

DYNAMIC

FLUID COMPONENTS, INC.



Low Speed
High Torque CATALOG 2006

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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.

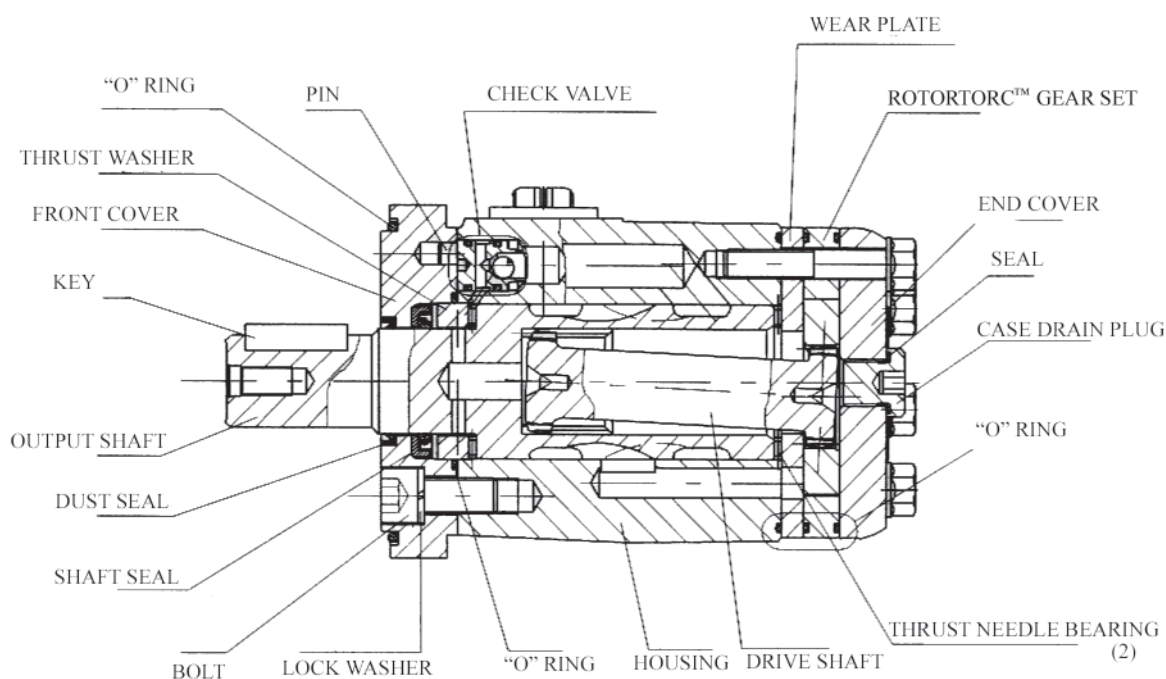
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMPH/BMP

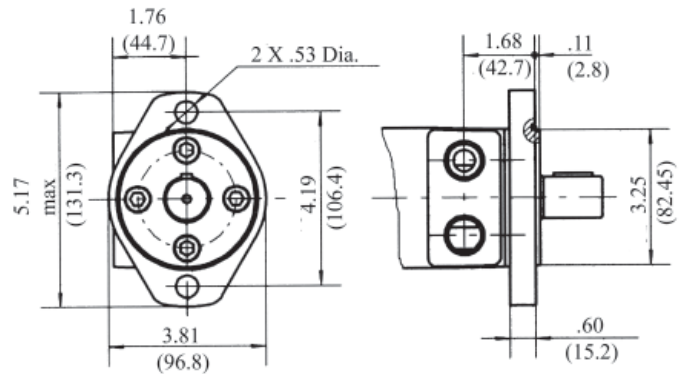
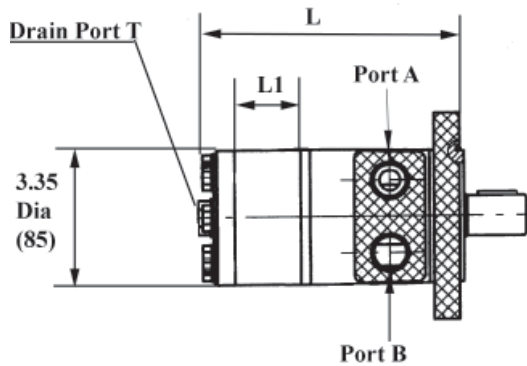
MODEL		BMPH50	BMPH80	BMPH100	BMPH125	BMPH160	BMPH200	BMPH250	BMPH315	BMPH400
		BMP50	BMP80	BMP100	BMP125	BMP160	BMP200	BMP250	BMP315	BMP400
Displacement cm^3/Rev (in^3/Rev)		51.7 (3.15)	77.7 (4.75)	96.2 (5.9)	118 (7.2)	156 (9.5)	190 (11.6)	231 (14.1)	312 (19)	387 (23.6)
Maximum Speed RPM	Cont	880	740	590	475	370	295	240	190	150
	Int.	975	825	675	595	465	370	295	235	185
Max Torque NM / (in.lbs)	Cont	81 (717)	129 (1140)	161 (1425)	202 (1790)	245 (2170)	286 (2530)	360 (3185)	406 (3575)	435 (3850)
	Int.	108 (956)	171 (1514)	213 (1885)	268 (2372)	342 (3026)	390 (3450)	456 (4035)	505 (4470)	533 (4717)
Max Differential Mpa / (PSI)	Cont	12.5 (1840)	12.5 (1840)	12.5 (1840)	12.5 (1840)	12.5 (1840)	11 (1625)	11 (1625)	11 (1625)	10 (1450)
	Int.	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	16.5 (2425)	14 (2060)	14 (2060)	14 (2060)
Max Flow L/min / (gpm)	Cont	45 (11.85)	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)		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)	7.4 (16.3)

Continuous = maximum of continuous operation

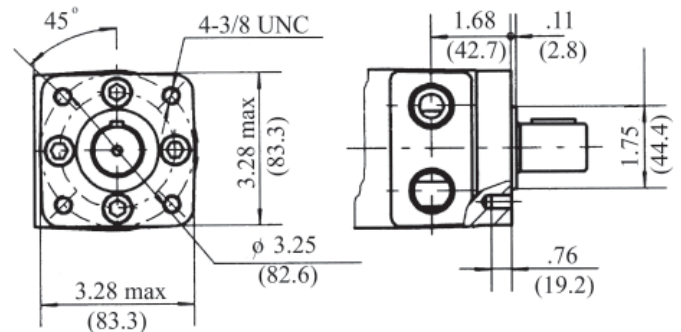
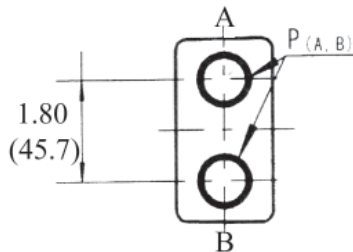
Intermittent = maximum operating range for 6 seconds per minute



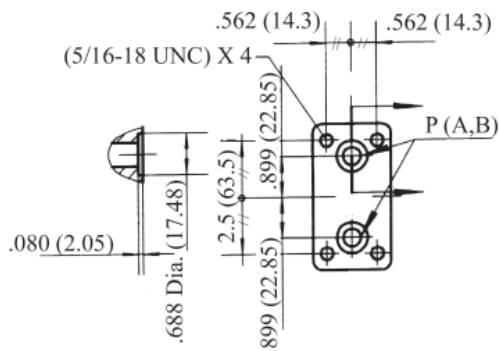
BMPH INSTALLATION DATA



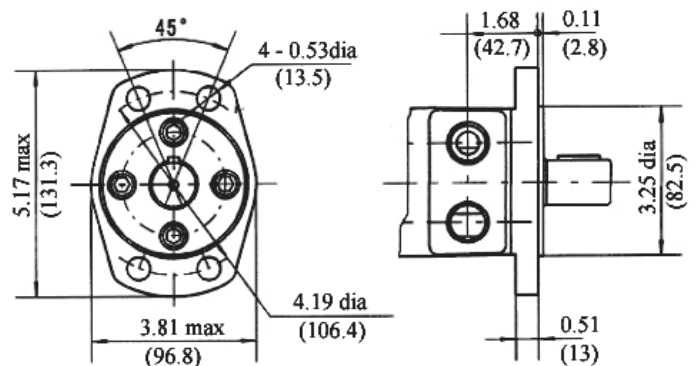
H2 - SAE -"A" 2 BOLT



H4 - SAE -"A" 4 BOLT



Manifold Mount

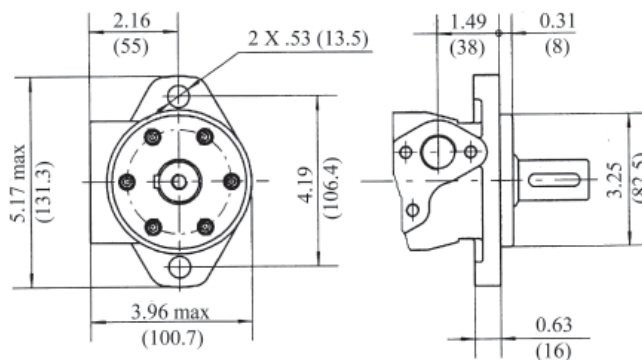
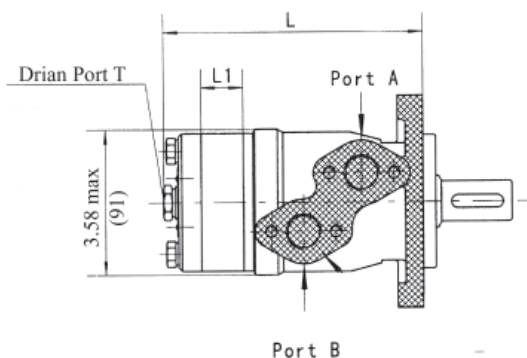


H6 - Magneto

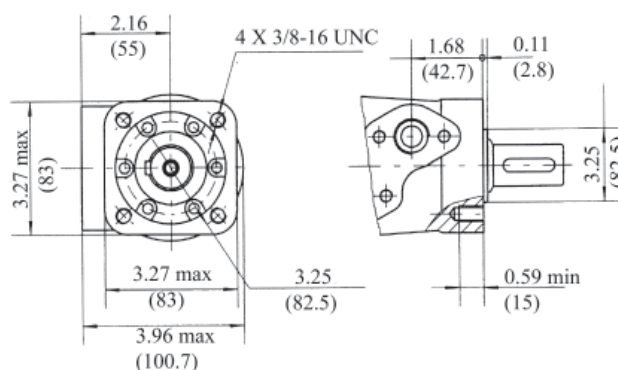
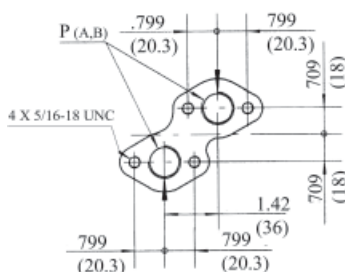
MODEL BMPH	L		L1	
	inches	mm	inches	mm
BMPH 50	5.55	141	0.28	7
BMPH 80	5.69	144.5	0.41	10.5
BMPH 100	5.79	147	0.51	13
BMPH 125	5.91	150	0.63	16
BMPH 160	6.10	155	0.83	21
BMPH 200	6.30	160	1.02	26
BMPH 250	6.54	166	1.26	32
BMPH 315	7.72	176	1.65	42
BMPH 400	7.32	186	2.04	52

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



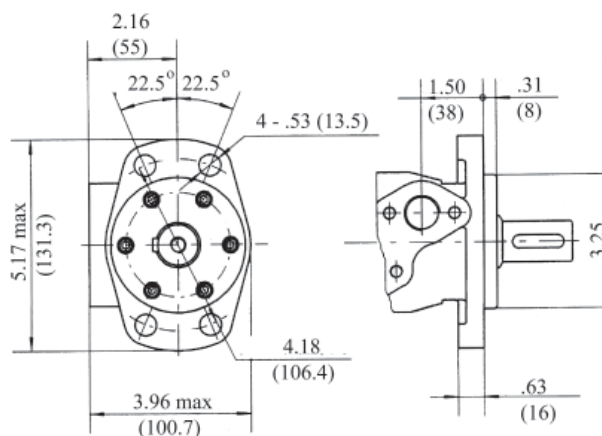
H2 - SAE -"A" 2 BOLT



H4 - SAE -"A" 4 BOLT

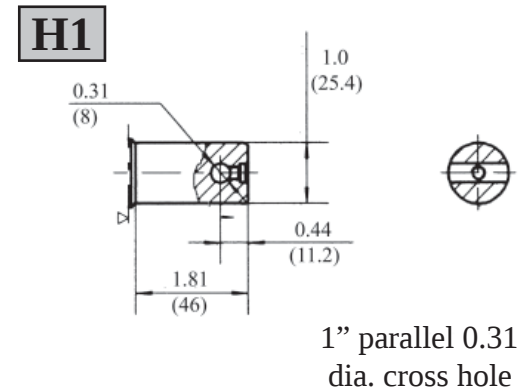
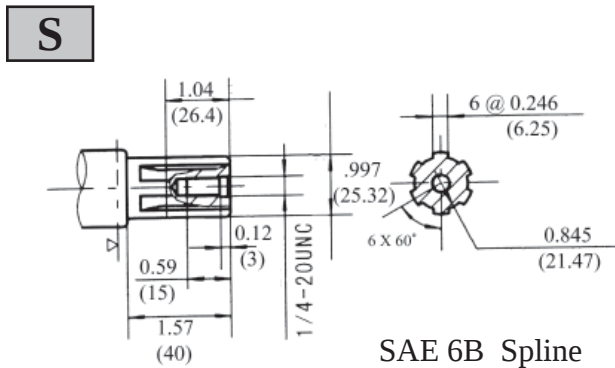
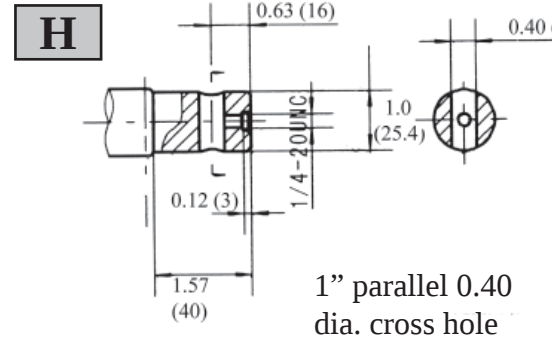
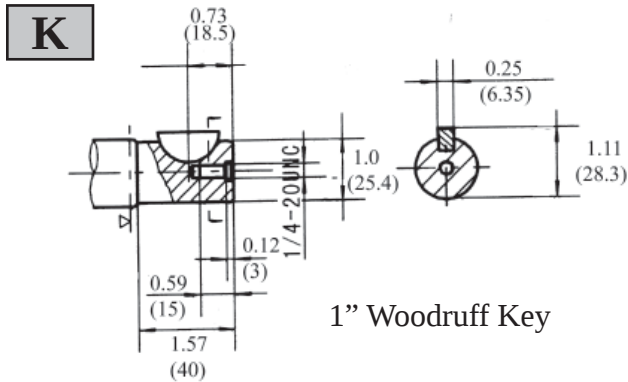
PORT SIZES	SAE	NPT
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

MODEL BMP	L		L1	
	inches	mm	inches	mm
BMP 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

MODEL SERIES		MOUNTING		DRIVE SHAFT		PORT SIZE		OPTION	
BMPH	FRAME SIZE (In ³ /REV)	FLANGE TYPE							
BMP*									
(*Special order only)									
50	(3.15)	H2	SAE -"A" 2 BOLT	K	1" Woodruff Key	P	1/2 NPTF	1	Free running
80	(4.74)	H4	4 BOLT	S	SAE 6B Spline	S	7/8 -14 SAE	2	1800 lb radial load bearings
100	(5.87)	H6	Magneto	H	1" parallel 0.40 dia. cross hole	F	Manifold	3	5000 lb. axial load bearings
125	(7.19)			H1	1" parallel 0.31 dia. cross hole				
160	(9.49)								
200	(11.59)								
250	(15.25)								
315	(19.02)								
400	(23.57)								

Additional flange and drive shaft options available please consult factory

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 Mn (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
	35 (9.20)	15 (134)	36 (320)	43 (320)	50 (443)	63 (558)	71 (628)	80 (708)	107 (947)
Max Cont.		683 rpm	675 rpm	670 rpm	663 rpm	656 rpm	647 rpm	641 rpm	614 rpm
	45 (11.90)	14 (126)	34 (304)	42 (374)	49 (435)	63 (558)	70 (620)	80 (708)	107 (947)
Max Int.		879 rpm	868 rpm	862 rpm	855 rpm	849 rpm	840 rpm	833 rpm	799 rpm
	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 4.75 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 Mn (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)
Max Cont.		616 rpm	609 rpm	606 rpm	603 rpm	599 rpm	594 rpm	588 rpm	561 rpm
	60 (15.85)	19 (168)	52 (460)	63 (558)	74 (655)	95 (841)	107 (947)	123 (1089)	168 (1487)
Max Int.		740 rpm	732 rpm	727 rpm	723 rpm	718 rpm	713 rpm	707 rpm	675 rpm
	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 Mn (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)
Max Int.		598 rpm	593 rpm	589 rpm	587 rpm	583 rpm	578 rpm	573 rpm	549 rpm
	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 7.2 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 Mn (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)
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		155.5 Cm³/Rev 9.5 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 Mn (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)
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		189.9 Cm³/Rev 11.6 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)
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		

