

BMP-BMR-BMH



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 series. When the pressure of the back exceeds 2Mpa,it is necessary to install an external drain line to the tank.
5. For BMP and BMR series motors,the type of output shaft may be chosen in demand.
 - 5.1. The output shaft permits a radial force with the radial bearing.
 - 5.2. 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.
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 Motor

distribution type	model	displacement (cm ³ /rev.)	Max. operating pressure (MPa)	speed range (rpm)	Max. output power (kw)
axial distribution	BMP	50~400	16.5	30~879	10
	BMR	50~375	20	30~970	15
	BMH	200~500	20	30~430	17

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

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

Type		BMP BMPH 50	BMP BMPH 80	BMP BMPH 100	BMP BMPH 125	BMP BMPH 160	BMP BMPH 200	BMP BMPH 250	BMP BMPH 315	BMP BMPH 400
Geometric displacement (cm ³ /rev.)		51.7	77.7	96.2	117.9	155.5	189.9	231	311.7	386.2
Max. speed (rpm)	rated	850	650	520	390	310	260	200	156	130
	cont.	879	740	589	475	370	296	237	189	149
	int.	975	827	673	594	463	370	297	236	185
Max. torque (N·m)	rated	81	129	161	202	204	259	325	345	435
	cont.	81	129	161	202	245	286	360	406	435
	int.	108	171	213	268	342	390	456	505	533
Max. output (kW)	rated	7	8.6	8.6	8	6.5	6.9	6.6	5.5	5.8
	cont.	7	9.1	9	9.1	8.7	8.1	8.2	7.2	6.1
	int.	8.9	11.8	11.9	11.8	11.9	10.9	10.1	8.6	7.2
Max. pressure drop (MPa)	rated	12.5	12.5	12.5	12.5	10	10	10	8.5	8.5
	cont.	12.5	12.5	12.5	12.5	12.5	11	11	11	10
	int.	16.5	16.5	16.5	16.5	16.5	16.5	14	12.5	10.5
Max. flow (L/min)	peak	16.5	16.5	16.5	16.5	16.5	16.5	14	12.5	10.5
	rated	45	55	55	55	55	55	55	55	55
	cont.	45	60	60	60	60	60	60	60	60
Weight (kg)	int.	50	75	75	75	75	75	75	75	75
		5.6	5.7	5.9	6	6.2	6.4	6.6	6.9	7.4

* 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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

PERFORMANCE DATA

BMP50 [53.7cm³/rev.]										BMP60 [77.7cm³/rev.]									
Pressure (MPa)										Pressure (MPa)									
Flow (l/min)										Flow (l/min)									
3	6	7	8	10	11	12.5	16.3			3	6	7	8	10	11	12.5	16.3		
8	17	38	44	58	69	79	104			8	28	68	78	89	101	111	138		
15	184	199	194	141	133	120	121			15	28	40	75	81	121	114	128		
20	182	286	218	277	275	267	293			20	184	160	178	175	171	163	162		
25	17	38	44	58	69	79	104			25	28	68	75	81	101	112	129		
30	186	381	316	376	374	367	393			30	187	243	245	188	238	233	235		
35	19	37	44	58	69	79	104			35	22	58	89	79	100	111	128		
40	186	379	373	368	362	356	381			40	278	308	303	180	376	373	348		
45	15	36	43	58	63	71	100			45	34	57	68	78	96	110	126		
50	181	875	870	860	856	847	881			50	882	827	828	821	416	813	807		
55	14	34	42	49	61	70	100			55	22	34	68	77	97	108	124		
60	875	868	863	853	849	840	874			60	130	158	140	142	838	833	848		
65	17	33	41	48	60	70	100			65	28	33	68	75	96	107	123		
70	875	863	859	849	845	837	871			70	818	608	608	607	389	594	588		
											75	18	52	89	74	96	107		
												80	346	712	727	723	718		
													75	18	47	88	23		
														827	828	817	813		

BMP100 [96.2cm³/rev.]										BMP125 [117.9cm³/rev.]									
Pressure (MPa)										Pressure (MPa)									
Flow (l/min)										Flow (l/min)									
3	6	7	8	10	11	12.5	16.3			3	6	7	8	10	11	12.5	16.3		
8	18	75	88	101	126	141	168			8	43	44	131	127	138	176	207		
15	18	75	76	75	67	67	66			15	82	80	59	56	54	48	48		
20	18	145	143	141	137	136	138			20	44	44	131	127	130	177	202		
25	13	74	88	101	126	141	168			25	118	115	118	118	110	168	199		
30	188	186	181	181	180	179	180			30	42	43	130	127	136	178	203		
35	17	72	86	98	123	137	163			35	138	136	133	132	130	148	144		
40	209	206	202	201	200	200	200			40	88	91	188	188	186	174	198		
45	18	89	83	86	121	135	161			45	239	235	232	231	229	225	223		
50	349	345	344	341	337	335	339			50	18	88	186	122	154	172	198		
55	18	88	81	84	119	133	159			55	227	234	272	272	269	268	263		
60	448	445	442	439	435	433	437			60	47	86	188	120	161	178	194		
65	18	88	78	81	117	131	157			65	258	253	252	249	247	242	241		
70	498	493	491	489	486	483	487			70	81	88	180	118	139	167	188		
75	17	83	77	80	116	130	155			75	308	352	380	380	357	363	363		
											80	18	81	89	116	163	166		
												85	475	471	469	467	465		
													80	18	31	83	110		
														104	188	187	181		

BMP160 [155.5cm³/rev.]										BMP200 [199.5cm³/rev.]										BMP250 [231.7cm³/rev.]									
Pressure (MPa)										Pressure (MPa)										Pressure (MPa)									
Flow (l/min)										Flow (l/min)										Flow (l/min)									
3	6	7	8	10	11	12.5	16.3			3	6	7	8	10	11	12.5	16.3			3	6	7	8	10	11	12.5	16.3		
8	87	123	142	161	202	220	240			8	78	133	119	208	288	383	480			8	82	181	228	219	315	357			
15	46	47	46	44	42	40	39			15	20	37	36	31	32	29	32			15	87	20	38	37	25	24			
20	98	121	142	161	204	227	246			20	76	132	180	208	288	386	480			20	82	182	228	250	315	369			
25	91	98	90	89	68	56	55			25	78	72	71	71	78	68	56			25	82	68	57	37	35	35			
30	123	122	121	119	117	116	116			30	71	101	178	208	264	383	480			30	88	181	229	238	312	355			
35	14	117	188	180	201	224	242			35	89	88	87	88	84	81	81			35	88	180	221	233	319	354			
40	108	103	102	100	100	100	100			40	88	140	175	202	254	383	480			40	118	158	173	118	114	118			
45	12	115	187	189	198	220	242			45	65	146	172	206	252	384	480			45	82	184	217	251	313	359			
50	218	213	213	211	210	208	207			50	175	172	171	168	168	168	168			50	118	158	157	133	133	133			
55	18	112	184	186	196	218	238			55	85	142	176	196	247	377	480			55	78	179	214	248	312	345			
60	373	375	375	373	373	368	366			60	132	221	218	218	218	218	218			60	178	158	177	178	173	173			
65	18	118	182	183	194	216	236			65	50	130	166	193	244	372	480			65	78	178	200	243	306	339			
70	398	397	395	393	392	389	387			70	247	248	248	248	242	248	248			70	188	187	189	195	194	193			
75	44	108	183	181	192	214	234			75	56	136	163	191	243	369	475			75	73	171	206	238	303	338			
80	376	368	368	366	362	359	357			80	286	284	283	282	280	287	287			80	237	236	238	234	233	232			
85	12	98	159	142	162	200	221			85	42	127	158	177	228					85	88	188	188	221	288	318			
90	462	458	457	456	452	451	451			90	300	301	302	300	304					90	282	281	285	291	292	291			

