

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

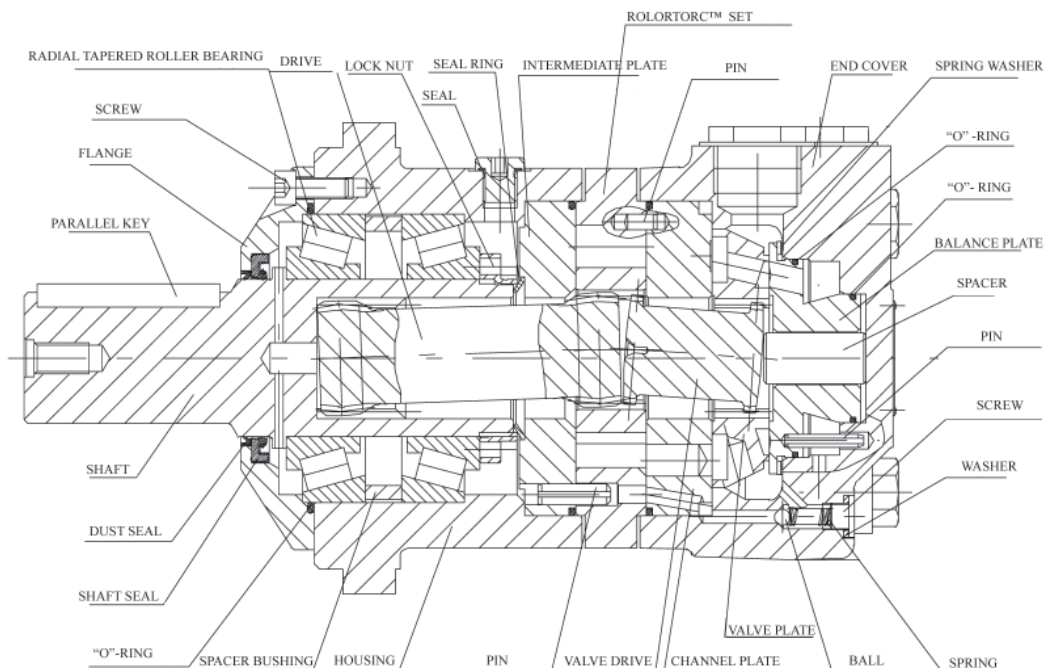
These low weight advanced construction design motors are manufactured in accordance with the requirements of the ISO 9000-2000 quality system.

Technical Specifications - BMV

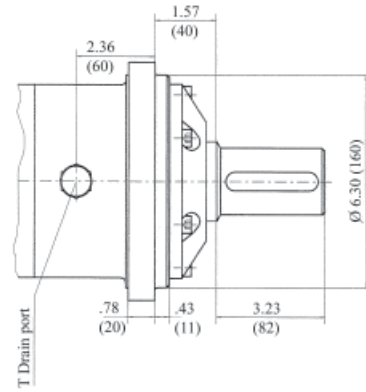
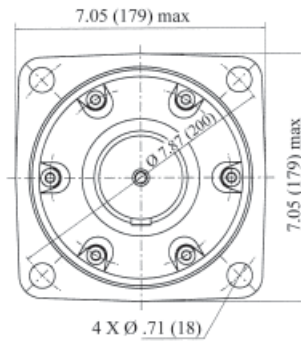
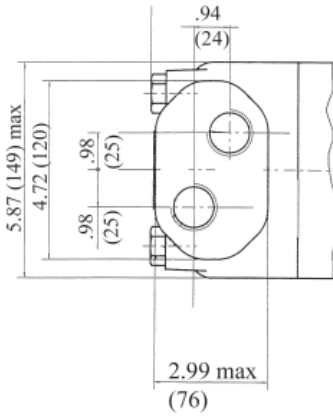
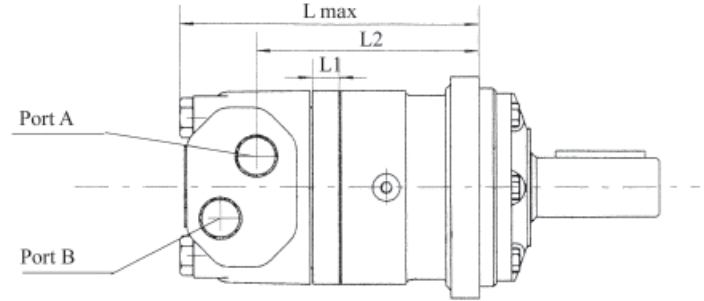
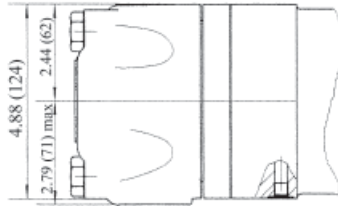
MODEL		BMV 315	BMV 400	BMV 500	BMV 630	BMV 800
Displacement	CM ³ /Rev	333	419	518	666	801.8
	(In ³ /Rev)	(20.32)	(25.56)	(31.61)	(40.64)	(48.93)
Maximum Speed RPM	Cont	446	354	386	223	185
	Int.	649	526	425	331	275
Max Torque NM / (in.lbs)	Cont	925 (8186)	1220 (10800)	1450 (12833)	1640 (14514)	1810 (16020)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

