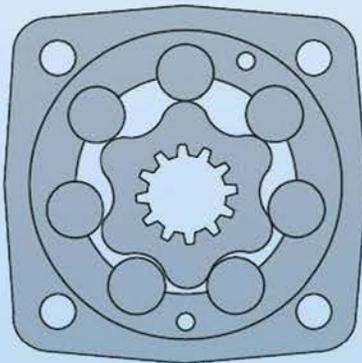
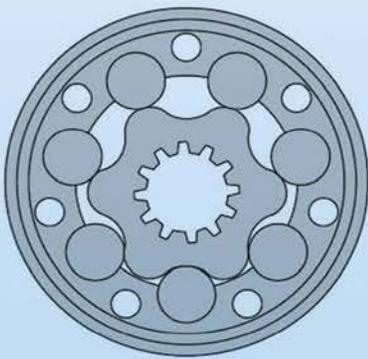




HAN JIU

石家庄寒九科技有限公司

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Content

Axial Distribution Type Motors	2
BMM Series Hydraulic Motor	2
BMP Series Hydraulic Motor	9
BMPH Series Hydraulic Motor	15
BMPW Series Hydraulic Motor	22
OZ Series Hydraulic Motor	23
BMR Series Hydraulic Motor	25
BMRS Series Hydraulic Motor	31
BMRWN Series Hydraulic Motor	37
BMR-BK01 Series Hydraulic Motor with brake	38
OK Series Hydraulic Motor	40
BMH Series Hydraulic Motor	42
Disc Distribution Type Motors	49
BMSY Series Hydraulic Motor	49
BMT Series Hydraulic Motor	61
BMV Series Hydraulic Motor	75
BMK2 Series Hydraulic Motor	82
BMK6 Series Hydraulic Motor	90
BME2 Series Hydraulic Motor	96
BMJ Series Hydraulic Motor	105
BMER Series Hydraulic Motor	108
Brake And Gearbox And Vavle	122
BK10 Series Hydraulic Brake	122
BK2 Series Hydraulic Brake	127
Hydraulic motor instructions and common troubleshooting	132
Hydraulic motor instructions and common troubleshooting	132

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 mm²/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 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

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

BMM12.5 [12.9 cm³/rev.]

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

BMM20 [19.9 cm³/rev.]

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

BMM32 [31.6 cc/rev.]

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

BMM40 [39.8 cm³/rev.]

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

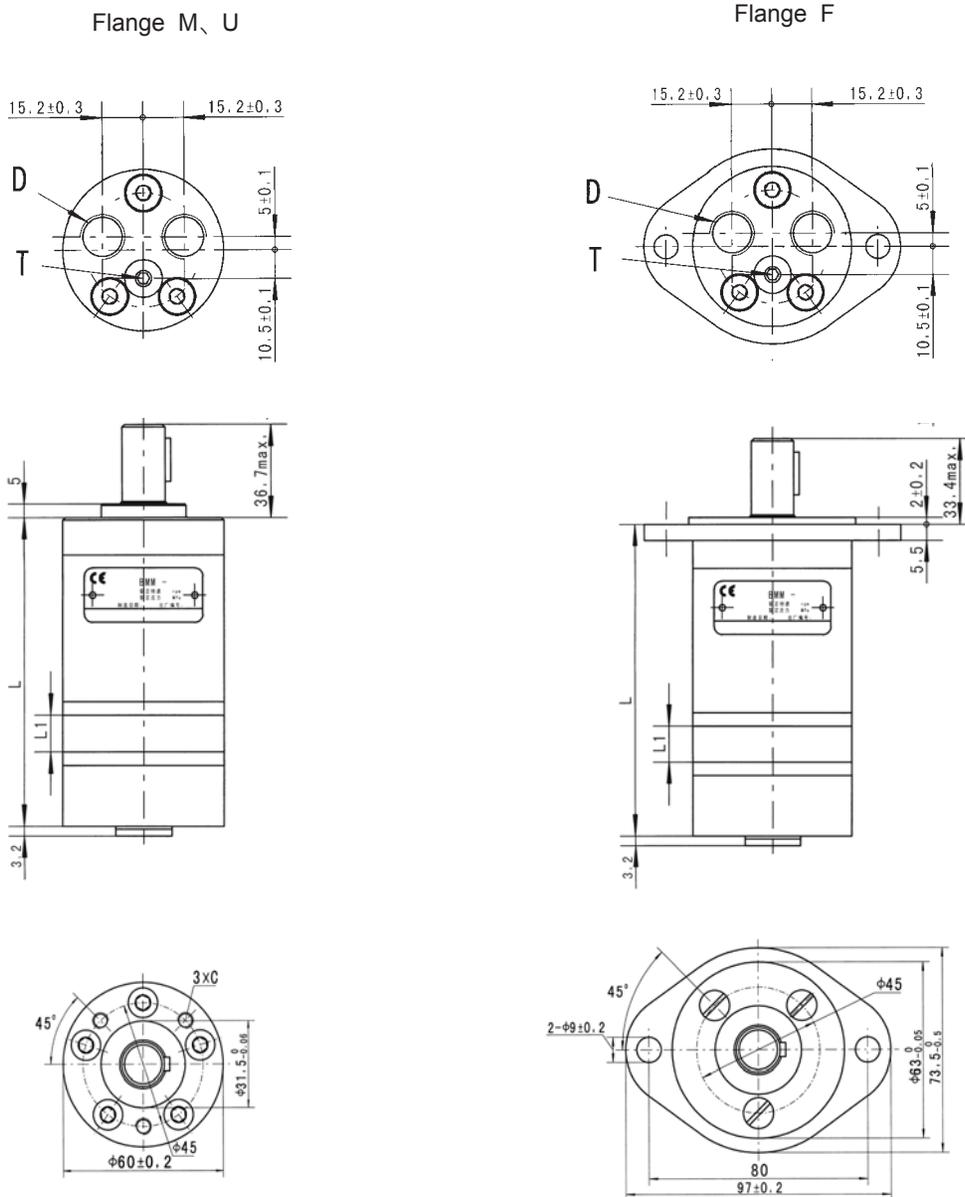
BMM50 [50.3 cm³/rev.]

		Pressure (MPa)				
		Max.cont.			Max.int.	
		1.5	3	5	7	10
Flow (L/min)	2	11	23	36	50	
	4	37	33	27	22	
	8	76	73	68	63	55
	12	115	111	106	101	88
	15	157	154	149	145	137
Max.cont.	20	11	21	35	50	71
Max.int.	25	11	20	33	49	71
		237	234	231	226	218
		10	18	32	47	69
		296	295	294	288	282
		8	14	29	44	64
		395	395	393	390	381
		4	10	25	40	59
		498	496	494	490	484

Torque (N·m) 37
Speed (rpm) 607

BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING



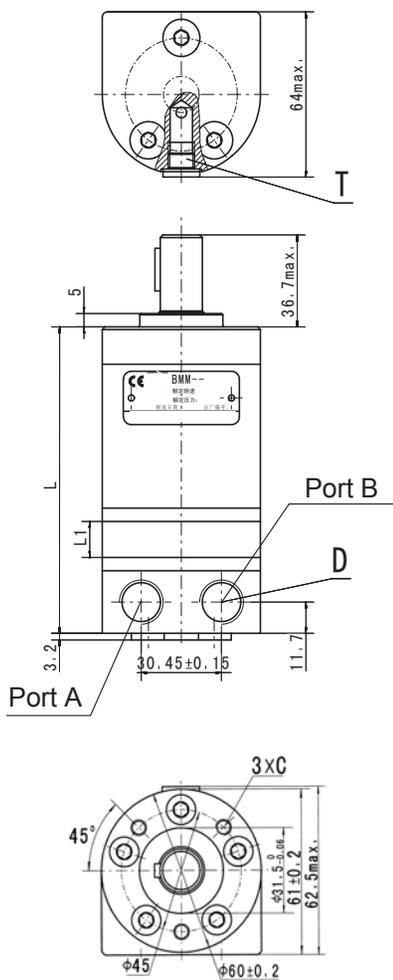
Model	M、 U Flange		F Flange	
	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

Mounting	M、 U Flange		F Flange	
	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)

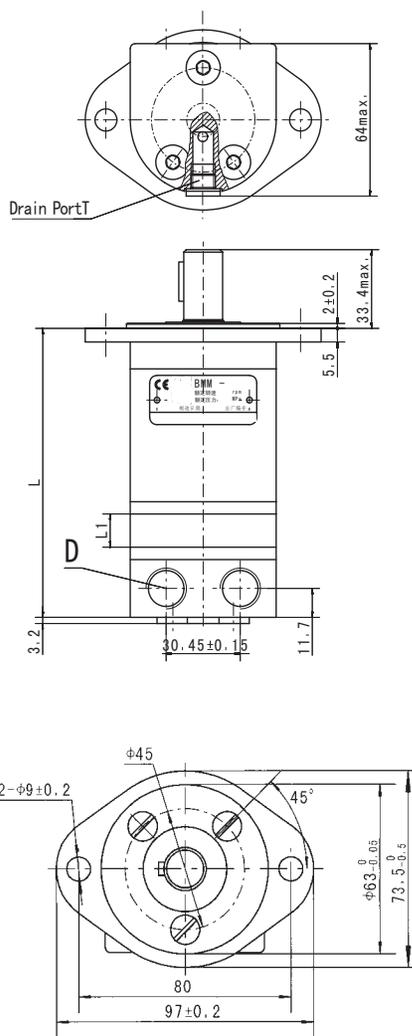
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F

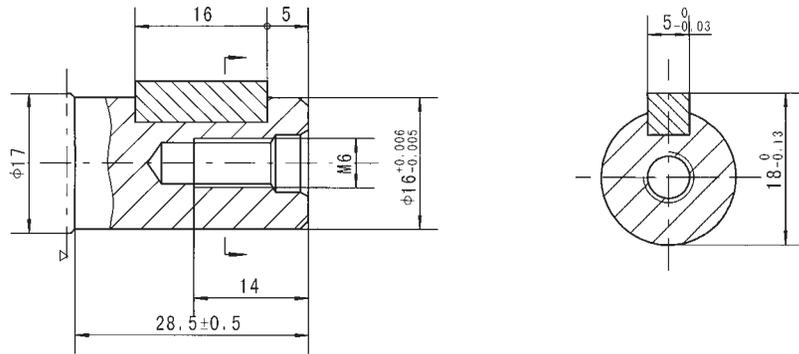


Model	M、U Flange		F Flange	
	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

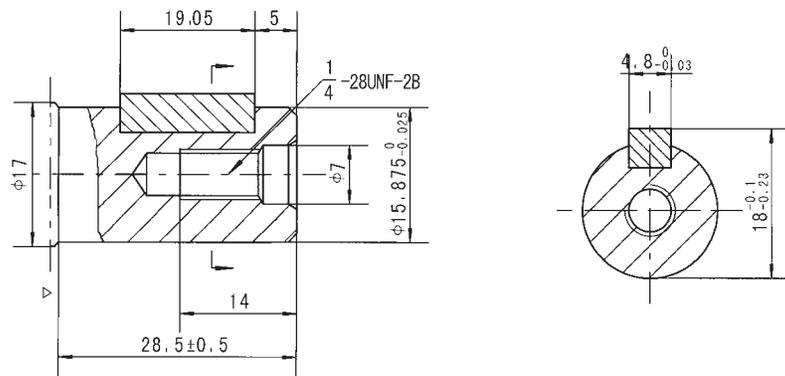
Code	M、U Flange		F Flange	
	E (depth)	U (depth)	E (depth)	U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

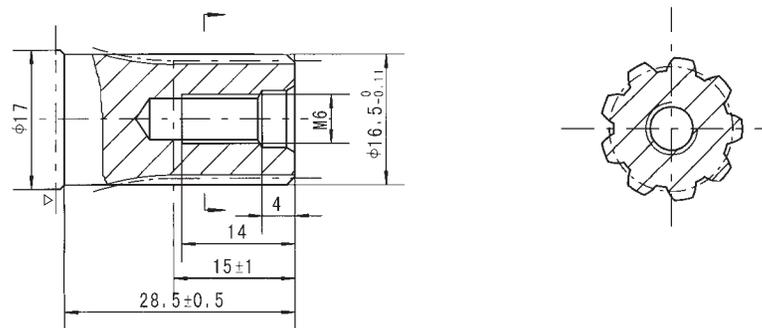
Shaft A: Cylindrical shaft $\varnothing 16$
Parallel key 5x5x16



Shaft B: Cylindrical shaft $\varnothing 15.875$
Parallel key 4.8x4.8x19.05



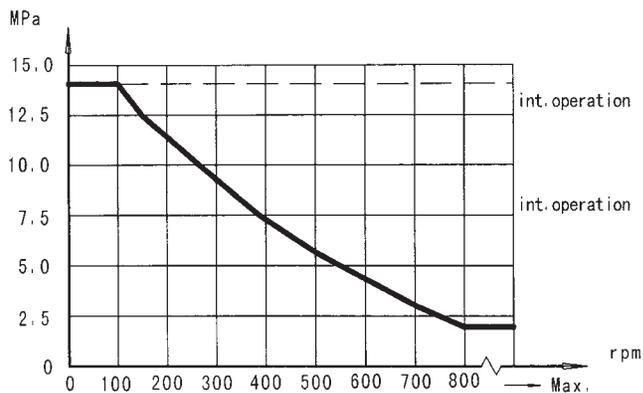
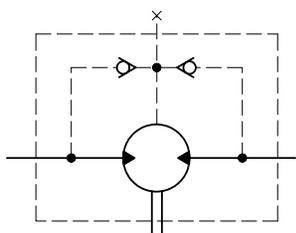
Shaft C: Involute splind shaft
B17x14 DIN5482



▷ Motor Mounting Surface

BMM Series Hydraulic Motor

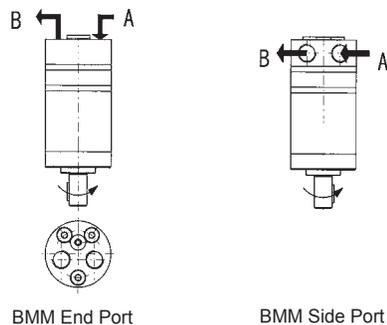
Permissible shaft seal pressure



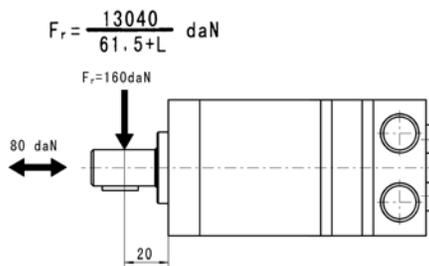
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

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

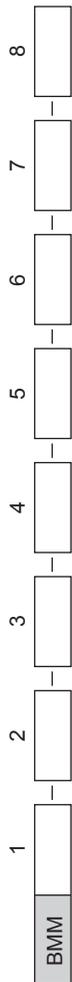


Status of the shaft's radial force



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

Order Information



Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
	8						
	12.5	M	A	E		00	
	20	U	B	U	Omit Standard	Omit	Omit
	32	F	C	1E	R	B	0
	40			1U		S	No case drain
	50						

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
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)

	3	6	7	8	10	11	12.5	16.5
--	---	---	---	---	----	----	------	------

Flow (L/min)	Max.cont.								Max.int.	
	3	6	7	8	10	11	12.5	16.5		
8	13	25	29	34	43	48				
15	13	25	29	34	43	48	56	75		
20	13	24	29	34	43	48	56	76		
30	12	24	29	34	43	48	56	76		
35	12	23	28	34	43	48	56	76		
40	12	23	28	32	41	47	55	75		
45	11	22	26	32	41	46	54	74		
55	6	15	22	28	37	44	52	71		
60	3	11	18	20	30	38	49	67		
Max.int.	1650	1640	1626	1603	1571	1536	1502	1446		

BMP 50 [51.7cm³/rev.]

Pressure (MPa)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.	
	3	6	8	10	12.5	14	16	17.5		
8	20	41	56	69	89	95				
15	19	40	56	71	91	100	112	120		
20	18	39	55	71	92	101	117	128		
30	17	38	55	71	91	98	116	124		
35	17	38	54	69	89	98	117	124		
45	14	36	53	67	88	98	114	123		
55	12	33	50	65	85	96	111	121		
60	10	32	47	64	83	94	108	119		
75	6	25	42	56	76	87	101	112		
Max.int.	1440	1430	1416	1395	1367	1351	1335	1312		

BMP 80 [77.7cm³/rev.]

Pressure (MPa)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.	
	3	6	8	10	12.5	14	16	17.5		
8	32	62	85	104	129	144				
15	32	63	84	107	126	144	165			
20	31	63	84	107	132	146	168	185		
30	31	62	83	106	131	146	168	186		
35	30	59	81	102	130	144	167	185		
45	25	58	79	100	126	142	165	182		
55	23	57	78	97	124	140	161	179		
60	20	53	75	94	120	137	160	177		
75	14	44	67	87	112	151	169	169		
Max.int.	948	940	931	920	906	890	871	854		

BMP 100 [96.2cm³/rev.]

Pressure (MPa)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.	
	3	6	8	10	12.5	14	16	17.5		
8	40	77	105	130	161	180				
15	39	77	106	130	160	180	208			
20	36	74	104	128	161	179	205	227		
30	33	72	103	125	160	177	203	225		
35	30	70	98	122	159	176	202	224		
45	29	67	95	118	155	174	200	220		
55	25	64	93	116	152	170	198	217		
60	22	60	91	114	149	167	194	213		
75	15	54	83	106	141	160	186	205		
Max.int.	771	763	755	744	735	724	708	693		

Torque (N·m) 87
Speed (rpm) 920

□ cont.
■ int.

Performance Data

BMP 125 [120.2cm³/rev.]

Pressure (MPa)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.							
	3	6	8	10	12.5	14	16	17.5	3	6	8	10	12.5	14	16	17.5
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)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.							
	3	6	8	10	12.5	14	16	17.5	3	6	8	10	12.5	14	16	17.5
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)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.							
	3	6	8	10	12.5	14	16	17.5	3	6	8	10	12.5	14	16	17.5
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)

	3	6	8	10	12.5	14	16	17.5
--	---	---	---	----	------	----	----	------

Flow (L/min)	Max.cont.								Max.int.							
	3	6	8	10	12.5	14	16	17.5	3	6	8	10	12.5	14	16	17.5
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								

□ cont.
■ int.

Torque (N·m) 128
Speed (rpm) 306

Performance Data

BMP 315 [314.5cm³/rev.]

Pressure (MPa)		Max.cont.					Max.int.	
		3	5	7	9	10	12.5	14

Flow (L/min)	Pressure (MPa)							
	3	5	7	9	10	12.5	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)		Max.cont.					Max.int.	
		3	4.5	5.5	6.5	8	10	12.5

Flow (L/min)	Pressure (MPa)							
	3	4.5	5.5	6.5	8	10	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)		Max.cont.					Max.int.	
		1.5	3	4.5	6	7	8	9

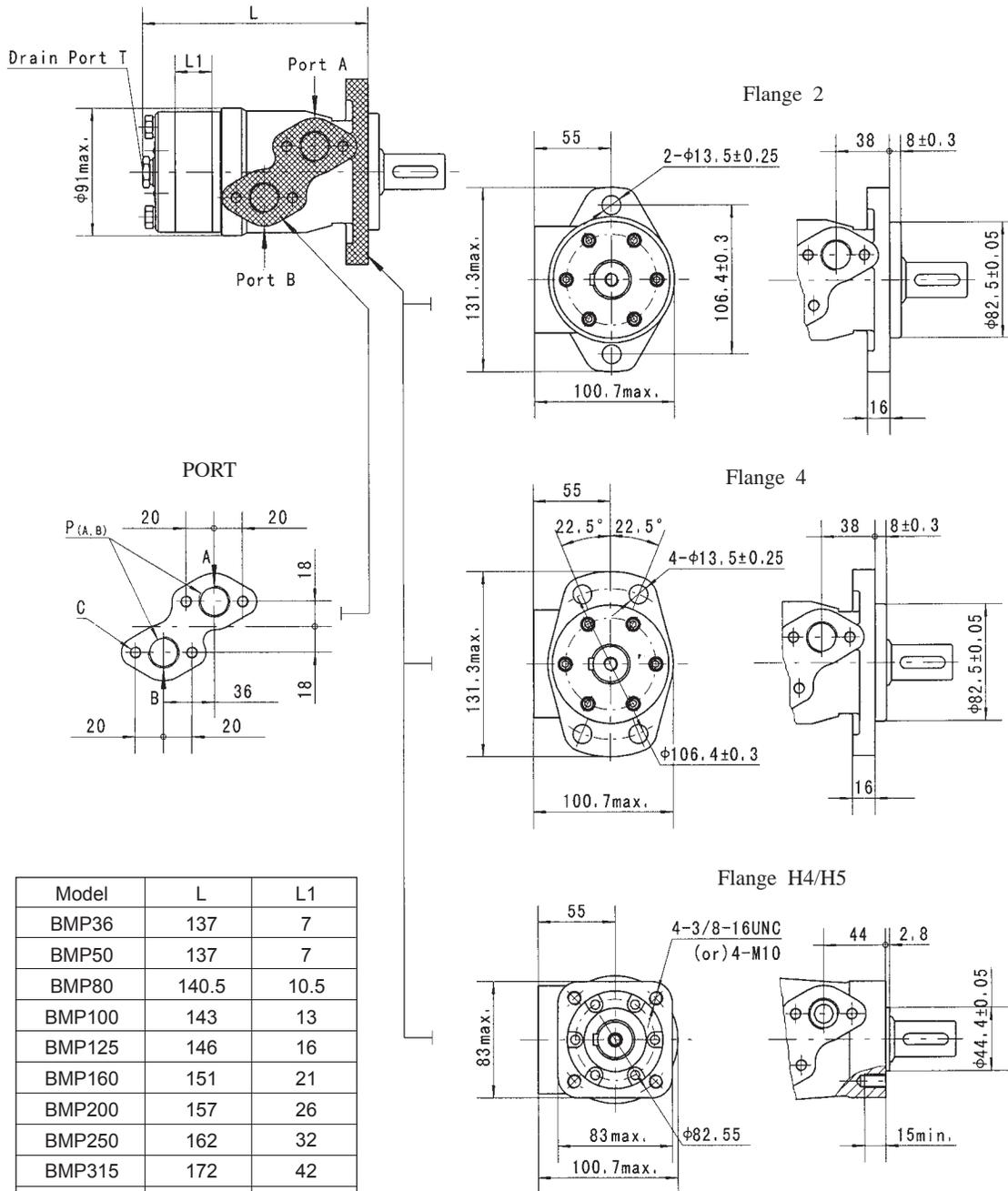
Flow (L/min)	Pressure (MPa)							
	1.5	3	4.5	6	7	8	9	
4	96 7	194 6	285 4					
8	98 15	201 15	304 14	391 14	443 12	512 9	574 7	
15	96 30	192 30	284 29	380 28	421 26	496 23	550 22	
20	96 40	191 40	280 40	372 39	418 37	493 33	546 31	
30	91 61	185 60	272 60	360 58	412 56	486 53	541 50	
40	86 81	172 80	261 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



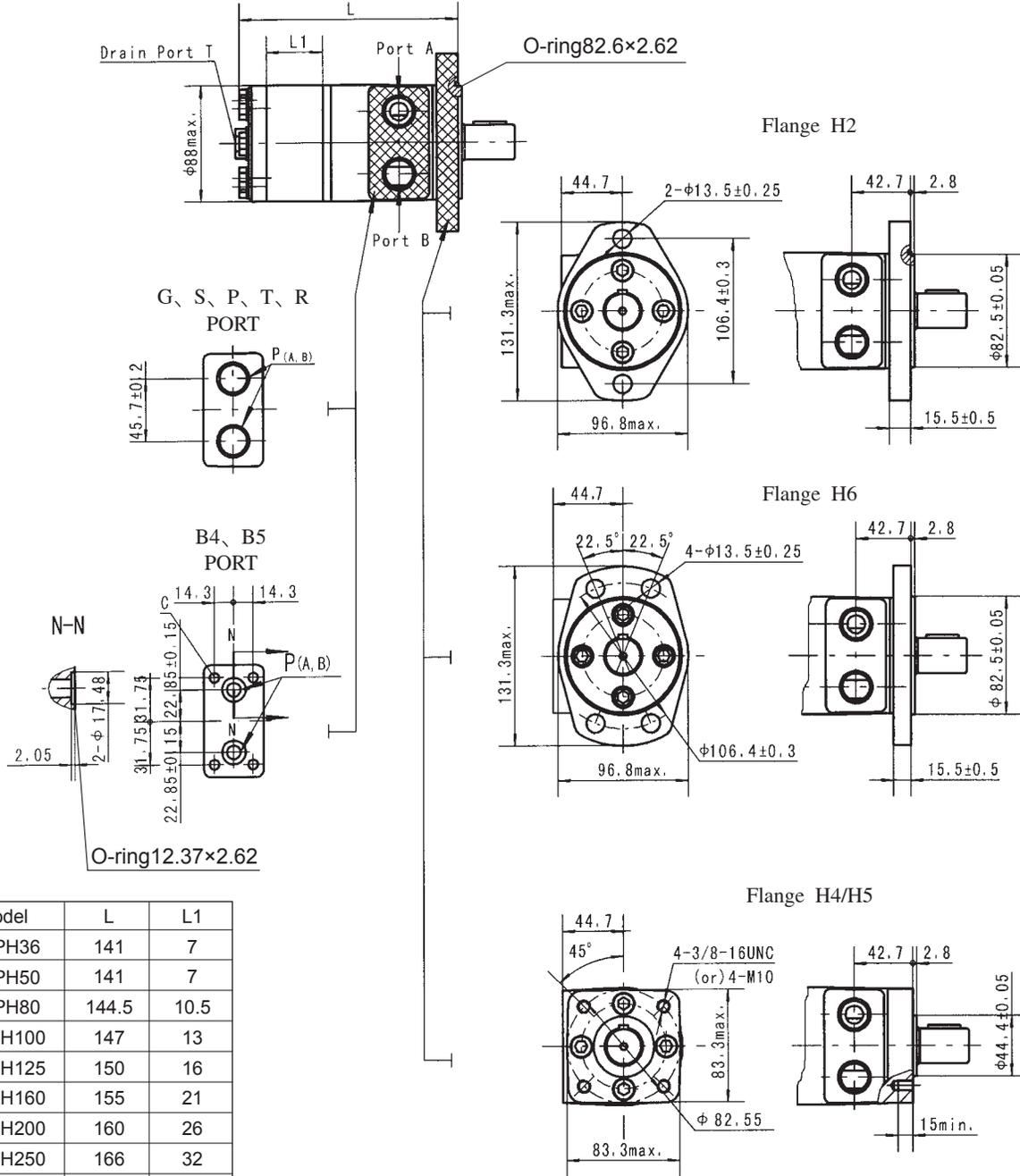
Model	L	L1
BMP36	137	7
BMP50	137	7
BMP80	140.5	10.5
BMP100	143	13
BMP125	146	16
BMP160	151	21
BMP200	157	26
BMP250	162	32
BMP315	172	42
BMP400	182	52
BMP500	195	65

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

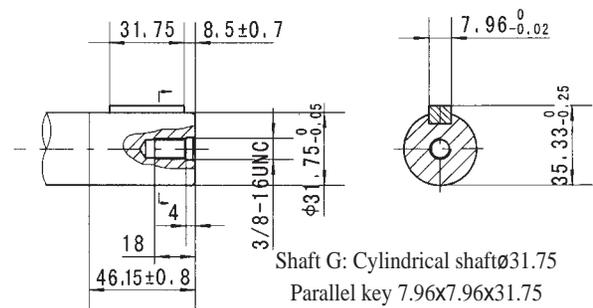
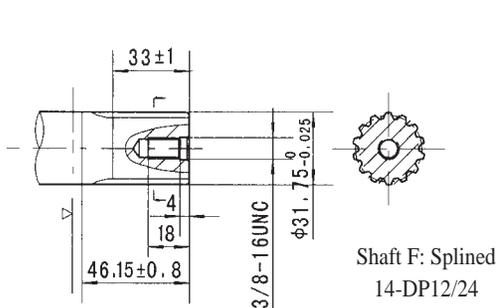
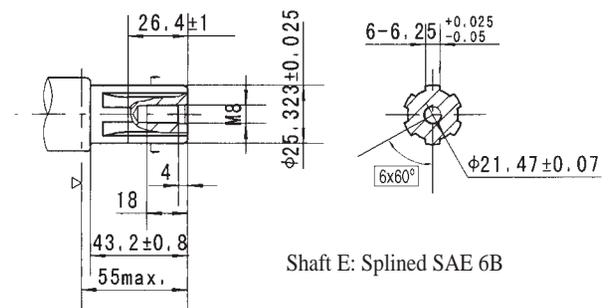
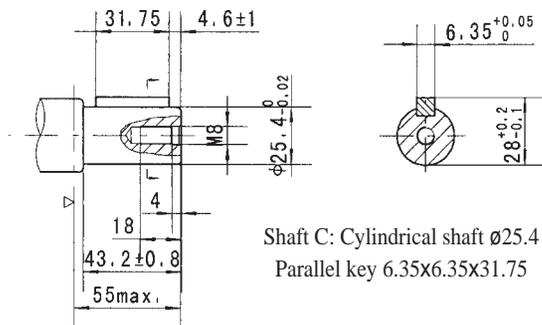
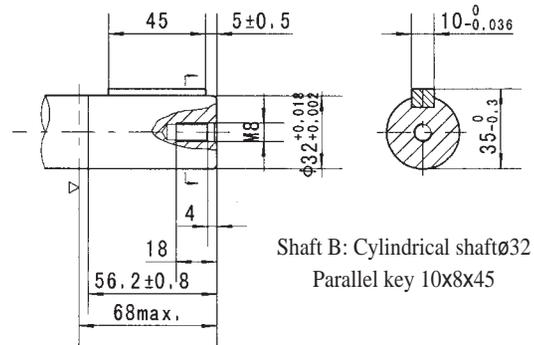
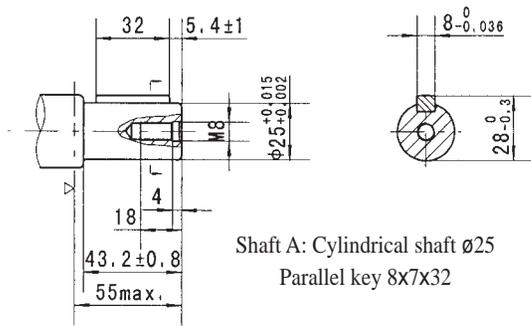


Model	L	L1
BMPH36	141	7
BMPH50	141	7
BMPH80	144.5	10.5
BMPH100	147	13
BMPH125	150	16
BMPH160	155	21
BMPH200	160	26
BMPH250	166	32
BMPH315	176	42
BMPH400	186	52
BMPH500	199	65

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

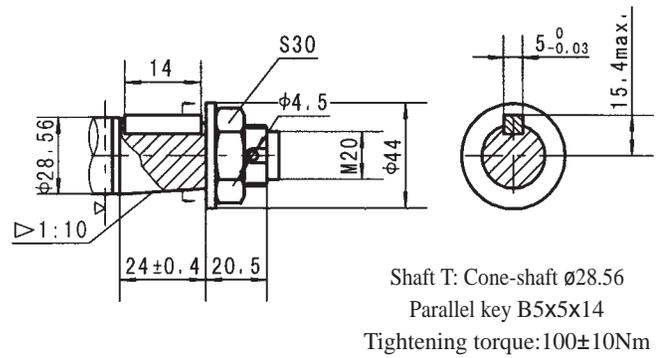
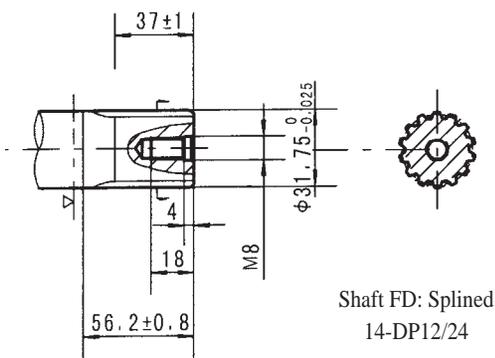
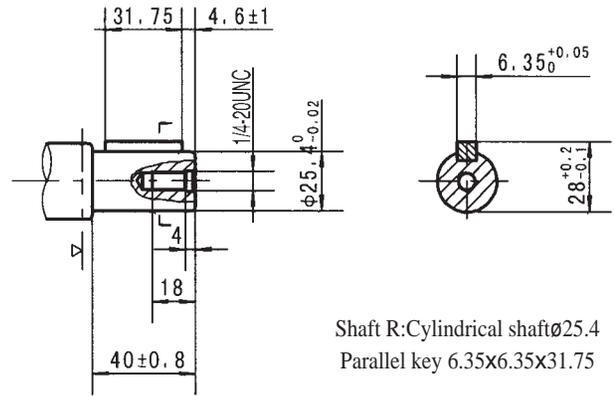
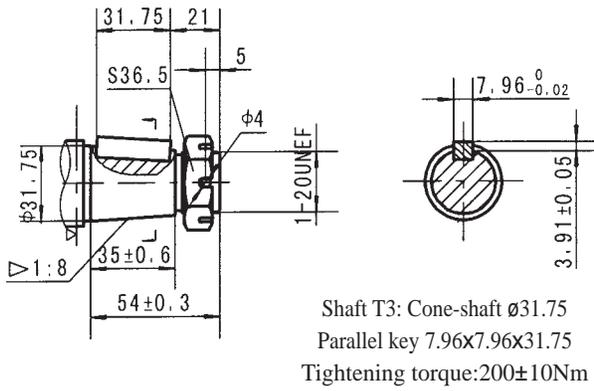
Code	Mounting						
	G (depth)	S (depth)	P (depth)	T (depth)	R (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	3/4-16 O-ring (15)	PT(RC)1/2 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	7/16-20UNF(12)	PT(RC)1/4 (9.7)	7/16-20UNF(12)	G1/4(12)
C	-	-	-	-	-	4-5/16-18UNC(13)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

BMP SHAFT EXTENSIONS DIMENSIONS DATA



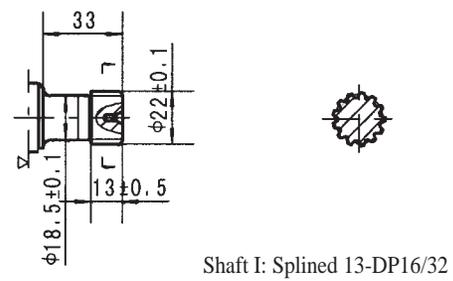
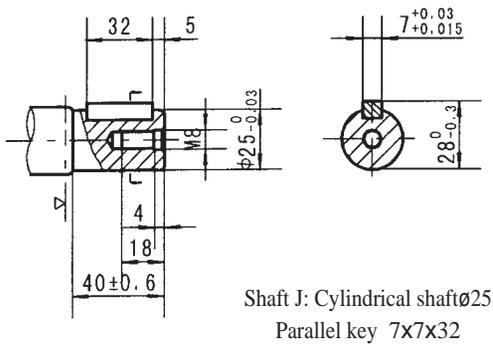
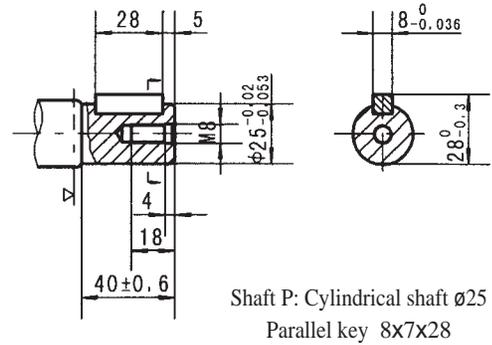
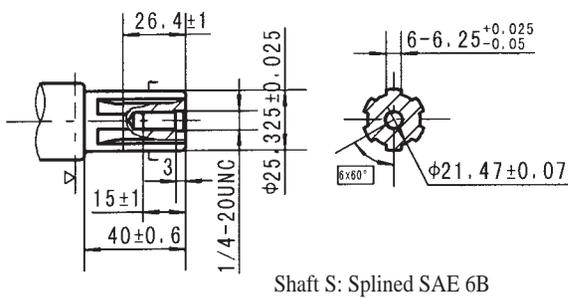
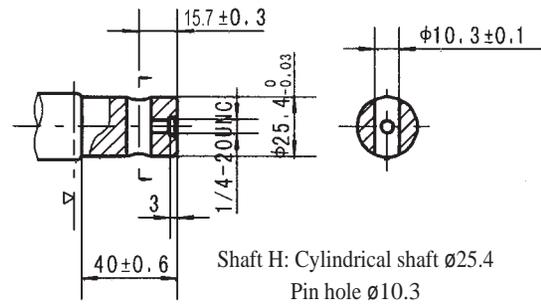
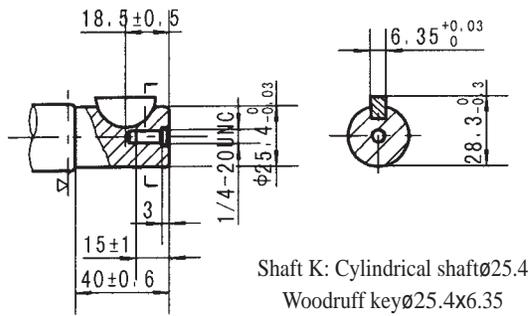
▷ Motor Mounting Surface

