

DYNAMIC

FLUID COMPONENTS, INC.

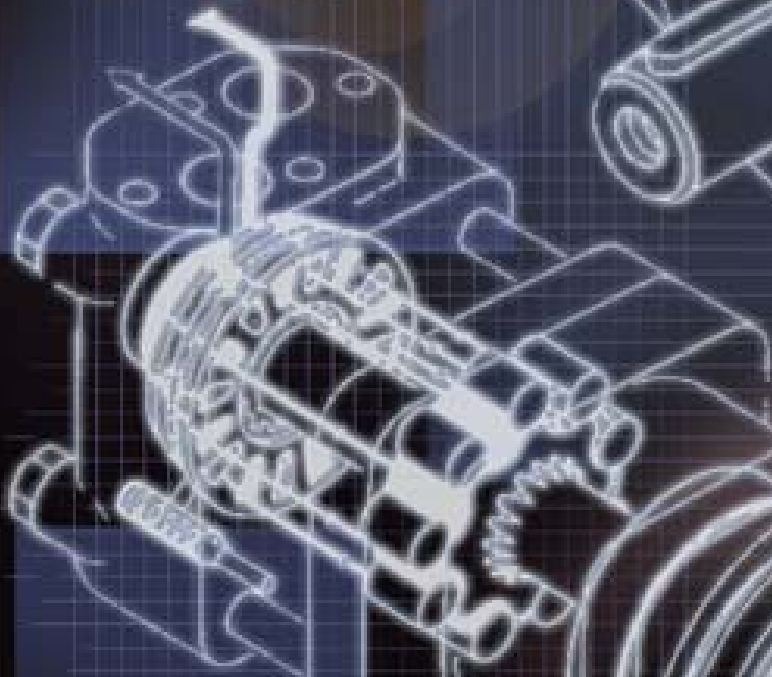
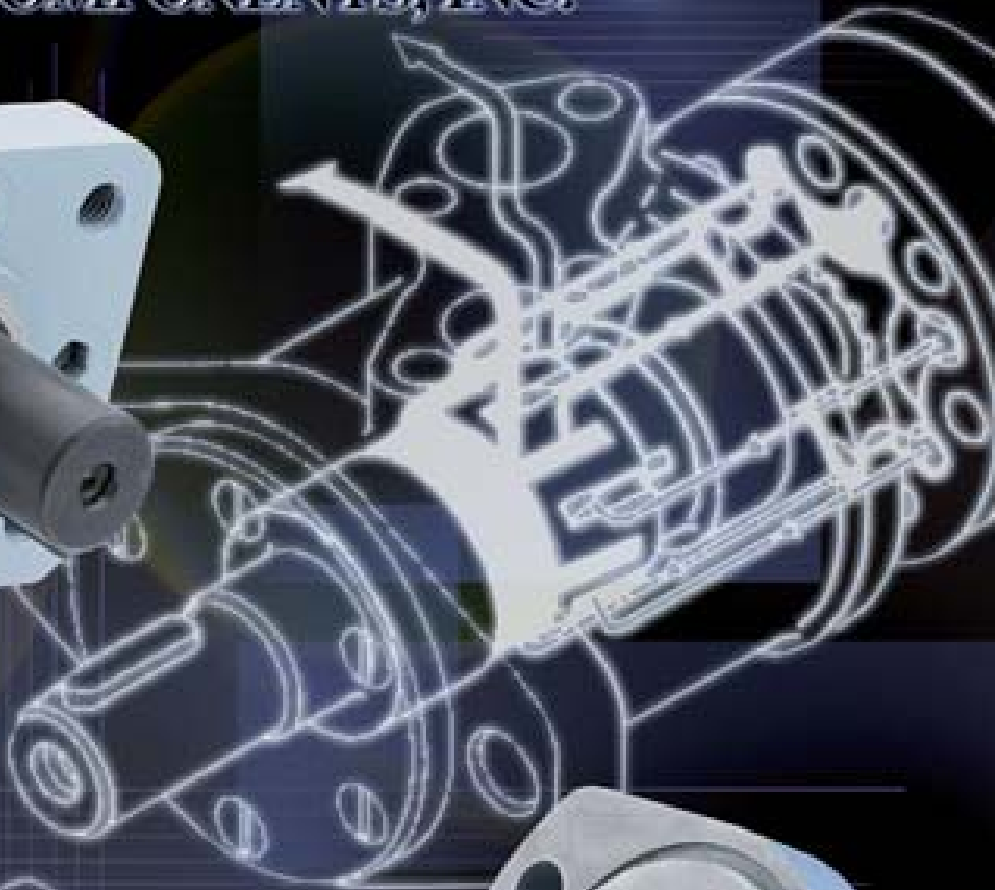




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INTRODUCTION

DYNAMIC FLUID COMPONENTS introduces the **JP products** range of INTERCHANGEABLE Low Speed-High Torque **ROTORTORC™** and **ROLORTORC™** Hydraulic Motors.

This extensive product range of Multi Displacement LSHT hydraulic motors are manufactured in accordance with ISO9000-2000 quality standards and have been accepted World Wide as a competitively priced, high quality gerotor type design product. These motors are interchangeable with other leading Domestic and European Manufacturers. Performance driven, these products are available from stock throughout the North American market from our extensive distributor network. Both Rotortorc™ and Rolortorc™ technologies are incorporated in the BMPH, BMRS, BMH, BMS, BMT and BMV hydraulic motor models presented in this catalog and all meet the needs for a smooth low speed high torque performance.

USER GUIDE

For optimal utilization of these motors the following is recommended.

1. Normal oil operating temperature should be 70 to 150 degrees F (20 to 60 degrees C).
2. Maximum operating temperature should not exceed 190 degrees F. (90 degrees C).
3. Filtration level per ISO Cleanliness Code level 18/3.
4. Minimum oil viscosity should be 100 SUS.
5. Motors should be operated at less than 30% of rated performance for the first hour of operation.
6. Simultaneous maximum torque and maximum speed is NOT recommended.

TECHNICAL DATA

Models BMP & BMPH are **ROTORTORC™** design. Models BMRS, BMH, BMS, BMSS, BMT, BMTS and BMV are **ROLORTORC™** design.

Model	Distributor type	Displacement		Maximum Operating Pressure		Speed RPM
		in ³ /rev	cm ³ /rev	PSI	MPa	
BMP/BMPH	Axial	3-24	50-400	2400	16.3	30-800
BMRS	Axial	3-23	50-375	3000	20	30-970
BMH	Axial	12-30	200-500	3000	20	30-430
BMS/BMSS	Disc	5-23	80-375	3250	22.5	30-800
BMT	Disc	10-49	160-800	3400	24	30-705
BMV	Disc	19-49	315-800	4000	28	10-446



The BMP and BMPH ROTORTORC™ gear set, shaft distribution flow, hydraulic motors are a compact, highly efficient, low speed-high torque design which can be used in either parallel or series systems.

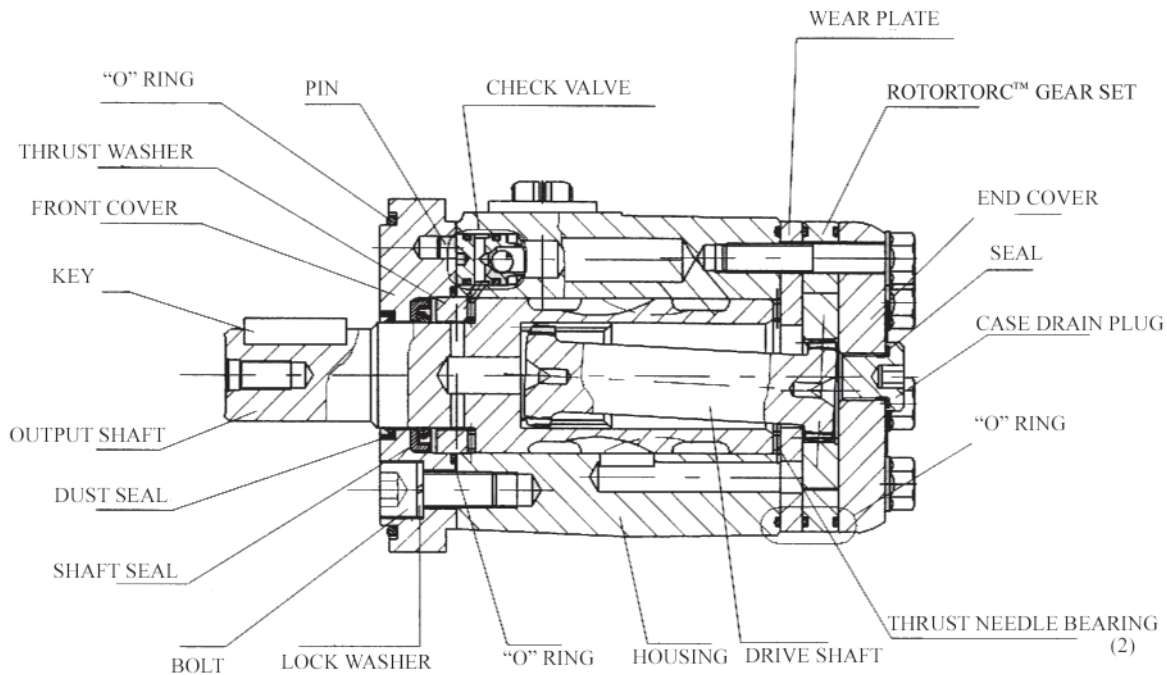
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMPH/BMP

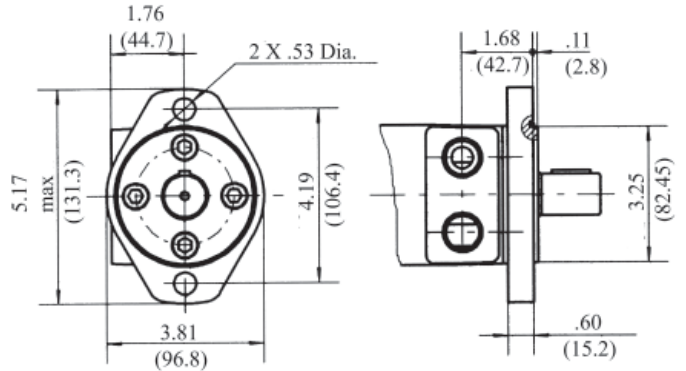
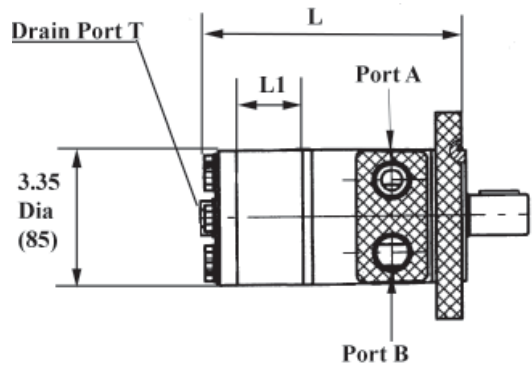
MODEL	BMPH36	BMPH50	BMPH80	BMPH100	BMPH125	BMPH160	BMPH200	BMPH250	BMPH315	BMPH400
	BMP36	BMP50	BMP80	BMP100	BMP125	BMP160	BMP200	BMP250	BMP315	BMP400
Displacement <small>Cm³/Rev (In³/Rev)</small>	36.0 (2.20)	51.7 (3.15)	77.7 (4.74)	96.2 (5.87)	118 (7.20)	156 (9.51)	190 (11.59)	231 (14.09)	312 (19.03)	387 (23.61)
Maximum Speed RPM	Cont	1050	880	740	590	475	370	295	240	190
	Int.	1270	975	825	675	595	465	370	295	235
Max Torque NM / (in.lbs)	Cont	58 (512)	81 (717)	129 (1140)	161 (1425)	202 (1790)	245 (2170)	286 (2530)	360 (3185)	406 (3575)
	Int.	76 (670)	108 (956)	171 (1514)	213 (1885)	268 (2372)	342 (3026)	390 (3450)	456 (4035)	505 (4470)
Max Differential Mpa / (PSI)	Cont	12.5 (1840)	12.5 (1840)	12.5 (1840)	12.5 (1840)	12.5 (1840)	12.5 (1840)	11 (1625)	11 (1625)	11 (1625)
	Int.	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	14 (2060)	14 (2060)
Max Flow L/min / (gpm)	Cont	38 (10)	45 (11.85)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)
	Int.	45 (12)	50 (13.15)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)
Weight Kg / (lbs)		5.5 (12.1)	5.6 (12.3)	5.7 (12.54)	5.9 (13)	6 (13.2)	6.2 (13.65)	6.4 (14.1)	6.6 (14.5)	6.9 (15.2)

Continuous = maximum of continuous operation

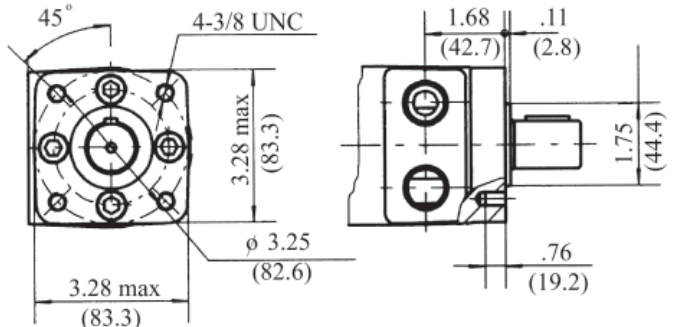
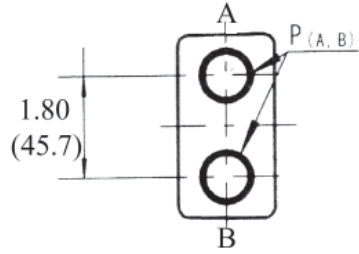
Intermittent = maximum operating range for 6 seconds per minute



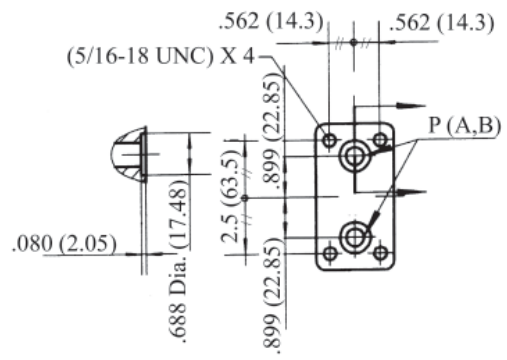
BMPH INSTALLATION DATA



H2 - SAE -"A" 2 BOLT

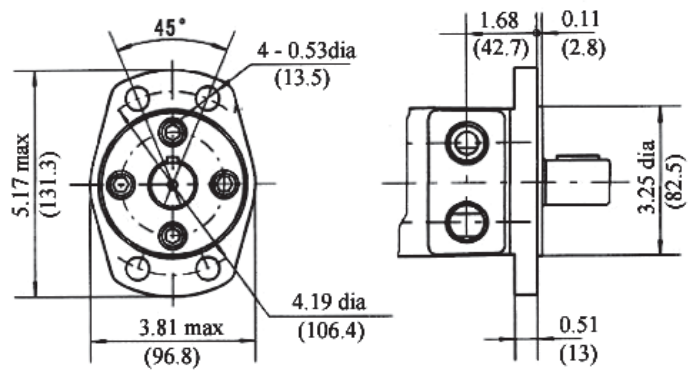


H4 - SAE -"A" 4 BOLT



Manifold Mount

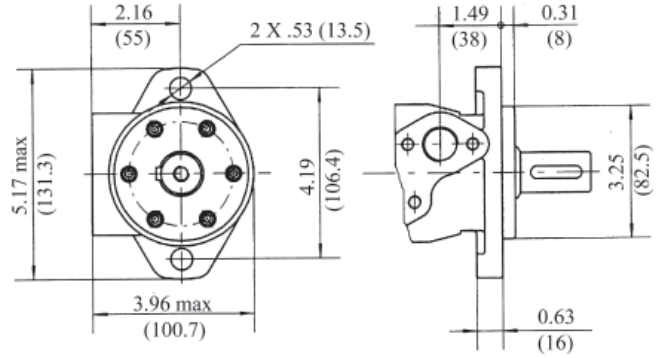
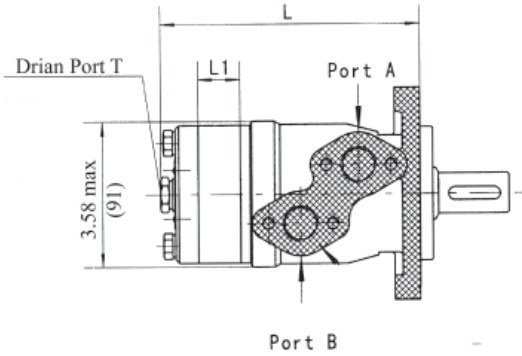
MODEL BMPH	L		L1	
	inches	mm	inches	mm
BMPH 36	5.51	140	0.27	6.8
BMPH 50	5.55	141	0.28	7
BMPH 80	5.69	144.5	0.41	10.5
BMPH 100	5.79	147	0.51	13
BMPH 125	5.91	150	0.63	16
BMPH 160	6.10	155	0.83	21
BMPH 200	6.30	160	1.02	26
BMPH 250	6.54	166	1.26	32
BMPH 315	7.72	176	1.65	42
BMPH 400	7.32	186	2.04	52



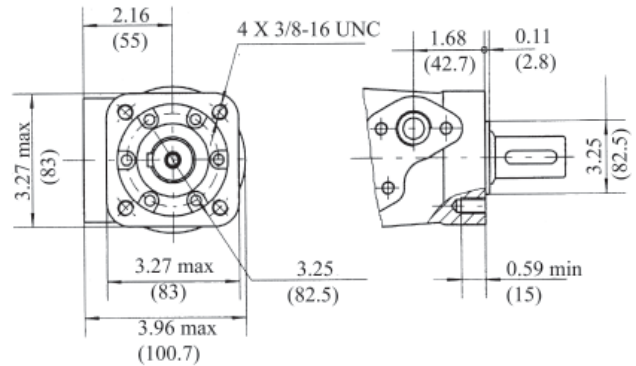
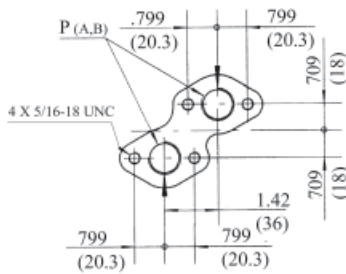
H6 - Magneto

PORT SIZES	SAE	NPT
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

BMP INSTALLATION DATA



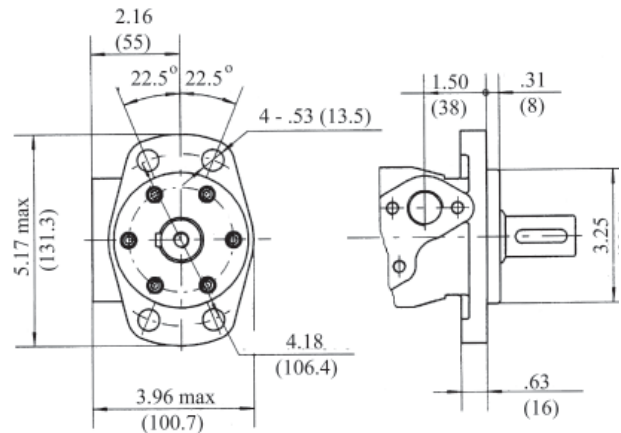
H2 - SAE -"A" 2 BOLT



H4 - SAE -"A" 4 BOLT

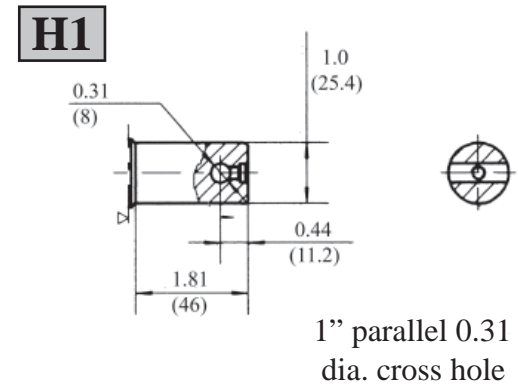
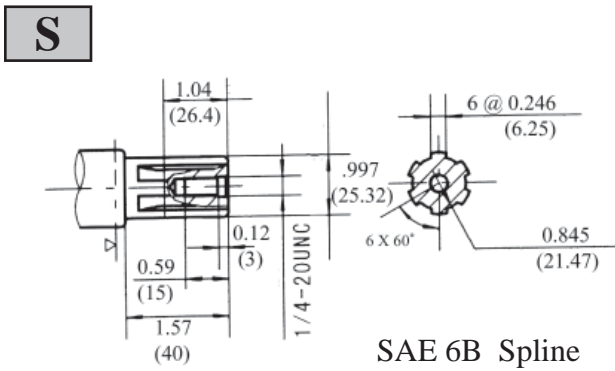
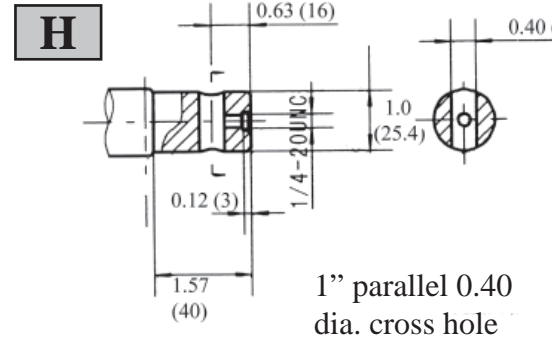
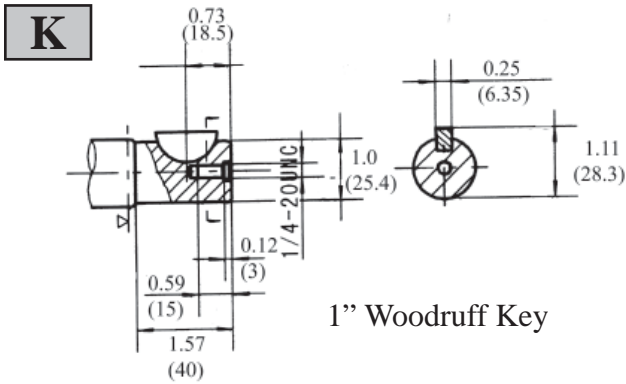
PORT SIZES	SAE	NPT
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

MODEL BMP	L		L1	
	inches	mm	inches	mm
BMP 36	5.36	136	0.27	6.8
BMP 50	5.40	137	0.28	7
BMP 80	5.53	140.5	0.41	10.5
BMP 100	5.63	143	0.51	13
BMP 125	5.75	146	0.63	16
BMP 160	5.94	151	0.83	21
BMP 200	6.18	157	1.02	26
BMP 250	6.34	162	1.26	32
BMP 315	6.77	172	1.65	42
BMP 400	7.16	182	2.04	52

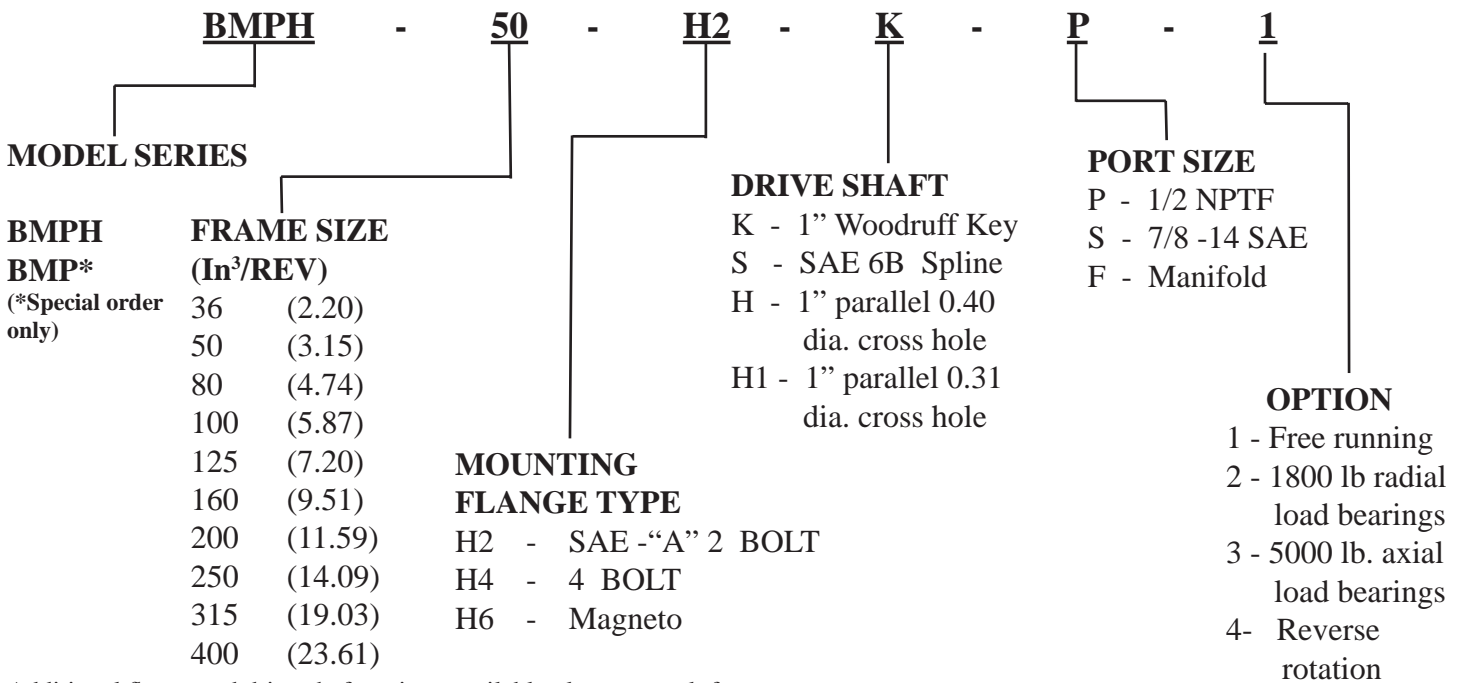


H6 - Magneto

MODEL BMP & BMPH DRIVE SHAFT DATA



BMPH & BMP MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMP/BMPH 36		36 Cm³/Rev 2.20 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	12.5 (1840)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	13 (115)	24 (212)	29 (256)	34 (300)	43 (380)	48 (424)	55 (486)	74 (654)
		214 rpm	205 rpm	200 rpm	194 rpm	187 rpm	179 rpm	168 rpm	138
	15 (3.95)	13 (115)	25 (221)	29 (256)	34 (300)	43 (380)	48 (424)	56 (495)	75 (663)
		406 rpm	398 rpm	391 rpm	383 rpm	374 rpm	366 rpm	353 rpm	324
	20 (5.25)	13 (115)	24 (212)	29 (256)	34 (300)	43 (380)	48 (424)	56 (495)	76 (672)
		541 rpm	534 rpm	528 rpm	521 rpm	513 rpm	500 rpm	486 rpm	458
	30 (7.90)	12 (106)	24 (212)	29 (256)	34 (300)	43 (380)	48 (424)	56 (495)	76 (672)
		814 rpm	804 rpm	792 rpm	778 rpm	763 rpm	749 rpm	726 rpm	701
Max Cont.	40 (10.50)	12 (106)	23 (203)	28 (247)	32 (283)	41 (362)	47 (415)	55 (486)	75 (663)
		1090 rpm	1078 rpm	1064 rpm	1048 rpm	1024 rpm	998 rpm	977 rpm	943
Max Int.	45 (11.90)	11 (97)	22 (194)	26 (230)	32 (283)	41 (362)	46 (407)	54 (477)	
		1232 rpm	1218 rpm	1196 rpm	1175 rpm	1149 rpm	1118 rpm	1080 rpm	

BMP/BMPH 50		51.7 Cm³/Rev 3.15 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	12.5 (1840)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	17 (150)	38 (336)	44 (390)	50 (443)	63 (558)	70 (620)	79 (700)	104 (920)
		154 rpm	149 rpm	144 rpm	141 rpm	135 rpm	129 rpm	123 rpm	92 rpm
	15 (3.95)	19 (168)	38 (336)	44 (389)	50 (443)	64 (566)	71 (628)	80 (708)	105 (930)
		292 rpm	286 rpm	238 rpm	277 rpm	273 rpm	267 rpm	262 rpm	231 rpm
	20 (5.25)	17 (150)	38 (336)	44 (389)	51 (451)	64 (566)	71 (628)	80 (708)	107 (947)
		390 rpm	385 rpm	328 rpm	326 rpm	374 rpm	367 rpm	360 rpm	332 rpm
	30 (7.90)	16 (142)	37 (328)	44 (389)	50 (443)	64 (566)	71 (628)	80 (708)	108 (956)
		586 rpm	579 rpm	572 rpm	568 rpm	562 rpm	556 rpm	546 rpm	516 rpm
Max Cont.	45 (11.90)	14 (126)	34 (304)	42 (374)	49 (435)	63 (558)	70 (620)	80 (708)	107 (947)
		879 rpm	868 rpm	862 rpm	855 rpm	849 rpm	840 rpm	833 rpm	799 rpm
Max Int.	50 (13.20)	13 (118)	33 (296)	41 (368)	48 (427)	62 (550)	68 (605)	79 (700)	
		975 rpm	962 rpm	955 rpm	949 rpm	943 rpm	937 rpm	927 rpm	

BMP/BMPH 80		77.7 Cm³/Rev 4.74 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	12.5 (1840)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	29 (256)	60 (531)	70 (620)	80 (708)	101 (894)	111 (982)	128 (1133)	168 (1487)
		97 rpm	94 rpm	91 rpm	88 rpm	84 rpm	79 rpm	74 rpm	50 rpm
	15 (3.95)	29 (256)	61 (539)	71 (628)	81 (717)	101 (894)	114 (1009)	129 (1142)	170 (1505)
		184 rpm	181 rpm	178 rpm	175 rpm	171 rpm	167 rpm	162 rpm	140 rpm
	20 (5.25)	28 (248)	60 (531)	71 (628)	81 (717)	101 (894)	112 (991)	129 (1142)	170 (1505)
		247 rpm	243 rpm	241 rpm	238 rpm	235 rpm	231 rpm	225 rpm	205 rpm
	30 (7.90)	25 (221)	58 (513)	69 (610)	79 (699)	100 (855)	111 (982)	128 (1133)	171 (1513)
		370 rpm	366 rpm	363 rpm	360 rpm	356 rpm	351 rpm	346 rpm	323 rpm
	35 (9.20)	24 (212)	57 (504)	68 (602)	78 (690)	99 (876)	110 (974)	126 (1115)	171 (1513)
		432 rpm	427 rpm	424 rpm	421 rpm	416 rpm	412 rpm	407 rpm	387 rpm
	45 (11.90)	22 (195)	54 (478)	66 (584)	77 (681)	97 (858)	109 (965)	124 (1097)	169 (1496)
		555 rpm	550 rpm	546 rpm	542 rpm	538 rpm	532 rpm	528 rpm	503 rpm
	50 (13.20)	20 (177)	53 (469)	54 (566)	75 (664)	96 (850)	107 (947)	123 (1089)	168 (1487)
		616 rpm	609 rpm	606 rpm	603 rpm	599 rpm	594 rpm	588 rpm	561 rpm
Max Cont.	60 (15.85)	19 (168)	52 (460)	63 (558)	74 (655)	95 (841)	107 (947)	123 (1089)	168 (1487)
		740 rpm	732 rpm	727 rpm	723 rpm	718 rpm	713 rpm	707 rpm	675 rpm
Max Int.	75 (19.75)	16 (142)	47 (416)	59 (522)	72 (637)	91 (805)	105 (929)	121 (1071)	
		827 rpm	820 rpm	817 rpm	813 rpm	808 rpm	804 rpm	796 rpm	