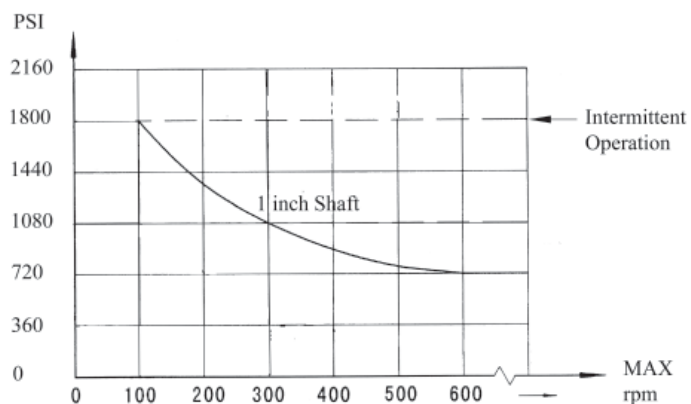
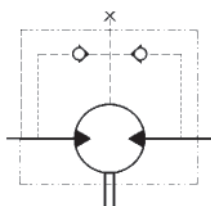
BMP/BMPH 250		231 Cm ³ /Rev 14.1 in ³ /Rev					Max Cont	Max Int.
Pressure Mpa (psi)		3 (440)	6 (880)	7 (1030)	8 (1175)	10 (1470)	11 (1620)	14 (2060)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	8 (2.10)	93 (823)	195 (1726)	226 (2000)	259 (2292)	325 (2876)	357 (3159)	
		31 rpm	29 rpm	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		311.7 Cm ³ /Rev 19 in ³ /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 Mn (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		386.2 Cm ³ /Rev 23.58 in ³ /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 Mn (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

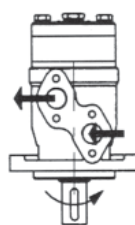
SHAFT SEAL RATED PRESSURE



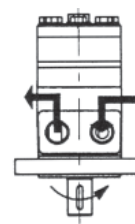
CASE DRAIN

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



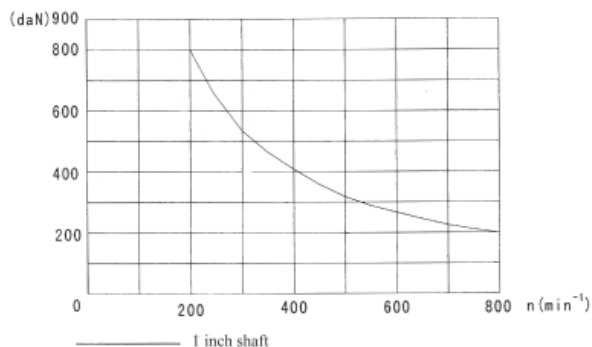
BMP



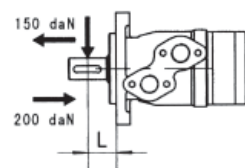
BMPH

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 $L=30\text{mm}$

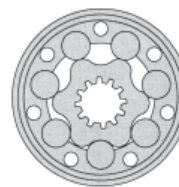
Square-flange $L=24\text{mm}$

BMPH CROSS REFERENCE DATA

MOUNT	SHAFT	PORTS	BRAND	DISPLACEMENT FOR DYNAMIC MOTOR Cm³/Rev (In³/Rev)								
				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	1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-P ADM50-4RP 101-1001 151-2121	BMPH-80-H4-K-P ADM75-4RP 101-1002 151-2122	BMPH-100-H4-K-P ADM100-4RP 101-1003 151-2123	BMPH-125-H4-K-P N/A 101-1755 151-2124	BMPH-160-H4-K-P ADM150-4RP 101-1004 151-2125	BMPH-200-H4-K-P ADM50-4RP 101-1005 151-2126	BMPH-250-H4-K-P ADM50-4RP 101-1006 151-2127	BMPH-315-H4-K-P ADM300-4RP 101-1007 151-2128	BMPH-400-H4-K-P ADM400-4RP 101-1008 151-2129
				BMPH-50-H4-K-S ADM50-4RO 101-1009 151-2041	BMPH-80-H4-K-S ADM75-4RO 101-1010 151-2042	BMPH-100-H4-K-S ADM100-4RO 101-1011 151-2043	BMPH-125-H4-K-S N/A 101-1751 151-2044	BMPH-160-H4-K-S ADM150-4RO 101-1012 151-2045	BMPH-200-H4-K-S ADM200-4RO 101-1013 151-2046	BMPH-250-H4-K-S ADM250-4RO 101-1014 151-2047	BMPH-315-H4-K-S ADM300-4RO 101-1015 151-2048	BMPH-400-H4-K-S ADM400-4RO 101-1016 151-2049
		Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-K-F ADM50-4RT 101-1017 151-2201	BMPH-80-H4-K-F ADM75-4RT 101-1018 151-2202	BMPH-100-H4-K-F ADM100-4RT 101-1019 151-2203	BMPH-125-H4-K-F N/A 101-1759 151-2201	BMPH-160-H4-K-F ADM150-4RT 101-1020 151-2205	BMPH-200-H4-K-F ADM200-4RT 101-1021 151-2206	BMPH-250-H4-K-F ADM250-4RT 101-1022 151-2207	BMPH-315-H4-K-F ADM300-4RT 101-1023 151-2208	BMPH-400-H4-K-F ADM400-4RT 101-1024 151-2209
				1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-P ADM50-4SP 101-1049 151-2131	BMPH-80-H4-S-P ADM75-4SP 101-1050 151-2132	BMPH-100-H4-S-P ADM100-4SP 101-1051 151-2133	BMPH-125-H4-S-P N/A 101-1766 151-2134	BMPH-160-H4-S-P ADM150-4SP 101-1052 151-2135	BMPH-200-H4-S-P ADM200-4SP 101-1053 151-2136	BMPH-250-H4-S-P ADM250-4SP 101-1054 151-2137
		Splined	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS		BMPH-50-H4-S-S ADM50-4SO 101-1057 151-2051	BMPH-80-H4-S-S ADM75-4SO 101-1058 151-2052	BMPH-100-H4-S-S ADM100-4SO 101-1059 151-2053	BMPH-125-H4-S-S N/A 101-1872 151-2054	BMPH-160-H4-S-S ADM150-4SO 101-1060 151-2055	BMPH-200-H4-S-S ADM200-4SO 101-1061 151-2056	BMPH-250-H4-S-S ADM250-4SO 101-1062 151-2057
	Manifold				DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H4-S-F ADM50-4ST 101-1065 151-2211	BMPH-80-H4-S-F ADM75-4ST 101-1066 151-2212	BMPH-100-H4-S-F ADM100-4ST 101-1067 151-2213	BMPH-125-H4-S-F N/A 101-1770 151-2214	BMPH-160-H4-S-F ADM150-4ST 101-1068 151-2215	BMPH-200-H4-S-F ADM200-4ST 101-1069 151-2216	BMPH-250-H4-S-F ADM250-4ST 101-1070 151-2217
	1/2" NPT		DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-P ADM50-2RP 101-1025 151-2081		BMPH-80-H2-K-P ADM75-2RP 101-1026 151-2082	BMPH-100-H2-K-P ADM100-2RP 101-1027 151-2083	BMPH-125-H2-K-P N/A 101-1706 151-2084	BMPH-160-H2-K-P ADM150-2RP 101-1028 151-2085	BMPH-200-H2-K-P ADM200-2RP 101-1029 151-2086	BMPH-250-H2-K-P ADM250-2RP 101-1030 151-2087	BMPH-315-H2-K-P ADM300-2RP 101-1031 151-2088
	#10 SAE			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-F ADM50-2RO 101-1033 151-2001	BMPH-80-H2-K-F ADM75-2RO 101-1034 151-2002	BMPH-100-H2-K-F ADM100-2RO 101-1035 151-2003	BMPH-125-H2-K-F N/A 101-1702 151-2004	BMPH-160-H2-K-F ADM150-2RO 101-1036 151-2005	BMPH-200-H2-K-F ADM200-2RO 101-1037 151-2006	BMPH-250-H2-K-F ADM250-2RO 101-1038 151-2007	BMPH-315-H2-K-F ADM300-2RO 101-1039 151-2008
			Manifold		DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-K-F ADM50-4RT 101-1041 151-2161	BMPH-80-H2-K-F ADM75-4RT 101-1042 151-2162	BMPH-100-H2-K-F ADM100-4RT 101-1043 151-2163	BMPH-125-H2-K-F N/A 101-11710 151-2164	BMPH-160-H2-K-F ADM150-4RT 101-1044 151-2165	BMPH-200-H2-K-F ADM200-4RT 101-1045 151-2166	BMPH-250-H2-K-F ADM250-4RT 101-1046 151-2167
	2 BOLT FLANGE	Splined	1/2" NPT	DYNAMIC PRINCE CHAR-LYNN® DANFOSS		BMPH-50-H2-S-P ADM50-2SP 101-1073 151-2091	BMPH-80-H2-S-P ADM75-2SP 101-1074 151-2092	BMPH-100-H2-S-P ADM100-2SP 101-1075 151-2093	BMPH-125-H2-S-P N/A 101-1727 151-2094	BMPH-160-H2-S-P ADM150-2SP 101-1076 151-2095	BMPH-200-H2-S-P ADM200-2SP 101-1077 151-2096	BMPH-250-H2-S-P ADM250-2SP 101-1078 151-2097
#10 SAE					DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-S ADM50-2SO 101-1081 151-2011	BMPH-80-H2-S-S ADM75-2SO 101-1082 151-2012	BMPH-100-H2-S-S ADM100-2SO 101-1083 151-2013	BMPH-125-H2-S-S N/A 101-1723 151-2014	BMPH-160-H2-S-S ADM150-2SO 101-1084 151-2015	BMPH-200-H2-S-S ADM200-2SO 101-1085 151-2016	BMPH-250-H2-S-S ADM250-2SO 101-1086 151-2017
Manifold			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMPH-50-H2-S-F ADM50-2ST 101-1089 151-2171		BMPH-80-H2-S-F ADM75-2ST 101-1090 151-2172	BMPH-100-H2-S-F ADM100-2ST 101-1091 151-2173	BMPH-125-H2-S-F N/A 101-1731 151-2174	BMPH-160-H2-S-F ADM150-2ST 101-1092 151-2175	BMPH-200-H2-S-F ADM200-2ST 101-1093 151-2176	BMPH-250-H2-S-F ADM250-2ST 101-1094 151-2177	BMPH-300-H2-S-F ADM300-2ST 101-1095 151-2178

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

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 specification 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.

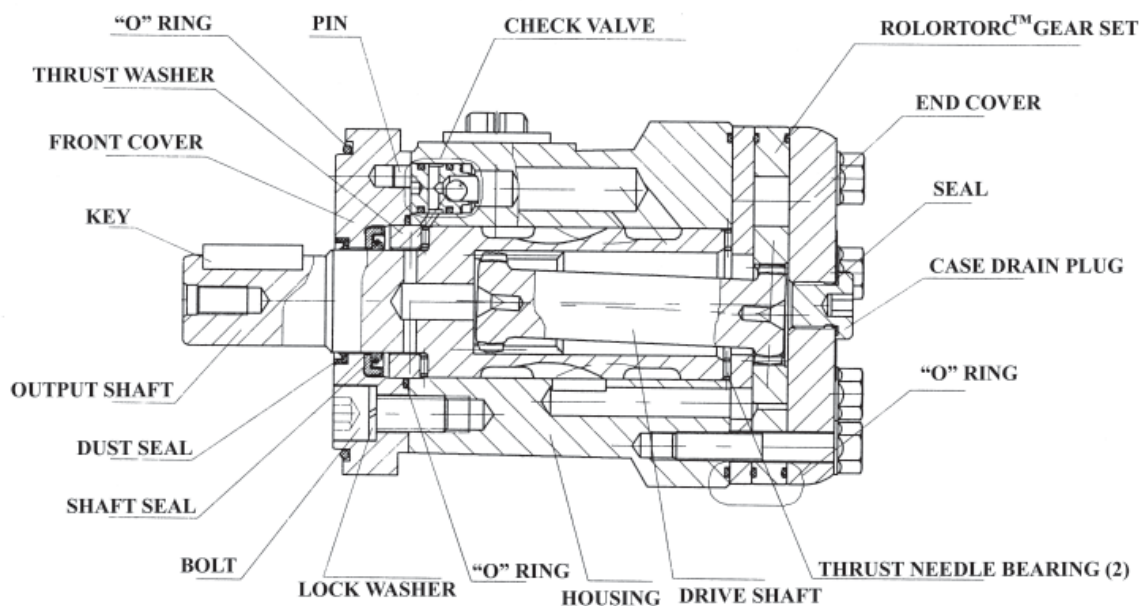
The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

Technical Specifications - BMRS

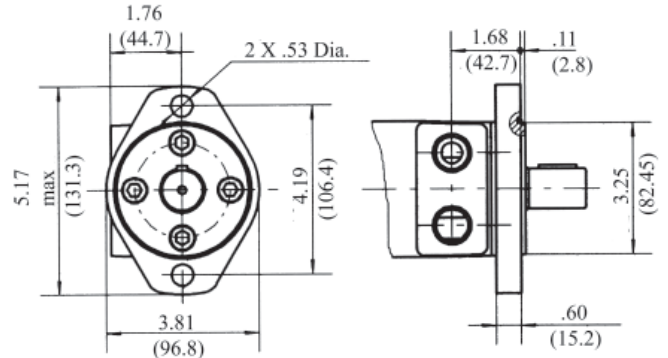
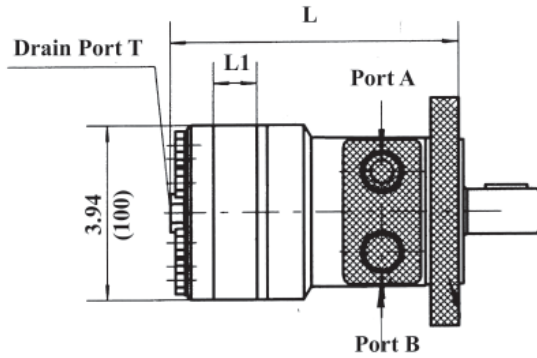
MODEL		BMRS50	BMRS80	BMRS100	BMRS125	BMRS160	BMRS200	BMRS250	BMRS315	BMRS375
Displacement Cm^3/Rev (In^3/Rev)		51.3 (3.05)	80.6 (4.92)	101 (6.15)	125 (7.63)	157 (9.6)	199 (12.16)	252 (15.38)	315 (19.2)	370 (22.6)
Maximum Speed RPM	Cont	755	750	600	475	375	300	240	190	160
	Int.	970	940	750	600	470	375	300	240	200
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

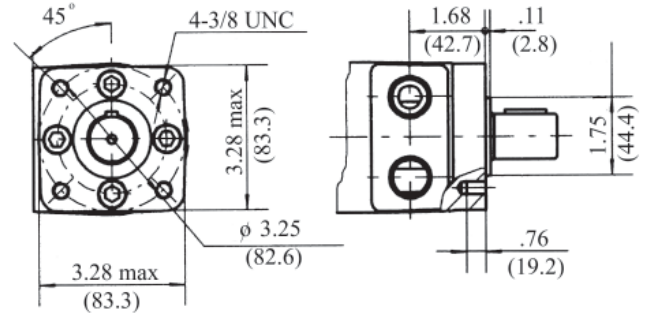
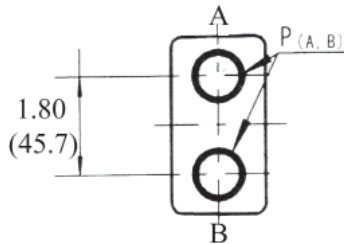
Intermittent = maximum operating range for 6 seconds per minute



