



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
		228	218	206	156	111	58
	4	3	5	7	11	13	15
		474	471	463	426	391	331
	8	3	5	7	11	13	15
		953	946	926	884	855	816
Max.cont.	12	2	5	7	10	13	15
		1444	1426	1402	1360	1324	1288
	15		4	7	10	12	14
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	
		140	136	119	68	35	
	4	6	8	12	17	19	23
		296	289	274	229	200	145
	8	5	8	12	17	20	24
		605	596	583	543	514	469
Max.cont.	12	5	8	11	16	20	24
		912	905	895	859	834	784
	15	5	7	11	16	19	23
Max.int.		1152	1144	1136	1102	1078	1036
	20	3	7	10	15	19	22
		1542	1532	1521	1500	1482	1437
		2	6	9	14	18	22
		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	
		99	96	89	74	42	21	
	4	4	9	14	19	26	31	36
		197	191	182	178	134	112	74
	8	4	9	13	19	27	31	36
		398	395	391	377	340	319	288
Max.cont.	12	3	8	13	18	26	31	37
		596	594	588	579	545	523	493
	15	3	8	12	17	25	30	36
Max.int.		745	741	738	728	695	684	660
	20	1	6	11	19	24	29	35
		998	995	991	985	962	916	885
			4	9	14	23	28	33
			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		
		61	57	52	47	16		
	4	7	15	21	29	41	48	57
		126	121	114	106	82	67	49
	8	7	15	21	29	41	49	58
		250	244	239	231	207	194	167
Max.cont.	12	6	13	20	28	40	48	58
		378	374	369	362	338	322	297
	15	4	12	18	27	39	47	57
Max.int.		476	472	468	462	441	429	406
	20	3	10	17	25	37	46	55
		633	630	627	619	601	585	566
		1	8	15	23	35	43	52
		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	
		45	40	34	28	17	
	4	16	27	37	44	52	62
		96	93	85	79	65	52
	8	15	26	36	44	52	63
		197	195	182	176	166	154
Max.cont.	12	14	25	35	43	51	62
		293	287	282	277	268	257
	15	13	24	34	42	50	62
Max.int.		371	365	360	355	347	338
	20	10	21	31	39	48	59
		497	492	487	480	472	463
		7	19	29	37	44	56
		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	
		37	33	27	22	
	4	11	22	36	50	70
		76	73	68	63	55
	8	11	21	35	50	71
		157	154	149	145	137
Max.cont.	12	11	20	33	49	71
		237	234	231	226	218
	15	10	18	32	47	69
Max.int.		296	295	294	288	282
	20	8	14	29	44	64
		395	395	393	390	381
		4	10	25	40	59
		498	496	494	490	484

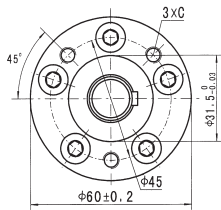
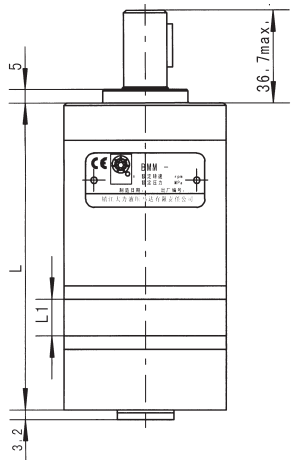
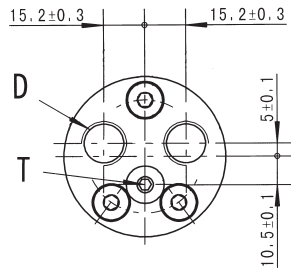
Torque (N·m) 37
Speed (rpm) 607



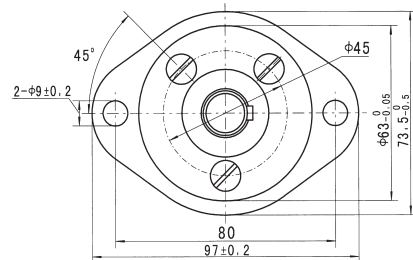
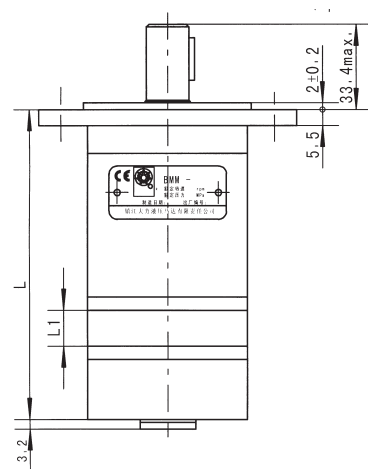
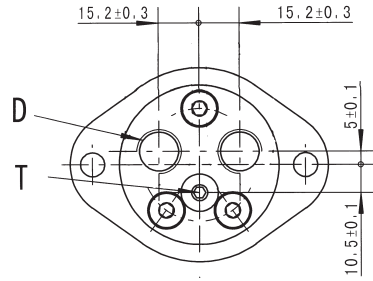
BMM END PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



