

Model BMV



The BMV series adapts the advanced GEROLER 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 startup and high pressure operation. These low weight advanced construction design motors are manufactured in accordance with the requirements of ISO 9001-2008 quality system.

BMV TECHNICAL SPECIFICATIONS

DISTRIBUTION TYPE			BMV 315	BMV 400	BMV 500	BMV 630	BMV 800	BMV 1000
GEOMETRIC DISPLACEMENT	[in./rev.]		[20.32]	[25.57]	[31.61]	[40.63]	[48.88]	[60.40]
	cm ³ /rev.		333	419	518	666	801	990
MAX. SPEED RPM	RATED		335	270	215	170	140	105
	CONT.		446	354	386	223	185	145
	INT.		649	526	425	331	275	220
MAX. TORQUE [LB. IN.] N*M	RATED	[LB. IN.]	[6456]	[9021]	[10701]	[12576]	[14061]	[17821]
		N*M	730	1020	1210	1422	1590	2015
	CONT.	[LB. IN.]	[8181]	[10790]	[12824]	[14504]	[16008]	[17821]
		N*M	925	1220	1450	1640	1810	2015
	INT.	[LB. IN.]	[9728]	[12727]	[15742]	[17688]	[18661]	[20164]
		N*M	1100	1439	1780	2000	2110	2280
	PEAK	[LB. IN.]	[11931]	[15035]	[18758]	[20677]	[21845]	[21226]
		N*M	1349	1700	2121	2338	2470	2400
MAX. OUTPUT [HP] KW	RATED	[HP]	[34]	[39]	[37]	[34]	[31]	[28]
		KW	25.6	28.8	27.2	25.3	23.3	21.2
	CONT.	[HP]	[58]	[61]	[78]	[52]	[47]	[38]
		KW	43	45.2	58.6	38.3	35.1	28.6
	INT.	[HP]	[70]	[70]	[70]	[62]	[54]	[54]
		KW	52	52	52	46	40	40
MAX. PRESSURE DROP [PSI] MPa	RATED	[PSI]	[2320]	[2320]	[2320]	[2320]	[2030]	[2030]
		MPa	16	16	16	16	14	14
	CONT.	[PSI]	[2900]	[2900]	[2900]	[2610]	[2320]	[2030]
		MPa	20	20	20	18	16	14
	INT.	[PSI]	[3480]	[3480]	[3480]	[3045]	[2610]	[2329]
		MPa	24	24	24	21	18	16
	PEAK	[PSI]	[4060]	[4060]	[4060]	[3480]	[3045]	[2610]
		MPa	28	28	28	24	21	18
MAX. FLOW [GPM] L/MIN	RATED	[GPM]	[29.0]	[29.0]	[29.0]	[29.0]	[29.0]	[29.0]
		L/MIN	110	110	110	110	110	110
	CONT.	[GPM]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]	[39.6]
		L/MIN	150	150	150	150	150	150
	INT.	[GPM]	[59.4]	[59.4]	[59.4]	[59.4]	[59.4]	[59.4]
		L/MIN	225	225	225	225	225	225
MAX. INLET PRESSURE [PSI] MPa	RATED	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MPa	21	21	21	21	21	21
	CONT.	[PSI]	[3045]	[3045]	[3045]	[3045]	[3045]	[3045]
		MPa	21	21	21	21	21	21
	INT.	[PSI]	[3625]	[3625]	[3625]	[3625]	[3625]	[3625]
		MPa	25	25	25	25	25	25
	PEAK	[PSI]	[4350]	[4350]	[4350]	[4350]	[4350]	[4350]
		MPa	30	30	30	30	30	30
WEIGHT [LB] KG	[LB]	[70]	[72]	[74]	[77]	[80]	[84.6]	
	KG	31.8	32.6	33.5	34.9	36.5	38.6	

- Rated speed and rated torque: Output value of speed and torque under rated flow and rated pressure.
- Continuous pressure: Max. value of operating motor continuously.
- Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- Peak pressure: Max. value of operating motor in 0.6 second per minute.

