



The **BMV** is a disc valve, high pressure motor with radial ball-bearings design and efficient performance that can bear a greater load than the BMT. Its volume is bigger than the BMT.

CHARACTERISTIC FEATURES

- The motor can be used in high pressure and high torque.
- Advanced design in disc distribution flow, which can provide improved performance at low speed.
- The valve can automatically compensate for the wear, so the volumetric efficiency is high.
- Double taper roller bearings permit high radial loads. The motors can be used on heavier vehicles in traction drive applications.

Main Specifications

Displacement per revolution	cm3 (cc)	315	400	500	630	800	1000
	in3	19.2	24.3	30.4	38.4	48.7	61.0
Flow (GPM)	Cont.	42	53	53	53	53	53
	Int.	53	63	63	63	63	63
Speed (RPM)	Cont.	510	500	400	320	250	200
	Int.	630	600	480	380	300	240
Pressure (PSI)	Cont.	3045	3045	3045	3045	3045	3045
	Int.	3625	3625	3625	3625	3625	3625
Torque (In-Lbs)	Cont.	7213	10502	13039	14869	15824	17813
	Int.	9892	12659	15611	17371	17689	20155

- Notes**
1. Continuous: Motor can run continuously at these ratings.
 2. Intermittent: Intermittent operation, 10% of every minute.
 3. A simultaneous maximum rpm and pressure is not recommended.
 4. Conversion factors available on page 3.
 5. The optimum operating situation should be at the 1/3 - 2/3 of the continuous operating situation.

BMV-315 315(cc)

		ΔP (PSI)						
		508	1015	1450	2030	2610	2900	3480
Flow (GPM)	3	1238 30	2599 27	3890 26	5392 25	6559 23	7470 19	8840 16
	5	1353 52	2776 51	4119 50	5622 49	6957 48	7912 45	9459 42
	13	1317 143	2758 142	4111 140	5781 138	7205 135	8265 131	9830 125
	20	1264 222	2687 220	4049 217	5675 213	7213 219	8310 204	9892 197
	26	1202 289	2625 287	3996 285	5622 282	7160 279	8274 274	9795 266
	33	1087 368	2528 366	3907 364	5534 361	7063 357	8142 352	9662 345
	40	1008 449	2431 447	3845 445	5437 441	6966 434	8009 426	9530 414
	42	946 472	2369 470	3801 467	5375 463	6895 457	7912 449	9459 436
	53	725 598	2201 596	3642 592	5242 586	6701 578	7700 567	9255 546

Torque 7700 In-lbs
Speed 567 rpm

BMV-400 400(cc)

		ΔP (PSI)						
		508	1015	1450	2030	2610	2900	3480
Flow (GPM)	3	1618 23	3403 23	5021 22	6860 20	8557 19	9733 18	11421 16
	5	1733 42	3518 42	5216 41	7205 40	8928 38	10154 37	11899 35
	13	1768 112	3554 111	5331 111	7443 110	9194 108	10484 106	12641 101
	20	1724 177	3483 175	5269 172	7408 168	9220 165	10502 1594	12659 153
	26	1520 232	3403 231	5242 229	7311 227	9158 223	10467 219	12597 212
	33	1476 296	3306 294	5154 291	7213 288	9026 282	10405 275	12491 268
	40	1397 358	3191 357	4942 355	7081 352	8911 347	10299 338	12288 327
	46	1264 414	3059 412	4889 409	6931 405	8743 401	10122 394	12173 386
	53	1043 476	2926 474	4738 470	6807 464	8566 456	9972 449	11987 440
	63	725 567	2661 565	4473 561	6542 544	8336 536	9759 527	11775 517

BMV-500

		ΔP (PSI)						
		508	1015	1450	2030	2610	2900	3480
Flow (GPM)	3	2139 19	4137 19	6153 18	8478 18	10520 17	11961 15	14206 12
	5	2166 34	4429 33	6524 33	8867 32	10891 31	12323 30	14657 27
	13	2122 92	4420 91	6701 90	9061 89	11227 87	12809 84	15408 79
	20	2060 141	4402 140	6648 138	9105 136	11386 133	13039 128	15611 121
	26	2016 186	4340 184	6612 182	9070 179	11395 170	13012 170	15558 163
	33	1945 237	4270 236	6559 234	8964 231	11315 227	12906 223	15426 216
	40	1777 290	4111 289	6391 287	8911 284	11050 279	12632 273	15346 262
	46	1609 333	3943 332	6285 330	8813 327	10944 323	12429 318	15161 308
	53	1423 385	3739 384	5976 382	8610 379	10767 375	12243 367	15001 355
	63	1061 458	3342 456	5498 454	8142 451	10360 447	11846 441	14586 429

BMV-630

		ΔP (PSI)						
		508	870	1350	1740	2175	2610	3045
Flow (GPM)	3	2475 16	4614 15	7178 15	9724 14	11209 14	13693 12	15771 11
	5	2546 26	4880 26	7417 26	9733 26	11525 25	14206 23	16478 21
	13	2555 71	4906 71	7673 70	10051 68	12058 67	14869 65	17291 61
	20	2387 110	4844 109	7629 107	9901 105	11952 103	14851 100	17362 95
	26	2334 144	4756 143	7567 141	9662 139	11934 136	14798 133	17371 128
	33	2219 184	4561 183	7399 181	9468 179	11810 177	14666 173	17238 168
	40	2122 223	4376 222	7222 221	9397 219	11757 217	14586 214	17044 207
	46	1856 258	4287 257	7037 256	9300 253	11792 249	14462 245	16867 240
	53	1609 298	4146 298	6639 296	8999 294	11315 291	14241 285	16646 274
	63	1149 356	3677 355	6294 353	8646 349	10935 344	13817 338	16221 330

CONT.

