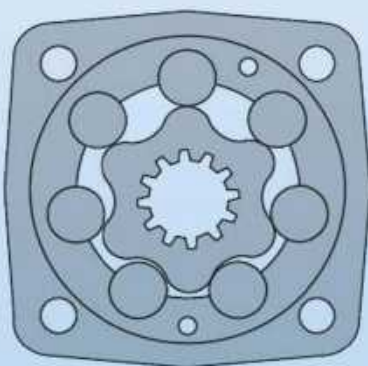
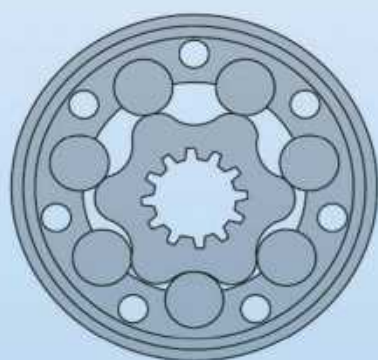




HAN JIU

石家庄寒九科技有限公司

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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		
	20	1912	1900	1861	1833	1780	1780		
Max.int.				6	10	11	14		
20				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		
	20	1152	1144	1136	1102	1078	1036		
Max.int.		3	7	10	15	19	22		
25		1542	1532	1521	1500	1482	1437		
25		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	
	20	745	741	738	728	695	684	660	
Max.int.		1	6	11	19	24	29	35	
25		998	995	991	985	962	916	885	
25			4	9	14	23	28	33	
25			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	
	20	476	472	468	462	441	429	406	
Max.int.		3	10	17	25	37	46	55	
25		633	630	627	619	601	585	566	
25		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		
	20	371	365	360	355	347	338		
Max.int.		10	21	31	39	48	59		
25		497	492	487	480	472	463		
25		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	114	109	104	97		
	15	157	154	149	145	137		
	20	237	234	231	226	218		
Max.int.		10	18	32	47	69		
25		296	295	294	288	282		
25		395	395	393	390	381		
25		498	496	494	490	484		

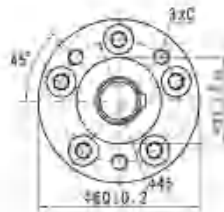
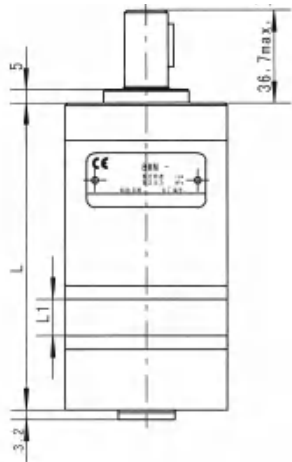
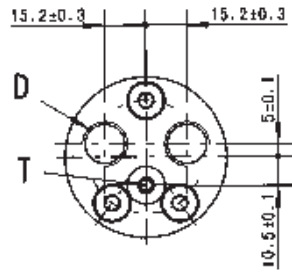
cont.
int.

Torque (N·m) 37
Speed (rpm) 607

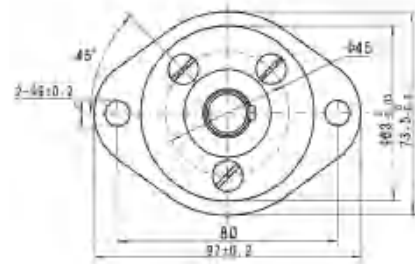
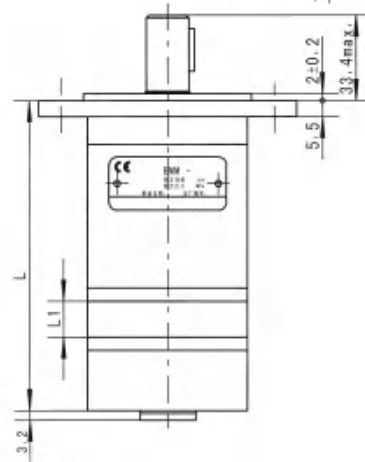
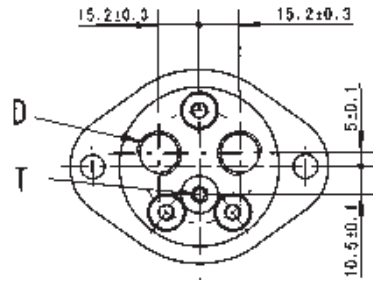
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



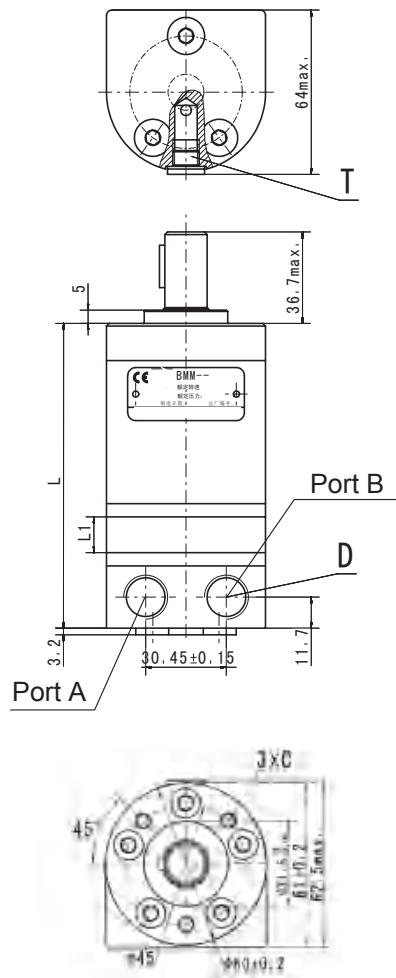
	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

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

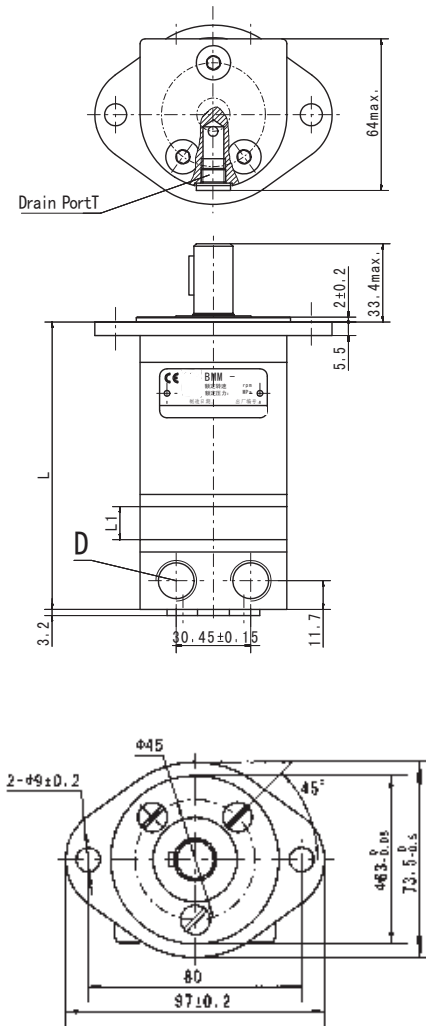
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F

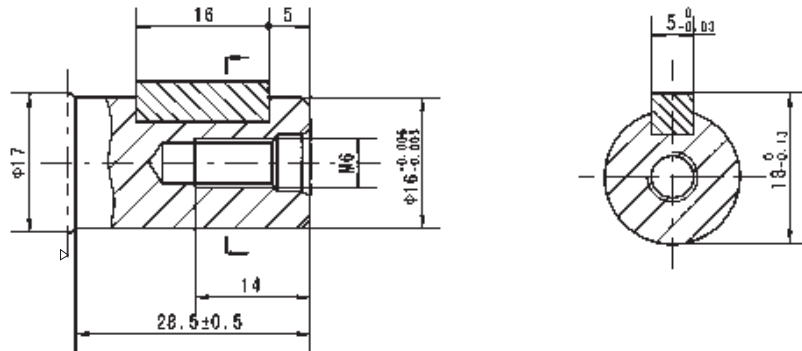


	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

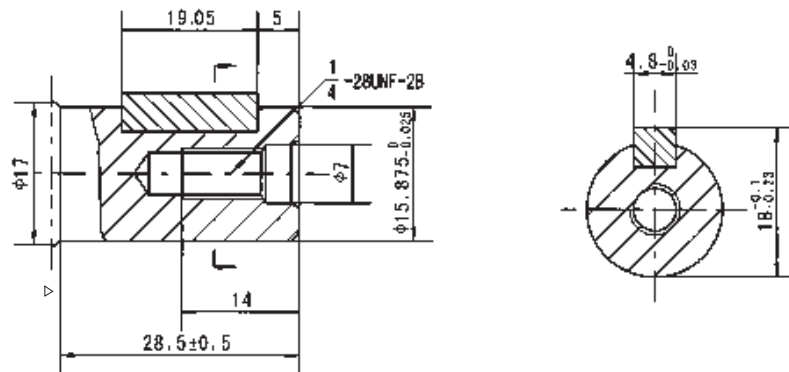
	M、U Flange		F Flange	
Code	E (depth)	U (depth)	E (depth)	U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

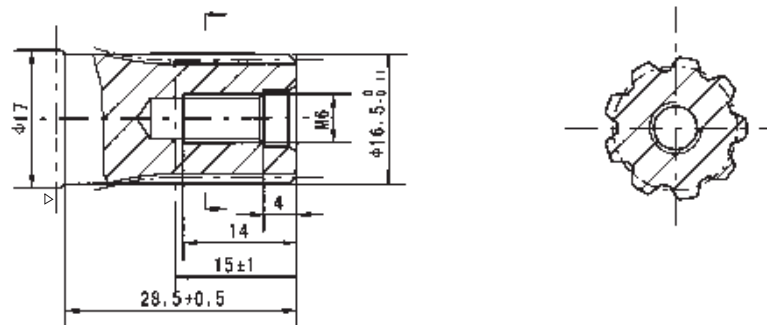
Shaft A: Cylindrical shaft $\varnothing 16$
Parallel key 5x5x16



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



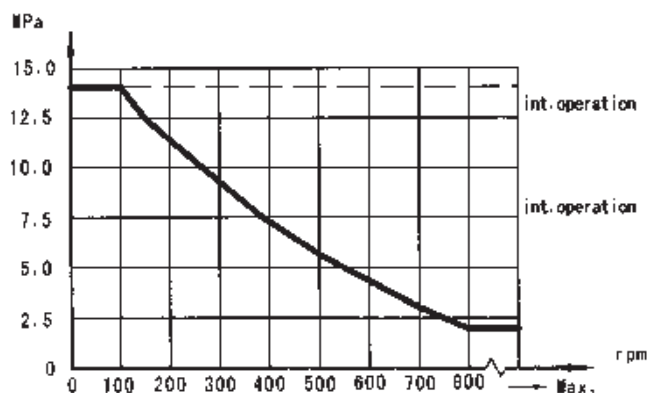
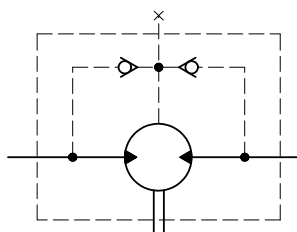
Shaft C: Involute splind shaft
B17x14 DIN5482



▷ Motor Mounting Surface

BMM Series Hydraulic Motor

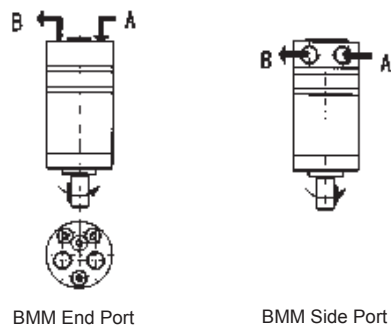
Permissible shaft seal pressure



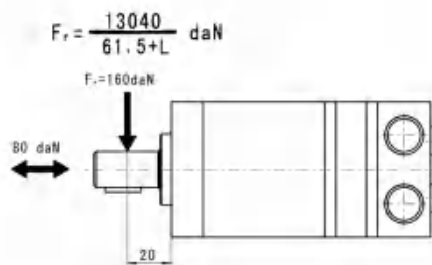
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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 $L=15\text{mm}$
 Square-flange $L=20\text{mm}$

Order Information

1 2 3 4 5 6 7 8

BMM

Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
	8						
	12.5	M	A	E	Omit	No paint	Omit
	20	U	B	U	Standard	Blue	Standard
	32	F	C	1E	R	Black	O
	40			1U	Opposite	Silver grey	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 consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.



BMP SERIES HYDRAULIC MOTOR

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

Characteristic features:

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

Main Specification

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

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

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

Main Specification

Technical data for BMP with 31.75 and 32 shaft

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

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

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

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

Performance Data

BMP 36 [36cm³/rev.]

Pressure (MPa)

							Max.cont.	Max.int.
	3	6	7	8	10	11	12.5	16.5

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

BMP 50 [51.7cm³/rev.]

Pressure (MPa)

							Max.cont.	Max.int.
	3	6	8	10	12.5	14	16	17.5

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

BMP 80 [77.7cm³/rev.]

Pressure (MPa)

							Max.cont.	Max.int.
	3	6	8	10	12.5	14	16	17.5

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

BMP 100 [96.2cm³/rev.]

Pressure (MPa)

							Max.cont.	Max.int.
	3	6	8	10	12.5	14	16	17.5

Flow (L/min)	8	40	77	105	130	161	180		
		81	75	69	57	36	24		
	15	39	77	106	130	160	180	208	
		152	149	145	140	122	103	81	
	20	36	74	104	128	161	179	205	227
		204	200	195	190	177	166	148	133
	30	33	72	103	125	160	177	203	225
		308	304	298	290	280	268	255	231
	35	30	70	98	122	159	176	202	224
		360	352	343	331	320	306	294	275
Max.cont.	45	29	67	95	118	155	174	200	220
		462	458	451	443	433	419	402	383
	55	25	64	93	116	152	170	198	217
		566	558	549	540	529	515	498	478
	60	22	60	91	114	149	167	194	213
		618	611	601	589	580	570	558	540
	Max.int.	15	54	83	106	141	160	186	205
		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)	8	51 63	98 60	137 55	168 47	208 28	236 15	
	15	51 121	101 116	138 110	168 102	209 89	236 73	267 48
	20	48 162	98 158	135 153	167 148	211 137	237 128	269 109
	30	46 243	96 239	132 234	164 227	209 216	232 202	264 189
	35	42 284	92 279	130 274	160 269	206 259	229 247	260 231
	45	37 370	89 362	125 355	157 348	201 340	224 327	261 310
	55	33 452	84 446	122 438	152 431	196 420	218 412	252 402
	60	29 490	78 482	117 475	146 468	191 459	215 448	248 439
Max.int.	75	18 615	66 606	107 598	133 586	179 575	202 563	236 549

BMP 160 [157.2cm³/rev.]

Pressure (MPa)

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

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

BMP 200 [194.5cm³/rev.]

Pressure (MPa)

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

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

BMP 250 [240.3cm³/rev.]

Pressure (MPa)

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

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

cont.
int.

Torque (N·m) 128
Speed (rpm) 306

Performance Data

BMP 315 [314.5cm³/rev.]

Pressure (MPa)

	3	5	7	9	10	Max.cont.	Max.int.
	3	5	7	9	10	12.5	14

Flow (L/min)	8	123 25	215 23	292 21	368 17	405 11	
	15	118 47	211 46	287 44	367 40	404 28	495 21
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
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
55	76 173	166 172	239 170	325 167	362 160	457 152	548 143
	Max.cont.	65 188	154 186	227 184	308 182	348 178	443 172
Max.int.	60 75	154 236	227 234	308 232	348 228	443 226	529 223
		40 236	120 234	201 232	279 228	323 226	418 223

BMP 400 [389.5cm³/rev.]

Pressure (MPa)

	3	4.5	5.5	6.5	8	Max.cont.	Max.int.
	3	4.5	5.5	6.5	8	10	12.5

Flow (L/min)	8	166 20	232 19	287 18	340 16	418 12	
	15	165 38	228 36	277 35	337 33	417 31	496 27
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
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
55	117 139	184 137	227 136	283 135	363 135	450 132	552 123
	Max.cont.	102 153	163 152	215 150	272 148	347 146	436 143
Max.int.	60 75	128 191	182 189	234 187	318 185	391 183	484 180
		53 191	128 189	182 187	234 185	318 183	484 180

Torque (N·m) 234
Speed (rpm) 185

BMP500[486.5cm³/rev.]

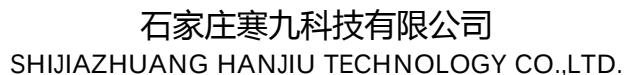
Pressure (MPa)

	1.5	3	4.5	6	7	8	Max.int.
	1.5	3	4.5	6	7	8	9

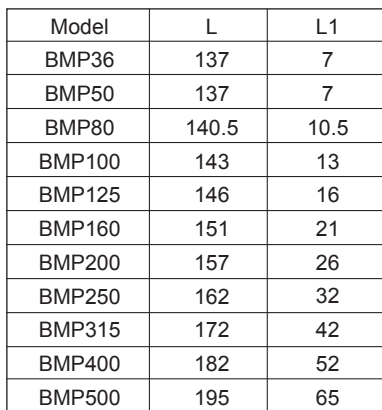
Flow (L/min)	4	96 7	194 6	285 4			
	8	98 15	201 15	304 14	391 14	443 12	574 9
15	96 30	192 30	284 29	380 28	421 26	496 23	550 22
	20	96 40	191 40	280 40	372 39	418 37	546 33
30	91 61	185 60	272 60	360 58	412 56	486 53	541 50
	40	86 81	172 80	261 80	343 79	408 76	538 73
50	78 102	160 101	241 100	332 98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

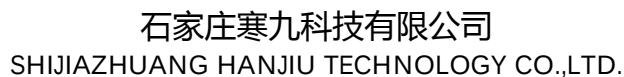
cont.
int.

Torque (N·m) 389
Speed (rpm) 147

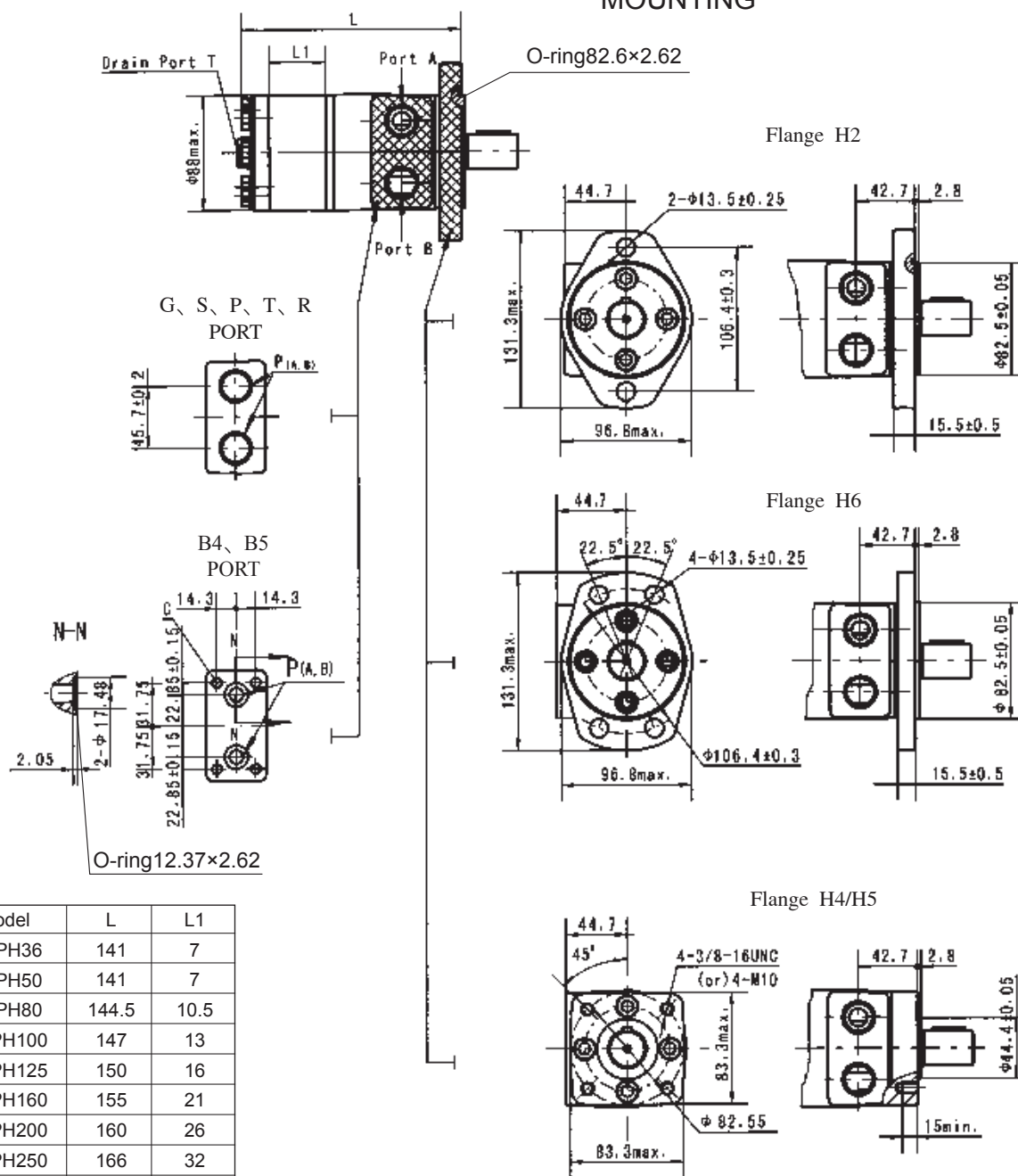


MOUNTING

14



MOUNTING

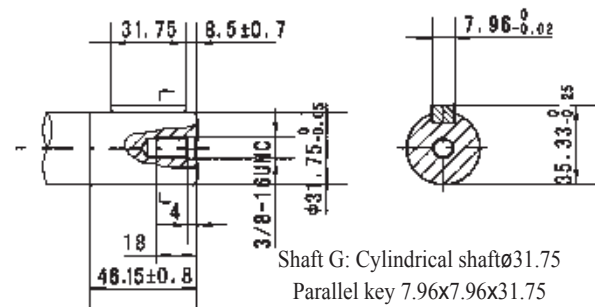
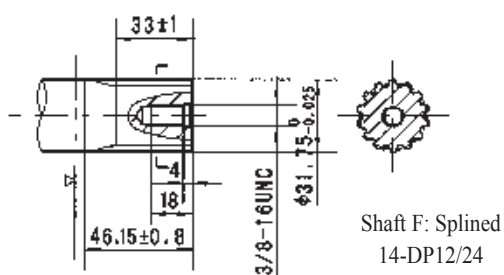
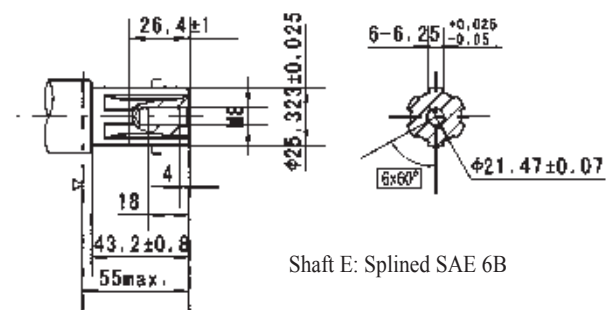
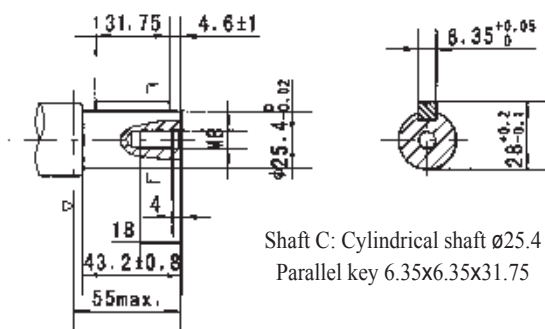
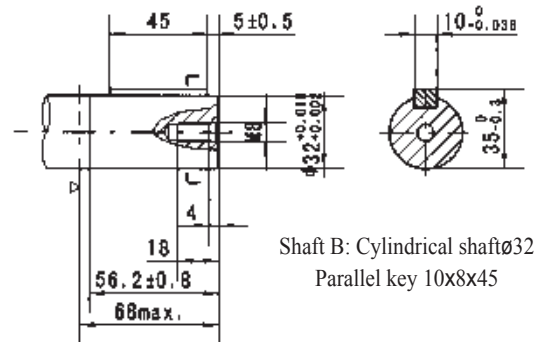
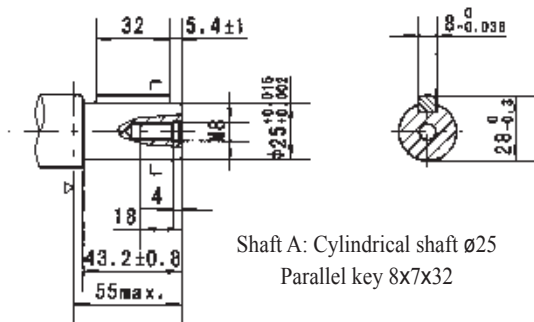


Note: The size L of the BMPH N1 should be increased by 2mm.

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

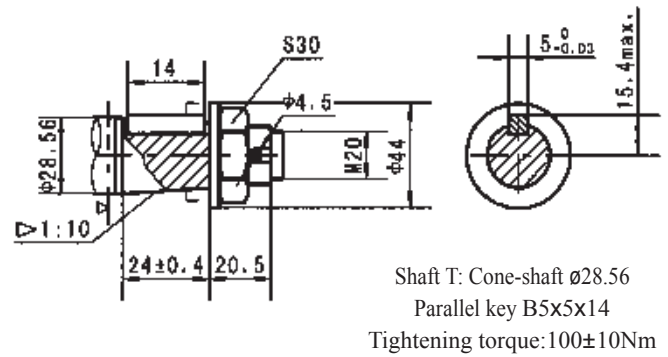
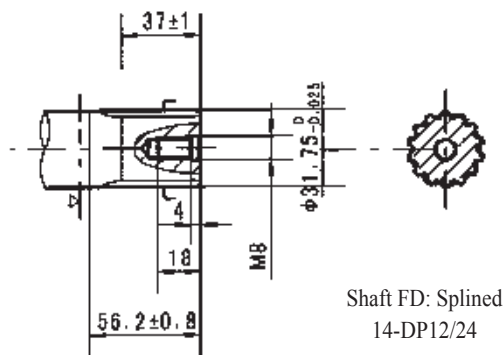
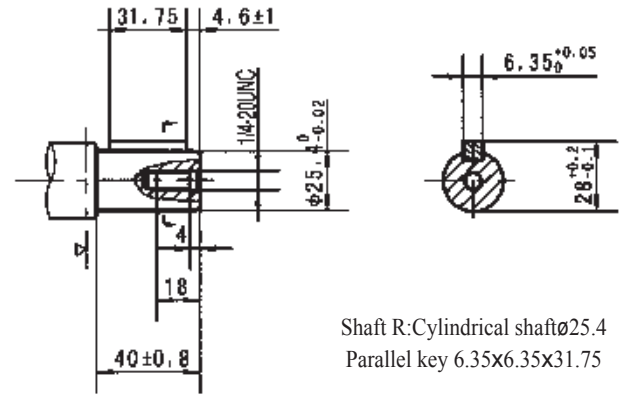
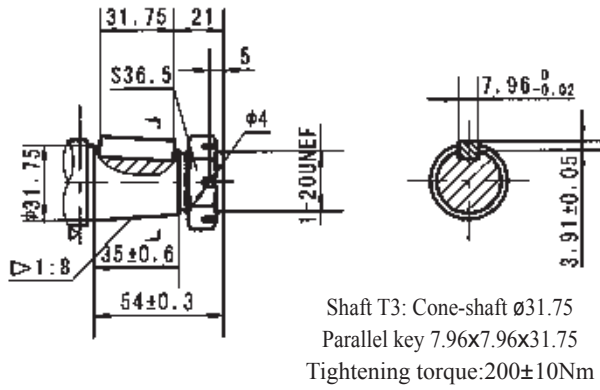
Code Mounting	G (depth)	S (depth)	P (depth)	T (depth)	R (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	3/4-16 O-ring (15)	PT(RC)1/2 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	7/16-20UNF(12)	PT(RC)1/4 (9.7)	7/16-20UNF(12)	G1/4(12)
C	—	—	—	—	—	4-5/16-18UNC(13)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

BMP SHAFT EXTENSIONS DIMENSIONS DATA



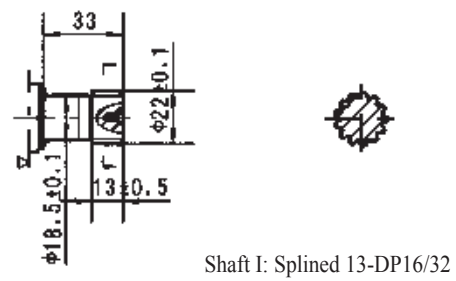
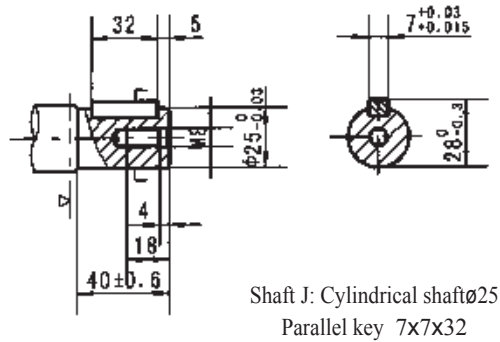
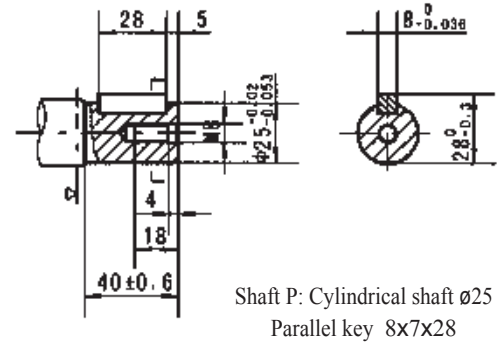
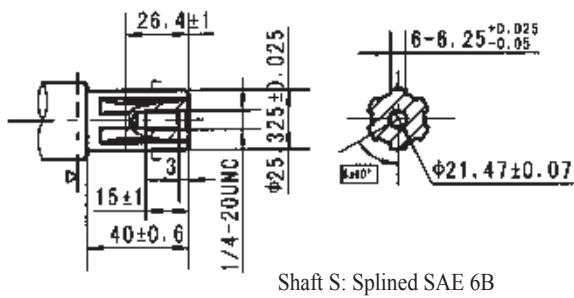
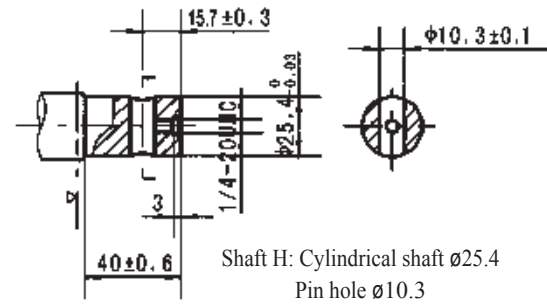
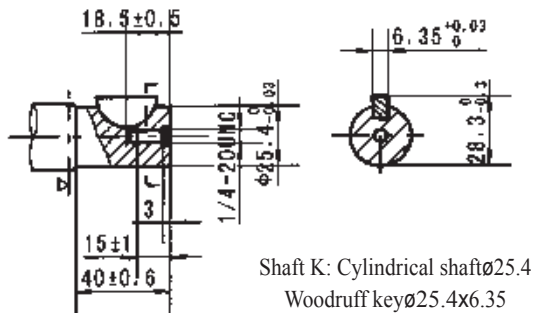
▷ Motor Mounting Surface

BMP SHAFT EXTENSIONS DIMENSIONS DATA



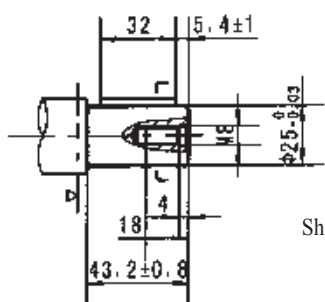
▷ Motor Mounting Surface

BMPH SHAFT EXTENSIONS DIMENSIONS DATA

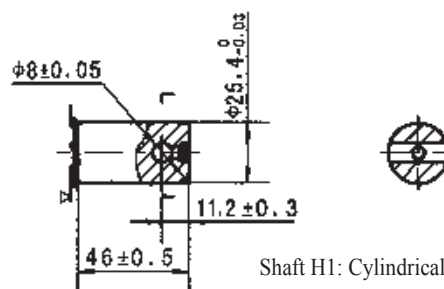


▷ Motor Mounting Surface

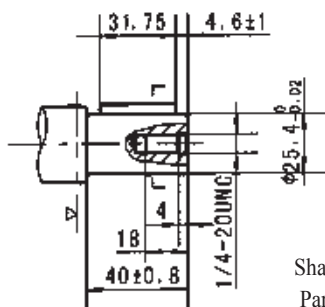
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



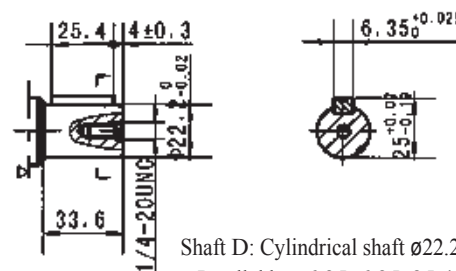
Shaft A: Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32



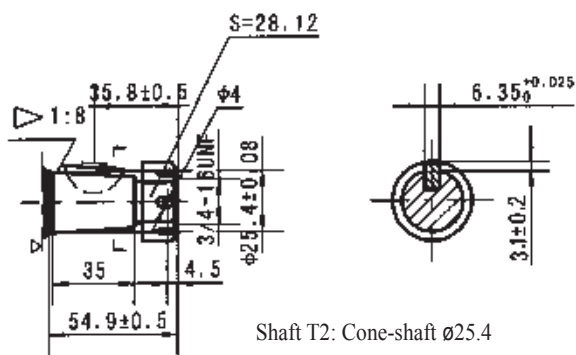
Shaft H1: Cylindrical shaft $\varnothing 25.4$
Pin hole $\varnothing 8$



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



Shaft D: Cylindrical shaft $\varnothing 22.22$
Parallel key 6.35x6.35x25.4

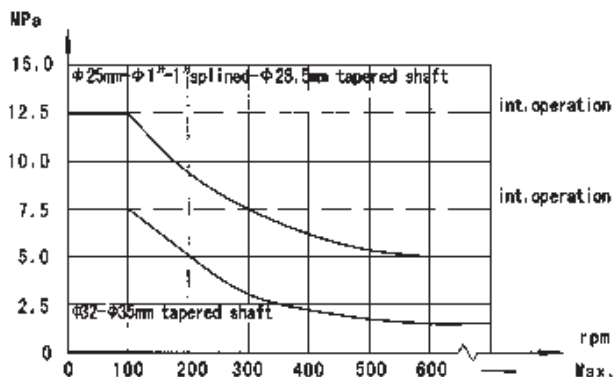
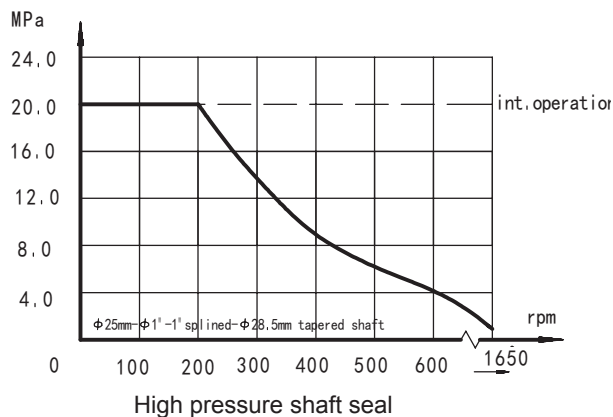
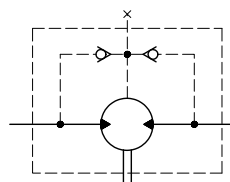


Shaft T2: Cone-shaft $\varnothing 25.4$
Parallel key $\varnothing 25.4 \times 6.35$
Tightening torque: $200 \pm 10 \text{ Nm}$

▷ Motor Mounting Surface

BMP、BMPH Series Hydraulic Motor

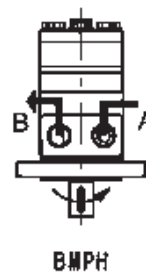
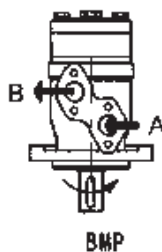
Permissible shaft seal pressure



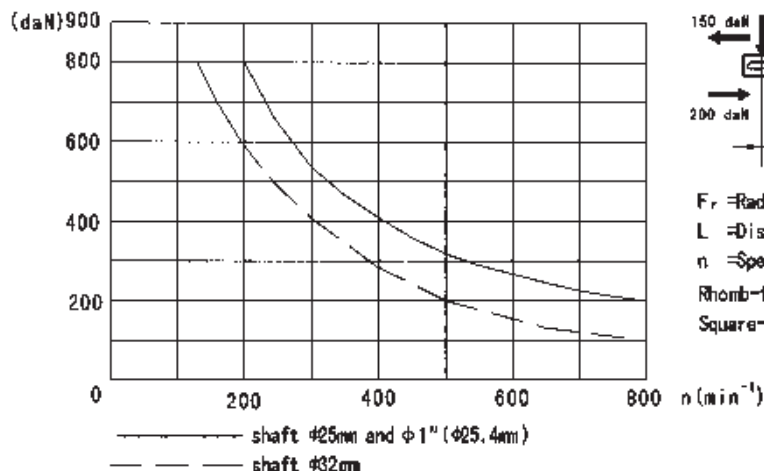
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

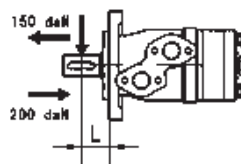
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



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

1 2 3 4 5 6 7 8
BMP

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMP	36	2-Ø13.5 Rhomb-flange ,	A Shaft Ø25,parallel key 8x7x32	D G1/2 Manifold Mount	Omit R	00 Omit B S	No paint Blue Black Silver grey
	50	pilot Ø82.5x8	C Shaft Ø25.4,parallel key 6.35x6.35x31.75	4xM8, G1/4			
	80	4-Ø13.5 Rhomb-flange ,	E Shaft Ø25.4,spined tooth SEA 6B	M22x1.5 Manifold Mount			
	100	pilot Ø82.5x8	R Short shaft Ø25.4,parallel key 6.35x6.35x31.75	4xM8, M14x1.5			
	125		T Cone shaft Ø28.56,parallel key B5x5x14	7/8-14 O-ring manifold			
	160	H4 4-3/8-16 Square-flange ,	B Shaft Ø32,parallel key 10x8x45	4x5/16-18UNC, 7/16-20UNF			
	200	pilot Ø44.4x2.8	F Shaft Ø31.75,spined tooth 14-DP12/24	1/2-14 NPTF			
	250	H5 4-M10 Square-flange ,	FD Long shaft Ø31.75,spined tooth 14-DP12/24	Manifold 4x5/16-18UNC,			
	315	pilot Ø44.4x2.8	G Shaft Ø31.75, parallel key 7.96x7.96x31.75	7/16-20UNF			
	400		T3 Cone shaft Ø31.75,parallel key 7.96x7.96x25.4	PT(Rc)1/2 Manifold 4xM8,			
	500			PT(Rc)1/4			Omit N1 0 F LS

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

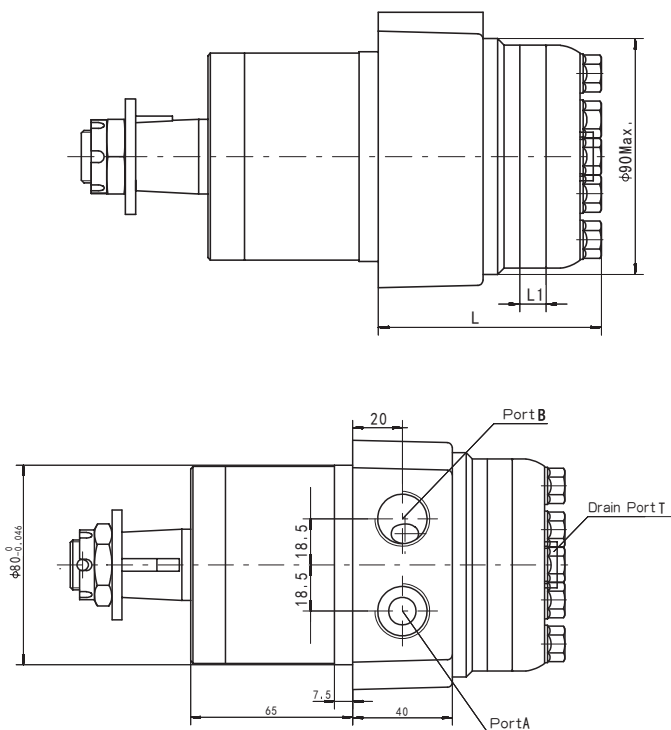
1 2 3 4 5 6 7 8
BMPH

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMPH	36	2-Ø13.5 Rhomb-flange ,	K Shaft Ø25.4, woodruff key	G S P T R B4 B5	Omit R	00 Omit B S	No paint Blue Black Silver grey
	50	H2 pilot Ø82.5x2.8	S Shaft Ø25.4 , spined tooth SEA 6B	G1/2, G1/4			
	80	4-Ø13.5 Rhomb-flange ,	A Shaft Ø25 , parallel key 8x7x32	7/8-14 O-ring, 7/16-20UNF			
	100	pilot Ø82.5x2.8	R Shaft Ø25.4, parallel key	1/2-14 NPTF, 7/16-20UNF			
	125		6.35x6.35x31.75	3/4-16 O-ring, 7/16-20UNF			
	160	H4 4-3/8-16 Square-flange ,	H Shaft Ø25.4 , pin hole Ø10.3	PT(Rc)1/2 ,PT(Rc)1/4			
	200	pilot Ø44.4x2.8	H1 Shaft Ø25.4 , pin hole Ø8	Ø10 O-ring manifold			
	250	H5 4-M10 Square-flange ,	D Shaft Ø22.22, parallel key	4x5/16-18UNC,7/16-20UNF			
	315	pilot Ø44.4x2.8	I Shaft Ø22.22, spined tooth	Ø10 O-ring manifold 4xM8,			
	400		13-DP16/32	7/16-20UNF			
	500		T2 Cone shaft Ø25.4 , woodruff key				Omit N1 0 F LS
			Ø25.4x6.35				Standard Big radial force No case drain Free Running Low Speed
			P Shaft Ø25 , parallel key 8x7x28				
			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

1 BMPW 2 3 4 5 6 7 8

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
BMPW	50 80 100 125 160 200 250 315 400 500	Wheel-flange pilat Ø80×7.5 Omit	Shaft Ø25x6 ,Parallel key 8×7×32 Shaft Ø25.4 ,Parallel key 6.35×6.35×31.75 Shaft Ø25.4 ,Splined key SAE 6B Cone shaft Ø28.56 ,Parallel key B5×5×14	G G1/2, G1/4 S 7/8-14 O-ring, M 7/16-20UNF M22×1.5,M14×1.5	Omit Standard Opposite R	No paint Blue Black Silver grey	Standard Big radial force No case drain

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



OZ SERIES HYDRAULIC MOTOR

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

Characteristic features:

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

Main Specification

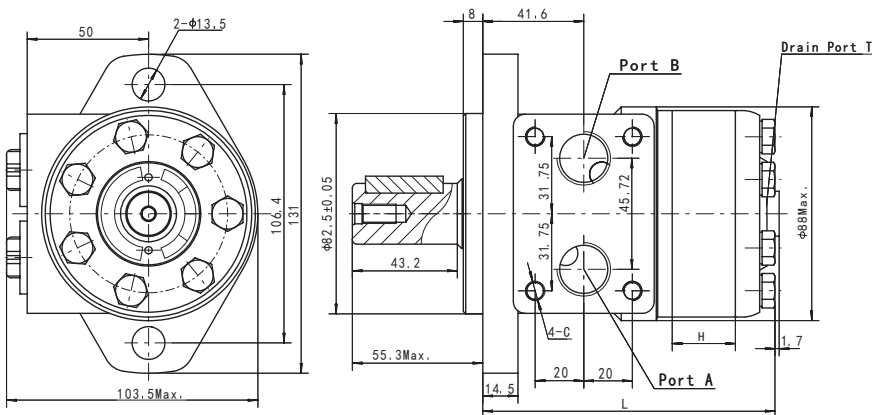
Technical data for OZ with 25 and 1 in and 1 in splined and 28.56 tapered shaft

Code	Displacement [cm/rev]	Max.Speed [rpm]	Max.Torque [Nm]		Max.output [kW]		Max.pressure [MPa]		Max.Oil Flow[L/min]
		cont.	cont.	int.	cont.	int.	cont.	int.	cont.
OZ 36	36	1081	51	68	5.2	8.6	10.5	14	40
OZ 50	51.7	774	73	96	5.2	8.6	10.5	14	40
OZ 80	77.7	515	106	143	5.2	8.6	10.5	14	40
OZ 100	96.2	416	140	178	5.2	8.6	10.5	14	40
OZ 125	120.2	339	162	218	5.2	8.6	10.5	14	40
OZ 160	157.2	257	216	288	5.2	8.6	10.5	14	40
OZ 200	194.5	211	264	351	5.2	8.6	10.5	14	40
OZ 250	240.3	173	281	351	4.6	7	9	11.5	40
OZ 315	314.5	128	312	433	3.4	5.8	7	10.5	40
OZ 400	389.5	104	392	582	3.4	5.8	7	10.5	40

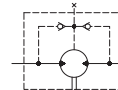
* Intermittent operation: the permissible values may occur for max.10% of every minute

OZ DIMENSIONS AND MOUNTING DATA

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

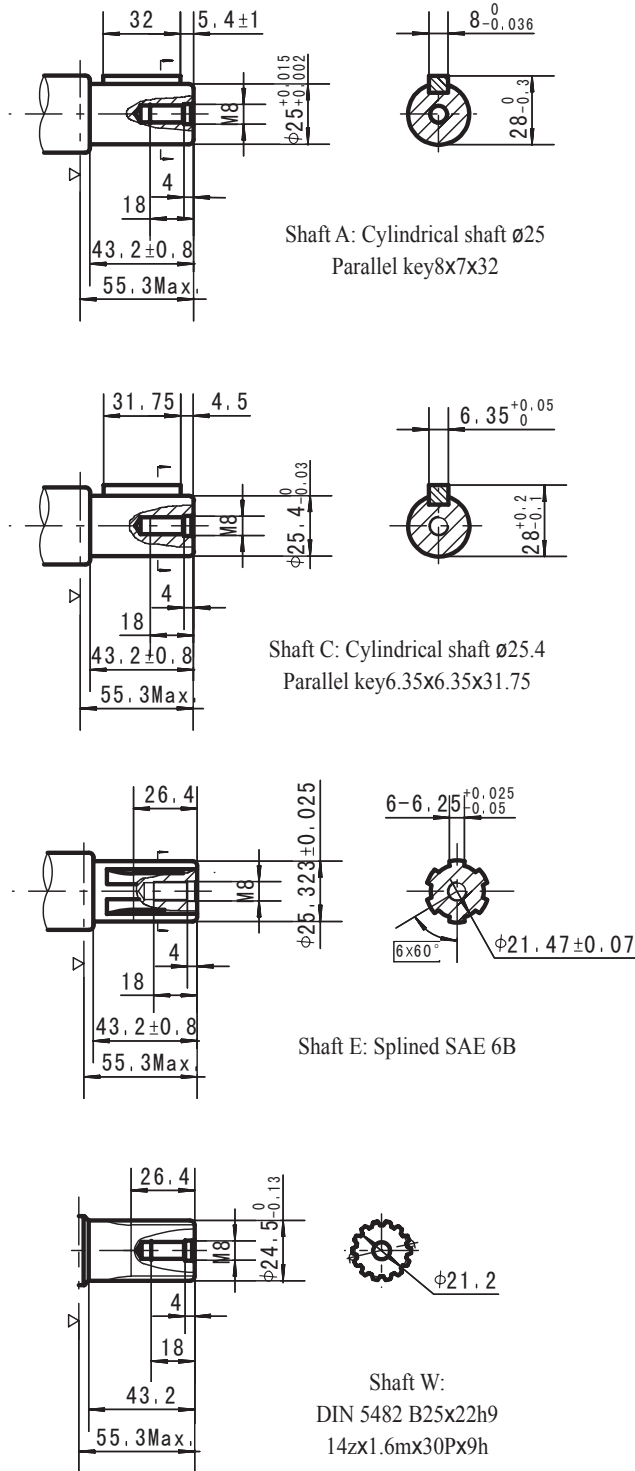


Code Mounting	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)



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

SHAFT EXTENSIONS FOR OZ MOTORS



▷ Motor Mounting Surface

Order Information

OZ - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
36	50	2-Ø13.5 Rhomb-flange, pilot Ø82.5x8	A Shaft Ø25, parallel key 8x7x32 C Shaft Ø25.4, parallel key 6.35x6.35x31.75 E Shaft Ø25.4, splined key SEA 6B W Shaft Ø24.5, splined B25x22 T Cone shaft Ø28.56, 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(Rc) 1/2 manifold 4xM8, PT(Rc) 1/4	Omit R	00 Omit B S	Standard Free Running No case drain
80	100						
125	160						
200	250						
315	400						
Omit							



BMR SERIES HYDRAULIC MOTOR

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

Characteristic features:

- *Advanced manufacturing devices for the 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 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.	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	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.	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.