BMP315 [311.7cm³/rev.]										BMP400 [386.2cm³/rev.]																
Pressure (MPa)										Pressure (MPa)																
Flow (l/min)										Flow (l/min)																
3	6	7	8	10	11	12.5	16.3			3	6	7	8	10	11	12.5	16.3									
8	110	283	262	273	308					8	187	394	254							8	187	394	254			
13	21	28	27	26	13					13	20	10	10							13	187	395	256	488	413	350
18	113	343	284	328	408					18	187	395	256	488	413	350				18	187	395	256	488	413	350
23	47	46	45	43	41					23	50	49	47	45	43	41				23	50	49	47	45	43	41
28	114	382	282	323	409					28	188	393	256	487	413	350				28	188	393	256	487	413	350
33	81	52	60	58	56					33	159	381	313	482	418	358				33	159	381	313	482	418	358
38	109	337	277	318	401					38	74	73	72	70	68	65				38	74	73	72	70	68	65
43	94	53	60	60	60					43	181	388	345	486	418	358				43	181	388	345	486	418	358
48	110	309	108	108	103					48	80	80	85	83	81	77				48	80	80	85	83	81	77
53	90	426	268	288	381					53	121	387	315	488	418	358				53	121	387	315	488	418	358
58	141	141	138	137	135					58	111	111	106	106	105	106				58	111	111	106	106	105	106
63	91	216	262	304	384					63	111	276	318	482	408	358				63	111	276	318	482	408	358
68	137	157	155	154	153					68	124	124	123	120	118	113				68	124	124	123	120	118	113
73	90	471	268	289	378					73	111	274	318	482	408	358				73	111	274	318	482	408	358
78	180	180	187	185	182					78	189	189	187	184	184	184				78	189	189	187	184	184	184
83	97	164	237	278	355					83	80	240	298	353	378					83	80	240	298	353	378	
88	236	235	234	232	230					88	187	181	185	182	181					88	187	181	185	182	181	

core.

st.

Temp (°C): 20

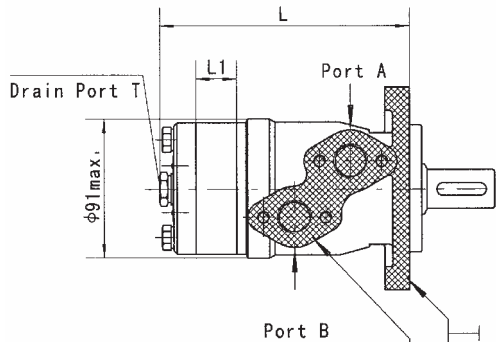
Speed (rpm): 180

Pressure (MPa) 315
Speed (rpm) 180

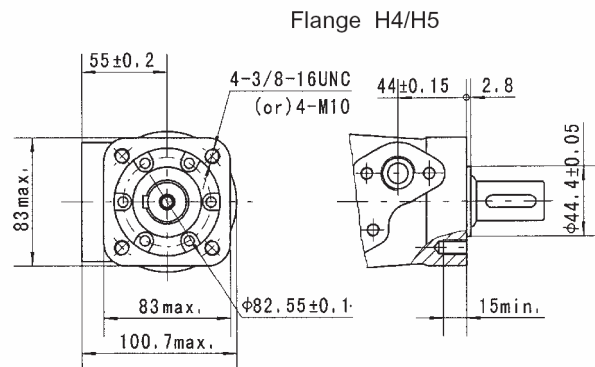
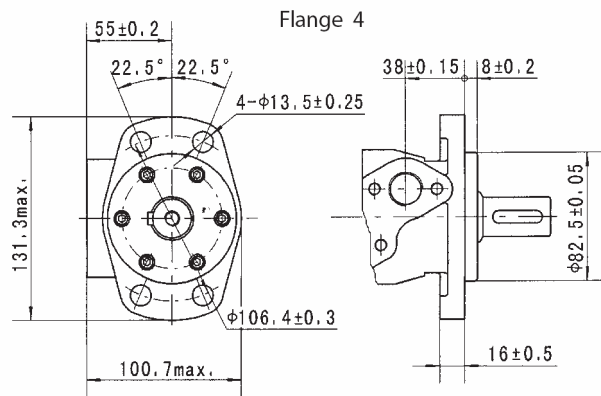
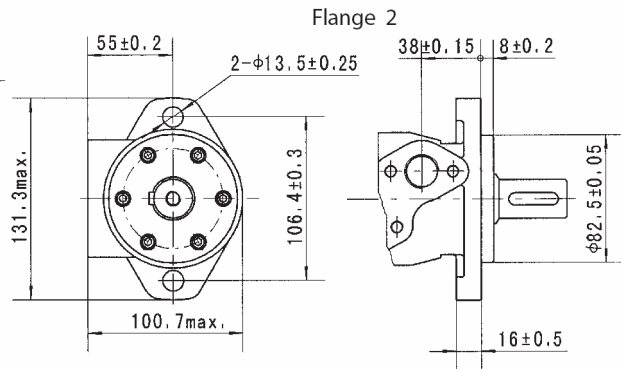
- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

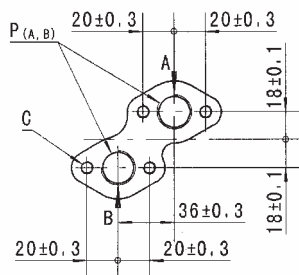
BMP DIMENSIONS AND MOUNTING DATA



MOUNTING



Port



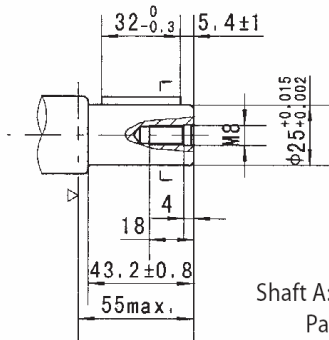
Model	L	L1
BMP50	137	7
BMP80	140.5	10.5
BMP100	143	13
BMP125	146	16
BMP160	151	21
BMP200	157	26
BMP250	162	32
BMP315	172	42
BMP400	182	52

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)

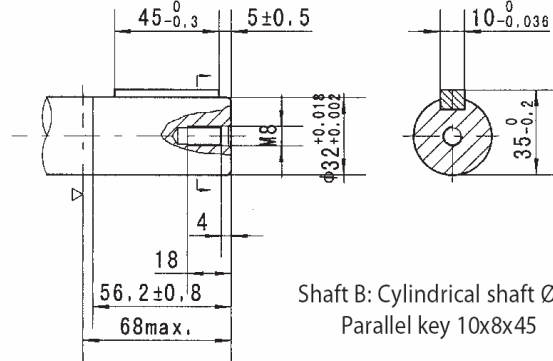
- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

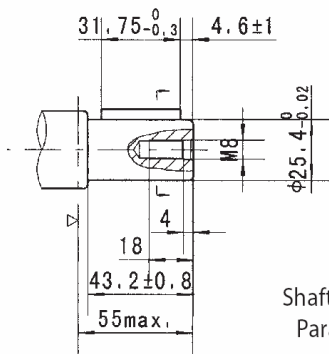
SHAFT EXTENSIONS FOR BMP MOTORS



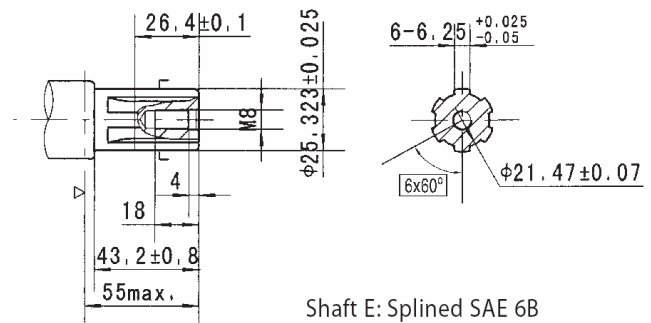
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