INT.

All the datas were tested at 50°C with anti-wear hydraulic oil.
Actual data may vary slightly from different units in production.

BMV-800

		ΔP (PSI)						
		363	725	1160	1450	1885	2320	2610
Flow (GPM)	3	2458	4995	7337	9680	12420	15134	16929
		11	10	10	9	8	8	7
	5	2493	5048	7470	10166	12871	15762	17627
		23	22	22	21	20	18	16
	13	2546	5145	7567	10272	12933	15824	17689
		60	59	57	56	54	52	48
	20	2378	5127	7558	10299	12951	15788	17618
		91	90	89	87	84	81	77
	26	2219	5003	7426	10078	12800	15620	17547
		122	121	120	118	115	111	105
33	2139	4729	7284	9883	12615	15373	17468	
	153	152	150	147	143	139	133	
40	2086	4650	7143	9742	12385	15152	17318	
	185	183	181	178	174	169	163	
46	1901	4455	7010	9538	12173	15010	17114	
	216	214	212	209	206	203	196	
53	1741	4137	6763	9397	12040	14860	16911	
	247	245	243	240	237	232	225	
63	1043	3430	6303	9017	11651	14471	16248	
	297	296	295	293	288	283	277	

CONT.

INT.

All the datas were tested at 50°C with anti-wear hydraulic oil.
Actual data may vary slightly from different units in production.

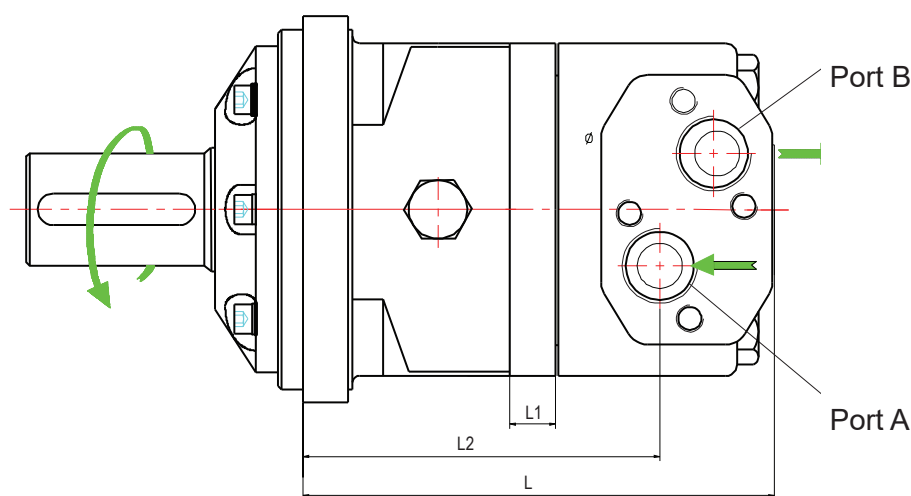
BMV-1000

		ΔP (PSI)					
		363	725	1015	1450	2030	2320
Flow (GPM)	3	2758 9	5658 9	8584 9	12376 8	17486 7	16670 6
	5	2829 28	5728 27	8646 26	12464 25	17503 23	20067 21
	13	2882 47	5790 46	8769 45	12570 43	17813 41	20155 38
	20	2811 72	5675 71	8725 70	12597 68	17707 66	20120 63
	26	2732 98	5605 97	8690 95	12535 93	17627 90	19828 86
	33	2679 123	5516 122	8619 120	12456 117	17574 114	19660 110
	40	2458 149	5322 148	8495 146	12093 144	17353 140	19519 133
	46	2334 174	5127 172	8363 170	11828 166	17017 162	19086 155
	53	2033 199	4915 196	8062 193	11492 190	16716 185	18608 178
	63	1467 240	4535 237	7664 233	11200 229	16133 225	17981 218