BMP SHAFT EXTENSIONS DIMENSIONS DATA



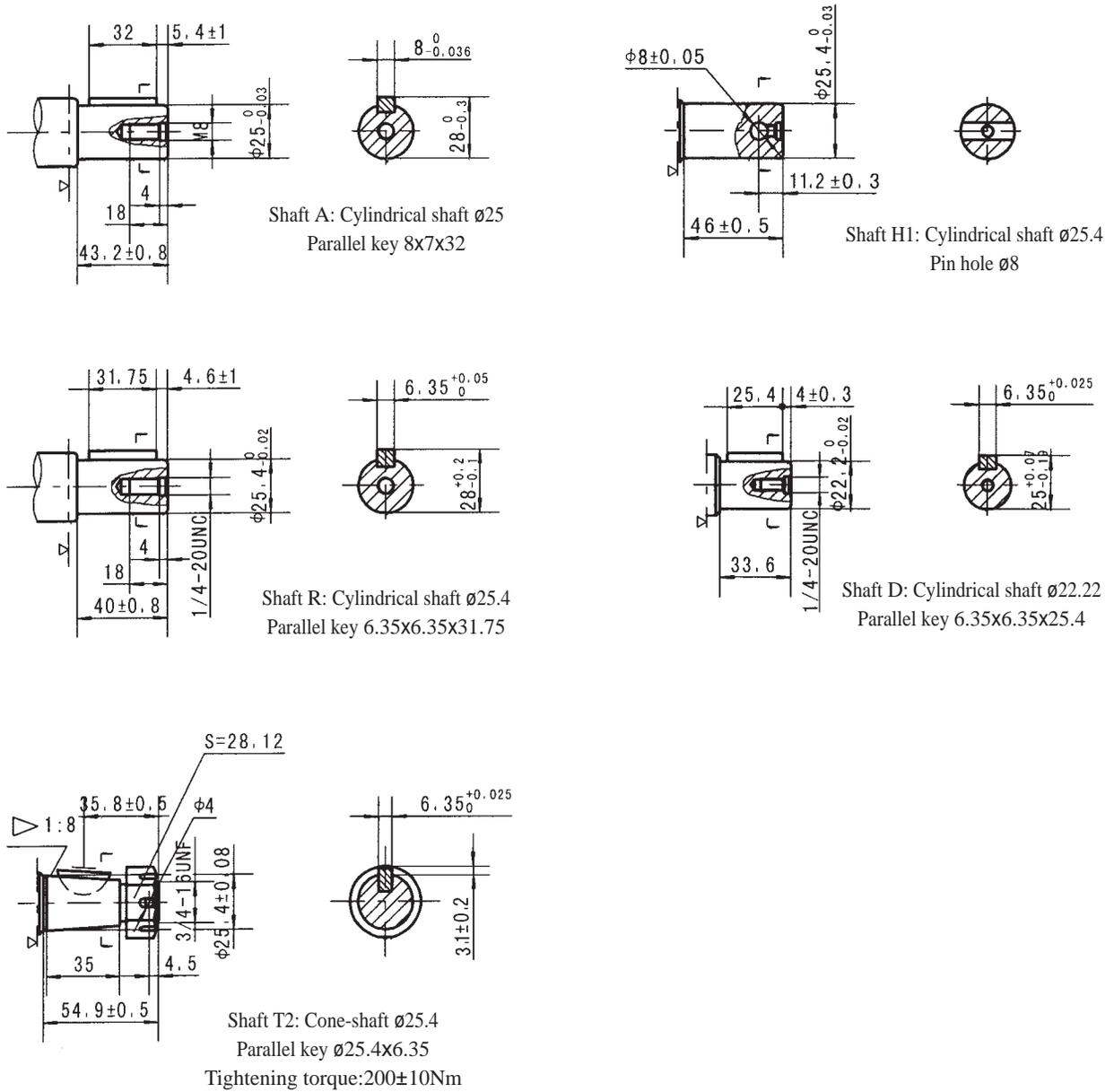
▷ Motor Mounting Surface

BMPH SHAFT EXTENSIONS DIMENSIONS DATA



▷ Motor Mounting Surface

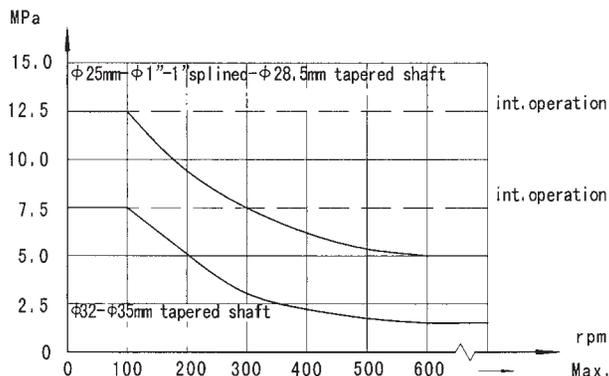
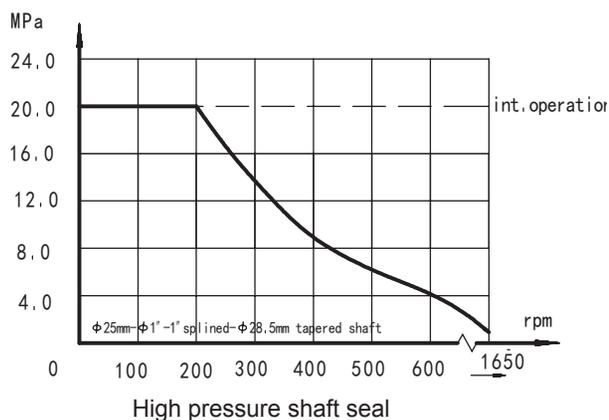
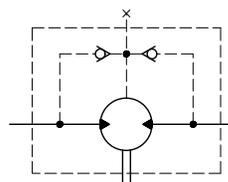
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



▷ Motor Mounting Surface

BMP、BMPH Series Hydraulic Motor

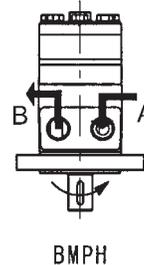
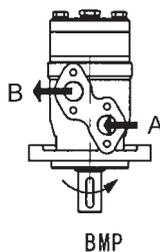
Permissible shaft seal pressure



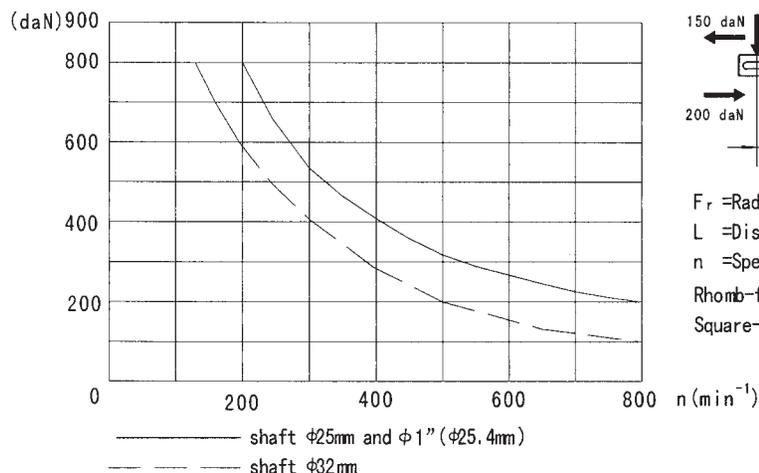
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

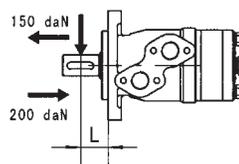
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



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



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



F_r =Radial Force (.daN)
 L =Distance (mm)
 n =Speed (rpm)
Rhomb-flange $L=30\text{mm}$
Square-flange $L=24\text{mm}$

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



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	2-Ø13.5 Rhomb-flange , pilot Ø82.5x8	A Shaft Ø25,parallel key 8x7x32	G1/2 Manifold Mount 4xM8, G1/4 M22x1.5 Manifold Mount 4xM8, M14x1.5 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	Standard Opposite	No paint Blue Black Silver grey	Standard Big radial force No case drain Free Running Low Speed
	50		C Shaft Ø25.4,parallel key 6.35x6.35x31.75				
	80	E Shaft Ø25.4,splined tooth SEA 6B					
	100	R Short shaft Ø25.4,parallel key 6.35x6.35x31.75					
	125	T Cone shaft Ø28.56,parallel key B5x5x14					
	160	H4 4-3/8-16 Square-flange , pilot Ø44.4x2.8	B Shaft Ø32,parallel key 10x8x45				
	200	H5 4-M10 Square-flange , pilot Ø44.4x2.8	F Shaft Ø31.75,splined tooth 14-DP12/24				
	250		FD Long shaft Ø31.75,splined tooth14-DP12/24				
	315	H5 4-M10 Square-flange , pilot Ø44.4x2.8	G Shaft Ø31.75, parallel key 7.96x7.96x31.75				
	400		T3 Cone shaft Ø31.75,parallel key 7.96x7.96x25.4				
500							

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

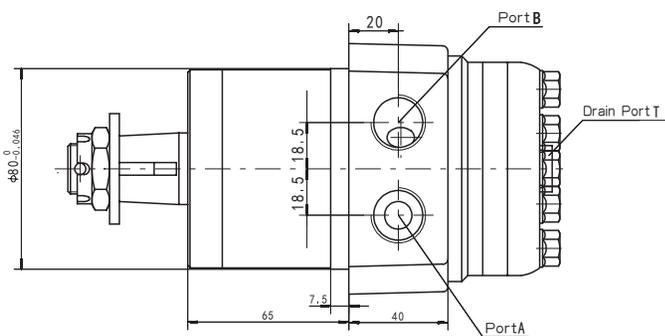
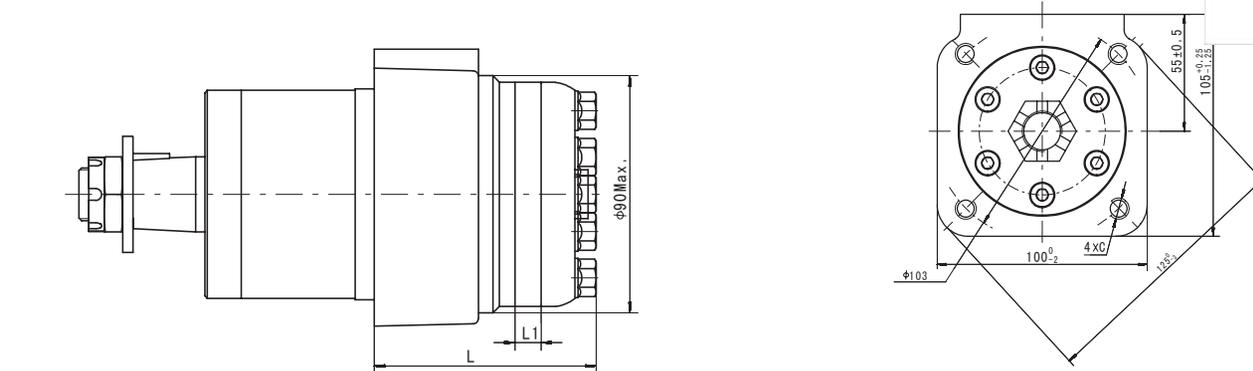


Pos.1	2	3	4	5	6	7	8	
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function	
BMPH	36	2-Ø13.5 Rhomb-flange , pilot Ø82.5x2.8	K Shaft Ø25.4, woodruff key Ø25.4x6.35	G1/2, G1/4 7/8-14 O-ring, 7/16-20UNF 1/2-14 NPTF, 7/16-20UNF 3/4-16 O-ring, 7/16-20UNF PT(Rc)1/2, PT(Rc)1/4 Ø10 O-ring manifold 4x5/16-18UNC,7/16-20UNF Ø10 O-ring manifold 4xM8, 7/16-20UNF	Standard Opposite	No paint Blue Black Silver grey	Standard Big radial force No case drain Free Running Low Speed	
	50		S Shaft Ø25.4, splined tooth SEA 6B					
	80		A Shaft Ø25.4, parallel key 8x7x32					
	100		R Shaft Ø25.4, parallel key 6.35x6.35x31.75					
	125		H Shaft Ø25.4, pin hole Ø10.3					
	160		H1 Shaft Ø25.4, pin hole Ø8					
	200		D Shaft Ø22.22, parallel key 6.35x6.35x25.4					
	250		I Shaft Ø22.22, splined tooth 13-DP16/32					
	315		H5 4-M10 Square-flange , pilot Ø44.4x2.8					T2 Cone shaft Ø25.4, woodruff key Ø25.4x6.35
	400							P Shaft Ø25, parallel key 8x7x28
500	J Shaft Ø25, parallel key 7x7x32							

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
	50 80 100 125 160 200 250 315 400 500	Wheel-flange Omit	A Shaft $\phi 25 \times 6$, Parallel key 8×7×32 C Shaft $\phi 25.4$, Parallel key 6.35×6.35×31.75 E Shaft $\phi 25.4$, Splined key SAE 6B T Cone shaft $\phi 28.56$, 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	No paint Blue 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.



BMR SERIES HYDRAULIC MOTOR

BMR series motor adapt the advanced Gerolor 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)

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

BMR 50 [51.7cm³/rev.]

Pressure (MPa)

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

BMR 80 [81.5cm³/rev.]

Pressure (MPa)

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

BMR 100 [102cm³/rev.]

Pressure (MPa)

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

Torque (N·m) 135
Speed (rpm) 830

□ cont.
■ int.

Performance Data

BMR 125 [127.2cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
							Max.cont.		Max.int.

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

BMR 160 [157.2cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
							Max.cont.		Max.int.

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

BMR 200 [194.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
							Max.cont.		Max.int.

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

BMR 250 [253.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
							Max.cont.		Max.int.

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

cont.
int.

Torque (N·m) 256
Speed (rpm) 287

Performance Data

BMR 315 [317.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5

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

BMR 375 [381.4cm³/rev.]

Pressure (MPa)

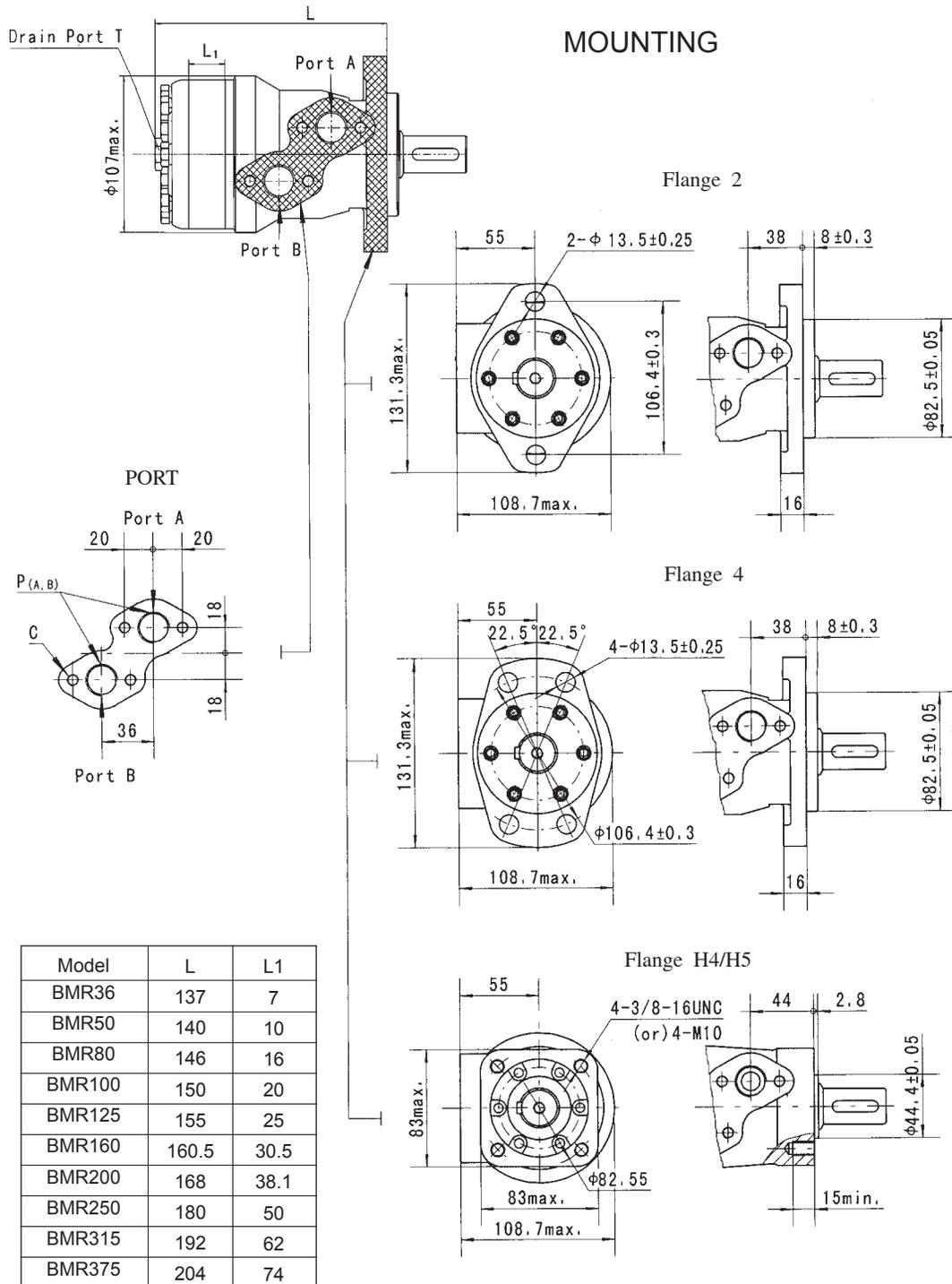
	3	4.5	5.5	6.5	8	10	12.5	14

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

Torque (N·m) 481
Speed (rpm) 200

□ cont.
■ int.

BMR DIMENSIONS AND MOUNTING DATA

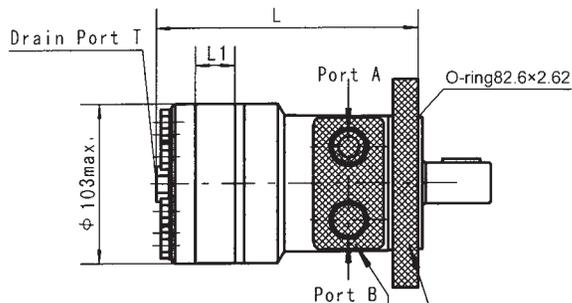


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

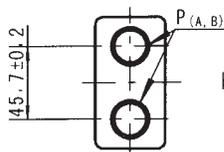


BMRS DIMENSIONS AND MOUNTING DATA

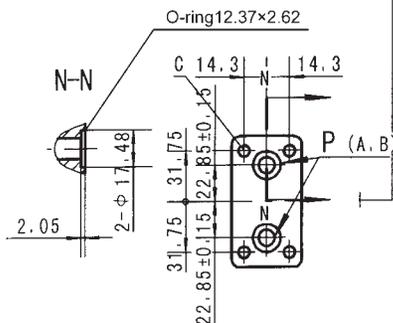
MOUNTING



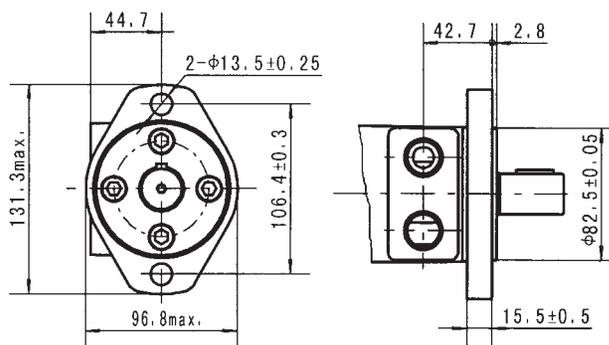
PORT: G、S、P、R、M1、M2、M3



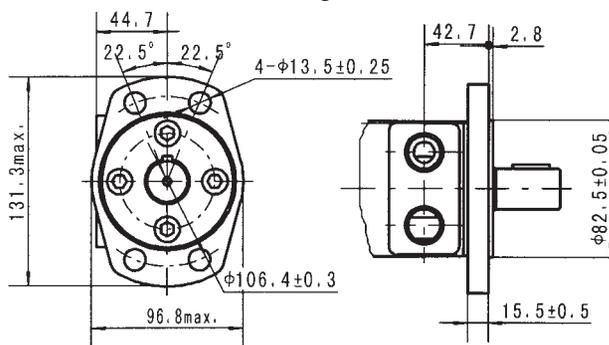
PORT: B4、B5



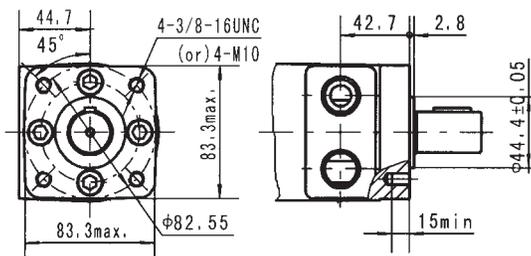
Flange H2



Flange H6



Flange H4/H5

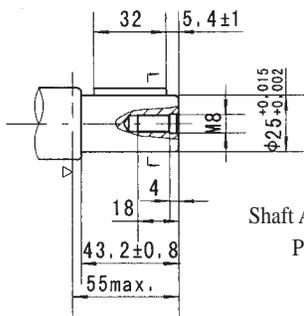


Model	L	L1
BMRS36	143	7
BMRS50	146	10
BMRS80	152	16
BMRS100	156	20
BMRS125	161	25
BMRS160	166.5	30.5
BMRS200	174	38.1
BMRS250	186	50
BMRS315	198	62
BMRS375	210	74

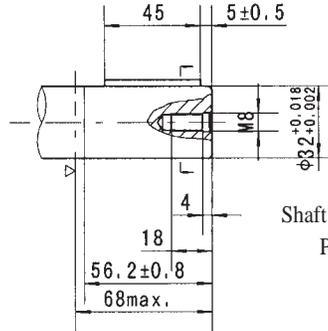
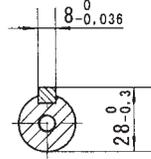
Note: The size L of the BMRS N1 should be increased by 2mm.

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)

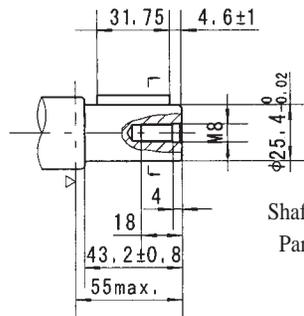
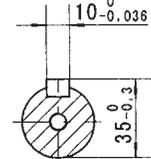
BMR SHAFT EXTENSIONS DIMENSIONS DATA



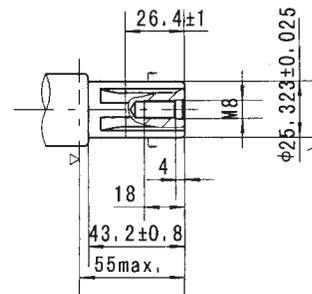
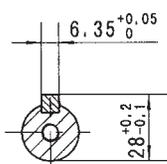
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



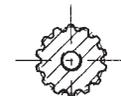
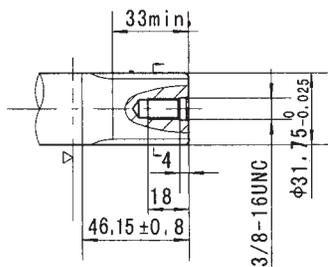
Shaft C: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75



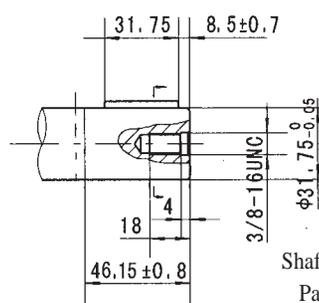
Shaft E: Splined SAE 6B

6x60°

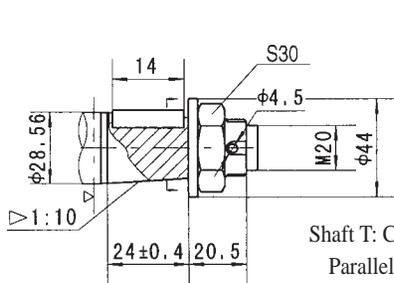
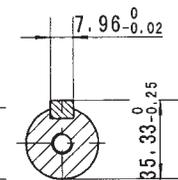
φ21.47±0.07



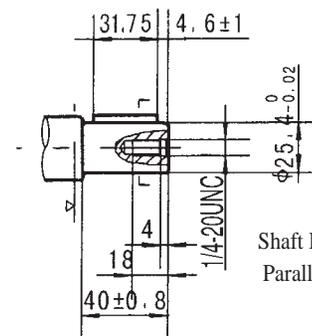
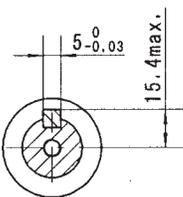
Shaft F: Splined
14-DP12/24



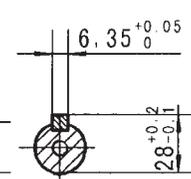
Shaft G: Cylindrical shaft Ø31.75
Parallel key 7.96x7.96x31.75



Shaft T: Cone-shaft Ø28.56
Parallel key B5x5x14
Tightening torque: 100±10Nm

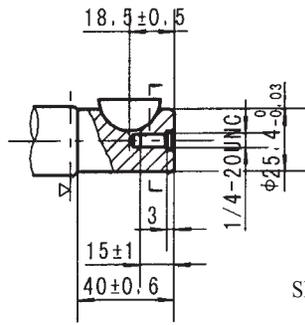


Shaft R: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

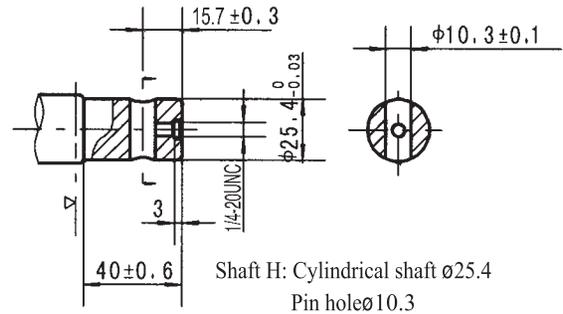
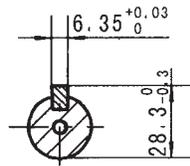


▷ Motor Mounting Surface

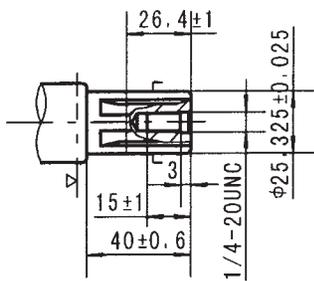
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA



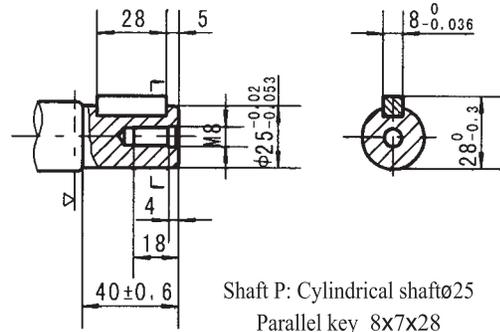
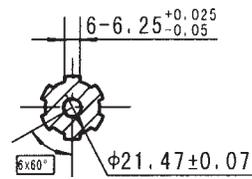
Shaft K: Cylindrical shaft $\phi 25.4$
Woodruff key $\phi 25.4 \times 6.35$



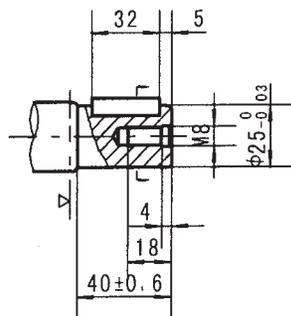
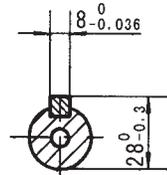
Shaft H: Cylindrical shaft $\phi 25.4$
Pin hole $\phi 10.3$



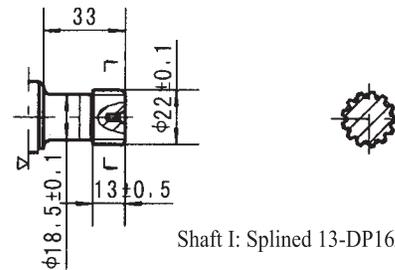
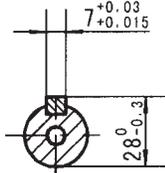
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft $\phi 25$
Parallel key $8 \times 7 \times 28$



Shaft J: Cylindrical shaft $\phi 25$
Parallel key $7 \times 7 \times 32$

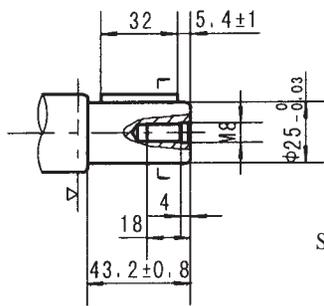


Shaft I: Splined 13-DP16/32

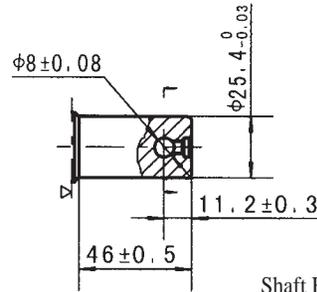
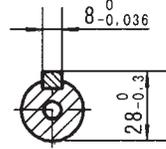


▷ Motor Mounting Surface

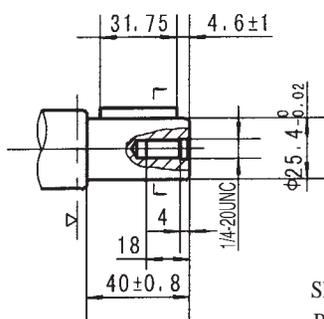
BMRS SHAFT EXTENSIONS DIMENSIONS DATA



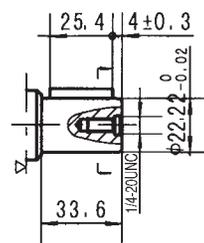
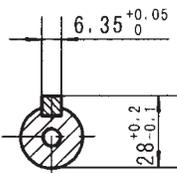
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



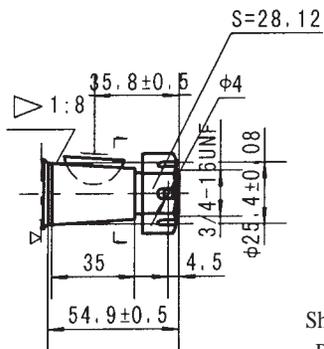
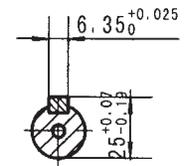
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



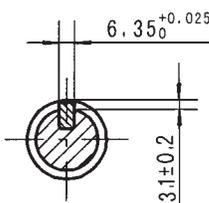
Shaft R: Cylindrical shaft ø25.4
Parallel key 6.35x6.35x31.75



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

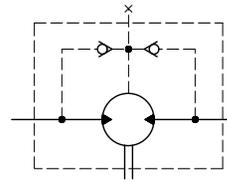


Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque: 200 ± 10Nm

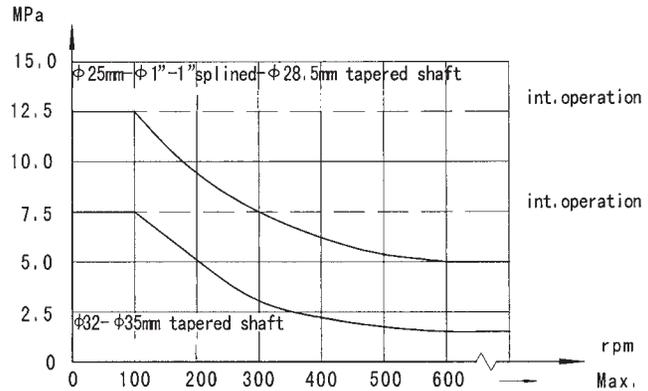
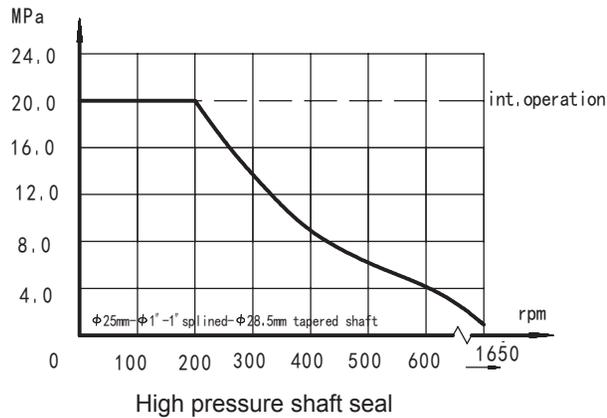


▷ Motor Mounting Surface

BMR、BMRS Series Hydraulic Motor



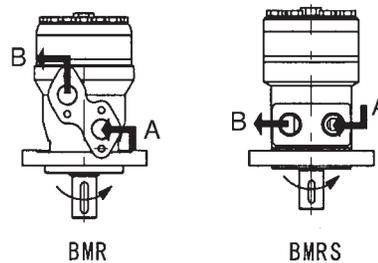
Permissible shaft seal pressure



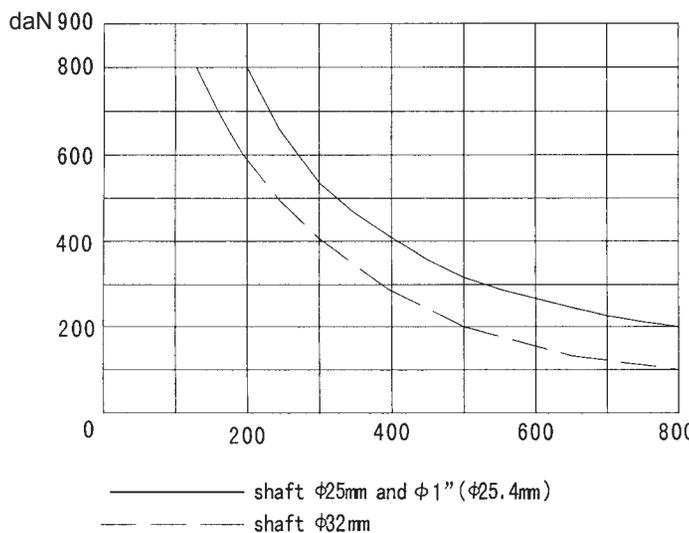
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

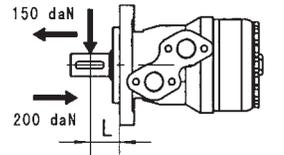
Direction of shaft rotation : Standard

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



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



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


F_r =Radial Force (daN)
 L =Distance (mm)
 n =Speed (rpm)
 Rhomb-flange $L=30\text{mm}$
 Square-flange $L=24\text{mm}$

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

Pos.1	2	3	4	5	6	7	8
			BMR				
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
	36	2-Ø13.5Rhomb-flange, pilot Ø82.5x8	A Shaft Ø25,parallel Key 8x7x32	D G1/2 Manifold Mount 4-M8, G1/4	Omit	00	Standard
	50		C Shaft Ø25.4,parallel Key 6.35x6.35x31.75				
	80	4-Ø13.5Rhomb-flange, pilot Ø82.5x8	E Shaft Ø25.4, splined tooth SAE 6B	S 7/8-14 O-ring manifold 4-M8, M14x1.5	R	Omit	Big radial force
	100		R Short shaft Ø25.4,parallel key 6.35x6.35x31.75				
	125	4-3/8-16 Square-flange, pilot Ø44.4x2.8	T Cone-Shaft Ø28.56,parallel Key B5x5x14	P 1/2-14 NPTF	Opposite	B	No case drain
	160		B Shaft Ø32,parallel Key 10x8x45				
	200	4-M10 Square-flange, pilot Ø44.4x2.8	F Shaft Ø31.75, splined tooth 14-DP12/24	Manifold 4-5/16-18UNC, 7/16-20UNF	S	S	Free Running
	250		FD Long shaft Ø31.75, splined tooth 14-DP12/24				
	315	4-M10 Square-flange, pilot Ø44.4x2.8	G Shaft Ø31.75, parallel Key 7.96x7.96x31.75	R PT (Rc)1/2 Manifold 4-M8, PT (Rc)1/4	LS	S	Low Speed
	375						

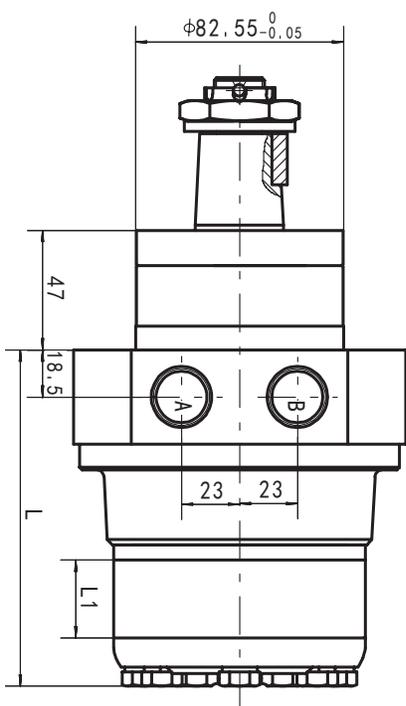
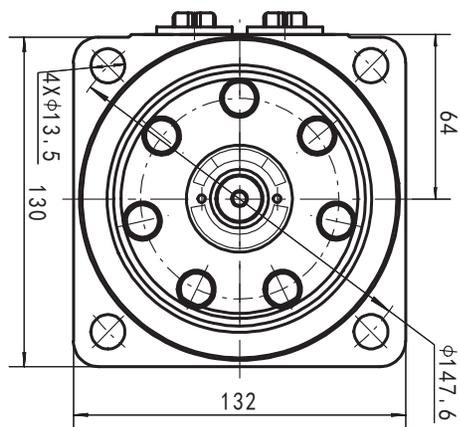
Note: The shafts of B\F\FD\G\T1\T3 are only suitable for flanges of 2 and 4.

Pos.1	2	3	4	5	6	7	8
			BMRS				
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
	36	2-Ø13.5Rhomb-flange, pilot Ø82.5x2.8	K Shaft Ø25.4, Woodruff Key Ø25.4x6.35	G G1/2, G1/4	Omit	00	Standard
	50		S Sub-shaft Ø25.4, splined tooth SAE 6B				
	80	4-Ø13.5Rhomb-flange, pilot Ø82.5x2.8	A Shaft Ø25 , parallel key 8x7x32	P (G1/4)	R	Omit	Big radial force
	100		R Shaft Ø25.4, parallel key 6.35x6.35x31.75				
	125	4-3/8-16 Square-flange, pilot Ø44.4x2.8	H Sub-shaft Ø25.4, Pin hole Ø10.3	T 3/4-16 O-ring, 7/16-20UNF	Opposite	B	No case drain
	160		H1 Shaft Ø25.4, pin hole Ø8				
	200	4-M10 Square-flange, pilot Ø44.4x2.8	D Shaft Ø22.22, parallel key 6.35x6.35x25.4	B4 Ø10 O-ring manifold 4x5/16- 18, 7/16-20UNF	R	S	Free Running
	250		I Shaft Ø22.22, splined tooth 13-DP16/32				
	315	4-M10 Square-flange, pilot Ø44.4x2.8	T2 Cone shaft Ø25.4 , woodruff key Ø25.4x6.35	M1 M18x1.5, M10x1 M2 M20x1.5, M10x1 M3 M22x1.5, M10x1	LS	S	Low Speed
	375		P Shaft Ø25,parallel Key 8x7x28				

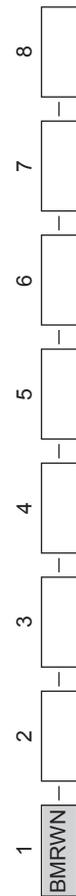
Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.



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 80 100 125 160 200 250 315 375	Omit 4-Ø13.5 Wheel Mount , Ø82.5x9.4	T1 B F FD G	D M S P	Omit Standard Opposite R	00 Omit B S	Omit Standard
			1:10Cone shaft Ø35, parallel key B6x6x20 Shaft Ø32 , parallel key 10x8x4 Shaft Ø31.75, splined key 14-DP12/2 Long Shaft Ø31.75, splined key14-DP12/24 Shaft Ø31.75, parallel key 7.96x7.96x31.75	G1/2, G1/4 M22x1.5, M14x1.5 7/8-14 O-ring, 7/16-20UNF 1/2-14NPTF, 7/16-20UNF	No paint Blue Black Silver grey		

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.

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.

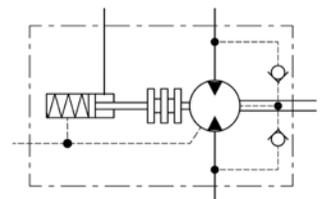
*Continuous pressure:Max. value of operating motor continuously.