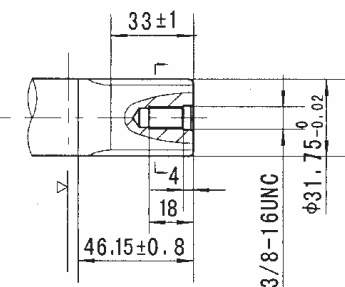
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



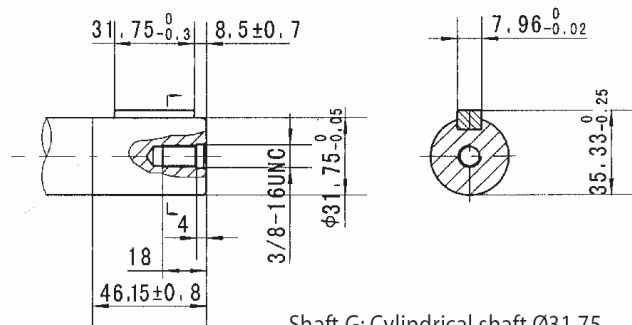
Shaft C: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75



Shaft E: Splined SAE 6B



Shaft F: Splined
14-DP12/24



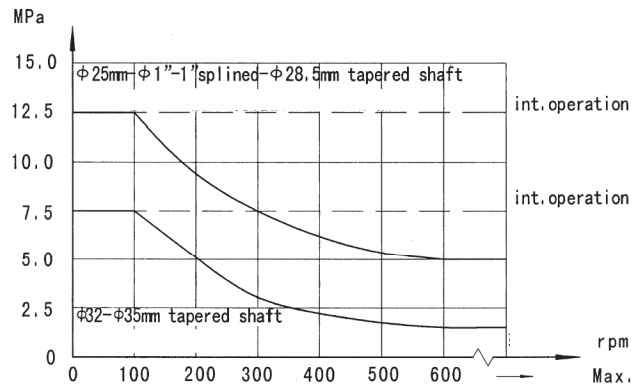
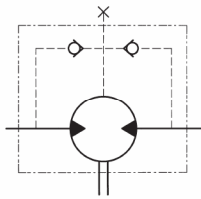
Shaft G: Cylindrical shaft Ø31.75
Parallel key 7.96x7.96x31.75

- NOTICE -

Information may vary with application.
All specifications listed are based on the
latest product information available at
the times of publication. The right is
reserved to make changes at any time
without notice.

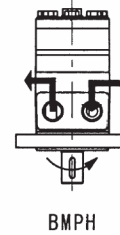
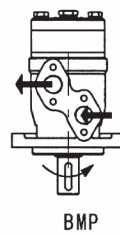
BMP, BMPH Series Hydraulic Motor

Permissible shaft seal pressure

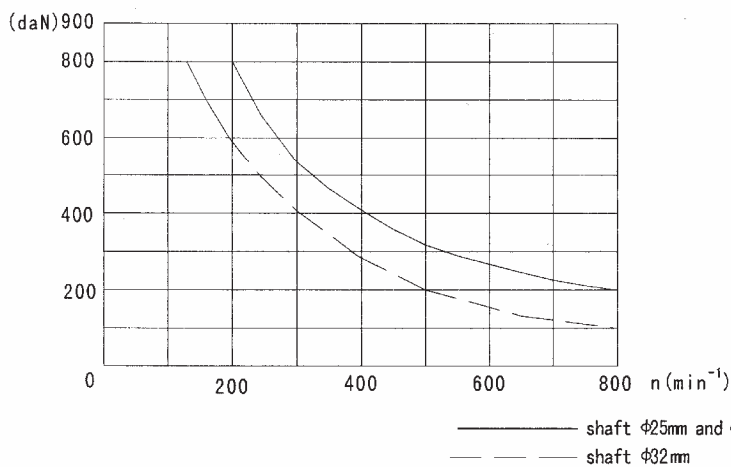


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

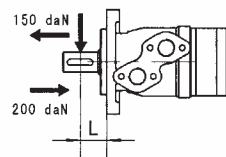
Direction of shaft rotation



Status of the shaft's radial force



$$F_r = \frac{800.2600}{n} \text{ daN}$$



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

Rhomb-flange $L=30\text{mm}$
Square-flange $L=24\text{mm}$

- NOTICE -

Information may vary with application. All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

Order Information

1 2 3 4 5 6 7 8

BMP

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
None	50 80 100 125 160	2 2-Ø13.5 Rhomb-flange , pilot Ø82.5 × 8 4 4-Ø13.5 Rhomb-flange , pilot Ø82.5 × 8 H4 4-3/8-16 Square-flange , pilot Ø44.4 × 2.8 H5 4-M10 Square-flange , pilot Ø44.4 × 2.8	A Shaft Ø25, parallel key 8 × 7 × 32 B Shaft Ø32, parallel key 10 × 8 × 45 C Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75 E Shaft Ø25.4, splined key SEA 6B R Short shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75 F Shaft Ø31.75, splined key 14-DP12/24 FD Long shaft Ø31.75, splined key 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 T3 Cone shaft Ø31.75, parallel key 7.96 × 7.96 × 25.4	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 4x5/16-18UNC, 7/16-20UNF P 1/2-14 NPTF Manifold 4x5/16-18UNC, 7/16-20UNF R PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4	None Standard	00 None	None Standard
			K Shaft Ø25.4, woodruff key Ø25.4 × 6.35 S Shaft Ø25.4, splined key SEA 6B A Shaft Ø25, parallel key 8 × 7 × 32 R Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75 H Shaft Ø25.4, pin hole Ø10.3 HI Shaft Ø25.4, pin hole Ø8 D Shaft Ø22.22, parallel key 6.35 × 6.35 × 25.4 I Shaft Ø22.22, splined key 13-DP16/32 T2 Cone shaft Ø25.4, woodruff key Ø25.4 × 6.35 P Shaft Ø25, parallel key 8 × 7 × 28 J Shaft Ø25, parallel key 7 × 7 × 32	G G1/2 G1/4 S 7/8-14 O-ring 7/16-20UNF (G1/4) P 1/2-14 NPTF, 7/16-20UNF (G1/4) T 3/4-16 O-ring, 7/16-20unf PT(Rc)1/2 PT(Rc)1/4 B4 Ø10 O-ring manifold 4x5/16-18UNC, 7/16-20UNF(G1/4) B5 Ø10 O-ring manifold 4xM8 7/16-20UNF(G1/4)	R Opposite	B Black S Silver gray	Big radial force Big axial force No case drain
H	200 250 315 400	H2 2-Ø13.5 Rhomb-flange , pilot Ø82.5 × 2.8 H6 4-Ø13.5 Rhomb-flange , pilot Ø82.5 × 2.8 H4 4-3/8-16 Square-flange , pilot Ø44.4 × 2.8 H5 4-M10 Square-flange , pilot Ø44.4 × 2.8					

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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