Continuous = maximum of continuous operation

Intermittent = maximum operating range for 6 seconds per minute



BMV INSTALLATION DATA

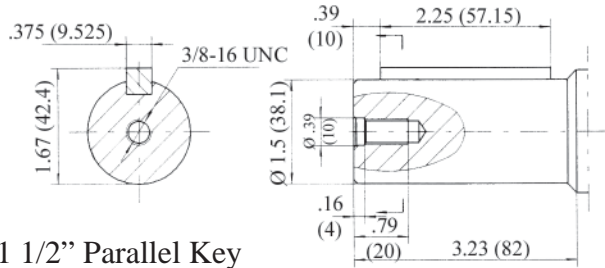


MODEL BMV	L		L1		L2	
	inches	mm	inches	mm	inches	mm
BMV 315	8.54	217	1.06	27	6.36	161.5
BMV 400	8.82	224	1.33	34	6.63	168.5
BMV 500	9.13	232	1.65	42	6.95	176.5
BMV 630	9.60	244	2.12	54	7.42	188.5
BMV 800	10.04	255	2.56	65	7.85	199.5

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

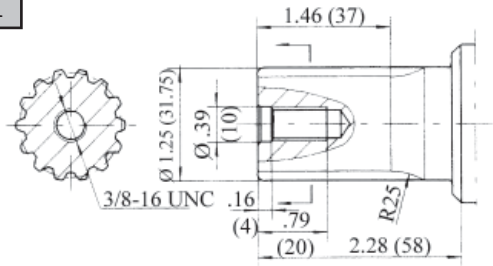
MODEL BMV DRIVE SHAFT DATA

G



