



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
--	------	-----	---	------	----	------	----	----	------	----

Flow (L/min)	Max.cont.										Max.int.	Peak
	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30		
2	30	73	160									
8	36	76	168	262	345	438	465					
15	36	81	174	270	365	455	510	580	640			
30	37	85	175	275	370	465	540	615	700	765		
45	37	85	180	280	375	470	535	650	740	805		
60	38	80	178	282	380	475	565	660	750	825		
75	32	78	175	275	378	480	565	670	760	840		
90	26	75	172	270	375	475	565	660	765			
105	22	70	170	270	370	470	560	660	760			
120	20	67	166	265	365	465	560	660	755			
135	14	65	160	260	360	465	560	655	750			
150	10	60	155	258	356	450	550	650				
170	60	155	255	350	450	545	640					

BMK6 250 [246.1cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30
--	------	-----	---	------	----	------	----	----	------	----

Flow (L/min)	Max.cont.										Max.int.	Peak
	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30		
2	46	92										
8	51	103	215	335	440	550	560					
15	52	105	220	340	455	570	640	745	850	960		
30	55	110	232	352	470	600	685	790	900	1020		
45	58	110	235	355	475	610	705	840	940	1050		
60	53	110	230	350	480	615	705	845	955	1080		
75	45	105	230	355	485	620	710	850	960	1080		
90	45	105	225	350	480	615	710	845	955			
105	40	100	220	340	475	610	705	840	950			
120	38	95	210	340	470	590	700	830	940			
135	35	85	205	325	460	580	690	820				
150	30	80	200	320	450	570	680	815				
170	65	190	315	440	560	675	750					
185	185	310	430	545	670							
205	175	300	418	536	662							

BMK6 315 [311.6cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30
--	------	-----	---	------	----	------	----	----	------	----

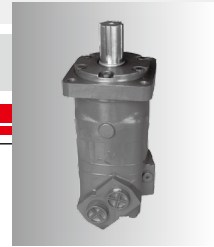
Flow (L/min)	Max.cont.										Max.int.	Peak
	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30		
2	65	126										
8	68	135	280	410	540	650	750	880				
15	70	135	285	435	565	690	810	940	1010	1035		
30	70	135	295	440	600	740	880	990	1100	1180		
45	70	140	300	460	610	750	900	1035	1165	1300		
60	70	140	300	460	615	775	920	1055	1200	1325		
75	65	135	295	455	615	780	920	1065	1215			
90	60	130	290	450	615	780	920	1070	1220			
105	50	125	280	445	605	770	915	1070	1205			
120	45	120	280	440	600	765	910	1055				
135	40	115	275	435	585	760	900	1050				
150	35	110	270	420	570	755	880	1030				
190	100	245	375	520	685	820						
225	220	350	500	640	770							

BMK6 400 [391.3cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30
--	------	-----	---	------	----	------	----	----	------	----

Flow (L/min)	Max.cont.										Max.int.	Peak
	1.75	3.5	7	10.5	14	17.5	20	24	27.5	30		
2	90	172	360									
8	95	180	370	555	730	885	1025	1195				
15	95	185	375	560	740	930	1070	1265	1380	1625		
30	98	185	380	575	760	960	1135	1315	1455	1625		
45	95	185	385	580	765	970	1145	1335	1530			
60	90	180	380	580	770	975	1155	1345				
75	85	180	380	580	775	980	1160	1355				
90	80	175	375	570	765	975	1155					
105	70	165	360	560	760	965	1150					
120	65	160	355	550	745	950	1140					
135	55	155	340	545	735	940	1120					
150	45	145	320	530	730	925						
190	130	300	515	730	915							
225	285	500	710	895								



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

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

BMK6 630 [623cm³/rev.]
Pressure (MPa)

