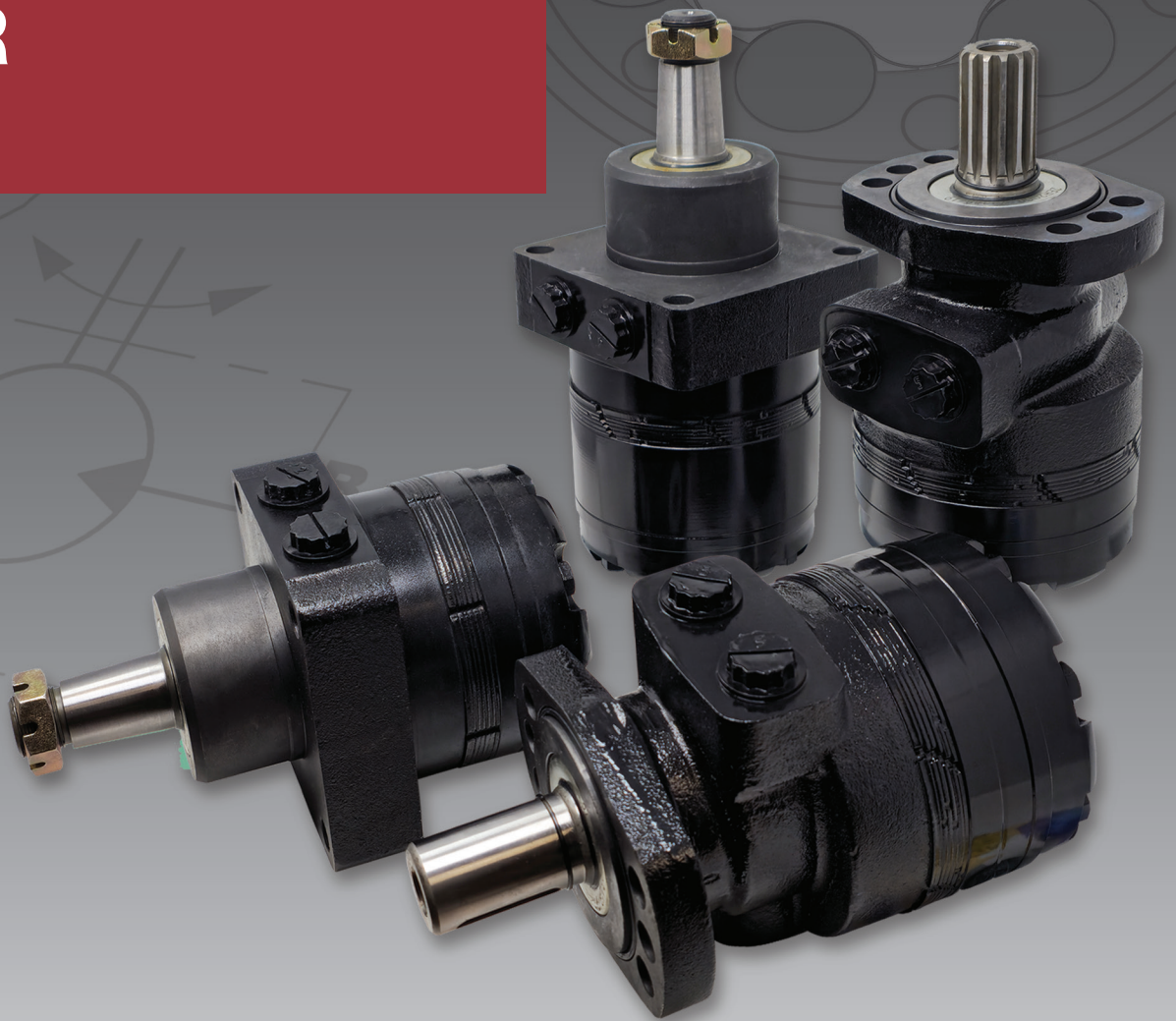


Orbital Motors

Low Speed, High Torque Motors

BMER

Series



ANFIELD Orbital Motor Catalog BMER Rev. E (09/02/2025)



Strength in Products,
Strength in Service

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DESCRIPTION

Anfield BMER series medium-duty motors are the perfect balance between price and performance, producing high torque at a reasonable cost. BMER motors perform well in a wide range of applications, especially low flow, high pressure applications. The BMER motors exhibit smooth rotation throughout the speed transitions and the combination of shafts, mounts and displacements allow them to be configured for almost any application requirement.

The BMER motors adapt the roller gear set design coupled with a pressure balance plate. During startup, pressure causes the balance plate to flex toward the rotor, greatly improving volumetric efficiency. As the motor reaches operating pressure, the balance plate relaxes, allowing the rotor to turn freely which translates into higher mechanical efficiencies. Transmitting this power to the output shaft is a heavy duty drive link which is receiving full flow lubrication during operation for longer life.

***Refer to pages 38-40 for exploded view drawings.**

APPLICATIONS

Agriculture equipment, construction equipment, lawn and turf, material handling, crane, road building, dumper, forestry, forklift truck, harvester, mower, paver, salt spreader, scissor lift, screening & crushing, augers, mixers, winch drives, swing drives, grapple heads, feed rollers, broom drives, Lifts and work platforms and more

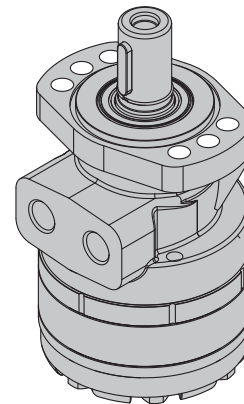
FEATURES

- Valve-in-rotor design provides efficient distribution of oil and reduces overall motor length.
- Pressure-compensated balance plate improves volumetric efficiency at low flows and high pressure.
- Heavy-duty drive link receives full flow lubrication during operation to provide long life.
- High Pressure Shaft Seal eliminates need for case drain and offers superior seal life and performance.
- Available in 13 displacement sizes and choice of magneto or wheel mount options allow the BMER motors to be configured to suit nearly any application.

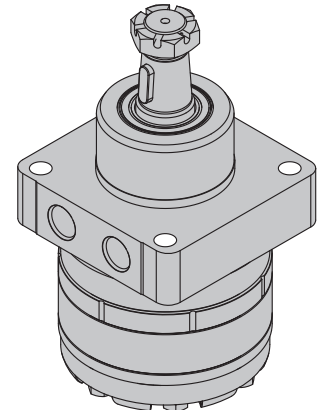
BMER MOTOR CROSS REFERENCE GUIDE

Brand	Series
Eaton Char-Lynn®	Delta (184-)
Danfoss®	OMR, OMEW, OMRW, OMH
White®	RE (505/506, 520/521, 530/531)
Parker®	TF, TG, TL

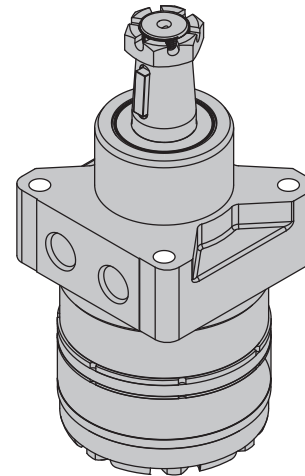
Brand	Series
M+S®	HW, RW
ROSS-TRW®	MP, MB, ME, MF, MJ
BREVINI - SAM®	-



