H6VM80	80	51		509	6150	3900	312
H6VM107	107	68		681	5600	3500	380
H6VM160	160	101		1019	4900	3100	496
H6VM200	200	126		1273	4600	2900	580
H6VM250	250	188		1391	3600	2700	675

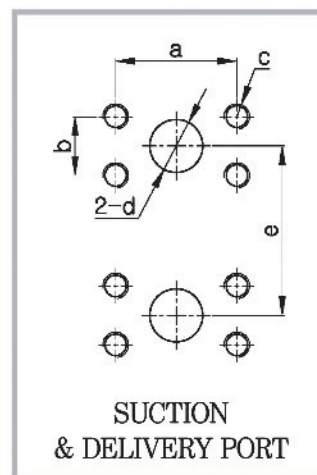
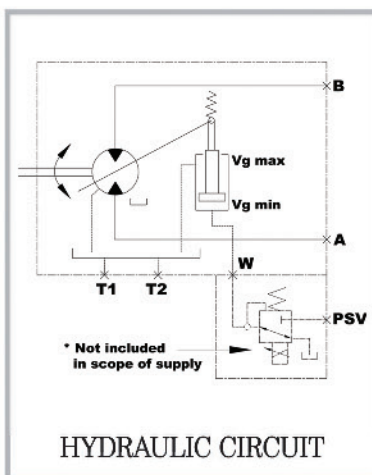
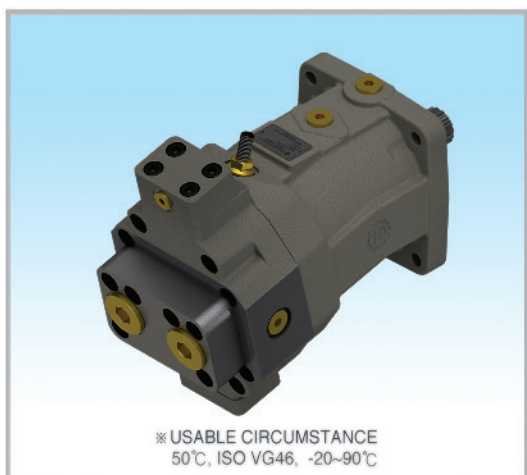
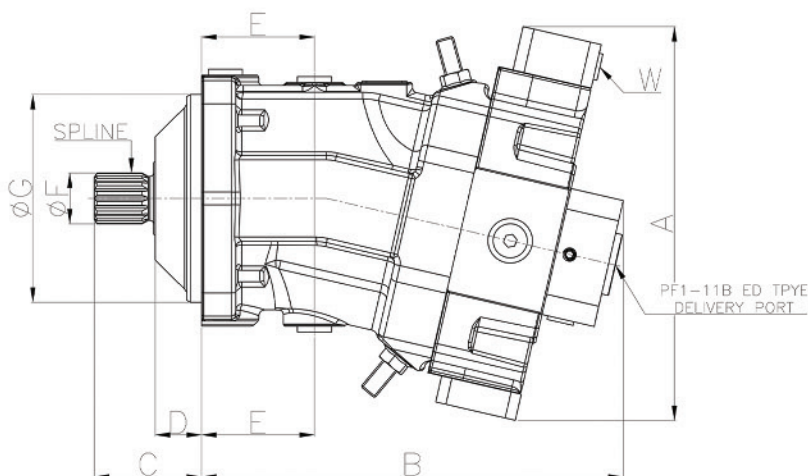
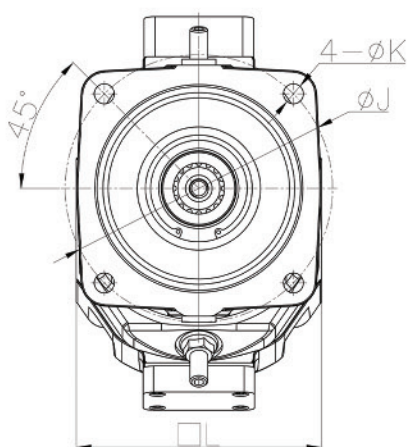
Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
H6VM55	14	28	2.0	30°
H6VM80	16	32	2.0	30°
H6VM107	18	36	2.0	30°
H6VM160	24	48	2.0	30°
H6VM200	24	48	2.0	30°
H6VM250	24	48	2.0	30°

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
H6VM55	327	176	243	67	31	67	30	125	160	13.5	150
H6VM80	349	182	271	72	31	76	35	140	180	13.5	165
H6VM107	362	187	287	85	39	78	40	160	200	17.5	190
H6VM160	408	195	328	95	39	92.5	50	180	224	17.5	210
H6VM200	408	199	346	95	39	96	50	200	250	22	236
H6VM250	436	188	383	108	48	82	50	200	250	22	236

H6VM55/80/107/160/200/250 FOR HJ TYPE BENT AXIS TYPE AXIAL PISTON MOTORS



Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e
H6VM55	50.8	23.8	M10x1.5P Dp20	19	108
H6VM80	57.2	27.8	M12x1.75P Dp20	25	108
H6VM107	57.2	27.8	M12x1.75P Dp20	25	130
H6VM160	66.7	31.8	M14x2.0P Dp20	32	152
H6VM200	66.7	31.8	M14x2.0P Dp20	32	164
H6VM250	66.7	31.8	M14x2.0P Dp20	32	112

SPECIFICATIONS

MODEL	DISPLACEMENT (cc/rev)		NORMAL PRESSURE (Kg/cm ²)	TORQUE (Nm)	R.P.M		FLOW MAX (L/min)
	MAX	MIN			MAX	MIN	
H6VM55	55	35	350	349	4450	7000	244
H6VM80	80	51		509	3900	6150	312
H6VM107	107	68		681	3500	5600	380
H6VM160	160	101		1019	3100	4900	496
H6VM200	200	126		1273	2900	4600	580
H6VM250	250	188		1391	2700	3600	675

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle
H6VM55	14	28	2.0	30°
H6VM80	16	35	2.0	30°
H6VM107	18	40	2.0	30°
H6VM160	21	45	2.0	30°
H6VM200	24	48	2.0	30°
H6VM250	24	48	2.0	30°

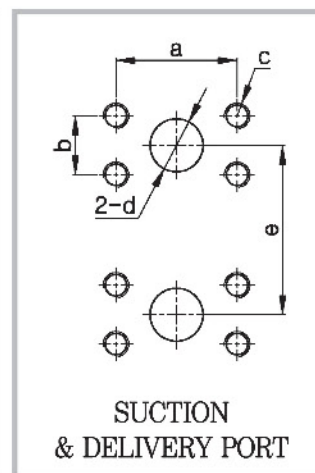
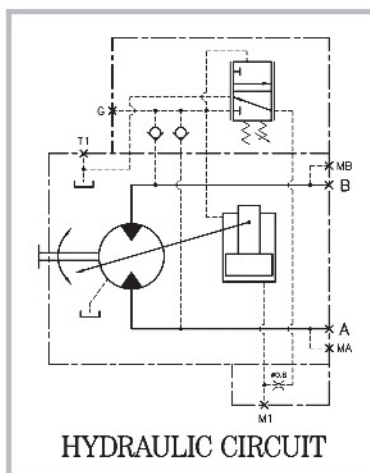
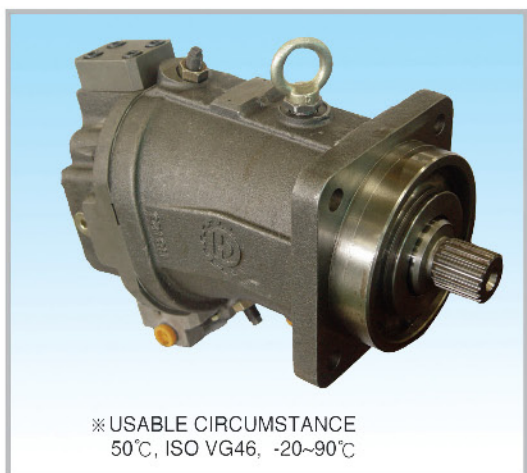
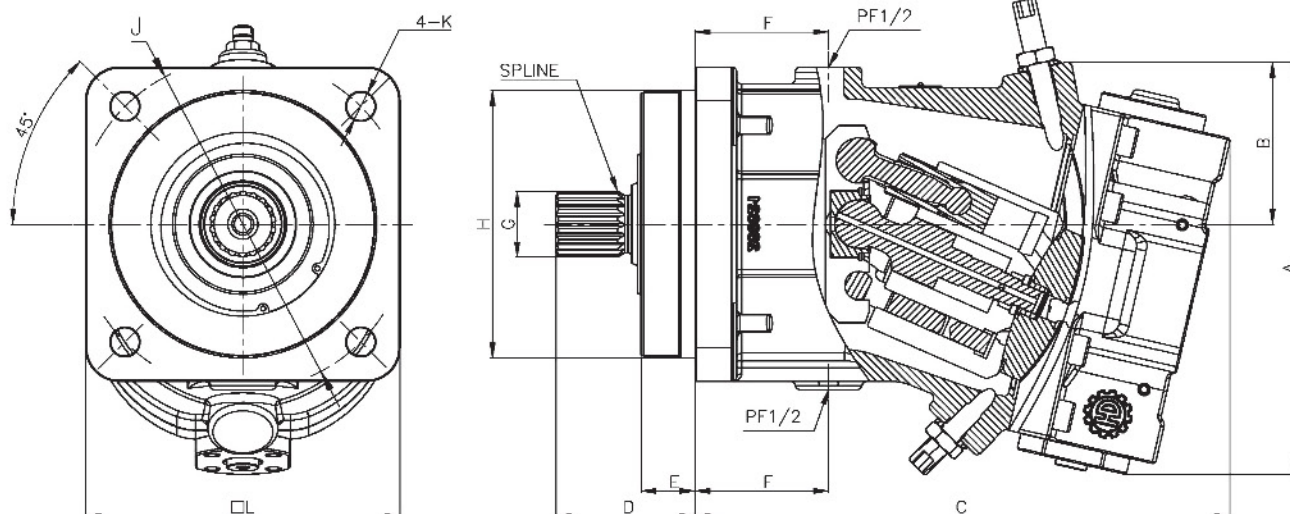
DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
H6VM55	262	256	71	31	16	67	35	125	160	13.5	150
H6VM80	265	283	72	31	16	76	35	140	180	13.5	165
H6VM107	280	302	85	39	17	78	40	160	200	17.5	190
H6VM160	303	334	95	39	19	93	45	180	224	17.5	210
H6VM200	352	361	95	39	19	96	50	200	250	17.5	236
H6VM250	449	399	108	48	22	82	50	200	245	17.5	236

H6VM55/80/107/160/200/250 BENT AXIS TYPE AXIAL PISTON MOTORS



CONNECT ROD TYPE



Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e
H6VM55	50.8	23.8	M10x1.5P Dp20	19	108
H6VM80	57.2	27.8	M12x1.75P Dp20	25	108
H6VM107	57.2	27.8	M12x1.75P Dp20	25	130
H6VM160	66.7	31.8	M14x2.0P Dp20	32	152
H6VM200	66.7	31.8	M14x2.0P Dp20	32	164
H6VM250	66.7	31.8	M14x2.0P Dp20	32	112

SPECIFICATIONS

MODEL	DISPLACEMENT (cc/rev)		MAX PRESSURE (Kg/cm ²)	TORQUE (Nm)	R.P.M		FLOW MAX (L/min)
	MAX	MIN			MAX	MIN	
H6VM55	55	35	350	349	7000	4450	244
H6VM80	80	51		509	6150	3900	312
H6VM107	107	68		681	5600	3500	380
H6VM160	160	101		1019	4900	3100	496
H6VM200	200	126		1273	4600	2900	580
H6VM250	250	188		1391	3600	2700	675

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia.(mm)	Module	Pressure angle
H6VM55	14	28	2.0	30°
H6VM80	16	32	2.0	30°
H6VM107	18	36	2.0	30°
H6VM160	24	48	2.0	30°
H6VM200	24	48	2.0	30°
H6VM250	24	48	2.0	30°

DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	J	K	L
H6VM55	225	90	280	65	25	67	∅30	∅125	∅160	∅13.5	150
H6VM80	240	95	300	72	25	75	∅35	∅140	∅180	∅13.5	165
H6VM107	255	100	320	83	32	80	∅39.5	∅160	∅200	∅17.5	190
H6VM160	292	107	360	90	32	92	∅45	∅180	∅224	∅17.5	210
H6VM200	352	143	345	95	39	96	∅49.6	∅200	∅250	∅22	236
H6VM250	441	189	372	108	48	82	∅50	∅200	∅250	∅22	236

HBF90M-K BENT AXIS TYPE AXIAL PISTON MOTOR



※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

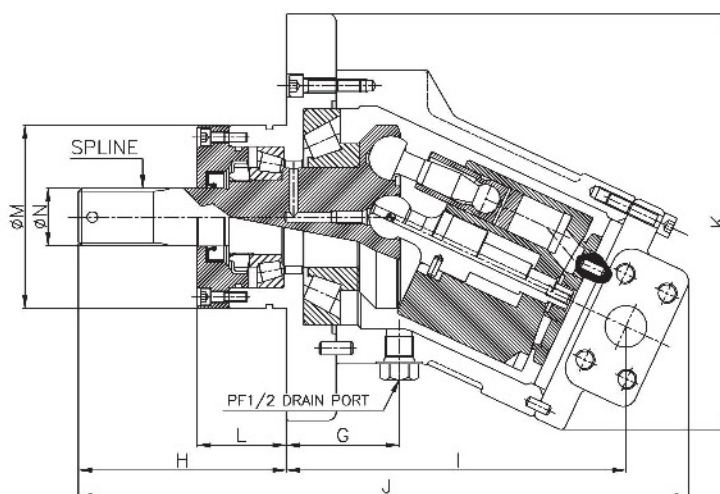
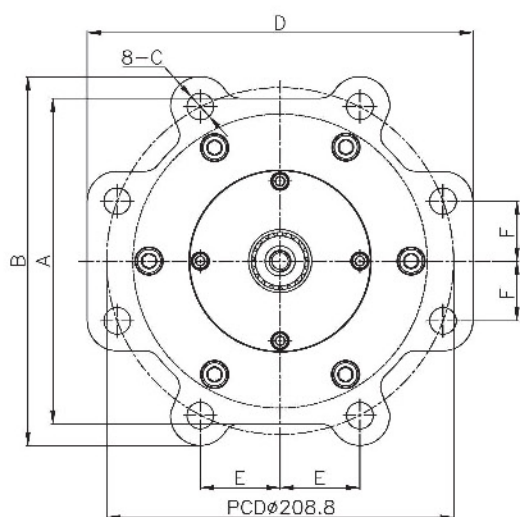
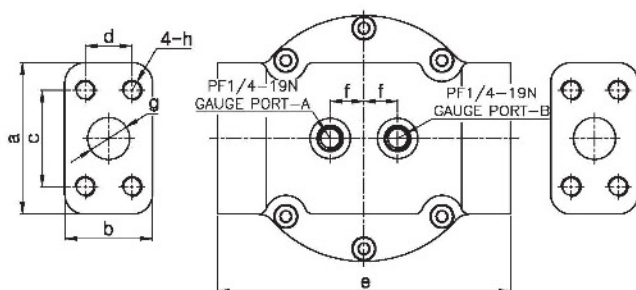
MODEL	DISPLACEMENT	NORMAL PRESSURE (kg / cm ²)	TORQUE (Nm)	R.P.M	FLOW MAX L / min
HBF90M (K-TYPE)	90	350	492	3500	315

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HBF90M (K-TYPE)	19	31.673	1.667	20°	JIS B 1603 :1995

Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e	f	g	h
HBF90M (K-TYPE)	90	52	57.2	27.8	174	20	∅25	M12X1.75P Dp25



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HBF90M (K-TYPE)	196	222	16	232	48	36	68	125	204	367	250.4	53.5	110	34.5

HBF90M-S BENT AXIS TYPE AXIAL PISTON MOTOR



※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

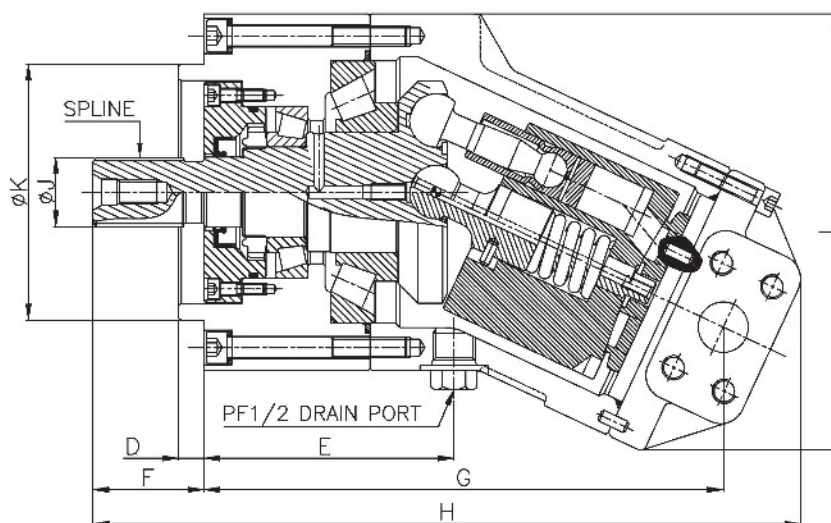
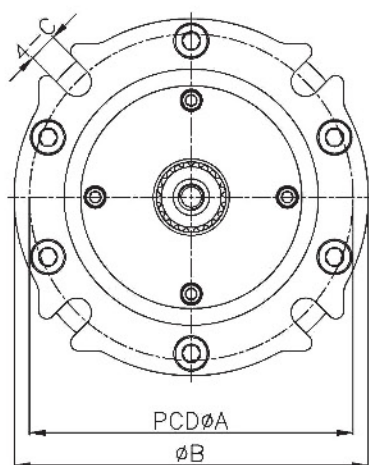
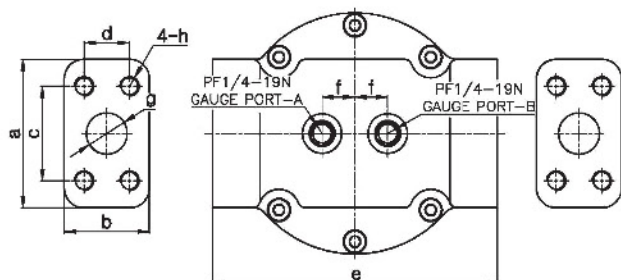
MODEL	DISPLACEMENT (cc/rev)	NORMAL PRESSURE (kg / cm ²)	TORQUE (Nm)	R.P.M	FLOW MAX L / min
HBF90M (S-TYPE)	90	350	492	3500	315

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
HBF90M (S-TYPE)	21	33.337	16/32	30°	ANSI B92.1b :1970

Flange Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e	f	g	h
HBF90M (S-TYPE)	90	52	57.2	27.8	155	20	∅25	M12X1.75P Dp25



DIMENSIONS

(mm)

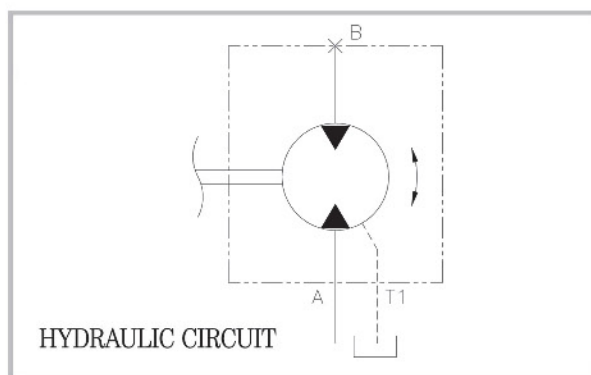
MODEL	A	B	C	D	E	F	G	H	I	J	K
HBF90M (S-TYPE)	155	177	14.5	12.7	125	55.5	260	354	216	34.5	127

H2FM SERIES BENT AXIS TYPE AXIAL PISTON MOTORS



SPECIFICATIONS

MODEL	H2FM08	H2FM10	H2FM12	H2FM16	H2FM23	H2FM28	H2FM32
Discharge Rate (cc/rev)	8	10	12	16	23	28	32
Max. pressure (kg/cm ²)	400						
Max. speed (rpm)	8000				6300		

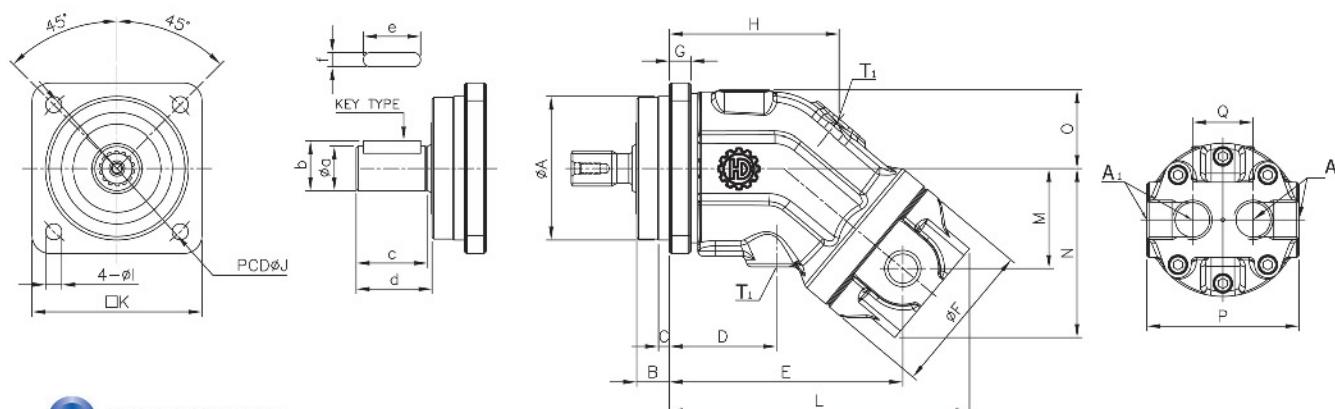


Dimensions of Shaft End (Spline Type)

MODEL	No. of teeth	Pitch Circle Dia.(mm)	Module	Pressure Angle	Standard
H2FM08/10/12	14	17.5	1.25	30°	DIN 5480
H2FM08/10/12/16/23/28	18	22.5	1.25	30°	DIN 5480
H2FM23/28/32	14	28	2	30°	DIN 5480

Dimensions of Shaft End (Key Type)

MODEL	a	b	c	d	e	f	Standard
H2FM08/10/12	20	22.5	37.6	40	32	6	DIN 6885
H2FM08/10/12/16	25	28	37.6	40	32	8	DIN 6885
H2FM23/28	25	28	47.6	50	40	8	DIN 6885
H2FM23/28/32	30	33	47.6	50	40	8	DIN 6885



DIMENSIONS

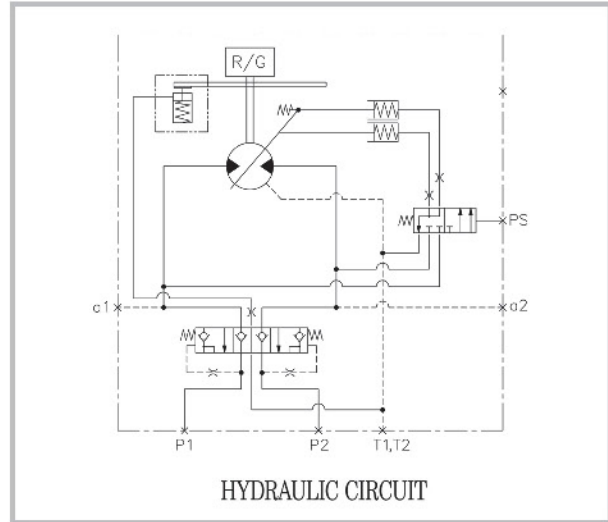
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	T1	A1	A2
H2FM08/10/12/16	80	18.2	6	60	131	85	12	95	9	100	95	168	56	95	44	140	34	M12X1.5	M22X1.5	M22.X1.5
H2FM23/28/32	100	23.2	8	42	142	106	18	132	11	125	118	196	70	123	58	123	58	M16X1.5	M27X2.0	M27X2.0

HAG SERIES TRAVEL MOTOR ASS'Y



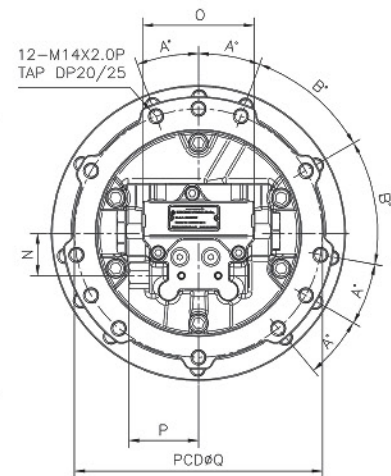
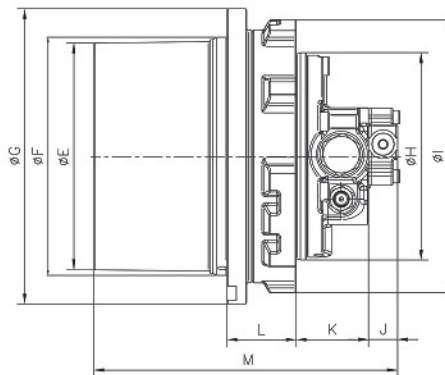
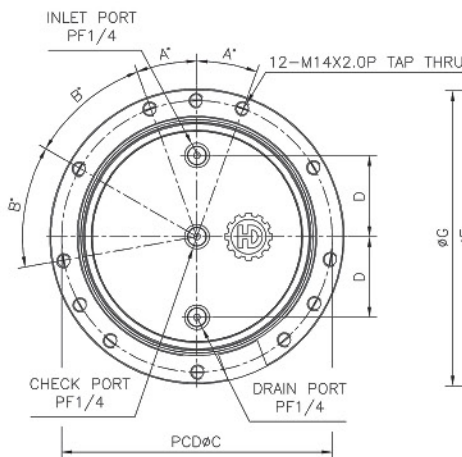
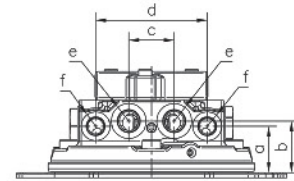
SPECIFICATIONS

MODEL	REDUCTION GEAR				HYDRAURIC MOTOR						APPLICATION
	GEAR RATIO	THEORETICAL OUTPUT TORQUE		OUTPUT SPEED	DISPLACEMENT	OUTPUT SPEED	MAX PRESSURE		BRAKE TORQUE(AT MOTOR SHAFT)		
		i	Kgf·m	N·m			Max. rpm	cc/rev	Max. rpm	Kgf·cm ²	
HAG18VP	42.958	220	2,160	70	18	3,800	250	24.5	2.5	24.5	2.5
HAG26VP	53	400	3,920	60	27.6	3,500	250	27.5	4	39.2	4.5
HAG33VP	58.943	550	5,390	60	33.8	3,300	280	27.5	5	49	6



Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e	f
HAG18VP	40	59				PF1/4
HAG26VP	45	48	44	108	PF1/2	PF3/8
HAG33VP		50				



DIMENSIONS

(mm)

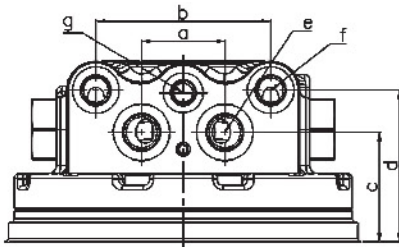
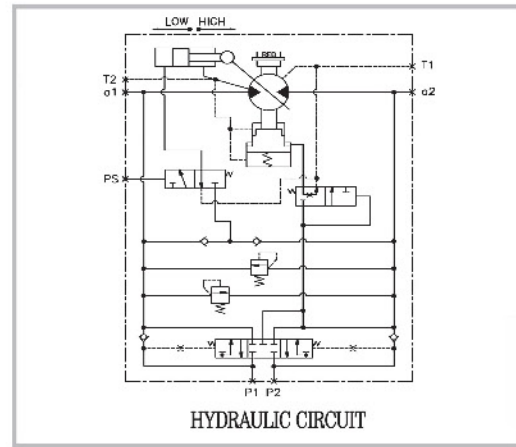
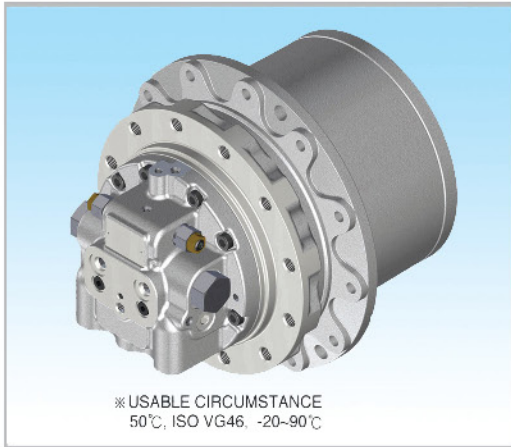
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HAG18VP	45	-	215	65	182	190	238	165	215	28	70	50	263	41	80	62	192
HAG26VP	40	-	232	70	198	204	255				60	70	288		70		
HAG33VP	20	40	262	78	219	230	285	200	263.5		70	67	294		108	68	240

HM SERIES TRAVEL MOTOR ASS'Y



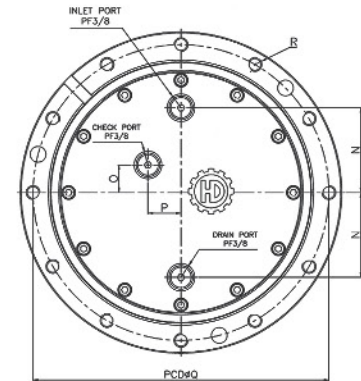
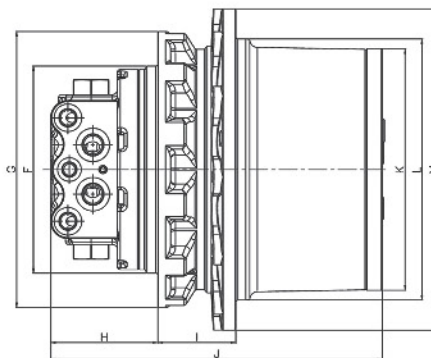
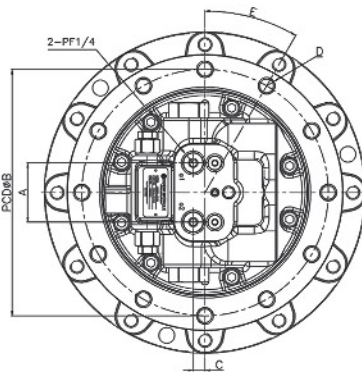
SPECIFICATIONS

MODEL	REDUCTION GEAR				HYDRAULIC MOTOR							APPLICATION
	GEAR RATIO	THEORETICAL OUTPUT TORQUE		OUTPUT SPEED	DISPLACEMENT	OUTPUT SPEED	MAX PRESSURE		BRAKE TORQUE(AT MOTOR SHAFT)			
		i	Kgf-m	N-m			Max. rpm	cc/rev	Max. rpm	Kgf-cm ²	MPa	
HM05/06VA	68.6	570	5,590	60	27.5	3,600	250	24.5	6.6	64.7	4-5 (6)	
HM07VA	53.706	810	7,943	55.8	45.2	3,500	250	24.5	8.4	82	5-8	
					43.7							
HM08VA	53.706	1,000	9,806	65	45.2	3,900	300	29.4	8.4	82	5-9	
HM09VA	53.706	1,100	10,787	65	49.2	3,900	300	29.4	8.4	82	6-8	
HM10VA	53.706	1,200	11,767	70	53.2	3,900	300	29.4	8.4	82	8-10	
HM15VA	53.706	1,850	18,130	60	79.4(80)	3,200	350	34.3	19.7	193	10-14	
HM18VA	53.706	1,850	18,130	60	79.4(80)	3,200	350	34.3	19.7	193	10-14	
HM22VA	53.706	2,445	23,961	60	82.8(83)	3,200	350	34.3	21	205	13-15	



Mounting face for Suction & Delivery Port (mm)

MODEL	a	b	c	d	e	f	g
HM05/06VA	52	100	46	69	PF1/2	PF1/4	PF1/4
HM07VA	50	105	65.8	91		PF3/8	
HM08VA							
HM09VA							
HM10VA							
HM15VA	116	87	110	PF3/4	PF1/2		
HM18VA							
HM22VA							



DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
HM05/06VA	48	220	9.6	9-M14X2.0P	15°	180	246	132	18.4	272.2	196	230	288	85	-	-	262	9-M14X2.0P
HM07VA		244		12-M14X2.0P			268		68	332.5	244	250	306				282	
HM08VA			12	12-M16X2.0P	30°	210		110										
HM09VA		250				280		80	340	245	265	326		28	33.5		300	12-M14X2.0P
HM10VA														86				
HM15VA				16-M16X2.0P	22.5°													18-M16X2.0P
HM18VA	72	280	30	20-M16X2.0P	18°	246	308	134	99.5	389	285	324	394			86	364	15-M16X2.0P
HM22VA																		18-M16X2.0P

HG08 FOR MFB150/160 (WITHOUT TIME DELAY VALVE) SWING MOTOR ASS'Y

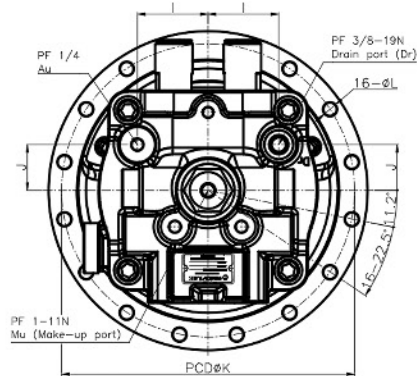
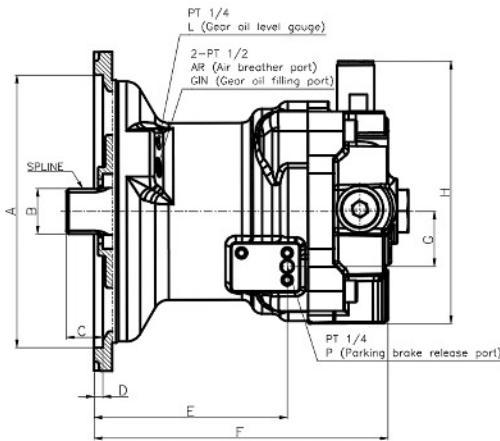
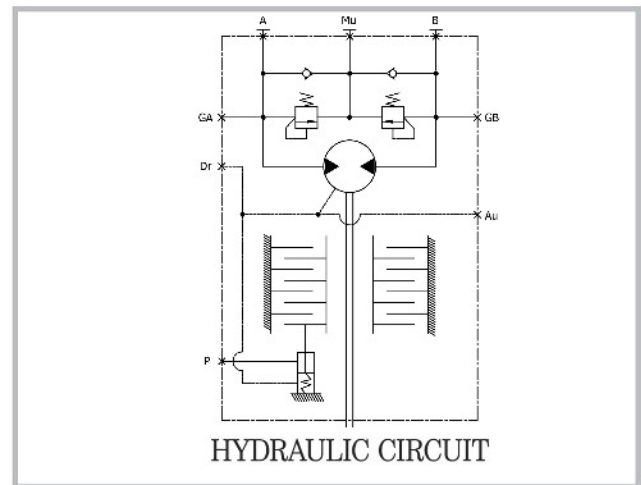
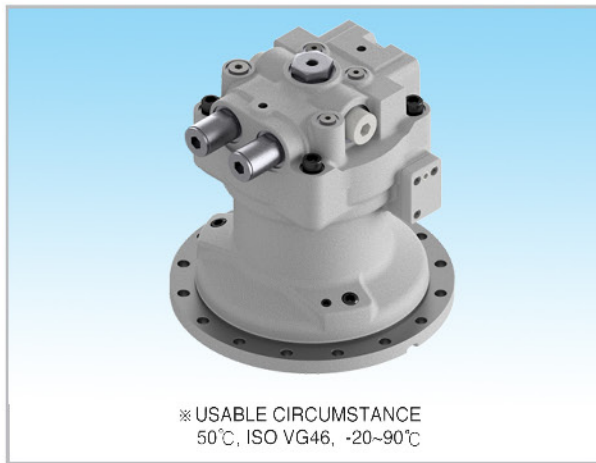


SPECIFICATIONS

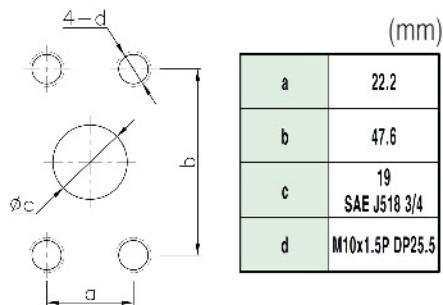
MODEL	HG08 FOR MFB150/160
Discharge Rate(cc/rev)	151
Max. Flow (L/min)	253
Brake Torque (N·m)	685~891

Dimensions of Shaft End(Spline Type)

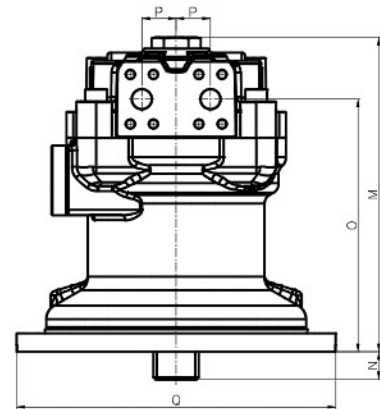
MODEL	No. of teeth	Pitch circle diamm	Module	Pressure angle	Standard
HG08 FOR MFB150/160	13	41.275	8/16	30°	SAE



Flange Mounting face for Suction Port



DIMENSIONS



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HG08 FOR MFB150/160	262	43.6	35	8.5	186	283	53	252	68	44	282	13	302	27	243	33	307

HG08 FOR MFB150/160 (WITH TIME DELAY VALVE) SWING MOTOR ASS'Y

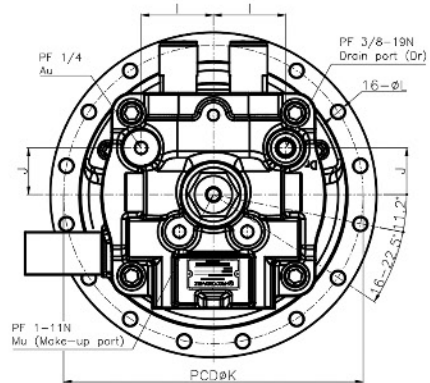
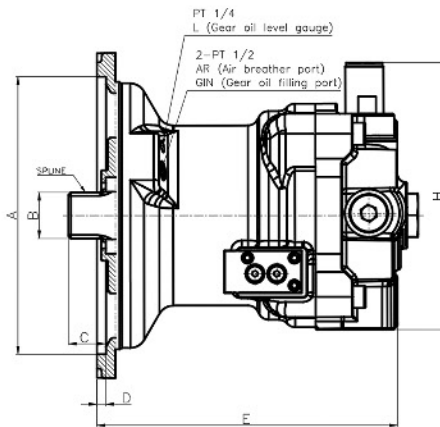
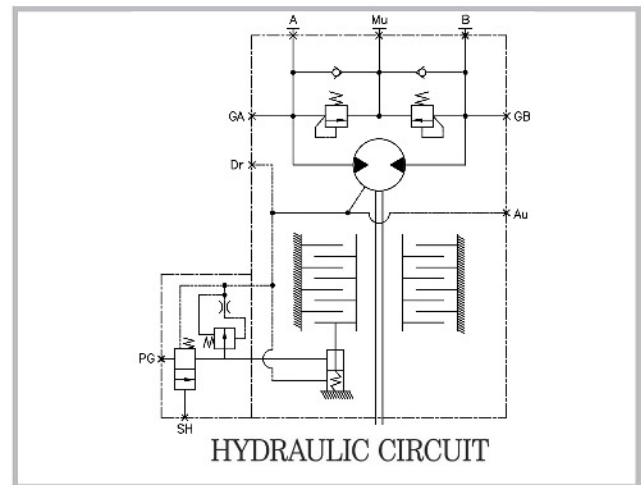
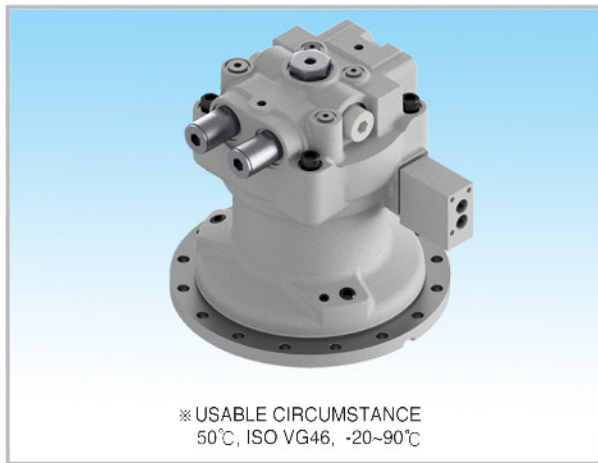


SPECIFICATIONS

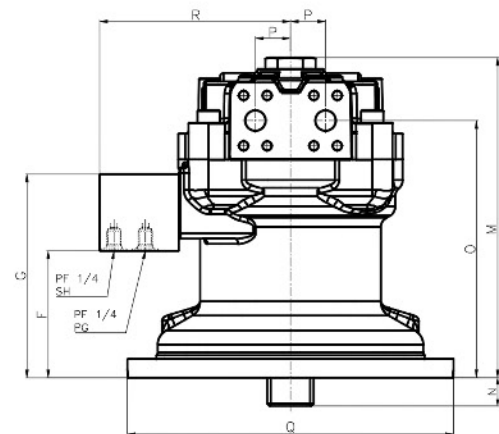
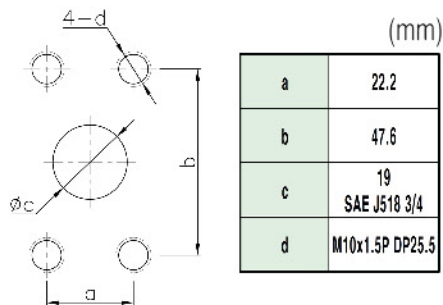
MODEL	HG08 FOR MFB150/160
Discharge Rate(cc/rev)	151
Max. Flow (L/min)	253
Brake Torque (N·m)	685~891

Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle diam(m)	Module	Pressure angle	Standard
HG08 FOR MFB150/160	13	41.275	8/16	30°	SAE



Flange Mounting face for Suction Port



DIMENSIONS

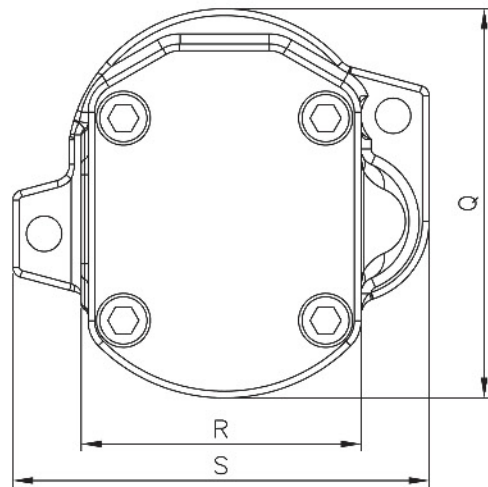
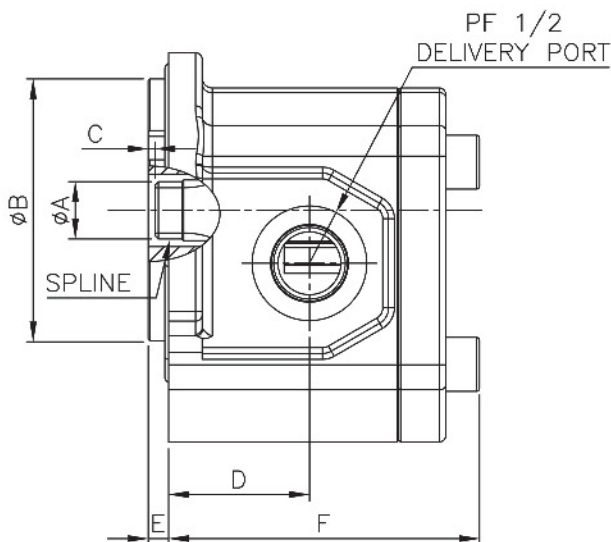
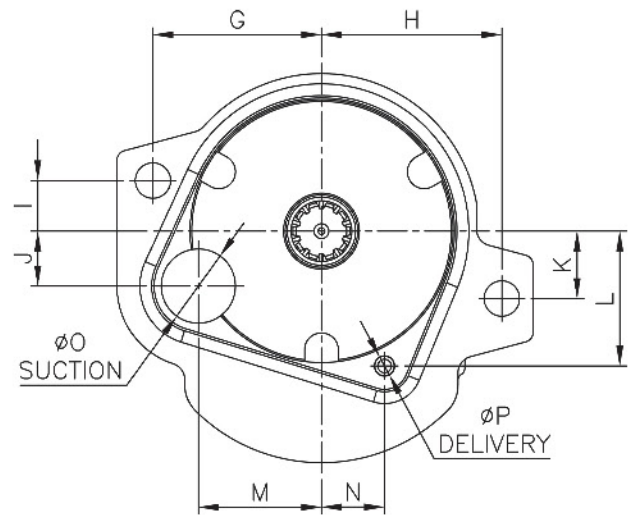
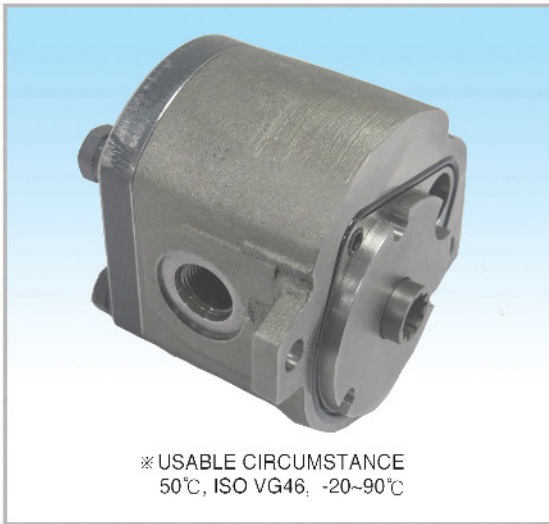
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
HG08 FOR MFB150/160	262	43.6	35	8.5	283	120	192.5	252	68	44	282	13	302	27	243	33	307	179.5

AP2D SERIES SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	AP2D10 / 12 / 14 / 16 / 18
Discharge Rate(cc/rev)	P1 6.5 / 9 / 10.5
Max. Pressure(kg/cm²)	210
Max. Speed(rpm)	2800



DIMENSIONS

(mm)

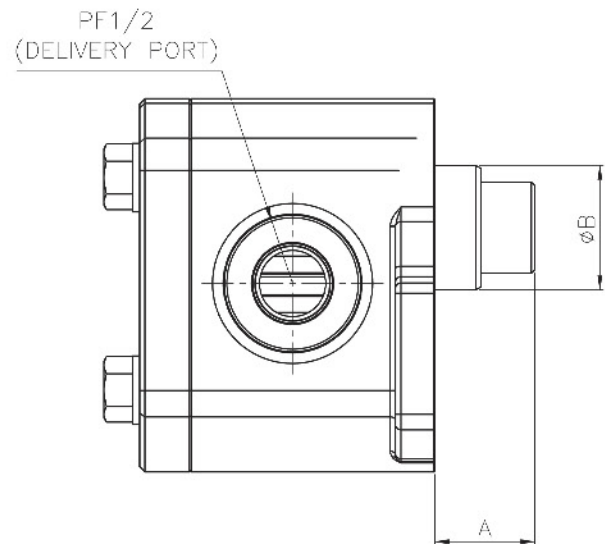
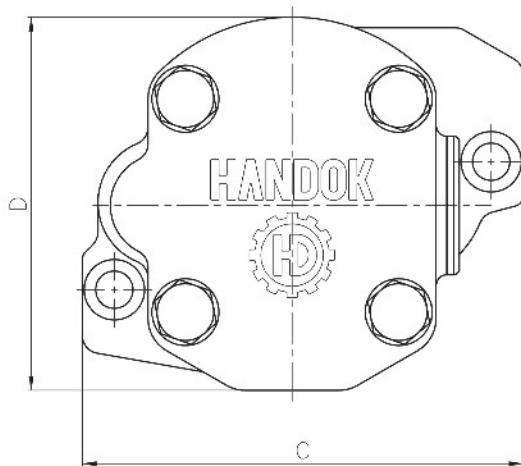
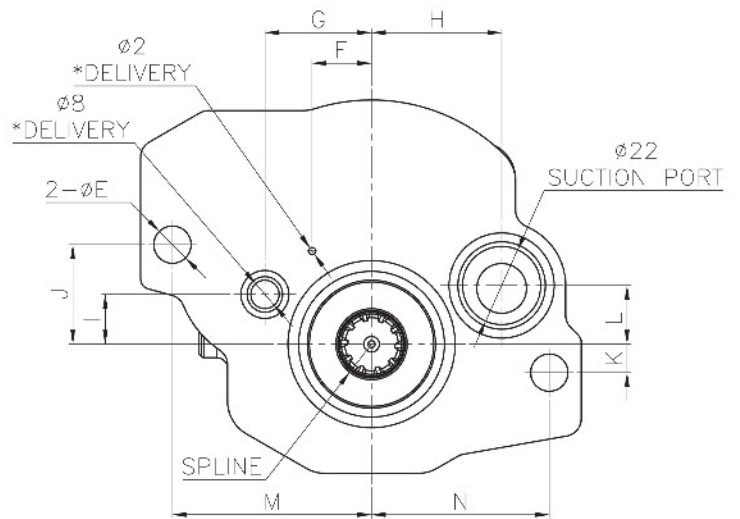
MODEL	SPLINE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
AP2D SERIES	Z10	17	78	2	41.8	6	92.3	50	53.5	15	16.3	20	40	36.5	18.7	22	4	115.5	83	123.5

AP2D SERIES SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	AP2D21 / 25 / 28 / 36			
Discharge Rate(cc/rev)	P1			
	12	16.8	18.8	22
Max. Pressure(kg/cm²)	210			
Max. Speed(rpm)	2200/2600/2800			



DIMENSIONS

(mm)

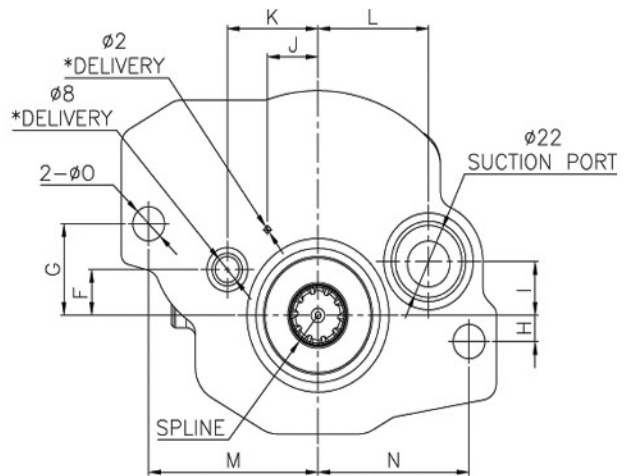
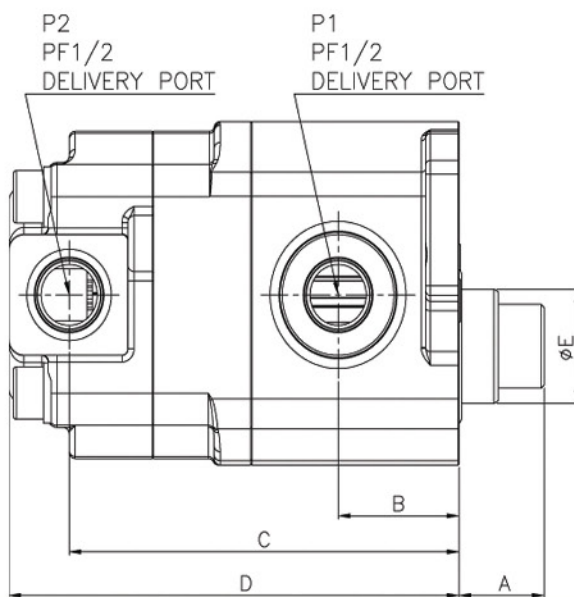
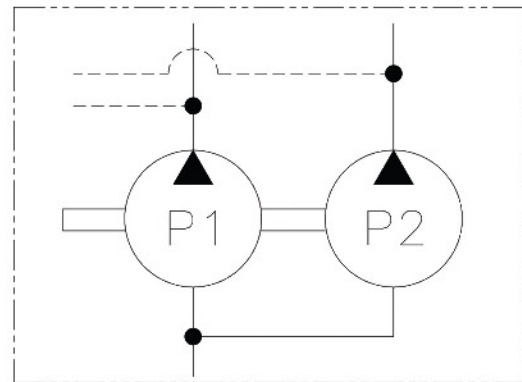
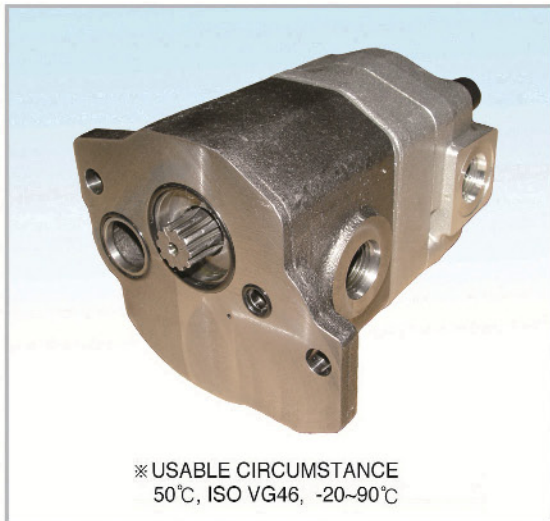
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE
AP2D SERIES	28.6	35	124	105	10.5	16.7	30	36.6	14	28	8	16.5	56	50	Z10

AP2D SERIES DOUBLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	AP2D21 / 25 / 28 / 36						
Discharge Rate(cc/rev)	P1				P2		
	12	16.8	18.8	22	6	9	10
Max. Pressure(kg/cm ²)	210				50		
Max. Speed(rpm)	2200/2600/2800						



DIMENSIONS

(mm)

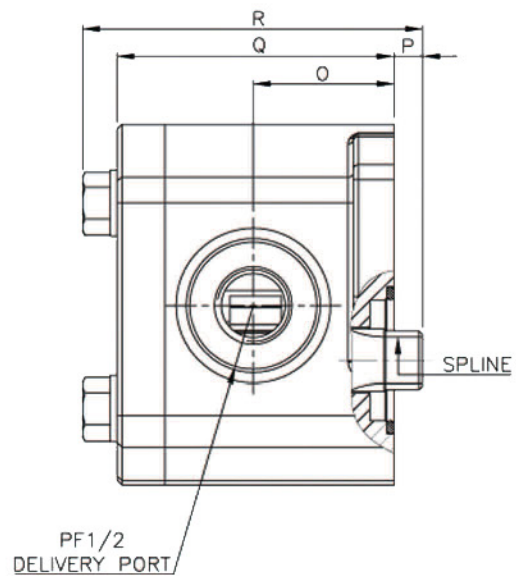
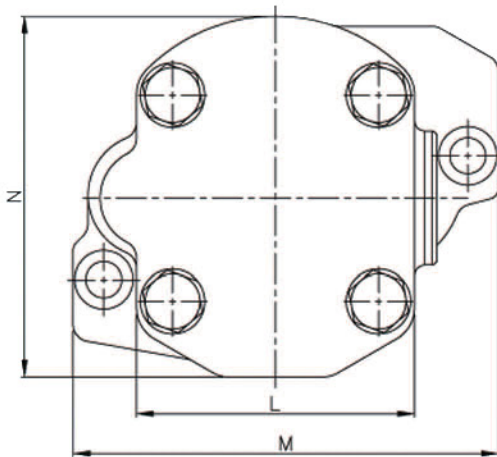
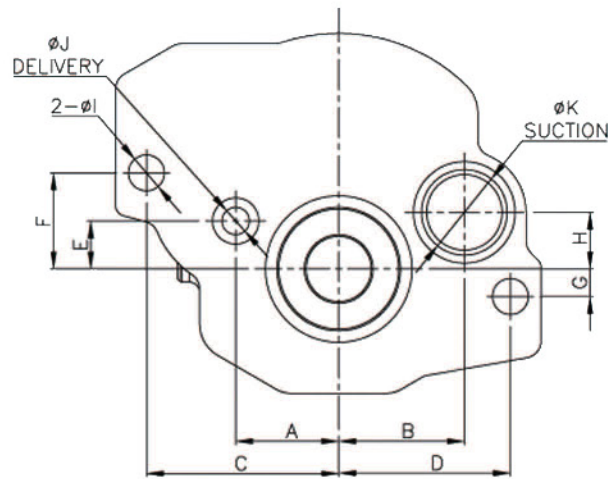
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
AP2D SERIES	28.2	40	129	149	35	14	28	8	16.5	16.7	30	36.6	56	50	10.5	Z10

AP2D SERIES SINGLE TYPE GEAR PUMP



SPECIFICATIONS

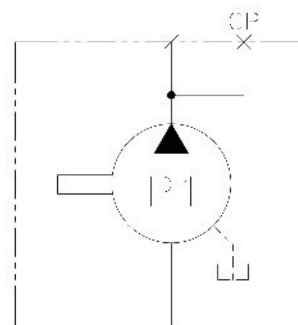
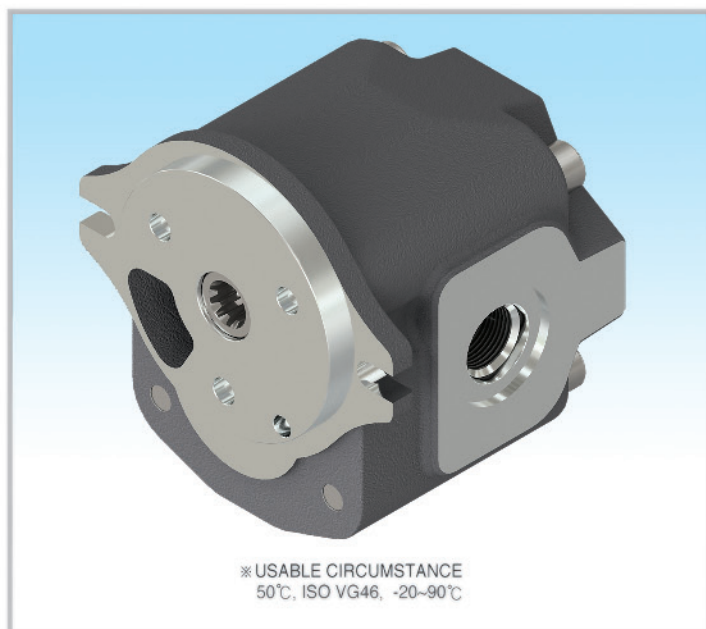
MODEL	AP2D21/25/28/36
Discharge Rate (cc/rev)	9
Max. Pressure (kg/cm²)	210
Max. Speed (rpm)	2200



DIMENSIONS

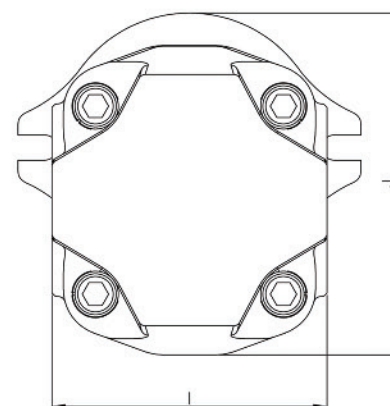
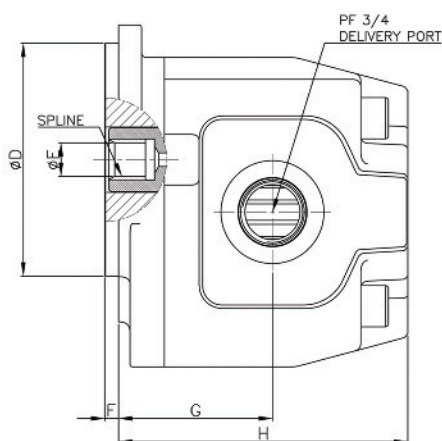
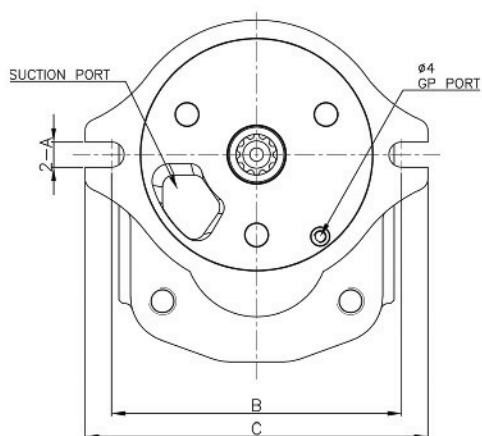
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	SPLINE
AP2D21 AP2D25 AP2D28 AP2D36	30	36.6	56	50	14	28	8	16.5	10.5	8	22	81	124	105	41	8.3	80.7	99	Z10

AP2D36 FOR YANMAR SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	AP2D36 (FOR YANMAR)	
Discharge Rate(cc/rev)	25	30
Max.Pressure(kg/cm ²)	214	
Max.Speed(rpm)	2,800	
Direction	CW	

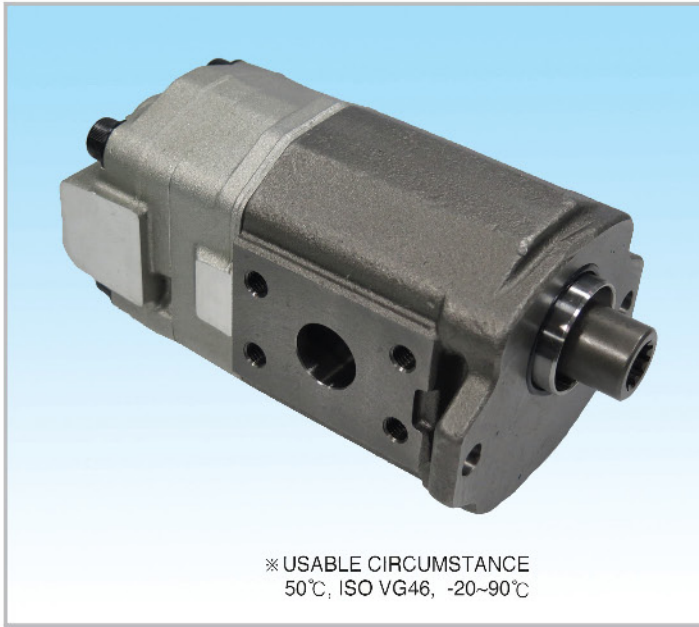


DIMENSIONS

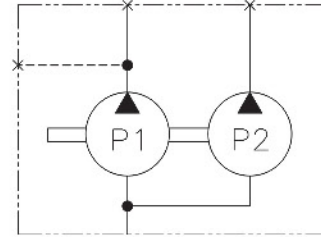
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	SPLINE
AP2D36 (FOR YANMAR -25cc/rev)	11	126.4	149.5	101.6	14.6	6	60.5	121	120	149.2	10T
AP2D36 (FOR YANMAR-30cc/rev)							67	126			

AP2D25/28/36/38 FOR HITACHI DOUBLE TYPE GEAR PUMP



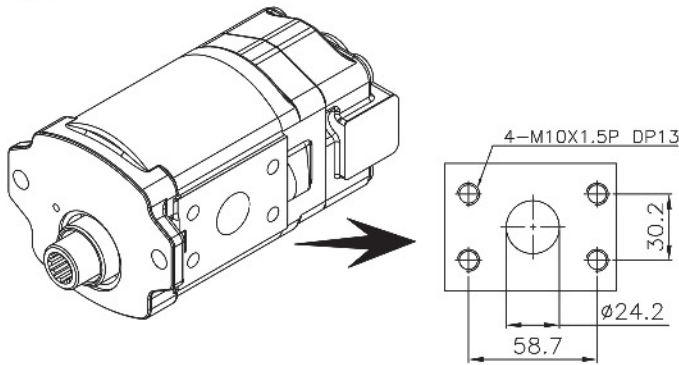
※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



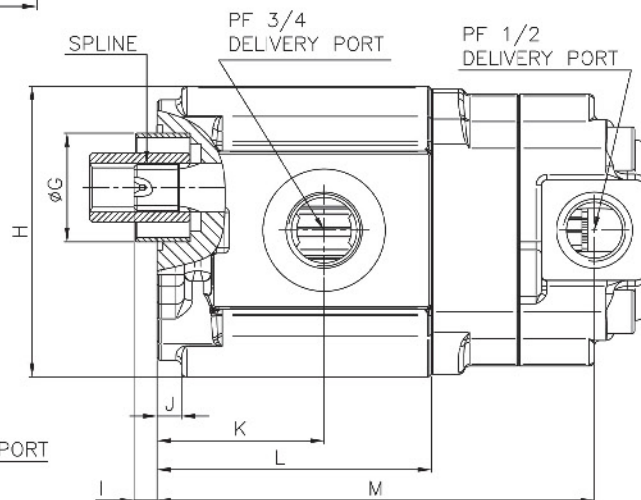
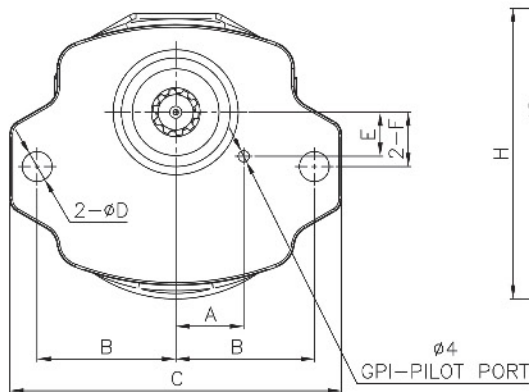
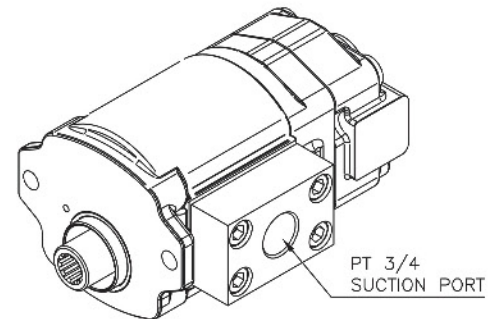
SPECIFICATIONS

MODEL	AP2D25/28/36/38 (FOR ZX60 & ZX75)	
Discharge Rate (cc/rev)	P1	P2
	21	11
Max. pressure (kg/cm ²)	210	50
Max. Speed (rpm)	2100	

ZX60 SUCTION PORT (for AP2D25/28)



ZX75 SUCTION PORT (for AP2D36/38)



DIMENSIONS

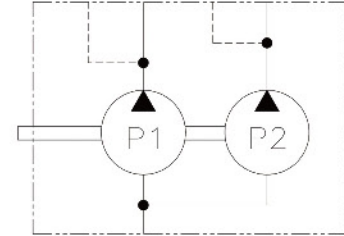
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	SPLINE
AP2D25/28/36/38 (FOR ZX60&ZX75&CAT307)	25	51	122	11	16.2	20	40	107	8.5	11	61.5	101	161	Z10

AP2D10/12/14/16/18 DOUBLE TYPE GEAR PUMP

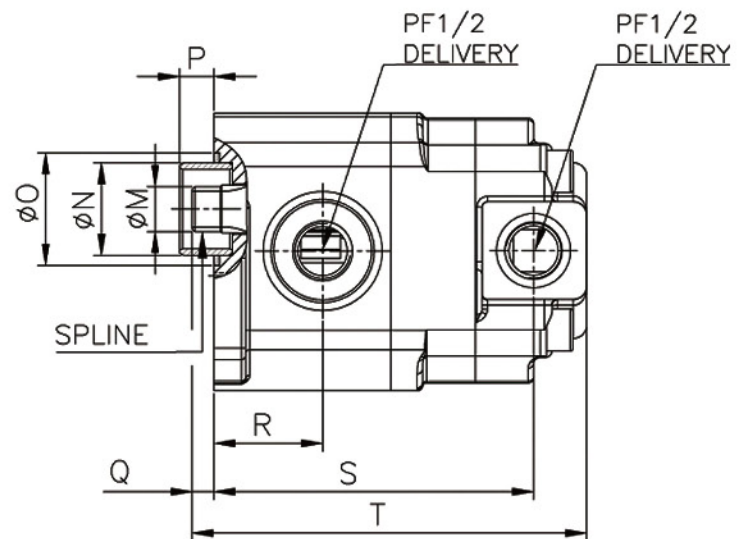
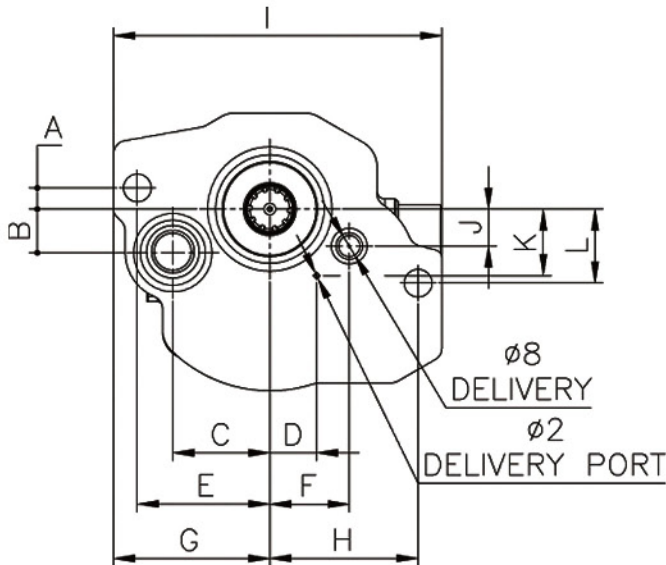


※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

MODEL	AP2D10/12/14/16/18 (FOR UCHIDA)	
	P1	P2
Discharge Rate (cc/rev)	8	4
Max. pressure (kg/cm ²)	255	50
Max. Speed (rpm)	2800	

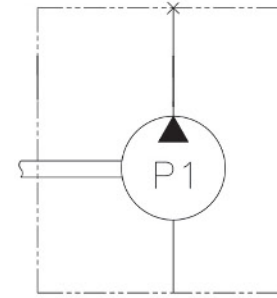
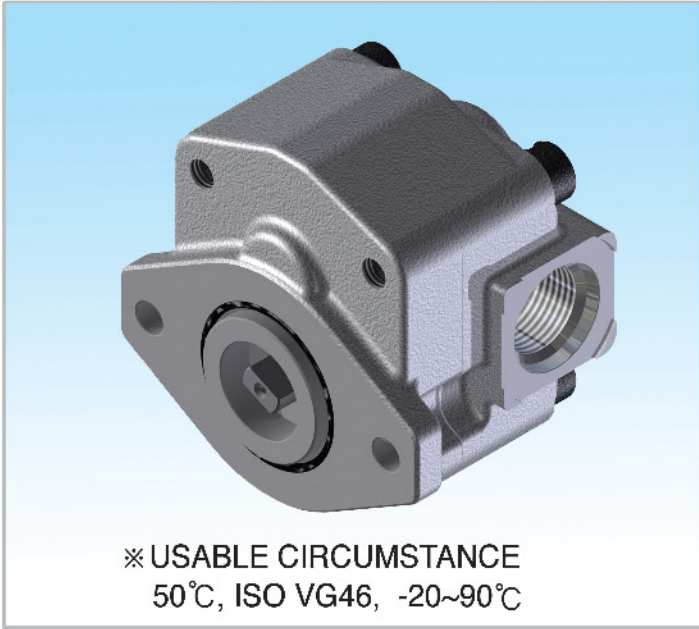


DIMENSIONS

(mm)

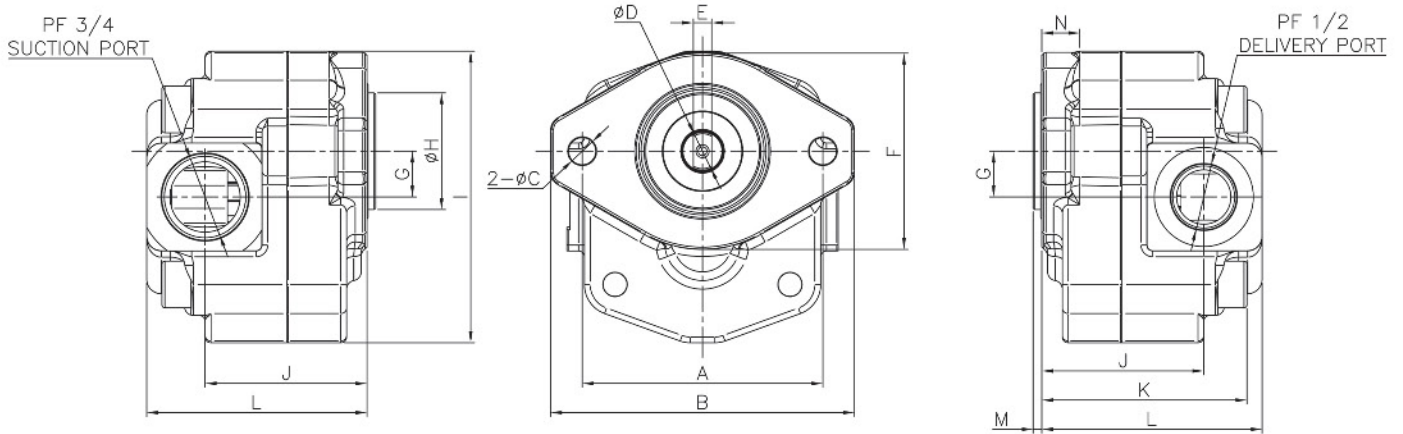
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	SPLINE
AP2D10 /12/14 AP2D16/18	8	16.5	36.6	17.7	50	30	59	56	124	14	25.2	28	17	35	42.7	13	8.3	41	120.6	149	Z10

A10VD43 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A10VD43(KEY TYPE)
Discharge Rate (cc/rev)	9 / 10.5
Max. Pressure (kg/cm ²)	50
Max. Speed (rpm)	2000

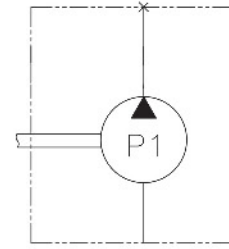


DIMENSIONS

(mm)

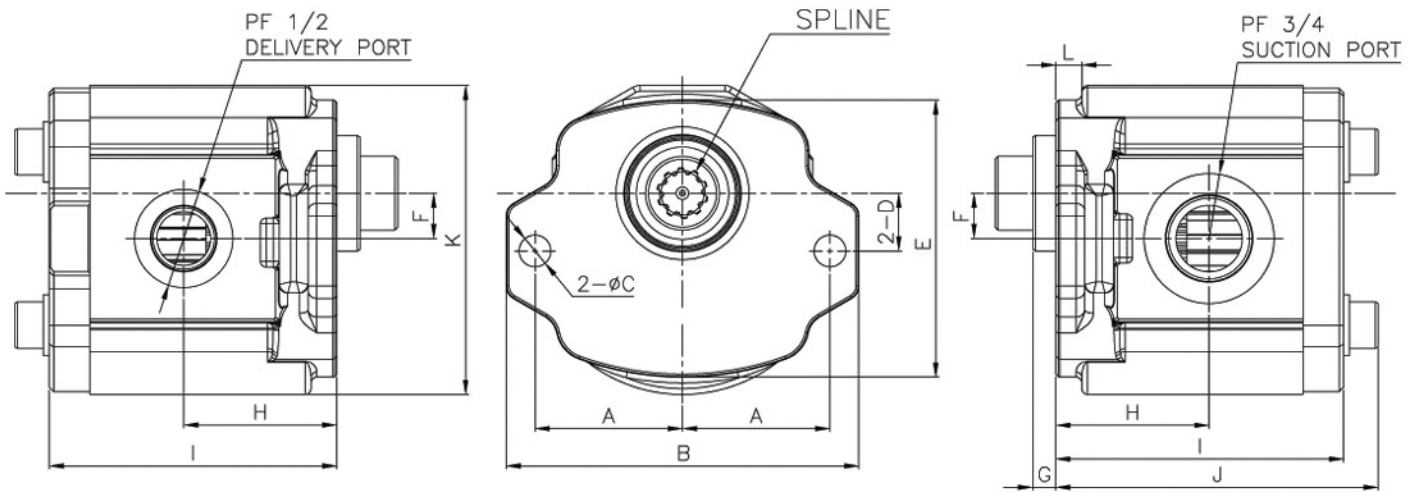
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A10VD43(KEY TYPE)	82.5	104	9.3	13	6.3	67.3	15.7	40	100	55.5	70.3	75.5	3	13

A10VD43 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A10VD43
Discharge Rate (cc/rev)	12
Max. Pressure (kg/cm²)	180
Max. Speed (rpm)	2800

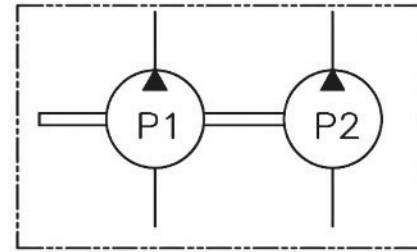


DIMENSIONS

(mm)

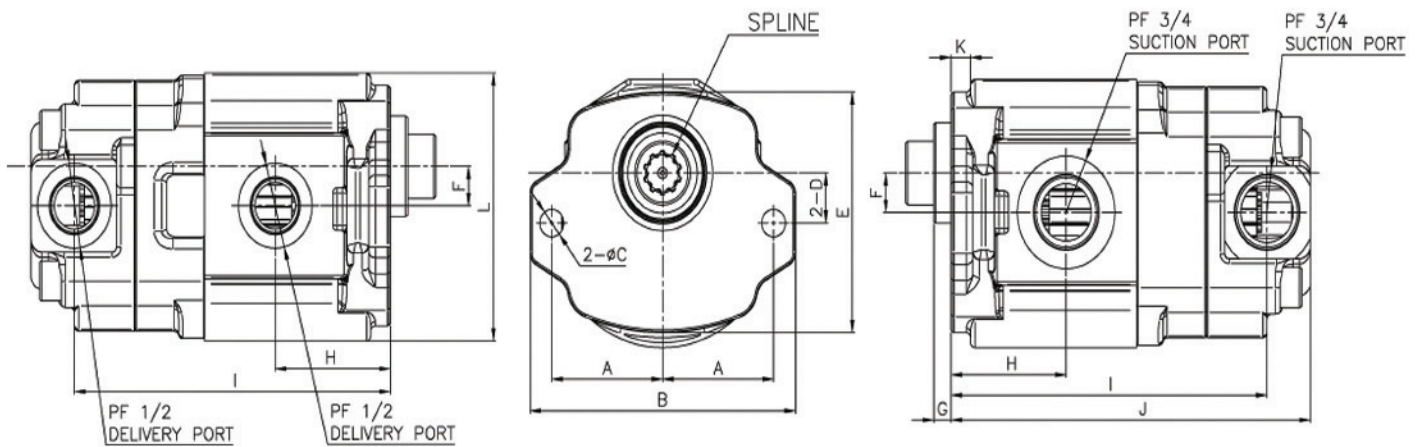
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	SPLINE
A10VD43	51	122	11	20	96	15.7	8	53	99.5	112	107	10	Z10

A10VD43 DOUBLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A10VD43	
Discharge Rate (cc/rev)	P1	P2
	12	10
Max. pressure (kg/cm ²)	180	50
Max. Speed (rpm)	2800	

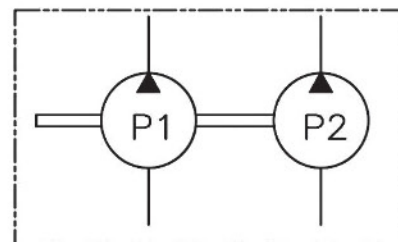
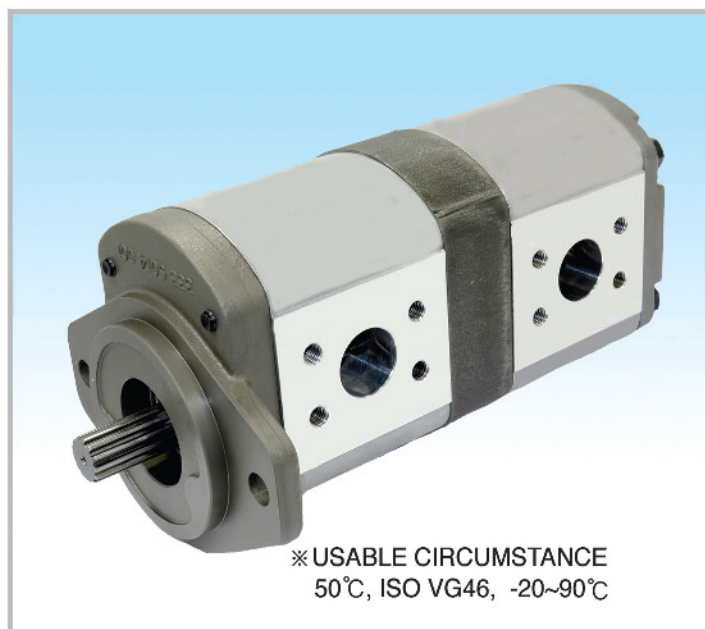


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	SPLINE
A10VD43	51	122	11	20	96	15.7	8	53	132.5	145.5	10	107	Z10

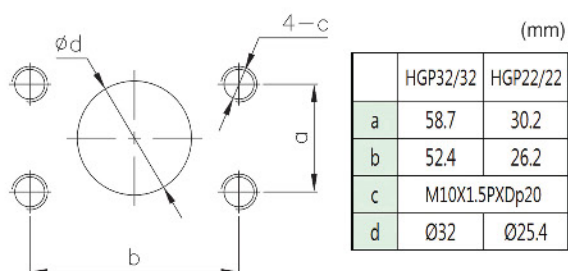
HGP32/32, 22/22 DOUBLE TYPE GEAR PUMPS



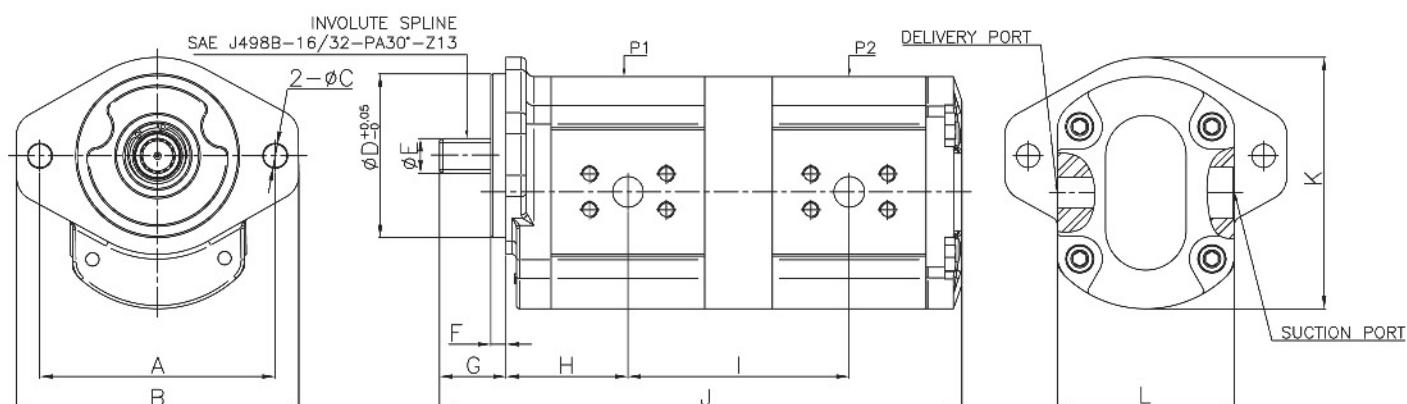
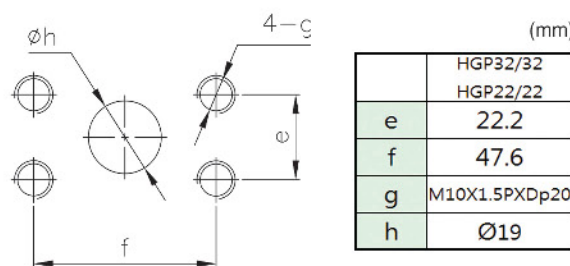
SPECIFICATIONS

MODEL	HGP32/32 , HGP22/22	
	P1	P2
Discharge Rate (cc/rev)	32	32
	22	22
Max. pressure (kg/cm ²)	250	
Max. Speed (rpm)	2800	

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port

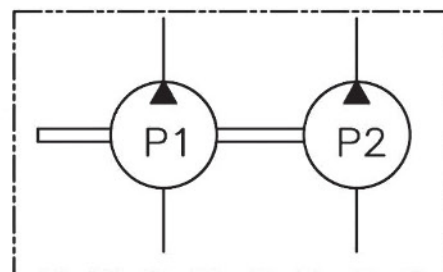
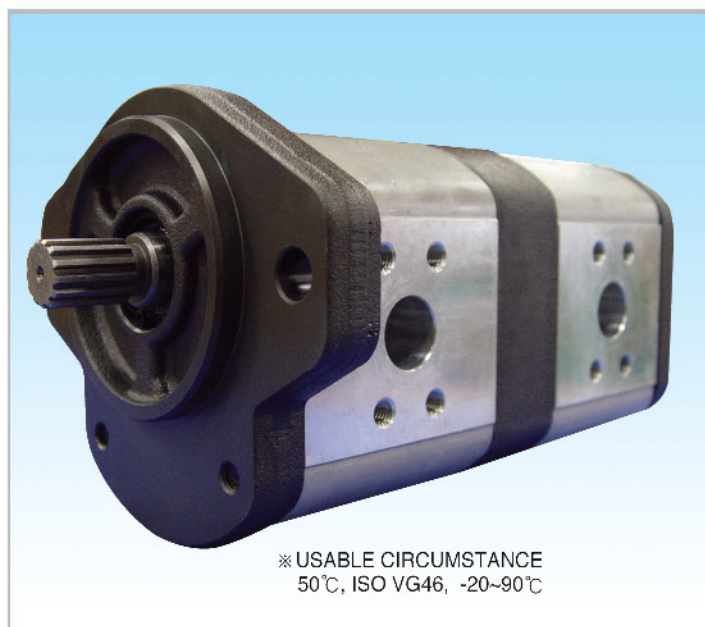


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
HGP32/32	146	175	14.5	101.6	21.8	9.4	41.2	75.65	137.3	324.1	156	110
HGP22/22								72.5	131	311.5		

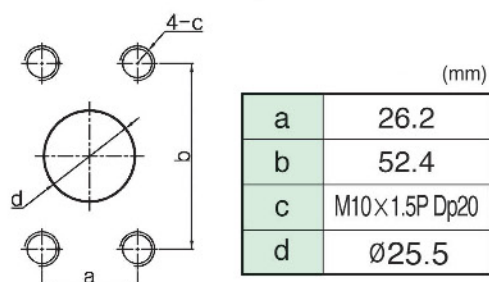
HGP32/22-A(4-PORT) TYPE DOUBLE TYPE GEAR PUMP



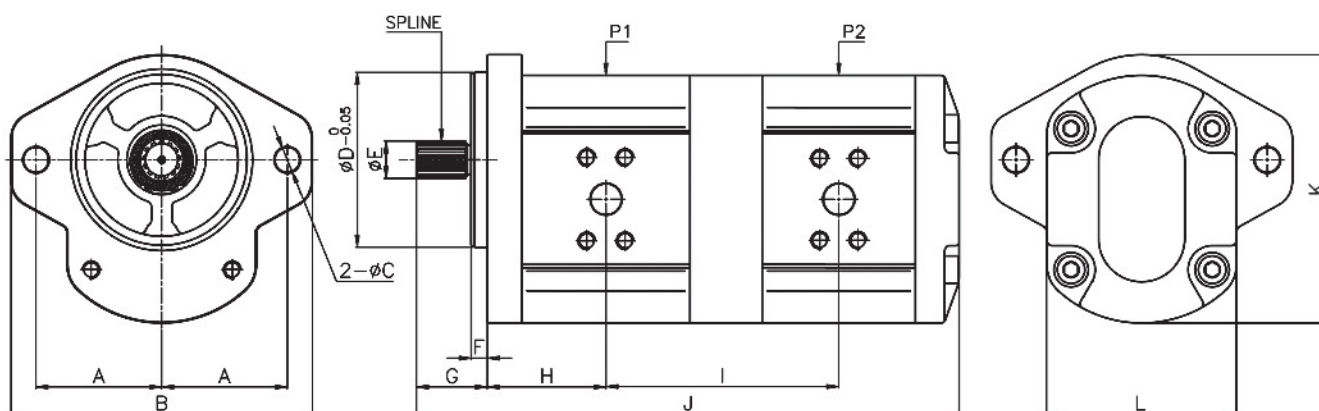
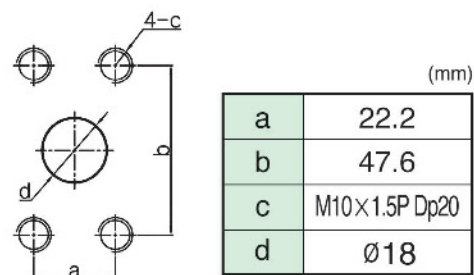
SPECIFICATIONS

MODEL	HGP32/22 A-TYPE	
Discharge Rate (cc/rev)	P1	P2
	32	22
Max. pressure (kg/cm ²)	250	
Max. Speed (rpm)	2800	

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

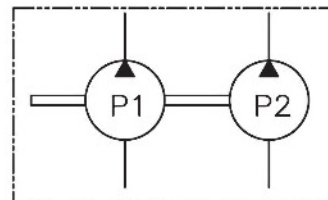
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	SPLINE
HGP32/22 (A-TYPE)	73	175	14.5	101.6	21.8	9.4	41.2	68.9	135.3	315.4	156	110	Z13

HGP32/22-B(3-PORT) TYPE DOUBLE TYPE GEAR PUMP



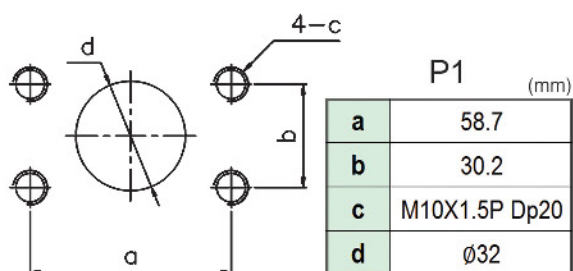
※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



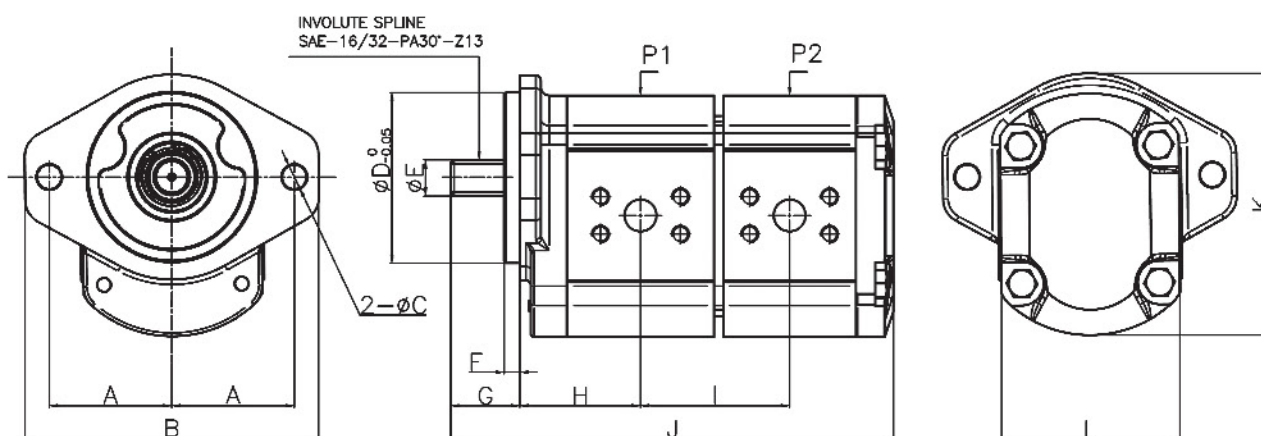
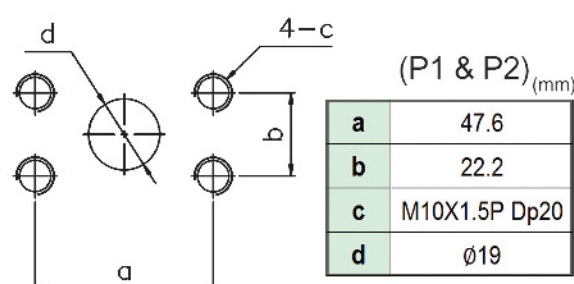
SPECIFICATIONS

MODEL	HGP32/22 B-TYPE	
Discharge Rate (cc/rev)	P1	P2
	32	22
Max. pressure (kg/cm ²)	250	
Max. Speed (rpm)	2800	

