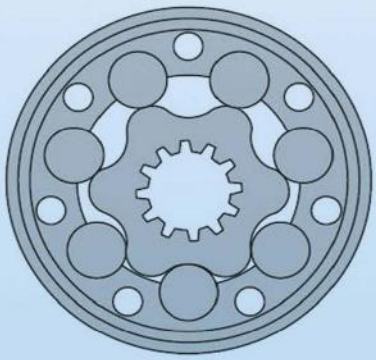
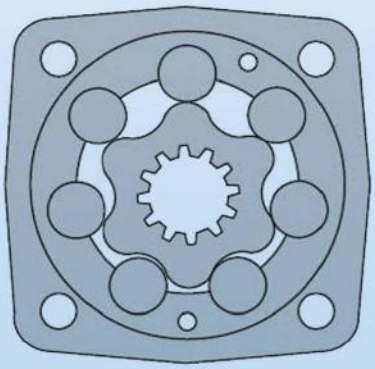
Elephant Fluid Power

大象流体动力有限公司

Elephant Fluid Power Co.,Ltd





中国 河北 石家庄

Shijiazhuang, Hebei, China

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 BMK2、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	BMSY	80~475	22.5	8~800	24
	BMT	160~800	24	10~705	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 (Max.cont.)	10	12	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 (Max.cont.)	10	12	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 (Max.cont.)	10	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 (Max.cont.)	10	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)

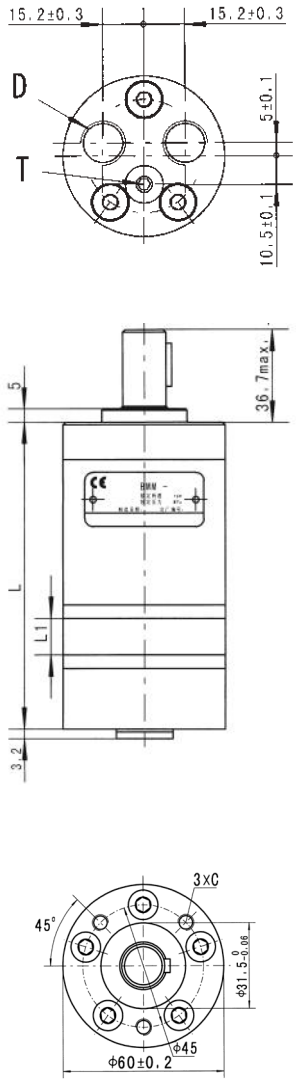
Flow (L/min)	1.5	3	5	7 (Max.cont.)	10 (Max.int.)
2	11 **37**	23 **33**	36 **27**	50 **22**	
4	11 **76**	22 **73**	36 **68**	50 **63**	70 **55**
8	11 **157**	21 **154**	35 **149**	50 **145**	71 **137**
12	11 **237**	20 **234**	33 **231**	49 **226**	71 **218**
15	10 **296**	18 **295**	32 **294**	47 **288**	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.

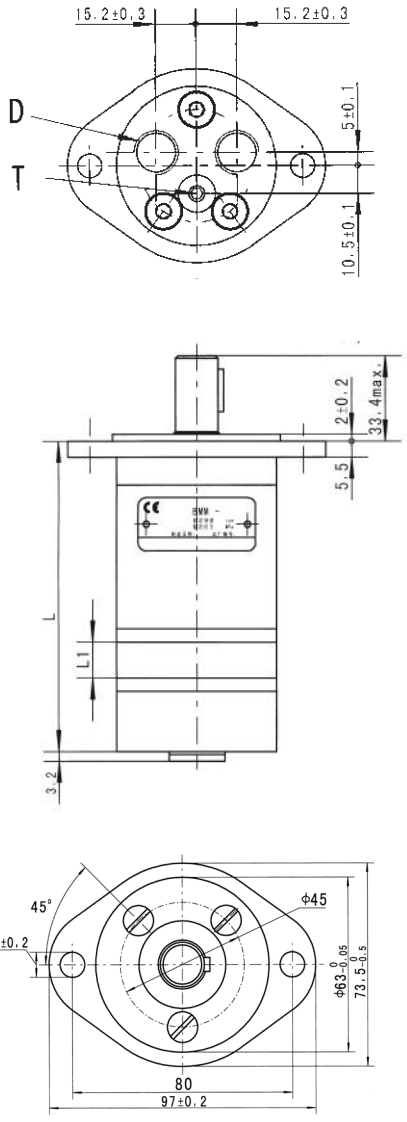
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



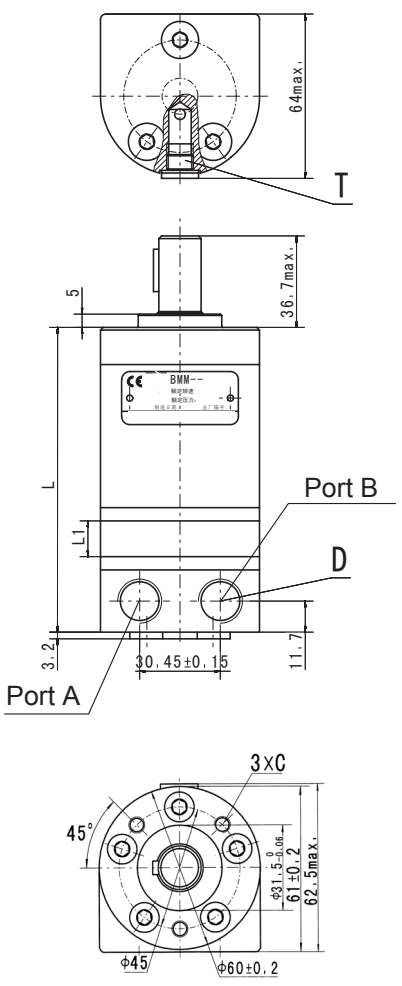
	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

	M、U Flange		F Flange	
Code / Mounting	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)

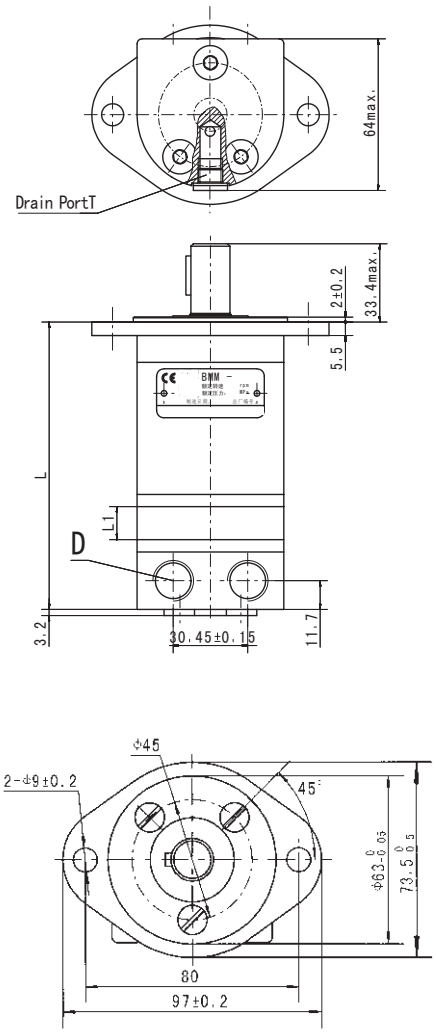
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F

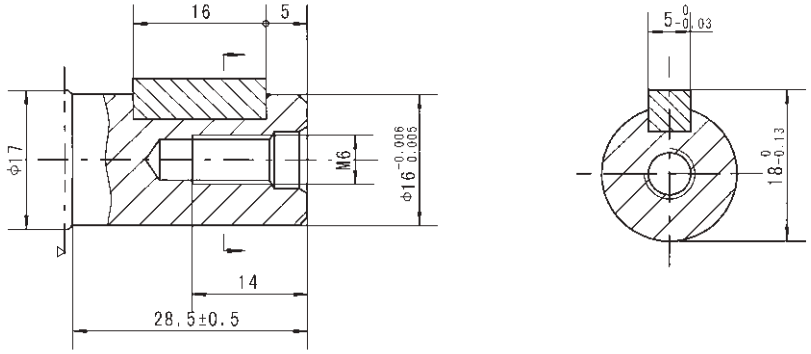


	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

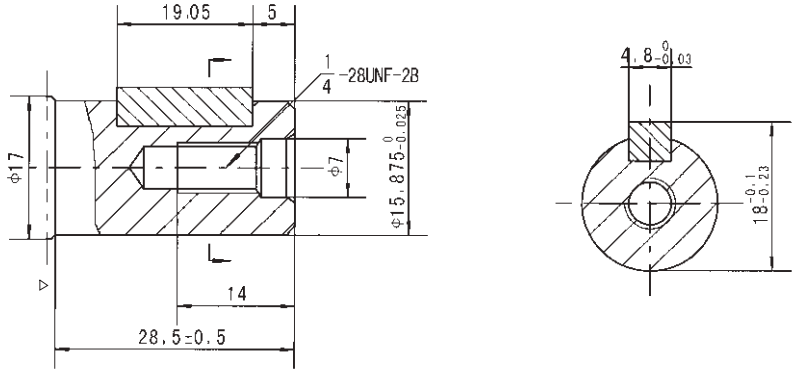
	M、U Flange		F Flange	
Code / Mounting	E (depth)	U (depth)	E (depth)	U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

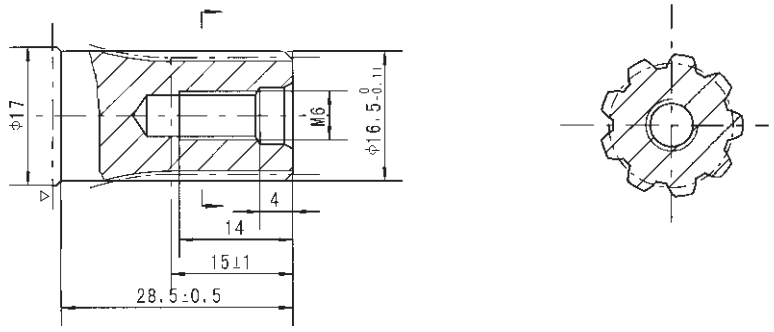
Shaft A: Cylindrical shaft Ø16
Parallel key 5x5x16



Shaft B: Cylindrical shaft Ø15.875
Parallel key 4.8x4.8x19.05



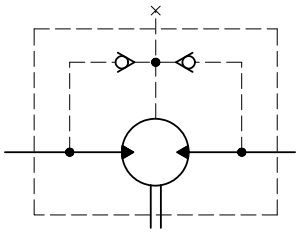
Shaft C: Involute splind shaft
B17x14 DIN5482

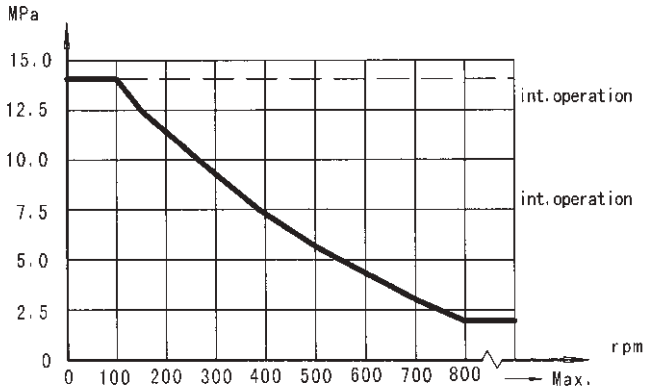


▷ Motor Mounting Surface

BMM Series Hydraulic Motor

Permissible shaft seal pressure

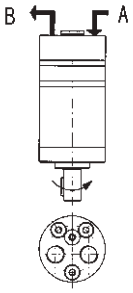




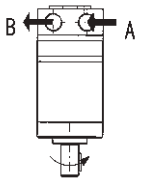
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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.



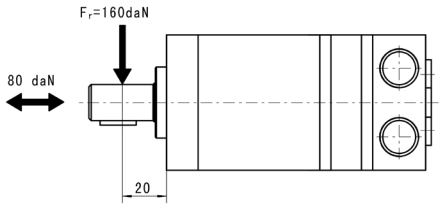
BMM End Port



BMM Side Port

Status of the shaft's radial force

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



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

Order Information

	1		2		3		4		5		6		7		8
BMM		–		–		–		–		–		–		–	

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 36	BMP 50	BMP 80	BMP 100	BMP 125	BMP 160	BMP 200	BMP 250	BMP 315	BMP 400	BMP 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 Max.cont.	16.5 Max.int.
8	13	25	29	34	43	48		
	214	**205**	**200**	**194**	**187**	**179**		
15	13	25	29	34	43	48	56	75
	406	**398**	**391**	**383**	**374**	**366**	**353**	**324**
20	13	24	29	34	43	48	56	76
	541	**534**	**528**	**521**	**513**	**500**	**486**	**458**
30	12	24	29	34	43	48	56	76
	814	**804**	**792**	**778**	**763**	**749**	**726**	**701**
35	12	23	28	34	43	48	56	76
	952	**944**	**930**	**913**	**897**	**879**	**858**	**833**
40	12	23	28	32	41	47	55	75
	1090	**1078**	**1064**	**1048**	**1024**	**998**	**977**	**943**
45	11	22	26	32	41	46	54	74
	1232	**1218**	**1196**	**1175**	**1149**	**1118**	**1080**	**1044**
Max.cont. 55	6	15	22	28	37	44	52	71
	1505	**1494**	**1480**	**1466**	**1438**	**1406**	**1367**	**1309**
Max.int. 60	3	11	18	20	30	38	49	67
	1650	**1640**	**1626**	**1603**	**1571**	**1536**	**1502**	**1446**

BMP 50 [51.7cm³/rev.]

Pressure (MPa)

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

BMP 80 [77.7cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	6	8	10	12.5	14 Max.cont.	16	17.5 Max.int.
8	32	62	85	104	129	144		
	97	**87**	**74**	**55**	**33**	**22**		
15	32	63	84	107	126	144	165	
	186	**181**	**170**	**154**	**132**	**118**	**86**	
20	31	63	84	107	132	146	168	185
	251	**243**	**236**	**225**	**207**	**196**	**178**	**155**
30	31	62	83	106	131	146	168	186
	381	**379**	**368**	**355**	**332**	**316**	**285**	**263**
35	30	59	81	102	130	144	167	185
	443	**435**	**426**	**415**	**397**	**383**	**361**	**342**
45	25	58	79	100	126	142	165	182
	570	**564**	**554**	**543**	**526**	**509**	**483**	**458**
55	23	57	78	97	124	140	161	179
	696	**685**	**672**	**656**	**643**	**630**	**602**	**579**
Max.cont. 60	20	53	75	94	120	137	160	177
	761	**753**	**744**	**736**	**720**	**706**	**681**	**660**
Max.int. 75	14	44	67	87	112	151	169	169
	948	**940**	**931**	**920**	**906**	**890**	**871**	**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 Max.cont.	16	17.5 Max.int.
8	40	77	105	130	161	180		
	81	**75**	**69**	**57**	**36**	**24**		
15	39	77	106	130	160	180	208	
	152	**149**	**145**	**140**	**122**	**103**	**81**	
20	36	74	104	128	161	179	205	227
	204	**200**	**195**	**190**	**177**	**166**	**148**	**133**
30	33	72	103	125	160	177	203	225
	308	**304**	**298**	**290**	**280**	**268**	**255**	**231**
35	30	70	98	122	159	176	202	224
	360	**352**	**343**	**331**	**320**	**306**	**294**	**275**
45	29	67	95	118	155	174	200	220
	462	**458**	**451**	**443**	**433**	**419**	**402**	**383**
55	25	64	93	116	152	170	198	217
	566	**558**	**549**	**540**	**529**	**515**	**498**	**478**
Max.cont. 60	22	60	91	114	149	167	194	213
	618	**611**	**601**	**589**	**580**	**570**	**558**	**540**
Max.int. 75	15	54	83	106	141	160	186	205
	771	**763**	**755**	**744**	**735**	**724**	**708**	**693**

cont.
int.

Performance Data

BMP 125 [120.2cm³/rev.]

Pressure (MPa)

Flow (L/min)	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.]

Pressure (MPa)

Flow (L/min)	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.]

Pressure (MPa)

Flow (L/min)	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.]

Pressure (MPa)

Flow (L/min)	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	Max.cont. 12.5	Max.int. 14
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**
Max.cont. 60	65 **188**	154 **186**	227 **184**	308 **182**	348 **178**	443 **172**	529 **163**
Max.int. 75	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	Max.cont. 10	Max.int. 12.5
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**
Max.cont. 60	102 **153**	163 **152**	215 **150**	272 **148**	347 **146**	436 **143**	532 **138**
Max.int. 75	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)

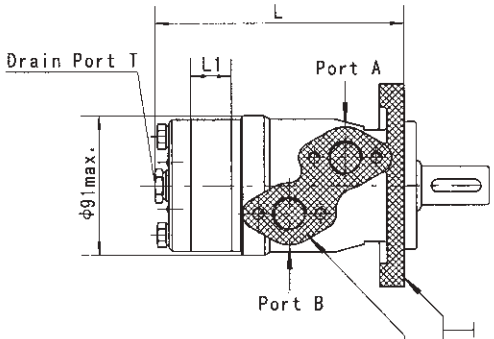
Flow (L/min)	1.5	3	4.5	Max.cont. 6	7	8	Max.int. 9
4	96 **7**	194 **6**	285 **4**				
8	98 **15**	201 **15**	304 **14**	391 **14**	443 **12**	512 **9**	574 **7**
15	96 **30**	192 **30**	284 **29**	380 **28**	421 **26**	496 **23**	550 **22**
20	96 **40**	191 **40**	280 **40**	372 **39**	418 **37**	493 **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**
Max.cont. 60	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**
Max.int. 75	35 **153**	83 **152**	154 **151**	241 **150**	312 **149**	389 **147**	448 **144**

cont.
int.

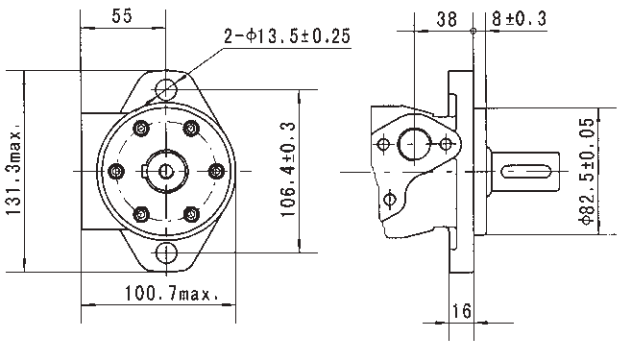
Torque (N•m) 389
Speed (rpm) **147**

BMP DIMENSIONS AND MOUNTING DATA

MOUNTING



Flange 2



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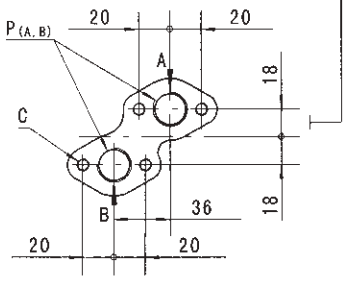
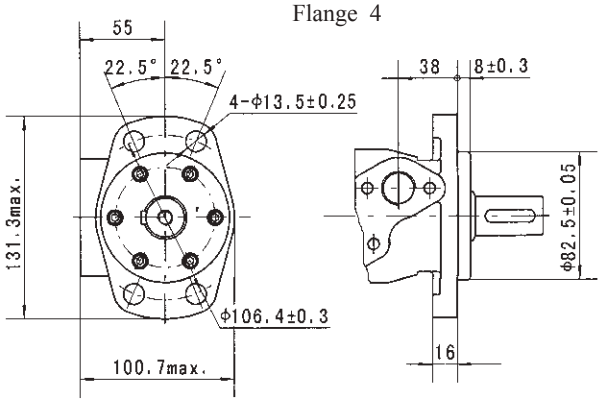
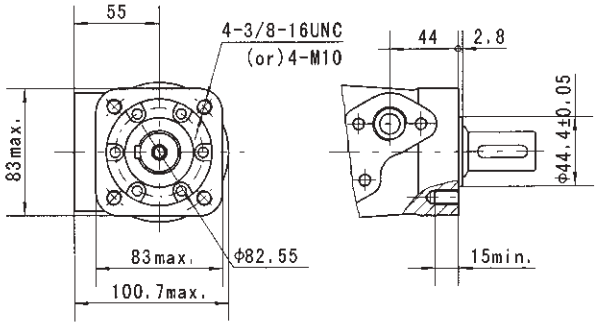


Flange 4



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

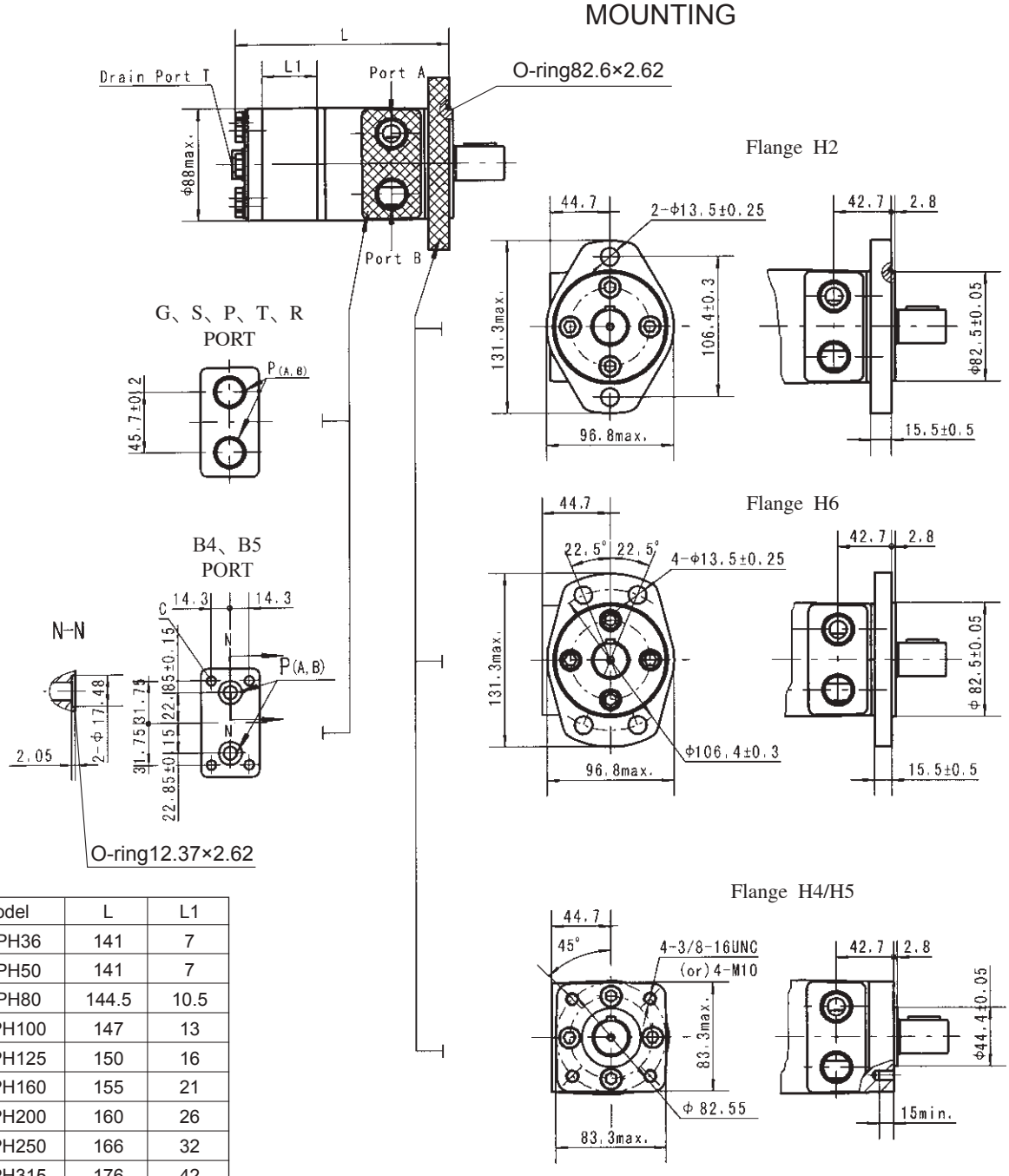
Flange H4/H5



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

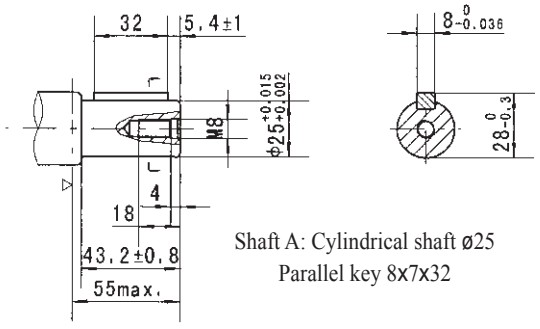


Model	L	L1
BMPH36	141	7
BMPH50	141	7
BMPH80	144.5	10.5
BMPH100	147	13
BMPH125	150	16
BMPH160	155	21
BMPH200	160	26
BMPH250	166	32
BMPH315	176	42
BMPH400	186	52
BMPH500	199	65

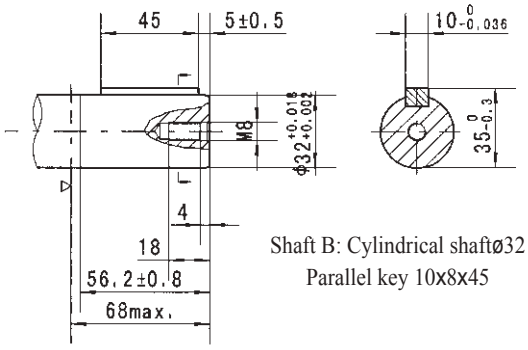
Note: The size L of the BMPH N1 should be increased by 2mm.

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)

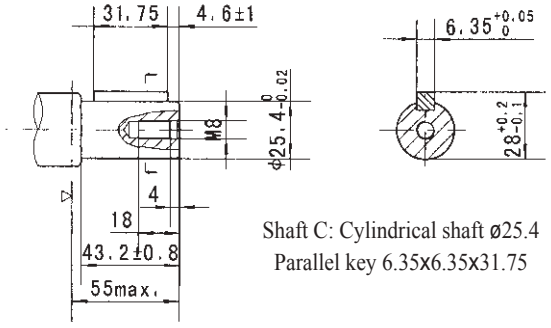
BMP SHAFT EXTENSIONS DIMENSIONS DATA



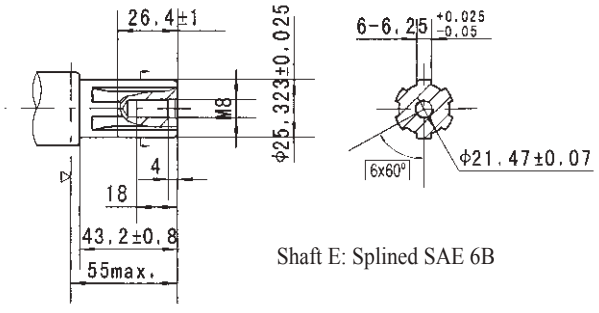
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



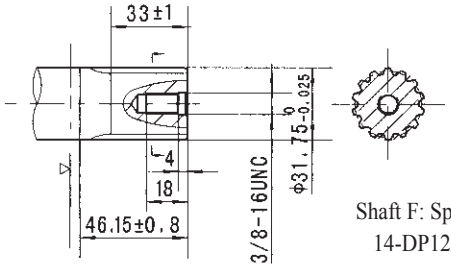
Shaft B: Cylindrical shaftø32
Parallel key 10x8x45



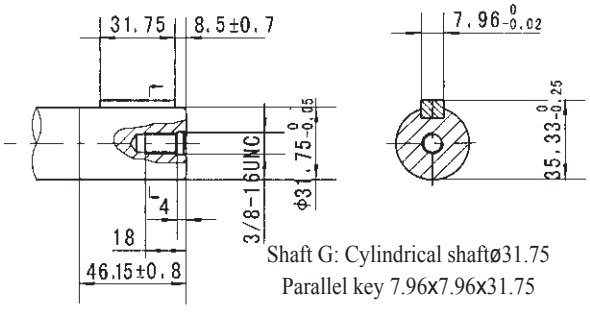
Shaft C: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



Shaft E: Splined SAE 6B



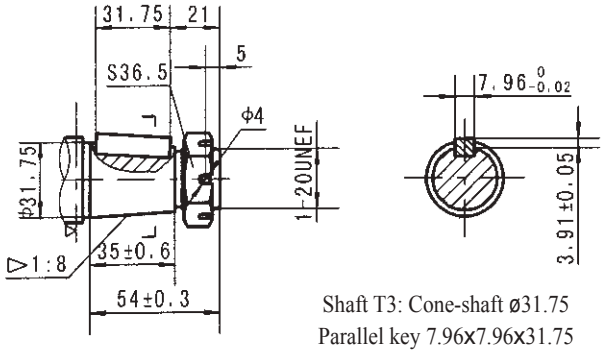
Shaft F: Splined
14-DP12/24



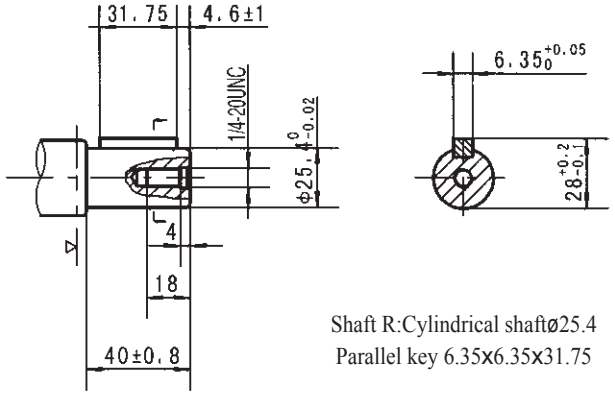
Shaft G: Cylindrical shaftø31.75
Parallel key 7.96x7.96x31.75

▷ Motor Mounting Surface

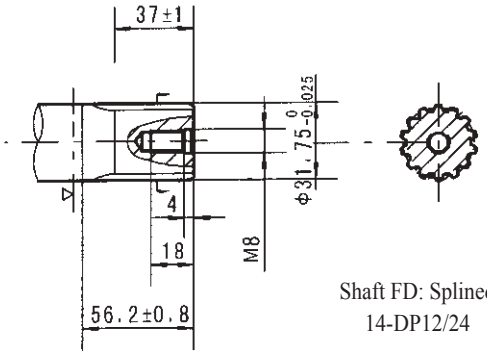
BMP SHAFT EXTENSIONS DIMENSIONS DATA



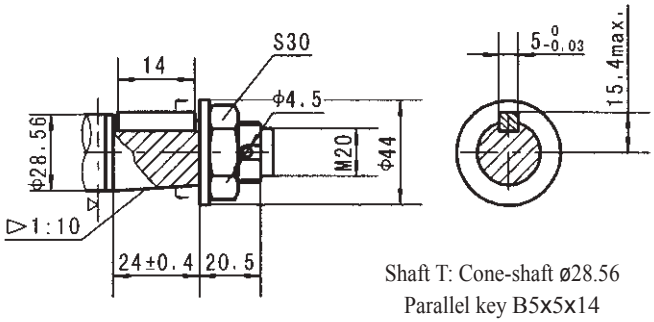
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm



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



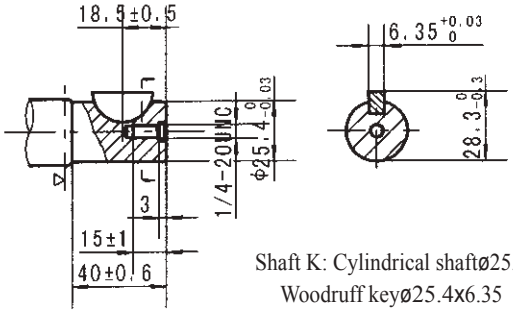
Shaft FD: Splined
14-DP12/24



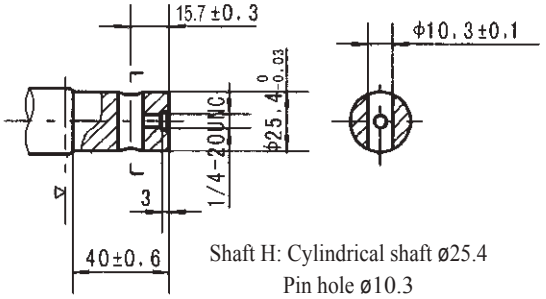
Shaft T: Cone-shaft ø28.56
Parallel key B5x5x14
Tightening torque:100±10Nm

▷ Motor Mounting Surface

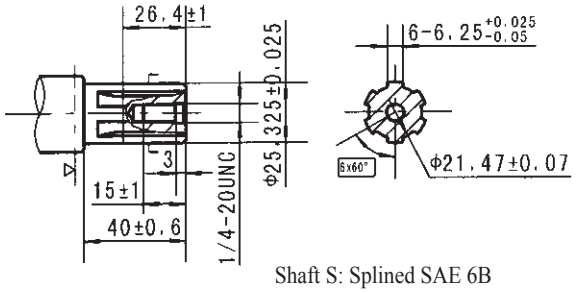
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



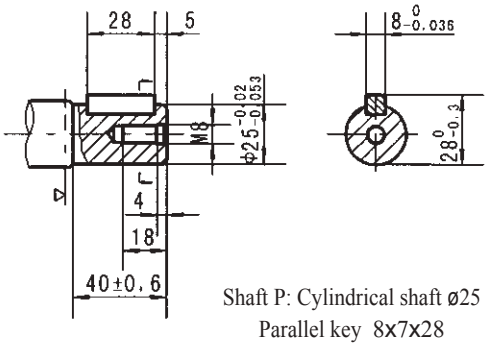
Shaft K: Cylindrical shaftø25.4
Woodruff keyø25.4x6.35



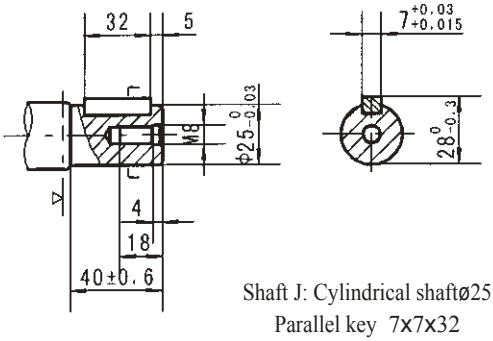
Shaft H: Cylindrical shaft ø25.4
Pin hole ø10.3



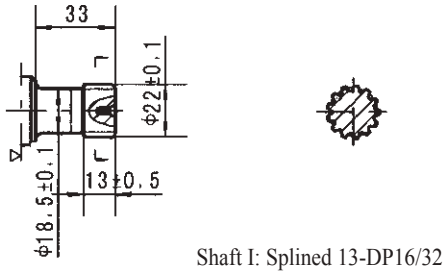
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft ø25
Parallel key 8x7x28



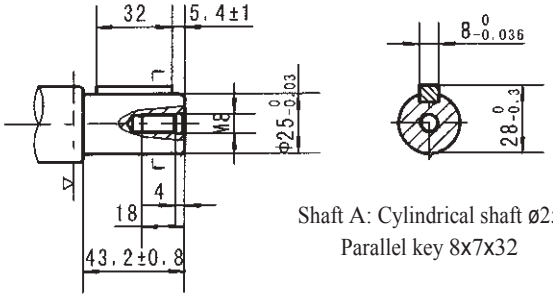
Shaft J: Cylindrical shaftø25
Parallel key 7x7x32



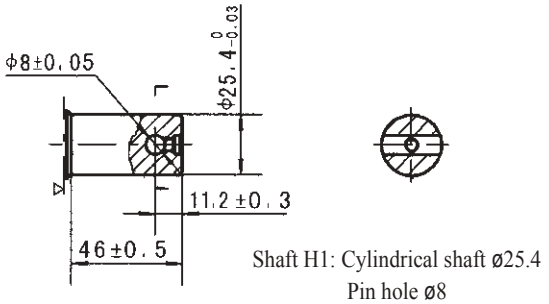
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

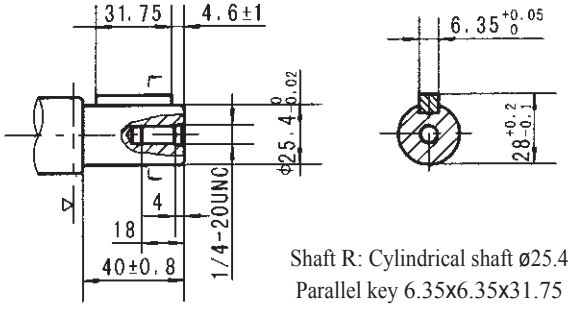
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



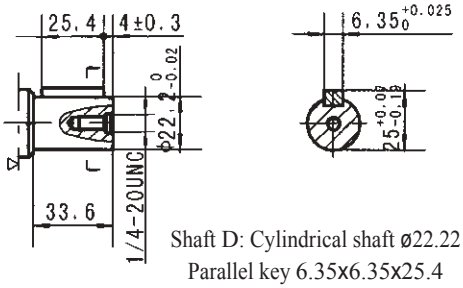
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



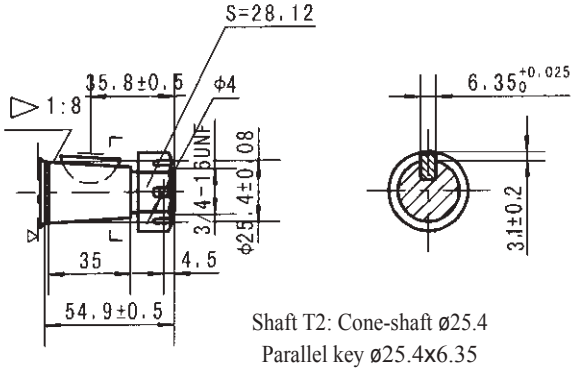
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



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



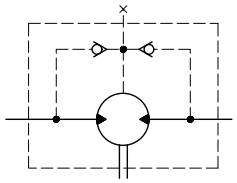
Shaft D: Cylindrical shaft ø22.22
Parallel key 6.35x6.35x25.4



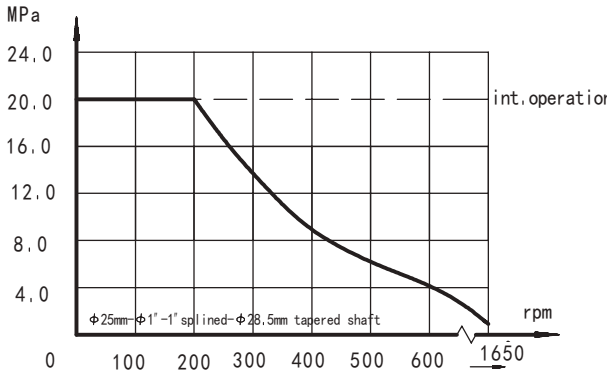
Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque:200±10Nm

▷ Motor Mounting Surface

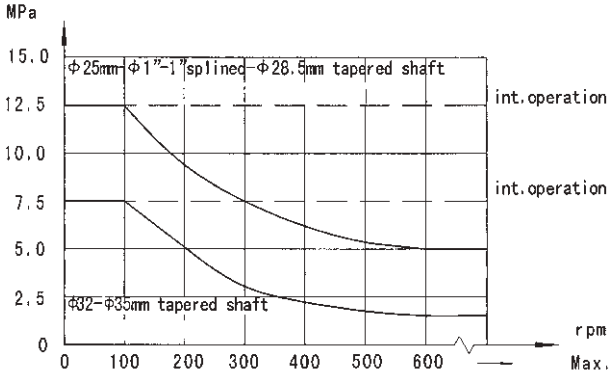
BMP、BMPH Series Hydraulic Motor



Permissible shaft seal pressure



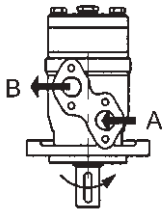
High pressure shaft seal



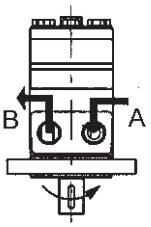
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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.

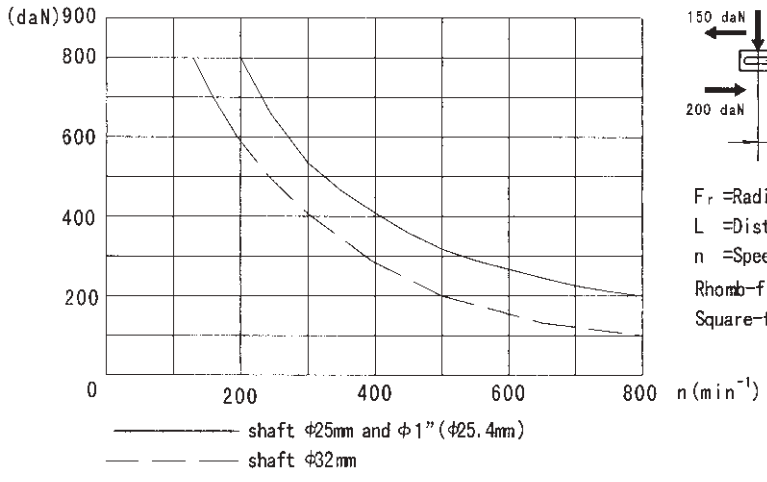


BMP

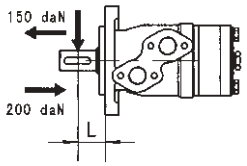


BMPH

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

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop (MPa)	Viscosity (mm^2/s)	Oil flow in the drain line (L/min.)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8

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 T B F FD G 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 Cone shaft Ø28.56,parallel key B5x5x14 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 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

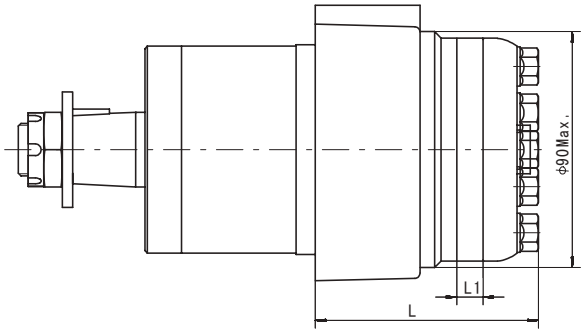
Note:The shafts of B\F\FD\G\T1\T3 are only suitable for flanges of 2 and 4.

