Content

Usage Guide

In order to make the motors working in optimal situation, we recommend the following:

1. Oil temperature :normal 20℃~60℃ upper limit 90℃(no more than one hour).
2. Filtering and oil cleanliness :a return filter should be installed in the system with a fineness in the range of 10~30μm and a piece of magnet should be installed at the bottom of the tank to prevent grits into the system. The max solid contamination grade of the oil is no more than 19/16.
3. Viscosity: 42~74 mm^2/s at 40℃ of oil temperature ,according to the condition to choose an applicable hydraulic oil.
4. The motors can be operated in parallel or in series. When the pressure of the back exceeds 2MPa,it is necessary to install an external drain line to the tank.

5.1 For BMM and BMP and BMR series motors,the type of output shaft may be chosen in demand.

5.1.1 The output shaft permits a radial force with the radial bearing.

5.1.2 The output shaft doesn' t permit the radial force without the radial bearing.When the radial force acts on the shaft,the force must be discharged.

5.2 For BMS、BMSY、BMT 、BMV and BMK6 series motors, the output shaft permit high axial and radial forces.

6. The optimal operation situation should be at the 1/3~2/3 of the rated operation situation.
7. In order to obtain a longer life of operating motor should operate motors at first for one hour under 30% of rated pressure. In any case, be sure to fill up with hydraulic oil inside motor before increasing load.

Specification Data of Hydraulic Motors

Distribution type	Model	Displacement (cm^3/rev.)	Max. operating pressure (MPa)	Speed range (rpm)	Max. output power (kW)
Axial distribution	BMM	8~50	14	30-1950	3.2
	BMP	36~400	16.5	30~879	10
	BMR	36~375	20	30~970	15
	BMH	200~500	20	30~430	17

Specification Data of Hydraulic Motor

Distribution type	Model	Displacement (cm^3/rev.)	Max. operating pressure (MPa)	Speed range (rpm)	Max. output power (kW)
Disc distribution	BMS	80~375	22.5	30~800	20
	BMSY	80~475	22.5	8~800	24
	BMT	160~800	24	30~705	35
	BMV	315~800	28	10~446	43

BMM SERIES HYDRAULIC MOTOR

BMM series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weigth.

Characteristic features:

* Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
* Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
* Advanced construction design, high power and low weight.

Main Specification

Type		BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
Geometric displacement (cm^3/rev.)		8.2	12.9	19.9	31.6	39.8	50.3
Max. speed (rpm)	cont.	1950	1550	1000	630	500	400
	int.	2450	1940	1250	800	630	500
Max. torque (N•m)	cont.	11	16	25	40	45	46
	int.	15	23	35	57	70	88
	peak	21	33	51	64	82	100
Max. output (kW)	cont.	1.8	2.4	2.4	2.4	2.2	1.8
	int.	2.6	3.2	3.2	3.2	3.2	3.2
Max. pressure drop (MPa)	cont.	10	10	10	10	9	7
	int.	14	14	14	14	14	14
	peak	20	20	20	16	16	16
Max. flow (L/min)	cont.	16	20	20	20	20	20
	int.	20	25	25	25	25	25
Weight (kg)		1.9	2	2.1	2.2	2.3	2.4

Type		Max.inlet pressure
BMM8-50 (MPa)	cont.	17.5
	int.	22.5

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BMM8 [8.2 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	5	7	10	12 (Max.cont.)	14 (Max.int.)
2	3 **228**	5 **218**	8 **206**	10 **156**	12 **111**	14 **58**
4	3 **474**	5 **471**	7 **463**	11 **426**	13 **391**	15 **331**
8	3 **953**	5 **946**	7 **926**	11 **884**	13 **855**	15 **816**
12	2 **1444**	5 **1426**	7 **1402**	10 **1360**	13 **1324**	15 **1288**
15 (Max.cont.)		4 **1912**	7 **1900**	10 **1861**	12 **1833**	14 **1780**
20 (Max.int.)			6 **2395**	10 **2350**	11 **2328**	14 **2281**

BMM12.5 [12.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	5	7	10	12 (Max.cont.)	14 (Max.int.)
2	6 **140**	8 **136**	11 **119**	16 **68**	19 **35**	
4	6 **296**	8 **289**	12 **274**	17 **229**	19 **200**	23 **145**
8	5 **605**	8 **596**	12 **583**	17 **543**	20 **514**	24 **469**
12	5 **912**	8 **905**	11 **895**	16 **859**	20 **834**	24 **784**
15	5 **1152**	7 **1144**	11 **1136**	16 **1102**	19 **1078**	23 **1036**
20 (Max.cont.)	3 **1542**	7 **1532**	10 **1521**	15 **1500**	19 **1482**	22 **1437**
25 (Max.int.)	2 **1910**	6 **1891**	9 **1878**	14 **1848**	18 **1828**	22 **1788**

BMM20 [19.9 cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.7	3.5	5	7	10 (Max.cont.)	12	14 (Max.int.)
2	3 **99**	9 **96**	14 **89**	19 **74**	26 **42**	30 **21**	
4	4 **197**	9 **191**	14 **182**	19 **178**	26 **134**	31 **112**	36 **74**
8	4 **398**	9 **395**	13 **391**	19 **377**	27 **340**	31 **319**	36 **288**
12	3 **596**	8 **594**	13 **588**	18 **579**	26 **545**	31 **523**	37 **493**
15	3 **745**	8 **741**	12 **738**	17 **728**	25 **695**	30 **684**	36 **660**
20 (Max.cont.)	1 **998**	6 **995**	11 **991**	19 **985**	24 **962**	29 **916**	35 **885**
25 (Max.int.)		4 **1247**	9 **1245**	14 **1242**	23 **1189**	28 **1180**	33 **1176**

BMM32 [31.6 cc/rev.]

Pressure (MPa)

Flow (L/min)	2	3.5	5	7	10 (Max.cont.)	12	14 (Max.int.)
2	7 **61**	15 **57**	21 **52**	28 **47**	40 **16**		
4	7 **126**	15 **121**	21 **114**	29 **106**	41 **82**	48 **67**	57 **49**
8	7 **250**	15 **244**	21 **239**	29 **231**	41 **207**	49 **194**	58 **167**
12	6 **378**	13 **374**	20 **369**	28 **362**	40 **338**	48 **322**	58 **297**
15	4 **476**	12 **472**	18 **468**	27 **462**	39 **441**	47 **429**	57 **406**
20 (Max.cont.)	3 **633**	10 **630**	17 **627**	25 **619**	37 **601**	46 **585**	55 **566**
25 (Max.int.)	1 **791**	8 **789**	15 **787**	23 **783**	35 **766**	43 **753**	52 **732**

BMM40 [39.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	5	7	8.5 (Max.cont.)	10	12 (Max.int.)
2	16 **45**	27 **40**	36 **34**	44 **28**	51 **17**	
4	16 **96**	27 **93**	37 **85**	44 **79**	52 **65**	62 **52**
8	15 **197**	26 **195**	36 **182**	44 **176**	52 **166**	63 **154**
12	14 **293**	25 **287**	35 **282**	43 **277**	51 **268**	62 **257**
15	13 **371**	24 **365**	34 **360**	42 **355**	50 **347**	62 **338**
20 (Max.cont.)	10 **497**	21 **492**	31 **487**	39 **480**	48 **472**	59 **463**
25 (Max.int.)	7 **622**	19 **617**	29 **612**	37 **607**	44 **600**	56 **591**

Torque (N•m) 37
Speed (rpm) **607**

BMM50 [50.3 cm³/rev.]

Pressure (MPa)

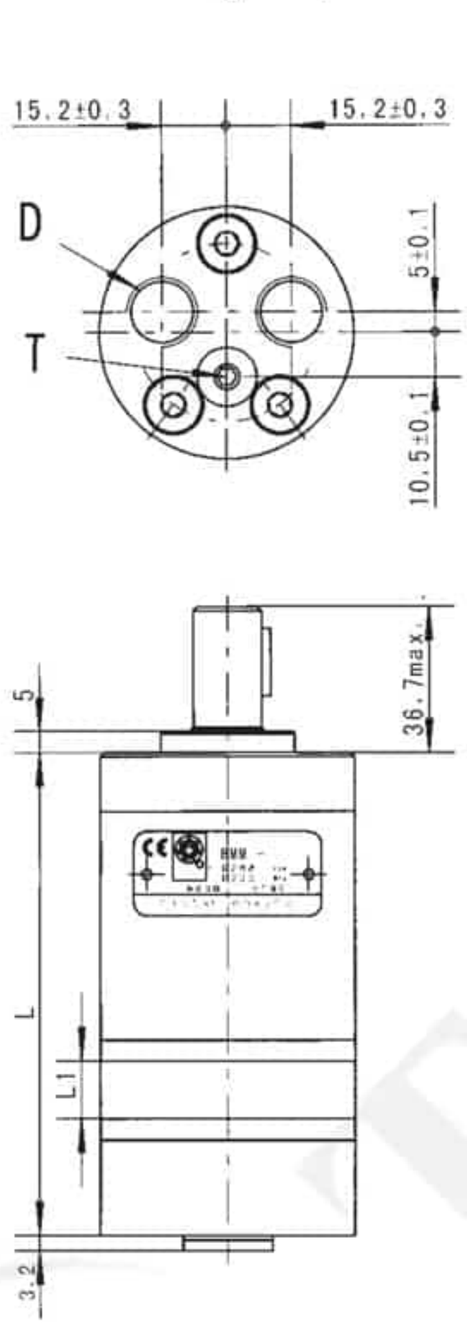
Flow (L/min)	1.5	3	5	7 (Max.cont.)	10 (Max.int.)
2	11 **37**	23 **33**	36 **27**	50 **22**	
4	11 **76**	22 **73**	36 **68**	50 **63**	70 **55**
8	11 **157**	21 **154**	35 **149**	50 **145**	71 **137**
12	11 **237**	20 **234**	33 **231**	49 **226**	71 **218**
15	10 **296**	18 **295**	32 **294**	47 **288**	69 **282**
20 (Max.cont.)	8 **395**	14 **395**	29 **393**	44 **390**	64 **381**
25 (Max.int.)	4 **498**	10 **496**	25 **494**	40 **490**	59 **484**

cont.
int.

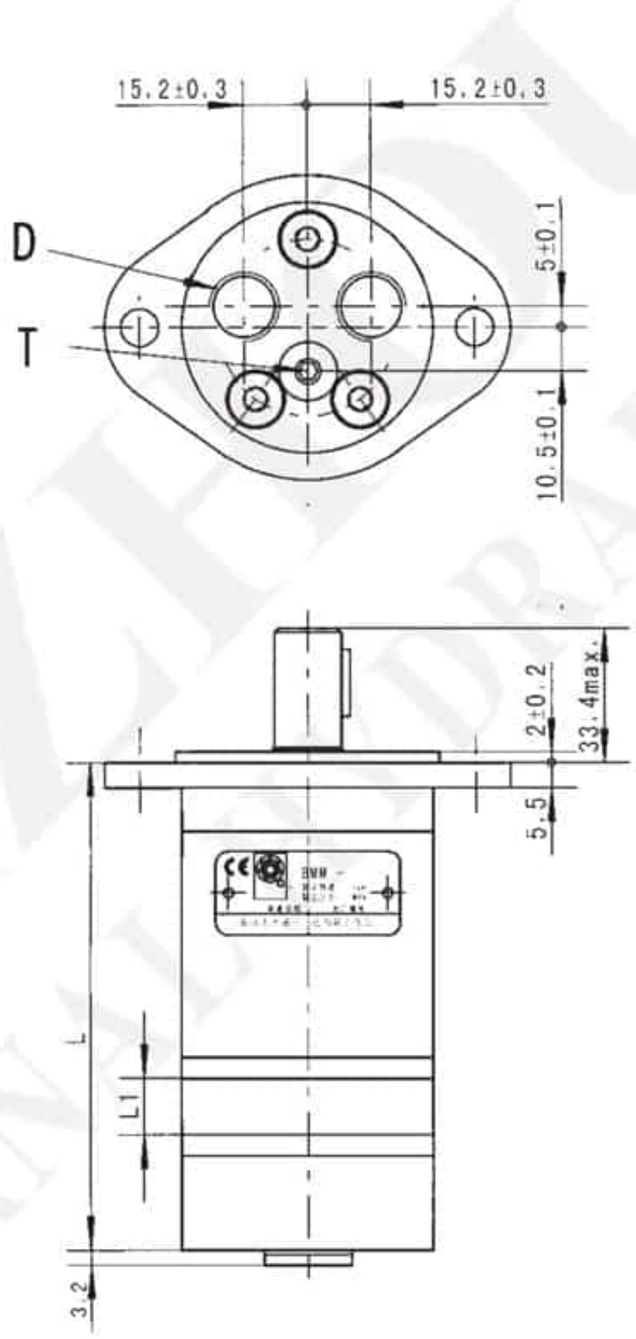
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



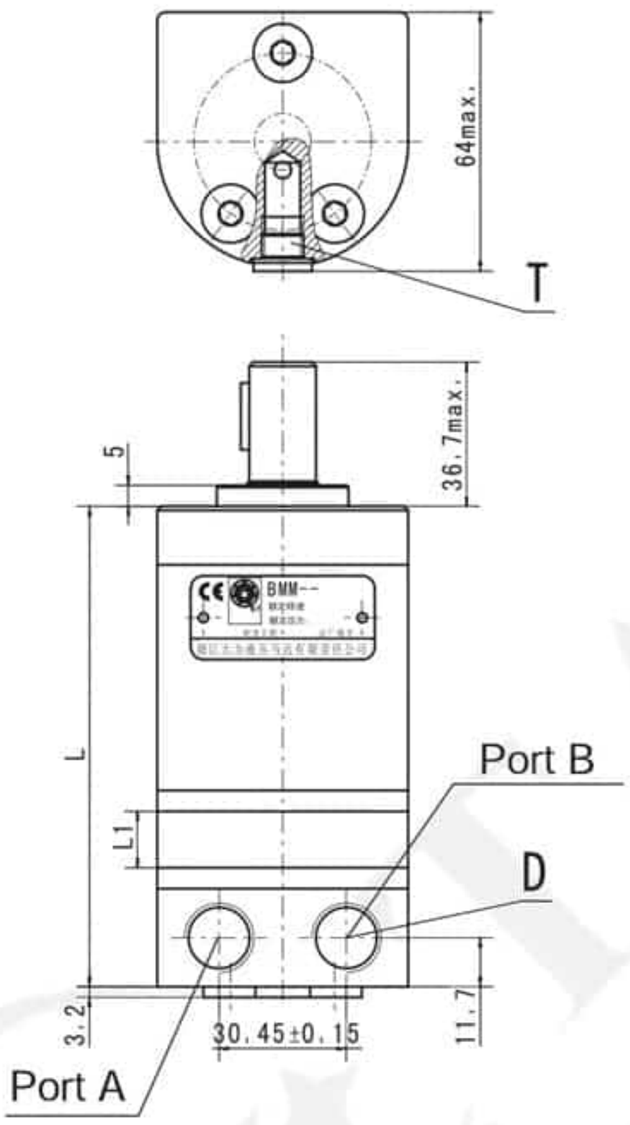
	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

	M、U Flange		F Flange	
Mounting \ Code	1E (depth)	1U (depth)	1E (depth)	1U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

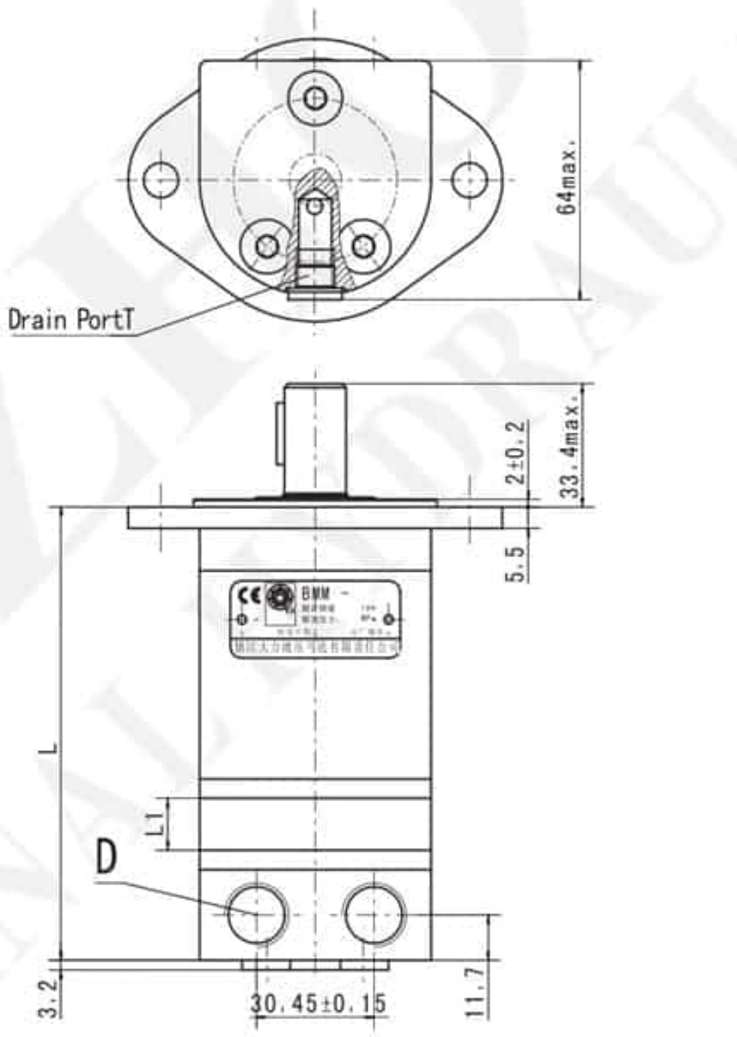
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

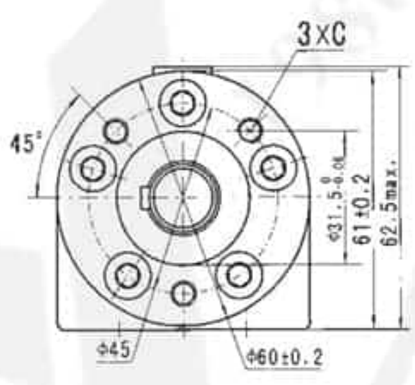
MOUNTING

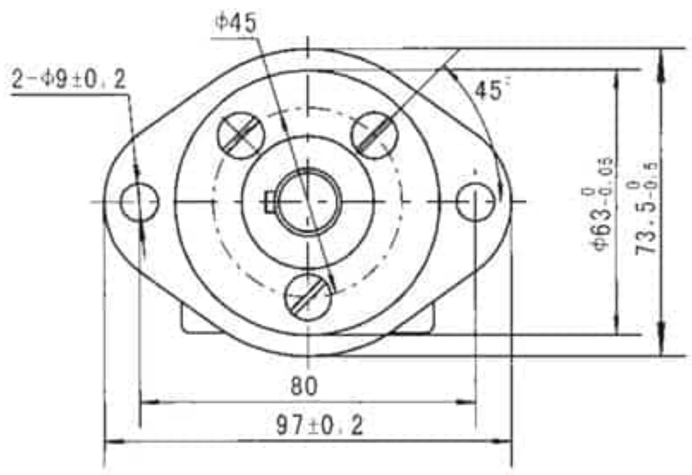
Flange M、U



Flange F





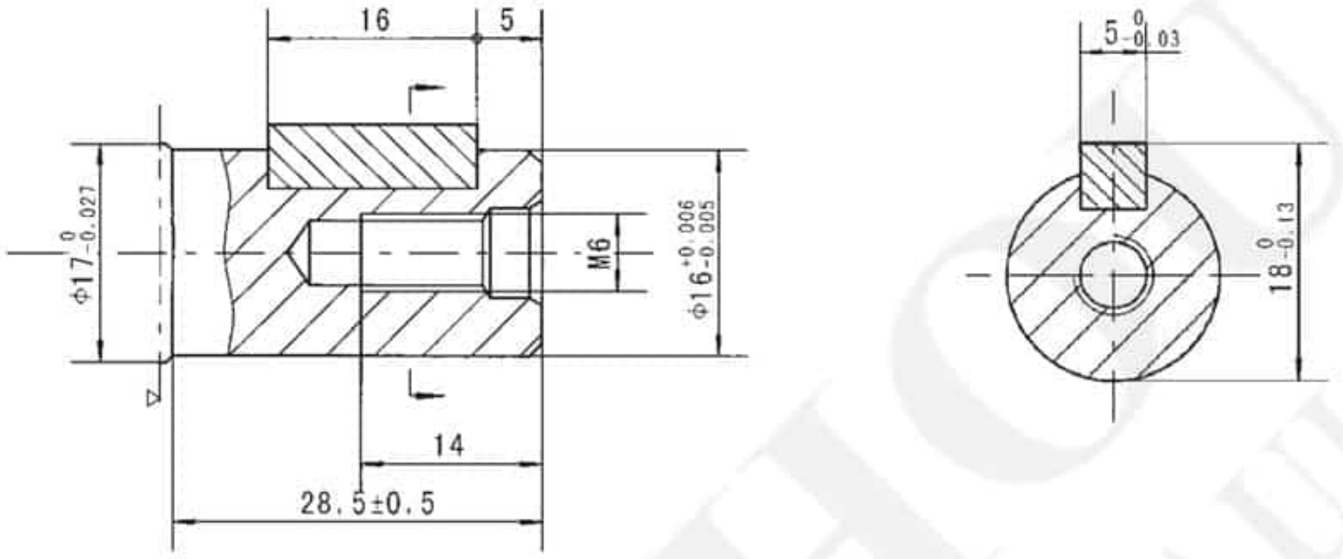


	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

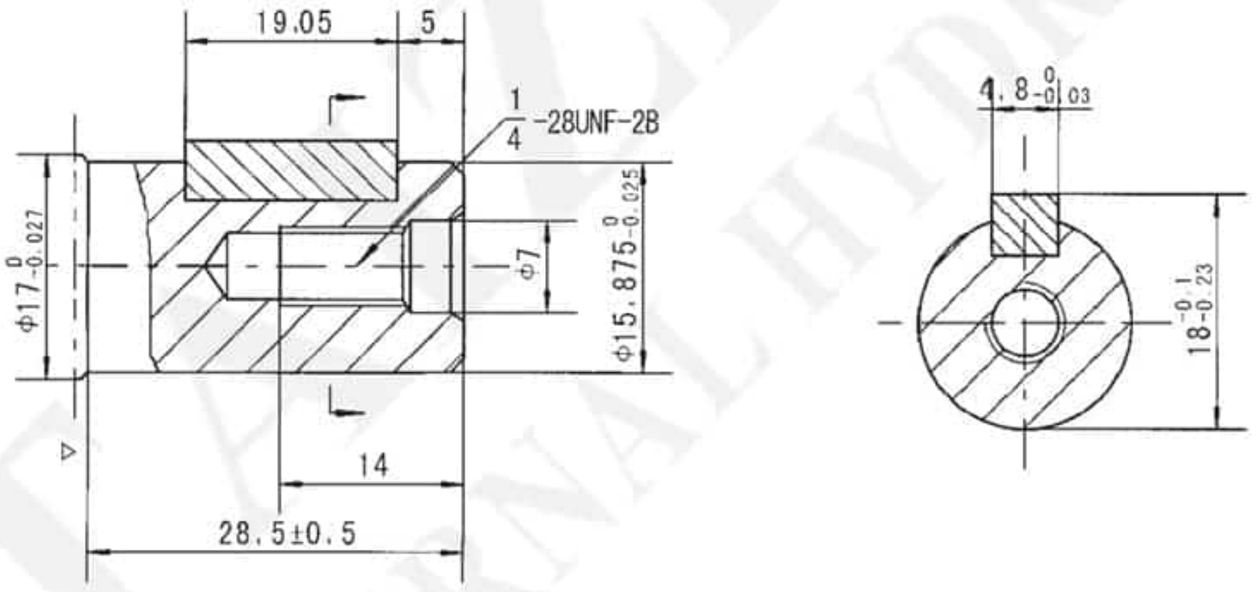
	M、U Flange		F Flange	
Mounting \ Code	E (depth)	U (depth)	E (depth)	U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

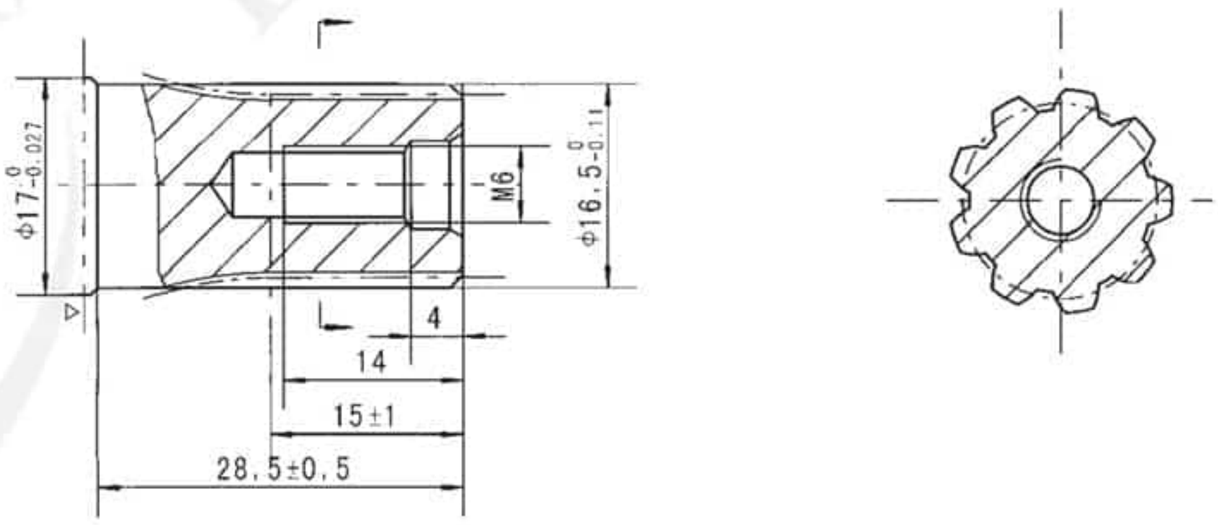
Shaft A: Cylindrical shaft ⌀16
Parallel key 5x5x16



Shaft B: Cylindrical shaft ⌀15.875
Parallel key 4.8x4.8x19.05



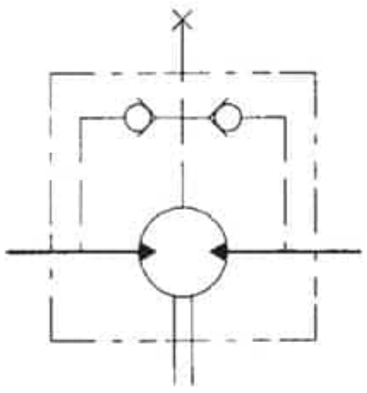
Shaft C: Involute splind shaft
B17x14 DIN5482

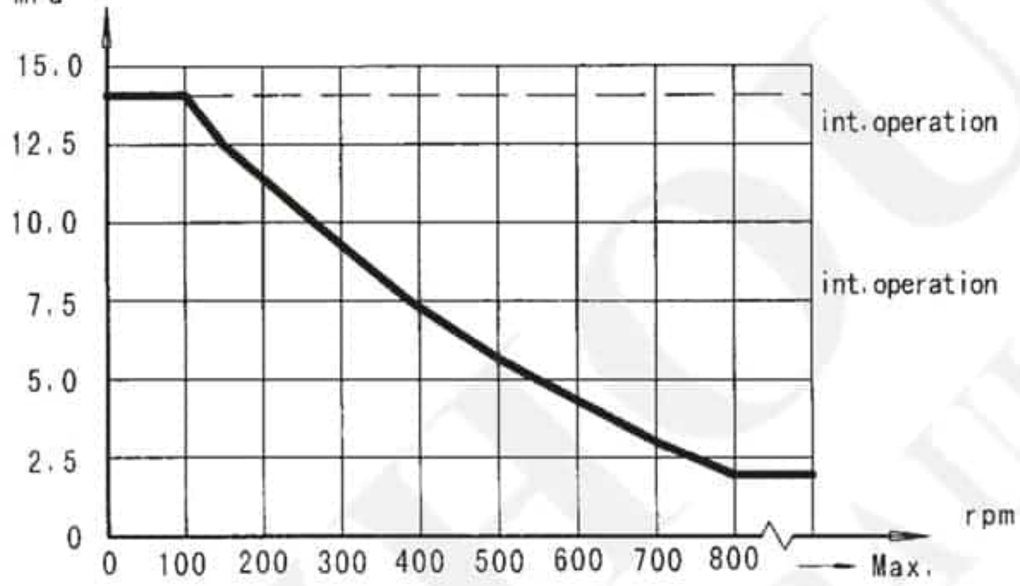


▷ Motor Mounting Surface

BMM Series Hydraulic Motor

Permissible shaft seal pressure

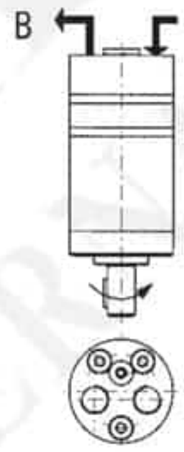




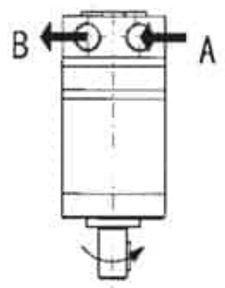
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



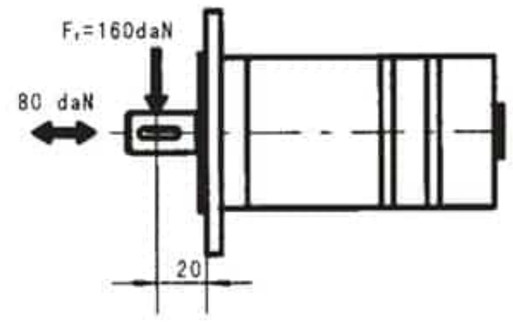
BMM End Port



BMM Side Port

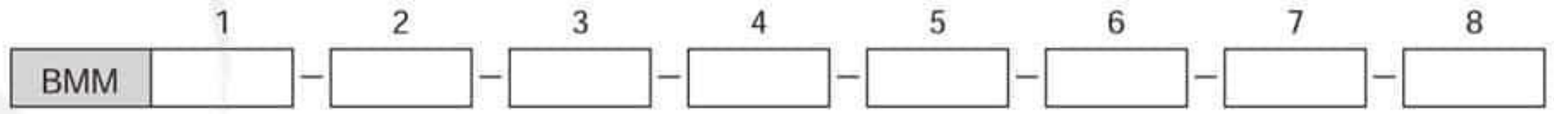
Status of the shaft's radial force

$$F_r = \frac{13040}{61.5+L} \text{ daN}$$



Fr=Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)
Max.force load
Rhomb-flange L=15mm
Square-flange L=20mm

Order Information



Pos.1	2	3		4		5		6		7		8	
Code	Displacement	Flange		Output shaft		Ports and drain port		Rotation direction		Paint		Unusually function	
Omit	8 12.5 20 32 40 50	M U F	3-M6 Circle-flange, pilot Ø31.5×5 3-1/4-28UNF Circle flange,pilot Ø31.5×5 2-Ø9 Rhomb-flange, pilot Ø63×2	A B C	Shaft Ø16, parallel key 5×5×16 Shaft Ø15.875, parallel key 4.8×4.8×19.05 Shaft Ø16.5, involute B17×14, DIN5482	E U 1E 1U	G3/8, G1/8 9/16-18UNF, 3/8-24UNF End port G3/8, G1/8 End port 9/16-18UNF, 3/8-24UNF	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit 0	Standard No case drain

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMP SERIES HYDRAULIC MOTOR

BMP series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

Characteristic features:

* Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
* Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
* Advanced construction design, high power and low weight.

Main Specification

Technical data for BMP with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		BMP BMPH BMPW 36	BMP BMPH BMPW 50	BMP BMPH BMPW 80	BMP BMPH BMPW 100	BMP BMPH BMPW 125	BMP BMPH BMPW 160	BMP BMPH BMPW 200	BMP BMPH BMPW 250	BMP BMPH BMPW 315	BMP BMPH BMPW 400	BMP BMPH BMPW 500
Geometric displacement (cm^3/rev.)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	486.5
Max. speed (rpm)	cont.	1500	1150	770	615	490	383	310	250	192	155	120
	int.	1650	1450	960	770	615	475	385	310	240	190	150
Max. torque (N•m)	cont.	55	100	146	182	236	302	360	380	375	360	385
	int.	76	128	186	227	290	370	440	460	555	525	560
	peak	96	148	218	264	360	434	540	550	650	680	680
Max. output (kW)	cont.	8.0	10.0	10.0	11.0	10.0	10.0	10.0	8.5	7.0	6.0	5.0
	int.	11.5	12.0	12.0	13.0	12.0	12.0	12.0	10.5	8.5	7.0	6.0
Max. pressure drop (MPa)	cont.	12.5	14	14	14	14	14	14	11	9	7	6
	int.	16.5	17.5	17.5	17.5	17.5	17.5	17.5	14	14	10.5	9
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18	16	14	12
Max. flow (L/min)	cont.	55	60	60	60	60	60	60	60	60	60	60
	int.	60	75	75	75	75	75	75	75	75	75	75
Weight (kg)		5.6	5.6	5.7	5.9	6.0	6.2	6.4	6.7	6.9	7.4	8

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Main Specification

Technical data for BMP with 31.75 and 32 shaft

Type		BMP BMPH 36	BMP BMPH 50	BMP BMPH 80	BMP BMPH 100	BMP BMPH 125	BMP BMPH 160	BMP BMPH 200	BMP BMPH 250	BMP BMPH 315	BMP BMPH 400	BMP BMPH 500
Geometric displacement (cm^3/rev.)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	486.5
Max. speed (rpm)	cont.	1500	1150	770	615	490	383	310	250	192	155	120
	int.	1650	1450	960	770	615	475	385	310	240	190	150
Max. torque (N•m)	cont.	55	100	146	182	236	302	360	460	475	490	430
	int.	76	128	186	227	290	370	440	570	555	580	560
	peak	96	148	218	264	360	434	540	670	840	840	780
Max. output (kW)	cont.	8.0	10.0	10.0	11.0	10.0	10.0	10.0	8.5	7.0	6.0	6.0
	int.	11.5	12.0	12.0	13.0	12.0	12.0	12.0	10.5	8.5	7.0	7.0
Max. pressure drop (MPa)	cont.	12.5	14	14	14	14	14	14	14	12	9.5	7
	int.	16.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	14	11.5	9
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	18	13
Max. flow (L/min)	cont.	55	60	60	60	60	60	60	60	60	60	60
	int.	60	75	75	75	75	75	75	75	75	75	75
Weight (kg)		5.6	5.6	5.7	5.9	6.0	6.2	6.4	6.7	6.9	7.4	8.0

* Continuous pressure:Max.value of operating motor continuously.
* Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
* Peak pressure:Max.value of operating motor in 0.6 second per minute.

Performance Data

BMP 36 [36cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	7	8	10	11	12.5	16.5
8	13 **214**	25 **205**	29 **200**	34 **194**	43 **187**	48 **179**		
15	13 **406**	25 **398**	29 **391**	34 **383**	43 **374**	48 **366**	56 **353**	75 **324**
20	13 **541**	24 **534**	29 **528**	34 **521**	43 **513**	48 **500**	56 **486**	76 **458**
30	12 **814**	24 **804**	29 **792**	34 **778**	43 **763**	48 **749**	56 **726**	76 **701**
35	12 **952**	23 **944**	28 **930**	34 **913**	43 **897**	48 **879**	56 **858**	76 **833**
40	12 **1090**	23 **1078**	28 **1064**	32 **1048**	41 **1024**	47 **998**	55 **977**	75 **943**
45	11 **1232**	22 **1218**	26 **1196**	32 **1175**	41 **1149**	46 **1118**	54 **1080**	74 **1044**
Max.cont. 55	6 **1505**	15 **1494**	22 **1480**	28 **1466**	37 **1438**	44 **1406**	52 **1367**	71 **1309**
Max.int. 60	3 **1650**	11 **1640**	18 **1626**	20 **1603**	30 **1571**	38 **1536**	49 **1502**	67 **1446**

BMP 50 [51.7cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	8	10	12.5	14	16	17.5
8	20 **151**	41 **134**	56 **115**	69 **90**	89 **56**	95 **42**		
15	19 **286**	40 **274**	56 **261**	71 **243**	91 **204**	100 **182**	112 **139**	120 **102**
20	18 **382**	39 **373**	55 **361**	71 **348**	92 **318**	101 **309**	117 **287**	128 **251**
30	17 **573**	38 **568**	55 **558**	71 **535**	91 **503**	98 **488**	116 **462**	124 **440**
35	17 **670**	38 **661**	54 **652**	69 **640**	89 **606**	98 **589**	117 **562**	124 **548**
45	14 **863**	36 **858**	53 **849**	67 **837**	88 **807**	98 **788**	114 **764**	123 **746**
55	12 **1055**	33 **1042**	50 **1028**	65 **1010**	85 **979**	96 **963**	111 **947**	121 **920**
Max.cont. 60	10 **1150**	32 **1143**	47 **1126**	64 **1111**	83 **1079**	94 **1065**	108 **1043**	119 **1015**
Max.int. 75	6 **1440**	25 **1430**	42 **1416**	56 **1395**	76 **1367**	87 **1351**	101 **1335**	112 **1312**

BMP 80 [77.7cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	8	10	12.5	14	16	17.5
8	32 **97**	62 **87**	85 **74**	104 **55**	129 **33**	144 **22**		
15	32 **186**	63 **181**	84 **170**	107 **154**	126 **132**	144 **118**	165 **86**	
20	31 **251**	63 **243**	84 **236**	107 **225**	132 **207**	146 **196**	168 **178**	185 **155**
30	31 **381**	62 **379**	83 **368**	106 **355**	131 **332**	146 **316**	168 **285**	186 **263**
35	30 **443**	59 **435**	81 **426**	102 **415**	130 **397**	144 **383**	167 **361**	185 **342**
45	25 **570**	58 **564**	79 **554**	100 **543**	126 **526**	142 **509**	165 **483**	182 **458**
55	23 **696**	57 **685**	78 **672**	97 **656**	124 **643**	140 **630**	161 **602**	179 **579**
Max.cont. 60	20 **761**	53 **753**	75 **744**	94 **736**	120 **720**	137 **706**	160 **681**	177 **660**
Max.int. 75	14 **948**	44 **940**	67 **931**	87 **920**	112 **906**	151 **890**	169 **871**	169 **854**

Torque (N•m) 87
Speed (rpm) **920**

BMP 100 [96.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	8	10	12.5	14	16	17.5
8	40 **81**	77 **75**	105 **69**	130 **57**	161 **36**	180 **24**		
15	39 **152**	77 **149**	106 **145**	130 **140**	160 **122**	180 **103**	208 **81**	
20	36 **204**	74 **200**	104 **195**	128 **190**	161 **177**	179 **166**	205 **148**	227 **133**
30	33 **308**	72 **304**	103 **298**	125 **290**	160 **280**	177 **268**	203 **255**	225 **231**
35	30 **360**	70 **352**	98 **343**	122 **331**	159 **320**	176 **306**	202 **294**	224 **275**
45	29 **462**	67 **458**	95 **451**	118 **443**	155 **433**	174 **419**	200 **402**	220 **383**
55	25 **566**	64 **558**	93 **549**	116 **540**	152 **529**	170 **515**	198 **498**	217 **478**
Max.cont. 60	22 **618**	60 **611**	91 **601**	114 **589**	149 **580**	167 **570**	194 **558**	213 **540**
Max.int. 75	15 **771**	54 **763**	83 **755**	106 **744**	141 **735**	160 **724**	186 **708**	205 **693**

cont.
int.

Performance Data

BMP 125 [120.2cm³/rev.]

Flow (L/min)	Pressure (MPa) 3	6	8	10	12.5	14 (Max.cont.)	16	17.5 (Max.int.)
8	51	98	137	168	208	236		
	63	**60**	**55**	**47**	**28**	**15**		
15	51	101	138	168	209	236	267	
	121	**116**	**110**	**102**	**89**	**73**	**48**	
20	48	98	135	167	211	237	269	290
	162	**158**	**153**	**148**	**137**	**128**	**109**	**94**
30	46	96	132	164	209	232	264	287
	243	**239**	**234**	**227**	**216**	**202**	**189**	**176**
35	42	92	130	160	206	229	260	284
	284	**279**	**274**	**269**	**259**	**247**	**231**	**222**
45	37	89	125	157	201	224	261	281
	370	**362**	**355**	**348**	**340**	**327**	**310**	**296**
55	33	84	122	152	196	218	252	275
	452	**446**	**438**	**431**	**420**	**412**	**402**	**384**
Max.cont. 60	29	78	117	146	191	215	248	272
	490	**482**	**475**	**468**	**459**	**448**	**439**	**427**
Max.int. 75	18	66	107	133	179	202	236	260
	615	**606**	**598**	**586**	**575**	**563**	**549**	**528**

BMP 160 [157.2cm³/rev.]

Flow (L/min)	Pressure (MPa) 3	6	8	10	12.5	14 (Max.cont.)	16	17.5 (Max.int.)
8	62	120	170	212	263	290		
	49	**48**	**46**	**42**	**26**	**14**		
15	60	122	172	215	264	294	340	
	93	**91**	**88**	**85**	**76**	**68**	**48**	
20	57	120	170	214	262	290	340	371
	125	**123**	**120**	**117**	**110**	**106**	**92**	**81**
30	53	115	164	206	259	288	335	368
	187	**184**	**181**	**178**	**175**	**168**	**155**	**139**
35	49	110	160	202	255	284	328	362
	220	**216**	**213**	**209**	**205**	**202**	**192**	**176**
45	44	102	154	196	248	278	321	358
	283	**280**	**276**	**272**	**267**	**260**	**250**	**238**
55	40	99	148	191	243	272	316	351
	345	**342**	**340**	**336**	**331**	**328**	**320**	**303**
Max.cont. 60	33	94	144	188	236	267	308	345
	377	**374**	**371**	**367**	**363**	**359**	**353**	**342**
Max.int. 75	19	80	124	170	216	252	296	325
	473	**469**	**465**	**459**	**453**	**447**	**440**	**424**

BMP 200 [194.5cm³/rev.]

Flow (L/min)	Pressure (MPa) 3	6	8	10	12.5	14 (Max.cont.)	16	17.5 (Max.int.)
8	79	164	207	250	320	360		
	40	**39**	**38**	**35**	**28**	**22**		
15	78	162	205	250	322	361	410	
	76	**75**	**74**	**71**	**66**	**61**	**51**	
20	76	158	203	247	320	358	403	422
	100	**98**	**97**	**95**	**92**	**89**	**73**	**57**
30	70	153	200	245	315	350	398	417
	151	**149**	**147**	**145**	**142**	**139**	**131**	**120**
35	66	149	194	232	297	343	386	415
	177	**175**	**173**	**171**	**168**	**166**	**160**	**149**
45	63	146	190	230	294	340	383	410
	228	**226**	**224**	**221**	**218**	**215**	**210**	**198**
55	54	140	181	224	286	334	371	400
	280	**278**	**276**	**274**	**271**	**269**	**263**	**250**
Max.cont. 60	38	127	164	212	270	325	356	395
	304	**302**	**300**	**297**	**294**	**291**	**286**	**272**
Max.int. 75	22	96	145	192	235	293	321	367
	382	**378**	**374**	**371**	**368**	**364**	**360**	**350**

BMP 250 [240.3cm³/rev.]

Flow (L/min)	Pressure (MPa) 3	6	8	10	12.5	14 (Max.cont.)	16	17.5 (Max.int.)
8	96	190	268	326	403			
	30	**28**	**24**	**21**	**11**			
15	98	194	270	327	405	450	510	
	60	**58**	**54**	**50**	**40**	**30**	**12**	
20	92	188	267	325	405	456	514	565
	82	**80**	**77**	**76**	**69**	**64**	**52**	**38**
30	85	180	259	320	400	448	513	561
	123	**120**	**118**	**114**	**106**	**98**	**87**	**76**
35	77	176	252	311	389	436	504	557
	143	**141**	**139**	**135**	**128**	**122**	**112**	**101**
45	70	168	243	300	377	428	495	543
	185	**182**	**178**	**174**	**168**	**161**	**152**	**139**
55	63	159	237	290	369	417	483	531
	226	**223**	**218**	**213**	**209**	**202**	**193**	**185**
Max.cont. 60	60	150	228	280	358	407	473	520
	248	**246**	**243**	**239**	**233**	**226**	**215**	**207**
Max.int. 75	34	128	202	264	342	387	448	488
	309	**306**	**302**	**297**	**292**	**286**	**278**	**264**

Torque (N•m) 128
Speed (rpm) **306**

cont.

int.

Performance Data

BMP 315 [314.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	5	7	9	10	12.5 (Max.cont.)	14 (Max.int.)
8	123 **25**	215 **23**	292 **21**	368 **17**	405 **11**		
15	118 **47**	211 **46**	287 **44**	367 **40**	404 **28**	495 **21**	568 **10**
20	110 **62**	205 **61**	278 **60**	360 **57**	395 **46**	494 **40**	566 **36**
30	101 **94**	196 **93**	271 **91**	349 **88**	388 **76**	490 **68**	565 **65**
35	96 **109**	188 **107**	264 **106**	341 **104**	382 **96**	478 **89**	557 **84**
45	89 **141**	180 **140**	254 **138**	337 **135**	372 **127**	468 **120**	553 **115**
55	76 **173**	166 **172**	239 **170**	325 **167**	362 **160**	457 **152**	548 **143**
60 (Max.cont.)	65 **188**	154 **186**	227 **184**	308 **182**	348 **178**	443 **172**	529 **163**
75 (Max.int.)	40 **236**	120 **234**	201 **232**	279 **228**	323 **226**	418 **223**	497 **214**

BMP 400 [389.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	4.5	5.5	6.5	8	10 (Max.cont.)	12.5 (Max.int.)
8	166 **20**	232 **19**	287 **18**	340 **16**	418 **12**		
15	165 **38**	228 **36**	277 **35**	337 **33**	417 **31**	496 **27**	612 **21**
20	162 **50**	223 **49**	273 **49**	331 **48**	413 **45**	495 **41**	608 **35**
30	154 **76**	216 **75**	266 **74**	318 **73**	405 **71**	486 **67**	600 **60**
35	146 **88**	210 **87**	256 **87**	312 **86**	395 **83**	480 **80**	588 **75**
45	132 **114**	197 **113**	243 **112**	300 **110**	383 **108**	464 **106**	576 **99**
55	117 **139**	184 **137**	227 **136**	283 **135**	363 **135**	450 **132**	552 **123**
60 (Max.cont.)	102 **153**	163 **152**	215 **150**	272 **148**	347 **146**	436 **143**	532 **138**
75 (Max.int.)	53 **191**	128 **189**	182 **187**	234 **185**	318 **183**	391 **180**	484 **176**

Torque (N•m) 234
Speed (rpm) **185**

BMP500[486.5cm³/rev.]

Pressure (MPa)

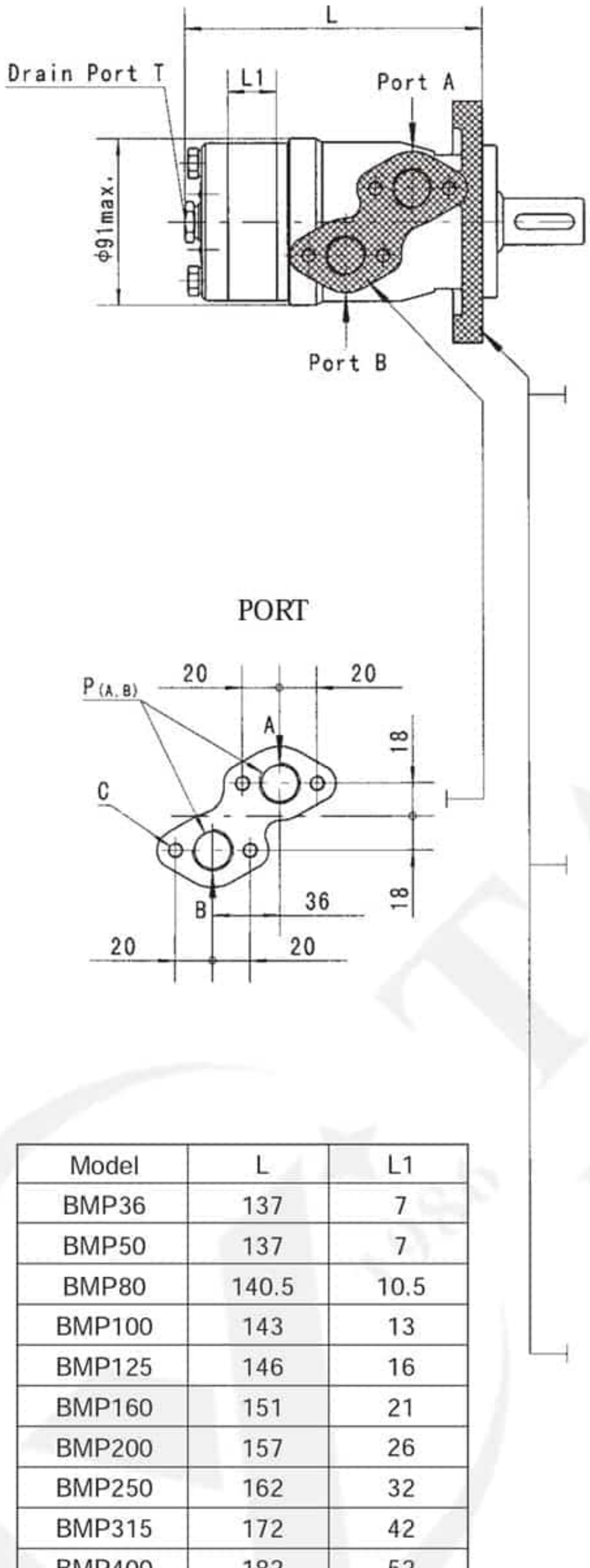
Flow (L/min)	1.5	3	4.5	6	7	8 (Max.cont.)	9 (Max.int.)
4	96 **7**	194 **6**	285 **4**				
8	98 **15**	201 **15**	304 **14**	391 **14**	443 **12**	512 **9**	574 **7**
15	96 **30**	192 **30**	284 **29**	380 **28**	421 **26**	496 **23**	550 **22**
20	96 **40**	191 **40**	280 **40**	372 **39**	418 **37**	493 **33**	546 **31**
30	91 **61**	185 **60**	272 **60**	360 **58**	412 **56**	486 **53**	541 **50**
40	86 **81**	172 **80**	261 **80**	343 **79**	408 **76**	480 **73**	538 **70**
50	78 **102**	160 **101**	241 **100**	332 **98**	391 **96**	466 **93**	528 **90**
60 (Max.cont.)	66 **122**	134 **121**	213 **120**	305 **119**	371 **117**	438 **114**	496 **110**
70	52 **143**	111 **142**	189 **141**	292 **139**	344 **137**	418 **135**	475 **131**
75 (Max.int.)	35 **153**	83 **152**	154 **151**	241 **150**	312 **149**	389 **147**	448 **144**

cont.
int.

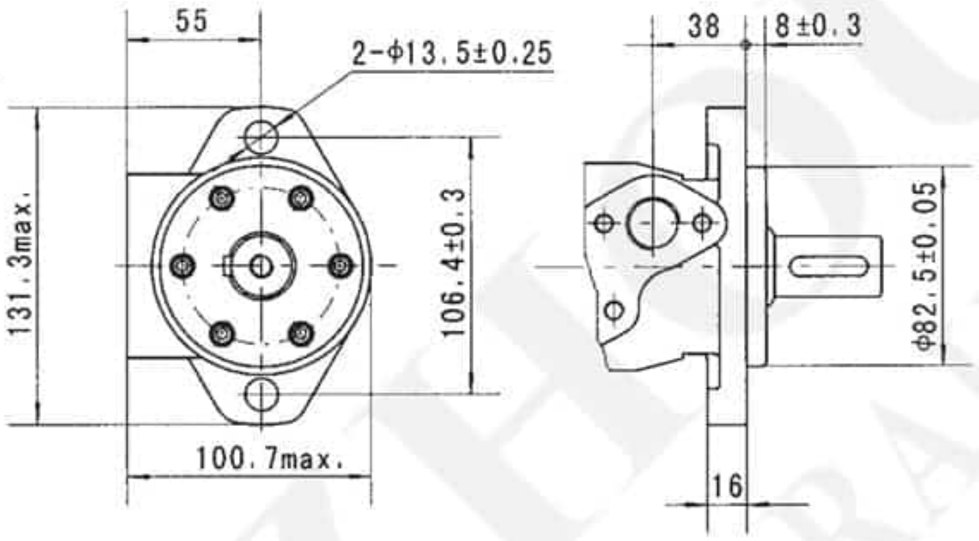
Torque (N•m) 389
Speed (rpm) **147**

BMP DIMENSIONS AND MOUNTING DATA

MOUNTING

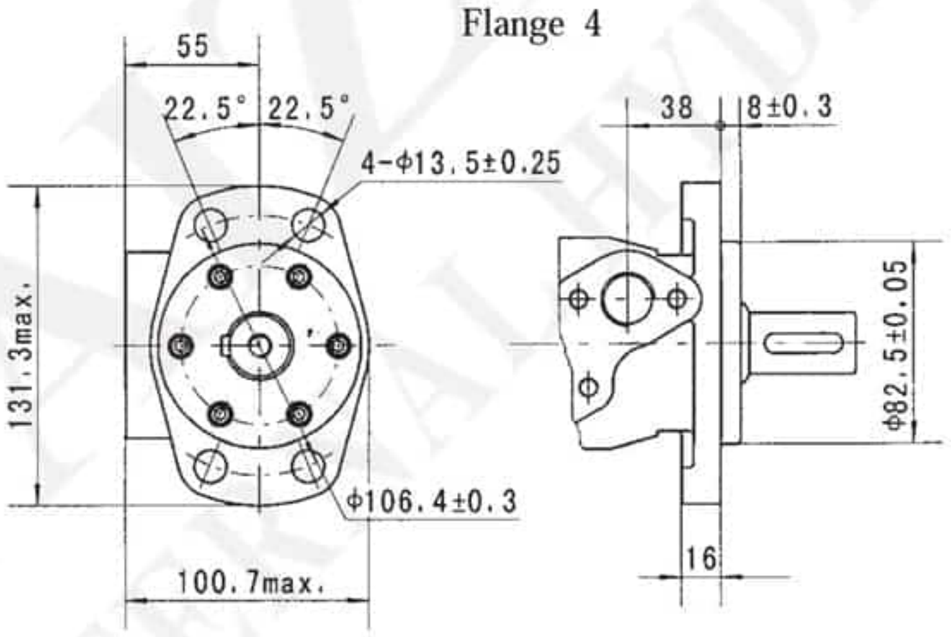


Flange 2



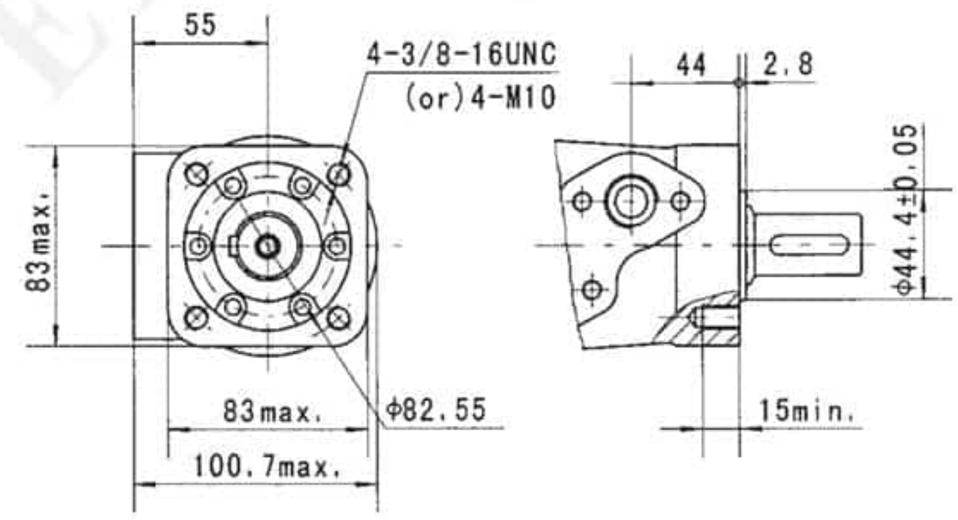
PORT

Flange 4



Model	L	L1
BMP36	137	7
BMP50	137	7
BMP80	140.5	10.5
BMP100	143	13
BMP125	146	16
BMP160	151	21
BMP200	157	26
BMP250	162	32
BMP315	172	42
BMP400	182	52
BMP500	195	65

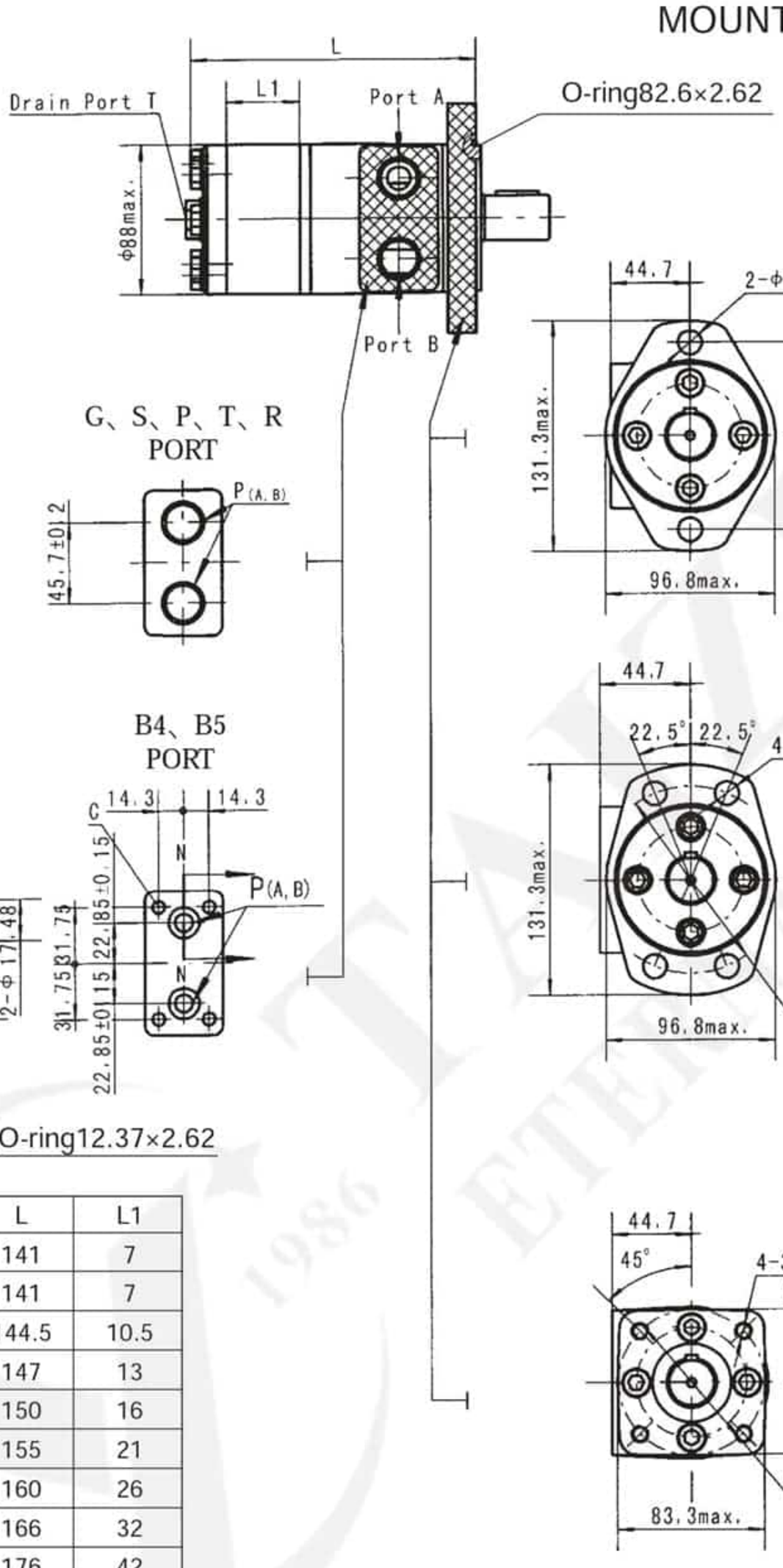
Flange H4/H5



Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

BMPH DIMENSIONS AND MOUNTING DATA

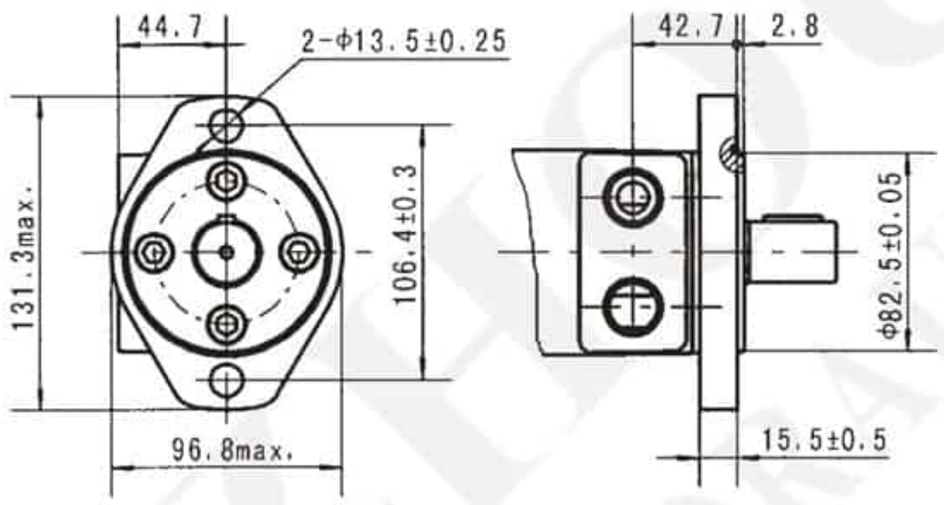
MOUNTING



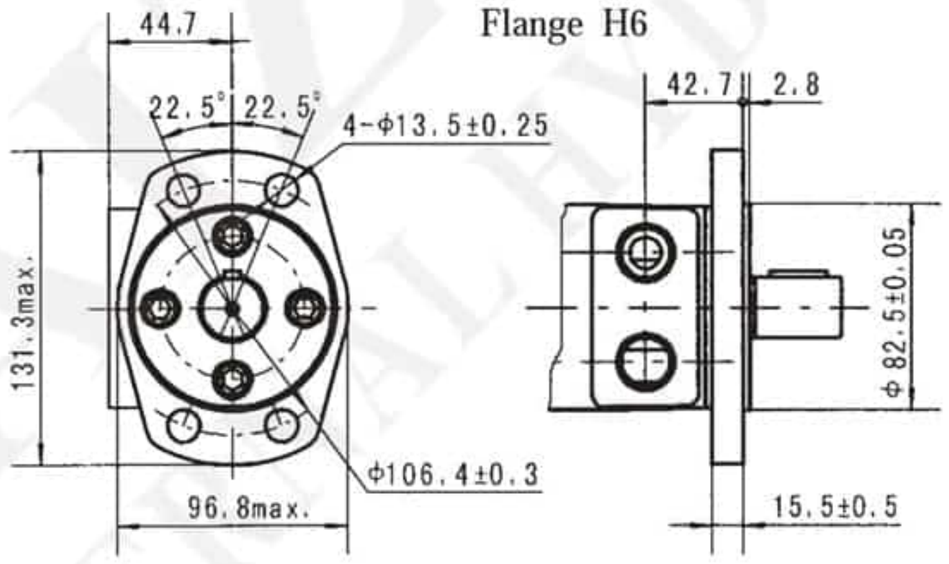
G、S、P、T、R PORT

B4、B5 PORT

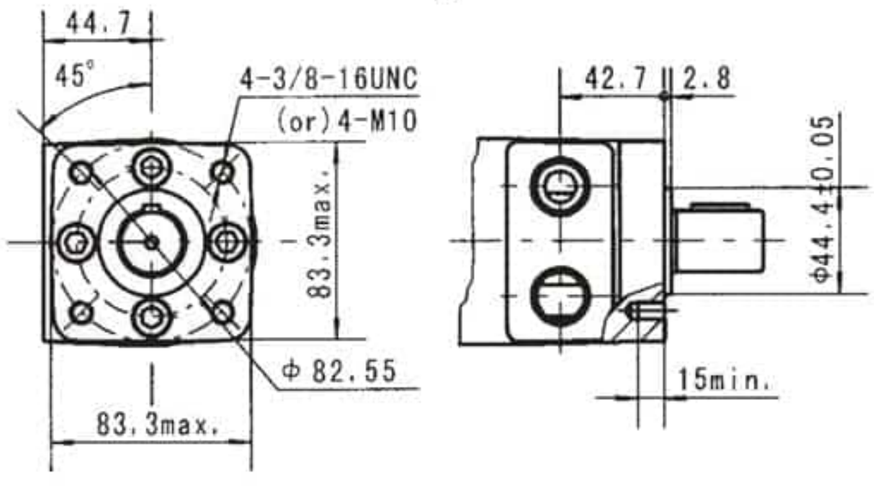
Flange H2



Flange H6



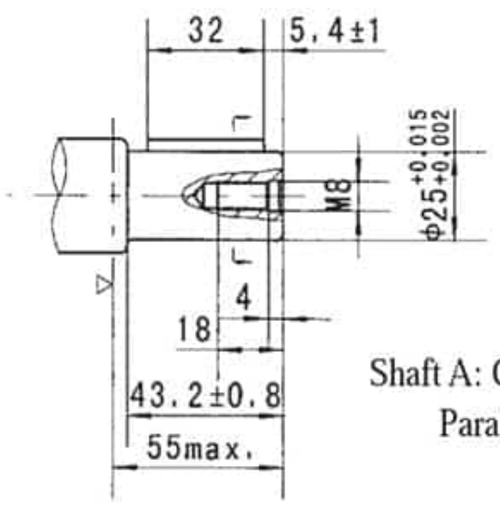
Flange H4/H5

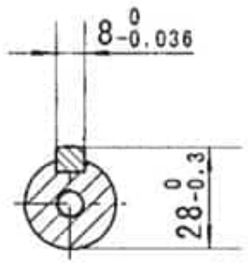


Model	L	L1
BMPH36	141	7
BMPH50	141	7
BMPH80	144.5	10.5
BMPH100	147	13
BMPH125	150	16
BMPH160	155	21
BMPH200	160	26
BMPH250	166	32
BMPH315	176	42
BMPH400	186	52
BMPH500	199	65

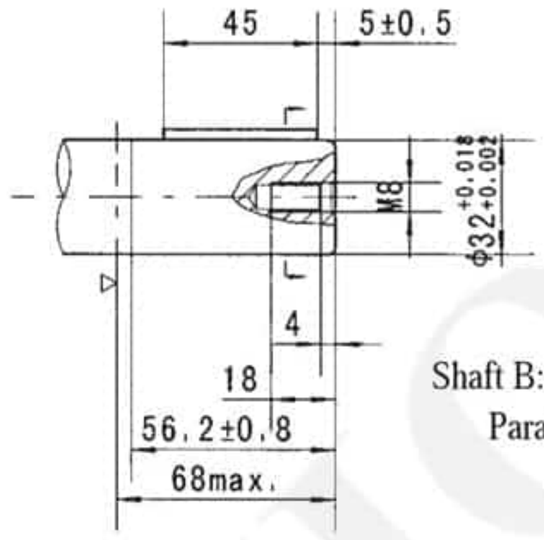
Mounting \ Code	G (depth)	S (depth)	P (depth)	T (depth)	R (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	3/4-16 O-ring (15)	PT(RC)1/2 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	7/16-20UNF(12)	PT(RC)1/4 (9.7)	7/16-20UNF(12)	G1/4(12)
C	–	–	–	–	–	4-5/16-18UNC(13)	4-M8(13)

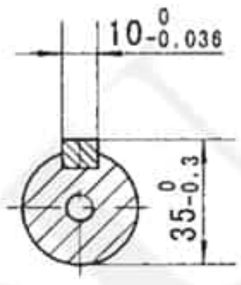
BMP SHAFT EXTENSIONS DIMENSIONS DATA



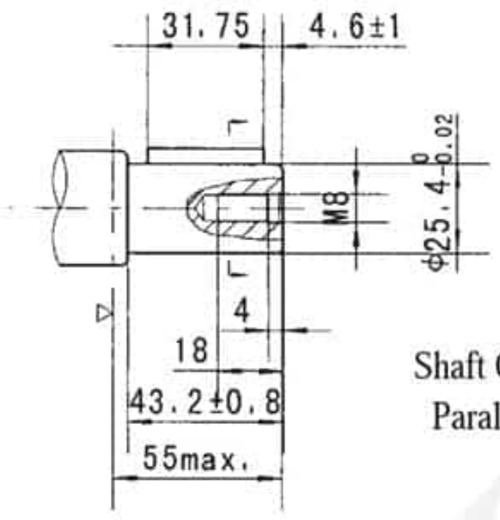


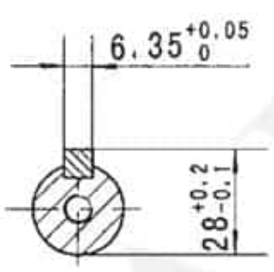
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



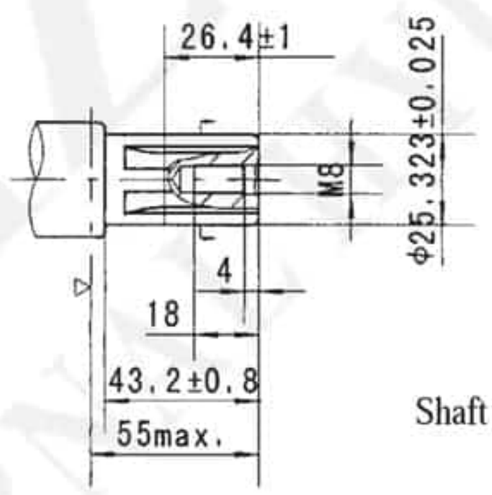


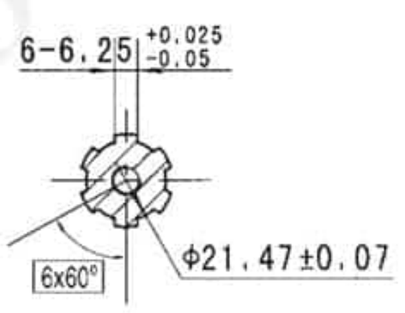
Shaft B: Cylindrical shaftø32
Parallel key 10x8x45



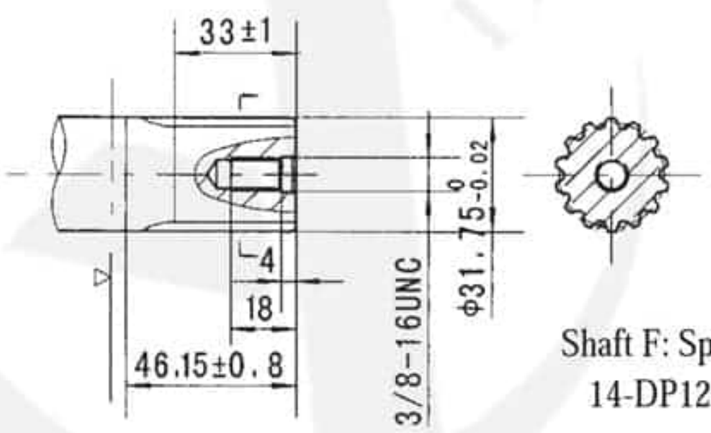


Shaft C: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75

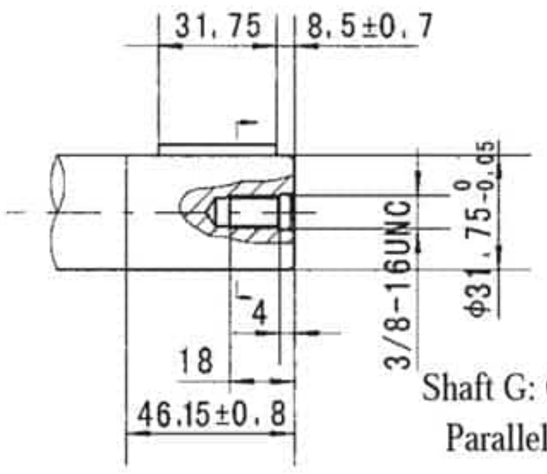


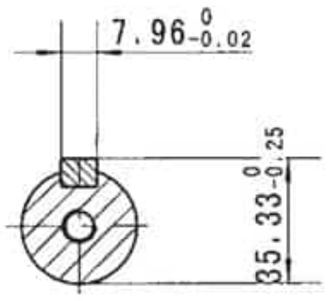


Shaft E: Splined SAE 6B



Shaft F: Splined
14-DP12/24

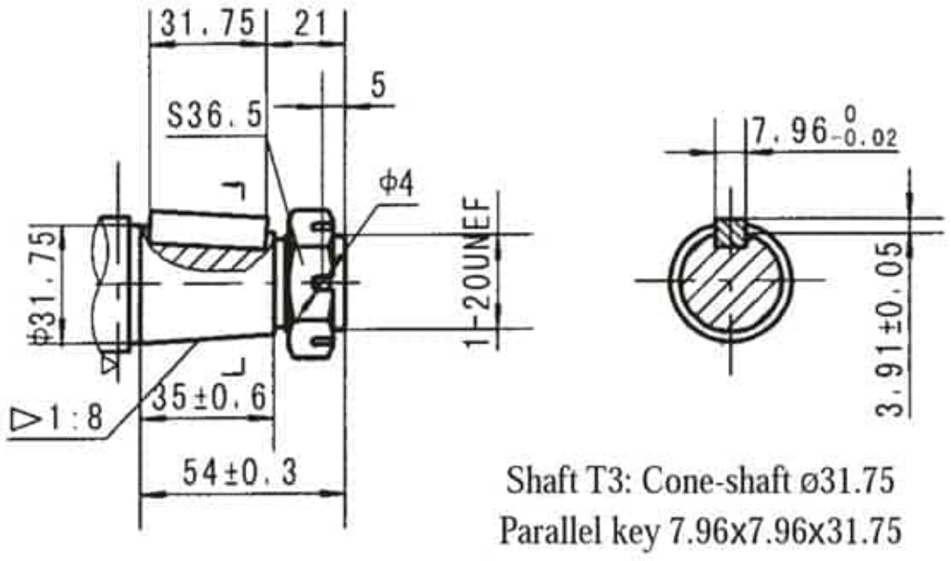




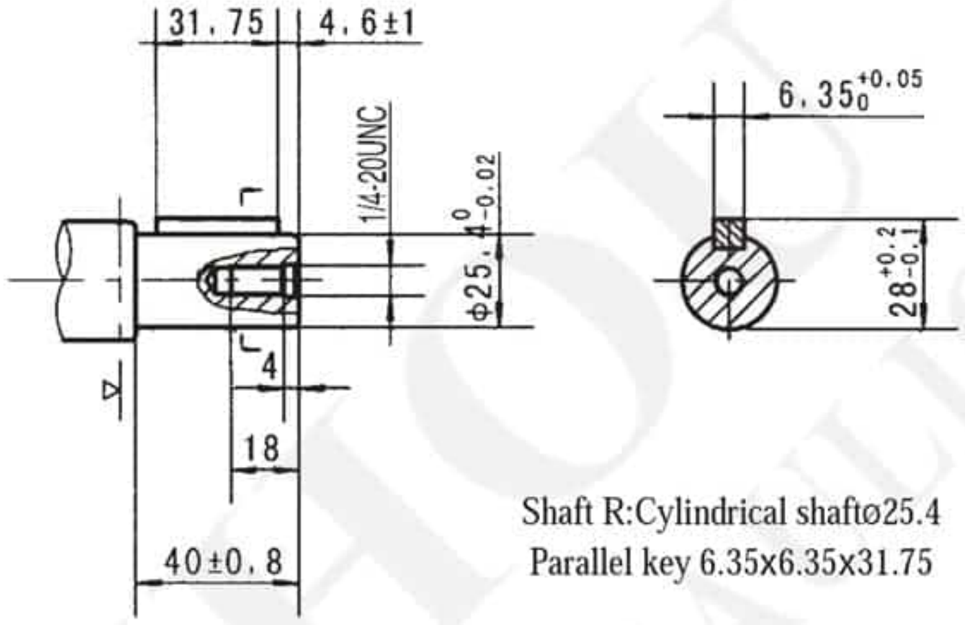
Shaft G: Cylindrical shaftø31.75
Parallel key 7.96x7.96x31.75

▷ Motor Mounting Surface

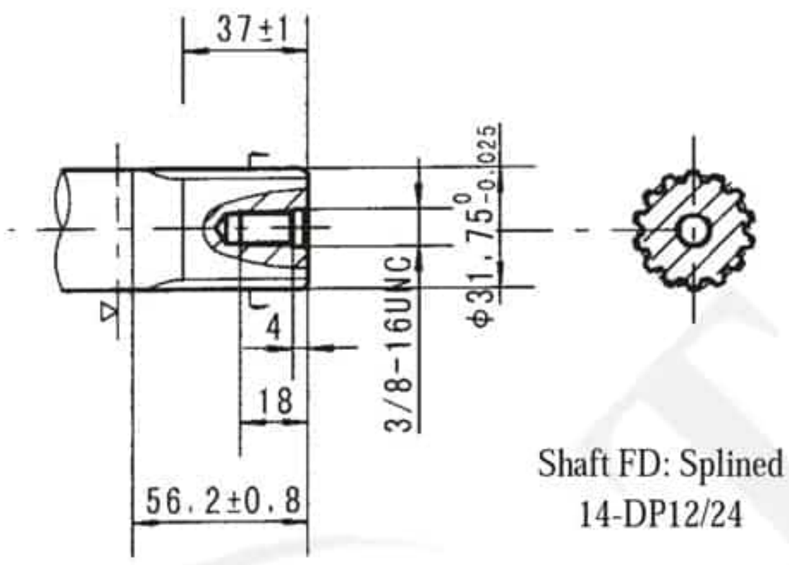
BMP SHAFT EXTENSIONS DIMENSIONS DATA



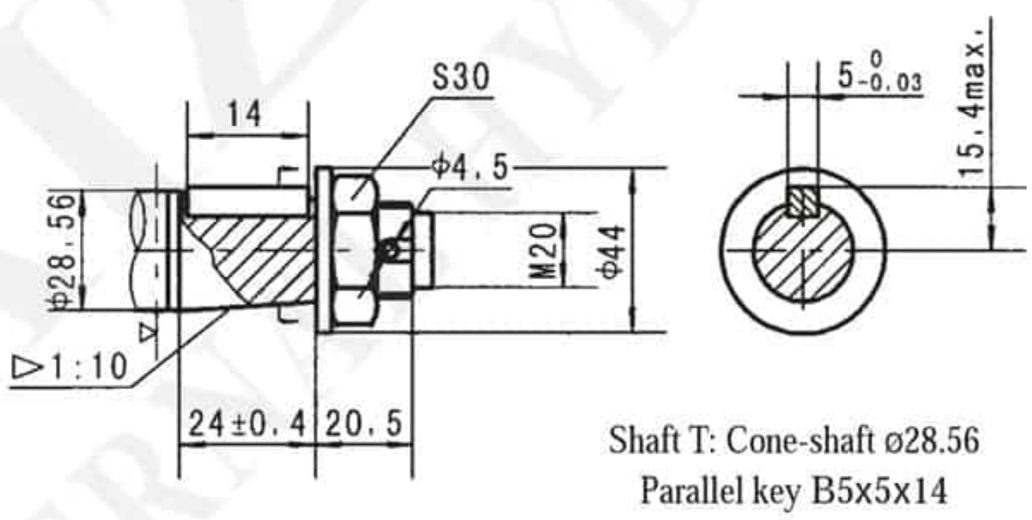
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm



Shaft R:Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75



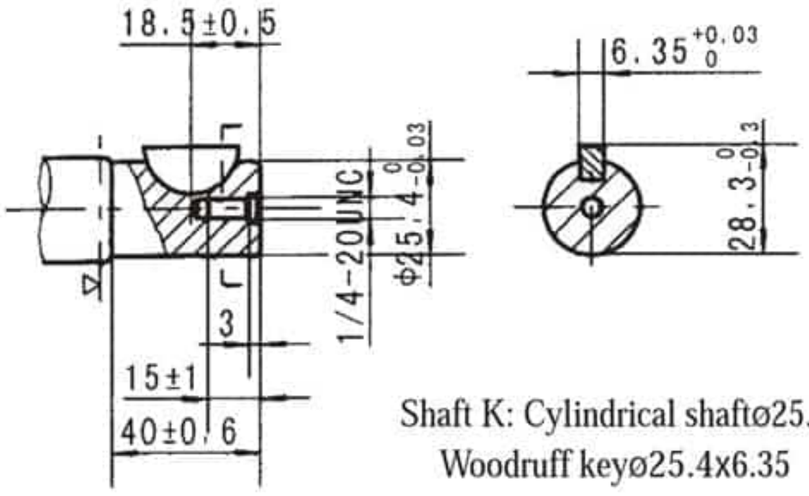
Shaft FD: Splined
14-DP12/24



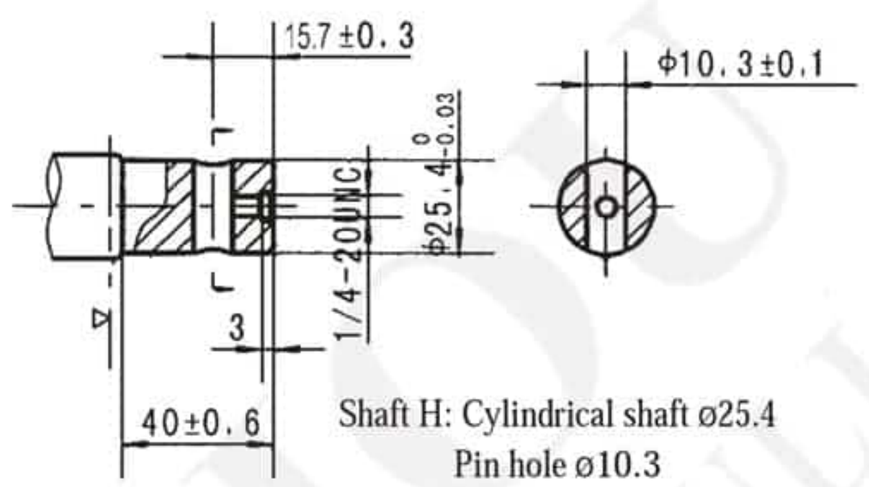
Shaft T: Cone-shaft ø28.56
Parallel key B5x5x14
Tightening torque:100±10Nm

▷ Motor Mounting Surface

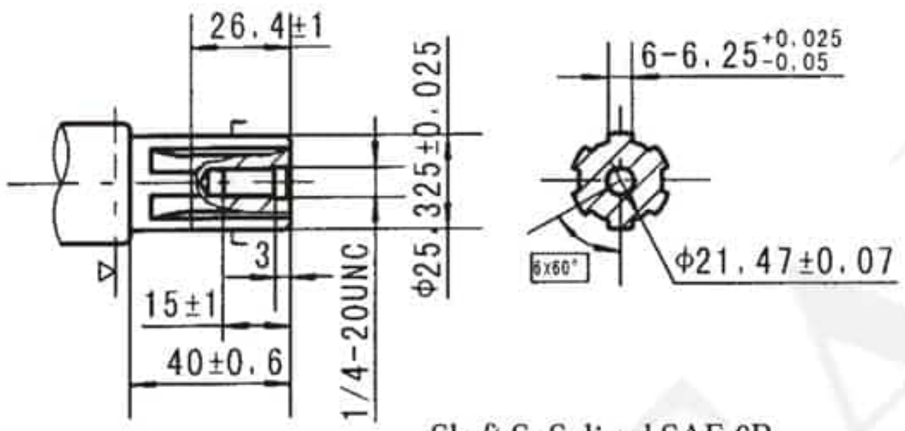
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



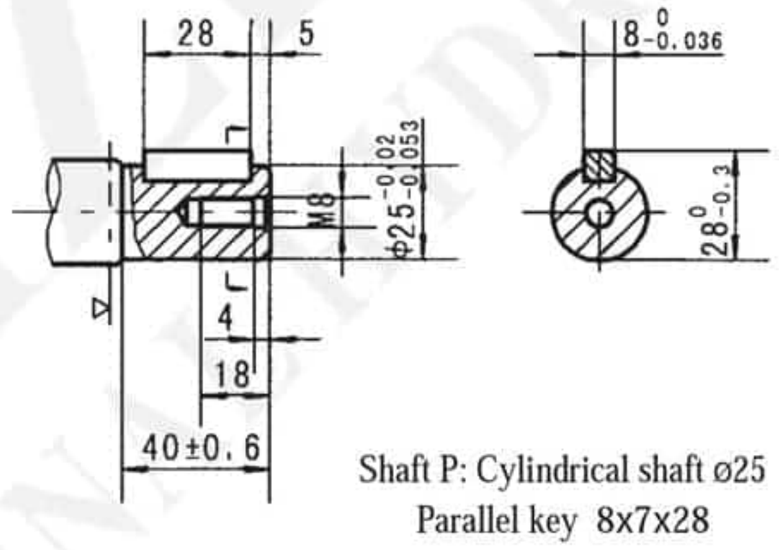
Shaft K: Cylindrical shaftø25.4
Woodruff keyø25.4x6.35



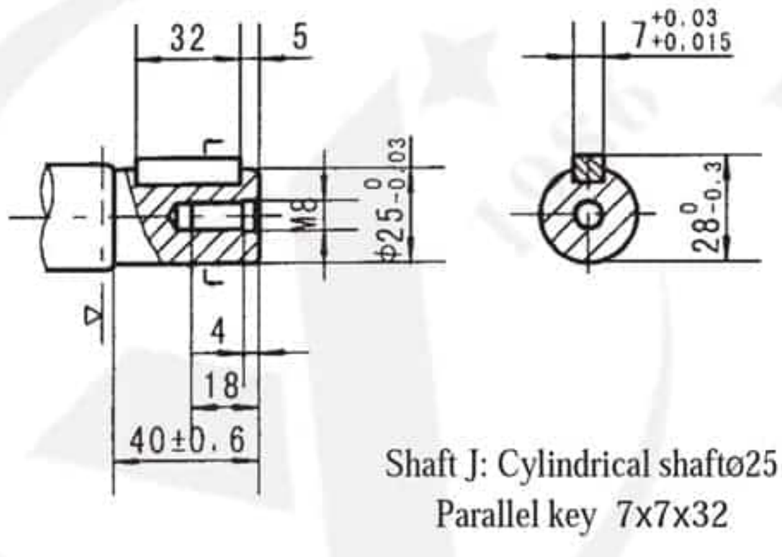
Shaft H: Cylindrical shaft ø25.4
Pin hole ø10.3



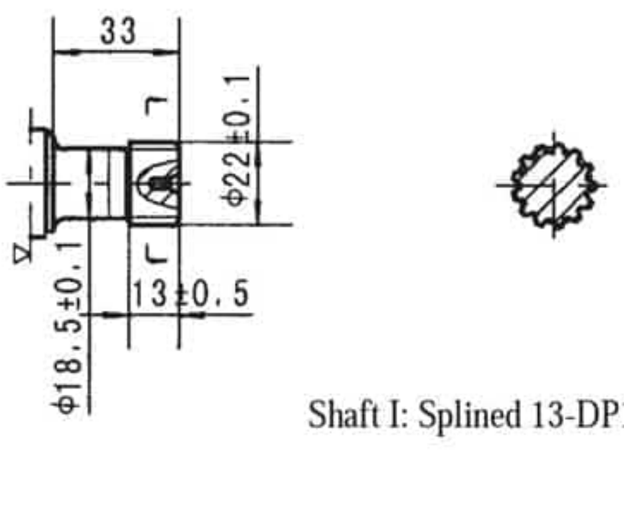
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft ø25
Parallel key 8x7x28