BMV 315 [20.32 in³/rev] 333 cm³/rev. Max cont. Max int.

	[1015]	[1450]	[2030]	[2320]	[2610]	[2900]	[3045]	[3480]	[PSI]
	7	10	14	16	18	20	21	24	MPa
GPM	[7.9]	[2697]	[3847]	[5351]	[6350]	[6987]	[7889]	[8331]	
	30	305	435	605	718	790	892	942	
L/min	[15.9]	[2680]	[3936]	[5528]	[6509]	[7323]	[8181]	[8561]	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	60	183	179	174	168	163	160	154	
Flow (L/min)	[23.8]	[2653]	[3891]	[5528]	[6456]	[7305]	[8154]	[8508]	
	90	300	440	625	730	826	922	962	
105	[27.7]	[2609]	[3847]	[5483]	[6421]	[7270]	[8110]	[8473]	
	120	290	431	610	720	820	912	952	
Max cont.	[31.7]	[2565]	[3812]	[5395]	[6368]	[7252]	[8066]	[8419]	Max cont.
	150	278	411	602	716	802	904	942	
Max int.	[50.2]	[2299]	[3467]	[5200]	[6279]	[7031]	[7889]	[8225]	Max int.
	190	260	392	588	710	795	892	930	

BMV 400 [25.56 in³/rev] 419 cm³/rev. Max cont. Max int.

	[1015]	[1450]	[2030]	[2320]	[2610]	[2900]	[3045]	[3480]	[PSI]
	7	10	14	16	18	20	21	24	MPa
GPM	[7.9]	[3467]	[5236]	[7181]	[8800]	[9286]	[10,436]	[10,569]	
	30	392	592	812	995	1050	1180	1195	
L/min	[15.9]	[3555]	[5430]	[7270]	[9021]	[9463]	[10,790]	[10,922]	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	60	402	614	822	1020	1070	1220	1235	
Flow (L/min)	[23.8]	[3502]	[5359]	[7208]	[8977]	[9419]	[10,701]	[10,834]	
	90	396	606	815	1015	1065	1210	1225	
105	[27.7]	[3449]	[5306]	[7119]	[8932]	[9392]	[10,657]	[10,790]	
	120	390	600	805	1010	1062	1205	1220	
Max cont.	[31.7]	[3396]	[5253]	[7058]	[8888]	[9330]	[10,613]	[10,701]	Max cont.
	150	384	594	798	1005	1055	1200	1210	
Max int.	[50.2]	[3184]	[5076]	[6960]	[8729]	[9065]			Max int.
	190	360	574	787	987	1025			

BMV 500 [31.60 in³/rev] 518 cm³/rev. Max cont. Max int.

	[1015]	[1450]	[2030]	[2320]	[2610]	[2900]	[3045]	[3480]	[PSI]
	7	10	14	16	18	20	21	24	MPa
GPM	[7.9]	[3909]	[5970]	[8826]	[10,436]	[11,143]	[12,470]	[13,133]	
	30	442	675	998	1180	1260	1410	1485	
L/min	[15.9]	[4024]	[6058]	[9065]	[10,701]	[11,188]	[12,780]	[13,354]	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	60	455	685	1025	1210	1265	1445	1510	
Flow (L/min)	[23.8]	[3980]	[5996]	[9021]	[10,657]	[11,143]	[12,824]	[13,443]	
	90	450	678	1020	1205	1260	1450	1520	
105	[27.7]	[3936]	[5943]	[8950]	[10,613]	[11,099]	[12,788]	[13,381]	
	120	445	672	1012	1200	1255	1446	1513	
Max cont.	[31.7]	[3891]	[5908]	[8888]	[10,560]	[11,055]	[12,373]	[13,354]	Max cont.
	150	440	668	1005	1194	1250	1399	1510	
Max int.	[50.2]	[3785]	[5819]	[8782]					Max int.
	190	428	658	993					

BMV 630 [40.63 in³/rev] 666 cm³/rev. Max cont. Max int.