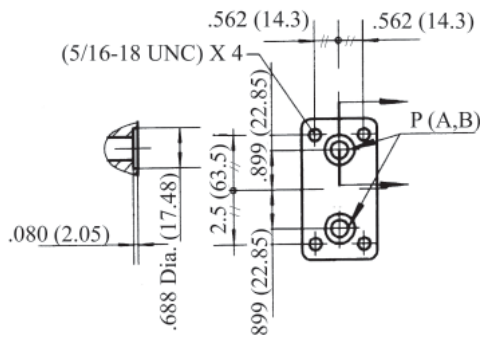
BMRS INSTALLATION DATA



H2 - SAE -"A" 2 BOLT

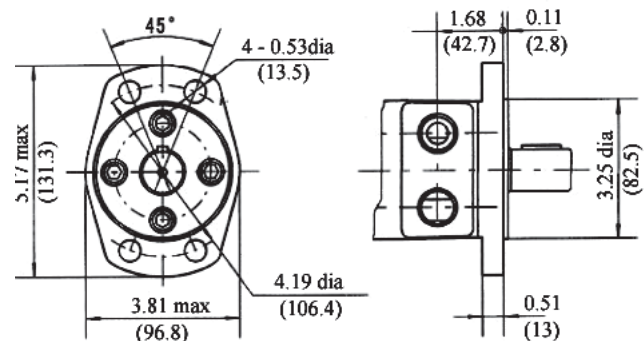


H4 - SAE -"A" 4 BOLT



Manifold Mount

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

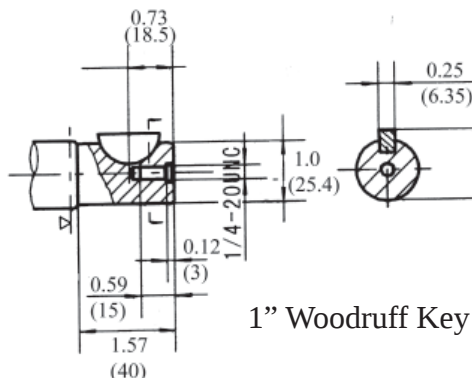


H6 - Magneto

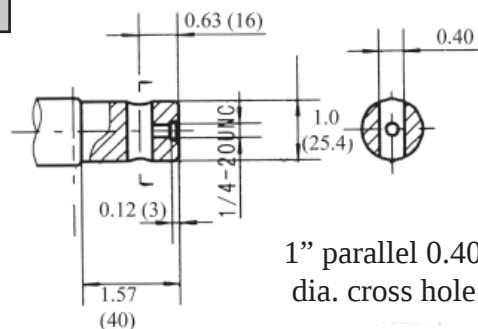
PORT SIZES	S	P
P (A,B)	7/8-14 SAE	1/2-14 NPTF
T	7/16-20 SAE	7/16-20 SAE

MODEL BMRS DRIVE SHAFT DATA

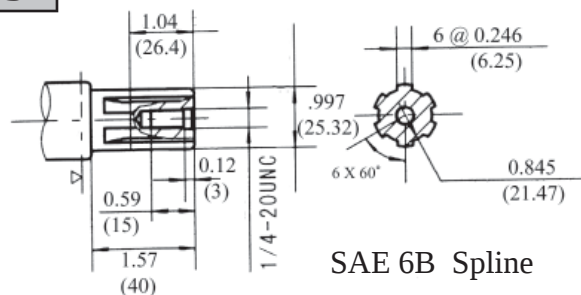
K



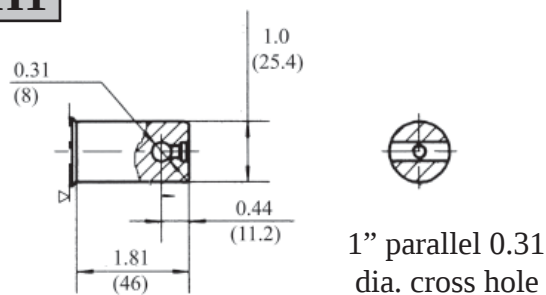
H



S



H1



BMRS MODEL NUMBER DATA

MODEL SERIES	FRAME SIZE	MOUNTING FLANGE TYPE	DRIVE SHAFT	PORT SIZE	OPTION
BMRS	(IN ³ /REV)				
	50 (3.05)	H2 - SAE "A" 2 BOLT	K - 1" Woodruff Key	P - 1/2 NPTF	1 - Free Running
	80 (4.92)	H4 - 4 BOLT	S - SAE 6B Spline	S - 7/8 -14 SAE	2 - 1800 lb. radial load bearings
	100 (6.15)	H6 - Magneto	H - 1" parallel 0.40 dia. cross hole	F - Manifold	3 - 5000 lb. axial load bearings
	125 (7.63)		H1 - 1" parallel 0.31 dia. cross hole		
	160 (9.60)				
	200 (12.16)				
	250 (15.38)				
	315 (19.20)				
	375 (22.60)				

Additional flange and drive shaft options available please consult factory

BMRS 50		51.3 Cm ³ /Rev 3.13 in ³ /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 Cm ³ /Rev 4.9 in ³ /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)	185 (1637)
		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 Cm ³ /Rev 6.15 in ³ /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)	233 (2062)
		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 Cm ³ /Rev 7.63 in ³ /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)
Max Cont.		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 Int.	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
	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 Cm ³ /Rev 9.60 in ³ /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	108	103	95	84	76
	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)
Max Cont.		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 Int.	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
	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 Cm ³ /Rev 12.16 in ³ /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)	
Max Cont.		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 Int.	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	
	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	

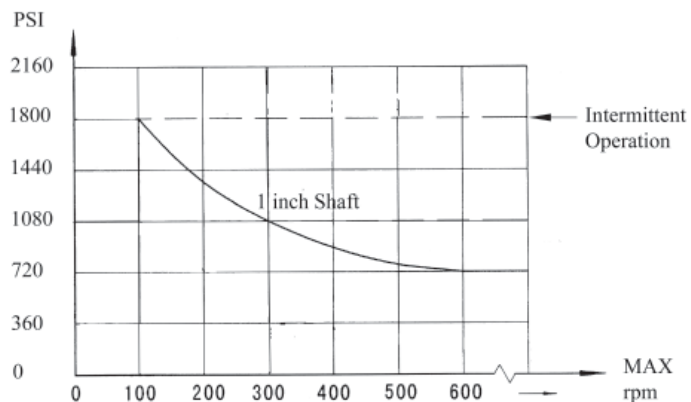
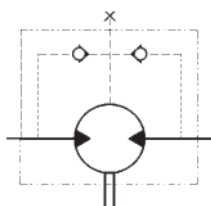
BMRS 250		252 Cm³/Rev 15.39 in³/Rev						Max Cont.	Max Int.
Pressure Mpa (psi)		3 (442)	5 (376)	7 (1030)	9 (1352)	10.5 (1546)	12 (1766)	14 (2060)	17.5 (2576)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	10 (2.65)	115 (1018)	180 (1593)	251 (2221)	295 (2611)	350 (3098)	380 (3363)	470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

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

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

MODEL BMRS TECHNICAL DATA

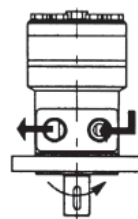
SHAFT SEAL RATED PRESSURE



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.

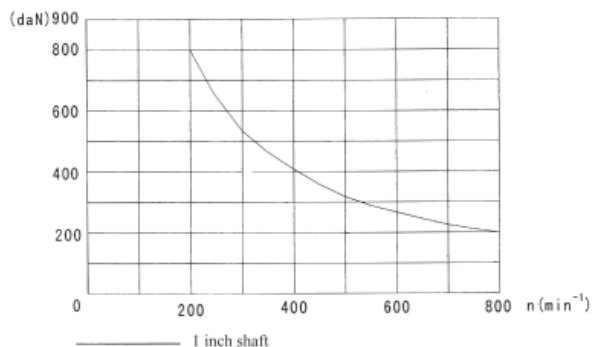
SHAFT ROTATION DIRECTION



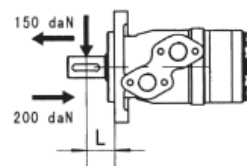
BMRS

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)

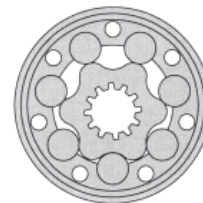
Rhomb-flange $L=30\text{mm}$
 Square-flange $L=24\text{mm}$

BMRS CROSS REFERENCE DATA

MOUNT	SHAFT	PORTS	BRAND	DISPLACEMENT FOR DYNAMIC MOTOR Cm ³ /Rev (In ³ /Rev)									
				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 AEM50-4RP 103-1001 151-2421	BMRS-80-H4-K-P AEM75-4RP 103-1002 151-2422	BMRS-100-H4-K-P AEM100-4RP 103-1003 151-2423	BMRS-125-H4-K-P N/A 103-1755 151-2424	BMRS-160-H4-K-P AEM150-4RP 103-1004 151-2425	BMRS-200-H4-K-P AEM200-4RP 103-1005 151-2426	BMRS-250-H4-K-P AEM250-4RP 103-1006 151-2427	BMRS-315-H4-K-P AEM300-4RP 103-1007 151-2428	BMRS-375-H4-K-P ADM400-4RP 103-1008 151-2429	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	ADM50-4RO 103-1009 151-2341	BMRS-75-4RO 103-1010 151-2342	BMRS-100-4RO 103-1011 151-2343	N/A 103-1751 151-2344	BMRS-160-4RO 103-1012 151-2345	BMRS-200-4RO 103-1013 151-2346	BMRS-250-4RO 103-1014 151-2347	BMRS-315-4RO 103-1015 151-2348	BMRS-375-4RO 103-1016 151-2349	
		Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-K-F AEM50-4RT 103-1017 151-2501	BMRS-80-H4-K-F AEM75-4RT 103-1018 151-2502	BMRS-100-H4-K-F AEM100-4RT 103-1019 151-2503	N/A 103-1759 151-2504	BMRS-160-H4-K-F AEM150-4RT 103-1020 151-2505	BMRS-200-H4-K-F AEM200-4RT 103-1021 151-2506	BMRS-250-H4-K-F AEM250-4RT 103-1022 151-2507	BMRS-315-H4-K-F AEM300-4RT 103-1023 151-2508	BMRS-375-H4-K-F AEM400-4RT 103-1024 151-2509	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-P AEM50-4SP 103-1049 151-2431	BMRS-80-H4-S-P AEM75-4SP 103-1050 151-2432	BMRS-100-H4-S-P AEM100-4SP 103-1051 151-2433	N/A 103-1766 151-2434	BMRS-160-H4-S-P AEM150-4SP 103-1052 151-2435	BMRS-200-H4-S-P AEM200-4SP 103-1053 151-2436	BMRS-250-H4-S-P AEM250-4SP 103-1054 151-2437	BMRS-315-H4-S-P AEM300-4SP 103-1055 151-2438	BMRS-375-H4-S-P AEM400-4SP 103-1056 151-2439	
	Splined	#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-S AEM50-4SO 103-1057 151-2351	BMRS-80-H4-S-S AEM75-4SO 103-1058 151-2352	BMRS-100-H4-S-S AEM100-4SO 103-1059 151-2353	N/A 103-1872 151-2354	BMRS-160-H4-S-S AEM150-4SO 103-1060 151-2355	BMRS-200-H4-S-S AEM200-4SO 103-1061 151-2356	BMRS-250-H4-S-S AEM250-4SO 103-1062 151-2357	BMRS-315-H4-S-S AEM300-4SO 103-1063 151-2358	BMRS-375-H4-S-S AEM400-4SO 103-1064 151-2359	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H4-S-F AEM50-4ST 103-1065 151-2511	BMRS-80-H4-S-F AEM75-4ST 103-1066 151-2512	BMRS-100-H4-S-F AEM100-4ST 103-1067 151-2513	N/A 103-1770 151-2514	BMRS-160-H4-S-F AEM150-4ST 103-1068 151-2515	BMRS-200-H4-S-F AEM200-4ST 103-1069 151-2516	BMRS-250-H4-S-F AEM250-4ST 103-1070 151-2517	BMRS-315-H4-S-F AEM300-4ST 103-1071 151-2518	BMRS-375-H4-S-F AEM400-4ST 103-1072 151-2519	
		Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-P AEM50-2RP 103-1025 151-2381	BMRS-80-H2-K-P AEM75-2RP 103-1026 151-2382	BMRS-100-H2-K-P AEM100-2RP 103-1027 151-2383	N/A 103-1706 151-2384	BMRS-160-H2-K-P AEM150-2RP 103-1028 151-2385	BMRS-200-H2-K-P AEM200-2RP 103-1029 151-2386	BMRS-250-H2-K-P AEM250-2RP 103-1030 151-2387	BMRS-315-H2-K-P AEM300-2RP 103-1031 151-2388	BMRS-375-H2-K-P AEM400-2RP 103-1032 151-2389	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-F AEM50-2RO 103-1033 151-2301	BMRS-80-H2-K-F AEM75-2RO 103-1034 151-2302	BMRS-100-H2-K-F AEM100-2RO 103-1035 151-2303	N/A 103-1702 151-2304	BMRS-160-H2-K-F AEM150-2RO 103-1036 151-2305	BMRS-200-H2-K-F AEM200-2RO 103-1037 151-2306	BMRS-250-H2-K-F AEM250-2RO 103-1038 151-2307	BMRS-315-H2-K-F AEM300-2RO 103-1039 151-2308	BMRS-375-H2-K-F AEM400-2RO 103-1040 151-2309	
2 BOLT FLANGE	Woodruff Keyed	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-K-F ADM50-4RT 103-1041 151-2461	BMRS-80-H2-K-F AEM75-4RT 103-1042 151-2462	BMRS-100-H2-K-F AEM100-4RT 103-1043 151-2463	N/A 103-11710 151-2464	BMRS-160-H2-K-F AEM150-4RT 103-1044 151-2465	BMRS-200-H2-K-F AEM200-4RT 103-1045 151-2464	BMRS-250-H2-K-F AEM250-4RT 103-1046 151-2465	BMRS-315-H2-K-F AEM300-4RT 103-1047 151-2466	BMRS-375-H2-K-F AEM400-4RT 103-1048 151-2467	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-P AEM50-2SP 103-1073 151-2391	BMRS-80-H2-S-P AEM75-2SP 103-1074 151-2392	BMRS-100-H2-S-P AEM100-2SP 103-1075 151-2393	N/A 103-1727 151-2394	BMRS-160-H2-S-P AEM150-2SP 103-1076 151-2395	BMRS-200-H2-S-P AEM200-2SP 103-1077 151-2396	BMRS-250-H2-S-P AEM250-2SP 103-1078 151-2397	BMRS-315-H2-S-P AEM300-2SP 103-1079 151-2398	BMRS-375-H2-S-P AEM400-2SP 103-1080 151-2399	
		#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-S ADM50-2SO 103-1081 151-2311	BMRS-80-H2-S-S AEM75-2SO 103-1082 151-2312	BMRS-100-H2-S-S AEM100-2SO 103-1083 151-2313	N/A 103-1723 151-2314	BMRS-160-H2-S-S AEM150-2SO 103-1084 151-2315	BMRS-200-H2-S-S AEM200-2SO 103-1085 151-2316	BMRS-250-H2-S-S AEM250-2SO 103-1086 151-2317	BMRS-315-H2-S-S AEM300-2SO 103-1087 151-2318	BMRS-375-H2-S-S AEM400-2SO 103-1088 151-2319	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-F ADM50-2ST 103-1089 151-2471	BMRS-80-H2-S-F AEM75-2ST 103-1090 151-2472	BMRS-100-H2-S-F AEM100-2ST 103-1091 151-2473	N/A 103-1731 151-2474	BMRS-160-H2-S-F AEM150-2ST 103-1092 151-2475	BMRS-200-H2-S-F AEM200-2ST 103-1093 151-2476	BMRS-250-H2-S-F AEM250-2ST 103-1094 151-2477	BMRS-300-H2-S-F AEM300-2ST 103-1095 151-2478	BMRS-375-H2-S-F AEM400-2ST 103-1096 151-2479	
	Splined	Manifold	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-S ADM50-2SO 103-1081 151-2311	BMRS-80-H2-S-S AEM75-2SO 103-1082 151-2312	BMRS-100-H2-S-S AEM100-2SO 103-1083 151-2313	N/A 103-1723 151-2314	BMRS-160-H2-S-S AEM150-2SO 103-1084 151-2315	BMRS-200-H2-S-S AEM200-2SO 103-1085 151-2316	BMRS-250-H2-S-S AEM250-2SO 103-1086 151-2317	BMRS-315-H2-S-S AEM300-2SO 103-1087 151-2318	BMRS-375-H2-S-S AEM400-2SO 103-1088 151-2319	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-F ADM50-2ST 103-1089 151-2471	BMRS-80-H2-S-F AEM75-2ST 103-1090 151-2472	BMRS-100-H2-S-F AEM100-2ST 103-1091 151-2473	N/A 103-1731 151-2474	BMRS-160-H2-S-F AEM150-2ST 103-1092 151-2475	BMRS-200-H2-S-F AEM200-2ST 103-1093 151-2476	BMRS-250-H2-S-F AEM250-2ST 103-1094 151-2477	BMRS-300-H2-S-F AEM300-2ST 103-1095 151-2478	BMRS-375-H2-S-F AEM400-2ST 103-1096 151-2479	
		#10 SAE	DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-S ADM50-2SO 103-1081 151-2311	BMRS-80-H2-S-S AEM75-2SO 103-1082 151-2312	BMRS-100-H2-S-S AEM100-2SO 103-1083 151-2313	N/A 103-1723 151-2314	BMRS-160-H2-S-S AEM150-2SO 103-1084 151-2315	BMRS-200-H2-S-S AEM200-2SO 103-1085 151-2316	BMRS-250-H2-S-S AEM250-2SO 103-1086 151-2317	BMRS-315-H2-S-S AEM300-2SO 103-1087 151-2318	BMRS-375-H2-S-S AEM400-2SO 103-1088 151-2319	
			DYNAMIC PRINCE CHAR-LYNN® DANFOSS	BMRS-50-H2-S-F ADM50-2ST 103-1089 151-2471	BMRS-80-H2-S-F AEM75-2ST 103-1090 151-2472	BMRS-100-H2-S-F AEM100-2ST 103-1091 151-2473	N/A 103-1731 151-2474	BMRS-160-H2-S-F AEM150-2ST 103-1092 151-2475	BMRS-200-H2-S-F AEM200-2ST 103-1093 151-2476	BMRS-250-H2-S-F AEM250-2ST 103-1094 151-2477	BMRS-300-H2-S-F AEM300-2ST 103-1095 151-2478	BMRS-375-H2-S-F AEM400-2ST 103-1096 151-2479	

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

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 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.