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

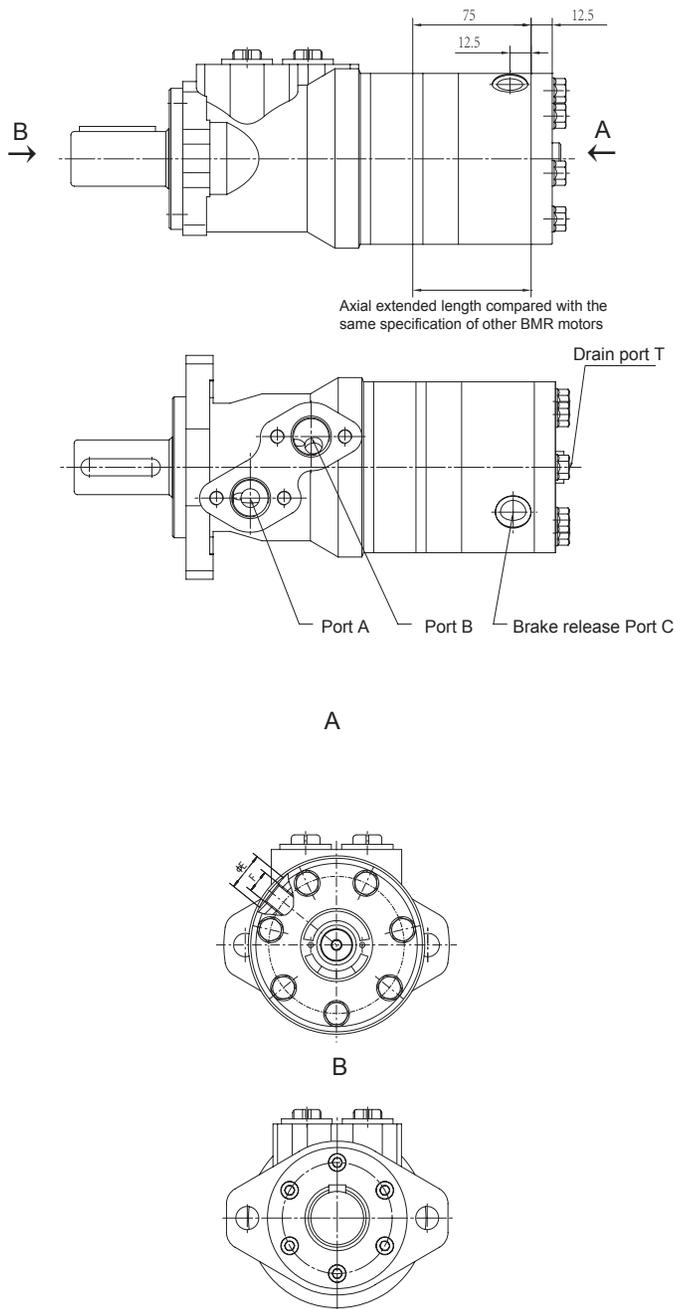
*Peak pressure:Max. value of operating motor in 0.6 second per minute.

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

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



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

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

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 B1FVDG1T1T3 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 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 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

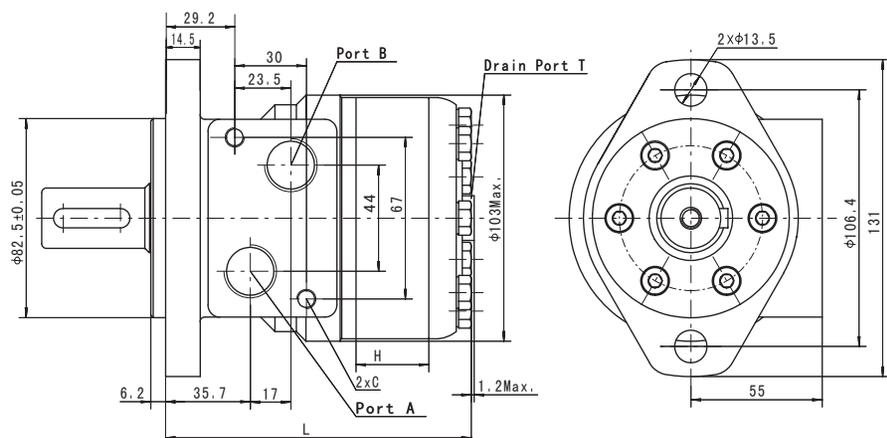
Main Specification

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

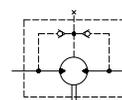
Code	Displacement [cm/rev]	Max.Speed [rpm]	Max.Torque [Nm]		Max.output [kW]		Max.pressure [MPa]		Max.Oil Flow[L/min]
		cont.	cont.	int.	cont.	int.	cont.	int.	cont.
OK 36	36	1111	66	83	9	10.4	14	17.5	40
OK 50	51.7	780	100	129	9	10.4	14	17.5	40
OK 80	81.5	744	158	196	10.4	12.6	14	17.5	60
OK 100	102	595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

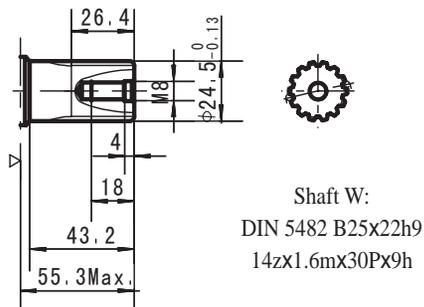
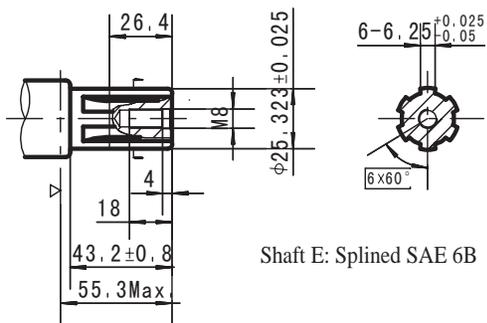
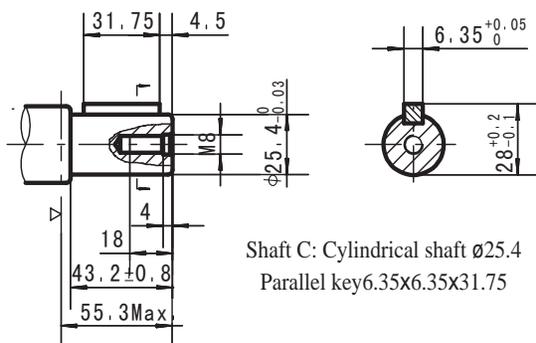
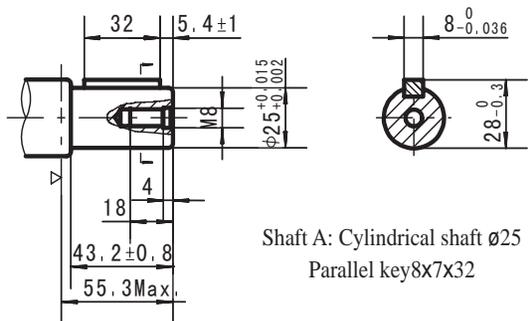


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)



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



▷ Motor Mounting Surface

Order Information

OK	1	2	3	4	5	6	7	8
Pos.1	2	3	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- $\varnothing 13.5$ Rhomb-flange, pilot $\varnothing 82.5 \times 6.2$	A Shaft $\varnothing 25$, parallel key 8x7x32 C Shaft $\varnothing 25.4$, parallel key 6.35x6.35x31.75 E Shaft $\varnothing 25.4$, splined key SEA 6B W Shaft $\varnothing 24.5$, splined B25X22 T Cone shaft $\varnothing 28.56$, parallel key B5x5x14	D G1/2 Manifold 4xM8, G1/4 M M22x1.5 Manifold 4xM8, M14x1.5 S 7/8-14 O-ring manifold P 4x5/16-18UNC, 7/16-20UNF R 1/2-14NPTF manifold PT 4x5/16-18UNC, 7/16-20UNF PT(Rc) 1/2 manifold 4xM8, P.T(Rc)1/4	Omit Standard Opposite	OO Omit B S	Omit F O	Standard Free Running No case drain



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 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 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 cylindrical, 1¹/₄ in splined and 35mm tapered shaft.

Performance Data

BMH 200 [203.2cm³/rev.]

Pressure (MPa)						Max.cont.	Max.int.
3.5	7	10.5	14	17.5	20		

Flow (L/min)	Pressure (MPa)						
	3.5	7	10.5	14	17.5	20	
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.	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.	39 439	140 437	241 434	348 426	456 407	526 392	

BMH 250 [255.9cm³/rev.]

Pressure (MPa)							Max.cont.	Max.int.
3.5	7	9	12	14.5	17.5	20		

Flow (L/min)	Pressure (MPa)							
	3.5	7	9	12	14.5	17.5	20	
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.	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.	49 348	178 347	256 345	355 337	453 325	552 309	634 292	

BMH 315 [316.1cm³/rev.]

Pressure (MPa)							Max.cont.	Max.int.
3.5	7.5	10	13.5	15.5	17.5	20		

Flow (L/min)	Pressure (MPa)							
	3.5	7.5	10	13.5	15.5	17.5	20	
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.	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.	62 282	256 280	386 275	496 266	593 248	669 234	767 209	

BMH 400 [406.4cm³/rev.]

Pressure (MPa)						Max.cont.	Max.int.
3.5	6	10.5	12.5	15.5	19		

Flow (L/min)	Pressure (MPa)						
	3.5	6	10.5	12.5	15.5	19	
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.	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.	90 220	256 220	433 215	595 202	767 183	881 165	

Torque (N·m) 593
Speed (rpm) 248

cont.
int.

Performance Data

BMH 500 [489.2cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

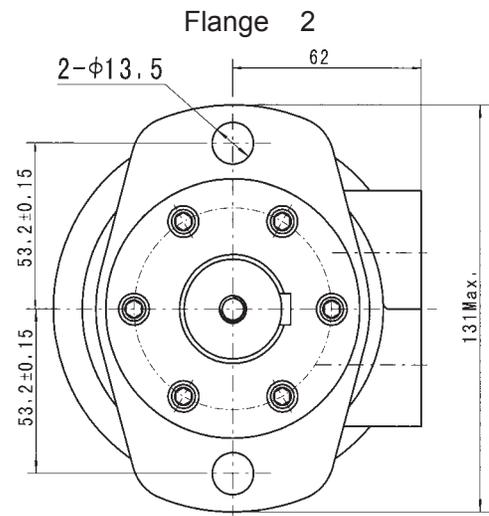
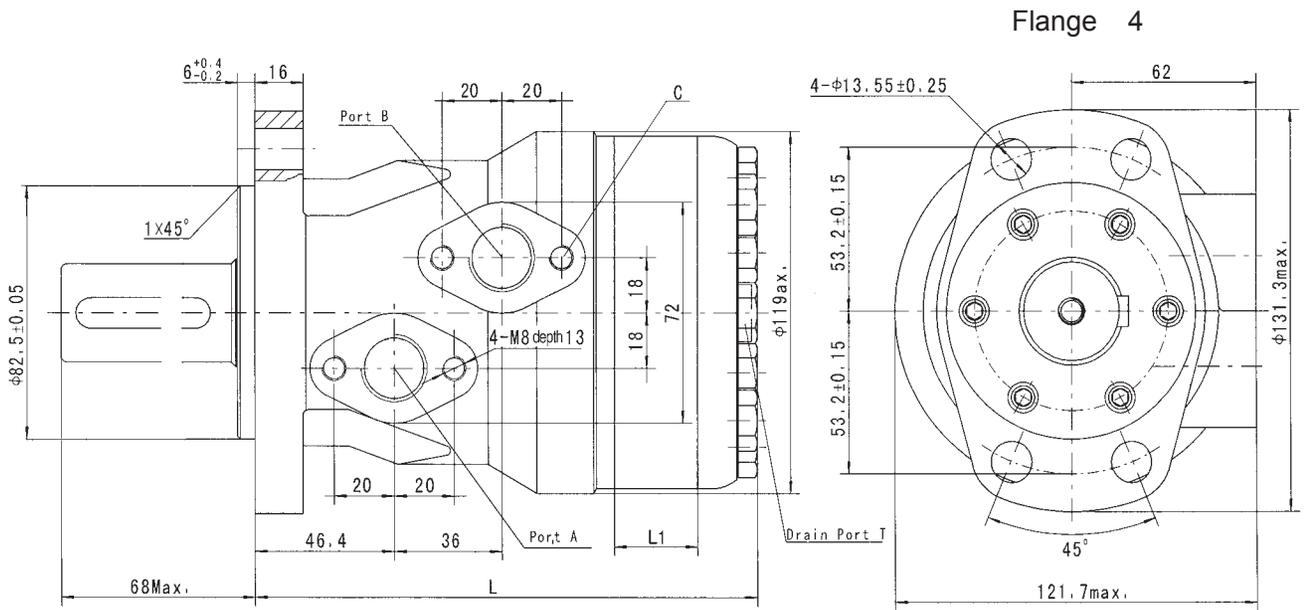
2.5	5	8.5	10	12.5	16
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Flow (L/min)	5	165 11	317 11	516 8				
	10	178 20	335 19	555 17	669 15	791 13	969 9	
	20	177 42	331 42	559 41	673 38	799 36	988 29	
	30	172 64	320 63	553 61	663 57	792 53	983 47	
	40	163 85	309 85	541 83	654 79	783 75	971 67	
	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	
	Max.cont.	75	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
Max.int.	80	34 184	201 183	421 182	550 177	673 166	869 155	
	90							

□ cont.
■ int.

Torque (N·m) **673**
Speed (rpm) **166**

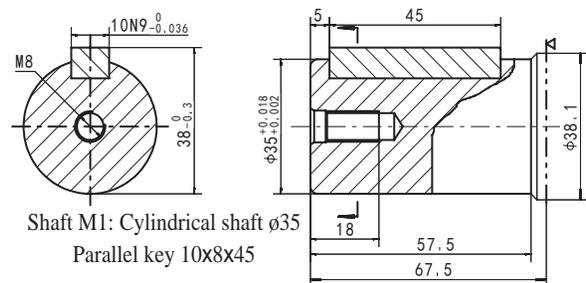
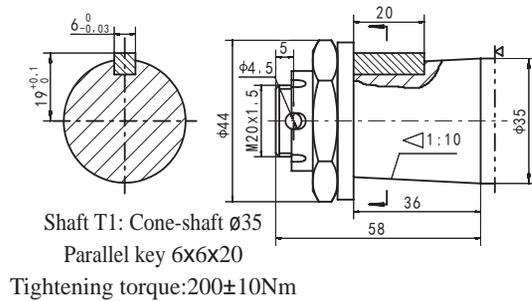
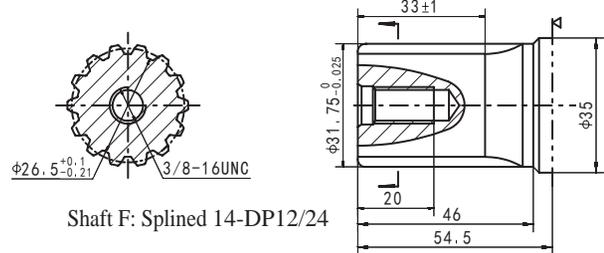
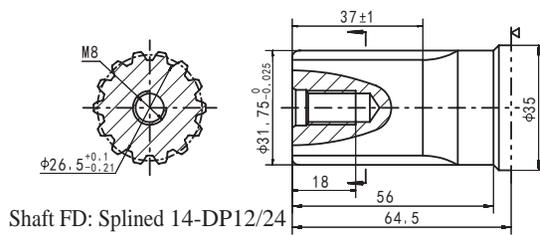
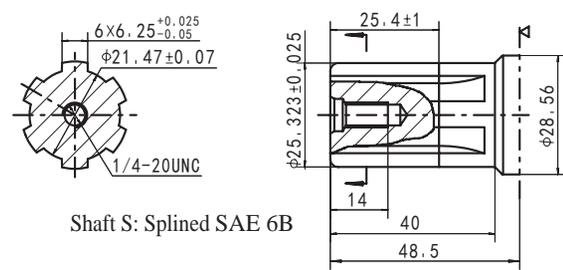
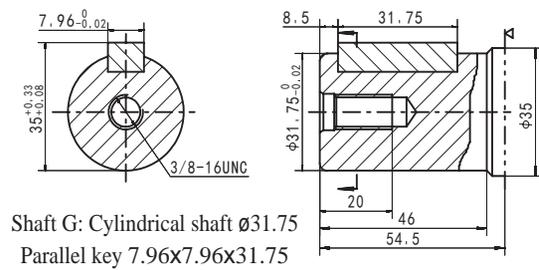
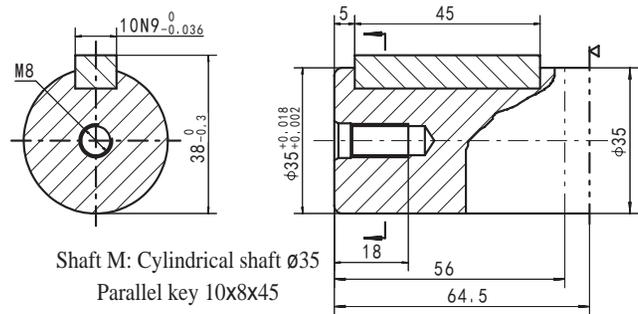
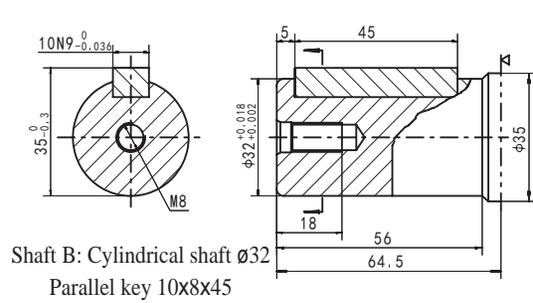
BMH DIMENSIONS AND MOUNTING DATA



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

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

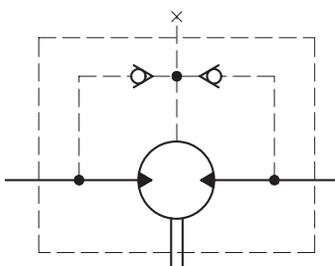
BMH SHAFT EXTENSIONS DIMINSIONS DATA



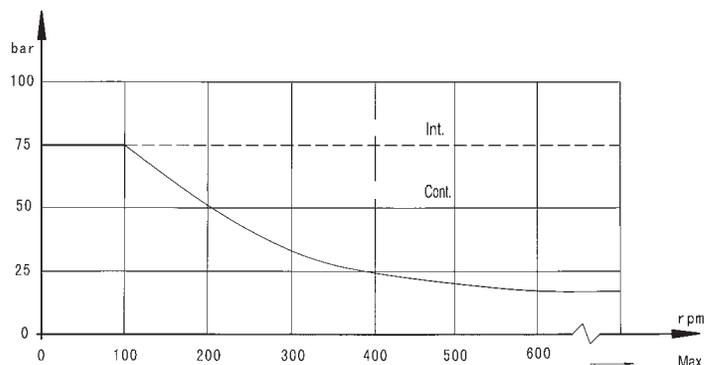
▷ Motor Mounting Surface

BMH series Hydraulic Motor

Permissible shaft seal pressure



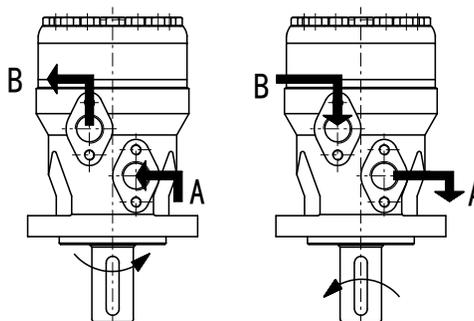
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.



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.

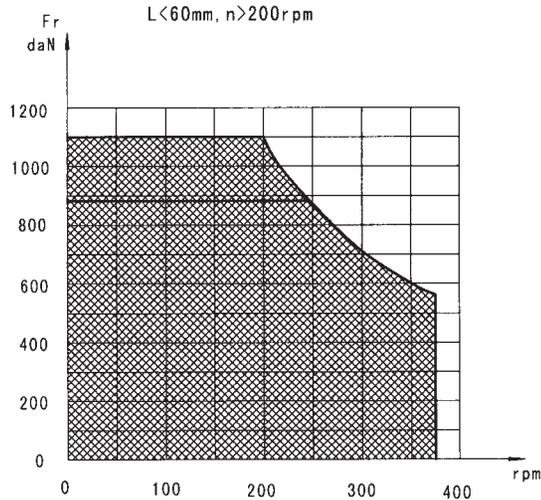
BMH



Status of the shaft's radial force

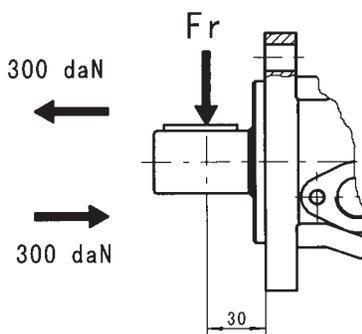
$$F_r = \frac{1100}{n} \times \frac{25000}{103.5+L} \text{ daN}$$

$L < 60\text{mm}, n > 200\text{rpm}$



— shaft $\phi 1"$ ($\phi 25.4\text{mm}$) and shaft SAE 6B

The drawing is the Possible load when $L=30\text{mm}$.



F_r =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 (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



Pos.1	2	3	4	5	6	7	8
Code	Flange		Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
160	4	4xØ13.5 Rhombxflange	B Shaft Ø32 , parallel key 10x8x45	D G1/2 Manifold mount 4xM8, G1/4	Omit Standard	No paint	Standard
200			M1 Shaft Ø35, parallel key 10x8x45				
250	2	Pilot Ø82.5x6	F Shaft Ø31.75, splined key 14-DP12/24	S M14x1.5	Omit	Blue	Free
315			FD Long Shaft Ø31.75, splined key 14-DP12/24	S 7/8-14 O-ring Manifold mount 4x5/16-18UNC,7/16-20UNF	B	Black	Running
400	2	Pilot Ø13.5 Rhombxflange	G Shaft Ø31.75 , parallel key 7.96x7.96x31.75	P 1/2-14 NPTF Manifold mount	R	Silver grey	Low Speed
470			Pilot Ø82.5x6	T1 Cone shaft Ø35, parallel key B6x6x20	R 4x5/16-18UNC,7/16-20UNF	S	Big radial force
500			S Shaft Ø25.4 , parallel key SAE 6B	R PT(Rc) 1/2 Manifold mount			
			M Shaft Ø35, Parallel key 10x8x45	R 4xM8,PT(Rc)1/4			

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.



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 feautres:

- * 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)

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

BMSY100 [100.8cm³/rev.]

Pressure (MPa)

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

BMSY125 [125cm³/rev.]

Pressure (MPa)

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

BMSY160 [154cm³/rev.]

Pressure (MPa)

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

TORQUE(N·m) 301
SPEED (r/min) 646

□ cont.
■ int.

Performance Data

BMSY200 [194cm³/rev.]

		Pressure (MPa)						Max.cont. Max.int.		
		3.5	7	10.5	14	17.5	21	22.5		
Flow (L/min)	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)						Max.cont. Max.int.		
		3.5	7	10.5	14	17.5	20	22.5		
Flow (L/min)	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)						Max.cont. Max.int.		
		3.5	7	10.5	14	17.5	20	22.5		
Flow (L/min)	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)						Max.cont. Max.int.	
		3.5	7	10.5	14	16	17.5		
Flow (L/min)	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		

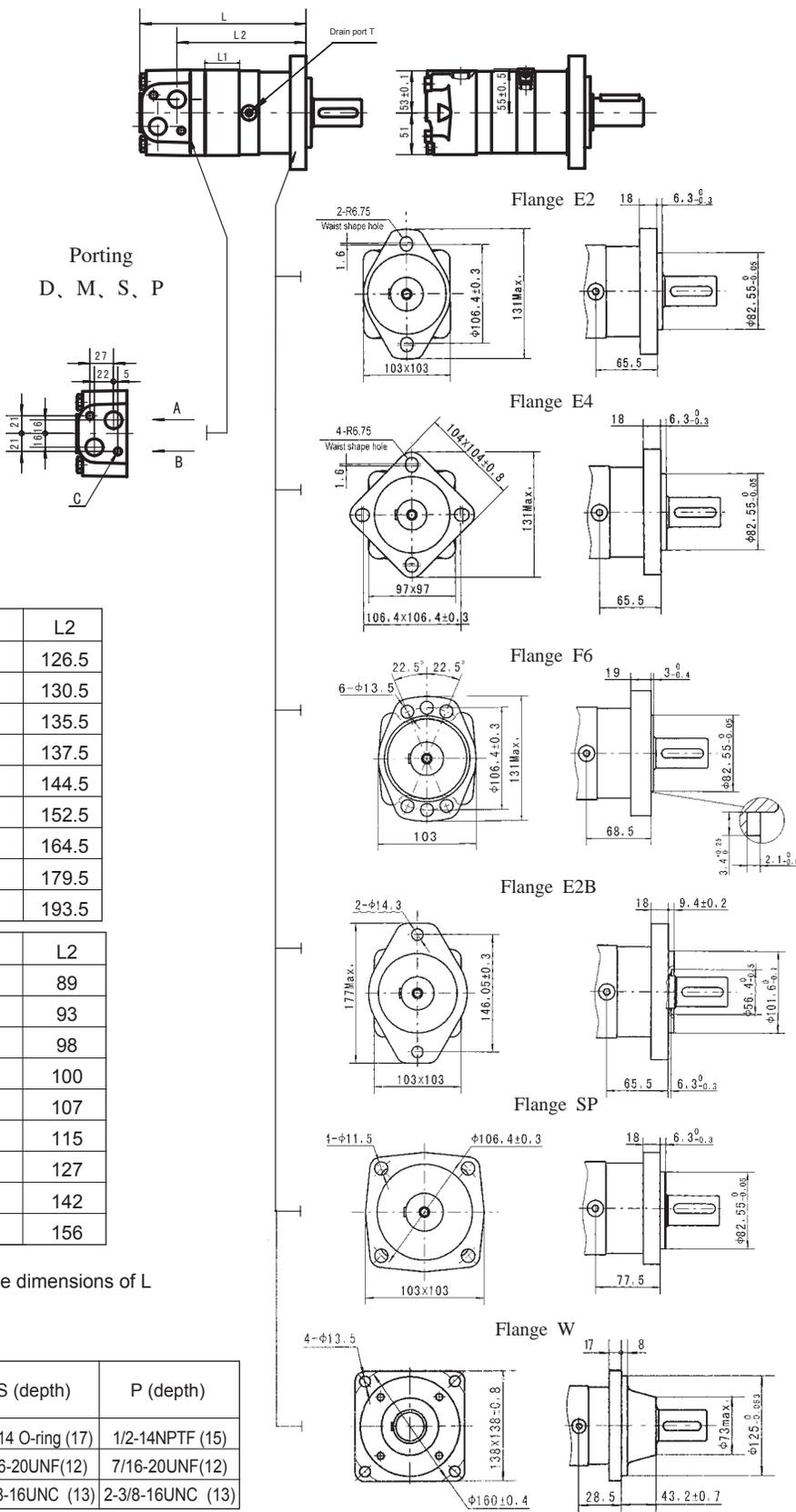
TORQUE (N·m) 766
SPEED (rpm) 208

BMSY475 [475cm³/rev.]

		Pressure (MPa)					Max.cont. Max.int.	
		3.5	7	10.5	14	15		
Flow (L/min)	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



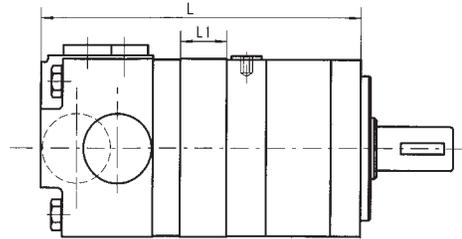
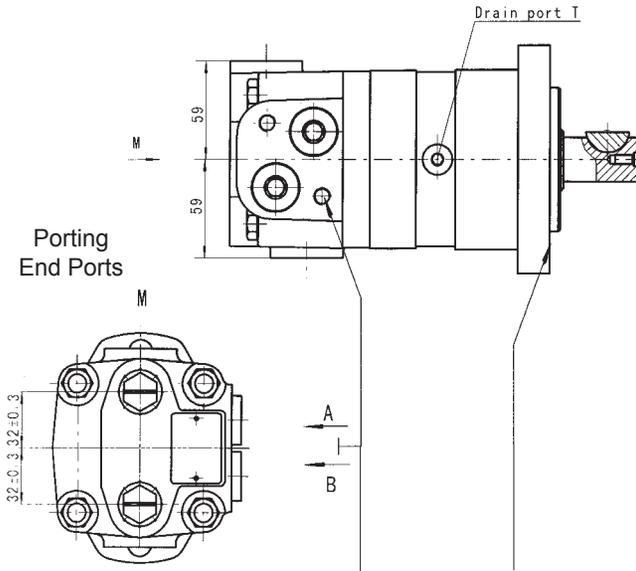
Model	L	L1	L2
BMSY-80	170	16	126.5
BMSY-100	174	20	130.5
BMSY-125	179	25	135.5
BMSY-160	181	27	137.5
BMSY-200	188	34	144.5
BMSY-250	196	42	152.5
BMSY-315	208	54	164.5
BMSY-400	223	69	179.5
BMSY-475	237	83	193.5

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)

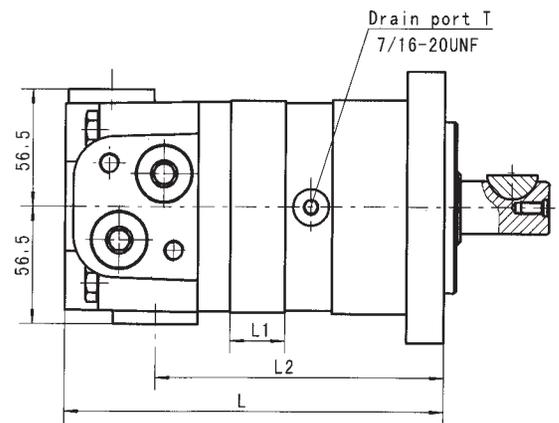
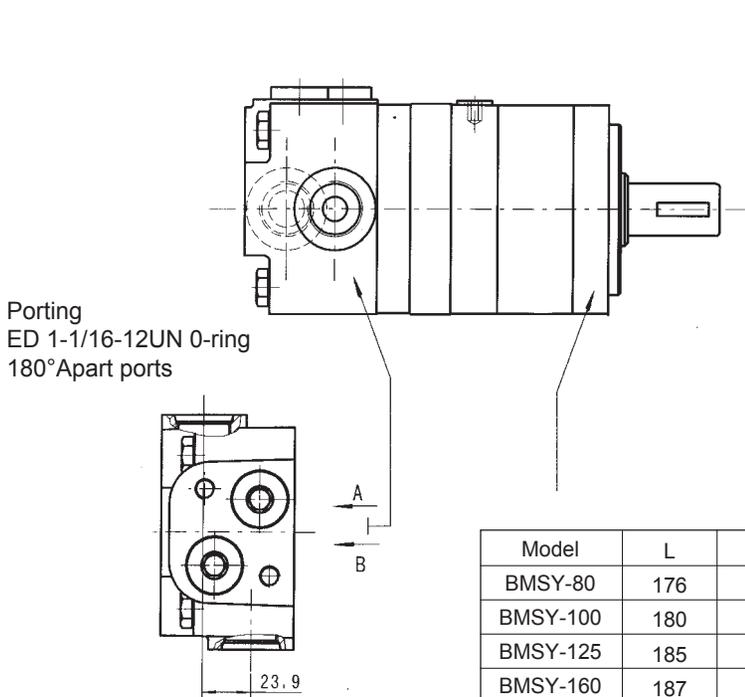
BMSY DIMENSIONS AND MOUNTING DATA



End Ports P(A/B)

Model	L	L1	Model	L	L1
BMSY-80	176	16	BMSY-80-WE	148	16
BMSY-100	180	20	BMSY-100-WE	152	20
BMSY-125	185	25	BMSY-125-WE	157	25
BMSY-160	187	27	BMSY-160-WE	159	27
BMSY-200	194	34	BMSY-200-WE	166	34
BMSY-250	202	42	BMSY-250-WE	174	42
BMSY-315	214	54	BMSY-315-WE	186	54
BMSY-400	229	69	BMSY-400-WE	201	69
BMSY-475	243	83	BMSY-475-WE	215	83

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)

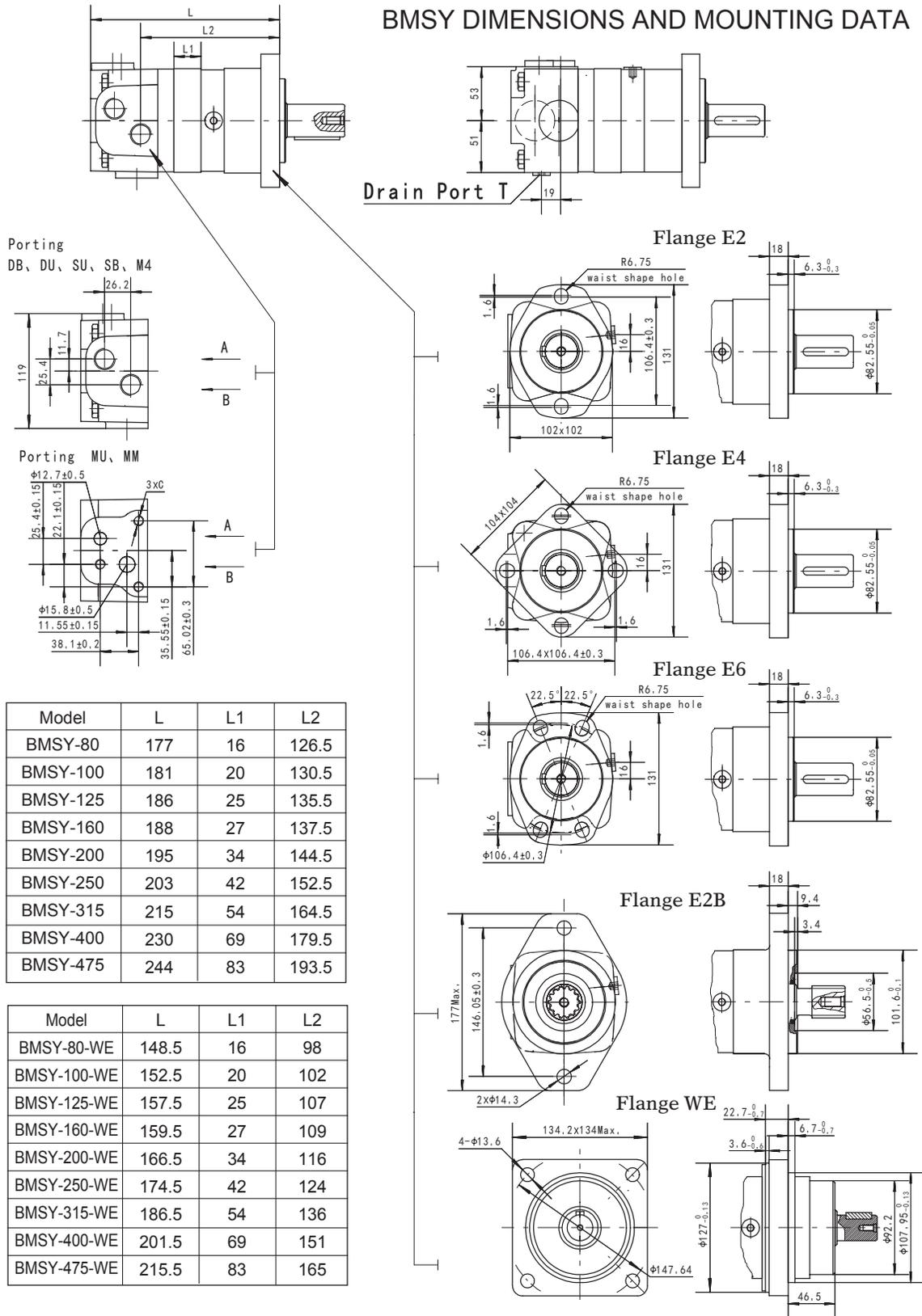


Code	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

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

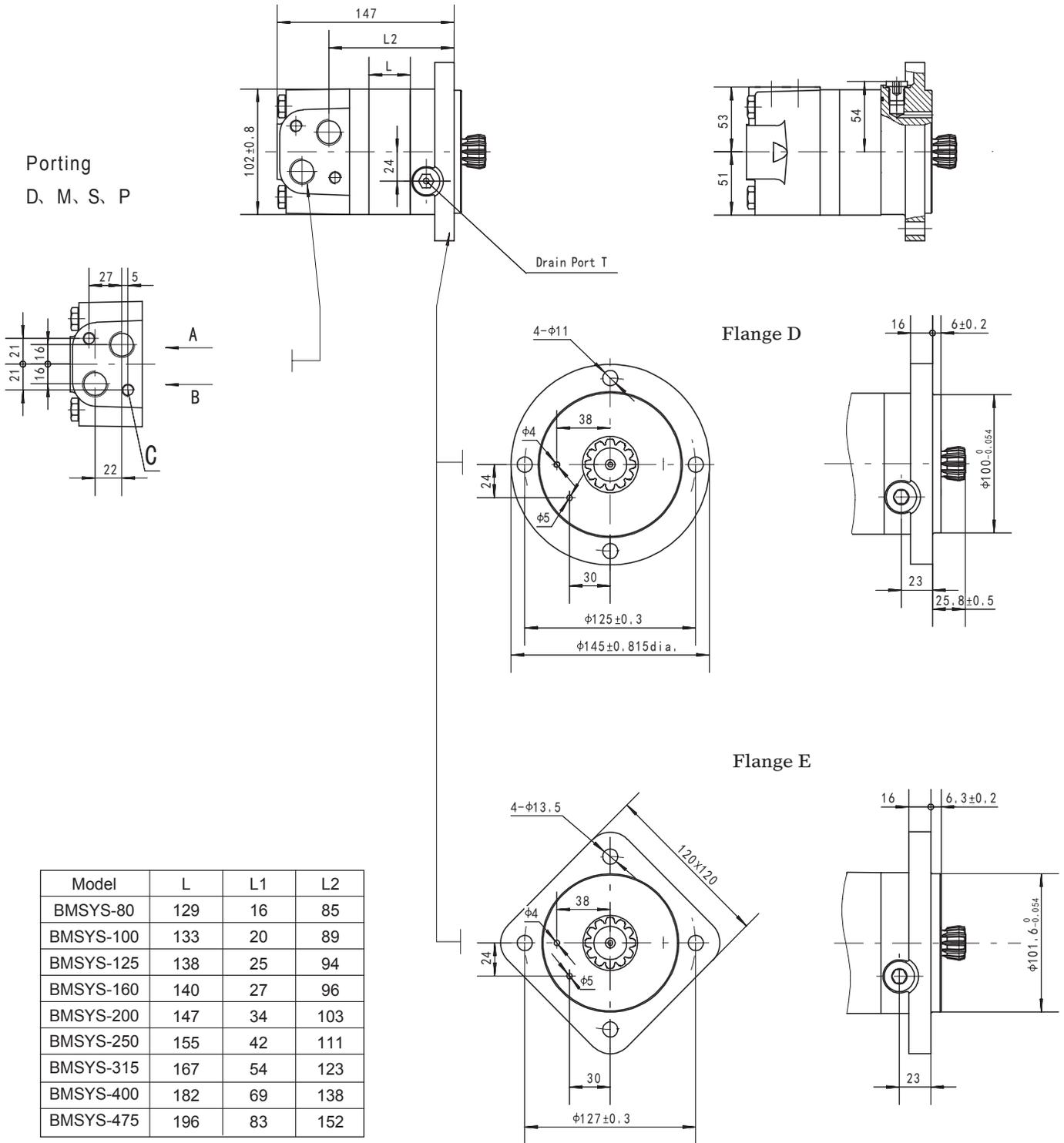


Model	L	L1	L2
BMSY-80	177	16	126.5
BMSY-100	181	20	130.5
BMSY-125	186	25	135.5
BMSY-160	188	27	137.5
BMSY-200	195	34	144.5
BMSY-250	203	42	152.5
BMSY-315	215	54	164.5
BMSY-400	230	69	179.5
BMSY-475	244	83	193.5

