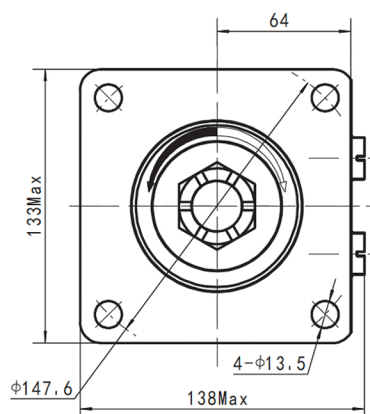
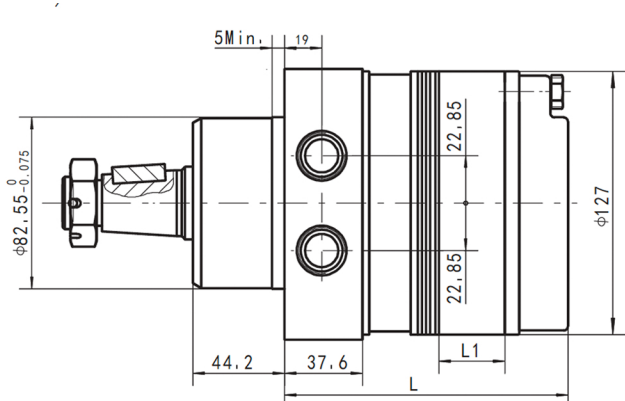
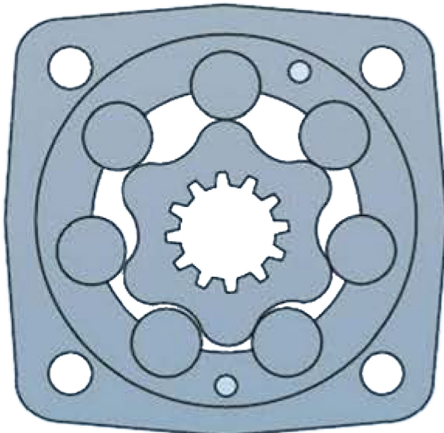
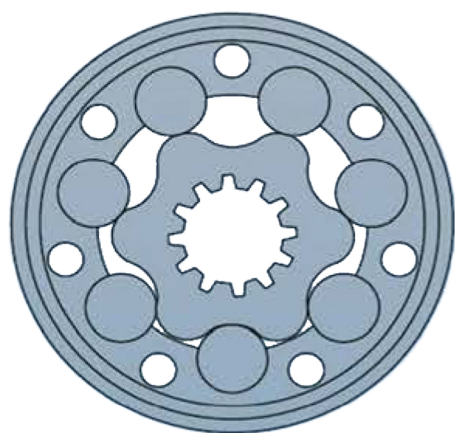


SILNIKI GEROTOROWE



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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			
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			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	117	115	109	104	91		
	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		

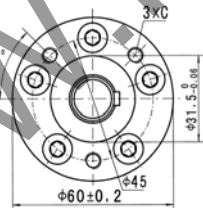
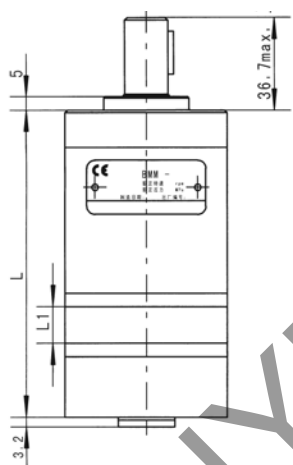
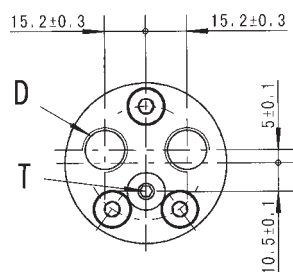
cont.
int.

Torque (N·m) 37
Speed (rpm) 607

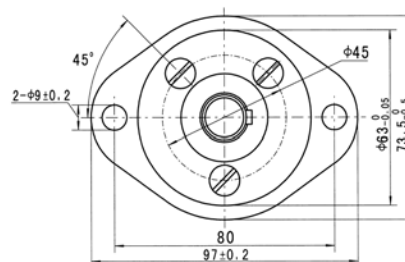
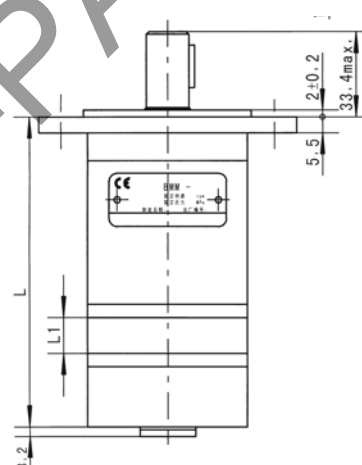
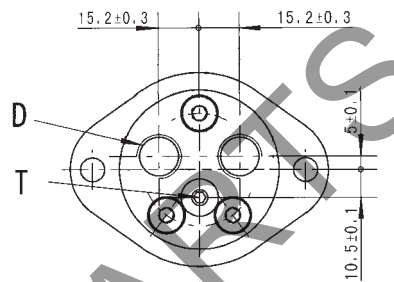
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



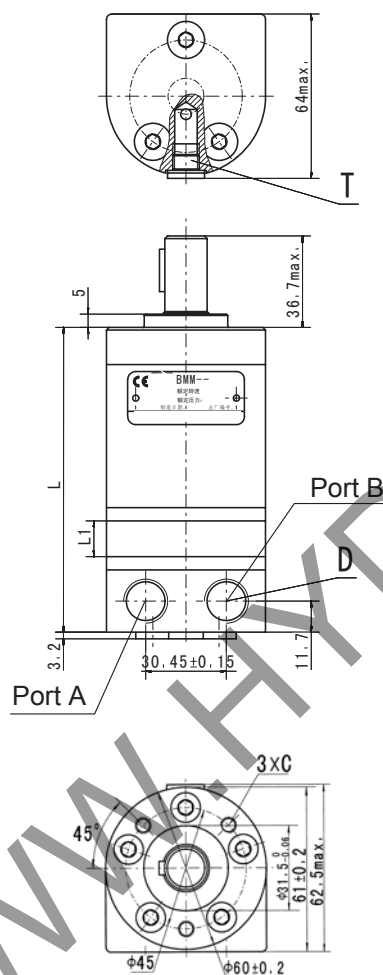
	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

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

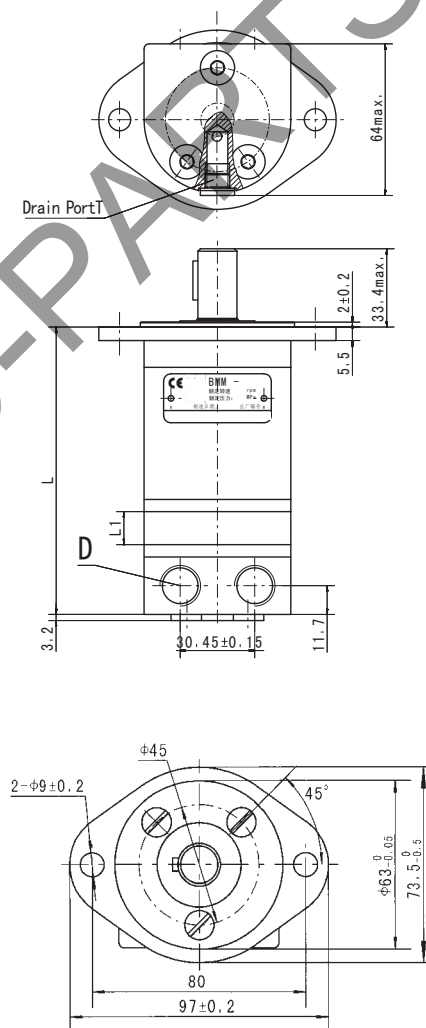
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F

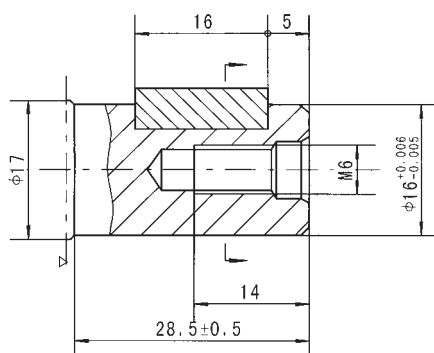


	M、U Flange		F Flange	
Model	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

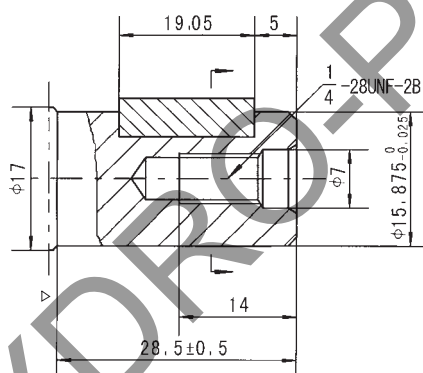
	M、U Flange		F Flange	
Code	E (depth)	U (depth)	E (depth)	U (depth)
C	[M]3-M6 (10)	[U]3-1/4-28UNF-2B(10)	[M]--	[U]--
D	G3/8 (12)	9/16-18UNF(12)	G3/8 (12)	9/16-18UNF(12)
T	G1/8 (8)	3/8-24UNF(8)	G1/8 (8)	3/8-24UNF(8)

BMM SHAFT EXTENSIONS FOR BMM MOTORS

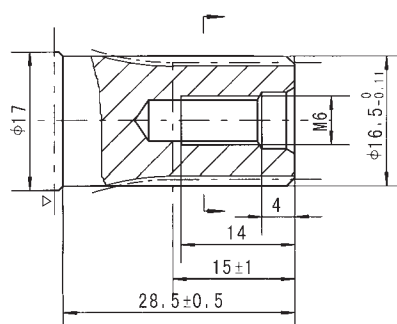
Shaft A: Cylindrical shaft $\varnothing 16$
Parallel key 5x5x16



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



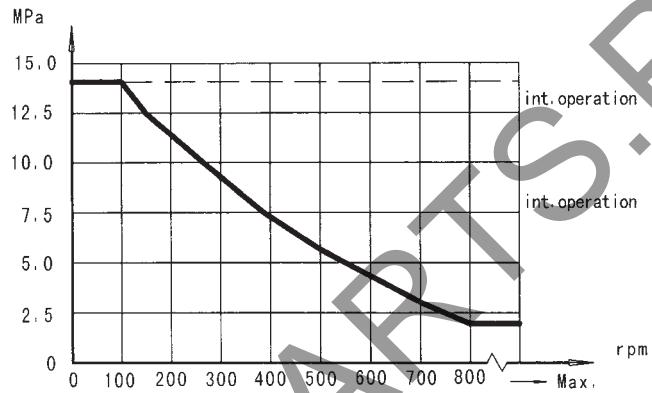
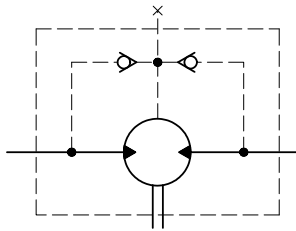
Shaft C: Involute splind shaft
B17x14 DIN5482



▷ Motor Mounting Surface

BMM Series Hydraulic Motor

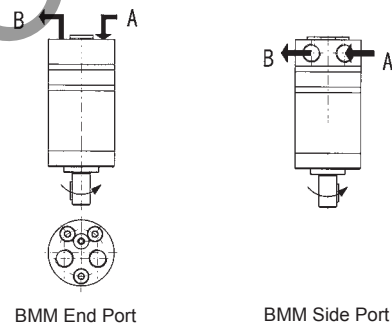
Permissible shaft seal pressure



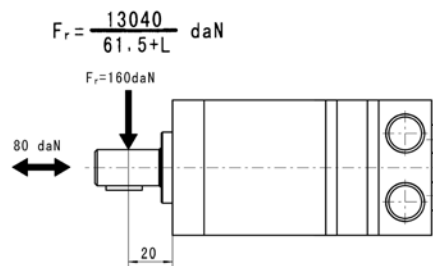
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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 3-M6 Circle-flange, pilot Ø31.5×5	A Shaft Ø16, parallel key 5×5×16	E G3/8, G1/8	Omit Standard	No paint	Omit Standard
	20	U 3-1/4-28UNF Circle flange, pilot Ø31.5×5	B Shaft Ø15.875, parallel key 4.8×4.8×19.05	U 9/16-18UNF, 3/8-24UNF	R Opposite	Blue	O No case drain
	32	F 2-Ø9 Rhomb-flange, pilot Ø63×2	C Shaft Ø16.5, involute B17×14, DIN5482	1E End port G3/8, G1/8		Black	
	40			1U End port 9/16-18UNF, 3/8-24UNF		Silver grey	
	50						

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



BMP SERIES HYDRAULIC MOTOR

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

Characteristic features:

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

Main Specification

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

Type		BMP BMPH BMPW 36	BMP BMPH BMPW 50	BMP BMPH BMPW 80	BMP BMPH BMPW 100	BMP BMPH BMPW 125	BMP BMPH BMPW 160	BMP BMPH BMPW 200	BMP BMPH BMPW 250	BMP BMPH BMPW 315	BMP BMPH BMPW 400	BMP BMPH BMPW 500
Geometric displacement (cm ³ /rev.)		36	51.7	77.7	96.2	120.2	157.2	194.5	240.3	314.5	389.5	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)

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

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)

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

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)

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

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)

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

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	367 360

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	568 10
20	30	110 62	205 61	278 60	360 57	395 46	494 40	566 36
		101 94	196 93	271 91	349 88	388 76	490 68	565 65
35	45	96 109	188 107	264 106	341 104	382 96	478 89	557 84
		89 141	180 140	254 138	337 135	372 127	468 120	553 115
55	60	76 173	166 172	239 170	325 167	362 160	457 152	548 143
		65 188	154 186	227 184	308 182	348 178	443 172	529 163
Max.int.	75	40 236	120 234	201 232	279 228	323 226	418 223	497 214

BMP 400 [389.5cm³/rev.]

Pressure (MPa)

	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	612 21
20	30	162 50	223 49	273 49	331 48	413 45	495 41	608 35
		154 76	216 75	266 74	318 73	405 71	486 67	600 60
35	45	146 88	210 87	256 87	312 86	395 83	480 80	588 75
		132 114	197 113	243 112	300 110	383 108	464 106	576 99
55	60	117 139	184 137	227 136	283 135	363 135	450 132	552 123
		102 153	163 152	215 150	272 148	347 146	436 143	532 138
Max.int.	75	53 191	128 189	182 187	234 185	318 183	391 180	484 176

Torque (N·m) 234
Speed (rpm) 185

BMP500[486.5cm³/rev.]

Pressure (MPa)

	1.5	3	4.5	6	7	8	9
	1.5	3	4.5	6	7	8	9

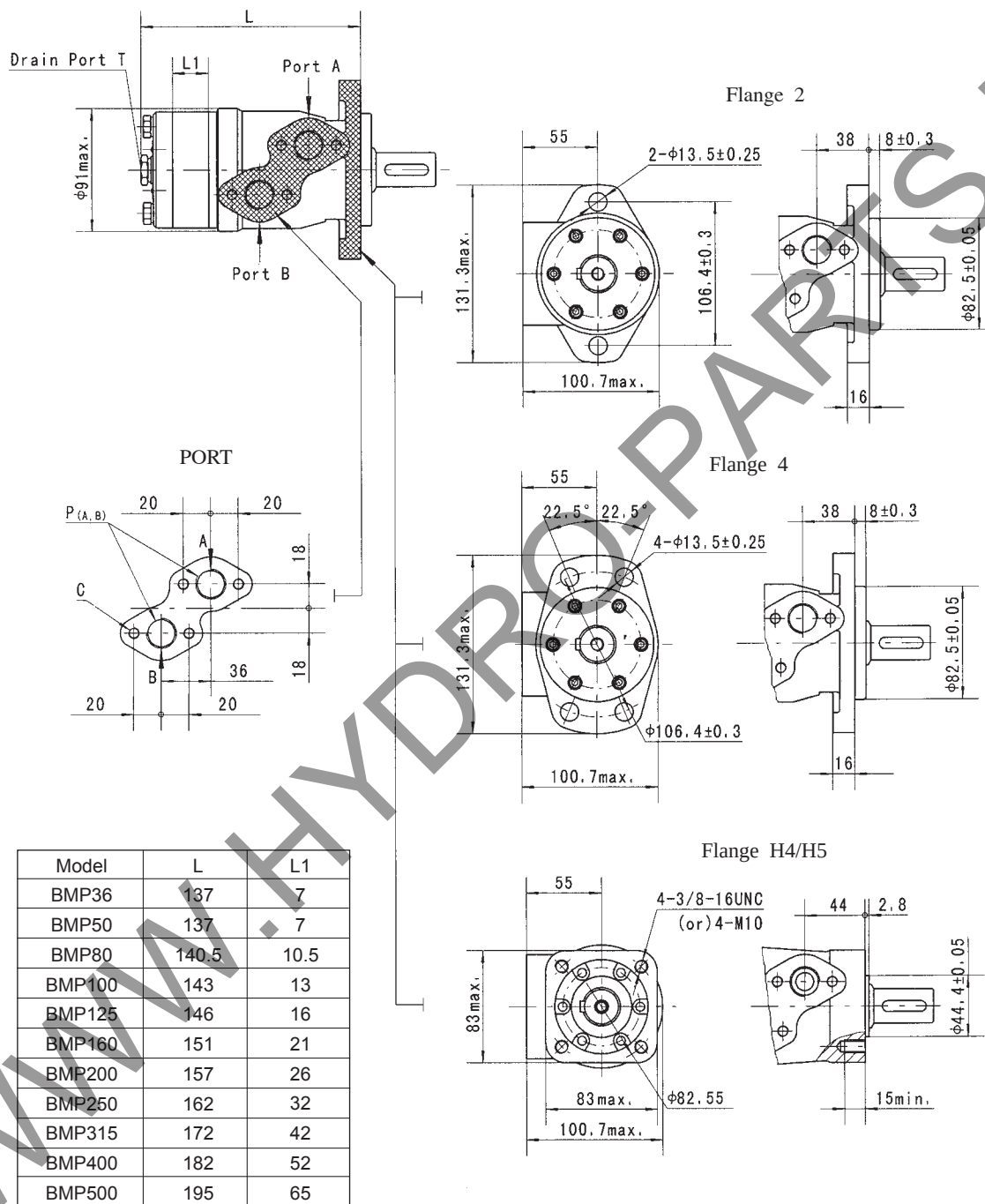
Flow (L/min)	4	96 7	194 6	285 4				
	8	98 15	201 15	304 14	391 14	443 12	512 9	574 7
15	20	96 30	192 30	284 29	380 28	421 26	496 23	550 22
		96 40	191 40	280 40	372 39	418 37	493 33	546 31
30	40	91 61	185 60	272 60	360 58	412 56	486 53	541 50
		86 81	172 80	261 80	343 79	408 76	480 73	538 70
50	60	78 102	160 101	241 100	332 98	391 96	466 93	528 90
		66 122	134 121	213 120	305 119	371 117	438 114	496 110
Max.int.	70	52 143	111 142	189 141	292 139	344 137	418 135	475 131
		35 153	83 152	154 151	241 150	312 149	389 147	448 144

cont.
int.

Torque (N·m) 389
Speed (rpm) 147

BMP DIMENSIONS AND MOUNTING DATA

MOUNTING



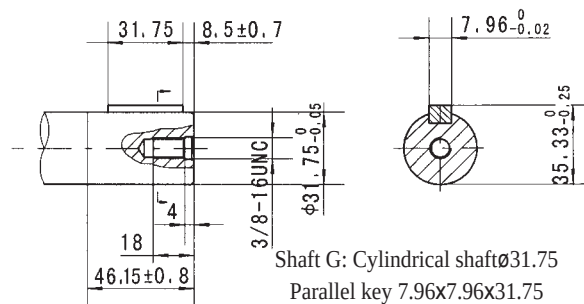
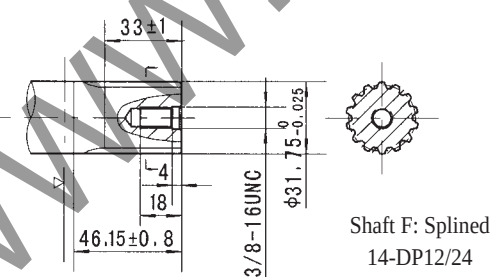
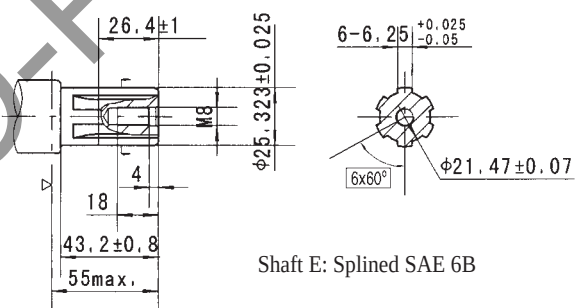
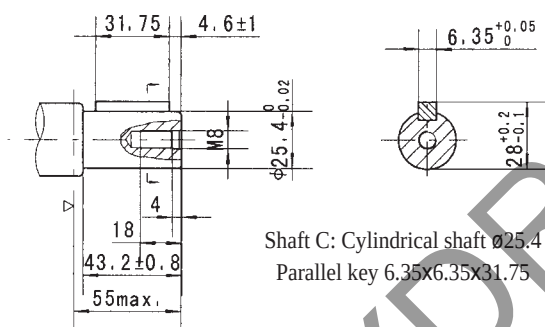
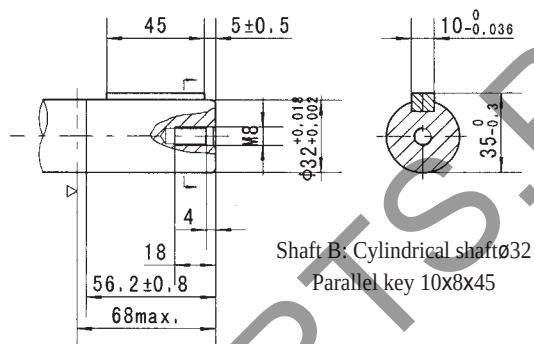
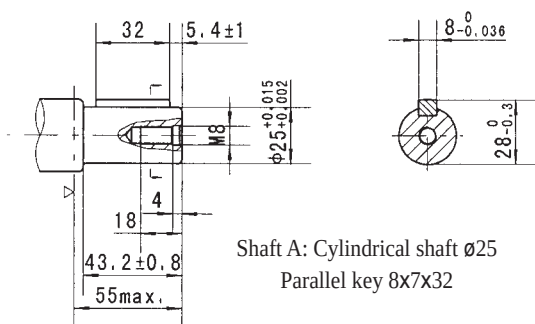
Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
Mounting					
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

MOUNTING



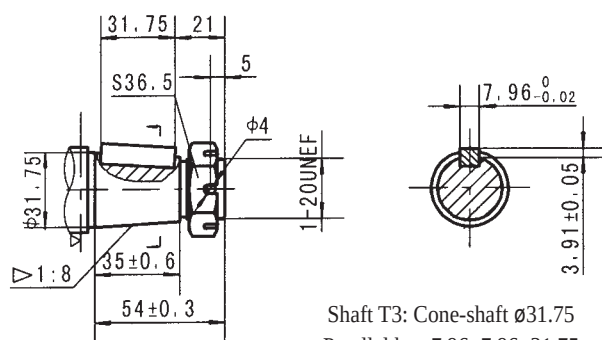
Code Mounting	G (depth)	S (depth)	P (depth)	T (depth)	R (depth)	B4 (depth)	B5 (depth)
P(A,B)	G1/2 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	3/4-16 O-ring (15)	PT(RC)1/2 (15)	ø10	ø10
T	G1/4 (12)	7/16-20UNF (12)	7/16-20UNF (12)	7/16-20UNF(12)	PT(RC)1/4 (9.7)	7/16-20UNF(12)	G1/4(12)
C	—	—	—	—	—	4-5/16-18UNC(13)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

BMP SHAFT EXTENSIONS DIMENSIONS DATA

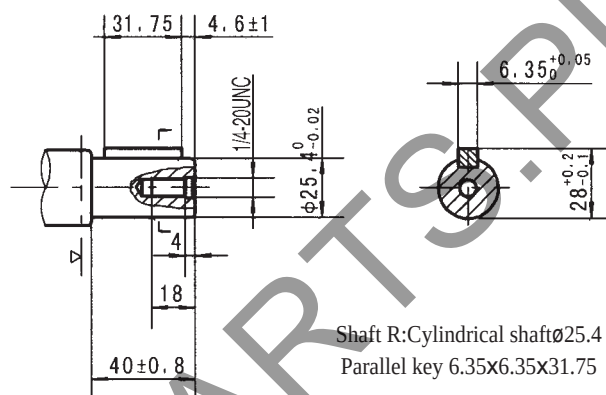


▷ Motor Mounting Surface

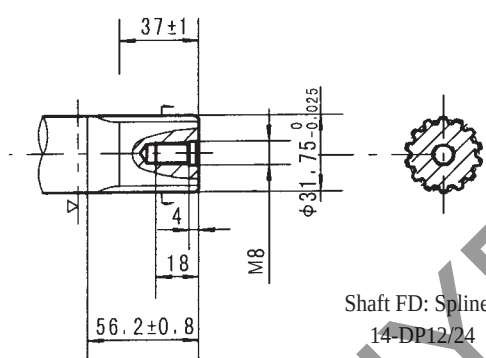
BMP SHAFT EXTENSIONS DIMENSIONS DATA



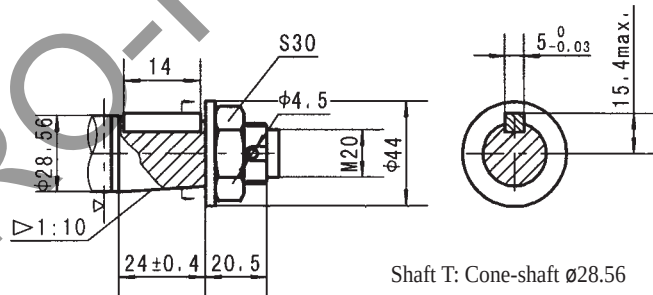
Shaft T3: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x31.75
Tightening torque: 200±10Nm



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



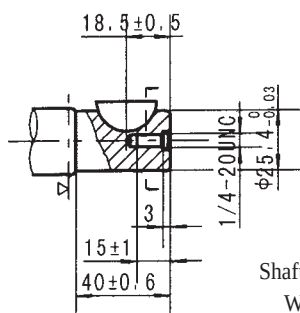
Shaft FD: Splined
14-DP12/24



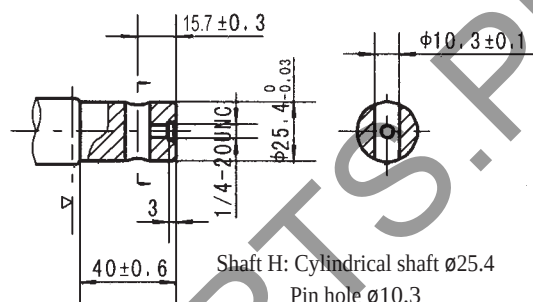
Shaft T: Cone-shaft $\varnothing 28.56$
Parallel key B5x5x14
Tightening torque: 100±10Nm

▷ Motor Mounting Surface

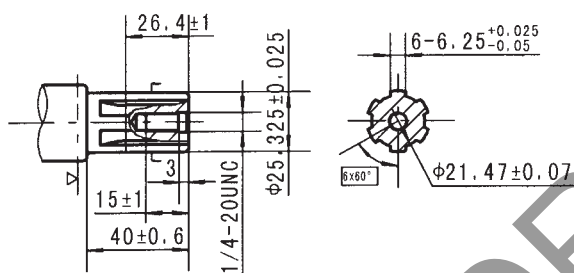
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



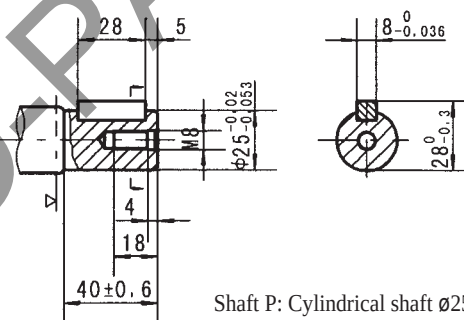
Shaft K: Cylindrical shaft $\phi 25.4$
Woodruff key $\phi 25.4 \times 6.35$



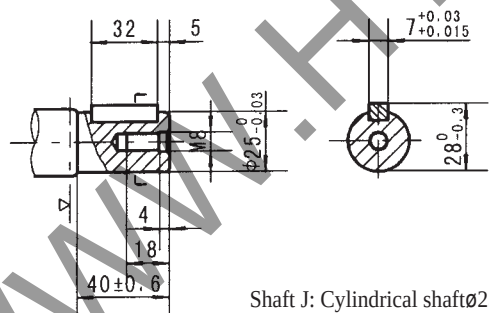
Shaft H: Cylindrical shaft $\phi 25.4$
Pin hole $\phi 10.3$



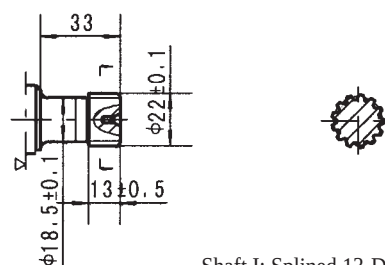
Shaft S: Splined SAE 6B



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



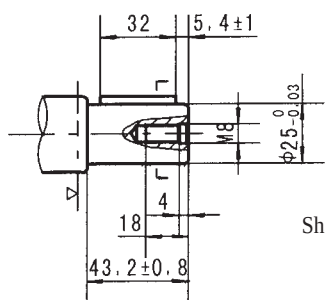
Shaft J: Cylindrical shaft $\phi 25$
Parallel key $7 \times 7 \times 32$



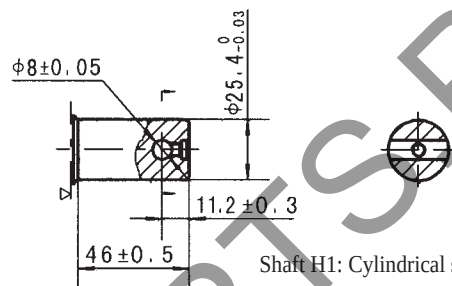
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

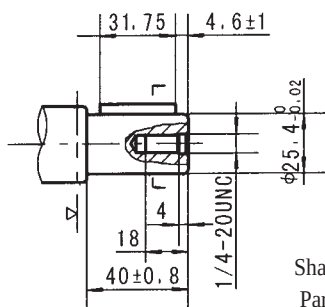
BMPH SHAFT EXTENSIONS DIMENSIONS DATA



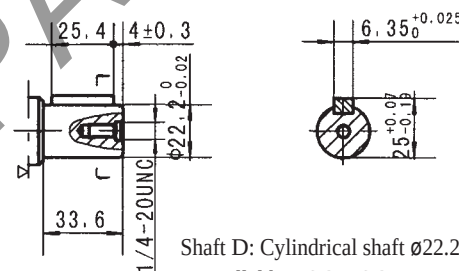
Shaft A: Cylindrical shaft ø25
Parallel key 8x7x32



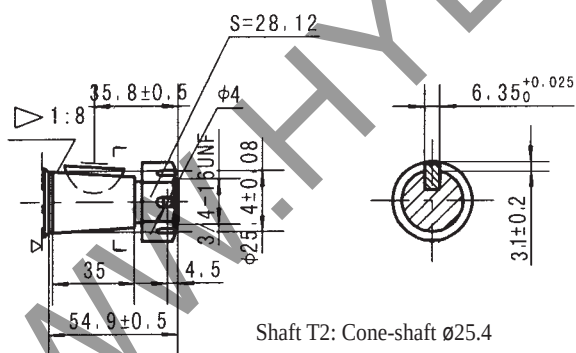
Shaft H1: Cylindrical shaft ø25.4
Pin hole ø8



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



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

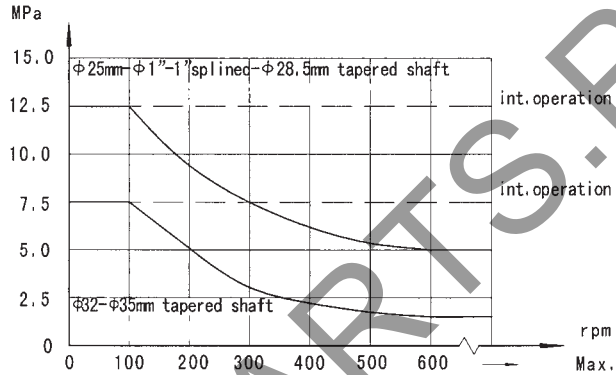
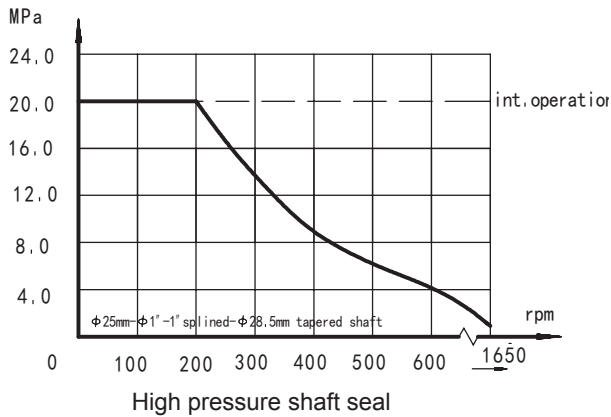
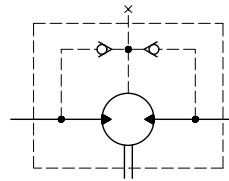


Shaft T2: Cone-shaft ø25.4
Parallel key ø25.4x6.35
Tightening torque: 200 ± 10 Nm

▷ Motor Mounting Surface

BMP, BMPH Series Hydraulic Motor

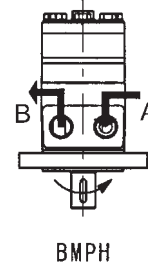
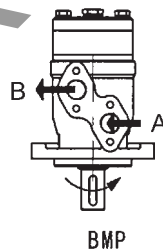
Permissible shaft seal pressure



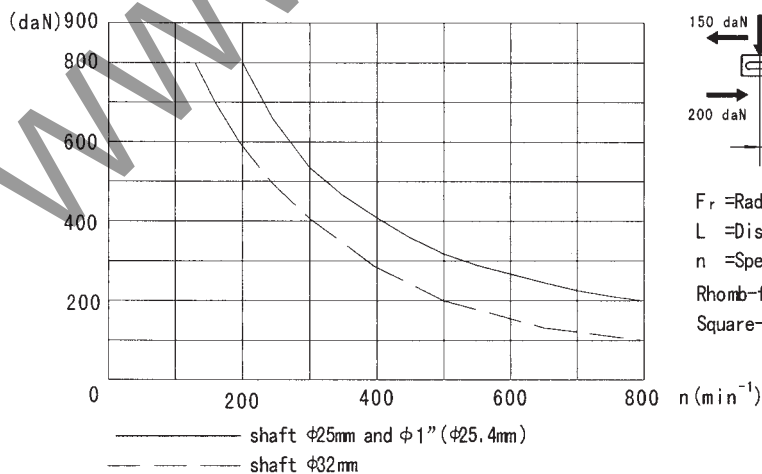
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation: Standard

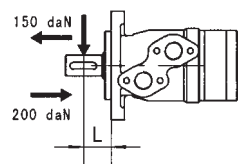
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



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

Pos.1	2	3	4	5	6	7	8	
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function	
BMP	36	2-Ø13.5 Rhomb-flange , pilot Ø82.5×8 4-Ø13.5 Rhomb-flange , pilot Ø82.5×8	A Shaft Ø25,parallel key 8x7x32	D G1/2 Manifold Mount	Omit R	00 Omit B S	No paint Blue Black Silver grey	
	50		C Shaft Ø25.4, parallel key 6.35x6.35x31.75	M M22×1.5 Manifold Mount				
	80		E Shaft Ø25.4, splined tooth SEA 6B	M 4×M8, M14×1.5				
	100		F Short shaft Ø25.4, parallel key 6.35x6.35x31.75	S 7/8-14 O-ring manifold				
	125		T Cone shaft Ø28.56,parallel key B5x5x14	4x5/16-18UNC, 7/16-20UNF				
	160	H4	4-3/8-16 Square-flange , pilot Ø44.4×2.8	B Shaft Ø32,parallel key 10x8x45	P	Manifold 4x5/16-18UNC, 7/16-20UNF	Standard Opposite	Omit N1
	200	H5	4-M10 Square-flange , pilot Ø44.4×2.8	F Shaft Ø31.75, splined tooth 14-DP12/24	R	PT (Rc)1/2 Manifold 4xM8 , PT (Rc)1/4	Big radial force No case drain Free Running Low Speed	
	250		FD Long shaft Ø31.75, splined tooth 14-DP12/24					
	315		G Shaft Ø31.75, parallel key 7.9x7.9x31.75					
	400		T3 Cone shaft Ø31.75, parallel key 7.9x7.9x25.4					
500								

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

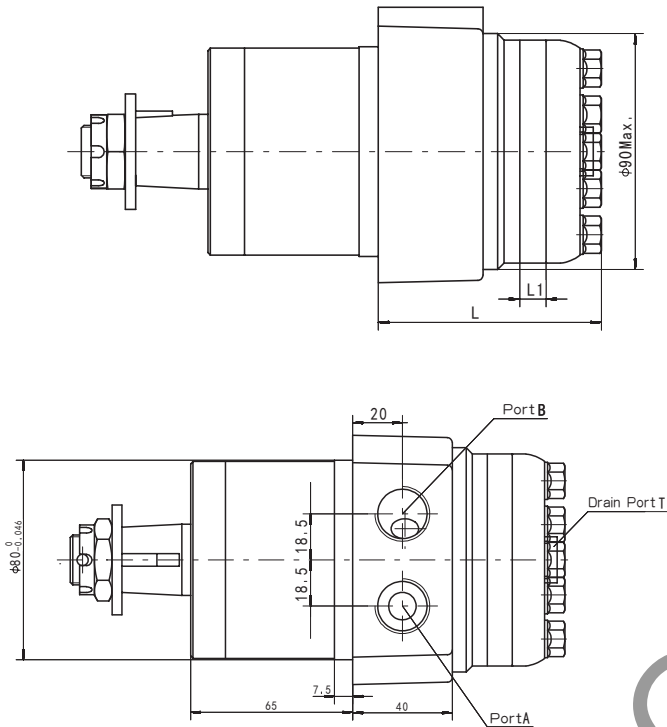
Diagram of a 1D chain with 8 sites. Site 1 is labeled 'BMFH' in a grey box. Sites 2 through 8 are empty boxes. Horizontal lines connect sites 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, and 7-8. Vertical lines connect each site to its corresponding number (1-8) below it.