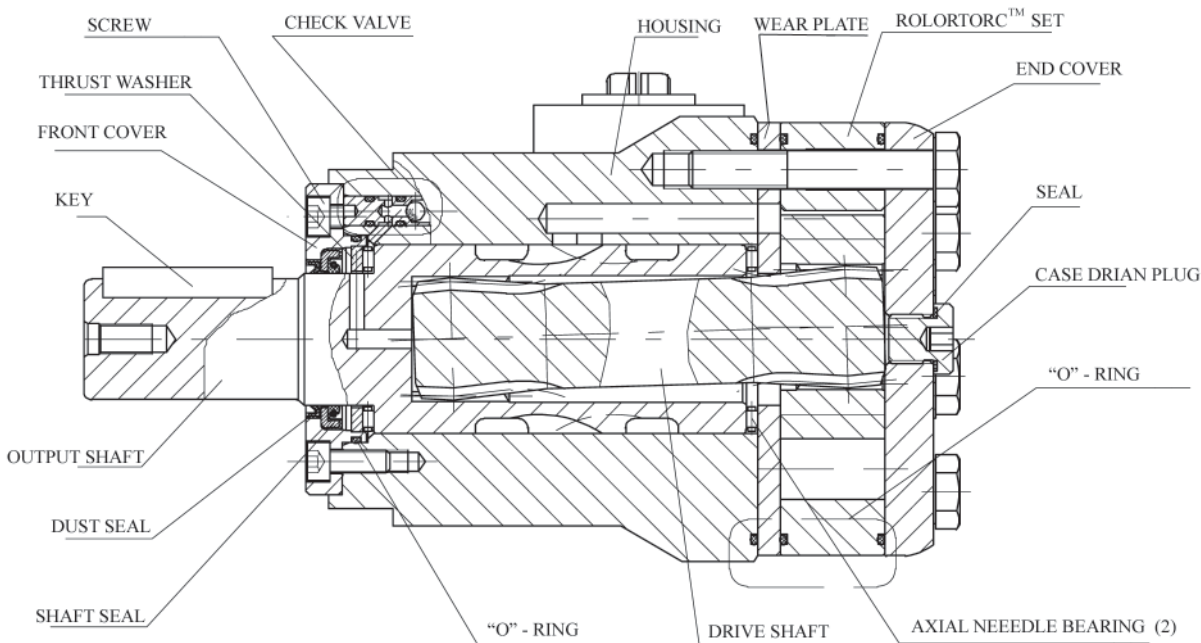
The low weight advanced construction design is manufactured in accordance with the requirements of ISO 9000-2000 quality system.

Technical Specifications - BMH

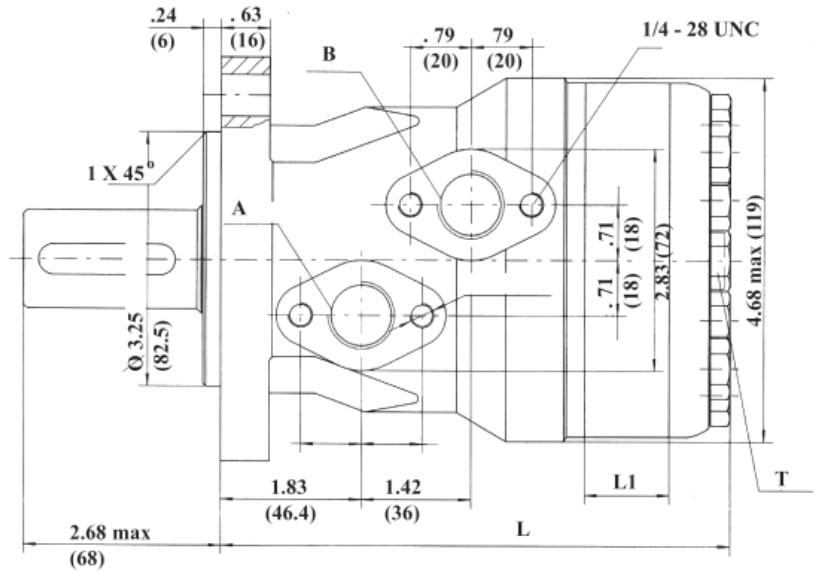
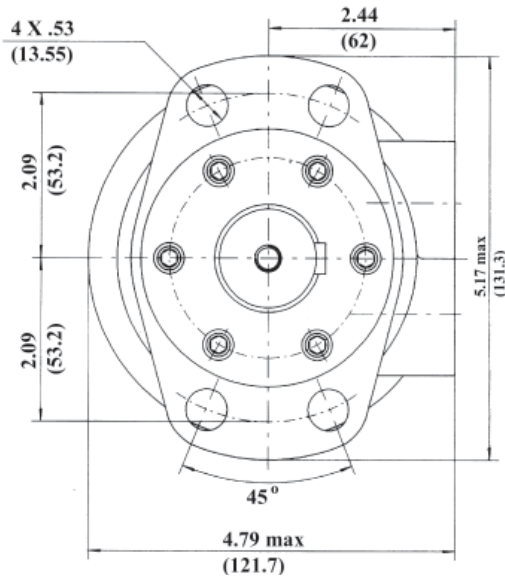
MODEL		BMH-200	BMH-250	BMH-315	BMH-400	BMH-500
Displacement	CM ³ /Rev (In ³ /Rev)	203.20 (12.40)	255.90 (15.62)	316.10 (19.30)	406.40 (24.80)	489.20 (29.90)
Maximum Speed RPM	Cont	366	290	236	183	155
	Int.	439	348	282	220	166
Max Torque NM / (in.lbs)	Cont	510 (4513)	621 (5496)	740 (6549)	864 (7646)	799 (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



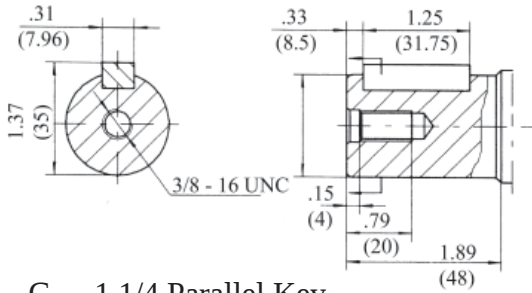
BMH INSTALLATION DATA



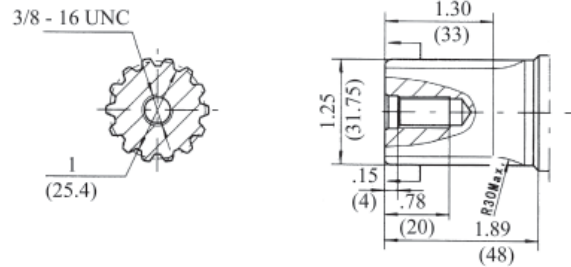
MODEL BMH	L		L1	
	inches	mm	inches	mm
BMH 200	6.61	168	1.06	27
BMH 250	6.89	175	1.34	34
BMH 315	7.24	184	1.65	42
BMH 400	7.68	195	2.12	54
BMH 500	8.11	206	2.56	65

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

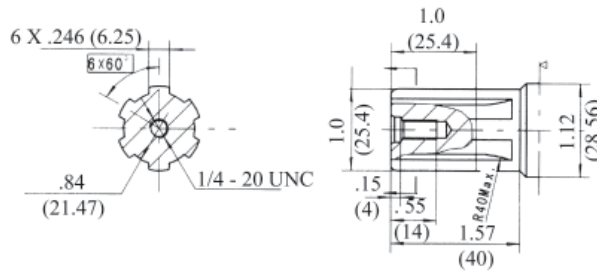
MODEL BMH DRIVE SHAFT DATA



G - 1 1/4 Parallel Key



F - 1 1/4-14 DP Spline



S - SAE 6B Spline

BMH MODEL NUMBER DATA

BMH	-	200	-	H6	-	G	-	P	-	1
MODEL SERIES BMH						DRIVE SHAFT G - 1 1/4 Parallel Key S - SAE 6B Spline F - 1 1/4-14 DP Spline		PORT SIZE P - 1/2 NPTF S - 7/8 -14 SAE		OPTION 1 - Free Running
		FRAME SIZE (IN³/REV) 200 (12.40) 250 (15.62) 315 (19.30) 400 (24.80) 500 (29.90)		MOUNTING FLANGE TYPE H6 - Magneto H2* - SAE -"A" 2 bolt *Special order only						

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)
Max Int.		381 rpm	381 rpm	380 rpm	371 rpm	352 rpm	338 rpm
	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 Cm³/Rev 15.61 in³/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	

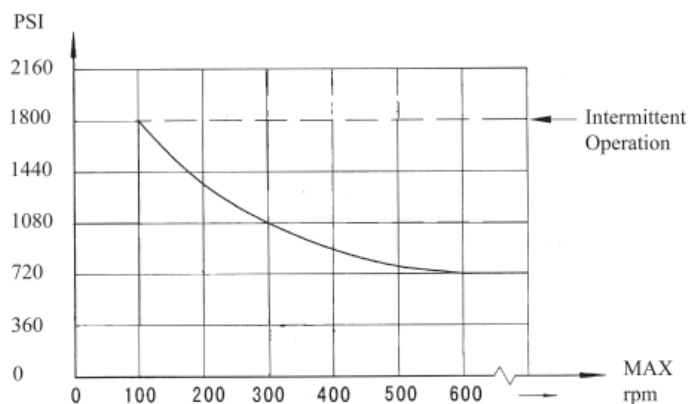
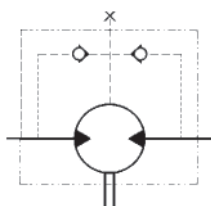
BMH 315		316.1 Cm ³ /Rev 19.29 in ³ /Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7.5 (1105)	10 (1470)	13.5 (1987)	15.5 (2286)	17.5 (2576)	20 (2950)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	5 (1.32)	155 (1372)	325 (2876)					
		16 rpm	13 rpm					
	10 (2.65)	163 (1442)	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)
			246 rpm	244 rpm	236 rpm	228 rpm	210 rpm	197 rpm
Max Int.		90 (23.68)	62 (549)	256 (2266)	386 (3416)	496 (4390)	593 (5248)	669 (5921)
			282 rpm	280 rpm	275 rpm	266 rpm	248 rpm	234 rpm

BMH 400		406.4 Cm ³ /Rev 24.79 in ³ /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)
			192 rpm	191 rpm	188 rpm	174 rpm	158 rpm
Max Int.		90 (23.68)	90 (796)	256 (2266)	433 (3832)	595 (5266)	767 (6788)
			220 rpm	220 rpm	215 rpm	202 rpm	183 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)
F L O W	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
	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 Cont.	90 (23.68)	34 (301)	201 (1779)	421 (3726)	550 (4868)	673 (5956)	869 (7691)
Max Int.		166 rpm	165 rpm	164 rpm	157 rpm	156 rpm	155 rpm

MODEL BMH TECHNICAL DATA

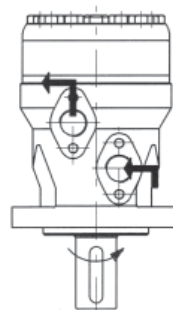
SHAFT SEAL RATED PRESSURE



CASE DRAIN

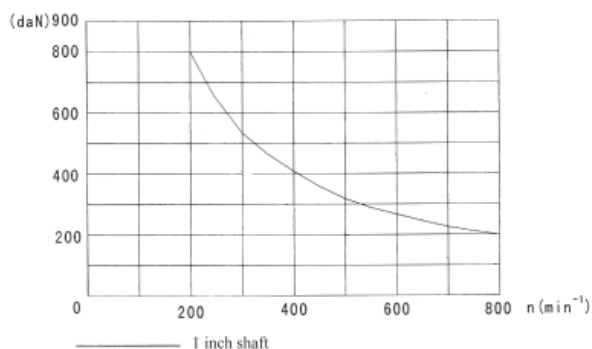
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used the pressure exerted on the shaft seal is equal to the return line pressure.

SHAFT ROTATION DIRECTION

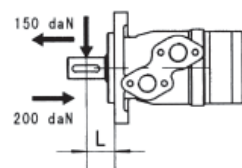


RADIAL FORCES

Status of the shaft's radial force

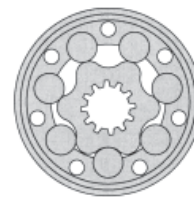


$$F_r = \frac{800 \cdot 2500}{n \cdot 95 + 1} \text{ daN}$$



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

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



The BMS and BMSS 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.

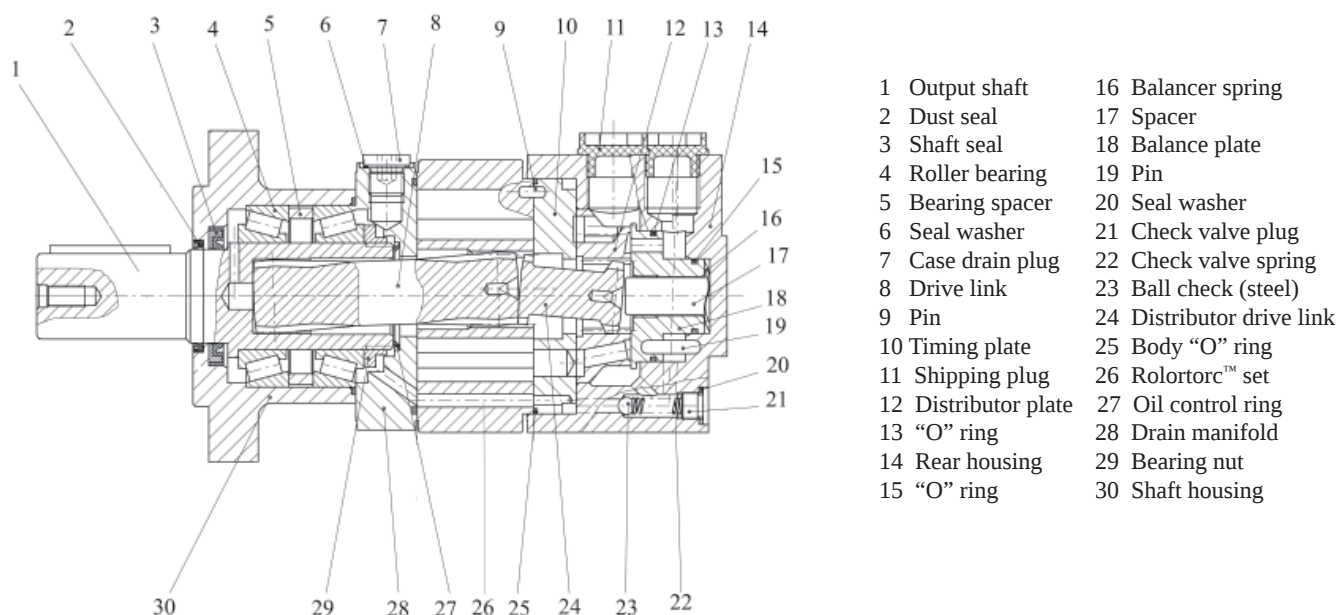
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMS/BMSS