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

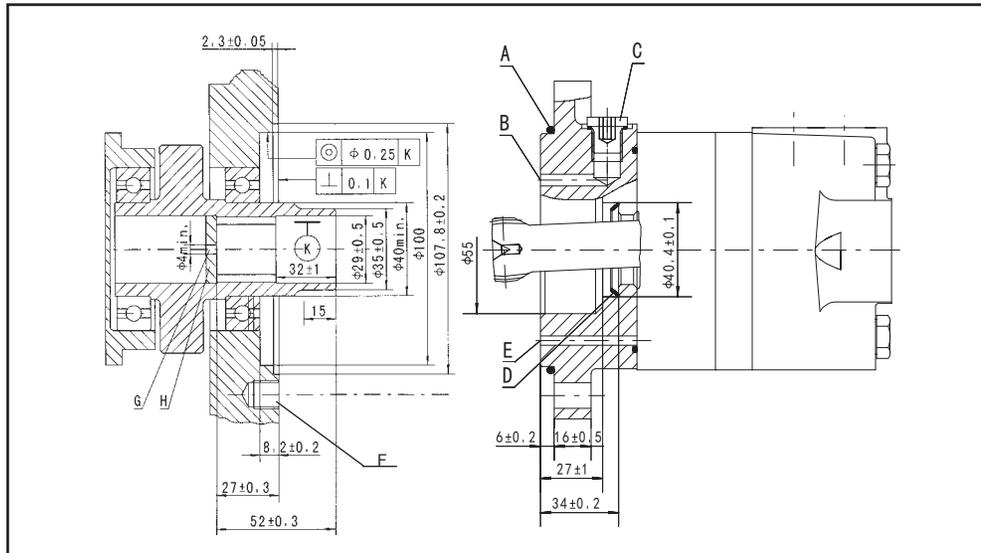
Code	DB(depth)	DU (depth)	SU (depth)	SB (depth)	M4 (depth)	MU	MM
P(A,B)	G1/2(15)	G1/2(15)	7/8-14O-ring(17)	7/8-14O-ring(17)	M22x1.5(15)	Φ12.7,Φ15.8	Φ12.7,Φ15.8
T	G1/4(12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	G1/4(12)
C						3/8-16UNC	M10

BMSYS DIMENSIONS AND MOUNTING DATA



Code	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)

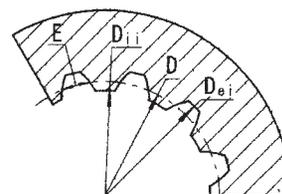
BMSYS DIMENSIONS AND MOUNTING DATA



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

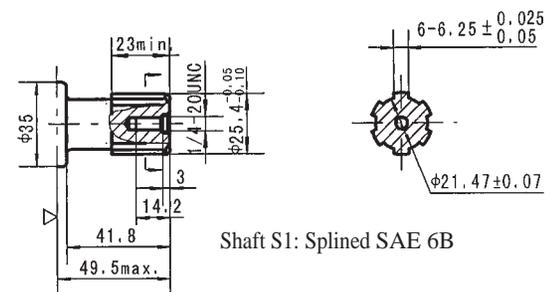
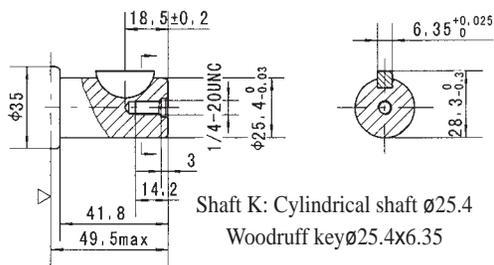
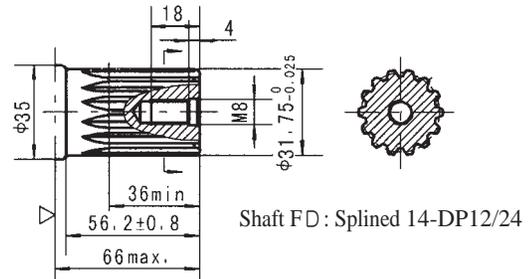
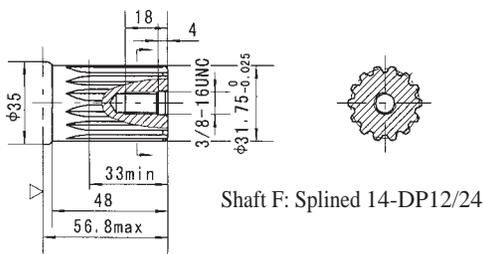
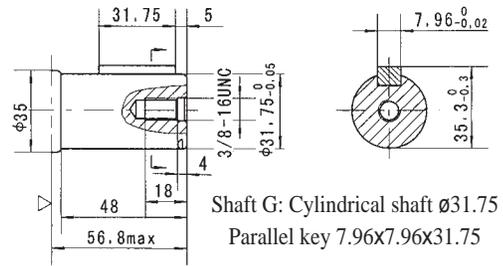
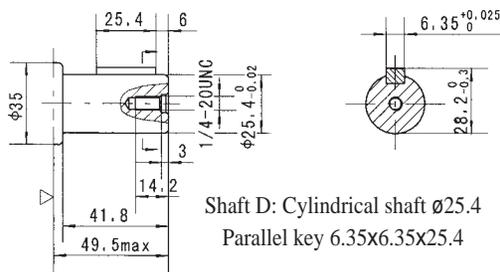
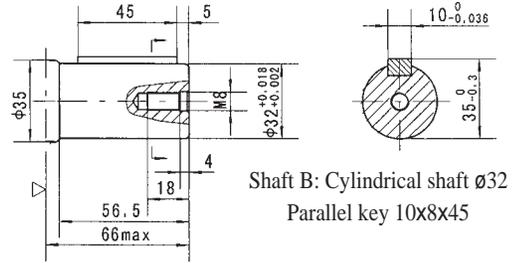
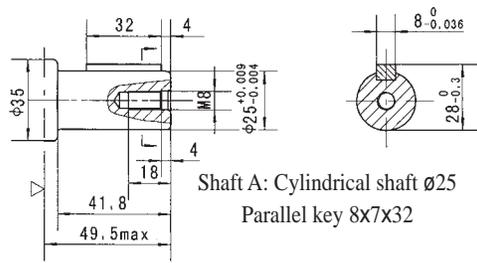
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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



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

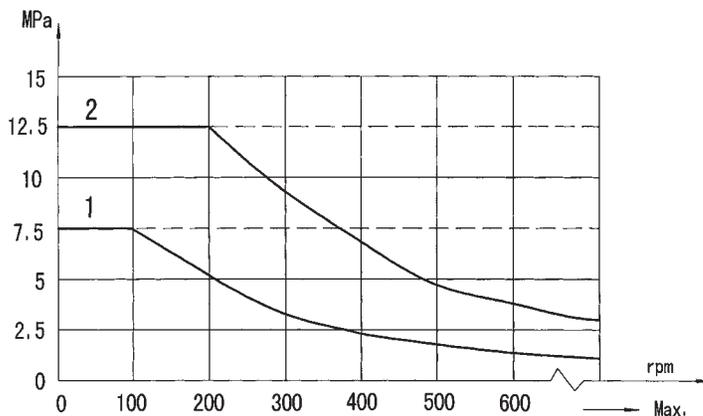
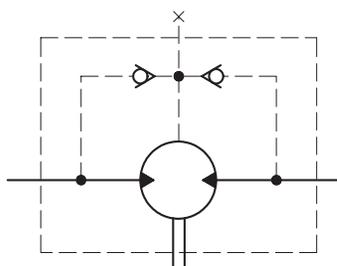
SHAFT EXTENSIONS FOR BMSY MOTORS



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

BMSY Series Hydraulic Motor

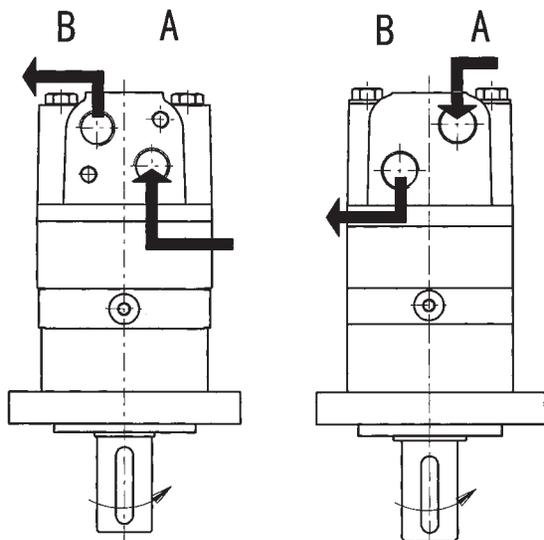
Permissible shaft seal pressure



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.



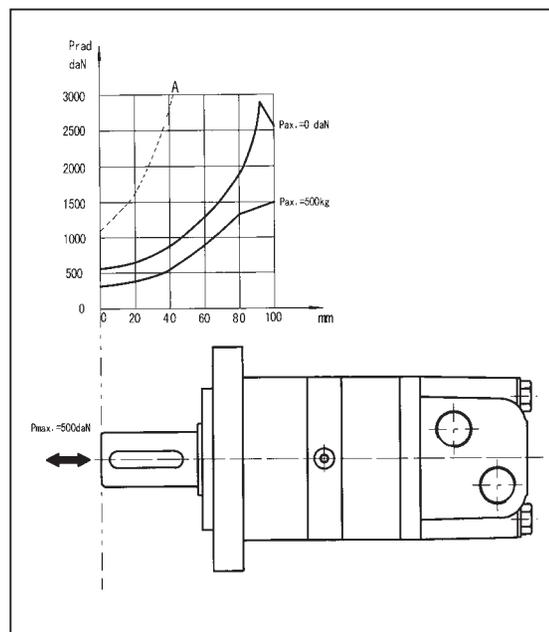
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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.



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 distribution 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)

Max.cont. Max.int.

	4	8	10	12	16	20	24
--	---	---	----	----	----	----	----

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

BMT 200 [201.4cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	4	8	10	12	16	20	24
--	---	---	----	----	----	----	----

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

BMT 250 [251.8cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	4	8	10	12	16	20	24
--	---	---	----	----	----	----	----

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

BMT 315 [326.3cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	4	8	10	12	16	20	24
--	---	---	----	----	----	----	----

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

Torque (N·m) 552
Speed (rpm) 572

Performance Data

BMT 400 [410.9cm³/rev.]

Pressure (MPa)

	Max.cont.				Max.int.		
	3	6	9	12	15	18	21

Flow (L/min)	Pressure (MPa)						
	3	6	9	12	15	18	21
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
Max.cont. 125	135 302	309 300	524 298	688 294	873 289	1045 285	1221 278
Max.int. 150	126 364	292 362	508 358	666 354	852 350	1020 346	1197 339

BMT 500 [523.6cm³/rev.]

Pressure (MPa)

	Max.cont.				Max.int.			
	3	6	9	12	14	16	18	

Flow (L/min)	Pressure (MPa)							
	3	6	9	12	14	16	18	
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	
Max.cont. 125	182 237	398 236	641 235	877 233	1024 231	1199 229	1352 225	
Max.int. 150	147 284	369 283	618 282	853 280	1004 278	1167 276	1325 272	

BMT 630 [629.1cm³/rev.]

Pressure (MPa)

	Max.cont.				Max.int.		
	3	6	9	10.5	12	14	16

Flow (L/min)	Pressure (MPa)						
	3	6	9	10.5	12	14	16
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
Max.cont. 125	201 196	499 196	810 194	931 192	1137 191	1292 187	1472 183
Max.int. 150	174 233	492 232	785 231	921 230	1121 227	1277 223	1454 217

BMT 800 [801.8cm³/rev.]

Pressure (MPa)

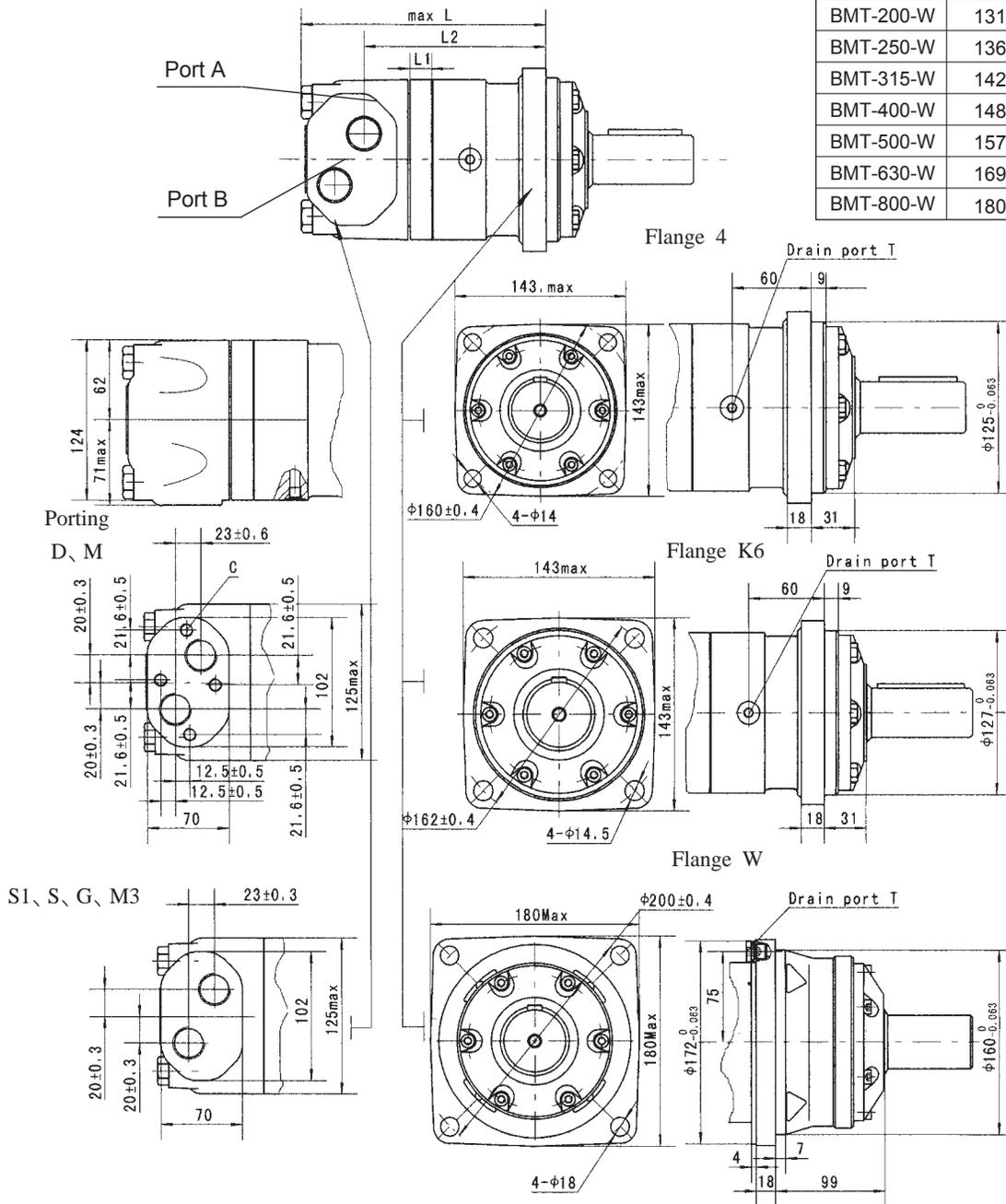
	Max.cont.				Max.int.		
	3	6	9	10.5	12.5	13	

Flow (L/min)	Pressure (MPa)						
	3	6	9	10.5	12.5	13	
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	
Max.cont. 125	280 154	622 153	989 153	1181 150	1422 149	1487 140	
Max.int. 150	247 185	590 184	953 183	1156 181	1406 179	1476 172	

Torque (N·m) 1121
Speed (rpm) 227

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

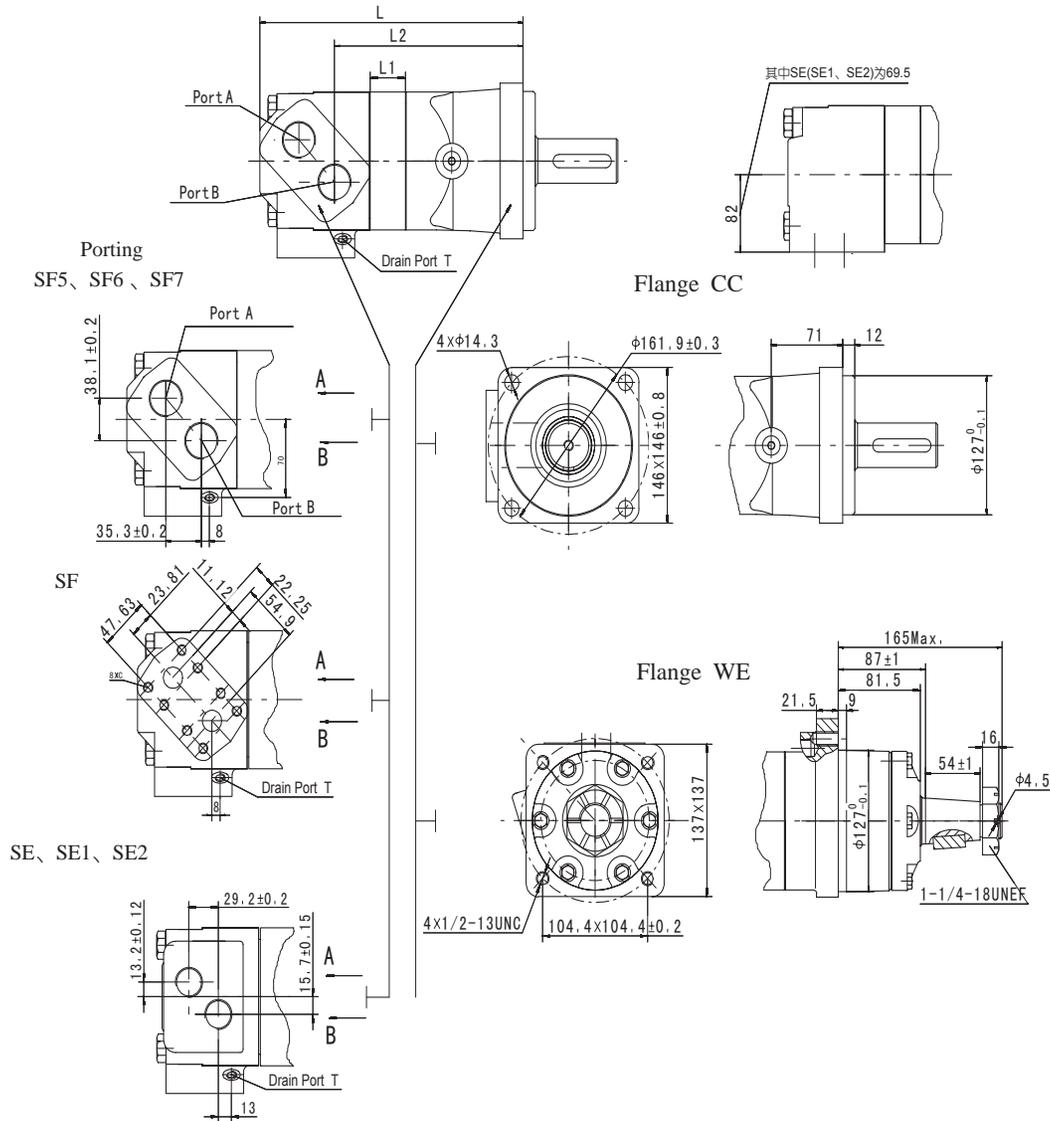


Model	L	L1	L2
BMT160	193	17	142.5
BMT200	197	21	146.5
BMT250	204	14	152.5
BMT315	210	20	158.5
BMT400	217	27	165.5
BMT500	225	35	173.5
BMT630	237	47	185.5
BMT800	248	58	196.5

Content	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

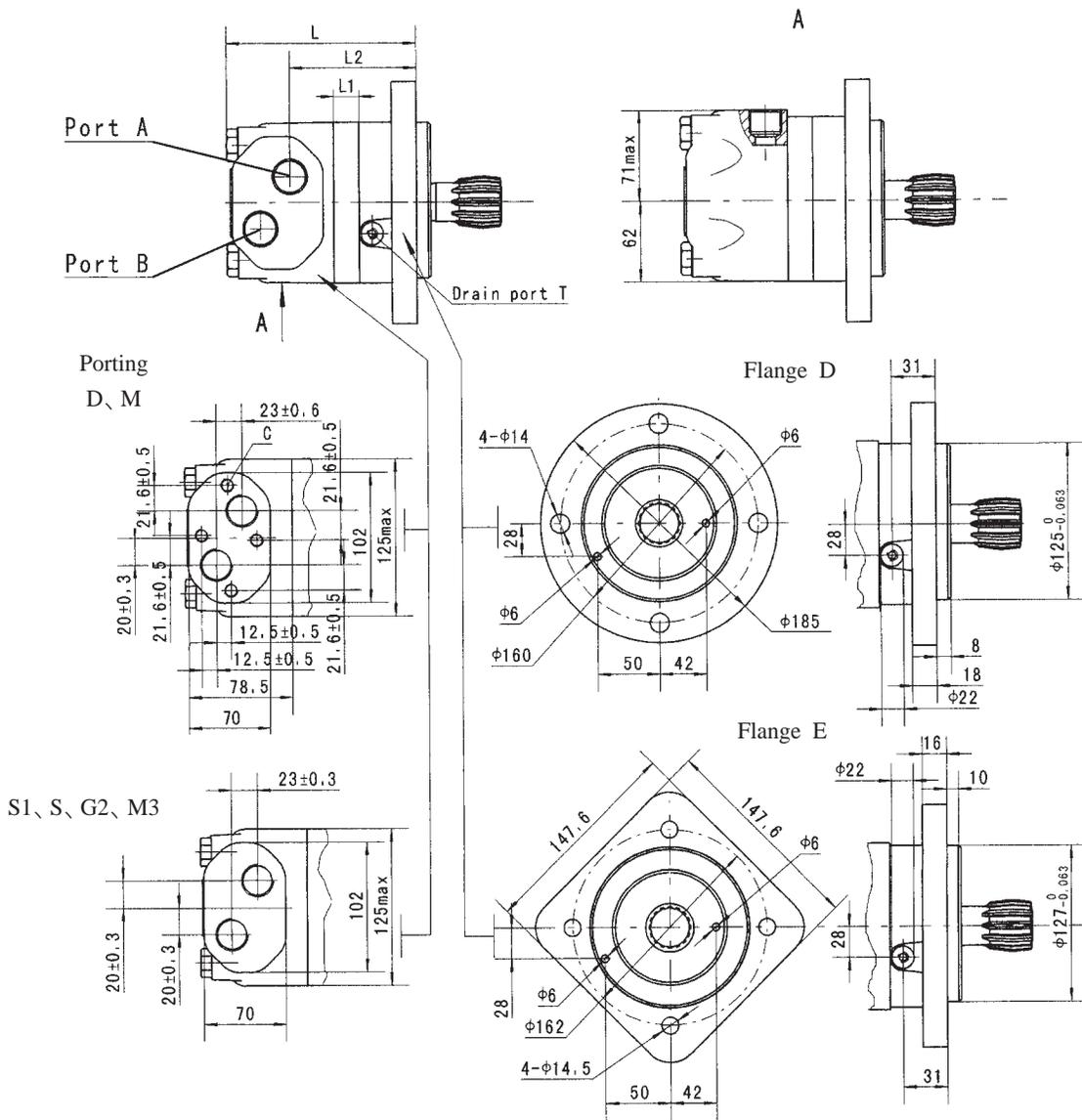


Model	L	L1	L2
BMTE230	238.5	12	164.5
BMTE250	240.5	14	166.5
BMTE315	246.5	20	172.5
BMTE400	253.5	27	179.5
BMTE500	261.5	35	187.5
BMTE630	273.5	47	199.5
BMTE800	284.5	58	210.5

Note: 1) The data for the port of SF (SF5 and SF6 and 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	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

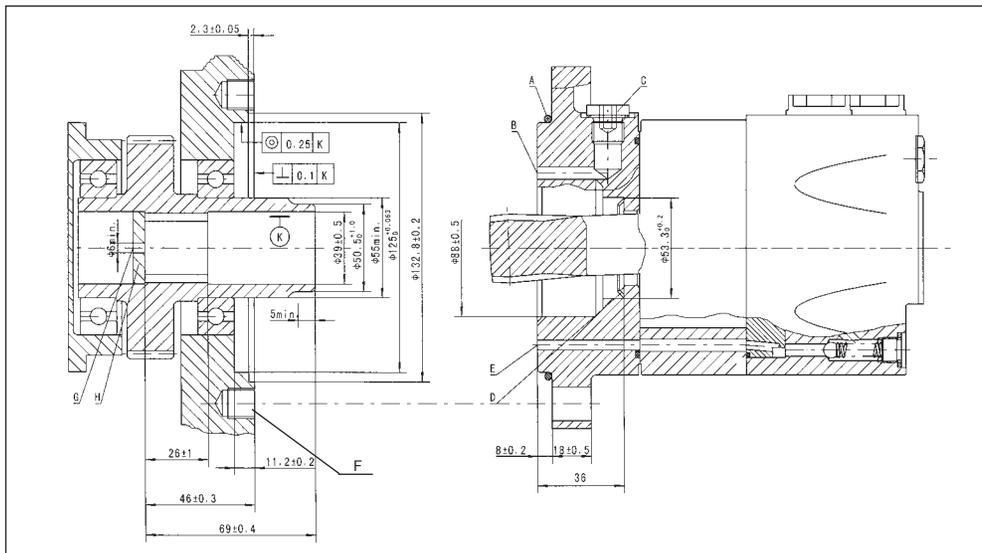


Model	L	L1	L2
BMT160	148	17	96.5
BMT200	152	21	100.5
BMT250	157	14	109
BMT315	163	20	115
BMT400	170	27	122
BMT500	178	35	130
BMT630	190	47	142
BMT800	201	58	153

Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
Mounting 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.

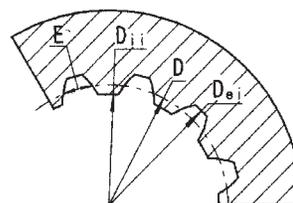
BMTS MOUNTING DATA



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

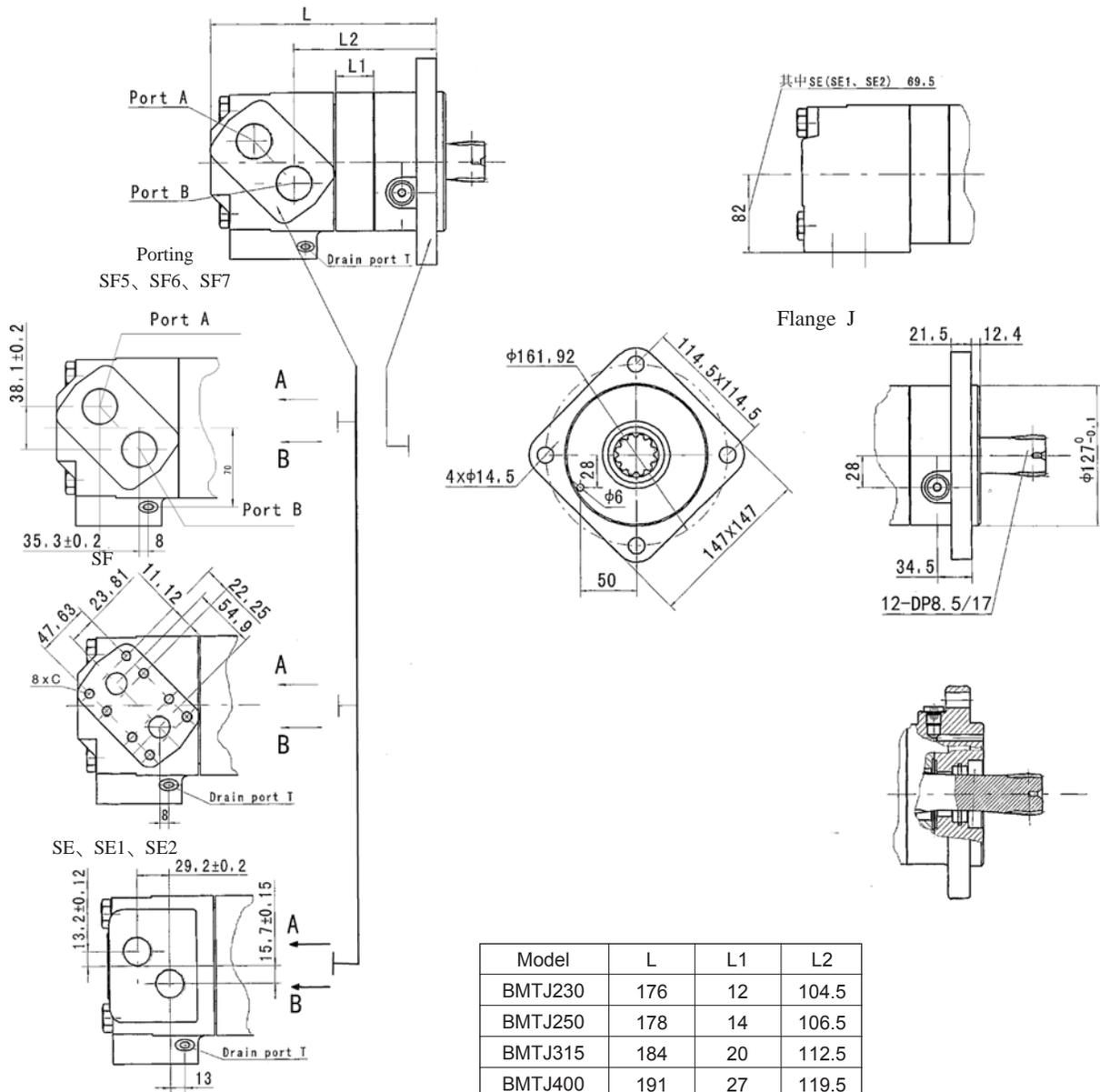
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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



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

BMTJ DIMENSIONS AND MOUNTING DATA

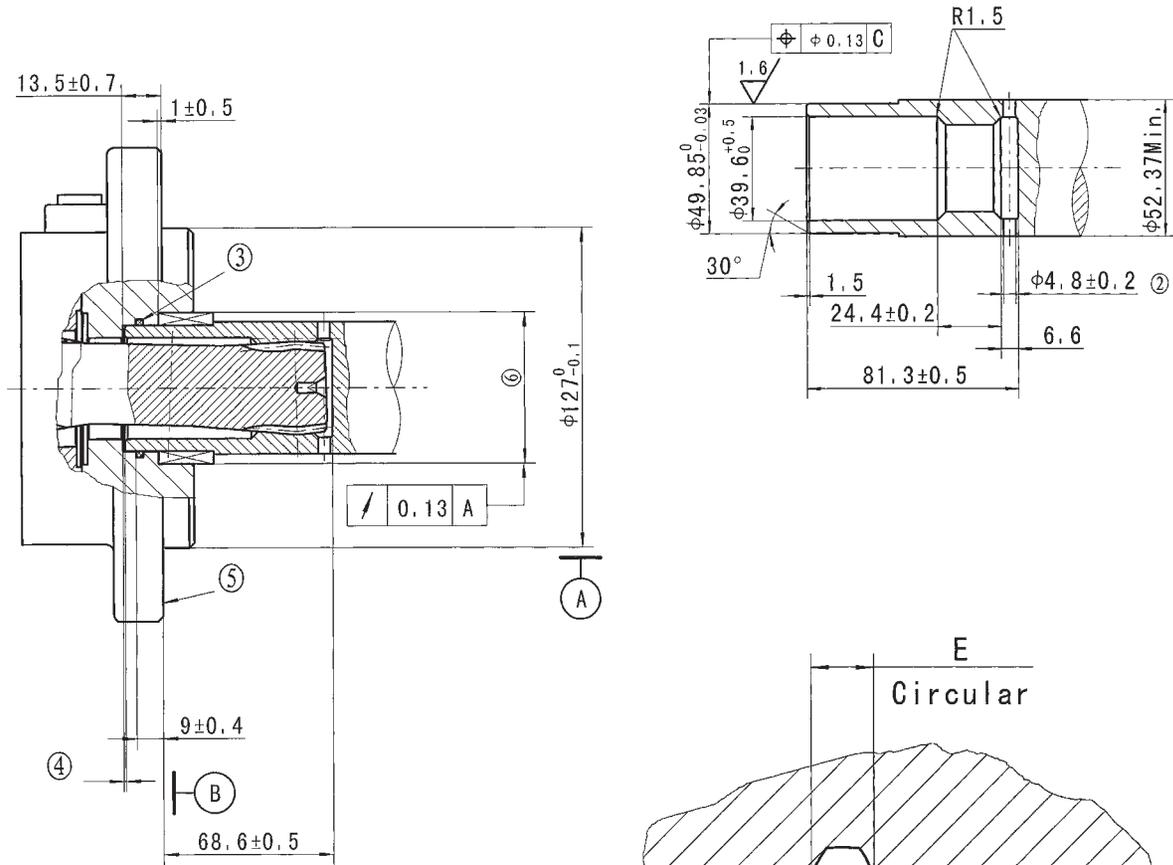


Model	L	L1	L2
BMTJ230	176	12	104.5
BMTJ250	178	14	106.5
BMTJ315	184	20	112.5
BMTJ400	191	27	119.5
BMTJ500	199	35	127.5
BMTJ630	211	47	139.5
BMTJ800	222	58	150.5

Note: 1) The data for the port of SF (SF5 and SF6 and 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 is the dimension of L1 adding on 7mm.

