



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

BMK2 80 [80 cm³/rev.]

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

BMK2 100 [100.9 cm³/rev.]

		Pressure (MPa)									
		1.75	3.5	7	10.5	14	17.5	20.5	24	27.5	31
2	cont.	15	32	68							
	int.	14	10	5							
4	cont.	18	42	92	130	170	205	230			
	int.	36	34	32	28	22	14	5			
8	cont.	20	45	90	135	180	210	240	280	310	
	int.	74	73	70	66	60	52	42	26	15	
15	cont.	20	45	90	135	185	220	260	305	345	390
	int.	142	140	137	134	129	120	105	92	78	65
22	cont.	18	45	90	140	190	230	275	315	360	405
	int.	210	207	201	195	188	179	160	150	138	125
30	cont.	16	42	88	142	195	240	285	330	375	425
	int.	290	288	282	276	268	258	242	230	212	195
38	cont.	15	40	88	140	190	240	285	335	380	430
	int.	370	365	360	352	340	326	310	295	275	255
45	cont.	15	40	86	140	190	240	285	340	385	440
	int.	440	435	430	422	410	395	380	365	345	320
55	cont.	12	36	85	135	190	240	285	340	385	440
	int.	540	534	528	520	510	500	485	465	440	405
65	cont.	10	35	80	130	185	235	280	335	380	440
	int.	640	635	630	622	605	590	575	550	525	500
75	cont.	5	30	75	125	180	230	275	330	375	
	int.	738	735	728	715	700	680	655	635	610	
85	cont.	3	25	75	125	175	225	270	320	370	
	int.	838	835	830	820	805	785	760	730	690	
95	cont.		23	70	120	170	220	260	310		
	int.		925	918	905	890	870	840	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	
2	cont.	25	40									
	int.	12	7									
4	cont.	28	55	110	175	220	280	325				
	int.	27	26	22	18	14	11	8				
8	cont.	28	60	115	175	230	290	330	375	400		
	int.	57	56	53	48	42	38	34	26	20		
15	cont.	28	60	120	180	240	295	340	390	440	485	
	int.	113	112	110	105	98	92	86	80	72	65	
22	cont.	28	55	120	180	245	305	360	415	470	530	
	int.	165	163	160	155	150	144	138	130	115	100	
30	cont.	25	52	120	185	245	310	365	425	480	545	
	int.	228	224	222	210	212	206	198	188	178	165	
38	cont.	25	50	120	180	245	315	370	430	495	550	
	int.	288	285	282	275	268	260	252	242	230	215	
45	cont.	22	50	120	180	245	315	370	430	490	550	
	int.	345	343	338	332	325	315	305	292	280	265	
55	cont.	20	46	115	175	245	330	375	430	490		
	int.	420	418	414	408	400	390	378	365	346		
65	cont.	15	43	110	170	240	320	370	425	485		
	int.	498	496	492	486	480	465	458	440	425		
75	cont.	12	42	108	170	235	310	365	425			
	int.	575	574	568	560	550	548	525	502			
85	cont.	8	40	105	165	230	310	360	420			
	int.	653	652	645	636	625	616	600	578			
95	cont.		40	100	160	225	290	355	415			
	int.		722	715	702	690	680	670	655			

□ cont.
 ■ int.

