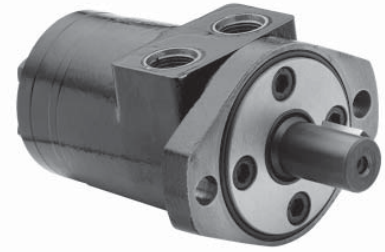


Hydraulic Motor Model BMPH



The BMPH Rolortorc™ gear set, shaft distribution flow, hydraulic motor is 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

MODEL		BMPH 36	BMPH 50	BMPH 80	BMPH 100	BMPH 125	BMPH 160	BMPH 200	BMPH 250	BMPH 315	BMPH 400
Displacement <i>in³/rev (cm³/rev)</i>		2.20 (36.0)	3.15 (51.7)	4.74 (77.7)	5.87 (96.2)	7.20 (120)	9.51 (157)	11.59 (195)	14.09 (240)	19.03 (315)	23.61 (390)
Max Speed <i>rpm</i>	Cont.	1500	1150	770	615	490	383	310	250	192	155
	Int.	1650	1450	960	770	615	475	385	310	240	190
Max Torque <i>in•lbf</i>	Cont.	487	885	1292	1611	2089	2673	3186	3363	3319	3186
	Int.	673	1133	1646	2009	2567	3275	3894	4071	4912	4646
Max Differential <i>psi</i>	Cont.	1813	2031	2031	2031	2031	2031	2031	2031	1813	1450
	Int.	2393	2538	2538	2538	2538	2538	2538	2538	2031	1813
Max Flow <i>gpm</i>	Cont.	14.53	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85	15.85
	Int.	15.85	19.82	19.82	19.82	19.82	19.82	19.82	19.82	19.82	19.82
Weight		13.90 lbs	13.85 lbs	14.25 lbs	14.45 lbs	14.70 lbs	15.15 lbs	15.60 lbs	16.15 lbs	16.95 lbs	17.75 lbs

Continuous (Cont.) = maximum of continuous operation. Intermittent (Int.) = maximum operating range for 6 seconds per minute

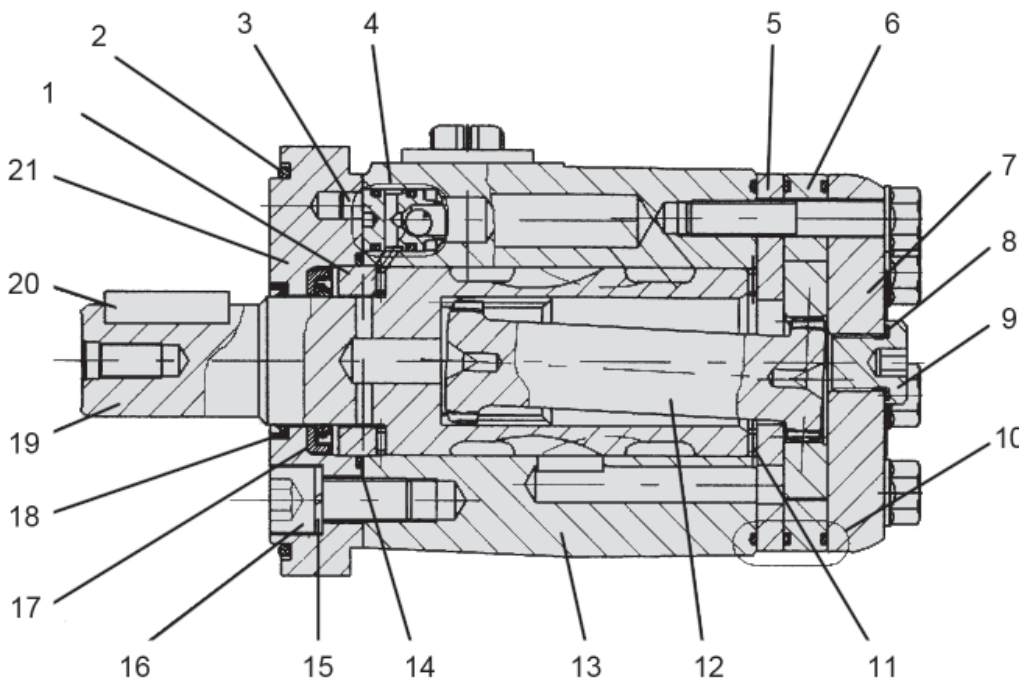
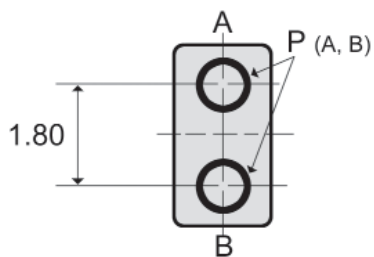
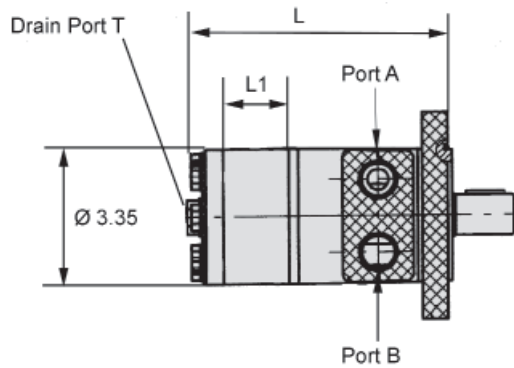