Torque 16133 In-lbs
Speed 225 rpm

CONFIGURATION

CONFIGURATION A



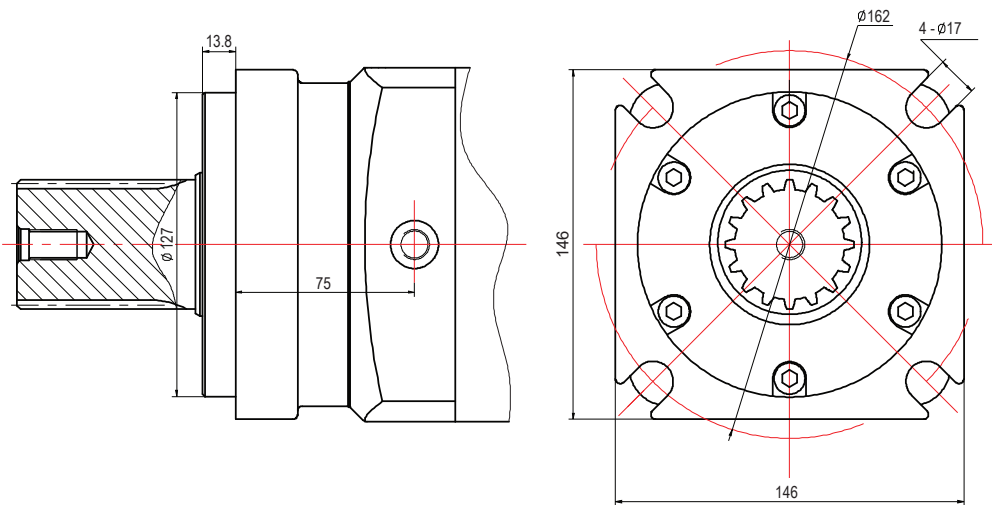
Standard rotation viewed
from shaft end

Port A pressurizedCW
Port B pressurizedCW

Displacement	315		400		500		630		800		1000	
L1	23.8	0.937	31	1.220	39	1.535	50.9	2.004	65.5	2.579	81.5	3.209
L2	161.8	6.370	169	6.654	177	6.969	188.9	7.437	203.5	8.012	219.5	8.642
L3	212.8	8.378	220	8.661	228	8.976	239.9	9.445	254.5	10.020	270.5	10.650

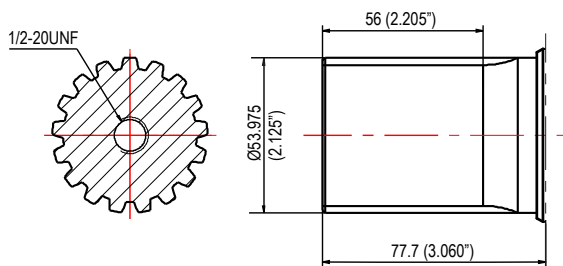
MOUNTING FLANGE

FLANGE C

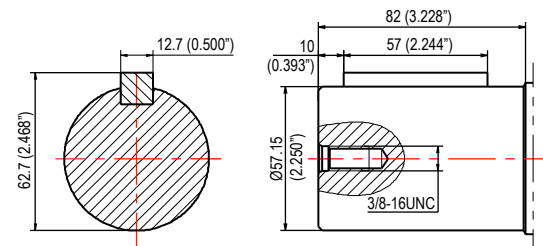


OUTPUT SHAFT

SHAFT G

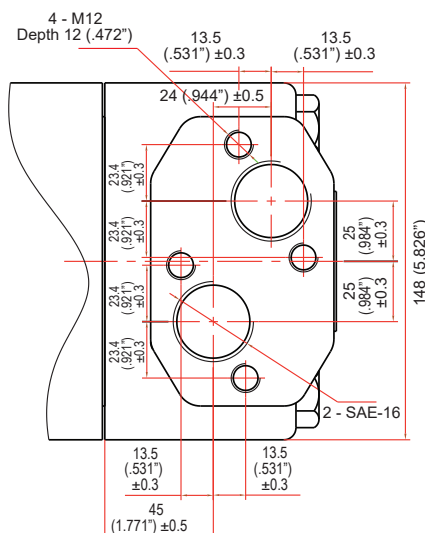


SHAFT I

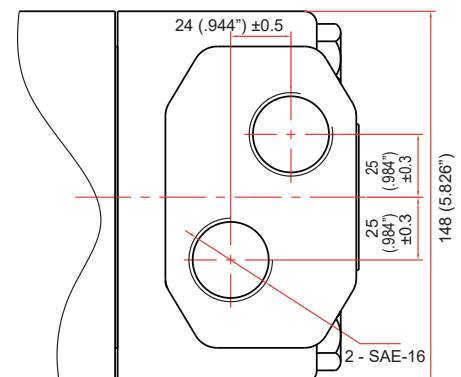


BACK HOUSING

A TYPE



B TYPE



Choose an option for each category

BMV

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CONFIGURATION

A - Standard

DISPLACEMENT (CC)

A - 315 B - 400 C - 500
D - 630 E - 800 F - 1000

MOUNTING FLANGE

C - Square, SAE-C 4 bolt (ø5.000" pilot),
ø0.670" holes (4), 6.375" bolt center

OUTPUT SHAFT

G - Spline, ø2 1/8", 16 tooth, 1/2-20UNC Link thread
I - Straight, ø2 1/4", Parallel key, 3/8-16UNC Link thread

BACK HOUSING

A - Link thread
B - No Link thread

PORTS

F - SAE-16

LINK THREAD ON PORT SURFACE

A - M12
C - NONE

DRAIN PORT

E - SAE-06

Order example: BMVAAACBAAB

Other configuration and/or mounting types are available upon request.