Torque (N•m) 225
 Speed (rpm) 690



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

		Max.cont.								Max.int.		
		1.75	3.5	7	10.5	14	17.5	20.5	24	26		
2		28	55	110	175							
	Flow (L/min)	9	7	5	3							
4		32	63	125	190	250	315	370				
	Flow (L/min)	22	21	19	17	13	8	3				
8		37	68	130	200	260	325	390	450	480		
	Flow (L/min)	47	45	42	39	36	34	32	27	22		
15		35	68	135	210	275	370	420	500	530		
	Flow (L/min)	93	92	89	85	80	76	70	60	45		
22		35	75	140	215	285	370	440	515	550		
	Flow (L/min)	138	136	133	128	122	116	110	102	95		
30		35	75	145	220	290	370	440	520	560		
	Flow (L/min)	190	187	184	178	172	167	164	154	142		
38		37	70	150	225	310	380	450	525	565		
	Flow (L/min)	240	237	234	230	225	218	202	193	185		
45		32	70	150	220	310	380	450	525	565		
	Flow (L/min)	285	283	280	275	268	259	247	236	225		
55		28	66	145	220	305	375	450	525			
	Flow (L/min)	348	346	342	338	332	324	314	300			
65		25	63	140	220	300	375	445				
	Flow (L/min)	412	410	406	400	393	383	370				
75		22	60	135	215	295	370	440				
	Max.cont.	476	474	470	464	454	445	435				
85		18	55	130	210	290	365	435				
	Flow (L/min)	540	536	532	524	514	502	485				
95		15	50	125	205	285	360	430				
	Max.int.	600	595	590	580	565	555	545				
115		40	115	200	280	350	425					
	Flow (L/min)	715	705	695	685	670	655					

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

		Max.cont.								Max.int.		
		1.75	3.5	7	10.5	14	17.5	20.5	24	26		
2		32	68	110	145							
	Flow (L/min)	9	7	5	3							
4		40	75	150	195	300	360					
	Flow (L/min)	18	16	14	11	7	4					
8		45	80	160	240	315	405	500	570	600		
	Flow (L/min)	37	36	34	30	26	21	17	13	11		
15		48	90	170	255	335	425	510	590	620		
	Flow (L/min)	75	74	72	68	64	60	56	50	42		
22		46	90	175	265	350	440	520	605	645		
	Flow (L/min)	112	110	108	105	101	97	91	86	80		
30		45	90	180	270	360	450	530	615	655		
	Flow (L/min)	153	151	148	145	141	135	128	122	116		
38		45	90	180	275	370	455	540	625			
	Flow (L/min)	193	191	188	184	178	172	166	158			
45		40	85	180	275	370	460	545				
	Flow (L/min)	230	228	226	222	218	210	202				
55		38	82	180	275	375	465	550				
	Flow (L/min)	280	278	275	270	264	255	248				
65		35	80	175	270	370	465	545				
	Flow (L/min)	332	330	328	322	315	306	295				
75		30	72	170	265	360	455	540				
	Max.cont.	384	382	378	370	365	356	346				
85		25	70	165	260	355	450	540				
	Flow (L/min)	436	434	430	420	410	400	390				
95		20	60	155	255	350	445	530				
	Max.int.	488	485	478	470	458	448	438				
115		50	140	240	330	440	520					
	Flow (L/min)	580	572	562	550	538	520					

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

		Max.cont.								Max.int.		
		1.75	3.5	7	10.5	14	17.5	20.5	24	26		
2		45	95									
	Flow (L/min)	4	2									
4		50	100	210	310	410	510	610				
	Flow (L/min)	14	13	11	9	6	4	3				
8		55	105	215	320	420	530	620	730	780		
	Flow (L/min)	29	28	26	23	20	17	14	11	9		
15		55	110	220	330	440	550	650	755	810		
	Flow (L/min)	59	58	56	53	50	47	45	43	40		
22		50	115	225	340	455	560	665	770			
	Flow (L/min)	88	87	85	82	78	74	69	65			
30		50	115	230	350	465	570	680	785			
	Flow (L/min)	122	121	118	113	109	104	100	92			
38		48	112	235	355	475	580	695	795			
	Flow (L/min)	154	152	149	145	140	135	130	122			
45		45	110	230	350	475	590	700				
	Flow (L/min)	183	182	180	176	170	165	158				
55		42	105	230	345	470	580					
	Flow (L/min)	224	223	221	218	212	205					
65		35	100	220	340	460	565					
	Flow (L/min)	266	265	263	258	252	242					
75		32	95	210	330	455	560					
	Max.cont.	307	306	303	298	290	280					
85		30	85	200	320	450	555					
	Flow (L/min)	348	346	342	336	330	320					
95		25	70	190	315	440	540					
	Max.int.	386	384	378	372	365	355					
115		65	180	300	430							
	Flow (L/min)	465	458	450	442							