	[1015]	[1450]	[2030]	[2320]	[2610]	[2900]	[3045]	[3480]	[PSI]
	7	10	14	16	18	20	21	24	MPa
GPM	[7.9]	[5395]	[7783]	[11,320]	[12,417]	[14,292]	[15,742]	[16,300]	
	30	610	880	1280	1404	1616	1780	1843	
L/min	[15.9]	[5439]	[7853]	[11,816]	[12,488]	[14,398]	[15,919]		TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	60	615	888	1336	1412	1628	1800		
Flow (L/min)	[23.8]	[5377]	[7765]	[11,771]	[12,576]	[14,504]	[16,008]		
	90	608	878	1331	1422	1640	1810		
105	[27.7]	[5306]	[7712]	[11,727]	[12,514]	[14,433]	[15,831]		
	120	600	872	1326	1415	1632	1790		
Max cont.	[31.7]	[5262]	[7650]	[11,586]	[12,426]	[14,372]	[15,742]		Max cont.
	150	595	865	1310	1405	1625	1780		
Max int.	[50.2]	[5183]	[7482]						Max int.
	190	586	846						

BMV PERFORMANCE DATA

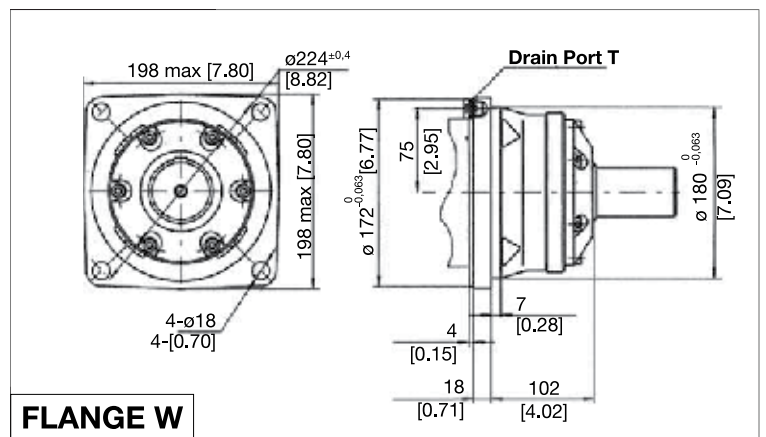
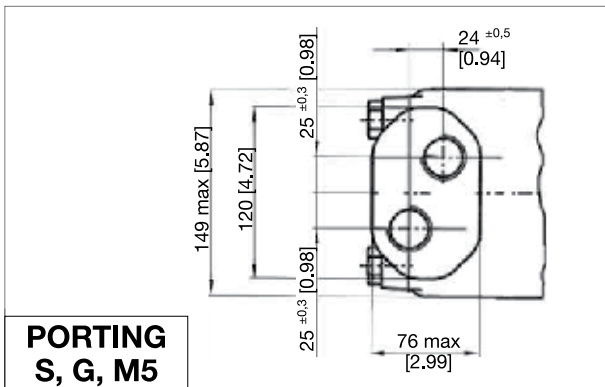
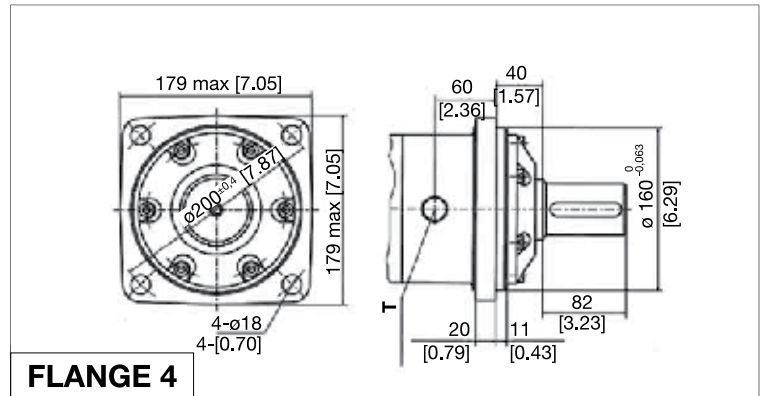
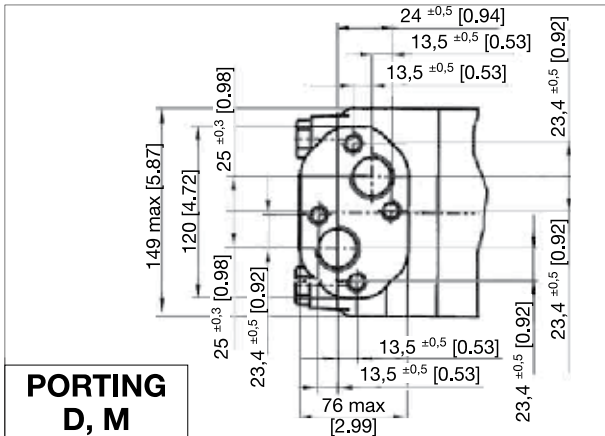
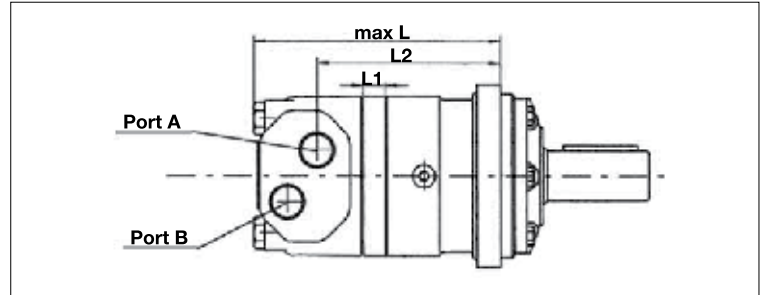
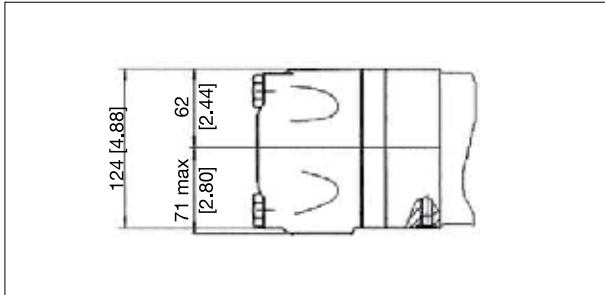