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		
Max.cont.	40	30	41	58	66	79	92	106	122		
		760	758	753	750	738	724	700	670		
	45	29.5	40	57	65	78	90	105	121		
		856	853	849	845	835	815	796	770		
	50	26	37	53	60	73	85	99	114		
		950	940	925	906	880	852	832	801		
	Max.int.	20	33	48	56	69	81	95	109		
		1138	1124	1100	1075	1056	1028	1006	970		
	60										

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	
Max.cont.	50	42	70	93	102	124	147	170	188	218	
		604	595	582	570	556	540	521	504	487	
	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.	21	50	78	90	111	135	154	171	200	
		910	895	881	867	852	830	806	787	756	
	75										

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	
Max.cont.	50	48	79	110	123	150	183	204	228	260	
		482	477	470	460	448	435	420	405	389	
	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.	23	59	93	111	136	170	192	210	240	
		728	720	710	695	681	667	650	634	618	
	75										

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
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Flow (L/min)	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
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
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
Max.int.	75	32 586	79 583	126 578	148 570	180 560	208 546	234 532	300 520

BMR 160 [157.2cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
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Flow (L/min)	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	416 128
40	89 246	140 241	185 235	210 228	250 220	290 210	335 194	363 177	412 150
	50	72 310	128 307	179 300	202 295	244 287	284 278	327 262	409 247
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
Max.int.	75	36 472	98 463	152 450	185 441	226 431	265 420	300 405	379 389

BMR 200 [194.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
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Flow (L/min)	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	486 105
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	421 212	470 194
60	78 304	145 301	213 298	238 294	289 286	342 276	386 362	412 243	459 218
	70	67 355	135 353	206 349	228 340	277 329	336 316	408 300	453 288
Max.int.	75	58 382	125 379	197 373	220 362	270 350	321 337	360 322	442 312

BMR 250 [253.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
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Flow (L/min)	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	621 77
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	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	560 209
Max.int.	75	62 294	165 291	256 287	288 283	347 274	412 263	474 249	542 236

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
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

Flow (L/min)

Max.cont.

Max.int.

Torque (N·m) 481
Speed (rpm) 200

BMR 375 [381.4cm³/rev.]

Pressure (MPa)

	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

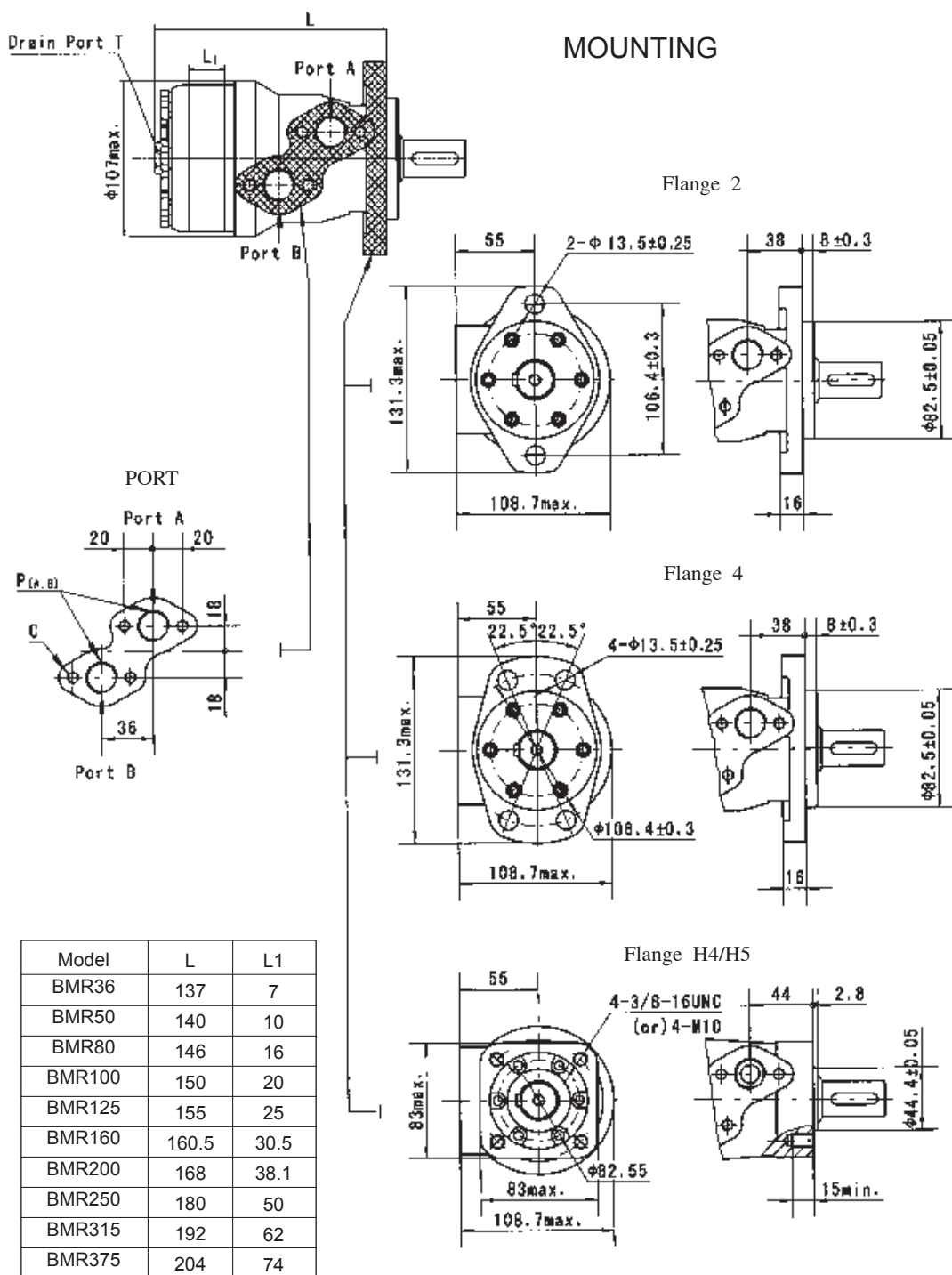
Flow (L/min)

Max.cont.

Max.int.

cont.
int.

BMR DIMENSIONS AND MOUNTING DATA

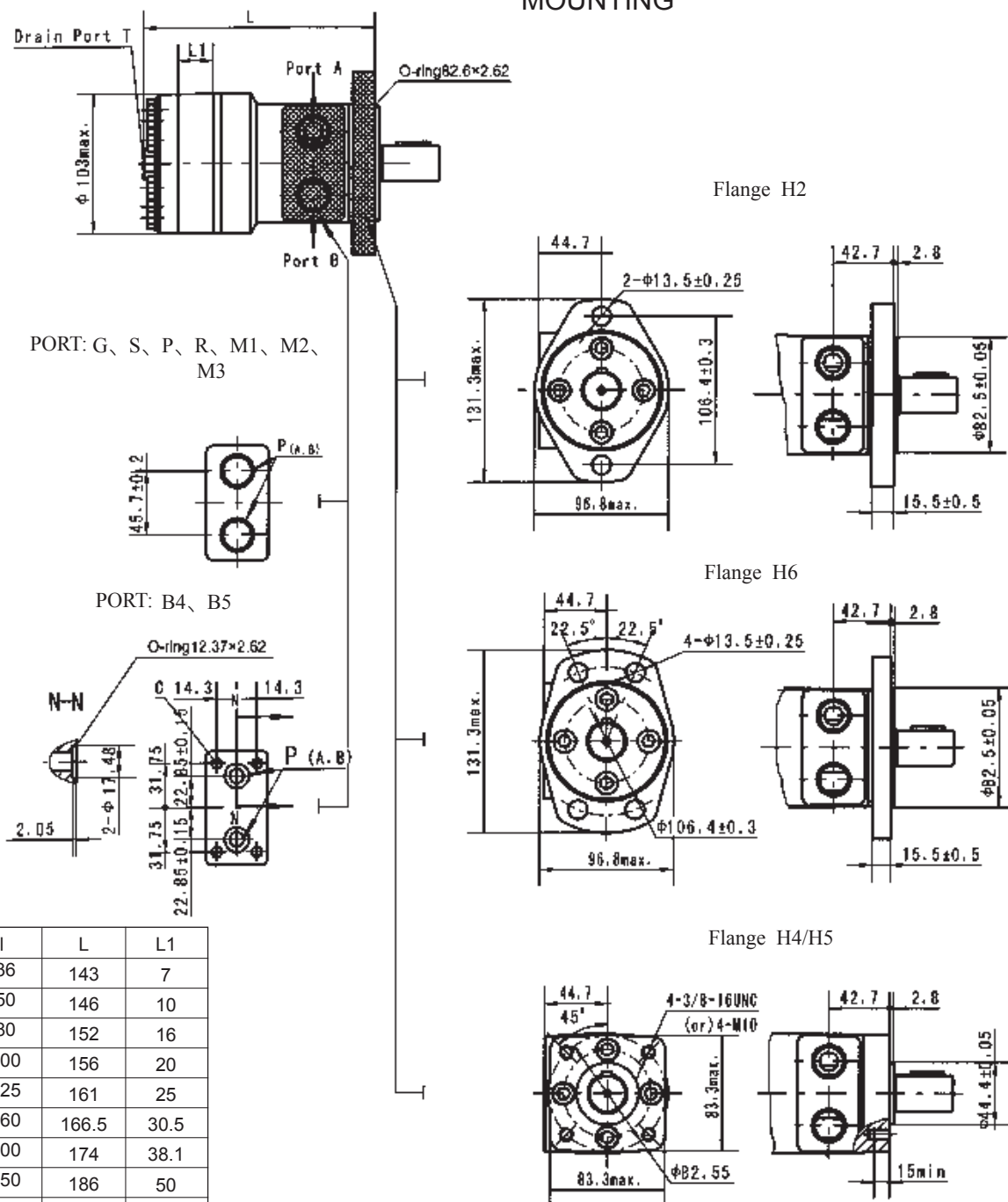


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)



BMRS DIMENSIONS AND MOUNTING DATA

MOUNTING

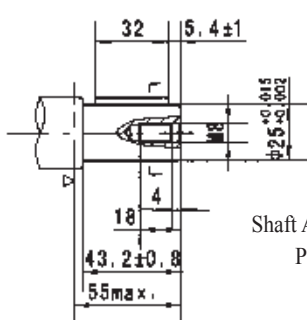


Model	L	L1
BMRS36	143	7
BMRS50	146	10
BMRS80	152	16
BMRS100	156	20
BMRS125	161	25
BMRS160	166.5	30.5
BMRS200	174	38.1
BMRS250	186	50
BMRS315	198	62
BMRS375	210	74

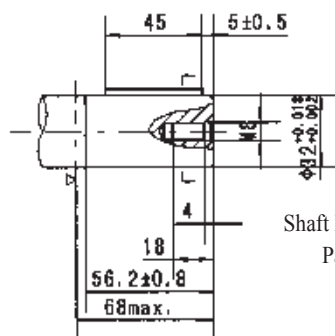
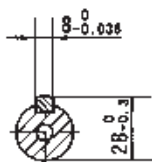
Note: The size L of the BMRS N1 should be increased by 2mm.

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

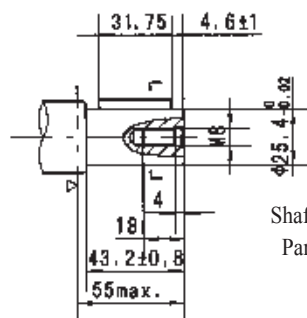
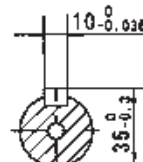
BMR SHAFT EXTENSIONS DIMENSIONS DATA



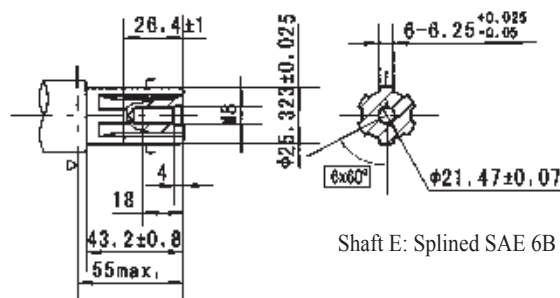
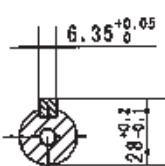
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



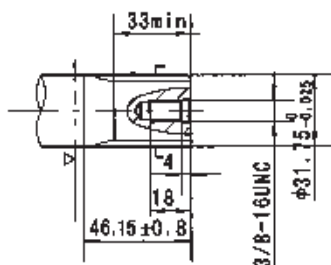
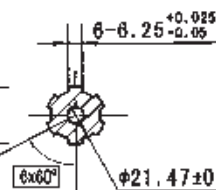
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



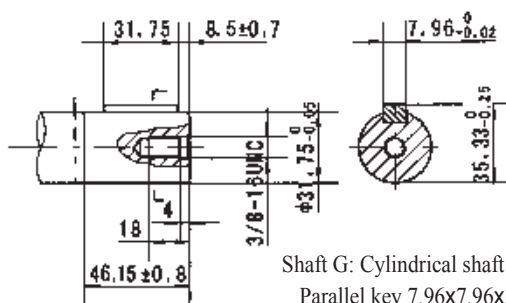
Shaft C: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75



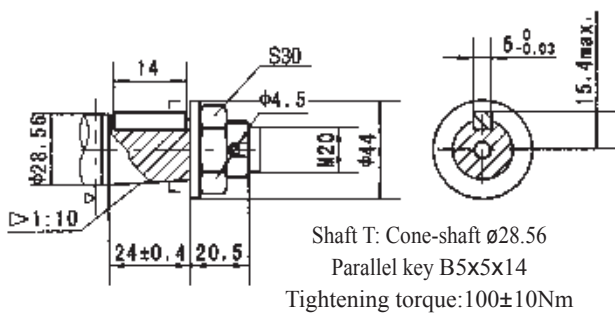
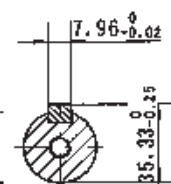
Shaft E: Splined SAE 6B



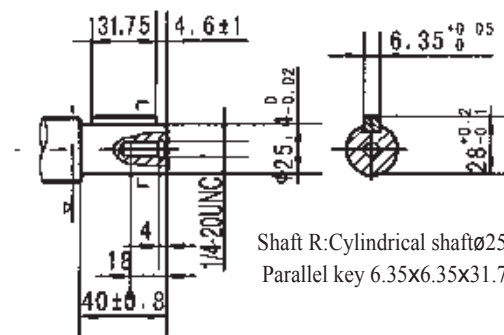
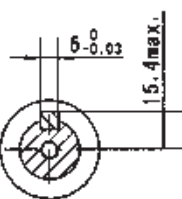
Shaft F: Splined
14-DP12/24



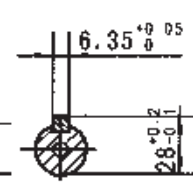
Shaft G: Cylindrical shaft Ø31.75
Parallel key 7.96x7.96x31.75



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

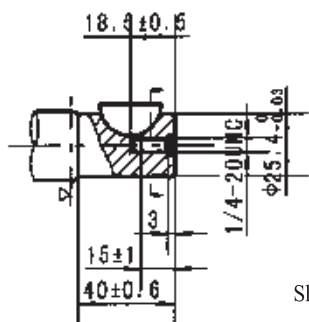


Shaft R: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

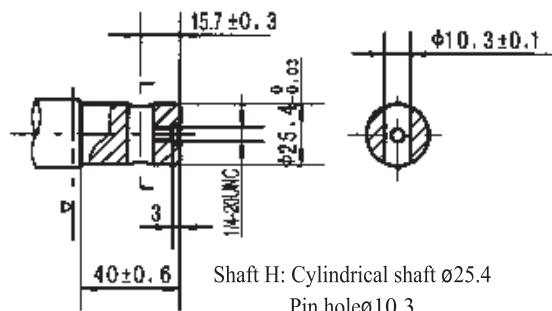


▷ Motor Mounting Surface

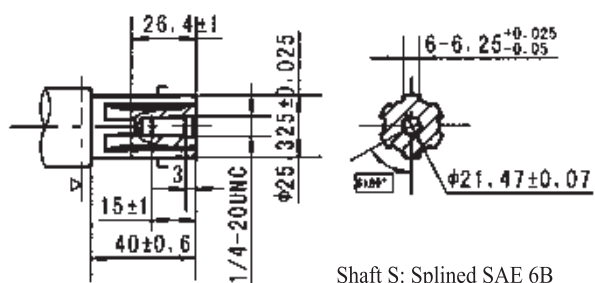
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA



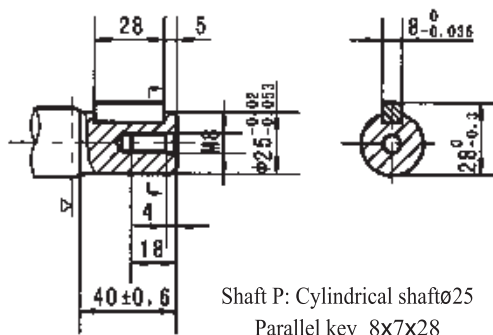
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35



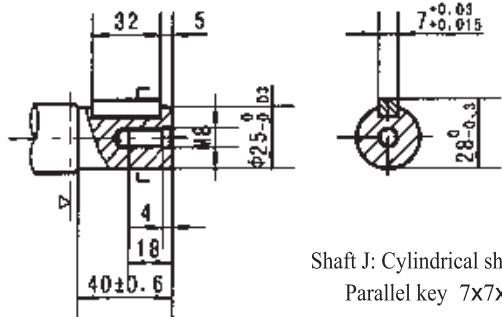
Shaft H: Cylindrical shaft ø25.4
Pin hole ø10.3



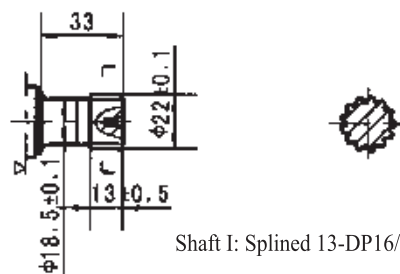
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft ø25
Parallel key 8x7x28



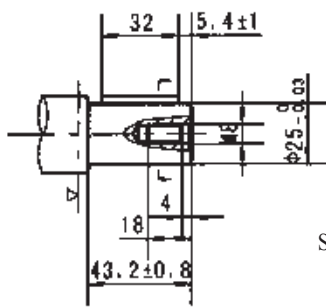
Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



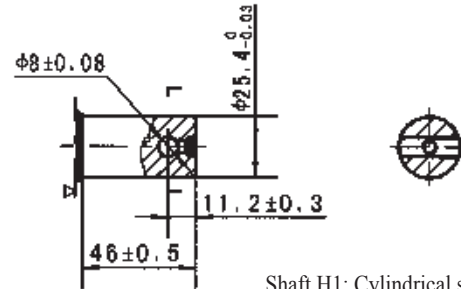
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

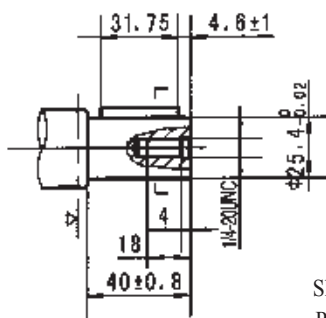
BMRS SHAFT EXTENSIONS DIMENSIONS DATA



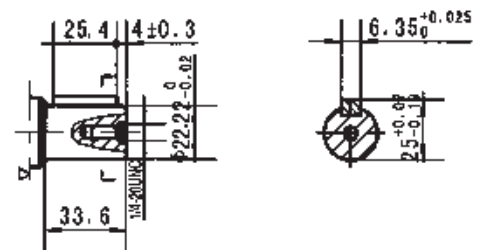
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



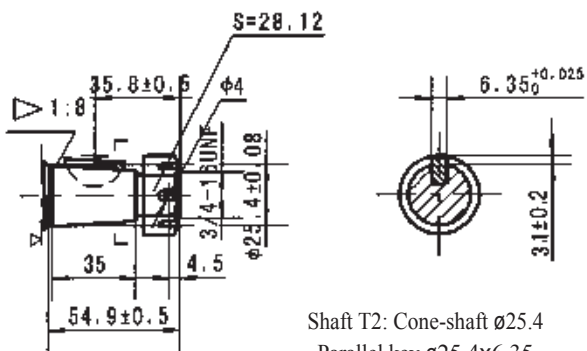
Shaft H1: Cylindrical shaft Ø25.4
Pin hole Ø8



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



Shaft D: Cylindrical shaft Ø22.22
Parallel key 6.35x6.35x25.4

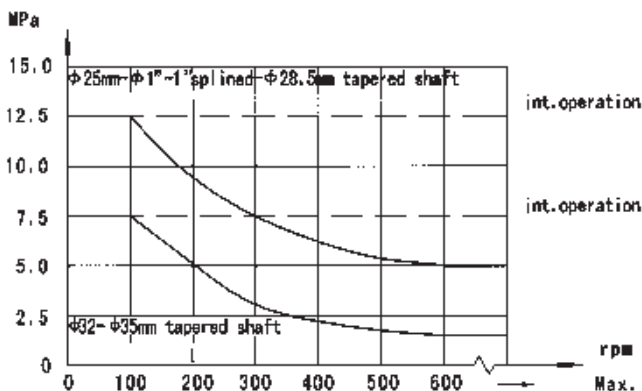
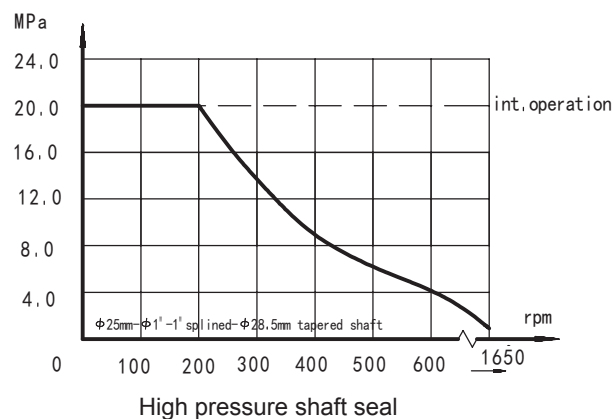


Shaft T2: Cone-shaft Ø25.4
Parallel key Ø25.4x6.35
Tightening torque: 200±10Nm

▷ Motor Mounting Surface

BMR、BMRS Series Hydraulic Motor

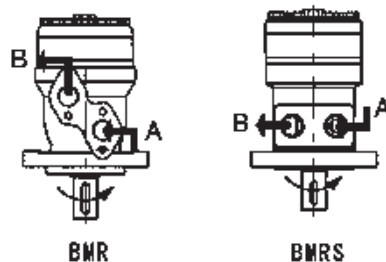
Permissible shaft seal pressure



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.

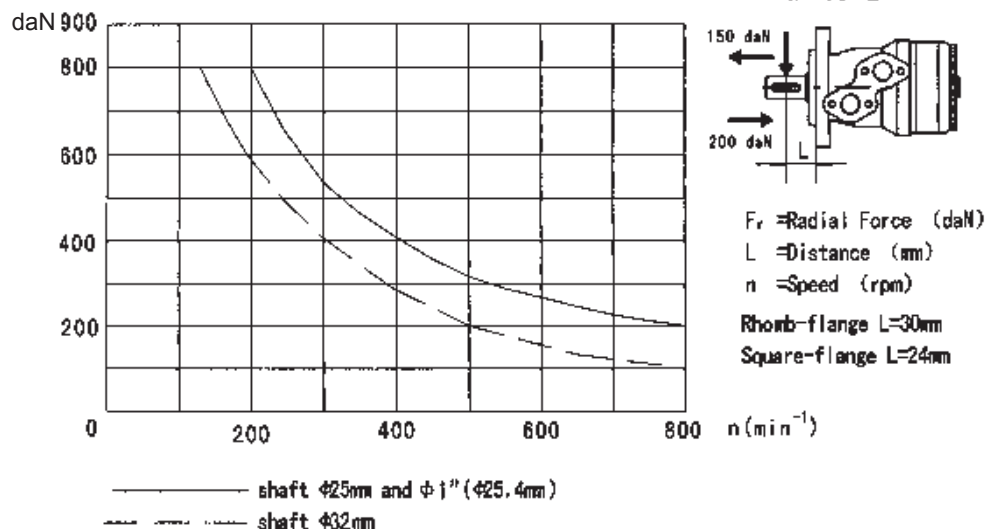
Direction of shaft rotation : Standard

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



Status of the shaft's radial force

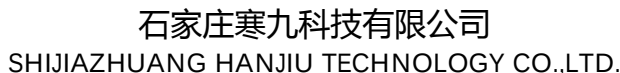
(Standard motor with journal bearing)



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



1	2	3	4	5	6	7	8
BMR							

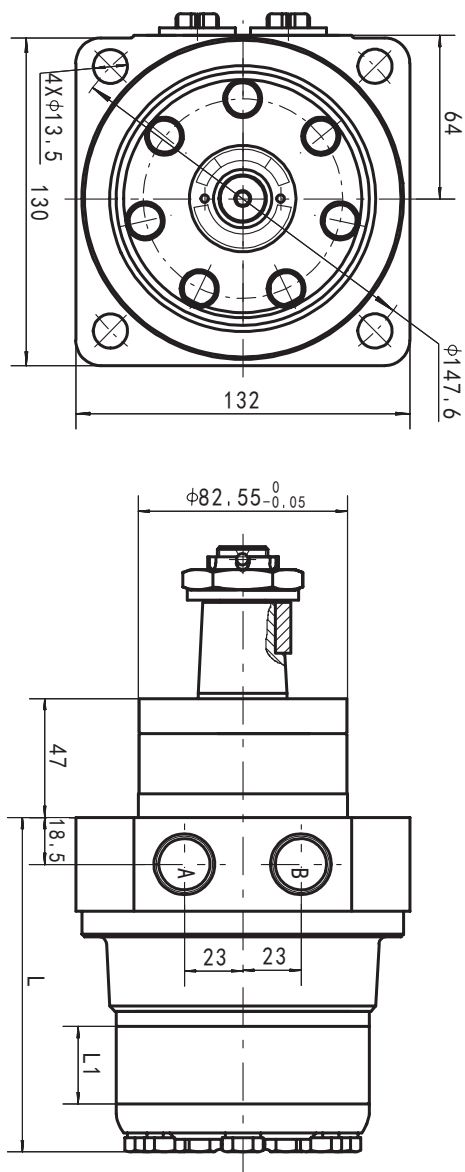
Note: The shafts of B\F\FD\G\T1\T3 are only suitable for flanges of 2 and 4.

1 2 3 4 5 6 7 8

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



BMRWN DIMENSIONS MOUNTING DATA



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

Order Information

1 2 3 4 5 6 7 8

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
	50 80 100 125 160 200 250 315 375	4-Ø13.5 Wheel Mount , Ø82.5×9.4 Omit	T1 1:10Cone shaft Ø35, parallel key B6×6×20 B Shaft Ø32 , parallel key 10×8×4 F Shaft Ø31.75, splined key 14-DP12/2 FD Long Shaft Ø31.75, splined key 14-DP12/24 G Shaft Ø31.75, parallel key 7.96×7.96×31.75	G G1/2, G1/4 M M22×1.5, M14×1.5 S 7/8-14 O-ring, 7/16-20UNF P 1/2-14NPTF, 7/16-20UNF	Omit Standard Opposite R	00 Omit B S No paint Blue Black Silver grey	Omit Standard
BMRWN							

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.

Mounting / Code	G(depth)	M(depth)	S(depth)	P(depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14O-ring(17)	1/2-14NPTF(15)
C	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)



BMR-BK01 SERIES HYDRAULIC MOTOR WITH BRAKE

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

Characteristic features:

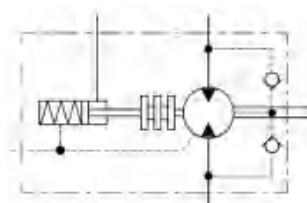
- *Advanced manufacturing devices for the Geroler gear set , which use low pressure of start-up , provide smooth , reliable operation and high efficiency .
- *Shaft seal can bear high pressure of back and the motor can be use in parallel or in series .
- *Special design in the driver-linker and prolong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

Main Specification

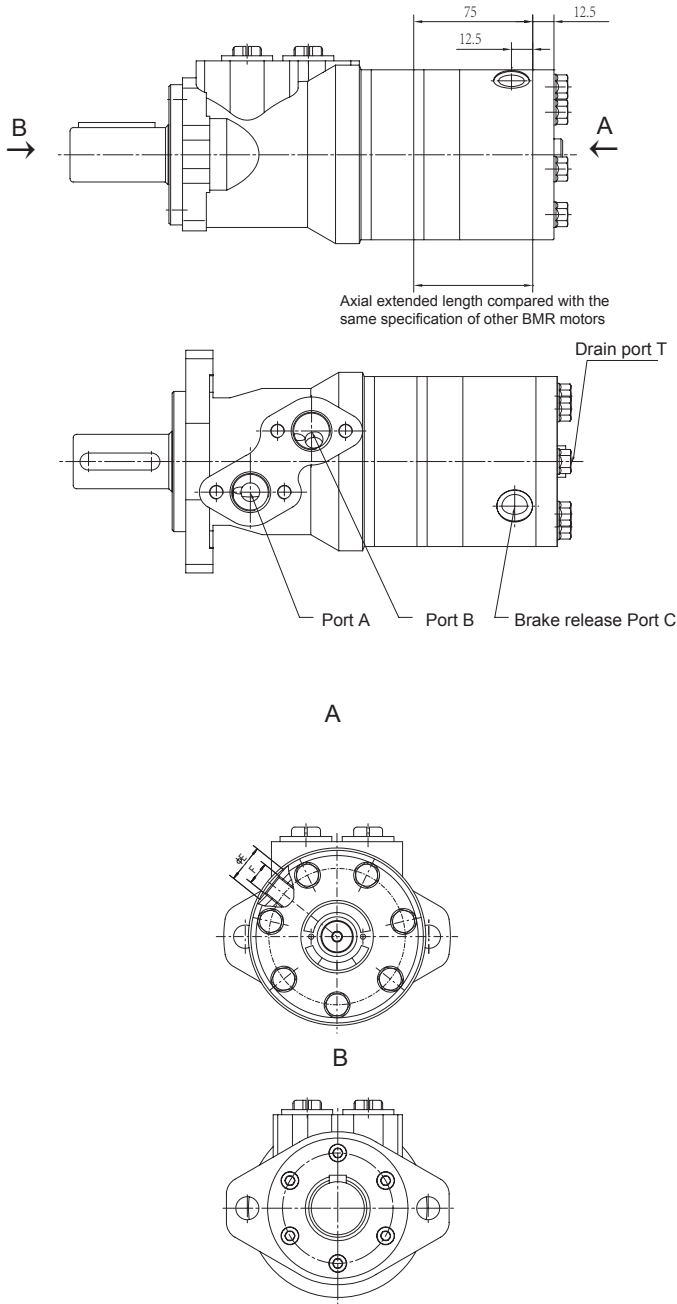
Type		BMR -BK01 50	BMR -BK01 80	BMR -BK01 100	BMR -BK01 125	BMR -BK01 160	BMR -BK01 200	BMR -BK01 250	BMR -BK01 315	BMR -BK01 375
Geometric displacement (cm ³ /rev.)		51.7	81.5	102	127.2	157.2	194.5	253.3	317.5	381.4
Max. speed (rpm)	rated	490	479	478	421	341	276	212	169	141
	cont.	509	502	497	459	372	301	231	184	166
	int.	603	598	574	574	465	376	289	230	192
Max. torque (N·m)	rated	104	164	205	256	316	335	437	456	465
	cont.	103	203	254	317	391	359	437	456	465
	int.	88.6	160	200	250	308	333	473	502	520
Max. output (KW)	rated	5.3	8.2	10.3	11.3	11.3	9.7	9.7	8.1	6.9
	cont.	5.5	10.7	13.2	15.2	15.2	11.3	10.6	8.8	8.1
	int.	5.6	10	12	15	15	13.1	14.3	12.1	10.5
Max. Pressure drop (MPa)	rated	14	14	14	14	14	12	12	10	8.5
	cont.	14	17.5	17.5	17.5	17.5	13	12	10	8.5
	int.	17.5	20	20	20	20	17.5	13	11	9.5
Max. Flow (L/min)	rated	26	40	50	55	55	55	55	55	55
	cont.	27	42	52	60	60	60	60	60	65
	int.	32	50	60	75	75	75	75	75	75
Min. opening pressure (MPa)		1.7—2.2								
Max. inlet pressure (MPa)		25								
Max. brake release port pressure (MPa)		25								
Max. static torque (Nm)		500—550								
Weight (kg)		11.7	11.9	11.9	12.2	12.5	13	13.5	14	14.5

- * Rated speed and rated torque:output value of speed and torque under rated flow and rated pressure.
- * Continuous pressure:Max. value of operating motor continuously.
- * Intermittent pressure:Max. value of operating motor in 6 seconds per minute .
- * Peak pressure:Max. value of operating motor in 0.6 second per minute.
- * Such kind of brake is only used in static paring brake.Dynamic braking in not 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



Note: The mount data is completely referred to BMR series motor. The axial extended length reduces 75mm as picture. Port C is brake releasing port, the position is as picture.

Order information

BMR-BK01

1 2 3 4 5 6 7 8 9

Pos.1	2	3	4	5	6	7	8	9
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Brake release Port	Rotation Direction	Paint	Unusually Function
50	2	2- $\Phi 13.5$ Rhomb-flange, pilot	A Shaft $\Phi 25$,parallel Key 8x7x32	D G1/2 Manifold Mount 4xM8, G1/4	G1/4	Standard	No paint	
80		$\Phi 82.5 \times 8$	C Shaft $\Phi 25.4$,parallel Key 6.35x6.35x31.75	M M22x1.5 Manifold Mount 4xM8,	Depth 9	Opposite	Blue	N1 Big radial force
100	4	4- $\Phi 13.5$ Rhomb-flange, pilot	E Shaft $\Phi 25.4$,splined tooth SAE 6B	S M14x1.5	facing $\Phi 22$	R	Black	
125		$\Phi 82.5 \times 8$	R Short shaft $\Phi 25.4$,parallel Key 6.35x6.35x31.75	P 7/8-14 O-ring manifold			Silver grey	
160	H4	4-3/8-16Square-flange, pilot	B Shaft $\Phi 32$,parallel Key 10x8x45	4x5/16-18UNC, 7/16-20UNF				
200		$\Phi 44.4 \times 2.8$	F Shaft $\Phi 31.75$,splined tooth 14-DP12/24	1/2-14 NPTF				
250	H5	4-M10Square-flange, pilot	FD Long shaft $\Phi 31.75$,splined tooth 14-DP12/24	Manifold 4x5/16-18UNC, 7/16-20UNF				
315		$\Phi 44.4 \times 2.8$	G Shaft $\Phi 31.75$,parallel Key 7.96x7.96x31.75	PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4				
375			T Cone-Shaft $\Phi 28.56$,parallel Key B5x5x14					

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 B1\FD\G1\T3 are only suitable for flanges of 2 and 4.



BMR-BK3 SERIES HYDRAULIC BRAKE MOTOR

BMR-BK3 is a type of shaft flow distribution brake motor with a friction pair direct brake linkage shaft, reliable braking, need external brake oil circuit, multiple sets of spring braking force, compact structure, flexible adjustment, assembly, parameter adjustment and disassembly maintenance and other convenience.

Main Specification

Technical data for BMR-BK3 with $\Phi 25$ and $\Phi 25.4$ and $\Phi 25.4$ splined SAE 6B and $\Phi 28.56$ tapered shaft.

Main Specification

Type		BMR -BK3 65	BMR -BK3 80	BMR -BK3 100	BMR -BK3 125	BMR -BK3 160	BMR -BK3 200	BMR -BK3 250	BMR -BK3 315	BMR -BK3 375
Geometric displacement (cm ³ /rev.)		66.8	81.5	102	127.2	157.2	194.5	253.3	311	384
Max. speed (rpm)	cont.	800	750	600	475	378	310	240	190	155
	int.	950	940	750	600	475	385	300	240	190
Max. torque (N·m)	cont.	165	195	240	300	360	360	410	490	500
	int.	195	220	280	340	430	440	490	550	620
	peak	220	270	320	370	460	560	640	650	680
Max. output (KW)	cont.	11	12.5	13	12.5	12.5	10	7	9	7.5
	int.	13	15	15	14.5	14	13	9.5	10	9
Max. Pressure drop (MPa)	cont.	17.5	17.5	17.5	17.5	16.5	13	12	12	10
	int.	20	20	20	20	20	17.5	15	14	12.5
	peak	22.5	22.5	22.5	22.5	22.5	22.5	20	17.5	15
Max. Flow (L/min)	cont.	55	60	60	60	60	60	60	60	60
	int.	65	75	75	75	75	75	75	75	75
Item Code		BMR-BK3A					BMR-BK3B			
Static Torque (N·m)		360~440					460~540			
Brake release press (MPa)		1.4~1.9					1.7~2.3			
Max. release press (MPa)		20					20			
Weight	(kg)	11.4	11.7	11.9	12.1	12.4	12.9	13.5	13.8	13.8

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

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

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

1、 The ture pressure difference between inlet port and outlet port.

2、 Normal oil temperature 20℃~60℃upper limit 90℃(no more than 1 hour).

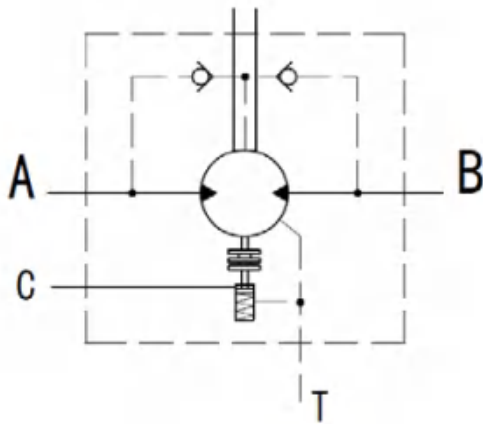
3、 Filtering and oil cleanliness: A return filter should be installed in the system with fineness in the rang of 10~30μm and a piece of magnet should be installed at the bottom of the tank to prevent grits into the system. The max. solid contamination grade of the oil is no more than 19/16.

4、 Viscosity: 42~74mm²/s at 40℃of oil temperature,according to the condition to choose an applicable hydraulic oil.

5、 The optimal operation situation should be at the 1/3 ~2/3 of the max. cont. operation situation.

6、 To assure best motor life,run motor for approximately 1 hour at 30% of the max. cont. pressure before application to full load.Besure motor is fulled with fluid prioie to any load applications.

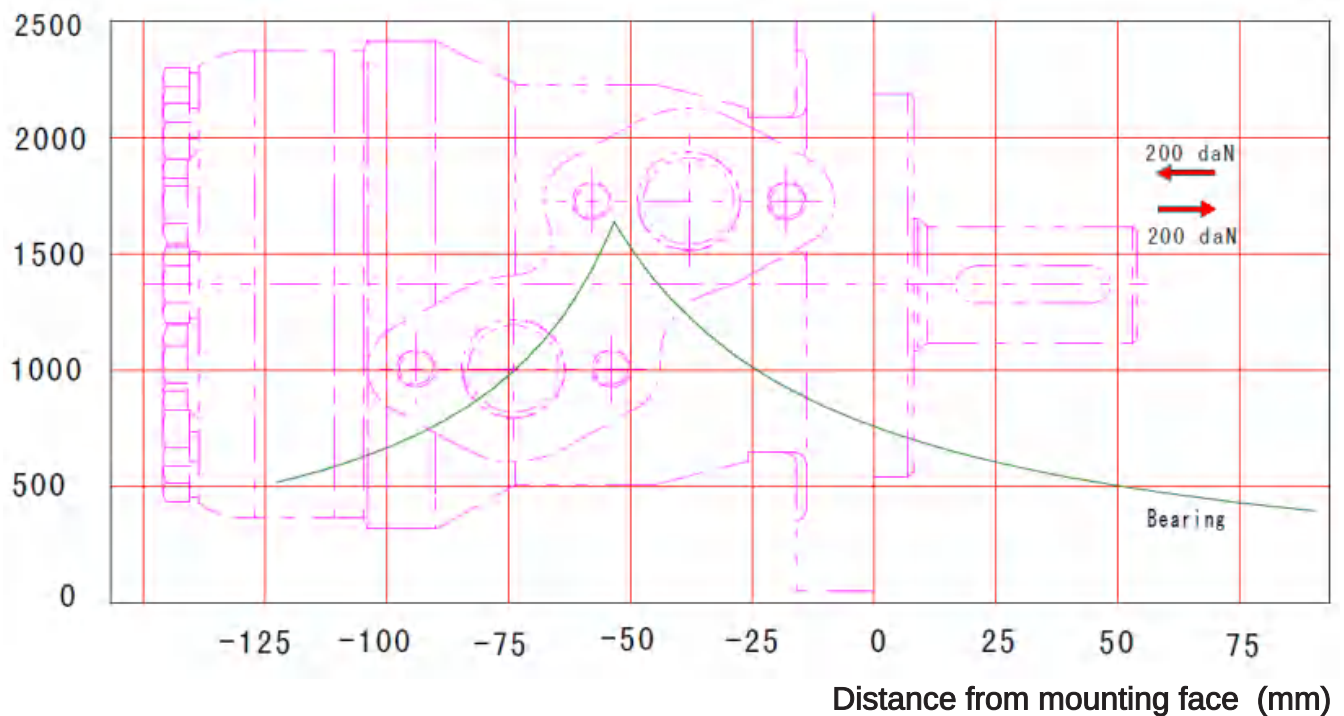
BMR-BK3 Hydraulic systems



Note: The brake motor must always have a drain line.
The brake release pressure is the difference between the pressure in the brake release line and the pressure in the drain line.

BMR--BK3 N1 Mounting Flange Radial Forceting

Side Load (daN)

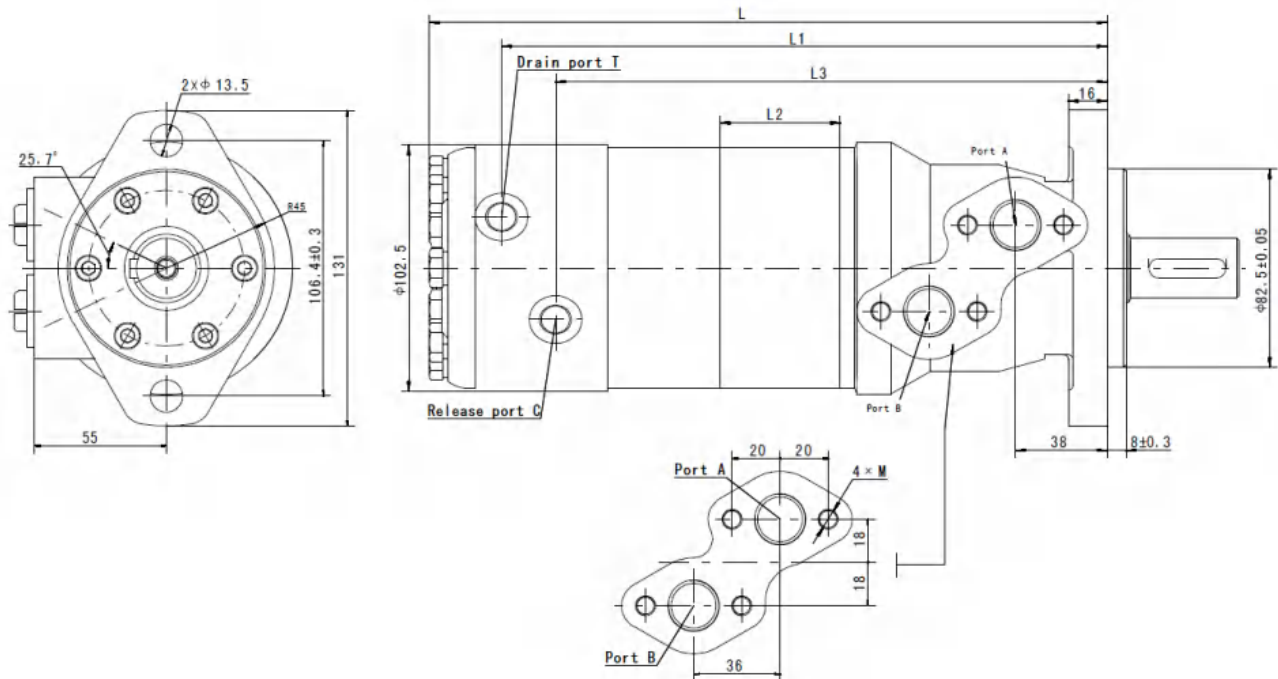


The bearing curve represents allowable bearing loads for an L_{10} bearing life at 12×10^6 revolutions. Or 2000 hours at 100 rpm.

Bearing load multiplication factor table									
RPM	50	100	200	300	400	500	600	700	800
FACTOR	1.23	1	0.81	0.72	0.66	0.62	0.58	0.56	0.54

BMR-BK3 DIMENSIONS AND MOUNTINS DATA

Flange 2



Content	Code				
	D(Depth)	M(Depth)	S(Depth)	P(Depth)	R(Depth)
P(A、B)	G1/2(15)	M22×1.5(15)	7/8-14UNF(17)	1/2-14NPTF(15)	PT(RC)1/2(15)
T	G1/4(12)	M14×1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)	PT(RC)1/4(12)
M	4×M10(13)	4×M8(13)	4×5/16-18UNC(13)	4×5/16-18UNC(13)	4×M8(13)

Model	L	L1	L3	L2
BMR-BK3-65	247	215	192.5	13
BMR-BK3-80	250	218	195.5	16
BMR-BK3-100	254	222	199.5	20
BMR-BK3-125	259	227	204.5	25
BMR-BK3-160	264.5	232.5	210	30.5
BMR-BK3-200	272.1	240.1	217.6	38.1
BMR-BK3-250	284	252	229.5	50
BMR-BK3-310	288	256	233.5	54
BMR-BK3-395	288	256	233.5	54

Order information

1 2 3 4 5 6 7 8 9

BMR-BK3

Pos.1	2	3	4	5	6	7	8	9
Code	Disp.	Flange and Pilot	Output Shaft	Ports and Drain Port	Brake release Port	Rotation Direction	Paint	Unusually Function
BMR -BK3A	60 80 100 125 160	2xØ13.5 Oval flange, pilot Ø82.5x8 4xØ13.5 Oval flange, pilot Ø82.5x8	A Shaft Ø25,parallel Key 8x7x32 C Shaft Ø25.4, parallel Key 6.35x6.35x31.75 E Shaft Ø25.4,splined tooth SAE 6B JP Shaft Ø25,parallel Key 8x7x32 K Shaft Ø25.4,Woodruff Key Ø25.4x6.35 H Shaft Ø25.4,Cross hole Ø10.3 W Shaft Ø24.5,Splined B25x22 Din 5482 T Cone-Shaft Ø28.56,parallel Key B5x5x14	D G1/2 Manifold Mount 4xM8, G1/4 M M22x1.5 Manifold Mount 4xM8, M14x1.5 S 7/8-14UNF Manifold Mount 4x5/16-18UNC, 7/16-20UNF P 1/2-14 NPTF Manifold Mount 4x5/16-18UNC, 7/16-20UNF R PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4	G G1/4 S 7/16-20UNF	Omit Standard Opposite R	00 omit paint (Grey) Black Silver grey	N1 Big radial force
BMR -BK3B	200 250 315 395	H4 4x3/8x16 Square-flange, pilot Ø44.4x2.8 H5 4xM10 Square-flange, pilot Ø44.4x2.8						

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 .