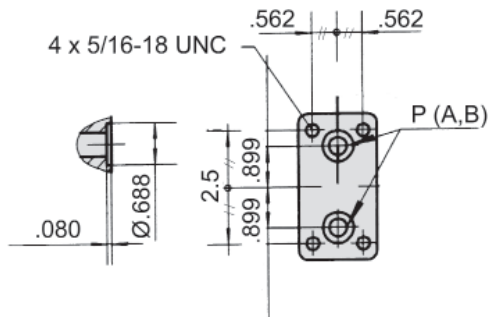
Diagram Key

- 1 Thrust Washer
- 2 "O" Ring
- 3 Pin
- 4 Check Valve
- 5 Wear Plate
- 6 Rolortorc™ Gear Set
- 7 End Cover
- 8 Seal
- 9 Case Drain Plug
- 10 "O" Ring
- 11 Thrust Needle Bearing
- 12 Drive Shaft
- 13 Housing
- 14 "O" Ring
- 15 Lock Washer
- 16 Bolt
- 17 Shaft Seal
- 18 Dust Seal
- 19 Output Shaft
- 20 Key
- 21 Front Cover

BMPH Installation Data

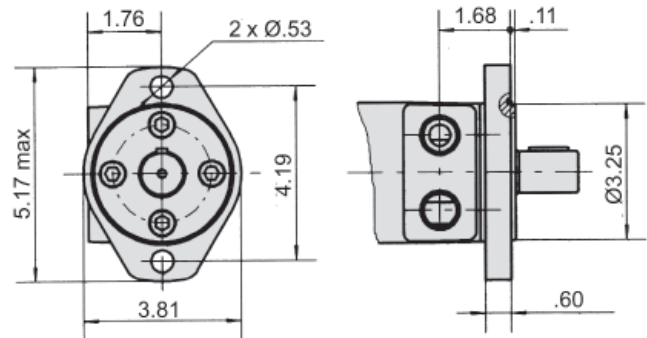


Manifold Mount

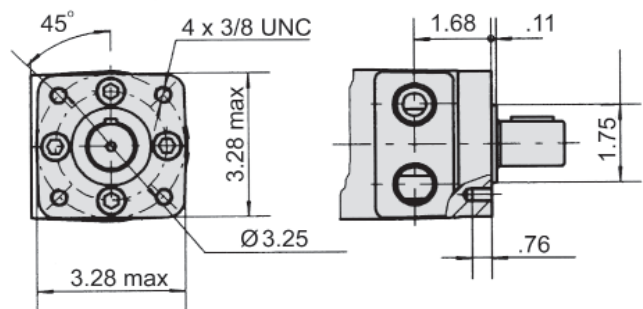


MODEL	L	L1
BMPH 36	5.51"	.27"
BMPH 50	5.55"	.28"
BMPH 80	5.69"	.41"
BMPH 100	5.79"	.51"
BMPH 125	5.91"	.63"
BMPH 160	6.10"	.83"
BMPH 200	6.30"	1.02"
BMPH 250	6.54"	1.26"
BMPH 315	7.72"	1.65"
BMPH 400	7.32"	2.04"

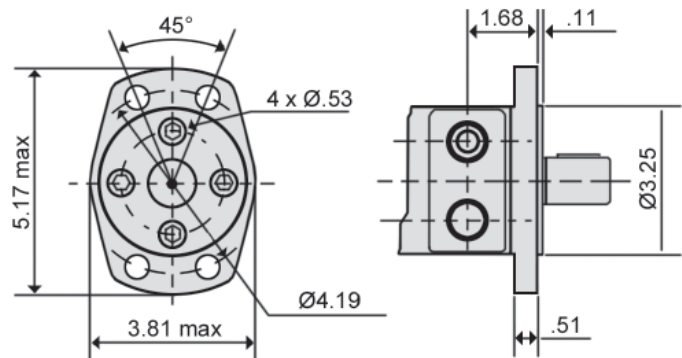
H2 - SAE "A" 2-Bolt



H4 - SAE "A" 4-Bolt



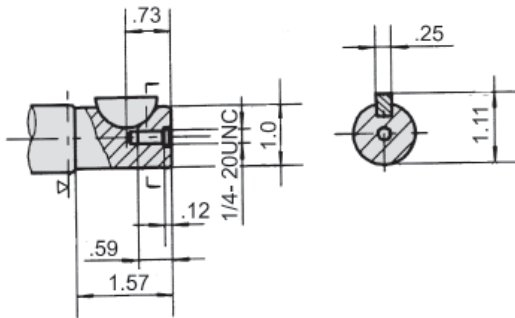
H6 - Magneto



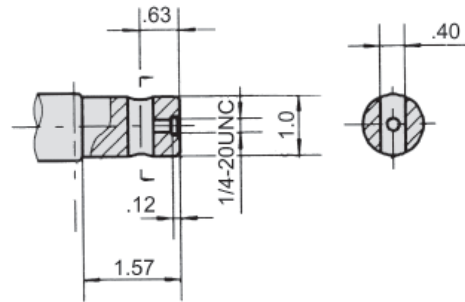
Ports	SAE Sizes	NPT Sizes
P (A, B)	7/8 - 14 SAE	1/2 - 14 NPTF
T	7/16 - 20 SAE	7/16 - 20 SAE