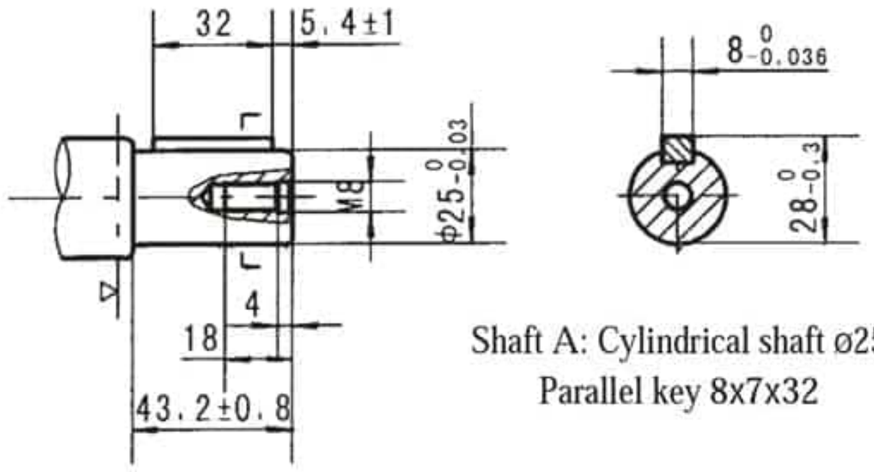
Shaft J: Cylindrical shaftø25
Parallel key 7x7x32



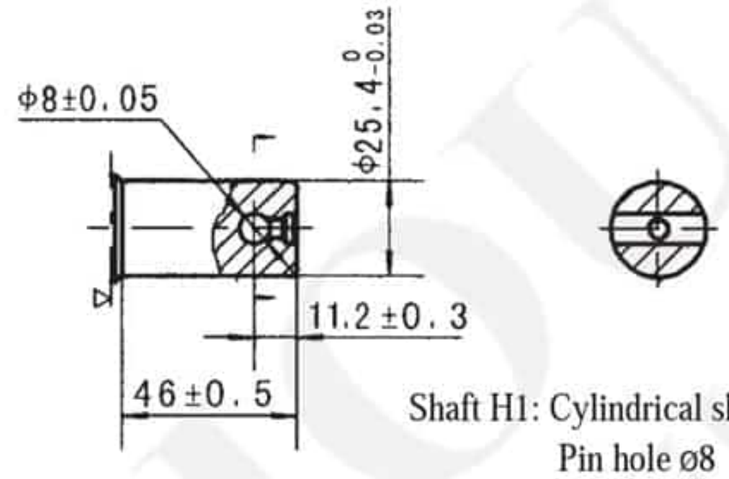
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

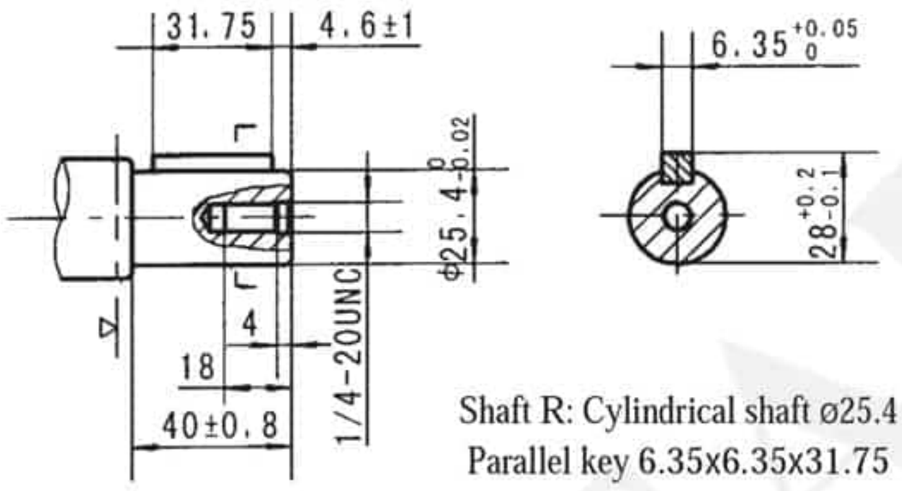
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



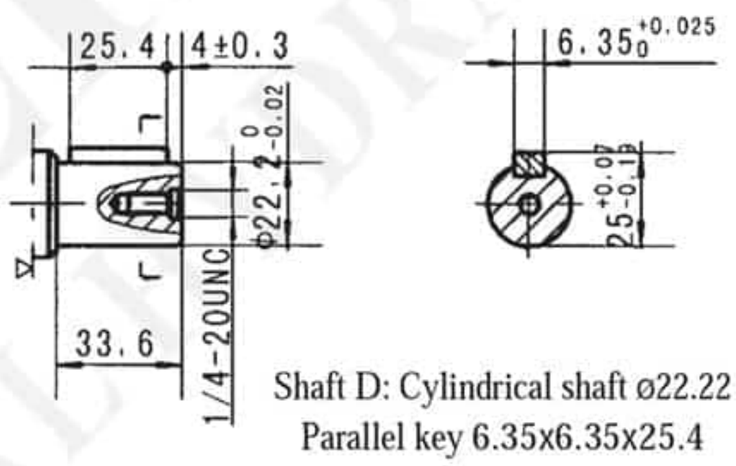
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



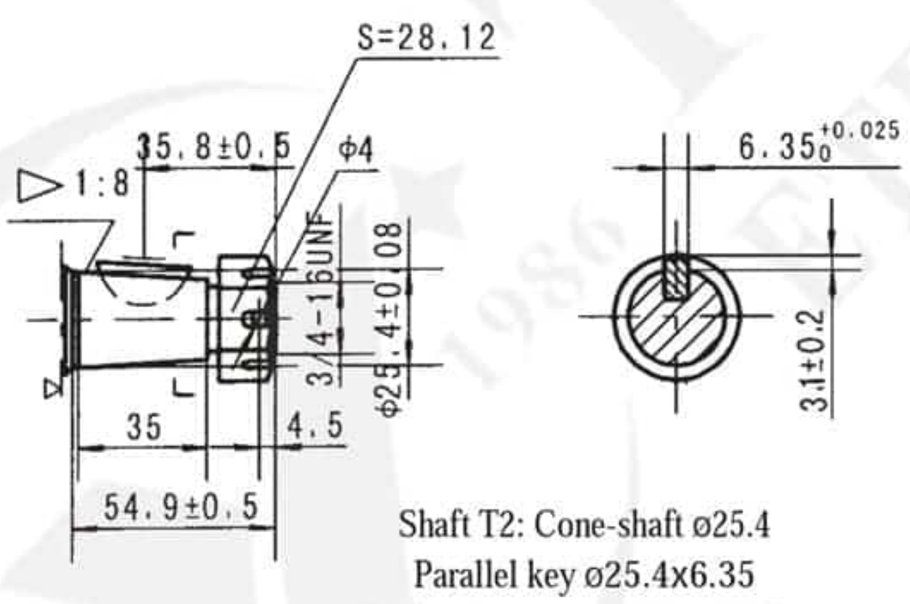
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



Shaft R: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



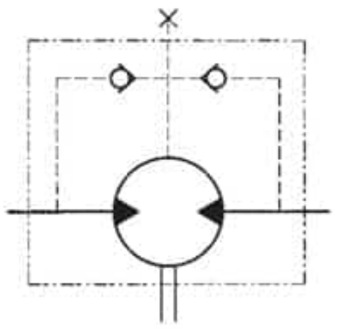
Shaft D: Cylindrical shaft ø22.22
Parallel key 6.35x6.35x25.4



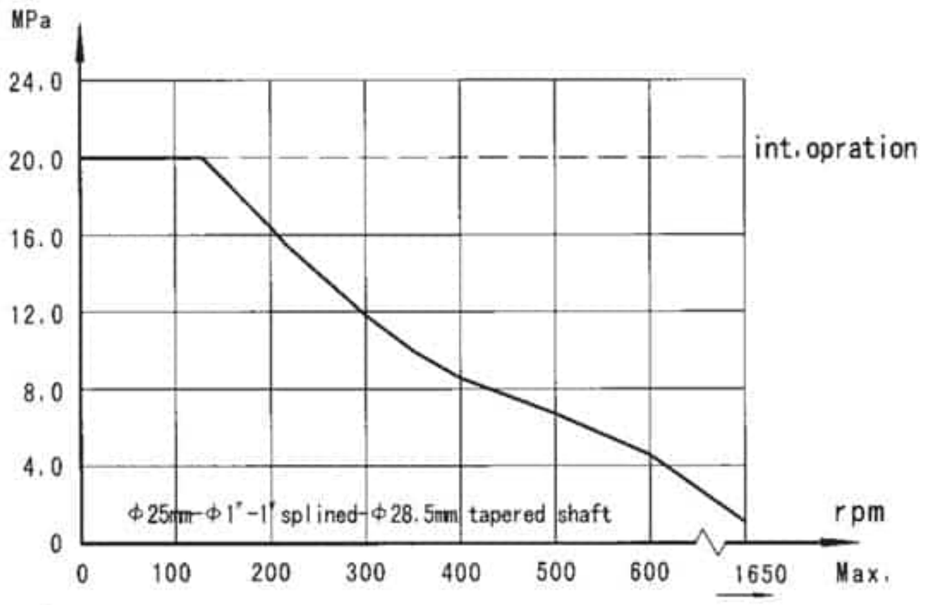
Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque:200±10Nm

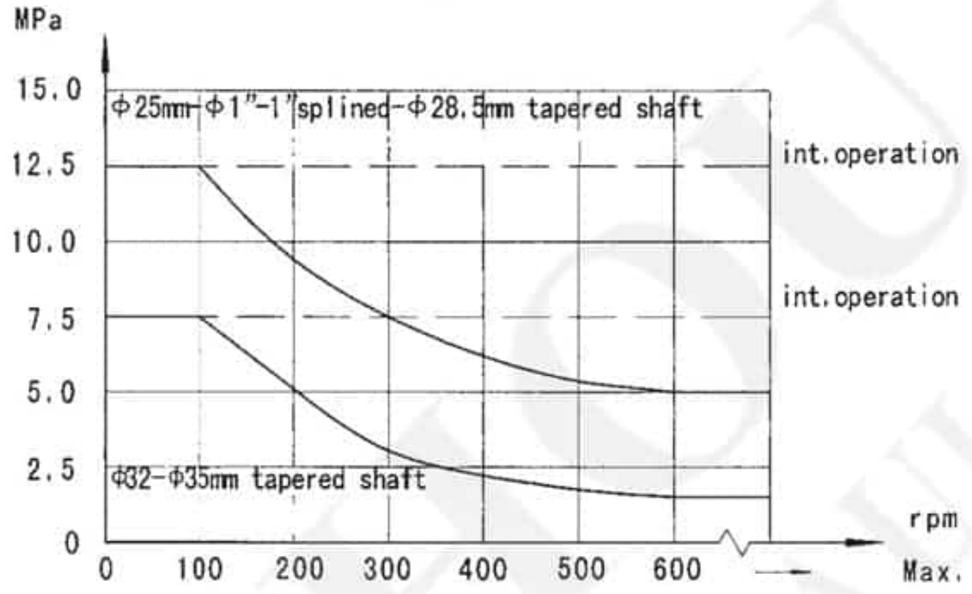
▷ Motor Mounting Surface

BMP、BMPH Series Hydraulic Motor



Permissible shaft seal pressure

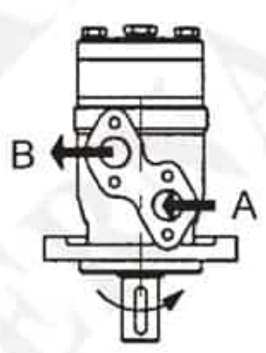




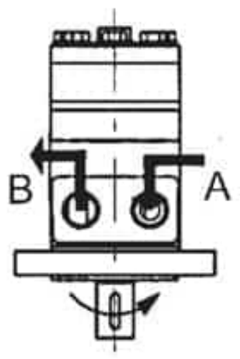
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



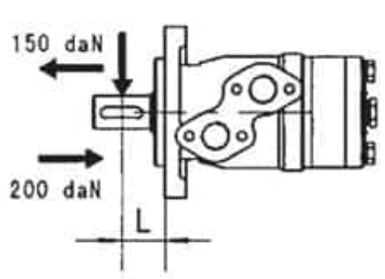
BMP



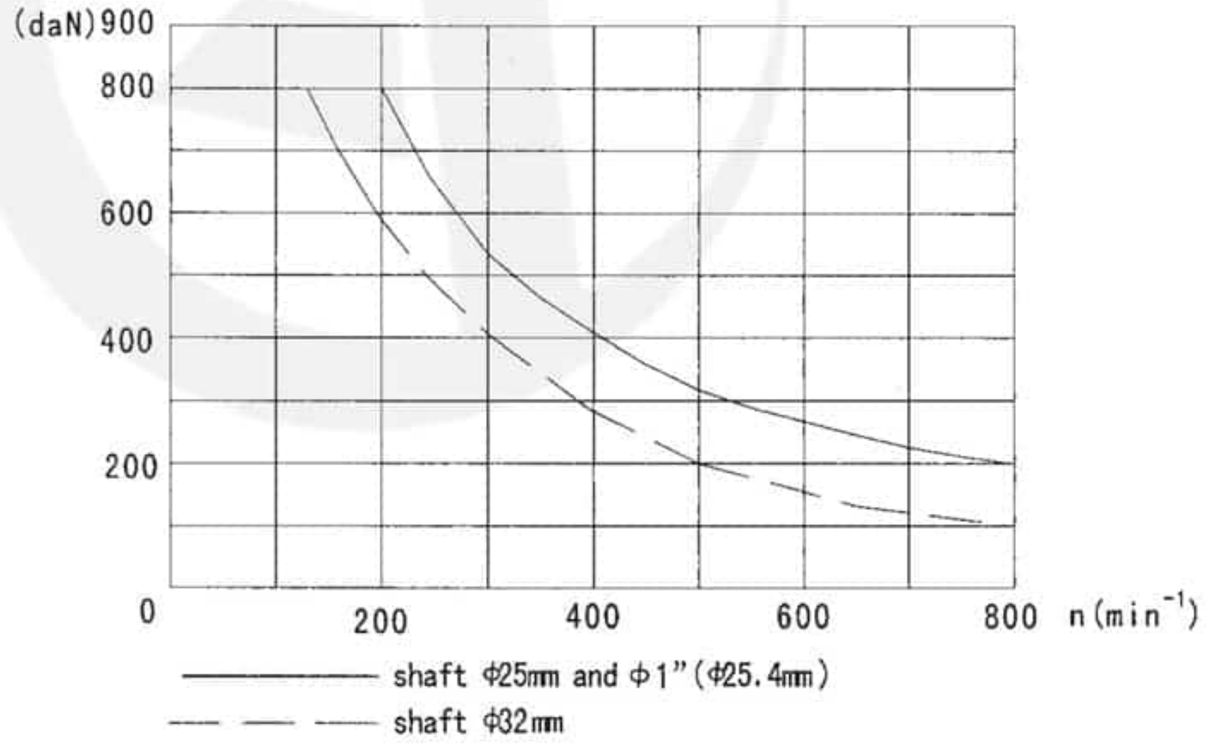
BMPH

Status of the shaft's radial force
(Standard motor with journal bearing)

$$F_r = \frac{800}{n} \cdot \frac{25000}{95+L} \text{ daN}$$



F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)
Rhomb-flange L=30mm
Square-flange L=24mm



Order Information

1	2	3	4	5	6	7	8
BMP	–	–	–	–	–	–	–

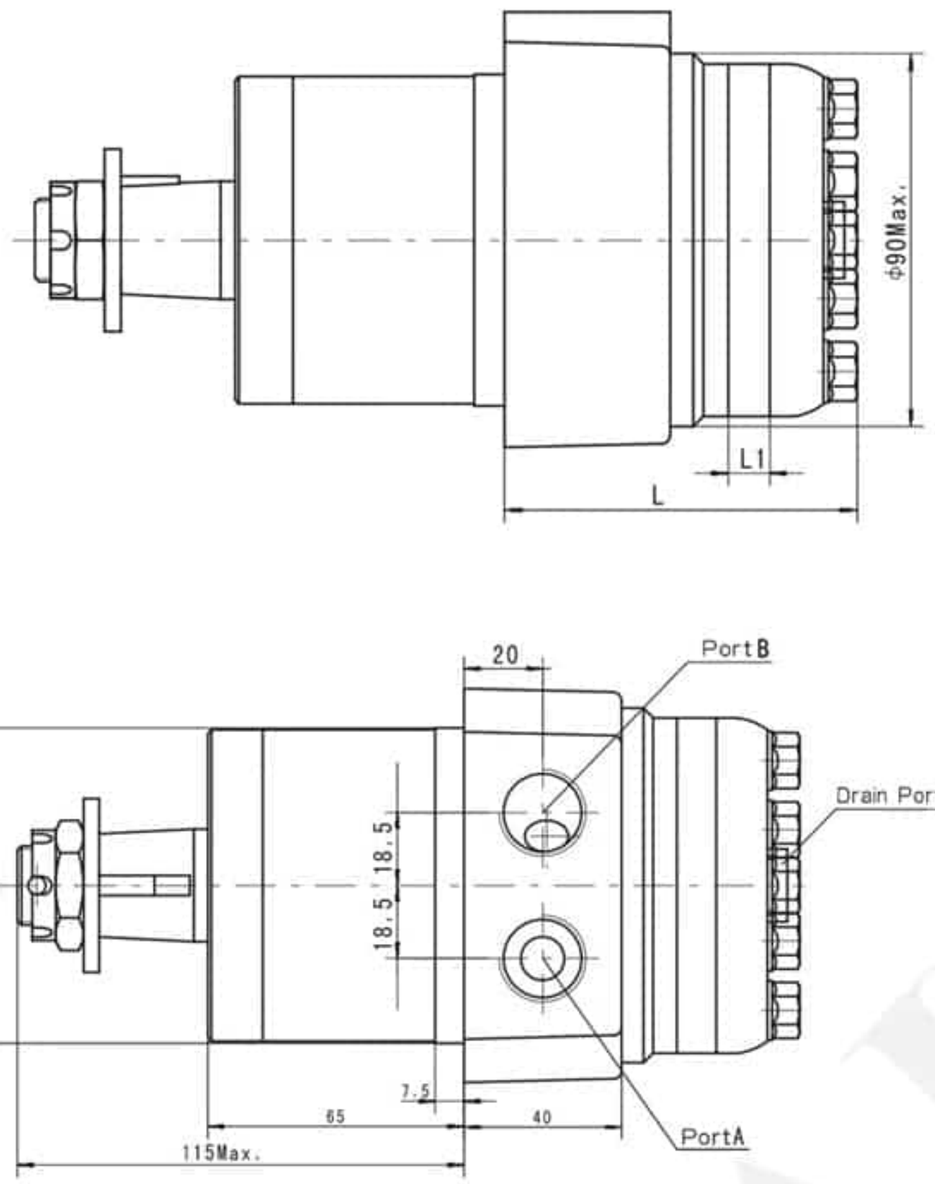
Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMP	36 50 80 100 125 160 200 250 315 400 500	2 4 H4 H5	2-Ø13.5 Rhomb-flange , pilot Ø82.5×8 4-Ø13.5 Rhomb-flange , pilot Ø82.5×8 4-3/8-16 Square-flange , pilot Ø44.4×2.8 4-M10 Square-flange , pilot Ø44.4×2.8	A C E R B F FD G T T3	Shaft Ø25,parallel key 8x7x32 Shaft Ø25.4,parallel key 6.35x6.35x31.75 Shaft Ø25.4,splined tooth SEA 6B Short shaft Ø25.4,parallel key6.35x6.35x31.75 Shaft Ø32,parallel key 10x8x45 Shaft Ø31.75,splined tooth 14-DP12/24 Long shaft Ø31.75,splined tooth14-DP12/24 Shaft Ø31.75, parallel key 7.96x7.96x31.75 Cone shaft Ø28.56,parallel key B5x5x14 Cone shaft Ø31.75,parallel key 7.96x7.96x25.4	D M S P R	G1/2 Manifold Mount 4×M8, G1/4 M22×1.5 Manifold Mount 4×M8, M14×1.5 7/8-14 O-ring manifold 4x5/16-18UNC, 7/16-20UNF 1/2-14 NPTF Manifold 4x5/16-18UNC, 7/16-20UNF PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N1 0 F LS	Standard Big radial force No case drain Free Running Low Speed

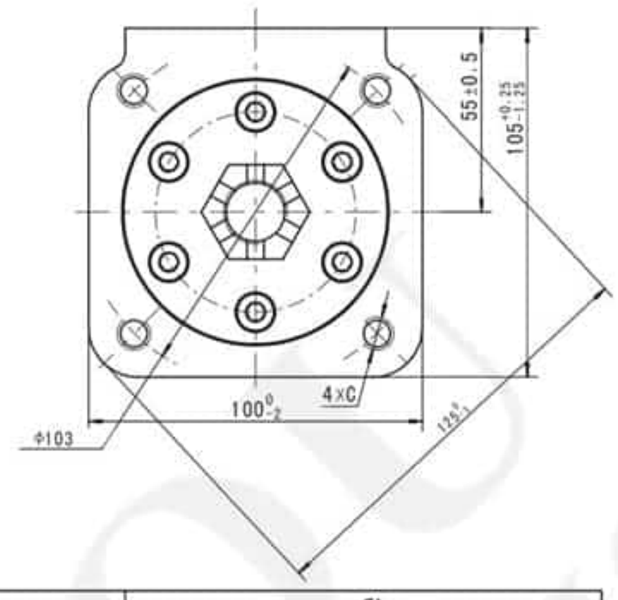
1	2	3	4	5	6	7	8
BMPH	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMPH	36 50 80 100 125 160 200 250 315 400 500	H2 H6 H4 H5	2-Ø13.5 Rhomb-flange , pilot Ø82.5×2.8 4-Ø13.5 Rhomb-flange , pilot Ø82.5×2.8 4-3/8-16 Square-flange , pilot Ø44.4×2.8 4-M10 Square-flange , pilot Ø44.4×2.8	K S A R H H1 D I T2 P J	Shaft Ø25.4, woodruff key Ø25.4×6.35 Shaft Ø25.4 , splined tooth SEA 6B Shaft Ø25 , parallel key 8×7×32 Shaft Ø25.4, parallel key 6.35×6.35×31.75 Shaft Ø25.4 , pin hole Ø10.3 Shaft Ø25.4 , pin hole Ø8 Shaft Ø22.22, parallel key 6.35×6.35×25.4 Shaft Ø22.22, splined tooth 13-DP16/32 Cone shaft Ø25.4 , woodruff key Ø25.4×6.35 Shaft Ø25 , parallel key 8×7×28 Shaft Ø25 , parallel key 7×7×32	G S P T R B4 B5	G1/2, G1/4 7/8-14 O-ring ,7/16-20UNF 1/2-14 NPTF, 7/16-20UNF 3/4-16 O-ring, 7/16-20UNF PT(Rc)1/2 ,PT(Rc)1/4 Ø10 O-ring manifold 4x5/16-18UNC,7/16-20UNF Ø10 O-ring manifold 4xM8, 7/16-20UNF	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N1 0 F LS	Standard Big radial force No case drain Free Running Low Speed

Note:When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMPW DIMENSIONS AND MOUNTING DATA





Model	L	L1
BMPW50	81	7
BMPW80	84.5	10.5
BMPW100	87	13
BMPW125	90	16
BMPW160	95	21
BMPW200	100	26
BMPW250	106	32
BMPW315	116	42
BMPW400	126	52
BMPW500	139	65

Mounting \ Code	G (depth)	S (depth)	M (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	M22×1.5 (15)
T	G1/4 (12)	7/16-20UNF (12)	M14×1.5 (12)
C	4×M10(20)	4×3/8-16UNC(20)	4×M10(20)

Order Information

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
BMPW	50 80 100 125 160 200 250 315 400 500	Omit Wheel-flange pilat Ø80×7.5	A Shaft Ø25k6 ,Parallel key 8×7×32 C Shaft Ø25.4 ,Parallel key 6.35×6.35×31.75 E Shaft Ø25.4 ,Splined key SAE 6B T Cone shaft Ø28.56 ,Parallel key B5×5×14	G G1/2, G1/4 S 7/8-14 O-ring, 7/16-20UNF M M22×1.5,M14×1.5	Omit Standard R Opposite	00 Omit No paint B Blue S Black Silver grey	Omit Standard N1 Big radial force 0 No case drain

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

TAIZHOU
ETERNAL HYDRAULIC

OZ SERIES HYDRAULIC MOTOR

OZ series motor are small volume, economical type, which is designed with shaft distribution flow, which adapt the Gerotor gear set design and provide compact volume, high power and low weight.

Characteristic features:

* Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
* Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
* Advanced construction design, high power and low weight.

Main Specification

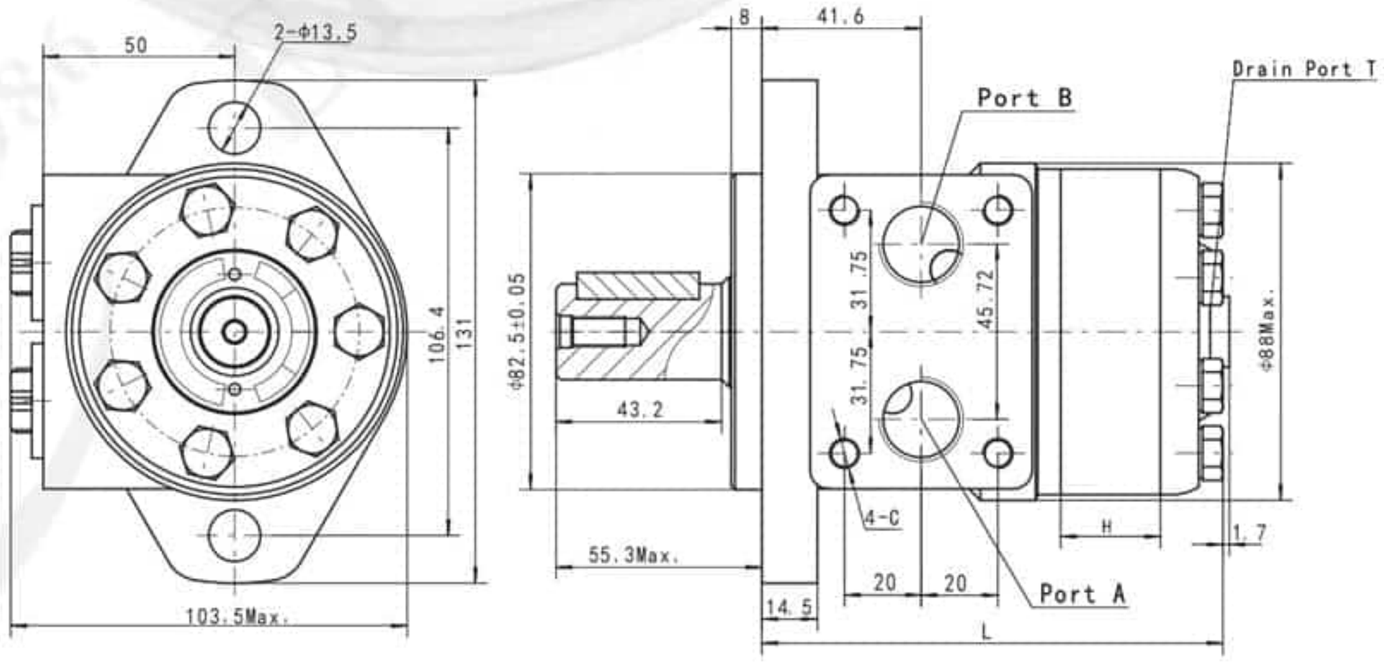
Technical data for OZ with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Code	Displacement [cm/rev]	Max.Speed [rpm]	Max.Torque [Nm]		Max.output [kW]		Max.pressure [MPa]		Max.Oil Flow[L/min]
		cont.	cont.	int.	cont.	int.	cont.	int.	cont.
OZ 36	37	1081	51	68	5.2	8.6	10.5	14	40
OZ 50	51.7	774	73	96	5.2	8.6	10.5	14	40
OZ 80	77.7	515	106	143	5.2	8.6	10.5	14	40
OZ 100	96.2	416	140	178	5.2	8.6	10.5	14	40
OZ 125	117.9	339	162	218	5.2	8.6	10.5	14	40
OZ 160	155.5	257	216	288	5.2	8.6	10.5	14	40
OZ 200	189.9	211	264	351	5.2	8.6	10.5	14	40
OZ 250	231	173	281	351	4.6	7	9	11.5	40
OZ 315	311.7	128	312	433	3.4	5.8	7	10.5	40
OZ 400	386.2	104	392	582	3.4	5.8	7	10.5	40

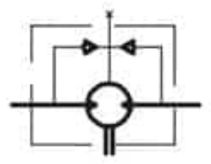
* Intermittent operation: the permisssible values may occur for max.10% of every minute

OZ DIMENSIONS AND MOUNTING DATA

Type	H	L
OZ36	7	101
OZ50	7	101
OZ80	10.5	104.5
OZ100	13	107
OZ125	16	110
OZ160	21	115
OZ200	26	120
OZ250	32	126
OZ315	42	136
OZ400	52	146

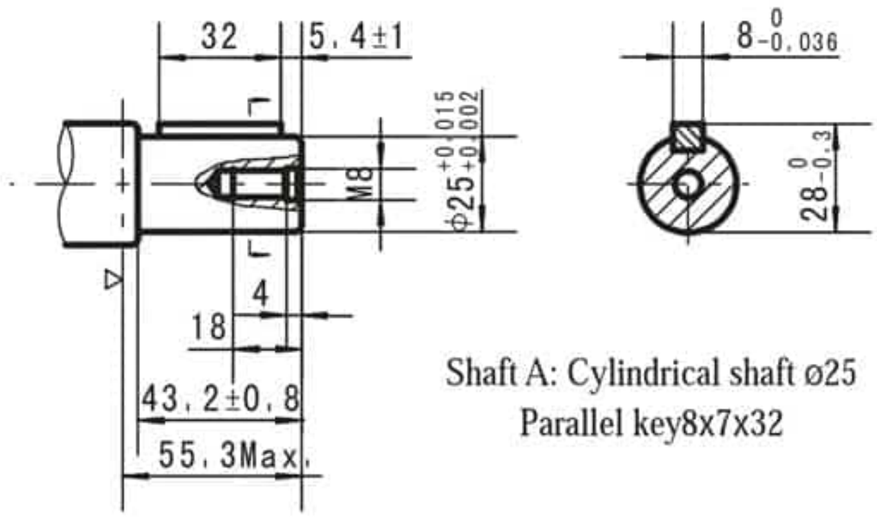


Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

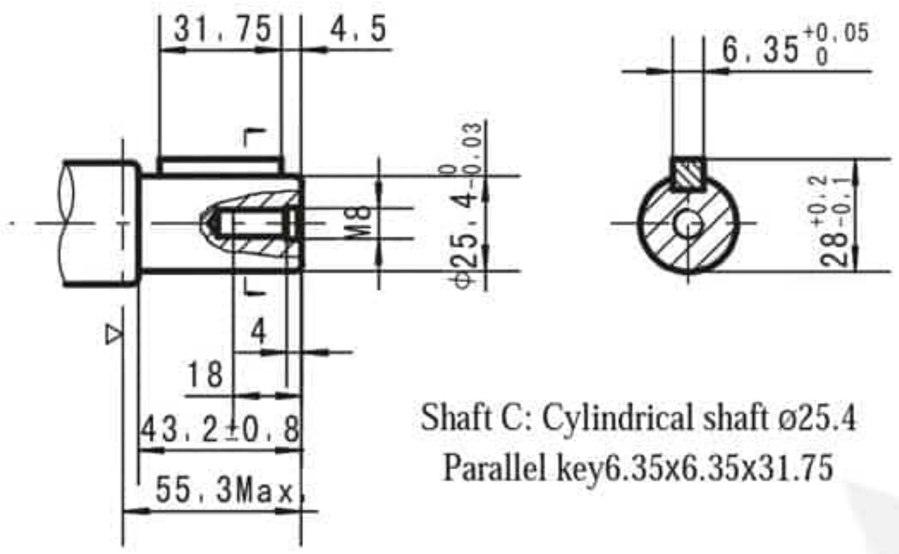


Direction of shaft rotation: Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

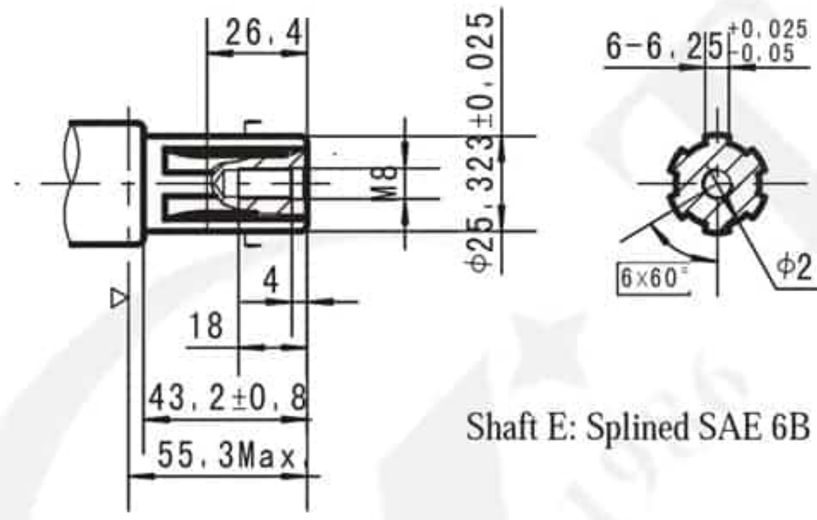
SHAFT EXTENSIONS FOR OZ MOTORS



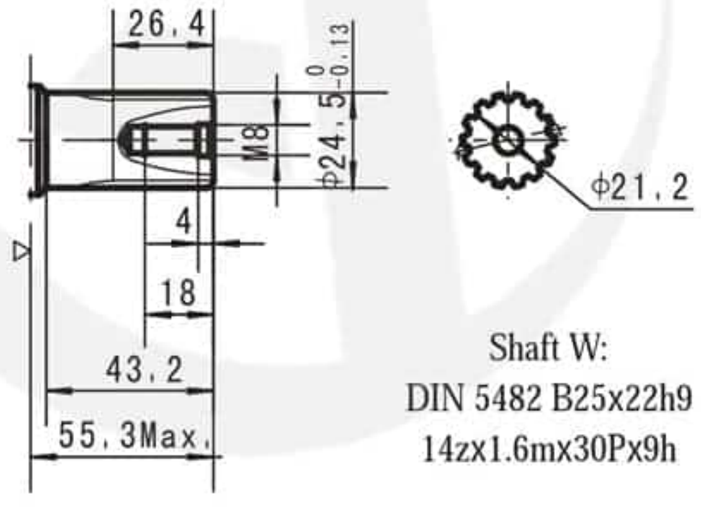
Shaft A: Cylindrical shaft ø25
Parallel key8x7x32



Shaft C: Cylindrical shaft ø25.4
Parallel key6.35x6.35x31.75



Shaft E: Splined SAE 6B



Shaft W:
DIN 5482 B25x22h9
14zx1.6mx30Px9h

▷ Motor Mounting Surface

Order Information

	1	2	3	4	5	6	7	8
	OZ	–	–	–	–	–	–	–
Pos.1		2	3		4	5	6	7	8
Code		Disp.	Flange		Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
		36	2		A Shaft Ø25 , parllel key 8×7×32	D G1/2	Omit Standard	00 No paint	Omit Standard
		50			C Shaft Ø25.4 , parllel key 6.35×6.35×31.75	M M22×1.5 Manifold4×M8,M14×1.5	F Free Runnin	Omit Blue	
		80			E Shaft Ø25.4, splined key SEA 6B	S 7/8-14 O-ring manifold	0 No case drai	B Black	
		100			W Shaft Ø24.5, splined B25X22	4×5/16-18UNC,7/16-20UNF		S Silver grey	
		125	2		T Cone shaft Ø28.56, parllel key B5×5×14	P 1/2-14NPTF manifold			
	Omit	160	2-Ø13.5 Rhomb-flange , pilot Ø82.5×8			4×5/16-18UNC,7/16-20UNF			
		200				R PT(Rc)1/2 manifold 4×M8,			
		250				PT(Rc)1/4			
		315							
		400							

BMR SERIES HYDRAULIC MOTOR

BMR series motor adapt the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

*Advanced manufacturing devices for the Gerolor gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
*Shaft seal can bear high pressure of back and the motor can be used in parallel or in series.
*Special design in the driver-linker and prolong operating life
*Special design for distribution system can meet the requirement of low noise of unit.
*Compact volume and easy installation

Main Specification

Technical data for BMR with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Type		BMR BMRS 36	BMR BMRS 50	BMR BMRS 80	BMR BMRS 100	BMR BMRS 125	BMR BMRS 160	BMR BMRS 200	BMR BMRS 250	BMR BMRS 315	BMR BMRS 375
Geometric displacement (cm^3/rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1085	960	750	600	475	378	310	240	190	155
	int.	1220	1150	940	750	600	475	385	300	240	190
Max. torque (N•m)	cont.	72	100	195	240	300	360	360	390	390	365
	int.	83	126	220	280	340	430	440	490	535	495
	peak	105	165	270	320	370	460	560	640	650	680
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	10.0	7.0	6.0	5.0
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	9.5	9.0	8.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	16.5	13	11	9	7
	int.	16.5	17.5	20	20	20	20	17.5	15	13	10
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	20	17.5	15
Max. flow (L/min)	cont.	40	50	60	60	60	60	60	60	60	60
	int.	45	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

* Continuous pressure:Max.value of operating motor continuously.
* Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
* Peak pressure:Max.value of operating motor in 0.6 second per minute.

Main Specification

Technical data for BMR with 31.75 and 32 shaft

Type		BMR BMRS 36	BMR BMRS 50	BMR BMRS 80	BMR BMRS 100	BMR BMRS 125	BMR BMRS 160	BMR BMRS 200	BMR BMRS 250	BMR BMRS 315	BMR BMRS 375
Geometric displacement (cm^3/rev.)		36	51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	cont.	1250	960	750	600	475	378	310	240	190	155
	int.	1520	1150	940	750	600	475	385	300	240	190
Max. torque (N•m)	cont.	72	100	195	240	300	380	450	540	550	580
	int.	83	126	220	280	340	430	500	610	690	690
	peak	105	165	270	320	370	460	560	710	840	830
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	11.0	10.0	9.0	7.5
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	12.0	10.0	9.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	17.5	17.5	17.5	13.5	11.5
	int.	16.5	17.5	20	20	20	20	20	20	17.5	15
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21	17.5
Max. flow (L/min)	cont.	45	50	60	60	60	60	60	60	60	60
	int.	55	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

* Continuous pressure:Max.value of operating motor continuously.
* Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
* Peak pressure:Max.value of operating motor in 0.6 second per minute.

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ETERNAL HYDRAULIC

Performance Data

BMR 36 [36cm³/rev.]

Pressure (MPa)

Flow (L/min)		2	3	5	7	9	10	12.5	14.0	16.5
	4	10	16	25	37	46	50			
		105	**100**	**92**	**80**	**71**	**58**			
	8	9	15	25	37	47	50	63	71	83
		208	**200**	**188**	**175**	**158**	**149**	**134**	**120**	**108**
	15	8	14	23	36	45	51	64	72	82
		403	**392**	**380**	**365**	**348**	**326**	**318**	**302**	**274**
	20	6	13	22	35	44	50	64	72	82
		540	**531**	**518**	**500**	**483**	**462**	**450**	**435**	**412**
	30	6	12	21	32	42	47	63	70	80
		810	**798**	**780**	**763**	**742**	**722**	**705**	**694**	**668**
Max.cont.	40	5	11	19	30	41	45	61	68	79
		1092	**1080**	**1069**	**1056**	**1042**	**1028**	**1011**	**984**	**957**
Max.int.	45	4	10	17	29	40	44	59	66	77
		1230	**1215**	**1194**	**1170**	**1150**	**1128**	**1100**	**1070**	**1020**

BMR 50 [51.7cm³/rev.]

Pressure (MPa)

Flow (L/min)		5	7	9	10	12	14	16	17.5
	5	35	45	61	67	77	88		
		93	**84**	**76**	**73**	**69**	**46**		
	10	36	46	62	69	80	95	108	120
		186	**178**	**166**	**162**	**153**	**136**	**118**	**97**
	15	35	49	63	73	88	100	109	123
		283	**277**	**269**	**261**	**250**	**230**	**211**	**185**
	20	34.5	47	61	69	83	96	109	126
		377	**375**	**365**	**361**	**346**	**330**	**302**	**270**
	30	33	44	60	67	80	95	108	126
		576	**569**	**561**	**554**	**542**	**531**	**500**	**465**
	40	30	41	58	66	79	92	106	122
		760	**758**	**753**	**750**	**738**	**724**	**700**	**670**
	45	29.5	40	57	65	78	90	105	121
		856	**853**	**849**	**845**	**835**	**815**	**796**	**770**
Max.cont.	50	26	37	53	60	73	85	99	114
		950	**940**	**925**	**906**	**880**	**852**	**832**	**801**
Max.int.	60	20	33	48	56	69	81	95	109
		1138	**1124**	**1100**	**1075**	**1056**	**1028**	**1006**	**970**

BMR 80 [81.5cm³/rev.]

Pressure (MPa)

Flow (L/min)		5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
	5	50	64	88	108	133				
		59	**56**	**50**	**44**	**38**				
	10	54	77	99	108	129	150	173		
		118	**113**	**106**	**97**	**86**	**79**	**56**		
	20	57	78.0	102	111	134	155	177	196	225
		238	**234**	**227**	**216**	**203**	**190**	**178**	**154**	**135**
	30	54	75	100	108	131	152	176	195	223
		360	**352**	**340**	**332**	**316**	**302**	**290**	**274**	**250**
	40	48	73	96	105	127	148	172	190	220
		480	**470**	**458**	**445**	**430**	**418**	**403**	**388**	**359**
	50	42	70	93	102	124	147	170	188	218
		604	**595**	**582**	**570**	**556**	**540**	**521**	**504**	**487**
Max.cont.	60	37	66	89	98	121	144	166	184	213
		726	**715**	**704**	**692**	**678**	**663**	**647**	**622**	**594**
	70	32	60	83	95	116	140	160	177	208
		845	**834**	**820**	**802**	**789**	**767**	**754**	**730**	**705**
Max.int.	75	21	50	78	90	111	135	154	171	200
		910	**895**	**881**	**867**	**852**	**830**	**806**	**787**	**756**

Torque (N•m) 135
Speed (rpm) **830**

BMR 100 [102cm³/rev.]

Pressure (MPa)

Flow (L/min)		5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
	5	66	92	120	135	156				
		45	**42**	**38**	**34**	**27**				
	10	68	96	125	138	159	188	212		
		93	**90**	**86**	**81**	**74**	**57**	**42**		
	20	65	94.0	123	137	155	186	210	238	274
		189	**185**	**180**	**173**	**165**	**158**	**150**	**139**	**118**
	30	63	92	120	133	153	185	209	235	270
		286	**281**	**275**	**266**	**257**	**246**	**237**	**225**	**207**
	40	57	88	117	130	152	185	208	233	267
		385	**378**	**365**	**355**	**345**	**332**	**320**	**314**	**297**
	50	48	79	110	123	150	183	204	228	260
		482	**477**	**470**	**460**	**448**	**435**	**420**	**405**	**389**
Max.cont.	60	38	70	105	120	144	178	200	220	252
		580	**572**	**560**	**548**	**535**	**523**	**510**	**500**	**478**
	70	32	65	100	118	141	176	197	215	246
		678	**670**	**660**	**648**	**638**	**626**	**615**	**606**	**580**
Max.int.	75	23	59	93	111	136	170	192	210	240
		728	**720**	**710**	**695**	**681**	**667**	**650**	**634**	**618**

cont.
int.

Performance Data

BMR 125 [127.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
5	76 **36**	110 **31**	145 **25**	167 **19**	189 **13**				
10	84 **73**	118 **70**	155 **60**	176 **48**	202 **36**	228 **25**	253 **19**		
20	82 **153**	117 **151**	153 **148**	174 **144**	200 **138**	230 **128**	259 **117**	294 **104**	332 **73**
30	79 **231**	116 **228**	151 **224**	171 **218**	198 **210**	228 **201**	257 **183**	292 **168**	329 **137**
40	72 **309**	114 **307**	148 **303**	168 **298**	196 **292**	226 **280**	256 **270**	290 **252**	327 **218**
50	62 **389**	105 **386**	143 **382**	165 **378**	195 **370**	223 **360**	254 **344**	287 **328**	323 **292**
Max.cont. 60	52 **467**	98 **463**	136 **459**	160 **456**	191 **448**	220 **427**	250 **410**	282 **399**	319 **352**
70	41 **545**	90 **542**	130 **538**	156 **534**	187 **529**	215 **520**	242 **508**	278 **486**	313 **430**
Max.int. 75	32 **586**	79 **583**	126 **578**	148 **570**	180 **560**	208 **546**	234 **532**	262 **520**	300 **480**

BMR 160 [157.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
5	104 **26**	146 **23**	190 **20**	210 **16**	245 **10**				
10	107 **59**	150 **56**	195 **50**	216 **45**	250 **37**	290 **30**	335 **22**		
20	102 **121**	151 **118**	198 **115**	220 **113**	257 **108**	298 **102**	342 **97**	370 **90**	420 **78**
30	97 **184**	146 **178**	190 **173**	217 **170**	256 **164**	295 **155**	340 **143**	368 **128**	416 **103**
40	89 **246**	140 **241**	185 **235**	210 **228**	252 **220**	290 **210**	335 **194**	363 **177**	412 **150**
50	72 **310**	128 **307**	179 **300**	202 **295**	244 **287**	284 **278**	327 **262**	358 **247**	409 **210**
Max.cont. 60	60 **374**	116 **367**	170 **359**	198 **354**	240 **346**	279 **338**	321 **323**	352 **306**	400 **265**
70	49 **437**	107 **430**	164 **421**	193 **415**	233 **403**	271 **393**	309 **381**	344 **365**	390 **318**
Max.int. 75	36 **472**	98 **463**	152 **450**	185 **441**	226 **431**	265 **420**	300 **405**	334 **389**	379 **365**

BMR 200 [194.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
5	132 **24**	181 **22**	238 **18**	262 **13**	310 **10**				
10	135 **49**	186 **47**	240 **45**	264 **43**	315 **38**	356 **33**	403 **24**		
20	131 **99**	183 **97**	238 **94**	260 **92**	314 **88**	358 **83**	404 **74**	438 **64**	498 **56**
30	126 **149**	178 **147**	233 **144**	254 **141**	311 **135**	355 **126**	402 **113**	431 **105**	486 **91**
40	112 **200**	169 **197**	228 **194**	250 **191**	307 **185**	352 **174**	400 **160**	426 **151**	477 **127**
50	95 **252**	156 **249**	221 **246**	246 **243**	300 **238**	350 **228**	398 **212**	421 **194**	470 **161**
Max.cont. 60	78 **304**	145 **301**	213 **298**	238 **294**	289 **286**	342 **276**	386 **262**	412 **243**	459 **218**
70	67 **355**	135 **353**	206 **349**	228 **340**	277 **329**	336 **316**	375 **300**	408 **288**	453 **257**
Max.int. 75	58 **382**	125 **379**	197 **373**	220 **362**	270 **350**	321 **337**	360 **322**	398 **312**	442 **278**

BMR 250 [253.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	Max.cont. 16	17.5	Max.int. 20
5	175 **17**	243 **16**	304 **14**	342 **12**	407 **10**				
10	178 **37**	246 **35**	310 **31**	344 **28**	409 **23**	465 **18**	525 **11**		
20	175 **75**	244 **73**	308 **72**	340 **70**	408 **66**	463 **58**	520 **53**	558 **50**	636 **42**
30	162 **114**	235 **111**	304 **108**	332 **106**	400 **100**	455 **92**	516 **83**	550 **77**	621 **65**
40	143 **154**	223 **152**	300 **150**	329 **147**	396 **143**	447 **132**	512 **120**	546 **110**	617 **90**
50	124 **193**	208 **190**	289 **187**	323 **174**	384 **168**	440 **160**	503 **149**	535 **140**	600 **116**
Max.cont. 60	103 **233**	192 **230**	280 **227**	314 **224**	371 **218**	426 **205**	489 **190**	514 **181**	578 **155**
70	88 **273**	178 **270**	264 **267**	301 **263**	356 **252**	418 **242**	479 **226**	498 **209**	560 **173**
Max.int. 75	62 **294**	165 **291**	256 **287**	288 **283**	347 **274**	412 **263**	474 **249**	486 **236**	542 **211**

Torque (N•m) 256
Speed (rpm) **287**

cont.

int.

Performance Data

BMR 315 [317.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	16	17.5
5	215 **13**	302 **11**						
10	218 **28**	305 **27**	383 **25**	422 **24**	488 **21**	551 **18**	622 **13**	
20	215 **60**	303 **59**	380 **57**	418 **55**	485 **52**	549 **49**	620 **45**	660 **42**
30	204 **91**	296 **89**	375 **86**	413 **84**	480 **81**	542 **78**	613 **72**	654 **67**
40	196 **122**	287 **120**	368 **117**	410 **112**	477 **106**	539 **100**	609 **94**	650 **85**
50	176 **154**	270 **151**	356 **147**	393 **140**	461 **131**	526 **120**	597 **109**	645 **100**
Max.cont. 60	162 **185**	246 **182**	339 **177**	374 **172**	446 **163**	511 **152**	586 **140**	628 **134**
70	143 **217**	235 **213**	324 **208**	358 **201**	430 **190**	493 **178**	562 **166**	614 **158**
Max.int. 75	125 **232**	212 **228**	303 **222**	339 **216**	417 **208**	481 **200**	543 **183**	582 **171**

Torque (N•m) 481
Speed (rpm) **200**

BMR 375 [381.4cm³/rev.]

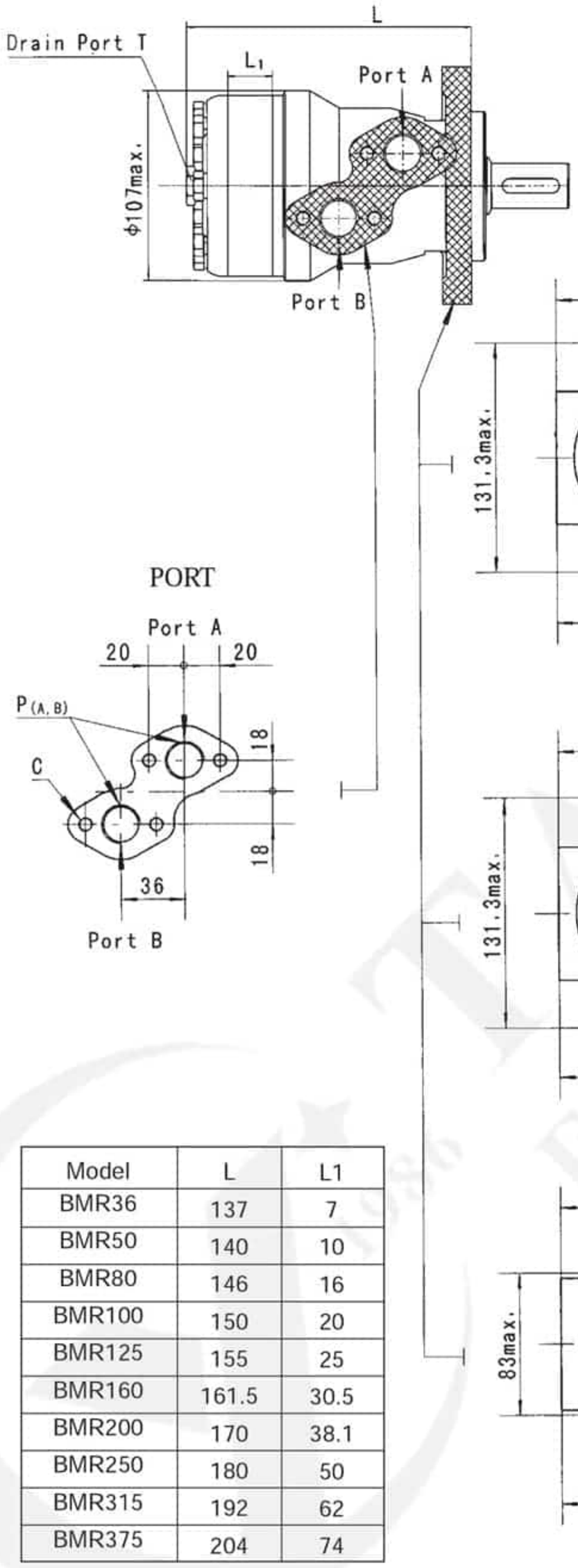
Pressure (MPa)

Flow (L/min)	3	4.5	5.5	6.5	8	10	12.5	14
5	153 **12**	232 **10**						
10	157 **24**	236 **23**	284 **22**	337 **21**	406 **19**	497 **17**	612 **15**	668 **12**
20	150 **49**	232 **48**	280 **47**	332 **46**	401 **44**	490 **41**	606 **38**	660 **32**
30	142 **76**	215 **75**	274 **74**	327 **73**	398 **71**	483 **67**	603 **63**	652 **50**
40	126 **103**	212 **101**	268 **99**	320 **97**	393 **95**	477 **92**	593 **88**	635 **70**
50	105 **128**	187 **126**	242 **124**	302 **121**	376 **118**	455 **115**	583 **111**	608 **96**
Max.cont. 60	90 **154**	167 **152**	229 **150**	281 **148**	362 **145**	444 **138**	566 **130**	600 **121**
70	90 **180**	149 **179**	200 **178**	258 **176**	341 **173**	425 **168**	546 **160**	580 **148**
Max.int. 75	56 **195**	125 **194**	182 **193**	241 **191**	320 **189**	408 **185**	524 **178**	565 **170**

cont.
int.

BMR DIMENSIONS AND MOUNTING DATA

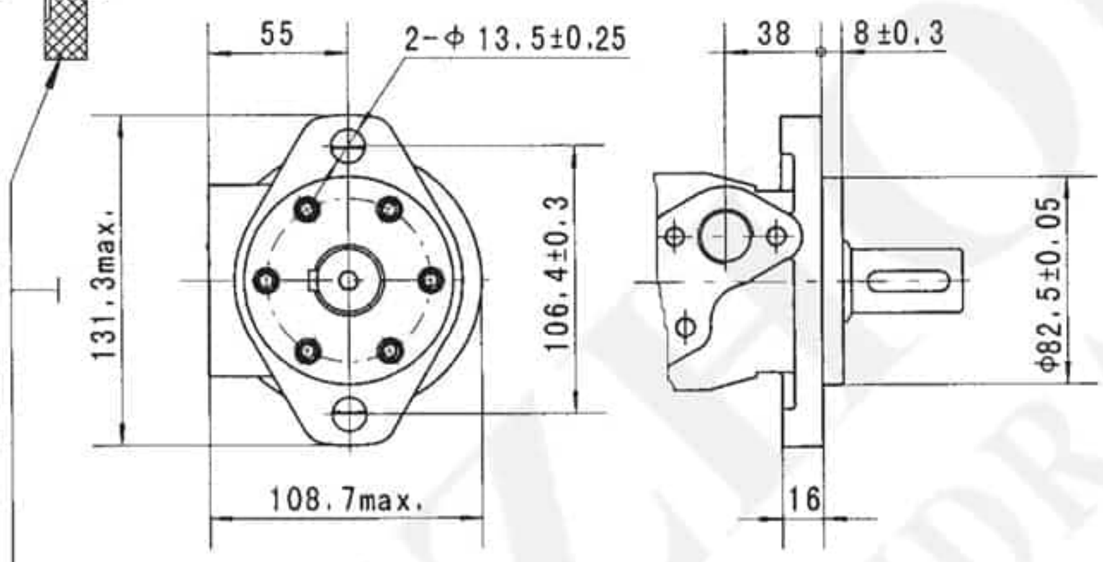
MOUNTING



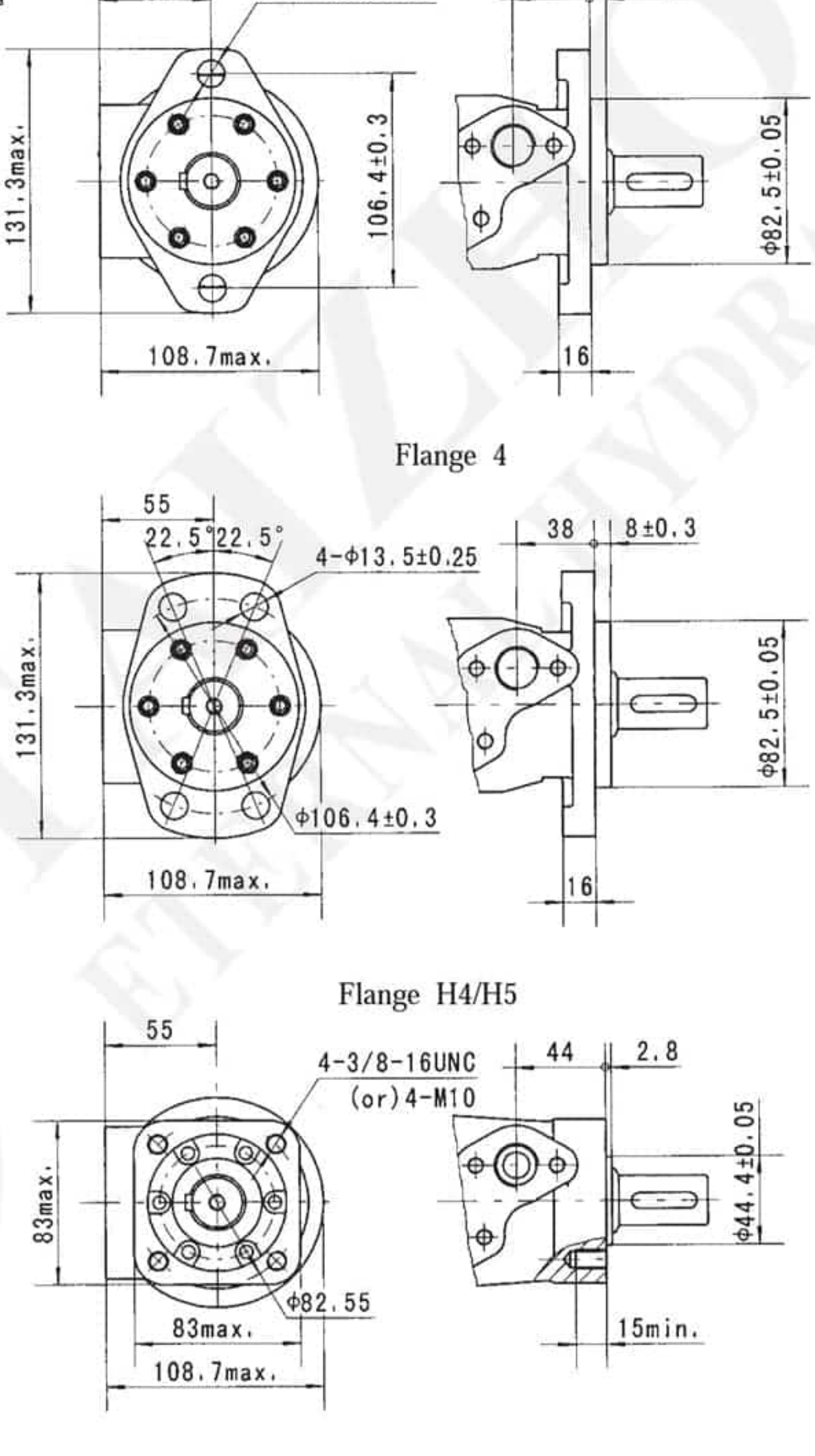
PORT

Model	L	L1
BMR36	137	7
BMR50	140	10
BMR80	146	16
BMR100	150	20
BMR125	155	25
BMR160	161.5	30.5
BMR200	170	38.1
BMR250	180	50
BMR315	192	62
BMR375	204	74

Flange 2



Flange 4

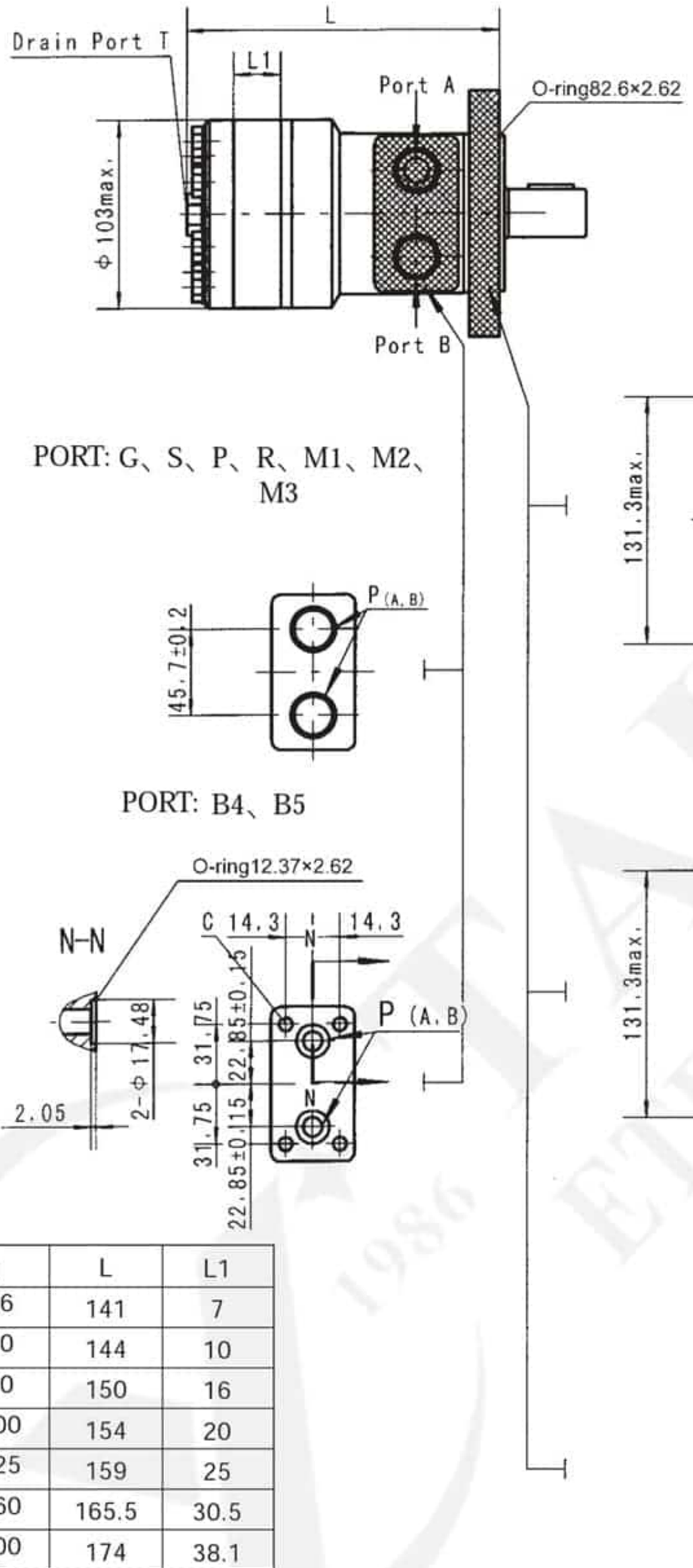


Flange H4/H5

Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

BMRS DIMENSIONS AND MOUNTING DATA

MOUNTING

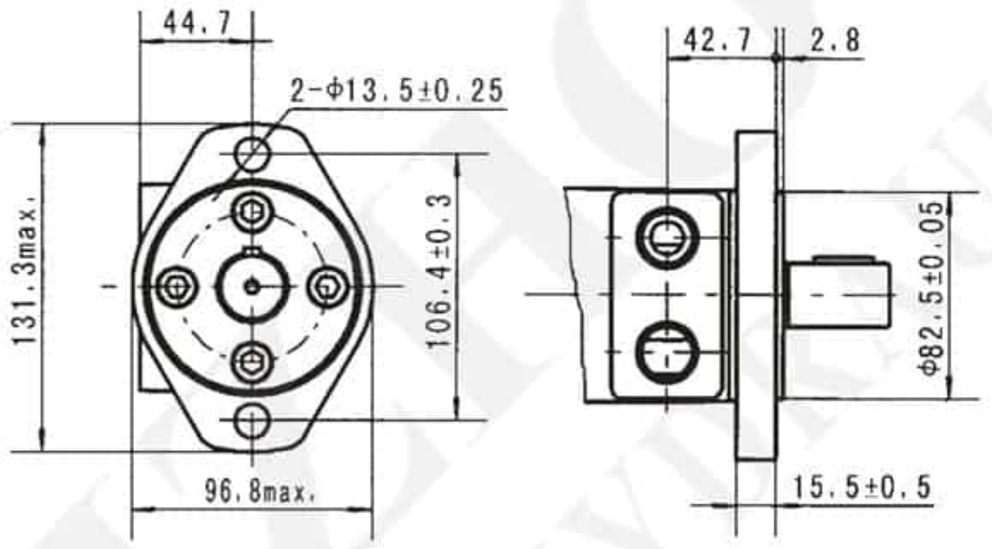


PORT: G、S、P、R、M1、M2、M3

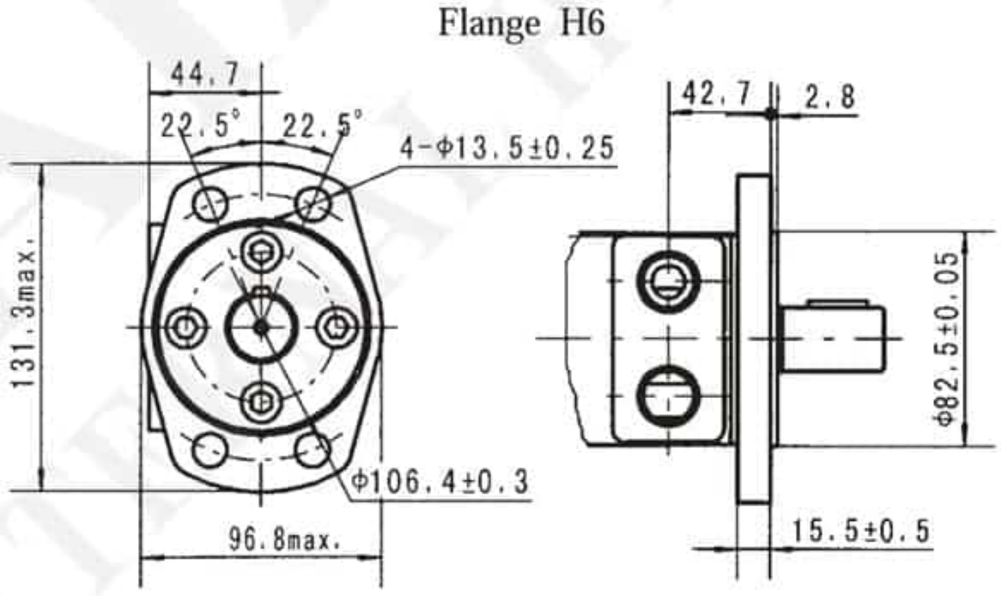
PORT: B4、B5

Model	L	L1
BMRS36	141	7
BMRS50	144	10
BMRS80	150	16
BMRS100	154	20
BMRS125	159	25
BMRS160	165.5	30.5
BMRS200	174	38.1
BMRS250	184	50
BMRS315	196	62
BMRS375	208	74

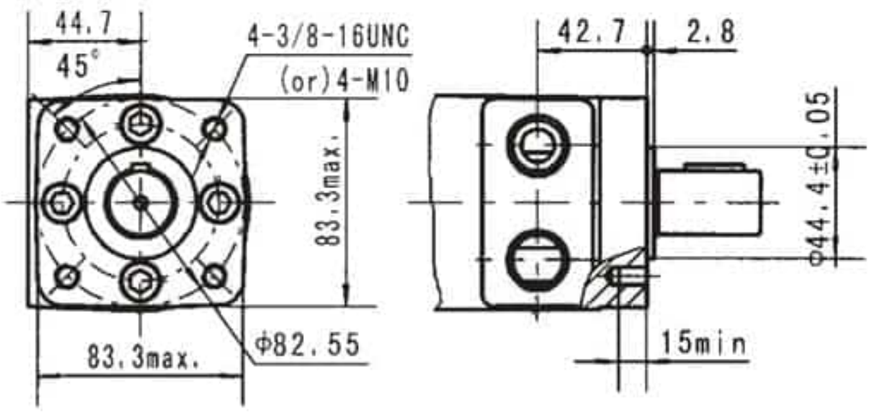
Flange H2



Flange H6

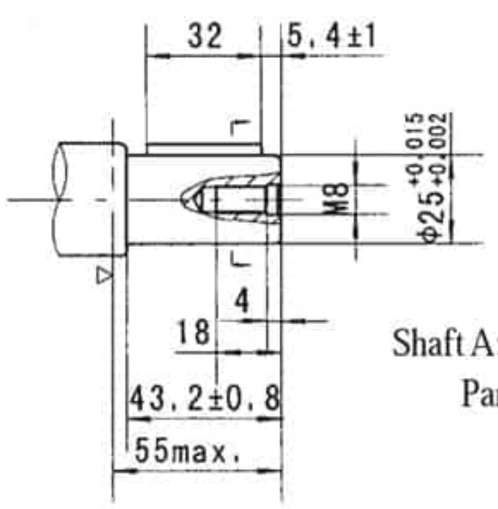


Flange H4/H5

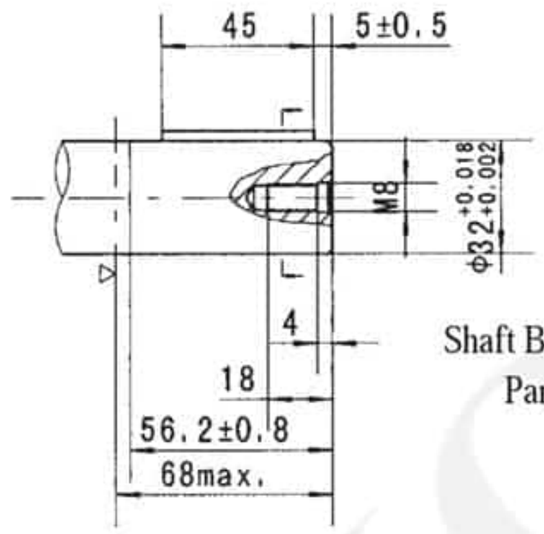


Code / Mounting	G (depth)	S (depth)	P (depth)	R (depth)	M1 (depth)	M2 (depth)	M3 (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)	M18 x 1.5 (15)	M20 x 1.5 (15)	M22 x 1.5 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)	M10 x 1 (12)	M10 x 1 (12)	M10 x 1 (12)	7/16-20UNF(12)	G1/4(12)
C	–	–	–	–	–	–	–	4-5/16-18UNC(13)	4-M8(13)

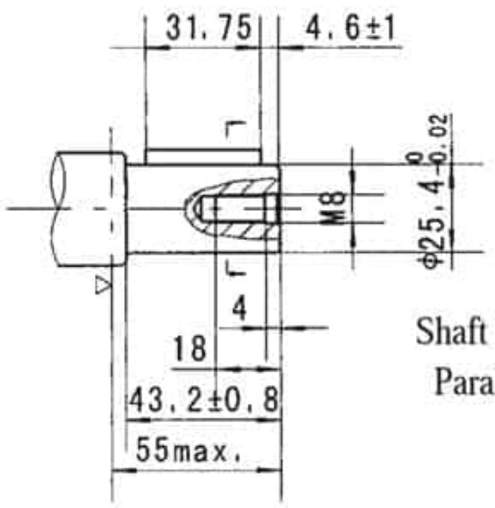
BMR SHAFT EXTENSIONS DIMENSIONS DATA



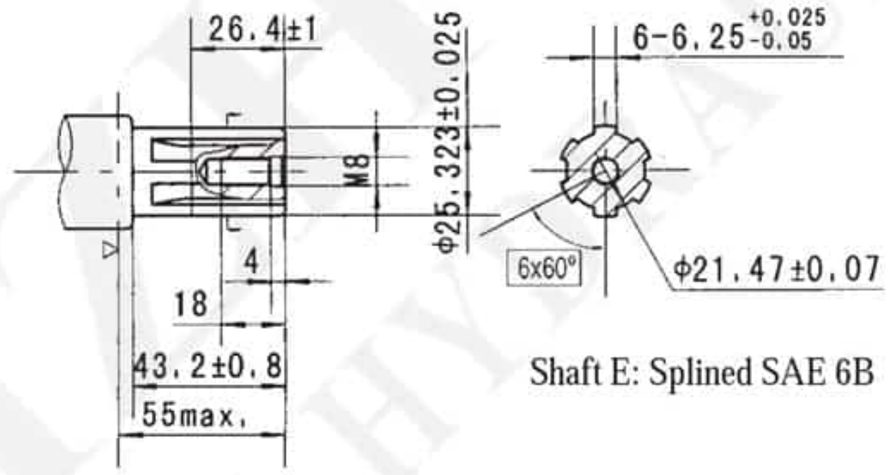
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



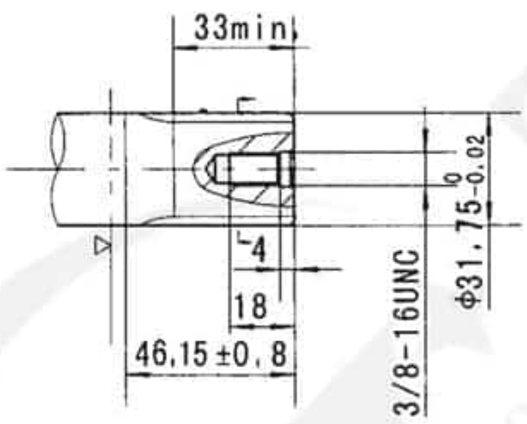
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



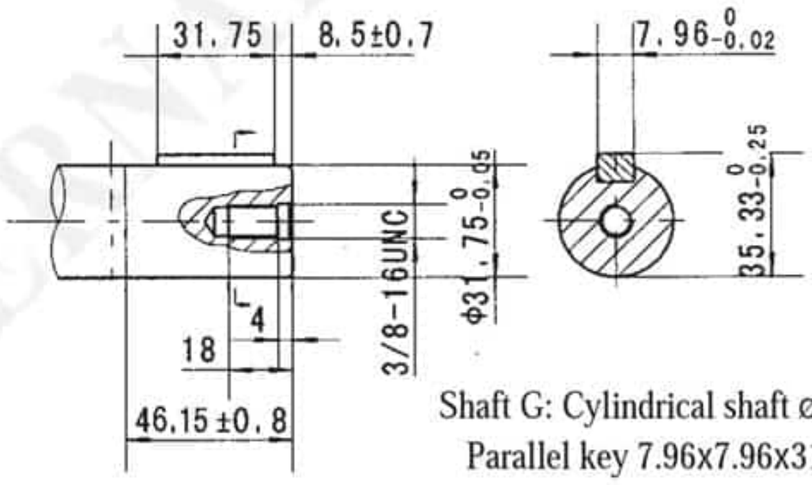
Shaft C: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



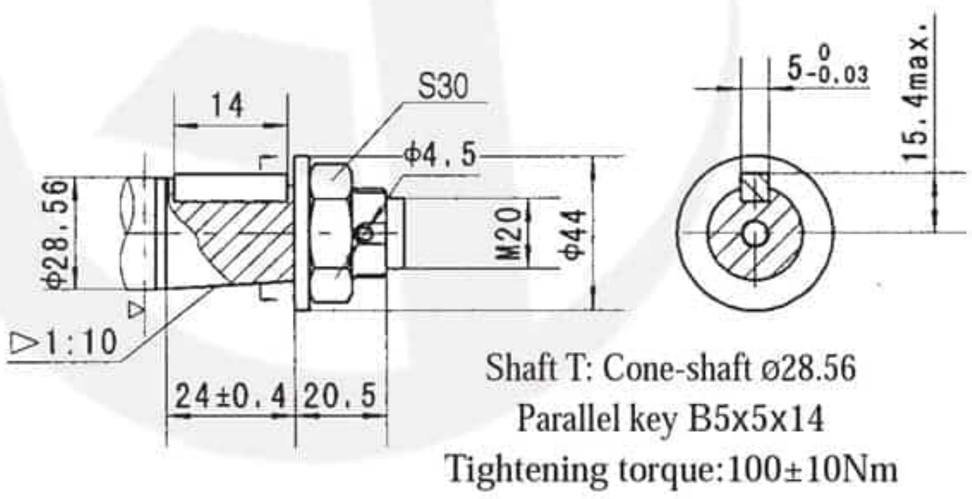
Shaft E: Splined SAE 6B



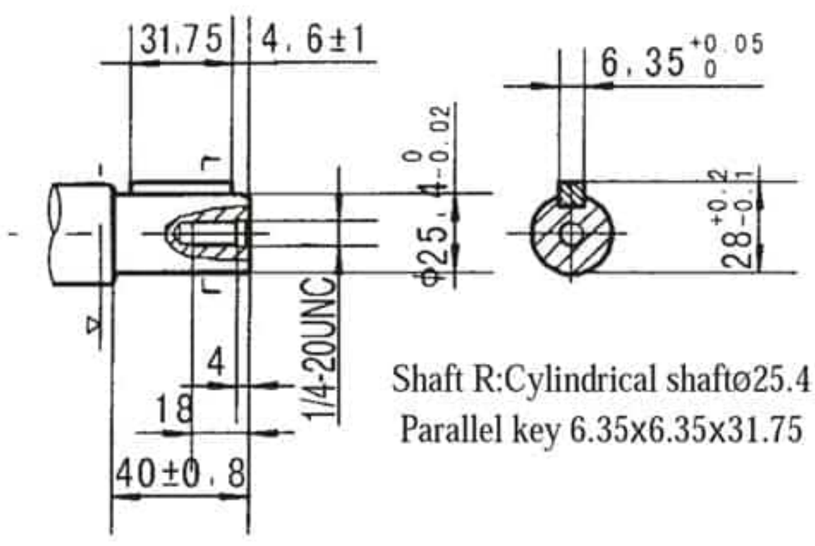
Shaft F: Splined
14-DP12/24



Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



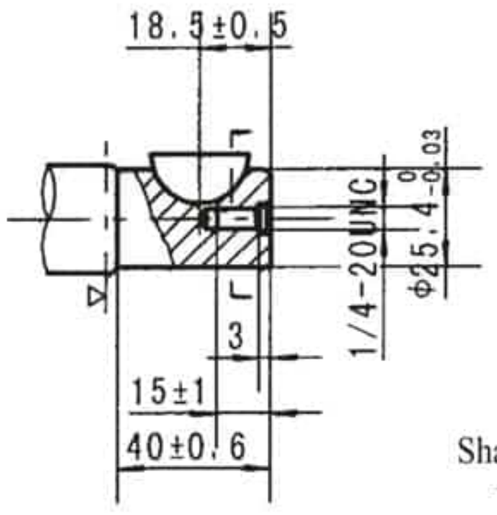
Shaft T: Cone-shaft ø28.56
Parallel key B5x5x14
Tightening torque:100±10Nm



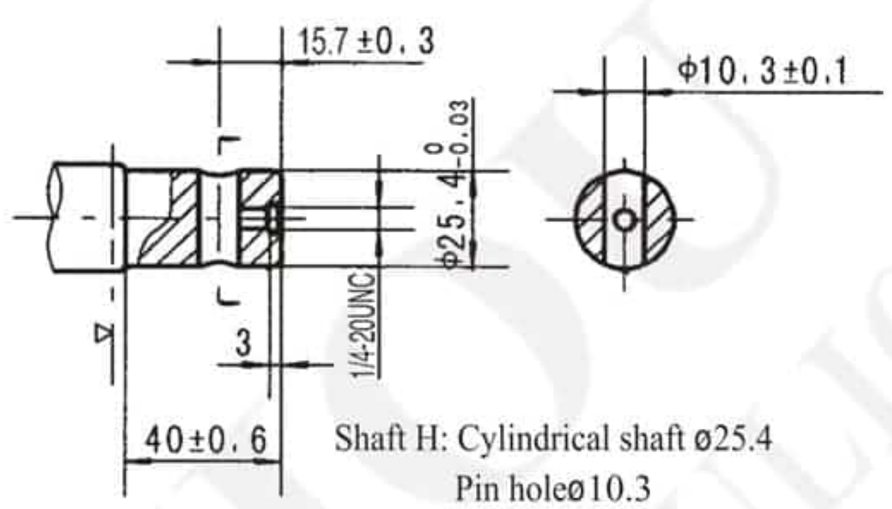
Shaft R:Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75

▷ Motor Mounting Surface

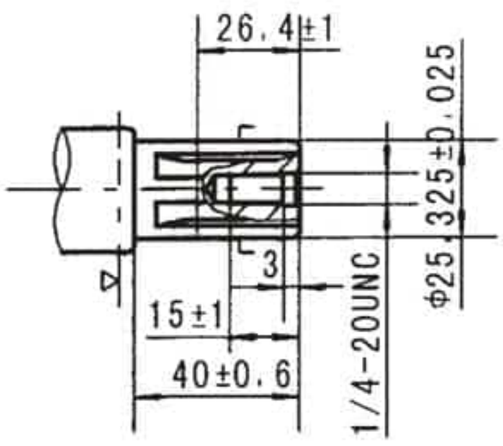
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA

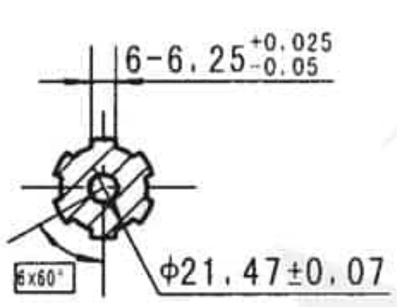


Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35

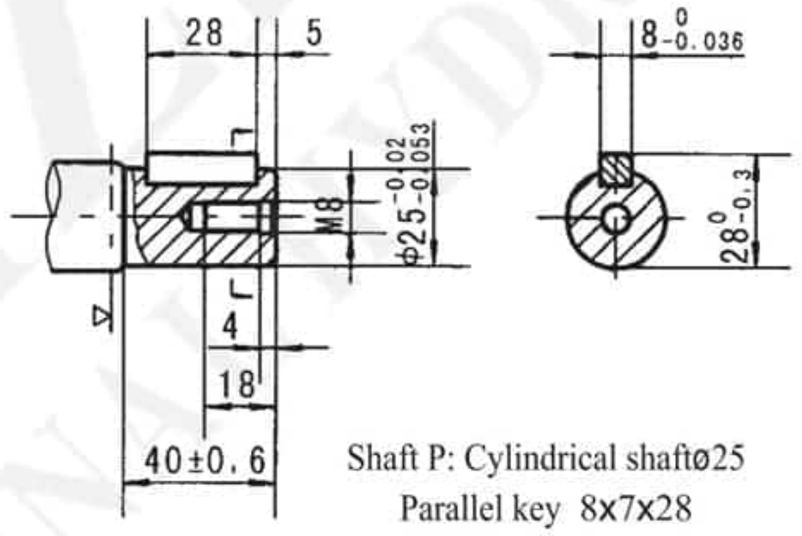


Shaft H: Cylindrical shaft ø25.4
Pin holeø10.3

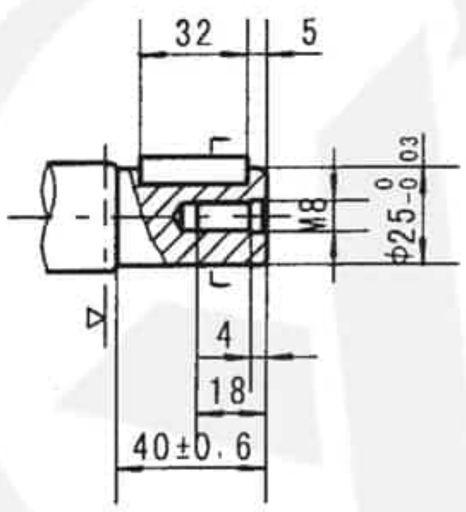


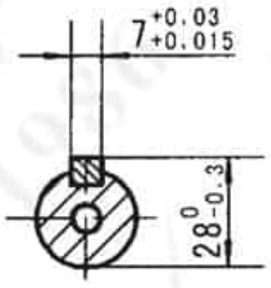


Shaft S: Splined SAE 6B

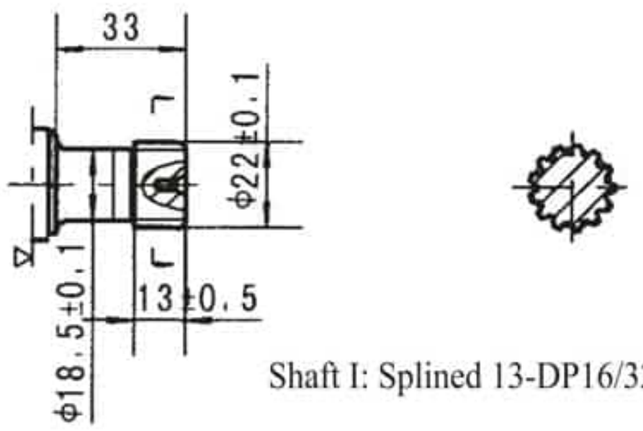


Shaft P: Cylindrical shaftø25
Parallel key 8x7x28





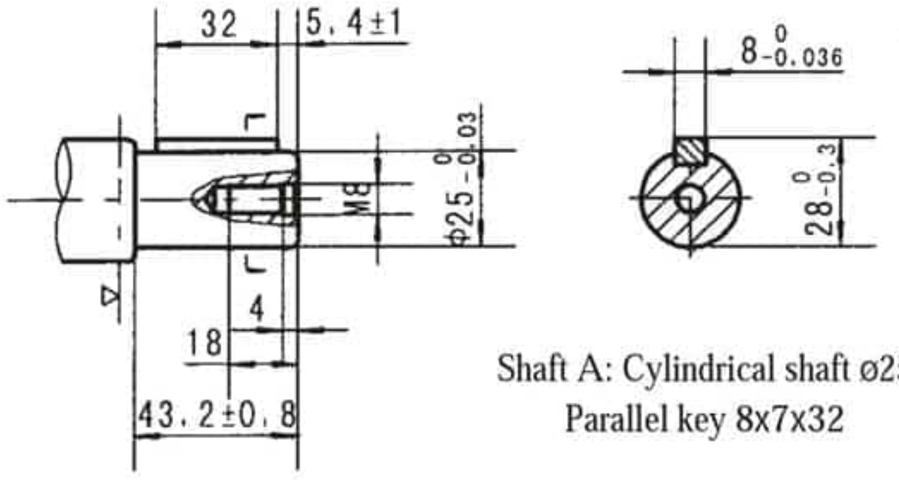
Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



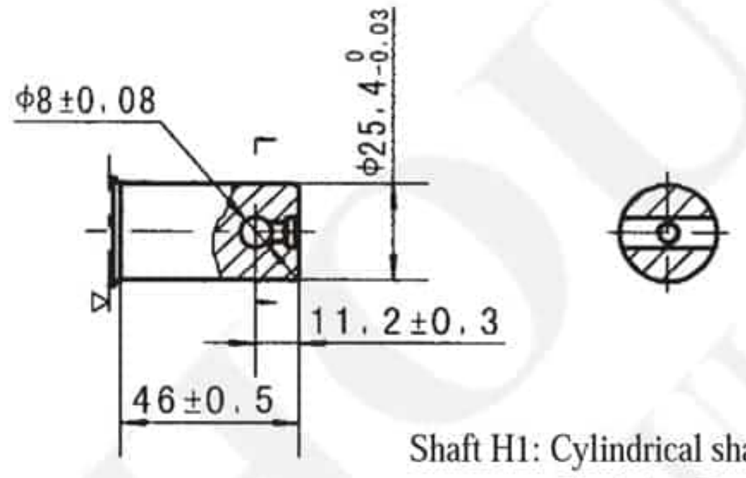
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