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port

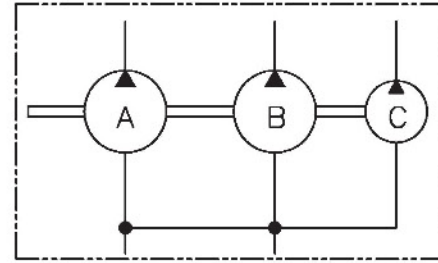


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
HGP32/22 (B-TYPE)	73	175	14.5	101.6	22.9	9.4	41.2	71.85	88.85	263.7	156	106.4

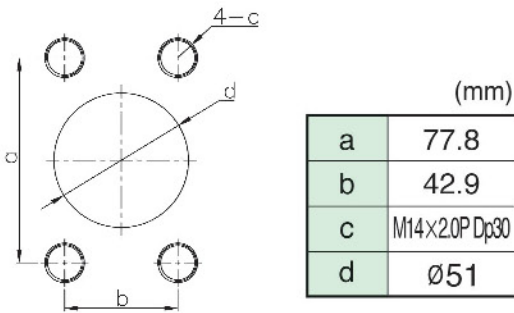
HGP66-66-16.3(DH05W-UH045W/UH052) TANDEM(SERIAL) TYPE GEAR PUMP



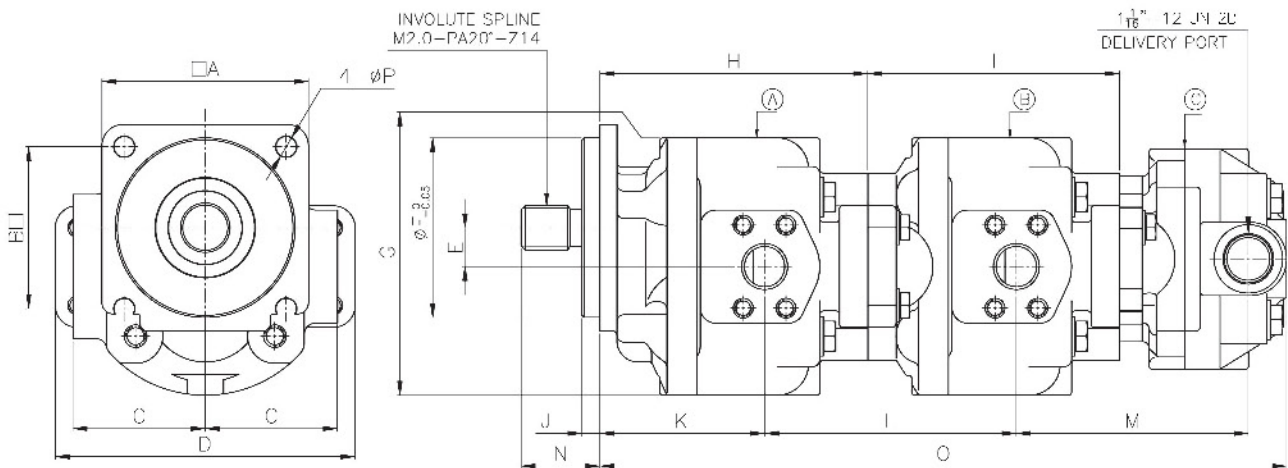
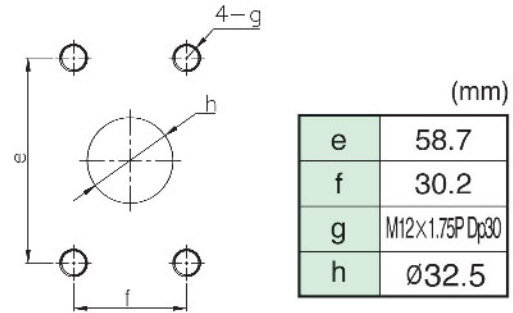
SPECIFICATIONS

MODEL	(A)	(B)	(C)
Discharge Rate (cc/rev)	66		16.3
Max. Pressure (kg/cm ²)	175		
Max. Speed (rpm)	1632		

Flange Mounting face for Suction Port



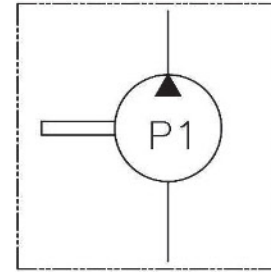
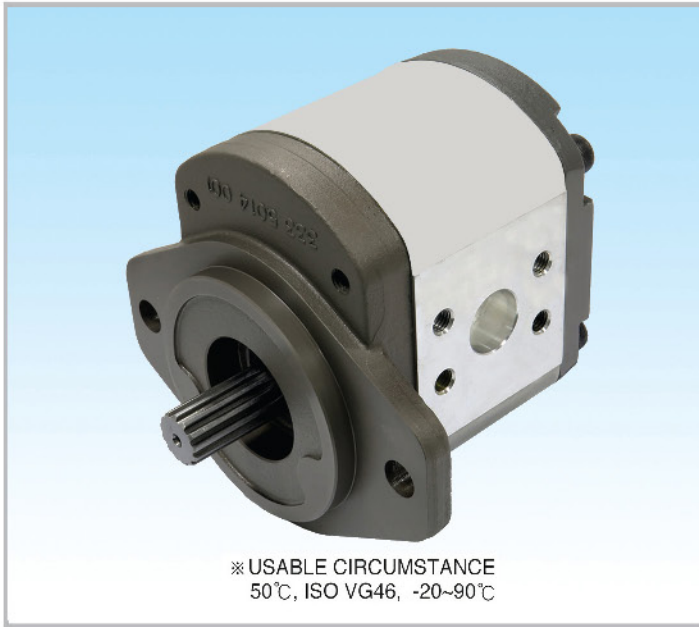
Flange Mounting face for Delivery Port



DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HGP 66-66-16.3	146	114.5	93.5	212	27.5	127	182	189.4	178	12.6	116.4	178	164	55.8	485.4

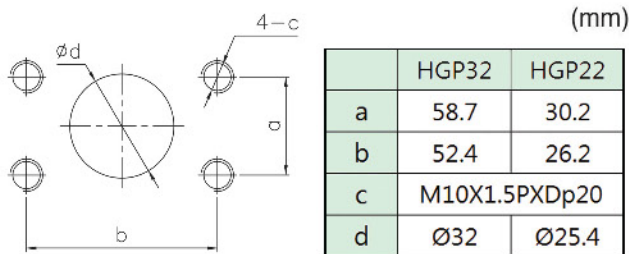
HGP32/HGP22 SINGLE TYPE GEAR PUMPS



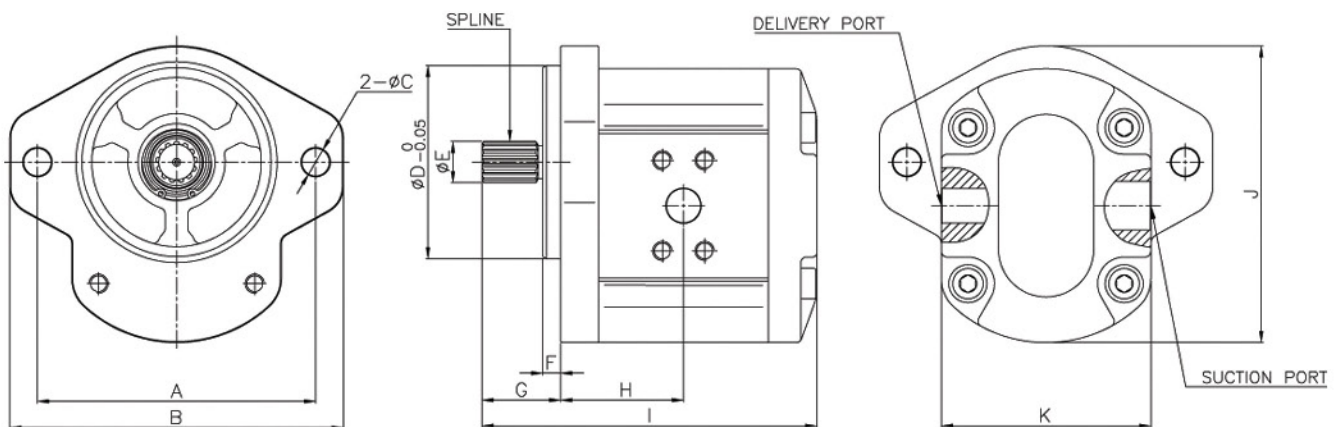
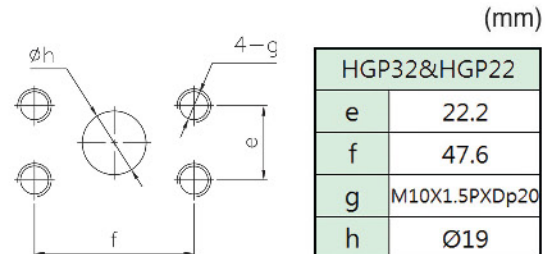
SPECIFICATIONS

MODEL	HGP32	HGP22
Discharge Rate (cc/rev)	32	22
Max. pressure (kg/cm ²)	250	
Max. Speed (rpm)	2800	

Flange Mounting face for Suction Port



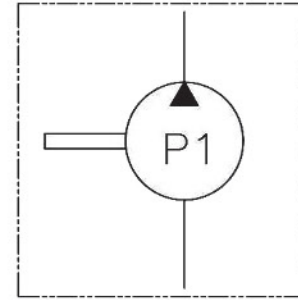
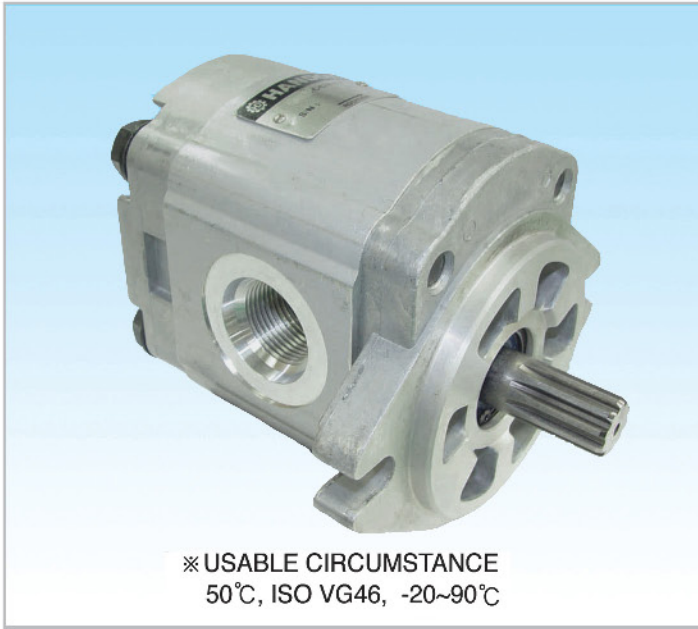
Flange Mounting face for Delivery Port



DIMENSIONS

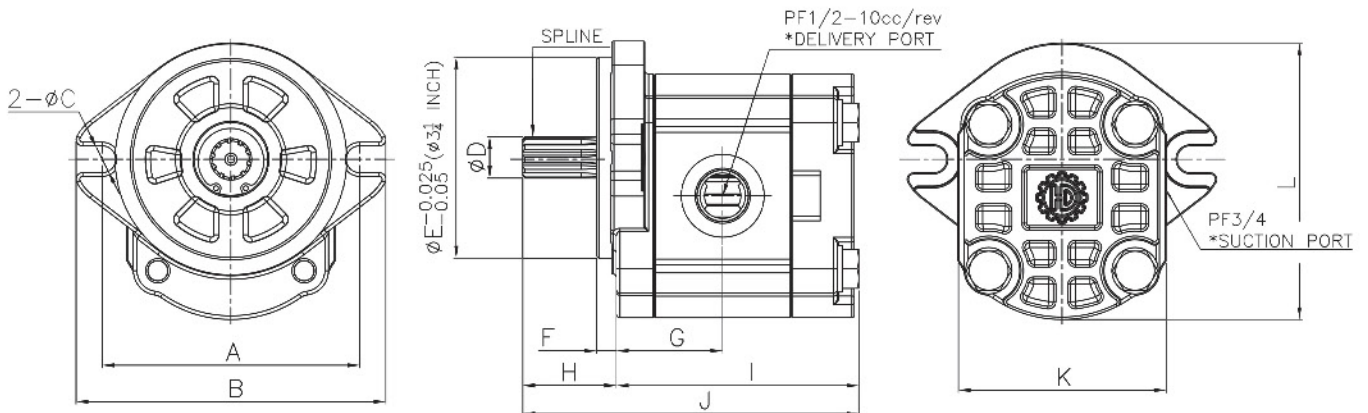
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
HGP22	146	175	14.5	101.6	21.8	9.4	41.2	67.5	174	156	110	Z13
HGP32								71.85	177			

HGP10 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	HGP10
Discharge Rate (cc/rev)	10
Max. Pressure (kg/cm ²)	180
Max. Speed (rpm)	2000

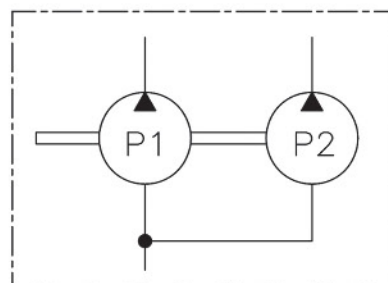


DIMENSIONS

(mm)

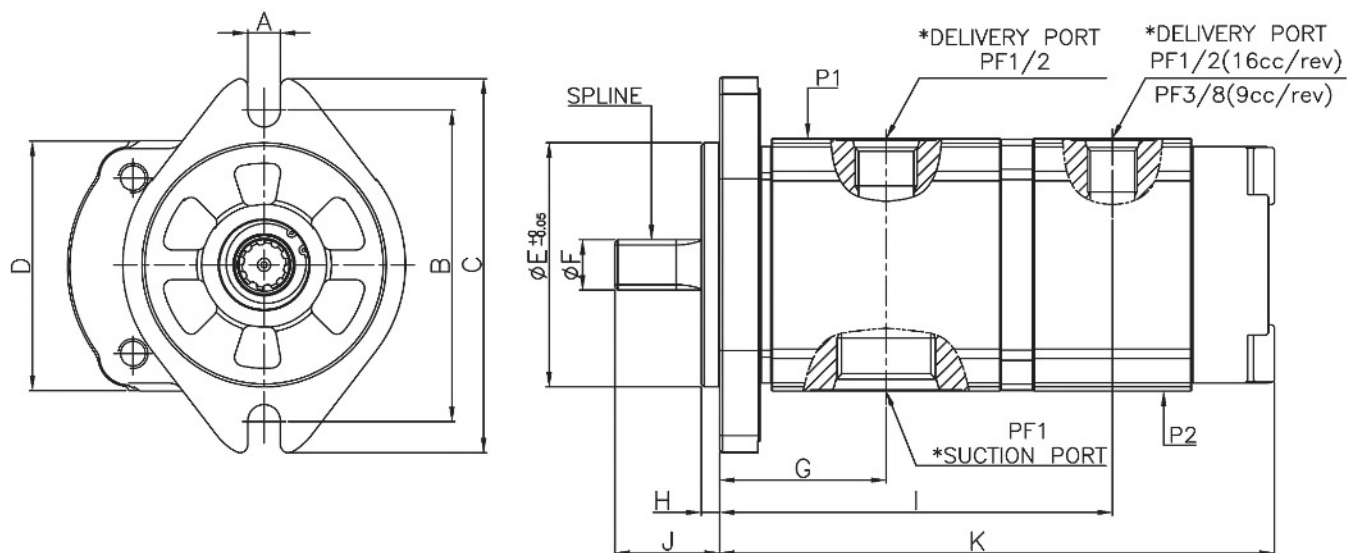
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	SPLINE
HGP10	106	127	11	17	82.55	6.2	45.6	36.4	99.5	138	85.4	114.3	Z10

HGP16.8/10 DOUBLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	HGP16.8/10	
Discharge Rate (cc/rev)	P1	P2
	16.8	10
Max. pressure (kg/cm ²)	180	
Max. Speed (rpm)	2000	

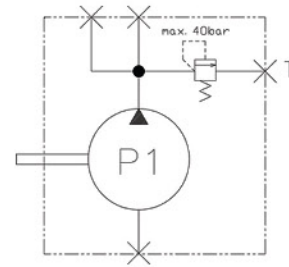


DIMENSIONS

(mm)

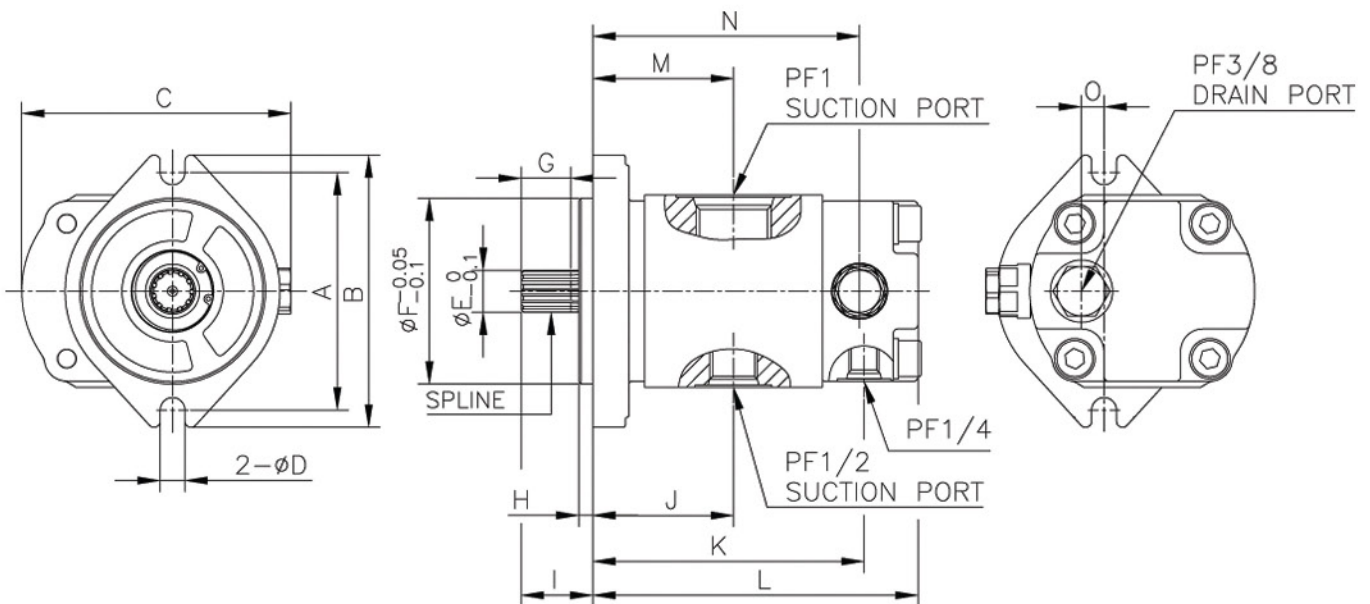
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
HGP16.8/10	11	106	127.0	85	82.55	17	47.6	6.2	121.6	35.3	213	Z10

HGP16.8 FOR VOLVO / HYUNDAI SINGLE TYPE GEAR PUMP(WITH RELIEF VALVE TYPE)



SPECIFICATIONS

MODEL	HGP16.8
Discharge Rate (cc/rev)	16.8
Max. Pressure (kg/cm²)	40
Max. Speed (rpm)	2000
DIRECTION	CCW(L)

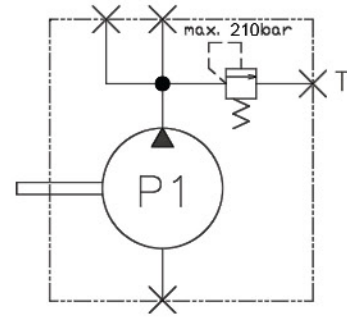


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
HGP16.8	105.5	121	119.5	11	18.6	82.55	22	6.2	31.8	62.5	120.5	144.5	62.5	118.5	10	Z11

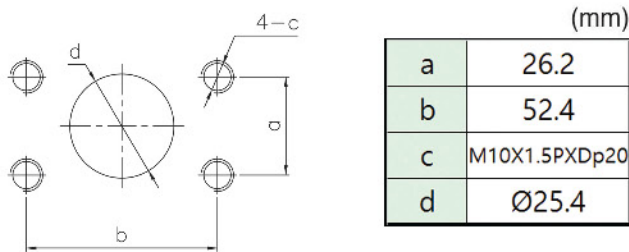
HGP22 SINGLE TYPE GEAR PUMP(WITH RELIEF VALVE TYPE)



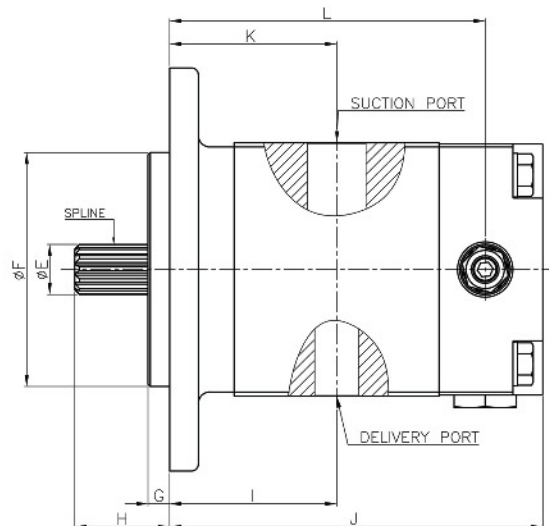
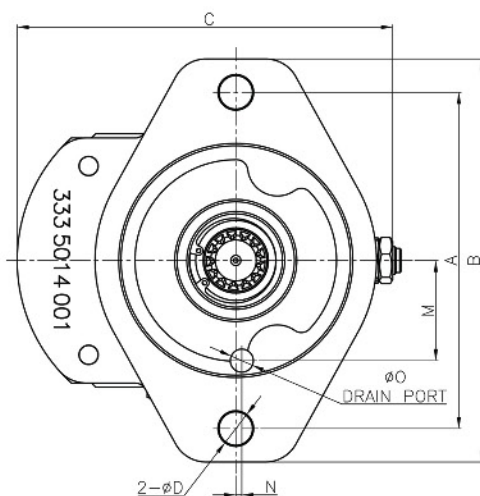
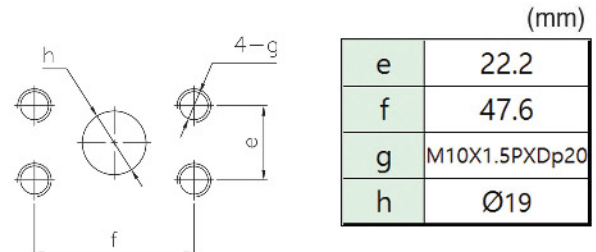
SPECIFICATIONS

MODEL	HGP22(WITH RELIEF VALVE)
Discharge Rate(cc/rev)	22
Max. Pressure(kg/cm ²)	210
Max. Speed(rpm)	2200
DIRECTION	CW

Flange Mounting face for Suction Port



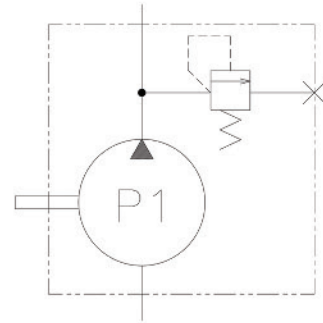
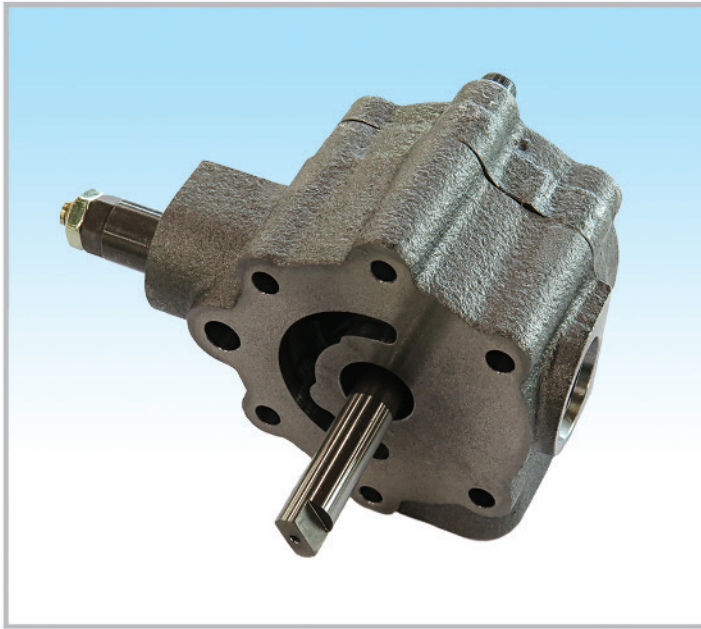
Flange Mounting face for Delivery Port



DIMENSIONS

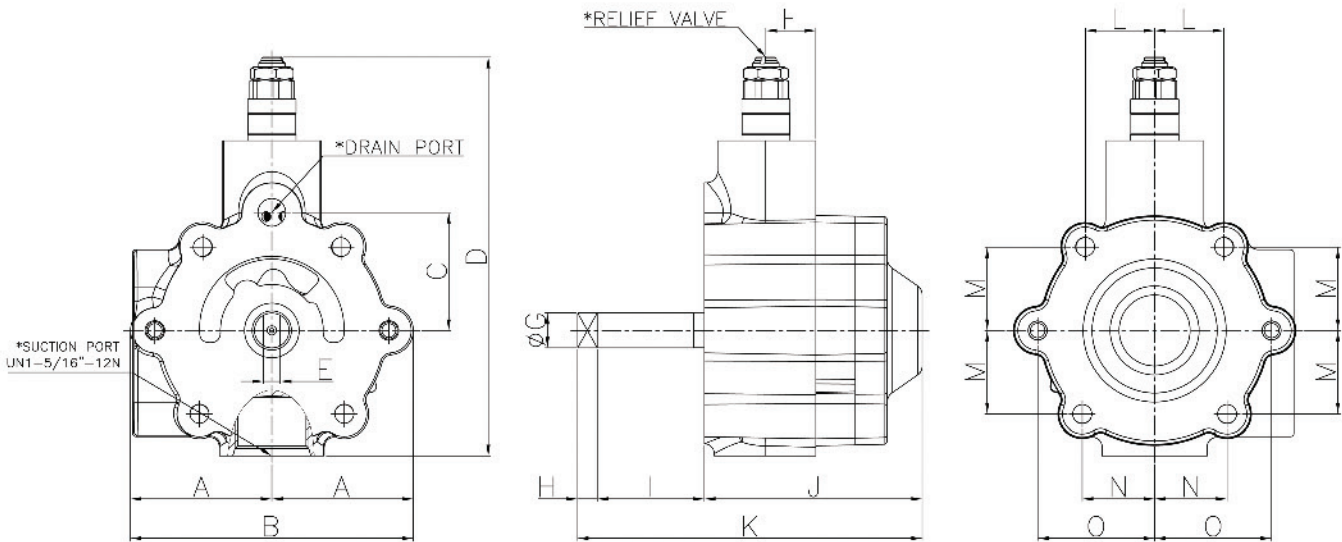
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
HGP22	146	175	163	15.5	21.8	101.6	9.4	41.2	72.5	162	72.5	137	43.5	2.6	10	Z13

HPC90(EATON54) TROCHOID PUMP



SPECIFICATIONS

MODEL	HPC90	
Discharge Rate(cc/rev)	16.7	
Max. Pressure (kg/cm ²)	20	
Max. Speed (rpm)	2000	
DIRECTION	CW(R)	CCW(L)



DIMENSIONS

(mm)

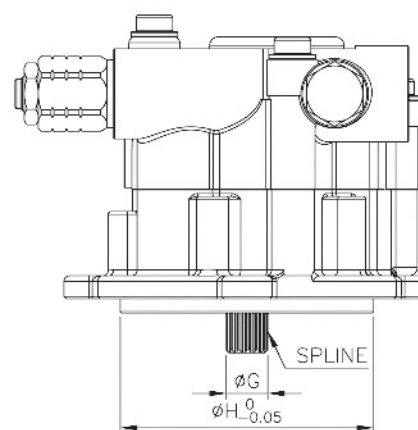
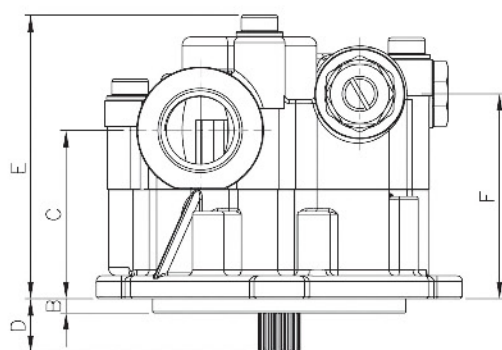
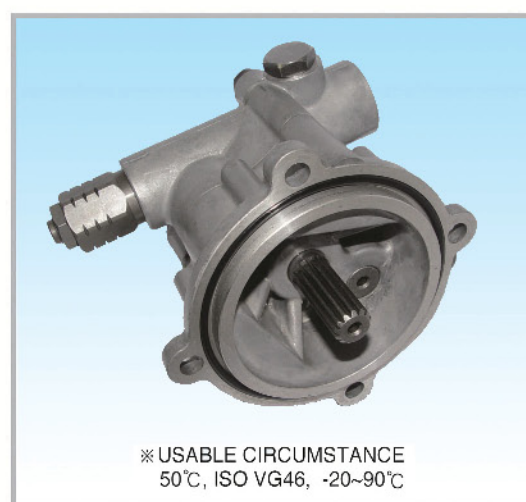
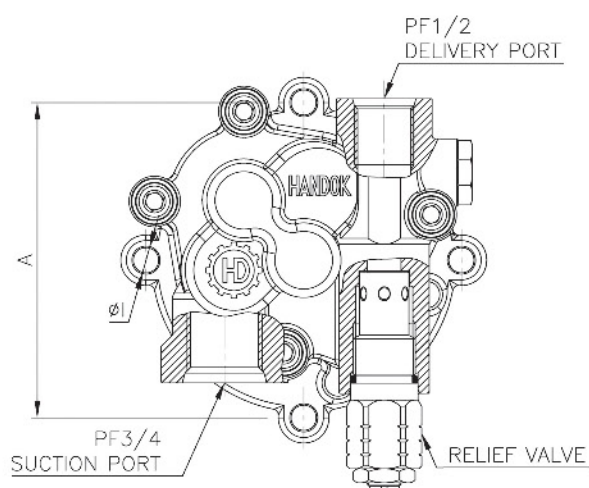
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
HPC90 (TROCHOID PUMP)	65	129	74	182	7.8	23	15.875	9	49	99	157	32	38	33	53

H3V SERIES GEAR PUMPS OF INNER DRAIN TYPE



SPECIFICATIONS

MODEL	H3V63	H3V112	H3V140	H3V180
Discharge Rate (cc/rev)	12		15	
Max. Pressure (kg/cm ²)	40			
Max. Speed (rpm)	3250	2700	2500	2200



DIMENSIONS

(mm)

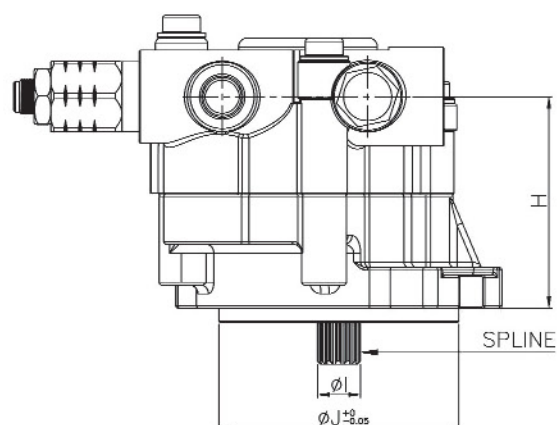
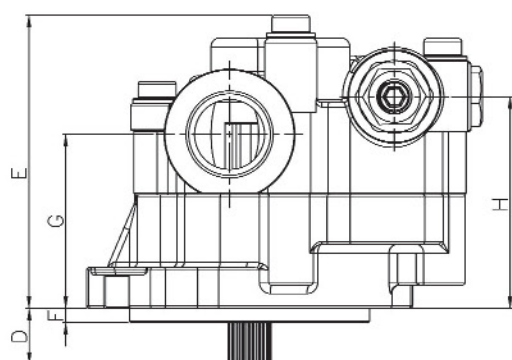
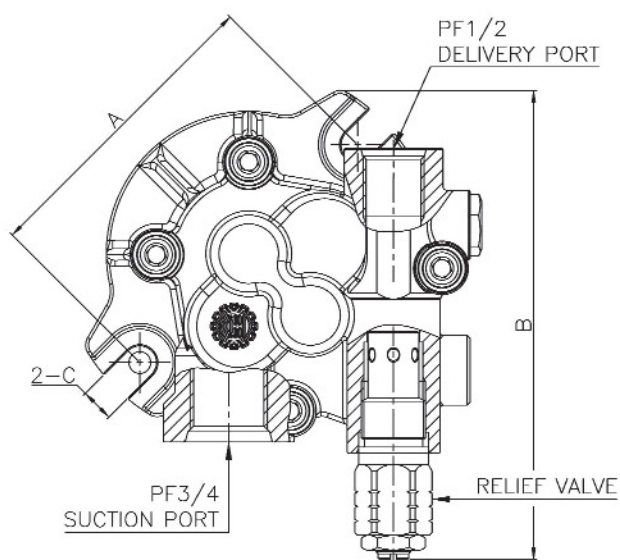
MODEL	A	B	C	D	E	F	G	H	I	SPLINE
H3V63	100	5	59.8	19.2	93	72.8	14.8	80	6.6	Z 12 Z 13
H3V112	112							90		9
H3V140&180	138		62.8	16.2	96	75.8		100	11	Z 12 Z 13

H3V/H5V DTP/DP/DPH SERIES GEAR PUMPS OF OUTER DRAIN TYPE



SPECIFICATIONS

MODEL	H3V63DTP	H5V80DTP	H5V112DP	H5V200DPH
Discharge Rate (cc/rev)	12		15	
Max. Pressure (kg/cm ²)	50			
Max. Speed (rpm)	3250	2700	2500	2200
DIRECTION	CCW(L)			



DIMENSIONS

(mm)

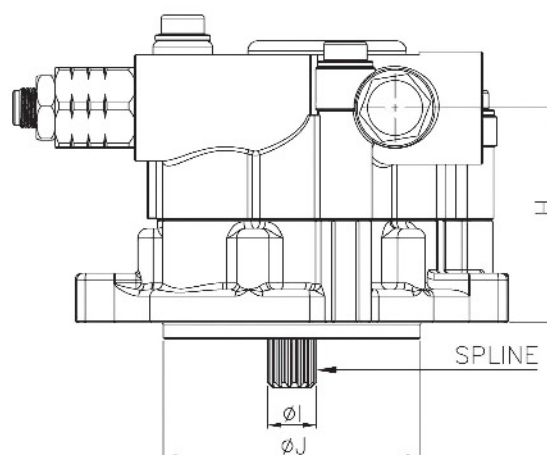
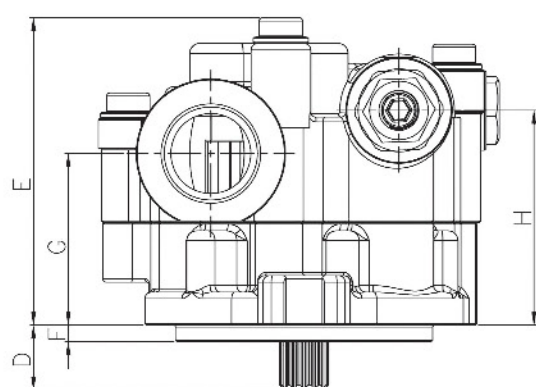
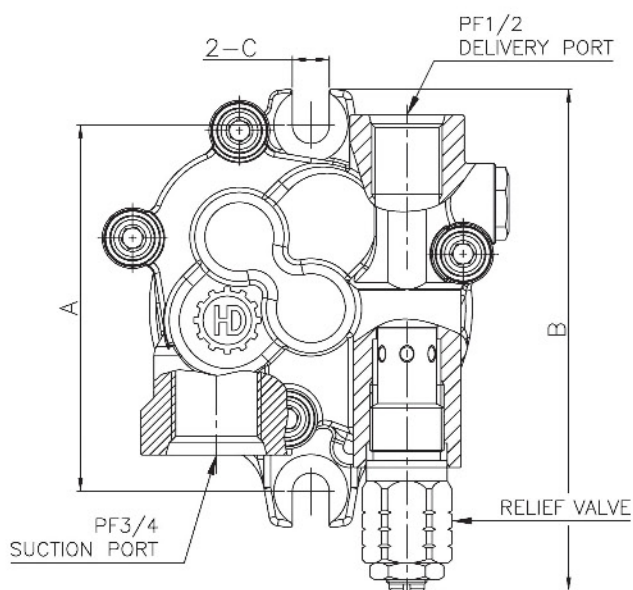
MODEL	A	B	C	D	E	F	G	H	I	J	SPLINE
H3V63DTP	106	161	11.5	19.2	100.8	5	59.8	72.8	14.8	82.55	Z13
H5V80DTP											
H5V112DP											
H5V200DPH											

H3V/H5V DTP SERIES GEAR PUMPS OF INNER DRAIN TYPE



SPECIFICATIONS

MODEL	H3V63DTP	H5V80DTP	H3V112DTP	H5V140DTP
Discharge Rate (cc/rev)	12		15	
Max. Pressure (kg/cm ²)	50			
Max. Speed (rpm)	3250	2700	2500	2200



DIMENSIONS

(mm)

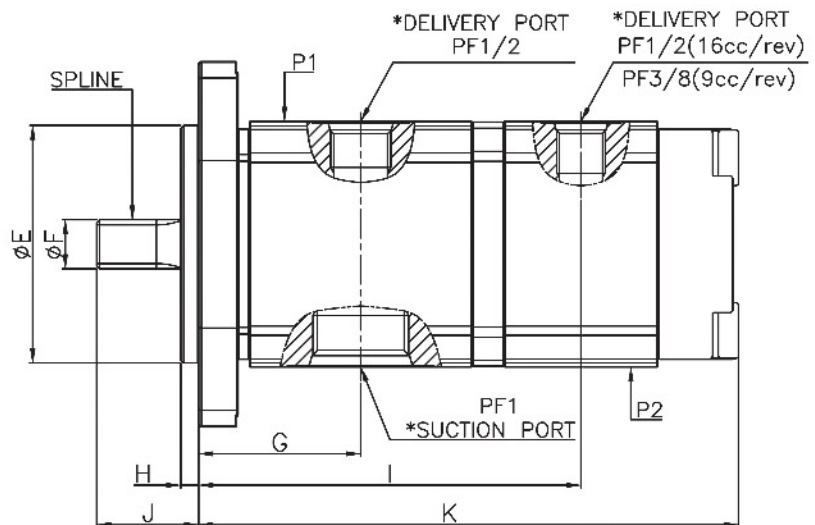
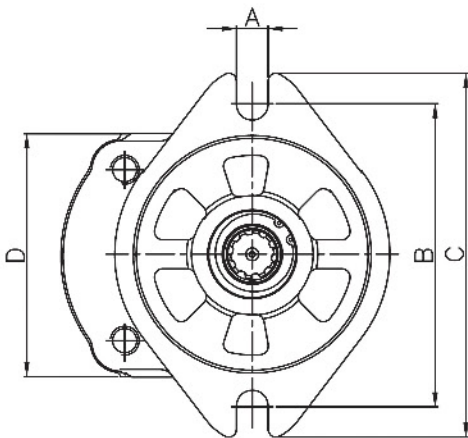
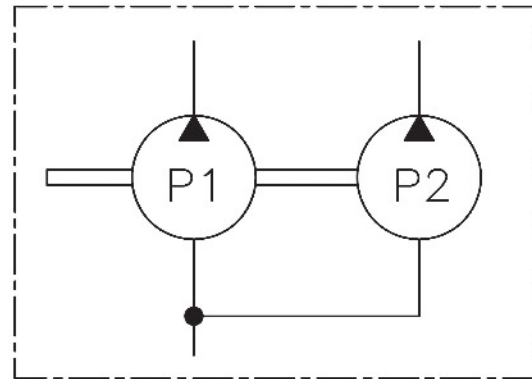
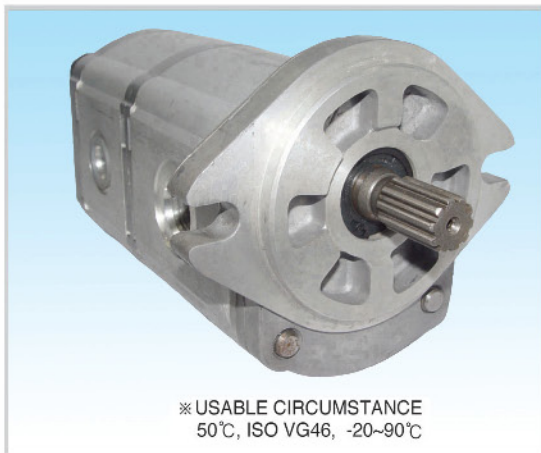
MODEL	A	B	C	D	E	F	G	H	I	J	SPLINE
H3V63DTP	109	149	11	27.2	93	5	51.8	64.8	14.8	77.5	Z13
H5V80DTP											
H3V112DTP											
H5V140DTP											

H3V63DTP/112DTP&H5V80DTP/140DTP DOUBLE TYPE GEAR PUMPS



SPECIFICATIONS

MODEL	H3V63DTP/H5V80DTP	H3V112DTP/H5V140DTP
Discharge Rate (cc/rev)	P1	P2
	23	10/16
Max. Pressure (kg/cm ²)	180	
Max. Speed (rpm)	3200	
DIRECTION	CCW(L)	CW(R)



DIMENSIONS

(mm)

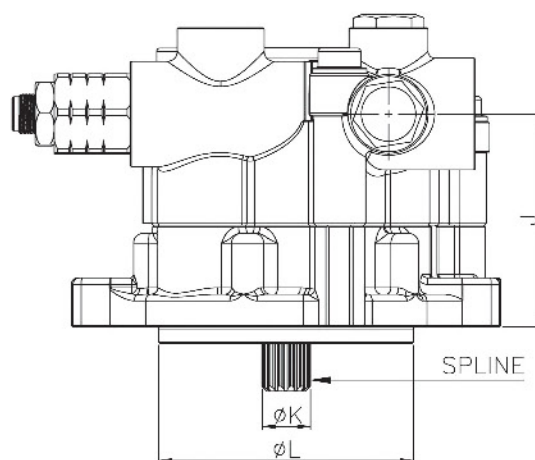
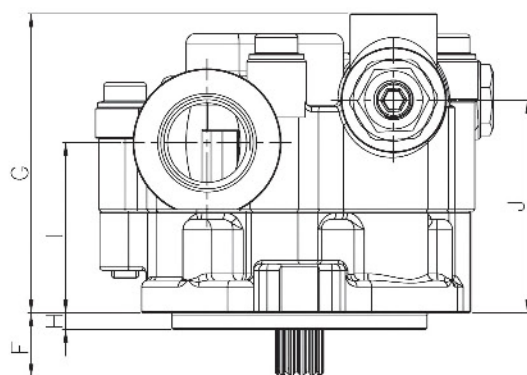
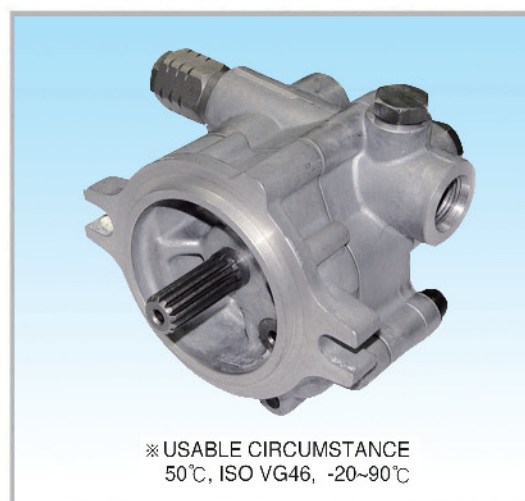
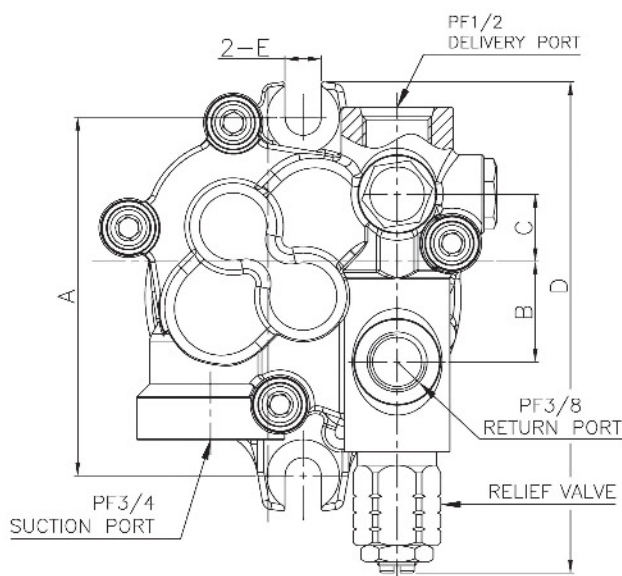
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
H3V63DTP	11	106	127	85	82.55	17	56.3	6.2	134.1	35.4	190	Z10
H3V112DTP									138.7		199.5	
H5V80DTP												
H5V140DTP												

H3V/H5V DTP SERIES GEAR PUMPS OF OUTER DRAIN TYPE



SPECIFICATIONS

MODEL	H3V63DTP	H5V80DTP	H3V112DTP	H5V140DTP
Discharge Rate (cc/rev)	12		15	
Max. Pressure (kg/cm ²)	50			
Max. Speed (rpm)	3250	2700	2500	2200

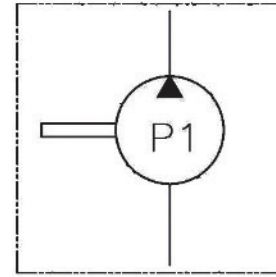


DIMENSIONS

(mm)

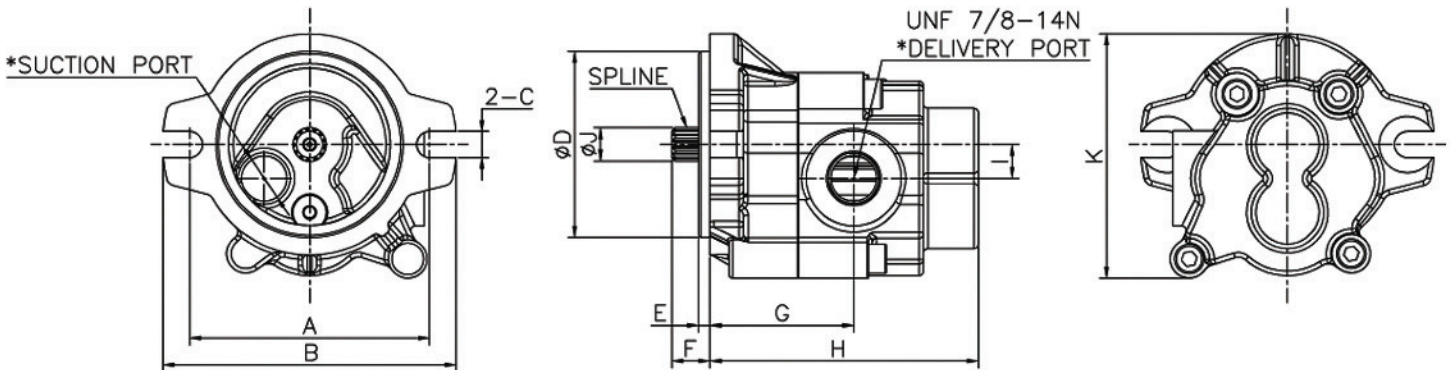
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	SPLINE
H3V63DTP	109	30.5	20.5	149	11	27.2	61	5	51.8	64.8	14.8	77.5	Z13
H5V80DTP													
H3V112DTP													
H5V140DTP													

H5V160DP FOR CATERPILLAR SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	H5V160DP
Discharge Rate(cc/rev)	25
Max.pressure	40
Max.speed(rpm)	2000

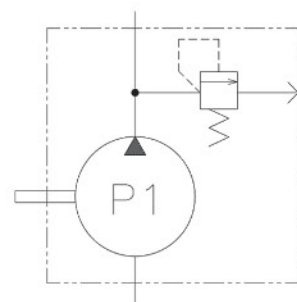
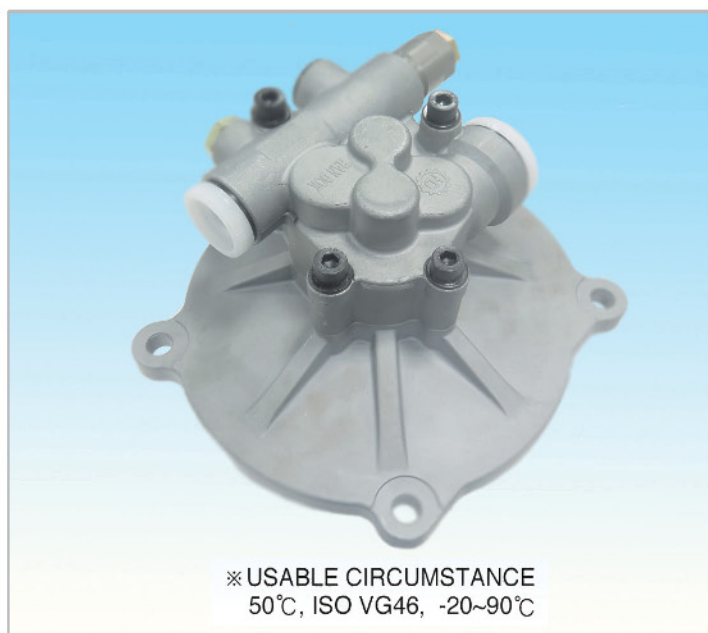


DIMENSIONS

(mm)

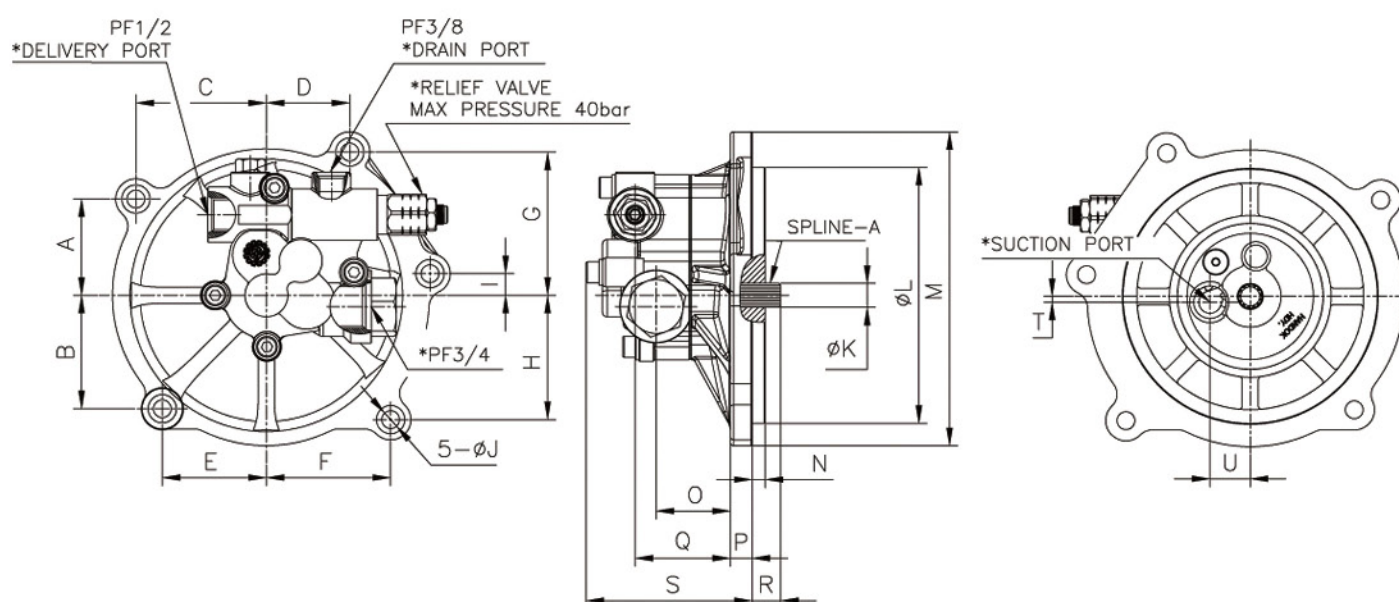
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
H5V160DP	106	130	12	83	5	17	64	119	15	15	108	Z13

H5V200/212DPH GEAR PUMP OF OUTER DRAIN TYPE



SPECIFICATIONS

MODEL	H5V200/212DPH
Discharge Rate (cc/rev)	15
Max. Pressure (kg/cm ²)	40
Max. Speed (rpm)	2200



DIMENSIONS

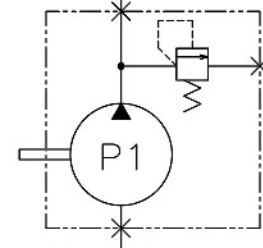
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	SPLINE
H5V200/212 DPH	59.5	70	80.5	51.5	64.2	76.7	88.5	76.7	13.4	11	14.8	158	193.8	8	45.8	13.5	58.8	17.5	102.5	3.6	24.8	Z13

H7V63/100/125/140/180/200DTP GEAR PUMPS OF INNER DRAIN TYPE

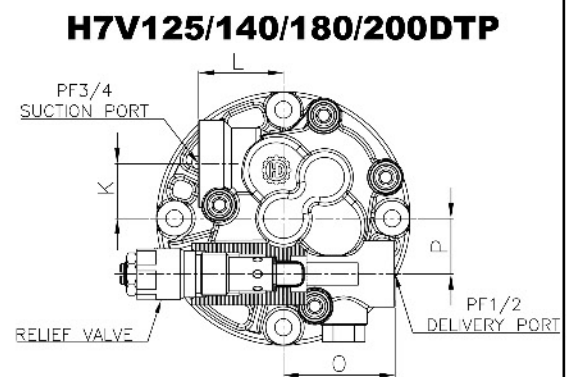
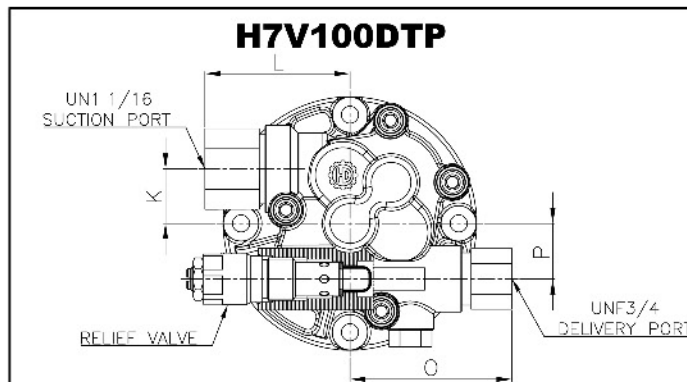
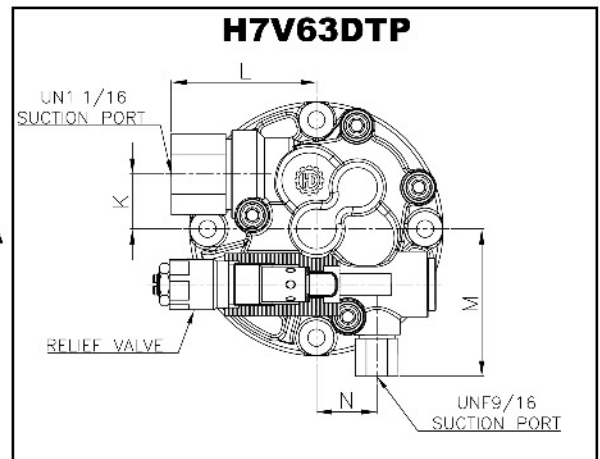
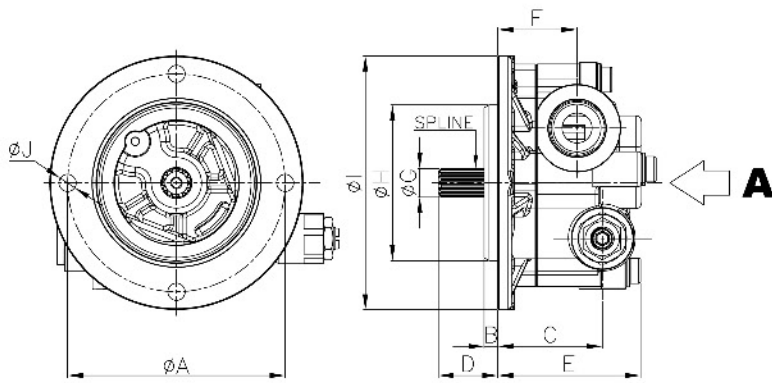


※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

MODEL	H7V63/100/125/140/180/200DTP
Discharge Rate(cc/rev)	15
Max. Pressure(kg/cm ²)	50
Max. Speed(rpm)	2700



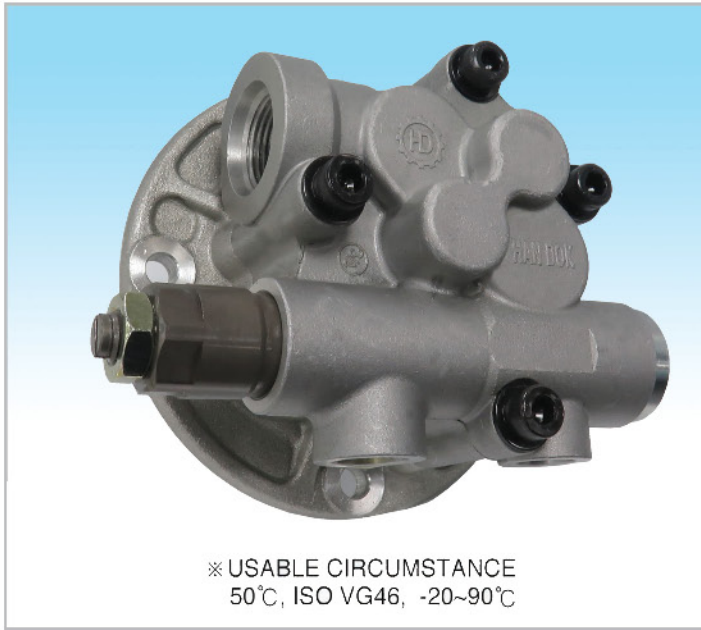
VIEW-A

DIMENSIONS

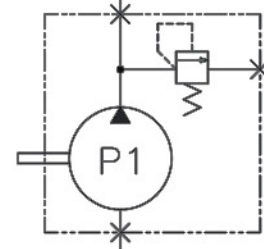
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	SPLINE
H7V63DTP	112	7				41		80	130.5			75	76	31	-	-	Z13
H7V100DTP														84			
H7V125DTP	124	5	54	31	73.5	45	14.8	100	142.5	9	28	44	-	-	58	29	Z13
H7V140DTP																	
H7V180DTP																	
H7V200DTP	138							110	156								

H7V63/100/125/140/180/200DTP GEAR PUMPS OF OUTER DRAIN TYPE

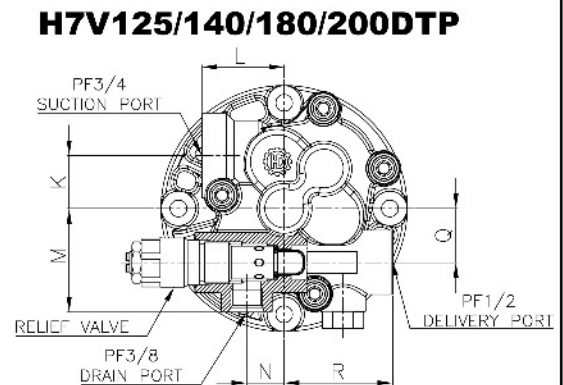
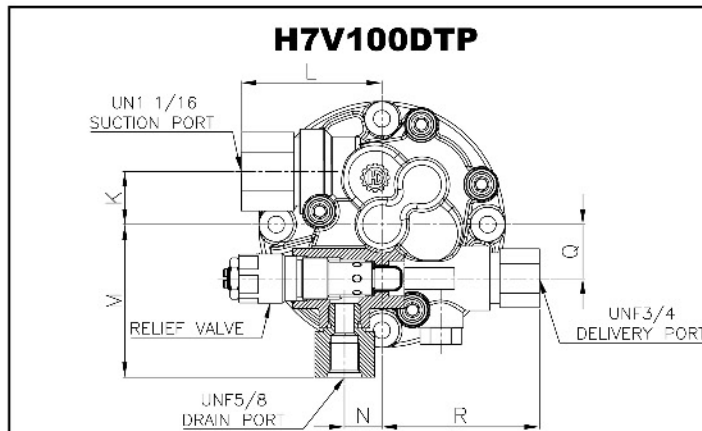
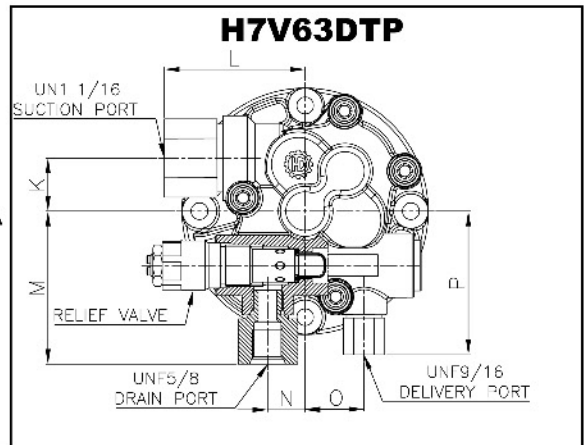
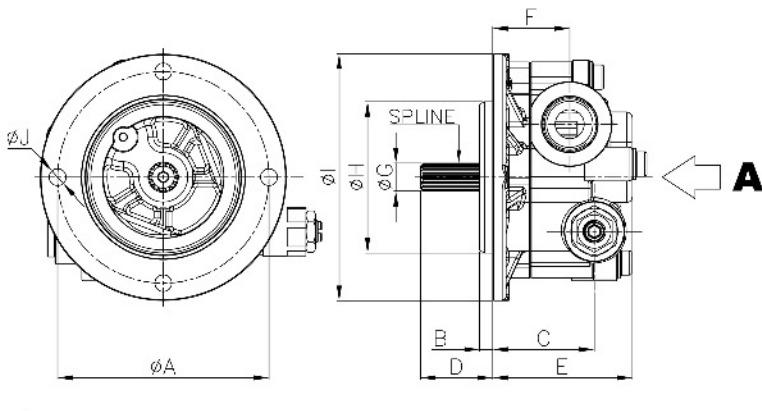


※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

MODEL	H7V63/100/125/140/180/200DTP
Discharge Rate(cc/rev)	15
Max. Pressure(kg/cm ²)	50
Max. Speed(rpm)	2700



VIEW-A

DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	SPLINE				
H7V63DTP	112	7				41		80	130.5			75	81		31	76	-	-					
H7V100DTP																						84	
H7V125DTP	124	5	54	31	73.5	45	14.8	100	142.5	9	28	44	55	20	-	-	29	58		Z13			
H7V140DTP																							
H7V180DTP																							
H7V200DTP	138							110	156														

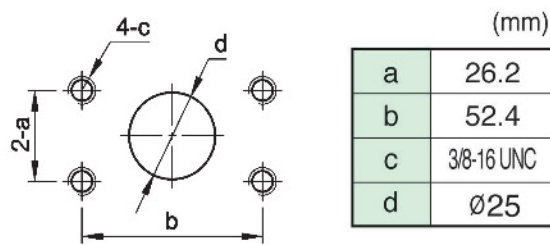
HGP16.8(CCW-L) SINGLE TYPE GEAR PUMP(FOR 4-BOLT FITTINGS)



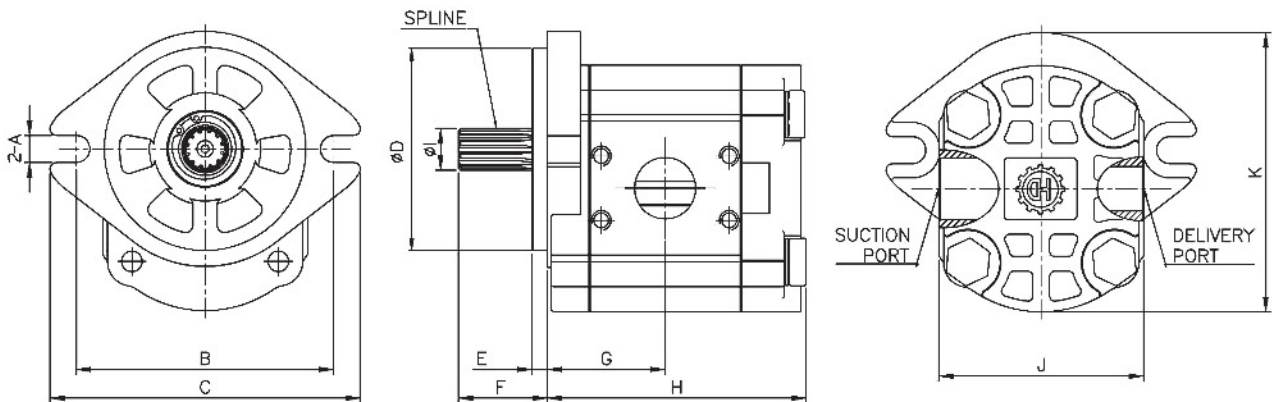
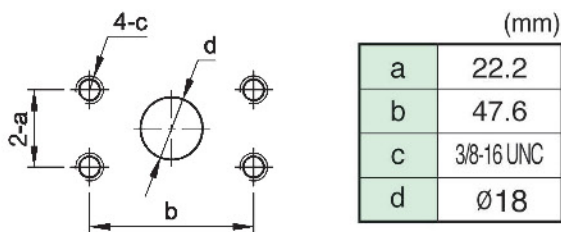
SPECIFICATIONS

MODEL	HPV125A	HPV125B	KVC925
Discharge Rate (cc/rev)		16.8	
Max. Pressure (kg/cm ²)		180	
Max. Speed (rpm)		3200	
DIRECTION		CCW(L)	

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

(mm)

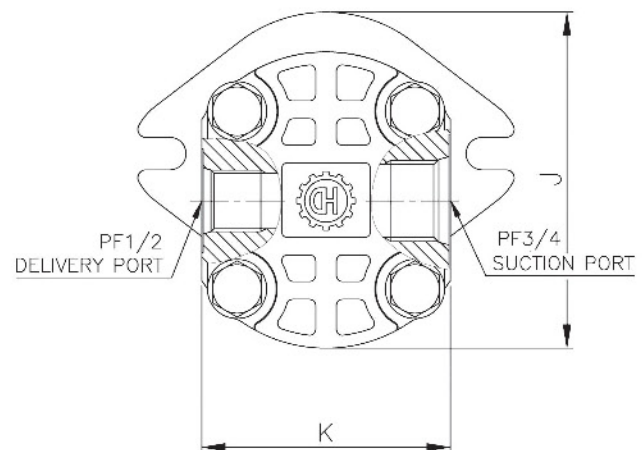
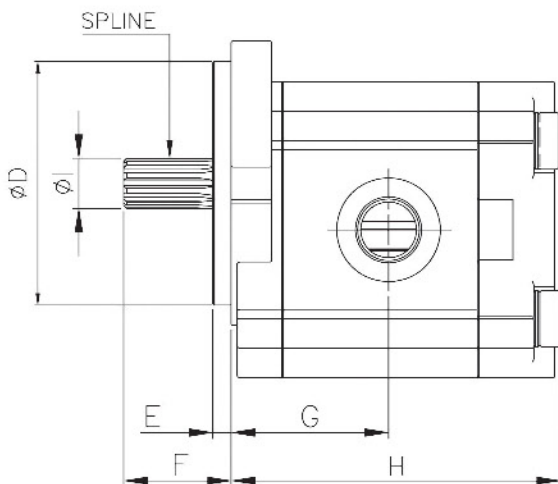
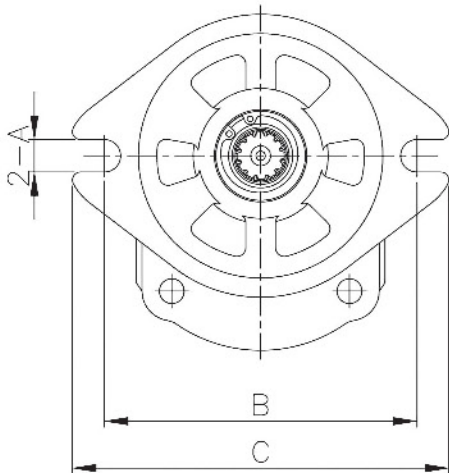
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
HGP16.8 (CCW-L)	11	105.5	127	82.55	6.2	36.3	50.4	109	17	84	113.5	Z10

HGP16.8(CCW-L, CW-R) SINGLE TYPE GEAR PUMPS(FOR PIPE FITTINGS)



SPECIFICATIONS

MODEL	HPVO50	HPVO102	HPVO91ES	HPVO91EW	HPV116	HPV145	A7VO250
Discharge Rate (cc/rev)	16.8						
Max. Pressure (kg/cm ²)	180						
Max. Speed (rpm)	3200						
DIRECTION	CCW(L)	CCW(L)	CCW(L)	CCW(L)	CW(R)	CW(R)	CW(R)

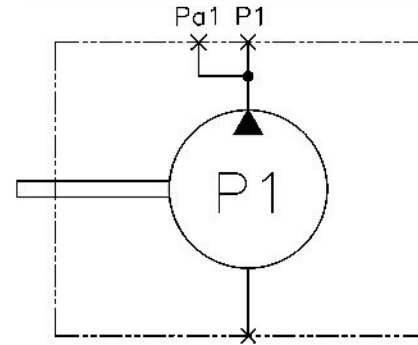
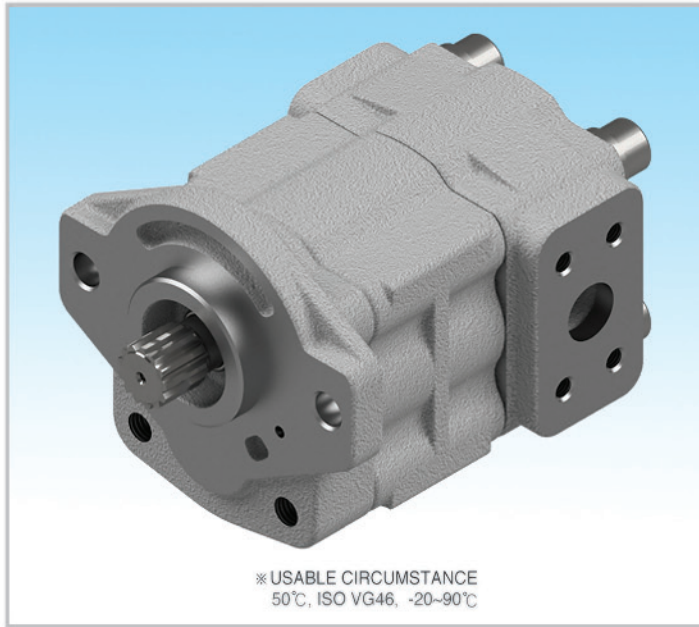


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
HGP16.8 (CCW-L) (CW-R)	11	105.5	127	82.55	6.2	36.3	53	109	17	113.5	84	Z10

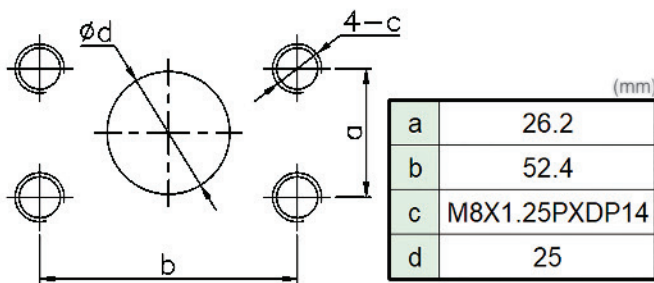
LPD45 FOR KOMATSU SINGLE TYPE GEAR PUMP



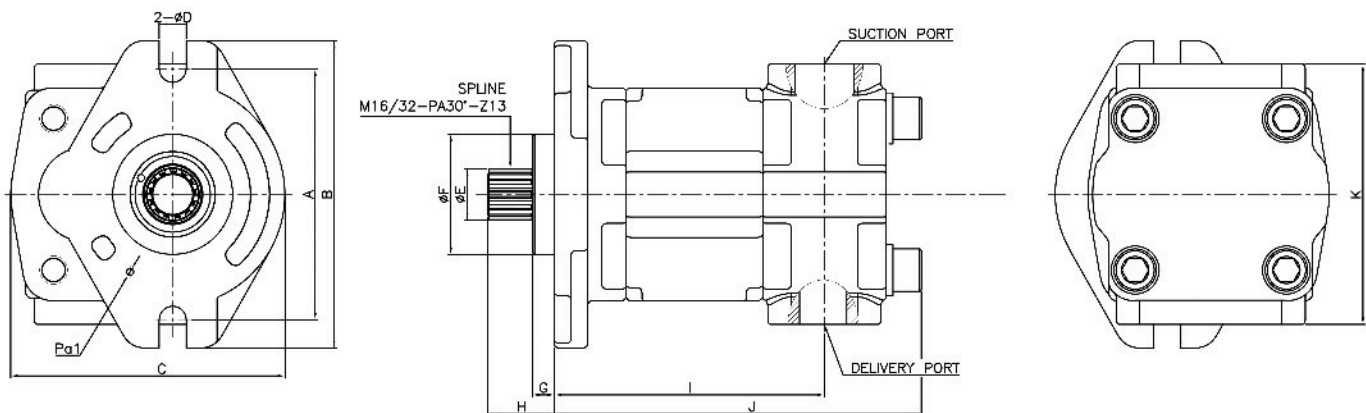
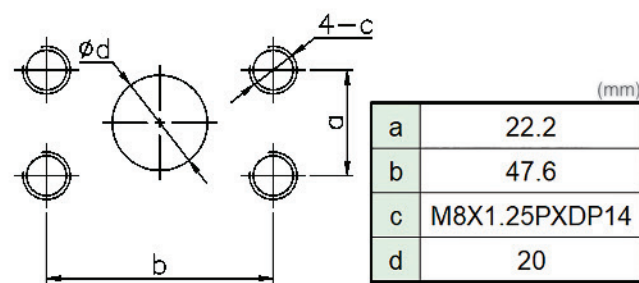
SPECIFICATIONS

MODEL	LPD45 (FOR KOMATSU)
Discharge Rate(cc/rev)	32
Max. Pressure (kg/cm ²)	245
Max. Speed (rpm)	3,000
DIRECTION	CW

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port

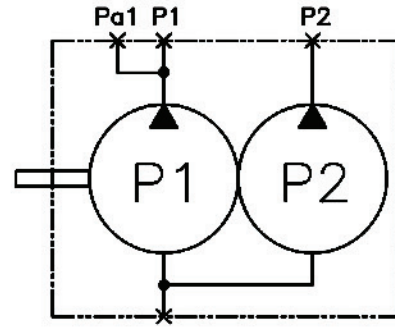
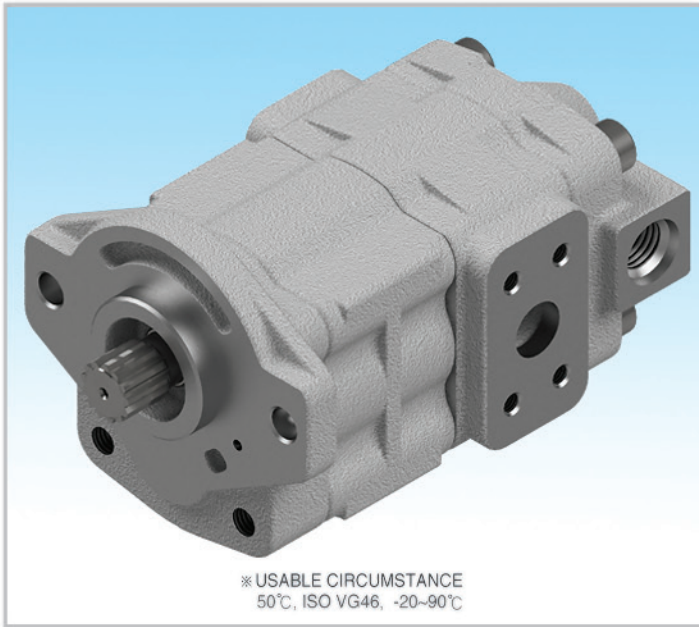


DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K
LPD45 (FOR KOMATSU)	106	130	116	11.5	21.8	50.8	9.5	28	114	155	110

(mm)

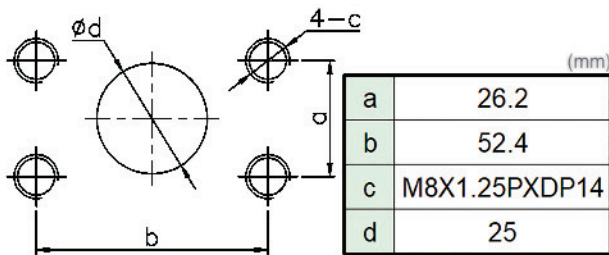
LPD45 FOR KOMATSU DOUBLE TYPE GEAR PUMP



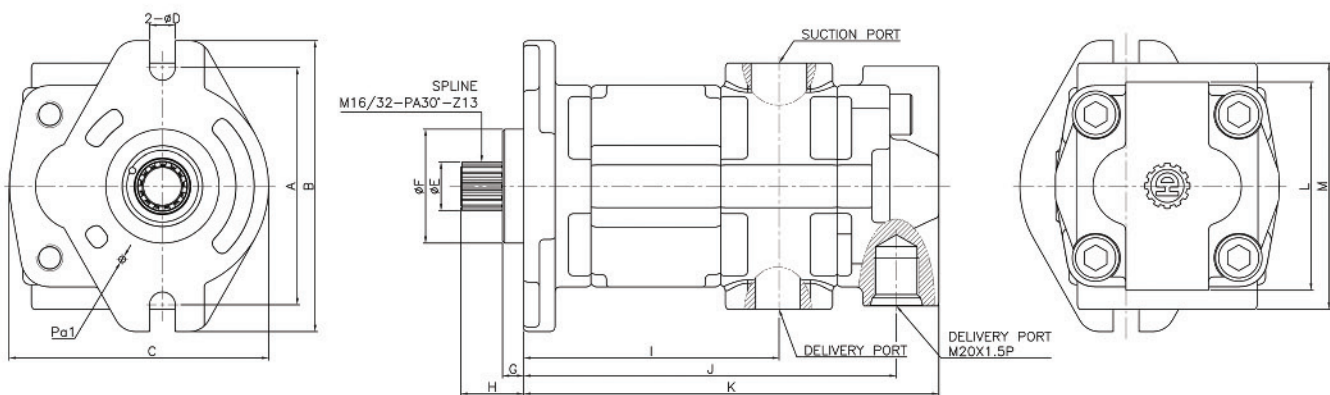
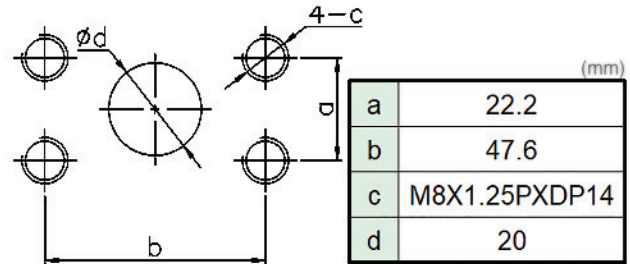
SPECIFICATIONS

MODEL	LPD45(FOR KOMATSU)	
Discharge Rate(cc/rev)	32	7
Max. Pressure (kg/cm ²)	245	
Max. Speed (rpm)	3,000	
DIRECTION	CW	

Flange Mounting face for Suction Port



Flange Mounting face for Delivery Port



DIMENSIONS

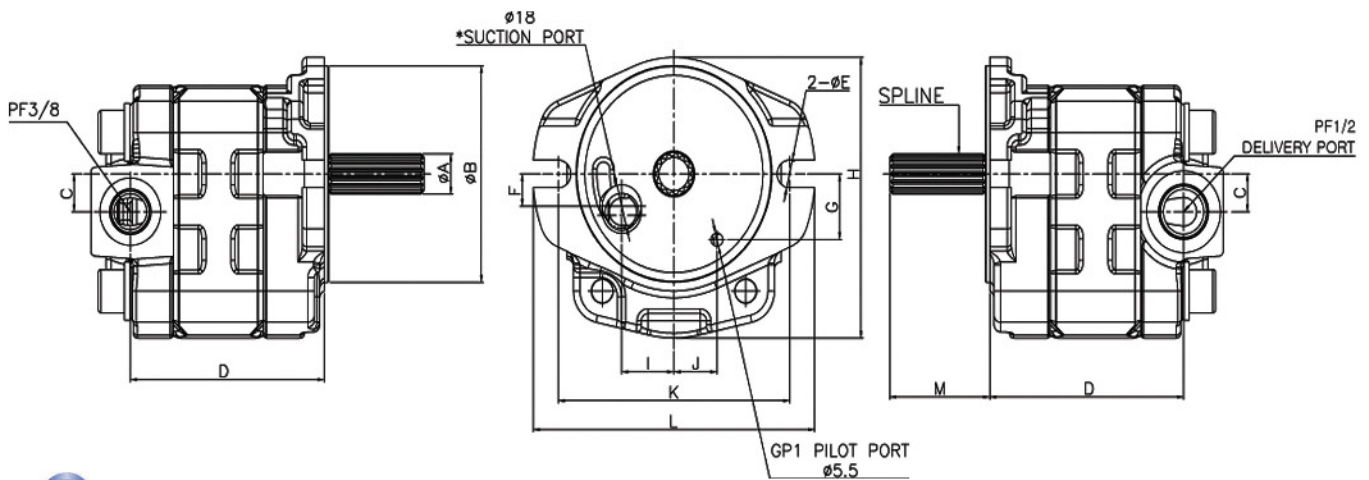
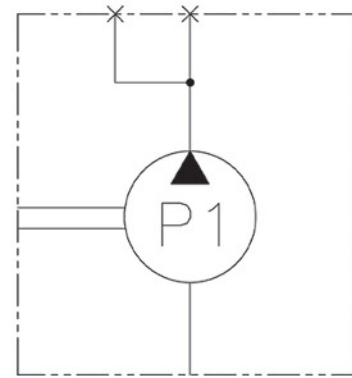
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
LPD45 (FOR KOMATSU)	106	130	116	11.5	21.8	50.8	9.5	28.3	114	172	190	93	110

PSVD2 SERIES SINGLE TYPE GEAR PUMPS



SPECIFICATIONS

MODEL	PSVD2-17/21/27		
Discharge Rate (cc/rev)	12	16.8	19.2
Max. Pressure (kg/cm²)	210		
Max. Speed (rpm)	2400 / 2500 / 2550		



DIMENSIONS

(mm)

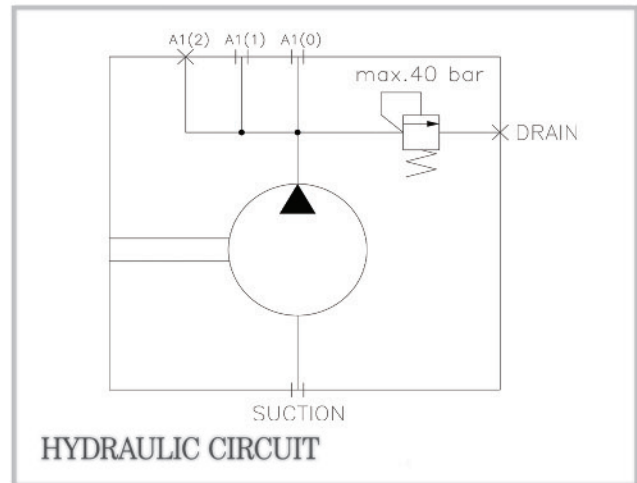
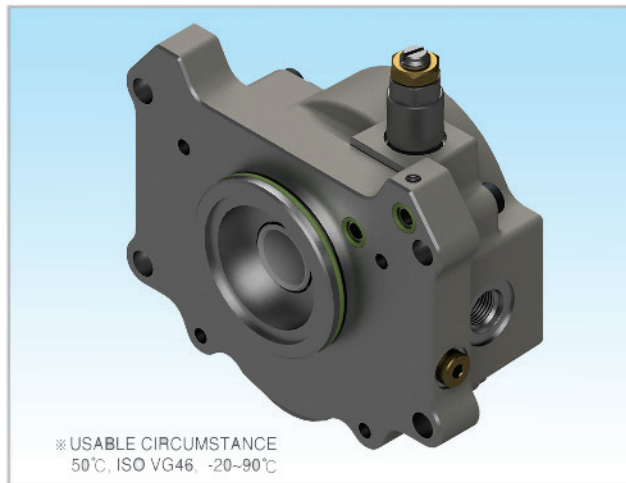
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	SPLINE
PSVD2-17				76.1										Z15
PSVD2-21	17	90	15.7	85.6	11.5	13.5	27.3	117	24	19.8	106	130	46	
PSVD2-27				89.2										

PSV2-63 SINGLE TYPE GEAR PUMP



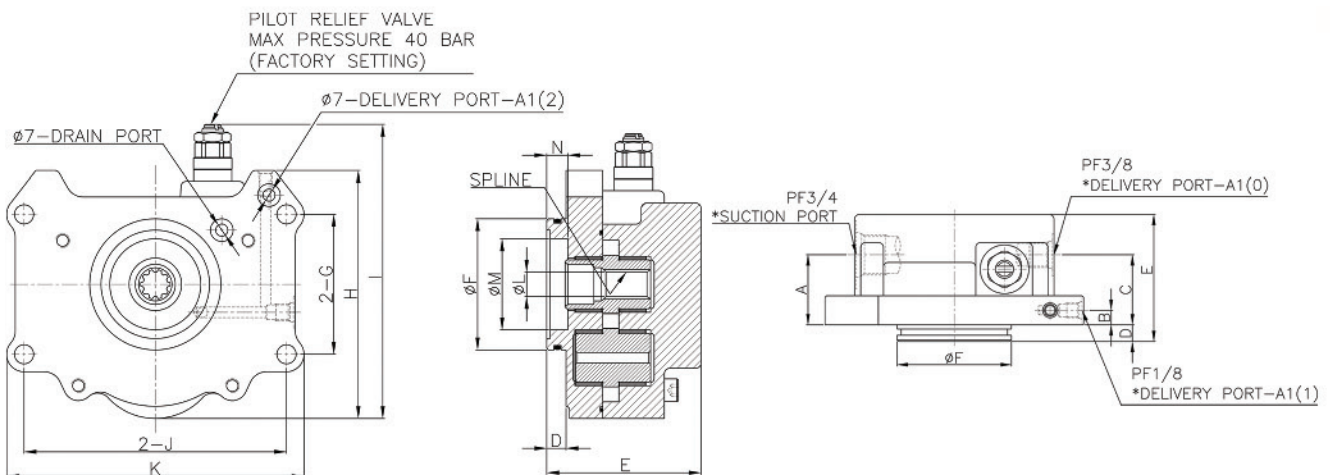
SPECIFICATIONS

MODEL	PSV2-63
Discharge Rate (cc/rev)	10
Max. Pressure (kg/cm²)	40
Max. Speed (rpm)	2000



Dimensions of Shaft End(Spline Type)

MODEL	No. of teeth	Pitch circle dia(mm)	Module	Pressure angle	Standard
PSV2-63	10	15.875	0.5	30°	SAE

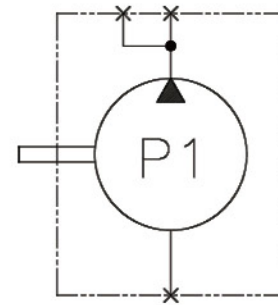
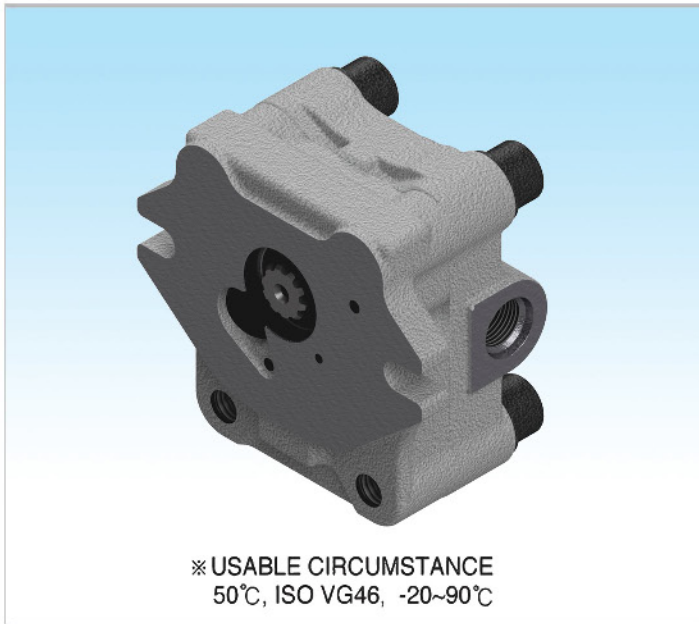


DIMENSIONS

(mm)

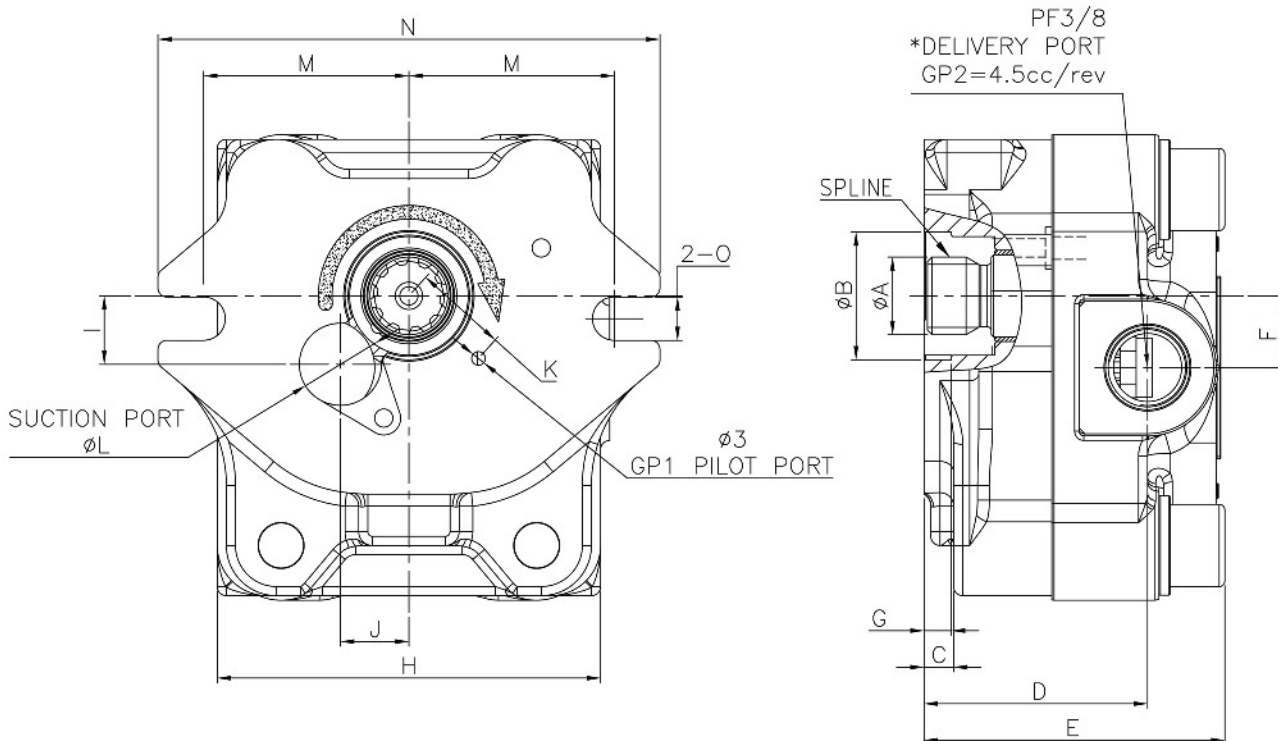
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE
PSV2-63	46	9.5	46	11	83.5	75	80	142	168	150	170	14	52	12	Z10

PVD SERIES SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	PVD-00B/0B/1B/2B/3B
Discharge rate(cc/rev)	4.5
Max. pressure (kg/cm²)	210
Max.speed(rpm)	3000



DIMENSIONS

(mm)