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

		Max.cont.								Max.int.		
		1.75	3.5	7	10.5	14	17.5	20.5	24			
2		45	95									
	Flow (L/min)	4	2									
4		65	130	250	380	490						
	Flow (L/min)	12	11	10	8	6						
8		70	135	260	390	510	630	760	875			
	Flow (L/min)	24	23	22	20	18	15	10	6			
15		75	140	275	410	535	670	800	920			
	Flow (L/min)	48	48	47	45	42	38	34	30			
22		70	140	285	425	555	685	810	940			
	Flow (L/min)	71	70	69	66	62	56	50	42			
30		70	145	290	430	565	695	820				
	Flow (L/min)	97	97	96	93	88	80	70				
38		66	140	290	435	570	715	835				
	Flow (L/min)	123	122	120	117	112	102	90				
45		62	135	290	435	575	720	840				
	Flow (L/min)	147	146	144	142	135	125	118				
55		58	130	285	430	575	720					
	Flow (L/min)	180	179	176	172	165	155					
65		52	120	275	425	570	715					
	Flow (L/min)	213	212	210	205	200	190					
75		40	110	260	415	560	710					
	Max.cont.	246	245	242	236	225	212					
85		30	100	250	405	540						
	Flow (L/min)	278	277	274	270	260						
95		20	90	245	380	515						
	Max.int.	311	310	307	303	296						
115		80	225	350								
	Flow (L/min)	365	361	355								



BMK2 400 [390.8 cm³/rev.]

Pressure (MPa)

	1.75	3.5	7	10.5	14	15.5	17.5	19
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Flow (L/min)	Max.cont.								Max.int.	
	1.75	3.5	7	10.5	14	15.5	17.5	19		
2	70	145								
4	80	170	345	500	660	740				
8	85	175	355	520	680	765	830	910		
15	90	185	370	550	720	810	880			
22	95	190	380	565	750	830	900			
30	92	188	385	570	760	835	905			
38	90	185	385	575	765	840	930			
45	85	180	380	570	760					
55	80	175	380	570	760					
65	75	170	370	560	750					
75	68	160	360	555	740					
85	65	150	355	550	730					
95	50	135	340	530	710					
115		125	310	510						

□ cont.
 ■ int.

BMK2 475 [485 cm³/rev.]

Pressure (MPa)