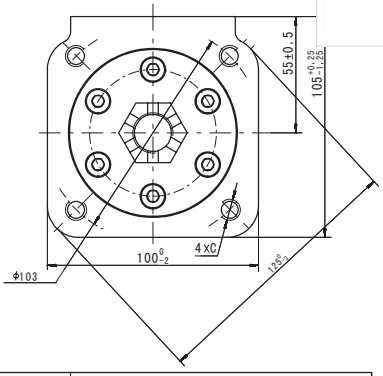
1	2	3	4	5	6	7	8
BMPH	–	–	–	–	–	–	–

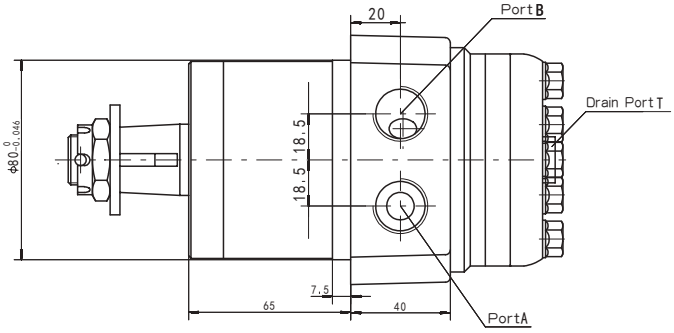
Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Ports and Drain Port		Rotation Direction		Paint		Unusually Function	
BMPH	36 50 80 100 125 160 200 250 315 400 500	H2 H6 H4 H5	2-Ø13.5 Rhomb-flange , pilot Ø82.5×2.8 4-Ø13.5 Rhomb-flange , pilot Ø82.5×2.8 4-3/8-16 Square-flange , pilot Ø44.4×2.8 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 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.

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

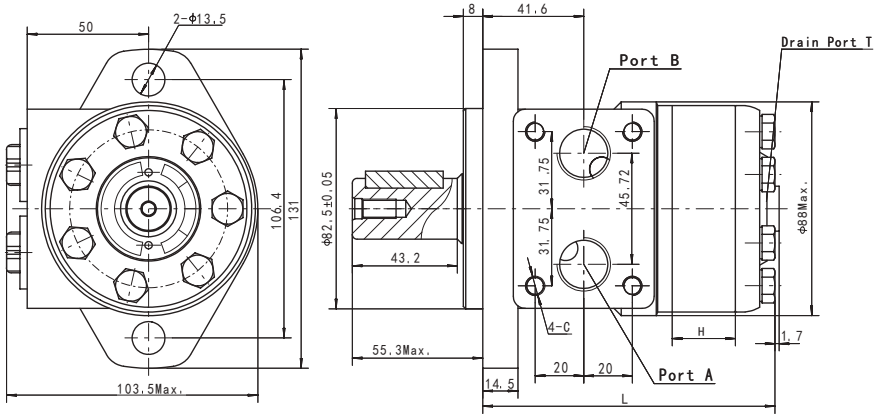
Technical data for OZ with 25 and 1 in and 1 in splined and 28.56 tapered shaft

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	36	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	120.2	339	162	218	5.2	8.6	10.5	14	40
OZ 160	157.2	257	216	288	5.2	8.6	10.5	14	40
OZ 200	194.5	211	264	351	5.2	8.6	10.5	14	40
OZ 250	240.3	173	281	351	4.6	7	9	11.5	40
OZ 315	314.5	128	312	433	3.4	5.8	7	10.5	40
OZ 400	389.5	104	392	582	3.4	5.8	7	10.5	40

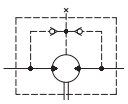
* Intermittent operation: the permisssible values may occur for max.10% of every minute

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

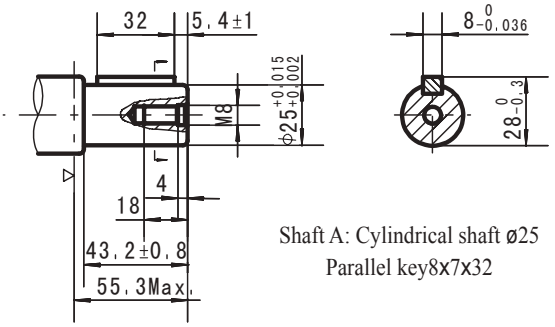


Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

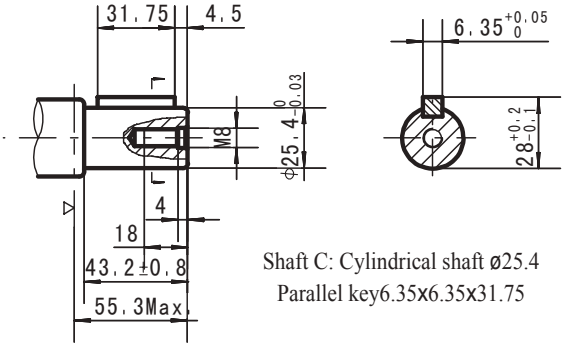


Direction of shaft rotation: Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

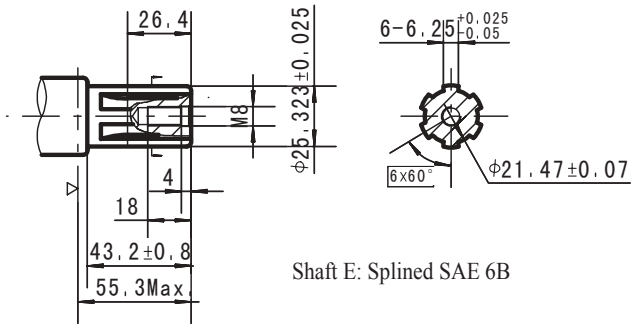
SHAFT EXTENSIONS FOR OZ MOTORS



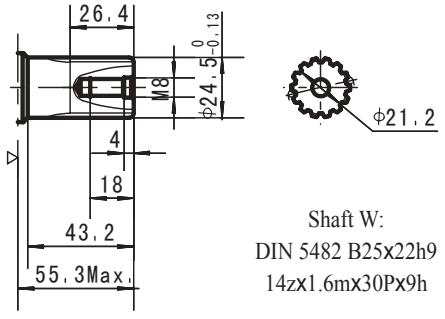
Shaft A: Cylindrical shaft ø25
Parallel key8x7x32



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
Omit	36	2	2-Ø13.5 Rhomb-flange, pilot Ø82.5×8	A Shaft Ø25, parllel key 8×7×32	D G1/2 Manifold 4×M8, G1/4	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	R Opposite	B Blue	F Free Running
	80			E Shaft Ø25.4, splined key SEA 6B	S 7/8-14 O-ring manifold		S Black	0 No case drain
	100			W Shaft Ø24.5, splined B25X22	P 1/2-14NPTF manifold			
	125			T Cone shaft Ø28.56, parllel key B5×5×14	R 4×5/16-18UNC,7/16-20UNF PT(Rc)1/2 manifold 4×M8, PT(Rc)1/4			
	160				4×5/16-18UNC,7/16-20UNF		Silver grey	
	200							
	250							
	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 36	BMR 50	BMR 80	BMR 100	BMR 125	BMR 160	BMR 200	BMR 250	BMR 315	BMR 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.

Performance Data

BMR 36 [36cm³/rev.]

Pressure (MPa)

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

BMR 50 [51.7cm³/rev.]

Pressure (MPa)

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

BMR 80 [81.5cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 135
Speed (rpm) **830**

BMR 100 [102cm³/rev.]

Pressure (MPa)

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

cont.
int.

Performance Data

BMR 125 [127.2cm³/rev.]

Pressure (MPa)

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

BMR 160 [157.2cm³/rev.]

Pressure (MPa)

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

BMR 200 [194.5cm³/rev.]

Pressure (MPa)

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

BMR 250 [253.5cm³/rev.]

Pressure (MPa)

Flow (L/min)	5	7	9	10	12	14	16 (Max.cont.)	17.5	20 (Max.int.)
5	175	243	304	342	407				
	17	**16**	**14**	**12**	**10**				
10	178	246	310	344	409	465	525		
	37	**35**	**31**	**28**	**23**	**18**	**11**		
20	175	244	308	340	408	463	520	558	636
	75	**73**	**72**	**70**	**66**	**58**	**53**	**50**	**42**
30	162	235	304	332	400	455	516	550	621
	114	**111**	**108**	**106**	**100**	**92**	**83**	**77**	**65**
40	143	223	300	329	396	447	512	546	617
	154	**152**	**150**	**147**	**143**	**132**	**120**	**110**	**90**
50	124	208	289	323	384	440	503	535	600
	193	**190**	**187**	**174**	**168**	**160**	**149**	**140**	**116**
Max.cont. 60	103	192	280	314	371	426	489	514	578
	233	**230**	**227**	**224**	**218**	**205**	**190**	**181**	**155**
70	88	178	264	301	356	418	479	498	560
	273	**270**	**267**	**263**	**252**	**242**	**226**	**209**	**173**
Max.int. 75	62	165	256	288	347	412	474	486	542
	294	**291**	**287**	**283**	**274**	**263**	**249**	**236**	**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 (Max.cont.)	16	17.5 (Max.int.)
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**
60 (Max.cont.)	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**
75 (Max.int.)	125 **232**	212 **228**	303 **222**	339 **216**	417 **208**	481 **200**	543 **183**	582 **171**

Torque (N•m) 481
Speed (rpm) **200**

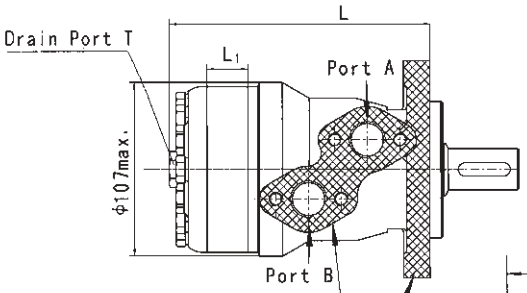
BMR 375 [381.4cm³/rev.]

Pressure (MPa)

Flow (L/min)	3	4.5	5.5	6.5	8	10 (Max.cont.)	12.5	14 (Max.int.)
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**
60 (Max.cont.)	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**
75 (Max.int.)	56 **195**	125 **194**	182 **193**	241 **191**	320 **189**	408 **185**	524 **178**	565 **170**

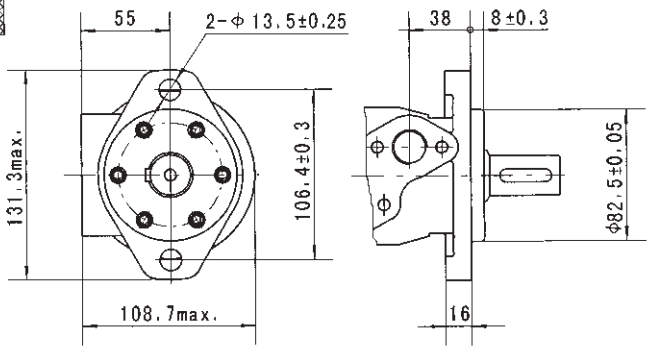
cont.
int.

BMR DIMENSIONS AND MOUNTING DATA

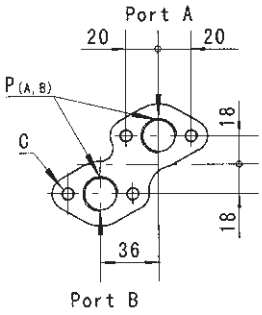


MOUNTING

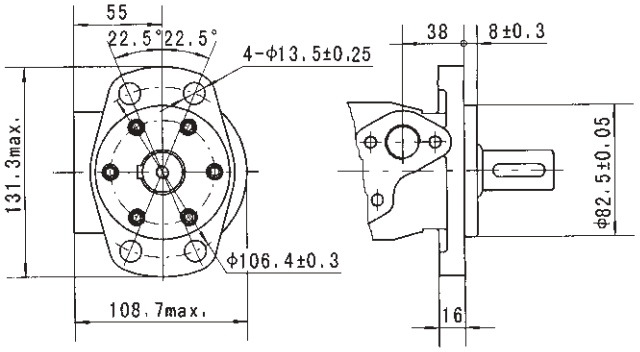
Flange 2



PORT

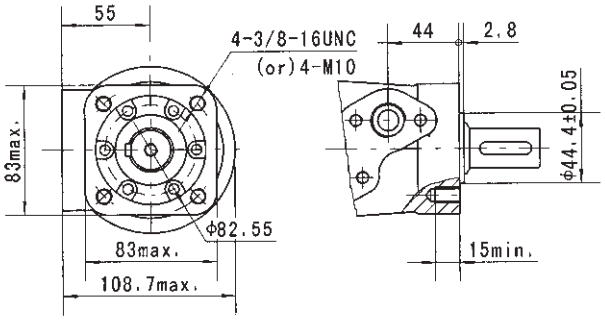


Flange 4



Model	L	L1
BMR36	137	7
BMR50	140	10
BMR80	146	16
BMR100	150	20
BMR125	155	25
BMR160	160.5	30.5
BMR200	168	38.1
BMR250	180	50
BMR315	192	62
BMR375	204	74

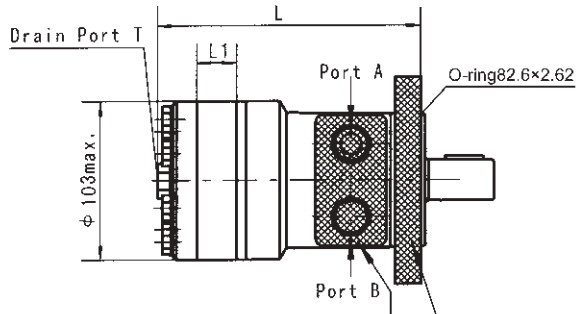
Flange H4/H5



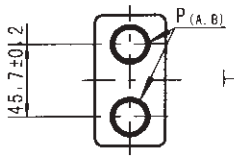
Mounting \ Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

BMRS DIMENSIONS AND MOUNTING DATA

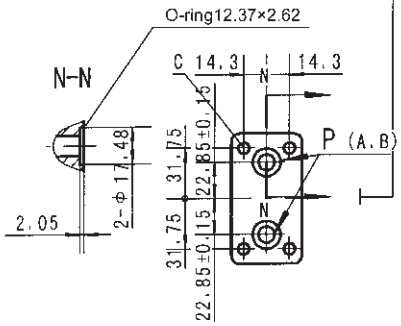
MOUNTING



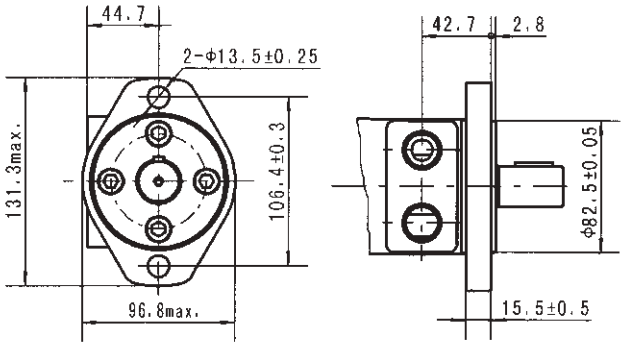
PORT: G、S、P、R、M1、M2、M3



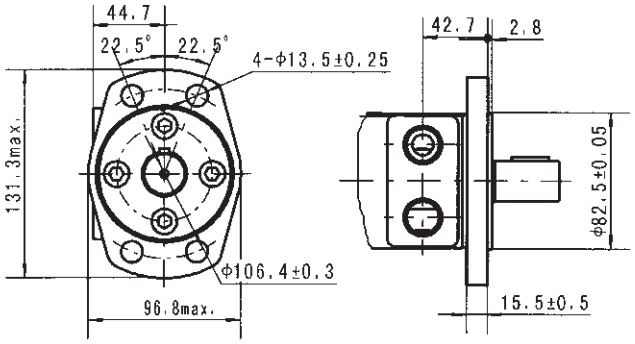
PORT: B4、B5



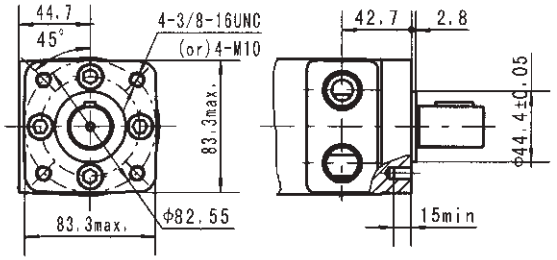
Flange H2



Flange H6



Flange H4/H5

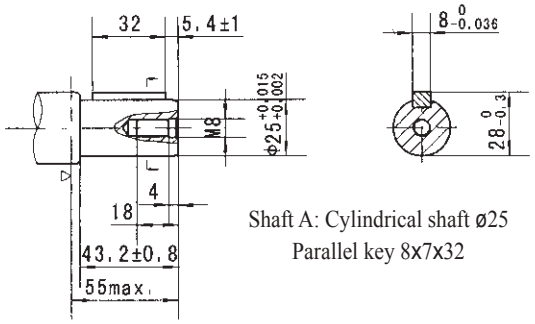


Model	L	L1
BMRS36	143	7
BMRS50	146	10
BMRS80	152	16
BMRS100	156	20
BMRS125	161	25
BMRS160	166.5	30.5
BMRS200	174	38.1
BMRS250	186	50
BMRS315	198	62
BMRS375	210	74

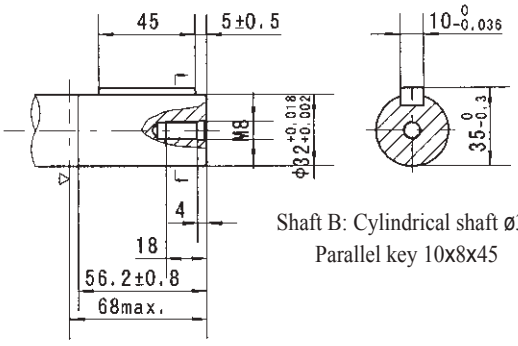
Note: The size L of the BMRS N1 should be increased by 2mm.

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)

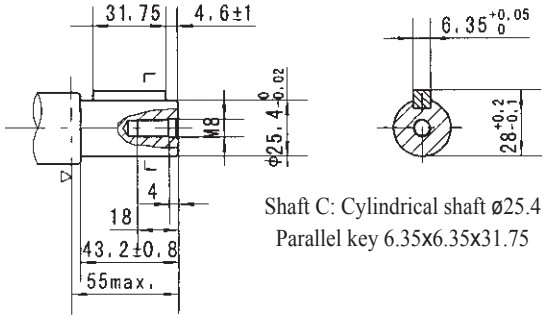
BMR SHAFT EXTENSIONS DIMENSIONS DATA



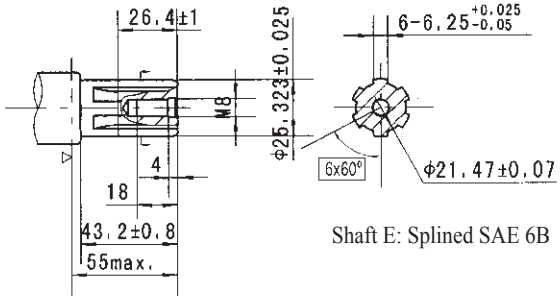
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



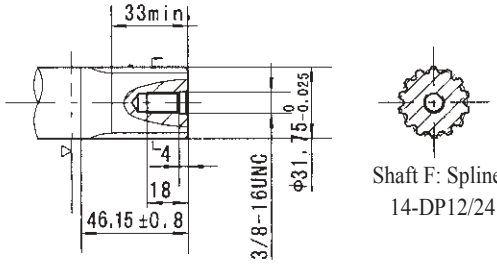
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



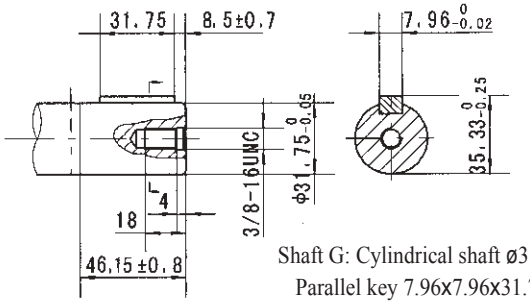
Shaft C: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



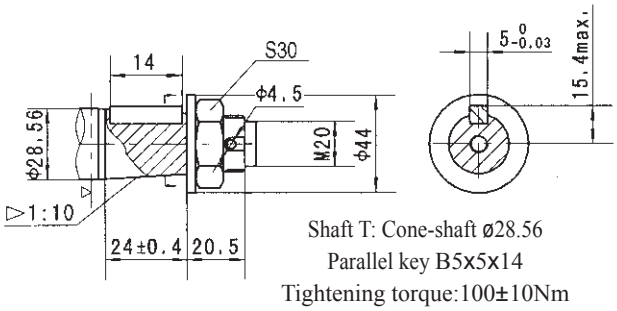
Shaft E: Splined SAE 6B



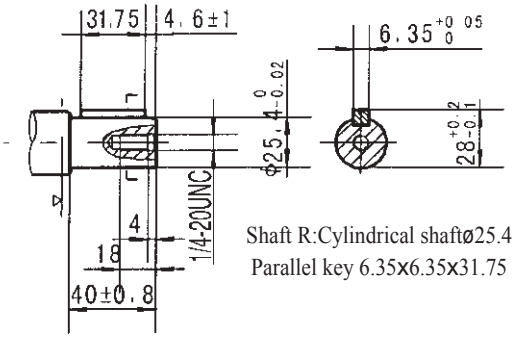
Shaft F: Splined
14-DP12/24



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



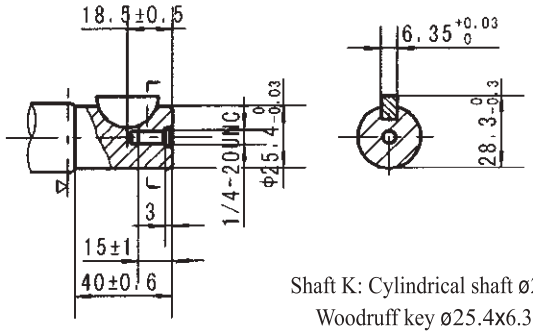
Shaft T: Cone-shaft ø28.56
Parallel key B5x5x14
Tightening torque:100±10Nm



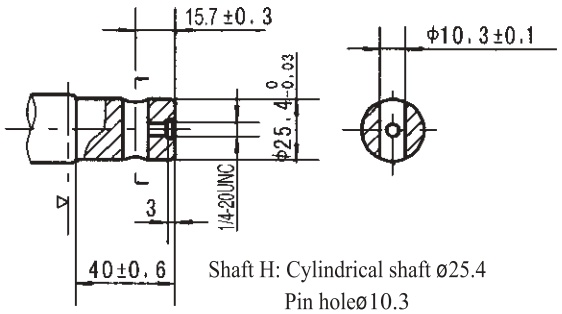
Shaft R:Cylindrical shaftø25.4
Parallel key 6.35x6.35x31.75

▷ Motor Mounting Surface

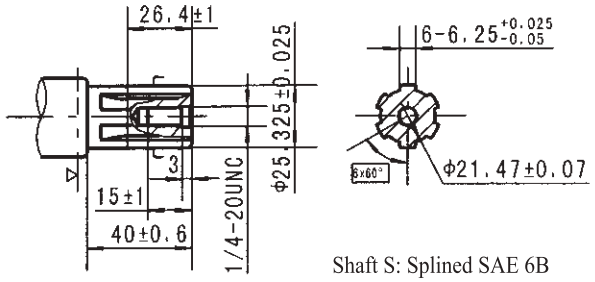
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA



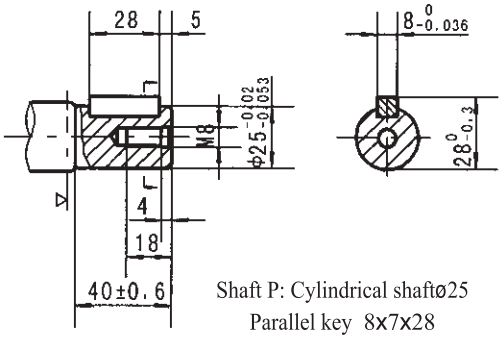
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35



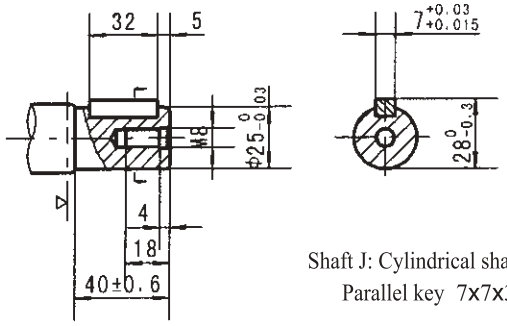
Shaft H: Cylindrical shaft ø25.4
Pin holeø10.3



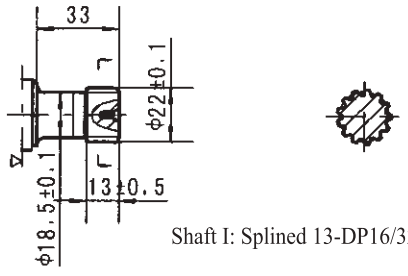
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaftø25
Parallel key 8x7x28



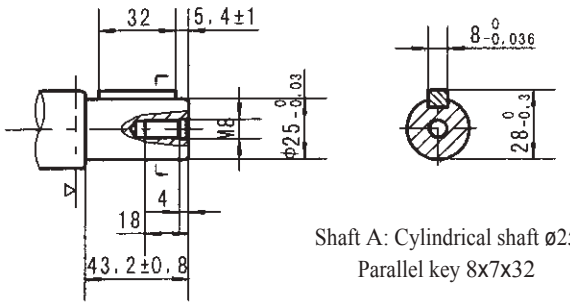
Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



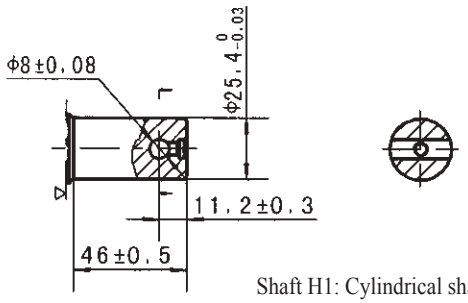
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

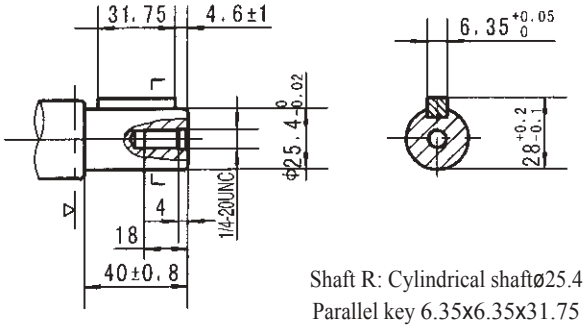
BMRS SHAFT EXTENSIONS DIMENSIONS DATA



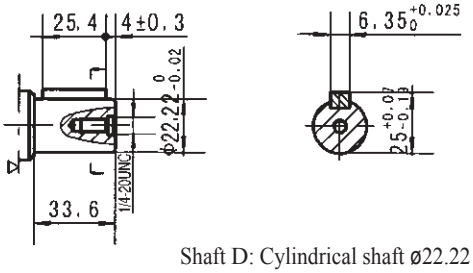
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



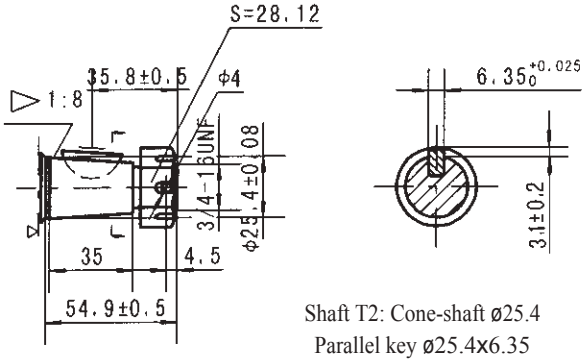
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



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



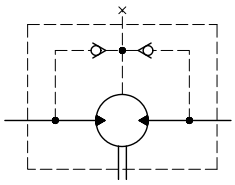
Shaft D: Cylindrical shaft ø22.22
Parallel key 6.35x6.35x25.4



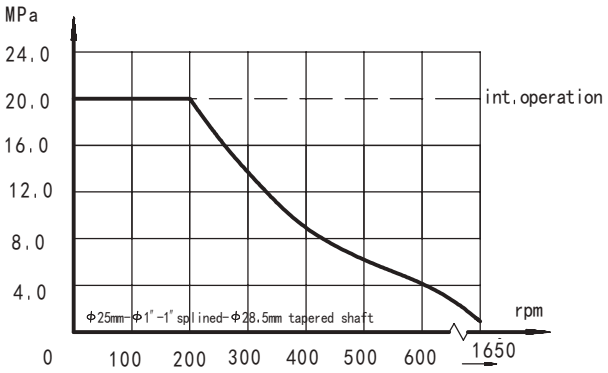
Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque:200±10Nm

▷ Motor Mounting Surface

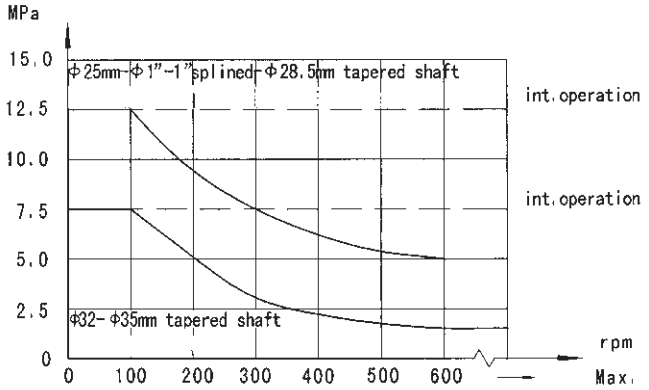
BMR、BMRS Series Hydraulic Motor



Permissible shaft seal pressure



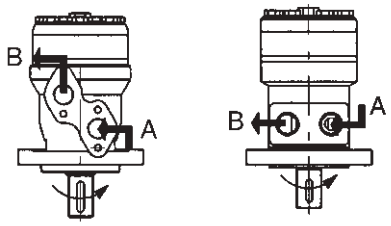
High pressure shaft seal



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.

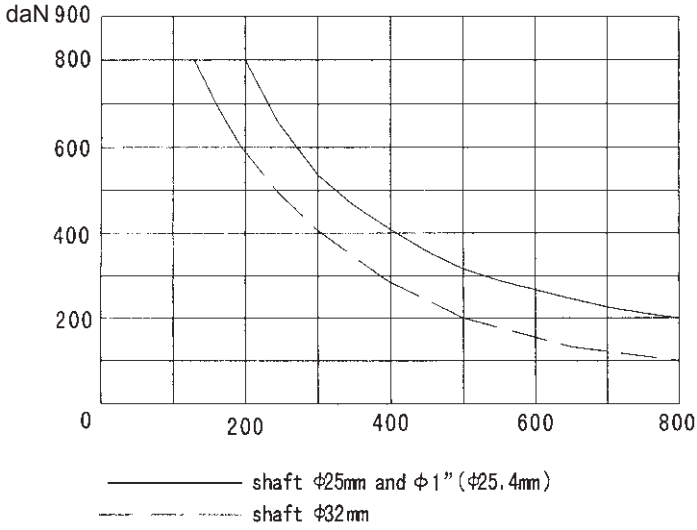
Direction of shaft ration : Standard

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

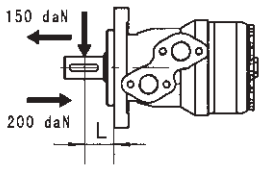


BMR BMRS

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



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



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

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop (MPa)	Viscosity (mm2/s)	Oil flow in the drain line (L/min.)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8

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 T B F FD G	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 Cone-Shaft Ø28.56,parallel Key B5x5x14 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	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

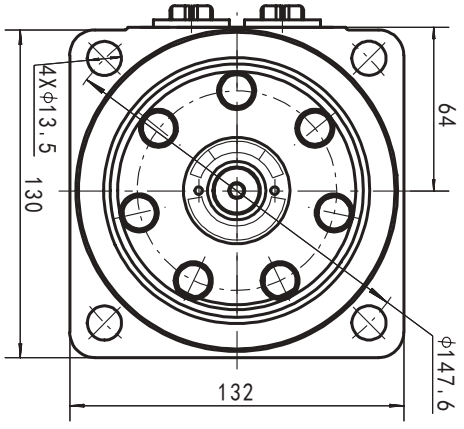
Note:The shafts of B\F\FD\G\T1\T3 are only suitable for flanges of 2 and 4.

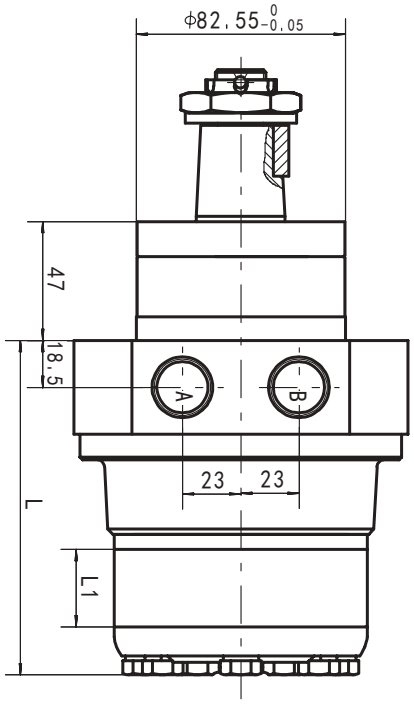
1	2	3	4	5	6	7	8
BMRS	–	–	–	–	–	–	–

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

Pos.1	2	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	1:10Cone shaft Ø35, parllel key B6×6×20	D	G1/2, G1/4	Omit	Standard	00	No paint	Omit Standard
	80		B	Shaft Ø32 , parllel key 10×8×4	M	M22×1.5,M14×1.5	R	Opposite	Omit	Omit	
	100		F	Shaft Ø31.75, splined key 14-DP12/2	S	7/8-14 O-ring,7/16-20UNF			B	Blue	
	125		FD	Long Shaft Ø31.75, splined key14-DP12/24	P	1/2-14NPTF ,7/16-20UNF			S	Black	
	160	Omit	G	Shaft Ø31.75, parllel key 7.96×7.96×31.75						Silver grey	
	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	G(depth)	M(depth)	S(depth)	P(depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14O-ring(17)	1/2-14NPTF(15)
C	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)

BMR-BK01 SERIES HYDRAULIC MOTOR WITH BRAKE

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

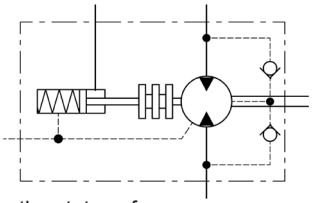
*Special design for distribution system can meet the requirement of low noise of unit .

*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	127.2	157.2	194.5	253.3	317.5	381.4
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.

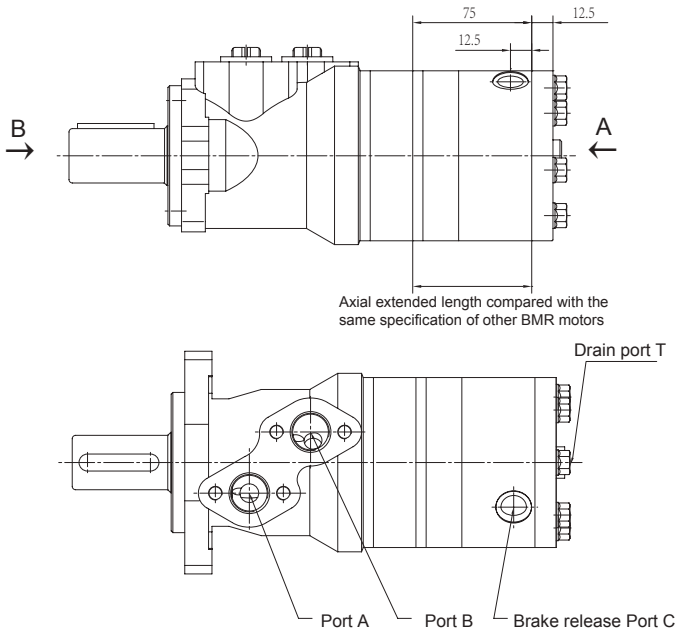
*Intermittent pressure:Max. value of operating motor in 6 seconds per minute .

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

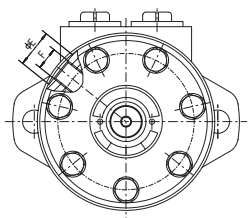
*Such kind of brake is only used in static paring brake.Dynamic braking in not recommenged.

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.

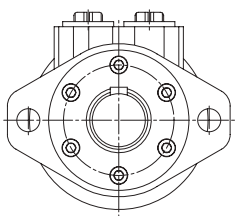
BMR-BK01 DIMENSIONS AND MOUNTING DATA



A



B



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 75mm as picture. Port C is brake releasing port, the position is as picture.

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	N1	Big radial force	
	80			C	Shaft Ø25.4,parallel Key 6.35×6.35×31.75	M	M22×1.5 Manifold Mount 4×M8,			R	Opposite	Omit	Blue			
	100	4	4-Ø13.5Rhomb-flange, pilot Ø82.5×8	E	Shaft Ø25.4,splined tooth SAE 6B		M14×1.5					B	Black			
	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 .
Note:The shafts of B\F\FD\G\T\T3 are only suitable for flanges of 2 and 4.

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

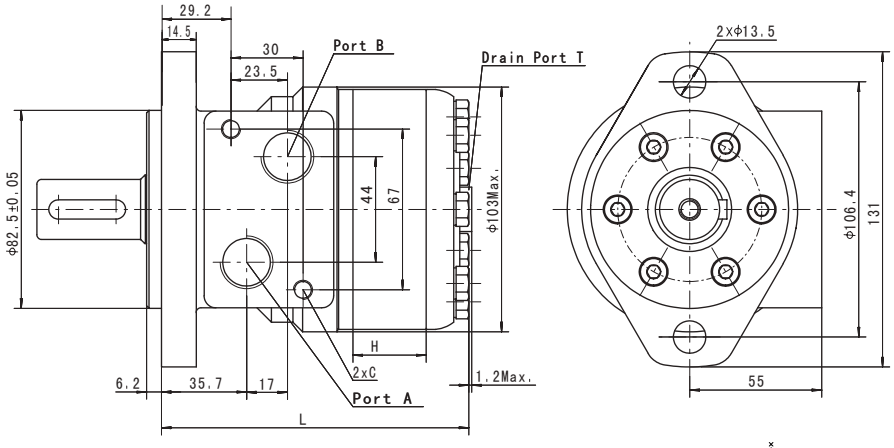
Main Specification

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

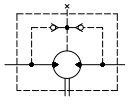
Code	Displacement [cm/rev]	Max.Speed [rpm]	Max.Torque [Nm]		Max.output [kW]		Max.pressure [MPa]		Max.Oil Flow[L/min]
		cont.	cont.	int.	cont.	int.	cont.	int.	cont.
OK 36	36	1111	66	83	9	10.4	14	17.5	40
OK 50	51.7	780	100	129	9	10.4	14	17.5	40
OK 80	81.5	744	158	196	10.4	12.6	14	17.5	60
OK 100	102	595	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

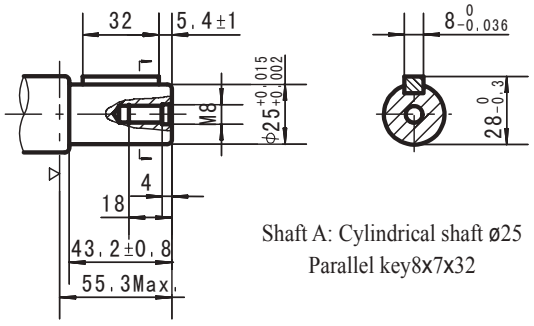


Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

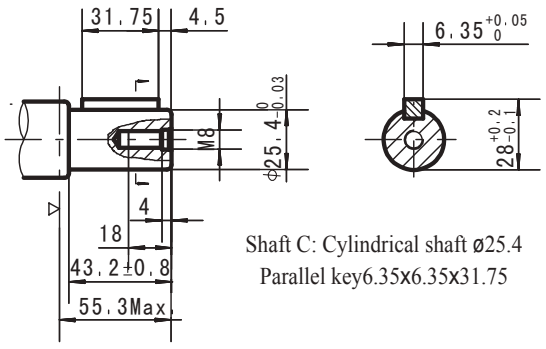


Direction of shaft rotation: Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

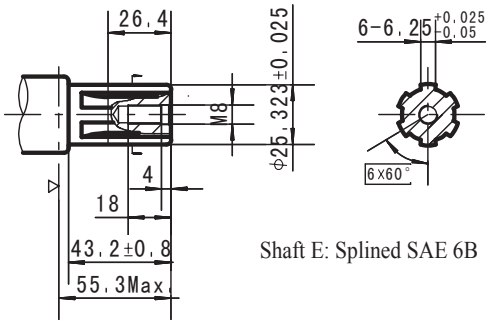
SHAFT EXTENSIONS FOR OK MOTORS



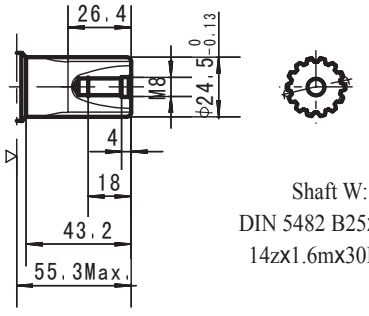
Shaft A: Cylindrical shaft ø25
Parallel key8x7x32



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

OK – 1 – 2 – 3 – 4 – 5 – 6 – 7 – 8

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	D	G1/2 Manifold 4×M8, G1/4	Omit	Standard	0O	No paint	Omit	Standard
			C	Shaft Ø25.4 , parllel key 6.35×6.35×31.75	M	M22×1.5 Manifold4×M8,M14×1.5	R	Opposite	Omit	Blue	F	Free Running
			E	Shaft Ø25.4, splined key SEA 6B	S	7/8-14 O-ring manifold			B	Black	0	No case drain
			W	Shaft Ø24.5, splined B25X22	P	4×5/16-18UNC,7/16-20UNF 1/2-14NPTF manifold			S	Sliver grey		
			T	Cone shaft Ø28.56, parllel key B5×5×14	R	4×5/16-18UNC,7/16-20UNF PT(Rc)1/2 manifold 4×M8,PT(Rc)1/4						

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.	20	17.5
	int.	22.5	20
	peak	25	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.
* 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**
Max.cont. 75	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**
Max.int. 90	39 **439**	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**
Max.cont. 75	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**
Max.int. 90	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**
Max.cont. 75	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**
Max.int. 90	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**
Max.cont. 75	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**
Max.int. 90	90 **220**	256 **220**	433 **215**	595 **202**	767 **183**	881 **165**

cont.
int.