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 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		BMR BMR5 50	BMR BMR5 80	BMR BMR5 100	BMR BMR5 125	BMR BMR5 160	BMR BMR5 200	BMR BMR5 250	BMR BMR5 315	BMR BMR5 375
Geometric displacement (cm ³ /rev.)		51.3	80.6	100.8	124.9	157.2	199.2	252	314.5	370
Max. speed (rpm)	rated	755	750	600	475	375	300	240	190	160
	cont.	970	940	750	600	470	375	300	240	200
Max. torque (N·m)	rated	100	160	200	250	320	330	352	360	420
	cont.	100	190	240	292	363	358	352	360	420
	int.	126	220	280	340	430	448	470	470	548
Max. output (kW)	rated	7.7	12.3	12.3	12.0	12.3	10	9	7	6.5
	cont.	7.7	15	15	14	14	11	9	7	8.6
	int.	9.7	17	17	16	16	14	12	9	12
Max. pressure drop (MPa)	rated	14	14	14	14	14	12	11	8.5	8.5
	cont.	14	17.5	17.5	17.5	16.5	13	11	8.5	8.5
	int.	17.5	20	20	20	20	17.5	14	11.5	11.5
Max. flow (L/min)	cont.	40	60	60	60	60	60	60	60	60
	int.	50	75	75	75	75	75	75	75	75
Weight (kg)		6.7	6.9	6.9	7.2	7.5	8.0	8.5	9	9.3

* 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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

PERFORMANCE DATA

BMR 50 (51.3cc/rev)

		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	35	46	61	67	77	88				
	10	38	49	64	69	80	91	108	119		
	15	104	178	145	167	150	116	115	84		
	20	15	49	62	73	88	100	108	113		
	25	201	277	269	281	250	210	211	185		
Flow (L/min)	30	34.3	47	61	69	81	94	109	120		
	35	377	375	383	381	396	310	308	279		
	40	34	45	61	69	81	94	108	120		
	45	479	468	460	431	426	412	400	381		
	50	71	82	88	87	86	93	108	120		
Flow (L/min)	55	579	569	561	554	542	521	508	467		
	60	91	82	88	86	86	94	107	120		
	65	964	965	967	954	938	912	888	861		
	70	38	41	88	96	79	92	108	122		
	75	706	718	713	750	738	724	700	670		
Flow (L/min)	80	283	49	17	63	16	88	100	131		
	85	818	818	803	801	810	813	798	783		

BMR 100 (100.6cc/rev)

		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	70	106	122	118	118	182	219	222		
	10	89	91	87	83	74	83	82	82		
	15	68	95	123	143	161	180	221	236		
	20	398	194	188	182	173	162	165	168		
	25	53	94	121	149	164	194	229	240		
Flow (L/min)	30	209	204	208	204	278	260	288	290		
	35	19	88	118	134	161	182	219	238		
	40	820	808	807	805	882	868	883	886		
	45	55	93	117	125	157	165	217	225		
	50	400	804	808	809	879	868	880	880		
Flow (L/min)	55	48	76	118	118	152	168	214	223		
	60	899	881	887	885	974	968	982	988		
	65	41	76	108	112	142	179	201	229		
	70	899	893	887	883	978	968	980	980		
	75	29	81	97	105	148	187	217	227		
Flow (L/min)	80	788	781	787	778	922	912	987	980		

BMR 160 (167.3cc/rev)

		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	119	180	181	230	280	350	488	487		
	10	58	53	52	50	48	50	54	54		
	15	114	180	181	230	280	350	488	488		
	20	114	115	111	189	183	95	84	76		
	25	188	188	182	221	241	300	399	479		
Flow (L/min)	30	184	181	177	172	181	153	134	136		
	35	168	185	186	218	257	309	400	479		
	40	246	144	129	137	120	210	399	584		
	45	89	144	190	209	250	293	386	488		
	50	87	185	182	180	281	380	482	544		
Flow (L/min)	55	84	188	189	189	282	386	488	588		
	60	278	188	188	182	223	380	482	588		
	65	88	128	188	182	223	380	482	588		
	70	415	434	430	437	416	495	485	588		
	75	89	178	188	178	220	272	418	481		
Flow (L/min)	80	463	462	458	456	441	423	418	398		

BMR 250 (252.6cc/rev)

		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	101	180	252	205	558	188	438	535		
	10	40	38	37	33	32	33	32	36		
	15	100	178	252	204	552	185	438	548		
	20	79	78	75	74	78	89	57	48		
	25	180	170	248	200	548	185	449	545		
Flow (L/min)	30	120	119	117	116	118	107	81	79		
	35	81	169	233	208	532	184	488	530		
	40	100	137	156	154	163	148	129	150		
	45	81	188	214	212	328	152	485	521		
	50	280	180	196	195	163	180	162	147		
Flow (L/min)	55	78	182	201	200	388	148	488	588		
	60	241	180	200	207	212	218	208	180		
	65	80	117	188	228	298	328	432	488		
	70	180	179	177	178	211	168	258	335		
	75	81	188	186	211	281	318	432	488		
Flow (L/min)	80	180	299	288	287	288	388	427	488		

BMR 310 (314.3cc/rev)

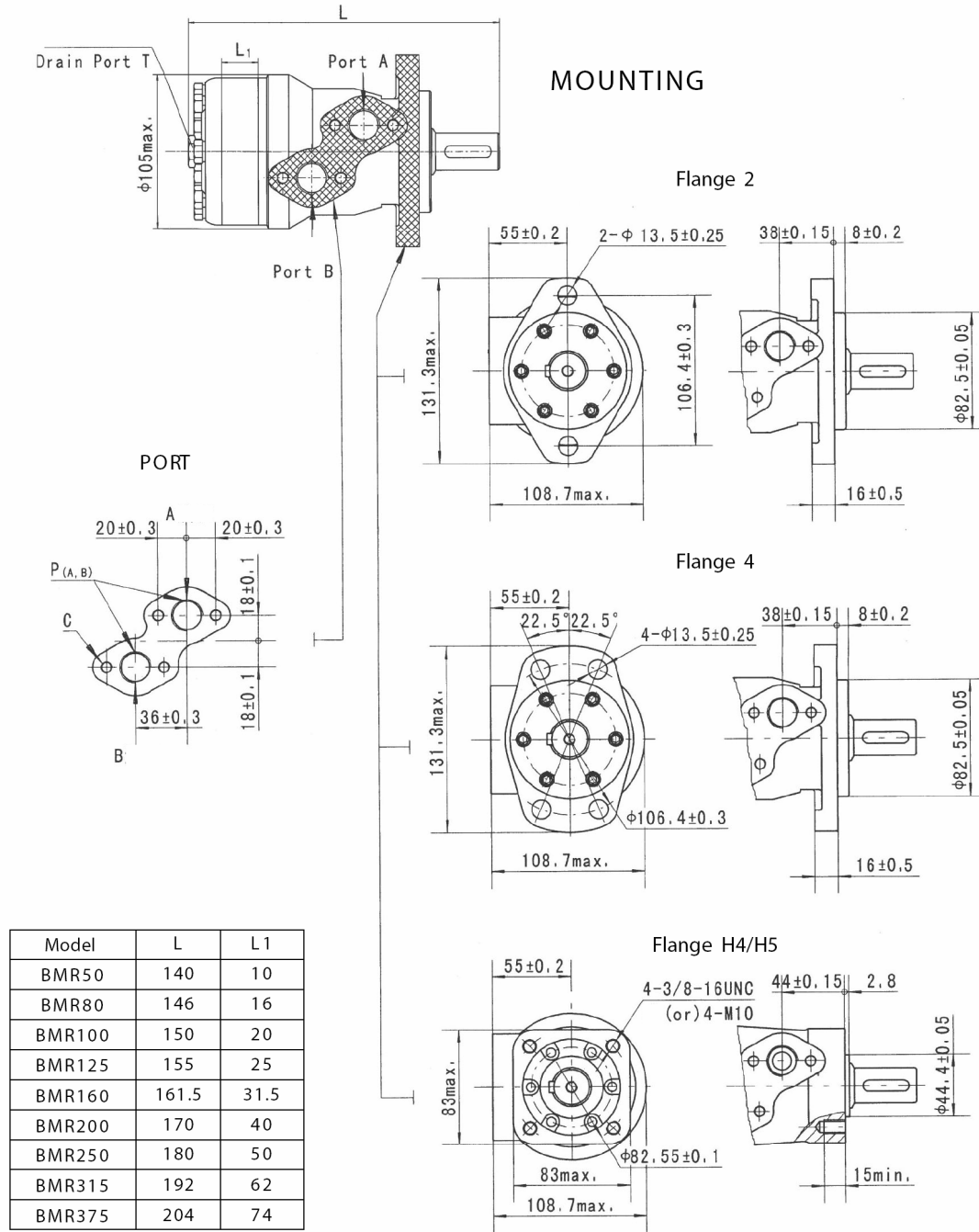
		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	135	215	279	243	381	511	658	658		
	10	111	214	289	249	380	500	652			
	15	62	81	80	58	57	53	50			
	20	125	245	275	241	375	494	647			
	25	95	82	81	80	80	81	76			
Flow (L/min)	30	113	198	287	248	387	485	628			
	35	122	121	120	118	117	106	104			
	40	90	178	253	221	352	454	611			
	45	155	154	152	149	147	137	133			
	50	88	163	231	288	354	489	601			
Flow (L/min)	55	188	167	183	178	170	165	157			
	60	319	168	218	288	320	444	600			
	65	212	218	217	212	208	192	181			
	70	89	128	283	289	388	427	607			
	75	215	234	231	227	225	200	201			