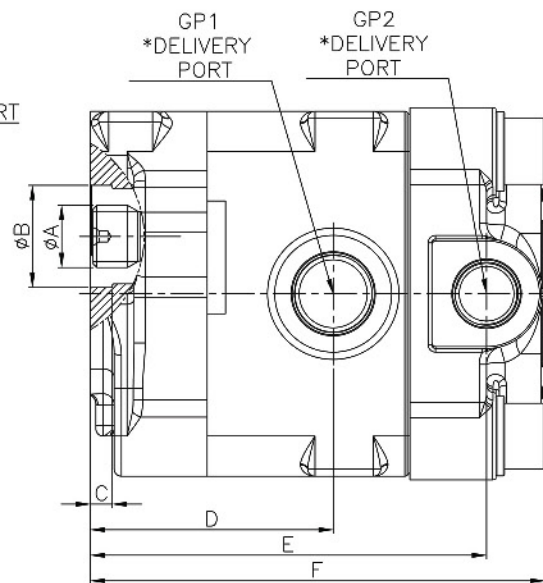
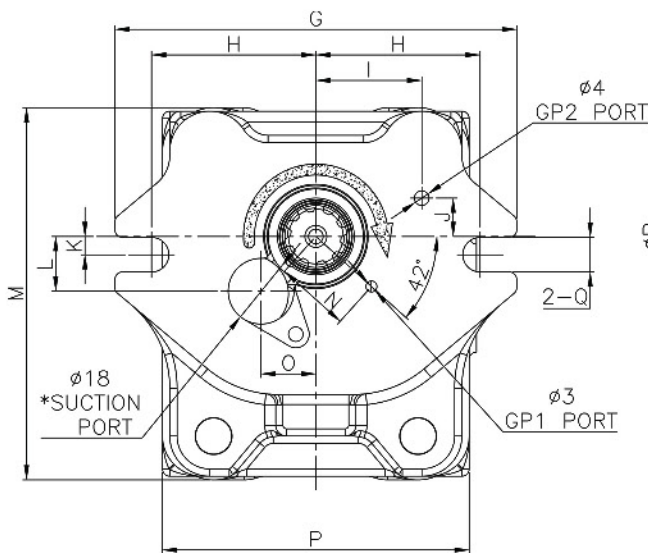
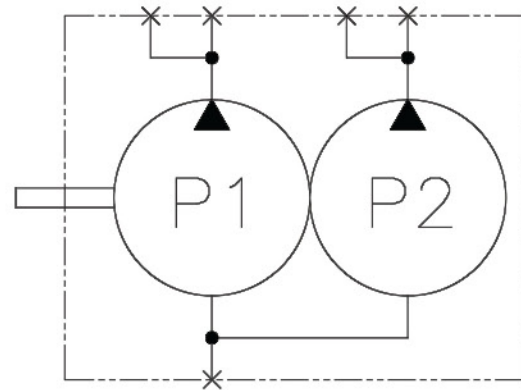
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
PVD-00B/0B/1B/2B/3B	17	28	6.5	49	65.9	15.7	6	84	15	15	20.5	18	45	110	9.5	Z10

PVD SERIES DOUBLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	PVD-00B/0B/1B/2B/3B					
	6&3cc/rev		10.5&4.5cc/rev		16.8&4.5cc/rev	
Discharge Rate(cc/rev)	P1	P2	P1	P2	P1	P2
	6	3	10.5	4.5	16.8	4.5
Max. Pressure (kg/cm ²)	210	40	210	40	210	40
Max. Speed (rpm)	3000					



DIMENSIONS

(mm)

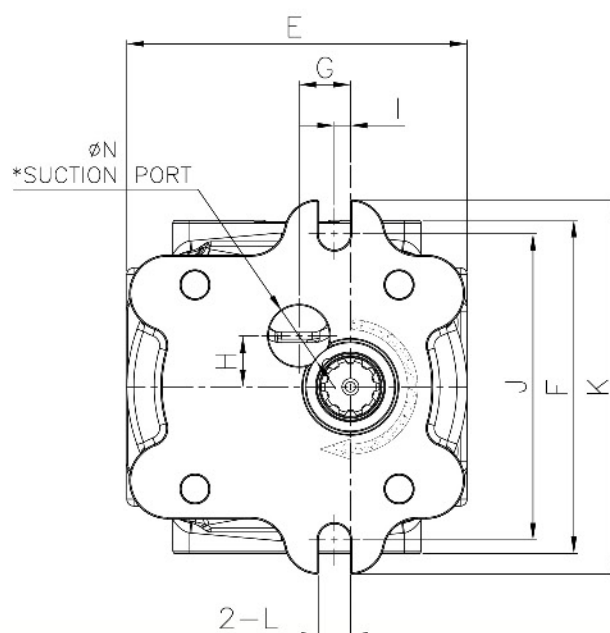
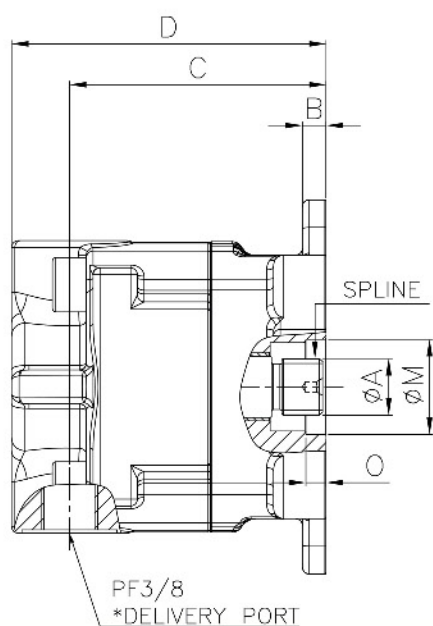
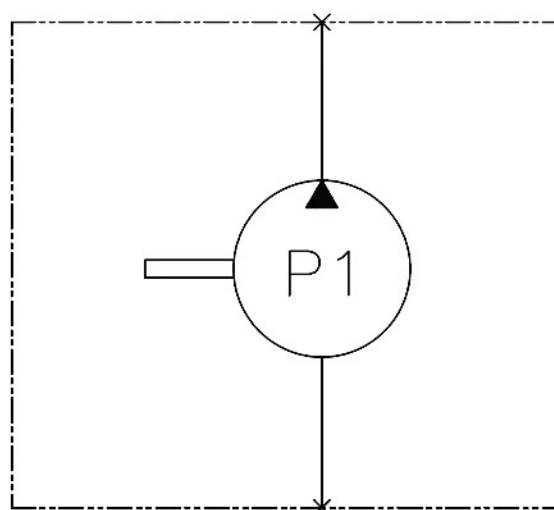
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	SPLINE	GP1	GP2
PVD-6&3				45.5	82.5	98.5													PF3/8	
PVD-10.5&4.5	17	28	6	49.5	91.5	108	110	45	29	10.5	5	15	102	20.5	15	84	9.5	Z10	PF3/8	
PVD-16.8&4.5				66.5	108.5	125													PF1/2	

H3SP SERIES SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	H3SP30/36C
Discharge Rate(cc/rev)	10
Max. Pressure (kg/cm²)	35
Max. Speed (rpm)	2300



DIMENSIONS

(mm)

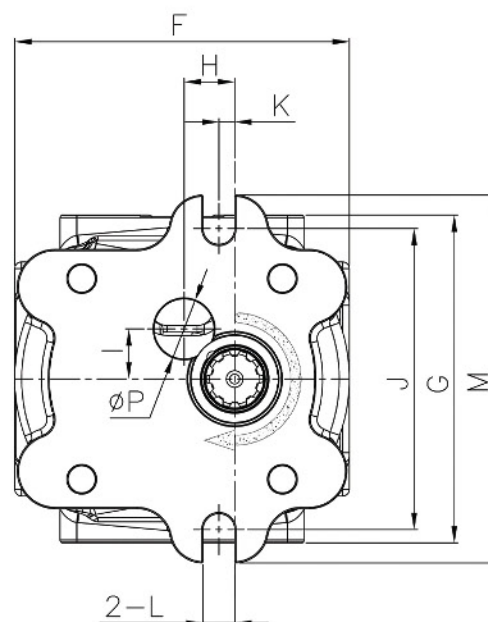
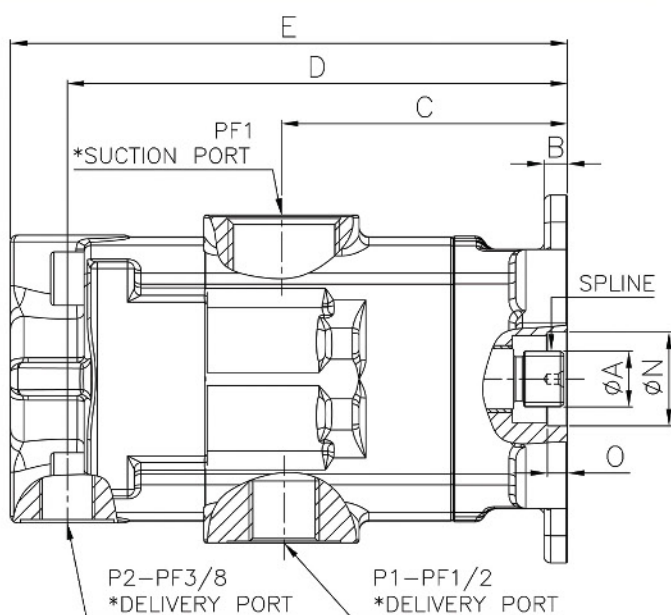
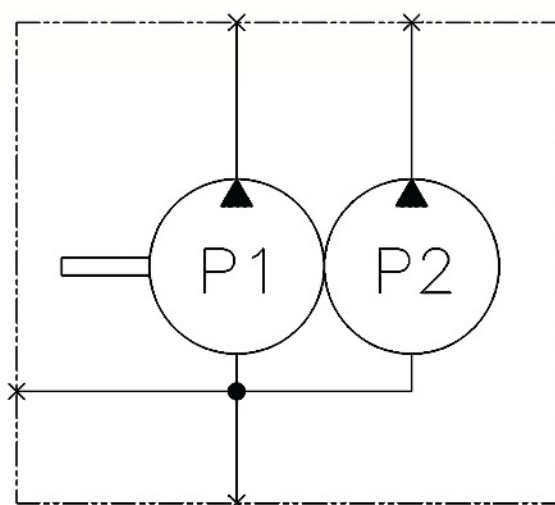
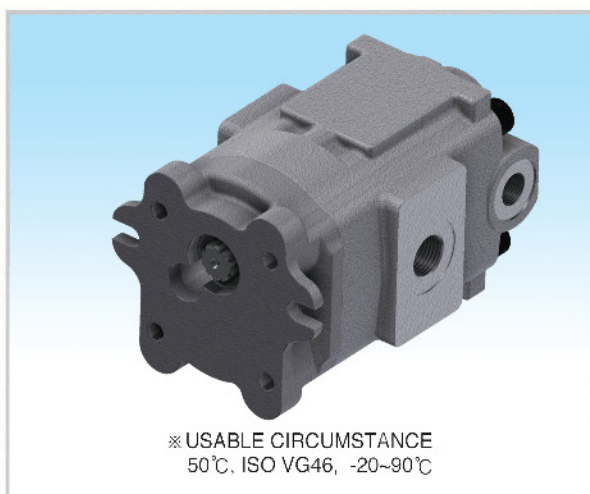
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
H3SP30/36C	17	7	75.5	92.5	100	98	15	15	5	90	110	9.5	28	18	6	Z10

H3SP SERIES DOUBLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	H3SP30/36C	
Discharge Rate(cc/rev)	P1	P2
	16.8	10
Max. Pressure (kg/cm ²)	200	35
Max. Speed (rpm)	2300	

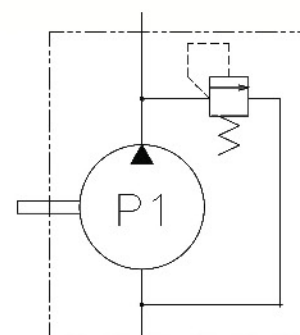
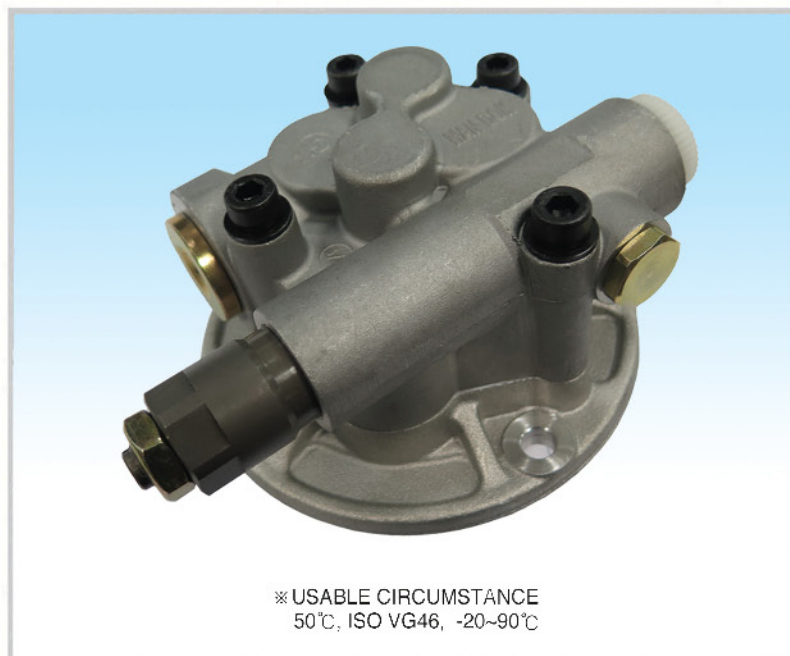


DIMENSIONS

(mm)

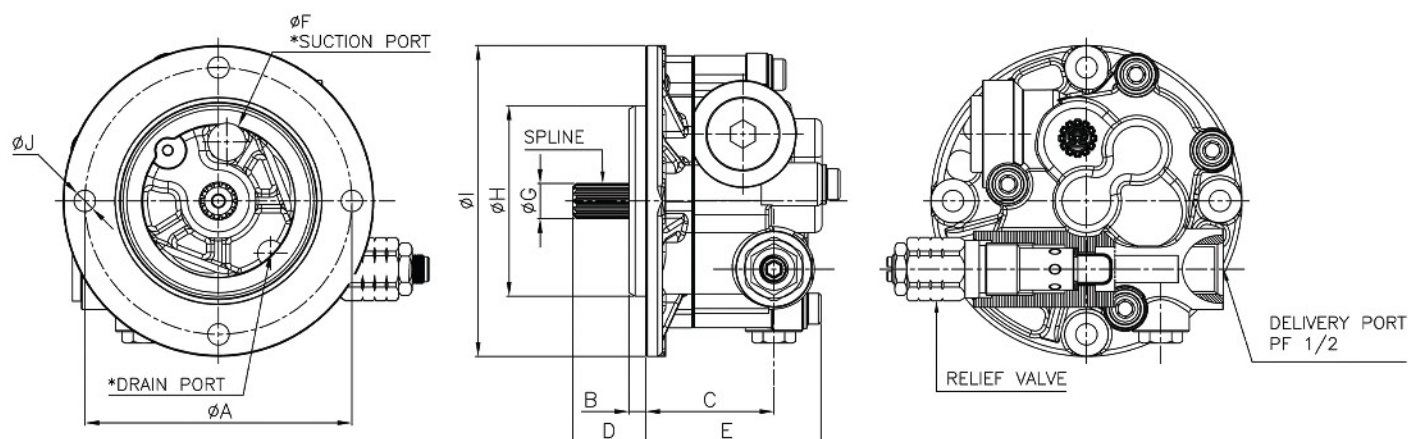
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	SPLINE
H3SP30/36C	17	7	85.5	149.5	166	100	98	15	15	90	5	9.5	110	28	6	18	Z10

H7SP36 GEAR PUMP OF INNER DRAIN TYPE



SPECIFICATIONS

MODEL	H7SP36
Discharge Rate(cc/rev)	15
Max. Pressure (kg/cm ²)	50
Max. Speed (rpm)	2700



DIMENSIONS

(mm)

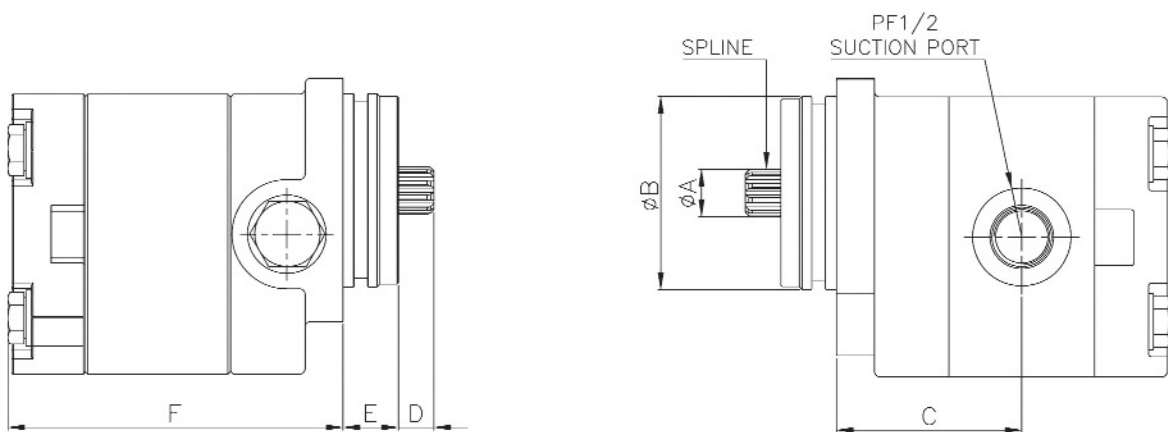
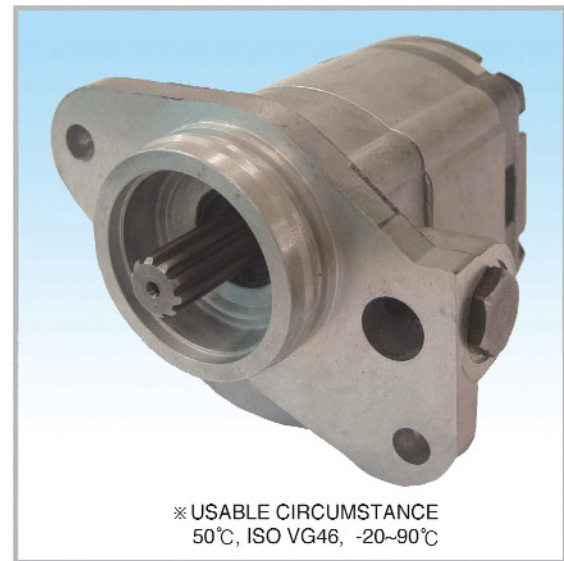
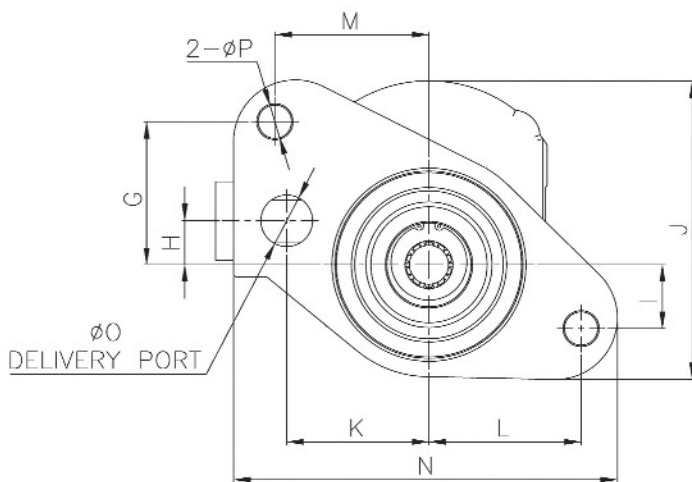
MODEL	A	B	C	D	E	F	G	H	I	J	SPLINE
H7SP36	112	7	54	30.6	73.5	16	14.8	80	103.5	9	Z13

GEAR PUMP FOR HITACHI



SPECIFICATIONS

MODEL	HPVO91DW	HPVO91DS
Discharge Rate (cc/rev)	16.8	
Max. Pressure (kg/cm ²)	180	
Max. Speed (rpm)	3200	
DIRECTION	CCW(L)	



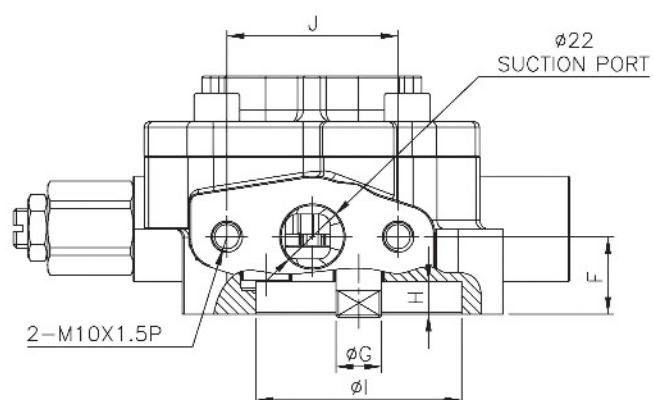
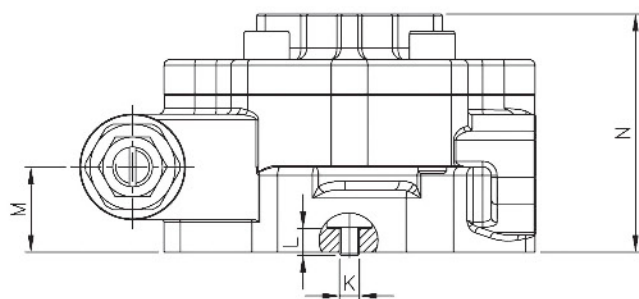
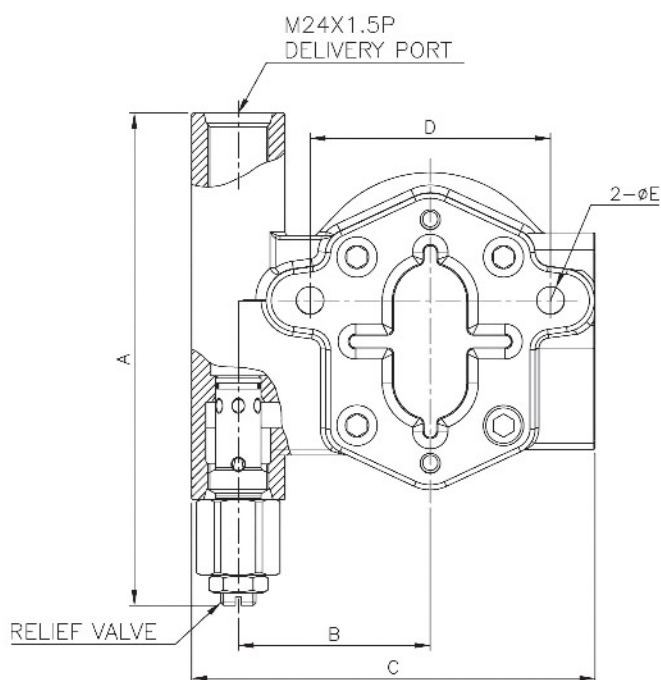
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	SPLINE
HPVO91DW	17	69	66	126	198	119	51	15.7	228	107	50.6	54	54.8	136.5	18.4	11	Z10
HPVO91DS																	

SPECIFICATIONS

MODEL	HPV55 (PC100/120-3/5)	HPV35&95 (PC60-3/5, PC200&220-6/7)	HPV132 (PC300-6)
Discharge Rate (cc/rev)	17.6	13.2	17.6
Max. Pressure (kg/cm ²)	50		
Max. Speed (rpm)	3200		

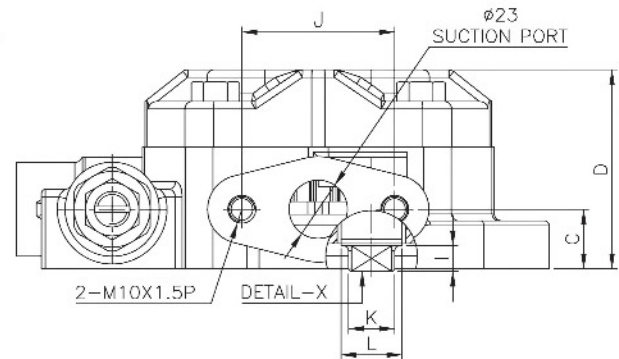
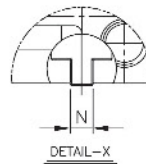
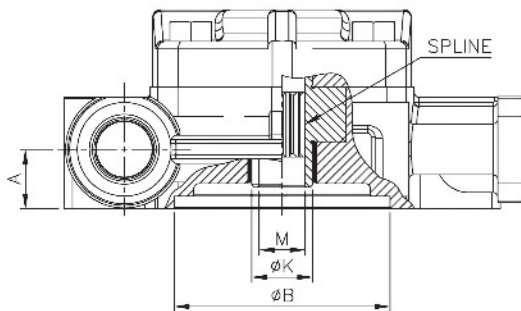
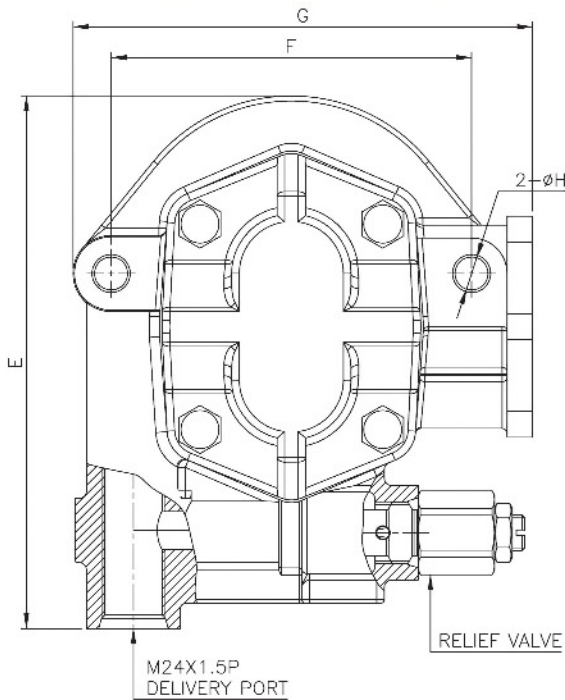


DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HPV55 (PC100/120-3/5)	195	76	159.7	95.2	11	27.2	15	11.5	72	60	7	9.2	29.9	83.5
HPV55 (PC60-3/5)				105		26.3		8.2	84				28.9	75.4
HPV95 (PC200&220-6/7)				27.2									29.9	83.5
HPV132 (PC300-6)														

SPECIFICATIONS

MODEL	HPV71(PC150-3/5)	HPV90(PC200-3/5)
Discharge Rate (cc/rev)	23.5	
Max. Pressure (kg/cm ²)	50	
Max. Speed (rpm)	3200	



DIMENSIONS

(mm)

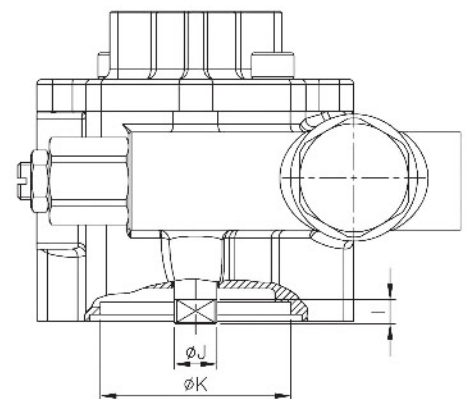
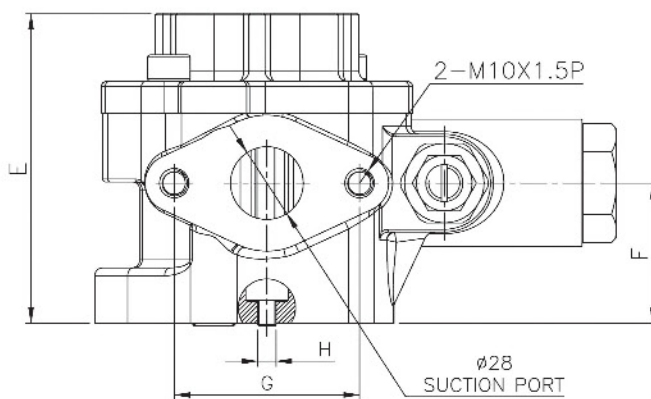
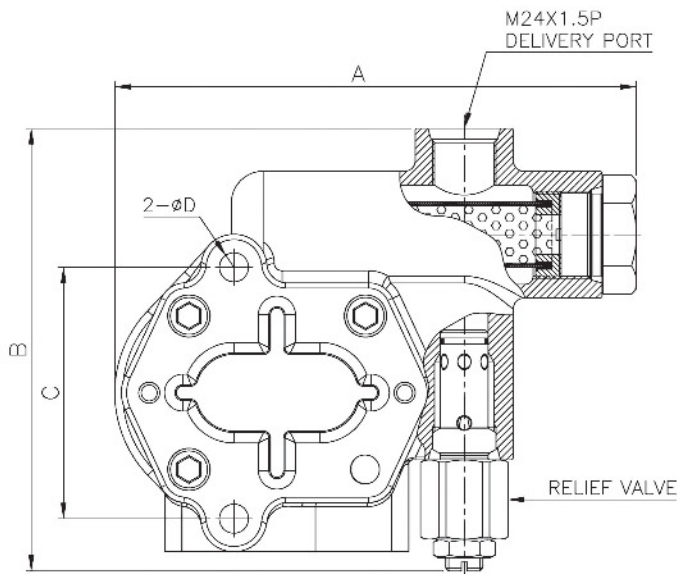
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE
HPV71, HPV90 (PC150-3, PC200-3)	26.5	85	26.5	78.5	210	142	181	13	-	60	24	-	18.2	-	-
HPV71, HPV90 (PC150-5, PC200-5)									10		18.2	24	-	9	Z10

GEAR PUMP FOR KOMATSU



SPECIFICATIONS

MODEL	HPV160(PC300-3/5, PC400-3/5)
Discharge Rate (cc/rev)	28.6
Max. Pressure (kg/cm²)	50
Max. Speed (rpm)	3200



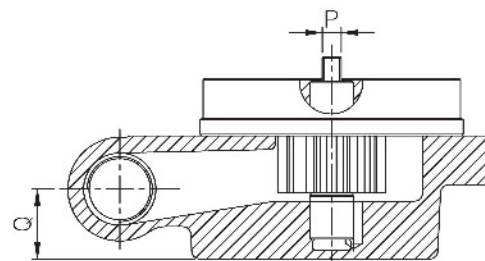
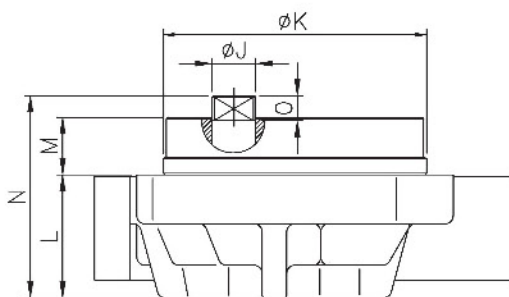
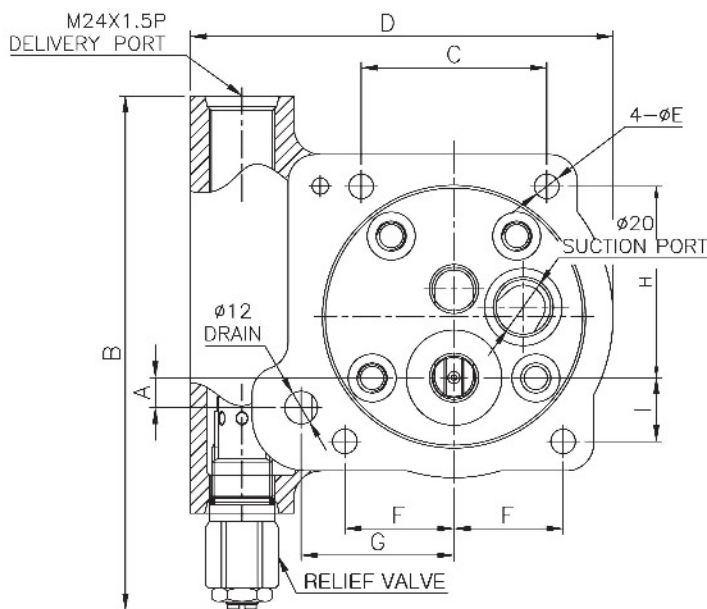
DIMENSIONS

MODEL	A	B	C	D	E	F	G	H	I	J	K
HPV160 (PC300-3/5, PC400-3/5)	197	167	95	11	117	53	70	7	9.2	16	72

(mm)

SPECIFICATIONS

MODEL	HPV75(PC60-6)
Discharge Rate (cc/rev)	16.8
Max. Pressure (kg/cm²)	40
Max. Speed (rpm)	3200



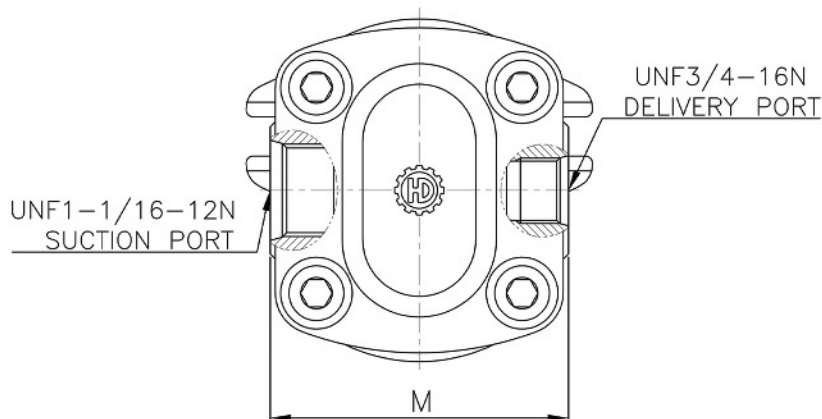
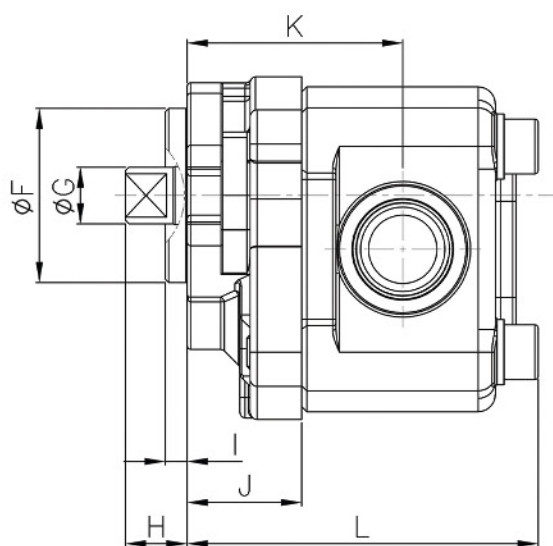
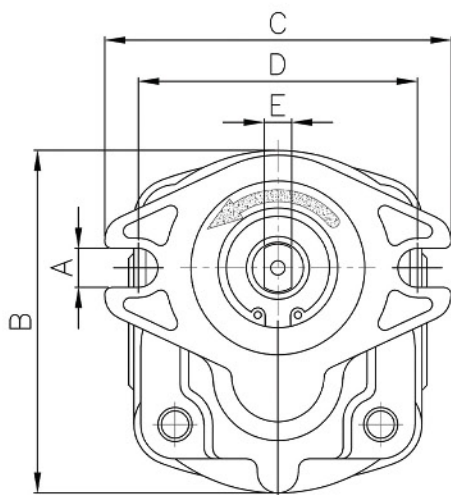
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
HPV75 (PC60-6)	11	189	68	155	9	40	56	70.1	23.4	16	96.4	45.2	21	74.2	9.2	7	25.6

SPECIFICATIONS

MODEL	SBS80(CCW)
Discharge Rate(cc/rev)	11
Max. Pressure (kg/cm²)	40
Max. Speed (rpm)	3200



DIMENSIONS

(mm)

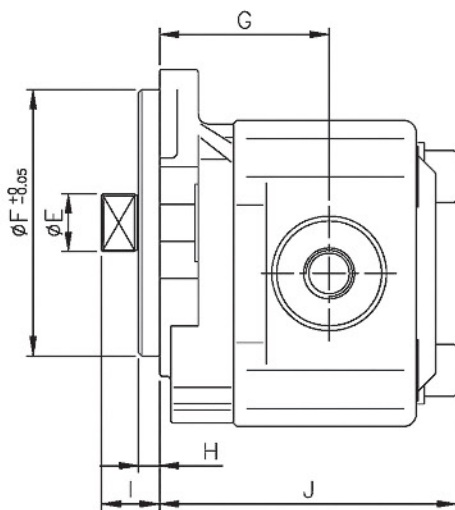
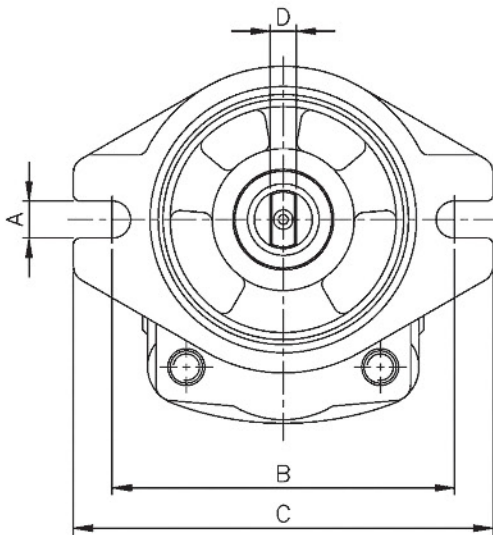
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
SBS80 (CCW)	11.4	100	101	81.4	8	50.8	16.5	18	6.4	33.4	63	103	87

SBS120&140 FOR CATAERPILLAR SINGLE TYPE GEAR PUMP

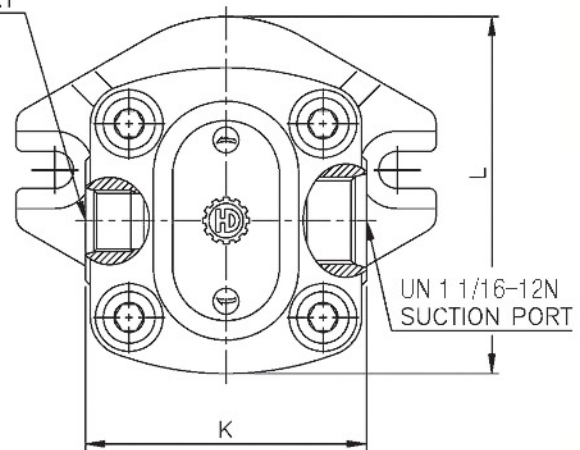


SPECIFICATIONS

MODEL	SBS120/140
Discharge Rate (cc/rev)	16
Max. Pressure (kg/cm²)	180
Max. Speed(rpm)	3200



UNF 3/4-16N
DELIVERY PORT

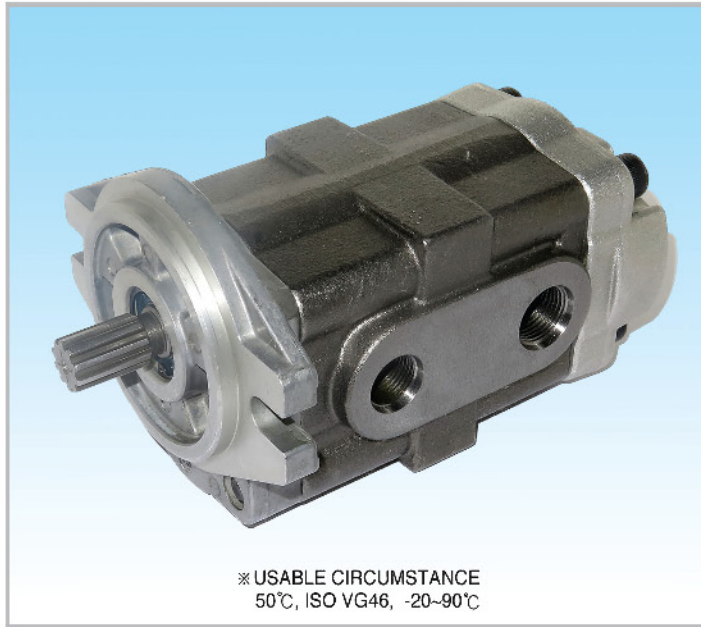


DIMENSIONS

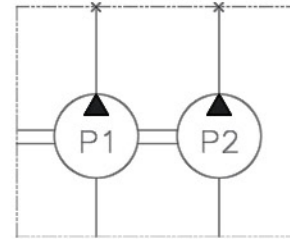
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
SBS120/140 (SINGLE)	11.5	106	130	8	17.9	82.5	52.5	6.5	18	92	87	111

SBS120&140 FOR CATERPILLAR DOUBLE TYPE GEAR PUMP

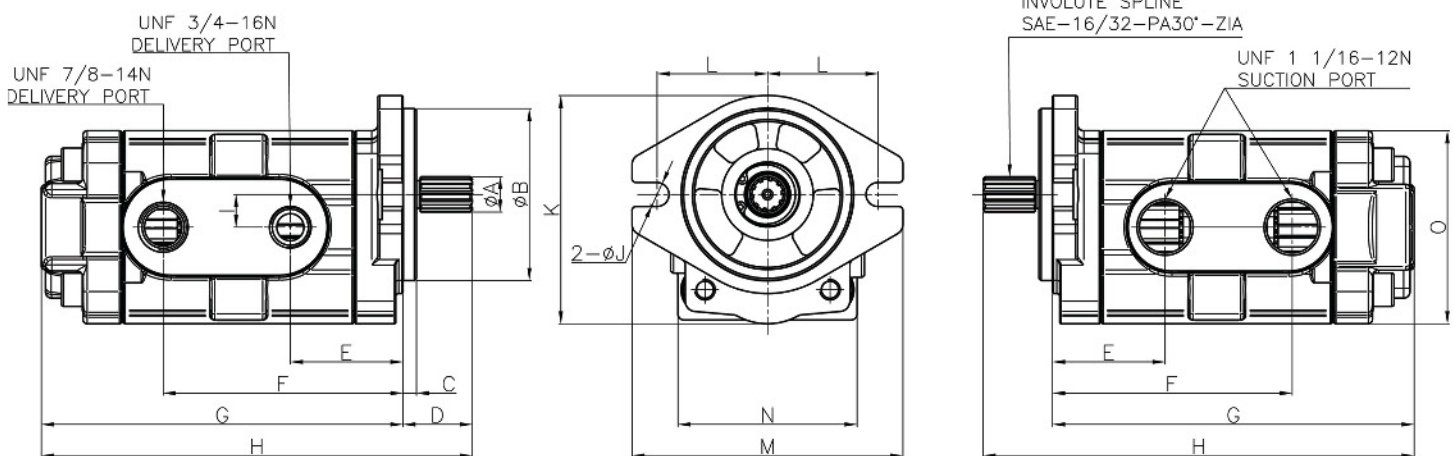


※ USABLE CIRCUMSTANCE
50°C, ISO VG46, -20~90°C



SPECIFICATIONS

MODEL	SBS120&140	
Discharge Rate (cc/rev)	P1	P2
	20	13
Max. pressure (kg/cm ²)	120	150
Max. Speed (rpm)	1800	



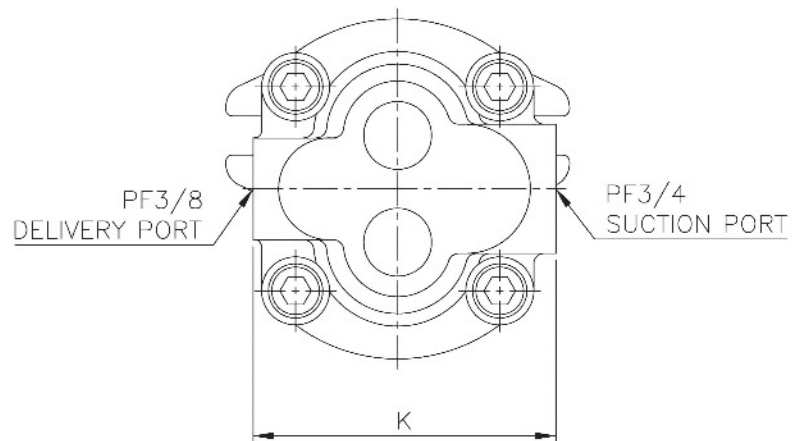
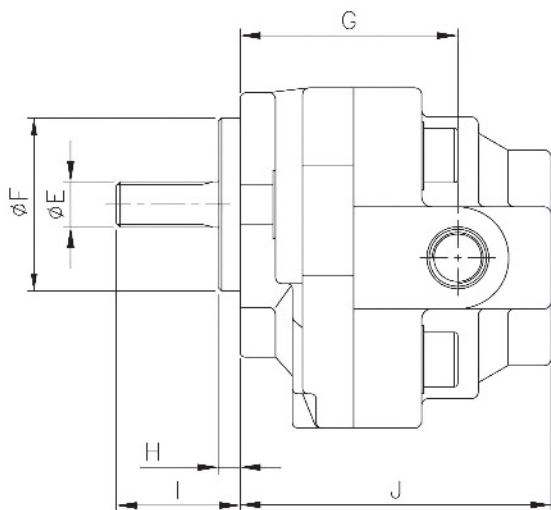
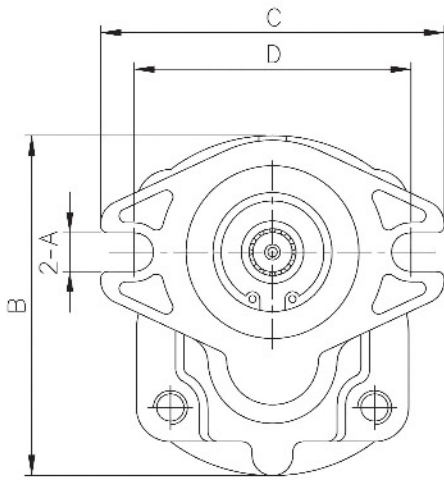
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	SPLINE
SBS120/140 (DOUBLE)	17	82.5	6.5	33.3	54	115	173.5	206.8	15.7	11.5	109.5	53	130	86	92.6	Z10

SPECIFICATIONS

MODEL	H3V63/NV64	H3V112/NV90/111	H3V140/180/NV137/172
Discharge Rate (cc/rev)	12		15
Max. Pressure (kg/cm ²)	170		
Max. Speed (rpm)	3250	2700	2500



DIMENSIONS

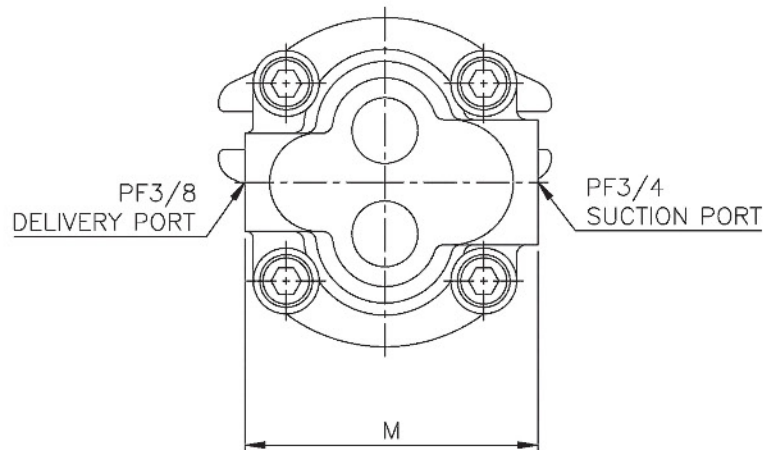
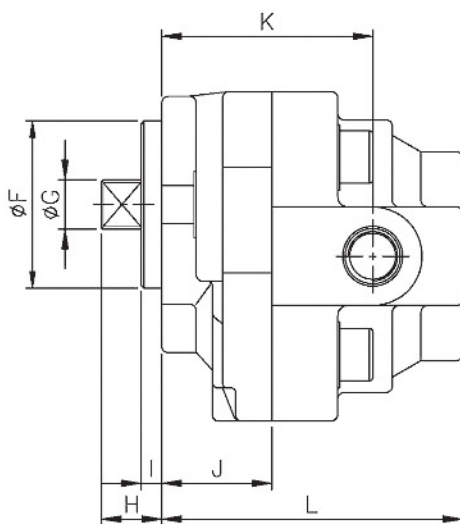
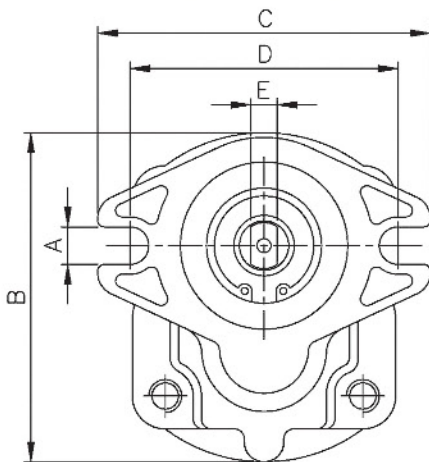
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
H3V / NV SERIES	11.4	100	101	81.4	13.5	50.8	64	6.4	37.7	91.4	89	Z12

GEAR PUMP FOR MITSUBISHI / CATERPILLAR

SPECIFICATIONS

MODEL	SPK10/10(E200B)	AP12(E200B)
Discharge Rate (cc/rev)	12	
Max. Pressure (kg/cm ²)	170	
Max. Speed (rpm)	3200	



DIMENSIONS

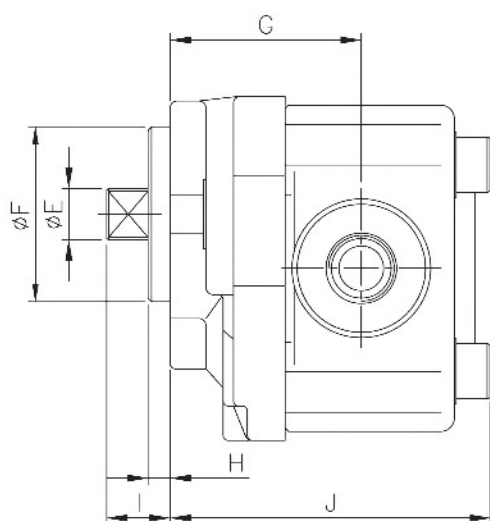
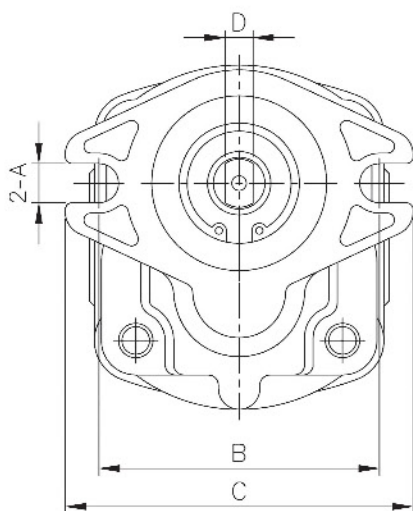
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
SPK10/10(E200B) AP12(E200B)	11.4	100	101	81.4	8	50.8	15	18.4	6.4	33.4	64	91.4	89

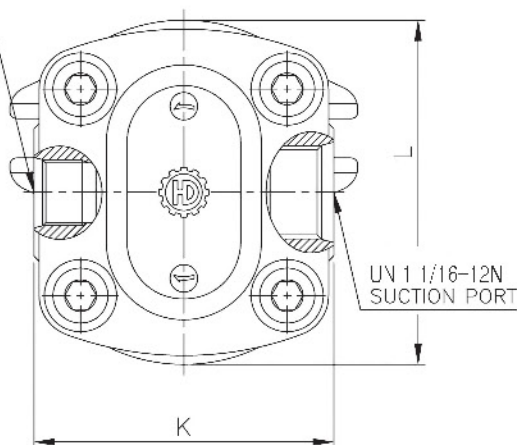


SPECIFICATIONS

MODEL	AP12(E320B)
Discharge Rate (cc/rev)	11
Max. Pressure (kg/cm²)	170
Max. Speed (rpm)	3200



UNF 3/4-16N
DELIVERY PORT

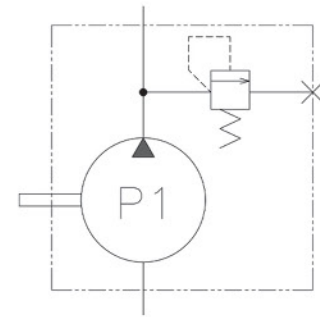


DIMENSIONS

(mm)

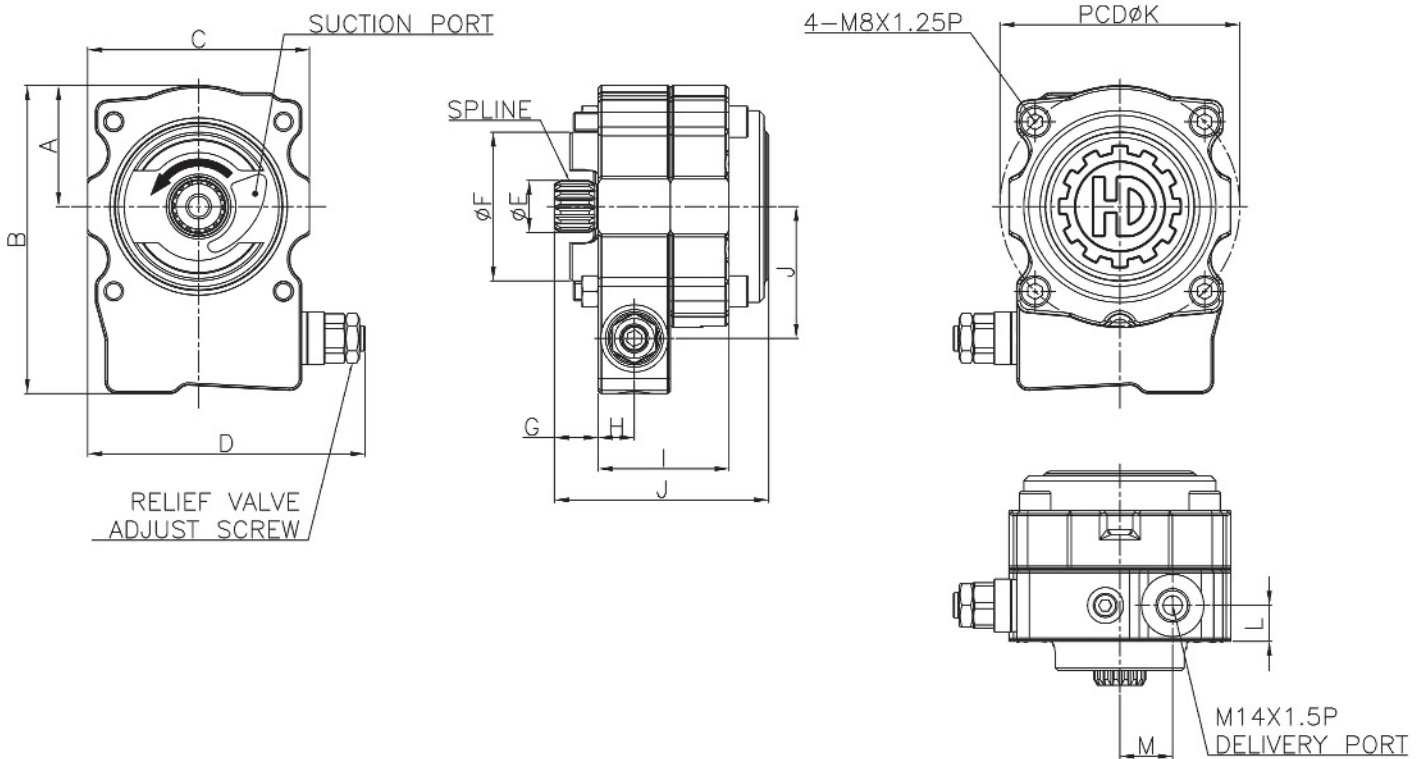
MODEL	A	B	C	D	E	F	G	H	I	J	K	L
AP12 (E320B)	11.4	81.4	101	8	16.5	50.8	63	6.4	18	99	87	100

A8VO55/80/107 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A8VO55/80/107
Discharge rate(cc/rev)	P1 8
Max. pressure (kg/cm²)	40
Max. speed(rpm)	2500
DIRECTION	CCW (L)



DIMENSIONS

(mm)

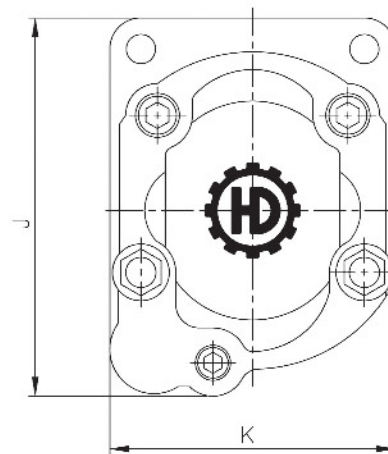
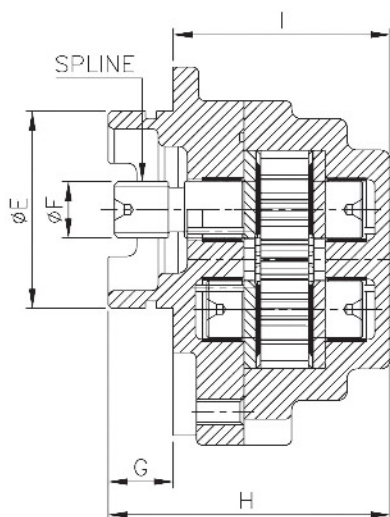
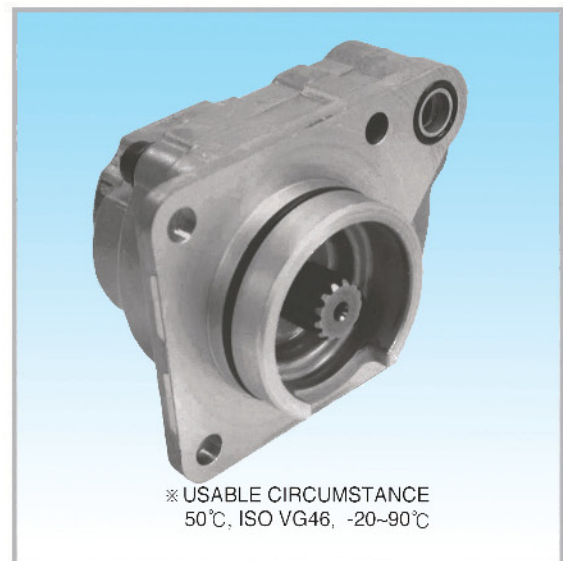
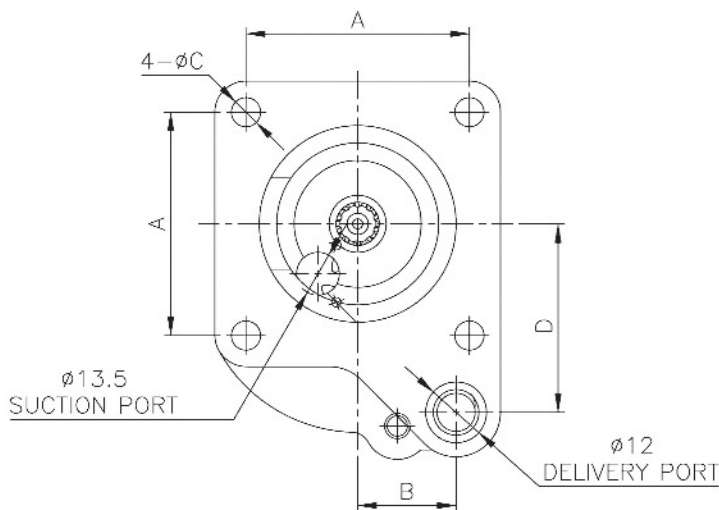
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	SPLINE
A8VO55/80/107	50.5	128	92	115	21.7	62	18.3	15	54.5	89	100	15	22	Z16

A8VO80 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A8VO80
Discharge Rate (cc/rev)	8
Max. Pressure (kg/cm²)	50
Max. Speed (rpm)	2500



DIMENSIONS

(mm)

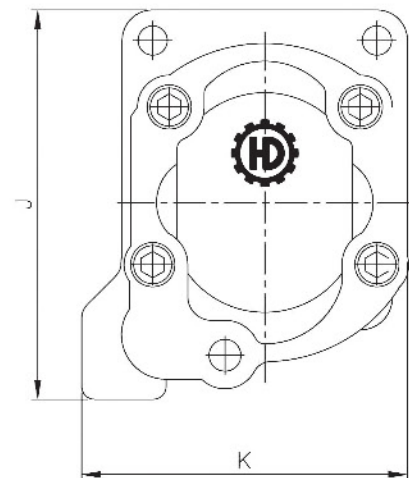
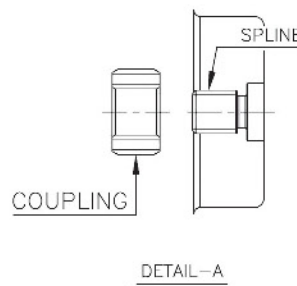
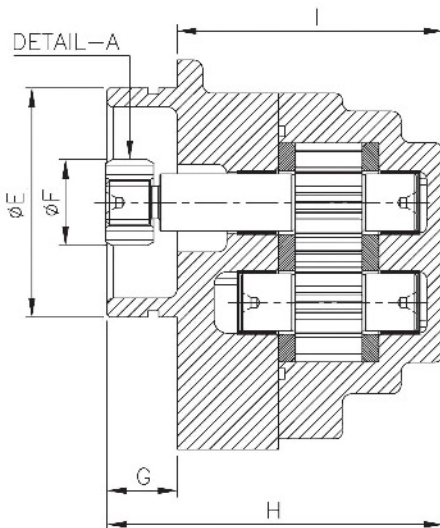
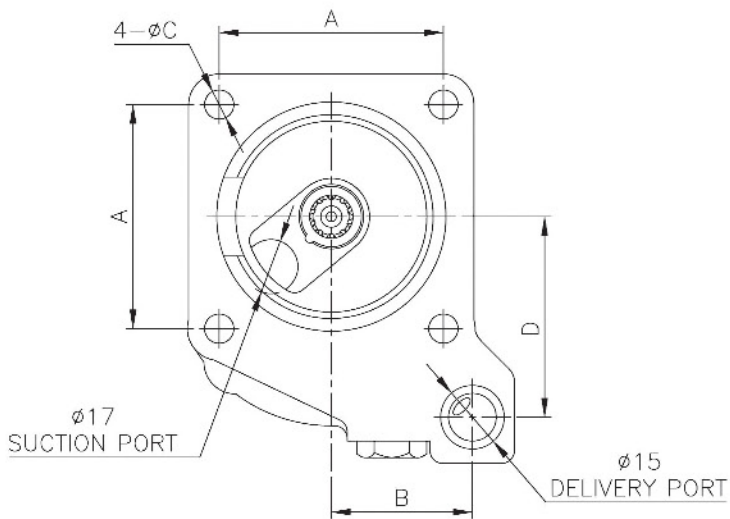
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
A8VO80	70.4	31	9.2	59.4	62	17.6	20.5	88.8	68.3	119.2	90	Z13

A8VO107 SINGLE TYPE GEAR PUMP



SPECIFICATIONS

MODEL	A8VO107
Discharge Rate (cc/rev)	12
Max. Pressure (kg/cm²)	50
Max. Speed (rpm)	2500

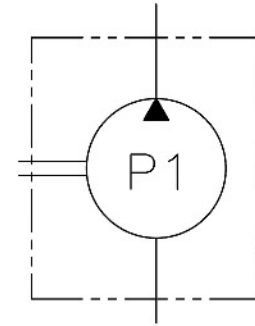
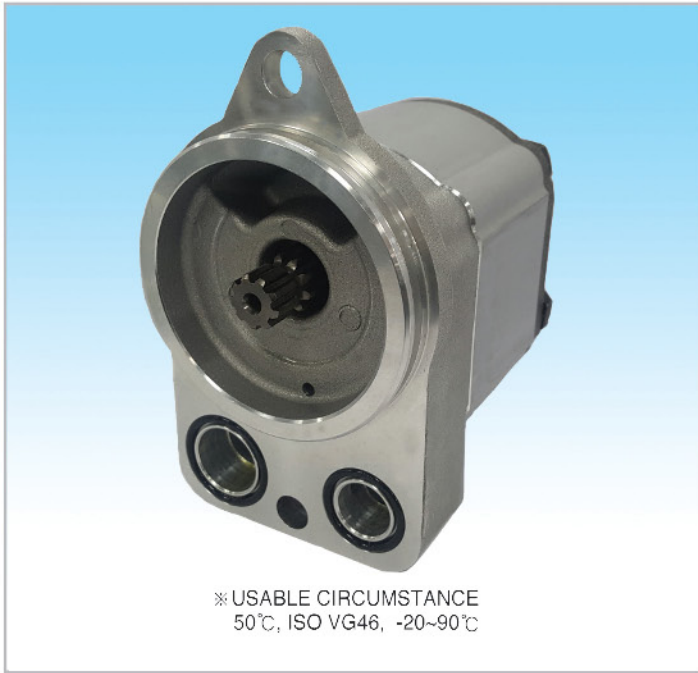


DIMENSIONS

(mm)

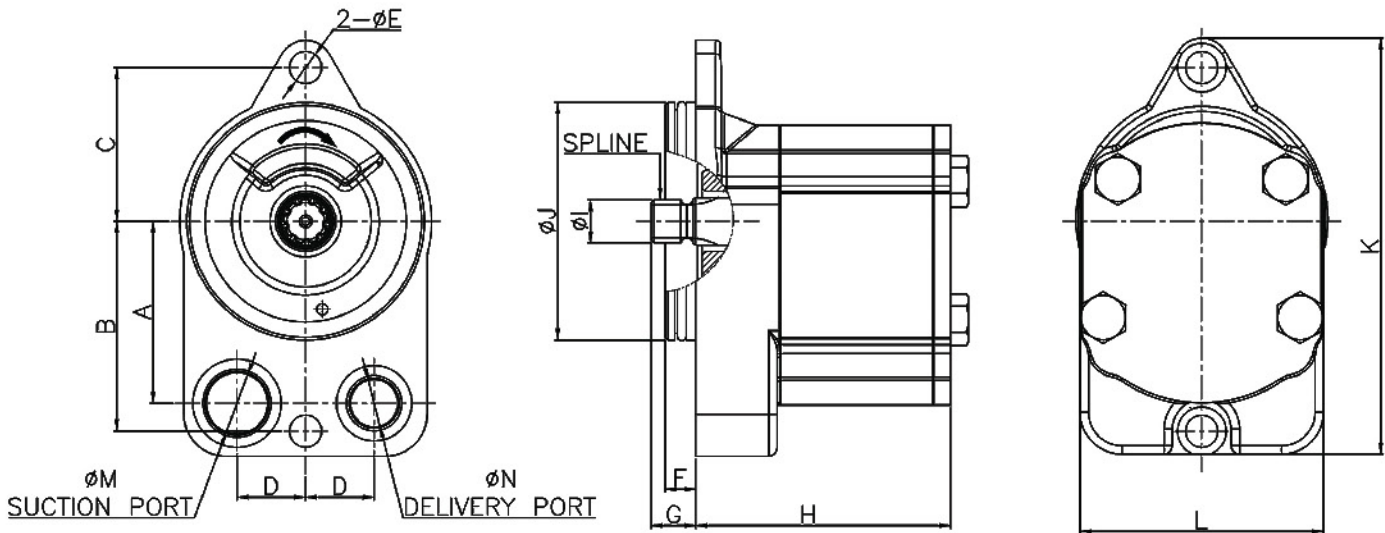
MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
A8VO107	70.4	44.3	9.2	63	72	21.6	22	105.6	83.6	122.3	102.3	Z10

A8VO160/200 SINGLE TYPE GEAR PUMPS



SPECIFICATIONS

MODEL	A8VO160/200
Discharge Rate(cc/rev)	19
Max. Pressure (kg/cm ²)	40
Max. Speed (rpm)	2000
DIRECTION	CW (R)



DIMENSIONS

(mm)

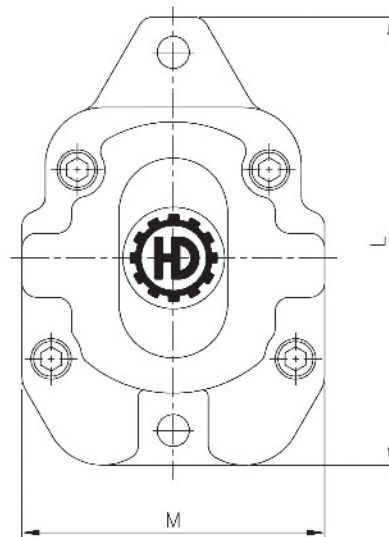
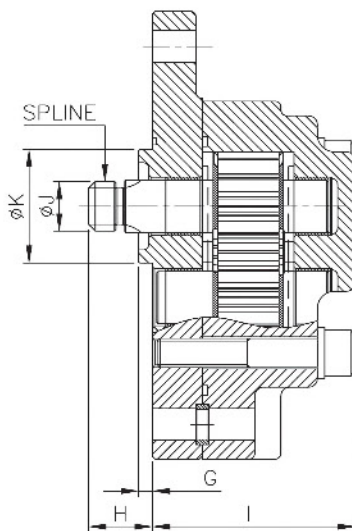
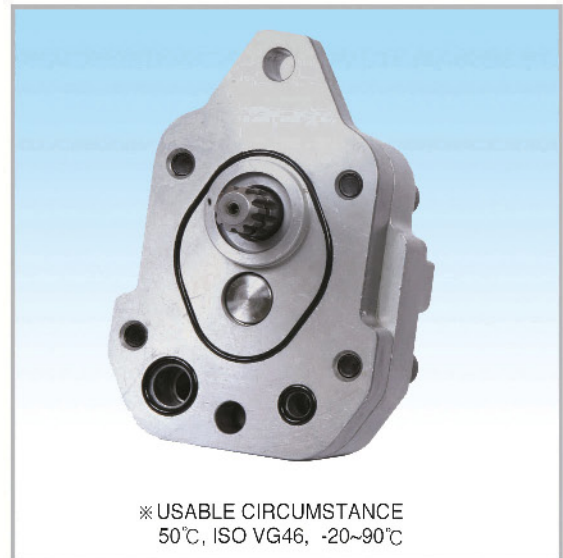
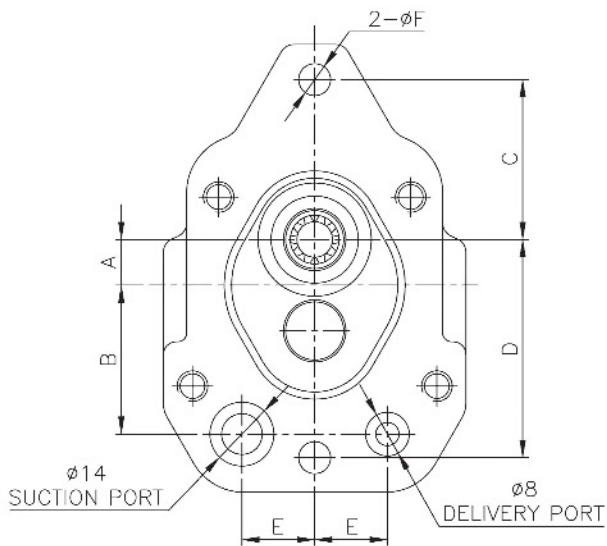
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	SPLINE
A8VO160	65	75	55	24.5	11.5	16.8	12	91	17	85	149	87	17	14	Z10
A8VO200						11			15.4				22	17	Z9

A8V SERIES SINGLE TYPE GEAR PUMPS



SPECIFICATIONS

MODEL	A8V55/59/80/86/107/115	A8V172
Discharge Rate (cc/rev)	12	16.6
Max. Pressure (kg/cm²)	50	
Max. Speed(rpm)	2500	



DIMENSIONS

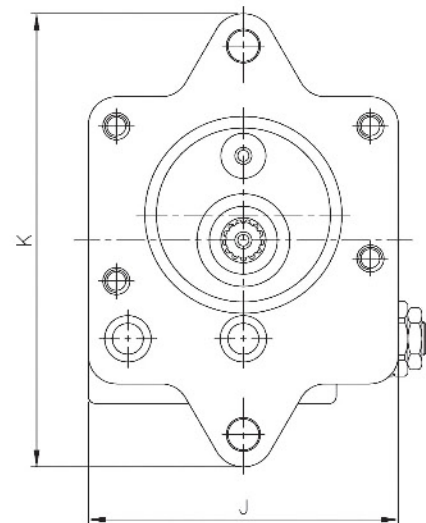
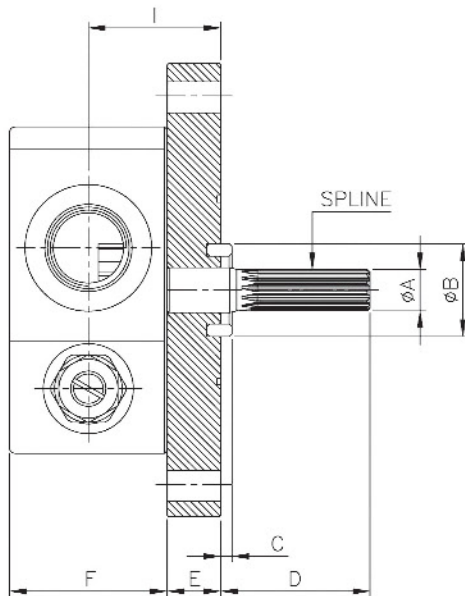
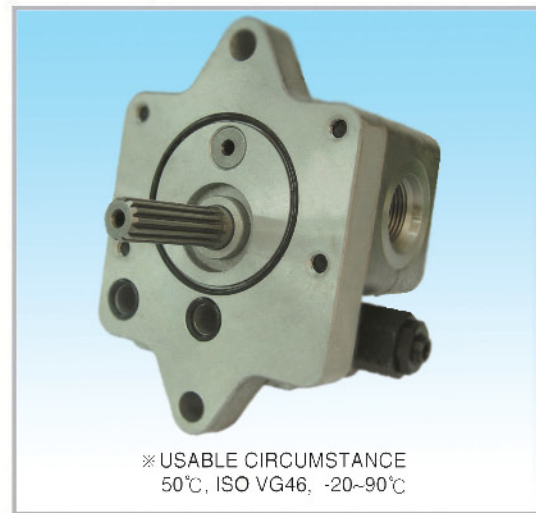
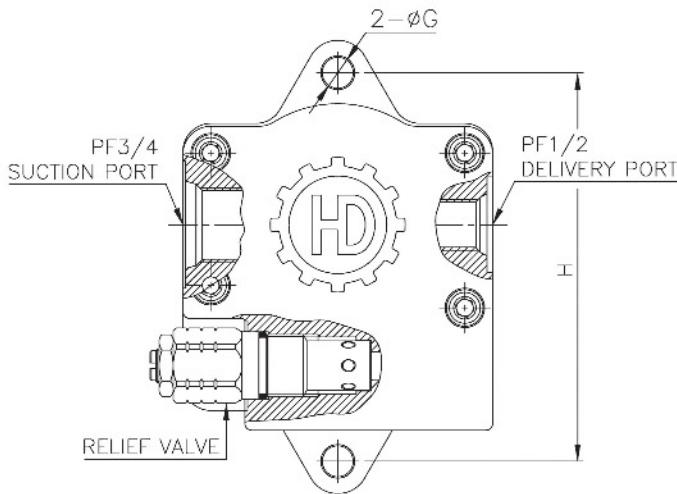
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	SPLINE
A8V SERIES	15.7	51.2	55	75	25	11	4.8	21.9	69.7	17	39	154	104	Z10

NV SERIES GEAR PUMP OF INNER DRAIN TYPE



SPECIFICATIONS

MODEL	NV64/50	NV80/90/111	NV120/137	NV172
Discharge Rate (cc/rev)	12		15	
Max. Pressure (kg/cm ²)	50			
Max. Speed (rpm)	3250	2700	2500	2200

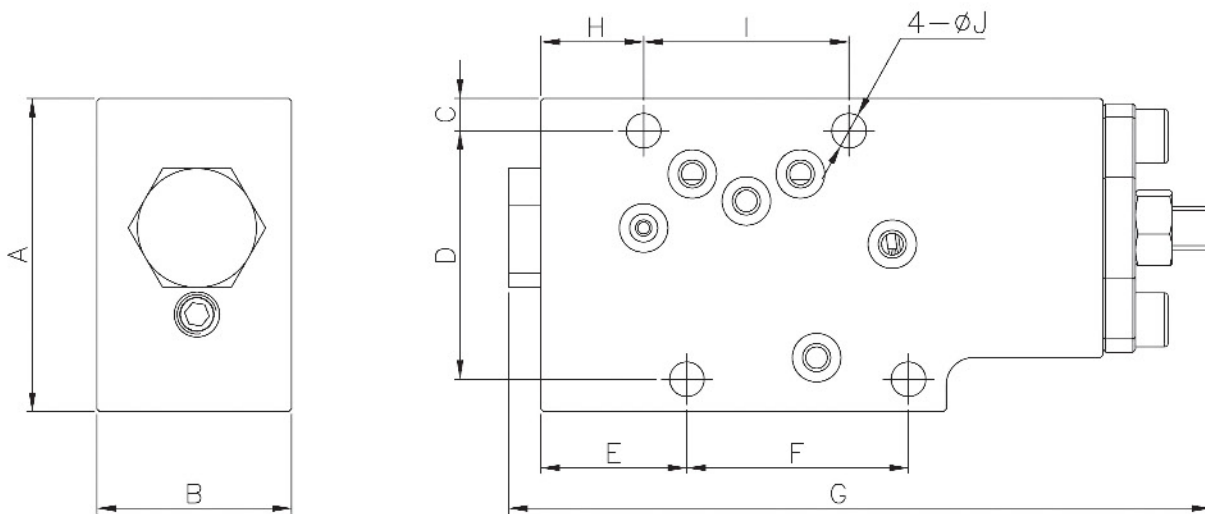
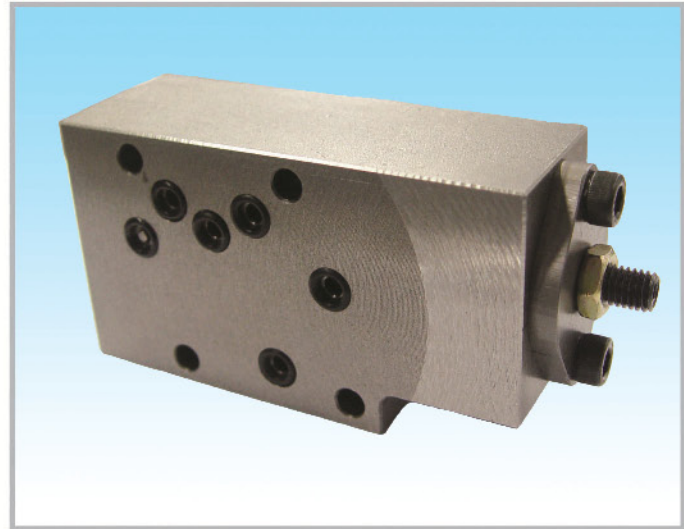
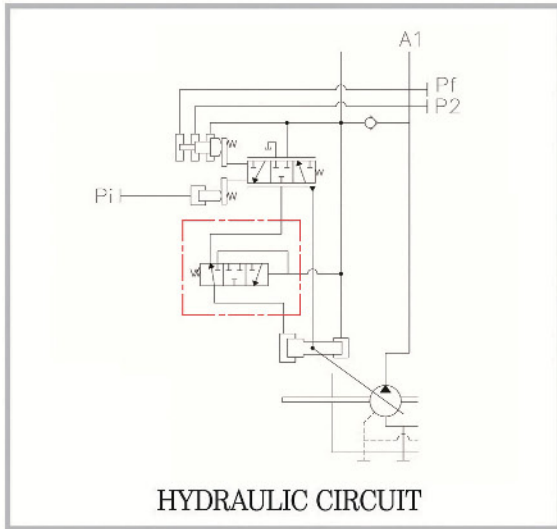


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	SPLINE
NV SERIES	14.8	33	4	53	19	56	11	138	47	110	161	Z 13

CUT-OFF VALVE(H3V SERIES)

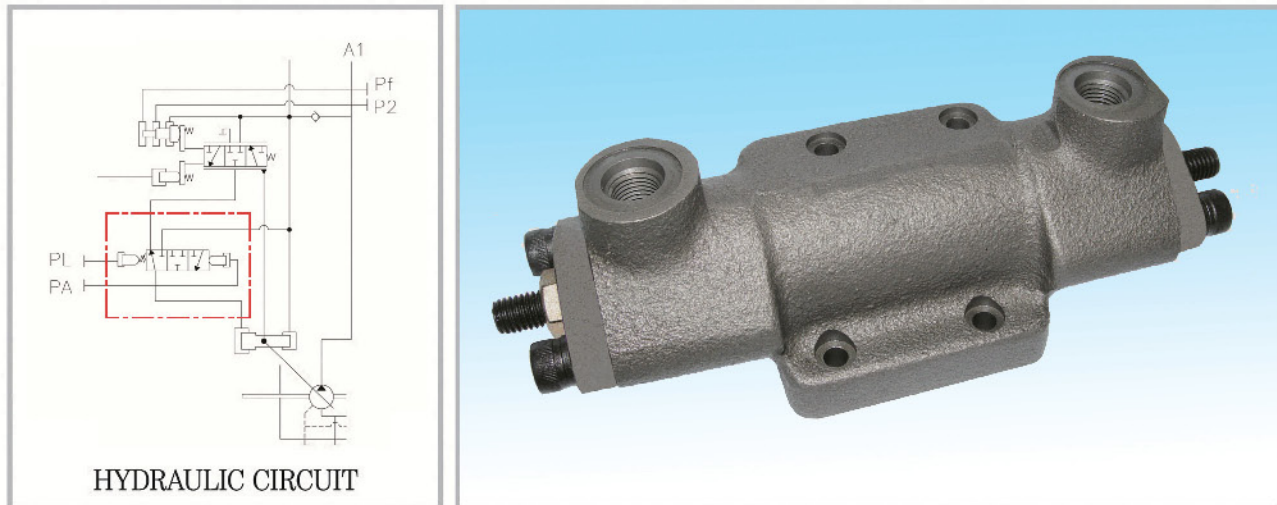


DIMENSIONS

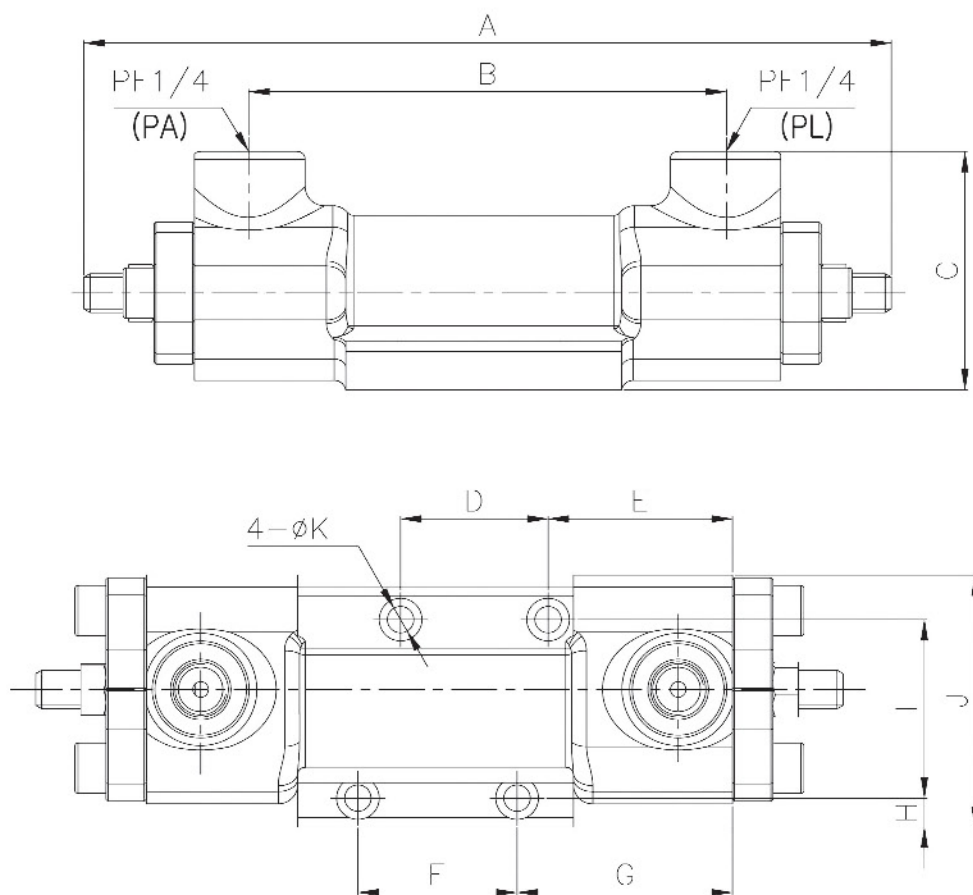
(mm)

MODEL	A	B	C	D	E	F	G	H	I	J
H3V SERIES	58	36	6	46	27	41	130	19	38	6.4

LOAD SENSING VALVE(HLOP TYPE)



HYDRAULIC CIRCUIT

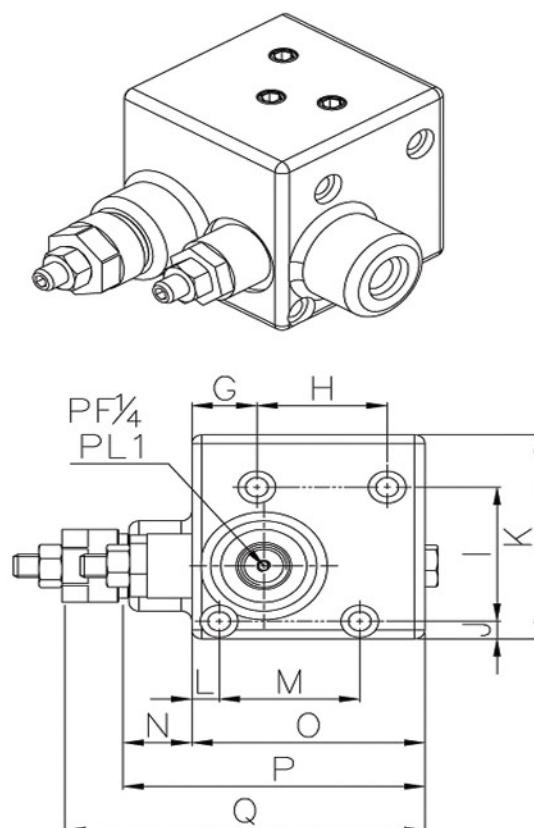
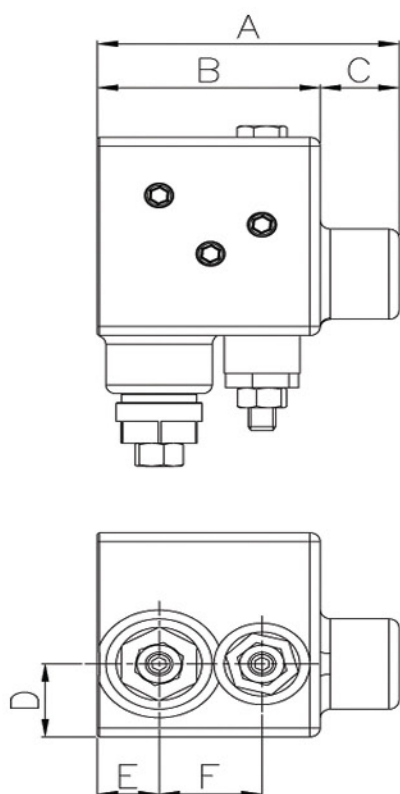
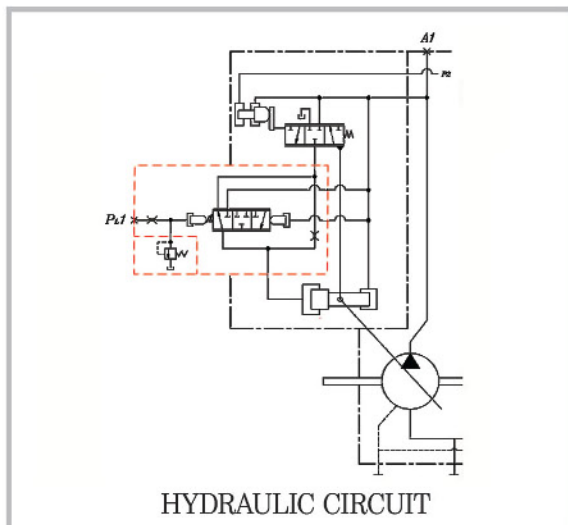


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K
H3V SERIES	210	123	61.5	38	47.5	41	55.5	7.5	46	65	6.2

LOAD SENSING VALVE (5L00/7L00 TYPE) (H3V/H5V SERIES)

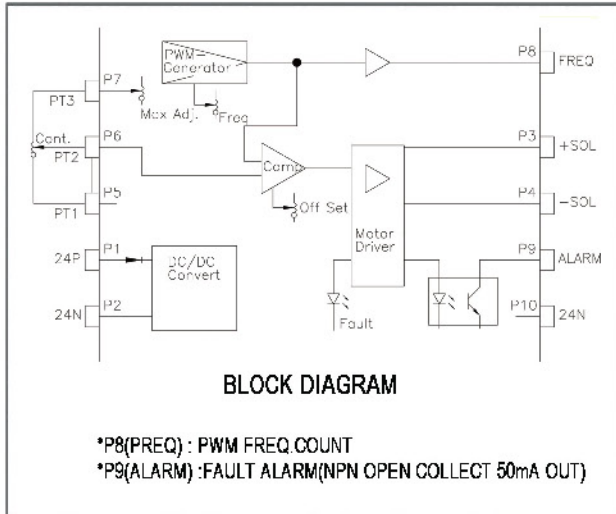


DIMENSIONS

(mm)

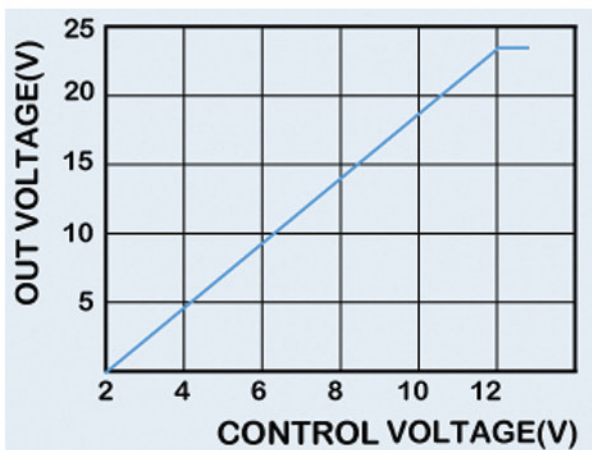
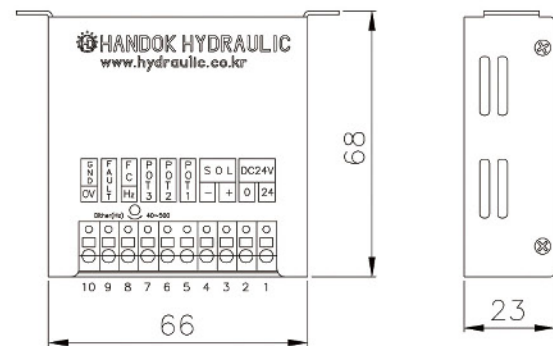
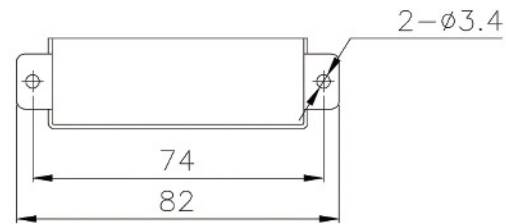
MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
5L00/7L00	88	65	23	25	18	30	19	38	46	6	70	8	41	20	68	88	105

EPR VALVE CONTROL BOARD (HBO2.0A)



SPECIFICATIONS

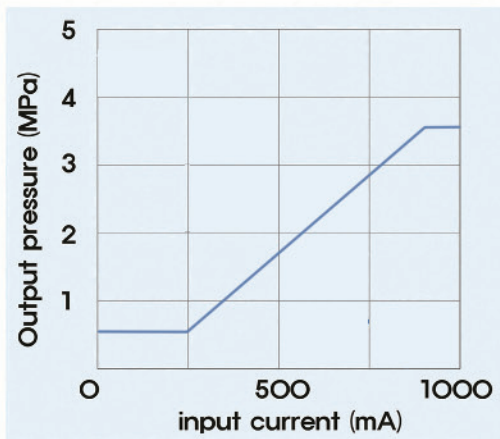
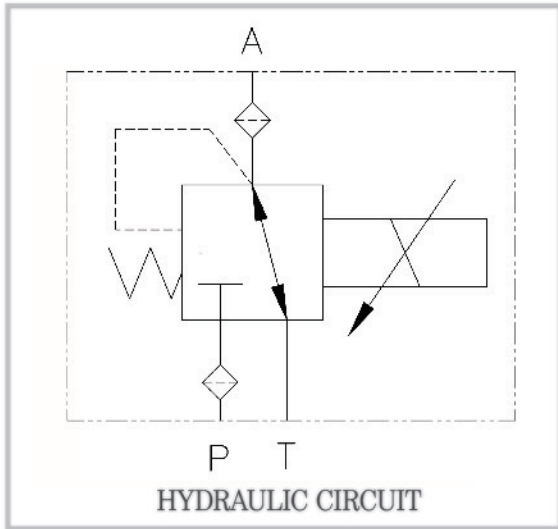
Model	HBO2.0A	
Power supply	DC24V(21~30)	
Power Consumption	Below 30VA	
Maximum output current	1.2A(Max)	
Input Impedance	100KΩ	
Solenoid coil resistance	10 ~25Ω	
Command	Voltage input	DC 0 ~ 12V(Max)
	Resistance input	Variable resistor 10KΩ
Dither Adjustment range	40Hz~2000Hz	
Operating temperature range	-10°C ~ 70°C	
Adjust the temperature range	0°C ~ 50°C	
Alarm (drive) current	100mA(Max)	