Performance Data

BMH 500 [489.2cm³/rev.]

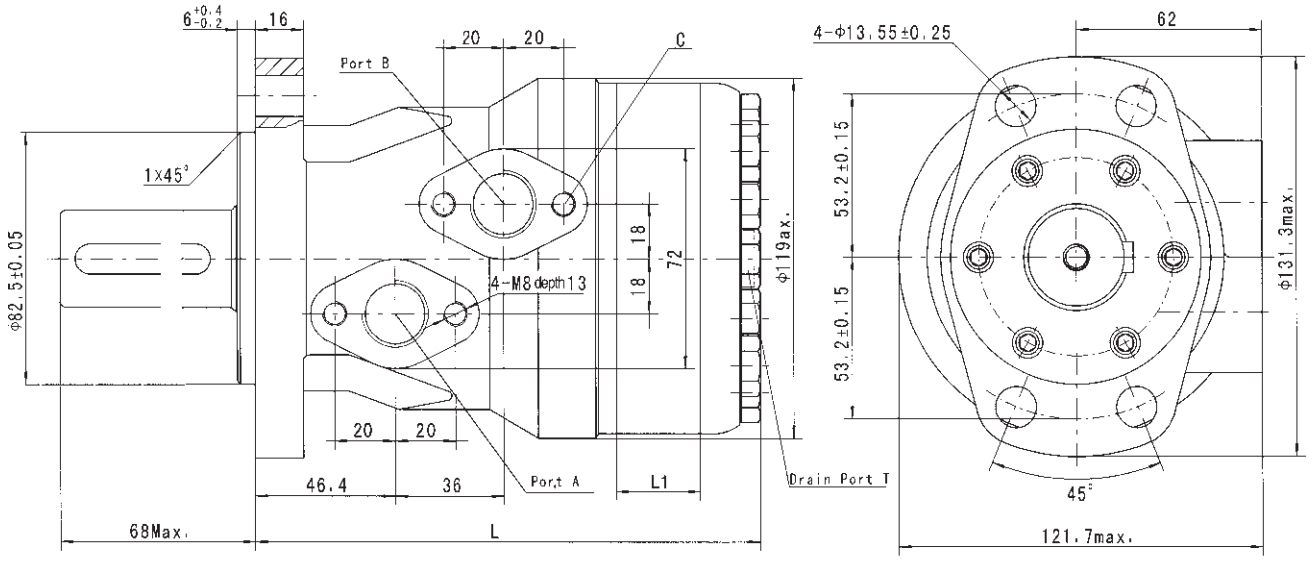
Flow (L/min)	Pressure (MPa) 2.5	5	8.5	10	12.5 (Max.cont.)	16 (Max.int.)
5	165 **11**	317 **11**	516 **8**			
10	178 **20**	335 **19**	555 **17**	669 **15**	791 **13**	969 **9**
20	177 **42**	331 **42**	559 **41**	673 **38**	799 **36**	988 **29**
30	172 **64**	320 **63**	553 **61**	663 **57**	792 **53**	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**

Torque (N•m) 673
Speed (rpm) **166**

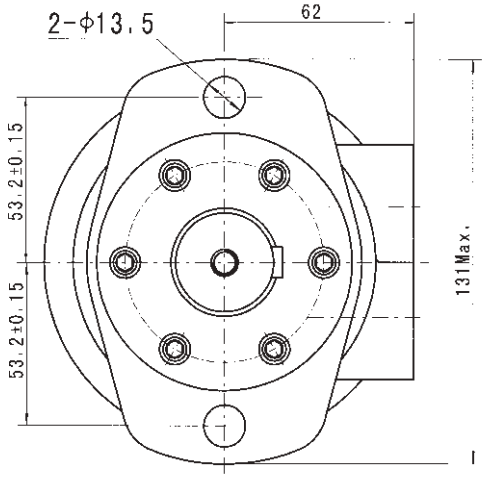
cont.
int.

BMH DIMENSIONS AND MOUNTING DATA

Flange 4



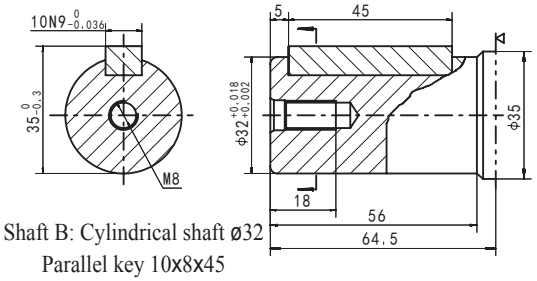
Flange 2



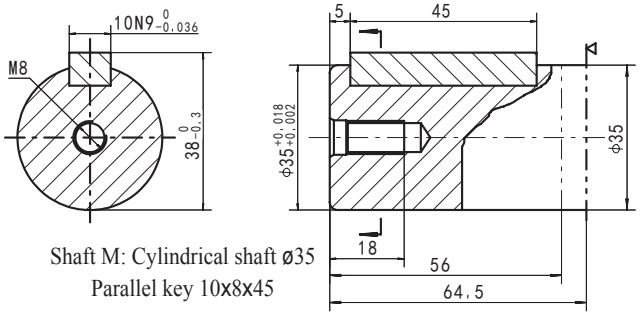
Model	L	L1
BMH-160	162	21
BMH-200	168	27
BMH-250	175	34
BMH-315	183	42
BMH-400	195	54
BMH-500	206	65

Code / Mounting	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

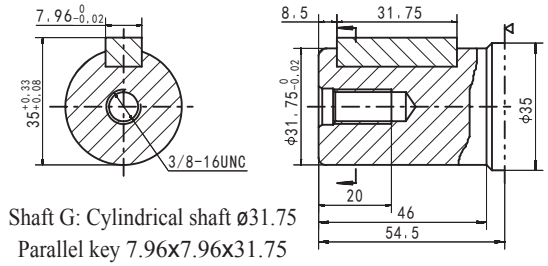
BMH SHAFT EXTENSIONS DIMINSIONS DATA



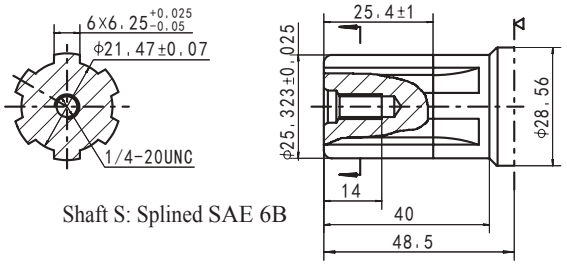
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



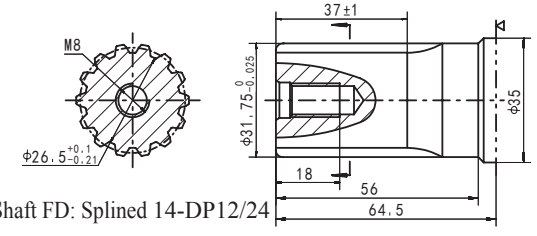
Shaft M: Cylindrical shaft ø35
Parallel key 10x8x45



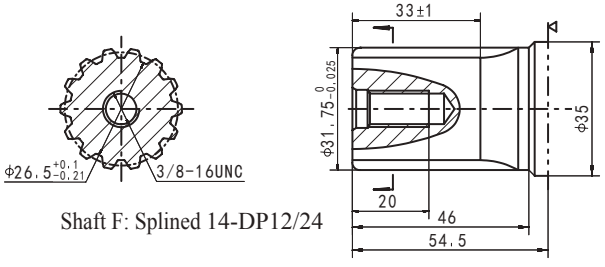
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



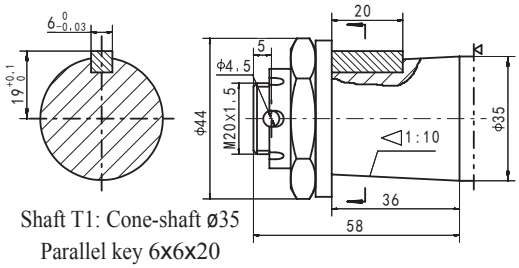
Shaft S: Splined SAE 6B



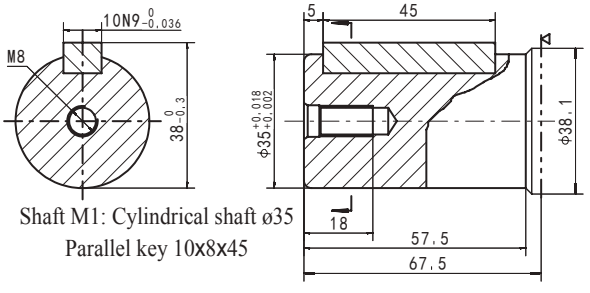
Shaft FD: Splined 14-DP12/24



Shaft F: Splined 14-DP12/24



Shaft T1: Cone-shaft ø35
Parallel key 6x6x20
Tightening torque:200±10Nm

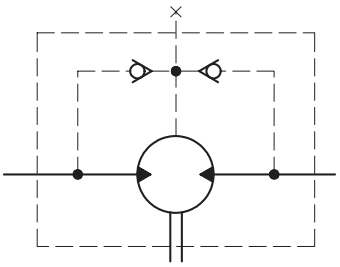


Shaft M1: Cylindrical shaft ø35
Parallel key 10x8x45

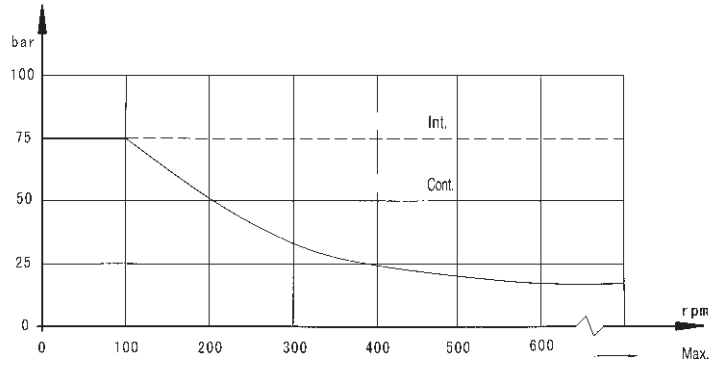
▷ Motor Mounting Surface

BMH series Hydraulic Motor

Permissible shaft seal pressure



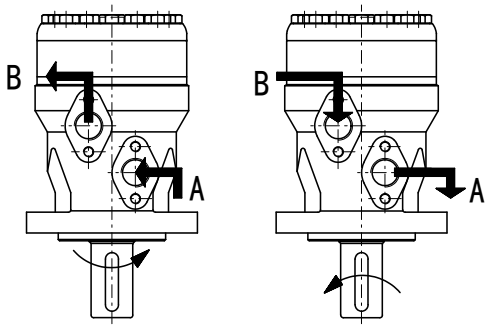
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.



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.

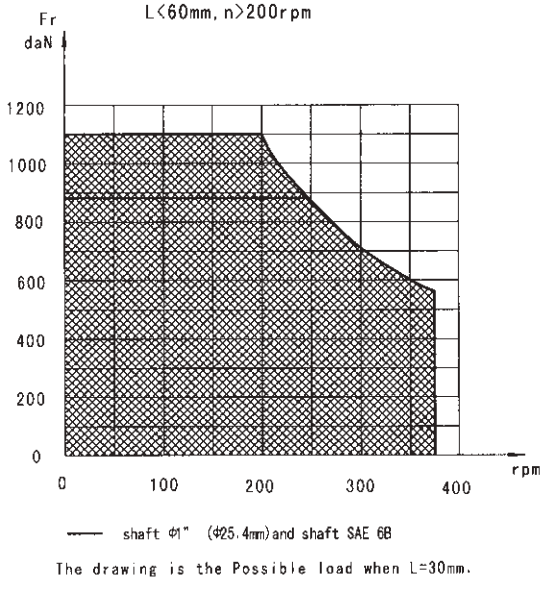
BMH



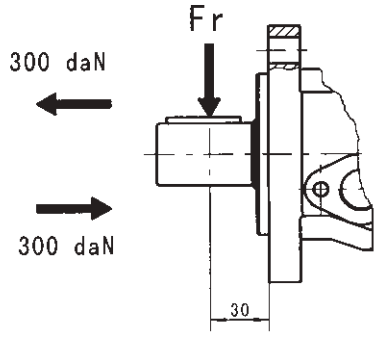
Status of the shaft's radial force

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

L<60mm, n>200rpm



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



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

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop （MPa）	Viscosity (mm2/s)	Oil flow in the drain line (L/min.)
10	20	2.5
	35	1.8
14	20	3.5
	35	2.8

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	160 200 250 315 400 470 500	4 2	4×Ø13.5 Rhomb×flange Pilot Ø82.5×6 2×Ø13.5 Rhomb×flange Pilot Ø82.5×6	B M1 F FD G T1 S M	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 Ø31.75 , parallel key 7.96×7.96×31.75 Cone shaft Ø35, parallel key B6×6×20 Shaft Ø25.4 , parallel key SAE 6B Shaft Ø35,Parallel key 10×8×45	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 N1	Standard No drain Free Running Low Speed Big radial force

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.)
	35	80	120	158	195	228	249
15	**180**	**174**	**168**	**164**	**158**	**151**	**143**
	35	80	120	158	195	232	260
30	**362**	**352**	**346**	**338**	**330**	**322**	**310**
	35	79	119	155	193	227	250
40	**487**	**480**	**468**	**457**	**446**	**438**	**425**
	30	77	117	153	192	224	248
50	**612**	**603**	**592**	**581**	**572**	**558**	**542**
	28	77	117	153	192	224	243
60	**735**	**726**	**718**	**703**	**687**	**673**	**646**
	26	75	116	151	188	217	236
Max.cont. 65	**794**	**786**	**773**	**760**	**744**	**722**	**706**
	24	72	109	142	176	206	227
Max.int. 80	**981**	**968**	**955**	**925**	**893**	**870**	**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.)
	48	95	150	200	250	282	310
15	**146**	**144**	**139**	**135**	**130**	**120**	**105**
	45	94	146	198	250	290	317
30	**291**	**289**	**278**	**274**	**269**	**258**	**242**
	43	89	142	196	248	288	316
40	**387**	**384**	**374**	**359**	**350**	**335**	**320**
	40	88	135	194	247	286	315
50	**486**	**483**	**473**	**462**	**450**	**430**	**420**
	37	88	132	185	244	283	312
60	**588**	**584**	**574**	**562**	**550**	**538**	**520**
	35	80	130	180	240	279	310
Max.cont. 75	**740**	**735**	**720**	**705**	**696**	**676**	**653**
	30	75	124	170	236	271	303
Max.int. 90	**850**	**840**	**810**	**787**	**770**	**750**	**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.)
	55	120	176	245	309	345	375
15	**115**	**113**	**110**	**104**	**98**	**90**	**84**
	55	120	175	250	315	364	404
30	**231**	**228**	**223**	**214**	**202**	**188**	**172**
	53	118	178	250	315	364	403
40	**312**	**309**	**290**	**289**	**278**	**262**	**235**
	50	115	176	248	315	362	397
50	**391**	**386**	**378**	**365**	**352**	**339**	**308**
	45	113	171	241	308	358	397
60	**469**	**461**	**450**	**437**	**425**	**400**	**372**
	45	110	167	240	306	352	389
Max.cont. 75	**588**	**574**	**560**	**544**	**526**	**505**	**481**
	40	105	162	237	301	343	378
Max.int. 90	**710**	**696**	**680**	**661**	**646**	**628**	**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.)
	70	142	215	298	372	435	476
15	**93**	**91**	**89**	**85**	**80**	**76**	**58**
	73	151	225	312	382	456	492
30	**189**	**187**	**181**	**176**	**170**	**162**	**153**
	75	152	228	314	383	454	488
40	**252**	**250**	**246**	**239**	**234**	**228**	**212**
	70	148	225	305	372	445	480
50	**313**	**310**	**306**	**298**	**293**	**285**	**272**
	68	143	218	296	370	442	480
60	**378**	**376**	**370**	**362**	**353**	**346**	**332**
	62	140	211	291	365	439	475
Max.cont. 75	**475**	**469**	**461**	**450**	**441**	**432**	**414**
	59	131	202	286	357	425	460
Max.int. 90	**567**	**561**	**554**	**543**	**532**	**520**	**509**

cont.
int.

Performance Data

BMSY200 [194cm³/rev.]

Pressure (MPa)

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

BMSY250 [243cm³/rev.]

Pressure (MPa)

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

BMSY315 [311cm³/rev.]

Pressure (MPa)

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

BMSY400 [394cm³/rev.]

Pressure (MPa)

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

TORQUE (N•m) 766
SPEED (rpm) **208**

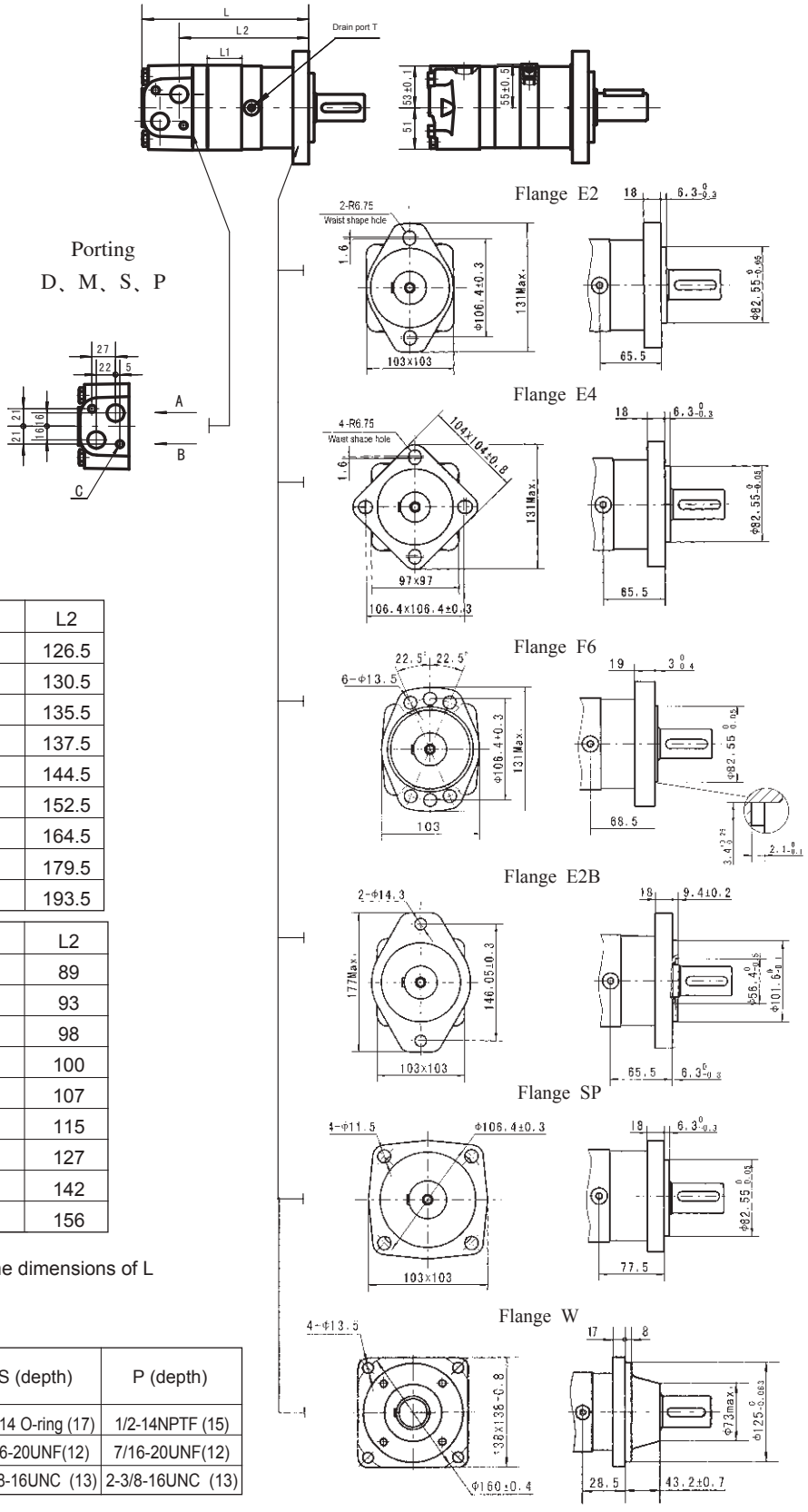
BMSY475 [475cm³/rev.]

Pressure (MPa)

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

□ cont.
▨ int.

BMSY DIMENSIONS AND MOUNTING DATA



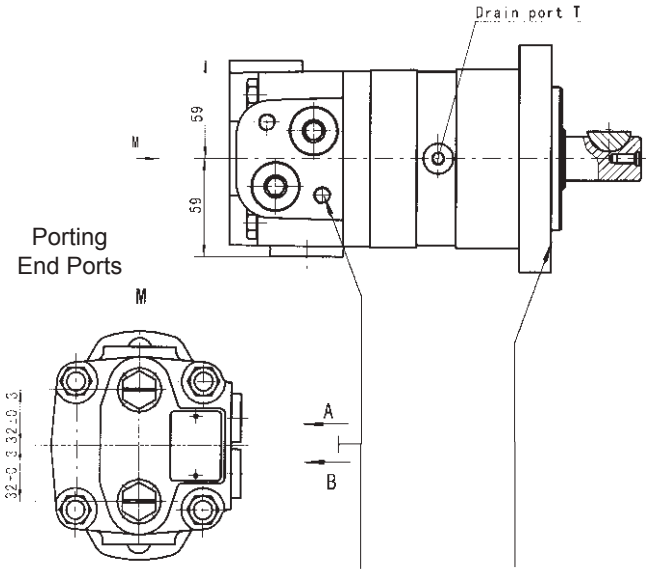
Model	L	L1	L2
BMSY-80	170	16	126.5
BMSY-100	174	20	130.5
BMSY-125	179	25	135.5
BMSY-160	181	27	137.5
BMSY-200	188	34	144.5
BMSY-250	196	42	152.5
BMSY-315	208	54	164.5
BMSY-400	223	69	179.5
BMSY-475	237	83	193.5

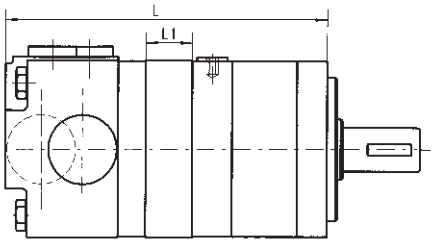
Model	L	L1	L2
BMSY-80-W	132.5	16	89
BMSY-100-W	136.5	20	93
BMSY-125-W	141.5	25	98
BMSY-160-W	143.5	27	100
BMSY-200-W	150.5	34	107
BMSY-250-W	158.5	42	115
BMSY-315-W	170.5	54	127
BMSY-400-W	185.5	69	142
BMSY-475-W	199.5	83	156

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(15)	M22x1.5(15)	7/8-14 O-ring (17)	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)

BMSY DIMENSIONS AND MOUNTING DATA



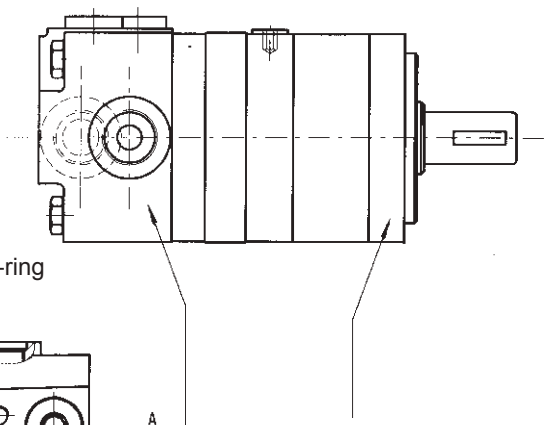


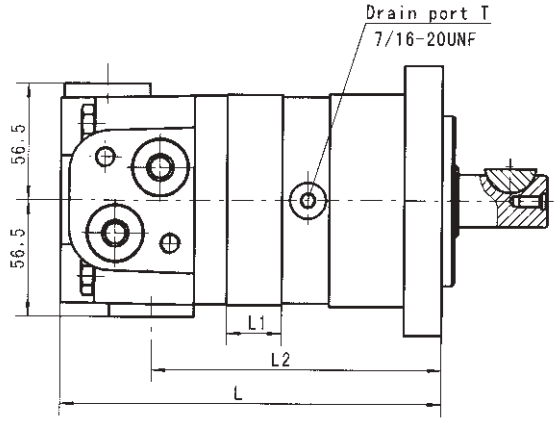
End Ports P(A\ B)

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

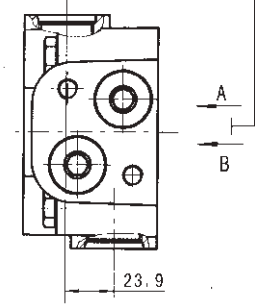
Model	L	L1
BMSY-80-WE	148	16
BMSY-100-WE	152	20
BMSY-125-WE	157	25
BMSY-160-WE	159	27
BMSY-200-WE	166	34
BMSY-250-WE	174	42
BMSY-315-WE	186	54
BMSY-400-WE	201	69
BMSY-475-WE	215	83

Mounting \ Code	EE-D (depth)	EE-M2 (depth)	EE-S2 (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)





Porting
ED 1-1/16-12UN 0-ring
180°Apart ports

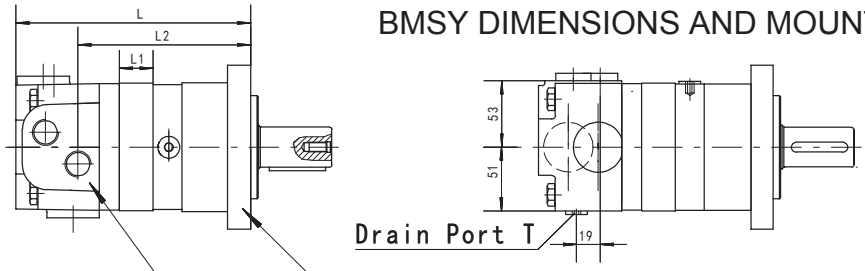


Mounting \ Code	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

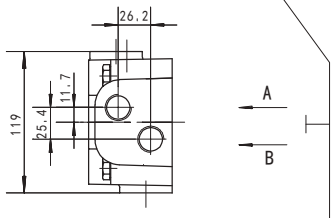
Model	L	L1	L2
BMSY-80	176	16	130
BMSY-100	180	20	134
BMSY-125	185	25	139
BMSY-160	187	27	141
BMSY-200	194	34	148
BMSY-250	202	42	156
BMSY-315	214	54	168
BMSY-400	229	69	183
BMSY-475	243	83	197

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

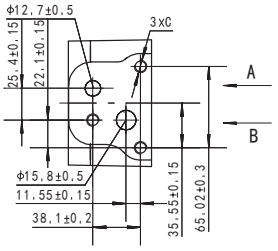
BMSY DIMENSIONS AND MOUNTING DATA



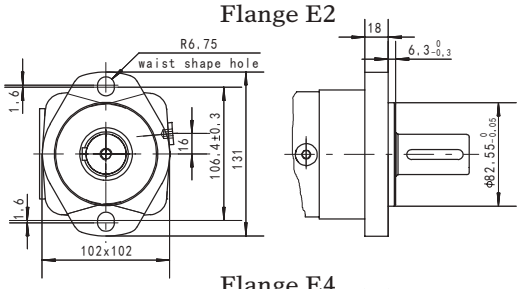
Porting
DB、DU、SU、SB、M4



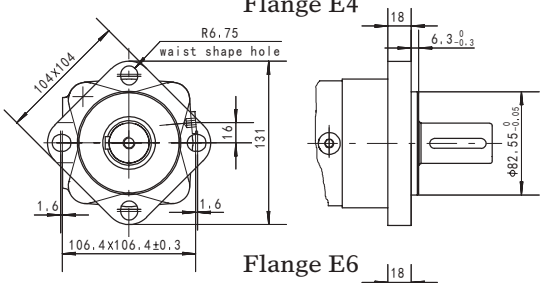
Porting MU、MM



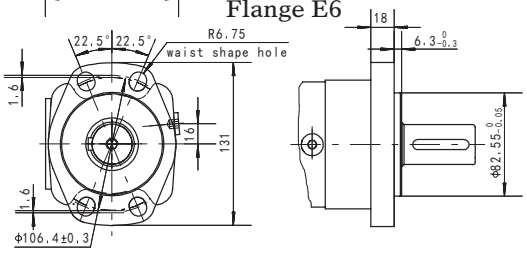
Flange E2



Flange E4

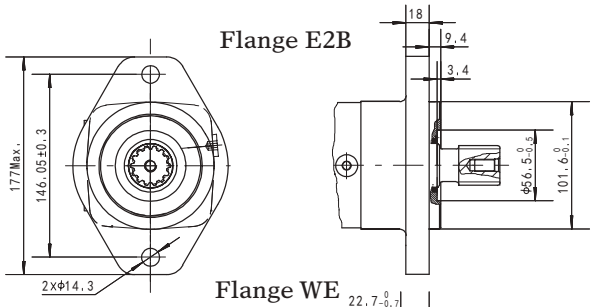


Flange E6



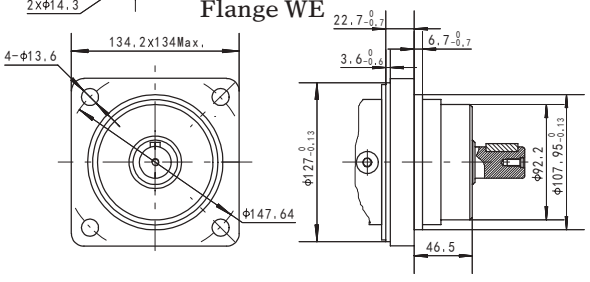
Model	L	L1	L2
BMSY-80	177	16	126.5
BMSY-100	181	20	130.5
BMSY-125	186	25	135.5
BMSY-160	188	27	137.5
BMSY-200	195	34	144.5
BMSY-250	203	42	152.5
BMSY-315	215	54	164.5
BMSY-400	230	69	179.5
BMSY-475	244	83	193.5

Flange E2B



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

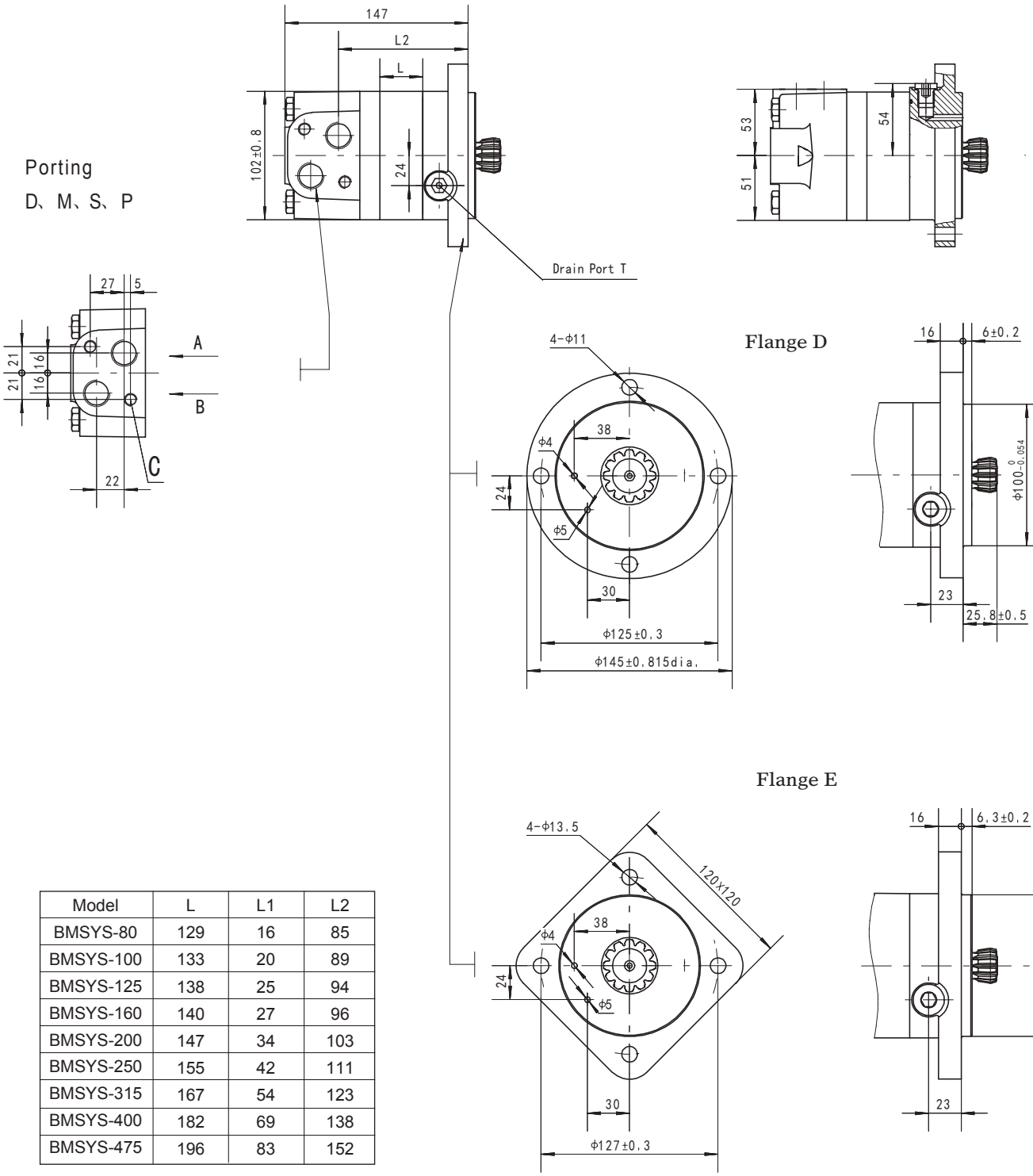
Flange WE



Mounting \ Code	DB(depth)	DU (depth)	SU (depth)	SB (depth)	M4 (depth)	MU	MM
P(A,B)	G1/2(15)	G1/2(15)	7/8-14O-ring(17)	7/8-14O-ring(17)	M22x1.5(15)	Φ12.7,Φ15.8	Φ12.7,Φ15.8
T	G1/4(12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	G1/4(12)
C	-					3/8-16UNC	M10

BMSYS DIMENSIONS AND MOUNTING DATA

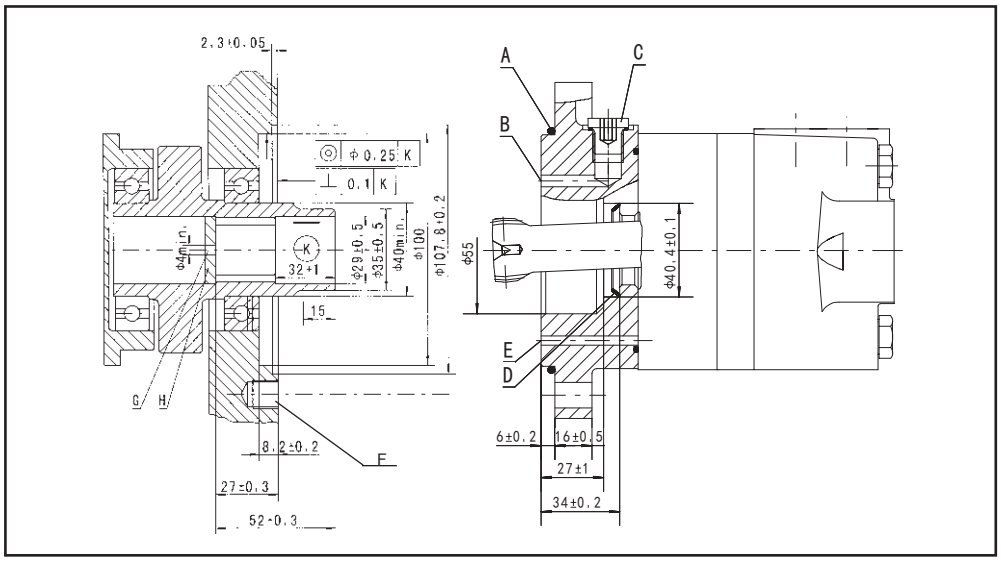
Porting
D、M、S、P



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

Code / Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14O-ring(17)	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)

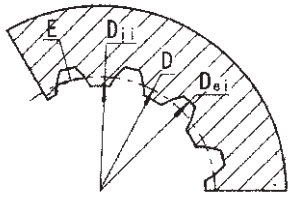
BMSYS DIMENSIONS AND MOUNTING DATA



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

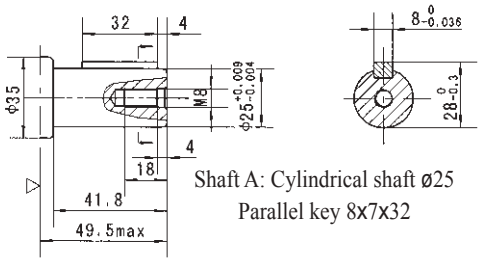
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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

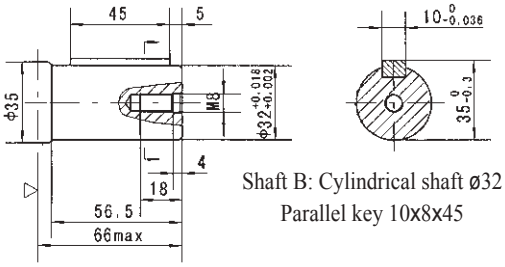


Hardering Specification: HRC 62±2
Effective case depth 0.7±0.2

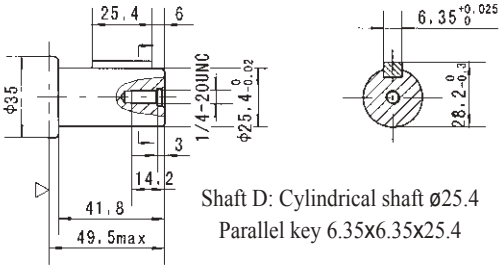
SHAFT EXTENSIONS FOR BMSY MOTORS



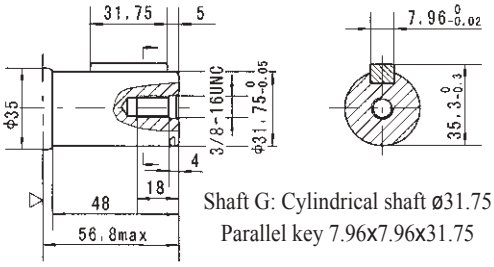
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



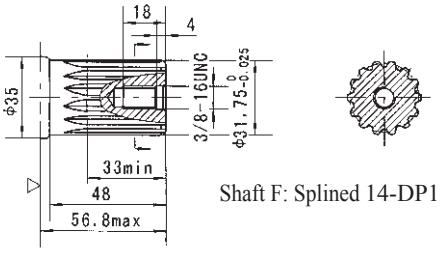
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



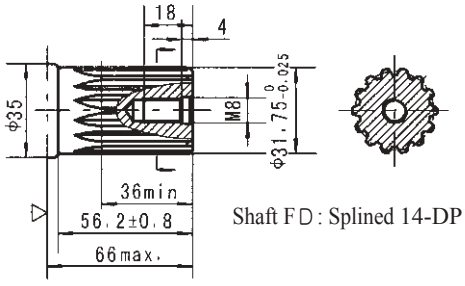
Shaft D: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x25.4



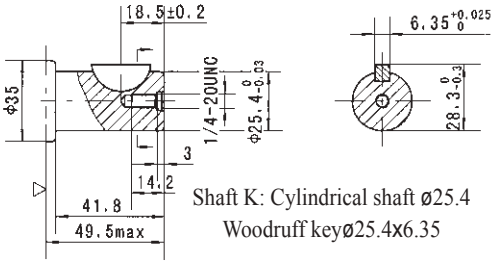
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



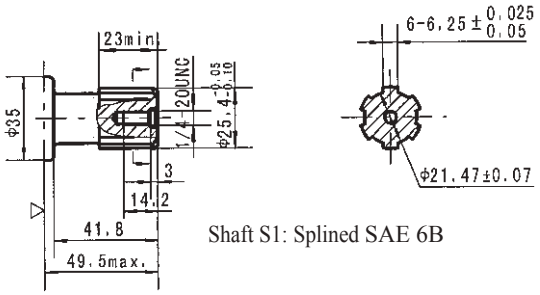
Shaft F: Splined 14-DP12/24



Shaft FD: Splined 14-DP12/24



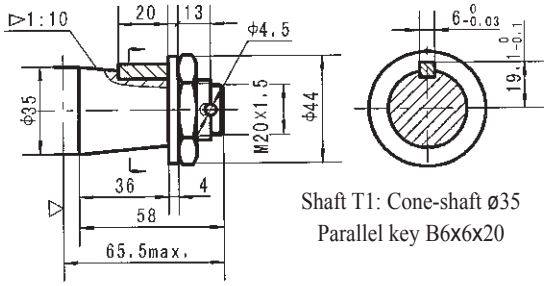
Shaft K: Cylindrical shaft ø25.4
Woodruff keyø25.4x6.35



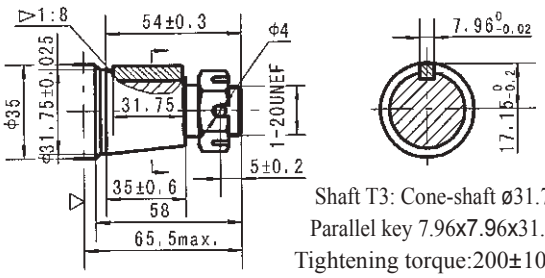
Shaft S1: Splined SAE 6B

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

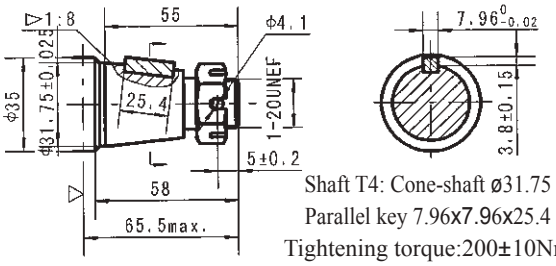
SHAFT EXTENSIONS FOR BMSY MOTORS



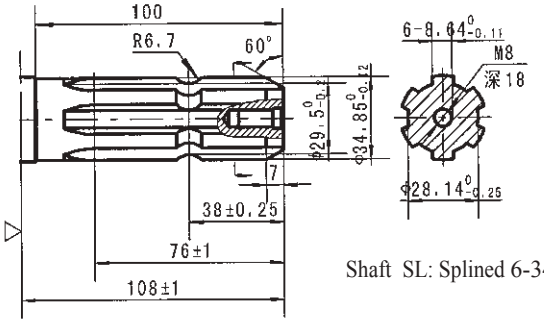
Shaft T1: Cone-shaft ø35
Parallel key B6x6x20



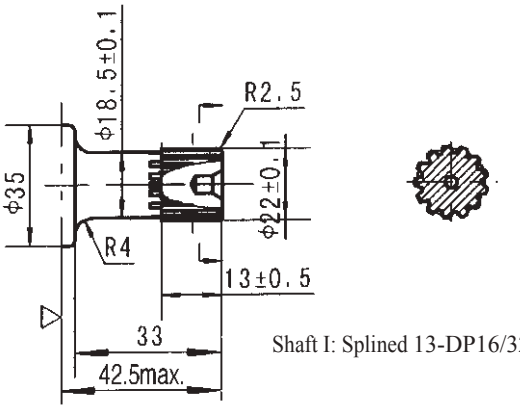
Shaft T3: Cone-shaft ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm



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



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

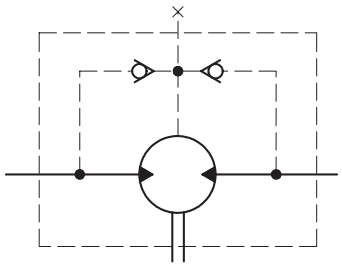


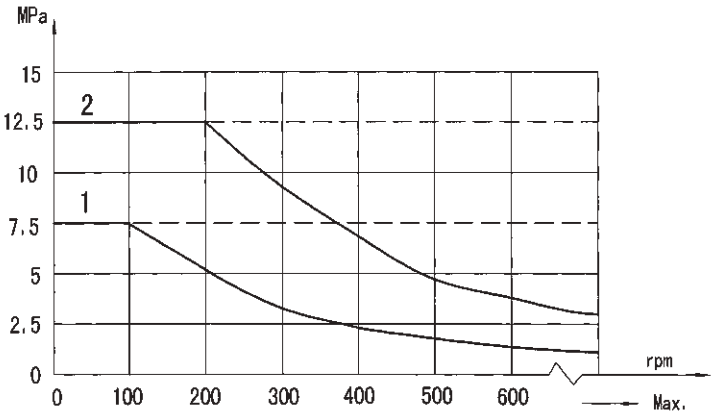
Shaft I: Splined 13-DP16/32

▷ 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

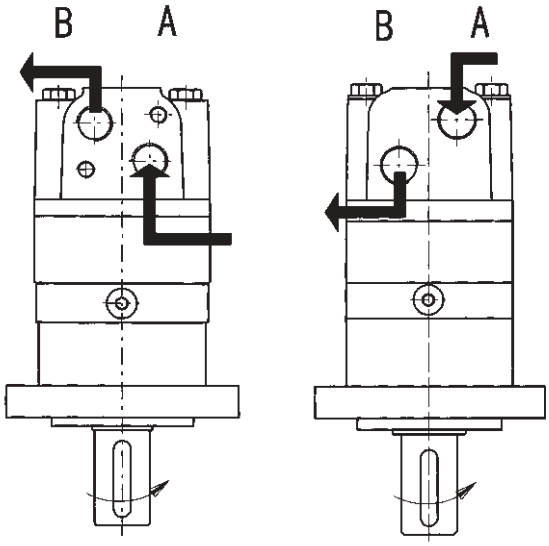




Note:1.Chart for standard shaft seal;
2.Chart for high pressure shaft seal.