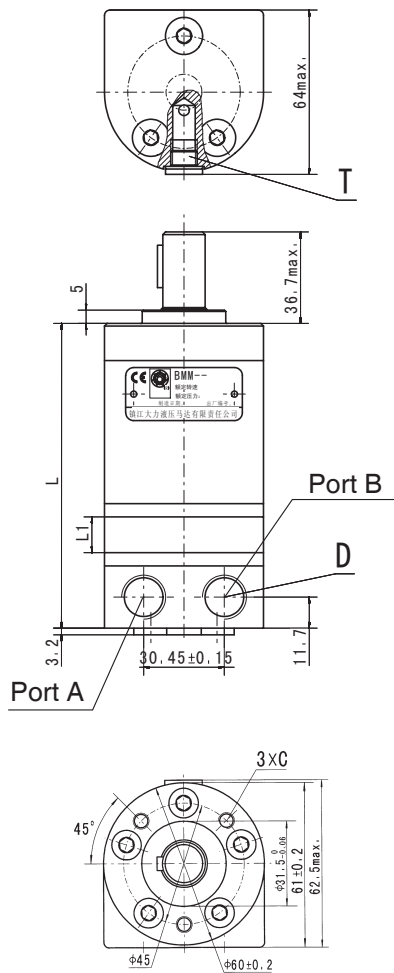
Model	M、U Flange		F Flange	
	L	L1	L	L1
BMM8	104	3.5	107.5	3.5
BMM12.5	106	5.5	109.5	5.5
BMM20	109	8.5	112.5	8.5
BMM32	114	13.5	117.5	13.5
BMM40	117.5	17	121	17
BMM50	122	21.5	125.5	21.5

Mounting	M、U Flange		F Flange	
	1E (depth)	1U (depth)	1E (depth)	1U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
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)

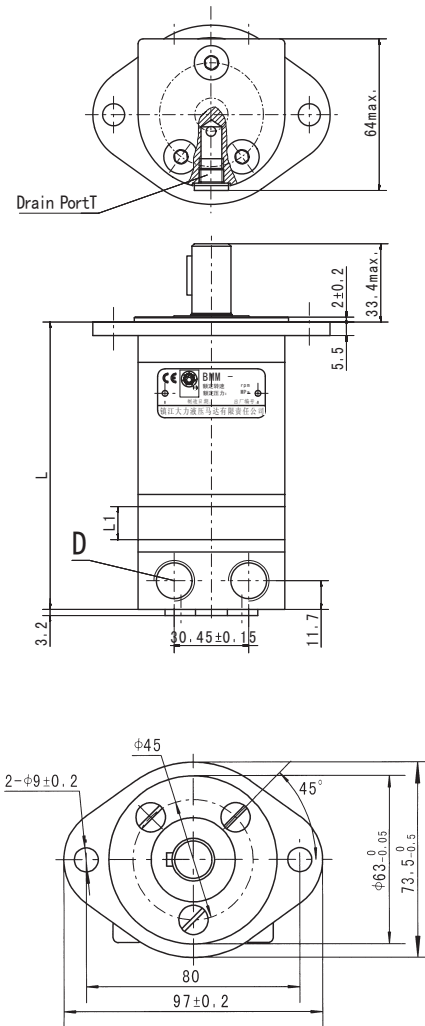
BMM SIDE PORT DIMENSIONS AND MOUNTING DATA

MOUNTING

Flange M、U



Flange F



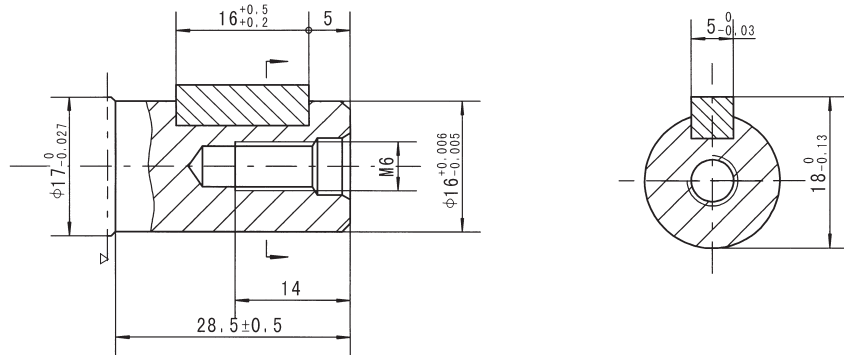
Model	M、U Flange		F Flange	
	L	L1	L	L1
BMM8	105	3.5	108.5	3.5
BMM12.5	107	5.5	110.5	5.5
BMM20	110	8.5	113.5	8.5
BMM32	115	13.5	118.5	13.5
BMM40	118.5	17	122	17
BMM50	123	21.5	126.5	21.5