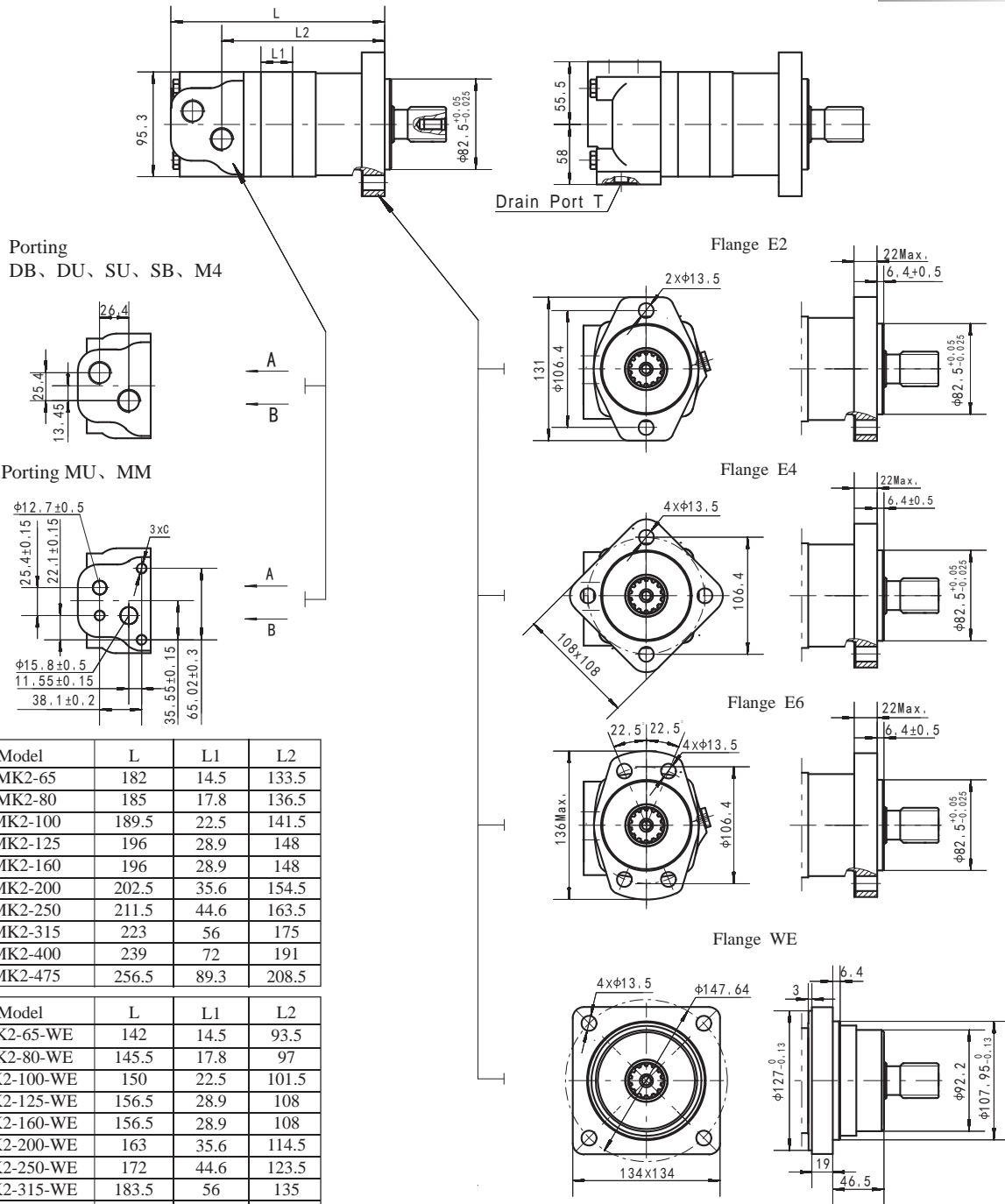
	1.75	3.5	7	10.5	12	14
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Flow (L/min)	Max.cont.						Max.int.	
	1.75	3.5	7	10.5	12	14		
2	75	175						
4	110	220	430	540				
8	110	225	450	700				
15	105	235	470	710	825	895		
22	105	240	480	720	835	915		
30	110	240	485	725	840	935		
38	110	235	480	720	840	930		
45	100	220	470	715	825			
55	95	210	460	710	820			
65	85	200	445	700	810			
75	70	185	440	690	800			
85	60	175	430	680	785			
95	40	150	405	655				
115		130	380	625				