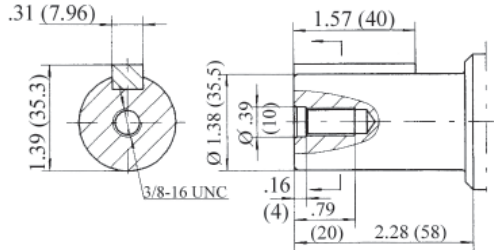
1 1/2" Parallel Key

F1



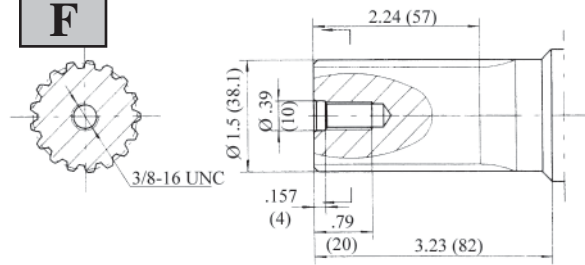
1 1/4-14 DP Spline

G1



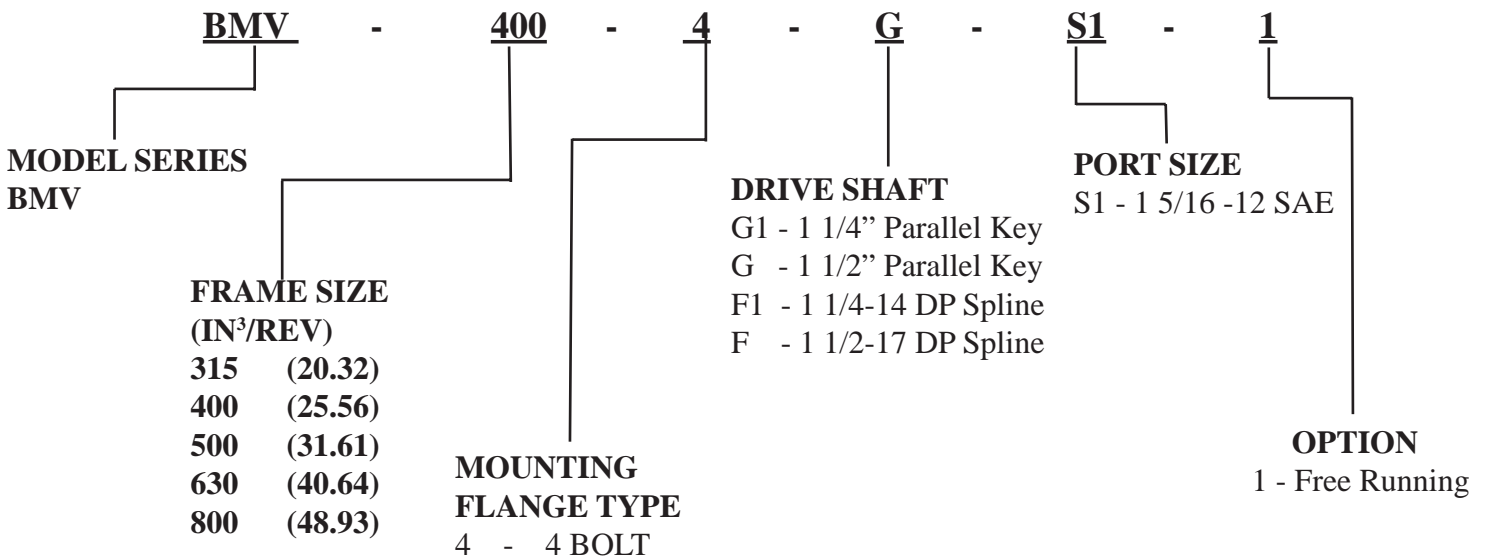
1 1/4" Parallel Key

F



1 1/2-17 DP Spline

BMV MODEL NUMBER DATA



Additional flange and drive shaft options available please consult factory

BMV 315		333 Cm³/Rev 20.32 in³/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 Cm³/Rev 25.56 in³/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 (10790)	
		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			