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

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

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

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

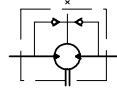
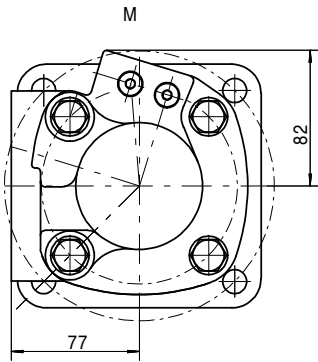
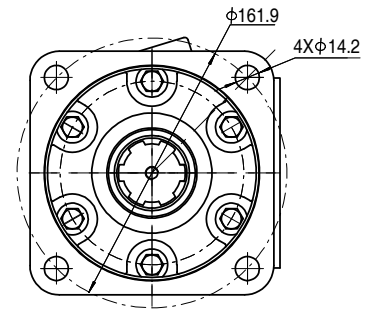
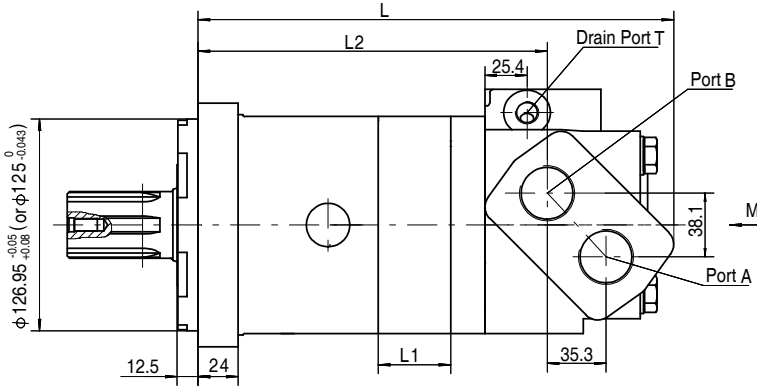
		Max.cont.								Max.int.		
		1.75	3.5	5	7	8.5	10.5	12	14			
Flow (L/min)	4	225 3	460 3	640 2	875 2	1085 1						
	8	230 7	470 7	695 6	945 6	1170 5	1415 4	1560 3	1675 2			
	15	240 15	485 15	715 15	965 14	1200 14	1445 13	1580 13	1780 12			
	30	240 30	495 30	720 30	995 29	1235 28	1480 27	1640 25	1860 23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

Torque (N*m) 423
Speed (rpm) 280

cont.
int.

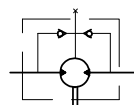
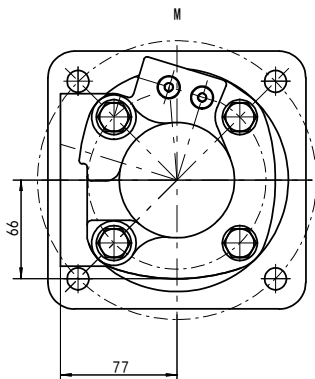
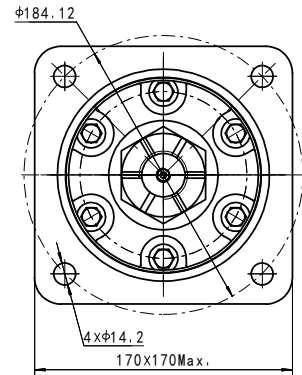
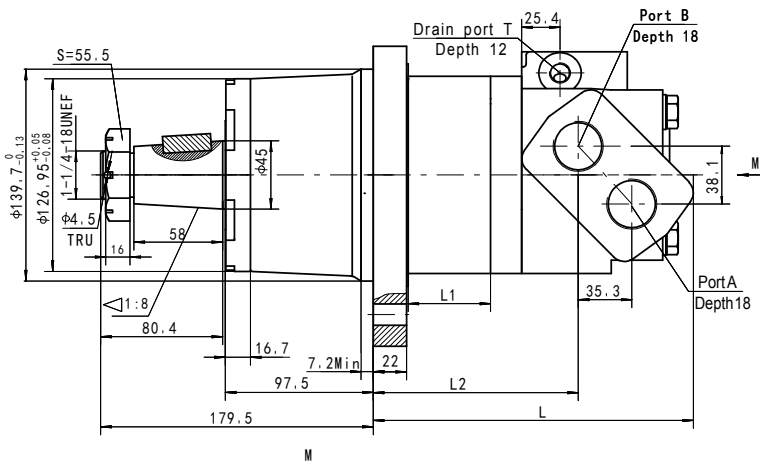