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.



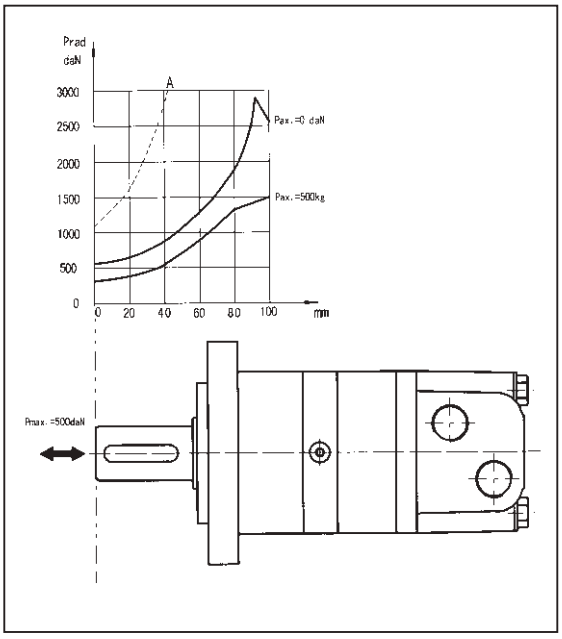
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop （MPa）	Viscosity (mm^2/s)	Oil flow in the drain line (L/min.)
14	20	1.5
	35	1
21	20	3
	35	2

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 – – – – – – – 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-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						
		E6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	D	Shaft Ø25.4 , parllel key6.35×6.35×25.4	EE-S2	7/8-14UNF O-ring, 7/16-20 UNF						
		F6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6	F	Shaft Ø31.75 , splined key 14-DP12/24	D	G1/2 Manifold Mount 2-M10 , G1/4						
		W	4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8	FD	Long Shaft Ø31.75 , splined key 14-DP12/24	ED	1-1/16-12UN O-ring, 7/16-20 UNF						
		E2B	2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4	FE	Shaft Ø31.75 , splined key 14-DP12/24	DB	G1/2, G1/4						
		SP	4-Ø11.5 Square-flange Ø106.4 pilot Ø82.5×6.3	G	Shaft Ø31.75 , parllel key 7.96×7.96×31.75	DU	G1/2, 7/16-20 UNF						
		WE	4-Ø13.6Wheel-flangeØ147.6, pilot Ø107.95×6.4	K	Shaft Ø25.4 , Woodruff key Ø25.4×6.35	SB	7/8-14UNF O-ring, G1/4						
				T4	Cone-shaft Ø31.75 , parllel key 7.96×7.96×25.4	SU	7/8-14UNF O-ring, 7/16-20 UNF						
				SL	shaft Ø34.85,Splined key 6-34.85×28.14×8.64	M4	M22×1.5, M14×1.5						
				T1	Cone-shaft Ø35 ,parllel key B6×6×20	MU	1/2",5/8"Crosshole Manifold 3×3/8-16UNC,7/16-20UNF						
				T3	Cone-shaft Ø 31.75 , parllel key 7.96×7.96×31.75	MM	1/2", 5/8"Crosshole Manifold 3×M10, G1/4						
				S1	ShaftØ25.4 ,splined key SAE 6B	M	M22×1.5 Manifold Mount 2-M10 , M14×1.5						
				I	Sub-shaftØ22 , splined key 13-DP16/32	S	7/8-14UNF O-ring manifold 2-3/8-16 , 7/16-20UNF						
						P	1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF	R	Opposite	B	Black	F	Free Running
						G	G1/2, G1/4					LS	Low Speed
						M2	M22×1.5, M14×1.5			S	Silver gray		
						S2	7/8-14UNF O-ring, 7/16-20 UNF						
S		D	4-Ø11 Circle-flangeØ125 , pilot Ø100×6	Omit	Short shaft 12-DP12/24								
		E	4-Ø13.5Circle-flange Ø127, pilot Ø101.6×6.3										

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

BMT 200 [201.4cm³/rev.]

Pressure (MPa)

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

BMT 250 [251.8cm³/rev.]

Pressure (MPa)

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

Torque (N•m) 552
Speed (rpm) **572**

BMT 315 [326.3cm³/rev.]

Pressure (MPa)

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

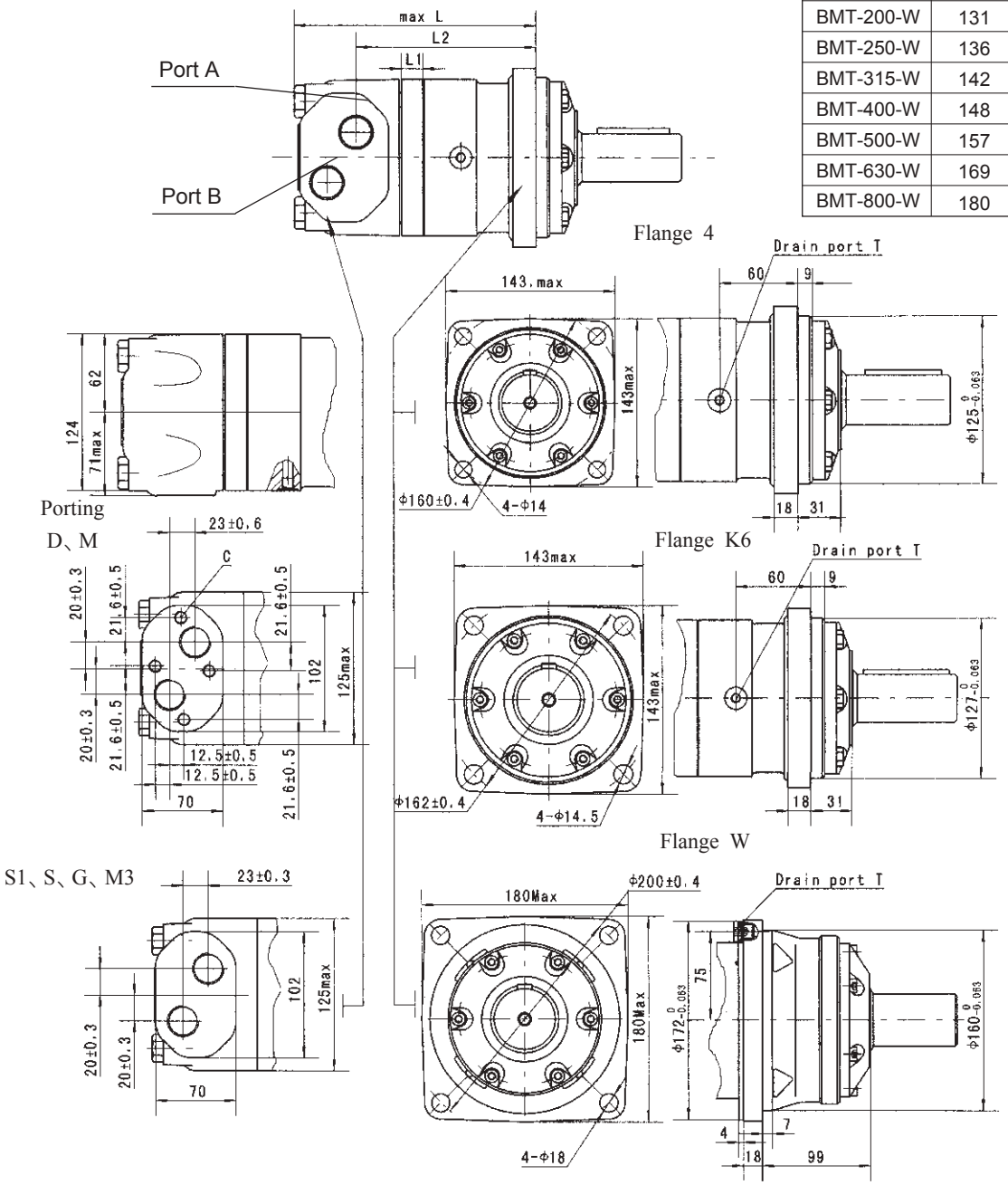
BMT 800 [801.8cm³/rev.]

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 AND MOUNTING DATA

Model	L	L1	L2
BMT-160-W	127	17	77
BMT-200-W	131	21	81
BMT-250-W	136	14	86
BMT-315-W	142	20	91
BMT-400-W	148	27	98
BMT-500-W	157	35	106
BMT-630-W	169	47	118
BMT-800-W	180	58	129

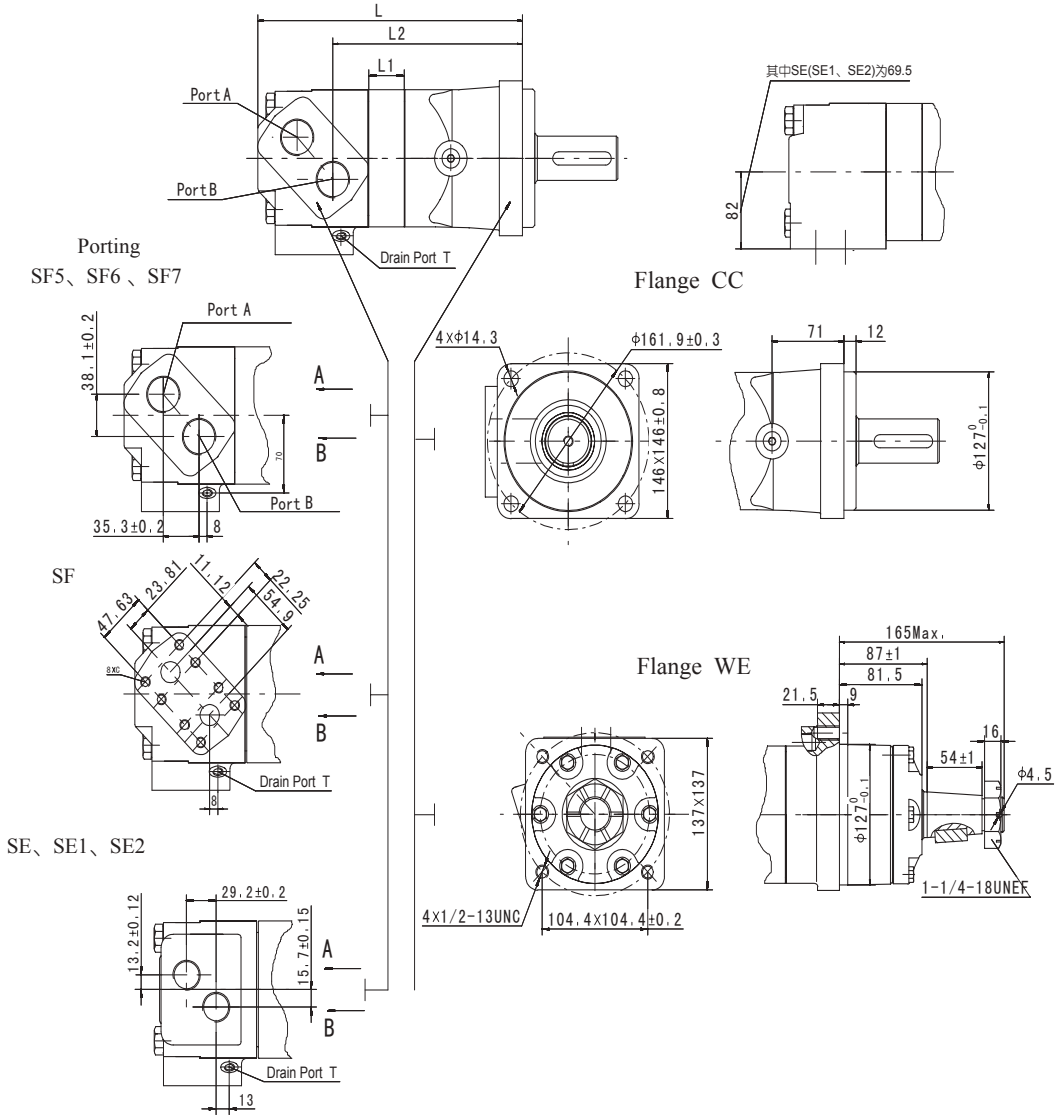


Model	L	L1	L2
BMT160	193	17	142.5
BMT200	197	21	146.5
BMT250	204	14	152.5
BMT315	210	20	158.5
BMT400	217	27	165.5
BMT500	225	35	173.5
BMT630	237	47	185.5
BMT800	248	58	196.5

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

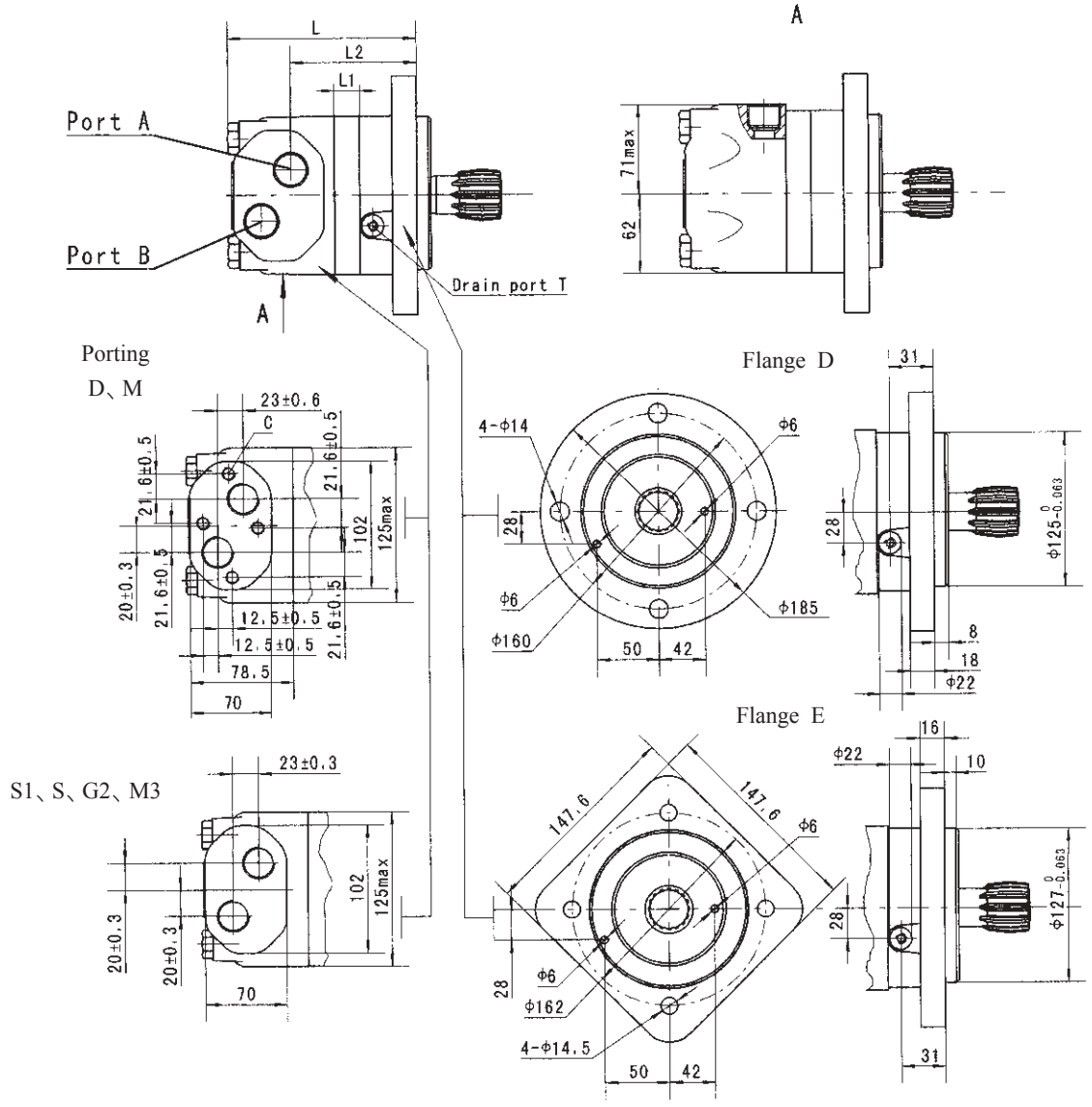


Model	L	L1	L2
BMTE230	238.5	12	164.5
BMTE250	240.5	14	166.5
BMTE315	246.5	20	172.5
BMTE400	253.5	27	179.5
BMTE500	261.5	35	187.5
BMTE630	273.5	47	199.5
BMTE800	284.5	58	210.5

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

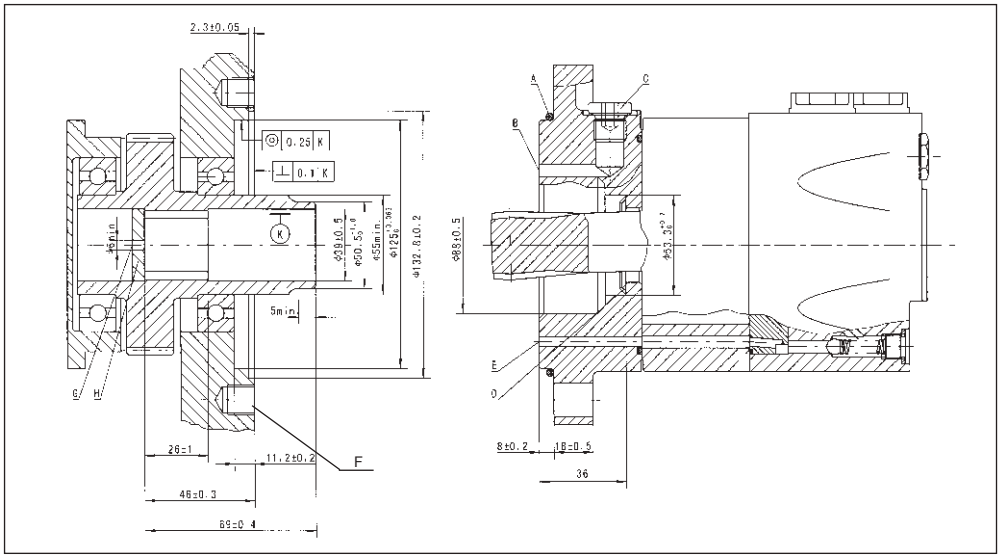


Model	L	L1	L2
BMT160	148	17	96.5
BMT200	152	21	100.5
BMT250	157	14	109
BMT315	163	20	115
BMT400	170	27	122
BMT500	178	35	130
BMT630	190	47	142
BMT800	201	58	153

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.

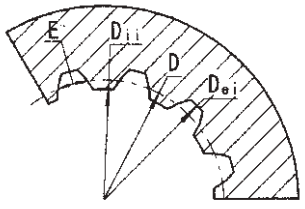
BMTS MOUNTING DATA



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

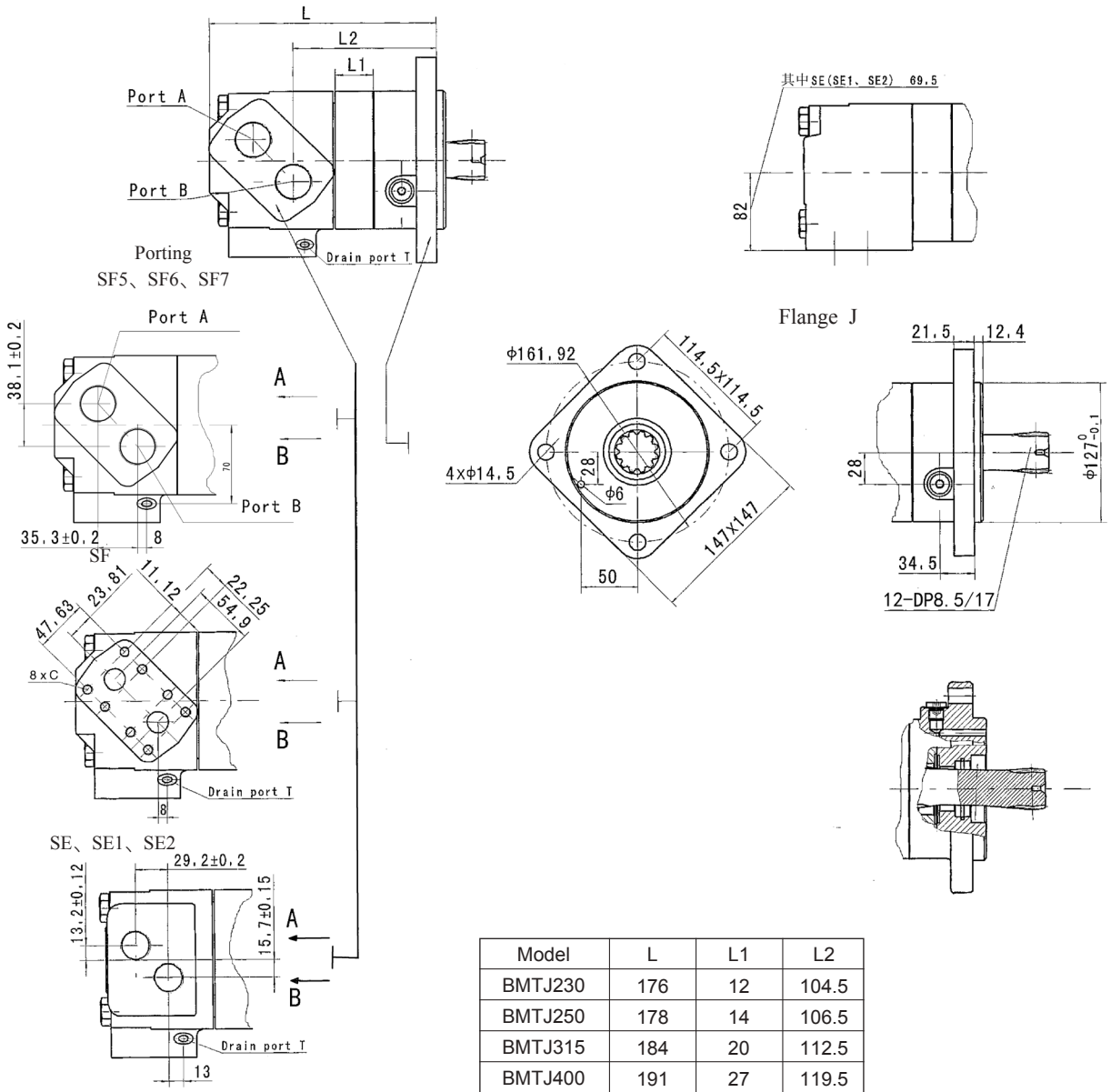
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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

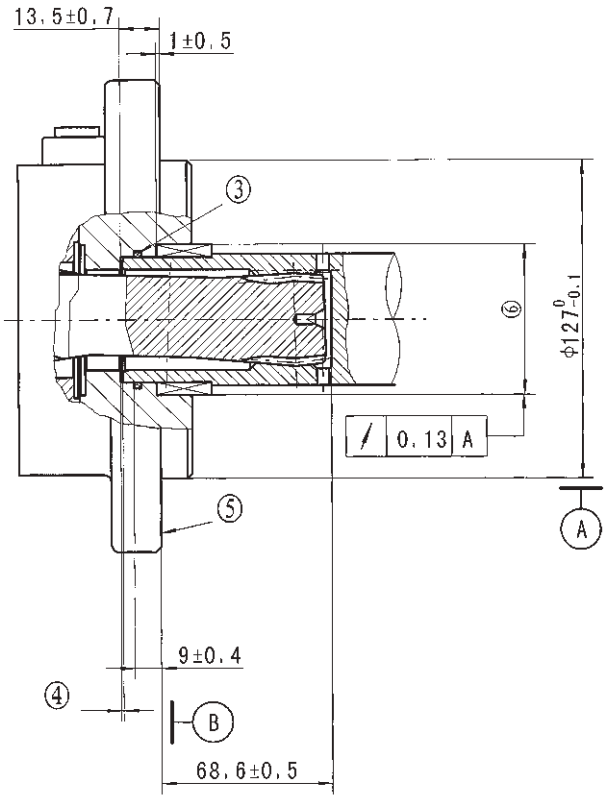


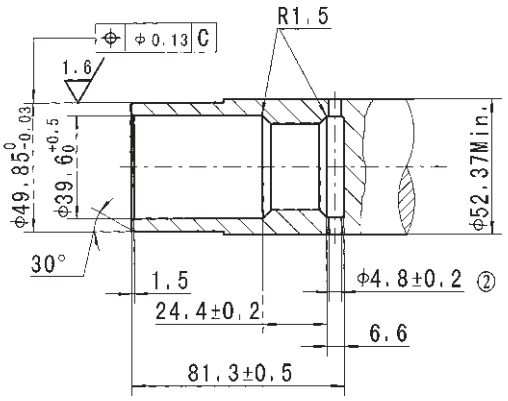
Model	L	L1	L2
BMTJ230	176	12	104.5
BMTJ250	178	14	106.5
BMTJ315	184	20	112.5
BMTJ400	191	27	119.5
BMTJ500	199	35	127.5
BMTJ630	211	47	139.5
BMTJ800	222	58	150.5

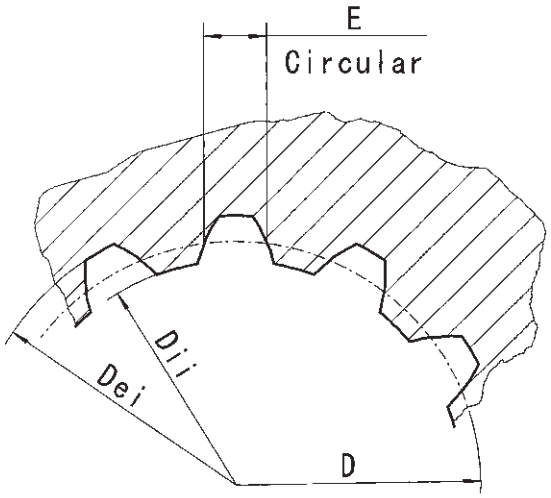
Note:1)The data for the port of SF (SF5 and SF6 andSF7).
2)The data for the port of SE (SE1 and SE2) and flange WE:L-70 and L2-59.
3)The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

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





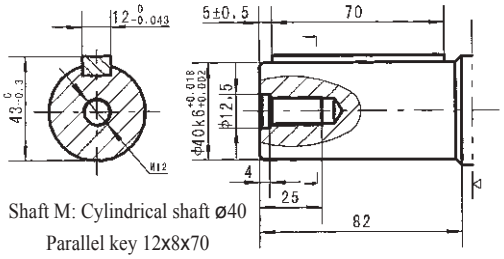


INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

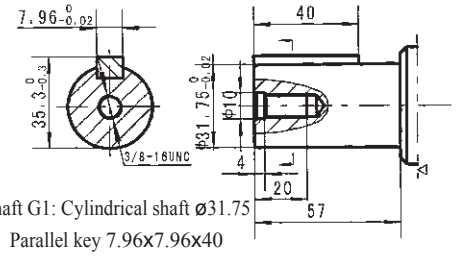
Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_D	ø35.858823
Major Dia.	D_{ei}	$ø38.97^{+0.20}_{0}$
Minor Dia.	D_{ii}	$ø33.3^{+0.18}_{0}$
Space Width［Circular］	E	5.866±0.032
Dimension between two pins(ø4)	M_e	26.929-27.084

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.

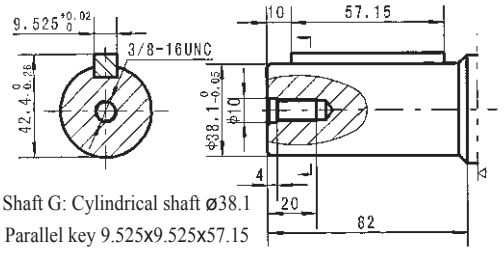
SHAFT EXTENSIONS FOR BMT(E) MOTORS



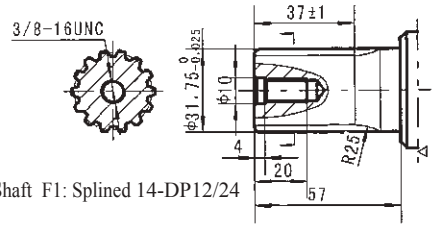
Shaft M: Cylindrical shaft ø40
Parallel key 12x8x70



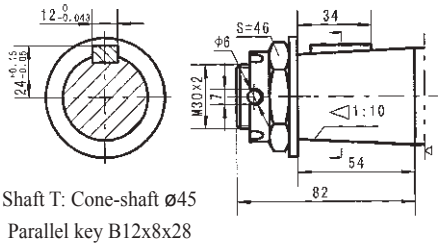
Shaft G1: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x40



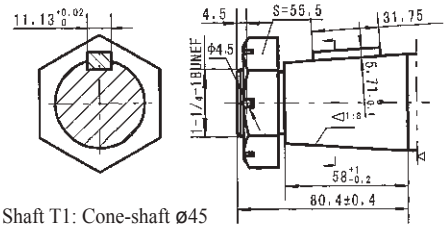
Shaft G: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x57.15



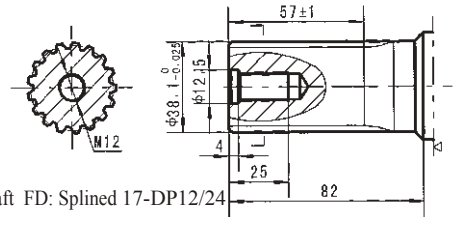
Shaft F1: Splined 14-DP12/24



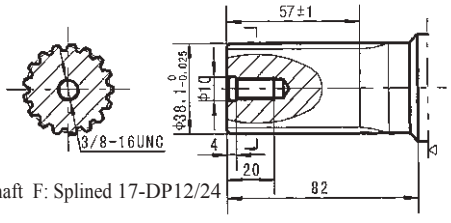
Shaft T: Cone-shaft ø45
Parallel key B12x8x28
Tightening torque:500±10Nm



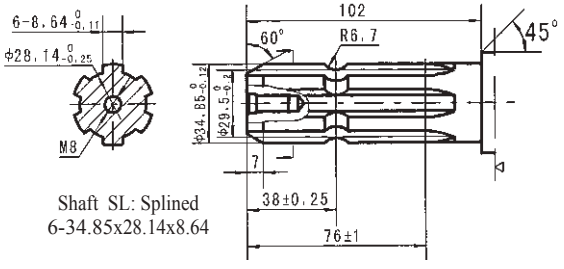
Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque:500±10Nm



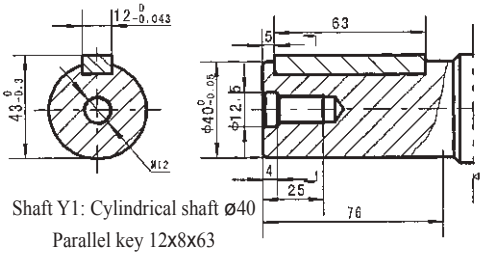
Shaft FD: Splined 17-DP12/24



Shaft F: Splined 17-DP12/24



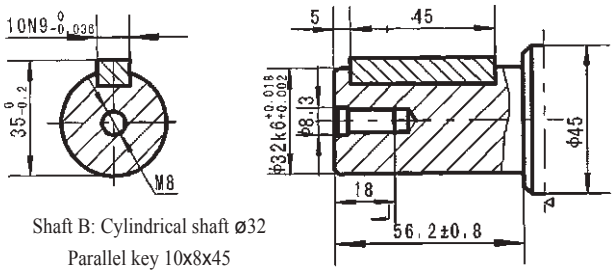
Shaft SL: Splined
6-34.85x28.14x8.64



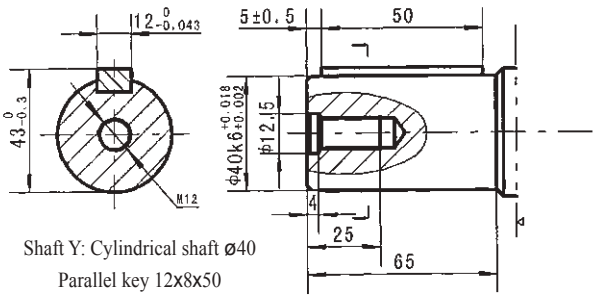
Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63

▷ Motor Mounting Surface

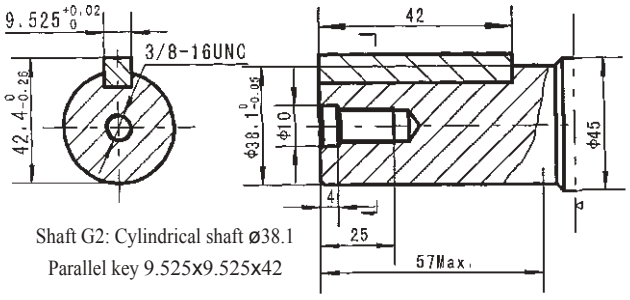
SHAFT EXTENSIONS FOR BMT(E) MOTORS



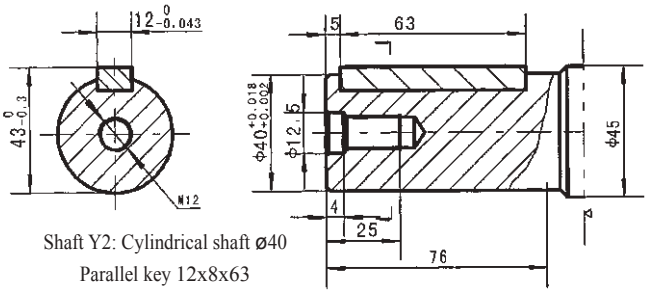
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



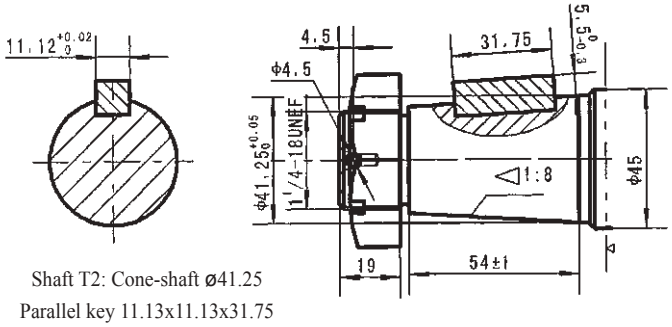
Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x50



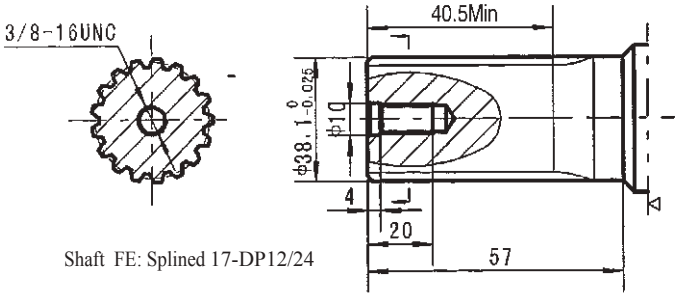
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42



Shaft Y2: Cylindrical shaft ø40
Parallel key 12x8x63



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

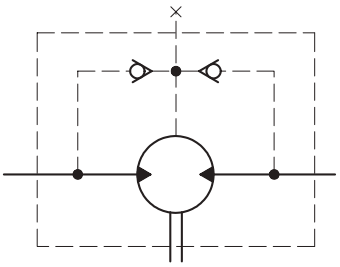


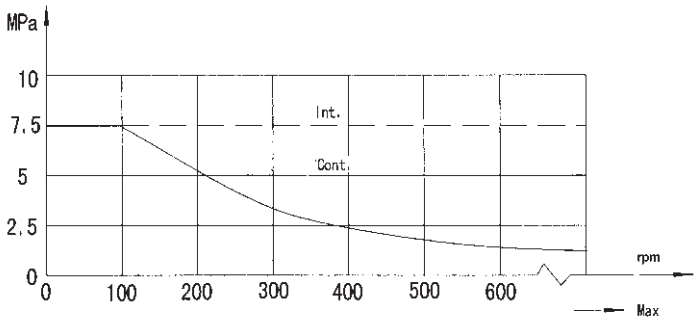
Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

BMT Series Hydraulic Motor

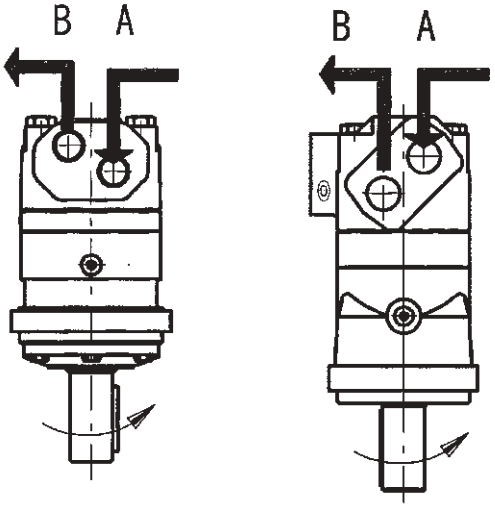
Permissible shaft seal pressure





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.