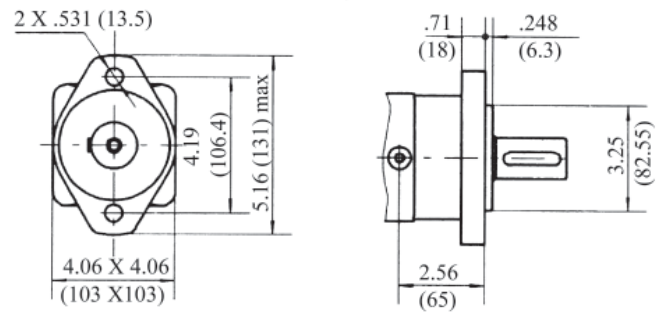
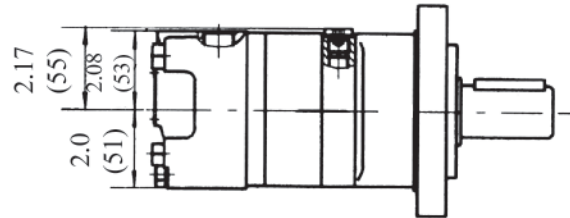
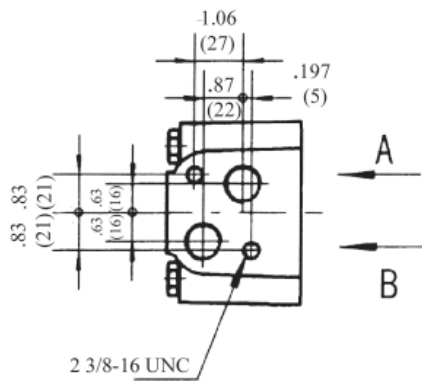
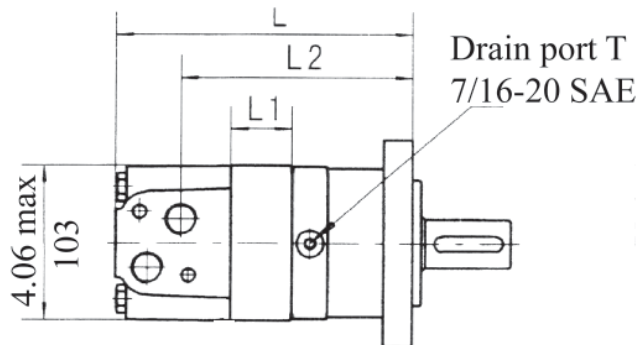
MODEL		BMS80	BMS100	BMS125	BMS160	BMS200	BMS250	BMS315	BMS375
		BMSS80	BMSS100	BMSS125	BMSS160	BMSS200	BMSS250	BMSS315	BMSS375
Displacement	CM ³ /Rev	81	101	125	157	200	252	315	370
	(In ³ /Rev)	(4.95)	(6.15)	(7.63)	(9.59)	(12.2)	(15.4)	(19.2)	(22.6)
Maximum Speed	Cont	800	748	600	470	375	300	240	200
	RPM	Int.	990	900	720	560	450	360	280
Max Torque	Cont	190 (1682)	240 (2124)	310 (2744)	316 (2780)	400 (3540)	450 (3983)	560 (4956)	576 (5098)
	NM / (in.lbs)	Int.	240 (2124)	300 (2655)	370 (2744)	430 (3805)	466 (4124)	450 (4779)	658 (5823)
Max Differential	Cont	17.5 (2576)	17.5 (2576)	17.5 (2576)	15 (2208)	14 (2061)	12.5 (1840)	12 (1766)	12 (1766)
	Mpa / (PSI)	Int.	21 (3091)	21 (3091)	21 (3091)	16 (2355)	16 (2355)	14 (2061)	14 (2060)
Max Flow	Cont	65 (17.1)	75 (34.1)	75 (34.1)	75 (34.1)	75 (34.1)	75 (34.1)	75 (34.1)	75 (34.1)
	L/min / (gpm)	Int.	80 (36.4)	90 (40.9)	90 (40.9)	90 (40.9)	90 (40.9)	90 (40.9)	90 (40.9)
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)	12.6 (27.7)

Continuous = maximum of continuous operation

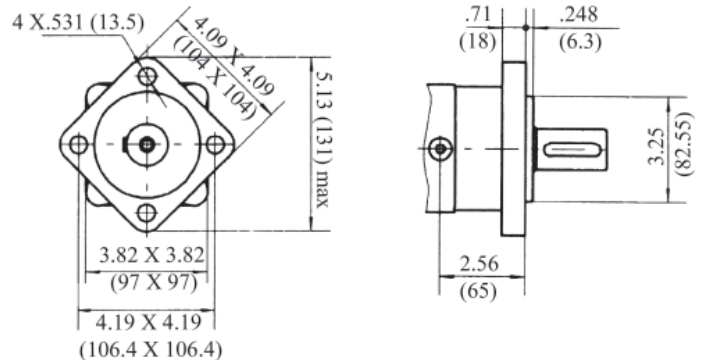
Intermittent = maximum operating range for 6 seconds per minute



BMS INSTALLATION DATA



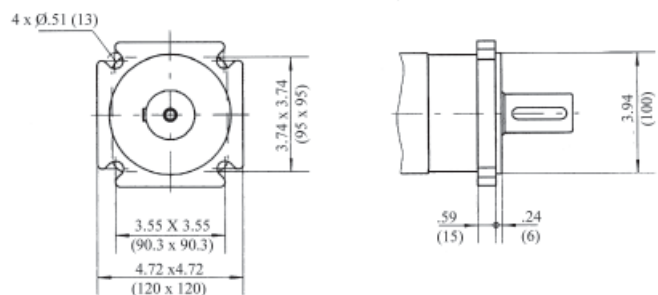
E2 - SAE - "A" 2 BOLT



E4 - 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

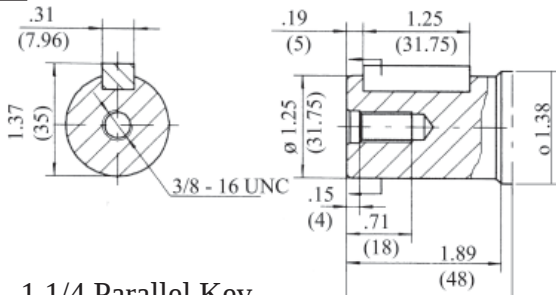
MODEL BMS	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMS 80	6.61	168	.63	16	4.88	124
BMS 100	6.77	172	.79	20	5.04	128
BMS 125	6.97	177	.98	20	5.24	133
BMS 160	7.22	183.5	1.24	31.5	5.49	140
BMS 200	7.57	192	1.57	40	5.83	148
BMS 250	7.95	202	1.97	50	6.22	158
BMS 315	8.43	214	2.44	62	6.69	170
BMS 375	8.90	226	2.91	74	7.16	182



B2 - Similar to SAE "B" 4 Bolt

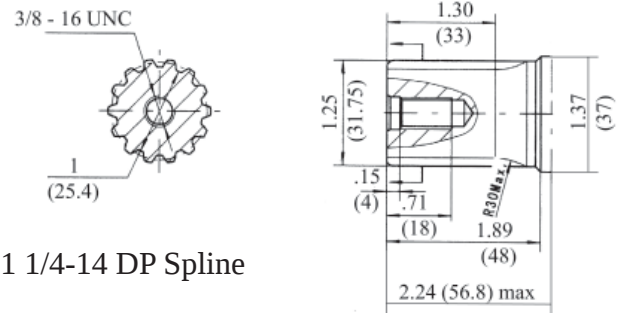
MODEL BMS DRIVE SHAFT DATA

G



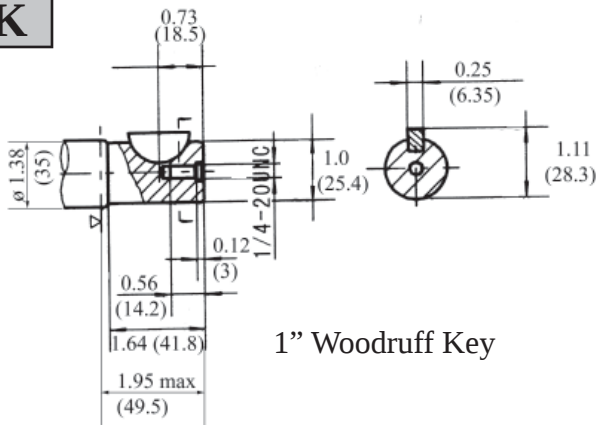
1 1/4 Parallel Key

F



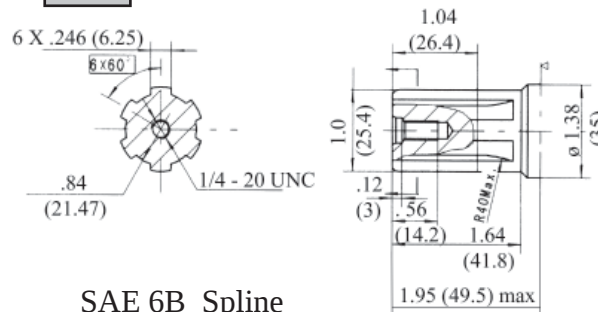
1 1/4-14 DP Spline

K



1" Woodruff Key

S



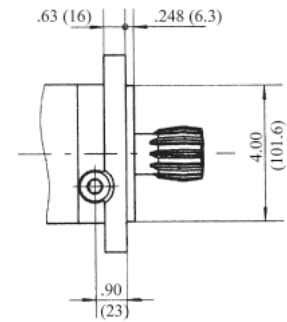
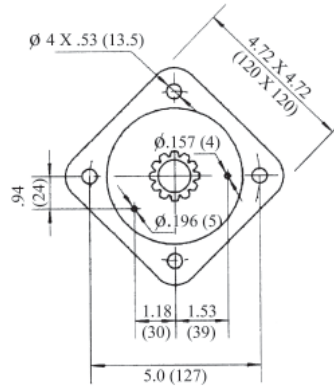
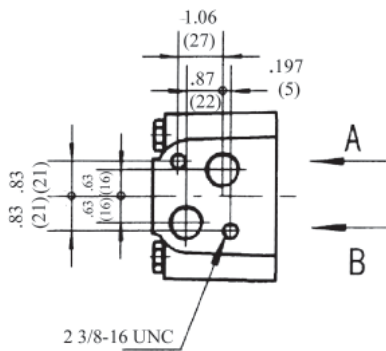
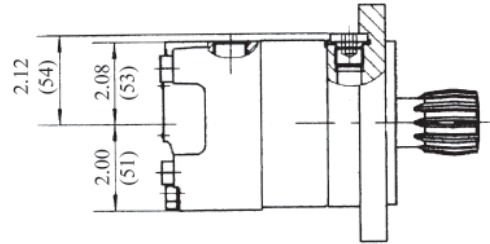
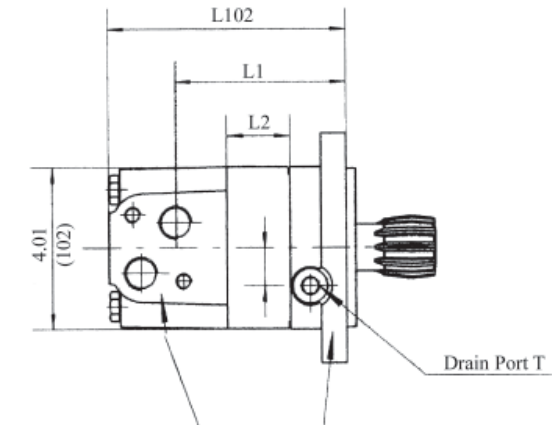
SAE 6B Spline

BMS MODEL NUMBER DATA

BMS	-	200	-	E2	-	G	-	P	-	1
MODEL SERIES										
BMS										
		FRAME SIZE				DRIVE SHAFT		PORT SIZE		
		(IN ³ /REV)				K - 1" Woodruff Key		P - 1/2 NPTF		
		80 (4.95)				G - 1 1/4" Parallel Key		S - 7/8 -14 SAE		
		100 (6.15)				S - SAE 6B Spline		F - Manifold		
		125 (7.63)				F - 1 1/4-14 DP Spline		ED - 1 1/16 - 12		
		160 (9.59)						"O" Ring 180° Apart		
		200 (12.20)								OPTION
		250 (15.40)								1 - Free Running
		315 (19.20)								
		375 (22.60)								
				MOUNTING						
				FLANGE TYPE						
				E2 - SAE -"A" 2 BOLT						
				E4 - 4 BOLT						
				B2 - Similar to SAE "B" 4 Bolt						

Additional flange and drive shaft options available please consult factory

BMSS INSTALLATION DATA (BEARINGLESS DESIGN)



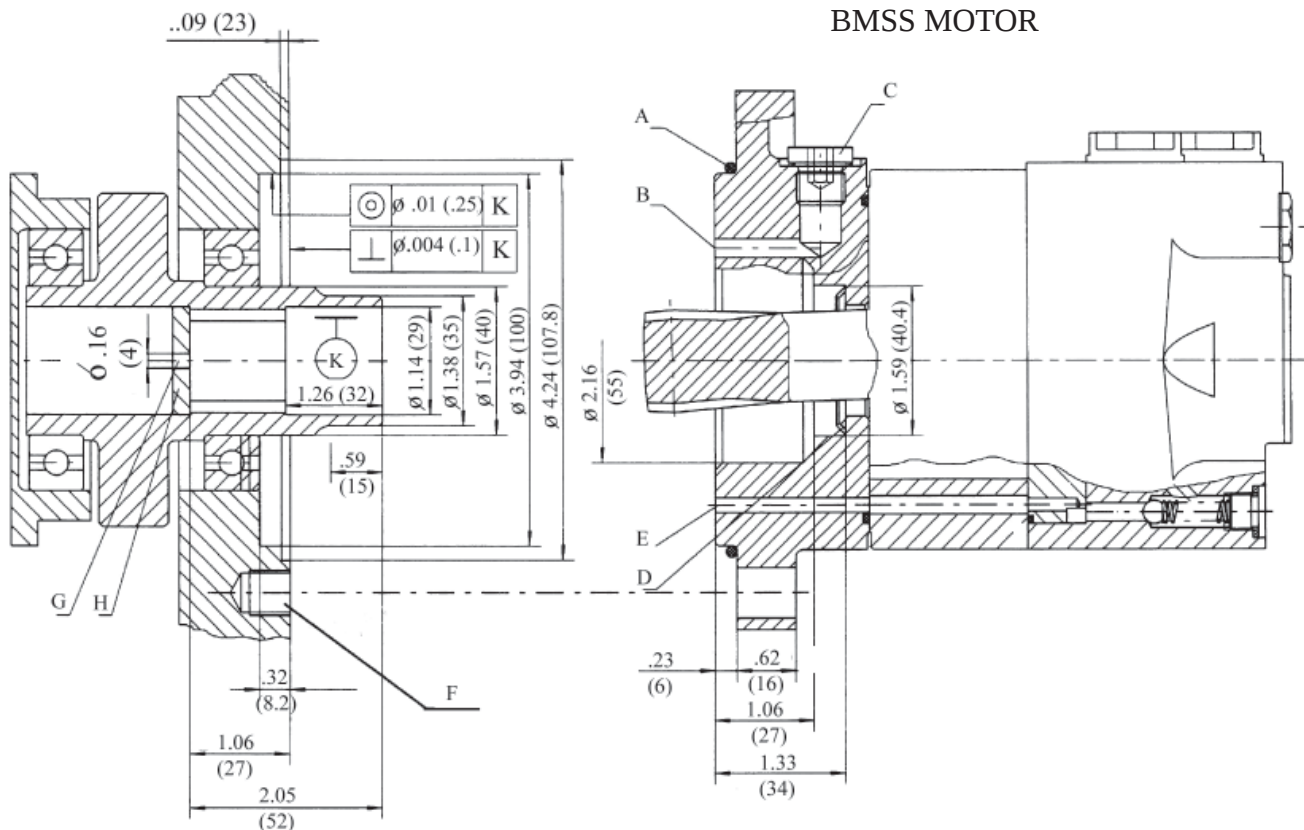
E - Square Flange
4 Bolt

MODEL BMSS	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMSS 80	4.92	125	.63	16	3.25	82.5
BMSS 100	5.27	134	.79	20	3.54	90
BMSS 125	5.47	139	.98	20	3.74	95
BMSS 160	5.73	145.5	1.24	31.5	3.99	101.5
BMSS 200	6.06	154	1.57	40	4.33	110
BMSS 250	6.46	164	1.97	50	4.72	120
BMSS 315	6.93	176	2.44	62	5.20	132
BMSS 375	7.40	188	2.91	74	5.67	144