- INSTRUCTION FOR USE -

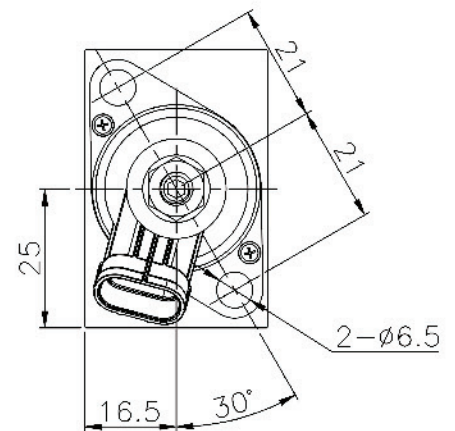
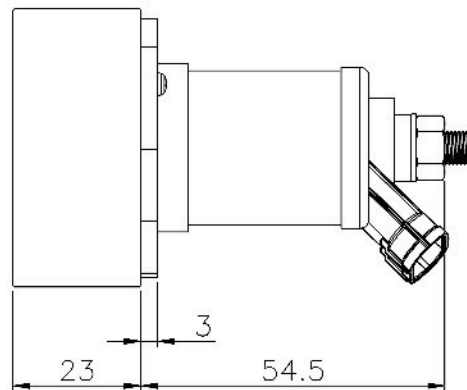
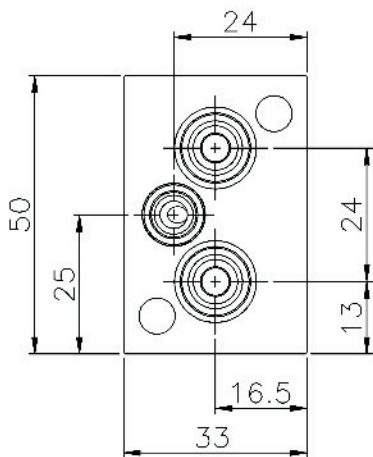
- * Each connecting pins are supposed to be precisely put together, Don't operate more than rating
- * Input power should be keep supplies stably
- If the power supplies are not stabilizing, either the output is not stable, or can be cause of the failure
- * In case of alarm, disconnect main power, power-up after eliminate the cause
- If this problem persists after eliminate the cause, Do not power-up

Proportional pressure reducing valve (HPR1D-40F-243)

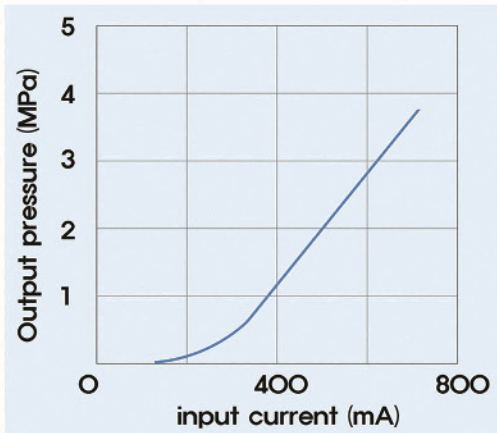
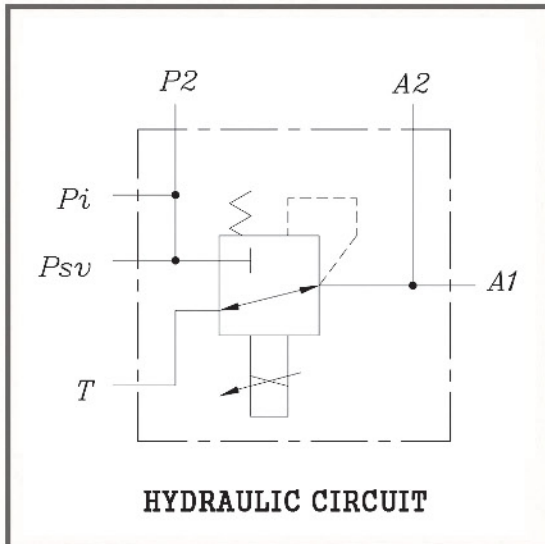


SPECIFICATIONS

- CONTROL SPECIFICATIONS : POSITIVE PROPORTIONAL
- SECOND PRESSURE/MAX.SET PRESSURE : 40Kgf/cm²(3.9Mpa)
- SOLENOID RATING : 0.9A FOR DC24V
- COIL RESISTANCE(Ω) : 5.5

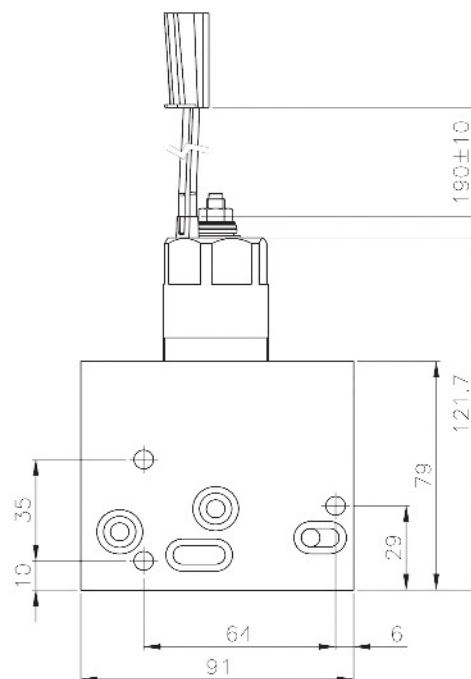
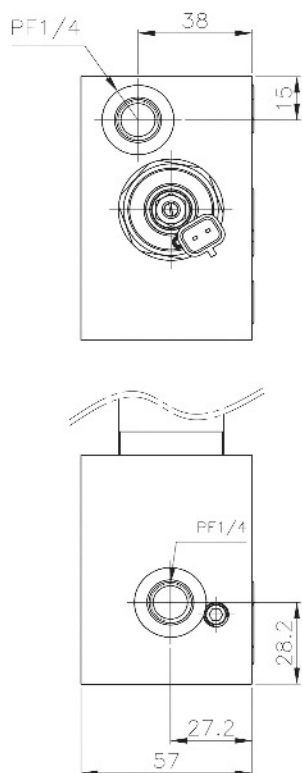


Proportional pressure reducing valve (HPR3P-40B1-201-M0)

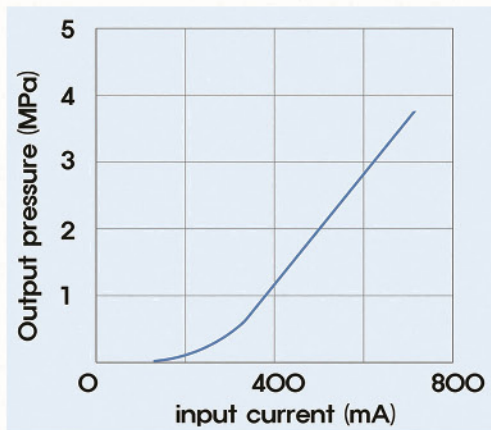
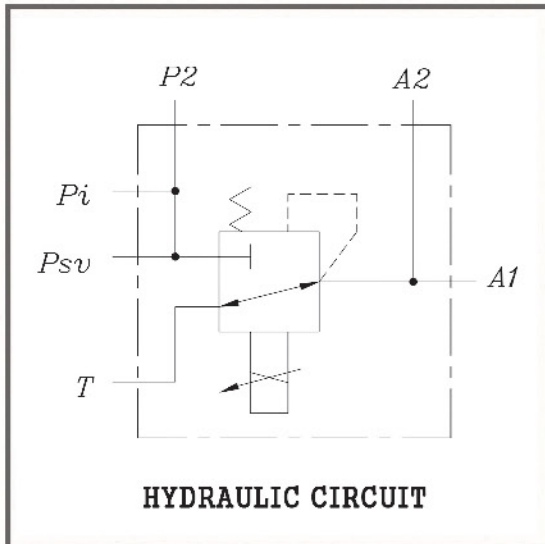


SPECIFICATIONS

- CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
- SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
- SOLENOID RATING : 0.75A for DC24V
- COIL RESISTANCE(Ω) :13.5

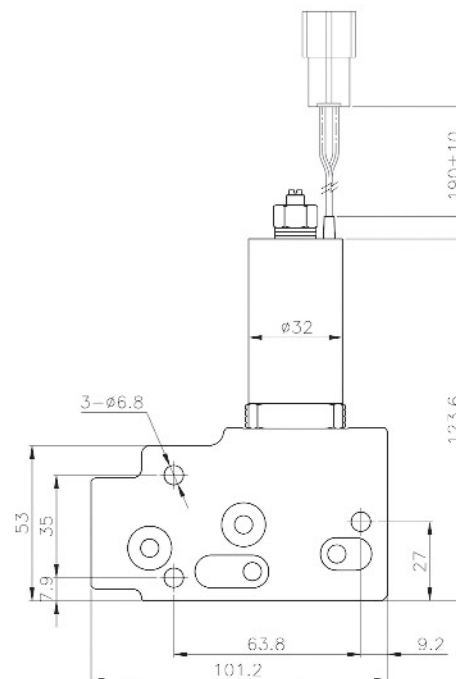
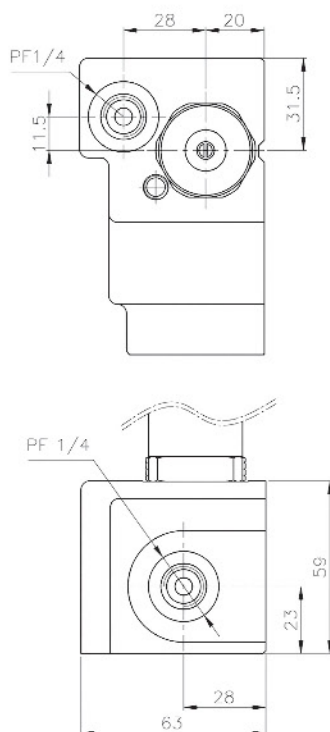


Proportional pressure reducing valve (HPR3S-40A1-201-M3)

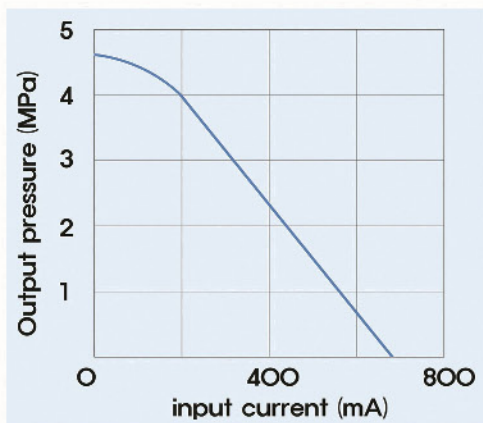
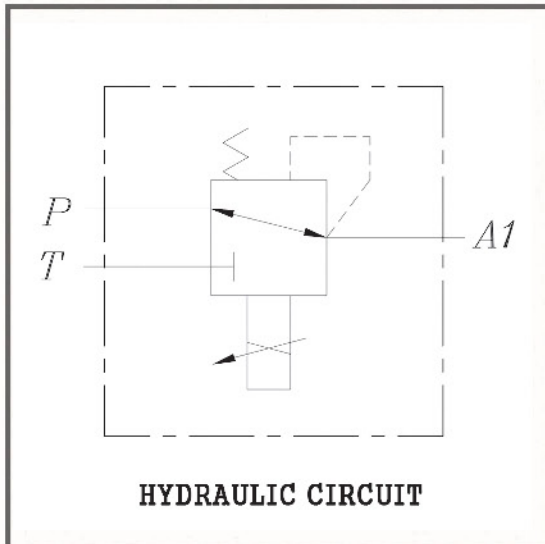


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

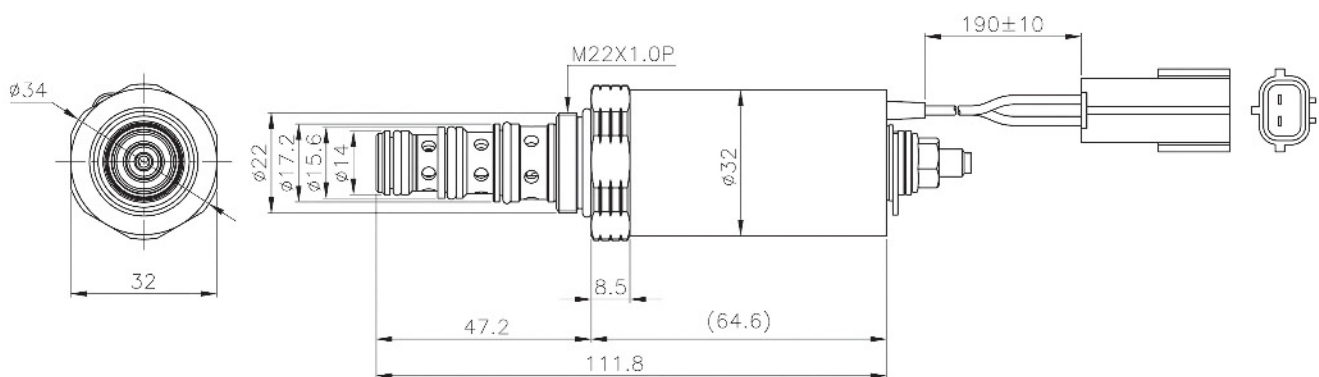


Proportional pressure reducing valve (HPR3SN-40A1-221)

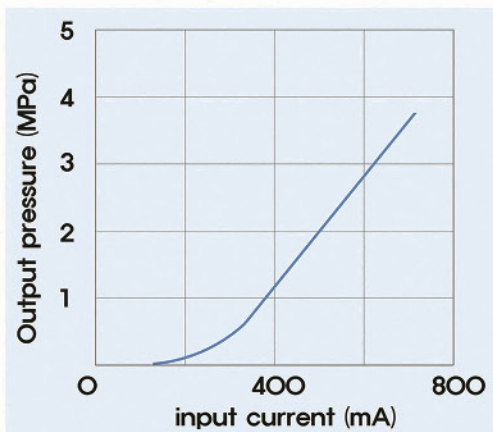
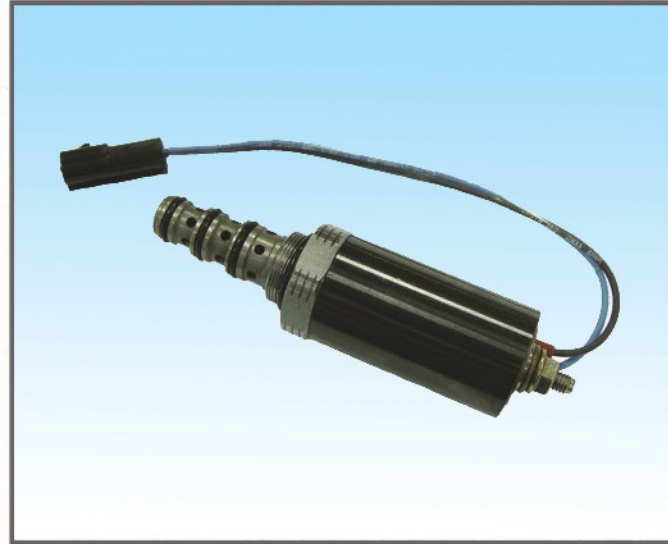
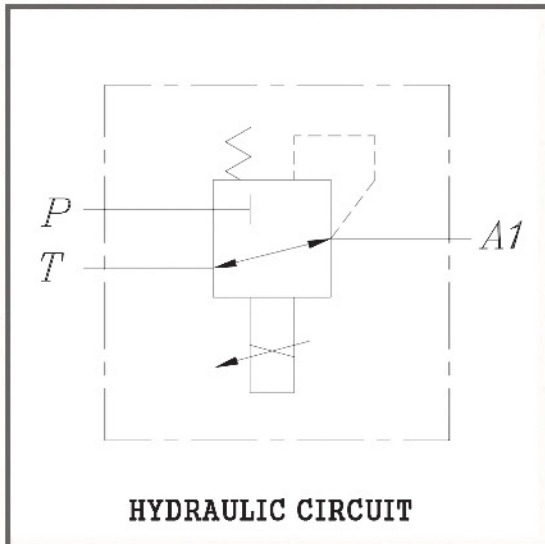


SPECIFICATIONS

- CONTROL SPECIFICATION : NEGATIVE PROPORTIONAL
- SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
- SOLENOID RATING : 0.75A for DC24V
- COIL RESISTANCE(Ω) :17.5

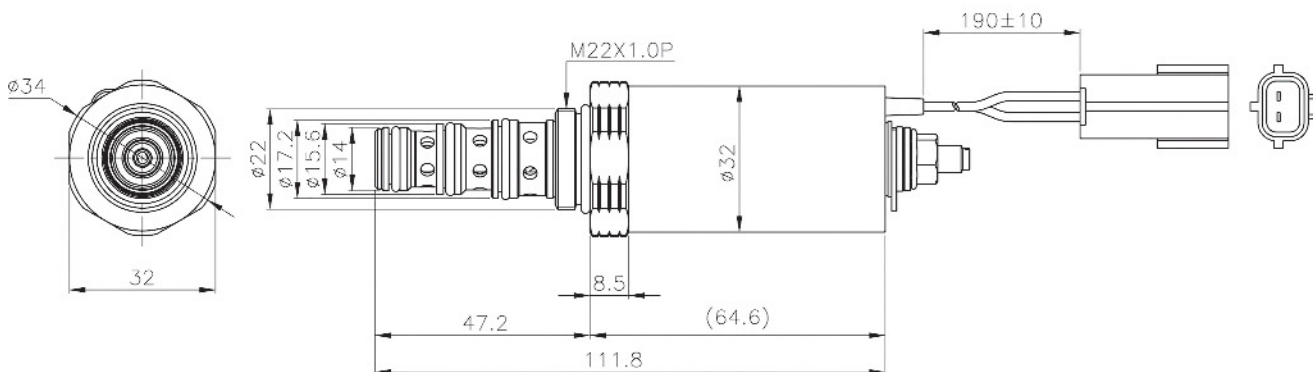


Proportional pressure reducing valve (HPR3S-40A1-201)

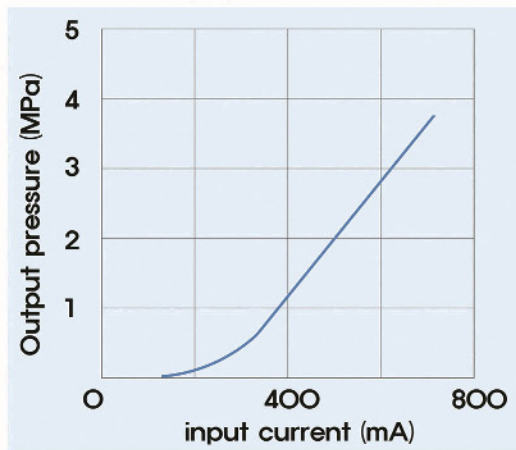
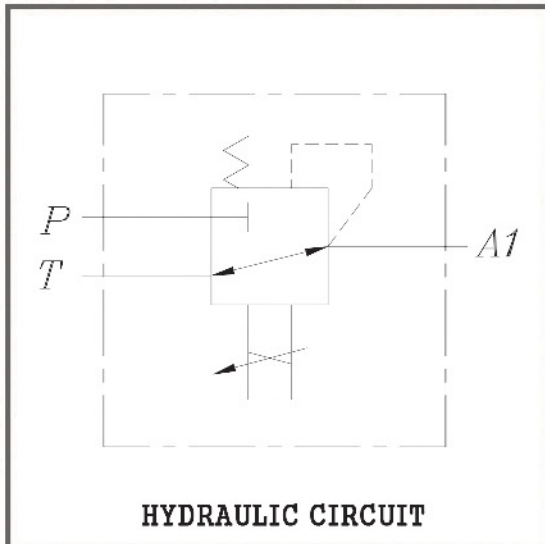


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

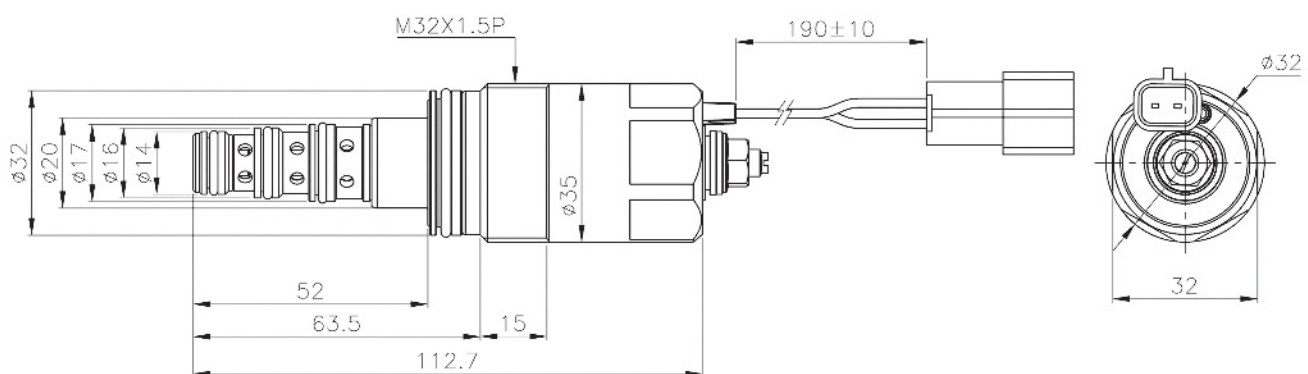


Proportional pressure reducing valve (HPR2P-30A1-201)

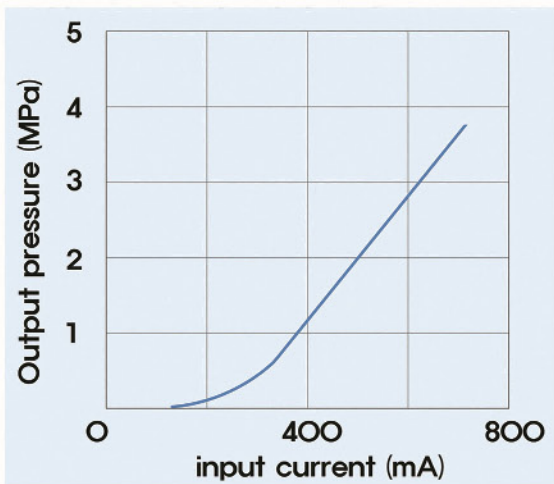
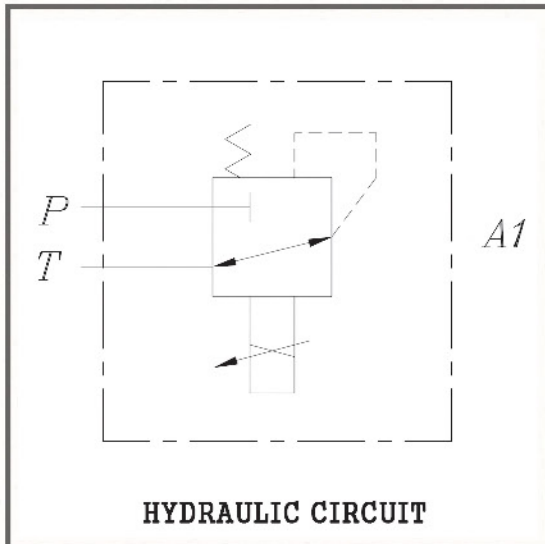


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

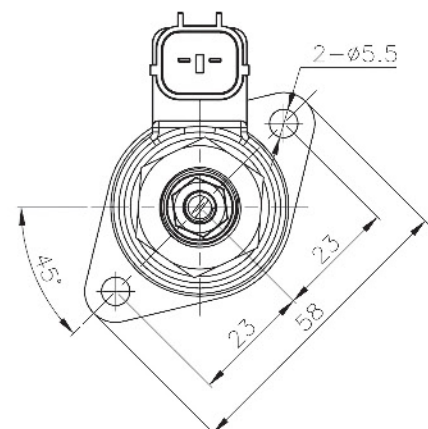
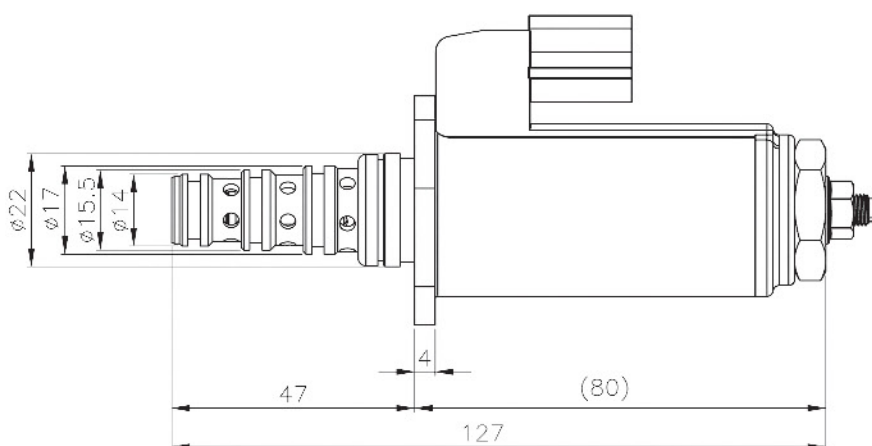


Proportional pressure reducing valve (HPR3B-40F1-212-FOR SBS120/140)

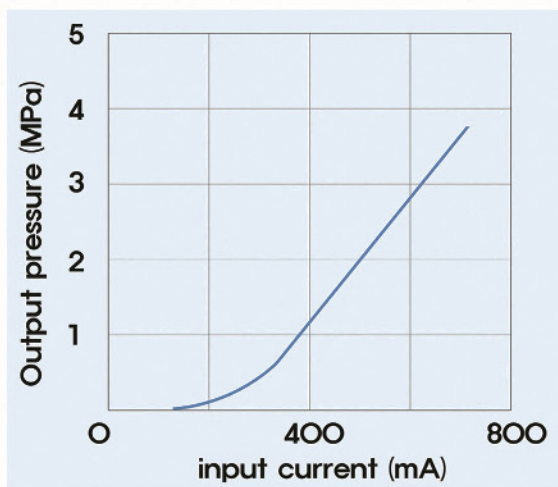
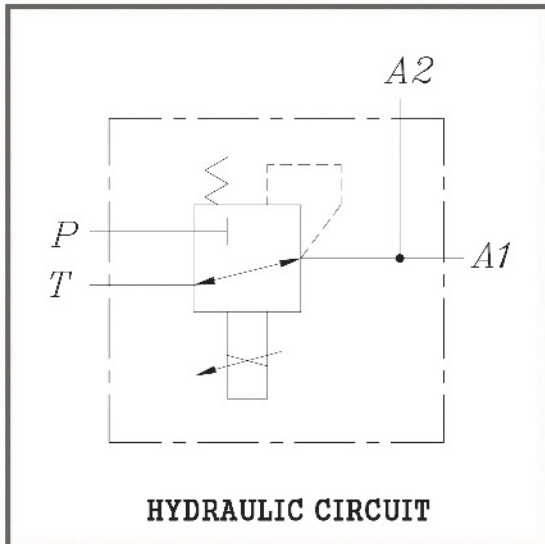


SPECIFICATIONS

- CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
- SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
- SOLENOID RATING : 0.75A for DC24V
- COIL RESISTANCE(Ω) : 12.5

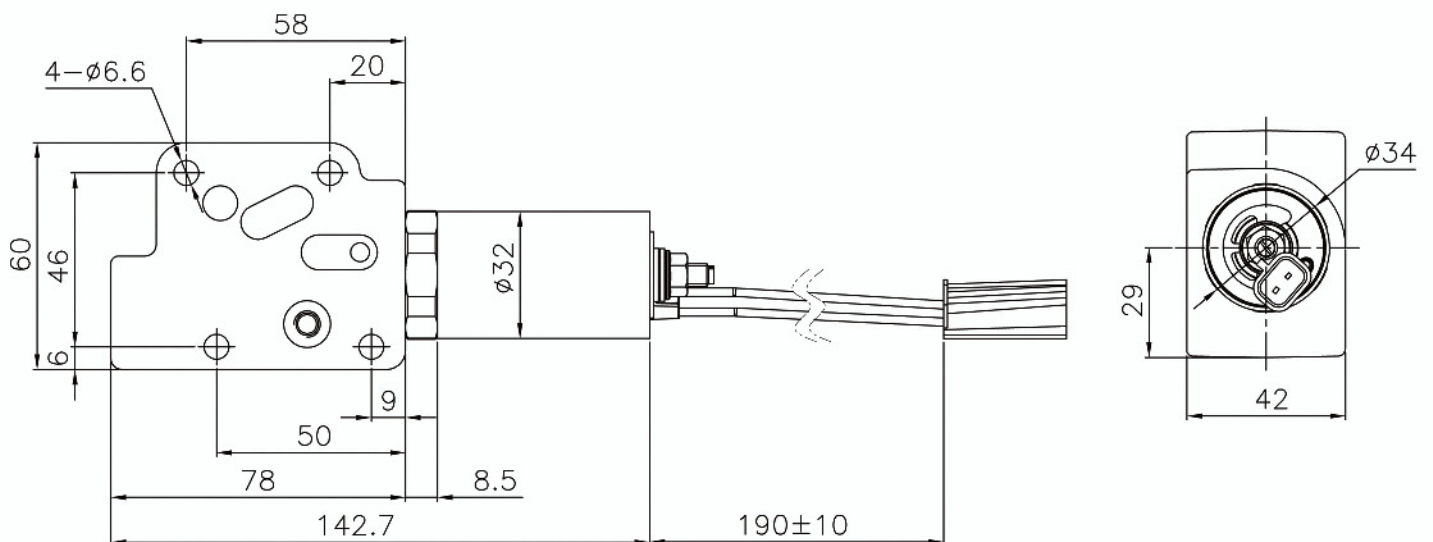


Proportional pressure reducing valve (HPR3S-40A1-201-M1)

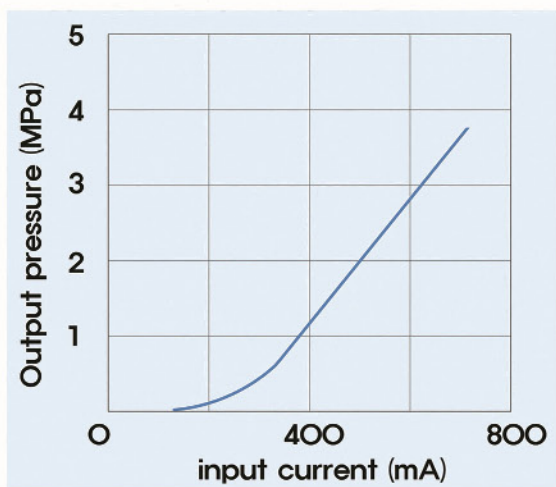
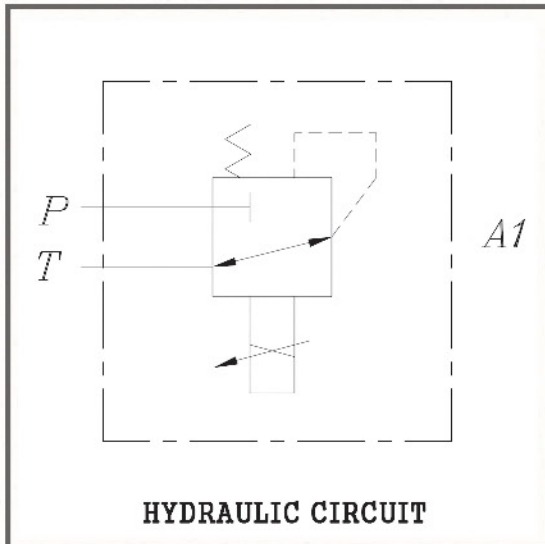


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) : 17.5

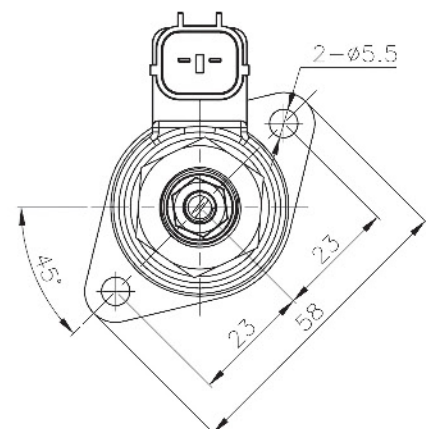
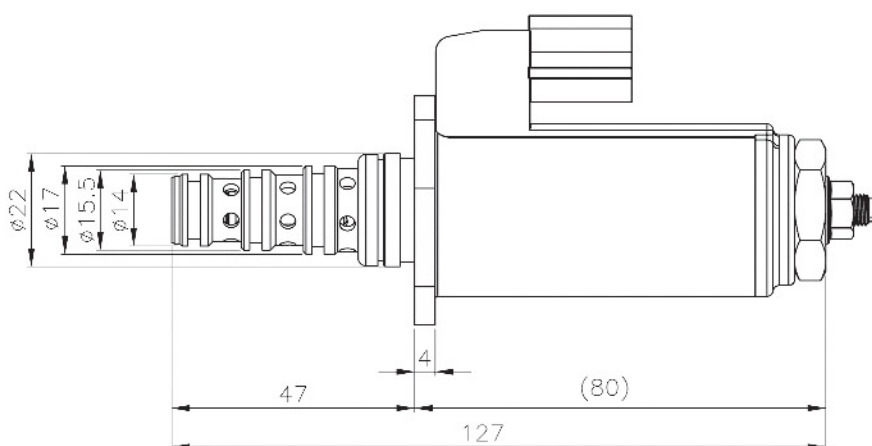


Proportional pressure reducing valve (HPR3B-30A2-211)

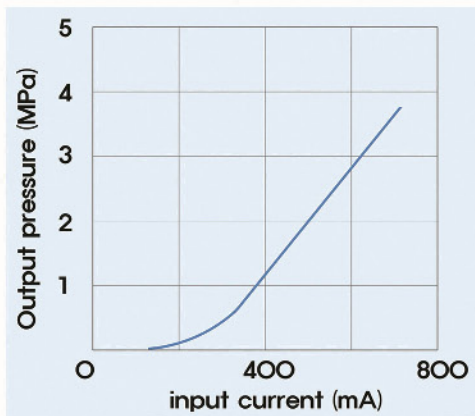
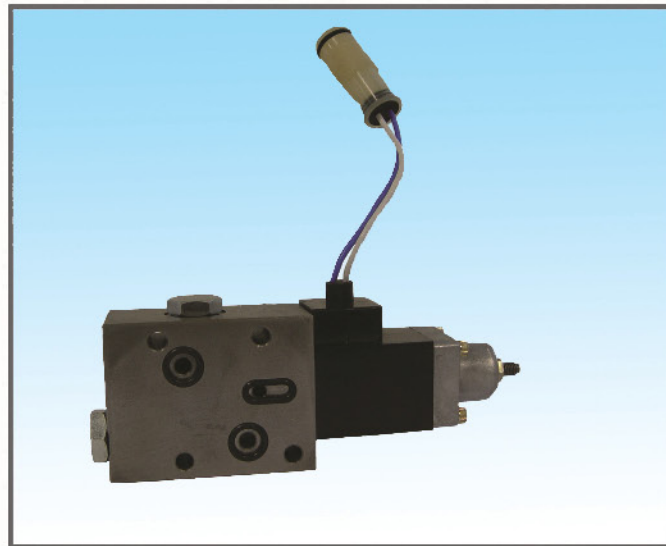
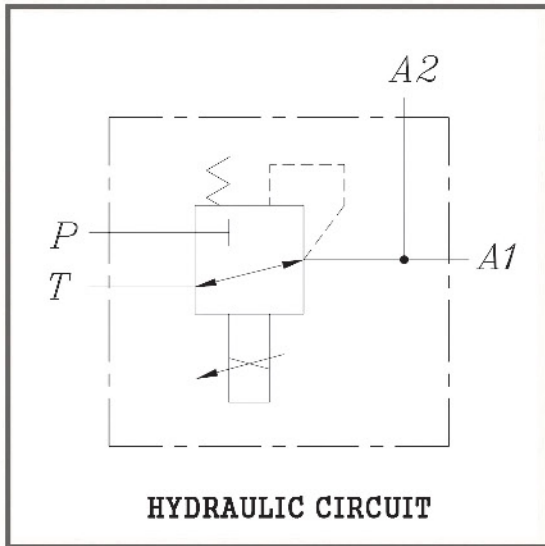


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

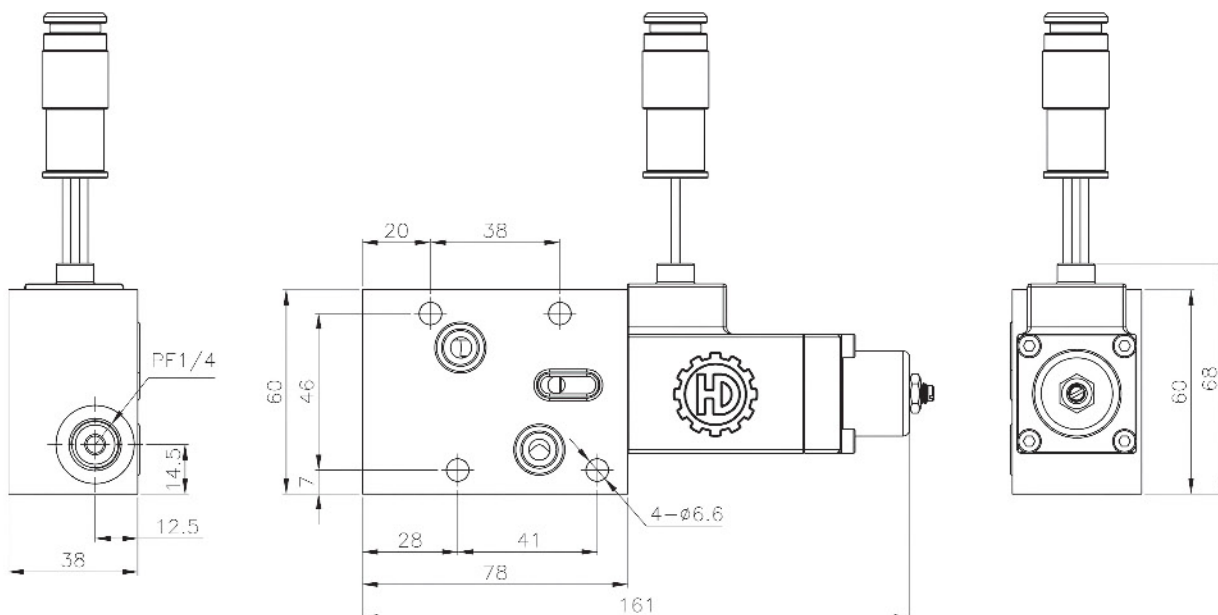


Proportional pressure reducing valve (HPR3Q-40A1-201-M2)

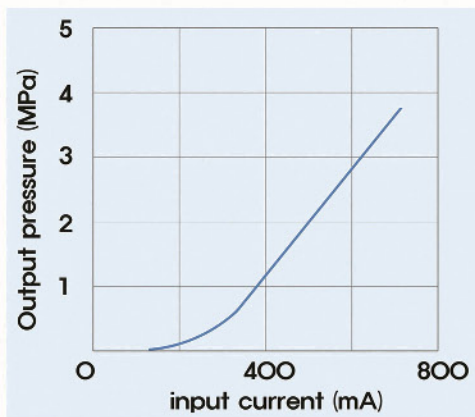
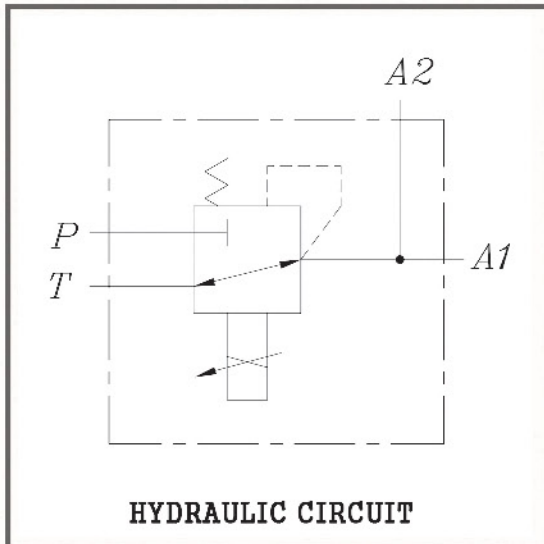


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) : 17.5

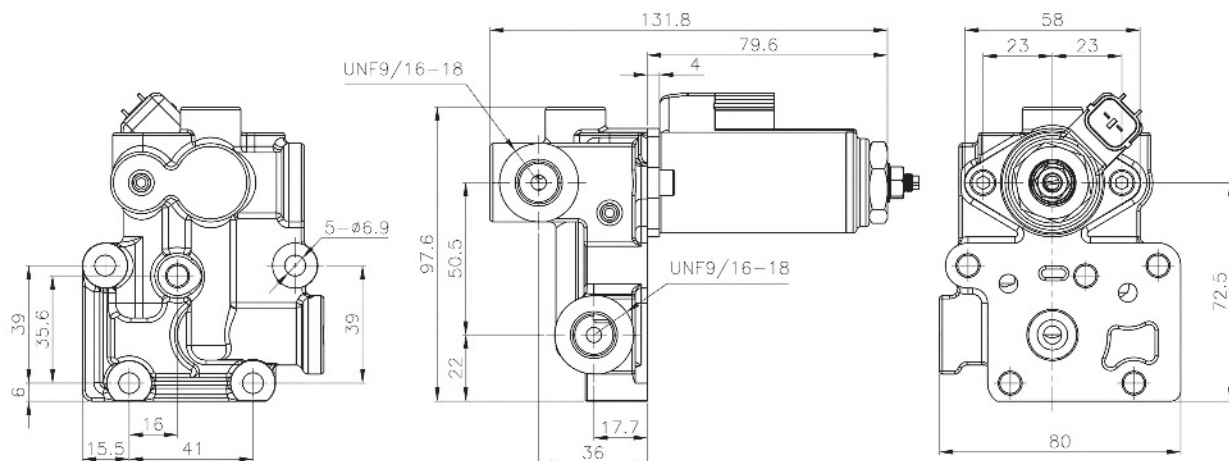


Proportional pressure reducing valve (HPR3B-30A-211-M4)

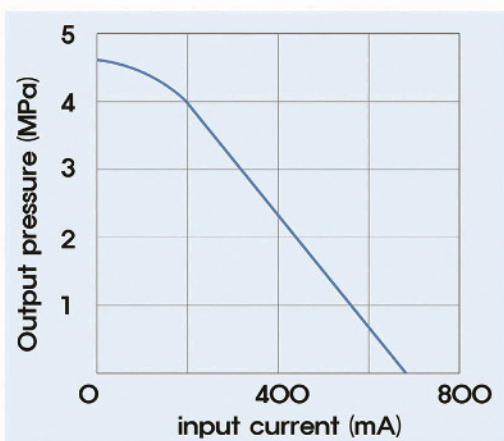
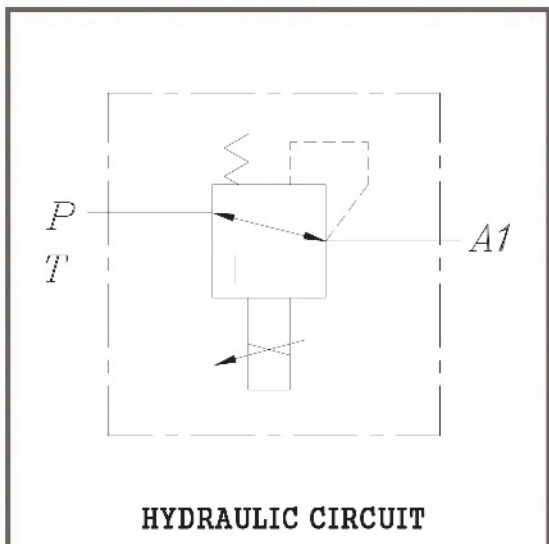


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

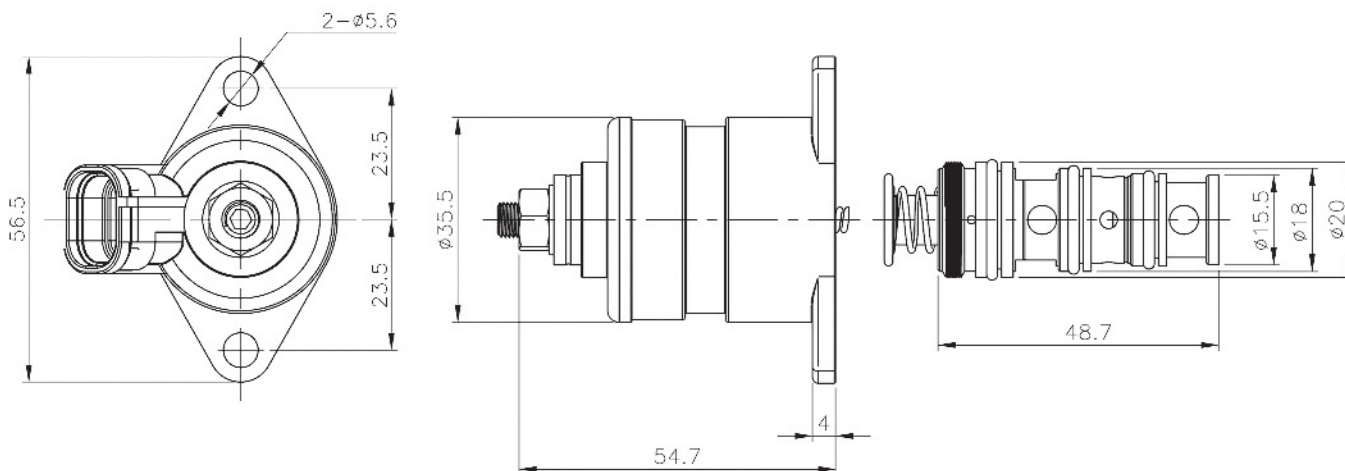


Proportional pressure reducing valve (HPR2BN-40D1-241-FOR HPVO102/105 HITACHI TYPE)

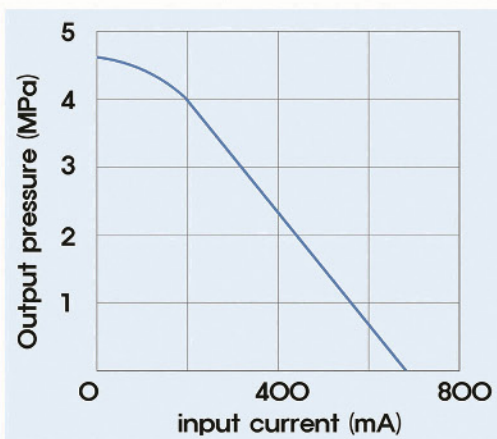
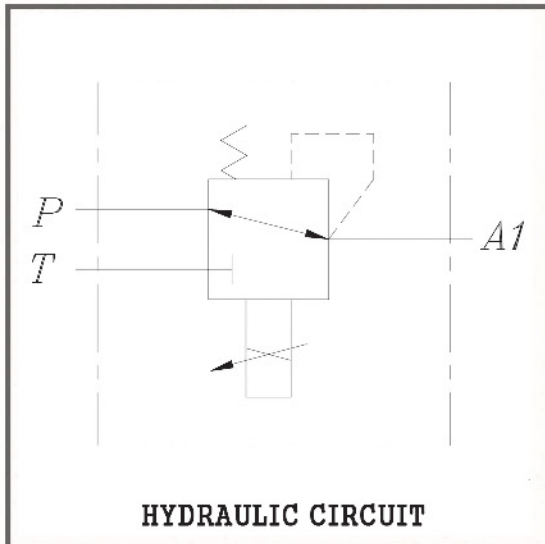


SPECIFICATIONS

1. CONTROL SPECIFICATION :NEGATIVEPROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE
: 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) : 24

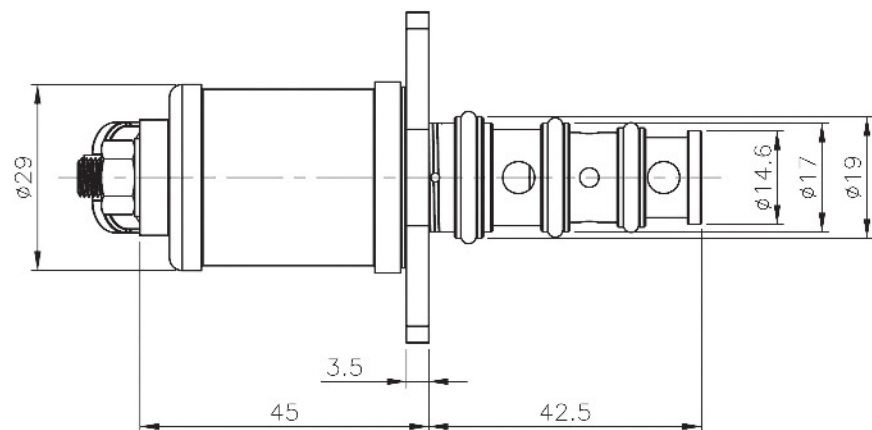
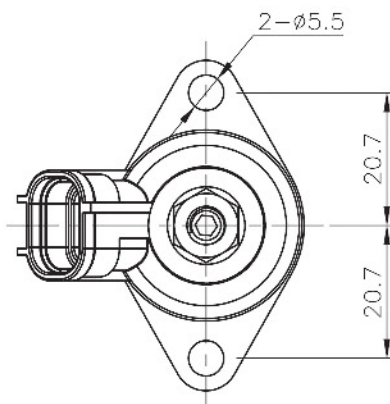


Proportional pressure reducing valve (HPR2BN-40E2-242-FOR HPV0118 HITACHI TYPE)

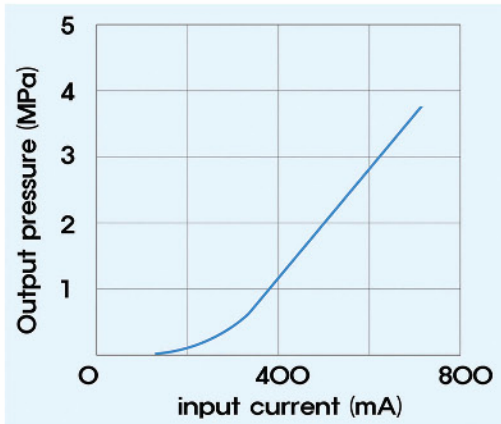
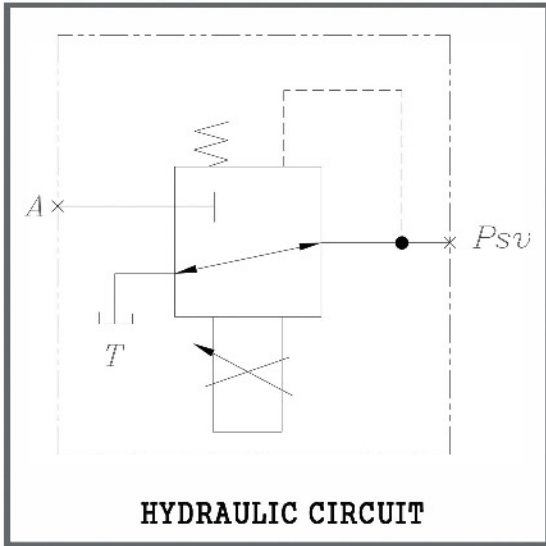


SPECIFICATIONS

1. CONTROL SPECIFICATION : NEGATIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE
: 40Kgf/cm² (3.9Mpa)
3. SOLENOID RATING : 0.65A for DC24V
4. COIL RESISTANCE(Ω) : 20

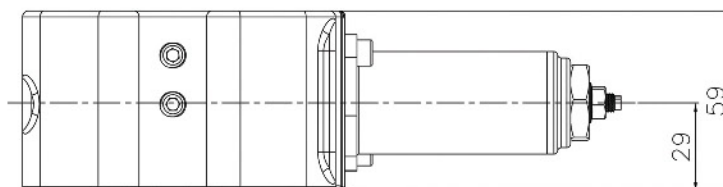
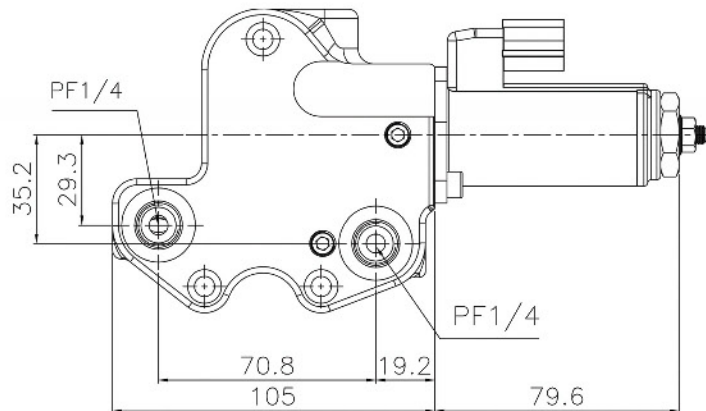


Proportional pressure reducing valve (HPR3B-30A2-211-M6)

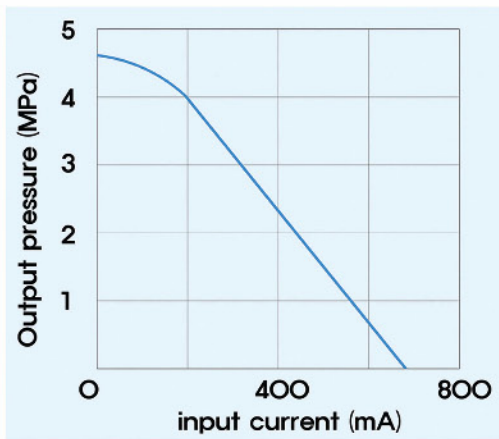
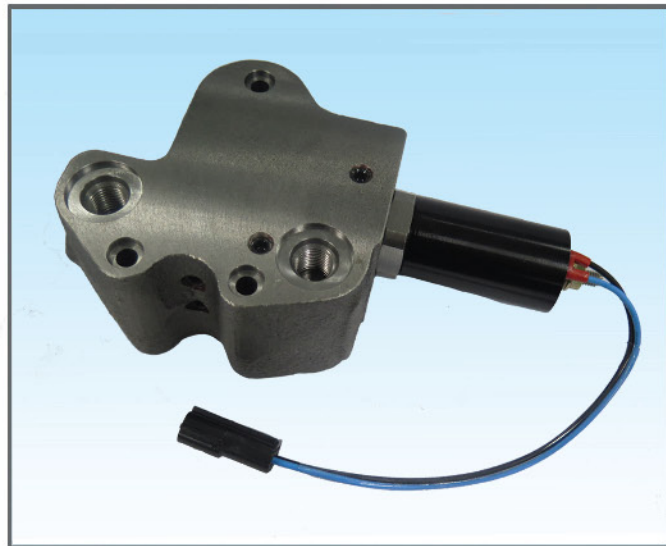
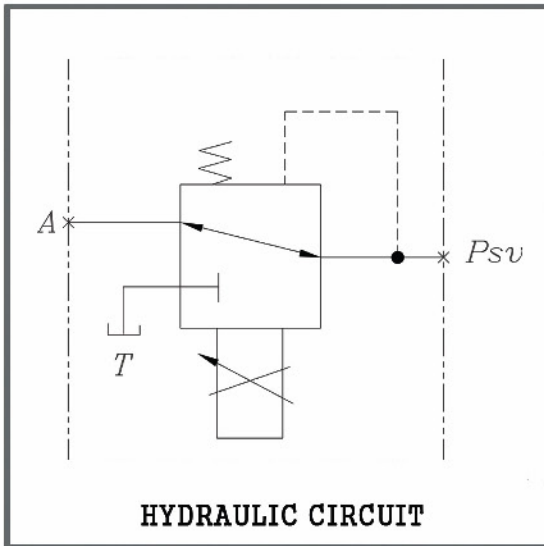


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

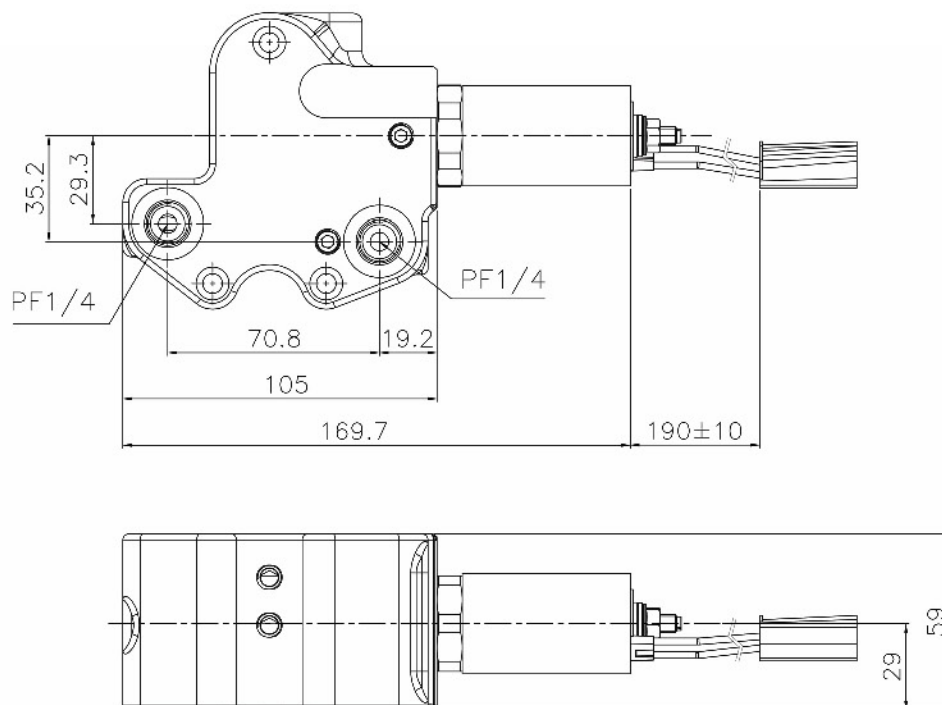


Proportional pressure reducing valve (HPR3SN-40A1-221-M6)

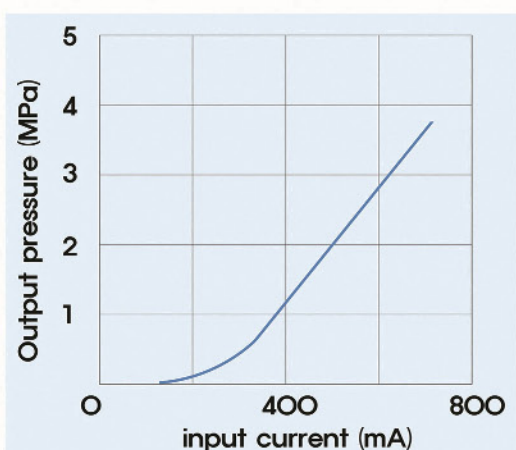
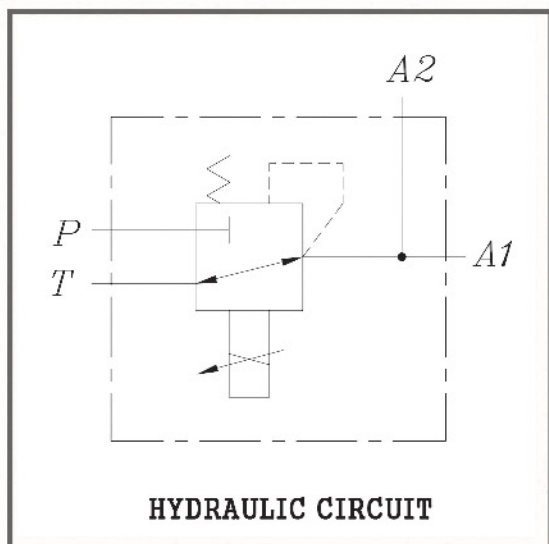


SPECIFICATIONS

- CONTROL SPECIFICATION : NEGATIVE PROPORTIONAL
- SECOND PRESSURE/MAX. SET PRESSURE : 40Kgf/cm² (3.9Mpa)
- SOLENOID RATING : 0.75A for DC24V
- COIL RESISTANCE(Ω) : 17.5

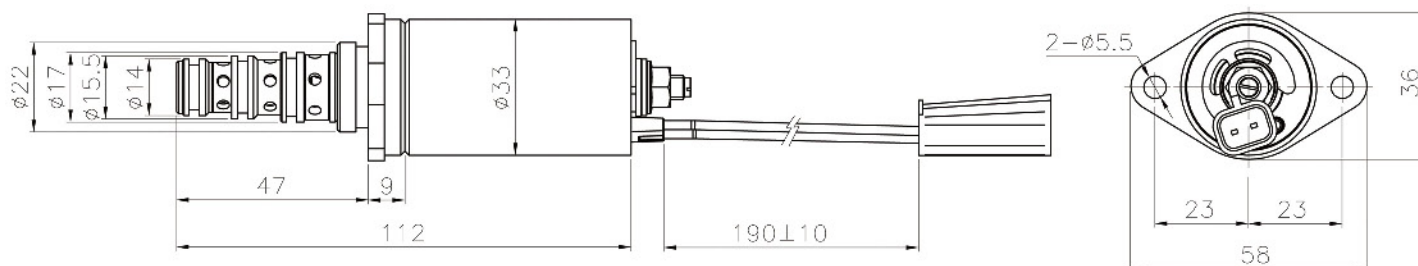


Proportional pressure reducing valve (HPR3B-30A1-201)

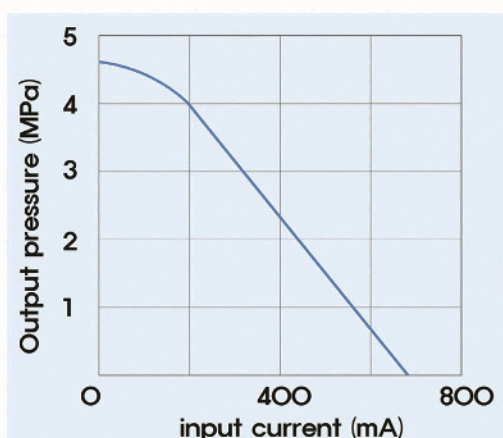
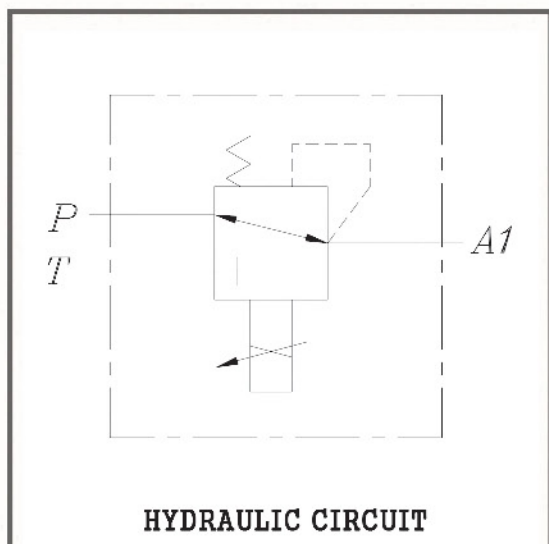


SPECIFICATIONS

1. CONTROL SPECIFICATION : POSITIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE : 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

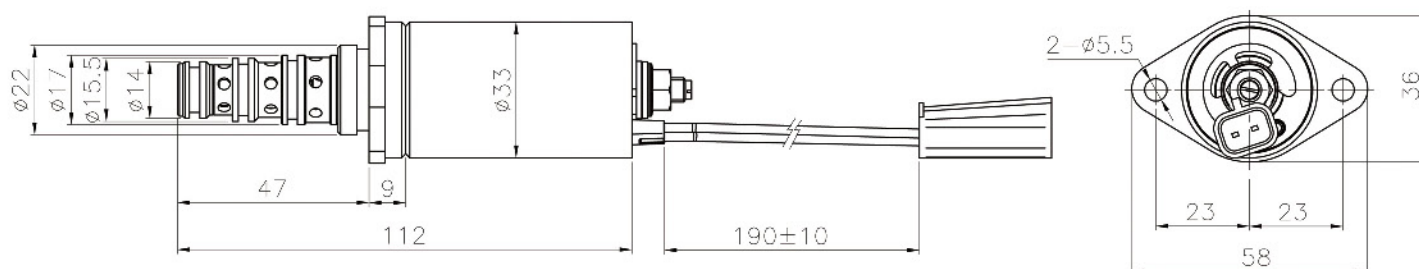


Proportional pressure reducing valve (HPR3BN-30A1-201)

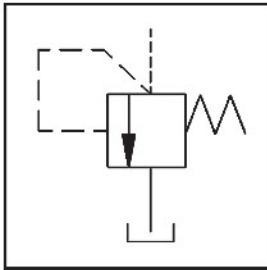


SPECIFICATIONS

1. CONTROL SPECIFICATION : NEGATIVE PROPORTIONAL
2. SECOND PRESSURE/MAX. SET PRESSURE
: 30Kgf/cm² (2.9Mpa)
3. SOLENOID RATING : 0.75A for DC24V
4. COIL RESISTANCE(Ω) :17.5

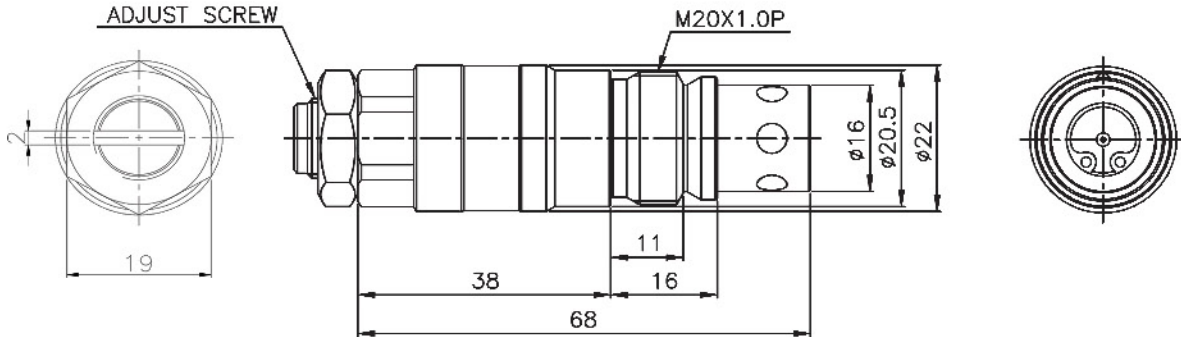


HYDRAULIC CIRCUIT



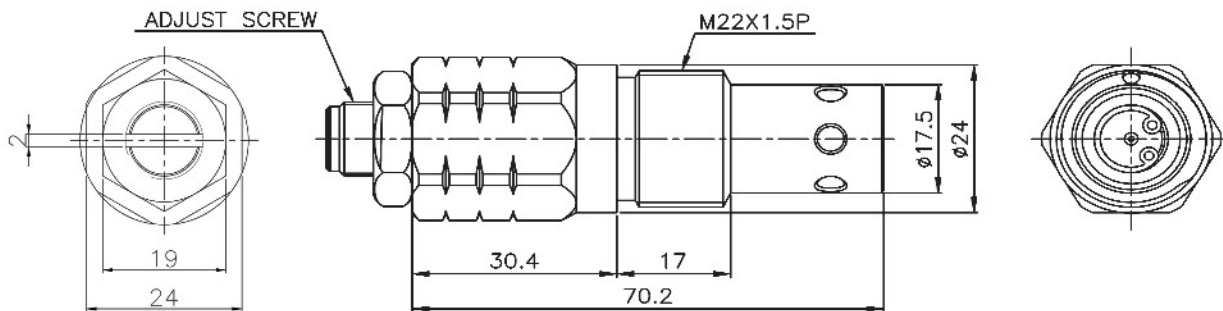
UCHIDA SERIES

(A8V55 / A8V80 / A8V86 / A8V107 / A8V115 / A8V172 / A8V200)



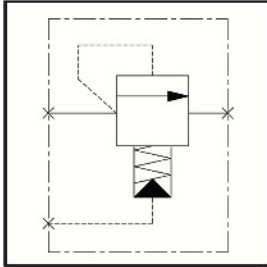
KAWASAKI SERIES

(H3V63 / H3V112 / H3V140 / H3V180)
(H5V80 / H5V140 / H5V160 / H5V200)

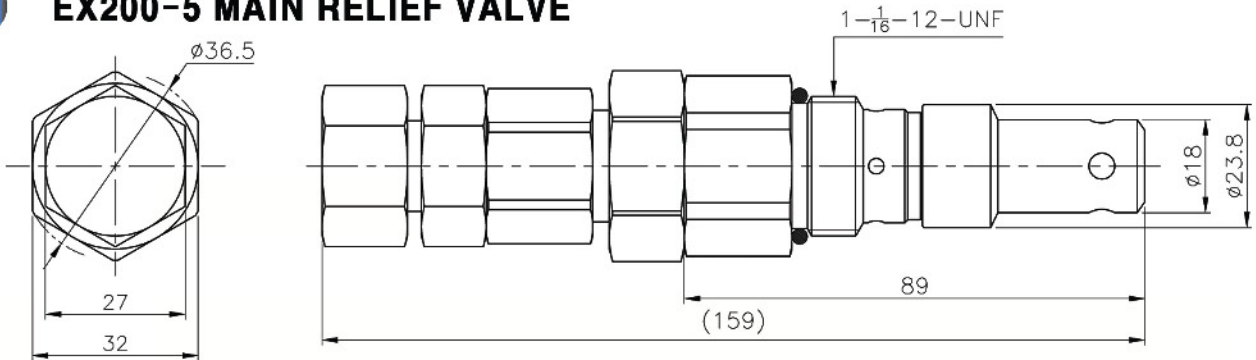




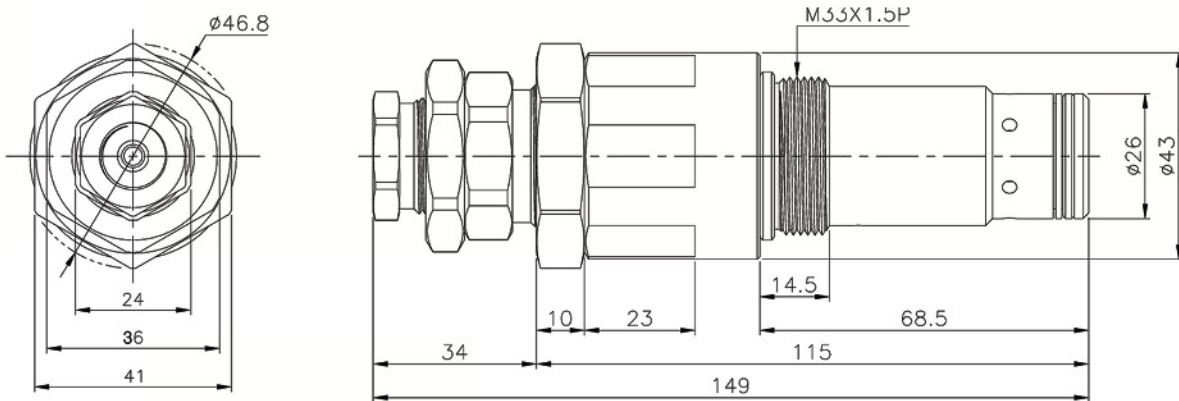
HYDRAULIC CIRCUIT



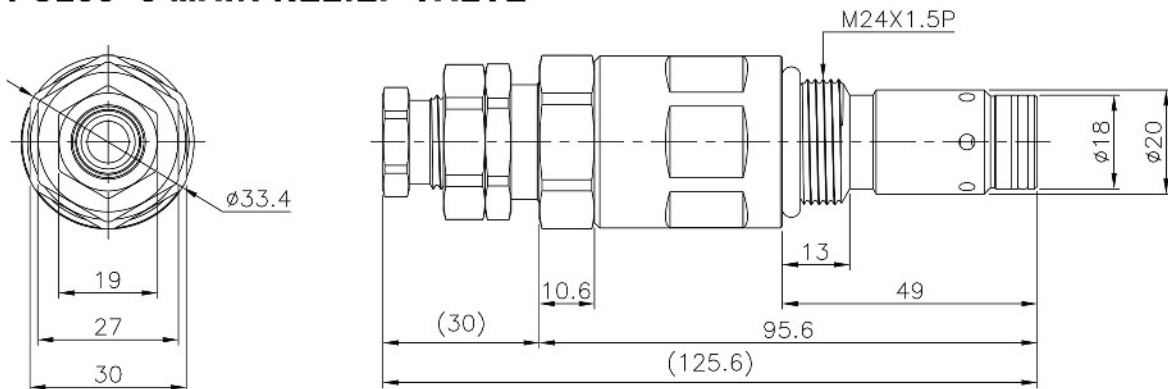
EX200-5 MAIN RELIEF VALVE



PC200-5 MAIN RELIEF VALVE

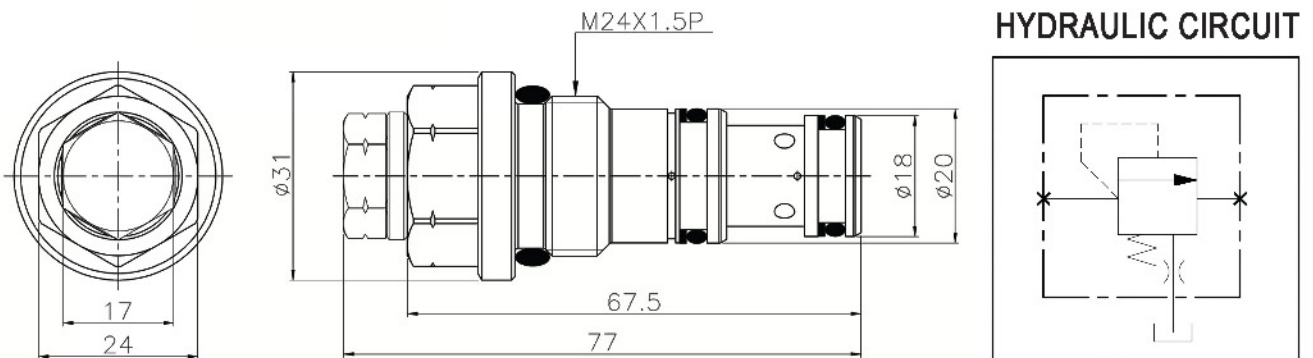


PC200-6 MAIN RELIEF VALVE

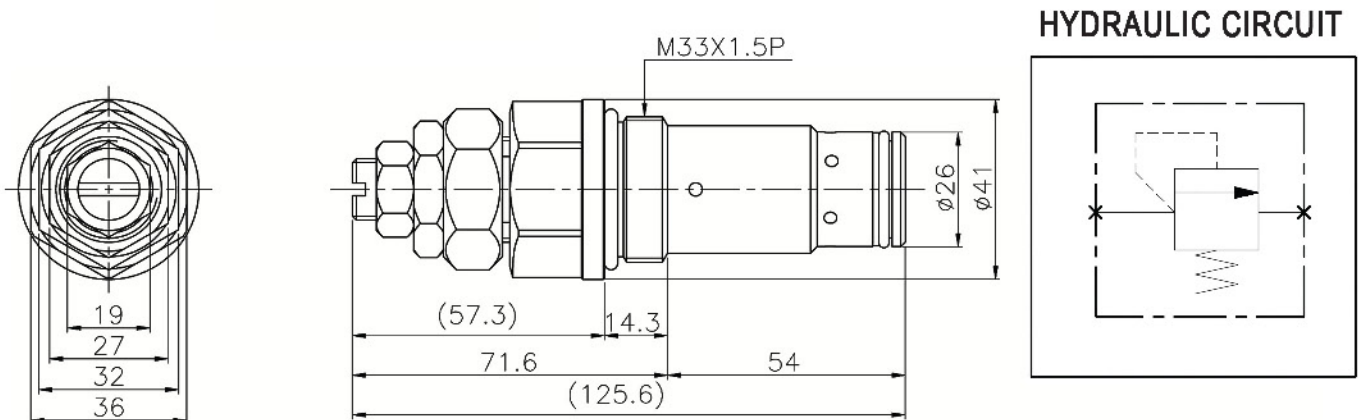




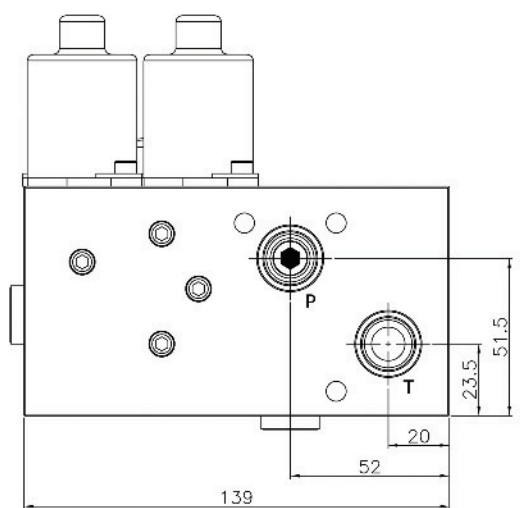
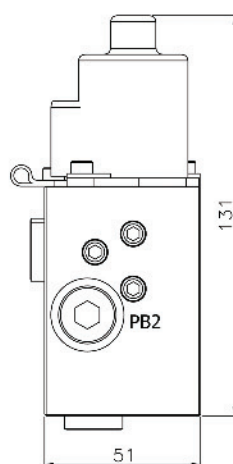
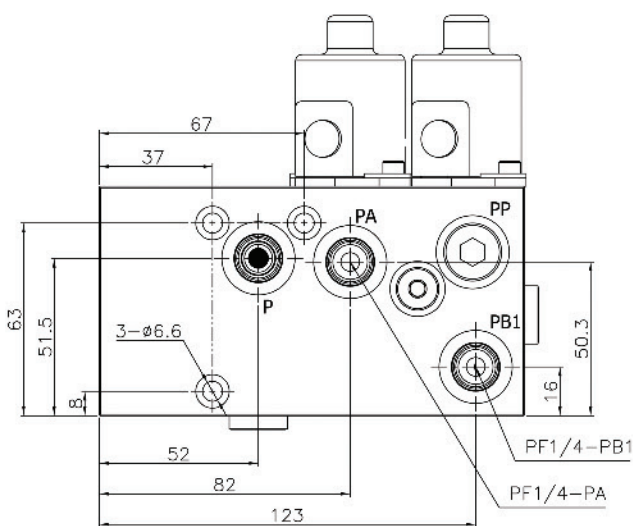
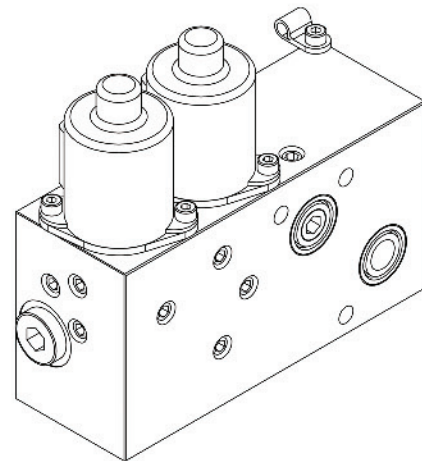
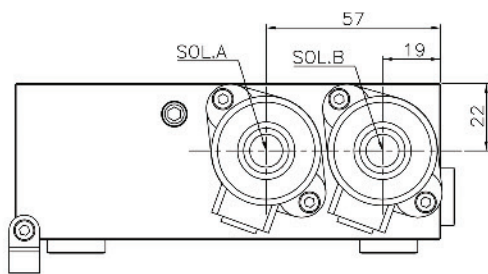
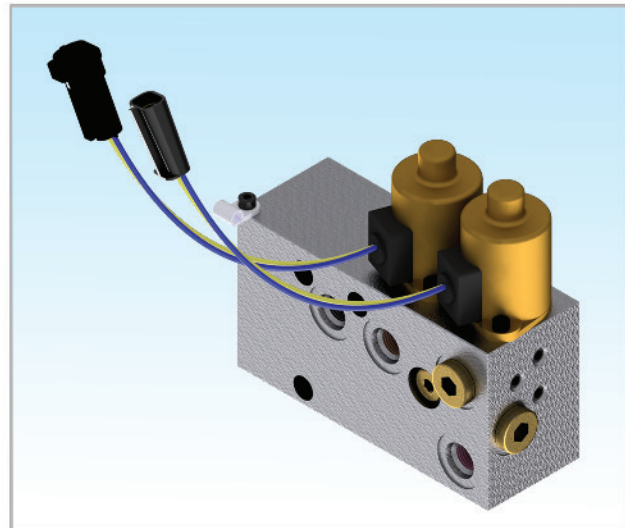
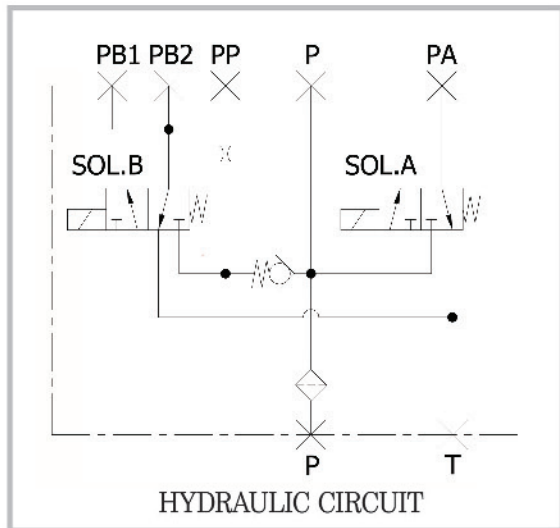
PC200-7 UNLOAD VALVE



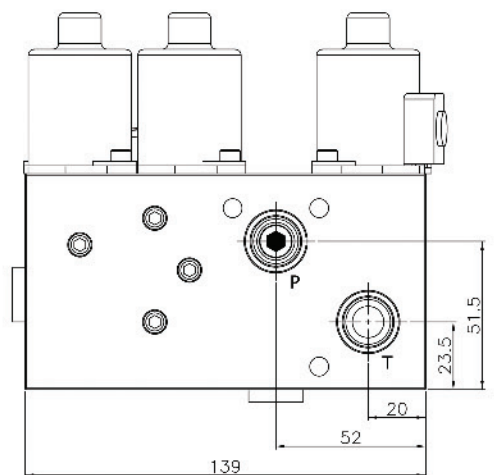
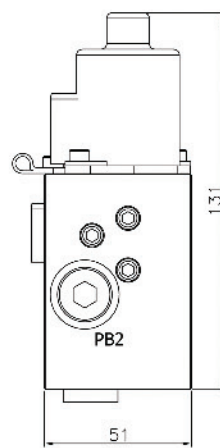
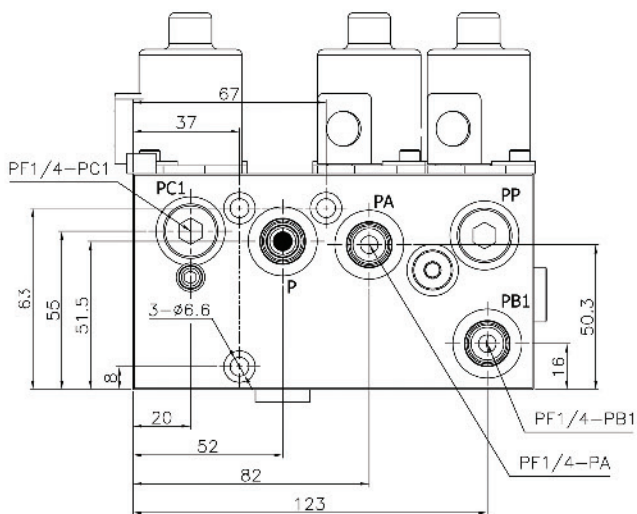
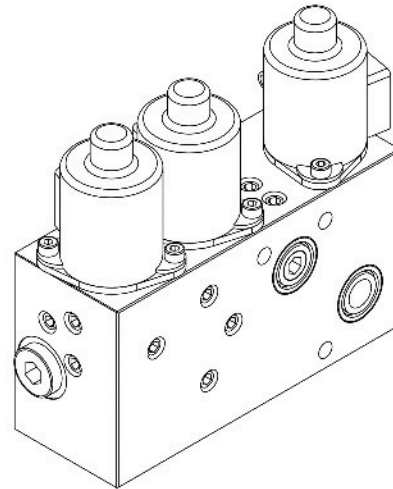
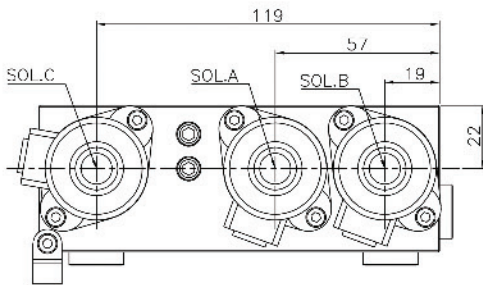
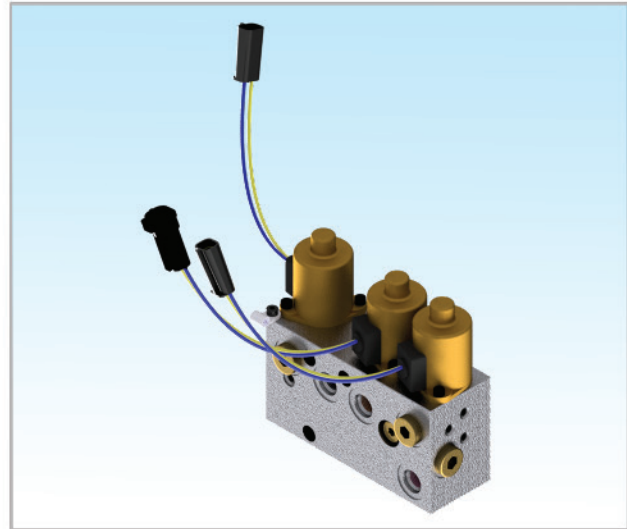
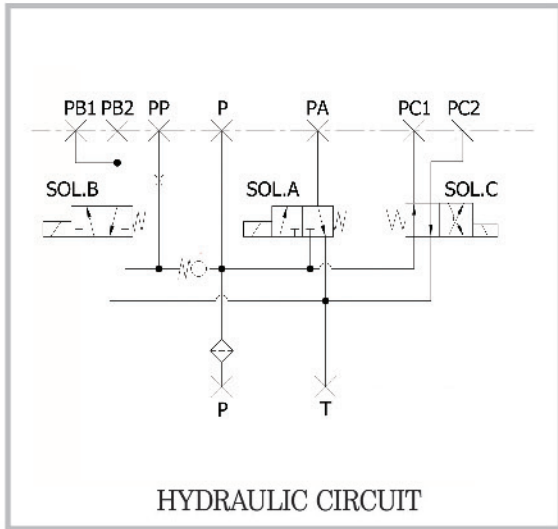
PC200-3 MAIN RELIEF VALVE



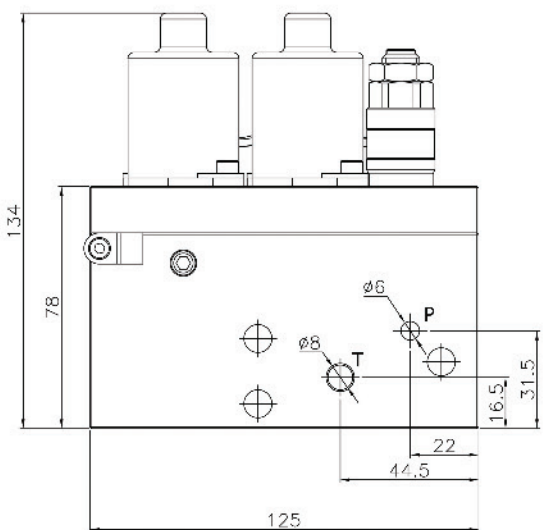
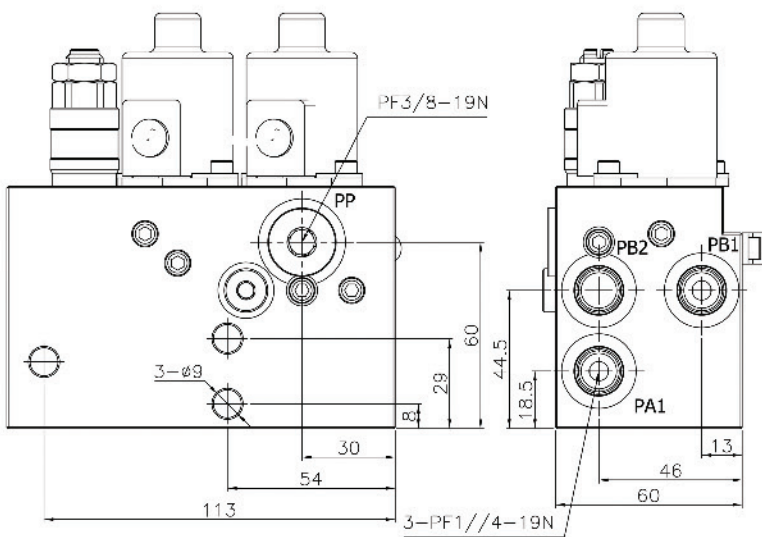
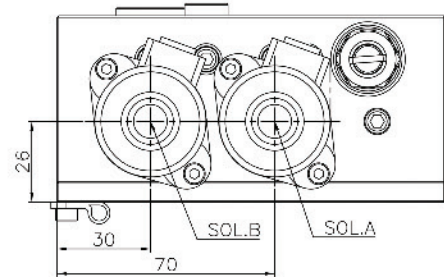
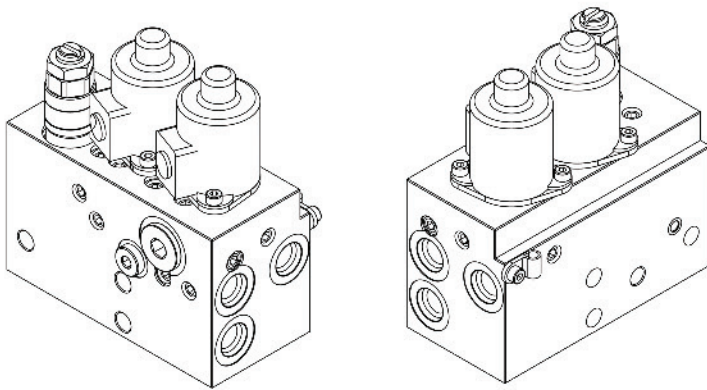
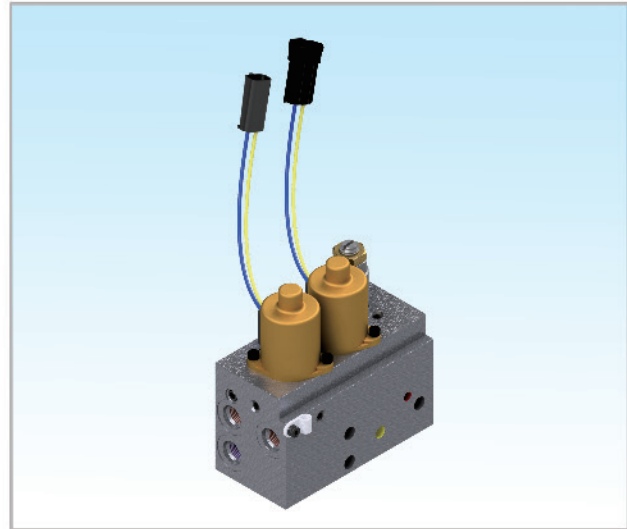
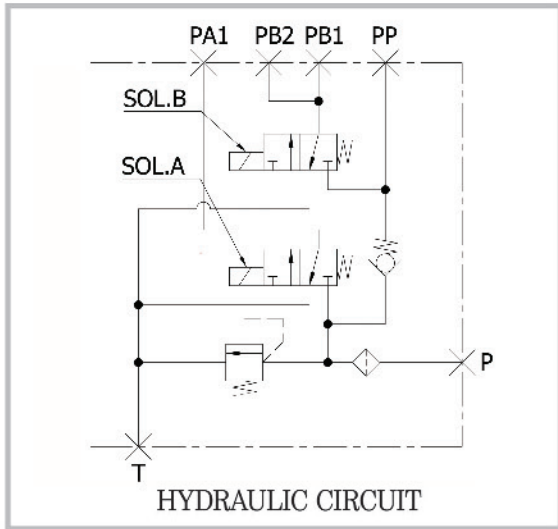
SOLENOID VALVE(PSVD2 SERIES-2STAGE)