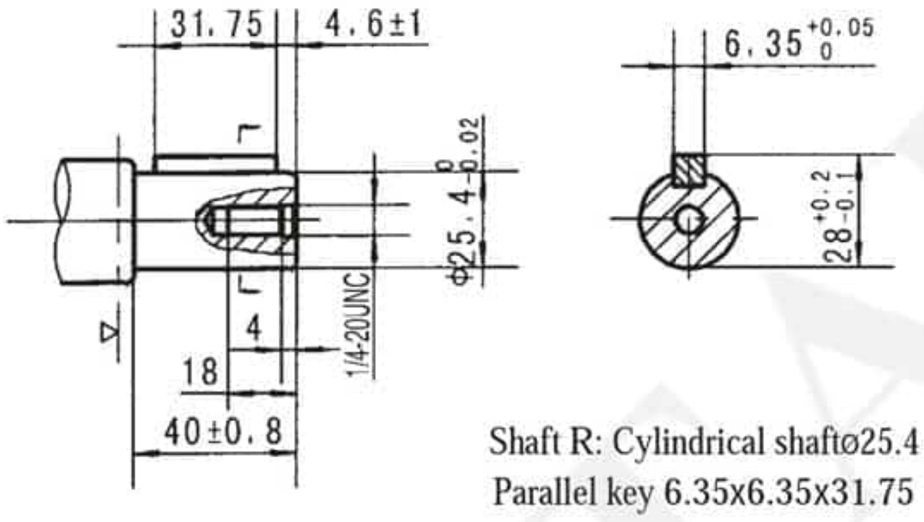
BMRS SHAFT EXTENSIONS DIMENSIONS DATA



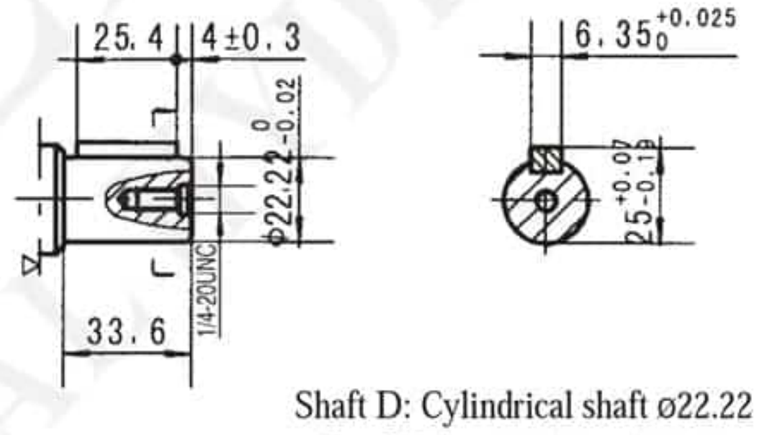
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



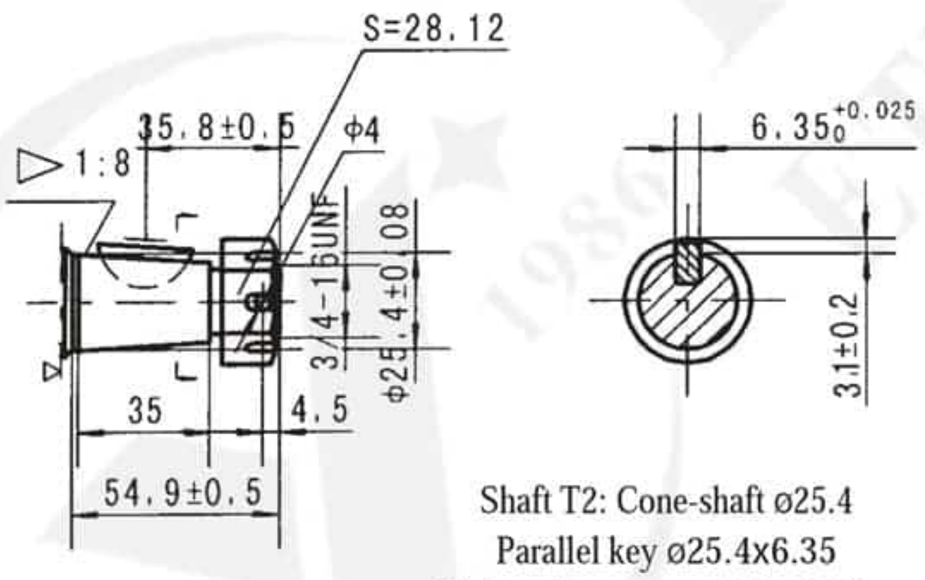
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



Shaft R: Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75



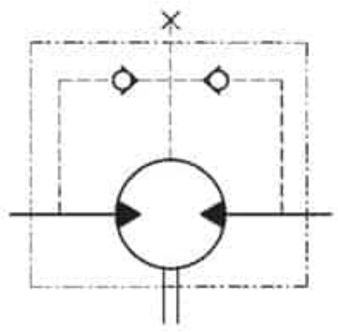
Shaft D: Cylindrical shaft ø22.22
Parallel key 6.35x6.35x25.4



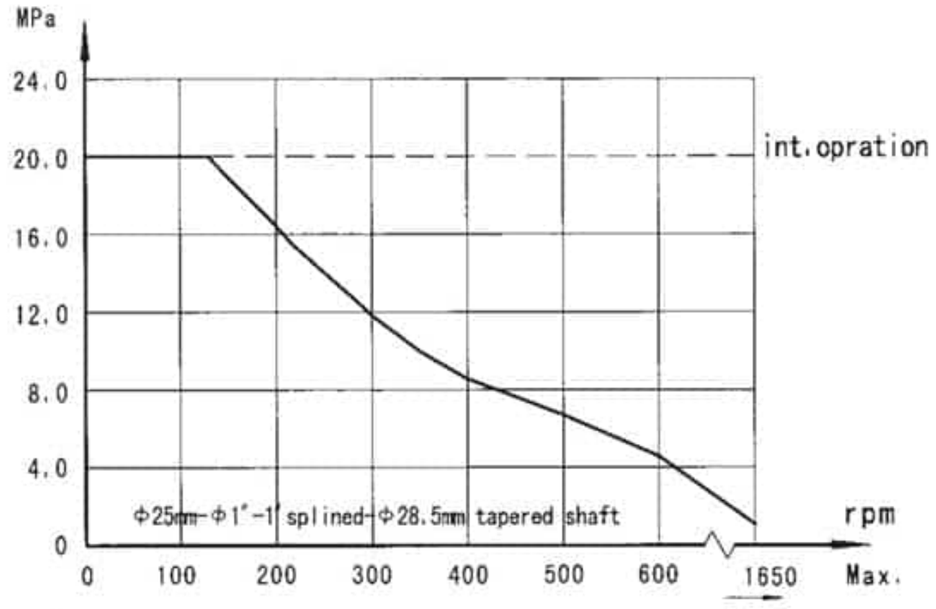
Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque:200±10Nm

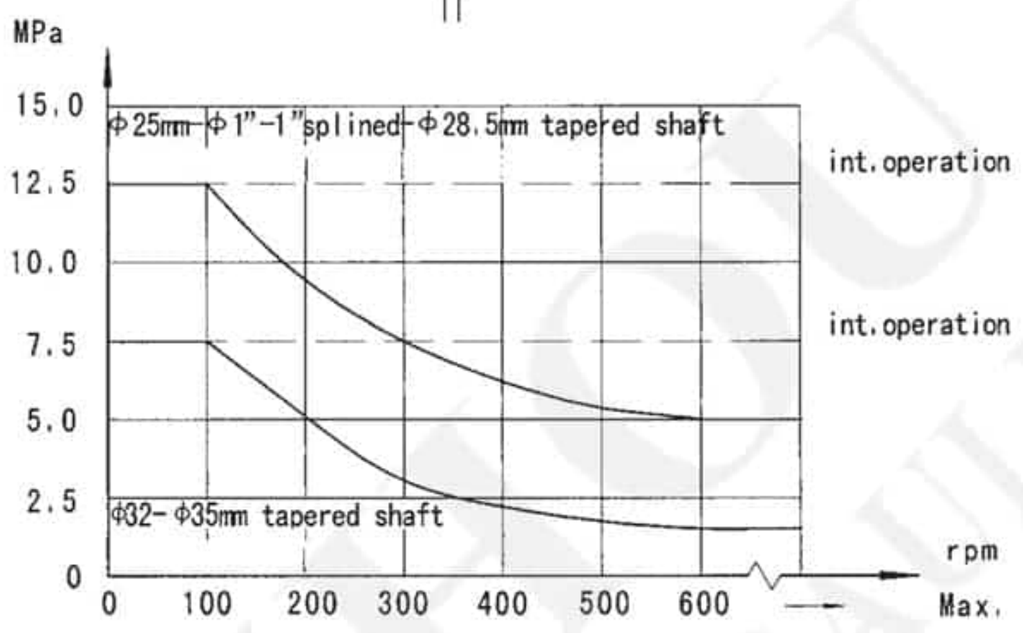
▷ Motor Mounting Surface

BMR、BMRS Series Hydraulic Motor



Permissible shaft seal pressure

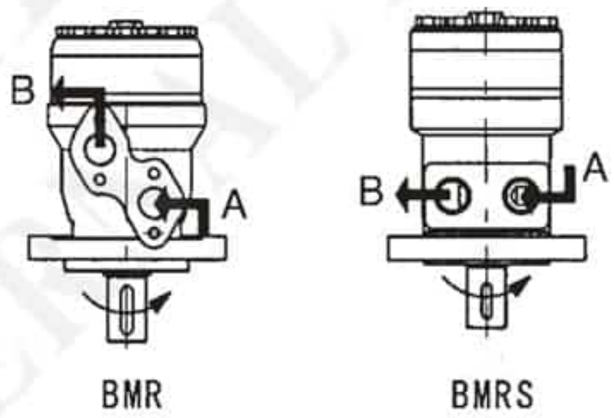




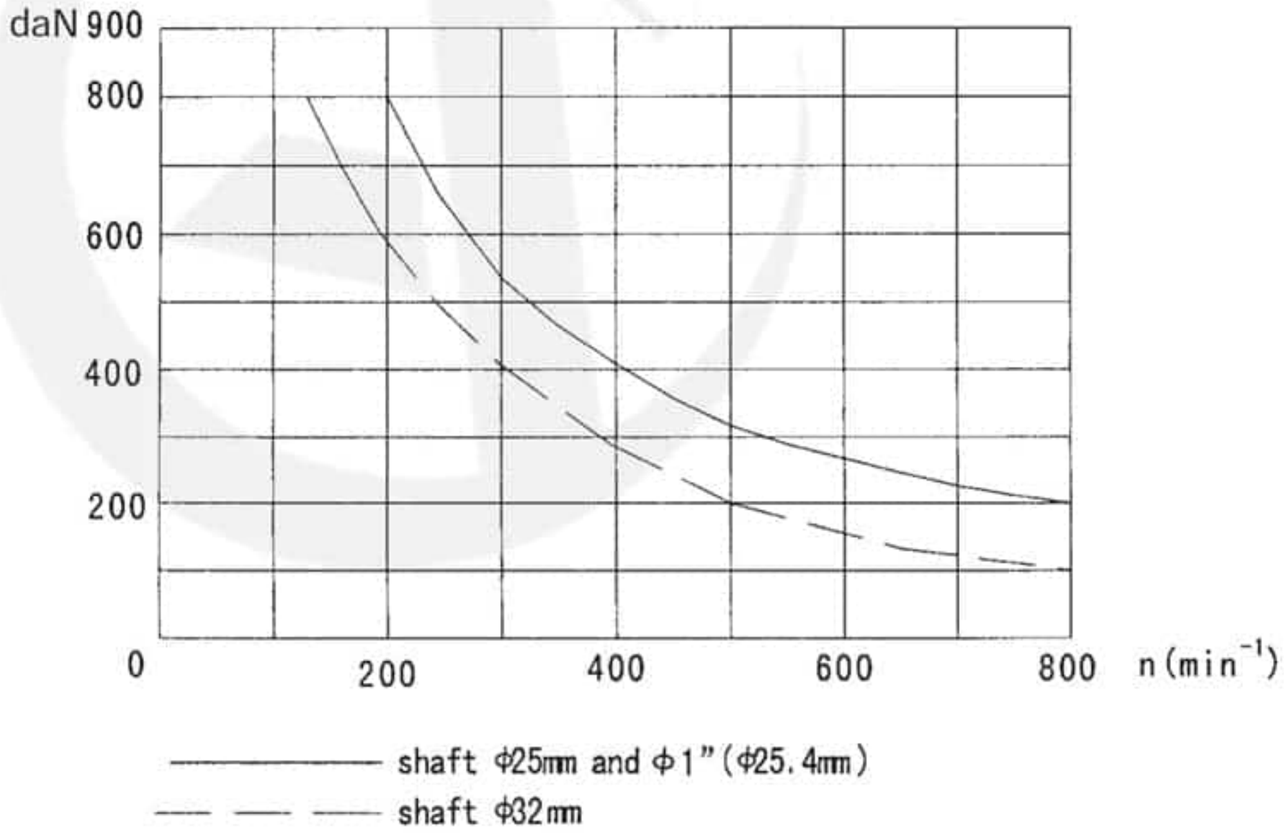
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft ration : Standard

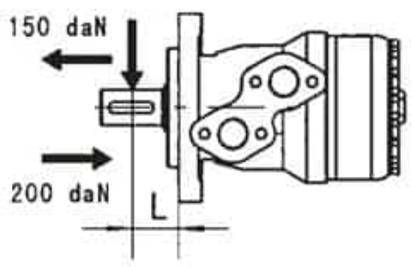
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



Status of the shaft's radial force
(Standard motor with journal bearing)



$$F_r = \frac{800}{n} \cdot \frac{25000}{95+L} \text{ daN}$$



F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)

Rhomb-flange L=30mm
Square-flange L=24mm

Order Information

1	2	3	4	5	6	7	8
BMR	–	–	–	–	–	–	–

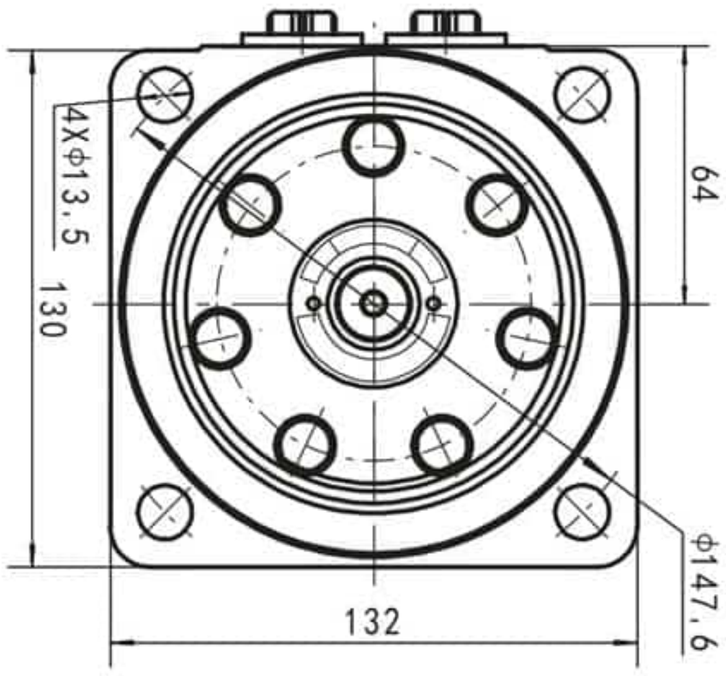
Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMR	36 50 80 100 125 160 200 250 315 375	2 4 H4 H5	2-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-3/8-16 Square-flange, pilot Ø44.4×2.8 4-M10 Square-flange, pilot Ø44.4×2.8	A C E R B F FD G T	Shaft Ø25,parallel Key 8x7x32 Shaft Ø25.4,parallel Key 6.35x6.35x31.75 Shaft Ø25.4,splined tooth SAE 6B Short shaft Ø25.4,parallel key 6.35x6.35x31.75 Shaft Ø32,parallel Key 10x8x45 Shaft Ø31.75,splined tooth 14-DP12/24 Long shaft Ø31.75,splined tooth 14-DP12/24 Shaft Ø31.75,parallel Key 7.96x7.96x31.75 Cone-Shaft Ø28.56,parallel Key B5x5x14	D M S P R	G1/2 Manifold Mount 4-M8, G1/4 M22×1.5 Manifold Mount 4-M8, M14×1.5 7/8-14 O-ring manifold 4-5/16-18UNC, 7/16-20UNF 1/2-14 NPTF Manifold 4-5/16-18UNC, 7/16-20UNF PT(Rc)1/2 Manifold 4-M8, PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N1 0 F LS	Standard Big radial force No case drain Free Running Low Speed

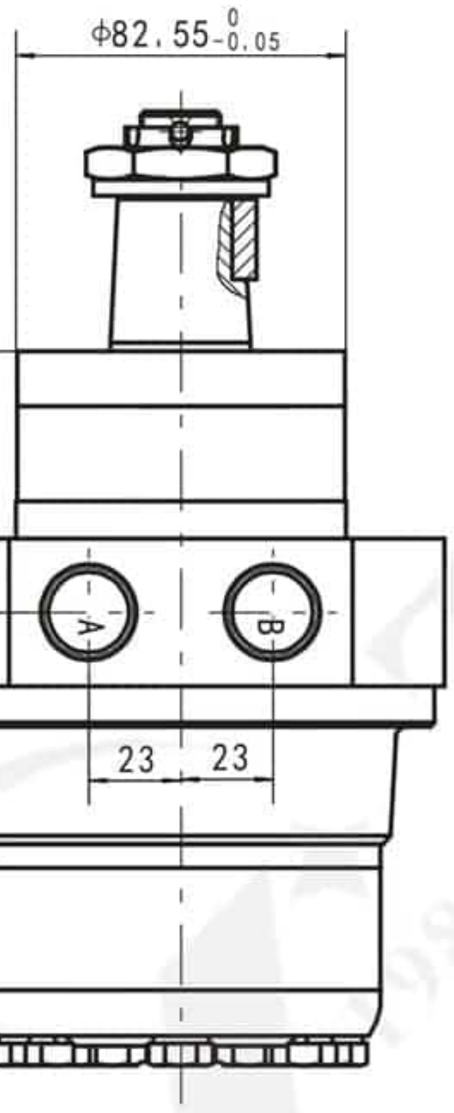
1	2	3	4	5	6	7	8
BMRS	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMRS	36 50 80 100 125 160 200 250 315 375	H2 H6 H4 H5	2-Ø13.5Rhomb-flange, pilot Ø82.5×2.8 4-Ø13.5Rhomb-flange, pilot Ø82.5×2.8 4-3/8-16 Square-flange, pilot Ø44.4×2.8 4-M10 Square-flange, pilot Ø44.4×2.8	K S A R H H1 D I T2 P J	Shaft Ø25.4,Woodruff Key Ø25.4×6.35 Sub-shaft Ø25.4,splined tooth SAE 6B Shaft Ø25 , parallel key 8×7×32 Shaft Ø25.4, parallel key 6.35×6.35×31.75 Sub-shaft Ø25.4,Pin hole Ø10.3 Shaft Ø25.4, pin hole Ø8 Shaft Ø22.22, parallel key 6.35×6.35×25.4 Shaft Ø22.22, splined tooth 13-DP16/32 Cone shaft Ø25.4 , woodruff key Ø25.4×6.35 Shaft Ø25,parallel Key 8×7×28 Shaft Ø25,parallel Key 7×7×32	G S P T R B4 B5 M1 M2 M3	G1/2, G1/4 7/8-14 O-ring 7/16-20UNF (G1/4) 1/2-14 NPTF, 7/16-20UNF (G1/4) 3/4-16 O-ring, 7/16-20UNF PT(Rc)1/2, PT(Rc)1/4 Ø10 O-ring manifold 4x5/16-18, 7/16-20UNF Ø10 O-ring manifold 4xM8, G1/4 M18×1.5, M10×1 M20×1.5, M10×1 M22×1.5, M10×1	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit N1 0 F LS	Standard Big radial force No case drain Free Running Low Speed

Note:When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMRWN DIMENSIONS MOUNTING DATA





Model	L	L1
BMRWN-50	113	10
BMRWN-80	119	16
BMRWN-100	123	20
BMRWN-125	128	25
BMRWN-160	133.5	30.5
BMRWN-200	141	38.1
BMRWN-250	153	50
BMRWN-315	165	62
BMRWN-375	177	74

Order Information

	1	2	3	4	5	6	7	8
Pos.1	BMRWN		3	4	5	6	7	8
Code			Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
BMRWN		50	4-Ø13.5 Wheel Mount , Ø82.5×9.4	T1 Cone shaft Ø35, parllel key B6×6×20	D G1/2, G1/4	Omit	No paint	Omit
		80		B Shaft Ø32 , parllel key 10×8×4	M M22×1.5,M14×1.5	Standard	Blue	Standard
		100		F Shaft Ø31.75, splined key 14-DP12/2	S 7/8-14 O-ring,7/16-20UNF	R Opposite	Black	
		125		FD Long Shaft Ø31.75, splined key14-DP12/2	P 1/2-14NPTF ,7/16-20UNF		Silver grey	
		160	Omit	G Shaft Ø31.75, parllel key 7.96×7.96×31.75				
		200						
		250						
		315						
		375						

Note:When the table is used , please fill the code of right rows in the table and give us , which the code information is consists of construction , displacement , mounting flange output shaft and ports . If the specification is not in the table or you have specific requirements , please conact us .

Mounting \ Code	D(depth)	M(depth)	S(depth)	P(depth)
P(A,B)	G1/2(15)	M2215(15)	7/8-14O-ring(17)	1/2-14NPTF(15)
C	G1/4(12)	M1415(12)	7/16-20UNF(12)	7/16-20UNF(12)

BMR-BK01 SERIES HYDRAULIC MOTOR WITH BRAK

BMR-BK01 Series hydraulic motor with brake extending BMR series motor range. This motor has an integ. holding brake.

Characteristic features:

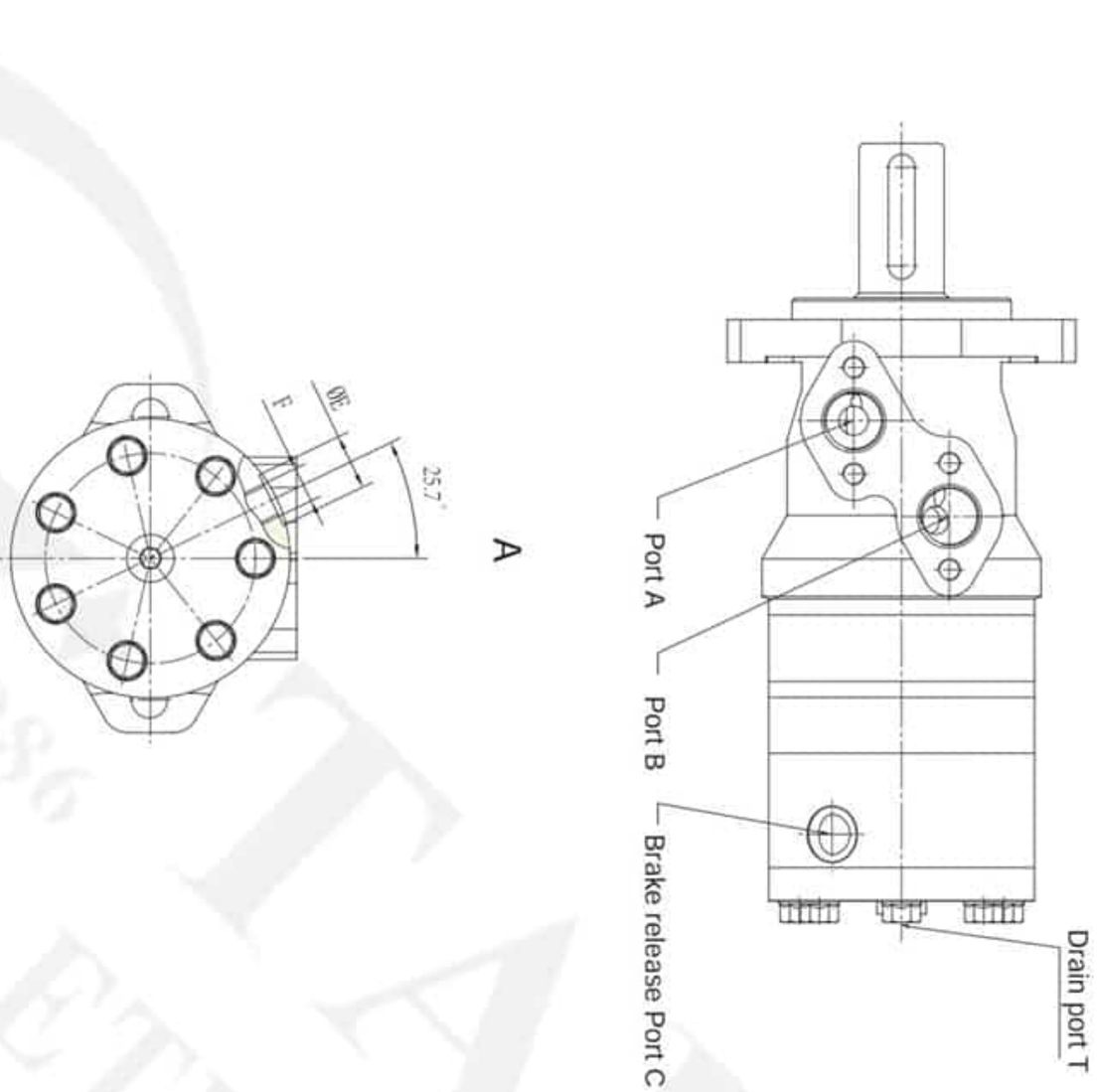
*Advanced manufacturing devices for the Geroler gear set , which use low pressure of start-up , provide smooth , reliable operation and high efficiency .
*Shaft seal can bear high pressure of back and the motor can be use in parallel or in series .
*Special design in the driver-linker and prolong operating life .
*Special design for distribution system can meet the requirement of low noise of unit .
*Compact volume and easy installation .
*Small volume and radial dimension,high holding torque,power brake,low weight and easy to install.

Main Specification

Type		BMR -BK01 50	BMR -BK01 80	BMR -BK01 100	BMR -BK01 125	BMR -BK01 160	BMR -BK01 200	BMR -BK01 250	BMR -BK01 315	BMR -BK01 375
Geometric displacement (cm^3/rev.)		51.7	81.5	102	128	157	195	253	318	381
Max. speed (rpm)	rated	490	479	478	421	341	276	212	169	141
	cont.	509	502	497	459	372	301	231	184	166
	int.	603	598	574	574	465	376	289	230	192
Max. torque (N•m)	rated	104	164	205	256	316	335	437	456	465
	cont.	103	203	254	317	391	359	437	456	465
	int.	88.6	160	200	250	308	333	473	502	520
Max. output (KW)	rated	5.3	8.2	10.3	11.3	11.3	9.7	9.7	8.1	6.9
	cont.	5.5	10.7	13.2	15.2	15.2	11.3	10.6	8.8	8.1
	int.	5.6	10	12	15	15	13.1	14.3	12.1	10.5
Max. Pressure drop (MPa)	rated	14	14	14	14	14	12	12	10	8.5
	cont.	14	17.5	17.5	17.5	17.5	13	12	10	8.5
	int.	17.5	20	20	20	20	17.5	13	11	9.5
Max. Flow (L/min)	rated	26	40	50	55	55	55	55	55	55
	cont.	27	42	52	60	60	60	60	60	65
	int.	32	50	60	75	75	75	75	75	75
Min. opening pressure （MPa）		1.7——2.2								
Max. inlet pressure（MPa）		25								
Max. brake release port pressure（MPa）		25								
Max. static torque（Nm）		500——550								
Weight (kg)		11.7	11.9	11.9	12.2	12.5	13	13.5	14	14.5

*Rated speed and rated torque:output value of speed and torque under rated flow and rated pressure.
*Continuous pressure:Max. value of operating motor continuously.
*Intermittent pressure:Max. value of operating motor in 6 seconds per minute .
*Peak pressure:Max. value of operating motor in 0.6 second per minute.
*Such kind of brake is only used in static paring brake.Dynamic braking in not recommenged.
When the motor integrated with brake is working, the pressure at releasing port must be more than 2.2MPa. In the status of braking, the pressure at releasing port must be less than 1.7 MPa, optimally 0 MPa. It is attention in use that the back pressure of the oil circuit is the best 0 MPa.

BMR-BK01 DIMENSIONS AND MOUNTING DATA



Order information

BMR-BK01 [1] – [2] – [3] – [4] – [5] – [6] – [7] – [8] – [9]

Pos.1	2	3		4		5		6		7		8		9	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Brake release Port		Rotation Direction		Paint		Unusually Function	
Omit	50	2	2-Ø13.5Rhomb-flange, pilot Ø82.5×8	A	Shaft Ø25,parallel Key 8×7×32	D	G1/2 Manifold Mount 4×M8, G1/4	G	G1/4 Depth 9 facing Ø22	Omit	Standard	00	No paint	Omit	Standard
	80			C	Shaft Ø25.4,parallel Key 6.35×6.35×31.75	M	M22×1.5 Manifold Mount 4×M8, M14×1.5			R	Opposite	Omit	Blue	N1	Big radial force
	100	4	4-Ø13.5Rhomb-flange, pilot Ø82.5×8	E	Shaft Ø25.4,splined tooth SAE 6B							B	Black	0	No case drain
	125			R	Short shaft Ø25.4,parallel Key 6.35×6.35×31.75	S	7/8-14 O-ring manifold 4×5/16-18UNC, 7/16-20UNF					S	Silver grey		
	160	H4	4-3/8-16Square-flange, pilot Ø44.4×2.8	B	Shaft Ø32,parallel Key 10×8×45										
	200			F	Shaft Ø31.75,splined tooth 14-DP12/24	P	1/2-14 NPTF								
	250			FD	Long shaft Ø31.75,splined tooth 14-DP12/24		Manifold 4×5/16-18UNC, 7/16-20UNF								
	315	H5	4-M10Square-flange, pilot Ø44.4×2.8	G	Shaft Ø31.75,parallel Key 7.96×7.96×31.75										
	375			T	Cone-Shaft Ø28.56,parallel Key B5×5×14	R	PT(Rc)1/2 Manifold 4×M8, PT(Rc)1/4								

Note:When the table is used , please fill the code of right rows in the table and give us , which the code information is consists of construction , displacement , mounting flange ,output shaft and ports . If the specification is not in the table or you have specific requirements , please contact us .

Model	Port C	ΦE	F
G	22	G1/4 Depth 9	

Note: The mount data is completely referred to BMR series motor. The axial extended length reduces 70mm as picture. Port C is brake releasing port, the position is as picture.

OK SERIES HYDRAULIC MOTOR

OK series motor adapt the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

*Advanced manufacturing devices for the Gerolor gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
*Shaft seal can bear high pressure of back and the motor can be used in parallel or in series.
*Special design in the driver-linker and prolong operating life
*Special design for distribution system can meet the requirement of low noise of unit.
*Compact volume and easy installation

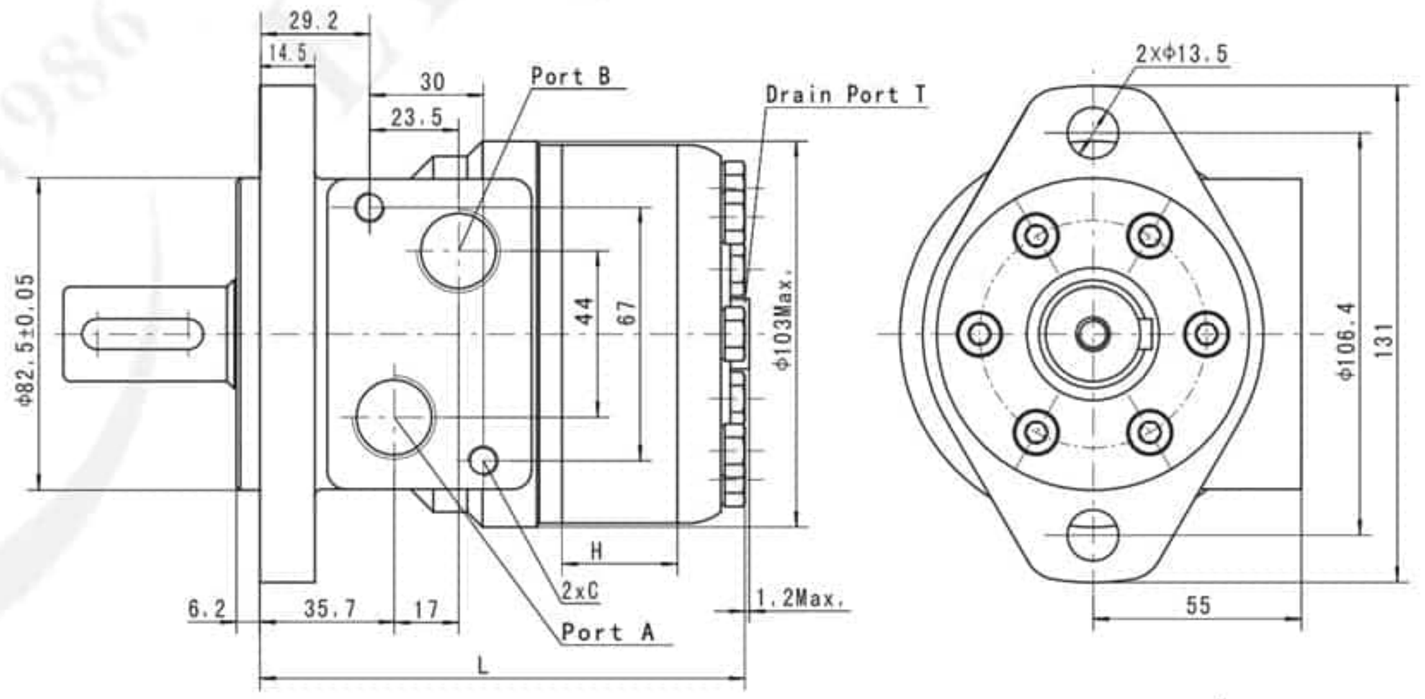
Main Specification

Technical data for OK with 25 and 1 in and 1 in splined and 28.56 tapered shaft

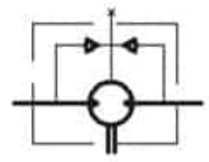
Code	Displacement [cm/rev]	Max.Speed [rpm]	Max.Torque [Nm]		Max.output [kW]		Max.pressure [MPa]		Max.Oil Flow[L/min]
		cont.	cont.	int.	cont.	int.	cont.	int.	cont.
OK 36	36	1111	66	83	9	10.4	14	17.5	40
OK 50	51.7	780	100	129	9	10.4	14	17.5	40
OK 80	81.5	744	158	196	10.4	12.6	14	17.5	60
OK 100	102	595	200	242	10.8	12.8	14	17.5	60
OK 125	127.2	480	248	298	10.8	12.5	14	17.5	60
OK 160	157.2	382	315	384	10.4	11.5	14	17.5	60
OK 200	194.5	301	339	419	8.8	10.2	12.5	15.5	60
OK 250	253.3	238	403	474	8.1	9.4	11	14	60
OK 315	317.5	191	398	498	7.4	7.8	9	12.5	60
OK 375	381.4	162	373	466	6.2	7.1	7.5	9	60

* Intermittent operation: the permisssible values may occur for max.10% of every minute

Type	H	L
OK36	7	105
OK50	10	108
OK80	16	114
OK100	20	118
OK125	25	123
OK160	30.5	128.5
OK200	38.1	136
OK250	50	148
OK315	62	160
OK375	74	172



Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)



Direction of shaft rotation: Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

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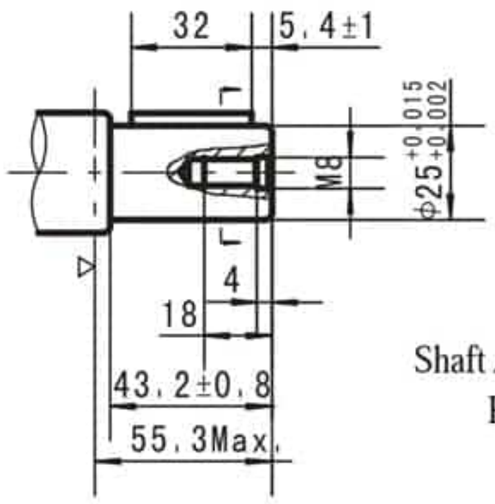
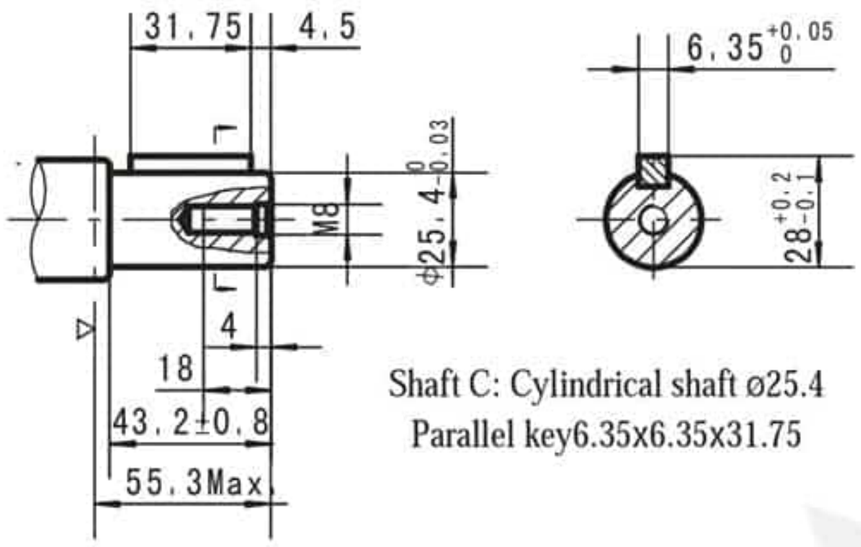
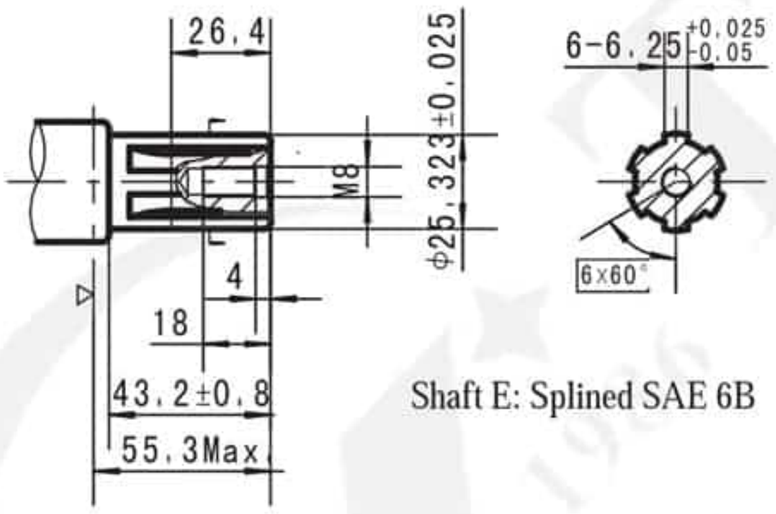
SHAFT EXTENSIONS FOR OK MOTORS



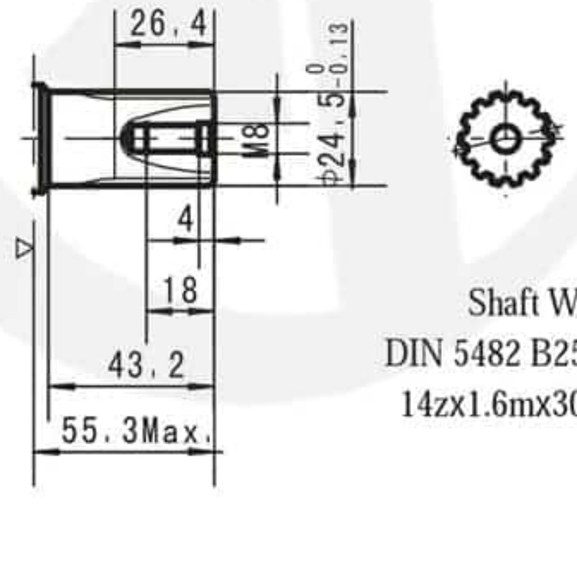
Shaft A: Cylindrical shaft ø25
Parallel key8x7x32



Shaft C: Cylindrical shaft ø25.4
Parallel key6.35x6.35x31.75



Shaft E: Splined SAE 6B



Shaft W:
DIN 5482 B25x22h9
14zx1.6mx30Px9h

▽ Motor Mounting Surface

Order Information

	1	2	3	4	5	6	7	8
	OK							
Pos.1	2	3		4	5	6	7	8
Code	Disp.	Flange		Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
Omit	36 50 80 100 125 160 200 250 315 375	2	2-Ø13.5 Rhomb-flange , pilot Ø82.5×6.2	A Shaft Ø25 , parllel key 8×7×32 C Shaft Ø25.4 , parllel key 6.35×6.35×31.75 E Shaft Ø25.4, splined key SEA 6B W Shaft Ø24.5, splined B25X22 T Cone shaft Ø28.56, parllel key B5×5×14	D G1/2 Manifold 4×M8, G1/4 M M22×1.5 Manifold4×M8,M14×1.5 S 7/8-14 O-ring manifold 4×5/16-18UNC,7/16-20UNF P 1/2-14NPTF manifold 4×5/16-18UNC,7/16-20UNF R PT(Rc)1/2 manifold 4×M8,PT(Rc)1/4	Omit Standard F Free Running 0 No case drain	
						Omit Standard R Opposite	0O No paint Omit Blue B Black S Sliver grey	

BMH SERIES HYDRAULIC MOTOR

BMH series motor adapt the advanced Geroler gear set design with shaft distribution flow, which can automatically compensate in operating with high pressure, provide reliable and smooth operation, high efficiency and long life.

Characteristic features:

*Advanced manufacturing devices for the Gerolor gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
*Shaft seal can bear high pressure of back and the motor can be used in parallel or series.
*Special design in the driver-linker and prolong operating life.
*Special design for distribution system can meet the requirement of low noise of unit.
*Compact volume and easy installation.

Main Specification

Type		BMH 200	BMH 250	BMH 315	BMH 400	BMH 500
Geometric displacement (cm^3/rev.)		203.2	255.9	316.1	406.4	489.2
Max. speed (rpm)	cont.	366	290	236	183	155
	int.	439	348	282	220	184
Max. torque (N•m)	cont.	510	621	740	850	830
	int.	579	702	827	990	1040
	peak	651	790	980	1092	1170
Max. output (kW)	cont.	16	16	14	12.5	11
	int.	18.5	18.5	15.5	15	14
Max. pressure drop (MPa)	cont.	17.5	17.5	17.5	15.5	12.5
	int.	20	20	20	19	16
	peak	22.5	22.5	22.5	21	18
Max. flow (L/min)	cont.	75	75	75	75	75
	int.	90	90	90	90	90
Weight (kg)		10.5	11	11.5	12.3	13

Type		Max.inlet pressure	Max.return pressure with drain line
BMH200-500 (MPa)	cont.	200	175
	int.	225	200
	peak	250	225

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.
* Technical data BMH with 35mm cylindnical,$1\frac{1}{4}$ in splined and 35mm tapered shaft.

Performance Data

BMH 200 [203.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5 (Max.cont.)	20 (Max.int.)
5	98 **25**	194 **25**	284 **22**			
10	101 **43**	204 **41**	301 **36**	391 **29**	482 **14**	
20	99 **100**	201 **97**	304 **93**	402 **85**	509 **69**	576 **56**
30	97 **145**	197 **143**	300 **139**	402 **130**	510 **114**	579 **101**
40	90 **200**	190 **200**	292 **200**	399 **188**	507 **168**	578 **153**
50	82 **248**	183 **246**	284 **244**	392 **235**	500 **213**	571 **199**
60	73 **292**	174 **290**	274 **287**	384 **279**	493 **260**	563 **244**
70	63 **352**	163 **350**	264 **349**	374 **338**	481 **318**	554 **301**
75 (Max.cont.)	59 **366**	157 **365**	259 **363**	366 **355**	475 **335**	547 **319**
80	53 **381**	150 **381**	253 **380**	358 **371**	466 **352**	538 **338**
90 (Max.int.)	39 **443**	140 **437**	241 **434**	348 **426**	456 **407**	526 **392**

BMH 250 [255.9cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	9	12	14.5	17.5 (Max.cont.)	20 (Max.int.)
5	121 **19**	246 **19**	318 **18**	398 **14**			
10	130 **34**	258 **33**	331 **31**	425 **29**	515 **23**	595 **12**	
20	130 **78**	258 **77**	332 **76**	432 **73**	520 **65**	621 **53**	702 **42**
30	122 **115**	251 **113**	327 **111**	429 **105**	520 **96**	621 **84**	700 **75**
40	115 **157**	240 **157**	323 **156**	422 **150**	513 **139**	616 **127**	698 **114**
50	105 **196**	232 **195**	314 **192**	411 **185**	505 **173**	606 **159**	687 **147**
60	94 **232**	220 **230**	302 **226**	401 **218**	496 **206**	596 **192**	676 **180**
70	81.4 **274**	209 **274**	288 **274**	389 **266**	484 **252**	582 **238**	666 **222**
75 (Max.cont.)	72 **290**	203 **289**	280 **287**	381 **279**	475 **266**	574 **251**	659 **236**
80	66 **303**	194 **302**	273 **298**	371 **290**	467 **279**	566 **264**	651 **249**
90 (Max.int.)	49 **348**	178 **347**	256 **345**	355 **337**	453 **325**	552 **309**	634 **292**

BMH 315 [316.1cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7.5	10	13.5	15.5	17.5 (Max.cont.)	20 (Max.int.)
5	155 **16**	325 **13**					
10	163 **27**	342 **24**	454 **18**	556 **14**			
20	169 **63**	349 **61**	469 **55**	582 **48**	664 **40**	733 **32**	809 **19**
30	165 **93**	344 **89**	470 **82**	580 **77**	669 **67**	740 **59**	824 **46**
40	154 **126**	337 **126**	465 **119**	577 **111**	663 **99**	737 **88**	827 **73**
50	141 **159**	325 **155**	455 **148**	568 **139**	656 **126**	728 **115**	824 **98**
60	121 **187**	312 **186**	440 **179**	555 **169**	643 **154**	715 **143**	812 **124**
70	103 **222**	298 **222**	425 **215**	541 **205**	631 **187**	703 **176**	800 **157**
75 (Max.cont.)	94 **236**	287 **233**	417 **224**	529 **215**	623 **196**	696 **184**	792 **166**
80	82 **246**	277 **244**	406 **236**	518 **228**	611 **210**	688 **197**	784 **174**
90 (Max.int.)	62 **282**	256 **280**	386 **275**	496 **266**	593 **248**	669 **234**	767 **209**

Torque (N•m) 593
Speed (rpm) **248**

BMH 400 [406.4cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	6	10.5	12.5	15.5 (Max.cont.)	19 (Max.int.)
5	196 **13**	348 **13**	516 **10**			
10	205 **22**	363 **21**	546 **21**	702 **17**	859 **11**	
20	209 **50**	366 **49**	543 **46**	708 **41**	874 **36**	988 **31**
30	201 **73**	357 **72**	542 **70**	706 **63**	864 **56**	984 **51**
40	195 **99**	346 **98**	532 **96**	701 **86**	858 **77**	973 **71**
50	173 **123**	332 **122**	518 **118**	687 **107**	848 **97**	958 **90**
60	154 **146**	319 **144**	501 **141**	668 **128**	833 **115**	944 **106**
70	138 **174**	305 **173**	480 **169**	649 **156**	814 **141**	925 **130**
75 (Max.cont.)	128 **183**	294 **181**	466 **177**	637 **163**	802 **149**	911 **138**
80	113 **192**	277 **191**	451 **188**	621 **174**	786 **158**	899 **144**
90 (Max.int.)	90 **220**	256 **220**	433 **215**	595 **202**	767 **183**	881 **165**

cont.
int.

Performance Data

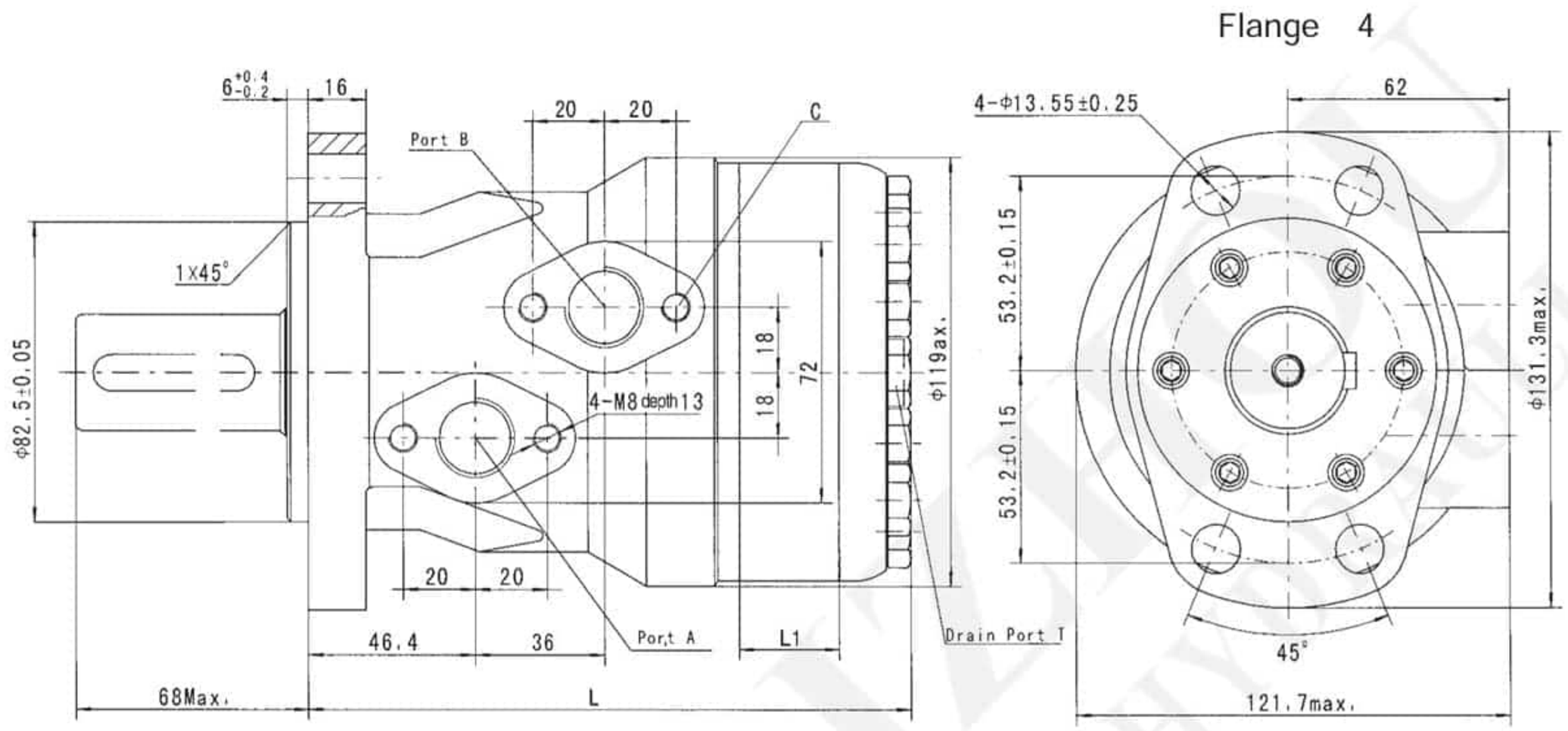
BMH 500 [489.2cm³/rev.]

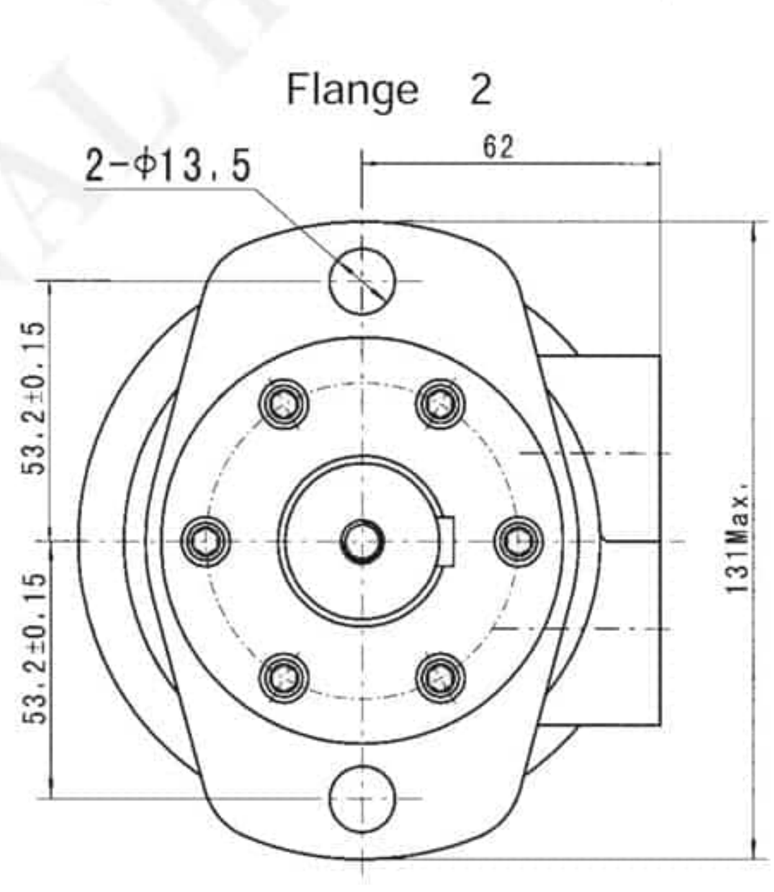
Flow (L/min) \ Pressure (MPa)	2.5	5	8.5	10	12.5 (Max.cont.)	16 (Max.int.)
5	165 **11**	317 **11**	516 **8**			
10	178 **20**	335 **19**	555 **17**	669 **15**	791 **13**	969 **9**
20	177 **42**	331 **42**	559 **41**	673 **38**	799 **36**	988 **29**
30	172 **64**	320 **63**	553 **61**	663 **57**	792 **53**	983 **47**
40	163 **85**	309 **85**	541 **83**	654 **79**	783 **75**	971 **67**
50	146 **103**	296 **103**	523 **103**	635 **97**	768 **93**	954 **85**
60	121 **124**	275 **124**	502 **123**	614 **117**	747 **113**	934 **103**
70	97 **148**	256 **148**	482 **148**	597 **140**	729 **134**	917 **122**
75 (Max.cont.)	79 **155**	240 **155**	469 **155**	582 **152**	714 **144**	902 **130**
80	60 **166**	226 **166**	453 **166**	570 **159**	701 **153**	884 **139**
90 (Max.int.)	34 **184**	201 **183**	421 **182**	550 **177**	673 **166**	869 **155**

cont.
int.

Torque (N•m) 673
Speed (rpm) **166**

BMH DIMENSIONS AND MOUNTING DATA

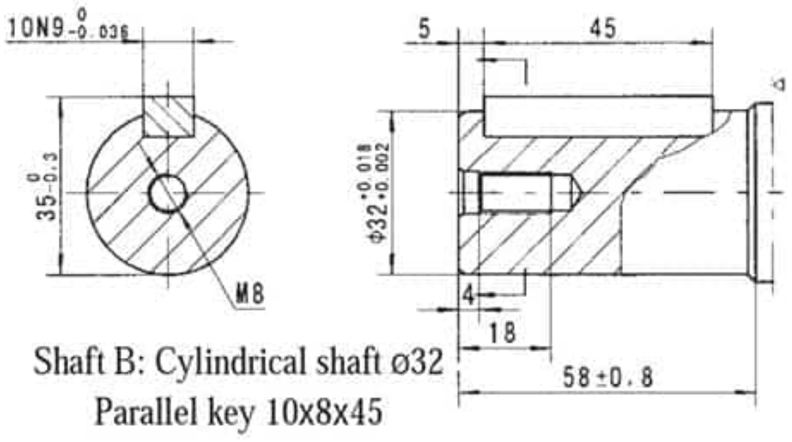




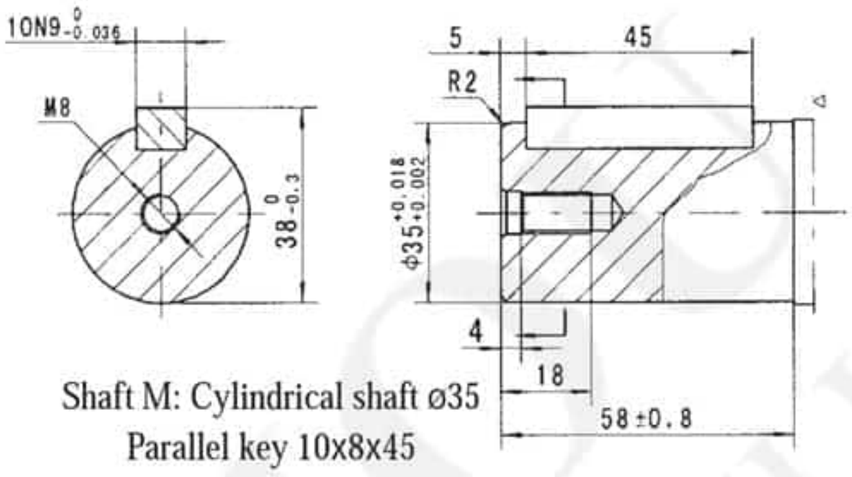
Model	L	L1
BMH-160	162	21
BMH-200	168	27
BMH-250	175	34
BMH-315	184	42
BMH-400	195	54
BMH-500	206	65

Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (15)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	7/16-20UNF (12)	PT(RC)1/4 1/4

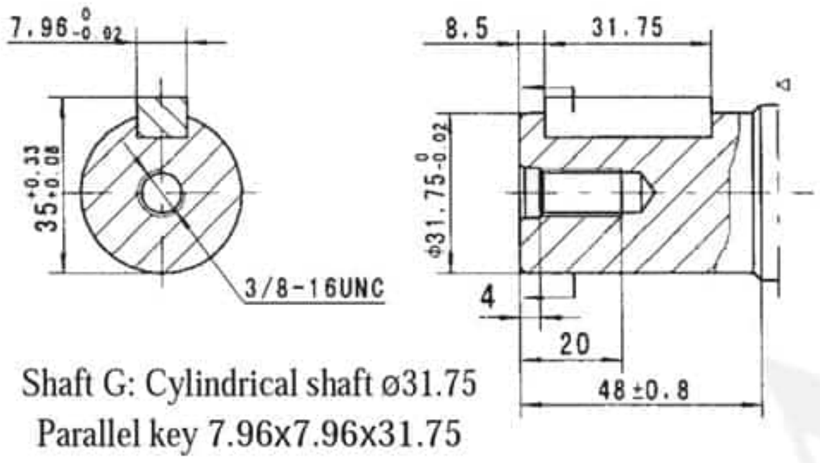
BMH SHAFT EXTENSIONS DIMINSIONS DATA



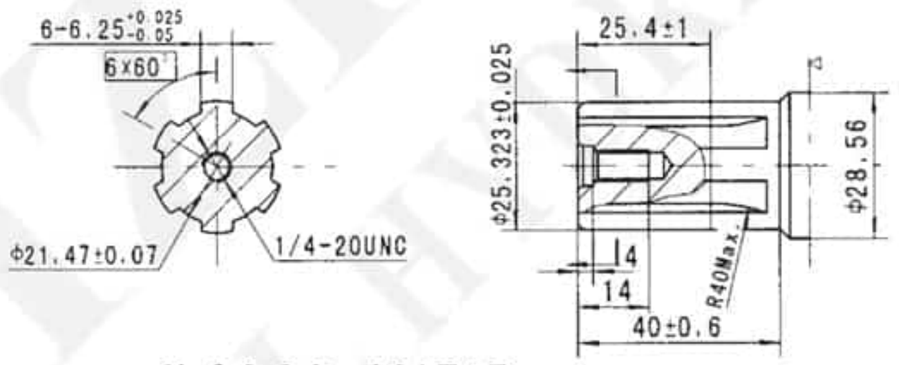
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



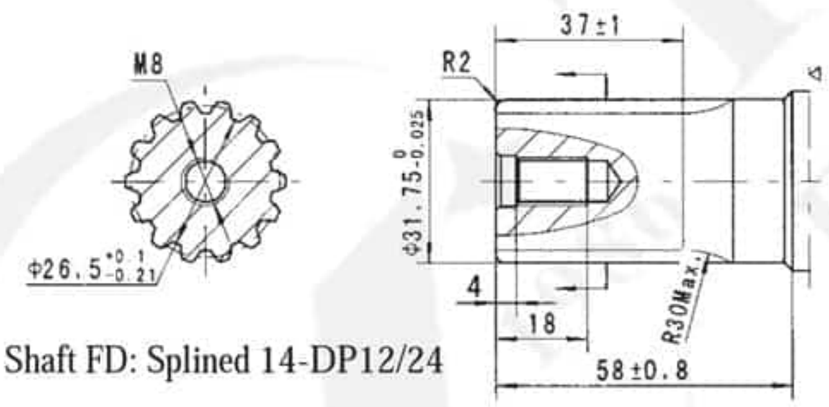
Shaft M: Cylindrical shaft ø35
Parallel key 10x8x45



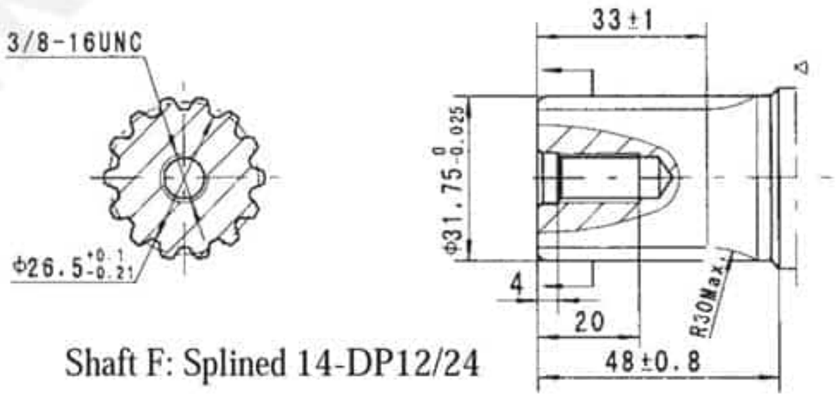
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



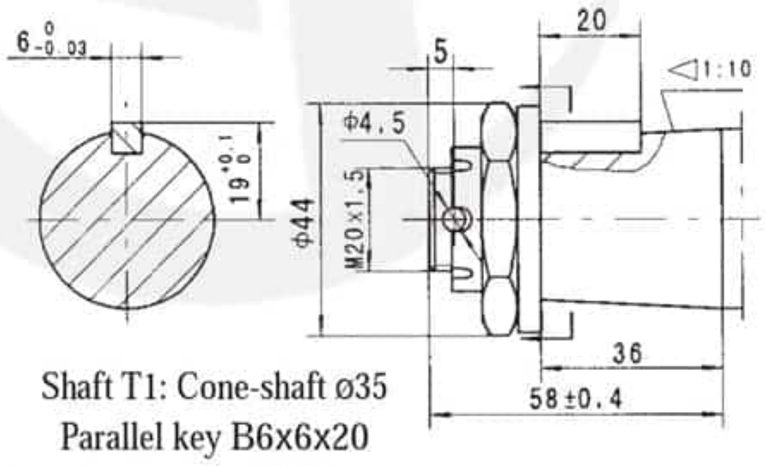
Shaft S: Splined SAE 6B



Shaft FD: Splined 14-DP12/24



Shaft F: Splined 14-DP12/24



Shaft T1: Cone-shaft ø35
Parallel key B6x6x20
Tightening torque:200±10Nxm

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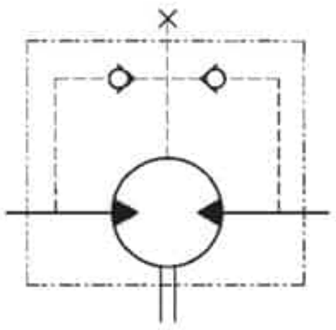
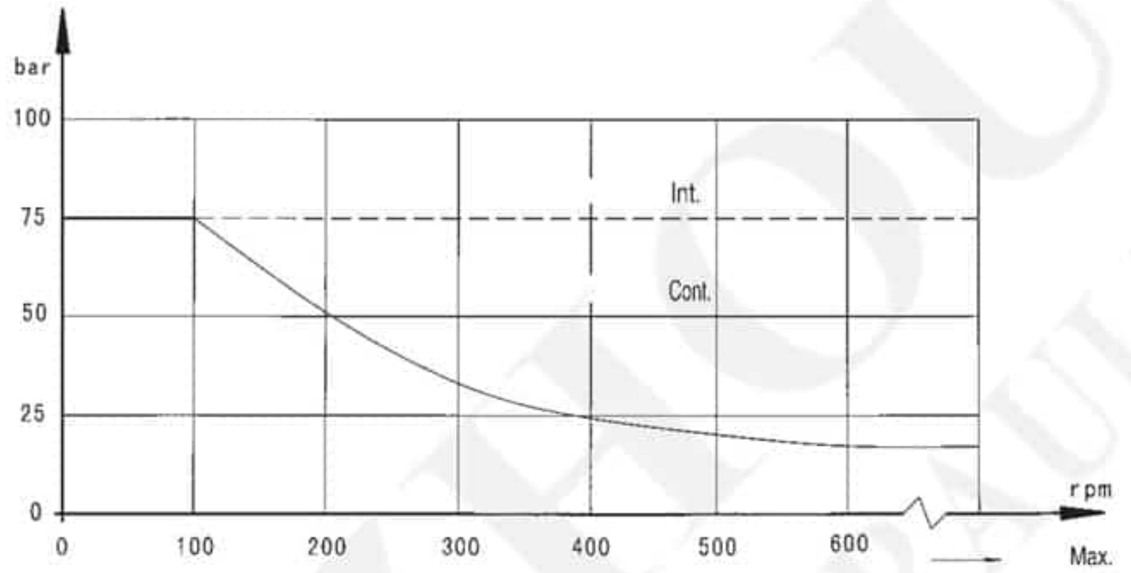
BMH series Hydraulic Motor

Permissible shaft seal pressure

In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

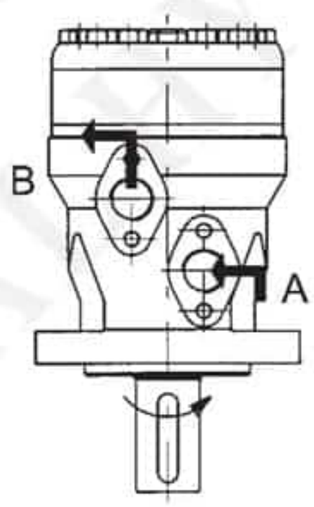




Direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.

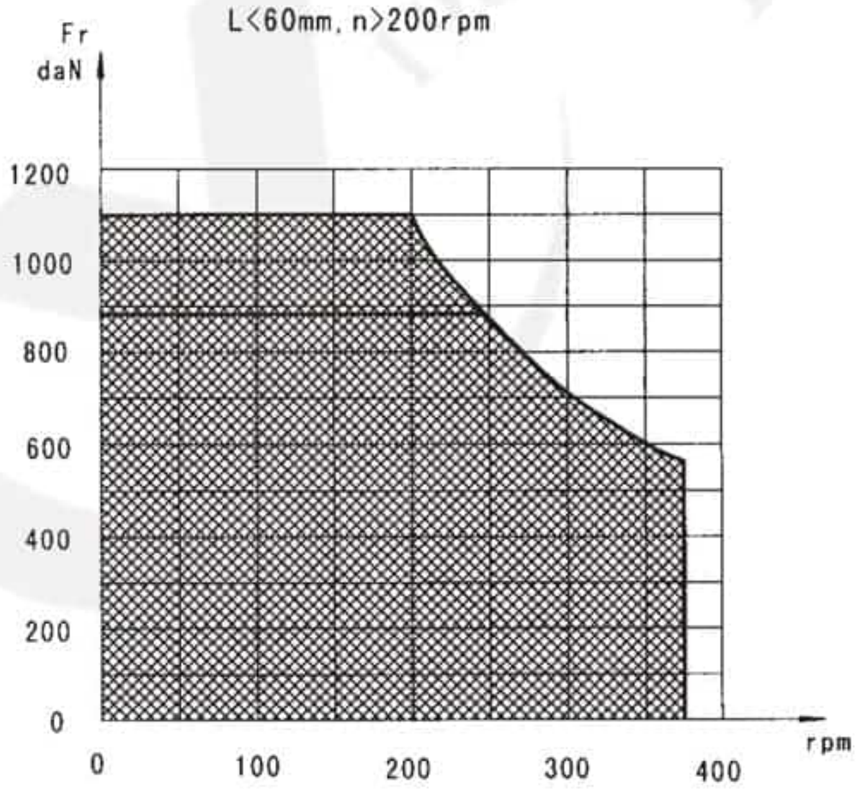
BMH



Status of the shaft's radial force

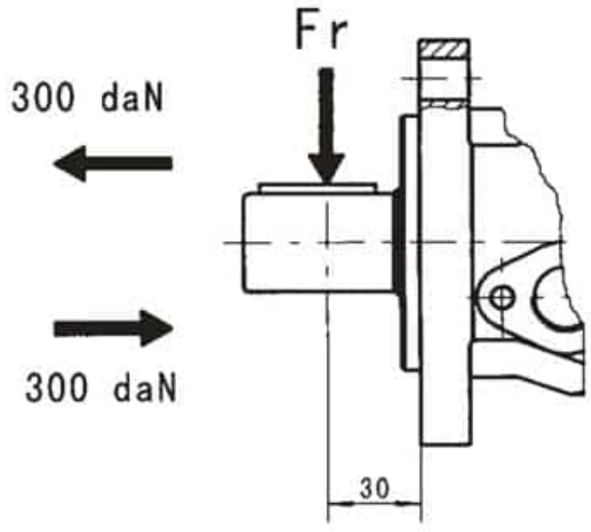
$$F_r = \frac{1100}{n} \times \frac{25000}{103.5+L} \text{ daN}$$

L<60mm, n>200rpm



—— shaft Φ1" (Φ25.4mm)and shaft SAE 6B

The drawing is the Possible load when L=30mm.



F_r =Radial Force (daN)
L =Distance (mm)
n =Speed (rpm)

Order Information

1	2	3	4	5	6	7	8
BMH	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code		Flange		Output shaft		Ports and drain port		Rotation direction		Paint		Unusually function	
Omit	160 200 250 315 400 500	4 2	4×Ø13.5 Rhomb×flange Pilot Ø82.5×6 2×Ø13.5 Rhomb×flange Pilot Ø82.5×6	B M F FD G T1 S	Shaft Ø32 , parallel key 10×8×45 Shaft Ø35, parallel key 10×8×45 Shaft Ø31.75, splined key 14-DP12/24 Long Shaft Ø31.75, splined key 14-DP12/24 Shaft Ø32 , parallel key 7.96×7.96×31.75 Cone shaft Ø35, parallel key B6×6×20 Shaft Ø25.4 , parallel key SAE 6B	D M S P R	G1/2 Manifold mount 4×M8, G1/4 M22×1.5 Manifold mount 4×M8, M14×1.5 7/8-14 O×ring Manifold mount 4×5/16-18UNC,7/16-20UNF 1/2-14 NPTF Manifold mount 4×5/16-18UNC,7/16-20UNF PT(Rc) 1/2 Manifold mount 4×M8,PT(Rc)1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit 0 F LS	Standard No drain Free Running Low Speed

Note:When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMSY SERIES HYDRAULIC MOTOR

BMSY new series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure.The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic featutres:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
* The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
* Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
* The new series motor is suitable for vehicles with greater loads and pressure drop.

Main Specification

Type		BMSY BMSYS 80	BMSY BMSYS 100	BMSY BMSYS 125	BMSY BMSYS 160	BMSY BMSYS 200	BMSY BMSYS 250	BMSY BMSYS 315	BMSY BMSYS 400	BMSY BMSYS 475
Geometric displacement (cm^3/rev.)		80.6	100.8	125	154	194	243	311	394	475
Max. speed (rpm)	cont.	800	748	600	470	375	300	240	185	155
	int.	988	900	720	560	450	360	280	225	185
Max. torque (N•m)	cont.	225	290	365	485	586	708	880	880	910
	int.	305	390	480	590	705	860	1000	980	990
Max. output (kW)	cont.	16	18	18	18.1	18.1	18	17	11	9
	int.	20	22	23	25	24	23.8	20.2	12	11
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	21	21	20	20	16	14
	int.	27.5	27.5	27.5	26	25	25	24	19	15
	peak	29.5	29.5	29.5	28	27	27	26	21	17.5
Max. flow (L/min)	cont.	65	75	75	75	75	75	75	75	75
	int.	80	90	90	90	90	90	90	90	90
Max. inlet pressure (MPa)	cont.	25	25	25	25	25	25	25	25	25
	int.	30	30	30	30	30	30	30	30	30
Weight (kg)		9.8	10	10.3	10.7	11.1	11.6	12.3	13.2	14.3

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BMSY80 [80.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	35 **180**	80 **174**	120 **168**	158 **164**	195 **158**	228 **151**	249 **143**
30	35 **362**	80 **352**	120 **346**	158 **338**	195 **330**	232 **322**	260 **310**
40	35 **487**	79 **480**	119 **468**	155 **457**	193 **446**	227 **438**	250 **425**
50	30 **612**	77 **603**	117 **592**	153 **581**	192 **572**	224 **558**	248 **542**
60	28 **735**	77 **726**	117 **718**	153 **703**	192 **687**	224 **673**	243 **646**
65 (Max.cont.)	26 **794**	75 **786**	116 **773**	151 **760**	188 **744**	217 **722**	236 **706**
80 (Max.int.)	24 **981**	72 **968**	109 **955**	142 **925**	176 **893**	206 **870**	227 **832**

BMSY100 [100.8cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	48 **146**	95 **144**	150 **139**	200 **135**	250 **130**	282 **120**	310 **105**
30	45 **291**	94 **289**	146 **278**	198 **274**	250 **269**	290 **258**	317 **242**
40	43 **387**	89 **384**	142 **374**	196 **359**	248 **350**	288 **335**	316 **320**
50	40 **486**	88 **483**	135 **473**	194 **462**	247 **450**	286 **430**	315 **420**
60	37 **588**	88 **584**	132 **574**	185 **562**	244 **550**	283 **538**	312 **520**
75 (Max.cont.)	35 **740**	80 **735**	130 **720**	180 **705**	240 **696**	279 **676**	310 **653**
90 (Max.int.)	30 **850**	75 **840**	124 **810**	170 **787**	236 **770**	271 **750**	303 **747**

BMSY125 [125cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	22.5 (Max.int.)
15	55 **115**	120 **113**	176 **110**	245 **104**	309 **98**	345 **90**	375 **84**
30	55 **231**	120 **228**	175 **223**	250 **214**	315 **202**	364 **188**	404 **172**
40	53 **312**	118 **309**	178 **290**	250 **289**	315 **278**	364 **262**	403 **235**
50	50 **391**	115 **386**	176 **378**	248 **365**	315 **352**	362 **339**	397 **308**
60	45 **469**	113 **461**	171 **450**	241 **437**	308 **425**	358 **400**	397 **372**
75 (Max.cont.)	45 **588**	110 **574**	167 **560**	240 **544**	306 **526**	352 **505**	389 **481**
90 (Max.int.)	40 **710**	105 **696**	162 **680**	237 **661**	301 **646**	343 **628**	378 **610**

TORQUE(N•m) 301
SPEED (r/min) **646**

BMSY160 [154cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	21 (Max.cont.)	22.5 (Max.int.)
15	70 **93**	142 **91**	215 **89**	298 **85**	372 **80**	435 **76**	476 **58**
30	73 **189**	151 **187**	225 **181**	312 **176**	382 **170**	456 **162**	492 **153**
40	75 **252**	152 **250**	228 **246**	314 **239**	383 **234**	454 **228**	488 **212**
50	70 **313**	148 **310**	225 **306**	305 **298**	372 **293**	445 **285**	480 **272**
60	68 **378**	143 **376**	218 **370**	296 **362**	370 **353**	442 **346**	480 **332**
75 (Max.cont.)	62 **475**	140 **469**	211 **461**	291 **450**	365 **441**	439 **432**	475 **414**
90 (Max.int.)	59 **567**	131 **561**	202 **554**	286 **543**	357 **532**	425 **520**	460 **509**

cont.
int.

Performance Data

BMSY200 [194cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	Max.cont. 21	Max.int. 22.5
15	87 **74**	179 **73**	273 **71**	371 **68**	471 **64**	562 **60**	610 **48**
30	91 **150**	190 **148**	288 **143**	386 **140**	489 **134**	572 **128**	618 **119**
40	94 **198**	193 **195**	296 **192**	394 **188**	498 **183**	584 **178**	645 **167**
50	90 **248**	191 **246**	292 **241**	389 **236**	493 **230**	580 **223**	634 **212**
60	85 **300**	185 **295**	279 **288**	382 **281**	483 **273**	575 **263**	622 **251**
Max.cont. 75	78 **374**	176 **370**	271 **364**	370 **360**	472 **352**	561 **340**	610 **331**
Max.int. 90	68 **443**	163 **440**	265 **435**	361 **428**	456 **424**	545 **413**	599 **400**

BMSY250 [243cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	Max.cont. 20	Max.int. 22.5
15	110 **59**	231 **58**	351 **56**	462 **53**	585 **50**	681 **46**	778 **35**
30	116 **119**	236 **117**	359 **114**	475 **108**	597 **102**	700 **92**	790 **80**
40	118 **162**	241 **159**	363 **156**	480 **150**	599 **143**	706 **134**	796 **121**
50	111 **203**	234 **201**	352 **197**	472 **191**	591 **182**	693 **173**	788 **158**
60	106 **244**	224 **242**	345 **237**	462 **230**	582 **220**	685 **208**	772 **194**
Max.cont. 75	101 **303**	214 **299**	340 **294**	454 **285**	570 **272**	670 **260**	760 **244**
Max.int. 90	93 **363**	209 **359**	335 **354**	447 **348**	559 **340**	657 **328**	749 **303**

BMSY315 [311cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	Max.cont. 20	Max.int. 22.5
15	148 **48**	304 **47**	456 **45**	613 **43**	762 **41**	879 **39**	978 **27**
30	155 **95**	314 **93**	465 **91**	635 **89**	778 **86**	884 **82**	988 **67**
40	160 **127**	321 **125**	479 **121**	650 **117**	796 **115**	906 **109**	997 **91**
50	155 **159**	314 **157**	465 **153**	638 **149**	780 **145**	886 **142**	988 **128**
60	151 **187**	306 **185**	453 **181**	620 **176**	765 **169**	886 **157**	976 **143**
Max.cont. 75	146 **238**	300 **236**	445 **232**	613 **227**	755 **224**	875 **220**	966 **196**
Max.int. 90	135 **286**	284 **283**	436 **278**	601 **272**	740 **265**	863 **257**	952 **232**

BMSY400 [394cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	Max.cont. 16	Max.int. 17.5
15	186 **37**	379 **36**	578 **35**	779 **33**	896 **31**	986 **29**
30	190 **75**	388 **73**	590 **71**	791 **68**	905 **65**	991 **61**
40	195 **99**	394 **97**	596 **95**	797 **93**	912 **90**	998 **85**
50	191 **125**	388 **123**	587 **118**	785 **114**	904 **109**	983 **102**
60	186 **149**	388 **146**	587 **142**	785 **137**	904 **131**	983 **122**
Max.cont. 75	181 **187**	372 **183**	576 **177**	770 **171**	891 **164**	973 **153**
Max.int. 90	176 **226**	367 **221**	571 **214**	766 **208**	883 **199**	965 **183**

TORQUE (N•m) 766
SPEED (rpm) **208**

BMSY475 [475cm³/rev.]

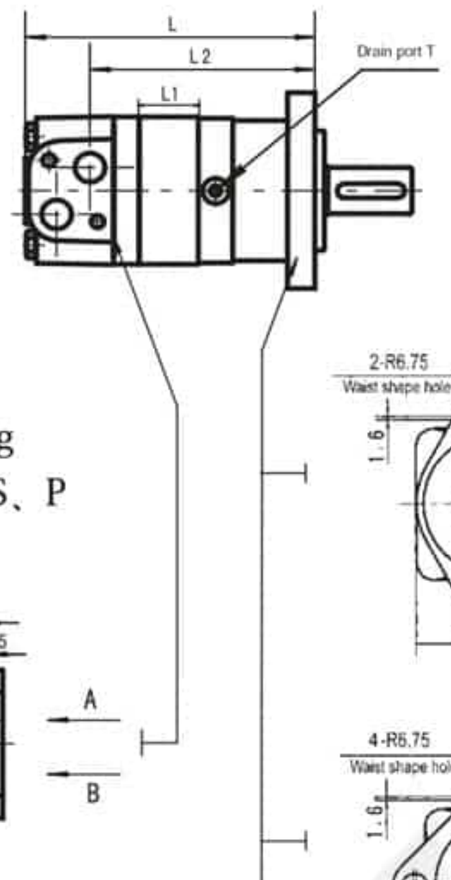
Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	Max.cont. Max.int. 15
15	218 **30**	439 **29**	661 **28**	892 **27**	995 **25**
30	223 **61**	450 **60**	676 **58**	910 **56**	1002 **53**
40	228 **82**	461 **80**	689 **77**	927 **74**	1017 **68**
50	224 **103**	456 **101**	682 **97**	920 **92**	1008 **86**
60	220 **123**	451 **121**	677 **118**	913 **112**	998 **105**
Max.cont. 75	212 **155**	443 **153**	664 **147**	901 **140**	980 **132**
Max.int. 90	196 **186**	421 **184**	643 **178**	877 **170**	959 **157**

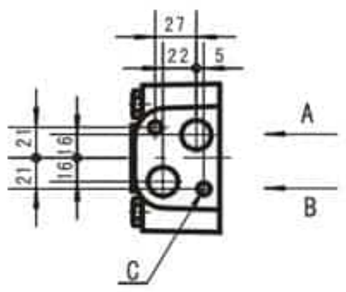
cont.

int.

BMSY DIMENSIONS AND MOUNTING DATA



Porting
D、M、S、P



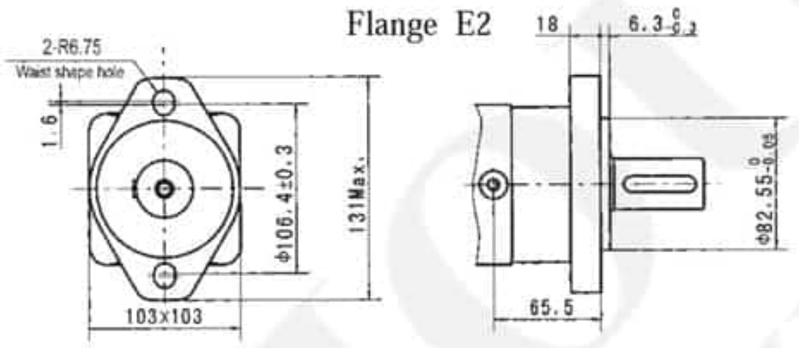
Model	L	L1	L2
BMSY-80	170	16	126.5
BMSY-100	174	20	130.5
BMSY-125	179	25	135.5
BMSY-160	181	27	137.5
BMSY-200	188	34	144.5
BMSY-250	196	42	152.5
BMSY-315	208	54	164.5
BMSY-400	223	69	179.5
BMSY-475	237	83	193.5

Model	L	L1	L2
BMSY-80-W	132.5	16	89
BMSY-100-W	136.5	20	93
BMSY-125-W	141.5	25	98
BMSY-160-W	143.5	27	100
BMSY-200-W	150.5	34	107
BMSY-250-W	158.5	42	115
BMSY-315-W	170.5	54	127
BMSY-400-W	185.5	69	142
BMSY-475-W	199.5	83	156

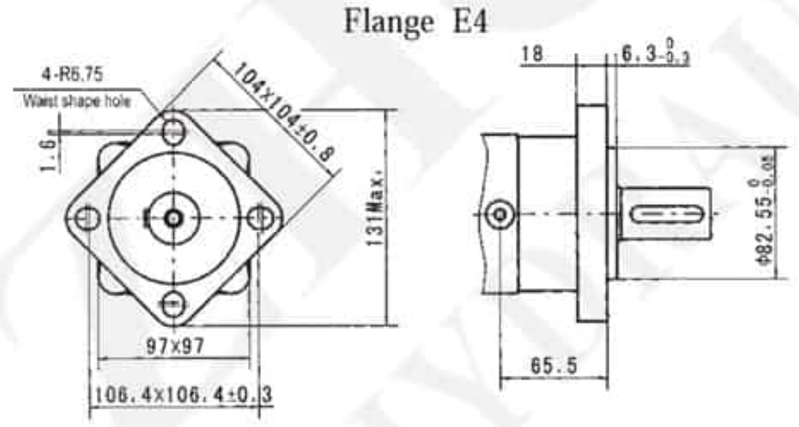
Note:If the mounting SP is used,the dimensions of L and L2 should plus 12mm.

Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(18)	M22x1.5(18)	7/8-14 O-ring (18)	1/2-14NPTF (15)
T	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10(13)	2-M10 (13)	2-3/8-16UNC (13)	2-3/8-16UNC (13)

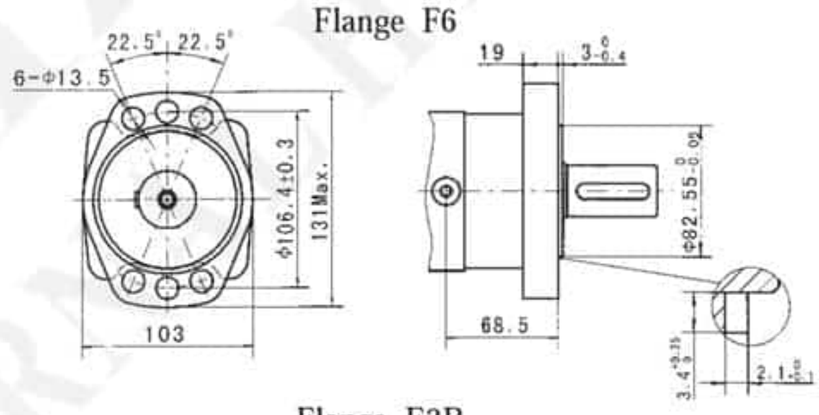
Flange E2



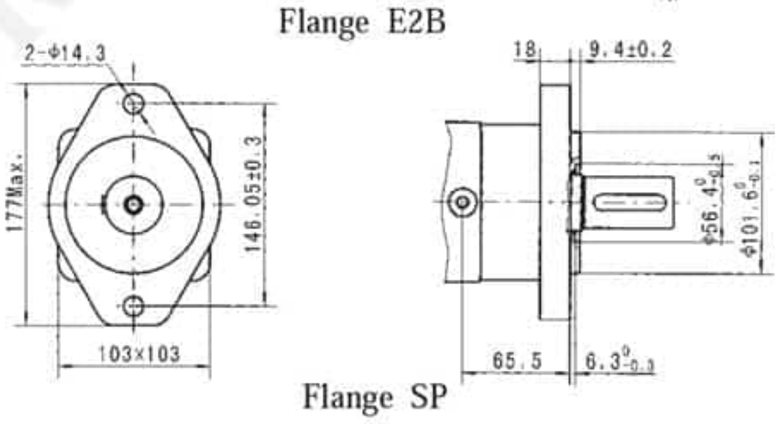
Flange E4



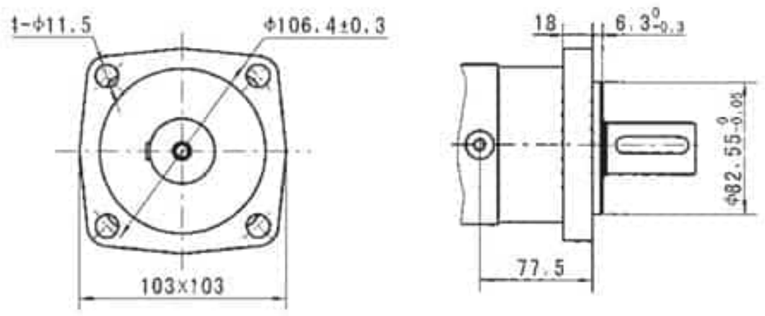
Flange F6



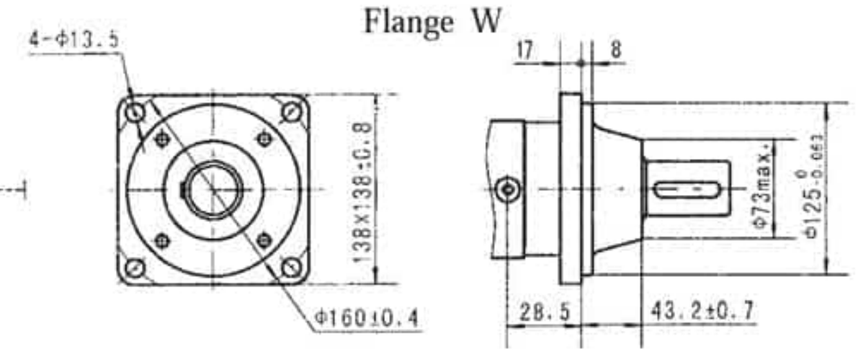
Flange E2B



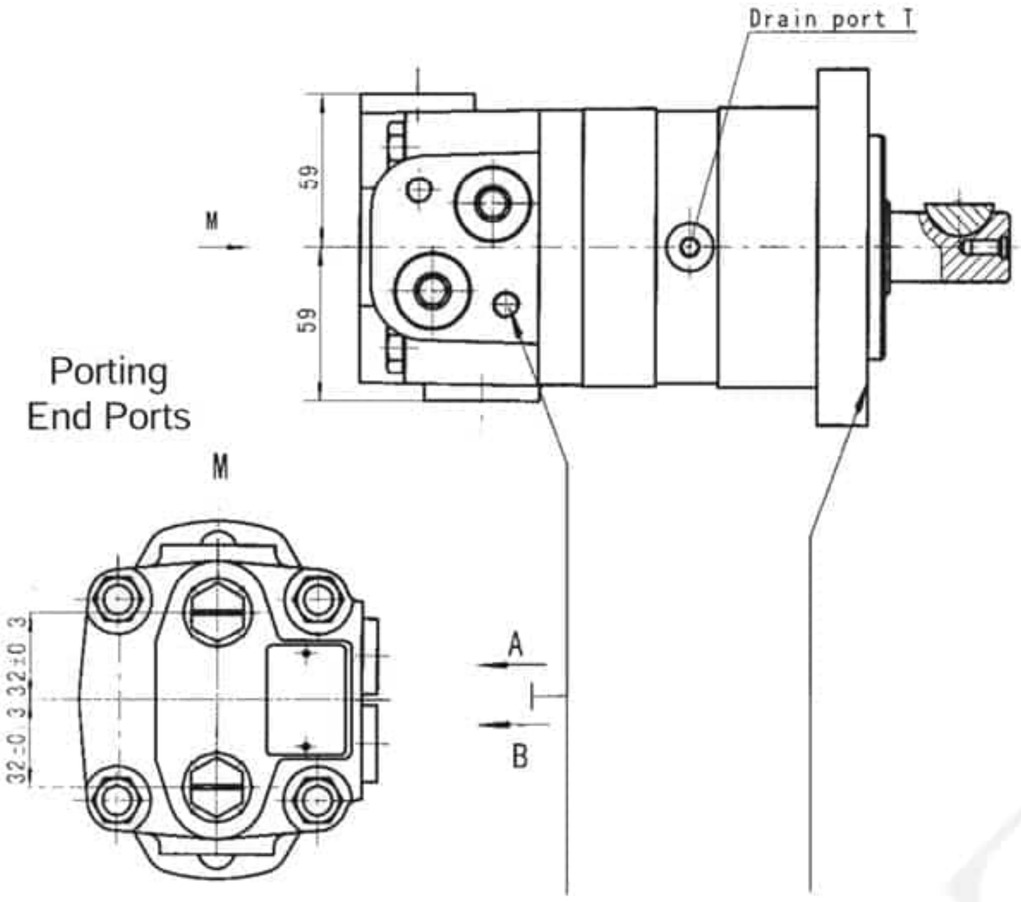
Flange SP



Flange W



BMSY DIMENSIONS AND MOUNTING DATA

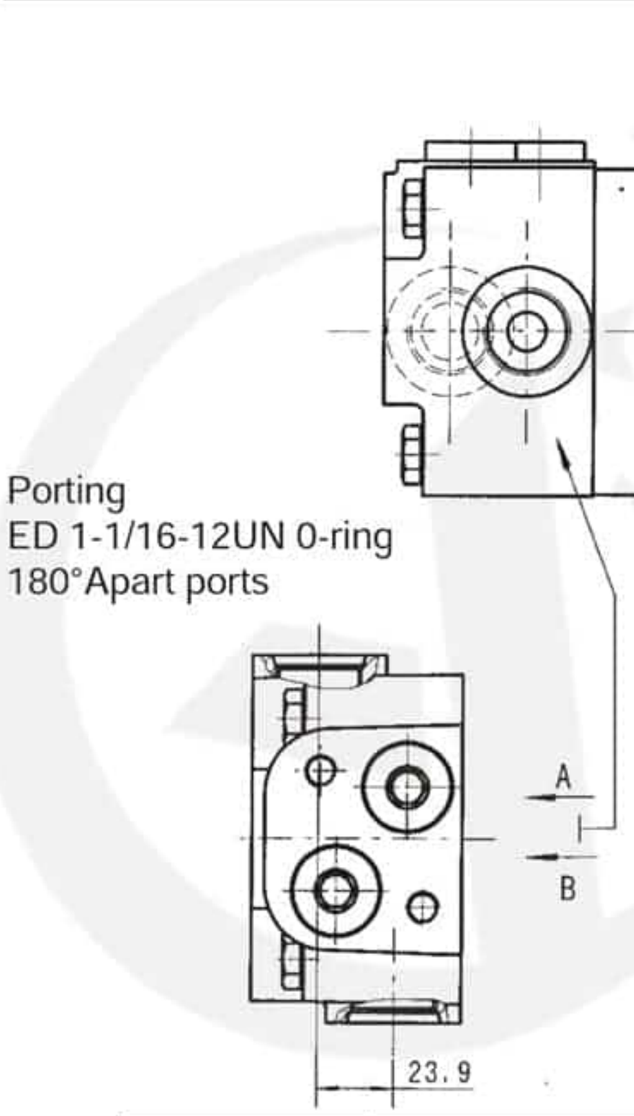


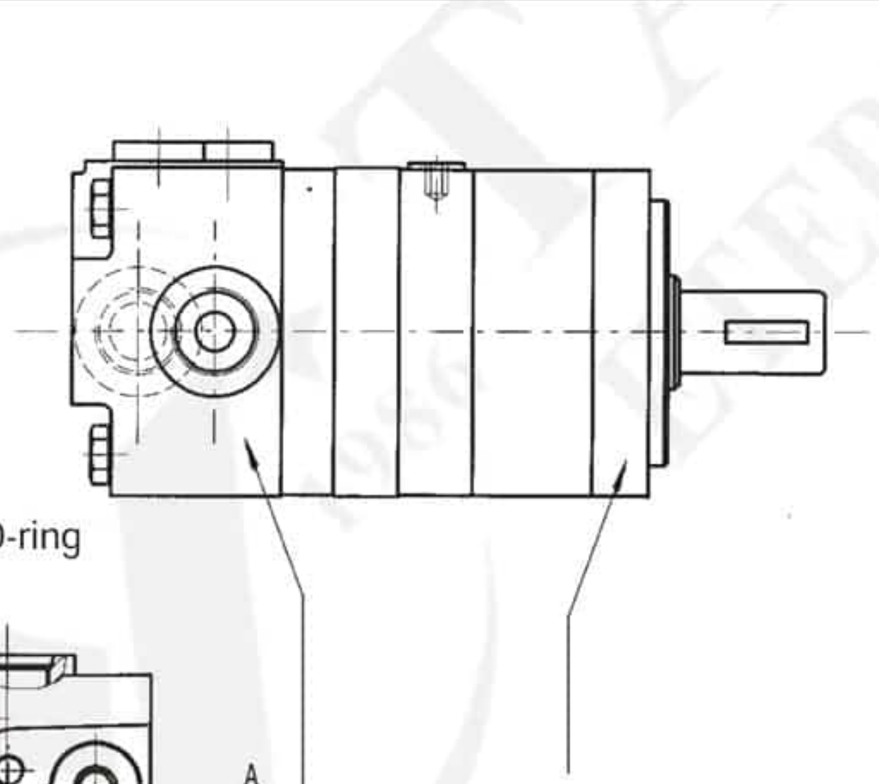
Mounting \ Code	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (18)	M22 x 1.5 (18)	7/8-14 O-ring (18)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)

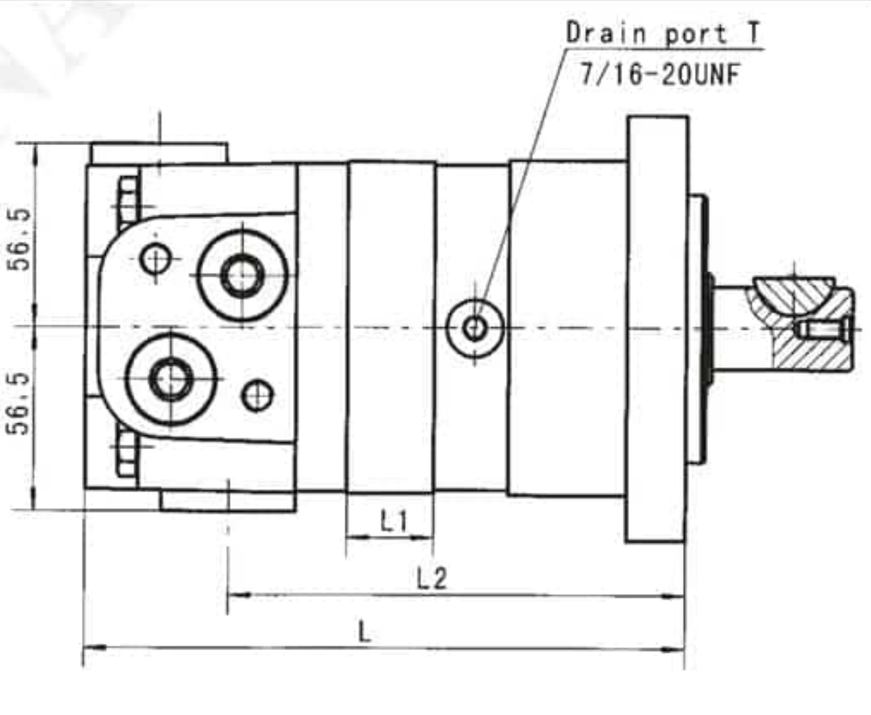
End Ports P(A\ B)

Model	L	L1
BMSY-80	176	16
BMSY-100	180	20
BMSY-125	185	25
BMSY-160	187	27
BMSY-200	194	34
BMSY-250	202	42
BMSY-315	214	54
BMSY-400	229	69
BMSY-475	243	83

Model	L	L1
BMSY-80-WE	148	16
BMSY-100-WE	152	20
BMSY-125-WE	157	25
BMSY-160-WE	159	27
BMSY-200-WE	166	34
BMSY-250-WE	174	42
BMSY-315-WE	186	54
BMSY-400-WE	201	69
BMSY-475-WE	215	83





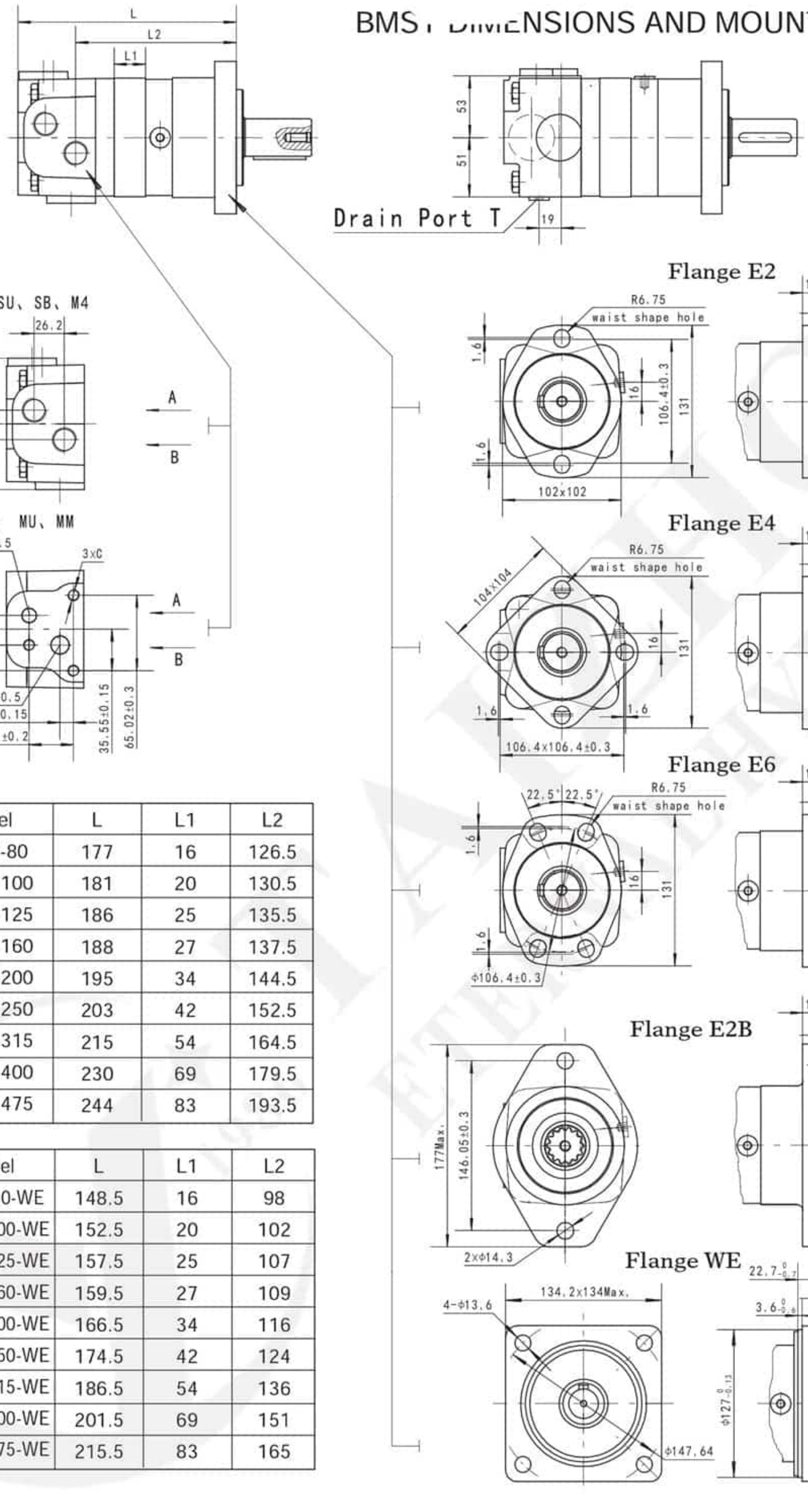


Mounting \ Code	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

Model	L	L1	L2
BMSY-80	176	16	130
BMSY-100	180	20	134
BMSY-125	185	25	139
BMSY-160	187	27	141
BMSY-200	194	34	148
BMSY-250	202	42	156
BMSY-315	214	54	168
BMSY-400	229	69	183
BMSY-475	243	83	197

Model	L	L1	L2
BMSY-80-WE	148	16	102
BMSY-100-WE	152	20	106
BMSY-125-WE	157	25	111
BMSY-160-WE	159	27	113
BMSY-200-WE	166	34	119
BMSY-250-WE	178	42	127
BMSY-315-WE	190	54	139
BMSY-400-WE	205	69	154
BMSY-475-WE	219	83	168

BMSY DIMENSIONS AND MOUNTING



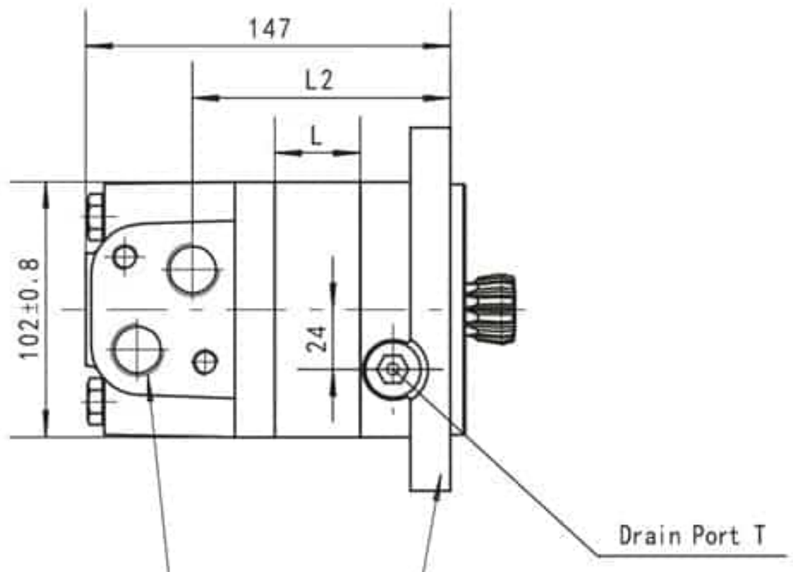
Model	L	L1	L2
BMSY-80	177	16	126.5
BMSY-100	181	20	130.5
BMSY-125	186	25	135.5
BMSY-160	188	27	137.5
BMSY-200	195	34	144.5
BMSY-250	203	42	152.5
BMSY-315	215	54	164.5
BMSY-400	230	69	179.5
BMSY-475	244	83	193.5

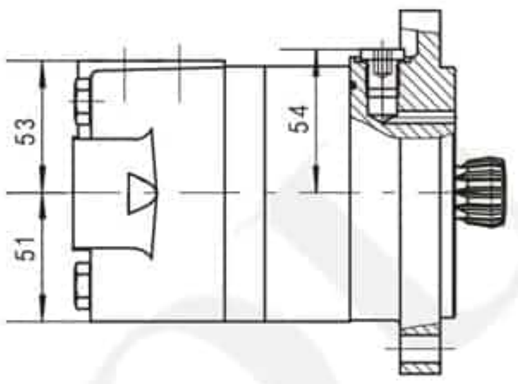
Model	L	L1	L2
BMSY-80-WE	148.5	16	98
BMSY-100-WE	152.5	20	102
BMSY-125-WE	157.5	25	107
BMSY-160-WE	159.5	27	109
BMSY-200-WE	166.5	34	116
BMSY-250-WE	174.5	42	124
BMSY-315-WE	186.5	54	136
BMSY-400-WE	201.5	69	151
BMSY-475-WE	215.5	83	165

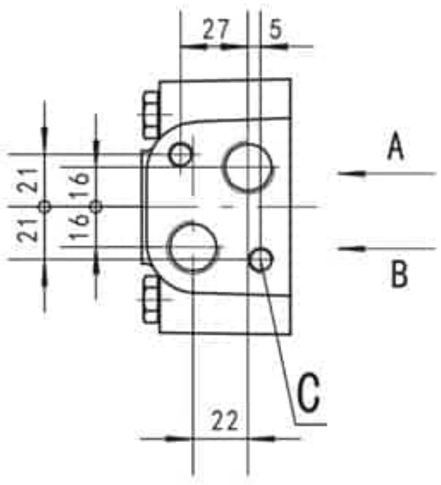
Mounting \ Code	DB(depth)	DU (depth)	SU7 (depth)	SB (depth)	M4 (depth)	MU	MM
P(A,B)	G1/2(18)	G1/2(18)	7/8-14O-ring(18)	7/8-14O-ring(18)	M2215(18)	Φ12.7,Φ15.8	Φ12.7,Φ15.8
T	G1/4(12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4(12)	M1415(12)	7/16-20UNF(12)	G1/4(12)
C	-					3/8-16UNC	M10

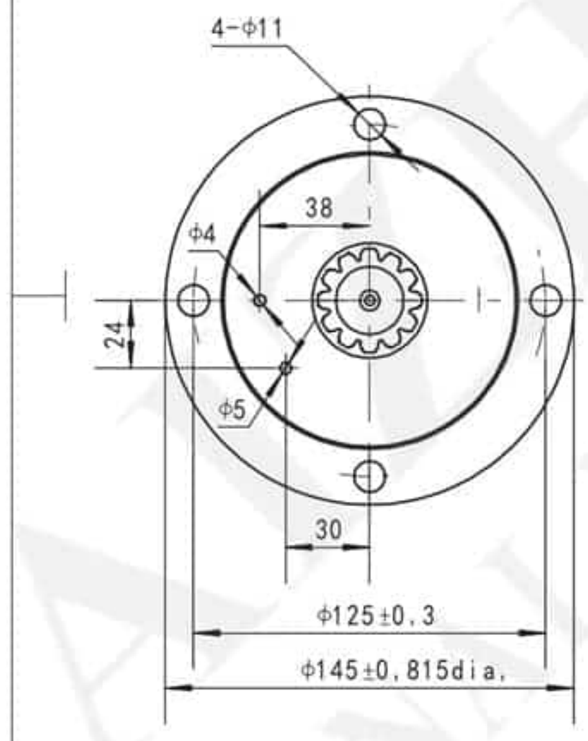
BMSYS DIMENSIONS AND MOUNTING DATA

Porting
D、M、S、P

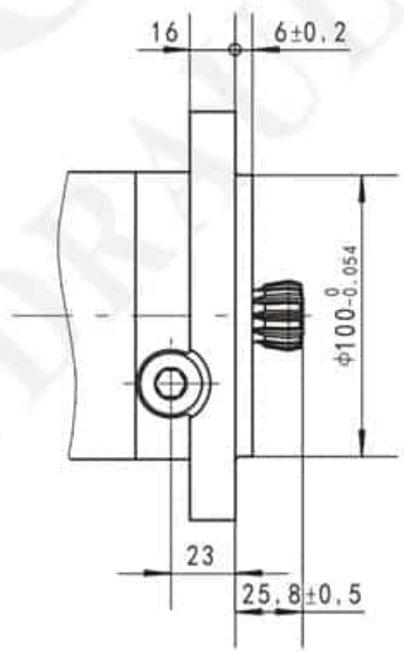




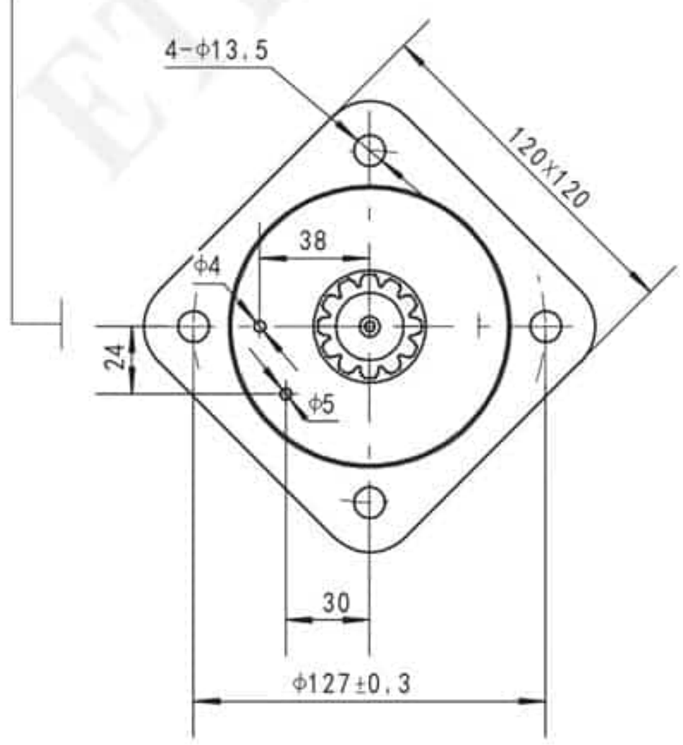


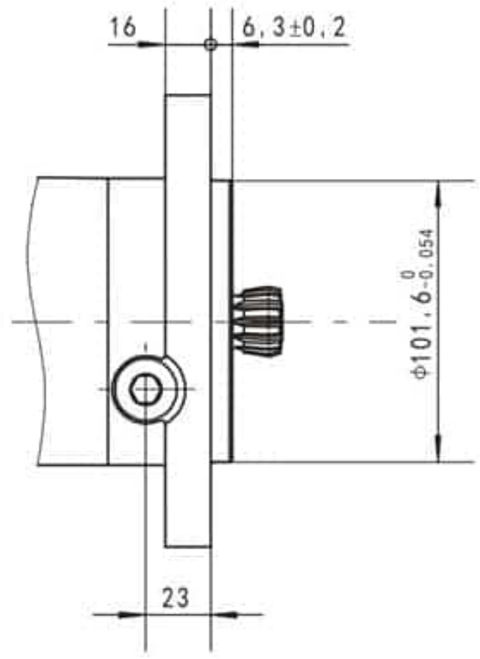


Flange D



Flange E

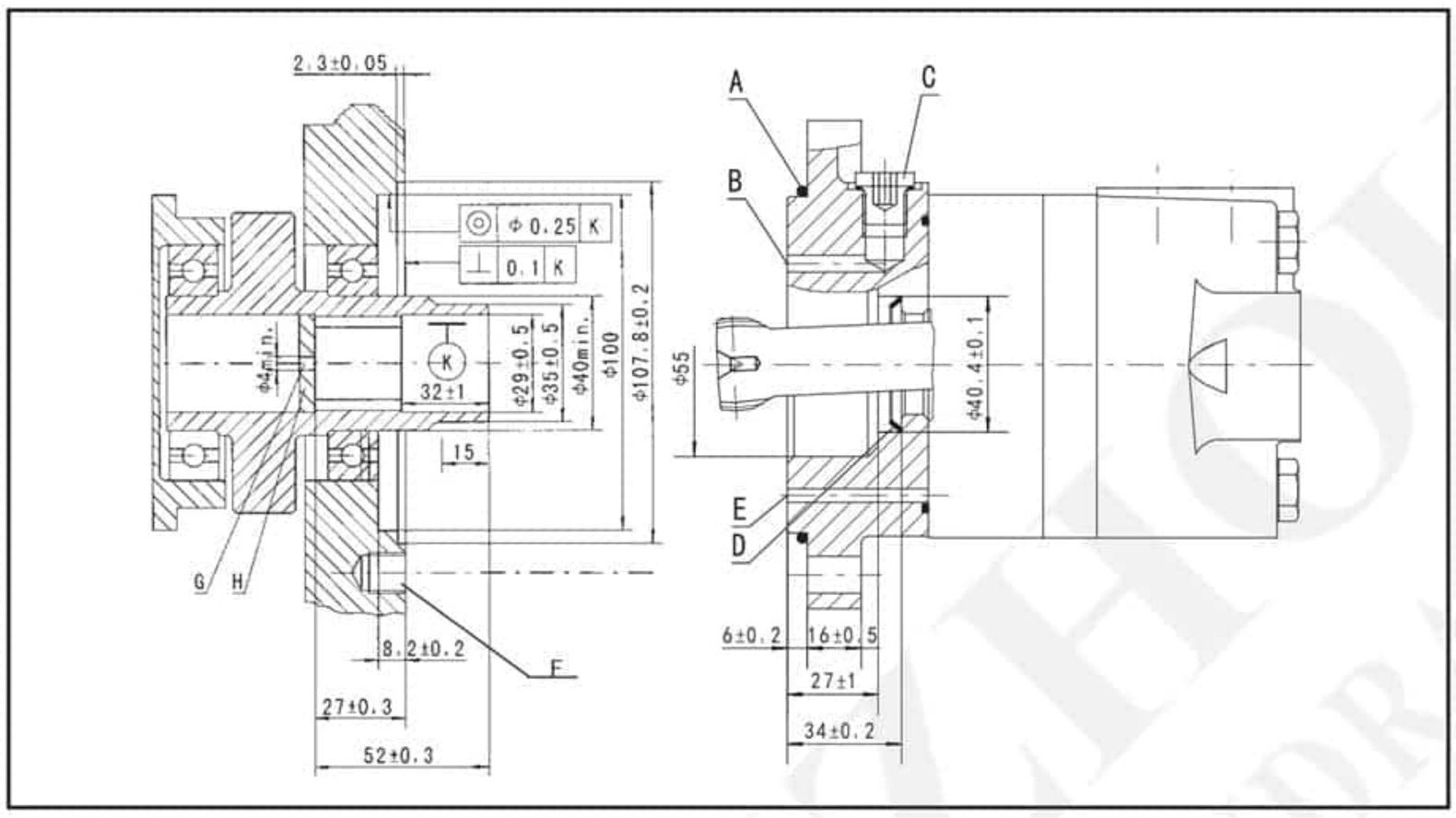




Model	L	L1	L2
BMSYS-80	129	16	85
BMSYS-100	133	20	89
BMSYS-125	138	25	94
BMSYS-160	140	27	96
BMSYS-200	147	34	103
BMSYS-250	155	42	111
BMSYS-315	167	54	123
BMSYS-400	182	69	138
BMSYS-475	196	83	152

Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(18)	M22x1.5(18)	7/8-14O-ring(18)	1/2-14NPTF(15)
T	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10(13)	2-M10(13)	2-3/8-16UNC(13)	2-3/8-16UNC(13)

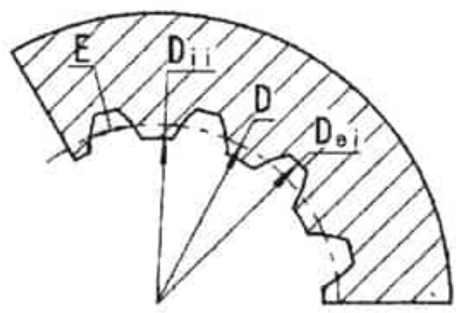
BMSYS DIMENSIONS AND MOUNTING DATA



A: O-ring:100x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
F: M10;min. 15mm deep
G: Oil circulation hole
H: Hardened stop plate

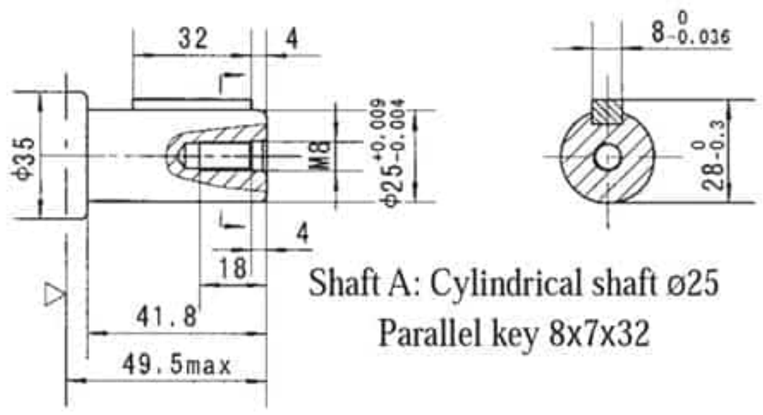
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø25.4
Major Dia.	D_{ei}	$ø28^{0}_{-0.1}$
Minor Dia.	D_{ii}	$ø23^{+0.033}_{0}$
Space Width [Circular]	E	4.308±0.02

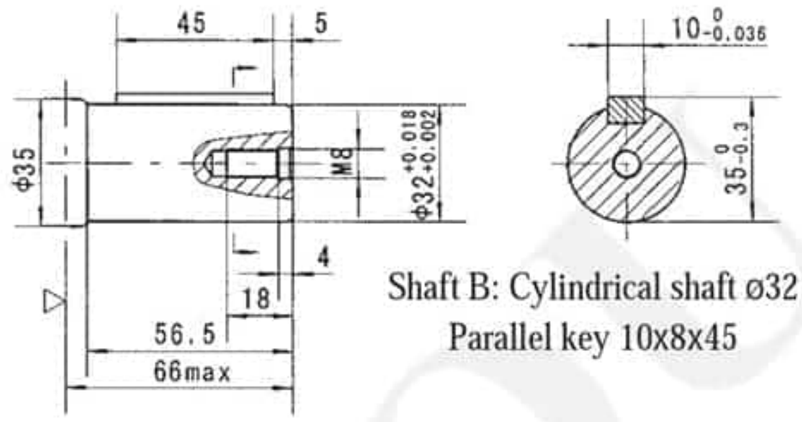


Hardering Specification: HRC 62±2
Effective case depth 0.7±0.2

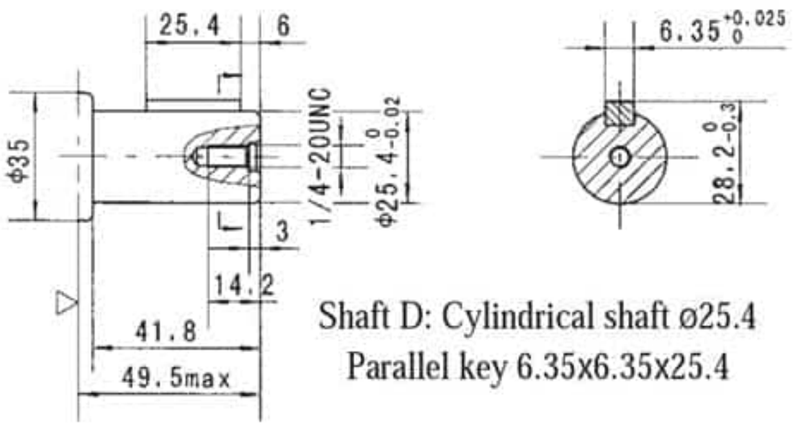
SHAFT EXTENSIONS FOR BMSY MOTORS



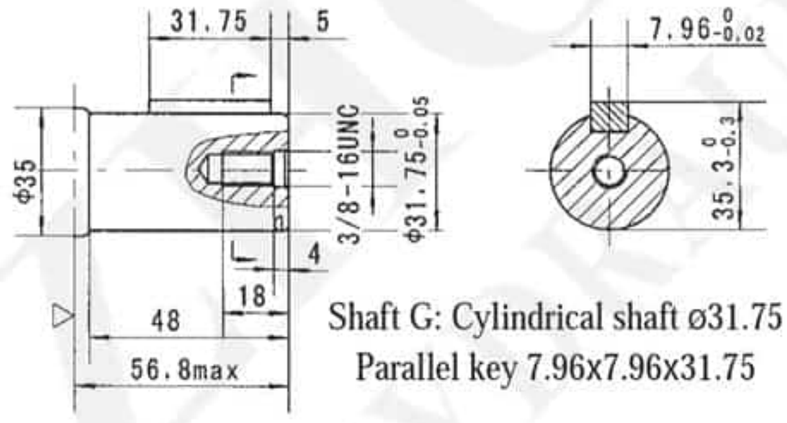
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



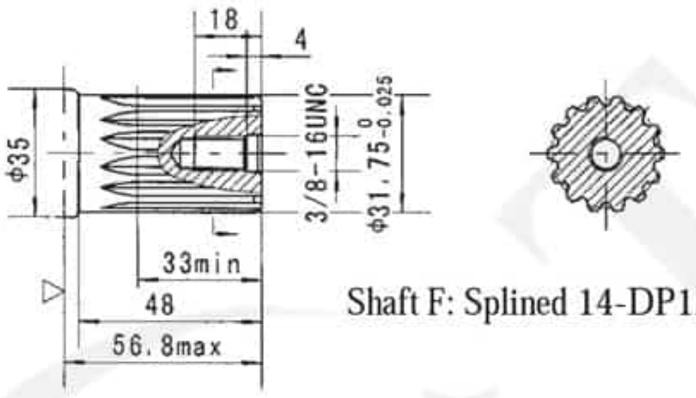
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



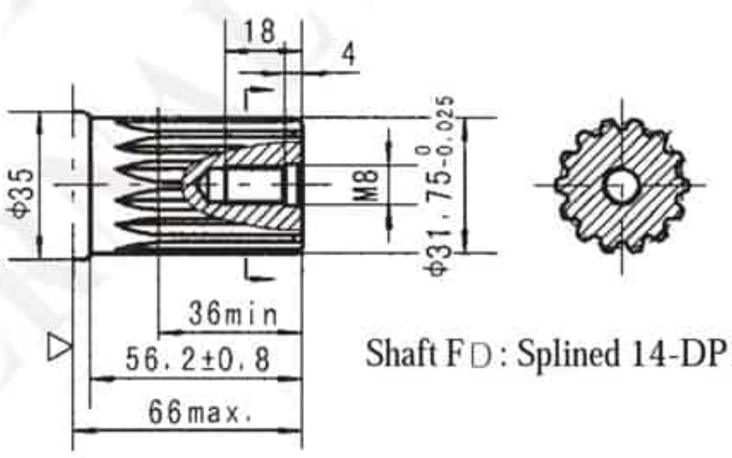
Shaft D: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x25.4



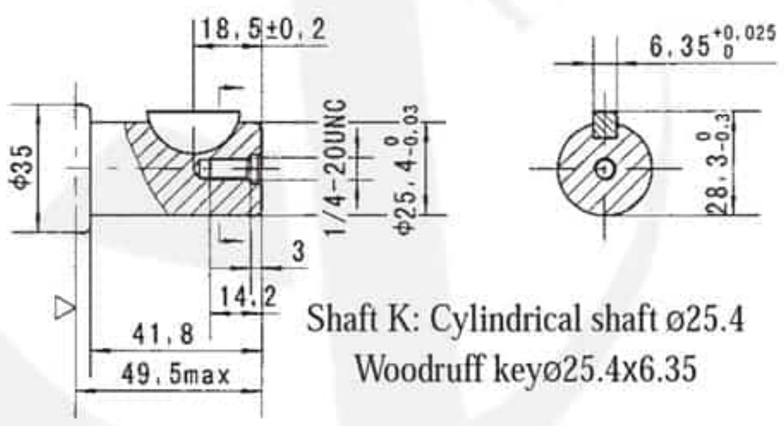
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



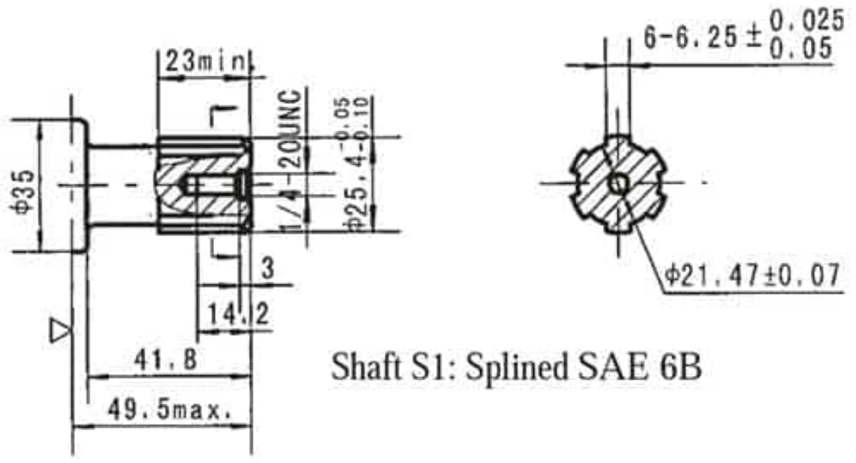
Shaft F: Splined 14-DP12/24



Shaft FD: Splined 14-DP12/24



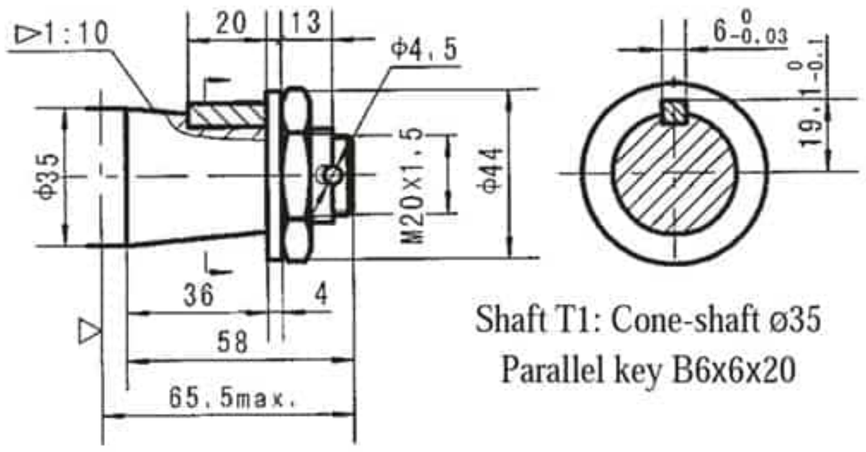
Shaft K: Cylindrical shaft ø25.4
Woodruff keyø25.4x6.35



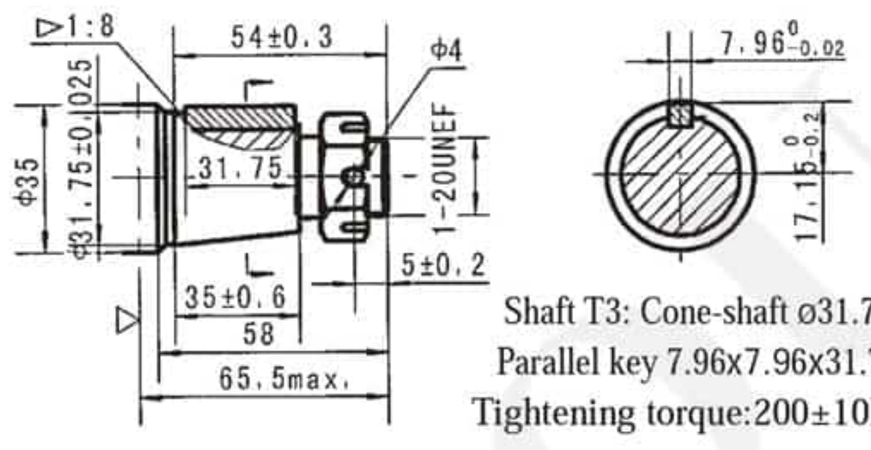
Shaft S1: Splined SAE 6B

▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)

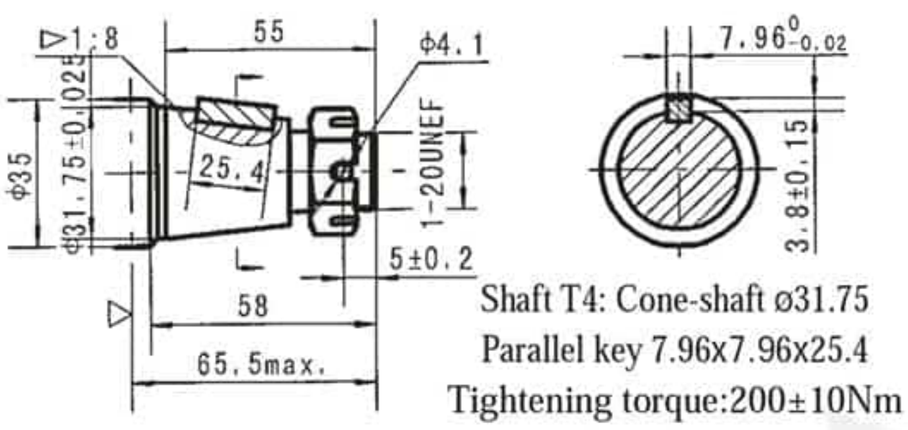
SHAFT EXTENSIONS FOR BMSY MOTORS



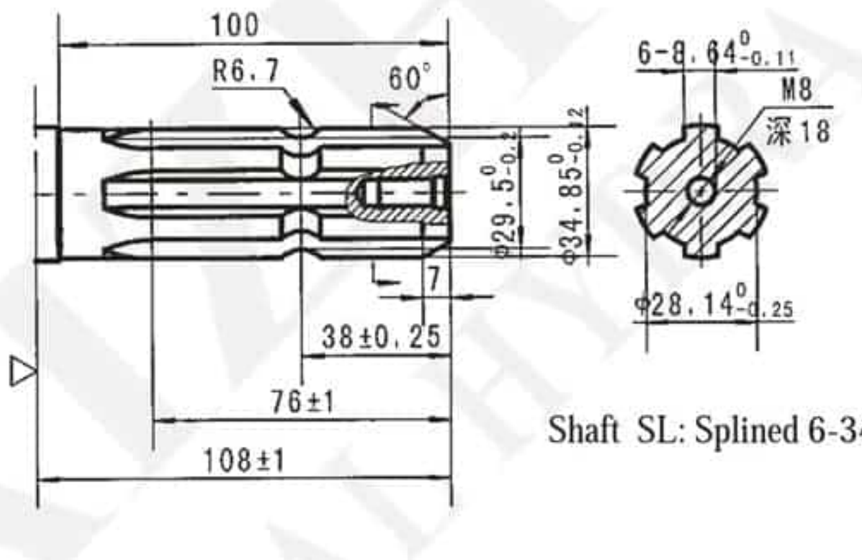
Shaft T1: Cone-shaft ø35
Parallel key B6x6x20



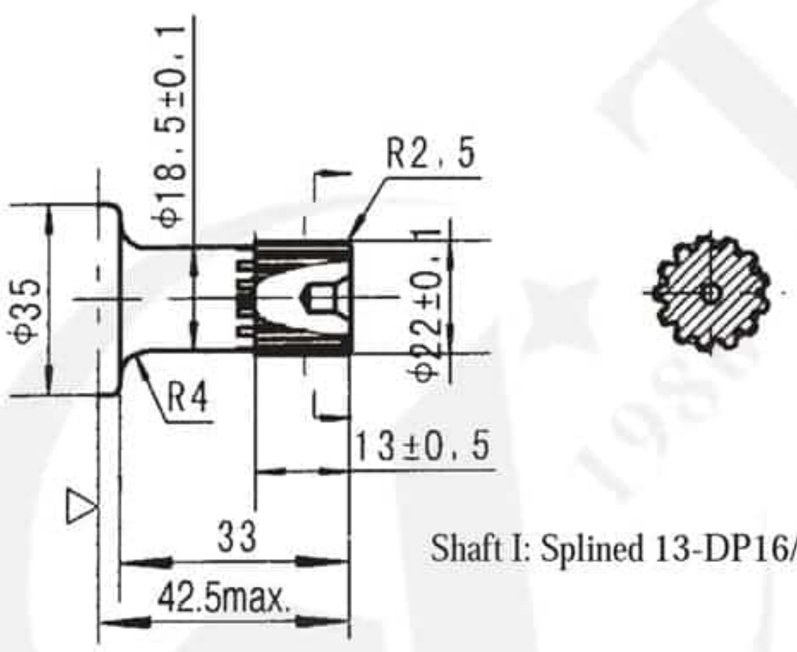
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm



Shaft T4: Cone-shaft ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



Shaft SL: Splined 6-34.85x28.14x8.64

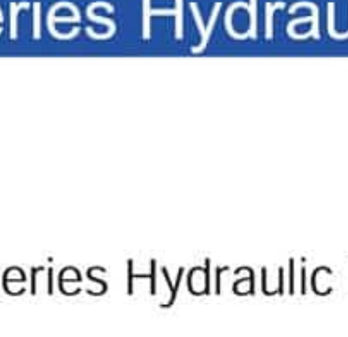


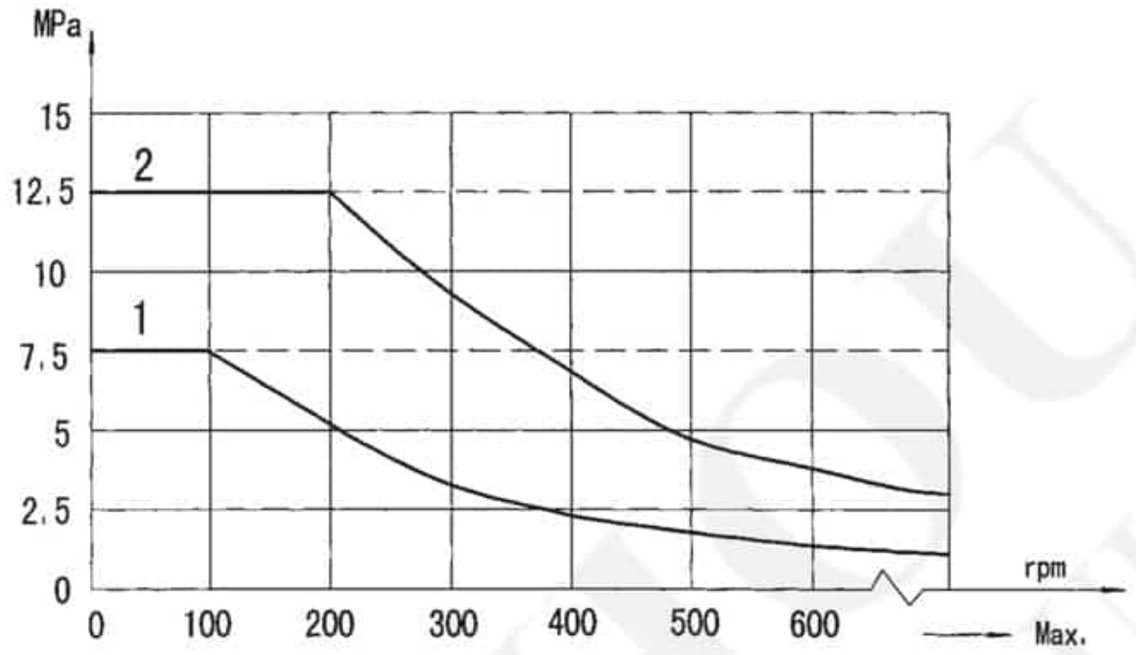
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface(Dimension corresponding mounting E2, by analogy with others)
Note:Mounting SP is the same with shaft modle T1、D、B、F and G.

BMSY Series Hydraulic Motor

Permissible shaft seal pressure



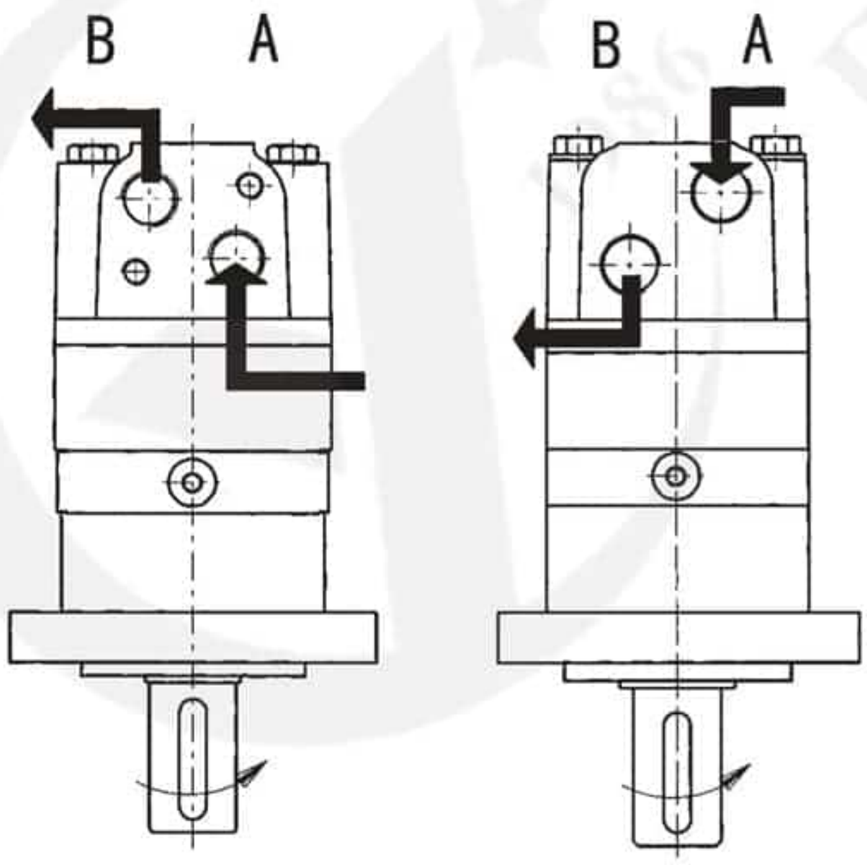


Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

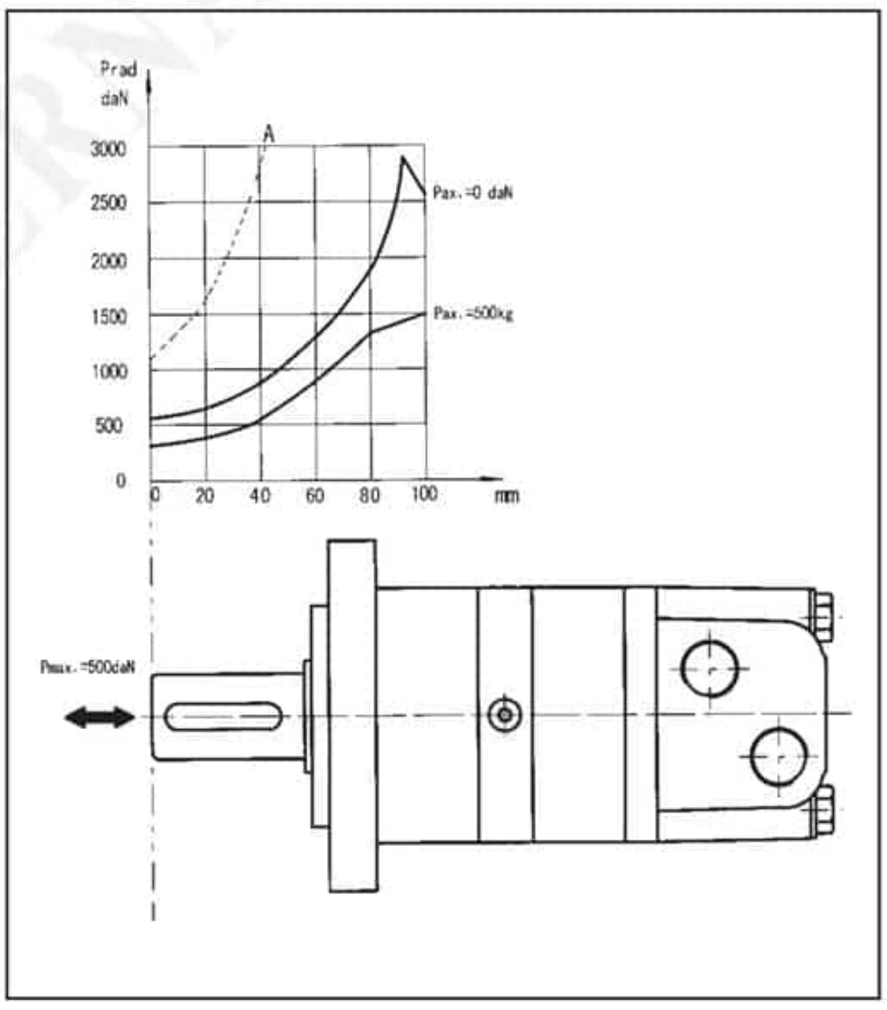
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Standard direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Order Information

BMSY [1] – [2] – [3] – [4] – [5] – [6] – [7] – [8]

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
Omit	80 100 125 160 200 250 315 400 475	E2	2-Φ13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	B	Shaft Ø 32 , parllel key 10×8×45	D	G1/2 Manifold Mount 2-M10 , G1/4	Omit	Standard	00	No paint	Omit	Standard
		E4	4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	D	Shaft Ø 25.4 , parllel key6.35×6.35×25.4	M	M22×1.5 Manifold Mount 2-M10 , M14×1.5	R	Opposite	Omit	Blue	F	Free Running
		F6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6	G	Shaft Ø 31.75 , parllel key 7.96×7.96×31.75	S	7/8-14UNF O-ring manifold 2-3/8-16 , 7/16-20UNF			B	Black	LS	Low Speed
		W	4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8	F	Shaft Ø 31.75 , splined key 14-DP12/24	P	1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF			S	Silver gray		
		E2B	2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4	FD	Long Shaft Ø31.75 , splined key 14-DP12/24								
		SP	4-Ø11.5 Square-flange Ø106.4 pilot Ø82.5×6.3	SL	shaft Ø34.85,Splined key 6-34.85×28.14×8.64								
				T1	Cone-shaft Ø35 ,parllel key B6×6×20								
				T3	Cone-shaft Ø 31.75 , parllel key 7.96×7.96×31.75								
				S1	Shaft Ø25.4 ,splined key SAE 6B								
				I	Sub-shaft Ø22 , splined key 13-DP16/32								
S		D	4-Ø11 Circle-flange Ø125 , pilot Ø100×6	Omit	Short shaft 12-DP12/24								
		E	4-Ø13.5Circle-flange Ø127, pilot Ø101.6×6.3										

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
Omit	80 100 125 160 200 250 315 400 475	E2	2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	A	Shaft Ø25 , parllel key 8×7×32	EE-D	G1/2, G1/4	Omit	Standard	00	No paint	Omit	Standard
		E4	4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	B	Shaft Ø32 , parllel key 10×8×45	EE-M	2M22×1.5, M14×1.5	R	Opposite	Omit	Blue	F	Free Running
		E6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6	K	Shaft Ø25.4 , Woodruff key Ø25.4×6.35	EE-S2	7/8-14UNF O-ring, 7/16-20 UNF			B	Black	LS	Low Speed
		E2B	2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4	G	Shaft Ø31.75 , parllel key 7.96×7.96×31.75	ED	1-1/16-12UN O-ring, 7/16-20 UNF			S	Silver gray		
		WE	4-Ø13.6Wheel-flange Ø147.6, pilot Ø107.95×6.4	F	Shaft Ø31.75 , splined key 14-DP12/24	DB	G1/2, G1/4						
				FE	Shaft Ø31.75 , splined key 14-DP12/24	DU	G1/2, 7/16-20 UNF						
				T4	Cone-shaft Ø31.75 , parllel key 7.96×7.96×25.4	SB	7/8-14UNF O-ring, G1/4						
				S1	Shaft Ø25.4 ,splined key SAE 6B	SU	7/8-14UNF O-ring, 7/16-20 UNF						
				I	Sub-shaft Ø21.74 , splined key 13-DP16/32	M4	M22×1.5, M14×1.5						
						MU	1/2",5/8"Crosshole Manifold 3×3/8-16UNC,7/16-20UNF						
						MM	1/2", 5/8"Crosshole Manifold 3×M10, G1/4						
						G	G1/2, G1/4						
						M2	M22×1.5, M14×1.5						
						S2	7/8-14UNF O-ring, 7/16-20 UNF						

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports.The informations of mounting flange,output shaft and frorts are the same as BMS serier.The SP flange afflies to shafts of T1、D、B、F、G. If the specification is not in the table or you have specific requirements, please contact us.

BMT SERIES HYDRAULIC MOTOR

BMT series motor adapt the advanced Geroler gear set design with disc distribution flow and high pressure.The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set,which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
* The output shaft adapts in tapered roller bearings that permit high axial and radial forces.Can offer capacities of high pressure and high torque in the wide of applications.
* Advanced design in disc distrbution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

Main Specification

Type		BMT 160	BMT 200	BMT 230	BMT 250	BMT 315	BMT 400	BMT 500	BMT 630	BMT 800
Geometric displacement (cm^3/rev.)		161.1	201.4	232.5	251.8	326.3	410.9	523.6	629.1	801.8
Max. speed (rpm)	cont.	625	625	536	500	380	305	240	196	154
	int.	780	750	643	600	460	365	285	233	185
Max. torque (N•m)	cont.	470	590	670	730	950	1080	1220	1318	1464
	int.	560	710	821	880	1140	1260	1370	1498	1520
	peak	669	838	958	1036	1346.3	1450.3	1643.8	1618.8	1665
Max. output (kW)	cont.	27.7	34.9	34.7	34.5	34.9	31.2	28.8	25.3	22.2
	int.	32	40	40	40	40	35	35	27.5	26.8
Max. pressure drop (MPa)	cont.	20	20	20	20	20	18	16	14	12.5
	int.	24	24	24	24	24	21	18	16	13
	peak	28	28	28	28	28	24	21	19	16
Max. flow (L/min)	cont.	100	125	125	125	125	125	125	125	125
	int.	125	150	150	150	150	150	150	150	150
Max. inlet pressure (MPa)	cont.	21	21	21	21	21	21	21	21	21
	int.	25	25	25	25	25	25	25	25	25
	peak	30	30	30	30	30	30	30	30	30
Weight (kg)		19.5	20	20.4	20.5	21	22	23	24	25

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BMT 160 [161.1cm³/rev.]

Pressure (MPa)

Flow (L/min)	4	8	10	12	Max.cont. 16	20	Max.int. 24
10	88 **60**	176 **59**	228 **58**	275 **56**	361 **54**	447 **50**	535 **44**
20	89 **121**	181 **120**	234 **117**	277 **114**	372 **109**	459 **103**	557 **95**
40	91 **249**	180 **246**	235 **243**	277 **236**	381 **230**	471 **223**	573 **212**
60	82 **371**	178 **367**	235 **362**	277 **356**	381 **349**	470 **340**	572 **330**
80	78 **492**	173 **489**	229 **485**	276 **478**	379 **470**	466 **462**	567 **447**
Max.cont. 100	70 **614**	160 **611**	218 **606**	269 **598**	370 **590**	455 **582**	558 **570**
Max.int. 125	58 **770**	148 **764**	211 **758**	261 **750**	359 **741**	448 **731**	552 **715**

BMT 200 [201.4cm³/rev.]

Pressure (MPa)

Flow (L/min)	4	8	10	12	Max.cont. 16	20	Max.int. 24
10	124 **47**	233 **46**	289 **45**	340 **42**	454 **39**	560 **37**	669 **33**
20	125 **95**	239 **94**	298 **92**	347 **90**	468 **87**	576 **84**	696 **75**
40	120 **195**	241 **193**	296 **191**	352 **187**	475 **183**	589 **178**	716 **167**
60	116 **297**	237 **295**	295 **292**	352 **287**	478 **282**	589 **276**	718 **263**
80	108 **395**	231 **393**	289 **389**	350 **384**	474 **377**	586 **370**	716 **359**
100	99 **493**	227 **490**	286 **486**	344 **482**	471 **475**	580 **467**	712 **460**
Max.cont. 125	84 **615**	208 **611**	276 **607**	333 **602**	459 **595**	566 **588**	697 **572**
Max.int. 150	70 **743**	194 **740**	260 **735**	324 **727**	447 **717**	554 **706**	682 **682**

BMT 250 [251.8cm³/rev.]

Pressure (MPa)

Flow (L/min)	4	8	10	12	Max.cont. 16	20	Max.int. 24
10	138 **38**	286 **38**	355 **37**	419 **36**	559 **34**	689 **32**	824 **31**
20	143 **76**	296 **75**	364 **74**	432 **72**	580 **70**	708 **67**	853 **62**
40	139 **156**	301 **154**	372 **152**	440 **149**	593 **146**	723 **142**	884 **134**
60	132 **237**	294 **236**	372 **233**	441 **229**	592 **224**	727 **219**	888 **207**
80	128 **317**	283 **316**	364 **314**	433 **308**	587 **303**	721 **299**	887 **284**
100	126 **396**	282 **394**	355 **391**	427 **387**	582 **381**	716 **373**	879 **359**
Max.cont. 125	116 **495**	260 **492**	340 **488**	414 **483**	568 **476**	703 **469**	864 **454**
Max.int. 150	88 **592**	242 **589**	320 **585**	397 **580**	552 **572**	686 **565**	847 **545**

Torque (N•m) 552
Speed (rpm) **572**

BMT 315 [326.3cm³/rev.]

Pressure (MPa)

Flow (L/min)	4	8	10	12	Max.cont. 16	20	Max.int. 24
10	184 **30**	363 **29**	453 **28**	545 **27**	734 **26**	891 **25**	1062 **23**
20	189 **60**	380 **59**	472 **58**	562 **56**	757 **54**	917 **52**	1109 **50**
40	191 **121**	381 **120**	484 **118**	570 **115**	774 **112**	954 **109**	1149 **104**
60	189 **183**	376 **181**	493 **179**	573 **175**	772 **172**	962 **168**	1154 **158**
80	179 **244**	369 **242**	479 **239**	565 **236**	768 **231**	954 **227**	1153 **217**
100	169 **305**	357 **304**	467 **301**	562 **298**	758 **294**	942 **289**	1143 **276**
Max.cont. 125	147 **380**	336 **378**	447 **375**	544 **371**	745 **367**	920 **362**	1127 **349**
Max.int. 150	119 **458**	318 **456**	432 **453**	526 **449**	713 **444**	894 **431**	1097 **425**

Performance Data

BMT 400 [410.9cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	12	15 (Max.cont.)	18	21 (Max.int.)
10	176 **24**	367 **23**	560 **22**	715 **21**	885 **20**	1050 **19**	1209 **18**
20	179 **49**	370 **48**	565 **47**	726 **44**	899 **42**	1071 **40**	1236 **38**
40	176 **96**	370 **95**	567 **93**	733 **90**	919 **87**	1091 **83**	1263 **79**
60	174 **145**	361 **143**	563 **139**	729 **135**	920 **131**	1095 **127**	1269 **121**
80	166 **193**	353 **191**	553 **188**	719 **184**	912 **180**	1084 **176**	1263 **170**
100	150 **242**	339 **240**	538 **238**	708 **234**	896 **228**	1067 **224**	1252 **218**
125 (Max.cont.)	135 **302**	309 **300**	524 **298**	688 **294**	873 **289**	1045 **285**	1221 **278**
150 (Max.int.)	126 **364**	292 **362**	508 **358**	666 **354**	852 **350**	1020 **346**	1197 **339**

BMT 500 [523.6cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	12	14 (Max.cont.)	16	18 (Max.int.)
10	222 **18**	451 **18**	692 **18**	892 17	1050 **16**	1193 **15**	1340 **13**
20	231 **37**	464 **36**	714 **35**	918 34	1070 **33**	1220 **32**	1377 **30**
40	230 **75**	466 **74**	727 **73**	941 72	1094 **70**	1244 **68**	1422 **64**
60	225 **113**	457 **112**	714 **111**	941 109	1088 **107**	1245 **105**	1409 **101**
80	213 **151**	431 **150**	696 **149**	927 147	1076 **145**	1244 **143**	1401 **138**
100	194 **189**	420 **188**	680 **187**	901 185	1063 **183**	1224 **181**	1383 **177**
125 (Max.cont.)	182 **237**	398 **236**	641 **235**	877 233	1024 **231**	1199 **229**	1352 **225**
150 (Max.int.)	147 **284**	369 **283**	618 **282**	853 280	1004 **278**	1167 **276**	1325 **272**

BMT 630 [629.1cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	9	10.5	12 (Max.cont.)	14	16 (Max.int.)
10	233 **14**	520 **14**	795 **13**	902 **13**	1074 **13**	1194 **11**	1363 **11**
20	237 **28**	554 **27**	837 **27**	953 **26**	1117 **26**	1239 **24**	1407 **22**
40	239 **62**	553 **62**	860 **61**	987 **60**	1171 **59**	1308 **56**	1483 **54**
60	223 **94**	544 **94**	863 **92**	978 **91**	1172 **90**	1318 **86**	1498 **82**
80	220 **123**	537 **122**	854 **121**	965 **119**	1172 **118**	1314 **114**	1497 **110**
100	208 **156**	522 **155**	832 **153**	945 **152**	1156 **150**	1303 **147**	1488 **142**
125 (Max.cont.)	201 **196**	499 **196**	810 **194**	931 **192**	1137 **191**	1292 **187**	1472 **183**
150 (Max.int.)	174 **233**	492 **232**	785 **231**	921 **230**	1121 **227**	1277 **223**	1454 **217**

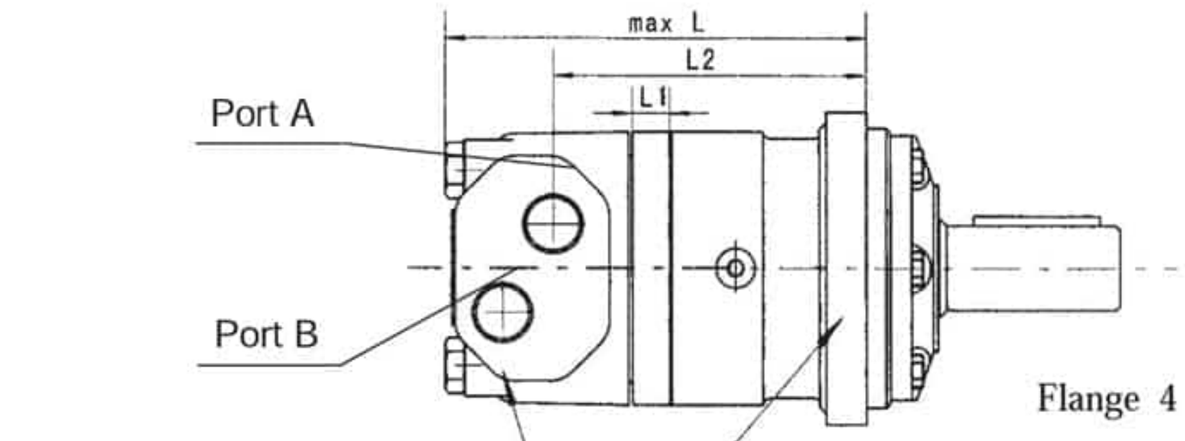
Torque (N•m) 1121
Speed (rpm) **227**

BMT 800 [801.8cm³/rev.]

Pressure (MPa)

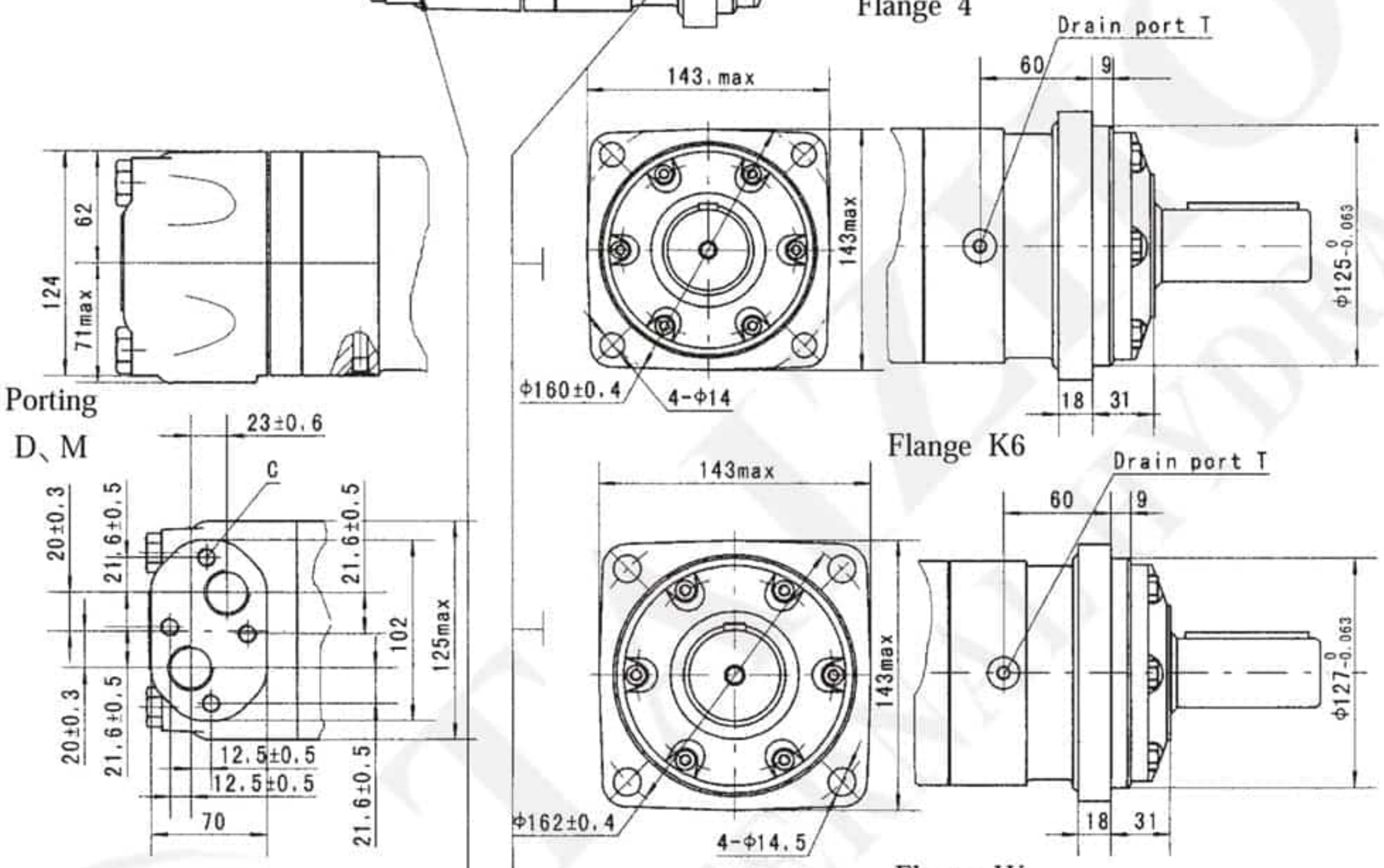
Flow (L/min)	3	6	9	10.5	12.5 (Max.cont.)	13 (Max.int.)
10	346 **12**	677 **12**	1003 **11**	1159 **11**	1365 **11**	1390 **10**
20	356 **24**	692 **24**	1034 **24**	1183 **23**	1404 **22**	1458 **18**
40	365 **50**	703 **50**	1066 **49**	1236 **48**	1459 **46**	1516 **40**
60	354 **74**	703 **73**	1060 **71**	1237 **71**	1464 **68**	1520 **63**
80	332 **99**	686 **98**	1050 **98**	1226 **96**	1464 **93**	1514 **86**
100	305 **125**	654 **123**	1025 **123**	1207 **121**	1445 **118**	1506 **110**
125 (Max.cont.)	280 **154**	622 **153**	989 **153**	1181 **150**	1422 **149**	1487 **140**
150 (Max.int.)	247 **185**	590 **184**	953 **183**	1156 **181**	1406 **179**	1476 **172**

BMT DIMENSIONS / ...OUNTING DATA



Flange 4

Model	L	L1	L2
BMTW160	127	17	77
BMTW200	131	21	81
BMTW250	136	14	86
BMTW315	142	20	91
BMTW400	148	27	98
BMTW500	157	35	106
BMTW630	169	47	118
BMTW800	180	58	129

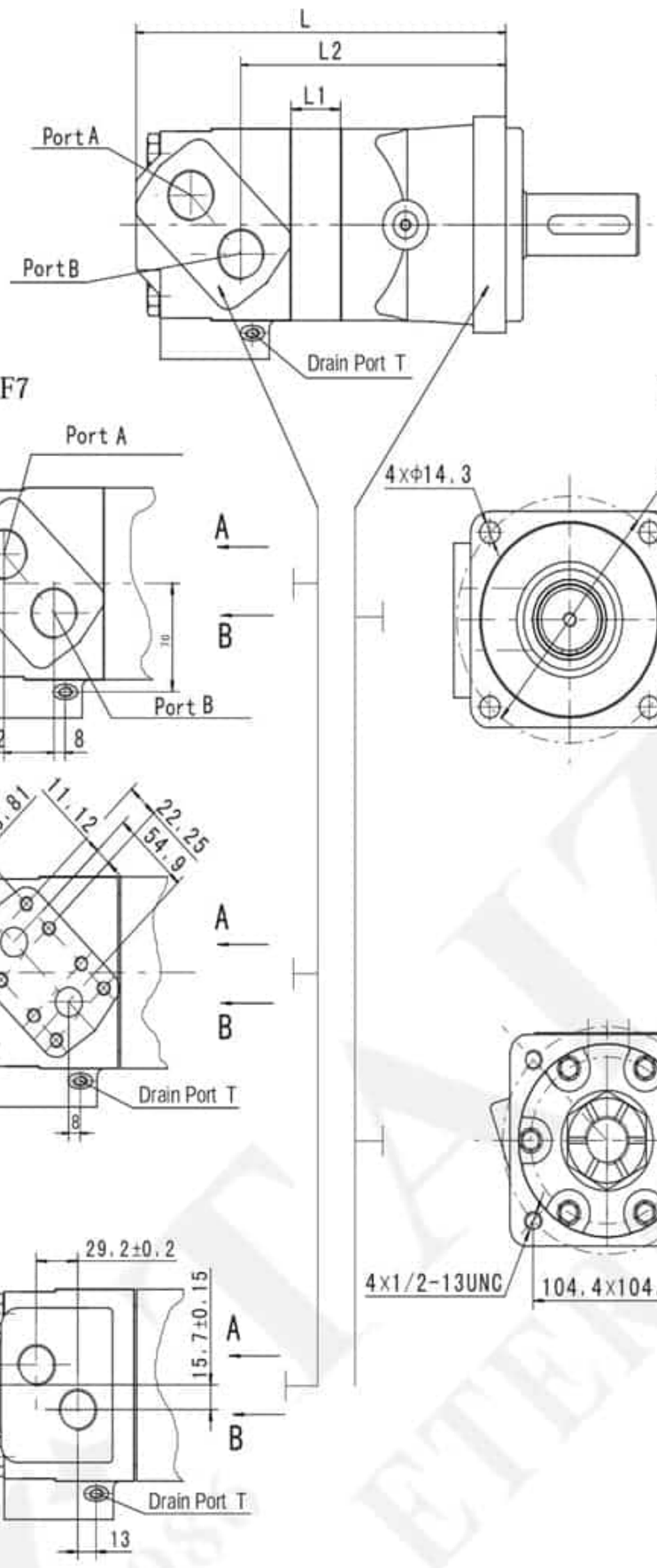


Model	L	L1	L2
BMT160	193	17	142.5
BMT200	197	21	146.5
BMT250	204	14	152.5
BMT315	210	20	158.5
BMT400	217	27	165.5
BMT500	225	35	173.5
BMT630	237	47	185.5
BMT800	248	58	196.5

Content / Mounting	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

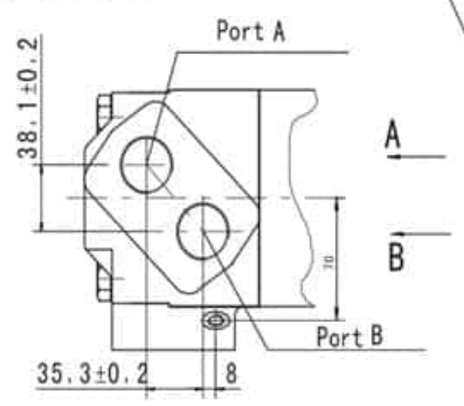
Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

BMTE DIMENSIONS AND MOUNTING DATA

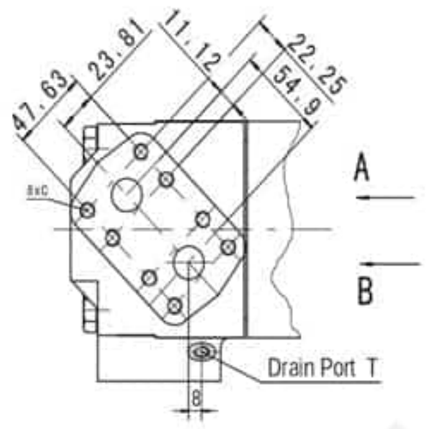


Porting

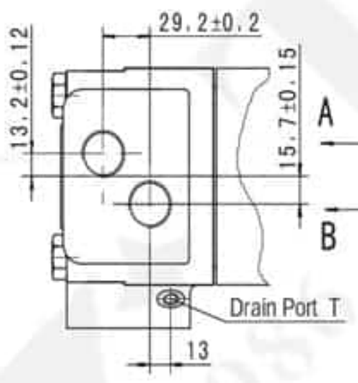
SF5、SF6 、SF7

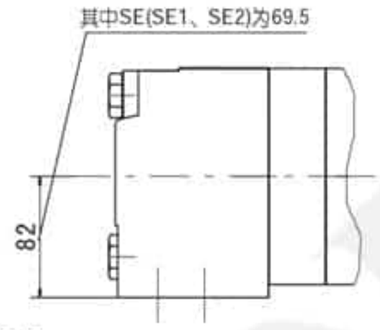


SF

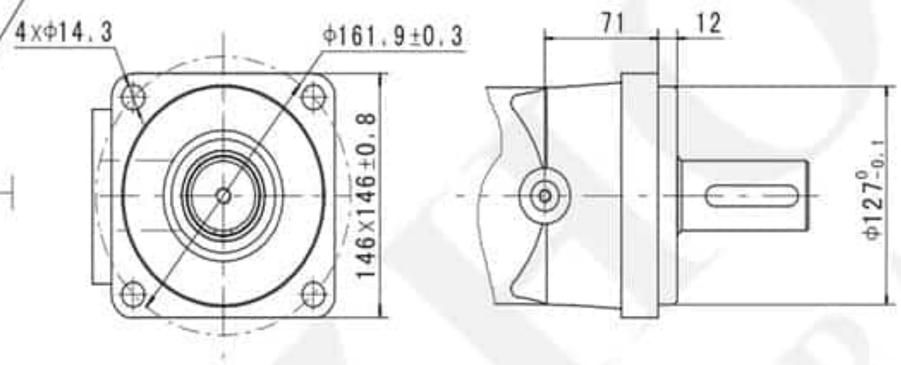


SE、SE1、SE2

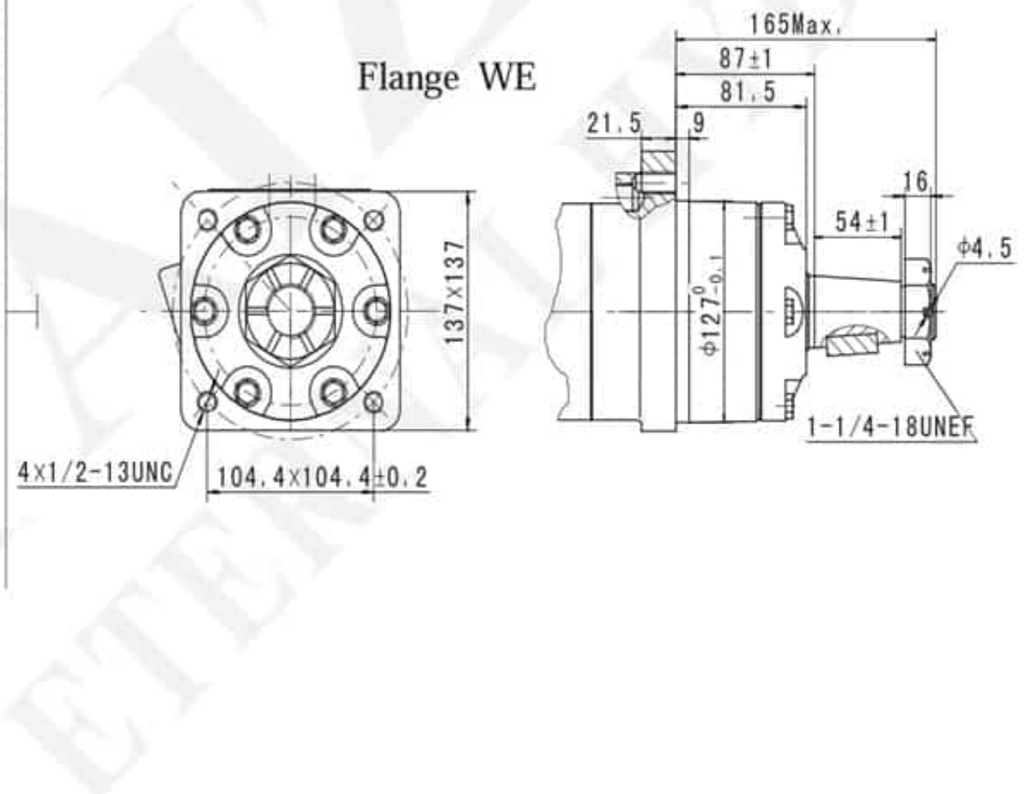




Flange CC



Flange WE



Model	L	L1	L2
BMTE230	238.5	12	164.5
BMTE250	240.5	14	166.5
BMTE315	246.5	20	172.5
BMTE400	253.5	27	179.5
BMTE500	261.5	35	187.5
BMTE630	273.5	47	199.5
BMTE800	284.5	58	210.5

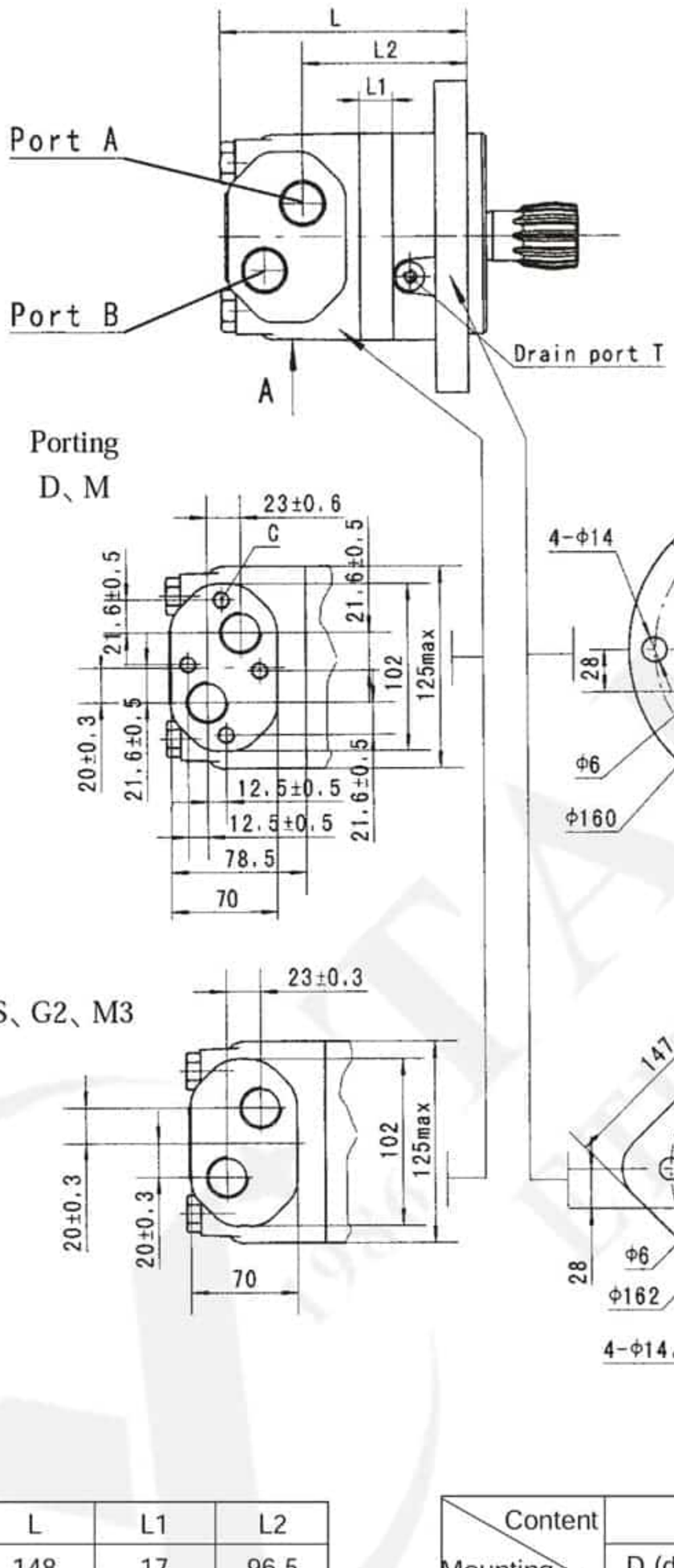
Note:1)The data for the port of SF (SF5 and SF6and sf7)

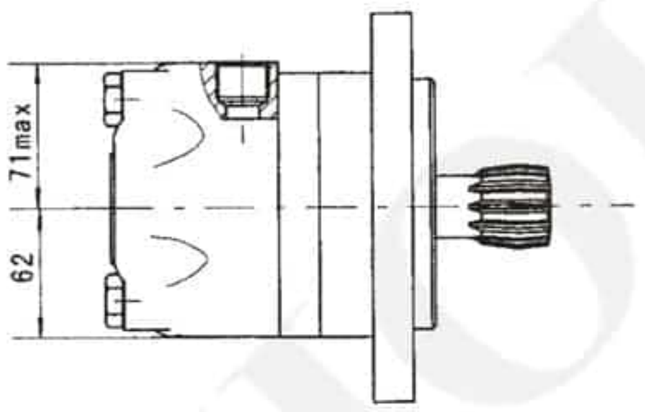
2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.