BMP/BMPH 100		96.2 Cm³/Rev 5.87 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	12.5 (1840)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	36 (319)	75 (664)	88 (779)	101 (984)	126 (1115)	141 (1248)	160 (1460)	210 (1859)
		78 rpm	75 rpm	73 rpm	70 rpm	67 rpm	63 rpm	56 rpm	34 rpm
	15 (3.95)	35 (310)	75 (664)	89 (788)	101 (894)	128 (1133)	141 (1248)	160 (1416)	213 (1885)
		149 rpm	145 rpm	143 rpm	141 rpm	137 rpm	134 rpm	129 rpm	109 rpm
	20 (5.25)	33 (292)	74 (665)	88 (779)	101 (984)	126 (1115)	140 (1239)	161 (1451)	212 (1876)
		199 rpm	196 rpm	195 rpm	191 rpm	189 rpm	185 rpm	179 rpm	161 rpm
	30 (7.90)	31 (274)	72 (637)	85 (752)	98 (867)	123 (1089)	137 (1212)	157 (1389)	213 (1885)
		299 rpm	296 rpm	293 rpm	291 rpm	288 rpm	284 rpm	280 rpm	259 rpm
	35 (9.20)	29 (257)	69 (611)	83 (735)	96 (850)	121 (1070)	135 (1195)	155 (1372)	212 (1876)
		349 rpm	345 rpm	344 rpm	341 rpm	337 rpm	335 rpm	330 rpm	310 rpm
	45 (11.90)	28 (248)	66 (584)	81 (717)	94 (832)	119 (1053)	133 (1177)	153 (1354)	208 (1841)
	449 rpm	445 rpm	442 rpm	439 rpm	435 rpm	432 rpm	428 rpm	405 rpm	
50 (13.20)	24 (217)	65 (575)	78 (690)	93 (823)	117 (1035)	132 (1168)	152 (1345)	207 (1832)	
	498 rpm	493 rpm	491 rpm	490 rpm	486 rpm	481 rpm	477 rpm	457 rpm	
Max Cont.	60 (15.85)	23 (204)	63 (558)	77 (681)	92 (814)	116 (1027)	131 (1159)	151 (1336)	207 (1832)
		598 rpm	593 rpm	589 rpm	587 rpm	583 rpm	578 rpm	573 rpm	549 rpm
Max Int.	75 (19.75)	20 (117)	57 (504)	74 (655)	88 (779)	113 (1000)	129 (1142)	150 (1328)	
		673 rpm	667 rpm	664 rpm	661 rpm	657 rpm	654 rpm	648 rpm	

BMP/BMPH 125		117.9 Cm³/Rev 7.20 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	12.5 (1840)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	45 (398)	94 (832)	111 (982)	127 (1124)	158 (1398)	176 (1558)	201 (1719)	263 (2328)
		62 rpm	60 rpm	59 rpm	56 rpm	54 rpm	50 rpm	46 rpm	26 rpm
	15 (3.95)	44 (389)	94 (832)	111 (982)	127 (1124)	160 (1416)	177 (1566)	202 (1788)	267 (2363)
		118 rpm	115 rpm	114 rpm	113 rpm	110 rpm	108 rpm	105 rpm	86 rpm
	20 (5.25)	42 (372)	93 (823)	110 (974)	127 (1124)	159 (1407)	176 (1558)	202 (1788)	268 (2372)
		158 rpm	156 rpm	155 rpm	152 rpm	150 rpm	148 rpm	144 rpm	129 rpm
	30 (7.90)	40 (354)	91 (805)	108 (956)	124 (1097)	156 (1381)	174 (1540)	198 (1752)	268 (378)
		238 rpm	235 rpm	233 rpm	231 rpm	229 rpm	225 rpm	222 rpm	205 rpm
	35 (9.20)	38 (356)	89 (788)	106 (938)	122 (1080)	154 (1363)	172 (1522)	196 (1735)	267 (2363)
		227 rpm	274 rpm	273 rpm	272 rpm	268 rpm	266 rpm	263 rpm	247 rpm
	45 (11.90)	37 (327)	85 (752)	103 (912)	120 (1062)	151 (1336)	170 (1505)	194 (1717)	263 (2328)
	356 rpm	353 rpm	352 rpm	349 rpm	347 rpm	343 rpm	341 rpm	321 rpm	
50 (13.20)	33 (292)	84 (743)	100 (885)	118 (1044)	149 (1319)	167 (1478)	192 (1699)	260 (2301)	
	396 rpm	392 rpm	390 rpm	390 rpm	387 rpm	383 rpm	380 rpm	363 rpm	
Max Cont.	60 (15.85)	32 (283)	81 (717)	99 (876)	116 (1027)	147 (1301)	166 (1469)	191 (1690)	259 (2292)
		421 rpm	471 rpm	469 rpm	467 rpm	465 rpm	461 rpm	457 rpm	436 rpm
Max Int.	75 (20.8)	26 (230)	75 (664)	93 (823)	110 (974)	142 (1257)	159 (1407)	185 (1837)	
		594 rpm	588 rpm	587 rpm	581 rpm	576 rpm	584 rpm	579 rpm	

BMP/BMPH 160		156 Cm³/Rev 9.51 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	14 (2060)	16.5 (2429)
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	57 (505)	121(1070)	142 (1260)	162 (1435)	202 (1790)	225 (1990)	243 (2150)	334 (2955)
		48 rpm	47 rpm	46 rpm	44 rpm	42 rpm	40 rpm	39 rpm	24 rpm
	15 (3.95)	56 (496)	121 (1071)	142 (1260)	162 (1435)	204 (1805)	227 (2010)	245 (2170)	341 (3020)
		93 rpm	90 rpm	90 rpm	89 rpm	88 rpm	86 rpm	86 rpm	75 rpm
	20 (5.25)	55 (487)	120 (1060)	140 (1240)	162 (1435)	203 (1795)	226 (2000)	244 (2160)	342 (3025)
		123 rpm	122 rpm	121 rpm	119 rpm	117 rpm	116 rpm	116 rpm	104 rpm
	30 (7.90)	54 (478)	117 (1035)	139 (1230)	160 (1415)	201 (1780)	224 (1980)	242 (2140)	340 (3010)
		185 rpm	183 rpm	182 rpm	180 rpm	178 rpm	176 rpm	175 rpm	163 rpm
	35 (9.20)	52 (460)	115 (1020)	137 (1215)	159 (1410)	199 (1760)	220 (1950)	242 (2140)	337 (2980)
		215 rpm	213 rpm	213 rpm	211 rpm	210 rpm	208 rpm	207 rpm	196 rpm
	45 (11.90)	50 (442)	112 (995)	134 (1185)	156 (1380)	196 (1735)	220 (1950)	238 (2105)	335 (2965)
	277 rpm	275 rpm	275 rpm	273 rpm	271 rpm	269 rpm	268 rpm	256 rpm	
50 (13.20)	45 (398)	110 (975)	132 (1170)	153 (1355)	194 (1720)	216 (1975)	233 (1975)	330 (2920)	
	308 rpm	307 rpm	305 rpm	303 rpm	302 rpm	299 rpm	299 rpm	287 rpm	
Max Cont.	60 (15.85)	44 (390)	106 (940)	130 (1150)	151 (1340)	192 (1670)	214 (1895)	231 (2045)	328 (2905)
		370 rpm	368 rpm	368 rpm	364 rpm	362 rpm	360 rpm	359 rpm	347 rpm
Max Int.	75 (19.75)	32 (283)	96 (850)	119 (1055)	142 (1260)	182 (1610)	205 (1815)	222 (19650)	
		458 rpm	463 rpm	457 rpm	456 rpm	453 rpm	451 rpm	451 rpm	

BMP/BMPH 200		190 Cm³/Rev 11.59 in³/Rev				Max Cont	Max Int.		
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	15 (2208)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	8 (2.10)	73 (646)	153 (1354)	179 (1584)	204 (1805)	256 (2266)	283 (2505)	385 (3407)	
		39 rpm	37 rpm	36 rpm	35 rpm	32 rpm	28 rpm	12 rpm	
	15 (3.95)	73 (646)	152 (1345)	180 (1593)	205 (1814)	259 (2292)	266 (2354)	390 (3407)	
		74 rpm	72 rpm	71 rpm	71 rpm	70 rpm	68 rpm	58 rpm	
	20 (5.25)	71 (628)	151 (1336)	178 (1575)	204 (1805)	256 (2266)	285 (2522)	390 (3452)	
		99 rpm	98 rpm	97 rpm	95 rpm	94 rpm	91 rpm	81 rpm	
	30 (7.90)	68 (602)	149 (1319)	175 (1549)	202 (1788)	254 (2248)	283 (2505)	388 (3434)	
		148 rpm	147 rpm	146 rpm	144 rpm	142 rpm	139 rpm	128 rpm	
	35 (9.20)	65 (575)	146 (1292)	173 (1531)	200 (1770)	252 (2230)	281 (2487)	386 (3416)	
		173 rpm	172 rpm	171 rpm	169 rpm	168 rpm	165 rpm	155 rpm	
	45 (11.9)	63 (558)	142 (1237)	170 (1505)	196 (1735)	247 (2186)	277 (2451)	382 (3380)	
		222 rpm	221 rpm	220 rpm	218 rpm	216 rpm	214 rpm	203 rpm	
	50 (13.2)	58 (513)	138 (1221)	166 (1469)	193 (1708)	244 (2159)	272 (2407)	378 (3345)	
	247 rpm	245 rpm	244 rpm	244 rpm	242 rpm	239 rpm	229 rpm		
Max Cont.	60 (15.85)	56 (496)	136 (1204)	163 (1443)	191 (1690)	241 (2133)	269 (2381)	375 (3319)	
		296 rpm	294 rpm	293 rpm	292 rpm	290 rpm	287 rpm	277 rpm	
Max Int.	75 (19.75)	42 (372)	121 (1070)	150 (1328)	177 (1566)	226 (2000)			
		370 rpm	367 rpm	367 rpm	365 rpm	364 rpm			

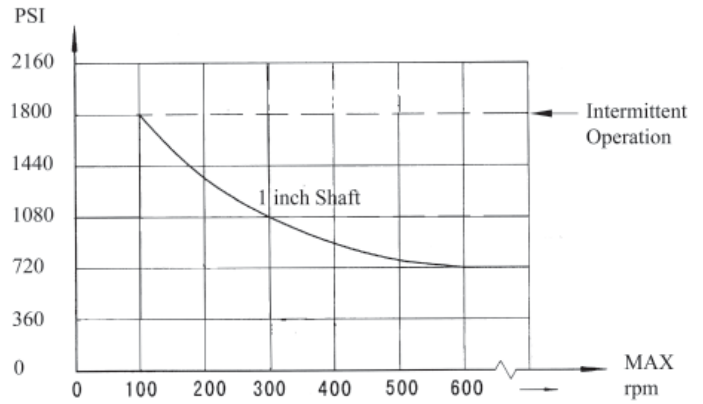
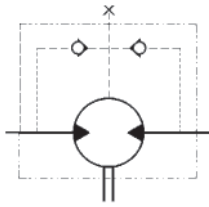
BMP/BMPH 250		231 Cm³/Rev 14.09 in³/Rev				Max Cont	Max Int.		
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	14 (2060)	
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification							
	8 (2.10)	93 (823)	195 (1726)	226 (2000)	259 (2292)	325 (2876)	357 (3159)		
		31 rpm	29 rpm	29 rpm	27 rpm	25 rpm	24 rpm		
	15 (3.95)	92 (814)	192 (1699)	226 (2000)	260 (2301)	325 (2876)	360 (3186)	456 (4036)	
		60 rpm	58 rpm	57 rpm	57 rpm	55 rpm	55 rpm		
	20 (5.25)	90 (797)	191 (1690)	225 (1991)	258 (2283)	322 (2850)	356 (3151)	455 (4027)	
		79 rpm	78 rpm	77 rpm	76 rpm	75 rpm	75 rpm	65 rpm	
	30 (7.90)	86 (761)	188 (1664)	221 (1956)	255 (2257)	319 (2823)	354 (3153)	452 (4000)	
		119 rpm	118 rpm	117 rpm	116 rpm	114 rpm	114 rpm	103 rpm	
	35 (9.20)	82 (726)	184 (1628)	217 (1920)	251 (2221)	317 (2805)	350 (3098)	448 (3965)	
		138 rpm	137 rpm	135 rpm	133 rpm	133 rpm	124 rpm		
	45 (11.9)	79 (699)	179 (1584)	214 (1894)	246 (2177)	312 (2761)	345 (3053)	442 (3912)	
		179 rpm	178 rpm	177 rpm	176 rpm	173 rpm	173 rpm	163 rpm	
	50 (13.2)	74 (655)	174 (1540)	209 (1850)	243 (2151)	306 (2708)	339 (3000)	438 (3876)	
	198 rpm	197 rpm	197 rpm	195 rpm	194 rpm	193 rpm	185 rpm		
Max Cont.	60 (15.85)	71 (628)	171 (1513)	206 (1823)	239 (2115)	303 (2682)	336 (2974)	433 (3832)	
		237 rpm	236 rpm	236 rpm	234 rpm	232 rpm	232 rpm	224 rpm	
Max Int.	75 (19.75)	53 (469)	153 (1353)	189 (1673)	221 (1956)	280 (2478)	312 (2761)		
		297 rpm	295 rpm	295 rpm	293 rpm	292 rpm	291 rpm		

BMP/BMPH 315		312 Cm³/Rev 19.03 in³/Rev				Max Cont	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	12.5 (1840)	
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification						
	8 (2.10)	116 (1027)	243 (2151)	282 (2496)	313 (2770)	388 (3434)		
		25 rpm	24 rpm	22 rpm	16 rpm	13 rpm		
	15 (3.95)	115 (1018)	243 (2151)	284 (2513)	324 (2867)	406 (3593)	503 (4452)	
		47 rpm	46 rpm	45 rpm	43 rpm	41 rpm	20 rpm	
	20 (5.25)	114 (1009)	242 (2142)	282 (2496)	323 (2859)	405 (3584)	505 (4469)	
		63 rpm	62 rpm	61 rpm	58 rpm	56 rpm	44 rpm	
	30 (7.90)	109 (956)	237 (2097)	277 (2451)	319 (2823)	401 (3549)	501 (4433)	
		94 rpm	93 rpm	92 rpm	90 rpm	88 rpm	77 rpm	
	35 (9.20)	105 (929)	232 (2053)	273 (2416)	314 (2779)	397 (3513)	497 (4398)	
		110 rpm	109 rpm	108 rpm	106 rpm	103 rpm	93 rpm	
	45 (11.9)	99 (876)	226 (2000)	268 (2372)	309 (2735)	391 (3460)	491 (4345)	
		141 rpm	141 rpm	139 rpm	137 rpm	135 rpm	124 rpm	
	50 (13.2)	92 (814)	218 (1929)	262 (2319)	304 (3960)	384 (3398)	486 (4301)	
	157 rpm	157 rpm	155 rpm	154 rpm	151 rpm	141 rpm		
Max Cont.	60 (15.85)	89 (788)	215 (1903)	258 (2283)	299 (2646)	379 (3554)	479 (4239)	
		189 rpm	188 rpm	187 rpm	185 rpm	182 rpm	171 rpm	
Max Int.	75 (19.75)	69 (611)	194 (1717)	237 (2097)	278 (2460)	355 (3141)		
		236 rpm	235 rpm	234 rpm	232 rpm	229 rpm		

BMP/BMPH 400		387 Cm³/Rev 23.61 in³/Rev				Max Cont	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	8.5 (1251)	12.5 (1840)	
F L O W	LPM (GPM)	Torque Nm (in.Lbs) Speed Specification						
	8 (2.10)	147 (140)	304 (2690)	354 (3133)				
		20 rpm	19 rpm	16 rpm				
	15 (3.95)	147 (1301)	308 (2726)	359 (3177)	408 (3611)	435 (3850)	532 (4708)	
		37 rpm	36 rpm	35 rpm	33 rpm	32 rpm	25 rpm	
	20 (5.25)	144 (1274)	305 (2699)	358 (3168)	406 (3602)	435 (34850)	533 (4717)	
		50 rpm	49 rpm	47 rpm	45 rpm	43 rpm	38 rpm	
	30 (7.90)	139 (1230)	302 (2664)	352 (3115)	402 (3558)	430 (3806)	530 (4691)	
		74 rpm	73 rpm	72 rpm	70 rpm	68 rpm	62 rpm	
	35 (9.20)	133 (1177)	294 (2602)	345 (3053)	396 (3505)	423 (3744)	525 (4646)	
		86 rpm	86 rpm	85 rpm	82 rpm	80 rpm	75 rpm	
	45 (11.9)	125 (1106)	287 (2540)	339 (3000)	389 (3443)	416 (3682)	517 (4575)	
		111 rpm	111 rpm	109 rpm	106 rpm	105 rpm	100 rpm	
	50 (13.2)	117 (1035)	278 (2460)	330 (2920)	282 (3381)	409 (3620)	509 (4505)	
	124 rpm	124 rpm	122 rpm	120 rpm	119 rpm	113 rpm		
Max Cont.	60 (15.85)	112 (991)	274 (2425)	326 (2177)	377 (3337)	404 (3575)	505 (4469)	
		149 rpm	149 rpm	147 rpm	145 rpm	144 rpm	137 rpm	
Max Int.	75 (19.75)	88 (779)	246 (2177)	298 (2637)	351 (3106)	376 (3328)		
		185 rpm	185 rpm	185 rpm	182 rpm	181 rpm		

MODEL BMPH/BMP TECHNICAL DATA

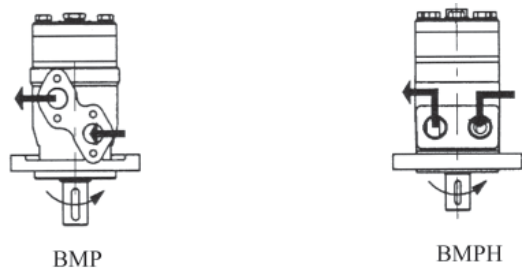
SHAFT SEAL RATED PRESSURE



CASE DRAIN

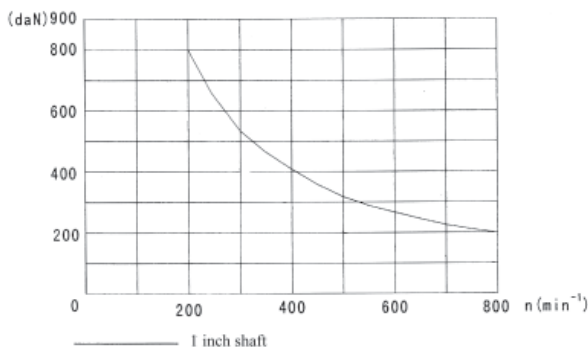
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION

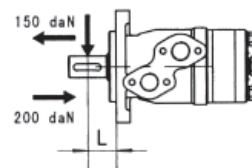


RADIAL FORCES

Status of the shaft's radial force



$$F_r = \frac{800 \cdot 2500}{n \cdot 95 + 1} \text{ daN}$$



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

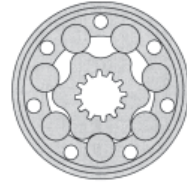
Rhomb-flange $L=30\text{mm}$
 Square-flange $L=24\text{mm}$

BMPH CROSS REFERENCE DATA

DISPLACEMENT FOR DYNAMIC MOTOR Cm ³ /Rev (In ³ /Rev)													
MOUNT	SHAFT	PORTS	BRAND	51.7 (3.15)	77.7 (4.74)	96.2 (5.87)	117.9 (7.2)	155.5 (9.5)	189.9 (11.6)	231 (14.1)	312 (19)	387 (23.6)	
4 BOLT FLANGE	Woodruff Keyed	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-P	BMPH-80-H4-K-P	BMPH-100-H4-K-P	BMPH-125-H4-K-P	BMPH-160-H4-K-P	BMPH-200-H4-K-P	BMPH-250-H4-K-P	BMPH-315-H4-K-P	BMPH-400-H4-K-P	
				ADM50-4RP	ADM75-4RP	ADM100-4RP	ADM100-4RP	ADM150-4RP	ADM200-4RP	ADM300-4RP	ADM400-4RP		
				101-1001	101-1002	101-1003	101-1755	101-1004	101-1005	101-1007	101-1008		
				151-2121	151-2122	151-2123	151-2124	151-2125	151-2126	151-2128	151-2129		
				BMPH-50-H4-K-S	BMPH-80-H4-K-S	BMPH-100-H4-K-S	BMPH-125-H4-K-S	BMPH-160-H4-K-S	BMPH-200-H4-K-S	BMPH-250-H4-K-S	BMPH-315-H4-K-S	BMPH-400-H4-K-S	
				ADM50-4RO	ADM75-4RO	ADM100-4RO	ADM100-4RO	ADM150-4RO	ADM200-4RO	ADM300-4RO	ADM400-4RO		
	101-1009	101-1010	101-1011	101-1751	101-1012	101-1013	101-1015	101-1016					
	151-2041	151-2042	151-2043	151-2044	151-2045	151-2046	151-2048	151-2049					
	4 BOLT FLANGE	Manifold	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-F	BMPH-80-H4-K-F	BMPH-100-H4-K-F	BMPH-125-H4-K-F	BMPH-160-H4-K-F	BMPH-200-H4-K-F	BMPH-250-H4-K-F	BMPH-315-H4-K-F	BMPH-400-H4-K-F
					ADM50-4RT	ADM75-4RT	ADM100-4RT	ADM100-4RT	ADM150-4RT	ADM200-4RT	ADM300-4RT	ADM400-4RT	
					101-1017	101-1018	101-1019	101-1759	101-1020	101-1021	101-1023	101-1024	
					151-2201	151-2202	151-2203	151-2201	151-2205	151-2206	151-2208	151-2209	
BMPH-50-H4-S-P					BMPH-80-H4-S-P	BMPH-100-H4-S-P	BMPH-125-H4-S-P	BMPH-160-H4-S-P	BMPH-200-H4-S-P	BMPH-250-H4-S-P	BMPH-315-H4-S-P	BMPH-400-H4-S-P	
ADM50-4SP					ADM75-4SP	ADM100-4SP	ADM100-4SP	ADM150-4SP	ADM200-4SP	ADM300-4SP	ADM400-4SP		
101-1049	101-1050	101-1051	101-1766	101-1052	101-1053	101-1055	101-1056						
151-2131	151-2132	151-2133	151-2134	151-2135	151-2136	151-2138	151-2139						
2 BOLT FLANGE	Woodruff Keyed	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-S	BMPH-80-H4-S-S	BMPH-100-H4-S-S	BMPH-125-H4-S-S	BMPH-160-H4-S-S	BMPH-200-H4-S-S	BMPH-250-H4-S-S	BMPH-315-H4-S-S	BMPH-400-H4-S-S	
				ADM50-4SO	ADM75-4SO	ADM100-4SO	ADM100-4SO	ADM150-4SO	ADM200-4SO	ADM300-4SO	ADM400-4SO		
				101-1057	101-1058	101-1059	101-1872	101-1060	101-1061	101-1063	101-1064		
				151-2051	151-2052	151-2053	151-2054	151-2055	151-2056	151-2058	151-2059		
				BMPH-50-H4-S-F	BMPH-80-H4-S-F	BMPH-100-H4-S-F	BMPH-125-H4-S-F	BMPH-160-H4-S-F	BMPH-200-H4-S-F	BMPH-250-H4-S-F	BMPH-315-H4-S-F	BMPH-400-H4-S-F	
				ADM50-4ST	ADM75-4ST	ADM100-4ST	ADM100-4ST	ADM150-4ST	ADM200-4ST	ADM300-4ST	ADM400-4ST		
	101-1065	101-1066	101-1067	101-1770	101-1068	101-1069	101-1071	101-1072					
	151-2211	151-2212	151-2213	151-2214	151-2215	151-2216	151-2218	151-2219					
	2 BOLT FLANGE	Manifold	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-P	BMPH-80-H2-K-P	BMPH-100-H2-K-P	BMPH-125-H2-K-P	BMPH-160-H2-K-P	BMPH-200-H2-K-P	BMPH-250-H2-K-P	BMPH-315-H2-K-P	BMPH-400-H2-K-P
					ADM50-2RP	ADM75-2RP	ADM100-2RP	ADM100-2RP	ADM150-2RP	ADM200-2RP	ADM300-2RP	ADM400-2RP	
					101-1025	101-1026	101-1027	101-1706	101-1028	101-1029	101-1031	101-1032	
					151-2081	151-2082	151-2083	151-2084	151-2085	151-2086	151-2088	151-2089	
BMPH-50-H2-K-S					BMPH-80-H2-K-S	BMPH-100-H2-K-S	BMPH-125-H2-K-S	BMPH-160-H2-K-S	BMPH-200-H2-K-S	BMPH-250-H2-K-S	BMPH-315-H2-K-S	BMPH-400-H2-K-S	
ADM50-2RO					ADM75-2RO	ADM100-2RO	ADM100-2RO	ADM150-2RO	ADM200-2RO	ADM300-2RO	ADM400-2RO		
101-1033	101-1034	101-1035	101-1702	101-1036	101-1037	101-1039	101-1040						
151-2001	151-2002	151-2003	151-2004	151-2005	151-2006	151-2008	151-2009						
2 BOLT FLANGE	Woodruff Keyed	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-F	BMPH-80-H2-K-F	BMPH-100-H2-K-F	BMPH-125-H2-K-F	BMPH-160-H2-K-F	BMPH-200-H2-K-F	BMPH-250-H2-K-F	BMPH-315-H2-K-F	BMPH-400-H2-K-F	
				ADM50-4RT	ADM75-4RT	ADM100-4RT	ADM100-4RT	ADM150-4RT	ADM200-4RT	ADM300-4RT	ADM400-4RT		
				101-1041	101-1042	101-1043	101-11710	101-1044	101-1045	101-1047	101-1048		
				151-2161	151-2162	151-2163	151-2164	151-2165	151-2166	151-2168	151-2169		
				BMPH-50-H2-S-P	BMPH-80-H2-S-P	BMPH-100-H2-S-P	BMPH-125-H2-S-P	BMPH-160-H2-S-P	BMPH-200-H2-S-P	BMPH-250-H2-S-P	BMPH-315-H2-S-P	BMPH-400-H2-S-P	
				ADM50-2SP	ADM75-2SP	ADM100-2SP	ADM100-2SP	ADM150-2SP	ADM200-2SP	ADM300-2SP	ADM400-2SP		
	101-1073	101-1074	101-1075	101-1727	101-1076	101-1077	101-1079	101-1080					
	151-2091	151-2092	151-2093	151-2094	151-2095	151-2096	151-2098	151-2099					
	2 BOLT FLANGE	Manifold	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-S	BMPH-80-H2-S-S	BMPH-100-H2-S-S	BMPH-125-H2-S-S	BMPH-160-H2-S-S	BMPH-200-H2-S-S	BMPH-250-H2-S-S	BMPH-315-H2-S-S	BMPH-400-H2-S-S
					ADM50-2SO	ADM75-2SO	ADM100-2SO	ADM100-2SO	ADM150-2SO	ADM200-2SO	ADM300-2SO	ADM400-2SO	
					101-1081	101-1082	101-1083	101-1723	101-1084	101-1085	101-1087	101-1088	
					151-2011	151-2012	151-2013	151-2014	151-2015	151-2016	151-2018	151-2019	
BMPH-50-H2-S-F					BMPH-80-H2-S-F	BMPH-100-H2-S-F	BMPH-125-H2-S-F	BMPH-160-H2-S-F	BMPH-200-H2-S-F	BMPH-250-H2-S-F	BMPH-315-H2-S-F	BMPH-400-H2-S-F	
ADM50-2ST					ADM75-2ST	ADM100-2ST	ADM100-2ST	ADM150-2ST	ADM200-2ST	ADM300-2ST	ADM400-2ST		
101-1089	101-1090	101-1091	101-1731	101-1092	101-1093	101-1095	101-1096						
151-2171	151-2172	151-2173	151-2174	151-2175	151-2176	151-2178	151-2179						

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Note: The cross reference information in this chart is to be used only as a reference for guideline purposes only. After selecting a model from above, review motor specifications to determine compatibility with specific application.



The BMRS series advanced **ROLORTORC™** gear set, shaft distribution flow, hydraulic motor is a compact, low noise, high efficient high torque low speed design. The **ROLORTORC™** gear set also affords a reliable smooth start up at low pressure.

The special design of the valve linkage and high pressure capability of the shaft seal provides a long operating life and these motors can be used in either series or parallel operation.