BMPH Drive Shaft Data

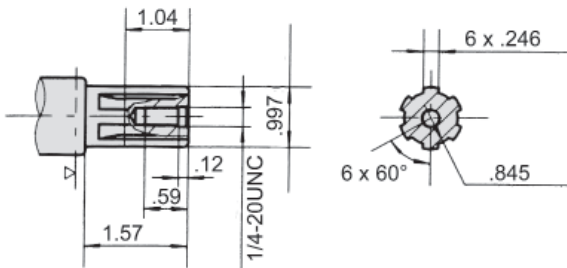
K - 1" Woodruff Key



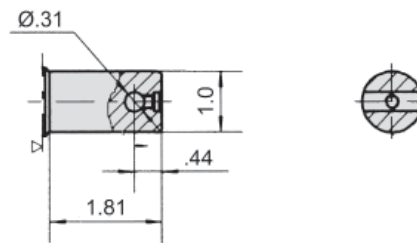
H - 1" Parallel .40 Dia. Cross Hole



S - SAE 6B Spline



H1 - 1" Parallel .31 Dia. Cross Hole



Ordering Example: Model **BMPH** - Frame Size **100** - Flange **H2** - Drive Shaft **K** - Ports **P** - Options

Model	Frame Size	Mounting Flange**	Drive Shaft**	Port Size	Options
BMPH	36 (2.20) 50 (3.15) 80 (4.74) 100 (5.87) 125 (7.20) 160 (9.51) 200 (11.59) 250 (14.09) 315 (19.03) 400 (23.61)	H2 = SAE "A" 2-Bolt H4 = SAE "A" 4-Bolt H6 = Magneto	K = 1" Woodruff Key S = SAE 6B Spline H = 1" Parallel .40 dia. Cross Hole H1 = 1" Parallel .31 dia. Cross Hole	P = 1/2 NPTF S = 7/8 -14 SAE F = Manifold	F* = Free Running N* = 1800 lb. Radial Load Bearings R* = Reverse Rotation

*Special Order

**Additional flange and drive shaft options available please consult factory.

Seal kits for BMPH Motors are available for purchase. Order seal kit using item description: "BMPH Seal Kit".

BMPH Flow Data

BMPH 36		2.20 in ³ /rev (36 cm ³ /rev)						Max Cont.	Max Int.
Pressure (psi →)		435	870	1015	1160	1450	1595	1813	2393
F L O W	(gpm ↓)	Torque (in•lbf) Speed Specification							
	2.11	115.00	221	257	301	381	425		
		214 rpm	205 rpm	200 rpm	194 rpm	187 rpm	179 rpm		
	3.96	115	221	257	301	381	425	496	664
		406 rpm	398 rpm	391 rpm	383 rpm	374 rpm	366 rpm	353 rpm	324 rpm
	5.28	115	212	257	301	381	425	496	673
		541 rpm	534 rpm	528 rpm	521 rpm	513 rpm	500 rpm	486 rpm	458 rpm
	7.93	106	212	257	301	381	425	496	673
		814 rpm	804 rpm	792 rpm	778 rpm	763 rpm	749 rpm	726 rpm	701 rpm
	9.25	106	204	248	301	381	425	496	673
		952 rpm	944 rpm	930 rpm	913 rpm	897 rpm	879 rpm	858 rpm	833 rpm
	10.57	106	204	248	283	363	416	487	664
		1090 rpm	1078 rpm	1064 rpm	1048 rpm	1024 rpm	998 rpm	977 rpm	943 rpm
	11.89	97	195	230	283	363	407	478	655
1232 rpm		1218 rpm	1196 rpm	1175 rpm	1149 rpm	1118 rpm	1080 rpm	1044 rpm	
14.53 Max Cont.	53	133	195	248	327	389	460	628	
	1505 rpm	1494 rpm	1480 rpm	1466 rpm	1438 rpm	1406 rpm	1367 rpm	1309 rpm	
15.85 Max Int.	27	97	159	177	266	336	434	593	
	1650 rpm	1640 rpm	1626 rpm	1603 rpm	1571 rpm	1536 rpm	1502 rpm	1446 rpm	