3)The thickness of the stator and rotor for disp,from 315 to 800 is the dimension of L1 adding on 7mm.

Content / Mounting	Code						
	SF5(depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2(depth)
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8 x 3/8-16UNC	--		

BMTS DIMENSIONS AND MOUNTING DATA



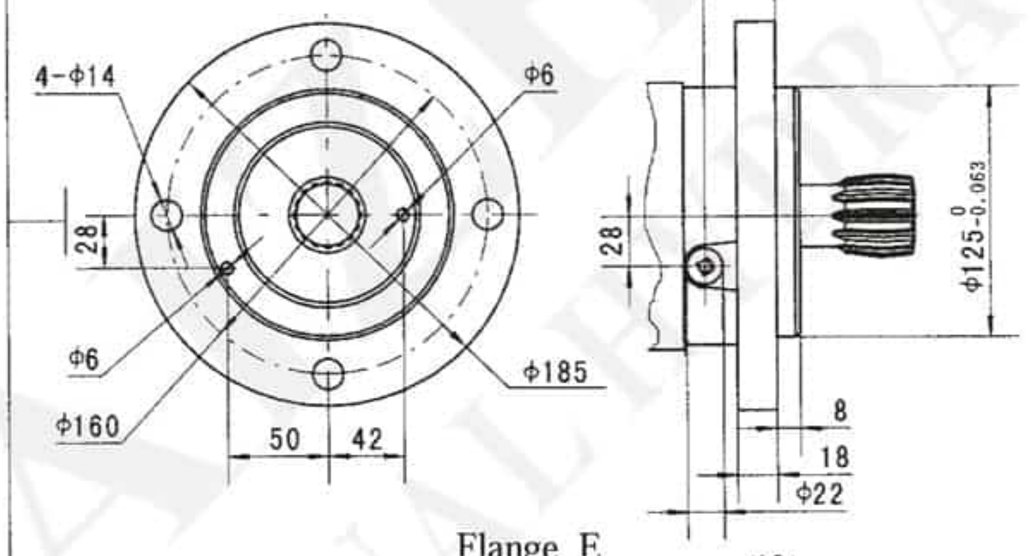


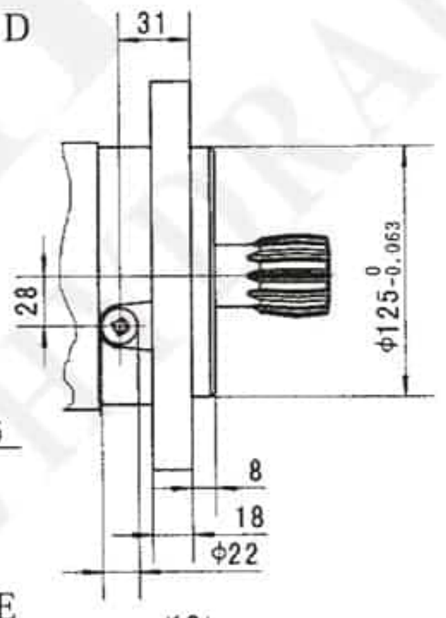
Porting

D、M

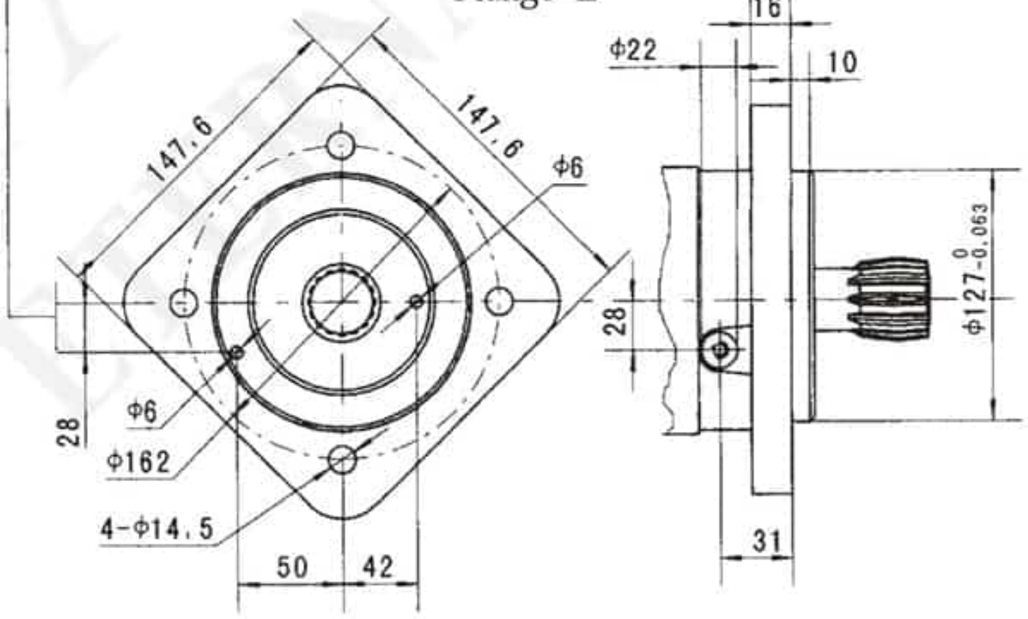
S1、S、G2、M3

Flange D





Flange E

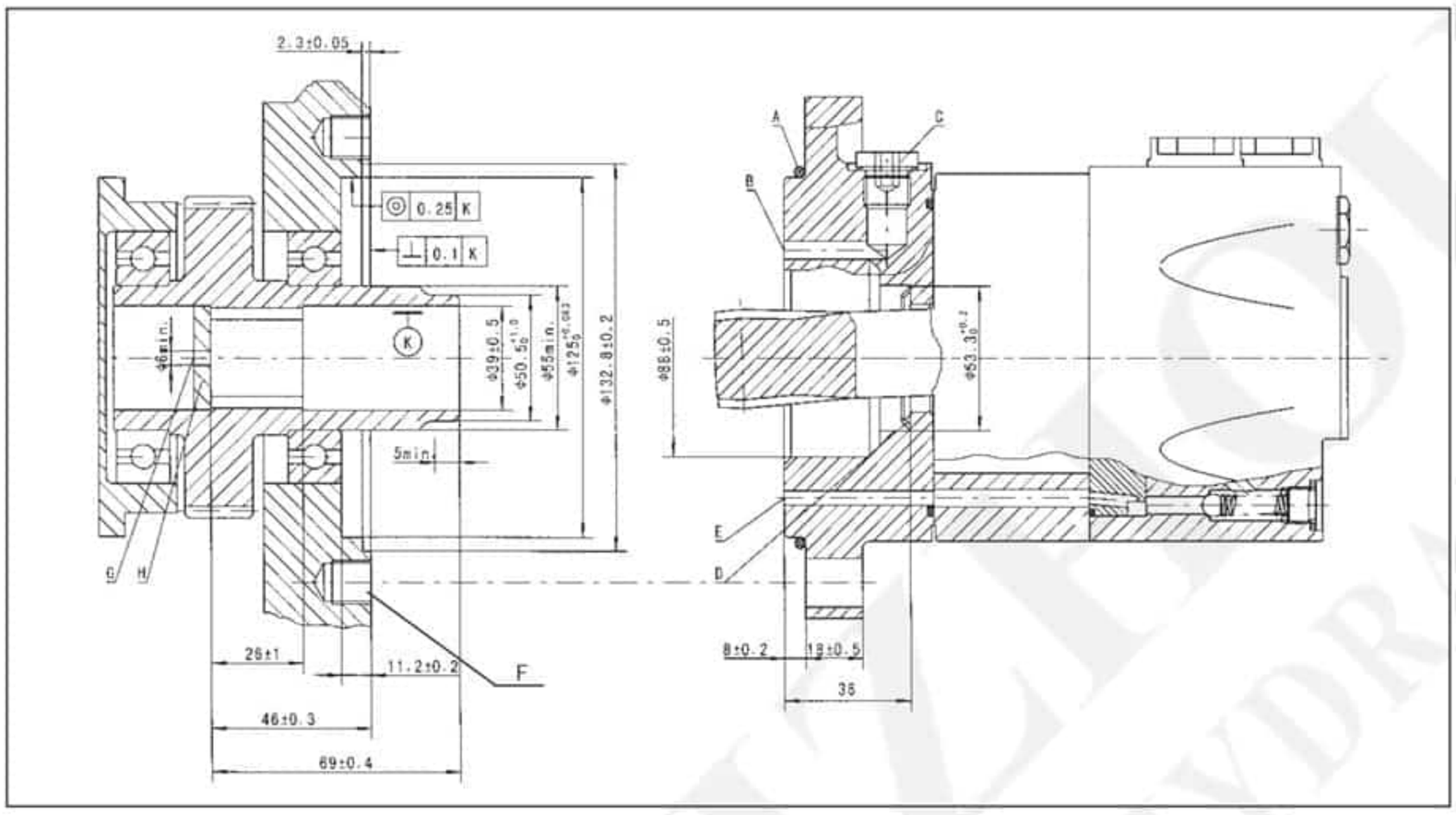


Model	L	L1	L2
BMT160	148	17	96.5
BMT200	152	21	100.5
BMT250	157	14	109
BMT315	163	20	115
BMT400	170	27	122
BMT500	178	35	130
BMT630	190	47	142
BMT800	201	58	153

Content / Mounting	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note:1)The thickness of the stator and rotor for disp.from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp.from 250 to 800 is the dimension of L1 adding on 7mm.

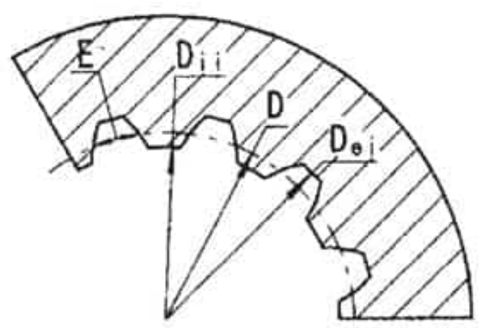
BMTS MOUNTING DATA



A: O-ring:125x3
B: External drain channel
C: Drain connection G 1/4;12 mm deep
D: Conical seal ring
E: Internal drain channal
F: M12;min. 18mm deep
G: Oil circulation hole
H: Hardened stop plate

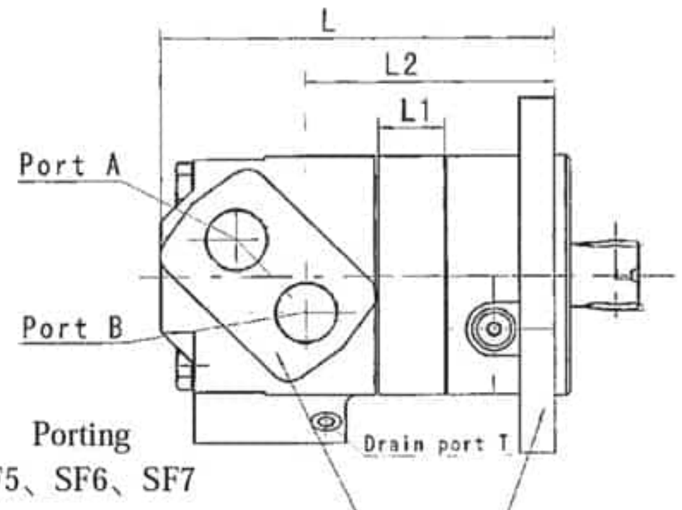
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
© Number of Teeth	Z	16
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø33.8656
Major Dia.	D_{ei}	ø38.4 $^{+0.25}_{0}$
Minor Dia.	D_{ii}	ø32.15 $^{+0.04}_{0}$
Space Width [Circular]	E	4.516±0.037

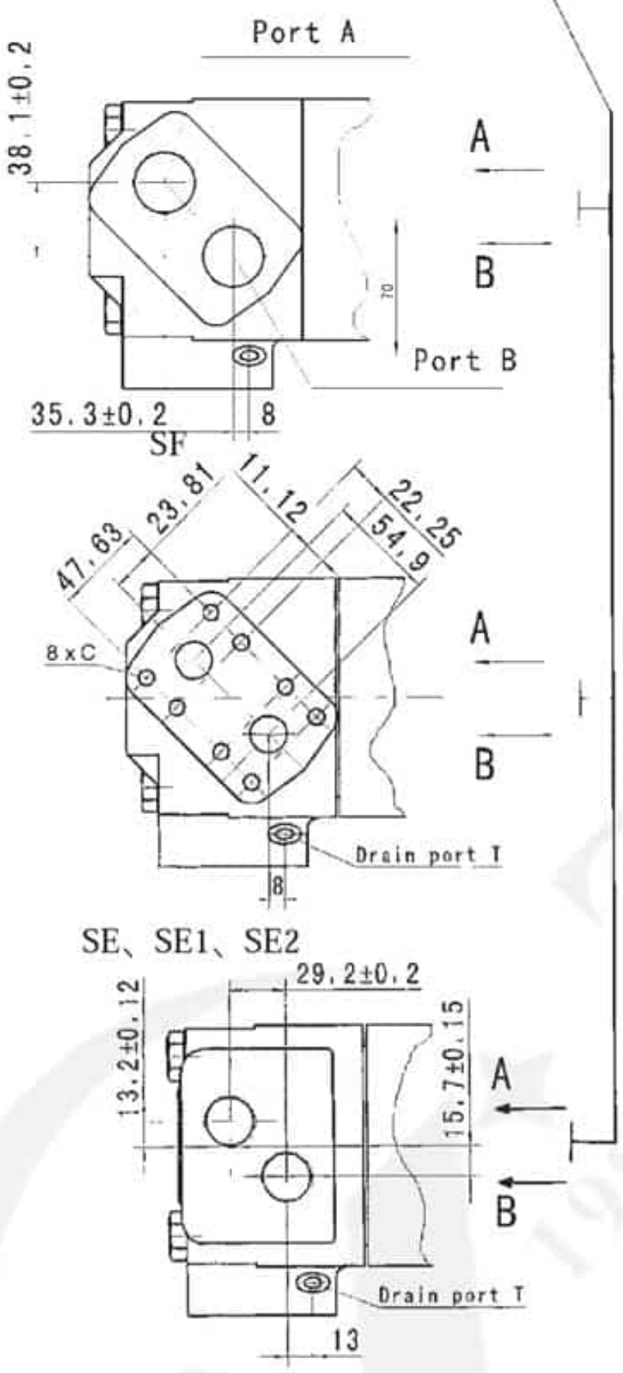


Hardering Specification: HRC 62±2
Effective case depth 0.7±0.2

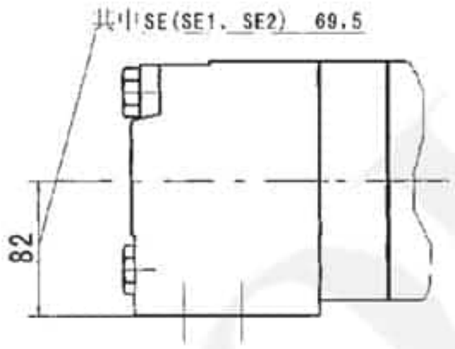
BMTJ DIMENSIONS AND MOUNTING DATA



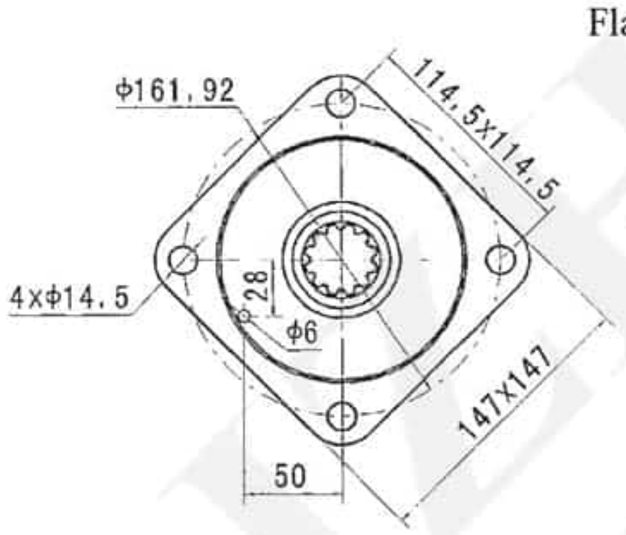
Porting
SF5、SF6、SF7

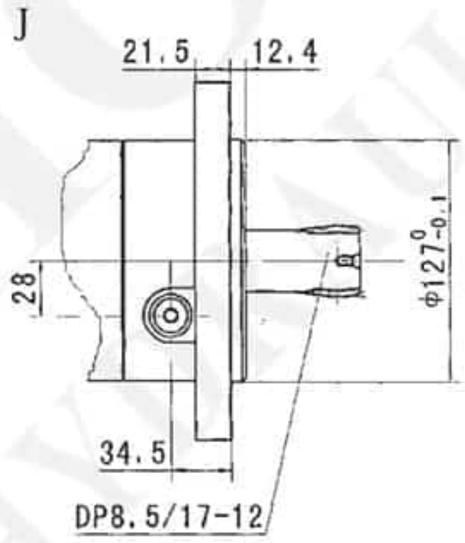


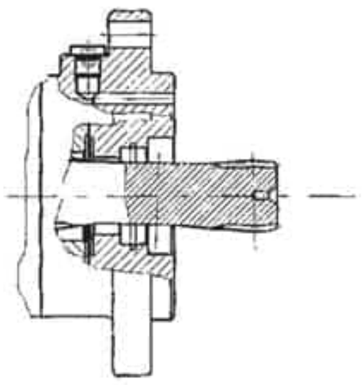
SE、SE1、SE2



Flange J





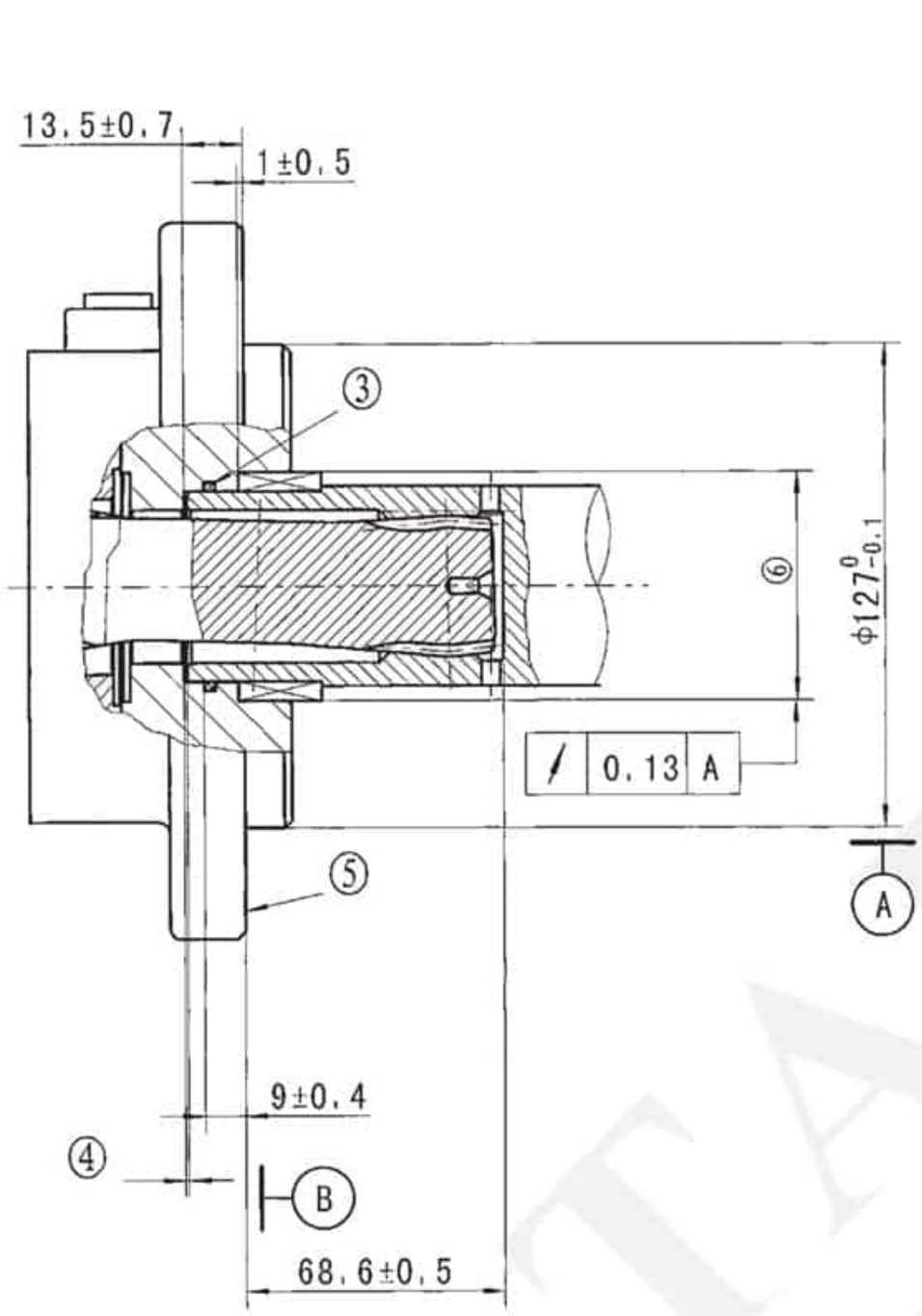


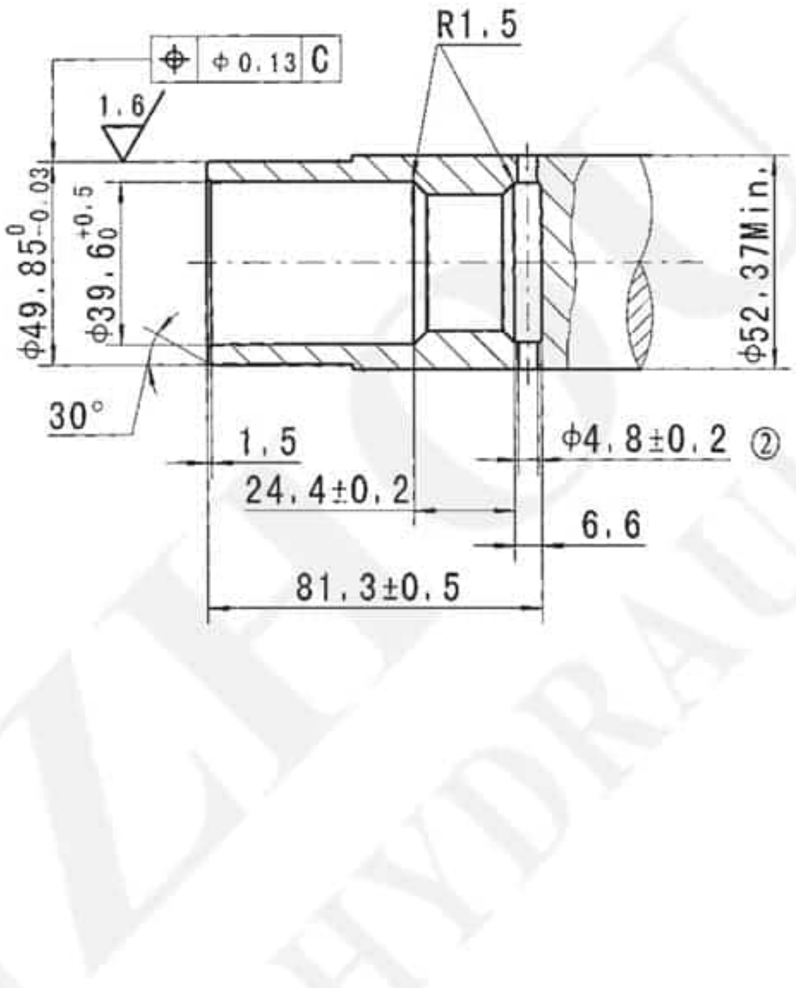
Model	L	L1	L2
BMTJ230	176	12	104.5
BMTJ250	178	14	106.5
BMTJ315	184	20	112.5
BMTJ400	191	27	119.5
BMTJ500	199	35	127.5
BMTJ630	211	47	139.5
BMTJ800	222	58	150.5

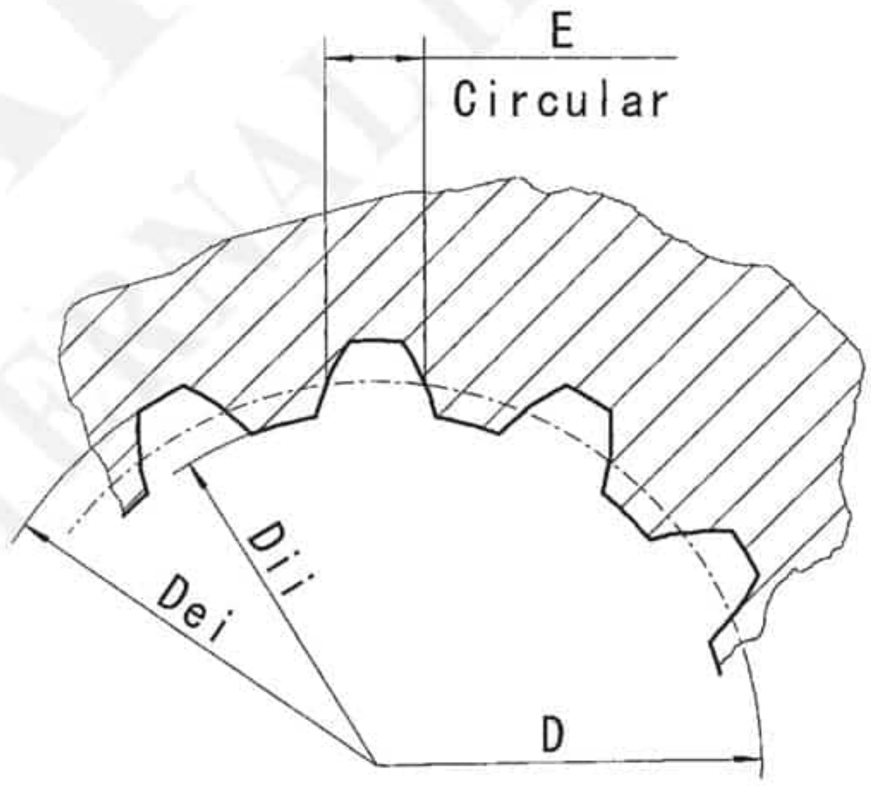
Note:1)The data for the port of SF (SF5 and SF6 andSF7).
2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.
3)The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

Content / Mounting	Code						
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2 (depth)
P(A,B)	1-5/16-12UN (18)	M33 x 2 (18)	G1 (18)	3/4" (18)	1-1/16-12UN (18)	1-1/16-12UN (18)	G3/4 (18)
T	7/16-20UNF (12)	M14 x 1.5 (12)	G1/4 (12)	7/16-20UNF (12)	9/16-18UNF (12)	7/16-20UNF (12)	G1/4 (12)
C	--	--	--	8 x 3/8-16UNC	--		

BMTJ DIMENSIONS AND MOUNTING DATA





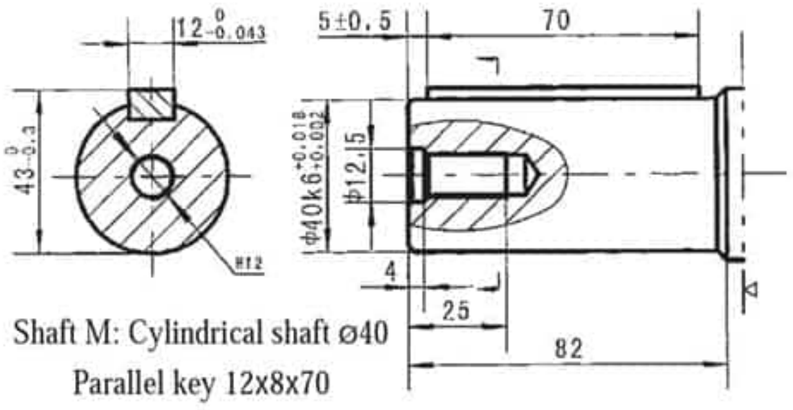


INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

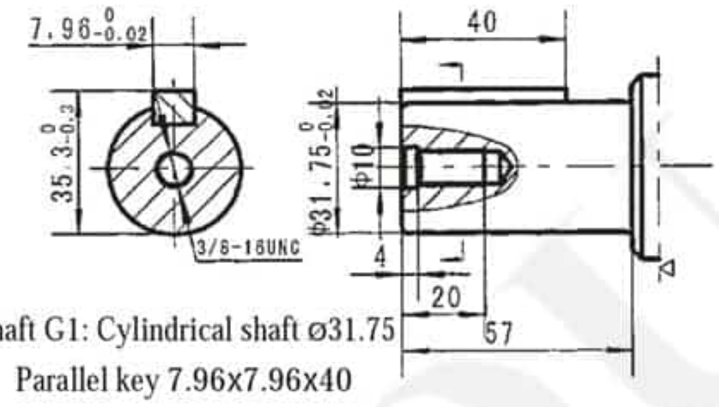
Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_D	ø35.858823
Major Dia.	D_{ei}	ø38.97 $^{+0.20}_{0}$
Minor Dia.	D_{ii}	ø33.3 $^{+0.18}_{0}$
Space Width [Circular]	E	5.866±0.032
Dimension between two pins(ø4)	M_e	26.929-27.084

①Internal spline in mating part to be as follows:Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64HRC with case depth (to 50HRC) of 0.75-1 [.030-.040] (dimensions apply after heat treat).
②Mating part to have critical dimensions as shown,
Oil holes must be provided and open for proper oil circulation.
③Some means of maintaining clearance between shaft and mounting flange must be provided.
④Seal to be furnished with motor for proper oil circulation thru splines.
⑤Similar to SAE "C" Four Bolt Flange
⑥Counterbore designed to adapt to a standard sleeve bearing 50.010-50.038 [1.9689-1.9700] ID by 60.51-60.079 [2.3642-2.3653] O.D.(Oilite bronze sleeve bearing).
C This surface to be diameter of output shaft.

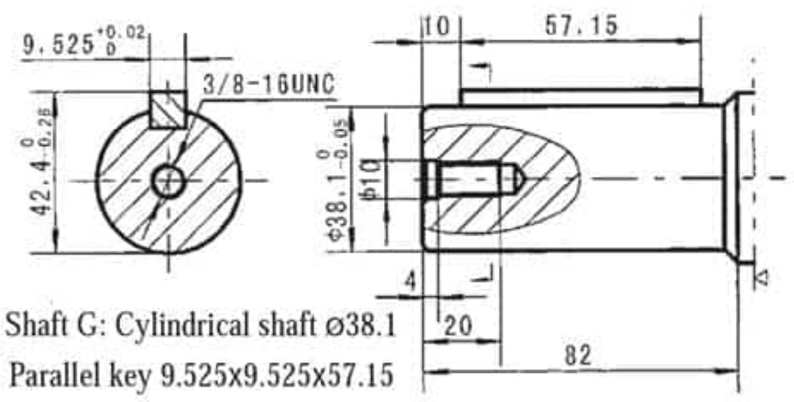
SHAFT EXTENSIONS FOR BMT(E) MOTORS



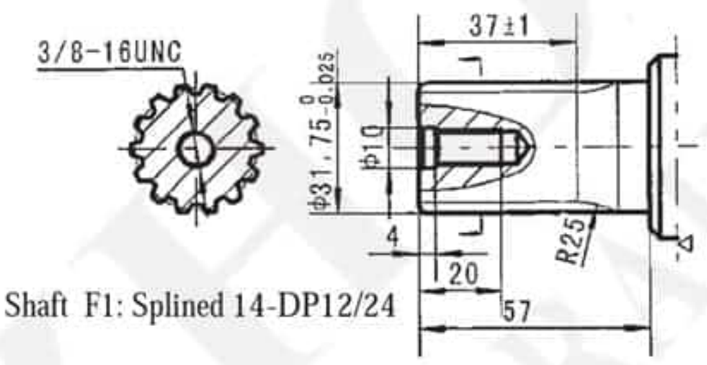
Shaft M: Cylindrical shaft ø40
Parallel key 12x8x70



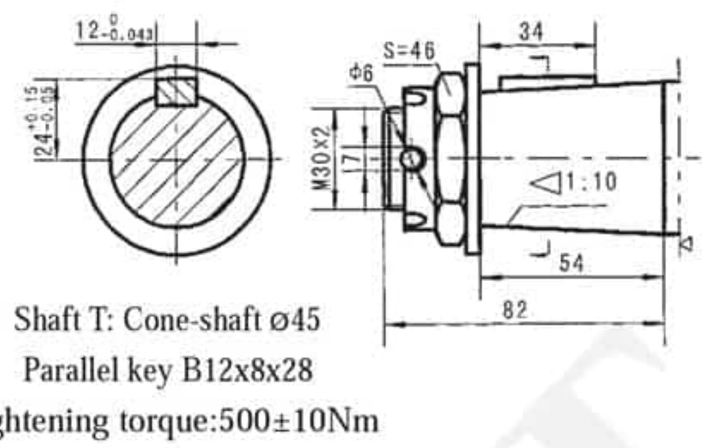
Shaft G1: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x40



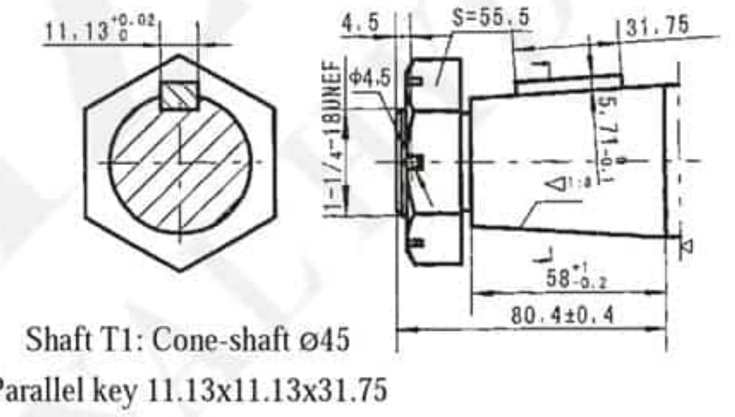
Shaft G: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x57.15



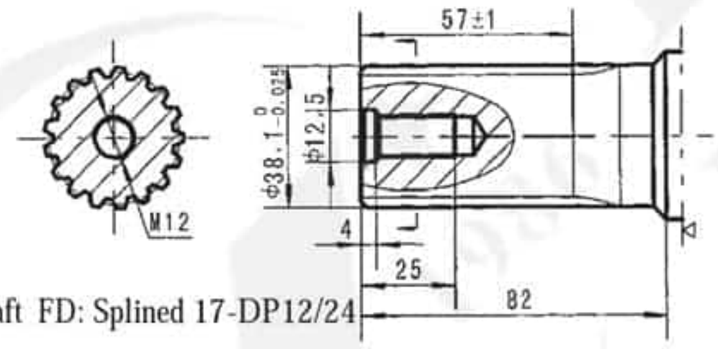
Shaft F1: Splined 14-DP12/24



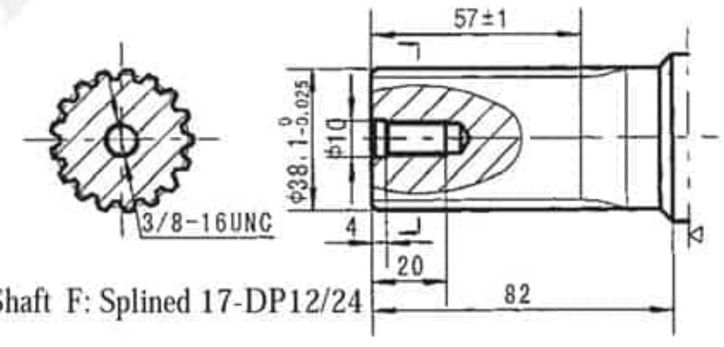
Shaft T: Cone-shaft ø45
Parallel key B12x8x28
Tightening torque:500±10Nm



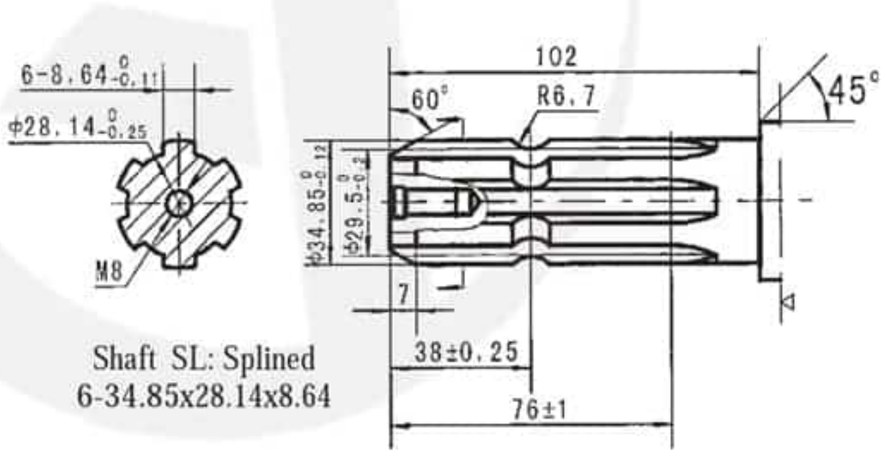
Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque:500±10Nm



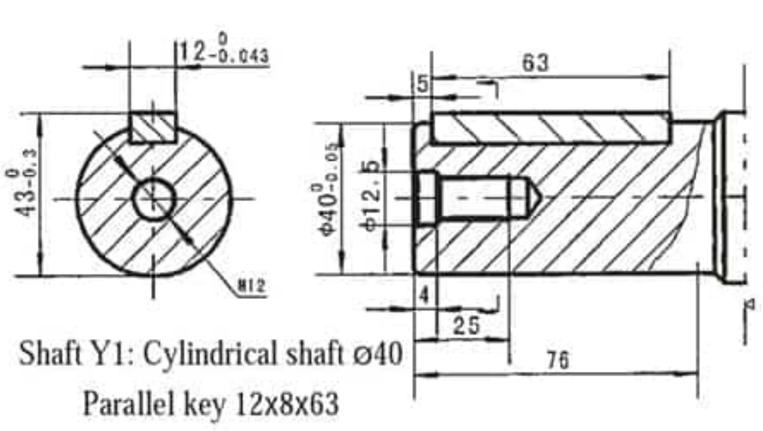
Shaft FD: Splined 17-DP12/24



Shaft F: Splined 17-DP12/24



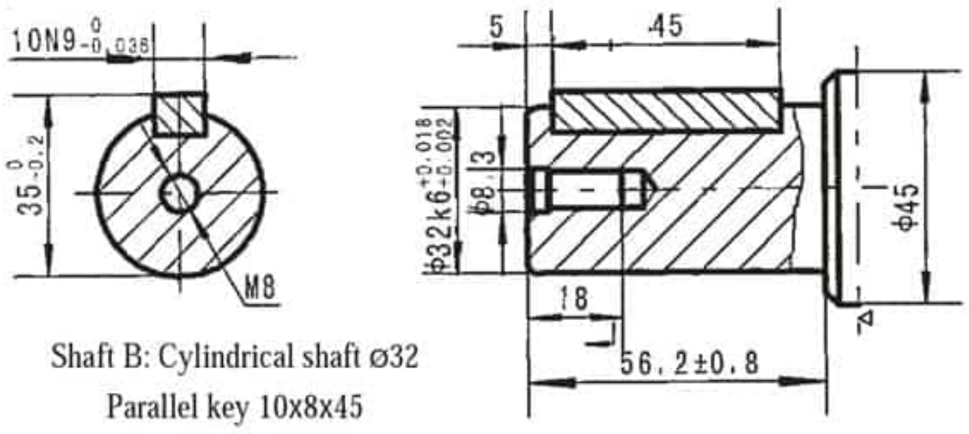
Shaft SL: Splined
6-34.85x28.14x8.64



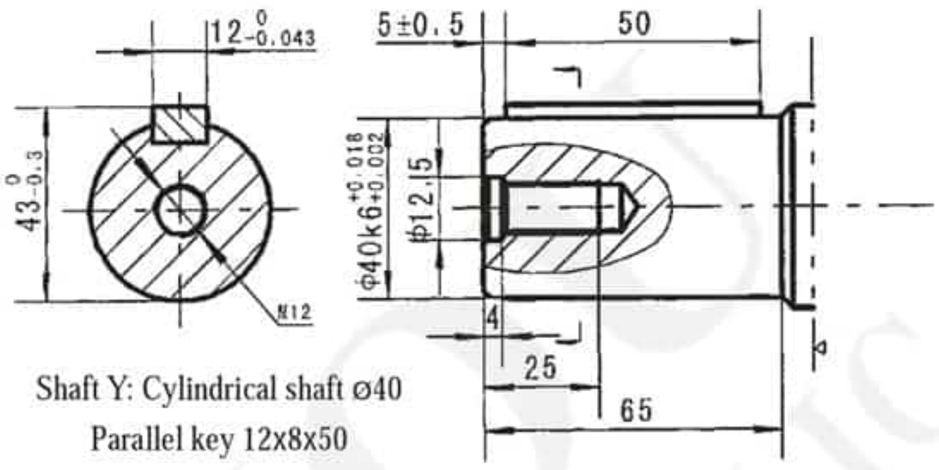
Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63

▷ Motor Mounting Surface

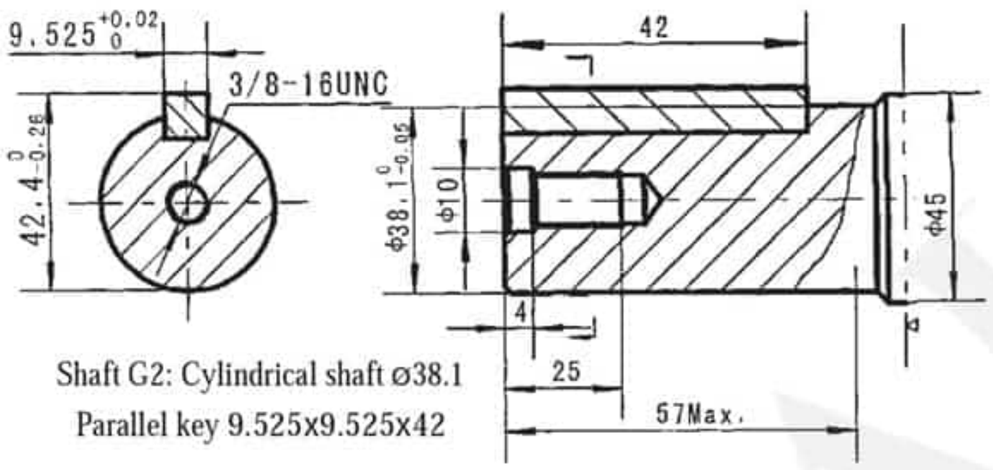
SHAFT EXTENSIONS FOR BMT(E) MOTORS



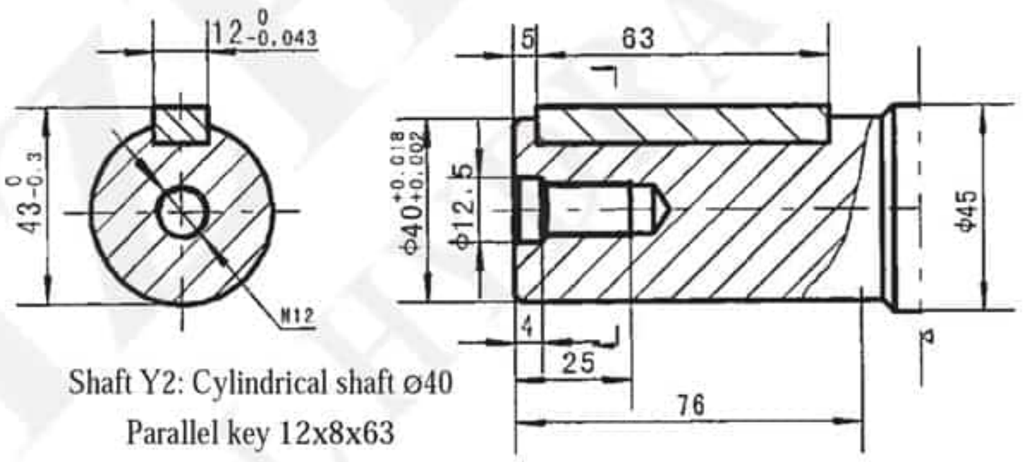
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



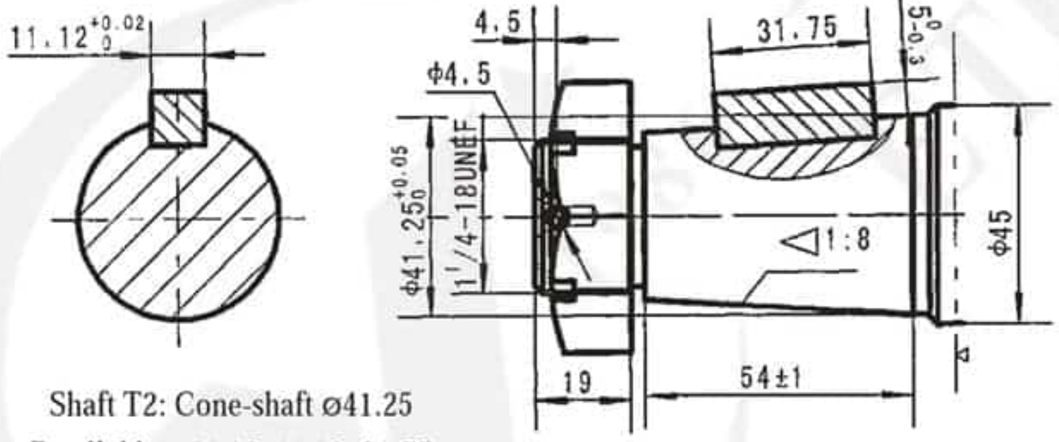
Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x50



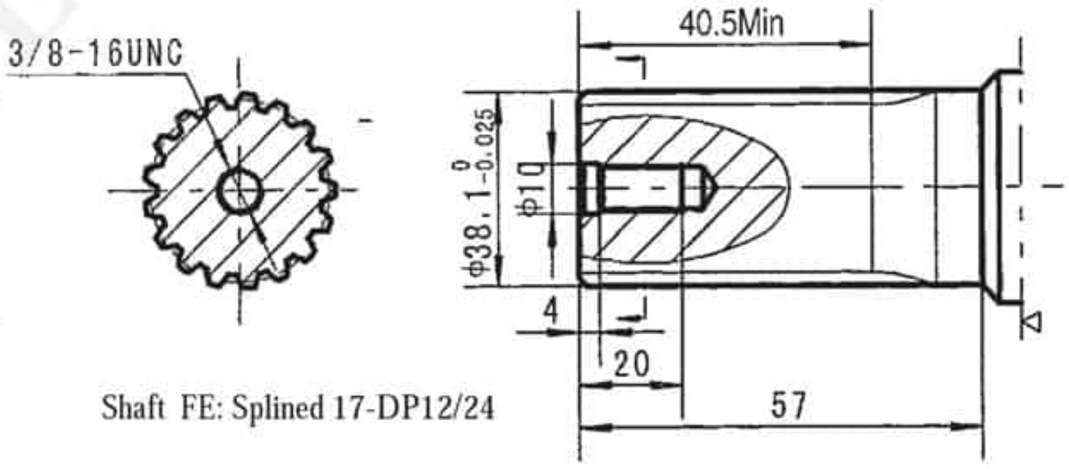
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42



Shaft Y2: Cylindrical shaft ø40
Parallel key 12x8x63



Shaft T2: Cone-shaft ø41.25
Parallel key 11.13x11.13x31.75
Tightening torque:500±10Nm

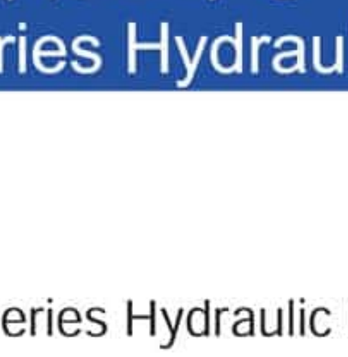


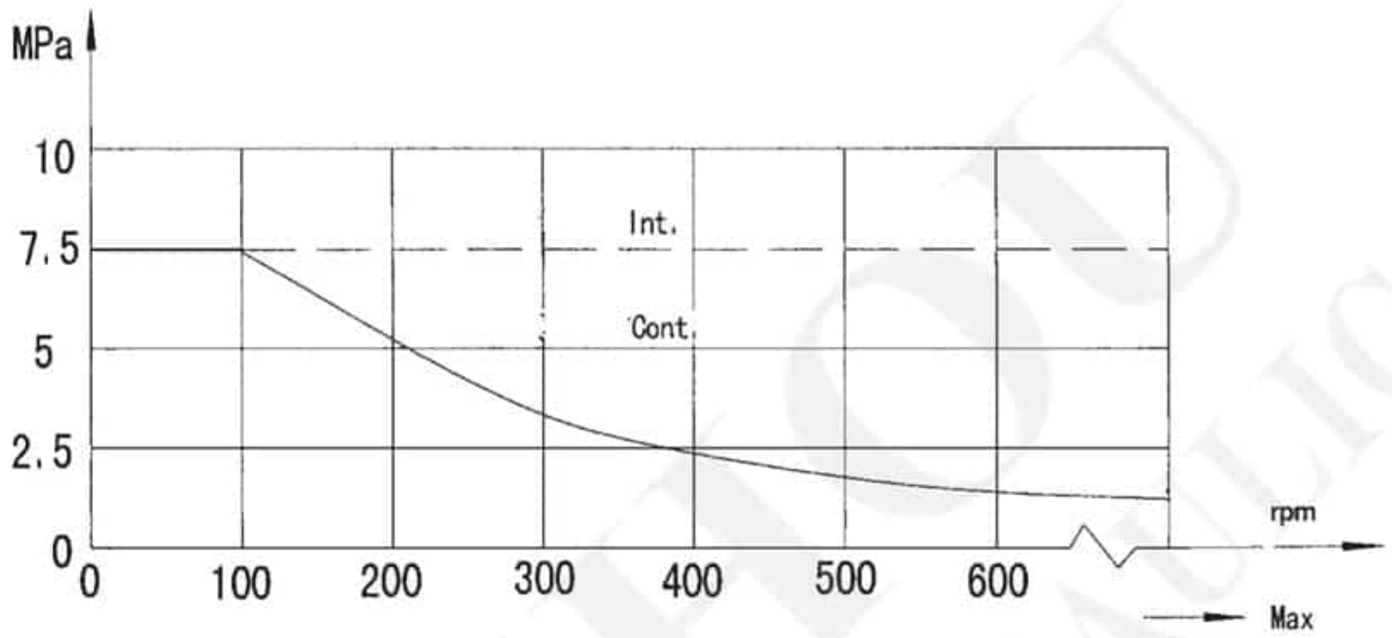
Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

BMT Series Hydraulic Motor

Permissible shaft seal pressure

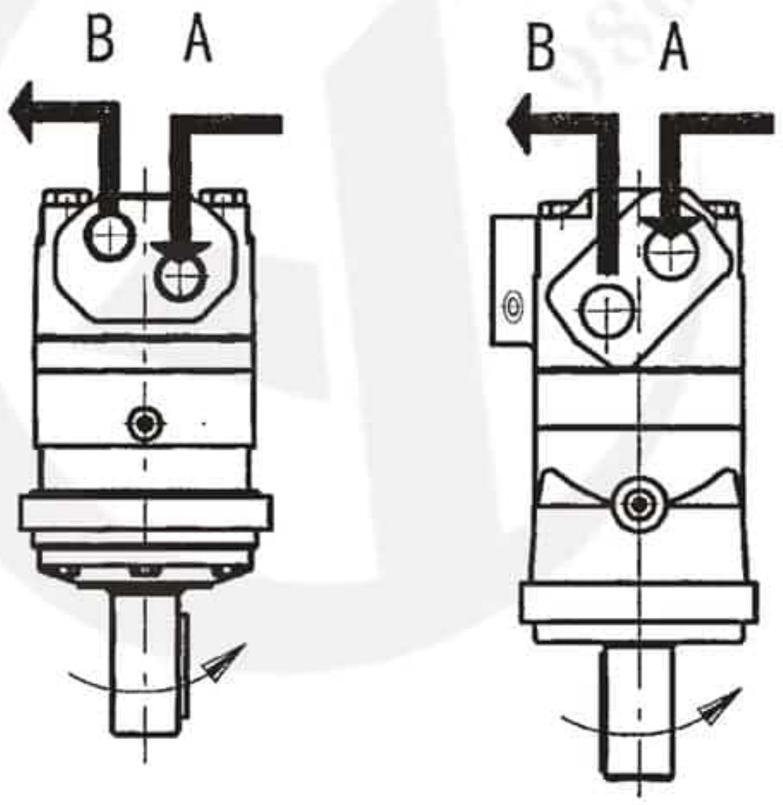




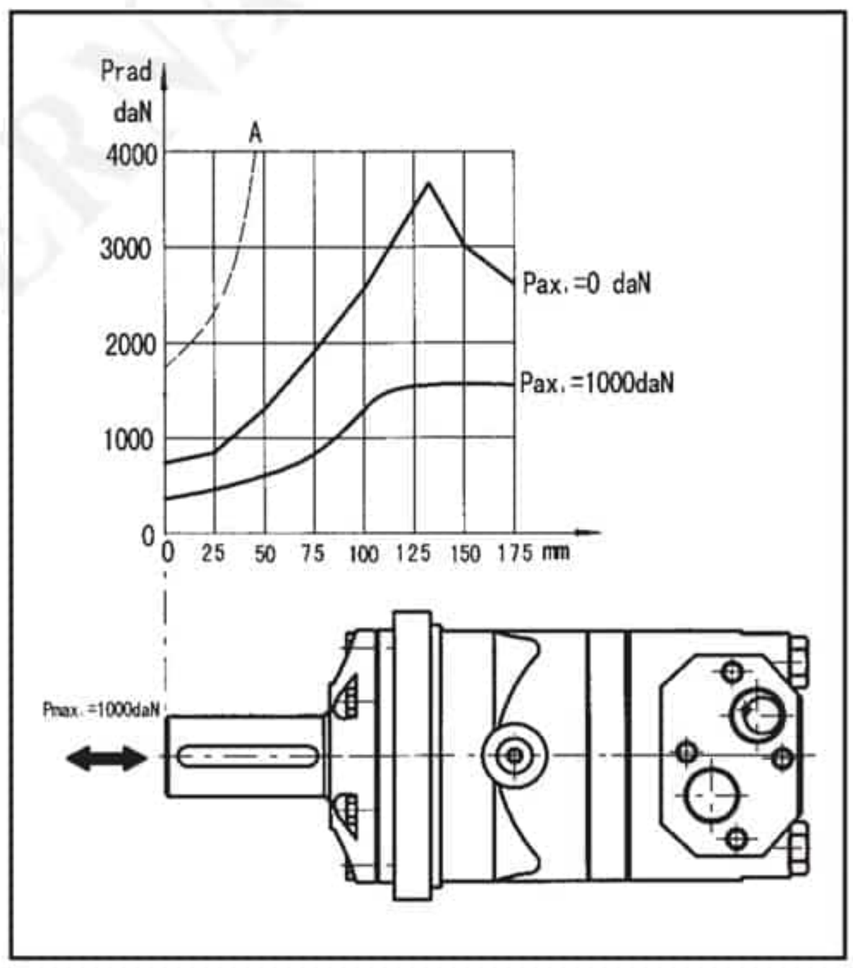
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Standard direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Order Information

1	2	3	4	5	6	7	8
BMT	–	–	–	–	–	–	–
BMTS	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMT	160 200 250 315 400 500 630 800	4	4-Ø14 Square-flangeØ160, pilotØ125 × 9	M	Shaft Ø40 , parallel key 12 × 8 × 70	D	G3/4 Manifold Mount,4-M10 , G1/4	Omit	Standard	00	No paint	Omit	Standard
				G	Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 57.15	M	M27 × 2 Manifold Mount,4-M10, M14 × 1.5	R	Opposite	Omit	Blue	F	Free Running
				F	Shaft Ø38.1 ,splined tooth 17-DP12/24	S	1-1/16-12UN O-ring, 9/16-18UNF			B	Black	LS	Low Speed
				FD	Shaft Ø38.1 ,splined tooth 17-DP12/24	S1	1-1/16-12UN O-ring, 7/16-20UNF			S	Silver grey		
				T	Cone-shaft 1:10 Ø45 ,parallel key B12 × 8 × 28	G	G3/4,G1/4						
		K6	4-Ø14.5Square-flangeØ162, pilotØ127 × 9	T1	Cone-shaft 1:8 Ø45 , parallel key 11.13 × 11.13 × 31.75	M3	M27 × 2,M14 × 1.5						
				SL	shaft Ø34.85,Splined key Splined key 6-34.85 × 28.14 × 8.64								
		W	4-Ø18 Wheel-flangeØ200, pilotØ160 × 7	G1	shaftØ31.75 , parallel key 7.96 × 7.96 × 40								
				F1	Shaft Ø31.75,splined tooth 14-DP12/24								
BMTS		D	4-Ø14 Circle-flange Ø160, pilot Ø125 × 8	Omit	Short shaft 16-DP12/24								
		E	4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10										

Order Information

1	2	3	4	5	6	7	8
BMTE	–	–	–	–	–	–	–

1	2	3	4	5	6	7	8
BMTJ	–	–	–	–	–	–	–

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMTE	230 250 315 400 500 630 800	CC	4-Ø14.3 Square-flange Ø161.9, pilotØ127 × 12	G2	Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 42	SF	3/4" , Manifold Mount,8-3/8-16UNC, 7/16-20UNF	Omit	Standard	00	No paint	Omit	Standard
				FE	Shaft Ø38.1 ,splined tooth 17-DP12/24	SF5	1-5/16-12UN O-ring,7/16-20 UNF	R	Opposite	Omit	Blue	F	Free Running
				Y1	ShaftØ40,parallel key 12 × 8 × 63	SF6	M33 × 2,M14 × 1.5			B	Black	LS	Low Speed
				Y2	ShaftØ40,parallel key 12 × 8 × 63	SF7	G1,G1/4			S	Silver grey		
				T2	Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75	SE	1-1/16-12UN O-ring,9/16-18UNF						
		WE	4-1/2-13UNC Wheel-flangeØ147.6, pilotØ127 × 9	T3	Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75	SE1	1-1/16-12UN O-ring,7/16-20 UNF						
						SE2	G3/4,G1/4						
BMTJ		J	4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4	Omit	Short shaft 12-DP8.5/17								

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports . If the specification is not in the table or you have specific requirements, please contact us .

BMV SERIES HYDRAULIC MOTOR

BMV series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure.The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set,which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
* The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.
* Advanced design in disc distrbution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

Main Specification

Type		BMV 315	BMV 400	BMV 500	BMV 630	BMV 800	BMV 1000
Geometric displacement (cm^3/rev.)		333	419	518	666	801	990
Max. speed (rpm)	cont.	510	500	400	320	250	200
	int.	630	600	480	380	300	240
Max. torque (N•m)	cont.	920	1180	1460	1660	1880	2015
	int.	1110	1410	1760	1940	2110	2280
	peak	1290	1640	2050	2210	2470	2400
Max. output (kW)	cont.	38.0	47.0	47.0	40.0	33.0	28.6
	int.	46.0	56.0	56.0	56.0	44.0	40.0
Max. pressure drop (MPa)	cont.	20	20	20	18	16	14
	int.	24	24	24	21	18	16
	peak	28	28	28	24	21	18
Max. flow (L/min)	cont.	160	200	200	200	200	200
	int.	200	240	240	240	240	240
Weight (kg)		31.8	32.6	33.5	34.9	36.5	38.6

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BMV 315 [333cm³/rev.]

Flow (L/min) \ Pressure (MPa)	3.5	7	10	14	18	20 (Max.cont.)	24 (Max.int.)
10	140 **26**	294 **24**	440 **23**	610 **22**	742 **20**	845 **17**	1000 **14**
20	153 **55**	314 **54**	466 **53**	636 **52**	787 **51**	895 **48**	1070 **44**
50	149 **145**	312 **144**	465 **142**	654 **140**	815 **137**	935 **133**	1112 **127**
75	143 **220**	304 **218**	458 **215**	642 **211**	816 **207**	940 **202**	1119 **195**
100	136 **294**	297 **292**	452 **290**	636 **287**	810 **283**	936 **278**	1108 **270**
125	123 **368**	286 **366**	442 **364**	626 **361**	799 **357**	921 **352**	1093 **345**
150 (Max.cont.)	114 **445**	275 **443**	435 **441**	615 **437**	788 **430**	906 **422**	1078 **410**
160	107 **475**	268 **473**	430 **470**	608 **466**	780 **460**	895 **452**	1070 **439**
200 (Max.int.)	82 **596**	249 **594**	412 **590**	593 **584**	758 **576**	871 **565**	1047 **544**

BMV 400 [419cm³/rev.]

Flow (L/min) \ Pressure (MPa)	3.5	7	10	14	18	20 (Max.cont.)	24 (Max.int.)
10	183 **20**	385 **20**	568 **19**	776 **18**	968 **17**	1101 **16**	1292 **14**
20	196 **44**	398 **44**	590 **43**	815 **42**	1010 **40**	1152 **39**	1346 **37**
50	200 **114**	402 **113**	603 **113**	842 **112**	1040 **110**	1186 **108**	1430 **103**
75	195 **175**	394 **173**	596 **170**	838 **166**	1043 **163**	1188 **1579**	1432 **152**
100	172 **236**	385 **235**	593 **233**	827 **231**	1036 **227**	1184 **223**	1425 **215**
125	167 **296**	374 **294**	583 **291**	816 **288**	1021 **282**	1177 **275**	1413 **268**
150	158 **355**	361 **354**	559 **352**	801 **349**	1008 **344**	1165 **335**	1390 **324**
175	143 **416**	346 **414**	553 **411**	784 **407**	989 **403**	1145 **396**	1377 **388**
200 (Max.cont.)	118 **475**	331 **473**	536 **469**	770 **463**	969 **455**	1128 **448**	1356 **439**
240 (Max.int.)	82 **571**	301 **569**	506 **565**	740 **548**	943 **539**	1104 **530**	1332 **520**

BMV 500 [518cm³/rev.]

Flow (L/min) \ Pressure (MPa)	3.5	7	10	14	18	20 (Max.cont.)	24 (Max.int.)
10	242 **17**	468 **17**	696 **16**	959 **16**	1190 **15**	1353 **13**	1607 **11**
20	245 **36**	501 **35**	738 **35**	1003 **34**	1232 **33**	1394 **32**	1658 **29**
50	240 **93**	500 **92**	758 **91**	1025 **90**	1270 **88**	1449 **85**	1743 **80**
75	233 **140**	498 **139**	752 **137**	1030 **135**	1288 **132**	1475 **127**	1766 **120**
100	228 **189**	491 **187**	748 **185**	1026 **182**	1289 **178**	1472 **173**	1760 **166**
125	220 **237**	483 **236**	742 **234**	1014 **231**	1280 **227**	1460 **223**	1745 **216**
150	201 **287**	465 **286**	723 **284**	1008 **281**	1250 **276**	1429 **270**	1736 **260**
175	182 **335**	446 **334**	711 **332**	997 **329**	1238 **325**	1406 **320**	1715 **310**
200 (Max.cont.)	161 **384**	423 **383**	676 **381**	974 **378**	1218 **374**	1385 **366**	1697 **354**
240 (Max.int.)	120 **461**	378 **459**	622 **457**	921 **454**	1172 **450**	1340 **444**	1650 **432**

Torque (N•m) 1340
Speed (rpm) **444**

BMV 630 [666cm³/rev.]

Flow (L/min) \ Pressure (MPa)	3.5	6	9	12	15	18 (Max.cont.)	21 (Max.int.)
10	280 **14**	522 **13**	812 **13**	1100 **12**	1268 **12**	1549 **11**	1784 **10**
20	288 **28**	552 **28**	839 **27**	1101 **27**	1315 **26**	1607 **24**	1864 **22**
50	289 **72**	555 **72**	868 **71**	1137 **69**	1364 **68**	1682 **66**	1956 **62**
75	270 **109**	548 **108**	863 **106**	1120 **104**	1352 **102**	1680 **99**	1964 **94**
100	264 **146**	538 **145**	856 **143**	1093 **141**	1350 **138**	1674 **135**	1965 **130**
125	251 **184**	516 **183**	837 **181**	1071 **179**	1336 **177**	1659 **173**	1950 **168**
150	240 **221**	495 **220**	817 **219**	1063 **217**	1330 **215**	1650 **212**	1928 **205**
175	210 **259**	485 **258**	796 **257**	1052 **254**	1300 **250**	1636 **246**	1908 **241**
200 (Max.cont.)	182 **297**	469 **297**	751 **295**	1018 **293**	1280 **290**	1611 **284**	1883 **273**
240 (Max.int.)	130 **358**	416 **357**	712 **355**	978 **351**	1237 **346**	1563 **340**	1835 **332**

cont.
int.

Performance Data

BMV 800 [801cm³/rev.]

Flow (L/min)	Pressure (MPa) 2.5	5	8	10	13	16 (Max.cont.)	18 (Max.int.)
10	278 **11**	565 **10**	830 **10**	1095 **9**	1405 **8**	1712 **8**	1915 **7**
20	282 **23**	571 **22**	845 **22**	1150 **21**	1456 **20**	1783 **18**	1994 **16**
50	288 **60**	582 **59**	856 **57**	1162 **56**	1463 **54**	1790 **52**	2001 **48**
75	269 **91**	580 **90**	855 **89**	1165 **87**	1465 **84**	1786 **81**	1993 **77**
100	251 **122**	566 **121**	840 **120**	1140 **118**	1448 **115**	1767 **111**	1985 **105**
125	242 **153**	535 **152**	824 **150**	1118 **147**	1427 **143**	1739 **139**	1976 **133**
150	236 **185**	526 **183**	808 **181**	1102 **178**	1401 **174**	1714 **169**	1959 **163**
175	215 **216**	504 **214**	793 **212**	1079 **209**	1377 **206**	1698 **203**	1936 **196**
200 (Max.cont.)	197 **247**	468 **245**	765 **243**	1063 **240**	1362 **237**	1681 **232**	1913 **225**
240 (Max.int.)	118 **297**	388 **296**	713 **295**	1020 **293**	1318 **288**	1637 **283**	1838 **277**

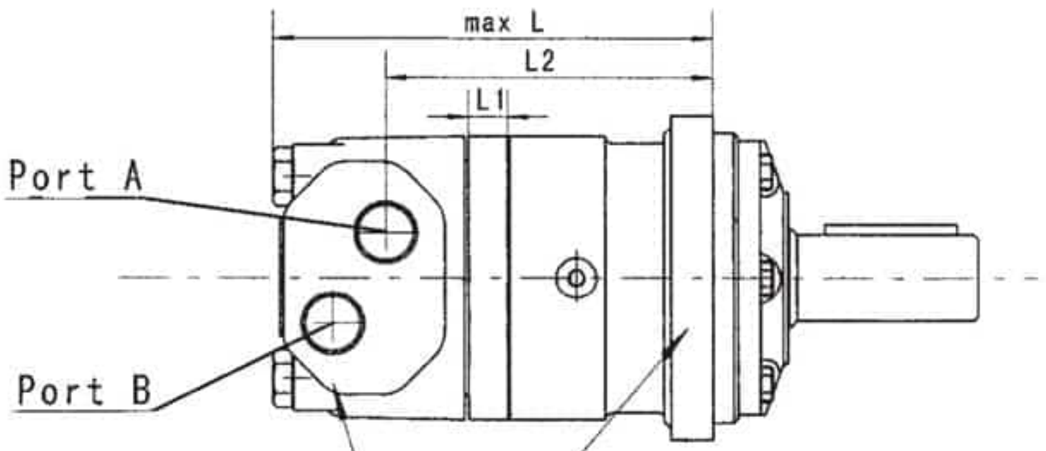
BMV 1000 [990cm³/rev.]

Flow (L/min)	Pressure (MPa) 2.5	5	7	10	14 (Max.cont.)	16 (Max.int.)
10	312 **9**	640 **9**	971 **9**	1400 **8**	1978 **7**	2259 **6**
20	320 **28**	648 **27**	978 **26**	1410 **25**	1980 **23**	2270 **21**
50	326 **47**	655 **46**	992 **45**	1422 **43**	2015 **41**	2280 **38**
75	318 **72**	642 **71**	987 **70**	1425 **68**	2003 **66**	2276 **63**
100	309 **98**	634 **97**	983 **95**	1418 **93**	1994 **90**	2243 **86**
125	303 **123**	624 **122**	975 **120**	1409 **117**	1988 **114**	2224 **110**
150	278 **149**	602 **148**	961 **146**	1368 **144**	1963 **140**	2208 **133**
175	264 **174**	580 **172**	946 **170**	1338 **166**	1925 **162**	2159 **155**
200 (Max.cont.)	230 **199**	556 **196**	912 **193**	1300 **190**	1891 **185**	2105 **178**
240 (Max.int.)	166 **240**	513 **237**	867 **233**	1267 **229**	1825 **225**	2034 **218**

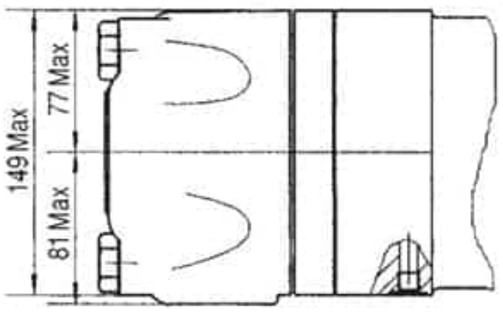
Torque (N•m) 1825
Speed (rpm) **225**

cont.
int.

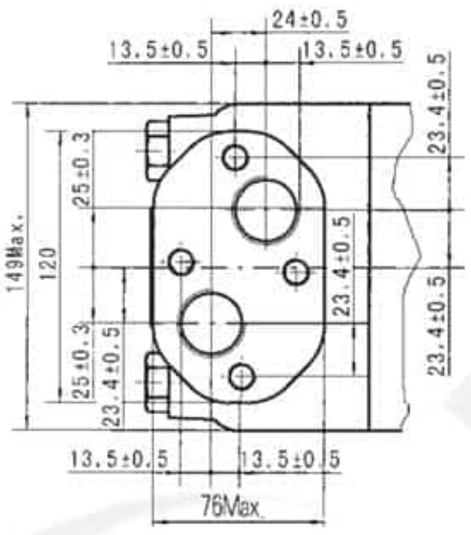
BMV DIMINSIONS AND MOUNTING DATA



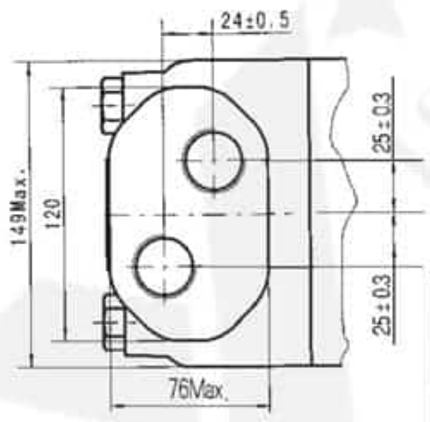
Model	L	L1	L2
BMV315	217	20	161.5
BMV400	224	27	168.5
BMV500	232	35	176.5
BMV630	244	47	188.5
BMV800	255	58	199.5
BMV1000	271	74	215.5



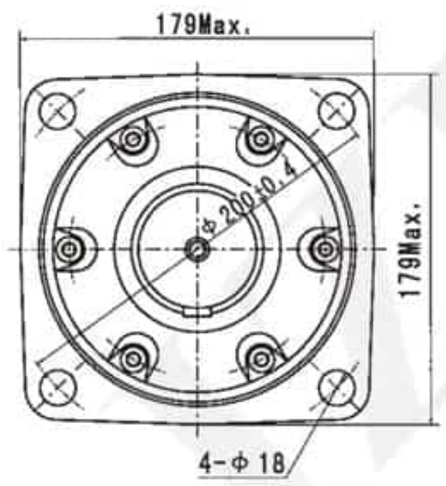
Porting
D、M

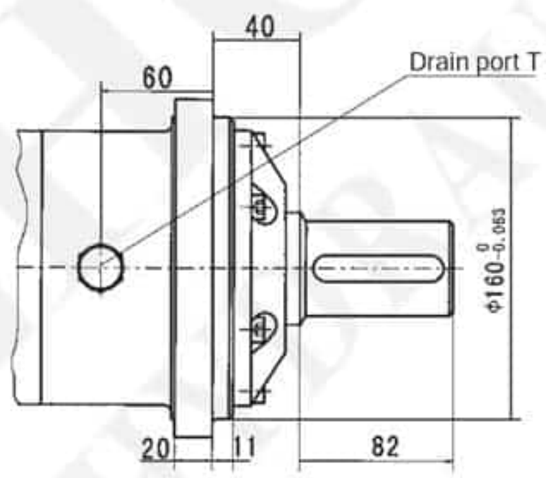


S、G、M5、S1

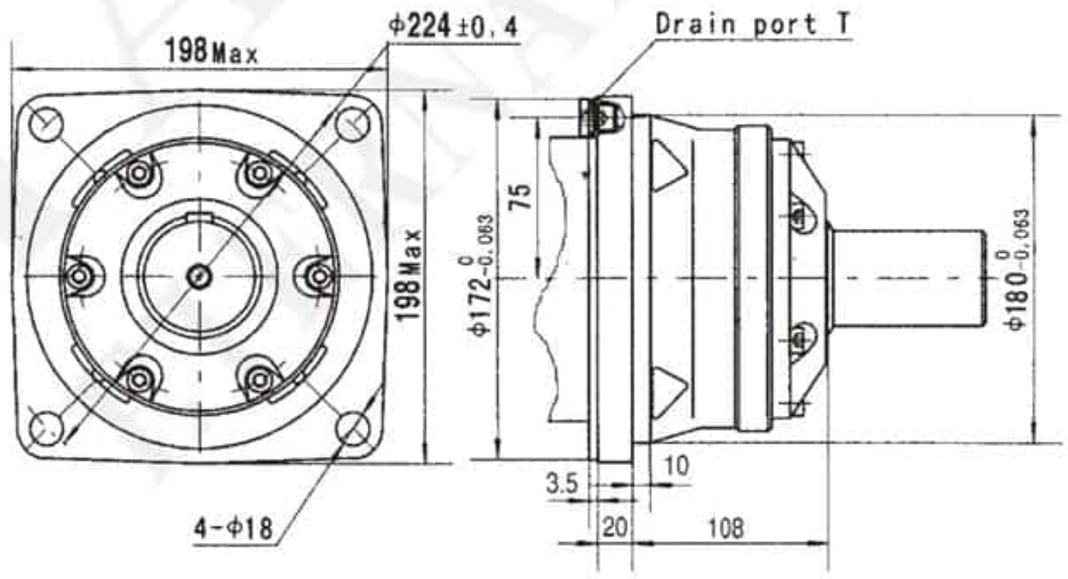


Flange 4





Flange W

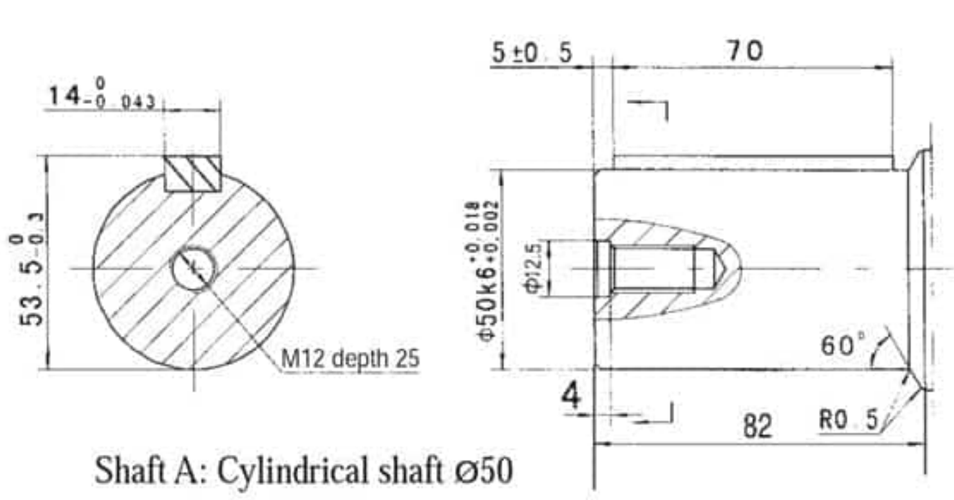


Model	L	L1	L2
BMVW315	148.5	20	93.5
BMVW400	155.5	27	100.5
BMVW500	163.5	35	108.5
BMVW630	175.5	47	120.5
BMVW800	186.5	58	131.5
BMVW1000	202.5	74	147.5

Note:The thickness of the stator and rotor is the dimension of L1adding on 7mm.

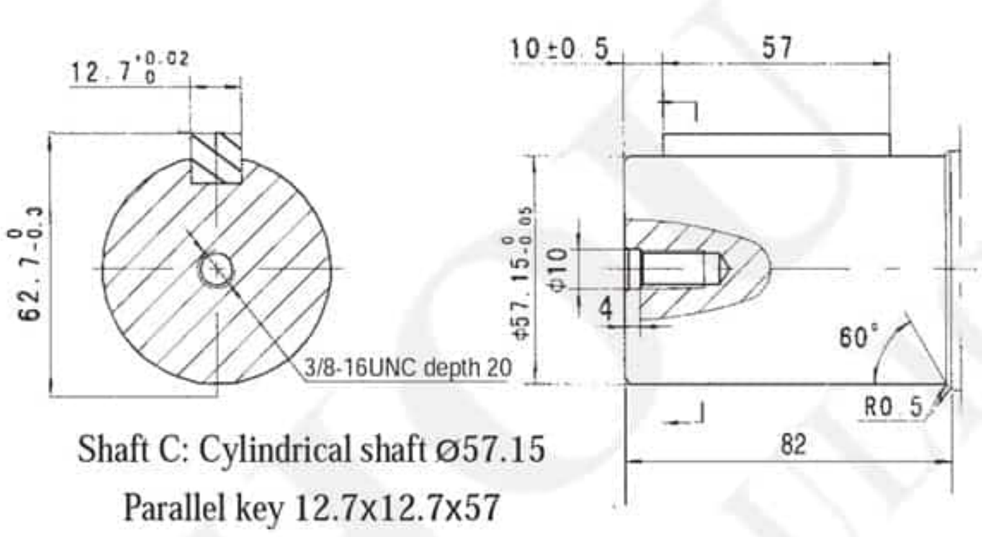
Content / Mounting	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--

BMV SHAFT EXTENSIONS DIMENSIONS DATA



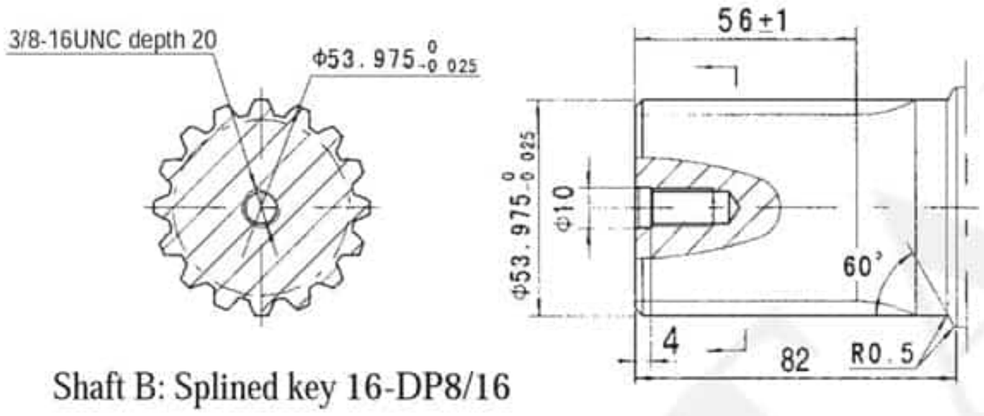
Shaft A: Cylindrical shaft Ø50

Parallel key 14x9x70

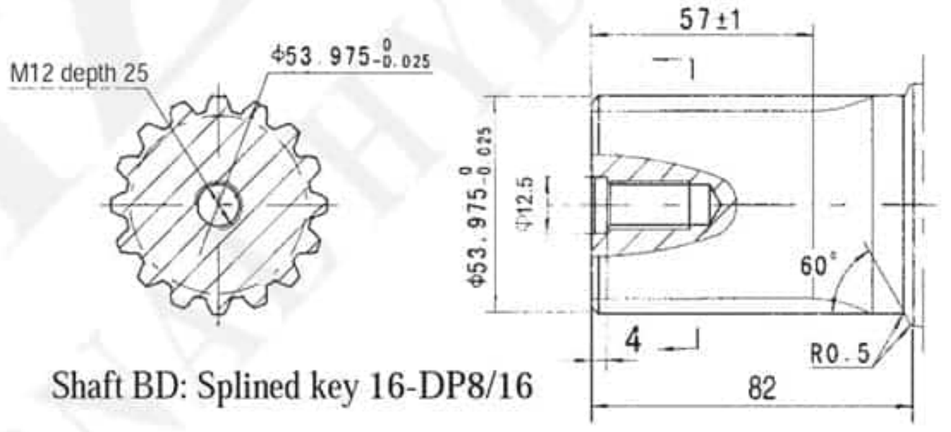


Shaft C: Cylindrical shaft Ø57.15

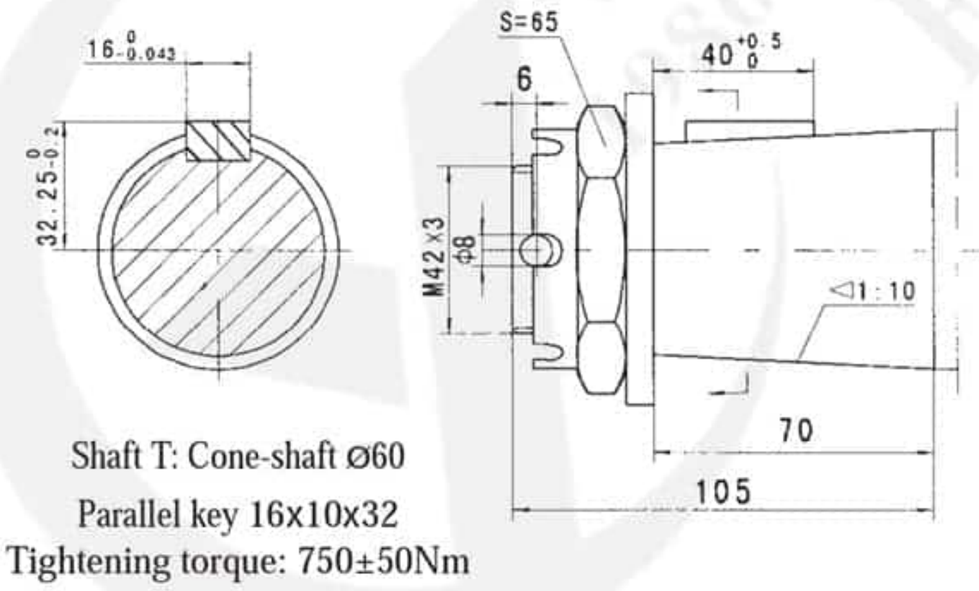
Parallel key 12.7x12.7x57



Shaft B: Splined key 16-DP8/16



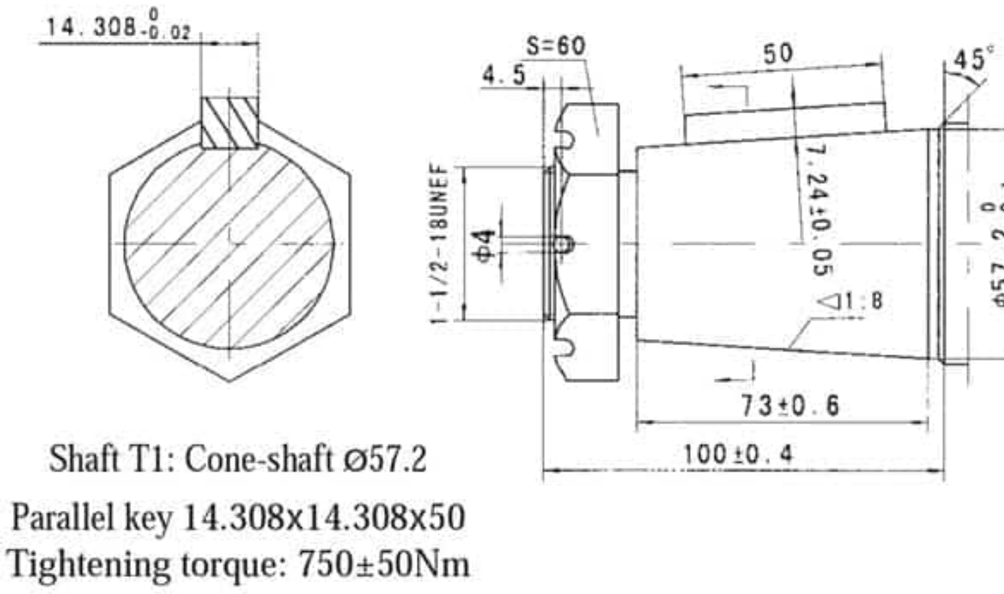
Shaft BD: Splined key 16-DP8/16



Shaft T: Cone-shaft Ø60

Parallel key 16x10x32

Tightening torque: 750±50Nm



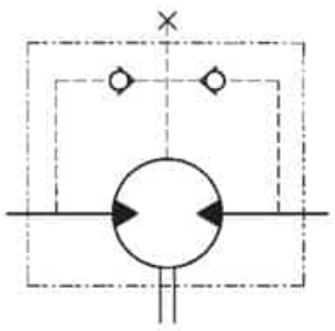
Shaft T1: Cone-shaft Ø57.2

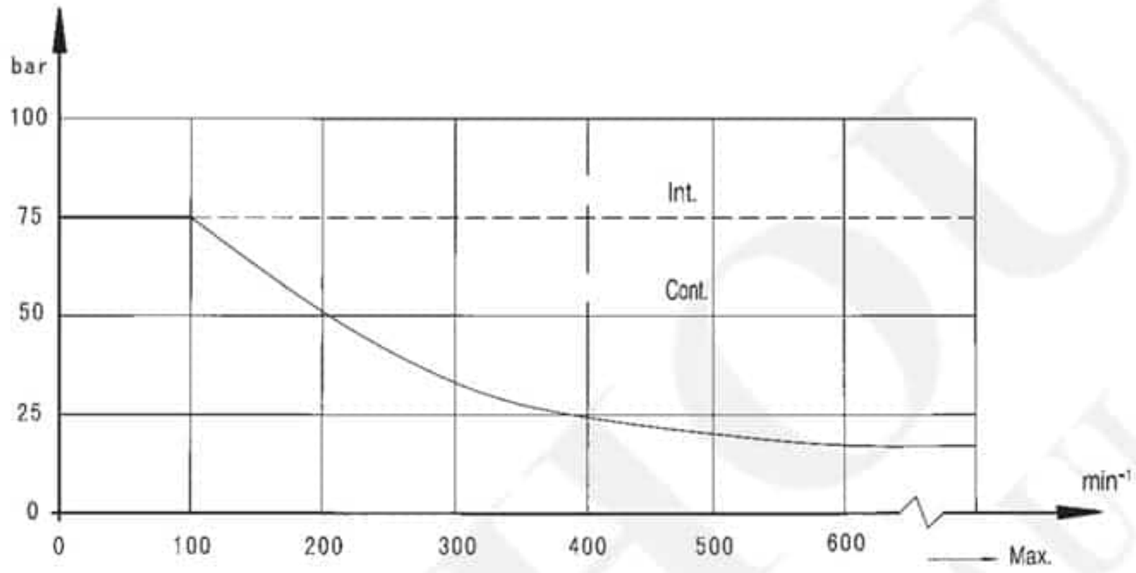
Parallel key 14.308x14.308x50

Tightening torque: 750±50Nm

BMV Series Hydraulic Motor

Permissible shaft seal pressure



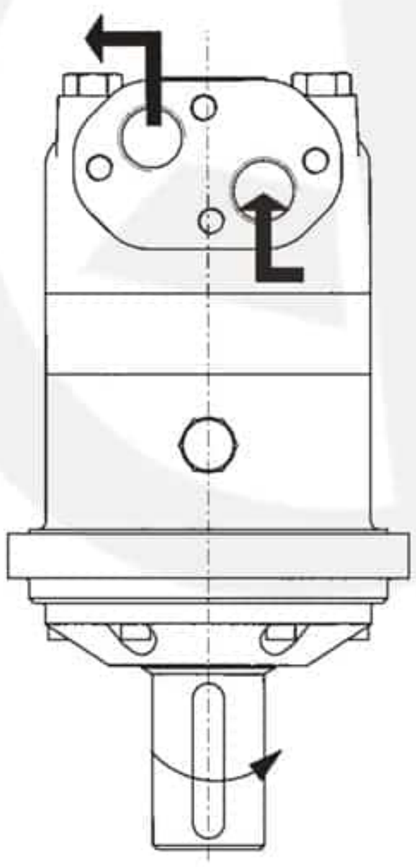


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

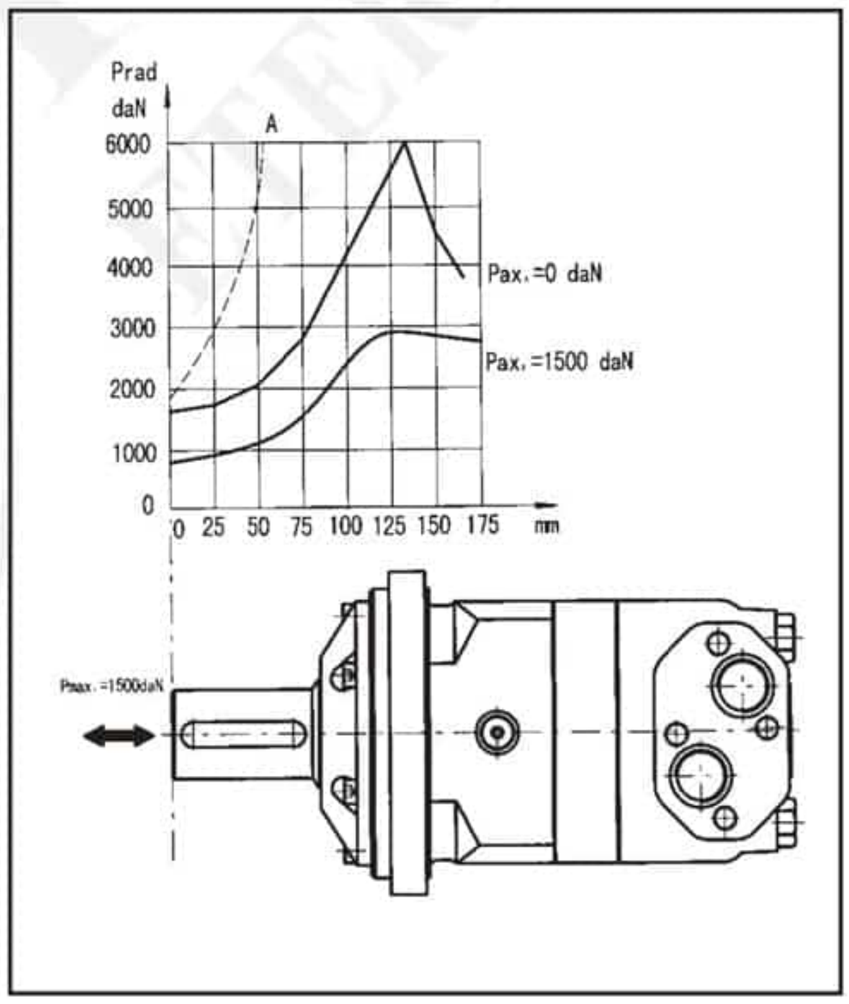
Standard direction of shaft rotation: Standard

When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.