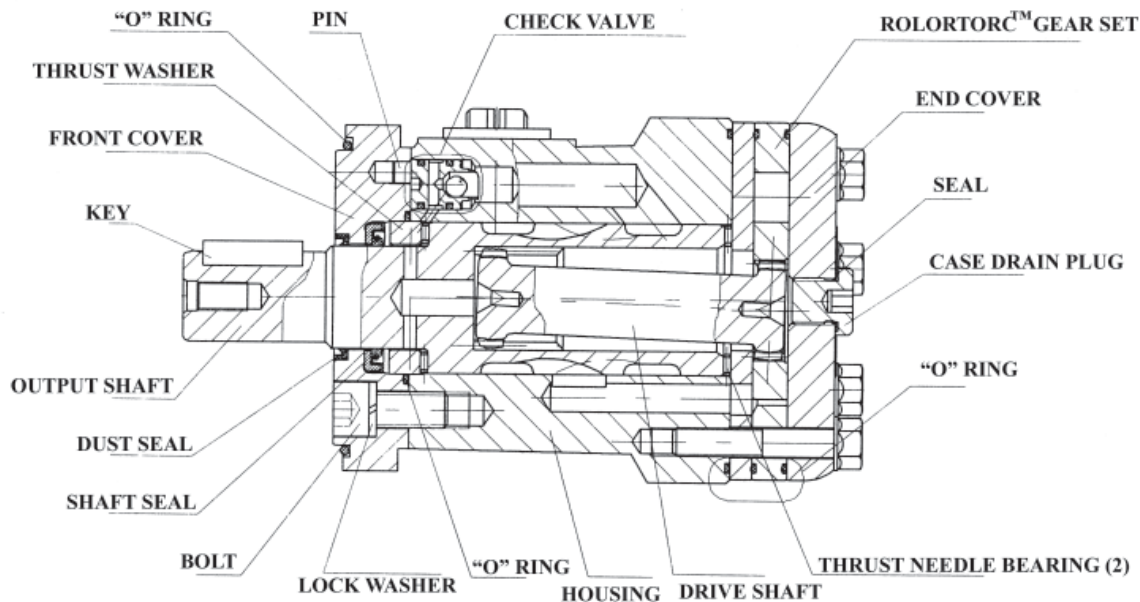
The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

Technical Specifications - BMRS

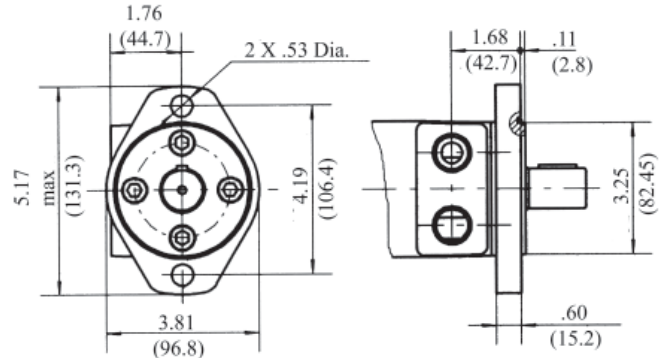
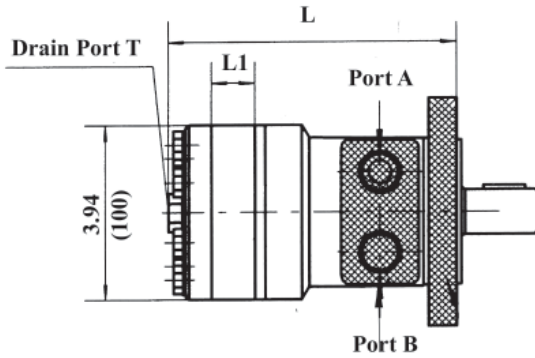
MODEL		BMRS50	BMRS80	BMRS100	BMRS125	BMRS160	BMRS200	BMRS250	BMRS315	BMRS375
Displacement Cm ³ /Rev (In ³ /Rev)		51.3 (3.05)	80.6 (4.92)	101 (6.15)	125 (7.63)	157 (9.6)	199 (12.16)	252 (15.38)	315 (19.2)	370 (22.6)
	Maximum Speed RPM	Cont 755	750	600	475	375	300	240	190	160
Max Torque NM / (in.lbs)	Cont	100 (885)	190 (1682)	240 (2124)	292 (2584)	363 (3273)	358 (3168)	352 (3115)	360 (3186)	420 (3717)
	Int.	126 (1115)	220 (1947)	280 (2478)	340 (3010)	430 (3806)	448 (3965)	470 (4159)	480 (4247)	548 (4850)
Max Differential Mpa / (PSI)	Cont	14 (2061)	17.5 (2576)	17.5 (2576)	17.5 (2576)	16.5 (2429)	13 (1914)	11 (1625)	8.5 (1251)	8.5 (1251)
	Int.	17.5 (2576)	20 (2944)	20 (2944)	20 (2944)	20 (2944)	17.5 (2576)	14 (2061)	11.5 (1693)	11.5 (1693)
Max Flow L/min / (gpm)	Cont	40 (10.5)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)	60 (15.8)
	Int.	50 (13.15)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)
Weight Kg / (lbs)		6.7 (14.8)	6.9 (15.2)	6.9 (15.2)	7.2 (15.8)	7.5 (16.5)	8.0 (17.6)	8.5 (18.7)	9.0 (19.8)	9.3 (20.5)

Continuous = maximum of continuous operation

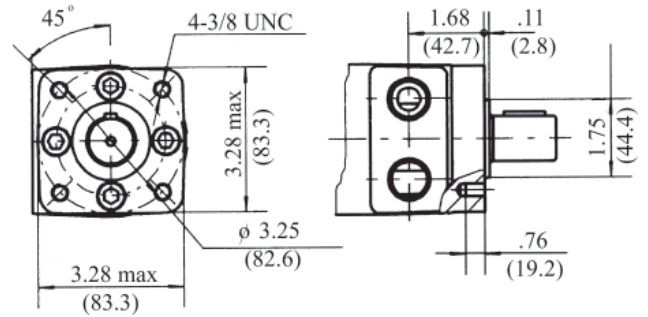
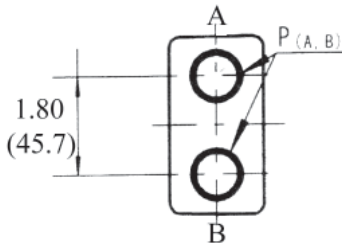
Intermittent = maximum operating range for 6 seconds per minute



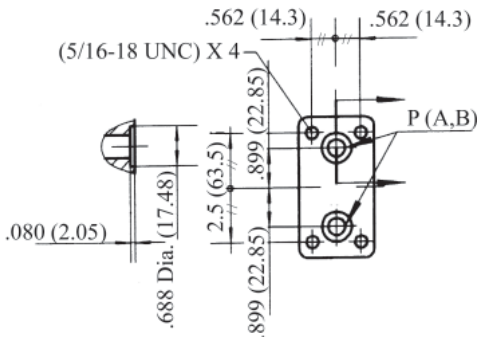
BMRS INSTALLATION DATA



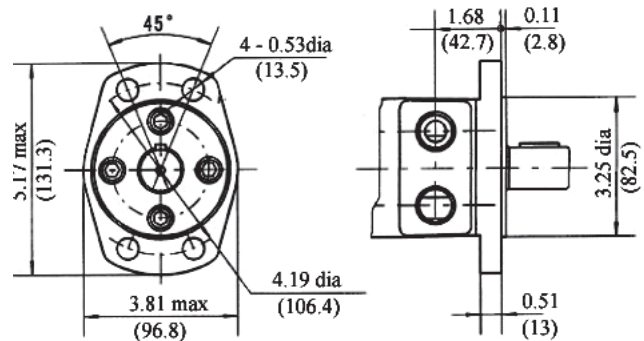
H2 - SAE "A" 2 BOLT



H4 - SAE "A" 4 BOLT



Manifold Mount

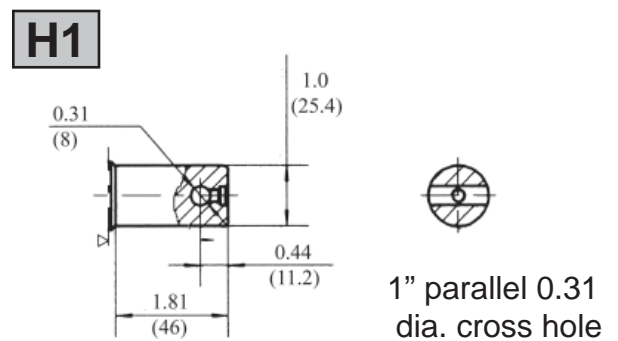
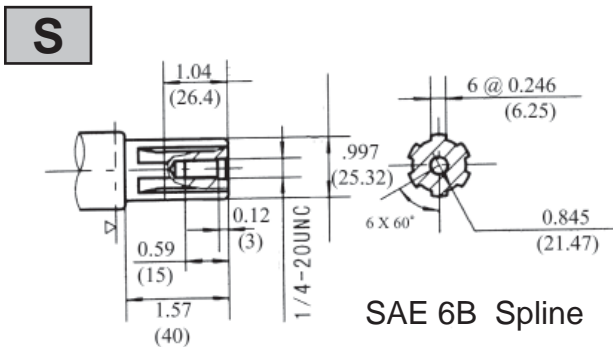
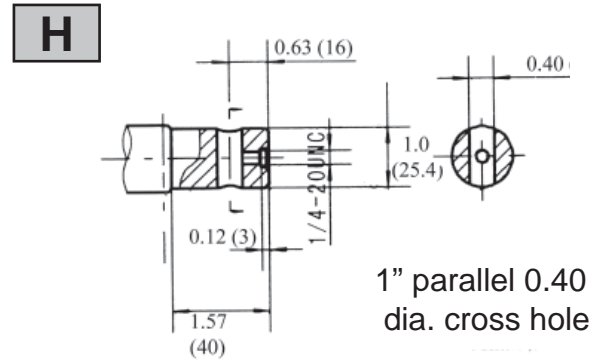
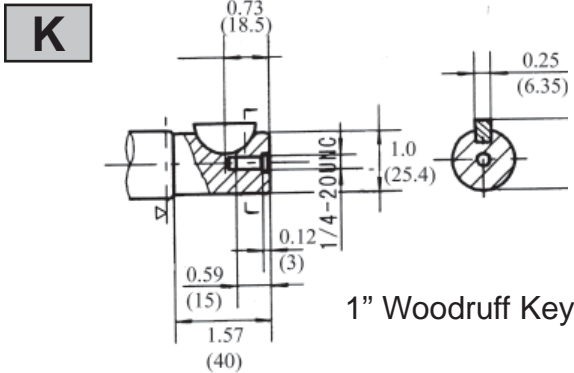


H6 - Magneto

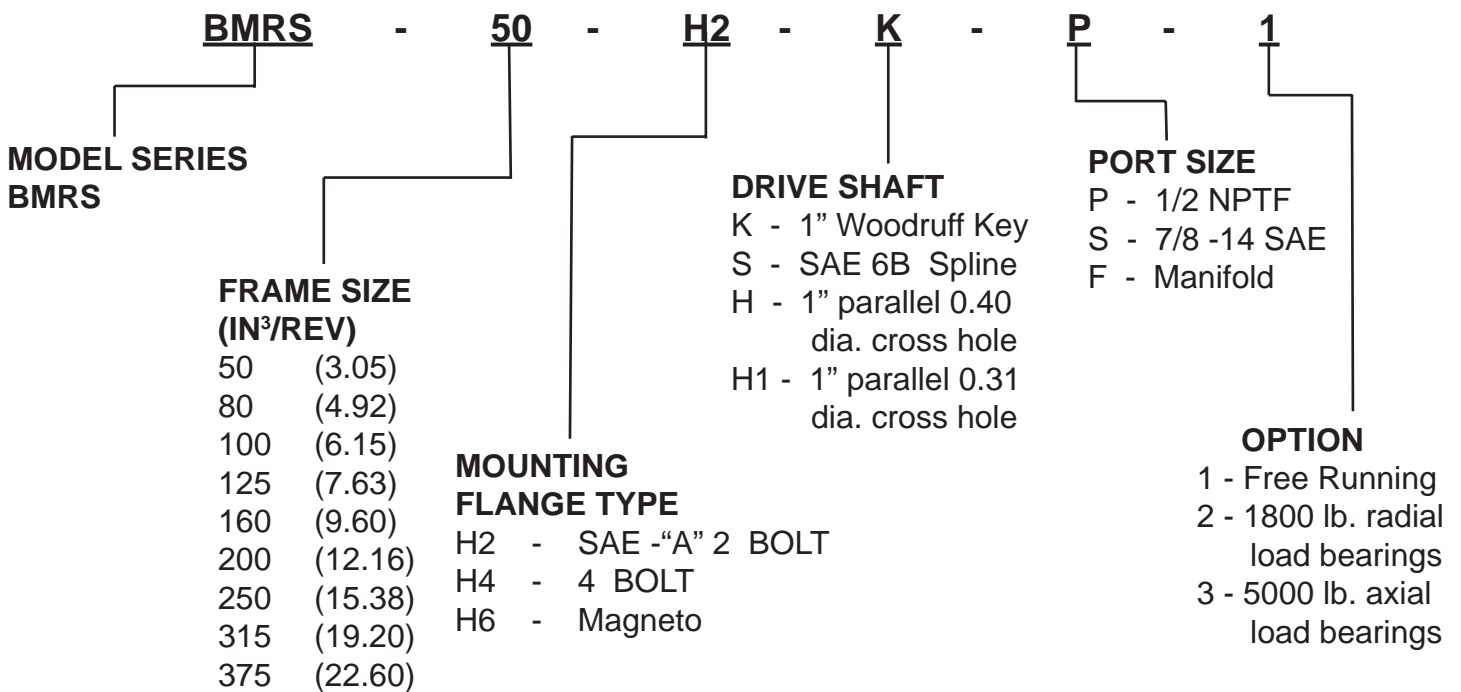
MODEL BMRS	L		L1	
	inches	mm	inches	mm
BMRS 50	5.67	144	.39	10
BMRS 80	5.90	150	.63	16
BMRS 100	6.06	154	.79	20
BMRS 125	6.26	159	.98	25
BMRS 160	6.51	165.5	1.24	31.5
BMRS 200	6.85	174	1.57	40
BMRS 250	7.24	184	1.97	50
BMRS 315	7.72	196	2.44	62
BMRS 375	8.19	208	2.91	74

PORT SIZES	S	P
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

MODEL BMRS DRIVE SHAFT DATA



BMRS MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMRS 50		51.3 Cm³/Rev 3.13 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10 (1470)	12 (1766)	14 (2060)	16 (2355)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	5 (1.32)	35 (310)	45 (398)	61 (540)	67 (593)	77 (681)	88 (779)		
		95 rpm	84 rpm	76 rpm	73 rpm	69 rpm	46 rpm		
	10 (2.65)	36 (316)	46 (407)	62 (549)	69 (611)	80 (708)	95 (841)	108 (956)	120 (1062)
		184 rpm	176 rpm	165 rpm	162 rpm	150 rpm	130 rpm	111 rpm	84 rpm
	15 (3.95)	35 (310)	49 (434)	63 (558)	73 (646)	88 (779)	100 (885)	109 (965)	123 (1089)
		283 rpm	277 rpm	269 rpm	261 rpm	250 rpm	230 rpm	211 rpm	185 rpm
	20 (5.26)	34 (301)	47 (416)	61 (540)	69 (611)	83 (735)	96 (850)	109 (965)	126 (1115)
		377 rpm	375 rpm	365 rpm	361 rpm	346 rpm	330 rpm	308 rpm	276 rpm
	25 (6.60)	34 (301)	45 (398)	61 (540)	69 (611)	81 (717)	96 (850)	109 (965)	126 (1115)
		476 rpm	468 rpm	460 rpm	453 rpm	438 rpm	423 rpm	395 rpm	361 rpm
	30 (7.90)	33 (292)	44 (389)	60 (531)	67 (593)	80 (708)	95 (841)	108 (956)	126 (1115)
	576 rpm	569 rpm	561 rpm	554 rpm	542 rpm	531 rpm	500 rpm	465 rpm	
	35 (9.20)	31 (274)	42 (372)	59 (522)	66 (584)	80 (708)	93 (823)	107 (947)	124 (1097)
		669 rpm	665 rpm	657 rpm	654 rpm	638 rpm	623 rpm	598 rpm	561 rpm
Max Cont.	40 (10.50)	30 (266)	41 (363)	58 (513)	66 (584)	79 (699)	92 (814)	106 (938)	122 (1080)
		760 rpm	758 rpm	753 rpm	750 rpm	738 rpm	727 rpm	700 rpm	670 rpm
Max Int.	45 (11.85)	29.5 (281)	40 (354)	57 (504)	65 (575)	78 (690)	90 (797)	105 (929)	121 (1071)
		856 rpm	856 rpm	850 rpm	845 rpm	835 rpm	815 rpm	799 rpm	780 rpm

BMRS 80		80.6 Cm³/Rev 4.9 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10 (1470)	12 (1766)	14 (2060)	16 (2355)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	55 (487)	77 (681)	98 (867)	107 (947)	130 (1151)	149 (1319)	170 (1505)	180 (1593)
		115 rpm	109 rpm	106 rpm	101 rpm	91 rpm	75 rpm	53 rpm	45 rpm
	20 (5.25)	50 (443)	81.6 (722)	105 (938)	118 (1044)	132 (1168)	160 (1416)	178 (1575)	189 (1673)
		239 rpm	235 rpm	227 rpm	224 rpm	209 rpm	196 rpm	172 rpm	160 rpm
	30 (7.90)	48 (425)	74 (655)	97 (858)	114 (1009)	131 (1159)	150 (1328)	179 (1584)	190 (1682)
		364 rpm	360 rpm	357 rpm	345 rpm	332 rpm	321 rpm	300 rpm	284 rpm
	40 (10.50)	45 (398)	71 (628)	95 (841)	105 (929)	128 (1133)	149 (1319)	177 (1566)	188 (1664)
		488 rpm	483 rpm	475 rpm	472 rpm	460 rpm	447 rpm	420 rpm	408 rpm
	50 (13.15)	42 (372)	70 (620)	90 (797)	98 (867)	125 (1106)	147 (1301)	171 (1513)	187 (1655)
		619 rpm	615 rpm	607 rpm	598 rpm	593 rpm	568 rpm	547 rpm	535 rpm
		60 (15.80)	38 (336)	63 (558)	85 (752)	95 (841)	118 (1044)	142 (1257)	169 (1496)
		740 rpm	725 rpm	721 rpm	715 rpm	707 rpm	688 rpm	667 rpm	657 rpm
Max Cont.	70 (18.40)	36 (319)	58 (513)	80 (708)	89 (788)	112 (991)	139 (1230)	164 (1451)	179 (1584)
		860 rpm	853 rpm	839 rpm	837 rpm	823 rpm	811 rpm	790 rpm	776 rpm
Max Int.	75 (19.75)	29 (257)	56 (496)	77 (681)	85 (752)	110 (974)	133 (1177)	161 (1425)	177 (1566)
		925 rpm	915 rpm	910 rpm	899 rpm	888 rpm	871 rpm	853 rpm	837 rpm

BMRS 100		100.8 Cm³/Rev 6.15 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10 (1470)	12 (1766)	14 (2060)	16 (2355)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	70 (620)	100 (885)	122 (1080)	138 (1221)	159 (1407)	182 (1611)	210 (1859)	222 (1965)
		99 rpm	95 rpm	87 rpm	84 rpm	74 rpm	63 rpm	52 rpm	44 rpm
	20 (5.25)	68 (602)	95 (841)	123 (1089)	143 (1266)	165 (1460)	200 (1770)	221 (1956)	238 (2106)
		199 rpm	194 rpm	188 rpm	182 rpm	175 rpm	162 rpm	150 rpm	138 rpm
	30 (7.90)	62 (547)	94 (832)	121 (1071)	140 (1239)	164 (1451)	194 (1717)	220 (1947)	240 (2124)
		299 rpm	294 rpm	288 rpm	284 rpm	278 rpm	263 rpm	249 rpm	236 rpm
	40 (10.50)	59 (522)	88 (779)	119 (1053)	134 (1186)	161 (1425)	192 (1699)	218 (1929)	238 (2106)
		400 rpm	398 rpm	387 rpm	385 rpm	380 rpm	366 rpm	350 rpm	336 rpm
	50 (13.15)	55 (487)	83 (735)	117 (1035)	125 (1106)	157 (1389)	185 (1637)	217 (1920)	235 (2080)
		498 rpm	496 rpm	488 rpm	484 rpm	475 rpm	464 rpm	450 rpm	436 rpm
		60 (15.80)	48 (425)	79 (699)	110 (974)	119 (1053)	152 (1345)	180 (1593)	214 (1894)
		599 rpm	595 rpm	587 rpm	585 rpm	579 rpm	569 rpm	552 rpm	538 rpm
Max Cont.	70 (18.40)	43 (381)	70 (620)	100 (885)	112 (991)	142 (1257)	170 (1505)	201 (1789)	229 (2027)
		699 rpm	693 rpm	687 rpm	683 rpm	679 rpm	668 rpm	648 rpm	636 rpm
Max Int.	75 (19.75)	39 (345)	63 (558)	97 (858)	105 (929)	140 (1239)	167 (1478)	197 (1743)	227 (2009)
		748 rpm	741 rpm	737 rpm	735 rpm	720 rpm	713 rpm	697 rpm	686 rpm

BMRS 125		124.9 Cm³/Rev 7.63 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10 (1470)	12 (1766)	14 (2060)	16 (2355)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	90 (797)	122 (1080)	160 (1416)	173 (1531)	205 (1814)	237 (2097)	258 (2283)	270 (2390)
		73 rpm	71 rpm	66 rpm	63 rpm	55 rpm	42 rpm	23 rpm	14 rpm
	20 (5.25)	85 (752)	118 (1044)	159 (1407)	172 (1522)	208 (1841)	250 (2213)	278 (2460)	292 (2584)
		154 rpm	152 rpm	150 rpm	145 rpm	138 rpm	123 rpm	109 rpm	91 rpm
	30 (7.90)	82 (726)	107 (947)	158 (1398)	164 (1451)	206 (1823)	241 (2133)	277 (2451)	291 (2575)
		237 rpm	236 rpm	233 rpm	226 rpm	219 rpm	207 rpm	192 rpm	170 rpm
	40 (10.50)	79 (699)	105 (929)	150 (1320)	161 (1425)	204 (1895)	238 (2106)	275 (2434)	289 (2558)
		315 rpm	313 rpm	309 rpm	307 rpm	302 rpm	297 rpm	272 rpm	254 rpm
	50 (13.15)	75 (664)	96 (850)	145 (1283)	160 (1416)	198 (1752)	236 (2089)	262 (2319)	282 (2496)
	398 rpm	397 rpm	395 rpm	391 rpm	381 rpm	368 rpm	353 rpm	337 rpm	
	60 (15.80)	62 (549)	95 (841)	139 (1230)	158 (1938)	183 (1389)	222 (1965)	254 (2248)	279 (2469)
		475 rpm	473 rpm	471 rpm	470 rpm	463 rpm	450 rpm	427 rpm	416 rpm
Max Cont.	70 (18.40)	59 (522)	83 (735)	125 (1106)	150 (1328)	178 (1575)	212 (1876)	250 (2213)	262 (2319)
		554 rpm	553 rpm	551 rpm	550 rpm	546 rpm	538 rpm	514 rpm	500 rpm
Max Int.	75 (19.75)	56 (496)	80 (708)	122 (1080)	145 (1283)	172 (1522)	205 (1814)	245 (2168)	261 (2310)
		598 rpm	597 rpm	593 rpm	590 rpm	586 rpm	577 rpm	551 rpm	537 rpm

BMRS 160		157.2 Cm³/Rev 9.60 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10 (1470)	12 (1766)	14 (2060)	16 (2355)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	115 (1018)	160 (14160)	203 (1797)	220 (1947)	260 (2301)	300 (2655)	340 (3009)	363 (3204)
		58 rpm	55 rpm	52 rpm	50 rpm	44 rpm	38 rpm	34 rpm	26 rpm
	20 (5.25)	114 (1009)	160 (1416)	205 (1814)	230 (2036)	265 (2345)	320 (2832)	355 (3142)	380 (3363)
		119 rpm	115 rpm	111 rpm	108 rpm	103 rpm	95 rpm	84 rpm	76 rpm
	30 (7.90)	105 (929)	158 (1398)	202 (1788)	221 (1956)	261 (2310)	305 (2699)	344 (3044)	378 (3345)
		184 rpm	181 rpm	177 rpm	172 rpm	165 rpm	153 rpm	134 rpm	130 rpm
	40 (10.50)	100 (885)	145 (1283)	196 (1735)	218 (1929)	257 (2274)	299 (2646)	340 (3009)	374 (3310)
		246 rpm	244 rpm	239 rpm	237 rpm	230 rpm	218 rpm	199 rpm	184 rpm
	50 (13.15)	90 (797)	140 (1239)	190 (1682)	209 (1850)	250 (2213)	295 (2611)	336 (2974)	366 (3239)
	307 rpm	305 rpm	302 rpm	300 rpm	292 rpm	280 rpm	262 rpm	244 rpm	
	60 (15.80)	84 (743)	136 (1204)	180 (1593)	199 (1761)	240 (2124)	286 (2531)	330 (2921)	360 (3186)
		370 rpm	368 rpm	364 rpm	362 rpm	355 rpm	342 rpm	334 rpm	304 rpm
Max Cont.	70 (18.40)	65 (575)	120 (1062)	164 (1451)	180 (1593)	223 (1974)	280 (2478)	320 (2832)	350 (3098)
		435 rpm	434 rpm	430 rpm	427 rpm	416 rpm	405 rpm	335 rpm	366 rpm
Max Int.	75 (19.75)	59 (522)	116 (1026)	158 (1398)	175 (1549)	220 (1947)	272 (2407)	314 (2779)	342 (3027)
		465 rpm	462 rpm	458 rpm	456 rpm	447 rpm	433 rpm	416 rpm	395 rpm

BMRS 200		199.2 Cm³/Rev 12.16 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		5 (376)	7 (1030)	9 (1352)	10.5 (1546)	12 (1766)	14 (2060)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.65)	148 (1310)	205 (1814)	255 (2257)	290 (2567)	327 (2894)	370 (3275)	442 (3912)
		49 rpm	47 rpm	45 rpm	43 rpm	40 rpm	30 rpm	24 rpm
	20 (5.25)	140 (1239)	202 (1788)	250 (2213)	323 (2859)	330 (2921)	411 (3637)	448 (3965)
		99 rpm	97 rpm	93 rpm	90 rpm	86 rpm	78 rpm	65 rpm
	30 (7.90)	130 (1151)	193 (1708)	241 (2133)	307 (2717)	325 (2876)	377 (3336)	445 (3938)
		149 rpm	146 rpm	140 rpm	136 rpm	131 rpm	122 rpm	105 rpm
	40 (10.50)	125 (1106)	186 (1646)	232 (2953)	305 (2699)	313 (2770)	390 (3452)	436 (3860)
		200 rpm	197 rpm	192 rpm	188 rpm	181 rpm	170 rpm	149 rpm
	50 (13.15)	120 (1062)	177 (1566)	225 (1991)	295 (2611)	305 (2699)	382 (3381)	427 (3779)
	250 rpm	247 rpm	242 rpm	238 rpm	231 rpm	218 rpm	193 rpm	
	60 (15.80)	110 (974)	166 (1469)	221 (1956)	285 (25220)	292 (2584)	372 (3292)	419 (3708)
		300 rpm	298 rpm	291 rpm	287 rpm	282 rpm	268 rpm	236 rpm
Max Cont.	70 (18.40)	98 (867)	150 (1328)	205 (1814)	244 (2159)	278 (2461)	331 (2929)	410 (3629)
		350 rpm	347 rpm	342 rpm	338 rpm	331 rpm	318 rpm	282 rpm
Max Int.	75 (19.75)	85 (752)	141 (1248)	199 (1761)	235 (2080)	268 (2372)	323 (2859)	400 (3540)
		375 rpm	372 rpm	366 rpm	362 rpm	357 rpm	343 rpm	310 rpm

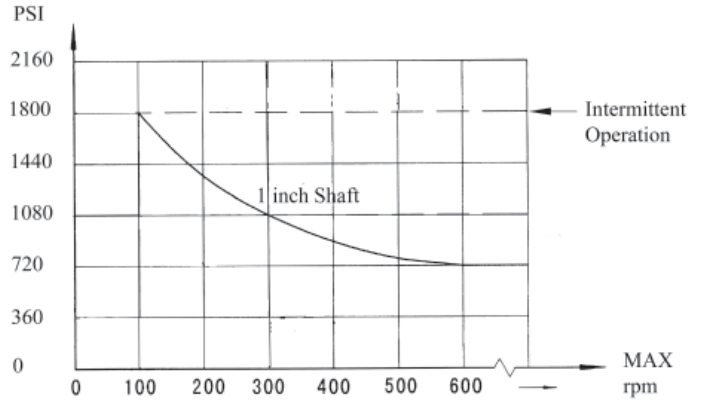
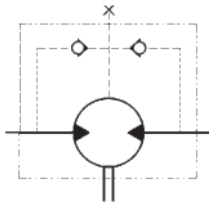
BMRS 250		252 Cm³/Rev 15.39 in³/Rev					Max Cont.	Max Int.		
Pressure Mpa (psi)		3 (442)	5 (376)	7 (1030)	9 (1352)	10.5 (1546)	12 (1766)	14 (2060)	17.5 (2576)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification								
	10 (2.65)	115 (1018) 40 rpm	180 (1593) 38 rpm	251 (2221) 37 rpm	295 (2611) 35 rpm	350 (3098) 32 rpm	380 (3363) 30 rpm	470 (4160) 22 rpm	535 (4735) 16 rpm	
	20 (5.25)	110 (974) 79 rpm	178 (1575) 78 rpm	252 (2230) 75 rpm	294 (2602) 74 rpm	352 (3115) 70 rpm	385 (3407) 68 rpm	470 (4160) 57 rpm	548 (4850) 48 rpm	
	30 (7.90)	100 (885) 120 rpm	170 (1505) 119 rpm	248 (2195) 117 rpm	285 (2522) 116 rpm	348 (3080) 110 rpm	381 (3372) 107 rpm	469 (4151) 95 rpm	545 (4823) 79 rpm	
	40 (10.50)	91 (805) 158 rpm	159 (1407) 157 rpm	232 (2053) 156 rpm	268 (2372) 154 rpm	332 (2938) 151 rpm	366 (3239) 148 rpm	460 (4071) 130 rpm	530 (4691) 110 rpm	
	50 (13.15)	81 (717) 200 rpm	148 (1310) 198 rpm	216 (1912) 196 rpm	252 (2230) 195 rpm	320 (2832) 163 rpm	352 (3115) 160 rpm	453 (4009) 152 rpm	521 (4611) 147 rpm	
	60 (15.80)	75 (664) 241 rpm	132 (1168) 240 rpm	201 (1769) 239 rpm	235 (2080) 237 rpm	305 (2699) 232 rpm	340 (3009) 228 rpm	433 (3832) 210 rpm	505 (4469) 180 rpm	
	70 (18.40)	50 (443) 280 rpm	117 (1035) 279 rpm	189 (1673) 277 rpm	220 (1947) 276 rpm	290 (2567) 271 rpm	320 (2832) 268 rpm	412 (3646) 250 rpm	495 (4381) 215 rpm	
	Max Cont.	75 (19.75)	42 (372) 300 rpm	105 (929) 299 rpm	180 (1593) 298 rpm	211 (1867) 297 rpm	281 (2487) 295 rpm	310 (2744) 289 rpm	405 (3584) 272 rpm	486 (4301) 239 rpm
	Max Int.									

BMRS 315		314.5 Cm³/Rev 19.2 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (442)	5 (376)	6.5 (957)	8 (1175)	9 (1325)	13 (1914)	13.5 (1987)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	135 (1195) 31 rpm	215 (1903) 29 rpm	279 (2469) 28 rpm	343 (3036) 27 rpm	383 (3390) 27 rpm	515 (4558) 24 rpm	550 (4868) 22 rpm	
	20 (5.25)	133 (1177) 62 rpm	216 (1912) 61 rpm	289 (2558) 60 rpm	349 (3089) 58 rpm	380 (3363) 57 rpm	508 (4496) 52 rpm	552 (4886) 50 rpm	
	30 (7.90)	125 (1106) 95 rpm	205 (1814) 92 rpm	275 (2434) 91 rpm	341 (3018) 90 rpm	375 (3319) 88 rpm	494 (4372) 81 rpm	543 (4801) 79 rpm	
	40 (10.50)	113 (1000) 123 rpm	195 (1726) 121 rpm	267 (2363) 120 rpm	335 (2965) 118 rpm	367 (3248) 117 rpm	485 (4292) 106 rpm	526 (4655) 104 rpm	
	50 (13.15)	92 (814) 155 rpm	170 (1505) 154 rpm	253 (2239) 152 rpm	321 (2841) 149 rpm	352 (3115) 147 rpm	474 (4195) 137 rpm	511 (4522) 133 rpm	
	60 (15.80)	80 (708) 190 rpm	160 (1416) 187 rpm	231 (2040) 193 rpm	305 (2699) 179 rpm	334 (2956) 176 rpm	458 (4053) 163 rpm	492 (4354) 157 rpm	
	70 (18.40)	57 (504) 222 rpm	136 (1204) 220 rpm	215 (1903) 217 rpm	285 (2522) 212 rpm	320 (2832) 208 rpm	444 (3929) 192 rpm	480 (4248) 185 rpm	
	Max Cont.	75 (19.75)	55 (487) 235 rpm	124 (1097) 234 rpm	205 (1814) 231 rpm	269 (2381) 227 rpm	308 (2726) 225 rpm	427 (3779) 408 rpm	469 (4151) 201 rpm
	Max Int.								

BMRS 375		370 Cm³/Rev 22.6 in³/Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (442)	5 (376)	6.5 (957)	8 (1175)	9 (1325)	13 (1914)	13.5 (1987)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	160 (1416) 26 rpm	270 (2390) 25 rpm	340 (3009) 24 rpm	420 (3717) 22 rpm	470 (4160) 21 rpm	550 (4868) 19 rpm	610 (5399) 17 rpm	
	20 (5.25)	159 (14070) 53 rpm	260 (2301) 52 rpm	340 (3009) 51 rpm	410 (3629) 49 rpm	470 (4160) 47 rpm	540 (4779) 42 rpm	605 (5354) 37 rpm	
	30 (7.90)	150 (1328) 79 rpm	255 (2257) 78 rpm	330 (2921) 77 rpm	400 (3540) 75 rpm	450 (3983) 73 rpm	530 (4691) 67 rpm	600 (5310) 60 rpm	
	40 (10.50)	135 (1195) 106 rpm	240 (2124) 105 rpm	310 (2744) 104 rpm	375 (3319) 102 rpm	430 (3805) 99 rpm	520 (4602) 93 rpm	590 (5222) 85 rpm	
	50 (13.15)	120 (1062) 134 rpm	230 (2036) 132 rpm	295 (2511) 131 rpm	360 (3186) 129 rpm	420 (3717) 126 rpm	505 (4469) 120 rpm	570 (5045) 110 rpm	
	60 (15.80)	98 (867) 159 rpm	210 (1859) 158 rpm	275 (2434) 157 rpm	340 (3009) 155 rpm	390 (3452) 153 rpm	490 (4337) 147 rpm	550 (4868) 135 rpm	
	70 (18.40)	75 (664) 187 rpm	175 (1549) 186 rpm	250 (2213) 185 rpm	320 (2832) 183 rpm	370 (3275) 180 rpm	465 (4115) 175 rpm	530 (4691) 160 rpm	
	Max Cont.	75 (19.75)	65 (575) 200 rpm	160 (1416) 199 rpm	230 (2036) 198 rpm	310 (2744) 195 rpm	360 (3186) 192 rpm	450 (3983) 187 rpm	515 (4558) 178 rpm
	Max Int.								