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		K Shaft Ø25.4, woodruff key Ø25.4x6.35	G	G1/2, G1/4	00	Omit
	50	H2	S Shaft Ø25.4, splined tooth SEA 6B	S	7/8-14 O-ring, 7/16-20UNF	Omit	N1
	80		A Shaft Ø25, parallel key 8x7x32	P	1/2-14 NPTF, 7/16-20UNF	Blue	0
	100	H6	R Shaft Ø25.4, parallel key 6.35x6.35x31.75	T	3/4-16 O-ring, 7/16-20UNF	Black	F
	125		H Shaft Ø25.4, pin hole Ø10.3	R	PT(Rc)1/2, PT(Rc)1/4	S	LS
	160	H4	D Shaft Ø22.22, parallel key 6.35x6.35x25.4	B4	Ø10 O-ring manifold		
	200		I Shaft Ø22.22, splined tooth 13-DP16/32	B5	4x5/16-18UNC, 7/16-20UNF		
	250	H5	T2 Cone shaft Ø25.4, woodruff key Ø25.4x6.35		Ø10 O-ring manifold 4xM8, 7/16-20UNF		
	315		P Shaft Ø25, parallel key 8x7x28				
	400		J Shaft Ø25, parallel key 7x7x32				
	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.

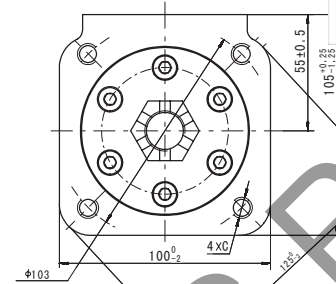


BMPW DIMENSIONS AND MOUNTING DATA



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)	M22x1.5 (15)
T		G1/4 (12)	7/16-20UNF (12)	M14x1.5 (12)
C		4xM10(20)	4x3/8-16UNC(20)	4xM10(20)



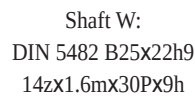
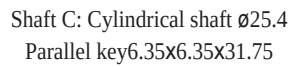
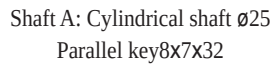
Order Information

1 2 3 4 5 6 7 8

BMPW

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 pilot Ø80x7.5 Omit	Shaft Ø25x6 ,Parallel key 8x7x32 Shaft Ø25.4 ,Parallel key 6.35x6.35x31.75 Shaft Ø25.4 ,Splined key SAE 6B Cone shaft Ø28.56 ,Parallel key B5x5x14	G G1/2, G1/4 S 7/8-14 O-ring, 7/16-20UNF M M22x1.5, M14x1.5	Omit Standard Opposite R	No paint Blue Black Silver grey	Omit Standard N1 Big radial force 0 No case drain

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



Order Information

0Z	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		A Shaft Ø25 , parallel key 8×7×32	D G1/2 Manifold 4×M8, G1/4			
	80		C Shaft Ø25.4 , parallel key 6.35×6.35×31.75	M M22×1.5 Manifold4×M8,M14×1.5			
	100		E Shaft Ø25.4 , splined key SEA 6B	S 7/8-14 O-ring manifold			
	125	2 2-Ø13.5 Rhomb-flange ,		4×5/16-18UNC,7/16-20UNF			
	160	pilot Ø82.5×8		1/2-14NPTF manifold			
	200		W Shaft Ø24.5, splined B25X22	P 4×5/16-18UNC,7/16-20UNF			
	250		T Cone shaft Ø28.56, parallel key B5×5×14	PT(Rc) 1/2 manifold 4×M8,			
	315			PT(Rc) 1/4			
	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.	1250	960	750	600	475	378	310	240	190	155
	int.	1520	1150	940	750	600	475	385	300	240	190
Max. torque (N·m)	cont.	72	100	195	240	300	380	450	540	550	580
	int.	83	126	220	280	340	430	500	610	690	690
	peak	105	165	270	320	370	460	560	710	840	830
Max. output (kW)	cont.	8.5	9.5	12.5	13.0	12.5	12.5	11.0	10.0	9.0	7.5
	int.	9.8	11.2	15.0	15.0	14.5	14.0	13.0	12.0	10.0	9.0
Max. pressure drop (MPa)	cont.	14.0	14	17.5	17.5	17.5	17.5	17.5	17.5	13.5	11.5
	int.	16.5	17.5	20	20	20	20	20	20	17.5	15
	peak	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21	17.5
Max. flow (L/min)	cont.	45	50	60	60	60	60	60	60	60	60
	int.	55	60	75	75	75	75	75	75	75	75
Weight (kg)		6.5	6.7	6.9	7	7.3	7.6	8.0	8.5	9.0	9.5

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

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

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

Performance Data

BMR 36 [36cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	2	3	5	7	9	10	12.5	14.0	16.5
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
40	5	11	19	30	41	45	61	68	79
	1092	1080	1069	1056	1042	1028	1011	984	957
Max.int.	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
5	35	45	61	67	77	88		
	93	84	76	73	69	46		
10	36	46	62	69	80	95	108	120
	186	178	166	162	153	136	118	97
15	35	49	63	73	88	100	109	123
	283	277	269	261	250	230	211	185
20	34.5	47	61	69	83	96	109	126
	377	375	365	361	346	330	302	270
30	33	44	60	67	80	95	108	126
	576	569	561	554	542	531	500	465
40	30	41	58	66	79	92	106	122
	760	758	753	750	738	724	700	670
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
60	20	33	48	56	69	81	95	109
	1138	1124	1100	1075	1056	1028	1006	970

BMR 80 [81.5cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	5	7	9	10	12	14	16	17.5	20
5	50	64	88	108	133				
	59	56	50	44	38				
10	54	77	99	108	129	150	173		
	118	113	106	97	86	79	56		
20	57	78.0	102	111	134	155	177	196	225
	238	234	227	216	203	190	178	154	135
30	54	75	100	108	131	152	176	195	223
	360	352	340	332	316	302	290	274	250
40	48	73	96	105	127	148	172	190	220
	480	470	458	445	430	418	403	388	359
50	42	70	93	102	124	147	170	188	218
	604	595	582	570	556	540	521	504	487
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

BMR 100 [102cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	5	7	9	10	12	14	16	17.5	20
5	66	92	120	135	156				
	45	42	38	34	27				
10	68	96	125	138	159	188	212		
	93	90	86	81	74	57	42		
20	65	94.0	123	137	155	186	210	238	274
	189	185	180	173	165	158	150	139	118
30	63	92	120	133	153	185	209	235	270
	286	281	275	266	257	246	237	225	207
40	57	88	117	130	152	185	208	233	267
	385	378	365	355	345	332	320	314	297
50	48	79	110	123	150	183	204	228	260
	482	477	470	460	448	435	420	405	389
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

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
75	32 586	79 583	126 578	148 570	180 560	208 546	234 532	262 520	300 480

BMR 160 [157.2cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
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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	252 220	290 210	335 194	363 177	412 150
	50	72 310	128 307	179 300	202 295	244 287	284 278	327 262	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
75	36 472	98 463	152 450	185 441	226 431	265 420	300 405	334 389	379 365

BMR 200 [194.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
--	---	---	---	----	----	----	----	------	----

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	264 141	311 135	355 126	402 113	431 105
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	398 212	421 194
60	78 304	145 301	213 298	238 294	289 286	342 276	386 262	412 243	459 218
	70	67 355	135 353	206 349	228 340	277 329	336 316	375 300	408 288
75	58 382	125 379	197 373	220 362	270 350	321 337	360 322	398 312	442 278

BMR 250 [253.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5	20
--	---	---	---	----	----	----	----	------	----

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	550 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	535 140
60	103 233	192 230	280 227	314 224	371 218	426 205	489 190	514 181	578 155
	70	88 273	178 270	264 267	301 263	356 252	418 242	479 226	498 209
75	62 294	165 291	256 287	288 283	347 274	412 263	474 249	486 236	542 211

cont.
int.

Torque (N•m) 256
Speed (rpm) 287

Performance Data

BMR 315 [317.5cm³/rev.]

Pressure (MPa)

	5	7	9	10	12	14	16	17.5

Flow (L/min)	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
	30	204 91	296 89	375 86	413 84	480 81	542 78	613 72
	40	196 122	287 120	368 117	410 112	477 106	539 100	609 94
	50	176 154	270 151	356 147	393 140	461 131	526 120	597 109
Max.cont.	60	162 185	246 182	339 177	374 172	446 163	511 152	586 140
	70	143 217	235 213	324 208	358 201	430 190	493 178	562 166
Max.int.	75	125 232	212 228	303 222	339 216	417 208	543 200	582 183

Torque (N·m) 481
Speed (rpm) 200

BMR 375 [381.4cm³/rev.]

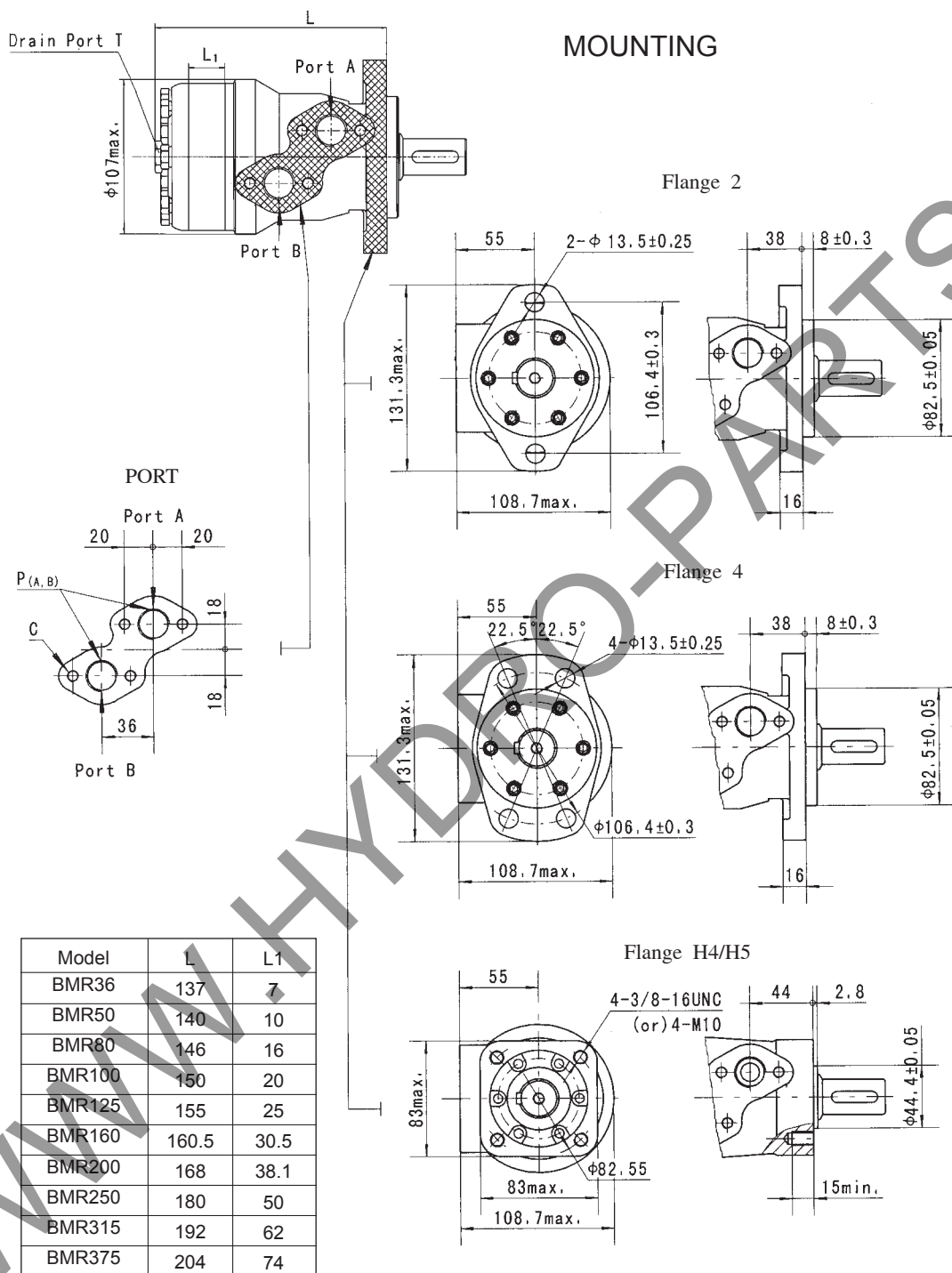
Pressure (MPa)

	3	4.5	5.5	6.5	8	10	12.5	14

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

cont.
int.

BMR DIMENSIONS AND MOUNTING DATA

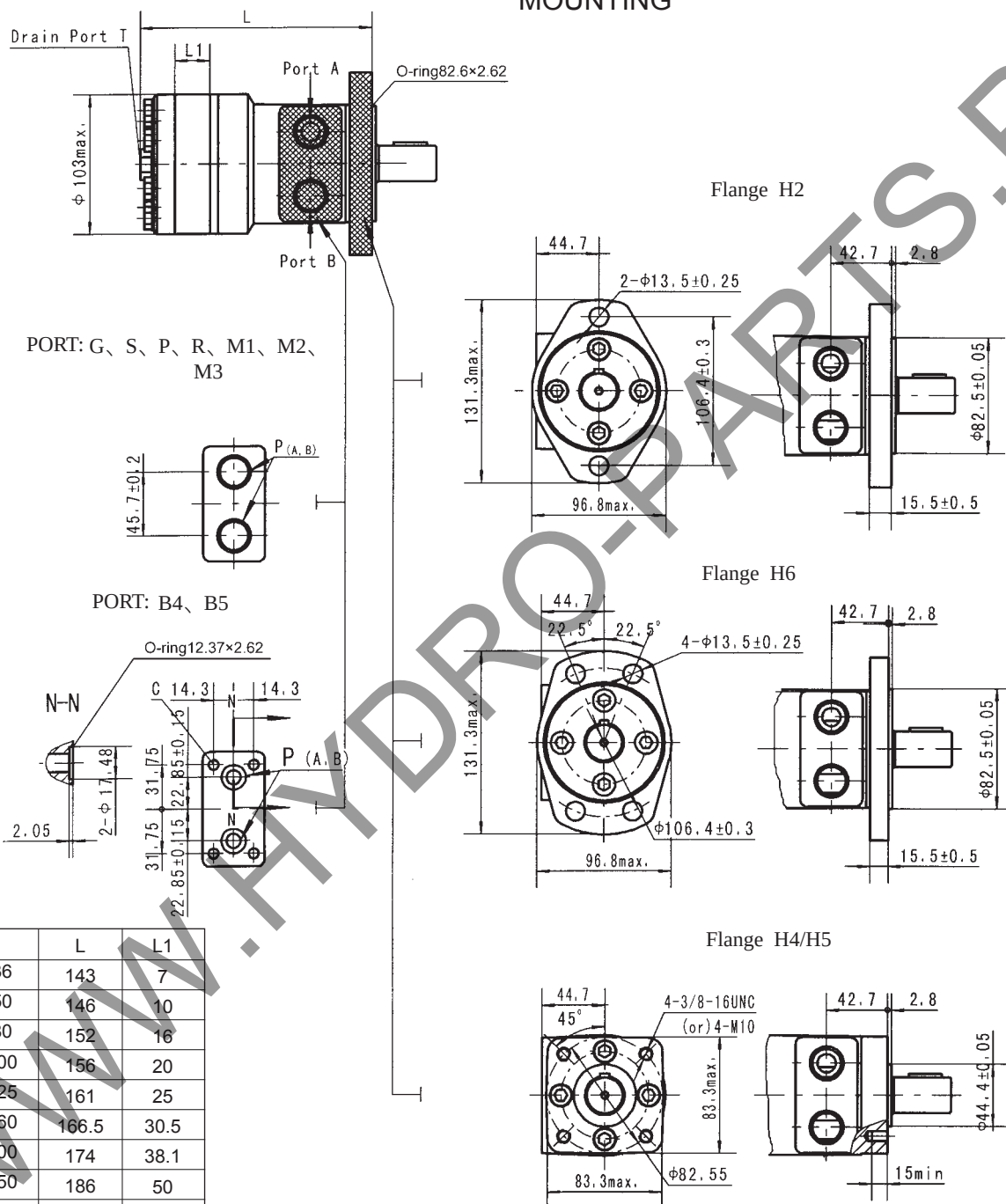


Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
Mounting					
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (17)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)



BMRS DIMENSIONS AND MOUNTING DATA

MOUNTING

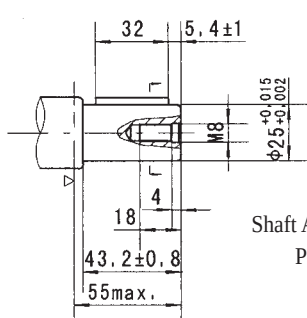


Model	L	L1
BMRS36	143	7
BMRS50	146	10
BMRS80	152	16
BMRS100	156	20
BMRS125	161	25
BMRS160	166.5	30.5
BMRS200	174	38.1
BMRS250	186	50
BMRS315	198	62
BMRS375	210	74

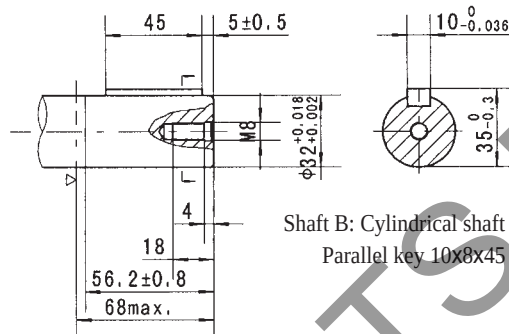
Note: The size L of the BMRS N1 should be increased by 2mm.

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)	$\phi 10$	$\phi 10$
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)

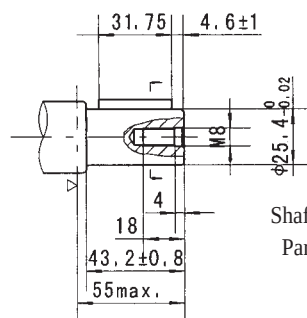
BMR SHAFT EXTENSIONS DIMENSIONS DATA



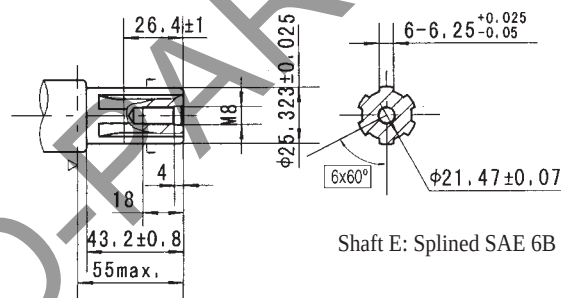
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



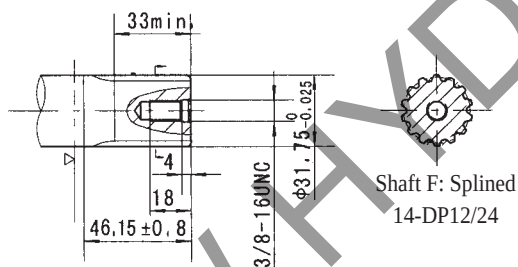
Shaft B: Cylindrical shaft Ø32
Parallel key 10x8x45



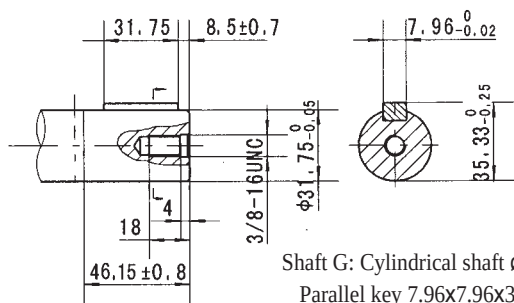
Shaft C: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75



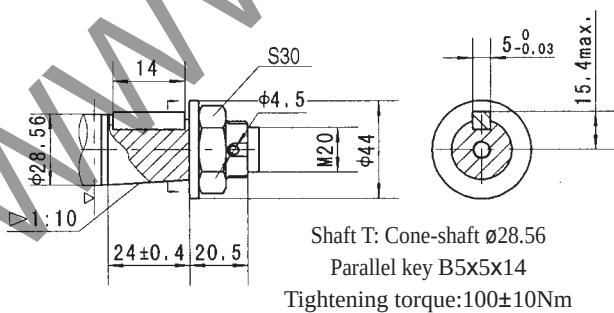
Shaft E: Splined SAE 6B



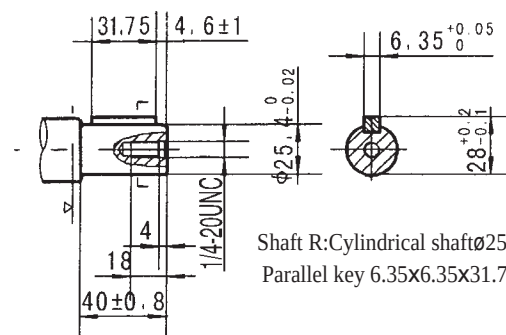
Shaft F: Splined
14-DP12/24



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



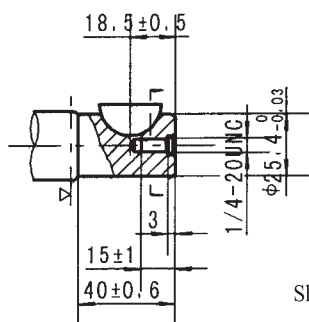
Shaft T: Cone-shaft Ø28.56
Parallel key B5x5x14
Tightening torque: 100 ± 10 Nm



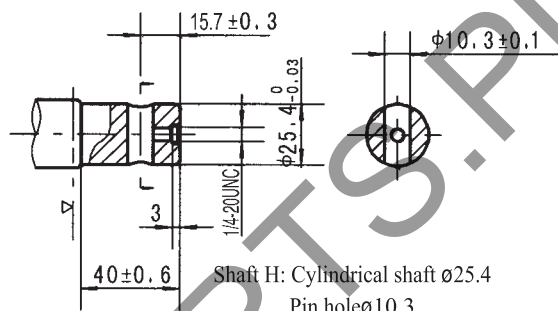
Shaft R: Cylindrical shaft Ø25.4
Parallel key 6.35x6.35x31.75

▷ Motor Mounting Surface

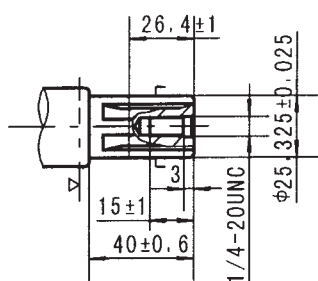
BMRS SHAFT EXTENSIONS DIMENSIDNS DATA



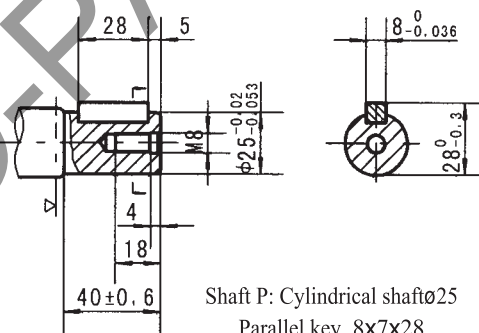
Shaft K: Cylindrical shaft ø25.4
Woodruff key ø25.4x6.35



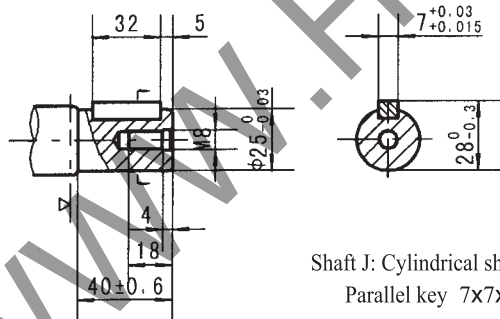
Shaft H: Cylindrical shaft ø25.4
Pin hole ø10.3



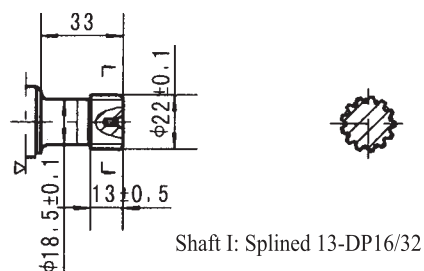
Shaft S: Splined SAE 6B



Shaft P: Cylindrical shaft ø25
Parallel key 8x7x28



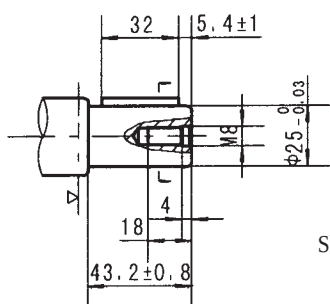
Shaft J: Cylindrical shaft ø25
Parallel key 7x7x32



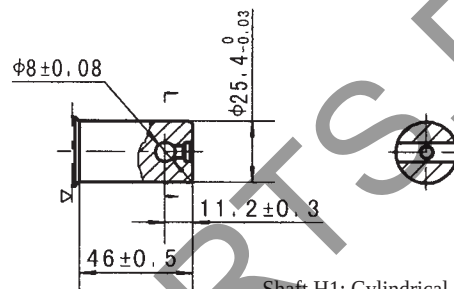
Shaft I: Splined 13-DP16/32

▷ Motor Mounting Surface

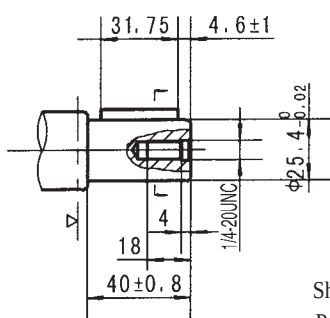
BMRS SHAFT EXTENSIONS DIMENSIONS DATA



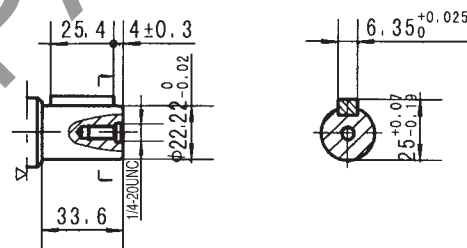
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



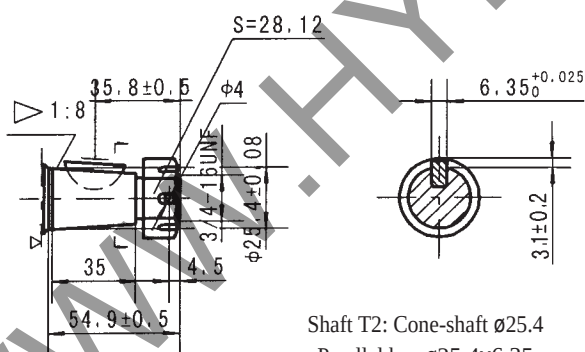
Shaft H1: Cylindrical shaft Ø25.4
Pin hole Ø8



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



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

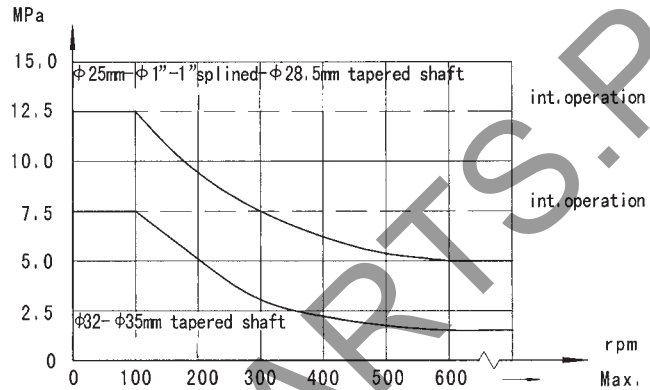
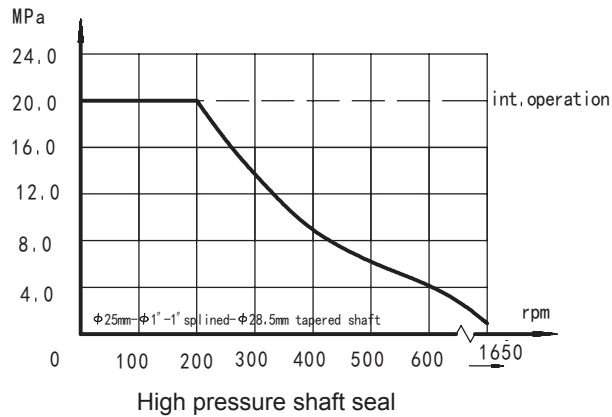


Shaft T2: Cone-shaft Ø25.4
Parallel key Ø25.4x6.35
Tightening torque: 200±10Nm

▷ Motor Mounting Surface

BMR, BMRS Series Hydraulic Motor

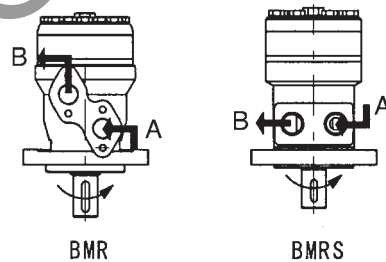
Permissible shaft seal pressure



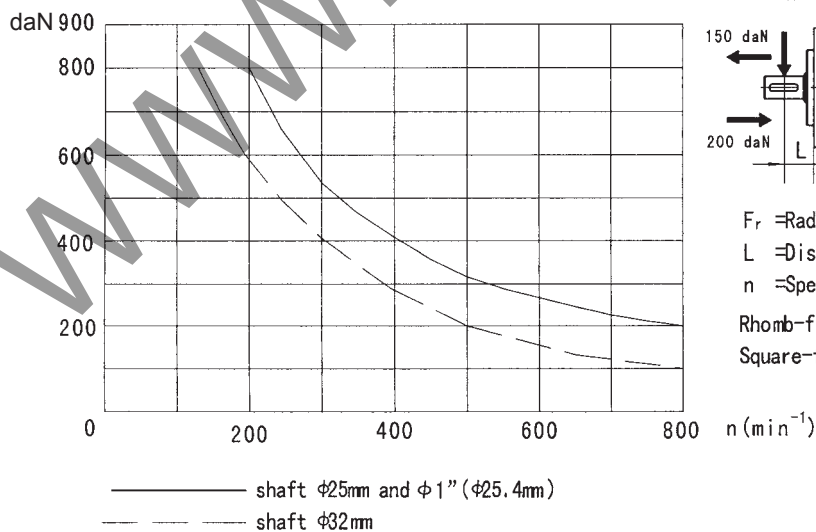
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation : Standard

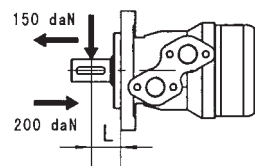
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



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



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



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	BMR	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
BMR	36	2-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-Ø13.5Rhomb-flange, pilot Ø82.5×8 4-3/8-16 Square-flange, pilot Ø44.4×2.8 4-M10 Square-flange, pilot Ø44.4×2.8	A Shaft Ø25,parallel Key 8x7x32	D G1/2 Manifold Mount 4-M8, G1/4	Omit Standard Opposite R	00 Omit B S	Omit N1 0 F LS Standard Big radial force No case drain Free Running Low Speed
	50		C Shaft Ø25.4,parallel Key 6.35x6.35x31.75	M M22×1.5 Manifold Mount			
	80		E Shaft Ø25.4,splined tooth SAE 6B	4-M8, M14×1.5			
	100		R Short shaft Ø25.4,parallel Key 6.35x6.35x31.75	7/8-14 O-ring manifold			
	125		T Cone-Shaft Ø28.56,parallel Key B5x5x14	4-5/16-18UNC, 7/16-20UNF			
	160	H4	B Shaft Ø32,parallel Key 10x8x45	P	Manifold 4-5/16-18UNC, 7/16-20UNF PT (Rc)1/2 Manifold 4-M8, PT (Rc)1/4		
	200	H5	F Shaft Ø31.75 Splined tooth 14-DP12/24				
	250		FD Long shaft Ø31.75,splined tooth 14-DP12/24				
	315		G Shaft Ø31.75,parallel Key 7.96x7.96x31.75				
	375						

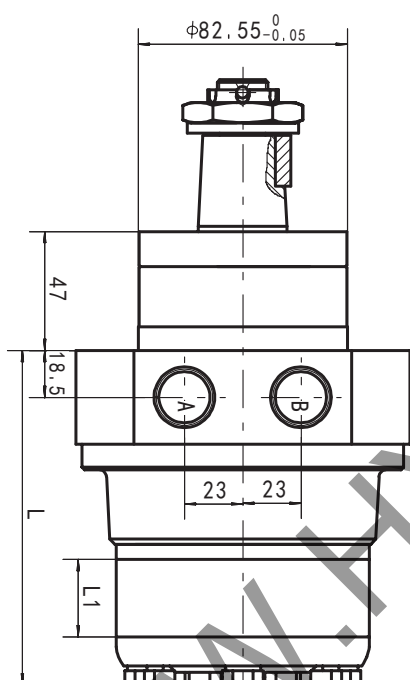
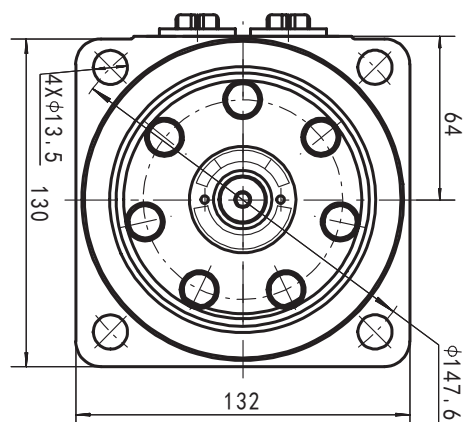
Note: The shafts of B\F\FD\G\T1\T3 are only suitable for flanges of 2 and 4.