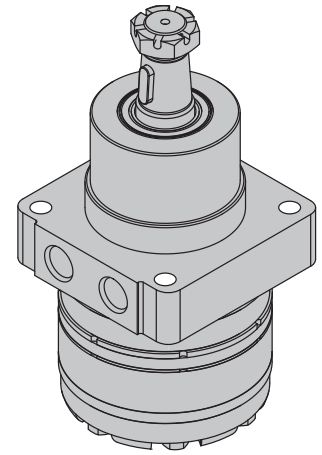
BMER-2
Standard



BMER-2
Wheel Mount

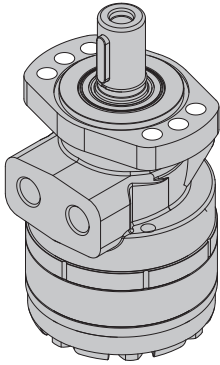


BMER-3
Wheel Mount

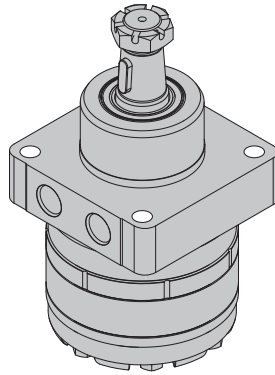


BMER-4
Wheel Mount

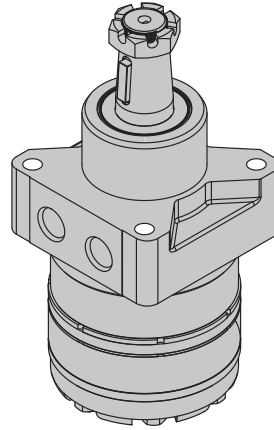
TECHNICAL SPECIFICATIONS - BMER SERIES



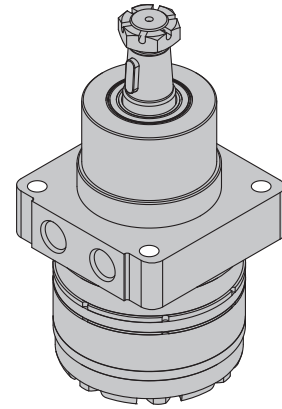
BMER-2
Standard



BMER-2
Wheel Mount



BMER-3
Wheel Mount



BMER-4
Wheel Mount

			1	2	3	4	5	6	7	8	9	10	11	12	13	
BMER -2, -3, -4			125	160	200	230	250	300	350	375	400	475	540	650	750	
Geometric Displacement	in³/r		7.20	9.52	11.96	13.91	15.68	18.06	21.05	22.64	24.71	28.19	32.95	39.48	45.46	
	cm³/r		118	156	196	228	257	296	345	371	405	462	540	647	745	
Max. Speed	rpm	Cont.	360	375	330	290	290	250	220	200	185	160	140	115	100	
		Inter.	490	470	425	365	350	315	270	240	220	195	170	138	120	
Max. Flow	gpm	Cont.	11.9	15.9	18.5	18.5	19.8	21.2	21.2	19.8	19.8	19.8	19.8	19.8	19.5	
	l/min		45	60	70	70	75	80	80	75	75	75	75	75	75	
		Inter.	15.9	19.8	22.5	22.5	23.8	25.1	25.1	23.8	23.8	23.8	23.8	23.8	23.8	
			60	75	85	85	90	95	95	90	90	90	90	90	90	
Max. Torque	lbf-ft	Cont.	239.9	332.1	391.1	461.3	516.6	597.8	667.9	730.6	745.4	800.7	723.2	749.1	774.9	
	Nm		325	450	530	625	700	810	905	990	1010	1085	980	1015	1050	
		Inter.	280.4	387.5	442.8	524.0	582.7	686.3	763.8	841.3	870.8	870.8	915.1	922.5	870.8	
			380	525	600	710	790	930	1035	1140	1180	1180	1240	1250	1180	
		Peak	332.1	435.4	553.5	642.1	723.2	826.6	948.3	1003.7	1003.7	929.9	1018.4	1018.4	1011.1	
			450	590	750	870	980	1120	1285	1360	1360	1260	1380	1380	1370	
Max. Pressure Drop	Δ psi	Cont.	2973	2973	2973	2973	2973	2973	2973	2973	2756	2538	2031	1523	1523	
	Δ bar		205	205	205	205	205	205	205	205	190	175	140	105	105	
		Inter.	3481	3481	3481	3481	3481	3481	3481	3481	3263	2973	2538	1740	1740	
			240	240	240	240	240	240	240	240	240	225	205	175	120	120
		Peak	4003	4003	4003	4003	4003	4003	4003	4003	4003	3626	2973	2538	2228	2031
			276	276	276	276	276	276	276	276	276	250	205	175	155	140
Weight	Refer to pages 18-24.															

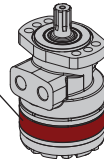
Refer to pages 18-24.

Notes:

1. Continuous rating (Cont.): motor may be run continuously at these ratings.
2. Intermittent operation (Inter.): 10% of every minute. (6 sec.)
3. Peak: 1% of every minute. (0.6 sec.)
4. Δ Pressure: Δ psi [Δ bar] True pressure difference between inlet port and outlet port.
5. Motor Power (HP) = (Torque Output (In. lbs.) x RPM) / 63025
6. Simultaneous maximum torque & maximum speed NOT recommended and may damage the motor.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



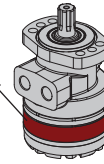
BMER 125		7.2 in ³ /rev. (118.0 cm ³ /rev.)						
Torque Speed	lbf.ft (Nm) rpm	Δ Pressure psi (bar) →					Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)
Flow gpm (l/min) ↓	0.5 (2)	14.8 (20) 14	36.9 (50) 13	70.8 (96) 11	101.0 (137) 7			
	1.1 (4)	17.7 (24) 28	39.1 (53) 26	81.1 (110) 24	122.4 (166) 19	163.0 (221) 13		
	2.1 (8)		40.6 (55) 60	83.3 (113) 54	128.3 (174) 50	166.0 (225) 45	196.2 (266) 39	216.8 (294) 35
	4.0 (15)		39.1 (53) 115	84.1 (114) 110	132.8 (180) 100	172.6 (234) 96	202.8 (275) 90	240.4 (326) 84
	6.6 (25)		35.4 (48) 194	81.1 (110) 185	121.0 (164) 173	166.7 (226) 168	200.6 (272) 160	238.2 (323) 155
	9.0 (34)			79.7 (108) 276	122.4 (166) 260	162.3 (220) 244	205.0 (278) 232	232.3 (315) 225
	11.9 (45)			72.3 (98) 362	118.0 (160) 350	158.6 (215) 342	199.9 (271) 325	227.2 (308) 322
	14.0 (53)			66.4 (90) 423	112.1 (152) 418	153.4 (208) 404	195.5 (265) 399	224.2 (304) 371
Max. Cont.	14.0 (53)			66.4 (90) 423	112.1 (152) 418	153.4 (208) 404	195.5 (265) 399	224.2 (304) 371
Max. Inter.	15.9 (60)			60.5 (82) 488	104.0 (141) 472	151.2 (205) 455	191.8 (260) 442	221.3 (300) 421

☐ Continuous values
 ☐ Intermittent values
(max. 10% operation every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor. Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F]. Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 160 9.5 in³/rev. (156.0 cm³/rev.)

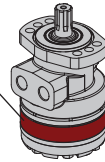
Torque Speed lb.f.ft (Nm) rpm		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	25.8 (35) 8	54.6 (74) 4	107.7 (146) 3	160.8 (218) 3	219.8 (298) 2			
	1.1 (4)	21.4 (29) 22	57.5 (78) 19	115.8 (157) 18	173.3 (235) 16	233.1 (316) 14	272.9 (370) 13	312.7 (424) 8	
	2.1 (8)	25.8 (35) 47	57.5 (78) 44	116.5 (158) 42	174.1 (236) 40	230.1 (312) 37	275.1 (373) 34	331.9 (450) 32	388.0 (526) 27
	4.0 (15)	27.3 (37) 93	54.6 (74) 90	114.3 (155) 86	172.6 (234) 84	228.6 (310) 82	271.4 (368) 79	324.5 (440) 75	381.3 (517) 69
	6.6 (25)		50.2 (68) 155	112.1 (152) 151	167.4 (227) 147	227.2 (308) 142	268.5 (364) 137	321.6 (436) 131	368.0 (499) 124
	9.0 (34)		50.2 (68) 214	112.1 (152) 213	167.4 (227) 210	227.2 (308) 204	268.5 (364) 198	321.6 (436) 191	368.0 (499) 184
	11.9 (45)		47.2 (64) 282	105.5 (143) 280	160.8 (218) 275	218.3 (296) 268	265.5 (360) 263	313.5 (425) 256	354.8 (481) 245
	14.0 (53)			99.6 (135) 330	159.3 (216) 327	216.1 (293) 322	263.3 (357) 315	310.5 (421) 306	351.1 (476) 296
	15.9 (60)			90.0 (122) 379	152.7 (207) 376	209.5 (284) 368	258.1 (350) 362	306.8 (416) 356	344.4 (467) 345
	18.0 (68)			80.4 (109) 423	144.6 (196) 419	201.4 (273) 414	254.5 (345) 406	292.1 (396) 394	
Max. Cont.									
Max. Inter.	19.8 (75)			76.7 (104) 472	138.7 (188) 466	199.1 (270) 460	248.6 (337) 450	287.6 (390) 436	

Continuous values Intermittent values
(max. 10% operation every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor. Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F]. Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



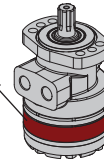
BMER 200		12.0 in³/rev. (156.0 cm³/rev.)							
Torque Speed	lbf.ft (Nm) rpm	Δ Pressure psi (bar) ➡						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ⬇	0.5 (2)	28.8 (39) 8	64.9 (88) 4	97.4 (132) 4	210.9 (286) 3	272.9 (370) 2			
	1.1 (4)	31.0 (42) 16	62.7 (85) 14	138.7 (188) 13	199.1 (270) 11	266.3 (361) 10	314.9 (427) 9	373.2 (506) 6	
	2.1 (8)	31.7 (43) 35	66.4 (90) 32	141.6 (192) 29	214.6 (291) 28	270.7 (367) 27	331.9 (450) 25	390.2 (529) 23	442.5 (600) 19
	4.0 (15)	28.0 (38) 74	67.9 (92) 71	144.6 (196) 68	219.8 (298) 64	281.0 (381) 60	340.8 (462) 58	390.9 (530) 55	444.0 (602) 50
	6.6 (25)		60.5 (82) 124	138.7 (188) 121	208.7 (283) 117	278.1 (377) 113	336.3 (456) 108	389.4 (528) 103	446.2 (605) 92
	9.0 (34)		58.3 (79) 170	135.0 (183) 168	199.1 (270) 167	267.0 (362) 160	329.7 (447) 154	379.8 (515) 146	435.9 (591) 135
	11.9 (45)			120.2 (163) 223	191.0 (259) 218	259.6 (352) 212	325.3 (441) 208	376.2 (510) 199	437.4 (593) 189
	14.0 (53)			109.9 (149) 260	188.8 (256) 258	258.1 (350) 254	324.5 (440) 248	369.5 (501) 241	429.3 (582) 230
	15.9 (60)			97.4 (132) 299	182.9 (248) 292	247.8 (336) 284	318.6 (432) 276	366.6 (497) 272	424.1 (575) 263
	18.0 (68)			88.5 (120) 336	169.6 (230) 332	243.4 (330) 327	303.9 (412) 319	358.5 (486) 310	420.4 (570) 301
Max. Cont.	19.8 (75)			79.7 (108) 375	153.4 (208) 372	229.4 (311) 365	297.2 (403) 358	354.0 (480) 350	
Max. Inter.	22.5 (85)				135.7 (184) 425	206.5 (280) 420	280.3 (380) 411	340.8 (462) 390	
Continuous values		Intermittent values (max. 10% operation every minute)							

☐ Continuous values
 ☐ Intermittent values
(max. 10% operation every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor. Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F]. Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 230 13.9 in³/rev. (228.0 cm³/rev.)