BMV

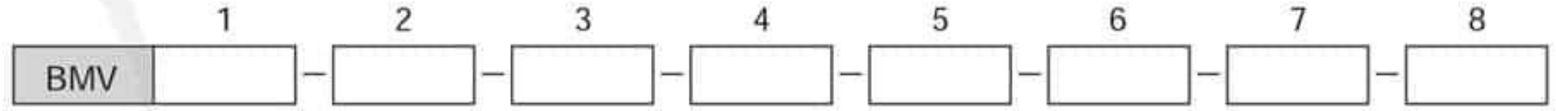


Axial and Radial forces



The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Order Information



Pos.1	2	3		4		5		6		7		8	
Code	Displacement	Flange		Output shaft		Ports and drain port		Rotation direction		Paint		Unusually function	
Omit	315 400 500 630 800 1000	4 W	4-Ø18 Square-flangeØ200, pilot Ø160×11 4-Ø18 Wheel-flange Ø224, pilot Ø180×10	A BD B C T T1	Shaft Ø50 , parallel key 14×9×70 Shaft Ø53.975, splined key 16-DP8/16 Shaft Ø53.975, splined key 16-DP8/16 Shaft Ø57.15, parallel key 12.7×12.7×57.15 Cone shaft Ø60, parallel key 16×10×32 Cone shaft Ø57.2, parallel key 14.308×14.308×50.8	D M S G M5 S1	G1 Manifold 4×M12, G1/4 M33×2 Manifold 4×M12, M14×1.5 1-5/16-12UN, 9/16-18UNF G1,G1/4 M33×2, M14×1.5 1-5/16-12UN(18), 7/16-20UNF(12)	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit	Standard

Note:When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMK6 SERIES HYDRAULIC MOTOR

BMK6 series motor adapt the advanced Geroler gear set designed with disc distribition flow and high pressure.The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set,which use low pressure of start-up,provide smooth and reliable operation and high efficiency.
* Advanced design in disc distribution flow ,which can automatically compensate in operating with high volume efficiency and long life ,provide smooth and reliable operation.
* Shaft seal can bear high pressure of back .
* The output shaft adapts in tapered roller bearings that permit high axial and radial forces.The case can offers capacities of high pressure and high torque in the wide of applications.

Main Specification

Type		BMK6 200	BMK6 250	BMK6 315	BMK6 400	BMK6 500	BMK6 630	BMK6 800	BMK6 1000
Geometric displacement (cm^3/rev.)		195.6	246.1	311.6	391.3	490.8	623	802.4	981.6
Max.speed (rpm)	cont.	765	610	480	382	304	240	186	152
	int.	865	830	690	570	455	360	280	230
Max.torque (N•m)	cont.	565	710	920	1160	1445	1480	1580	1675
	int.	840	1080	1325	1625	1880	1890	1880	1860
Max.pressure drop (MPa)	cont.	20	20	20	20	20	17.5	14	14
	int.	30	30	30	30	27.5	22.5	15.5	14
	peak.	30	30	30	30	30	24	17.5	17
Max.flow (L/min)	cont.	150	150	150	150	150	150	150	150
	int.	170	205	225	225	225	225	225	225
Weight (kg)		26.3	26.8	27.3	28	28.8	29.6	30.5	32

*Continuous pressure:Max.value of operating motor continuously.
*Intermittent pressure:Max.value of operating motor in 6 seconds per minute .
*Peak pressure:Max.value of operating motor in 0.6 second per minute.

Performance Data

BMK6 200 [195.6cm³/rev.]

Flow (L/min)	Pressure (MPa) 1.75	3.5	7	10.5	14	17.5	20 (Max.cont.)	24	27.5 (Max.int.)	30 (Peak)
2	30 **9**	73 **7**	160 **5**							
8	36 **39**	76 **38**	168 **35**	262 **34**	345 **31**	438 **27**	465 **16**			
15	36 **75**	81 **75**	174 **74**	270 **71**	365 **65**	455 **60**	510 **45**	580 **32**	640 **16**	
30	37 **152**	85 **151**	175 **147**	275 **142**	370 **132**	465 **121**	540 **109**	615 **96**	700 **80**	765 **60**
45	37 **228**	85 **227**	180 **223**	280 **218**	375 **210**	470 **200**	535 **185**	650 **165**	740 **146**	805 **110**
60	38 **305**	80 **304**	178 **302**	282 **297**	380 **288**	475 **280**	565 **255**	660 **235**	750 **210**	825 **170**
75	32 **382**	78 **380**	175 **376**	275 **370**	378 **362**	480 **350**	565 **328**	670 **300**	760 **270**	840 **230**
90	26 **459**	75 **456**	172 **452**	270 **445**	375 **436**	475 **420**	565 **405**	660 **383**	765 **355**	
105	22 **536**	70 **534**	170 **530**	270 **523**	370 **510**	470 **496**	560 **470**	660 **435**	760 **400**	
120	20 **612**	67 **610**	166 **605**	265 **598**	365 **585**	465 **570**	560 **536**	660 **502**	755 **450**	
135	14 **690**	65 **687**	160 **680**	260 **672**	360 **650**	465 **638**	560 **595**	655 **550**	750 **485**	
150 (Max.cont.)	10 **765**	60 **765**	155 **755**	258 **740**	356 **725**	450 **700**	550 **640**	650 **580**		
170 (Max.int.)		60 **865**	155 **850**	255 **840**	350 **820**	450 **800**	545 **745**	640 **700**		

BMK6 250 [246.1cm³/rev.]

Flow (L/min)	Pressure (MPa) 1.75	3.5	7	10.5	14	17.5	20 (Max.cont.)	24	27.5 (Max.int.)	30 (Peak)
2	46 **7**	92 **4**								
8	51 **31**	103 **30**	215 **27**	335 **24**	440 **21**	550 **15**	560 **10**			
15	52 **58**	105 **57**	220 **55**	340 **52**	455 **46**	570 **40**	640 **37**	745 **28**	850 **10**	960 **5**
30	55 **118**	110 **116**	232 **113**	352 **110**	470 **105**	600 **96**	685 **80**	790 **64**	900 **48**	1020 **35**
45	58 **180**	110 **177**	235 **174**	355 **170**	475 **164**	610 **155**	705 **140**	840 **126**	940 **106**	1050 **88**
60	53 **242**	110 **240**	230 **237**	350 **233**	480 **224**	615 **212**	705 **198**	845 **180**	955 **162**	1080 **140**
75	45 **302**	105 **298**	230 **292**	355 **285**	485 **278**	620 **268**	710 **254**	850 **230**	960 **206**	1080 **182**
90	45 **364**	105 **360**	225 **352**	350 **342**	480 **338**	615 **322**	710 **305**	845 **288**	955 **265**	
105	40 **424**	100 **420**	220 **414**	340 **408**	475 **394**	610 **372**	705 **352**	840 **334**	950 **315**	
120	38 **485**	95 **479**	210 **471**	340 **463**	470 **454**	590 **442**	700 **420**	830 **385**	940 **365**	
135	35 **546**	85 **540**	205 **532**	325 **525**	460 **516**	580 **504**	690 **478**	820 **445**		
150 (Max.cont.)	30 **608**	80 **605**	200 **600**	320 **592**	450 **580**	570 **566**	680 **532**	815 **496**		
170 (Max.int.)		65 **686**	190 **678**	315 **665**	440 **652**	560 **635**	675 **600**	750 **565**		
185			185 **750**	310 **746**	430 **730**	545 **708**	670 **658**			
205			175 **830**	300 **820**	418 **800**	536 **776**	562 **735**			

BMK6 315 [311.6cm³/rev.]

Flow (L/min)	Pressure (MPa) 1.75	3.5	7	10.5	14	17.5	20 (Max.cont.)	24	27.5 (Max.int.)	30 (Peak)
2	65 **5**	126 **4**								
8	68 **24**	135 **23**	280 **22**	410 **20**	540 **16**	650 **13**	750 **9**	880 **3**		
15	70 **46**	135 **45**	285 **44**	435 **41**	565 **36**	690 **30**	810 **22**	940 **16**	1010 **9**	1035 **3**
30	70 **93**	135 **92**	295 **90**	440 **86**	600 **80**	740 **71**	880 **62**	990 **52**	1100 **43**	1180 **31**
45	70 **142**	140 **140**	300 **138**	460 **132**	610 **127**	750 **120**	900 **118**	1035 **96**	1165 **85**	1300 **72**
60	70 **190**	140 **189**	300 **186**	460 **182**	615 **176**	775 **167**	920 **154**	1055 **138**	1200 **124**	1325 **105**
75	65 **238**	135 **237**	295 **235**	455 **231**	615 **225**	780 **214**	920 **200**	1065 **180**	1215 **160**	
90	60 **285**	130 **284**	290 **280**	450 **276**	615 **270**	780 **260**	920 **245**	1070 **226**	1220 **210**	
105	50 **335**	125 **333**	280 **330**	445 **324**	605 **316**	770 **302**	915 **290**	1070 **271**	1205 **248**	
120	45 **384**	120 **382**	280 **380**	440 **372**	600 **364**	765 **350**	910 **338**	1055 **312**		
135	40 **432**	115 **428**	275 **420**	435 **412**	585 **408**	760 **391**	900 **380**	1050 **350**		
150 (Max.cont.)	35 **480**	110 **475**	270 **462**	420 **458**	570 **450**	755 **435**	880 **420**	1030 **395**		
190 (Max.int.)		100 **595**	245 **580**	375 **574**	520 **560**	685 **548**	820 **530**			
225			220 **690**	350 **683**	500 **674**	640 **652**	770 **634**			

BMK6 400 [391.3cm³/rev.]

Flow (L/min)	Pressure (MPa) 1.75	3.5	7	10.5	14	17.5	20 (Max.cont.)	24	27.5 (Max.int.)	30 (Peak)
2	90 **4**	172 **2**	360 **1**							
8	95 **19**	180 **18**	370 **17**	555 **16**	730 **14**	885 **12**	1025 **9**	1195 **4**		
15	95 **37**	185 **37**	375 **36**	560 **35**	740 **33**	930 **28**	1070 **22**	1265 **14**	1380 **5**	1625 **1**
30	98 **75**	185 **74**	380 **73**	575 **71**	760 **68**	960 **65**	1135 **55**	1315 **45**	1455 **31**	1625 **20**
45	95 **114**	185 **113**	385 **111**	580 **108**	765 **105**	970 **100**	1145 **90**	1335 **80**	1530 **72**	
60	90 **152**	180 **152**	380 **150**	580 **147**	770 **142**	975 **134**	1155 **126**	1345 **112**		
75	85 **191**	180 **191**	380 **188**	580 **186**	775 **181**	980 **172**	1160 **160**	1355 **148**		
90	80 **230**	175 **229**	375 **227**	570 **224**	765 **220**	975 **212**	1155 **200**			
105	70 **268**	165 **267**	360 **265**	560 **260**	760 **254**	965 **246**	1150 **232**			
120	65 **306**	160 **305**	355 **303**	550 **298**	745 **290**	950 **278**	1140 **262**			
135	55 **345**	155 **343**	340 **337**	545 **330**	735 **322**	940 **310**	1120 **295**			
150 (Max.cont.)	45 **382**	145 **380**	320 **376**	530 **370**	730 **362**	925 **352**				
190 (Max.int.)		130 **483**	300 **476**	515 **470**	730 **458**	915 **445**				
225			285 **570**	500 **560**	710 **550**	895 **535**				

BMK6 500 [490.8cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20 (Max.cont.)	24 (Max.int.)	27.5 (Peak)
4	120 **7**	230 **6**	470 **5**	685 **3**					
8	125 **15**	240 **14**	475 **13**	705 **12**	940 **11**	1165 **8**	1375 **3**		
15	125 **30**	235 **29**	480 **29**	720 **28**	960 **27**	1190 **25**	1400 **21**	1625 **17**	1880 **12**
30	125 **60**	235 **59**	485 **58**	735 **57**	975 **54**	1215 **50**	1445 **45**	1685 **35**	
45	125 **91**	235 **90**	485 **89**	735 **87**	975 **84**	1215 **78**	1450 **70**		
60	120 **121**	235 **121**	480 **120**	730 **118**	975 **114**	1220 **108**	1460 **98**		
75	110 **152**	225 **151**	470 **149**	725 **146**	970 **142**	1220 **135**			
90	100 **182**	220 **182**	465 **180**	720 **178**	965 **175**	1215 **168**			
105	95 **213**	205 **212**	460 **210**	710 **206**	960 **201**	1210 **195**			
120	90 **244**	195 **243**	450 **240**	700 **235**	950 **228**	1205 **221**			
135	85 **274**	175 **273**	435 **270**	680 **265**	935 **258**	1170 **250**			
150 (Max.cont.)	70 **304**	155 **303**	420 **301**	665 **292**	920 **287**	1150 **280**			
190 (Max.int.)		130 **385**	360 **382**	580 **373**	865 **365**				
225			320 **455**	555 **440**	800 **432**				

BMK6 630 [623cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5 (Max.cont.)	20	22.5 (Max.int.)
4	130 **6**	245 **5**	500 **4**	750 **2**				
8	135 **12**	265 **12**	540 **11**	805 **10**	1050 **6**			
15	140 **24**	280 **23**	585 **22**	865 **21**	1085 **16**	1425 **13**		
30	145 **48**	295 **47**	605 **45**	925 **42**	1270 **38**	1480 **34**	1780 **30**	1890 **27**
45	145 **72**	295 **71**	610 **70**	920 **68**	1330 **65**	1465 **58**	1770 **50**	
60	135 **95**	285 **94**	605 **91**	915 **87**	1330 **83**	1465 **78**		
75	130 **120**	275 **119**	595 **116**	915 **112**	1325 **106**			
90	115 **145**	260 **144**	585 **141**	905 **137**	1310 **130**			
105	100 **168**	255 **167**	575 **164**	895 **160**	1305 **152**			
120	85 **192**	235 **191**	560 **186**	880 **182**	1280 **175**			
135	75 **216**	220 **215**	540 **212**	855 **207**				
150 (Max.cont.)	50 **240**	200 **239**	525 **236**	84 **233**				
190 (Max.int.)			465 **300**	795 **293**				
225			430 **360**	740 **348**				

BMK6 800 [802.4cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	5	7	8.5	10.5	12	14 (Max.cont.)	15.5	17.5 (Max.int.)
4	172 **4**	345 **4**	530 **2**	690 **2**	860 **1**					
8	180 **9**	355 **9**	540 **8**	725 **8**	955 **7**	1080 **6**	1275 **5**	1360 **4**		
15	185 **18**	370 **18**	565 **17**	758 **17**	980 **16**	1130 **15**	1265 **14**	1420 **12**	1655 **10**	1880 **9**
30	190 **36**	385 **35**	590 **34**	795 **33**	1005 **32**	1200 **31**	1330 **29**	1580 **28**	1740 **26**	
45	190 **55**	385 **55**	590 **54**	800 **53**	1015 **52**	1200 **52**	1380 **50**	1550 **48**		
60	185 **74**	380 **73**	580 **72**	790 **70**	1015 **69**	1200 **67**	1345 **65**			
75	176 **92**	370 **92**	575 **91**	782 **88**	1000 **87**	1185 **85**	1365 **82**			
90	165 **112**	360 **111**	560 **110**	765 **108**	990 **106**	1170 **102**				
105	150 **130**	340 **129**	555 **128**	750 **127**	972 **125**	1155 **120**				
120	132 **149**	325 **148**	545 **146**	735 **143**	945 **140**	1130 **135**				
135	105 **168**	302 **167**	525 **165**	710 **162**	911 **158**					
150 (Max.cont.)	80 **186**	270 **185**	500 **183**	680 **180**	880 **176**					
190 (Max.int.)		300 **235**	475 **233**	660 **230**	855 **226**					
225			423 **280**	612 **276**	830 **272**					

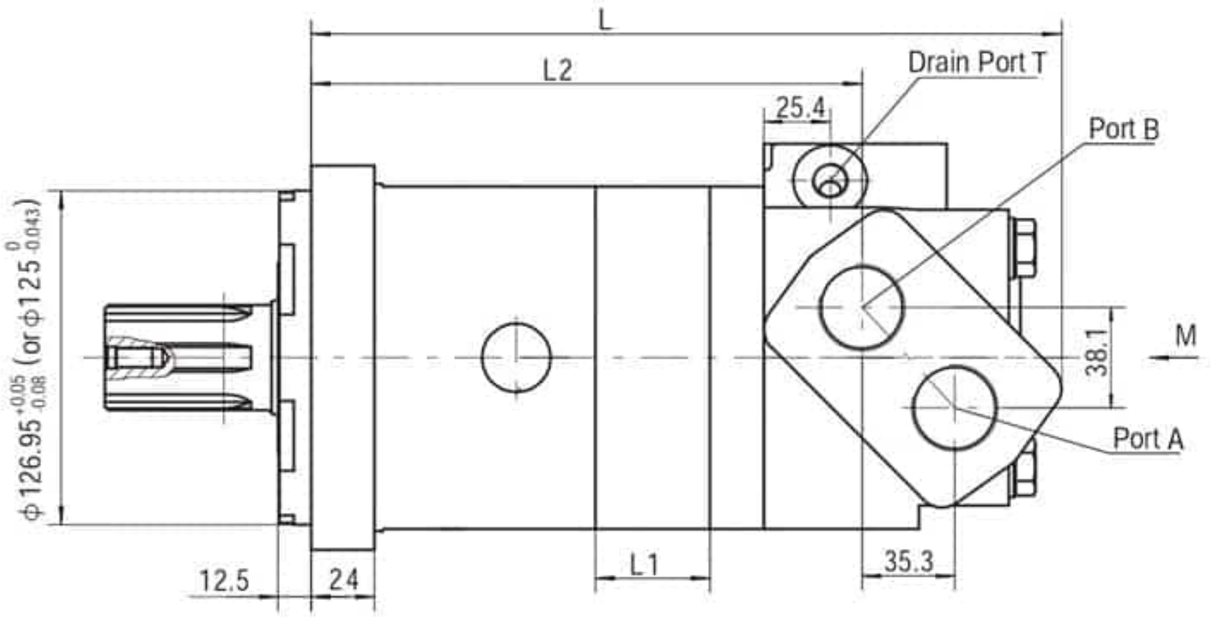
BMK6 1000 [981.6cm³/rev.]
Pressure (MPa)

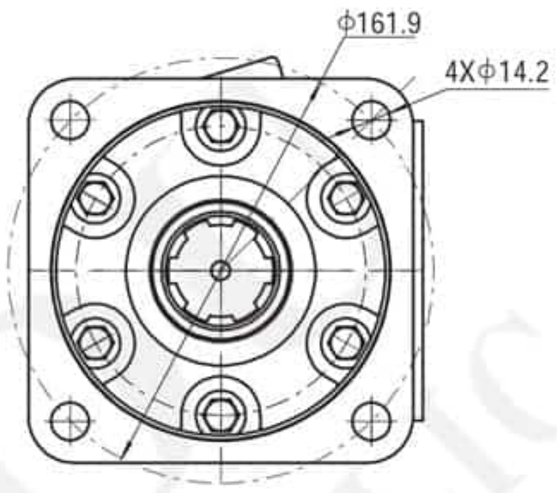
Flow (L/min)	1.75	3.5	5	7	8.5	10.5	12 (Max.cont.)	14 (Max.int.)
4	225 **3**	460 **3**	640 **2**	875 **2**	1085 **1**			
8	230 **7**	470 **7**	695 **6**	945 **6**	1170 **5**	1415 **4**	1560 **3**	1675 **2**
15	240 **15**	485 **15**	715 **15**	965 **14**	1200 **14**	1445 **13**	1580 **13**	1780 **12**
30	240 **30**	495 **30**	720 **30**	995 **29**	1235 **28**	1480 **27**	1640 **25**	1860 **23**
45	240 **45**	495 **45**	720 **44**	1000 **44**	1250 **43**	1490 **42**	1700 **40**	
60	235 **60**	490 **60**	715 **60**	990 **59**	1245 **57**	1500 **55**		
75	225 **76**	475 **76**	710 **76**	980 **75**	1230 **73**	1485 **70**		
90	215 **91**	460 **91**	705 **91**	960 **90**	1215 **88**	1465 **85**		
105	200 **106**	445 **106**	690 **105**	940 **105**	1195 **103**	1440 **100**		
120	185 **122**	420 **122**	665 **121**	920 **119**	1155 **116**			
135	150 **137**	390 **137**	635 **136**	890 **136**	1120 **134**			
150 (Max.cont.)	110 **152**	360 **151**	605 **150**	860 **148**	1080 **145**			
190 (Max.int.)		320 **192**	575 **190**	820 **188**	1045 **185**			
225			515 **230**	800 **228**	1020 **224**			

Torque (N•m) 423
Speed (rpm) **280**

cont.
int.

BMK6 DIMENSIONS MOUNTING DATA





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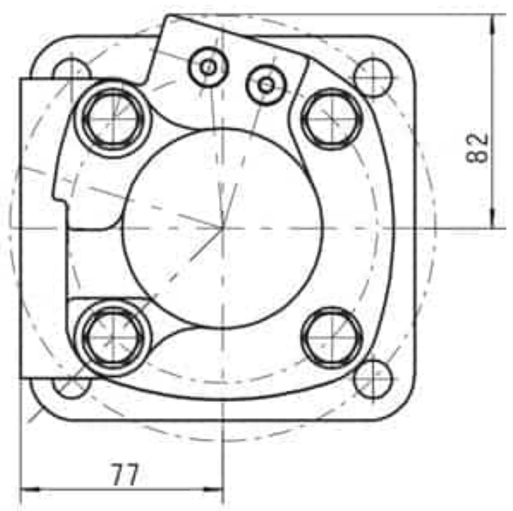
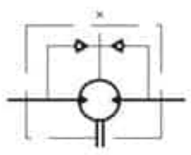
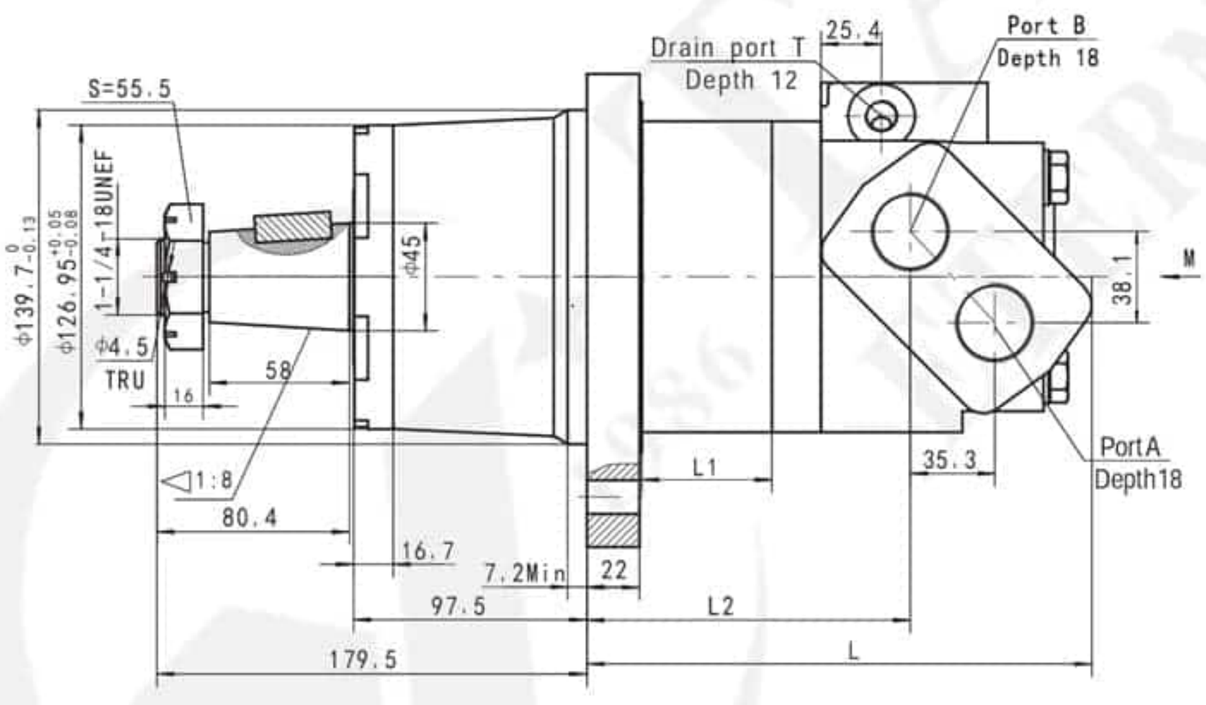
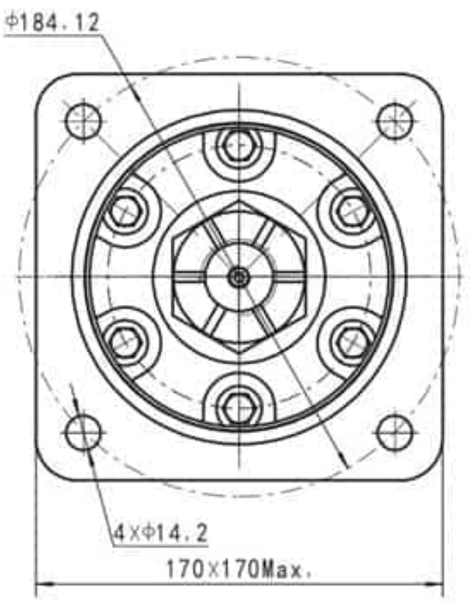




Direction of shaft rotation:Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

Model	L	L1	L2
BMK6-200	265	21.7	187.5
BMK6-250	271	27.3	193.1
BMK6-315	278	34.5	200.3
BMK6-400	287	43.4	209.2
BMK6-500	298	54.4	220.2
BMK6-630	313	69.1	234.9
BMK6-800	333	89	254.8
BMK6-1000	353	108.9	274.7





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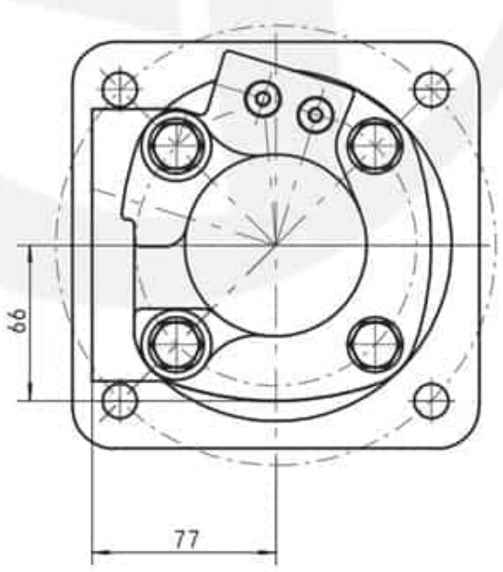
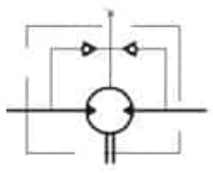
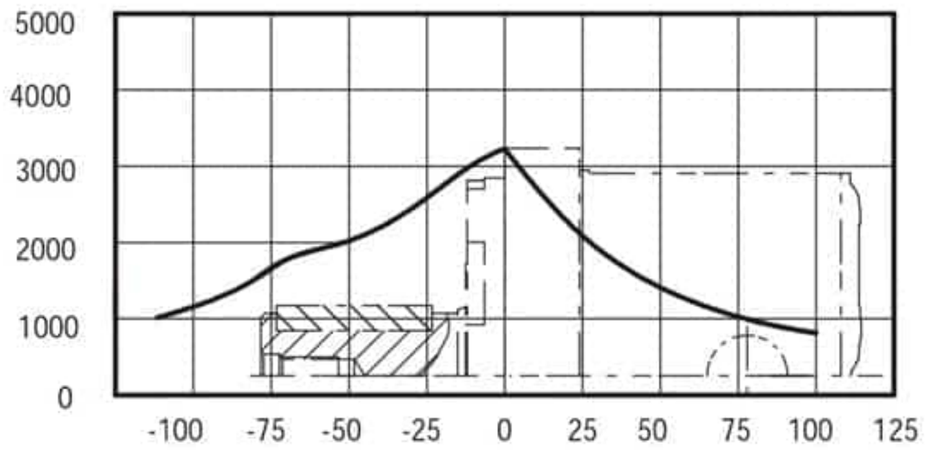


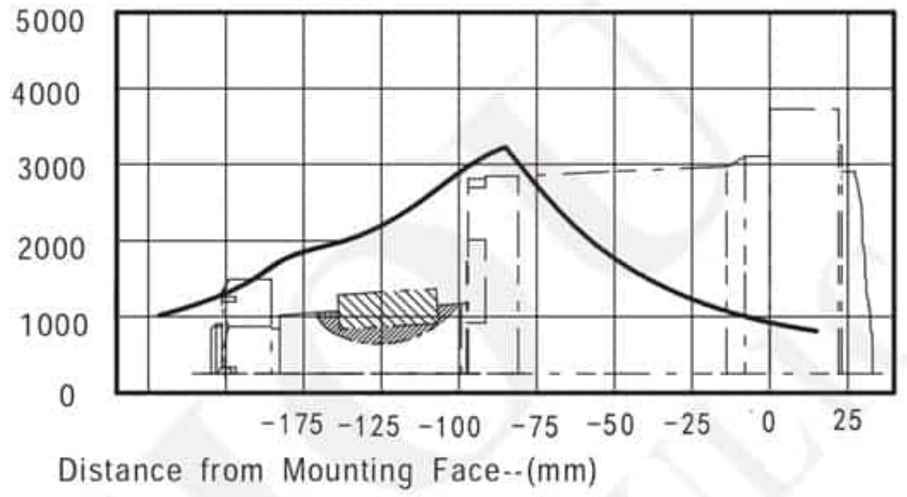


Directionofshaftrotation:Standard
Whenfacingshaftendofmotor,shafttorotate:
Clockwisewhenport"A"ispressurized
Counter-clockwisewhenport"B"ispressurized

Model	L	L1	L2
BMK6-200	179	21.7	102.5
BMK6-250	185	27.3	108
BMK6-315	192	34.5	115.5
BMK6-400	201	43.4	124.5
BMK6-500	212	54.4	135.5
BMK6-630	226.7	69.1	150.2
BMK6-800	246.5	89	170
BMK6-1000	266.5	108.9	190

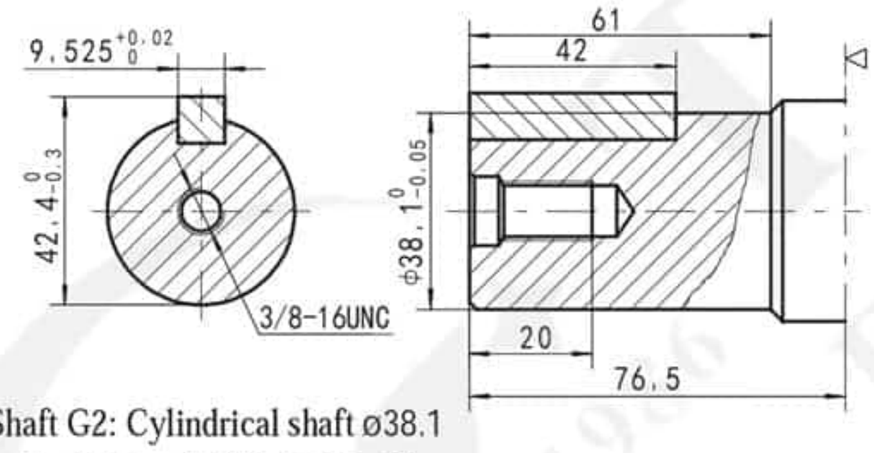
BMK6 for CC And W Mounting Radial forces



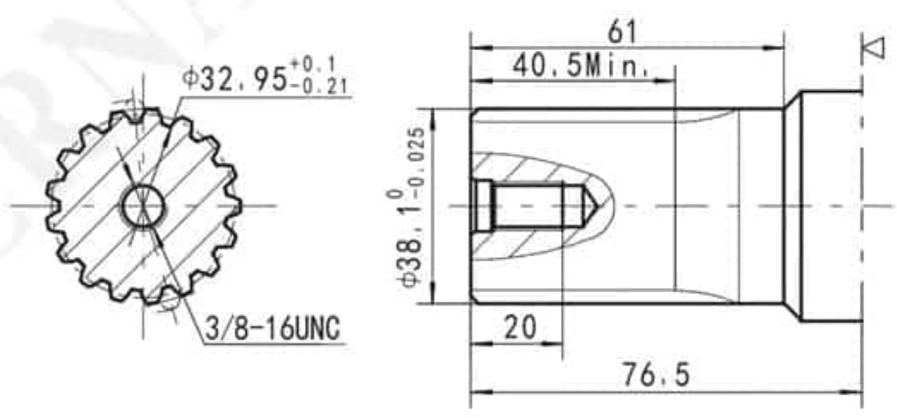


The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12x106 revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.
The maximum load curve is defined by bearing static load capacity.
This curve should not be exceeded at any time including shock loads.

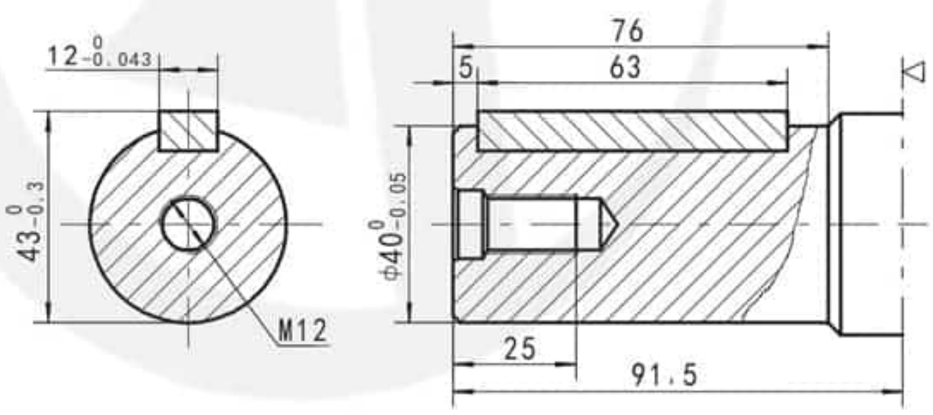
BMK6 Shaft Extensions For Dimensions Data



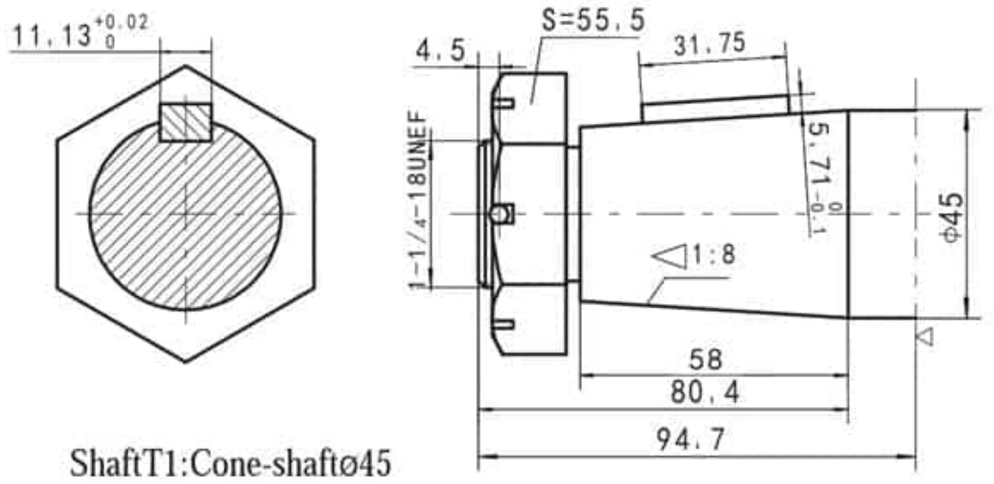
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42
Max.Torque: 1350Nm



Shaft FE: Splined 17-DP12/24
Max.Torque: 1350Nm



Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63
Max.Torque: 1400Nm

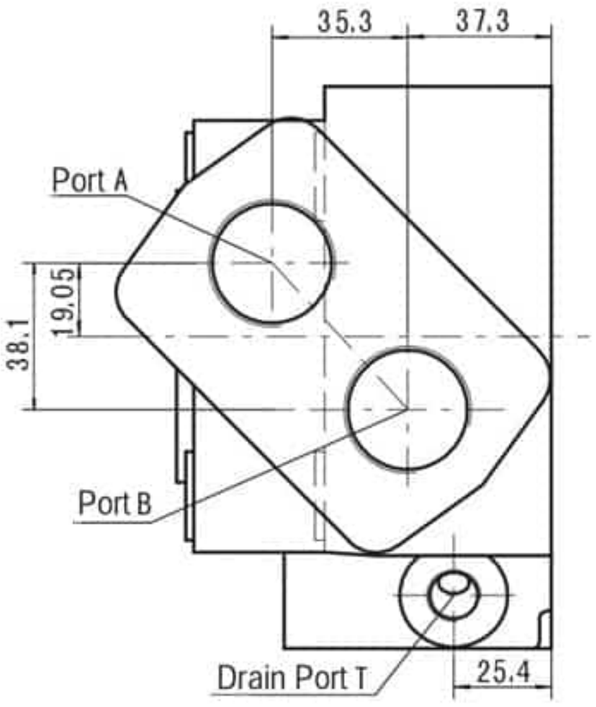


ShaftT1:Cone-shaftø45
Parallelkey11.13x11.13x31.75
Tighteningtorque: 500±10Nm
Max. torque 2100Nm

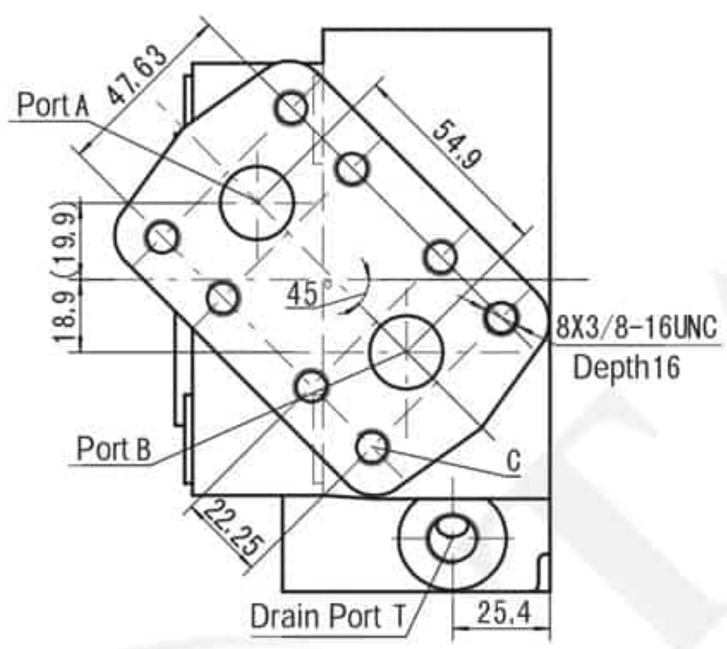
◁ Motor Mounting Surface CC Flange

DIMENSIONS of PORTS FOR BMK6

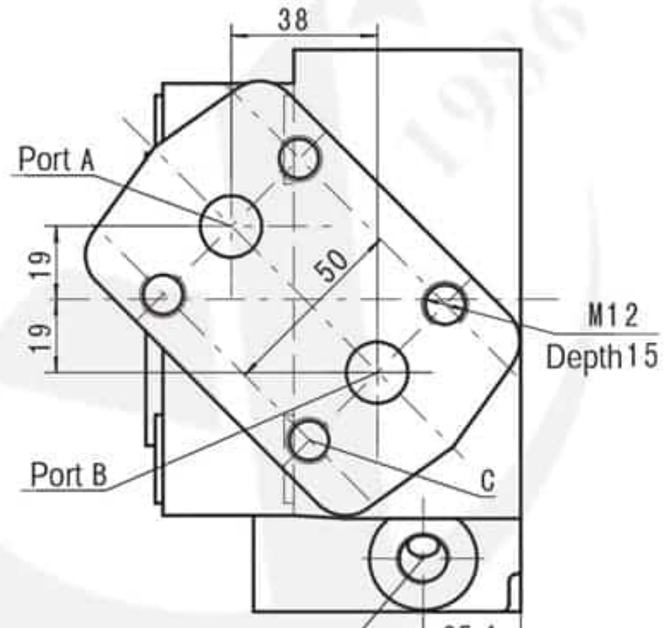
Port：SF5、SF6、SF7、SF8



Port：SF



Port：SF0



Order Information

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
Omit	200	CC 4-Φ14.2Square-flange Φ161.9, pilot Φ127×12.5	G2 Shaft Φ38.1, parallel key9.52×9.52×57.15	SF 3/4"Manifold Mount8×3/8-16UNC, 7/16-20UNF	Omit Standard	00 Omit No paint	Omit Standard
	250						
	315			SF0 Φ16Manifold Mount4×M12, M14×1.5	R Opposite	B Blue	
	400	CC1 4-Φ14.2Square-flange Φ161.9, pilot Φ125×12.5	FE Shaft Φ38.1, splined tooth17-DP12/24	SF5 1-5/16-12UN, 7/16-20UNF		S Silver grey	
	500		Y1 Shaft Φ40, parallel key12×8×63	SF6 M33×2, M14×1.5			
	630	W 4-Φ14.2 Wheel-flange Φ184.12, Piliot 139.7	T1 Cone-shaft 1:8 Φ45, parallel key 11.13X11.13X31.75	SF7 G1, G1/4			
	800			SF8 G3/4, G1/4			
	1000						

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

Mounting \ Code	Type					
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF8 (depth)	SF (depth)	SF0 (depth)
P(A,B)	1-5/16-12UN(18)	M33X2(18)	G1(18)	G3/4(18)	Φ19.05	Φ16
T	7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	7/16-20UNF(12)	M14X1.5(12)
C	-	-	-	-	8X3/8-16UNC	4XM12

BME2 SERIES HYDRAULIC MOTOR

BME2 series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.

* Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.

* Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

Type		BME2 65	BME2 80	BME2 100	BME2 125	BME2 160	BME2 200	BME2 230	BME2 250	BME2 295	BME2 315	BME2 375
Geometric displacement (cm^3/rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N•m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure drop (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

Performance Data

BME2 65 [66.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	26 **22**	54 **16**	83 **4**		
5	27 **69**	56 **62**	87 **53**	118 **42**	
10	29 **145**	60 **141**	91 **132**	123 **122**	171 **95**
15	30 **221**	62 **216**	94 **207**	126 **196**	176 **149**
20	28 **295**	58 **290**	91 **279**	122 **261**	174 **232**
25	24 **368**	55 **365**	90 **352**	121 **341**	172 **312**
34	22 **501**	54 **493**	89 **478**	119 **457**	171 **423**
Max.cont. 45	20 **667**	52 **660**	85 **642**	115 **621**	168 **587**
Max.int. 57	15 **842**	46 **835**	80 **814**	112 **789**	163 **735**

BME2 80 [81.3 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	33 **18**	70 **14**	106 **4**		
5	35 **55**	72 **51**	111 **44**	150 **25**	
10	36 **121**	75 **118**	114 **113**	155 **107**	215 **88**
15	37 **181**	77 **178**	116 **171**	157 **162**	215 **148**
20	35 **242**	74 **238**	112 **231**	151 **223**	206 **205**
25	35 **303**	71 **298**	108 **289**	148 **275**	202 **261**
34	31 **411**	69 **407**	105 **396**	145 **382**	198 **373**
Max.cont. 45	23 **543**	62 **537**	100 **521**	139 **513**	12 **501**
Max.int. 57	18 **689**	55 **681**	98 **665**	134 **649**	186 **618**

BME2 100 [101.6 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	40 **15**	82 **11**	126 **4**		
5	41 **44**	83 **36**	150 **28**	206 **12**	
10	42 **97**	91 **95**	138 **94**	177 **81**	230 **54**
15	42 **147**	91 **144**	138 **137**	185 **124**	257 **93**
20	38 **195**	88 **192**	136 **182**	180 **169**	244 **138**
25	39 **244**	89 **241**	142 **230**	191 **221**	268 **194**
34	31 **331**	79 **328**	131 **323**	179 **308**	250 **273**
Max.cont. 45	21 **439**	70 **436**	119 **433**	168 **419**	241 **383**
Max.int. 57	10 **553**	60 **545**	109 **534**	158 **527**	232 **491**

Torque (N•m) 158
Speed (rpm) **527**

BME2 125 [127 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	52 **12**	150 **9**	158 **3**		
5	55 **35**	112 **31**	170 **22**	221 **15**	290 **10**
10	57 **78**	117 **75**	180 **69**	242 **63**	335 **46**
15	56 **116**	118 **113**	180 **109**	245 **99**	331 **76**
20	55 **155**	117 **153**	178 **147**	242 **136**	331 **110**
25	52 **593**	111 **188**	177 **182**	238 **172**	325 **151**
34	43 **264**	105 **262**	169 **254**	231 **244**	326 **220**
Max.cont. 45	38 **350**	95 **348**	159 **346**	219 **331**	314 **301**
Max.int. 57	21 **441**	176 **439**	141 **431**	280 **417**	302 **384**

cont.
int.

Performance Data

BME2 160 [157.2 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	64 **10**	132 **8**	199 **2**		
5	68 **28**	138 **26**	208 **19**	281 **10**	
10	71 **62**	147 **60**	221 **56**	303 **53**	419 **38**
15	72 **93**	148 **91**	225 **87**	307 **79**	426 **61**
20	71 **126**	148 **123**	223 **118**	305 **110**	422 **95**
25	62 **157**	140 **155**	218 **152**	296 **141**	415 **129**
34	56 **214**	134 **211**	211 **206**	287 **197**	408 **181**
Max.cont. 45	47 **283**	127 **281**	205 **275**	281 **266**	391 **241**
Max.int. 57	36 **355**	97 **352**	182 **346**	260 **336**	370 **311**

BME2 200 [193.6 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 14	Max.int. 19
2	80 **9**	163 **7**	245 **3**		
5	88 **23**	178 **21**	266 **18**	352 **12**	
10	89 **49**	181 **48**	275 **43**	378 **39**	517 **27**
15	91 **76**	188 **73**	280 **68**	382 **63**	520 **44**
20	89 **101**	182 **98**	275 **95**	374 **86**	517 **69**
25	78 **127**	170 **125**	271 **121**	376 **113**	518 **101**
34	64 **173**	158 **171**	268 **165**	363 **156**	502 **143**
Max.cont. 45	51 **229**	157 **227**	252 **221**	351 **212**	494 **196**
Max.int. 57	36 **289**	138 **286**	231 **279**	330 **271**	469 **256**

BME2 230 [226 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 12	Max.int. 16.5
2	97 **7**	191 **4**	280 **2**		
5	101 **18**	199 **14**	301 **8**	348 **4**	
10	103 **43**	214 **42**	325 **40**	378 **36**	527 **29**
15	104 **65**	215 **63**	327 **59**	375 **52**	528 **47**
20	101 **86**	210 **84**	321 **81**	371 **75**	524 **66**
25	95 **108**	201 **106**	316 **102**	364 **94**	511 **87**
34	82 **147**	188 **145**	308 **141**	358 **135**	501 **128**
45	55 **197**	158 **195**	276 **191**	329 **186**	485 **176**
Max.cont. 57	19 **247**	130 **244**	256 **240**	301 **230**	451 **221**
Max.int. 75		65 **328**	183 **323**	250 **311**	401 **303**

Torque (N•m) 250
Speed (rpm) **311**

BME2 250 [257 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	10.5	Max.cont. 11	Max.int. 15.5
2	112 **6**	207 **3**	309 **1**		
5	115 **18**	218 **14**	320 **8**	348 **4**	
10	113 **39**	235 **38**	358 **35**	379 **31**	543 **23**
15	113 **58**	234 **56**	357 **53**	381 **45**	542 **3**
20	111 **77**	233 **75**	356 **72**	376 **65**	541 **48**
25	109 **97**	228 **95**	354 **89**	371 **81**	532 **69**
34	91 **131**	213 **128**	346 **123**	364 **116**	521 **103**
45	89 **174**	211 **172**	345 **165**	361 **157**	518 **135**
Max.cont. 57	73 **216**	208 **213**	339 **205**	342 **197**	487 **184**
Max.int. 75		74 **287**	198 **284**	301 **278**	441 **267**

cont.
int.

Performance Data

BME2 295[287.8 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	11	14.5 (Max.int.)
5	121 **15**	243 **14**	368 **10**	509 **5**
10	125 **33**	253 **31**	381 **27**	529 **20**
15	129 **51**	261 **50**	393 **47**	547 **41**
20	127 **68**	259 **67**	390 **63**	545 **55**
25	126 **86**	255 **84**	386 **80**	539 **69**
34	123 **116**	248 **114**	380 **110**	531 **98**
45	115 **154**	234 **153**	368 **148**	522 **136**
57 (Max.cont.)	108 **196**	227 **194**	359 **187**	514 **176**
75 (Max.int.)		211 **254**	349 **246**	506 **231**

Torque (N•m) 506
Speed (rpm) **231**

BME2 315[314.5 cm³/rev.]

Pressure (MPa)

Flow (L/min)	3.5	7	11	13.5 (Max.int.)
5	136 **11**	281 **8**	427 **3**	
10	139 **30**	287 **29**	438 **26**	574 **20**
15	141 **47**	295 **46**	448 **43**	587 **40**
20	138 **62**	287 **61**	442 **58**	587 **53**
25	131 **78**	280 **75**	431 **71**	567 **66**
34	117 **106**	269 **104**	423 **98**	557 **91**
45	114 **141**	253 **138**	397 **132**	535 **125**
57 (Max.cont.)	86 **178**	219 **173**	383 **168**	505 **162**
75 (Max.int.)		108 **235**	287 **231**	416 **219**

BME2 375[370 cm³/rev.]

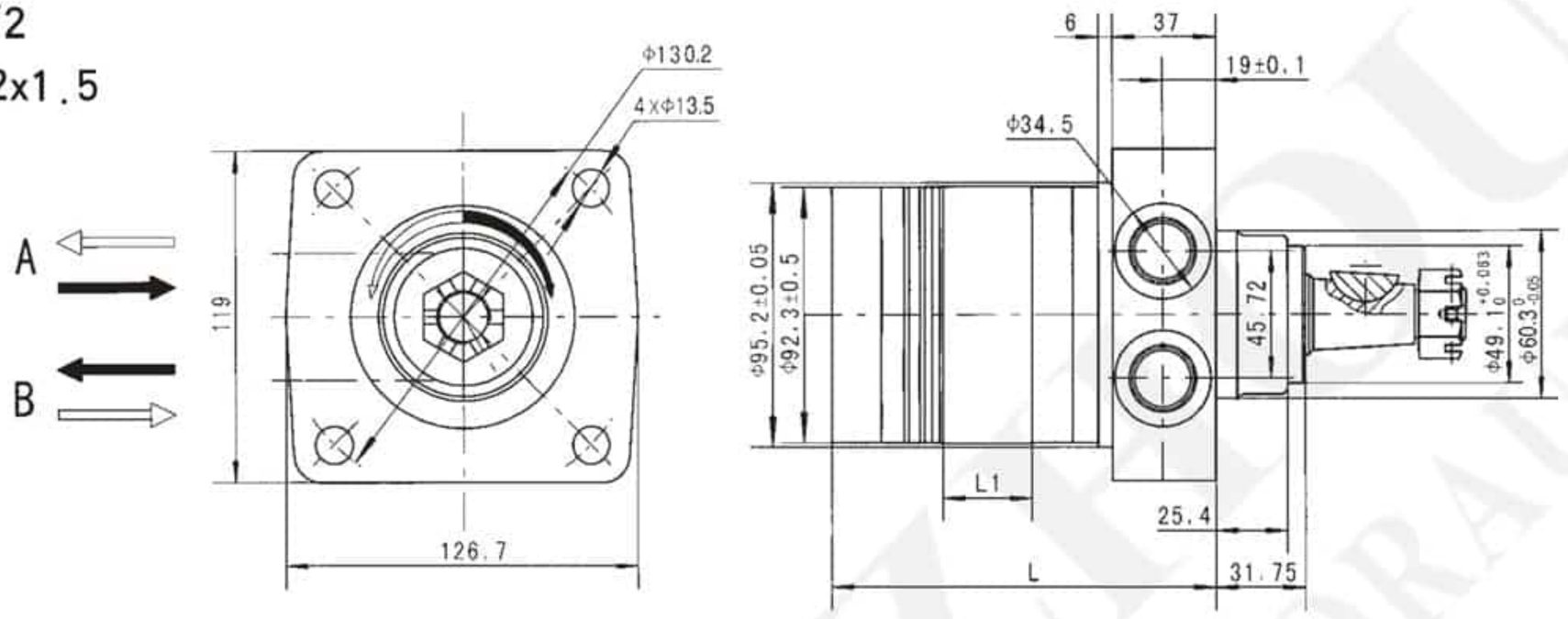
Pressure (MPa)

Flow (L/min)	3.5	7	9	12.5 (Max.int.)
5	151 **10**	315 **7**	412 **3**	
10	155 **25**	324 **24**	427 **21**	606 **18**
15	162 **40**	331 **39**	439 **37**	613 **32**
20	158 **53**	326 **52**	434 **49**	602 **45**
25	151 **67**	316 **65**	424 **62**	589 **58**
34	141 **91**	309 **89**	417 **85**	580 **80**
45	138 **121**	300 **119**	408 **115**	572 **107**
57 (Max.cont.)	118 **152**	281 **150**	393 **144**	550 **136**
75 (Max.int.)		258 **199**	369 **191**	518 **183**

cont.
int.

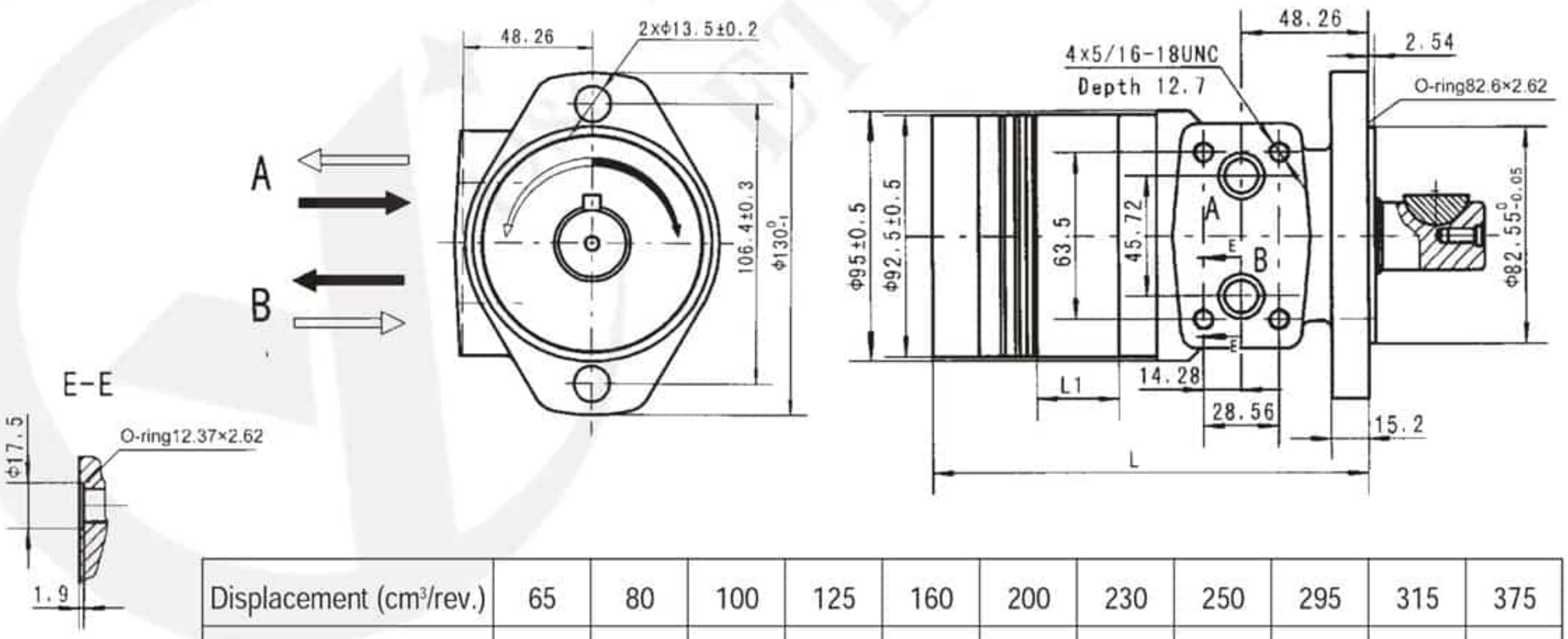
BME2 DIMENSIONS AND MOUNTING DATA

Wheel Mount
Code: Port A、B
WS 7/8–14 O–ring
WD G1/2
WM M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	119	122	126	131	136.5	144	150	156	162	168	180
Weight(kg)	7.4	7.5	7.8	8	8.3	8.7	9.2	9.6	10	10.3	10.8

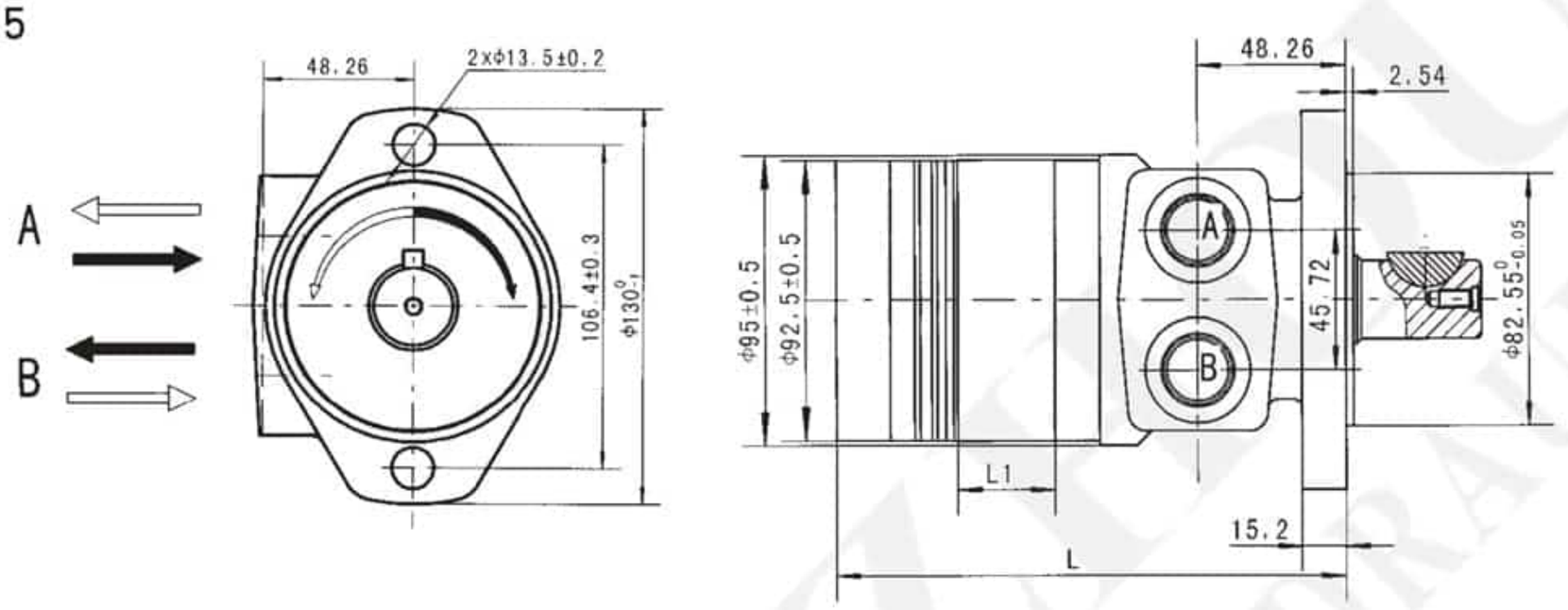
Code:HM Manifold
A、B Port Ø12.7



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

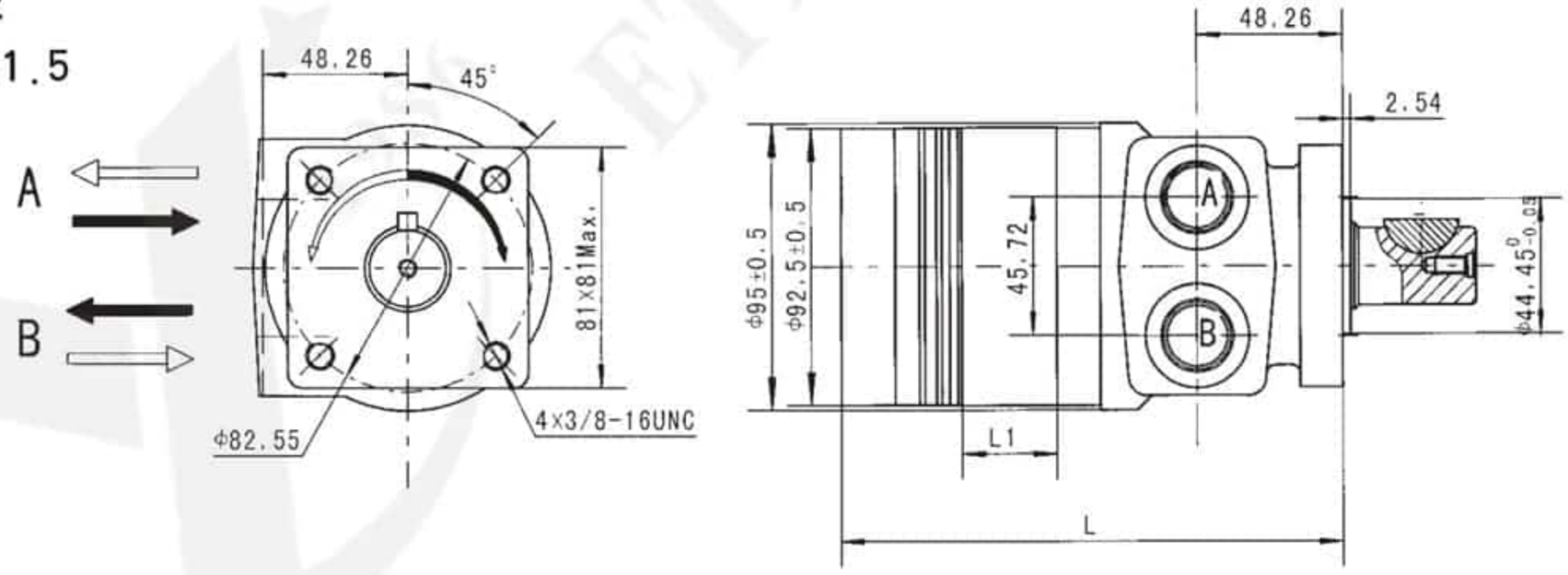
BME2 DIMENSIONS AND MOUNTING DATA

Code: Port A、B
HS 7/8–14UNF
HP 1/2–14NPTF
HD G1/2
HG M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

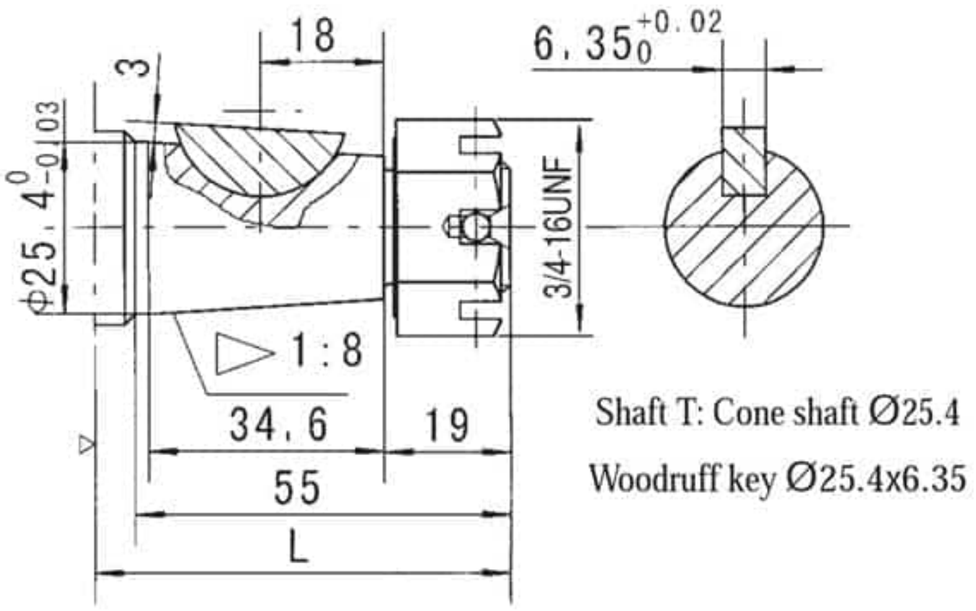
Code: Port A、B
H4S 7/8–14UNF
H4P 1/2–14NPTF
H4D G1/2
H4G M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

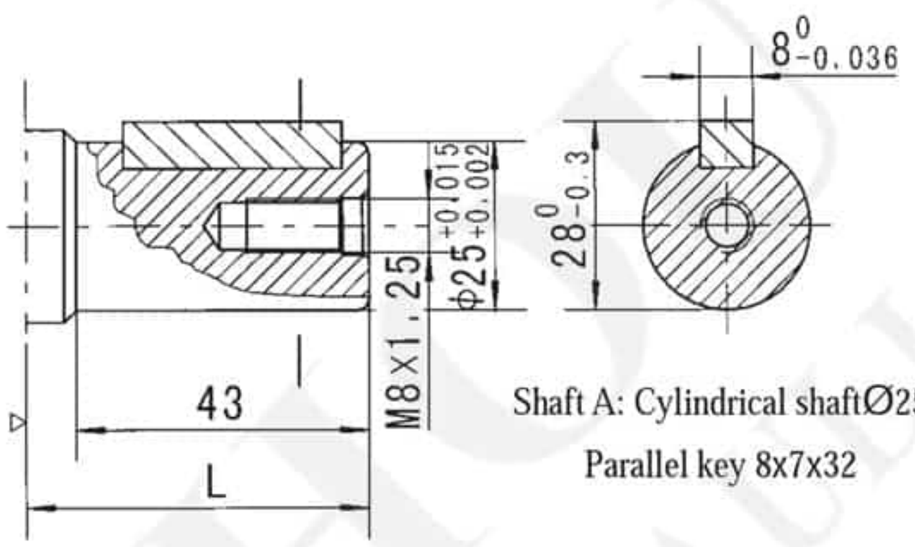
BME2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft T



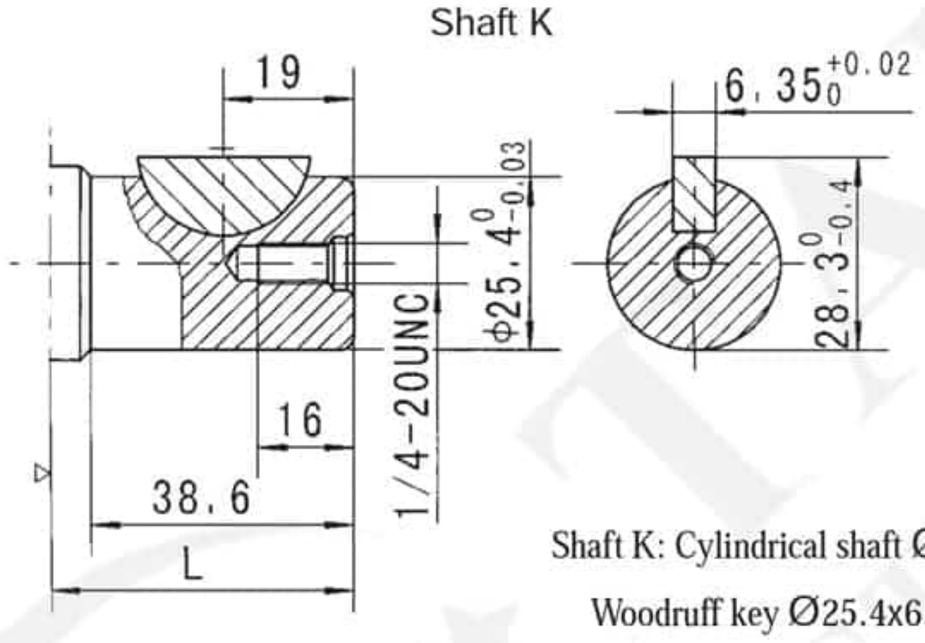
Shaft T: Cone shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft A



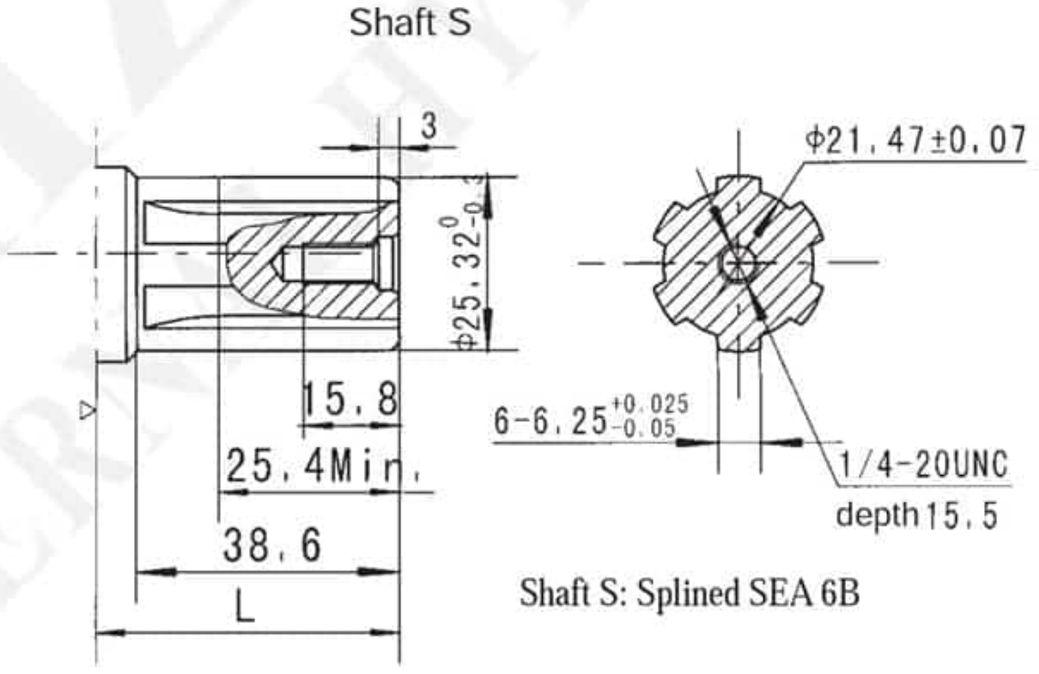
Shaft A: Cylindrical shaftØ25
Parallel key 8x7x32

Shaft K



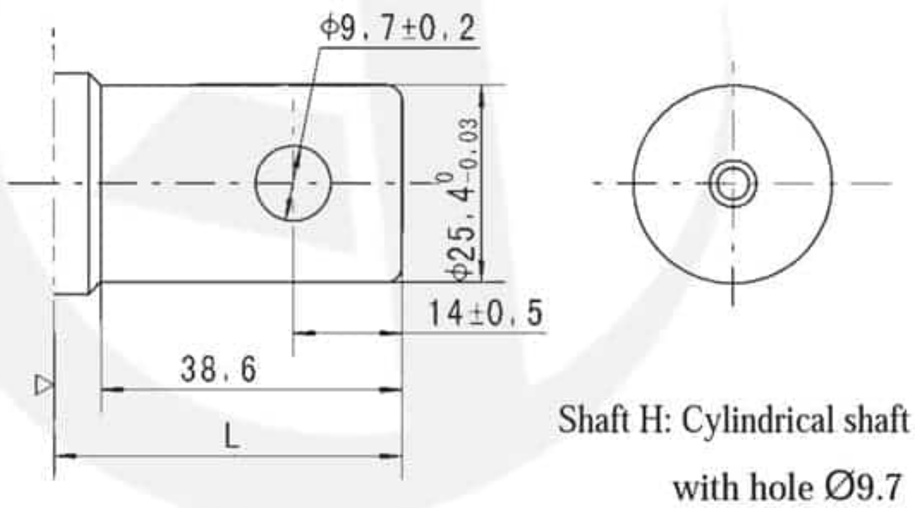
Shaft K: Cylindrical shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft S



Shaft S: Splined SEA 6B

Shaft H



Shaft H: Cylindrical shaft Ø25.4
with hole Ø9.7

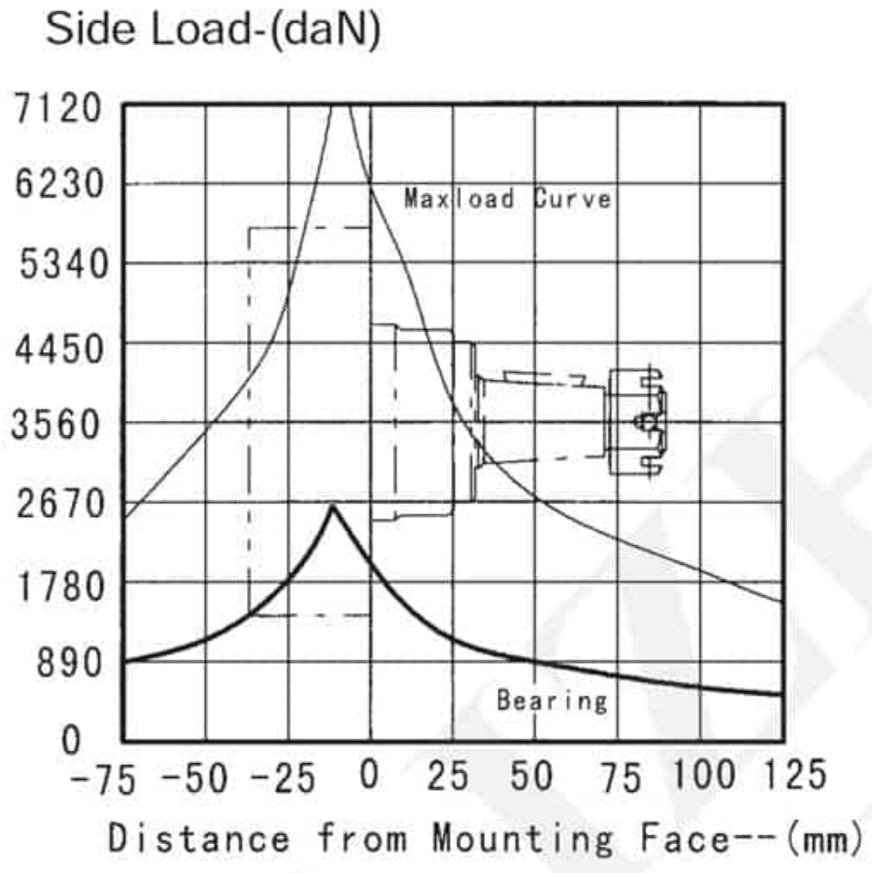
Dimension L

Mounting \ Shaft	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP	61	49	44.7	44.7	44.7
H4S/H4P					
HM					

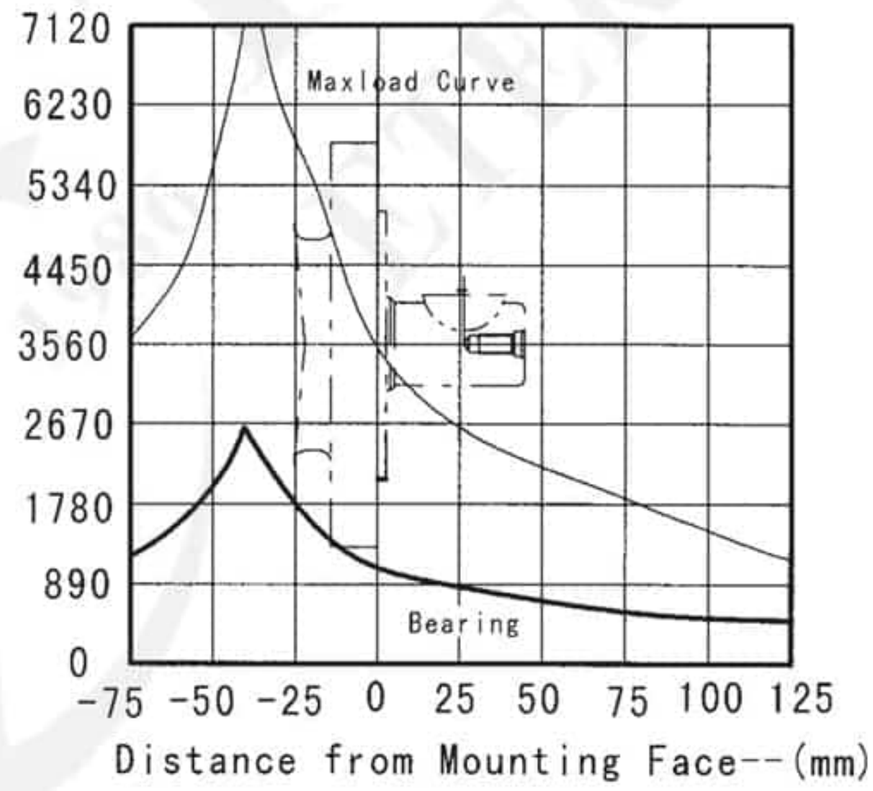
▷ Motor Mounting Surface

Permissble Shaft Loads

BME2 for Wheel Mounting



BME2 for Other Mounting



The bearing curve represents al lowable bearing loads for an L_{10} bearing life at $3x10^6$ revolutions,

The maximum load curve is defined by bearing static load capacity, This curve should not be exceeded at any time including shock loads.

Order Information

BME2 [1] – [2] – [3] – [4] – [5] – [6] – [7]

Pos.1	2	3		4		5	6		7	
Code	Disp.	Flange,Pilot,Ports		Output Shaft		Rotation Direction	Paint		Unusually Function	
Omit	65 80 100 125 160 200 230 250 295 315 375	WS	4-Ø13.5 Wheel - flange,Pilot Ø60.3×7 Port 7/8-14 O-ring	T	Cone-Shaft Ø25.4,Woodruff key Ø25.4×6.35	Omit	00	No paint	Omit	Standard
		WD	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2	A	Cylindrical Shaft Ø25, Parallel key 8×7×32		Omit	Blue		
		WM	4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22*1.5	K	Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35		B	Black		
		HM	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2" Manifold mount 4×5/8-18	S	Shaft Ø25.4, Splined key SAE 6B	R	S	Silver grey		
		HS	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 7/8-14 O-ring	H	Cylindrical Shaft Ø25.4,Pin Hole Ø9.7	Opposite				
		HP	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe							
		HD	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port G1/2							
		HG	2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22x1.5							
		H4S	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 7/8-14 O-ring							
		H4P	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe							
		H4D	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port G1/2							
		H4G	4-3/8-16 Square- flange,Pilot Ø44.4×2.54 Port M22x1.5							

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contract us.

BMJ SERIES HYDRAULIC MOTOR

BMJ series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.

* Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.

* Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

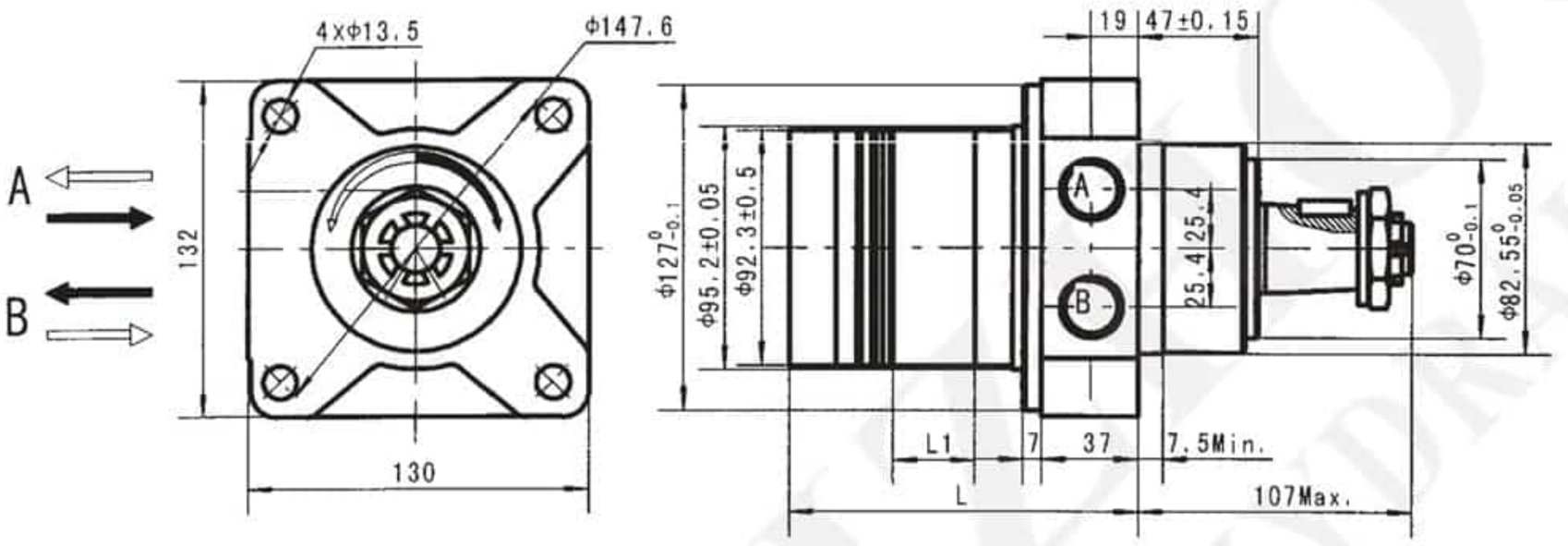
Main Specification

Type		BMJ 65	BMJ 80	BMJ 100	BMJ 125	BMJ 160	BMJ 200	BMJ 230	BMJ 250	BMJ 295	BMJ 315	BMJ 375
Geometric displacement (cm^3/rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
Max. torque (N•m)	cont.	126	157	191	245	307	382	378	381	393	448	439
	int.	176	215	268	335	422	520	528	543	547	587	613
Max. output (kW)	cont.	8.3	8.8	7.9	8.9	8.9	9	9.9	9.3	8.7	8	7.6
	int.	13.9	14.4	13.5	14.1	15.6	15.7	17.9	16.5	15.6	14.3	14
Max. pressure (MPa)	cont.	14	14	14	14	14	14	12	11	10	10	9
	int.	19	19	19	19	19	19	165	15.5	14.5	13.5	12.5
	peak	20	20	20	20	20	20	18	18	17	16	16
Max. flow (L/min)	cont.	45	45	45	45	45	45	57	57	57	57	57
	int.	57	57	57	57	57	57	75	75	75	75	75

* Continuous pressure:Max. value of operating motor continuously.
* Intermittent pressure:Max. value of operating motor in 6 seconds per minute.
* Peak pressure:Max. value of operating motor in 0.6 second per minute.