BMR 475 (470.0cc/rev)

		Pressure (MPa)									
		5	7	9	10	12	14	16	18	20	22.5
Flow (L/min)	5	140	278	440	420	470	618	618			
	10	36	38	34	33	37	39	37			
	15	119	250	444	410	470	548	685			
	20	113	82	81	89	87	82	87			
	25	190	215	319	480	450	518	600			
Flow (L/min)	30	79	78	77	75	73	72	67			
	35	101	240	319	373	430	518	600			
	40	188	205	194	182	189	183	183			
	45	120	250	295	380	420	508	600			
	50	198	156	151	129	126	128	118			
Flow (L/min)	55	88	210	278	340	380	488	600			
	60	219	156	152	133	133	143	133			
	65	79	178	184	120	170	488	600			
	70	181	196	185	181	180	175	168			
	75	89	160	228	418	340	618	618			
Flow (L/min)	80	180	298	188	181	192	187	178			

cont

BMR DIMENSIONS AND MOUNTING DATA

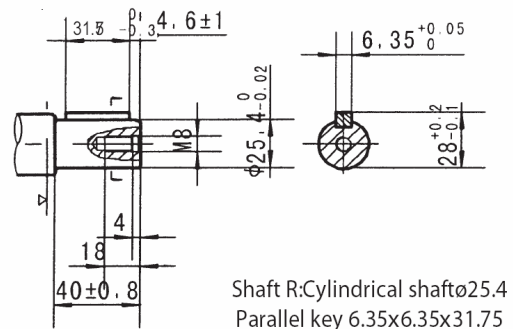
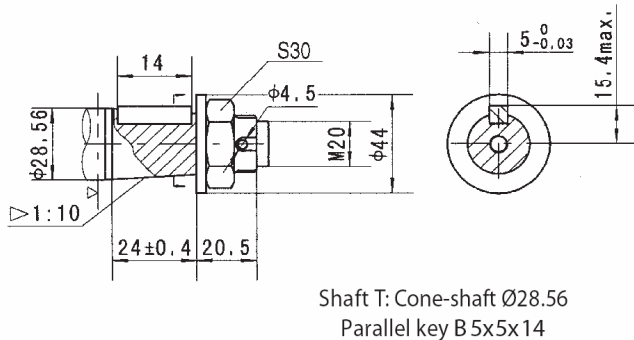
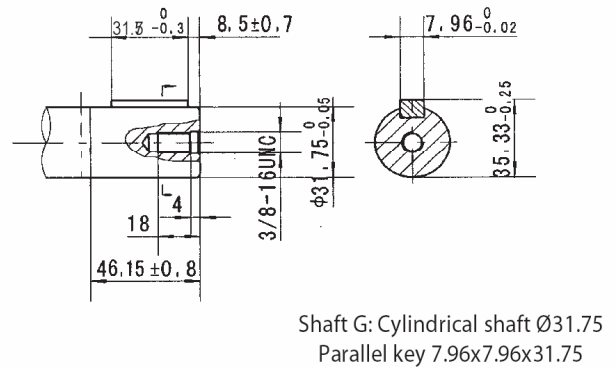
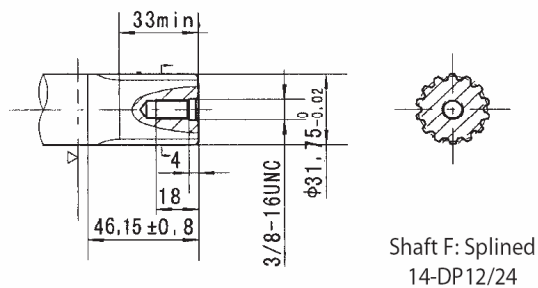
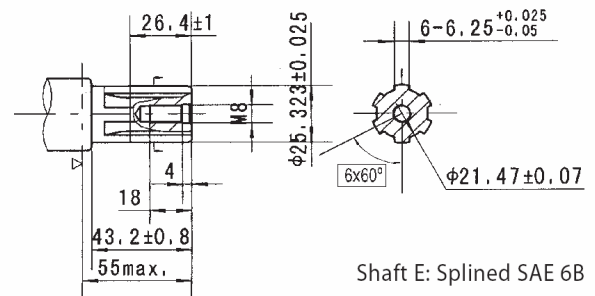
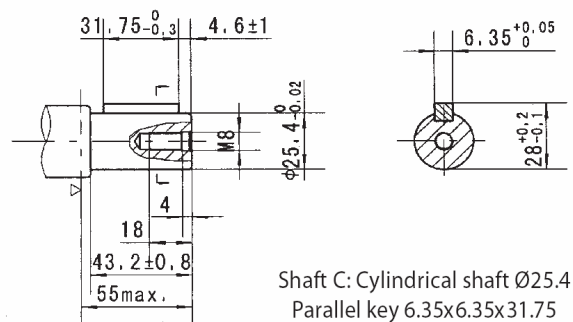
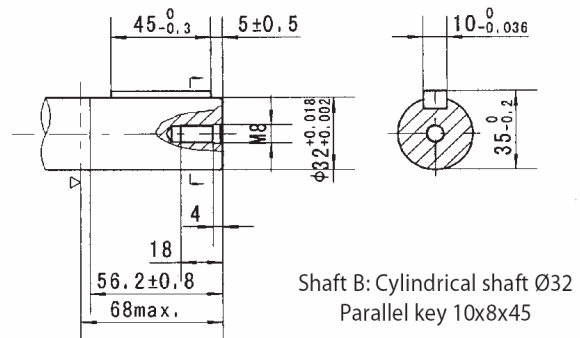
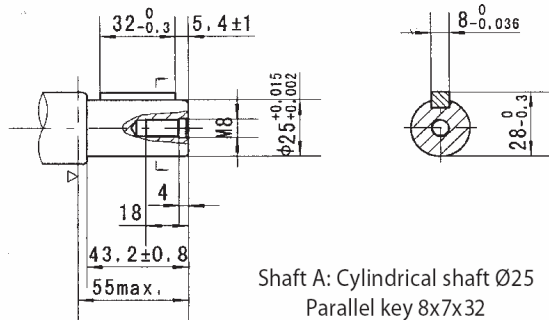