BMV 800 [48.87 in³/rev] 801 cm³/rev. Max cont.

		[1015]	[1450]	[2030]	[2320]	[PSI]
		7	10	14	16	MPa
GPM	[7.9]	[6987]	[10,056]	[13,991]	[15,831]	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	L/min	790	1137	1582	1790	
60	[15.9]	[7093]	[10,100]	[14,062]	[16,008]	
	L/min	802	1142	1590	1810	
90	[23.8]	[7031]	[10,038]	[13,974]	[15,919]	
	L/min	795	1135	1580	1800	
105	[27.7]	[6960]	[9994]	[13,938]	[15,848]	
	L/min	787	1130	1576	1792	
120	[31.7]	[6916]	[9941]	[13,699]	[15,565]	
	L/min	782	1124	1549	1760	
Max cont.	[39.6]	[6863]	[9781]	[13,522]		Max cont.
	L/min	776	1106	1529		
Max int.	[50.2]	[6792]	[9728]			Max int.
	L/min	768	1100			

BMV 1000 [60.40 in³/rev] 990 cm³/rev. Max cont.

		[1015]	[1450]	[2030]	[2320]	[PSI]
		7	10	14	16	MPa
GPM	[7.9]	[8649]	[12410]	[12511]	[20075]	TORQUE [LB-IN] TORQUE (N•M) SPEED (RPM)
	L/min	978	1410	1980	2270	
60	[15.9]	[8773]	[12576]	[17821]	[20129]	
	L/min	992	1422	2015	2280	
90	[23.8]	[8129]	[12603]	[17715]	[20129]	
	L/min	987	1425	2003	2276	
105	[27.7]	[8694]	[12541]	[17635]	[19837]	
	L/min	983	1418	1994	2243	
120	[31.7]	[8623]	[12461]	[17582]	[19669]	
	L/min	975	1409	1988	2224	
Max cont.	[39.6]	[8499]	[12099]	[16830]		Max cont.
	L/min	961	1368	1903		
Max int.	[50.2]	[8340]	[11833]			Max int.
	L/min	943	1338			