1	2	3	4	5	6	7	8
BMRS							

Pos.1	2	3	4	5	6	7	8		
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function		
BMRS	36	2-Ø13.5Rhomb-flange, pilot Ø82.5×2.8	K	Shaft Ø25.4, Woodruff Key Ø25.4×6.35	G	G1/2, G1/4	Omit N1 0 F LS		
	50		S	Sub-shaft Ø25.4, splined tooth	S	7/8-14 O-ring 7/16-20UNF (G1/4)		00 Omit B S	
	80		A	Shaft Ø25 , parallel key 8×7×32	P	1/2-14 NPTF, 7/16-20UNF (G1/4)			No paint Blue Black Silver grey
	100		R	Shaft Ø25.4, parallel key 6.35×6.35×31.75	T	3/4-16 O-ring, 7/16-20UNF			
	125	H	Sub-shaft Ø25.4, Pin hole Ø10.3	R	PT(Rc)1/2, PT(Rc)1/4	Standard Big radial force No case drain Free Running Low Speed			
	160	H1	Shaft Ø25.4, pin hole Ø8	B4	Ø10 O-ring manifold 4x5/16- 18, 7/16-20UNF		Standard Big radial force No case drain Free Running Low Speed		
	200	D	Shaft Ø22.22, parallel key 6.35×6.35×25.4	B5	Ø10 O-ring manifold 4xM8, G1/4			Standard Big radial force No case drain Free Running Low Speed	
	250	I	Shaft Ø22.22, splined tooth 13-DP16/32	M1	M18×1.5, M10×1				Standard Big radial force No case drain Free Running Low Speed
	315	T2	Cone shaft Ø25.4 , woodruff key Ø25.4×6.35	M2	M20×1.5, M10×1	Standard Big radial force No case drain Free Running Low Speed			
	375	P	Shaft Ø25, parallel Key 8×7×28	M3	M22×1.5, M10×1		Standard Big radial force No case drain Free Running Low Speed		
		J	Shaft Ø25, parallel Key 7×7×32					Standard Big radial force No case drain Free Running Low Speed	
									Standard Big radial force No case drain Free Running Low Speed

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

BMRWN DIMENSIONS MOUNTING DATA



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

Order Information

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	Omit 4-Ø13.5 Wheel Mount , Ø82.5×9.4	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	D 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 R Opposite	00- No paint Omit Blue B Black S 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.

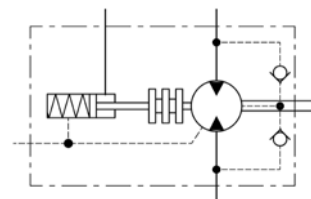
*Continuous pressure:Max. value of operating motor continuously.

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

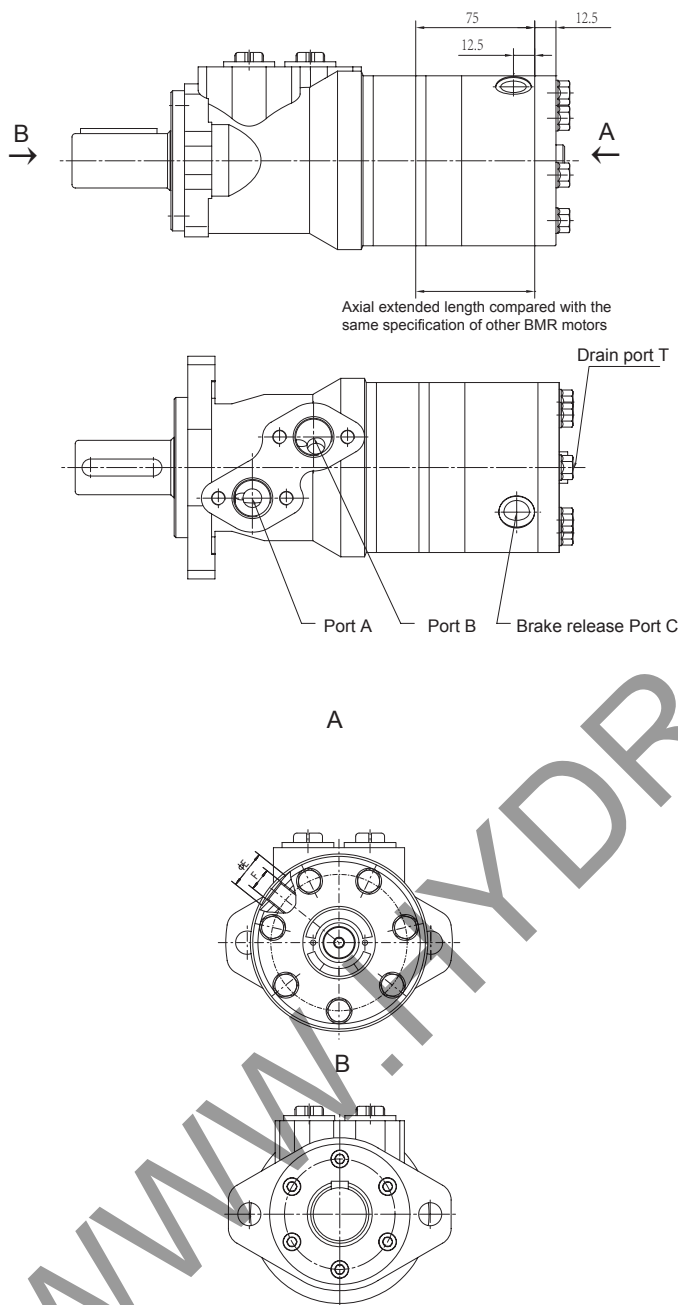
*Peak pressure:Max. value of operating motor in 0.6 second per minute.

*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



Model	Port C	ΦE	F
G		22	G1/4 Depth 9

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

Order information

BMR-BK01

1 2 3 4 5 6 7 8 9

Pos.1	2	3	4	5	6	7	8	9
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Brake release Port	Rotation Direction	Paint	Unusually Function
50	2	2-Ø13.5Rhomb-flange, pilot	A Shaft Ø25, parallel Key 8x7x32	D G1/2 Manifold Mount 4xM8, G1/4	G G1/4	Omit Standard	00 No paint	N1 Big radial force
80	4	Ø82.5x8	C Shaft Ø25.4, parallel Key 6.35x6.35x31.75	M M22x1.5 Manifold Mount 4xM8, M14x1.5	G Depth 9	R Opposite	B Blue	
100		4-Ø13.5Rhomb-flange, pilot	E Shaft Ø25.4, splined tooth SAE 6B	S 7/8-14 O-ring manifold	Depth 9 facing Ø22		Black	
125		Ø82.5x8	R Short shaft Ø25.4, parallel Key 6.35x6.35x31.75	P 4x5/16-18UNC, 7/16-20UNF			S Silver grey	
160	H4	4-3/8-16Square-flange, pilot	B Shaft Ø32, parallel Key 10x8x45	1/2-14 NPTF				
200		Ø44.4x2.8	F Shaft Ø31.75, splined tooth 14-DP12/24	Manifold 4x5/16-18UNC, 7/16-20UNF				
250	H5	4-M10Square-flange, pilot	FD Long shaft Ø31.75, splined tooth 14-DP12/24					
315		Ø44.4x2.8	G Shaft Ø31.75, parallel Key 7.96x7.96x31.75					
375			T Cone-Shaft Ø28.56, parallel Key B5x5x14	PT(Rc)1/2 Manifold 4xM8, PT(Rc)1/4				

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

Note: The shafts of B1/FD/G1/T3 are only suitable for flanges of 2 and 4.



OK SERIES HYDRAULIC MOTOR

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

Characteristic features:

- *Advanced manufacturing devices for the 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

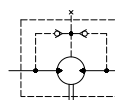
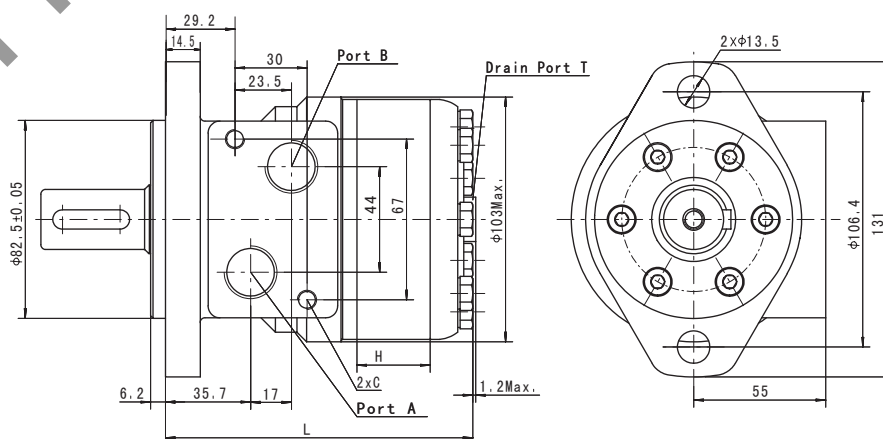
Main Specification

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

Code	Displacement [cm ³ /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

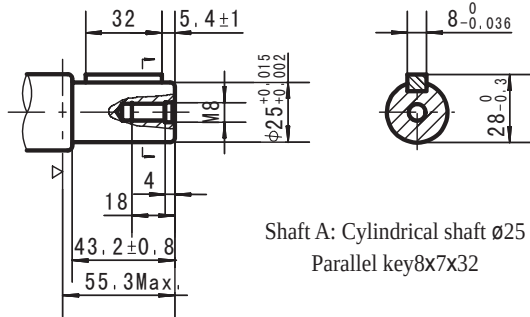
Type	H	L
OK36	7	105
OK50	10	108
OK80	16	114
OK100	20	118
OK125	25	123
OK160	30.5	128.5
OK200	38.1	136
OK250	50	148
OK315	62	160
OK375	74	172



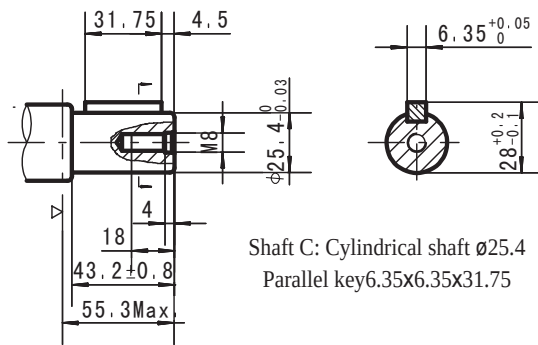
Code	D (depth)	M (depth)	S (depth)	P (depth)	R (depth)
P(A,B)	G1/2 (15)	M22 x 1.5 (15)	7/8-14 O-ring (16.7)	1/2-14NPTF (15)	PT(RC)1/2 (15)
C	4-M8 (13)	4-M8 (13)	4-5/16-18UNC(13)	4-5/16-18UNC(13)	4-M8 (13)
T	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)	7/16-20UNF (12)	PT(RC)1/4 (9.7)

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

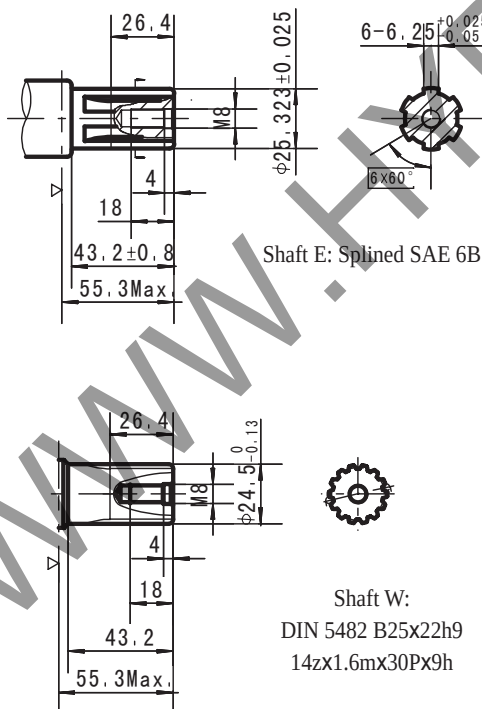
SHAFT EXTENSIONS FOR OK MOTORS



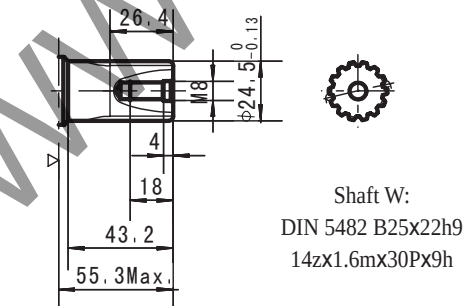
Shaft A: Cylindrical shaft Ø25
Parallel key 8x7x32



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



Shaft E: Splined SAE 6B



Shaft W:
DIN 5482 B25x22h9
14x1.6mx30Px9h

▷ Motor Mounting Surface

Order Information

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
36	50	80	100	125	160	200	250
315	375						
Omit		2-Ø13.5 Rhomb-flange , pilot Ø82.5x6.2	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 M Manifold 4xM8, G1/4 S M22x1.5 Manifold 4xM8, M14x1.5 P 7/8-14 O-ring manifold R 4x5/16-18UNC, 7/16-20UNF PT(Rc)1/2 manifold 4xM8, PT(Rc)1/4	Omit Standard Opposite	Omit No paint Blue Black Silver grey	Omit Standard Free Running No case drain



BMH SERIES HYDRAULIC MOTOR

BMH series motor adapt the advanced Gerolol 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 Gerolol 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
5	98	194	284			
10	101	204	301	391	482	
20	99	201	304	402	509	576
30	100	97	93	85	69	56
40	97	197	300	402	510	579
50	145	143	139	130	114	101
60	90	190	292	399	507	578
70	200	200	200	188	168	153
80	82	183	284	392	500	571
90	248	246	244	235	213	199
	73	174	274	384	493	563
	292	290	287	279	260	244
	63	163	264	374	481	554
	352	350	349	338	318	301
	59	157	259	366	475	547
	366	365	363	355	335	319
	53	150	253	358	466	538
	381	381	380	371	352	338
	39	140	241	348	456	526
	439	437	434	426	407	392

Flow (L/min)

Max.cont.

Max.int.

BMH 250 [255.9cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7	9	12	14.5	17.5	20
5	121	246	318	398			
10	130	258	331	425	515	595	
20	130	258	332	432	520	621	702
30	122	251	327	429	520	621	700
40	115	113	111	105	96	84	75
50	115	240	323	422	513	616	698
60	157	157	156	150	139	127	114
70	105	232	314	411	505	606	687
80	196	195	192	185	173	159	147
90	94	220	302	401	496	596	676
	232	230	226	218	206	192	180
	81.4	209	288	389	484	582	666
	274	274	274	266	252	238	222
	72	203	280	381	475	574	659
	290	289	287	279	266	251	236
	66	194	273	371	467	566	651
	303	302	298	290	279	264	249
	49	178	256	355	453	552	634
	348	347	345	337	325	309	292

Flow (L/min)

Max.cont.

Max.int.

BMH 315 [316.1cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	7.5	10	13.5	15.5	17.5	20
5	155	325					
10	163	342	454	556			
20	169	349	469	582	664	733	809
30	165	344	470	580	669	740	824
40	154	337	465	577	663	737	827
50	126	126	119	111	99	88	73
60	141	325	455	568	656	728	824
70	159	155	148	139	126	115	98
80	121	312	440	555	643	715	812
90	187	186	179	169	154	143	124
	103	298	425	541	631	703	800
	222	222	215	205	187	176	157
	94	287	417	529	623	696	792
	236	233	224	215	196	184	166
	82	277	406	518	611	688	784
	246	244	236	228	210	197	174
	62	256	386	496	593	669	767
	282	280	275	266	248	234	209

Flow (L/min)

Max.cont.

Max.int.

BMH 400 [406.4cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	3.5	6	10.5	12.5	15.5	19
5	196	348	516			
10	205	363	546	702	859	
20	209	366	543	708	874	988
30	201	357	542	706	864	984
40	195	346	532	701	858	973
50	173	332	518	687	848	958
60	154	319	501	668	833	944
70	138	305	480	649	814	925
80	128	294	466	637	802	911
90	113	277	451	621	786	899
	192	191	188	174	158	144
	90	256	433	595	767	881
	220	220	215	202	183	165

Flow (L/min)

Max.cont.

Max.int.

Torque (N·m) 593
Speed (rpm) 248

cont.
int.

Performance Data

BMH 500 [489.2cm³/rev.]

Pressure (MPa)

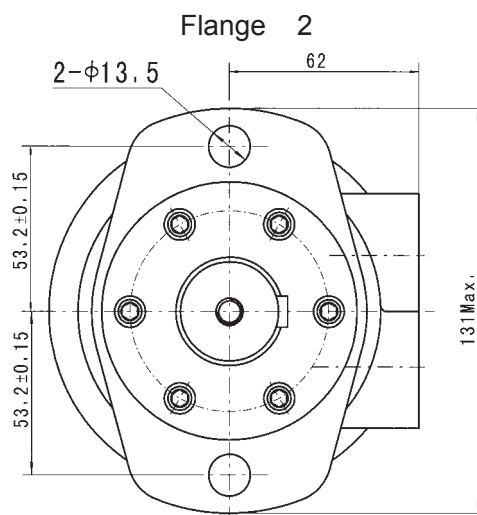
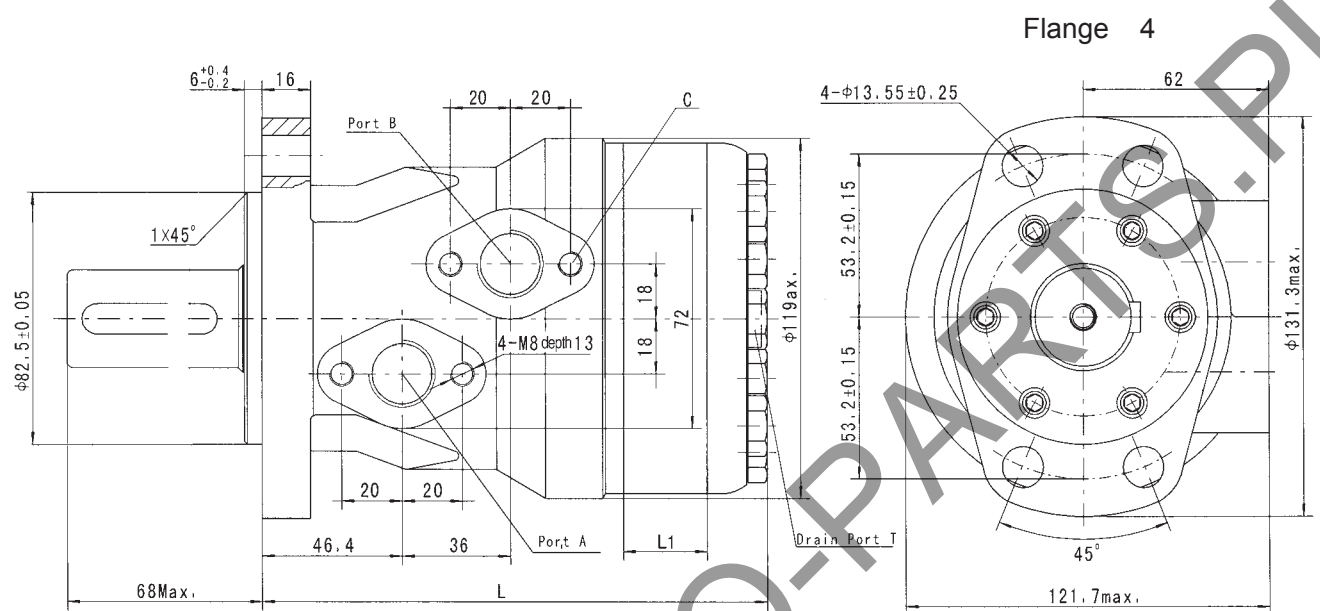
Max.cont. Max.int.

	2.5	5	8.5	10	12.5	16
5	165 11	317 11	516 8			
10	178 20	335 19	555 17	669 15	791 13	969 9
20	177 42	331 42	559 41	673 38	799 36	988 29
30	172 64	320 63	553 61	663 57	792 53	983 47
40	163 85	309 85	541 83	654 79	783 75	971 67
50	146 103	296 103	523 103	635 97	768 93	954 85
60	121 124	275 124	502 123	614 117	747 113	934 103
70	97 148	256 148	482 148	597 140	729 134	917 122
Max.cont. 75	79 155	240 155	469 155	582 152	714 144	902 130
80	60 166	226 166	453 166	570 159	701 153	884 139
Max.int. 90	34 184	201 183	421 182	550 177	673 166	869 155

cont.
int.

Torque (N·m) 673
Speed (rpm) 166

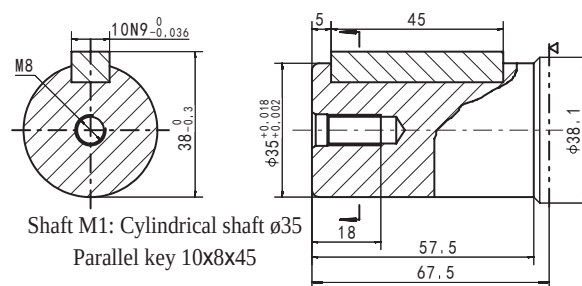
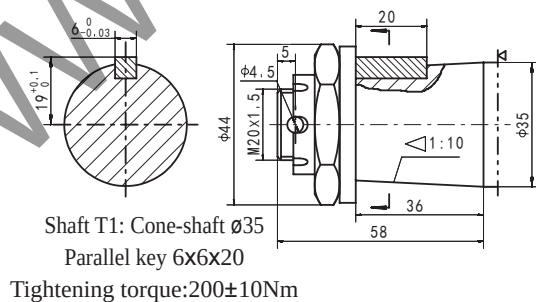
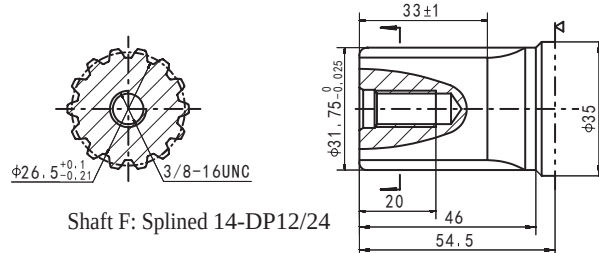
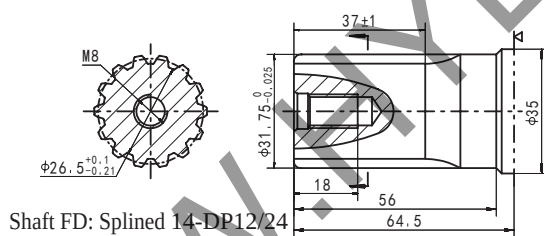
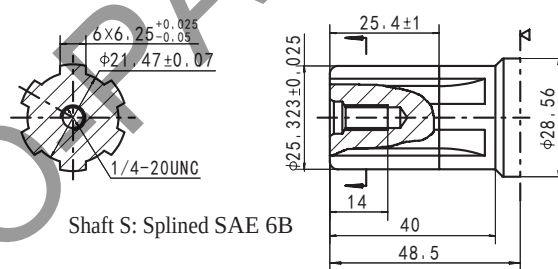
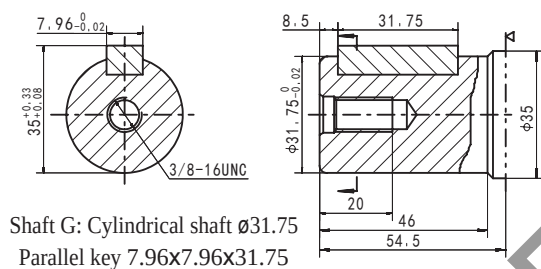
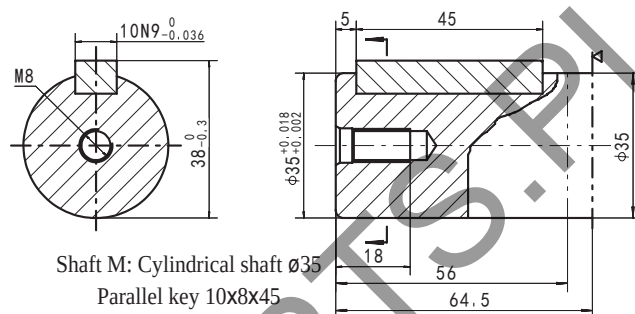
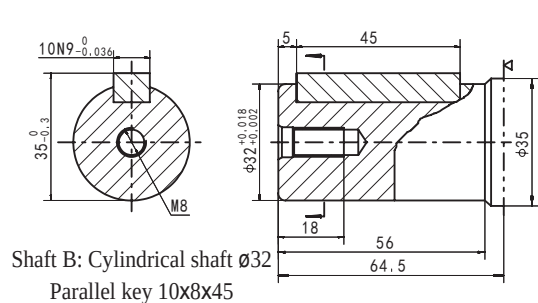
BMH DIMENSIONS AND MOUNTING DATA



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

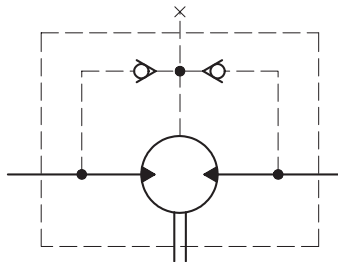
BMH SHAFT EXTENSIONS DIMINSIONS DATA



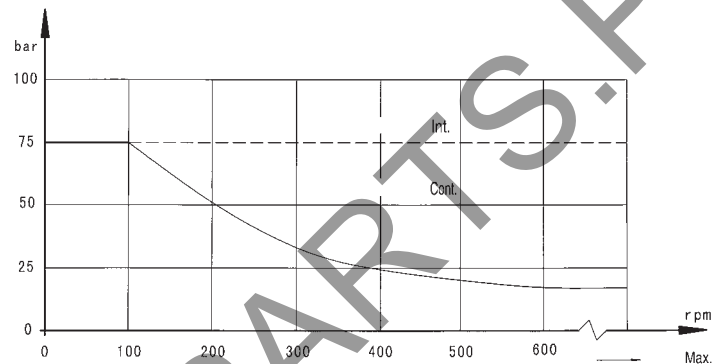
► Motor Mounting Surface

BMH series Hydraulic Motor

Permissible shaft seal pressure

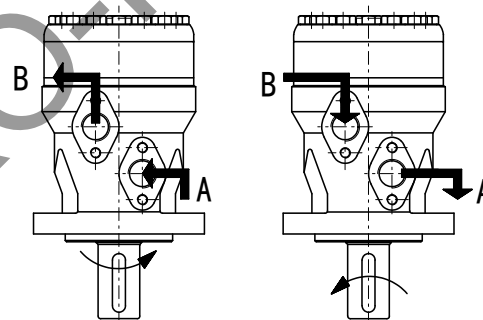


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.



Direction of shaft rotation: Standard

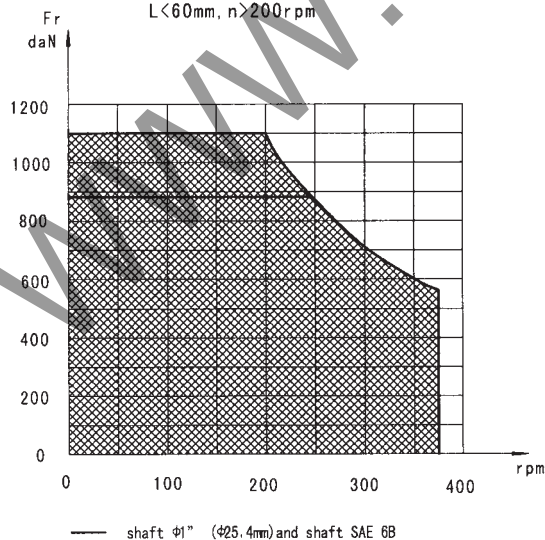
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



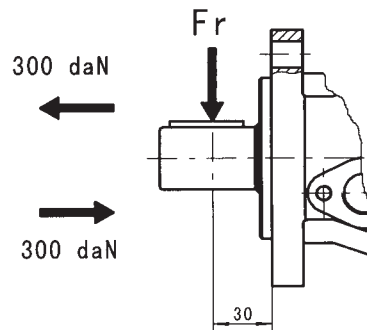
Status of the shaft's radial force

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

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



— shaft $\phi 1"$ ($\phi 25.4 \text{ mm}$) and shaft SAE 6B
The drawing is the Possible load when $L=30 \text{ mm}$.



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

Oil flow in drain line

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

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

Order Information

1	2	3	4	5	6	7	8
BMH							

Pos.1	2	3	4	5	6	7	8
Code		Flange	Output shaft	Ports and drain port	Rotation direction	Paint	Unusually function
160	B	4xØ13.5 Rhombxflange	Shaft Ø32 , parallel key 10x8x45	D	G1/2 Manifold mount 4xM8, G1/4		
200	M1	Pilot Ø82.5x6	Shaft Ø35, parallel key 10x8x45	M	M22x1.5 Manifold mount 4xM8, M14x1.5		
250	F	2xØ13.5 Rhombxflange	Shaft Ø31.75, splined key 14-DP12/24	S	7/8-14 O-ring Manifold mount 4x5/16-18UNC, 7/16-20UNF	00	Omit
315	FD	Pilot Ø82.5x6	Long Shaft Ø31.75, splined key 14-DP12/24	P	1/2-14 NPTF Manifold mount 4x5/16-18UNC, 7/16-20UNF	Omit	0
400	G		Shaft Ø31.75 , parallel key 7.96x7.96x31.75	R	PT(Rc) 1/2 Manifold mount 4xM8, PT(Rc)1/4	B	F
470	T1		Cone shaft Ø35, parallel key B6x6x20			S	Running
500	S		Shaft Ø25.4 , parallel key SAE 6B				Low Speed
	M		Shaft Ø35, Parallel key 10x8x45				Big radial force

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



BMSY SERIES HYDRAULIC MOTOR

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

Characteristic 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		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
50		30	77	117	153	192	224	248
		612	603	592	581	572	558	542
60		28	77	117	153	192	224	243
		735	726	718	703	687	673	646
Max.cont.	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
50		40	88	135	194	247	286	315
		486	483	473	462	450	430	420
60		37	88	132	185	244	283	312
		588	584	574	562	550	538	520
Max.cont.	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
50		50	115	176	248	315	362	397
		391	386	378	365	352	339	308
60		45	113	171	241	308	358	397
		469	461	450	437	425	400	372
Max.cont.	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
50		70	148	225	305	372	445	480
		313	310	306	298	293	285	272
60		68	143	218	296	370	442	480
		378	376	370	362	353	346	332
Max.cont.	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
		74	73	71	68	64	60	48
	30	91	190	288	386	489	572	618
		150	148	143	140	134	128	119
	40	94	193	296	394	498	584	645
		198	195	192	188	183	178	167
	50	90	191	292	389	493	580	634
		248	246	241	236	230	223	212
Max.cont.	60	85	185	279	382	483	575	622
		300	295	288	281	273	263	251
	75	78	176	271	370	472	561	610
Max.int.		374	370	364	360	352	340	331
	90	68	163	265	361	456	545	599
		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
		59	58	56	53	50	46	35
	30	116	236	359	475	597	700	790
		119	117	114	108	102	92	80
	40	118	241	363	480	599	706	796
		162	159	156	150	143	134	121
	50	111	234	352	472	591	693	788
		203	201	197	191	182	173	158
Max.cont.	60	106	224	345	462	582	685	772
		244	242	237	230	220	208	194
	75	101	214	340	454	570	670	760
Max.int.		303	299	294	285	272	260	244
	90	93	209	335	447	559	657	749
		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
		48	47	45	43	41	39	27
	30	155	314	465	635	778	884	988
		95	93	91	89	86	82	67
	40	160	321	479	650	796	906	997
		127	125	121	117	115	109	91
	50	155	314	465	638	780	886	988
		159	157	153	149	145	142	128
Max.cont.	60	151	306	453	620	765	886	976
		187	185	181	176	169	157	143
	75	146	300	445	613	755	875	966
Max.int.		238	236	232	227	224	220	196
	90	135	284	436	601	740	863	952
		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	
		37	36	35	33	31	29	
	30	190	388	590	791	905	991	
		75	73	71	68	65	61	
	40	195	394	596	797	912	998	
		99	97	95	93	90	85	
	50	191	388	587	785	904	983	
		125	123	118	114	109	102	
Max.cont.	60	186	388	587	785	904	983	
		149	146	142	137	131	122	
	75	181	372	576	770	891	973	
Max.int.		187	183	177	171	164	153	
	90	176	367	571	766	883	965	
		226	221	214	208	199	183	

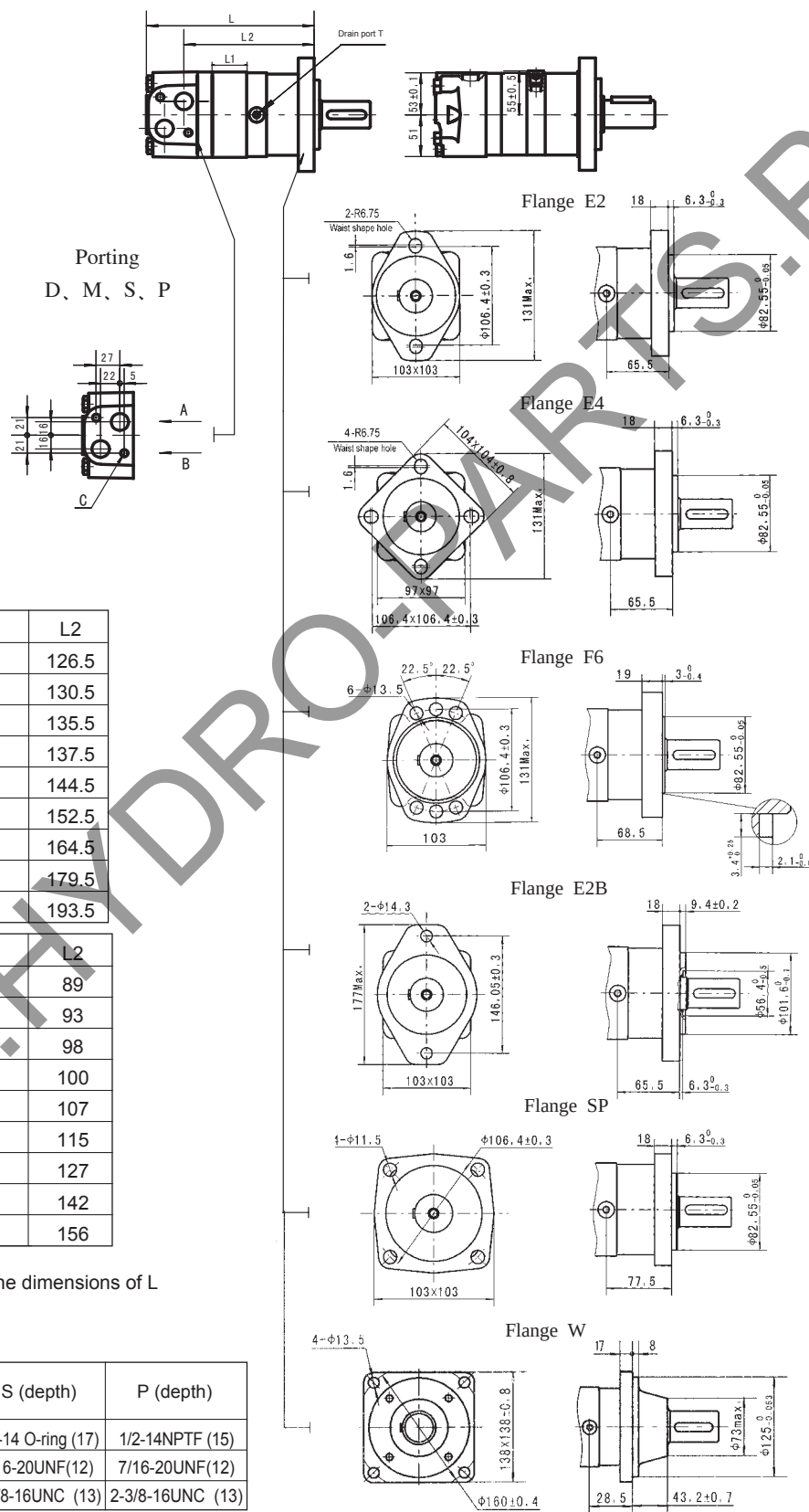
BMSY475 [475cm³/rev.]

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

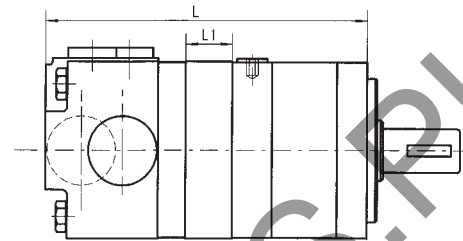
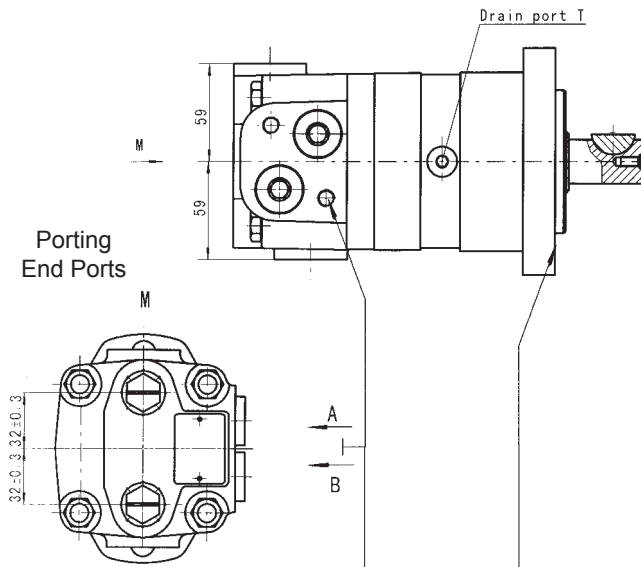
TORQUE (N•m) 766
SPEED (rpm) 208

cont.
int.