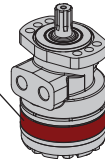
Torque Speed		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	32.5 (44) 6	66.4 (90) 4	134.2 (182) 3	214.6 (291) 2	275.8 (374) 1			
	1.1 (4)	35.4 (48) 15	73.8 (100) 13	159.3 (216) 11	228.6 (310) 11	298.7 (405) 9	357.0 (484) 7	404.9 (549) 3	
	2.1 (8)	36.9 (50) 31	76.7 (104) 29	156.4 (212) 27	236.0 (320) 25	310.5 (421) 23	382.1 (518) 20	444.7 (603) 16	516.3 (700) 10
	4.0 (15)	32.5 (44) 63	78.2 (106) 61	152.7 (207) 58	234.5 (318) 55	314.2 (426) 52	390.2 (529) 47	459.5 (623) 41	525.1 (712) 34
	6.6 (25)		74.5 (101) 103	154.2 (209) 100	239.0 (324) 96	315.7 (428) 92	392.4 (532) 87	457.3 (620) 81	520.0 (705) 71
	9.0 (34)		64.9 (88) 145	151.2 (205) 143	233.1 (316) 139	310.5 (421) 133	385.0 (522) 126	459.5 (623) 120	517.8 (702) 109
	11.9 (45)			137.2 (186) 192	216.8 (294) 187	311.3 (422) 182	373.9 (507) 176	438.8 (595) 170	507.4 (688) 160
	14.0 (53)			129.1 (175) 226	213.9 (290) 221	289.9 (393) 215	365.8 (496) 208	430.7 (584) 203	500.1 (678) 194
	15.9 (60)			112.1 (152) 256	199.1 (270) 253	287.6 (390) 248	357.7 (485) 242	419.7 (569) 235	487.5 (661) 222
	18.0 (68)			103.3 (140) 292	195.5 (265) 288	258.9 (351) 283	355.5 (482) 278	415.2 (563) 273	473.5 (642) 256
Max. Cont.	19.8 (75)			91.5 (124) 324	173.3 (235) 321	253.7 (344) 316	330.4 (448) 308	407.1 (552) 300	
Max. Inter.	22.5 (85)				152.7 (207) 366	247.1 (335) 360	326.0 (442) 351	402.7 (546) 338	

Continuous values Intermittent values
(max. 10% operation every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor. Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F]. Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 250 15.7 in³/rev. (257.0 cm³/rev.)

Torque Speed lb.ft (Nm) rpm		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	35.4 (48) 5	81.9 (111) 2						
	1.1 (4)	39.8 (54) 12	83.3 (113) 11	174.8 (237) 10	267.0 (362) 9	347.4 (471) 8	420.4 (570) 6	473.5 (642) 3	
	2.1 (8)	39.8 (54) 27	84.8 (115) 26	180.0 (244) 24	269.9 (366) 22	355.5 (482) 20	432.9 (587) 18	507.4 (688) 14	
	4.0 (15)	36.9 (50) 57	83.3 (113) 56	188.8 (256) 54	270.7 (367) 51	357.7 (485) 48	435.9 (591) 45	510.4 (692) 43	585.6 (794) 37
	6.6 (25)	32.5 (44) 95	84.1 (114) 93	177.8 (241) 90	265.5 (360) 86	359.9 (488) 82	437.4 (593) 77	515.6 (699) 72	576.8 (782) 63
	9.0 (34)		70.1 (95) 129	166.7 (226) 125	256.7 (348) 121	354.8 (481) 116	435.2 (590) 111	506.0 (686) 106	570.9 (774) 96
	11.9 (45)		56.8 (77) 174	158.6 (215) 173	255.2 (346) 170	345.2 (468) 166	421.9 (572) 161	497.1 (674) 155	574.6 (779) 143
	14.0 (53)		48.7 (66) 203	147.5 (200) 202	239.7 (325) 200	330.4 (448) 196	416.0 (564) 190	484.6 (657) 184	557.6 (756) 175
	15.9 (60)			132.8 (180) 232	218.3 (296) 229	323.1 (438) 225	405.7 (550) 220	473.5 (642) 215	546.5 (741) 202
	18.0 (68)			119.5 (162) 262	216.8 (294) 261	306.1 (415) 257	404.2 (548) 250	469.8 (637) 241	538.4 (730) 228
Max. Cont.	19.8 (75)			101.0 (137) 290	202.1 (274) 289	286.2 (388) 285	383.5 (520) 280	455.8 (618) 273	535.5 (726) 260
	22.5 (85)			95.9 (130) 328	192.5 (261) 326	272.9 (370) 322	375.4 (509) 316	445.5 (604) 307	
Max. Inter.	23.8 (90)			62.7 (85) 348	165.2 (224) 347	264.0 (358) 344	361.4 (490) 336		

Continuous values

Intermittent values
(max. 10% operation every minute)

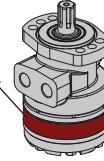
Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor.

Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F].

Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 300 18.1 in³/rev. (296.0 cm³/rev.)

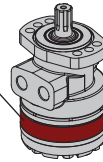
Torque Speed		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	36.9 (50) 3	68.6 (93) 1						
	1.1 (4)	45.7 (62) 11	104.0 (141) 10	216.8 (294) 9	316.4 (429) 8	370.3 (502) 7	455.8 (618) 4		
	2.1 (8)	46.5 (63) 22	108.4 (147) 21	219.8 (298) 20	318.6 (432) 19	416.7 (565) 16	492.0 (667) 13	561.3 (761) 9	604.1 (819) 5
	4.0 (15)	48.7 (66) 48	106.2 (144) 47	225.0 (305) 45	314.9 (427) 43	418.9 (586) 39	494.9 (671) 33	597.4 (810) 28	659.4 (894) 20
	6.6 (25)	43.5 (59) 82	101.8 (138) 81	213.2 (289) 80	309.8 (420) 76	407.1 (552) 71	498.6 (676) 64	583.4 (791) 56	687.4 (932) 44
	9.0 (34)	35.4 (48) 113	95.9 (130) 112	219.1 (297) 110	289.9 (393) 107	414.5 (562) 102	508.2 (689) 96	593.7 (805) 86	683.0 (926) 73
	11.9 (45)		70.8 (96) 150	197.7 (268) 149	284.0 (385) 148	388.7 (527) 143	469.1 (636) 135	555.4 (753) 124	649.1 (880) 112
	14.0 (53)		56.1 (76) 177	178.5 (242) 176	282.5 (383) 175	386.5 (524) 173	465.4 (631) 165	559.1 (758) 152	663.8 (900) 138
	15.9 (60)		47.2 (64) 200	166.0 (225) 199	267.0 (362) 198	373.2 (506) 193	462.5 (627) 186	555.4 (753) 174	657.9 (892) 162
	18.0 (68)			147.5 (200) 225	245.6 (333) 224	346.7 (470) 222	464.7 (630) 212	553.2 (750) 201	650.5 (882) 194
Max. Cont.	19.8 (75)			131.3 (178) 251	237.5 (322) 250	342.2 (464) 247	449.9 (610) 240	546.5 (741) 232	641.7 (870) 215
	22.5 (85)			103.3 (140) 285	233.1 (316) 284	335.6 (455) 278	420.4 (570) 270	536.9 (728) 257	
Max. Inter.	25.1 (95)			78.2 (106) 316	191.8 (260) 314	317.9 (431) 311	407.1 (552) 307	516.3 (700) 292	

Continuous values Intermittent values
(max. 10% operation every minute)

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PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 350 21.1 in³/rev. (345.0 cm³/rev.)

Torque Speed		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	46.5 (63) 4	98.1 (133) 4						
	1.1 (4)	47.2 (64) 10	99.6 (135) 9	213.9 (290) 8	324.5 (440) 7				
	2.1 (8)	50.2 (68) 21	107.7 (146) 20	228.6 (310) 20	337.8 (458) 19	434.4 (589) 18	542.1 (735) 16	624.7 (847) 12	
	4.0 (15)	53.1 (72) 42	110.6 (150) 41	231.6 (314) 40	345.2 (468) 39	462.5 (627) 37	567.2 (769) 35	649.1 (880) 32	725.8 (984) 26
	6.6 (25)	46.5 (63) 70	109.2 (148) 69	230.9 (313) 68	346.7 (470) 66	463.2 (628) 63	564.2 (765) 60	657.9 (892) 55	750.8 (1018) 46
	9.0 (34)	38.4 (52) 97	98.1 (133) 96	224.2 (304) 95	335.6 (455) 93	456.6 (619) 89	560.5 (760) 85	667.5 (905) 78	762.6 (1034) 68
	11.9 (45)		73.8 (100) 129	192.5 (261) 128	326.0 (442) 127	430.0 (583) 125	542.8 (736) 118	654.2 (887) 112	758.2 (1028) 101
	14.0 (53)		62.7 (85) 152	182.2 (247) 150	308.3 (418) 148	417.5 (566) 145	527.4 (715) 139	649.1 (880) 132	755.3 (1024) 118
	15.9 (60)		47.9 (65) 171	171.9 (233) 170	302.4 (410) 169	405.7 (550) 167	525.1 (712) 162	621.0 (842) 155	734.6 (996) 143
	18.0 (68)			160.8 (218) 195	285.4 (387) 194	400.5 (543) 190	513.3 (696) 185	608.5 (825) 175	719.9 (976) 162
Max. Cont.	19.8 (75)			151.9 (206) 215	275.1 (373) 214	379.8 (515) 212	501.5 (680) 206	606.3 (822) 197	712.5 (966) 183
	22.5 (85)			129.8 (176) 243	261.8 (355) 242	376.2 (510) 239	500.8 (679) 234	595.9 (808) 227	
Max. Inter.	25.1 (95)				260.4 (353) 272	375.4 (509) 269	475.7 (645) 265		

Continuous values
 Intermittent values
 (max. 10% operation every minute)

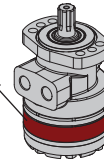
Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor.

Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F].

Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 375 22.6 in³/rev. (371.0 cm³/rev.)

Torque Speed		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)	3481 (240)
Flow gpm (l/min) ↓	0.5 (2)	55.3 (75) 3							
	1.1 (4)	61.2 (83) 8	118.0 (160) 8	243.4 (330) 7	359.9 (488) 6	469.1 (636) 5	561.3 (761) 3		
	2.1 (8)	59.7 (81) 18	125.4 (170) 17	262.6 (356) 17	388.7 (527) 16	500.8 (679) 14	606.3 (822) 12	699.2 (948) 9	781.8 (1060) 5
	4.0 (15)	56.1 (76) 39	119.5 (162) 38	262.6 (356) 37	393.1 (533) 35	503.8 (683) 32	623.2 (845) 29	721.3 (978) 25	812.8 (1102) 18
	6.6 (25)	50.2 (68) 65	115.1 (156) 64	258.1 (350) 62	386.5 (524) 59	501.5 (680) 55	632.1 (857) 48	733.1 (994) 44	839.3 (1138) 35
	9.0 (34)	42.8 (58) 90	109.2 (148) 89	250.0 (339) 87	373.2 (506) 83	508.9 (690) 77	620.3 (841) 71	732.4 (993) 63	844.5 (1145) 53
	11.9 (45)		89.2 (121) 120	222.7 (302) 119	352.6 (478) 117	479.4 (650) 113	599.6 (813) 108	716.9 (972) 100	836.4 (1134) 90
	14.0 (53)		70.1 (95) 141	208.0 (282) 140	343.7 (466) 138	463.2 (628) 134	579.0 (785) 128	688.9 (934) 120	813.5 (1103) 105
	15.9 (60)		55.3 (75) 161	194.7 (264) 161	315.7 (428) 160	436.6 (592) 158	565.0 (766) 155	682.2 (925) 151	789.2 (1070) 141
	18.0 (68)			171.1 (232) 182	311.3 (422) 180	431.5 (585) 176	557.6 (756) 169	664.5 (901) 161	786.2 (1066) 148
Max. Cont.	19.8 (75)			152.7 (207) 201	280.3 (380) 200	410.1 (556) 197	544.3 (738) 190	638.0 (865) 181	746.4 (1012) 165
	22.5 (85)			129.1 (175) 228	272.9 (370) 226	388.0 (526) 221	516.3 (700) 216	613.7 (832) 206	
Max. Inter.	23.8 (90)			109.2 (148) 242	233.1 (316) 240	368.8 (500) 237	482.4 (654) 226		

Continuous values Intermittent values
(max. 10% operation every minute)

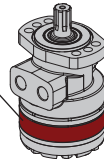
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Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F].

Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 400 24.7 in³/rev. (405.0 cm³/rev.)

Torque Speed lb.ft (Nm) rpm		Δ Pressure psi (bar) →						Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2756 (190)	3263 (225)
Flow gpm (l/min) ↓	0.5 (2)	62.7 (85) 3	125.4 (170) 2						
	1.1 (4)	66.4 (90) 8	134.2 (182) 7	271.4 (368) 6	398.3 (540) 5	527.4 (715) 4	652.7 (885) 3		
	2.1 (8)	68.6 (93) 17	140.1 (190) 16	284.0 (385) 15	424.1 (575) 14	553.2 (750) 13	660.1 (895) 10	700.7 (950) 9	851.9 (1155) 7
	4.0 (15)	64.9 (88) 36	132.8 (180) 35	280.3 (380) 34	424.1 (575) 33	553.2 (750) 31	667.5 (905) 28	722.8 (980) 24	859.3 (1165) 20
	6.6 (25)	64.9 (88) 60	132.8 (180) 59	280.3 (380) 58	424.1 (575) 56	553.2 (750) 53	674.9 (915) 49	744.9 (1010) 44	859.3 (1165) 40
	9.0 (34)	55.3 (75) 83	121.7 (165) 83	269.2 (365) 82	413.0 (560) 81	553.2 (750) 77	674.9 (915) 72	737.6 (1000) 68	870.3 (1180) 60
	11.9 (45)		110.6 (150) 110	258.1 (350) 110	402.0 (545) 109	542.1 (735) 106	663.8 (900) 102	722.8 (980) 94	859.3 (1165) 86
	14.0 (53)		92.2 (125) 130	243.4 (330) 129	387.2 (525) 128	531.0 (720) 125	652.7 (885) 120	708.1 (960) 112	848.2 (1150) 100
	15.9 (60)		73.8 (100) 147	225.0 (305) 147	372.5 (505) 146	501.5 (680) 145	634.3 (860) 142	693.3 (940) 138	829.8 (1125) 130
	18.0 (68)			202.8 (275) 167	354.0 (480) 167	486.8 (660) 164	623.2 (845) 158	682.2 (925) 150	811.3 (1100) 140
Max. Cont.	19.8 (75)			184.4 (250) 184	335.6 (455) 183	468.4 (635) 180	604.8 (820) 176	663.8 (900) 170	785.5 (1065) 158
	22.5 (85)			166.0 (225) 209	306.1 (415) 208	442.5 (600) 206	579.0 (785) 202	638.0 (865) 194	
Max. Inter.	23.8 (90)			118.0 (160) 220	269.2 (365) 218	424.1 (575) 216	567.9 (770) 210		

Continuous values

Intermittent values
(max. 10% operation every minute)

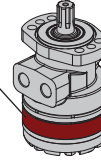
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PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 475 28.2 in³/rev. (462.0 cm³/rev.)

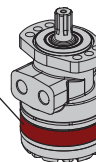
Torque Speed		Δ Pressure psi (bar) →					Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)	2973 (205)
Flow gpm (l/min) ↓	0.5 (2)	68.6 (93) 2	137.2 (186) 1					
	1.1 (4)	72.3 (98) 7	149.0 (202) 6	298.7 (405) 5	448.4 (608) 5	593.7 (805) 4		
	2.1 (8)	72.3 (98) 15	151.9 (206) 14	317.2 (430) 13	480.9 (652) 13	622.5 (844) 12	741.2 (1005) 10	870.3 (1180) 8
	4.0 (15)	69.3 (94) 31	149.0 (202) 30	325.3 (441) 28	482.4 (654) 28	645.4 (875) 26	778.9 (1056) 23	913.1 (1238) 20
	6.6 (25)	69.3 (94) 52	149.0 (202) 51	325.3 (441) 48	482.4 (654) 45	645.4 (875) 43	778.9 (1056) 39	913.1 (1238) 35
	9.0 (34)	55.3 (75) 72	132.8 (180) 71	309.8 (420) 68	486.8 (660) 65	626.9 (850) 61	800.3 (1085) 55	933.8 (1266) 44
	11.9 (45)		106.2 (144) 96	280.3 (380) 95	462.5 (627) 93	615.9 (835) 90	783.3 (1062) 84	930.1 (1261) 73
	14.0 (53)		85.6 (116) 113	255.2 (346) 112	422.6 (573) 111	586.4 (795) 107	743.5 (1008) 102	893.9 (1212) 90
	15.9 (60)		60.5 (82) 128	234.5 (318) 128	397.5 (539) 127	582.7 (790) 124	719.1 (975) 119	874.7 (1186) 110
	18.0 (68)		42.8 (58) 146	200.6 (272) 145	383.5 (520) 144	545.8 (740) 141	704.4 (955) 136	852.6 (1156) 125
Max. Cont.	19.8 (75)			169.6 (230) 161	354.0 (480) 160	517.8 (702) 158	678.6 (920) 153	823.1 (1116) 140
	22.5 (85)			147.5 (200) 182	334.9 (454) 180	488.3 (662) 177	646.1 (876) 168	
Max. Inter.	23.8 (90)			110.6 (150) 194	278.8 (378) 193	453.6 (615) 190	619.6 (840) 182	

Continuous values Intermittent values
(max. 10% operation every minute)

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PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 540 33.0 in³/rev. (540.0 cm³/rev.)

Torque Speed		Δ Pressure psi (bar) ➡				Max. Cont.	Max. Inter.
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	2031 (140)	2538 (175)
Flow gpm (l/min) ↓	0.5 (2)	77.4 (105) 2	146.0 (198) 2				
	1.1 (4)	92.2 (125) 6	170.4 (231) 5	346.7 (470) 5	507.4 (688) 4	687.4 (932) 4	837.9 (1136) 3
	2.1 (8)	98.8 (134) 13	175.5 (238) 13	365.8 (496) 12	552.4 (749) 11	712.5 (966) 11	866.6 (1175) 8
	4.0 (15)	90.0 (122) 27	169.6 (230) 26	372.5 (505) 26	553.2 (750) 25	723.5 (981) 24	898.3 (1218) 21
	6.6 (25)	73.8 (100) 44	166.0 (225) 43	368.8 (500) 42	570.9 (774) 41	727.2 (986) 39	899.8 (1220) 35
	9.0 (34)	59.0 (80) 62	156.4 (212) 61	354.8 (481) 60	551.7 (748) 58	720.6 (977) 54	916.8 (1243) 49
	11.9 (45)		127.6 (173) 82	322.3 (437) 82	526.6 (714) 81	690.4 (936) 79	877.7 (1190) 75
	14.0 (53)		104.7 (142) 97	306.8 (416) 97	500.1 (678) 96	691.8 (938) 94	862.9 (1170) 89
	15.9 (60)		78.2 (106) 110	280.3 (380) 110	489.7 (664) 109	660.9 (896) 108	854.1 (1158) 106
	18.0 (68)		62.7 (85) 125	263.3 (357) 124	454.3 (616) 124	641.7 (870) 123	817.2 (1108) 120
Max. Cont.	19.8 (75)			234.5 (318) 138	442.5 (600) 137	609.2 (826) 135	811.3 (1100) 132
	22.5 (85)			215.4 (292) 154	396.8 (538) 153	575.3 (780) 152	
Max. Inter.	23.8 (90)			157.8 (214) 169	358.5 (486) 168	556.9 (755) 168	