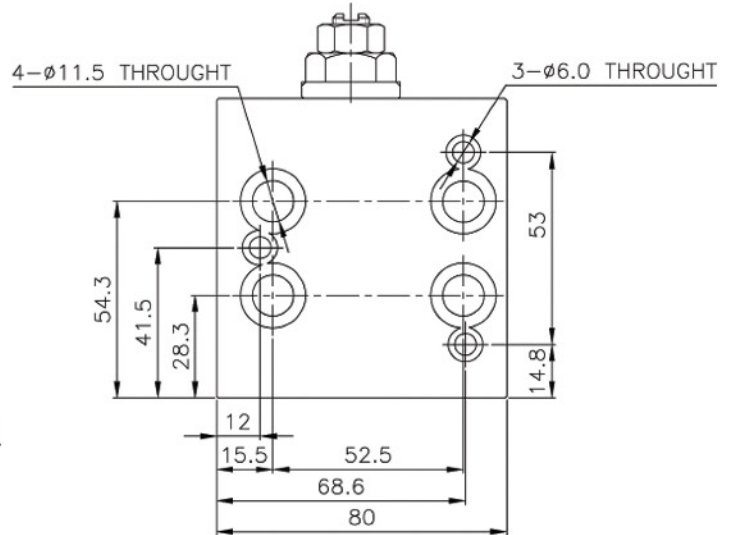
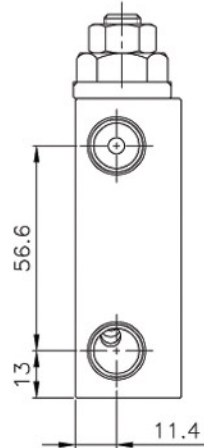
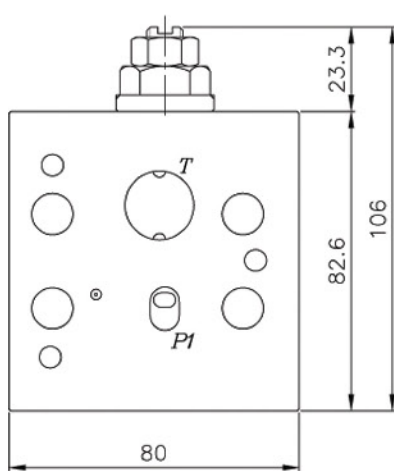
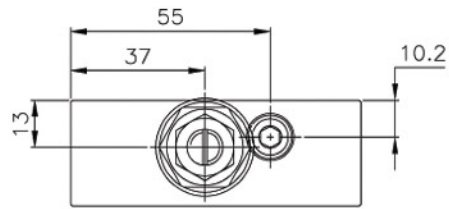
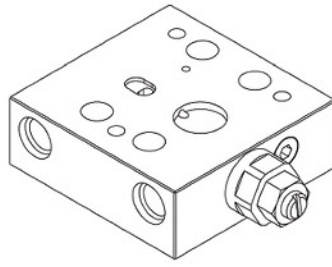
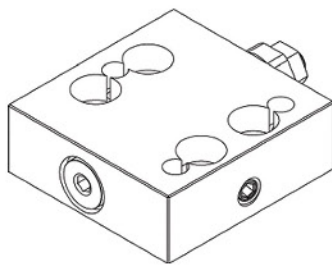
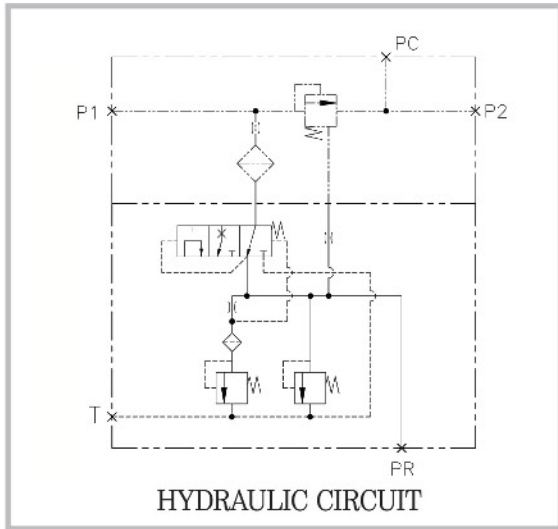
SOLENOID VALVE(PSVD2 SERIES-3STAGE)



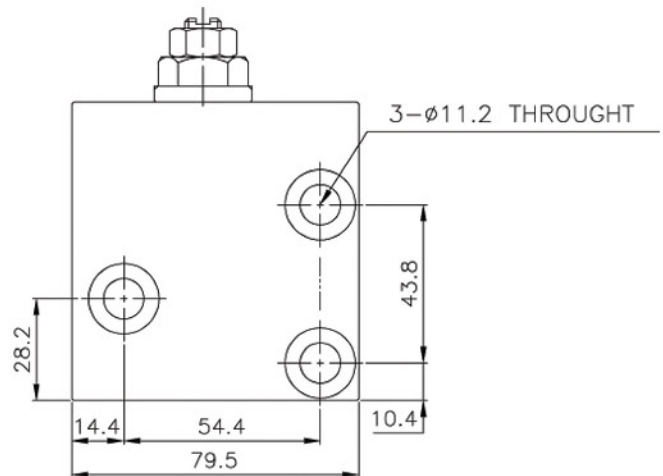
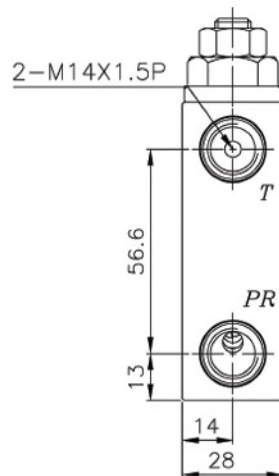
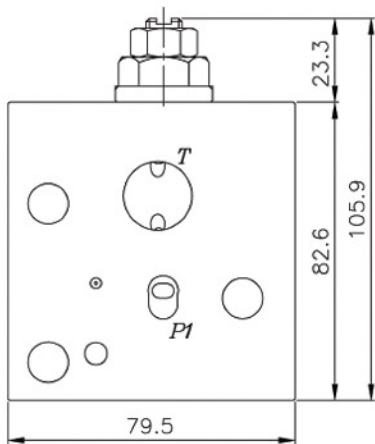
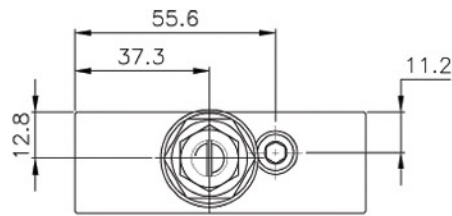
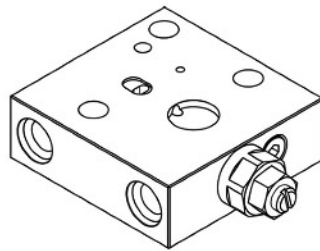
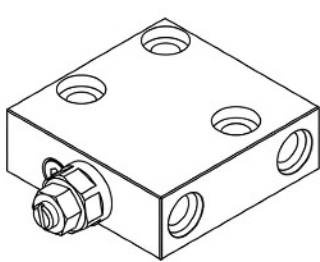
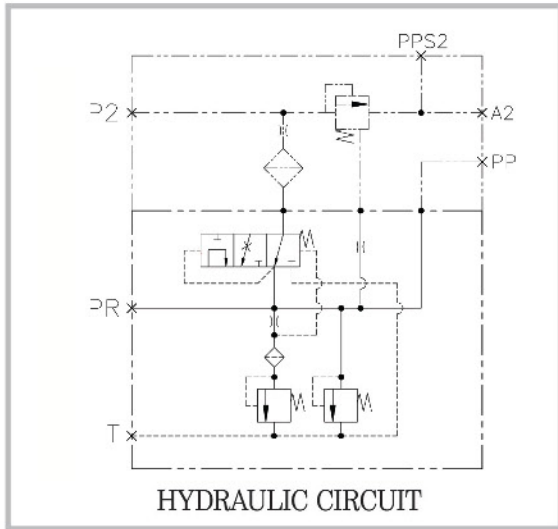
SOLENOID VALVE(PVD SERIES-2STAGE)



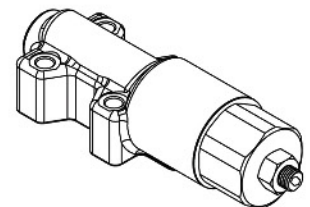
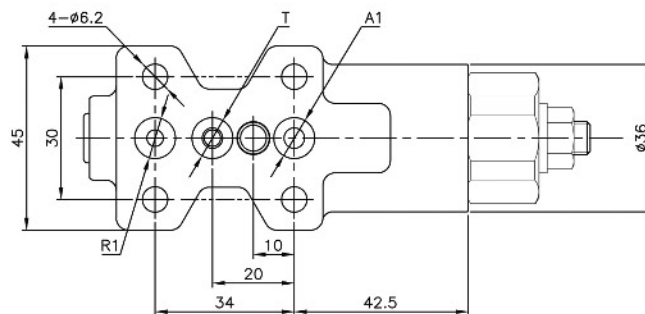
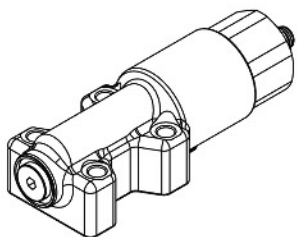
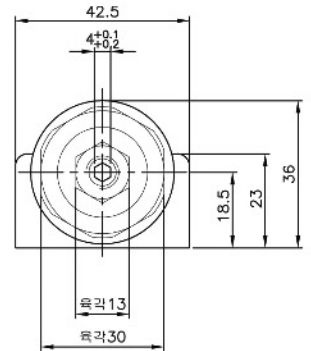
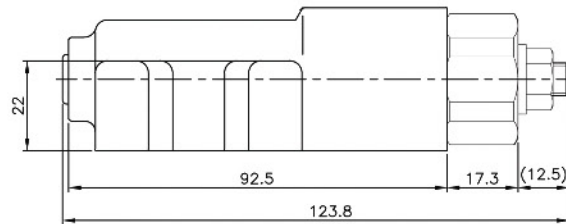
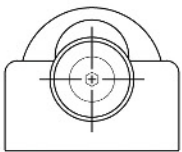
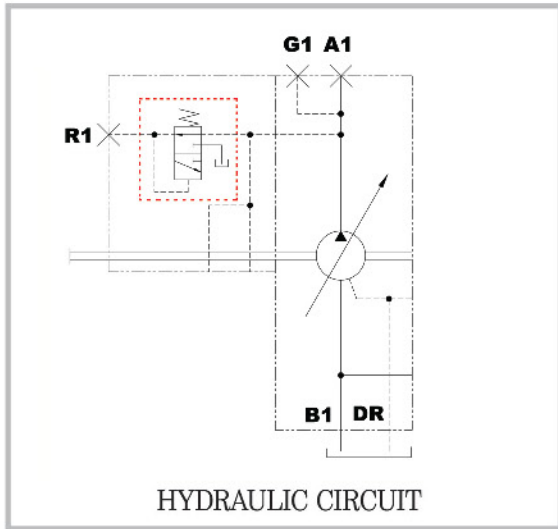
SELF REDUCING VALVE FOR KOMATSU (4-BOLT TYPE)



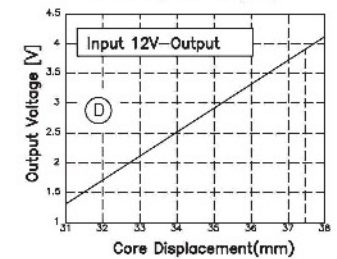
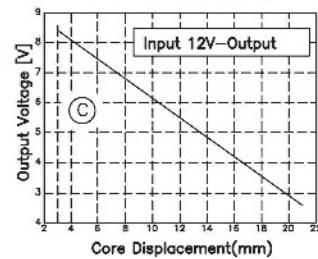
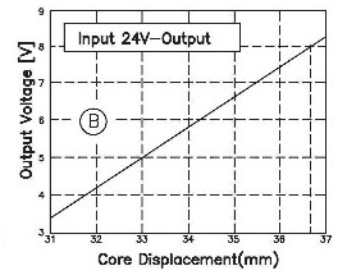
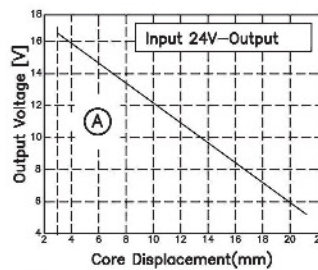
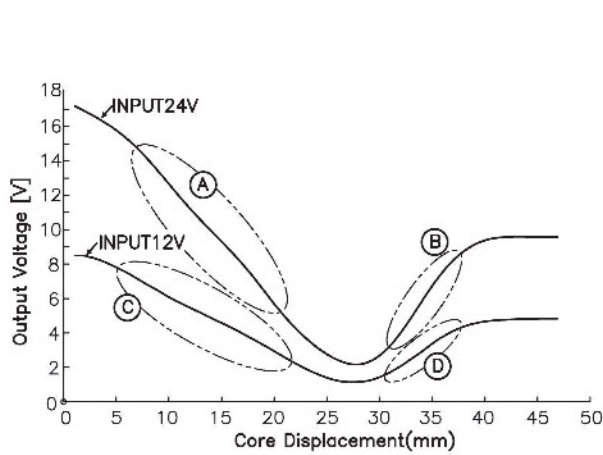
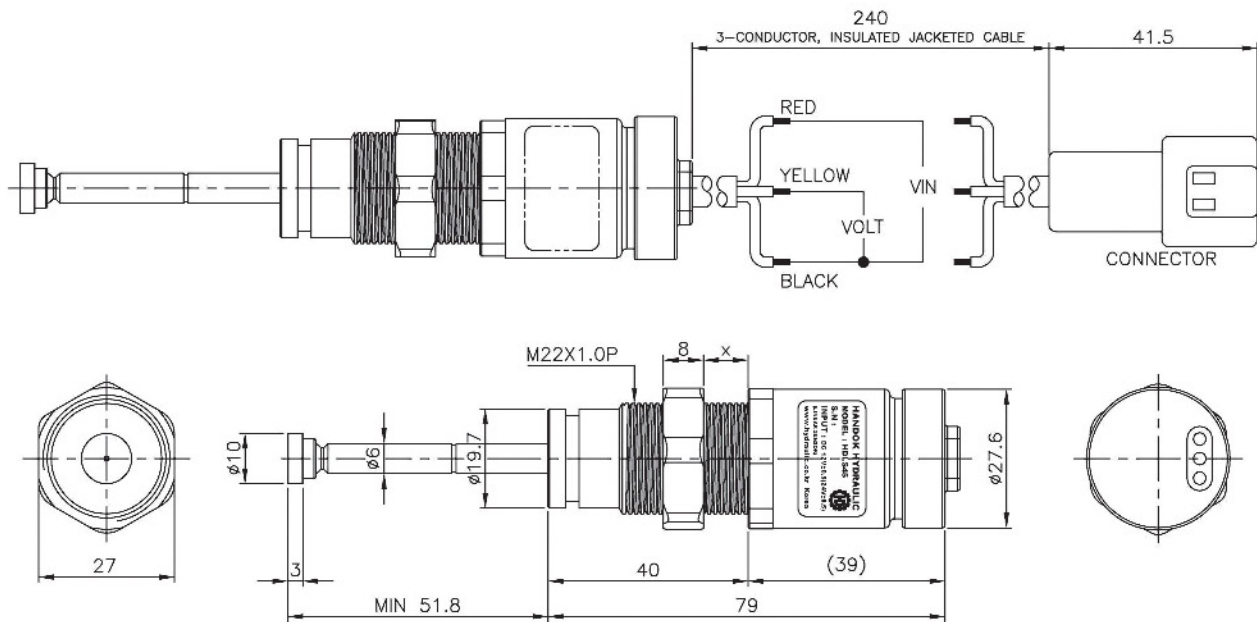
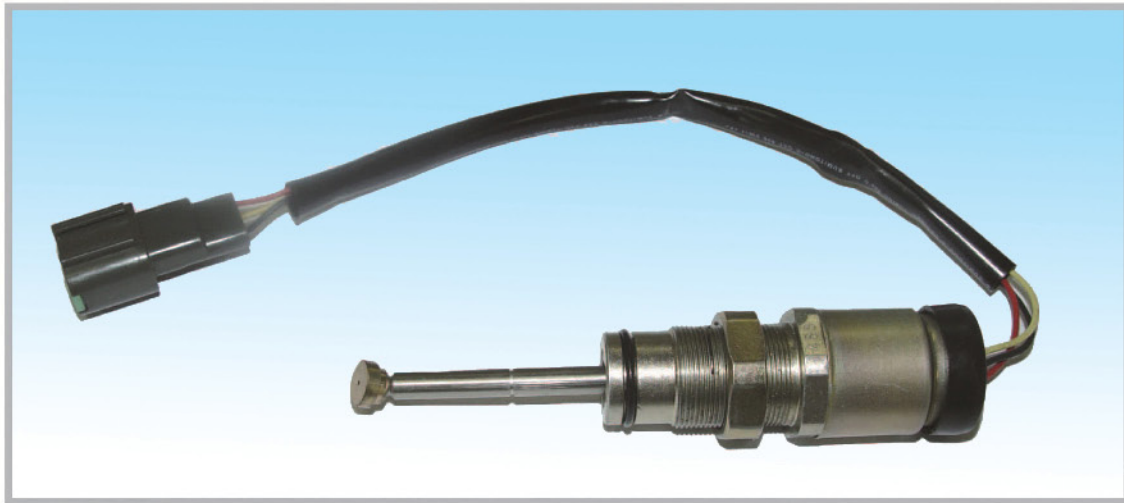
SELF REDUCING VALVE FOR KOMATSU (3-BOLT TYPE)



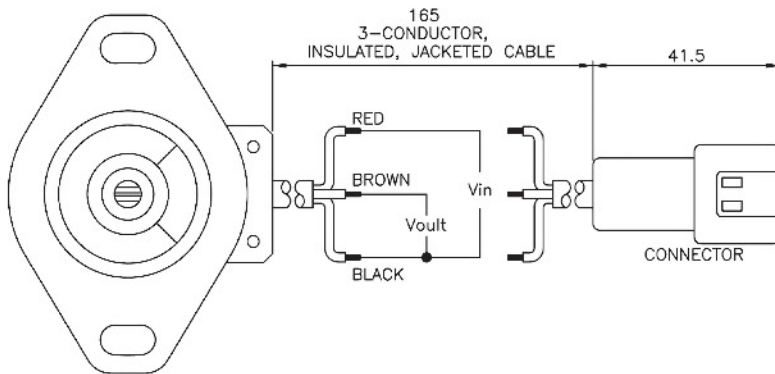
REDUCING VALVE-A10VO28 FOR HITACHI



LINEAR(LVDT) SENSOR FOR HITACHI



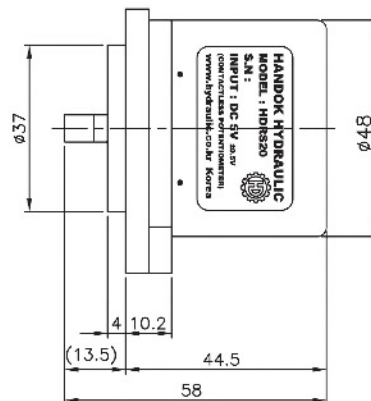
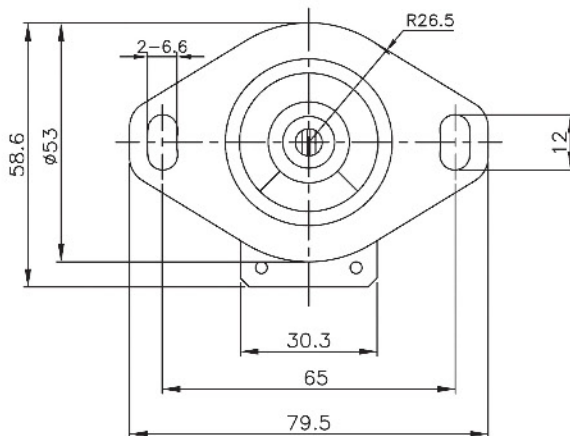
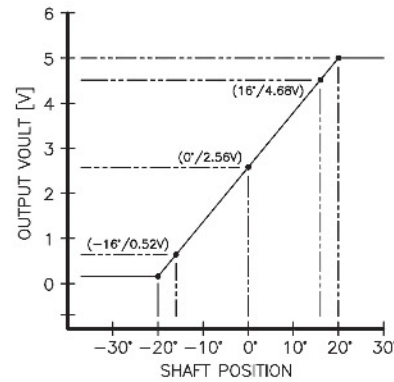
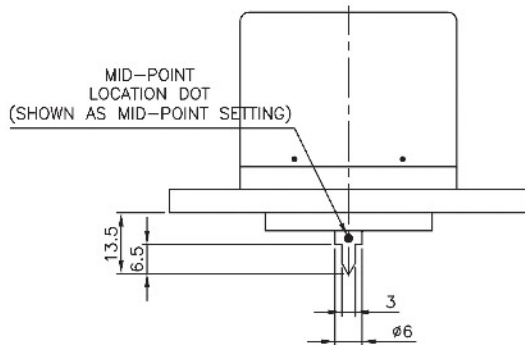
ANGLE(RVDT) SENSOR FOR HITACHI



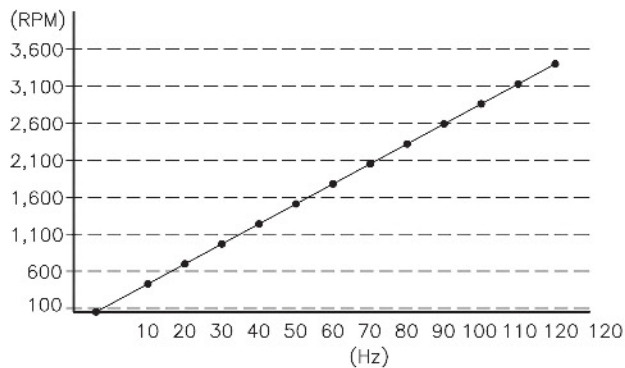
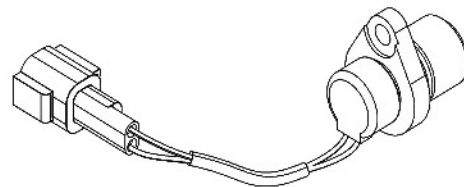
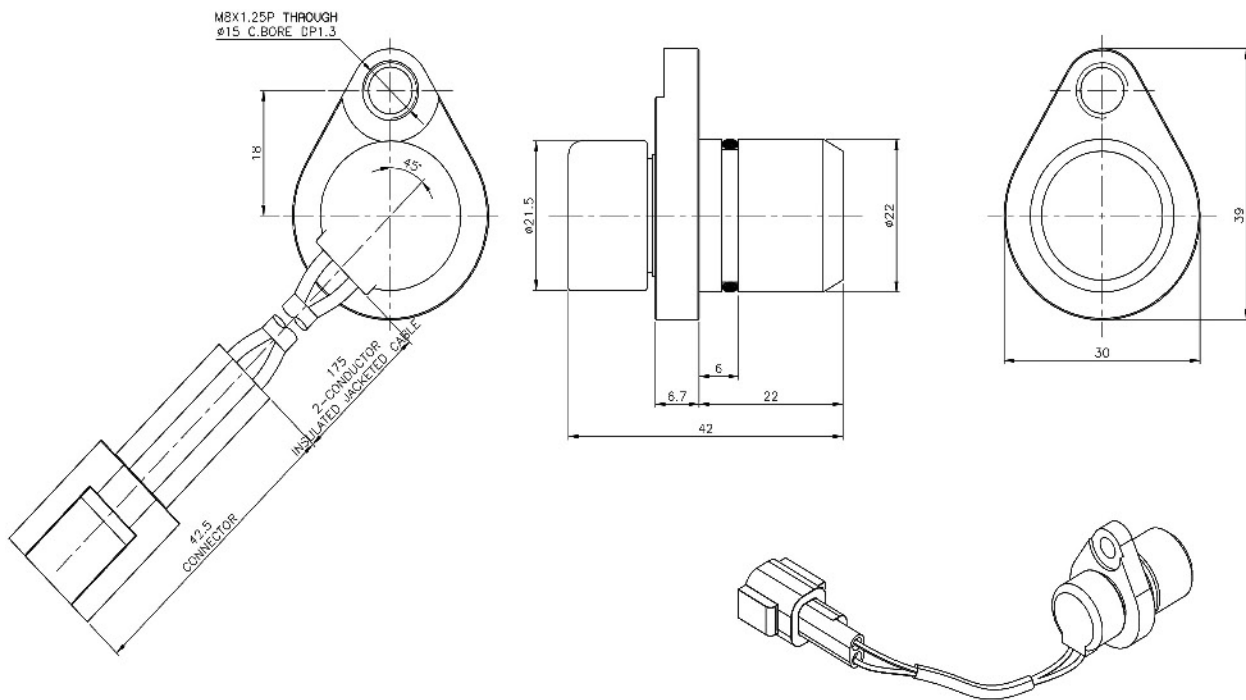
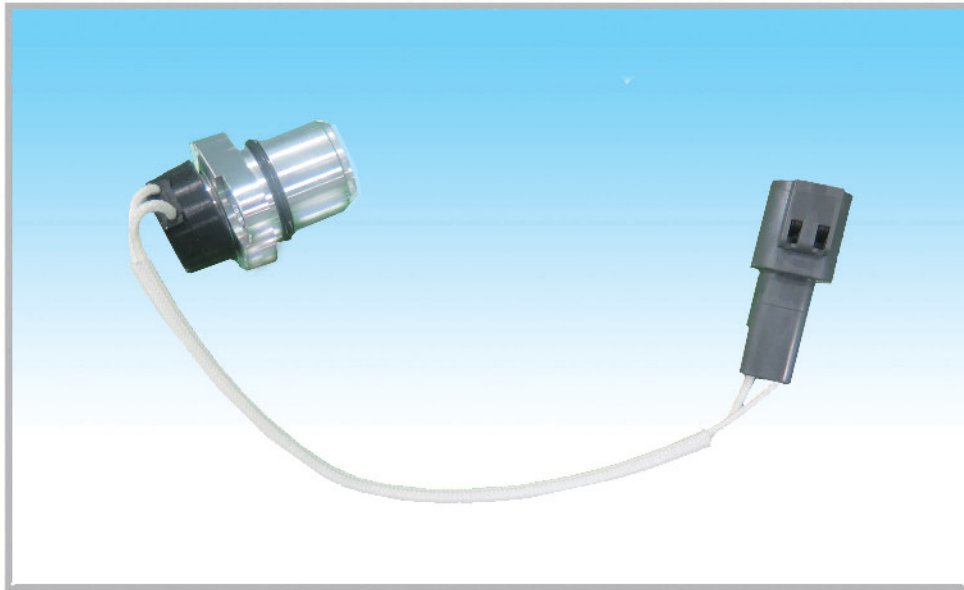
ENVIRONMENTAL SPECIFICATIONS
 - OPERATING TEMPERATURE : $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$
 - VIBRATION : 10 Gs, 2,000 Hz
 - SHOCK : 100 Gs, 11 ms

ELECTRICAL SPECIFICATIONS
 - ELECTRICAL ANGLE : $\pm 20^{\circ}$ (27°C)
 - INPUT VOLTAGE (Vin) : DC5V ± 0.5
 - SUPPLY CURRENT : 20 mA MAX.
 - ACCURACY : $\pm 1.7\%$ (27°C)

MECHANICAL ANGLE : 360° (ENDLESS)



RPM SENSOR FOR HITACHI

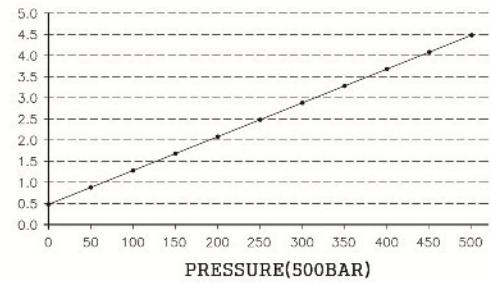


- ENVIRONMENTAL SPECIFICATIONS**
- OPERATING TEMPERATURE : -20°C ~ +80°C
 - MAXIMUM RPM : 5,400 RPM
 - CAPACITY : 0.7~0.8Ω

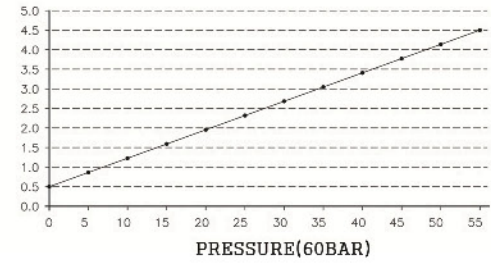
PRESSURE SENSOR FOR FOR HITACHI



VOLTAGE

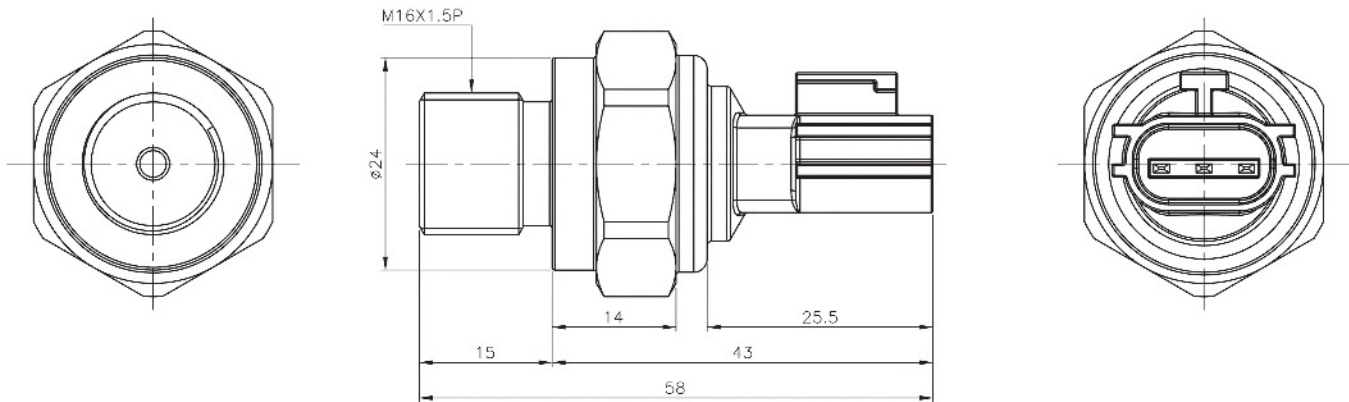


VOLTAGE



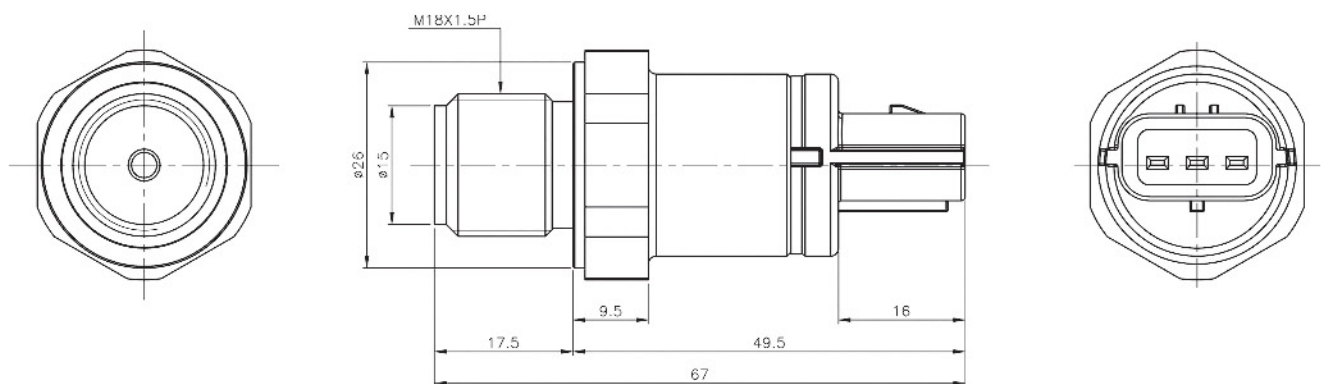
*** MAXIMUM PRESSURE : 60Bar**

ENVIRONMENTAL SPECIFICATIONS
 OPERATING TEMPERATURE : -20° C ~ +80° C
 INPUT VOLTAGE : DC 5V

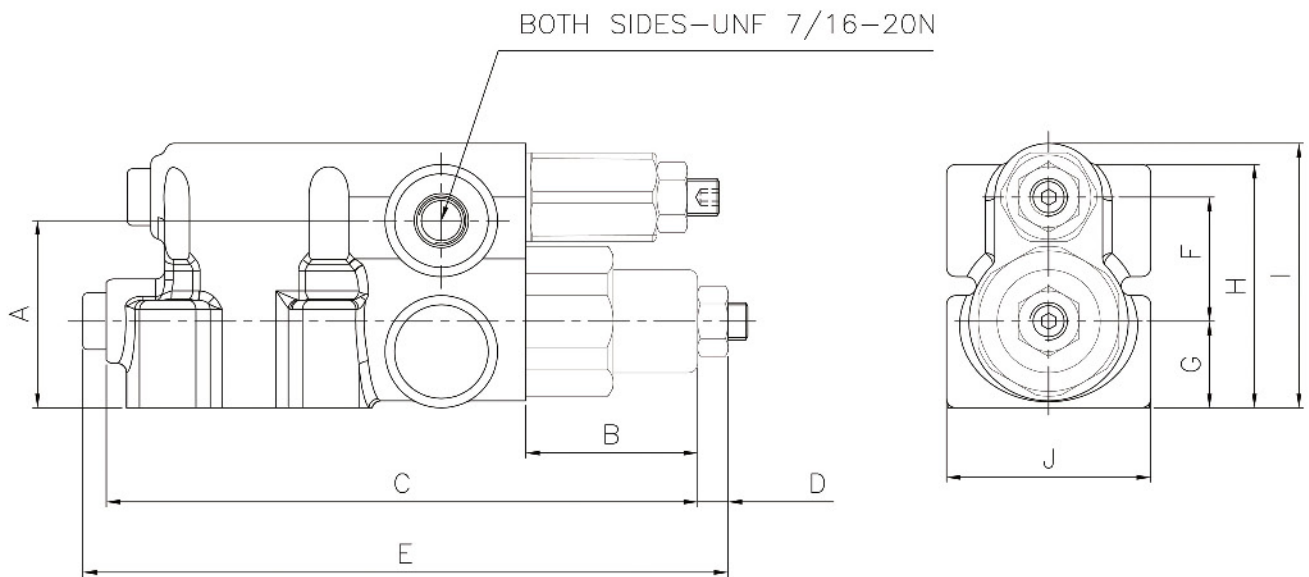
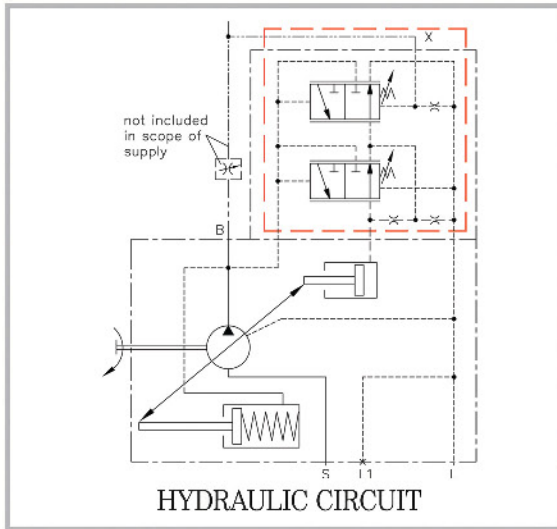


*** MAXIMUM PRESSURE : 500Bar**

ENVIRONMENTAL SPECIFICATIONS
 OPERATING TEMPERATURE : -20° C ~ +80° C
 INPUT VOLTAGE : DC 5V



CONTROL VALVE (A10VO SERIES-DFR TYPE)

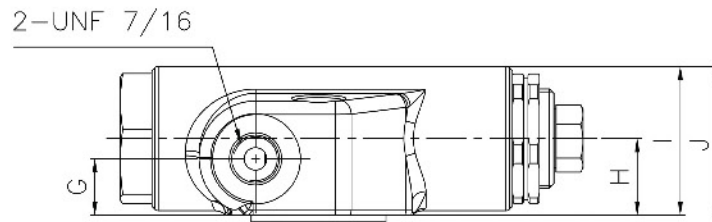
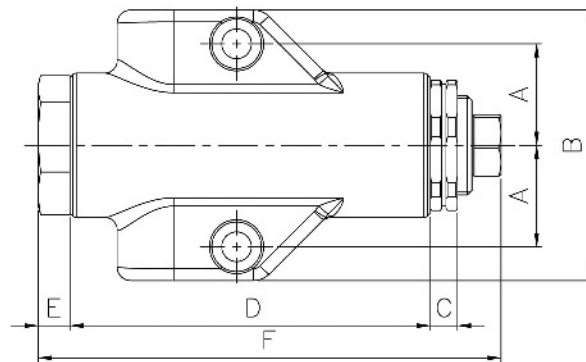
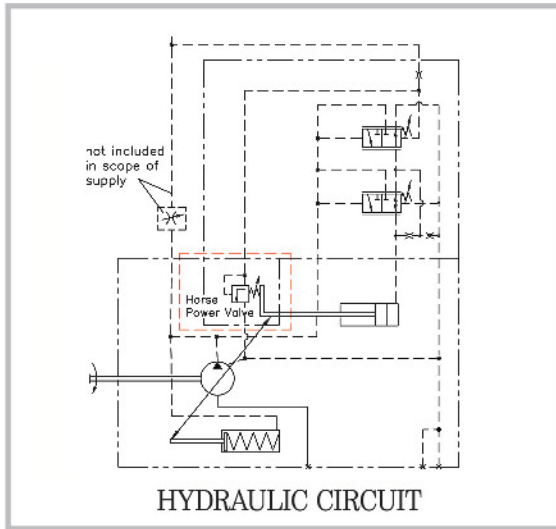


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J
A10VO SERIES	40	36.7	126.2	6.5	137.7	26.5	18.5	52	56.5	43.6

PILOT VALVE (A10VO SERIES)

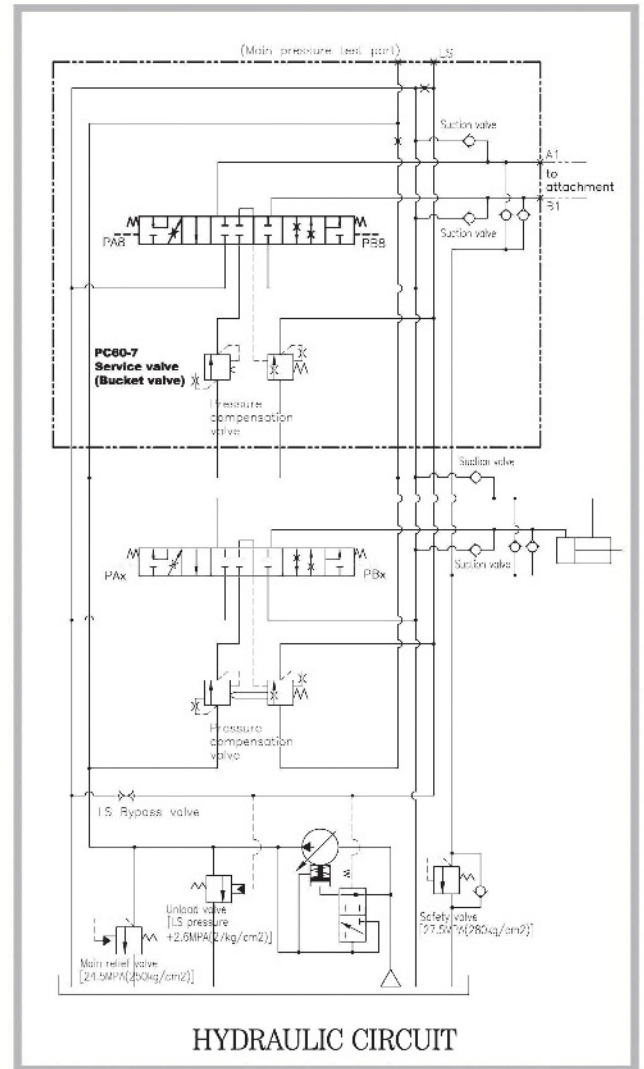
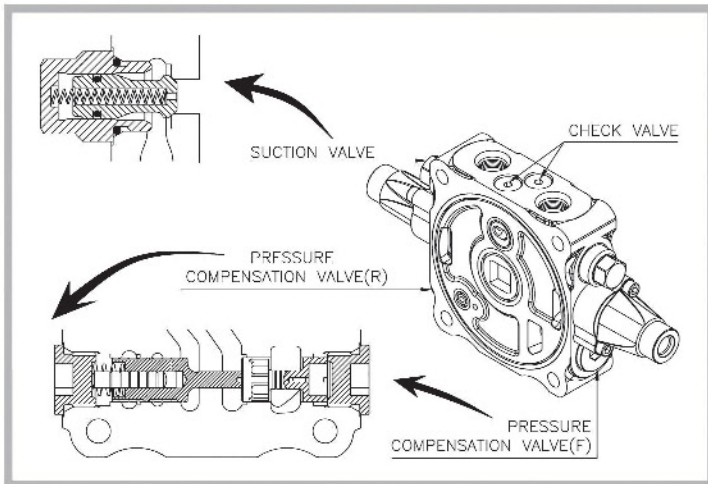
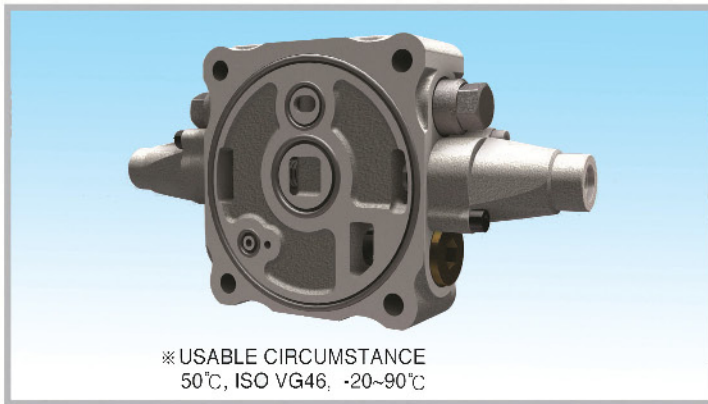
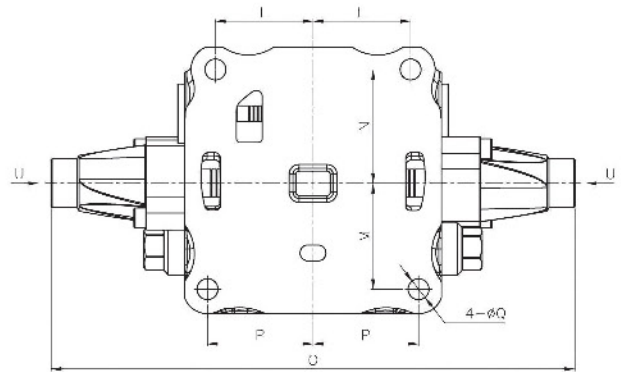
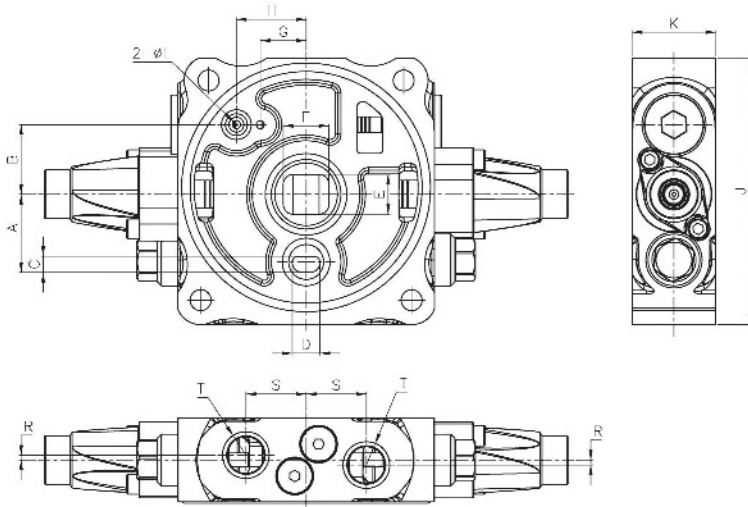


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J
A10VO SERIES	22.5	60	6	80	7	102.7	12.5	17	33	35

LOAD SENSING CONTROL VALVE FOR PC60-7



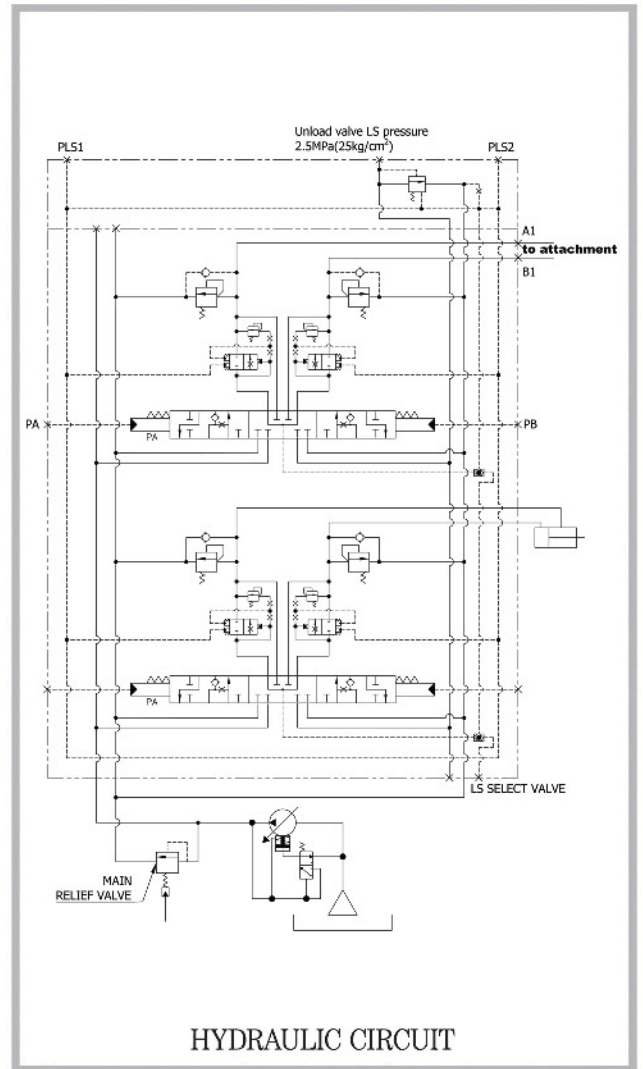
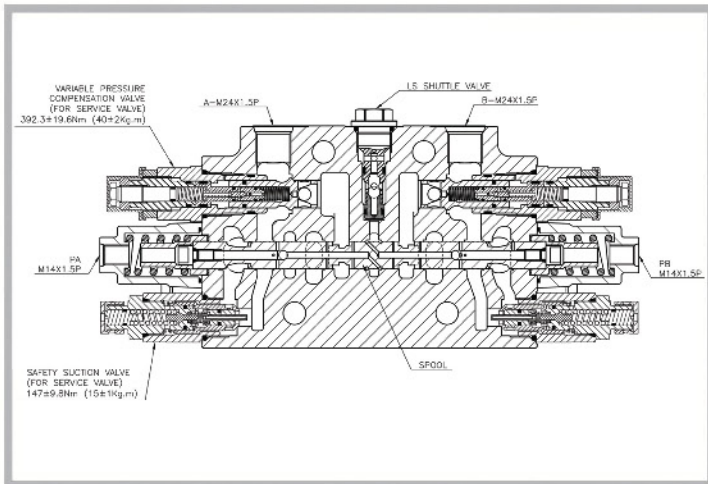
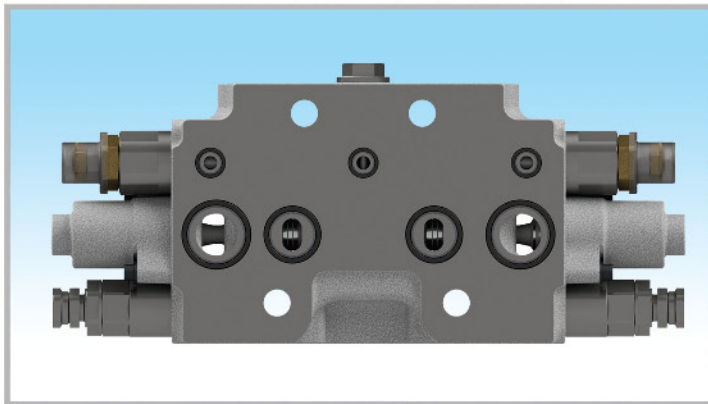
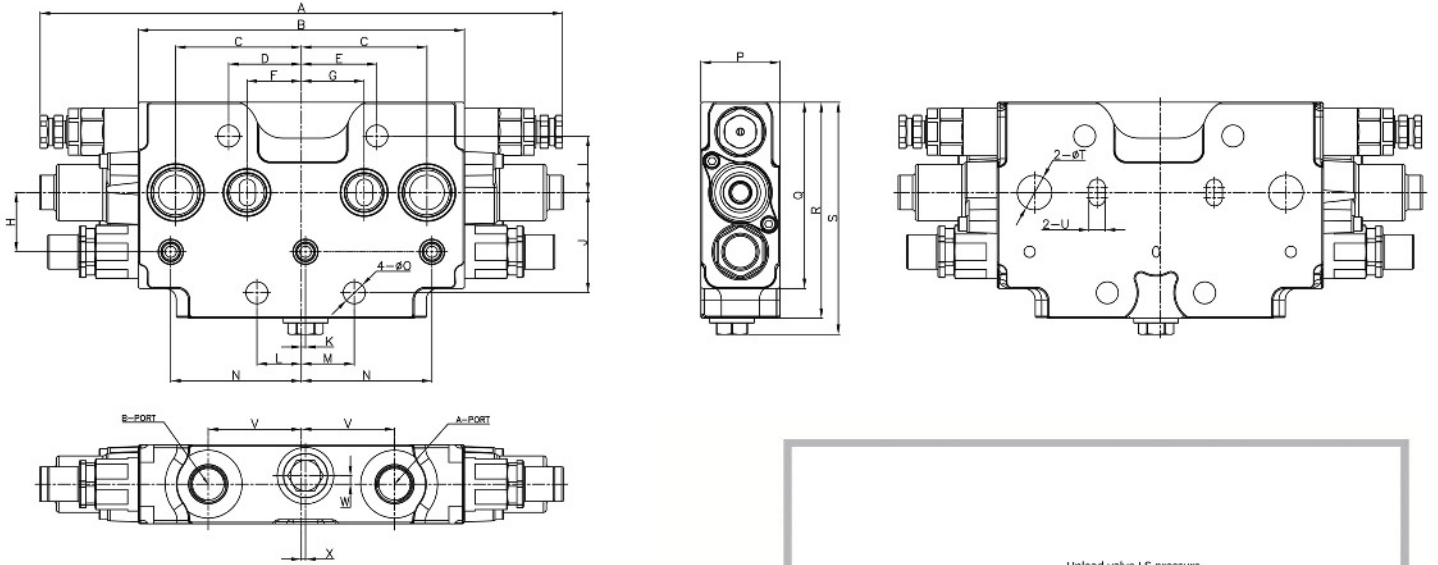
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
PC60-7	39	35	8	14	20	23	23	35	4	134	42	49

MODEL	M	N	O	P	Q	R	S	T	U
PC60-7	53.2	57.2	263	53	10.5	2.5	30.5	M20X1.5P	M14X1.5P

LOAD SENSING CONTROL VALVE FOR PC100&120-6



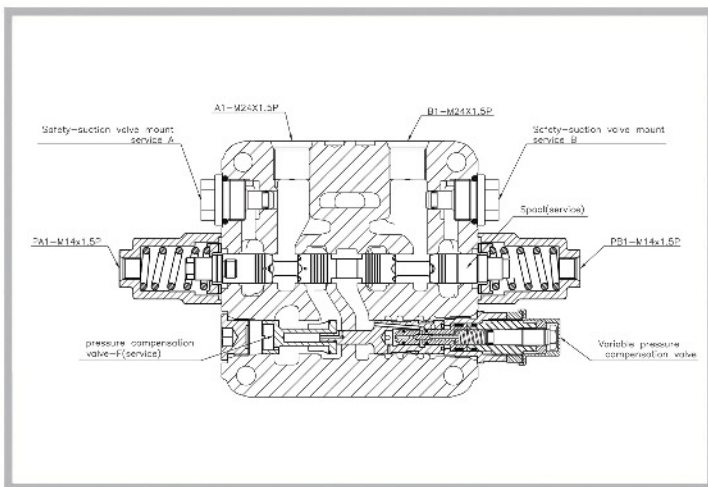
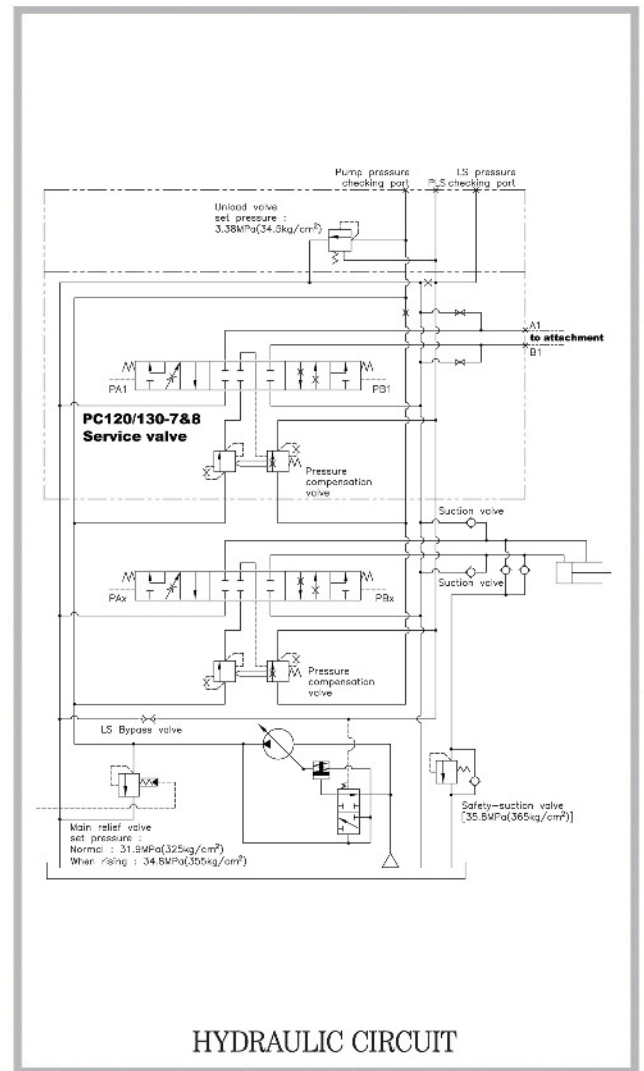
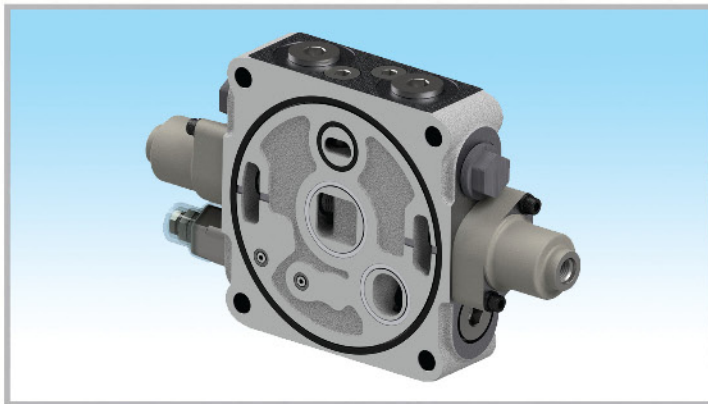
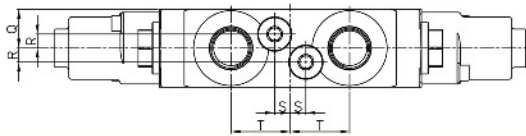
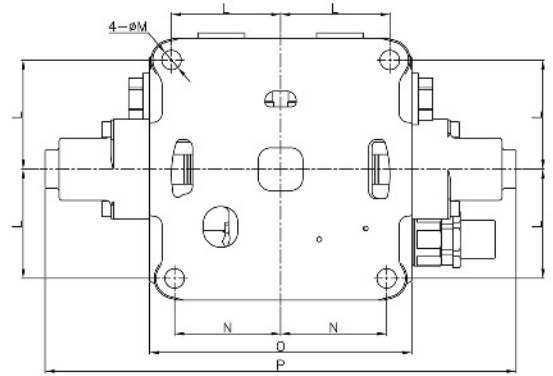
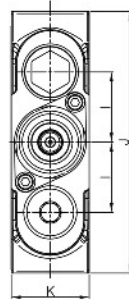
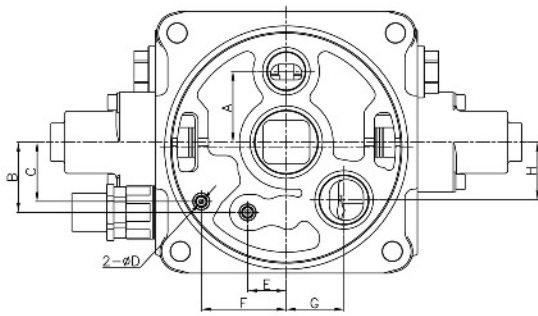
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
PC100&120-6	370	231	89	51.5	53.5	38.5	44.5	42	40	71	3	31.5

MODEL	M	N	O	P	Q	R	S	T	U	V	W	X
PC100&120-6	37.5	92.5	15.5	56	132	153	165	24.5	11.5	66	6	3

LOAD SENSING CONTROL VALVE FOR PC120/130-7&8

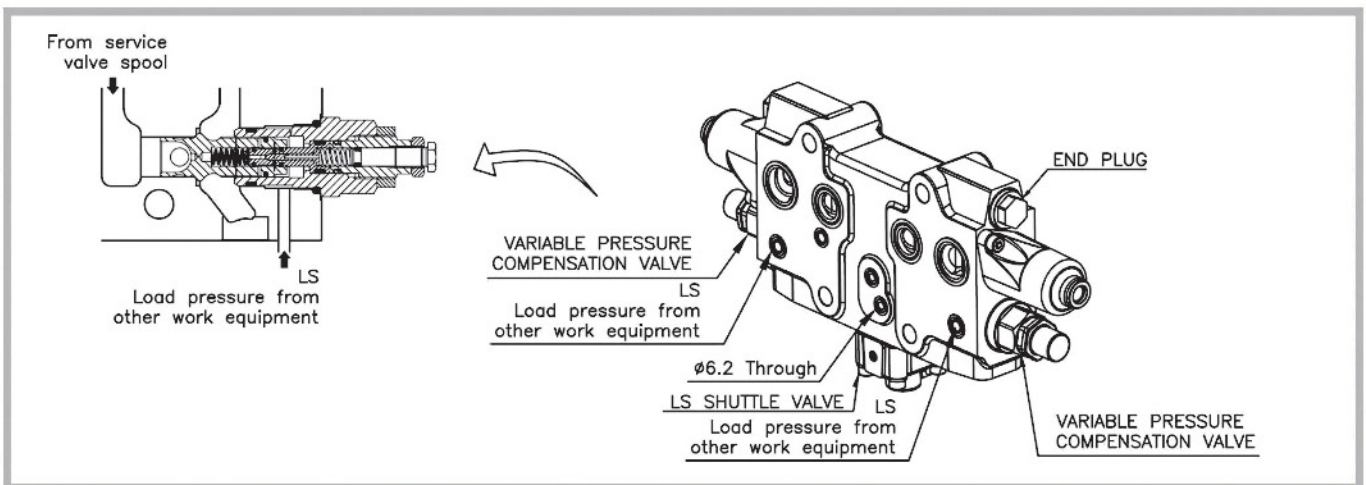
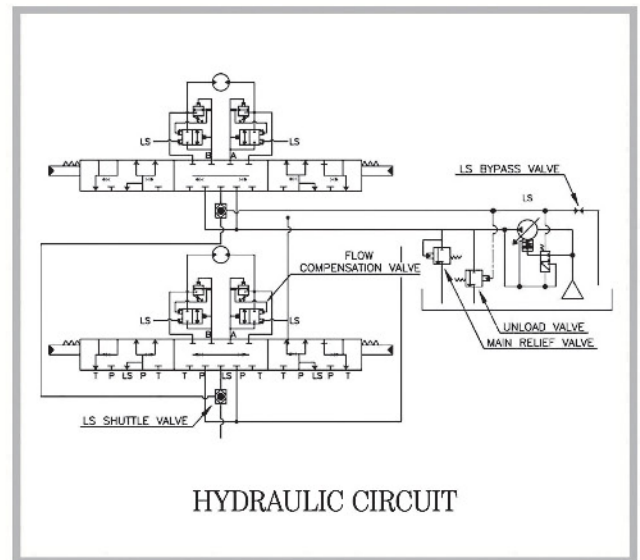
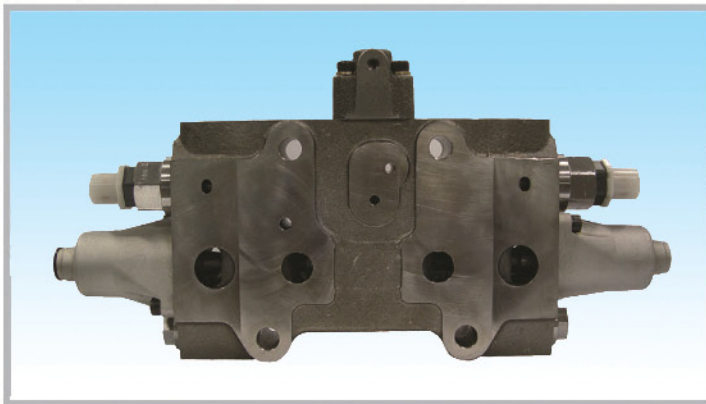
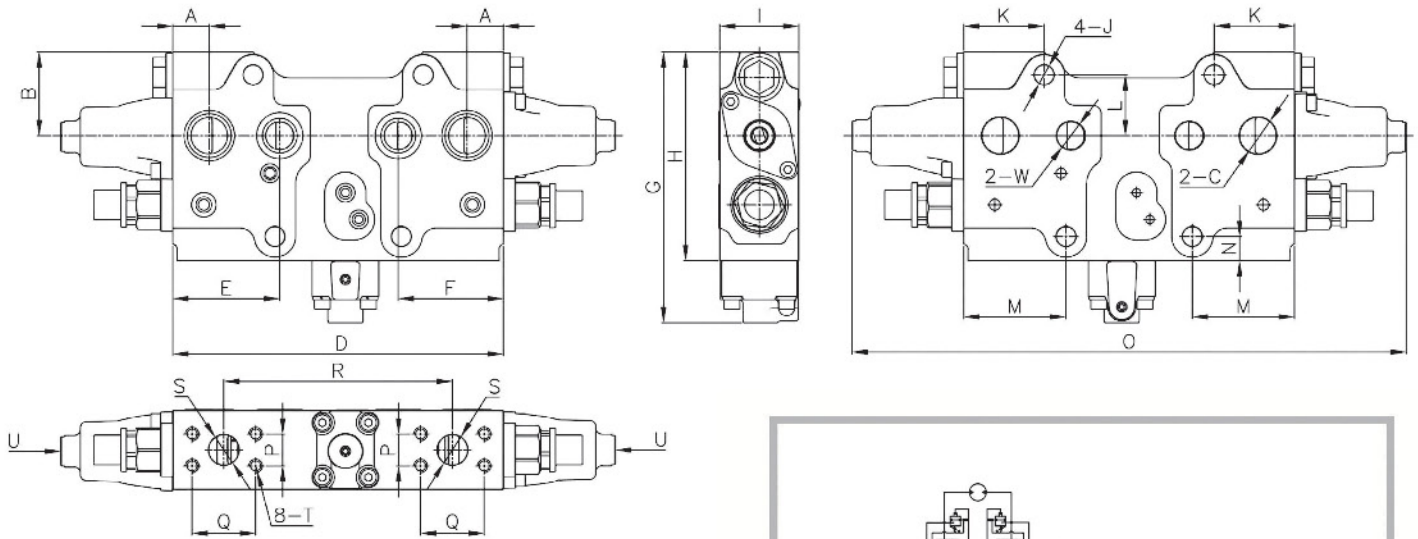


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
PC120/130-7&8	45.5	45	38	3	24.8	54.5	37	37	45	168	50	70	12.5	68	168	302	25	9	10	38

LOAD SENSING CONTROL VALVE FOR PC200-6&PC300-6(SERVICE VALVE)



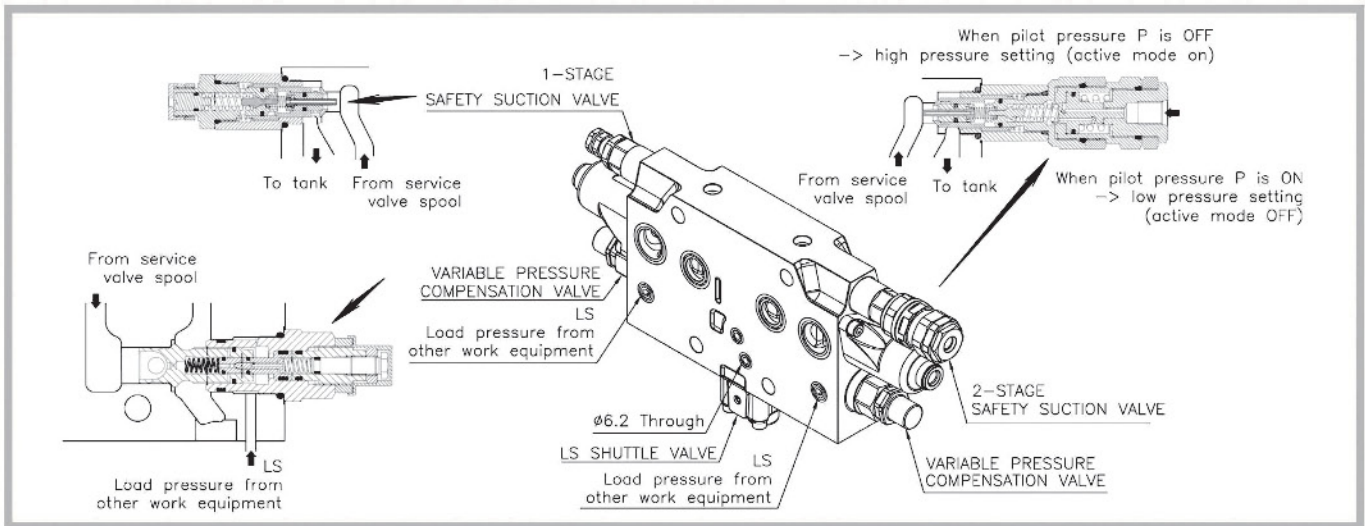
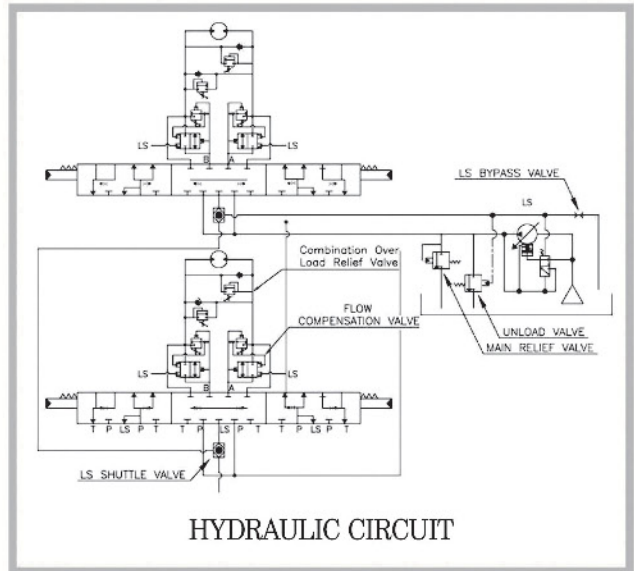
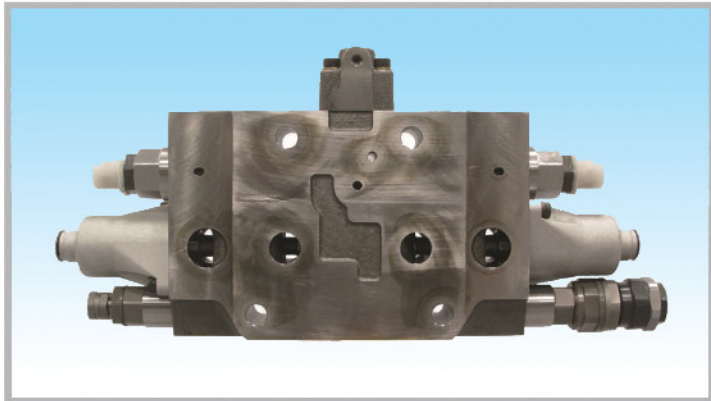
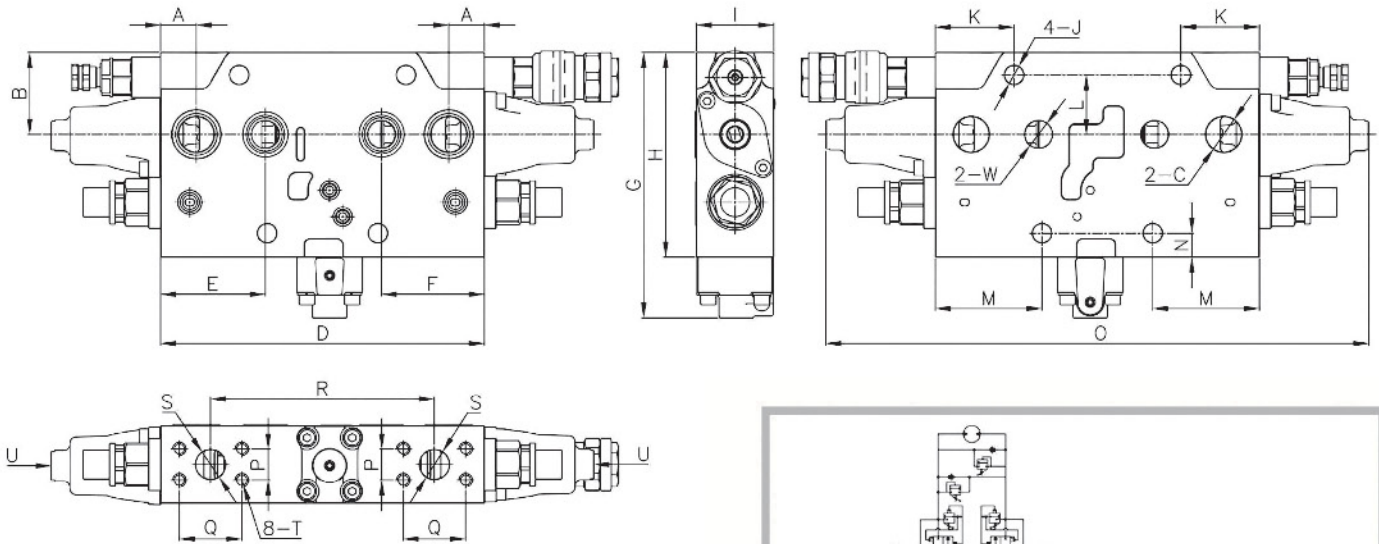
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
PC200-6 PC300-6	30	69	∅30	272	88	86.5	223	172	65	∅16	66	50

MODEL	M	N	O	P	Q	R	S	W	T	U
PC200-6 PC300-6	84	20	456	26.2	52.4	188	∅25	∅23	M10X1.5P Dp18	M14X1.5P

LOAD SENSING CONTROL VALVE FOR PC200-7/8&PC300-7/8(SERVICE VALVE)



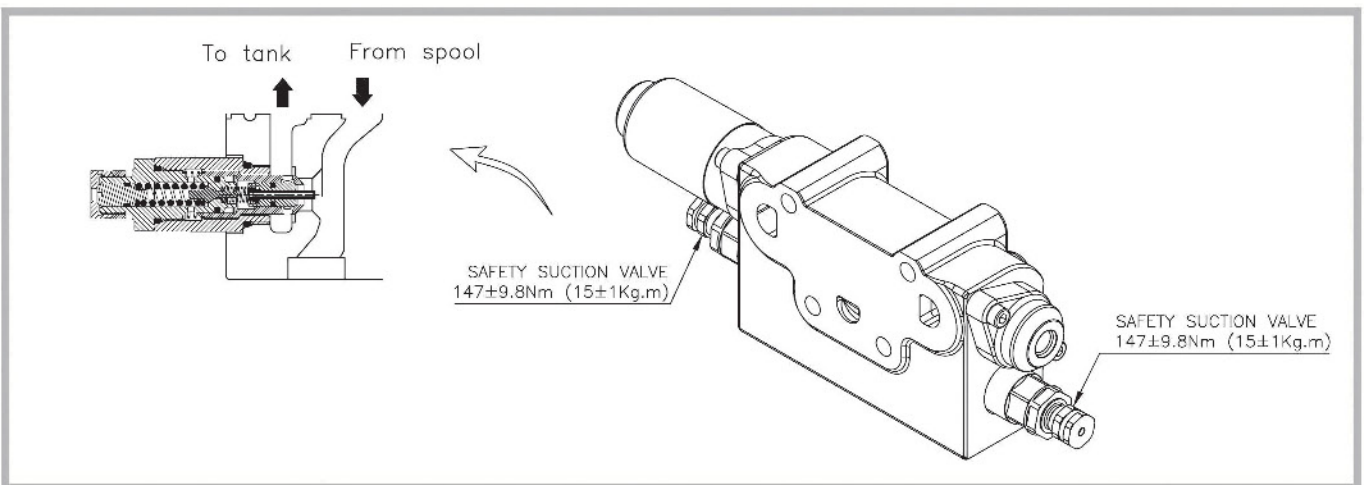
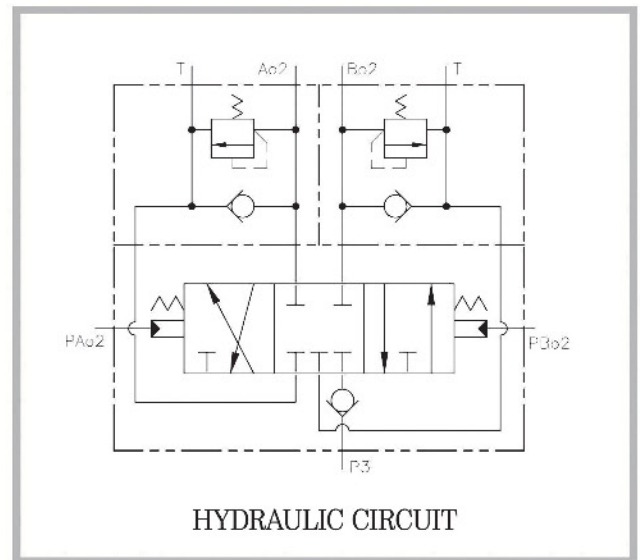
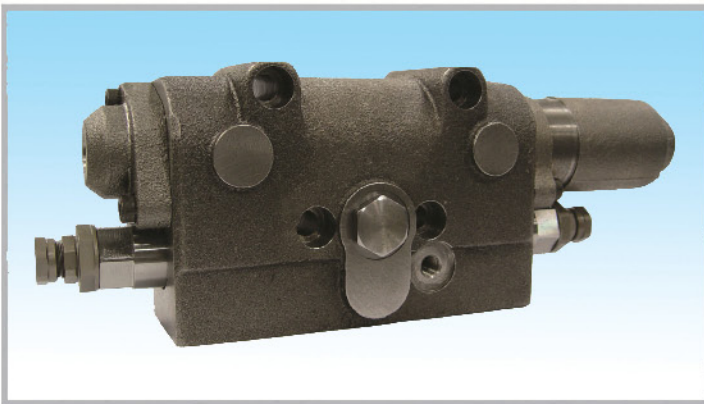
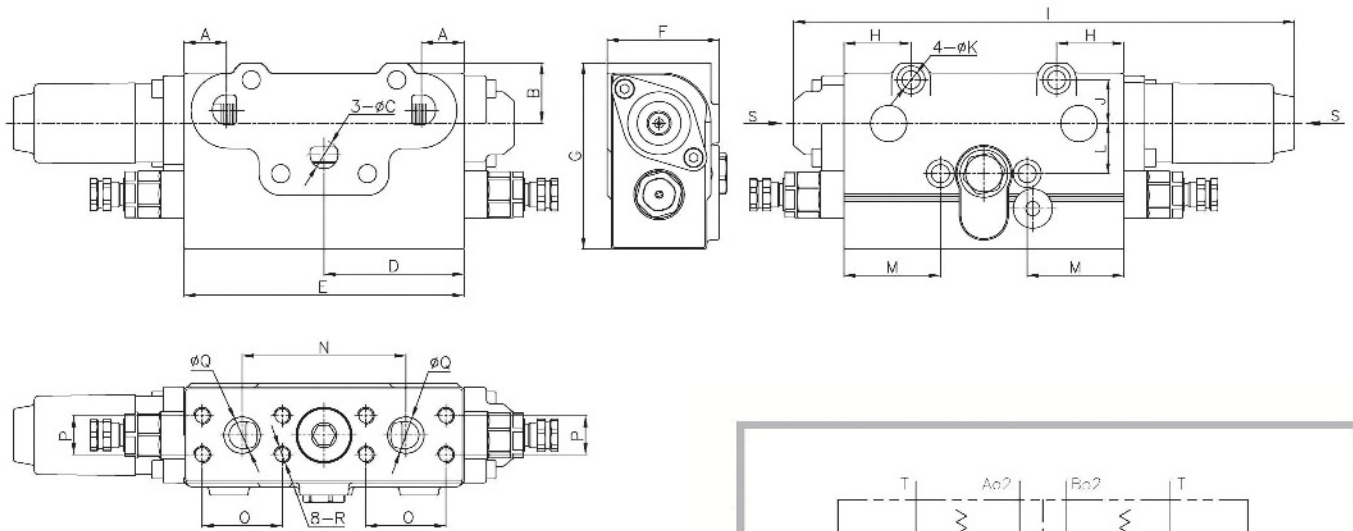
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
PC200-7/8 PC300-7/8	30	69	ø30	272	88	86.5	223	172	65	ø16	66	50

MODEL	M	N	O	P	Q	R	S	W	T	U
PC200-7/8 PC300-7/8	89.5	20	456	26.2	52.4	188	ø25	ø23	M10X1.5P Dp18	M14X1.5P

LOAD SENSING CONTROL VALVE FOR KOBELCO / NEW HOLLAND



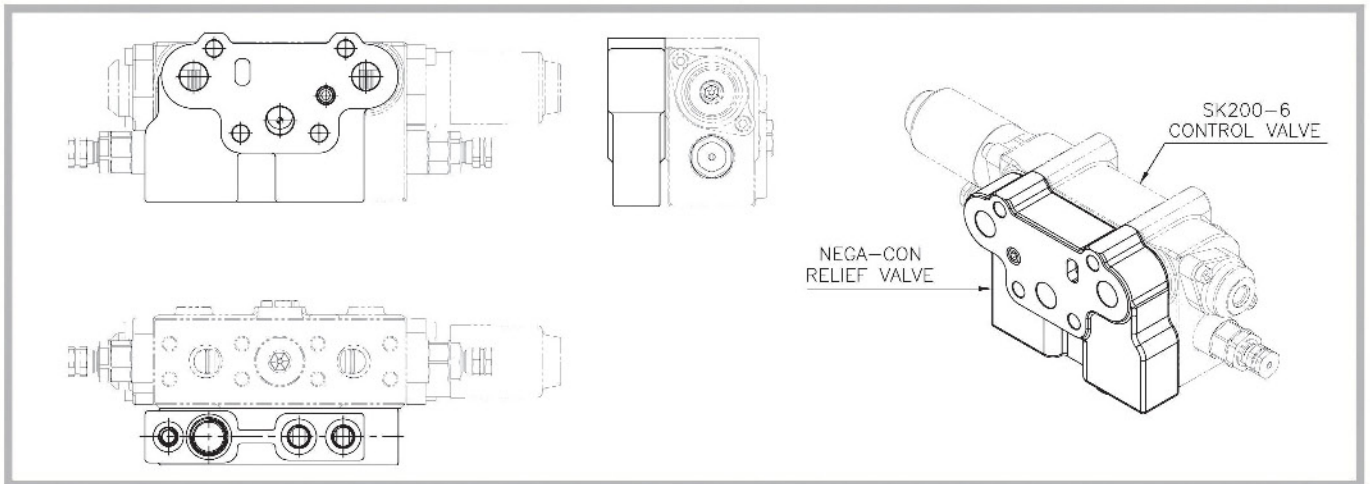
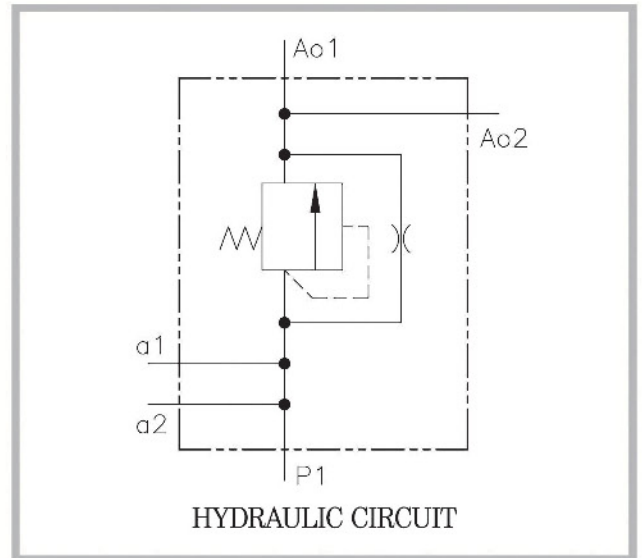
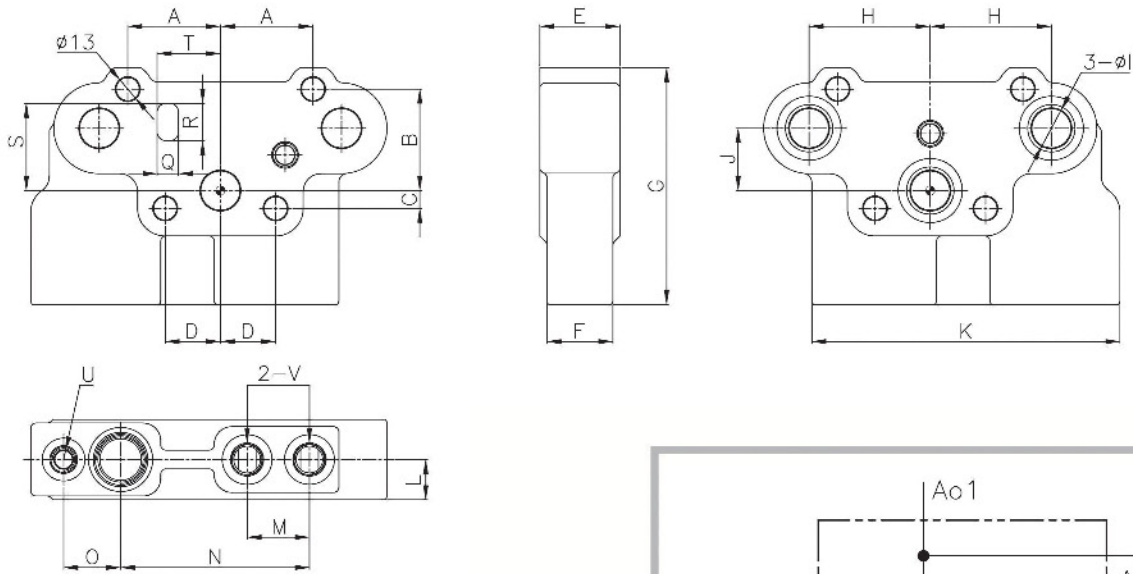
DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J
SK200-6	30	43	20	100	200	80	133	48	358	31

MODEL	K	L	M	N	O	P	Q	R	S
SK200-6	13	36	69	117	57.2	27.8	26	M12X1.75P DP20	PF3/8

NEGA-CON RELIEF VALVE FOR KOBELCO / NEW HOLLAND

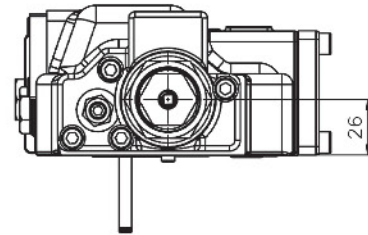
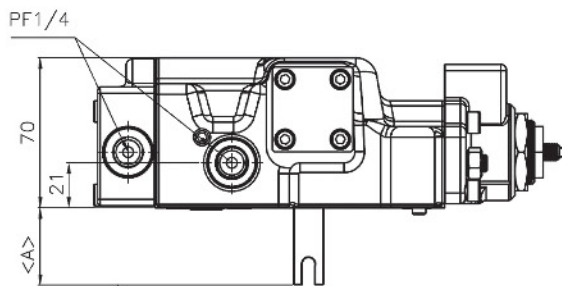
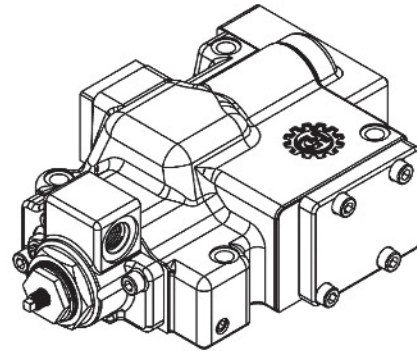
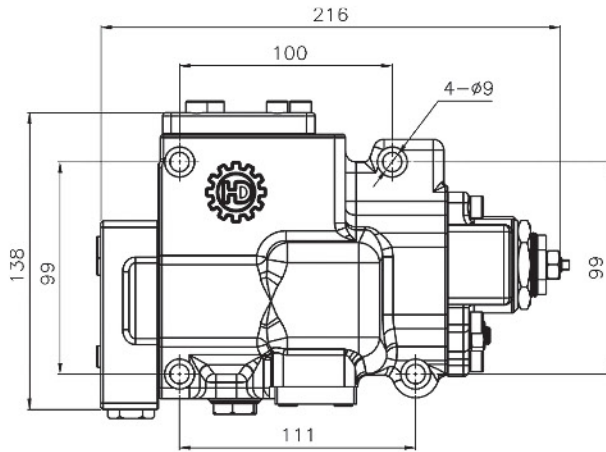
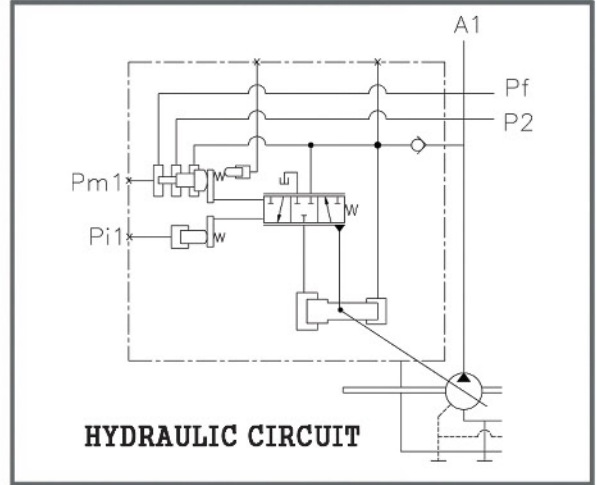


DIMENSIONS

(mm)

MODEL	A	B	C	D	E	F	G	H	I	J	K	L
SK200-7	52	57	10	31	45	37	133	68	22	35	173	22.5
MODEL	M	N	O	P	Q	R	S	T	U	V		
SK200-7	35	106	32	13	12	21	49	35.5	PF1/4	PF3/8		

REGULATOR FOR 1P00 TYPE

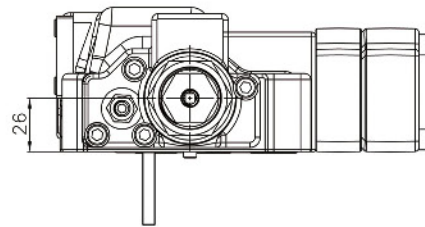
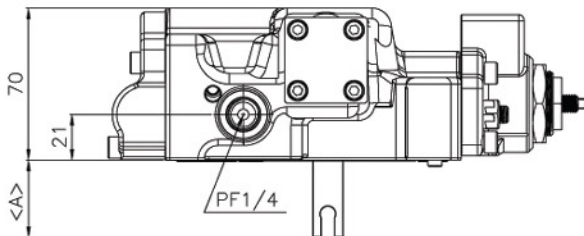
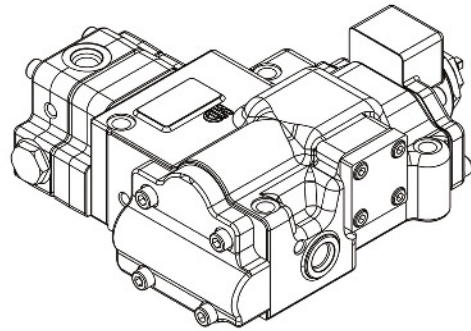
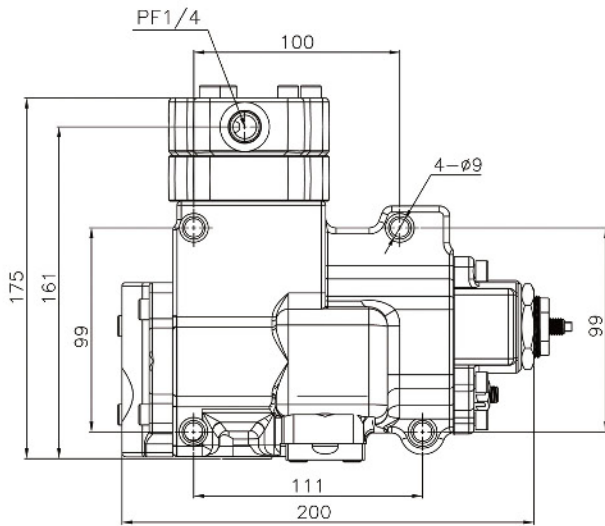
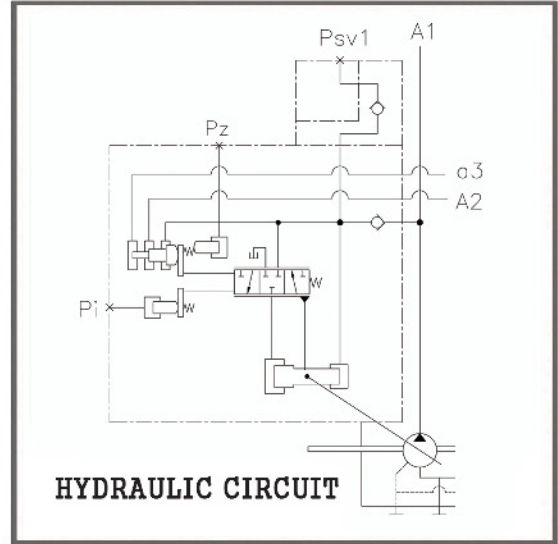


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 2P00 TYPE

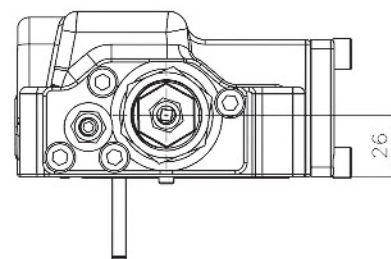
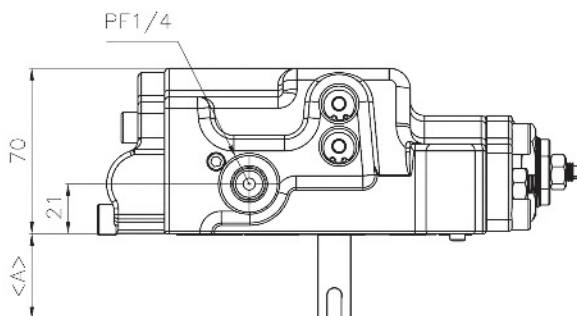
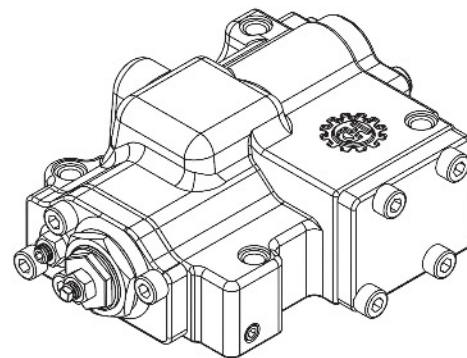
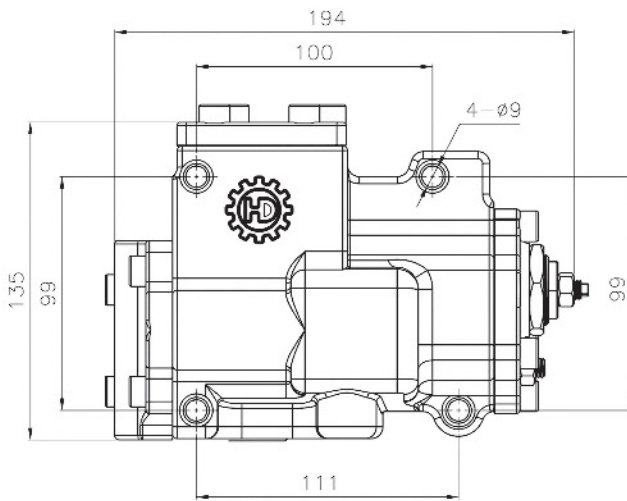
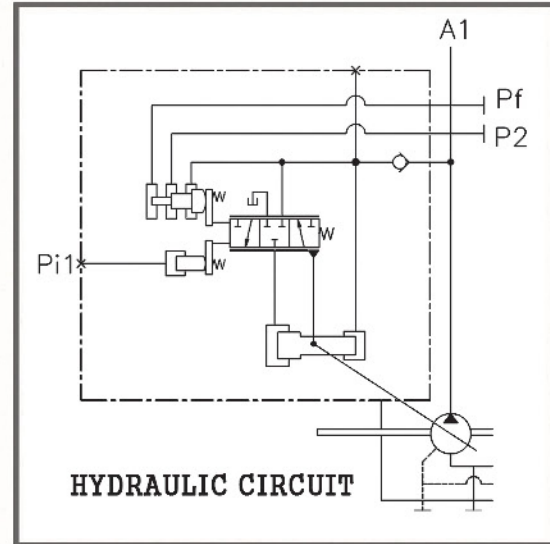