BMPH 50		3.15 in ³ /rev (51.7 cm ³ /rev)					Max Cont.	Max Int.	
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538
F L O W	(gpm ↓)	Torque (in•lbf) Speed Specification							
	2.11	177	363	496	611	788	841		
		151 rpm	134 rpm	115 rpm	90 rpm	56 rpm	42 rpm		
	3.96	168	354	496	628	805	885	991	1062
		286 rpm	274 rpm	261 rpm	243 rpm	204 rpm	182 rpm	139 rpm	102 rpm
	5.28	159	345	487	628	814	894	1036	1133
		382 rpm	373 rpm	361 rpm	348 rpm	318 rpm	309 rpm	287 rpm	251 rpm
	7.93	150	336	487	628	805	867	1027	1097
		573 rpm	568 rpm	558 rpm	535 rpm	503 rpm	488 rpm	462 rpm	440 rpm
	9.25	150	336	478	611	788	867	1036	1097
		670 rpm	661 rpm	652 rpm	640 rpm	606 rpm	589 rpm	562 rpm	548 rpm
	11.89	124	319	469	593	779	867	1009	1089
		863 rpm	858 rpm	849 rpm	837 rpm	807 rpm	788 rpm	764 rpm	746 rpm
	14.53	106	292	443	575	752	850	982	1071
1055 rpm		1042 rpm	1028 rpm	1010 rpm	979 rpm	963 rpm	947 rpm	920 rpm	
15.85 Max Cont.	89	283	416	566	735	832	956	1053	
	1150 rpm	1143 rpm	1126 rpm	1111 rpm	1079 rpm	1065 rpm	1043 rpm	1015 rpm	
19.82 Max Int.	53	221	372	496	673	770	894	991	
		1430 rpm	1416 rpm	1395 rpm	1367 rpm	1351 rpm	1335 rpm	1312 rpm	

BMPH 80		4.74 in ³ /rev (77.7 cm ³ /rev)						<i>Max Cont.</i>		<i>Max Int.</i>
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	2.11	283	549	752	920	1142	1275			
		97 rpm	87 rpm	74 rpm	55 rpm	33 rpm	22 rpm			
	3.96	283	558	743	947	1115	1275	1460		
		186 rpm	181 rpm	170 rpm	154 rpm	132 rpm	118 rpm	86 rpm		
	5.28	274	558	743	947	1168	1292	1487	1637	
		251 rpm	243 rpm	236 rpm	225 rpm	207 rpm	196 rpm	178 rpm	155 rpm	
	7.93	274	549	735	938	1159	1292	1487	1646	
		381 rpm	379 rpm	368 rpm	355 rpm	332 rpm	316 rpm	285 rpm	263 rpm	
	9.25	266	522	717	903	1151	1275	1478	1637	
		443 rpm	435 rpm	426 rpm	415 rpm	397 rpm	383 rpm	361 rpm	342 rpm	
	11.89	221	513	699	885	1115	1257	1460	1611	
		570 rpm	564 rpm	554 rpm	543 rpm	526 rpm	509 rpm	483 rpm	458 rpm	
	14.53	204	504	690	859	1097	1239	1425	1584	
		696 rpm	685 rpm	672 rpm	656 rpm	643 rpm	630 rpm	602 rpm	579 rpm	
	15.85 <i>Max Cont.</i>	177	469	664	832	1062	1213	1416	1567	
761 rpm		753 rpm	744 rpm	736 rpm	720 rpm	706 rpm	681 rpm	660 rpm		
19.82 <i>Max Int.</i>	124	389	593	770	991	1336	1496	1496		
	948 rpm	940 rpm	931 rpm	920 rpm	906 rpm	890 rpm	871 rpm	854 rpm		

BMPH 100		5.87 in ³ /rev (96.2 cm ³ /rev)						<i>Max Cont.</i>		<i>Max Int.</i>
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	2.11	354	682	929	1151	1425	1593			
		81 rpm	75 rpm	69 rpm	57 rpm	36 rpm	24 rpm			
	3.96	345	682	938	1151	1416	1593	1841		
		152 rpm	149 rpm	145 rpm	140 rpm	122 rpm	103 rpm	81 rpm		
	5.28	319	655	920	1133	1425	1584	1814	2009	
		204 rpm	200 rpm	195 rpm	190 rpm	177 rpm	166 rpm	148 rpm	133 rpm	
	7.93	292	637	912	1106	1416	1567	1797	1991	
		308 rpm	304 rpm	298 rpm	290 rpm	280 rpm	268 rpm	255 rpm	231 rpm	
	9.25	266	620	867	1080	1407	1558	1788	1983	
		360 rpm	352 rpm	343 rpm	331 rpm	320 rpm	306 rpm	294 rpm	275 rpm	
	11.89	257	593	841	1044	1372	1540	1770	1947	
		462 rpm	458 rpm	451 rpm	443 rpm	433 rpm	419 rpm	402 rpm	383 rpm	
	14.53	221	566	823	1027	1345	1505	1752	1921	
		566 rpm	558 rpm	549 rpm	540 rpm	529 rpm	515 rpm	498 rpm	478 rpm	
	15.85 <i>Max Cont.</i>	195	531	805	1009	1319	1478	1717	1885	
618 rpm		611 rpm	601 rpm	589 rpm	580 rpm	570 rpm	558 rpm	540 rpm		
19.82 <i>Max Int.</i>	133	478	735	938	1248	1416	1646	1814		
	771 rpm	763 rpm	755 rpm	744 rpm	735 rpm	724 rpm	708 rpm	693 rpm		

