

BMK6

Orbital Hydraulic Motor
Sizes: 200 to 1000cc/rev
Max. Pressure up 200Bar



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Introduction

- 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 Specifications:

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)

Flow (L/min)	Max.cont.										Max.int.	
	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)

Flow (L/min)	Max.cont.										Max.int.	
	1.75	3.5	7	10.5	14	17.5	20	24	27.5			
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	562					

BMK6 315 [311.6cm³/rev.]
Pressure (MPa)

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	74	23	22	20	16	13	9	3					
30	70	135	285	435	565	690	810	940	1010	1035			
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)

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							



Performance Data

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

	1.75	3.5	7	10.5	14	17.5	20	24	27.5
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Flow (L/min)	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					
Max.cont.	70	155	420	665	920	1150					
Max.int.		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
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Flow (L/min)	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						
Max.cont.	50	200	525	84						
Max.int.			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
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Flow (L/min)	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						
Max.cont.	80	270	500	680	880						
Max.int.		300	475	660	855						
225			423	612	830						

Torque (N•m) 423
Speed (rpm) 280

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

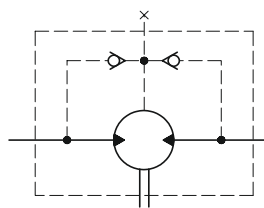
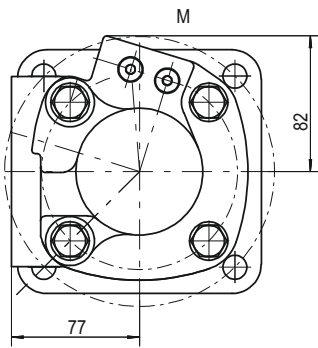
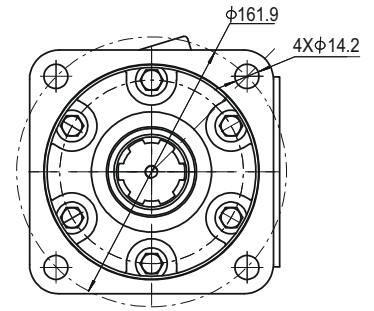
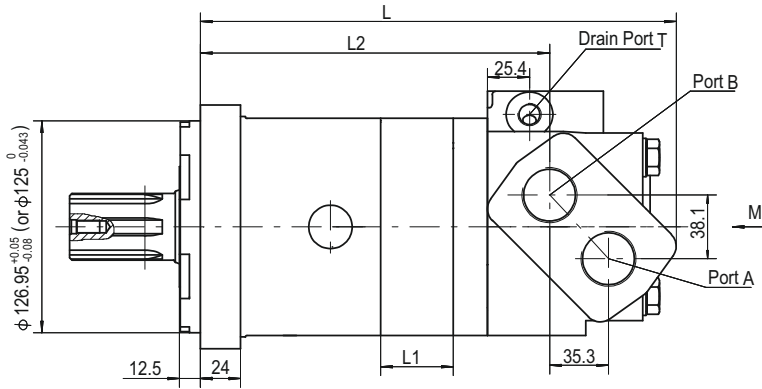
	1.75	3.5	5	7	8.5	10.5	12	14
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Flow (L/min)	Max.cont.								Max.int.	
	4	225	460	640	875	1085				
8	230	470	695	945	1170	1415	1560	1675		
15	240	485	715	965	1200	1445	1580	1780		
30	240	495	720	995	1235	1480	1640	1860		
45	240	495	720	1000	1250	1490	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					
Max.cont.	110	360	605	860	1080					
Max.int.		320	575	820	1045					
225			515	800	1020					

cont.
int.

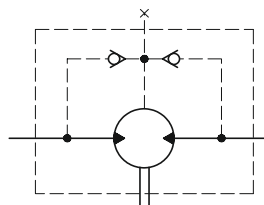
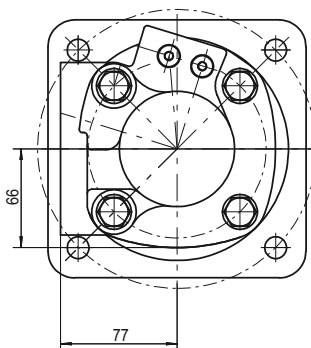
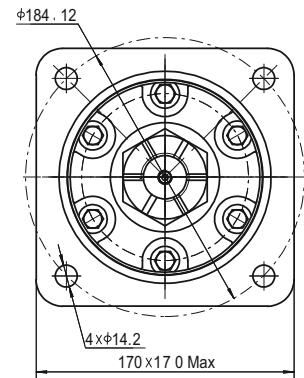
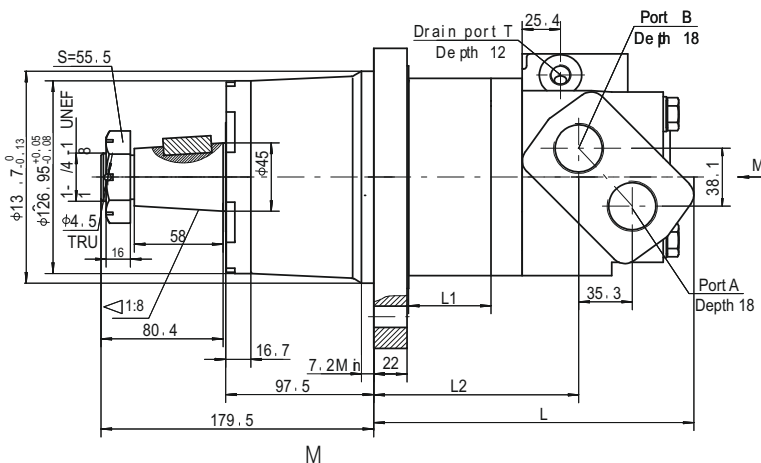