Content	Code						
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF (depth)	SE (depth)	SE1 (depth)	SE2 (depth)
Mounting							
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

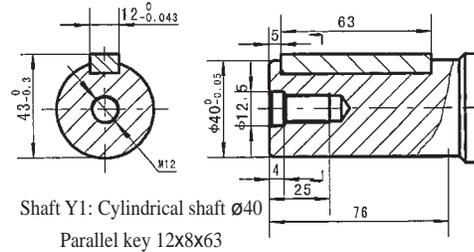
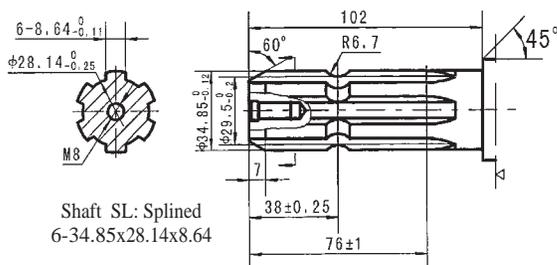
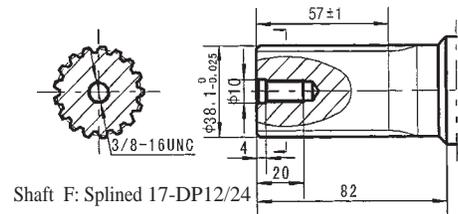
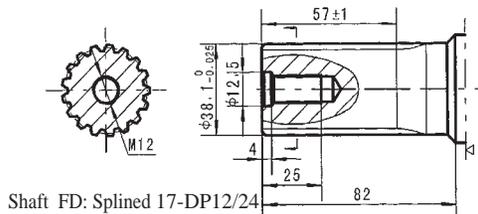
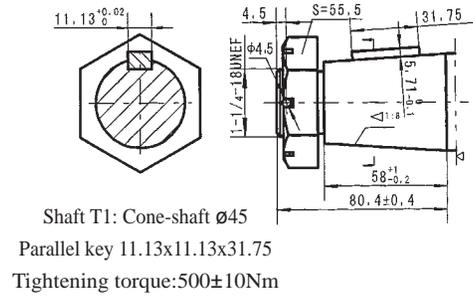
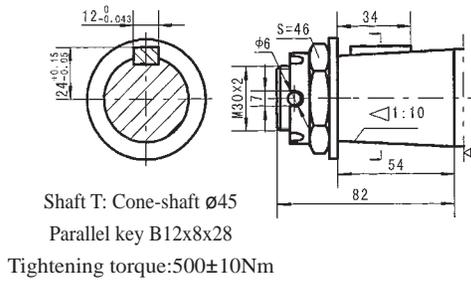
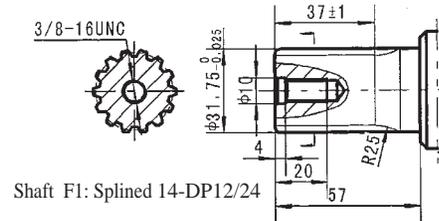
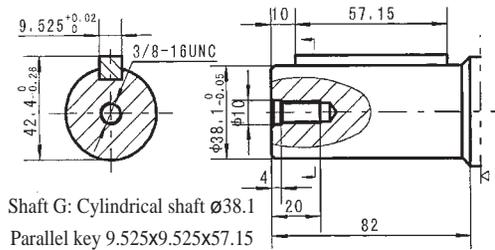
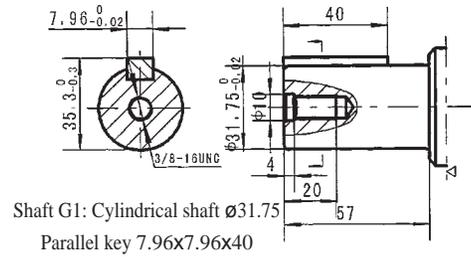
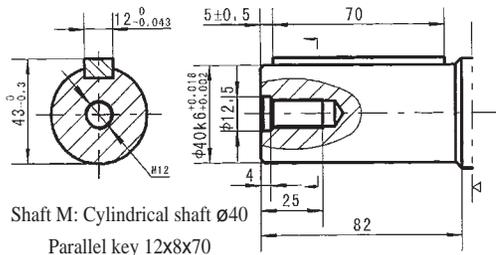


INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_D	$\phi 35.858823$
Major Dia.	D_{ei}	$\phi 38.97_0^{+0.20}$
Minor Dia.	D_{ii}	$\phi 33.3_0^{+0.18}$
Space Width [Circular]	E	5.866 ± 0.032
Dimension between two pins($\phi 4$)	M_e	$26.929-27.084$

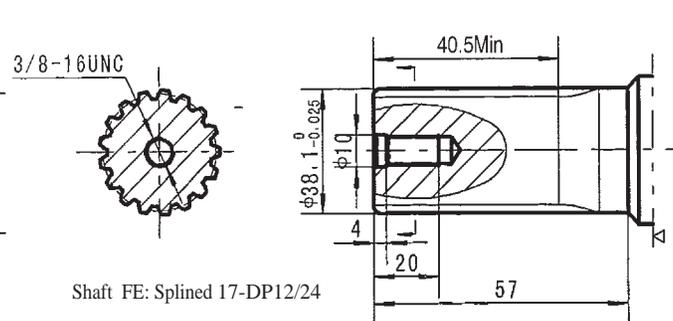
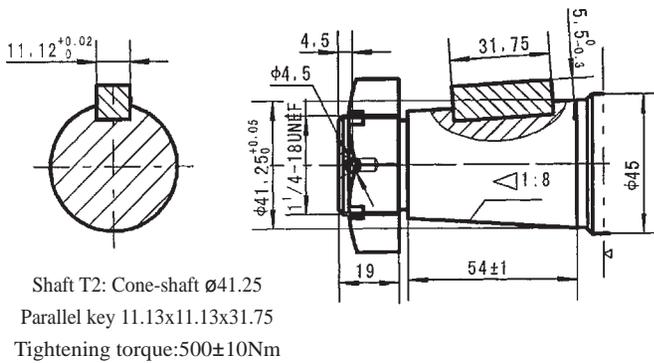
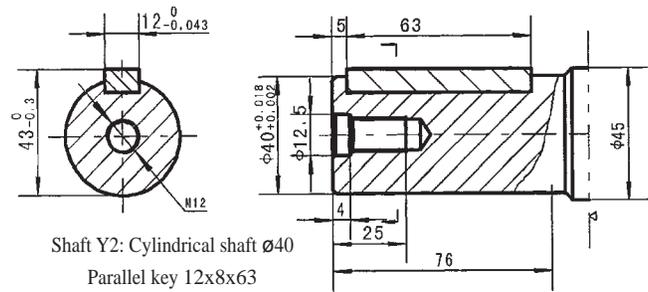
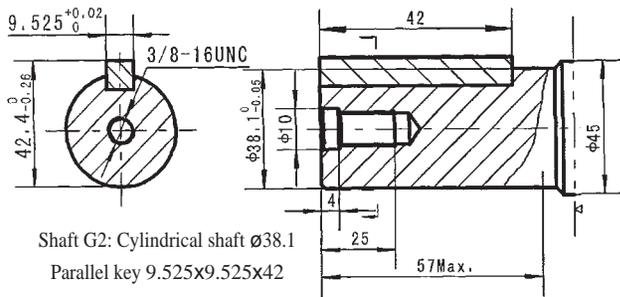
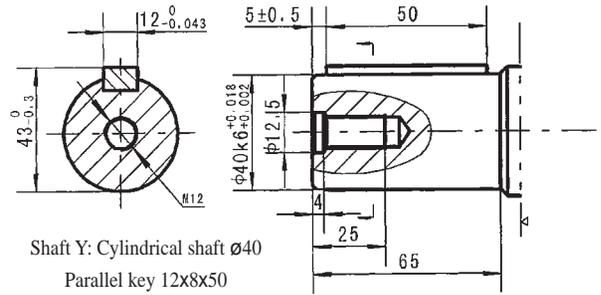
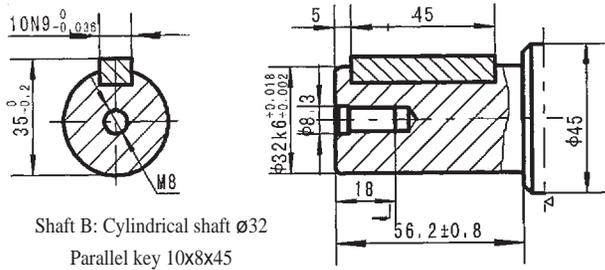
- ① Internal spline in mating part to be as follows: Material to be ASTM A304, 8620H. Carborize to a hardness of 60-64HRC with case depth (to 50HRC) of 0.75-1 [.030-.040] (dimensions apply after heat treat).
- ② Mating part to have critical dimensions as shown, Oil holes must be provided and open for proper oil circulation.
- ③ Some means of maintaining clearance between shaft and mounting flange must be provided.
- ④ Seal to be furnished with motor for proper oil circulation thru splines.
- ⑤ Similar to SAE "C" Four Bolt Flange
- ⑥ Counterbore 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



▷ Motor Mounting Surface

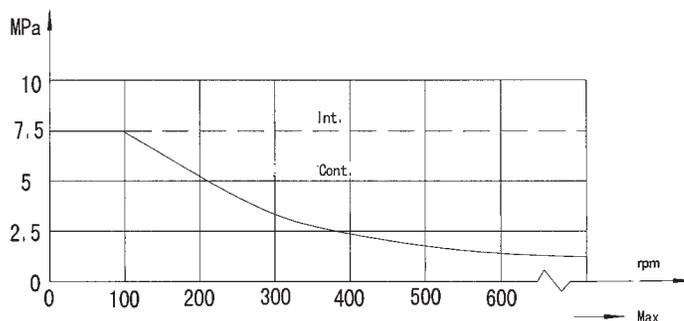
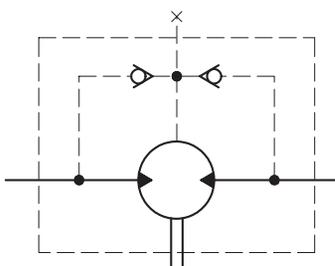
SHAFT EXTENSIONS FOR BMT(E) MOTORS



▷ Motor Mounting Surface

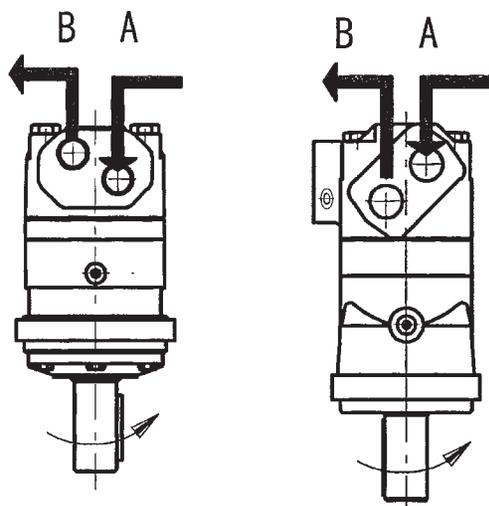
BMT Series Hydraulic Motor

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.

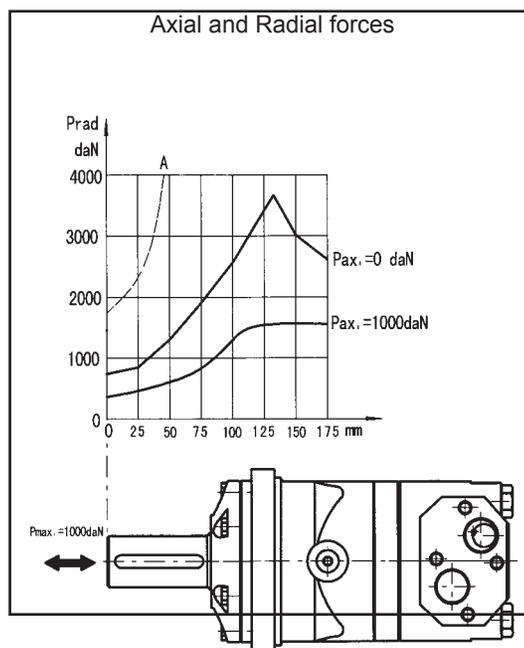


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Oil flow in drain line

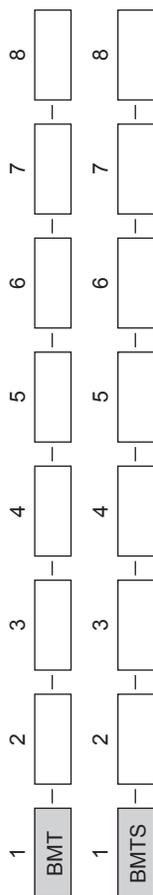
The table shows the Max. oil flow in the drain line at a return pressure less than 0.5-1MPa.

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



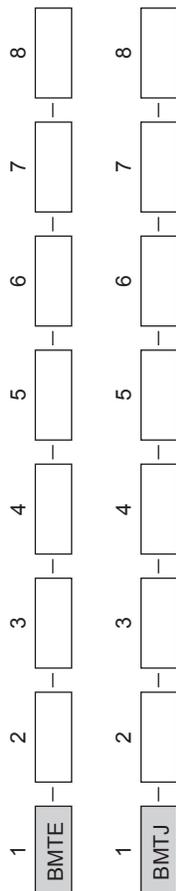
The output shaft runs in tapered bearings that permit high axial and radial forces, Curve "A" shows max radial shaft load, Any shaft loads exceeding the values quoted in the curve will involve a risk of breakage, The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.

Order Information



Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMT	160	4-Ø14 Square-flangeØ160, pilotØ125×9	M Shaft Ø40 , parallel key 12×8×70	D G3/4 Manifold Mount,4-M10 , G1/4	Omit	00	Omit
	200		G Shaft Ø38.1 ,parallel key 9.52×9.52×57.15				
	250		F Shaft Ø38.1 ,splined tooth 17-DP12/24				
	315		FD Shaft Ø38.1 ,splined tooth 17-DP12/24				
	400		T Cone-shaft 1:10 Ø45 ,parallel key B12×8×28				
	500		T1 Cone-shaft 1:8 Ø45 , parallel key 11.13×11.13×31.75				
	630		SL shaft Ø34.85,Splined key				
	800		G1 Splined key 6-34.85×28.14×8.64				
			F1 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	M3 M27×2,M14×1.5	Standard	Omit	Standard
		E 4-Ø14.5 Square-flange Ø162, pilot Ø127×10					

Order Information



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	CC: 4-Ø14.3 Square-flange Ø161.9, pilotØ127 × 12	G2 Shaft Ø38.1 ,parallel key 9.52 × 9.52 × 42	SF 3/4" ,Manifold Mount,8-3/8-16UNC, 7/16-20UNF SF5 1-5/16-12UN O-ring,7/16-20 UNF SF6 M33 × 2,M14 × 1.5 SF7 G1,G1/4 SE 1-1/16-12UN O-ring,9/16-18UNF SE1 1-1/16-12UN O-ring,7/16-20 UNF SE2 G3/4,G1/4	Omit R	00 Omit B S	Omit F LS
	250		FE Shaft Ø38.1 ,splined tooth 17-DP12/24				
	315		Y1 ShaftØ40,parallel key 12 × 8 × 63				
	400		Y2 ShaftØ40,parallel key 12 × 8 × 63				
	500	T2 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75					
	630	T3 Cone-shaft 1:8 Ø41.25 , parallel key 11.13 × 11.13 × 31.75					
BMTJ	800	WE 4-1/2-13UNC Wheel-flangeØ147.6, pilotØ127 × 9	Short shaft 12-DP8.5/17				
		J 4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4	Omit				

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 distribution 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.]

Pressure (MPa)		Max.cont.		Max.int.		
3.5	7	10	14	18	20	24

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

BMV 400 [419cm³/rev.]

Pressure (MPa)		Max.cont.		Max.int.		
3.5	7	10	14	18	20	24

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

BMV 500 [518cm³/rev.]

Pressure (MPa)		Max.cont.		Max.int.		
3.5	7	10	14	18	20	24

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

BMV 630 [666cm³/rev.]

Pressure (MPa)		Max.cont.		Max.int.		
3.5	6	9	12	15	18	21

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

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.

Performance Data

BMV 800 [801cm³/rev.]

	Pressure (MPa)								
	2.5	5	8	10	13	16	18		
Flow (L/min)	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

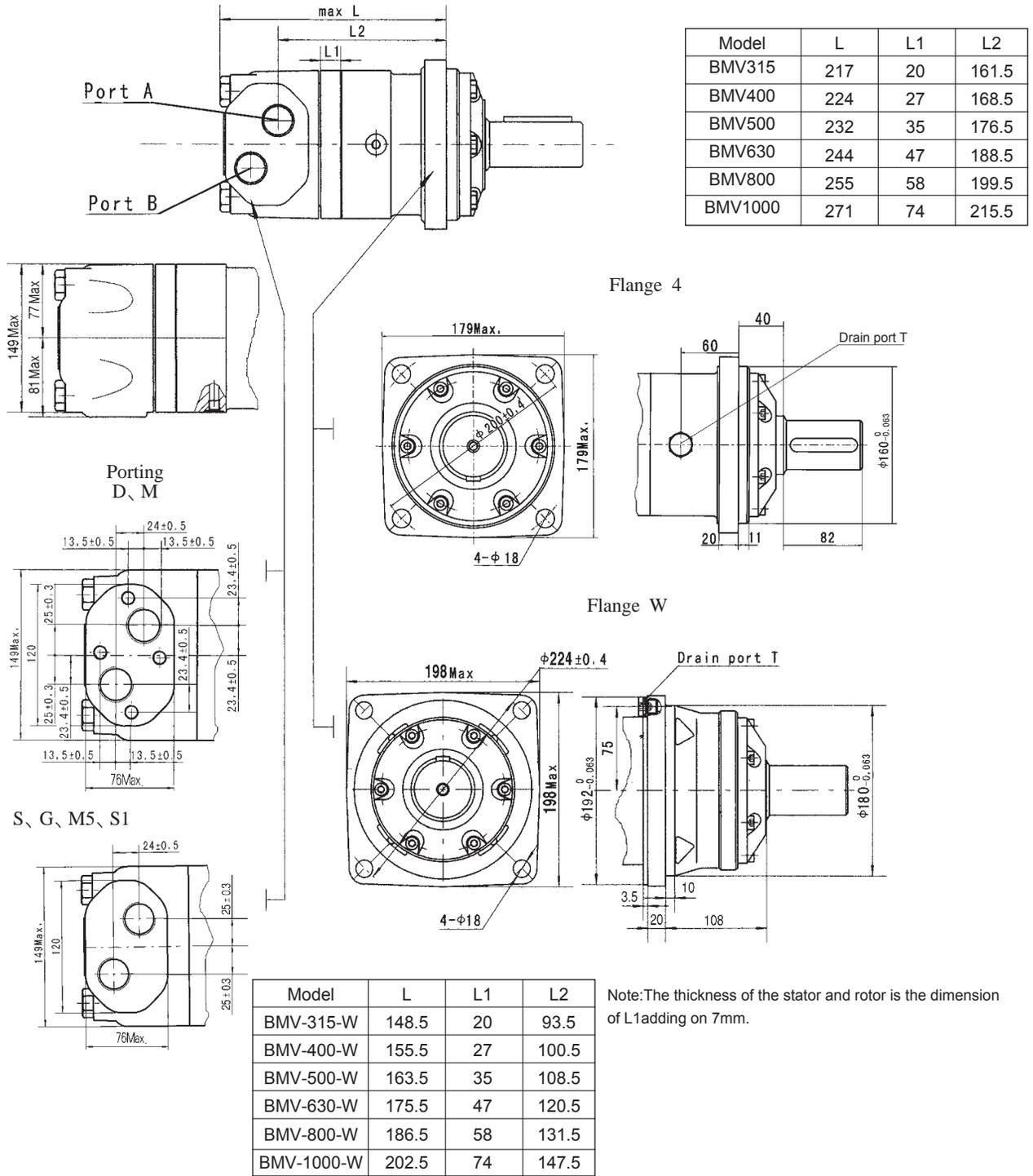
BMV 1000 [990cm³/rev.]

	Pressure (MPa)							
	2.5	5	7	10	14	16		
Flow (L/min)	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

□ cont.
■ int.

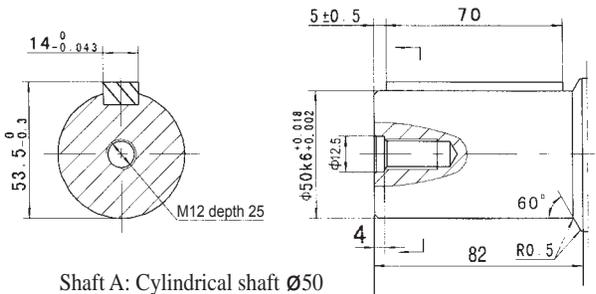
Torque (N·m) 1825
Speed (rpm) 225

BMV DIMINSIONS AND MOUNTING DATA

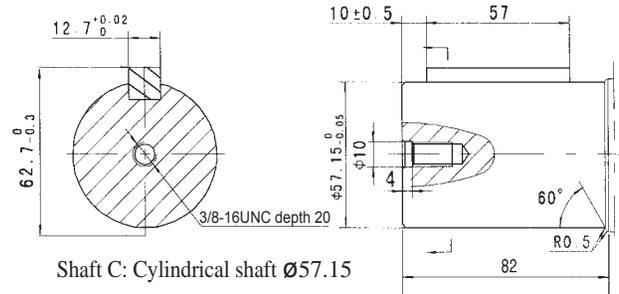


Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--

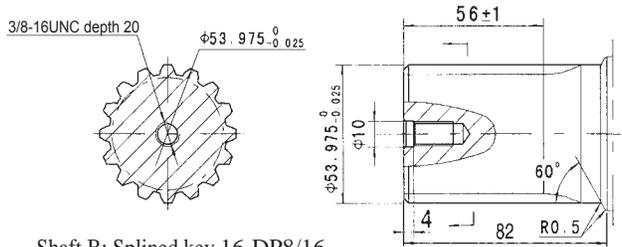
BMV SHAFT EXTENSIONS DIMENSIONS DATA



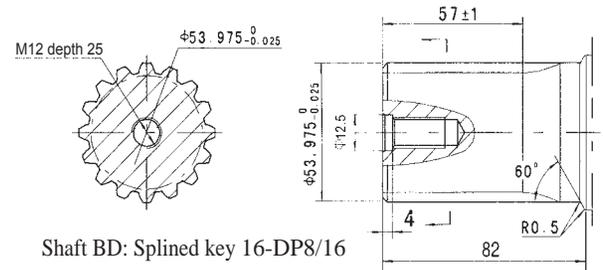
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



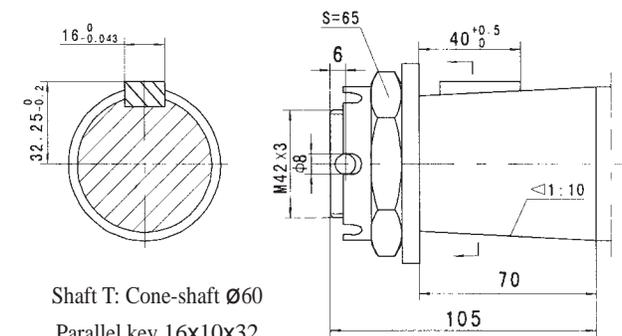
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



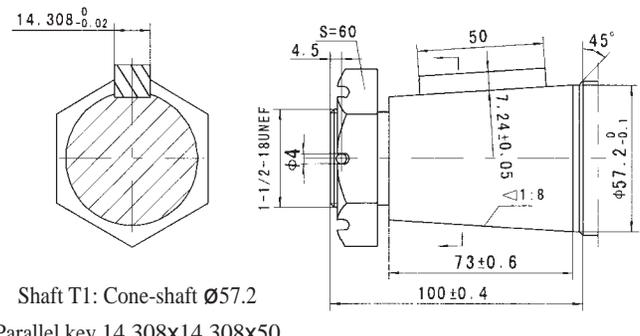
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16

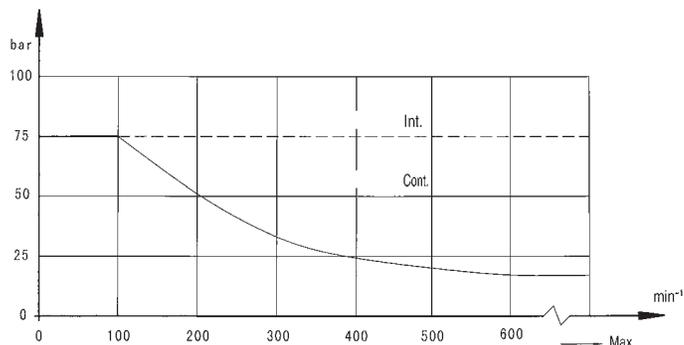
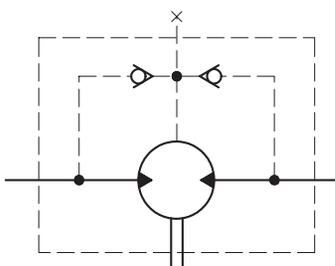


Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750±50Nm



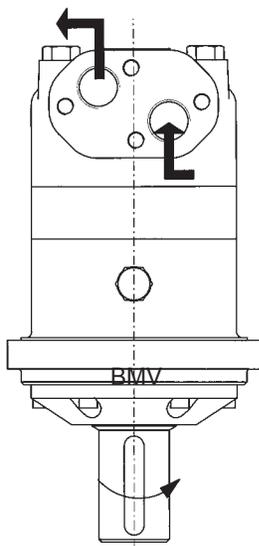
Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750±50Nm

BMV Series Hydraulic Motor Permissible shaft seal pressure



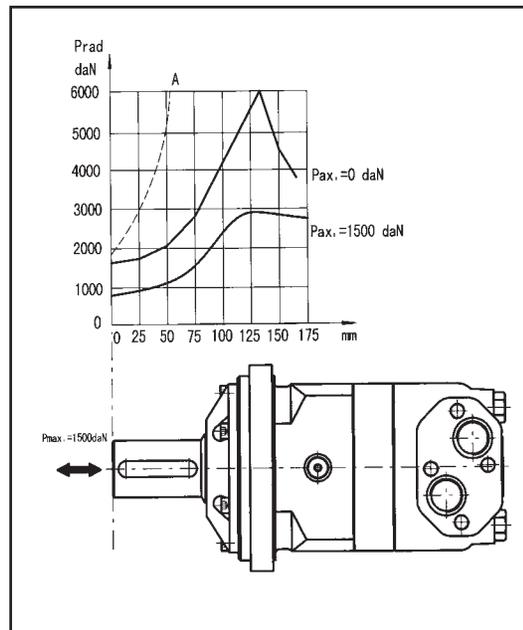
Standard direction of shaft rotation: Standard

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



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



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

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

Order Information



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

Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information 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 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 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)

		3.5	7	10.5	14	17.5	20.5	24	27.5	31	Max.cont.	Max.int.	Peak
Flow (L/min)	2	28 22	54 12	80 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				
Max.cont. 55	23	55	88	120	155	175	210	235	255				
	835	825	810	790	770	745	720	690	640				
Max.int. 65	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)

		3.5	7	10.5	14	17.5	20.5	24	27.5	31	Max.cont.	Max.int.	Peak
Flow (L/min)	2	29 18	54 9	86 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				
Max.cont. 55	30	68	110	150	190	230	270	305	335				
	670	660	650	635	620	605	575	540	510				
Max.int. 65	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					
	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)

		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31	Max.cont.	Max.int.	Peak
Flow (L/min)	2	15 14	32 10	68 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				
Max.cont. 75	5	30	75	125	180	230	275	330	375					
	738	735	728	715	700	680	655	635	610					
Max.int. 85	3	25	75	125	175	225	270	320	370					
	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)

		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31	Max.cont.	Max.int.	Peak
Flow (L/min)	2	25 12	40 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					
Max.cont. 75	12	42	108	170	235	310	365	425						
	575	574	568	560	550	548	525	502						
Max.int. 85	8	40	105	165	230	310	360	420						
	653	652	645	636	625	616	600	578						
95	40	100	160	225	290	355	415							
	722	715	702	690	680	670	655							

□ cont.
■ int.

Torque (N·m) 225
Speed (rpm) 690

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

		Max.cont.								Max.int.		
		1.75	3.5	7	10.5	14	17.5	20.5	24	26		
Flow (L/min)	2	28 9	55 7	110 5	175 3							
	4	32 22	63 21	125 19	170 13	250 13	315 8	370 3				
	8	37 47	68 45	130 42	200 39	260 36	325 34	390 32	450 27	480 22		
	15	35 93	68 92	135 89	210 85	275 80	370 76	420 70	500 60	530 45		
	22	35 138	75 136	140 133	215 128	285 122	370 116	440 110	515 102	550 95		
	30	35 190	75 187	145 184	220 178	290 172	370 167	440 164	520 154	560 142		
	38	37 240	70 237	150 234	225 230	310 225	380 218	450 202	525 193	565 185		
	45	32 285	70 283	150 280	225 275	310 268	380 259	450 247	525 236	565 225		
	55	28 348	66 346	145 242	220 338	305 332	375 324	450 314	525 300			
	65	25 412	63 410	140 406	220 400	300 393	375 383	445 370				
Max.cont.	75	22 476	60 474	135 470	215 464	295 454	370 445	440 435				
	85	18 540	55 536	130 532	210 524	290 514	365 502	435 485				
	95	15 600	50 595	125 590	205 580	285 565	360 555	430 545				
	115		40 715	115 705	200 695	280 685	350 670	425 655				

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

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

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

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

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

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

□ cont.
■ int.

Torque (N·m) 225
Speed (rpm) 361

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

	1.75	3.5	7	10.5	14	15.5	17.5	19
--	------	-----	---	------	----	------	------	----

Flow (L/min)	Max.cont.								Max.int.	
	1.75	3.5	7	10.5	14	15.5	17.5	19		
2	70	145								
4	80	170	345	500	660	740				
8	85	175	355	520	680	765	830	910		
15	90	185	370	550	720	810	880			
22	95	190	380	565	750	830	900			
30	92	188	385	570	760	835	905			
38	90	185	385	575	765	840	930			
45	85	180	380	570	760					
55	80	175	380	570	760					
65	75	170	370	560	750					
75	68	160	360	555	740					
85	65	150	355	550	730					
95	50	135	340	530	710					
115		125	310	510						

□ cont.
■ int.

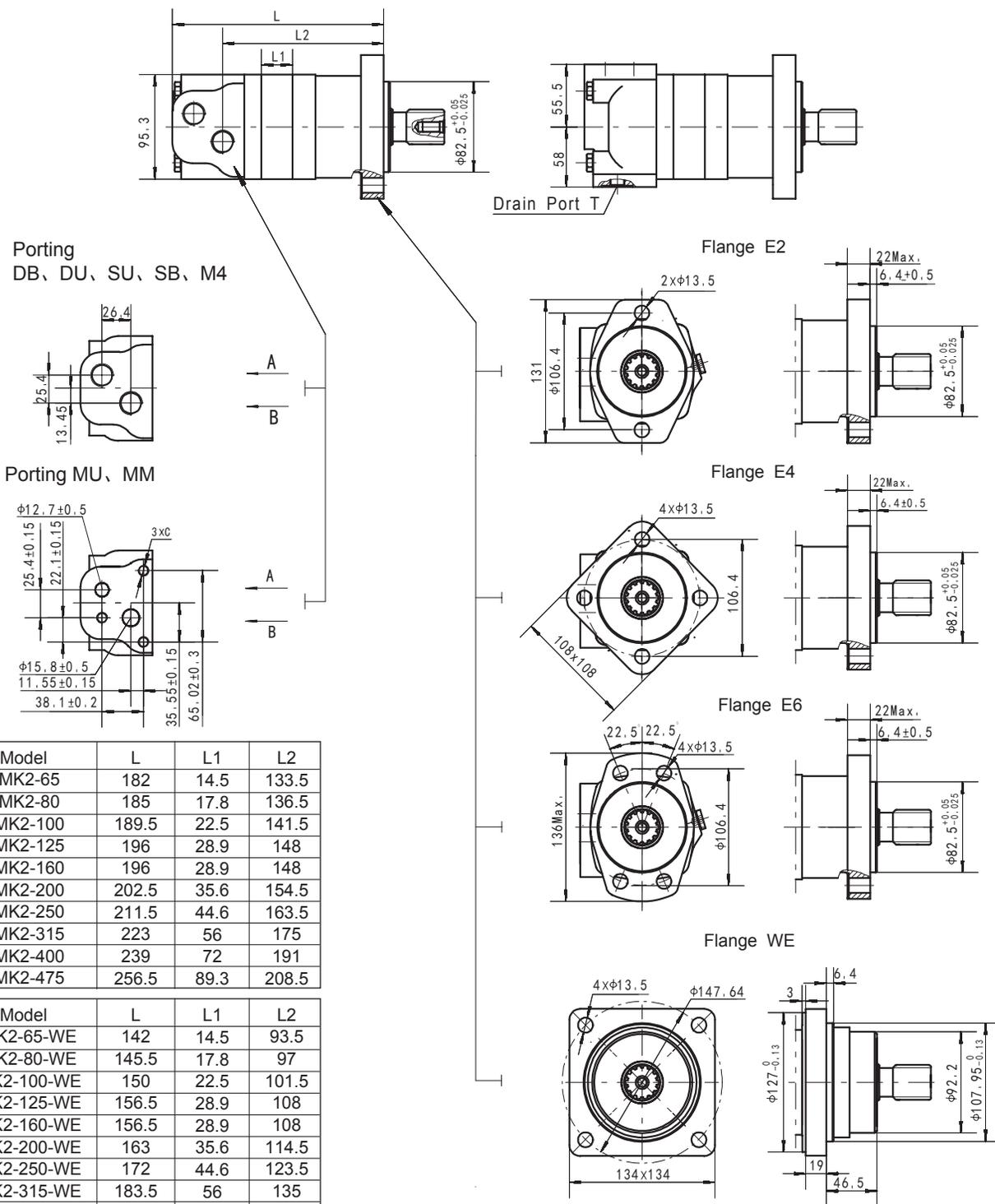
BMK2 475 [485 cm³/rev.]
Pressure (MPa)

	1.75	3.5	7	10.5	12	14
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Flow (L/min)	Max.cont.						Max.int.	
	1.75	3.5	7	10.5	12	14		
2	75	175						
4	110	220	430	540				
8	110	225	450	700				
15	105	235	470	710	825	895		
22	105	240	480	720	835	915		
30	110	240	485	725	840	935		
38	110	235	480	720	840	930		
45	100	220	470	715	825			
55	95	210	460	710	820			
65	85	200	445	700	810			
75	70	185	440	690	800			
85	60	175	430	680	785			
95	40	150	405	655				
115		130	380	625				

Torque (N·m) 130
Speed (rpm) 230

BMK2 DIMENSIONS AND MOUNTING DATA

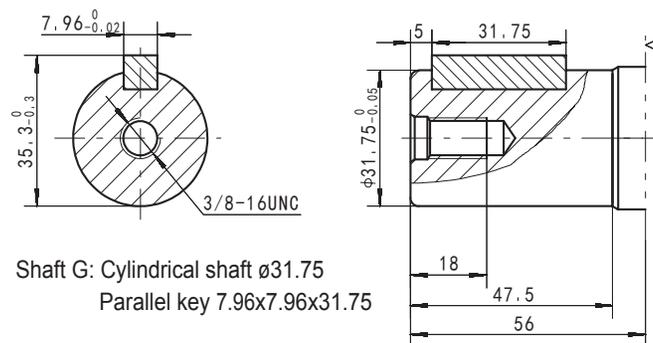
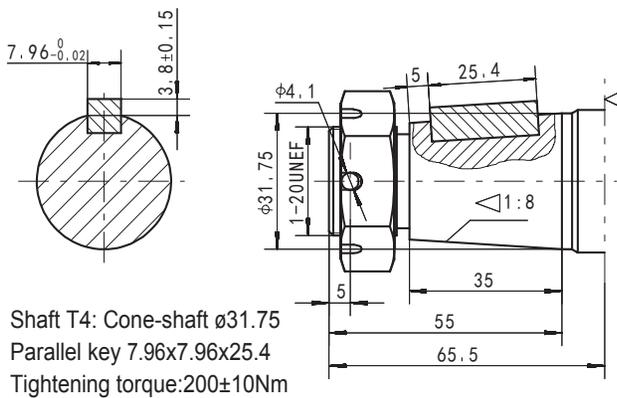
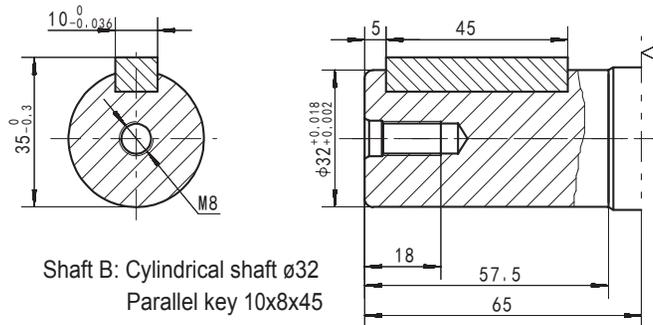
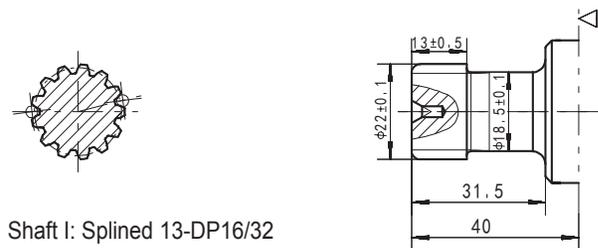
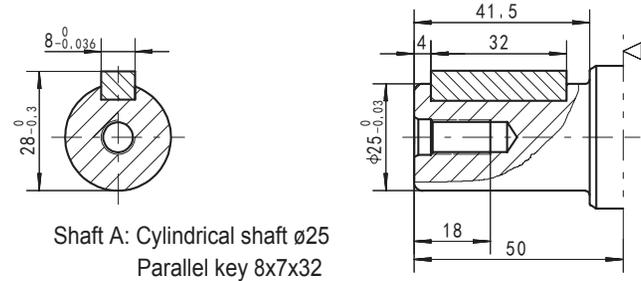
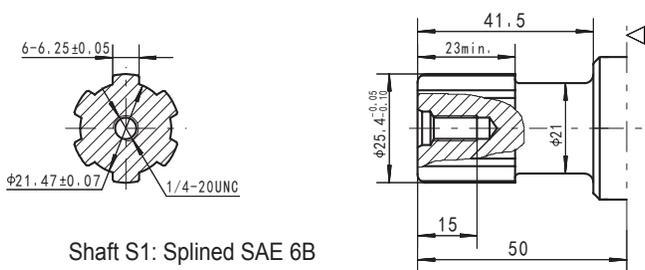
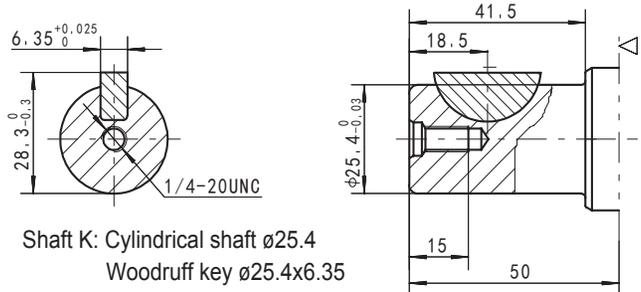
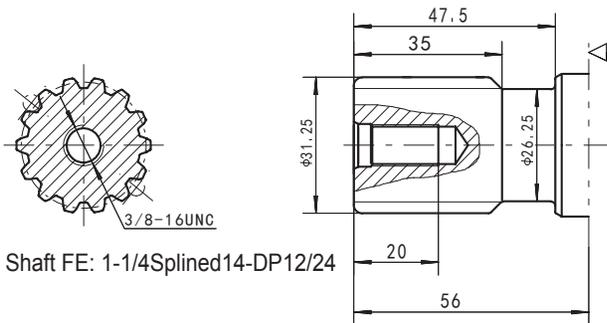


Model	L	L1	L2
BMK2-65	182	14.5	133.5
BMK2-80	185	17.8	136.5
BMK2-100	189.5	22.5	141.5
BMK2-125	196	28.9	148
BMK2-160	196	28.9	148
BMK2-200	202.5	35.6	154.5
BMK2-250	211.5	44.6	163.5
BMK2-315	223	56	175
BMK2-400	239	72	191
BMK2-475	256.5	89.3	208.5

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

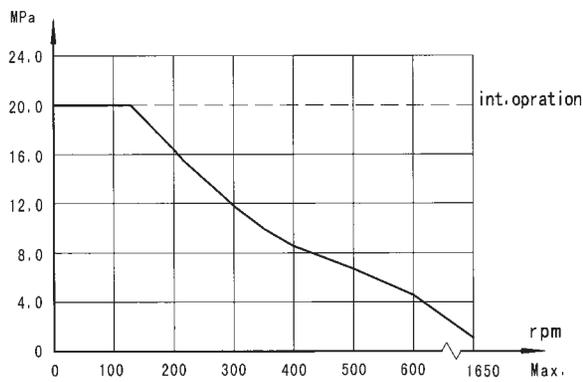
Code Mounting	DB (Depth)	DU (Depth)	SU (Depth)	SB (Depth)	M4 (Depth)	MU	MM
	P(A,B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (17)	7/8-14 O-ring (17)	M22 x 1.5 (15)	φ12.7, φ15.8
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)
C			--			3/8-16UNC(15)	M10(15)

SHAFT EXTENSIONS FOR BMK2 MOTORS

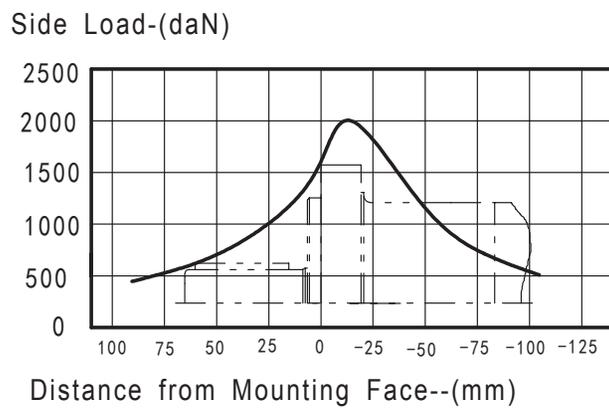


◁ Motor Mounting Surface E2 Flange

Permissible shaft seal pressure



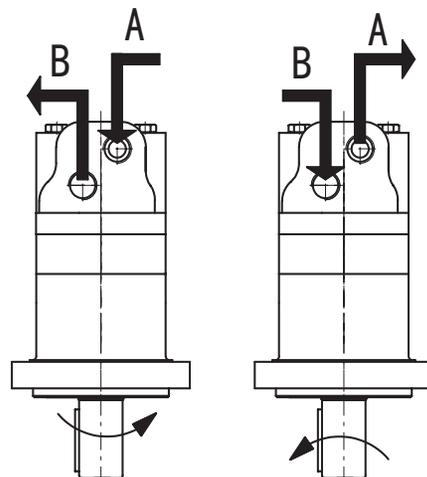
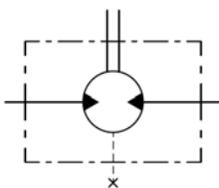
BMK2 Standard Mounting Flange[E2]Radial Forces



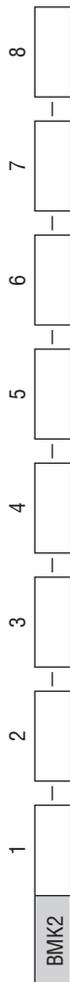
The bearing curve represents allowable bearing loads for an B_{10} bearing life (2000 hours or 12×10^6 revolutions at 100rpm) at rated output torque.