Code	M、U Flange		F Flange	
	E (depth)	U (depth)	E (depth)	U (depth)
C	3-M6 (10)	3-1/4-28UNF-2B(10)	--	--
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)

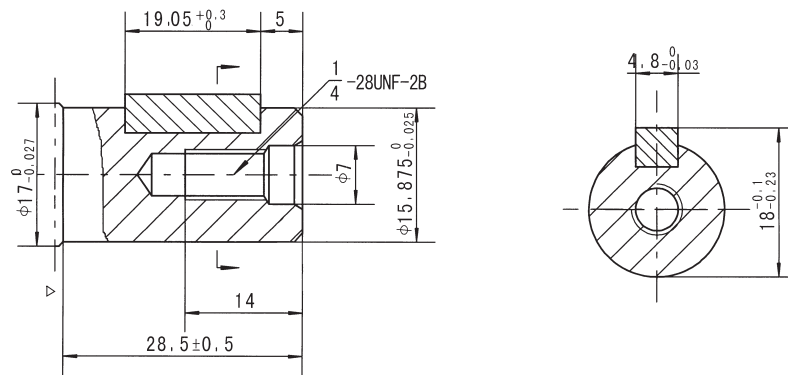


BMM SHAFT EXTENSIONS FOR BMM MOTORS

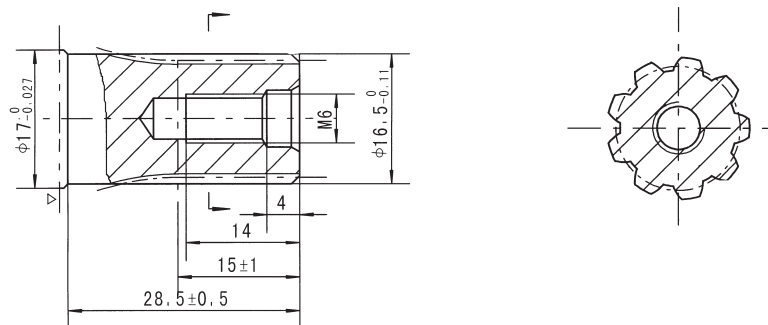
Shaft A: Cylindrical shaft $\phi 16$
Parallel key 5x5x16



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



Shaft C: Involute splind shaft
B17x14 DIN5482

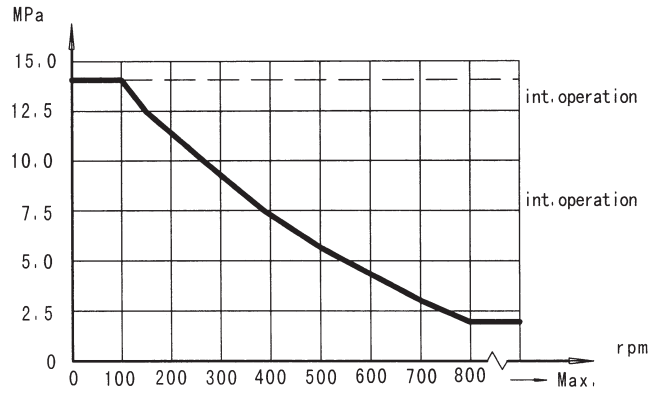
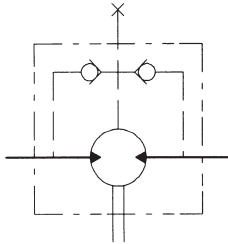


▷ Motor Mounting Surface



BMM Series Hydraulic Motor

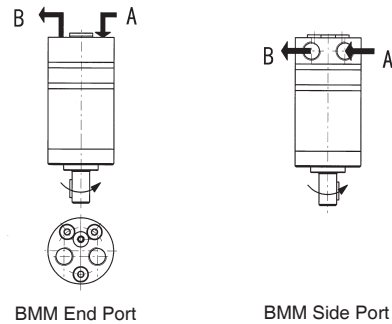
Permissible shaft seal pressure



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.

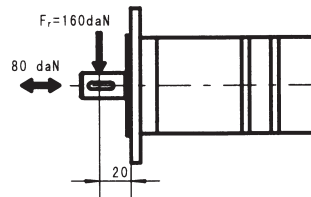
Direction of shaft rotation: Standard

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

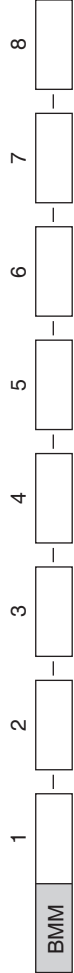
$$F_r = \frac{13040}{61.5 + L} \text{ daN}$$



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



Pos.1	2	3	4	5	6	7	8
Code	Displacement	Flange	Output shaft	Port and drain port	Rotation direction	Paint	Unusually function
	8						
	12.5	M	A	E		00	
	20	U	B	U	Omit Standard	Blue	Omit
	32	F	C	1E	R	Black	O
	40			1U	Opposite	Silver grey	No case drain
	50						

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