Continuous values



Intermittent values
(max. 10% operation every minute)

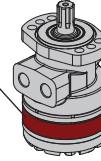
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Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 650		39.5 in³/rev. (647.0 cm³/rev.)					
Torque Speed	lbf.ft (Nm) rpm	Δ Pressure psi (bar) ➡			Max. Cont.	Max. Inter.	Peak
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	1740 (120)	2248 (155)
Flow gpm (l/min) ⬇	0.5 (2)	87.8 (119) 2	169.6 (230) 1				
	1.1 (4)	99.6 (135) 5	197.7 (268) 5	407.1 (552) 4	593.7 (805) 4	693.3 (940) 3	
	2.1 (8)	106.9 (145) 11	210.2 (285) 11	423.4 (574) 10	608.5 (825) 10	704.4 (955) 9	925.6 (1255) 7
	4.0 (15)	103.3 (140) 22	206.5 (280) 22	438.8 (595) 21	645.4 (875) 21	724.3 (982) 20	941.1 (1276) 16
	6.6 (25)	95.9 (130) 37	202.8 (275) 36	435.2 (590) 36	653.5 (886) 35	741.2 (1005) 34	960.3 (1302) 30
	9.0 (34)	84.8 (115) 51	191.8 (260) 51	427.8 (580) 50	656.4 (890) 49	748.6 (1015) 47	966.2 (1310) 44
	11.9 (45)		173.3 (235) 69	409.3 (555) 68	641.7 (870) 67	733.9 (995) 66	944.1 (1280) 63
	14.0 (53)		147.5 (200) 80	383.5 (520) 80	626.9 (850) 79	719.1 (975) 78	922.0 (1250) 76
	15.9 (60)		125.4 (170) 91	361.4 (490) 91	608.5 (825) 90	689.6 (935) 89	896.1 (1215) 88
	18.0 (68)		106.9 (145) 104	317.2 (430) 103	571.6 (775) 102	649.1 (880) 101	874.0 (1185) 99
Max. Cont.	19.8 (75)			309.8 (420) 114	538.4 (730) 113	630.6 (855) 112	833.4 (1130) 110
	21.9 (83)			280.3 (380) 130	486.8 (660) 129	586.4 (795) 125	
Max. Inter.	23.8 (90)			213.9 (290) 138	431.5 (585) 137	538.4 (730) 136	
		Continuous values			Intermittent values (max. 10% operation every minute)		Peak operation (max. 1% operation every minute)

Continuous values

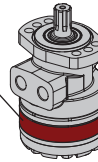
Intermittent values
(max. 10% operation
every minute)

Peak operation
(max. 1% operation
every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor. Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F]. Actual data may vary slightly from one production motor to another.

PERFORMANCE DATA - BMER SERIES

Performance data
is based on the
motor displacement.



BMER 750 45.5 in³/rev. (745.0 cm³/rev.)

Torque Speed		Δ Pressure psi (bar) ➡			Max. Cont.	Max. Inter.	Peak
		254 (17.5)	508 (35)	1015 (70)	1523 (105)	1740 (120)	2031 (140)
Flow gpm (l/min) ↓	0.5 (2)	106.9 (145) 2	206.5 (280) 1				
	1.1 (4)	118.0 (160) 4	236.8 (321) 4	482.4 (654) 4	708.1 (960) 3	822.4 (1115) 3	967.7 (1312) 2
	2.1 (8)	119.5 (162) 9	247.1 (335) 9	507.4 (688) 9	756.7 (1026) 8	854.8 (1159) 8	993.5 (1347) 7
	4.0 (15)	115.1 (156) 19	243.4 (330) 19	511.9 (694) 18	772.2 (1047) 18	873.3 (1184) 17	1014.9 (1376) 16
	6.6 (25)	104.7 (142) 32	236.0 (320) 31	507.4 (688) 30	771.5 (1046) 30	869.6 (1179) 29	1012.7 (1373) 27
	9.0 (34)	81.1 (110) 44	212.4 (288) 44	485.3 (658) 42	753.0 (1021) 41	862.2 (1169) 40	1007.5 (1366) 37
	11.9 (45)	52.4 (71) 60	178.5 (242) 59	457.3 (620) 59	724.3 (982) 58	843.0 (1143) 58	992.0 (1345) 55
	14.0 (53)		149.0 (202) 70	418.9 (568) 69	694.0 (941) 68	815.0 (1105) 67	964.7 (1308) 66
	15.9 (60)		103.3 (140) 79	388.7 (527) 78	662.3 (898) 77	801.0 (1086) 76	948.5 (1286) 74
	18.0 (68)		73.8 (100) 90	358.5 (486) 90	628.4 (852) 89	762.6 (1034) 88	922.7 (1251) 87
Max. Cont.	19.8 (75)		47.9 (65) 99	313.5 (425) 99	598.9 (812) 98	722.8 (980) 97	868.8 (1178) 96
	21.9 (83)			291.3 (395) 110	549.5 (745) 109	668.2 (906) 108	
Max. Inter.	23.8 (90)			219.8 (298) 120	486.8 (660) 119	590.0 (800) 117	

Continuous values

Intermittent values
(max. 10% operation
every minute)

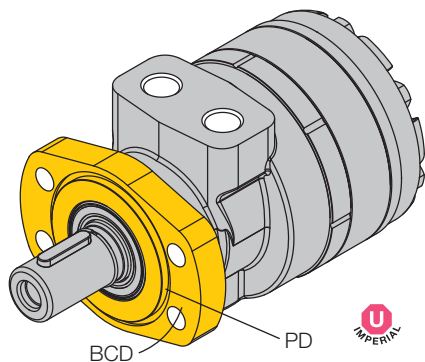
Peak operation
(max. 1% operation
every minute)

Motors run with high efficiency in all areas until maximum continuous values are exceeded. For best service life of the motor select a motor to run with a torque and speed range printed in the light shaded area. Simultaneous maximum torque and maximum speed NOT recommended and may damage the motor.

Performance data is typical of randomly selected motors at back pressure of 72.5 to 145 psi [5 to 10 bar] and oil with viscosity of 32 mm²/s [150 SUS] at 50°C [122°F].

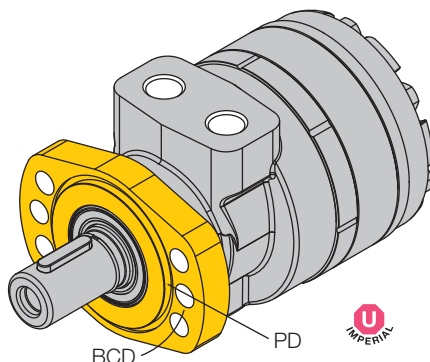
Actual data may vary slightly from one production motor to another.

BMER-2 MOUNTING OVERVIEW



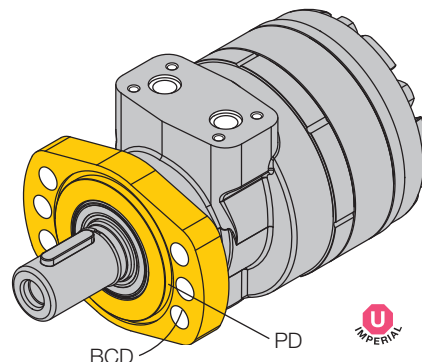
BMER-2 Mounting **MS, MP, MD** (p 18)

4-Bolt, SAE A
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 4.19"



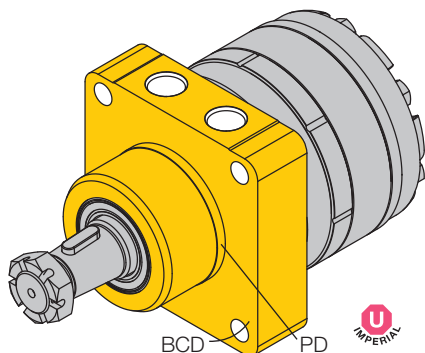
BMER-2 Mounting **FS, FP, FD** (p 19)

6-Bolt, SAE A
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 4.19"



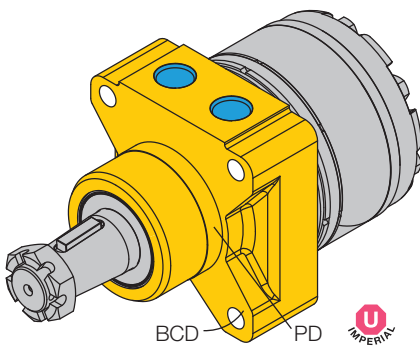
BMER-2 Mounting **FH** (p 20)

6-Bolt, SAE A
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 4.19"



BMER-2 Mounting **WS, WP, WD** (p 21)

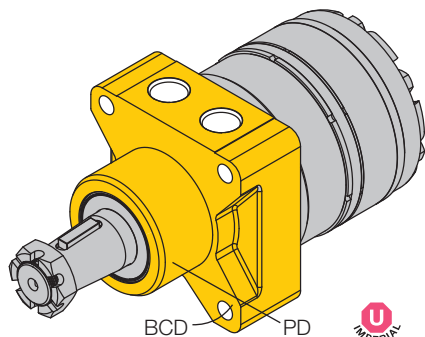
4-Bolt, Wheel Mount
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 5.91"



BMER-2 Mounting **TS, TP, TD** (p 21)

4-Bolt, Wheel Mount
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 5.91"