Torque (N•m) 130
 Speed (rpm) 230



BMK2 DIMENSIONS AND MOUNTING DATA



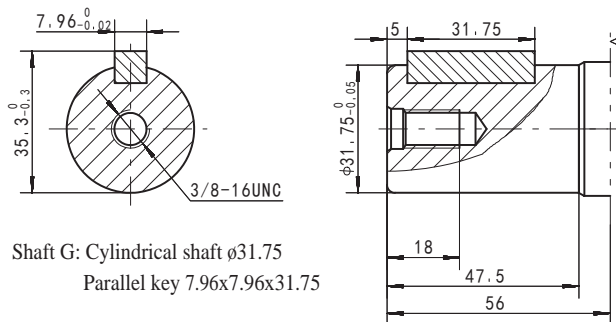
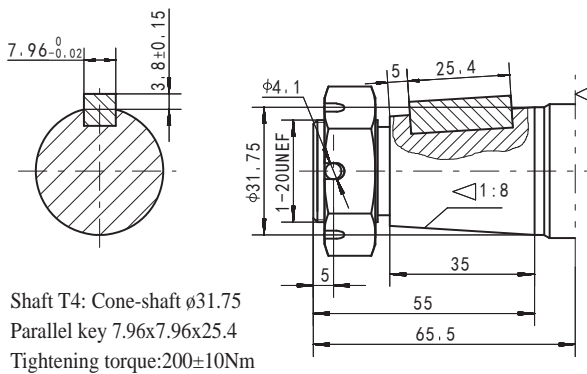
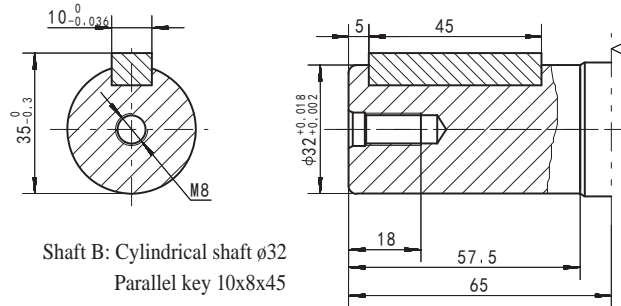
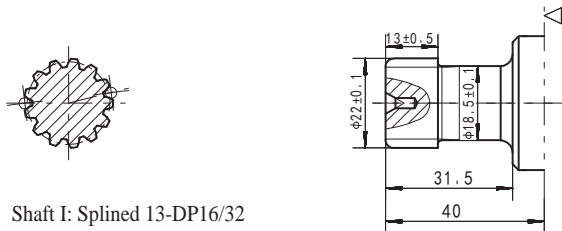
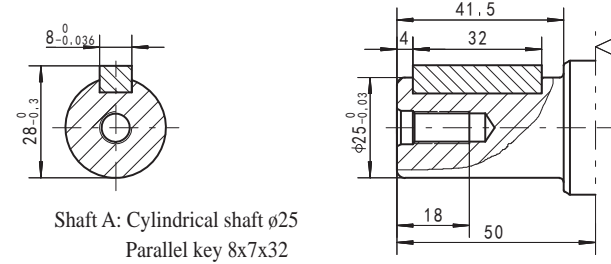
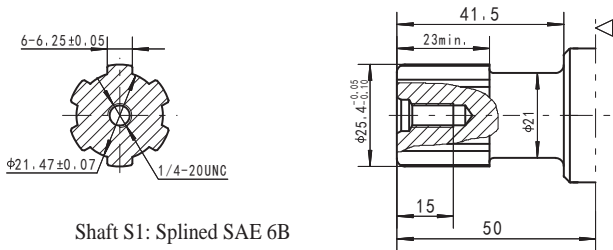
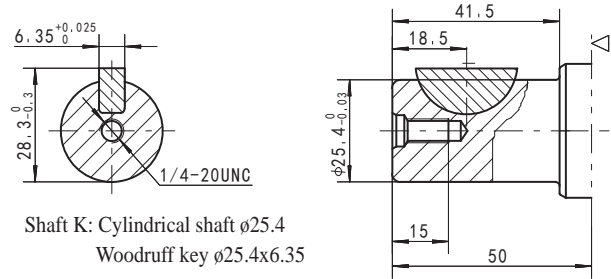
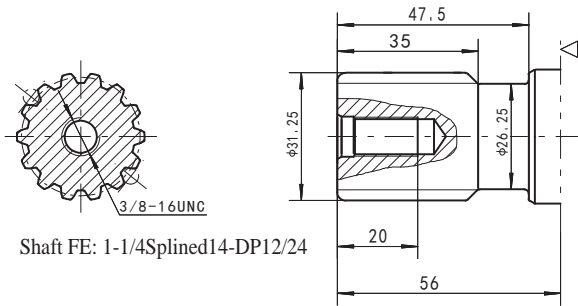
Model	L	L1	L2
BMK2-65	182	14.5	133.5
BMK2-80	185	17.8	136.5
BMK2-100	189.5	22.5	141.5
BMK2-125	196	28.9	148
BMK2-160	196	28.9	148
BMK2-200	202.5	35.6	154.5
BMK2-250	211.5	44.6	163.5
BMK2-315	223	56	175
BMK2-400	239	72	191
BMK2-475	256.5	89.3	208.5

Model	L	L1	L2
BMK2-65-WE	142	14.5	93.5
BMK2-80-WE	145.5	17.8	97
BMK2-100-WE	150	22.5	101.5
BMK2-125-WE	156.5	28.9	108
BMK2-160-WE	156.5	28.9	108
BMK2-200-WE	163	35.6	114.5
BMK2-250-WE	172	44.6	123.5
BMK2-315-WE	183.5	56	135
BMK2-400-WE	199.5	72	151
BMK2-475-WE	217	89.3	168.5