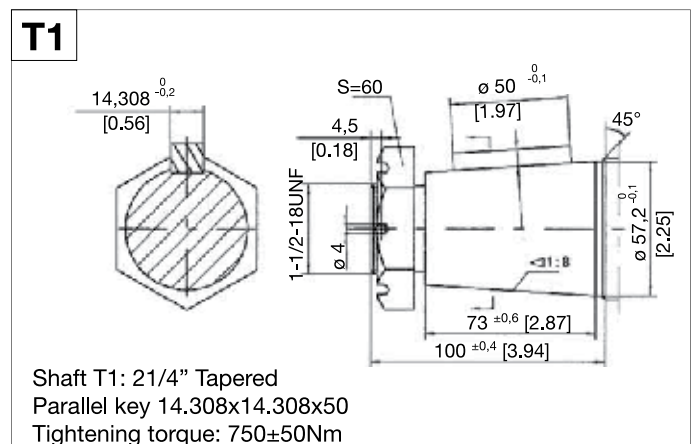
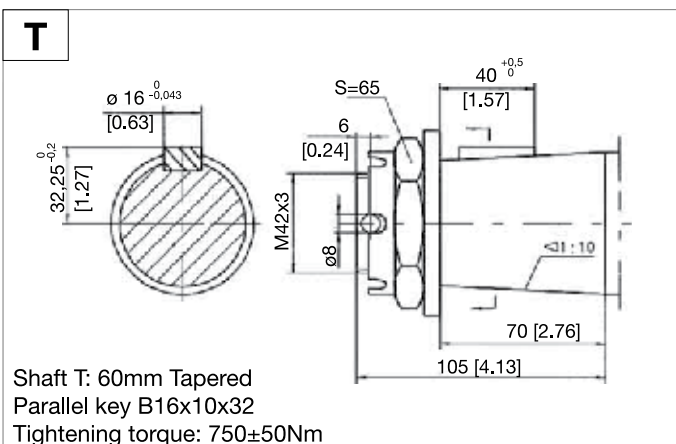
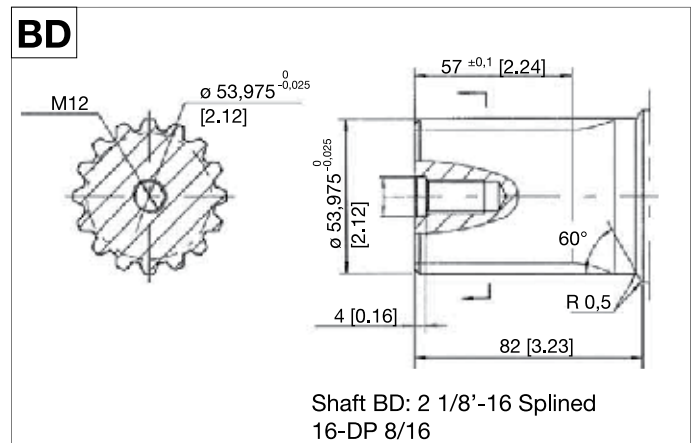
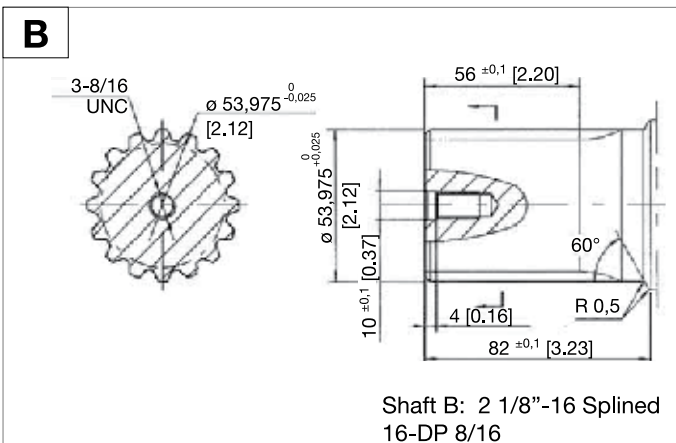
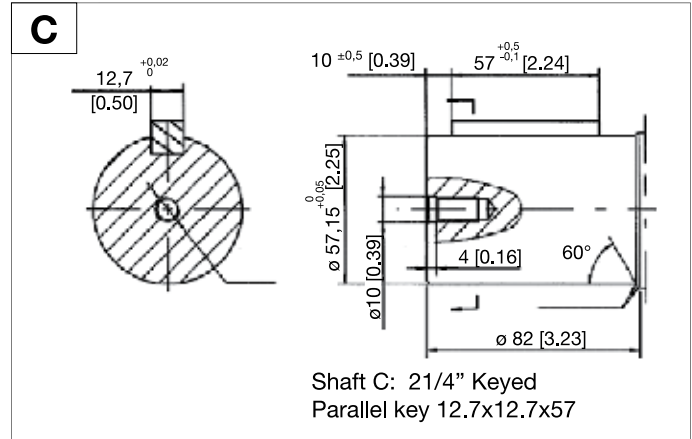
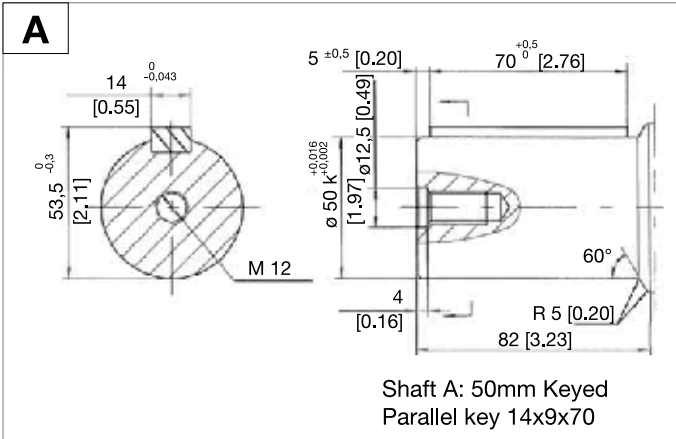
MODEL	[INCHES]			MILLIMETERS		
	L	L1	L2	L	L1	L2
BMV315	[8.55]	[0.79]	[6.36]	217	20	161.5
BMV400	[8.82]	[1.06]	[6.63]	224	27	168.5
BMV500	[9.13]	[1.38]	[6.95]	232	35	176.5
BMV630	[9.61]	[1.85]	[7.42]	244	47	188.5
BMV800	[10.04]	[2.28]	[7.85]	255	58	199.5