BMSY DIMENSIONS AND MOUNTING DATA



BMSY DIMENSIONS AND MOUNTING DATA

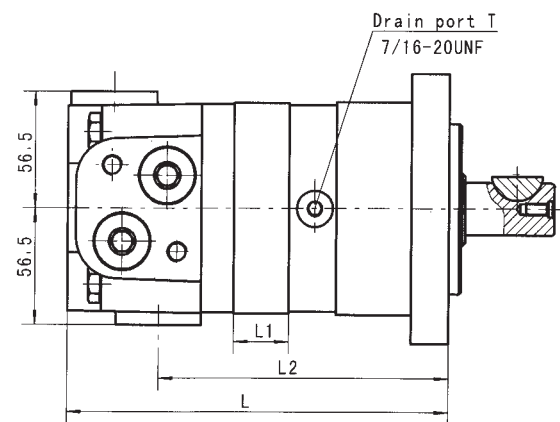
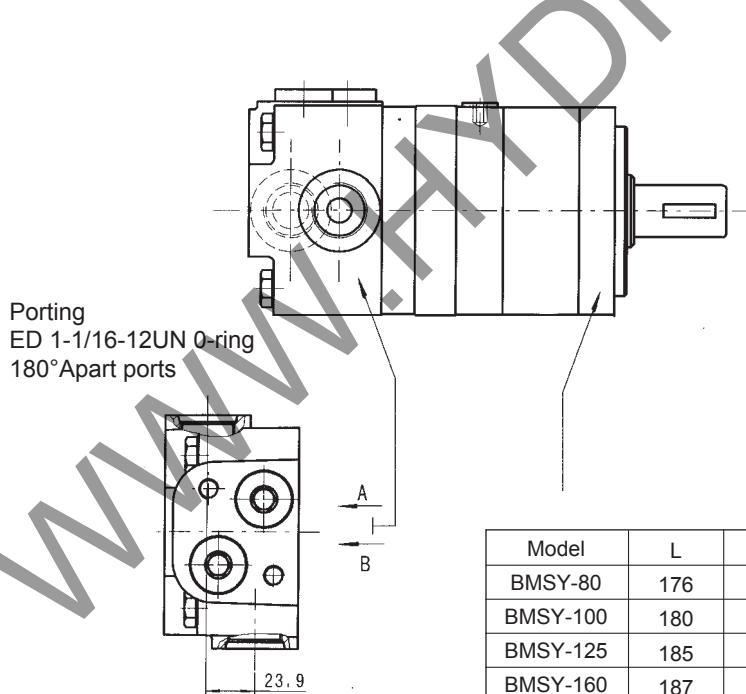


End Ports P(A/B)

Model	L	L1
BMSY-80	176	16
BMSY-100	180	20
BMSY-125	185	25
BMSY-160	187	27
BMSY-200	194	34
BMSY-250	202	42
BMSY-315	214	54
BMSY-400	229	69
BMSY-475	243	83

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

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)

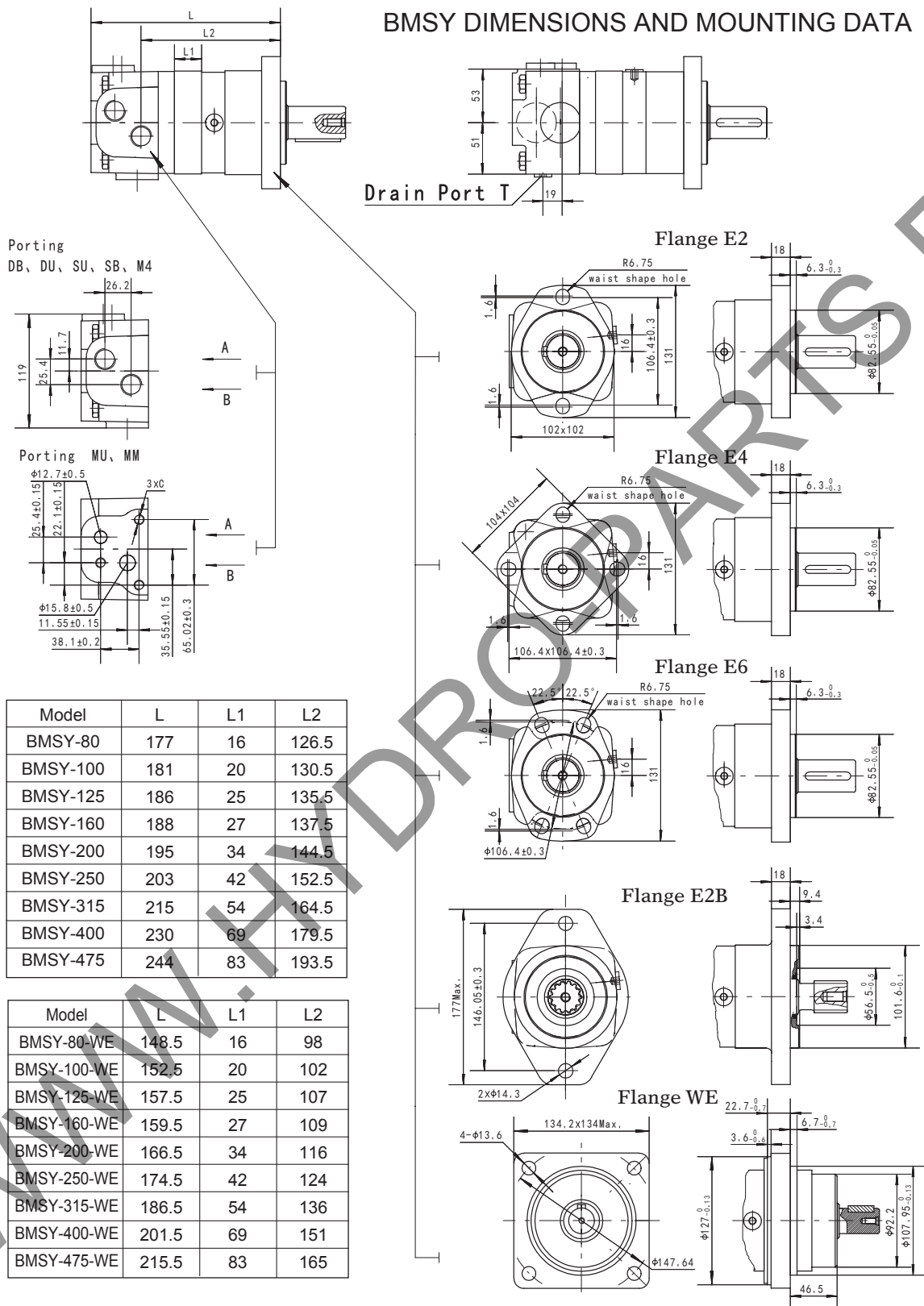


Code Mounting	ED (depth)
P(A,B)	1-1/16-12UN (18)
T	7/16-20UNF (12)

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

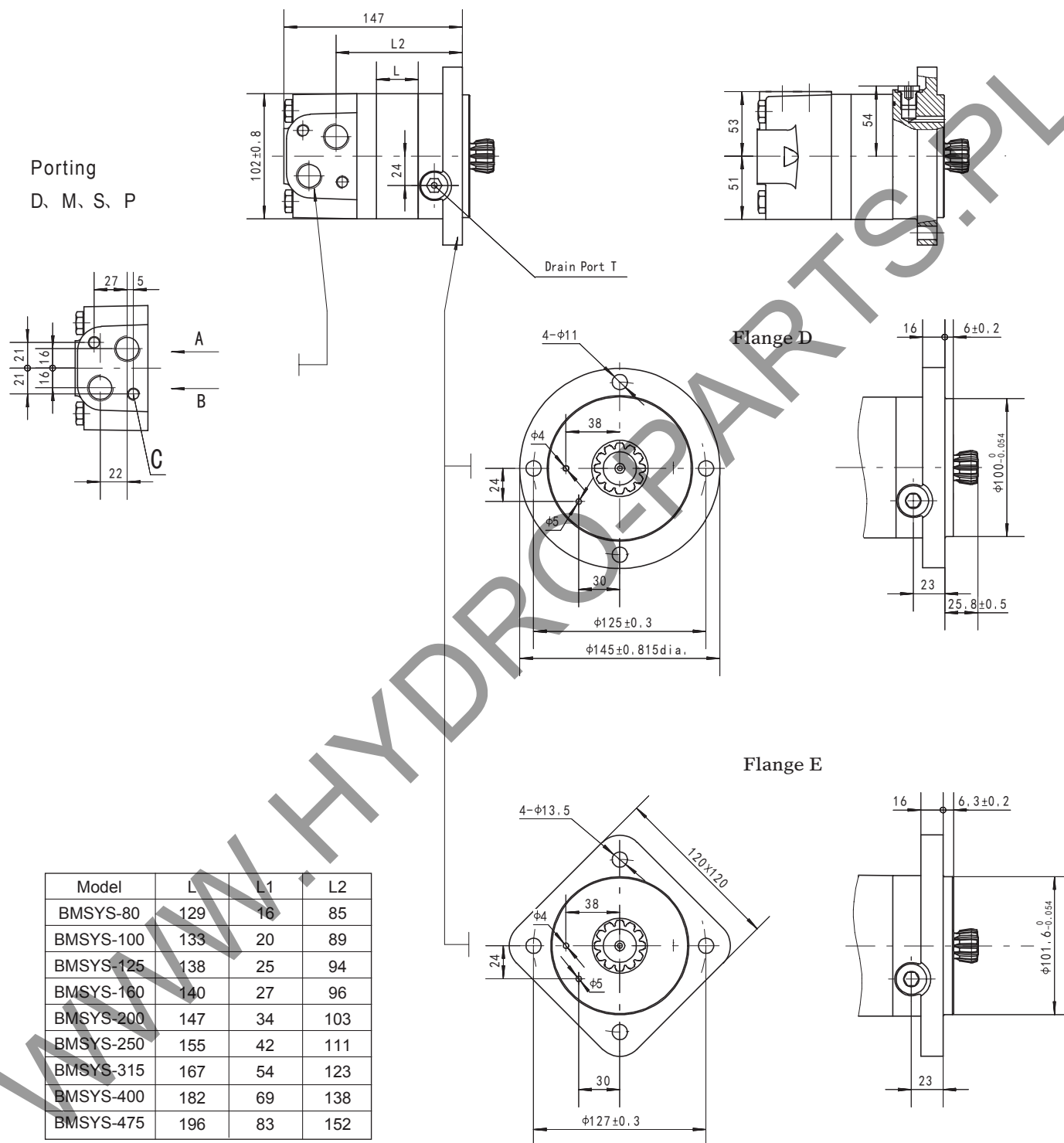
Model	L	L1	L2
BMSY-80-WE	148	16	102
BMSY-100-WE	152	20	106
BMSY-125-WE	157	25	111
BMSY-160-WE	159	27	113
BMSY-200-WE	166	34	119
BMSY-250-WE	178	42	127
BMSY-315-WE	190	54	139
BMSY-400-WE	205	69	154
BMSY-475-WE	219	83	168

BMSY DIMENSIONS AND MOUNTING DATA



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

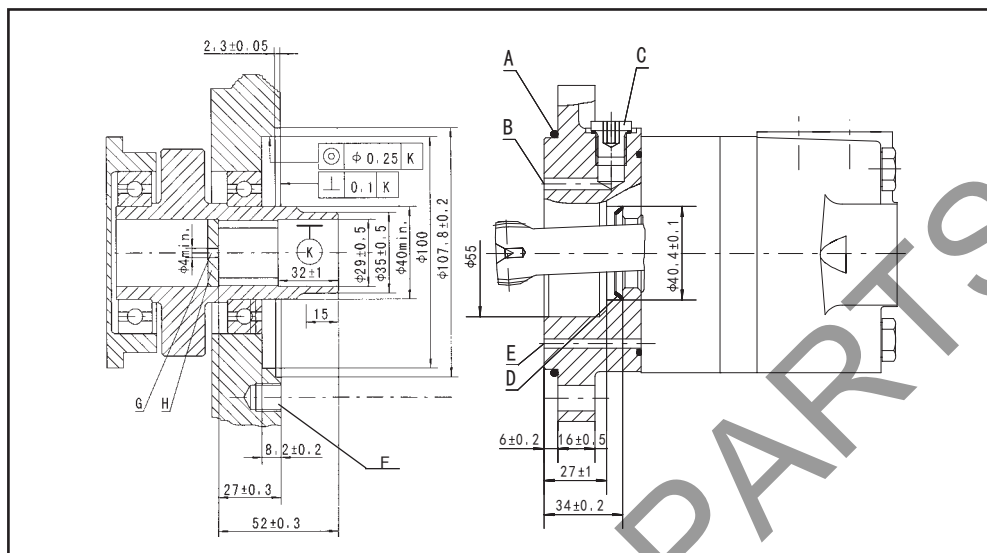
BMSYS DIMENSIONS AND MOUNTING DATA



Model	L	L1	L2
BMSYS-80	129	16	85
BMSYS-100	133	20	89
BMSYS-125	138	25	94
BMSYS-160	140	27	96
BMSYS-200	147	34	103
BMSYS-250	155	42	111
BMSYS-315	167	54	123
BMSYS-400	182	69	138
BMSYS-475	196	83	152

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

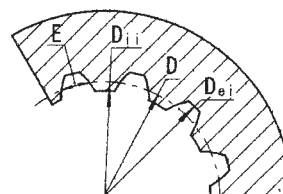
BMSYS DIMENSIONS AND MOUNTING DATA



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

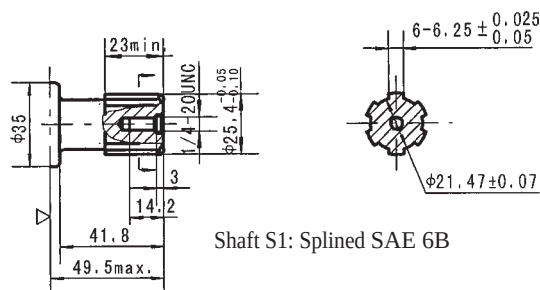
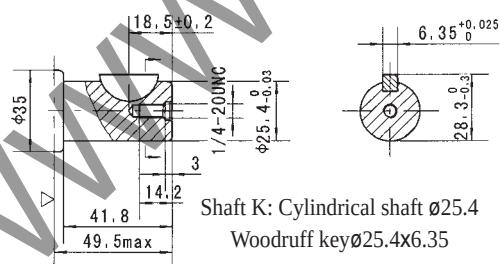
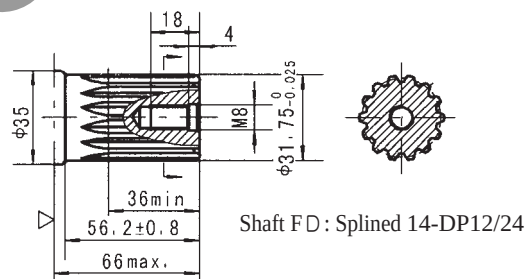
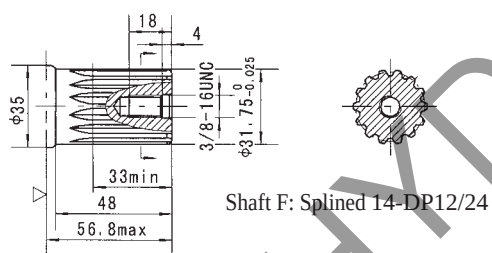
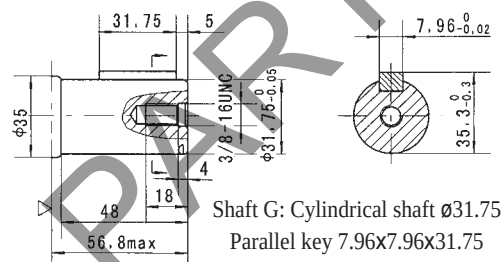
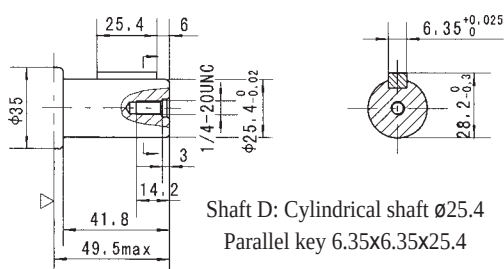
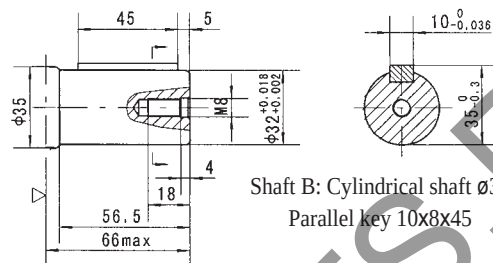
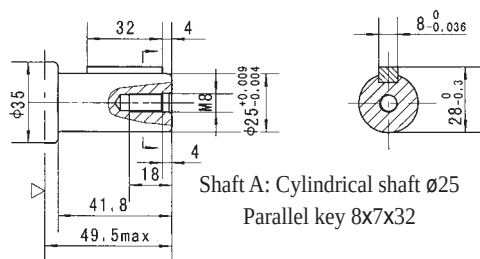
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø25.4
Major Dia.	D_{ei}	ø28 ⁰ _{-0.1}
Minor Dia.	D_{ii}	ø23 ^{+0.033} ₀
Space Width [Circular]	E	4.308±0.02



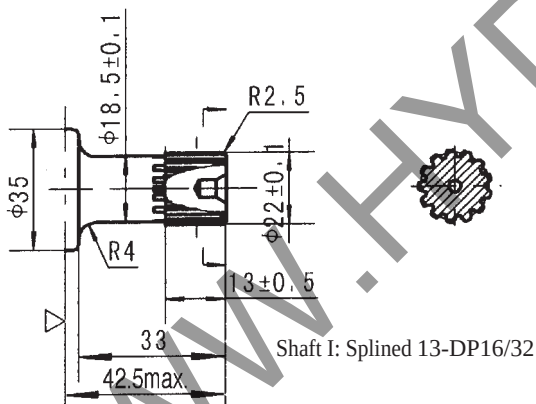
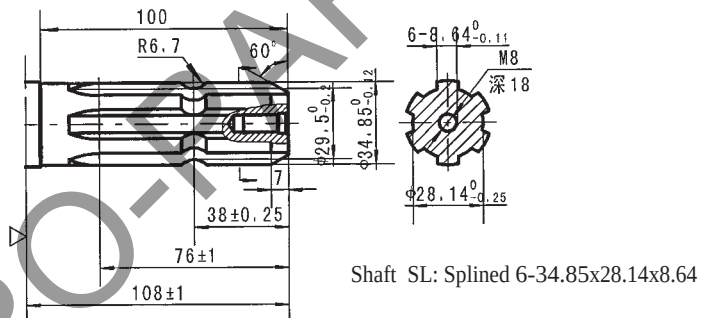
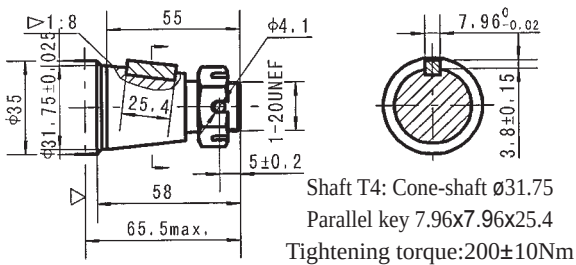
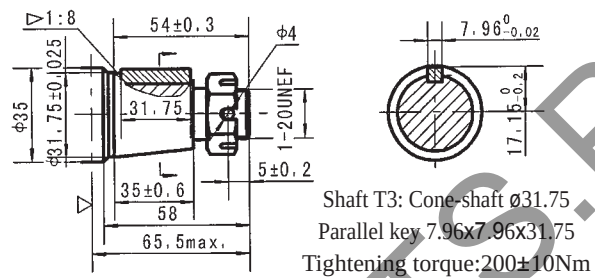
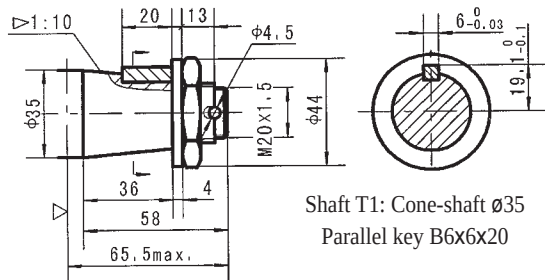
Hardening Specification: HRC 62±2
Effective case depth 0.7±0.2

SHAFT EXTENSIONS FOR BMSY MOTORS



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

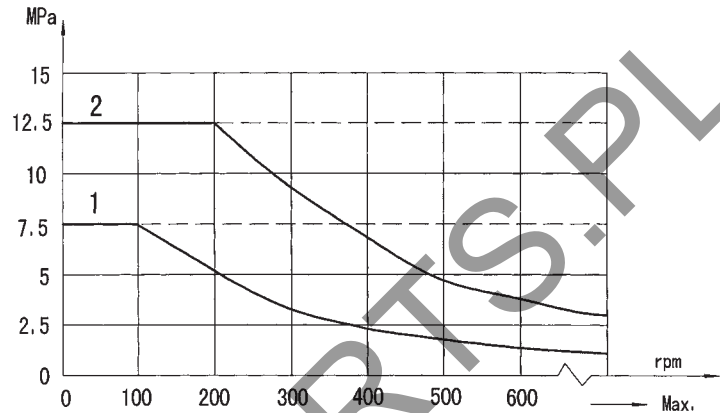
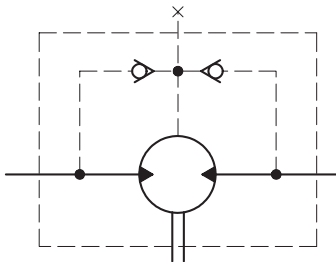
SHAFT EXTENSIONS FOR BMSY MOTORS



- ▷ 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

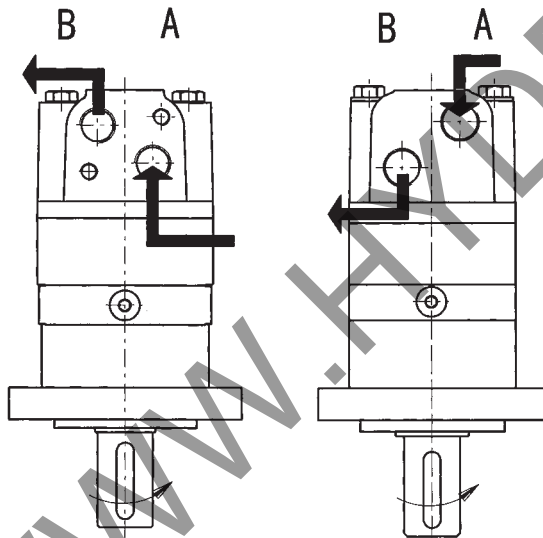
Permissible shaft seal pressure



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

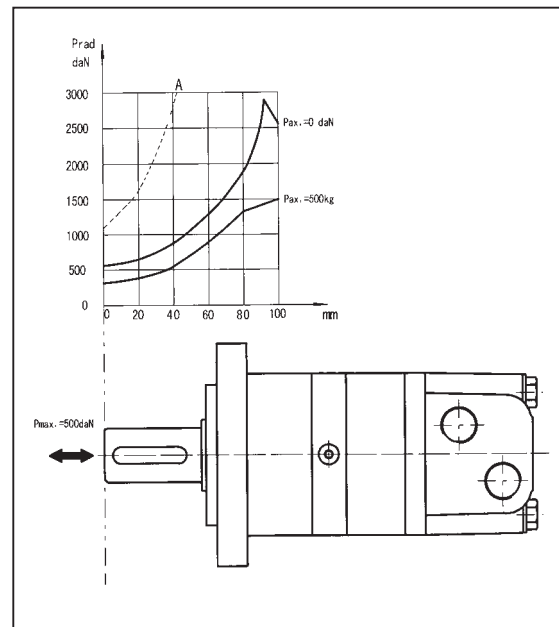
Standard direction of shaft rotation: Standard

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.

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	1.5
	35	1
21	20	3
	35	2

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
 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	E2	2- 13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	B Shaft Ø 32 , parallel key 10×8×45 D Shaft Ø 25.4 , parallel key 6.35×6.35×25.4	D G1/2 Manifold Mount 2-M10, G1/4	Omit	00	
	80	E4	4-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×6.3	G Shaft Ø 31.75 , parallel key 7.96×7.96×31.75	M M22×1.5 Manifold Mount 2-M10, M14×1.5	Blue	Omit
	100	F6	6-Ø13.5 Rhomb-flange Ø106.4, pilot Ø82.5×2.6	F Shaft Ø 31.75 , splined key 14-DP12/24	S 7/8-14UNF O-ring manifold 2-3/8-16, 7/16-20UNF	Black	F Free Running
	125	W	4-Ø13.5 Wheel-flange Ø160 , pilot Ø125×8	FD Long Shaft Ø31.75 , splined key 14-DP12/24	R Opposite	LS	Low Speed
	200	E2B	2-Ø14.3 Rhomb-flange Ø146.05, pilot Ø101.6×9.4	SL shaft Ø34.85, Splined key 6-34.85×28.14×8.64			
	250	SP	4-Ø11.5 Square-flange Ø106.4 pilot Ø82.5×6.3	T1 Cone-shaft Ø35 , parallel key B6×6×20 T3 Cone-shaft Ø 31.75 , parallel key 7.96×7.96×31.75 S1 Shaft Ø25.4 , splined key SAE 6B I Sub-shaft Ø22 , splined key 13-DP16/32	P 1/2-14NPTF manifold 2-3/8-16UNC , 7/16-20UNF	Silver gray	
	315						
	400						
	475						
S	D	4-Ø11 Circle-flange Ø125 , pilot Ø100×6	Omit				
	E	4-Ø13.5 Circle-flange Ø127 , pilot Ø101.6×6.3	Short shaft 12-DP12/24				

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	E2	A Shaft Ø25 , parallel key 8×7×32	EE-D G1/2, G1/4	Omit	00	
	100	E4	B Shaft Ø32 , parallel key 10×8×45	EE-M 2M22×1.5, M14×1.5		No paint	
	125	E6	K Shaft Ø25.4 , Woodruff key Ø25.4×6.35	EE-S2 7/8-14UNF O-ring, 7/16-20 UNF			
	160	E4	G Shaft Ø31.75 , parallel key 7.96×7.96×31.75	ED 1-1/16-12UN O-ring, 7/16-20 UNF			
	200	E6	F Shaft Ø31.75 , splined key 14-DP12/24	DB G1/2, G1/4			
	250	E6	FE Shaft Ø31.75 , splined key 14-DP12/24	DU G1/2, 7/16-20 UNF			
	315	E2B	T4 Cone-shaft Ø31.75 , parallel key 14-DP12/24	SU 7/8-14UNF O-ring, G1/4			
	400	WE	S1 Shaft Ø25.4 , splined key SAE 6B I Sub-shaft Ø21.74 , splined key 13-DP16/32	M4 M22×1.5, M14×1.5			
	475			MU 1/2" .58" Crosshole Manifold 3×3/8- 16UNC, 7/16-20UNF			
				MM 1/2" .58" Crosshole Manifold 3×M10, G1/4			
				G G1/2, G1/4			
				M2 M22×1.5, 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 informations 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	320.3	410.9	523.6	629.1	801.8
Max. speed (rpm)	cont.	625	625	536	500	380	305	240	196	154
	int.	780	750	643	600	460	365	285	233	185
Max. torque (N·m)	cont.	470	590	670	730	950	1080	1220	1318	1464
	int.	560	710	821	880	1140	1260	1370	1498	1520
	peak	669	838	958	1036	1346.3	1450.3	1643.8	1618.8	1665
Max. output (kW)	cont.	27.7	34.9	34.7	34.5	34.9	31.2	28.8	25.3	22.2
	int.	32	40	40	40	40	35	35	27.5	26.8
Max. pressure drop (MPa)	cont.	20	20	20	20	20	18	16	14	12.5
	int.	24	24	24	24	24	21	18	16	13
	peak	28	28	28	28	28	24	21	19	16
Max. flow (L/min)	cont.	100	125	125	125	125	125	125	125	125
	int.	125	150	150	150	150	150	150	150	150
Max. inlet pressure (MPa)	cont.	21	21	21	21	21	21	21	21	21
	int.	25	25	25	25	25	25	25	25	25
	peak	30	30	30	30	30	30	30	30	30
Weight (kg)		19.5	20	20.4	20.5	21	22	23	24	25

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

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

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

Performance Data

BMT 160 [161.1cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

4	8	10	12	16	20	24
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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)

Max.cont.

Max.int.

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

BMT 250 [251.8cm³/rev.]

Pressure (MPa)

Max.cont.

Max.int.

4	8	10	12	16	20	24
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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)

Max.cont.

Max.int.

4	8	10	12	16	20	24
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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
	100	169	357	467	562	758	942	1143
		305	304	301	298	294	289	276
Max.cont.	125	147	336	447	544	745	920	1127
		380	378	375	371	367	362	349
Max.int.	150	119	318	432	526	713	894	1097
		458	456	453	449	444	431	425

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
	125	135 302	309 300	524 298	688 294	873 289	1045 285	1221 278
	150	126 364	292 362	508 358	666 354	852 350	1020 346	1197 339

BMT 500 [523.6cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.int.		
		3	6	9	12	14	16	18
Flow (L/min)	10	222 18	451 18	692 18	892 17	1050 16	1193 15	1340 13
	20	231 37	464 36	714 35	918 34	1070 33	1220 32	1377 30
	40	230 75	466 74	727 73	941 72	1094 70	1244 68	1422 64
	60	225 113	457 112	714 111	941 109	1088 107	1245 105	1409 101
	80	213 151	431 150	696 149	927 147	1076 145	1244 143	1401 138
	100	194 189	420 188	680 187	901 185	1063 183	1224 181	1383 177
	Max.cont. 125	182 237	398 236	641 235	877 233	1024 231	1199 229	1352 225
	Max.int. 150	147 284	369 283	618 282	853 280	1004 278	1167 276	1325 272

BMT 630 [629.1cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.int.		
		3	6	9	10.5	12	14	16
Flow (L/min)	10	233 14	520 14	795 13	902 13	1074 13	1194 11	1363 11
	20	237 28	554 27	837 27	953 26	1117 26	1239 24	1407 22
	40	239 62	553 62	860 61	987 60	1171 59	1308 56	1483 54
	60	223 94	544 94	863 92	978 91	1172 90	1318 86	1498 82
	80	220 123	537 122	854 121	965 119	1172 118	1314 114	1497 110
	100	208 156	522 155	832 153	945 152	1156 150	1303 147	1488 142
	125	201 196	499 196	810 194	931 192	1137 191	1292 187	1472 183
	150	174 233	492 232	785 231	921 230	1121 227	1277 223	1454 217

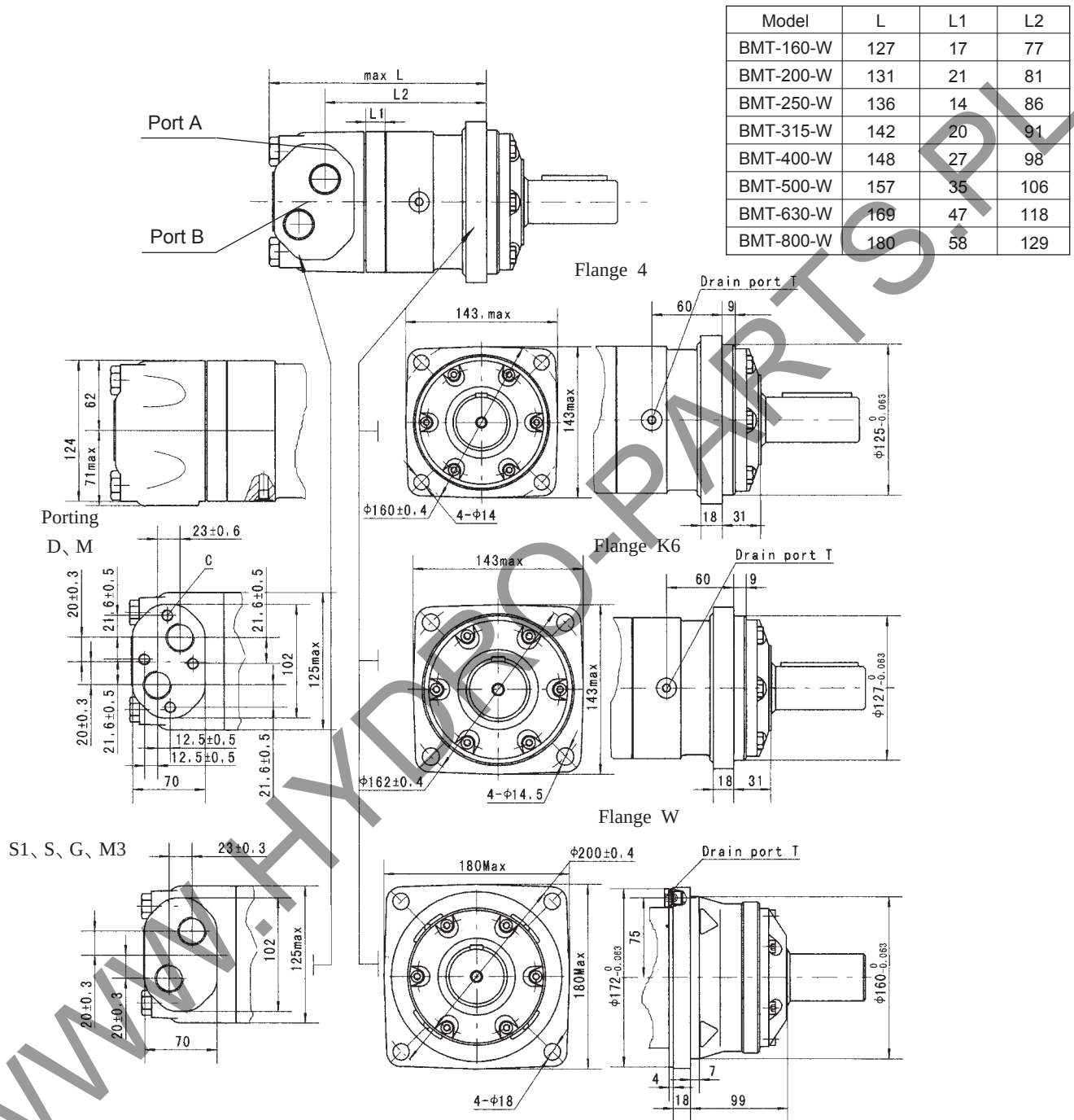
BMT 800 [801.8cm³/rev.]