MODEL BMRS TECHNICAL DATA

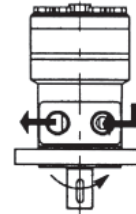
SHAFT SEAL RATED PRESSURE



CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

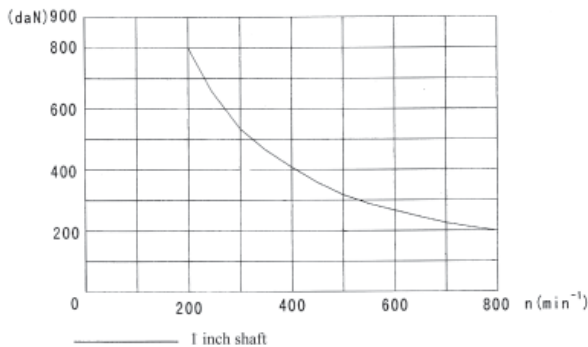
SHAFT ROTATION DIRECTION



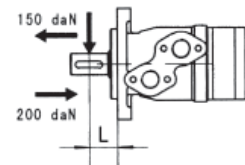
BMRS

RADIAL FORCES

Status of the shaft's radial force



$$F_r = \frac{800 \cdot 2500}{n \cdot 95 + 1} \text{ daN}$$



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

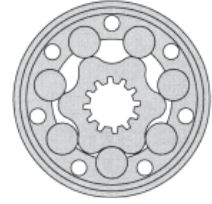
Rhomb-flange $L=30\text{mm}$
 Square-flange $L=24\text{mm}$

BMRS CROSS REFERENCE DATA

DISPLACEMENT FOR DYNAMIC MOTOR Cm ³ /Rev (In ³ /Rev)														
MOUNT	SHAFT	PORTS	BRAND	51.3 (3.13)	80.6 (4.92)	100.8 (6.15)	124.9 (7.62)	157.2 (9.59)	199.2 (12.15)	252 (15.38)	314.5 (19.19)	370 (22.58)		
4 BOLT FLANGE	Woodruff Keyed	1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-P	BMRS-80-H4-K-P	BMRS-100-H4-K-P	BMRS-125-H4-K-P	BMRS-160-H4-K-P	BMRS-200-H4-K-P	BMRS-250-H4-K-P	BMRS-315-H4-K-P	BMRS-375-H4-K-P		
				AEM50-4RP	AEM75-4RP	AEM100-4RP	N/A	AEM150-4RP	AEM200-4RP	AEM300-4RP	AEM50-4RP	AEM100-4RP	AEM300-4RP	ADM400-4RP
				103-1001	103-1002	103-1003	103-1755	103-1004	103-1005	103-1006	103-1007	103-1007	103-1007	103-1008
				151-2421	151-2422	151-2423	151-2424	151-2425	151-2426	151-2427	151-2428	151-2428	151-2429	151-2429
				BMRS-50-H4-K-S	BMRS-80-H4-K-S	BMRS-100-H4-K-S	BMRS-125-H4-K-S	BMRS-160-H4-K-S	BMRS-200-H4-K-S	BMRS-250-H4-K-S	BMRS-315-H4-K-S	BMRS-375-H4-K-S	BMRS-375-H4-K-S	BMRS-375-H4-K-S
				ADM50-4RO	AEM75-4RO	AEM100-4RO	N/A	AEM150-4RO	AEM200-4RO	AEM250-4RO	AEM300-4RO	AEM400-4RO	AEM400-4RO	AEM400-4RO
	103-1009	103-1010	103-1011	103-1751	103-1012	103-1013	103-1014	103-1015	103-1016	103-1016	103-1016			
	151-2341	151-2342	151-2343	151-2344	151-2345	151-2346	151-2347	151-2348	151-2349	151-2349	151-2349			
	4 BOLT FLANGE	Manifold	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-F	BMRS-80-H4-K-F	BMRS-100-H4-K-F	BMRS-125-H4-K-F	BMRS-160-H4-K-F	BMRS-200-H4-K-F	BMRS-250-H4-K-F	BMRS-315-H4-K-F	BMRS-375-H4-K-F	
					AEM50-4RT	AEM75-4RT	AEM100-4RT	N/A	AEM150-4RT	AEM200-4RT	AEM300-4RT	AEM50-4RT	AEM100-4RT	AEM400-4RT
					103-1017	103-1018	103-1019	103-1759	103-1020	103-1021	103-1022	103-1023	103-1024	103-1024
					151-2501	151-2502	151-2503	151-2504	151-2505	151-2506	151-2507	151-2508	151-2509	151-2509
BMRS-50-H4-S-P					BMRS-80-H4-S-P	BMRS-100-H4-S-P	BMRS-125-H4-S-P	BMRS-160-H4-S-P	BMRS-200-H4-S-P	BMRS-250-H4-S-P	BMRS-315-H4-S-P	BMRS-375-H4-S-P	BMRS-375-H4-S-P	BMRS-375-H4-S-P
AEM50-4SP					AEM75-4SP	AEM100-4SP	N/A	AEM150-4SP	AEM200-4SP	AEM250-4SP	AEM300-4SP	AEM400-4SP	AEM400-4SP	AEM400-4SP
103-1049	103-1050	103-1051	101-1766	103-1052	103-1053	103-1054	103-1055	103-1056	103-1056	103-1056				
151-2431	151-2432	151-2433	151-2434	151-2435	151-2436	151-2437	151-2438	151-2439	151-2439	151-2439				
2 BOLT FLANGE	Woodruff Keyed	1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-S	BMRS-80-H4-S-S	BMRS-100-H4-S-S	BMRS-125-H4-S-S	BMRS-160-H4-S-S	BMRS-200-H4-S-S	BMRS-250-H4-S-S	BMRS-315-H4-S-S	BMRS-375-H4-S-S		
				AEM50-4SO	AEM75-4SO	AEM100-4SO	N/A	AEM150-4SO	AEM200-4SO	AEM300-4SO	AEM400-4SO	AEM400-4SO	AEM400-4SO	
				103-1057	103-1058	103-1059	103-1872	103-1060	103-1061	103-1062	103-1063	103-1064	103-1064	
				151-2351	151-2352	151-2353	151-2354	151-2355	151-2356	151-2357	151-2358	151-2359	151-2359	
				BMRS-50-H4-S-F	BMRS-80-H4-S-F	BMRS-100-H4-S-F	BMRS-125-H4-S-F	BMRS-160-H4-S-F	BMRS-200-H4-S-F	BMRS-250-H4-S-F	BMRS-315-H4-S-F	BMRS-375-H4-S-F	BMRS-375-H4-S-F	BMRS-375-H4-S-F
				AEM50-4ST	AEM75-4ST	AEM100-4ST	N/A	AEM150-4ST	AEM200-4ST	AEM250-4ST	AEM300-4ST	AEM400-4ST	AEM400-4ST	AEM400-4ST
	103-1065	103-1066	103-1067	103-1770	103-1068	103-1069	103-1070	103-1071	103-1072	103-1072	103-1072			
	151-2511	151-2512	151-2513	151-2514	151-2515	151-2516	151-2517	151-2518	151-2519	151-2519	151-2519			
	2 BOLT FLANGE	Manifold	1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-P	BMRS-80-H2-K-P	BMRS-100-H2-K-P	BMRS-125-H2-K-P	BMRS-160-H2-K-P	BMRS-200-H2-K-P	BMRS-250-H2-K-P	BMRS-315-H2-K-P	BMRS-375-H2-K-P	
					AEM50-2RP	AEM75-2RP	AEM100-2RP	N/A	AEM150-2RP	AEM200-2RP	AEM250-2RP	AEM300-2RP	AEM400-2RP	AEM400-2RP
					103-1025	103-1026	103-1027	103-1706	103-1028	103-1029	103-1030	103-1031	103-1032	103-1032
					151-2381	151-2382	151-2383	151-2384	151-2385	151-2386	151-2387	151-2388	151-2389	151-2389
BMRS-50-H2-K-S					BMRS-80-H2-K-S	BMRS-100-H2-K-S	BMRS-125-H2-K-S	BMRS-160-H2-K-S	BMRS-200-H2-K-S	BMRS-250-H2-K-S	BMRS-315-H2-K-S	BMRS-375-H2-K-S	BMRS-375-H2-K-S	BMRS-375-H2-K-S
AEM50-2RO					AEM75-2RO	AEM100-2RO	N/A	AEM150-2RO	AEM200-2RO	AEM250-2RO	AEM300-2RO	AEM400-2RO	AEM400-2RO	AEM400-2RO
103-1033	103-1034	103-1035	103-1702	103-1036	103-1037	103-1038	103-1039	103-1040	103-1040	103-1040				
151-2301	151-2302	151-2303	151-2304	151-2305	151-2306	151-2307	151-2308	151-2309	151-2309	151-2309				
2 BOLT FLANGE	Woodruff Keyed	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-F	BMRS-80-H2-K-F	BMRS-100-H2-K-F	BMRS-125-H2-K-F	BMRS-160-H2-K-F	BMRS-200-H2-K-F	BMRS-250-H2-K-F	BMRS-315-H2-K-F	BMRS-375-H2-K-F		
				ADM50-4RT	AEM75-4RT	AEM100-4RT	N/A	AEM150-4RT	AEM200-4RT	AEM250-4RT	AEM300-4RT	AEM400-4RT	AEM400-4RT	
				103-1041	103-1042	103-1043	103-11710	103-1044	103-1045	103-1046	103-1047	103-1048	103-1048	
				151-2461	151-2462	151-2463	151-2464	151-2465	151-2464	151-2465	151-2466	151-2467	151-2467	
				BMRS-50-H2-S-P	BMRS-80-H2-S-P	BMRS-100-H2-S-P	BMRS-125-H2-S-P	BMRS-160-H2-S-P	BMRS-200-H2-S-P	BMRS-250-H2-S-P	BMRS-315-H2-S-P	BMRS-375-H2-S-P	BMRS-375-H2-S-P	BMRS-375-H2-S-P
				AEM50-2SP	AEM75-2SP	AEM100-2SP	N/A	AEM150-2SP	AEM200-2SP	AEM250-2SP	AEM300-2SP	AEM400-2SP	AEM400-2SP	AEM400-2SP
	103-1073	103-1074	103-1075	103-1727	103-1076	103-1077	103-1078	103-1079	103-1080	103-1080	103-1080			
	151-2391	151-2392	151-2393	151-2394	151-2395	151-2396	151-2397	151-2398	151-2399	151-2399	151-2399			
	2 BOLT FLANGE	Manifold	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-S	BMRS-80-H2-S-S	BMRS-100-H2-S-S	BMRS-125-H2-S-S	BMRS-160-H2-S-S	BMRS-200-H2-S-S	BMRS-250-H2-S-S	BMRS-315-H2-S-S	BMRS-375-H2-S-S	
					ADM50-2SO	AEM75-2SO	AEM100-2SO	N/A	AEM150-2SO	AEM200-2SO	AEM250-2SO	AEM300-2SO	AEM400-2SO	AEM400-2SO
					103-1081	103-1082	103-1083	103-1723	103-1084	103-1085	103-1086	103-1087	103-1088	103-1088
					151-2311	151-2312	151-2313	151-2314	151-2315	151-2316	151-2317	151-2318	151-2319	151-2319
BMRS-50-H2-S-F					BMRS-80-H2-S-F	BMRS-100-H2-S-F	BMRS-125-H2-S-F	BMRS-160-H2-S-F	BMRS-200-H2-S-F	BMRS-250-H2-S-F	BMRS-300-H2-S-F	BMRS-375-H2-S-F	BMRS-375-H2-S-F	BMRS-375-H2-S-F
ADM50-2ST					AEM75-2ST	AEM100-2ST	N/A	AEM150-2ST	AEM200-2ST	AEM250-2ST	AEM300-2ST	AEM400-2ST	AEM400-2ST	AEM400-2ST
103-1089	103-1090	103-1091	103-1731	103-1092	103-1093	103-1094	103-1095	103-1096	103-1096	103-1096				
151-2471	151-2472	151-2473	151-2474	151-2475	151-2476	151-2477	151-2478	151-2479	151-2479	151-2479				

Note: The cross reference information in this chart is to be used only as a reference for guideline purposes only. After selecting a model from above, review motor specifications to determine compatibility with specific application.

Char-Lynn® is a registered trademark of the Eaton Corporation.



The BMH series advanced **ROLORTORC™** gear set, shaft distribution flow, hydraulic motor is a compact, low noise, high efficient high torque low speed design. The **ROLORTORC™** gear set also affords a reliable smooth start up at low pressure.

The special design of the valve linkage and high pressure capability of the shaft seal provides a long operating life and these motors can be used in either series or parallel operation.

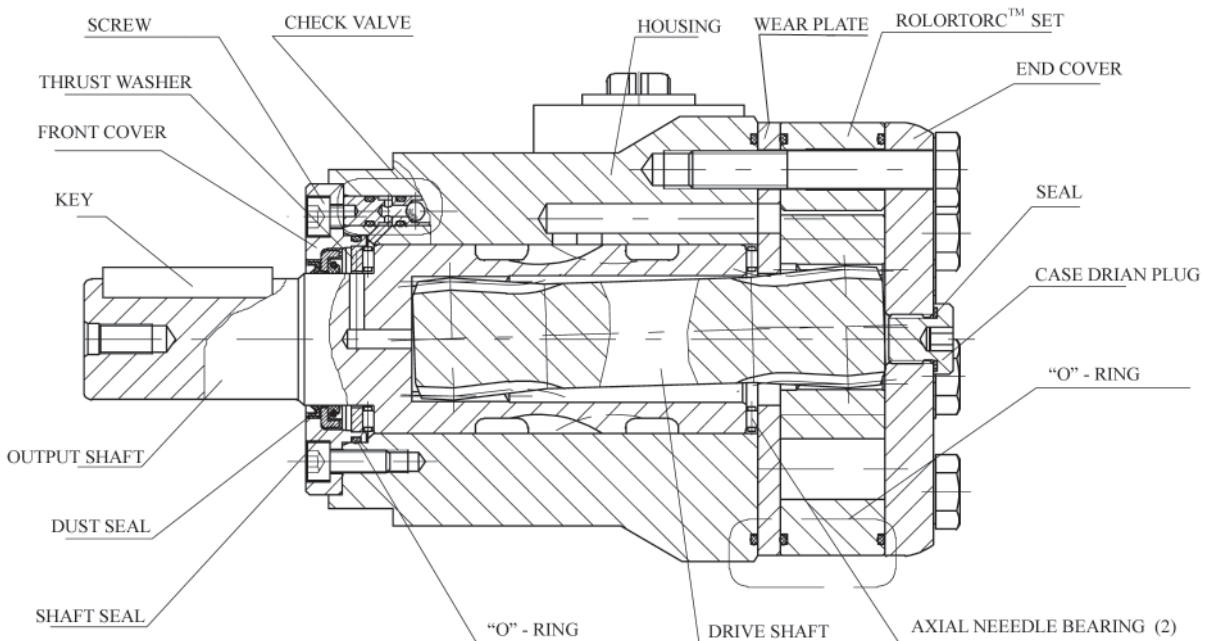
The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

Technical Specifications - BMH

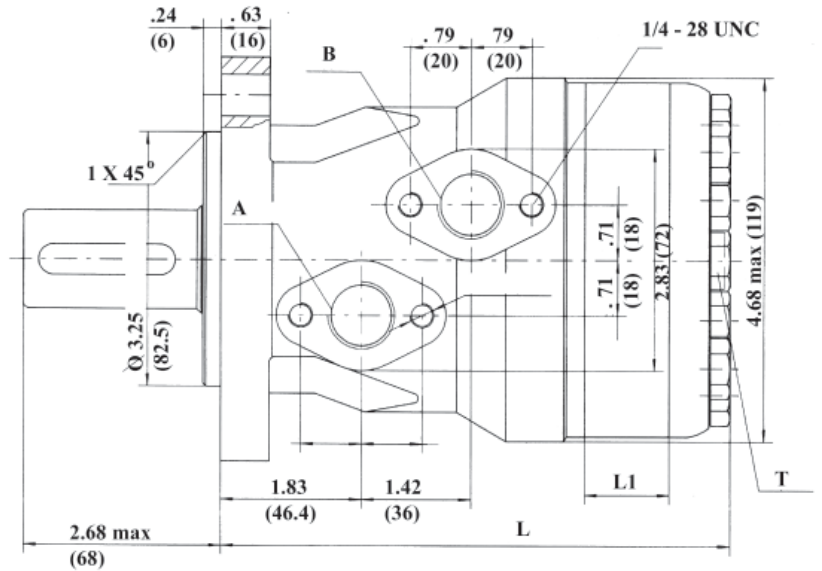
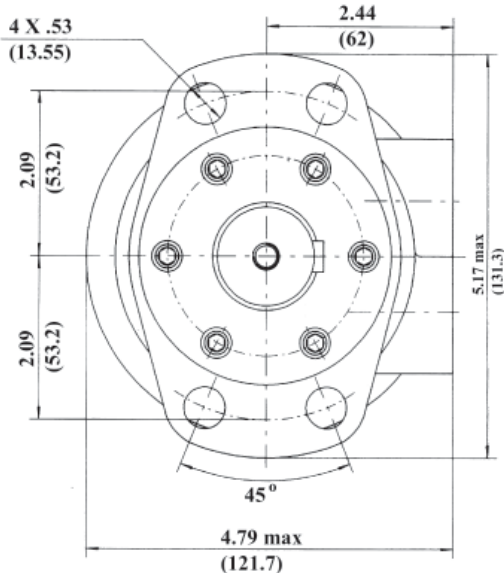
MODEL		BMH-200	BMH-250	BMH-315	BMH-400	BMH-500
Displacement	CM ³ /Rev	203.20	255.90	316.10	406.40	489.20
	(In ³ /Rev)	(12.40)	(15.62)	(19.30)	(24.80)	(29.90)
Maximum Speed RPM	Cont	366	290	236	183	155
	Int.	439	348	282	220	166
Max Torque NM / (in.lbs)	Cont	510 (4513)	621 (5496)	740 (6549)	864 (7646)	799 (7071)
	Int.	579 (5125)	702 (6213)	827 (7319)	988 (8744)	971 (8593)
Max Differential Mpa / (PSI)	Cont	17.5 (2580)	17.5 (2580)	17.5 (2580)	15.5 (2285)	12.5 (1845)
	Int.	20 (2950)	20 (2950)	20 (2950)	19 (2805)	16 (2360)
Max Flow L/min / (gpm)	Cont	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)	75 (19.75)
	Int.	90 (23.7)	90 (23.7)	90 (23.7)	90 (23.7)	90 (23.7)
Weight Kg / (lbs)		10.5 (23.10)	11 (24.20)	11.50 (25.30)	12.30 (27.10)	13 (28.60)

Continuous = maximum of continuous operation

Intermittent = maximum operating range for 6 seconds per minute



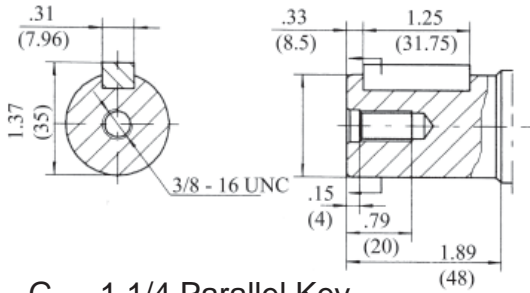
BMH INSTALLATION DATA



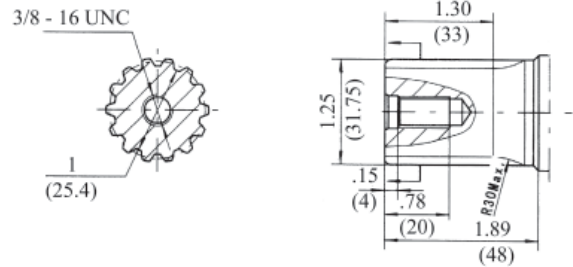
MODEL BMH	L		L1	
	inches	mm	inches	mm
BMH 200	6.61	168	1.06	27
BMH 250	6.89	175	1.34	34
BMH 315	7.24	184	1.65	42
BMH 400	7.68	195	2.12	54
BMH 500	8.11	206	2.56	65

PORT SIZES	SAE	NPT
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

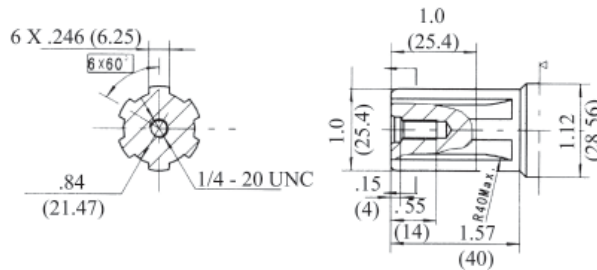
MODEL BMH DRIVE SHAFT DATA



G - 1 1/4 Parallel Key

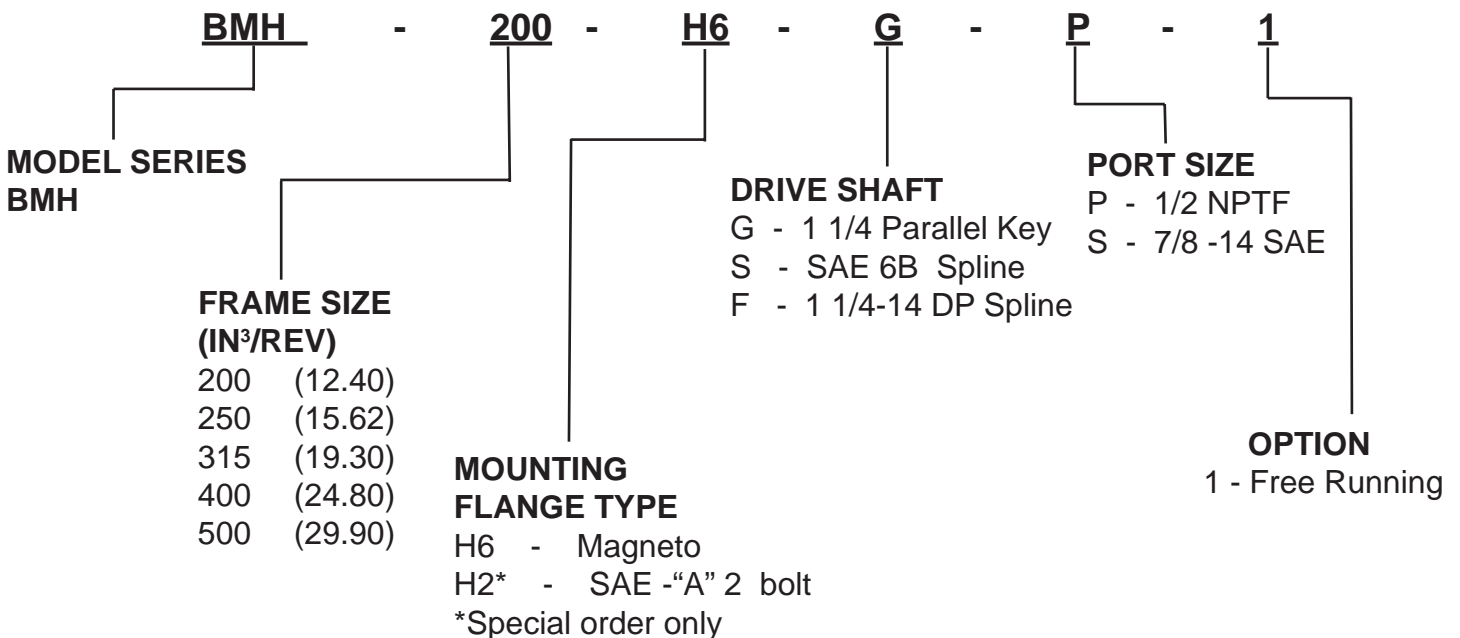


F - 1 1/4-14 DP Spline



S - SAE 6B Spline

BMH MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMH 200		203.2 Cm ³ /Rev 12.40 in ³ /Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	20 (2950)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	5 (1.32)	98 (867)	194 (1717)	284 (2513)			
		25 rpm	25 rpm	22 rpm			
	10 (2.65)	101 (894)	204 (1805)	301 (2664)	391 (3460)	482 (4266)	
		43 rpm	41 rpm	36 rpm	29 rpm	14 rpm	
	20 (5.26)	99 (876)	201 (1779)	304 (2690)	402 (3558)	509 (4505)	576 (5098)
		100 rpm	97 rpm	93 rpm	85 rpm	69 rpm	56 rpm
	30 (7.90)	97 (858)	197 (1743)	300 (2655)	402 (3558)	510 (4513)	579 (5124)
		145 rpm	143 rpm	139 rpm	130 rpm	114 rpm	101 rpm
	40 (10.50)	90 (797)	190 (1681)	292 (2584)	399 (3531)	507 (4487)	578 (5115)
		200 rpm	200 rpm	200 rpm	188 rpm	168 rpm	153 rpm
	50 (13.15)	82 (726)	183 (1619)	284 (2513)	392 (3469)	500 (4425)	571 (5053)
		248 rpm	246 rpm	244 rpm	235 rpm	213 rpm	199 rpm
	60 (15.80)	73 (646)	174 (1540)	274 (2425)	384 (3398)	493 (4363)	563 (4982)
		292 rpm	290 rpm	287 rpm	279 rpm	260 rpm	244 rpm
	70 (18.40)	63 (557)	163 (1442)	264 (2336)	374 (3309)	481 (4256)	554 (4903)
	352 rpm	350 rpm	349 rpm	338 rpm	318 rpm	301 rpm	
75 (19.75)	59 (522)	157 (1389)	259 (2292)	366 (3239)	475 (4204)	547 (4841)	
	366 rpm	365 rpm	363 rpm	355 rpm	335 rpm	319 rpm	
Max Cont.	80 (21.05)	53 (469)	150 (1328)	253 (2239)	358 (3168)	466 (4124)	538 (4761)
		381 rpm	381 rpm	380 rpm	371 rpm	352 rpm	338 rpm
Max Int.	90 (23.68)	39 (345)	140 (1239)	241 (2133)	348 (3080)	456 (4036)	526 (4655)
		443 rpm	437 rpm	434 rpm	426 rpm	407 rpm	392 rpm

BMH 250		255.9 Cm ³ /Rev 15.61 in ³ /Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	9 (1328)	12 (1766)	14.5 (2139)	17.5 (2576)	20 (2950)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	5 (1.32)	121 (1071)	246 (2177)	318 (2814)	398 (3522)			
		19 rpm	19 rpm	18 rpm	14 rpm			
	10 (2.65)	130 (1150)	258 (2283)	331 (2929)	425 (3761)	515 (4558)	595 (5266)	
		34 rpm	33 rpm	31 rpm	29 rpm	23 rpm	12 rpm	
	20 (5.26)	130 (1150)	258 (2283)	332 (2938)	432 (3823)	520 (4602)	621 (5496)	702 (6213)
		78 rpm	77 rpm	76 rpm	73 rpm	65 rpm	53 rpm	42 rpm
	30 (7.90)	122 (1080)	251 (2221)	327 (2894)	429 (3797)	520 (4602)	621 (5496)	700 (6195)
		115 rpm	113 rpm	111 rpm	105 rpm	96 rpm	84 rpm	75 rpm
	40 (10.50)	115 (1017)	240 (2124)	323 (2858)	422 (3735)	513 (4540)	616 (5452)	698 (6177)
		157 rpm	157 rpm	156 rpm	150 rpm	139 rpm	127 rpm	114 rpm
	50 (13.15)	105 (929)	232 (2053)	314 (2779)	411 (3637)	505 (4469)	606 (5363)	687 (6080)
		196 rpm	195 rpm	192 rpm	185 rpm	173 rpm	159 rpm	147 rpm
	60 (15.80)	94 (831)	220 (1947)	302 (2673)	401 (3549)	496 (4390)	596 (5275)	676 (5983)
		232 rpm	230 rpm	226 rpm	218 rpm	206 rpm	192 rpm	180 rpm
	70 (18.40)	81.4 (720)	209 (1850)	288 (2550)	389 (3442)	484 (4283)	582 (5150)	666 (5894)
	274 rpm	274 rpm	274 rpm	266 rpm	252 rpm	238 rpm	222 rpm	
75 (19.75)	72 (637)	203 (1796)	280 (2478)	381 (3372)	475 (4204)	574 (5080)	659 (5832)	
	290 rpm	289 rpm	287 rpm	279 rpm	266 rpm	251 rpm	236 rpm	
Max Cont.	80 (21.05)	66 (584)	194 (1717)	273 (2416)	371 (3283)	467 (4133)	566 (5009)	651 (5761)
		303 rpm	302 rpm	298 rpm	290 rpm	279 rpm	264 rpm	249 rpm
Max Int.	90 (23.68)	49 (433)	178 (1575)	256 (2266)	355 (3142)	453 (4009)	552 (4885)	634 (5611)
		348 rpm	347 rpm	345 rpm	337 rpm	325 rpm	309 rpm	292 rpm

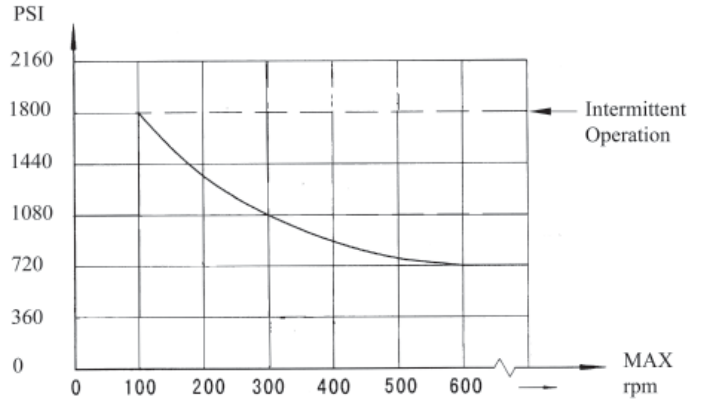
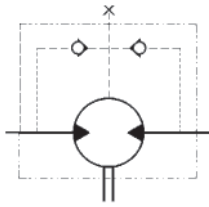
BMH 315		316.1 Cm³/Rev 19.29 in³/Rev				Max Cont.	Max Int.		
Pressure Mpa (psi)		3.5 (515)	7.5 (1105)	10 (1470)	13.5 (1987)	15.5 (2286)	17.5 (2576)	20 (2950)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	5 (1.32)	155 (1372)	325 (2876)						
		16 rpm	13 rpm						
	10 (2.65)	163 (1442)	342 (3026)	454 (4018)	556 (4921)				
		27 rpm	24 rpm	18 rpm	14 rpm				
	20 (5.26)	169 (1496)	349 (3089)	469 (4151)	582 (5150)	664 (5876)	733 (6487)	809 (7160)	
		63 rpm	61 rpm	55 rpm	48 rpm	40 rpm	32 rpm	19 rpm	
	30 (7.90)	165 (1460)	334 (3044)	470 (4159)	580 (5133)	669 (5921)	740 (6549)	824 (7292)	
		93 rpm	89 rpm	82 rpm	77 rpm	67 rpm	59 rpm	46 rpm	
	40 (10.50)	154 (1363)	337 (2982)	465 (4115)	577 (5106)	663 (5867)	737 (6522)	827 (7319)	
		126 rpm	126 rpm	119 rpm	111 rpm	99 rpm	88 rpm	73 rpm	
	50 (13.15)	141 (1248)	325 (2876)	455 (4027)	568 (5027)	656 (5806)	728 (6443)	824 (7292)	
		159 rpm	155 rpm	148 rpm	139 rpm	126 rpm	115 rpm	98 rpm	
	60 (15.80)	121 (1071)	312 (2761)	440 (3894)	555 (4912)	643 (5690)	715 (6328)	812 (7186)	
		187 rpm	186 rpm	179 rpm	169 rpm	154 rpm	143 rpm	124 rpm	
	70 (18.40)	103 (911)	298 (2637)	425 (3761)	541 (4788)	631 (5584)	703 (6221)	800 (7080)	
	222 rpm	222 rpm	215 rpm	205 rpm	187 rpm	176 rpm	157 rpm		
75 (19.75)	94 (831)	287 (2540)	417 (3690)	529 (4682)	623 (5514)	696 (6160)	792 (7009)		
	236 rpm	233 rpm	224 rpm	215 rpm	196 rpm	184 rpm	166 rpm		
Max Cont.	80 (21.05)	82 (726)	277 (2451)	406 (3593)	518 (4584)	611 (5407)	688 (6089)	784 (6938)	
		246 rpm	244 rpm	236 rpm	228 rpm	210 rpm	197 rpm	174 rpm	
Max Int.	90 (23.68)	62 (549)	256 (2266)	386 (3416)	496 (4390)	593 (5248)	669 (5921)	767 (6788)	
		282 rpm	280 rpm	275 rpm	266 rpm	248 rpm	234 rpm	209 rpm	