MODEL	[INCHES]			MILLIMETERS		
	L	L1	L2	L	L1	L2
BMVW315	[5.85]	[0.79]	[3.68]	148.5	20	93.5
BMV400	[6.12]	[1.06]	[3.96]	155.5	27	100.5
BMV500	[6.44]	[1.38]	[4.27]	163.5	35	108.5
BMV630	[6.91]	[1.85]	[4.74]	175.5	47	120.5
BMV800	[7.34]	[2.28]	[5.18]	186.5	58	131.5

PORT & DRAIN PORT ORDERING CODES

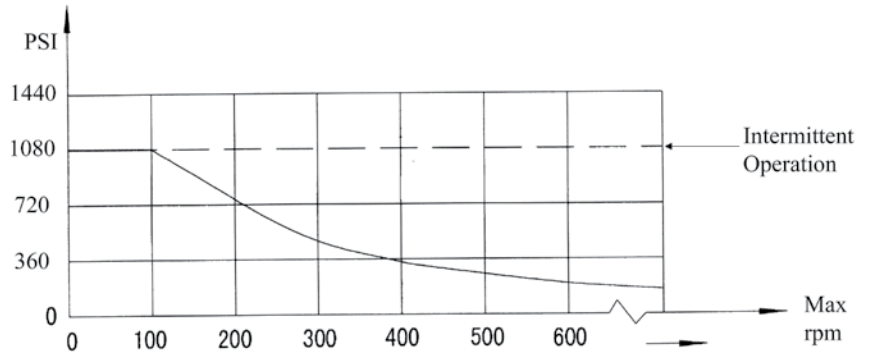
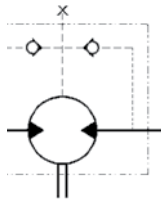
ORDER CODE	D	DEPTH	M	DEPTH	S	DEPTH	G	DEPTH	M5	DEPTH
PORTS - A and B	G 1	18 mm	M33 X 2	18 mm	1-5/16-12UN	18 mm	G 1	18 mm	M33 X 2	18 mm
TANK PORT - T	G 1/4	12 mm	M14 X1.5	12 mm	9/16-18UNF	12 mm	G 1/4	12 mm	M14X1.5	12 mm
BOLTS - C	4-M12	10 mm	4-M12	10 mm	-	-	-	-	-	-

BMV MOTOR SHAFT EXTENSIONS



▷ Motor Mounting Surface

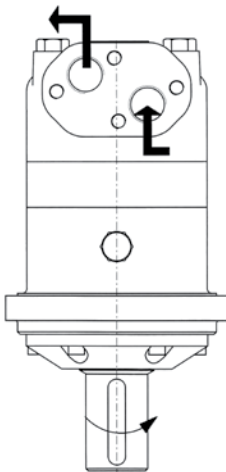
SHAFT SEAL RATED PRESSURE



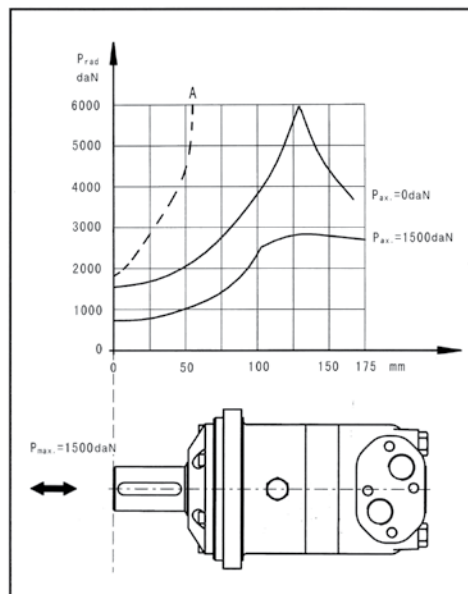
CASE DRAIN

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.

BMV ORDERING INFORMATION



	1	2	3	4	5	6
BMV						

1	2		3		4		5		6	
DISP. cc (cu. in.)	FLANGE		OUTPUT SHAFT		PORT AND DRAIN PORT		ROTATION DIRECTION		PAINT	
315 (20.32)	4	4-Ø14.5 Square-flange pilot Ø160x11	A	Shaft: 50mm Keyed, parallel key 14x9x70	D	G1 Manifold 4xM12, G1/4	NONE	STANDARD	00	NO PAINT
400 (25.57)	W	4-Ø18 Wheel-flange Ø224, pilot Ø180x10	BD	Shaft: 2 1/8" Splined 16-DP8/16	M	M33x2 Manifold 4-M12, M14x1.5	R	OPPOSITE	NONE	BLACK
500 (31.61)	K6	4-Ø14.2 Square flange pilot Ø161.9	B	Shaft: 2 1/8" Splined 16-DP8/16	S	1-5/16-12UN, 9/16- 18UNF				
630 (40.63)			C	Shaft: 2 1/4" Keyed parallel key 12.7x12.7x57	G	G1, G1/4				
800 (48.88)			T	60mm Tapered parallel key B16x10x32	M5	M33x2, M14x1.5				
1000 (60.4)			T1	2 1/4" Tapered parallel key 14.308x14.308x50						