BMK6 Dimensions and Mounting Data



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

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

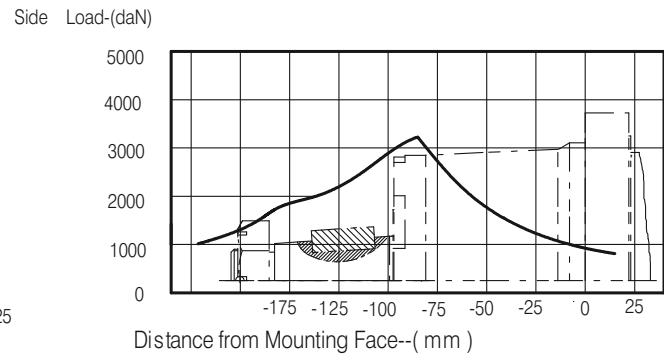
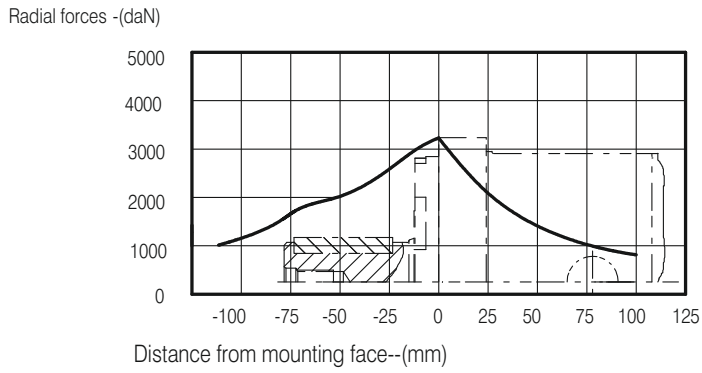


Direction of shaft rotation: Standard
 When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise when port "B" is pressurized.

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



BMK6 for CC And W Mounting Radial forces



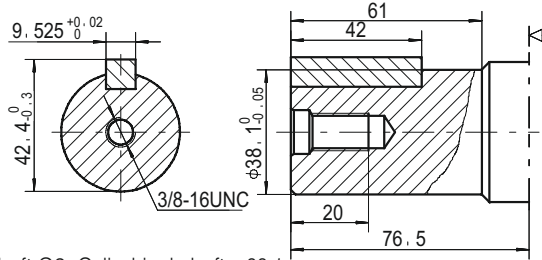
The bearing curve represents allowable bearing loads for an B10 bearing life (2000 hours or 12x10⁶ revolutions at 100rpm) at rated output torque. Other speed load multiply a load values.

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

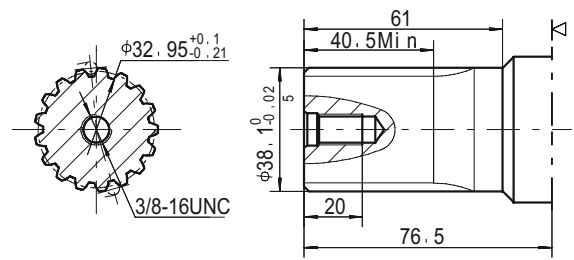
This curve should not be exceeded at any time including shock loads.



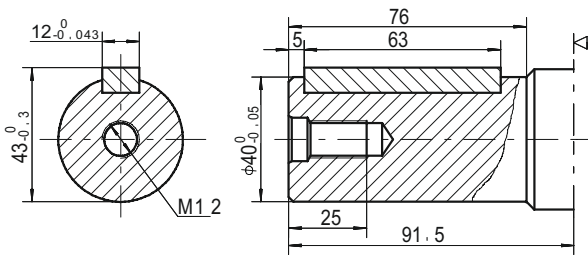
BMK6 Shaft Extensions For Dimensions Data