BMH 400		406.4 Cm³/Rev 24.79 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	6 (885)	10.5 (1546)	12.5 (1840)	15.5 (2286)	19 (2802)	
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	5 (1.32)	196 (1735)	348 (3080)	516 (4566)				
		13 rpm	13 rpm	10 rpm				
	10 (2.65)	205 (1814)	363 (3212)	546 (4832)	702 (6213)	859 (7602)		
		22 rpm	21 rpm	21 rpm	17 rpm	11 rpm		
	20 (5.26)	209 (1850)	366 (3239)	543 (4805)	708 (6266)	874 (7735)	988 (8744)	
		50 rpm	49 rpm	46 rpm	41 rpm	36 rpm	31 rpm	
	30 (7.90)	201 (1779)	357 (3159)	542 (4797)	706 (6248)	864 (7646)	984 (8708)	
		73 rpm	72 rpm	70 rpm	63 rpm	56 rpm	51 rpm	
	40 (10.50)	195 (1726)	346 (3062)	532 (4708)	701 (6204)	858 (7593)	973 (8611)	
		99 rpm	98 rpm	96 rpm	86 rpm	77 rpm	71 rpm	
	50 (13.15)	173 (1531)	332 (2938)	518 (4584)	687 (6080)	848 (7504)	958 (8478)	
		123 rpm	122 rpm	118 rpm	107 rpm	97 rpm	90 rpm	
	60 (15.80)	154 (1363)	319 (2823)	501 (4434)	668 (5912)	833 (7372)	944 (8354)	
		146 rpm	144 rpm	141 rpm	128 rpm	115 rpm	106 rpm	
	70 (18.40)	138 (1221)	305 (2699)	480 (4248)	649 (5744)	814 (7204)	925 (8186)	
	174 rpm	173 rpm	169 rpm	156 rpm	141 rpm	130 rpm		
75 (19.75)	128 (1133)	294 (2602)	466 (4124)	637 (5637)	802 (7098)	911 (8062)		
	183 rpm	181 rpm	177 rpm	163 rpm	149 rpm	138 rpm		
Max Cont.	80 (21.05)	113 (1000)	277 (2451)	451 (3991)	621 (5496)	786 (6956)	899 (7956)	
		192 rpm	191 rpm	188 rpm	174 rpm	158 rpm	144 rpm	
Max Int.	90 (23.68)	90 (796)	256 (2266)	433 (3832)	595 (5266)	767 (6788)	881 (7797)	
		220 rpm	220 rpm	215 rpm	202 rpm	183 rpm	165 rpm	

BMH 500		500 Cm ³ /Rev 30.50 in ³ /Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		2.5 (368)	5 (738)	8.5 (1254)	10 (1470)	12.5 (1840)	16 (2355)
FLOW	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	5 (1.32)	165 (1460)	317 (2805)	516 (4567)			
		11 rpm	11 rpm	8 rpm			
	10 (2.65)	178 (1575)	335 (2965)	555 (4912)	669 (5921)	791 (7000)	969 (8576)
		20 rpm	19 rpm	17 rpm	15 rpm	13 rpm	9 rpm
	20 (5.26)	177 (1566)	331 (2929)	559 (4947)	673 (5956)	799 (6894)	988 (8744)
		42 rpm	42 rpm	41 rpm	38 rpm	36 rpm	29 rpm
	30 (7.90)	172 (1522)	320 (2832)	553 (4894)	663 (5867)	792 (7009)	983 (8699)
		64 rpm	63 rpm	61 rpm	57 rpm	53 rpm	47 rpm
	40 (10.50)	163 (1443)	309 (2735)	541 (4788)	654 (5788)	783 (6930)	971 (8593)
		85 rpm	85 rpm	83 rpm	79 rpm	75 rpm	67 rpm
	50 (13.15)	146 (1292)	296 (2120)	523 (4628)	635 (5620)	768 (6797)	954 (8443)
		103 rpm	103 rpm	103 rpm	97 rpm	93 rpm	85 rpm
	60 (15.80)	121 (1071)	275 (2434)	502 (4443)	614 (5434)	747 (6611)	934 (8266)
		124 rpm	124 rpm	123 rpm	117 rpm	113 rpm	103 rpm
	70 (18.40)	97 (858)	256 (2266)	482 (4266)	597 (5283)	729 (6452)	917 (8115)
	148 rpm	148 rpm	148 rpm	140 rpm	134 rpm	122 rpm	
75 (19.75)	79 (699)	240 (2124)	469 (4151)	582 (5151)	714 (6319)	902 (7983)	
	155 rpm	155 rpm	155 rpm	152 rpm	144 rpm	130 rpm	
Max Cont.	80 (21.05)	60 (531)	226 (2000)	453 (4009)	570 (5044)	701 (6204)	884 (7823)
		166 rpm	166 rpm	166 rpm	159 rpm	153 rpm	139 rpm
Max Int.	90 (23.68)	34 (301)	201 (1779)	421 (3726)	550 (4868)	673 (5956)	869 (7691)
		166 rpm	165 rpm	164 rpm	157 rpm	156 rpm	155 rpm

MODEL BMH TECHNICAL DATA

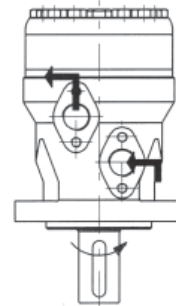
SHAFT SEAL RATED PRESSURE



CASE DRAIN

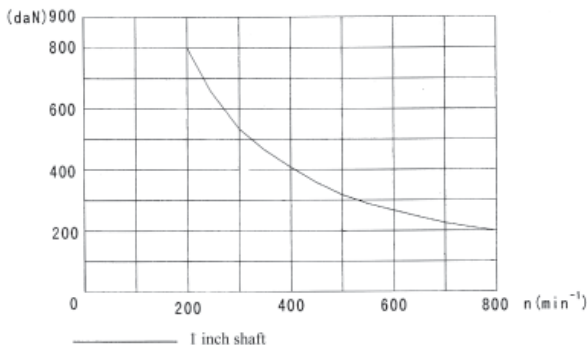
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION

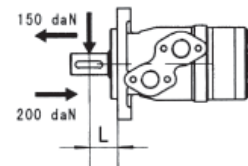


RADIAL FORCES

Status of the shaft's radial force



$$F_r = \frac{800 \cdot 2500}{n \cdot 95 + 1} \text{ daN}$$



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

Rhomb-flange $L=30\text{mm}$
 Square-flange $L=24\text{mm}$



The BMSY series motor adapts the advanced **ROLORTORC™** gear set design with **DISC** distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation.

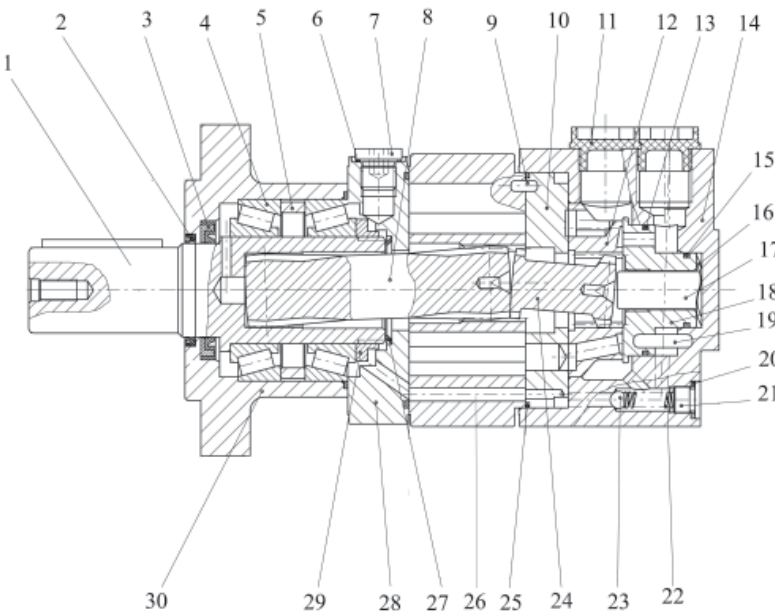
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMSY

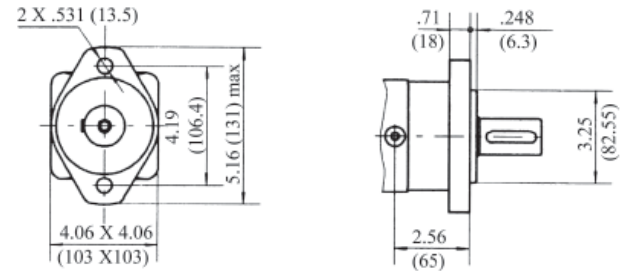
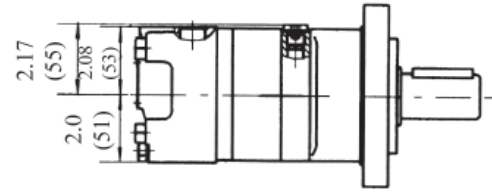
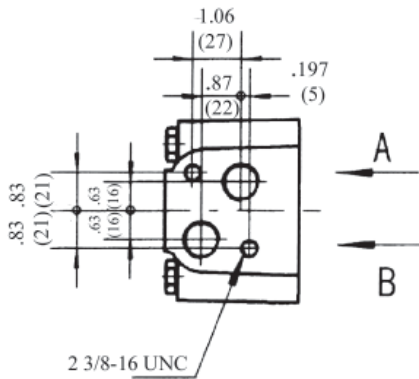
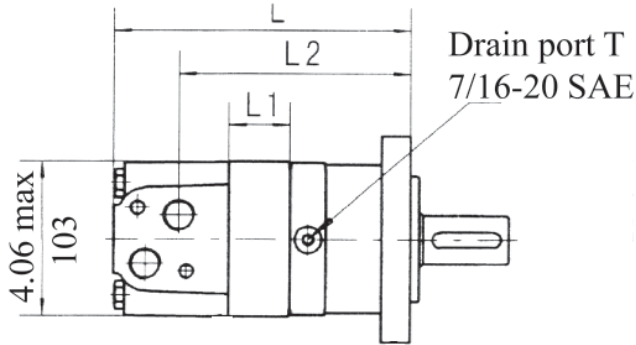
MODEL		BMSY80	BMSY100	BMSY125	BMSY160	BMSY200	BMSY250	BMSY315	BMSY400	BMSY475
Displacement	CM ³ /Rev	81	101	125	154	194	243	311	394	475
	(In ³ /Rev)	(4.95)	(6.15)	(7.63)	(9.39)	(11.83)	(14.83)	(18.97)	(24.04)	(28.98)
Maximum Speed	Cont	800	748	600	470	375	300	240	185	155
	RPM	Int.	990	900	720	560	450	360	280	225
Max Torque	Cont	190 (1682)	240 (2124)	310 (2744)	485 (4292)	586(5185)	708 (6265)	880 (7787)	880 (7786)	910 (8053)
	NM / (in.lbs)	Int.	240 (2124)	300 (2655)	370 (2744)	540 (4778)	645 (5707)	806 (7142)	960(8495)	960(8495)
Max Differential	Cont	17.5 (2576)	17.5 (2576)	17.5 (2576)	21 (3045)	21 (3045)	20 (2900)	20 (2900)	16 (2320)	14 (2030)
	Mpa / (PSI)	Int.	21 (3091)	21 (3091)	17.5 (2576)	22.5 (3265)	22.5 (3265)	22.5 (3265)	22.5 (3265)	17.5 (2563)
Max Flow	Cont	65 (17.1)	75 (34.1)	75 (34.1)	75 (19.81)	75 (19.81)	75 (19.81)	75 (19.81)	75 (19.81)	75 (19.81)
	L/min / (gpm)	Int.	80 (36.4)	90 (40.9)	90 (40.9)	90 (23.77)	90 (23.77)	90 (23.77)	90 (23.77)	90 (23.77)
Weight Kg / (lbs)		9.8 (21.6)	10 (22)	10.3 (22.7)	10.7 (23.5)	11.1 (24.6)	11.6 (25.5)	12.3 (27.1)	13.2 (29.1)	14.3(31.52)

Continuous = maximum of continuous operation

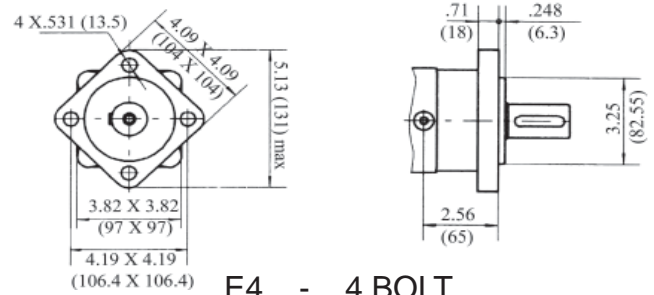
Intermittent = maximum operating range for 6 seconds per minute



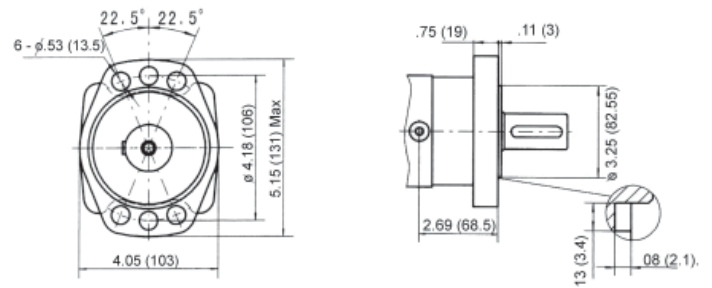
- 1 Output shaft
- 2 Dust seal
- 3 Shaft seal
- 4 Roller bearing
- 5 Bearing spacer
- 6 Seal washer
- 7 Case drain plug
- 8 Drive link
- 9 Pin
- 10 Timing plate
- 11 Shipping plug
- 12 Distributor plate
- 13 "O" ring
- 14 Rear housing
- 15 "O" ring
- 16 Balancer spring
- 17 Spacer
- 18 Balance plate
- 19 Pin
- 20 Seal washer
- 21 Check valve plug
- 22 Check valve spring
- 23 Ball check (steel)
- 24 Distributor drive link
- 25 Body "O" ring
- 26 Rolortorc™ set
- 27 Oil control ring
- 28 Drain manifold
- 29 Bearing nut
- 30 Shaft housing



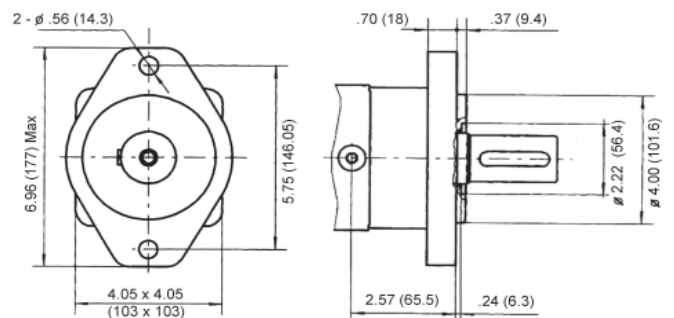
E2 - SAE "A" 2 BOLT



E4 - 4 BOLT



F6 - 6 BOLT MAGNETO



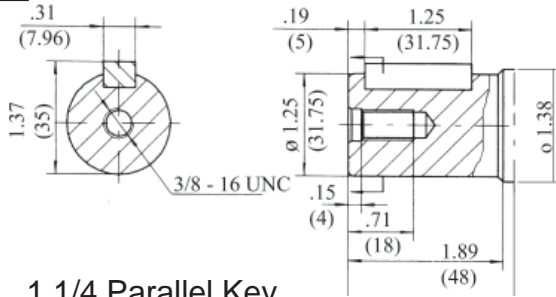
E2B - SAE "B" 2 BOLT

PORT SIZES	SAE	NPT
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

MODEL BMSY	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMSY 160	7.22	183.5	1.24	31.5	5.49	140
BMSY 200	7.57	192	1.57	40	5.83	148
BMSY 250	7.95	202	1.97	50	6.22	158
BMSY 315	8.43	214	2.44	62	6.69	170
BMSY 400	8.82	224	2.71	69	7.08	180
BMSY 475	9.37	238	3.26	83	7.63	194

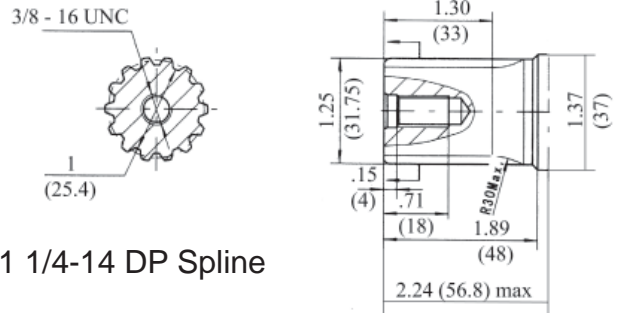
MODEL BMSY DRIVE SHAFT DATA

G



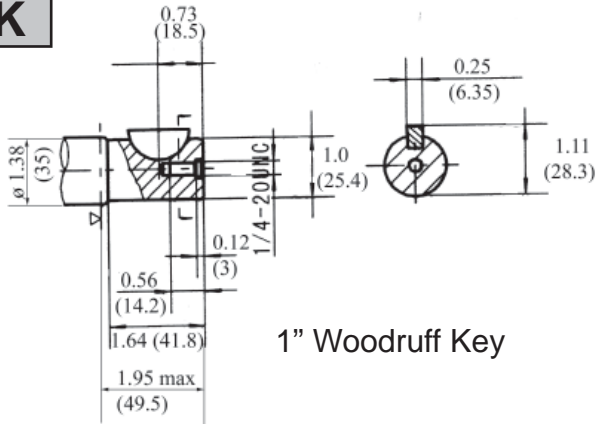
1 1/4 Parallel Key

F



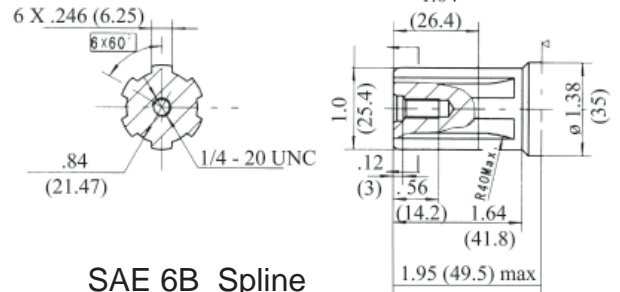
1 1/4-14 DP Spline

K



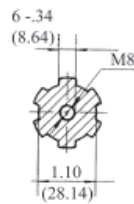
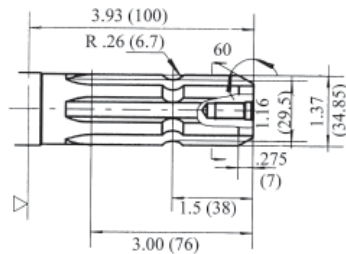
1" Woodruff Key

S1



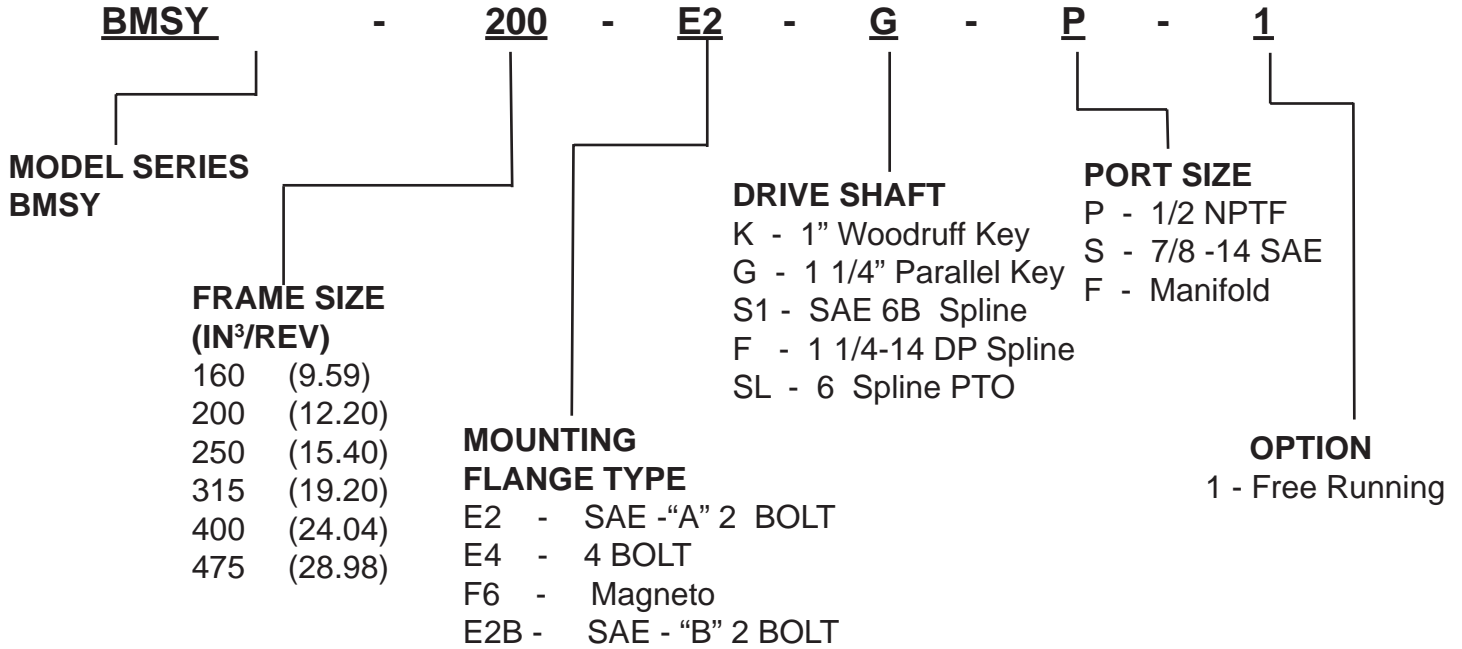
SAE 6B Spline

SL



6 Spline PTO Drive Shaft

BMSY MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMS/BMSS 80		80.6 Cm³/Rev 4.92 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	21 (3090)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	35 (310)	80 (708)	120 (1062)	158 (1398)	195 (1726)	235 (2080)	249 (2204)
		180 rpm	174 rpm	168 rpm	164 rpm	158 rpm	151 rpm	143 rpm
	30 (7.90)	35 (310)	80 (708)	120 (1062)	158 (1398)	195 (1726)	240 (2124)	260 (2301)
		362 rpm	352 rpm	346 rpm	338 rpm	330 rpm	322 rpm	310 rpm
	40 (10.50)	35 (310)	79 (699)	119 (1053)	155 (1372)	193 (1708)	234 (2071)	250 (2213)
		482 rpm	473 rpm	464 rpm	453 rpm	444 rpm	434 rpm	415 rpm
	50 (13.20)	30 (266)	77 (681)	117 (1035)	153 (1354)	192 (1699)	232 (2053)	248 (2195)
	602 rpm	594 rpm	587 rpm	569 rpm	560 rpm	551 rpm	522 rpm	
	60 (15.85)	28 (248)	77 (681)	117 (1035)	153 (1354)	192 (1699)	232 (2053)	247 (2186)
		724 rpm	713 rpm	707 rpm	683 rpm	673 rpm	664 rpm	629 rpm
Max Cont.	75 (19.75)	25 (221)	75 (664)	114 (1009)	152 (1345)	190 (1682)	230 (2036)	245 (2168)
		840 rpm	832 rpm	817 rpm	796 rpm	786 rpm	777 rpm	737 rpm
Max Int.	90 (23.85)	24 (217)	73 (646)	110 (974)	150 (1328)	185 (1637)	225 (1991)	240 (2124)
		900 rpm	893 rpm	872 rpm	853 rpm	843 rpm	834 rpm	792 rpm

BMSY 100		100.8 Cm³/Rev 6.15 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	21 (3090)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	48 (425)	95 (841)	150 (1328)	200 (1770)	250 (2213)	289 (2558)	310 (2744)
		146 rpm	144 rpm	139 rpm	135 rpm	130 rpm	120 rpm	105 rpm
	30 (7.90)	45 (398)	94 (832)	146 (1292)	198 (1752)	250 (2213)	295 (2611)	317 (2805)
		291 rpm	289 rpm	278 rpm	274 rpm	269 rpm	258 rpm	242 rpm
	40 (10.50)	43 (381)	89 (788)	142 (1492)	196 (1735)	248 (2195)	293 (2593)	316 (2797)
		387 rpm	384 rpm	374 rpm	359 rpm	350 rpm	335 rpm	320 rpm
	50 (13.20)	40 (354)	88 (779)	135 (1195)	194 (1717)	247 (2186)	292 (2584)	315 (2788)
	486 rpm	483 rpm	473 rpm	462 rpm	450 rpm	430 rpm	420 rpm	
	60 (15.85)	37 (327)	88 (779)	132 (1168)	185 (1657)	244 (2159)	289 (2558)	312 (2761)
		588 rpm	584 rpm	574 rpm	562 rpm	550 rpm	538 rpm	520 rpm
Max Cont.	75 (19.75)	35 (310)	80 (708)	130 (1151)	180 (1593)	240 (2124)	286 (2531)	310 (2744)
		740 rpm	735 rpm	720 rpm	705 rpm	696 rpm	676 rpm	653 rpm
Max Int.	90 (23.85)	30 (266)	75 (664)	124 (1097)	170 (1505)	236 (2089)	277 (24510)	303 (2682)
		850 rpm	840 rpm	810 rpm	787 rpm	770 rpm	750 rpm	747 rpm

BMSY 125		125 Cm³/Rev 7.65 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	21 (3090)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	55 (487)	120 (1062)	176 (1558)	245 (2168)	309 (2735)	349 (3089)	375 (3319)
		112 rpm	110 rpm	103 rpm	96 rpm	93 rpm	90 rpm	84 rpm
	30 (7.90)	55 (487)	120 (1062)	175 (1549)	250 (2213)	324 (2867)	375 (3319)	408 (3611)
		222 rpm	220 rpm	217 rpm	208 rpm	200 rpm	199 rpm	190 rpm
	40 (10.50)	55 (487)	120 (1062)	175 (1549)	250 (2213)	324 (2867)	370 (3275)	408 (3611)
		302 rpm	298 rpm	292 rpm	284 rpm	276 rpm	268 rpm	260 rpm
	50 (13.20)	50 (443)	115 (443)	176 (1558)	248 (2195)	320 (3832)	370 (3275)	406 (3593)
	379 rpm	373 rpm	368 rpm	363 rpm	350 rpm	339 rpm	328 rpm	
	60 (15.85)	45 (398)	113 (1000)	171 (1513)	245 (2168)	324 (2867)	368 (3257)	406 (3593)
		456 rpm	448 rpm	443 rpm	439 rpm	425 rpm	406 rpm	393 rpm
Max Cont.	75 (19.75)	45 (398)	110 (974)	167 (1478)	240 (2724)	314 (2779)	370 (3275)	401 (3549)
		570 rpm	563 rpm	555 rpm	546 rpm	533 rpm	515 rpm	503 rpm
Max Int.	90 (23.85)	40 (354)	105 (938)	162 (1434)	237 (2097)	309 (2735)	365 (3230)	398 (3522)
		685 rpm	676 rpm	670 rpm	659 rpm	644 rpm	625 rpm	610 rpm

BMSY 160		154 Cm³/Rev 9.39 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	21 (3090)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	70 (620)	142 (1257)	215 (1904)	298 (2639)	372 (3295)	435 (3852)	476 (4216)
		93 rpm	91 rpm	89 rpm	85 rpm	80 rpm	76 rpm	58 rpm
	30 (7.90)	73 (646)	151 (1337)	225 (1992)	312 (2763)	382 (3383)	456 (4038)	492 (4357)
		189 rpm	187 rpm	181 rpm	176 rpm	170 rpm	162 rpm	153 rpm
	40 (10.50)	75 (664)	152 (1346)	228 (2019)	314 (2781)	383 (3392)	454 (4021)	488 (4322)
		252 rpm	250 rpm	246 rpm	239 rpm	234 rpm	228 rpm	212 rpm
	50 (13.20)	70 (620)	148 (1310)	225 (1992)	305 (2701)	372 (3294)	445 (3941)	480 (4251)
		313 rpm	310 rpm	306 rpm	298 rpm	293 rpm	285 rpm	272 rpm
	60 (15.85)	68 (575)	143 (1266)	218 (1930)	296 (2621)	370 (3277)	442 (3914)	480 (4251)
	378 rpm	376 rpm	370 rpm	362 rpm	353 rpm	346 rpm	332 rpm	
Max Cont.	75 (19.75)	62 (549)	140 (1239)	211 (1868)	291 (2577)	365 (3232)	439 (3888)	475 (4207)
		475 rpm	469 rpm	461 rpm	450 rpm	441 rpm	432 rpm	414 rpm
Max Int.	90 (23.85)	59 (522)	131 (1160)	202 (1789)	286 (2533)	337 (2984)	425 (3764)	460 (4074)
		567 rpm	561 rpm	554 rpm	543 rpm	532 rpm	520 rpm	509 rpm

BMSY 200		200 Cm³/Rev 12.2 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	21 (3090)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	87 (771)	179 (1585)	273 (2737)	371 (3286)	471 (4171)	562 (4977)	610 (5403)
		74 rpm	73 rpm	71 rpm	68 rpm	64 rpm	60 rpm	48 rpm
	30 (7.90)	91 (806)	190 (1682)	288 (2550)	386 (3418)	489 (4331)	572 (5066)	618 (5473)
		150 rpm	148 rpm	143 rpm	140 rpm	134 rpm	128 rpm	119 rpm
	40 (10.50)	94 (832)	193 (1709)	296 (2621)	394 (3489)	498 (4410)	584 (5172)	645 (5712)
		198 rpm	195 rpm	192 rpm	188 rpm	183 rpm	178 rpm	167 rpm
	50 (13.20)	90 (797)	191 (1691)	292 (2586)	389 (3445)	493 (4366)	580 (5137)	634 (5615)
		248 rpm	246 rpm	241 rpm	236 rpm	230 rpm	223 rpm	212 rpm
	60 (15.85)	85 (752)	185 (1638)	279 (2471)	382 (3383)	483 (4277)	575 (5092)	622 (5509)
	300 rpm	295 rpm	288 rpm	281 rpm	273 rpm	263rpm	251 rpm	
Max Cont.	75 (19.75)	78 (690)	176 (1558)	271 (2400)	370 (3277)	472 (4180)	561 (4968)	610 (5402)
		374 rpm	370 rpm	364 rpm	360 rpm	352 rpm	340 rpm	331 rpm
Max Int.	90 (23.85)	68 (602)	163 (1443)	265 (2347)	361 (3197)	456 (4038)	545 (4827)	599 (5305)
		443 rpm	440 rpm	435 rpm	428 rpm	424 rpm	413 rpm	400 rpm