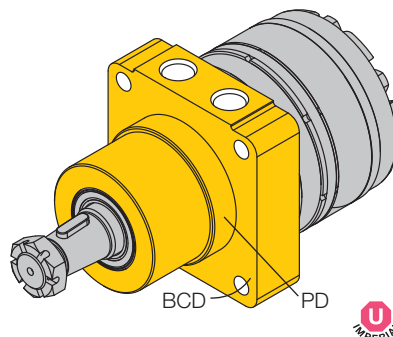
BMER-3 MOUNTING OVERVIEW



BMER-3 Mounting **WS, WP, WD** (p 26)

4-Bolt, Wheel Mount
Pilot Dia. (PD): 3.25"
Bolt Circle Dia. (BCD): 5.91"

BMER-4 MOUNTING OVERVIEW



BMER-4 Mounting **WS, WP, WD** (p 28)

4-Bolt, Wheel Mount
Pilot Dia. (PD): 3.75"
Bolt Circle Dia. (BCD): 5.91"

BMER-2 OVERALL DIMENSIONS & MOUNTING DETAILS

BMER-2 MOUNTING FLANGE & PORTS

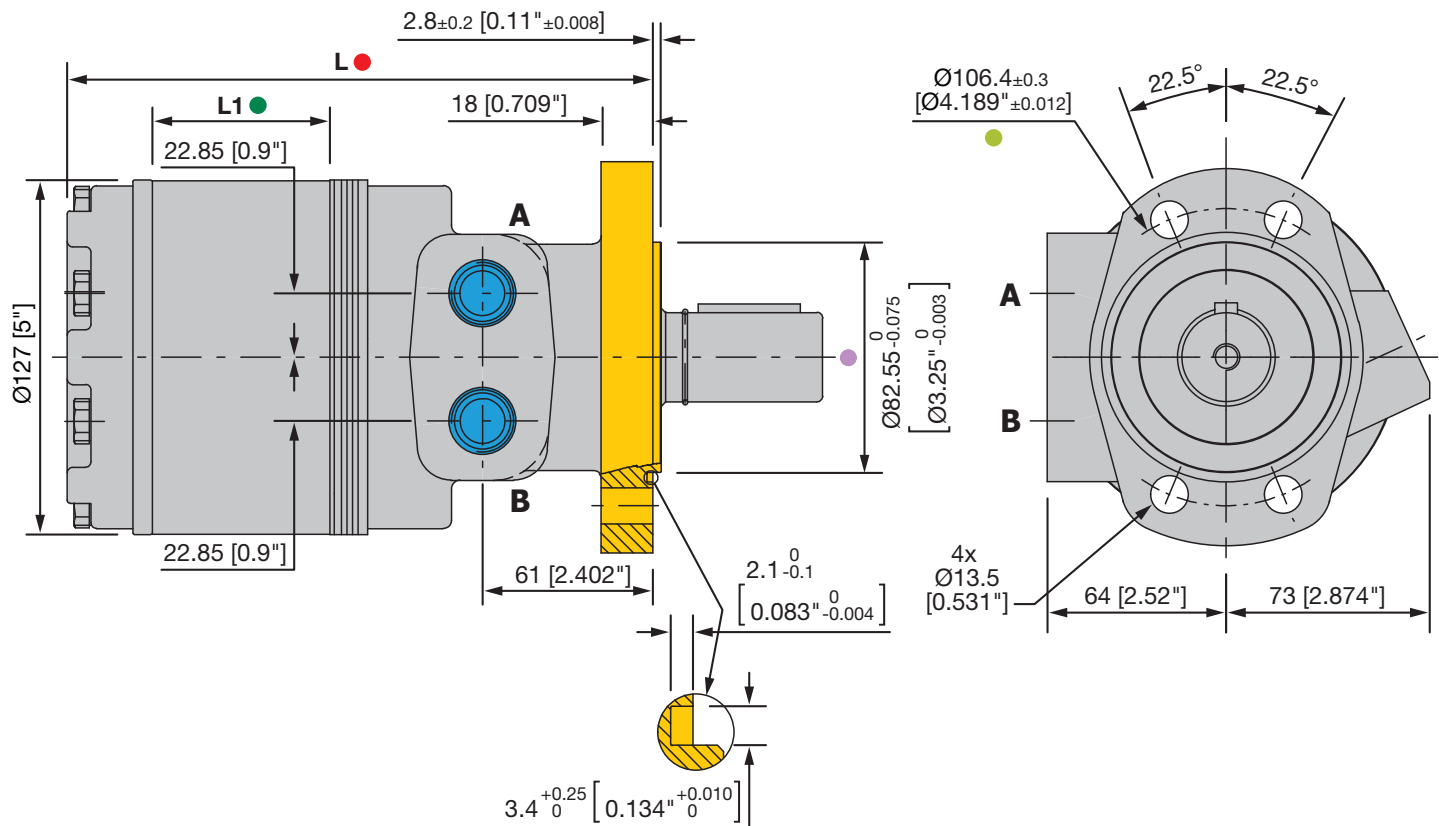
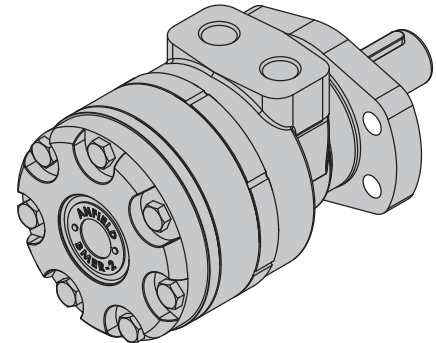
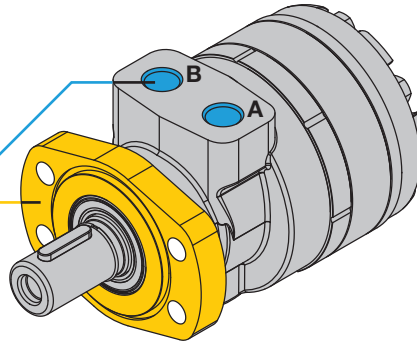
CODE
MS **MP** **MD**

4-Bolt, SAE A Magneto Mount

Pilot Diameter: 3.25"

Bolt Circle Diameter: 4.19"

PORTS A & B	CODE
7/8-14 UNF (SAE-10)	MS
1/2-14 NPTF	MP
G 1/2	MD



			BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length	L 	mm [in]	157.0 [6.18"]	160.0 [6.30"]	163.5 [6.44"]	166.0 [6.54"]	168.5 [6.63"]	172.0 [6.77"]	176.0 [6.93"]	178.5 [7.03"]	182.0 [7.17"]	186.0 [7.32"]	194.0 [7.64"]	204.0 [8.03"]	210.0 [8.27"]
Geroler Width	L1 	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	57.0 [2.24"]	63.5 [2.50"]
Weight		lb [kg]	23.3 [10.6]	24.0 [10.9]	24.6 [11.2]	24.9 [11.3]	25.1 [11.4]	25.5 [11.6]	26.4 [11.2]	27.5 [12.5]	27.9 [12.7]	28.6 [13.0]	29.7 [13.5]	31.9 [14.5]	33.0 [15.0]

MS : 4-Bolt, SAE A Magneto Mount w/ SAE straight thread (O-Ring Boss) ports

MP : 4-Bolt, SAE A Magneto Mount w/ NPTF (National Pipe Tapered Fuel) ports

MD : 4-Bolt, SAE A Magneto Mount w/ BSPP (British Standard Pipe Parallel) G thread ports

mm [inch]