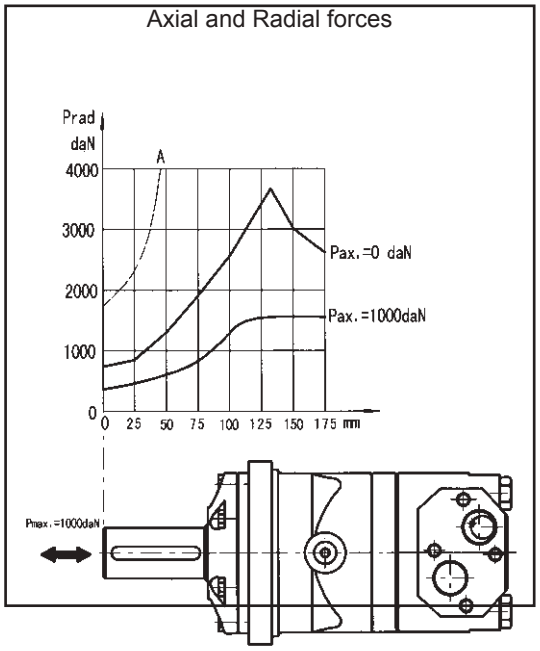
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop （MPa）	Viscosity (mm^2/s)	Oil flow in the drain line (L/min.)
14	20	2.5
	35	1.5
21	20	5
	35	3

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
		K6	4-Ø14.5Square-flangeØ162, pilotØ127 × 9	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
		W	4-Ø18 Wheel-flangeØ200, pilotØ160 × 7	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						
				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								
				G1	Splined key 6-34.85 × 28.14 × 8.64 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 FE Y1 Y2 T2	Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 42 Shaft Ø38.1 ,splined tooth 17-DP12/24 ShaftØ40,parallel key 12 × 8 × 63 ShaftØ40,parallel key 12 × 8 × 63 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75	SF SF5 SF6 SF7 SE SE1 SE2	3/4”, Manifold Mount,8-3/8-16UNC, 7/16-20UNF 1-5/16-12UN O-ring,7/16-20 UNF M33 × 2,M14 × 1.5 G1,G1/4 1-1/16-12UN O-ring,9/16-18UNF 1-1/16-12UN O-ring,7/16-20 UNF G3/4,G1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit F LS	Standard Free Running Low Speed
		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								
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	294	440	610	742	845	1000
	26	**24**	**23**	**22**	**20**	**17**	**14**
20	153	314	466	636	787	895	1070
	55	**54**	**53**	**52**	**51**	**48**	**44**
50	149	312	465	654	815	935	1112
	145	**144**	**142**	**140**	**137**	**133**	**127**
75	143	304	458	642	816	940	1119
	220	**218**	**215**	**211**	**207**	**202**	**195**
100	136	297	452	636	810	936	1108
	294	**292**	**290**	**287**	**283**	**278**	**270**
125	123	286	442	626	799	921	1093
	368	**366**	**364**	**361**	**357**	**352**	**345**
150	114	275	435	615	788	906	1078
	445	**443**	**441**	**437**	**430**	**422**	**410**
Max.cont. 160	107	268	430	608	780	895	1070
	475	**473**	**470**	**466**	**460**	**452**	**439**
Max.int. 200	82	249	412	593	758	871	1047
	596	**594**	**590**	**584**	**576**	**565**	**544**

BMV 400 [419cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10	14	18	20 (Max.cont.)	24 (Max.int.)
10	183	385	568	776	968	1101	1292
	20	**20**	**19**	**18**	**17**	**16**	**14**
20	196	398	590	815	1010	1152	1346
	44	**44**	**43**	**42**	**40**	**39**	**37**
50	200	402	603	842	1040	1186	1430
	114	**113**	**113**	**112**	**110**	**108**	**103**
75	195	394	596	838	1043	1188	1432
	175	**173**	**170**	**166**	**163**	**157**	**152**
100	172	385	593	827	1036	1184	1425
	236	**235**	**233**	**231**	**227**	**223**	**215**
125	167	374	583	816	1021	1177	1413
	296	**294**	**291**	**288**	**282**	**275**	**268**
150	158	361	559	801	1008	1165	1390
	355	**354**	**352**	**349**	**344**	**335**	**324**
175	143	346	553	784	989	1145	1377
	416	**414**	**411**	**407**	**403**	**396**	**388**
Max.cont. 200	118	331	536	770	969	1128	1356
	475	**473**	**469**	**463**	**455**	**448**	**439**
Max.int. 240	82	301	506	740	943	1104	1332
	571	**569**	**565**	**548**	**539**	**530**	**520**

BMV 500 [518cm³/rev.]

Flow (L/min)	Pressure (MPa) 3.5	7	10	14	18	20 (Max.cont.)	24 (Max.int.)
10	242	468	696	959	1190	1353	1607
	17	**17**	**16**	**16**	**15**	**13**	**11**
20	245	501	738	1003	1232	1394	1658
	36	**35**	**35**	**34**	**33**	**32**	**29**
50	240	500	758	1025	1270	1449	1743
	93	**92**	**91**	**90**	**88**	**85**	**80**
75	233	498	752	1030	1288	1475	1766
	140	**139**	**137**	**135**	**132**	**127**	**120**
100	228	491	748	1026	1289	1472	1760
	189	**187**	**185**	**182**	**178**	**173**	**166**
125	220	483	742	1014	1280	1460	1745
	237	**236**	**234**	**231**	**227**	**223**	**216**
150	201	465	723	1008	1250	1429	1736
	287	**286**	**284**	**281**	**276**	**270**	**260**
175	182	446	711	997	1238	1406	1715
	335	**334**	**332**	**329**	**325**	**320**	**310**
Max.cont. 200	161	423	676	974	1218	1385	1697
	384	**383**	**381**	**378**	**374**	**366**	**354**
Max.int. 240	120	378	622	921	1172	1340	1650
	461	**459**	**457**	**454**	**450**	**444**	**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	522	812	1100	1268	1549	1784
	14	**13**	**13**	**12**	**12**	**11**	**10**
20	288	552	839	1101	1315	1607	1864
	28	**28**	**27**	**27**	**26**	**24**	**22**
50	289	555	868	1137	1364	1682	1956
	72	**72**	**71**	**69**	**68**	**66**	**62**
75	270	548	863	1120	1352	1680	1964
	109	**108**	**106**	**104**	**102**	**99**	**94**
100	264	538	856	1093	1350	1674	1965
	146	**145**	**143**	**141**	**138**	**135**	**130**
125	251	516	837	1071	1336	1659	1950
	184	**183**	**181**	**179**	**177**	**173**	**168**
150	240	495	817	1063	1330	1650	1928
	221	**220**	**219**	**217**	**215**	**212**	**205**
175	210	485	796	1052	1300	1636	1908
	259	**258**	**257**	**254**	**250**	**246**	**241**
Max.cont. 200	182	469	751	1018	1280	1611	1883
	297	**297**	**295**	**293**	**290**	**284**	**273**
Max.int. 240	130	416	712	978	1237	1563	1835
	358	**357**	**355**	**351**	**346**	**340**	**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**
Max.cont. 200	197 **247**	468 **245**	765 **243**	1063 **240**	1362 **237**	1681 **232**	1913 **225**
Max.int. 240	118 **297**	388 **296**	713 **295**	1020 **293**	1318 **288**	1637 **283**	1838 **277**

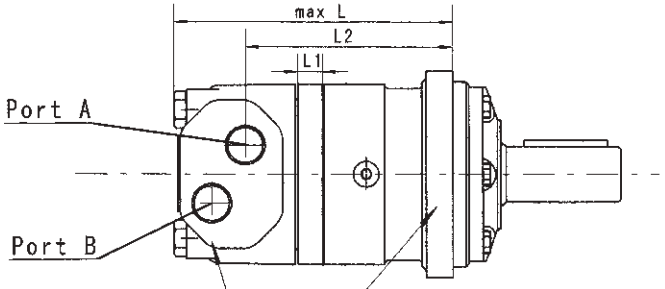
cont.
int.

BMV 1000 [990cm³/rev.]

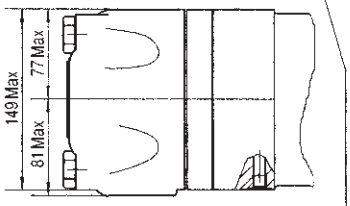
Flow (L/min)	Pressure (MPa) 2.5	5	7	10	14 Max.cont.	16 Max.int.
10	312 **9**	640 **9**	971 **9**	1400 **8**	1978 **7**	2259 **6**
30	320 **28**	648 **27**	978 **26**	1410 **25**	1980 **23**	2270 **21**
50	326 **47**	655 **46**	992 **45**	1422 **43**	2015 **41**	2280 **38**
75	318 **72**	642 **71**	987 **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**
Max.cont. 200	230 **199**	556 **196**	912 **193**	1300 **190**	1891 **185**	2105 **178**
Max.int. 240	166 **240**	513 **237**	867 **233**	1267 **229**	1825 **225**	2034 **218**

Torque (N•m) 1825
Speed (rpm) **225**

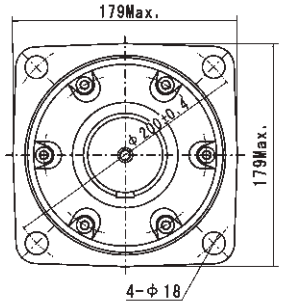
BMV DIMINSIONS AND MOUNTING DATA

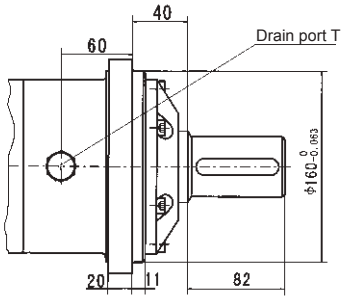


Model	L	L1	L2
BMV315	217	20	161.5
BMV400	224	27	168.5
BMV500	232	35	176.5
BMV630	244	47	188.5
BMV800	255	58	199.5
BMV1000	271	74	215.5

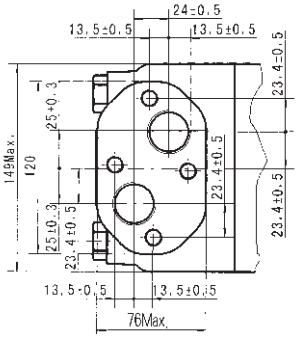


Flange 4

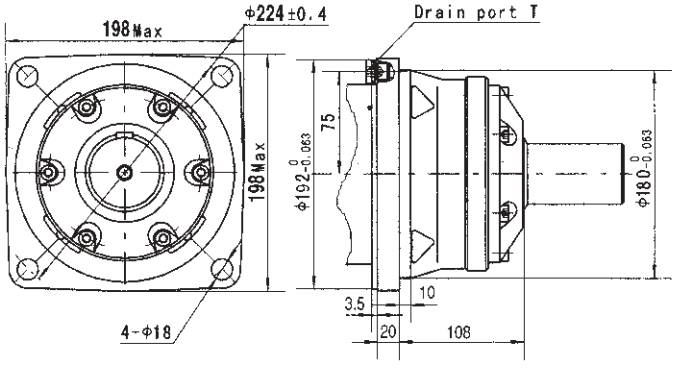




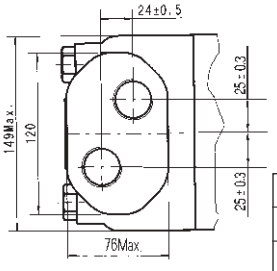
Porting
D、M



Flange W



S、G、M5、S1

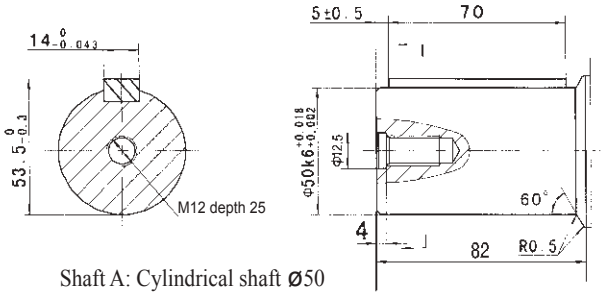


Model	L	L1	L2
BMV-315-W	148.5	20	93.5
BMV-400-W	155.5	27	100.5
BMV-500-W	163.5	35	108.5
BMV-630-W	175.5	47	120.5
BMV-800-W	186.5	58	131.5
BMV-1000-W	202.5	74	147.5

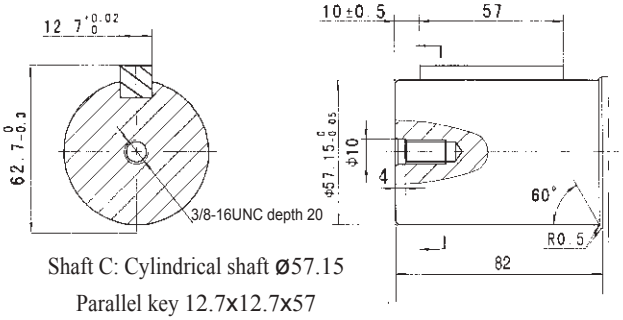
Note:The thickness of the stator and rotor is the dimension of L1adding on 7mm.

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)	--	--	--	--

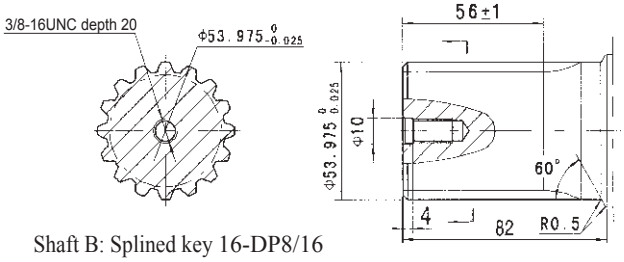
BMV SHAFT EXTENSIONS DIMENSIONS DATA



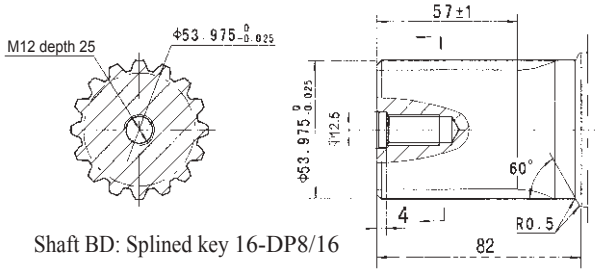
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



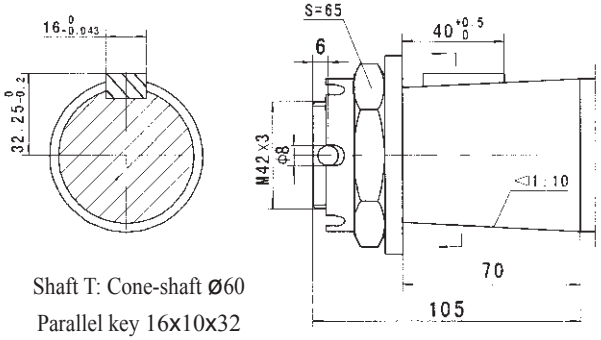
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



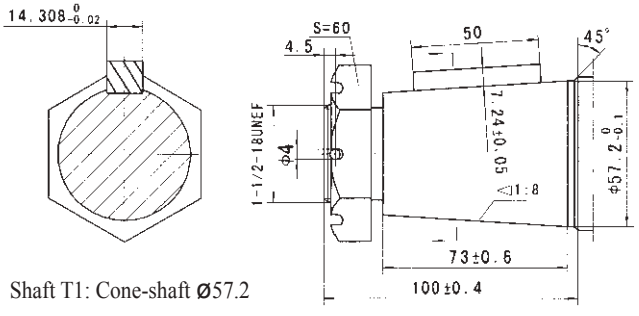
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16



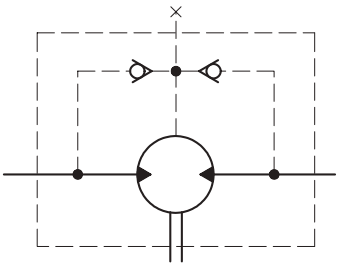
Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750±50Nm

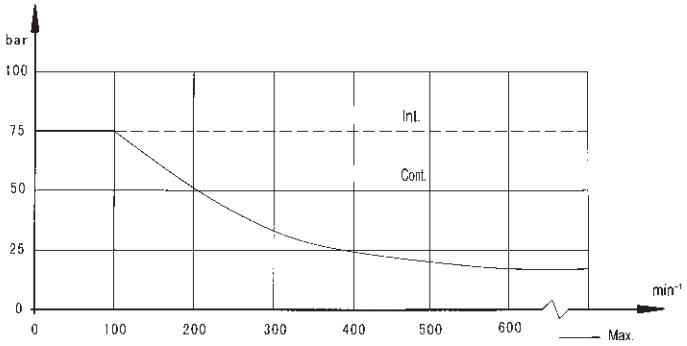


Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750±50Nm

BMV Series Hydraulic Motor

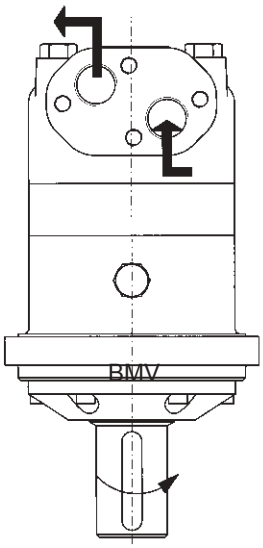
Permissible shaft seal pressure





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.



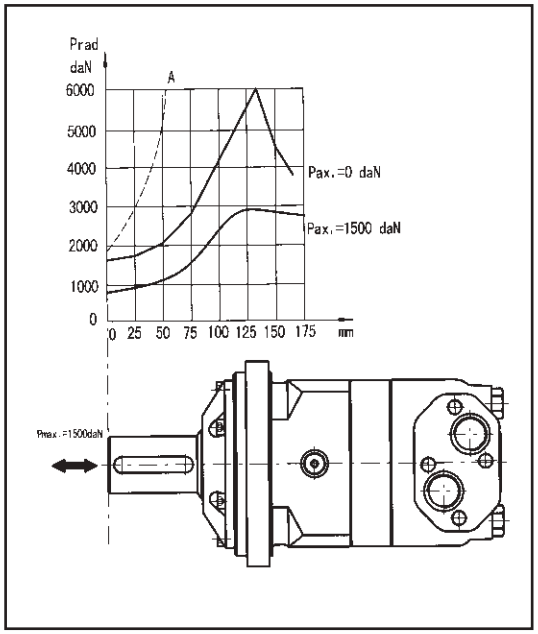
Oil flow in drain line

The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

Pressure drop （MPa）	Viscosity (mm^2/s)	Oil flow in the drain line (L/min.)
14	20	3
	35	2
21	20	6
	35	4

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.

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
BMV		–		–		–		–		–		–		–	

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 7/16-20UNF	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.

BMK2 SERIES HYDRAULIC MOTOR

BMK2 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			BMK2 65	BMK2 80	BMK2 100	BMK2 125	BMK2 160	BMK2 200	BMK2 250	BMK2 315	BMK2 400	BMK2 475
Geometric displacement	(cm^3/rev.)		65	80	100.9	129.8	156.8	193.4	242.5	304.3	390.8	485
Max.speed	(rpm)	cont.	835	800	742	576	477	385	308	246	191	153
		int.	990	980	924	720	713	577	462	365	287	230
Max.torque	(N•m)	cont.	185	235	295	385	455	540	660	765	775	845
		int.	245	345	445	560	570	665	820	885	925	930
Max.pressure drop	(MPa)	cont.	20.5	21	21	21	20.5	20.5	20.5	21	15.5	12
		int.	27.5	31	31	31	26	26	26	24	17	14
		peak.	31	31	31	31	31	31	31	31	20.5	17
Max.flow	(L/min)	cont.	55	65	75	75	75	75	75	75	75	75
		int.	65	80	95	95	115	115	115	115	115	115
Weight	(kg)		9.2	9.4	9.7	10	10.2	10.5	11	11.5	12	12.4

* 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

BMK2 65 [65 cm³/rev.]
Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5	24 Max.cont.	27.5 Max.int.	31 Peak
2	28	54	80						
	22	**12**	**6**						
4	30	58	88	115	146	165	**195**		
	52	**47**	**43**	**35**	**30**	**24**	16		
8	31	60	92	120	150	170	**200**	**225**	
	107	**98**	**92**	**85**	**70**	**55**	40	30	
15	32	62	94	124	155	175	**205**	**230**	**250**
	214	**208**	**200**	**193**	**185**	**174**	160	145	130
22	32	65	95	125	157	178	**206**	**232**	**254**
	320	**315**	**308**	**296**	**286**	**275**	260	242	230
30	30	65	95	128	160	180	**210**	**235**	**258**
	445	**440**	**430**	**420**	**408**	**395**	380	360	325
38	28	62	95	130	165	185	**216**	**240**	**260**
	565	**560**	**550**	**540**	**526**	**512**	495	470	420
45	26	60	92	125	160	180	**215**	**245**	**265**
	675	**670**	**660**	**648**	**632**	**615**	600	580	530
55 Max.cont.	23	55	88	120	155	175	**210**	**235**	**255**
	835	**825**	**810**	**790**	**770**	**745**	720	690	640
65 Max.int.	20	50	84	112	150	170	205	230	250
	990	**980**	**965**	**945**	**935**	**910**	**880**	**860**	**800**

BMK2 80 [80 cm³/rev.]
Pressure (MPa)

Flow (L/min)	3.5	7	10.5	14	17.5	20.5	24 Max.cont.	27.5 Max.int.	31 Peak
2	29	54	86						
	18	**9**	**3**						
4	35	75	112	145	172	208	218	236	
	45	**41**	**38**	**35**	**28**	**22**	**14**	**3**	
8	35	75	114	148	175	212	230	260	280
	90	**85**	**80**	**76**	**72**	**64**	**55**	**46**	**40**
15	38	78	116	152	184	215	245	275	300
	180	**175**	**170**	**166**	**160**	**153**	**140**	**126**	**115**
22	36	75	114	150	185	220	250	285	315
	265	**260**	**255**	**250**	**242**	**234**	**220**	**205**	**185**
30	35	75	115	150	185	225	260	295	325
	363	**355**	**350**	**342**	**334**	**322**	**302**	**280**	**260**
38	34	72	112	155	190	230	265	300	335
	460	**452**	**442**	**430**	**418**	**405**	**385**	**360**	**335**
45	32	70	110	150	190	230	265	305	340
	545	**535**	**528**	**515**	**505**	**495**	**465**	**440**	**410**
55	30	68	110	150	190	230	270	305	335
	670	**660**	**650**	**635**	**620**	**605**	**575**	**540**	**510**
65 Max.cont.	25	65	105	145	180	225	260	295	325
	800	**790**	**778**	**755**	**740**	**728**	**690**	**650**	**610**
75	22	63	102	145	180	225	260	290	
Max.int.	**910**	**900**	**880**	**860**	**850**	**830**	**790**	**750**	
80	20	60	100	140	175	220	250		
	980	**970**	**955**	**920**	**900**	**875**	**840**		

BMK2 100 [100.9 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 Max.cont.	24 Max.int.	27.5	31 Peak
2	15	32	68							
	14	**10**	**5**							
4	18	42	92	130	170	205	230			
	36	**34**	**32**	**28**	**22**	**14**	**5**			
8	20	45	90	135	180	210	240	280	310	
	74	**73**	**70**	**66**	**60**	**52**	**42**	**26**	**15**	
15	20	45	90	135	185	220	260	305	345	390
	142	**140**	**137**	**134**	**129**	**120**	**105**	**92**	**78**	**65**
22	18	45	90	140	190	230	275	315	360	405
	210	**207**	**201**	**195**	**188**	**179**	**160**	**150**	**138**	**125**
30	16	42	88	142	195	240	285	330	375	425
	290	**288**	**282**	**276**	**268**	**258**	**242**	**230**	**212**	**195**
38	15	40	88	140	190	240	285	335	380	430
	370	**365**	**360**	**352**	**340**	**326**	**310**	**295**	**275**	**255**
45	15	40	86	140	190	240	285	340	385	440
	440	**435**	**430**	**422**	**410**	**395**	**380**	**365**	**345**	**320**
55	12	36	85	135	190	240	285	340	385	440
	540	**534**	**528**	**520**	**510**	**500**	**485**	**465**	**440**	**405**
65	10	35	80	130	185	235	280	335	380	440
	640	**635**	**630**	**622**	**605**	**590**	**575**	**550**	**525**	**500**
75 Max.cont.	5	30	75	125	180	230	275	330	375	
	738	**735**	**728**	**715**	**700**	**680**	**655**	**635**	**610**	
85	3	25	75	125	175	225	270	320	370	
Max.int.	**838**	**835**	**830**	**820**	**805**	**785**	**760**	**730**	**690**	
95		23	70	120	170	220	260	310		
		925	**918**	**905**	**890**	**870**	**840**	**810**		

BMK2 125 [129.8 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 Max.cont.	24 Max.int.	27.5	31 Peak
2	25	40								
	12	**7**								
4	28	55	110	175	220	280	325			
	27	**26**	**22**	**18**	**14**	**11**	**8**			
8	28	60	115	175	230	290	330	375	400	
	57	**56**	**53**	**48**	**42**	**38**	**34**	**26**	**20**	
15	28	60	120	180	240	295	340	390	440	485
	113	**112**	**110**	**105**	**98**	**92**	**86**	**80**	**72**	**65**
22	28	55	120	180	245	305	360	415	470	530
	165	**163**	**160**	**155**	**150**	**144**	**138**	**130**	**115**	**100**
30	25	52	120	185	245	310	365	425	480	545
	228	**224**	**222**	**210**	**212**	**206**	**198**	**188**	**178**	**165**
38	25	50	120	180	245	315	370	430	495	550
	288	**285**	**282**	**275**	**268**	**260**	**252**	**242**	**230**	**215**
45	22	50	120	180	245	315	370	430	490	550
	345	**343**	**338**	**332**	**325**	**315**	**305**	**292**	**280**	**265**
55	20	46	115	175	245	330	375	430	490	
	420	**418**	**414**	**408**	**400**	**390**	**378**	**365**	**346**	
65	15	43	110	170	240	320	370	425	485	
	498	**496**	**492**	**486**	**480**	**465**	**458**	**440**	**425**	
75 Max.cont.	12	42	108	170	235	310	365	425		
	575	**574**	**568**	**560**	**550**	**548**	**525**	**502**		
85	8	40	105	165	230	310	360	420		
Max.int.	**653**	**652**	**645**	**636**	**625**	**616**	**600**	**578**		
95		40	100	160	225	290	355	415		
		722	**715**	**702**	**690**	**680**	**670**	**655**		

Torque (N•m) 225
Speed (rpm) **690**

cont.
int.

BMK2 160 [156.8 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24	26 (Max.int.)
2	28	55	110	175					
	9	**7**	**5**	**3**					
4	32	63	125	190	250	315	370		
	22	**21**	**19**	**17**	**13**	**8**	**3**		
8	37	68	130	200	260	325	390	450	480
	47	**45**	**42**	**39**	**36**	**34**	**32**	**27**	**22**
15	35	68	135	210	275	370	420	500	530
	93	**92**	**89**	**85**	**80**	**76**	**70**	**60**	**45**
22	35	75	140	215	285	370	440	515	550
	138	**136**	**133**	**128**	**122**	**116**	**110**	**102**	**95**
30	35	75	145	220	290	370	440	520	560
	190	**187**	**184**	**178**	**172**	**167**	**164**	**154**	**142**
38	37	70	150	225	310	380	450	525	565
	240	**237**	**234**	**230**	**225**	**218**	**202**	**193**	**185**
45	32	70	150	225	310	380	450	525	565
	285	**283**	**280**	**275**	**268**	**259**	**247**	**236**	**225**
55	28	66	145	220	305	375	450	525	
	348	**346**	**242**	**338**	**332**	**324**	**314**	**300**	
65	25	63	140	220	300	375	445		
	412	**410**	**406**	**400**	**393**	**383**	**370**		
75 (Max.cont.)	22	60	135	215	295	370	440		
	476	**474**	**470**	**464**	**454**	**445**	**435**		
85	18	55	130	210	290	365	435		
	540	**536**	**532**	**524**	**514**	**502**	**485**		
95 (Max.int.)	15	50	125	205	285	360	430		
	600	**595**	**590**	**580**	**565**	**555**	**545**		
115		40	115	200	280	350	425		
		715	**705**	**695**	**685**	**670**	**655**		

BMK2 200 [193.4 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24	26 (Max.int.)
2	32	68	110	145					
	9	**7**	**5**	**3**					
4	40	75	150	195	300	360			
	18	**16**	**14**	**11**	**7**	**4**			
8	45	80	160	240	315	405	500	570	600
	37	**36**	**34**	**30**	**26**	**21**	**17**	**13**	**11**
15	48	90	170	255	335	425	510	590	620
	75	**74**	**72**	**68**	**64**	**60**	**56**	**50**	**42**
22	46	90	175	265	350	440	520	605	645
	112	**110**	**108**	**105**	**101**	**97**	**91**	**86**	**80**
30	45	90	180	270	360	450	530	615	655
	153	**151**	**148**	**145**	**141**	**135**	**128**	**122**	**116**
38	45	90	180	275	370	455	540	625	
	193	**191**	**188**	**184**	**178**	**172**	**166**	**158**	
45	40	85	180	275	370	460	545		
	230	**228**	**226**	**222**	**218**	**210**	**202**		
55	38	82	180	275	375	465	550		
	280	**278**	**275**	**270**	**264**	**255**	**248**		
65	35	80	175	270	370	465	545		
	332	**330**	**328**	**322**	**315**	**306**	**295**		
75 (Max.cont.)	30	72	170	265	360	455	540		
	384	**382**	**378**	**370**	**365**	**356**	**346**		
85	25	70	165	260	355	450	540		
	436	**434**	**430**	**420**	**410**	**400**	**390**		
95 (Max.int.)	20	60	155	255	350	445	530		
	488	**485**	**478**	**470**	**458**	**448**	**438**		
115		50	140	240	330	440	520		
		580	**572**	**562**	**550**	**538**	**520**		

BMK2 250 [242.5 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24	26 (Max.int.)
2	45	95							
	4	**2**							
4	50	100	210	310	410	510	610		
	14	**13**	**11**	**9**	**6**	**4**	**3**		
8	55	105	215	320	420	530	620	730	780
	29	**28**	**26**	**23**	**20**	**17**	**14**	**11**	**9**
15	55	110	220	330	440	550	650	755	810
	59	**58**	**56**	**53**	**50**	**47**	**45**	**43**	**40**
22	50	115	225	340	455	560	665	770	
	88	**87**	**85**	**82**	**78**	**74**	**69**	**65**	
30	50	115	230	350	465	570	680	785	
	122	**121**	**118**	**113**	**109**	**104**	**100**	**92**	
38	48	112	235	355	475	580	695	795	
	154	**152**	**149**	**145**	**140**	**135**	**130**	**122**	
45	45	110	230	350	475	590	700		
	183	**182**	**180**	**176**	**170**	**165**	**158**		
55	42	105	230	345	470	580			
	224	**223**	**221**	**218**	**212**	**205**			
65	35	100	220	340	460	565			
	266	**265**	**263**	**258**	**252**	**242**			
75 (Max.cont.)	32	95	210	330	455	560			
	307	**306**	**303**	**298**	**290**	**280**			
85	30	85	200	320	450	555			
	348	**346**	**342**	**336**	**330**	**320**			
95 (Max.int.)	25	70	190	315	440	540			
	386	**384**	**378**	**372**	**365**	**355**			
115		65	180	300	430				
		465	**458**	**450**	**442**				

BMK2 315 [304.3 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5	20.5 (Max.cont.)	24 (Max.int.)
2	45	95						
	4	**2**						
4	65	130	250	380	490			
	12	**11**	**10**	**8**	**6**			
8	70	135	260	390	510	630	760	875
	24	**23**	**22**	**20**	**18**	**15**	**10**	**6**
15	75	140	275	410	535	670	800	920
	48	**48**	**47**	**45**	**42**	**38**	**34**	**30**
22	70	140	285	425	555	685	810	940
	71	**70**	**69**	**66**	**62**	**56**	**50**	**42**
30	70	145	290	430	565	695	820	
	97	**97**	**96**	**93**	**88**	**80**	**70**	
38	66	140	290	435	570	715	835	
	123	**122**	**120**	**117**	**112**	**102**	**90**	
45	62	135	290	435	575	720	840	
	147	**146**	**144**	**142**	**135**	**125**	**118**	
55	58	130	285	430	575	720		
	180	**179**	**176**	**172**	**165**	**155**		
65	52	120	275	425	570	715		
	213	**212**	**210**	**205**	**200**	**190**		
75 (Max.cont.)	40	110	260	415	560	710		
	246	**245**	**242**	**236**	**225**	**212**		
85	30	100	250	405	540			
	278	**277**	**274**	**270**	**260**			
95 (Max.int.)	20	90	245	380	515			
	311	**310**	**307**	**303**	**296**			
115		80	225	350				
		365	**361**	**355**				

Torque (N•m) 225
Speed (rpm) **361**

cont.
int.

BMK2 400 [390.8 cm³/rev.]
Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	15.5 Max.cont.	17.5 Max.int.	19
2	70 **4**	145 **2**						
4	80 **9**	170 **9**	345 **8**	500 **7**	660 **6**	740 **5**		
8	85 **19**	175 **18**	355 **17**	520 **16**	680 **14**	765 **13**	830 **12**	910 **10**
15	90 **37**	185 **37**	370 **36**	550 **35**	720 **32**	810 **30**	880 **28**	
22	95 **55**	190 **55**	380 **54**	565 **52**	750 **48**	830 **46**	900 **44**	
30	92 **76**	188 **75**	385 **73**	570 **71**	760 **68**	835 **65**	905 **62**	
38	90 **96**	185 **94**	385 **92**	575 **90**	765 **86**	840 **84**	930 **80**	
45	85 **114**	180 **113**	380 **111**	570 **108**	760 **102**			
55	80 **140**	175 **139**	380 **137**	570 **133**	760 **127**			
65	75 **165**	170 **164**	370 **163**	560 **160**	750 **155**			
Max.cont. 75	68 **191**	160 **190**	360 **188**	555 **184**	740 **178**			
85	65 **214**	150 **212**	355 **210**	550 **206**	730 **200**			
Max.int. 95	50 **242**	135 **240**	340 **237**	530 **233**	710 **228**			
115		125 **286**	310 **282**	510 **275**				

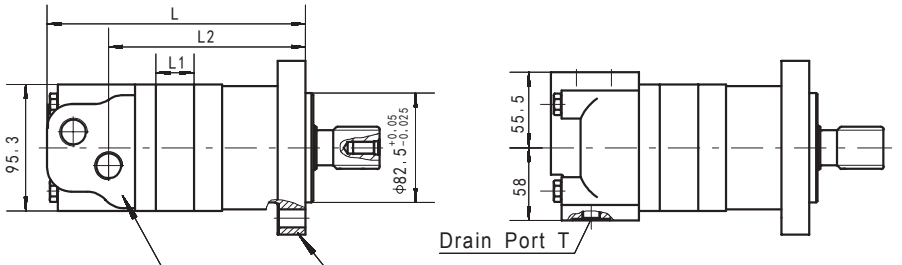
cont.
int.

BMK2 475 [485 cm³/rev.]
Pressure (MPa)

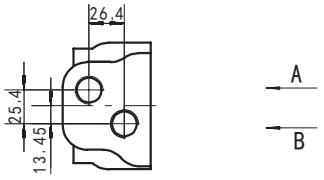
Flow (L/min)	1.75	3.5	7	10.5	12 Max.cont.	14 Max.int.
2	75 **2**	175 **1**				
4	110 **7**	220 **6**	430 **4**	540 **1**		
8	110 **14**	225 **13**	450 **11**	700 **7**		
15	105 **29**	235 **28**	470 **26**	710 **24**	825 **22**	895 **19**
22	105 **44**	240 **43**	480 **42**	720 **40**	835 **37**	915 **34**
30	110 **61**	240 **60**	485 **58**	725 **55**	840 **52**	935 **48**
38	110 **77**	235 **75**	480 **73**	720 **70**	840 **68**	930 **65**
45	100 **91**	220 **91**	470 **89**	715 **85**	825 **83**	
55	95 **112**	210 **110**	460 **108**	710 **104**	820 **100**	
65	85 **132**	200 **131**	445 **128**	700 **125**	810 **120**	
Max.cont. 75	70 **153**	185 **152**	440 **149**	690 **145**	800 **140**	
85	60 **173**	175 **172**	430 **169**	680 **165**	785 **160**	
Max.int. 95	40 **195**	150 **193**	405 **190**	655 **185**		
115		130 **230**	380 **226**	625 **220**		

Torque (N•m) 130
Speed (rpm) **230**

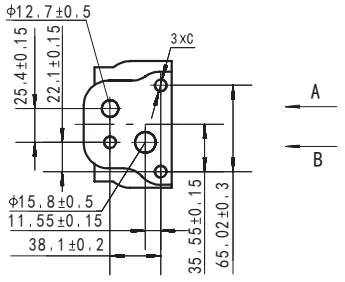
BMK2 DIMENSIONS AND MOUNTING DATA



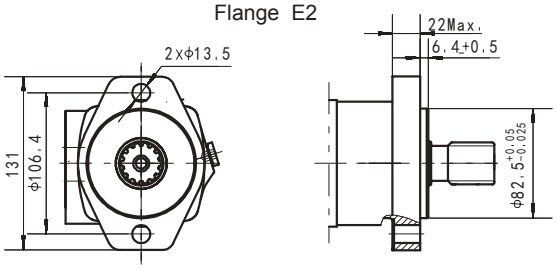
Porting
DB、DU、SU、SB、M4



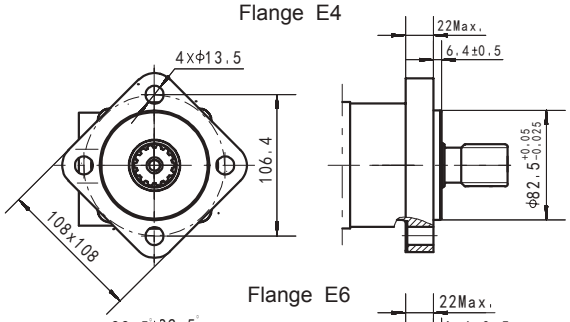
Porting MU、MM



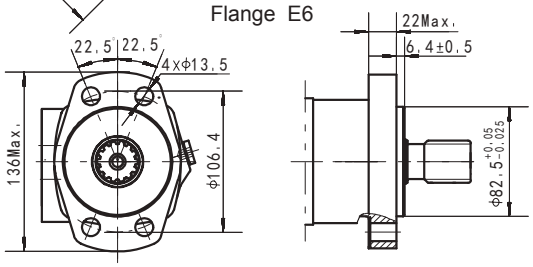
Flange E2



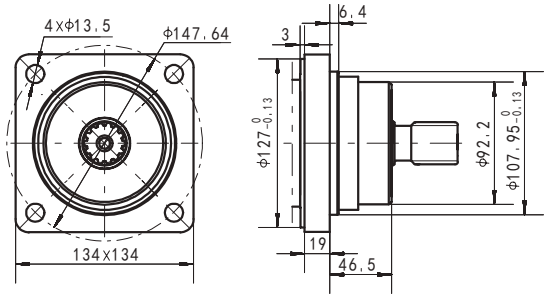
Flange E4



Flange E6



Flange WE

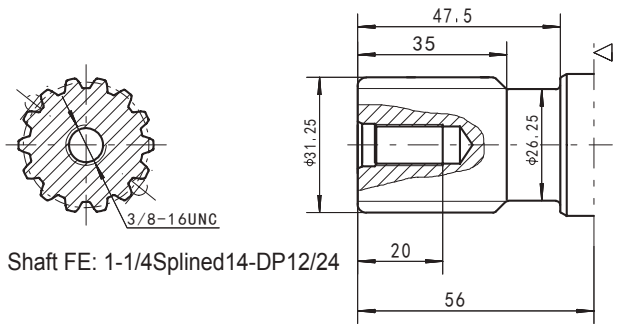


Model	L	L1	L2
BMK2-65	182	14.5	133.5
BMK2-80	185	17.8	136.5
BMK2-100	189.5	22.5	141.5
BMK2-125	196	28.9	148
BMK2-160	196	28.9	148
BMK2-200	202.5	35.6	154.5
BMK2-250	211.5	44.6	163.5
BMK2-315	223	56	175
BMK2-400	239	72	191
BMK2-475	256.5	89.3	208.5

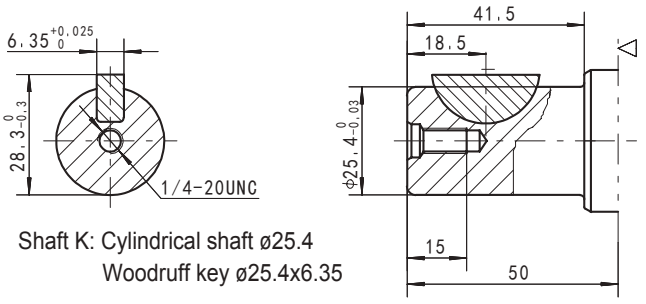
Model	L	L1	L2
BMK2-65-WE	142	14.5	93.5
BMK2-80-WE	145.5	17.8	97
BMK2-100-WE	150	22.5	101.5
BMK2-125-WE	156.5	28.9	108
BMK2-160-WE	156.5	28.9	108
BMK2-200-WE	163	35.6	114.5
BMK2-250-WE	172	44.6	123.5
BMK2-315-WE	183.5	56	135
BMK2-400-WE	199.5	72	151
BMK2-475-WE	217	89.3	168.5

Code / Mounting	DB (Depth)	DU (Depth)	SU (Depth)	SB (Depth)	M4 (Depth)	MU	MM
P(A,B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (17)	7/8-14 O-ring (17)	M22 x 1.5 (15)	φ12.7、φ15.8	φ12.7、φ15.8
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)
C	--					3/8-16UNC(15)	M10(15)

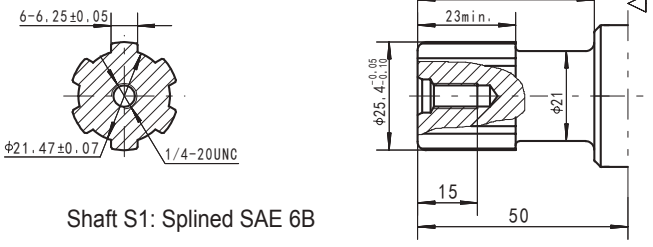
SHAFT EXTENSIONS FOR BMK2 MOTORS



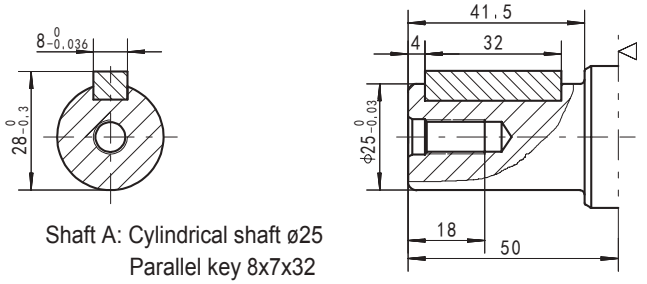
Shaft FE: 1-1/4Splined14-DP12/24



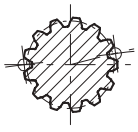
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35

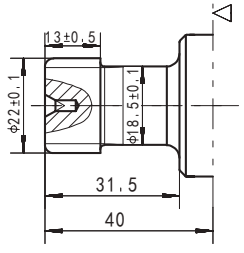


Shaft S1: Splined SAE 6B

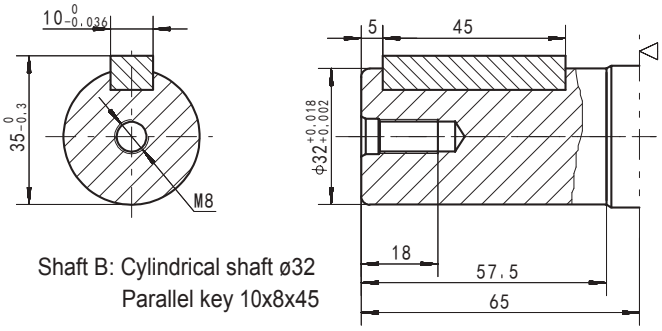


Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32

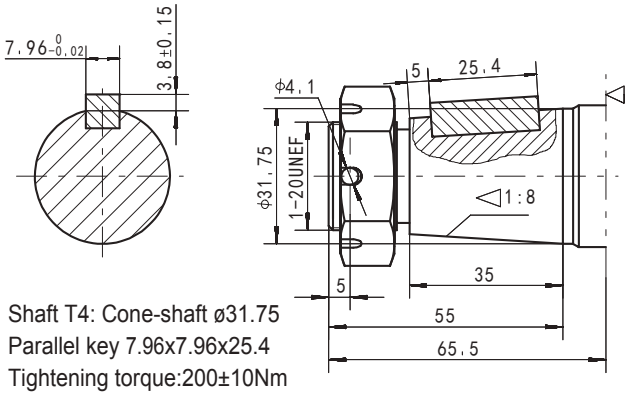




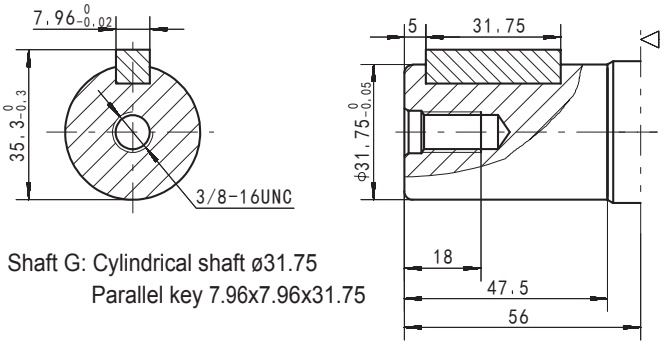
Shaft I: Splined 13-DP16/32



Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



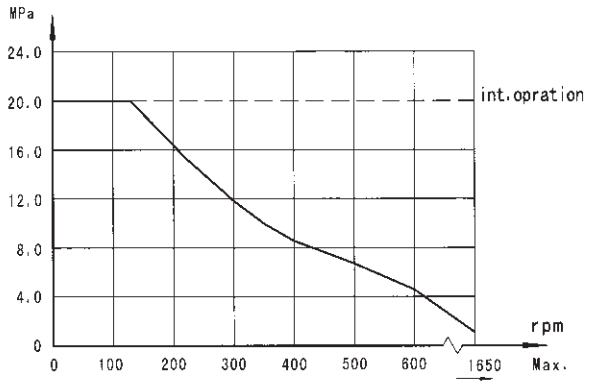
Shaft T4: Cone-shaft ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



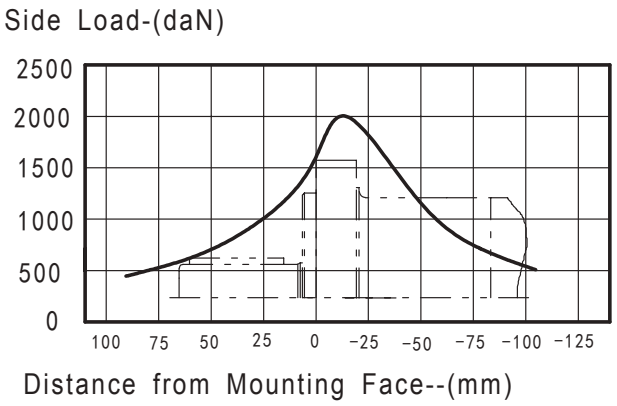
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75

◁ Motor Mounting Surface E2 Flange

Permissible shaft seal pressure



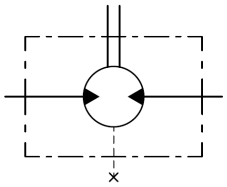
BMK2 Standard Mounting Flange[E2]Radial Forces

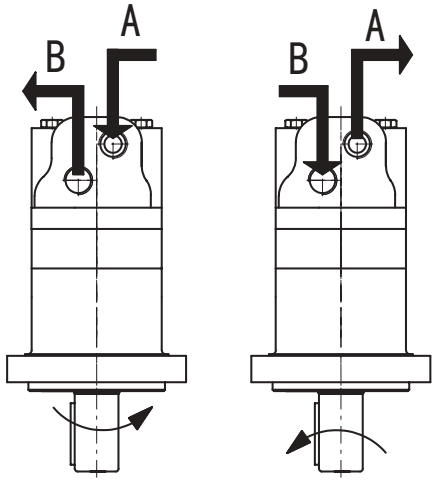


The bear ing curve represents allowable bearing loads for an B_{10} bearing life (2000 hours or $12x10^6$ revolutions at 100rpm) atrated output torque.