BMSY 250		243 Cm³/Rev 14.8 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	20 (2950)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	110 (974)	231 (2045)	351 (3108)	462 (4091)	585 (5181)	681 (6031)	778 (6890)
		59 rpm	58 rpm	56 rpm	53 rpm	50 rpm	46 rpm	35 rpm
	30 (7.90)	116 (1027)	236 (2090)	359 (3179)	475 (4207)	597 (5287)	700 (6199)	790 (6997)
		119 rpm	117 rpm	114 rpm	108 rpm	102 rpm	92 rpm	80 rpm
	40 (10.50)	118 (1045)	241 (2134)	363 (3215)	480 (4251)	599 (5305)	706 (6253)	796 (7050)
		162 rpm	159 rpm	156 rpm	150 rpm	143 rpm	134 rpm	121 rpm
	50 (13.20)	111 (983)	234 (2072)	352 (3117)	472 (4180)	591 (5234)	693 (6137)	788 (6979)
		203 rpm	201 rpm	197 rpm	191 rpm	182 rpm	173 rpm	158 rpm
	60 (15.85)	106 (929)	224 (1947)	345 (3055)	462 (4091)	582 (5154)	685 (6067)	772 (6837)
	244 rpm	242 rpm	237 rpm	230 rpm	220 rpm	208 rpm	194 rpm	
Max Cont.	75 (19.75)	101 (841)	214 (1895)	340 (3011)	454 (4021)	570 (5048)	670 (5934)	760 (6731)
		303 rpm	299 rpm	294 rpm	285 rpm	272 rpm	260 rpm	244 rpm
Max Int.	90 (23.85)	93 (797)	209 (1851)	335 (2967)	447 (3959)	559 (4951)	657 (5819)	749 (6633)
		363 rpm	359 rpm	354 rpm	348 rpm	340 rpm	328 rpm	303 rpm

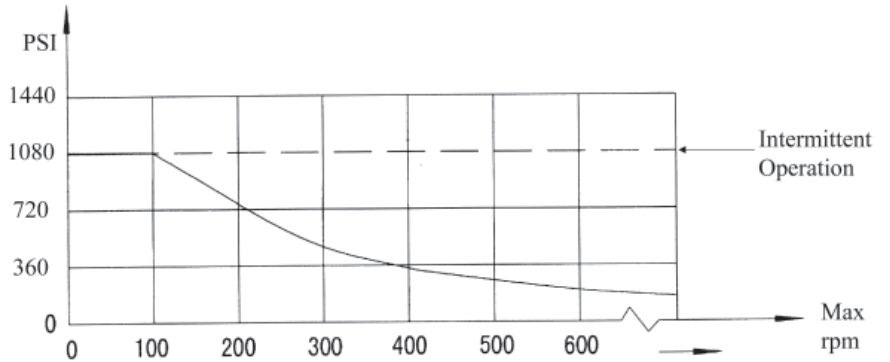
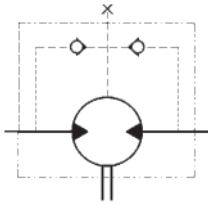
BMSY 315		311 Cm³/Rev 18.9 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	20 (2950)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	15 (3.95)	148 (1310)	304 (2692)	456 (4038)	613 (5429)	762 (6749)	879 (7785)	978 (8662)
		48 rpm	47 rpm	45 rpm	43 rpm	41 rpm	39 rpm	27 rpm
	30 (7.90)	155 (1372)	314 (2781)	465 (4118)	635 (5624)	778 (6890)	884 (7829)	988 (8750)
		95 rpm	93 rpm	91 rpm	89 rpm	86 rpm	82 rpm	67 rpm
	40 (10.50)	160 (1417)	321 (2843)	479 (4242)	650 (5757)	796 (7050)	906 (8024)	997 (8830)
		127 rpm	125 rpm	121 rpm	117 rpm	115 rpm	109 rpm	91 rpm
	50 (13.20)	155 (1372)	314 (2781)	465 (4118)	638 (5650)	780 (6908)	886 (7847)	988 (8750)
		159 rpm	157 rpm	153 rpm	149 rpm	145 rpm	142 rpm	128 rpm
	60 (15.85)	151 (1337)	306 (2710)	453 (4012)	620 (5491)	756 (6695)	886 (7847)	976 (8644)
		187 rpm	185 rpm	181 rpm	176 rpm	169 rpm	157 rpm	143 rpm
Max Cont.	75 (19.75)	146 (1293)	300 (2657)	445 (3941)	613 (5429)	755 (6681)	755 (7743)	966 (8549)
		238 rpm	236 rpm	232 rpm	227 rpm	224 rpm	220 rpm	196 rpm
Max Int.	90 (23.85)	135 (1194)	284 (2513)	436 (3858)	601 (5318)	740 (6549)	863 (7637)	952 (8425)
		286 rpm	283 rpm	278 rpm	272 rpm	265 rpm	257 rpm	232 rpm

BMSY 400		394 Cm³/Rev in³/Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	16 (2354)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	15 (3.95)	186 (1646)	379 (3354)	578 (5115)	779 (6894)	896 (5204)	986 (8726)
		37 rpm	36 rpm	35 rpm	33 rpm	31 rpm	29 rpm
	30 (7.90)	190 (1681)	388 (3433)	590 (5221)	791 (7000)	905 (8009)	991 (8770)
		75 rpm	73 rpm	71 rpm	68 rpm	65 rpm	61 rpm
	40 (10.50)	195 (1725)	394 (3486)	569 (5035)	797 (7053)	912 (8071)	998 (8832)
		99 rpm	97 rpm	95 rpm	93 rpm	90 rpm	85 rpm
	50 (13.20)	191 (1690)	388 (3433)	587 (5194)	785 (6947)	904 (8000)	983 (8699)
		125 rpm	123 rpm	118 rpm	114 rpm	109 rpm	102 rpm
	60 (15.85)	186 (1646)	388 (3433)	587 (5194)	785 (6947)	904 (8000)	983 (8699)
		149 rpm	146 rpm	142 rpm	137 rpm	131 rpm	122 rpm
Max Cont.	75 (19.75)	181 (1601)	372 (3292)	576 (5097)	770 (6814)	891 (7885)	973 (8611)
		187 rpm	183 rpm	177 rpm	171 rpm	164 rpm	153 rpm
Max Int.	90 (23.85)	176 (1557)	367 (3247)	571 (5053)	766 (6779)	883 (7814)	965 (8540)
		226 rpm	221 rpm	214 rpm	208 rpm	199 rpm	183 rpm

BMSY 475		475 Cm³/Rev in³/Rev			Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	15 (2207)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification				
	15 (3.95)	218 (1929)	439 (3885)	661 (5849)	892 (7894)	995 (8805)
		30	29	28	27	25
	30 (7.90)	223 (1973)	450 (3982)	676 (5982)	910 (8053)	1002 (8867)
		61	60	58	56	53
	40 (10.50)	228 (2017)	461 (4079)	689 (6097)	927 (8203)	1017 (9000)
		82	80	77	74	68
	50 (13.20)	224 (1982)	456 (4035)	682 (6035)	920 (8142)	1008 (8920)
		103	101	97	92	86
	60 (15.85)	220 (1947)	451 (3991)	677 (5991)	913 (8080)	998 (8832)
		123	121	118	112	105
Max Cont.	75 (19.75)	212 (1876)	443 (3920)	664 (5876)	901 (7973)	980 (8673)
		155	153	147	140	132
Max Int.	90 (23.85)	196 (1734)	421 (3725)	643 (5690)	877 (7761)	959 (8487)
		186	184	178	170	157

MODEL BMSY TECHNICAL DATA

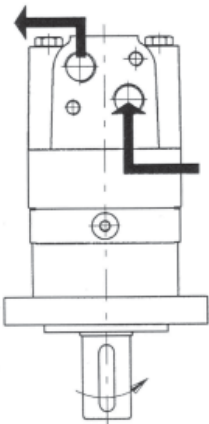
SHAFT SEAL RATED PRESSURE



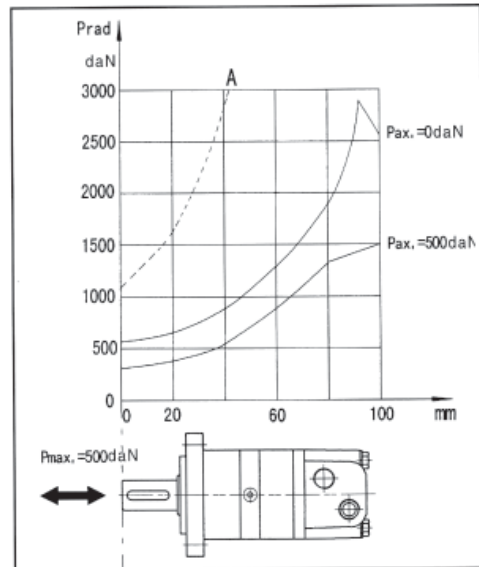
CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

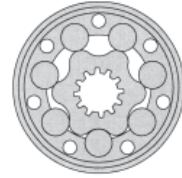
SHAFT ROTATION DIRECTION



Axial and Radial forces



The output shaft runs 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 risk of breakage. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



The BMT series motor adapts the advanced **ROLOTRORC™** gear set design with **DISC** distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation.

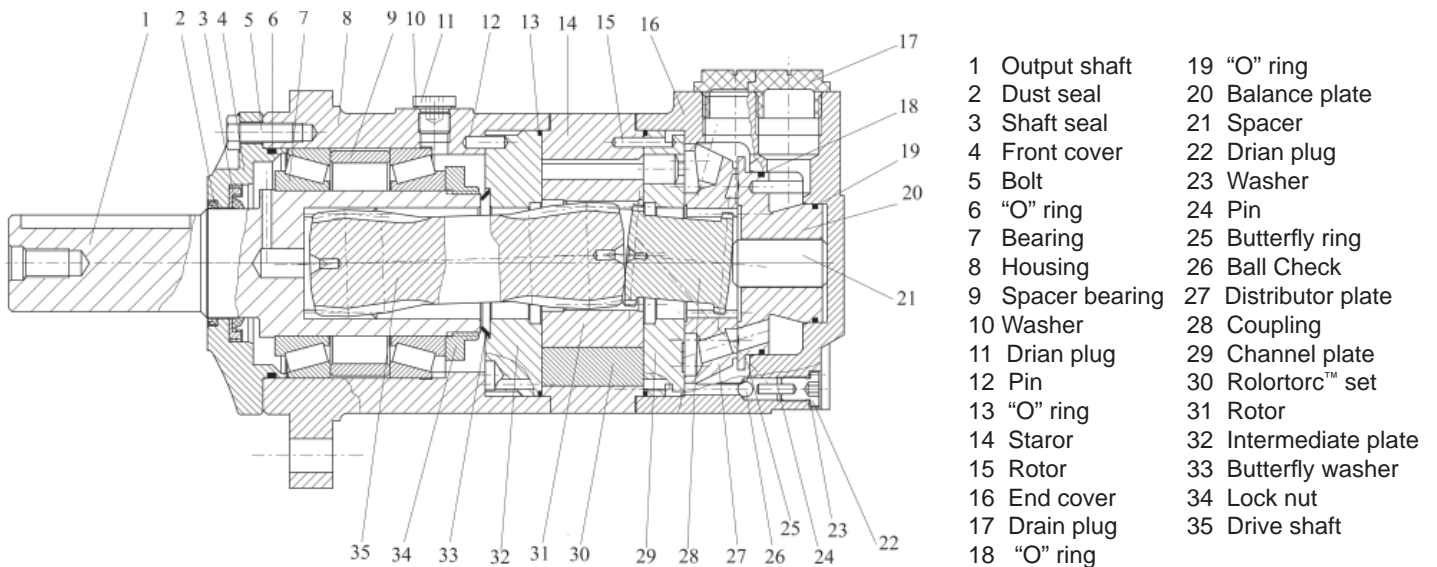
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMT

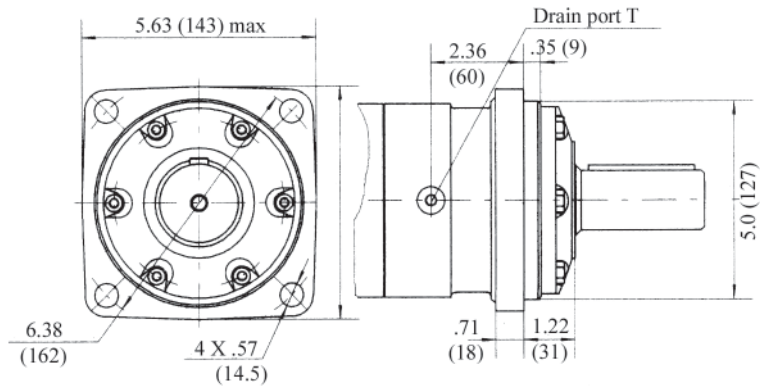
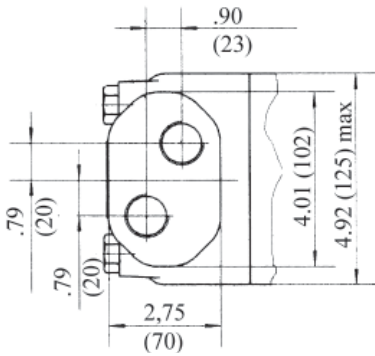
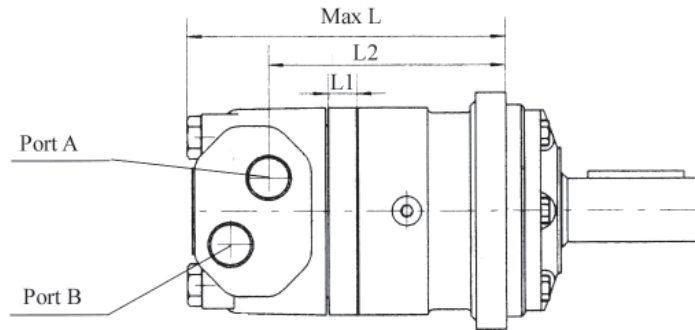
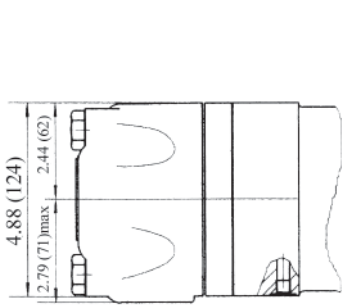
MODEL		BMT160	BMT200	BMT250	BMT315	BMT400	BMT500	BMT630	BMT800
Displacement CM ³ /Rev (In ³ /Rev)		161.1 (9.83)	201.4 (12.29)	251.8 (15.36)	326.3 (19.91)	410.9 (25.07)	523.6 (31.95)	629.1 (38.39)	801.8 (48.93)
	Maximum Speed RPM	Cont 614	615	495	380	302	237	196	154
	Int.	770	743	592	458	364	284	233	185
Max Torque NM / (in.lbs)	Cont	471 (4168)	589 (5213)	727 (6434)	962 (8514)	1095 (9691)	1245 (11018)	1318 (11664)	1464 (12956)
	Int.	573 (5071)	718 (6354)	888 (7859)	1154 (10213)	1269 (11231)	1409 (12470)	1498 (13257)	1520 (13452)
Max Differential Mpa / (PSI)	Cont	20 (2944)	20 (2944)	20 (2944)	20 (2944)	18 (2650)	16 (2355)	14 (2060)	12.5 (1840)
	Int.	24 (3533)	24 (3533)	24 (3533)	24 (3533)	21 (3091)	18 (2650)	16 (2355)	13 (1914)
Max Flow L/min / (gpm)	Cont	100 (26.42)	125 (33.02)	125 (33.02)	125 (33.02)	125 (33.02)	125 (33.02)	125 (33.02)	125 (33.02)
	Int.	125 (33.02)	150 (39.62)	150 (39.62)	150 (39.62)	150 (39.62)	150 (39.62)	150 (39.62)	150 (39.62)
Weight Kg / (lbs)		20 (44.09)	21 (46.30)	21 (46.30)	21 (46.30)	23 (50.71)	24 (52.91)	25 (55.11)	26 (57.32)

Continuous = maximum of continuous operation

Intermittent = maximum operating range for 6 seconds per minute



BMT INSTALLATION DATA

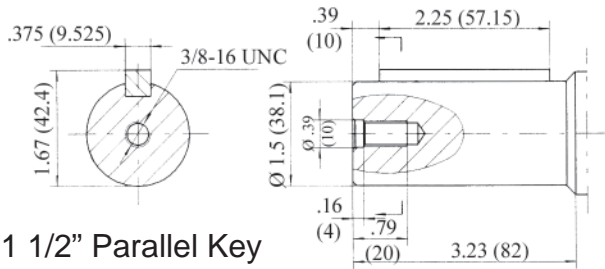


MODEL BMS	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMT 160	8.38	213	.75	19	6.36	161.5
BMT 200	8.46	215	.83	21	6.44	163.5
BMT 250	8.70	221	1.06	27	6.67	169.5
BMT 315	8.98	228	1.34	34	6.95	176.5
BMT 400	9.29	236	1.65	42	7.26	184.5
BMT 500	9.76	248	2.12	54	7.74	196.5
BMT 630	9.92	252	2.28	58	7.89	200.5
BMT 800	10.20	259	2.56	65	8.17	207.5

PORT SIZES	SAE
P (A,B)	1 1/16-12 SAE
T	7/16-20 SAE

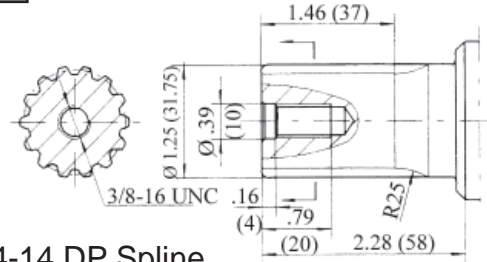
MODEL BMT DRIVE SHAFT DATA

G



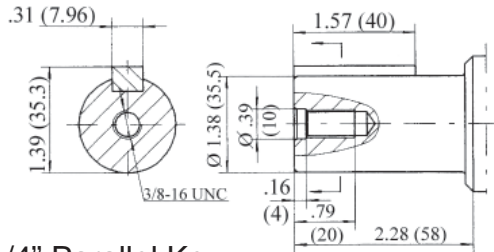
1 1/2" Parallel Key

F1



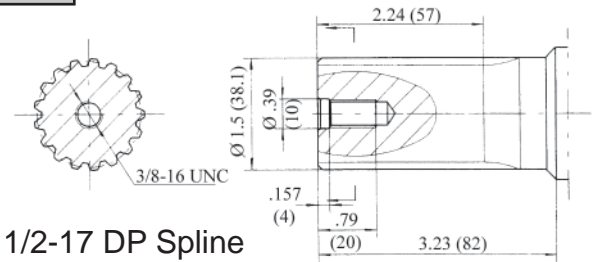
1 1/4-14 DP Spline

G1



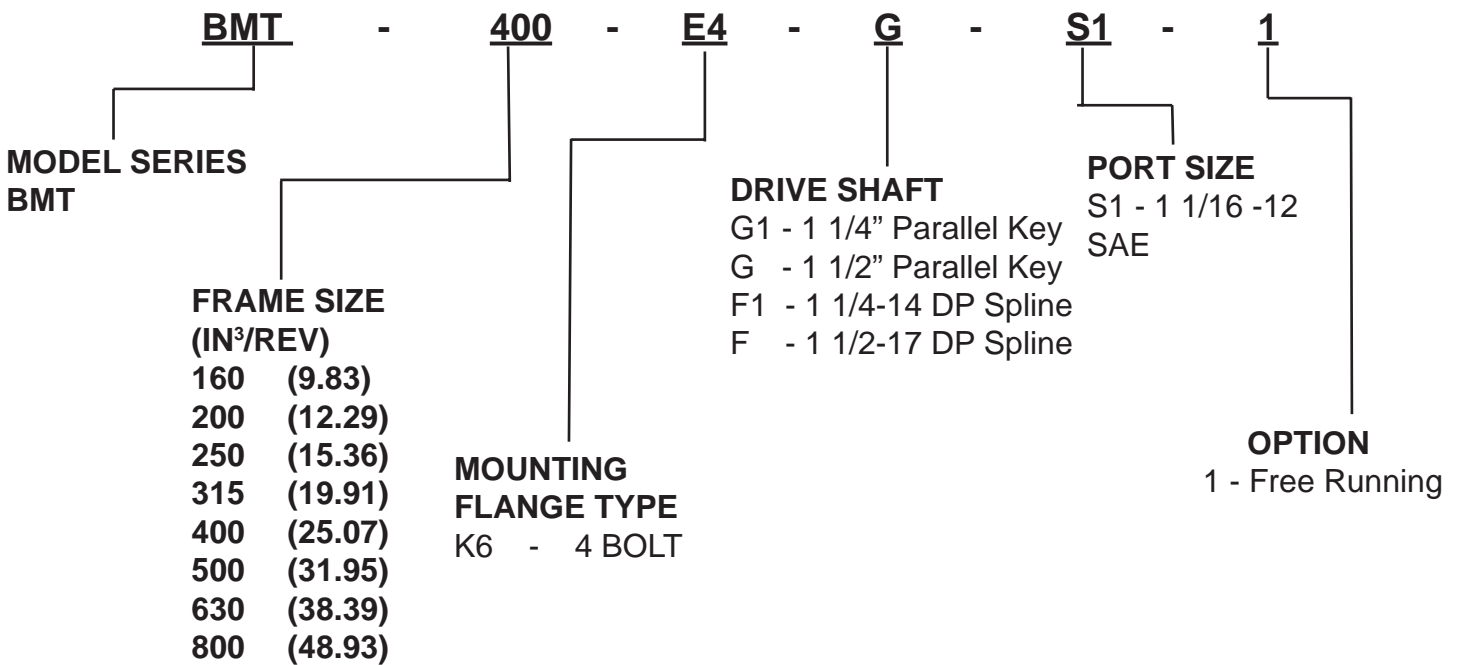
1 1/4" Parallel Key

F



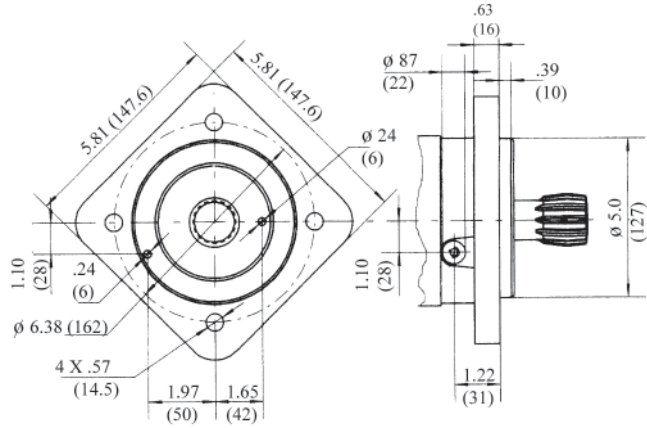
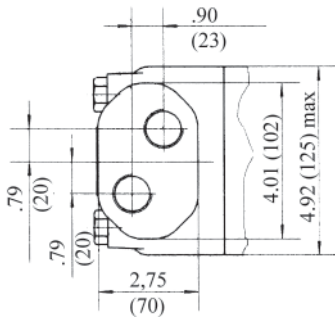
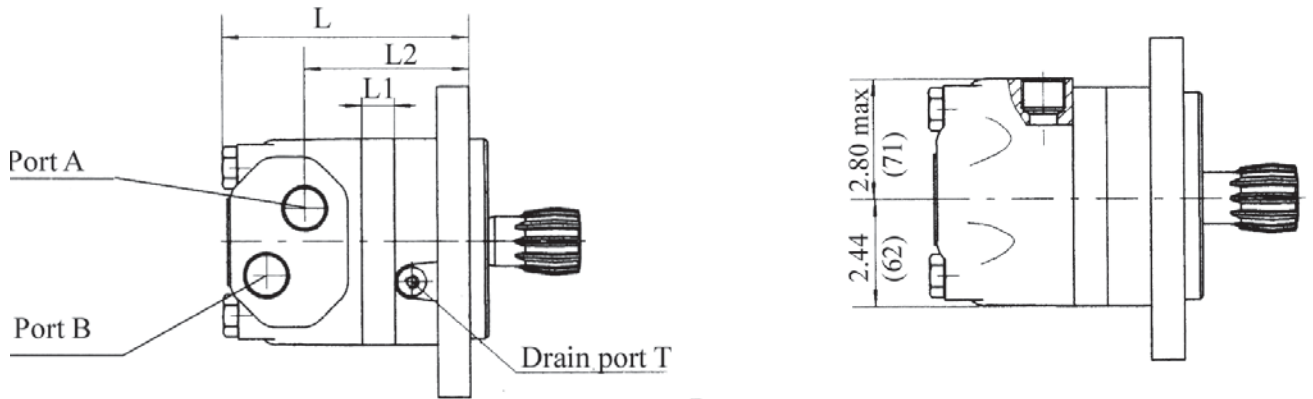
1 1/2-17 DP Spline

BMT MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMTS INSTALLATION DATA (BEARINGLESS DESIGN)



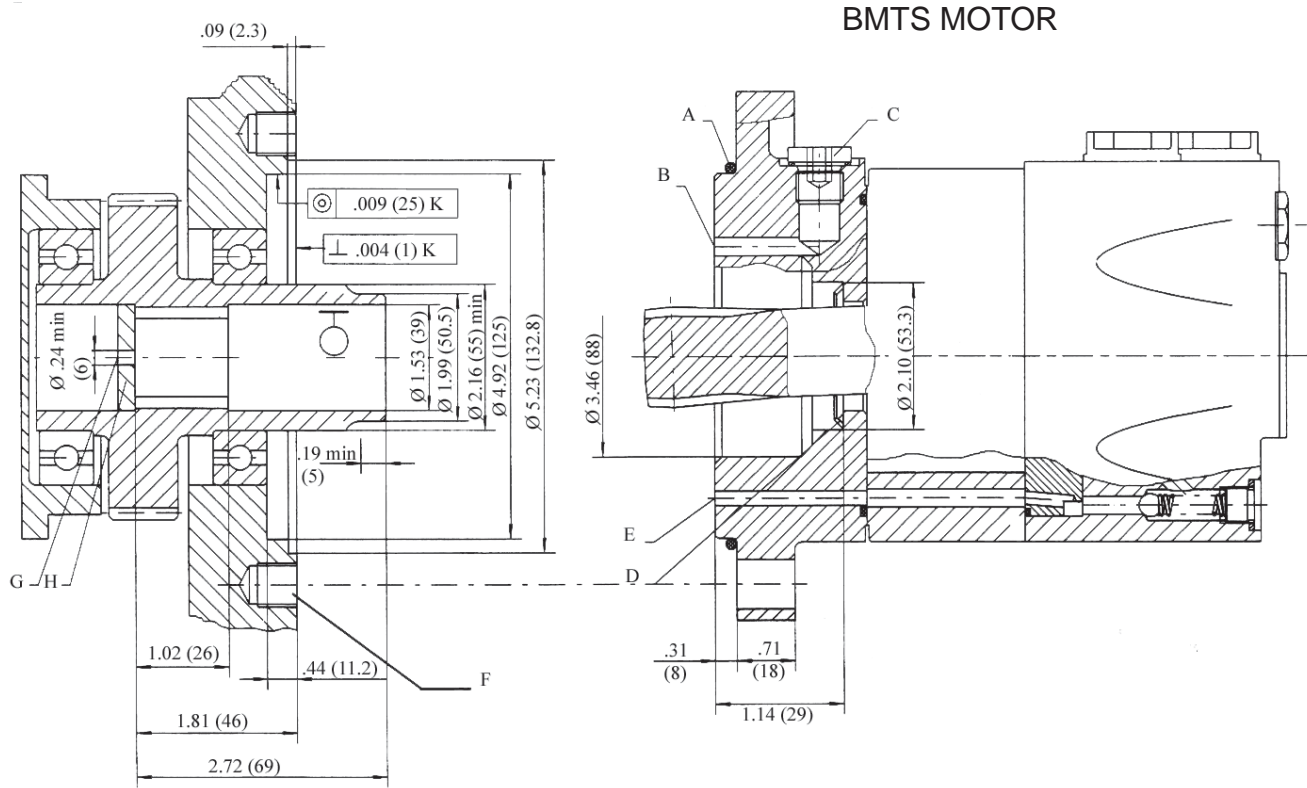
E - Square Flange
4 Bolt

MODEL BMS	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMTS 160	6.20	157.5	.79	20	4.23	107.5
BMTS 200	6.40	162.5	.98	25	4.43	112.5
BMTS 250	6.63	168.5	1.22	31	4.66	118.5
BMTS 315	6.99	177.5	1.57	40	5.02	127.5
BMTS 400	7.38	187.5	1.97	50	5.41	137.5
BMTS 500	7.87	200	2.46	62.5	5.90	150

PORT SIZES	SAE
P (A,B)	1 1/16-12 SAE
T	7/16-18 SAE

BMTS MOUNTING DATA

Required dimensions of the component to be attached

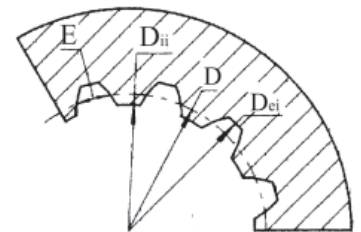


- A: O-RING 125 X 3
- B: EXTERNAL DRAIN CHANNEL
- C: DRAIN CONNECTION
- D: CONICAL SEAL RING

- E: INTERNAL DRAIN CHANNEL
- F: M12 MIN 18mm DEEP
- G: OIL CIRCULATION HOLE
- H: HARDENED STOP PLATE

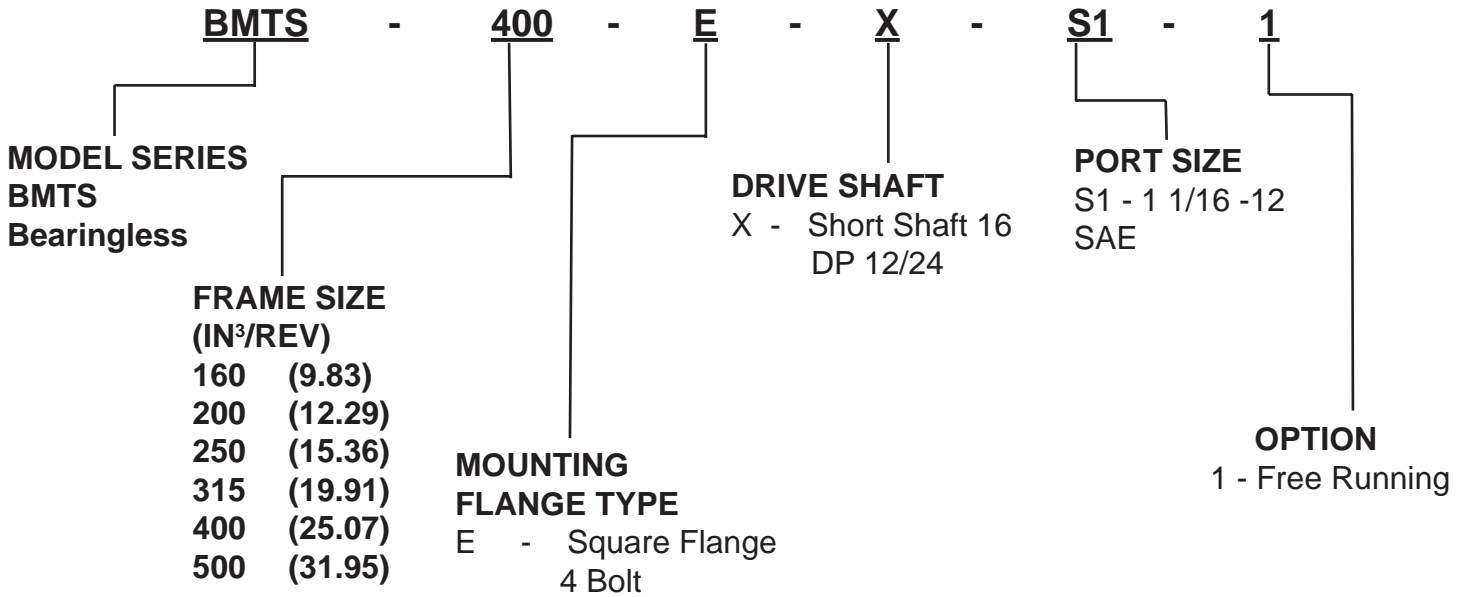
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