● Pilot Diameter

U Imperial M Metric

● Bolt Circle Diameter

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BMER-2 OVERALL DIMENSIONS & MOUNTING DETAILS

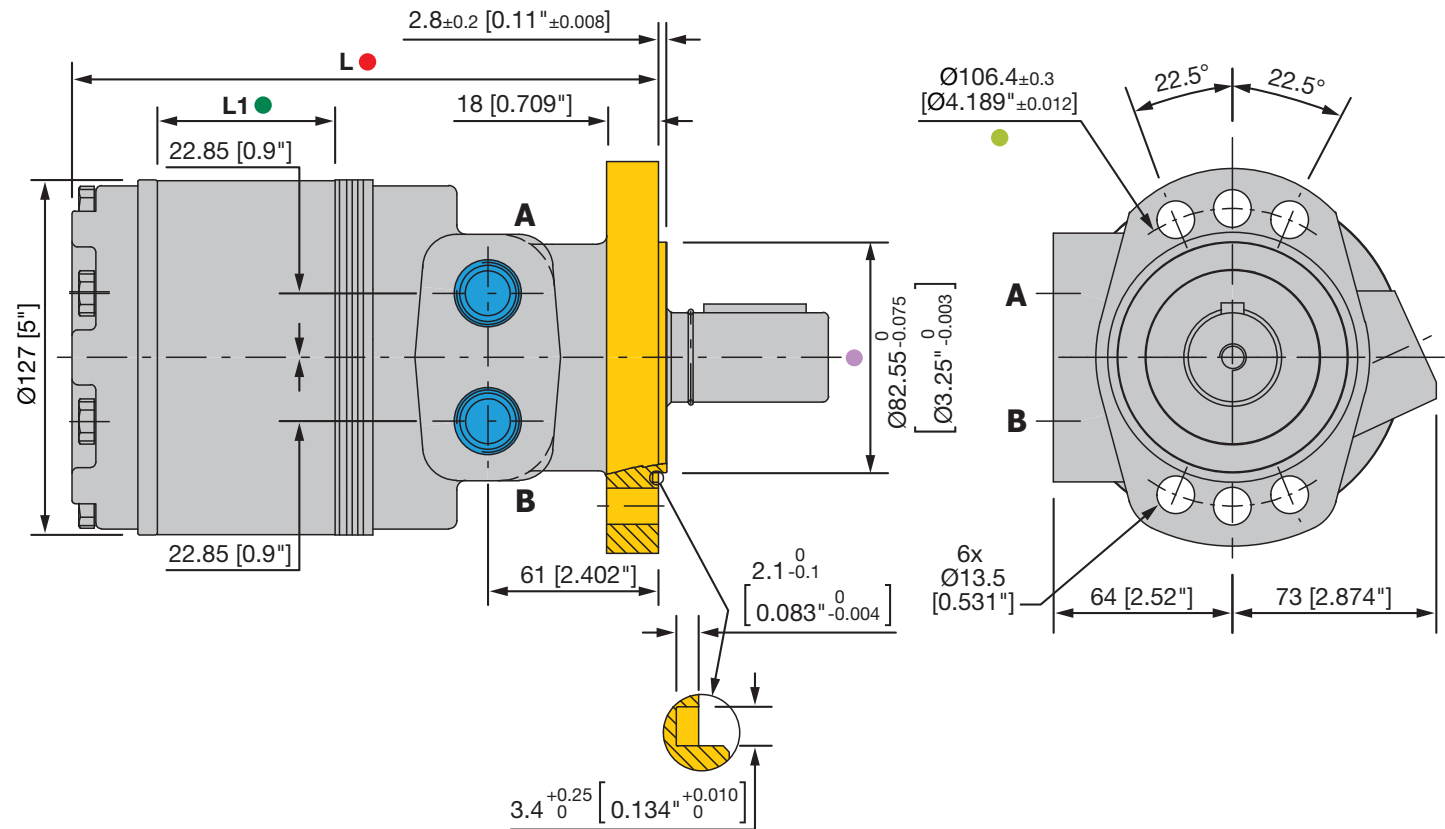
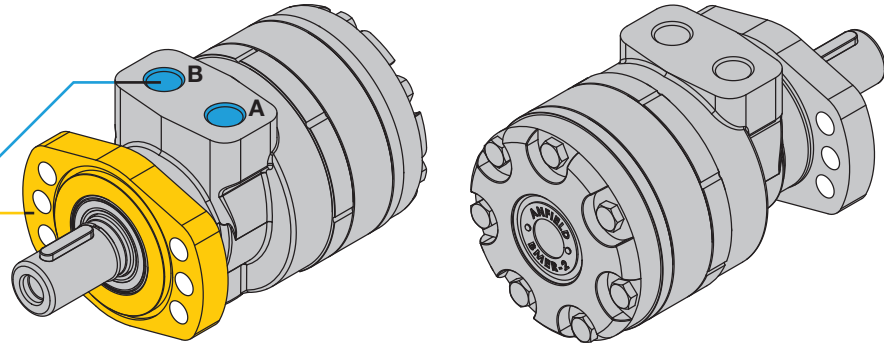
BMER-2 MOUNTING FLANGE & PORTS

6-Bolt, SAE A Magneto Mount

Pilot Diameter: 3.25"

Bolt Circle Diameter: 4.19"

PORTS A & B	CODE
7/8-14 UNF (SAE-10)	FS
1/2-14 NPTF	FP
G 1/2	FD



		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length L	mm [in]	157.0 [6.18"]	160.0 [6.30"]	163.5 [6.44"]	166.0 [6.54"]	168.5 [6.63"]	172.0 [6.77"]	176.0 [6.93"]	178.5 [7.03"]	182.0 [7.17"]	186.0 [7.32"]	194.0 [7.64"]	204.0 [8.03"]	210.0 [8.27"]
Geroler Width $L1$	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	57.0 [2.24"]	63.5 [2.50"]
Weight	lb [kg]	23.3 [10.6]	24.0 [10.9]	24.6 [11.2]	24.9 [11.3]	25.1 [11.4]	25.5 [11.6]	26.4 [11.2]	27.5 [12.5]	27.9 [12.7]	28.6 [13.0]	29.7 [13.5]	31.9 [14.5]	33.0 [15.0]

FS : 6-Bolt, SAE A Magneto Mount w/ SAE straight thread (O-Ring Boss) ports
FP : 6-Bolt, SAE A Magneto Mount w/ NPTF (National Pipe Tapered Fuel) ports
FD : 6-Bolt, SAE A Magneto Mount w/ BSPP (British Standard Pipe Parallel) G thread ports

BMER-2 OVERALL DIMENSIONS & MOUNTING DETAILS

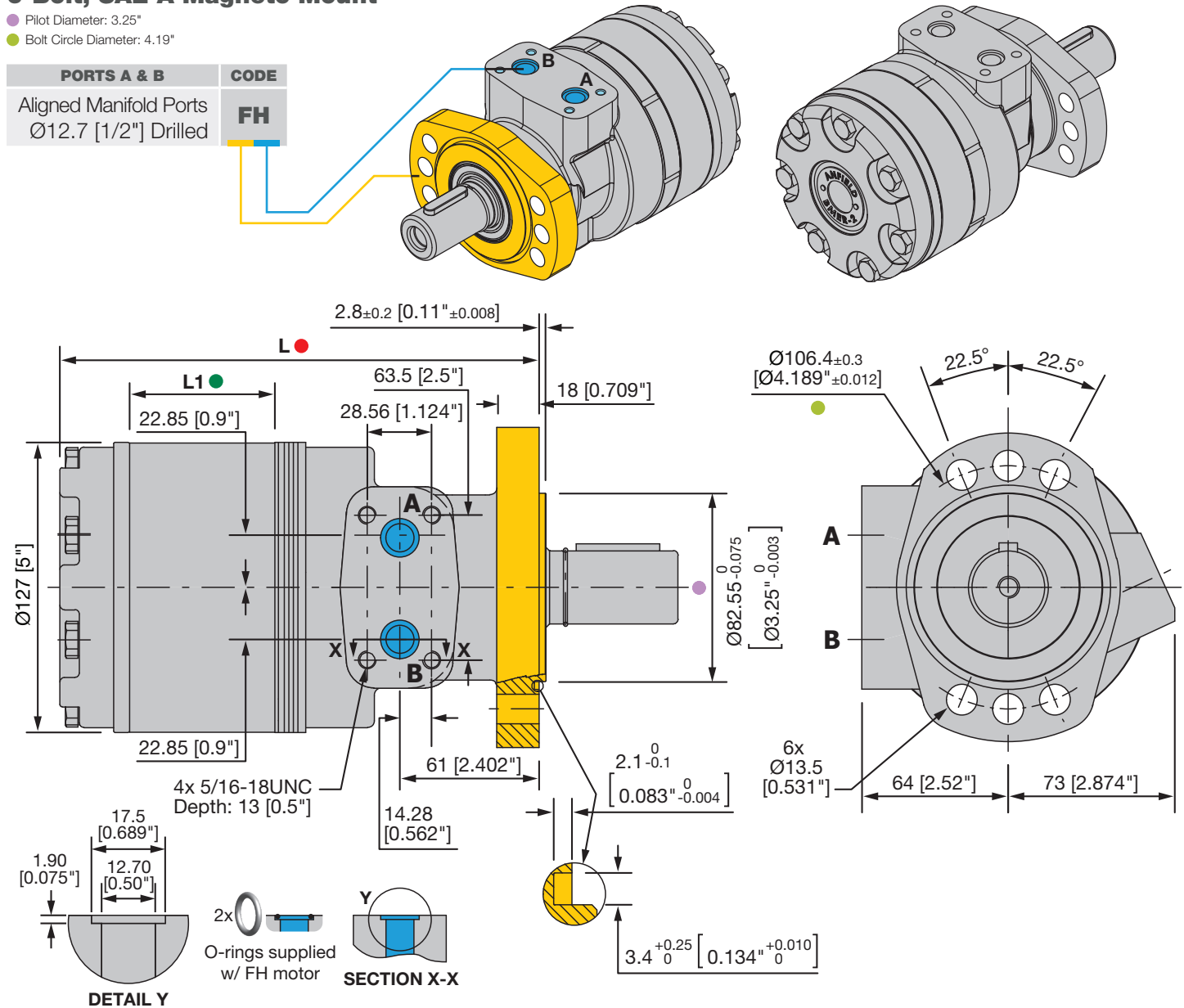
BMER-2 MOUNTING FLANGE & PORTS CODE FH

6-Bolt, SAE A Magneto Mount

Pilot Diameter: 3.25"

Bolt Circle Diameter: 4.19"

PORTS A & B	CODE
Aligned Manifold Ports Ø12.7 [1/2"] Drilled	FH



		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length L	●	mm [in]	157.0 [6.18"]	160.0 [6.30"]	163.5 [6.44"]	166.0 [6.54"]	168.5 [6.63"]	172.0 [6.77"]	176.0 [6.93"]	178.5 [7.03"]	182.0 [7.17"]	186.0 [7.32"]	194.0 [7.64"]	210.0 [8.27"]
Geroler Width L1	●	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	63.5 [2.50"]
Weight		lb [kg]	23.3 [10.6]	24.0 [10.9]	24.6 [11.2]	24.9 [11.3]	25.1 [11.4]	25.5 [11.6]	26.4 [11.2]	27.5 [12.5]	27.9 [12.7]	28.6 [13.0]	29.7 [13.5]	33.0 [15.0]