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

BMSS MOUNTING DATA

Required dimensions of the component to be attached



A: O-RING 100 X 3

B: EXTERNAL DRAIN CHANNEL

C: DRAIN CONNECTION

D: CONICAL SEAL RING

E: INTERNAL DRAIN CHANNEL

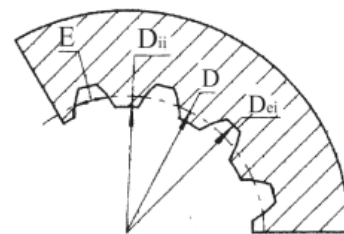
F: M10 MIN 15mm DEEP

G: OIL CIRCULATION HOLE

H: HARDENED STOP PLATE

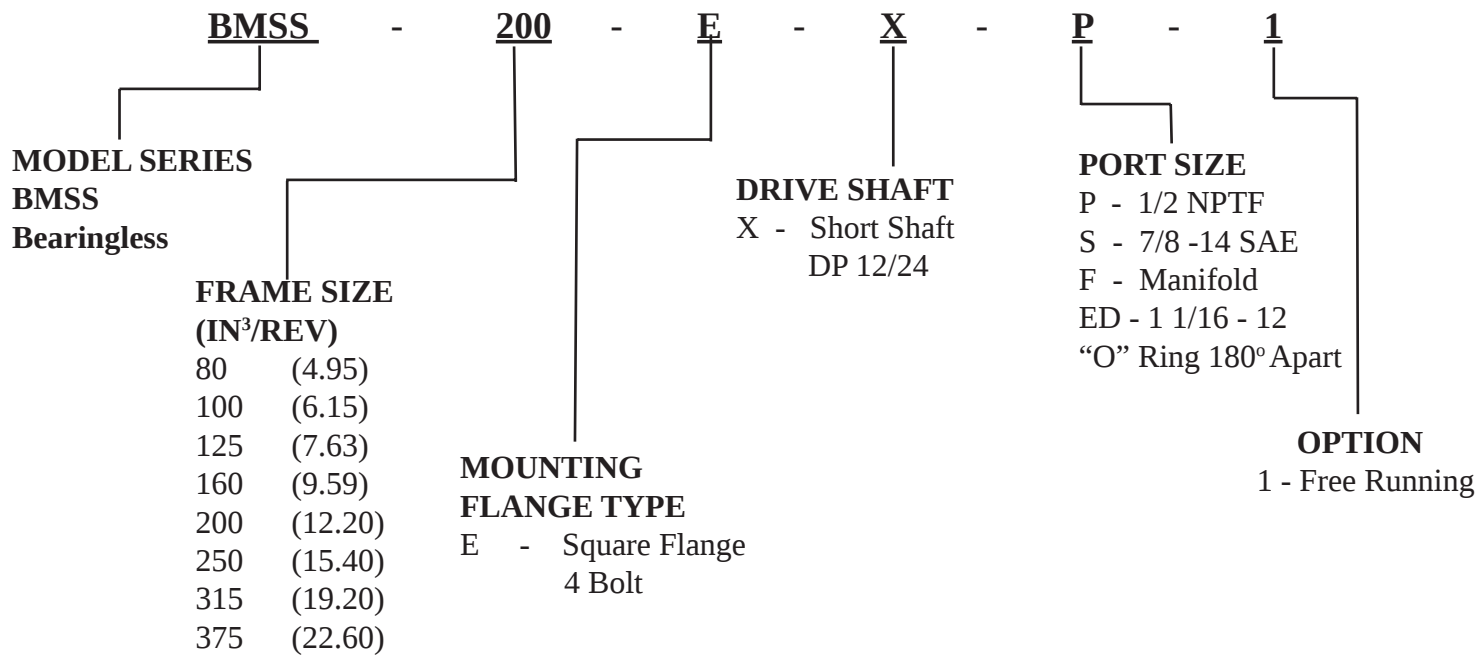
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

FILLET ROOT SIDE FIT		
Number of teeth	Z	12
Diametral Pitch	DP	12/24
Pressure Angle	D	30°
Pitch Diameter	D	ø 1.0 (25.4)
Major Diameter	D _{ei}	ø 1.10 (28)
Minor Diameter	D _{ii}	ø .905 (23)
Space Width (Circular)	E	0.169 (4.308)



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

BMSS MODEL NUMBER DATA



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
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

BMS/BMSS 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
Max Cont.	75 (19.75)	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 Int.	90 (23.85)	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

BMS/BMSS 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
Max Cont.	75 (19.75)	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 Int.	90 (23.85)	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

BMS/BMSS 160		157.2 Cm³/Rev 9.6 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)	140 (1239)	205 (1814)	305 (2699)	371 (3283)	430 (3806)	473 (4186)
		91	88	84	78	76	74	58
	30 (7.90)	75 (664)	150 (1328)	214 (1894)	321 (2841)	380 (3363)	427 (3779)	490 (4337)
		185	182	176	168	164	162	152
	40 (10.50)	70 (620)	150 (1328)	215 (1903)	320 (2832)	378 (3345)	425 (3761)	488 (4319)
		248	244	239	229	224	217	204
	50 (13.20)	65 (575)	145 (1283)	215 (1903)	316 (2797)	378 (3345)	425 (3761)	482 (4266)
		312	308	304	294	288	280	270
	60 (15.85)	65 (575)	145 (1283)	214 (1894)	315 (2788)	375 (3319)	424 (3752)	482 (4266)
		375	371	365	357	346	336	323
Max Cont.	75 (19.75)	60 (531)	138 (1221)	208 (1841)	311 (2752)	375 (3319)	420 (3717)	
		470	465	458	447	436	426	
Max Int.	90 (23.85)	56 (496)	130 (1151)	200 (1770)	308 (2726)	370 (3275)	414 (3664)	
		564	559	551	541	526	517	

BMS/BMSS 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)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	15 (3.95)	89 (788)	190 (1682)	295 (2611)	400 (3540)	484 (4283)	608 (5381)
		73 rpm	71 rpm	68 rpm	64 rpm	60 rpm	52 rpm
	30 (7.90)	87 (770)	190 (1682)	294 (2602)	399 (3531)	485 (4292)	600 (5310)
		148 rpm	146 rpm	143 rpm	140 rpm	135 rpm	127 rpm
	40 (10.50)	86 (761)	188 (1664)	292 (2584)	397 (3513)	483 (4275)	594 (5257)
		193 rpm	191 rpm	189 rpm	186 rpm	181 rpm	172 rpm
	50 (13.20)	80 (708)	184 (1628)	290 (2567)	395 (3496)	480 (4248)	590 (5222)
		247 rpm	245 rpm	243 rpm	240 rpm	235 rpm	226 rpm
	60 (15.85)	74 (655)	178 (1575)	286 (2531)	390 (3452)	475 (4204)	582 (5151)
		298 rpm	295 rpm	293 rpm	290 rpm	284 rpm	273 rpm
Max Cont.	75 (19.75)	58 (513)	160 (1416)	275 (2434)	375 (3319)	460 (4071)	570 (5045)
		372 rpm	369 rpm	365 rpm	362 rpm	358 rpm	346 rpm
Max Int.	90 (23.85)	49 (434)	148 (1310)	260 (2301)	355 (3142)	445 (3938)	555 (4912)
		440 rpm	435 rpm	430 rpm	422 rpm	411 rpm	401 rpm

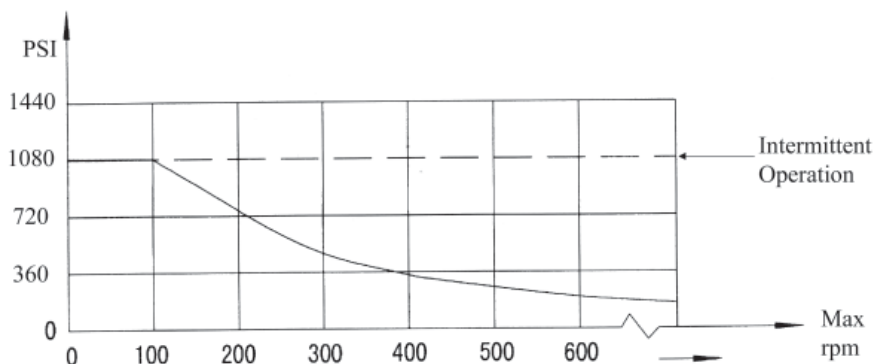
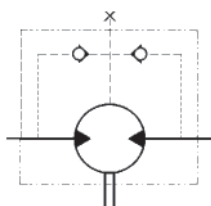
BMS/BMSS 250		252 Cm³/Rev 15.4 in³/Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	14 (2060)	17.5 (2576)	22.5 (3308)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	15 (3.95)	117 (1035)	230 (2036)	355 (3142)	450 (3983)	554 (4903)	652 (5770)
		58 rpm	55 rpm	52 rpm	51 rpm	47 rpm	46 rpm
	30 (7.90)	117 (1035)	225 (1991)	350 (3098)	446 (3947)	560 (4956)	657 (5814)
		118 rpm	117 rpm	112 rpm	109 rpm	107 rpm	106 rpm
	40 (10.50)	115 (1018)	225 (1991)	348 (3080)	442 (3912)	552 (4885)	650 (5753)
		160 rpm	156 rpm	152 rpm	150 rpm	146 rpm	142 rpm
	50 (13.20)	110 (974)	220 (1947)	345 (3053)	438 (3876)	546 (4832)	645 (5708)
		202 rpm	200 rpm	198 rpm	196 rpm	195 rpm	192 rpm
	60 (15.85)	105 (929)	220 (1947)	340 (3009)	435 (3850)	542 (4797)	642 (5682)
		242 rpm	239 rpm	237 rpm	234 rpm	231 rpm	229 rpm
Max Cont.	75 (19.75)	95 (841)	215 (1903)	338 (2991)	430 (3805)	537 (4742)	638 (5646)
		300 rpm	296 rpm	393 rpm	286 rpm	282 rpm	278 rpm
Max Int.	90 (23.85)	90 (797)	205 (1814)	337 (2982)	420 (3717)	530 (4691)	632 (5593)
		360 rpm	354 rpm	348 rpm	340 rpm	332 rpm	326 rpm

BMS/BMSS 315		314.5 Cm ³ /Rev 19.2 in ³ /Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	10.5 (1546)	12 (1766)	14 (2060)	18.5 (2728)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	15 (3.95)	160 (1416)	320 (2832)	465 (4115)	555 (4912)	650 (5735)	748 (6620)
		48 rpm	47 rpm	45 rpm	43 rpm	40 rpm	38 rpm
	30 (7.90)	165 (1460)	322 (2850)	468 (4142)	560 (4956)	658 (5823)	752 (6655)
		94 rpm	92 rpm	90 rpm	89 rpm	86 rpm	85 rpm
	40 (10.50)	160 (1416)	310 (2744)	457 (4044)	546 (4832)	642 (5682)	741 (6558)
		125 rpm	123 rpm	120 rpm	118 rpm	116 rpm	115 rpm
	50 (13.20)	155 (1372)	305 (2699)	450 (3983)	538 (4761)	637 (5638)	736 (6514)
		158 rpm	156 rpm	153 rpm	150 rpm	147 rpm	145 rpm
	60 (15.85)	152 (1345)	302 (2673)	442 (3912)	532 (4708)	632 (5593)	732 (6478)
		175 rpm	174 rpm	170 rpm	164 rpm	162 rpm	159 rpm
Max Cont.	75 (19.75)	145 (1283)	295 (2611)	436 (3856)	525 (4646)	628 (5558)	726 (6425)
		236 rpm	234 rpm	230 rpm	227 rpm	225 rpm	222 rpm
Max Int.	90 (23.85)	132 (1168)	280 (2478)	430 (3806)	520 (4602)	622 (5505)	723 (6399)
		285 rpm	282 rpm	280 rpm	276 rpm	273 rpm	270 rpm

BMS/BMSS 375		370 Cm ³ /Rev 22.6 in ³ /Rev				Max Cont.	Max Int.
Pressure Mpa (psi)		3.5 (515)	7 (1030)	9 (1325)	10 (1470)	12 (1766)	14 (2060)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification					
	15 (3.95)	185 (1637)	362 (3204)	474 (4195)	512 (4531)	588 (5204)	660 (5841)
		40	39	38	37	35	33
	30 (7.90)	184 (1628)	364 (3221)	475 (4204)	514 (4549)	590 (5222)	661 (5850)
		80	78	77	76	74	72
	40 (10.50)	180 (1593)	362 (3204)	473 (4186)	513 (4540)	588 (5204)	659 (5832)
		106	104	103	102	100	97
	50 (13.20)	160 (1416)	360 (3186)	472 (4177)	511 (4522)	586 (5186)	658 (5823)
		133	131	130	129	128	125
	60 (15.85)	150 (1328)	359 (3177)	471 (4168)	510 (4514)	585 (5177)	657 (5814)
		157	156	155	154	152	150
Max Cont.	75 (19.75)	130 (1151)	353 (3124)	465 (4115)	504 (4460)	580 (5133)	651 (5761)
		200	198	196	195	225	193
Max Int.	90 (23.85)	105 (929)	350 (3098)	462 (4089)	500 (4425)	584 (5168)	647 (5726)
		238	235	234	232	230	227

MODEL BMS/BMSS TECHNICAL DATA

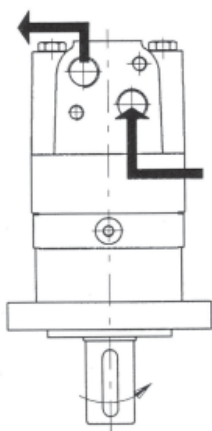
SHAFT SEAL RATED PRESSURE



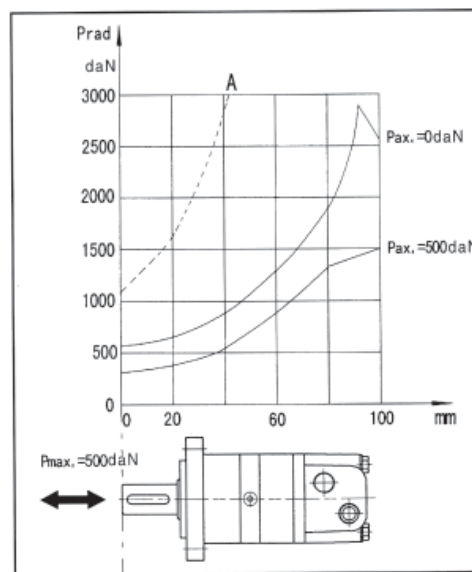
CASE DRAIN

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.

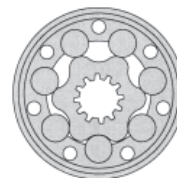
SHAFT ROTATION DIRECTION



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 **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.

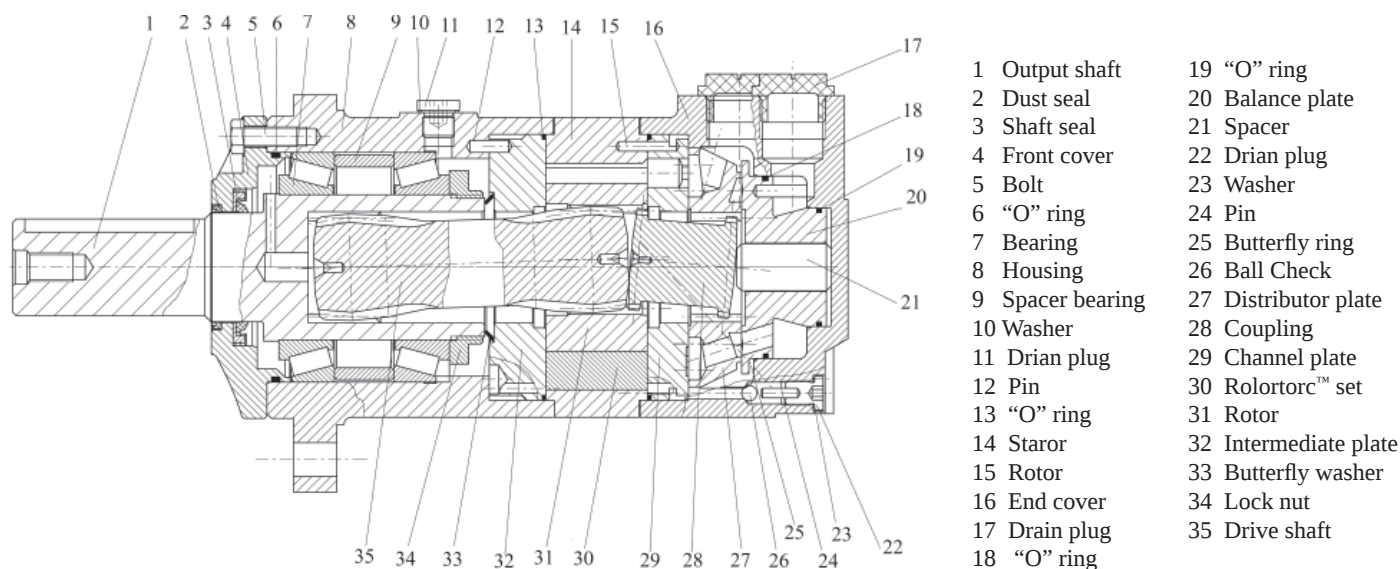
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMT

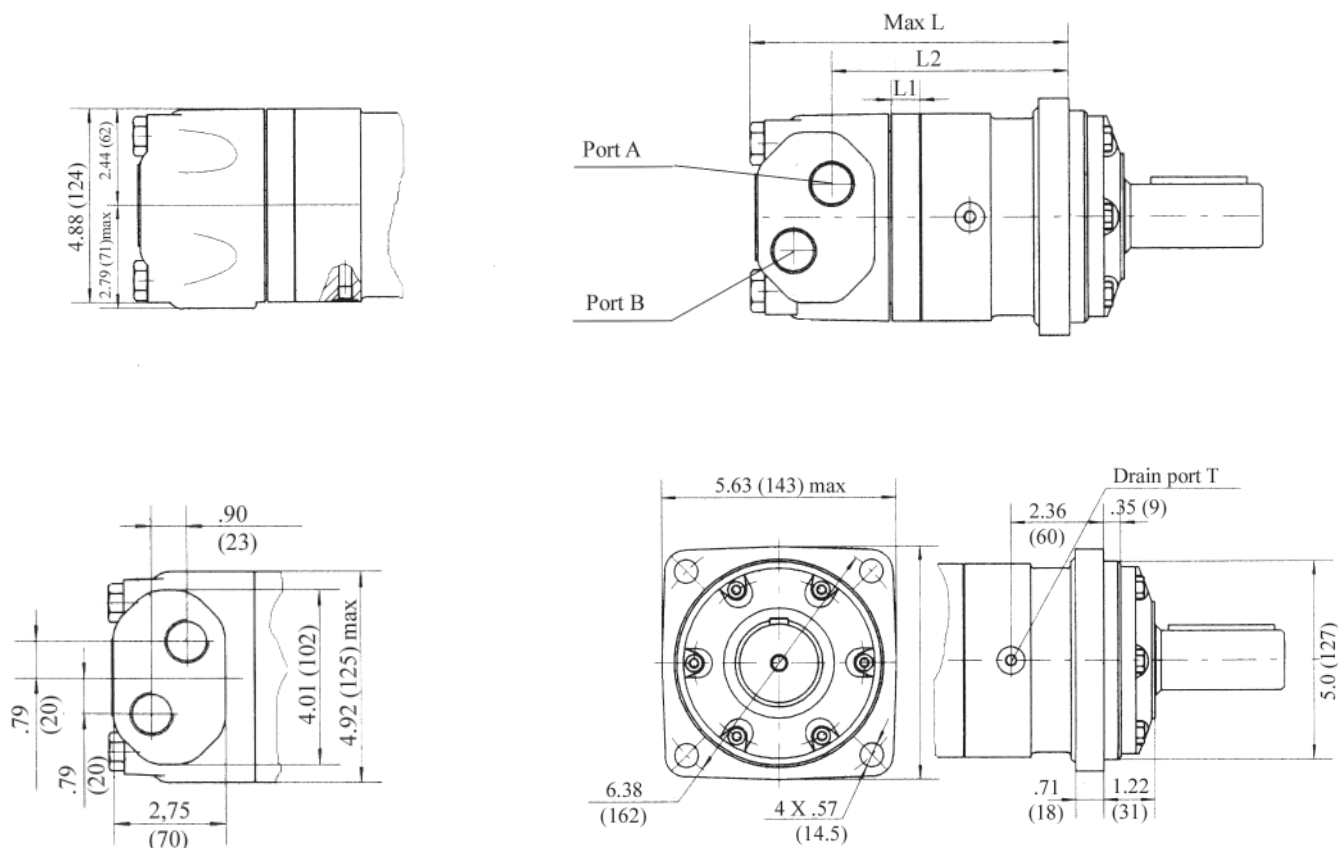
MODEL		BMT160	BMT200	BMT250	BMT315	BMT400	BMT500	BMT630	BMT800
Displacement CM³/Rev (In³/Rev)		161.1 (9.83)	201.4 (12.29)	251.8 (15.36)	326.3 (19.91)	410.9 (25.07)	523.6 (31.95)	629.1 (38.39)	801.8 (48.93)
Maximum Speed RPM	Cont	614	615	495	380	302	237	196	154
	Int.	770	743	592	458	364	284	233	185
Max 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

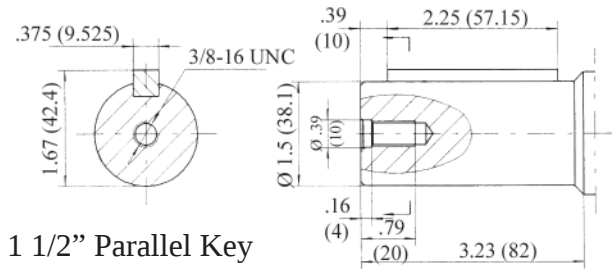


MODEL BMS	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMT 160	8.38	213	.75	19	6.36	161.5
BMT 200	8.46	215	.83	21	6.44	163.5
BMT 250	8.70	221	1.06	27	6.67	169.5
BMT 315	8.98	228	1.34	34	6.95	176.5
BMT 400	9.29	236	1.65	42	7.26	184.5
BMT 500	9.76	248	2.12	54	7.74	196.5
BMT 630	9.92	252	2.28	58	7.89	200.5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

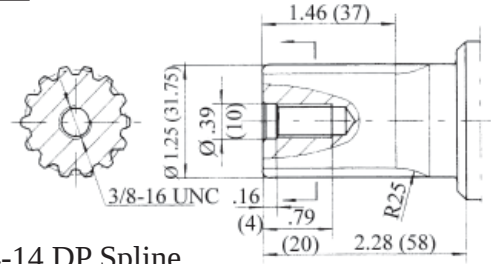
MODEL BMT DRIVE SHAFT DATA

G



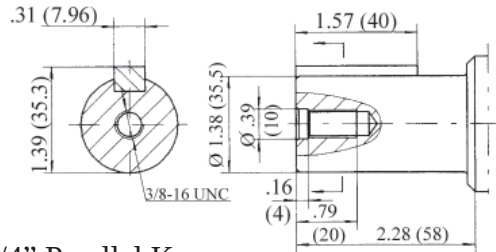
1 1/2" Parallel Key

F1



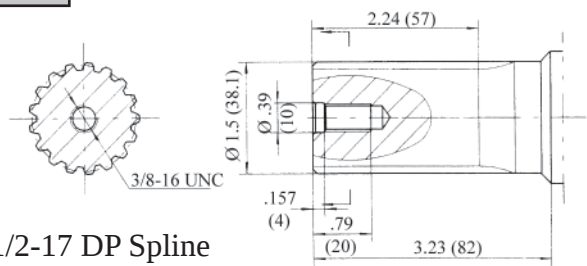
1 1/4-14 DP Spline

G



1 1/4" Parallel Key

F



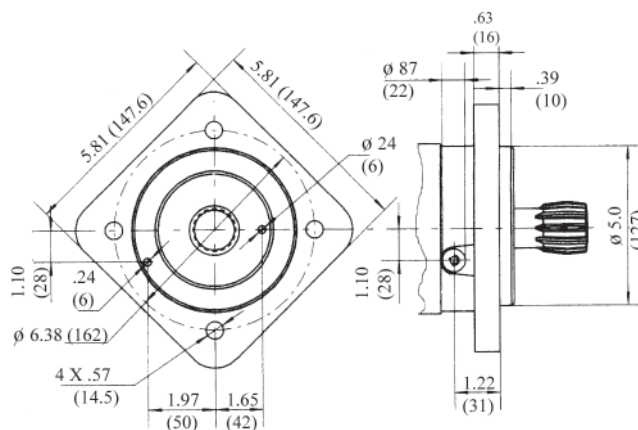
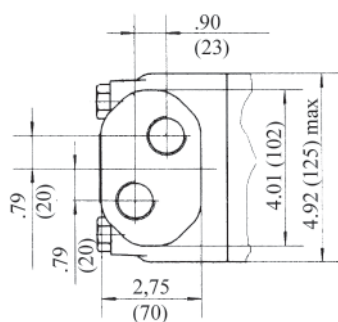
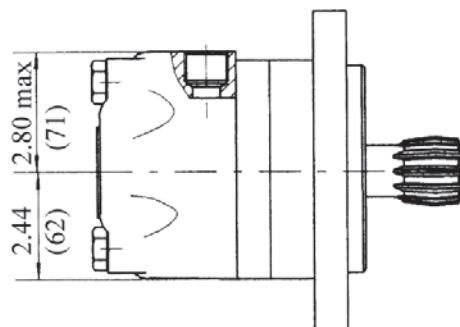
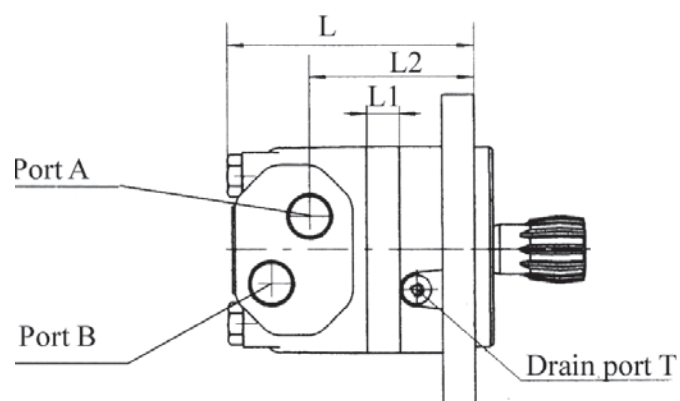
1 1/2-17 DP Spline

BMT MODEL NUMBER DATA

BMT	-	400	-	E4	-	G	-	S1	-	1
MODEL SERIES BMT		FRAME SIZE (IN ³ /REV)		MOUNTING FLANGE TYPE		DRIVE SHAFT		PORT SIZE		OPTION
		160 (9.83) 200 (12.29) 250 (15.36) 315 (19.91) 400 (25.07) 500 (31.95) 630 (38.39) 800 (48.93)		E4 - 4 BOLT B2 - Similar to SAE "B" 4 Bolt		G1 - 1 1/4" Parallel Key G - 1 1/2" Parallel Key F1 - 1 1/4-14 DP Spline F - 1 1/2-17 DP Spline		S1 - 1 1/16 -12 SAE		1 - Free Running

Additional flange and drive shaft options available please consult factory

BMTS INSTALLATION DATA (BEARINGLESS DESIGN)



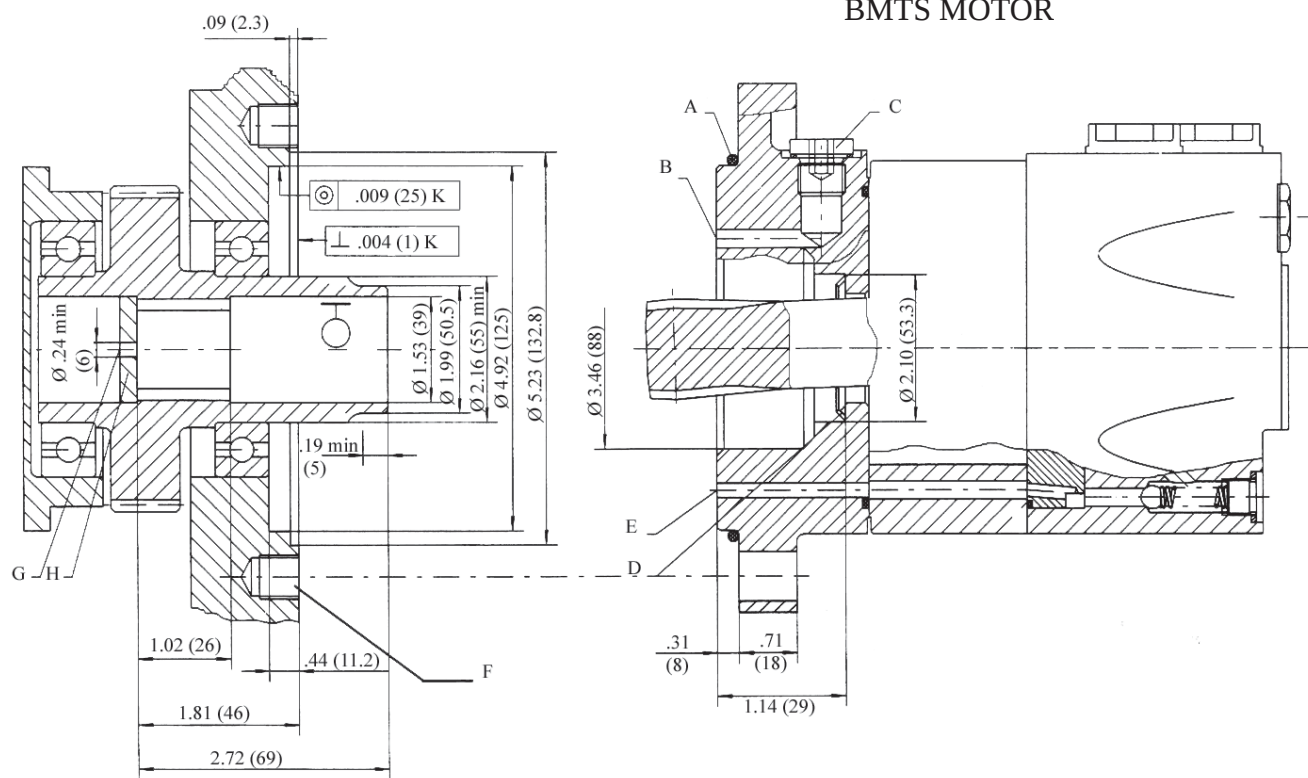
E - Square Flange
4 Bolt

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

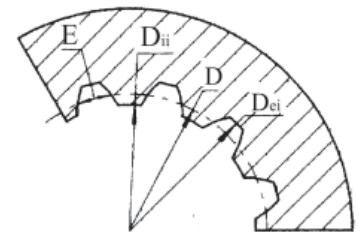


A: O-RING 125 X 3
B: EXTERNAL DRAIN CHANNEL
C: DRAIN CONNECTION
D: CONICAL SEAL RING

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

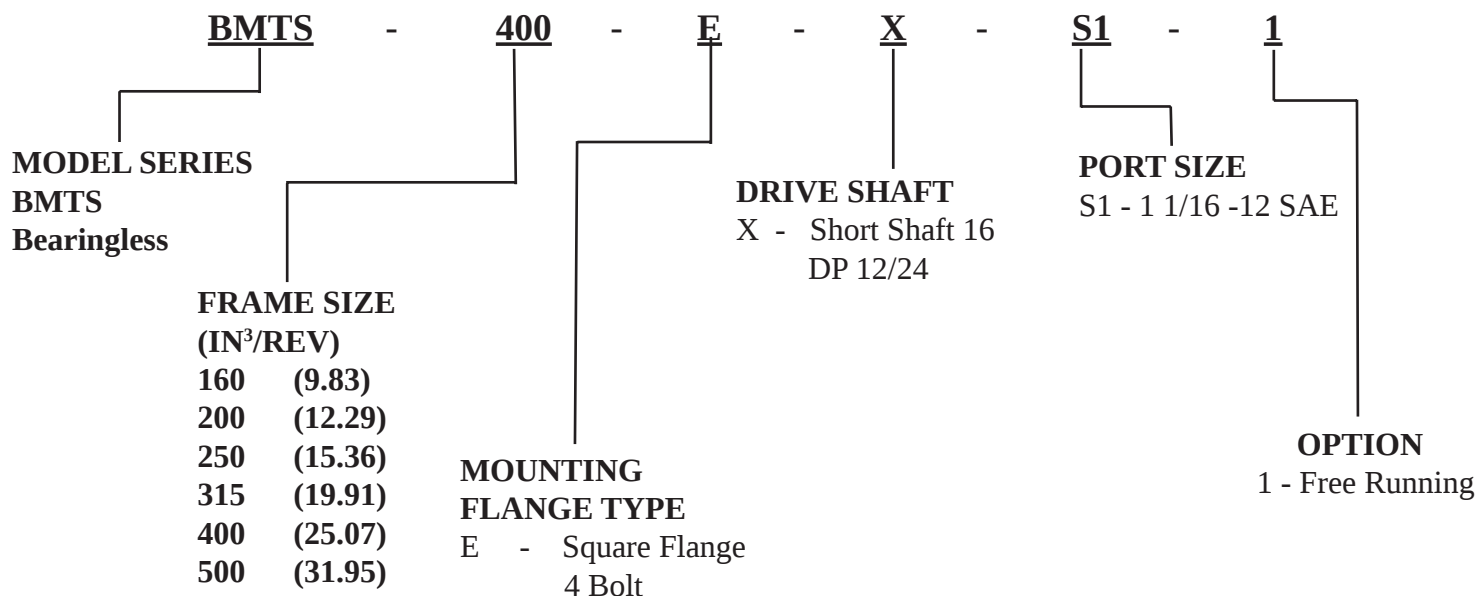
INTERNAL SPLINE DATA FOR THE ATTACHED COMPONENT

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 Cm ³ /Rev 9.83 in ³ /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
Max Cont.	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 Int.	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
	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 Cm ³ /Rev 12.29 in ³ /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 (2715)	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
Max Cont.	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 Int.	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
	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 Cm ³ /Rev 15.36 in ³ /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
Max Cont.	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 Int.	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
	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 Cm ³ /Rev 19.91 in ³ /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 Cm ³ /Rev 25.07 in ³ /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

rpm

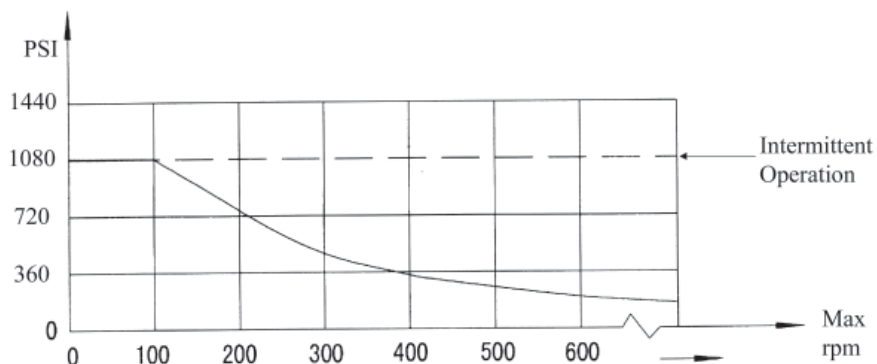
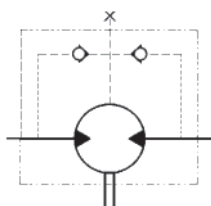
BMT/BMTS 500		523.6 Cm ³ /Rev 31.95 in ³ /Rev					Max Cont.	Max Int.
Pressure Mpa (psi)		3 (440)	6 (880)	9 (1325)	12 (1766)	14 (2060)	16 (2355)	18 (2652)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification						
	10 (2.60)	222 (1965)	451 (3991)	692 (6124)	892 (7894)	1050 (9293)	1193 (10560)	1340 (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 Cm ³ /Rev 38.39 in ³ /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 Cm ³ /Rev 48.93 in ³ /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

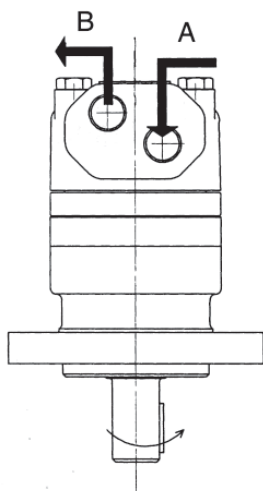
SHAFT SEAL RATED PRESSURE



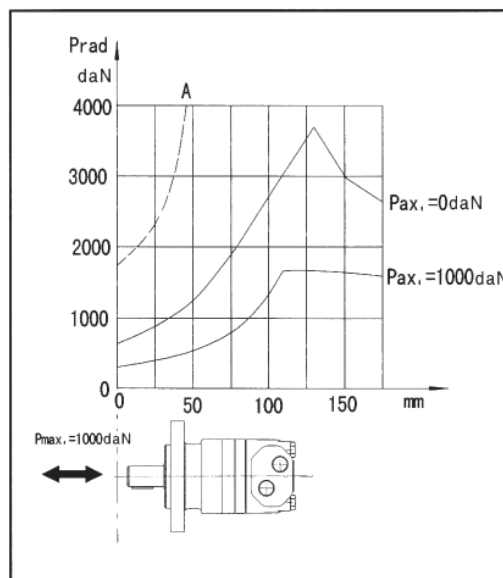
CASE DRAIN

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.