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



Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
65	E2	2×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	A Shaft φ25 , parallel key 8×7×32 B Shaft φ32 , parallel key 10×8×45 K Shaft φ25.4 , Woodruff key φ25.4×6.35	DB DU	G1/2, G1/4 G1/2, 7/16-20 UNF	No paint	Omit Standard
80	E4	4×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	G Shaft φ31.75 , parallel key 7.96×7.96×31.75	SB SU	7/8-14UNF O-ring, G1/4 7/8-14UNF O-ring, 7/16-20 UNF	00	Omit Standard
100	E6	4×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	FE Shaft φ31.75 , splined 14-DP12/24	M4 MU	M22×1.5, M14×1.5 1/2", 5/8" Crosshole Manifold 3×3/8-	Omit B	Omit Standard
125	WE	4×φ13.6 Wheel-flange φ147.6, pilot φ107.95×6.4	S1 Shaft φ25.4 , splined SAE 6B I Sub-shaft φ22 , splined 13-DP16/32	MM	16UNC, 7/16-20UNF 1/2", 5/8" Crosshole Manifold 3×M10, G1/4	S	Free Running
160			T4 Cone-shaft φ31.75 , parallel key 7.96×7.96×25.4			Silver grey	
200							
250							
315							
400							
475							

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 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.
- * 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)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30

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

BMK6 250 [246.1cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30

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

BMK6 315 [311.6cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30

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

BMK6 400 [391.3cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30

Flow (L/min)	Max.cont.										Peak
	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30	
2	90	172	360								
	4	2	1								
8	95	180	370	555	730	885	1025	1195			
	19	18	17	16	14	12	9	4			
15	95	185	375	560	740	930	1070	1265	1		

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

	Max.cont. Max.int. Peak										
	1.75	3.5	7	10.5	14	17.5	20	24	27.5		
Flow (L/min)	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				
	Max.cont.	150	70 304	155 303	420 301	665 292	920 287	1150 280			
	Max.int.	190		130 385	360 382	580 373	865 365				
	225			320 455	555 440	800 432					

BMK6 630 [623cm³/rev.]
Pressure (MPa)

	Max.cont. Max.int.									
	1.75	3.5	7	10.5	14	17.5	20	22.5		
Flow (L/min)	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					
	Max.cont.	150	50 240	200 239	525 236	84 233				
	Max.int.	190			465 300	795 293				
	225			430 360	740 348					

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

	Max.cont. Max.int.										
	1.75	3.5	5	7	8.5	10.5	12	14	15.5	17.5	
Flow (L/min)	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					
	Max.cont.	150	80 186	270 185	500 183	680 180	880 176				
	Max.int.	190		300 235	475 233	660 230	855 226				
	225			423 280	612 276	830 272					

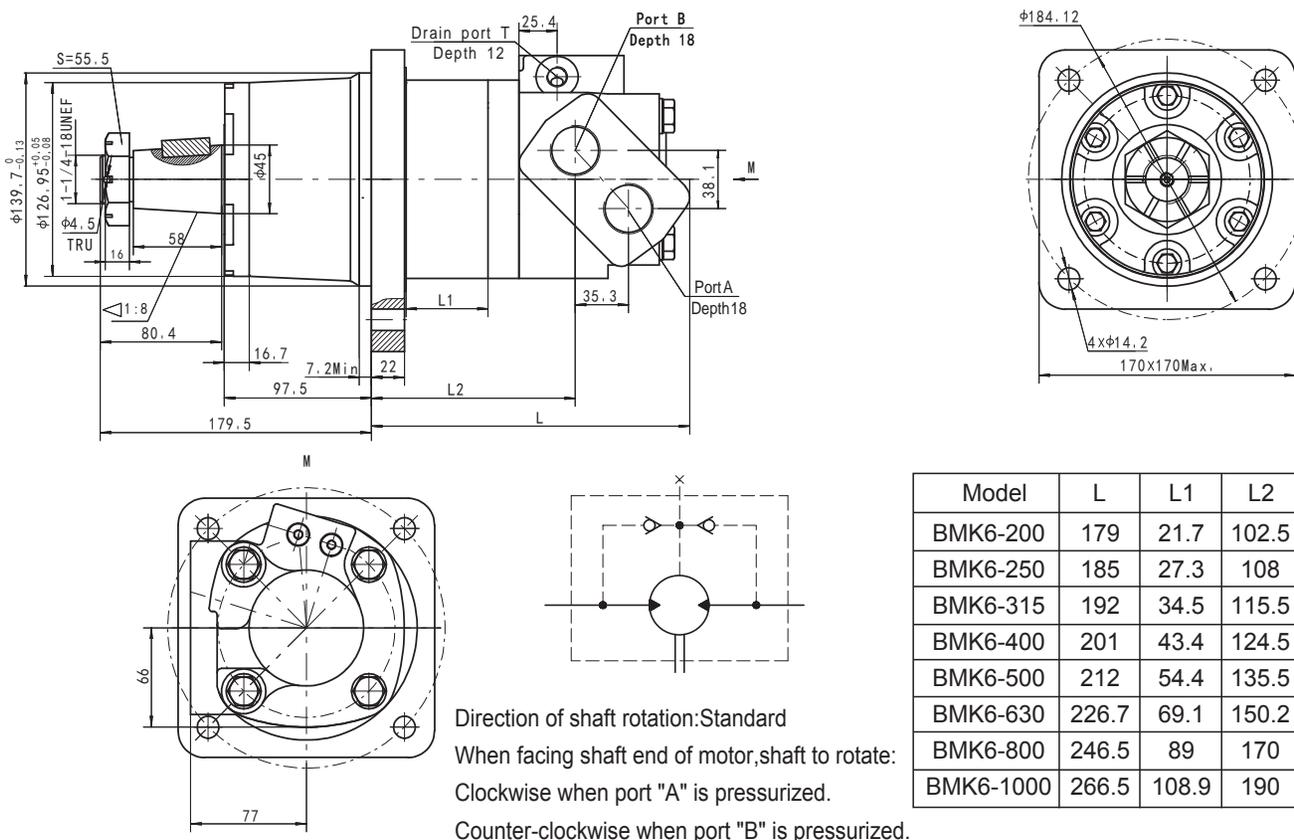
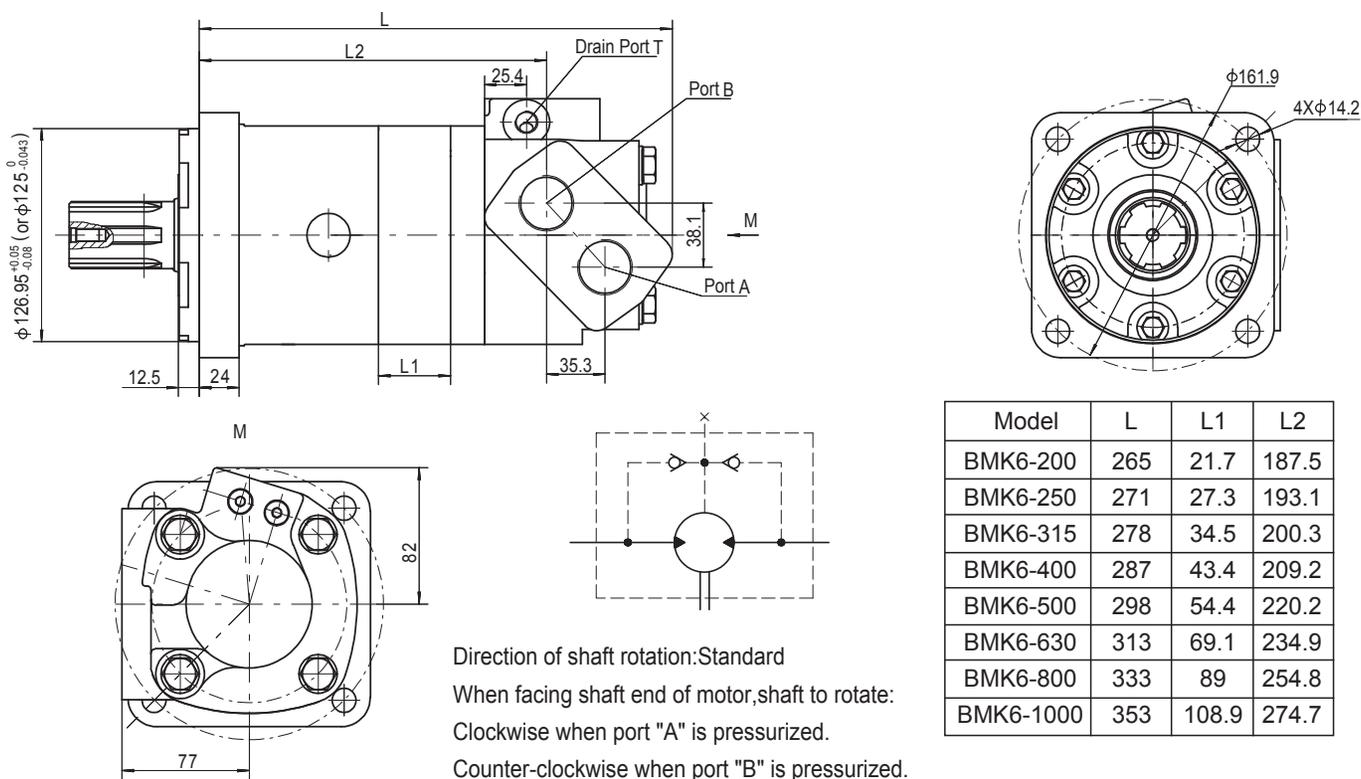
Torque (N·m) 423
Speed (rpm) 280

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

	Max.cont. Max.int.									
	1.75	3.5	5	7	8.5	10.5	12	14		
Flow (L/min)	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				
	Max.cont.	150	110 152	360 151	605 150	860 148	1080 145			
	Max.int.	190		320 192	575 190	820 188	1045 185			
	225			515 230	800 228	1020 224				

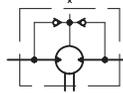
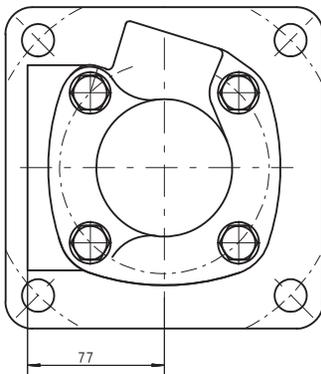
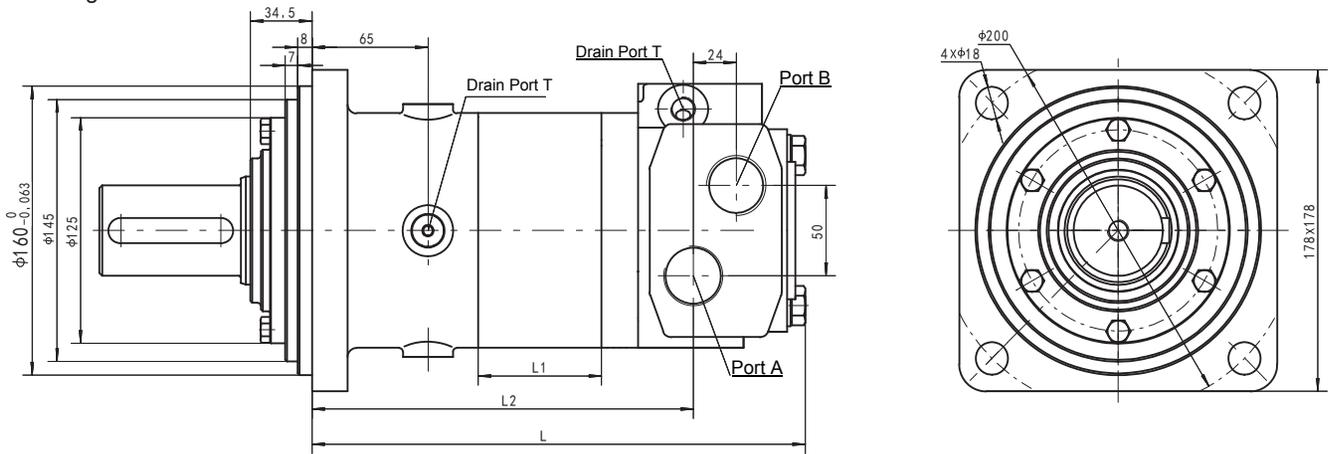
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BMK6 DIMENSIONS MOUNTING DATA



BMK6 DIMENSION AND MOUNTING DATA

J6 Flange



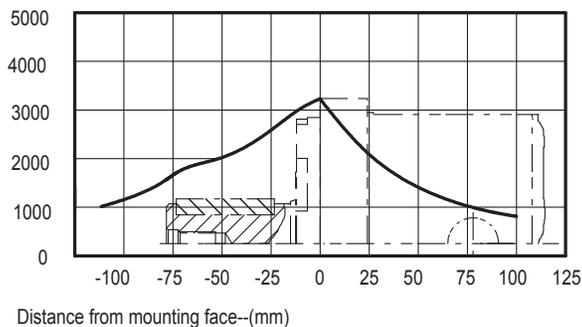
Rotation direction of output shaft: standard

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.

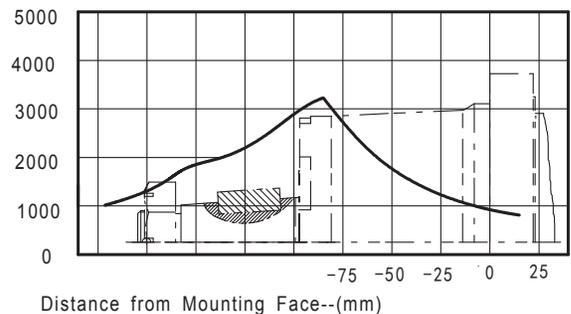
Model	L	L1	L2
BMK6-200	230	21.7	166
BMK6-250	236	27.3	172
BMK6-315	243	34.5	179
BMK6-400	252	43.4	188
BMK6-500	263	54.4	199
BMK6-630	277.5	69.1	213.5
BMK6-800	297.5	89	233.5
BMK6-1000	317.5	108.9	253.5

BMK6 for CC And W Mounting Radial forces

Radial forces-(daN)



Side Load-(daN)

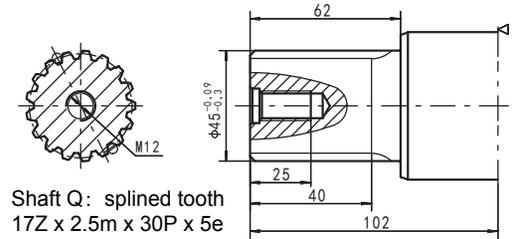
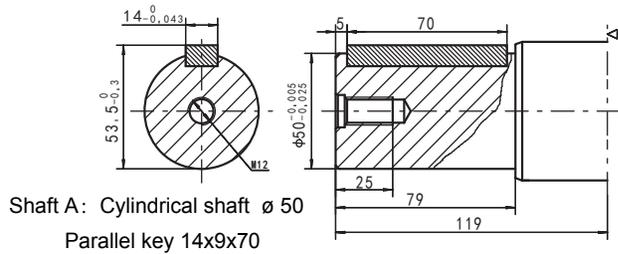
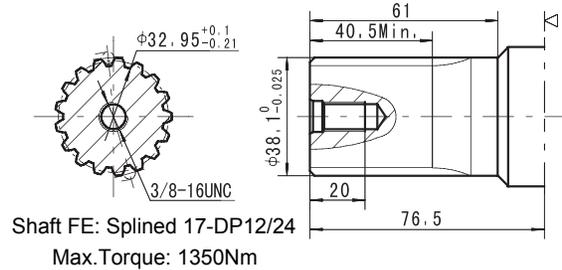
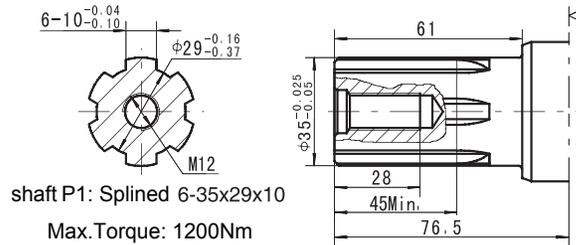
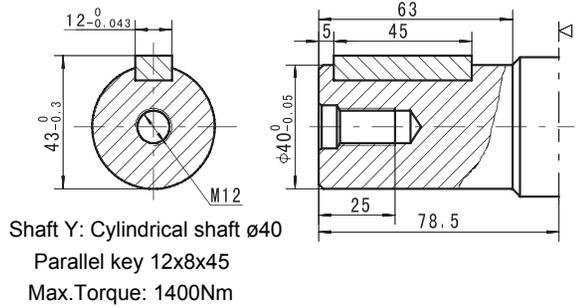
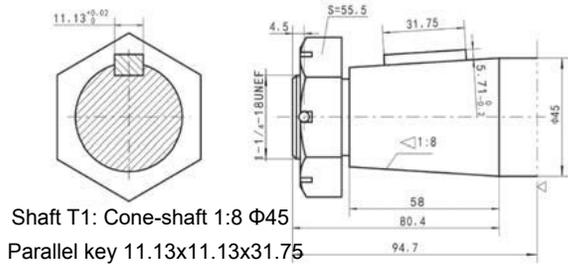
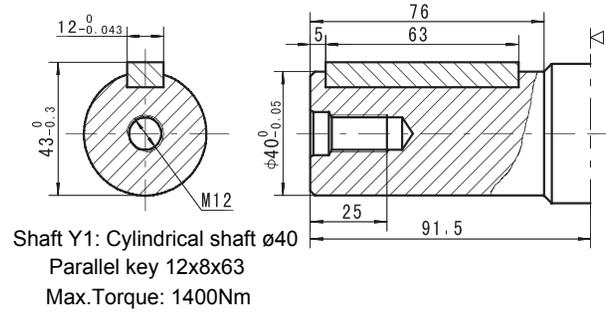
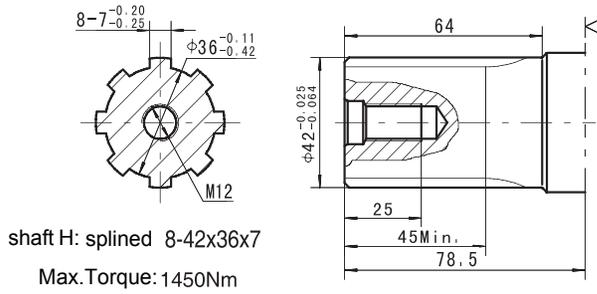
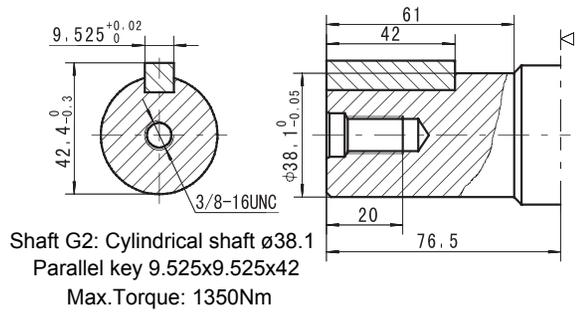
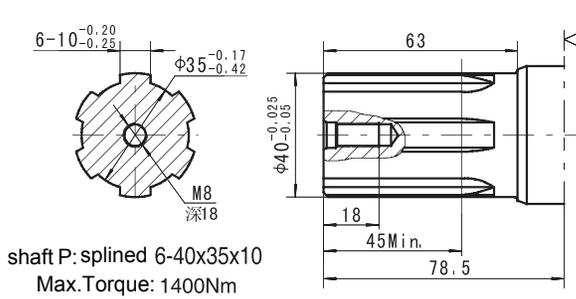


The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12×10^6 revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

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

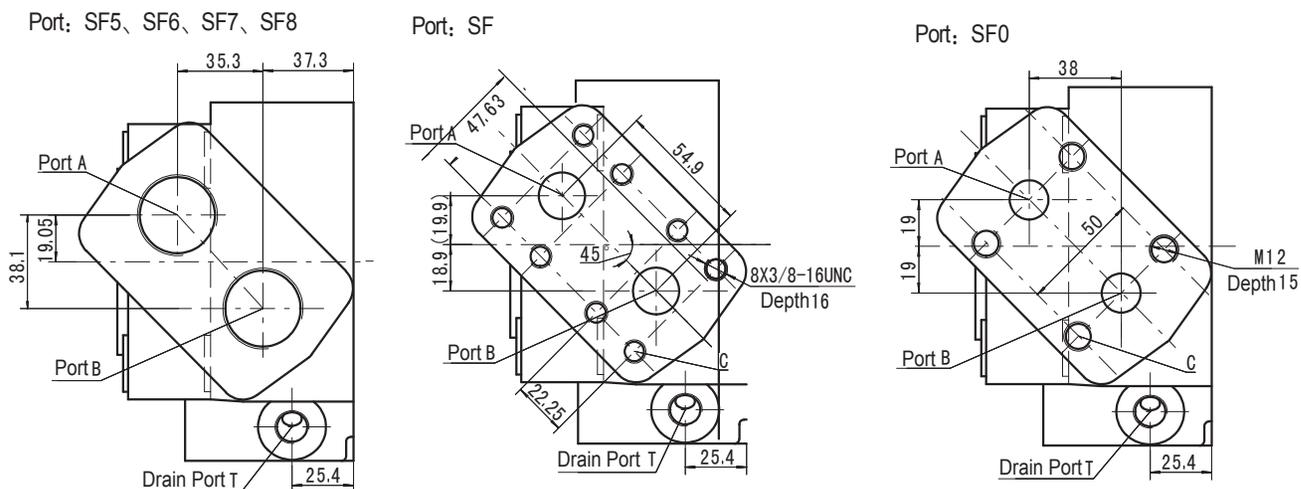
This curve should not be exceeded at any time including shock loads.

BMK6 Shaft Extensions For Dimensions Data



◁ Motor Mounting Surface CC Flange

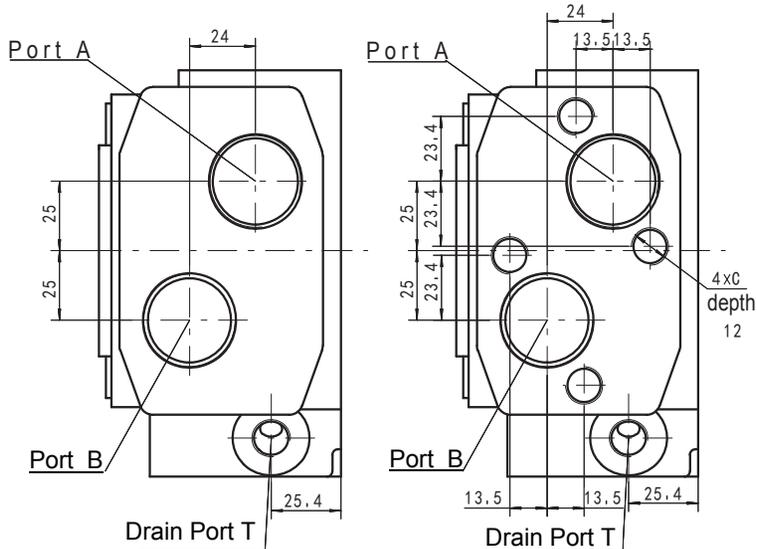
DIMENSIONS of PORTS FOR BMK6



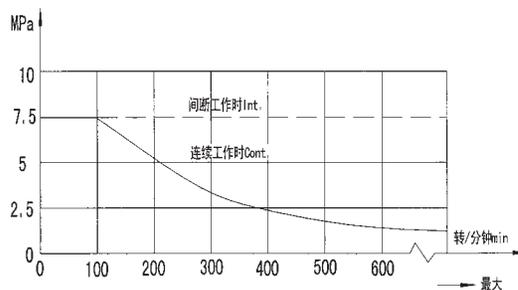
Code Mounting	Type					
	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF8 (depth)	SF (depth)	SF0 (depth)
P(A,B)	1-5/16-12UN(18)	M33X2(18)	G1(18)	G3/4(18)	Φ 19.05	Φ 16
T	7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	7/16-20UNF(12)	M14X1.5(12)
C	-	-	-	-	8X3/8-16UNC	4XM12

Porting: S1、M 5、G

Porting: D、D 1、M



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



In 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



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)					
		3.5	7	10.5	14	19	
Flow (L/min)	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	
		28 295	58 290	91 279	122 261	174 232	
	25	24 368	55 365	90 352	121 341	172 312	
		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

BME2 80 [81.3 cm³/rev.]

		Pressure (MPa)					
		3.5	7	10.5	14	19	
Flow (L/min)	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	
		37 181	77 178	116 171	157 162	215 148	
	20	35 242	74 238	112 231	151 223	206 205	
		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
	Max.int.	57	18 689	55 681	98 665	134 649	186 618

BME2 100 [101.6 cm³/rev.]

		Pressure (MPa)					
		3.5	7	10.5	14	19	
Flow (L/min)	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	
		42 147	91 144	138 137	185 124	257 93	
	20	38 195	88 192	136 182	180 169	244 138	
		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
	Max.int.	57	10 553	60 545	109 534	158 527	232 491

BME2 125 [127 cm³/rev.]

		Pressure (MPa)					
		3.5	7	10.5	14	19	
Flow (L/min)	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	
		56 116	118 113	180 109	245 99	331 76	
	20	55 155	117 153	178 147	242 136	331 110	
		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
	Max.int.	57	21 441	176 439	141 431	280 417	302 384

Torque (N·m) 158
Speed (rpm) 527

□ cont.
■ int.

Performance Data

BME2 160 [157.2 cm³/rev.]

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

BME2 200 [193.6 cm³/rev.]

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

BME2 230 [226 cm³/rev.]

		Pressure (MPa)				
					Max.cont.	Max.int.
		3.5	7	10.5	12	16.5
Flow (L/min)	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
	Max.cont.	45	55 197	158 195	276 191	329 186
Max.int.	57	19 247	130 244	256 240	301 230	451 221
Max.int.	75		65 328	183 323	250 311	401 303

BME2 250 [257 cm³/rev.]

		Pressure (MPa)				
					Max.cont.	Max.int.
		3.5	7	10.5	11	15.5
Flow (L/min)	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
	Max.cont.	45	89 174	211 172	345 165	361 157
Max.int.	57	73 216	208 213	339 205	342 197	487 184
Max.int.	75		74 287	198 284	301 278	441 267

Torque (N·m) 250
Speed (rpm) 311

□ cont.
■ int.

Performance Data

BME2 295[287.8 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	11	14.5
-----	---	----	------

Flow (L/min)	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
	Max.cont.	108 196	227 194	359 187	514 176
	Max.int.	75	211 254	349 246	506 231

BME2 315[314.5 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	11	13.5
-----	---	----	------

Flow (L/min)	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
	Max.cont.	86 178	219 173	383 168	505 162
	Max.int.	75	108 235	287 231	416 219

BME2 375[370 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	9	12.5
-----	---	---	------

Flow (L/min)	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
	Max.cont.	118 152	281 150	393 144	550 136
	Max.int.	75	258 199	369 191	518 183

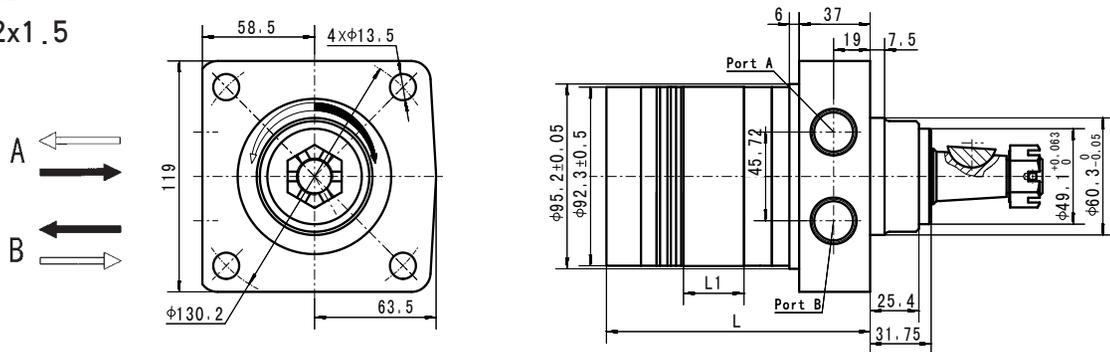
Torque (N·m) 506
Speed (rpm) 231

cont.
int.

BME2 DIMENSIONS AND MOUNTING DATA

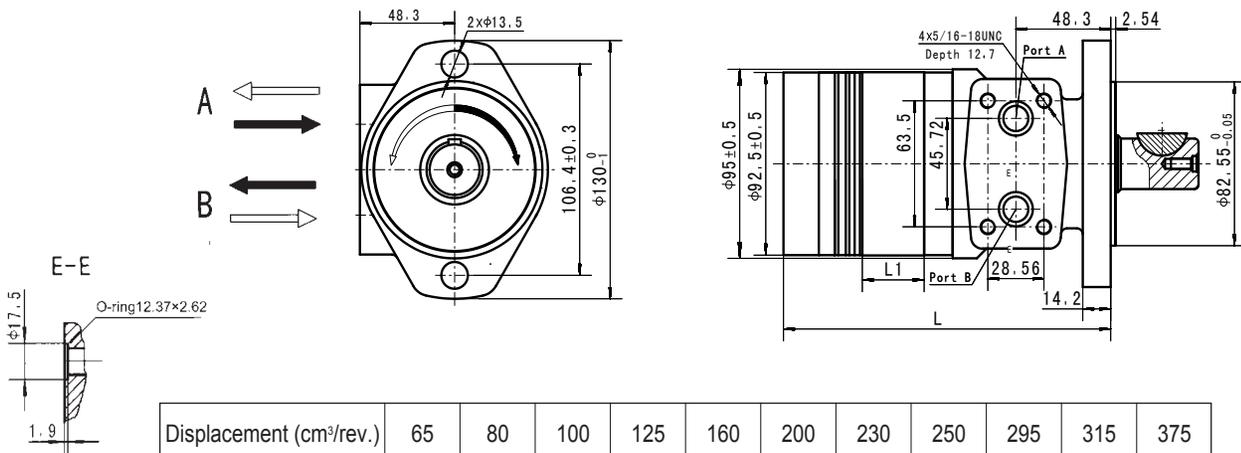
Wheel Mount

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



Displacement (cm ³ /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

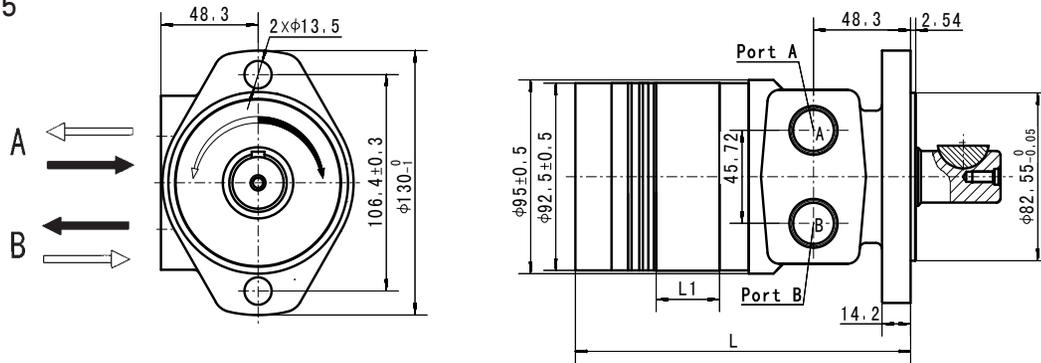
Code:HM Manifold
A、B Port Ø12.7



Displacement (cm ³ /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

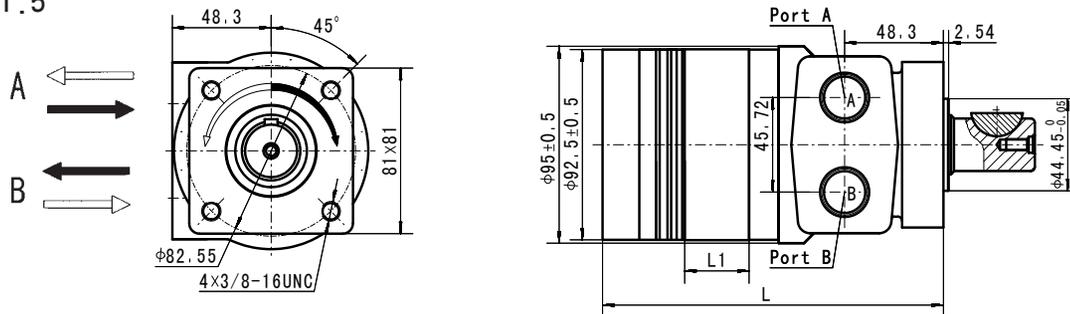
BME2 DIMENSIONS AND MOUNTING DATA

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



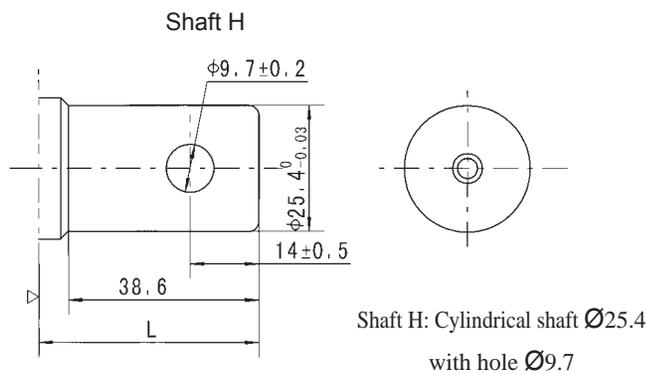
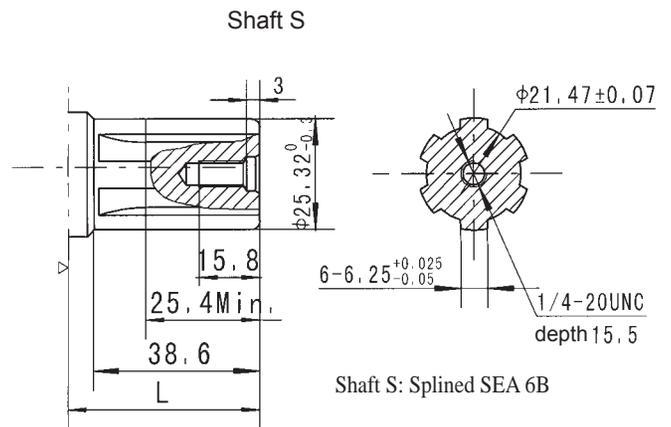
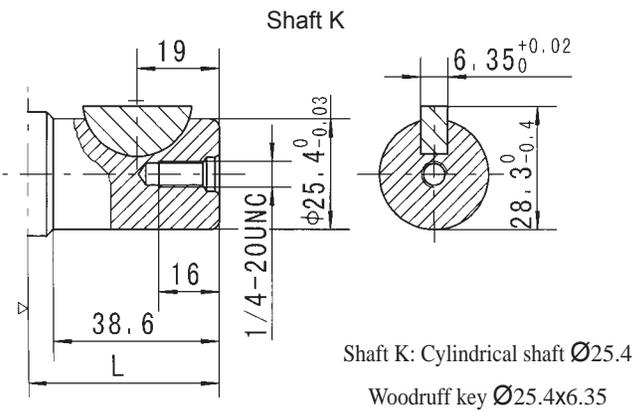
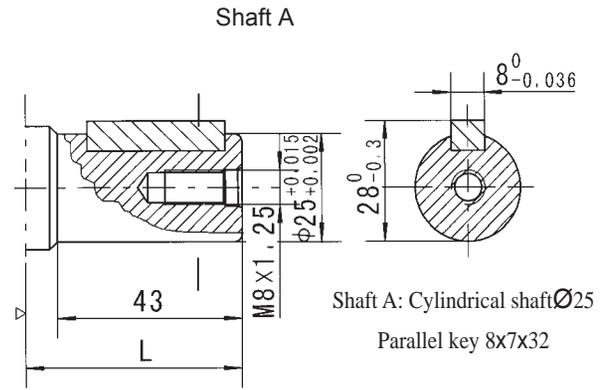
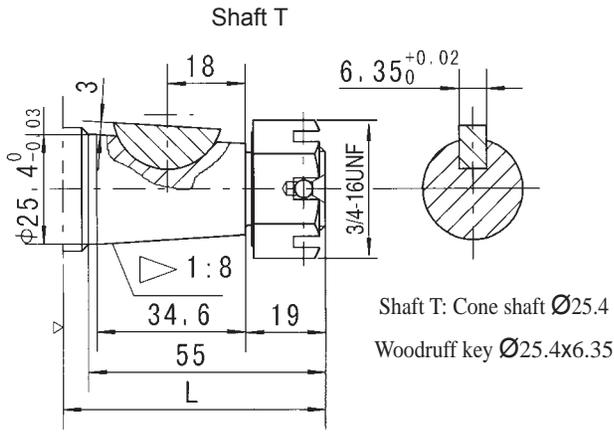
Displacement (cm ³ /rev.)	65	80	100	125	160	200	230	250	295	315	375
L1(mm)	13	16	20	25	30.5	38.1	44	50	56	62	74
L(mm)	149	152	156	161	166.5	174	180	186	192	198	210
Weight(kg)	6.4	6.5	6.8	7	7.3	7.7	8.2	8.6	9	9.3	9.8

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



Displacement (cm ³ /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



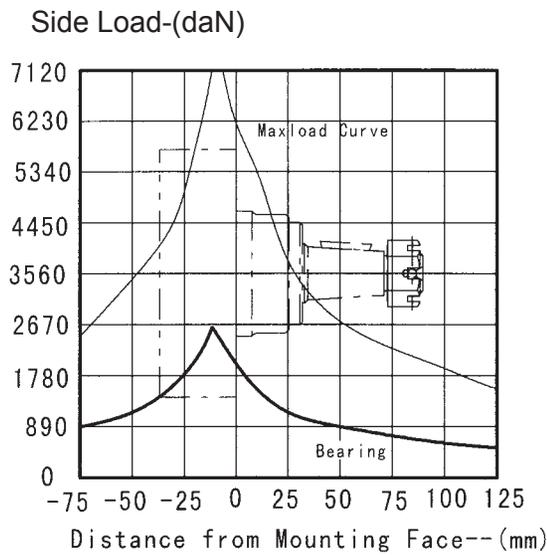
Dimension L

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

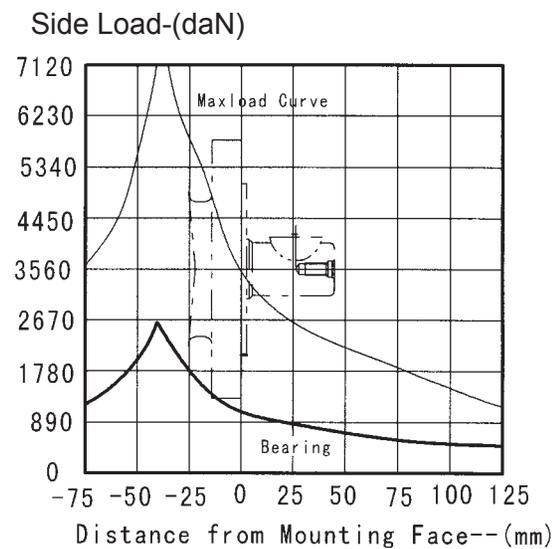
▷ Motor Mounting Surface

Permissible Shaft Loads

BME2 for Wheel Mounting



BME2 for Other Mounting



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.