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.





Order Information

	1		2		3		4		5		6		7		8
BMK2		–		–		–		–		–		–		–	

Pos.1	2	3		4		5		6		7		8	
Code	Disp.	Flange		Output Shaft		Port and Drain Port		Rotation Direction		Paint		Unusually Function	
	65 80 100 125 160 200 250 315 400 475	E2 E4 E6 WE	2×Φ13.5 Rhomb-flange Φ106.4, pilot Φ82.5×6.4 4×Φ13.5 Rhomb-flange Φ106.4, pilot Φ82.5×6.4 4×Φ13.5 Rhomb-flange Φ106.4, pilot Φ82.5×6.4 4×Φ13.6Wheel-flangeΦ147.6, pilot Φ107.95x6.4	A B K G FE S1 I T4	Shaft Φ25 , parllel key 8×7×32 Shaft Φ32 , parllel key 10×8×45 Shaft Φ25.4 , Woodruff key Φ25.4×6.35 Shaft Φ31.75 , parllel key 7.96×7.96×31.75 Shaft Φ31.75 , splined 14-DP12/24 Shaft Φ25.4 ,splined SAE 6B Sub-shaft Φ22 , splined 13-DP16/32 Cone-shaftΦ31.75 , parllel key 7.96×7.96×25.4	DB DU SB SU M4 MU MM	G1/2,G1/4 G1/2,7/16-20 UNF 7/8-14UNF O-ring,G1/4 7/8-14UNF O-ring,7/16-20 UNF M22×1.5,M14×1.5 1/2",5/8"Crosshole Manifold 3×3/8-16UNC,7/16-20UNF 1/2",5/8"Crosshole Manifold 3×M10,G1/4	Omit R	Standard Opposite	00 Omit B S	No paint Blue Black Silver grey	Omit F	Standard Free Running

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 .

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.]
Pressure (MPa)

Flow (L/min)	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**	
Max.cont. 150	10 **765**	60 **765**	155 **755**	258 **740**	356 **725**	450 **700**	550 **640**	650 **580**		
Max.int. 170		60 **865**	155 **850**	255 **840**	350 **820**	450 **800**	545 **745**	640 **700**		

BMK6 250 [246.1cm³/rev.]
Pressure (MPa)

Flow (L/min)	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**		
Max.cont. 150	30 **608**	80 **605**	200 **600**	320 **592**	450 **580**	570 **566**	680 **532**	815 **496**		
Max.int. 170		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.]
Pressure (MPa)

Flow (L/min)	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**		
Max.cont. 150	35 **480**	110 **475**	270 **462**	420 **458**	570 **450**	755 **435**	880 **420**	1030 **395**		
Max.int. 190		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.]
Pressure (MPa)

Flow (L/min)	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**			
Max.cont. 150	45 **382**	145 **380**	320 **376**	530 **370**	730 **362**	925 **352**				
Max.int. 190		130 **483**	300 **476**	515 **470**	730 **458**	915 **445**				
225			285 **570**	500 **560**	710 **550**	895 **535**				

BMK6 500 [490.8cm³/rev.]

Flow (L/min)	Pressure (MPa) 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.]

Flow (L/min)	Pressure (MPa) 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.]

Flow (L/min)	Pressure (MPa) 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**					

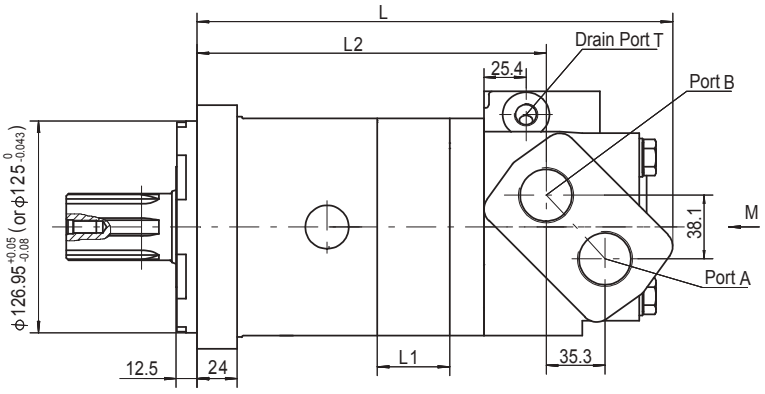
Torque (N•m) 423
Speed (rpm) **280**

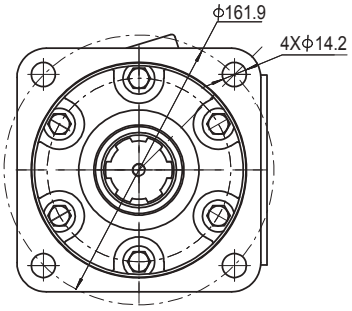
BMK6 1000 [981.6cm³/rev.]

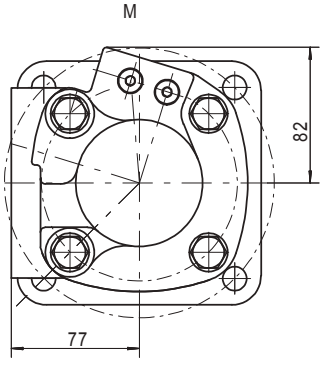
Flow (L/min)	Pressure (MPa) 1.75	3.5	5	7	8.5	10.5	12 (Max.cont.)	14 (Max.int.)
4	225 **3**	460 **3**	640 **2**	875 **2**	1085 **1**			
8	230 **7**	470 **7**	695 **6**	945 **6**	1170 **5**	1415 **4**	1560 **3**	1675 **2**
15	240 **15**	485 **15**	715 **15**	965 **14**	1200 **14**	1445 **13**	1580 **13**	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**			

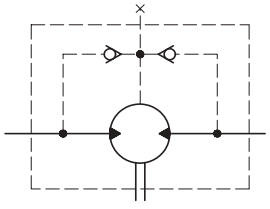
cont.
int.

BMK6 DIMENSIONS MOUNTING DATA



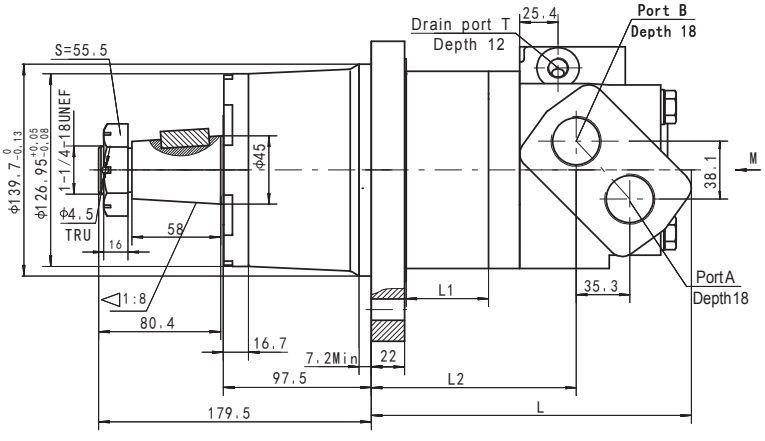


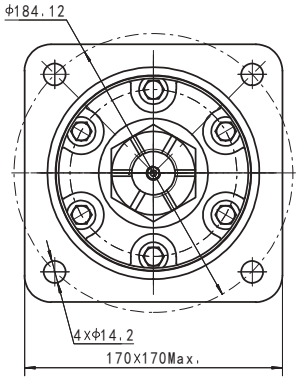


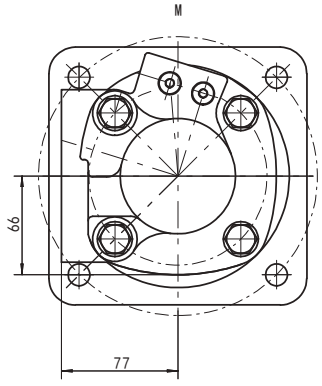


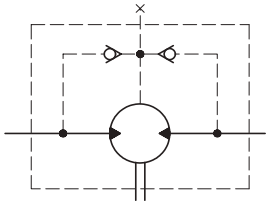
Direction of shaft rotation:Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

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







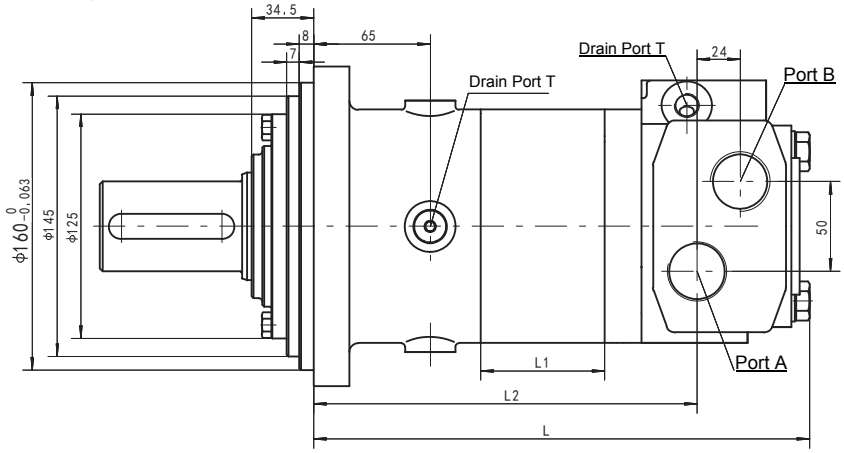


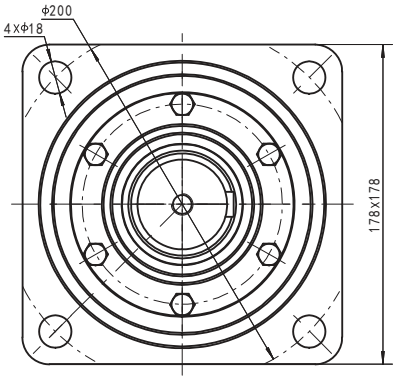
Direction of shaft rotation:Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

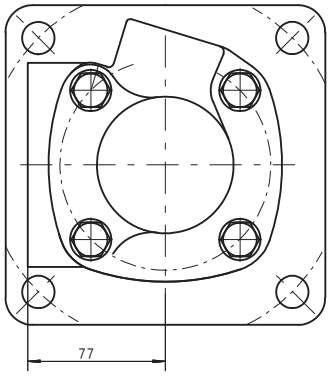
Model	L	L1	L2
BMK6-200	179	21.7	102.5
BMK6-250	185	27.3	108
BMK6-315	192	34.5	115.5
BMK6-400	201	43.4	124.5
BMK6-500	212	54.4	135.5
BMK6-630	226.7	69.1	150.2
BMK6-800	246.5	89	170
BMK6-1000	266.5	108.9	190

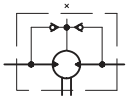
BMK6 DIMENSION AND MOUNTING DATA

J6 Flange









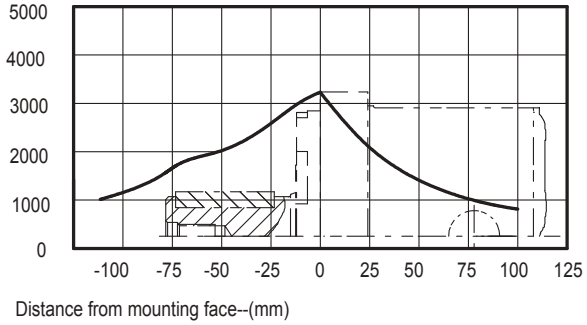
Rotation direction of output shaft: standard

When facing the depth of the motor shaft and the “A” port is high pressure oil, the output shaft rotates clockwise; otherwise, it rotates counterclockwise. Without check valve, the “M14xM15 drain ”port must be connected back to the tank.

Model	L	L1	L2
BMK6-200	230	21.7	166
BMK6-250	236	27.3	172
BMK6-315	243	34.5	179
BMK6-400	252	43.4	188
BMK6-500	263	54.4	199
BMK6-630	277.5	69.1	213.5
BMK6-800	297.5	89	233.5
BMK6-1000	317.5	108.9	253.5

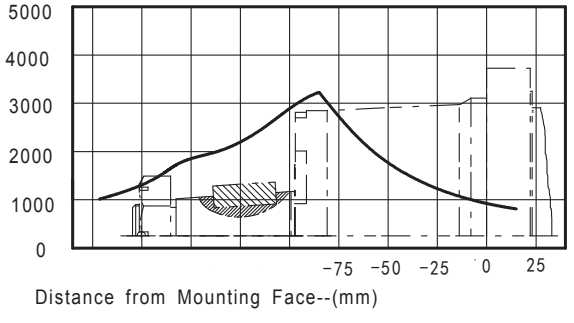
BMK6 for CC And W Mounting Radial forces

Radial forces-(daN)



Distance from mounting face--(mm)

Side Load-(daN)



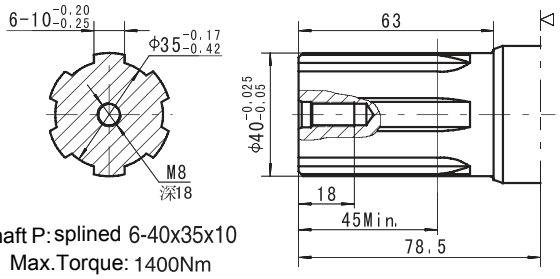
Distance from Mounting Face--(mm)

The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or $12x10^6$ revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

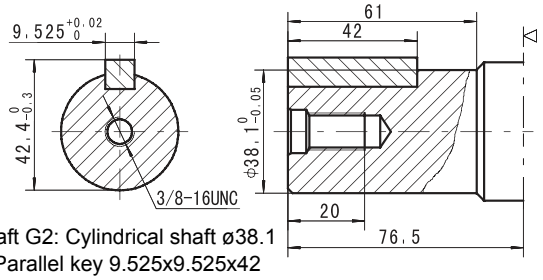
The maximum load curve is defined by bearing static load capacity.

This curve should not be exceeded at any time including shock loads.

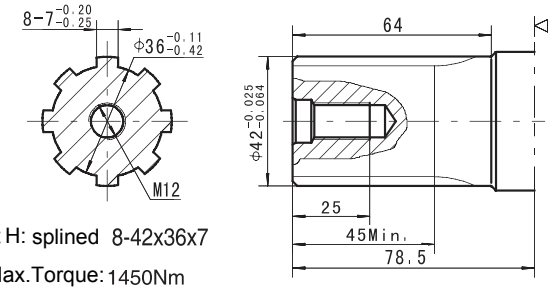
BMK6 Shaft Extensions For Dimensions Data



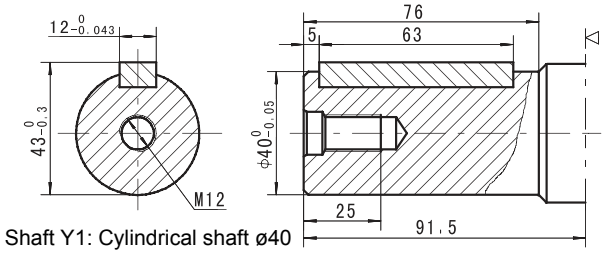
shaft P: splined 6-40x35x10
Max.Torque: 1400Nm



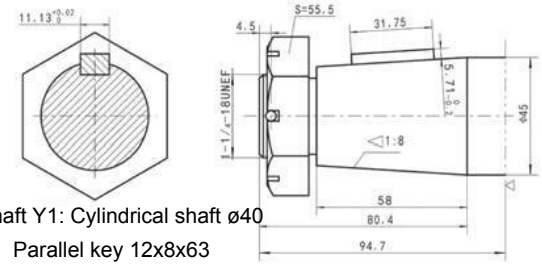
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42
Max.Torque: 1350Nm



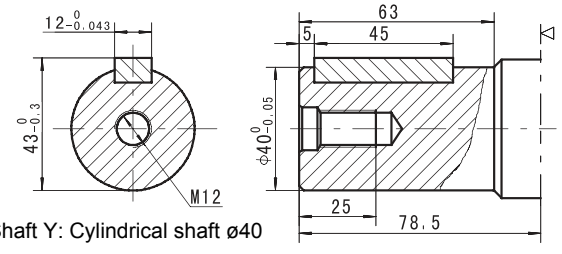
shaft H: splined 8-42x36x7
Max.Torque: 1450Nm



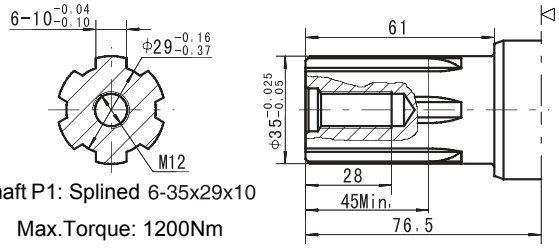
Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63
Max.Torque: 1400Nm



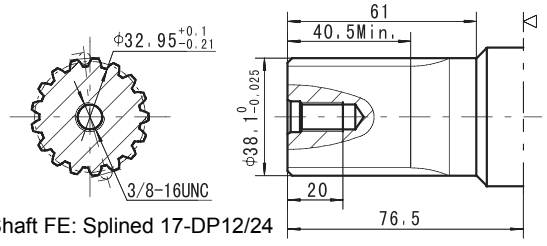
Shaft Y1: Cylindrical shaft ø40
Parallel key 12x8x63
Max.Torque: 1400Nm



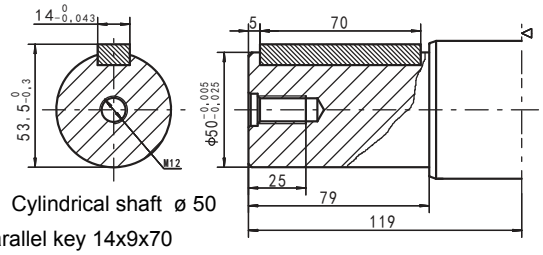
Shaft Y: Cylindrical shaft ø40
Parallel key 12x8x45
Max.Torque: 1400Nm



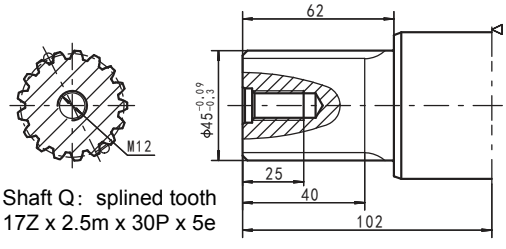
shaft P1: Splined 6-35x29x10
Max.Torque: 1200Nm



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



Shaft A: Cylindrical shaft ø 50
Parallel key 14x9x70

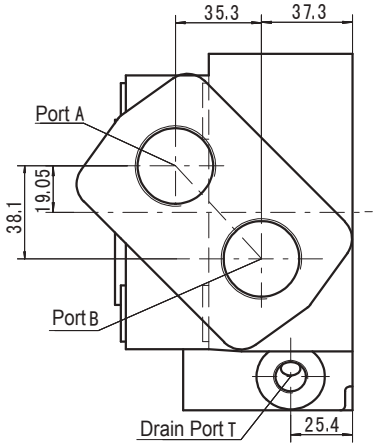


Shaft Q: splined tooth
17Z x 2.5m x 30P x 5e

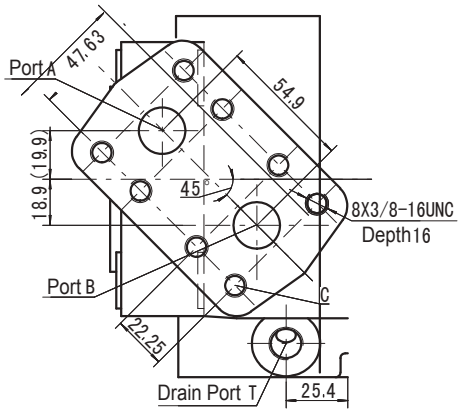
◁ Motor Mounting Surface CC Flange

DIMENSIONS of PORTS FOR BMK6

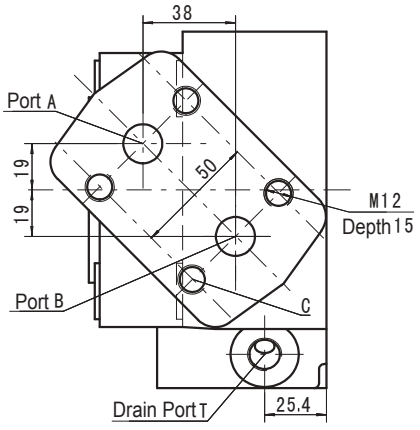
Port：SF5、SF6、SF7、SF8



Port：SF

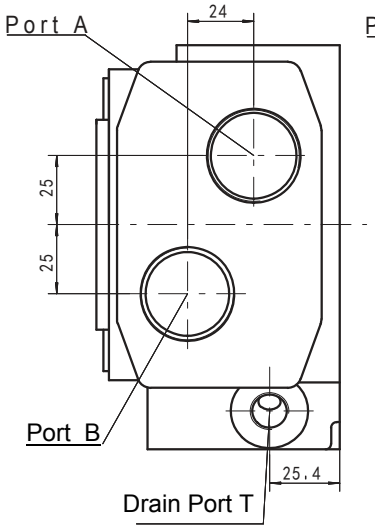


Port：SF0

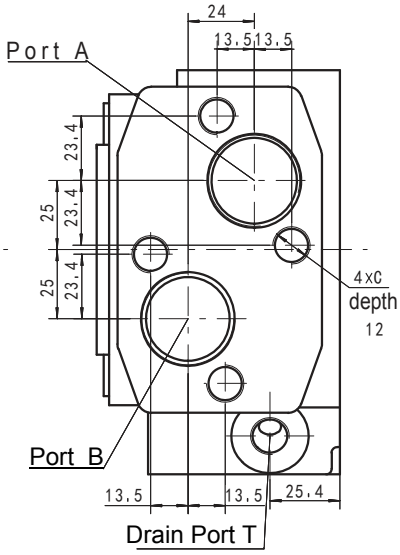


Code / Mounting	Type					
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF8 (depth)	SF (depth)	SF0 (depth)
P(A,B)	1-5/16-12UN(18)	M33X2(18)	G1(18)	G3/4(18)	Φ19.05	Φ16
T	7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	7/16-20UNF(12)	M14X1.5(12)
C	-	-	-	-	8X3/8-16UNC	4XM12

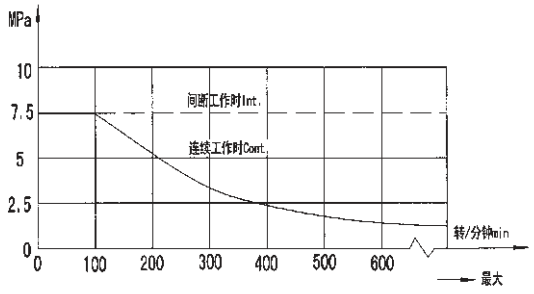
Porting： S1、M 5、G



Porting： D、D 1、M



BMK6 Series The allowable pressure of the standard motor output shaft seal



I n the use without an external oil drain pipe, the pressure on the output shaft sealing ring is slightly higher than the pressure in the oil pipeline. When the external drain pipe is used, the pressure on the output shaft sealing ring is the same as the pressure in the external drain pipe.

Content / Mounting	Code					
	S1(Depth)	M5(Depth)	G(Depth)	D(Depth)	D1(Depth)	M (Depth)
P(A,B)	1-5/16-12UN(18)	M33X2(18)	G1(18)	G1(18)	G3/4(18)	M33X2(18)
T	7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	G1/4(12)	M14X1.5(12)
C	-	-	-	4XM12	4XM12	4XM12

订货信息
Order information

BMK6- [1] – [2] – [3] – [4] – [5] – [6] – [7] – [8]

1	2	3		4		5		6		7		8	
Code	Disp.	Flange, pilot		Output Shaft		Ports and Drain		Rotation Direction		Paint		Unusually Function	
	200 250 315 400	CC	4-Φ14.2 Square-flange Φ161.9, pilotΦ127×12.5	G2	ShaftΦ38.1，parallel key9.52×9.52×57.15	SF	3/4"Manifold Mount8×3/8-16UNC，7/16-20UNF	Omit	Standard	00	No paint	Omit	Standard
		CC1	4-Φ14.2Square-flangeΦ161.9, pilotΦ125×12.5	FE	ShaftΦ38.1，splined tooth17-DP12/24	SF0	Φ16Manifold Mount4×M12，M14×1.5			Omit	Blue		
		W	4-Φ14.2 Wheel-flange Φ184.12, Piliot 139.7	Y1	ShaftΦ40，parallel key12×8×63	SF5	1-5/16-12UN，7/16-20UNF			B	Black		
				Y	ShaftΦ40，parallel key 12×8×45	SF6	M33×2，M14×1.5			S	Silver grey		
				H	ShaftΦ42，splined tooth 8—42×36×7	SF7	G1，G1/4						
				H1	ShaftΦ42，splined tooth 8—42×36×7	SF8	G3/4，G1/4						
				P	ShaftΦ40，splined tooth 6—42×35×10								
				P1	ShaftΦ35，splined tooth 6—35×29×10								
				T1	Cone-shaft 1:8 Φ45，parallel key 1.13X11.13X31.75								
	500 630 800 1000	J6	4xΦ13.5 Square-flangeΦ200, pilot Φ 160x8	A	Shaft Φ35，parallel key14x9x70	S1	1—5/16—12UNC，7/16—20UNF	Omit	Standard	00	No paint	Omit	Standard
				Q	Shaft Φ45，splined tooth 17zx2.5x30Px5e	M5	M33x2，M14x1.5			Omit	Blue		
						G	G1，G1/4			B	Black		
						D	G1Manifold Mount4xM12，G1/4			S	Silver grey		
						D1	G3/4 Manifold Mount 4xM12，G1/4						
						M	M33x2Manifold Mount4xM12，M14x1.4						

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.

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	14 (Max.cont.)	19 (Max.int.)
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	14 (Max.cont.)	19 (Max.int.)
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	14 (Max.cont.)	19 (Max.int.)
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	14 (Max.cont.)	19 (Max.int.)
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	14 (Max.cont.)	19 (Max.int.)
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**
45 (Max.cont.)	47 **283**	127 **281**	205 **275**	281 **266**	391 **241**
57 (Max.int.)	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	14 (Max.cont.)	19 (Max.int.)
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**
45 (Max.cont.)	51 **229**	157 **227**	252 **221**	351 **212**	494 **196**
57 (Max.int.)	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	12 (Max.cont.)	16.5 (Max.int.)
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**
57 (Max.cont.)	19 **247**	130 **244**	256 **240**	301 **230**	451 **221**
75 (Max.int.)		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	11 (Max.cont.)	15.5 (Max.int.)
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**
57 (Max.cont.)	73 **216**	208 **213**	339 **205**	342 **197**	487 **184**
75 (Max.int.)		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.]

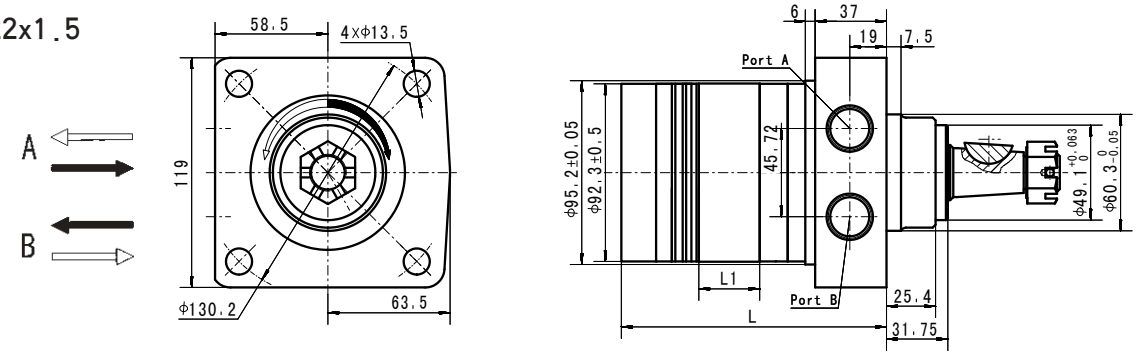
Pressure (MPa)

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.

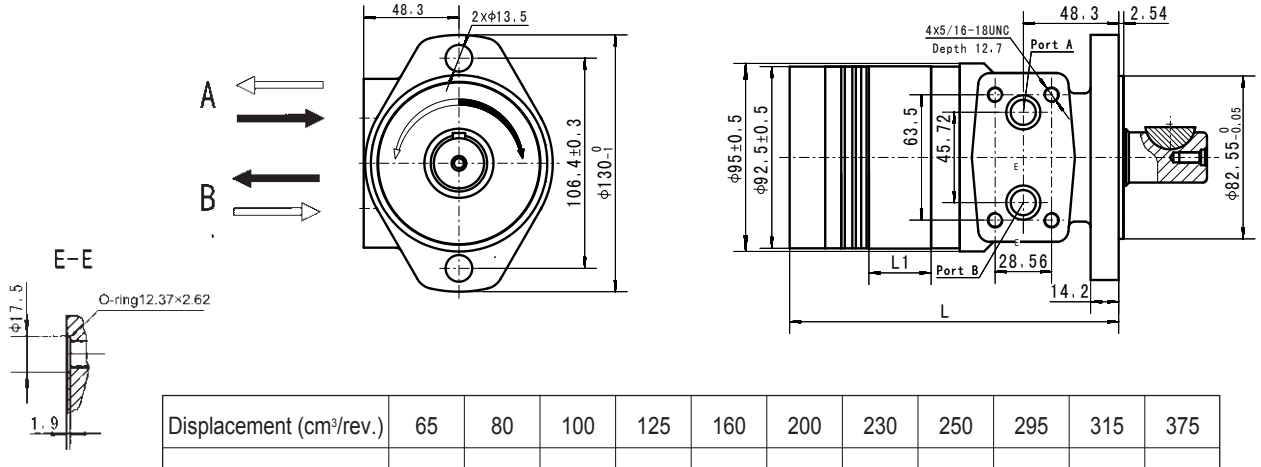
BME2 DIMENSIONS AND MOUNTING DATA

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

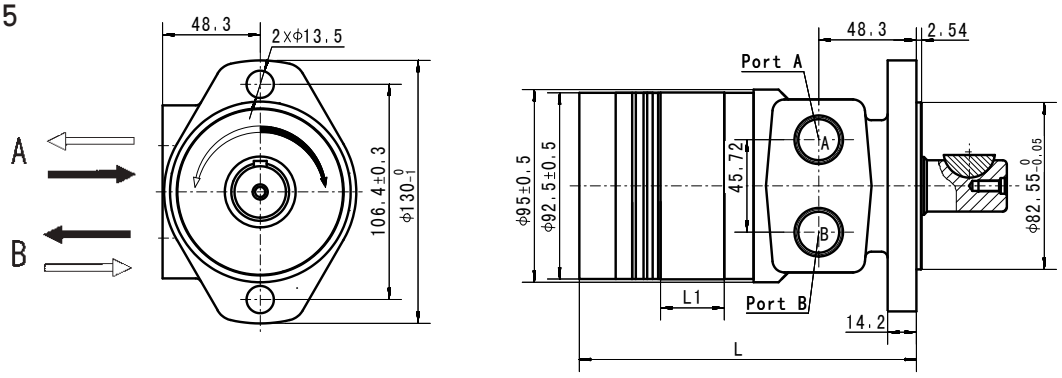
Code:HM Manifold
A、B Port Ø12.7



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

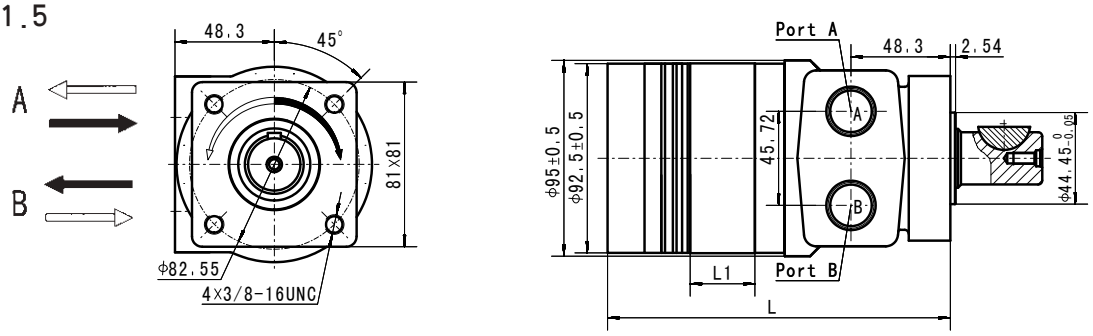
BME2 DIMENSIONS AND MOUNTING DATA

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

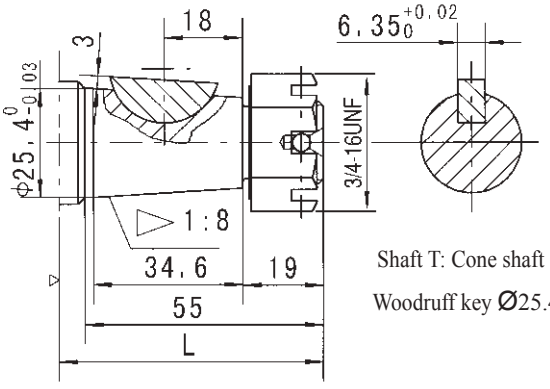
Code： Port A、B
H4S 7/8—14UNF
H4P 1/2—14NPTF
H4D G1/2
H4G M22x1.5



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

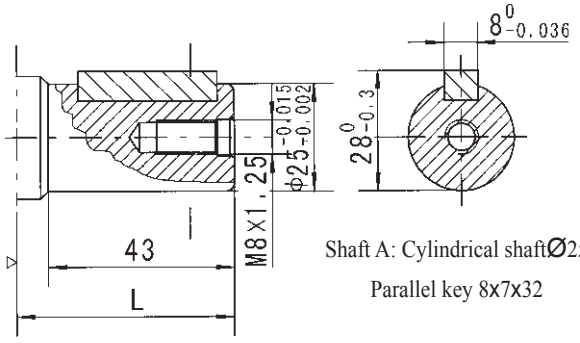
BME2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft T



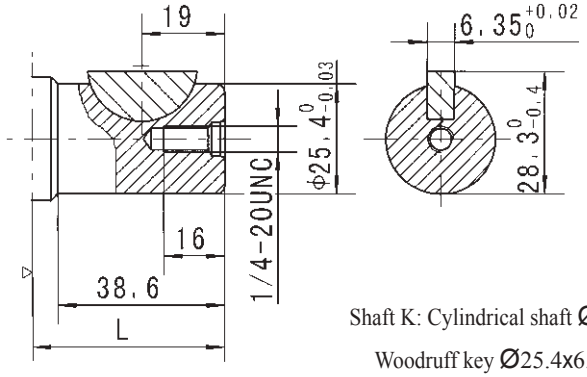
Shaft T: Cone shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft A



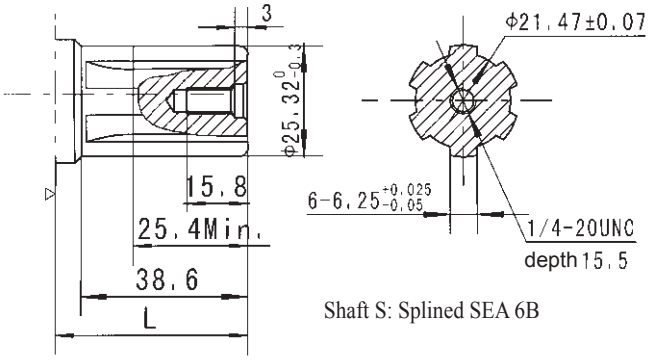
Shaft A: Cylindrical shaftØ25
Parallel key 8x7x32

Shaft K



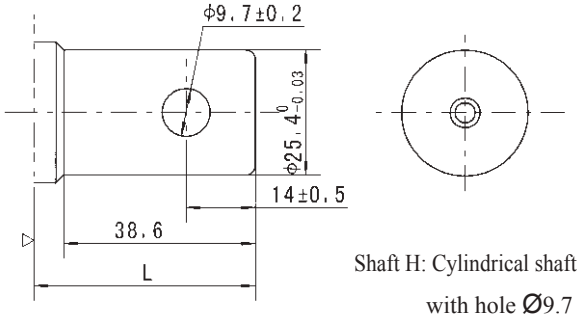
Shaft K: Cylindrical shaft Ø25.4
Woodruff key Ø25.4x6.35

Shaft S



Shaft S: Splined SEA 6B

Shaft H



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

Dimension L

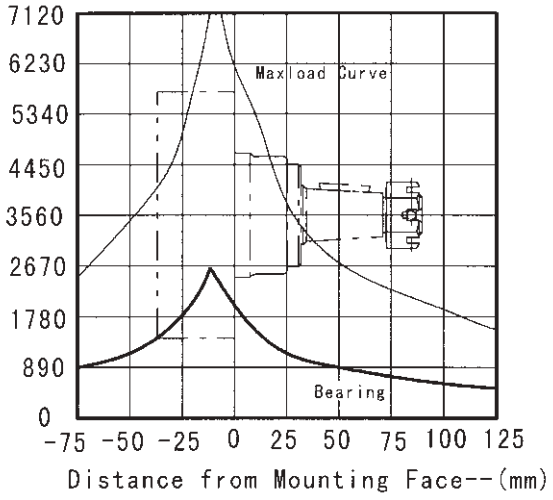
Mounting \ Shaft	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP	61	49	44.7	44.7	44.7
H4S/H4P					
HM					

▷ Motor Mounting Surface

Permissble Shaft Loads

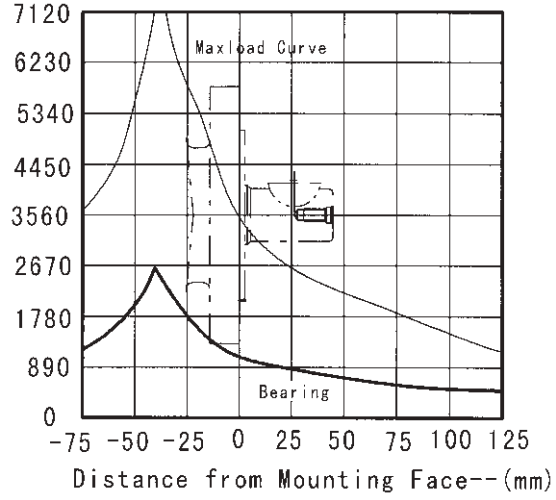
BME2 for Wheel Mounting

Side Load-(daN)



BME2 for Other Mounting

Side Load-(daN)



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

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

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	Standard	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	Opposite	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						
		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

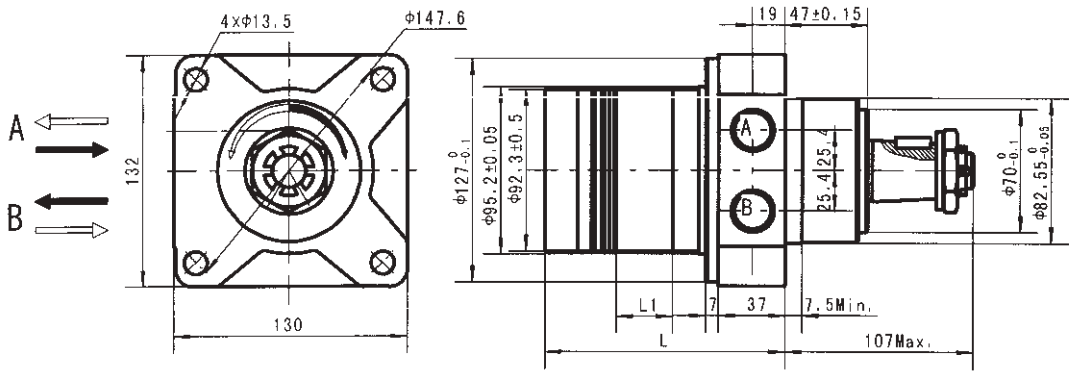
* Continuous pressure:Max. value of operating motor continuously.