FILLET ROOT SIDE FIT		
Number of teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	D	30°
Pitch Diameter	D	Ø 1.33 (33.865)
Major Diameter	D _{ei}	Ø 1.51 (38.4)
Minor Diameter	D _{ii}	Ø 1.26 (32.15)
Space Width (Circular)	E	0.178 (4.516)



Hardening Specification: HRC 62
+/- 2
Effective case depth .027 (0.7)

BMTS MODEL NUMBER DATA



BMT/BMTS 160		161.1 Cm³/Rev 9.83 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		4 (588)	8 (1175)	10 (1470)	12 (1766)	16 (2355)	20 (2950)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	88 (780)	176 (1558)	228 (2081)	275 (2434)	361 (3195)	447 (3956)	535 (4735)
		60 rpm	59 rpm	58 rpm	56 rpm	54 rpm	50 rpm	44 rpm
	20 (5.25)	89 (788)	181 (1602)	234 (2071)	277 (2451)	372 (3292)	459 (4062)	557 (4929)
		121 rpm	120 rpm	117 rpm	114 rpm	109 rpm	103 rpm	95 rpm
	40 (10.50)	91 (805)	180 (1593)	235 (2080)	277 (2451)	381 (3372)	471 (4168)	573 (5071)
		249 rpm	246 rpm	243 rpm	236 rpm	230 rpm	223 rpm	212 rpm
	60 (15.85)	82 (726)	178 (1575)	235 (2080)	277 (2451)	381 (3372)	470 (4160)	572 (5063)
		371 rpm	367 rpm	362 rpm	356 rpm	349 rpm	340 rpm	330 rpm
	80 (21.00)	78 (690)	173 (1531)	229 (2027)	276 (2443)	379 (3356)	466 (4124)	567 (5018)
	492 rpm	489 rpm	485 rpm	478 rpm	470 rpm	462 rpm	447 rpm	
Max Cont.	100 (26.30)	70 (620)	160 (1416)	218 (1929)	269 (2380)	370 (3275)	455 (4026)	558 (4938)
		614 rpm	611 rpm	606 rpm	598 rpm	590 rpm	582 rpm	570 rpm
Max Int.	125 (33.02)	58 (513)	148 (1309)	211 (1867)	261 (2310)	359 (3177)	448 (3965)	552 (4885)
		770 rpm	764 rpm	758 rpm	750 rpm	741 rpm	731 rpm	715 rpm

BMT/BMTS 200		201.4 Cm³/Rev 12.29 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		4 (588)	8 (1175)	10 (1470)	12 (1766)	16 (2355)	20 (2950)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	124 (1097)	233 (2062)	289 (2558)	340 (3009)	454 (4018)	560 (4956)	669 (5921)
		47 rpm	46 rpm	45 rpm	42 rpm	39 rpm	37 rpm	33 rpm
	20 (5.25)	125 (1106)	239 (2175)	298 (2637)	347 (3071)	468 (4142)	576 (5098)	696 (6160)
		95 rpm	94 rpm	92 rpm	90 rpm	87 rpm	84 rpm	75 rpm
	40 (10.50)	120 (1062)	241 (2133)	296 (2620)	352 (3115)	475 (4204)	589 (5213)	716 (6337)
		195 rpm	193 rpm	191 rpm	187 rpm	183 rpm	178 rpm	167 rpm
	60 (15.85)	116 (1027)	237 (2097)	295 (2611)	352 (3115)	478 (4230)	589 (5213)	718 (6354)
		297 rpm	295 rpm	292 rpm	287 rpm	282 rpm	276 rpm	263 rpm
	80 (21.00)	108 (956)	231 (2044)	289 (2558)	350 (3098)	474 (4195)	586 (5186)	716 (6337)
	395 rpm	393 rpm	389 rpm	384 rpm	377 rpm	370 rpm	259 rpm	
100 (26.30)	99 (871)	227 (2009)	286 (2531)	344 (3044)	471 (4168)	580 (5133)	712 (6301)	
	493 rpm	490 rpm	486 rpm	482 rpm	475 rpm	467 rpm	460 rpm	
Max Cont.	125 (33.02)	87 (743)	208 (1841)	276 (2443)	333 (2947)	459 (4062)	566 (5009)	697 (6168)
		615 rpm	611 rpm	607 rpm	602 rpm	595 rpm	588 rpm	572 rpm
Max Int.	150 (39.50)	70 (620)	194 (1717)	260 (23010)	324 (2867)	447 (3956)	554 (4903)	682 (6036)
		743 rpm	740 rpm	735 rpm	727 rpm	717 rpm	706 rpm	682 rpm

BMT/BMTS 250		251.8 Cm³/Rev 15.36 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		4 (588)	8 (1175)	10 (1470)	12 (1766)	16 (2355)	20 (2950)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	138 (1221)	286 (2531)	355 (3142)	419 (3708)	559 (4947)	689 (6098)	824 (7292)
		38 rpm	38 rpm	37 rpm	36 rpm	34 rpm	32 rpm	31 rpm
	20 (5.25)	143 (1266)	296 (2620)	364 (3221)	432 (3823)	580 (5133)	708 (6266)	853 (7550)
		76 rpm	75 rpm	74 rpm	72 rpm	70 rpm	67 rpm	62 rpm
	40 (10.50)	139 (1230)	301 (2664)	372 (3297)	440 (3894)	593 (5248)	723 (6400)	884 (7823)
		156 rpm	154 rpm	152 rpm	149 rpm	146 rpm	142 rpm	134 rpm
	60 (15.85)	132 (1168)	294 (2602)	372 (3292)	441 (3903)	592 (5239)	727 (6434)	888 (7860)
		237 rpm	236 rpm	233 rpm	229 rpm	224 rpm	219 rpm	207 rpm
	80 (21.00)	128 (1133)	283 (2505)	364 (3221)	433 (3832)	587 (5195)	721 (6381)	887 (7850)
	317 rpm	316 rpm	314 rpm	308 rpm	303 rpm	299 rpm	284 rpm	
100 (26.30)	126 (1115)	282 (2496)	355 (3142)	427 (3779)	582 (5151)	716 (6337)	879 (7779)	
	396 rpm	394 rpm	391 rpm	387 rpm	381 rpm	373 rpm	359 rpm	
Max Cont.	125 (33.02)	116 (1027)	260 (2301)	340 (3010)	414 (3665)	568 (5027)	703 (6222)	864 (7646)
		485 rpm	492 rpm	488 rpm	483 rpm	476 rpm	469 rpm	454 rpm
Max Int.	150 (39.50)	88 (779)	242 (2142)	320 (2832)	397 (3513)	552 (4885)	686 (6071)	847 (7496)
		592 rpm	589 rpm	585 rpm	580 rpm	572 rpm	565 rpm	545 rpm

BMT/BMTS 315		326.3 Cm³/Rev 19.91 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		4 (588)	8 (1175)	10 (1470)	12 (1766)	16 (2355)	20 (2950)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	184 (1628)	363 (3213)	453 (4009)	545 (4823)	734 (6496)	891 (7885)	1062 (9399)
		30 rpm	29 rpm	28 rpm	27 rpm	26 rpm	25 rpm	23 rpm
	20 (5.25)	189 (1673)	380 (3363)	472 (4177)	562 (4975)	757 (6700)	917 (8115)	1109 (9815)
		60 rpm	59 rpm	58 rpm	56 rpm	54 rpm	52 rpm	50 rpm
	40 (10.50)	191 (1690)	381 (3372)	484 (4283)	570 (5045)	774 (6850)	954 (8445)	1149 (10170)
		121 rpm	120 rpm	118 rpm	115 rpm	112 rpm	109 rpm	104 rpm
	60 (15.85)	189 (1673)	376 (3328)	493 (4363)	573 (5070)	772 (6832)	962 (8514)	1154 (10213)
		183 rpm	181 rpm	179 rpm	175 rpm	172 rpm	168 rpm	158 rpm
	80 (21.00)	179 (1584)	369 (3266)	479 (4240)	565 (5000)	768 (6797)	954 (8443)	1153 (10204)
	244 rpm	242 rpm	239 rpm	236 rpm	231 rpm	227 rpm	217 rpm	
	100 (26.30)	169 (1496)	357 (3160)	467 (4133)	562 (4975)	758 (6708)	942 (8357)	1143 (10116)
		305 rpm	304 rpm	301 rpm	298 rpm	294 rpm	289 rpm	276 rpm
Max Cont.	125 (26.30)	147 (1301)	336 (2975)	447 (3955)	544 (4815)	745 (6595)	920 (8145)	1127 (9975)
		380 rpm	378 rpm	375 rpm	371 rpm	367 rpm	362 rpm	349 rpm
Max Int.	150 (39.50)	119 (1053)	318 (8950)	432 (3825)	526 (4655)	713 (6310)	894 (7912)	1097 (9710)
		458 rpm	456 rpm	453 rpm	449 rpm	444 rpm	431 rpm	425 rpm

BMT/BMTS 400		410.9 Cm³/Rev 25.07 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		3 (440)	6 (880)	9 (1325)	12 (1766)	15 (2208)	18 (2652)	21 (3090)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	176 (1557)	367 (3248)	560 (4956)	715 (6328)	885 (7832)	1050 (9293)	1209 (10700)
		24 rpm	23 rpm	22 rpm	21 rpm	20 rpm	19 rpm	18 rpm
	20 (5.25)	179 (1584)	370 (3275)	565 (5000)	726 (6425)	899 (7956)	1071 (9470)	1236 (10940)
		49 rpm	48 rpm	47 rpm	44 rpm	42 rpm	40 rpm	38 rpm
	40 (10.50)	176 (1557)	370 (3275)	567 (5018)	733 (6487)	919 (8133)	1091 (9647)	1263 (11178)
		96 rpm	95 rpm	93 rpm	90 rpm	87 rpm	83 rpm	79 rpm
	60 (15.85)	174 (1540)	361 (3195)	563 (4983)	729 (6452)	920 (8142)	1095 (9691)	1269 (11237)
		145 rpm	143 rpm	139 rpm	135 rpm	131 rpm	127 rpm	121 rpm
	80 (21.00)	166 (1469)	353 (3124)	553 (3124)	719 (6363)	912 (8071)	1084 (9593)	1263 (11178)
	193 rpm	191 rpm	188 rpm	184 rpm	180 rpm	1761 rpm	170 rpm	
	100 (26.30)	150 (1328)	339 (3000)	538 (4761)	708 (6267)	896 (7930)	1067 (9443)	1252 (11080)
		242 rpm	240 rpm	238 rpm	234 rpm	228 rpm	224 rpm	218 rpm
Max Cont.	125 (26.30)	135 (1195)	309 (2735)	524 (4637)	688 (6089)	873 (7726)	1045 (9248)	1221 (10806)
		302 rpm	300 rpm	298 rpm	294 rpm	289 rpm	285 rpm	178 rpm
Max Int.	150 (39.50)	126 (1175)	292 (2584)	508 (4496)	666 (5894)	852 (7540)	1020 (9027)	1197 (10593)
		364 rpm	362 rpm	358 rpm	354 rpm	350 rpm	346 rpm	339 rpm

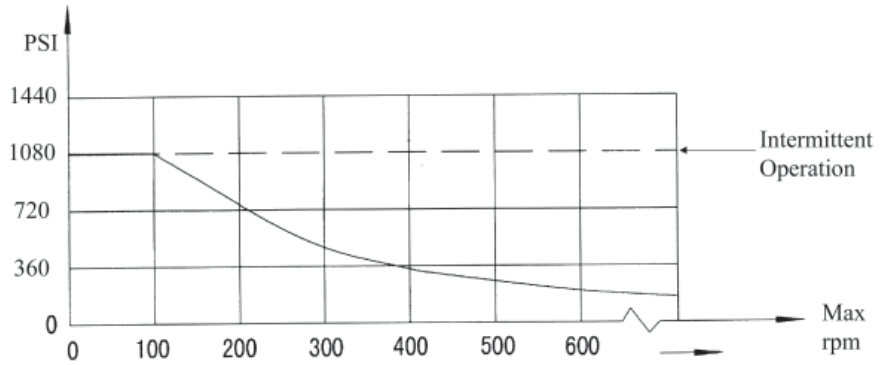
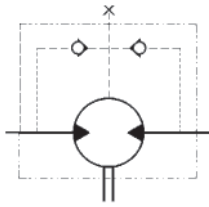
BMT/BMTS 500		523.6 Cm³/Rev 31.95 in³/Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		3 (440)	6 (880)	9 (1325)	12 (1766)	14 (2060)	16 (2355)	18 (2652)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	222 (1965)	451 (3991)	692 (6124)	892 (7894)	1050 (9293)	1193 (10560)	1340 (11859)
		18 rpm	18 rpm	18 rpm	17 rpm	16 rpm	15 rpm	13 rpm
	20 (5.25)	231 (2044)	464 (4106)	714 (6319)	918 (8124)	1070 (9470)	1220 (10797)	1377 (12186)
		37 rpm	36 rpm	35 rpm	34 rpm	33 rpm	32 rpm	30 rpm
	40 (10.50)	230 (2036)	466 (4124)	727 (6434)	941 (8328)	1094 (9682)	1244 (11009)	1422 (12585)
		75 rpm	74 rpm	73 rpm	72 rpm	70 rpm	68 rpm	64 rpm
	60 (15.85)	225 (1991)	457 (4044)	714 (6319)	941 (8328)	1088 (9629)	1245 (11018)	1409 (12470)
		113 rpm	112 rpm	111 rpm	109 rpm	107 rpm	105 rpm	101 rpm
	80 (21.00)	213 (1885)	431 (3814)	696 (6160)	927 (8204)	1076 (9523)	1244 (11009)	1401 (12399)
	151 rpm	150 rpm	149 rpm	147 rpm	145 rpm	143 rpm	138 rpm	
	100 (26.30)	189 (1717)	420 (3717)	680 (6018)	901 (7974)	1063 (9408)	1224 (10832)	1383 (12240)
		189 rpm	188 rpm	187 rpm	185 rpm	183 rpm	181 rpm	177 rpm
Max Cont.	125 (26.30)	182 (1611)	398 (3522)	641 (5673)	877 (7761)	1024 (9062)	1199 (10612)	1352 (11965)
		237 rpm	236 rpm	235 rpm	233 rpm	231 rpm	229 rpm	225 rpm
Max Int.	150 (39.50)	147 (13010)	369 (3266)	618 (5469)	853 (7549)	1004 (8885)	1167 (10238)	1325 (11726)
		284 rpm	283 rpm	282 rpm	280 rpm	278 rpm	276 rpm	272 rpm

BMT 630		629.1 Cm³/Rev 38.39 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		3 (440)	6 (880)	9 (1325)	10.5 (1546)	12 (1766)	14 (2060)	16 (2355)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	233 (2062)	520 (4602)	795 (7036)	902 (7983)	1074 (9505)	1194 (10567)	1363 (12063)
		14 rpm	14 rpm	13 rpm	13 rpm	13 rpm	11 rpm	11 rpm
	20 (5.25)	237 (2097)	554 (4903)	837 (7407)	953 (8434)	1117 (9885)	1239 (10965)	1407 (12452)
		28 rpm	27 rpm	27 rpm	26 rpm	26 rpm	24 rpm	22 rpm
	40 (10.50)	239 (2115)	553 (4894)	860 (7611)	987 (8735)	1171 (10364)	1308 (11576)	1483 (13125)
		62 rpm	62 rpm	61 rpm	60 rpm	59 rpm	56 rpm	54 rpm
	60 (15.85)	223 (1974)	544 (4814)	863 (7638)	978 (8655)	1172 (10372)	1318 (11664)	1498 (13257)
		94 rpm	94 rpm	92 rpm	91 rpm	90 rpm	86 rpm	82 rpm
	80 (21.00)	220 (1947)	537 (5071)	854 (7558)	965 (8540)	1172 (10372)	1314 (11629)	1497 (13248)
	123 rpm	123 rpm	121 rpm	119 rpm	118 rpm	114 rpm	110 rpm	
	100 (26.30)	208 (1841)	522 (4620)	832 (7363)	945 (8363)	1156 (10231)	1303 (10231)	1488 (13169)
		156 rpm	155 rpm	153 rpm	152 rpm	150 rpm	147 rpm	142 rpm
Max Cont.	125 (26.30)	201 (1779)	499 (4416)	810 (7169)	931 (8239)	1137 (10062)	1292 (1143)	1472 (1307)
		196 rpm	196 rpm	194 rpm	192 rpm	191 rpm	187 rpm	183 rpm
Max Int.	150 (39.50)	174 (1540)	492 (4354)	785 (6947)	921 (8151)	1121 (9912)	1277 (11301)	1454 (12868)
		233 rpm	232 rpm	231 rpm	230 rpm	227 rpm	223 rpm	217 rpm

BMT 800		801.8 Cm³/Rev 48.93 in³/Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3 (440)	6 (880)	9 (1325)	10.5 (1546)	12.5 (1840)	13 (1914)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	10 (2.60)	346 (3062)	677 (5991)	1003 (8877)	1159 (10257)	1365 (12080)	1390 (12302)
		12 rpm	12 rpm	11 rpm	11 rpm	11 rpm	10 rpm
	20 (5.25)	356 (3151)	692 (6124)	1034 (9151)	1183 (10470)	1404 (12425)	1458 (12903)
		24 rpm	24 rpm	24 rpm	23 rpm	22 rpm	18 rpm
	40 (10.50)	365 (3220)	703 (6222)	1066 (9434)	1236 (10939)	1459 (12912)	1516 (13417)
		50 rpm	50 rpm	49 rpm	48 rpm	46 rpm	40 rpm
	60 (15.85)	354 (3133)	703 (6222)	1060 (9381)	1237 (10947)	1464 (12956)	1516 (13417)
		74 rpm	73 rpm	71 rpm	71 rpm	68 rpm	63 rpm
	80 (21.00)	332 (2938)	686 (6071)	1050 (9293)	1226 (10850)	1464 (12956)	1514 (13399)
	99 rpm	98 rpm	98 rpm	96 rpm	93 rpm	86 rpm	
	100 (26.30)	305 (3699)	654 (5788)	1025 (9071)	1207 (10682)	1445 (12788)	1506 (13328)
		125 rpm	123 rpm	123 rpm	121 rpm	118 rpm	110 rpm
Max Cont.	125 (26.30)	280 (2478)	622 (5505)	989 (8753)	1181 (10452)	1422 (12585)	1487 (13160)
		154 rpm	153 rpm	153 rpm	150 rpm	149 rpm	140 rpm
Max Int.	150 (39.50)	247 (2186)	590 (5222)	953 (8454)	1156 (10231)	1406 (12443)	1476 (13663)
		185 rpm	184 rpm	183 rpm	181 rpm	179 rpm	172 rpm

MODEL BMT TECHNICAL DATA

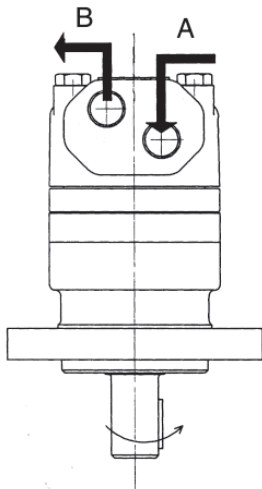
SHAFT SEAL RATED PRESSURE



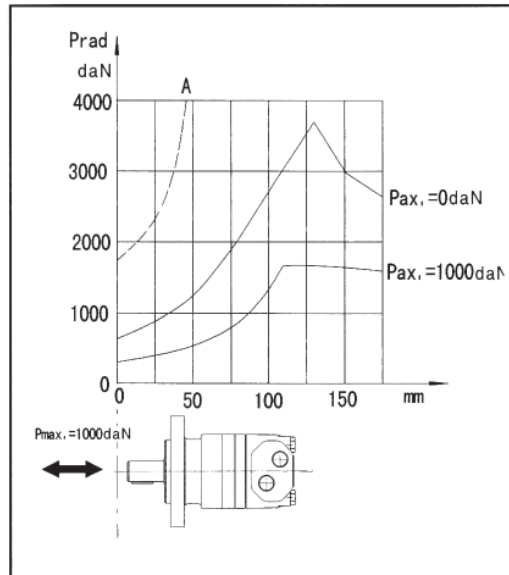
CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

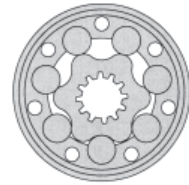
SHAFT ROTATION DIRECTION



Axial and Radial forces



The output shaft runs 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 risk of breakage. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



The BMV series motor adapts the advanced **ROLORTORC™** gear set design with **DISC** distribution flow and high pressure. These motors can be supplied with various options for multifunctional operations in accordance with the application requirements. The output shaft tapered roller bearings permit high axial and radial forces offering a smooth operation during low pressure start up and high pressure operation.

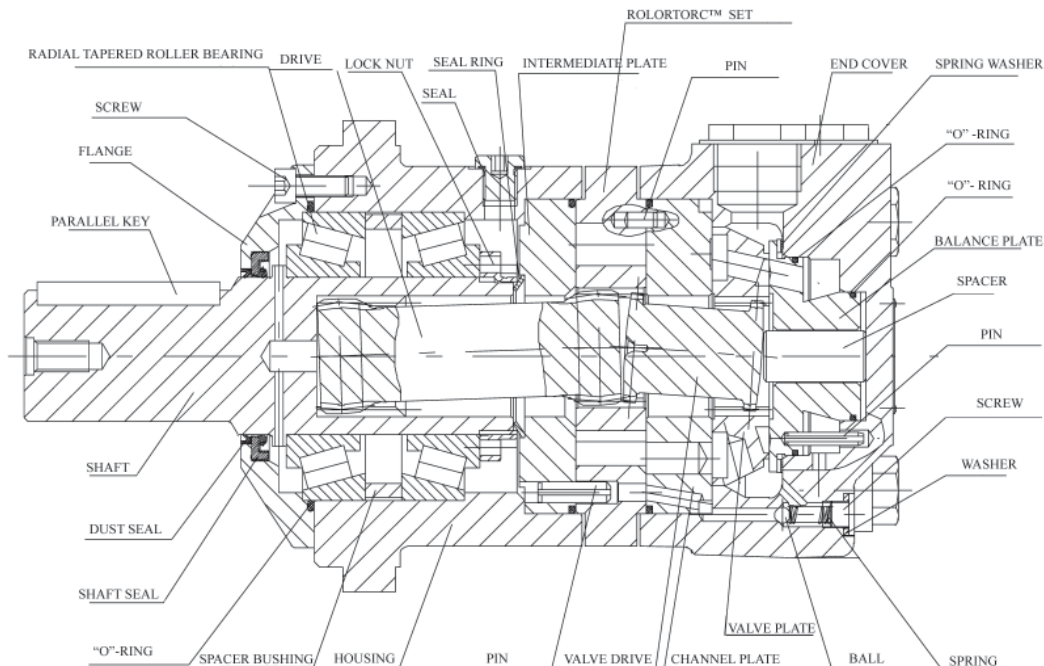
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMV

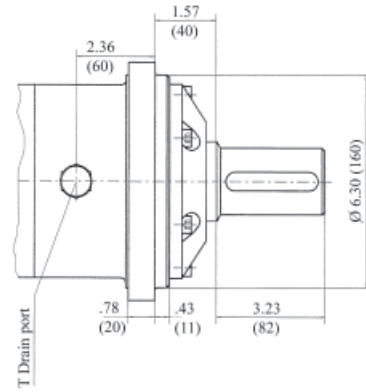
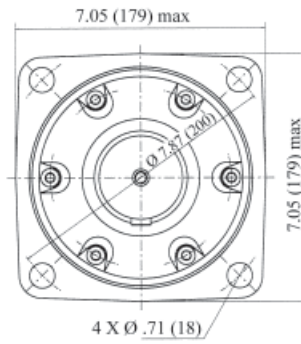
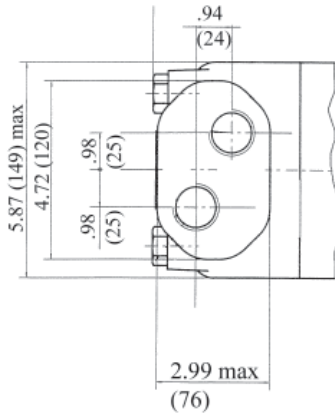
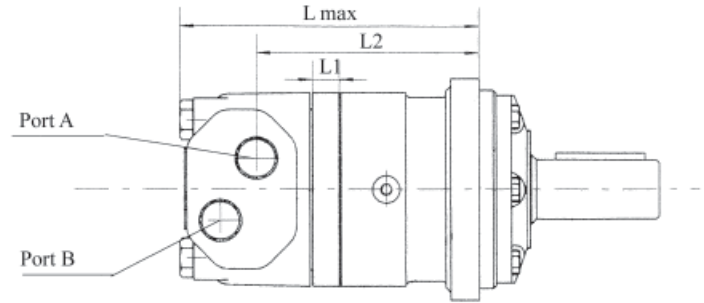
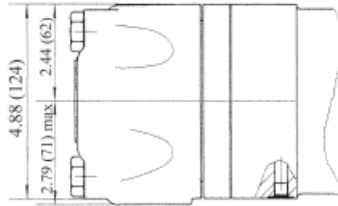
MODEL		BMV 315	BMV 400	BMV 500	BMV 630	BMV 800
Displacement	CM ³ /Rev	333	419	518	666	801.8
	(In ³ /Rev)	(20.32)	(25.56)	(31.61)	(40.64)	(48.93)
Maximum Speed RPM	Cont	446	354	386	223	185
	Int.	649	526	425	331	275
Max Torque NM / (in.lbs)	Cont	925 (8186)	1220 (10800)	1450 (12833)	1640 (14514)	1810 (16020)
	Int.	1100 (9735)	1439 (12735)	1780 (15755)	2000 (17700)	2110 (18675)
Max Differential Mpa / (PSI)	Cont	20 (2950)	20 (2950)	20 (2950)	20 (2950)	20 (2950)
	Int.	24 (3535)	24 (3535)	24 (3535)	24 (3535)	24 (3535)
Max Flow L/min / (gpm)	Cont	150 (39.5)	150 (39.5)	150 (39.5)	150 (39.5)	150 (39.5)
	Int.	225 (59.2)	225 (59.2)	225 (59.2)	225 (59.2)	225 (59.2)
Weight Kg / (lbs)		31.8 (70)	32.6 (71.7)	33.5 (73.7)	34.9 (76.8)	36.5 (80.3)

Continuous = maximum of continuous operation

Intermittent = maximum operating range for 6 seconds per minute



BMV INSTALLATION DATA

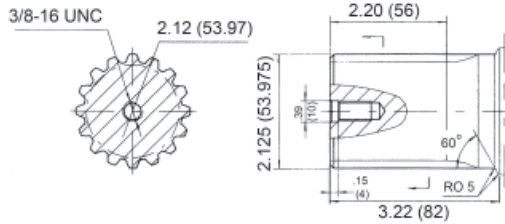


MODEL BMV	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMV 315	8.54	217	1.06	27	6.36	161.5
BMV 400	8.82	224	1.33	34	6.63	168.5
BMV 500	9.13	232	1.65	42	6.95	176.5
BMV 630	9.60	244	2.12	54	7.42	188.5
BMV 800	10.04	255	2.56	65	7.85	199.5

PORT SIZES	SAE
P (A,B)	1 5/16-12 SAE
T	9/16-18 SAE

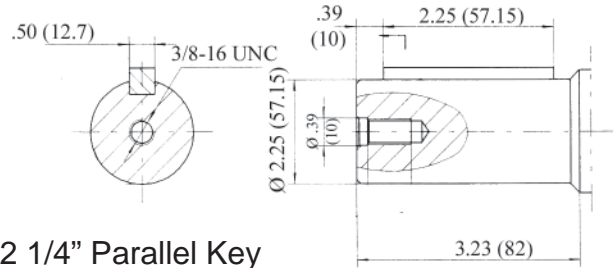
MODEL BMV DRIVE SHAFT DATA

B



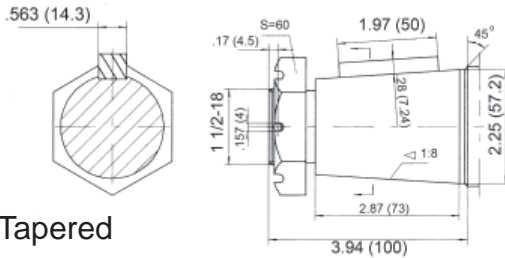
2 1/8" 16 Tooth Spline

C



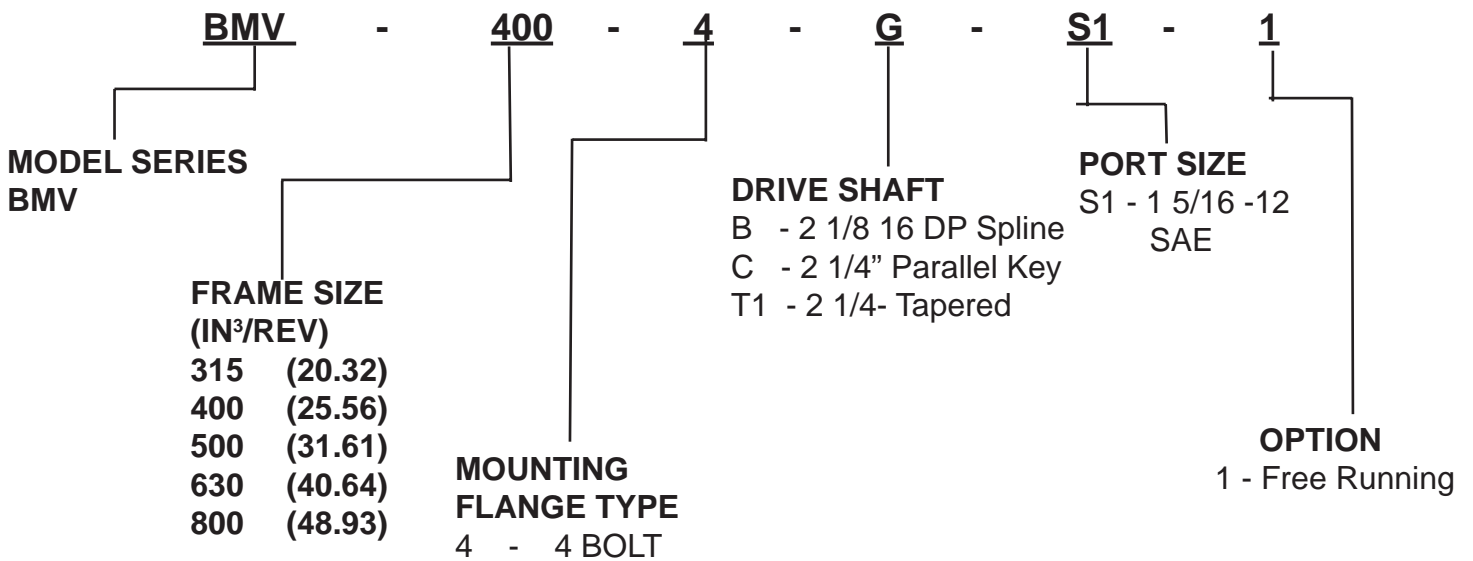
2 1/4" Parallel Key

T1



2 1/4" Tapered

BMV MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMV 315		333 Cm ³ /Rev 20.32 in ³ /Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	30 (7.92)	305 (2588)	435 (3850)	605 (5143)	718 (6354)	790 (6992)	892 (7894)	942 (8337)	1060 (9381)
		89 rpm	85 rpm	79 rpm	71 rpm	70 rpm	68 rpm	62 rpm	55 rpm
	60 (15.85)	303 (2672)	445 (3938)	625 (5531)	736 (6514)	828 (7528)	925 (8186)	968 (8567)	1097 (9708)
		183 rpm	179 rpm	174 rpm	168 rpm	163 rpm	160 rpm	154 rpm	148 rpm
	90 (23.77)	300 (2655)	440 (3894)	625 (5531)	730 (6461)	826 (7310)	922 (8160)	962 (8514)	1082 (9576)
		275 rpm	272 rpm	266 rpm	258 rpm	254 rpm	248 rpm	242 rpm	235 rpm
	105 (27.74)	295 (2611)	435 (3850)	620 (5487)	726 (6425)	822 (7275)	917 (8115)	958 (8478)	1078 (9540)
		325 rpm	320 rpm	312 rpm	306 rpm	300 rpm	292 rpm	290 rpm	285 rpm
	120 (31.70)	290 (2566)	431 (3814)	610 (5399)	720 (6372)	820 (7257)	912 (8071)	952 (8425)	1070 (9470)
		371 rpm	366 rpm	359 rpm	350 rpm	345 rpm	337 rpm	332 rpm	325 rpm
Max Cont.	150 (39.50)	278 (2460)	411 (3637)	602 (5328)	716 (6337)	802 (7098)	904 (8000)	942 (8337)	1057 (9354)
		464 rpm	459 rpm	454 rpm	445 rpm	435 rpm	428 rpm	422 rpm	412 rpm
Max Int.	190 (50.19)	260 (2301)	392 (3469)	588 (5204)	710 (6284)	795 (7036)	892 (7894)	930 (8231)	
		595 rpm	588 rpm	582 rpm	575 rpm	568 rpm	562 rpm	555 rpm	