Pressure (MPa)

		Max.cont.				Max.int.	
		3	6	9	10.5	12.5	13
Flow (L/min)	10	346	677	1003	1159	1365	1390
		12	12	11	11	11	10
	20	356	692	1034	1183	1404	1458
		24	24	24	23	22	18
	40	365	703	1066	1236	1459	1516
		50	50	49	48	46	40
Max.cont.	60	354	703	1060	1237	1464	1520
		74	73	71	71	68	63
Max.int.	80	332	686	1050	1226	1464	1514
		99	98	98	96	93	86
Max.int.	100	305	654	1025	1207	1445	1506
		125	123	123	121	118	110
Max.int.	125	280	622	989	1181	1422	1487
		154	153	153	150	149	140
Max.int.	150	247	590	953	1156	1406	1476
		185	184	183	181	179	172

Torque (N·m) 1121
Speed (rpm) 227

BMT DIMENSIONS AND MOUNTING DATA



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

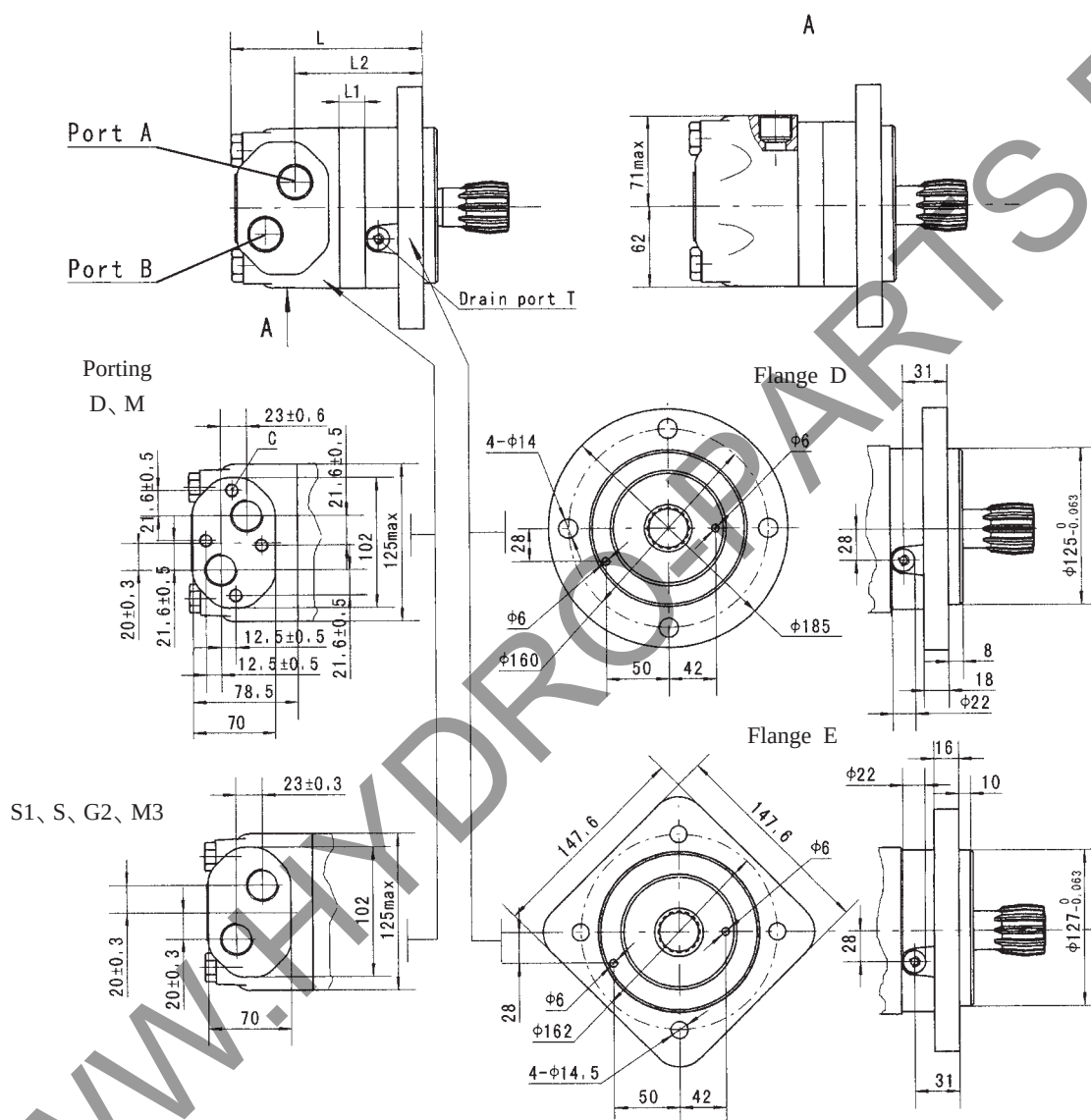
Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M3 (depth)	S1 (depth)
P(A,B)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)	G3/4 (18)	M27 x 2 (18)	1-1/16-12UN (18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF (12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF (12)
C	4-M10(10)	4-M10(10)	--	--	--	--

Note:1)The thickness of the stator and rotor for disp. from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp. from 250 to 800 is the dimension of L1 adding on 7mm.

Note:1)The data for the port of SF (SF5 and SF6and sf7)
2)The data for the port of SE (SE1 and SE2) and
flange WE:L-70 and L2-59.
3)The thickness of the stator and rotor for disp.from
315 to 800 is the dimension of L1 adding on 7mm.

65

BMTS DIMENSIONS AND MOUNTING DATA

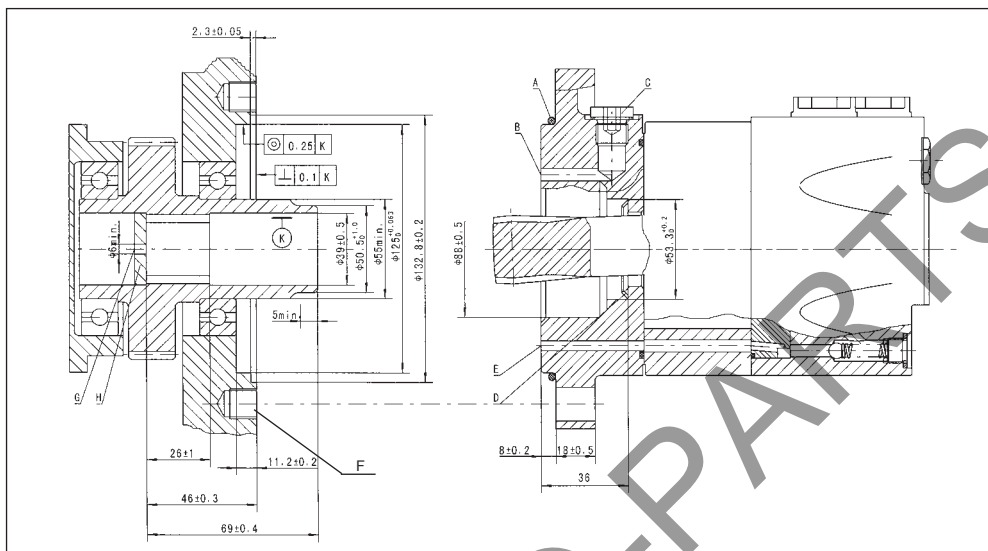


Model	L	L1	L2
BMT160	148	17	96.5
BMT200	152	21	100.5
BMT250	157	14	109
BMT315	163	20	115
BMT400	170	27	122
BMT500	178	35	130
BMT630	190	47	142
BMT800	201	58	153

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

Note: 1)The thickness of the stator and rotor for disp.from 160 to 200 is the dimension of L1 adding on 3mm.
2)The thickness of the stator and rotor for disp.from 250 to 800 is the dimension of L1 adding on 7mm.

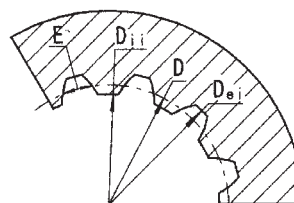
BMTS MOUNTING DATA



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

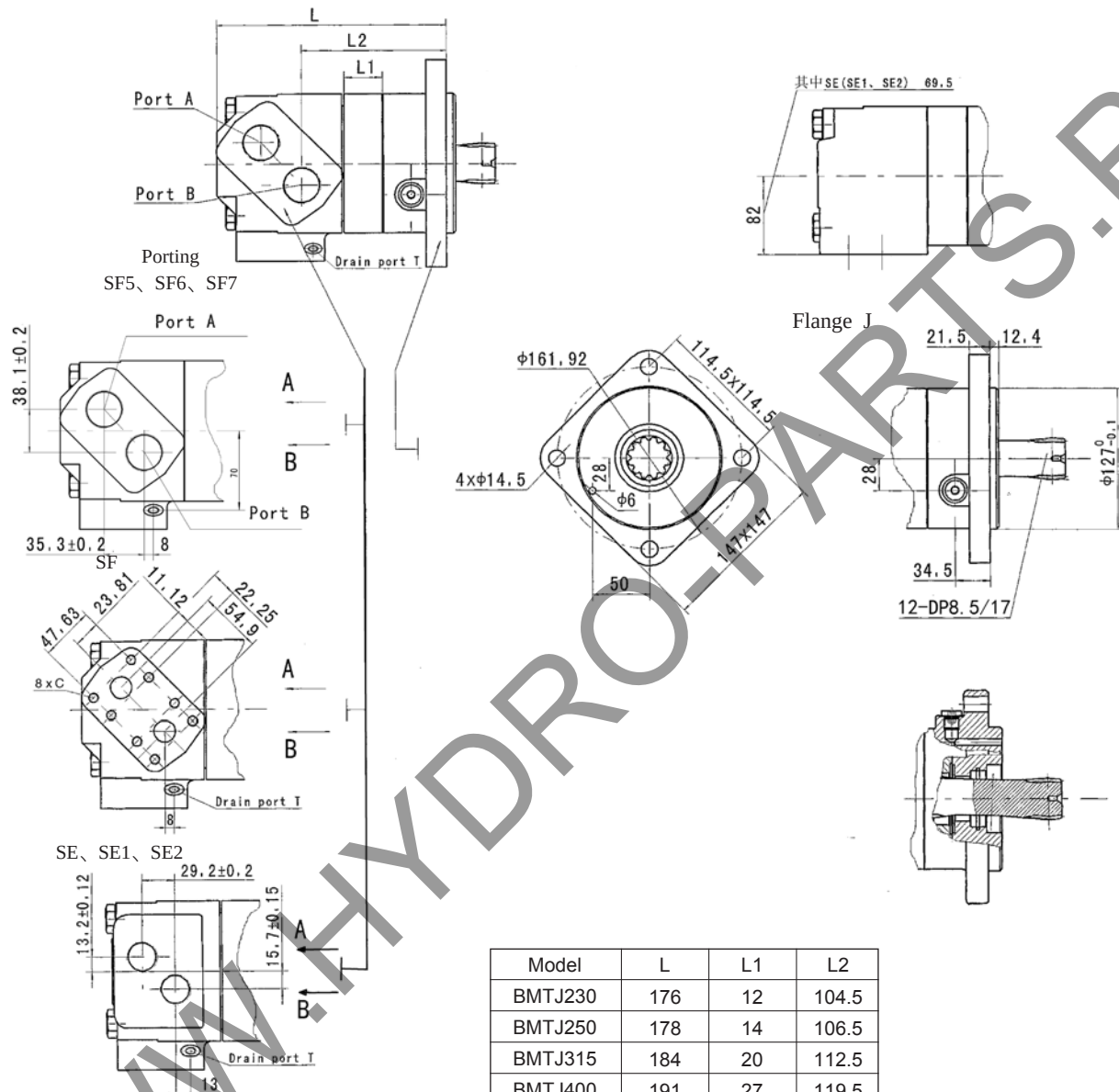
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

Fillet Root Side Fit		mm
Number of Teeth	Z	16
Diametral Pitch	DP	12/24
Pressure Angle	α_D	30°
Pitch Dia.	D	ø33.8656
Major Dia.	D_{ei}	ø38.4 ^{+0.25} ₀
Minor Dia.	D_i	ø32.15 ^{+0.04} ₀
Space Width [Circular]	E	4.516±0.037



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

BMTJ DIMENSIONS AND MOUNTING DATA

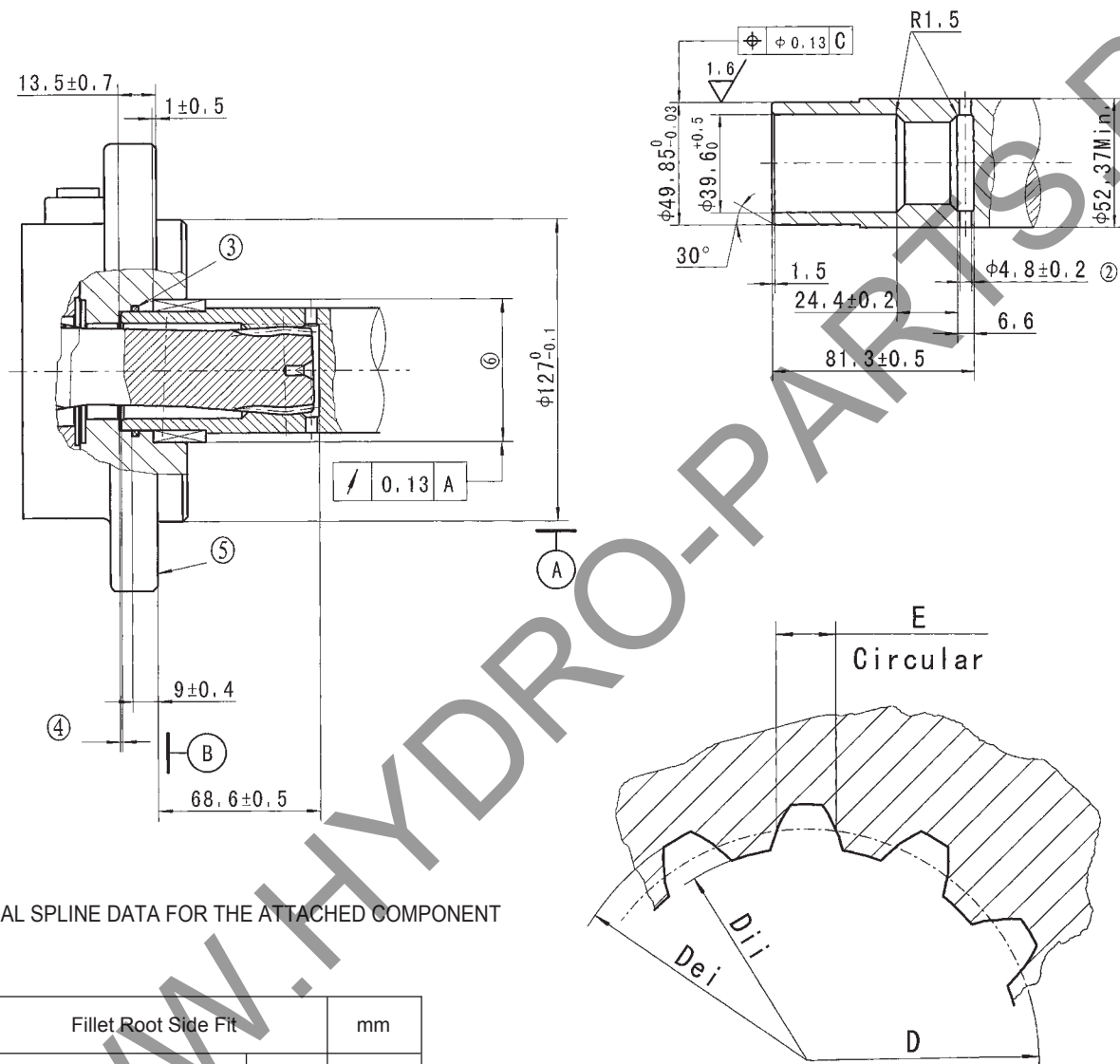


Model	L	L1	L2
BMTJ230	176	12	104.5
BMTJ250	178	14	106.5
BMTJ315	184	20	112.5
BMTJ400	191	27	119.5
BMTJ500	199	35	127.5
BMTJ630	211	47	139.5
BMTJ800	222	58	150.5

Note: 1) The data for the port of SF (SF5 and SF6 and SF7).
 2) The data for the port of SE (SE1 and SE2) and flange WE: L-70 and L2-59.
 3) The thickness of the stator and rotor is the dimension of L1 adding on 7mm.

Content	Code						
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	$\phi 35.858823$
Major Dia.	D_{ei}	$\phi 38.97^{+0.20}_{-0}$
Minor Dia.	D_{ii}	$\phi 33.3^{+0.18}_{-0}$
Space Width [Circular]	E	5.866 ± 0.032
Dimension between two pins($\phi 4$)	M_o	$26.929-27.084$

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.

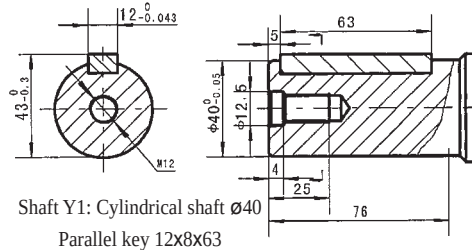
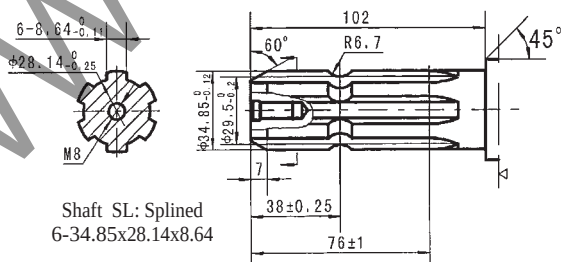
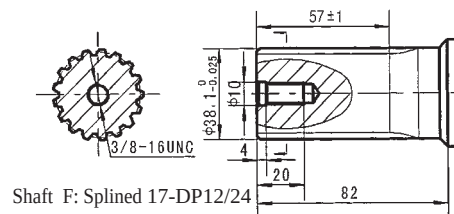
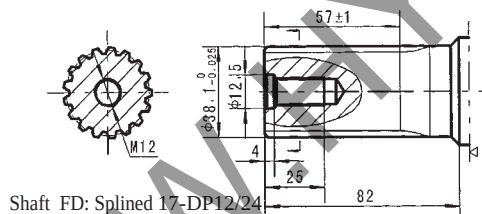
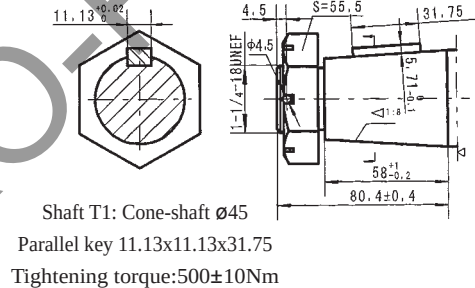
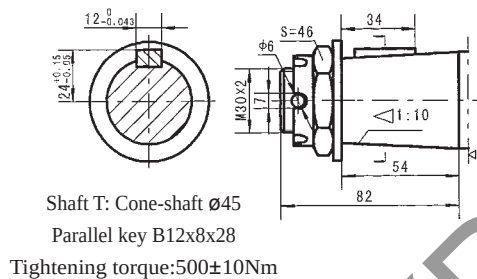
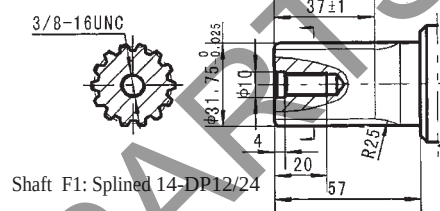
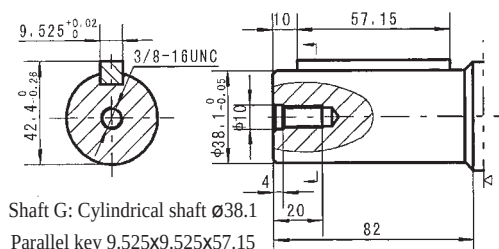
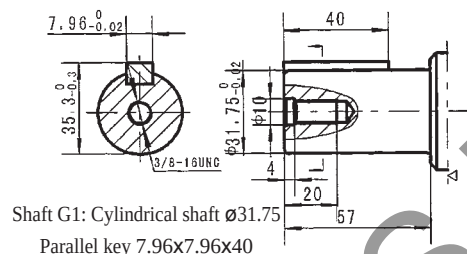
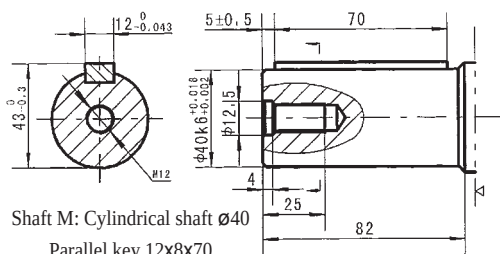
④ Seal to be furnished with motor for proper oil circulation thru splines.

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).

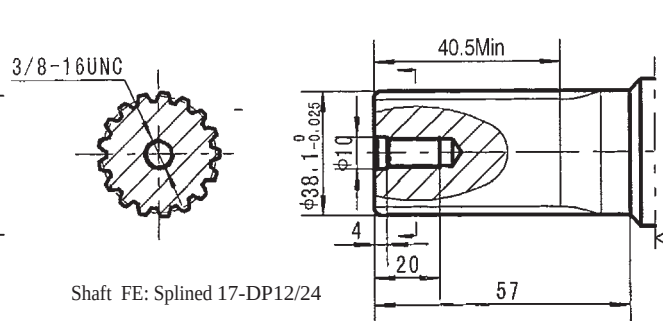
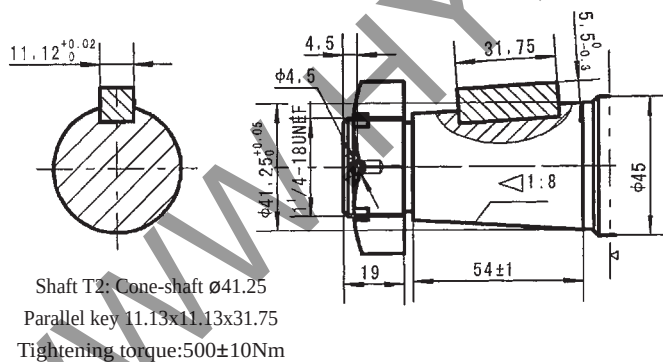
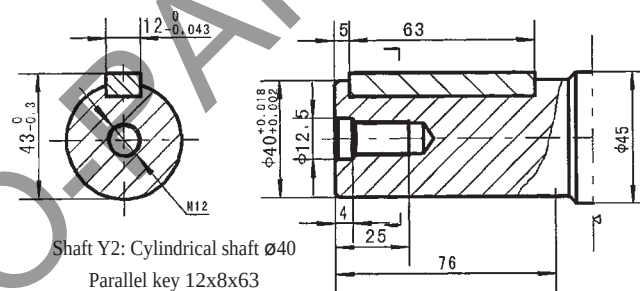
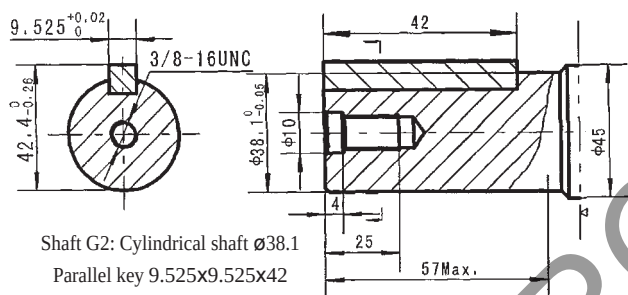
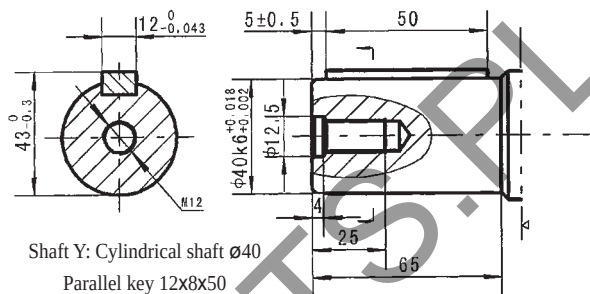
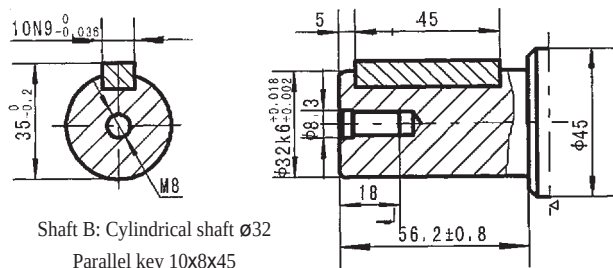
C This surface to be diameter of output shaft.

SHAFT EXTENSIONS FOR BMT(E) MOTORS



▷ Motor Mounting Surface

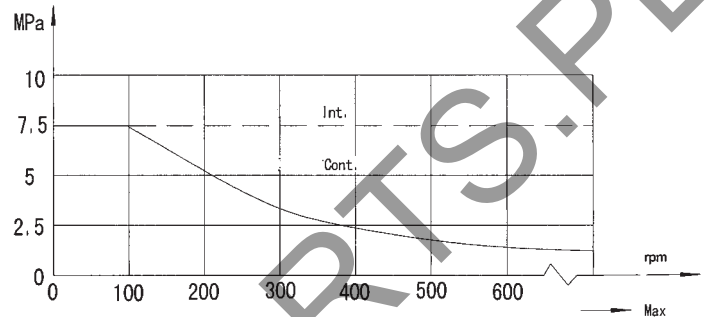
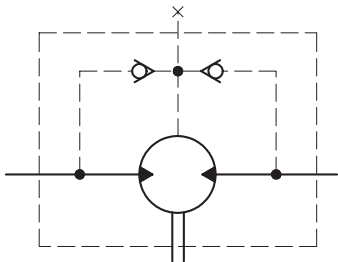
SHAFT EXTENSIONS FOR BMT(E) MOTORS



▷ Motor Mounting Surface

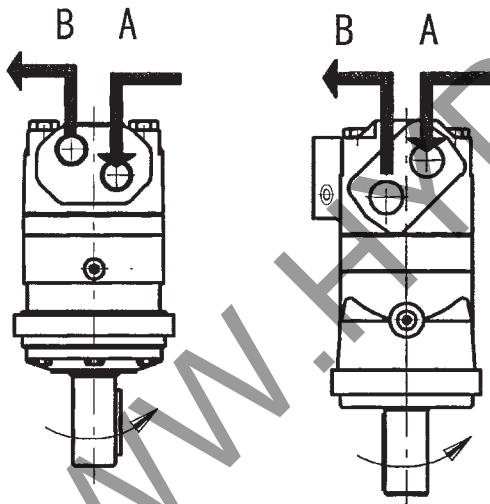
BMT Series Hydraulic Motor

Permissible shaft seal pressure



Standard direction of shaft rotation: Standard

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

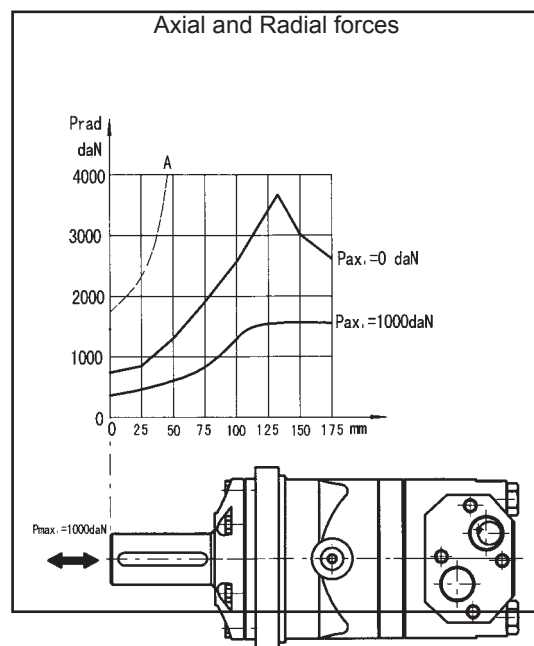


In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

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	M Shaft Ø40, parallel key 12 × 8 × 70	D G3/4 Manifold Mount, 4-M10, G1/4	Omit	00 No paint	Omit
			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				
	200 250 315 400 500 630 800	K6 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 9	T1 Cone-shaft 1:8 Ø45, parallel key 11.13 × 11.13 × 31.75	M M27 × 2 Manifold Mount, 4-M10, M14 × 1.5	Standard	Omit	Standard
			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				
BMTS		D 4-Ø14 Circle-flange Ø160, pilot Ø125 × 8	Short shaft 16-DP12/24	G G3/4, G1/4	Opposite	B Black	F Free Running
		E 4-Ø14.5 Square-flange Ø162, pilot Ø127 × 10					

Order Information

1 2 3 4 5 6 7 8

BMT E - - - - -

1 2 3 4 5 6 7 8

BMT J - - - - -

Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Ports and Drain Port	Rotation Direction	Paint	Unusually Function
BMT E	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, 7/16-20 UNF 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				
BMT J	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)	Pressure (MPa)							Max.cont.	Max.int.
	3.5	7	10	14	18	20	24		
10	140	294	440	610	742	845	1000		
	26	24	23	22	20	17	14		
20	153	314	466	636	787	895	1070		
	55	54	53	52	51	48	44		
50	149	312	465	654	815	935	1112		
	145	144	142	140	137	133	127		
75	143	304	458	642	816	940	1119		
	220	218	215	211	207	202	195		
100	136	297	452	636	810	936	1108		
	294	292	290	287	283	278	270		
125	123	286	442	626	799	921	1093		
	368	366	364	361	357	352	345		
150	114	275	435	615	788	906	1078		
	445	443	441	437	430	422	410		
Max.cont. 160	107	268	430	608	780	895	1070		
	475	473	470	466	460	452	439		
Max.int. 200	82	249	412	593	758	871	1047		
	596	594	590	584	576	565	544		

BMV 400 [419cm³/rev.]

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

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

BMV 500 [518cm³/rev.]

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

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

BMV 630 [666cm³/rev.]

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

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

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.

Performance Data

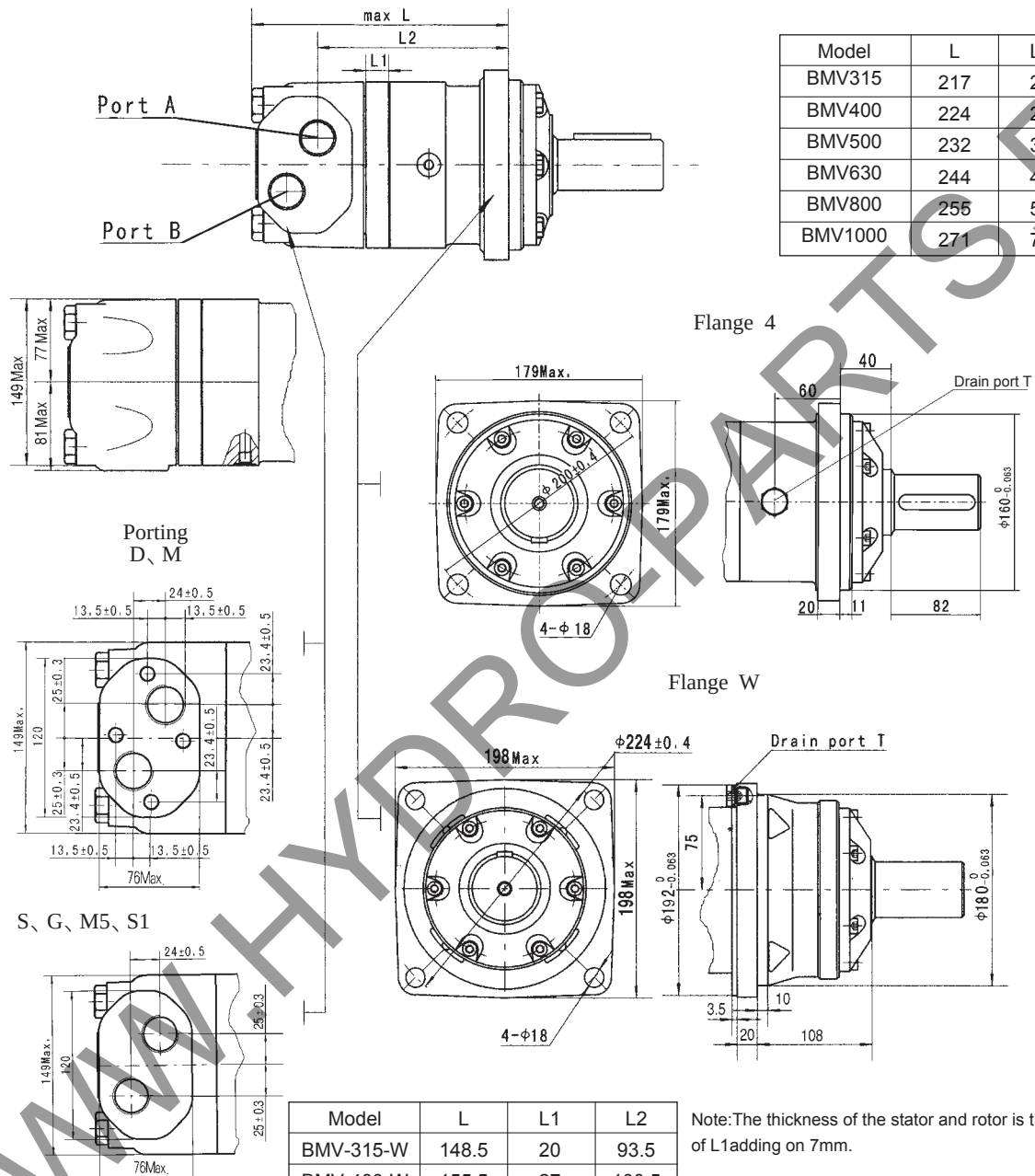
		BMV 800 [801cm³/rev.]						
		Pressure (MPa)						
		2.5	5	8	10	13	16	18
Flow (L/min)	10	278	565	830	1095	1405	1712	1915
		11	10	10	9	8	8	7
	20	282	571	845	1150	1456	1783	1994
		23	22	22	21	20	18	16
	50	288	582	856	1162	1463	1790	2001
		60	59	57	56	54	52	48
	75	269	580	855	1165	1465	1786	1993
		91	90	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
Max.cont.	175	215	504	793	1079	1377	1698	1936
		216	214	212	209	206	203	196
Max.int.	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
Max.cont.	175	264	580	946	1338	1925	2159
		174	172	170	166	162	155
Max.int.	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

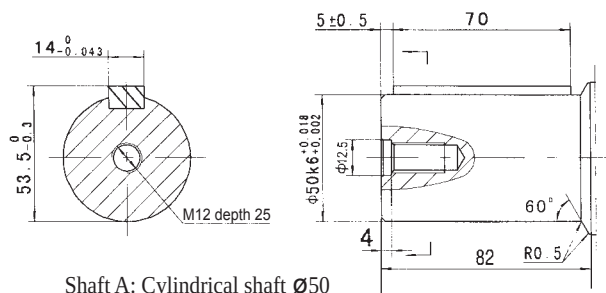
Torque (N·m) 1825
 Speed (rpm) 225

BMV DIMINSIONS AND MOUNTING DATA

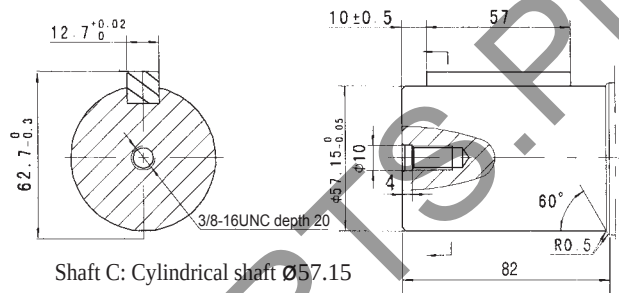


Content	Code					
	D (depth)	M (depth)	S (depth)	G (depth)	M5 (depth)	S1 (depth)
P(A,B)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)	G1 (18)	M33 x 2 (18)	1-5/16-12UN(18)
T	G1/4 (12)	M14 x 1.5 (12)	9/16-18UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)
C	4-M12 (10)	4-M12 (10)	--	--	--	--

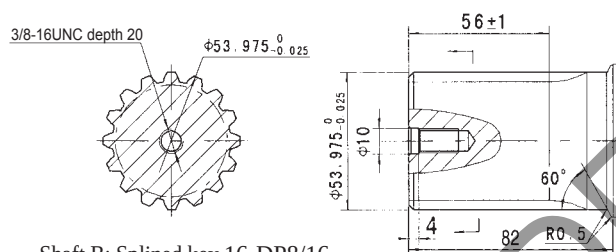
BMV SHAFT EXTENSIONS DIMENSIONS DATA



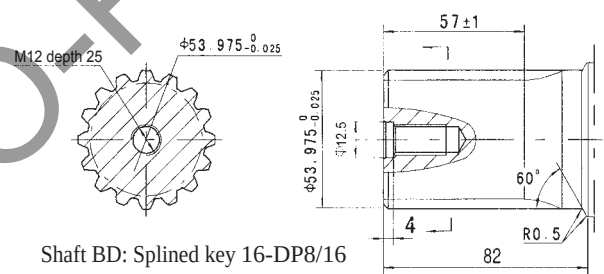
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



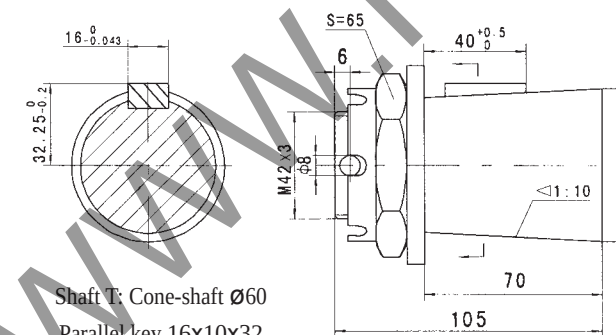
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



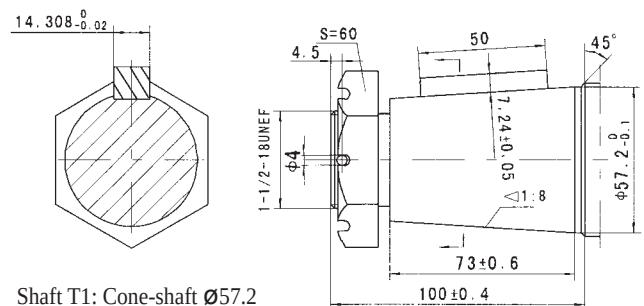
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16