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

SHAFT EXTENSIONS FOR BMR MOTORS



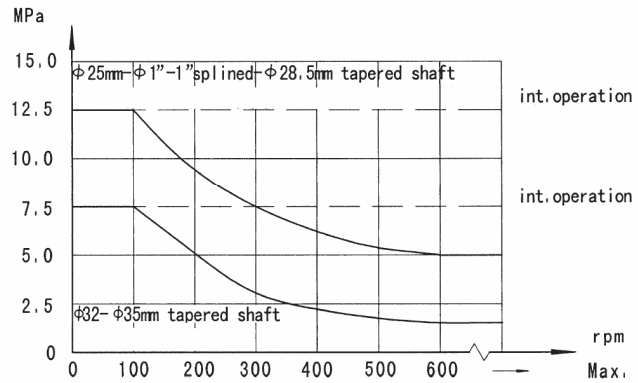
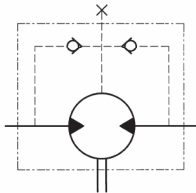
Tightening torque: 100 ± 10 Nm

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

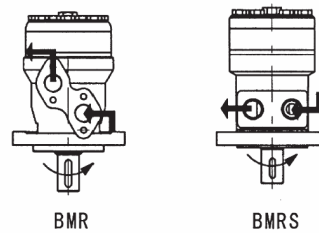
BMR, BMRS Series Hydraulic Motor

Permissible shaft seal pressure

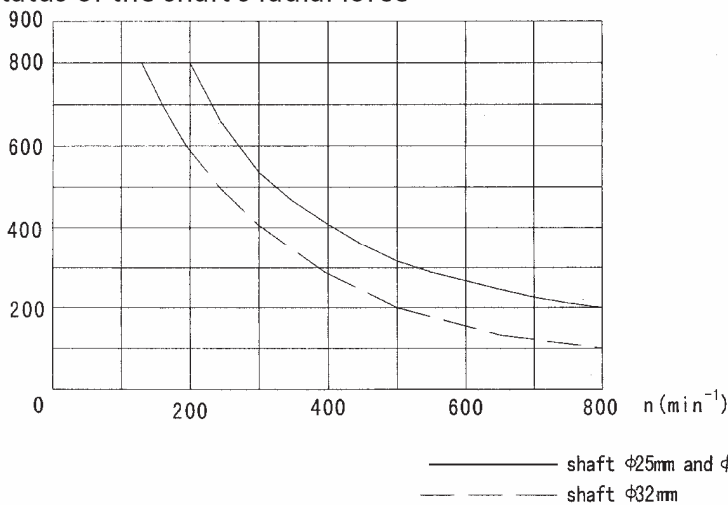


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

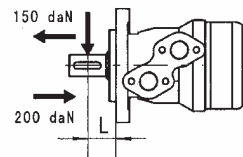
Direction of shaft rotation



Status of the shaft's radial force



$$F_r = \frac{800 \cdot 25000}{n \cdot 95 + 1} \text{ daN}$$



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

Rhomb-flange $L=30\text{mm}$
Square-flange $L=24\text{mm}$

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

Order Information

1	2	3	4	5	6	7	8
BMR							

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
None	2	2-Ø13.5Rhomb-flange, pilot Ø82.5 × 8 4-Ø13.5Rhomb-flange, pilot Ø82.5 × 8	A Shaft Ø25,parallel Key 8 × 7 × 32	D G1/2 Manifold Mount 4-M8, G1/4	None Standard	00	None
			B Shaft Ø32,parallel Key 10 × 8 × 45	M M22 × 1.5 Manifold Mount			
			C Shaft Ø25.4,parallel Key 6.35 × 6.35 × 31.75	S 7/8-14 O-ring manifold 4-5/16-18UNC, 7/16-20UNF			
	4		E Shaft Ø25.4,splined Key SAE 6B Short shaft Ø25.4, parallel key	P 1/2-14 NPTF Manifold 4-5/16-18UNC, 7/16-20UNF			
	H4	4-3/8-16 Square-flange, pilot Ø44.4 × 2.8 4-M10 Square-flange, pilot Ø44.4 × 2.8	R Shaft Ø31.75,splined Key 14-DP12/24	R PT(Rc)1/2 Manifold 4-M8, PT(Rc)1/4	R Opposite	S	0
	H5		F Shaft Ø31.75,parallel Key 7.96 × 7.96 × 31.75				
			G Shaft Ø31.75,parallel Key 7.96 × 7.96 × 31.75				
			T Cone-Shaft Ø28.56, parallel Key B5 × 5 × 14				
	50	2-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8 4-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8 4-3/8-16 Square-flange, pilot Ø44.4 × 2.8 4-M10 Square-flange, pilot Ø44.4 × 2.8 4-Ø11 Rectangle-flange, pilot Ø80 × 5 4-Ø11 Rectangle-flange, pilot Ø85 × 5	K Shaft Ø25.4,Woodruff Key Ø25.4 × 6.35	G G1/2, G1/4	R	S	No case drain
	80		S Sub-shaft Ø25.4,splined Key SAE 6B	S 7/8-14 O-ring 7/16-20UNF (G1/4)			
	100		A Shaft Ø25, parallel key 8 × 7 × 32	P 1/2-14 NPTF, 7/16-20UNF (G1/4)			
	125		R Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75	T 3/4-16 O-ring, 7/16-20unf PT(Rc)1/2 PT(Rc)1/4			
	160		H Sub-shaft Ø25.4,Pin hole Ø10.3	B4 Ø10 O-ring manifold 4x5/16-18 7/16-20UNF(G1/4)			
	200		HI Shaft Ø25.4, pin hole Ø8	B5 Ø10 O-ring manifold 4xM8 7/16-20UNF(G1/4)			
	250		D Shaft Ø22.22, parallel key 6.35 × 6.35 × 25.4	M1 M18 × 1.5, M10 × 1			
	315		I Shaft Ø22.22, splined key 13-DP16/32	M2 M20 × 1.5, M10 × 1			
	375		T2 Cone shaft Ø25.4, woodruff key Ø25.4 × 6.35	M3 M22 × 1.5, M10 × 1			
			P Shaft Ø25,parallel Key 8 × 7 × 28				
			J Shaft Ø25,parallel Key 7 × 7 × 32				
S	H2	2-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8 4-Ø13.5Rhomb-flange, pilot Ø82.5 × 2.8 4-3/8-16 Square-flange, pilot Ø44.4 × 2.8 4-M10 Square-flange, pilot Ø44.4 × 2.8 4-Ø11 Rectangle-flange, pilot Ø80 × 5 4-Ø11 Rectangle-flange, pilot Ø85 × 5	K Shaft Ø25.4,Woodruff Key Ø25.4 × 6.35	G G1/2, G1/4	R	S	No case drain
	H6		S Sub-shaft Ø25.4,splined Key SAE 6B	S 7/8-14 O-ring 7/16-20UNF (G1/4)			
	H4		A Shaft Ø25, parallel key 8 × 7 × 32	P 1/2-14 NPTF, 7/16-20UNF (G1/4)			
	H5		R Shaft Ø25.4, parallel key 6.35 × 6.35 × 31.75	T 3/4-16 O-ring, 7/16-20unf PT(Rc)1/2 PT(Rc)1/4			
	Z3		H Sub-shaft Ø25.4,Pin hole Ø10.3	B4 Ø10 O-ring manifold 4x5/16-18 7/16-20UNF(G1/4)			
	Z5		HI Shaft Ø25.4, pin hole Ø8	B5 Ø10 O-ring manifold 4xM8 7/16-20UNF(G1/4)			
			D Shaft Ø22.22, parallel key 6.35 × 6.35 × 25.4	M1 M18 × 1.5, M10 × 1			
			I Shaft Ø22.22, splined key 13-DP16/32	M2 M20 × 1.5, M10 × 1			
			T2 Cone shaft Ø25.4, woodruff key Ø25.4 × 6.35	M3 M22 × 1.5, M10 × 1			
			P Shaft Ø25,parallel Key 8 × 7 × 28				