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9N00 TYPE

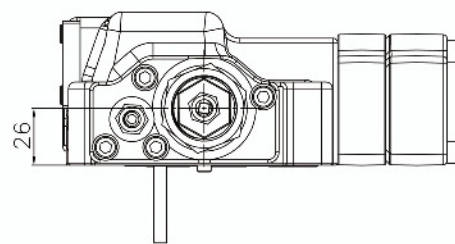
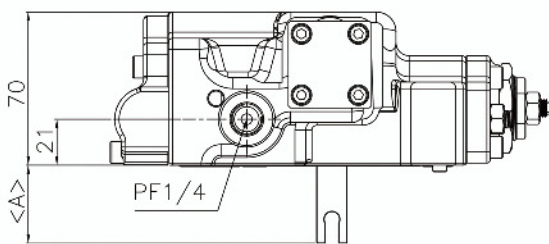
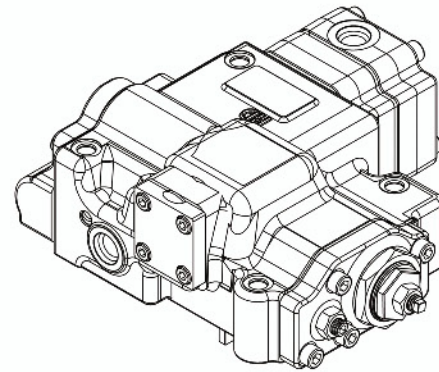
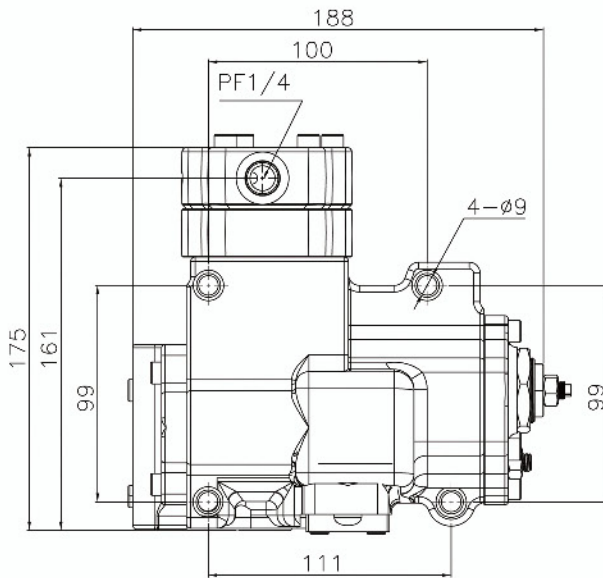
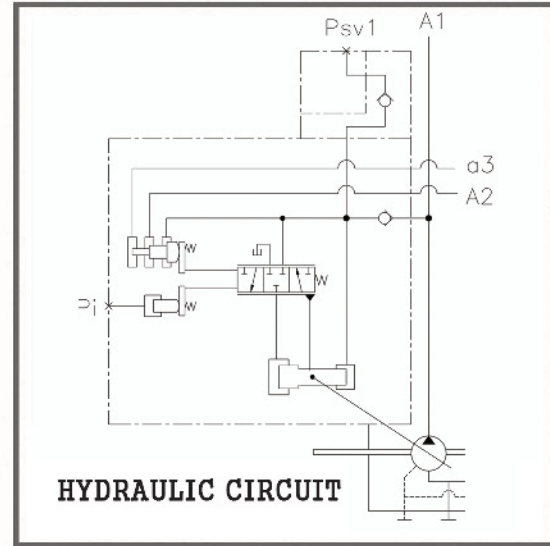


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	75.7

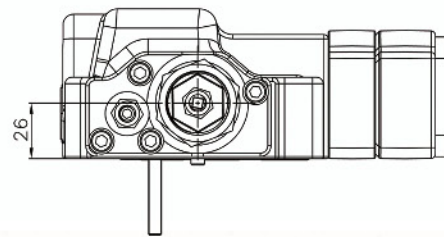
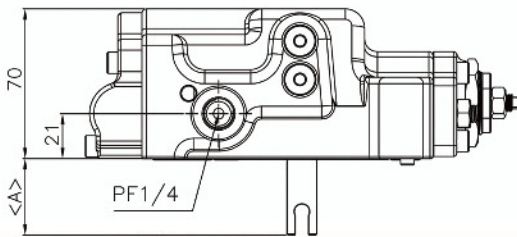
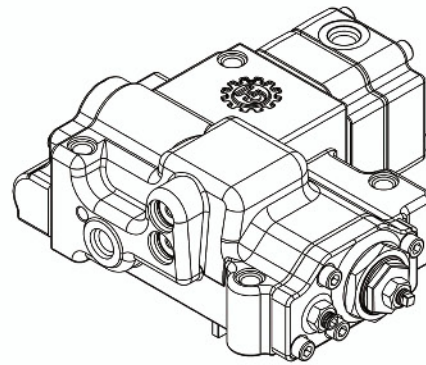
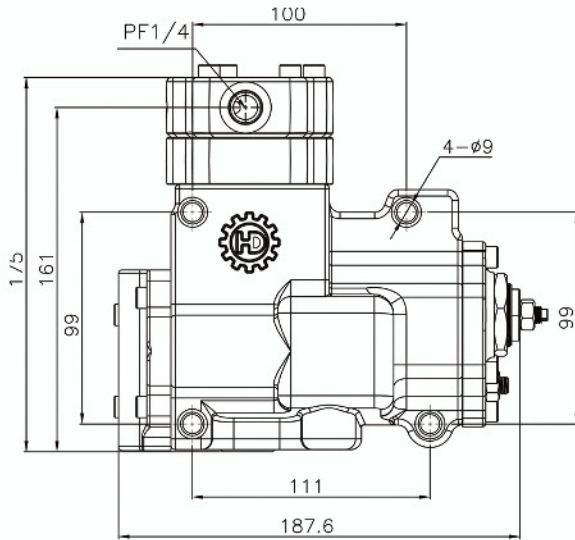
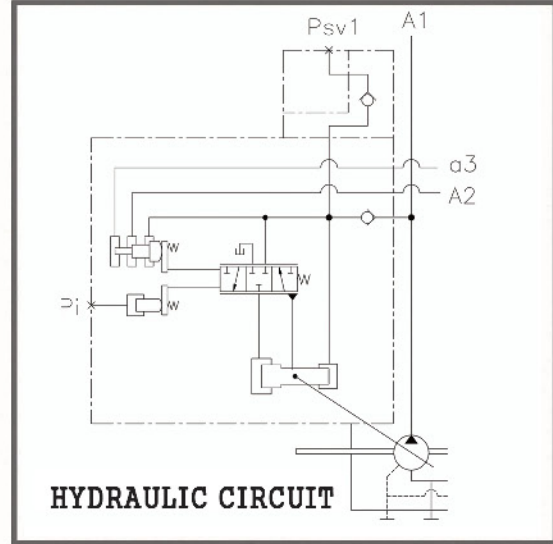
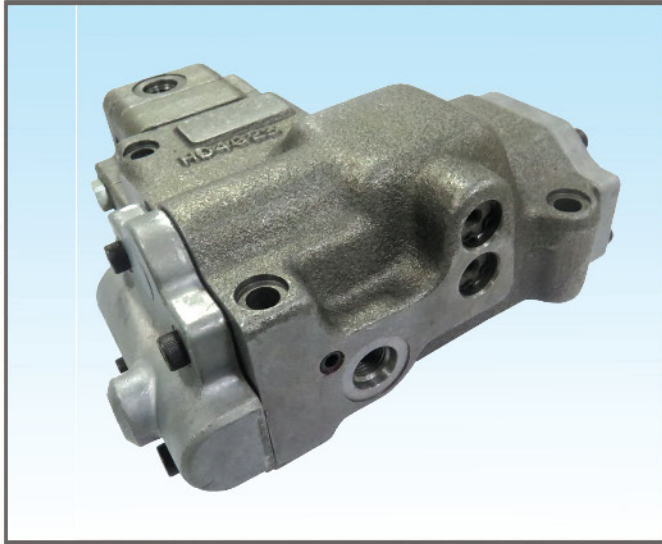
REGULATOR FOR 9N00 TYPE WITH MANIFOLD(BOLT)



● STANDARD DIMENSIONS (mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9N00 TYPE WITH MANIFOLD

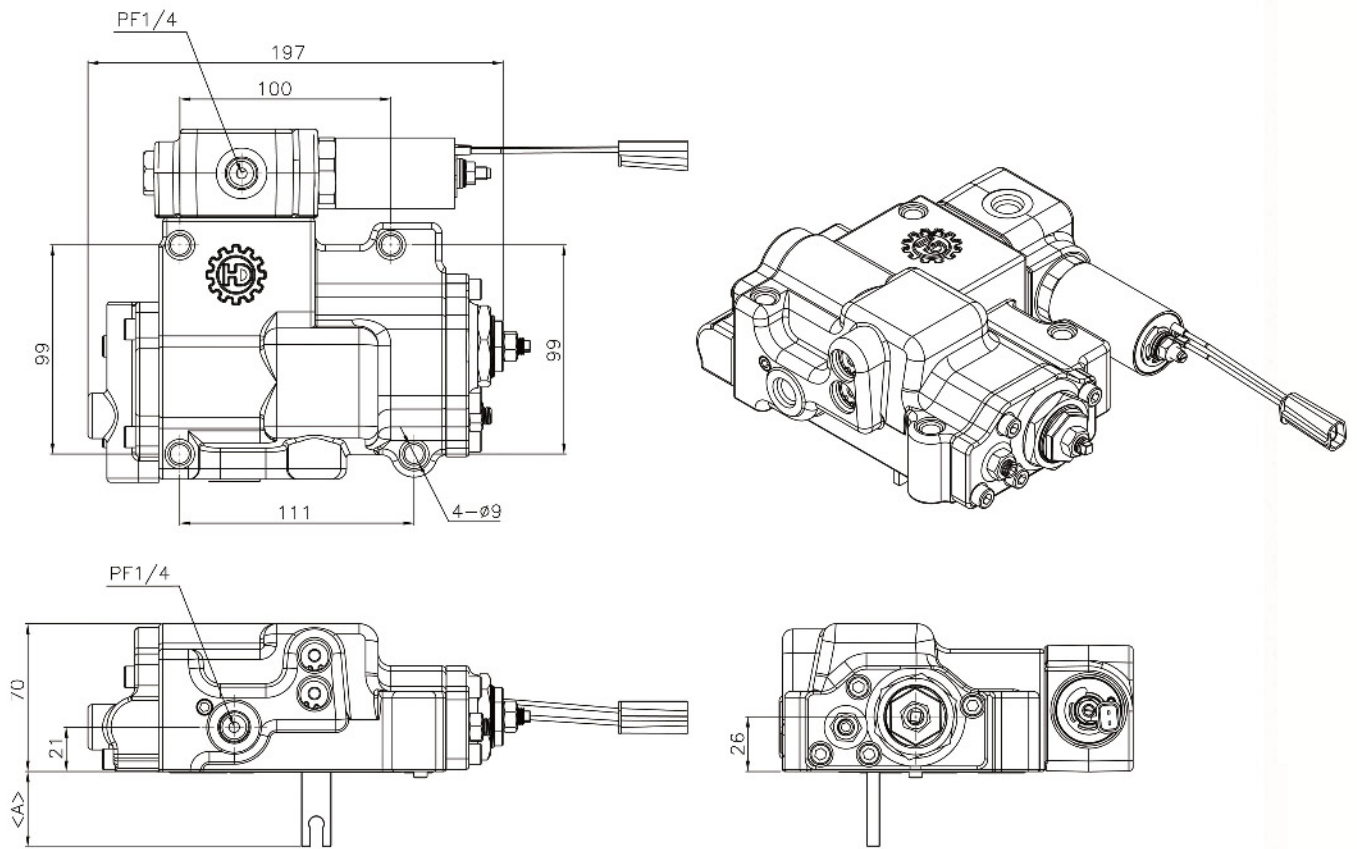
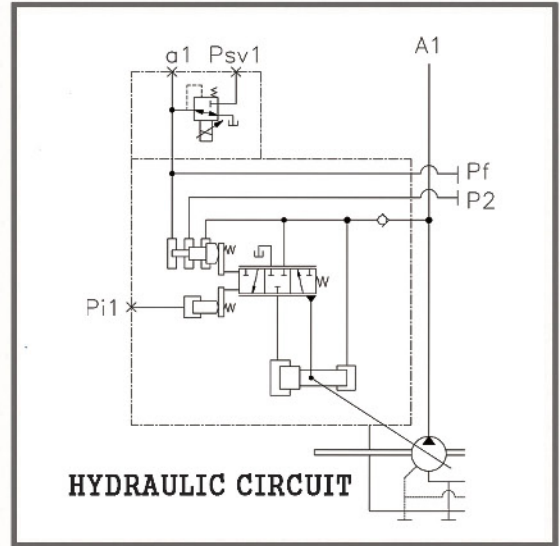
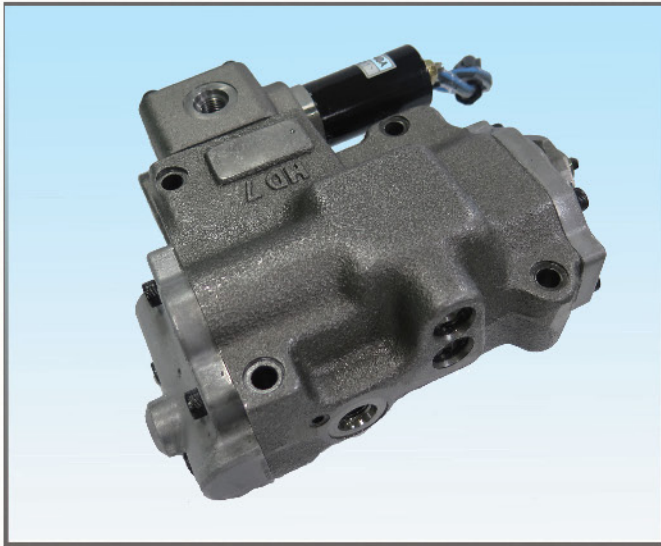


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9N00 TYPE WITH EPR

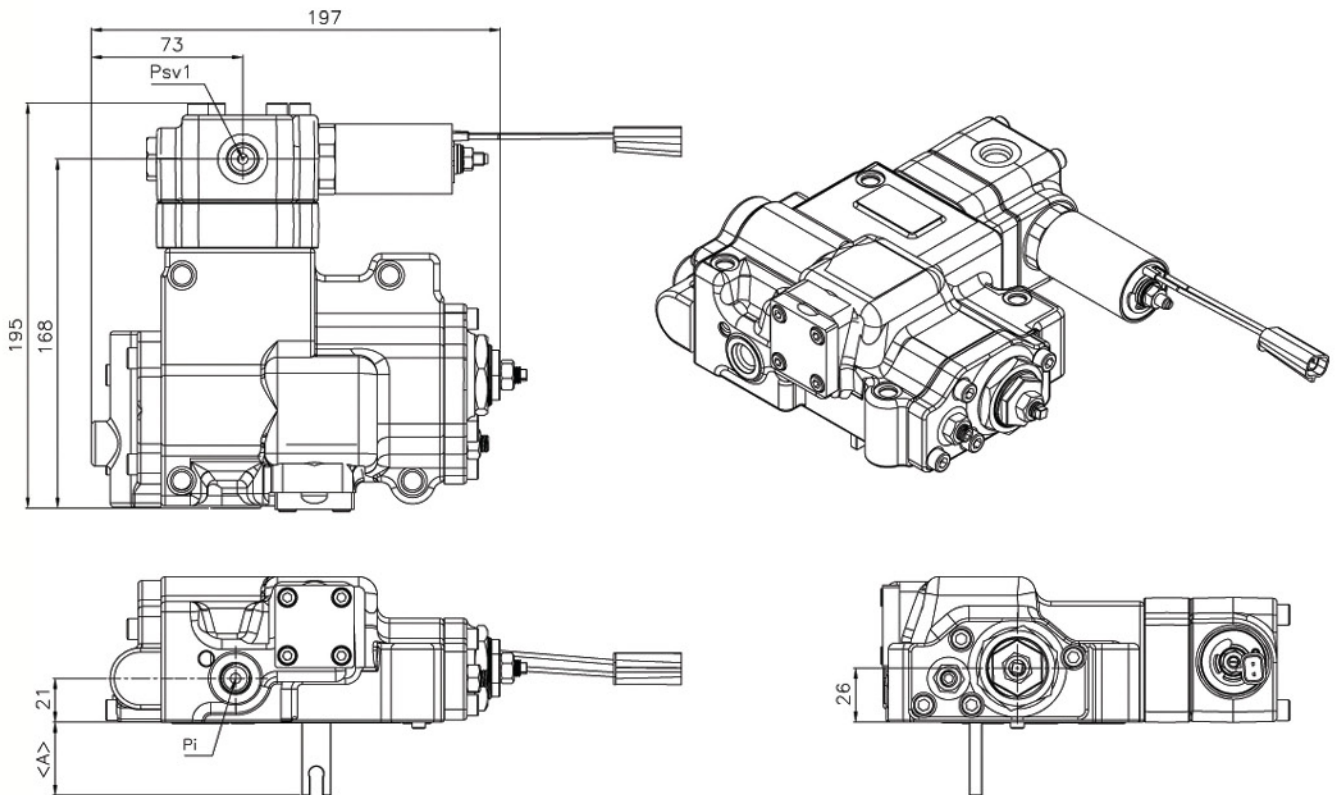
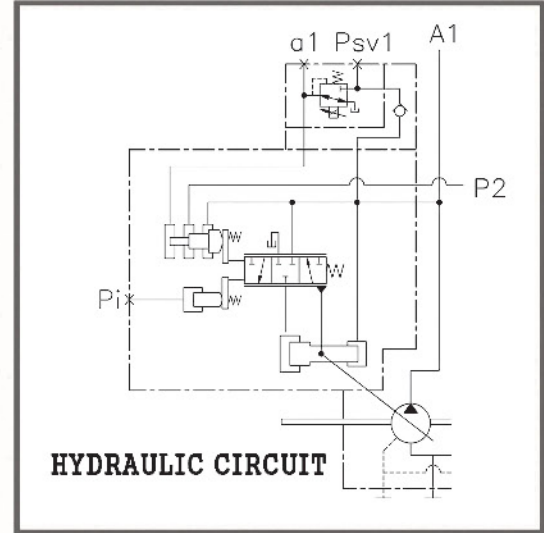
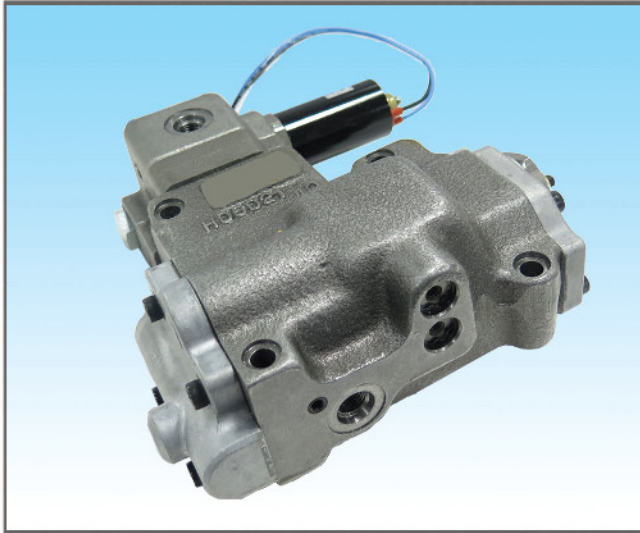


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9N00 TYPE WITH EPR(DTH)

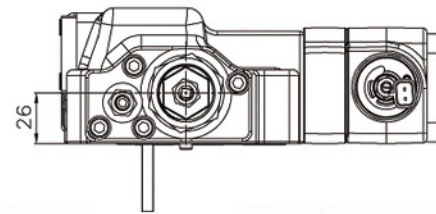
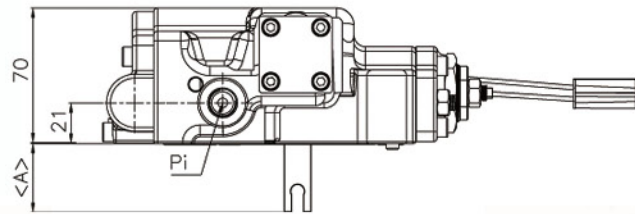
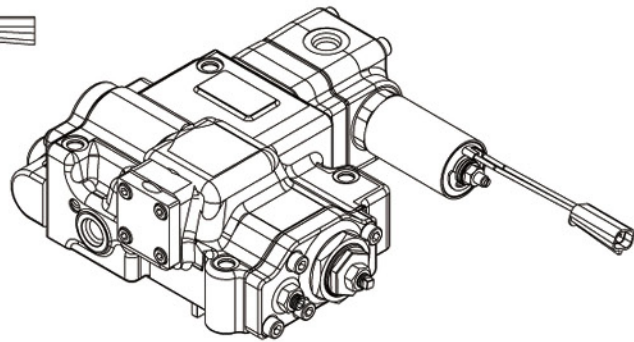
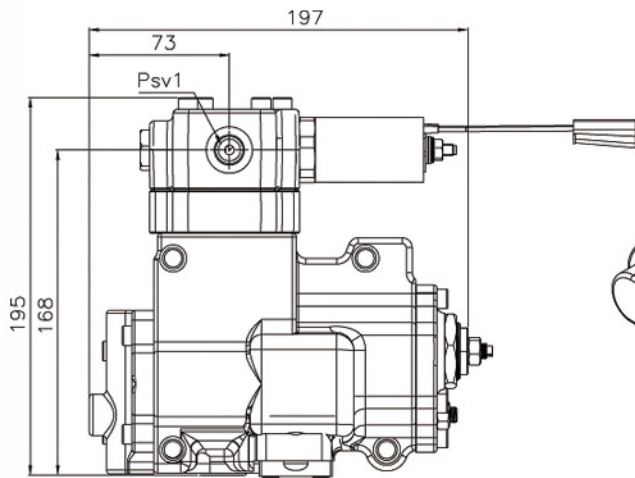
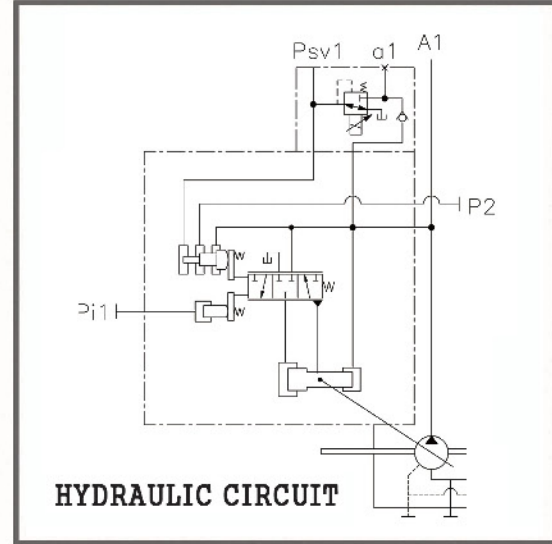
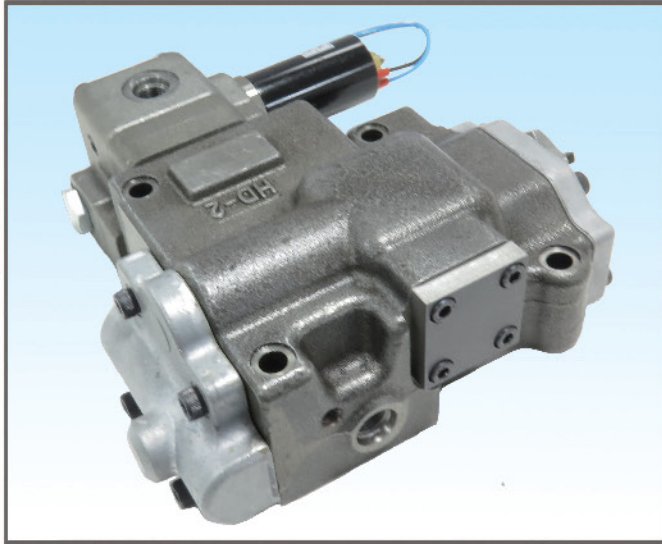


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9N00 TYPE WITH EPR(4BOLT-DTH TYPE)

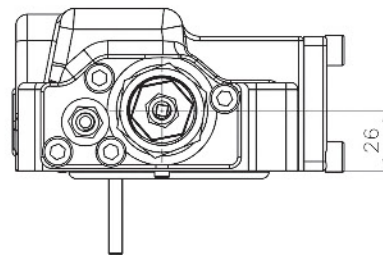
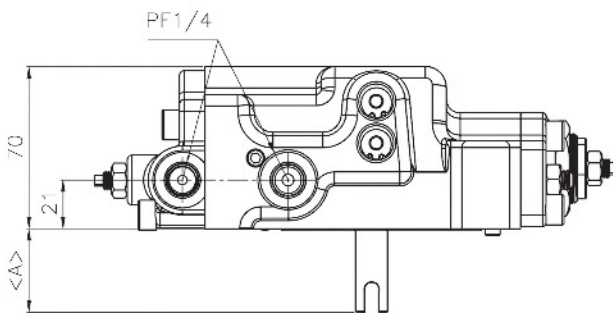
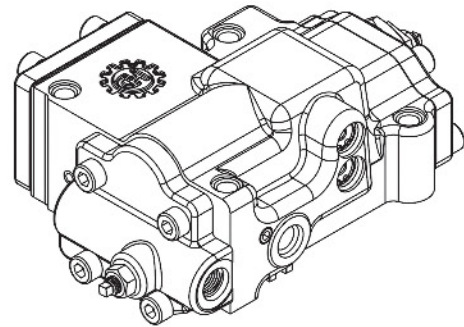
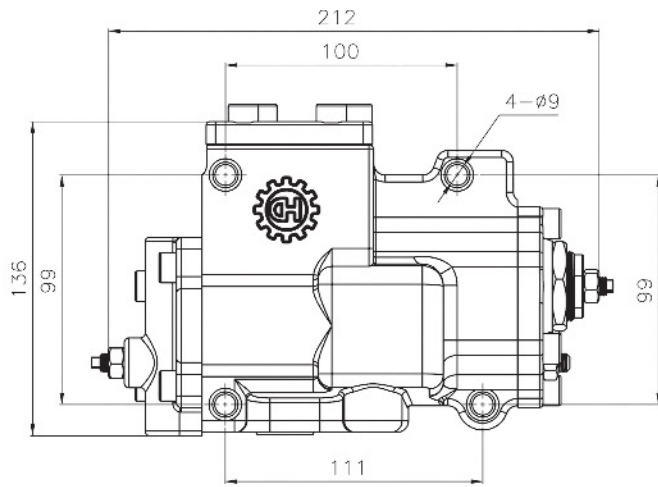
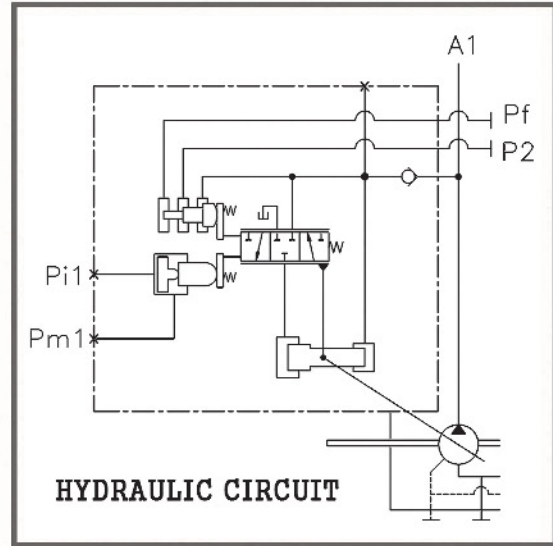


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9C00 TYPE

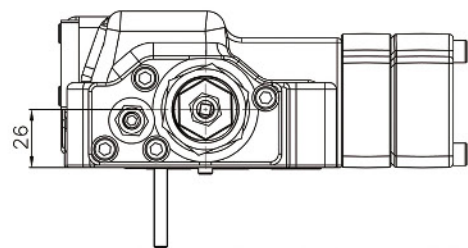
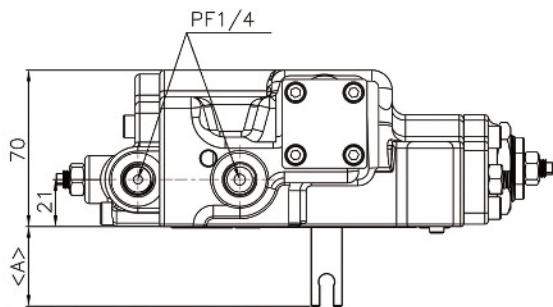
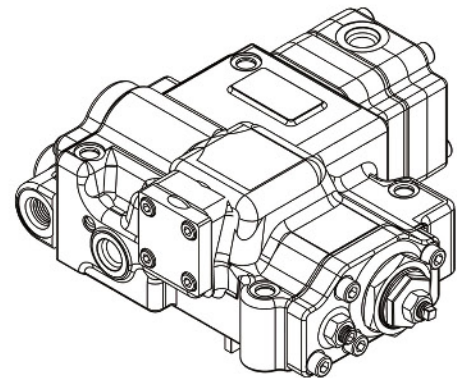
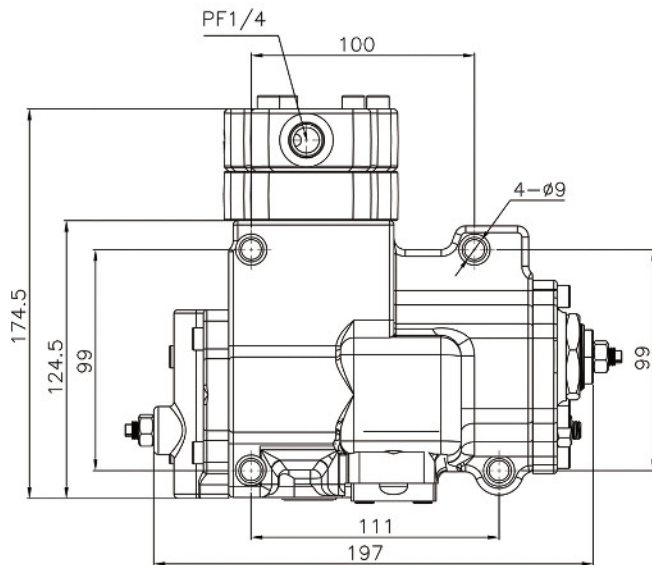
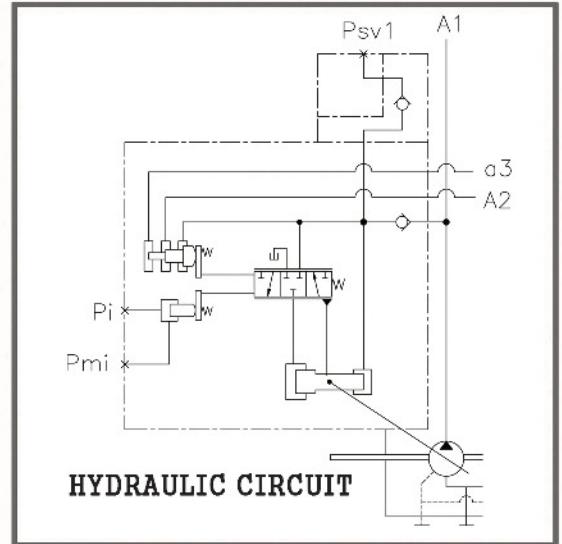


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9C00 TYPE WITH MANIFOLD(BOLT)



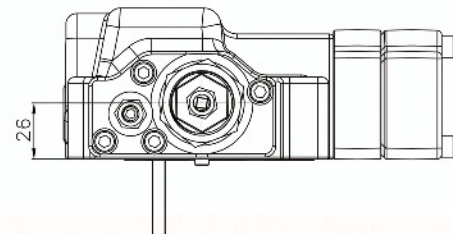
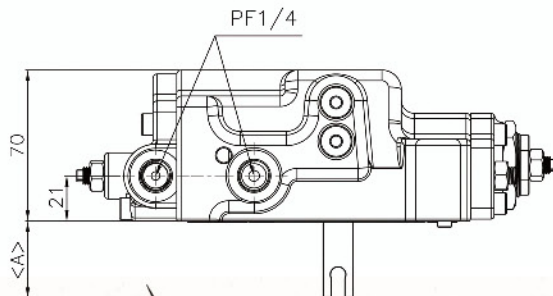
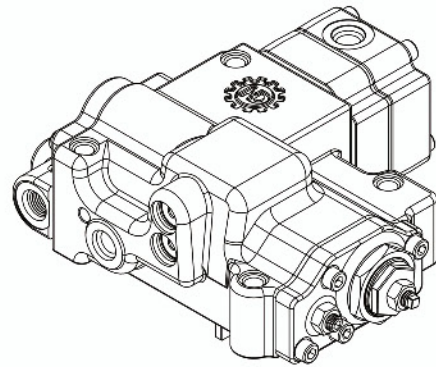
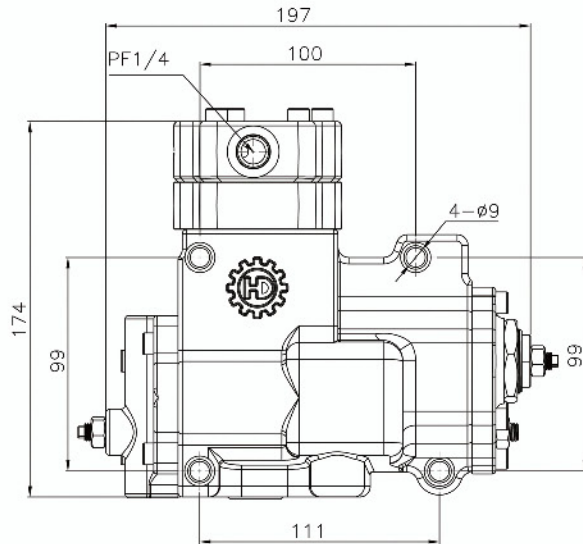
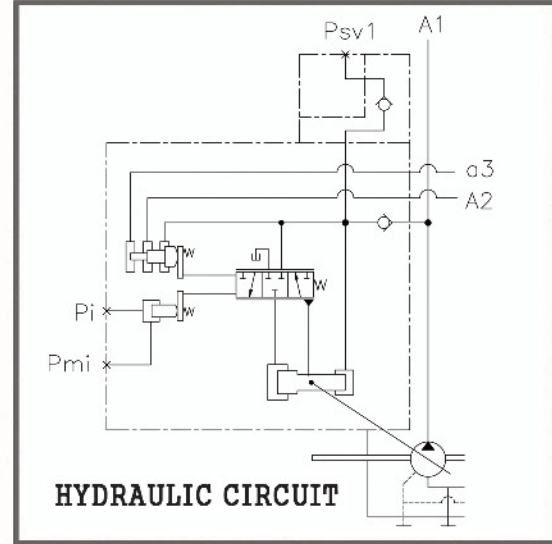
● STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	22
H3V112	36
H3V140&180	57
H5V160 & 200	66

MODEL	A
H5V80	40.5
H5V140	48
H3V280	75.7
H5V160DPH & 200DPH	

REGULATOR FOR 9C00 TYPE WITH MANIFOLD

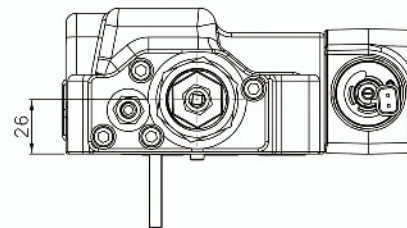
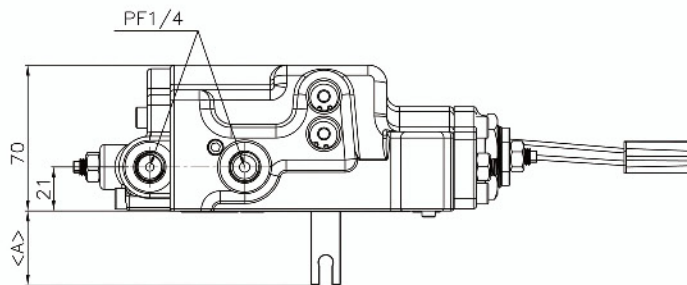
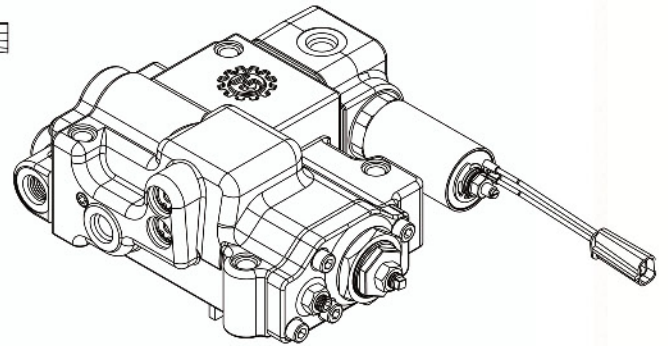
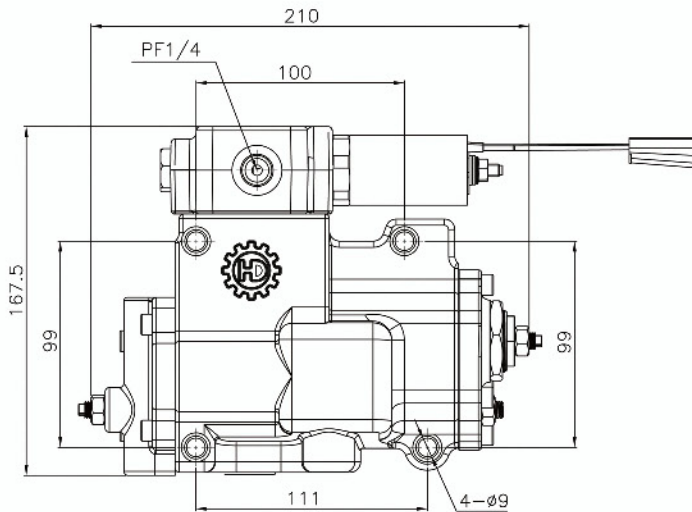
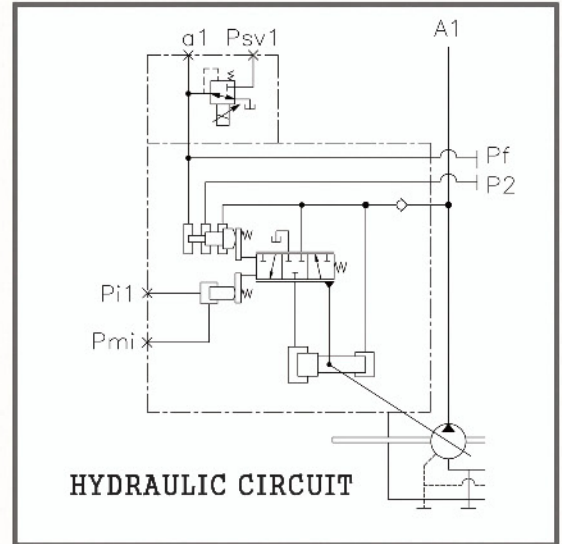
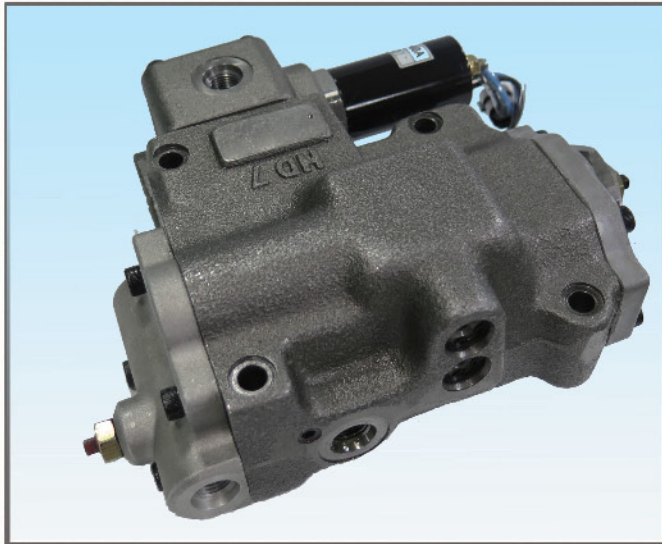


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9C00 TYPE WITH EPR

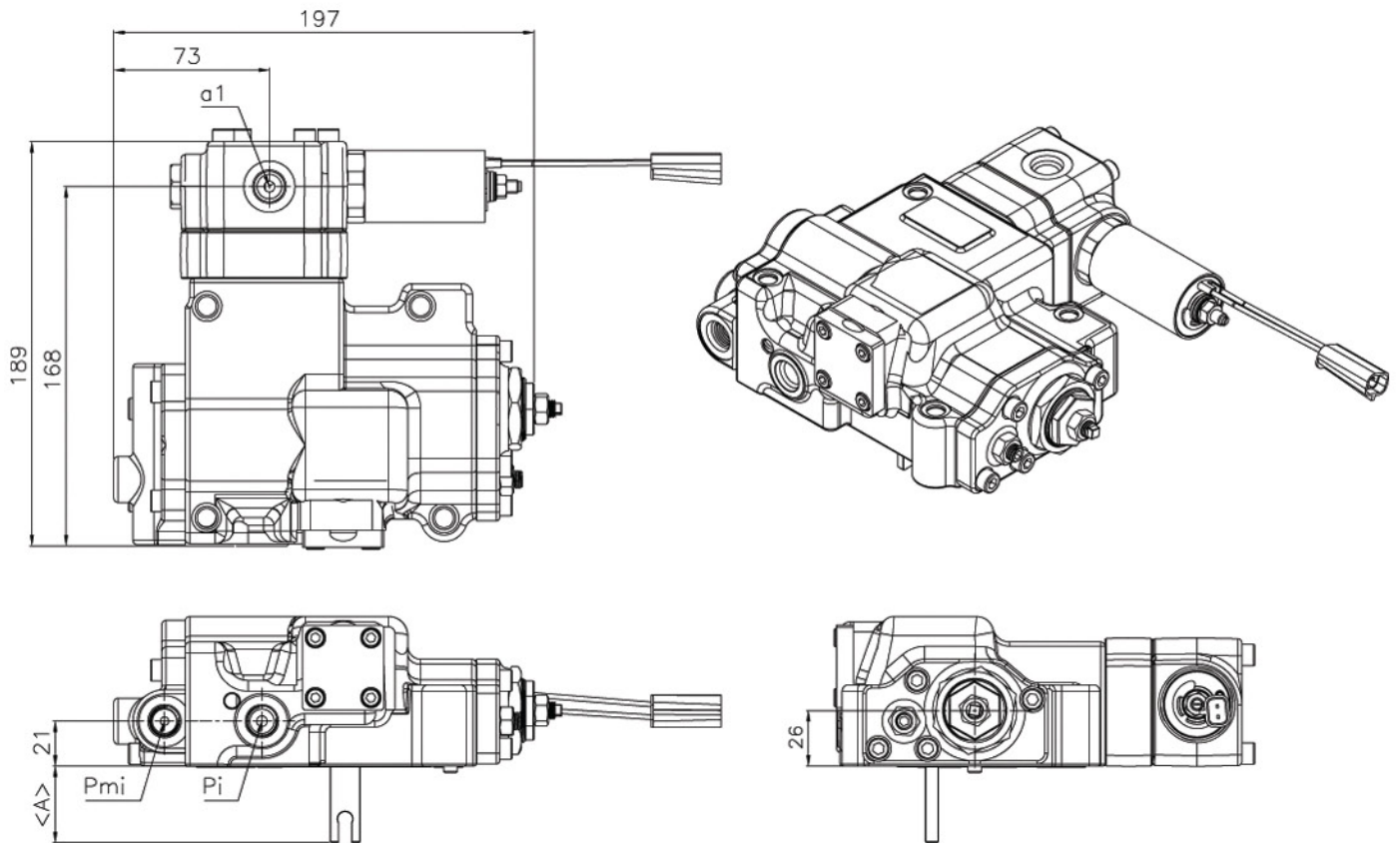
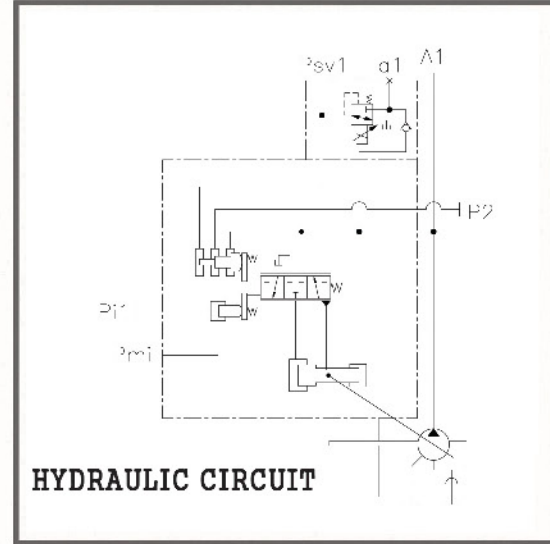
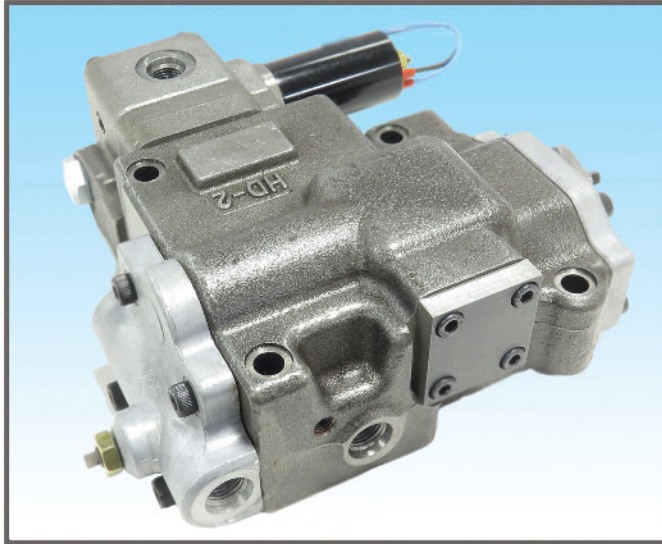


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9C00 TYPE WITH EPR(4BOLT-DTH TYPE)

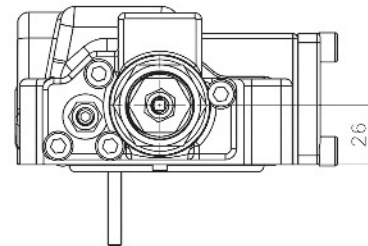
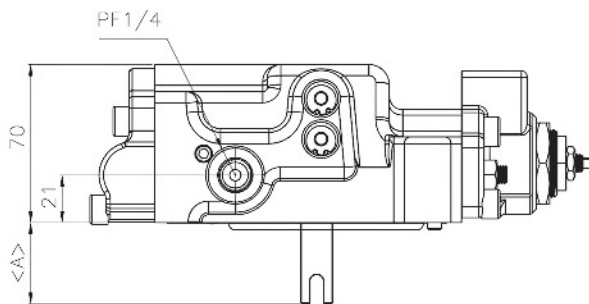
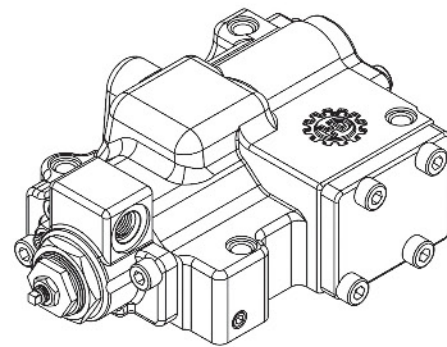
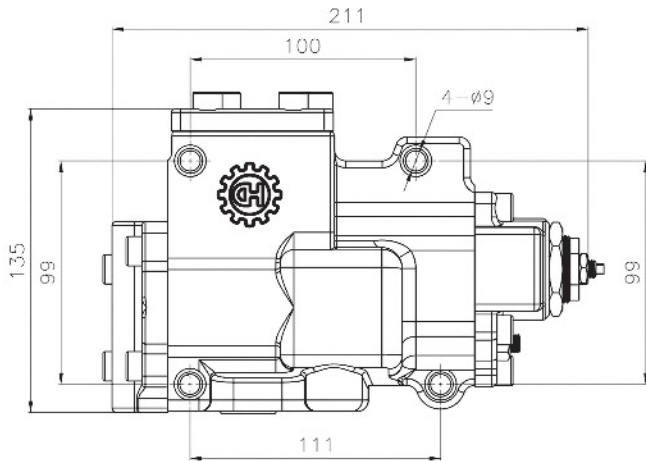
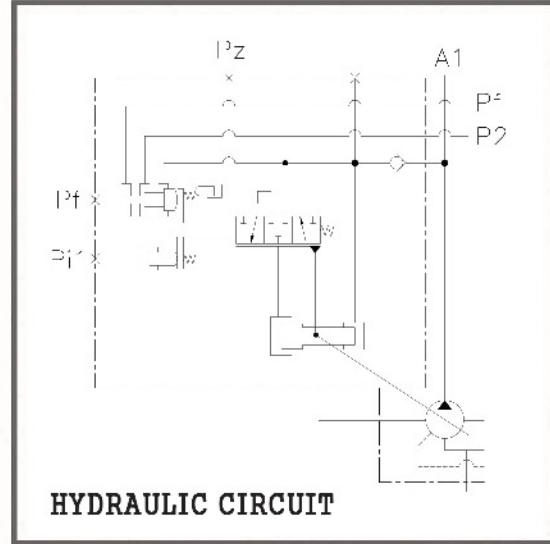
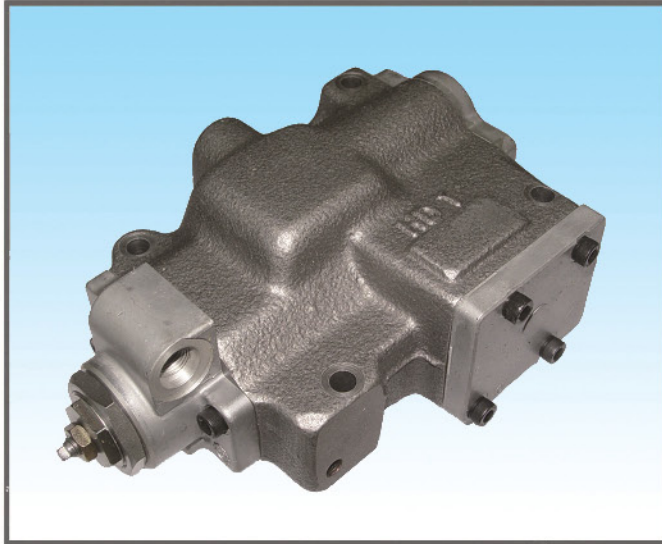


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR HN00 TYPE

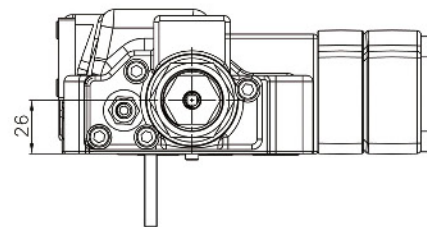
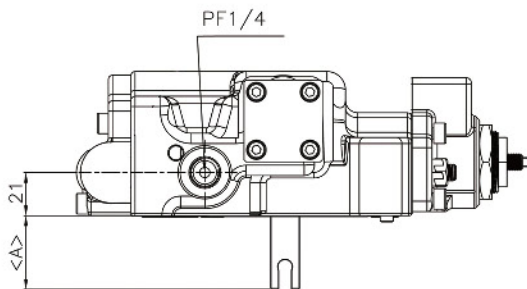
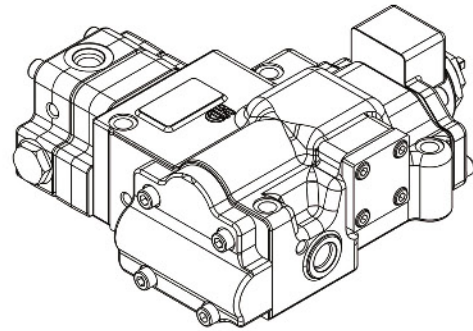
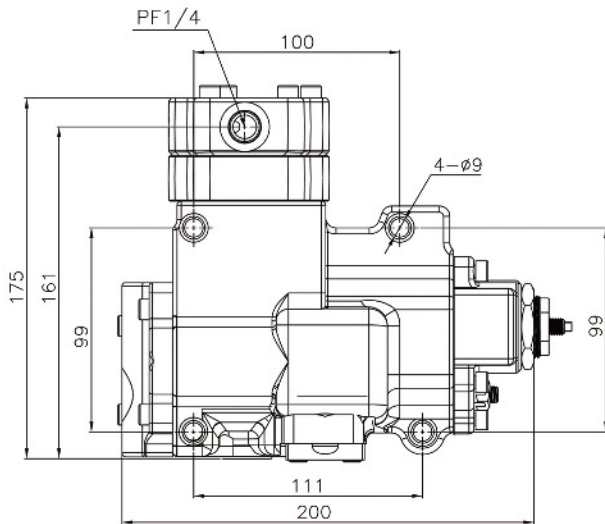
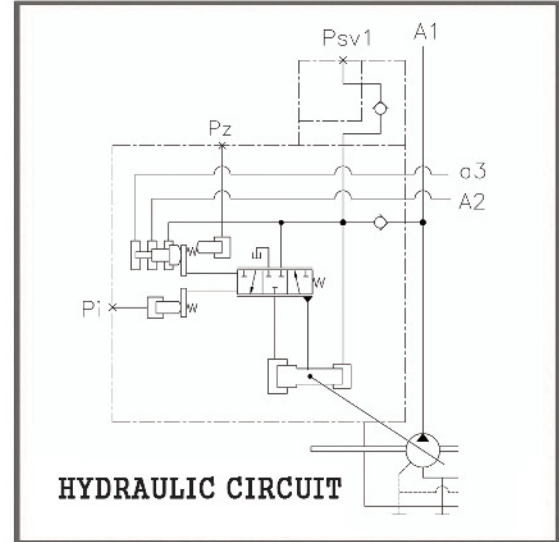


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR HN00 TYPE WITH MANIFOLD(BOLT)



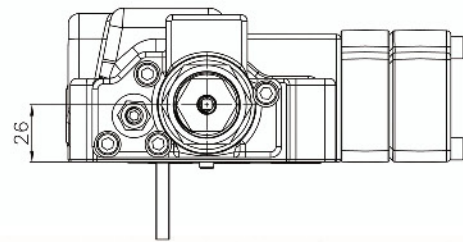
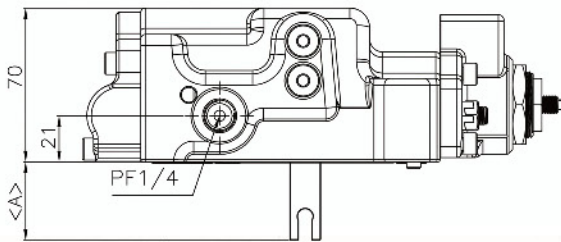
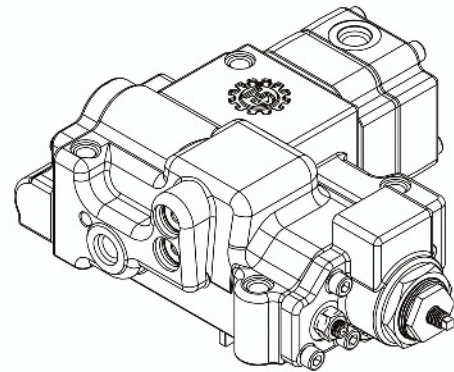
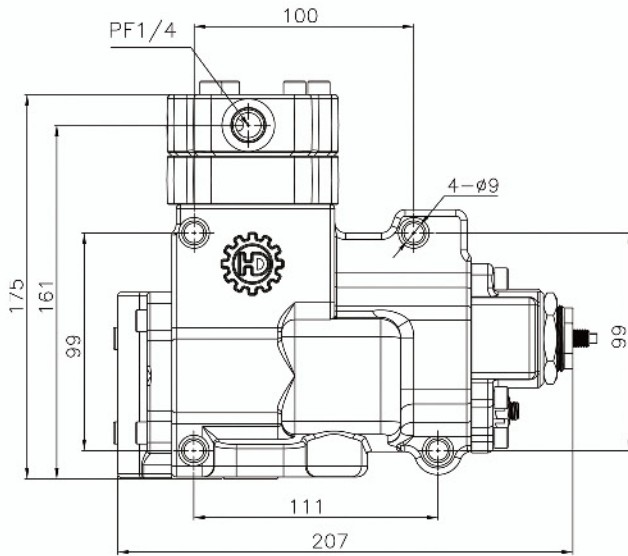
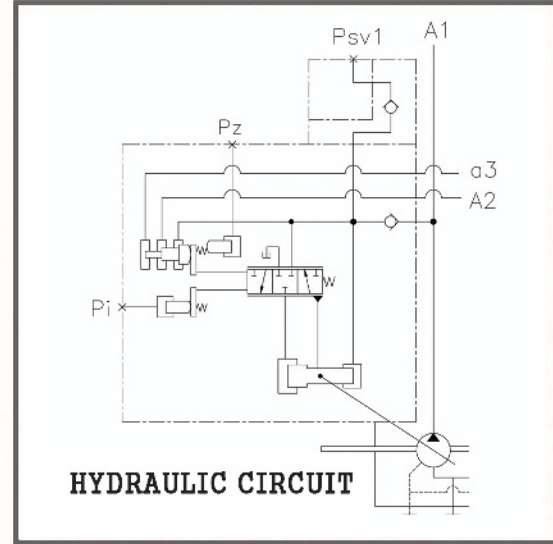
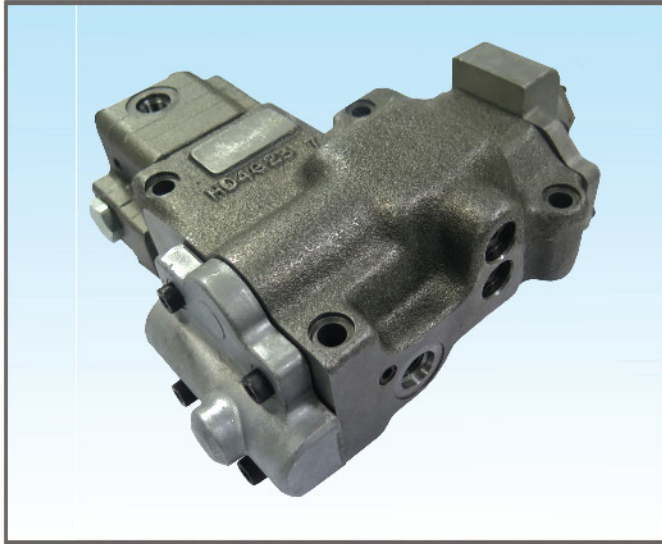
● STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	22
H3V112	36
H3V140&180	57
H5V160 & 200	66

MODEL	A
H5V80	40.5
H5V140	48
H3V280	75.7
H5V160DPH & 200DPH	

REGULATOR FOR HN00 TYPE WITH MANIFOLD

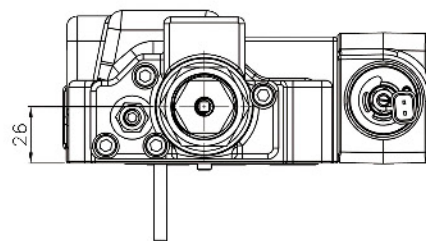
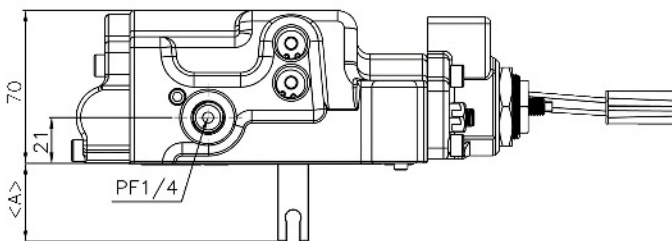
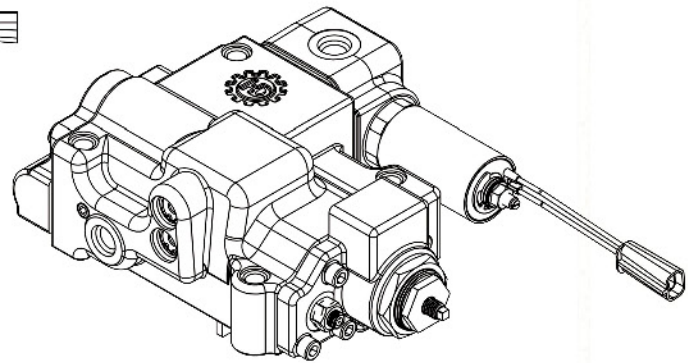
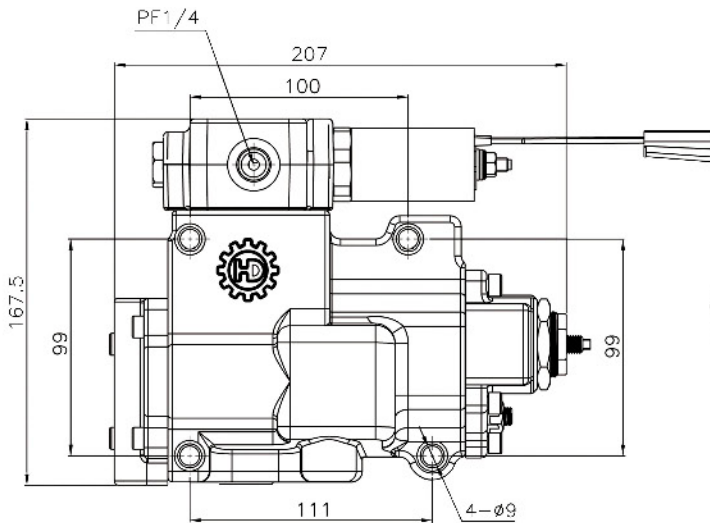
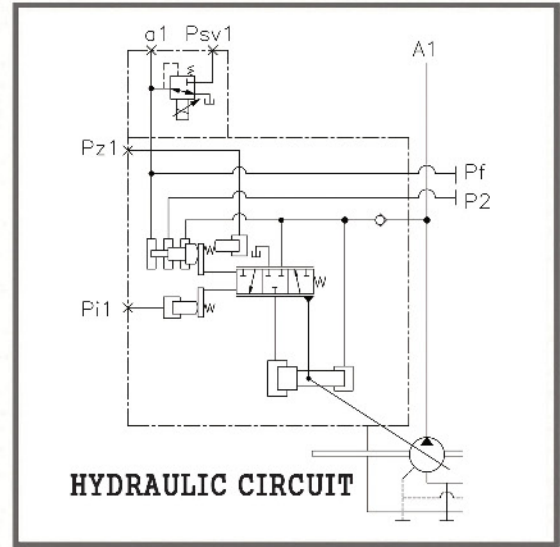


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR HN00 TYPE WITH EPR

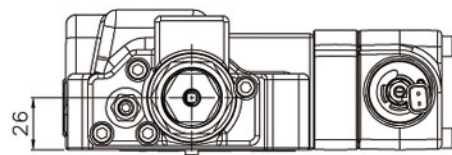
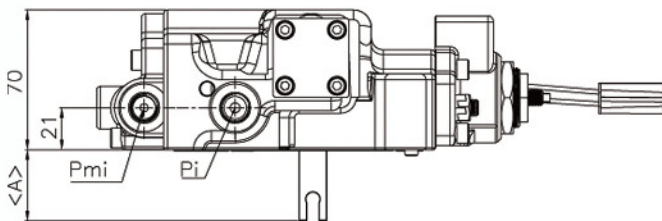
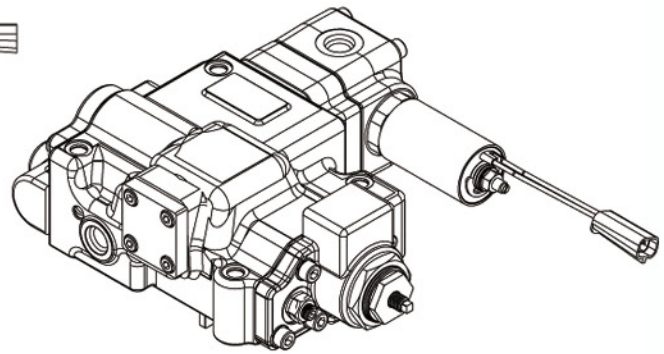
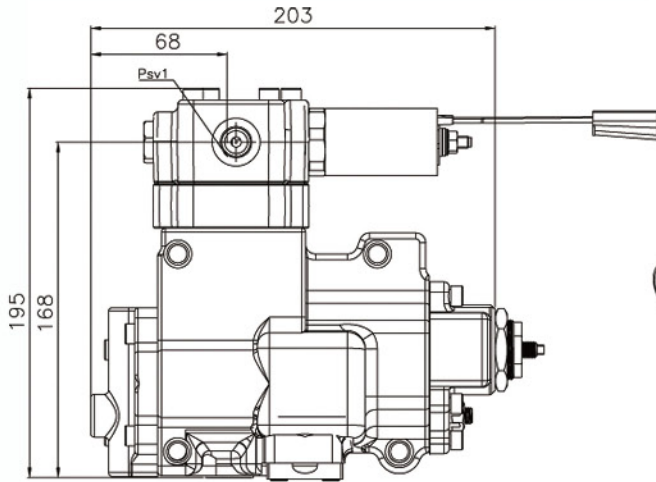
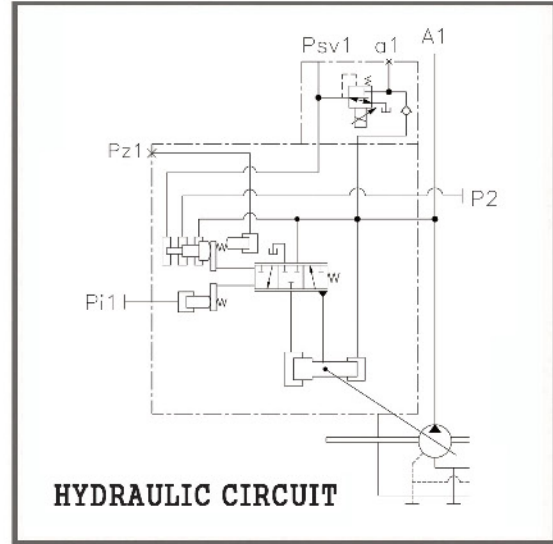
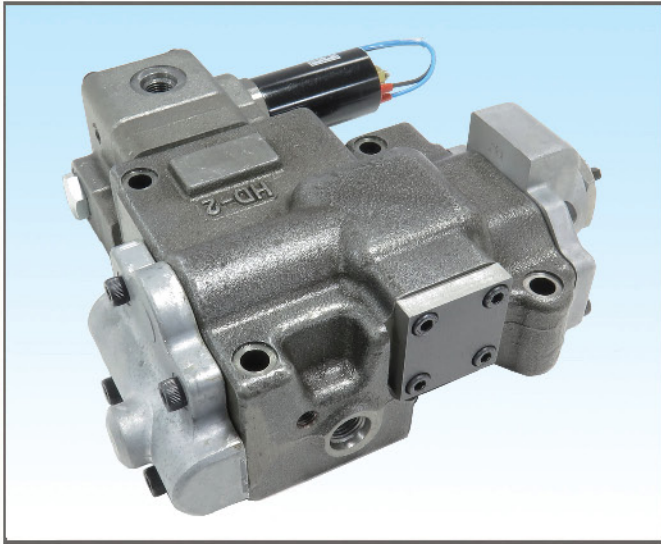


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	75.7

REGULATOR FOR HN00 TYPE WITH EPR(4BOLT-DTH)

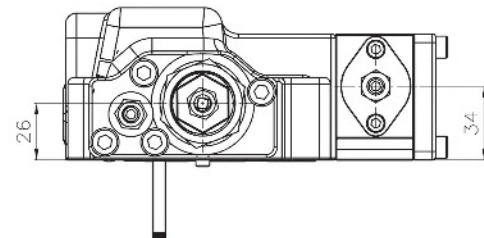
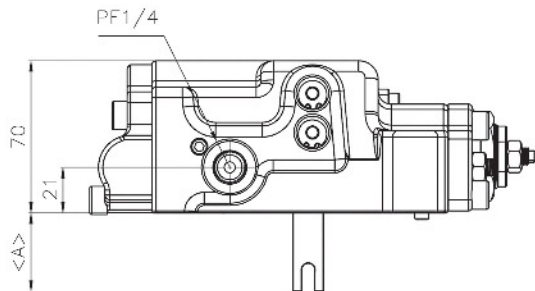
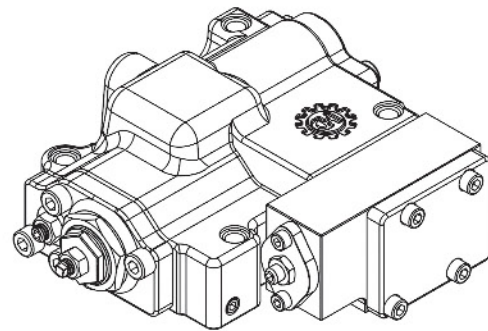
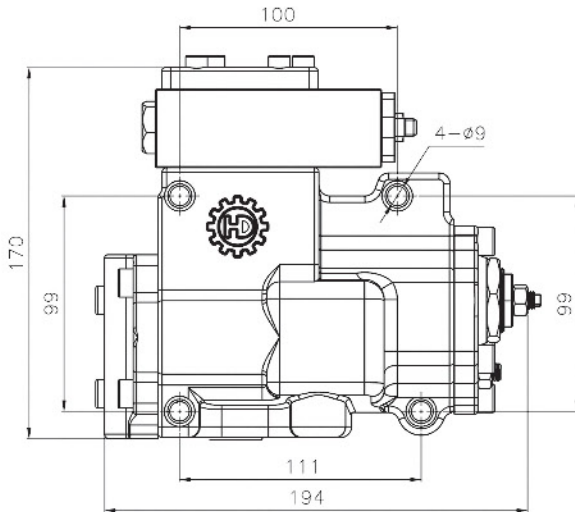
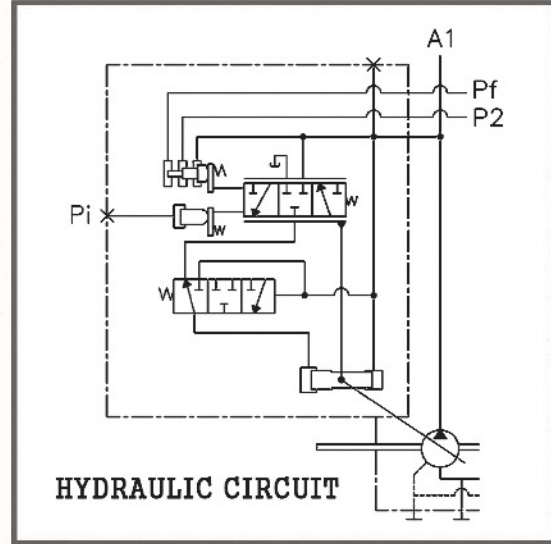
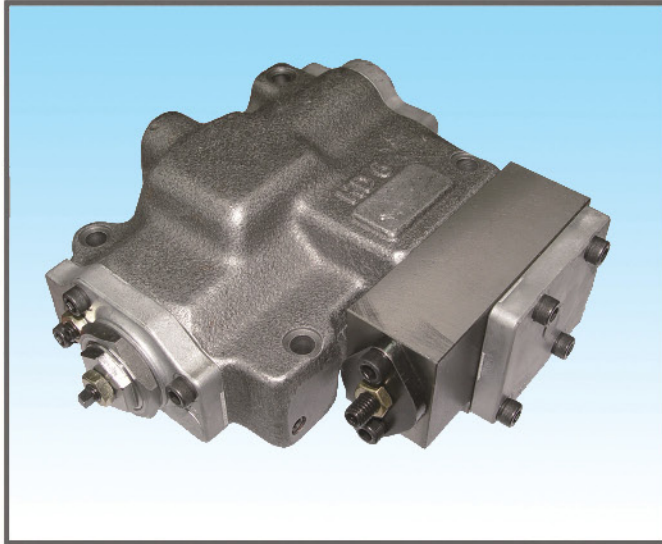


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 5N00/6N00 TYPE

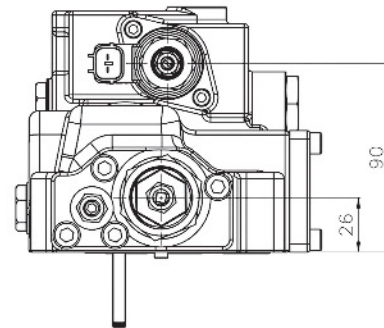
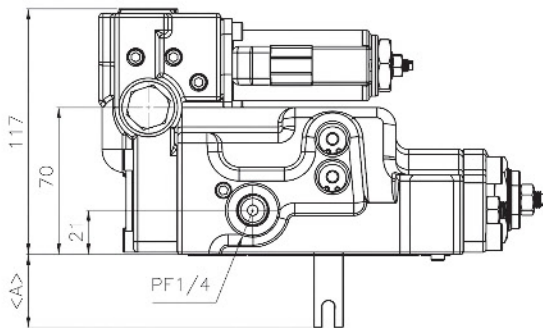
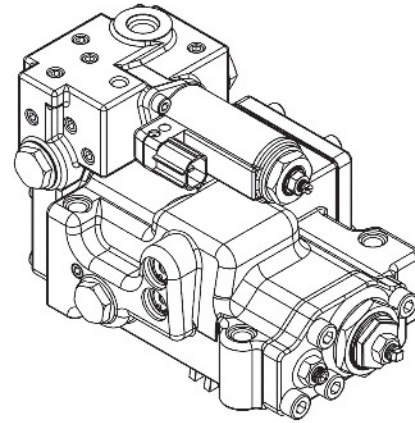
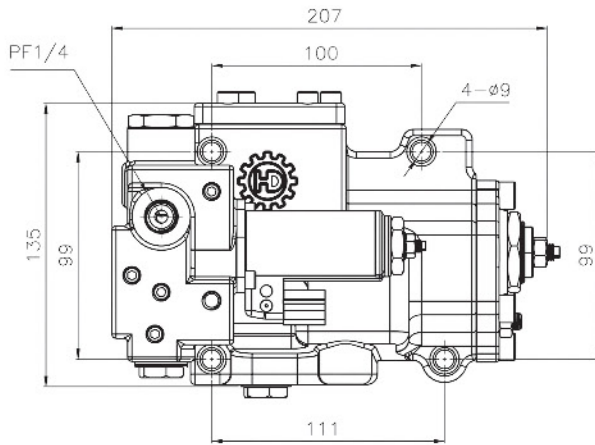
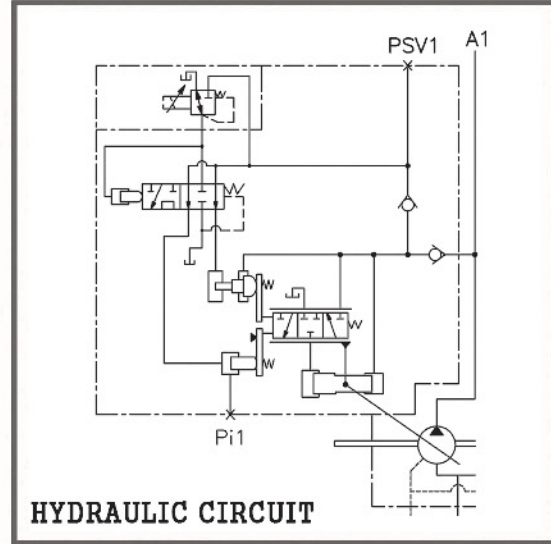
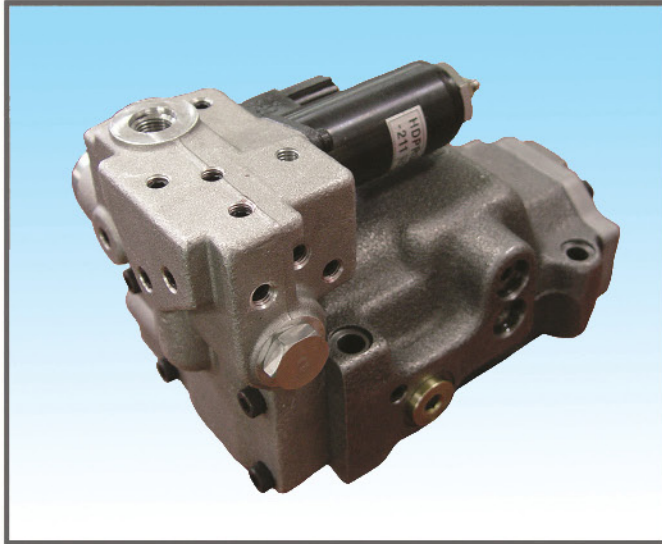


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR YT2K TYPE

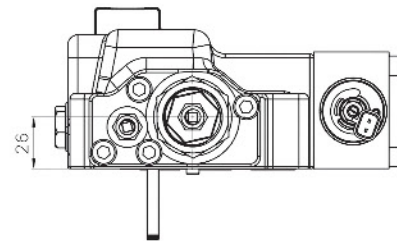
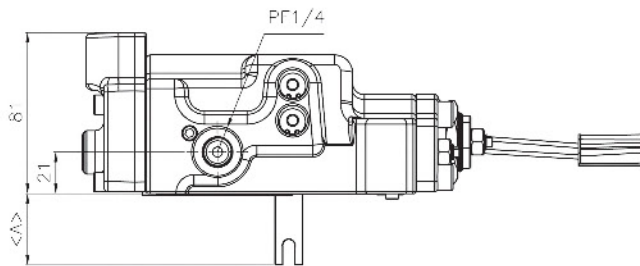
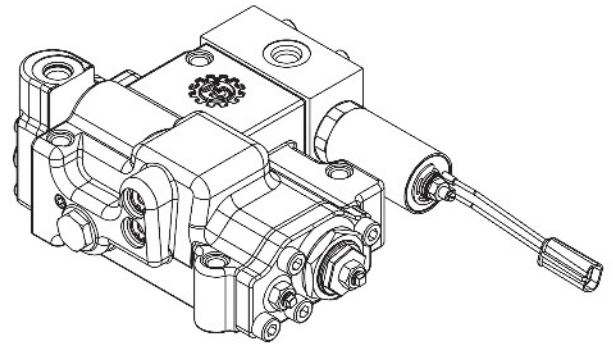
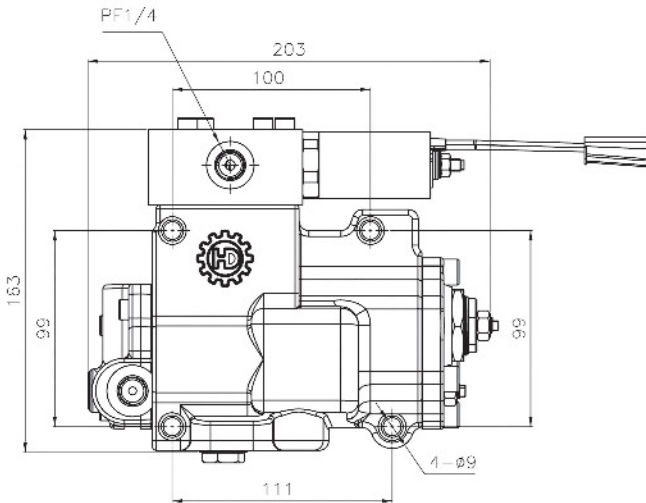
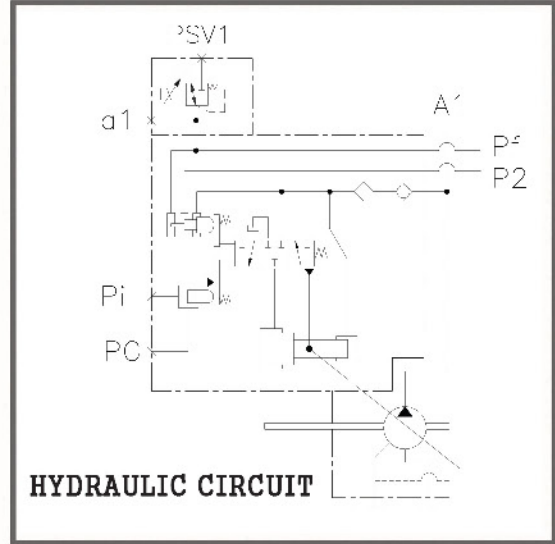
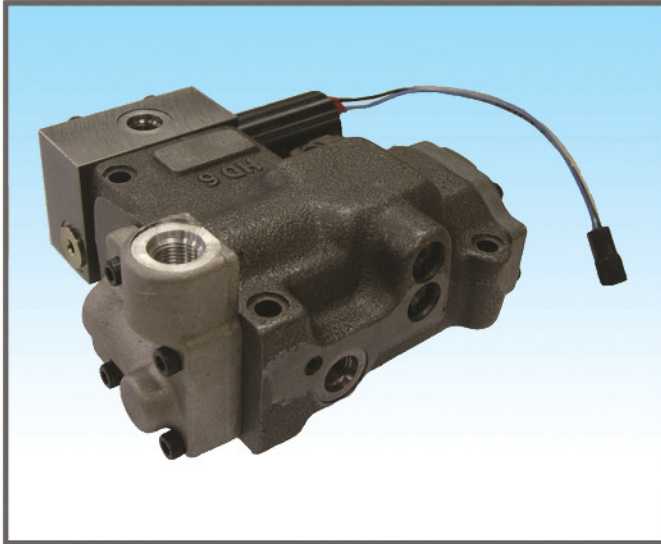


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	75.7

REGULATOR FOR 9POF TYPE

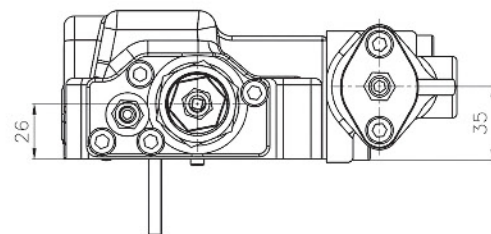
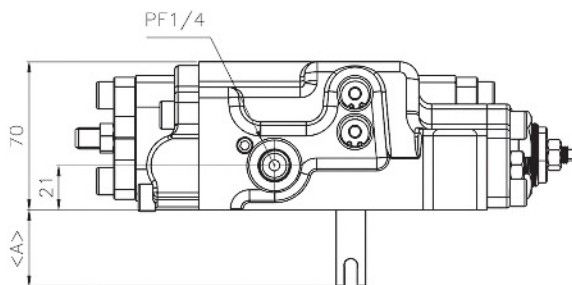
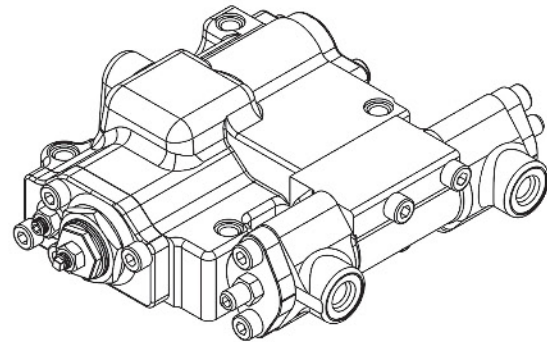
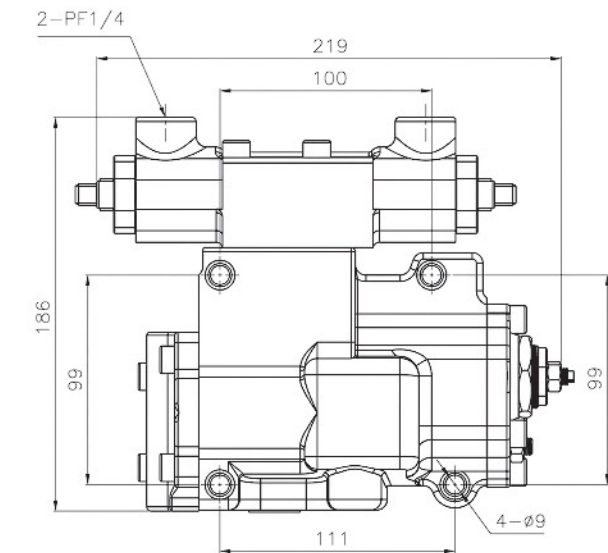
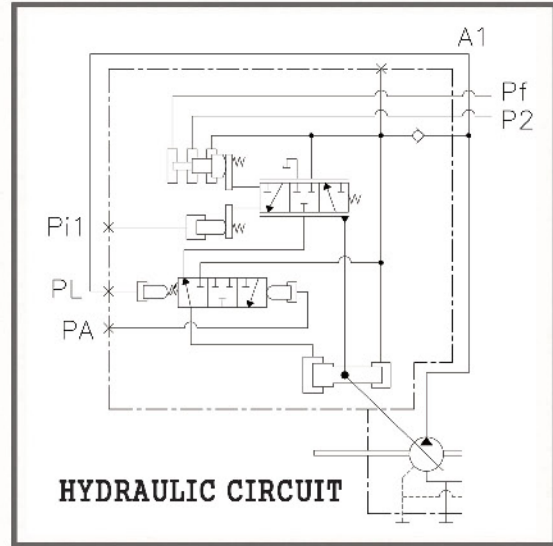


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9L00 TYPE

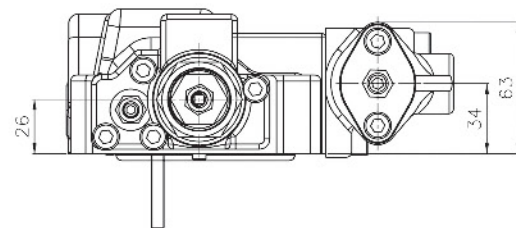
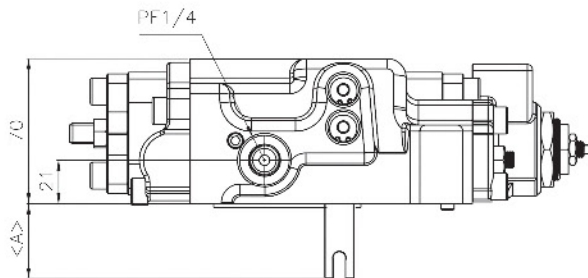
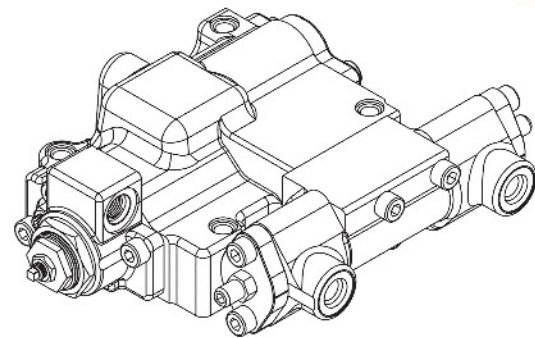
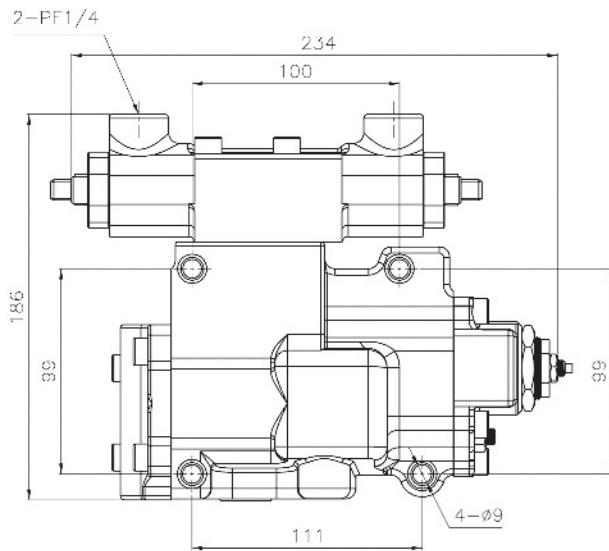
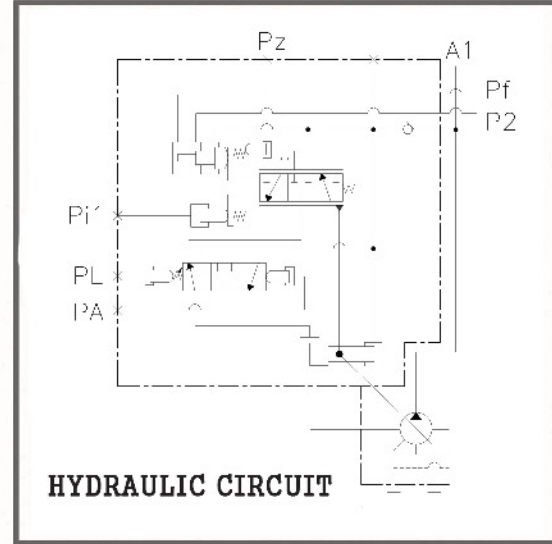
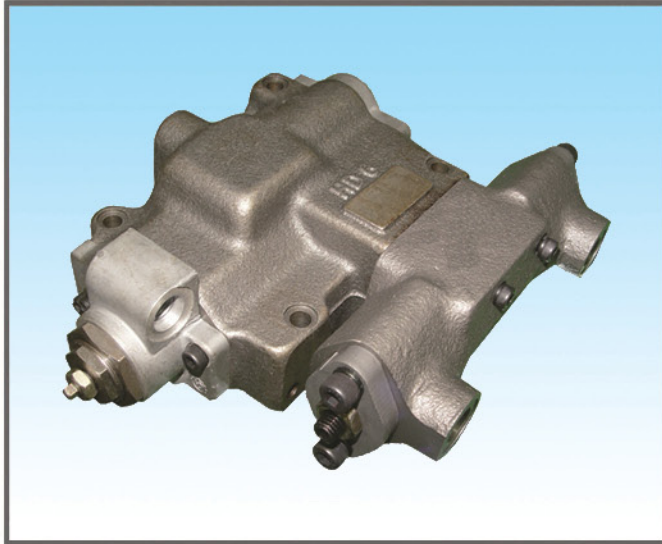