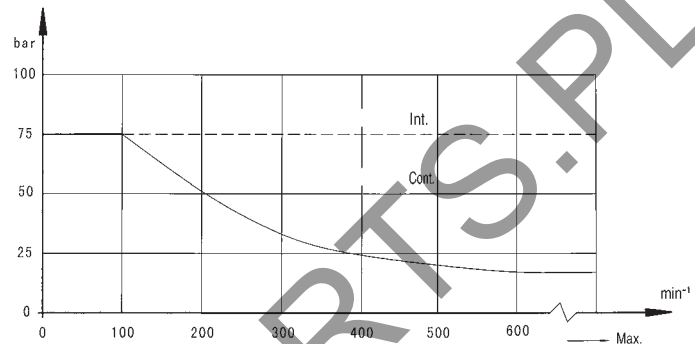
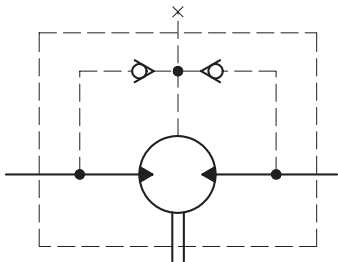
Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750±50Nm



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

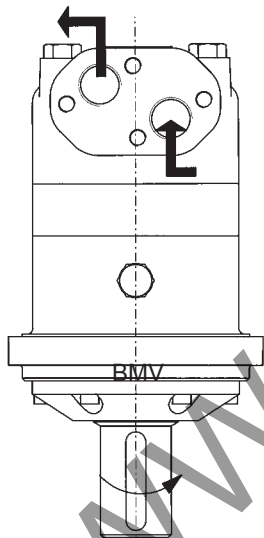
BMV Series Hydraulic Motor

Permissible shaft seal pressure



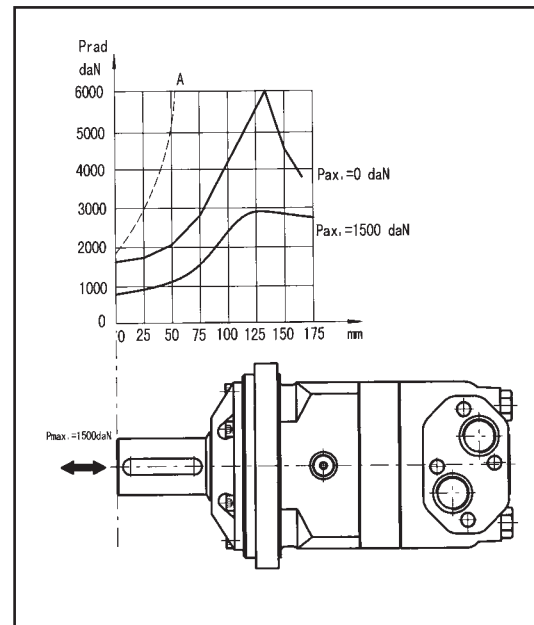
Standard direction of shaft rotation: Standard

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 (mm²/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-flange Ø200, 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	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	G M33×2, M14×1.5			
	1000		T1 Cone shaft Ø57.2, parallel key 14.308×14.308×50.8	M5 1-5/16-12UN S1 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
	Max.cont.									
Max.int.	65	20 990	50 980	84 965	112 945	150 935	170 910	205 880	230 860	250 800

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
	Max.cont.	65	25 800	65 790	105 778	145 755	180 740	225 728	260 690	295 650
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)

		Max.cont.		Max.int.		Peak						
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31	
Flow (L/min)	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	
	Max.cont.	75	5 738	30 735	75 728	125 715	180 700	230 680	275 655	330 635	375 610	
	Max.int.	85	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)	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	245 150	305 144	360 138	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	315 260	370 252	430 242	495 230	550 215	
	45	22 345	50 343	120 338	180 332	245 325	315 315	370 305	430 292	490 280	550 265	
	55	20 420	46 418	115 414	175 408	245 400	330 390	375 378	430 365	490 346		
	65	15 498	43 496	110 492	170 486	240 480	320 465	370 458	425 440	485 425		
Max.cont.	75	12 575	42 574	108 568	170 560	235 550	310 548	365 525	425 502			
	85	8 653	40 652	105 645	165 636	230 625	310 616	360 600	420 578			
Max.int.	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	210 400	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		

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		

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				

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				

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			
Max.cont.	75 191	160 190	360 188	555 184	740 178			
85	65 214	150 212	355 210	550 206	730 200			
Max.int.	50 242	135 240	340 237	530 233	710 228			
95		125 286	310 282	510 275				
115								

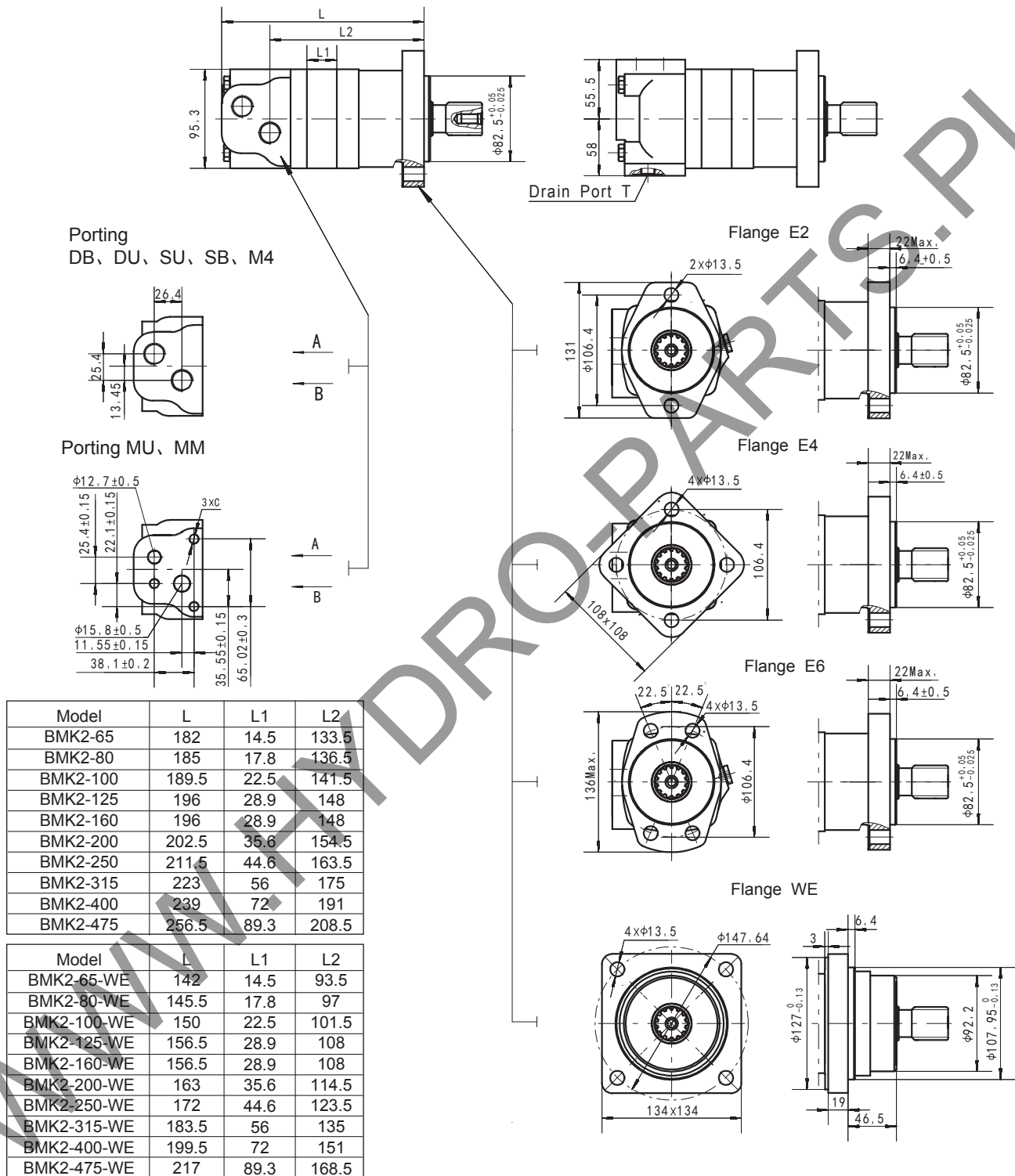
□ cont.
■ int.

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	
Max.cont.	70 153	185 152	440 149	690 145	800 140	
85	60 173	175 172	430 169	680 165	785 160	
Max.int.	40 195	150 193	405 190	655 185		
95		130 230	380 226	625 220		
115						

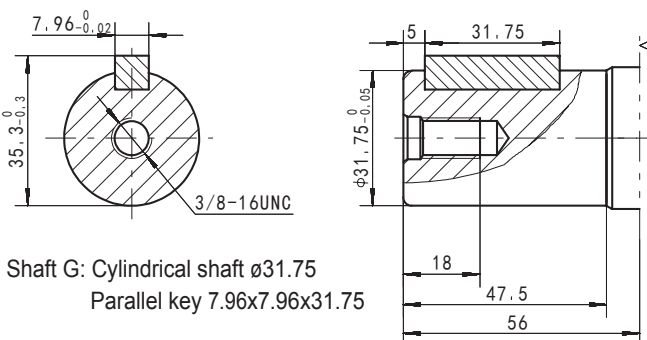
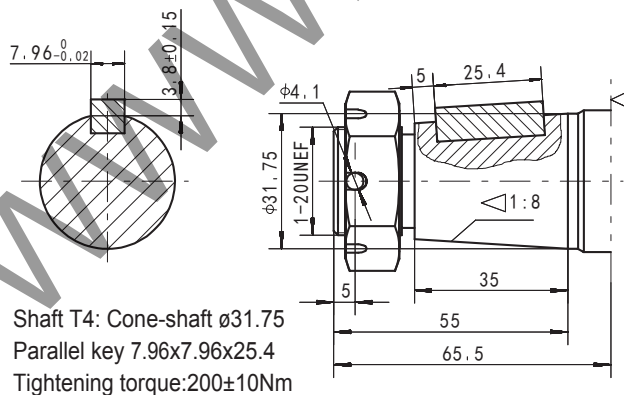
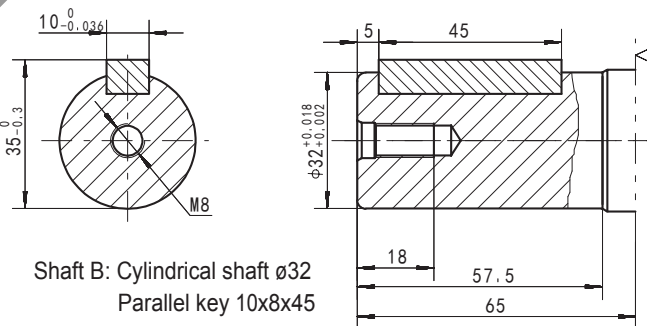
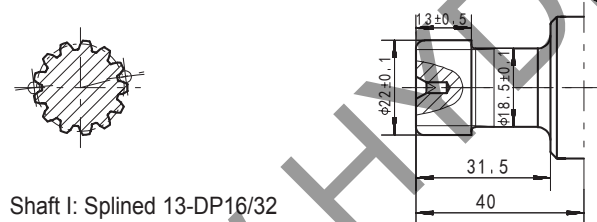
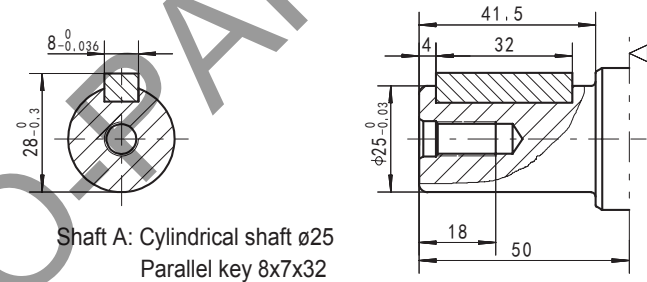
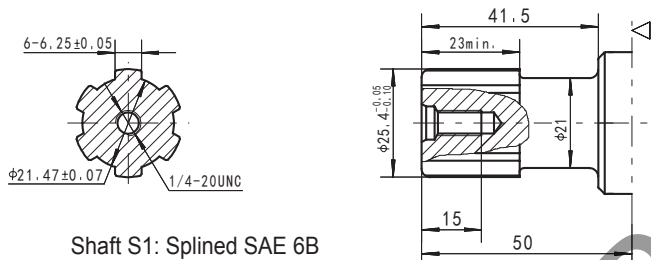
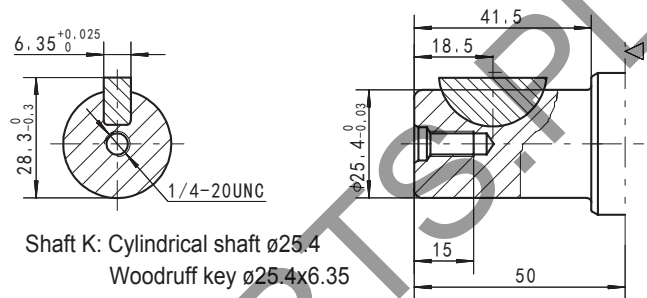
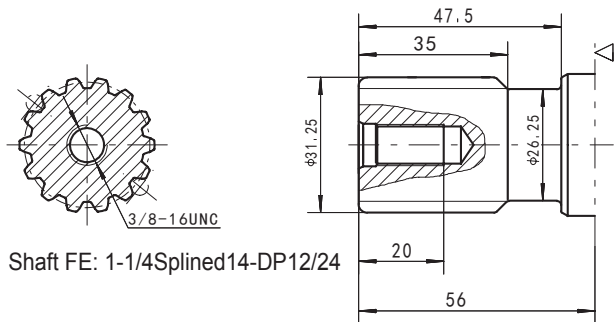
Torque (N·m) 130
Speed (rpm) 230

BMK2 DIMENSIONS AND MOUNTING DATA



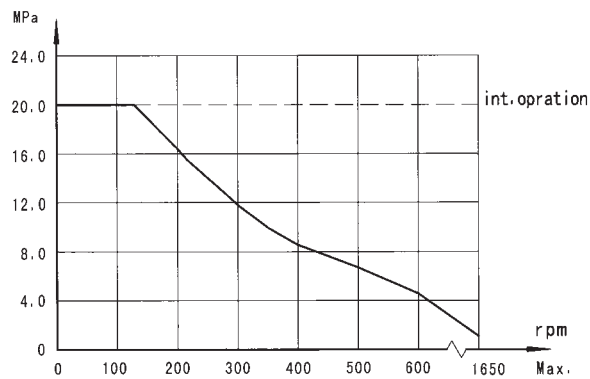
Code Mounting	DB (Depth)	DU (Depth)	SU (Depth)	SB (Depth)	M4 (Depth)	MU	MM
P(A,B)	G1/2 (15)	G1/2 (15)	7/8-14 O-ring (17)	7/8-14 O-ring (17)	M22 x 1.5 (15)	φ12.7, φ15.8	φ12.7, φ15.8
T	G1/4 (12)	7/16-20UNF(12)	7/16-20UNF(12)	G1/4 (12)	M14 x 1.5 (12)	7/16-20UNF(12)	G1/4 (12)
C			--			3/8-16UNC(15)	M10(15)

SHAFT EXTENSIONS FOR BMK2 MOTORS



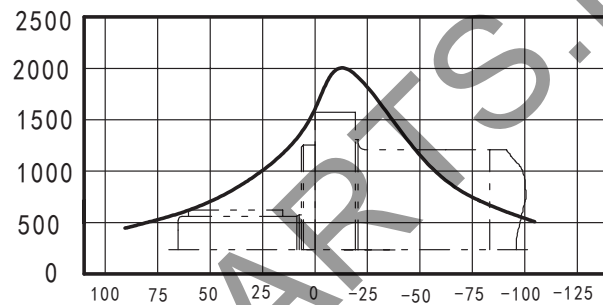
◁ Motor Mounting Surface E2 Flange

Permissible shaft seal pressure



BMK2 Standard Mounting Flange[E2]Radial Forces

Side Load-(daN)

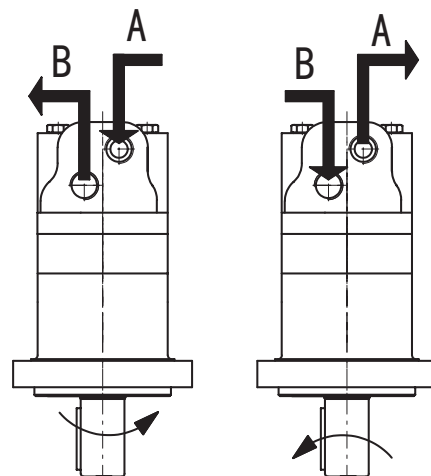
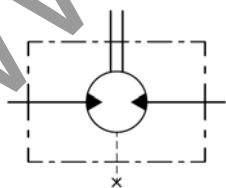


Distance from Mounting Face--(mm)

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 G1/2, G1/4 DU G1/2, 7/16-20 UNF	Omit Standard	No paint	Omit Standard
100	E4	4×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	G Shaft φ31.75, parallel key 7.96×7.96×31.75	SB 7/8-14UNF O-ring, G1/4 SU 7/8-14UNF O-ring, 7/16-20 UNF	Omit R Opposite	Omit B Black S Silver grey	F Free Running
125	E6	4×φ13.5 Rhomb-flange φ106.4, pilot φ82.5×6.4	FE Shaft φ31.75, splined 14-DP12/24	M4 M22×1.5, M14×1.5 MU 1/2", 5/8" Crosshole Manifold 3×3/8-16UNC, 7/16-20UNF			
160	WE	4×φ13.6 Wheel-flange φ147.6, pilot φ107.95×6.4	S1 Shaft φ25.4, splined SAE 6B I Sub-shaft φ22, splined 13-DP16/32	MM 1/2", 5/8" Crosshole Manifold 3×M10, G1/4			
200			T4 Cone-shaft φ31.75, parallel key 7.96×7.96×25.4				
250							
315							
400							
475							

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



BMK6 SERIES HYDRAULIC MOTOR

BMK6 series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.
- * Shaft seal can bear high pressure of back.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can 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)

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

BMK6 250 [246.1cm³/rev.]

Pressure (MPa)

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

BMK6 315 [311.6cm³/rev.]

Pressure (MPa)

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

BMK6 400 [391.3cm³/rev.]

Pressure (MPa)

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

BMK6 500 [490.8cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5
						Max.cont.	Max.int.	Peak	
4	120	230	470	685					
8	125	240	475	705	940	1165	1375		
15	125	235	480	720	960	1190	1400	1625	1880
30	125	235	485	735	975	1215	1445	1685	
45	125	235	485	735	975	1215	1450		
60	120	235	480	730	975	1220	1460		
75	110	225	470	725	970	1220			
90	100	220	465	720	965	1215			
105	95	205	460	710	960	1210			
120	90	195	450	700	950	1205			
135	85	175	435	680	935	1170			
150	70	155	420	665	920	1150			
190		130	360	580	865				
225			320	555	800				

BMK6 630 [623cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	22.5
						Max.cont.	Max.int.	
4	130	245	500	750				
8	135	265	540	805	1050			
15	140	280	585	865	1085	1425		
30	145	295	605	925	1270	1480	1780	1890
45	145	295	610	920	1330	1465	1770	
60	135	285	605	915	1330	1465		
75	130	275	595	915	1325			
90	115	260	585	905	1310			
105	100	255	575	895	1305			
120	85	235	560	880	1280			
135	75	220	540	855				
150	50	200	525	84				
190			465	795				
225			430	740				

BMK6 800 [802.4cm³/rev.]

Pressure (MPa)

	1.75	3.5	5	7	8.5	10.5	12	14	15.5	17.5
						Max.cont.	Max.int.			
4	172	345	530	690	860					
8	180	355	540	725	955	1080	1275	1360		
15	185	370	565	758	980	1130	1265	1420	1655	1880
30	190	385	590	795	1005	1200	1330	1580	1740	
45	190	385	590	800	1015	1200	1380	1550		
60	185	380	580	790	1015	1200	1345			
75	176	370	575	782	1000	1185	1365			
90	165	360	560	765	990	1170				
105	150	340	555	750	972	1155				
120	132	325	545	735	945	1130				
135	105	302	525	710	911					
150	80	270	500	680	880					
190		300	475	660	855					
225			423	612	830					

BMK6 1000 [981.6cm³/rev.]

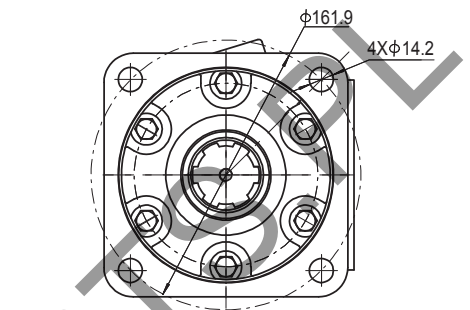
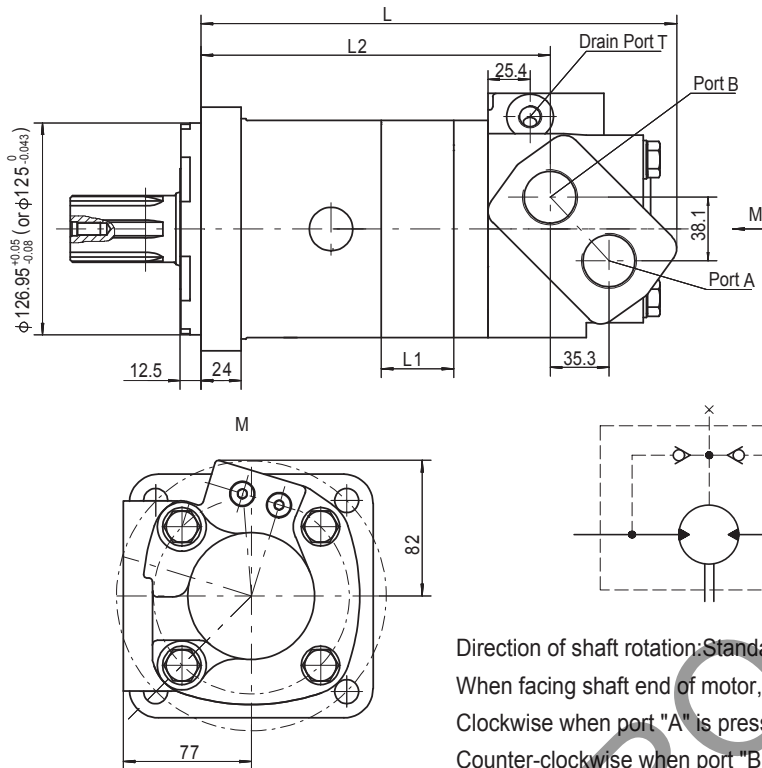
Pressure (MPa)

	1.75	3.5	5	7	8.5	10.5	12	14
						Max.cont.	Max.int.	
4	225	460	640	875	1085			
8	230	470	695	945	1170	1415	1560	1675
15	240	485	715	965	1200	1445	1580	1780
30	240	495	720	995	1235	1480	1640	1860
45	240	495	720	1000	1250	1490	1700	
60	235	490	715	990	1245	1500		
75	225	475	710	980	1230	1485		
90	215	460	705	960	1215	1465		
105	200	445	690	940	1195	1440		
120	185	420	665	920	1155			
135	150	390	635	890	1120			
150	110	360	605	860	1080			
190		320	575	820	1045			
225			515	800	1020			

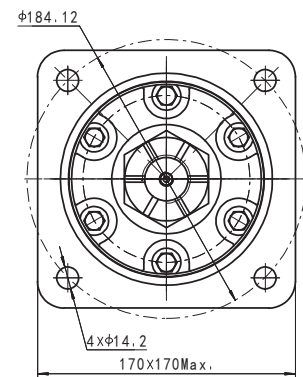
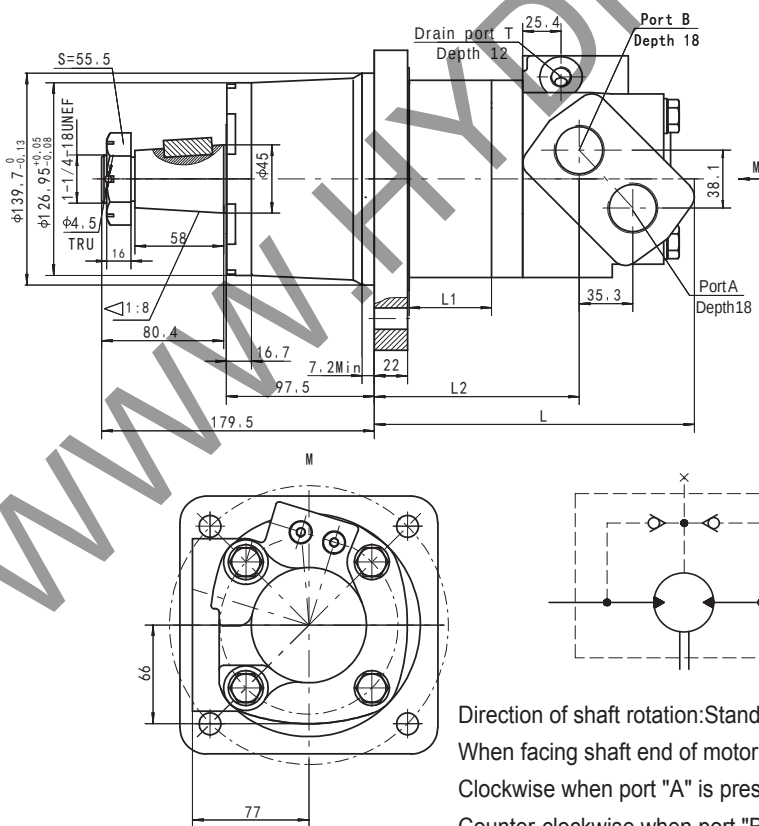
Torque (N·m) 423
Speed (rpm) 280

cont.
int.

BMK6 DIMENSIONS MOUNTING DATA



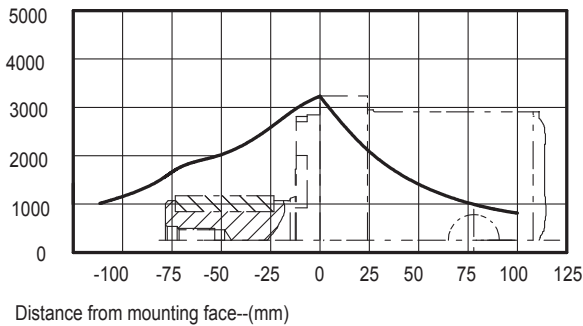
Model	L	L1	L2
BMK6-200	265	21.7	187.5
BMK6-250	271	27.3	193.1
BMK6-315	278	34.5	200.3
BMK6-400	287	43.4	209.2
BMK6-500	298	54.4	220.2
BMK6-630	313	69.1	234.9
BMK6-800	333	89	254.8
BMK6-1000	353	108.9	274.7



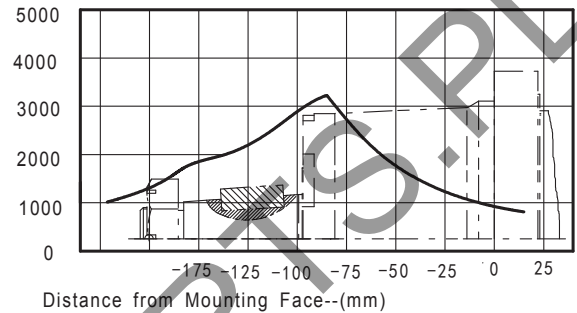
Model	L	L1	L2
BMK6-200	179	21.7	102.5
BMK6-250	185	27.3	108
BMK6-315	192	34.5	115.5
BMK6-400	201	43.4	124.5
BMK6-500	212	54.4	135.5
BMK6-630	226.7	69.1	150.2
BMK6-800	246.5	89	170
BMK6-1000	266.5	108.9	190

BMK6 for CC And W Mounting Radial forces

Radial forces-(daN)



Side Load-(daN)

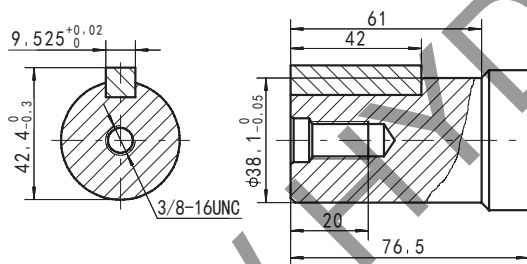


The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12×10^6 revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

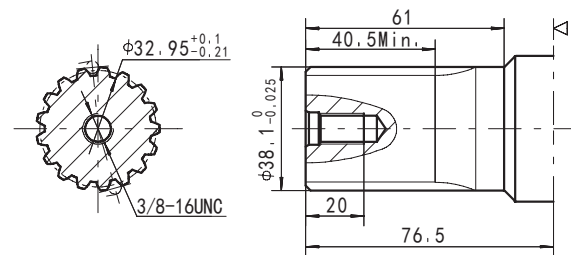
The maximum load curve is defined by bearing static load capacity.

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

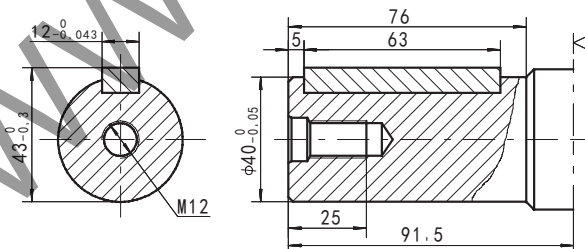
BMK6 Shaft Extensions For Dimensions Data



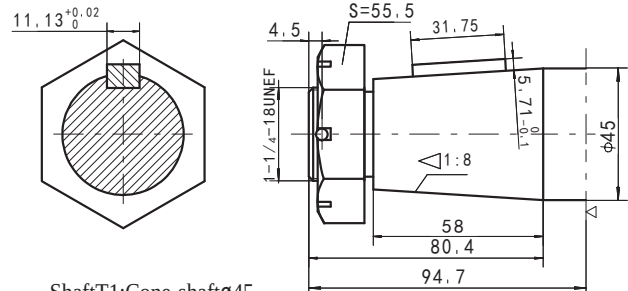
Shaft G2: Cylindrical shaft $\phi 38.1$
Parallel key 9.525x9.525x42
Max.Torque: 1350Nm



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



Shaft Y1: Cylindrical shaft $\phi 40$
Parallel key 12x8x63
Max.Torque: 1400Nm

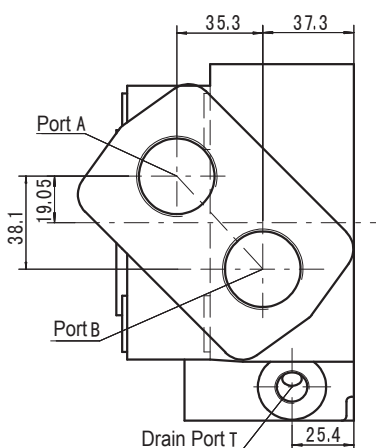


Shaft T1: Cone-shaft $\phi 45$
Parallel key 11.13x11.13x31.75
Tightening torque: 500 ± 10 Nm
Max. torque 2100Nm

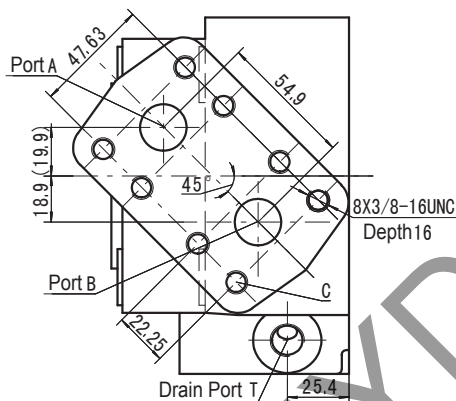
◁ Motor Mounting Surface CC Flange

DIMENSIONS of PORTS FOR BMK6

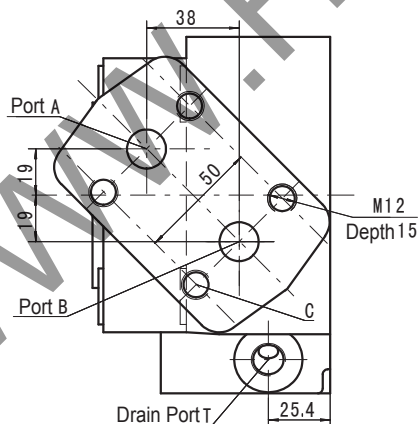
Port: SF5, SF6, SF7, SF8



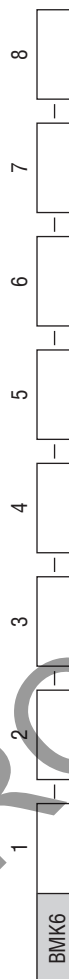
Port: SF



Port: SF0



Order Information



Pos.1	2	3	4	5	6	7	8
Code	Disp.	Flange	Output Shaft	Port and Drain Port	Rotation Direction	Paint	Unusually Function
200	CC	4-φ 14.2 Square-flange φ 161.9, pilot φ 127×12.5	G2 Shaft φ 38.1, parallel key 9.52×9.52×57.15	3/4" Manifold Mount 8×3/8-16UNC, 7/16-20UNF	Omit Standard	00 No paint	Omit Standard
250	CC1	4-φ 14.2 Square-flange φ 161.9, pilot φ 125×12.5	FE Shaft φ 38.1, splined tooth 7-DP12/24	φ 16 Manifold Mount 4×M12, M14×1.5	Omit Standard	Omit B	Blue
315	W	4-φ 14.2 Wheel-flange φ 184.12, Pilot 139.7	Y1 Shaft φ 40, parallel key 12×8×63	1-5/16-12UN, 7/16-20UNF	R Opposite	S	Black
400			T1 Cone-shaft 1.8 φ 45, parallel key 11.13×11.13×31.75	M33×2, M14×1.5			Silver
500				G1, G1/4			grey
630				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)	φ 16
T		7/16-20UNF(12)	M14X1.5(12)	G1/4(12)	G1/4(12)	M14X1.5(12)
C		-	-	-	-	8X3/8-16UNC



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)

Max.cont. Max.int.

	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. 45	20 667	52 660	85 642	115 621	168 587
Max.int. 57	15 842	46 835	80 814	112 789	163 735

BME2 80 [81.3 cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	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. 45	23 543	62 537	100 521	139 513	12 501
Max.int. 57	18 689	55 681	98 665	134 649	186 618

BME2 100 [101.6 cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	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. 45	21 439	70 436	119 433	168 419	241 383
Max.int. 57	10 553	60 545	109 534	158 527	232 491

BME2 125 [127 cm³/rev.]

Pressure (MPa)

Max.cont. Max.int.

	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. 45	38 350	95 348	159 346	219 331	314 301
Max.int. 57	21 441	176 439	141 431	280 417	302 384

Torque (N·m) 158
Speed (rpm) 527

cont.
int.

Performance Data

BME2 160 [157.2 cm³/rev.]

Pressure (MPa)

	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.cont.					
Max.int.	36 355	97 352	182 346	260 336	370 311

Flow (L/min)

BME2 200 [193.6 cm³/rev.]

Pressure (MPa)

	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.cont.					
Max.int.	36 289	138 286	231 279	330 271	469 256

Flow (L/min)

BME2 230 [226 cm³/rev.]

Pressure (MPa)

	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	130	256	301	451
57	247	244	240	230	221
Max.int.		65 328	183 323	250 311	401 303

Flow (L/min)

BME2 250 [257 cm³/rev.]

Pressure (MPa)

	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	208	339	342	487
57	216	213	205	197	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	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	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)

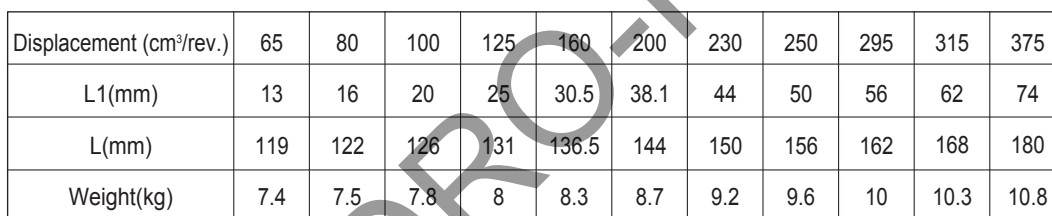
Max.int.

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

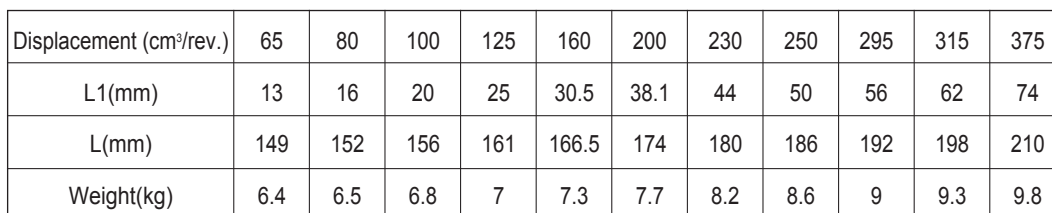
Flow (L/min)	5	10	15	20	25	34	45	Max.cont.	Max.int.
5	151	315	412						
10	10	7	3						
15	155	324	427	606					
20	25	24	21	18					
25	162	331	439	613					
34	40	39	37	32					
45	158	326	434	602					
Max.cont.	53	52	49	45					
Max.int.	151	316	424	589					
75	67	65	62	58					
	141	309	417	580					
	91	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.