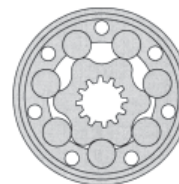
SHAFT ROTATION DIRECTION



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.

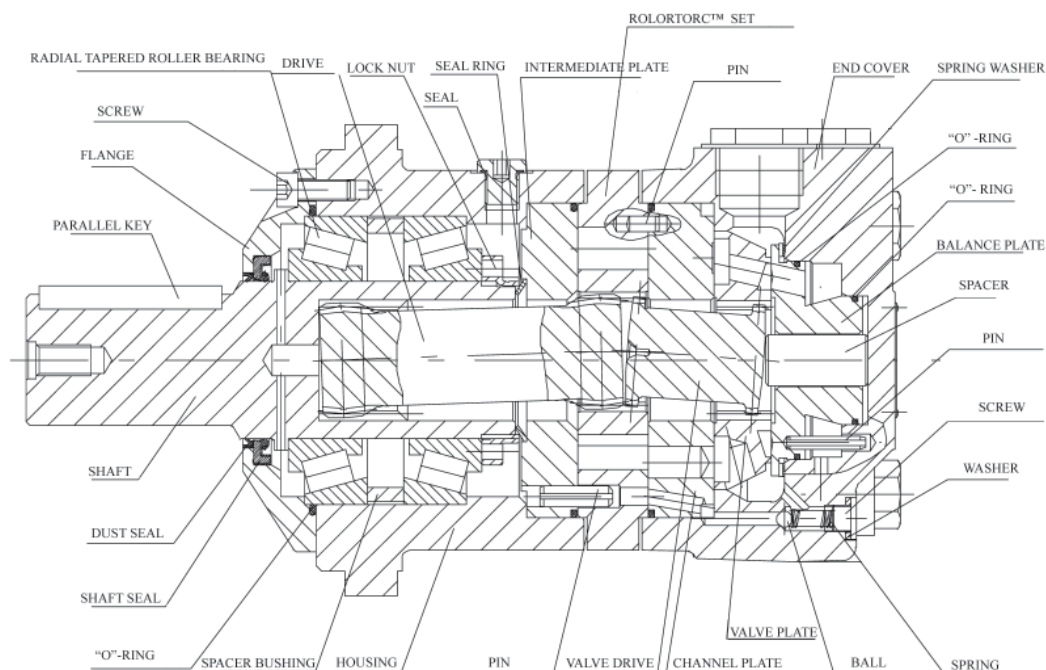
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMV

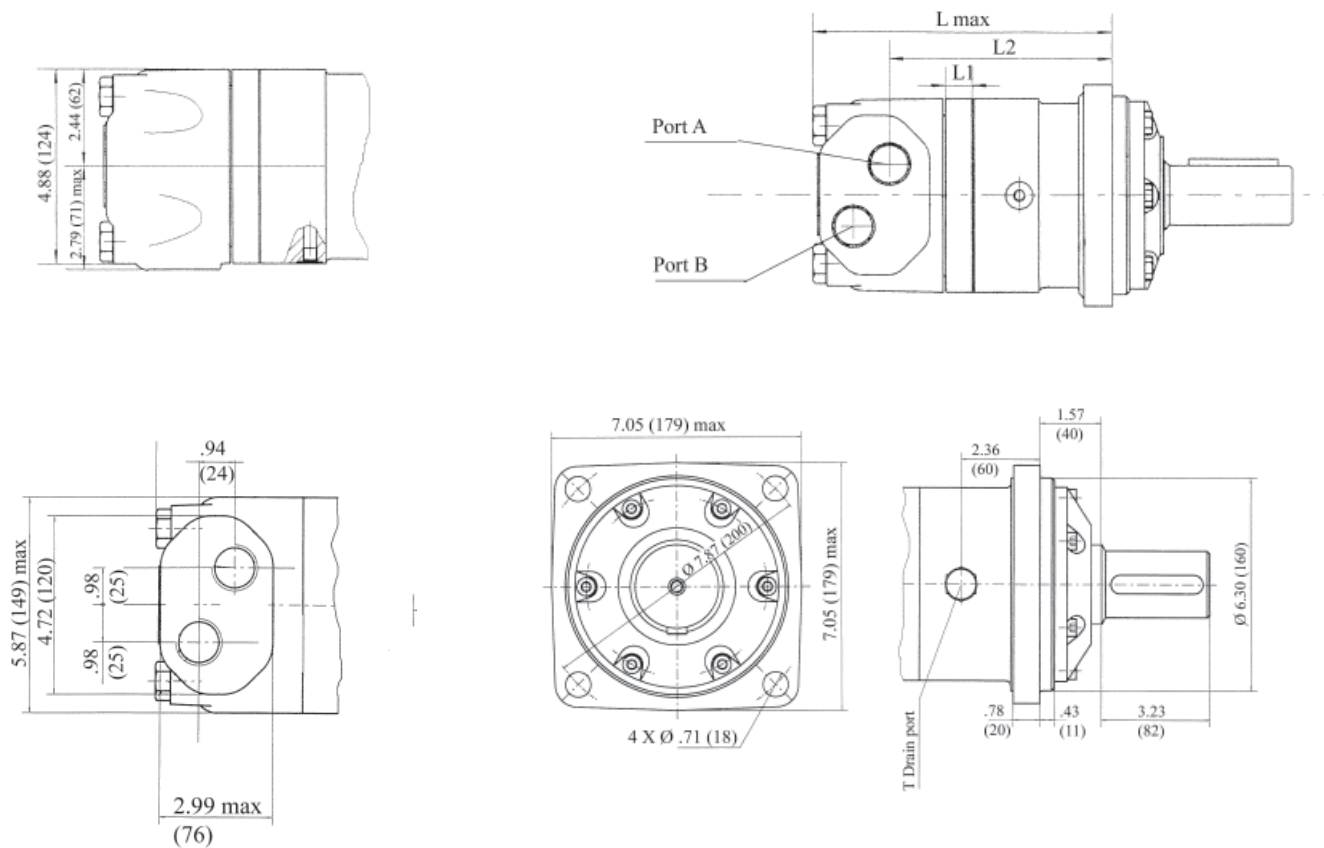
MODEL		BMV 315	BMV 400	BMV 500	BMV 630	BMV 800
Displacement	CM ³ /Rev (In ³ /Rev)	333 (20.32)	419 (25.56)	518 (31.61)	666 (40.64)	801.8 (48.93)
Maximum Speed RPM	Cont	446	354	386	223	185
	Int.	649	526	425	331	275
Max Torque NM / (in.lbs)	Cont	925 (8186)	1220 (10800)	1450 (12833)	1640 (14514)	1810 (16020)
	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

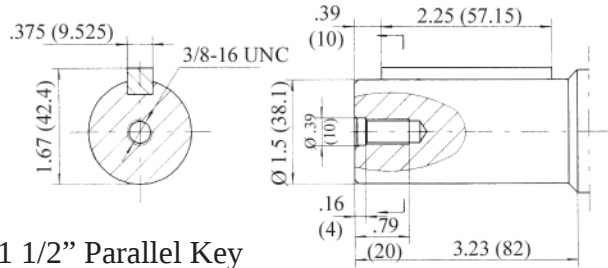


MODEL BMV	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMV 315	8.54	217	1.06	27	6.36	161.5
BMV 400	8.82	224	1.33	34	6.63	168.5
BMV 500	9.13	232	1.65	42	6.95	176.5
BMV 630	9.60	244	2.12	54	7.42	188.5
BMV 800	10.04	255	2.56	65	7.85	199.5

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

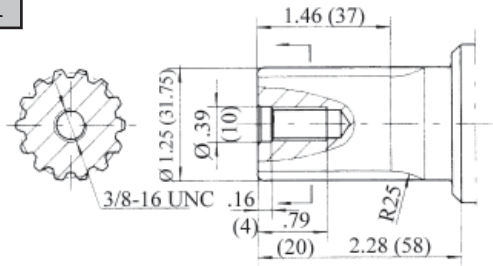
MODEL BMV DRIVE SHAFT DATA

G



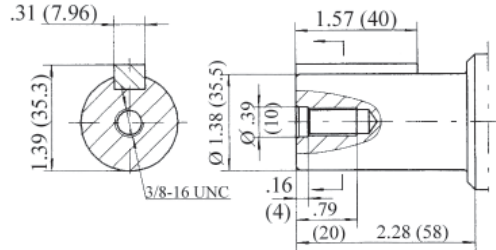
1 1/2" Parallel Key

F1



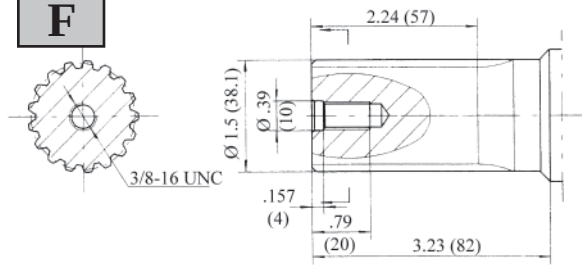
1 1/4-14 DP Spline

G1



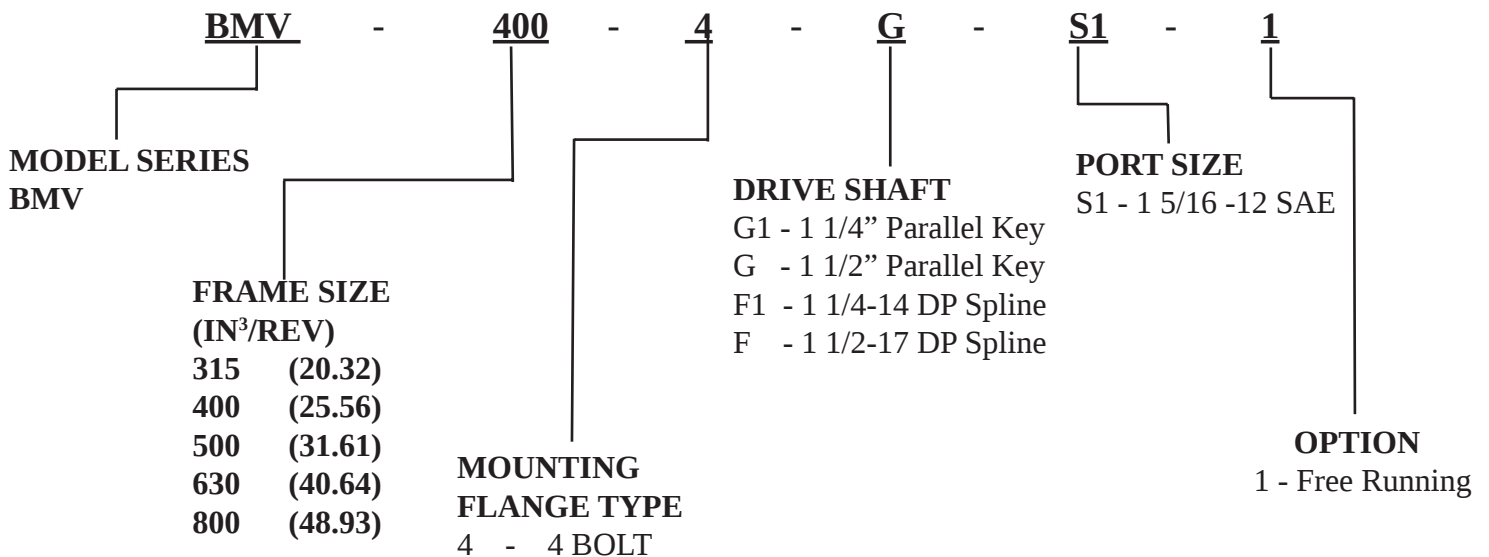
1 1/4" Parallel Key

F



1 1/2-17 DP Spline

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			

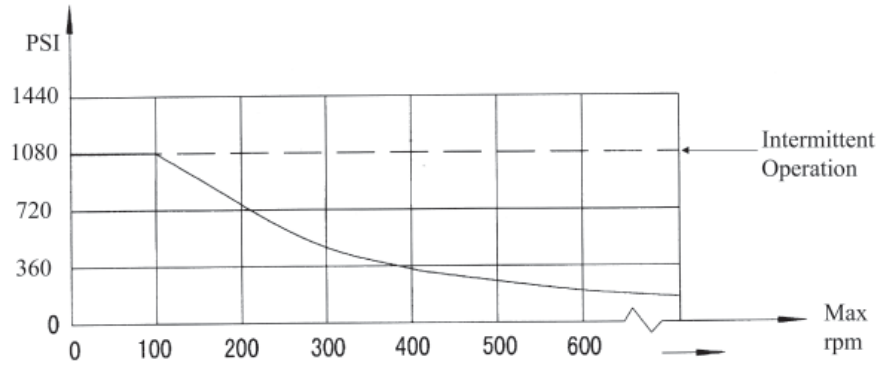
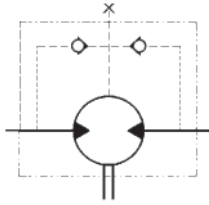
BMV 500		518 Cm ³ /Rev 31.61 in ³ /Rev					Max Cont.	Max Int.	
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	30 (7.92)	442 (3912)	675 (5974)	998 (8832)	1180 (10443)	1260 (11151)	1410 (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 Cm ³ /Rev 40.64 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)	610 (5399)	880 (7788)	1280 (11328)	1404 (12425)	1616 (14302)	1780 (15753)	1843 (16311)	1986 (17576)
		43 rpm	41 rpm	38 rpm	36 rpm	34 rpm	31 rpm	30 rpm	29 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)		
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 Cm ³ /Rev 48.93 in ³ /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)
Max Cont.	150 (39.50)	776 (6868)	1106 (9788)	1529 (15530)	
		184 rpm	180 rpm	176 rpm	
Max Int.	190 (50.19)	768 (6797)	1100 (9735)		
		233 rpm	229 rpm		

MODEL BMV TECHNICAL DATA

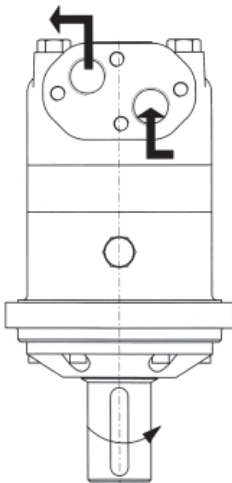
SHAFT SEAL RATED PRESSURE



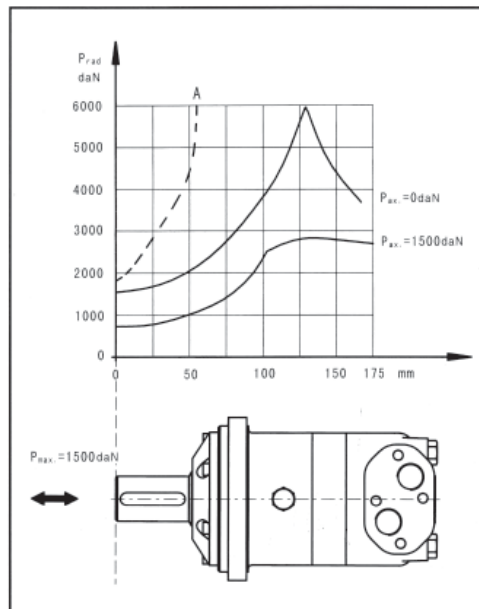
CASE DRAIN

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.