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR HLOP TYPE

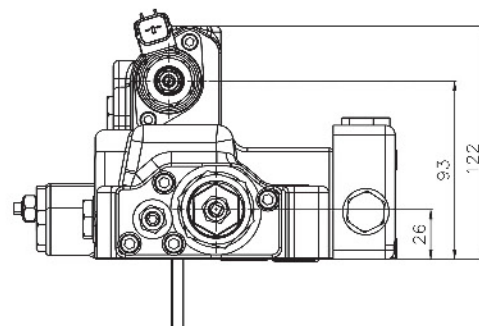
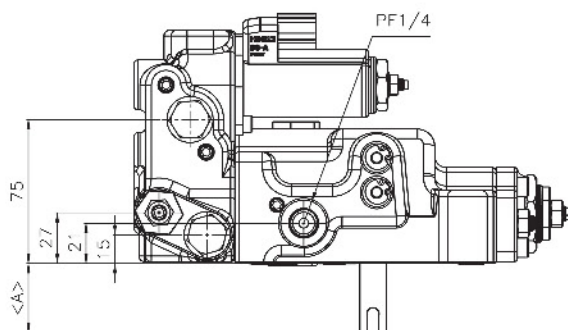
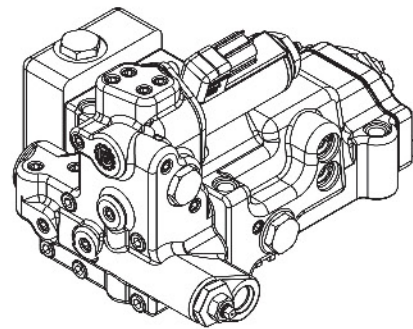
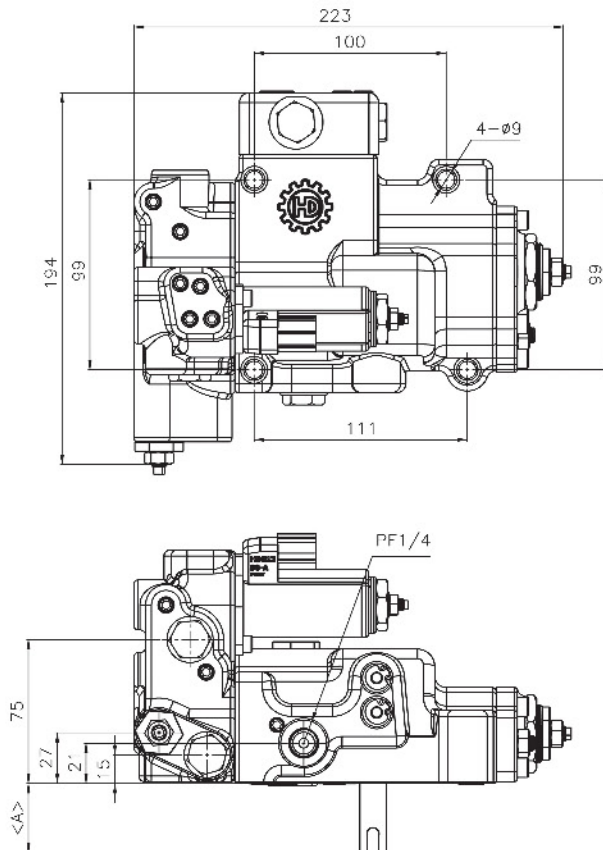
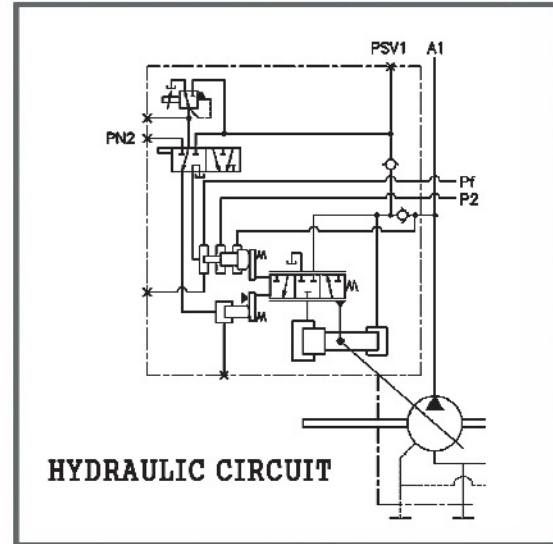


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9TIL TYPE

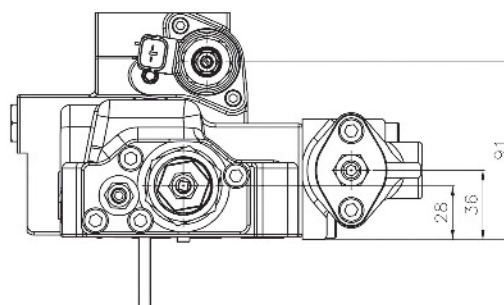
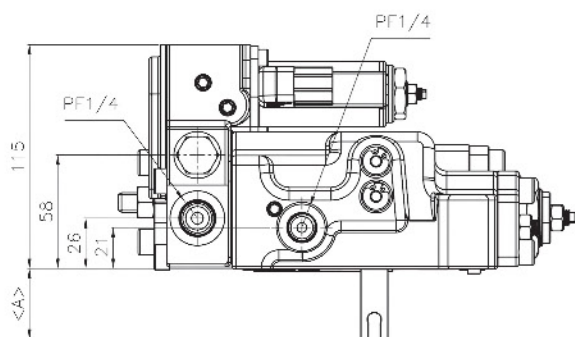
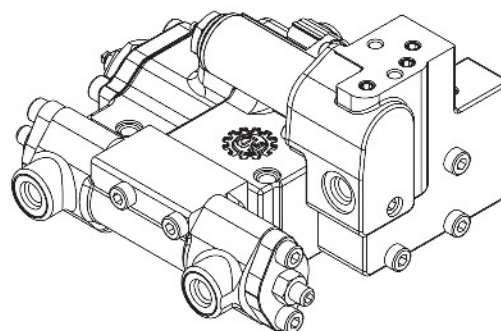
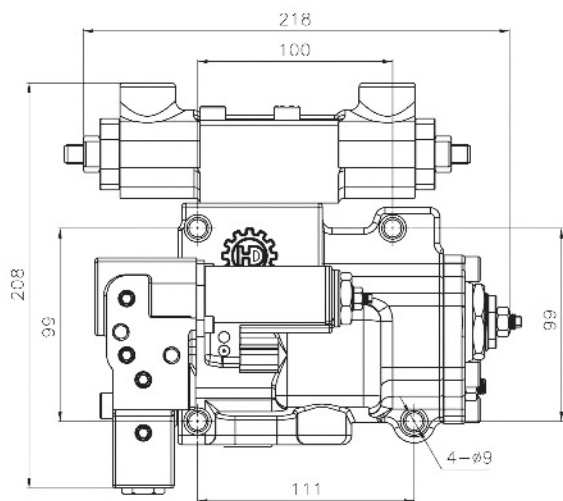
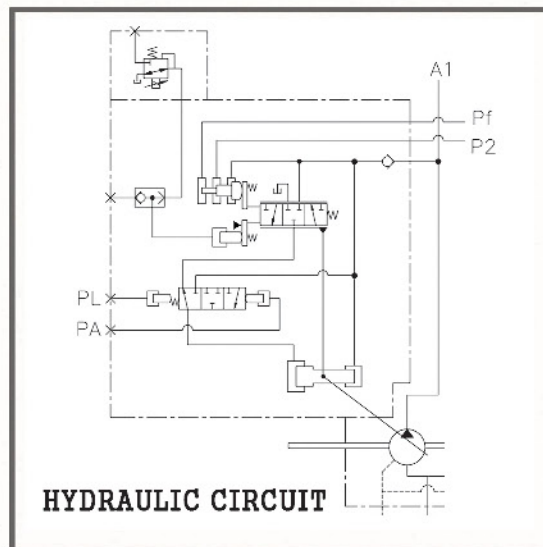
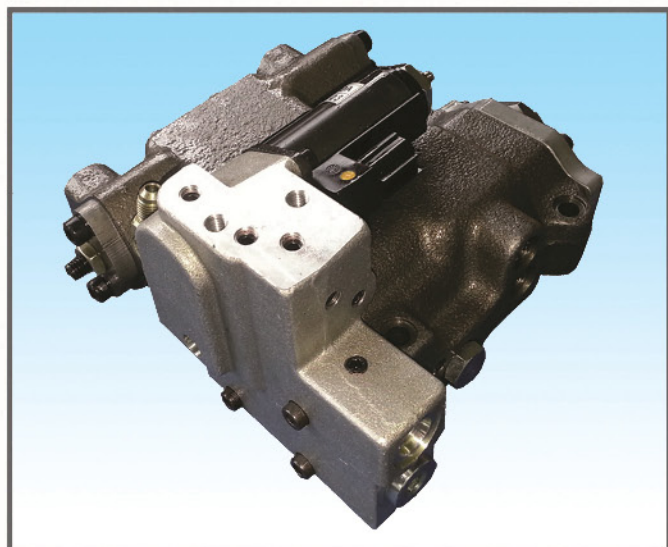


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR TYPE FOR 9Y00 TYPE WITH LOAD SENSING

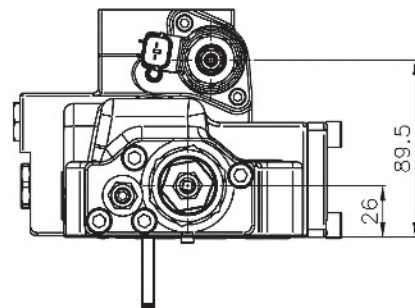
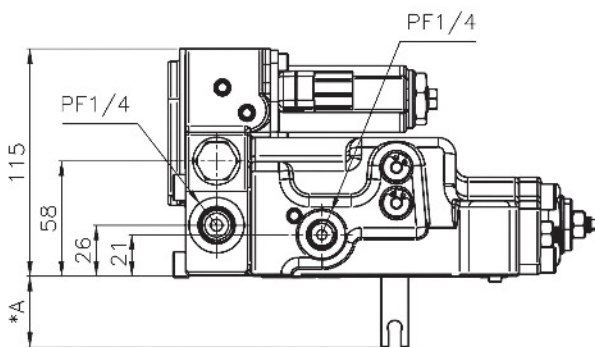
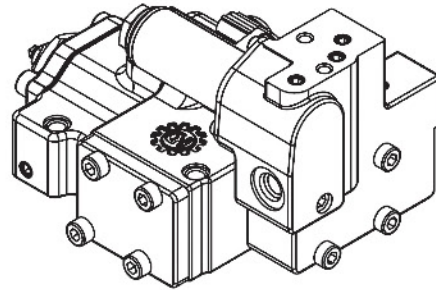
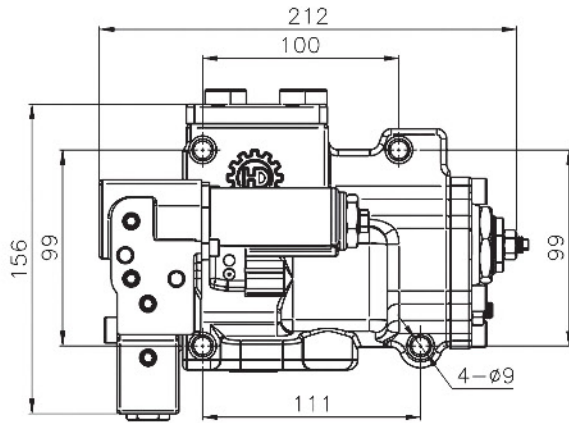
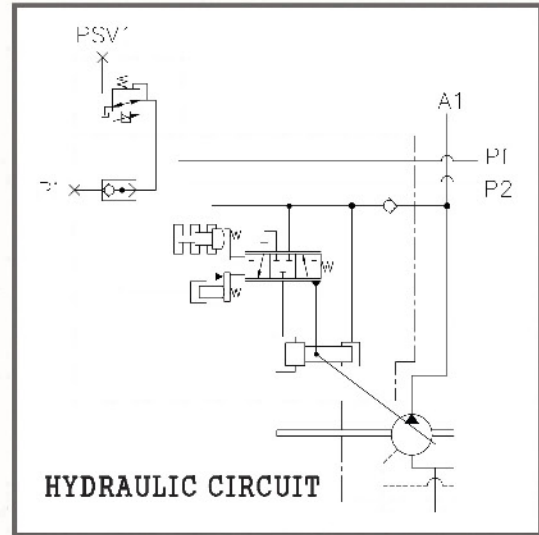
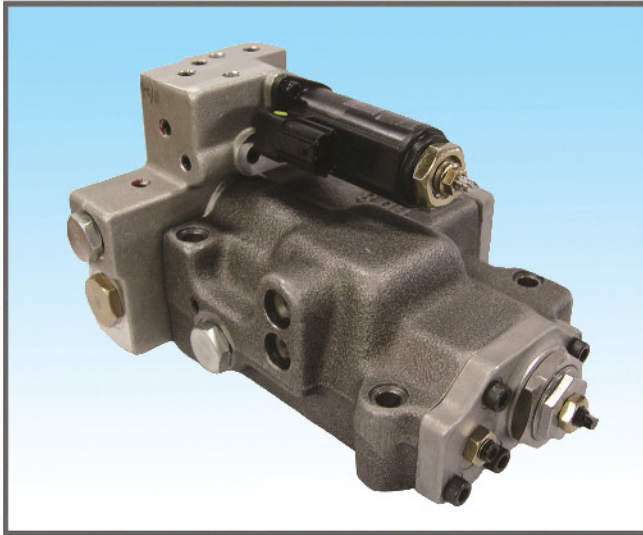


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9Y00 TYPE(FRONT)

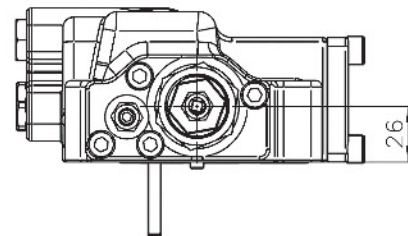
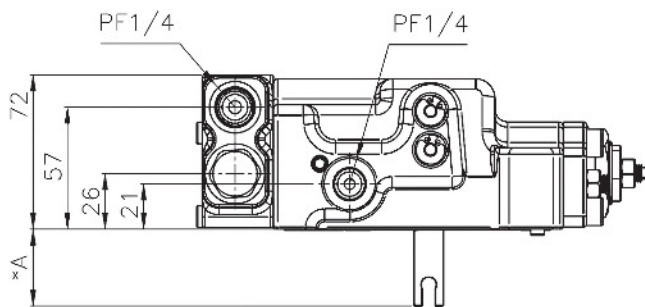
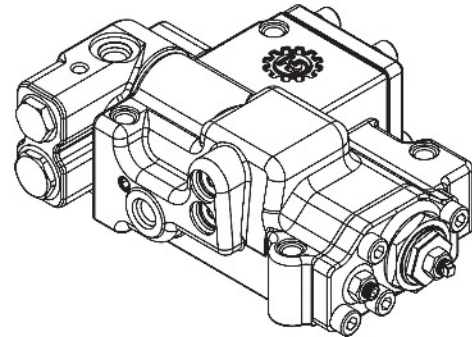
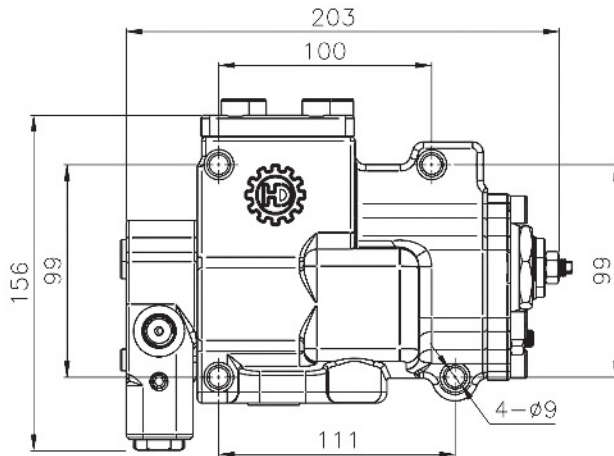
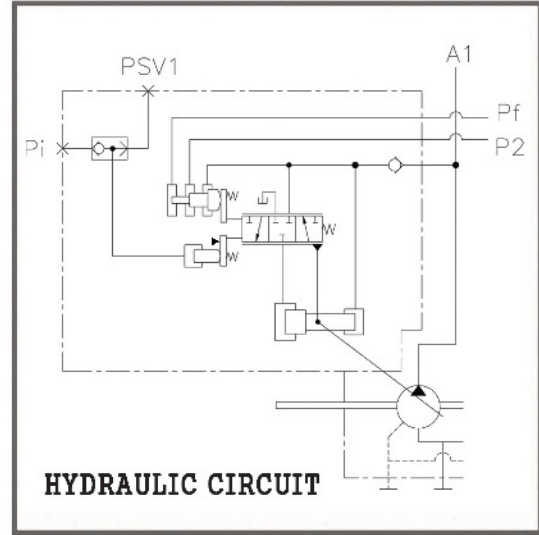
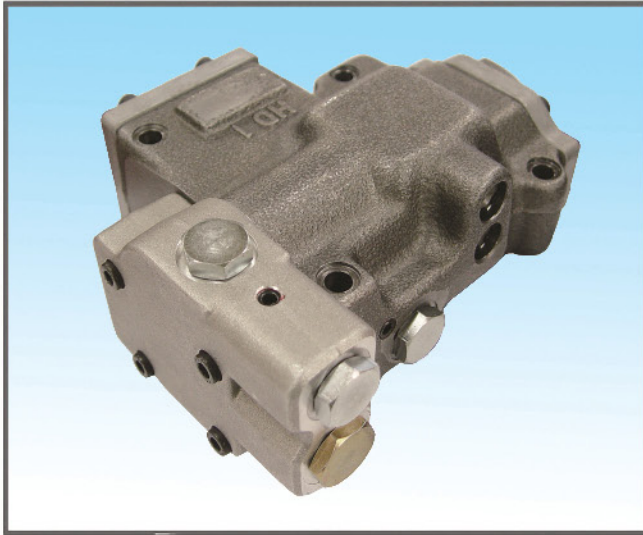


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9Y00 TYPE (REAR)



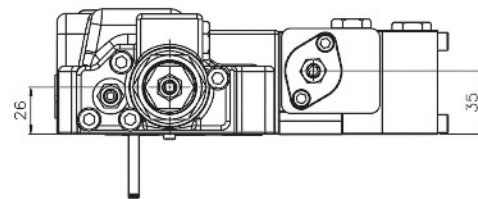
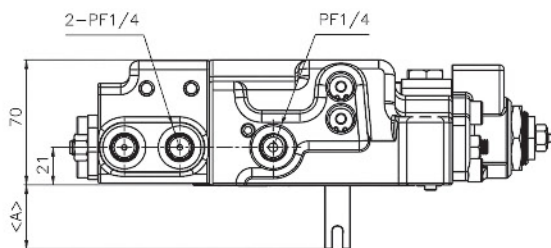
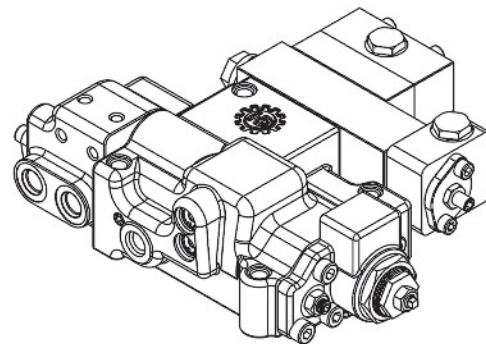
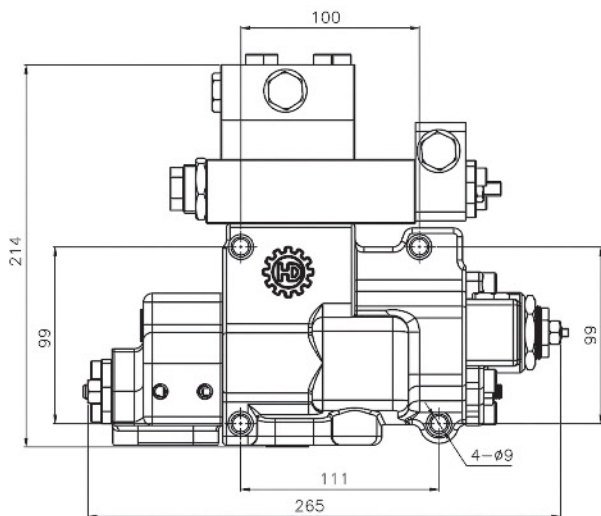
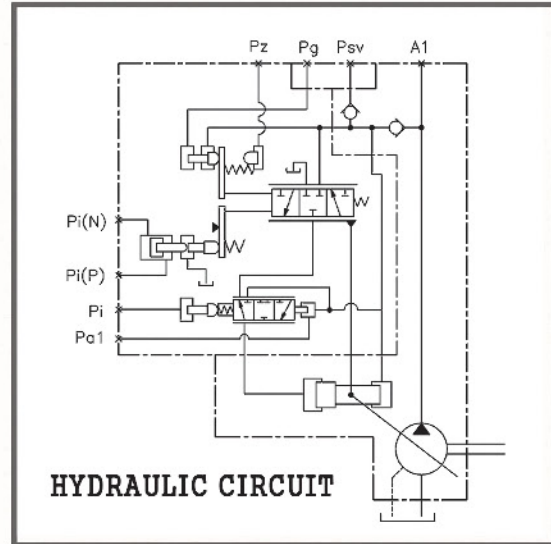
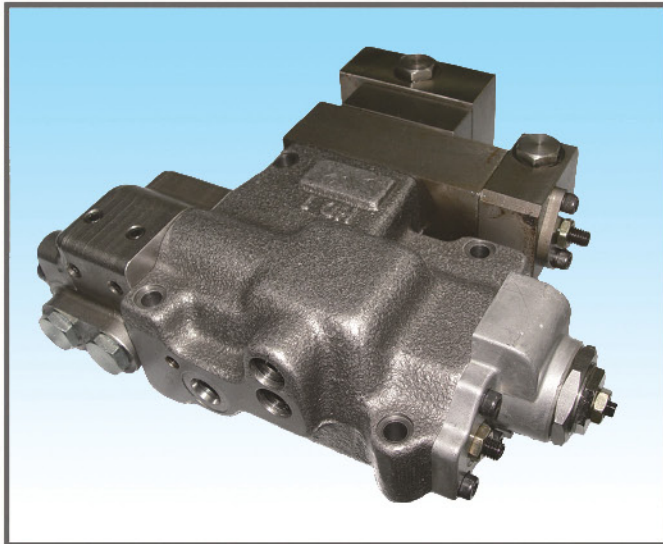
STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	22
H3V112	36
H3V140&180	57
H5V160 & 200	66

MODEL	A
H5V80	40.5
H5V140	48
H3V280	75.7
H5V160DPH & 200DPH	

REGULATOR FOR SK3D TYPE

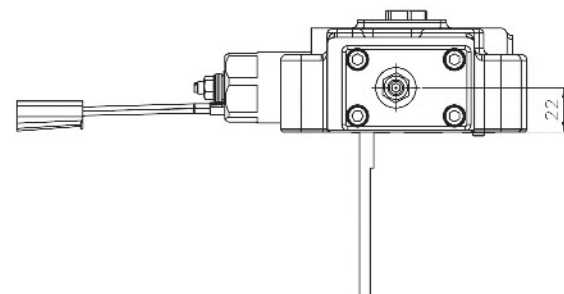
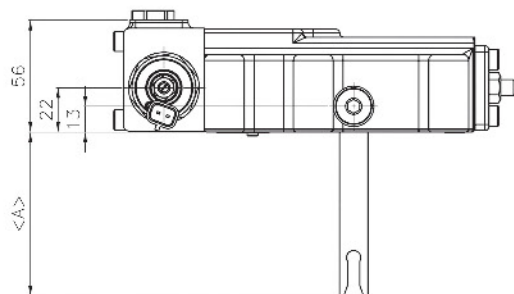
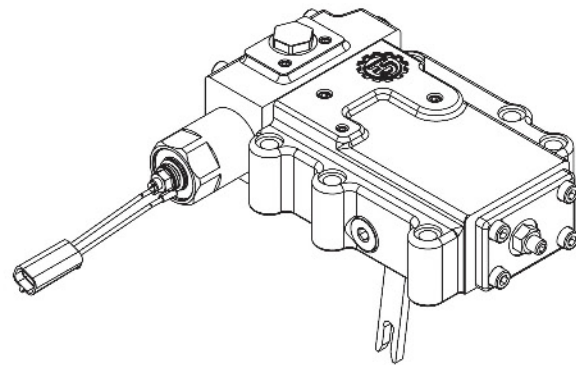
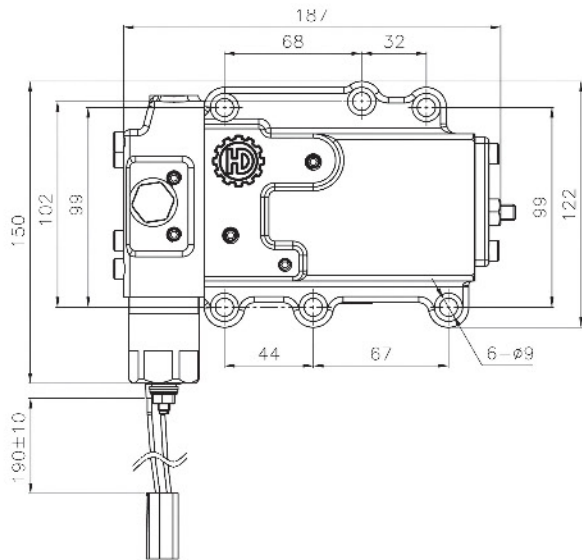
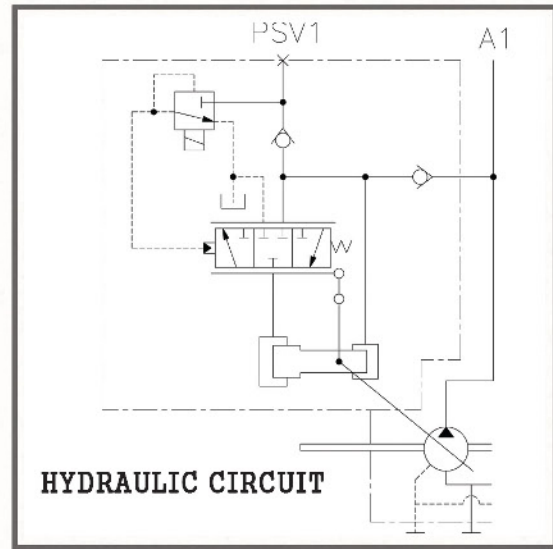
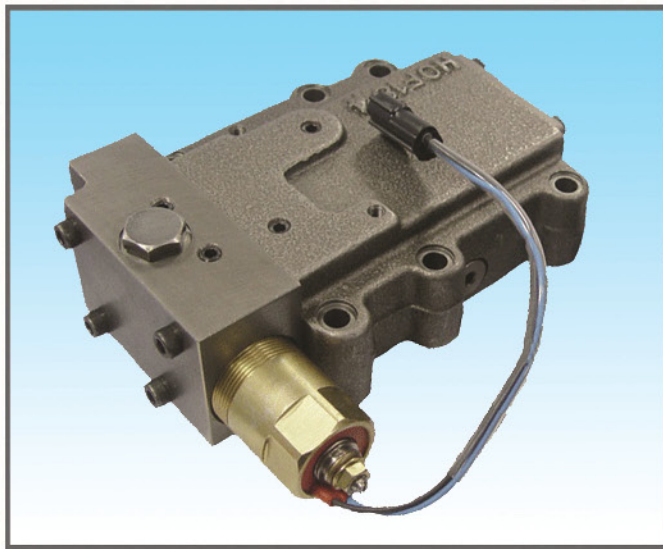


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR OE01 TYPE(HITACHI)



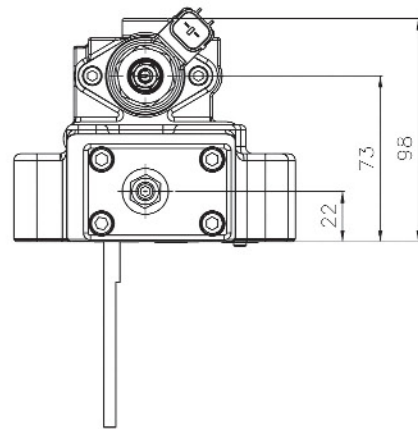
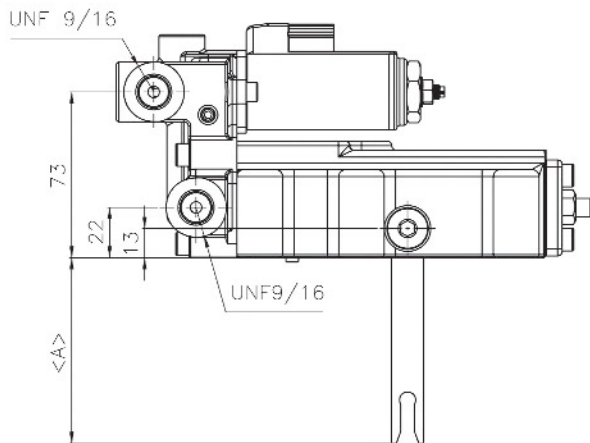
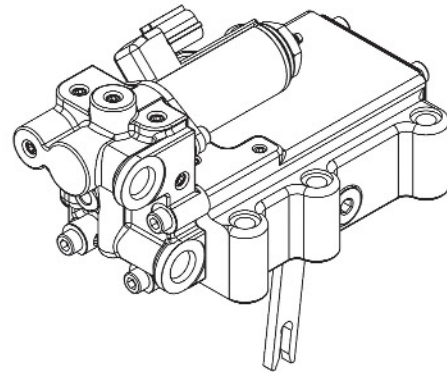
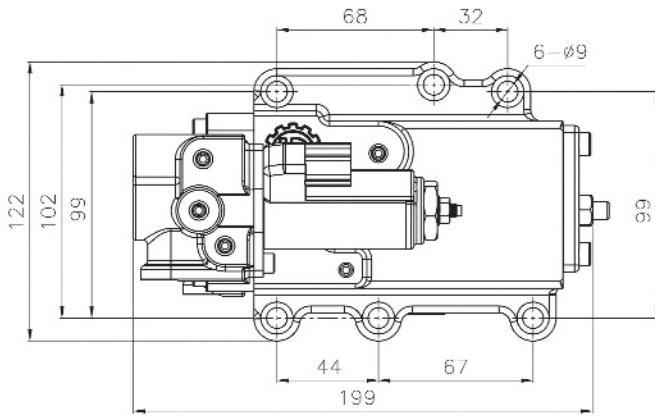
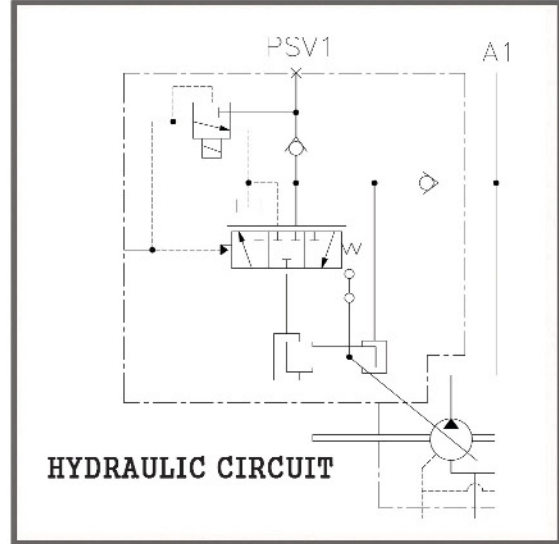
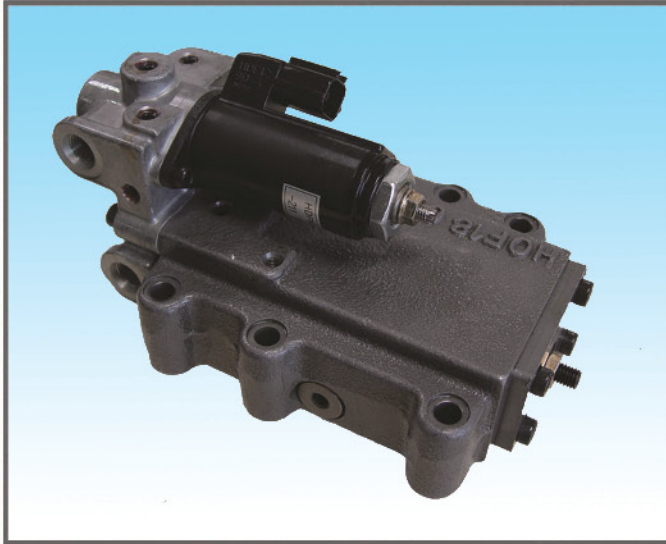
● STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	25
H3V112	36
H3V140&180	61.3
H5V160 & 200	70

MODEL	A
H5V80	48
H5V140	53.8
H3V280	81
H5V160DPH & 200DPH	

REGULATOR FOR OE02 TYPE(NORMAL)



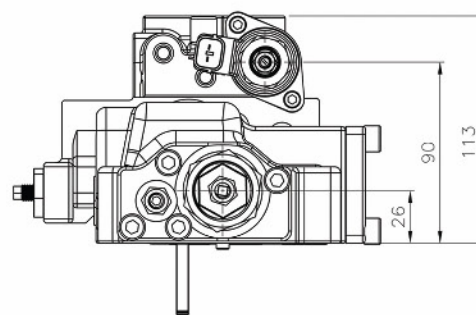
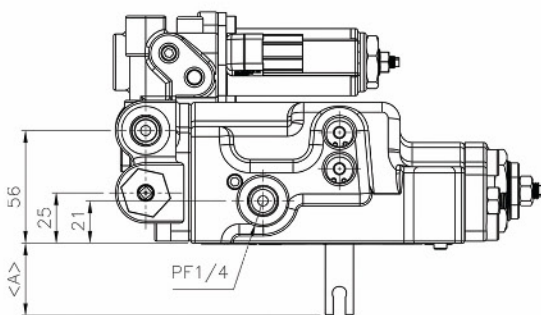
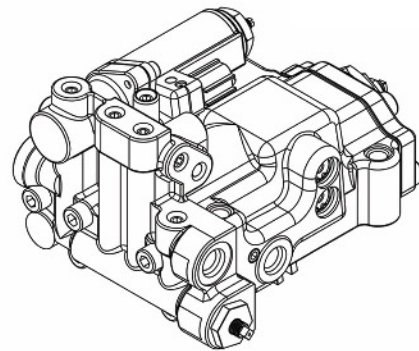
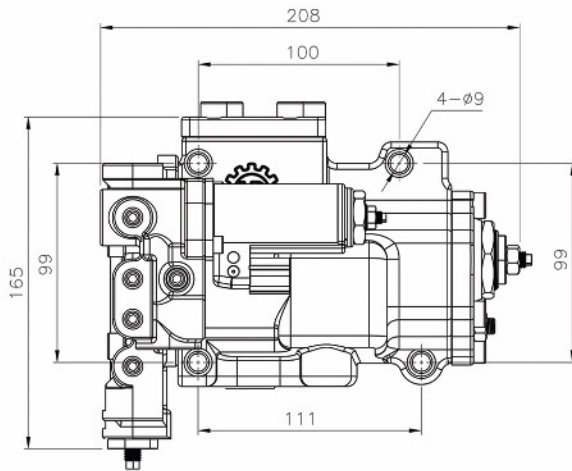
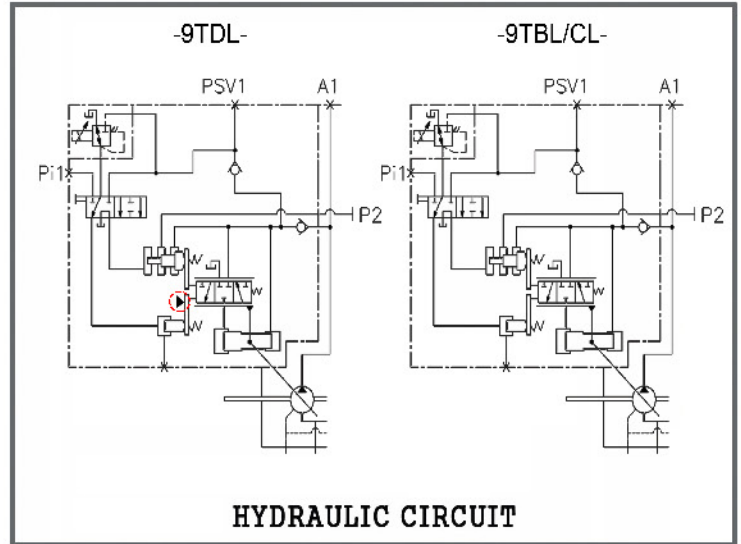
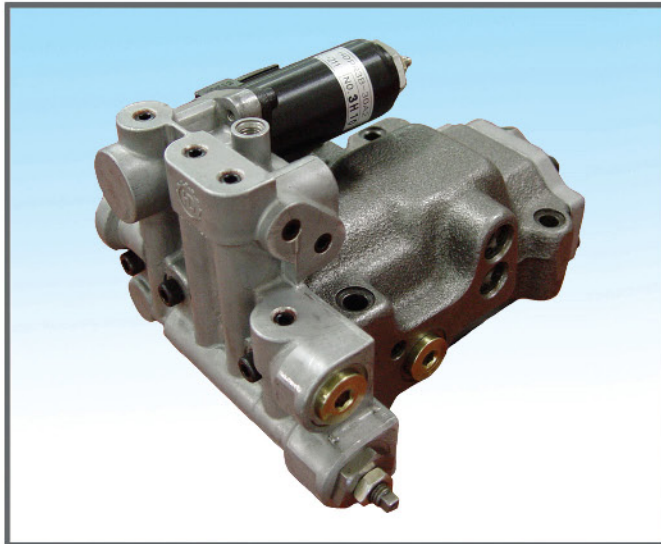
STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	25
H3V112	36
H3V140&180	61.3
H5V160 & 200	70

MODEL	A
H5V80	48
H5V140	53.8
H3V280	81
H5V160DPH & 200DPH	

REGULATOR FOR 9TDL/BL/CL TYPE

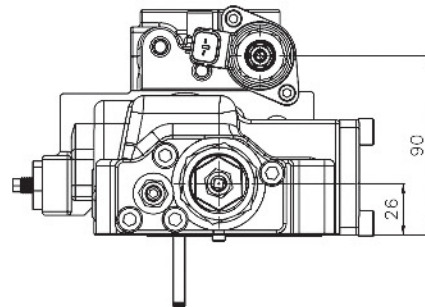
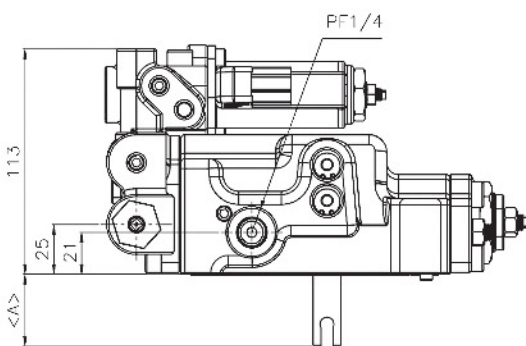
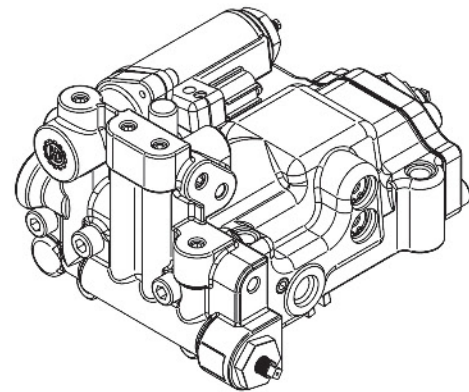
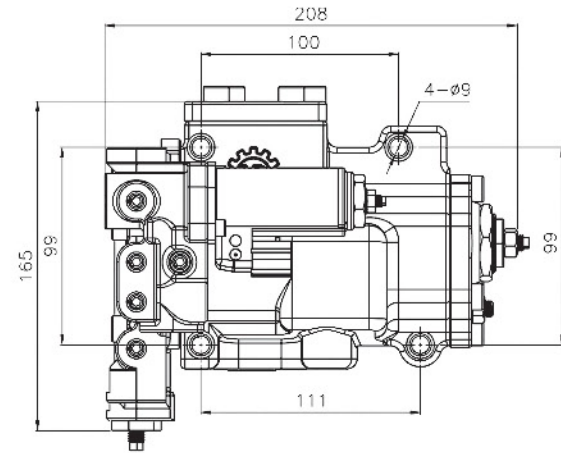
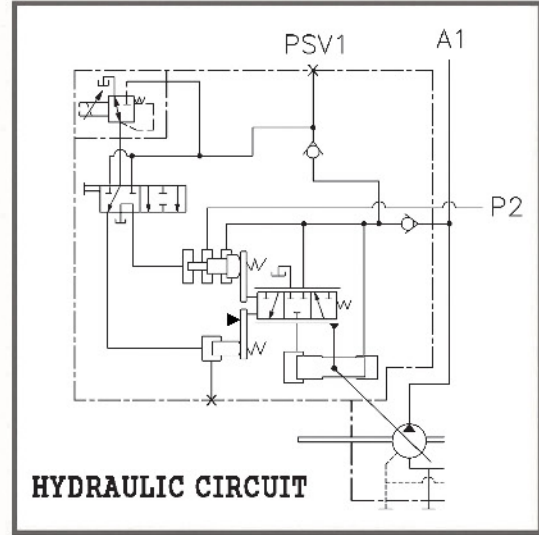
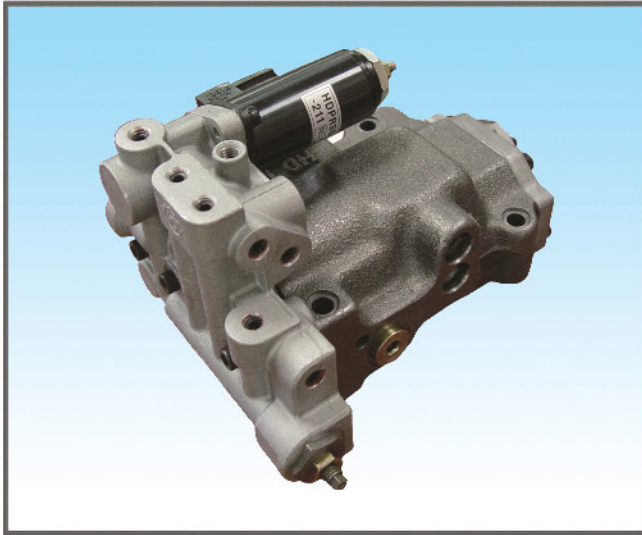


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 9TFL/AS/EL/GL/HL/8L TYPE

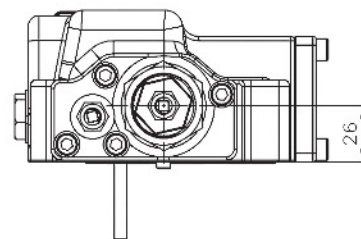
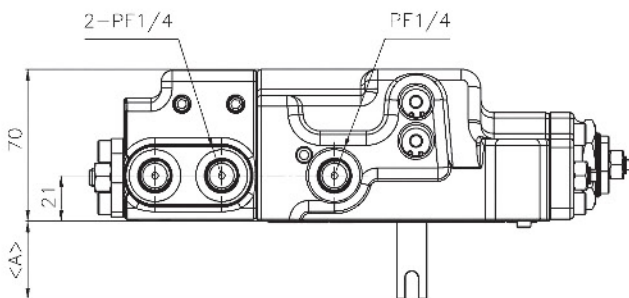
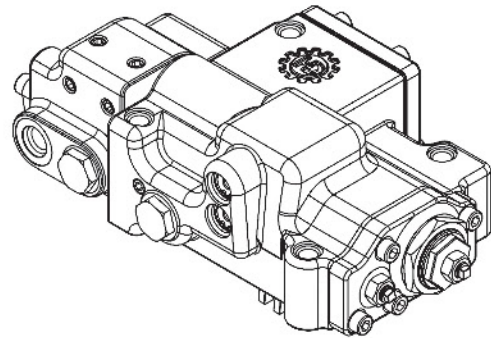
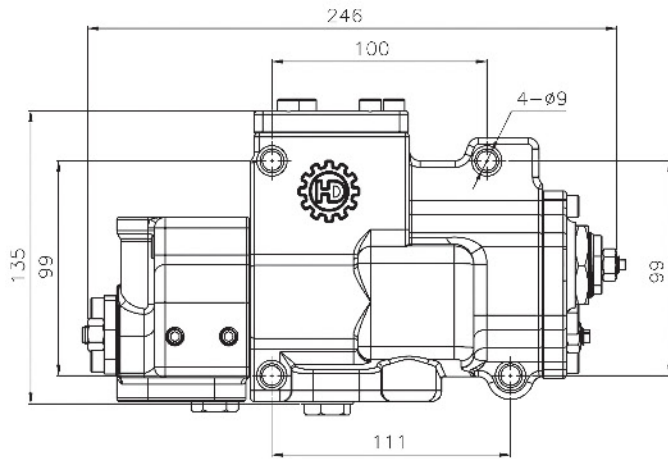
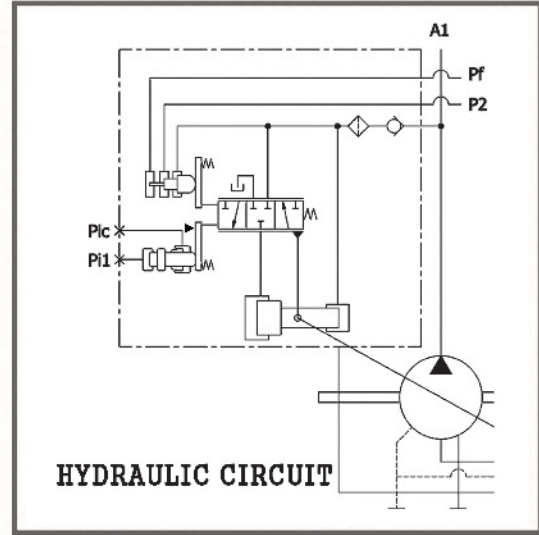


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	75.7

REGULATOR FOR 9KOE TYPE

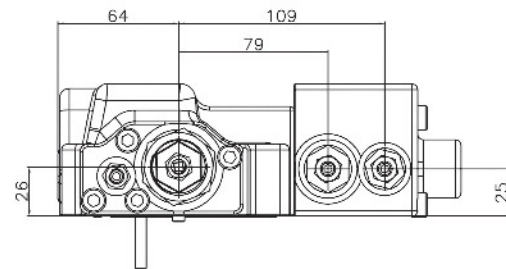
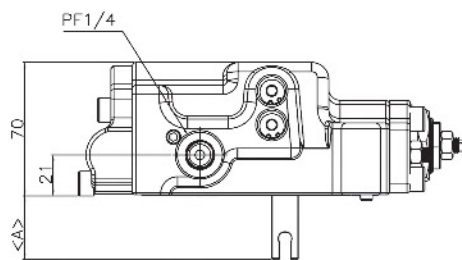
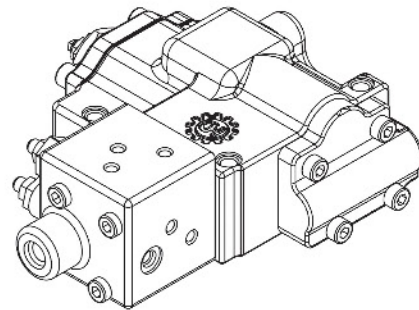
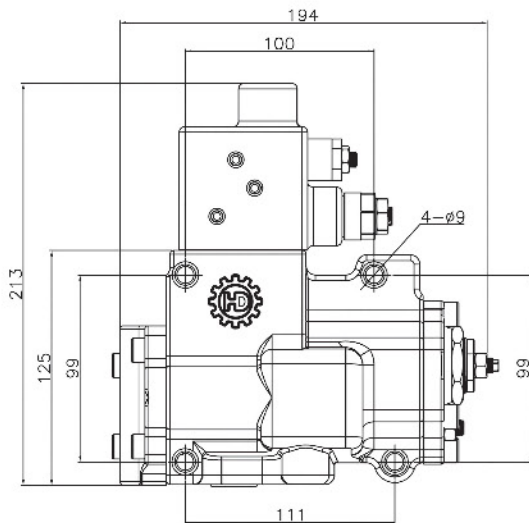
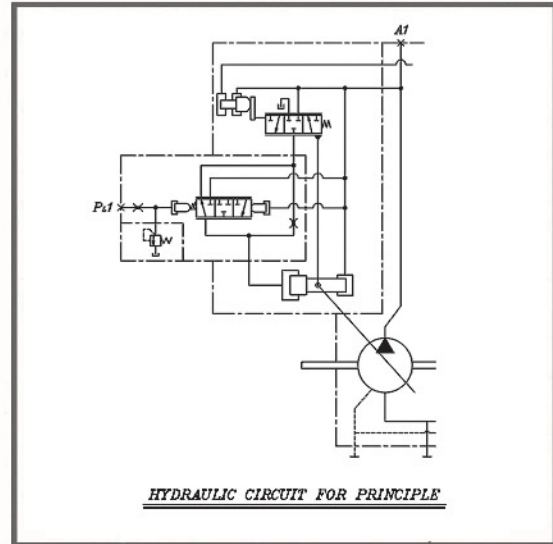
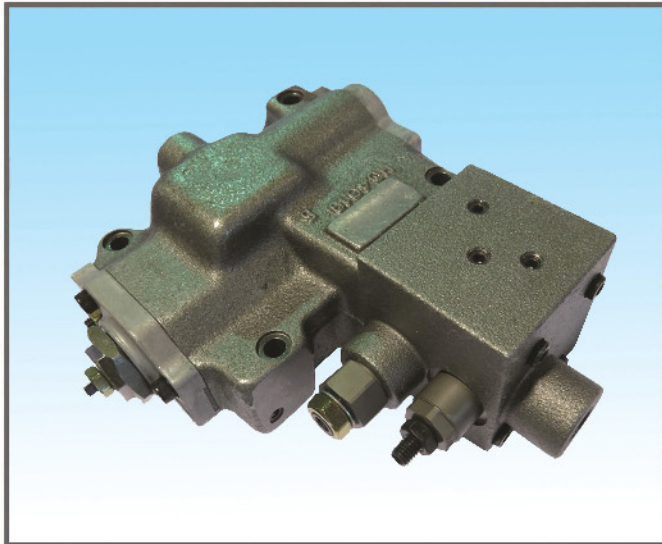


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 5L00/7L00 TYPE WITH CUT-OFF VALVE

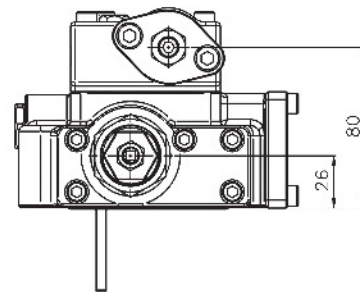
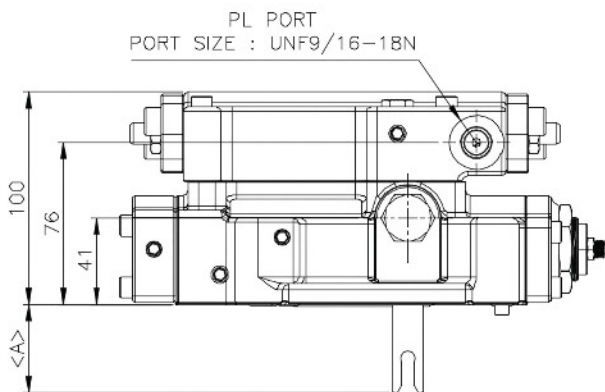
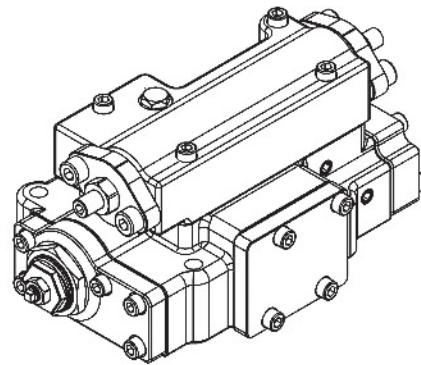
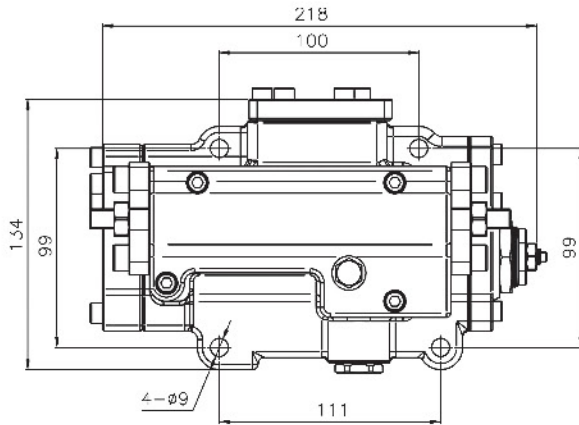
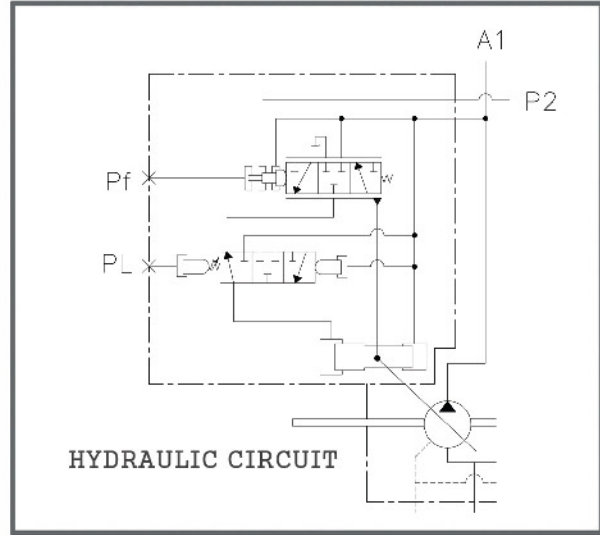


STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 3L02 TYPE WITHOUT CUT-OFF VALVE

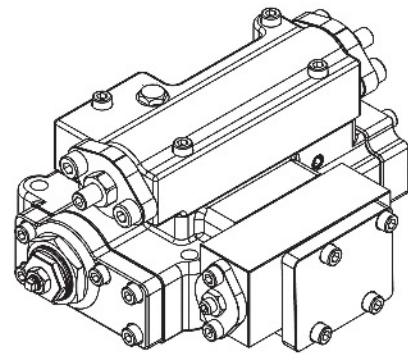
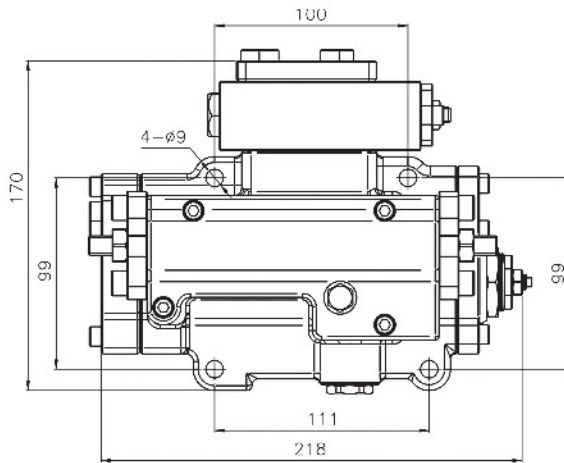
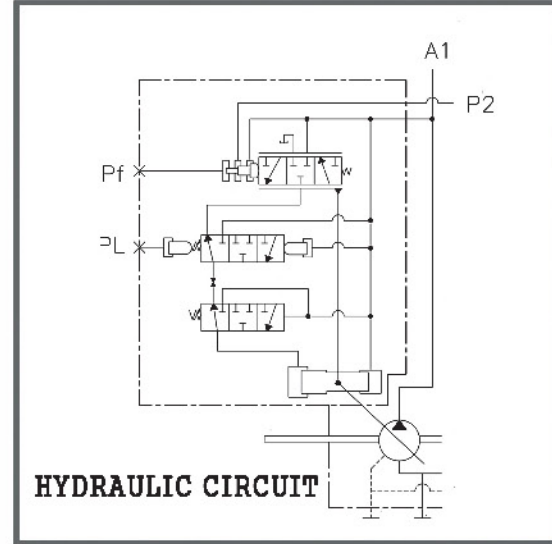


● STANDARD DIMENSIONS

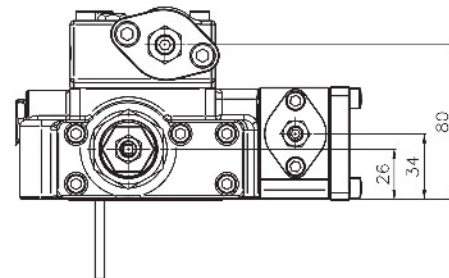
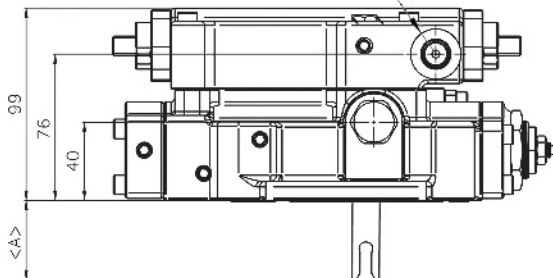
(mm)

MODEL	A	MODEL	A
H3V63	25.5	H5V80	44
H3V112	39.5	H5V140	51
H3V140&180	60.5	H3V280	79.2
H5V160 & 200	69.5	H5V160DPH & 200DPH	

REGULATOR FOR 3L09 TYPE WITH CUT-OFF VALVE



PL PORT
PORT SIZE : UNF9/16-18N



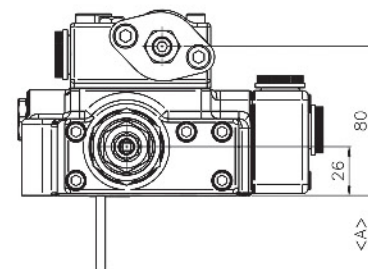
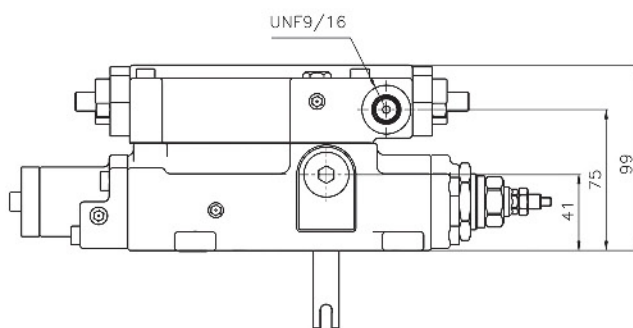
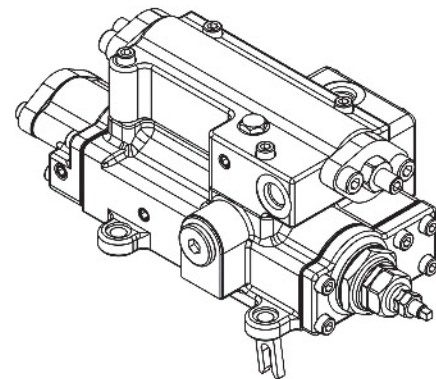
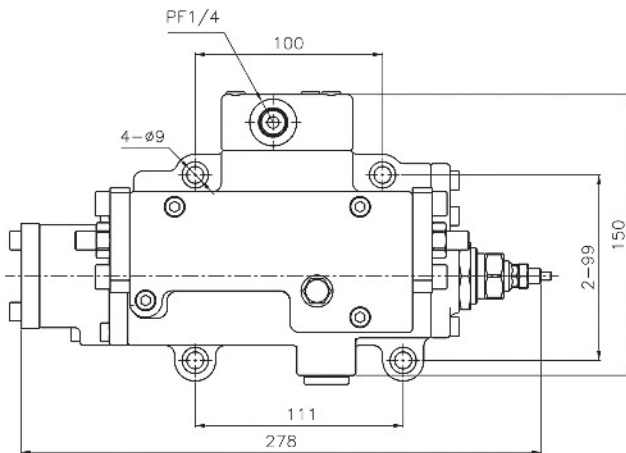
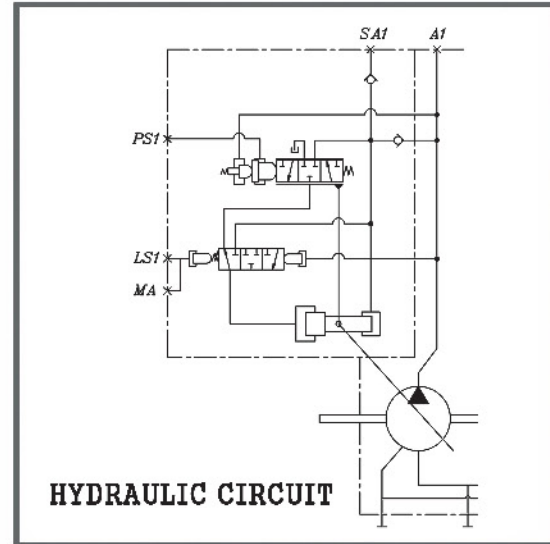
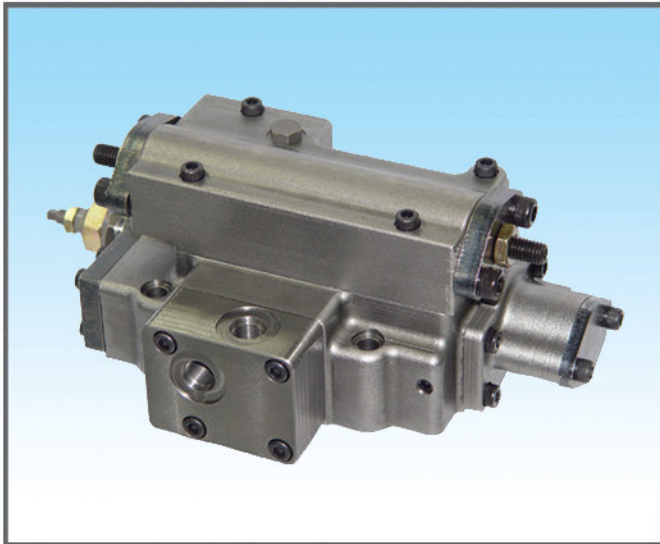
STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	25.5
H3V112	39.5
H3V140&180	60.5
H5V160 & 200	69.5

MODEL	A
H5V80	44
H5V140	51
H3V280	79.2
H5V160DPH & 200DPH	

REGULATOR FOR CATERPILLAR (3L2E)

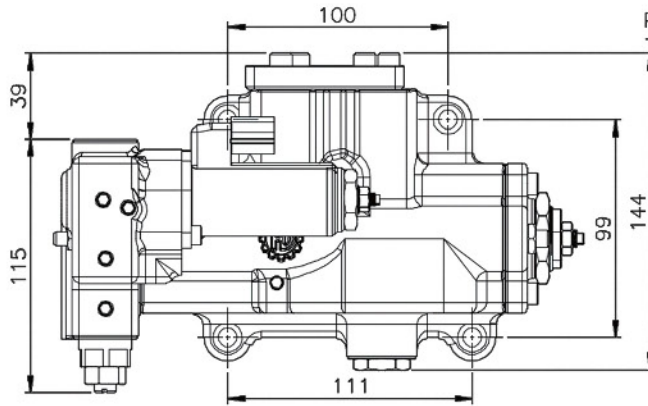
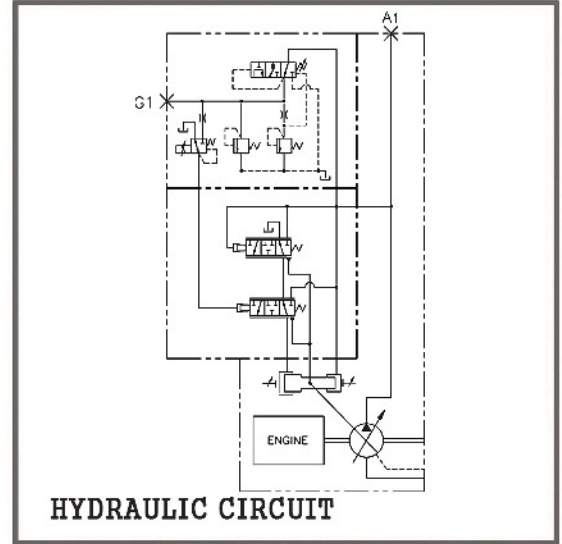
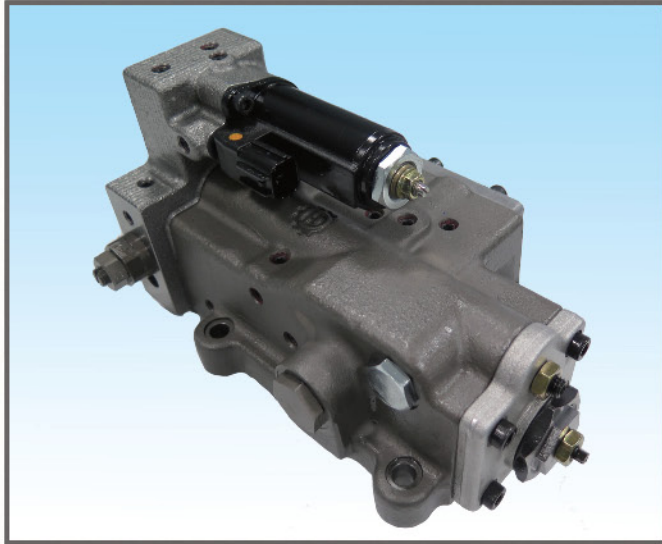


● STANDARD DIMENSIONS

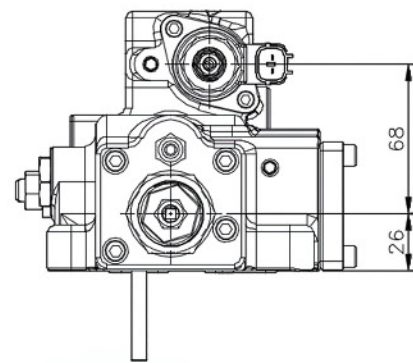
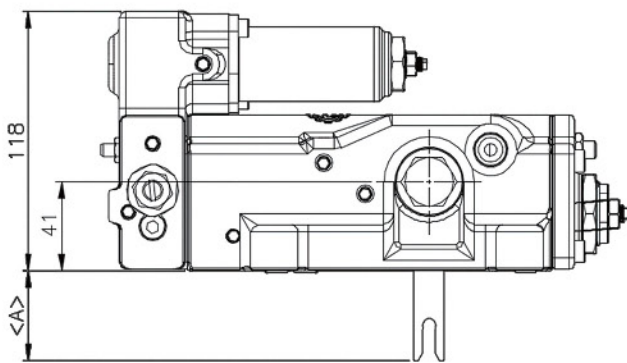
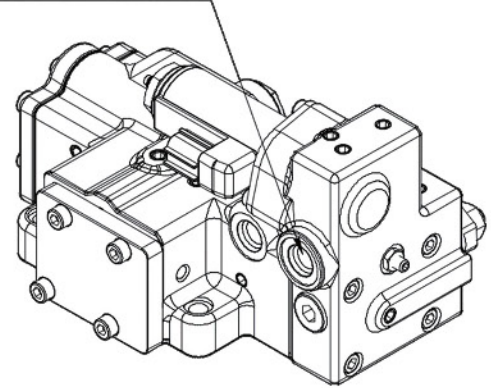
(mm)

MODEL	A	MODEL	A
H3V63	25.5	H5V80	44
H3V112	39.5	H5V140	51
H3V140&180	60.5	H3V280	79.2
H5V160 & 200	69.5	H5V160DPH & 200DPH	

REGULATOR FOR 3E00 TYPE



G1-GAUGE PORT
PORT SIZE : PF1/4-14N

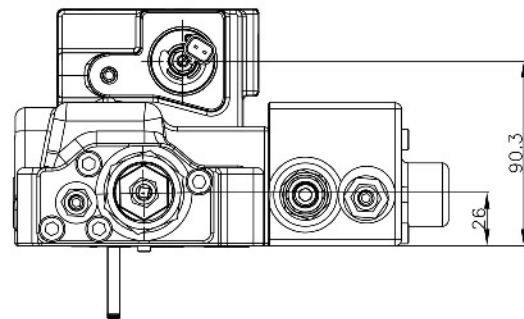
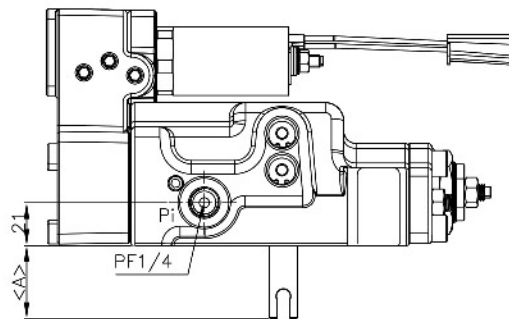
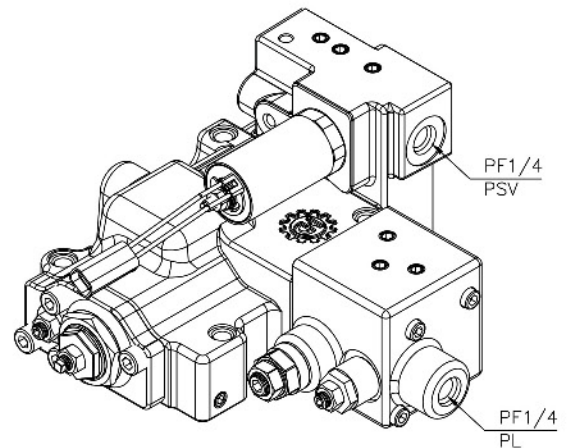
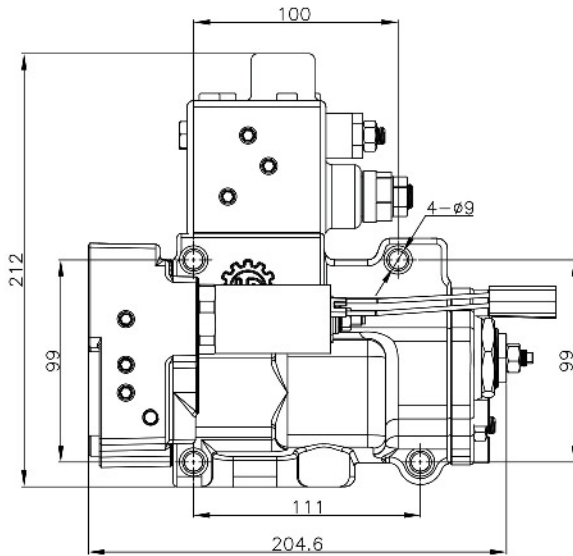
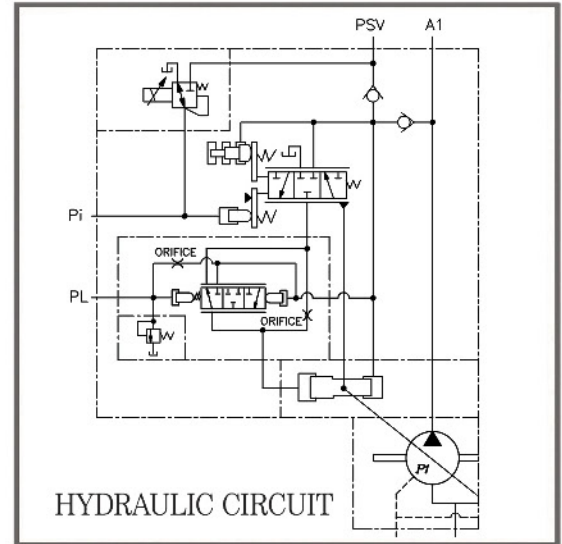
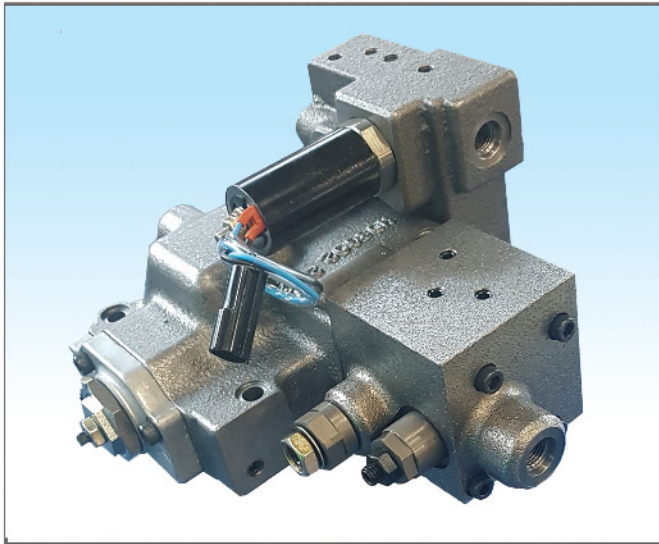


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR 5E29 TYPE



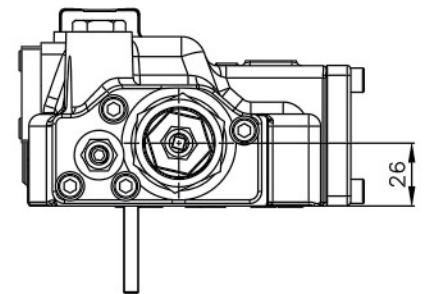
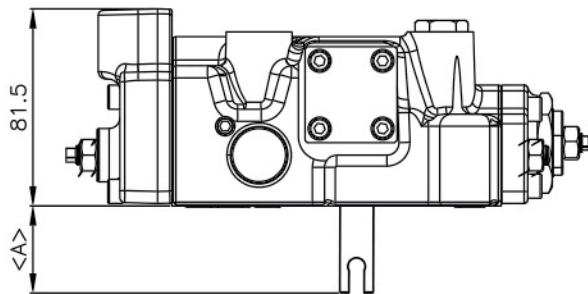
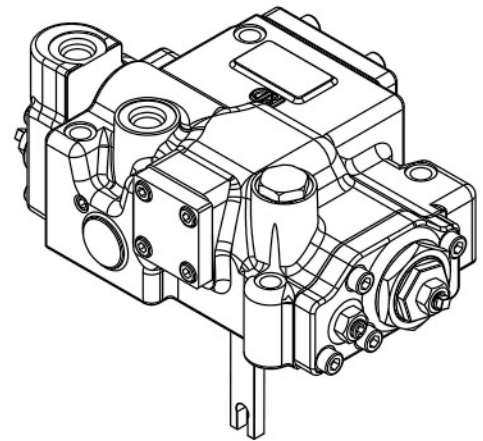
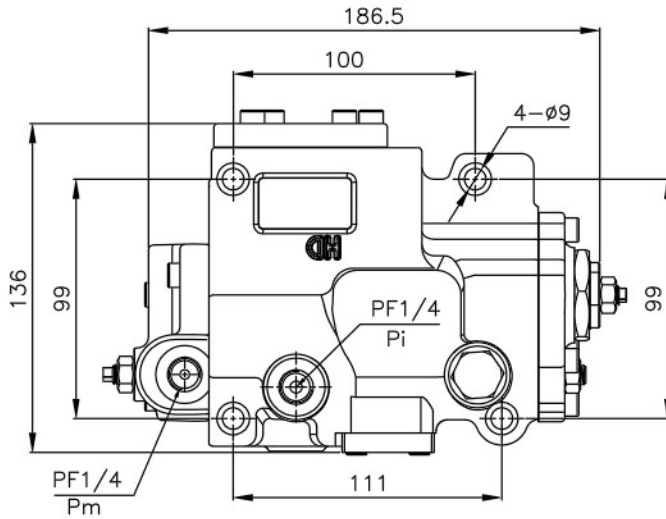
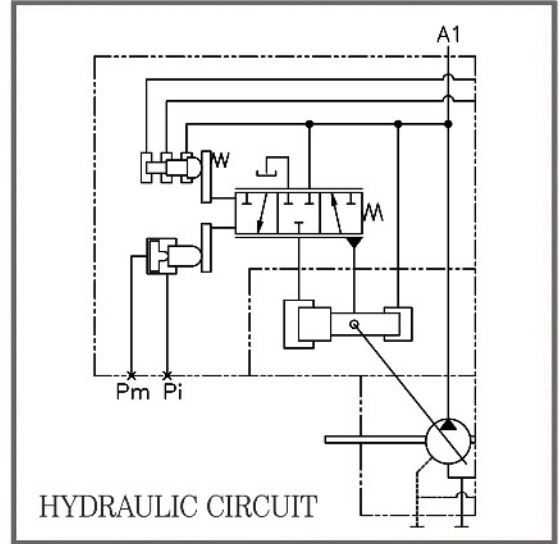
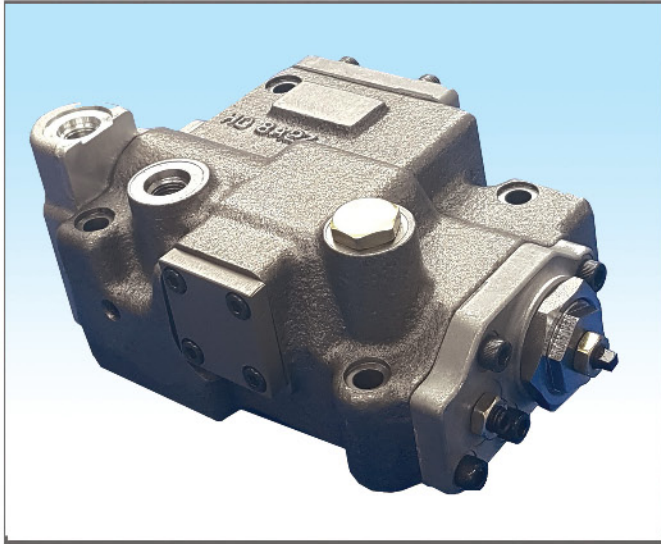
STANDARD DIMENSIONS

(mm)

MODEL	A
H3V63	22
H3V112	36
H3V140&180	57
H5V160 & 200	66

MODEL	A
H5V80	40.5
H5V140	48
H3V280	75.7
H5V160DPH & 200DPH	75.7

REGULATOR FOR 9S09 TYPE

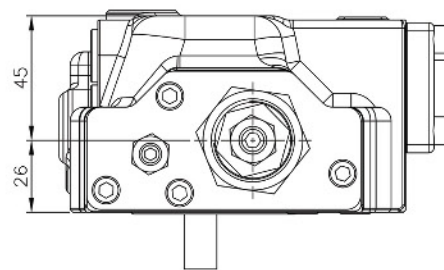
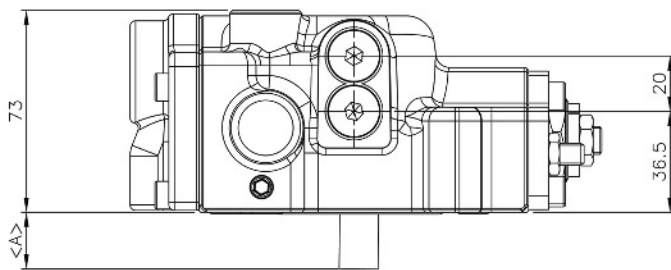
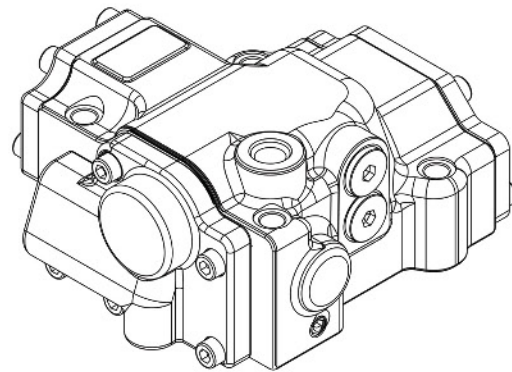
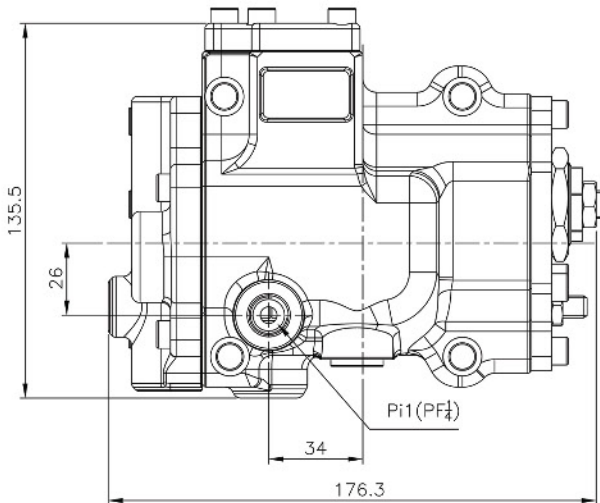
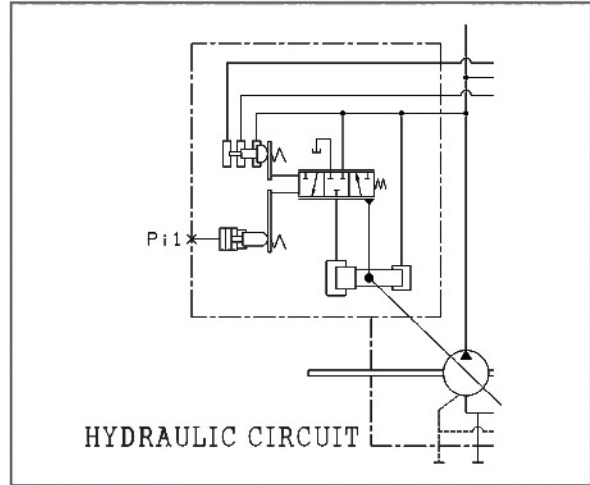
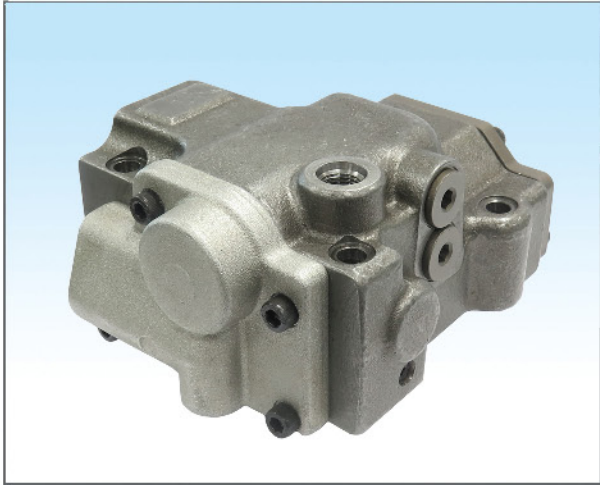


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	75.7

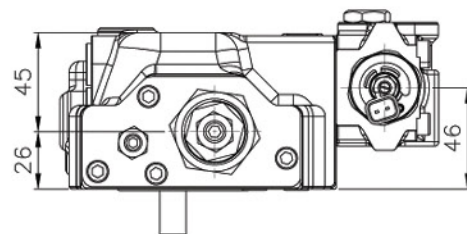
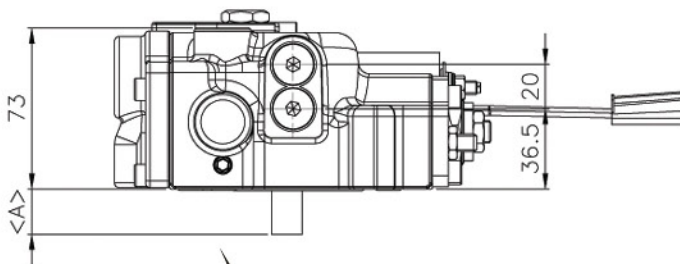
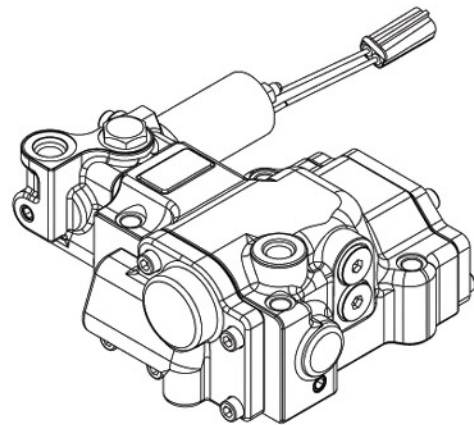
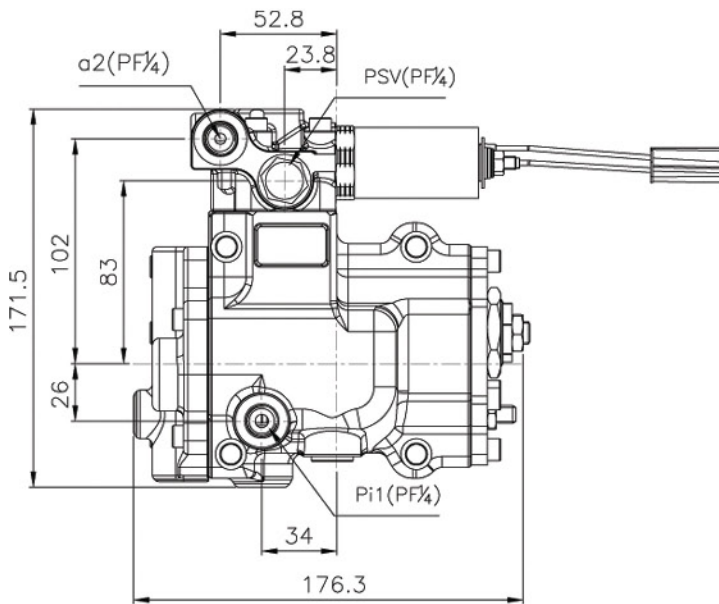
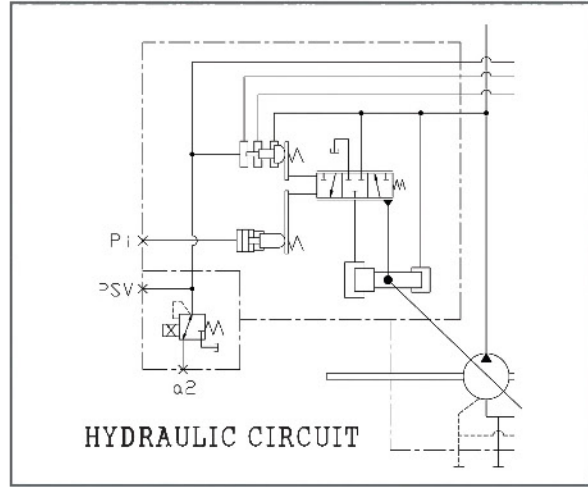
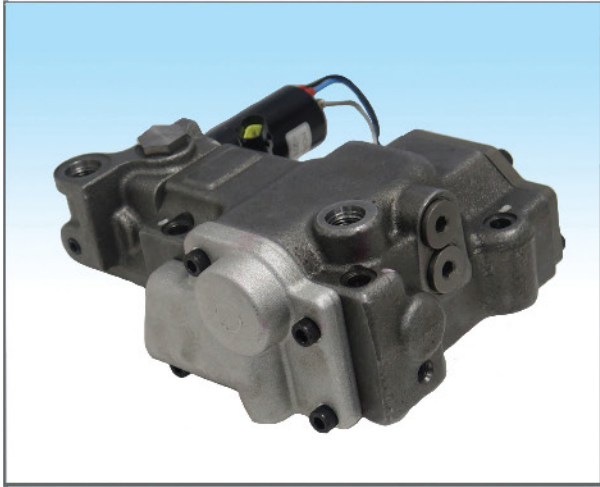
REGULATOR FOR H7V SERIES(9N00) TYPE



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

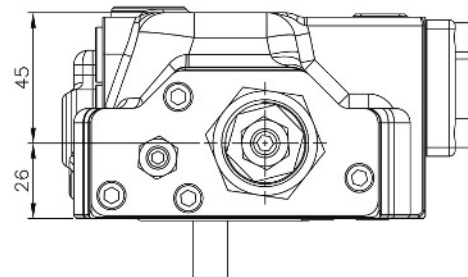
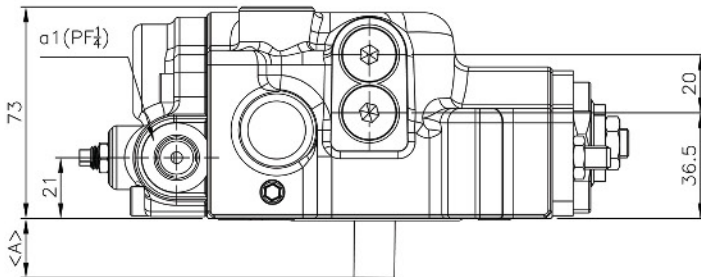
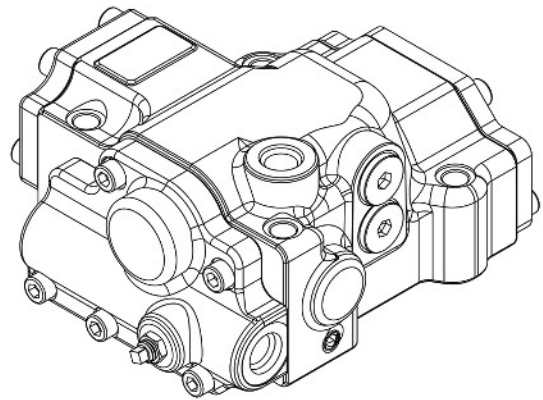
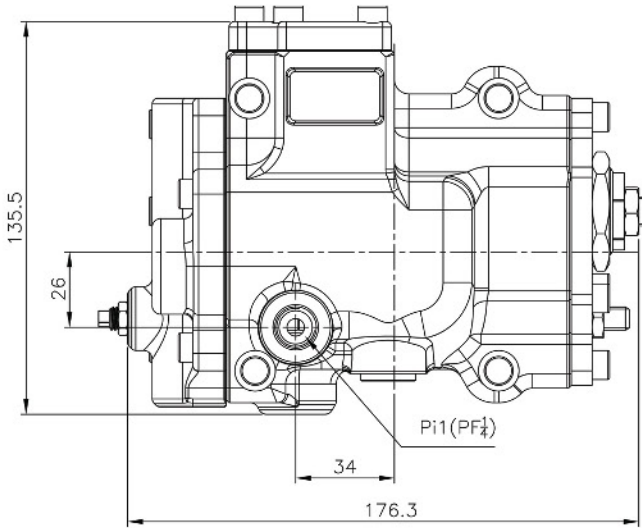
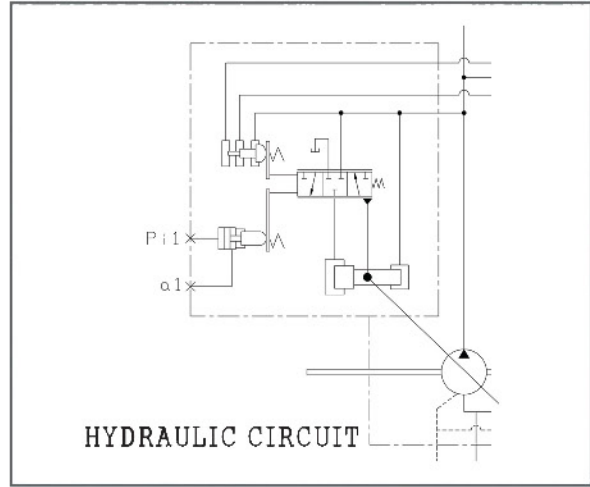
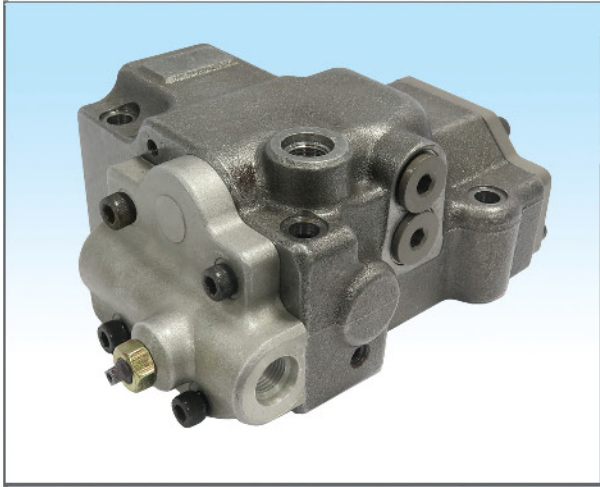
REGULATOR FOR H7V SERIES(9NOE) TYPE WITH EPR