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
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 A Cylindrical Shaft Ø25, Parallel key 8×7×32 K Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35 S Shaft Ø25.4, Splined key SAE 6B H Cylindrical Shaft Ø25.4,Pin Hole Ø9.7	Omit Standard R Opposite	00 Omit B S No paint Blue Black Silver grey	
WD		4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port G1/2				
WM		4-Ø13.5 Wheel -flange,Pilot Ø60.3×7 Port M22×1.5				
65		2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
80		Port 1/2" Manifold mount 4×5/8-18				
100		2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
125		Port 7/8-14 O-ring				
160		2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
200		Port 1/2-14 NPFT Pipe				
230		2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
250		Port G1/2				
295		2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54 Port M22×1.5				
315		4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
375		Port 7/8-14 O-ring				
H4P		4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
H4D		Port 1/2-14 NPFT Pipe				
H4G		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 M22×1.5				

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.

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* 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.

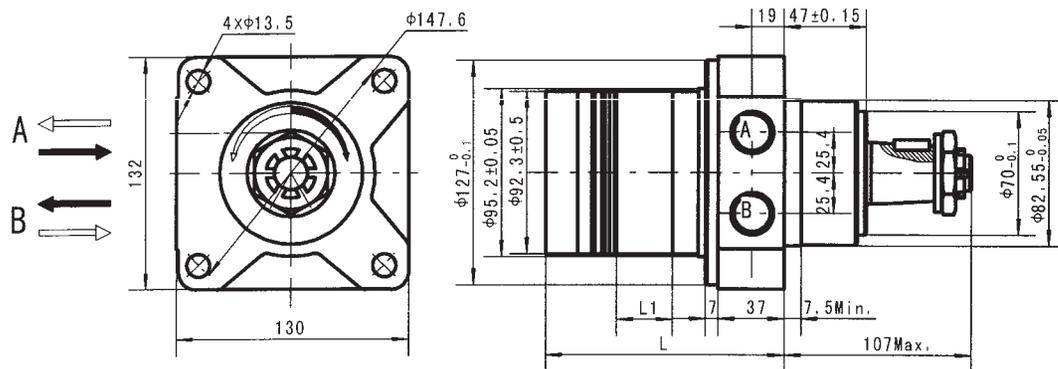
BMJ DIMENSIONS MOUNTING DATA

Wheel Mount

Code : WS Ports A、B 7/8-14 O-Ring

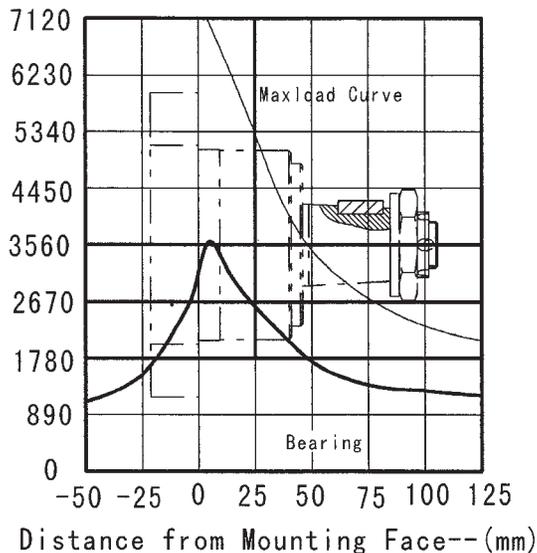
Code : WD Ports A、B G1/2

Code : WM Ports A、B M22x1.5



Displacement (cm ³ /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

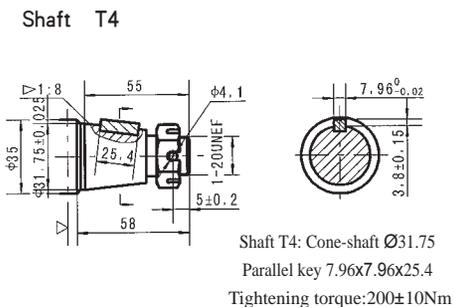
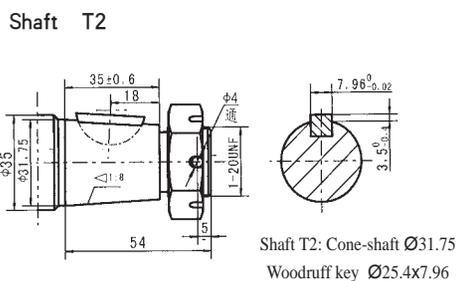
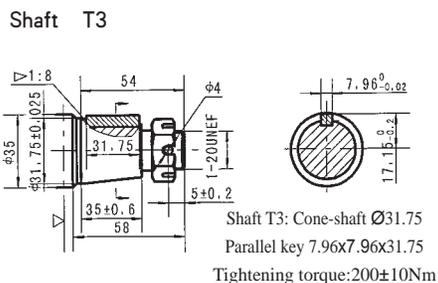
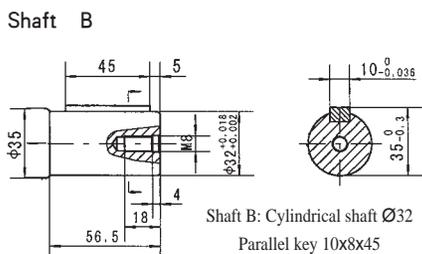
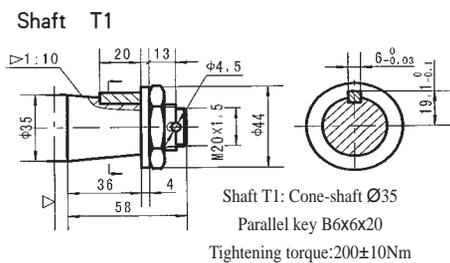
Side Load-(daN)



The bearing curve represents allowable bearing loads for an L₁₀ bearing life at 3 × 10⁶ 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



▷ Motor Mounting Surface

Order Information

- - - - - - -

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Ports	Output Shaft	Rotation direction	Paint	Unusually function
65	WS	4-Ø13.5 Wheel-flange, Pilot Ø82.55x7, Port 7/8-14 O-ring	T1 Cone-Shaft Ø35, Parallel key B6x6x20	Standard	No paint	
80	WD	4-Ø13.5 Wheel-flange, Pilot Ø82.55x7, Port G1/2	T2 Cone-Shaft Ø31.75, Woodruff key Ø25.4x7.96	Opposite	Blue	Omit
100	WM	4-Ø13.5 Wheel-flange, Pilot Ø82.55x7, Port M22x1.5	T3 Cone-Shaft Ø31.75, Parallel key 7.96x7.96x31.75	R	Black	Standard
125			T4 Cone-Shaft Ø31.75, Parallel key 7.96x7.96x25.4		Silver Grey	
160	Omit		B Cylindrical Shaft Ø32, Parallel key 10x8x45			
200						
230						
250						
295						
315						
375						

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BMER SERIES HYDRAULIC MOTOR

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

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

Main Specification

Type		BMER 125	BMER 160	BMER 200	BMER 230	BMER 250	BMER 300	BMER 350	BMER 375	BMER 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)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

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

BMER160 [156cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

Flow (L/min)	Max.cont.							
	35	74	146	218	298			
2	8	4	3	3	2			
4	29	78	157	235	316	370	424	
8		35	78	158	236	312	373	450
		47	44	42	40	37	34	32
15		37	74	155	234	310	368	440
		93	90	86	84	82	79	75
25			68	152	227	308	364	436
			155	151	147	142	137	131
34			68	152	227	308	364	436
			214	213	210	204	198	191
45			64	143	218	296	360	425
			282	280	275	268	263	256
53				135	216	293	357	421
				330	327	322	315	306
Max.cont. 60				122	207	284	350	416
				379	376	368	362	356
68				109	196	273	345	396
				423	419	414	406	394
Max.int. 75				104	188	270	337	390
				472	466	460	450	436

BMER200 [196cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

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

BMER230 [228cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

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

Torque (N·m) 380
Speed (rpm) 411

cont.
int.

BMER250 [257cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

Flow (L/min)	2		4		8		15		25		34		45		53		60		68		75		85		90	
	Max.int.	48	111																							
	5	2																								
	54	113	237	362	471	570	642																			
	12	11	10	9	8	6	3																			
	54	115	244	366	482	587	688																			
	27	26	24	22	20	18	14																			
	50	113	256	367	485	591	692	794																		
	57	56	54	51	48	45	43	37																		
	44	114	241	360	488	593	699	782																		
	95	93	90	86	82	77	72	63																		
		95	226	348	481	590	686	774																		
		129	125	121	116	111	106	96																		
		77	215	346	468	572	674	779																		
		174	173	170	166	161	155	143																		
		66	200	325	448	564	657	756																		
		203	202	200	196	190	184	175																		
			180	296	438	550	642	741																		
			232	229	225	220	215	202																		
			162	294	415	548	637	730																		
			262	261	257	250	241	228																		
			137	274	388	520	618	726																		
			290	289	285	280	273	260																		
			130	261	370	509	604																			
			328	326	322	316	307																			
			85	224	358	490																				
			348	347	344	336																				

BMER300 [296cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

Flow (L/min)	2		4		8		15		25		34		45		53		60		68		75		85		95	
	Max.int.	50	93																							
	3	1																								
	62	141	294	429	502	618																				
	11	10	9	8	7	4																				
	63	147	298	432	565	667	761	819																		
	22	21	20	19	16	13	9	5																		
	66	144	305	427	568	671	810	894																		
	48	47	45	43	39	33	28	20																		
	59	138	289	420	552	676	791	932																		
	82	81	80	76	71	64	56	44																		
	48	130	297	393	562	689	805	926																		
	113	112	110	107	102	96	86	73																		
		96	268	385	527	636	753	880																		
		150	149	148	143	135	124	112																		
		76	242	383	524	631	758	900																		
		177	176	175	173	165	152	138																		
		64	225	362	506	627	753	892																		
		200	199	198	193	186	174	162																		
			200	333	470	630	750	882																		
			225	224	222	212	201	194																		
			178	322	464	610	741	870																		
			251	250	247	240	232	215																		
			140	316	455	570	728																			
			285	284	278	270	257																			
			106	260	431	552	700																			
			316	314	311	307	292																			

BMER350 [345cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
--	------	-----	---	------	----	------	------	----

Flow (L/min)	2		4		8		15		25		34		45		53		60		68		75		85		95	
	Max.int.	63	133																							
	4	4																								
	64	135	290	440																						
	10	9	8	7																						
	68	146	310	458	589	735	847																			
	21	20	20	19	18	16	12																			
	72	150	314	468	627	769	880	984																		
	42	41	40	39	37	35	32	26																		
	63	148	313	470	628	765	892	1018																		
	70	69	68	66	63	60	55	46																		
	52	133	304	455	619	760	905	1034																		
	97	96	95	93	89	85	78	68																		
		100	261	442	583	736	887	1028																		
		129	128	127	125	118	112	101																		
		85	247	418	566	715	880	1024																		
		152	150	148	145	139	132	118																		
		65	233	410	550	712	842	996																		
		171	170	169	167	162	155	143																		
			218	387	543	696	825	976																		
			195	194	190	185	175	162																		
			206	373	515	680	822	966																		
			215	214	212	206	197	183																		
			176	355	510	679	808																			
			243	242	239	234	227																			
				353	509	645																				

BMER400 [405cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	19	22.5
						Max.cont.		Peak

Flow (L/min)	Pressure (MPa)							
	1.75	3.5	7	10.5	14	17.5	19	22.5
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			250 184	455 183	635 180	820 176	900 170	1065 158
85			225 209	415 208	600 206	785 202	865 194	
90			160 220	365 218	575 216	770 210		

BMER475 [462cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5
						Max.cont.	Peak

Flow (L/min)	Pressure (MPa)						
	1.75	3.5	7	10.5	14	17.5	20.5
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			230 161	480 160	702 158	920 153	1116 140
85			200 182	454 180	662 177	876 168	
90			150 194	378 193	615 190	840 182	

BMER540 [540cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	
						Max.cont.	Max.int.

Flow (L/min)	Pressure (MPa)					
	1.75	3.5	7	10.5	14	17.5
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			318 138	600 137	826 135	1100 132
85			292 154	538 153	780 152	
90			214 169	486 168	755 168	

Torque (N·m) 486
Speed (rpm) 168

BMER650 [647cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	12	15.5
						Peak

Flow (L/min)	Pressure (MPa)					
	1.75	3.5	7	10.5	12	15.5
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			420 114	730 113	855 112	1130 110
83			380 130	660 129	795 128	
90			290 138	585 137	730 136	

BMER750 [745cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	12	14
						Peak

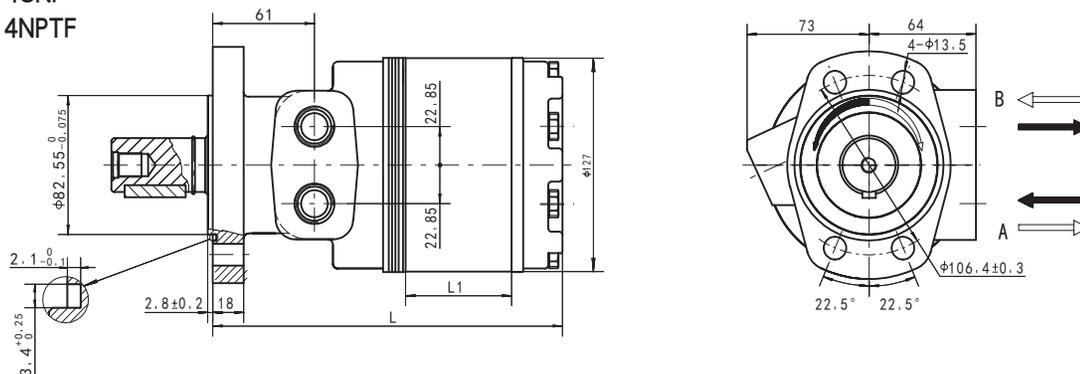
Flow (L/min)	Pressure (MPa)					
	1.75	3.5	7	10.5	12	14
2	145 2	280 1				
4	160 4	321 4	654 4	960 3	1115 3	1312 2
8	162 9	335 9	688 9	1026 8	1159 8	1347 7
15	156 19	330 19	694 18	1047 18	1184 17	1376 16
25	142 32	320 31	688 30	1046 30	1179 29	1373 27
34	110 44	288 44	658 42	1021 41	1169 40	1366 37
45	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		65 99	425 99	812 98	980 97	1178 96
83			395 110	745 109	906 108	
90			298 120	660 119	800 117	

cont.
int.

BMER-2 DIMENSIONS MOUNTING DATA

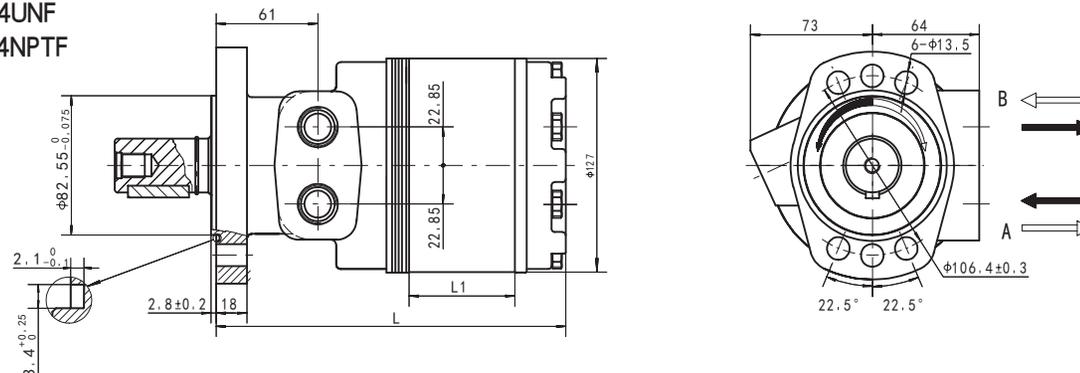
Magneto Mount 4-Hole

Code: Port A、B
MS 7/8-14UNF
MP 1/2-14NPTF
MD G1/2



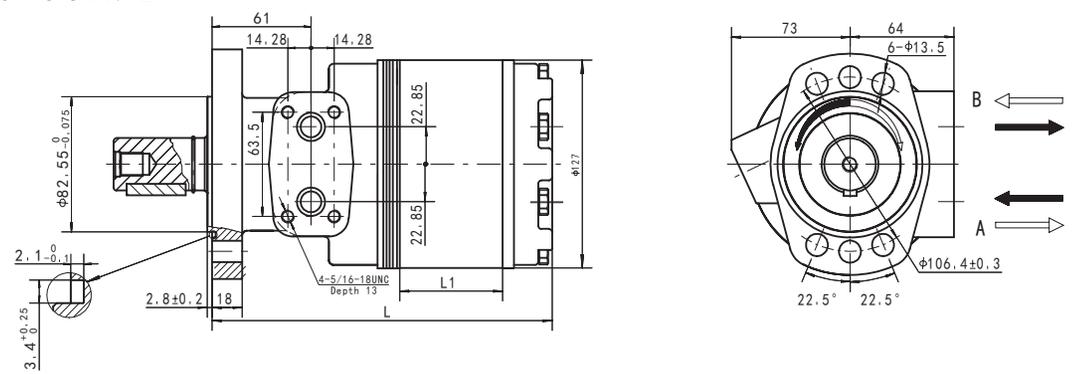
Magneto Mount 6-Hole

Code: Port A、B
FS 7/8-14UNF
FP 1/2-14NPTF
FD G1/2



Magneto Mount 6-Hole

Code:Manifold Port A、B
FH $\phi 12.7$

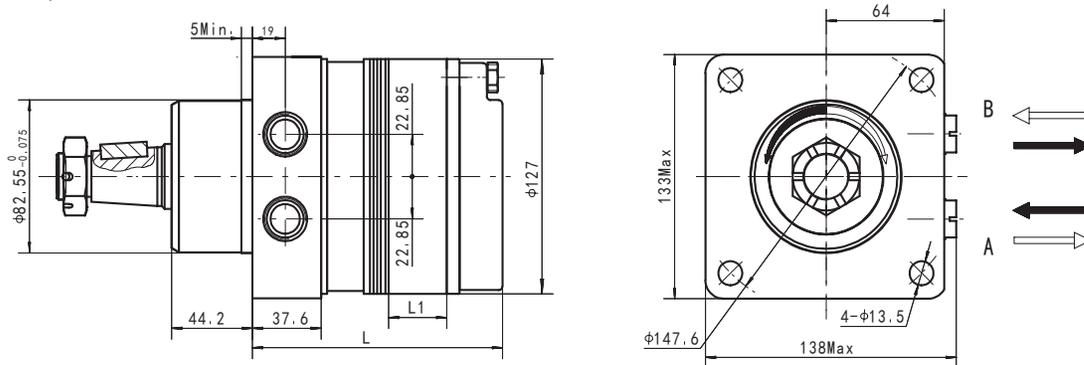


Displacement (cm ³ /rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	157	160	163.5	166	168.5	172	176	178.5	182	186	194	204	210
Weight(kg)	10.6	10.9	11.2	11.3	11.4	11.6	12	12.5	12.7	13	13.5	14.5	15

BMER-2 DIMENSIONS MOUNTING DATA

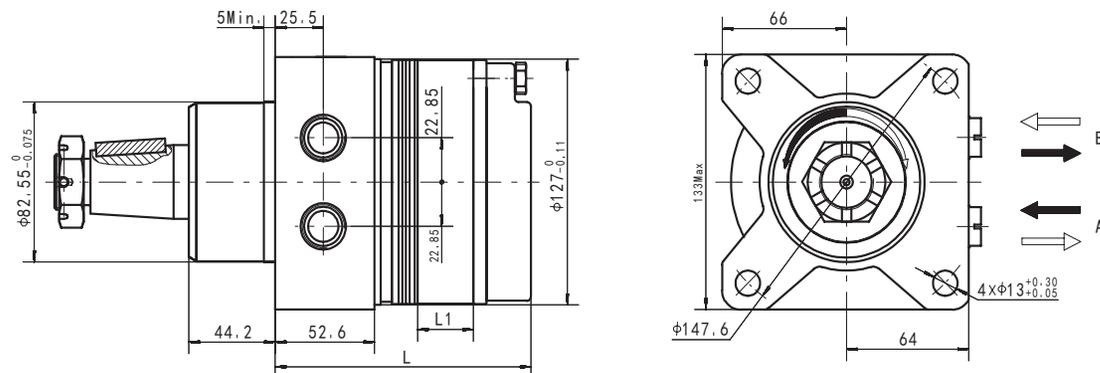
Wheel Mount

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



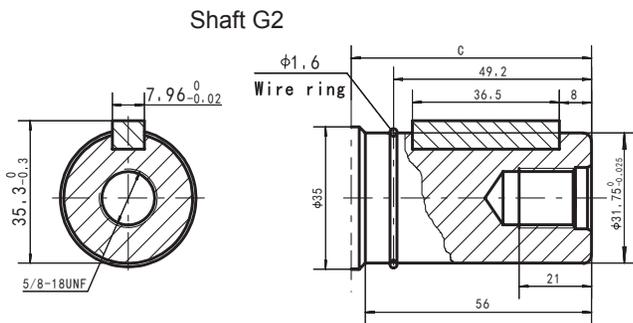
Wheel Mount

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

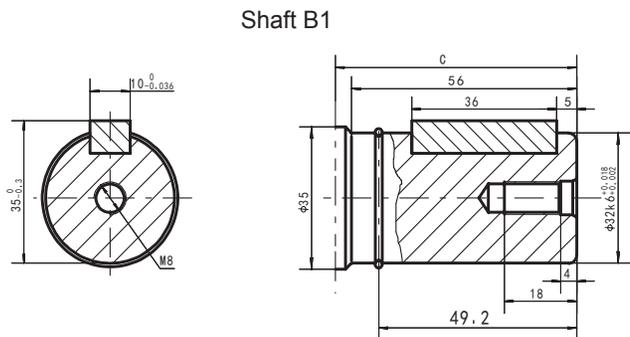


Displacement (cm ³ /rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	144	148	156	166	173
Weight(kg)	12	12.1	12.3	12.4	12.6	13	13.2	13.5	13.7	14	14.6	15.5	16

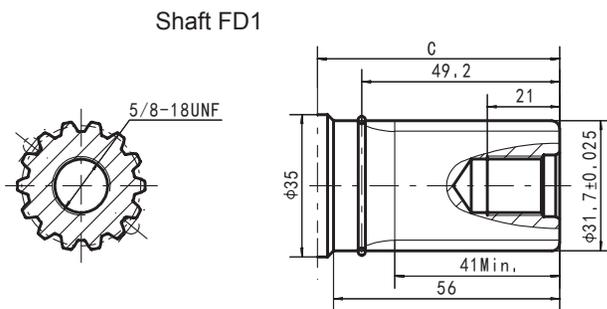
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA



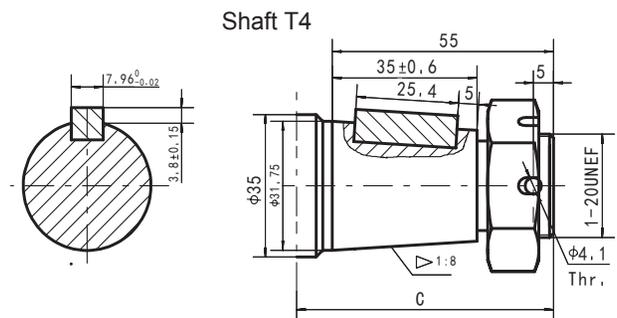
Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7.96x7x36.5



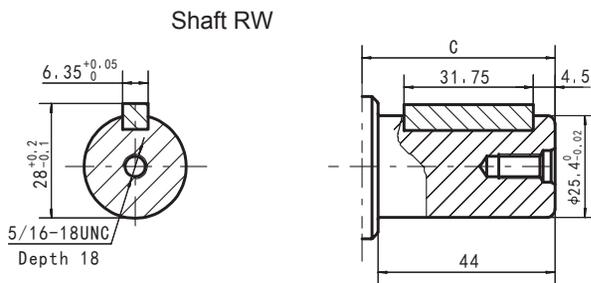
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



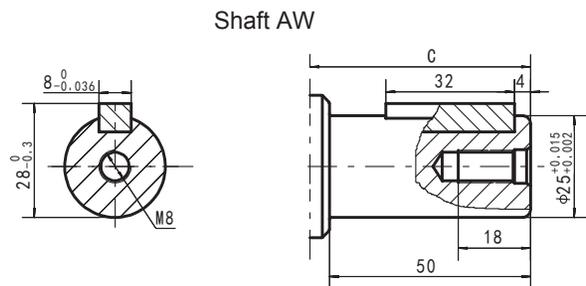
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



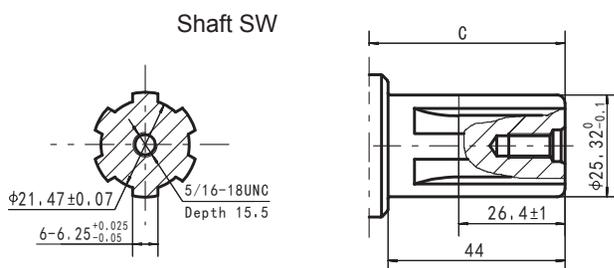
Shaft T4: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



Shaft RW: Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75



Shaft AW: Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32



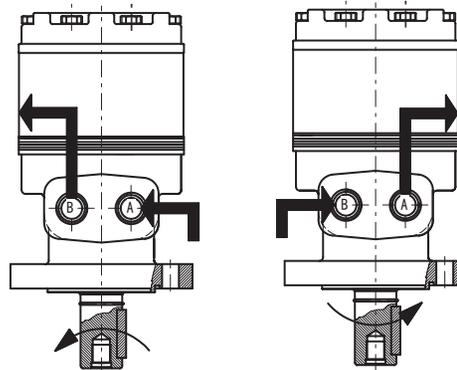
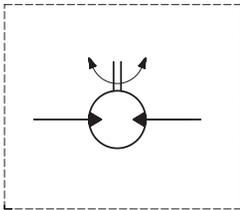
Shaft SW: Splined SAE 6B

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

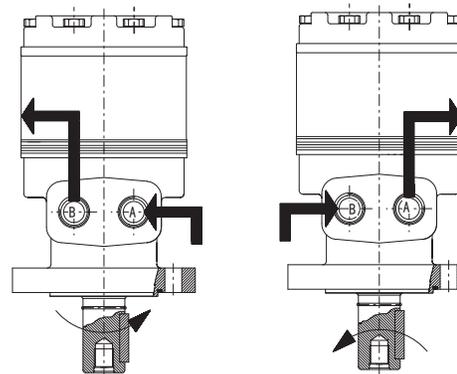
BMER-2 can be configured $\varnothing 38.1$ shaft seal. Shaft type T31 and M1 and G32. Please consult the sales manager.

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.

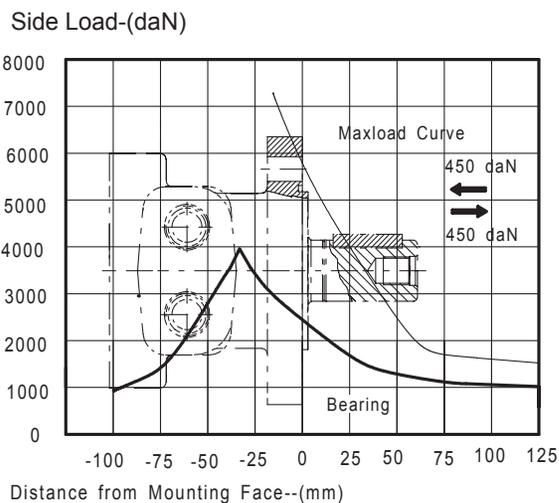


Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

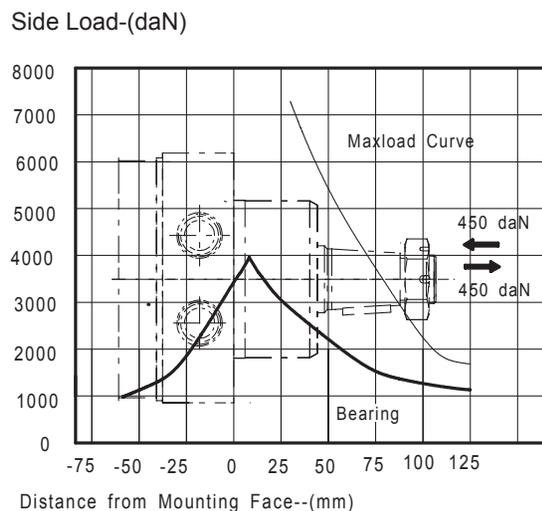


Axial and Radial forces

BMER-2 or M#/F# Mounting



BMER-2 for W# Mounting



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

Order Information



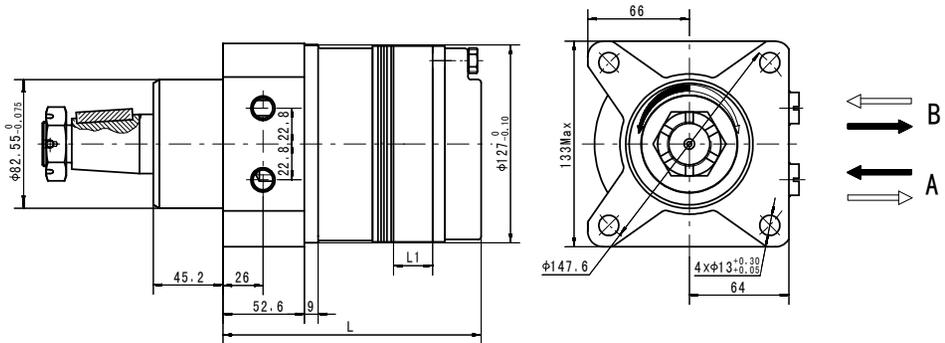
Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Ports	Output Shaft	Rotation direction	Paint	Unusually function
	125	MS 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring	G2 Shaft Ø31.75 , parallel key 7.96x7x36.5			
	160	MP 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF	B1 ShaftØ32, Parallel key 10×8×36			
	200	MD 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2	FD1 Shaft Ø31.75, splined key 14-DP 12/24			
	230	FS 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring	T4 Cone-Shaft Ø31.75, Parallel key 7.96×7.96×25.4		00	
	250	FP 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF	RW Shaft Ø25.4 , parallel key 6.35×6.35×31.75	Standard	None	None
2	300	FD 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2	AW Shaft Ø25 , parallel key 8×7×32	Reverse	Blue	Standard
	375	FH 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Manifold Ports 1/2	SW Shaft Ø25.4 ,splined key SAE 6B	Timed	Black	
	400	WS 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring	M1 ShaftØ35, Parallel key 10×8×45			
	475	WP 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF	T31 Cone-Shaft Ø38.1, Parallel key 7.96×7×36.5			
	650	WD 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2	G32 Shaft Ø38.1 , parallel key 9.525×9.525×42			
	750	TS 4-Ø13.5 Wheel Mount,Pilot Ø82.55×5, Ports 7/8-14 O-ring				
		TP 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF				
		TD 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2				

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

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#.

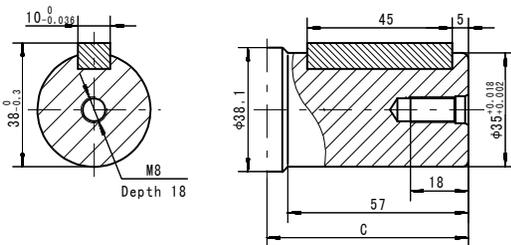
BMER-3 SHAFT EXTENSIONS DIMENSIONS DATA

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



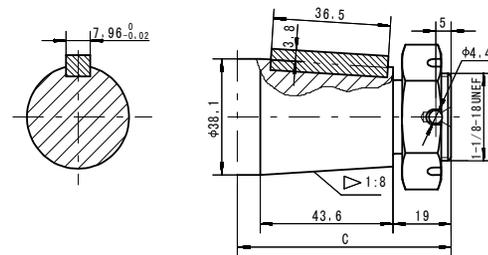
Displacement (cm ³ /rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	153	156	159.5	162	164.5	168	172	174.5	178	182	190	199.5	206
Weight(kg)	13.2	13.5	13.8	14	14.2	14.5	14.9	15.2	15.5	15.7	16.5	17.3	17.8

Shaft M31



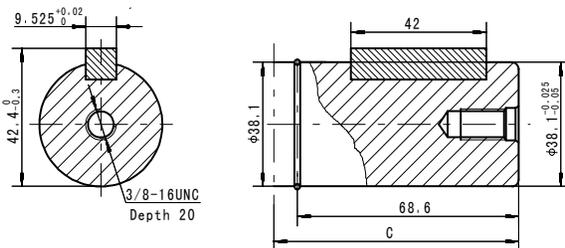
Shaft M31:Cylindrical shaft $\phi 35$
Parallel key 10x8x45

Shaft T31



Shaft T31:Cone-shaft $\phi 38.1$
Parallel key 7.96x7x36.5
Tightening torque:410~510Nm

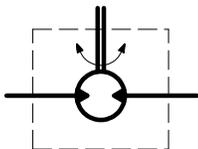
Shaft G31



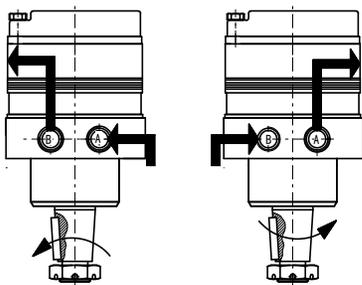
Shaft G31:Cylindrical shaft $\phi 38.1$
Parallel key 9.525x9.525x42

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

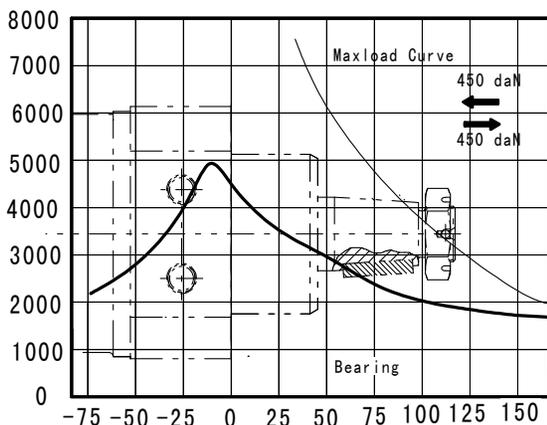


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



BMER-3 for W# Mounting

Side Load-(daN)



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

Order Information

1 2 3 4 5 6 7

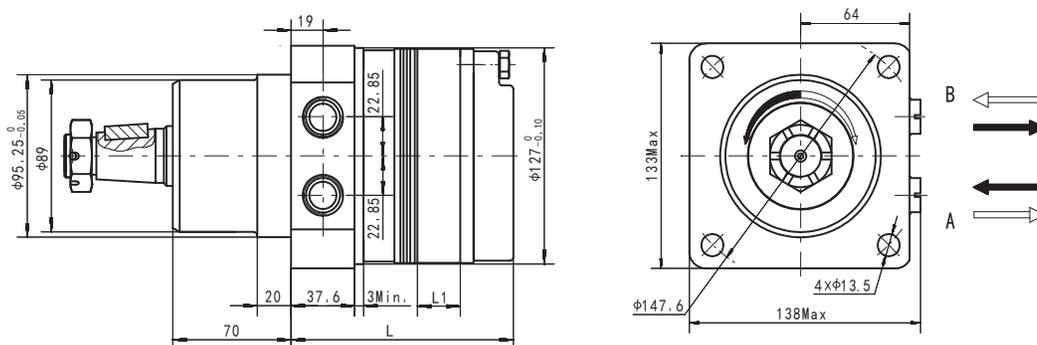
F

Pos.1	2	3	4	5	6	7
Code	Disp.	Mount Flange, Pilot, Port	Output Shaft	Rotation direction	Paint	Unusually function
3	125	WS 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports 7/8-14 O-ring WP 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports 1/2-14NPTF WD 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55, Ports G1/2	Shaft ϕ 35, Parallel key 10 \times 8 \times 45 Cone-Shaft ϕ 38.1, Parallel key 7.96 \times 7 \times 36.5 Shaft ϕ 38.1, parallel key 9.525 \times 9.525 \times 42	None Standard Reverse timed	No paint Blue Black Silver Grey	None Standard
	160					
	200					
	230					
250	M31					
300	T31					
350	G31					
375						
400						
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.

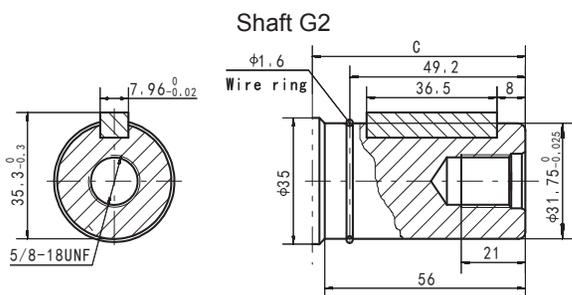
BMER-4 DIMENSIONS MOUNTING DATA

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

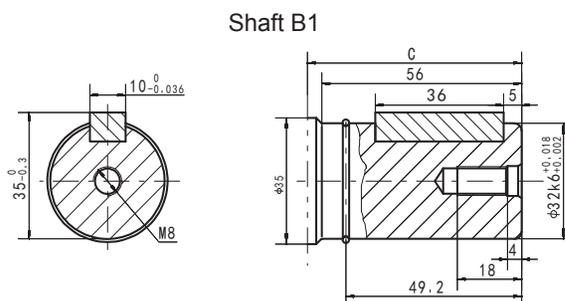


Displacement (cm ³ /rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	144.5	148	156	165.5	172
Weight(kg)	12.8	13.1	13.4	13.6	13.8	14.1	14.5	14.8	15.2	15.6	16.1	16.9	17.4

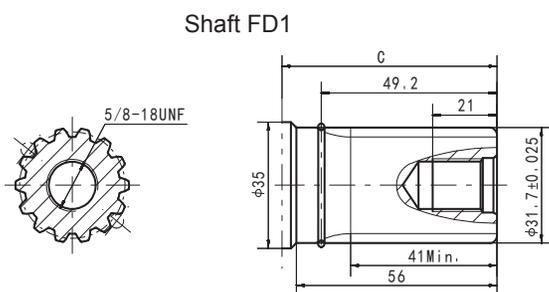
Shaft Extensions For BMER-4 Motors



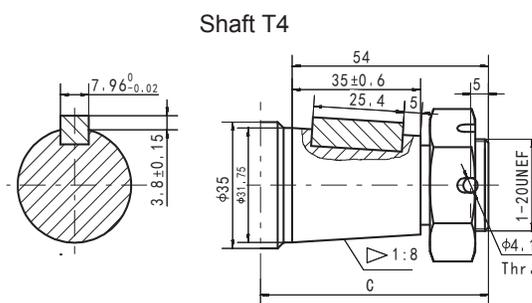
Shaft G2:Cylindrical shaft $\varnothing 31.75$
Parallel key 7x96x7x36x5



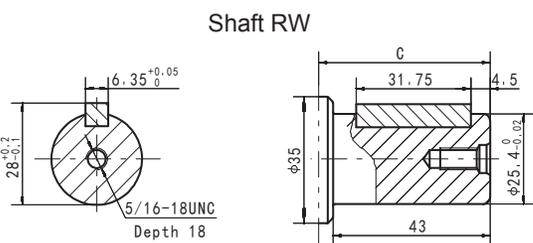
Shaft B1:Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



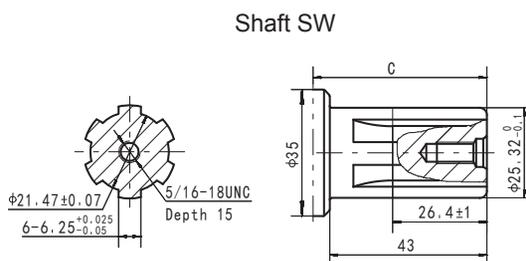
Shaft FD1:Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



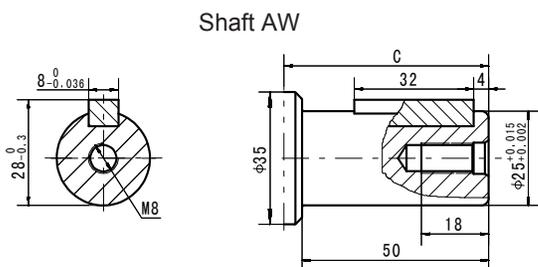
Shaft T4:Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



Shaft RW:Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75



Shaft SW:Splined SAE 6B

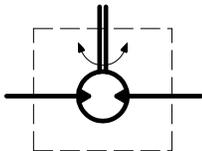


Shaft AW:Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32

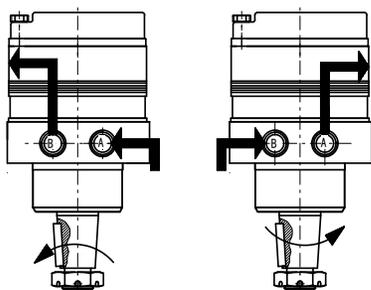
From Mounting Flange to Shaft End	
Dimension C	
Shaft Code	Wheel Mount (mm)
G2	131
B1	130
FD1	131
T4	135
RW	119
SW	119
AW	125

BMER-4 can be configured Shaft type of $\varnothing 38.1$ shaft seal. Please consult the sales manager.