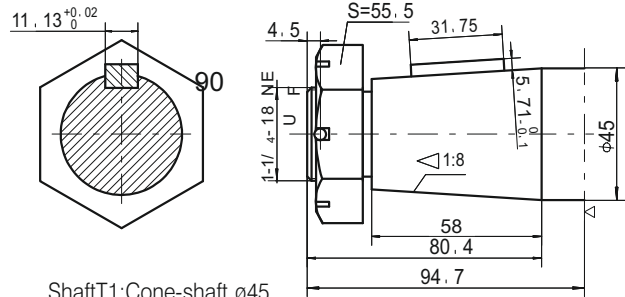
Shaft G2: Cylindrical shaft $\phi 38.1$
 Parallel key 9.525x9.525x42
 Max.Torque: 1350Nm



Shaft FE: Splined17-DP12/24
 Max.Torque: 1350Nm



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

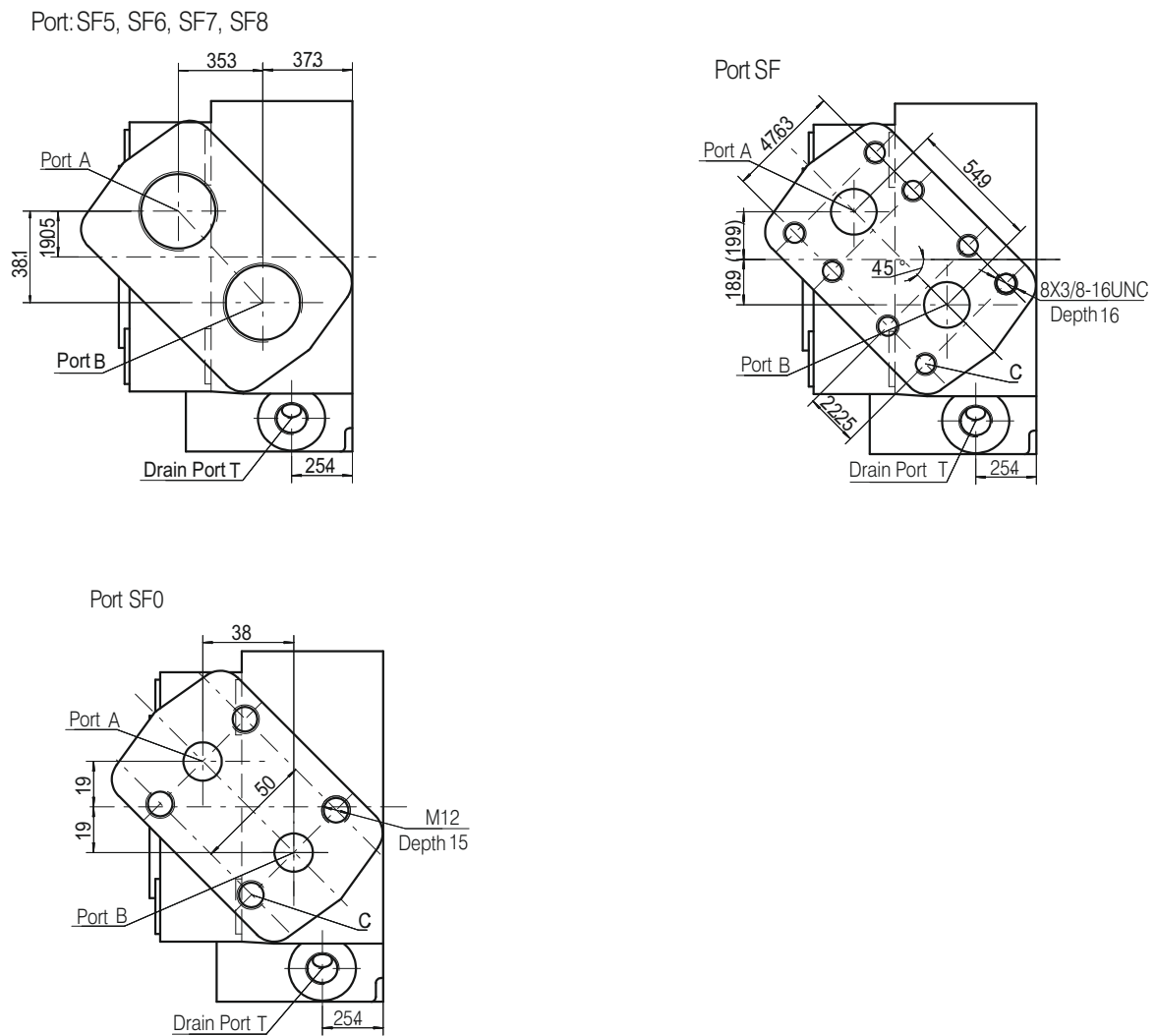


Shaft T1: Cone-shaft $\phi 45$
 Parallel key 11.13x11.13x31.75
 Tightening torque: 500 ± 10 Nm
 Max. torque 2100Nm

◁ Motor Mounting Surface CC Flange



Dimensions of ports for BMK6



Code	Type					
	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)	ø19.05	ø16
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