BMK6 DIMENSIONS MOUNTING DATA



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

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



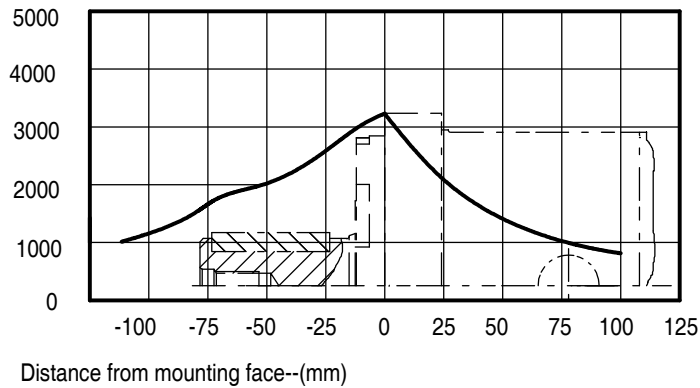
Direction of shaft rotation: Standard
 When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized
 Counter-clockwise when port "B" is pressurized

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



BMK6 for CC Mounting Radial forces

Radial forces-(daN)

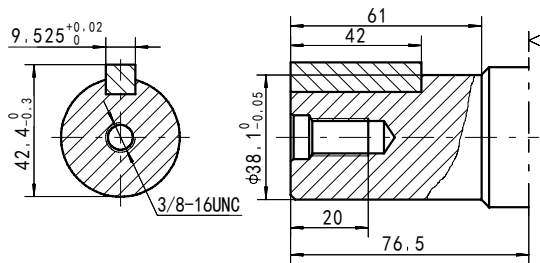


The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12x10⁶ revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

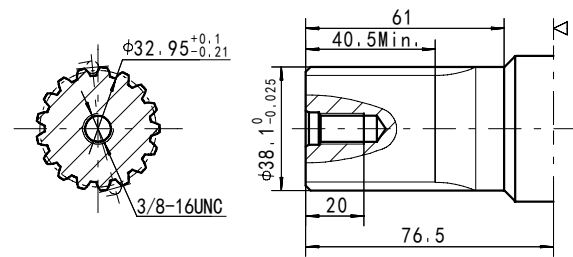
The maximum load curve is defined by bearing static load capacity.

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

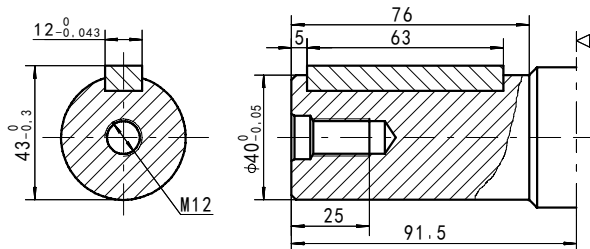
BMK6 Shaft Extensions For Dimensions Data



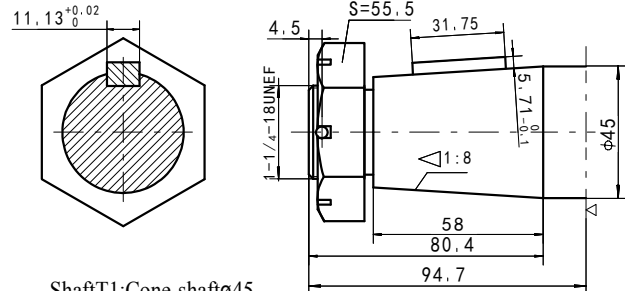
Shaft G2: Cylindrical shaft ø38.1
Parallel key 9.525x9.525x42
Max.Torque: 1350Nm