Code	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)



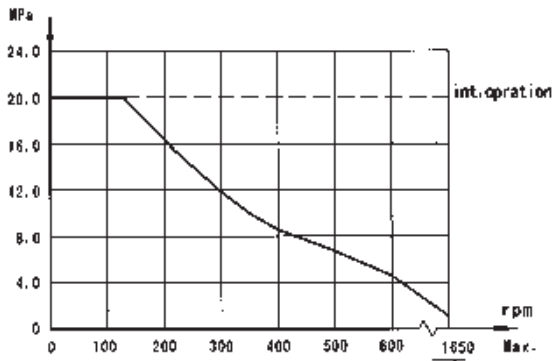
SHAFT EXTENSIONS FOR BMK2 MOTORS



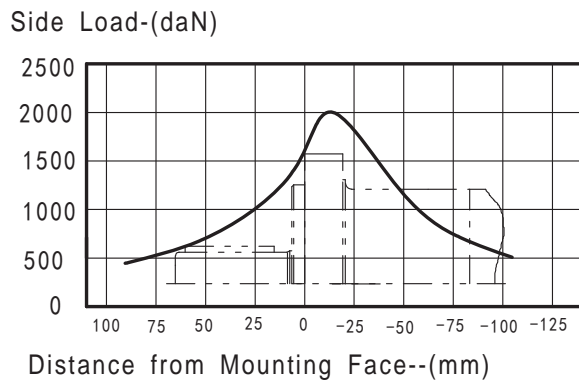
◁ Motor Mounting Surface E2 Flange



Permissible shaft seal pressure



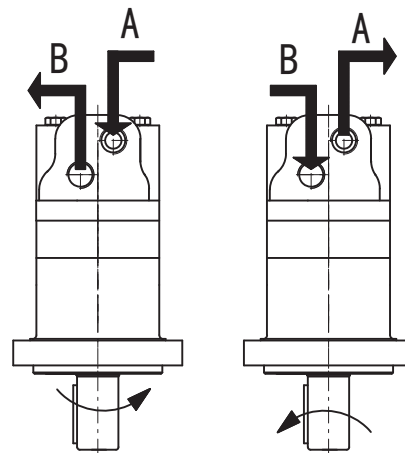
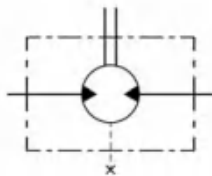
BMK2 Standard Mounting Flange[E2]Radial Forces



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.

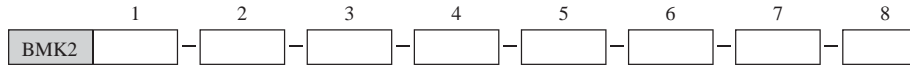
Direction of shaft rotation: Standard

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





Order Information



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	DB	G1/2,G1/4	Omit	Standard	00	No paint	Omit	Standard
	80			B	Shaft Φ32, parallel key 10×8×45								
	100			K	Shaft Φ25.4, Woodruff key Φ25.4×6.35								
	125	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	DU	G1/2,7/16-20 UNF	R	Opposite	Omit	Blue	F	Free
	160			FE	Shaft Φ31.75, splined 14-DP12/24	SU	7/8-14UNF O-ring,G1/4 7/8-14UNF O-ring,7/16-20 UNF	B	Black	Running			
	200	E6	4×Φ13.5 Rhomb-flange Φ106.4, pilot Φ82.5×6.4	S1	Shaft Φ25.4, splined SAE 6B	M4	M22×1.5,M14×1.5	S		S	Silver		
	250			I	Sub-shaft Φ22, splined 13-DP16/32	MU	1/2",5/8"Crosshole Manifold 3×3/8- 16UNC,7/16-20UNF		grey				
	315			WE	4×Φ13.6Wheel-flange Φ147.6, pilot Φ107.95×6.4	MM	1/2",5/8"Crosshole Manifold 3×M10,G1/4						
	400			T4	Cone-shaft Φ31.75, parallel key 7.96×7.96×25.4								
	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.