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:

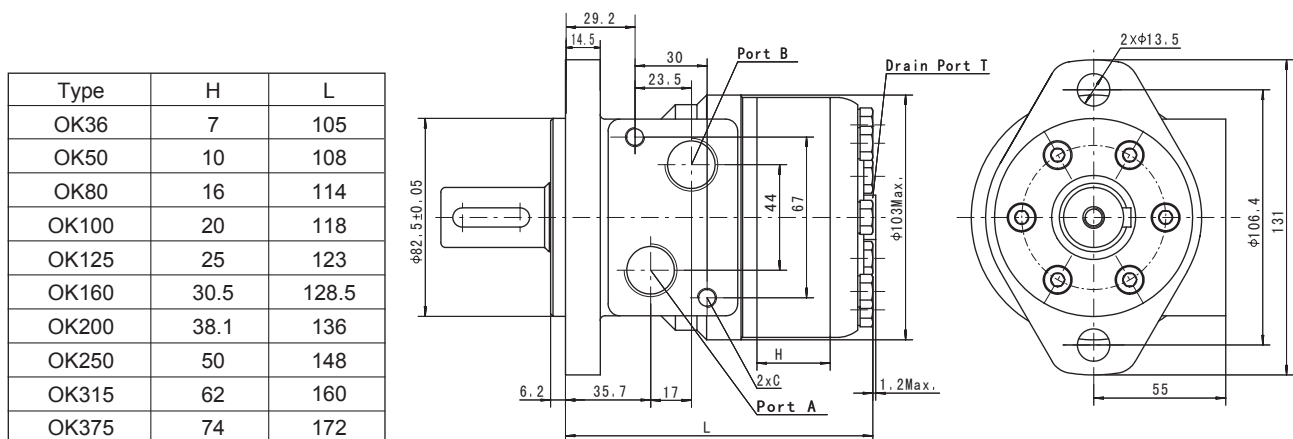
- *Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth, reliable operation and high efficiency.
- *Shaft seal can bear high pressure of back and the motor can be used in parallel or in series.
- *Special design in the driver-linker and prolong operating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

Main Specification

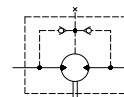
Technical data for OK with 25 and 1 in and 1 in splined and 28.56 tapered shaft

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.	
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

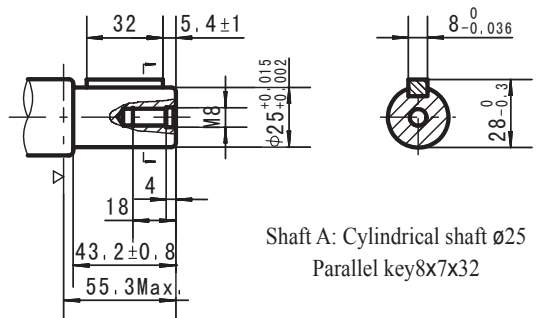


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

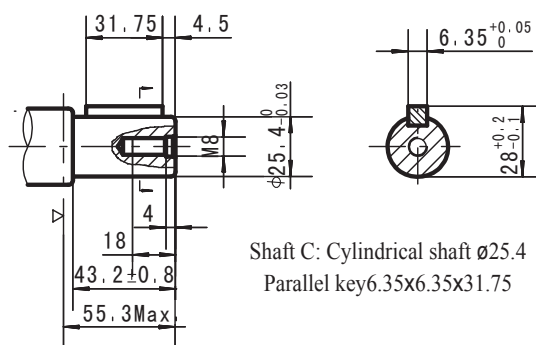


Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.

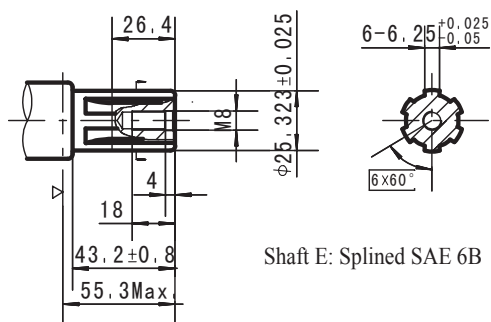
SHAFT EXTENSIONS FOR OK MOTORS



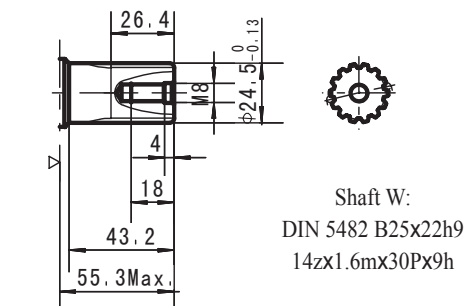
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



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



Shaft E: Splined SAE 6B

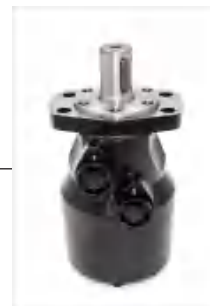


Shaft W:
DIN 5482 B25x22h9
14zx1.6mx30Px9h

▷ Motor Mounting Surface

Order Information

OK - [] - [] - [] - [] - [] - [] - []							
Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
Omit	36	2-Ø13.5 Rhomb-flange, pilot Ø82.5x6.2	A Shaft Ø25, parallel key 8x7x32	G1/2 Manifold 4xM8, G1/4 M22x1.5 Manifold 4xM8, M14x1.5 7/8-14 O-ring manifold 4x5/16-18UNC, 7/16-20UNF 1/2-14NPTF 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 Free Running No case drain
	50		C Shaft Ø25.4, parallel key 6.35x6.35x31.75				
	80		E Shaft Ø25.4, splined key SEA 6B				
	100		W Shaft Ø24.5, splined B25X22				
	125		T Cone shaft Ø28.56, parallel key B5x5x14				
Omit	160	2-Ø13.5 Rhomb-flange, pilot Ø82.5x6.2	A Shaft Ø25, parallel key 8x7x32	G1/2 Manifold 4xM8, G1/4 M22x1.5 Manifold 4xM8, M14x1.5 7/8-14 O-ring manifold 4x5/16-18UNC, 7/16-20UNF 1/2-14NPTF 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 Free Running No case drain
	200		C Shaft Ø25.4, parallel key 6.35x6.35x31.75				
	250		E Shaft Ø25.4, splined key SEA 6B				
	315		W Shaft Ø24.5, splined B25X22				
	375		T Cone shaft Ø28.56, parallel key B5x5x14				



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, 1 1/4 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)		98	194	284			
	5	25	25	22			
10		101	204	301	391	482	
		43	41	36	29	14	
20		99	201	304	402	509	576
		100	97	93	85	69	56
30		97	197	300	402	510	579
		145	143	139	130	114	101
40		90	190	292	399	507	578
		200	200	200	188	168	153
50		82	183	284	392	500	571
		248	246	244	235	213	199
60		73	174	274	384	493	563
		292	290	287	279	260	244
70		63	163	264	374	481	554
		352	350	349	338	318	301
Max.cont.	75	59	157	259	366	475	547
		366	365	363	355	335	319
Max.int.	80	53	150	253	358	466	538
		381	381	380	371	352	338
90		39	140	241	348	456	526
		439	437	434	426	407	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)		121	246	318	398		
	5	19	19	18	14		
10		130	258	331	425	515	595
		34	33	31	29	23	12
20		130	258	332	432	520	621
		78	77	76	73	65	53
30		122	251	327	429	520	621
		115	113	111	105	96	84
40		115	240	323	422	513	616
		157	157	156	150	139	127
50		105	232	314	411	505	606
		196	195	192	185	173	159
60		94	220	302	401	496	596
		232	230	226	218	206	192
70		81.4	209	288	389	484	582
		274	274	274	266	252	238
Max.cont.	75	72	203	280	381	475	574
		290	289	287	279	266	251
Max.int.	80	66	194	273	371	467	566
		303	302	298	290	279	264
90		49	178	256	355	453	552
		348	347	345	337	325	309

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

BMH 400 [406.4cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

3.5	6	10.5	12.5	15.5	19
-----	---	------	------	------	----

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

Torque (N·m) 593
Speed (rpm) 248

cont.
int.

Performance Data

BMH 500 [489.2cm³/rev.]

Pressure (MPa)

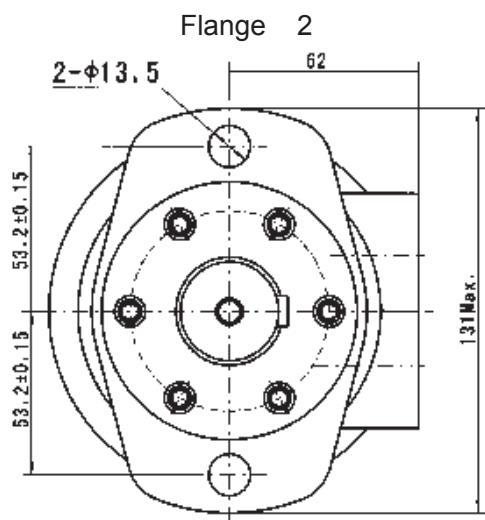
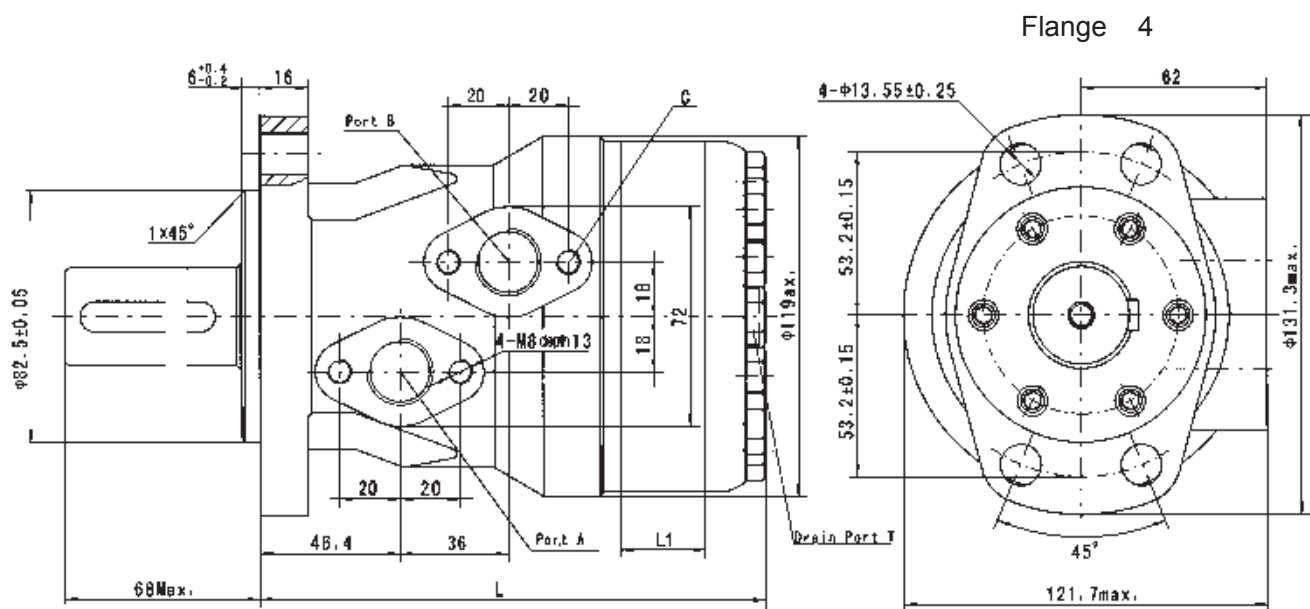
Max.cont. Max.int.

		2.5	5	8.5	10	12.5	16
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
	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.		34	201	421	550	673	869
90		184	183	182	177	166	155

cont.
int.

Torque (N·m) 673
Speed (rpm) 166

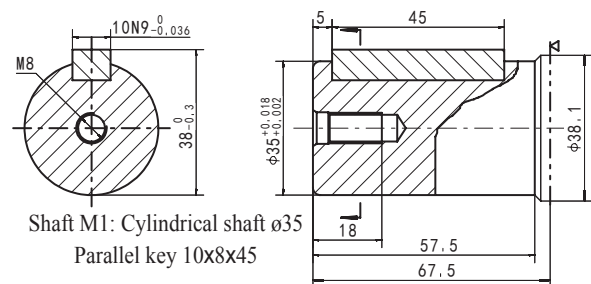
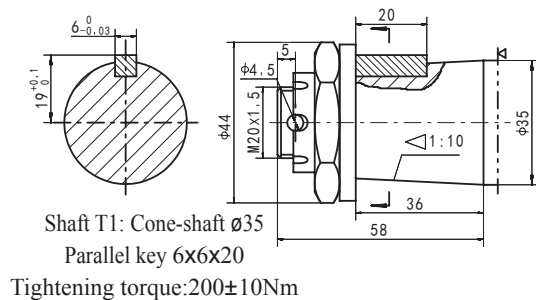
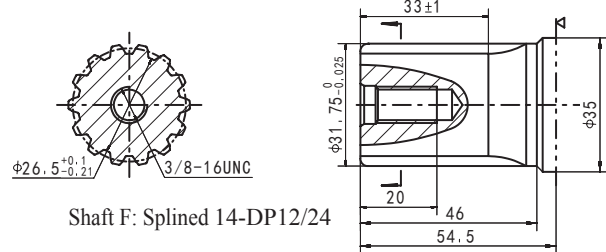
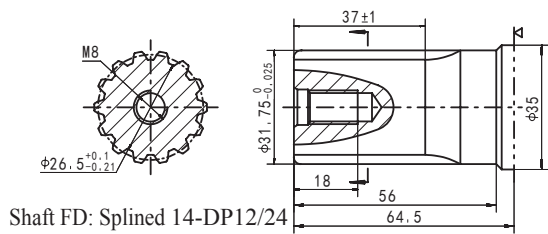
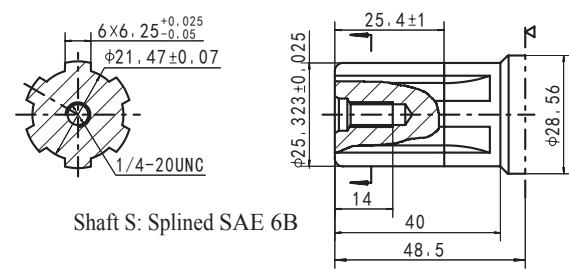
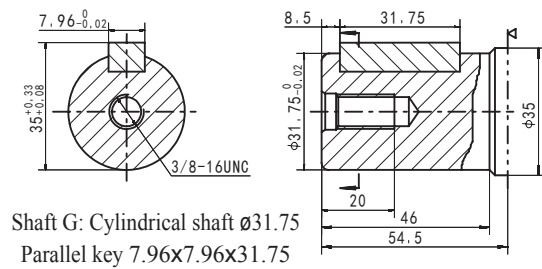
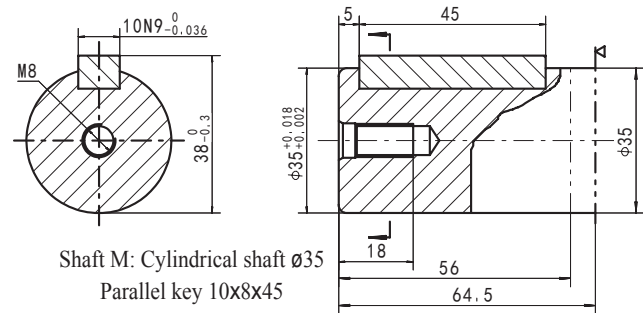
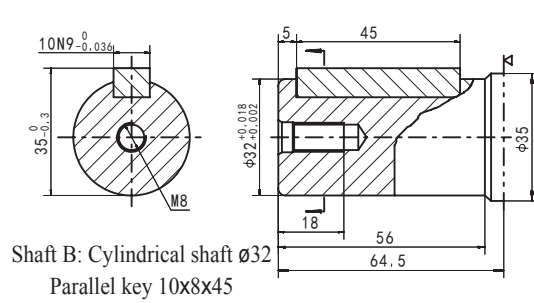
BMH DIMENSIONS AND MOUNTING DATA



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

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

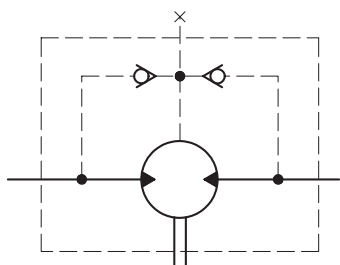
BMH SHAFT EXTENSIONS DIMINSIONS DATA



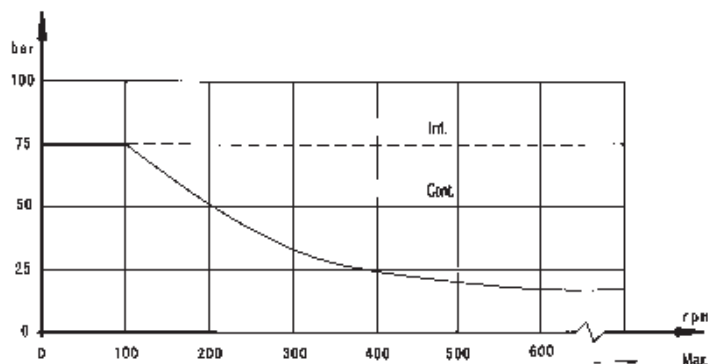
► Motor Mounting Surface

BMH series Hydraulic Motor

Permissible shaft seal pressure

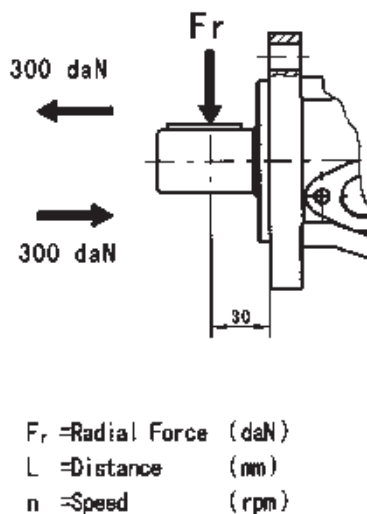
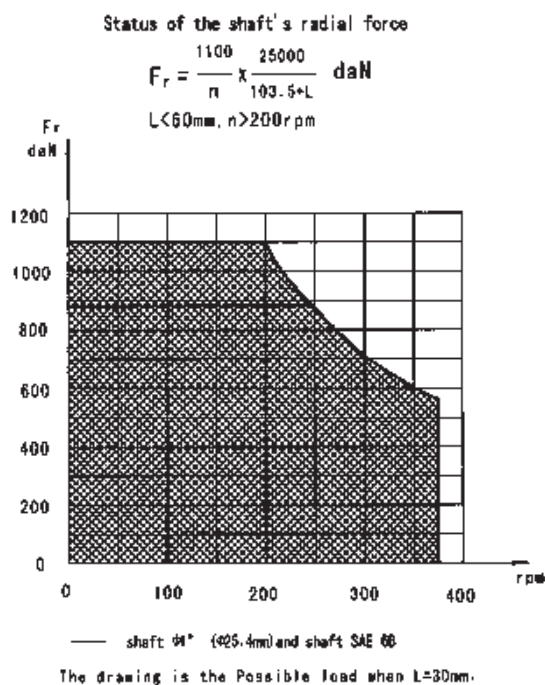
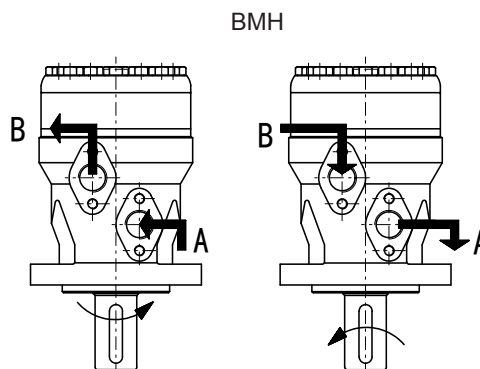


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.



Direction of shaft rotation: Standard

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



Oil flow in drain line

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

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

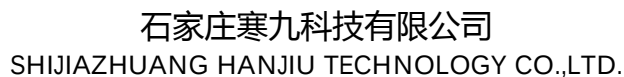


Diagram of a 1D chain with 8 sites. Site 1 is highlighted in grey and labeled 'BMH'. Sites 2 through 8 are white boxes. Horizontal lines connect sites 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, and 7-8. Vertical lines connect each site to its corresponding number (1-8) on the right.

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
Omit	160	4 4×Ø13.5 Rhomb×flange Pilot Ø82.5×6	B Shaft Ø32 , parallel key 10×8×45 M1 Shaft Ø35, parallel key 10×8×45 F Shaft Ø31.75, splined key 14-DP12/24 FD Long Shaft Ø31.75, splined key 14-DP12/24	D G1/2 Manifold mount 4×M8, G1/4 M M22×1.5 Manifold mount 4×M8, M14×1.5	Omit Standard R Opposite	00 Omit B S Silver grey	Omit 0 F Running Low Speed N1 Big radial force
	200		G Shaft Ø31.75, parallel key 7.96×7.96×31.75	S 7/8-14 O×ring Manifold mount			
	250		T1 Cone shaft Ø35, parallel key B6×6×20	P 4×5/16-18UNC,7/16-20UNF 1/2-14 NPTF Manifold mount			
	315		S Shaft Ø25.4 , parallel key SAE 6B	R 4×5/16-18UNC,7/16-20UNF PT(Rc) 1/2 Manifold mount			
	400	2 2×Ø13.5 Rhomb×flange Pilot Ø82.5×6	M Shaft Ø35,Parallel key 10×8×45	4×M8,PT(Rc)1/4			
	470						
	500						

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



BMSY SERIES HYDRAULIC MOTOR

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

Characteristic featutres:

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

Main Specification

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

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

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

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

Performance Data

BMSY80 [80.6cm³/rev.]

Pressure (MPa)

	3.5	7	10.5	14	17.5	20.5	22.5
--	-----	---	------	----	------	------	------

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

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

BMSY125 [125cm³/rev.]

Pressure (MPa)

	3.5	7	10.5	14	17.5	20.5	22.5
--	-----	---	------	----	------	------	------

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

BMSY160 [154cm³/rev.]

Pressure (MPa)

	3.5	7	10.5	14	17.5	21	22.5
--	-----	---	------	----	------	----	------

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

TORQUE(N·m) 301
SPEED (r/min) 646

cont.
int.

Performance Data

BMSY200 [194cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	17.5	21	22.5
Flow (L/min)	15	87	179	273	371	471	562	610
	30	91	190	288	386	489	572	618
	40	94	193	296	394	498	584	645
	50	90	191	292	389	493	580	634
	60	85	185	279	382	483	575	622
	75	78	176	271	370	472	561	610
	90	68	163	265	361	456	545	599
Max.cont.		374	370	364	360	352	340	331
Max.int.		443	440	435	428	424	413	400

BMSY250 [243cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	17.5	20	22.5
Flow (L/min)	15	110	231	351	462	585	681	778
	30	116	236	359	475	597	700	790
	40	118	241	363	480	599	706	796
	50	111	234	352	472	591	693	788
	60	106	224	345	462	582	685	772
	75	101	214	340	454	570	670	760
	90	93	209	335	447	559	657	749
Max.cont.		303	299	294	285	272	260	244
Max.int.		363	359	354	348	340	328	303

BMSY315 [311cm³/rev.]

		Pressure (MPa)						
		3.5	7	10.5	14	17.5	20	22.5
Flow (L/min)	15	148	304	456	613	762	879	978
	30	155	314	465	635	778	884	988
	40	160	321	479	650	796	906	997
	50	155	314	465	638	780	886	988
	60	151	306	453	620	765	886	976
	75	146	300	445	613	755	875	966
	90	135	284	436	601	740	863	952
Max.cont.		238	236	232	227	224	220	196
Max.int.		286	283	278	272	265	257	232

BMSY400 [394cm³/rev.]

		Pressure (MPa)					
		3.5	7	10.5	14	16	17.5
Flow (L/min)	15	186	379	578	779	896	986
	30	190	388	590	791	905	991
	40	195	394	596	797	912	998
	50	191	388	587	785	904	983
	60	186	388	587	785	904	983
	75	181	372	576	770	891	973
	90	176	367	571	766	883	965
Max.cont.		187	183	177	171	164	153
Max.int.		226	221	214	208	199	183

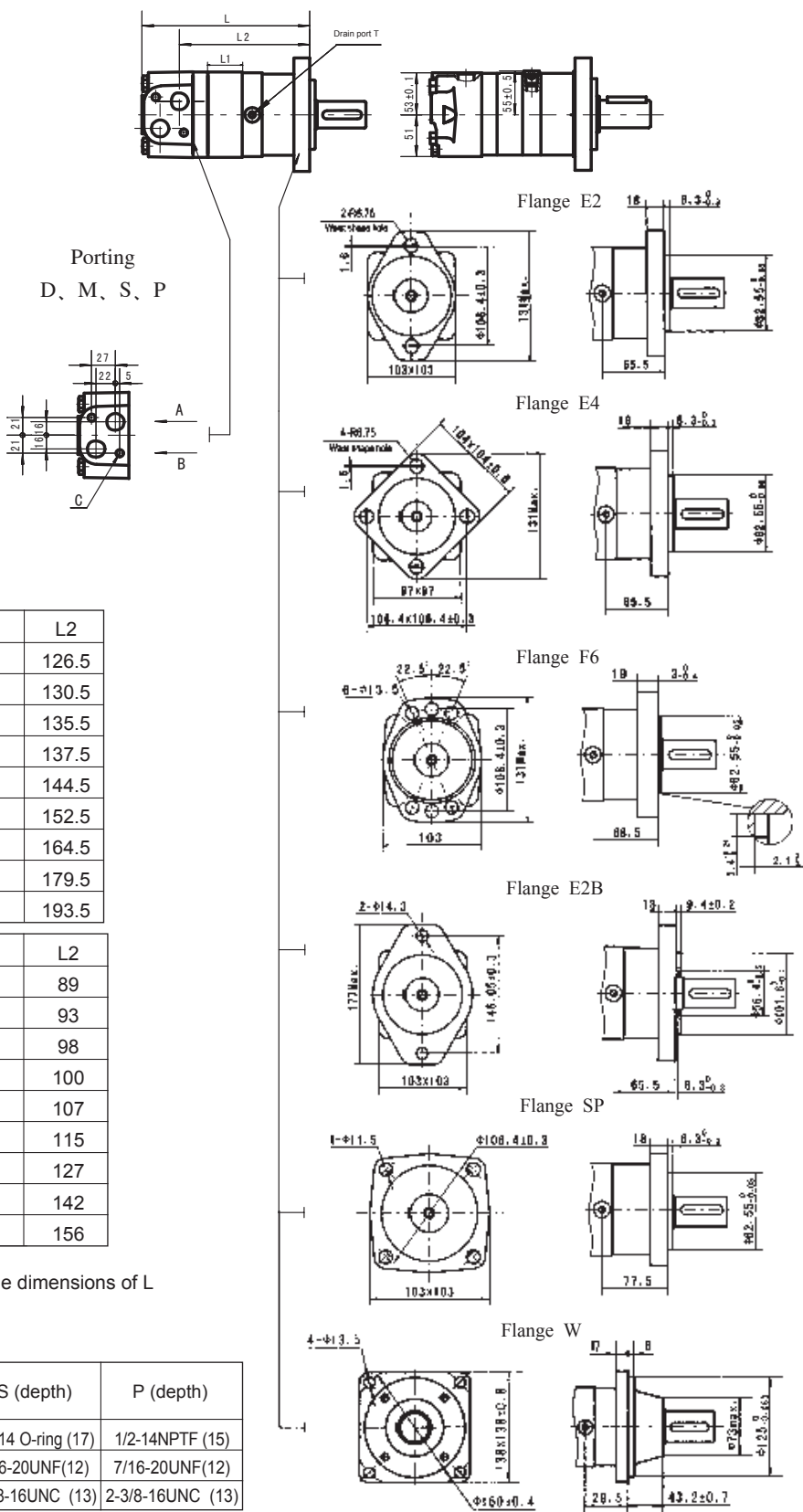
TORQUE (N·m) 766
SPEED (rpm) 208

BMSY475 [475cm³/rev.]

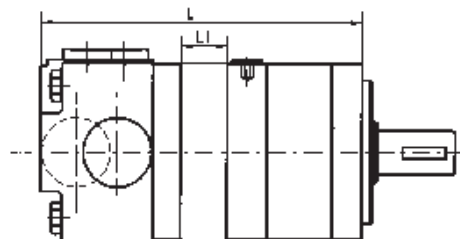
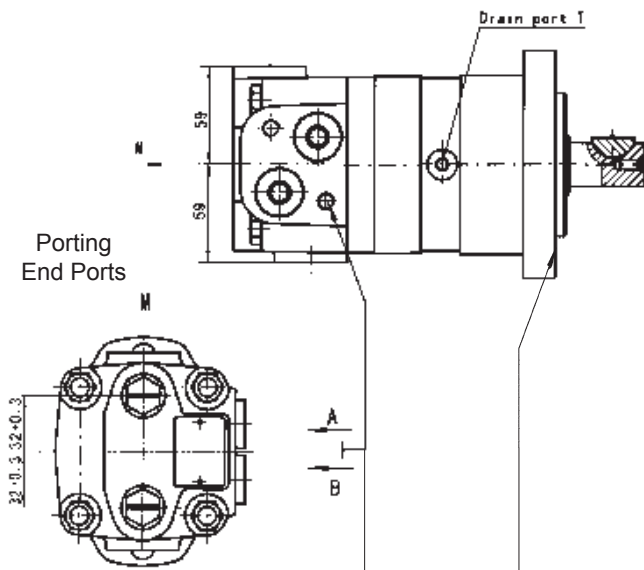
		Pressure (MPa)				
		3.5	7	10.5	14	15
Flow (L/min)	15	218	439	661	892	995
	30	223	450	676	910	1002
	40	228	461	689	927	1017
	50	224	456	682	920	1008
	60	220	451	677	913	998
	75	212	443	664	901	980
	90	196	421	643	877	959
Max.cont.		155	153	147	140	132
Max.int.		186	184	178	170	157

cont.
int.

BMSY DIMENSIONS AND MOUNTING DATA



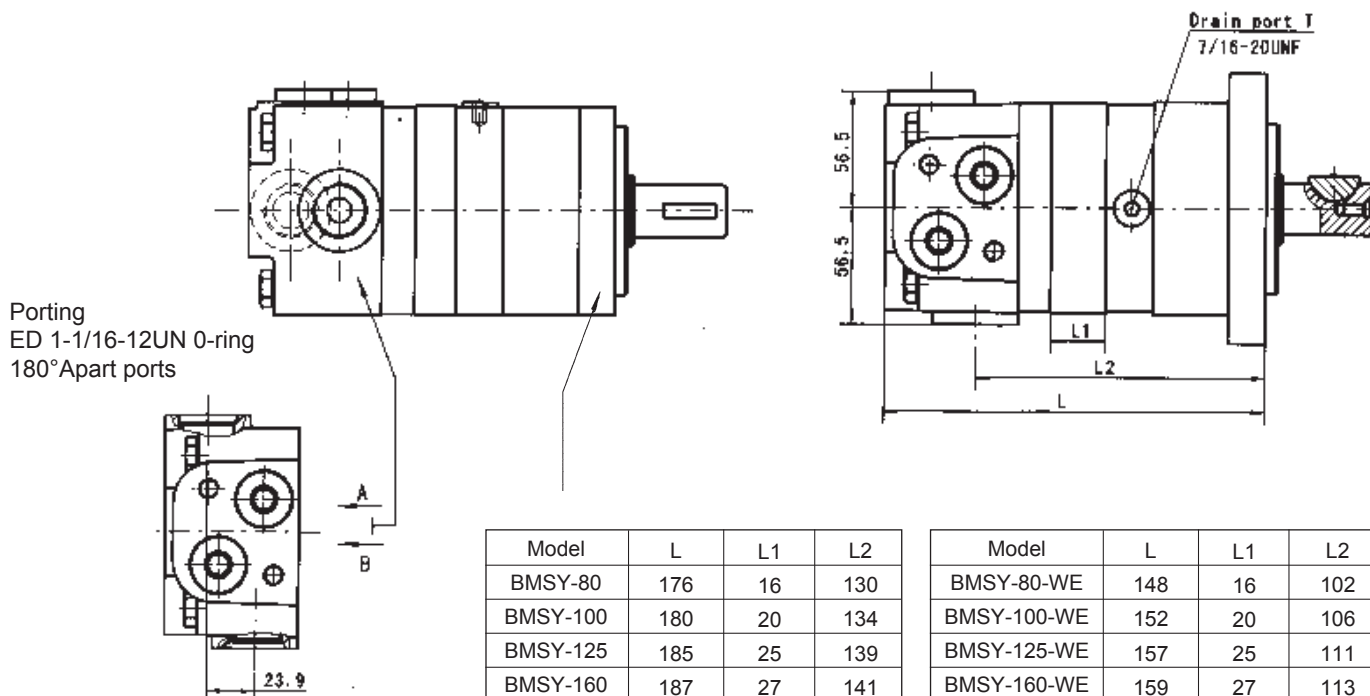
BMSY DIMENSIONS AND MOUNTING DATA



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 Mounting	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)



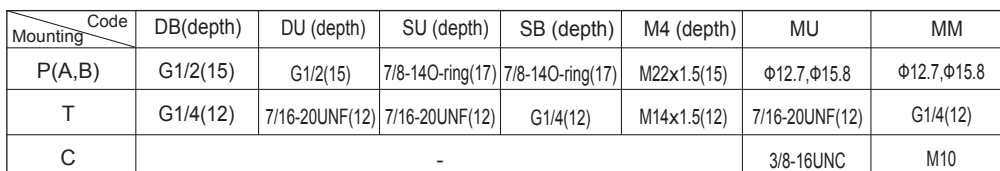
Code Mounting	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

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

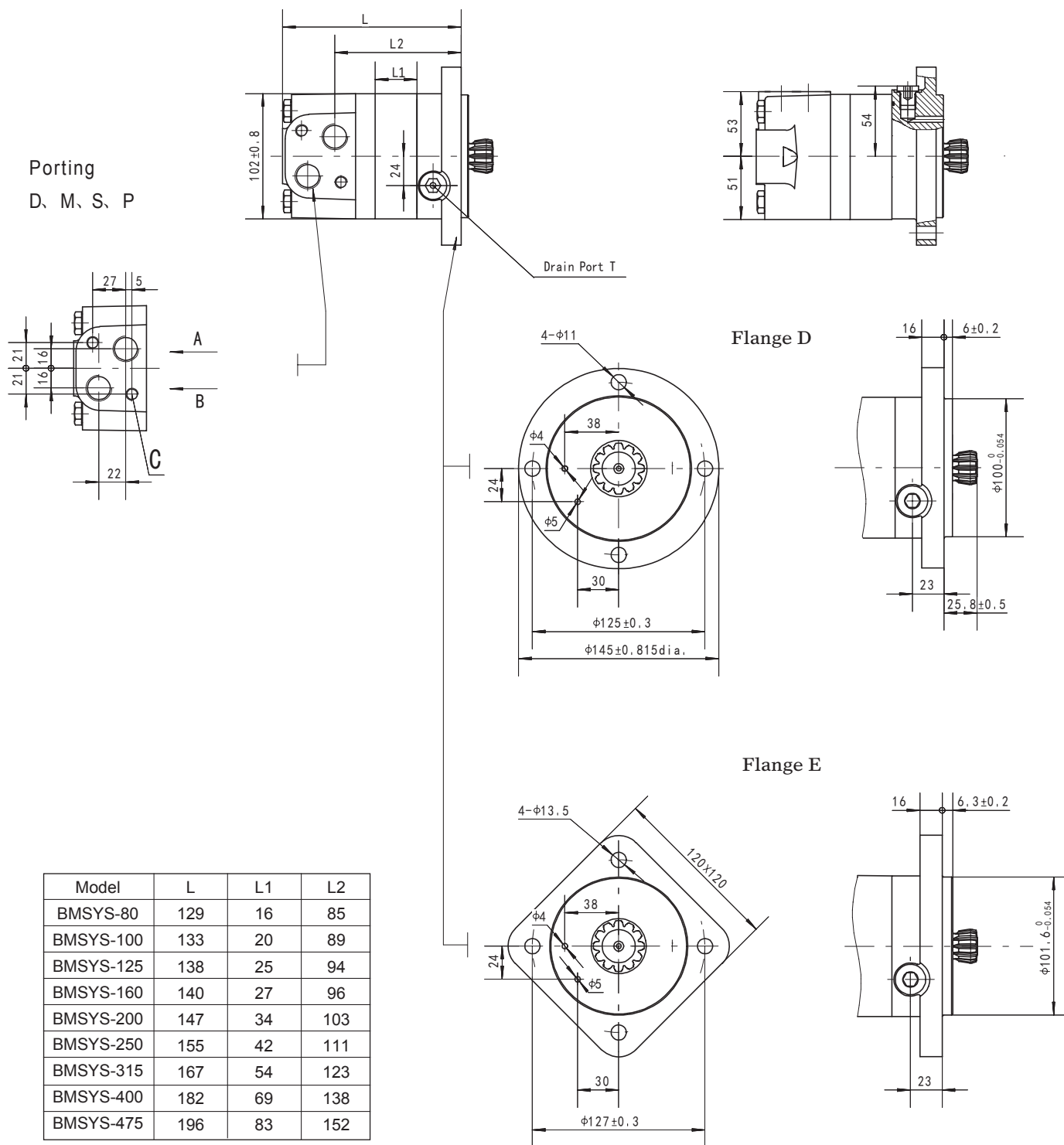
Model	L	L1	L2
BMSY-80-WE	148	16	102
BMSY-100-WE	152	20	106
BMSY-125-WE	157	25	111
BMSY-160-WE	159	27	113
BMSY-200-WE	166	34	119
BMSY-250-WE	178	42	127
BMSY-315-WE	190	54	139
BMSY-400-WE	205	69	154
BMSY-475-WE	219	83	168



BMSY DIMENSIONS AND MOUNTING DATA

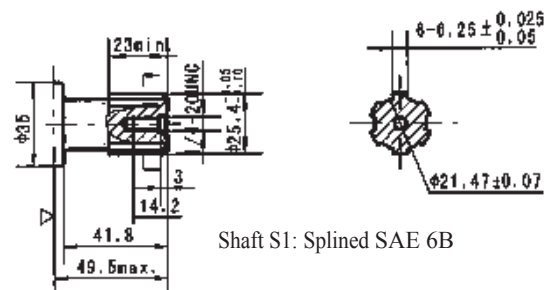
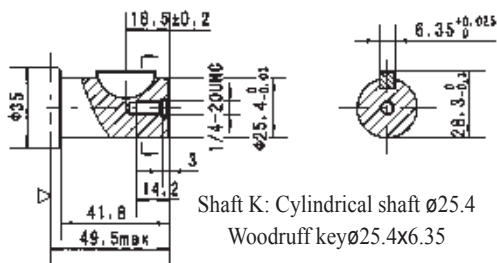
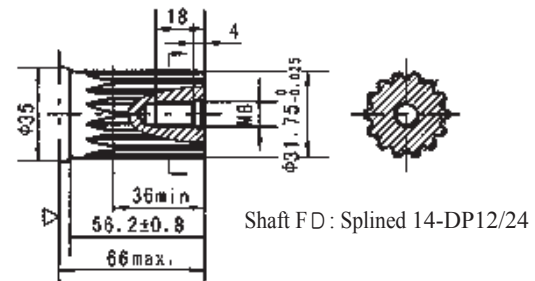
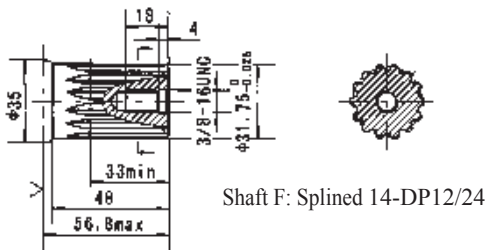
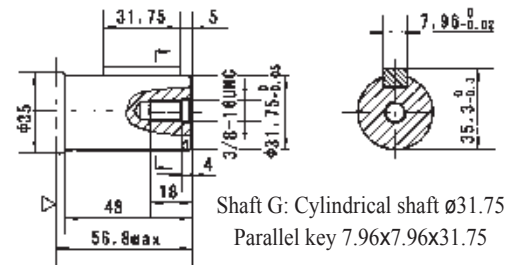
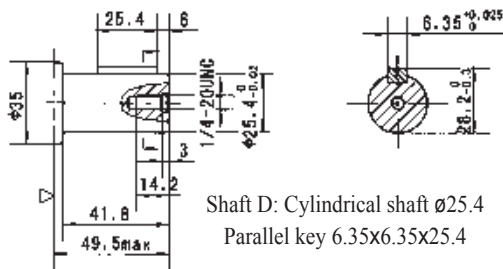
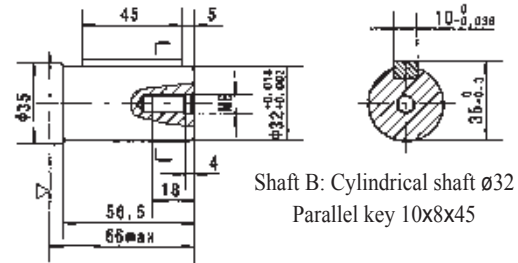
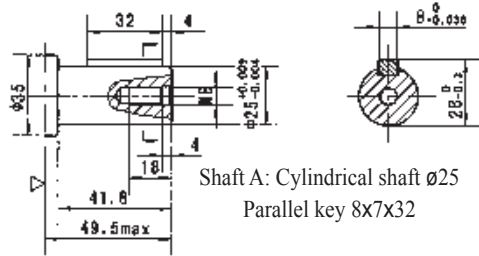


BMSYS DIMENSIONS AND MOUNTING DATA



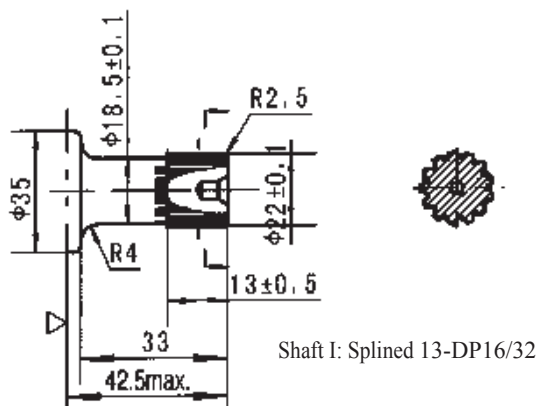
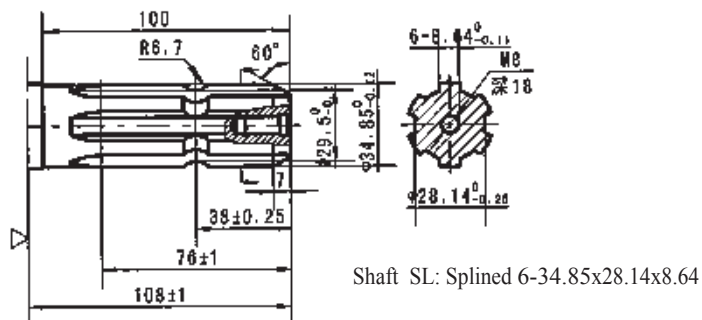
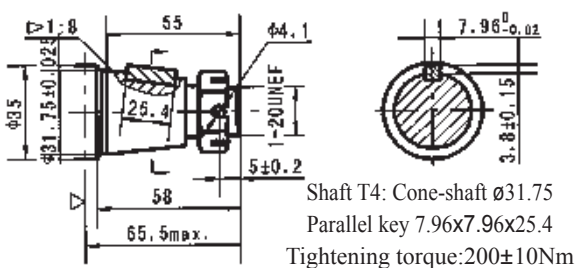
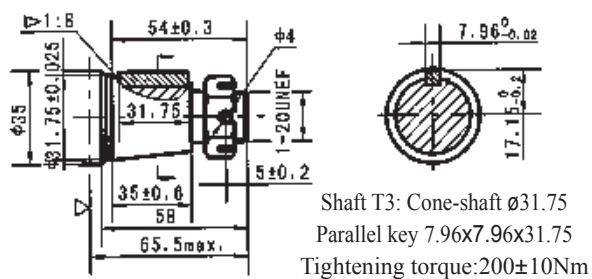
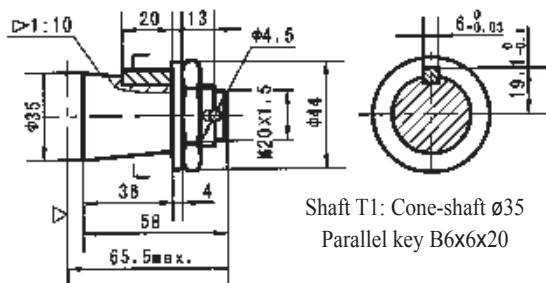
Code Mounting	D (depth)	M (depth)	S (depth)	P (depth)
P(A,B)	G1/2(15)	M22x1.5(15)	7/8-14O-ring(17)	1/2-14NPTF(15)
T	G1/4(12)	M14x1.5(12)	7/16-20UNF(12)	7/16-20UNF(12)
C	2-M10(13)	2-M10(13)	2-3/8-16UNC(13)	2-3/8-16UNC(13)

SHAFT EXTENSIONS FOR BMSY MOTORS



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

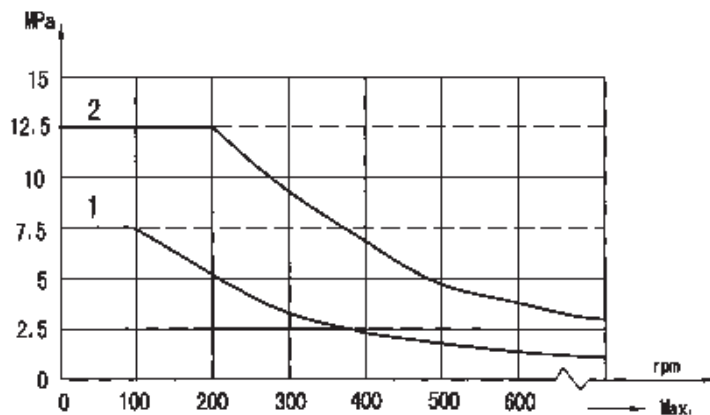
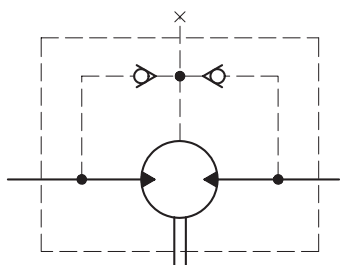
SHAFT EXTENSIONS FOR BMSY MOTORS



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

BMSY Series Hydraulic Motor

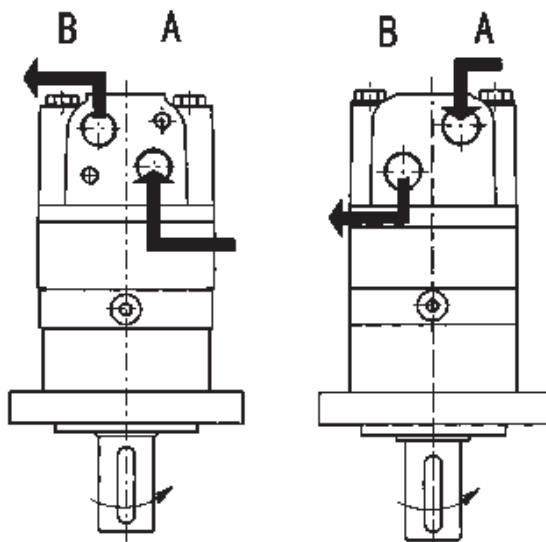
Permissible shaft seal pressure



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

Standard direction of shaft rotation: Standard

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



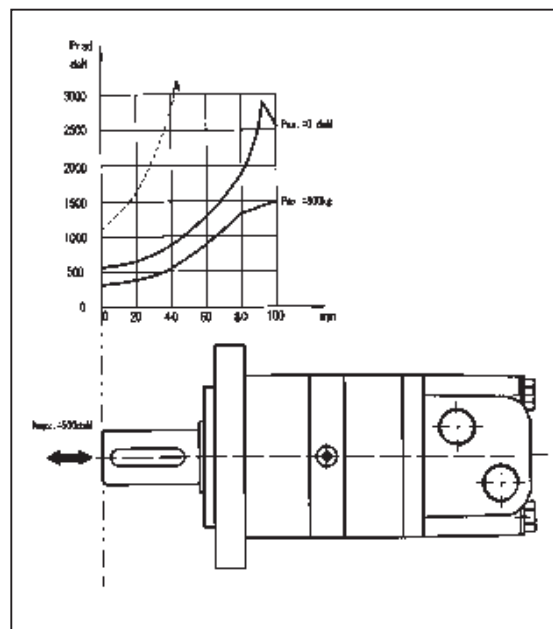
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Oil flow in drain line

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

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

Axial and Radial forces



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

Order Information

1 2 8

BMSY - - - - - - -

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
Omit	80 100 125 160 200 250 315 400 475	E2 2-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	A Shaft Ø25 , parallel key 8×7×32	EE-D G1/2, G1/4	Omit	No paint	Standard
		E4 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	B Shaft Ø32 , parallel key 10×8×45	EE-M 2M22×1.5, M14×1.5			
		E6 4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	D Shaft Ø25.4 , parallel key 6.35×6.35×25.4	EE-S2 7/8-14UNF O-ring, 7/16-20 UNF			
		F6 6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	F Shaft Ø31.75 , splined key 14-DP12/24	D 2-M10, G1/4			
		W 4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8	FD Long Shaft Ø31.75 , splined key 14-DP12/24	ED 1-1/16-12UN O-ring, 7/16-20 UNF			
		E2B 2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4	FE Shaft Ø31.75 , splined key 14-DP12/24	DB G1/2, G1/4			
		SP 4-Ø11.5 Square-flange Ø106.4 pilot Ø82.5×6.3	G Shaft Ø31.75 , parallel key 7.96×7.96×31.75	DU G1/2, 7/16-20 UNF			
		WE 4-Ø13.6 Wheel-flange Ø147.6, pilot Ø107.95×6.4	K Shaft Ø25.4 , Woodruff key Ø25.4×6.35	SB 7/8-14UNF O-ring, G1/4			
			T4 Cone-shaft Ø31.75 , parallel key 7.96×7.96×25.4	SU 7/8-14UNF O-ring, 7/16-20 UNF			
			SL shaft Ø34.85, Splined key 6-34.85×28.14×8.64	M4 M22×1.5, M14×1.5			
			T1 Cone-shaft Ø35 , parallel key B6×6×20	MU 1/2", 5/8" Crosshole Manifold 3×3/8- 16UNC, 7/16-20UNF			
			T3 Cone-shaft Ø 31.75 , parallel key 7.96×7.96×31.75	MM 1/2", 5/8" Crosshole Manifold 3×M10, G1/4			
			S1 Shaft Ø25.4 , splined key SAE 6B	M M22×1.5 Manifold Mount			
			I Sub-shaft Ø22 , splined key 13-DP16/32	2-M10 , M14×1.5			
				S 7/8-14UNF O-ring manifold			
S	D E	4-Ø11 Circle-flange Ø125 , pilot Ø100×6 4-Ø13.5 Circle-flange Ø127 , pilot Ø101.6×6.3	Omit Short shaft 12-DP12/24	P 1/2-14NPTF manifold	R	Black	Free Running
				2-3/8-16UNC , 7/16-20UNF			
				G 1/2, G1/4	Opposite	Silver gray	Low Speed
				M2 2M22×1.5, M14×1.5			
				S2 7/8-14UNF O-ring, 7/16-20 UNF			

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



BMT SERIES HYDRAULIC MOTOR

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

Characteristic features:

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

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

BMT 200 [201.4cm³/rev.]