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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

BMH Series Hydraulic Motor

BMH series motor adapt the advanced Gerolot 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 Gerolot 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 Specifaion

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)	rated	263	209	169	131	100
	cont.	366	290	236	183	155
	int.	439	348	282	220	166
Max. torque (N·m)	rated	298	375	454	477	459
	cont.	510	621	740	864	799
	int.	579	702	827	988	971
Max. output (kW)	rated	8.2	8.2	8.2	6.6	5.2
	cont.	11.2	9.2	9.8	7.4	6.5
	int.	17	15	13	13	11
Max. pressure drop (MPa)	rated	12.5	12.5	12.5	10	8
	cont.	17.5	17.5	17.5	15.5	12.5
	int.	20	20	20	19	16
Max. flow (L/min)	rated	60	60	60	60	60
	cont.	75	75	75	75	75
	int.	90	90	90	90	90
Weight (kg)		10.5	11	11.5	12.3	13

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

* 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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

PERFORMANCE DATA

BMH 200 [203.2cm³/rev]									
Pressure (MPa)									
	2.5	7	10.5	14	17.5	20	Max. Torque		
Flow (L/min)	8	25	35	47	55	63			
5	181	204	181	191	482				
10	43	41	38	39	34				
20	88	201	188	402	588	376			
30	183	87	82	85	68	56			
40	87	197	368	402	518	579			
50	145	149	139	130	114	101			
60	88	190	282	300	367	878			
70	209	200	205	198	168	161			
80	82	181	389	392	508	371			
90	248	246	244	215	212	199			
100	73	174	274	354	483	563			
110	182	290	287	279	388	344			
120	48	168	388	374	481	854			
130	152	250	346	338	318	301			
140	59	157	258	366	475	547			
150	188	301	381	355	335	318			
160	55	150	255	358	488	538			
170	181	301	388	371	352	388			
180	48	180	241	348	458	528			
190	143	421	418	428	487	381			

BMH 250 [253.5cm³/rev]									
Pressure (MPa)									
	2.5	7	8	12	14.8	17.5	20	Max. Torque	
Flow (L/min)	5	19	18	18	14				
5	121	246	318	308					
10	180	258	331	417	515	508			
20	18	31	31	39	25	12			
30	180	258	332	412	520	621	780		
40	78	33	26	23	65	53	42		
50	122	251	327	429	520	621	780		
60	113	173	181	168	86	84	75		
70	118	248	328	412	518	616	888		
80	189	187	188	188	128	127	114		
90	308	223	188	411	583	626	887		
100	196	185	182	185	173	159	147		
110	94	228	382	401	486	596	678		
120	252	238	236	218	288	190	188		
130	81.8	208	388	488	488	582	888		
140	274	274	274	288	352	338	332		
150	72	203	380	381	475	574	638		
160	290	288	287	279	388	251	238		
170	48	194	275	371	467	568	651		
180	201	382	288	290	379	264	348		
190	48	178	358	354	488	582	834		
200	188	383	345	337	323	308	382		

BMH 315 [316.1cm³/rev]									
Pressure (MPa)									
	2.5	7.5	10	13.5	15.5	17.5	20	Max. Torque	
Flow (L/min)	5	18	18						
5	181	318							
10	181	342	458	518					
20	27	34	38	14					
30	180	340	488	583	684	733	888		
40	85	81	55	48	48	57	78		
50	181	388	478	588	688	788	834		
60	88	88	82	73	67	59	48		
70	154	317	481	577	682	737	837		
80	126	126	118	111	95	86	73		
90	141	518	458	588	688	728	834		
100	189	188	148	118	128	118	88		
110	121	312	448	518	642	713	812		
120	187	188	178	138	134	142	128		
130	188	208	423	541	638	703	888		
140	222	313	313	288	187	176	157		
150	94	287	417	528	623	596	793		
160	230	213	224	215	188	184	188		
170	82	271	388	518	618	688	784		
180	248	248	238	238	278	187	174		
190	42	218	388	498	582	688	787		
200	182	388	373	388	388	388	388		

BMH 400 [406.4cm³/rev]									
Pressure (MPa)									
	2.5	8	10.5	12.5	15.5	18	Max. Torque		
Flow (L/min)	5	18	18	18	18	18			
5	188	388	518						
10	181	362	448	582	588				
20	22	21	21	17	11				
30	188	366	541	708	874	888			
40	91	49	48	41	18	51			
50	181	387	642	788	888	888			
60	73	72	78	68	38	51			
70	188	348	532	701	828	871			
80	88	88	88	86	77	51			
90	173	332	518	687	848	858			
100	123	123	118	107	97	80			
110	134	318	520	688	818	848			
120	146	146	146	128	118	108			
130	138	305	488	649	814	831			
140	174	173	168	158	141	130			
150	128	294	488	677	802	871			
160	183	181	173	163	148	138			
170	113	271	481	671	788	899			
180	192	191	188	172	148	142			
190	88	218	411	601	767	881			
200	128	228	215	201	181	155			

BMH 500 [500cm³/rev]									
Pressure (MPa)									
	2.5	8	8.5	10	12.5	18	Max. Torque		
Flow (L/min)	5	18	18	18	18	18			
5	185	317	516						
10	178	323	355	889	791	889			
20	30	58	17	15	11	8			
30	177	311	589	875	788	888			
40	42	42	41	38	36	29			
50	172	328	553	883	792	883			
60	64	63	61	57	51	47			
70	168	388	641	884	788	871			
80	85	85	85	79	78	67			
90	146	288	525	835	788	854			
100	103	183	103	97	82	82			
110	121	275	302	814	747	834			
120	126	328	128	117	111	103			
130	97	258	482	687	738	817			
140	146	148	146	143	134	122			
150	79	240	469	582	714	802			
160	153	155	155	152	144	138			
170	68	204	683	638	783	888			
180	188	388	188	188	183	188			
190	54	281	421	593	671	889			
200	166	385	164	157	156	155			

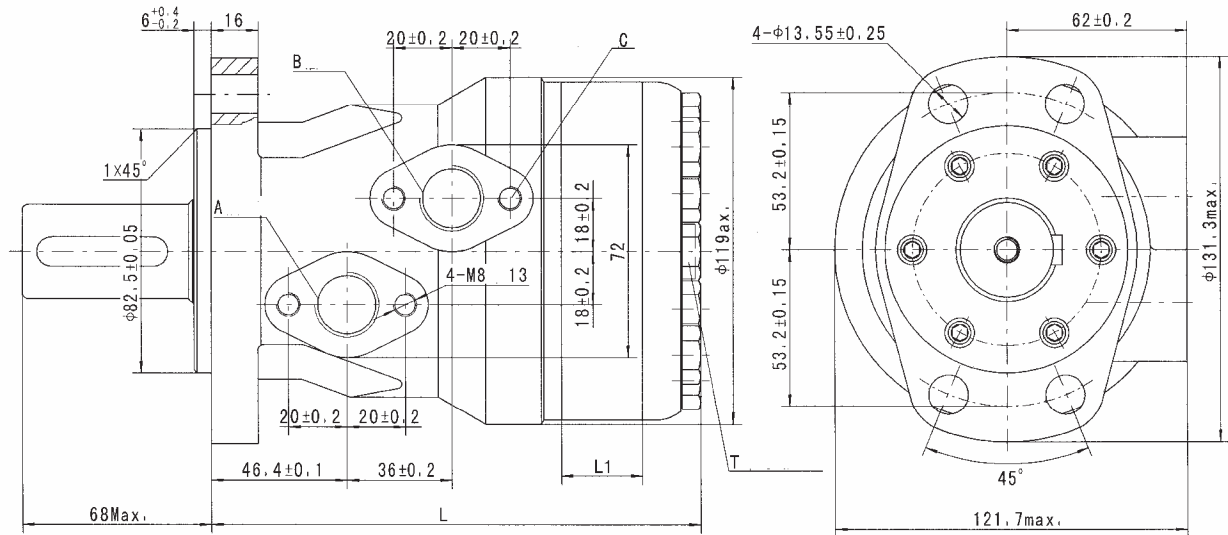
cont.
int.