BMV 400		419 Cm ³ /Rev 25.56 in ³ /Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	30 (7.92)	392 (3469)	592 (5259)	812 (7186)	995 (8806)	1050 (9293)	1180 (10443)	1195 (10576)	1385 (12257)
		71 rpm	70 rpm	68 rpm	63 rpm	60 rpm	56 rpm	52 rpm	47 rpm
	60 (15.85)	402 (3558)	614 (5434)	822 (7252)	1020 (9027)	1070 (9470)	1220 (10797)	1235 (10930)	1425 (12611)
		146 rpm	142 rpm	138 rpm	132 rpm	127 rpm	124 rpm	120 rpm	118 rpm
	90 (23.77)	396 (3505)	606 (5363)	815 (7213)	1015 (8983)	1065 (9425)	1210 (10709)	1225 (10841)	
		240 rpm	238 rpm	232 rpm	228 rpm	222 rpm	217 rpm	212 rpm	
	105 (27.74)	390 (3457)	600 (5370)	805 (7124)	1010 (8939)	1062 (9399)	1205 (10664)	1205 (107970)	
		270 rpm	266 rpm	261 rpm	258 rpm	254 rpm	250 rpm	248 rpm	
	120 (31.70)	384 (3398)	594 (5257)	798 (7062)	1005 (8894)	1055 (9337)	1200 (10620)	1210 (10709)	
		294 rpm	290 rpm	286 rpm	284 rpm	280 rpm	276 rpm	272 rpm	
Max Cont.	150 (39.50)	375 (3319)	582 (5157)	792 (7009)	1002 (8868)	1040 (9204)			
		370 rpm	365 rpm	360 rpm	358 rpm	355 rpm			
Max Int.	190 (50.19)	360 (3186)	574 (5080)	787 (6935)	987 (8735)	1025 (9071)			
		485 rpm	480 rpm	475 rpm	472 rpm	470 rpm			

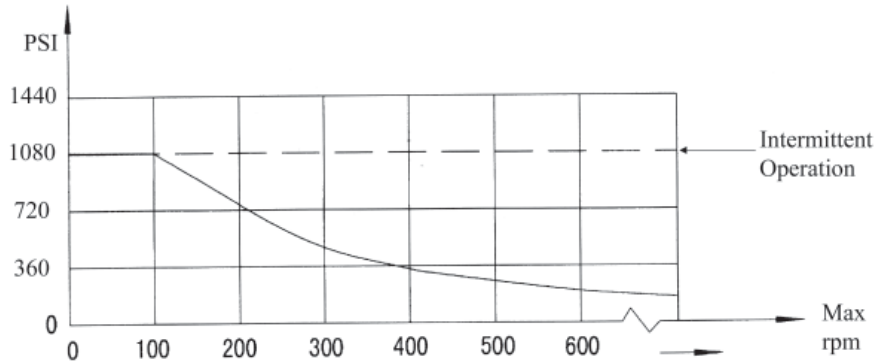
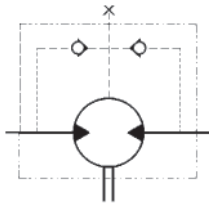
BMV 500		518 Cm ³ /Rev 31.61 in ³ /Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	30 (7.92)	442 (3912)	675 (5974)	998 (8832)	1180 (10443)	1260 (11151)	1410 (12478)	1485 (13142)	1759 (15567)
		57 rpm	55 rpm	53 rpm	52 rpm	50 rpm	48 rpm	44 rpm	40 rpm
	60 (15.85)	455 (4026)	685 (6062)	1025 (9071)	1210 (10708)	1265 (11195)	1445 (12788)	1510 (13364)	1780 (15753)
		117 rpm	115 rpm	111 rpm	106 rpm	101 rpm	97 rpm	95 rpm	90 rpm
	90 (23.77)	450 (3982)	678 (6000)	1020 (9027)	1205 (10664)	1260 (11151)	1450 (12832)	1520 (13452)	1786 (15806)
		186 rpm	184 rpm	183 rpm	180 rpm	178 rpm	173 rpm	170 rpm	166 rpm
	105 (27.74)	445 (3938)	672 (5947)	1012 (8956)	1200 (10620)	1255 (11106)	1446 (12797)	1513 (13390)	
		205 rpm	202 rpm	198 rpm	194 rpm	192 rpm	187 rpm	186 rpm	
	120 (31.70)	440 (3894)	668 (4553)	1005 (8894)	1194 (10567)	1250 (11062)	1399 (12381)	1510 (13363)	
		240 rpm	238 rpm	235 rpm	232 rpm	230 rpm	226 rpm	225 rpm	
Max Cont.	150 (39.50)	435 (3850)	663 (5867)	1000 (8850)	1186 (10496)	1246 (11027)			
		294 rpm	290 rpm	286 rpm	282 rpm	278 rpm			
Max Int.	190 (50.19)	428 (3788)	658 (5823)	993 (8788)					
		373 rpm	368 rpm	362 rpm					

BMV 630		666 Cm³/Rev 40.64 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	30 (7.92)	610 (5399)	880 (7788)	1280 (11328)	1404 (12425)	1616 (14302)	1780 (15753)	1843 (16311)
		43 rpm	41 rpm	38 rpm	36 rpm	34 rpm	31 rpm	30 rpm
	60 (15.85)	615 (5443)	888 (5443)	1336 (11824)	1412 (12496)	1628 (14408)	1800 (15930)	
		90 rpm	87 rpm	84 rpm	82 rpm	81 rpm	77 rpm	
	90 (23.77)	608 (5381)	878 (7770)	1331 (11779)	1422 (12585)	1640 (14514)	1810 (16019)	
		140 rpm	138 rpm	136 rpm	134 rpm	132 rpm	128 rpm	
	105 (27.74)	600 (5310)	872 (7717)	1326 (11135)	1415 (12523)	1632 (14443)	1790 (15842)	
		164 rpm	162 rpm	158 rpm	155 rpm	153 rpm	149 rpm	
	120 (31.70)	595 (5266)	865 (7655)	1310 (11594)	1405 (12434)	1625 (14381)	1780 (15753)	
	186 rpm	183 rpm	180 rpm	177 rpm	174 rpm	171 rpm		
Max Cont.	150 (39.50)	590 (5222)	855 (7567)	1302 (11533)	1398 (12372)			
		235 rpm	232 rpm	228 rpm	224 rpm			
Max Int.	190 (50.19)	586 (5186)	864 (7487)					
		298 rpm	292 rpm					

BMV 800		801 Cm³/Rev 48.93 in³/Rev			Max Cont.
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification			
	30 (7.92)	790 (6992)	1137 (10062)	1582 (1400)	16 (2357)
		35 rpm	33 rpm	30 rpm	28 rpm
	60 (15.85)	802 (7098)	1142 (10107)	1590 (14072)	1810 (16019)
		68 rpm	66 rpm	62 rpm	60 rpm
	90 (23.77)	795 (7036)	1135 (10045)	1580 (13983)	1800 (15930)
		110 rpm	107 rpm	102 rpm	100 rpm
	105 (27.74)	787 (6965)	1130 (10000)	1576 (13948)	1792 (15859)
		129 rpm	125 rpm	120 rpm	117 rpm
	120 (31.70)	782 (6921)	1124 (9947)	1549 (13709)	1760 (15576)
	146 rpm	142 rpm	136 rpm	132 rpm	

MODEL BMV TECHNICAL DATA

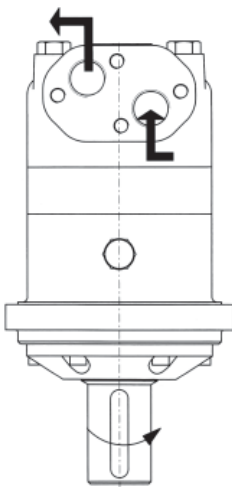
SHAFT SEAL RATED PRESSURE



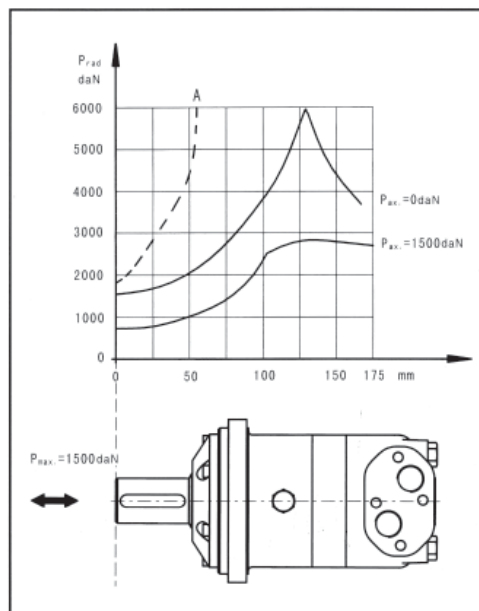
CASE DRAIN

In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION



Axial and Radial forces



The output shaft runs 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 risk of breakage. The two other curves apply to a B10 bearing life of 3000 hours at 200 RPM.



The BMM ROTORTORC™ gear set, shaft distribution flow, hydraulic motors are a compact, highly efficient, low speed-high torque design which can be used in either parallel or series systems.

These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

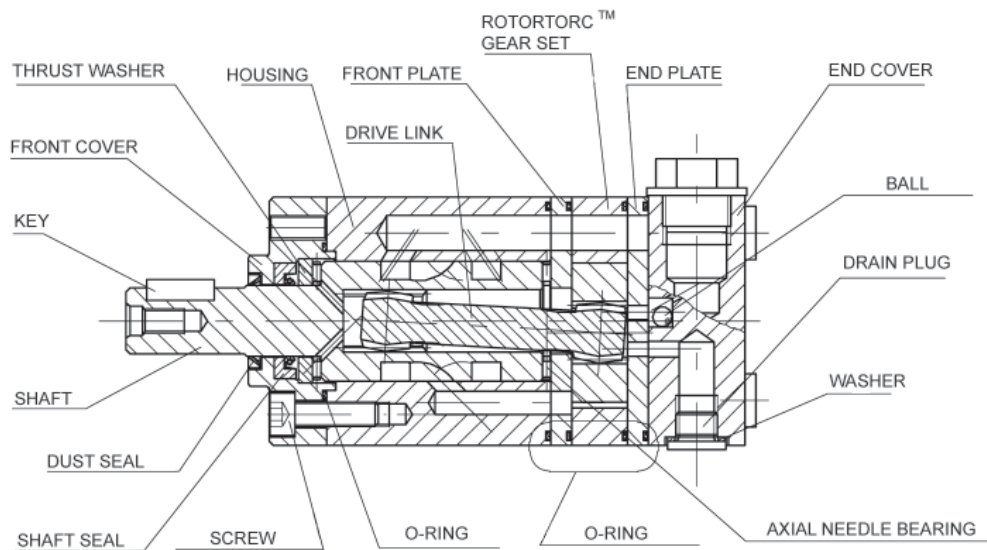
Technical Specifications - BMM

MODEL		BMM 8	BMM 12.5	BMM 20	BMM 32	BMM 40	BMM 50
Displacement Cm ³ /Rev (In ³ /Rev)		8.2 (0.50)	12.9 (0.76)	19.9 (1.21)	31.6 (1.93)	39.8 (2.43)	50.3 (3.07)
	Maximum Speed RPM	Cont 1950	1550	1000	630	500	400
Max Torque NM / (in.lbs)	Cont	11 (97)	16 (141)	25 (221)	40 (354)	45 (398)	46 (407)
	Int.	15 (132)	23 (203)	35 (310)	57 (504)	70 (620)	88 (779)
Max Differential Mpa / (PSI)	Cont	10 (1450)	10 (1450)	10 (1450)	10 (1450)	9 (1305)	7 (1015)
	Int.	14 (2030)	14 (2030)	14 (2030)	14 (2030)	14 (2030)	14 (2030)
Max Flow L/min / (gpm)	Cont	16 (4.22)	20 (5.28)	20 (5.28)	20 (5.28)	20 (5.28)	20 (5.28)
	Int.	20 (5.28)	25 (6.60)	25 (6.60)	25 (6.60)	25 (6.60)	25 (6.60)
Weight Kg / (lbs)		1.9 (4.18)	2 (4.40)	2.1 (4.62)	2.2 (4.85)	2.3 (5.07)	2.4 (5.29)

Continuous = maximum of continuous operation

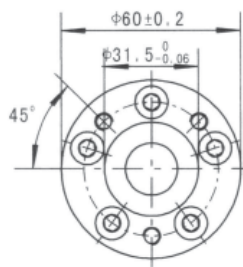
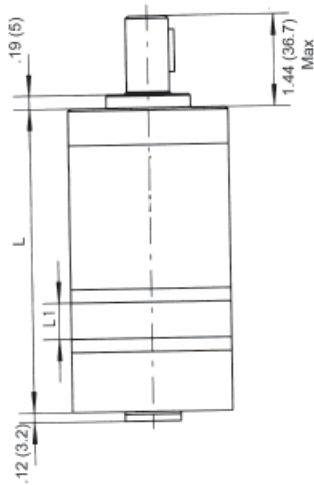
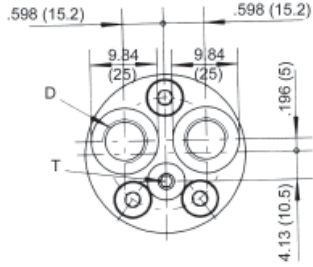
Intermittent = maximum operating range for 6 seconds per minute

MODEL	Pressure	Max Inlet Pressure	Max Return Pressure
BMM 8-50	Rated	2030	2030
	Cont.	2475	2475
	Int.	3275	3275

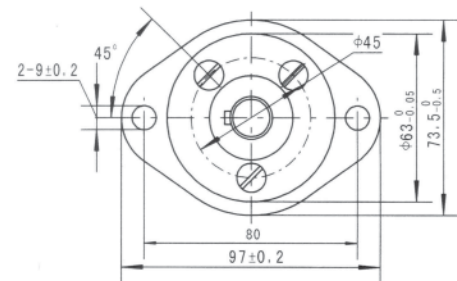
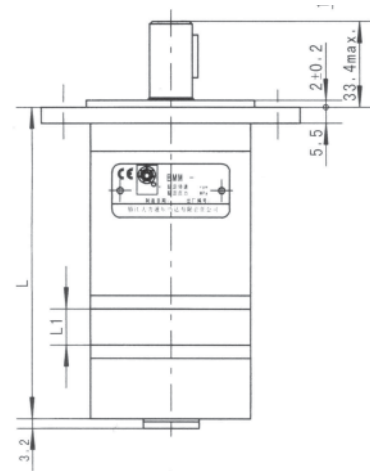
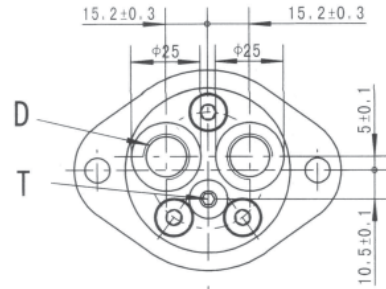


BMM END PORT INSTALLATION DATA

U Style



F Style

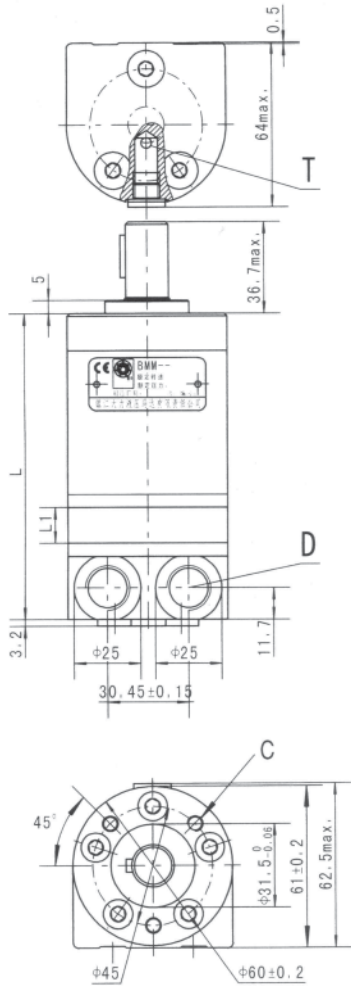


MODEL BMM	U				F			
	L		L1		L		L1	
	inches	mm	inches	mm	inches	mm	inches	mm
BMM 8	4.09	104	.13	3.5	4.21	107	.13	3.5
BMM 12.5	4.17	106	.21	5.5	4.29	109	.21	5.5
BMM 20	4.29	109	.33	8.5	4.40	112	.33	8.5
BMM 32	4.48	114	.53	13.5	4.60	117	.53	13.5
BMM 40	4.64	118	.67	17	4.64	118	.67	17
BMM 50	4.80	122	.84	21.5	4.92	125	.84	21.5

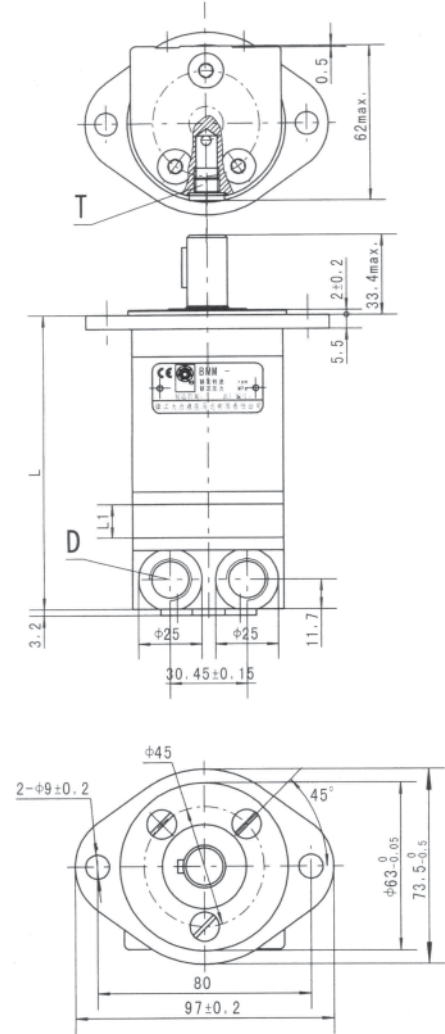
PORT SIZES	U	F
D	9/16-18 SAE	9/16-18 SAE
T	3/8-24 SAE	3/8-24 SAE

BMM SIDE PORT INSTALLATION DATA

U Style



F Style

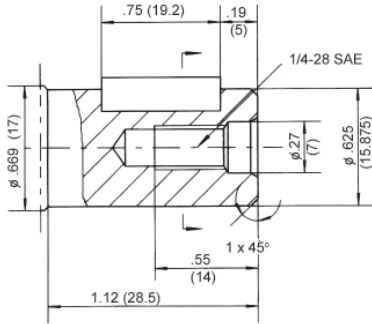


MODEL BMM	U				F			
	L		L1		L		L1	
	inches	mm	inches	mm	inches	mm	inches	mm
BMM 8	4.13	105	.13	3.5	4.29	109	.13	3.5
BMM 12.5	4.21	107	.21	5.5	4.37	111	.12	5.5
BMM 20	4.33	110	.33	8.5	4.48	114	.33	8.5
BMM 32	4.52	115	.53	13.5	4.68	119	.53	13.5
BMM 40	4.64	118	.67	17	4.64	118	.67	17
BMM 50	4.84	123	.84	21.5	5.00	127	.84	21.5

PORT SIZES	U	F
D	9/16-18 SAE	9/16-18 SAE
T	3/8-24 SAE	3/8-24 SAE

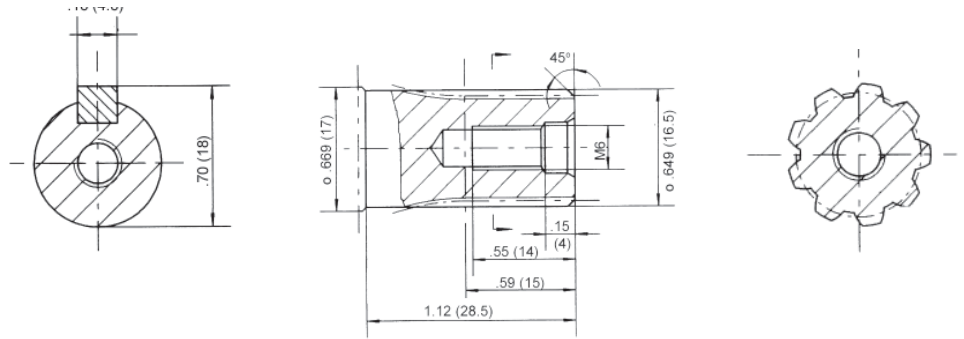
MODEL BMM DRIVE SHAFT DATA

B



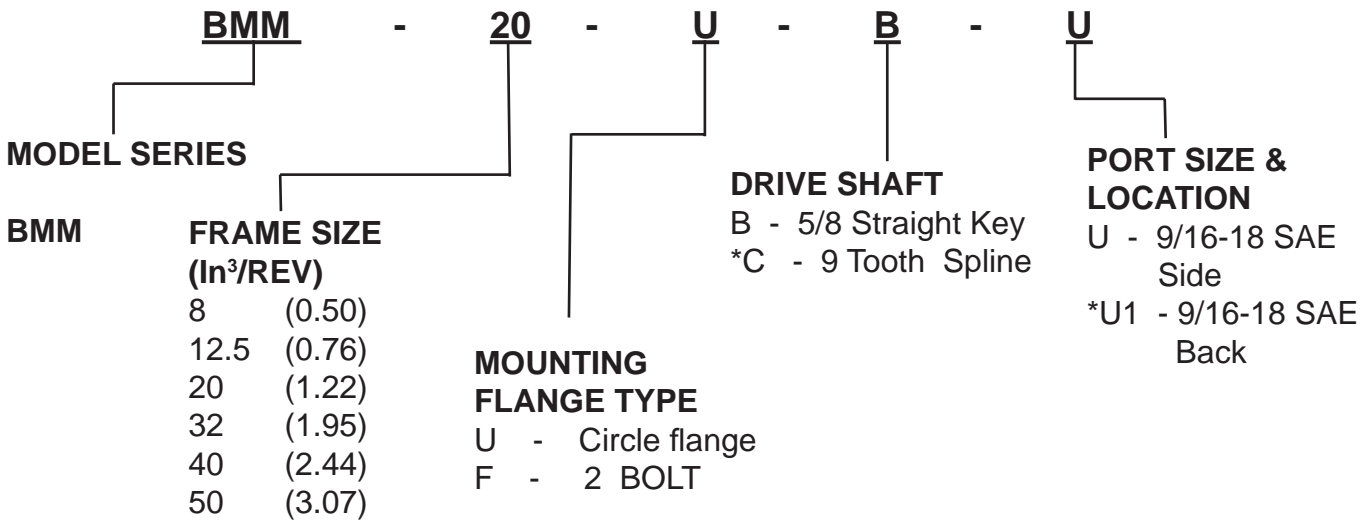
5/8 Straight Key

C



9 Tooth Spline

BMM MODEL NUMBER DATA



* Special order only

BMM 8		8.2 Cm³/Rev 0.50 in³/Rev			Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (510)	5 (725)	7 (1015)	10 (1450)	12 (1750)	14 (2030)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	2 (0.52)	3 (27)	5 (44)	8 (71)	10 (89)	12 (106)	14 (124)
		228 rpm	218 rpm	206 rpm	156 rpm	111 rpm	58 rpm
	4 (1.05)	3 (27)	5 (44)	7 (62)	11 (98)	13 (115)	15 (133)
		474rpm	471 rpm	463 rpm	426 rpm	391 rpm	331 rpm
	8 (2.10)	3 (27)	5 (44)	7 (62)	11 (98)	13 (115)	15 (133)
		953 rpm	946 rpm	926 rpm	884 rpm	855 rpm	816 rpm
	12 (3.15)	2 (19)	5 (44)	7 (62)	10 (89)	13 (115)	15 (133)
		1444rpm	1426 rpm	1402 rpm	1360 rpm	1324 rpm	1288 rpm
Max Cont.	15 (3.95)		4 (35)	7 (62)	10 (89)	12 (106)	14 (124)
			1912 rpm	1900 rpm	1861 rpm	1833 rpm	1780 rpm
Max Int.	20 (5.25)		0	6 (53)	10 (89)	11 (97)	14 (124)
			2432 rpm	2395 rpm	2350 rpm	2328 rpm	2281 rpm

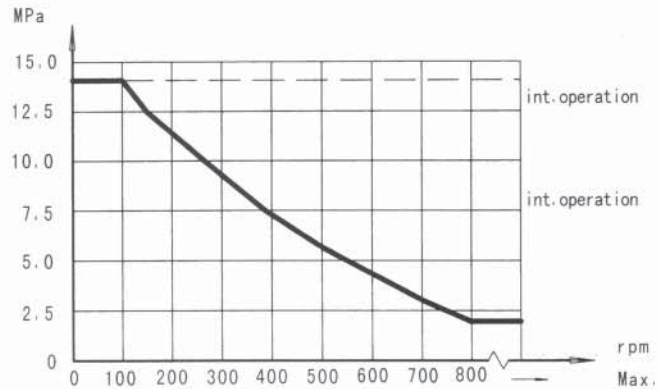
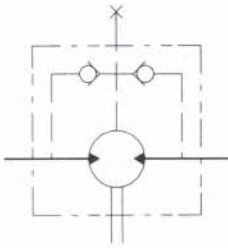
BMM 12.5		12.9 Cm³/ Rev 0.76 in³/Rev			Max Cont.	Max Int.	
Pressure Mpa (psi)		3.5 (510)	5 (725)	7 (1015)	10 (1470)	12 (1750)	14 (2030)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	2 (0.52)	6 (53)	8 (71)	11 (97)	16 (142)	19 (168)	
		140 rpm	136 rpm	119 rpm	68 rpm	35 rpm	
	4 (1.05)	6 (53)	8 (71)	12 (106)	17 (150)	19 (168)	23 (204)
		296 rpm	289 rpm	274 rpm	229 rpm	200 rpm	145 rpm
	8 (2.10)	5 (44)	8 (71)	12 (106)	17 (150)	20 (177)	24 (216)
		605 rpm	596 rpm	583 rpm	543 rpm	514 rpm	469 rpm
	12 (3.15)	5 (44)	8 (71)	11 (97)	16 (142)	20 (177)	24 (216)
		912 rpm	905 rpm	895 rpm	859 rpm	834 rpm	784 rpm
	15 (3.95)	5 (44)	7 (62)	11 (97)	16 (142)	19 (168)	23 (204)
		1152 rpm	1144 rpm	1136 rpm	1102 rpm	1078 rpm	1036 rpm
Max Cont.	20 (5.25)	3 (27)	7 (62)	10 (885)	15 (133)	19 (168)	20 (177)
		1542 rpm	1532 rpm	1521 rpm	1500 rpm	1482 rpm	1437 rpm
Max Int.	25 (6.57)	2 (18)	6 (53)	9 (80)	14 (124)	18 (159)	22 (193)
		1910 rpm	1891 rpm	1878 rpm	1848 rpm	1828 rpm	1788 rpm

BMM 20		19.9 Cm³/ Rev 1.21 in³/Rev				Max Cont.	Max Int.	
Pressure Mpa (psi)		1.7 (246)	3.5 (510)	5 (725)	7 (1015)	10 (1470)	12 (1750)	14 (2030)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	2 (0.52)	3 (27)	9 (80)	14 (124)	19 (168)	26 (230)	30 (266)	
		99 rpm	96 rpm	89 rpm	74 rpm	42 rpm	21 rpm	
	4 (1.05)	4 (36)	9 (80)	14 (124)	19 (168)	26 (230)	31 (274)	36 (319)
		197 rpm	191 rpm	182 rpm	178 rpm	134 rpm	112 rpm	74 rpm
	8 (2.10)	4 (36)	9 (80)	13 (150)	19 (168)	27 (239)	31 (274)	36 (319)
		398 rpm	395 rpm	391 rpm	377 rpm	340 rpm	319 rpm	288 rpm
	12 (3.15)	3 (27)	8 (71)	13 (150)	18 (159)	26 (230)	31 (274)	37 (327)
		596 rpm	594 rpm	588 rpm	579 rpm	545 rpm	523 rpm	493 rpm
	15 (3.95)	3 (27)	8 (71)	12 (106)	17 (150)	25 (221)	30 (266)	36 (319)
		745 rpm	741 rpm	738 rpm	728 rpm	695 rpm	684 rpm	660 rpm
Max Cont.	20 (5.25)	1 (9)	6 (53)	11 (97)	19 (168)	24 (212)	29 (257)	35 (310)
		998 rpm	995 rpm	991 rpm	985 rpm	962 rpm	916 rpm	885 rpm
Max Int.	25 (6.57)		4 (36)	9 (80)	14 (124)	23 (204)	28 (248)	33 (292)
			1247 rpm	1245 rpm	1242 rpm	1189 rpm	1180 rpm	1178 rpm

MODEL BMM TECHNICAL DATA

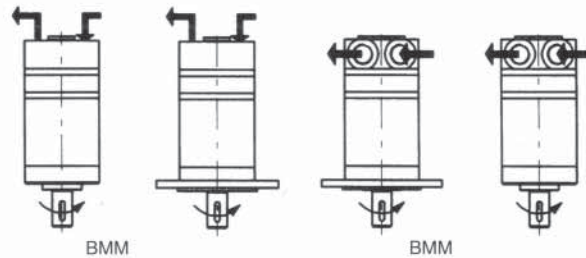
BMM Series Hydraulic Motor

Permissible shaft seal pressure



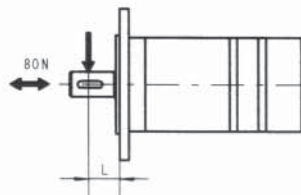
In applications without drain line, output shaft seal exceeds a bit of the pressure in the return line. When applications use the drain line, the pressure of output shaft seal equals the pressure in drain line.

Direction of shaft rotation



Status of the shaft's radial force

$$F_r = \frac{130400}{61.5 + L} \text{ N}$$



F_r =Radial Force (N)
 L =Distance (mm)
 n =Speed (rpm)
 Rhomb-flange $L=15\text{mm}$
 Square-flange $L=20\text{mm}$