* 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.

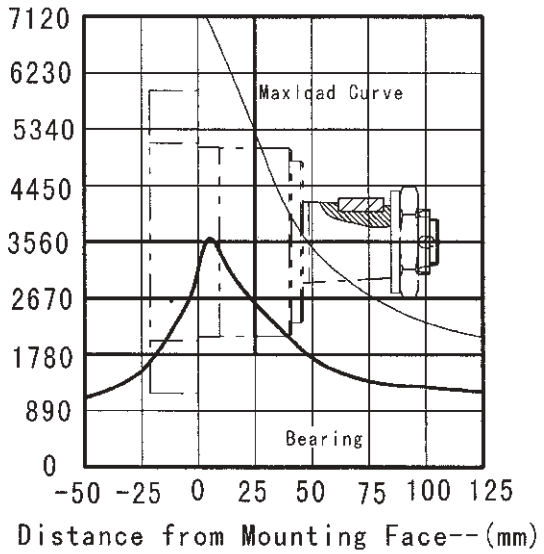
BMJ DIMENSIONS MOUNTING DATA

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)

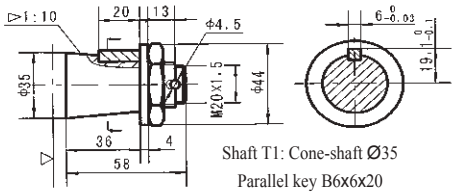


The bearing curve represents allowable bearing loads for an L_{10} bearing life at 3×10^6 revolutions.

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

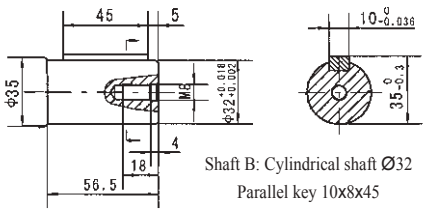
BMJ Shaft Extensions For Dimensions Data

Shaft T1



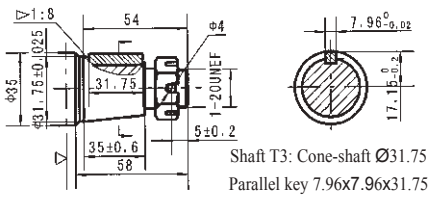
Shaft T1: Cone-shaft Ø35
Parallel key B6x6x20
Tightening torque:200±10Nm

Shaft B



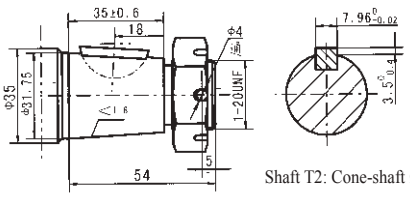
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45

Shaft T3



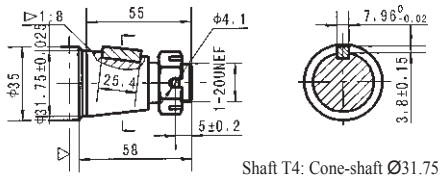
Shaft T3: Cone-shaft Ø31.75
Parallel key 7.96x7.96x31.75
Tightening torque:200±10Nm

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

BMJ — 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 Ø82.55×7, Port 7/8-14 O-ring	T1	Cone-Shaft Ø35,Parallel key B6×6×20	Omit	Standard	00	Omit	No paint	Omit	Standard	
		WD	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port G1/2	T2	Cone-Shaft Ø31.75,Woodruff key ø25.4×7.96	R	Opposite	B		Blue			
		WM	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port M22x1.5	T3	Cone-Shaft Ø31.75,Parallel key 7.96×7.96×31.75			S		Black			
				T4	Cone-Shaft Ø31.75,Parallel key 7.96×7.96×25.4					Sliver Grey			
				B	Cylindrical Shaft Ø32,Parallel key 10×8×45								

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BMER SERIES HYDRAULIC MOTOR

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* 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 400	BMER 475	BMER 540	BMER 650	BMER 750
Geometric displacement (cm^3/rev.)		118	156	196	228	257	296	345	371	405	462	540	647	745
Max. speed (rpm)	cont.	360	375	330	290	290	250	220	200	185	160	140	115	100
	int.	490	470	425	365	350	315	270	240	220	195	170	138	120
Max. torque (N•m)	cont.	325	450	530	625	700	810	905	990	1010	1085	980	1015	1050
	int.	380	525	600	710	790	930	1035	1140	1180	1180	1240	1250	1180
	peak	450	590	750	870	980	1120	1285	1360	1360	1260	1380	1380	1370
Max. output (kW)	cont.	12.0	15.0	15.5	16.0	17.5	18.0	17.5	16.5	15.5	14.5	11.5	10.0	8.0
	int.	14.0	17.5	18.0	19.0	20.0	21.0	20.0	19.0	18.0	16.5	15.0	12.0	10.0
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	19	17.5	14	12	10.5
	int.	24	24	24	24	24	24	24	24	22.5	19	17.5	15.5	12
	peak	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25	20.5	20.5	17.5	14
Max. flow (L/min)	cont.	45	60	70	70	75	80	80	75	75	75	75	75	75
	int.	60	75	85	85	90	95	95	90	90	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**	396 **394**	
75 (Max.int.)			104 **472**	188 **466**	270 **460**	337 **450**	390 **436**	

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 **316**	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	20.5 (Max.cont.)	24 (Max.int.)
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**
75 (Max.cont.)			137 **290**	274 **289**	388 **285**	520 **280**	618 **273**	726 **260**
85			130 **328**	261 **326**	370 **322**	509 **316**	604 **307**	
90 (Max.int.)			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	20.5 (Max.cont.)	24 (Max.int.)
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**
75 (Max.cont.)			178 **251**	322 **250**	464 **247**	610 **240**	741 **232**	870 **215**
85			140 **285**	316 **284**	455 **278**	570 **270**	728 **257**	
95 (Max.int.)			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	20.5 (Max.cont.)	24 (Max.int.)
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**
75 (Max.cont.)			206 **215**	373 **214**	515 **212**	680 **206**	822 **197**	966 **183**
85			176 **243**	355 **242**	510 **239**	679 **234**	808 **227**	
95 (Max.int.)				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	20.5 (Max.cont.)	24 (Max.int.)
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**
75 (Max.cont.)			207 **201**	380 **200**	556 **197**	738 **190**	865 **181**	1012 **165**
85			175 **228**	370 **226**	526 **221**	700 **216**	832 **206**	
90 (Max.int.)			148 **242**	316 **240**	500 **237**	654 **226**		

cont.
int.

BMER400 [405cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5	14	17.5 (Max.cont.)	19	22.5 (Peak)
2	85 **3**	170 **2**						
4	90 **8**	182 **7**	368 **6**	540 **5**	715 **4**	885 **3**		
8	93 **17**	190 **16**	385 **15**	575 **14.4**	750 **13**	895 **10**	950 **9**	1155 **7**
15	88 **36**	180 **35**	380 **34**	575 **33**	750 **31**	905 **28**	980 **24**	1165 **20**
25	88 **60**	180 **59**	380 **58**	575 **56**	750 **53**	915 **49**	1010 **44**	1165 **40**
34	75 **83**	165 **83**	365 **82**	560 **81**	750 **77**	915 **72**	1000 **68**	1180 **60**
45		150 **110**	350 **110**	545 **109**	735 **106**	900 **102**	980 **94**	1165 **86**
53		125 **130**	330 **129**	525 **128**	720 **125**	885 **120**	960 **112**	1150 **100**
60		100 **147**	305 **147**	505 **146**	680 **145**	860 **142**	940 **138**	1125 **130**
68			275 **167**	480 **167**	660 **164**	845 **158**	925 **150**	1100 **140**
75 (Max. cont.)			250 **184**	455 **183**	635 **180**	820 **176**	900 **170**	1065 **158**
85			225 **209**	415 **208**	600 **206**	785 **202**	865 **194**	
90 (Max.int.)			160 **220**	365 **218**	575 **216**	770 **210**		

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**
75 (Max. cont.)			230 **161**	480 **160**	702 **158**	920 **153**	1116 **140**
85			200 **182**	454 **180**	662 **177**	876 **168**	
90 (Max.int.)			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**
75 (Max. cont.)			318 **138**	600 **137**	826 **135**	1100 **132**
85			292 **154**	538 **153**	780 **152**	
90 (Max.int.)			214 **169**	486 **168**	755 **168**	

Torque (N•m) 486
Speed (rpm) **168**

BMER650 [647cm³/rev.]

Pressure (MPa)

Flow (L/min)	1.75	3.5	7	10.5 (Max.cont.)	12 (Max.int.)	15.5 (Peak)
2	119 **2**	230 **1**				
4	135 **5**	268 **5**	552 **4**	805 **4**	940 **3**	
8	145 **11**	285 **11**	574 **10**	825 **10**	955 **9**	1255 **7**
15	140 **22**	280 **22**	595 **21**	875 **21**	982 **20**	1276 **16**
25	130 **37**	275 **36**	590 **36**	886 **35**	1005 **34**	1302 **30**
34	115 **51**	260 **51**	580 **50**	890 **49**	1015 **47**	1310 **44**
45		235 **69**	555 **68**	870 **67**	995 **66**	1280 **63**
53		200 **80**	520 **80**	850 **79**	975 **78**	1250 **76**
60		170 **91**	490 **91**	825 **90**	935 **89**	1215 **88**
68		145 **104**	430 **103**	775 **102**	880 **101**	1185 **99**
75 (Max.cont.)			420 **114**	730 **113**	855 **112**	1130 **110**
83			380 **130**	660 **129**	795 **128**	
90 (Max.int.)			290 **138**	585 **137**	730 **136**	

BMER750 [745cm³/rev.]

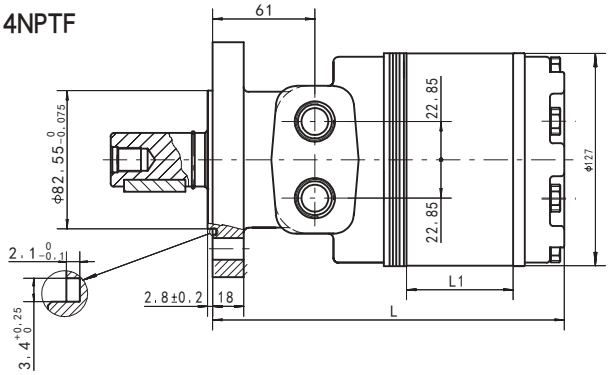
Pressure (MPa)

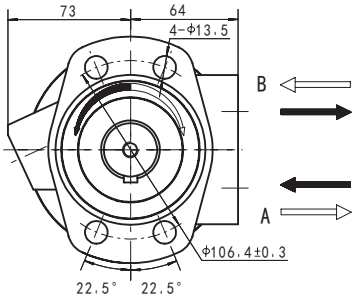
Flow (L/min)	1.75	3.5	7	10.5 (Max.cont.)	12 (Max.int.)	14 (Peak)
2	145 **2**	280 **1**				
4	160 **4**	321 **4**	654 **4**	960 **3**	1115 **3**	1312 **2**
8	162 **9**	335 **9**	688 **9**	1026 **8**	1159 **8**	1347 **7**
15	156 **19**	330 **19**	694 **18**	1047 **18**	1184 **17**	1376 **16**
25	142 **32**	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**
75 (Max.cont.)		65 **99**	425 **99**	812 **98**	980 **97**	1178 **96**
83			395 **110**	745 **109**	906 **108**	
90 (Max.int.)			298 **120**	660 **119**	800 **117**	

cont.
int.

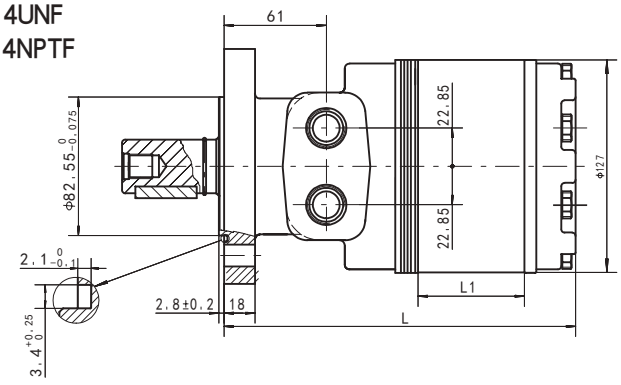
BMER-2 DIMENSIONS MOUNTING DATA

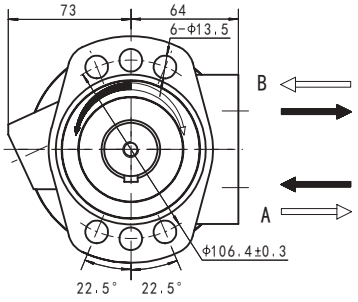
Magneto Mount 4—Hole
Code： Port A、B
MS 7/8—14UNF
MP 1/2—14NPTF
MD G1/2



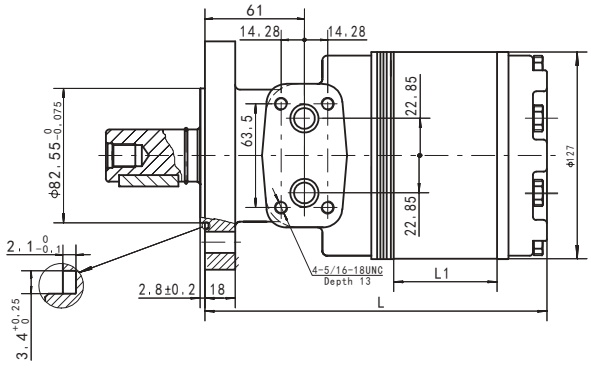


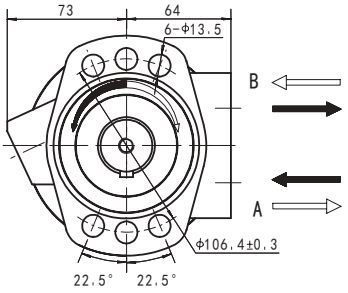
Magneto Mount 6—Hole
Code： Port A、B
FS 7/8—14UNF
FP 1/2—14NPTF
FD G1/2





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

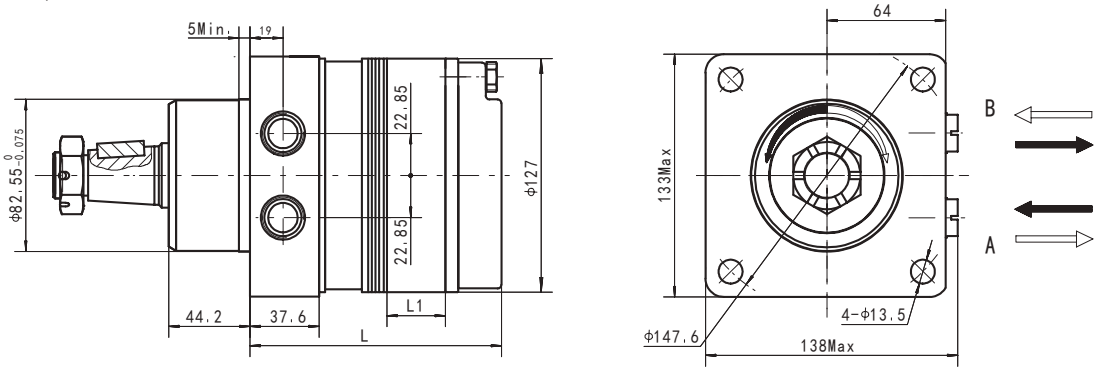




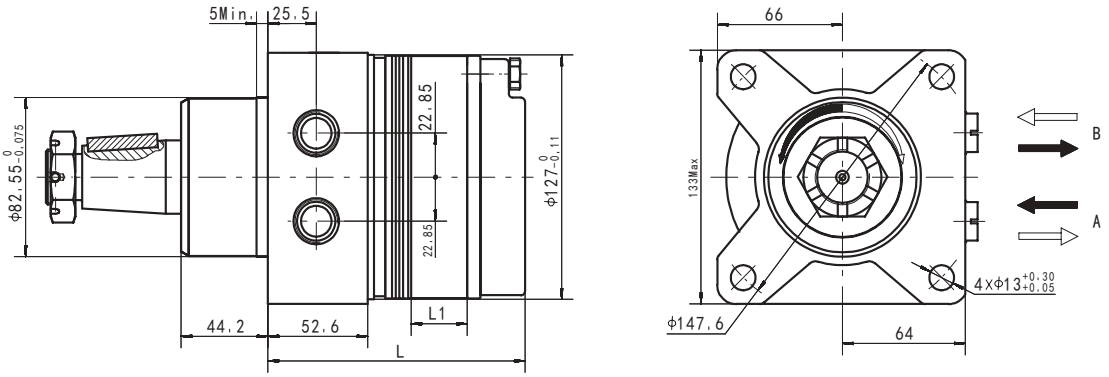
Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	157	160	163.5	166	168.5	172	176	178.5	182	186	194	204	210
Weight(kg)	10.6	10.9	11.2	11.3	11.4	11.6	12	12.5	12.7	13	13.5	14.5	15

BMER-2 DIMENSIONS MOUNTING DATA

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



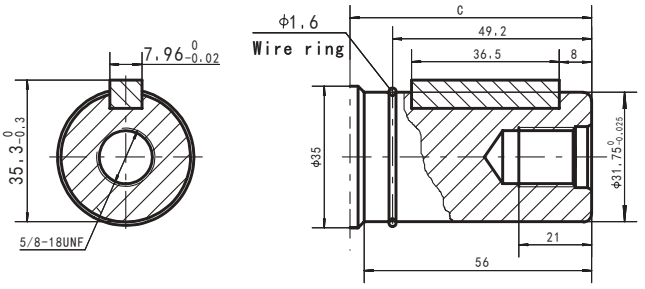
Wheel Mount
Code： Port A、B
TS 7/8—14UNF
TP 1/2—14NPTF
TD G1/2



Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	144	148	156	166	173
Weight(kg)	12	12.1	12.3	12.4	12.6	13	13.2	13.5	13.7	14	14.6	15.5	16

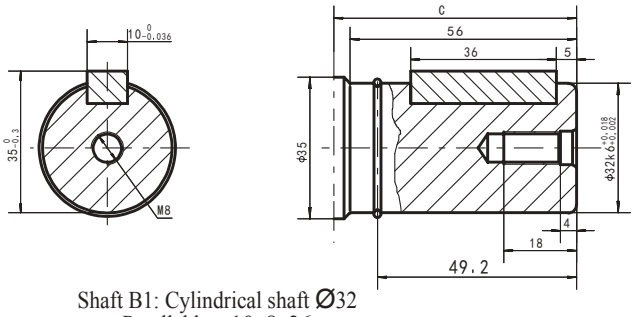
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft G2



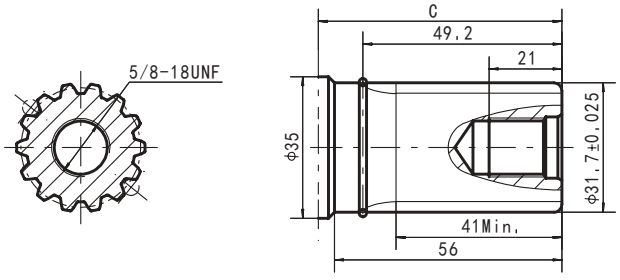
Shaft G2: Cylindrical shaft Ø31.75
Parallel key 7.96x7x36.5

Shaft B1



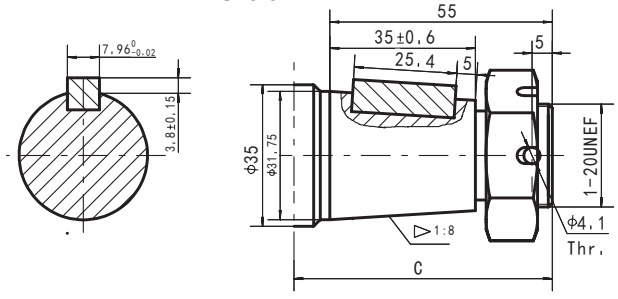
Shaft B1: Cylindrical shaft Ø32
Parallel key 10x8x36

Shaft FD1



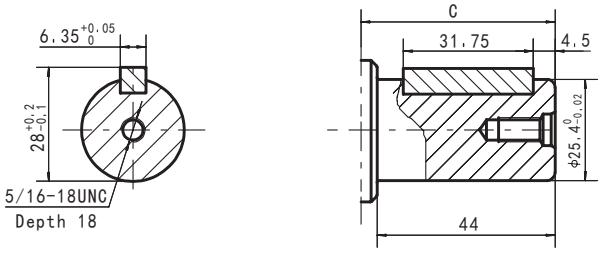
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



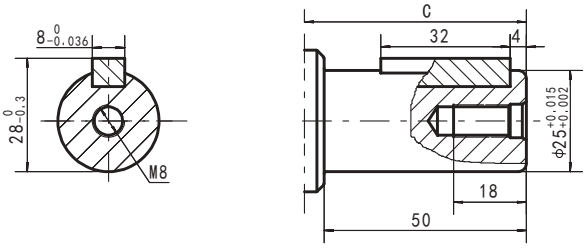
Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm

Shaft RW



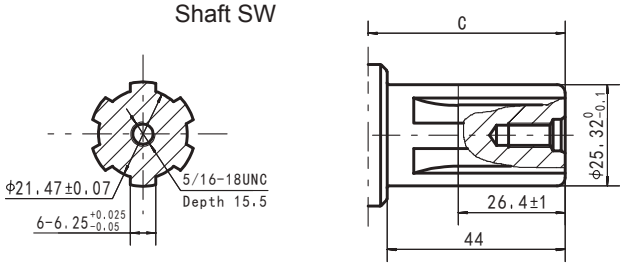
Shaft RW: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

Shaft AW



Shaft AW: Cylindrical shaft Ø25
Parallel key 8x7x32

Shaft SW



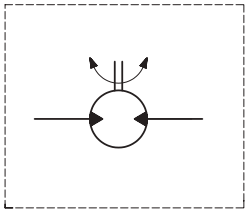
Shaft SW: Splined SAE 6B

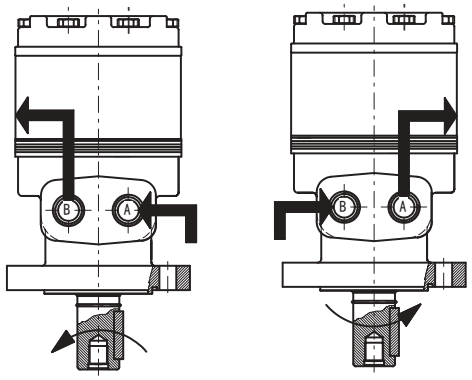
From Mounting Flange to Shaft End		
Dimension C		
Shaft Code	Magneto Mount (mm)	Wheel Mount (mm)
G2	61	103
B1	61	103
FD1	61	103
T4	65	107
RW	50	91
AW	56	97
SW	50	91

BMER-2 can be configured Φ38.1 shaft seal. Shaft type T31 and M1 and G32. Please consuit the sales manager.

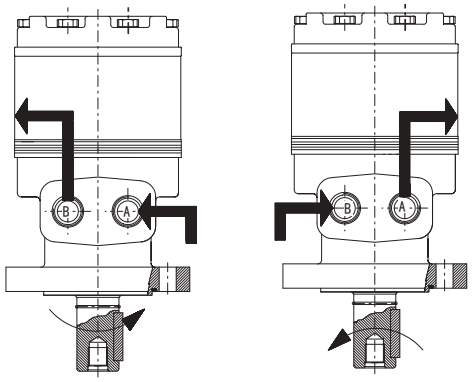
BMER-2 Series Hydraulic Motor

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.





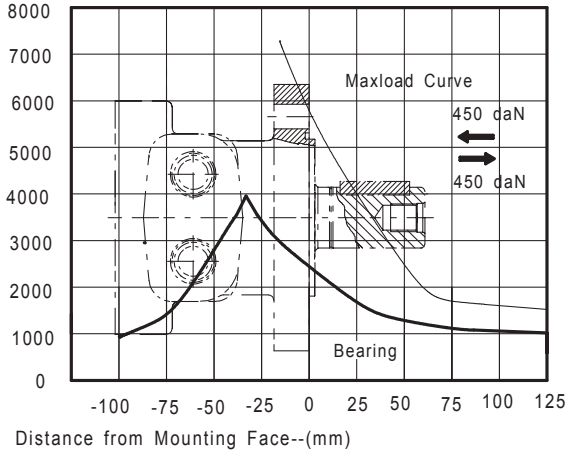
Direction of shaft rotation: Standard
When facing shaft end of motor,shaft to rotate:
Clockwise when port “A" is pressurized.
Counter-clockwise when port “B" is pressurized.



Axial and Radial forces

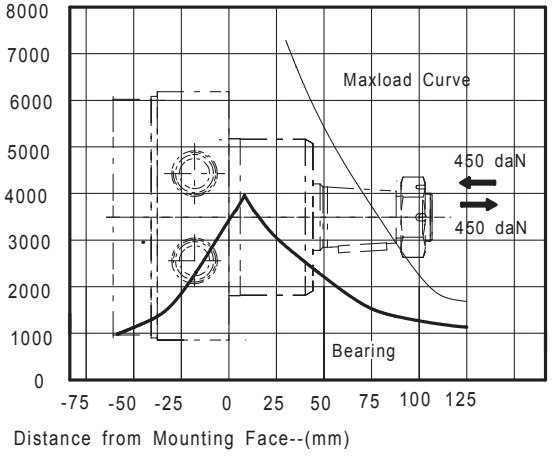
BMER-2 or M#/F# Mounting

Side Load-(daN)



BMER-2 for W# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at $12x10^6$ 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

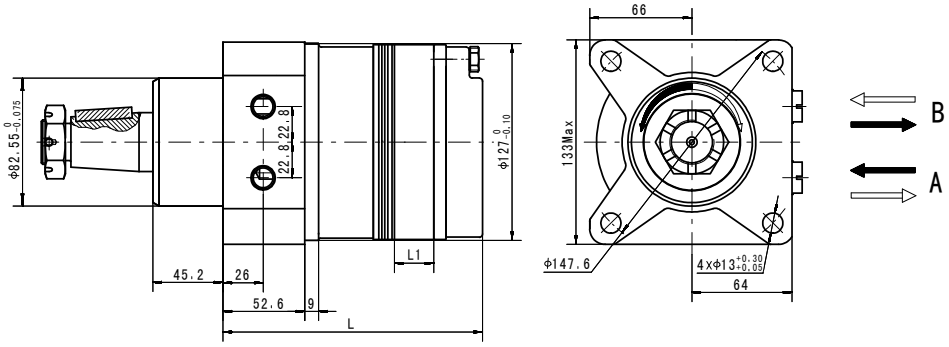
Pos.1	2	3		4		5		6		7	
Code	Disp.	Flange , Pilot , Ports		Output Shaft		Rotation direction		Paint		Unusually function	
2	125 160 200 230 250 300 350 375 400 475 540 650 750	MS MP MD FS FP FD FH WS WP WD TS TP TD	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Manifold Ports 1/2 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2 4-Ø13.5 Wheel Mount,Pilot Ø82.55×5, Ports 7/8-14 O-ring 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2	G2 B1 FD1 T4 RW AW SW	Shaft Ø31.75 , parllel key 7.96x7x36.5 ShaftØ32, Parallel key 10×8×45 Shaft Ø31.75, splined key 14-DP12/24 Cone-Shaft Ø31.75, Parallel key 7.96×7.96×25.4 Shaft Ø25.4 , parllel key 6.35×6.35×31.75 Shaft Ø25 , parllel key 8×7×32 Shaft Ø25.4 ,splined key SAE 6B	None R	Standard Reverse Timed	00 None B S	No paint Blue Black Sliver Grey	None	Standard
				M1 T31 G32	ShaftØ35, Parallel key 10×8×45 Cone-Shaft Ø38.1, Parallel key 7.96×7×36.5 Shaft Ø38.1 , parllel key 9.525×9.525×42						

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.

BMER-2 Motor：The dimensions 44.2 is replaced by 45.7 with shaft M1、T31、G32 of Ø38.1 shaft seal in flange w# and T#.

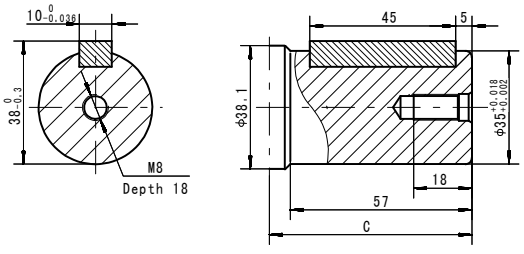
BMER-3 SHAFT EXTENSIONS DIMENSIONS DATA

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



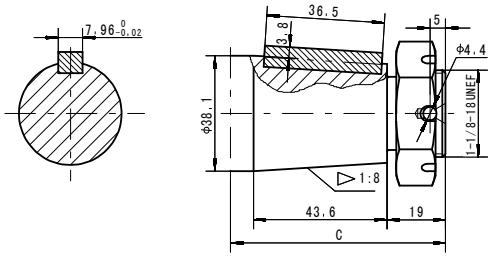
Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	153	156	159.5	162	164.5	168	172	174.5	178	182	190	199.5	206
Weight(kg)	13.2	13.5	13.8	14	14.2	14.5	14.9	15.2	15.5	15.7	16.5	17.3	17.8

Shaft M31



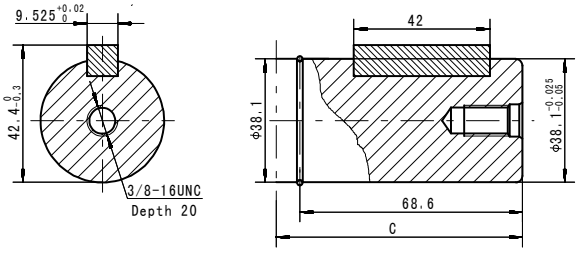
Shaft M31:Cylindrical shaft Ø35
Parallel key 10x8x45

Shaft T31



Shaft T31:Cone-shaft Ø38.1
Parallel key 7.96x7x36.5
Tightening torque:410~510Nm

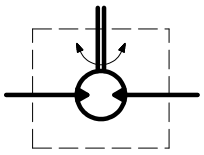
Shaft G31



Shaft G31:Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x42

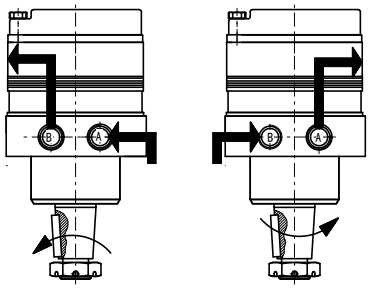
From Mounting Flange to Shaft End		
Dimension C		
Shaft Code	Magneto Mount (mm)	Wheel Mount (mm)
M31	_	105
T31	_	117
G31	_	119

BMER-3 Series Hydraulic Motors



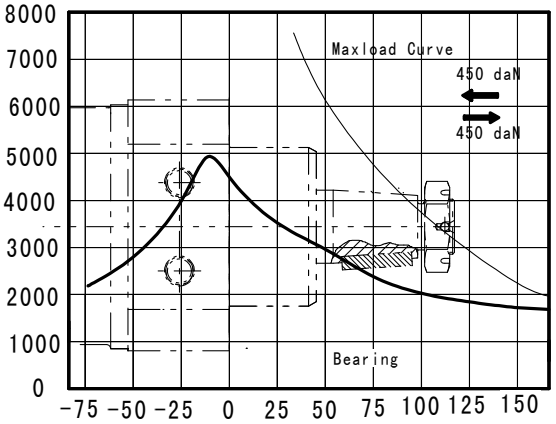
Direction of shaft rotation: Reverse timed

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



BMER-3 for W# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at $12X10^6$ revolutions.
The maximum load curve is defined by bearing static load capacity.
This curve should not be exceeded at any time including shock loads.

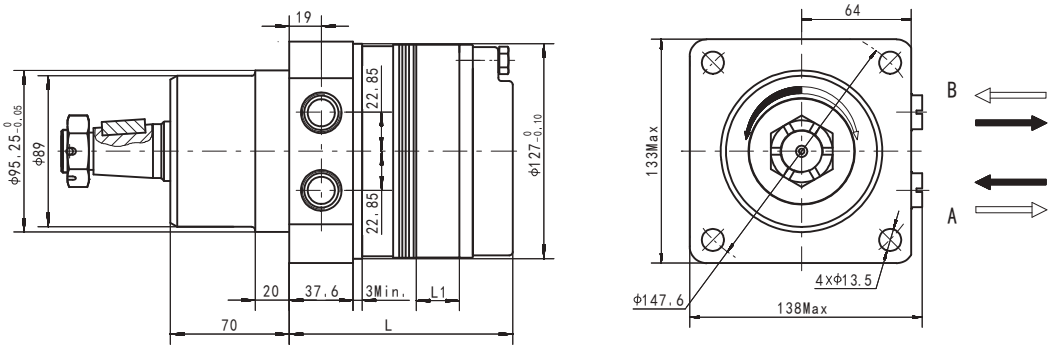
Order Information

	1	2	3		4		5		6		7	
Pos.1	F	Disp.	Mount Flange, Pilot, Port		Output Shaft		Rotation direction		Paint		Unusually function	
Code												
		125										
		160										
		200										
		230										
		250										
		300										
		350										
		375										
		400										
		475										
		540										
		650										
		750										
3			WS	4-Ø13.5 Wheel Mount, Pilot Ø82.55, Ports 7/8-14 O-ring	M31	Shaftø35, Parallel key 10×8×45	None	Standard	00	No paint	None	Standard
			WP	4-Ø13.5 Wheel Mount, Pilot Ø82.55, Ports 1/2-14NPTF	T31	Cone-Shaft Ø38.1, Parallel key 7.96×7×36.5	R	Reverse timed	B	Blue		
			WD	4-Ø13.5 Wheel Mount, Pilot Ø82.55, Ports G1/2	G31	Shaft Ø38.1 , parllel key 9.525×9.525×42			S	Black		
										Sliver Grey		

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.

BMER-4 DIMENSIONS MOUNTING DATA

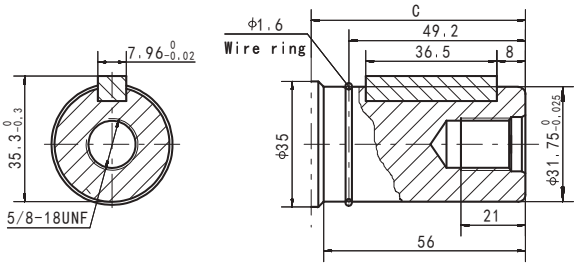
Wheel Mount
Code ： Port A、B
WS 7/8—14UNF
WP 1/2—14NPTF
WD G1/2



Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	144.5	148	156	165.5	172
Weight(kg)	12.8	13.1	13.4	13.6	13.8	14.1	14.5	14.8	15.2	15.6	16.1	16.9	17.4

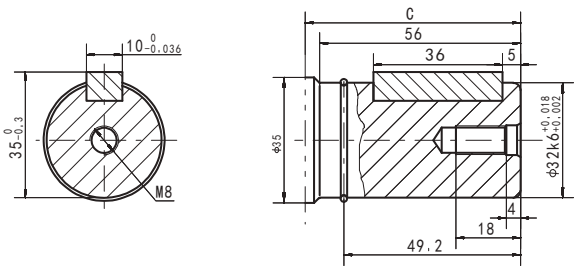
Shaft Extensions For BMER-4 Motors

Shaft G2



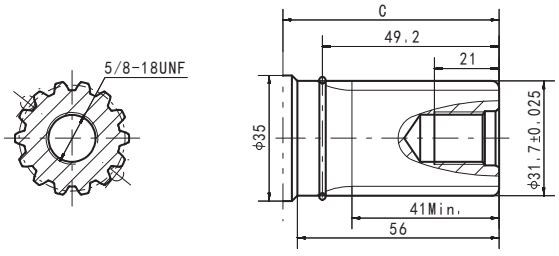
Shaft G2:Cylindrical shaft Ø31. 75
Parallel key 7x96x7x36x5

Shaft B1



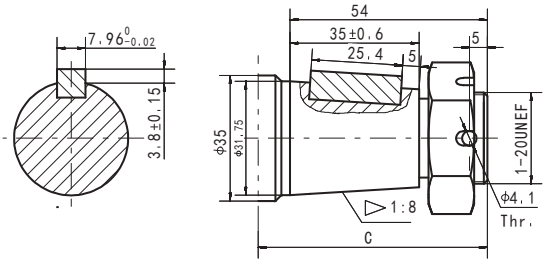
Shaft B1:Cylindrical shaft Ø32
Parallel key 10x8x36

Shaft FD1



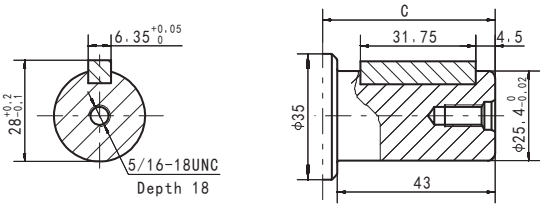
Shaft FD1:Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



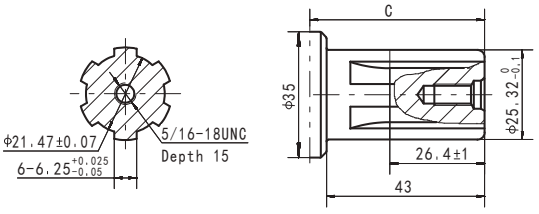
Shaft T4:Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm

Shaft RW



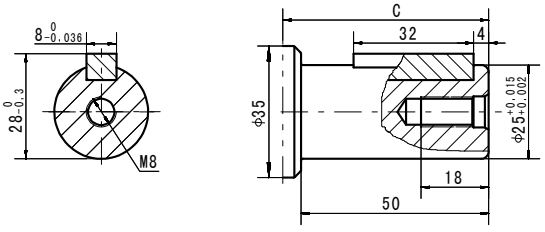
Shaft RW:Cylindrical shaft Ø25 4
Parallel key 6.35x6.35x31.75

Shaft SW



Shaft SW:Splined SAE 6B

Shaft AW

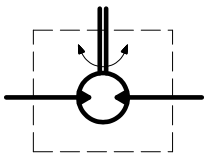


Shaft AW:Cylindrical shaft Ø25
Parallel key 8x7x32

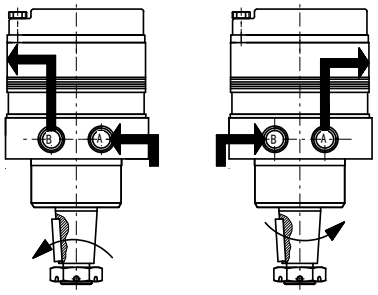
From Mounting Flange to Shaft End	
D i m e n s i o n C	
Shaft Code	Wheel Mount (mm)
G2	131
B1	130
FD1	131
T4	135
RW	119
SW	119
AW	125

BMER-4 can be configured Shaft type of ø38.1 shaft seal. Please consuit the sales manager.