Pressure (MPa)

		Pressure (MPa)				Max.cont.		Max.int.	
		4	8	10	12	16	20	24	
Flow (L/min)	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)

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

BMT 315 [326.3cm³/rev.]

Pressure (MPa)

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

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)	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)

		Pressure (MPa)				Max.cont.		Max.int.	
		3	6	9	12	14	16	18	
Flow (L/min)	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)

		Pressure (MPa)				Max.cont.		Max.int.	
		3	6	9	10.5	12	14	16	
Flow (L/min)	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.]

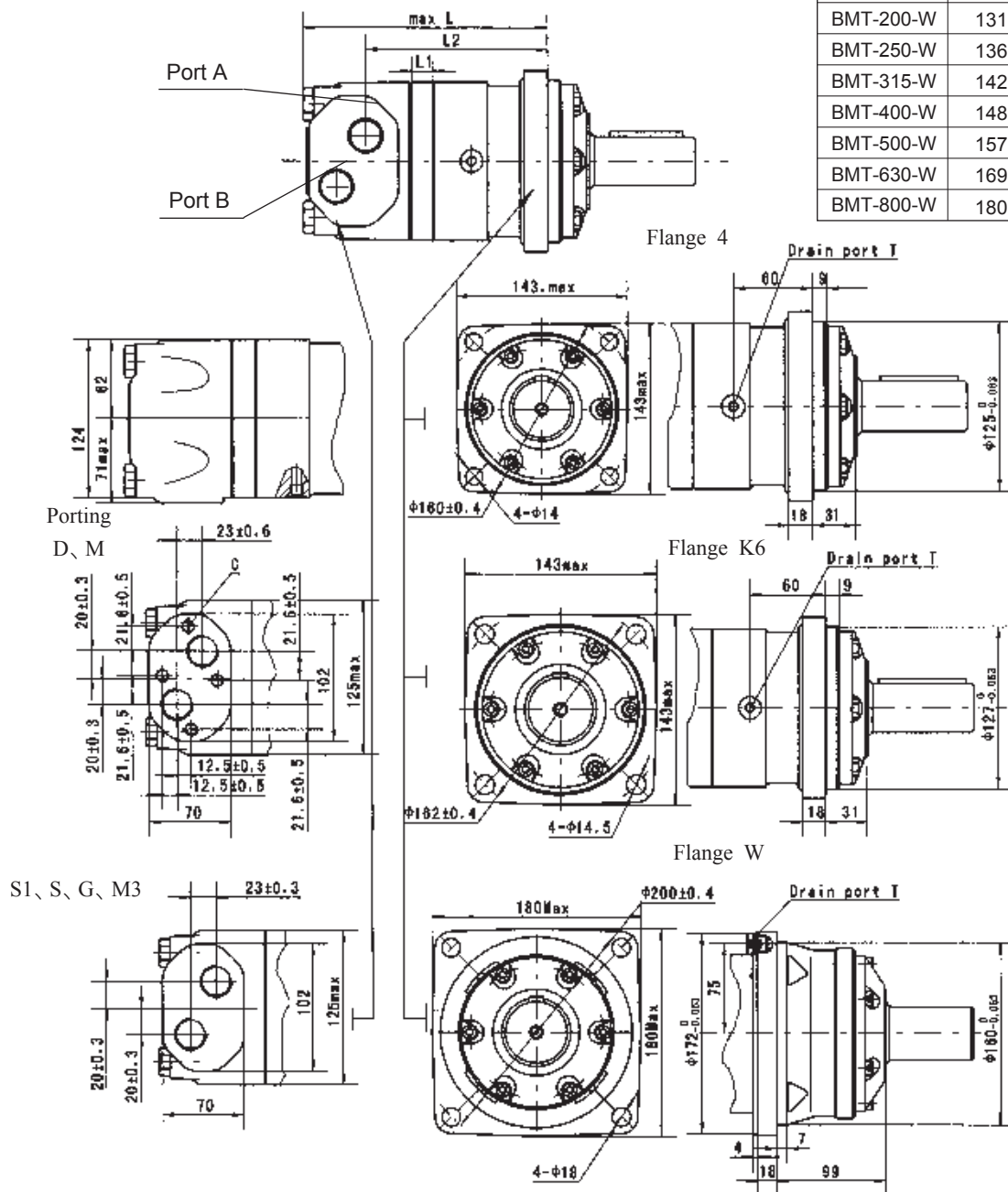
Pressure (MPa)

		Pressure (MPa)				Max.cont.	Max.int.
		3	6	9	10.5	12.5	13
Flow (L/min)	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

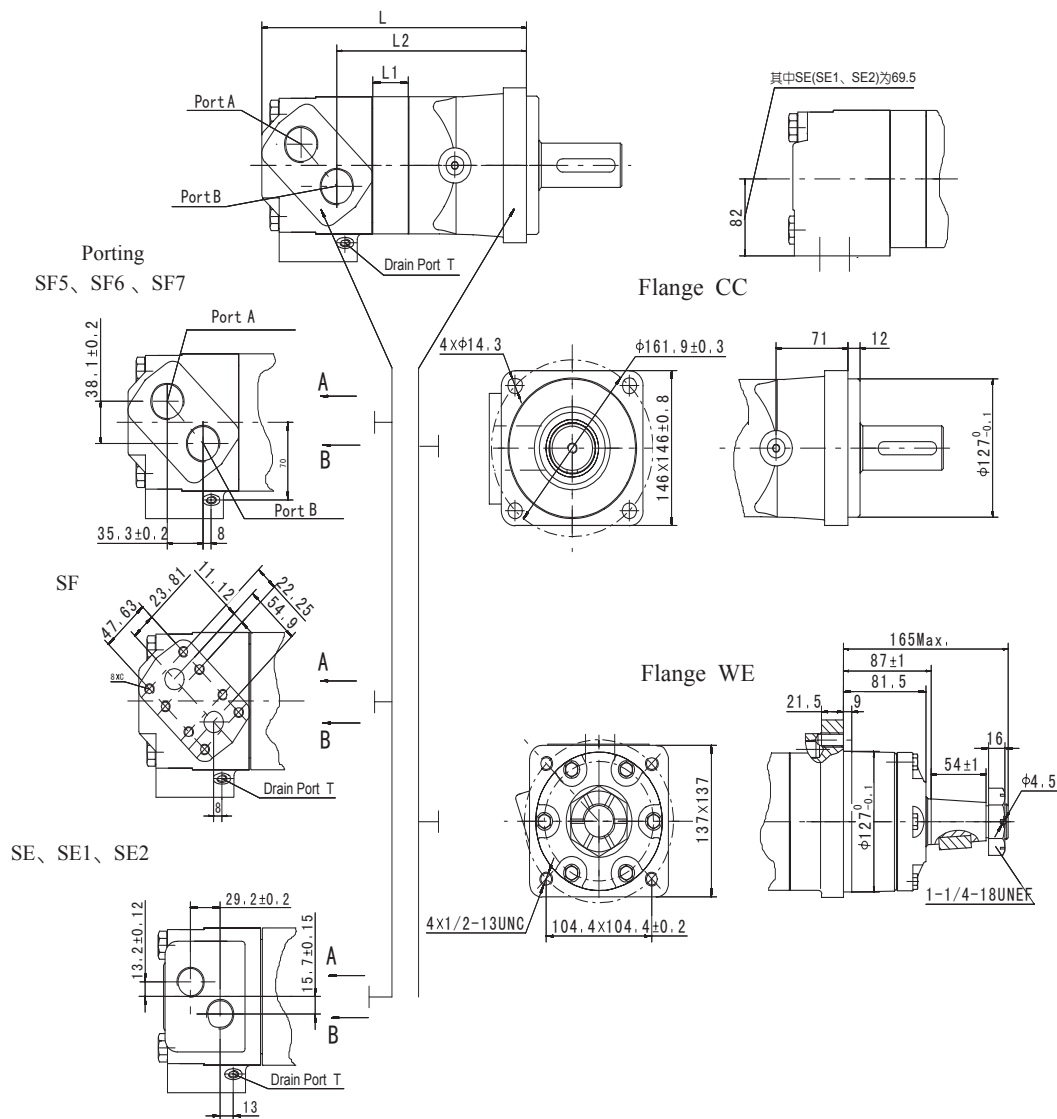


Model	L	L1	L2
BMT160	193	17	142.5
BMT200	197	21	146.5
BMT250	204	14	152.5
BMT315	210	20	158.5
BMT400	217	27	165.5
BMT500	225	35	173.5
BMT630	237	47	185.5
BMT800	248	58	196.5

Content	Code					
Mounting	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.

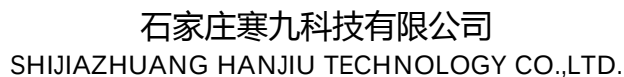
BMTE DIMENSIONS AND MOUNTING DATA



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						
Mounting	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	--	--	--



Technical drawing of the S1, S, G2, M3 pump assembly, showing multiple views and dimensions.

Views and Dimensions:

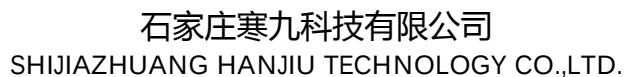
- Top View:** Shows the main body with dimensions L , $L2$, and $L1$. Labels include Port A, Port B, Drain port I, and Porting D, M.
- Front View:** Shows the main body with dimensions 71_{max} and 62 .
- Side View:** Shows the main body with dimensions 23 ± 0.6 , 21.6 ± 0.5 , 102 , 125_{max} , 20 ± 0.3 , 21.6 ± 0.5 , 12.5 ± 0.5 , 78.5 , and 70 .
- Bottom View:** Shows the main body with dimensions 23 ± 0.3 , 20 ± 0.3 , 102 , 125_{max} , and 70 .
- Flange D:** Shows the flange with dimensions $4-\phi 14$, $\phi 6$, 28 , $\phi 160$, $\phi 185$, 50 , and 42 .
- Flange E:** Shows the flange with dimensions 18 , 10 , $\phi 22$, 28 , $\phi 125_{+0.045}$, and $\phi 127_{+0.045}$.

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

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

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

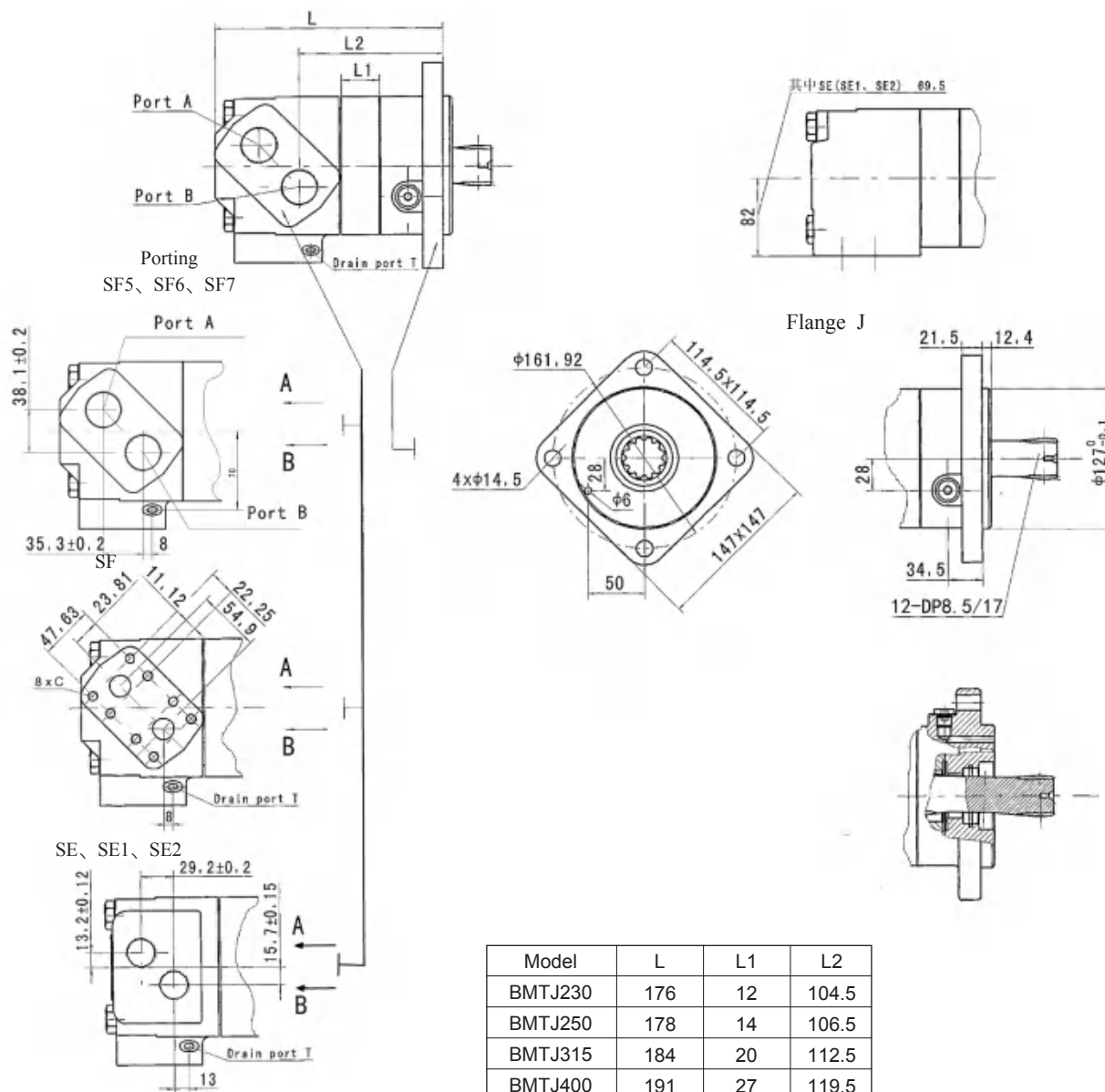
2)The thickness of the stator and rotor for disp.from 250 to 800 is the dimension of L1 adding on 7mm.



- INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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BMTJ DIMENSIONS AND MOUNTING DATA

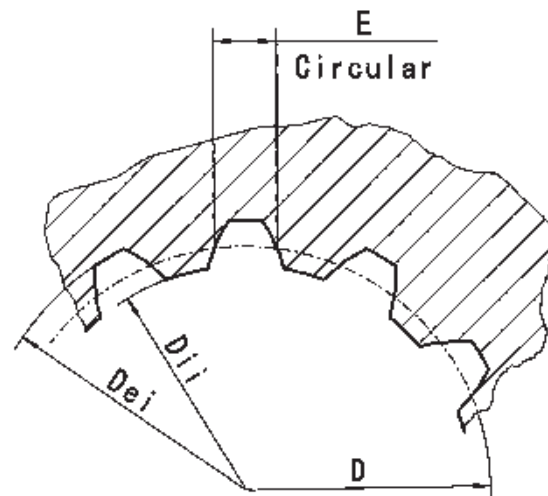
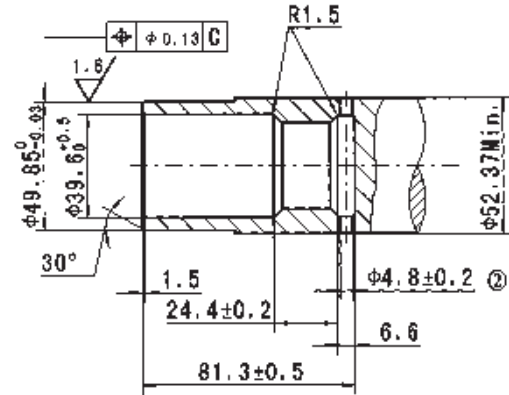
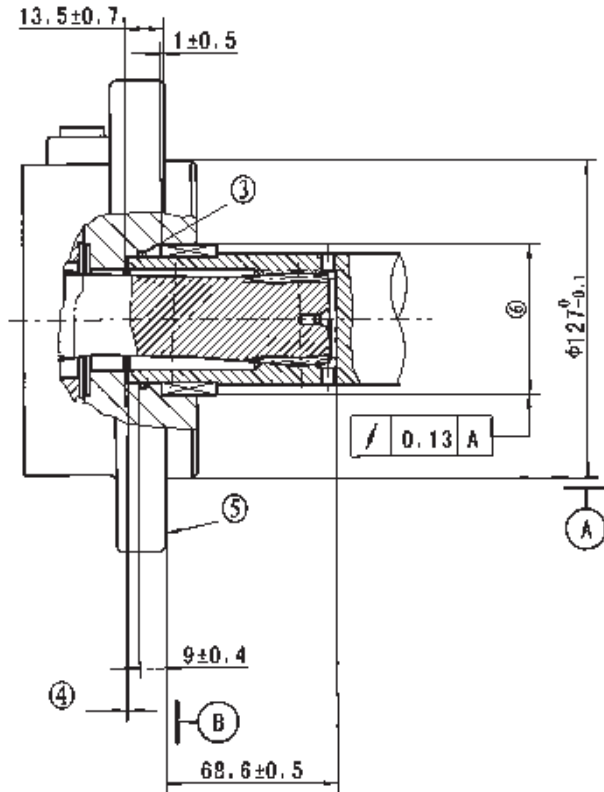


Model	L	L1	L2
BMTJ230	176	12	104.5
BMTJ250	178	14	106.5
BMTJ315	184	20	112.5
BMTJ400	191	27	119.5
BMTJ500	199	35	127.5
BMTJ630	211	47	139.5
BMTJ800	222	58	150.5

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

BMTJ DIMENSIONS AND MOUNTING DATA

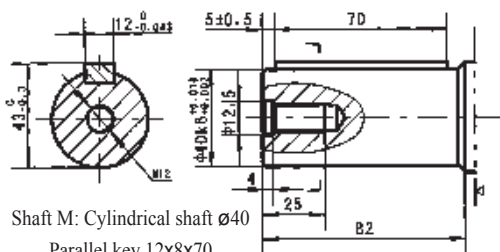


INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

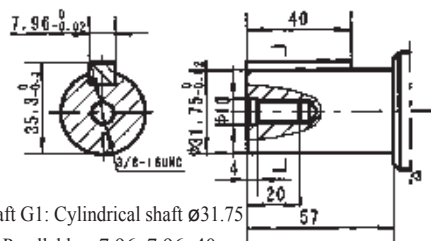
Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	8.5/17
Pressure Angle	D	30°
Pitch Dia.	α_D	35.858823
Major Dia.	D_{ei}	38.97 ^{+0.20} ₀
Minor Dia.	D_{ii}	33.3 ^{+0.18} ₀
Space Width [Circular]	E	5.866±0.032
Dimension between two pins(φ4)	M_0	26.929-27.084

- 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 [0.030-0.040] (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.

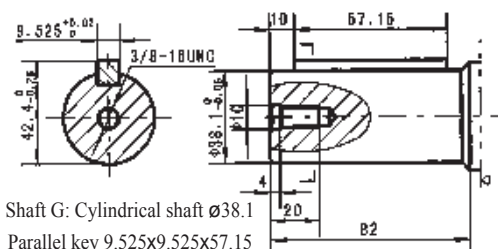
SHAFT EXTENSIONS FOR BMT(E) MOTORS



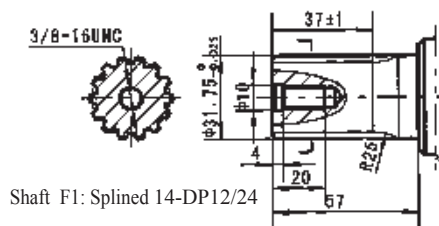
Shaft M: Cylindrical shaft Ø40
Parallel key 12x8x70



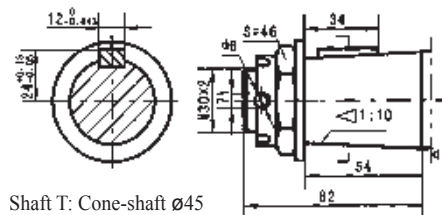
Shaft G1: Cylindrical shaft Ø31.75
Parallel key 7.96x7.96x40



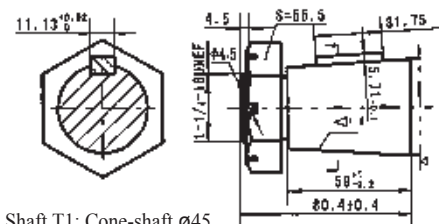
Shaft G: Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x57.15



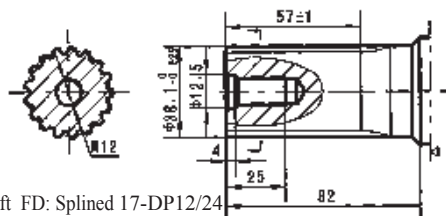
Shaft F1: Splined 14-DP12/24



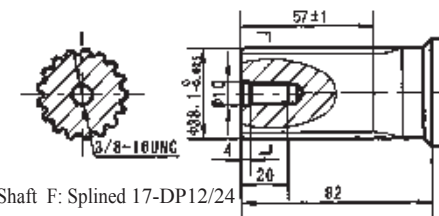
Shaft T: Cone-shaft Ø45
Parallel key B12x8x28
Tightening torque: 500±10Nm



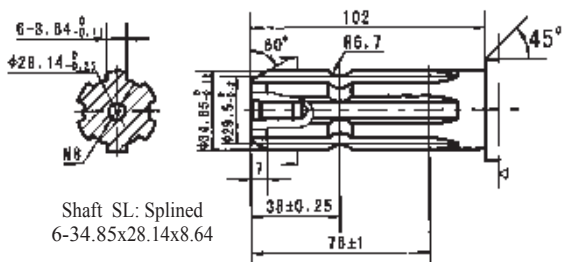
Shaft T1: Cone-shaft Ø45
Parallel key 11.13x11.13x31.75
Tightening torque: 500±10Nm



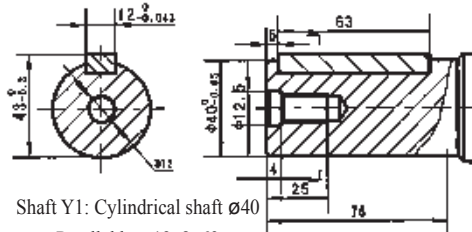
Shaft FD: Splined 17-DP12/24



Shaft F: Splined 17-DP12/24



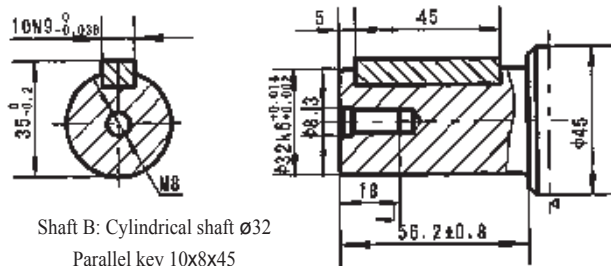
Shaft SL: Splined
6-34.85x28.14x8.64



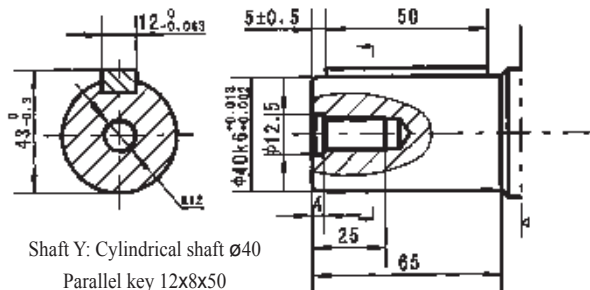
Shaft Y1: Cylindrical shaft Ø40
Parallel key 12x8x63

▷ Motor Mounting Surface

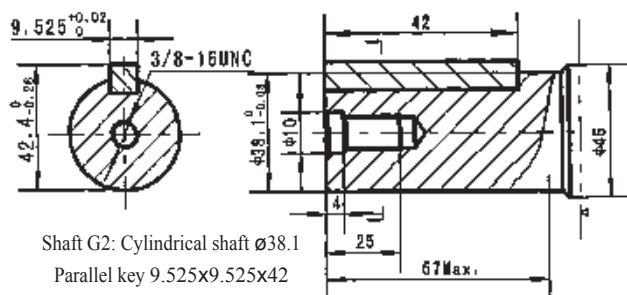
SHAFT EXTENSIONS FOR BMT(E) MOTORS



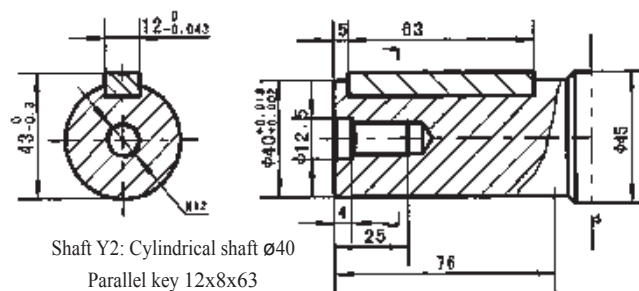
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



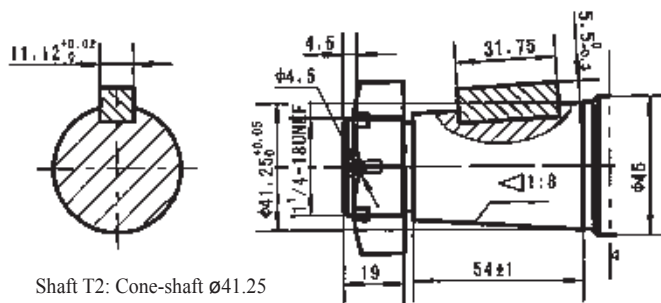
Shaft Y: Cylindrical shaft Ø40
Parallel key 12x8x50



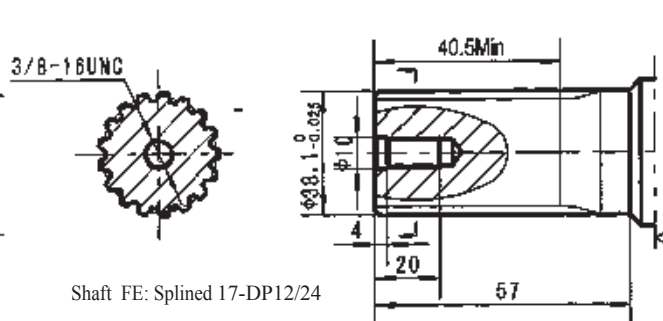
Shaft G2: Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x42



Shaft Y2: Cylindrical shaft Ø40
Parallel key 12x8x63



Shaft T2: Cone-shaft Ø41.25
Parallel key 11.13x11.13x31.75
Tightening torque: 500 ± 10 Nm

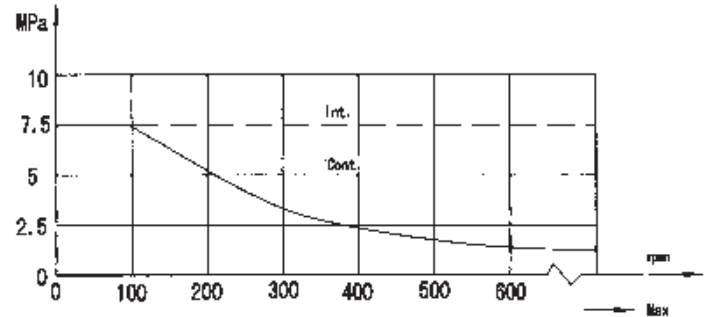
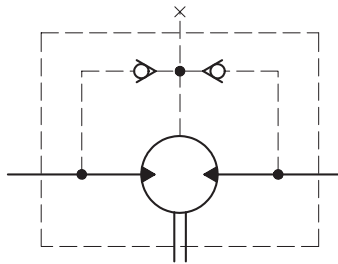


Shaft FE: Splined 17-DP12/24

▷ Motor Mounting Surface

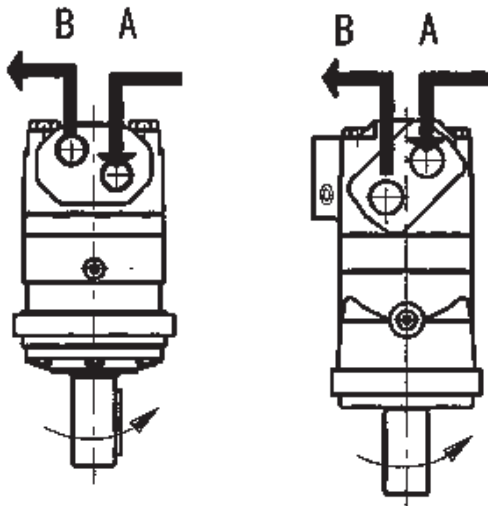
BMT Series Hydraulic Motor

Permissible shaft seal pressure



Standard direction of shaft rotation: Standard

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

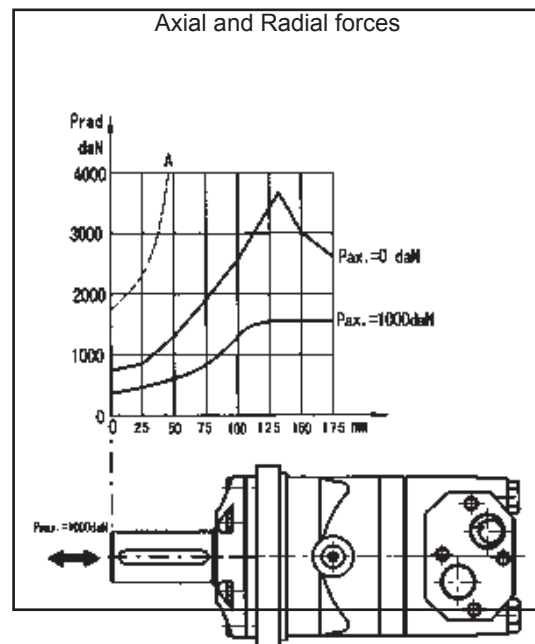


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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

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

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMT	160 200 250 315 400 500 630 800	4 4-Ø14 Square-flange Ø160, pilot Ø125 × 9 K6 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 9 W 4-Ø18 Wheel-flange Ø200, pilot Ø160 × 7	M Shaft Ø40, parallel key 12 × 8 × 70 G Shaft Ø38.1, parallel key 9.52 × 9.52 × 57.15 F Shaft Ø38.1, splined tooth 17-DP12/24 FD Shaft Ø38.1, splined tooth 17-DP12/24 T Cone-shaft 1:10 Ø45, parallel key B12 × 8 × 28 T1 Cone-shaft 1:8 Ø45, parallel key 11.13 × 11.13 × 31.75 SL shaft Ø34.85 Splined key Splined key 6-34.85 × 28.14 × 8.64 G1 shaft Ø31.75, parallel key 7.96 × 7.96 × 40 F1 Shaft Ø31.75, splined tooth 14-DP12/24	D G3/4 Manifold Mount, 4-M10, G1/4 M M27 × 2 Manifold Mount, 4-M10, M14 × 1.5 S 1-1/16-12UN O-ring, 9/16-18UNF S1 1-1/16-12UN O-ring, 7/16-20UNF G G3/4, G1/4 M3 M27 × 2, M14 × 1.5	Omit Standard Opposite R	00 Omit Blue Black Silver grey	Omit Standard Free Running Low Speed
BMTS		D 4-Ø14 Circle-flange Ø160, pilot Ø125 × 8 E 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10	Omit Short shaft 16-DP12/24				

Order Information

1	2	3	4	5	6	7	8
BMTE							

1	2	3	4	5	6	7	8
BMTJ							

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMTE	230	CC: 4-Ø14.3 Square-flange Ø161.9, pilot Ø127 × 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 Standard Opposite	00 Omit B S No paint Blue Black Silver grey	Omit F LS Standard Free Running Low Speed
	250		FE Shaft Ø38.1 ,splined tooth 17-DP12/24				
	315		Y1 Shaft Ø40,parallel key 12 × 8 × 63				
	400		Y2 Shaft Ø40,parallel key 12 × 8 × 63				
	500	WE 4-1/2-13UNC Wheel- flange Ø147.6, pilot Ø127 × 9	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	J 4-Ø14.5 Square-flange Ø161.9 pilot Ø127 × 12.4	Omit Short shaft 12-DP8.5/17				

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



BMV SERIES HYDRAULIC MOTOR

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.
- * Advanced design in disc 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)	10	140	294	440	610	742	845	1000
		26	24	23	22	20	17	14
	20	153	314	466	636	787	895	1070
		55	54	53	52	51	48	44
	50	149	312	465	654	815	935	1112
		145	144	142	140	137	133	127
	75	143	304	458	642	816	940	1119
		220	218	215	211	207	202	195
	100	136	297	452	636	810	936	1108
		294	292	290	287	283	278	270
Max.cont.	125	123	286	442	626	799	921	1093
		368	366	364	361	357	352	345
	150	114	275	435	615	788	906	1078
		445	443	441	437	430	422	410
	160	107	268	430	608	780	895	1070
		475	473	470	466	460	452	439
	Max.int.	200	82	249	412	593	758	871
			596	594	590	584	576	565
								544

BMV 400 [419cm³/rev.]

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

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

BMV 500 [518cm³/rev.]

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

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

BMV 630 [666cm³/rev.]

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

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

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.

Performance Data

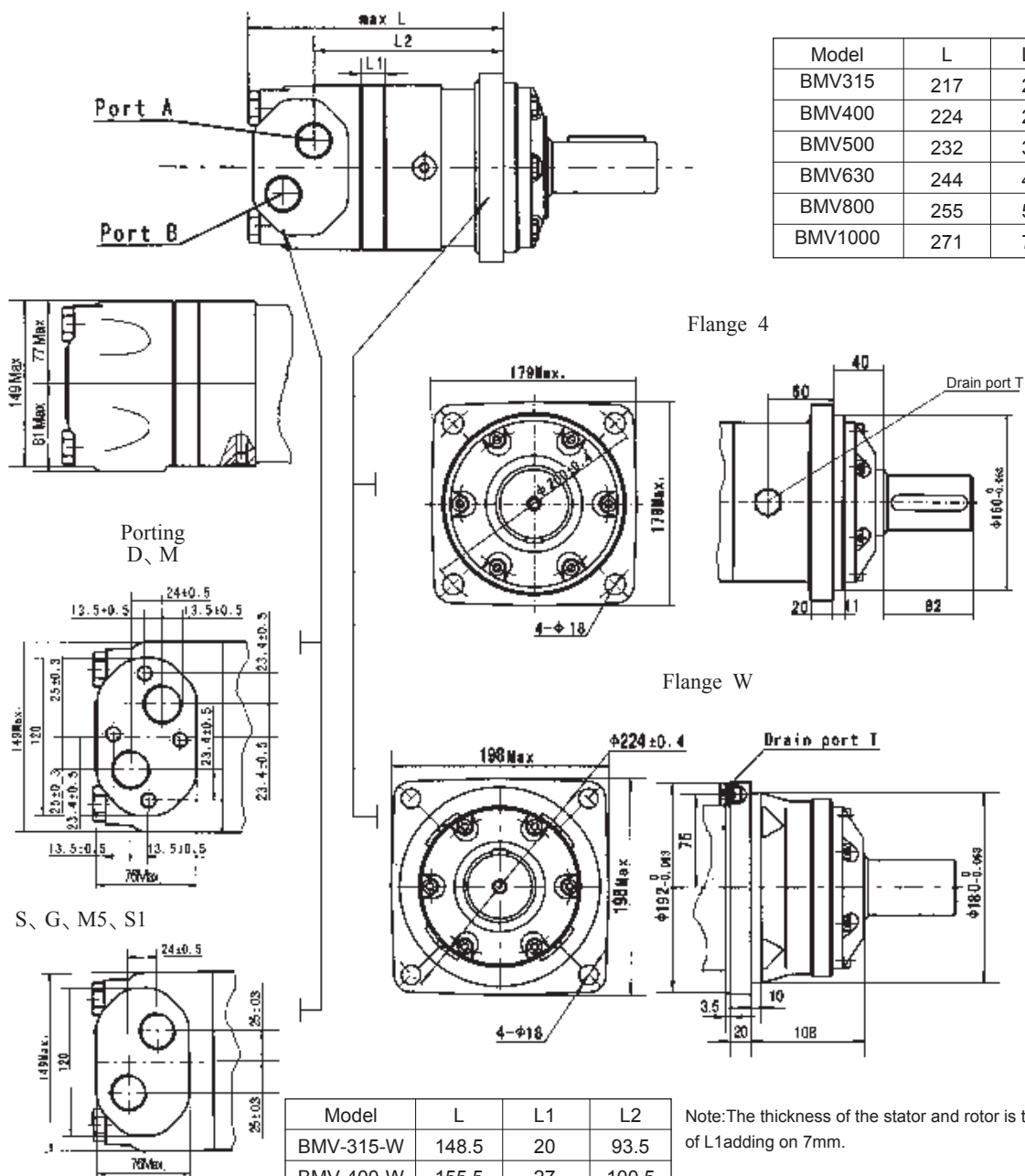
		BMV 800 [801cm³/rev.]						
		Pressure (MPa)						
		2.5	5	8	10	13	16	18
Flow (L/min)	10	278	565	830	1095	1405	1712	1915
		11	10	10	9	8	8	7
	20	282	571	845	1150	1456	1783	1994
		23	22	22	21	20	18	16
	50	288	582	856	1162	1463	1790	2001
		60	59	57	56	54	52	48
	75	269	580	855	1165	1465	1786	1993
		91	90	89	87	84	81	77
	100	251	566	840	1140	1448	1767	1985
		122	121	120	118	115	111	105
	125	242	535	824	1118	1427	1739	1976
		153	152	150	147	143	139	133
	150	236	526	808	1102	1401	1714	1959
		185	183	181	178	174	169	163
	175	215	504	793	1079	1377	1698	1936
		216	214	212	209	206	203	196
Max.cont.	200	197	468	765	1063	1362	1681	1913
		247	245	243	240	237	232	225
Max.int.	240	118	388	713	1020	1318	1637	1838
		297	296	295	293	288	283	277

cont.
int.

		BMV 1000 [990cm³/rev.]					
		Pressure (MPa)					
		2.5	5	7	10	14	16
Flow (L/min)	10	312	640	971	1400	1978	2259
		9	9	9	8	7	6
	30	320	648	978	1410	1980	2270
		28	27	26	25	23	21
	50	326	655	992	1422	2015	2280
		47	46	45	43	41	38
	75	318	642	987	1425	2003	2276
		72	71	70	68	66	63
	100	309	634	983	1418	1994	2243
		98	97	95	93	90	86
	125	303	624	975	1409	1988	2224
		123	122	120	117	114	110
	150	278	602	961	1368	1963	2208
		149	148	146	144	140	133
	175	264	580	946	1338	1925	2159
		174	172	170	166	162	155
Max.cont.	200	230	556	912	1300	1891	2105
		199	196	193	190	185	178
Max.int.	240	166	513	867	1267	1825	2034
		240	237	233	229	225	218

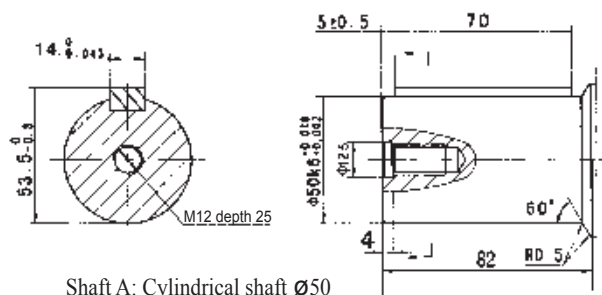
Torque (N·m) 1825
Speed (rpm) 225

BMV DIMINSIONS AND MOUNTING DATA

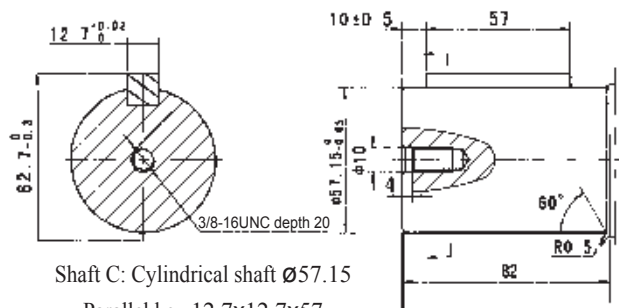


Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--

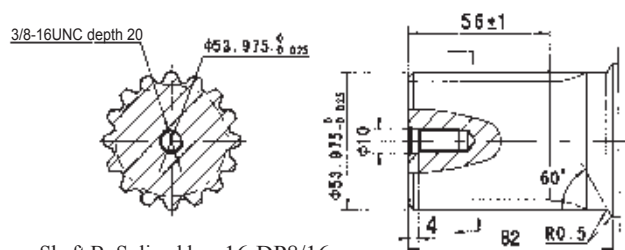
BMV SHAFT EXTENSIONS DIMENSIONS DATA



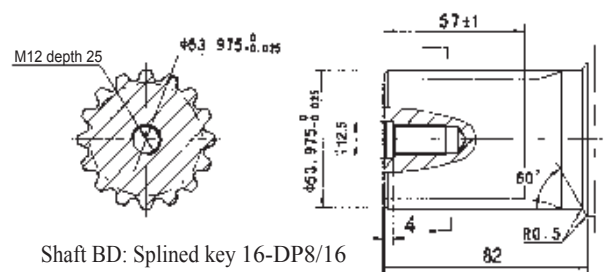
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



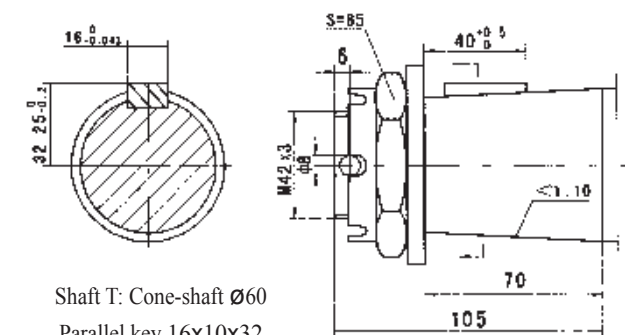
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



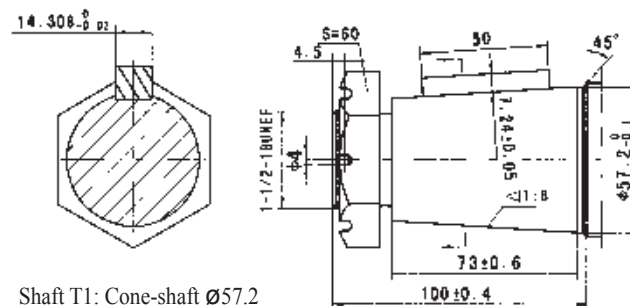
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16



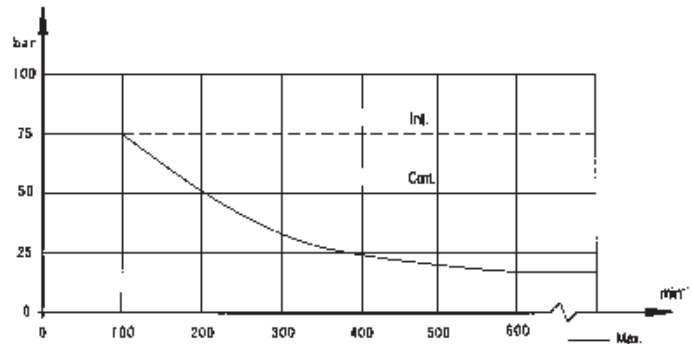
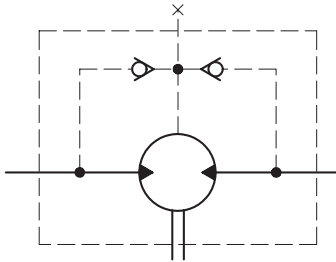
Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750±50Nm



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

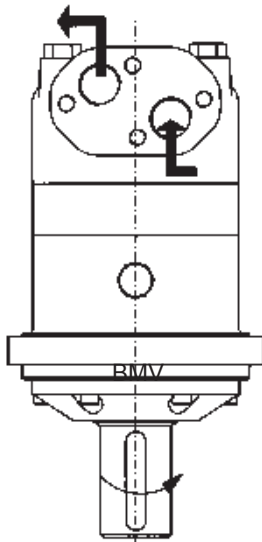
BMV Series Hydraulic Motor

Permissible shaft seal pressure



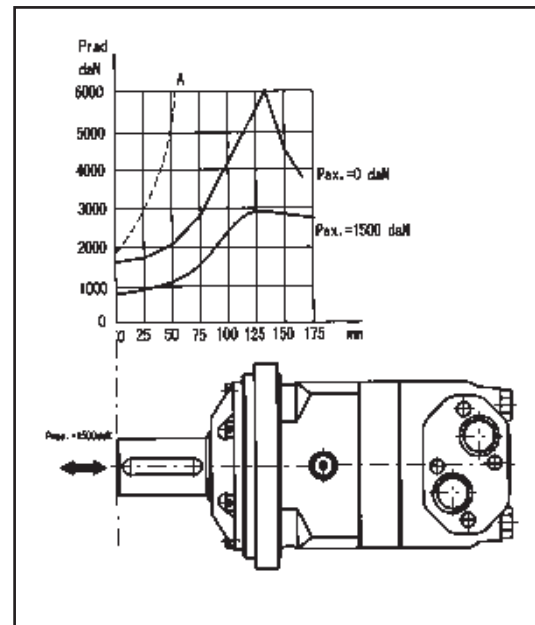
Standard direction of shaft rotation: Standard

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

1 2 3 4 5 6 7 8

BMV

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

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



BMK2 SERIES HYDRAULIC MOTOR

BMK2 new series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

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

		BMK2 80 [80 cm³/rev.] Pressure (MPa)										Max.cont.	Max.int.	Peak
		3.5	7	10.5	14	17.5	20.5	24	27.5	31				
Flow (L/min)	2	29 18	54 9	86 3										
	4	35 45	75 41	112 38	145 35	172 28	208 22	218 14	236 3					
	8	35 90	75 85	114 80	148 76	175 72	212 64	230 55	260 46	280 40				
	15	38 180	78 175	116 170	152 166	184 160	215 153	245 140	275 126	300 115				
	22	36 265	75 260	114 255	150 250	185 242	220 234	250 220	285 205	315 185				
	30	35 363	75 355	115 350	150 342	185 334	225 322	260 302	295 280	325 260				
	38	34 460	72 452	112 442	155 430	190 418	230 405	265 385	300 360	335 335				
	45	32 545	70 535	110 528	150 515	190 505	230 495	265 465	305 440	340 410				
	55	30 670	68 660	110 650	150 635	190 620	230 605	270 575	305 540	335 510				
	65	25 800	65 790	105 778	145 755	180 740	225 728	260 690	295 650	325 610				
Max.int.	75	22 910	63 900	102 880	145 860	180 850	225 830	260 790	290 750					
	80	20 980	60 970	100 955	140 920	175 900	220 875	250 840						

		BMK2 100 [100.9 cm³/rev.] Pressure (MPa)												
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31			
Flow (L/min)												Max.cont.	Max.int.	Peak
2		15 14	32 10	68 5										
4		18 36	42 34	92 32	130 28	170 22	205 14	230 5						
8		20 74	45 73	90 70	135 66	180 60	210 52	240 42	280 26	310 15				
15		20 142	45 140	90 137	135 134	185 129	220 120	260 105	305 92	345 78	390 65			
22		18 210	45 207	90 201	140 195	190 188	230 179	275 160	315 150	360 138	405 125			
30		16 290	42 288	88 282	142 276	195 268	240 258	285 242	330 230	375 212	425 195			
38		15 370	40 365	88 360	140 352	190 340	240 326	285 310	335 295	380 275	430 255			
45		15 440	40 435	86 430	140 422	190 410	240 395	285 380	340 365	385 345	440 320			
55		12 540	36 534	85 528	135 520	190 510	240 500	285 485	340 465	385 440	440 405			
65		10 640	35 635	80 630	130 622	185 605	235 590	280 575	335 550	380 525	440 500			
75	Max.cont.	5 738	30 735	75 728	125 715	180 700	230 680	275 655	330 635	375 610				
85	Max.int.	3 838	25 835	75 830	125 820	175 805	225 785	270 760	320 730	370 690				
95			23 925	70 918	120 905	170 890	220 870	260 840	310 810					

		BMK2 125 [129.8 cm³/rev.] Pressure (MPa)												
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31			
Flow (L/min)												Max.cont.	Max.int.	Peak
2		25 12	40 7											
4		28 27	55 26	110 22	175 18	220 14	280 11	325 8						
8		28 57	60 56	115 53	175 48	230 42	290 38	330 34	375 26	400 20				
15		28 113	60 112	120 110	180 105	240 98	295 92	340 86	390 80	440 72	485 65			
22		28 165	55 163	120 160	180 155	245 140	305 138	360 113	415 130	470 115	530 100			
30		25 228	52 224	120 222	185 210	245 212	310 206	365 198	425 188	480 178	545 165			
38		25 288	50 285	120 282	180 275	245 268	310 260	365 252	425 242	480 230	545 215			
45		22 345	50 343	120 338	180 332	245 325	310 315	365 305	425 292	480 280	545 265			
55		20 420	46 418	115 414	175 408	245 400	310 390	375 378	430 365	490 346				
65		15 498	43 496	110 492	170 486	240 480	310 465	370 458	425 445	485 425				
75	Max.cont.	12 575	42 574	108 568	170 560	235 550	310 548	365 525	425 502					
85	Max.int.	8 653	40 652	105 645	165 636	230 625	310 616	360 600	420 578					
95			40 722	100 715	160 702	225 690	290 680	355 670	415 655					

cont.
int.