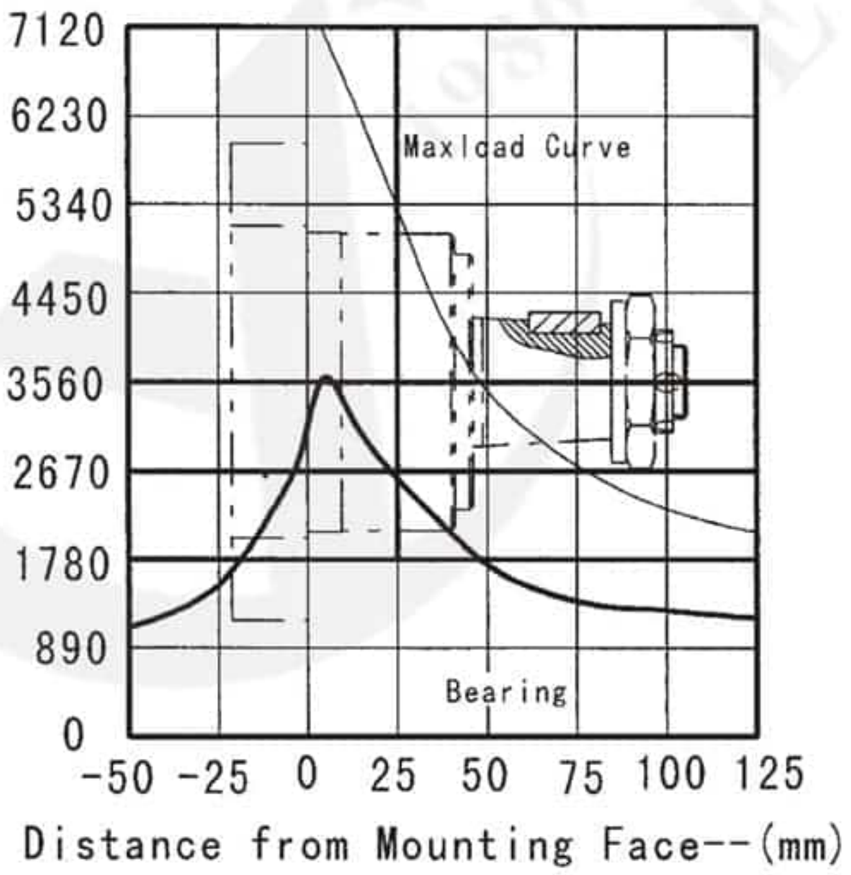
BMJ DIMENSIONS MOUNTING DATA

Wheel Mount
Code : WS Ports A、B 7/8—14 O—Ring
Code : WD Ports A、B G1/2
Code : WM Ports A、B M22x1.5



Displacement (cm³/rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	115	118	122	127	132.5	140	146	152	158	164	176
Weight(kg)	9	9.1	10.4	10.6	10.9	11.3	11.8	12.2	12.6	12.9	13.4

Side Load-(daN)

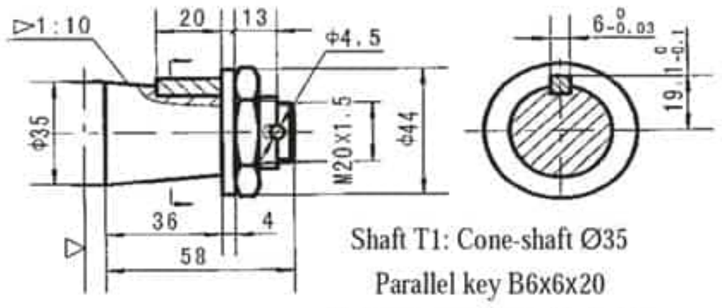


The bearing curve represents allowable bearing loads for an L_{10} bearing life at 3×10^6 revolutions.

The maximum load curve is defined by bearing static load capacity, This curve should not be exceeded at any time including shock loads.

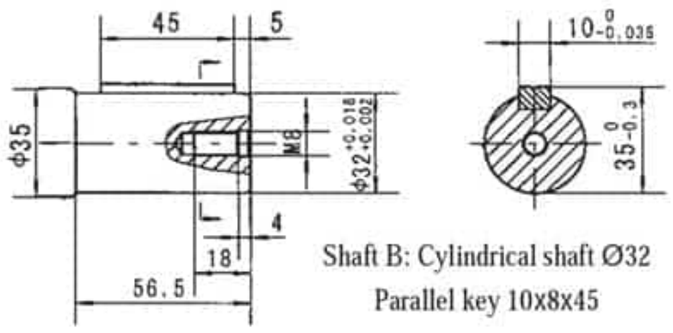
BMJ Shaft Extensions For Dimensions Data

Shaft T1



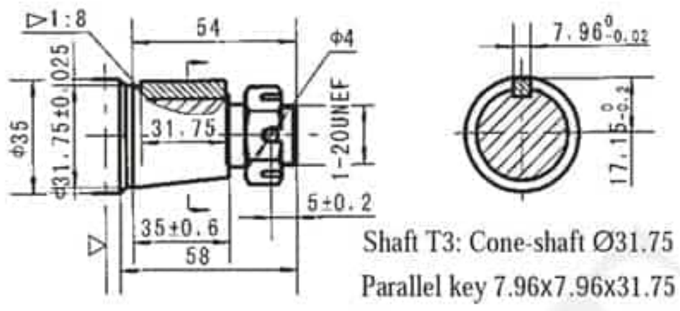
Shaft T1: Cone-shaft Ø35
Parallel key B6x6x20
Tightening torque:200±10Nm

Shaft B



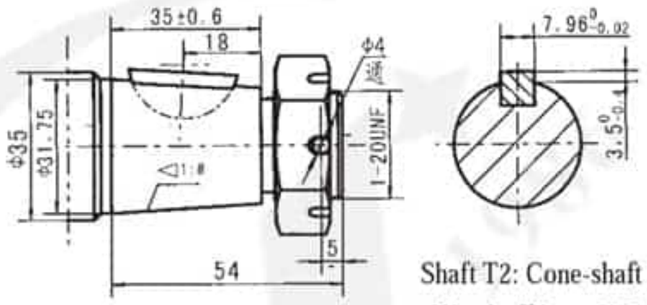
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45

Shaft T3



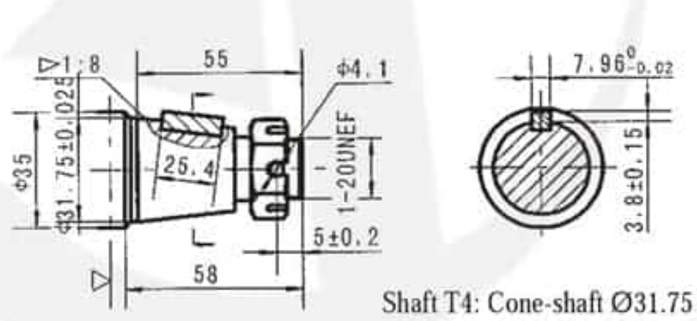
Shaft T3: Cone-shaft Ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm

Shaft T2



Shaft T2: Cone-shaft Ø31.75
Woodruff key Ø25.4x7.96

Shaft T4



Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm

▽ Motor Mounting Surface

Order Information

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Ports	Output Shaft	Rotation direction	Paint	Unusually function
Omit	65	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port 7/8-14 O-ring	T1 Cone-Shaft Ø35,Parallel key B6×6×20	Omit Standard	No paint	Omit Standard
	80		T2 Cone-Shaft Ø31.75,Woodruff key ø25.4×7.96	R Opposite	Blue	
	100	WS	T3 Cone-Shaft Ø31.75,Parallel key 7.96×7.96×31.75		Black	
	125		T4 Cone-Shaft Ø31.75,Parallel key 7.96×7.96×25.4		Sliver Grey	
	160	WD	B Cylindrical Shaft Ø32,Parallel key 10×8×45			
	200	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port G1/2			00 Omit	
	230				B	
	250	WM			S	
	295	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port M22x1.5				
	315					
	375					

Note:When the table is used, please fill the code of left rows in the table and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BMER SERIES HYDRAULIC MOTOR

BMER series motor adapt the advanced Geroler gear set designed with high speed distribution flow and high pressure, and have good stability in low speed , and can keep high volume efficiency. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

* Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.

* The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.

* Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.

* Lowest leakage rate, most accurate timing methods.Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

Type		BMER 125	BMER 160	BMER 200	BMER 230	BMER 250	BMER 300	BMER 350	BMER 375	BMER 475	BMER 540	BMER 750
Geometric displacement (cm^3/rev.)		118	156	196	228	257	296	345	371	462	540	745
Max. speed (rpm)	cont.	360	375	330	290	290	250	220	200	160	140	100
	int.	490	470	425	365	350	315	270	240	195	170	120
Max. torque (N•m)	cont.	325	450	530	625	700	810	905	990	1085	980	1050
	int.	380	525	600	710	790	930	1035	1140	1180	1240	1180
	peak	450	590	750	870	980	1120	1285	1360	1260	1380	1370
Max. output (kW)	cont.	12.0	15.0	15.5	16.0	17.5	18.0	17.5	16.5	14.5	11.5	8.0
	int.	14.0	17.5	18.0	19.0	20.0	21.0	20.0	19.0	16.5	15.0	10.0
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	17.5	14	10.5
	int.	24	24	24	24	24	24	24	24	19	17.5	12
	peak	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	20.5	20.5	14
Max. flow (L/min)	cont.	45	60	70	70	75	80	80	75	75	75	75
	int.	60	75	85	85	90	95	95	90	90	90	90

*Continuous pressure:Max.value of operating motor continuously.

*Intermittent pressure:Max.value of operating motor in 6 seconds per minute .

*Peak pressure:Max.value of operating motor in 0.6 second per minute.

Performance Data

BMER125 [118cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24 (Max.int.)
2	20 **14**	50 **13**	96 **11**	137 **7**				
4	24 **28**	53 **26**	110 **24**	166 **19**	221 **13**			
8		55 **60**	113 **54**	174 **50**	225 **45**	266 **39**	294 **35**	336 **26**
15		53 **115**	114 **110**	180 **100**	234 **96**	275 **90**	326 **84**	348 **76**
25		48 **194**	110 **185**	164 **173**	226 **168**	272 **160**	323 **155**	352 **149**
34			108 **276**	166 **260**	220 **244**	278 **232**	315 **225**	373 **217**
45			98 **362**	160 **350**	215 **342**	271 **325**	308 **322**	369 **303**
53 (Max.cont.)			90 **423**	152 **418**	208 **404**	265 **399**	304 **371**	
60 (Max.int.)			82 **488**	141 **472**	205 **455**	260 **442**	300 **421**	

BMER160 [156cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24 (Max.int.)
2	35 **8**	74 **4**	146 **3**	218 **3**	298 **2**			
4	29 **22**	78 **19**	157 **18**	235 **16**	316 **14**	370 **13**	424 **8**	
8	35 **47**	78 **44**	158 **42**	236 **40**	312 **37**	373 **34**	450 **32**	526 **27**
15	37 **93**	74 **90**	155 **86**	234 **84**	310 **82**	368 **79**	440 **75**	517 **69**
25		68 **155**	152 **151**	227 **147**	308 **142**	364 **137**	436 **131**	499 **124**
34		68 **214**	152 **213**	227 **210**	308 **204**	364 **198**	436 **191**	499 **184**
45		64 **282**	143 **280**	218 **275**	296 **268**	360 **263**	425 **256**	481 **245**
53			135 **330**	216 **327**	293 **322**	357 **315**	421 **306**	476 **296**
60 (Max.cont.)			122 **379**	207 **376**	284 **368**	350 **362**	416 **356**	467 **345**
68			109 **423**	196 **419**	273 **414**	345 **406**	156 **345**	
75 (Max.int.)			104 **472**	188 **466**	270 **270**	337 **450**	156 **337**	

BMER200 [196cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24 (Max.int.)
2	39 **8**	88 **4**	132 **4**	286 **3**	370 **2**			
4	42 **16**	85 **14**	188 **13**	270 **11**	361 **10**	427 **9**	506 **6**	
8	43 **35**	90 **32**	192 **29**	291 **28**	367 **27**	450 **25**	529 **23**	600 **19**
15	38 **74**	92 **71**	196 **68**	298 **64**	381 **60**	462 **58**	530 **55**	602 **50**
25		82 **124**	188 **121**	283 **117**	377 **113**	456 **108**	528 **103**	605 **92**
34		79 **170**	183 **169**	270 **167**	362 **160**	447 **154**	515 **146**	591 **135**
45			163 **223**	259 **218**	352 **212**	441 **208**	510 **199**	593 **189**
53			149 **260**	256 **258**	350 **254**	440 **248**	501 **241**	582 **230**
60			132 **299**	248 **292**	336 **284**	432 **276**	497 **272**	575 **263**
68 (Max.cont.)			120 **336**	230 **332**	330 **327**	412 **319**	486 **310**	570 **301**
75			108 **375**	208 **372**	311 **365**	403 **358**	480 **350**	
85 (Max.int.)				184 **425**	280 **420**	380 **411**	462 **390**	

Torque (N•m) 380
Speed (rpm) **411**

BMER230 [228cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24 (Max.int.)
2	44 **6**	90 **4**	182 **3**	291 **2**	374 **1**			
4	48 **15**	100 **13**	216 **11**	310 **11**	405 **9**	484 **7**	549 **3**	
8	50 **31**	104 **29**	212 **27**	320 **25**	421 **23**	518 **20**	603 **16**	700 **10**
15	44 **63**	106 **61**	207 **58**	318 **55**	426 **52**	529 **47**	623 **41**	712 **34**
25		101 **103**	209 **100**	324 **96**	428 **92**	532 **87**	620 **81**	705 **71**
34		88 **145**	205 **143**	316 **139**	421 **133**	522 **126**	623 **120**	702 **109**
45			186 **192**	294 **187**	422 **182**	507 **176**	595 **170**	688 **160**
53			175 **226**	290 **221**	393 **215**	496 **208**	584 **203**	678 **194**
60			152 **256**	270 **253**	390 **248**	485 **242**	569 **235**	661 **222**
68 (Max.cont.)			140 **292**	265 **288**	351 **283**	482 **278**	563 **273**	642 **256**
75			124 **324**	235 **321**	344 **344**	448 **308**	552 **300**	
85 (Max.int.)				207 **366**	335 **360**	442 **351**	546 **338**	

cont.
int.

BMER250 [257cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	Max.cont. 20.5	Max.int. 24
2	48 **5**	111 **2**						
4	54 **12**	113 **11**	237 **10**	362 **9**	471 **8**	570 **6**	642 **3**	
8	54 **27**	115 **26**	244 **24**	366 **22**	482 **20**	587 **18**	688 **14**	
15	50 **57**	113 **56**	256 **54**	367 **51**	485 **48**	591 **45**	692 **43**	794 **37**
25	44 **95**	114 **93**	241 **90**	360 **86**	488 **82**	593 **77**	699 **72**	782 **63**
34		95 **129**	226 **125**	348 **121**	481 **116**	590 **111**	686 **106**	774 **96**
45		77 **174**	215 **173**	346 **170**	468 **166**	572 **161**	674 **155**	779 **143**
53		66 **203**	200 **202**	325 **200**	448 **196**	564 **190**	657 **184**	756 **175**
60			180 **232**	296 **229**	438 **225**	550 **220**	642 **215**	741 **202**
68			162 **262**	294 **261**	415 **257**	548 **250**	637 **241**	730 **228**
Max.cont. 75			137 **290**	274 **289**	388 **388**	520 **280**	618 **273**	726 **260**
85			130 **328**	261 **326**	370 **322**	509 **316**	604 **307**	
Max.int. 90			85 **348**	224 **347**	358 **344**	490 **336**		

BMER300 [296cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	Max.cont. 20.5	Max.int. 24
2	50 **3**	93 **1**						
4	62 **11**	141 **10**	294 **9**	429 **8**	502 **7**	618 **4**		
8	63 **22**	147 **21**	298 **20**	432 **19**	565 **16**	667 **13**	761 **9**	819 **5**
15	66 **48**	144 **47**	305 **45**	427 **43**	568 **39**	671 **33**	810 **28**	894 **20**
25	59 **82**	138 **81**	289 **80**	420 **76**	552 **71**	676 **64**	791 **56**	932 **44**
34	48 **113**	130 **112**	297 **110**	393 **107**	562 **102**	689 **96**	805 **86**	926 **73**
45		96 **150**	268 **149**	385 **148**	527 **143**	636 **135**	753 **124**	880 **112**
53		76 **177**	242 **176**	383 **175**	524 **173**	631 **165**	758 **152**	900 **138**
60		64 **200**	225 **199**	362 **198**	506 **193**	627 **186**	753 **174**	892 **162**
68			200 **225**	333 **224**	470 **222**	630 **212**	750 **201**	882 **194**
Max.cont. 75			178 **251**	322 **250**	464 **464**	610 **240**	741 **232**	870 **215**
85			140 **285**	316 **284**	455 **278**	570 **270**	728 **257**	
Max.int. 95			106 **316**	260 **314**	431 **311**	552 **307**	700 **292**	

BMER350 [345cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	Max.cont. 20.5	Max.int. 24
2	63 **4**	133 **4**						
4	64 **10**	135 **9**	290 **8**	440 **7**				
8	68 **21**	146 **20**	310 **20**	458 **19**	589 **18**	735 **16**	847 **12**	
15	72 **42**	150 **41**	314 **40**	468 **39**	627 **37**	769 **35**	880 **32**	984 **26**
25	63 **70**	148 **69**	313 **68**	470 **66**	628 **63**	765 **60**	892 **55**	1018 **46**
34	52 **97**	133 **96**	304 **95**	455 **93**	619 **89**	760 **85**	905 **78**	1034 **68**
45		100 **129**	261 **128**	442 **127**	583 **125**	736 **118**	887 **112**	1028 **101**
53		85 **152**	247 **150**	418 **148**	566 **145**	715 **139**	880 **132**	1024 **118**
60		65 **171**	233 **170**	410 **169**	550 **167**	712 **162**	842 **155**	996 **143**
68			218 **195**	387 **194**	543 **190**	696 **185**	825 **175**	976 **162**
Max.cont. 75			206 **215**	373 **214**	515 **515**	680 **206**	822 **197**	966 **183**
85			176 **243**	355 **242**	510 **239**	679 **234**	808 **227**	
Max.int. 95				353 **272**	509 **269**	645 **265**		

Torque (N•m) 645
Speed (rpm) **265**

BMER375 [371cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	Max.cont. 20.5	Max.int. 24
2	75 **3**							
4	83 **8**	160 **8**	330 **7**	488 **6**	636 **5**	761 **3**		
8	81 **18**	170 **17**	356 **17**	527 **16**	679 **14**	822 **12**	948 **9**	1060 **5**
15	76 **39**	162 **38**	356 **37**	533 **35**	683 **32**	845 **29**	978 **25**	1102 **18**
25	68 **65**	156 **64**	350 **62**	524 **59**	680 **55**	857 **48**	994 **44**	1138 **35**
34	58 **90**	148 **89**	339 **87**	506 **83**	690 **77**	841 **71**	993 **63**	1145 **53**
45		121 **120**	302 **119**	478 **117**	650 **113**	813 **108**	972 **100**	1134 **90**
53		95 **141**	282 **140**	466 **138**	628 **134**	785 **128**	934 **120**	1103 **105**
60		75 **161**	264 **161**	428 **160**	592 **158**	766 **155**	925 **151**	1070 **141**
68			232 **182**	422 **180**	585 **176**	756 **169**	901 **161**	1066 **148**
Max.cont. 75			207 **201**	380 **200**	556 **556**	738 **190**	865 **181**	1012 **165**
85			175 **228**	370 **226**	526 **221**	700 **216**	832 **206**	
Max.int. 90			148 **242**	316 **240**	500 **237**	654 **226**		

cont.
int.

BMER475 [462cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5 (Max.cont.)	20.5 (Peak)
2	93 **2**	186 **1**					
4	98 **7**	202 **6**	405 **5**	608 **5**	805 **4**		
8	98 **15**	206 **14**	430 **13**	652 **13**	844 **12**	1005 **10**	1180 **8**
15	94 **31**	202 **30**	441 **28**	654 **28**	875 **26**	1056 **23**	1238 **20**
25	94 **52**	202 **51**	441 **48**	654 **45**	875 **43**	1056 **39**	1238 **35**
34	75 **72**	180 **71**	420 **68**	660 **65**	850 **61**	1085 **55**	1266 **44**
45		144 **96**	380 **95**	627 **93**	835 **90**	1062 **84**	1261 **73**
53		116 **113**	346 **112**	573 **111**	795 **107**	1008 **102**	1212 **90**
60		82 **128**	318 **128**	539 **127**	790 **124**	975 **119**	1186 **110**
68		58 **146**	272 **145**	520 **144**	740 **141**	955 **136**	1156 **125**
Max.cont. 75			230 **161**	480 **160**	702 **158**	920 **153**	1116 **140**
85			200 **182**	454 **180**	662 **177**	876 **168**	
Max.int. 90			150 **194**	378 **193**	615 **190**	840 **182**	

BMER540 [540cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14 (Max.cont.)	17.5 (Max.int.)
2	105 **2**	198 **2**				
4	125 **6**	231 **5**	470 **5**	688 **4**	932 **4**	1136 **3**
8	134 **13**	238 **13**	496 **12**	749 **11**	966 **11**	1175 **8**
15	122 **27**	230 **26**	505 **26**	750 **25**	981 **24**	1218 **21**
25	100 **44**	225 **43**	500 **42**	774 **41**	986 **39**	1220 **35**
34	80 **62**	212 **61**	481 **60**	748 **58**	977 **54**	1243 **49**
45		173 **82**	437 **82**	714 **81**	936 **79**	1190 **75**
53		142 **97**	416 **97**	678 **96**	938 **94**	1170 **89**
60		106 **110**	380 **110**	664 **109**	896 **108**	1158 **106**
68		85 **125**	357 **124**	616 **124**	870 **123**	1108 **120**
Max.cont. 75			318 **138**	600 **137**	826 **826**	1100 **132**
85			292 **154**	538 **153**	780 **152**	
Max.int. 90			214 **169**	486 **168**	755 **168**	

Torque (N•m) 486
Speed (rpm) **168**

BMER750 [745cm³/rev.]

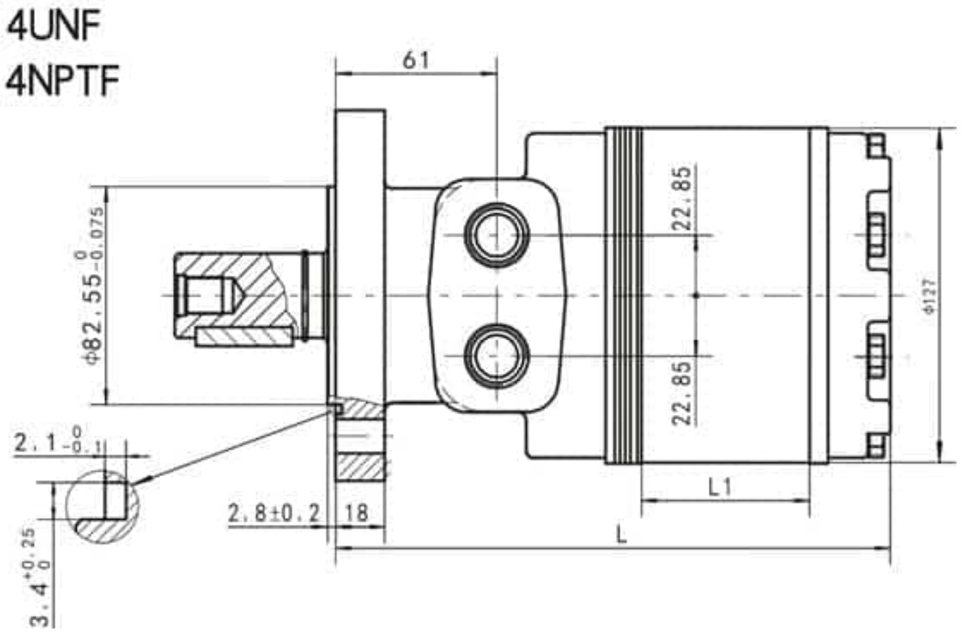
Pressure (MPa)

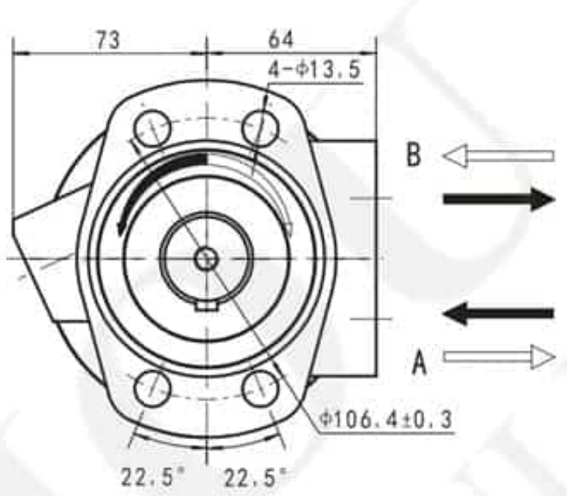
Flow (L/min)	1.75	3.5	7	10.5 (Max.cont.)	12 (Max.int.)	14 (Peak)
2	145 **2**	280 **1**				
4	160 **4**	321 **4**	654 **4**	960 **3**	1115 **3**	1312 **2**
8	162 **9**	335 **9**	688 **9**	1026 **8**	1159 **8**	1347 **7**
15	156 **19**	330 **19**	694 **18**	1047 **18**	1184 **17**	1376 **16**
25	142 **32**	320 **31**	688 **30**	1046 **30**	1179 **29**	1373 **27**
34	110 **44**	288 **44**	658 **42**	1021 **41**	1169 **40**	1366 **37**
45	71 **60**	242 **59**	620 **59**	982 **58**	1143 **58**	1345 **55**
53		202 **70**	568 **69**	941 **68**	1105 **67**	1308 **66**
60		140 **79**	527 **78**	898 **77**	1086 **76**	1286 **74**
68		100 **90**	486 **90**	852 **89**	1034 **88**	1251 **87**
Max.cont. 75		65 **99**	425 **99**	812 **98**	980 **97**	1178 **96**
83			395 **110**	745 **109**	906 **108**	
Max.int. 90			298 **120**	660 **119**	800 **117**	

cont.
int.

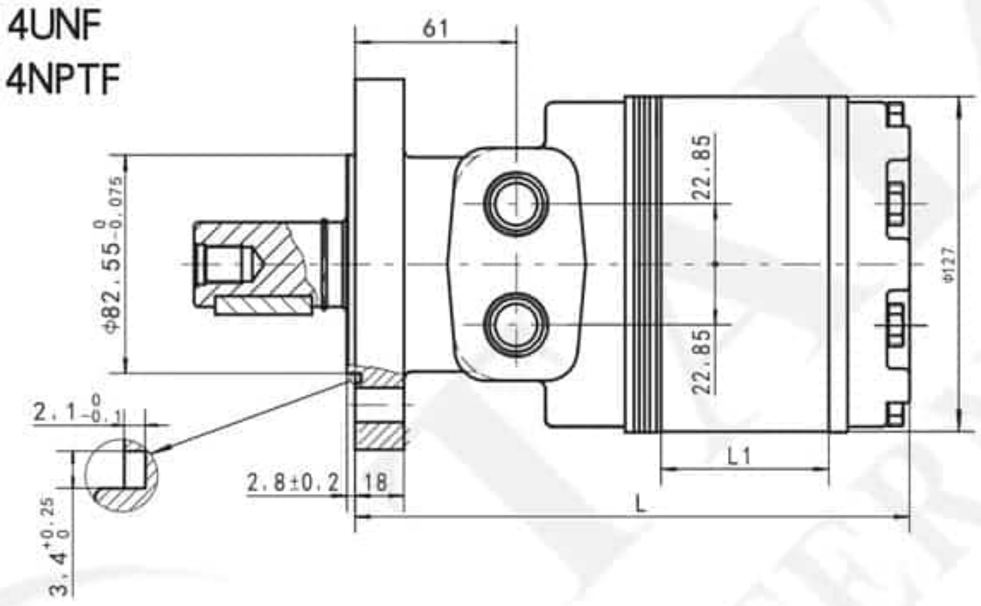
BMER-2 DIMENSIONS MOUNTING DATA

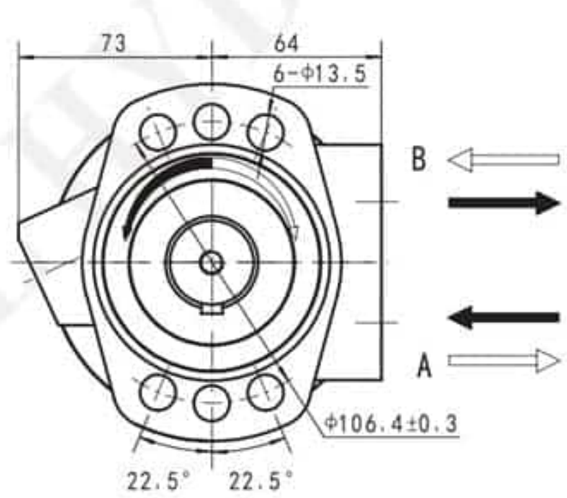
Magneto Mount 4—Hole
Code: Port A、B
MS 7/8—14UNF
MP 1/2—14NPTF
MD G1/2



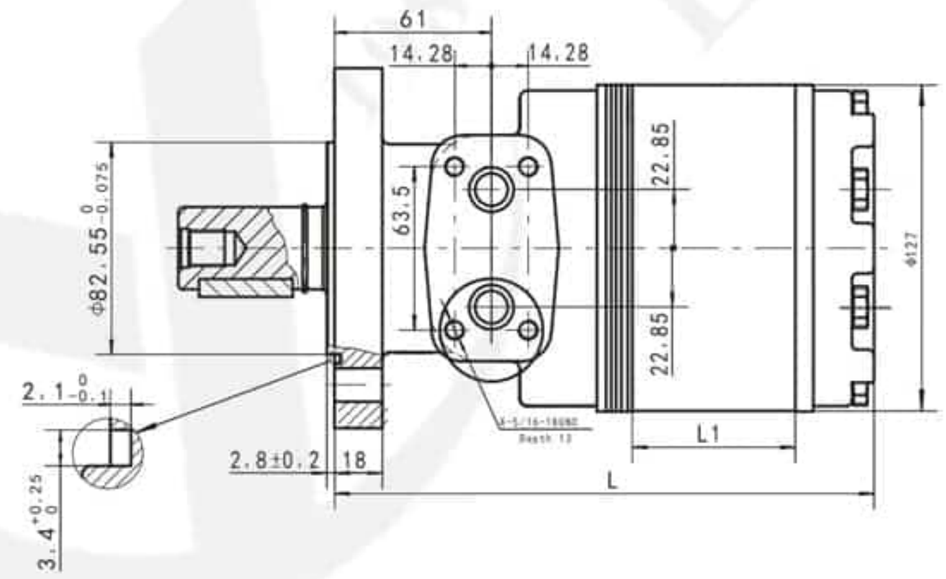


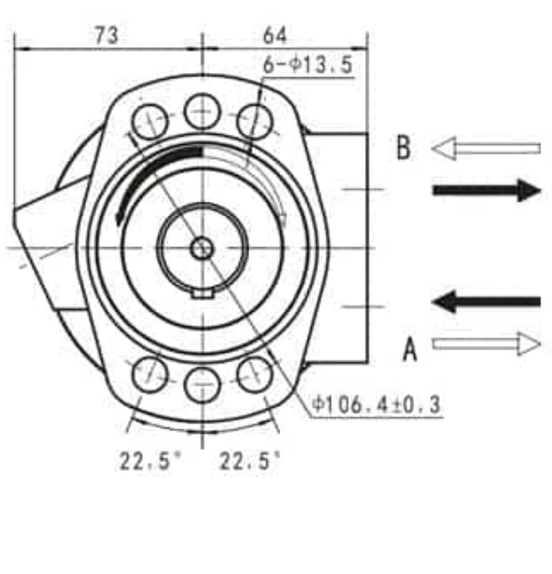
Magneto Mount 6—Hole
Code: Port A、B
FS 7/8—14UNF
FP 1/2—14NPTF
FD G1/2





Magneto Mount 6—Hole
Code:Manifold PortA、B
FH Ø12.7

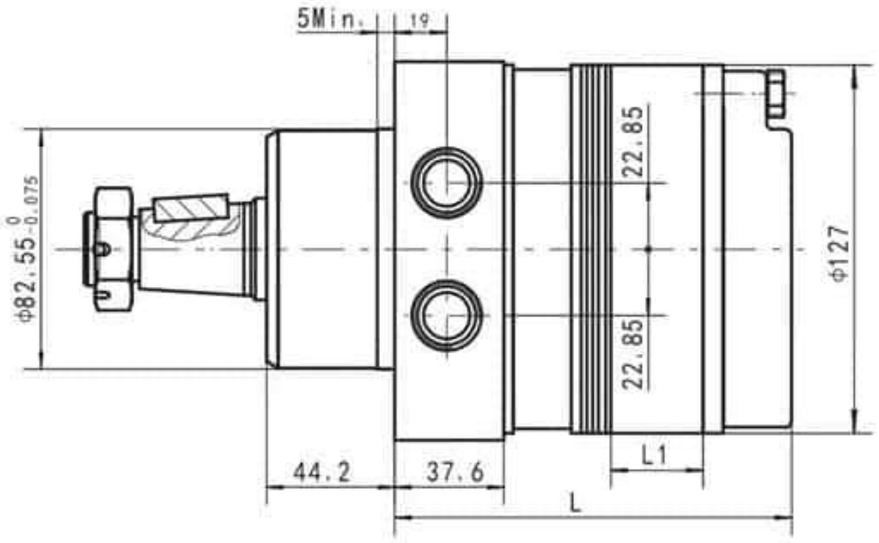


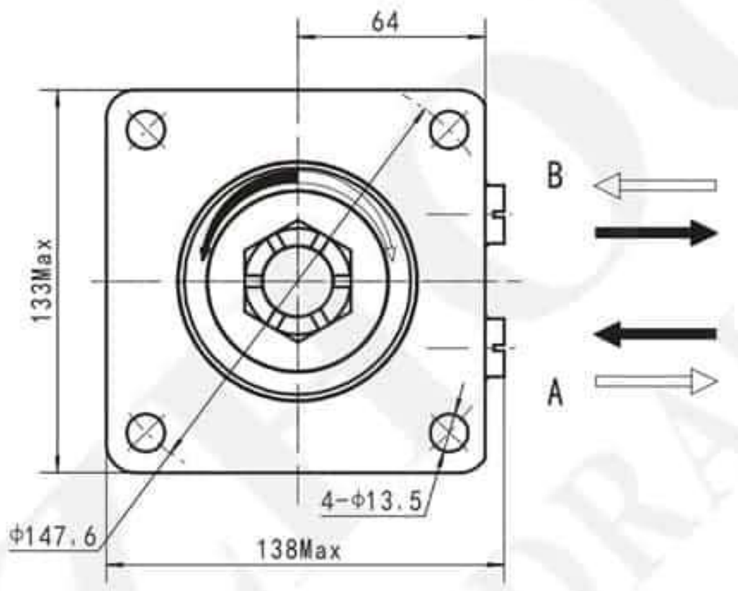


Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	475	540	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	39.4	47.3	63.5
L(mm)	157	160	163.5	166	168.5	172	176	178.5	186	194	210
Weight(kg)	10.6	10.9	11.2	11.3	11.4	11.6	12	12.5	13	13.5	15

BMER-2 DIMENSIONS MOUNTING DATA

Wheel Mount
Code: Port A、B
WS 7/8—14UNF
WP 1/2—14NPTF
WD G1/2

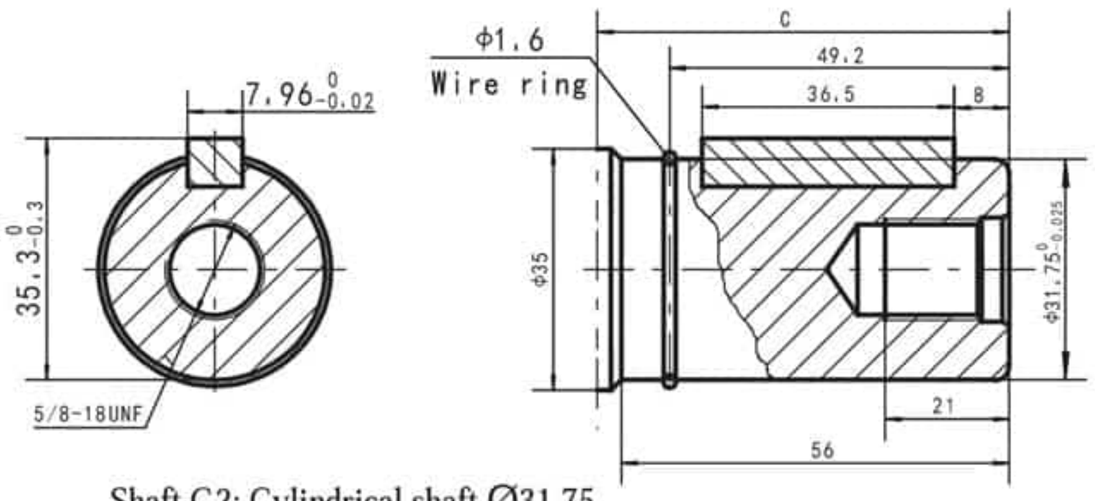




Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	475	540	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	39.4	47.3	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	148	156	176
Weight(kg)	12	12.1	12.3	12.4	12.6	13	13.2	13.5	14	14.6	16

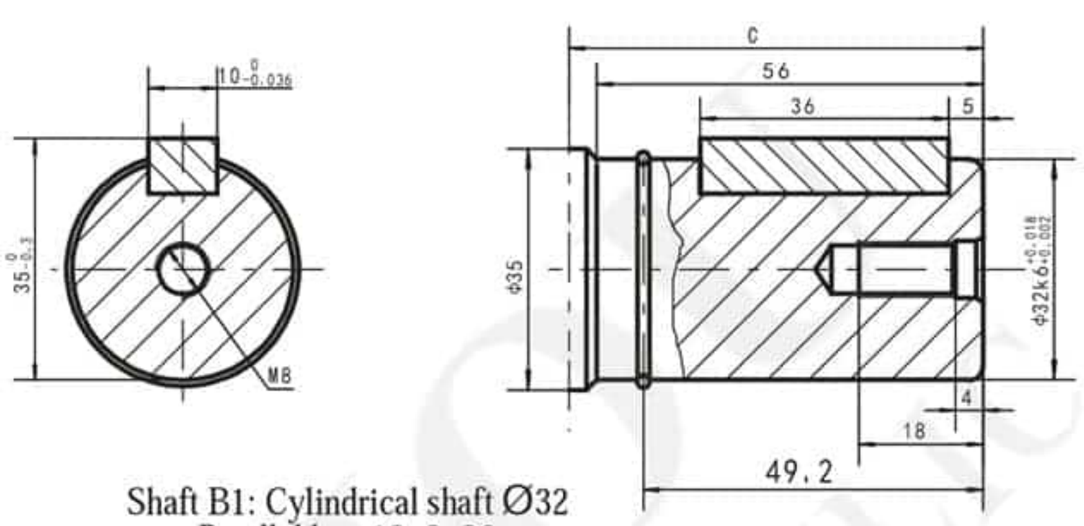
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft G2



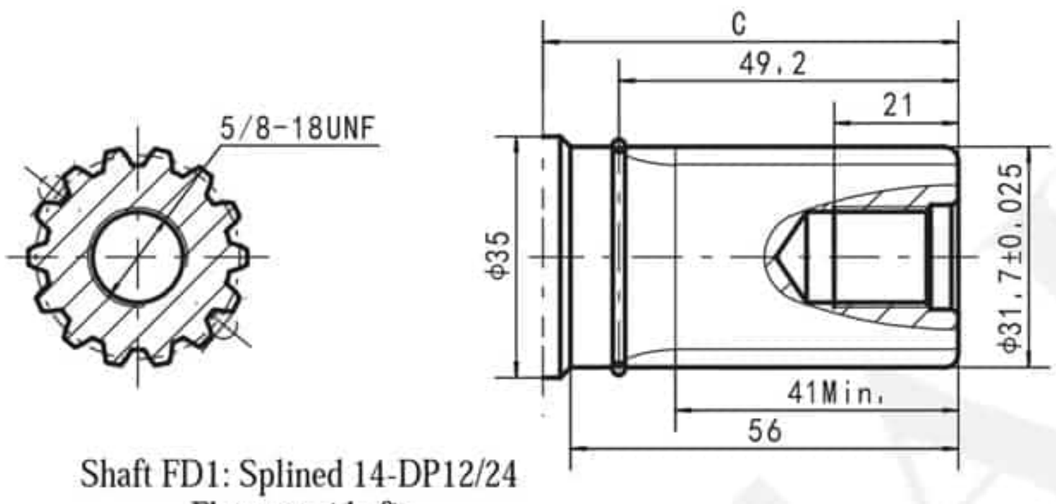
Shaft G2: Cylindrical shaft Ø31.75
Parallel key 7.96x7x36.5

Shaft B1



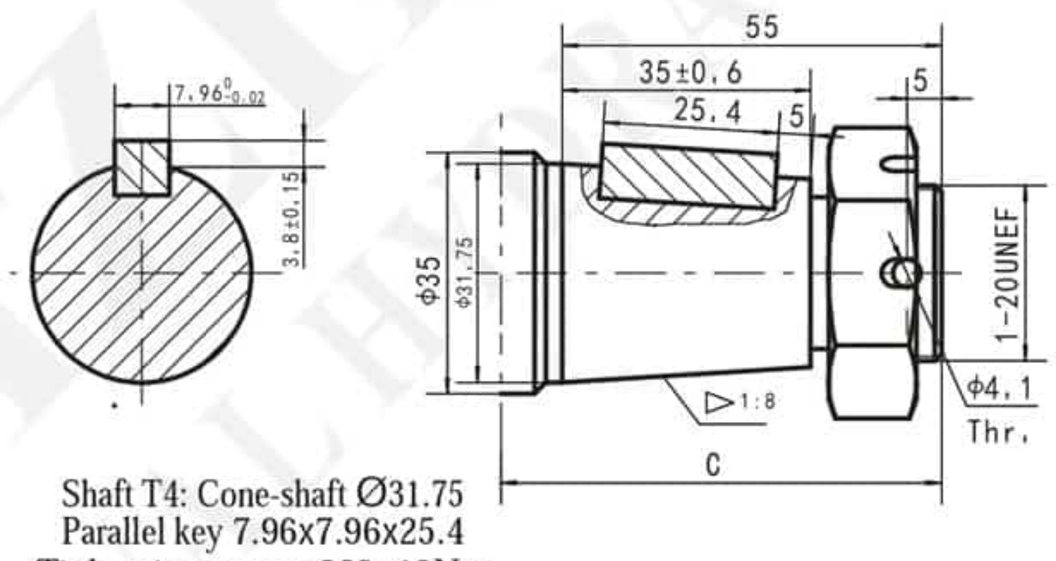
Shaft B1: Cylindrical shaft Ø32
Parallel key 10x8x36

Shaft FD1



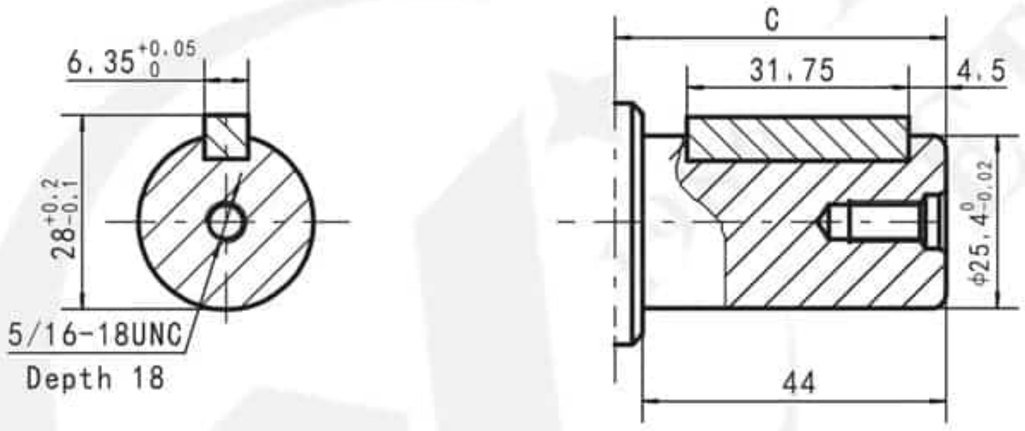
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



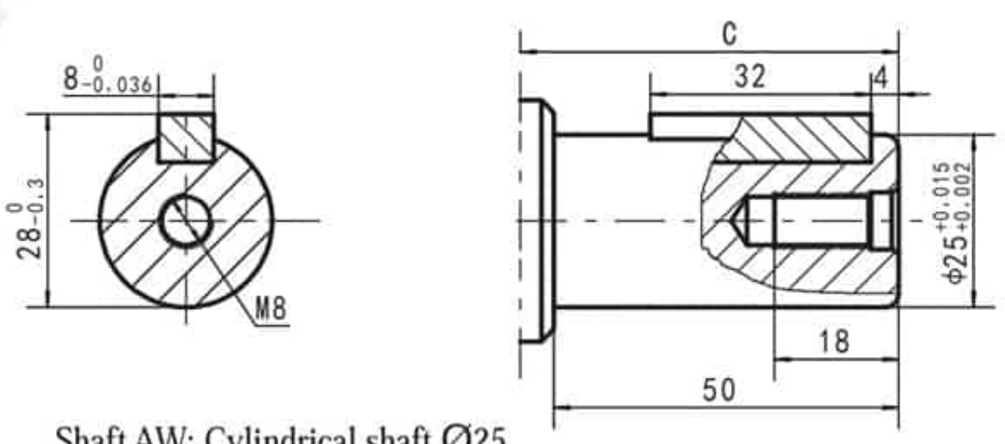
Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm

Shaft RW



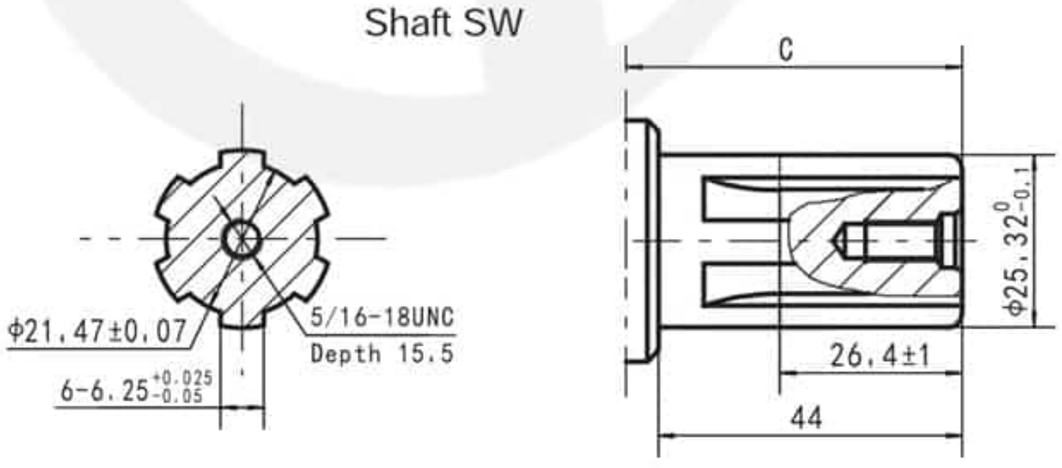
Shaft RW: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

Shaft AW



Shaft AW: Cylindrical shaft Ø25
Parallel key 8x7x32

Shaft SW

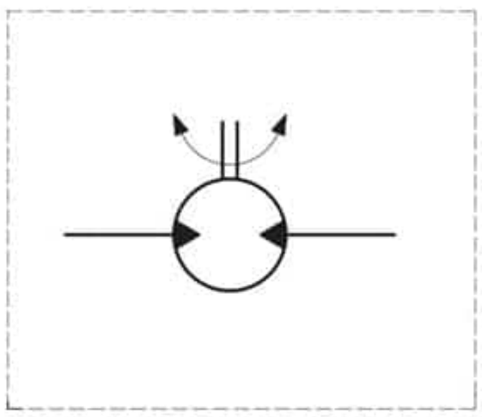


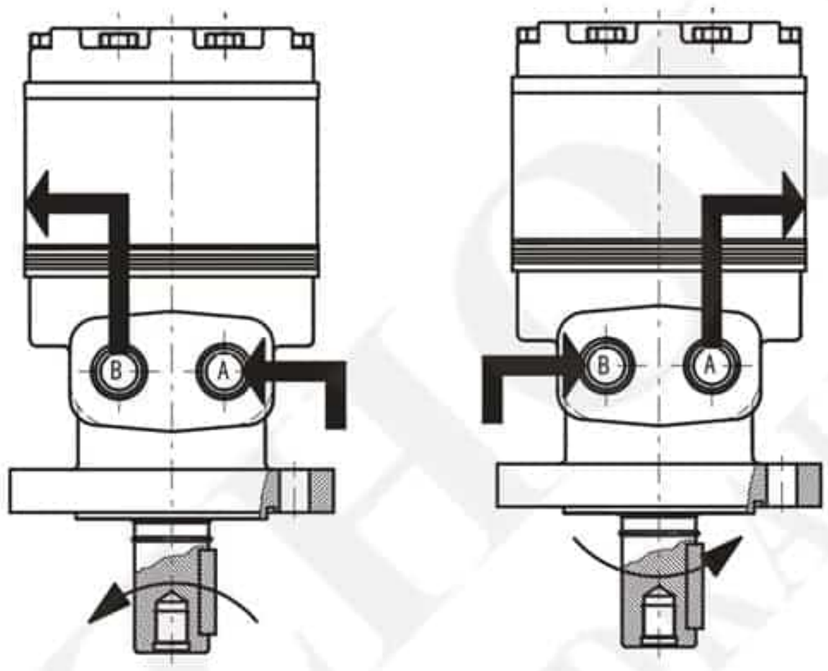
Shaft SW: Splined SAE 6B

From Mounting Flange to Shaft End		
Dimension C		
Shaft Code	Magneto Mount (mm)	Wheel Mount (mm)
G2	61	103
B1	61	103
FD1	61	103
T4	65	107
RW	50	91
AW	56	97
SW	50	91

BMER-2 Series Hydraulic Motor

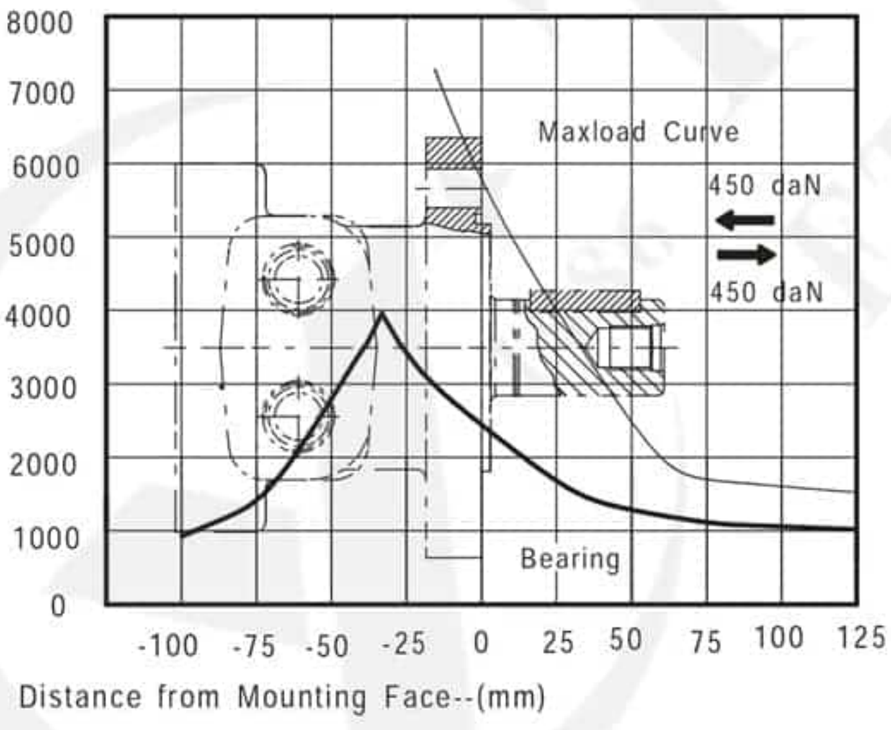
Direction of shaft rotation: Reverse timed
When facing shaft end of motor,shaft to rotate:
Clockwise when port "B" is pressurized.
Counter-clockwise when port "A" is pressurized.



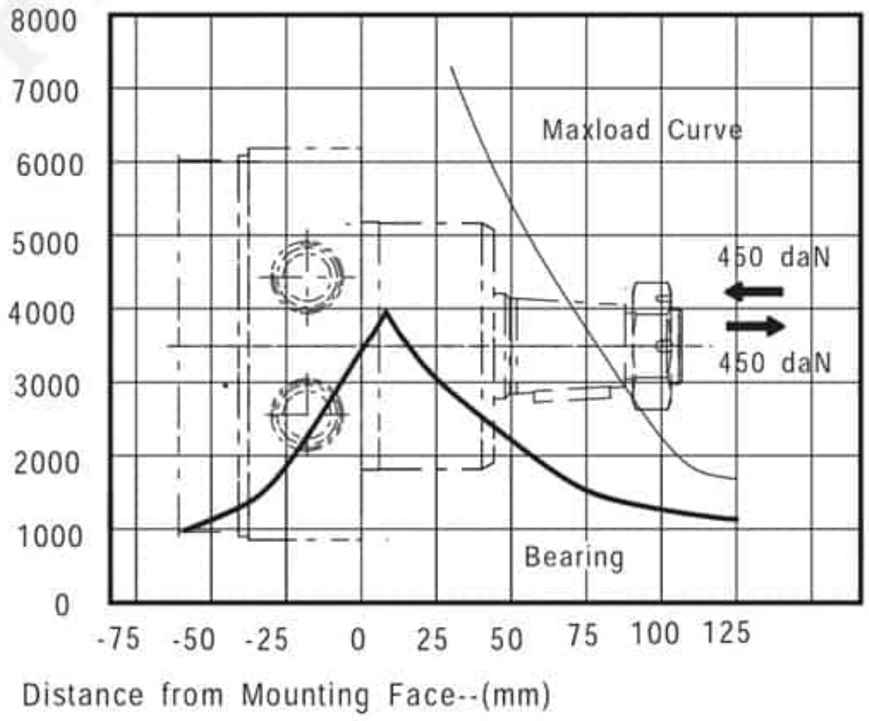


Axial and Radial forces

BMER-2 or M#/F# Mounting



BMER-2 for W# Mounting



The bearing curve represents allowable bearing loads for an L^{10} bearing life at $3x10^6$ revolutions.
The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

Order Information

BMER- 1 – 2 – 3 – 4 – 5 – 6 – 7

Pos.1	2	3		4		5		6		7	
Code	Disp.	Flange , Pilot , Ports		Output Shaft		Rotation direction		Paint		Unusually function	
2	125 160 200 230 250 300 350 375 475 540 750	MS	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring	G2	Shaft Ø31.75 , parllel key 7.96x7x36.5	None	Standard	00	No paint	None	Standard
		MP	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF	B1	ShaftØ32, Parallel key 10×8×45	R	Reverse	None	Blue		
		MD	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2	FD1	Shaft Ø31.75, splined key 14-DP12/24		Timed	B	Black		
		FS	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring	T4	Cone-Shaft Ø31.75, Parallel key 7.96×7.96×25.4			S	Sliver Grey		
		FP	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF	RW	Shaft Ø25.4 , parllel key 6.35×6.35×31.75						
		FD	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2	AW	Shaft Ø25 , parllel key 8×7×32						
		FH	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Manifold Ports 1/2	SW	Shaft Ø25.4 ,splined key SAE 6B						
		WS	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring								
		WP	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF								
		WD	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2								

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.

BK2 SERIES HYDRAULIC BRAKE

Introduction

BK2 series brake is one kind of hydraulic wet disc brake. The brake force is caused by the spring, and hydraulic pressure releases the brake force.
Features as follows:
* BK2 series adopts the special friction disc and high strength spring design: long life endurance, low noise, high braking reliability.
* with 4 Drain port design , the brake can be used in different applications.
* compact structure, easy mounting.
* it can be used preferentially together with BMP, BMR, BMS series hydraulic motor.

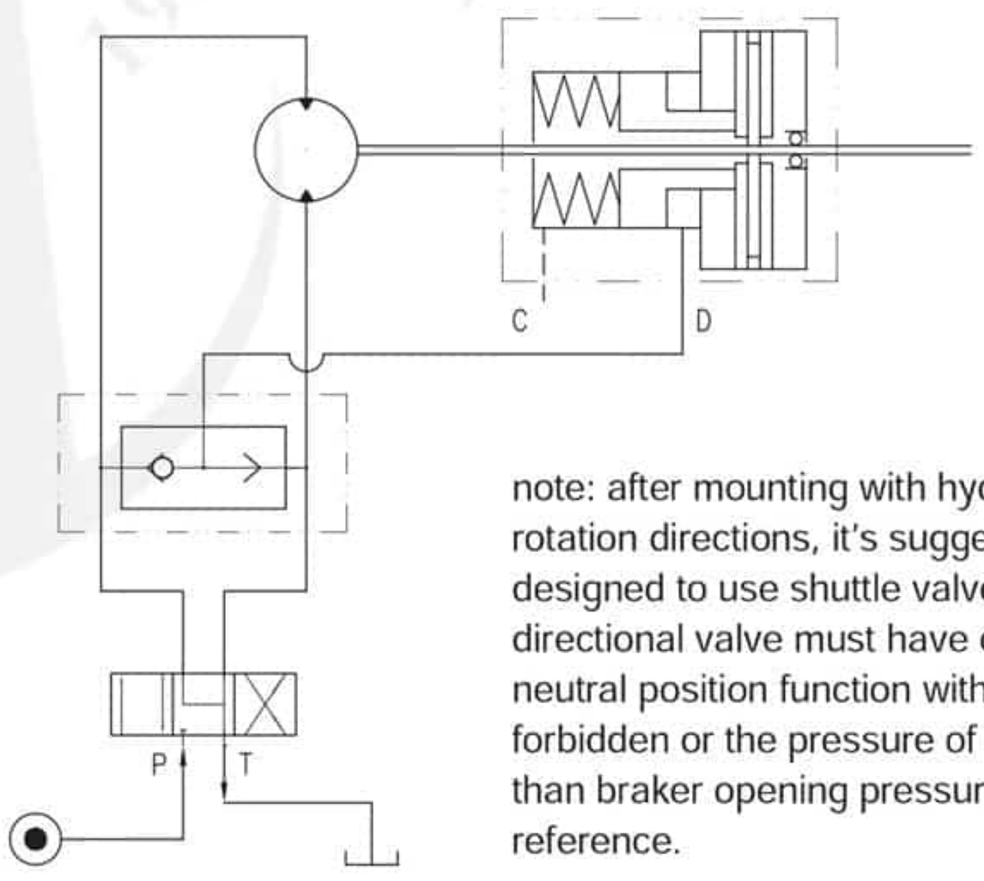
Application

BK2 series hydraulic brake stays in braking condition since delivery out of the factory. During normal operation, there exists the braking force in the brake disc, only if the pressure of hydraulic system, that the brake links , is lower than the pressure required by the release of brake, the spring force shall keep the brake in braking condition.
BK2 series hydraulic brake is widely used in heavy duty machinery, such as engineering machinery, cranes, off-highway machinery vehicles, construction machinery, material handling machinery, agricultural machinery, mining, sanitation machinery, timber industries. They are also used in winches and in hydrostatic drive systems for automatization engines.
Special Note: such kind of brake is only used in static parking brake.Dynamic braking is not recommended.

Intruction Manual

一、In order to make the BK2 series brake work under the best situation, we recommend the normal requirements as follows:
1.Assembly: 1st of all , we have to mount the brake BK2 with hydraulic motor, and then fill the brake with lubrication oil through the drain port, and then mount with other parts.
2.Fluid type：Mineral based-HM(GB/T763.2-87) (ISO6743/4) or HLP(DIN51524).
3.Temperature range:normal -20℃—90℃the best optimal situation 20℃—60℃
4.Viscosity range： 20～75mm²/s; the best optimal situation 42～74mm²/s at 40℃.
5.Filtration：nominal filtration of 25 micron, ISO code 20/16.
6.Maintenance: changed after the first 50～100h； then after every 500～1000h.

Typical Applications Drawing

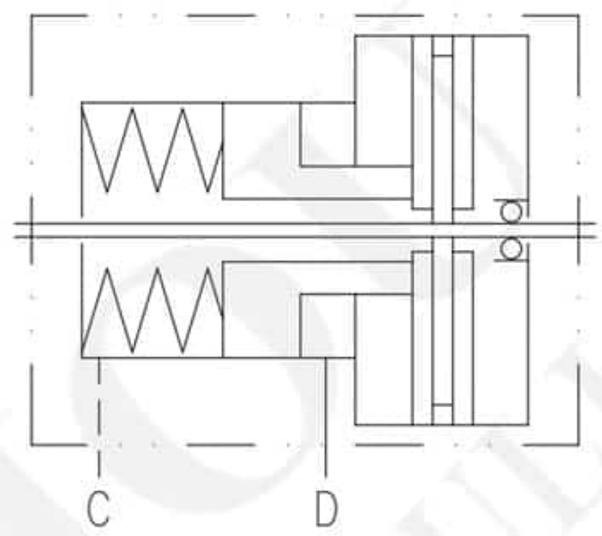


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function(type Y or H), the neutral position function without off-load function (type O) is forbidden or the pressure of the outlet port in the system is larger than braker opening pressure. Please check the drawing for reference.

Specification Data

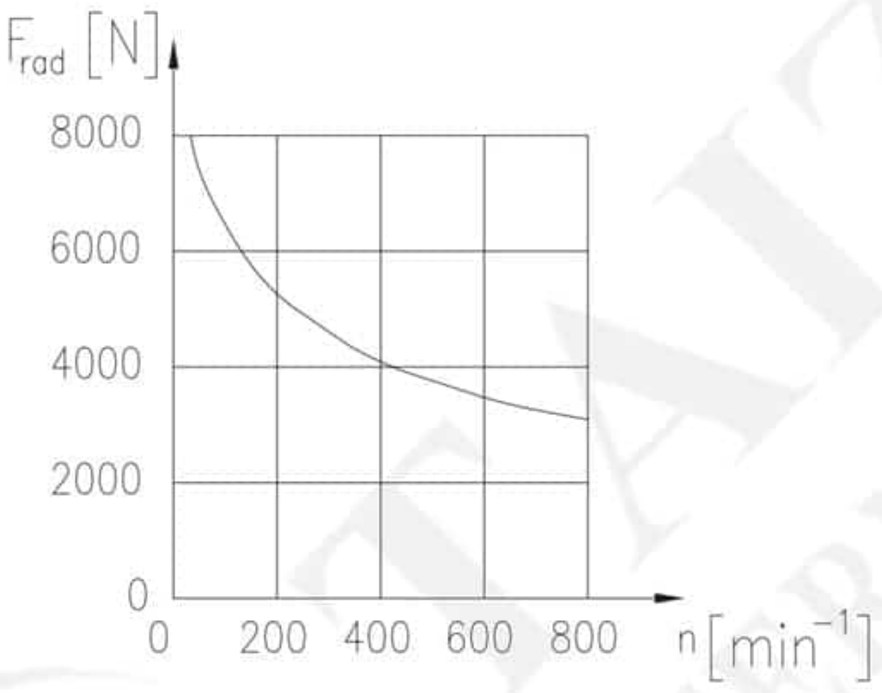
Item	BK2-1		BK2-2
Min. static Torque [Nm]	200～230	410～450	410～450
Min. Opening Pressure [MPa]	1.7～2.3		
Max. Opening Pressure [MPa]	30		
Min.oil quantity for brake releasing[cm^3]	7～8		
Oil volume [cm^3]	50～120		
Max. pressure in drain space [MPa]	0.05		
Weight [kg]	9		9.5

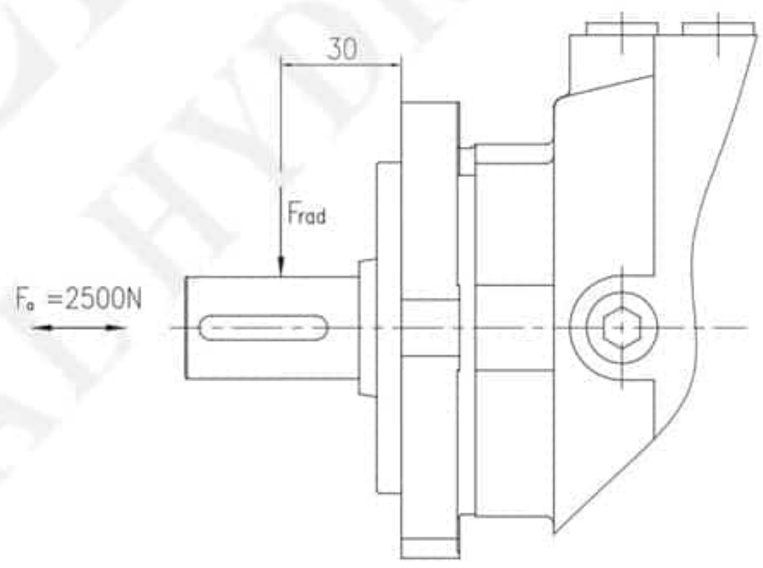
*Static torque is obtained at working pressure 0 MPa



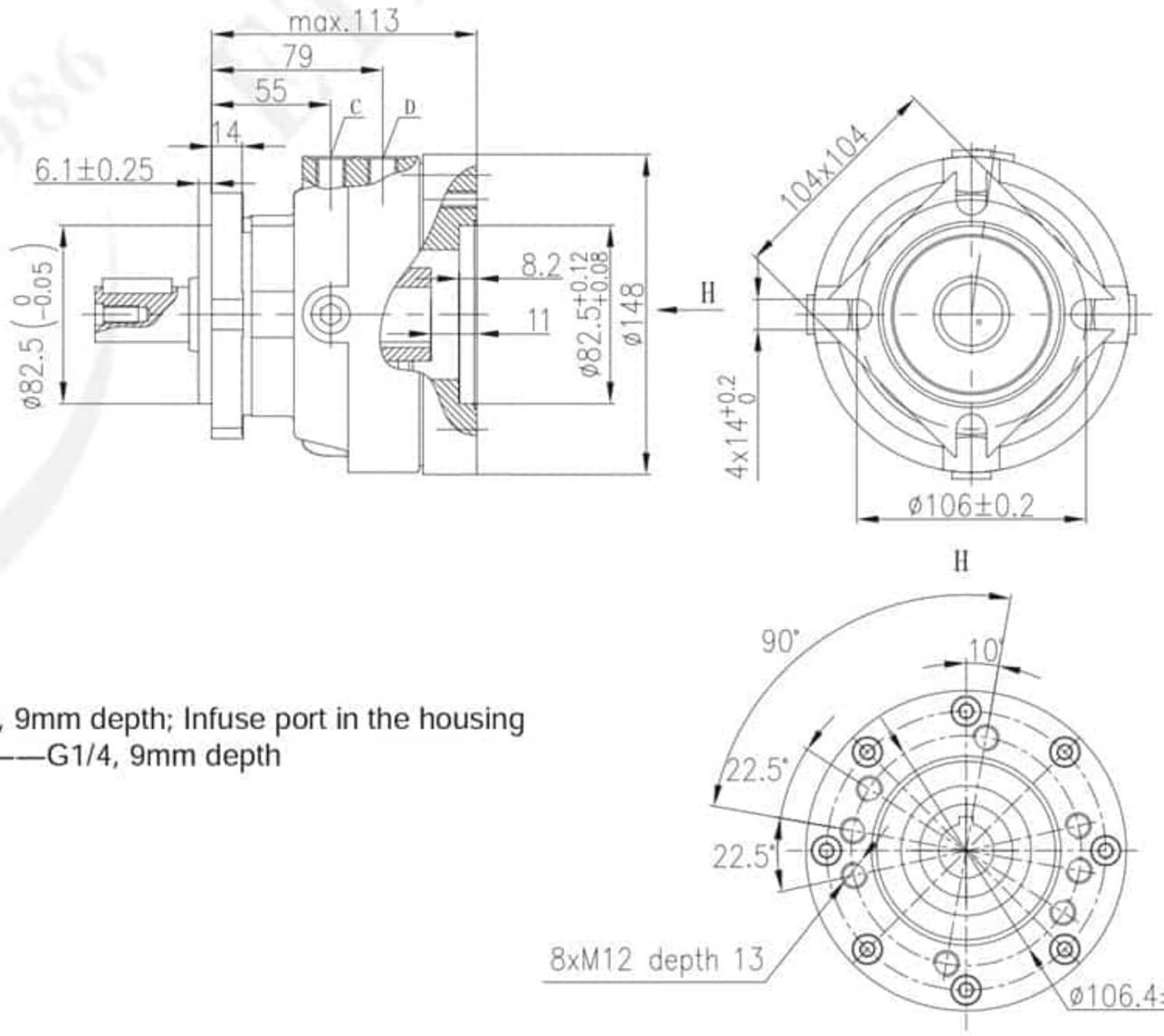
symble drawing

Load Curve



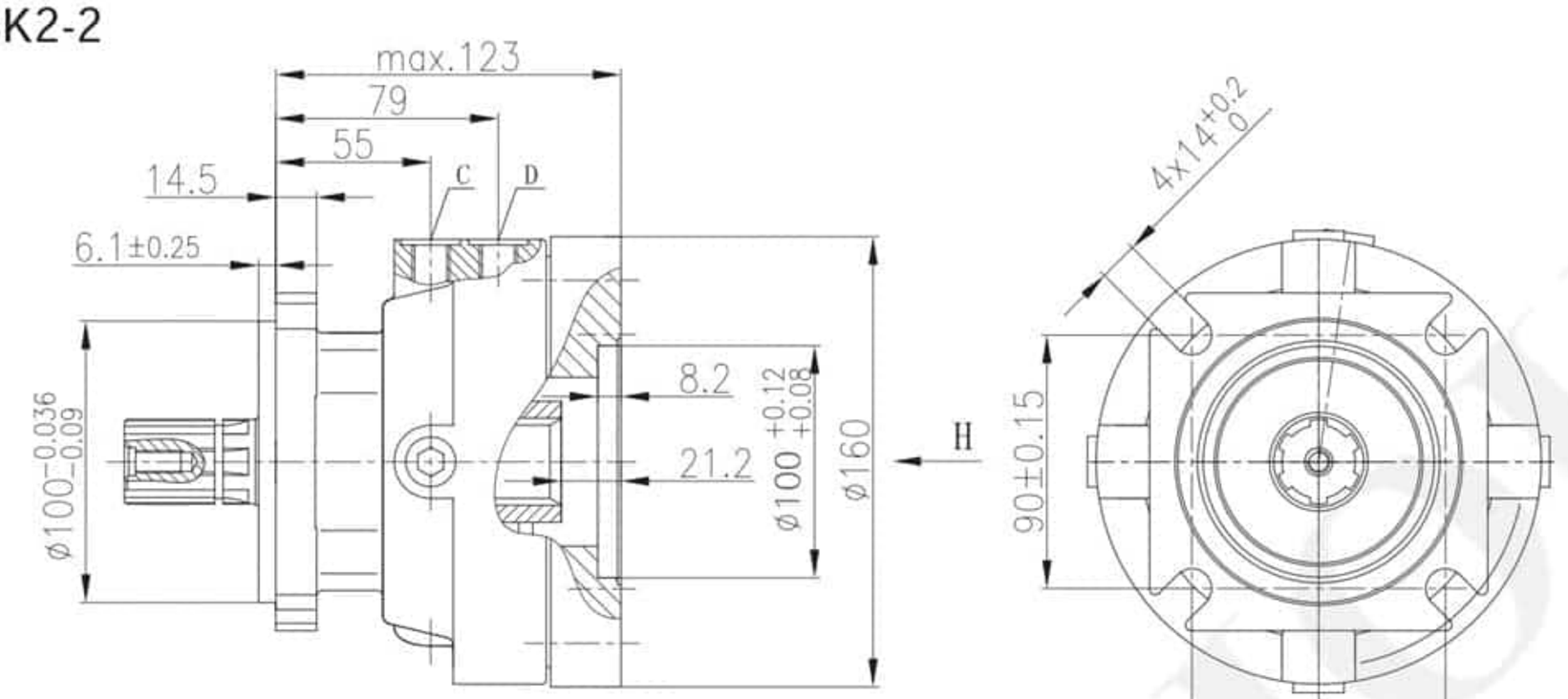


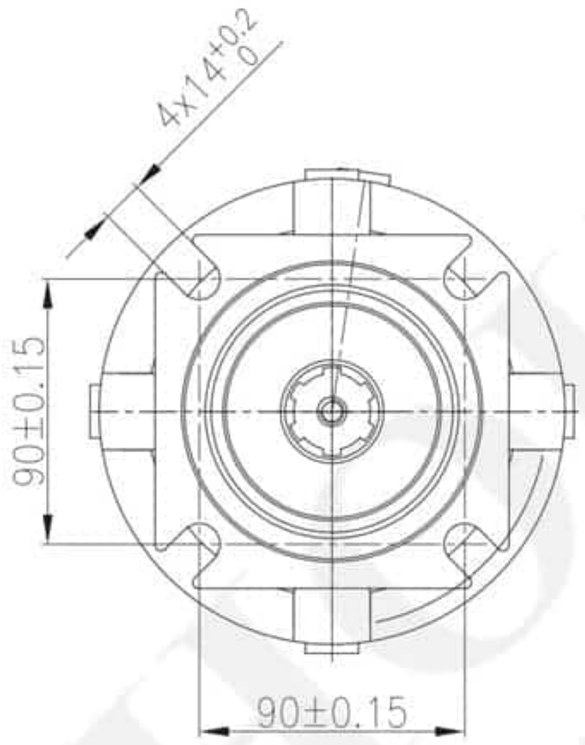
Mounting Data
Model BK2-1



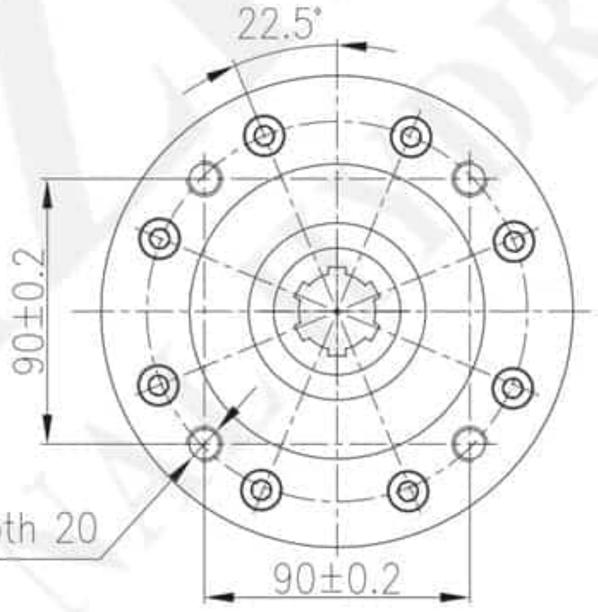
C Drain port——G1/4, 9mm depth; Infuse port in the housing
D Brake release port——G1/4, 9mm depth

Model BK2-2



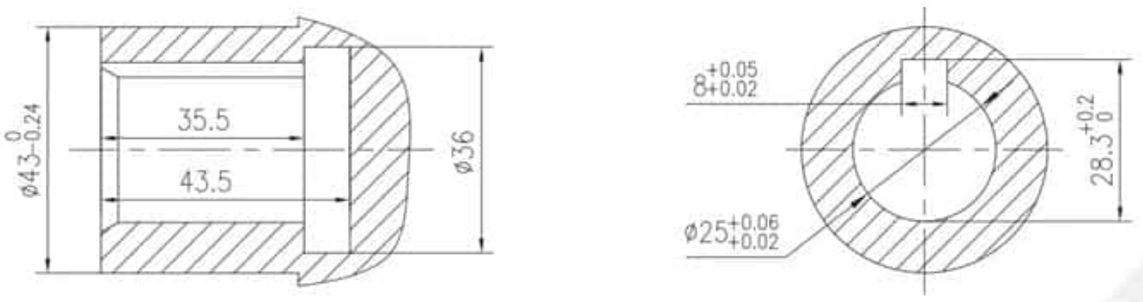


C Drain port——G1/4, 9mm depth; Infuse port in the housing
D Brake release port——G1/4, 9mm depth

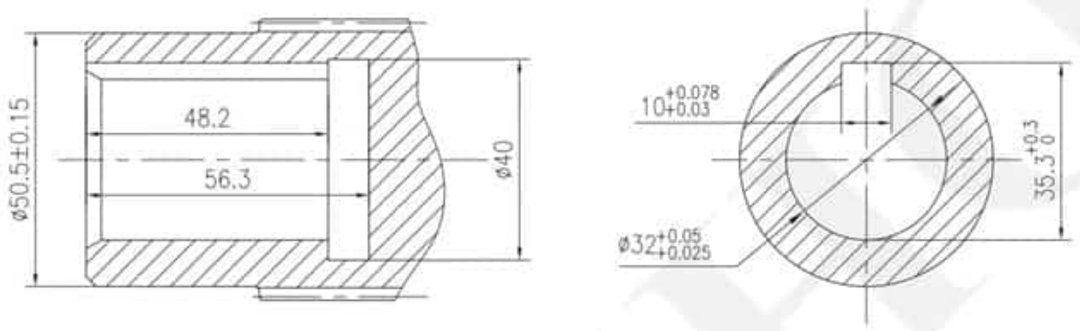


INPUT & OUTPUT SHAFT DATA
INPUT SHAFT HOLES

A

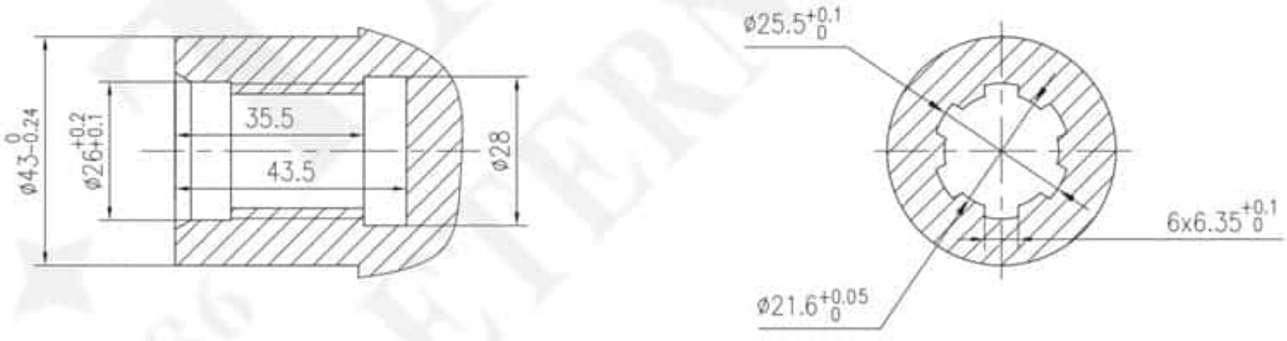


B

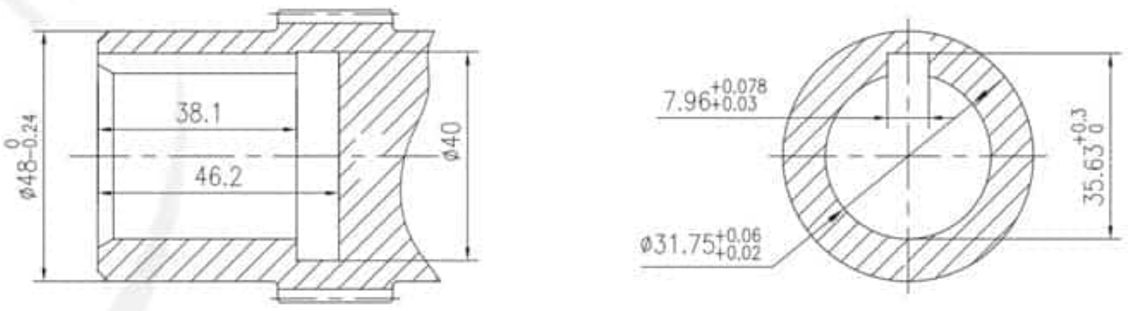


C

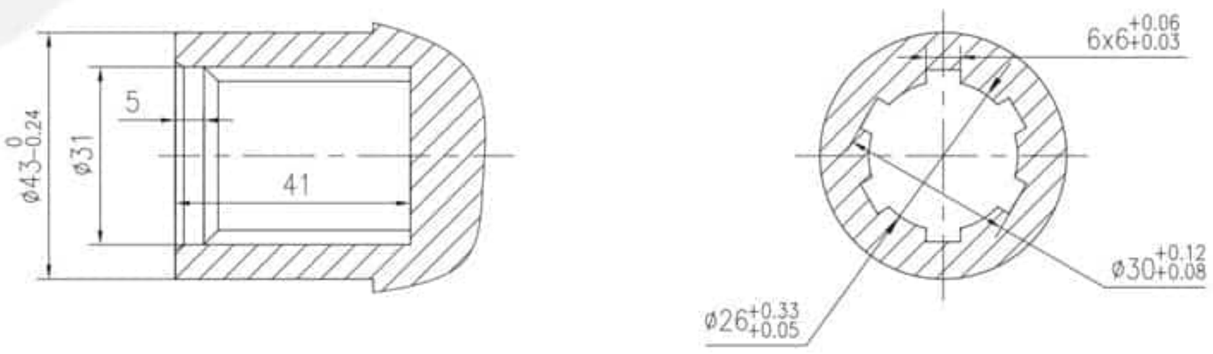
E



G

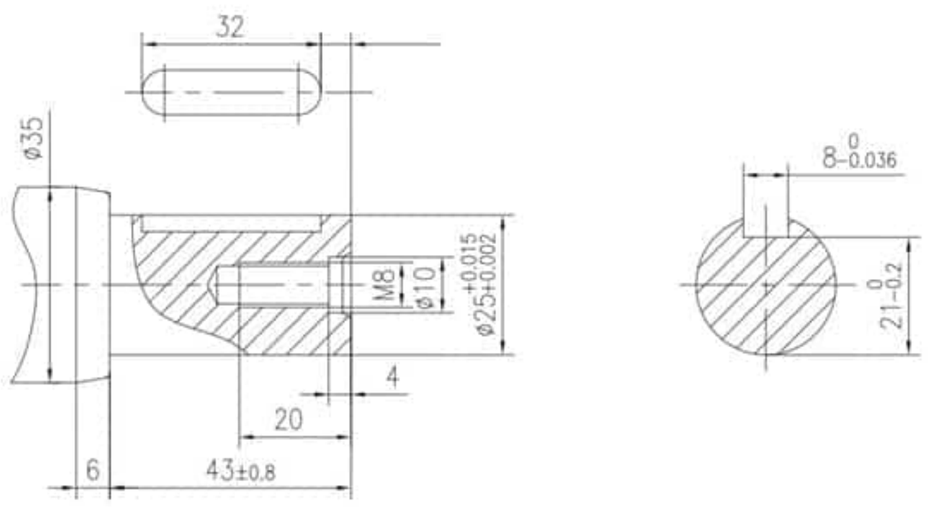


N



OUTPUT SHAFT EXTENSIONS

A



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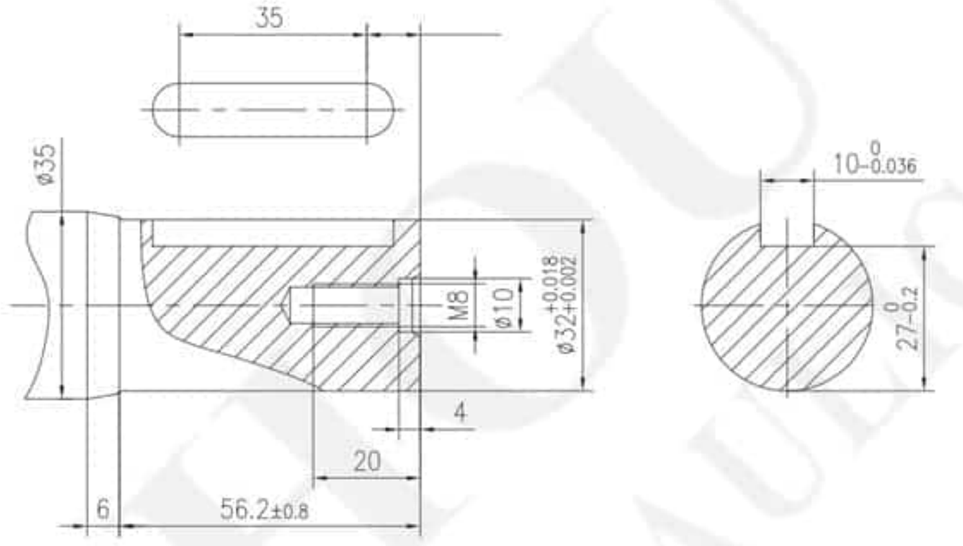

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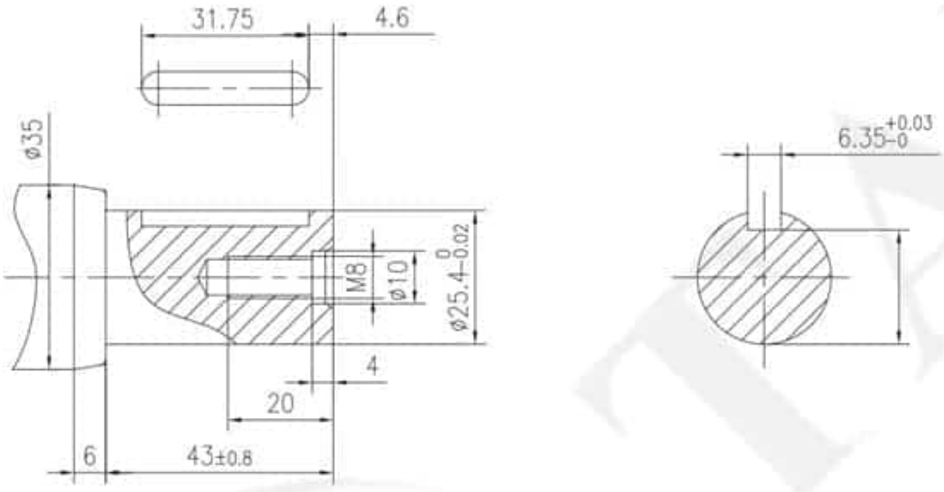

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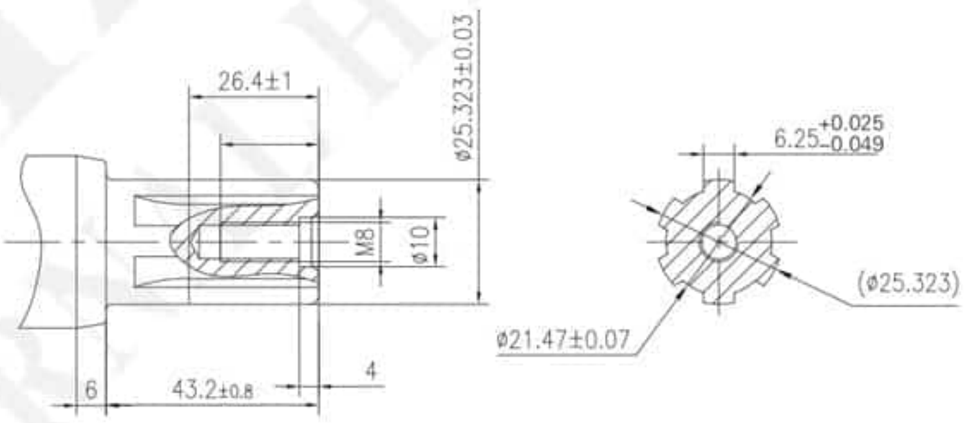
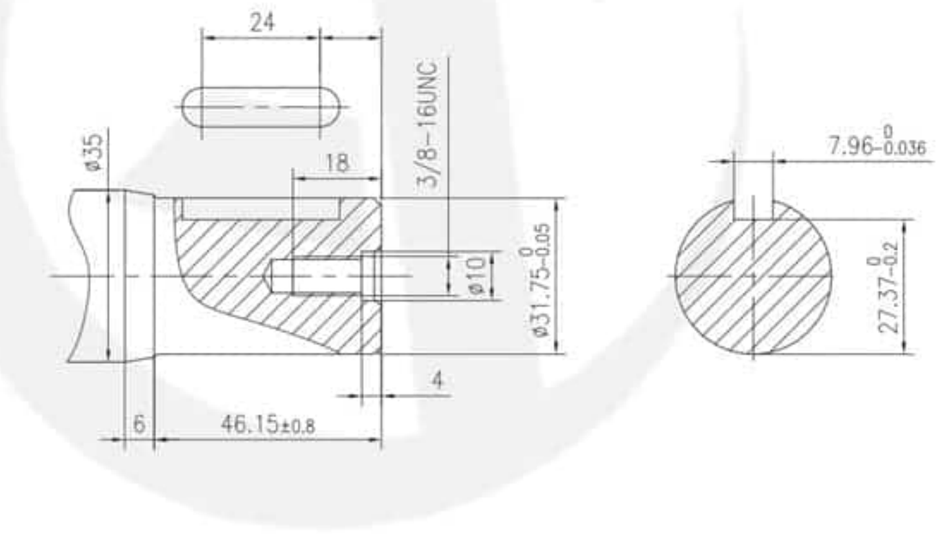
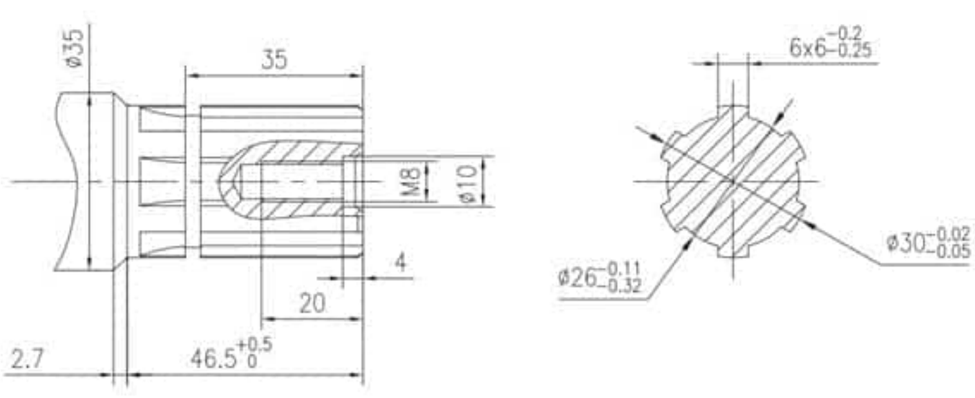


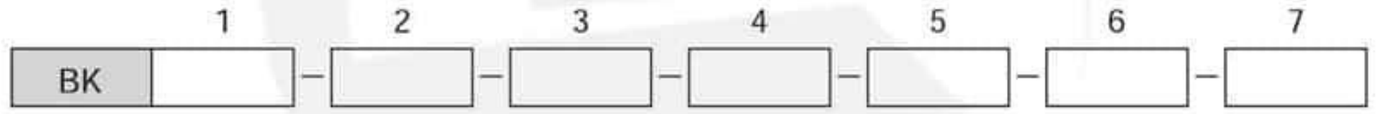
G



N



Order Information



Pos.1	2	3		4		5		6		7	
Series Code	Structure Code	Torque		Input Shaft holes		Output Shaft extensions		Paint		Unusually function	
2	1	Torque200--230Nm Torque410--450Nm	210 430	Shaft holes Φ25, Parallel key 8×7×32	A	Shaft Φ25, Parallel key 8×7×32	A	No Paint Blue Black Sliver Grey	00 omit B S	Standard	omit
				Shaft holes Φ32, Parallel key 10×8×45	B	Shaft Φ32, Parallel key 10×8×45	B				
				Shaft holes Φ25.4, Parallel key 6.35×6.35×31.75	C	Shaft Φ25.4, Parallel Key6.35×6.35×31.75	C				
				Shaft holes Φ25.4, splined key SAE 6B	E	Shaft Φ25.4, splined key SAE 6B	E				
				Shaft holes Φ31.75, Parallel key 7.96×7.96×31.75	G	Shaft Φ31.75, Parallel Key7.96×7.96×31.75	G				
	2	Torque410--450Nm	430	Shaft holes Splined 6-30x26x6	N	Shaft Splined 6-30x26x6	N				
				Shaft holes Splined 6-30x26x8	J	Shaft Splined 6-30x26x8	J				

Note: When the table is used, pls fill the code with right rows in the table and give us, which the code information is consist of construction, torque, input Shaft holes, output Shaft extensions, Paint .If the specification is not in the table or you have specific requirements, please contact us.

