

BMP-BMR-BMH



Usage Guide

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

1. Oil temperature :normal 20°C~60°C upper limit 90°C (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°C 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

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BMH Series Hydraulic Motor

BMH 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 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	109
	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
	peak	651	790	930	1092	1092
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
	peak	22.5	22.5	22.5	21	18
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.

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PERFORMANCE DATA

		BMH 200 [203.2cm³/rev.]						BMH 250 [255.9cm³/rev.]						
		Pressure (MPa)						Pressure (MPa)						
		3.5	7	10.5	14	17.5	20	3.5	7	9	12	14.5	17.5	20
Flow (L/min)	5	98	194	284				121	246	318	398			
	10	101	204	301	391	482		130	258	331	425	515	595	
	20	99	201	304	402	509	576	130	258	332	432	520	621	702
	30	100	97	93	85	69	56	78	77	76	73	65	53	42
	40	97	197	300	402	510	579	122	251	327	429	520	621	700
	50	145	143	139	130	114	101	115	113	111	105	96	84	75
	60	90	190	292	399	507	578	115	240	323	422	513	616	698
	70	200	200	200	188	168	153	157	157	156	150	139	127	114
	80	82	183	284	392	500	571	105	232	314	411	505	606	687
	90	248	246	244	235	213	199	196	195	192	185	173	159	147
Max.cont.	5	73	174	274	384	493	563	94	220	302	401	496	596	676
	10	292	290	287	279	260	244	232	230	226	218	206	192	180
	20	63	163	264	374	481	554	81.4	209	288	389	484	582	666
	30	352	350	349	338	318	301	274	274	274	266	252	238	222
	40	59	157	259	366	475	547	72	203	280	381	475	574	659
	50	306	305	303	355	335	319	290	289	287	279	266	251	236
	60	53	150	253	358	466	538	66	194	273	371	467	566	651
	70	381	381	380	371	352	338	303	302	298	290	279	264	249
	80	39	140	241	348	456	526	49	178	256	355	453	552	634
	90	443	437	434	426	407	392	348	347	345	337	325	309	292

		BMH 315 [316.1cm³/rev.]						BMH 400 [406.4cm³/rev.]						
		Pressure (MPa)						Pressure (MPa)						
		3.5	7.5	10	13.5	15.5	17.5	20	3.5	6	10.5	12.5	15.5	19
Flow (L/min)	5	155	325						196	348	516			
	10	163	342	454	556				205	363	546	702	859	
	20	169	349	469	582	664	733	809	22	21	21	17	11	
	30	63	61	55	48	40	32	19	209	366	543	708	874	988
	40	165	344	470	580	669	740	824	50	49	46	41	36	31
	50	93	89	82	77	67	59	46	201	357	542	706	864	984
	60	154	337	465	577	663	737	827	73	72	70	63	56	51
	70	126	126	119	111	99	88	73	195	346	532	701	858	973
	80	141	325	455	568	656	728	824	99	98	96	86	77	71
	90	159	155	148	139	126	115	98	173	332	518	687	848	958
Max.cont.	5	121	312	440	555	643	715	812	123	122	118	107	97	90
	10	187	186	179	169	154	143	124	154	319	501	668	833	944
	20	103	298	425	541	631	703	800	146	144	141	128	115	106
	30	222	222	215	205	187	176	157	138	305	480	649	814	925
	40	94	287	417	529	623	696	792	174	173	169	156	141	130
	50	236	233	224	215	196	184	166	128	294	466	637	802	911
	60	82	277	406	518	611	688	784	183	181	177	163	149	138
	70	246	244	236	228	210	197	174	113	277	451	621	786	899
	80	62	256	386	496	593	669	767	192	191	188	174	158	144
	90	282	280	275	266	248	234	209	90	256	433	595	767	881

		BMH 500 [500cm³/rev.]					
		Pressure (MPa)					
		2.5	5	8.5	10	12.5	16
Flow (L/min)	5	165	317	516			
	10	178	335	555	669	791	969
	20	20	19	17	15	13	9
	30	177	331	559	673	799	988
	40	42	42	41	38	36	29
	50	172	320	553	663	792	983
	60	64	63	61	57	53	47
	70	163	309	541	654	783	971
	80	85	85	83	79	75	67
	90	146	296	523	635	768	954
Max.cont.	5	103	103	103	97	93	85
	10	121	275	502	614	747	934
	20	124	124	123	117	113	103
	30	97	256	482	597	729	917
	40	148	148	148	140	134	122
	50	79	240	469	582	714	902
	60	155	155	155	152	144	130
	70	60	226	453	570	701	884
	80	166	166	166	159	153	139
	90	34	201	421	550	673	869