Torque (N·m) 225
Speed (rpm) 690

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

	1.75	3.5	7	10.5	14	17.5	20.5	24	26
2	28 9	55 7	110 5	175 3					
4	32 22	63 21	125 19	190 17	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	215 400	285 393	370 383	440 370		
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		

Flow (L/min)

Max.cont.

Max.int.

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

	1.75	3.5	7	10.5	14	17.5	20.5	24	26
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	265 105	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	275 184	370 178	455 172	540 166	625 158	
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		
75	30 384	72 382	170 378	265 370	360 365	455 356	540 346		
85	25 436	70 434	165 430	260 420	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		

Flow (L/min)

Max.cont.

Max.int.

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

	1.75	3.5	7	10.5	14	17.5	20.5	24	26
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			
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				

Flow (L/min)

Max.cont.

Max.int.

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

	1.75	3.5	7	10.5	14	17.5	20.5	24
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		
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				

Flow (L/min)

Max.cont.

Max.int.

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

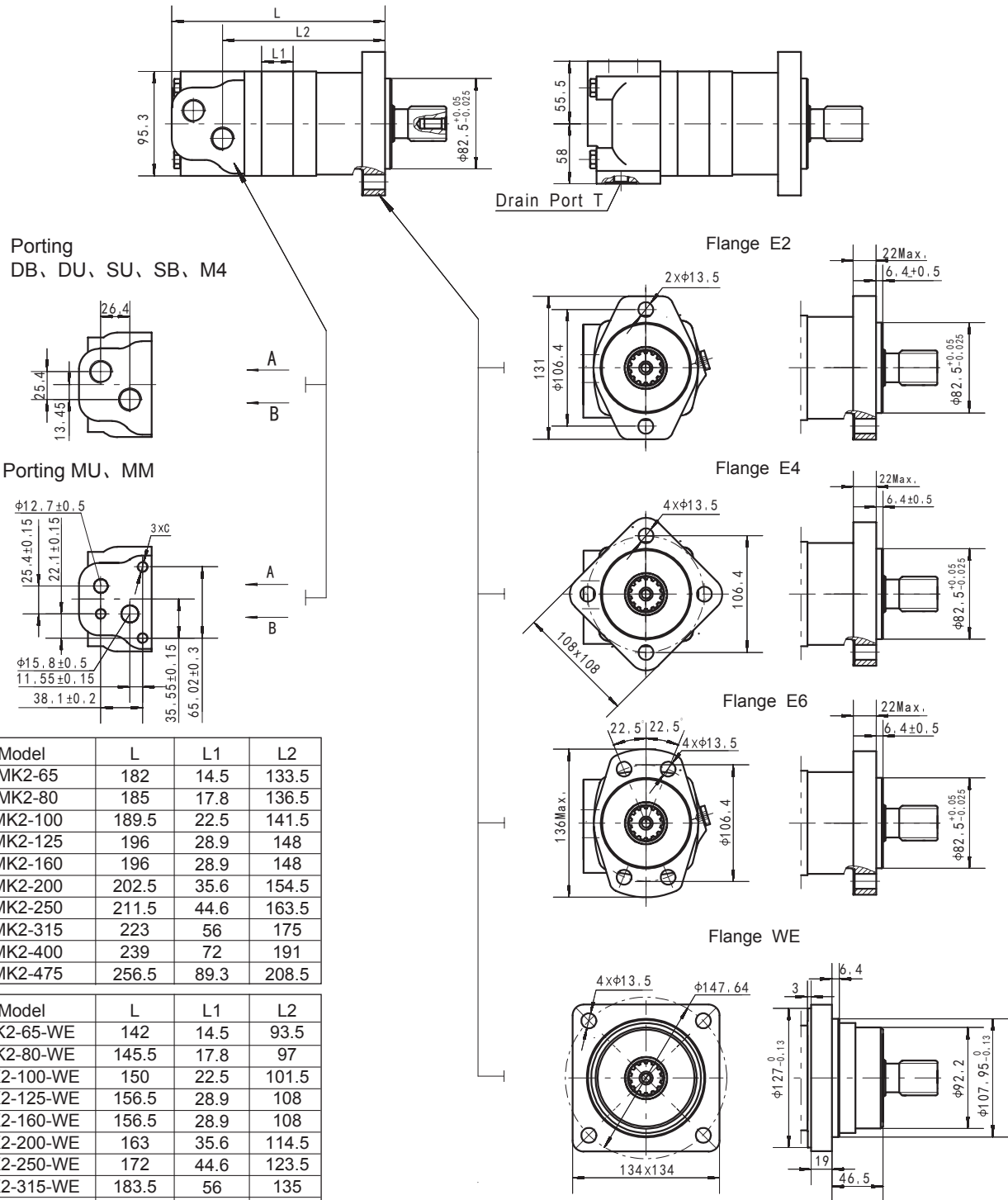
□ cont.
■ int.

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

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

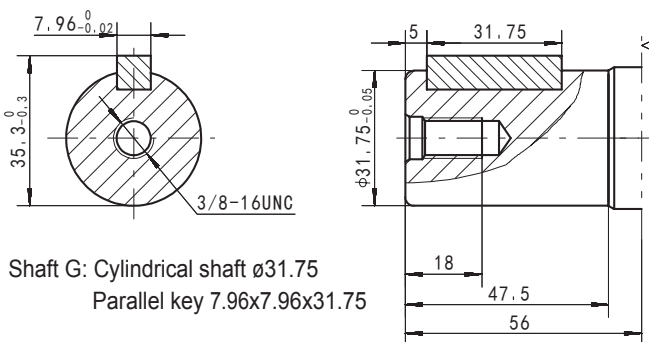
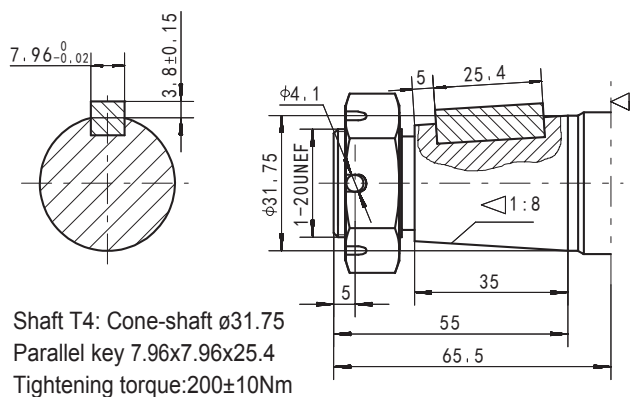
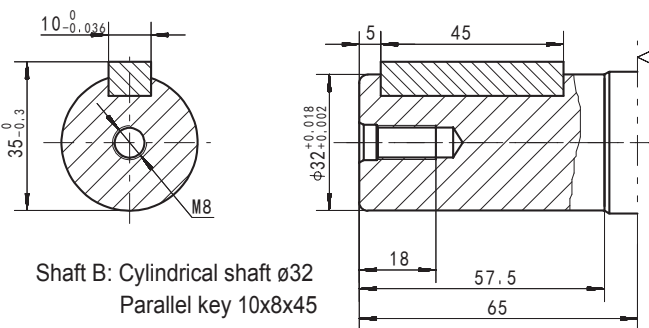
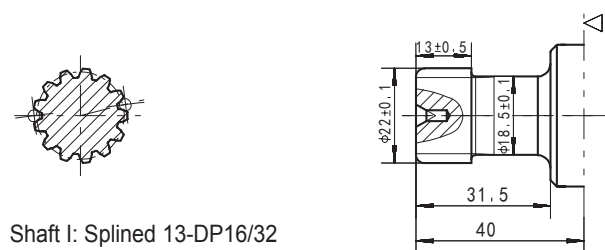
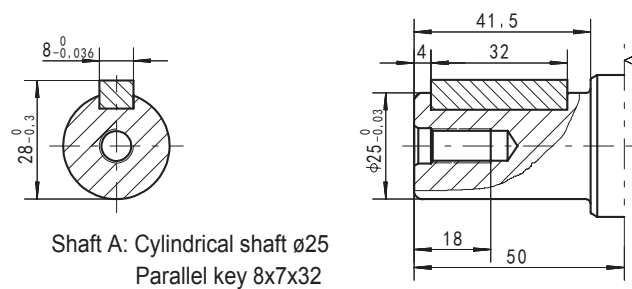
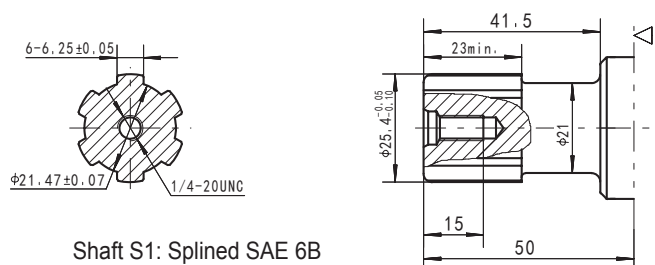
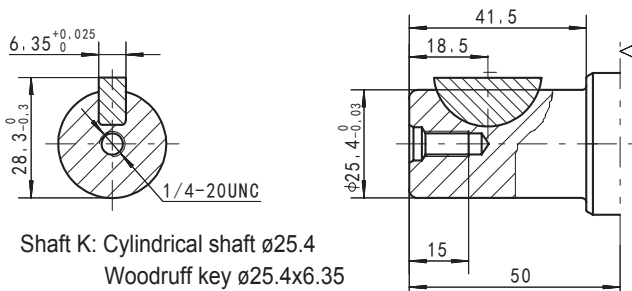
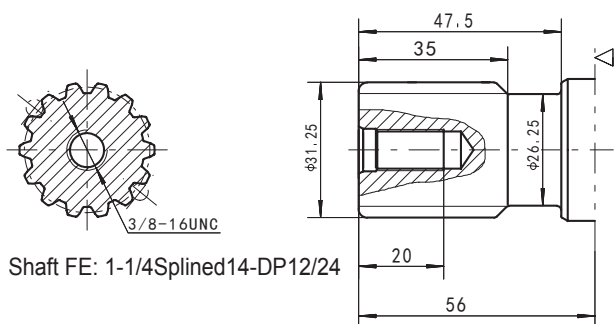
Torque (N·m) 130
Speed (rpm) 230

BMK2 DIMENSIONS AND MOUNTING DATA



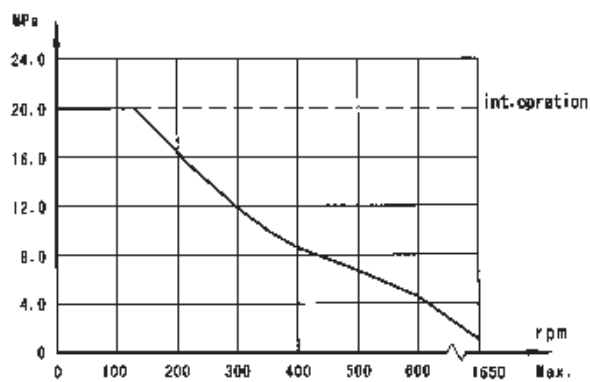
Code Mounting	DB (Depth)	DU (Depth)	SU (Depth)	SB (Depth)	M4 (Depth)	MU	MM
P(A,B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (17)	7/8-14 O-ring (17)	M22 x 1.5 (15)	φ12.7、φ15.8	φ12.7、φ15.8
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)
C			--			3/8-16UNC(15)	M10(15)

SHAFT EXTENSIONS FOR BMK2 MOTORS



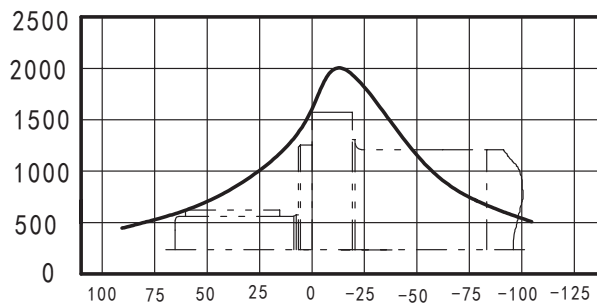
◁ Motor Mounting Surface E2 Flange

Permissible shaft seal pressure



BMK2 Standard Mounting Flange[E2]Radial Forces

Side Load-(daN)

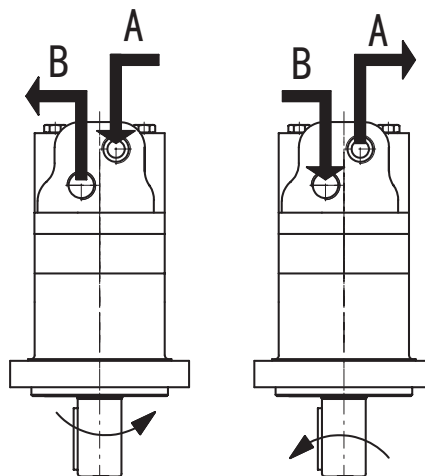
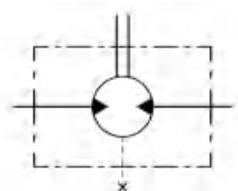


Distance from Mounting Face--(mm)

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

1 2 3 4 5 6 7 8

BMK2

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
65	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 SB SU M4 MU MM	G1/2, G1/4 G1/2, 7/16-20 UNF 7/8-14UNF O-ring, G1/4 7/8-14UNF O-ring, 7/16-20 UNF M22×1.5, M14×1.5 1/2", 5/8" Crosshole Manifold 3×3/8- 16UNC, 7/16-20UNF 1/2", 5/8" Crosshole Manifold 3×M10, G1/4	00 Omit B S	Omit Standard F Free Running
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		Omit Standard R	No paint Blue Black Silver grey	
100	E6	4×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	FE Shaft φ31.75 , splined 14-DP12/24				
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 T4 Cone-shaft φ31.75 , parallel key 7.96×7.96×25.4				
160							
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 .



BMK4 SERIES HYDRAULIC MOTOR

The BMK4 series orbital hydraulic motor is a planar flow distribution structure hydraulic motor that uses embedded column type rotating stator pairs. It has the characteristics of high working pressure, high working efficiency, good overall efficiency retention, and long working life. Multi functional variant design can be carried out according to user needs based on the standard structure.

Characteristic features:

- *Adopting advanced stator parameter design, the starting pressure is low, the efficiency is high, and the stability is good.
- *Adopting a tapered roller bearing structure, it has strong bearing capacity for shaft and radial loads, allowing the motor to directly drive the working mechanism and expand its range of use.
- *The advanced planar flow distribution structure ensures high precision in motor flow distribution, strong automatic compensation ability after wear, high volumetric efficiency, long motor life, and stable motor speed and load speed characteristics.

Main Specification

Type		BMK4 110	BMK4 130	BMK4 160	BMK4 205	BMK4 245	BMK4 310	BMK4 400	BMK4 500	BMK4 625
Geometric displacement (cm ³ /rev.)		111.9	132.1	168.7	212.2	249.5	315.6	404.2	501.4	621.8
Max.speed (rpm)	cont.	697	722	582	459	383	303	239	191	151
	int.	868	862	690	546	532	422	376	305	241
Max.torque (N • m)	cont.	320	375	485	600	705	850	930	945	970
	int.	470	560	705	800	845	1065	1185	1170	1180
Max.pressure drop (MPa)	cont.	20.5	20.5	20.5	20.5	20.5	20.5	19	14	11.5
	int.	31	31	31	26	26	26	24	17	14
	peak.	31	31	31	31	31	31	29.5	23	18
Max.flow (L/min)	cont.	75	95	95	95	95	95	95	95	95
	int.	95	115	115	130	130	130	150	150	150

Note:

- * Continuous value refers to the maximum value at which the displacement motor can operate continuously.
- * Intermittent value refers to the maximum value of the displacement motor working for 6 seconds within 1 minute.
- * Peak value refers to the maximum value at which the displacement motor operates for 0.6 seconds within 1 minute.
- * Recommended oil: anti-wear hydraulic oil, viscosity 37~73cSt, oil cleanliness ISO18/13, maximum working oil temperature 82 °C.
- * Special dynamic sealing design allows the motor to have a back pressure of up to 7-20MPa (optional). However, to achieve good service life and comprehensive performance, it is recommended to use a back pressure not exceeding 5MPa. If it exceeds this limit, it is recommended to connect the leakage pipe. When connecting the leakage pipe, it should be ensured that the motor is always filled with oil. The leakage pipeline should have a certain throttle to maintain a back pressure of 3.5 Bar or above. Connecting the leakage oil pipe can not only maintain a low back pressure, but also take away the wear and pollution generated inside the motor and produce a certain cooling effect.
- * The motor should have a break in period before full load operation, and it is recommended to break in for 1 hour at 30% or less of the maximum working pressure. The maximum output torque of the motor is related to the selected shaft type.



石家庄寒九科技有限公司
SHIJIAZHUANG HANJIU TECHNOLOGY CO.,LTD.

Performance Data

BMK4 110 [111.9cm³/rev.]										
Pressure (MPa)										
	1.5	3.5	7	10.5	14	17	20.5	24	27.5	31
1.9	15	45	95	145						
	14	10	5	2						
3.8	20	50	100	155	210	255	305	350		
	34	33	31	28	25	22	18	11		
7.5	20	50	105	155	210	260	305	355	390	
	68	67	62	56	50	44	36	25	18	
15	20	50	105	160	210	260	310	355	400	440
	138	136	123	110	97	84	70	56	42	28
23	25	55	110	160	210	260	310	360	410	455
	207	204	200	193	184	174	163	150	136	121
30	20	50	105	160	210	265	315	365	415	455
	277	274	270	262	253	241	228	213	196	179
38	20	50	105	160	215	265	320	370	420	460
	347	344	340	331	322	308	292	274	255	236
45	20	50	105	160	210	265	320	370	420	460
	417	414	410	400	390	374	355	335	313	292
53	15	50	105	160	210	265	320	370	420	465
	487	484	480	469	458	440	419	397	374	348
61	15	50	105	160	210	265	320	375	425	468
	556	553	549	537	525	505	482	455	428	404
68	10	50	105	160	210	265	320	375	425	465
	626	622	618	606	593	570	545	516	485	460
76	10	50	100	155	210	265	320	375	430	470
	697	694	690	677	664	638	611	579	545	518
Max.int.	95	45	95	155	210	260	320	375	425	
		868	861	838	816	792	767	729	690	

BMK4 130 [132.1cm³/rev.]										
Pressure (MPa)										
	1.5	3.5	7	10.5	14	17	20.5	24	27.5	31
1.9	35	60	120	180						
	12	9	5	2						
3.8	35	60	120	180	240	300	345	390		
	30	28	25	19	14	13	12	4		
7.5	30	60	125	185	240	300	360	405	455	460
	57	56	53	47	42	40	38	29	20	12
15	30	60	125	185	250	305	365	415	465	515
	116	114	111	105	100	95	90	70	50	37
23	25	60	125	185	250	305	365	420	470	525
	173	170	167	161	156	149	142	123	104	91
30	25	60	120	185	250	310	370	425	480	535
	228	225	222	216	210	202	194	176	158	145
38	25	60	120	185	250	310	375	430	190	545
	283	281	278	272	266	256	246	229	212	189
45	25	55	120	185	250	310	375	435	495	550
	341	338	335	329	323	312	300	282	263	286
53	20	55	120	185	250	310	375	435	495	550
	400	396	392	386	380	368	355	335	315	286
61	20	55	120	185	250	310	375	435	495	555
	457	453	449	443	437	424	410	388	366	335
68	15	55	120	185	250	310	375	435	500	560
	516	511	506	500	494	480	465	442	418	384
76	10	55	120	185	250	310	375	440	500	
	574	569	564	559	551	536	520	547	470	
Max.int.	83	10	50	115	180	245	310	375	440	500
	833	628	624	615	606	590	573	547	520	
95	5	50	115	180	245	305	375	435	500	
	772	718	714	702	690	672	653	625	595	
114		45	105	170	235	300	360	425		
		862	855	842	827	806	783	749		

BMK4 160 [168.7cm³/rev.]										
Pressure (MPa)										
	1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31
1.9	35	75	155	230	310					
	8	7	5	3	1					
3.8	35	80	155	235	315	375	445	500	560	
	23	22	20	19	18	16	15	8	2	
7.5	35	80	155	235	315	375	450	510	575	630
	46	45	41	40	37	32	29	27	25	13
15	35	80	160	240	320	285	455	520	590	645
	93	92	90	88	84	76	73	62	51	35
23	35	80	160	240	320	295	470	540	605	665
	137	135	134	131	126	120	114	90	75	57
30	30	80	165	245	330	400	480	550	620	680
	184	182	180	176	171	163	154	138	122	100
38	30	80	165	250	335	410	485	555	630	695
	232	229	226	221	216	206	194	182	169	142
45	25	80	165	245	330	405	485	555	630	700
	277	275	272	266	260	250	238	224	209	182
53	25	75	160	245	325	405	480	555	630	700
	321	319	318	311	304	294	282	266	249	222
61	25	75	160	240	325	400	480	555	630	705
	366	364	362	356	348	338	326	308	289	262
68	20	75	155	235	320	400	480	555	635	705
	410	409	407	401	392	382	370	350	329	302
76	15	70	150	235	315	395	480	555	635	
	460	458	456	448	440	429	417	396	373	
Max.int.	83	15	70	150	235	315	395	475	555	635
	509	506	502	494	484	473	461	438	413	
95	10	70	150	230	315	395	475	555	630	
	582	578	573	563	552	540	526	501	474	
114		65	145	225	305	390	450	525		
		693	687	675	661	647	630	600		

BMK4 205 [212.2cm³/rev.]										
Pressure (MPa)										
	1.5	3.5	7	10.5	14	17	20.5	24	27.5	31
1.9	45	90	170							
	8	5	1							
3.8	45	95	180	250	325	435	515	610	625	
	17	17	16	15	14	12	11	9	3	
7.5	45	95	190	270	355	460	540	610	680	700
	36	35	34	32	29	27	25	22	16	8
15	50	100	200	295	285	480	570	645	715	760
	73	73	71	70	68	61	57	45	35	23
23	50	100	205	295	400	495	585	665	745	800
	107	106	105	103	101	98	90	81	74	65
30	45	100	205	300	400	500	590	680	765	
	144	143	142	138	136	132	125	116	109	
38	45	95	205	305	405	505	600	690	790	
	182	180	179	174	170	166	160	152	143	
45	40	95	205	305	405	500	600	690		
	217	216	215	211	202	200	194	185		
53	35	95	200	300	400	500	600	690		
	256	254	252	248	243	237	229	219		
61	35	95	200	300	400	500	595	690		
	291	290	289	284	280	272	264	253		
68	30	90	200	300	400	495	595	690		
	329	327	325	321	316	308	298	287		
76	25	90	195	295	395	495	595	690		
	366	364	362	358	353	345	334	321		
Max.int.	83	20	90	190	295	395	495	595		
	402	400	398	394	389	380	368			
95	15	85	185	290	395	495	590			
	459	456	453	448	442	434	421			
114		80	175	285	380	475	570			
		546	542	537	529	520	504			

cont.
int.

Torque (N·m) 380
Speed (rpm) 529



石家庄寒九科技有限公司
SHIJIAZHUANG HANJIU TECHNOLOGY CO.,LTD.

Performance Data

BMK4 245 [249.5cm³/rev.]
Pressure (MPa)

	1.5	3.5	7	10.5	14	17	20.5	24	26
--	-----	-----	---	------	----	----	------	----	----

Flow (L/min)	3.8	55 14	110 14	225 13	335 12	435 11	530 10		
	7.5	55 30	115 30	230 29	345 27	445 24	555 22	650 18	750 14
	15	60 61	115 61	235 60	355 59	465 56	580 49	680 44	775 39
	23	60 90	120 90	235 89	355 88	475 87	590 75	695 70	795 63
	30	55 121	115 121	240 119	335 117	475 113	595 106	700 99	800 91
	38	55 152	115 151	238 148	355 147	480 143	600 137	703 129	805 120
	45	50 183	110 182	235 179	355 178	475 173	595 166	705 157	
	53	45 213	110 212	235 210	355 208	475 203	595 195	705 185	
	61	45 244	105 243	230 241	355 239	475 232	595 225	700 213	
	68	45 275	105 274	230 272	350 269	470 262	590 254	700 241	
Max.cont.	76	40 305	105 305	225 303	350 300	470 292	590 283	700 241	
	83	35 337	100 336	225 334	340 330	465 323	590 313		
	95	30 383	95 382	220 380	335 376	460 369	585 357		
	114		75 457	210 455	330 450	445 442	560 427		
Max.int.	132			195 531	315 525	440 515			

BMK4 310 [315.6cm³/rev.]
Pressure (MPa)

	1.5	3.5	7	10.5	12	14	17	20.5	24	26
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Flow (L/min)	3.8	70 11	145 11	290 10	425 10	485 9	555 9	685 8	820 7	960 6
	7.5	70 23	145 23	295 22	435 21	505 20	575 20	710 18	850 17	1025 15
	15	70 47	145 47	300 46	445 45	520 44	590 44	735 42	880 41	1030 40
	23	75 71	145 71	300 70	450 69	530 68	600 67	750 64	895 63	
	30	70 96	145 96	300 95	455 94	530 93	605 92	755 89		
	38	70 121	145 120	300 119	460 118	535 117	610 116	760 112		
	45	70 145	140 144	295 143	455 142	535 141	610 140	760 135		
	53	65 169	140 169	295 168	450 167	530 165	610 164	760 159		
	61	60 193	140 193	290 192	450 189	530 188	610 187			
	68	55 217	135 217	290 216	445 213	530 211	605 209			
Max.cont.	76	50 242	135 242	285 241	440 238	530 236	605 234			
	83	45 267	130 266	285 265	440 262	525 260	600 258			
	95	40 303	120 303	285 301	430 299	520 296	595 293			
	114		115 363	275 360	420 358	510 354	580 351			
Max.int.	132			265 420	400 418	495 413				

BMK4 400 [404.2cm³/rev.]
Pressure (MPa)

	1.5	3.5	7	10.5	12	14	17	20.5	24
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Flow (L/min)	3.8	85 9	160 9	315 8	470 7	550 7	635 7	790 4	
	7.5	90 18	170 18	340 16	520 15	600 15	680 14	845 13	1015 11
	15	95 38	185 38	375 36	555 35	635 35	720 34	890 33	
	23	95 57	190 57	385 55	565 53	655 52	754 50	930 47	
	30	95 76	190 76	385 74	575 72	665 70	750 68		
	38	90 95	190 95	385 93	575 91	670 89	760 86		
	45	85 114	190 114	380 112	570 110	665 108	755 105		
	53	85 133	185 133	380 131	575 129	665 127	750 124		
	61	80 153	185 153	380 151	575 147	660 145			
	68	75 172	180 172	375 170	570 166	655 164			
Max.cont.	76	70 192	180 191	375 189	570 185	655 183			
	83	65 211	170 210	365 208	565 204	650 201			
	95	55 239	155 238	350 236	560 233	645 230			
	114		120 285	255 282	435 279				
Max.int.	132			240 330	425 325				
	151			230 376	410 371				

BMK4 500 [501.4cm³/rev.]
Pressure (MPa)

	1.5	3.5	7	10.5	12	14	15.5	17
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Flow (L/min)	3.8	100 7	210 6	430 5	645 3	755 2	860 1	
	7.5	100 18	220 17	450 16	680 12	790 11	905 10	1015 8
	15	105 30	225 29	470 27	710 23	830 21	945 19	1060 17
	23	105 45	225 44	475 42	715 37	840 35	955 32	1070 30
	30	100 61	230 60	475 57	720 52	845 49	960 46	
	38	100 76	225 75	475 72	720 66	845 63	960 59	
	45	95 91	225 90	475 87	720 81	845 77		
	53	95 106	220 105	470 102	720 96	840 92		
	61	90 122	215 120	465 117	715 111	840 107		
	68	85 137	210 136	465 132	715 125	835 121		
Max.cont.	76	75 153	205 152	460 147	710 140			
	95	65 191	190 189	455 184	695 177			
	114		170 228	425 223	675 215			
	132			395 263				
Max.int.	151			370 303				

cont.
int.

Torque (N·m) 410
Speed (rpm) 371



Performance Data

BMK4 625 [621.8cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

Peak

	1.5	3.5	5	7	8.5	10.5	11	11.5	12.5	14
3.8	120 5	265 5	405 5	550 4	690 4	830 3	885 3	935 2	990 2	
7.5	125 14	270 14	415 14	565 13	715 12	860 11	915 10	970 9	1030 8	1140 7
15	125 23	275 23	425 23	590 34	745 21	895 19	950 18	1015 17	1085 16	1180 14
23	125 35	280 35	430 35	590 34	750 33	900 31	950 30	1005 29	1070 28	
30	125 48	280 48	440 47	595 46	750 45	905 43	955 43	1010 42		
38	130 60	290 60	450 59	600 58	755 57	910 54	970 53	1035 52		
45	130 72	295 72	460 71	605 70	755 69	915 65	980 64			
53	125 84	285 84	450 83	600 82	755 81	910 77	975 76			
61	120 96	280 95	440 95	595 94	755 93	910 89	970 88			
68	110 108	270 107	430 107	590 105	750 104	830 100				
76	105 121	265 120	425 120	590 118	750 116					
95	85 151	245 150	405 149	565 147	725 146					
114	60 181	225 180	385 179	530 177	700 176					
132			355 210	515 208						
1517			320 241	485 239						

Max.cont.

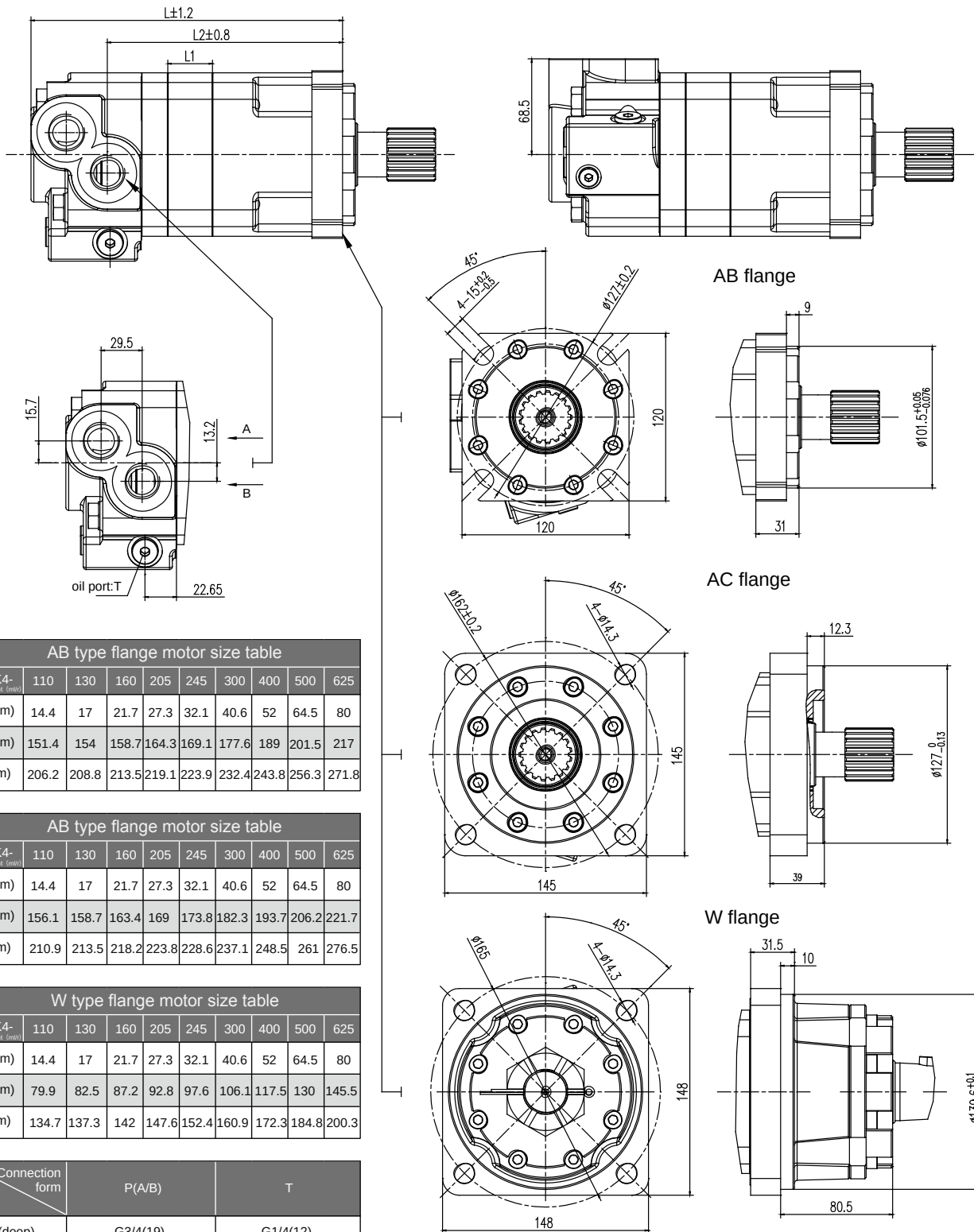
Max.int.

cont.

int.

Torque (N•m) 320
Speed (rpm) 241

BMK4 DIMENSIONS AND MOUNTING DATA



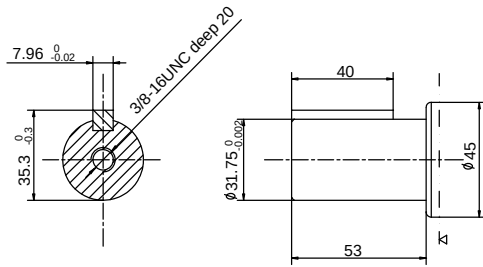
AB type flange motor size table									
BMK4- Displacement (ml)	110	130	160	205	245	300	400	500	625
L1(mm)	14.4	17	21.7	27.3	32.1	40.6	52	64.5	80
L2(mm)	151.4	154	158.7	164.3	169.1	177.6	189	201.5	217
L(mm)	206.2	208.8	213.5	219.1	223.9	232.4	243.8	256.3	271.8

AB type flange motor size table									
BMK4- Displacement (ml)	110	130	160	205	245	300	400	500	625
L1(mm)	14.4	17	21.7	27.3	32.1	40.6	52	64.5	80
L2(mm)	156.1	158.7	163.4	169	173.8	182.3	193.7	206.2	221.7
L(mm)	210.9	213.5	218.2	223.8	228.6	237.1	248.5	261	276.5

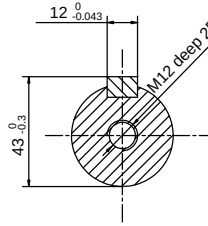
W type flange motor size table									
BMK4- Displacement (ml)	110	130	160	205	245	300	400	500	625
L1(mm)	14.4	17	21.7	27.3	32.1	40.6	52	64.5	80
L2(mm)	79.9	82.5	87.2	92.8	97.6	106.1	117.5	130	145.5
L(mm)	134.7	137.3	142	147.6	152.4	160.9	172.3	184.8	200.3

Connection Code	P(A/B)	T
G(deep)	G3/4(19)	G1/4(12)
M(deep)	M27X2(19)	M14X1.5(12)
S(deep)	1-1/16-12UNF'0'-ring(19)	7/16-20UNF'0'-ring(19)

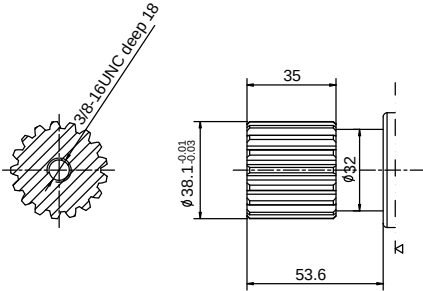
BMK4 AXIS EXTENSION CONNECTION SIZE



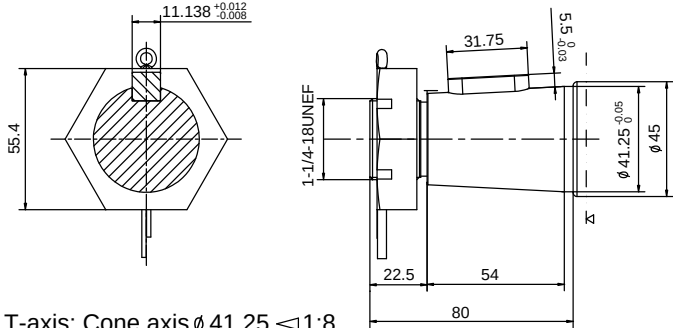
A-axis: cylindrical axis $\phi 31.75$,
Parallel key 7.96X7.96X40



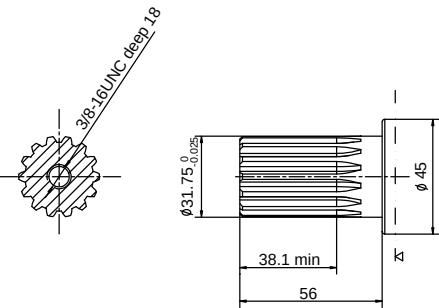
B-axis: cylindrical axis $\phi 40$,
Parallel key 12X8X70



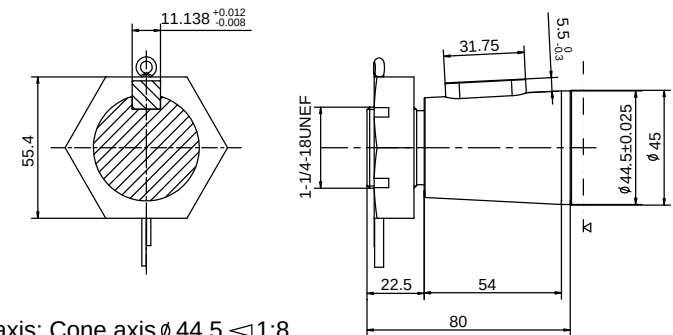
C-axis: Spline shaft 17-DP12/24



T-axis: Cone axis $\phi 41.25 \triangle 1:8$
Parallel key: 11.138X11.138X31.75

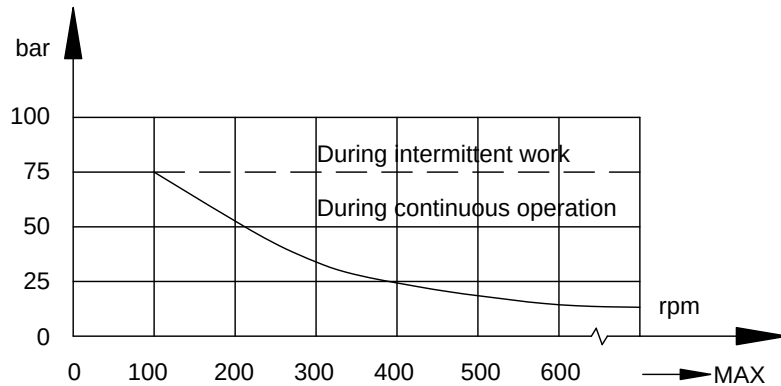
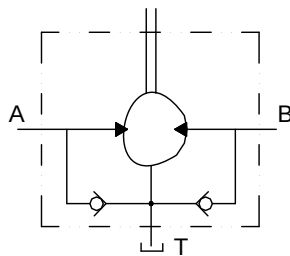


D-axis: Spline shaft 14-DP12/24



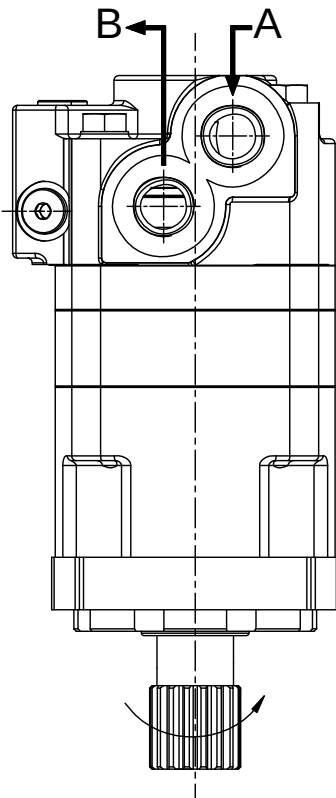
T1-axis: Cone axis $\phi 44.5 \triangle 1:8$
Parallel key: 11.138X11.138X31.75

THE ALLOWABLE PRESSURE THAT THE OUTPUT SHAFT SEALING RING CAN WITHSTAND



In the use of leak free oil pipes, the pressure on the output shaft seal ring is slightly higher than the pressure in the return oil pipeline. When using the leakage oil pipe, the pressure on the output shaft seal ring is the same as the pressure in the leakage oil pipe.

Standard rotation direction of output shaft

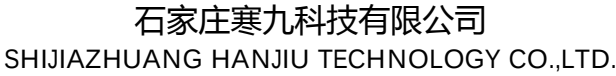


When facing the direction of the motor shaft extension and the A oil port is high-pressure oil, the output shaft rotates clockwise; On the contrary, it rotates counterclockwise.

Leakage flow rate of the oil outlet

The table below lists the standard configuration motors. When the pressure of the oil return pipe at the oil outlet is below 0.5 to 1 MPa, the maximum leakage flow rate at the oil outlet is reached.

operating pressure differential(Mpa)	Oil kinematic viscosity(mm ² /s)	Leakage flow rate from the oil outlet(l/min)
14	20	3
	35	2
21	20	6
	35	4



Order information

Diagram of a 1D chain with 8 sites. The first site is labeled "BMK4-" and is shaded gray. Sites 2 through 8 are white boxes. Horizontal lines connect sites 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, and 7-8. Vertical lines connect each site to its corresponding number (1-8) below it.

1	2	3	4	5	6	7	8	
Code	Disp.	Flange, pilot	Output Shaft	Ports and Drain	Rotation Direction	Paint	Unusually Function	
110 130 160 205 245 310 400 500 625		AB 4-Φ15(slotting) Square-flange 120×120, circleΦ127 , pilotΦ101.5×9 AC 4-Φ14.5 Square-flange 145×145, circleΦ162, pilotΦ127×12.3 W 4-Φ14.3(Φ147.6) Wheel-flange 148×148, pilotΦ139.6×10	A Shaft Φ31.75, Long 53, parallel key B7.96×7.96×40.3/9-16UNC	G	G3/4, G1/4	00	No paint	
			B Shaft Φ40, Long 79, parallel key 12×8×70, M12	M	M27X2, M14X1.5	Omit	Blue	Omit
			C Splined tooth Φ38.1, Long 53.6, 17-DP12/24, 3/8-16UNC	R	Opposite	Standard	Black	Standard
			D Splined tooth Φ31.75, Long 56, 14-DP12/24, 3/8-16UNC	S	1-1/16-12UNF 'O'-ring 7/16-20UNF 'O'-ring	S	Silver grey	
			T Cone-shaft Φ41.25, 1.8.54, parallel key 11.138×11.138×31.75, 1-1/4-18UNEF					
			T1 Cone-shaft Φ44.525, 1.8.54, parallel key 11.138×11.138×31.75, 1-1/4-18UNEF					

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



BMK6 SERIES HYDRAULIC MOTOR

BMK6 series motor adapt the advanced Geroler gear set designed with disc 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 offer 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)										Max.cont.		Max.int.		Peak
		1.75	3.5	7	10.5	14	17.5	20	24	27.5	30					
Flow (L/min)	2	30 9	73 7	160 5												
	8	36 39	76 38	168 35	262 34	345 31	438 27	465 16								
	15	36 75	81 75	174 74	270 71	365 65	455 60	510 45	580 32	640 16						
	30	37 152	85 151	175 147	275 142	370 132	465 121	540 109	615 96	700 80	765 60					
	45	37 228	85 227	180 223	280 218	375 210	470 200	535 185	650 165	740 146	805 110					
	60	38 305	80 304	178 302	282 297	380 288	475 280	565 255	660 235	750 210	825 170					
	75	32 382	78 380	175 376	275 370	378 362	480 350	565 328	670 300	760 270	840 230					
	90	26 459	75 456	172 452	270 445	375 436	475 420	565 405	660 383	765 355						
	105	22 536	70 534	170 530	270 523	370 510	470 496	560 470	660 435	760 400						
	120	20 612	67 610	166 605	265 598	365 585	465 570	560 536	660 502	755 450						
Max.cont.	135	14 690	65 687	160 680	260 672	360 650	465 638	560 595	655 550	750 485						
	150	10 765	60 765	155 755	258 740	356 725	450 700	550 640	650 580							
	170		60 865	155 850	255 840	350 820	450 800	545 745	640 700							

		BMK6 250 [246.1cm³/rev.] Pressure (MPa)										Max.cont.		Max.int.		Peak
		1.75	3.5	7	10.5	14	17.5	20	24	27.5	30					
Flow (L/min)	2	46 7	92 4													
	8	51 31	103 30	215 27	335 24	440 21	550 15	560 10								
	15	52 58	105 57	220 55	340 52	455 46	570 40	640 37	745 28	850 10	960 5					
	30	55 118	110 116	232 113	352 110	470 105	600 96	685 80	790 64	900 48	1020 35					
	45	58 180	110 177	235 174	355 170	475 164	610 155	705 140	840 126	940 106	1050 88					
	60	53 242	110 240	230 237	350 233	460 224	615 212	705 198	845 185	955 162	1080 140					
	75	45 302	105 298	230 292	355 285	485 278	620 268	710 254	850 230	960 206	1080 182					
	90	45 364	105 360	225 352	350 342	480 338	615 322	710 305	845 288	955 265						
	105	40 424	100 420	220 414	340 408	475 394	610 372	705 352	840 334	950 315						
	120	38 485	95 479	210 471	340 463	470 454	590 442	700 420	830 385	940 365						
Max.cont.	135	35 546	85 540	205 532	325 525	460 516	580 504	690 478	820 445							
	150	30 608	80 605	200 600	320 592	450 580	570 566	680 532	815 496							
	170		65 686	190 678	315 665	440 652	560 635	675 600	750 565							
Max.int.	185			185 750	310 746	430 730	545 708	670 658								
	205			175 830	300 820	418 800	536 776	562 735								

		BMK6 315 [311.6cm³/rev.] Pressure (MPa)										Max.cont.		Max.int.		Peak
		1.75	3.5	7	10.5	14	17.5	20	24	27.5	30					
Flow (L/min)	2	65 5	126 4													
	8	68 24	135 23	280 22	410 20	540 16	650 13	750 9	880 3							
	15	70 46	135 45	285 44	435 41	565 36	690 30	810 22	940 16	1010 9	1035 3					
	30	70 93	135 92	295 90	440 86	600 80	740 71	880 62	990 52	1100 43	1180 31					
	45	70 142	140 140	300 138	460 132	610 127	750 120	900 118	1035 96	1165 85	1300 72					
	60	70 190	140 189	300 186	460 182	615 176	775 167	920 154	1055 138	1200 124	1325 105					
	75	65 238	135 237	295 235	455 231	615 225	780 214	920 200	1065 180	1215 160						
	90	60 285	130 284	290 280	450 276	615 270	780 260	920 245	1070 226	1220 210						
	105	50 335	125 333	280 330	445 324	605 316	770 302	915 290	1070 271	1205 248						
	120	45 384	120 382	280 380	440 372	600 364	765 350	910 338	1055 312							
Max.cont.	135	40 432	115 428	275 420	435 412	585 408	760 391	900 380	1050 350							
	150	35 480	110 475	270 462	420 458	570 450	755 435	880 420	1030 395							
	190		100 595	245 580	375 574	520 560	685 548	820 530								
Max.int.	225			220 690	350 683	500 674	640 652	770 634								

		BMK6 400 [391.3cm³/rev.] Pressure (MPa)										Max.cont.		Max.int.		Peak
		1.75	3.5	7	10.5	14	17.5	20	24	27.5	30					
Flow (L/min)	2	90 4	172 2	360 1												
	8	95 19	180 18	370 17	555 16	730 14	885 12	1025 9	1195 4							
	15	95 37	185 37	375 36	560 35	740 33	930 28	1070 22	1265 14	1380 5	1625 1					
	30	98 75	185 74	380 73	575 71	760 68	960 65	1135 55	1315 45	1455 31	1625 20					
	45	95 114	185 113	385 111	580 108	765 105	970 100	1145 90	1335 80	1530 72						
	60	90 152	180 152	380 150	580 147	770 142	975 134	1155 126	1345 112							
	75	85 191	180 191	380 188	580 186	775 181	980 172	1160 160	1355 148							
	90	80 230	175 229	375 227	570 224	765 220	975 212	1155 200								
	105	70 268	165 267	360 265	560 260	760 254	965 246	1150 232								
	120	65 306	160 305	355 303	550 298	745 290	950 278	1140 262								
Max.cont.	135	55 345	155 343	340 337	545 330	735 322	940 310	1120 295								
	150	45 382	145 380	320 376	530 370	730 362	925 352									
	190		130 483	300 476	515 470	730 458	915 445									
Max.int.	225			285 570	500 560	710 550	895 535									

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

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

BMK6 630 [623cm³/rev.]
Pressure (MPa)

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

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

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

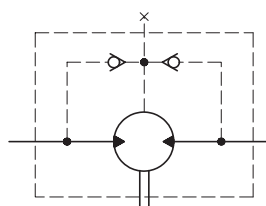
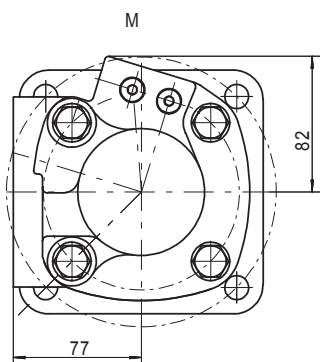
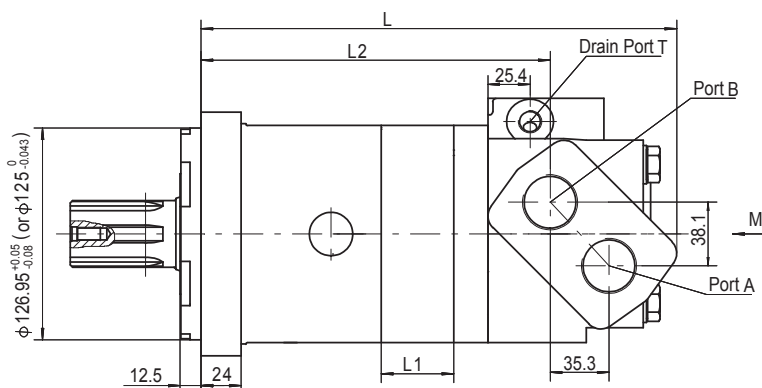
BMK6 1000 [981.6cm³/rev.]
Pressure (MPa)

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

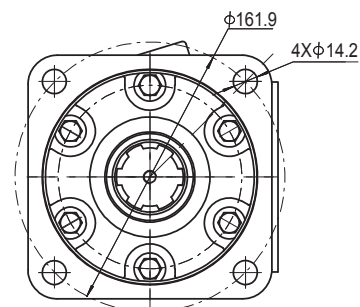
Torque (N·m) 423
Speed (rpm) 280

cont.
int.