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

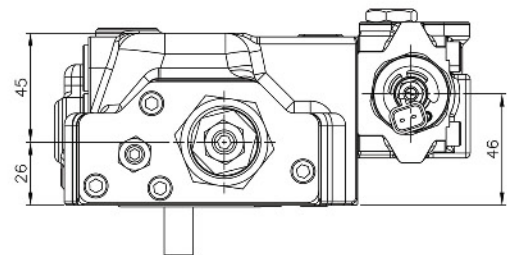
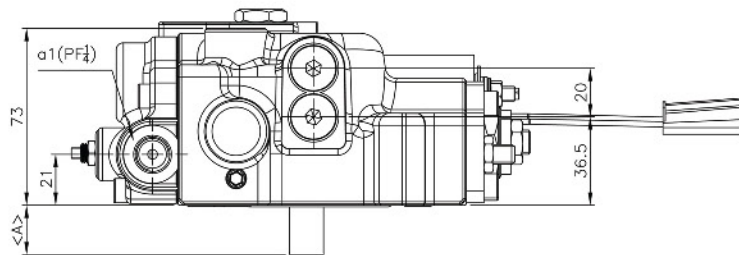
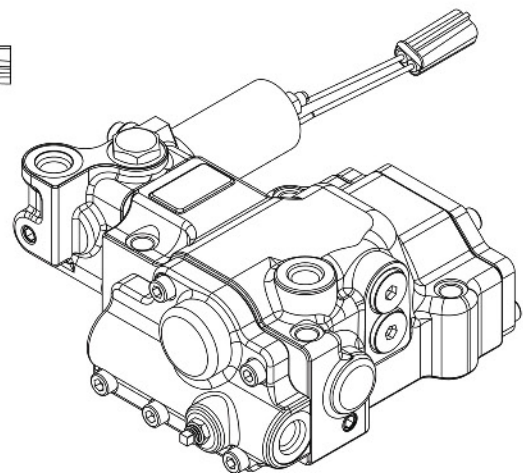
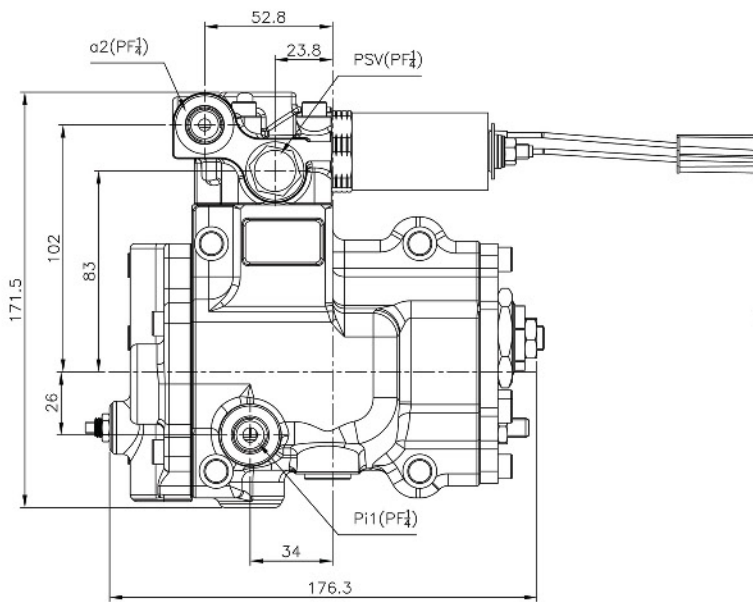
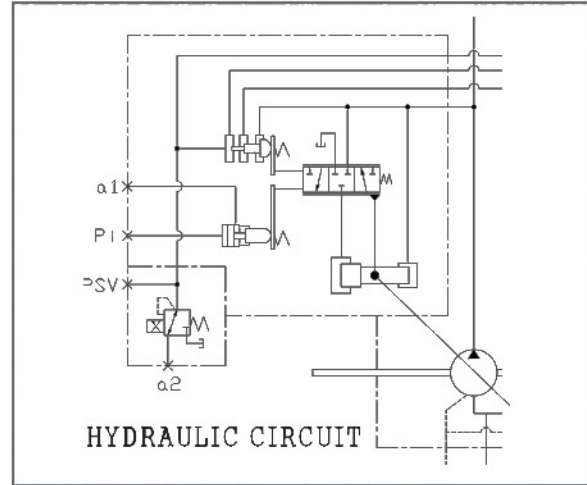
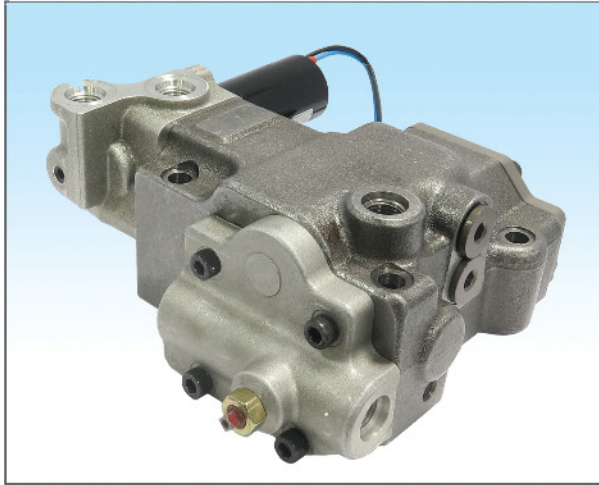
REGULATOR FOR H7V SERIES(9C00) TYPE



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

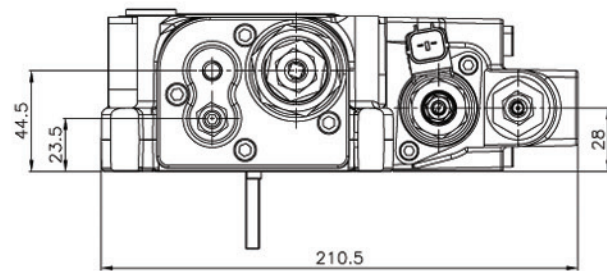
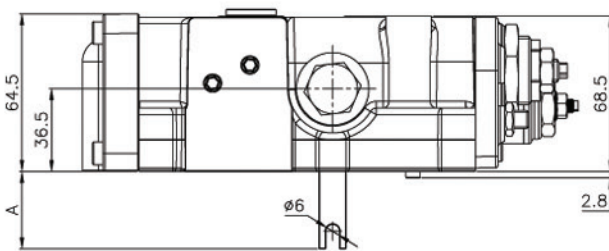
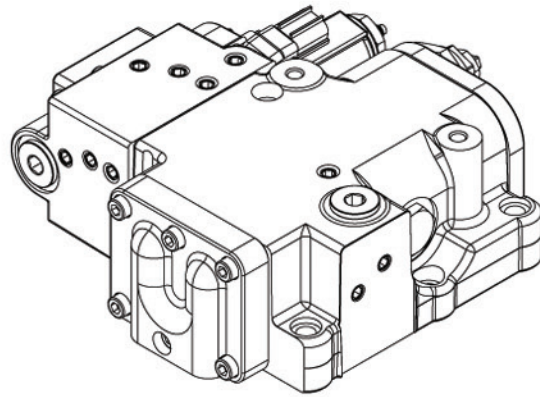
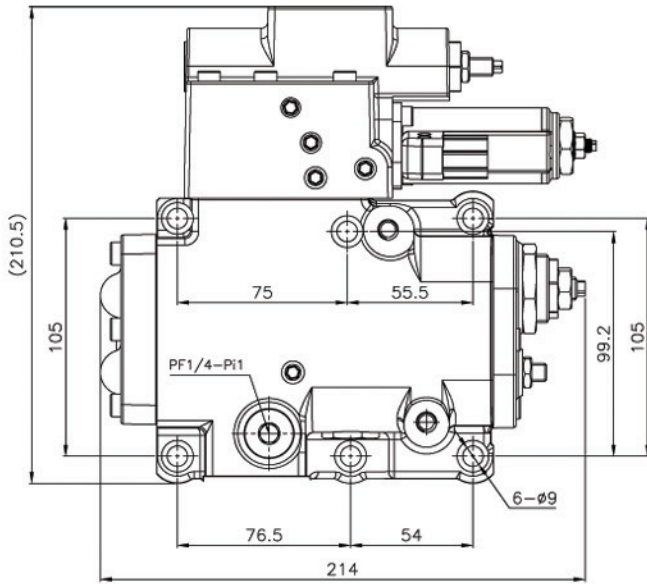
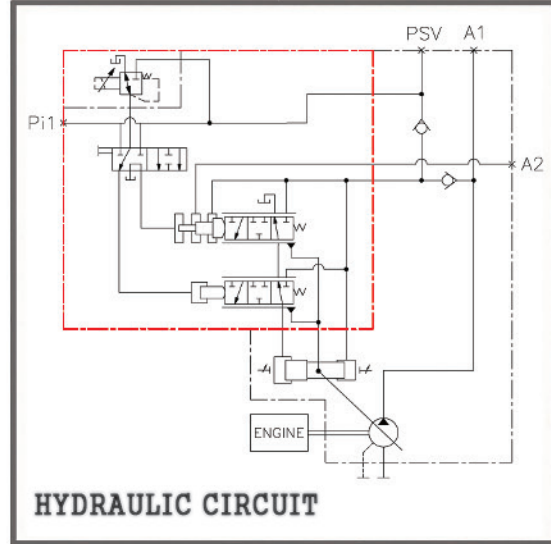
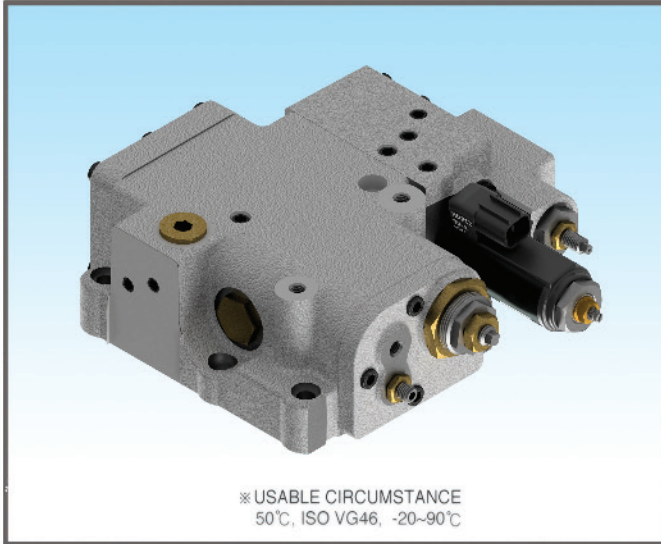
REGULATOR FOR H7V SERIES(9C00) TYPE WITH EPR



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

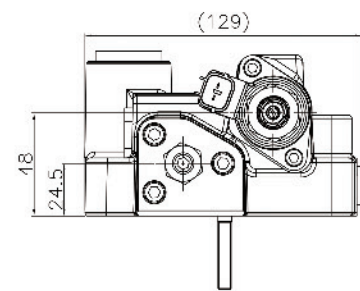
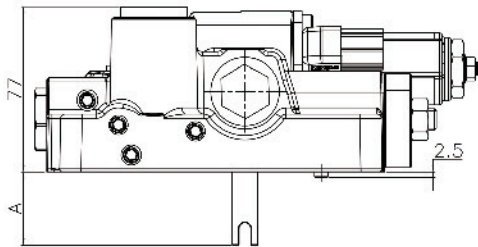
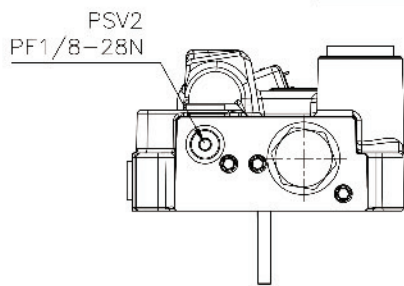
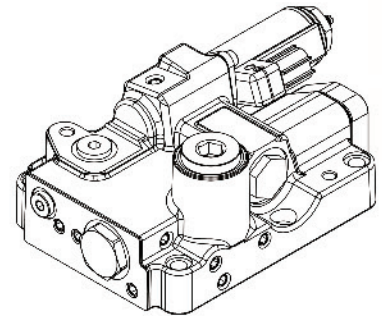
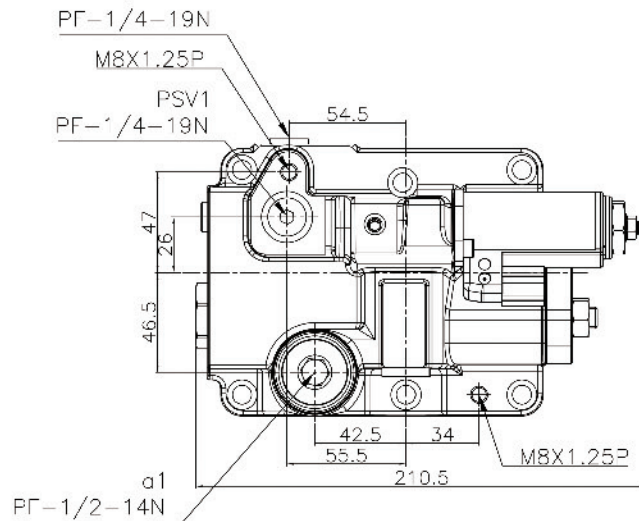
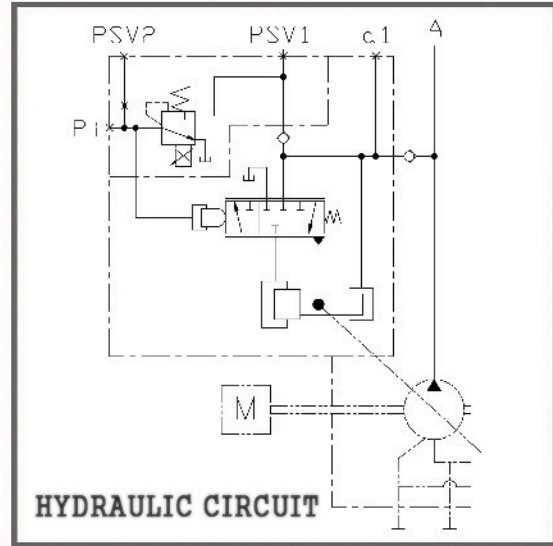
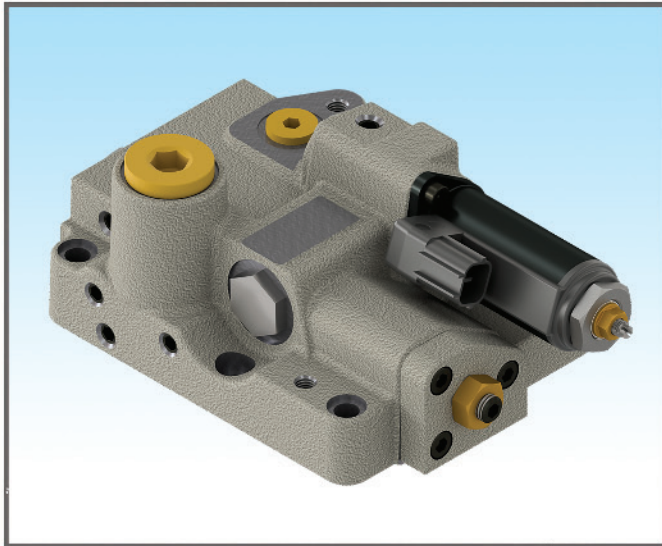
REGULATOR FOR H7V SERIES(9T00) TYPE



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V125 & 140 & 180	34.2
H7V280	48.2

REGULATOR FOR H7V SERIES(OE00) TYPE

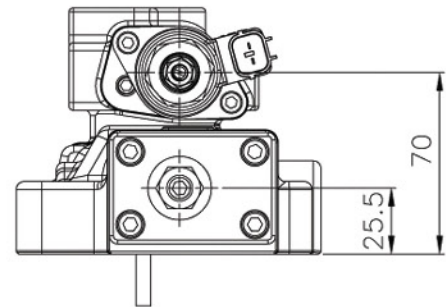
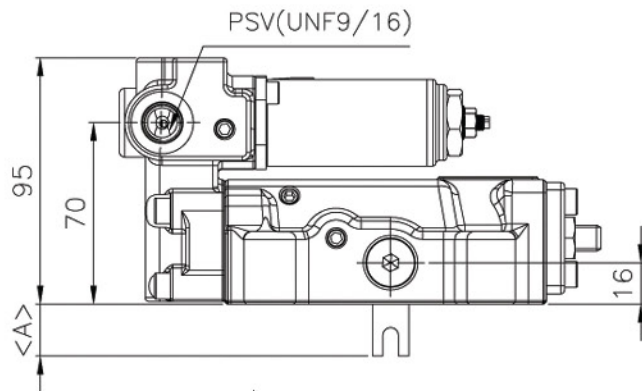
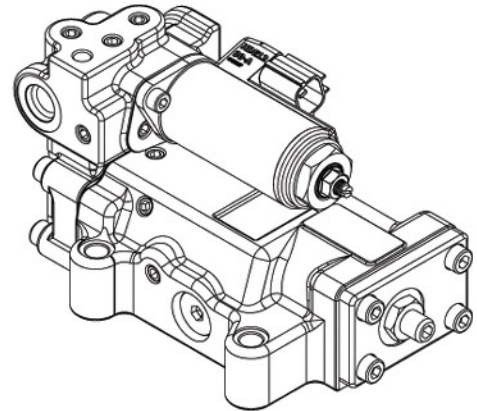
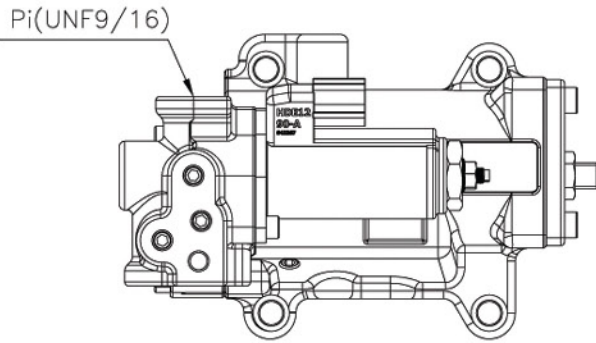
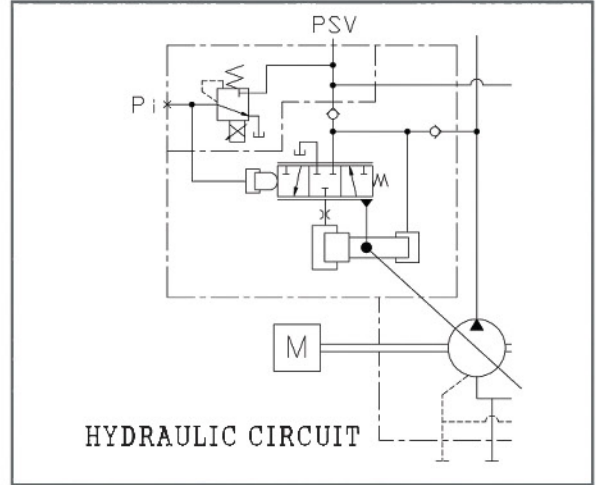


STANDARD DIMENSIONS

(mm)

MODEL	A
H7V125 & 140 & 180	34.2
H7V280	48.2

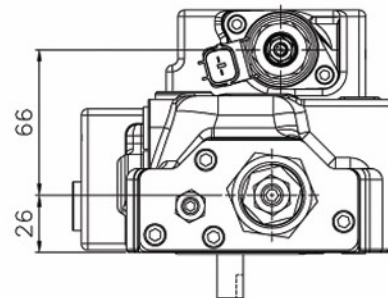
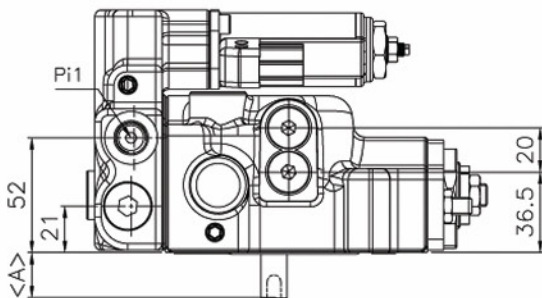
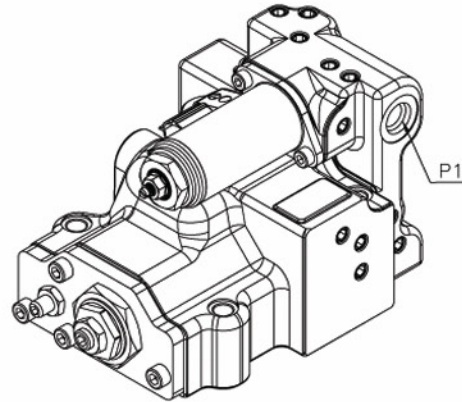
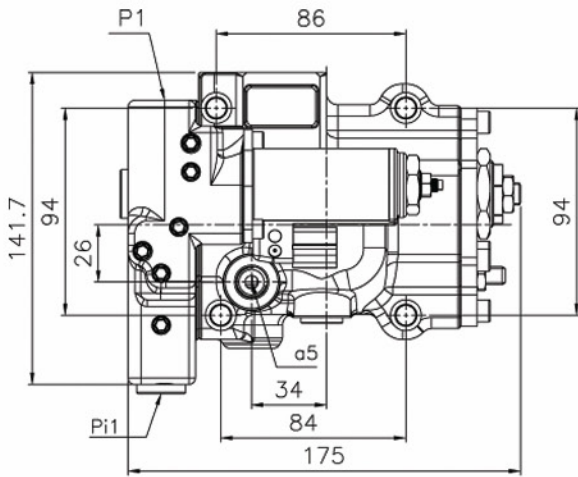
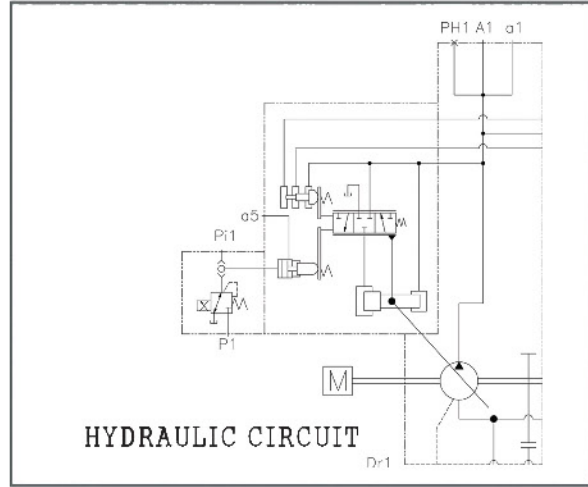
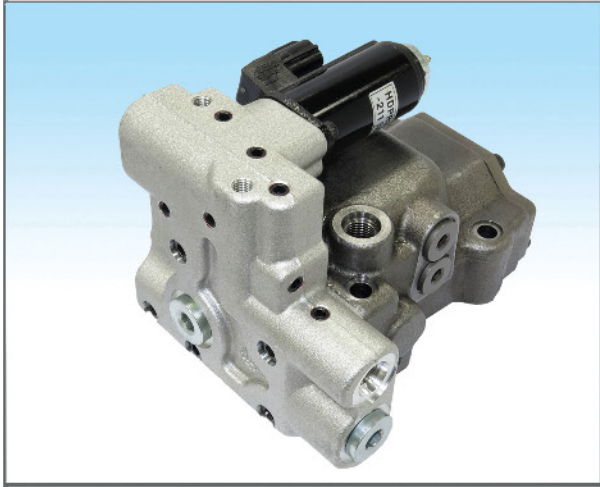
REGULATOR FOR H7V SERIES(OE43) TYPE



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

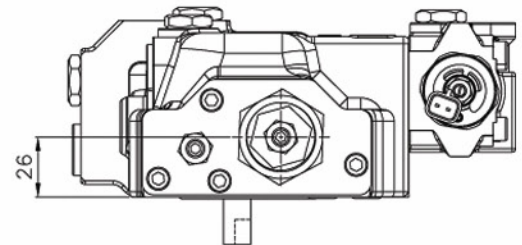
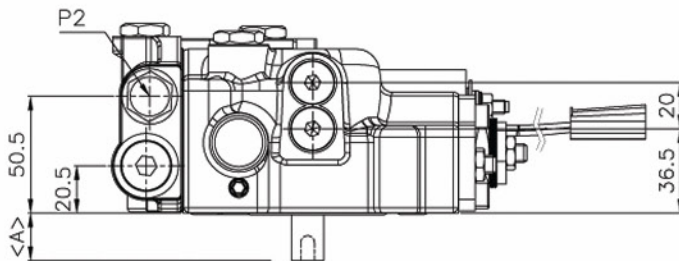
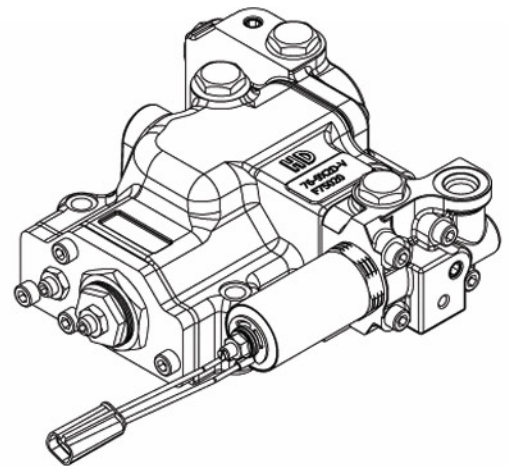
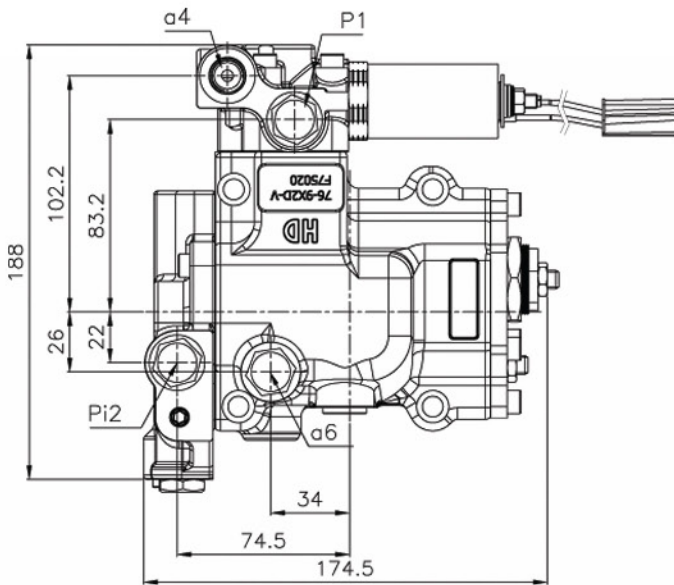
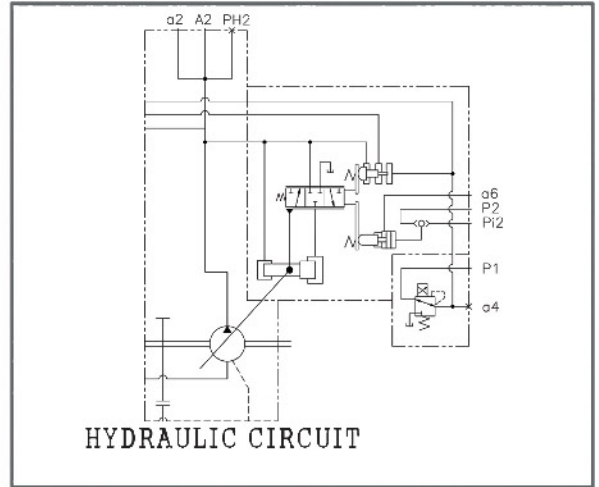
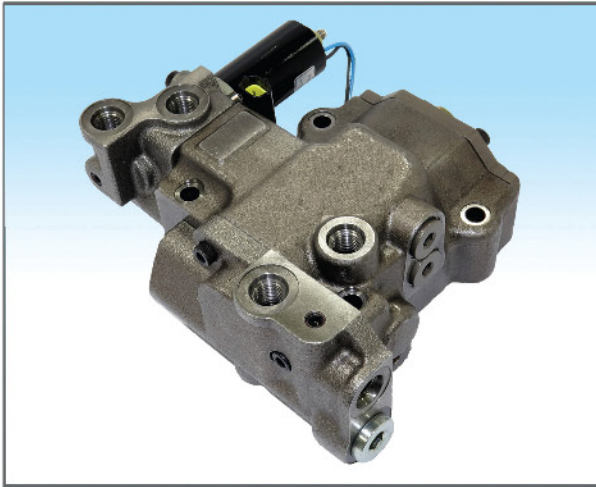
REGULATOR FOR H7V SERIES(9Y2C-F) TYPE



● STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

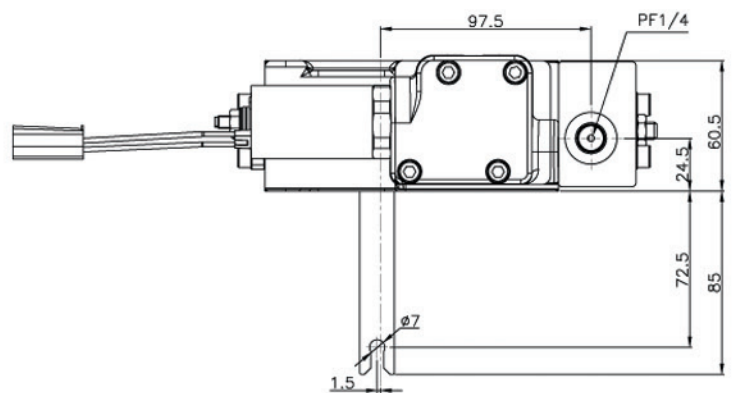
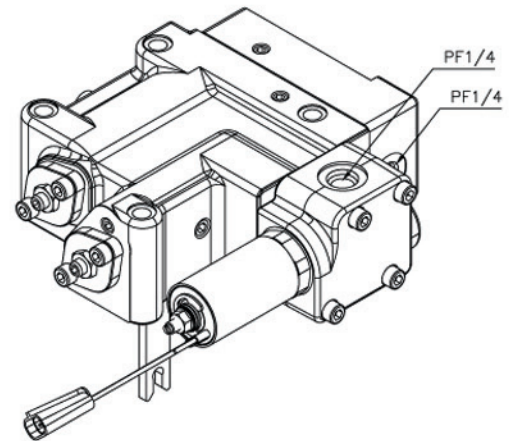
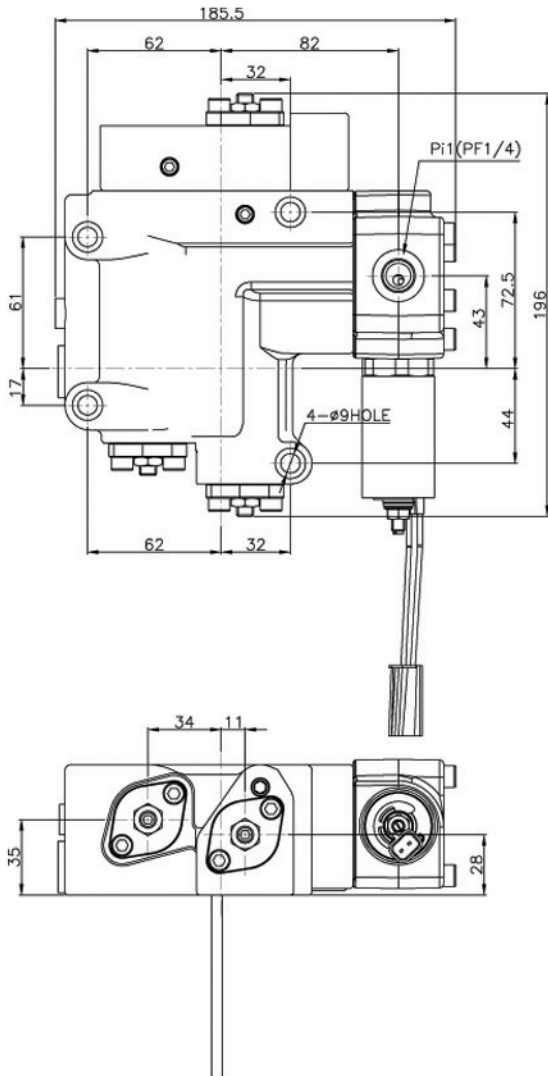
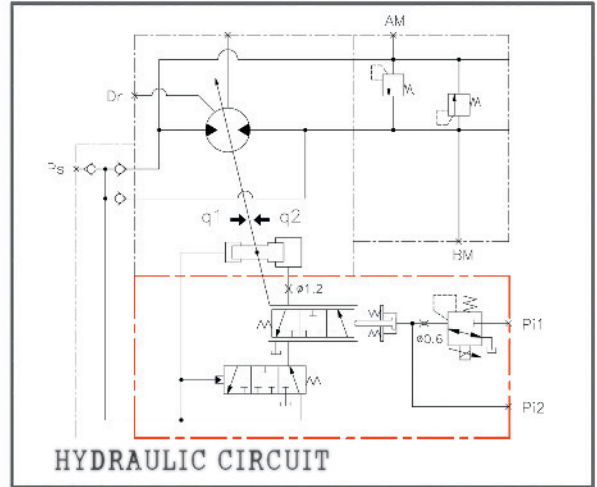
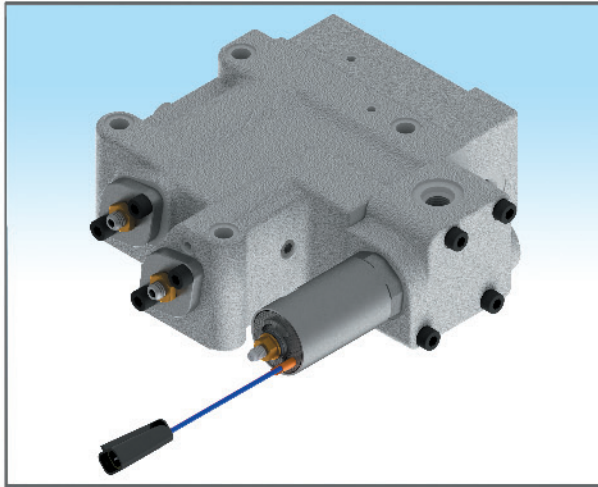
REGULATOR FOR H7V SERIES(9X2D-R) TYPE



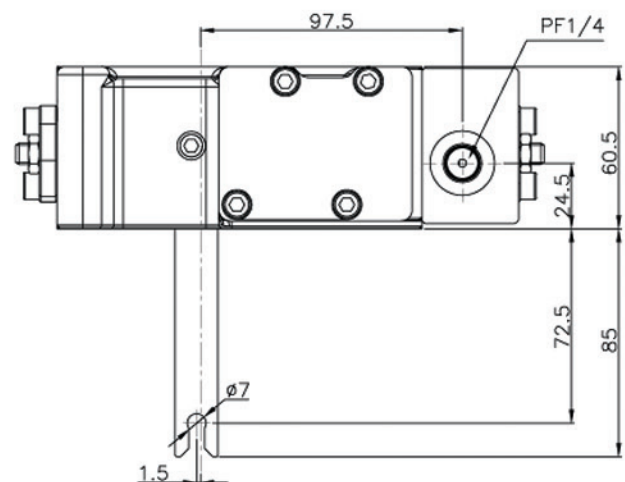
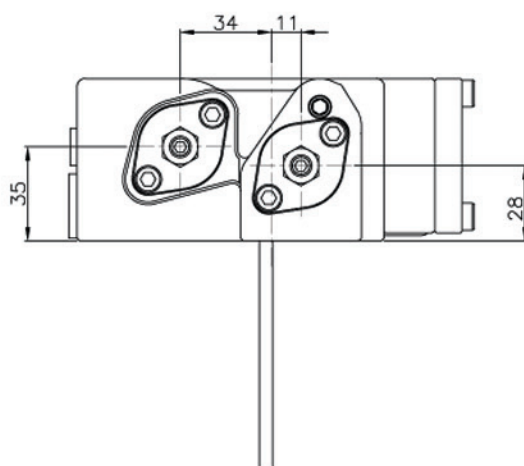
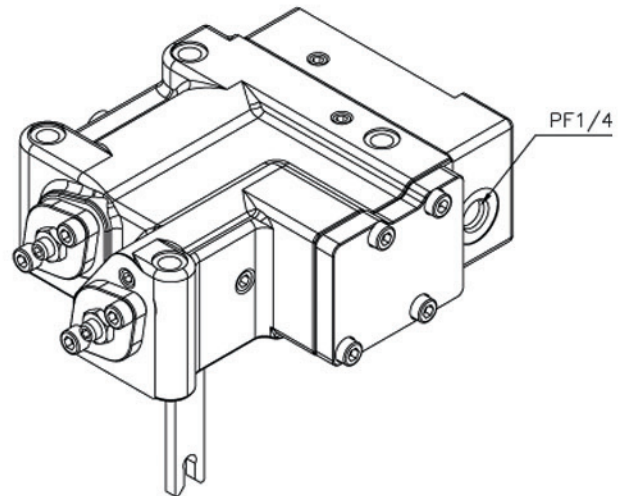
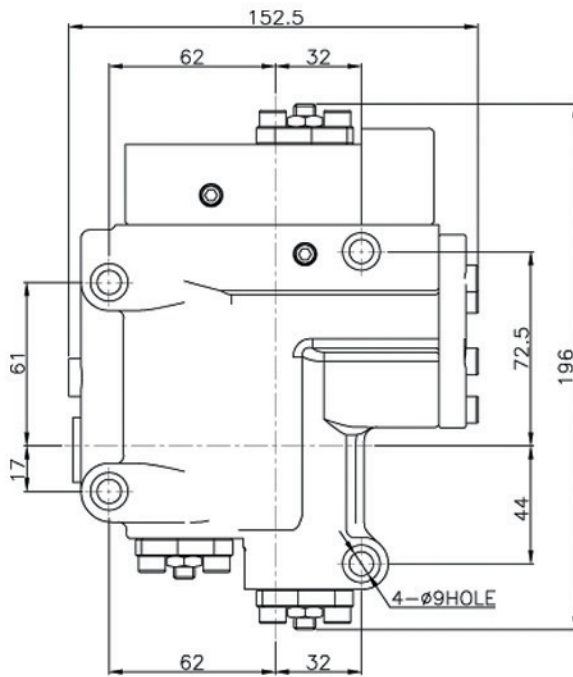
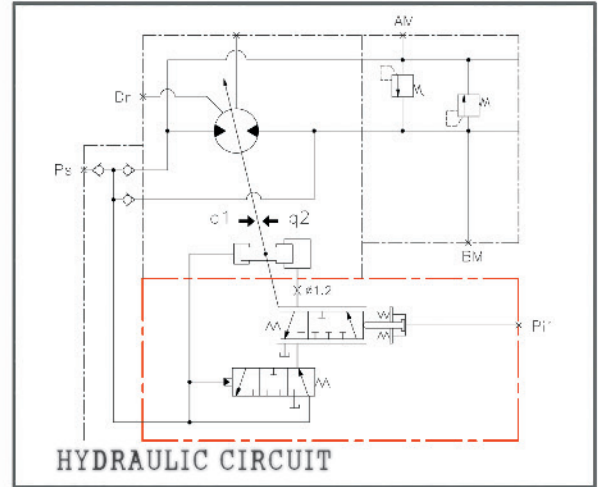
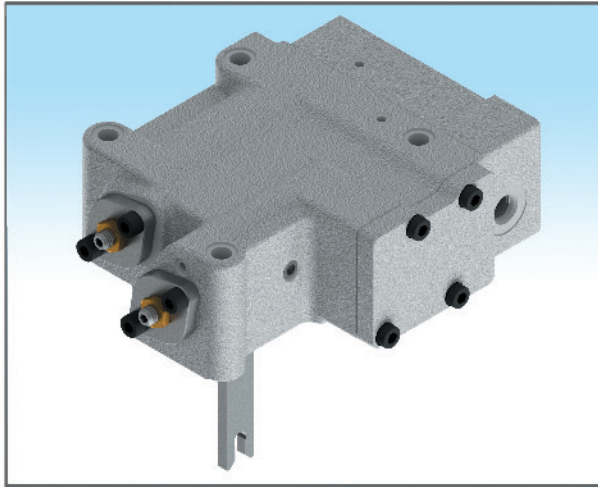
STANDARD DIMENSIONS (mm)

MODEL	A
H7V63	20.5
H7V100	30.5

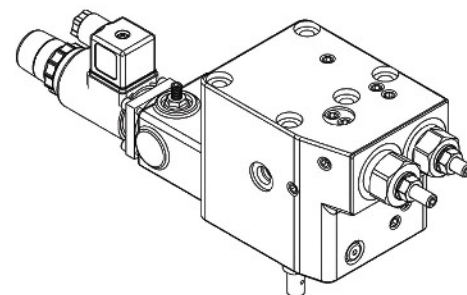
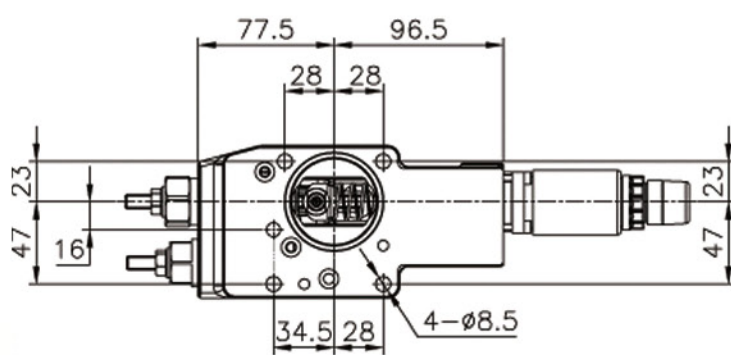
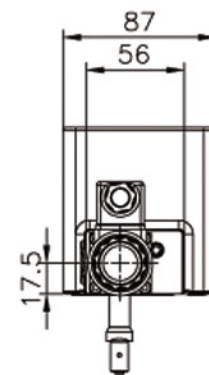
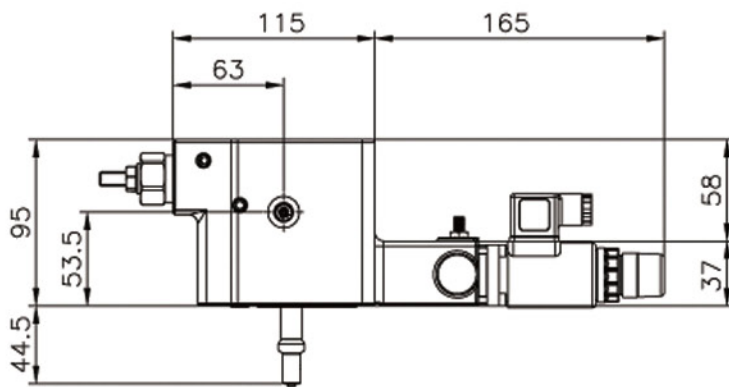
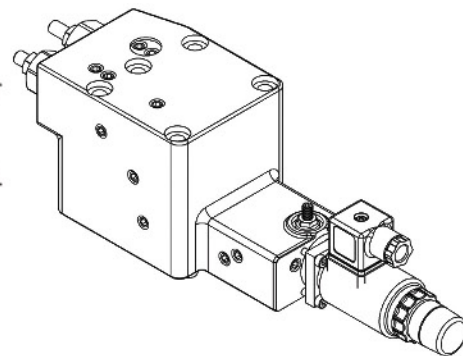
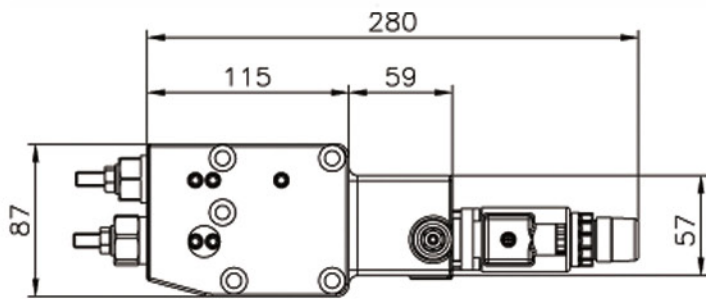
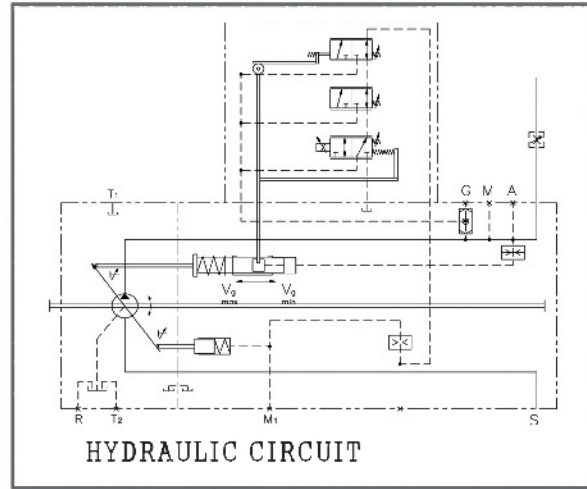
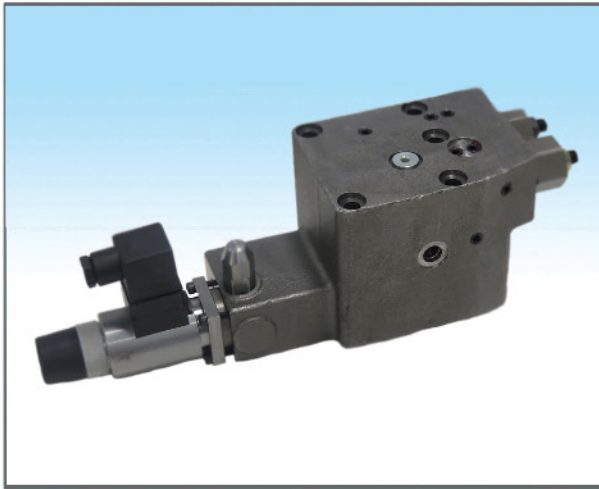
REGULATOR FOR H3B530/800AP (WITH EPR)



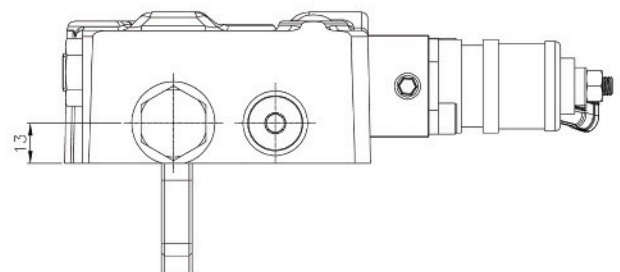
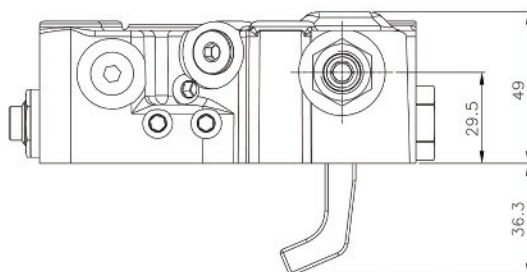
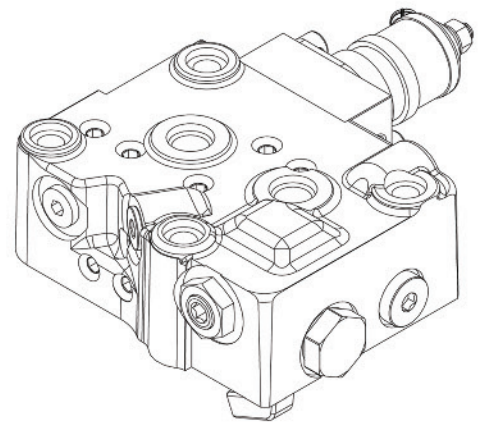
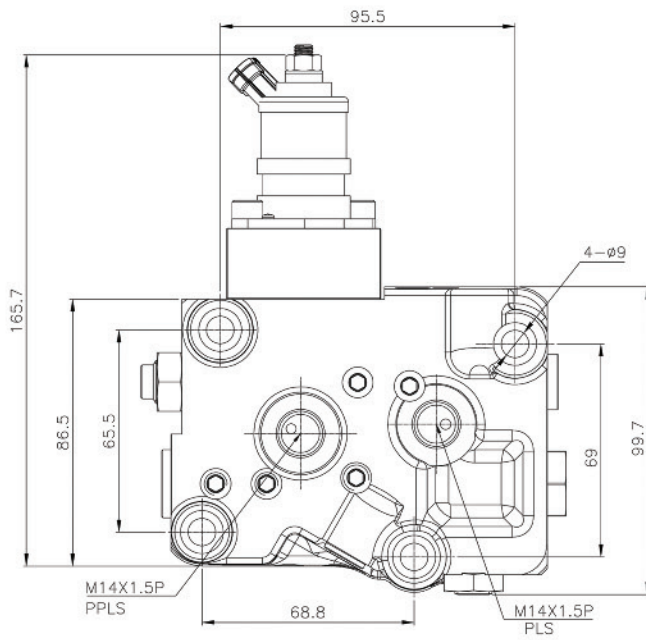
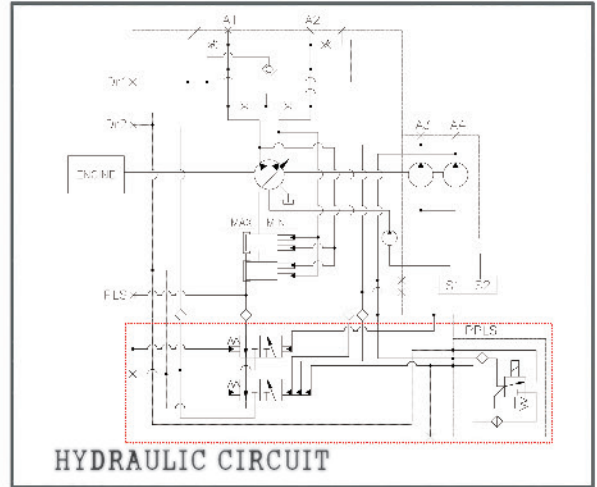
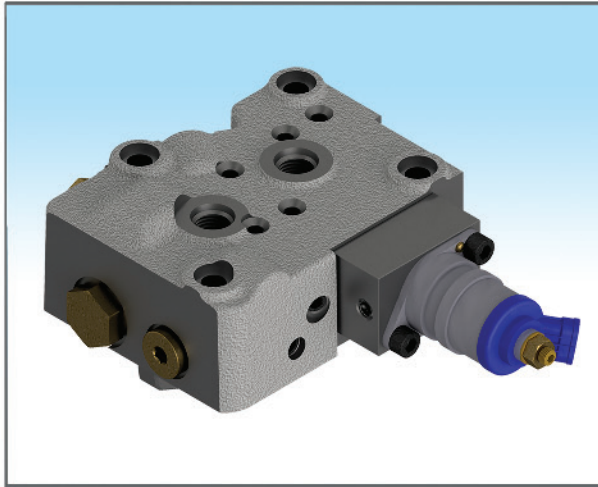
REGULATOR FOR H3B530/800AP (WITHOUT EPR)



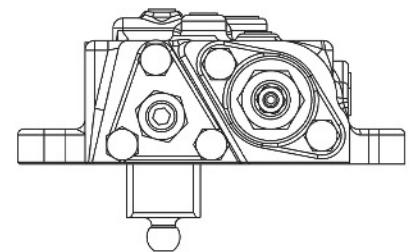
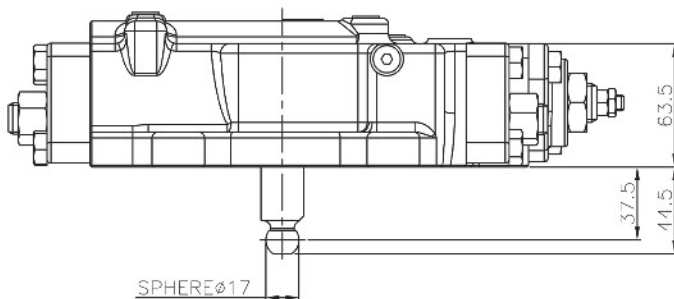
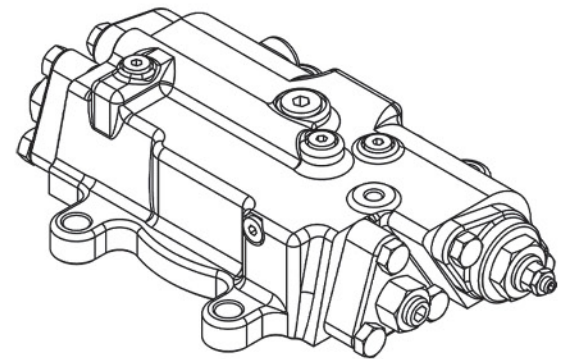
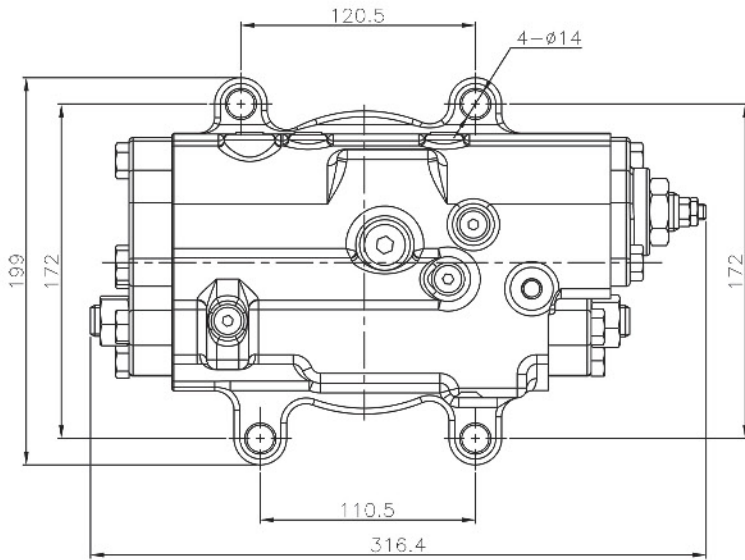
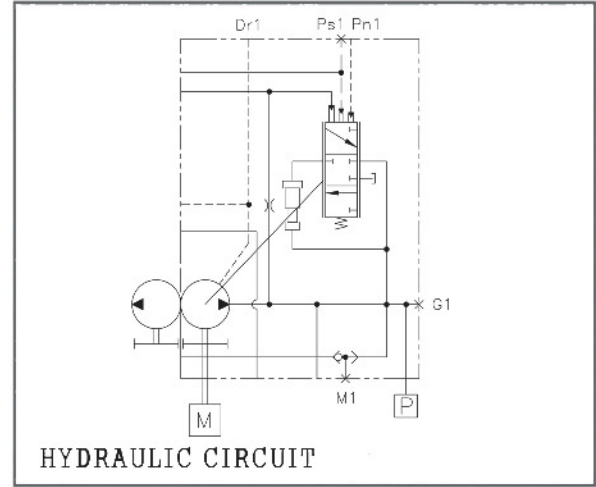
REGULATOR FOR H11VLO190&260LRDU TYPE



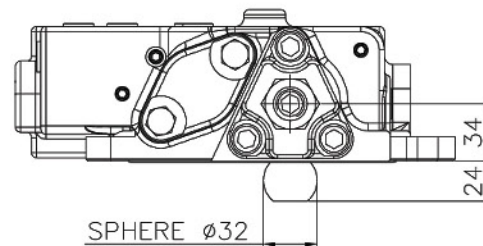
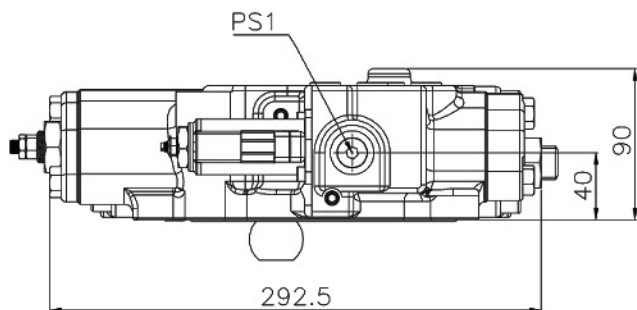
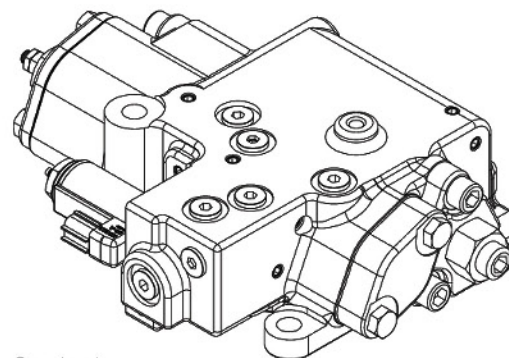
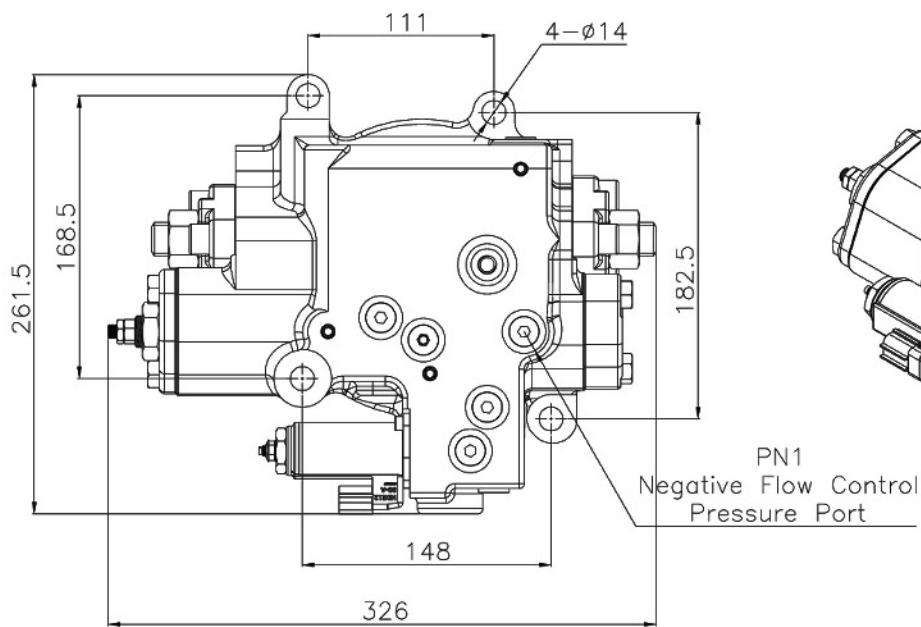
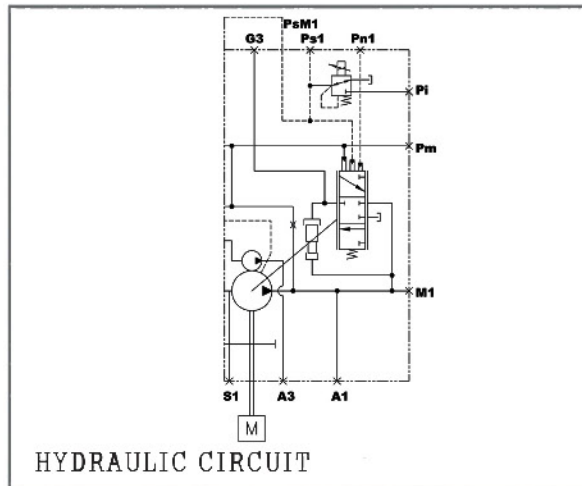
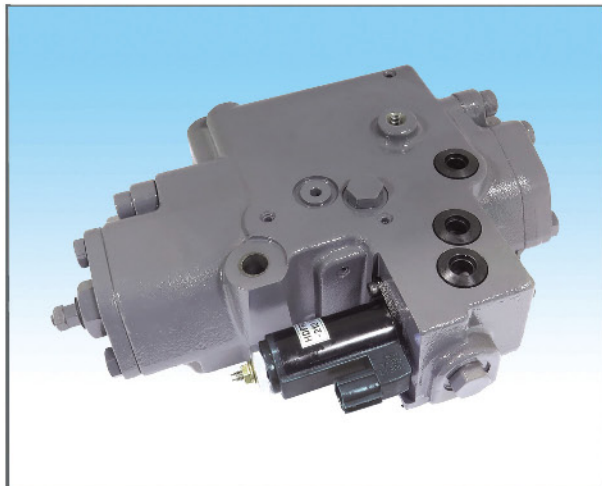
REGULATOR FOR KOMATSU



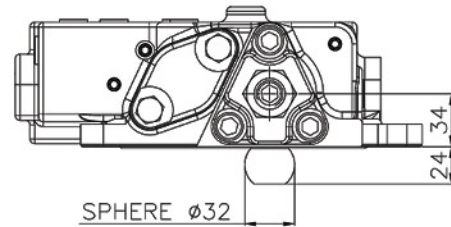
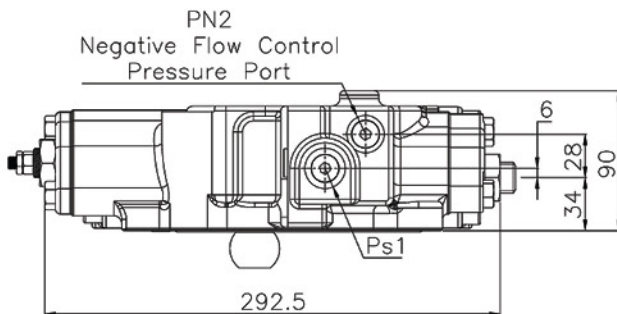
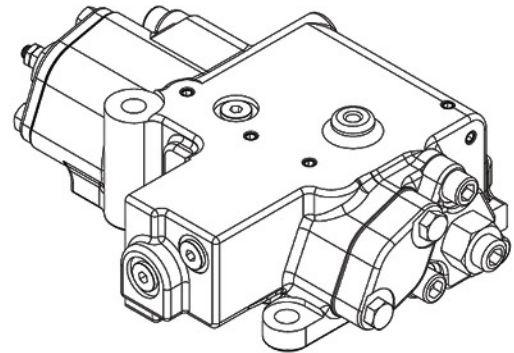
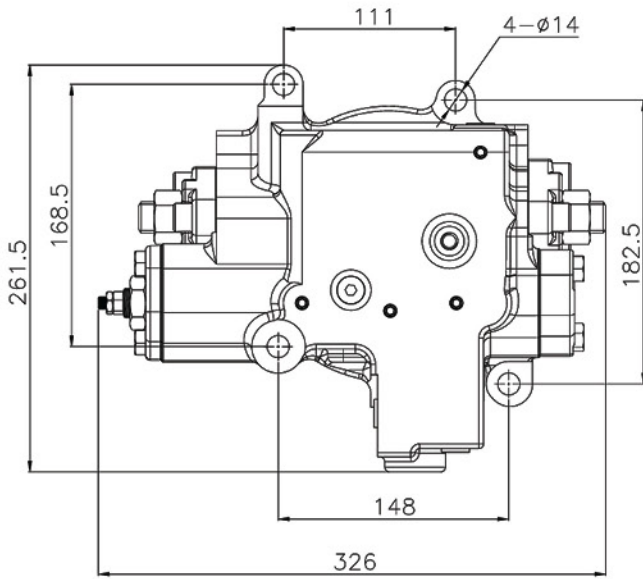
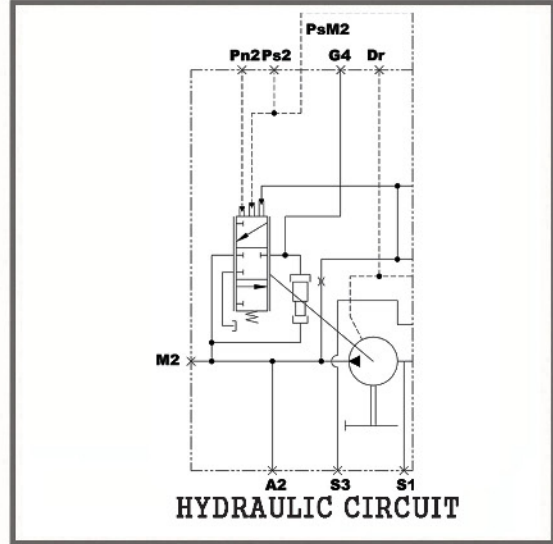
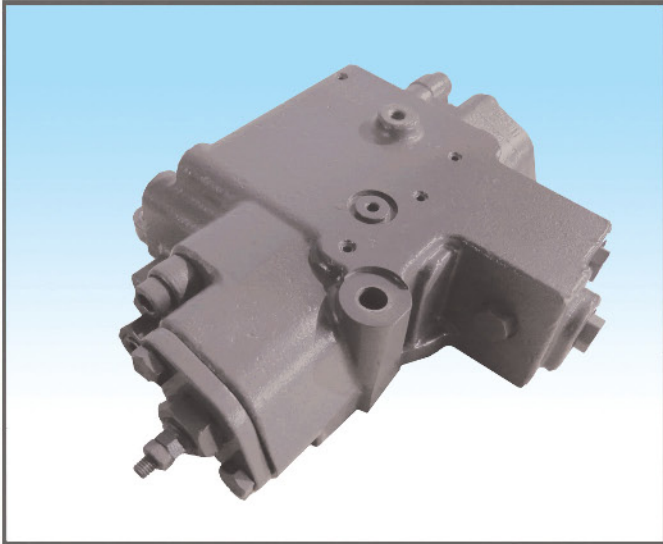
REGULATOR FOR CATERPILLAR(HBS80)



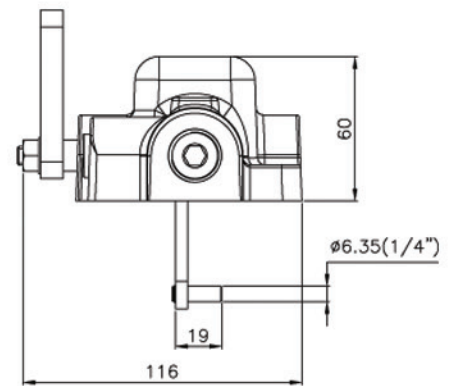
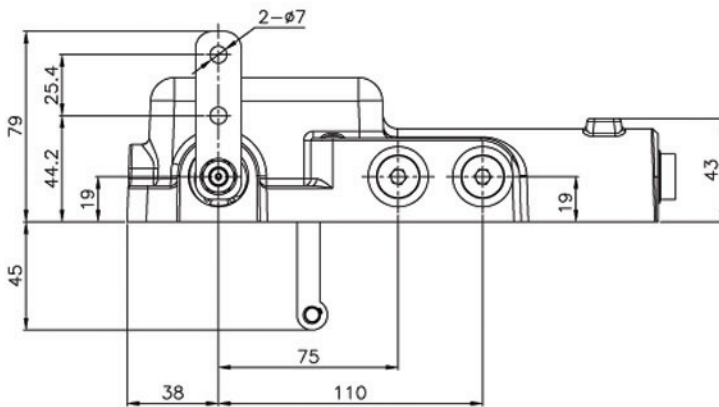
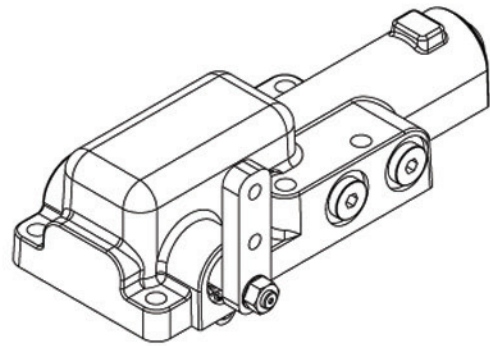
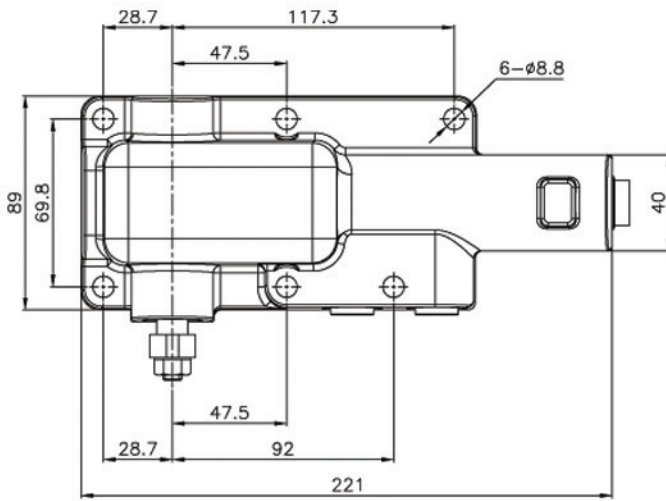
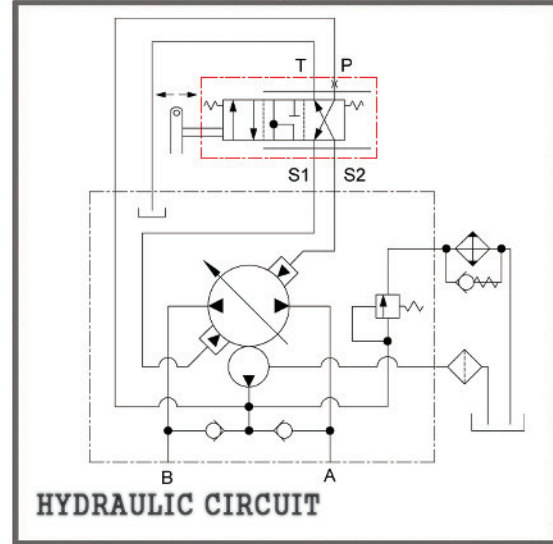
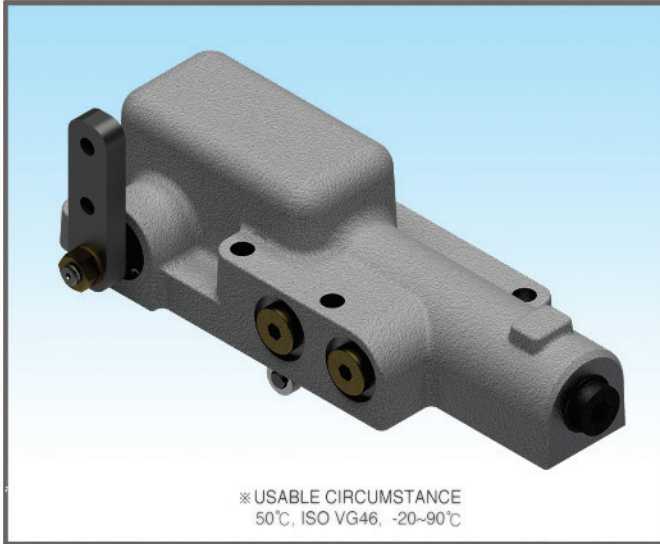
REGULATOR FOR CATERPILLAR(HBS120&140) FRONT TYPE



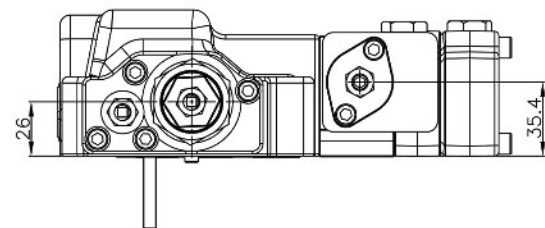
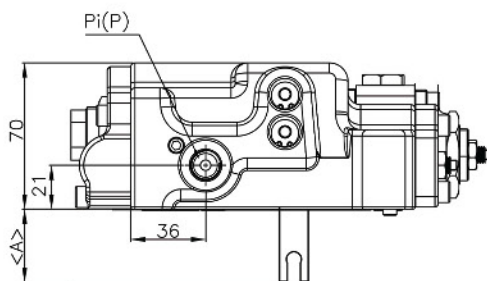
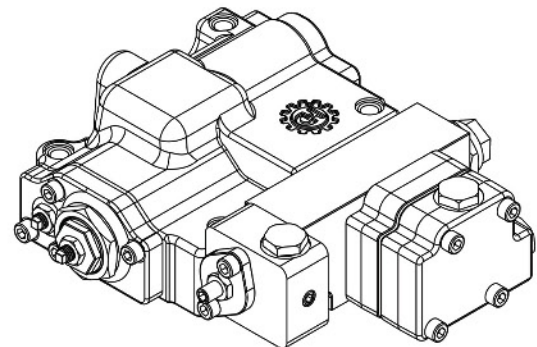
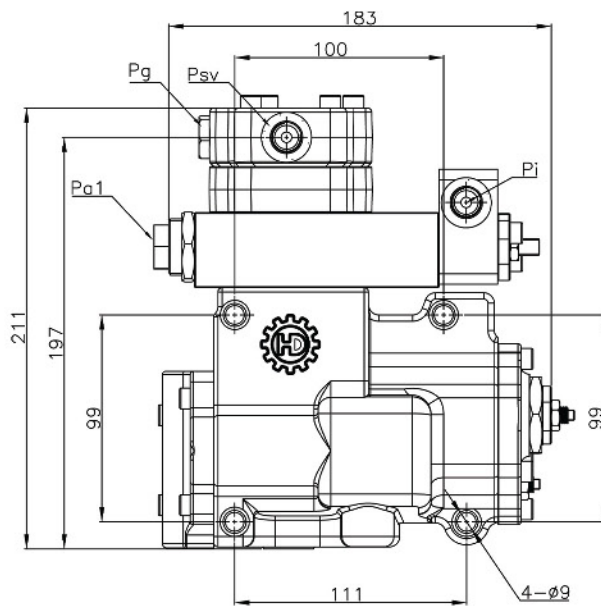
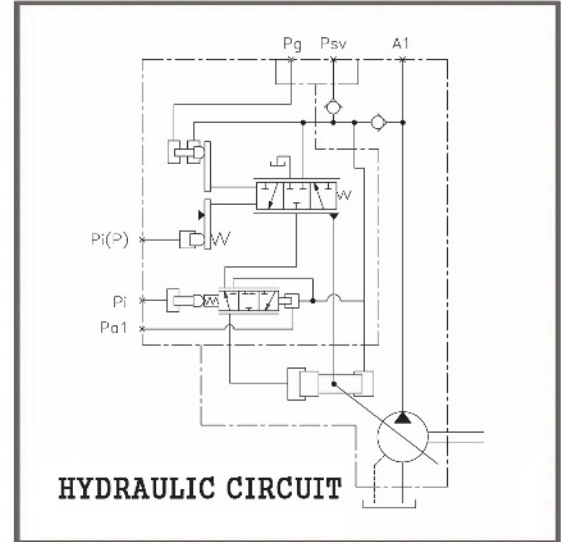
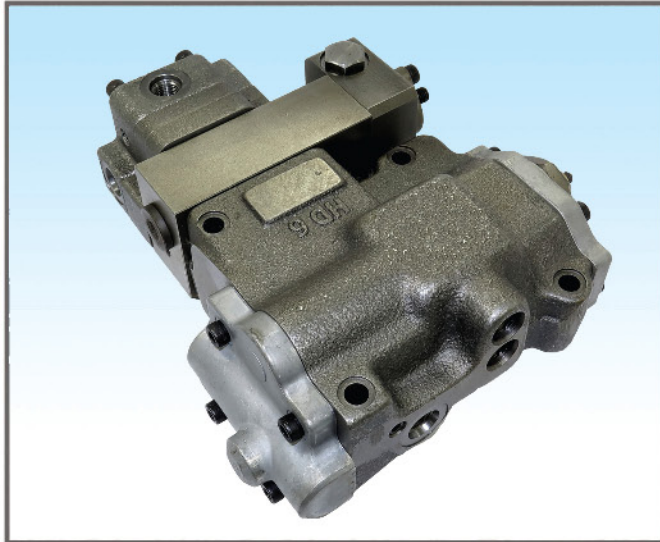
REGULATOR FOR CATERPILLAR(HBS120&140) REAR TYPE



REGULATOR FOR HPC90(EATON54) CLOSE CIRCUIT



REGULATOR FOR HITACHI FNOM(FRONT) TYPE

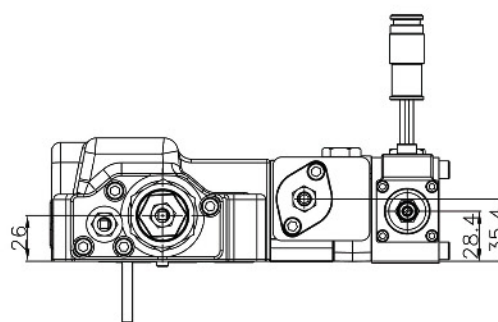
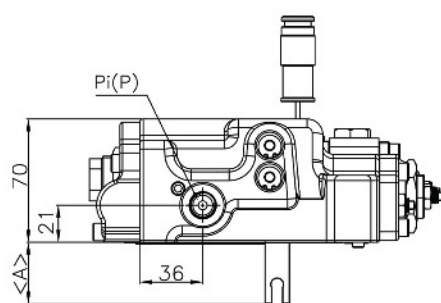
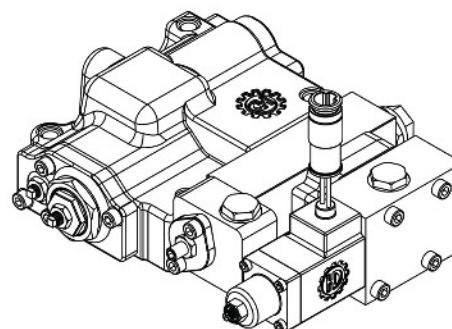
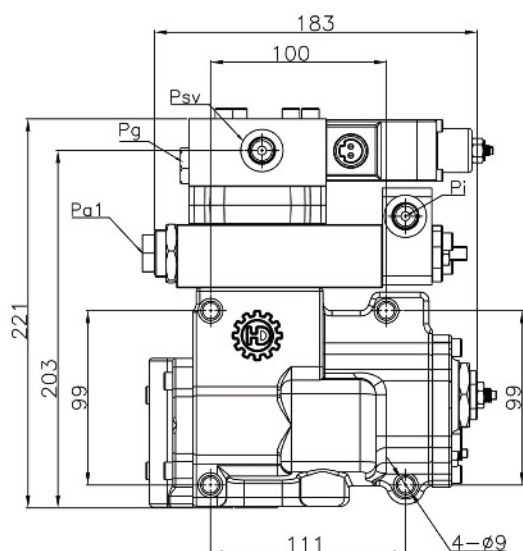
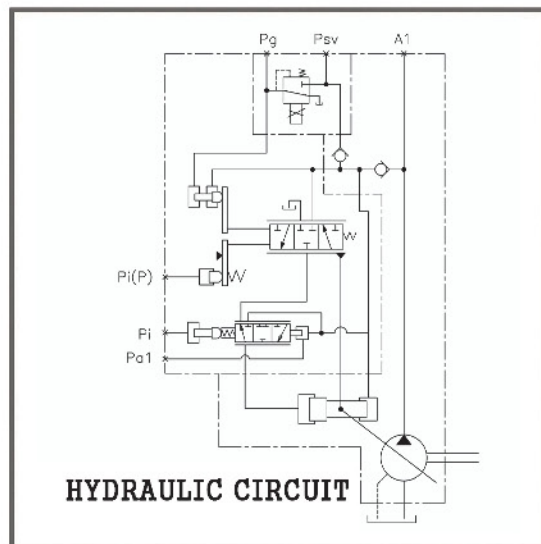
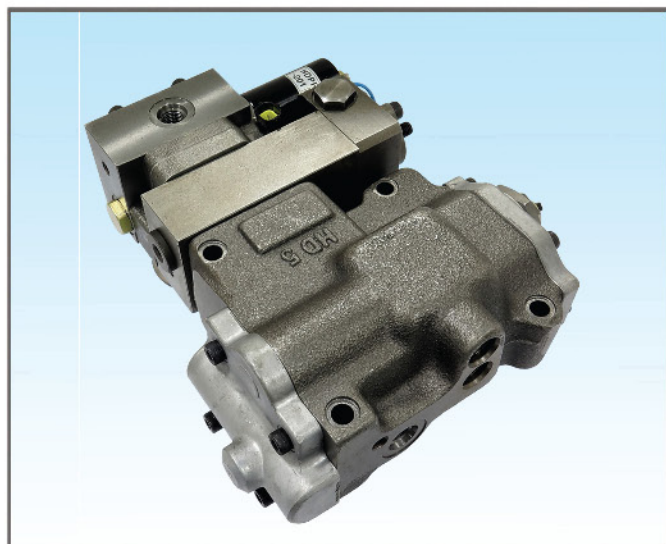


● STANDARD DIMENSIONS

(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

REGULATOR FOR HITACHI FNOS(REAR) TYPE

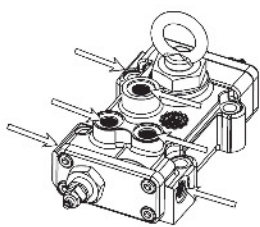
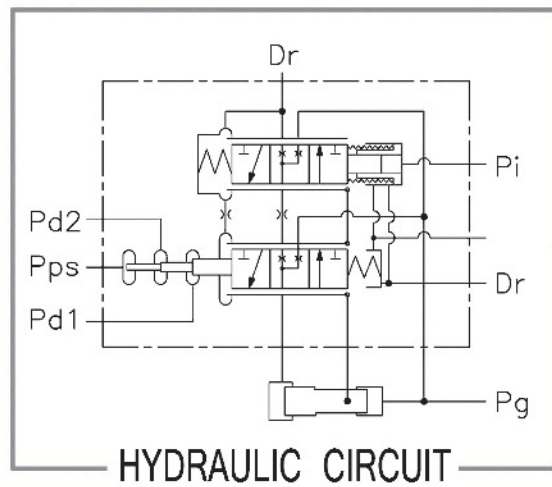
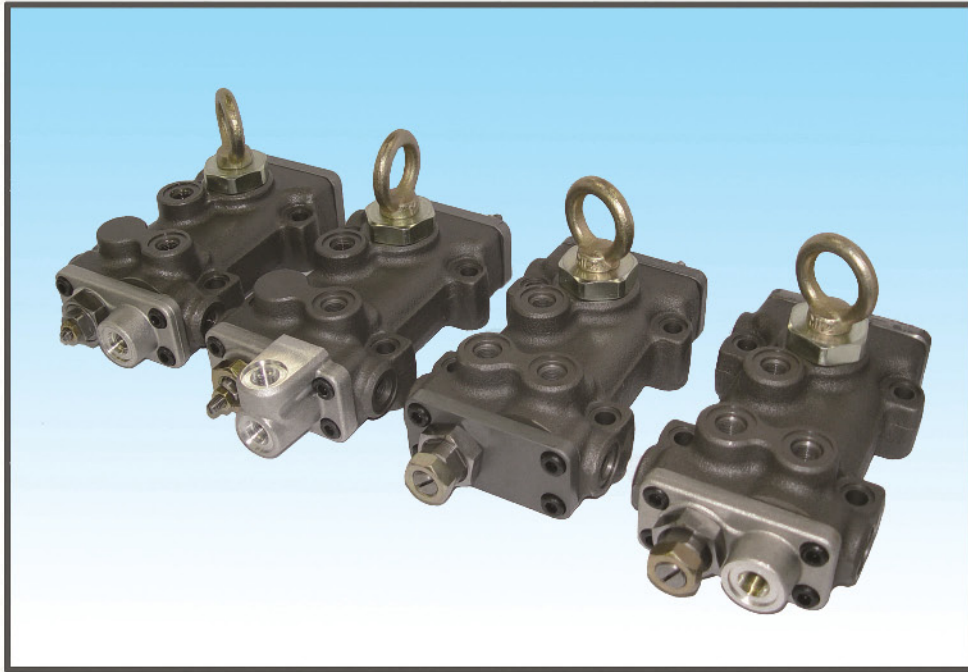


STANDARD DIMENSIONS

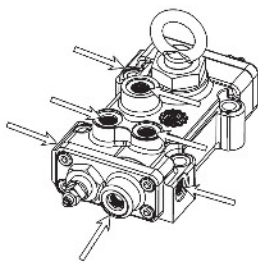
(mm)

MODEL	A	MODEL	A
H3V63	22	H5V80	40.5
H3V112	36	H5V140	48
H3V140&180	57	H3V280	75.7
H5V160 & 200	66	H5V160DPH & 200DPH	

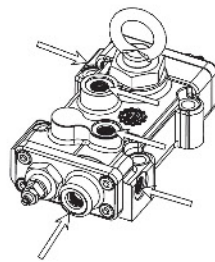
REGULATOR FOR HPV116/145(C/D/F/G/H/J)TYPE



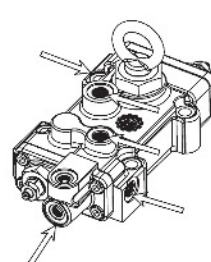
**6-PORT
HPV145(C&D-TYPE)**



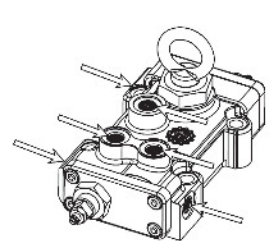
**7-PORT
HPV145(F-TYPE)**



**5-PORT
HPV145(J/G-TYPE)**

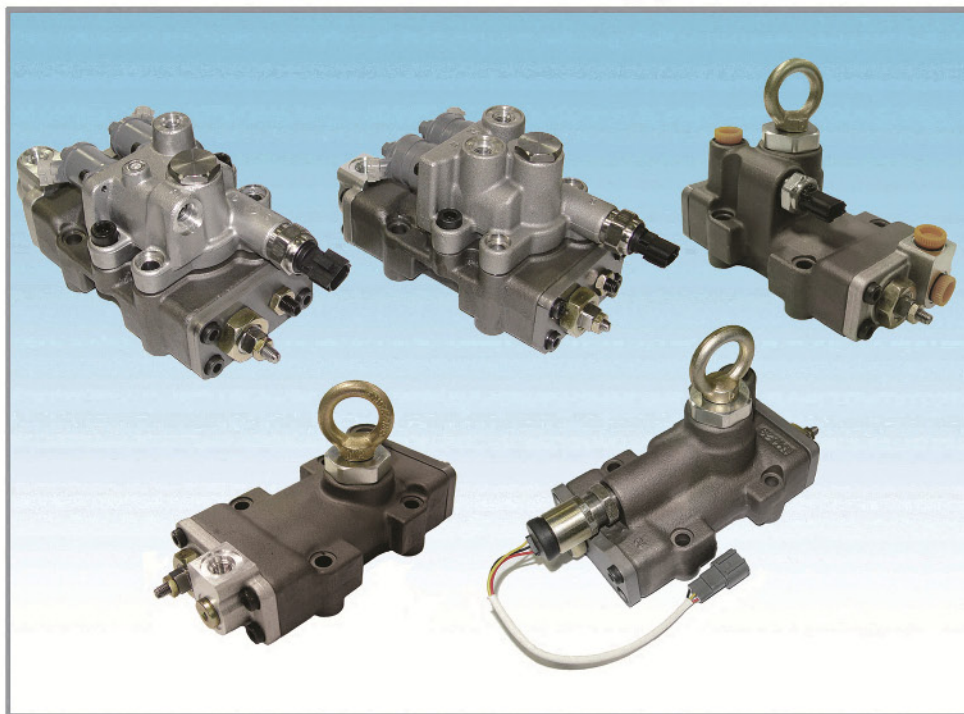


**5-PORT
HPV145(H-TYPE)**



**6-PORT
HPV116(6-PORT)**

REGULATOR FOR HPVO102 & HPVO118 TYPE



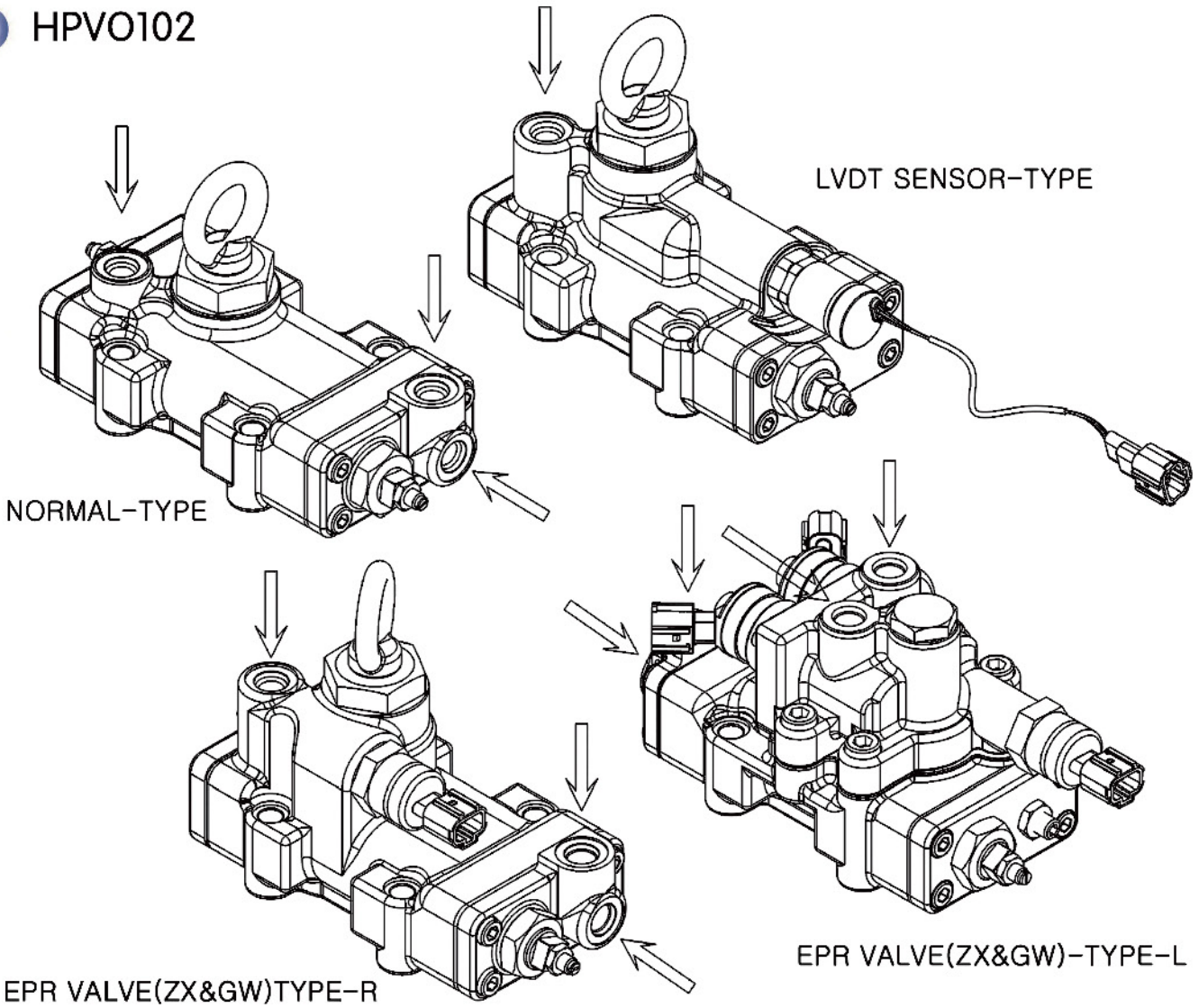
<<HYDRAULIC CIRCUIT>>

HPVO102		HPVO118
NORMAL-TYPE	EPR VALVE(ZX&GW)TYPE-R	EPR VALVE(ZX&GW)TYPE-R
LVDT SENSOR-TYPE	EPR VALVE(ZX&GW)TYPE-L	EPR VALVE(ZX&GW)TYPE-L

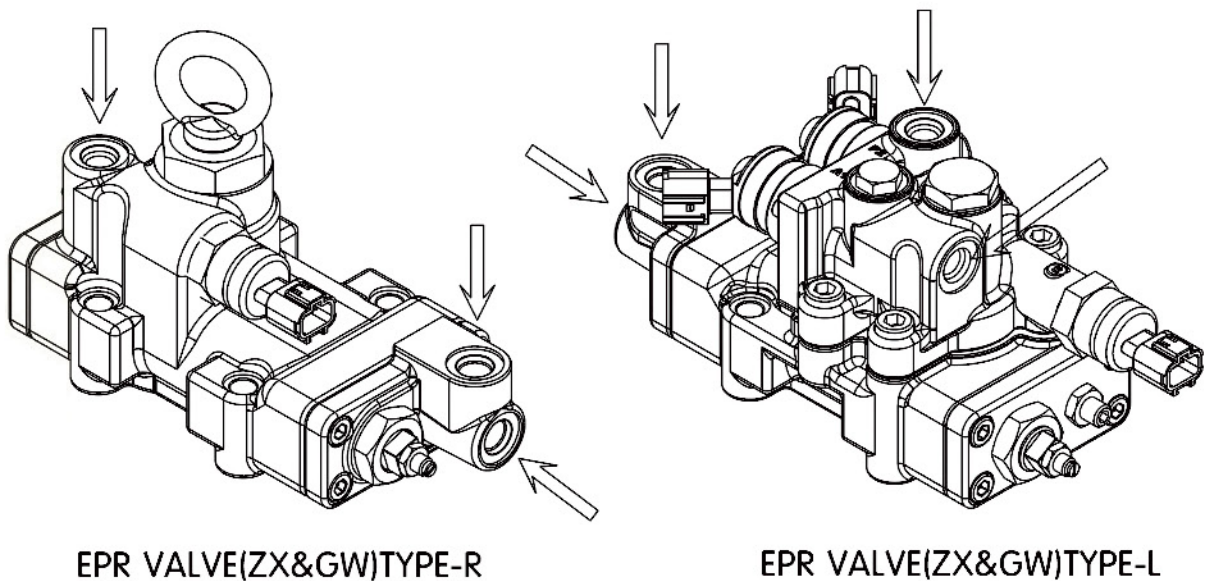
REGULATOR FOR HPVO102 & HPVO118 TYPE



HPVO102



HPVO118



HAN DOK HYDRAULIC



Power of Hydraulic

HSVD2-SERIES



HP2D-SERIES



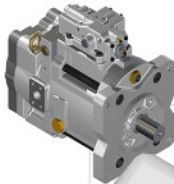
H3V.SP-SERIES



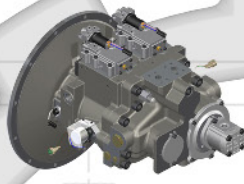
H10VO-SERIES



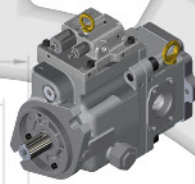
H5VG200SH



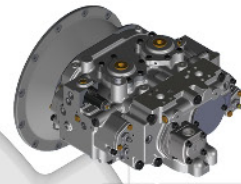
H5V.DPH-SERIES



H3VL-SERIES



HBS-SERIES



HAG-SERIES



H2FO/H2FM-SERIES



HM SERIES



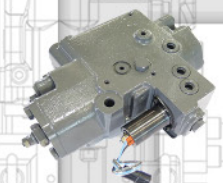
H3SP30/36



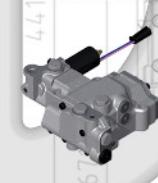
3E00



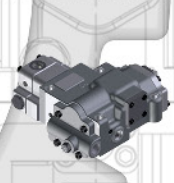
HBS-SERIES



H7V-SERIES



9C WITH MANIFOLD



9N WITH EPR



A10V-SINGLE



A10V-DOUBLE



HGP-DOUBLE



HGP-SINGLE



AP2D-DOUBLE



PVD-SERIES



SBS-SERIES



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PCDφ427.8

6
14

684.8

4.73

4.4

SUCTION PORT

2-DELIVERY PORT

GEAR PUMP SUCTION PORT

2-DELIVERY PORT

200

136

164

263

29

28

87

GEAR PUMP DELIVERY PORT