BMPH 125		7.34 in ³ /rev (120.2 cm ³ /rev)							<i>Max Cont.</i>		<i>Max Int.</i>	
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538			
W O R K	(gpm ↓)	Torque (in·lbf) Speed Specification										
	2.11	451	867	1213	1487	1841	2089					
		63 rpm	60 rpm	55 rpm	47 rpm	28 rpm	15 rpm					
	3.96	451	894	1221	1487	1850	2089	2363				
		121 rpm	116 rpm	110 rpm	102 rpm	89 rpm	73 rpm	48 rpm				
	5.28	425	867	1195	1478	1867	2098	2381	2567			
		162 rpm	158 rpm	153 rpm	148 rpm	137 rpm	128 rpm	109 rpm	94 rpm			
	7.93	407	850	1168	1452	1850	2053	2337	2540			
		243 rpm	239 rpm	234 rpm	227 rpm	216 rpm	202 rpm	189 rpm	176 rpm			
	9.25	372	814	1151	1416	1823	2027	2301	2514			
		284 rpm	279 rpm	274 rpm	269 rpm	259 rpm	247 rpm	231 rpm	222 rpm			
	11.89	327	788	1106	1390	1779	1983	2310	2487			
		370 rpm	362 rpm	355 rpm	348 rpm	340 rpm	327 rpm	310 rpm	296 rpm			
	14.53	292	743	1080	1345	1735	1929	2230	2434			
452 rpm		446 rpm	438 rpm	431 rpm	420 rpm	412 rpm	402 rpm	384 rpm				
15.85 <i>Max Cont.</i>	257	690	1036	1292	1690	1903	2195	2407				
	490 rpm	482 rpm	475 rpm	468 rpm	459 rpm	448 rpm	439 rpm	427 rpm				
19.82 <i>Max Int.</i>	159	584	947	1177	1584	1788	2089	2301				
	615 rpm	606 rpm	598 rpm	586 rpm	575 rpm	563 rpm	549 rpm	528 rpm				

BMPH 160		9.59 in ³ /rev (157.2 cm ³ /rev)							<i>Max Cont.</i>		<i>Max Int.</i>	
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538			
W O R K	(gpm ↓)	Torque (in·lbf) Speed Specification										
	2.11	549	1062	1505	1876	2328	2567					
		49 rpm	48 rpm	46 rpm	42 rpm	26 rpm	14 rpm					
	3.96	531	1080	1522	1903	2337	2602	3009				
		93 rpm	91 rpm	88 rpm	85 rpm	76 rpm	68 rpm	48 rpm				
	5.28	504	1062	1505	1894	2319	2567	3009	3284			
		125 rpm	123 rpm	120 rpm	117 rpm	110 rpm	106 rpm	92 rpm	81 rpm			
	7.93	469	1018	1452	1823	2292	2549	2965	3257			
		187 rpm	184 rpm	181 rpm	178 rpm	175 rpm	168 rpm	155 rpm	139 rpm			
	9.25	434	974	1416	1788	2257	2514	2903	3204			
		220 rpm	216 rpm	213 rpm	209 rpm	205 rpm	202 rpm	192 rpm	176 rpm			
	11.89	389	903	1363	1735	2195	2460	2841	3169			
		283 rpm	280 rpm	276 rpm	272 rpm	267 rpm	260 rpm	250 rpm	238 rpm			
	14.53	354	876	1310	1690	2151	2407	2797	3107			
345 rpm		342 rpm	340 rpm	336 rpm	331 rpm	328 rpm	320 rpm	303 rpm				
15.85 <i>Max Cont.</i>	292	832	1275	1664	2089	2363	2726	3053				
	377 rpm	374 rpm	371 rpm	367 rpm	363 rpm	359 rpm	353 rpm	342 rpm				
19.82 <i>Max Int.</i>	168	708	1097	1505	1912	2230	2620	2876				
	473 rpm	469 rpm	465 rpm	459 rpm	453 rpm	447 rpm	440 rpm	424 rpm				