WM M22x1.5



A、B Port Ø12.7



BME2 DIMENSIONS AND MOUNTING DATA

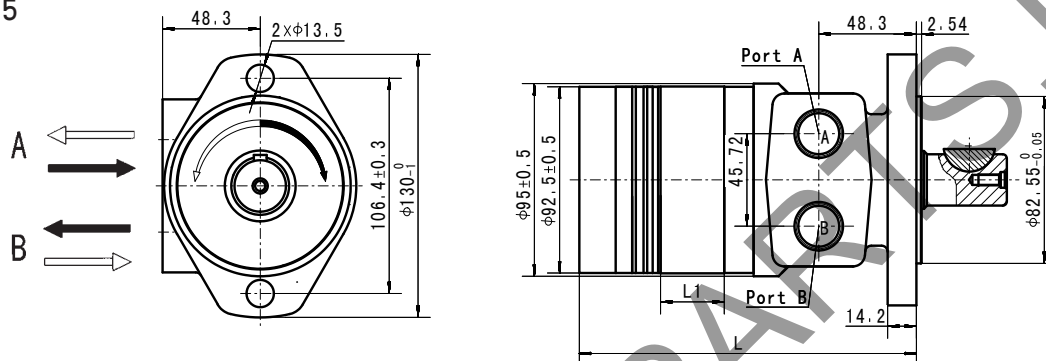
Code: Port A, B

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

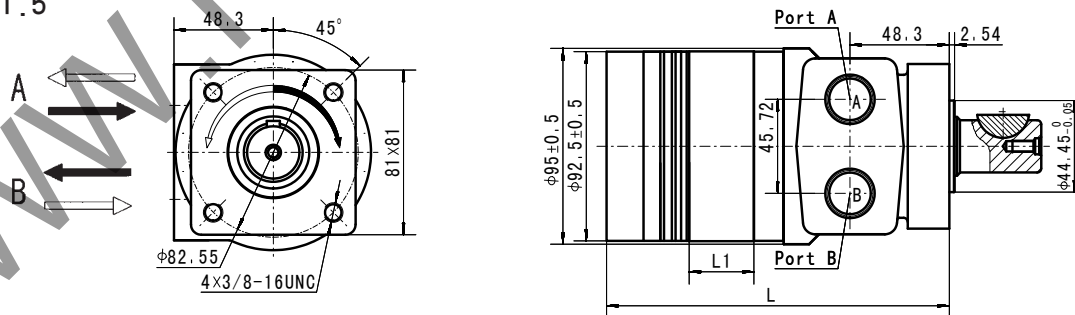
Code: Port A, B

H4S 7/8-14UNF

H4P 1/2-14NPTF

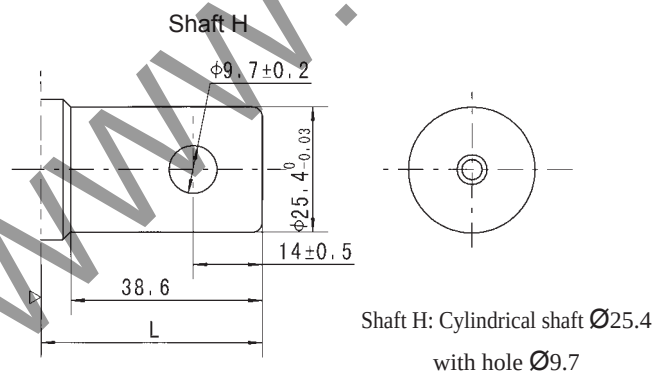
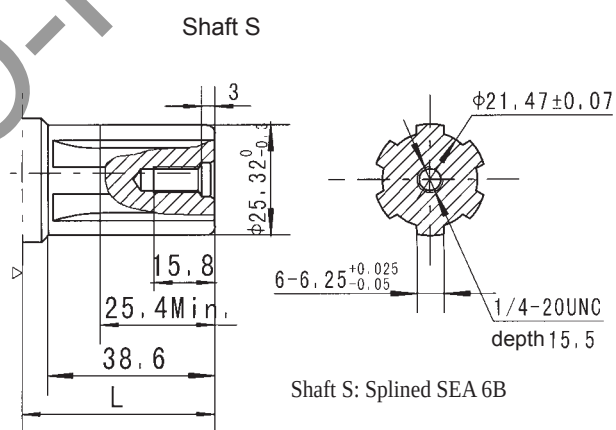
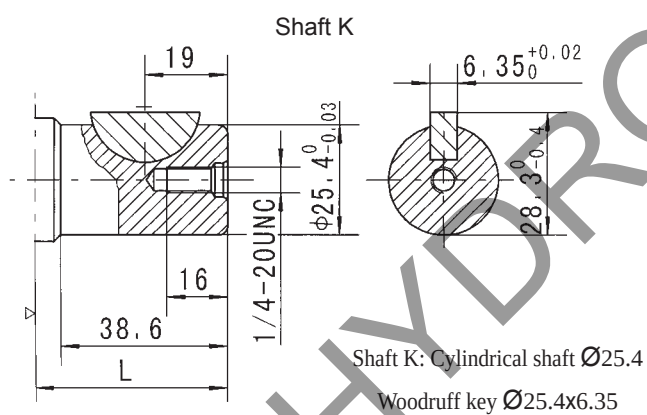
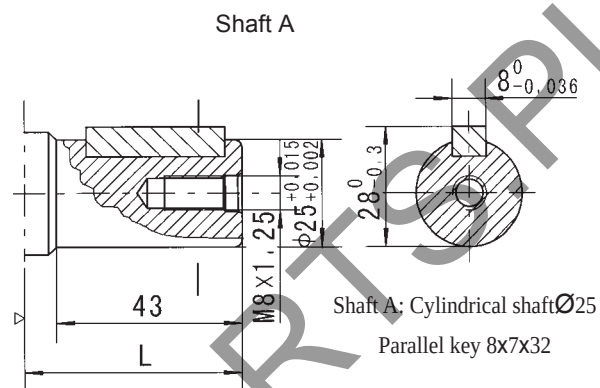
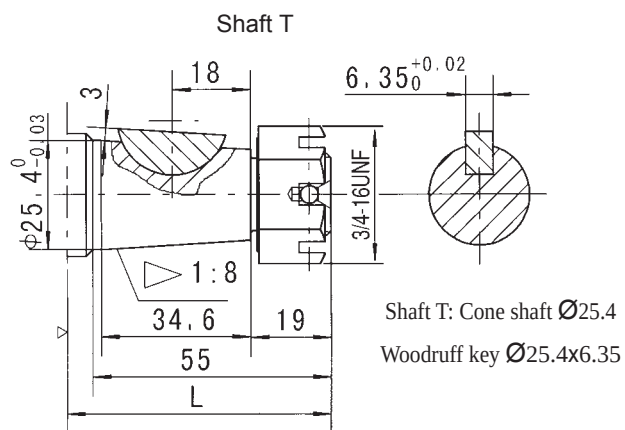
H4D G1/2

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

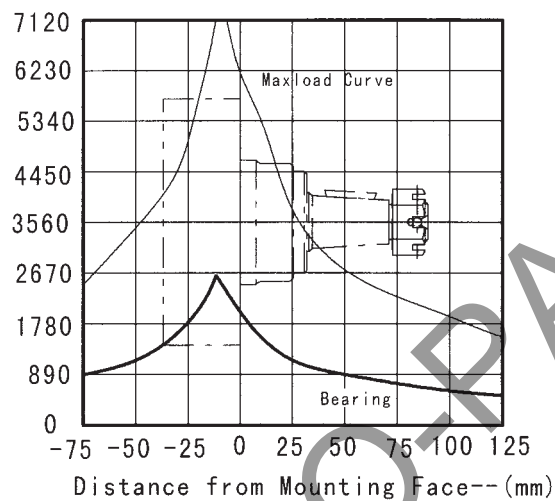
Shaft Mounting	T	A	K	S	H
WS	90.2	78.2	73.9	73.9	73.9
HS/HP					
H4S/H4P	61	49	44.7	44.7	44.7
HM					

▷ Motor Mounting Surface

Permissible Shaft Loads

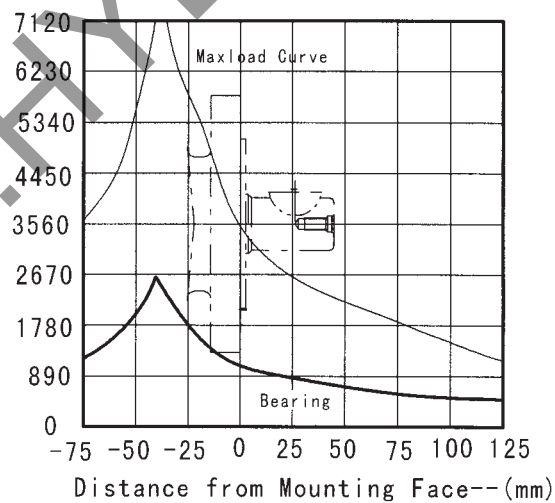
BME2 for Wheel Mounting

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		WS 4-Ø13.5 Wheel - flange, Pilot Ø60.3×7 Port 7/8-14 O-ring	T Cone-Shaft Ø25.4, Woodruff key Ø25.4×6.35 A Cylindrical Shaft Ø25, Parallel key 8×7×32 K Cylindrical Shaft Ø25.4, Woodruff key Ø25.4×6.35 S Shaft Ø25.4, Splined key SAE 6B H Cylindrical Shaft Ø25.4, Pin Hole Ø9.7	Omit Standard R Opposite	00 Omit B S No paint Blue Black Silver grey	Omit Standard
		WD 4-Ø13.5 Wheel - flange, Pilot Ø60.3×7 Port G1/2				
		WM 4-Ø13.5 Wheel - flange, Pilot Ø60.3×7 Port M22×1.5				
	65	HM 2-Ø13.5 Rhomb-flange, Pilot Ø82.5×2.54 Port 1/2" Manifold mount 4×5/8-18				
	80	HS 2-Ø13.5 Rhomb-flange, Pilot Ø82.5×2.54 Port 7/8-14 O-ring				
	100	HP 2-Ø13.5 Rhomb-flange, Pilot Ø82.5×2.54 Port 1/2-14 NPFT Pipe				
	125	HD 2-Ø13.5 Rhomb-flange, Pilot Ø82.5×2.54 Port G1/2				
	160	HG 2-Ø13.5 Rhomb-flange, Pilot Ø82.5×2.54 Port M22×1.5				
	200	H4S 4-3/8-16 Square- flange, Pilot Ø44.4×2.54 Port 7/8-14 O-ring				
	230	H4P 4-3/8-16 Square- flange, Pilot Ø44.4×2.54 Port 1/2-14 NPFT Pipe				
	250	H4D 4-3/8-16 Square- flange, Pilot Ø44.4×2.54 Port G1/2				
	295	H4G 4-3/8-16 Square- flange, Pilot Ø44.4×2.54 Port M22×1.5				
	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.



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

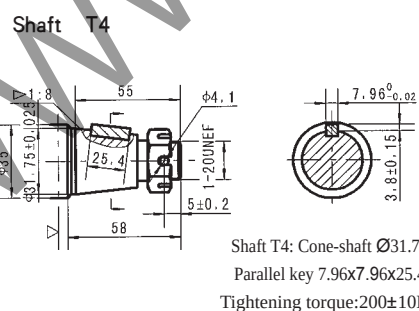
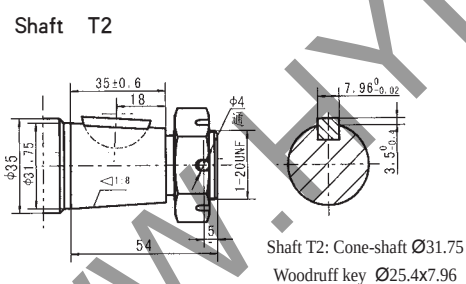
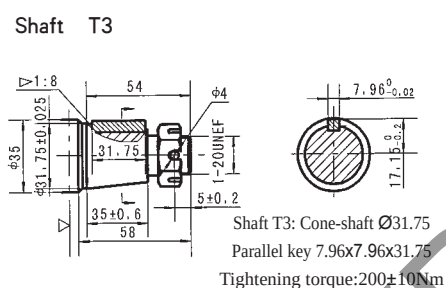
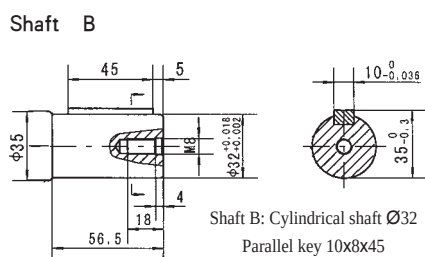
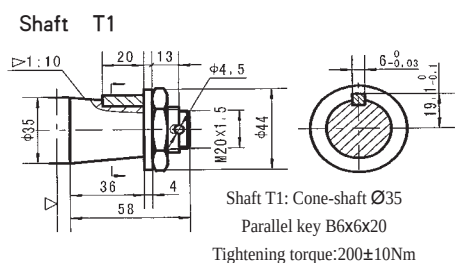
Type		BMJ 65	BMJ 80	BMJ 100	BMJ 125	BMJ 160	BMJ 200	BMJ 230	BMJ 250	BMJ 295	BMJ 315	BMJ 375
Geometric displacement (cm ³ /rev.)		66.8	81.3	101.6	127	157.2	193.6	226	257	287.8	314.5	370
Max. speed (rpm)	cont.	667	543	439	350	283	229	247	216	196	178	152
	int.	842	689	553	441	355	289	328	287	254	235	199
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 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 Ø82.55x7, Port 7/8-14 O-ring 4-Ø13.5 Wheel-flange, Pilot Ø82.55x7, Port G1/2 4-Ø13.5 Wheel-flange, Pilot Ø82.55x7, Port M22x1.5	T1	Omit	00	
	80		T2	Standard	Omit	No paint
	100		T3	R	Blue	
	125		T4		Black	
	160		B		Silver Grey	
	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:

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

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

Main Specification

Type		BMER 125	BMER 160	BMER 200	BMER 230	BMER 250	BMER 300	BMER 350	BMER 375	BMER 400	BMER 475	BMER 540	BMER 650	BMER 750
Geometric displacement (cm ³ /rev.)		118	156	196	228	257	296	345	371	405	462	540	647	745
Max. speed (rpm)	cont.	360	375	330	290	290	250	220	200	185	160	140	115	100
	int.	490	470	425	365	350	315	270	240	220	195	170	138	120
Max. torque (N•m)	cont.	325	450	530	625	700	810	905	990	1010	1085	980	1015	1050
	int.	380	525	600	710	790	930	1035	1140	1180	1180	1240	1250	1180
	peak	450	590	750	870	980	1120	1285	1360	1360	1260	1380	1380	1370
Max. output (kW)	cont.	12.0	15.0	15.5	16.0	17.5	18.0	17.5	16.5	15.5	14.5	11.5	10.0	8.0
	int.	14.0	17.5	18.0	19.0	20.0	21.0	20.0	19.0	18.0	16.5	15.0	12.0	10.0
Max. pressure drop (MPa)	cont.	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	19	17.5	14	12	10.5
	int.	24	24	24	24	24	24	24	24	22.5	19	17.5	15.5	12
	peak	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25	20.5	20.5	17.5	14
Max. flow (L/min)	cont.	45	60	70	70	75	80	80	75	75	75	75	75	75
	int.	60	75	85	85	90	95	95	90	90	90	90	90	90

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

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

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

Performance Data

BMER125 [118cm³/rev.]

Pressure (MPa)

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

Flow (L/min)		Max.cont.							Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	
2		20	50	96	137					
		14	13	11	7					
4		24	53	110	166	221				
		28	26	24	19	13				
8			55	113	174	225	266	294	336	
			60	54	50	45	39	35	26	
15			53	114	180	234	275	326	348	
			115	110	100	96	90	84	76	
25			48	110	164	226	272	323	352	
			194	185	173	168	160	155	149	
34				108	166	220	278	315	373	
				276	260	244	232	225	217	
45				98	160	215	271	308	369	
				362	350	342	325	322	303	
53	Max.cont.			90	152	208	265	304		
				423	418	404	399	371		
60	Max.int.			82	141	205	260	300		
				488	472	455	442	421		

BMER160 [156cm³/rev.]

Pressure (MPa)

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

Flow (L/min)		Max.cont.							Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	
2		35	74	146	218	298				
		8	4	3	3	2				
4		29	78	157	235	316	370	424		
		22	19	18	16	14	13	8		
8		35	78	158	236	312	373	450	526	
		47	44	42	40	37	34	32	27	
15		37	74	155	234	310	368	440	517	
		93	90	86	84	82	79	75	69	
25			68	152	227	308	364	436	499	
			155	151	147	142	137	131	124	
34			68	152	227	308	364	436	499	
			214	213	210	204	198	191	184	
45			64	143	218	296	360	425	481	
			282	280	275	268	263	256	245	
53				135	216	293	357	421	476	
				330	327	322	315	306	296	
60	Max.cont.			122	207	284	350	416	467	
				379	376	368	362	356	345	
68				109	196	273	345	396		
				423	419	414	406	394		
75	Max.int.			104	188	270	337	390		
				472	466	460	450	436		

BMER200 [196cm³/rev.]

Pressure (MPa)

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

Flow (L/min)		Max.cont.							Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	
2		39	88	132	286	370				
		8	4	4	3	2				
4		42	85	188	270	361	427	506		
		16	14	13	11	10	9	6		
8		43	90	192	291	367	450	529	600	
		35	32	29	28	27	25	23	19	
15		38	92	196	298	381	462	530	602	
		74	71	68	64	60	58	55	50	
25			82	188	283	377	456	528	605	
			124	121	117	113	108	103	92	
34			79	183	270	362	447	515	591	
			170	169	167	160	154	146	135	
45				163	259	352	441	510	593	
				223	218	212	208	199	189	
53				149	256	350	440	501	582	
				260	258	254	248	241	230	
60				132	248	336	432	497	575	
				299	292	284	276	272	263	
68	Max.cont.			120	230	330	412	486	570	
				336	332	327	319	310	301	
75				108	208	311	403	480		
				375	372	365	358	350		
85	Max.int.				184	280	380	462		
					425	420	411	390		

BMER230 [228cm³/rev.]

Pressure (MPa)

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

Flow (L/min)		Max.cont.							Max.int.	
		1.75	3.5	7	10.5	14	17.5	20.5	24	
2		44	90	182	291	374				
		6	4	3	2	1				
4		48	100	216	310	405	484	549		
		15	13	11	11	9	7	3		
8		50	104	212	320	421	518	603	700	
		31	29	27	25	23	20	16	10	
15		44	106	207	318	426	529	623	712	
		63	61	58	55	52	47	41	34	
25			101	209	324	428	532	620	705	
			103	100	96	92	87	81	71	
34			88	205	316	421	522	623	702	
			145	143	139	133	126	120	109	
45				186	294	422	507	595	688	
				192	187	182	176	170	160	
53				175	290	393	496	584	678	
				226	221	215	208	203	194	
60				152	270	390	485	569	661	
				256	253	248	242	235	222	
68	Max.cont.			140	265	351	482	563	642	
				292	288	283	278	273	256	
75				124	235	344	448	552		
				324	321	316	308	300		
85	Max.int.				207	335	442	546		
					366	360	351	338		

Torque (N·m) 380
Speed (rpm) 411

cont.
int.

BMER250 [257cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20.5	24
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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
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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	984 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

cont.
int.

BMER400 [405cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	19	22.5
--	------	-----	---	------	----	------	----	------

Flow (L/min)		Max.cont.							Peak
		1.75	3.5	7	10.5	14	17.5	19	22.5
2	85	170							
4	90	182	368	540	715	885			
8	93	190	385	575	750	895	950	1155	
15	88	180	380	575	750	905	980	1165	
25	88	180	380	575	750	915	1010	1165	
34	75	165	365	560	750	915	1000	1180	
45	150	350	545	735	900	980	1165		
53	125	330	525	720	885	960	1150		
60	100	305	505	680	860	940	1125		
68	275	480	660	845	925	1100			
75	250	455	635	820	900	1065			
85	225	415	600	785	865				
90	160	365	575	770					

BMER475 [462cm³/rev.]

Pressure (MPa)

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

Flow (L/min)		Max.cont.						Peak
		1.75	3.5	7	10.5	14	17.5	20.5
2	93	186						
4	98	202	405	608	805			
8	98	206	430	652	844	1005	1180	
15	94	202	441	654	875	1056	1238	
25	94	202	441	654	875	1056	1238	
34	75	180	420	660	850	1085	1266	
45	144	380	627	835	1062	1261		
53	116	346	573	795	1008	1212		
60	82	318	539	790	975	1186		
68	58	272	520	740	955	1156		
75	230	480	702	920	1116			
85	200	454	662	876				
90	150	378	615	840				

BMER540 [540cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5
--	------	-----	---	------	----	------

Flow (L/min)		Max.cont.					Max.int.
		1.75	3.5	7	10.5	14	17.5
2	105	198					
4	125	231	470	688	932	1136	
8	134	238	496	749	966	1175	
15	122	230	505	750	981	1218	
25	100	225	500	774	986	1220	
34	80	212	481	748	977	1243	
45	173	437	714	936	1190		
53	142	416	678	938	1170		
60	106	380	664	896	1158		
68	85	357	616	870	1108		
75	318	600	826	1100			
85	292	538	780				
90	214	486	755				

Torque (N·m) 486
Speed (rpm) 168

BMER650 [647cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	12	15.5
--	------	-----	---	------	----	------

Flow (L/min)		Max.cont.					Max.int.	Peak
		1.75	3.5	7	10.5	12	15.5	
2	119	230						
4	135	268	552	805	940			
8	145	285	574	825	955	1255		
15	140	280	595	875	982	1276		
25	130	275	590	886	1005	1302		
34	115	260	580	890	1015	1310		
45	235	555	870	995	1280			
53	200	520	850	975	1250			
60	170	490	825	935	1215			
68	145	430	775	880	1185			
75	420	730	855	1130				
83	380	660	795					
90	290	585	730					

BMER750 [745cm³/rev.]

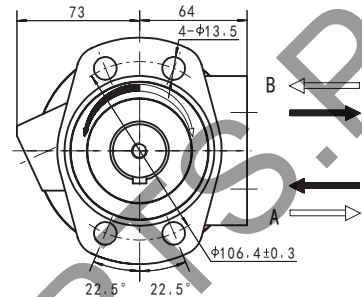
Pressure (MPa)

	1.75	3.5	7	10.5	12	14
--	------	-----	---	------	----	----

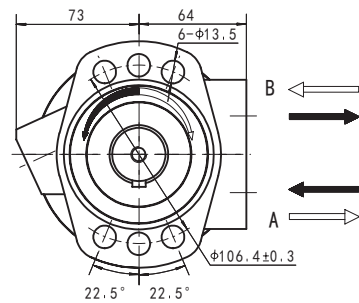
Flow (L/min)		Max.cont.					Max.int.	Peak
		1.75	3.5	7	10.5	12	14	
2	145	280						
4	160	321	654	960	1115	1312		
8	162	335	688	1026	1159	1347		
15	156	330	694	1047	1184	1376		
25	142	320	688	1046	1179	1373		
34	110	288	658	1021	1169	1366		
45	71	242	620	982	1143	1345		
53	202	568	941	1105	1308			
60	140	527	898	1086	1286			
68	100	486	852	1034	1251			
75	65	425	812	980	1178			
83	395	745	906					
90	298	660	800					

cont.
int.

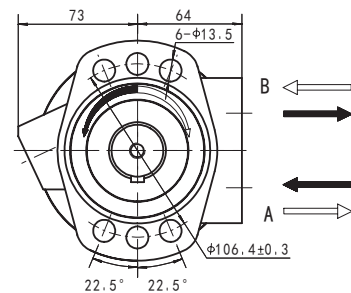
MD G1/2



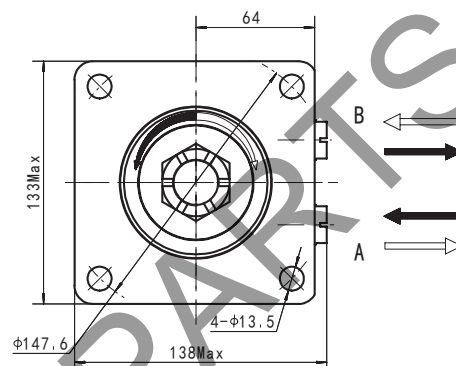
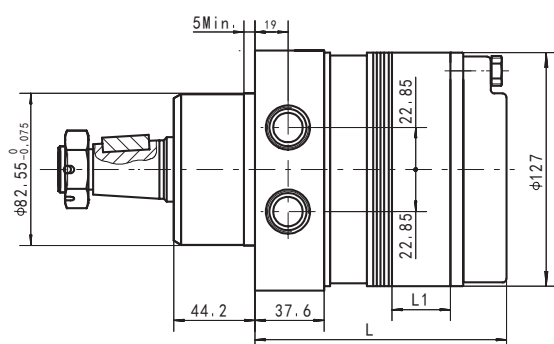
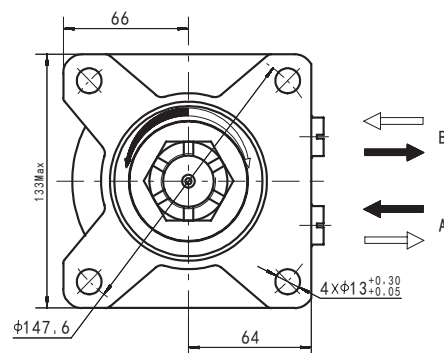
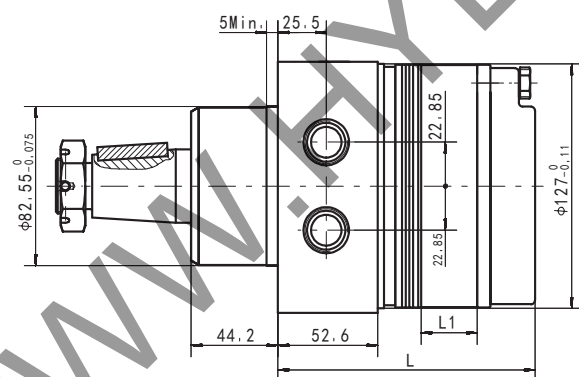
FD G1/2



FH Ø12.7

112

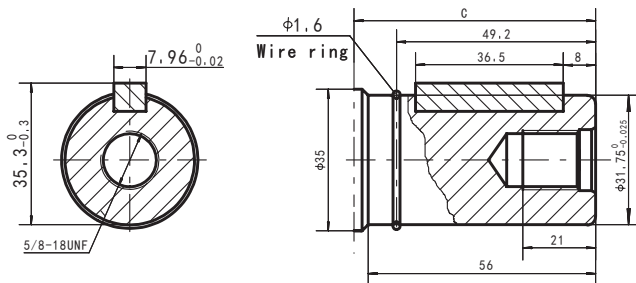
WD G1/2

 TD | G1/2 |

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

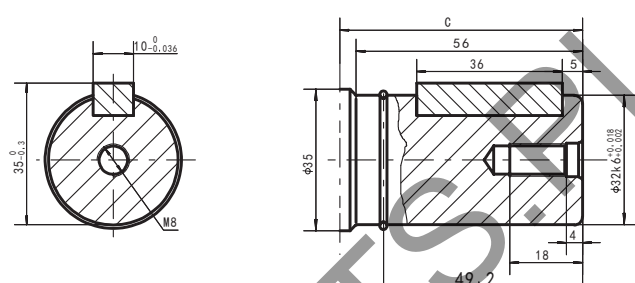
BMER-2 SHAFT EXTENSIONS DIMENSIONS DATA

Shaft G2



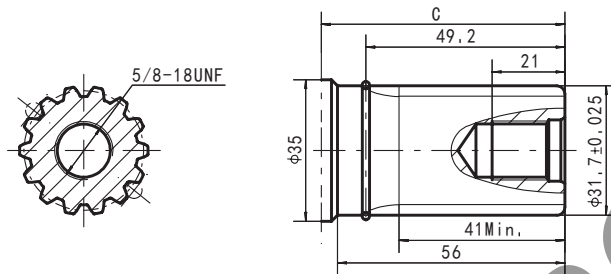
Shaft G2: Cylindrical shaft Ø31.75
Parallel key 7.96x7x36.5

Shaft B1



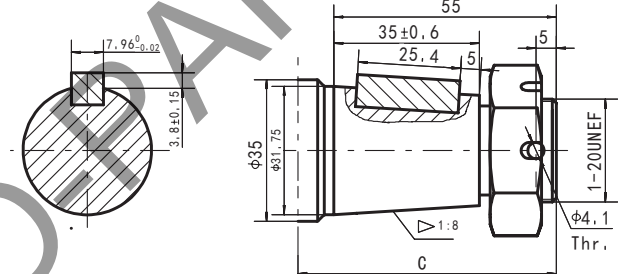
Shaft B1: Cylindrical shaft Ø32
Parallel key 10x8x36

Shaft FD1



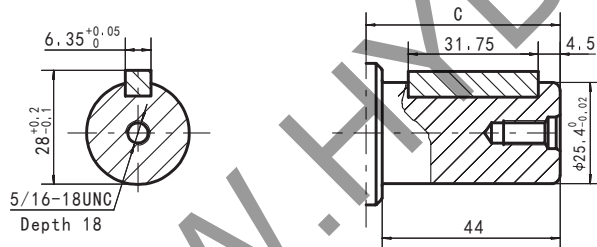
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996

Shaft T4



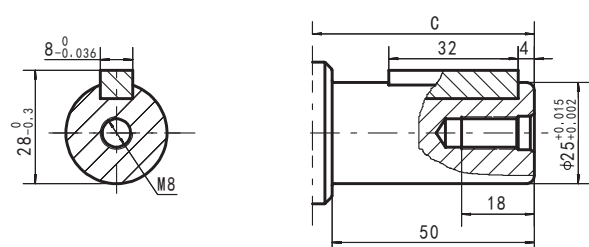
Shaft T4: Cone-shaft Ø31.75
Parallel key 7.96x7.96x25.4
Tightening torque: 200±10Nm

Shaft RW



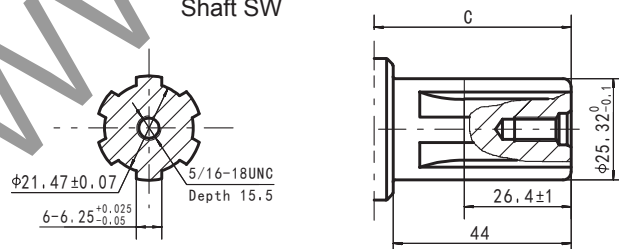
Shaft RW: Cylindrical shaft $\varnothing 25.4$
Parallel key 6.35x6.35x31.75

Shaft AW



Shaft AW: Cylindrical shaft Ø25
Parallel key 8x7x32

Shaft SW



Shaft SW: Splined SAE 6B

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

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

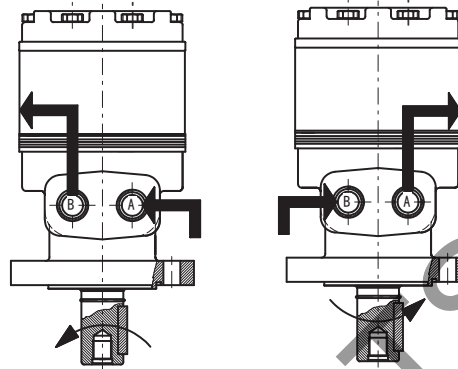
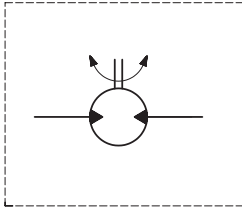
BMER-2 Series Hydraulic Motor

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.

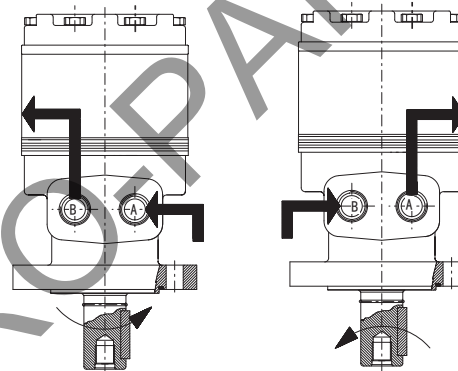


Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:

Clockwise when port "A" is pressurized.

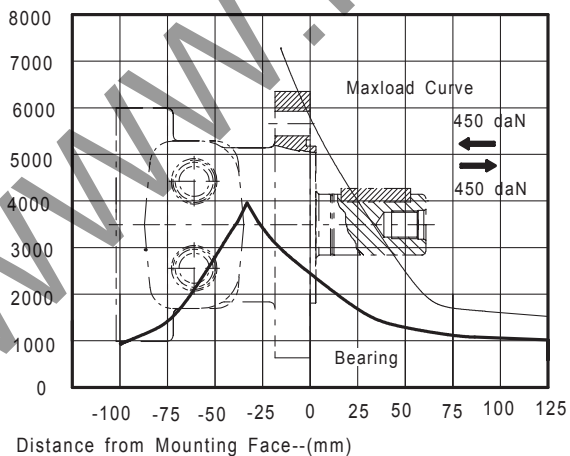
Counter-clockwise when port "B" is pressurized.



Axial and Radial forces

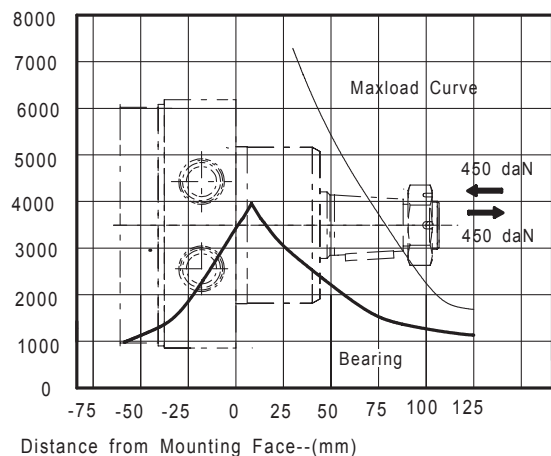
BMER-2 or M#/F# Mounting

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

1	2	3	4	5	6	7
BMER-						

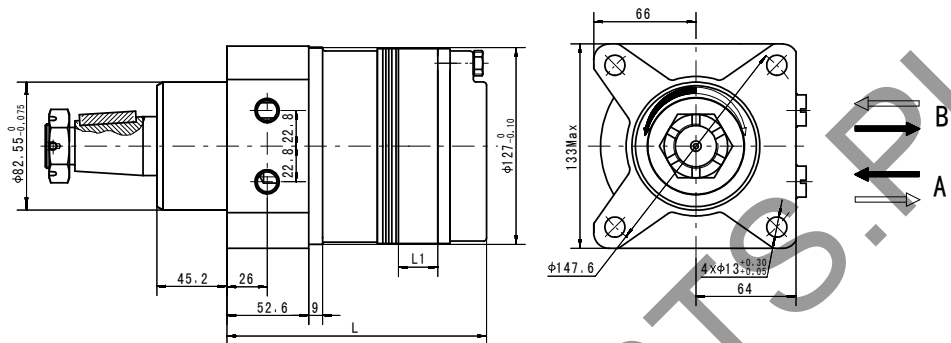
Pos.1	2	3	4	5	6	7
Code	Disp.	Flange , Pilot , Ports	Output Shaft	Rotation direction	Paint	Unusually function
2	MS	4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring	G2 Shaft Ø31.75 , parallel key 7.96x7x36.5 B1 ShaftØ32 Parallel key 10x8x45 FD1 Shaft Ø31.75, splined key 14-DP 12/24 T4 Cone-Shaft Ø31.75, Parallel key 7.96x7.96x25.4 RW Shaft Ø25.4 , parallel key 6.35x6.35x31.75 AW Shaft Ø25 , parallel key 8x7x32 SW Shaft Ø25.4 ,splined key SAE 6B	None R Standard Reverse Timed	00 None B S No paint Blue Black Silver Grey	None Standard
	125	MP 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF				
	160	MD 4-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2				
	200	FS 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 7/8-14 O-ring				
	230	FP 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports 1/2-14NPTF				
	250	FD 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Ports G1/2				
	300	FH 6-Ø13.5 Magneto Mount,Pilot Ø82.55×2.8, Manifold Ports 1/2				
	350	WS 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 7/8-14 O-ring				
	375	WP 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF				
	400	WD 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2				
	475	TS 4-Ø13.5 Wheel Mount,Pilot Ø82.55×5, Ports 7/8-14 O-ring				
	540	TP 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF				
	650	TD 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2				
	750	M1 ShaftØ35, Parallel key 10x8x45 T31 Cone-Shaft Ø38.1, Parallel key 7.96x7x36.5 G32 Shaft Ø38.1 , parallel key 9.525x9.525x42				

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#.