WGB SERIES PLANETARY GEARBOX

Introduction

WGB Series planetary gearbox is used in tracklayers , wheel driving vehicles , different kinds of self-mobile machineries, and such kind of transmission & lifting machinery as winches, cylinder machinery , etc. By adopting special orbital motor and compact structure design, the planetary gearbox can be installed inside the wide groove of the pedrail or wheel, or inside the drum of the winches or the cylinder machinery; the design is simple with reasonable space, and easy mounting. WGB Series planetary gearbox is suitable for open and close hydraulic loop system.

WGB Series planetary gearbox is widely used in self-mobile equipment, such as engineering machinery, lifting machinery, road machinery vehicles, construction machinery, convey machinery, agricultural machinery, mine machinery, sweeping & cleaning machinery, wood machinery, etc., it's also used in winches, and automatization engine's static hydraulic driving system. The features are shown as follows:

* Adopt special sealing system. Special design of composite sealing, being used in the radial and axial sealing in & between rotating and fixed parts;
* Adopt built-in multi-disk parking brake system which is also the spring-load parking brake ,hydraulic pressure releases brake force; on the condition that the pressure of hydraulic system decreases lower than the required pressure of the release brake, it will safely stop rotation completely.
* Compact structure, easy mounting.
* To be preemptively used together with BMR, BMS series hydraulic orbital motors.

Instruction Manual

In order to keep the hydraulic system operating under optimal condition, the normal requirements are shown as follows:

1.Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2.Oil temperature: normal operation temperature: -20℃~90℃; optimal temperature scope : 20℃~60℃;
3.Oil viscosity: 20~75mm²/s;optimal viscosity scope : 42~74mm²/s at the temperature of 40℃;
4.Oil cleanness: oil filtration precision: 25μm; solid contamination level has to be lower than 20/16;

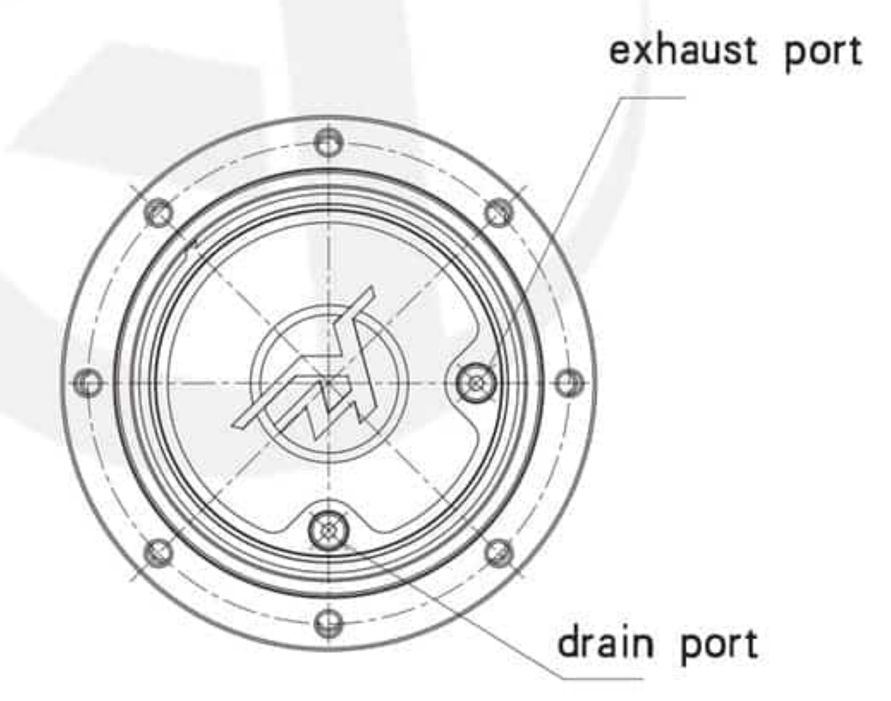
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:

1.Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2.Oil viscosity: 220mm²/s at the temperature of 40℃;
3.Maintenance period: 1st maintenance should be carried out 50-200 hours after initial operation; afterwards normal maintenance should be carried out every 500~1000 hours.
4.We suggest that MOBIL GEAR630, ESSO SPARTAN EP220, SHELL OMALA EP220 be used.

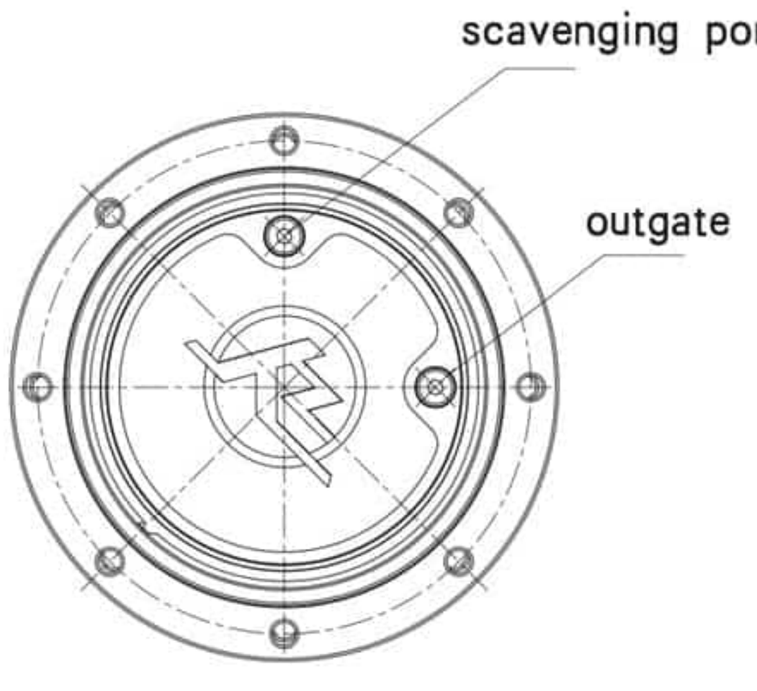
How to change the oil for planetary gearbox:

No lubricate oil in the gearbox lubricate the gearbox before it be used.

1.As shown in Drawing A, dismantle two port plugs , discharge the lubrication oil out of the planetary gearbox. and then clean the planetary housing with the detergent supplied by lubrication oil supplier.
2.As shown in Drawing B, fill more hydraulic oil. More oil till lubrication oil flows out of the drain port; fasten two plugs till the ports are sealed.



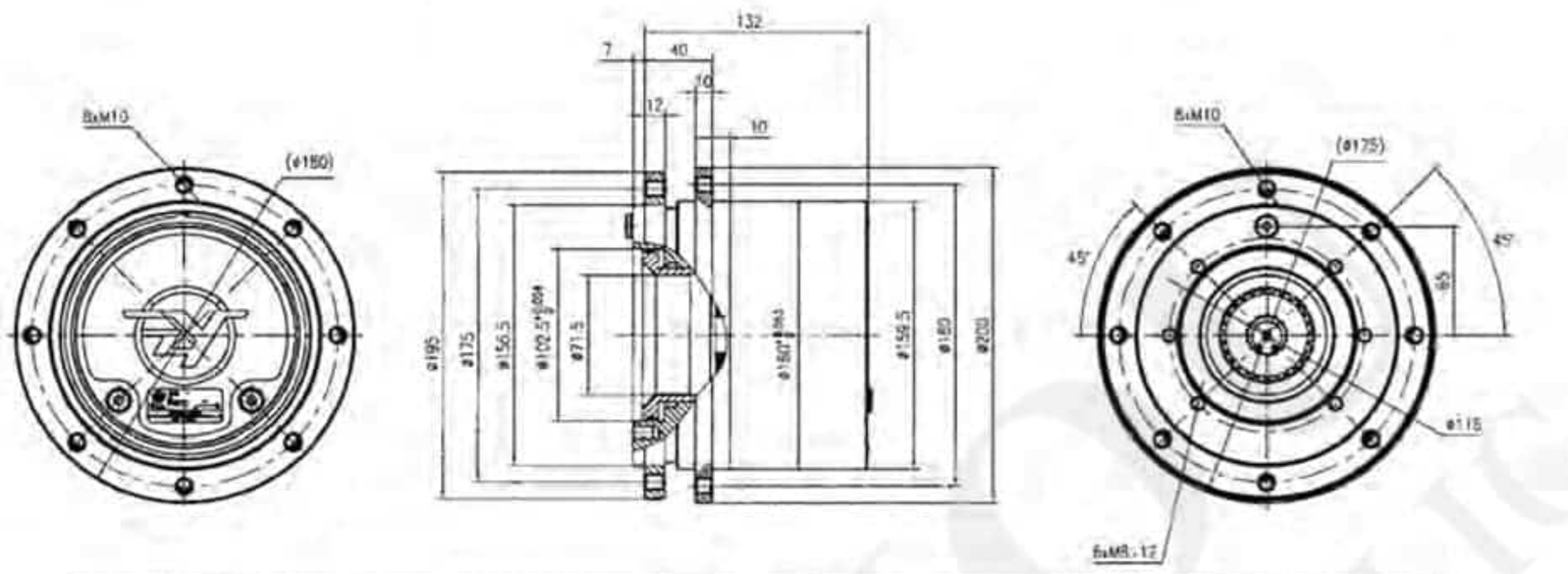
Drawing A



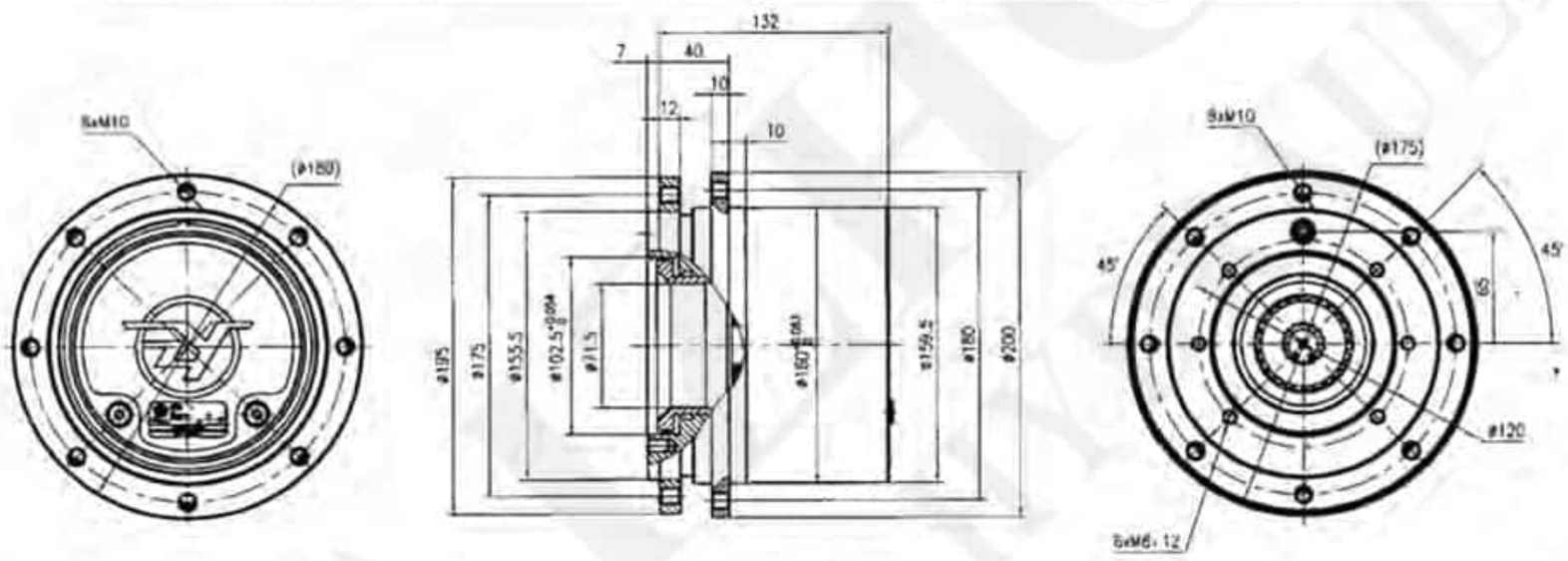
Drawing B

Main mounting data and dimensions

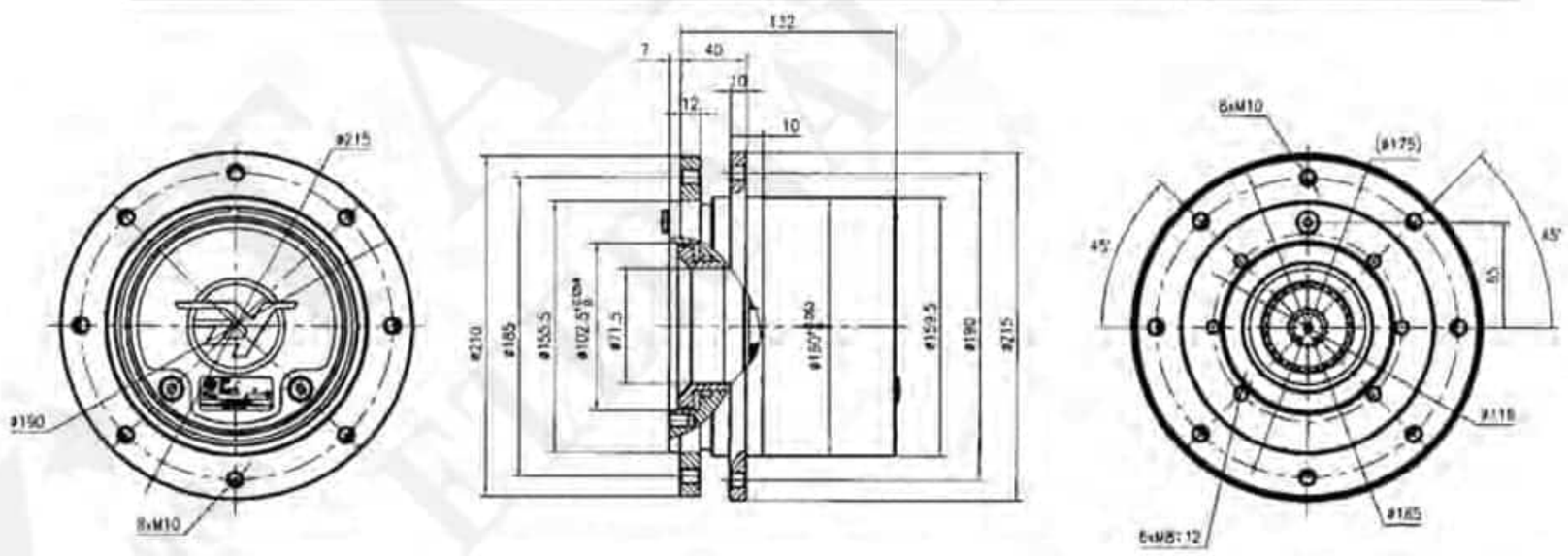
WGB150 Series



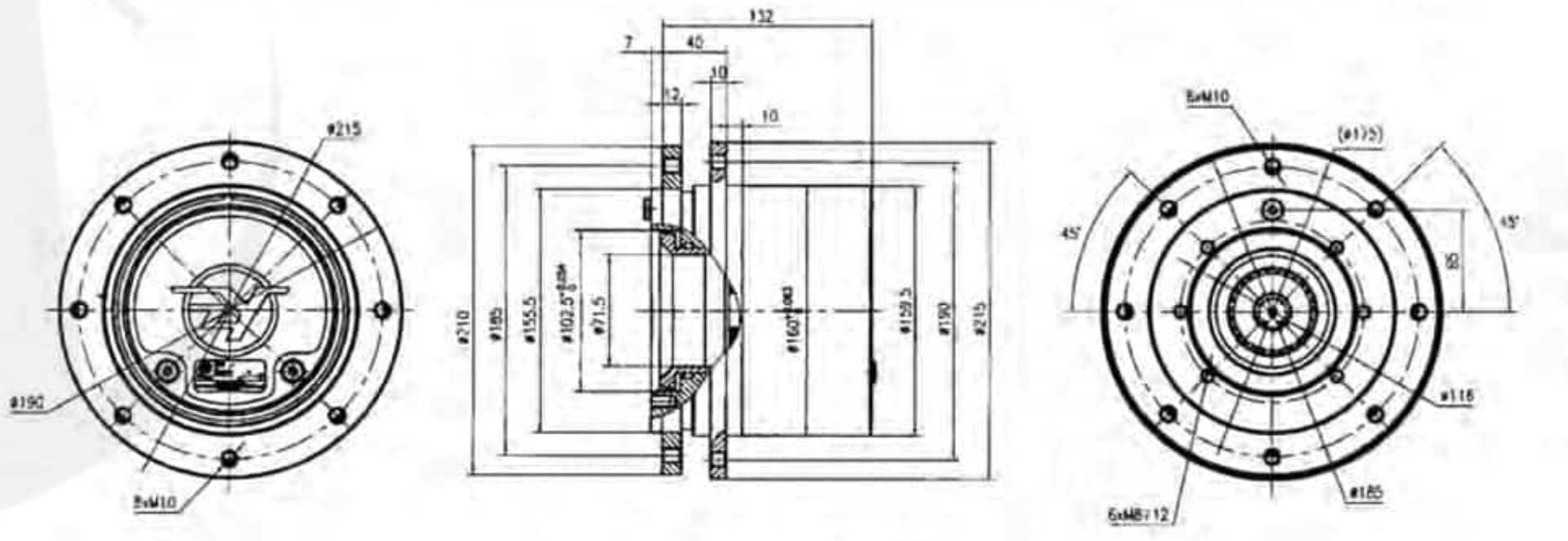
WGB300 Series



WGB150……T Series



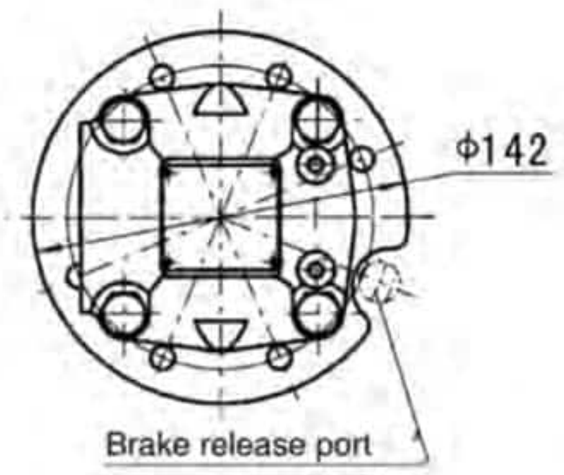
WGB300……T Series

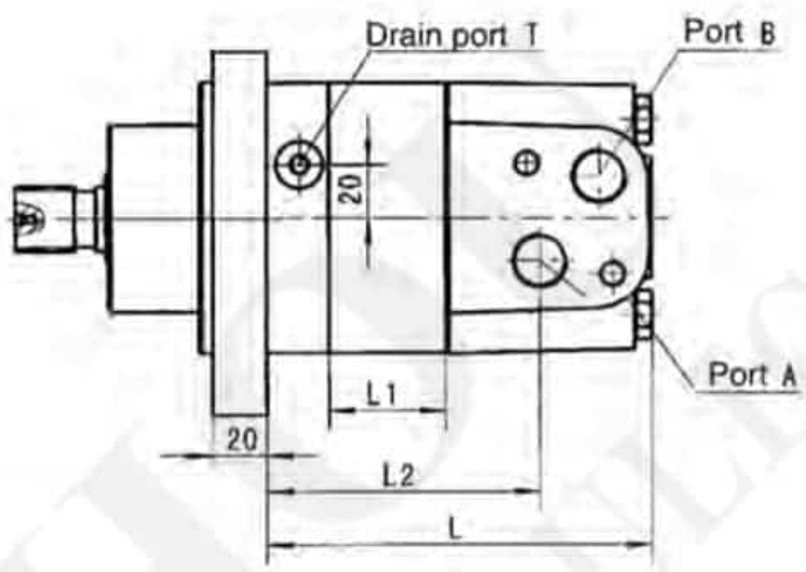


WGB150(T) Series standard motor BMSY125,main specifications of the non-standard motor with WGB 150 will be calculated upon hydraulic motor.The main technical planetary gearbox needs to be calculated according to the hydraulic motor and gearbox gear reduction ratio of performance parameters.The max. output torque of WGB 150 is 1500 Nm, the max. output power is 14 kW. The rotation direction of input and output of WGB 150 planetary gearbox is reverse.
WGB300(T) Series standard motor BMSY250,main specifications of the non-standard motor with WGB 300 will be calculated upon hydraulic motor.
The main technical planetary gearbox needs to be calculated according to the hydraulic motor and gearbox gear reduction ratio of performance parameters.
The max. output torque of WGB 300 is 2300 Nm, the max. output power is 18 kW. The rotation direction of input and output of WGB 300 planetary gearbox is reverse.

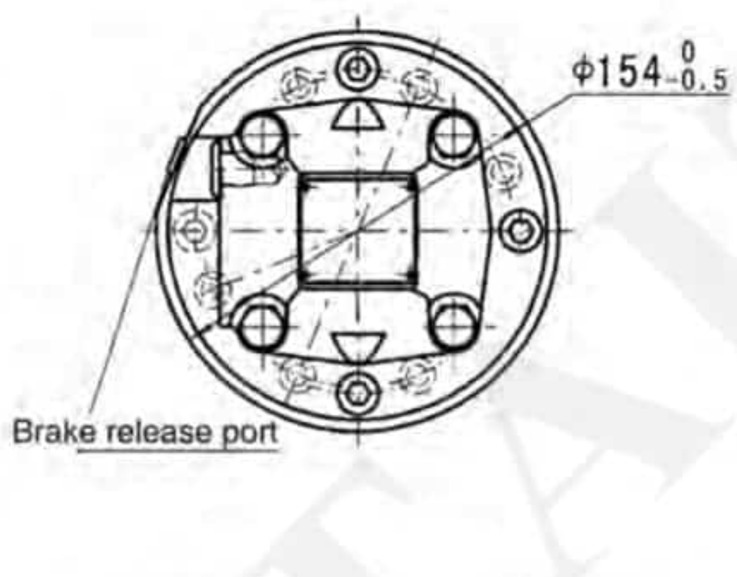
Main mounting and dimensions of motor for WGB

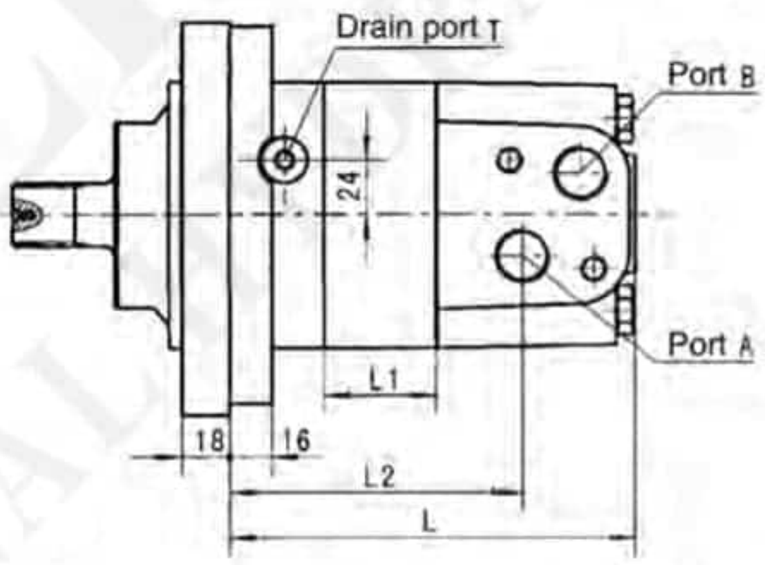
BMS-WT Series



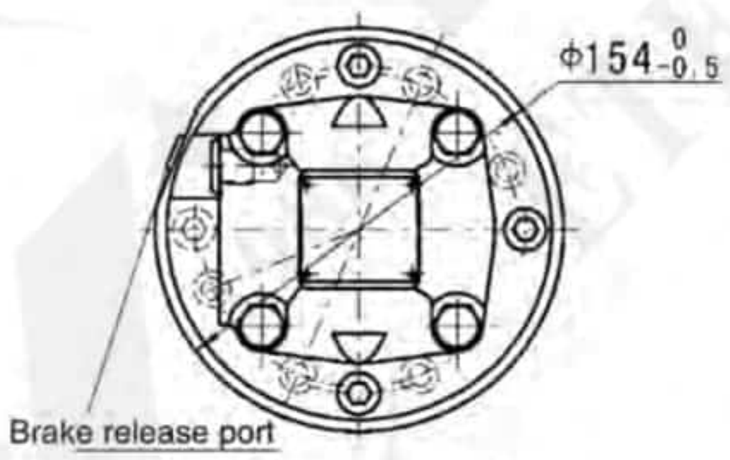


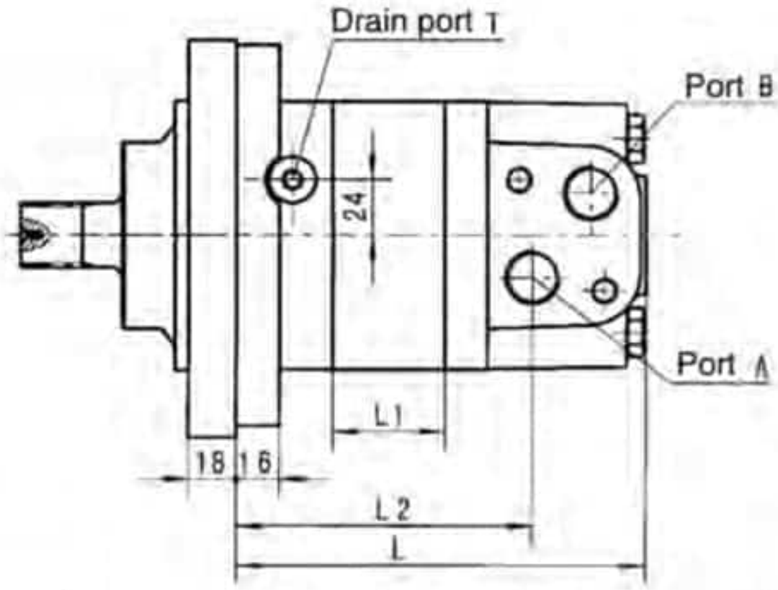
BMSS-IT Series





BMSYS-IT Series





Model	L	L1	L2
BMS-80	114.5	13	69
BMS-100	118.5	17	73
BMS-125	123.5	22	78
BMS-160	129	27.5	83.5
BMS-200	137	35.1	91.1
BMS-250	149	47	103
BMS-315	161	59	115
BMS-375	173	71	127

Model	L	L1	L2
BMSS-80	127	13	82
BMSS-100	131	17	86
BMSS-125	136	22	91
BMSS-160	141.5	27.5	96.5
BMSS-200	149	35.1	104.1
BMSS-250	161	47	116
BMSS-315	173	59	128
BMSS-375	185	71	140

Model	L	L1	L2
BMSYS-80	129	16	85
BMSYS-100	133	20	89
BMSYS-125	138	25	94
BMSYS-160	140	27	96
BMSYS-200	147	34	103
BMSYS-250	155	42	111
BMSYS-315	167	54	123
BMSYS-400	182	69	138
BMSYS-475	196	83	152

Order information

1	2	3	4	5	6
WGB					

Pos.1		2	3		4		5		6	
Series code		Ratio	Brake code		Flange code		Painted		Unusually function	
1500Nm	150	3.28	With Brake	BK	Standard	Omit	No Painted	00	Standard	Omit
3000Nm	300	4.6 5.75	No Brake	Omit	Big flange	T	Blue Black Silver grey	Omit B S		

Note: from the order code , please choose the colorful code in the right column, and provide us with the information in regard to series, ratio ,brake structure, and the paint etc. When selecting brakes, brake parameters: brake release pressure is 1.7 ~ 2.2MPa, brake release port for the G1 / 8, the brake release port maximum pressure 25MPa, the maximum braking torque of 400Nm.
If the specification is not in the table or you have special requirements, please contact us.

Order information (BMS–WT、BMSS–IT、BMSYS–IT)

1	2	3	4	5	6

Pos.1	1	2		3		4		5	
Order information	Motor displacement	Port and drain port		Rotation direction		Painted		Unusually function	
BMS-WT BMSY-WT	80 100 125 160 200 250 315 375 400 475	D M S P	G1/2 manifold 2-M10，G1/4 M22×1.5 manifold 2-M10，M14×1.5 7/8-14UNF O-ring manifold 2-3/8-16, 7/16-20UNF 1/2-14NPTF manifold 2-3/8-16UNC, 7/16-20UNF	Omit R	Standard Opposite	0 Omit B S	No Painted Blue Black Silver grey	Omit	Standard
BMSS-IT									
BMSYS-IT									

Note: Motor of gearbox performance parameters are the same with the catalogue of BMS \ BMSY.
Users in the use of the ordering information, the motor structure, displacement, out of port and other information, select the left pornographic site code can be written to us by the above format.
If the selected size is not in the above table or special requirements, please contact us.
When selecting a motor, for built-in brake balance valve ports and features, please technical communication.

HGB SERIES PLANETARY GEARBOX

Introduction

HGB series planetary gearbox is one speed reducer for various machinery, adopting the compact design of combining hydraulic orbital motor and speed reducer, design structure is simple, with reasonable mounting space, easy for mounting. This kind of gearbox fits all kinds of hydraulic loop system.
HGB series planetary gearbox is widely used various machinery, such as engineering machinery, lifting machinery, road machinery vehicles, construction machinery, convey machinery, agricultural machinery, mine machinery, sweeping & cleaning machinery, wood machinery, etc., it's also used in winches, and automatization engine's static hydraulic driving system. The features are shown as follows:
* Compact structure, easy mounting.
* Small volume, strong power.
* To be preemptively used together with BMR,BMH, BMS series hydraulic orbital motors.

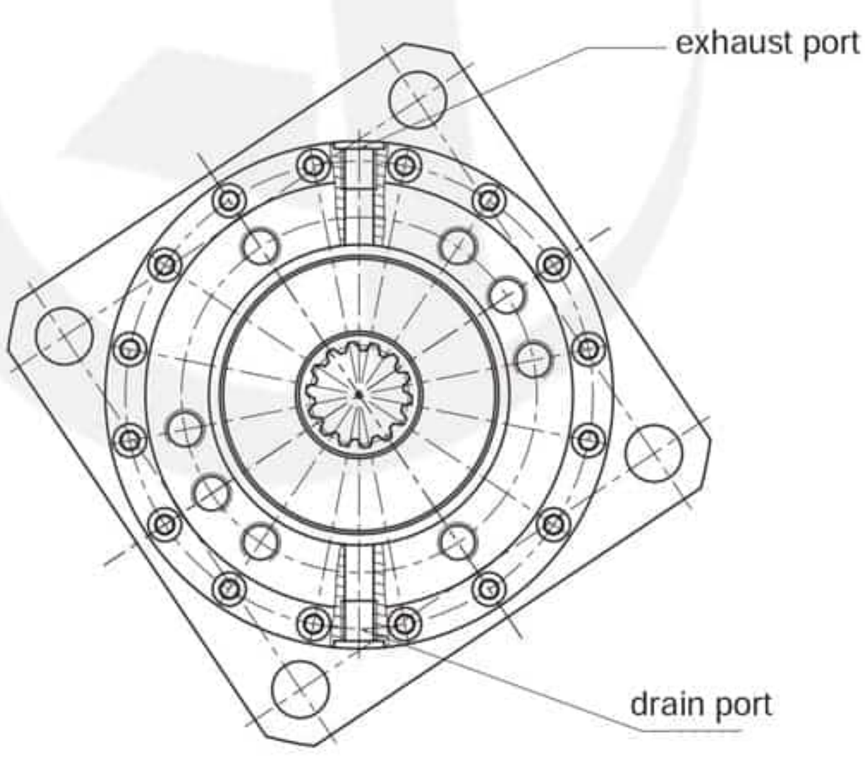
Instruction Manual

In order to keep the hydraulic system operating under optimal condition, the normal requirements are shown as follows:
1.Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2.Oil temperature: normal operation temperature: -20℃~90℃; optimal temperature scope : 20℃~60℃;
3.Oil viscosity: 20~75mm²/s;optimal viscosity scope : 42~74mm²/s at the temperature of 40℃;
4.Oil cleanness: oil filtration precision: 25μm; solid contamination level has to be lower than 20/16;

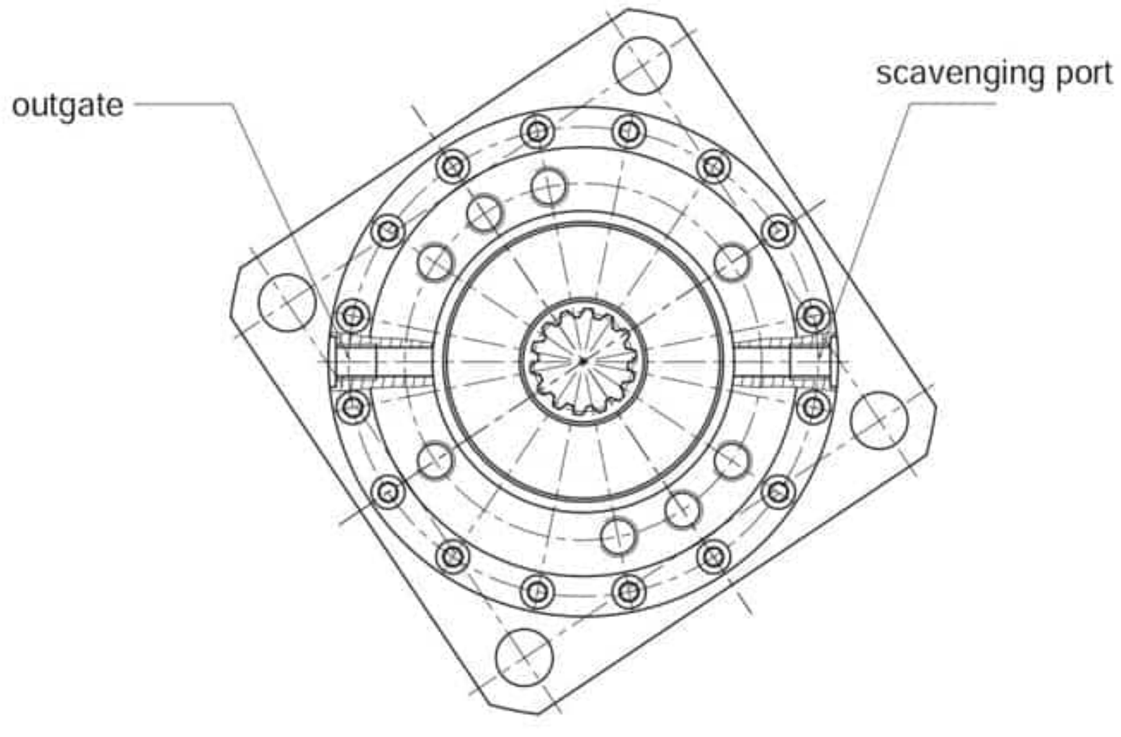
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:
1.Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2.Oil viscosity: 220mm²/s at the temperature of 40℃;
3.Maintenance period: 1st maintenance should be carried out 50-200 hours after initial operation; afterwards
normal maintenance should be carried out every 500~1000 hours.
4.We suggest that MOBIL GEAR630, ESSO SPARTAN EP220, SHELL OMALA EP220 be used.

How to change the oil for planetary gearbox:

No lubricate oil in the gearbox lubricate the gearbox before it be used.
1.As shown in Drawing A, dismantle two port plugs , discharge the lubrication oil out of the planetary gearbox. and then clean the planetary housing with the detergent supplied by lubrication oil supplier.
2.As shown in the Drawing , fill more hydraulic oil till lubrication oil flows out of the drain port; fasten two plugs till the ports are sealed.

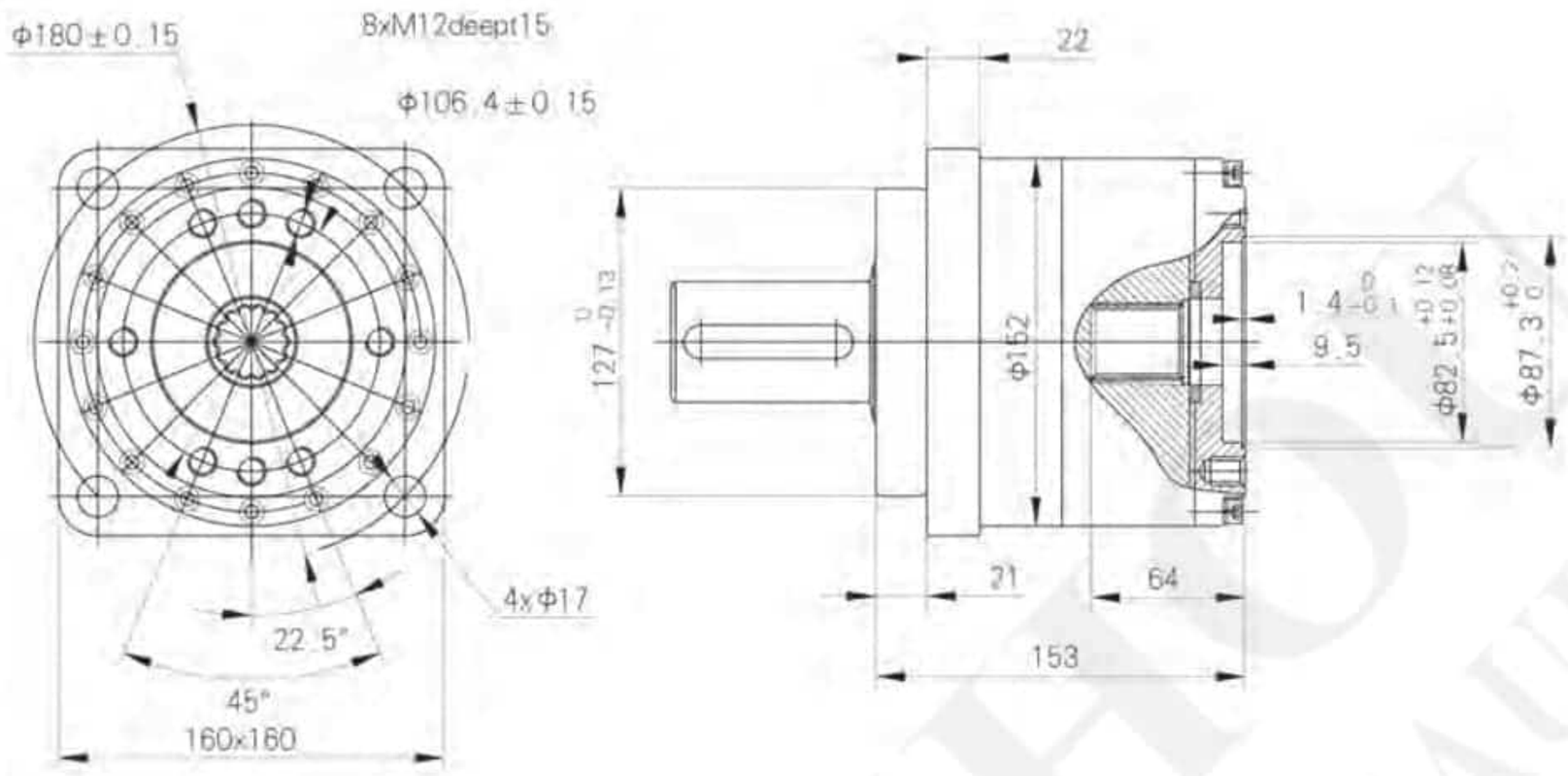


Drawing A



Drawing B

Main mounting and specification data

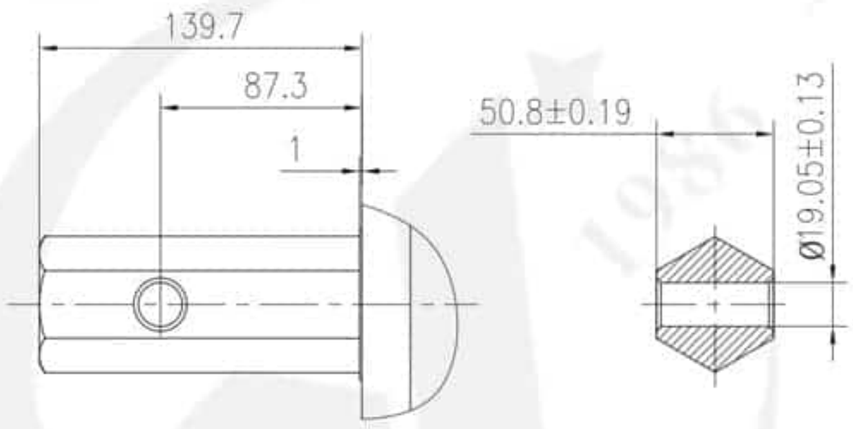


Input hole

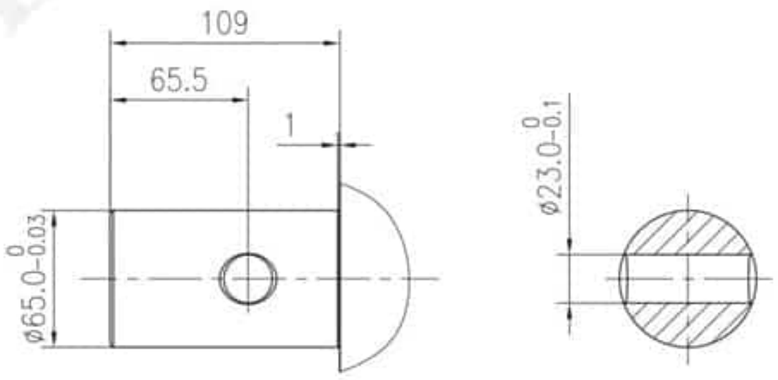
Input hole F　　Input hole E

Output shaft extensions

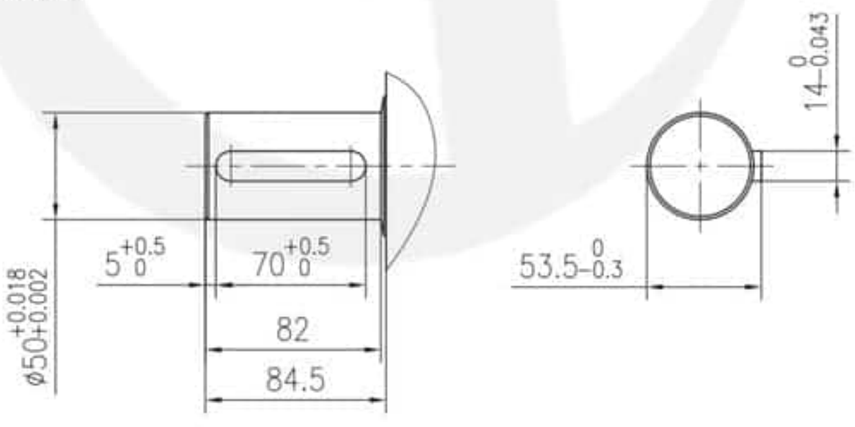
shaft H1



shaft H2



shaft A



Main specifications of the BMP,BMR,BMH and BMSY motor with HGBwill be calculated upon hydraulic motor. The rotation direction of input and output of HGB planetary geardox is the same. The speed reduction radio is 3.65.The max. output torque of HGB is 2500Nm,the max.output power is 15kw.

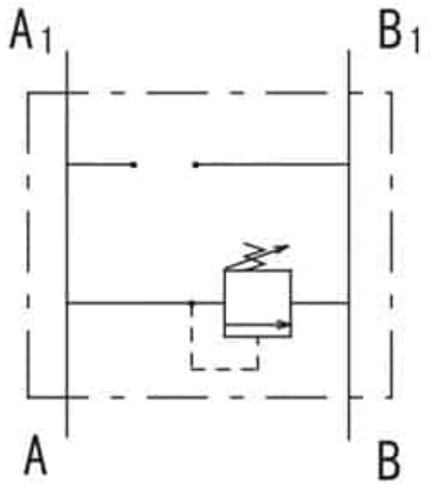
Order Information

1	2	3	4	5	6
HGB					

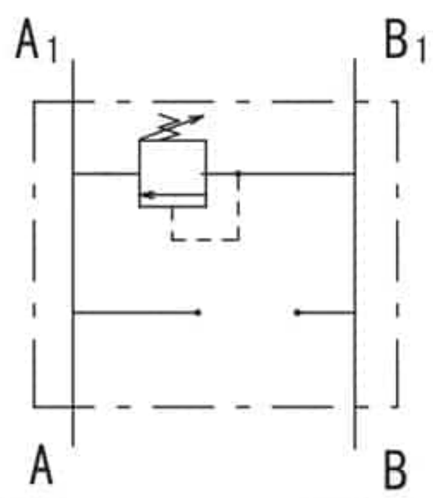
Pos.1		2	3		4		5		6	
Series Code		Ratio Code	Input hole code		Output Shaft code		Paint		Unusually Function	
	Omit	3.65	SAE 6B splined hole	E	Hexangular 50	H1	No paint Bule Black Silver gray	00 None B S	Standard	None
					Φ65	H2				
			14-DP12/24 splined hole	F	Φ50	A				

Note：From the order code, please choose the colorful code in the right column,and provide us with the information in regard to ratio,output torque ,input hole output shaft ,motor code ,etc. If the specification is not in the table or you have specific requirements, please contract us.

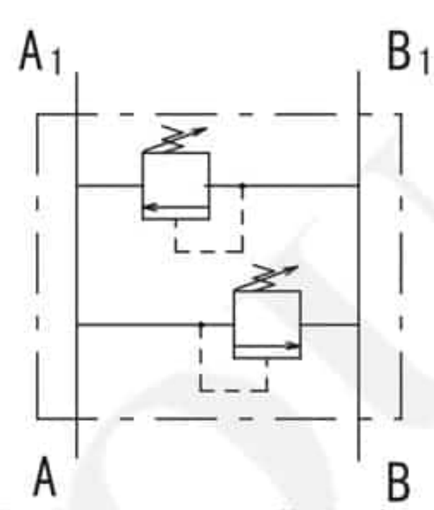
CROSSOVER RELIEF VALVE



siglgle crossover relief valve
type FY*A



siglgle crossover relief valve
type FY*B

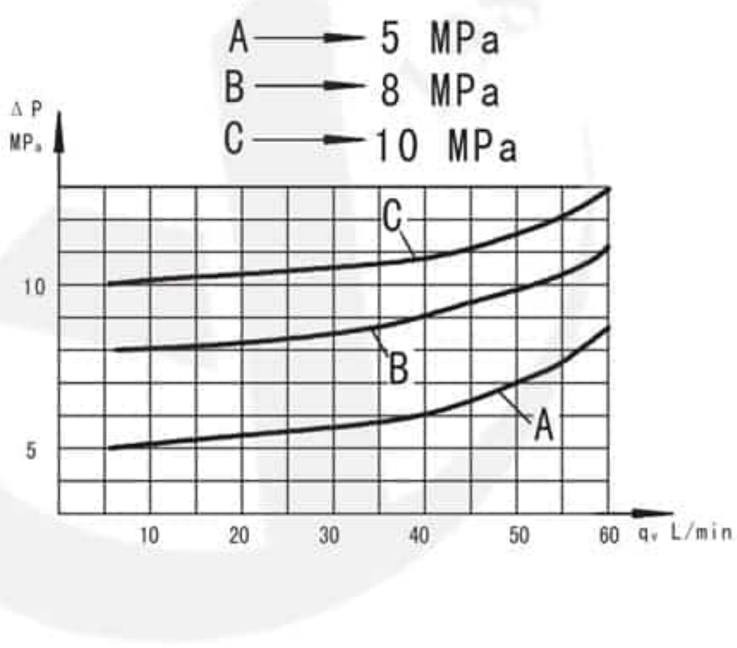


dual crossover relief valve type
FY*D

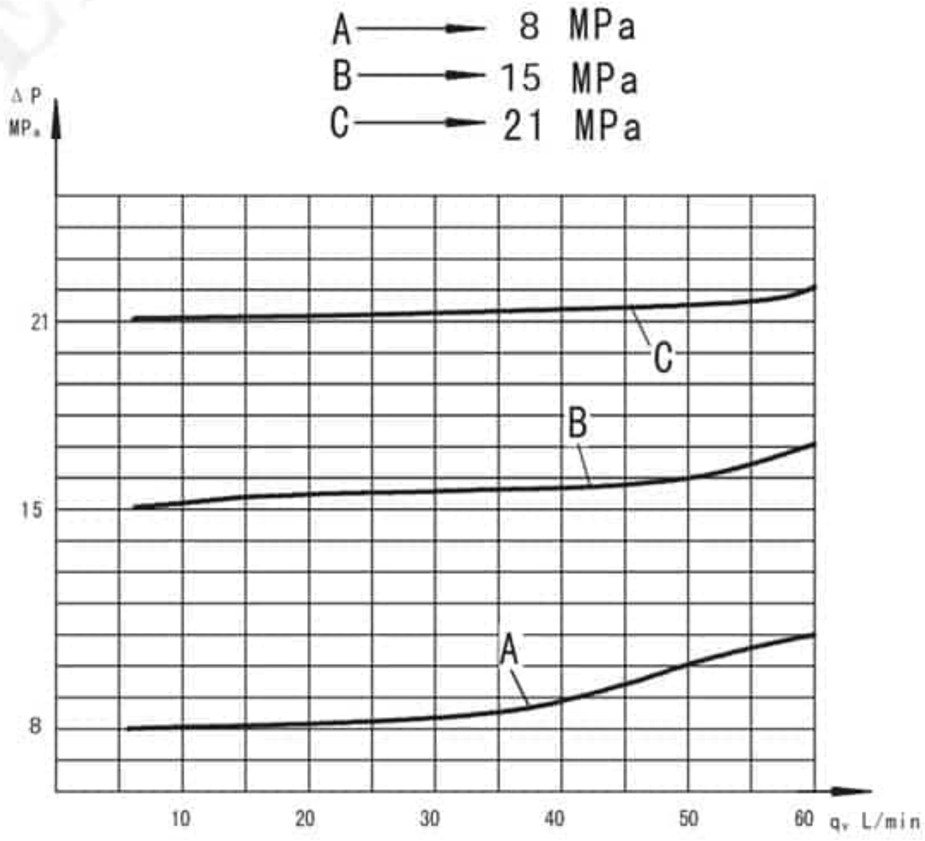
Specification data

Parameters	Type				
	FYRHD	FYSHD	FYSD	FYRH	FYSH
Flow Rate (L/min)	60				
Pressure Range (MPa)	[3-10];[8-21]				
Weight (kg)	1.7	1.8	1.8	1.55	1.65

Rated pressure 3-10MPa

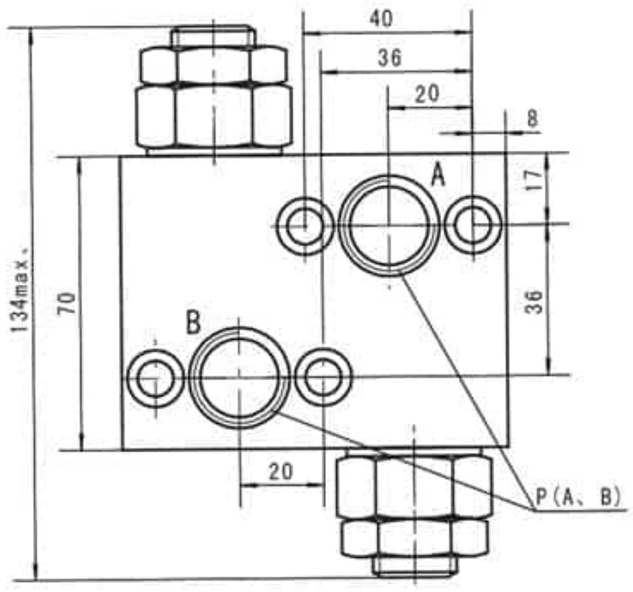


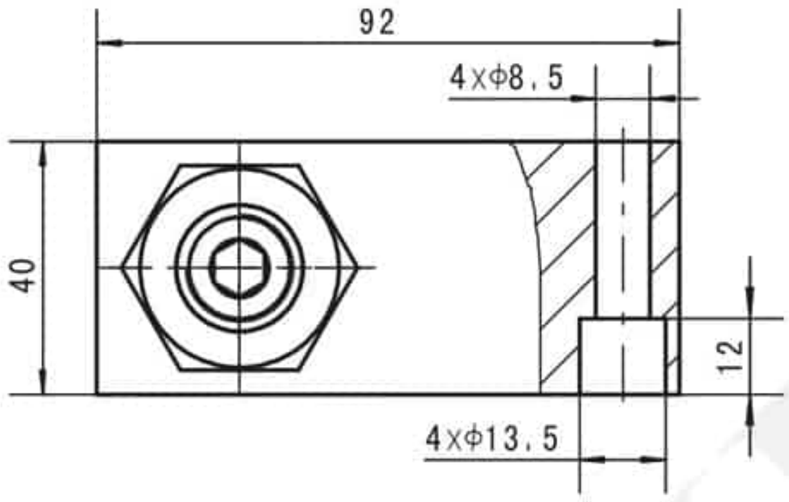
Rated pressure 8-21MPa



CROSSOVER RELIEF VALVES FOR BMR SERIES HYFRANLIC MOTORS

Dual crossover relief valve type FYRHD



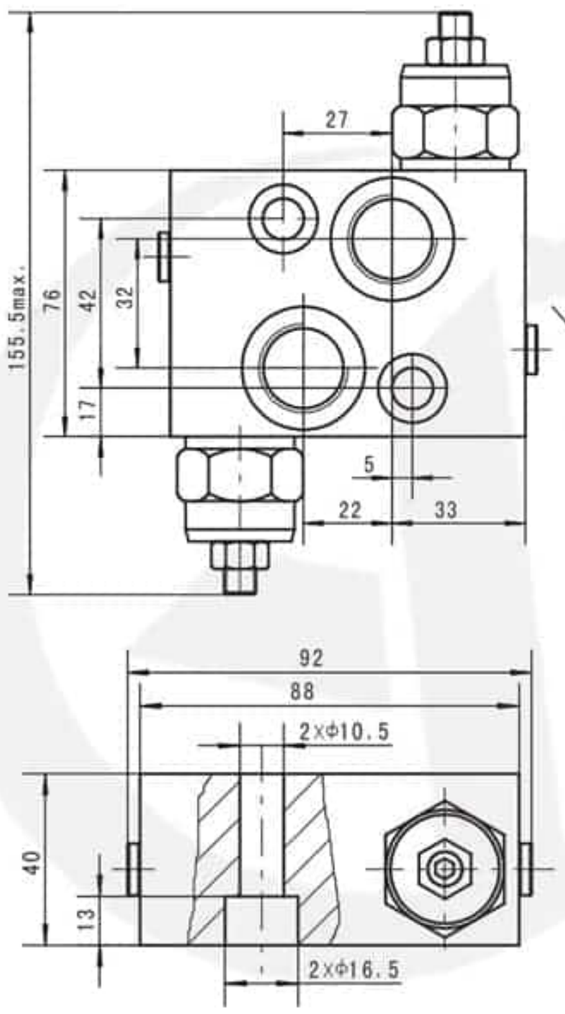


Code	P(A、B)(depth)
D	G1/2(18)
M	M22×1.5(18)
S	7/8-14UNF(18)
P	1/2-14NPTF(18)

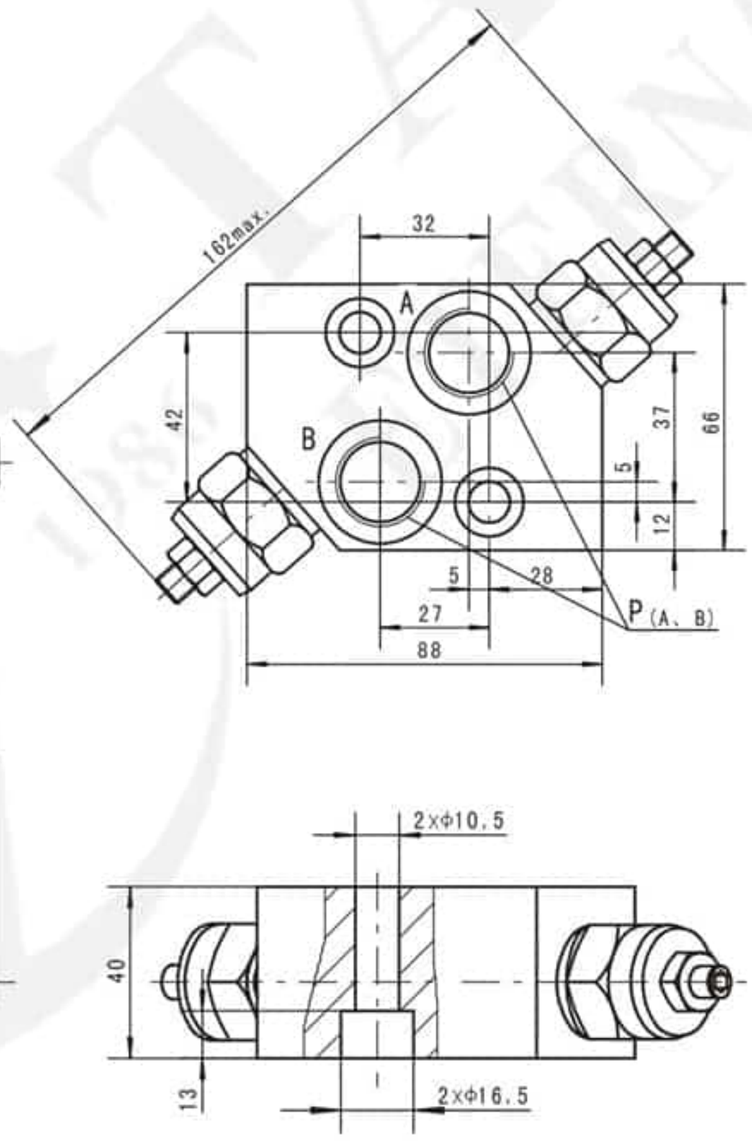
Note:FYRHD Blocks are installed directly on BMR and BMP Motors with four bolts 5/16-18UNC,40mm long or M8×40-8.8,DIN912.

CROSSOVER RELIEF VALVES FOR BMS SERIES HYFRANLIC MOTORS

Dual crossover relief valve type FYSD



Dual crossover relief valve type FYSHD



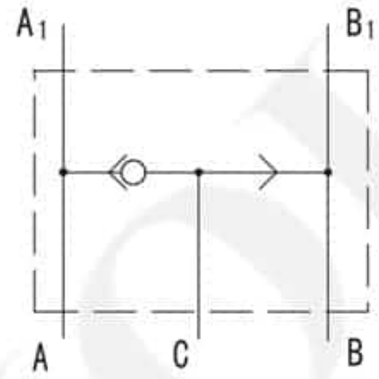
Code	P(A、B)(depth)
D	G1/2(18)
M	M22×1.5(18)
S	7/8-14UNF(18)

Note:FYSHD Blocks are installed directly on BMS Motors with two bolts 3/8-16UNC,40mm long or M10×40-8.8,DIN912.

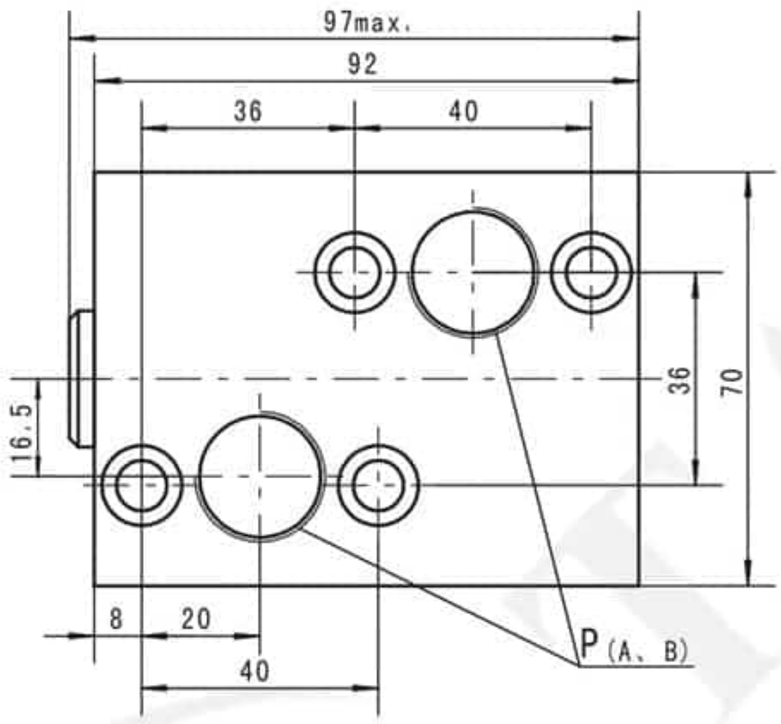
SWITCH VALVE

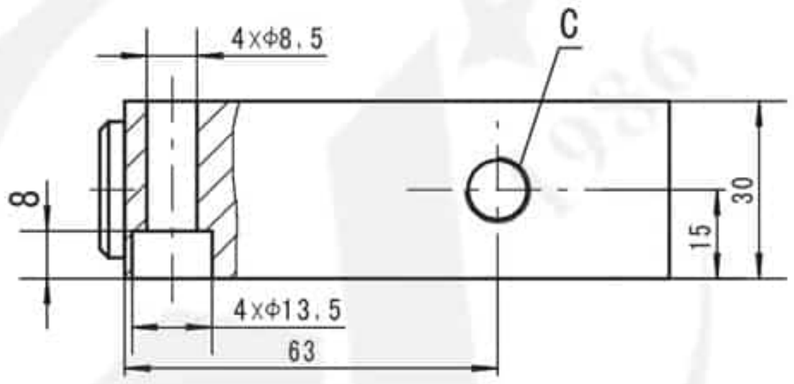
Specification Data

Parameters	Type	
	FSR	FSS
FlowRate (L/min)	60	
RatedPressure (MPa)	25	
Weight (Kg)	0.9	0.7

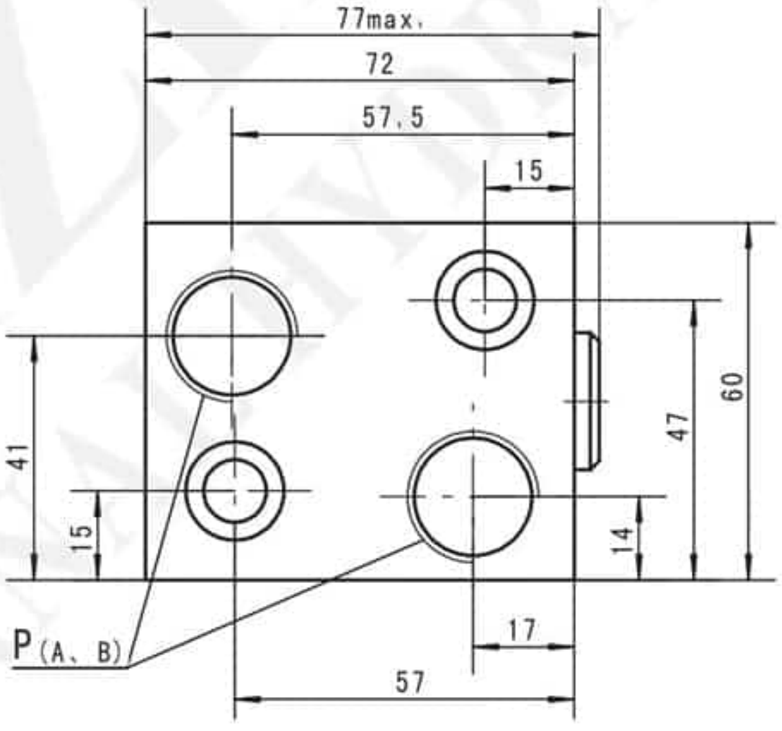


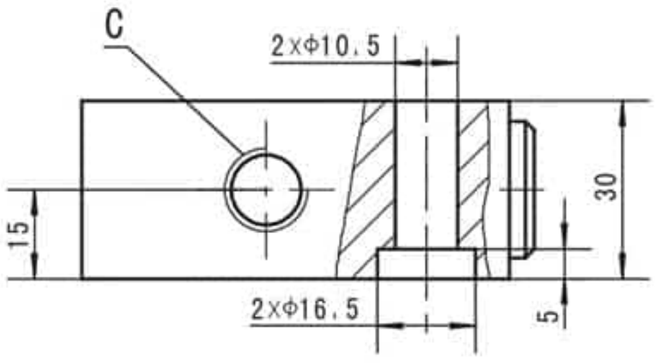
Switch valve FSR





Switch valve FSS

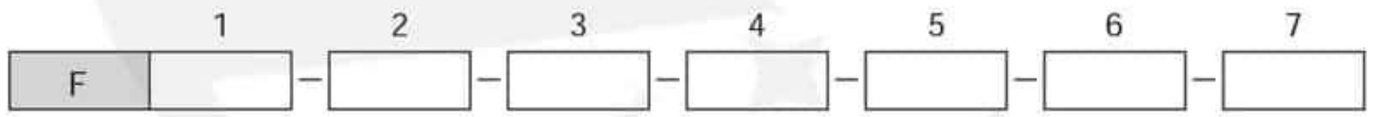




Code	P(A、B)(depth)	C(depth)
D	G1/2(17)	G1/4(14)
M	M22×1.5(17)	M14×1.5(14)
S	7/8-14UNF(17)	7/16-20UNF(12.7)

Note:FSR Blocks are installed directly on BMR and BMP Motors with four bolts 5/16-18UNC, 35mm long orM835-8.8;FSS Blocks are installed directly on BMS Motors with two bolts3/8-16UNC,35mm long or M1040-8.8DIN912

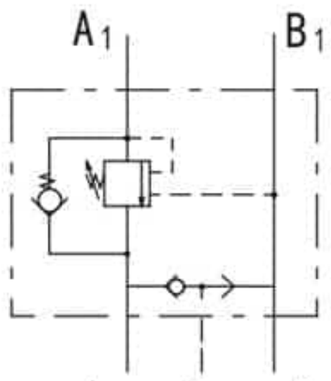
Order Information



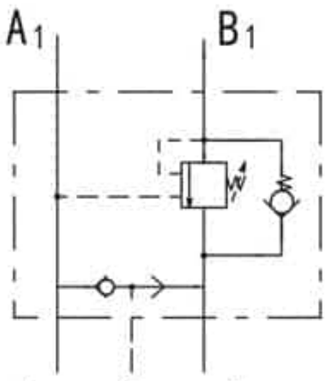
Pos.1		2		3		4		5		6		7	
Type		Housing Type		Number of Spool		Pressure settings MPa		Flow Rate L/min		Ports		Paint	
Y	Crossover Relief Valves	RH SH S	BMR、BMP BMS BMS	A B D	Port A one valve-single Port B one valve-single Two valves-dual	10 21	3-10 standard settings10MPa 8-21 standard settings 21MPa	Omit	60	D M S P	G1/2 M22x1.5 7/8-14UNF 1/2-14NPTF	00 Omit B S	No Paint Blue Black Silver grey
S	Switch Valve	R S	BMR、BMP BMS										

Note: from the order code , please choose the right code for valve type, motor housing type, number of spool, pressure settings, flow rate, ports and paint information. If you can't find any spegification here,or if you hore special requirement ,please contact us.

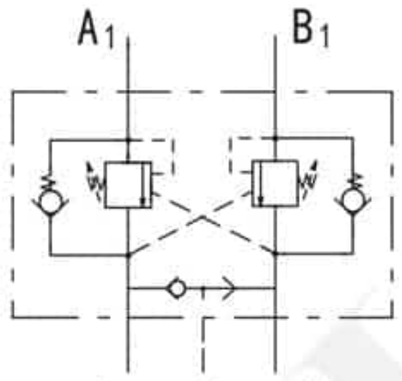
OVERCENTER VALVE WITH BRAKE PORT



Overcenter Valve FPRA



Overcenter Valve FPRB

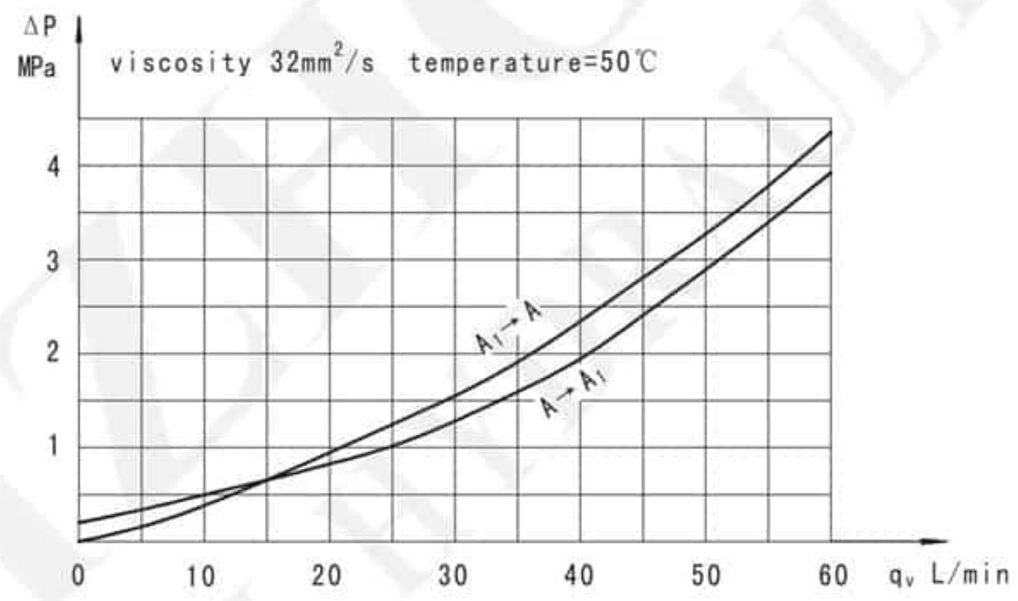


Overcenter Valve FPRD

Specificafions

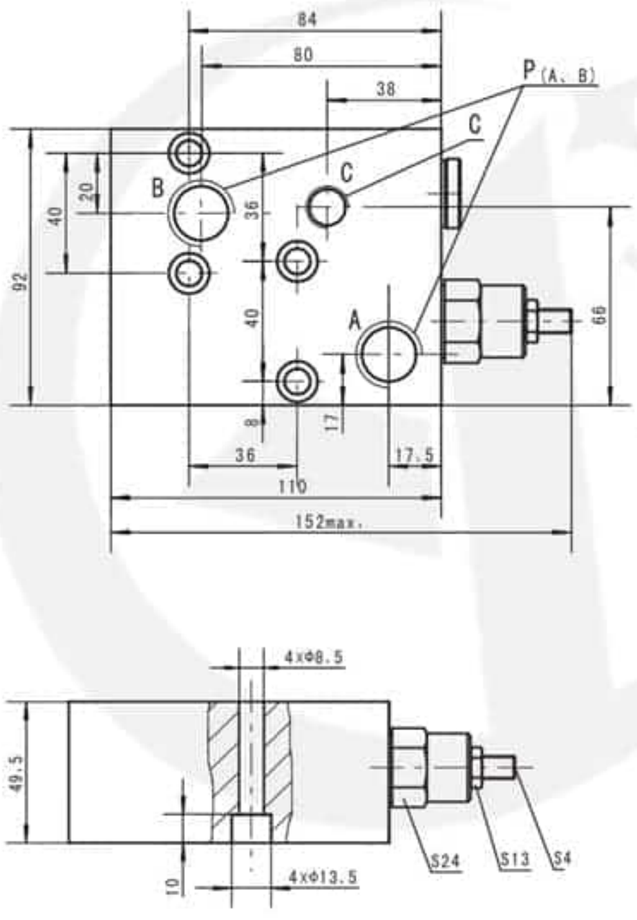
Specificafions	madel	
	FPRA(B)	FPRD
flow (L/min)	60	
pressure (Mpa)	7-25	
pilof ratio	4.25:1	
weight (kg)	3.30	3.35

pressure drop

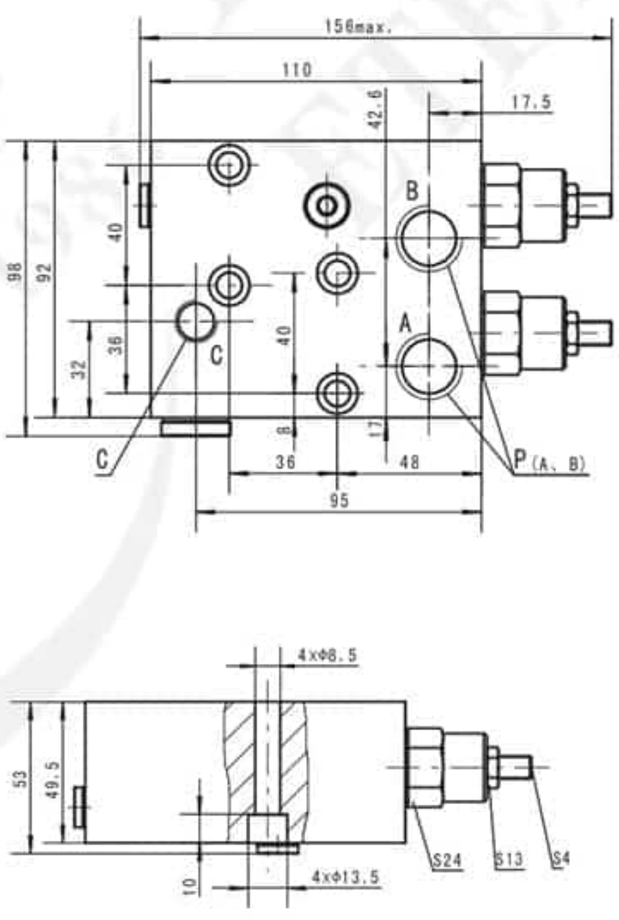


OVERCENTER VALVE FOR BMR MOTOR

Overcenter valve FPRA



Overcenter valve FPRD



code	P(A、B)(depth)	C(depth)
D	G1/2(18)	G1/4(14)
M	M22×1.5(18)	M14×1.5(14)
S	7/8-14UNF(18)	7/16-20UNF(14)

Note:Valve FPR(D) is used together with BMP or BMR motor,4 bolts thread;5/16-18UNC or M8×50 grade 8.8

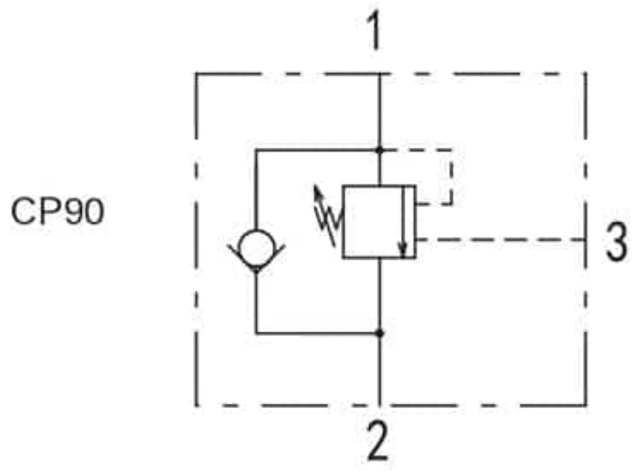
Order Information

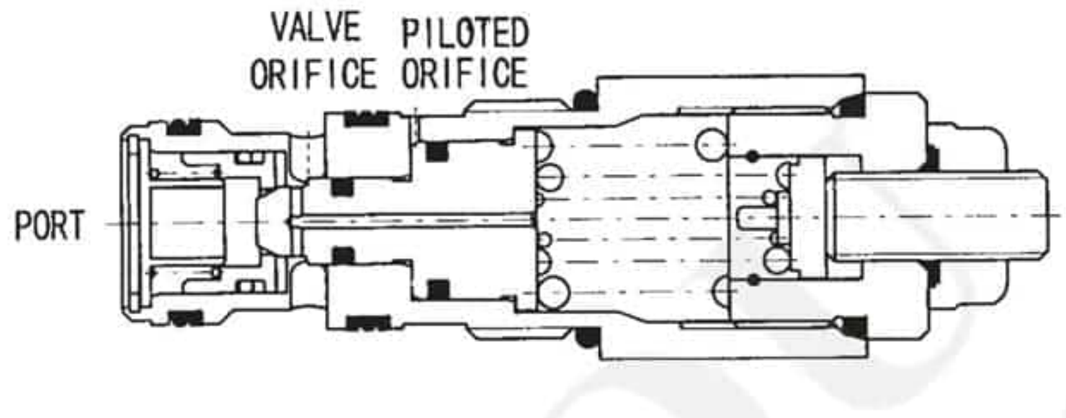
1	2	3	4	5	6	7
F	–	–	–	–	–	–

Pos.1		2		3		4	5		6		7	
Type		Motor housing Type		Number of spool		Pressure settings MPa	Flow Rate L/min		Ports,Brake port		Paint	
P	Overcenter Valves	R	BMR	A B D	Pors A one valve-single Port B one valve-single Two valves-dual	7-25	Omit	60	D M S	G1/2,G1/4 M22x1.5,M14x1.5 7/8-14UNF,7/16-20UNF	00 Omit B S	No Paint Blue Black Silver grey

Note: from the order code , please choose the right code for valve type, motor housing type, number of spool, pressure settings, port braking port and paint information. If you can't find any spegification here,or if you hore special requirement ,please contact us.

CARTRIDGE TYPE OVERCENTER VALVE





OPERATION

The check valve allows free flow from port ② to port ① while a direct-acting,pilot-assisted relief valve controls flow from port ① to port ②, Pilot assist at port ③ lowers the effective setting of the relief valve at a rate determined, bythepilotratio

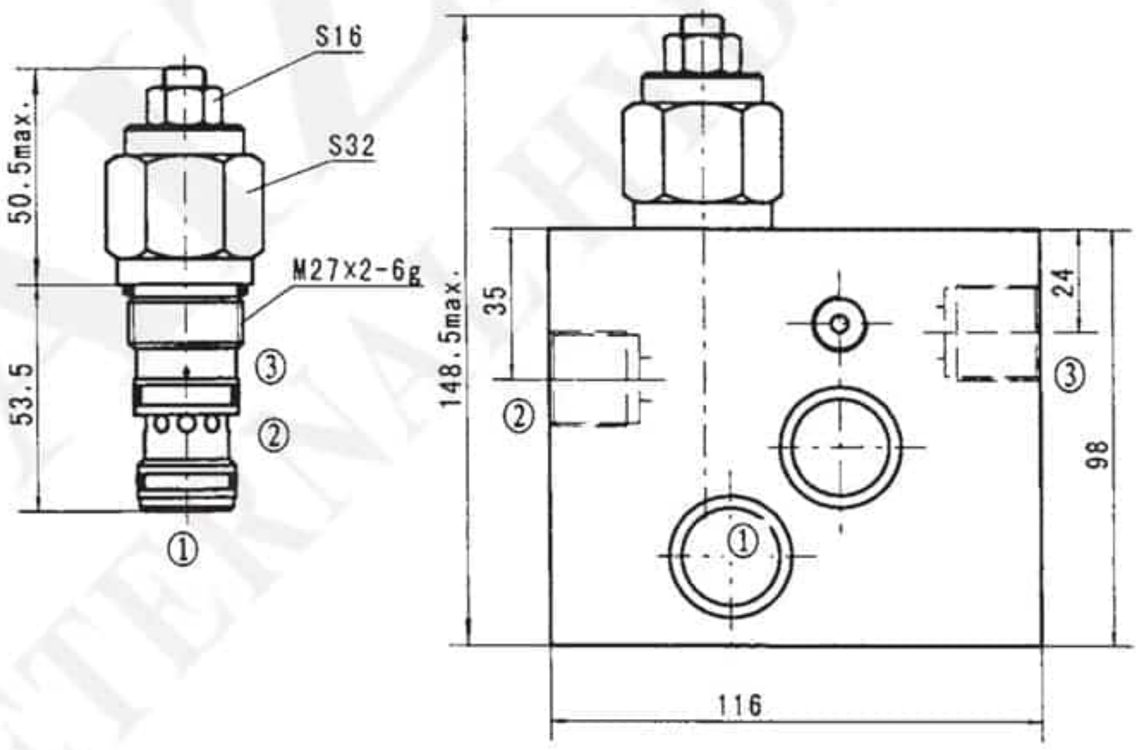
FEATURES

Counterbalance valves should be set at least 13 times the maximun load induced pressure, Backpressure at port ② adds to the effective relief setting at a ratio of ① plus the pilot ratio times the backpressure

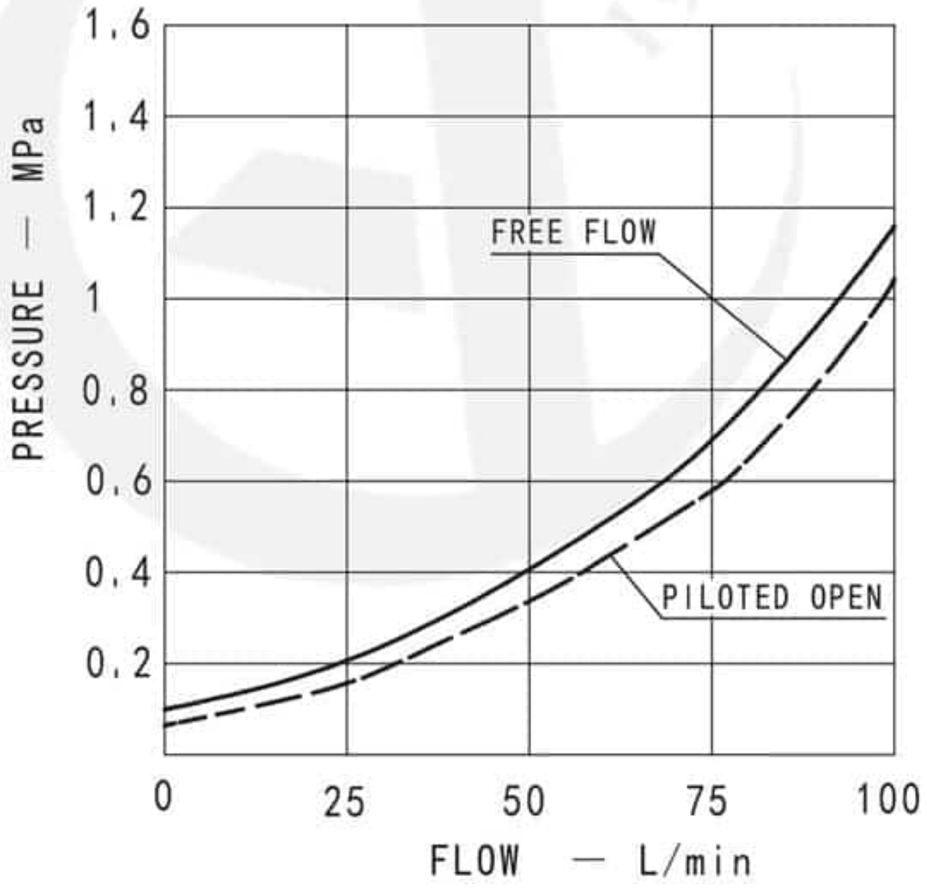
SPECIFICATIONS

Maximum Pressure:27MPa
Relief valve setting:35MPa
Rated Flow:90L/min
Lrakage:5 drops/min
Temperature:-20℃～90℃

DIMENSIONS



PRESSUREDROPCURVE



ORDER INFORMATION

CP - 90 - * - 4 - *

Cartridge Type
Overcenter Valve

Flow
90L/min

Body Porting
M=M22X1.5
S=7/8-14UNF
D=G1/2

Pressure Range
20=7-22.5MPa
Std setting 10MPa
35=20-35MPa
Std setting 21MPa

Std setting made at 5L/min

Pilot Ratio
4=4:1