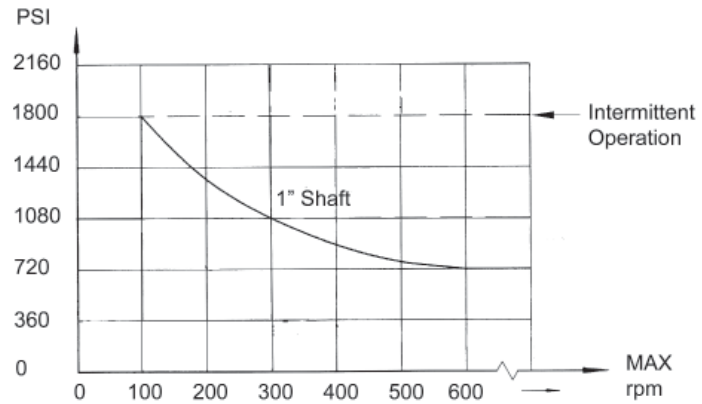
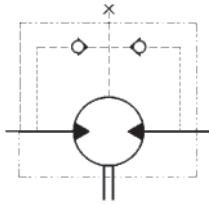
BMPH 200		11.87 in ³ /rev (194.5 cm ³ /rev)						<i>Max Cont.</i>		<i>Max Int.</i>
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	2.11	699	1452	1832	2213	2832	3186			
		40 rpm	39 rpm	38 rpm	35 rpm	28 rpm	22 rpm			
	3.96	690	1434	1814	2213	2850	3195	3629		
		76 rpm	75 rpm	74 rpm	71 rpm	66 rpm	61 rpm	51 rpm		
	5.28	673	1398	1797	2186	2832	3169	3567	3735	
		100 rpm	98 rpm	97 rpm	95 rpm	92 rpm	89 rpm	73 rpm	57 rpm	
	7.93	620	1354	1770	2168	2788	3098	3523	3691	
		151 rpm	149 rpm	147 rpm	145 rpm	142 rpm	139 rpm	131 rpm	120 rpm	
	9.25	584	1319	1717	2053	2629	3036	3416	3673	
		177 rpm	175 rpm	173 rpm	171 rpm	168 rpm	166 rpm	160 rpm	149 rpm	
	11.89	558	1292	1682	2036	2602	3009	3390	3629	
		228 rpm	226 rpm	224 rpm	221 rpm	218 rpm	215 rpm	210 rpm	198 rpm	
	14.53	478	1239	1602	1983	2531	2956	3284	3540	
280 rpm		278 rpm	276 rpm	274 rpm	271 rpm	269 rpm	263 rpm	250 rpm		
15.85 <i>Max Cont.</i>	336	1124	1452	1876	2390	2876	3151	3496		
	304 rpm	302 rpm	300 rpm	297 rpm	294 rpm	291 rpm	286 rpm	272 rpm		
19.82 <i>Max Int.</i>	195	850	1283	1699	2080	2593	2841	3248		
	382 rpm	378 rpm	374 rpm	371 rpm	368 rpm	364 rpm	360 rpm	350 rpm		

BMPH 250		14.66 in ³ /rev (240.3 cm ³ /rev)						<i>Max Cont.</i>		<i>Max Int.</i>
Pressure (psi →)		435	870	1160	1450	1813	2031	2321	2538	
FLOW	(gpm ↓)	Torque (in·lbf) Speed Specification								
	2.11	850	1682	2372	2885	3567				
		30 rpm	28 rpm	24 rpm	21 rpm	11 rpm				
	3.96	867	1717	2390	2894	3585	3983	4514		
		60 rpm	58 rpm	54 rpm	50 rpm	40 rpm	30 rpm	12 rpm		
	5.28	814	1664	2363	2876	3585	4036	4549	5001	
		82 rpm	80 rpm	77 rpm	76 rpm	69 rpm	64 rpm	52 rpm	38 rpm	
	7.93	752	1593	2292	2832	3540	3965	4540	4965	
		123 rpm	120 rpm	118 rpm	114 rpm	106 rpm	98 rpm	87 rpm	76 rpm	
	9.25	682	1558	2230	2753	3443	3859	4461	4930	
		143 rpm	141 rpm	139 rpm	135 rpm	128 rpm	122 rpm	112 rpm	101 rpm	
	11.89	620	1487	2151	2655	3337	3788	4381	4806	
		185 rpm	182 rpm	178 rpm	174 rpm	168 rpm	161 rpm	152 rpm	139 rpm	
	14.53	558	1407	2098	2567	3266	3691	4275	4700	
226 rpm		223 rpm	218 rpm	213 rpm	209 rpm	202 rpm	193 rpm	185 rpm		
15.85 <i>Max Cont.</i>	531	1328	2018	2478	3169	3602	4186	4602		
	248 rpm	246 rpm	243 rpm	239 rpm	233 rpm	226 rpm	215 rpm	207 rpm		
19.82 <i>Max Int.</i>	301	1133	1788	2337	3027	3425	3965	4319		
	309 rpm	306 rpm	302 rpm	297 rpm	292 rpm	286 rpm	278 rpm	264 rpm		