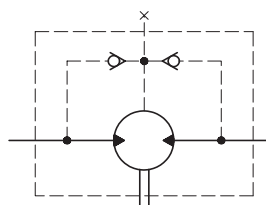
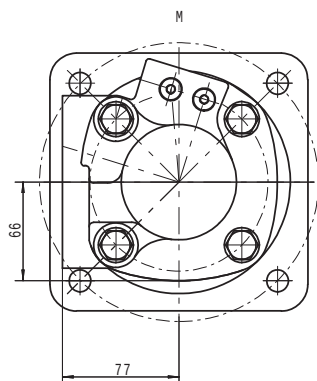
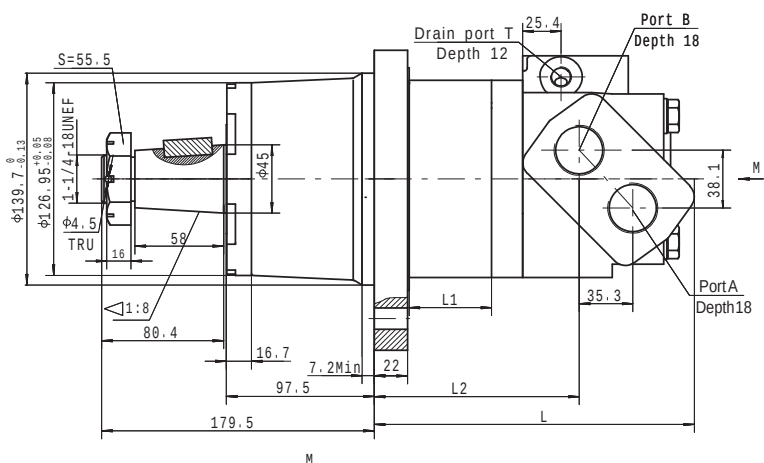
BMK6 DIMENSIONS MOUNTING DATA



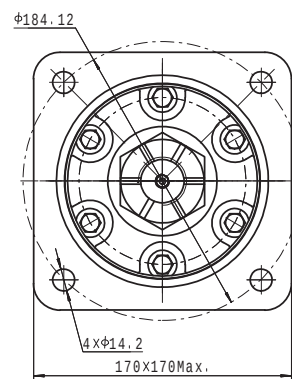
Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



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



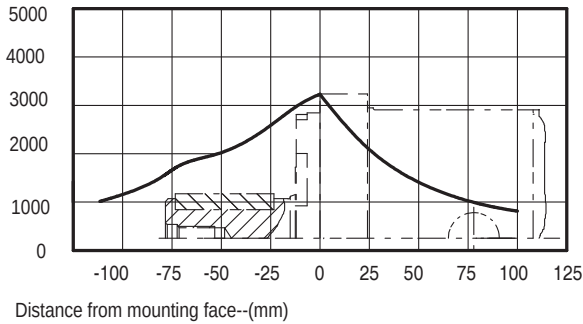
Direction of shaft rotation: Standard
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



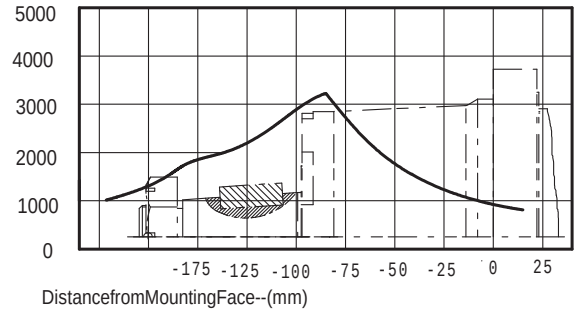
Model	L	L1	L2
BMK6-200	179	21.7	102.5
BMK6-250	185	27.3	108
BMK6-315	192	34.5	115.5
BMK6-400	201	43.4	124.5
BMK6-500	212	54.4	135.5
BMK6-630	226.7	69.1	150.2
BMK6-800	246.5	89	170
BMK6-1000	266.5	108.9	190

BMK6 for CC And W Mounting Radial forces

Radial forces-(daN)



SideLoad-(daN)

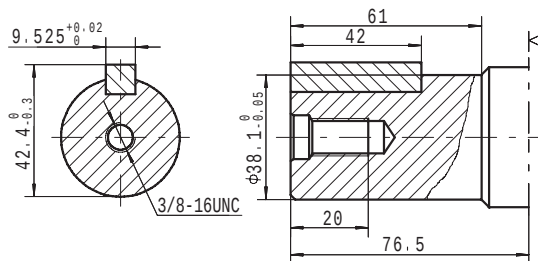


The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12×10^6 revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

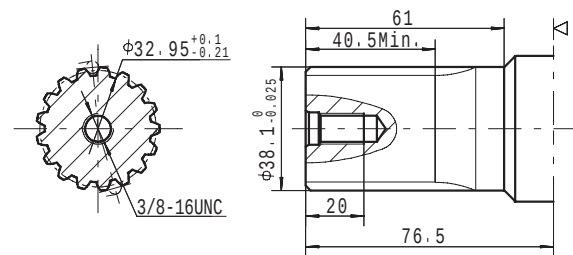
The maximum load curve is defined by bearing static load capacity.

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

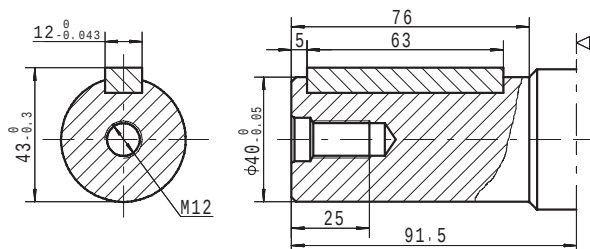
BMK6 Shaft Extensions For Dimensions Data



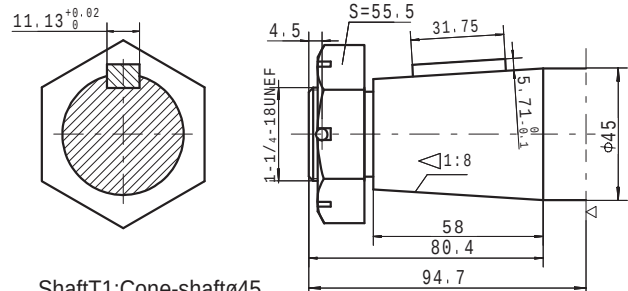
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42
Max.Torque: 1350Nm



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



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

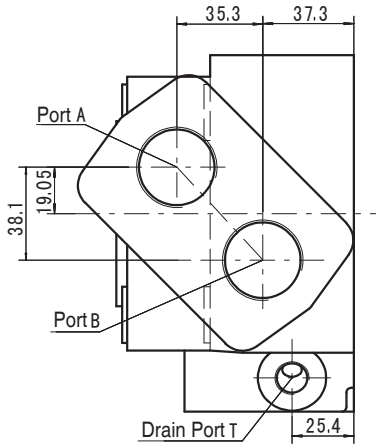


Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque: 500±10Nm
Max. torque 2100Nm

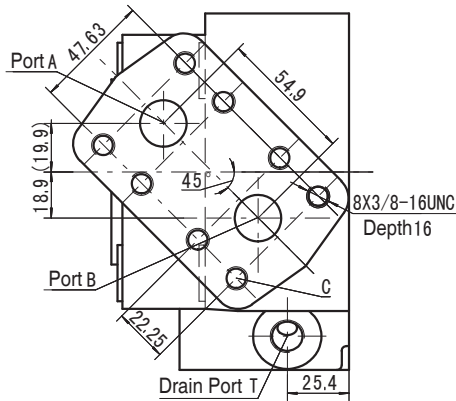
◁ Motor Mounting Surface CC Flange

DIMENSIONS of PORTS FOR BMK6

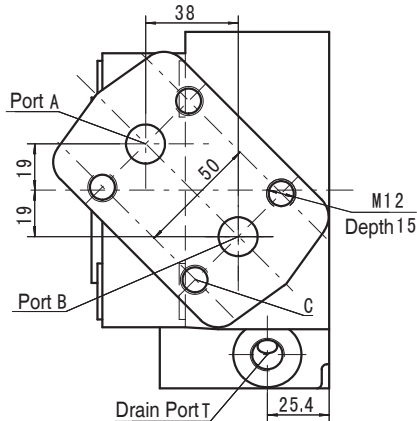
Port: SF5、SF6、SF7、SF8



Port: SF



Port: SF0



Order Information

BMK6

1 2 3 4 5 6 7 8

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
200	CC	4-φ14.2 Square-flange φ161.9, pilot φ127×12.5	G2 Shaft φ38.1, parallel key 9.52×9.52×57.15	SF 3/4" Manifold Mount 8×3/8-16UNC, 7/16-20UNF	Omit Standard	00 No paint	
250	CC1	4-φ14.2 Square-flange φ161.9, pilot φ125×12.5	FE Shaft φ38.1, splined tooth 17-DP12/24	SF0 φ16 Manifold Mount 4×M12, M14×1.5	Omit Standard	Omit Blue	Omit Standard
315	W	4-φ14.2 Wheel-flange φ184.12, Pilot 139.7	Y1 Shaft φ40, parallel key 12×8×63	SF5 1-5/16-12UN, 7/16-20UNF	R Opposite	B Black	
400			T1 Cone-shaft 1:8 φ45, parallel key 11.13×11.13×31.75	SF6 M33×2, M14×1.5	S Silver grey		
500				SF7 G1, G1/4			
630				SF8 G3/4, G1/4			
800							
1000							

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

Code	Type					
	Mounting	SF5 (depth)	SF6 (depth)	SF7 (depth)	SF8 (depth)	SF0 (depth)
P(A,B)		1-5/16-12UN(18)	M33X2(18)	G1(18)	G3/4(18)	φ16
T		7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	M14X1.5(12)
C		-	-	-	-	8X3/8-16UNC



BMK10 SERIES HYDRAULIC MOTOR

BMK10 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 cylinder 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		BMK10-350	BMK10-480	BMK10-665	BMK10-940
Geometric displacement (cm ³ /rev.)		351	479	638	933
Max.speed (rpm)	cont.	485	355	265	180
	int.	755	555	410	280
Max.torque (N•m)	cont.	1025	1425	1930	2480
	int.	1425	1960	2520	3400
Max.pressure drop (MPa)	cont.	20	20	20	17.5
	int.	27.5	27.5	26.0	24.0
	peak.	27.5	27.5	27.5	26.0
Max.flow (L/min)	cont.	170	170	170	170
	int.	265	265	265	265
Weight (kg)		43.4	45.8	45.8	47.1

Note:

- * 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.

Oil recommend: Anti-wear hydraulic oil, viscosity 37-73cSt, cleanliness of oil as ISO 18/13, Max. operating temperature upper limit 80°C .

Special motive seal, motor permits back pressure can reach 7-20MPa(optical),but to achieve good life cycle and overall performance, we recommend the back pressure cant over 5 MPa, if so, recommend to use drain line, to make sure inside of the motor fulfilled with oil when drain oil in use. The drain line pipe should have a certain throttle to keep the back pressure over 3.5 Bar. If the drain line in use, it is not only can keep low back pressure, but also can flash the wear pollution out, still have a function as cooling.

There is a run-in period before full load of the motor, recommend to do the run -in period for 1 hour under 30% of the Max. working pressure. The Max.output torque related to the type of shaft.



石家庄寒九科技有限公司 SHIJIAZHUANG HANJIU TECHNOLOGY CO.,LTD.

Performance Data

Notice:

Motor can operating in all the marked torque and speed in each zone, but choose the torque and speed in white back ground , motor can acquire bes tlife cycle.

BMK10 480[479 cm³ /rev.]

Pressure (MPa)

Max.cont. Max.int.

1.75	3.5	7	10.5	14	17.5	20	24	27.5
------	-----	---	------	----	------	----	----	------

Flow (L/min)	4	87 6	176 5	357 4	531 2					
	8	119 16	24 14	494 12	743 8	994 5	1243 2			
	15	119 31	244 29	493 27	742 24	993 21	1242 18	1421 16	1706 13	1955 10
	30	117 62	241 61	491 58	741 55	990 53	1240 50	1419 47	1704 44	1953 42
	45	113 93	238 92	488 89	738 86	987 83	1237 80	1416 77	1700 74	1951 72
	60	110 124	236 123	485 121	734 118	983 115	1234 112	1413 109	1697 106	1947 103
	75	106 156	231 155	480 153	731 149	980 146	1229 143	1409 140	1694 137	1943 134
	90	102 188	226 187	477 184	726 181	975 178	1226 174	1405 171	1689 168	
	105	97 219	222 218	472 215	722 213	971 209	1221 206	1401 202	1685 199	
	120	93 250	217 249	467 247	717 243	966 240	1216 236	1396 233	1680 229	
	135	87 280	212 279	462 278	711 275	961 271	1211 268	1391 264		
	150	81 313	206 312	456 310	706 306	955 303	1205 299	1385 295		
	170	74 354	199 353	448 351	699 348	948 344	1197 340	1379 336		
	225	49 469	174 468	424 467	674 464	923 459	1173 455	1355 451		
	265		156 552	405 551	655 547	905 542	1155 537	1337 533		

Max.cont.

Max.int.

cont.
int.

BMK10 350[351 cm³ /rev.]

Pressure (MPa)

Max.cont. Max.int.

1.75	3.5	7	10.5	14	17.5	20	24	27.5
------	-----	---	------	----	------	----	----	------

Flow (L/min)	4	70 3	153 1							
	8	87 22	177 20	357 16	538 11	718 8	898 4			
	15	87 42	177 40	357 36	538 32	718 29	898 25	1027 21	1233 17	1413 14
	30	84 85	174 84	354 80	535 76	716 72	897 68	1025 64	1231 60	1412 56
	45	82 127	172 126	353 123	533 119	713 115	894 111	1023 107	1230 103	1410 99
	60	80 170	170 169	351 167	531 162	711 158	892 153	1021 150	1228 145	1408 141
	75	77 213	167 212	347 211	528 206	708 201	889 196	1019 192	1224 187	1404 184
	90	74 255	164 254	345 253	525 249	705 245	886 239	1015 235	1221 230	1402 225
	105	70 296	160 295	341 294	521 292	701 287	883 283	1012 278	1219 272	1399 267
	120	67 340	157 339	338 338	518 336	698 330	879 325	1009 320	1215 315	1395 310
	135	63 383	153 382	333 381	514 379	694 373	875 368	1005 362	1211 357	1392 352
	150	58 425	148 424	330 423	510 422	691 417	871 411	1001 405	1207 400	
	170	54 482	143 481	323 480	503 479	683 475	863 470	992 463	1197 457	
	225		126 637	306 636	486 635	668 632	848 625	980 619		
	265		112 752	293 750	473 747	654 746	835 739	966 731		

Max.cont.

Max.int.

Torque (N·m) 112
Speed (rpm) 752



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Notice:

Motor can operating in all the marked torque and speed in each zone, but choose the torque and speed in white back ground , motor can acquire best life cycle.

BMK10 940[933 cm³ /rev.]

Pressure (MPa)

Max.cont. Max.int.

1.75	3.5	7	10.5	14	17.5	20	24
------	-----	---	------	----	------	----	----

Flow (L/min)	4	8	15	30	45	60	75	90	105	120	135	150	170	225	265
4	236 3	484 2													
8	238 7	485 6	982 5	1478 3	1975 1										
15	236 15	484 14	980 13	1477 11	1974 9	2469 7	2824 6	3393 4							
30	232 31	480 30	977 28	1472 27	1969 25	2466 23									
45	226 47	474 46	971 44	1467 43	1964 41	2460 39									
60	219 63	467 62	964 60	1460 58	1957 57										
75	211 79	459 78	956 76	1452 74	1949 72										
90	202 95	451 94	947 92	1444 90	1941 88										
105	193 111	442 110	938 108	1435 106	1932 104										
120	184 127	432 126	928 124	1425 122											
135	173 143	422 142	918 140	1414 138											
150	161 159	410 158	906 156	1403 154											
170	147 180	396 179	891 177	1388 175											
225	98 239	346 238	842 235	1339 233											
265	61 281	309 280	806 277	1303 275											

Max.cont.

Max.int.

cont.
int.

BMK10 665[638 cm³ /rev.]

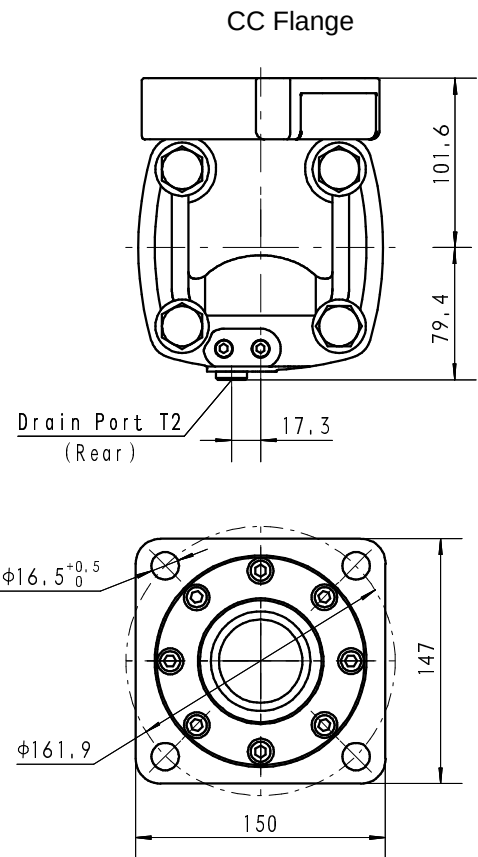
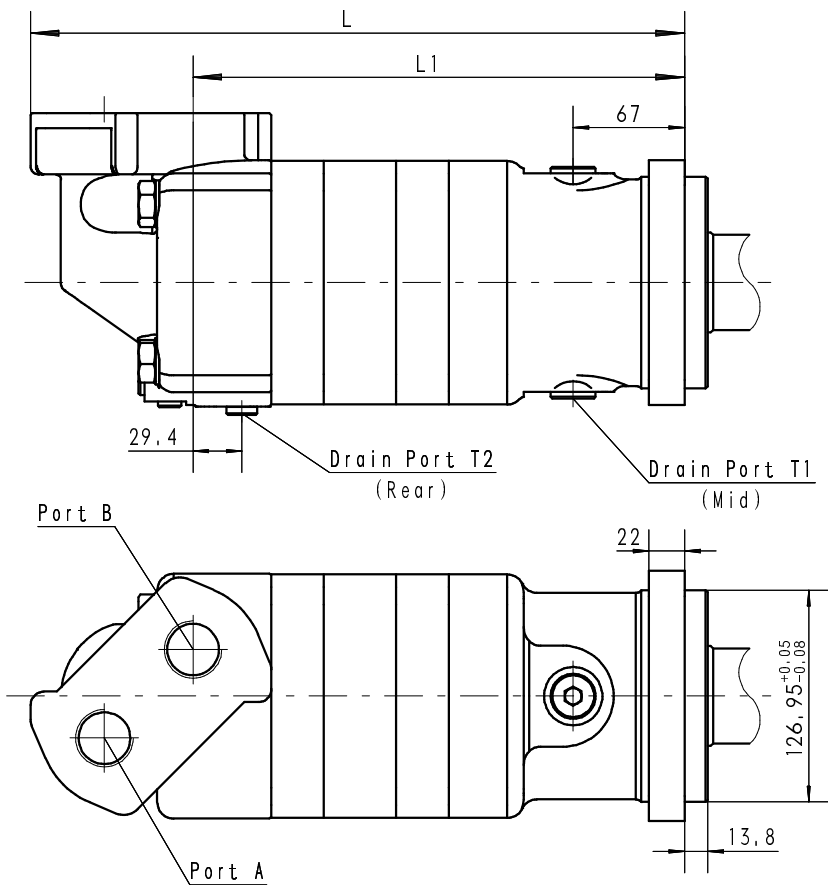
Pressure (MPa)

Max.cont. Max.int.

1.75	3.5	7	10.5	14	17.5	20	24	26
------	-----	---	------	----	------	----	----	----

Flow (L/min)	4	8	15	30	45	60	75	90	105	120	135	150	170	225	265
4	162 4	331 3	671 2												
8	163 11	332 10	672 8	1011 7	1350 4	1689 2									
15	162 23	331 22	671 20	1010 18	1349 15	1688 13	1931 11	2319 9	2513 8						
30	158 45	328 44	667 42	1007 40	1347 38	1685 36	1928 34	2316 33	2509 32						
45	154 69	324 68	664 66	1002 64	1342 62	1682 60	1924 58	2312 56	2506 55						
60	149 92	320 91	658 89	998 87	1338 85	1677 83	1920 81	2304 79							
75	144 116	314 115	653 113	993 111	1332 107	1672 105	1916 103								
90	138 139	308 138	647 135	987 133	1327 131	1665 128	1909 126								
105	132 162	302 161	642 159	980 156	1320 154	1660 152									
120	125 186	296 185	634 182	974 180	1314 178	1653 175									
135	119 209	288 208	628 206	967 202	1306 200	1645 197									
150	111 232	280 231	620 228	960 226	1298 223	1638 221									
170	101 264	270 262	610 259	949 257	1288 254	1628 252									
225	67 349	236 347	576 345	916 342	1255 339										
265		212 410	551 407	890 404	1230 400										

Torque (N·m) 212
Speed (rpm) 410



Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:

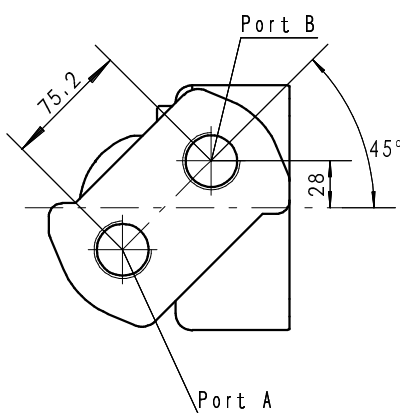
Clockwise when port "A" is pressurized.

Counter-clockwise when port "B" is pressurized,

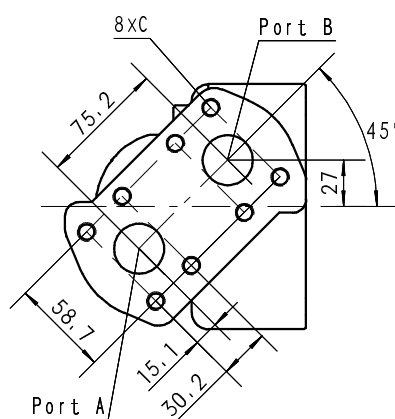


Mode I	L1	L
BMK10-350	281	381
BMK10-480	293	293
BMK10-665	293	293
BMK10-940	313	413

Port: SF5、SF7



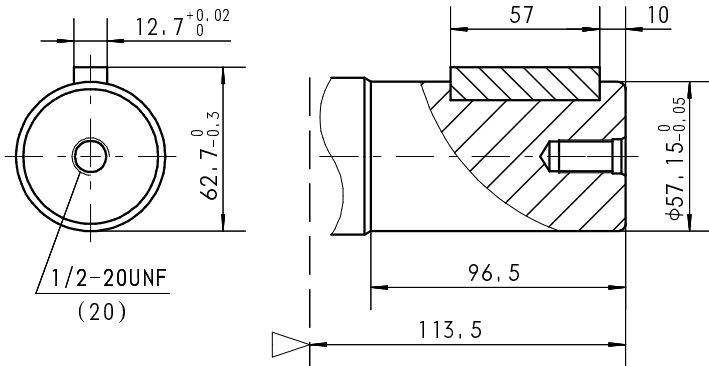
Port: SF5



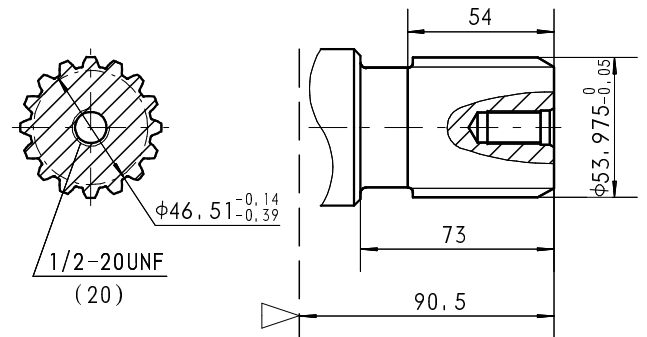
Port	Code	
	SF5	SF7
A,B	1-5/16-12UN(18)	G1(18)
T1	7/8-14UNF(16)	G1/2(16)
T2	9/16-18UNF(12)	G1/4(12)

Port	Code
	SF
A,B	Φ29.4
T1	7/8-14UNF(16)
T2	9/16-18UNF(12)
C	7/16-14UNC(25)

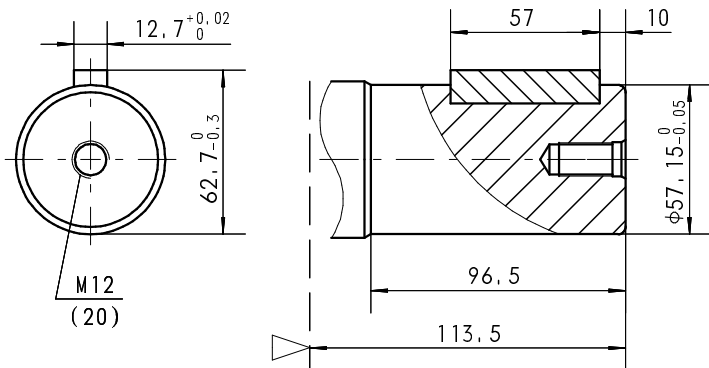
Shaft:C Cylindrical shaft $\Phi 57.15$
Key: 12.7x12.7x57



Shaft:BD Splined 16-DP8/16

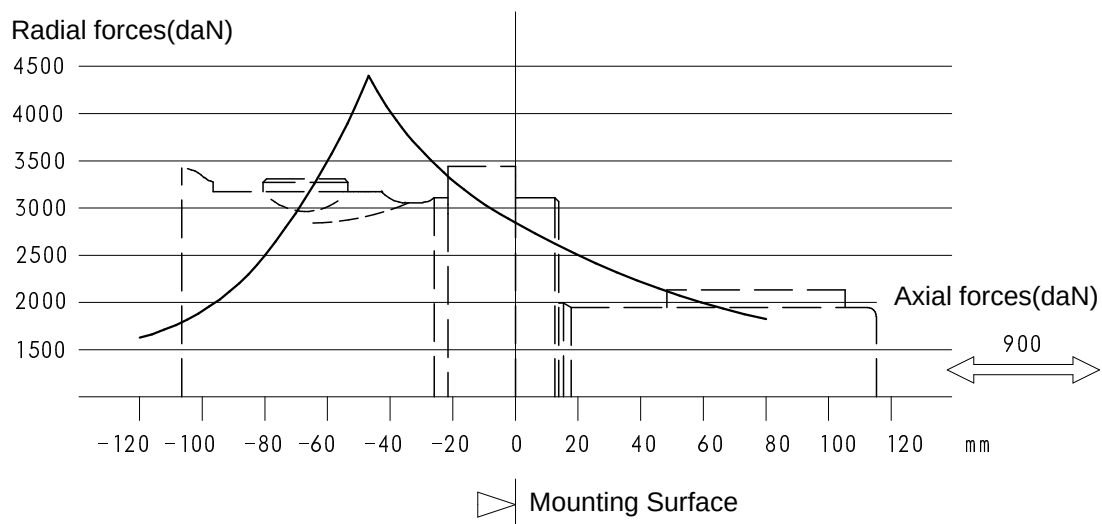


Shaft:C1 Cylindrical shaft $\Phi 57.15$
Key: 12.7x12.7x57



Motor Mounting Surface CC Flange

BMK10 Shaft Radial&Axial Forces of CC Mounting



Notice:

The curve on the top means the outputshaft permits radial load in different position The table as follow means the speed of motor influence the radial force.

Order information

1 2 3 4 5 6 7 8

BMK10-

1	2	3	4	5	6	7	8
Code	Disp.	Flange, pilot	Shaft	Port	Rotation Direction	Paint	Unusually Function
	350		C φ57.15 Straight Shaft Parallel key 12.7*12.7*57	SF5 A, B:1-5/16-12UNF T1:7/8-14UNF T2:9/16-18UNF	Omit Standard CW	OO No paint	
Omit	480	CC 4-φ 16.5 Square flange φ 161.9 Pilot φ127*13.8	C1 φ57.15 Straight Shaft Parallel key 12.7*12.7*57	SF7 A, B:G1 T1:G1/2 T2:G1/4	R Reverse CW	B Black	
	665		BD φ53.975 Splined Shaft Splined 16-DP8/16	SF Manifold mount 8x7/16-14UNC T1:7/8-14UNF T2:9/16-18UNF			Omit Standard
	940						

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



BME2 SERIES HYDRAULIC MOTOR

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

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

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

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

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

Performance Data

BME2 65 [66.8 cm³/rev.]

Pressure (MPa)

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

Flow (L/min)

BME2 80 [81.3 cm³/rev.]

Pressure (MPa)

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

Flow (L/min)

BME2 100 [101.6 cm³/rev.]

Pressure (MPa)

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

Flow (L/min)

BME2 125 [127 cm³/rev.]

Pressure (MPa)

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

Flow (L/min)

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

Flow (L/min)

BME2 200 [193.6 cm³/rev.]

Pressure (MPa) Max.cont. Max.int.

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

Flow (L/min)

BME2 230 [226 cm³/rev.]

Pressure (MPa) Max.cont. Max.int.

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

Flow (L/min)

BME2 250 [257 cm³/rev.]

Pressure (MPa) Max.cont. Max.int.

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

Flow (L/min)

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	Max.int.
3.5	7	11	14.5

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

Torque (N·m) 506
Speed (rpm) 231

BME2 315[314.5 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	11	Max.int.
3.5	7	11	13.5

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

BME2 375[370 cm³/rev.]

Pressure (MPa)

Max.int.

3.5	7	9	Max.int.
3.5	7	9	12.5

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

cont.
int.

BME2 DIMENSIONS AND MOUNTING DATA

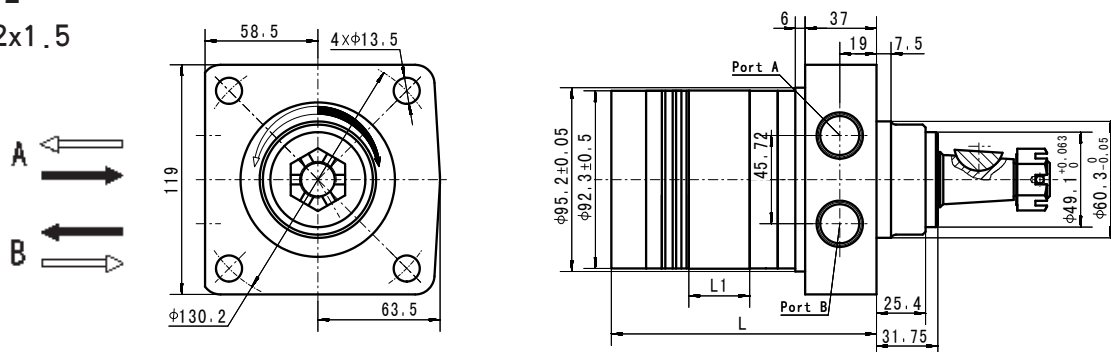
Wheel Mount

Code: Port A、B

WS 7/8-14 O-ring

WD G1/2

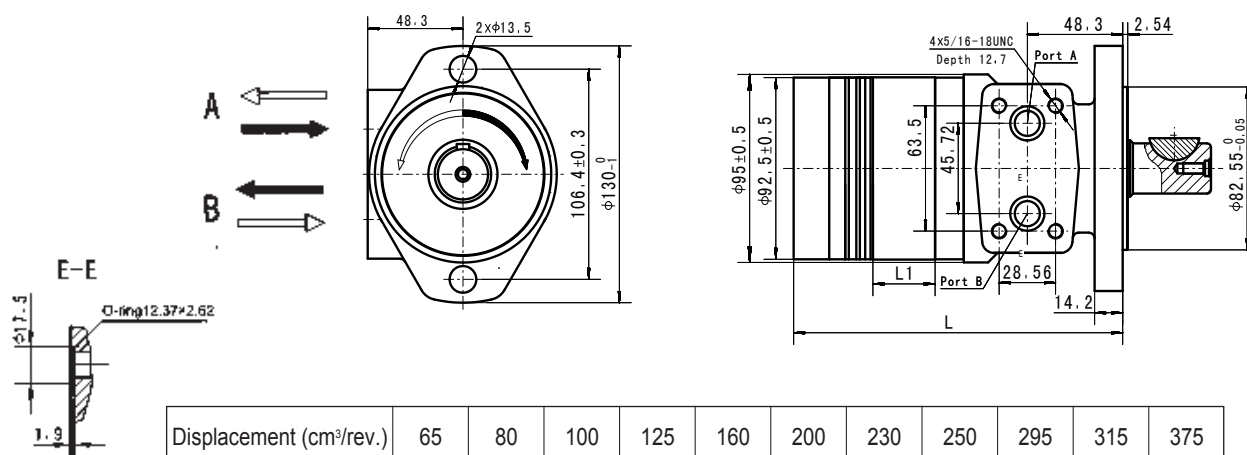
WM M22x1.5



Displacement (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

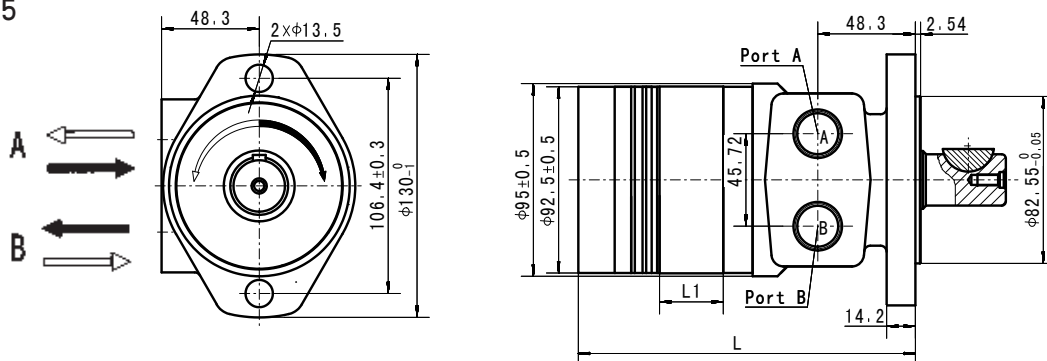
Code: Port A、B

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

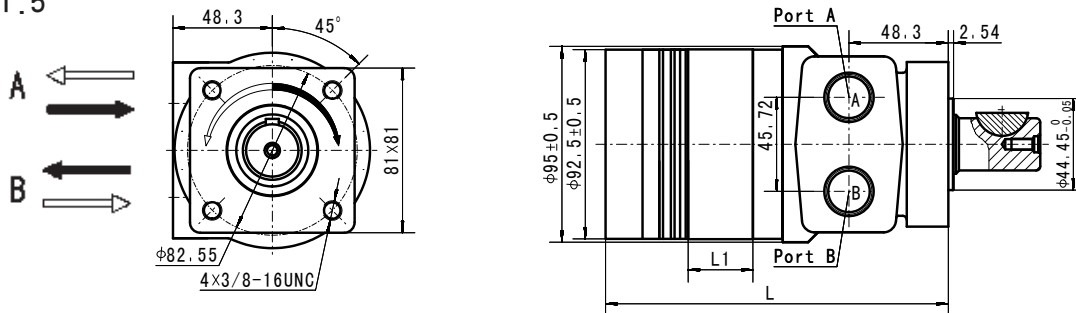
Code: Port A、B

H4S 7/8-14UNF

H4P 1/2-14NPTF

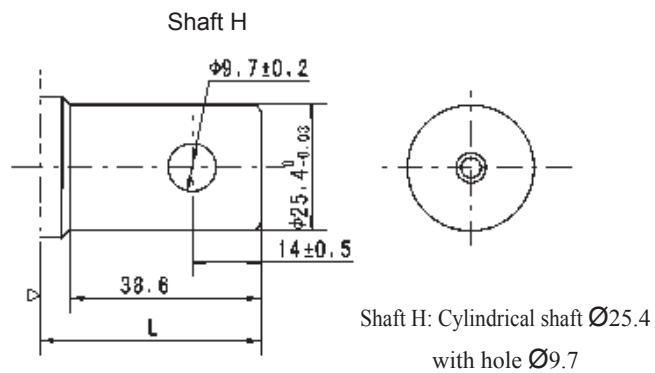
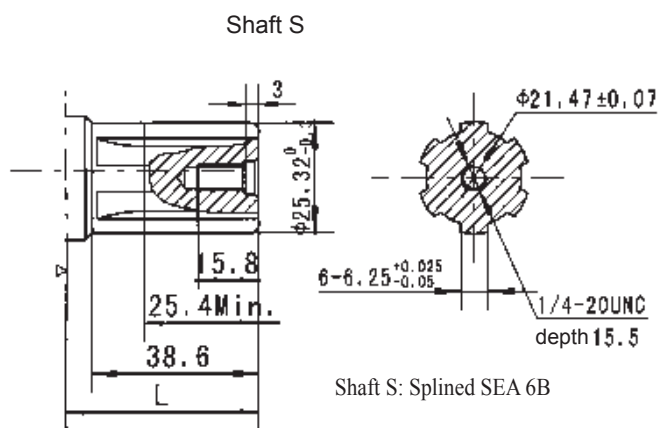
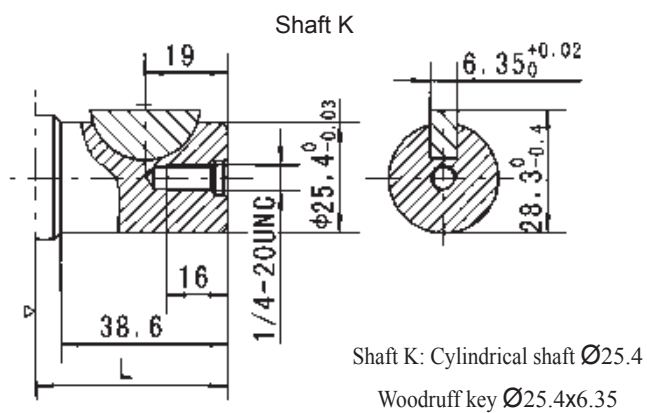
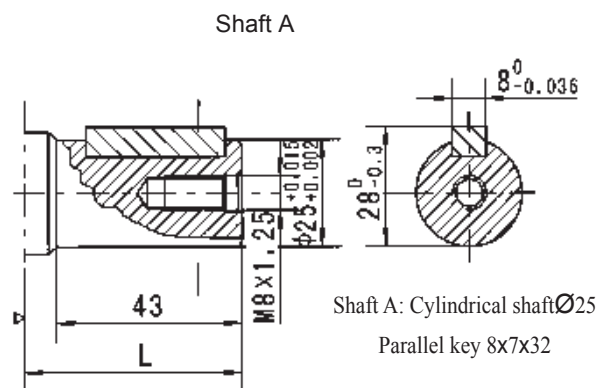
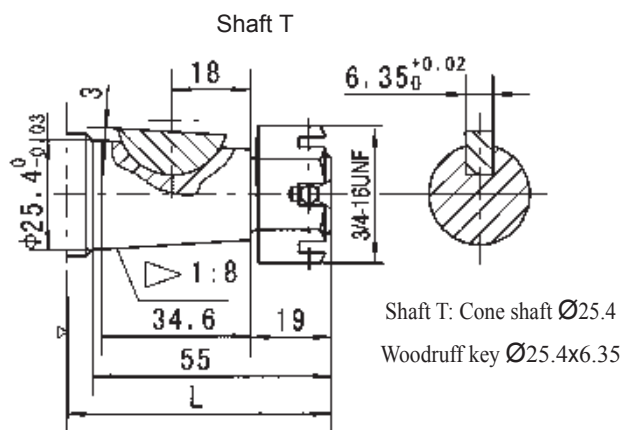
H4D G1/2

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

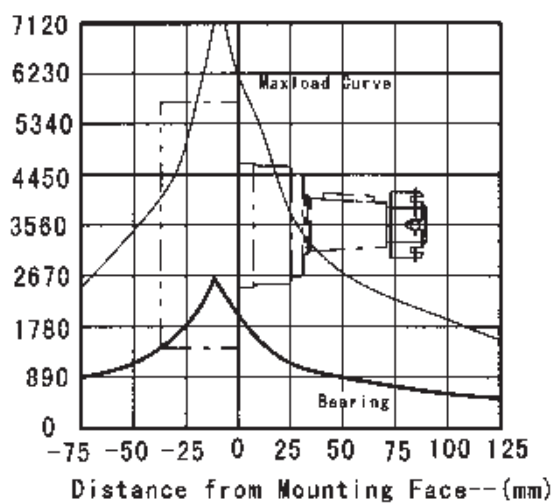
Shaft Mounting	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP					
H4S/H4P	61	49	44.7	44.7	44.7
HM					

▷ Motor Mounting Surface

Permissible Shaft Loads

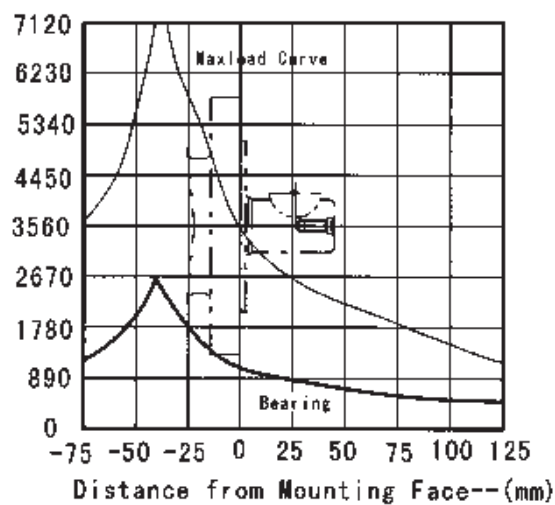
BME2 for Wheel Mounting

Side Load-(daN)



BME2 for Other Mounting

Side Load-(daN)



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

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

Order Information

1 2 3 4 5 6 7

BME2

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange,Pilot,Ports	Output Shaft	Rotation Direction	Paint	Unusually Function
Omit	65	WS 4-Ø13.5 Wheel - flange,Pilot Ø60.3×7	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	00 Omit B S	No paint Blue Black Silver grey
		WD 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7				
		WM 4-Ø13.5 Wheel -flange,Pilot Ø60.3×7				
		Port M22×1.5				
	80	HM 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54		Standard		
		Port 1/2" Manifold mount 4×5/8-18				
	100	HS 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54		Opposite		
		Port 7/8-14 O-ring				
	125	HP 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54		R		
		Port 1/2-14 NPFT Pipe				
	200	HD 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
		Port G1/2				
	250	HG 2-Ø13.5 Rhomb-flange,Pilot Ø82.5×2.54				
		Port M22×1.5				
	295	H4S 4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
		Port 7/8-14 O-ring				
	315	H4P 4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
		Port 1/2-14 NPFT Pipe				
	375	H4D 4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
		Port G1/2				
		H4G 4-3/8-16 Square- flange,Pilot Ø44.4×2.54				
		Port 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.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

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

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

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

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

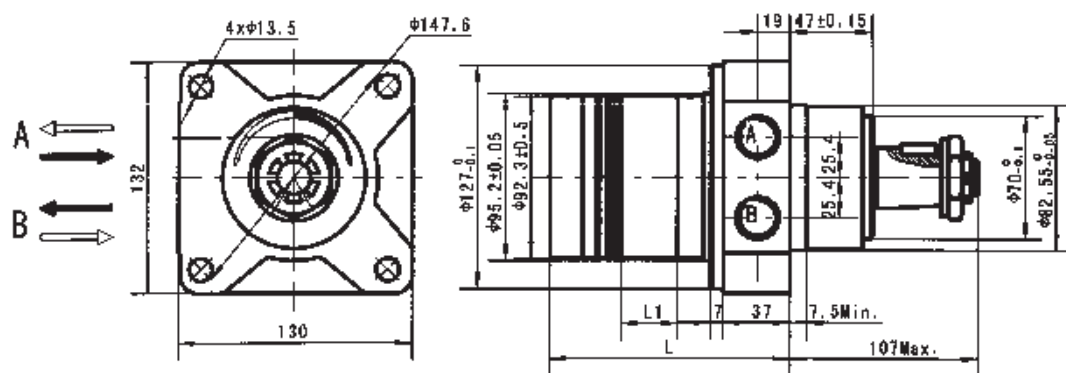
BMJ DIMENSIONS MOUNTING DATA

Wheel Mount

Code : WS Ports A、B 7/8-14 O-Ring

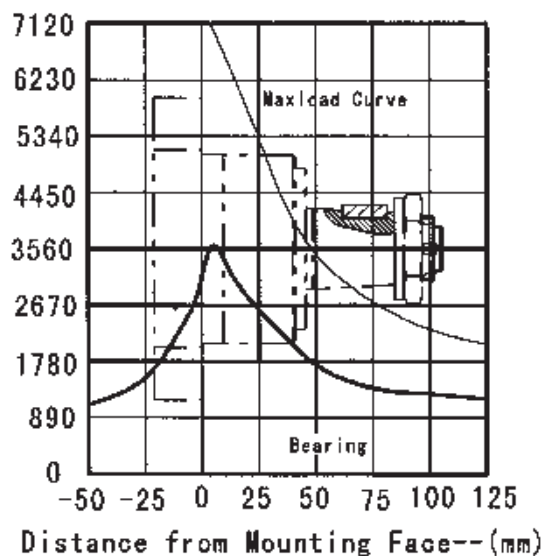
Code : WD Ports A、B G1/2

Code : WM Ports A、B M22x1.5



Displacement (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

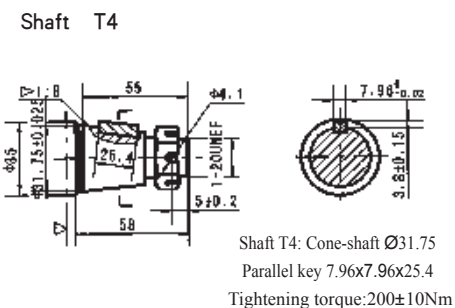
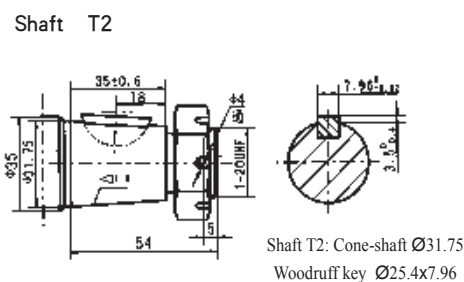
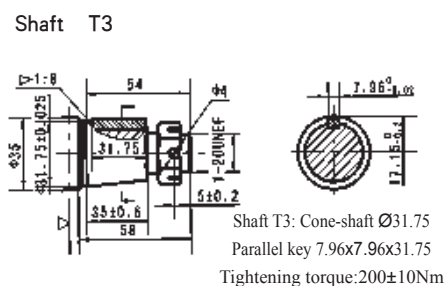
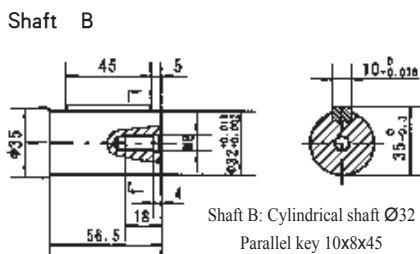
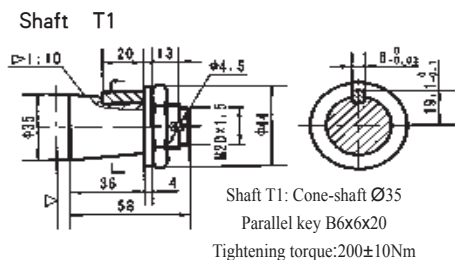
Side Load-(daN)



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

BMJ	1	2	3	4	5	6	7

Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Ports	Output Shaft	Rotation direction	Paint	Unusually function
Omit	65	4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port 7/8-14 O-ring 4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port G1/2 4-Ø13.5 Wheel-flange, Pilot Ø82.55×7, Port M22x1.5	T1	Omit Standard R Opposite	00 Omit Blue Black Sliver Grey	
	80		T2			
	100		T3			
	125		T4			
	160		B			
	200					
	230					
	250					
	295					
	315					
375						

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



BMER SERIES HYDRAULIC MOTOR

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

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in needle roller bearings that permit high axial and radial forces. The case can offers capacities of high pressure and high torque in the wide of applications.
- * Advanced design in high speed distribution flow, which can automatically compensate in operating with high volume efficiency and long life , provide smooth and reliable operation.
- * Lowest leakage rate, most accurate timing methods. Commutator rotates 6x faster than shaft speed. It make the distribution in a high precision reduces life-cycle cost, maintain high volume efficiencies and can run very smoothly at low speed, gear box not required.