Torque (Nm) at
speed (rpm) 158

- NOTICE -

Information may vary with application.
All specifications listed are based on the
latest product information available at
the times of publication. The right is
reserved to make changes at any time
without notice.

BMH Mounting Data



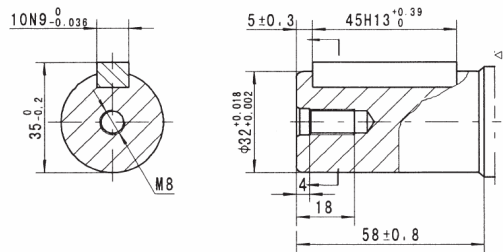
Model	L	L1
BMH-200	168	27
BMH-250	175	34
BMH-315	184	42
BMH-400	195	54
BMH-500	206	65

Code Mounting	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (15)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-M8 (13)	4-M8 (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

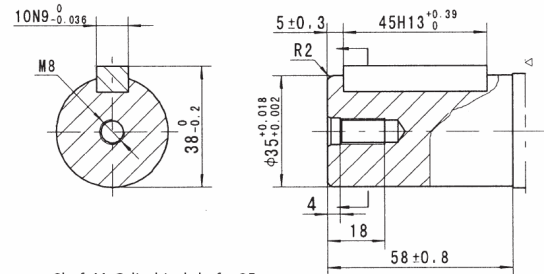
- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

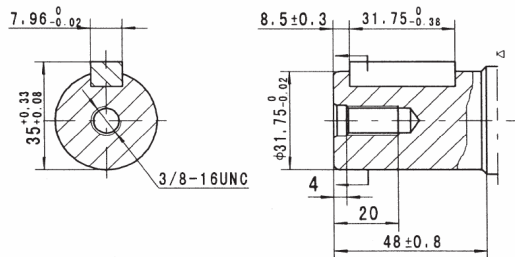
BMH Mounting Data



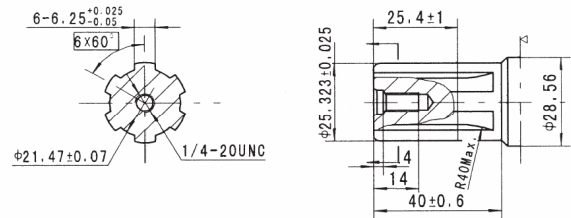
Shaft B: Cylindrical shaft $\phi 32$
Parallel key 10x8x45



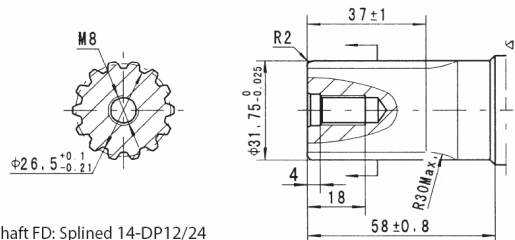
Shaft M: Cylindrical shaft $\phi 35$
Parallel key 10x8x45



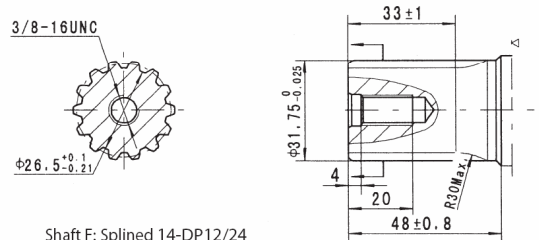
Shaft G: Cylindrical shaft $\phi 31.75$
Parallel key 7.96x7.96x31.75



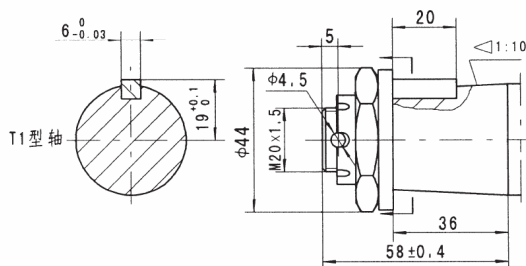
Shaft S: Splined SAE 6B



Shaft FD: Splined 14-DP12/24



Shaft F: Splined 14-DP12/24



Shaft T1: Cone-shaft $\phi 35$
Parallel key B 6x6x20

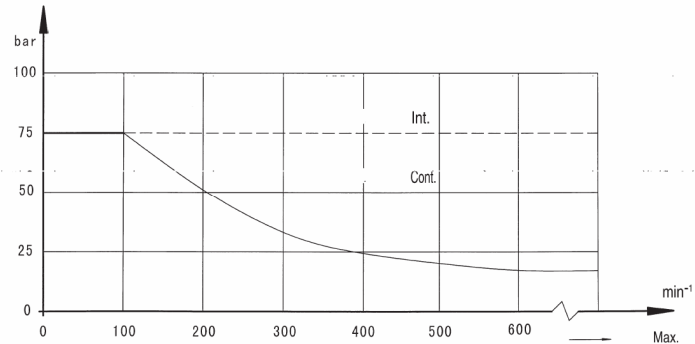
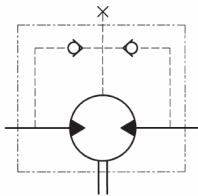
Tightening torque: $200 \pm 10 \text{ Nm}$

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

BMH series Hydraulic Motor

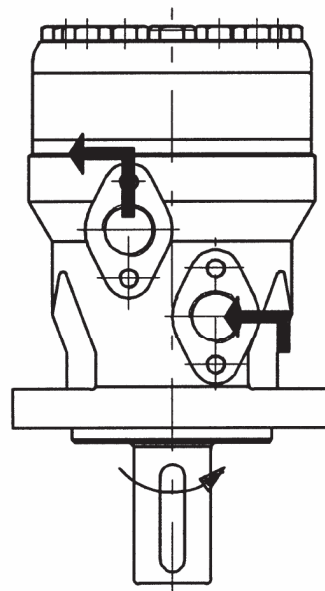
Permissible shaft seal pressure



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

BMH



- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.

Order Information

1 2 3 4 5 6 7 8

BMH

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rot. Dir.	Paint	Unus. Funct.
无	200 250 315 400 500	4 4-Ø13.5 Rhombxflange Pilot Ø82.5x6	B Shaft Ø32, parallel key 10x8x45 M Shaft Ø35, parallel key 10x8x45 F Shaft Ø31.75, splined key 14-DP12/24 FD Long Shaft Ø31.75, splined key 14-DP12/24 G Shaft Ø31.75, parallel key 7.96x7.96x31.75 T1 Cone shaft Ø35, parallel key B6x6x20 S Shaft Ø25.4, parallel key SAE 6B	D G1/2 Manifold mount 4-M8, G1/4 M M22x1.5 Manifold mount 4-M8, M14x1.5 S 7/8-14 O-ring Manifold mount 4-M8, 7/16-20UNF P 1/2-14 NPTF Manifold mount 4-M8, 7/16-20UNF R PT(Rc)1/2 Manifold mount 4-M8, PT(Rc)1/4	None Standard Opposite R	00 No paint None Blue B Black S Silver gray	None Standard 0 No case drain

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.

- NOTICE -

Information may vary with application.
All specifications listed are based on the latest product information available at the times of publication. The right is reserved to make changes at any time without notice.