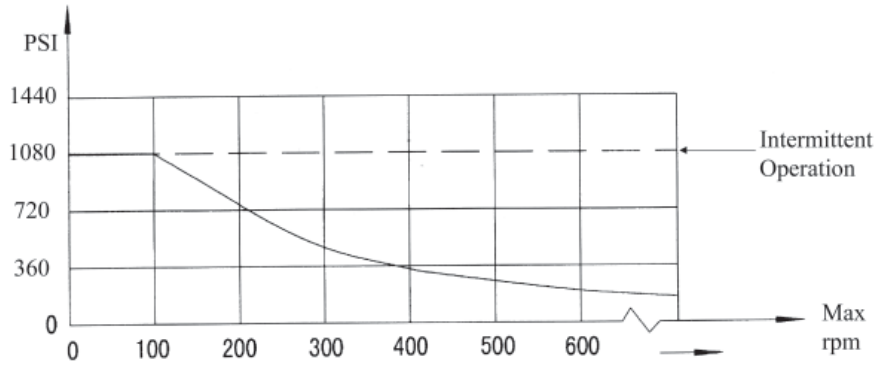
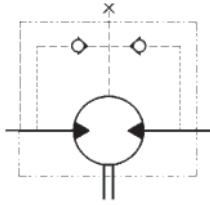
BMV 500		518 Cm³/Rev 31.61 in³/Rev				Max Cont.	Max Int.		
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	24 (3535)
F L O W	LPM (GPM)	Torque Mn (in.Lbs) Speed Specification							
	30 (7.92)	442 (3912)	675 (5974)	998 (8832)	1180 (10443)	1260 (11151)	1410 (12478)	1485 (13142)	1759 (15567)
		57 rpm	55 rpm	53 rpm	52 rpm	50 rpm	48 rpm	44 rpm	40 rpm
	60 (15.85)	455 (4026)	685 (6062)	1025 (9071)	1210 (10708)	1265 (11195)	1445 (12788)	1510 (13364)	1780 (15753)
		117 rpm	115 rpm	111 rpm	106 rpm	101 rpm	97 rpm	95 rpm	90 rpm
	90 (23.77)	450 (3982)	678 (6000)	1020 (9027)	1205 (10664)	1260 (11151)	1450 (12832)	1520 (13452)	1786 (15806)
		186 rpm	184 rpm	183 rpm	180 rpm	178 rpm	173 rpm	170 rpm	166 rpm
	105 (27.74)	445 (3938)	672 (5947)	1012 (8956)	1200 (10620)	1255 (11106)	1446 (12797)	1513 (13390)	
		205 rpm	202 rpm	198 rpm	194 rpm	192 rpm	187 rpm	186 rpm	
	120 (31.70)	440 (3894)	668 (4553)	1005 (8894)	1194 (10567)	1250 (11062)	1399 (12381)	1510 (13363)	
		240 rpm	238 rpm	235 rpm	232 rpm	230 rpm	226 rpm	225 rpm	
Max Cont.	150 (39.50)	435 (3850)	663 (5867)	1000 (8850)	1186 (10496)	1246 (11027)			
		294 rpm	290 rpm	286 rpm	282 rpm	278 rpm			
Max Int.	190 (50.19)	428 (3788)	658 (5823)	993 (8788)					
		373 rpm	368 rpm	362 rpm					

BMV 630		666 Cm³/Rev 40.64 in³/Rev				Max Cont.	Max Int.		
Pressure Mpa (psi)		7 (1030)	10 (1470)	14 (2060)	16 (2355)	18 (2652)	20 (2950)	21 (3090)	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)		
		186 rpm	183 rpm	180 rpm	177 rpm	174 rpm	171 rpm		
Max Cont.	150 (39.50)	590 (5222)	855 (7567)	1302 (11533)	1398 (12372)				
		235 rpm	232 rpm	228 rpm	224 rpm				
Max Int.	190 (50.19)	586 (5186)	864 (7487)						
		298 rpm	292 rpm						

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

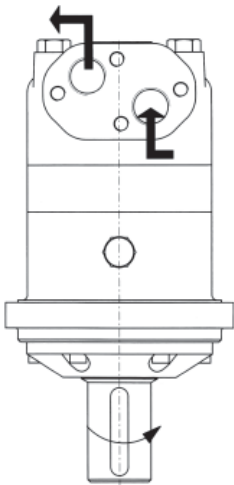
SHAFT SEAL RATED PRESSURE



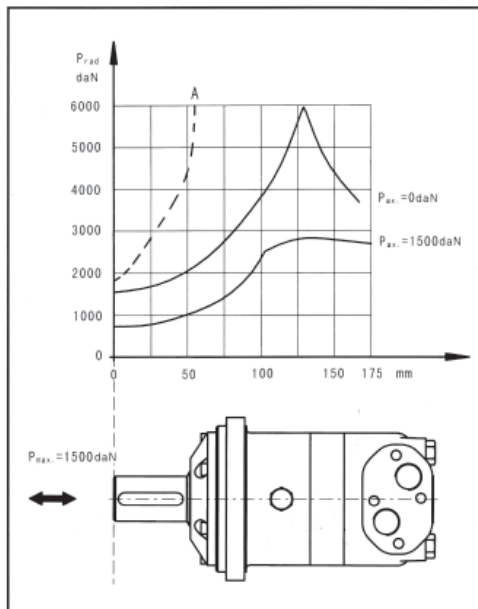
CASE DRAIN

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.