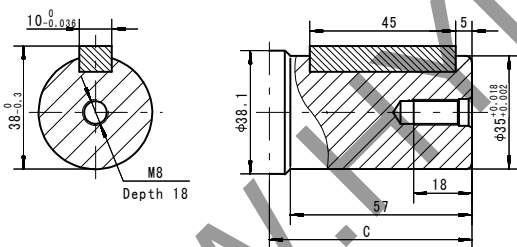
BMER-3 SHAFT EXTENSIONS DIMENSIONS DATA

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



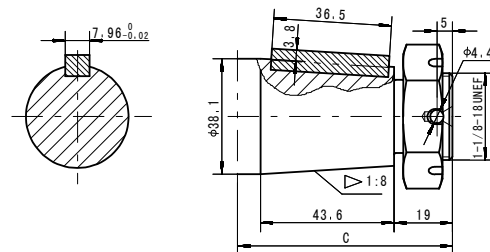
Displacement (cm³/rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	153	156	159.5	162	164.5	168	172	174.5	178	182	190	199.5	206
Weight(kg)	13.2	13.5	13.8	14	14.2	14.5	14.9	15.2	15.5	15.7	16.5	17.3	17.8

Shaft M31



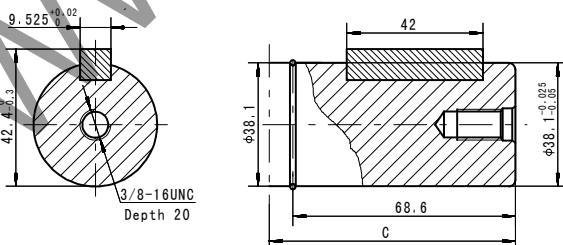
Shaft M31:Cylindrical shaft Ø35
Parallel key 10x8x45

Shaft T31



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

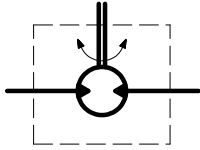
Shaft G31



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

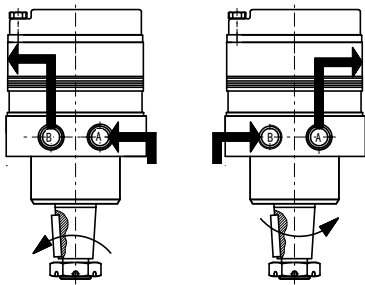


Direction of shaft rotation: Reverse timed

When facing shaft end of motor, shaft to rotate:

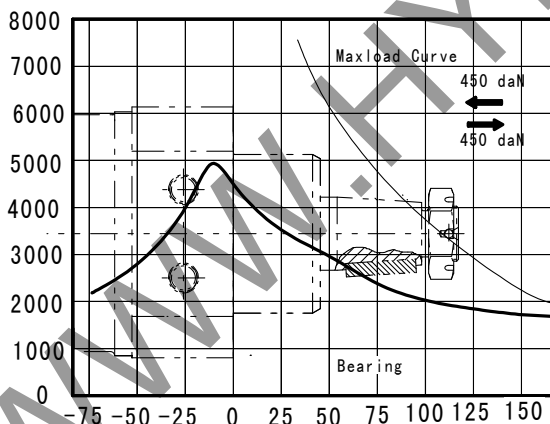
Clockwise when port " B " is pressurized.

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

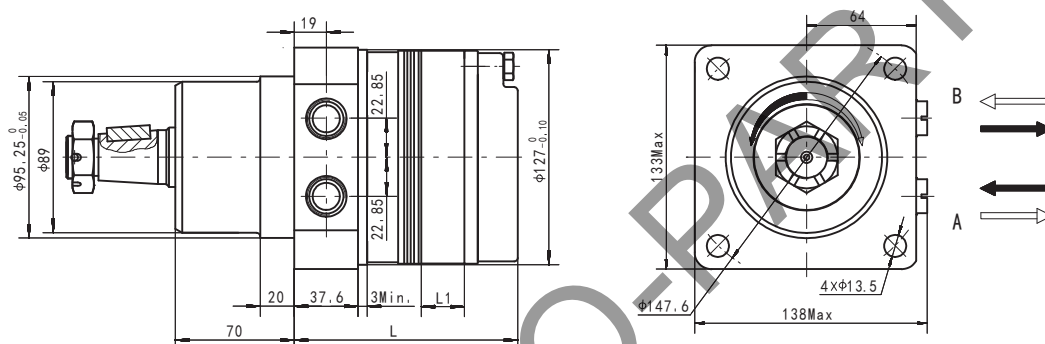
F

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	M31 Shaft ϕ 35, Parallel key 10 $\times$ 8 $\times$ 45 T31 Cone-Shaft ϕ 38.1, Parallel key 7.96 $\times$ 7 $\times$ 36.5 G31 Shaft ϕ 38.1, parallel key 9.525 $\times$ 9.525 $\times$ 42	None R Standard Reverse timed	00 None Blue Black Silver 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.

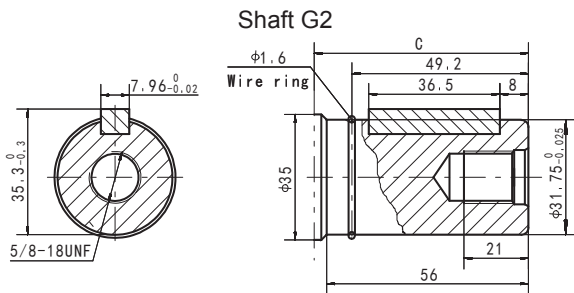
BMER-4 DIMENSIONS MOUNTING DATA

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

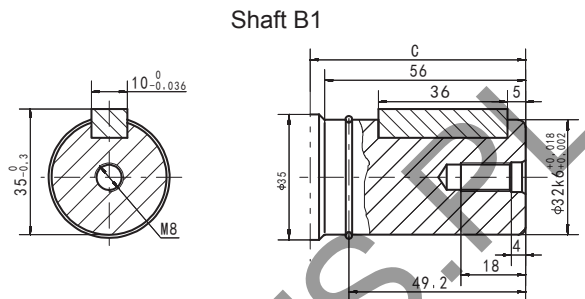


Displacement (cm ³ /rev.)	125	160	200	230	250	300	350	375	400	475	540	650	750
L1(mm)	10.2	13.5	17	19.5	22	25.4	29.5	31.8	35.5	39.4	47.3	57	63.5
L(mm)	119	122	125.5	128	130.5	134.5	138	140.5	144.5	148	156	165.5	172
Weight(kg)	12.8	13.1	13.4	13.6	13.8	14.1	14.5	14.8	15.2	15.6	16.1	16.9	17.4

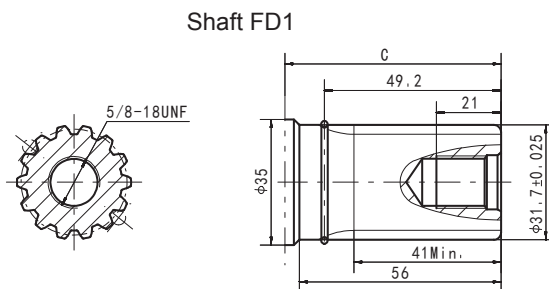
Shaft Extensions For BMER-4 Motors



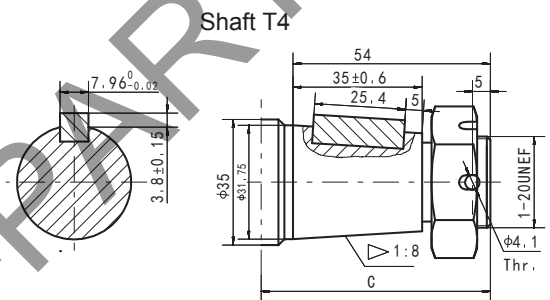
Shaft G2: Cylindrical shaft $\varnothing 31.75$
Parallel key 7x96x7x36x5



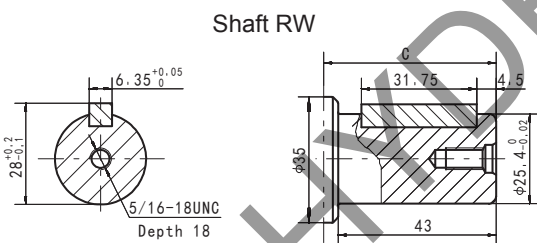
Shaft B1: Cylindrical shaft $\varnothing 32$
Parallel key 10x8x36



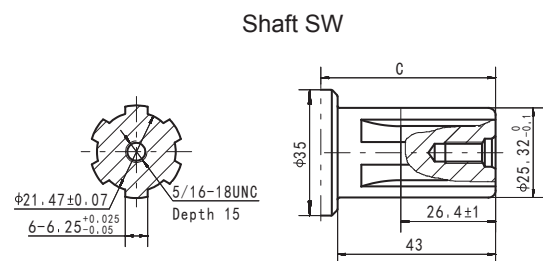
Shaft FD1: Splined 14-DP12/24
Flat root side fit
to fit ANSI B92.1 1996



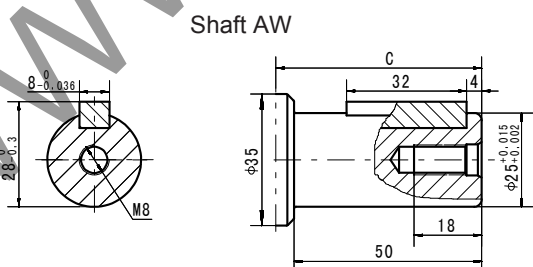
Shaft T4: Cone-shaft $\varnothing 31.75$
Parallel key 7.96x7.96x25.4
Tightening torque: 200±10Nm



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



Shaft SW: Splined SAE 6B

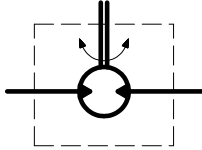


Shaft AW: Cylindrical shaft $\varnothing 25$
Parallel key 8x7x32

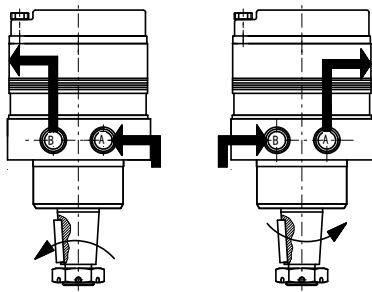
From Mounting Flange to Shaft End	
Dimension C	
Shaft Code	Wheel Mount (mm)
G2	131
B1	130
FD1	131
T4	135
RW	119
SW	119
AW	125

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

BMER-4 Series Hydraulic Motors

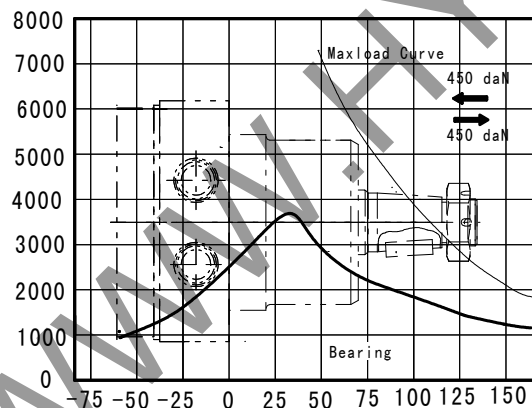


Direction of shaft rotation: Reverse timed
When facing shaft end of motor, shaft to rotate:
Clockwise when port "B" is pressurized.
Counter-clockwise when port "A" is pressurized.



BMER-4 for W# Mounting

Side Load-(daN)



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

Order Information

F	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

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	G2 Shaft Ø31.75 , parallel key 7.96×7×36.5	None	00 No paint	None
	160					
	200					
	230					
	250	WP 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports 1/2-14NPTF	B1 ShaftØ32, Parallel key 10×8×45	Standard	None	None
	300		FD1 Shaft Ø31.75, splined key 14-DP12/24			
	350		T4 Cone-Shaft Ø31.75, Parallel key 7.96×7.96×25.4			
	375		RW Shaft Ø25.4 , parallel key 6.35×6.35×31.75			
	400	WD 4-Ø13.5 Wheel Mount, Pilot Ø82.55×5, Ports G1/2	SW Shaft Ø25.4 ,splined key SAE 6B	Reverse timed	B	S
	475		AW Shaft Ø25 , parallel key 8×7×32			
	540					
	650					
	750					

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



BK10 Series Static Wet Hydraulic Brake

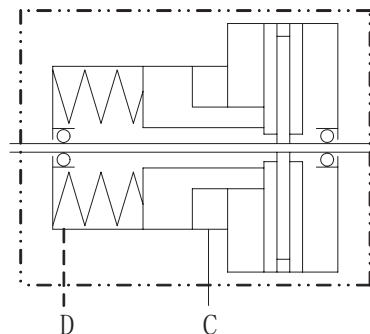
BK10 series static wet hydraulic brake is suitable for lower speed application of scissors type aerial work platform and agricultural machinery and others with wheel mounting. The feature:

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

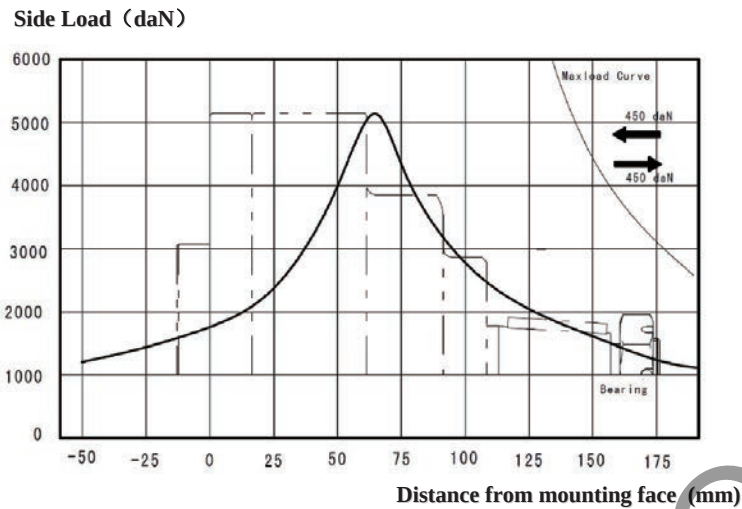
Main Specification

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

Hydraulic systems



BK10-1 Mounting Flange Radial Forces



The bearing curve represents allowable bearing loads for an L bearing life at 12×10^6 revolutions.

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

Order Information

1 2 3 4 5 6 7 8

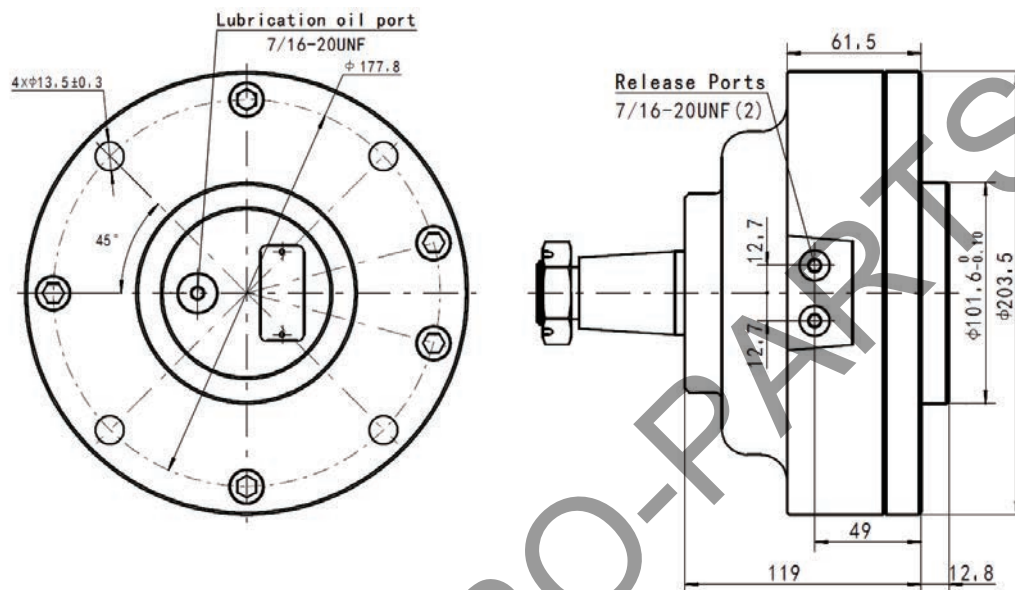
BK10-

Pos.1	2	3	4	5	6	7	8
Code	Brake Torque	Output shaft	Flange and Pilot and Brake Ports	Lubrication Port	Paint	Design Code	Nut Code
1	1150	Ø38.1 Cone-Shaft 1:8. Parallel key 7.96x7x36.5	Round Flange 4x Ø13.5, Ø177.8, Pilot Ø101.6x12.8, Brake Ports 7/16-20UNF	Omit	Black Silver Grey No paint Blue	002 02 N	N-Type thick Nut
			S1		B S 00 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 Ports, Lubrication Port etc.. If the specification is not in the table or you have specific requirements, please contact us.

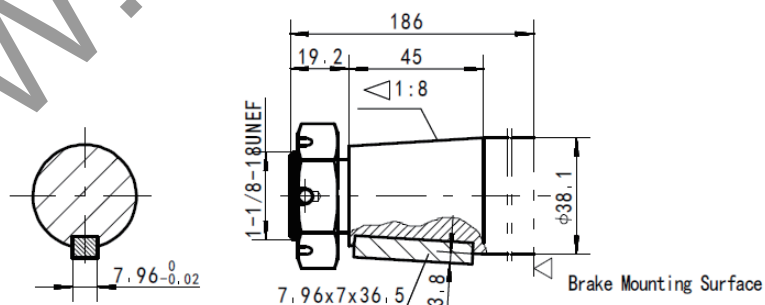
BK10-2 DIMENSIONS AND MOUNTING DATA

S1 Flange and Pilot and Brake Pors

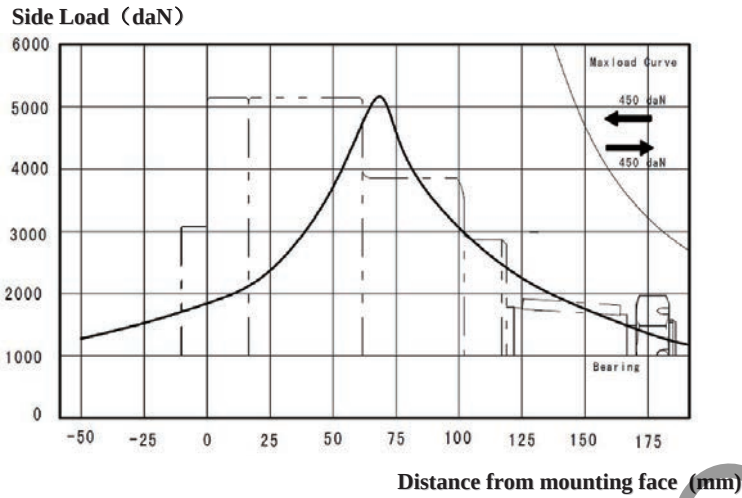


BK10-2 DIMENSIONS OF SHAFT EXTENTSIONS

T31 Φ38.1 Cone—shaft 1.8



BK10-2 Mounting Flange Radial Forces



The bearing curve represents allowable bearing loads for an L bearing life at 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

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

Note:When the table is used, please fill the code of left rows in dash area and give us, which the code information is consists of construction, output shaft, Flange and Pilot and Brake Ports, Lubrication Port etc.. If the specification is not in the table or you have specific requirements, please contact us.



BK2 SERIES HYDRAULIC BRAKE

Introduction

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

Features as follows:

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

Application

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

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

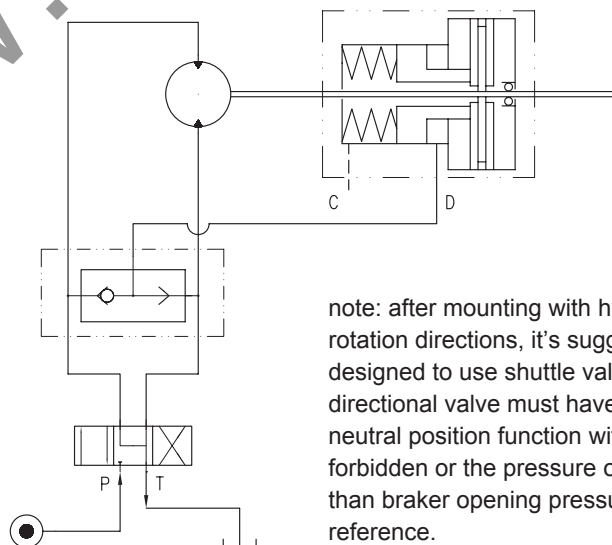
Special Note: such kind of brake is only used in static parking brake. Dynamic braking is not recommended.

Intruction Manual

—、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

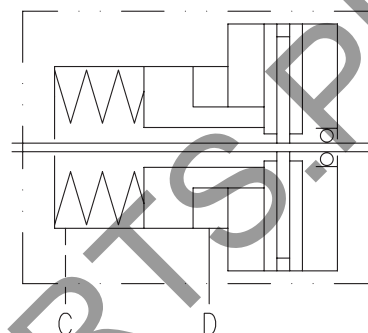


note: after mounting with hydraulic motor, if the motor needs both rotation directions, it's suggested that the hydraulic system is designed to use shuttle valve, and the neutral position of the directional valve must have off-load function(type Y or H), the neutral position function without off-load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

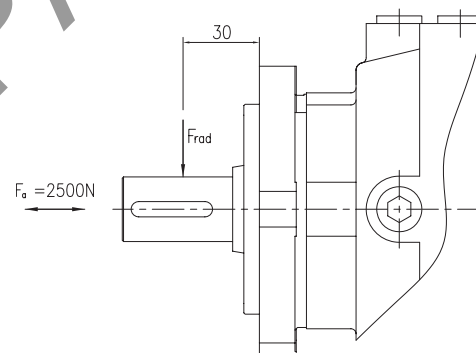
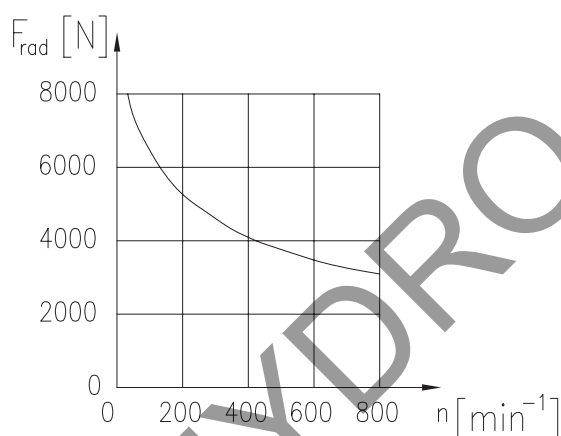
Item	BK2-1	
Min. static Torque [Nm]	200~230	410~450
Min. Opening Pressure [MPa]	1.7~2.3	
Max. Opening Pressure [MPa]	30	
Min.oil quantity for brake releasing[cm ³]	7~8	
Oil volume [cm ³]	50~120	
Max. pressure in drain space [MPa]	0.05	
Weight [kg]	9	

*Static torque is obtained at working pressure 0 MPa

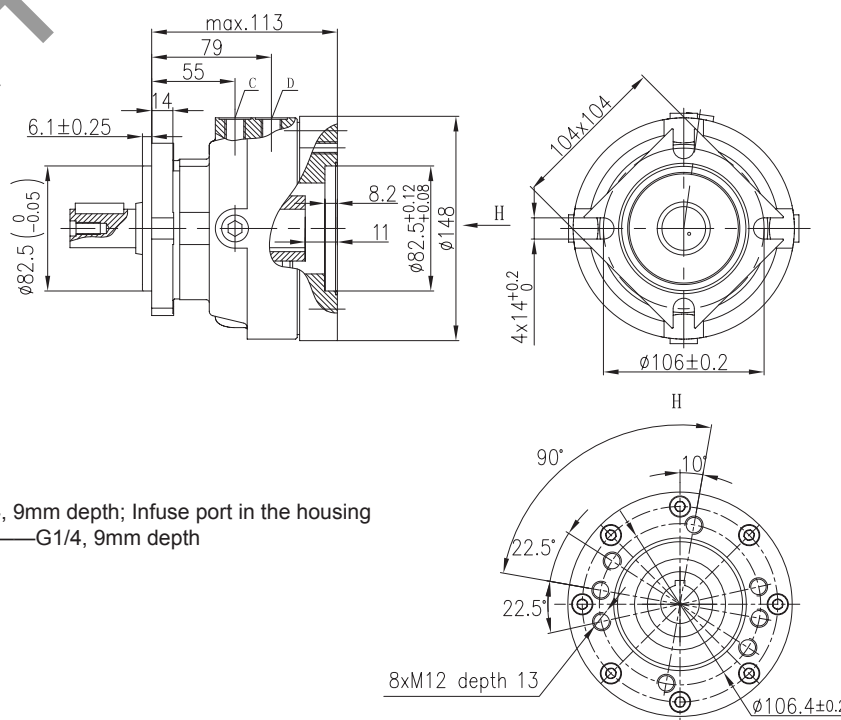


symble drawing

Load Curve

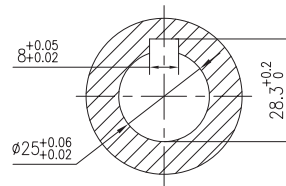
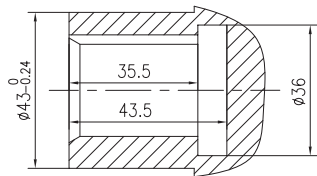


Mounting Data Model BK2-1

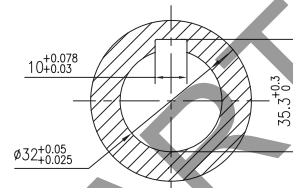
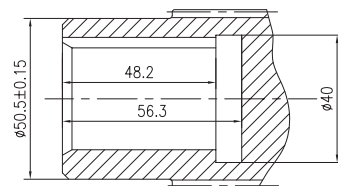


INPUT & OUTPUT SHAFT DATA
INPUT SHAFT HOLES

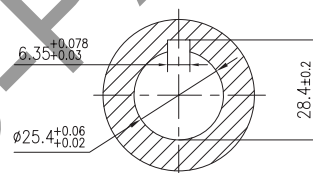
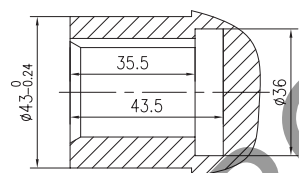
A



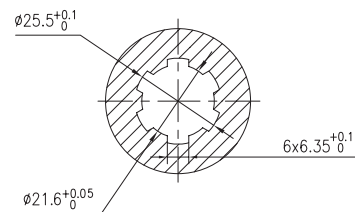
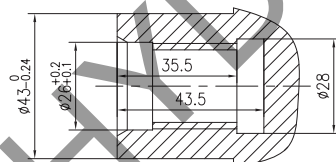
B



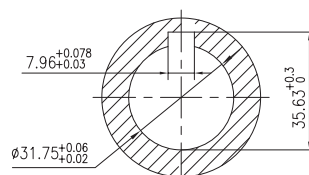
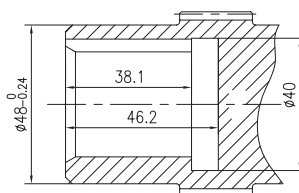
C



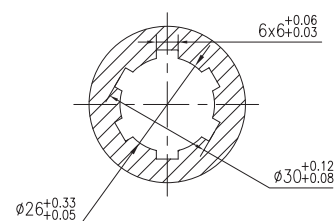
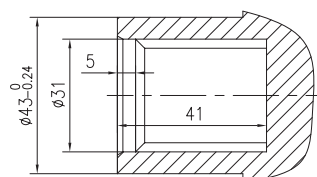
E



G

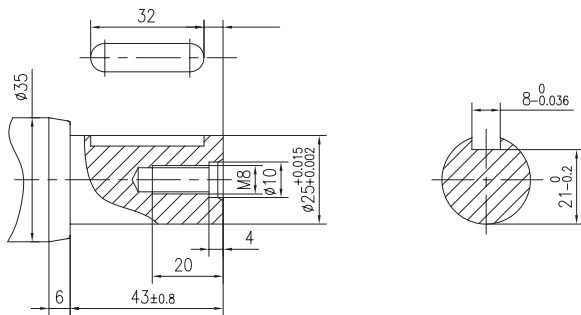


N

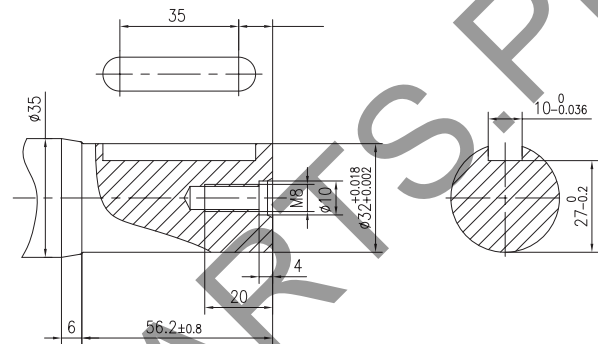


OUTPUT SHAFT EXTENSIONS

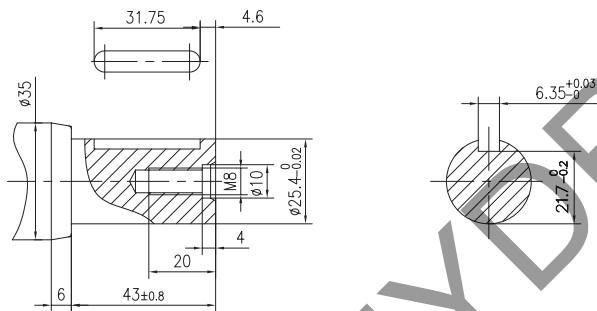
A



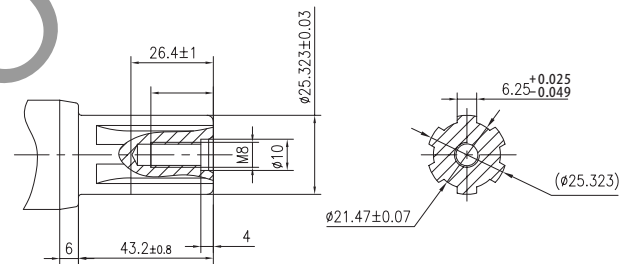
B



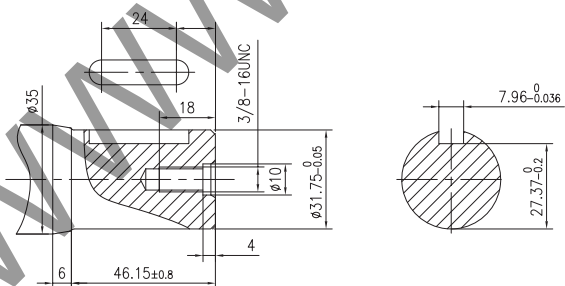
C



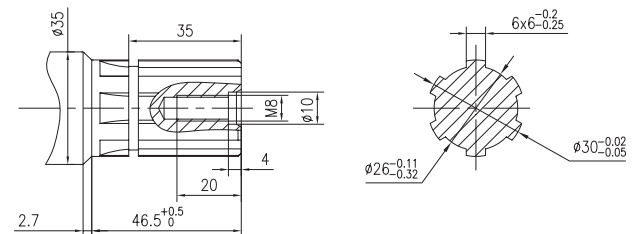
E



G



N



Order Information

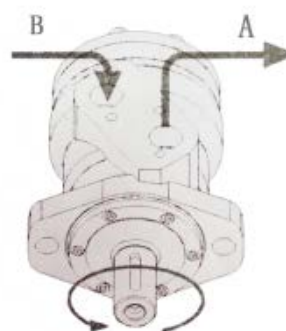
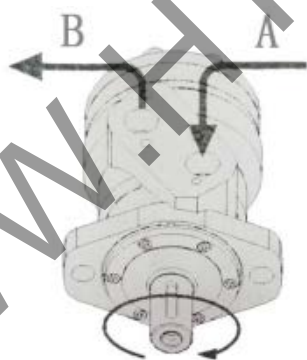
1	2	3	4	5	6	7
BK						

Pos.1	2	3	4	5	6	7
Series Structure Code	Torque	Input Shaft holes		Output Shaft extensions	Paint	Unusually function
2	Torque200--230Nm	210	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	430	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.

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

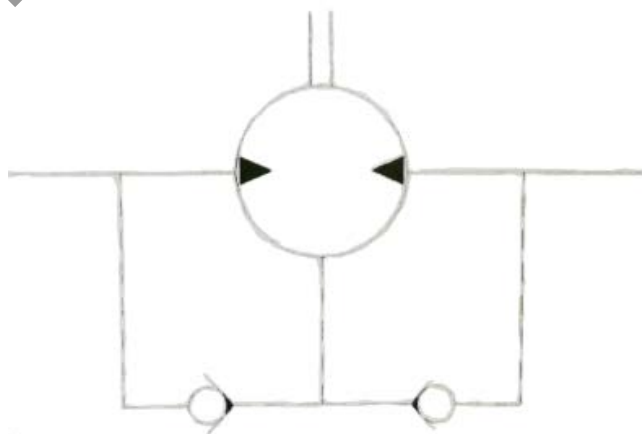
Before installation, check whether the motor is damaged. The motor oil stored for a long time needs to be drained and rinsed to prevent the internal moving parts from sticking.

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

The mounting bolts must be tightened evenly.

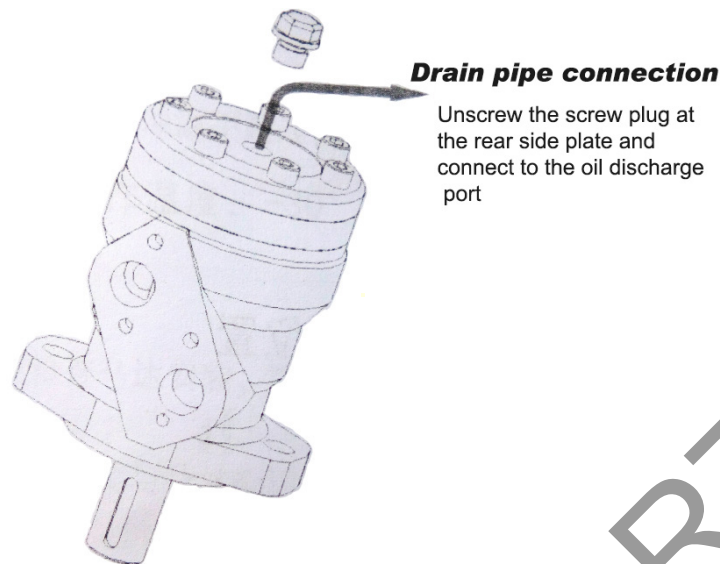
Connection method of drain pipe:

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 1 Mpa , the drain pipe must be connected. (Drain pipe location diagram)



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

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

The installation surface should be flat.

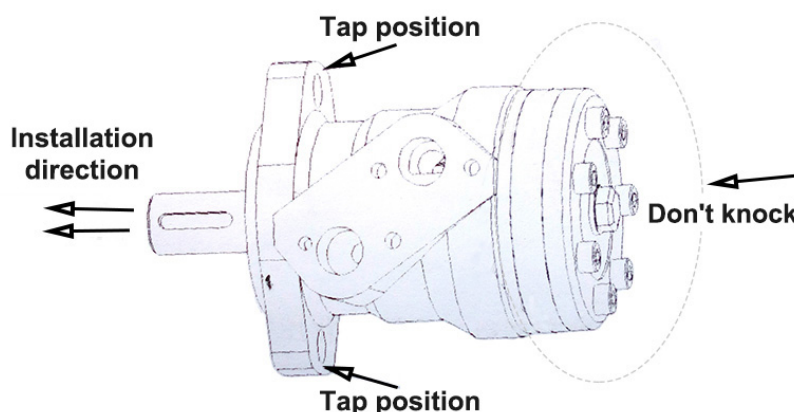
The installation should determine the connection flange, the stop, and the output connection shaft size is accurate.

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

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

WARNING

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



The motor cannot be installed forcefully or twisted.

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

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

3. Use of the motor

3.1 Use of motor

The pressure, flow, and output power of the motor must not exceed the specified values. When running for a long time, the oil temperature does not exceed 65 °C.

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

3.2 Commissioning

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

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

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

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

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



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

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



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

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

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

What corrosive gas.

4. Motor troubleshooting

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

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

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

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

Troubleshooting

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

5. Motor maintenance and post-processing

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

Check hydraulic oil regularly:

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

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

Disposal of waste oil after motor use:

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

If the motor is not used for a long time:

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

Admonish

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

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