BMER-4 Series Hydraulic Motors

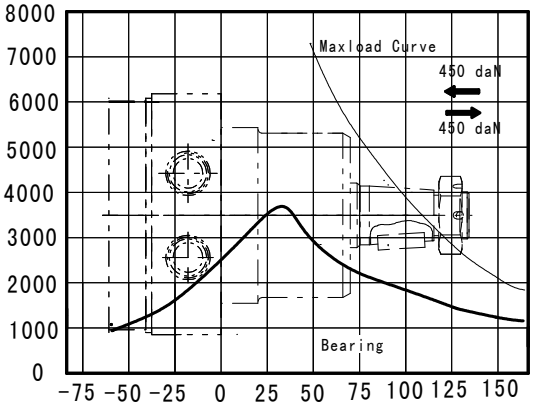


Direction of shaft rotation: Reverse timed
When facing shaft end of motor,shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



BMER-4 for W# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at $12X10^6$ 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

	1	2	3		4		5	6	7
Pos.1		2	3		4		Rotation direction	Paint	Unusually function
Code	F	Disp.	Mount Flange, Pilot, Port			Output Shaft			
4		125	WS	4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports 7/8-14 O-ring	G2	Shaft ø31.75 , parllel key 7.96×7×36.5	None	00 No paint	None
		160			B1	Shaftø32, Parallel key 10×8×45			
		200			FD1	Shaft ø31.75, splined key 14-DP12/24	Standard	None Blue	
		230			T4	Cone-Shaft ø31.75, Parallel key 7.96×7.96×25.4	Reverse timed	B Black	
		250	WP	4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports 1/2-14NPTF	RW	Shaft ø25.4 , parllel key 6.35×6.35×31.75		S Sliver Grey	
		300			SW	Shaft ø25.4 ,splined key SAE 6B			
		350			AW	Shaft ø25 , parllel key 8×7×32			
		375							
		400	WD	4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports G1/2					Standard
		475							
		540							
		650							
		750							

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.

BK10 Series Static Wet Hydraulic Brake

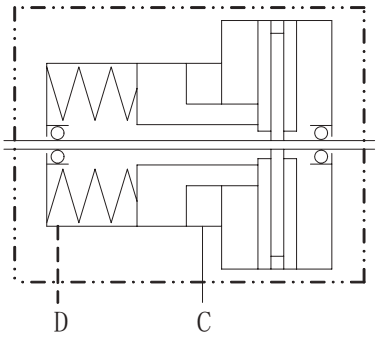
BK10 series static wet hydraulic brake is suitable for lower speed application of scissors type aerial work platform and agricultural machinery and others with wheel mounting. The feature:

* The output shaft adopts the same heavy duty roller bearing in front and behind, which is bigger ability on radial load.
* It adopts optimized disc brake piece and spring load, for reliable braking and good endurance.
* Optimizing piston and loading mechanism, to provide the minimum dimension of wheel connection method.
* With double braking release port, in order to discharge the braking cylinder gas or external brake fluid.
* Big braking torque, suitable for static braking.

Main Specification

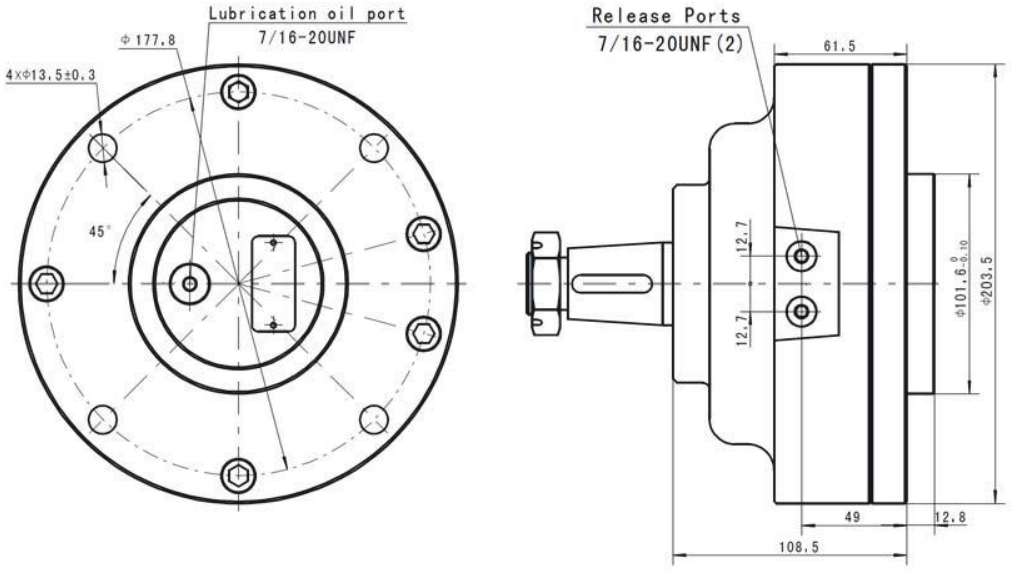
Item	BK10-1	BK10-2
Min. Static Torque [Nm]	1150	1700
Release Pressure [MPa]	2.8	
Max. Release Pressure [MPa]	21	
Max. Speed [rpm]	300	
Release Volume [cm^3]	12	
Oil Volume [cm^3]	100~120	
Max. Pressure of Lubrication oil port [MPa]	0.05	
Weight [kg]	18	20

Hydraulic systems



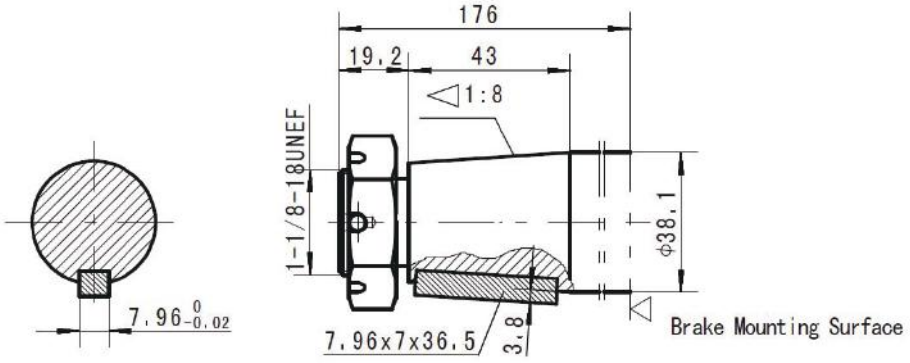
BK10-1 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors

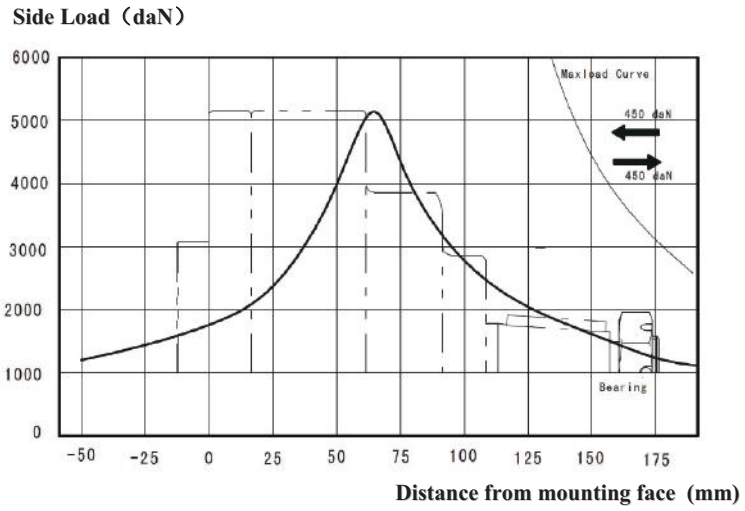


BK10-1 DIMENSIONS OF SHAFT EXTENTSIONS

T31 Φ38.1 Cone—shaft 1:8



BK10-1 Mounting Flange Radial Forces



The bearing curve represents allowable bearing loads for an L bearing life at $12x10^6$ 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

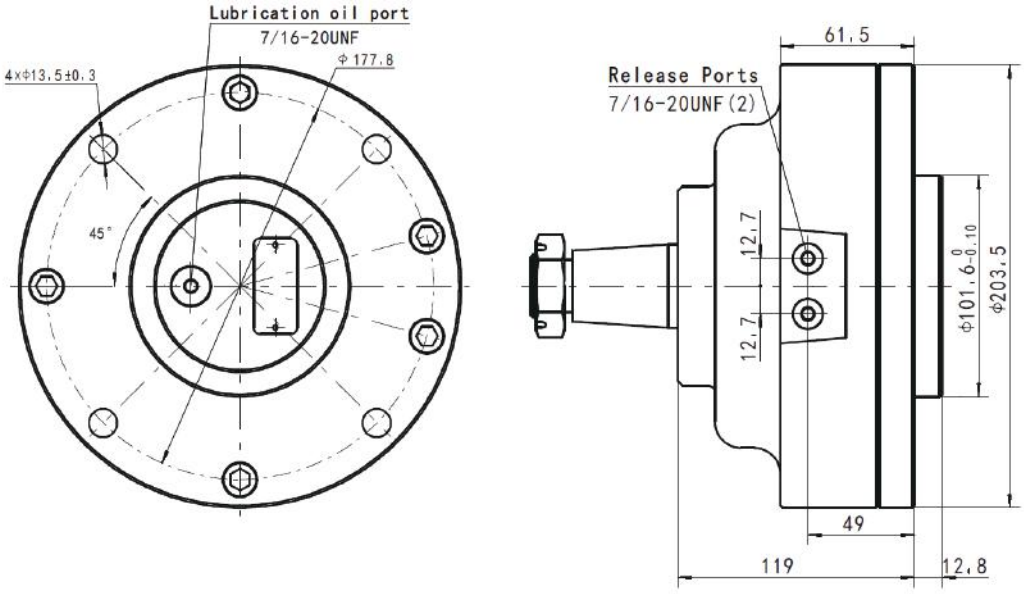
BK10- 1 2 3 4 5 6 7 8

Pos.1	2	3		4		5		6		7		8	
Code	Brake Torque	Output shaft		Flange and Pilot and Brake Pors		Lubrication Port		Paint		Design Code		Nut Code	
1	1150	T31	Ø38.1 Cone-Shaft 1:8. Parallel key 7.96x7x36.5	S1	Round Flange 4x Ø13.5, Ø177.8,Pilot Ø101.6x12.8, Brake Pors 7/16-20UNF	Omit	7/16-20UNF	B S 00 Omit	Black Sliver Grey No paint Blue	02	002	N	N-Type thick Nut

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, output shaft, Flange and Pilot and Brake Ports, Lubrication Port etc.. If the specification is not in the table or you have specific requirements, please contact us.

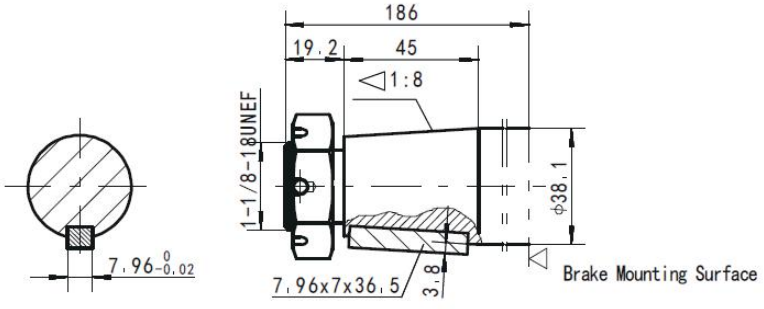
BK10-2 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors

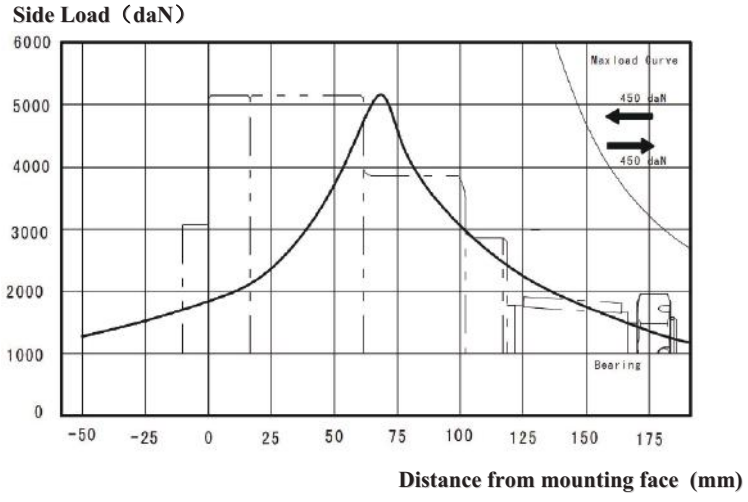


BK10-2 DIMENSIONS OF SHAFT EXTENTSIONS

T31 Φ38.1 Cone—shaft 1:8



BK10-2 Mounting Flange Radial Forces



The bearing curve represents allowable bearing loads for an L bearing life at $12x10^6$ 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

BK10- 1 2 3 4 5 6 7 8

Pos.1	2	3		4		5		6		7		8	
Code	Brake Torque	Output shaft		Flange and Pilot and Brake Pors		Lubrication Port		Paint		Design Code		Nut Code	
2	1700	T31	Ø38.1 Cone-Shaft 1:8. Parallel key 7.96x7x36.5	S1	Round Flange 4x Ø13.5, Ø177.8,Pilot Ø101.6x12.8, Brake Pors 7/16-20UNF	Omit	7/16-20UNF	B S 00 Omit	Black Sliver Grey No paint Blue	02	002	N	N-Type thick Nut

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, output shaft, Flange and Pilot and Barke PortS, Lubrication Port etc.. 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.

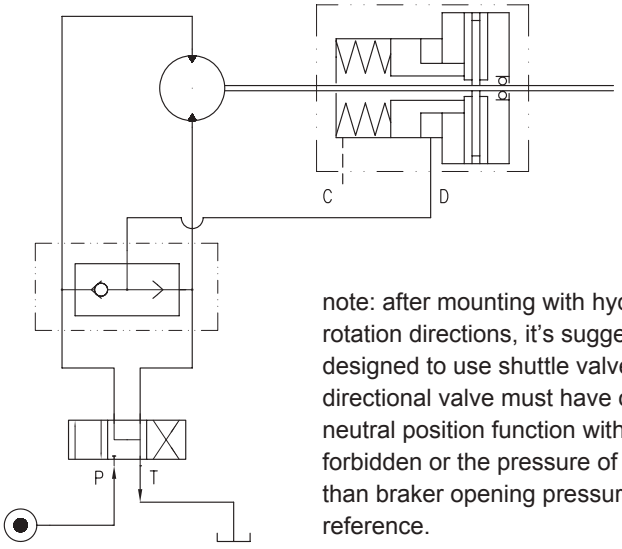
Application

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：20～75mm^2/s; the best optimal situation 42～74mm^2/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

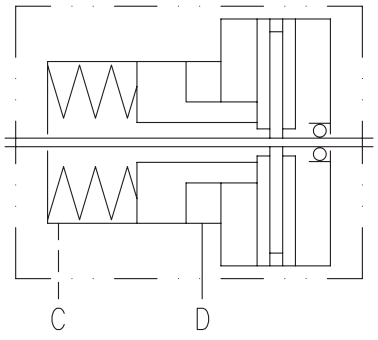


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function(type Y or H), the neutral position function without off-load 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

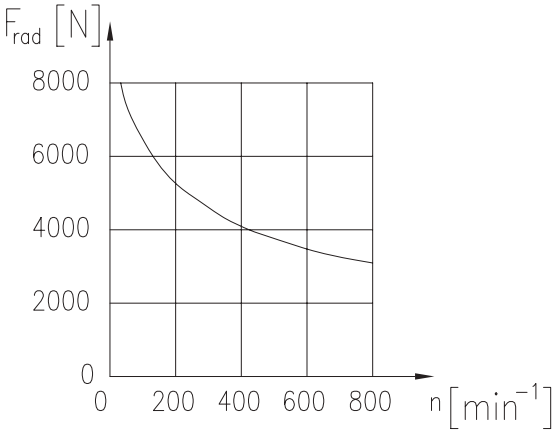
Item	BK2-1	
Min. static Torque [Nm]	200～230	410～450
Min. Opening Pressure [MPa]	1.7～2.3	
Max. Opening Pressure [MPa]	30	
Min.oil quantity for brake releasing[cm^3]	7～8	
Oil volume [cm^3]	50～120	
Max. pressure in drain space [MPa]	0.05	
Weight [kg]	9	

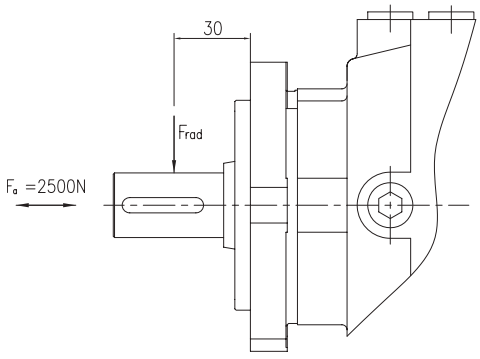
*Static torque is obtained at working pressure 0 MPa



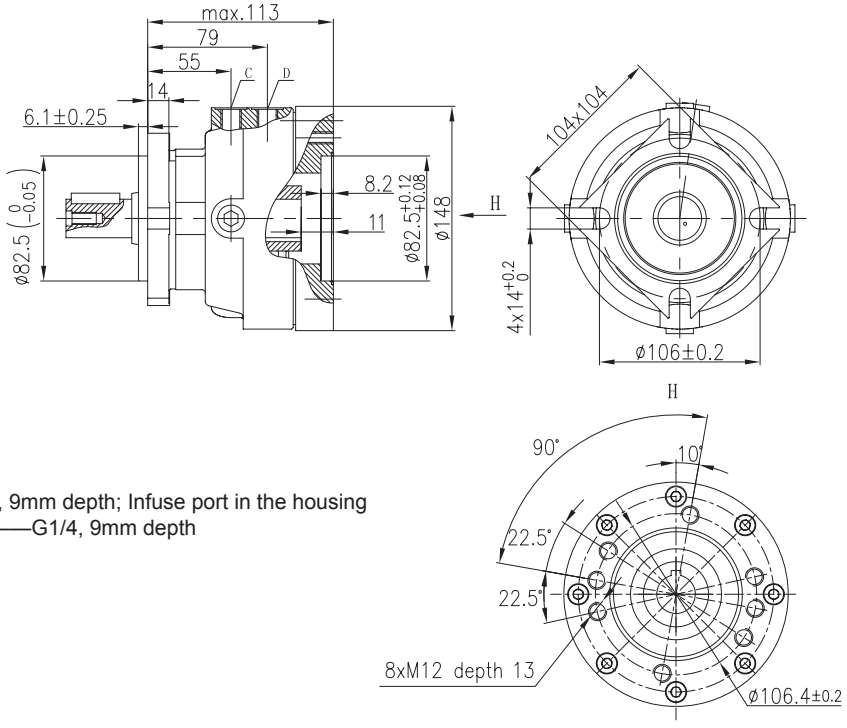
symble drawing

Load Curve





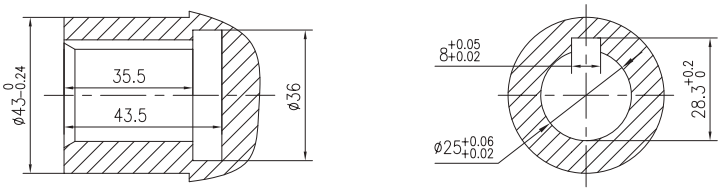
Mounting Data
Model BK2-1



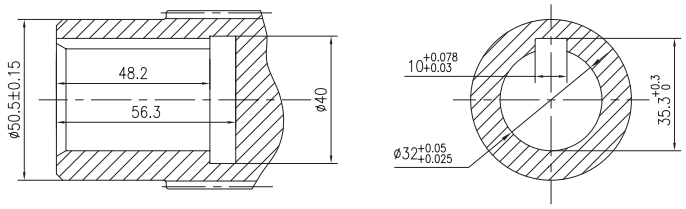
C Drain port——G1/4, 9mm depth; Infuse port in the housing
D Brake release port——G1/4, 9mm depth

INPUT & OUTPUT SHAFT DATA
INPUT SHAFT HOLES

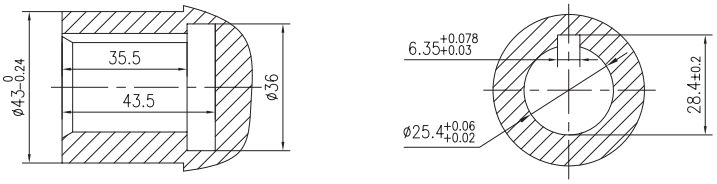
A



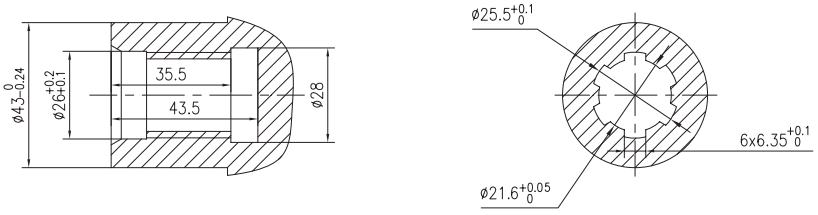
B



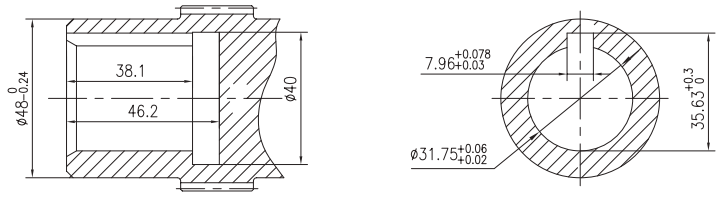
C



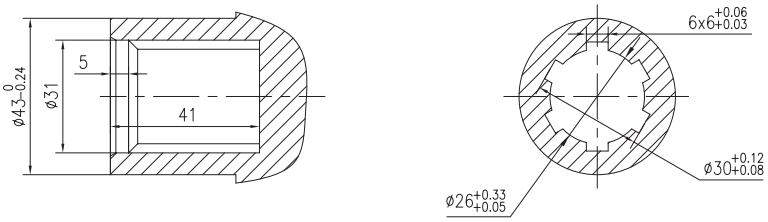
E



G

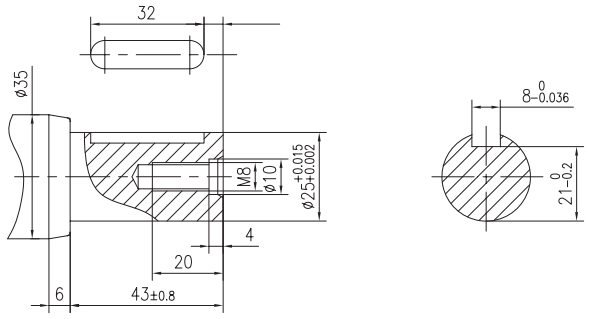


N

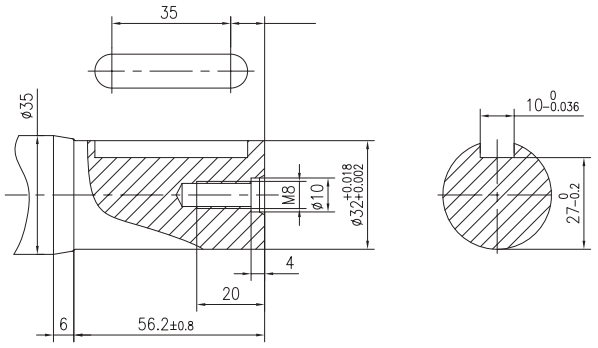


OUTPUT SHAFT EXTENSIONS

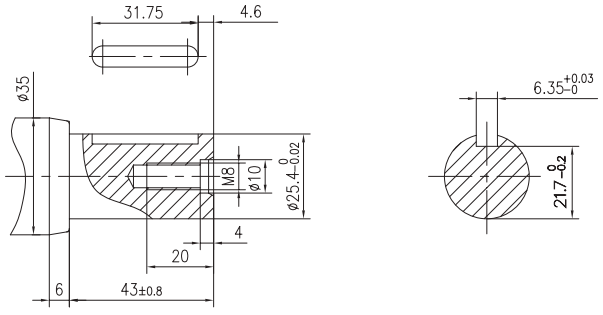
A



B



C



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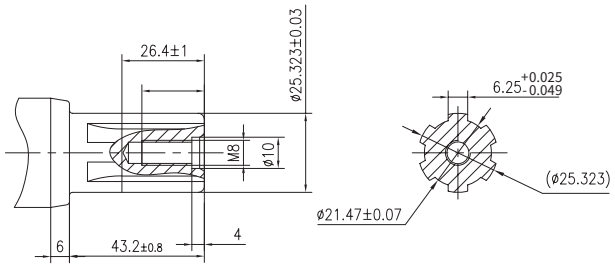

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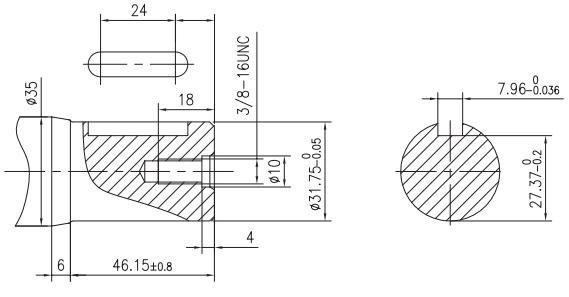

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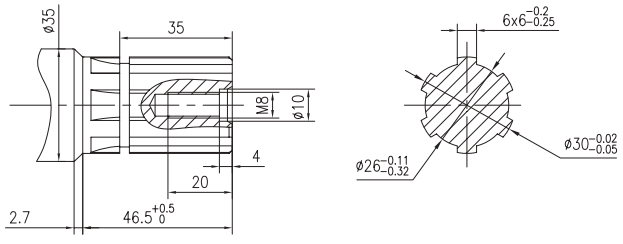


Order Information

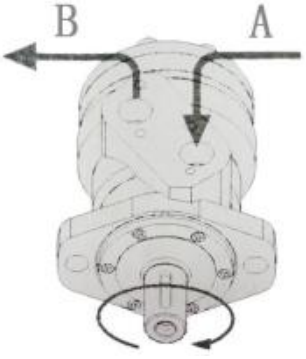
	1		2		3		4		5		6		7	
BK		–		–		–		–		–		–		

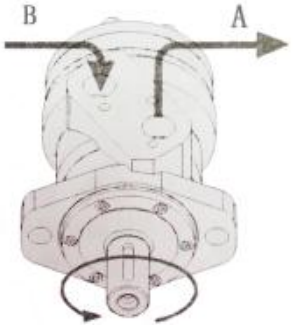
Pos.1	2	3		4		5		6		7	
Series Code	Structure Code	Torque		Input Shaft holes		Output Shaft extensions		Paint		Unusually function	
2	1	Torque200--230Nm Torque410--450Nm	210 430	Shaft holes Φ25, Parallel key 8×7×32	A	ShaftΦ25, Parallel key 8×7×32	A	No Paint Blue Black Sliver Grey	00 omit B S	Standard	omit
				Shaft holesΦ32, Parallel key 10×8×45	B	ShaftΦ32, Parallel key 10×8×45	B				
				Shaft holes Φ25.4, Parallel key 6.35×6.35×31.75	C	ShaftΦ25.4, Parallel Key6.35×6.35×31.75	C				
				Shaft holes Φ25.4, splined key SAE 6B	E	ShaftΦ25.4, splined key SAE 6B	E				
				Shaft holes Φ31.75, Parallel key 7.96×7.96×31.75	G	ShaftΦ31.75, Parallel Key7.96×7.96×31.75	G				

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.

1.Matters needing attention

1.1 **Output steering (with photos)**





1.2 The correct use of the motor will directly affect the working life. Therefore, the following basic requirements must be met.

1.2.1 **System requirements**

The system should be equipped with a corresponding oil filter to ensure the cleanliness of the system oil.
The hydraulic circuit must be equipped with a cooling system to prevent excessive oil temperature.
Pressure gauges and thermometers must be installed in the oil inlet lines.
A pressure gauge should be installed in the hydraulic circuit of the hydraulic pump.

1.2.2 **System hydraulic oil requirements**

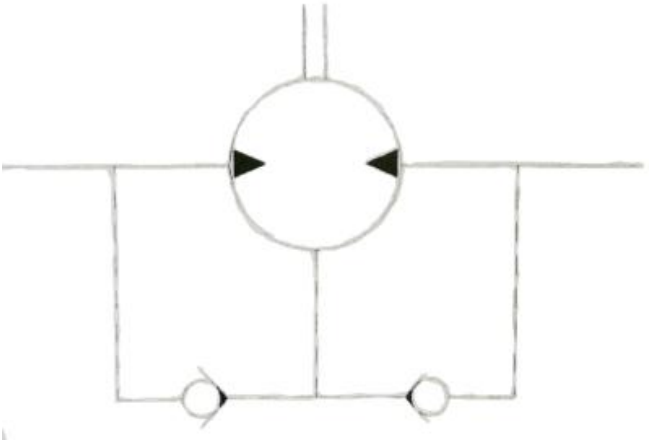
According to the different ambient temperature and usage, the oil used should have good viscosity-temperature performance, good defoaming properties, anti-oxidation, anti-rust, high flash point, etc. During the operation of the motor, its viscosity is between (25-70)*10-6m2/s, and the water, alkali and mechanical impurities in the oil must not exceed the allowable value.

It is recommended to use YB-N46, YB-N68 anti-wear hydraulic oil.
The filtration accuracy of the system is better than 20μm.
Normal working oil temperature is 25-55℃, short-term working oil temperature is not higher than 65℃.

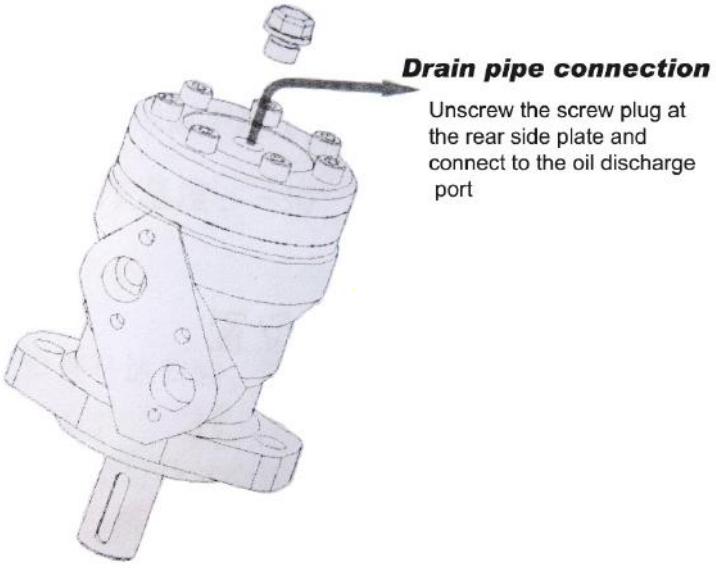
2. Motor installation

Before installation, check whether the motor is damaged. The motor oil stored for a long time needs to be drained and rinsed to prevent the internal moving parts from sticking.

The motor mounting bracket must have sufficient rigidity to prevent shock and vibration during rotation.
The mounting bolts must be tightened evenly.
Connection method of drain pipe:
The BMR motor has two built-in check valves, and the leaked oil can return to the oil return pipe through the check valve, (with photos)



A) When the oil return pressure is ≤1Mpa, there is no need to connect the drain pipe;
B) When the oil return pressure is greater than 1Mpa, the drain pipe must be connected. (Drain pipe location diagram)



The motor is unstable when running at low speed, and can be eliminated by applying back pressure, the back pressure value is not less than 0.2Mpa.

This type of motor can not be operated under the pump working conditions, nor can it be used as a pump.

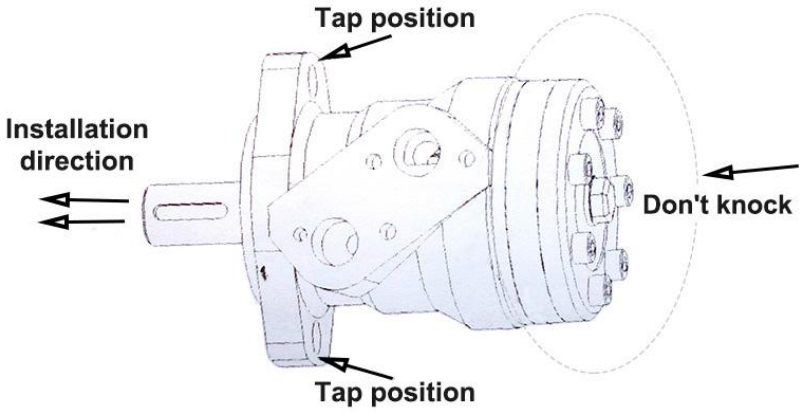
The installation surface should be flat.

The installation should determine the connection flange, the stop, and the output connection shaft size is accurate.

Ensure that the output shaft and the device connected to the transmission have good concentricity. When the output shaft is installed, it is necessary to prevent the axial thrust of the output shaft and the interlocking device.(The cycloidal motor BMR bears a small radial force.)

During the installation process, the smoothness and parallelism of the connecting plate part of the oil inlet and outlet are protected to prevent the oil sealing effect caused by the bumps from being bad, resulting in oil leakage.

WARNING The screws and the rear cover of the rear of the motor must not be hit during installation.If you want to tap, please tap the mounting flange (with photos)



The motor cannot be installed forcefully or twisted.

Do not remove the plastic plugs above the pipelines and oil pipes before they are installed.

When the system is connected, the relationship between the installation position of the motor inlet and outlet on the installation drawing and the rotation of the motor should be recognized. During the installation, it was found that the oil inlet and outlet are not suitable for the corresponding positive and negative rotation directions of the output shaft. Replacing the installation of the oil inlet and outlet pipes for the A and B chambers can achieve the opposite effect to the original working rotation direction.

3. Use of the motor

3.1 Use of motor

The pressure, flow, and output power of the motor must not exceed the specified values.

When running for a long time, the oil temperature does not exceed 65℃.

Motor limit working temperature: -30℃-70℃

3.2 Commissioning

Before starting, check the motor installation, whether the connection is correct and firm, and the system is correct.

Check whether the oil inlet and outlet directions and motor rotation direction meet the requirements of working conditions.

The pressure of the relief valve of the oil supply line is adjusted to the lowest value, and gradually adjusted to the required pressure after operation. Tighten the inlet and outlet pipes and the drain pipe.

After running the motor under no load for at least 10 minutes, gradually increase the pressure to the working pressure, and observe whether the motor is running normally at any time during the operation.

During operation, the working conditions of the motor and system should be checked frequently. If abnormal temperature rise, leakage, vibration and noise or abnormal pulsation of pressure are found, the machine should be stopped immediately to find out the cause.

During use, when the temperature of the oil inlet is ≥65 °C, please check whether the cooler works normally. To ensure the normal working temperature of the motor surface.

Motor transportation should be equipped with appropriate wooden boxes and cardboard boxes according to the size of the motor, and plastic paper packaging on the surface of the motor to prevent the moisture and moisture from invading the motor and causing the motor to rust and cause motor failure.

Avoid placing the motor directly on the ground. No need to apply anti-rust oil for a long time.

Motor storage environment: 10-9%RH, -20-65S C.

During transportation and storage, the motor should avoid moisture, moisture and any.

What corrosive gas.

4. Motor troubleshooting

The motor is a precision component, which needs to be installed, commissioned and repaired by professionals. Without our company's consent, it is not allowed to dismantle and repair it by yourself. If the user unit has the conditions for dismantling and inspection with the permission of our company, after reading the instructions carefully, you can dismantle and inspect it yourself, but you must pay attention to the following three points:

When disassembling, be careful not to knock the parts and scratch the hair, especially to protect the moving surface and sealing surface of the parts. The disassembled parts are placed in a clean container to avoid collision with each other. It is forbidden to strike with a hammer during disassembly and assembly.

The removed parts should be carefully inspected, and the worn parts are basically replaced without repairing by themselves. In principle, all seals are replaced.

Before assembling, all parts should be cleaned and dried. Do not use cotton yarn or rags to wipe the parts. The assembly place and the tools used should be clean, and the output shaft should be rotated after assembly. It should be flexible and free of jams.

Troubleshooting

Serial number	Fault phenomenon	The Reason	Exclude
1.	The motor does not rotate	Hydraulic pump does not start	Turn on the hydraulic pump
		Insufficient oil in the tank	oil
		Directional valve in neutral	Open the directional valve
		System overflow valve fully open	The system pressure is adjusted to the specified value
		Motor torque is not enough	Replace the motor
2.	There is abnormal noise when the motor is runnin	There is air in the hydraulic system	Find out the reason for the intake air and discharge the air in the oil
		Vacuum	Increase fuel supply
		Motor failure	Replace the motor
		Support bearing is broken	Replace bearing
3.	Motor leakage	Damaged seal	Replace the seal
		Parts have pores, trachoma, cracks, etc.	Replacement parts
4.	Motor heat	Hydraulic oil temperature is too high	Increase cooling capacity
		Low motor efficiency	Replace wearing parts
		Abnormal wear	Replace the motor
5.	Increased oil leakage at the outer drain hole	Abnormal wear at the distribution shaft	Replacement parts
		Wear of the needle column group of the cycloid wheel stator body	

5. Motor maintenance and post-processing

Regularly check the accessories in the hydraulic system, the accuracy of pressure gauges, thermometers, etc.

Check hydraulic oil regularly:

It is not allowed to use mixed oils of different types of hydraulic oils, and the period of renewal of new oils varies according to different industries and mines.

Under normal circumstances: the hydraulic oil is changed every six months.

Disposal of waste oil after motor use:

Should be sent to a special waste oil treatment unit for centralized treatment of waste oil.

If the motor is not used for a long time:

The cavity should be filled with oil, and the oil ports should be sealed. Grease on the surface of the output shaft should be wrapped with a cloth or sleeve.

Admonish

The manufacturer is not responsible for the consequences caused by the user not following the above recommendations or using the motor incorrectly.

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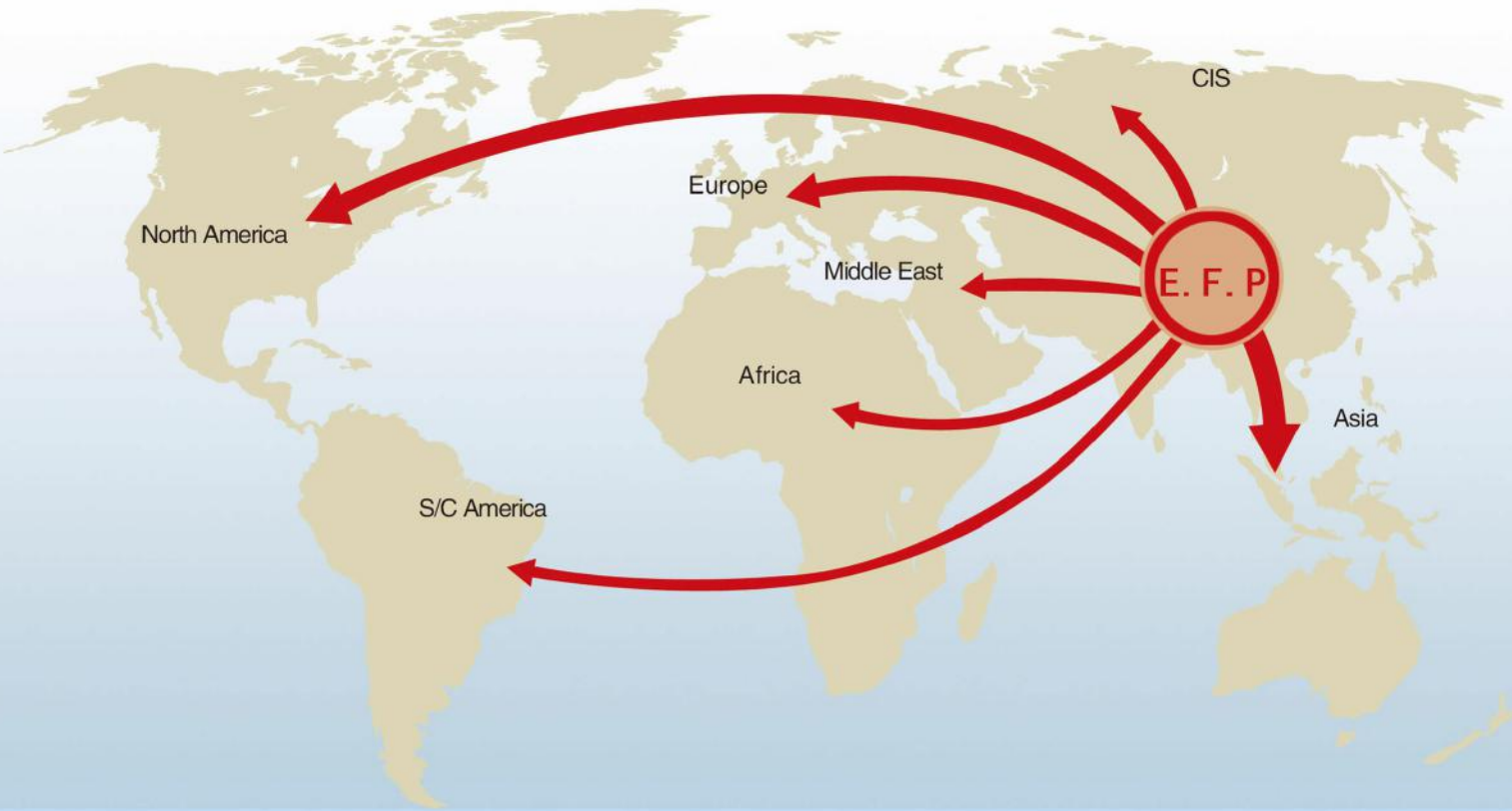

CE

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