BMPH 315		19.19 in ³ /rev (314.5 cm ³ /rev)					Max Cont.	Max Int.	
Pressure (psi →)	435	725	1015	1305	1450	1813	2031		
FLOW	(gpm ↓)	Torque (in•lbf) Speed Specification							
	2.11	1089	1903	2584	3257	3585			
		25 rpm	23 rpm	21 rpm	17 rpm	11 rpm			
	3.96	1044	1867	2540	3248	3576	4381	5027	
		47 rpm	46 rpm	44 rpm	40 rpm	28 rpm	21 rpm	10 rpm	
	5.28	974	1814	2460	3186	3496	4372	5009	
		62 rpm	61 rpm	60 rpm	57 rpm	46 rpm	40 rpm	36 rpm	
	7.93	894	1735	2399	3089	3434	4337	5001	
		94 rpm	93 rpm	91 rpm	88 rpm	76 rpm	68 rpm	65 rpm	
	9.25	850	1664	2337	3018	3381	4231	4930	
		109 rpm	107 rpm	106 rpm	104 rpm	96 rpm	89 rpm	84 rpm	
	11.89	788	1593	2248	2983	3292	4142	4894	
		141 rpm	140 rpm	138 rpm	135 rpm	127 rpm	120 rpm	115 rpm	
	14.53	673	1469	2115	2876	3204	4045	4850	
173 rpm		172 rpm	170 rpm	167 rpm	160 rpm	152 rpm	143 rpm		
15.85 <i>Max Cont.</i>	575	1363	2009	2726	3080	3921	4682		
	188 rpm	186 rpm	184 rpm	182 rpm	178 rpm	172 rpm	163 rpm		
19.82 <i>Max Int.</i>	354	1062	1779	2469	2859	3700	4399		
	236 rpm	234 rpm	232 rpm	228 rpm	226 rpm	223 rpm	214 rpm		

BMPH 400		23.77 in ³ /rev (389.5 cm ³ /rev)					Max Cont.	Max Int.	
Pressure (psi →)	435	653	798	943	1160	1450	1813		
FLOW	(gpm ↓)	Torque (in•lbf) Speed Specification							
	2.11	1469	2053	2540	3009	3700			
		20 rpm	19 rpm	18 rpm	16 rpm	12 rpm			
	3.96	1460	2018	2452	2983	3691	4390	5417	
		38 rpm	36 rpm	35 rpm	33 rpm	31 rpm	27 rpm	21 rpm	
	5.28	1434	1974	2416	2930	3655	4381	5381	
		50 rpm	49 rpm	49 rpm	48 rpm	45 rpm	41 rpm	35 rpm	
	7.93	1363	1912	2354	2815	3585	4301	5310	
		76 rpm	75 rpm	74 rpm	73 rpm	71 rpm	67 rpm	60 rpm	
	9.25	1292	1859	2266	2761	3496	4248	5204	
		88 rpm	87 rpm	87 rpm	86 rpm	83 rpm	80 rpm	75 rpm	
	11.89	1168	1744	2151	2655	3390	4107	5098	
		114 rpm	113 rpm	112 rpm	110 rpm	108 rpm	106 rpm	99 rpm	
	14.53	1036	1629	2009	2505	3213	3983	4886	
139 rpm		137 rpm	136 rpm	135 rpm	135 rpm	132 rpm	123 rpm		
15.85 <i>Max Cont.</i>	903	1443	1903	2407	3071	3859	4709		
	153 rpm	152 rpm	150 rpm	148 rpm	146 rpm	143 rpm	138 rpm		
19.82 <i>Max Int.</i>	469	1133	1611	2071	2815	3461	4284		
	191 rpm	189 rpm	187 rpm	185 rpm	183 rpm	180 rpm	176 rpm		

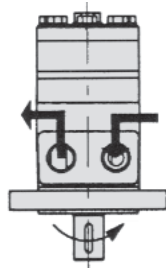
Shaft Seal Rated Pressure



Case Drain

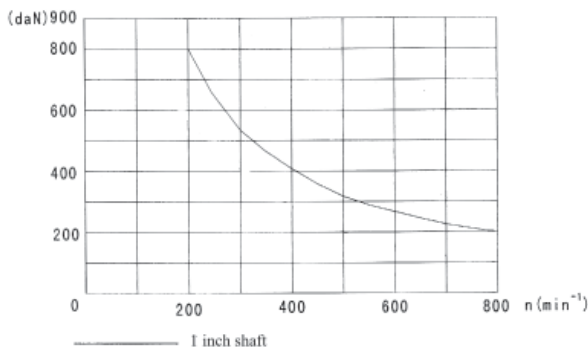
In applications without a motor drain line, the pressure exerted on the shaft seal is marginally in excess of the return line pressure. When the drain line is used, the pressure exerted on the shaft seal is equal to the return line pressure.