Main Specification

Type		BMER 125	BMER 160	BMER 200	BMER 230	BMER 250	BMER 300	BMER 350	BMER 375	BMER 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)	2	20 14	50 13	96 11	137 7			
	4	24 28	53 26	110 24	166 19	221 13		
	8		55 60	113 54	174 50	225 45	266 39	294 35
	15		53 115	114 110	180 100	234 96	275 90	326 84
	25		48 194	110 185	164 173	226 168	272 160	323 155
	34			108 276	166 260	220 244	278 232	315 225
	45			98 362	160 350	215 342	271 325	308 322
	53			90 423	208 418	265 404	304 399	
	60			82 488	141 472	205 455	260 442	300 421

BMER160 [156cm³/rev.]

Pressure (MPa)

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

Flow (L/min)	2	35 8	74 4	146 3	218 3	298 2		
	4	29 22	78 19	157 18	235 16	316 14	370 13	424 8
	8	35 47	78 44	158 42	236 40	312 37	373 34	450 32
	15	37 93	74 90	155 86	234 84	310 82	368 79	440 75
	25		68 155	152 151	227 147	308 142	364 137	436 131
	34		68 214	152 213	227 210	308 204	364 198	436 191
	45		64 282	143 280	218 275	296 268	360 263	425 256
	53			135 330	216 327	293 322	357 315	421 306
	60			122 379	207 376	284 368	350 362	416 356
	68			109 423	196 419	273 414	345 406	396 394

BMER200 [196cm³/rev.]

Pressure (MPa)

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

Flow (L/min)	2	39 8	88 4	132 4	286 3	370 2		
	4	42 16	85 14	188 13	270 11	361 10	427 9	506 6
	8	43 35	90 32	192 29	291 28	367 27	450 25	529 23
	15	38 74	92 71	196 68	298 64	381 60	462 58	530 55
	25		82 124	188 121	283 117	377 113	456 108	528 103
	34		79 170	183 169	270 167	362 160	447 154	515 146
	45			163 223	259 218	352 212	441 208	510 199
	53			149 260	256 258	350 254	440 248	501 241
	60			132 299	248 292	336 284	432 276	497 272
	68			120 336	230 332	330 327	412 319	486 310

BMER230 [228cm³/rev.]

Pressure (MPa)

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

Flow (L/min)	2	44 6	90 4	182 3	291 2	374 1		
	4	48 15	100 13	216 11	310 11	405 9	484 7	549 3
	8	50 31	104 29	212 27	320 25	421 23	518 20	603 16
	15	44 63	106 61	207 58	318 55	426 52	529 47	623 41
	25		101 103	209 100	324 96	428 92	532 87	620 81
	34		88 145	205 143	316 139	421 133	522 126	623 120
	45			186 192	294 187	422 182	507 176	595 170
	53			175 226	290 221	393 215	496 208	584 203
	60			152 256	270 253	390 248	485 242	569 235
	68			140 292	265 288	351 283	482 278	563 273

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

BMER300 [296cm³/rev.]

Pressure (MPa)

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

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

BMER350 [345cm³/rev.]

Pressure (MPa)

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

Flow (L/min)	2	63 4	133 4					
	4	64 10	135 9	290 8	440 7			
	8	68 21	146 20	310 20	458 19	589 18	735 16	847 12
	15	72 42	150 41	314 40	468 39	627 37	769 35	880 32
	25	63 70	148 69	313 68	470 66	628 63	765 60	892 55
	34	52 97	133 96	304 95	455 93	619 89	760 85	905 78
	45		100 129	261 128	442 127	583 125	736 118	887 112
	53		85 152	247 150	418 148	566 145	715 139	880 132
	60		65 171	233 170	410 169	550 167	712 162	842 155
	68			218 195	387 194	543 190	696 185	825 175
Max.cont.	75			206 215	373 214	515 212	680 206	822 197
	85			176 243	355 242	510 239	679 234	808 227
Max.int.	95				353 272	509 269	645 265	

BMER375 [371cm³/rev.]

Pressure (MPa)

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

Flow (L/min)	2	75 3						
	4	83 8	160 8	330 7	488 6	636 5	761 3	
	8	81 18	170 17	356 17	527 16	679 14	822 12	948 9
	15	76 39	162 38	356 37	533 35	683 32	845 29	978 25
	25	68 65	156 64	350 62	524 59	680 55	857 48	994 44
	34	58 90	148 89	339 87	506 83	690 77	841 71	993 63
	45		121 120	302 119	478 117	650 113	813 108	972 100
	53		95 141	282 140	466 138	628 134	785 128	934 120
	60		75 161	264 161	428 160	592 158	766 155	925 151
	68			232 182	422 180	585 176	756 169	901 161
Max.cont.	75			207 201	380 200	556 197	738 190	865 181
	85			175 228	370 226	526 221	700 216	832 206
Max.int.	90			148 242	316 240	500 237	654 226	

Torque (N·m) 645
Speed (rpm) 265

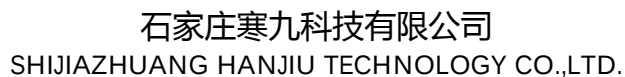
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int.

BMER400 [405cm³/rev.]										BMER475 [462cm³/rev.]										BMER540 [540cm³/rev.]									
Pressure (MPa)										Pressure (MPa)										Pressure (MPa)									
1.75 3.5 7 10.5 14 Max.cont. 17.5 19 Peak 22.5										1.75 3.5 7 10.5 14 Max.cont. 17.5 Peak 20.5										1.75 3.5 7 10.5 Max.cont. 14 Peak 17.5									
Flow (L/min)	2	85 3	170 2							Flow (L/min)	2	93 2	186 1							Flow (L/min)	2	105 2	198 2						
	4	90 8	182 7	368 6	540 5	715 4	885 3				4	98 7	202 6	405 5	608 5	805 4					4	125 6	231 5	470 5	688 4	932 4	1136 3		
	8	93 17	190 16	385 15	575 14.4	750 13	895 10	950 9	1155 7		8	98 15	206 14	430 13	652 13	844 12	1005 10	1180 8	8		134 13	238 13	496 12	749 11	966 11	1175 8			
	15	88 36	180 35	380 34	575 33	750 31	905 28	980 24	1165 20		15	94 31	202 30	441 28	654 28	875 26	1056 23	1238 20	15		122 27	230 26	505 26	750 25	981 24	1218 21			
	25	88 60	180 59	380 58	575 56	750 53	915 49	1010 44	1165 40		25	94 52	202 51	441 48	654 45	875 43	1056 39	1238 35	25		100 44	225 43	500 42	774 41	986 39	1220 35			
	34	75 83	165 83	365 82	560 81	750 77	915 72	1000 68	1180 60		34	75 72	180 71	420 68	660 65	850 61	1085 55	1266 44	34		80 62	212 61	481 60	748 58	977 54	1243 49			
	45		150 110	350 110	545 109	735 106	900 102	980 94	1165 86		45		144 96	380 95	627 93	835 90	1062 84	1261 73	45			173 82	437 82	714 81	936 79	1190 75			
	53		125 130	330 129	525 128	720 125	885 120	960 112	1150 100		53		116 113	346 112	573 111	795 107	1008 102	1212 90	53			142 97	416 97	678 96	938 94	1170 89			
	60		100 147	305 147	505 146	680 145	860 142	940 138	1125 130		60		82 128	318 128	539 127	790 124	975 119	1186 110	60			106 110	380 110	664 109	896 108	1158 106			
	68			275 167	480 167	660 164	845 158	925 150	1100 140		68		58 146	272 145	520 144	740 141	955 136	1156 125	68			85 125	357 124	616 124	870 123	1108 120			
Max. cont.	75			250 184	455 183	635 180	820 176	900 170	1065 158	Max. cont.	75			230 161	480 160	702 158	920 153	1116 140	Max. cont.	75			318 138	600 137	826 135	1100 132			
	85			225 209	415 208	600 206	785 202	865 194	85				200 182	454 180	662 177	876 168		85				292 154	538 153	780 152					
Max.int.	90			160 220	365 218	575 216	770 210			Max.int.	90			150 194	378 193	615 190	840 182		Max.int.	90			214 169	486 168	755 168				

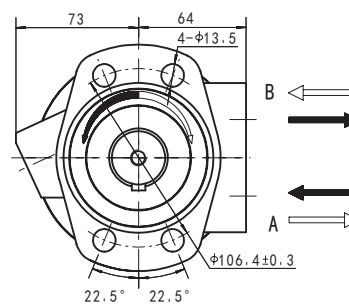
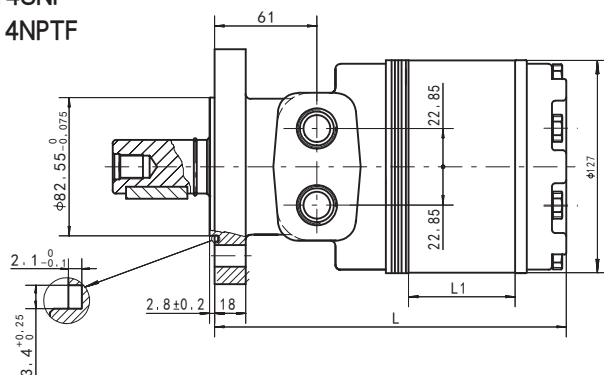
Torque (N·m) 486
Speed (rpm) 168

BMER650 [647cm³/rev.]								BMER750 [745cm³/rev.]							
Pressure (MPa)								Pressure (MPa)							
Max.cont. Max.int. Peak								Max.cont. Max.int. Peak							
1.75 3.5 7 10.5 12 15.5								1.75 3.5 7 10.5 12 14							
Flow (L/min)	2	119 2	230 1					Flow (L/min)	2	145 2	280 1				
	4	135 5	268 5	552 4	805 4	940 3			4	160 4	321 4	654 4	960 3	1115 3	1312 2
	8	145 11	285 11	574 10	825 10	955 9	1255 7		8	162 9	335 9	688 9	1026 8	1159 8	1347 7
	15	140 22	280 22	595 21	875 21	982 20	1276 16		15	156 19	330 19	694 18	1047 18	1184 17	1376 16
	25	130 37	275 36	590 36	886 35	1005 34	1302 30		25	142 32	320 31	688 30	1046 30	1179 29	1373 27
	34	115 51	260 51	580 50	890 49	1015 47	1310 44		34	110 44	288 44	658 42	1021 41	1169 40	1366 37
	45		235 69	555 68	870 67	995 66	1280 63		45	71 60	242 59	620 59	982 58	1143 58	1345 55
	53		200 80	520 80	850 79	975 78	1250 76		53		202 70	568 69	941 68	1105 67	1308 66
	60		170 91	490 91	825 90	935 89	1215 88		60		140 79	527 78	898 77	1086 76	1286 74
	68		145 104	430 103	775 102	880 101	1185 99		68		100 90	486 90	852 89	1034 88	1251 87
Max.cont.	75			420 114	730 113	855 112	1130 110	Max.cont.	75		65 99	425 99	812 98	980 97	1178 96
	83			380 130	660 129	795 128			83			395 110	745 109	906 108	
Max.int.	90			290 138	585 137	730 136		Max.int.	90			298 120	660 119	800 117	

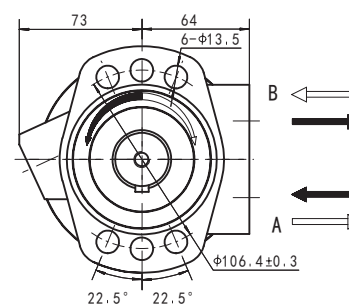
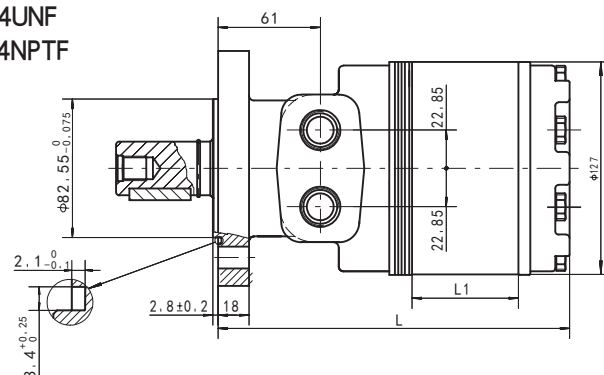
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int.



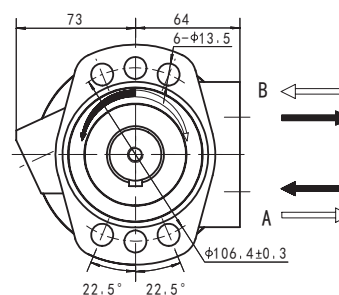
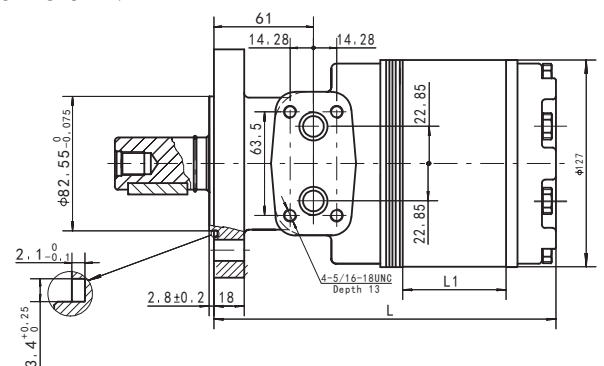
MD G1/2

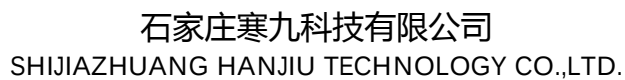


FD G1/2



FH Ø12.7

130

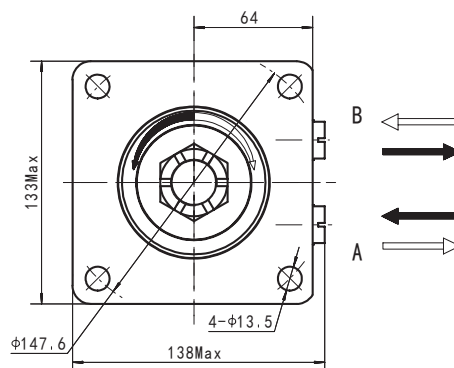
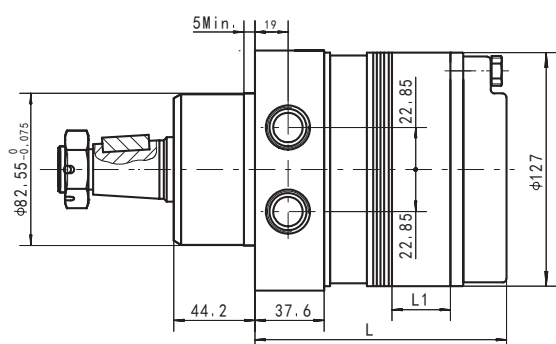


Wheel Mount

WS 7/8-14UNF

WP 1/2-14NPTF

WD G1/2

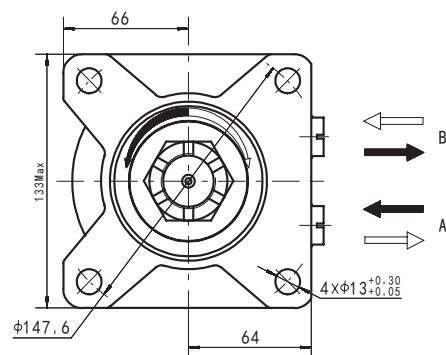
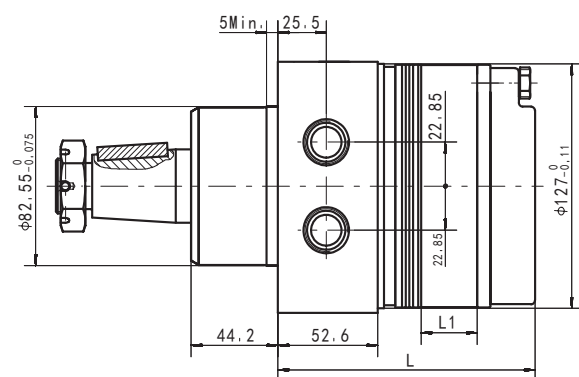


Code: Port A、B

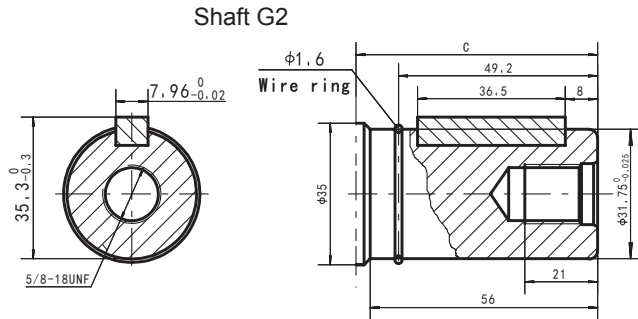
TS 7/8-14UNF

TP 1/2-14NPTF

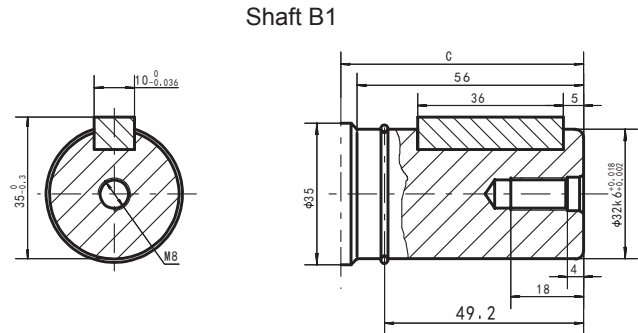
TD G1/2

131

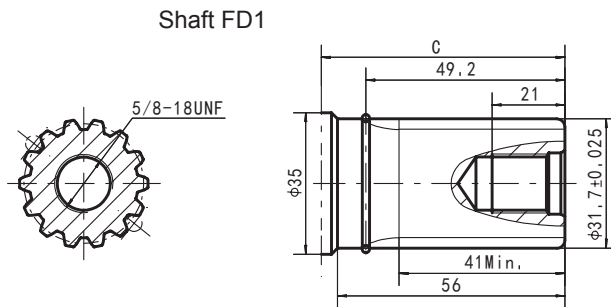
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA



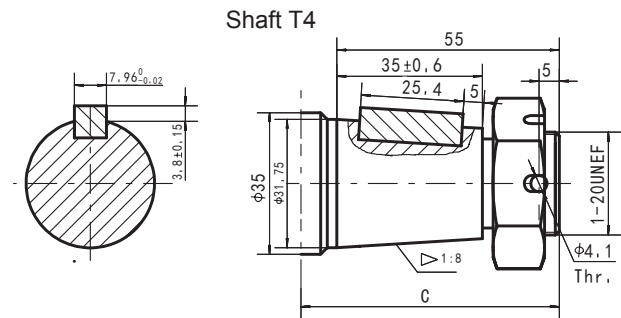
Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7.96x7x36.5



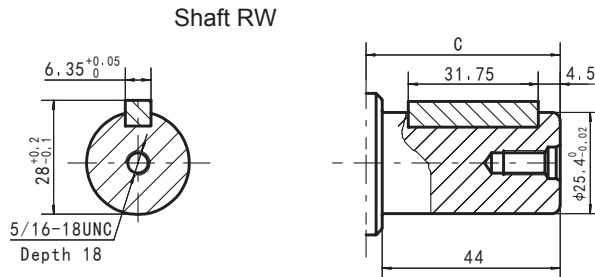
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



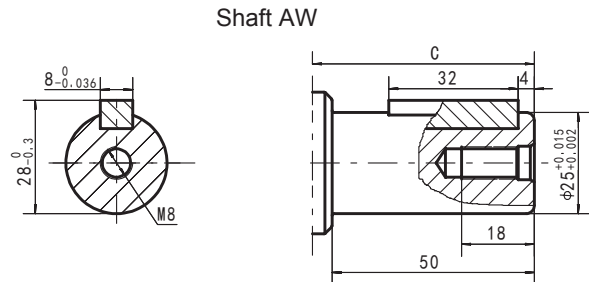
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



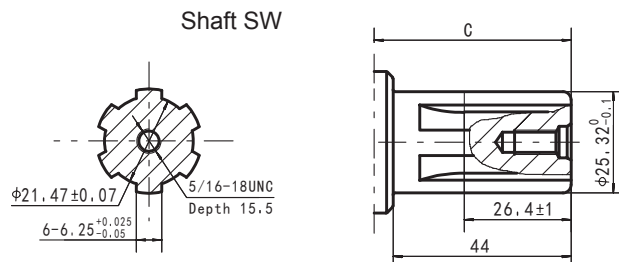
Shaft T4: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



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



ShaftAW: 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.

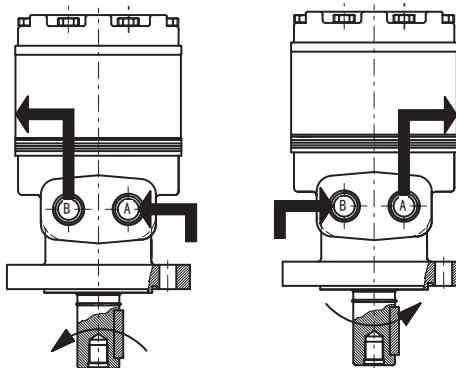
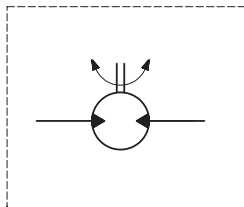
BMER-2 Series Hydraulic Motor

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.

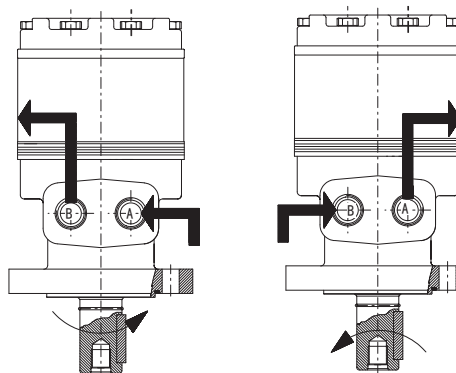


Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:

Clockwise when port "A" is pressurized.

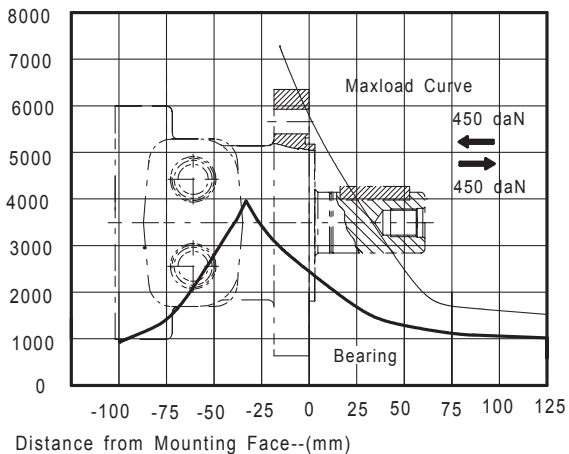
Counter-clockwise when port "B" is pressurized.



Axial and Radial forces

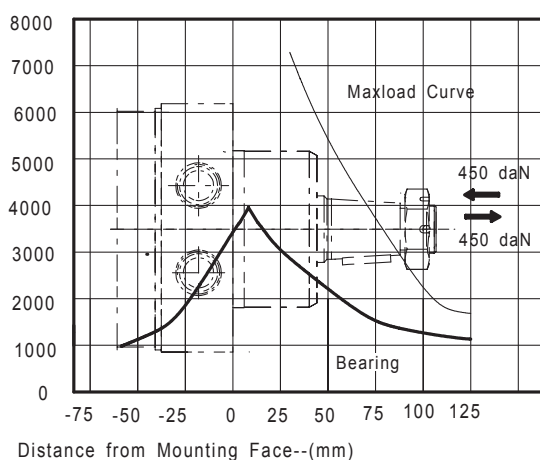
BMER-2 or M#/F# Mounting

Side Load-(daN)



BMER-2 for W# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 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

BMER- - - - - - -

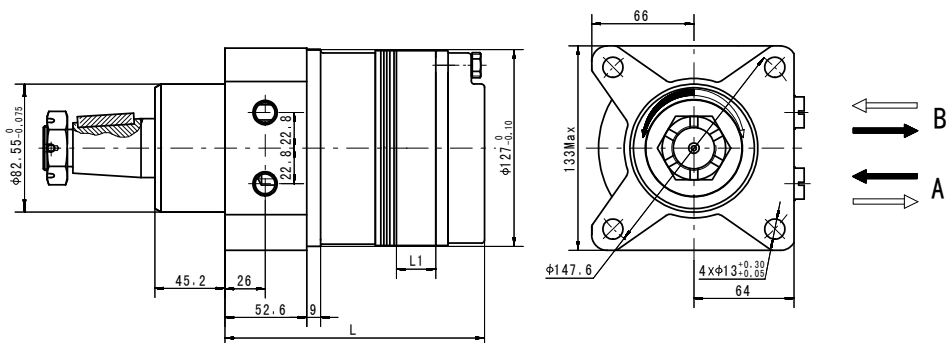
Pos.1	2	3		4	5	6	7
Code	Disp.	Flange , Pilot , Ports		Output Shaft	Rotation direction	Paint	Unusually function
2	MS	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring		G2 Shaft Ø31.75 , parallel key 7.96x7x36.5	None	00	No paint
	MP	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF		B1 ShaftØ32, Parallel key 10×8×36			
	MD	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2		FD1 Shaft Ø31.75, splined key 14-DP 12/24	Standard	None	None
	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			
	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	Reverse	B	Black
	FD	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2		AW Shaft Ø25 , parallel key 8×7×32			
	FH	6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2		SW Shaft Ø25.4 ,splined key SAE 6B	Timed	S	Silver Grey
	WS	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring					
	WP	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF		M1 ShaftØ35, Parallel key 10×8×45	None		
	WD	4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2		T31 Cone-Shaft Ø38.1, Parallel key 7.96×7×36.5			
	TS	4-Ø13.5 Wheel Mount,Pilot Ø82.55×5, Ports 7/8-14 O-ring		G32 Shaft Ø38.1 , parallel key 9.525×9.525×42			
	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#.

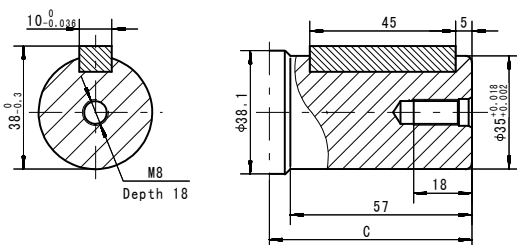
BMER-3 SHAFT EXTENSIONS DIMENSIONS DATA

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



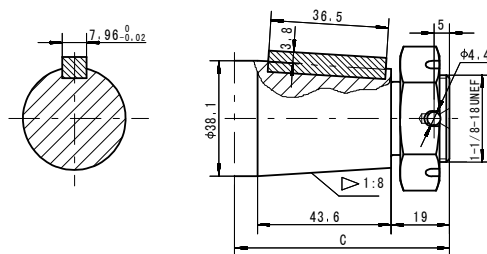
Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	153	156	159.5	162	164.5	168	172	174.5	178	182	190	199.5	206
Weight(kg)	13.2	13.5	13.8	14	14.2	14.5	14.9	15.2	15.5	15.7	16.5	17.3	17.8

Shaft M31



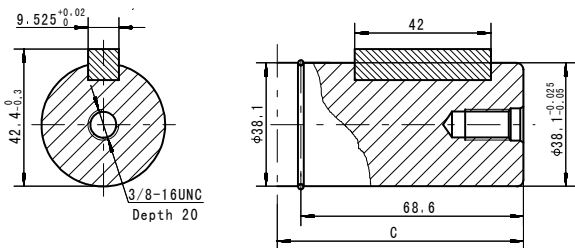
Shaft M31:Cylindrical shaft Ø35
Parallel key 10x8x45

Shaft T31



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

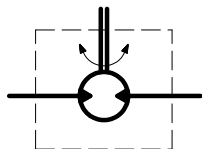
Shaft G31



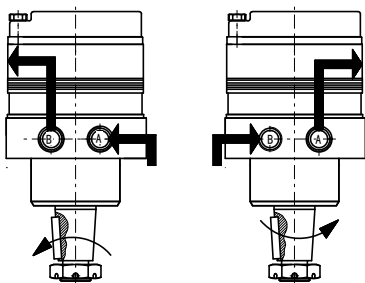
Shaft G31:Cylindrical shaft Ø38.1
Parallel key 9.525x9.525x42

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

BMER-3 Series Hydraulic Motors

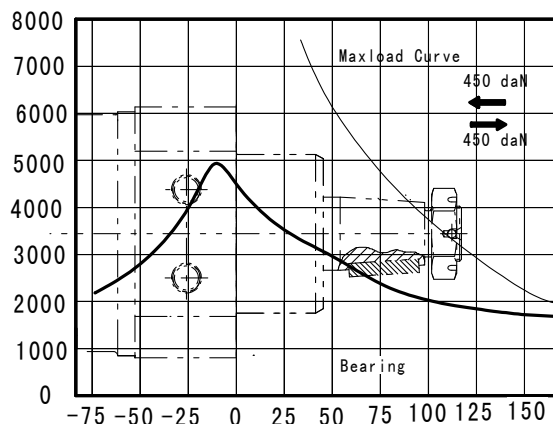


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port "B" is pressurized.
Counter-clockwise when port "A" is pressurized.



BMER-3 for W# Mounting

Side Load-(daN)



The bearing curve represents allowable bearing loads for an L_{10} bearing life at 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.

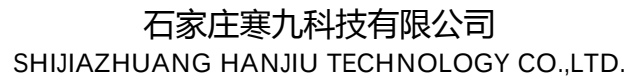
Order Information

1 2 3 4 5 6 7

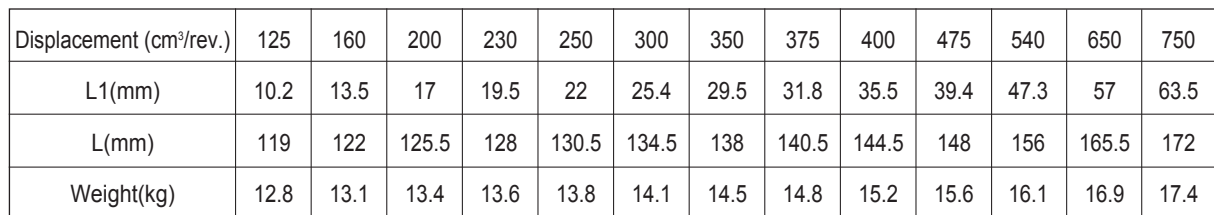
F

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	00 None B S	None Standard
	160					
	200					
	230					
	250				No paint	
	300				Blue	
	350				Black	
	375				Sliver Grey	
	400					
	475					
	540					
	650					
	750					

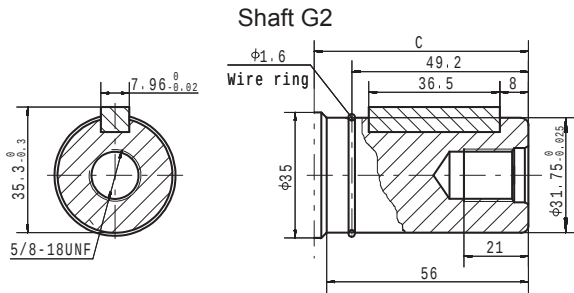
Note: When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, displacement, mounting flange, output shaft and ports. If the specification is not in the table or you have specific requirements, please contact us.



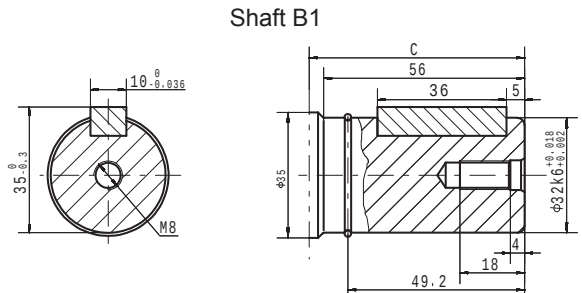
Wheel	Mount
Code :	Port A、B
WS	7/8—14UNF
WP	1/2—14NPTF
WD	G1/2



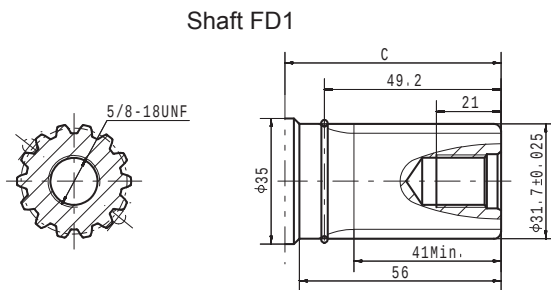
Shaft Extensions For BMER-4 Motors



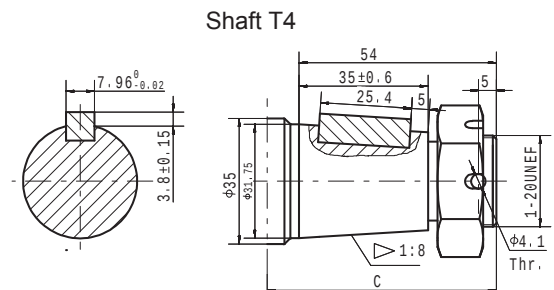
Shaft G2:Cylindrical shaft $\varnothing 31.75$
Parallel key 7x96x7x36x5



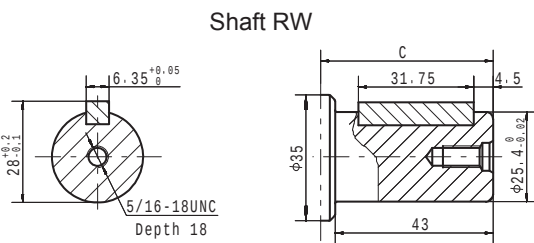
Shaft B1:Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



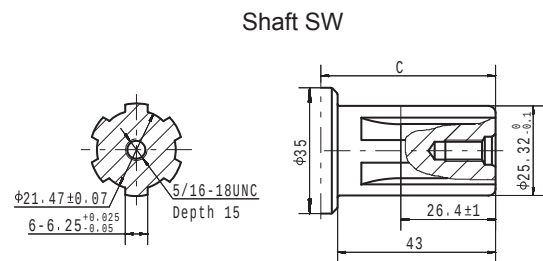
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



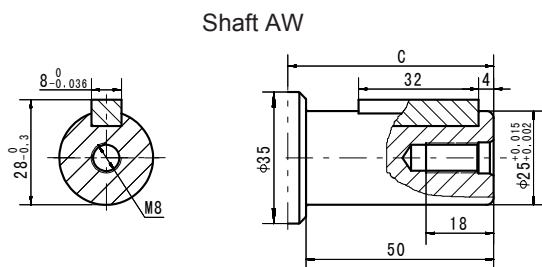
Shaft T4:Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque:200±10Nm



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



Shaft SW: Splined SAE 6B

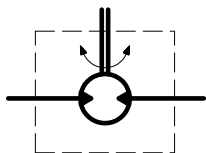


Shaft AW:Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32

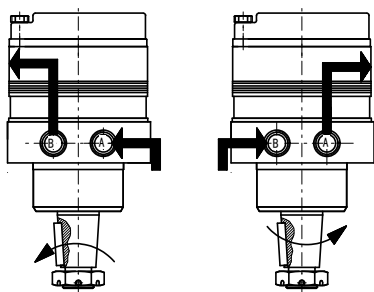
From Mounting Flange to Shaft End	
Dimension C	
Shaft Code	Wheel Mount (mm)
G2	131
B1	130
FD1	131
T4	135
RW	119
SW	119
AW	125

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

BMER-4 Series Hydraulic Motors

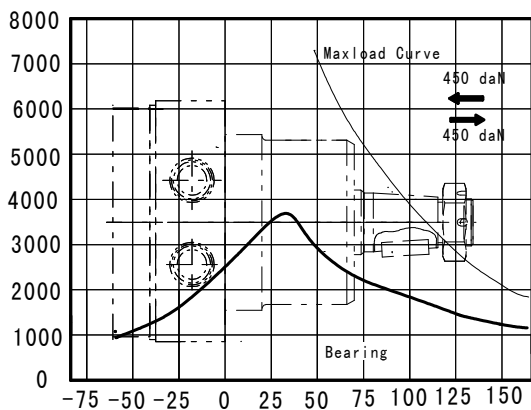


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port " B " is pressurized.
Counter-clockwise when port " A " is pressurized.



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	2	3	4	5	6	7
Code	Disp.	Mount Flange, Pilot, Port	Output Shaft	Rotation direction	Paint	Unusually function
4	125	WS 4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports 7/8-14 O-ring WP 4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports 1/2-14NPTF WD 4-ø13.5 Wheel Mount, Pilot ø82.55×5, Ports G1/2	G2 Shaft ø31.75 , parallel key 7.96×7×36.5 B1 Shaftø32, Parallel key 10×8×36 FD1 Shaft ø31.75, splined key 14-DP12/24 T4 Cone-Shaft ø31.75, Parallel key 7.96×7.96×25.4 RW Shaft ø25.4 , parallel key 6.35×6.35×31.75 SW Shaft ø25.4 ,splined key SAE 6B AW Shaft ø25 , parallel key 8×7×32	None Standard Reverse timed R	00 None Blue Black Sliver Grey	None Standard
	160					
	200					
	230					
	250					
	300					
	350					
	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.



BK10 Series Static Wet Hydraulic Brake

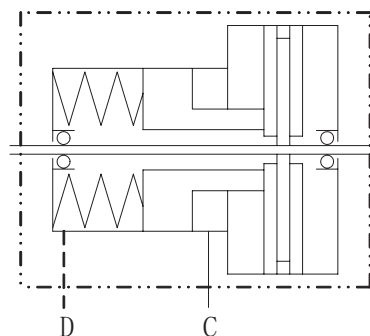
BK10 series static wet hydraulic brake is suitable for lower speed application of scissors type aerial work platform and agricultural machinery and others with wheel mounting. The feature:

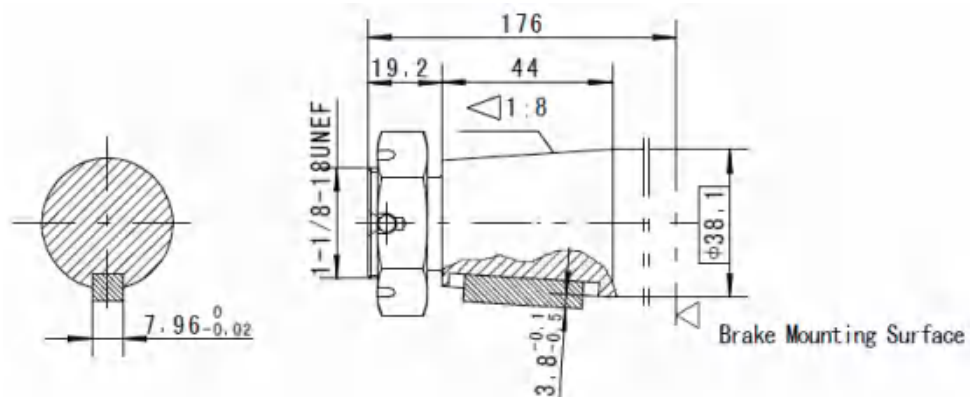
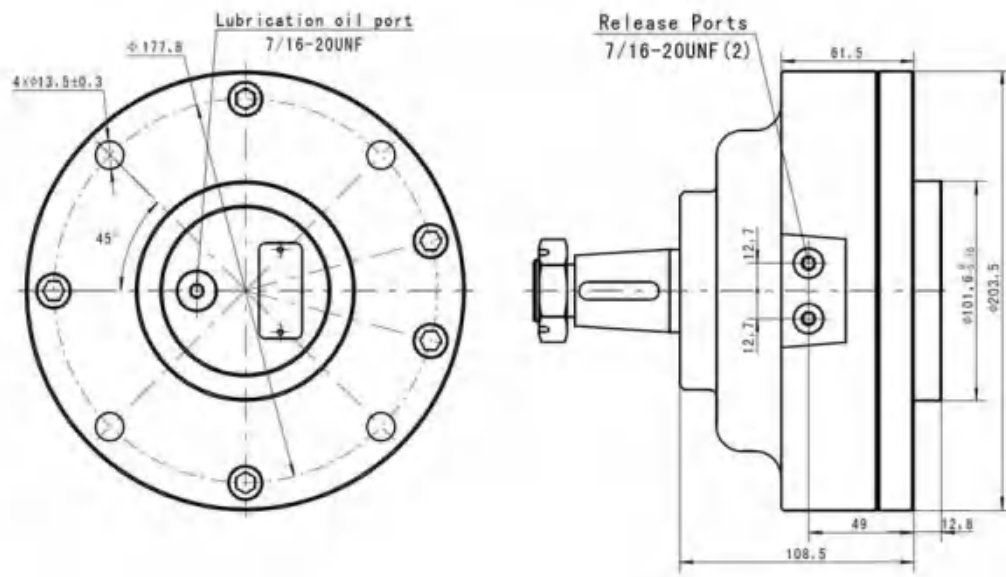
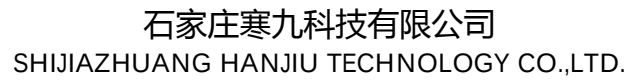
- * The output shaft adopts the same heavy duty roller bearing in front and behind, which is bigger ability on radial load.
- * It adopts optimized disc brake piece and spring load, for reliable braking and good endurance.
- * Optimizing piston and loading mechanism, to provide the minimum dimension 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]	140~160	
Max. Pressure of Lubrication oil port [MPa]	0.05	
Weight [kg]	17.6	19.5

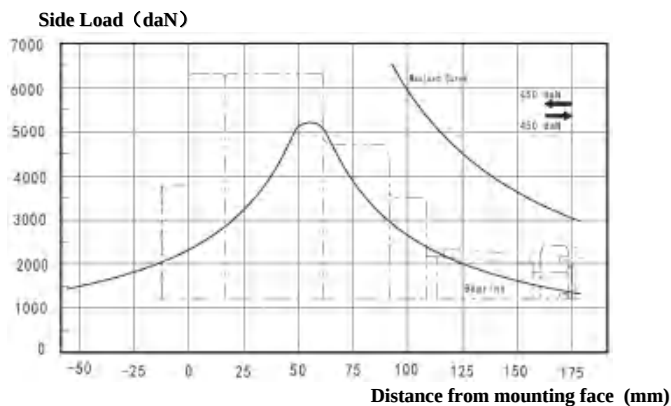
Hydraulic systems





BK10-1 Mounting Flange Radial Forces

BK10-1 Mounting Flange Radial Forces



Bearing load multiplication factor table

RPM	50	100	200	300	400	500	600	700	800
FACTOR	1.23	1	0.81	0.72	0.66	0.62	0.58	0.56	0.54

Order Information

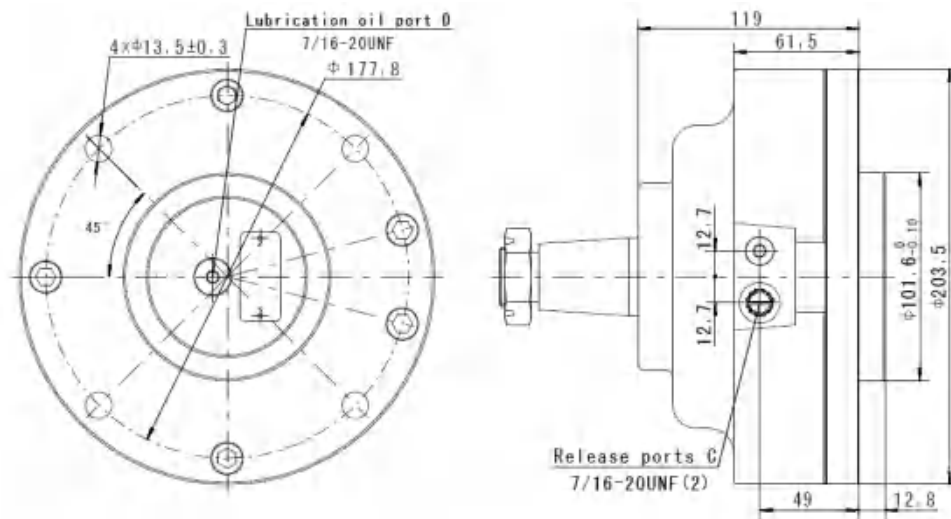
1 BK10- 2 3 4 5 6 7 8

Pos.1	2	3	4	5	6	7	8
Code	Brake Torque	Output shaft	Flange and Pilot and Brake Pors	Lubrication Port	Paint	Design Code	Nut Code
1	1150	Ø38.1 Cone-Shaft 1.8. Parallel key 7.96x6.5x28.8	Round Flange 4x Ø13.5, Ø177.8, Pilot Ø101.6x12.8, Brake Pors 7/16-20UNF	Omit	Black Silver Grey grey No paint Paint (Black)	Omit 003	N-Type thick Nut Omit

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 Pors, Lubrication Port etc.. If the specification is not in the table or you have specific requirements, please contact us.

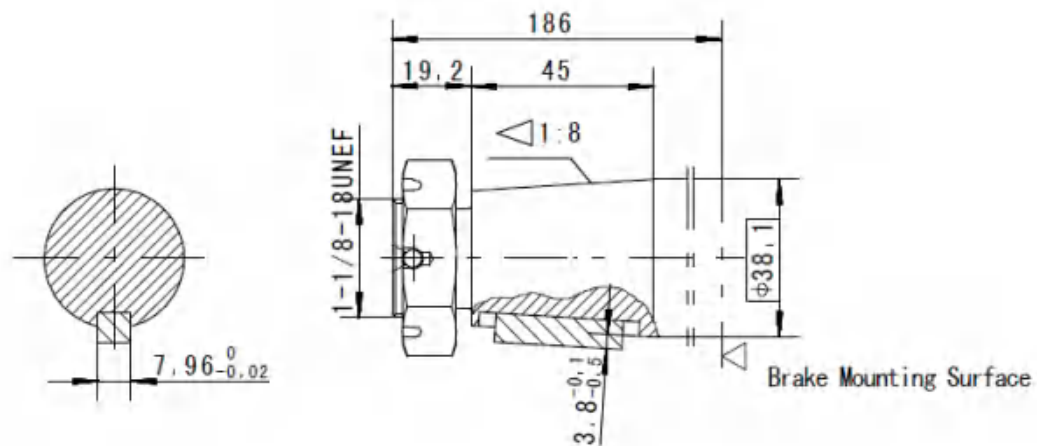
BK10-2 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors



BK10-2 DIMENSIONS OF SHAFT EXTENTSIONS

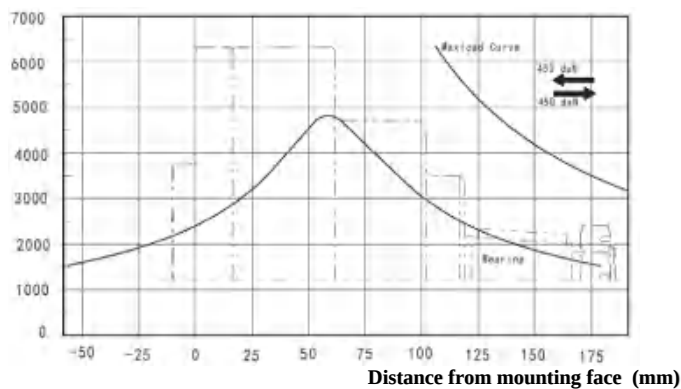
T31 $\phi 38.1$ Cone-shaft 1:8



BK10-2 Mounting Flange Radial Forces

BK10-2 Mounting Flange Radial Forces

Side Load (daN)



This bearing curve represents allowable bearing loads for an L₁₀ bearing life at 15000 revolutions. The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

Bearing load multiplication factor table

RPM	50	100	200	300	400	500	600	700	800
FACTOR	1.23	1	0.81	0.72	0.66	0.62	0.58	0.56	0.54

Order Information

1 2 3 4 5 6 7 8

Pos.1	2	3	4	5	6	7	8
Code	Brake Torque	Output shaft	Flange and Pilot and Brake Pors	Lubrication Port	Paint	Design Code	Nut Code
1	1150	Ø38.1 Cone-Shaft 1:8. Parallel key 7.96x6.5x28.8	Round Flange 4x Ø13.5, Ø177.8, Pilot Ø101.6x12.8, Brake Pors 7/16-20UNF	7/16-20UNF	Black Silver Grey grey No paint Plaint (Black)	Omit 003	N-Type thick Nut
		T31	S1	Omit	B S 00 Omit		Omit

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 Pors, 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.