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



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

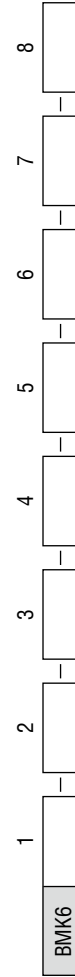
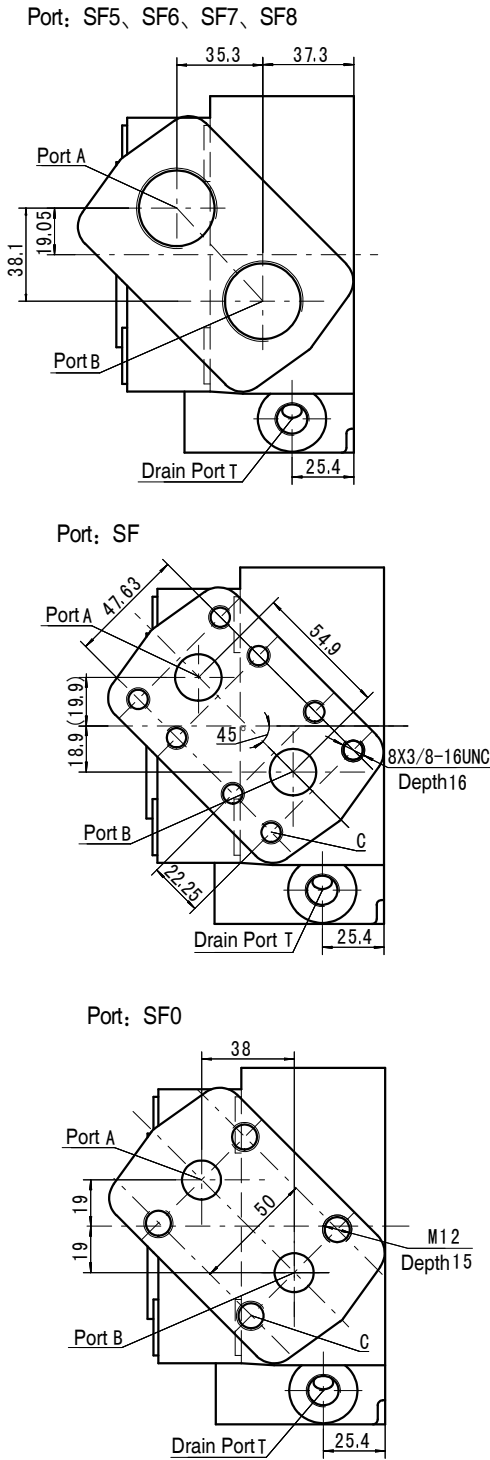


Shaft T1: Cone-shaft ø45
Parallel key 11.13x11.13x31.75
Tightening torque: 500±10Nm
Max. torque 2100Nm

◁ Motor Mounting Surface CC Flange



DIMENSIONS of PORTS FOR BMK6



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	4-φ 14.2 Square-flange φ 161.9, pilot φ 12.7×12.5	G2 Shaft φ 38.1, parallel key 9.52×3.02×57.15	SF 3/4" Manifold Mount 8×3/8-16UNC, 7/16-20UNF	Omit Standard	00 No paint	Omit Standard
	250	4-φ 14.2 Square-flange φ 161.9, pilot φ 12.5×12.5	FE Shaft φ 38.1, splined tooth 7-DP1224	SF0 φ 16 Manifold Mount 4×M12, M14×1.5	Opposite	Blue	Black
	315	4-φ 14.2 Square-flange φ 161.9, pilot φ 12.5×12.5	Y1 Shaft φ 40, parallel key 12×8×63	SF5 1-5/16-12UN, 7/16-20UNF	R	Black	Silver
	400	4-φ 14.2 Wheel-flange φ 184.12, Pilot 139.7	T1 Cone-shaft 1.8 φ 45, parallel key 11.13×11.13×31.75	SF6 M33×2, M14×1.5		Silver	grey
Omit	500			SF7 G1, G1/4			
	630			SF8 G3/4, G1/4			
	800						
	1000						

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

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