Shaft Rotation Direction

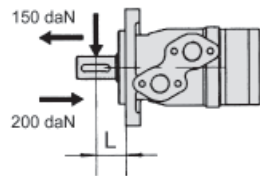


Radial Forces

Status of the shaft's radial force



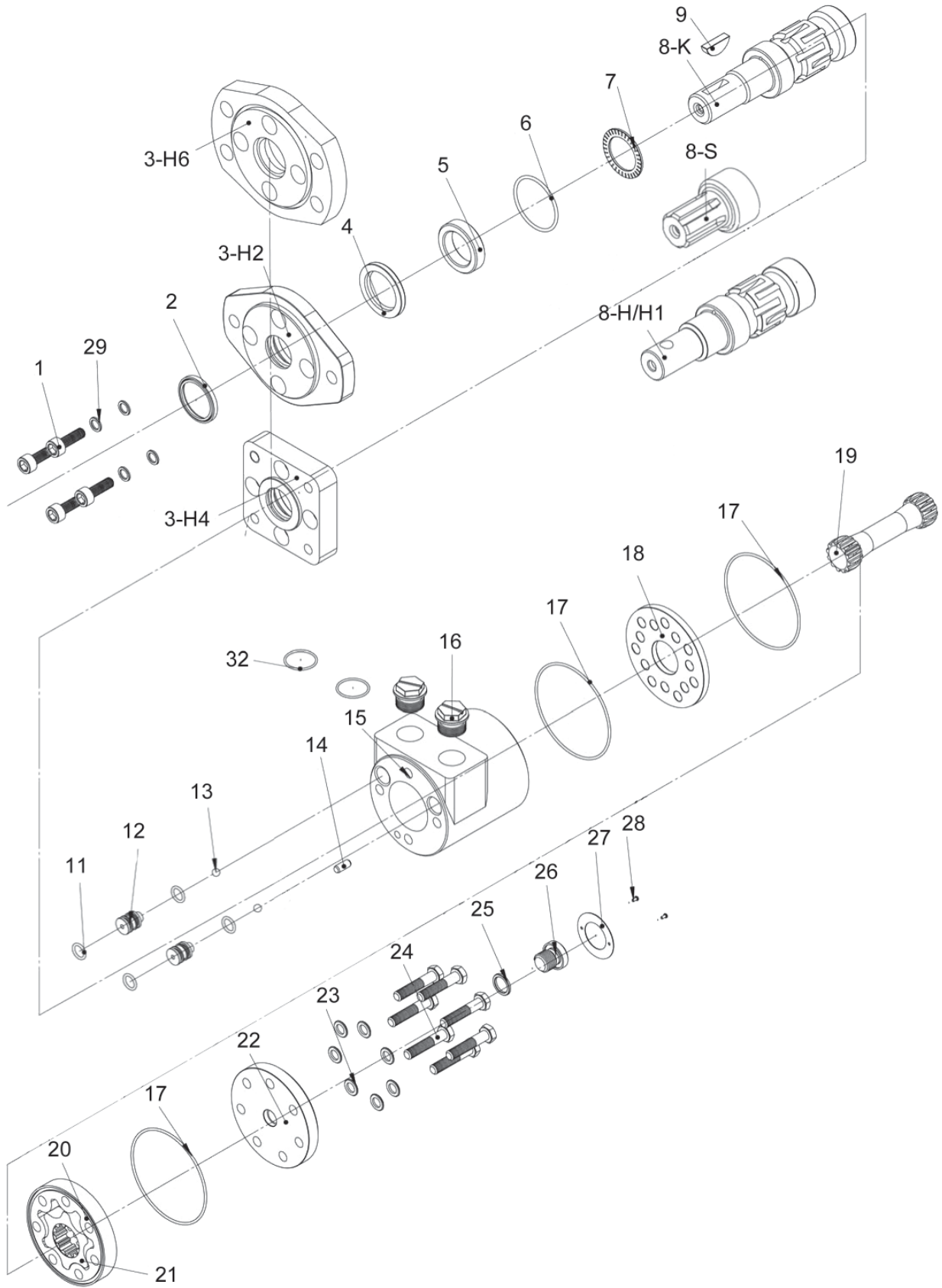
$$F_r = \frac{800}{n} * \frac{2500}{95 + L}$$



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

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

BMPH Motor - Parts Assembly Diagram



BMPH Motor - Parts Listing

#	Part Description	Qty per Motor
1	Screws	4
2	Dust Seal	1
3	Front Cover H2: SAE "A" 2-Bolt H4: SAE "A" 4-Bolt H6: Magneto	1
4	Shaft Seal	1
5	Thrust Washer	1
6	"O" Ring	1
7	Axial Needle Bearing	2
8	Shaft K: 1" Woodruff Key H: 1" Parallel .40 dia. Cross Hole H1: 1" Parallel .31 dia. Cross Hole S: SAE 6B Spline	1
9	Parallel Key	0-1
11	"O" Ring	4
12	Check Valves	2
13	Balls	2
14	Pin	1
15	Housing	1
16	Plug	2
17	"O" Ring	3
18	Distributor Plate	1
19	Drive Link	1
20	Stator	1
21	Rotor	1
22	End Cover	1
23	Washers	7
24	Screws	7
25	Washer	1
26	Drain Plug	1
27	Name Plate	1
28	Rivet	2
29	Washers	4
32	"O" Rings	2

Seal Kit Contents

#	Part Description	Qty per Motor
2	Dust Seal	1
4	Shaft Seal	1
6	"O" Ring	1
11	"O" Ring	4
17	"O" Ring	3

Tightening Torques

	Tightening (ft. lbs)
Displacement End	30
Flange End	40