BMER-4 Series Hydraulic Motors

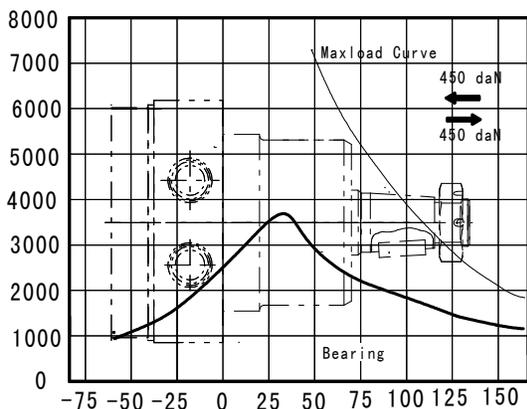


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



BMER-4 for W# Mounting

Side Load-(daN)



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

Order Information

1 2 3 4 5 6 7

F

Pos.1	Code	Disp.	Mount Flange, Pilot, Port	Output Shaft	Rotation direction	Paint	Unusually function
4	125	160	WS 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports 7/8-14 O-ring	G2 Shaft ϕ 31.75 , parillel key 7.96x7x36.5 B1 Shaft ϕ 32, Parallel key 10x8x36	None	00	None
	200	230					
	250	300	WP 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports 1/2-14NPTF	FD1 Shaft ϕ 31.75, splined key 14-DP12/24 T4 Cone-Shaft ϕ 31.75, Parallel key 7.96x7.96x25.4	Reverse timed	Blue	B
	350	375					
	400	475	WD 4- ϕ 13.5 Wheel Mount, Pilot ϕ 82.55x5, Ports G1/2	RW Shaft ϕ 25.4 , parillel key 6.35x6.35x31.75 SW Shaft ϕ 25.4 ,splined key SAE 6B	None	None	S
	540	650					
	750		AW Shaft ϕ 25 , parillel key 8x7x32	Standard	Black		
				AW Shaft ϕ 25 , parillel key 8x7x32	Reverse timed	Sliver Grey	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.



BK10 Series Static Wet Hydraulic Brake

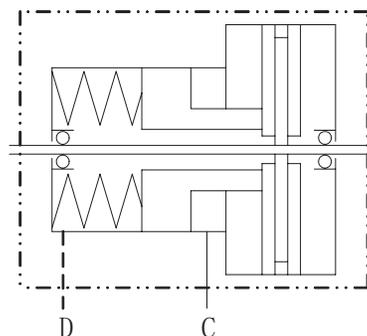
BK10 series static wet hydraulic brake is suitable for lower speed application of scissors type aerial work platform and agricultural machinery and others with wheel mounting. The feature:

- * 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

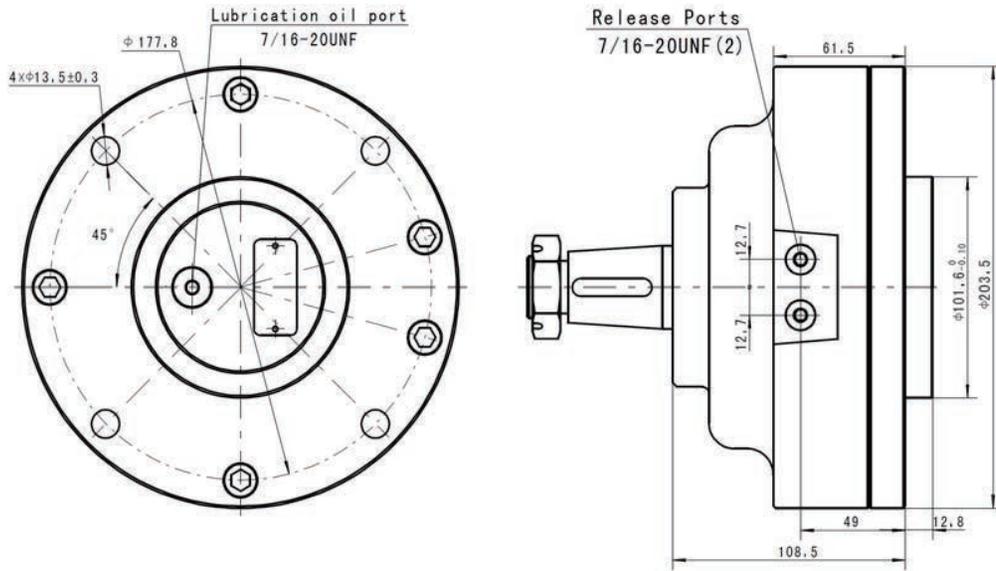
Item	BK10-1	BK10-2
Min. Static Torque [Nm]	1150	1700
Release Pressure [MPa]	2.8	
Max. Release Pressure [MPa]	21	
Max. Speed [rpm]	300	
Release Volume [cm ³]	12	
Oil Volume [cm ³]	100~120	
Max. Pressure of Lubrication oil port [MPa]	0.05	
Weight [kg]	18	20

Hydraulic systems



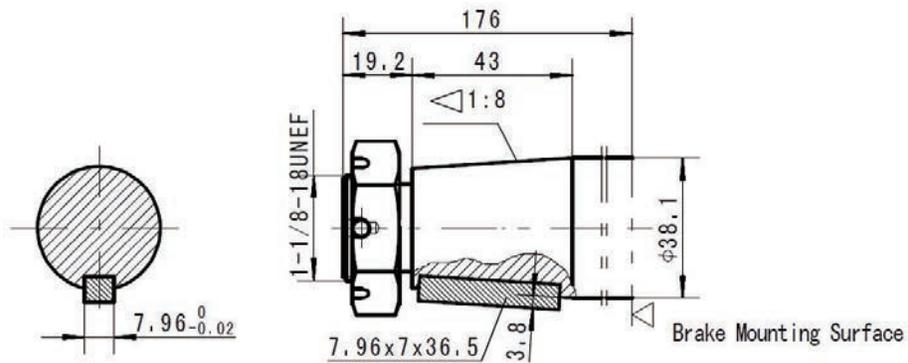
BK10-1 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors



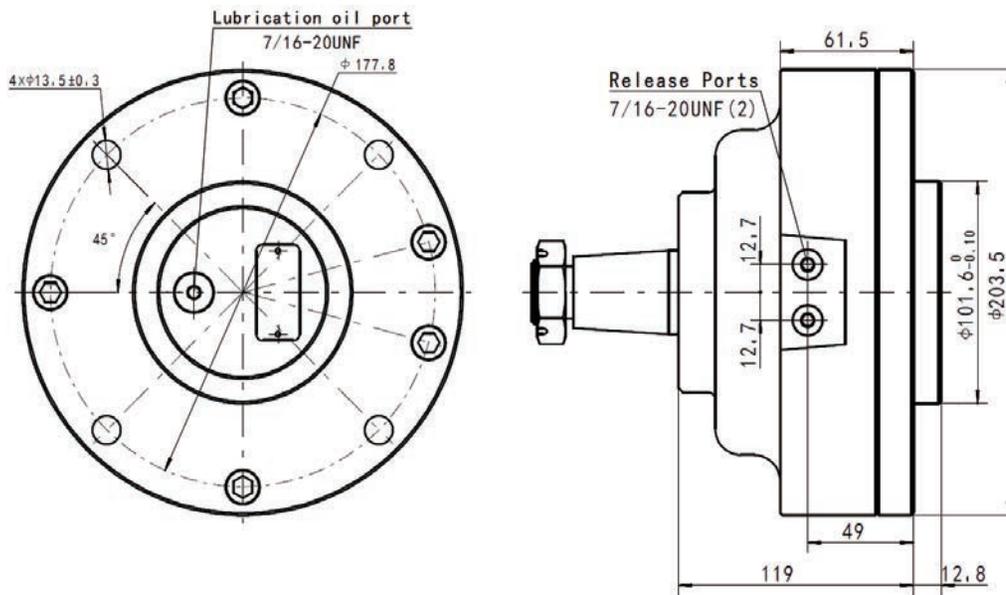
BK10-1 DIMENSIONS OF SHAFT EXTENTSIONS

T31 $\Phi 38.1$ Cone—shaft 1:8



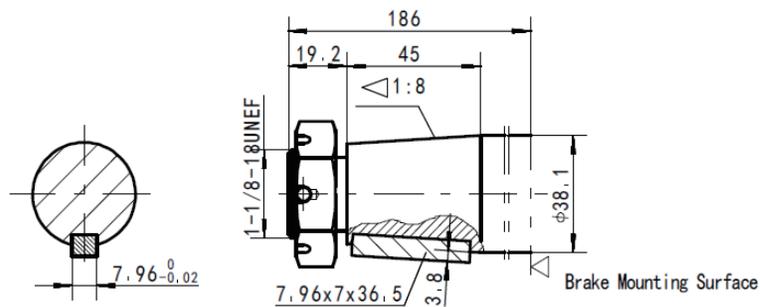
BK10-2 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors

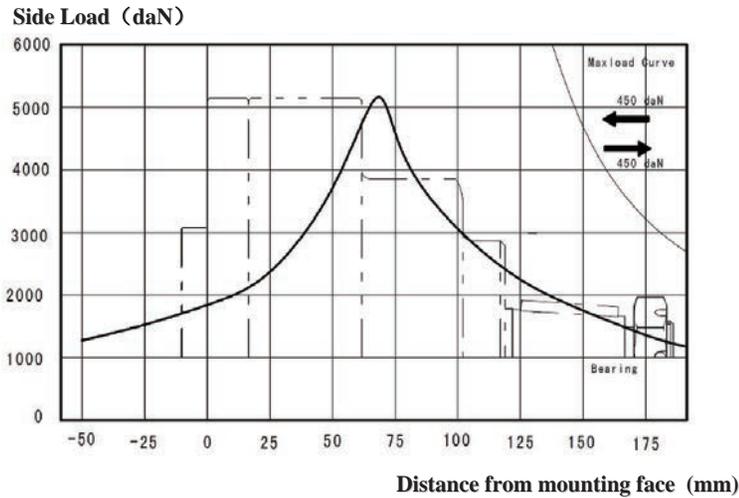


BK10-2 DIMENSIONS OF SHAFT EXTENTSIONS

T31 $\Phi 38.1$ Cone—shaft 1:8



BK10-2 Mounting Flange Radial Forces



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

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 Ports	Lubrication Port	Paint	Design Code	Nut Code
2	1700	Ø38.1 Cone-Shaft 1:8. Parallel key 7.96x7x36.5	S1 Round Flange 4x Ø13.5, Ø177.8, Pilot Ø101.6x12.8, Brake Ports 7/16-20UNF	Omit 7/16-20UNF	B Black S Silver Grey 00 No paint Omit 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.



BK2 SERIES HYDRAULIC BRAKE

Introduction

BK2 series brake is one kind of hydraulic wet disc brake. The brake force is caused by the spring, and hydraulic pressure releases the brake force.

Features as follows:

- * BK2 series adopts the special friction disc and high strength spring design: long life endurance, low noise, high braking reliability.
- * with 4 Drain port design , the brake can be used in different applications.
- * compact structure, easy mounting.
- * it can be used preferentially together with BMP, BMR, BMS series hydraulic motor.

Application

BK2 series hydraulic brake stays in braking condition since delivery out of the factory. During normal operation, there exists the braking force in the brake disc, only if the pressure of hydraulic system, that the brake links , is lower than the pressure required by the release of brake, the spring force shall keep the brake in braking condition.

BK2 series hydraulic brake is widely used in heavy duty machinery, such as engineering machinery, cranes, off-highway machinery vehicles, construction machinery, material handling machinery, agricultural machinery, mining, sanitation machinery, timber industries. They are also used in winches and in hydrostatic drive systems for automatization engines.

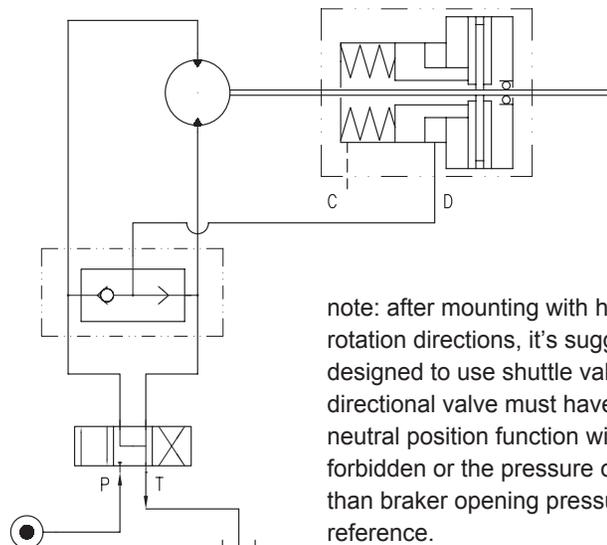
Special Note: such kind of brake is only used in static parking brake. Dynamic braking is not recommended.

Intruction Manual

一、 In order to make the BK2 series brake work under the best situation, we recommend the normal requirements as follows:

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

Typical Applications Drawing

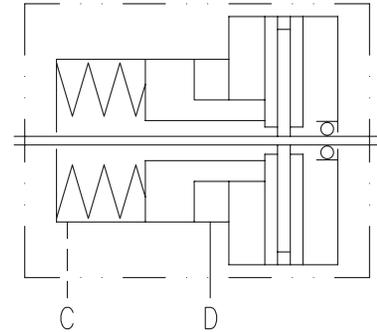


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function(type Y or H), the neutral position function without off-load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

Specification Data

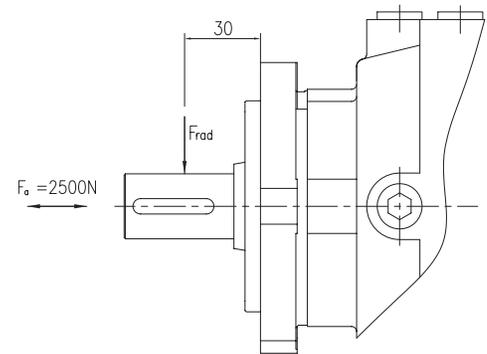
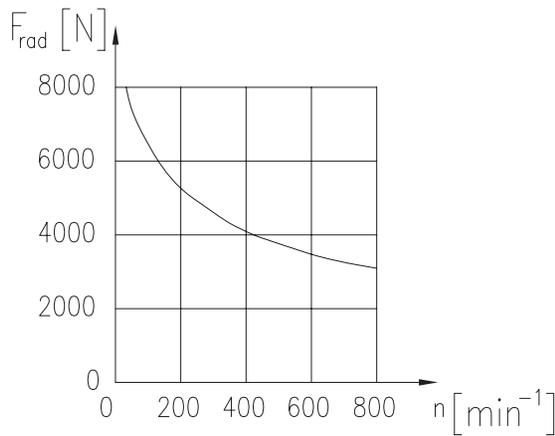
Item	BK2-1	
Min. static Torque [Nm]	200~230	410~450
Min. Opening Pressure [MPa]	1.7~2.3	
Max. Opening Pressure [MPa]	30	
Min.oil quantity for brake releasing[cm ³]	7~8	
Oil volume [cm ³]	50~120	
Max. pressure in drain space [MPa]	0.05	
Weight [kg]	9	

*Static torque is obtained at working pressure 0 MPa

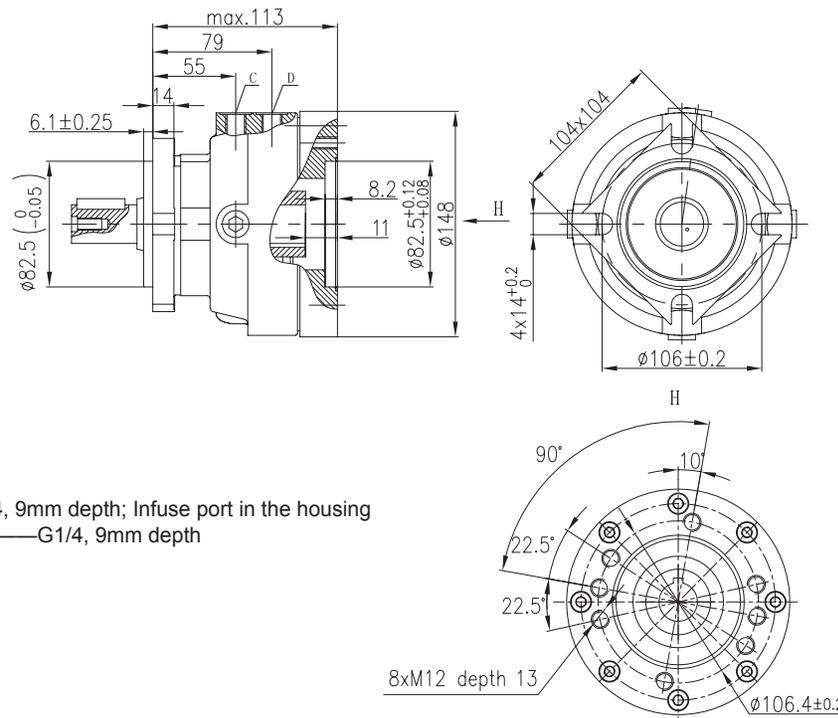


symble drawing

Load Curve

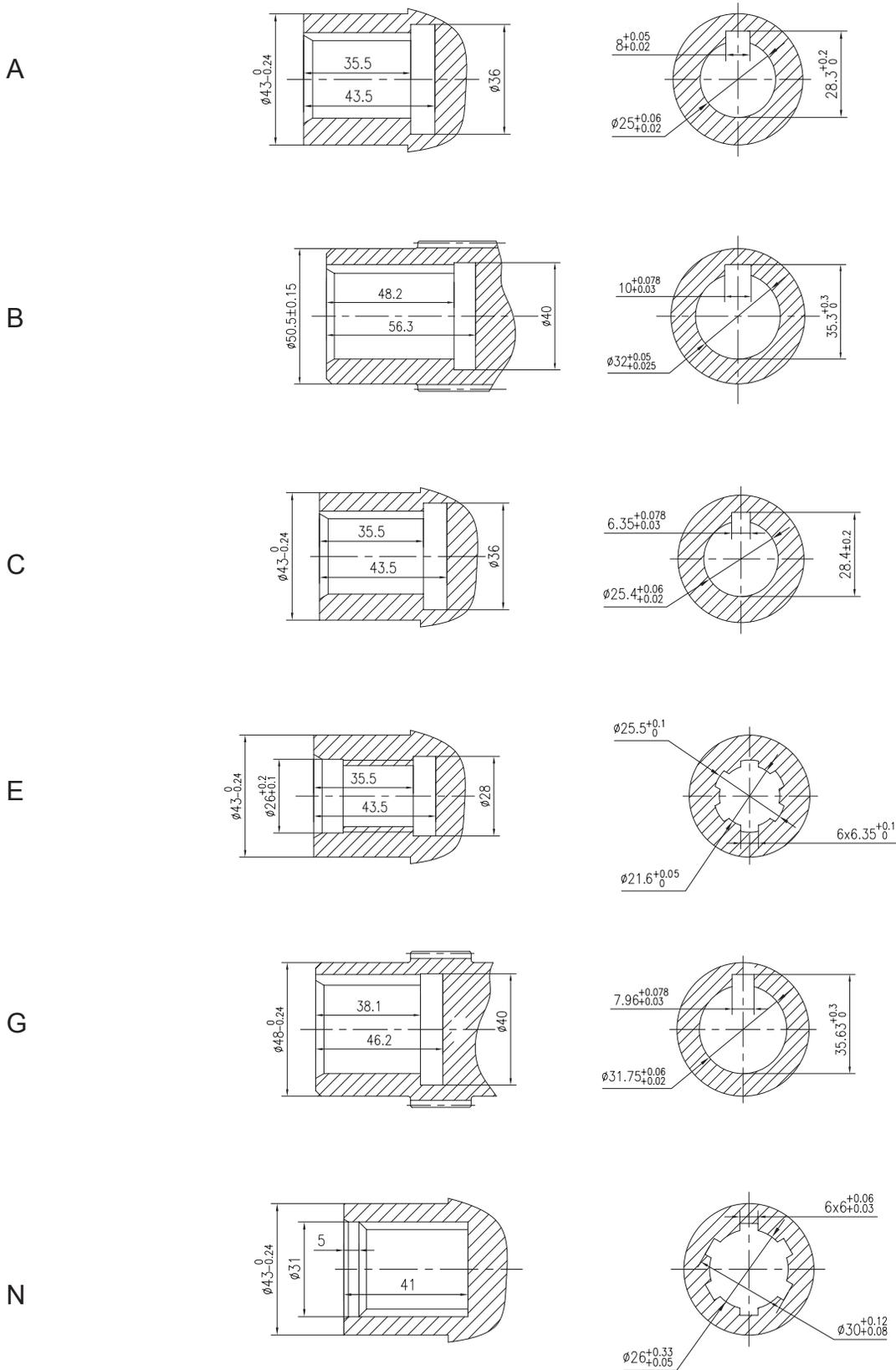


Mounting Data
Model BK2-1



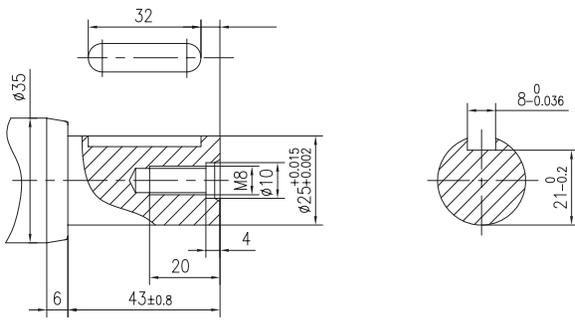
C Drain port—G1/4, 9mm depth; Infuse port in the housing
D Brake release port—G1/4, 9mm depth

INPUT & OUTPUT SHAFT DATA
INPUT SHAFT HOLES

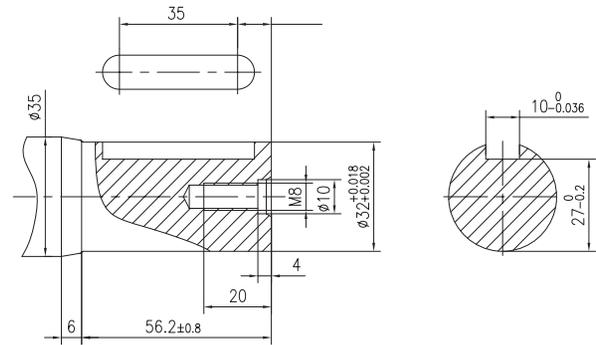


OUTPUT SHAFT EXTENSIONS

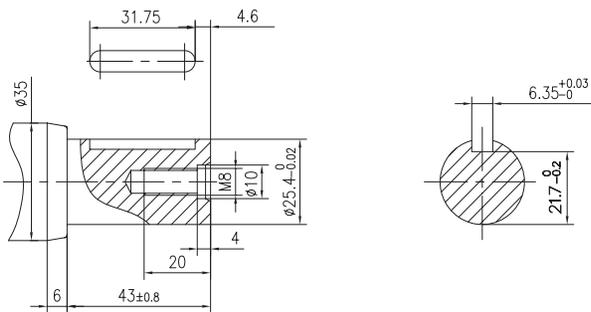
A



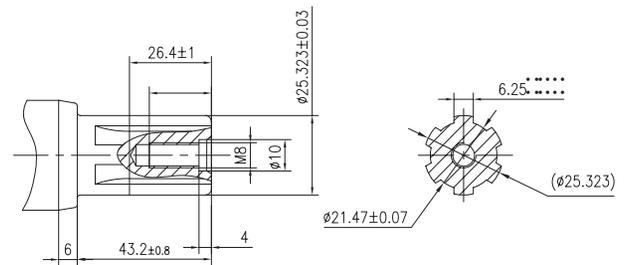
B



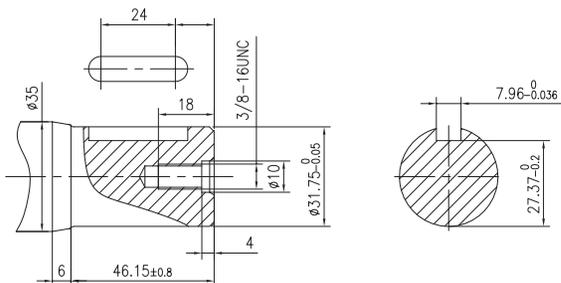
C



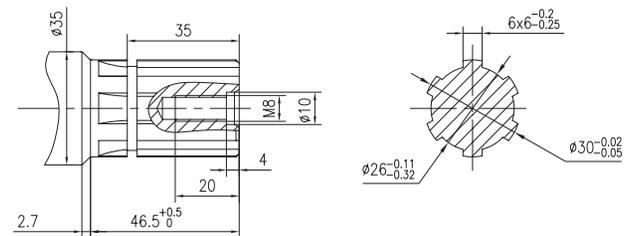
E



G



N

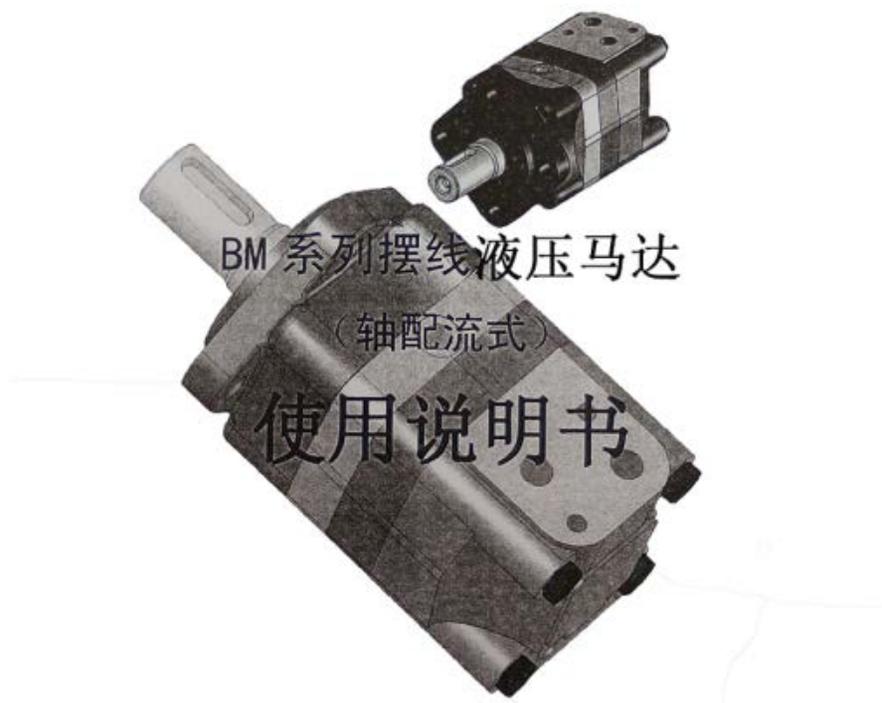


Order Information

1	2	3	4	5	6	7
BK						

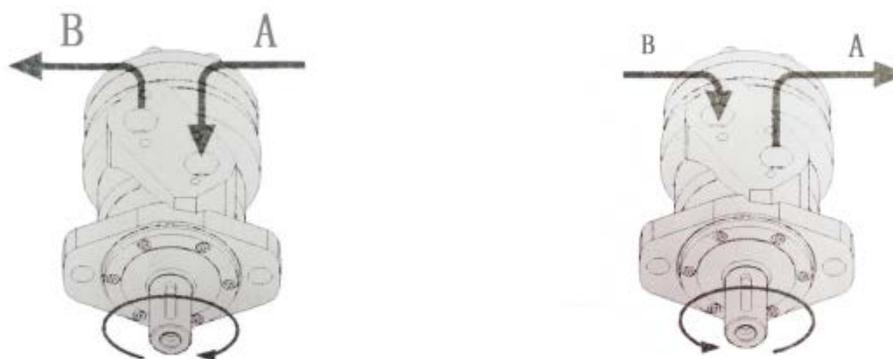
Pos.1	2	3	4	5	6	7
Series Structure Code	Torque	Input Shaft holes	Output Shaft extensions	Paint	Unusually function	
2	Torque200--230Nm	Shaft holes $\Phi 25$, Parallel key 10 $\times 8 \times 45$	A Shaft $\Phi 25$, Parallel key 8 $\times 7 \times 32$ B Shaft $\Phi 32$, Parallel key 10 $\times 8 \times 45$	No Paint Blue Black Silver Grey	00 omit B S	omit Standard
	Torque410--450Nm	210 Shaft holes $\Phi 25.4$, Parallel key 6.35 $\times 6.35 \times 31.75$ 430 Shaft holes $\Phi 25.4$, splined key SAE 6B Shaft holes $\Phi 31.75$, Parallel key 7.96 $\times 7.96 \times 31.75$	C Shaft $\Phi 25.4$, Parallel Key 6.35 $\times 6.35 \times 31.75$ E Shaft $\Phi 25.4$, splined key SAE 6B G Shaft $\Phi 31.75$, Parallel Key 7.96 $\times 7.96 \times 31.75$			omit

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 $(25-70) \times 10^{-6} \text{m}^2/\text{s}$, 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 $20\mu\text{m}$.

Normal working oil temperature is $25-55^\circ\text{C}$, short-term working oil temperature is not higher than 65°C .

2. Motor installation

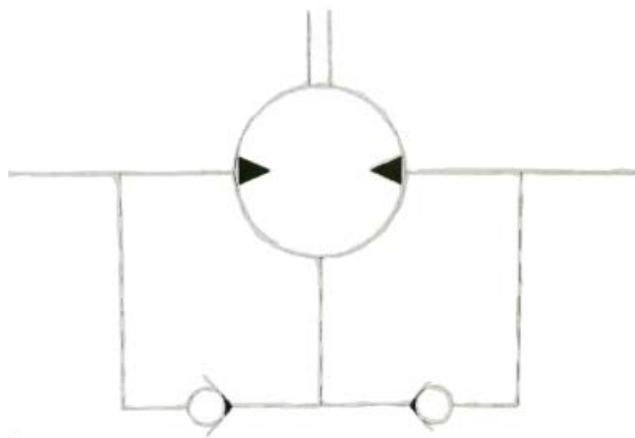
Before installation, check whether the motor is damaged. The motor oil stored for a long time needs to be drained and rinsed to prevent the internal moving parts from sticking.

The motor mounting bracket must have sufficient rigidity to prevent shock and vibration during rotation.

The mounting bolts must be tightened evenly.

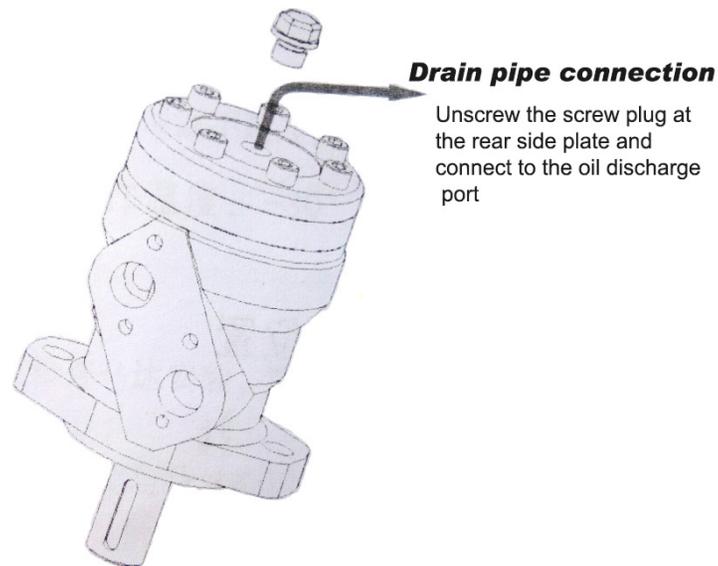
Connection method of drain pipe:

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 $\leq 1\text{Mpa}$, 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.

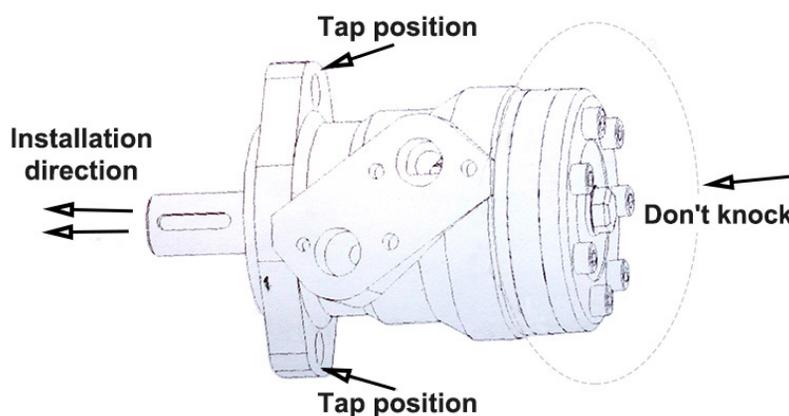
The installation surface should be flat.

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 °C.

Motor limit working temperature: -30 °C -70 °C

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 running	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:

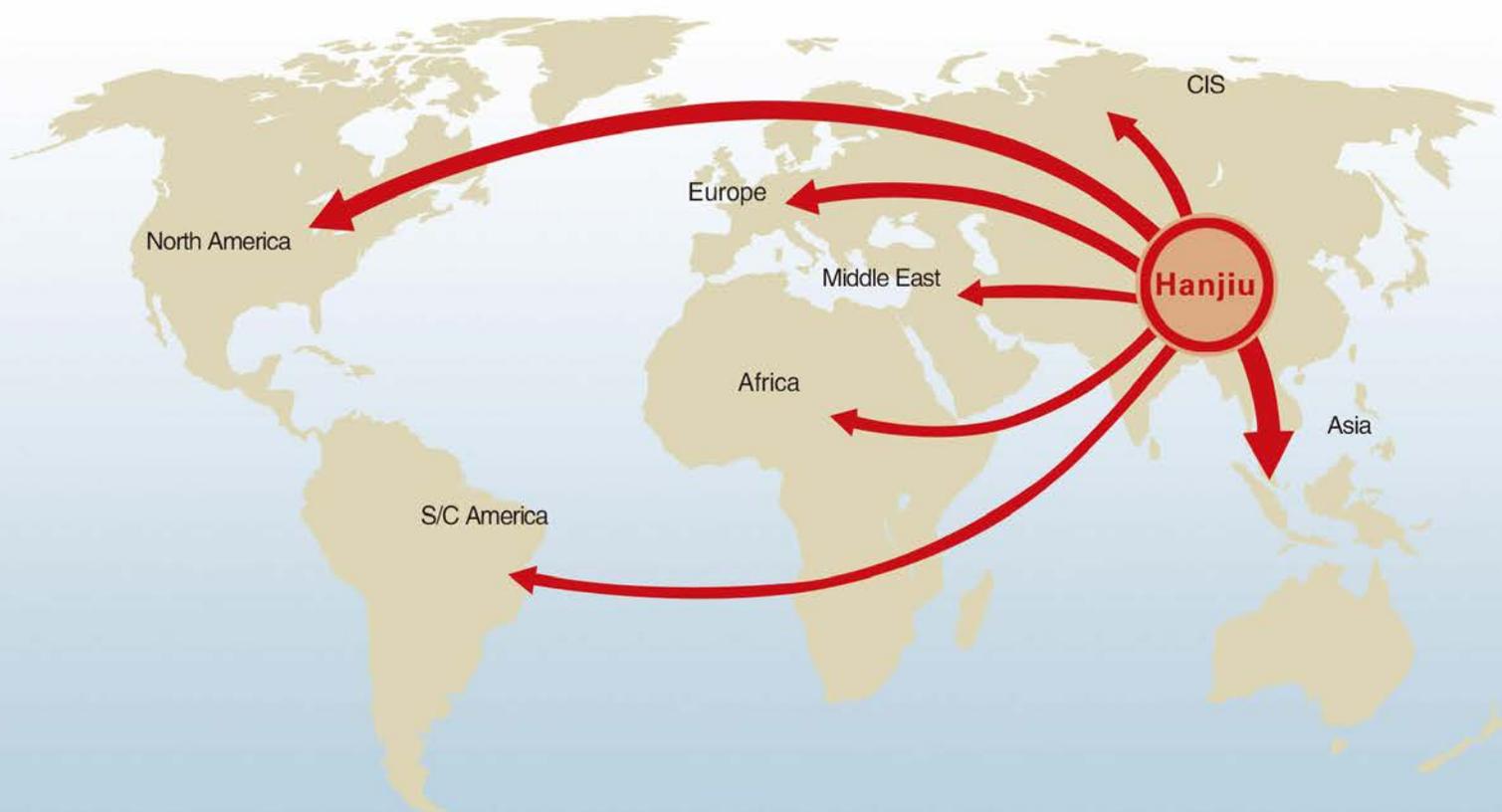
The cavity should be filled with oil, and the oil ports should be sealed. Grease on the surface of the output shaft should be wrapped with a cloth or sleeve.

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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PROFESSIONAL ON HYDRAULIC-FOCUS ON HIGH QUALITY



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