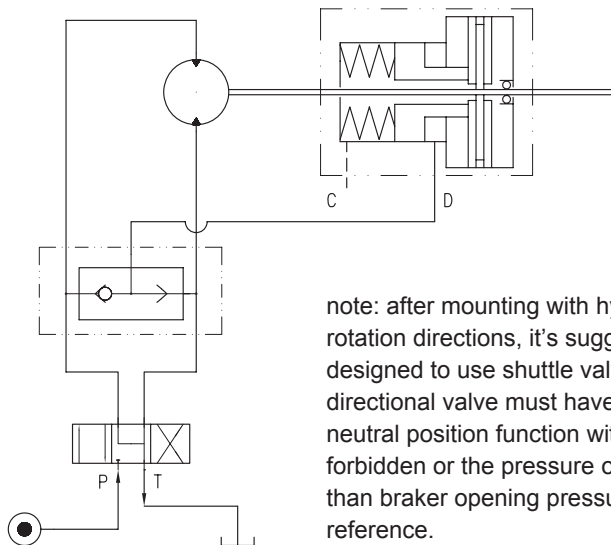
Special Note: such kind of brake is only used in static parking brake. Dynamic braking is not recommended.

Intruction Manual

—、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°C-90°Cthe best optimal situation 20°C-60°C
- 4.Viscosity range: 20~75mm²/s; the best optimal situation 42~74mm²/s at 40°C.
- 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

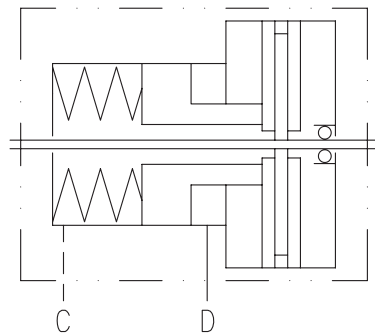


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function(type Y or H), the neutral position function without off-load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

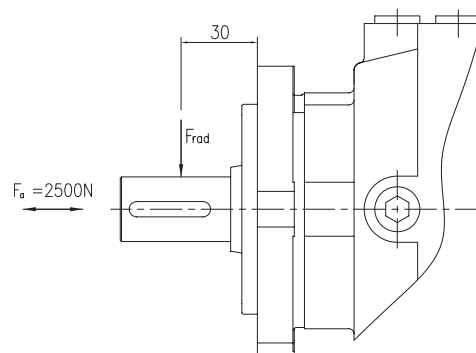
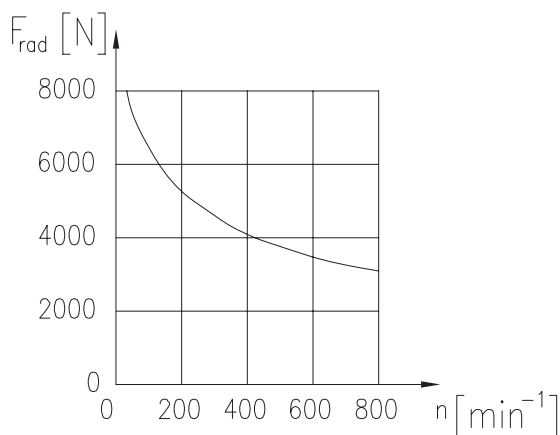
Item	BK2-1	
Min. static Torque [Nm]	200~230	410~450
Min. Opening Pressure [MPa]	1.7~2.3	
Max. Opening Pressure [MPa]	30	
Min.oil quantity for brake releasing[cm ³]	7~8	
Oil volume [cm ³]	50~120	
Max. pressure in drain space [MPa]	0.05	
Weight [kg]	9	

*Static torque is obtained at working pressure 0 MPa

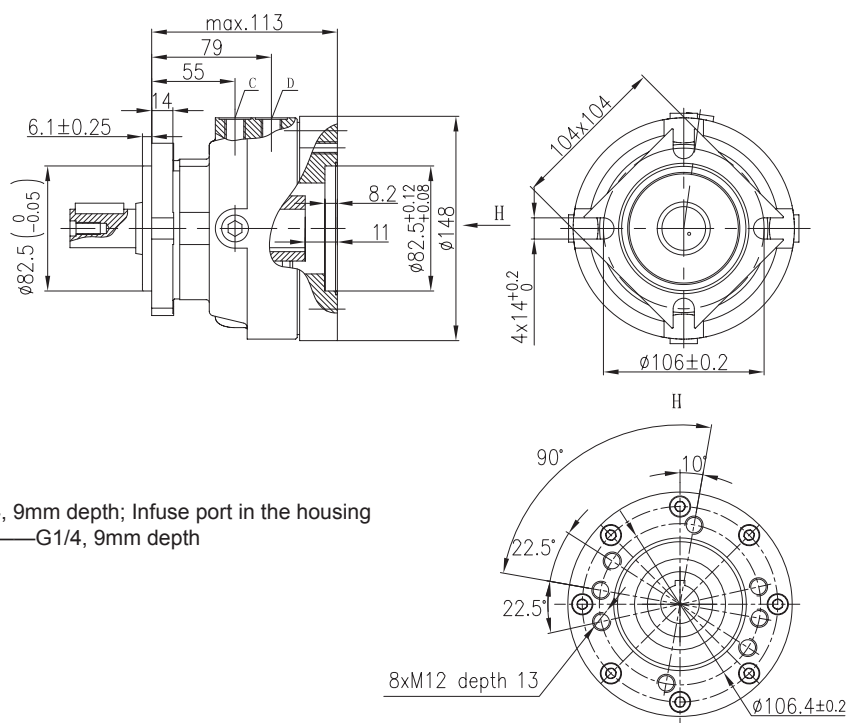


symble drawing

Load Curve



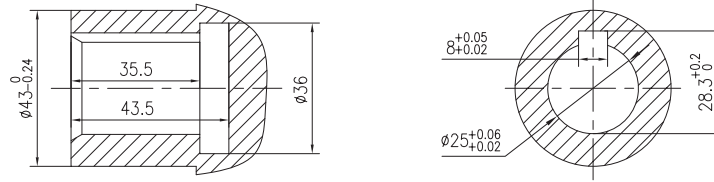
Mounting Data Model BK2-1



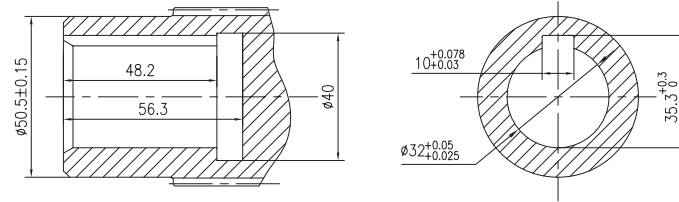
INPUT & OUTPUT SHAFT DATA

INPUT SHAFT HOLES

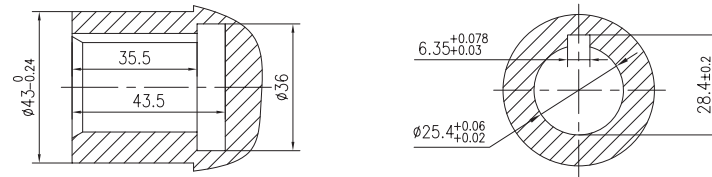
A



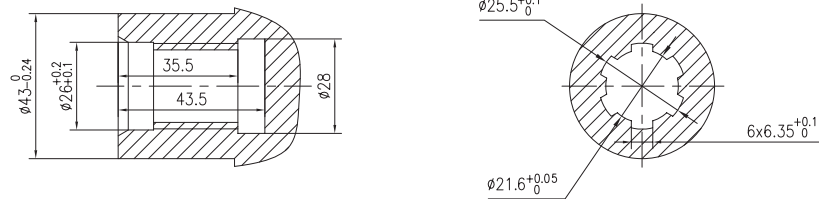
B



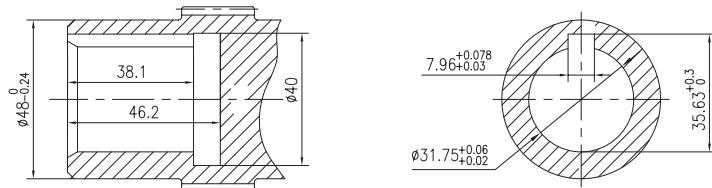
C



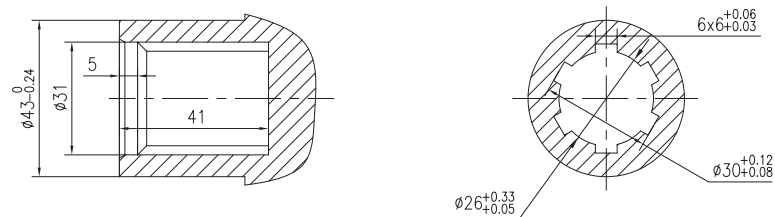
E



G

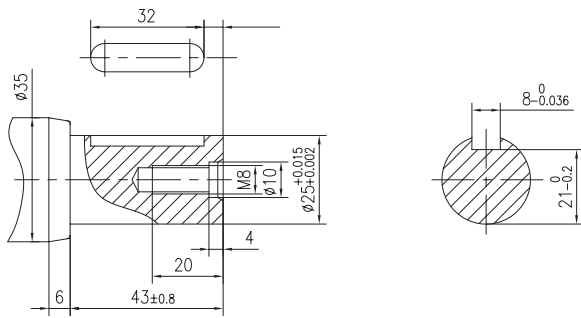


N

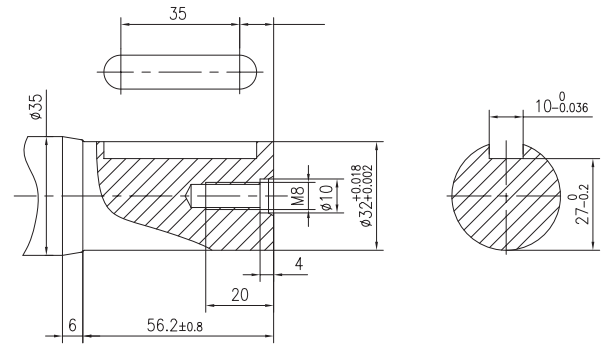


OUTPUT SHAFT EXTENSIONS

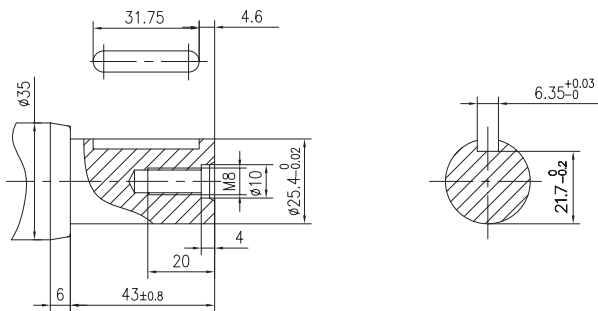
A



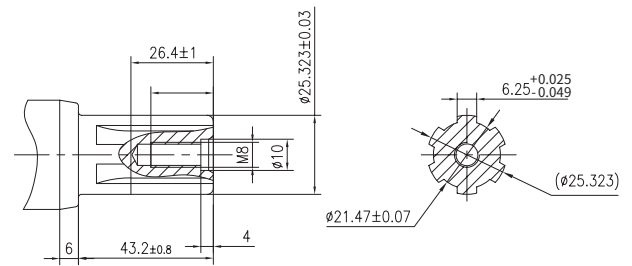
B



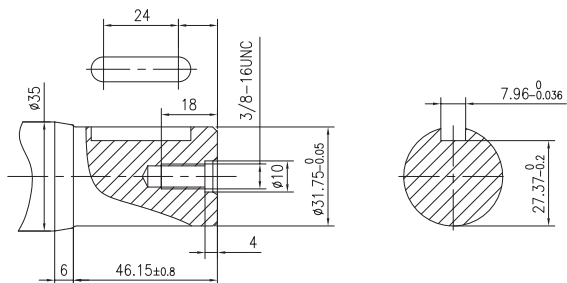
C



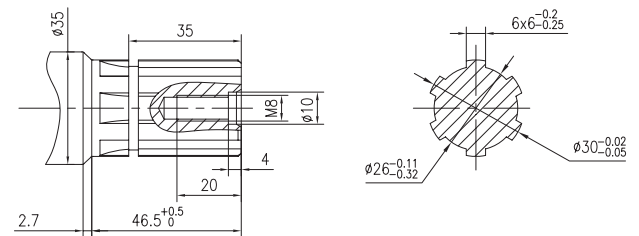
E



G



N



Order Information

1	2	3	4	5	6	7
BK						

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

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



WGB SERIES PLANETARY GEARBOX

Introduction

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

WGB Series planetary gearbox is suitable for open and close hydraulic loop system.

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

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

Instruction Manual

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

1. Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2. Oil temperature: normal operation temperature: -20°C ~ 90°C ; optimal temperature scope : 20°C ~ 60°C ;
3. Oil viscosity: $20\sim 75\text{mm}^2/\text{s}$; optimal viscosity scope : $42\sim 74\text{mm}^2/\text{s}$ at the temperature of 40°C ;
4. Oil cleanness: oil filtration precision: $25\mu\text{m}$; solid contamination level has to be lower than 20/16;

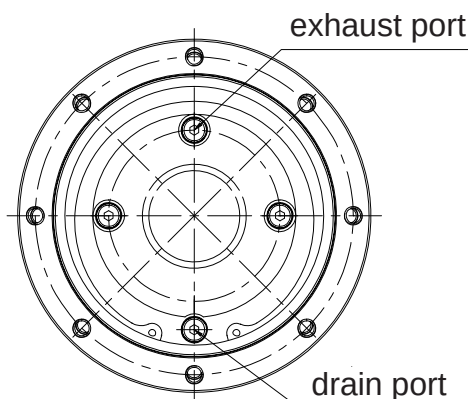
In order to keep the planetary gearbox operating under the best condition, the normal requirements are shown as follows:

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

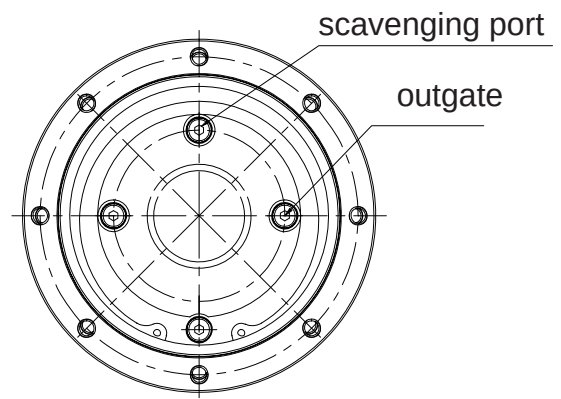
How to change the oil for planetary gearbox:

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

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



Drawing A

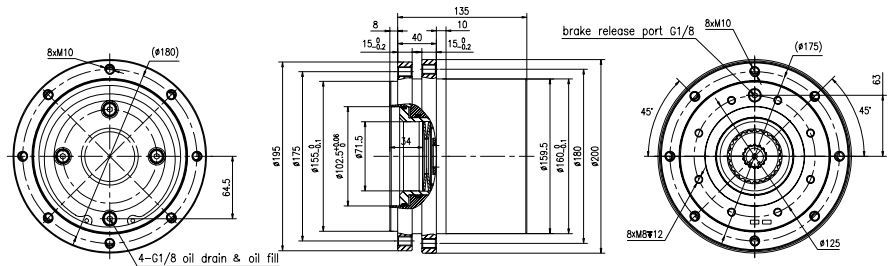


Drawing B

Main mounting data and dimensions

WGB150A Series

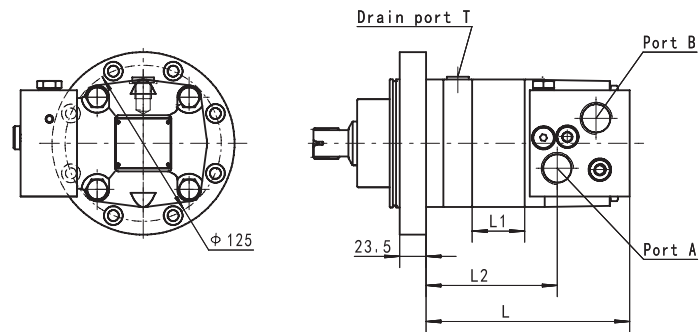
WGB150 Series standard motor BMSY125, main specifications of the non-standard motor with WGB 150 will be calculated upon hydraulic motor. The main technical planetary gearbox needs to be calculated according to the hydraulic motor and gearbox gear reduction ratio of performance parameters. The max. output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



Main mounting and dimensions of motor for WGB150A

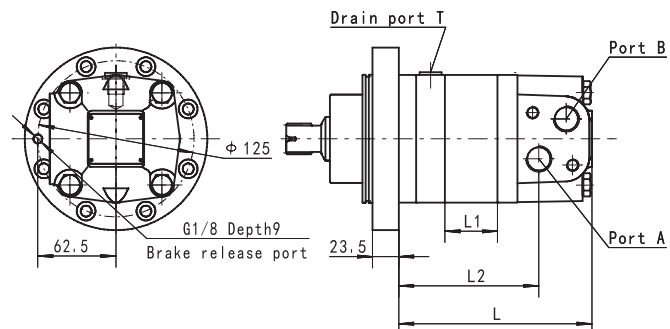
BMSY-IT Series (Inside brake oil runner)

Model	L	L1	L2
BMSY-IT-80	137	16	74.5
BMSY-IT-100	141	20	78
BMSY-IT-125	146	25	82.5
BMSY-IT-160	148	27	87.5
BMSY-IT-200	155	34	94.5
BMSY-IT-250	163	42	102.5
BMSY-IT-315	175	54	114.5
BMSY-IT-375	190	69	129.5
BMSY-IT-400	204	83	143.5



BMSY-WT Series (Outboard brake oil runner)

Model	L	L1	L2
BMSY-WT-80	127	16	81.5
BMSY-WT-100	131	20	85
BMSY-WT-125	136	25	89.5
BMSY-WT-160	138	27	94.5
BMSY-WT-200	145	34	101.5
BMSY-WT-250	153	42	109.5
BMSY-WT-315	165	54	121.5
BMSY-WT-375	180	69	136.5
BMSY-WT-400	194	83	150.5





Order information

1 2 3 4 5 6

WGB - - - - -

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

Note: from the order code , please choose the colorful code in the right column, and provide us with the information in regard to series, ratio, brake structure, and the paint etc. When selecting brakes, brake parameters: brake release pressure is 1.7 ~ 2.2MPa, brake release port for the G1 / 8, the brake release port maximum pressure 25MPa, the maximum braking torque of 400Nm.

If the specification is not in the table or you have special requirements, please contact us.

Order information(BMSY-WT、BMSY-IT)

1 2 3 4 5 6

- - - - -

Pos.1	1	2	3	4	5
Order information	Motor displacement	Port and drain port	Rotation direction	Painted	Unusually function
BMSY-WT	80	D	Standard	No Painted	Standard
	100	M			
	125	S			
	160	P	Opposite	Blue	Omit
	200				
BMSY-IT	250	1/2-14NPTF manifold 2-3/8-16UNC, 7/16-20UNF	R	Black	Silver grey
	315	7/16-20UNF			
	375	MC-FSSY-D G1/2,G1/4	Opposite	Silver grey	Standard
	400	MC-FSSY-M M22x1.5,M14x1.5			
	475	MC-FSSY-S 7/8-14UNF,7/16-20UNF			
		MC-FSSY-P 1/2-14NPTF,7/16-20UNF			

Note: Motor of gearbox performance parameters are the same with the catalogue of BMS \ BMSY.

Users in the use of the ordering information, the motor structure, displacement, out of port and other information, select the left pornographic site code can be written to us by the above format.

If the selected size is not in the above table or special requirements, please contact us.

When selecting a motor, for built-in brake balance valve ports and features, please technical communication.

HGB SERIES PLANETARY GEARBOX

Introduction

HGB series planetary gearbox is one speed reducer for various machinery, adopting the compact design of combining hydraulic orbital motor and speed reducer, design structure is simple, with reasonable mounting space, easy for mounting. This kind of gearbox fits all kinds of hydraulic loop system.

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

- * Compact structure, easy mounting.
- * Small volume, strong power.
- * To be preemptively used together with BMR, BMH, BMS series hydraulic orbital motors.

Instruction Manual

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

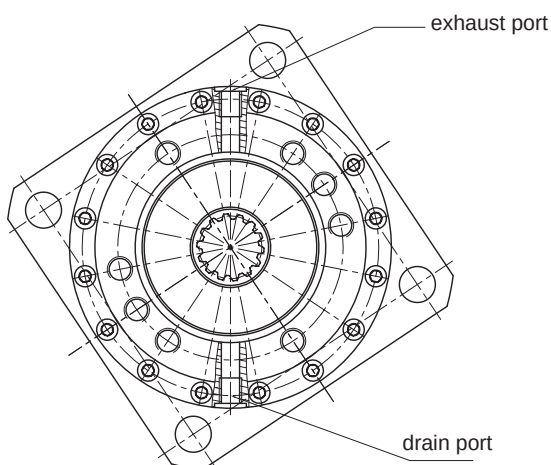
1. Hydraulic oil: HM mineral oil(ISO 6743/4)(GB/T763.2-87) or HLP mineral oil(DIN 51524).
2. Oil temperature: normal operation temperature: -20°C~90°C; optimal temperature scope : 20°C~60°C;
3. Oil viscosity: 20~75mm²/s; optimal viscosity scope : 42~74mm²/s at the temperature of 40°C;
4. Oil cleanness: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

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

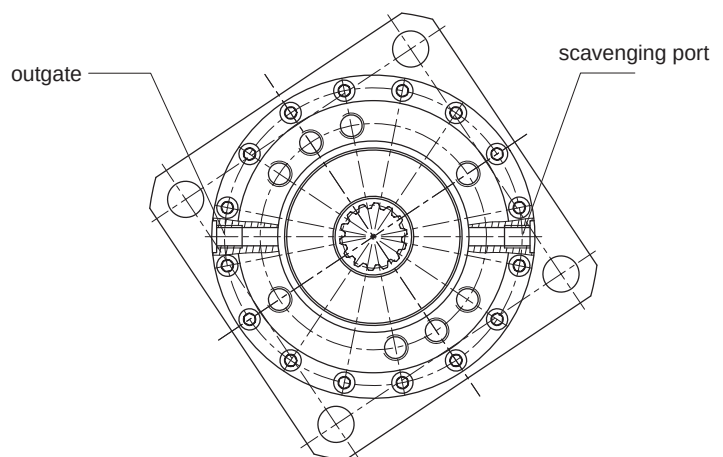
1. Lubrication oil: CKC220 mineral gear oil(ISO 12925-1)(GB/T5903);
2. Oil viscosity: 220mm²/s at the temperature of 40°C;
3. Maintenance period: 1st maintenance should be carried out 50-200 hours after initial operation; afterwards normal maintenance should be carried out every 500~1000 hours.
4. We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

How to change the oil No lubricate oil in the gearbox lubricate the gearbox before it be used.
for planetary gearbox:

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

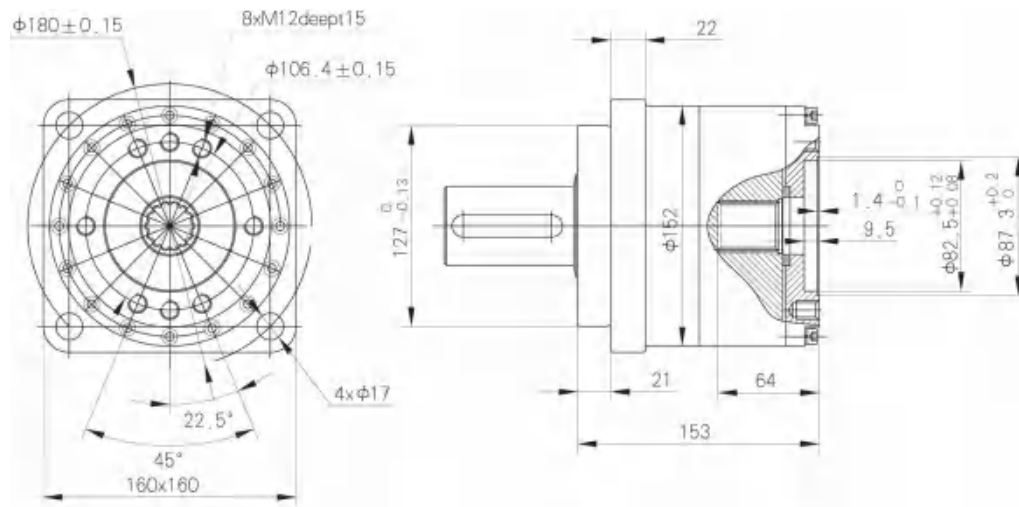


Drawing A

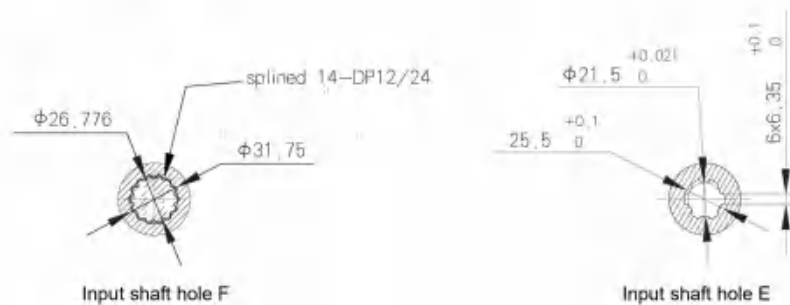


Drawing B

Main mounting and specification data

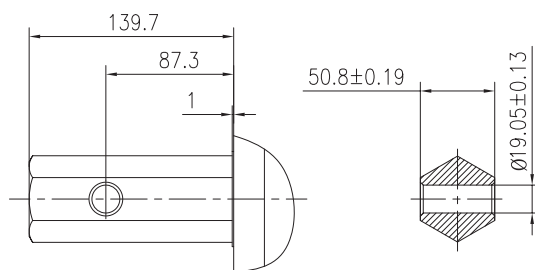


Input shaft hole

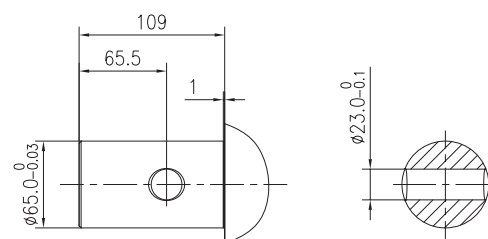


Output shaft extensions

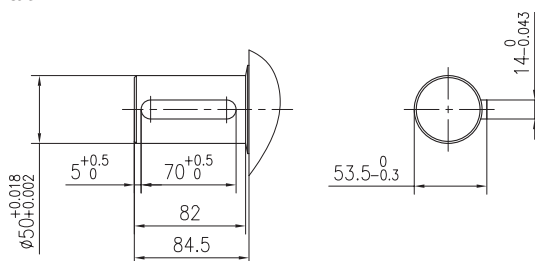
shaft H1



shaft H2



shaft A



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



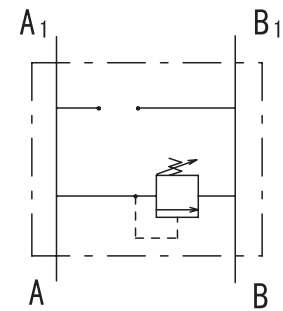
Order Information

HGB

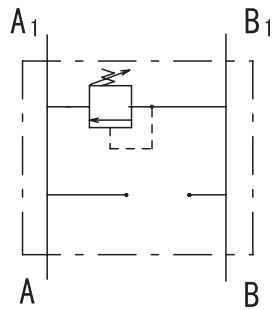
Pos.1	2	3	4	5	6
Series Code	Ratio Code	Input hole code	Output Shaft code	Paint	Unusually Function
Omit	3.65	SAE 6B splined hole	Hexangular 50	No paint Bule Black Silver gray	Standard
			Φ65		
		14-DP12/24 splined hole	Φ50		
		E	H1	00 None B S	None
		F	H2		
			A		

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

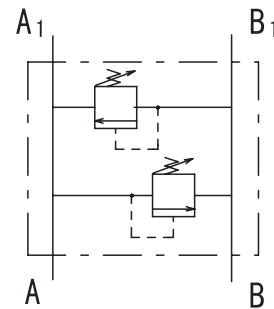
CROSSOVER RELIEF VALVE



single crossover relief valve
type FY*A



single crossover relief valve
type FY*B

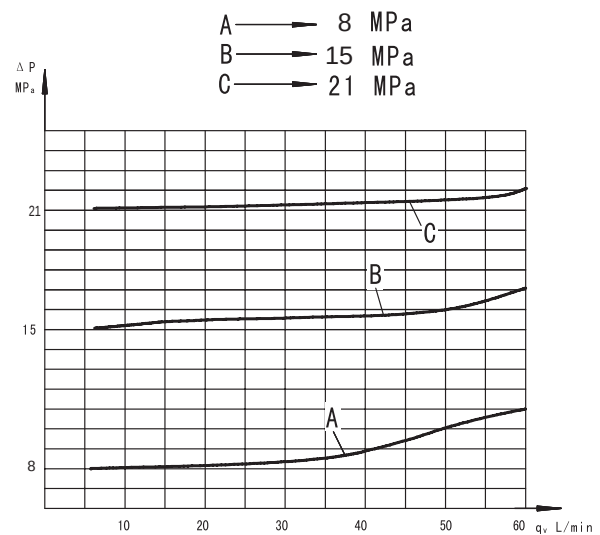
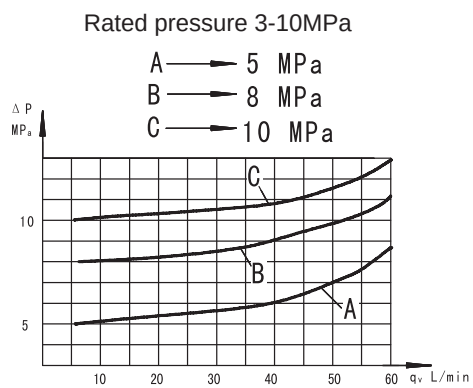


dual crossover relief valve type
FY*D

Specification data

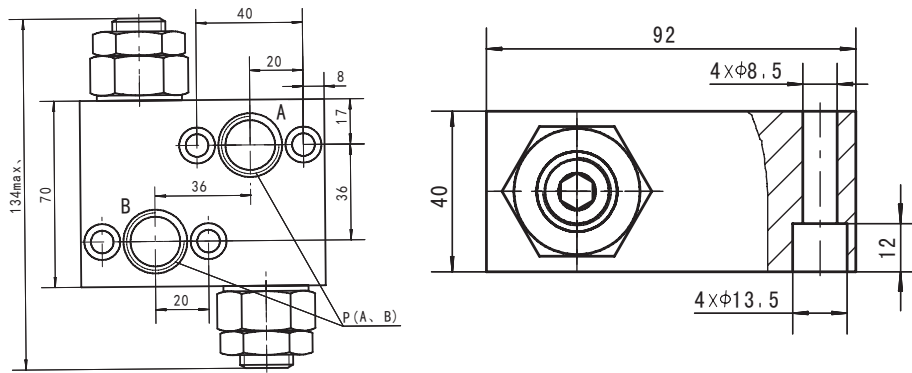
Parameters	Type				
	FYRHD	FYSHD	FYSD	FYRH	FYSH
Flow Rate (L/min)	60				
Pressure Range (MPa)	[3-10];[8-21]				
Weight (kg)	1.7	1.8	1.8	1.55	1.65

Rated pressure 8-21MPa



CROSSOVER RELIEF VALVES FOR BMR SERIES HYDRAULIC MOTORS

Dual crossover relief valve type FYRHD



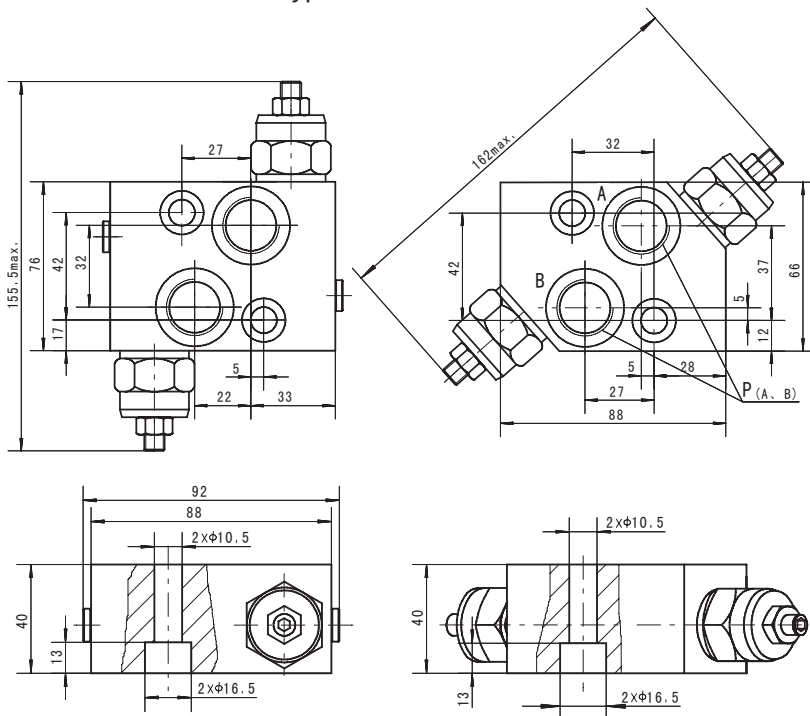
Code	P(A, B)(depth)
D	G1/2(18)
M	M22×1.5(18)
S	7/8-14UNF(18)
P	1/2-14NPTF(18)

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

CROSSOVER RELIEF VALVES FOR BMSY SERIES HYDRAULIC MOTORS

Dual crossover relief valve type FYSD

Dual crossover relief valve type FYSHD



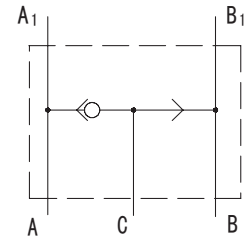
Code	P(A, B)(depth)
D	G1/2(18)
M	M22×1.5(18)
S	7/8-14UNF(18)

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

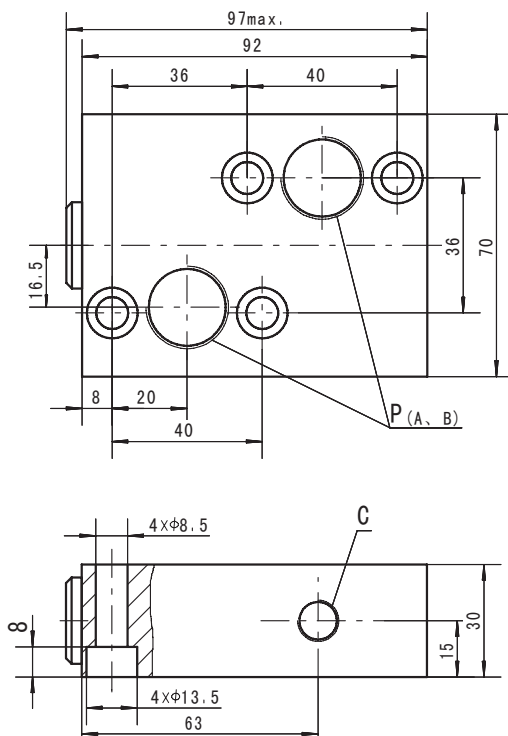
SHUTTLE VALVE

Specification Data

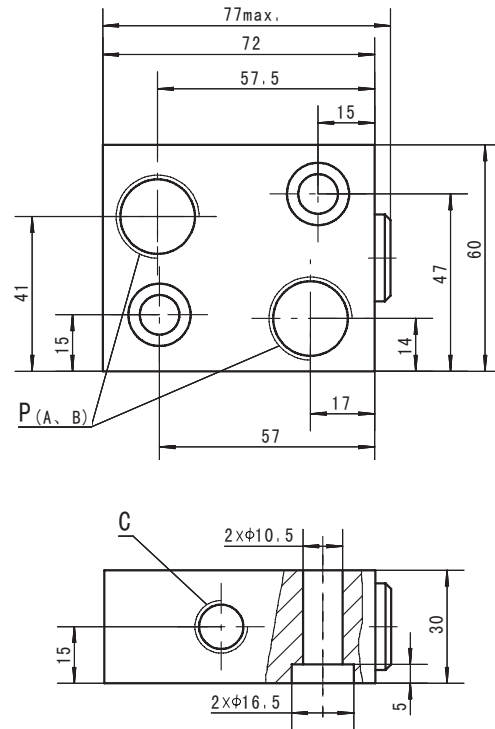
Parameters	Type	
	FSR	FSS
FlowRate (L/min)	60	
RatedPressure (MPa)	25	
Weight (Kg)	0.9	0.7



Shuttle valve FSR



Shuttle valve FSS



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

Note:FSR Blocks are installed directly on BMR and BMP Motors with four bolts 5/16-18UNC, 35mm long or M835-8.8;FSS Blocks are installed directly on BMSY Motors with two bolts3/8-16UNC,35mm long or M10X40-8.8DIN912



Order Information

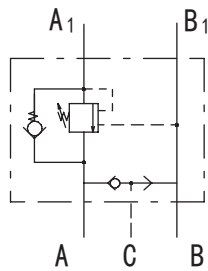
1 2 3 4 5 6 7

F

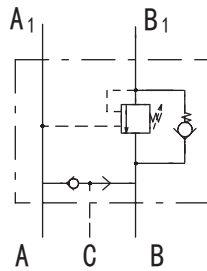
Pos.1	2	3	4	5	6	7
Type	Housing Type	Number of Spool	Pressure settings MPa	Flow Rate L/min	Ports	Paint
Y	RH SH S	A Port A one valve-single B Port B one valve-single D Two valves-dual	10 3-10 standard settings10MPa 21 8-21 standard settings 21MPa	Omit60	G1/2 M22x1.5 7/8-14UNF 1/2-14NPTF	No Paint Blue Black Silver grey
S	R S				D M S P	00 Omit B S

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

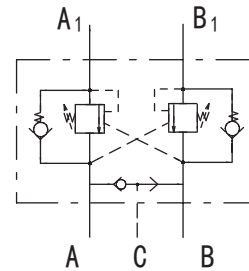
BALANCE VALVE WITH BRAKE PORT



Single balance Valve FPRA



Single balance Valve FPRB

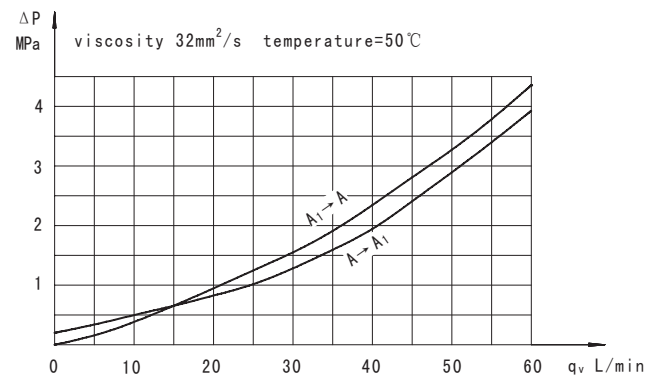


Dual balance Valve FPRD

Specification data

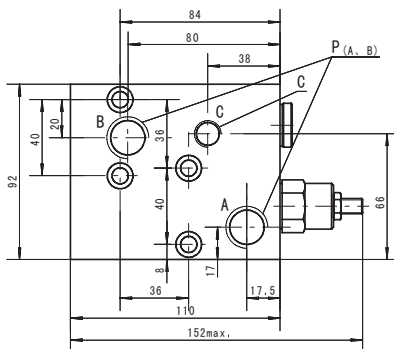
Specification	Type	
	FPRA(B)	FPRD
flow (L/min)	60	
pressure (Mpa)	7-25	
pilot ratio	4.25:1	
weight (kg)	3.30	3.35

pressure drop

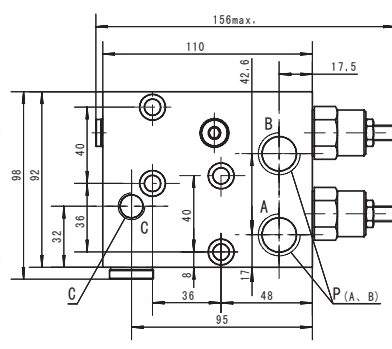


BALANCE VALVE FOR BMR MOTOR

Balance valve FPRA



Balance valve FPRD



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

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



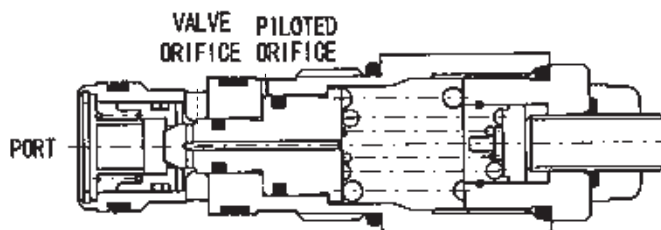
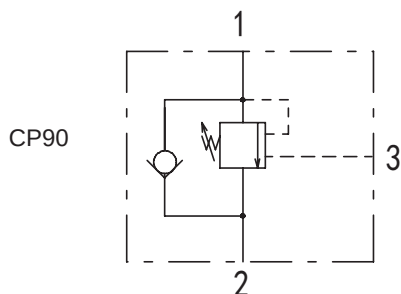
Order Information

1	2	3	4	5	6	7
F						

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

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

CARTRIDGE TYPE OVERCENTER VALVE



OPERATION

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

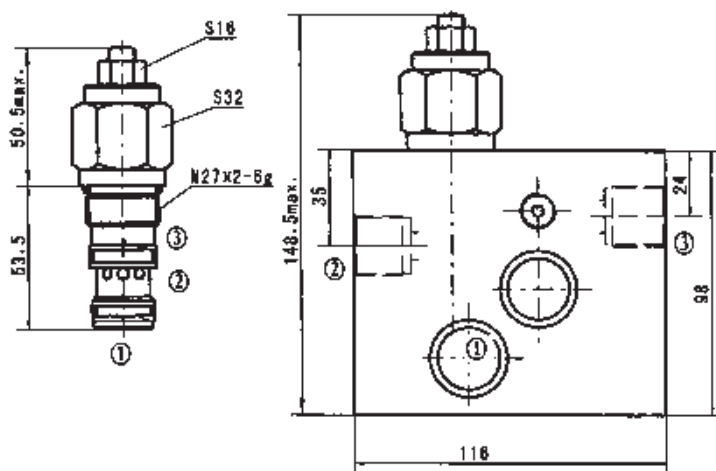
FEATURES

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

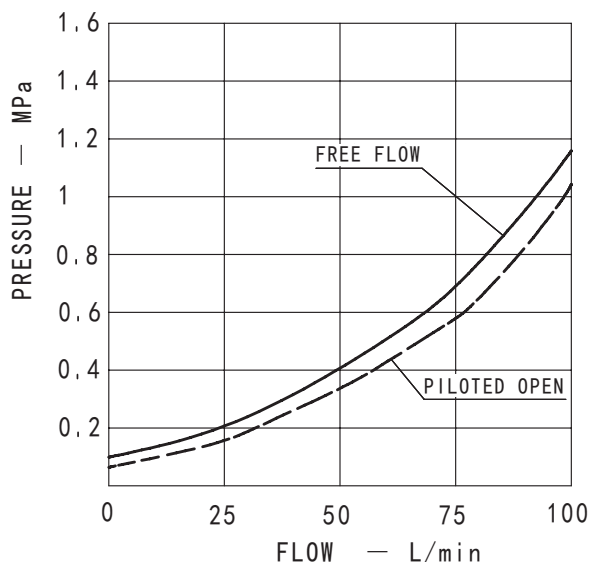
SPECIFICATIONS

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

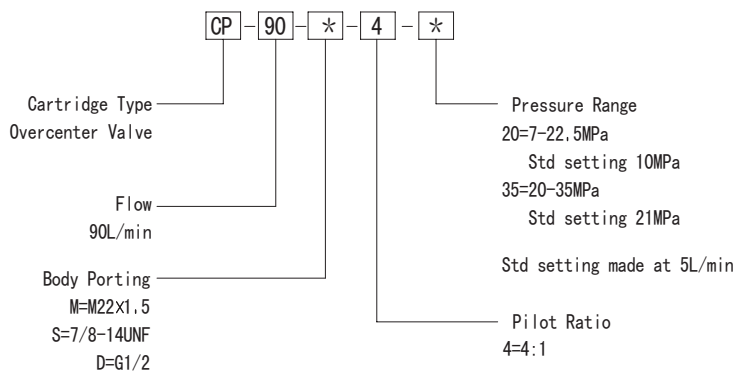
DIMENSIONS

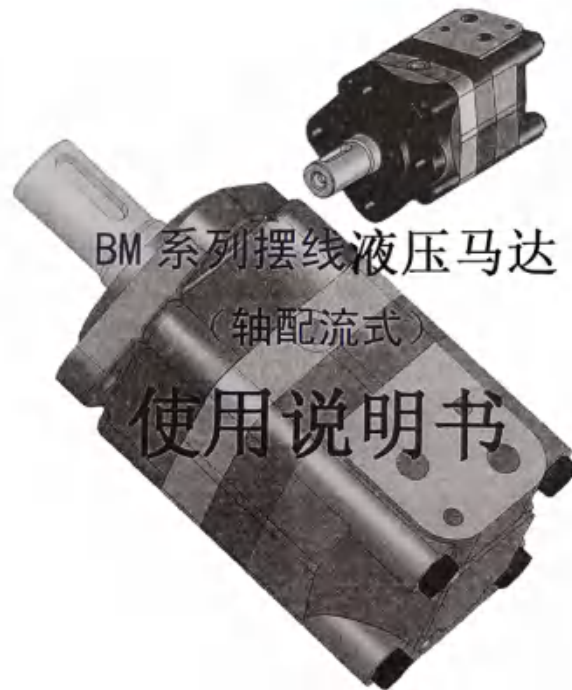


PRESSURE DROP CURVE



ORDER INFORMATION





使用说明书

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

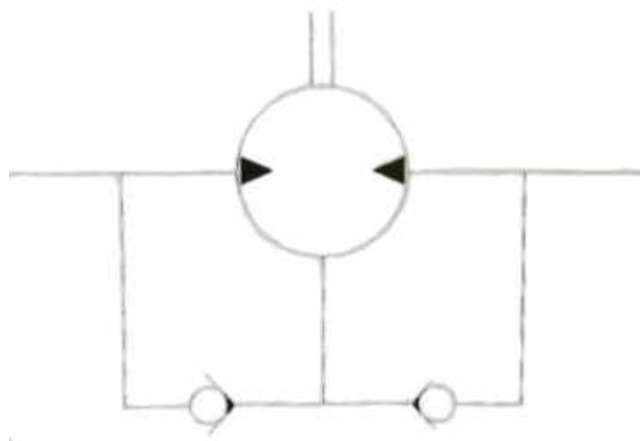
Before installation, check whether the motor is damaged. The motor oil stored for a long time needs to be drained and rinsed to prevent the internal moving parts from sticking.

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

The mounting bolts must be tightened evenly.

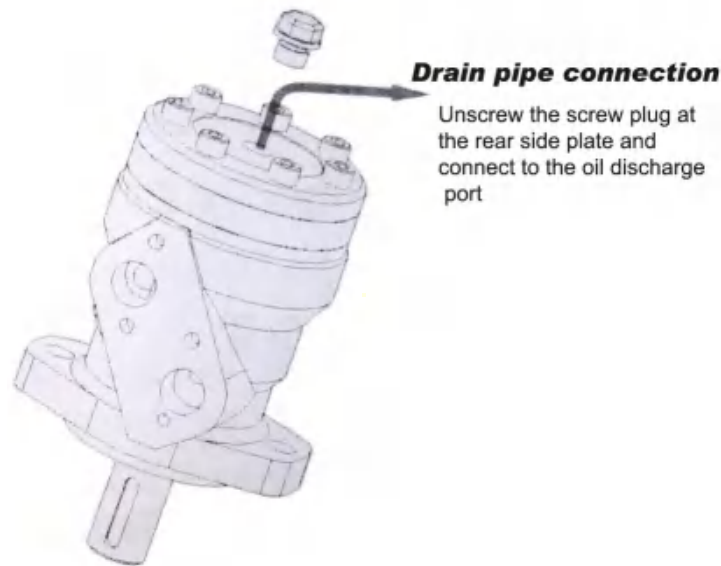
Connection method of drain pipe:

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.

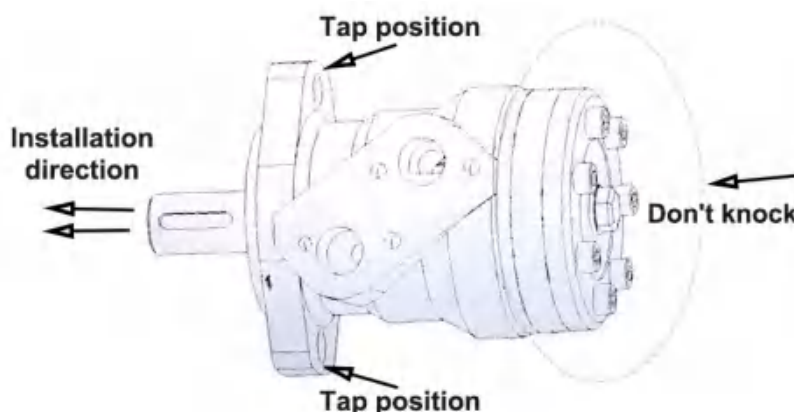
The installation should determine the connection flange, the stop, and the output connection shaft size is accurate.

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.



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.

**CAUTION**

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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