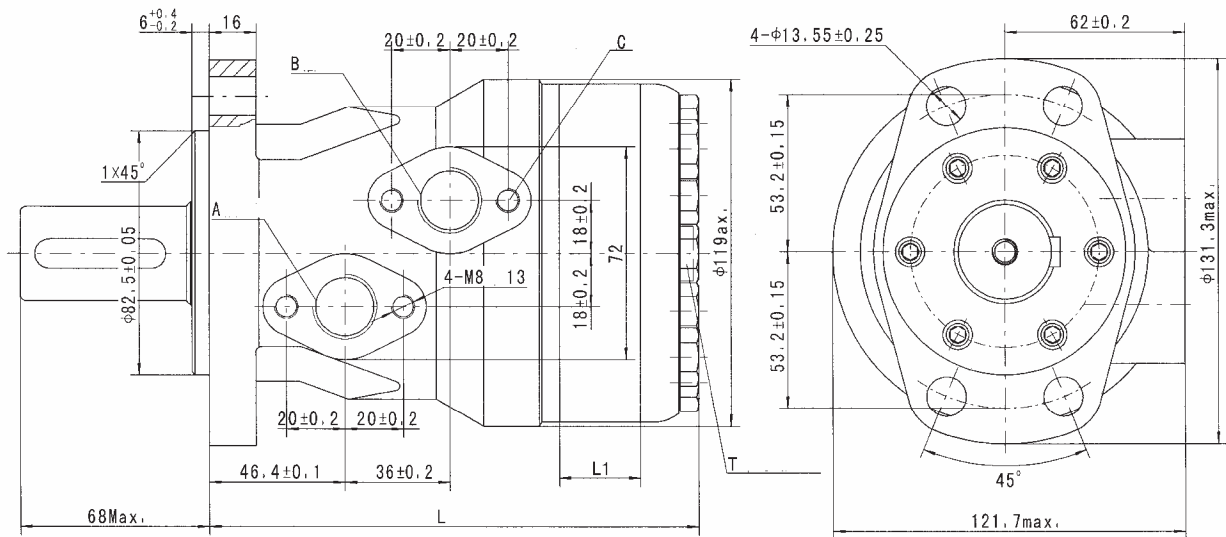
cont.
int.

Torque (N·m) 673
Speed (rpm) 156

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BMH Mounting Data



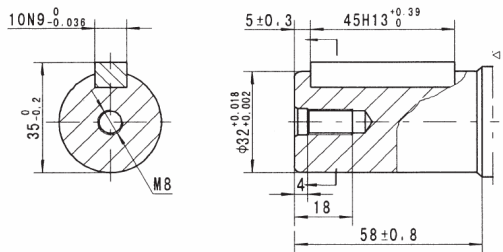
Model	L	L 1
BMH-200	168	27
BMH-250	175	34
BMH-315	184	42
BMH-400	195	54
BMH-500	206	65

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-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

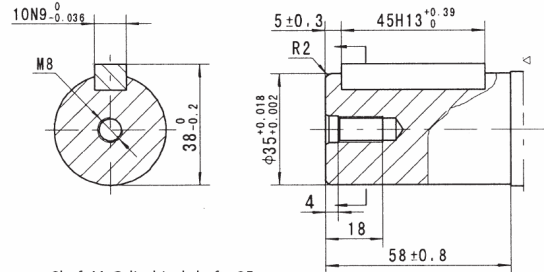
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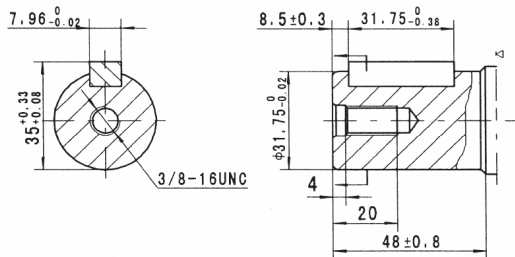
BMH Mounting Data



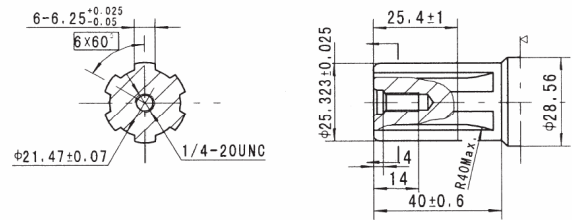
Shaft B: Cylindrical shaft ø32
Parallel key 10x8x45



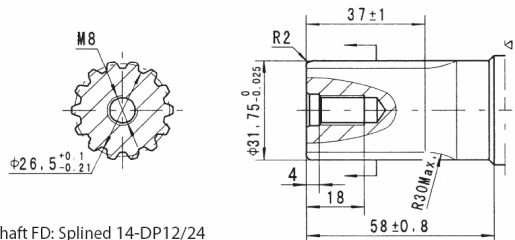
Shaft M: Cylindrical shaft ø35
Parallel key 10x8x45



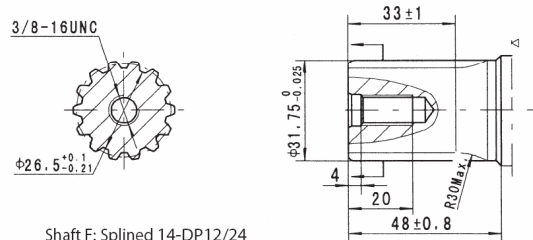
Shaft G: Cylindrical shaft ø31.75
Parallel key 7.96x7.96x31.75



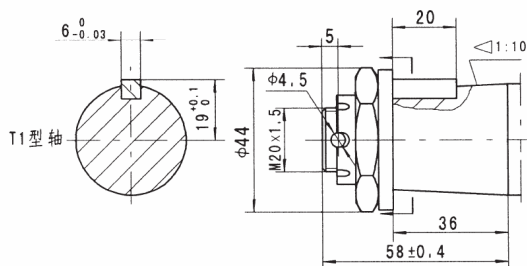
Shaft S: Splined SAE 6B



Shaft FD: Splined 14-DP12/24



Shaft F: Splined 14-DP12/24



Shaft T1: Cone-shaft ø35
Parallel key B 6x6x20

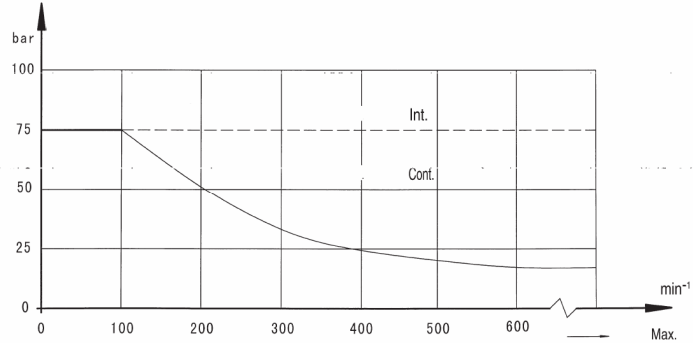
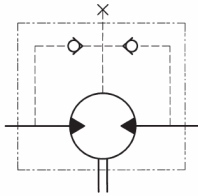
Tightening torque: 200 ± 10 Nm

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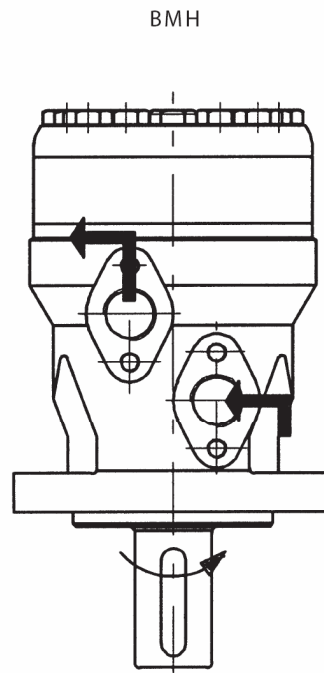
BMH series Hydraulic Motor

Permissible shaft seal pressure



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

Direction of shaft rotation



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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 8B	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.

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