FH : 6-Bolt, SAE A Magneto Mount w/ Ø12.7 [1/2"] Drilled Aligned Manifold Ports

mm [inch] ● Pilot Diameter
U Imperial M Metric ● Bolt Circle Diameter

BMER-2 OVERALL DIMENSIONS & MOUNTING DETAILS

BMER-2 MOUNTING FLANGE & PORTS

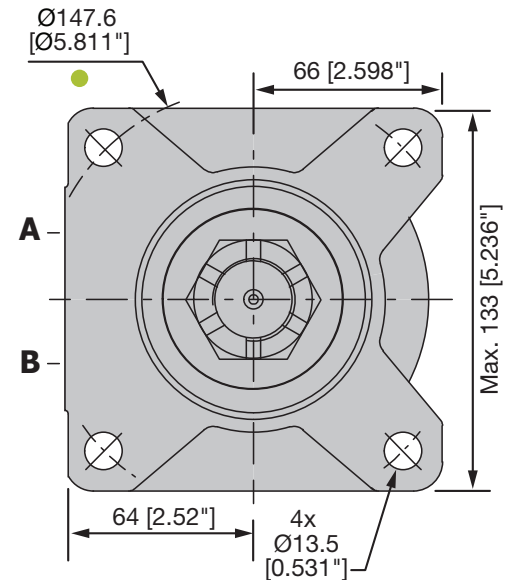
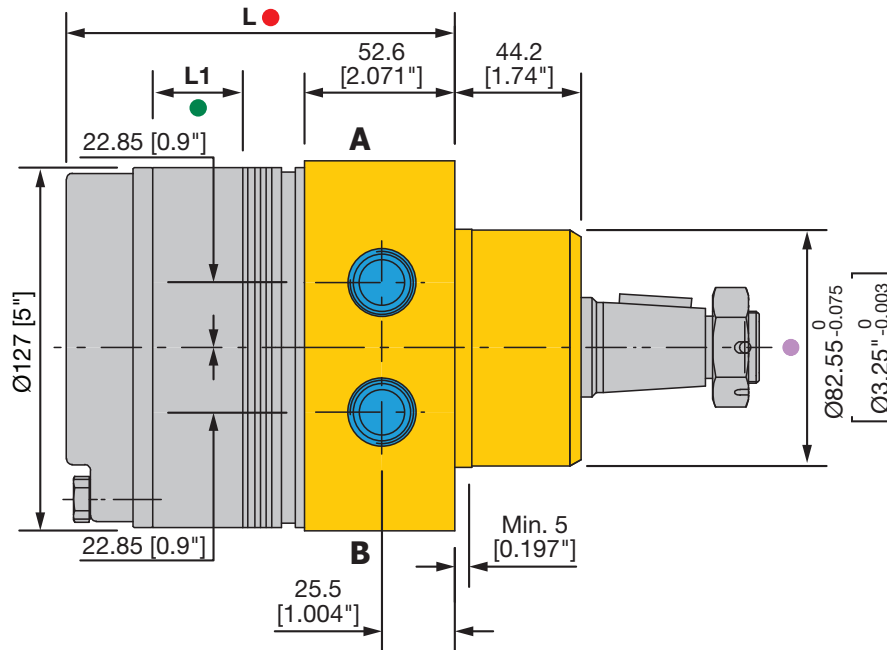
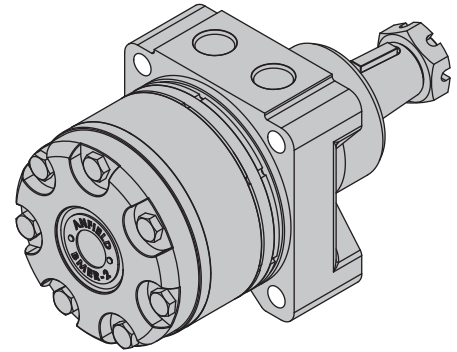
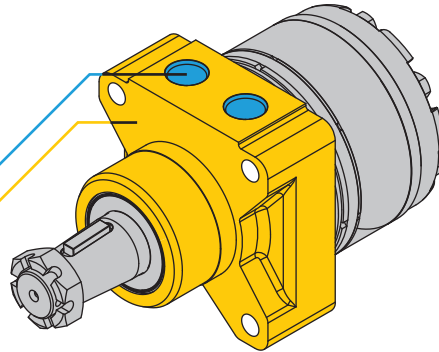
CODE
TS
TP
TD

4-Bolt, Wheel Mount

Pilot Diameter: 3.25"

Bolt Circle Diameter: 5.81"

PORTS A & B	CODE
7/8-14 UNF (SAE-10)	TS
1/2-14 NPTF	TP
G 1/2	TD



		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length L	mm [in]	119.0 [4.69"]	122.0 [4.80"]	125.5 [4.94"]	128.0 [5.04"]	130.5 [5.14"]	134.5 [5.30"]	138.0 [5.43"]	140.5 [5.53"]	144.0 [5.70"]	148.0 [5.83"]	156.0 [6.14"]	166.0 [6.54"]	173.0 [6.81"]
Geroler Width L1	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	57.0 [2.24"]	63.5 [2.50"]
Weight	lb [kg]	26.4 [12.0]	26.6 [12.1]	27.1 [12.3]	27.3 [12.4]	27.7 [12.6]	28.6 [13.0]	29.0 [13.2]	29.7 [13.5]	30.1 [13.7]	30.8 [14.0]	32.1 [14.6]	34.1 [15.5]	35.2 [16.0]

TS : 4-Bolt, Wheel Mount w/ SAE straight thread (O-Ring Boss) ports

TP : 4-Bolt, Wheel Mount w/ NPTF (National Pipe Tapered Fuel) ports

TD : 4-Bolt, Wheel Mount w/ BSPP (British Standard Pipe Parallel) G thread ports

mm [inch]

Pilot Diameter

Imperial Metric

Bolt Circle Diameter

ANFIELD Orbital Motor Catalog BMER Rev. E (09/02/2025)

BMER-2 SHAFT EXTENSIONS

IMPORTANT:

Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

CODE

BMER-2 SHAFT EXTENSION

RW



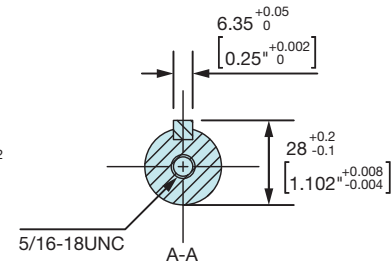
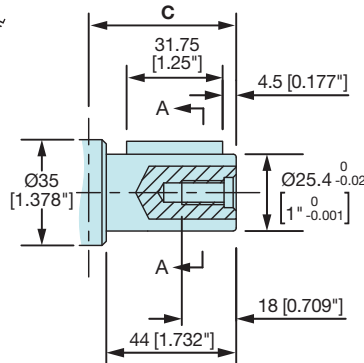
1" Straight Keyed

Parallel key $\frac{1}{4}" \times \frac{1}{4}" \times 1\frac{1}{4}"$

Max. Torque

290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	50 [1.97"]
Wheel Mount mm [in]	91 [3.58"]



CODE

BMER-2 SHAFT EXTENSION

G2



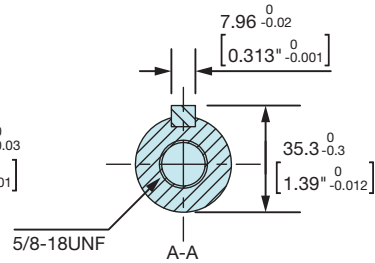
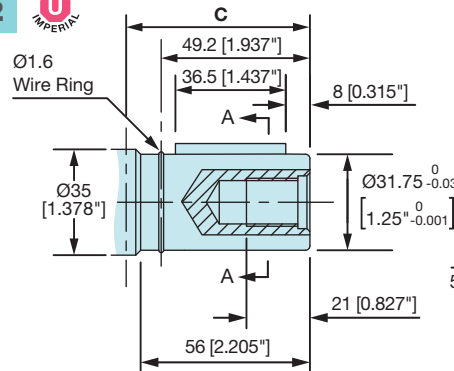
1 1/4" Straight Keyed

Parallel key $\frac{5}{16}" \times \frac{9}{32}" \times 1\frac{7}{16}"$

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	61 [2.40"]
Wheel Mount mm [in]	103 [4.06"]



CODE

BMER-2 SHAFT EXTENSION

G32



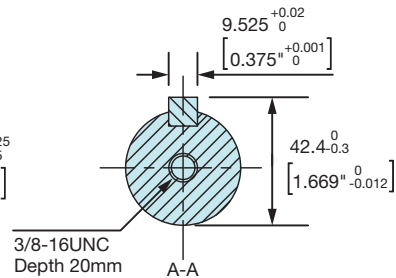
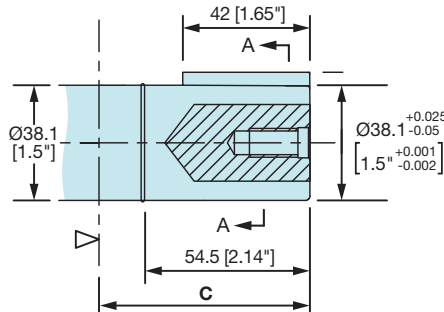
1 1/2" Straight Keyed

Parallel key $\frac{3}{8}" \times \frac{3}{8}" \times 1\frac{21}{32}"$

Max. Torque

885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	65 [2.56"]
Wheel Mount mm [in]	107.5 [4.23"]



CODE

BMER-2 SHAFT EXTENSION

AW



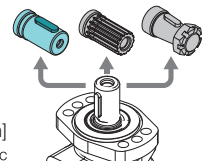
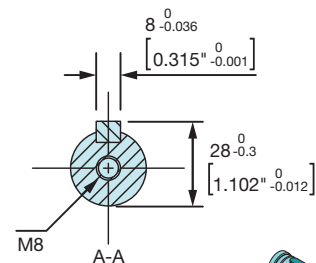
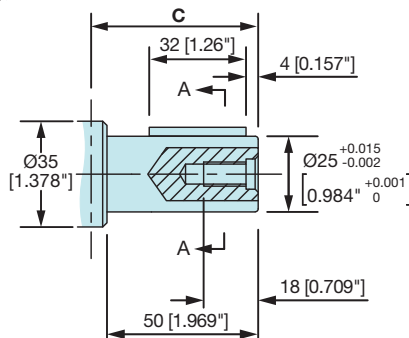
25 mm Straight Keyed

Parallel key 8x7x32

Max. Torque

290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	56 [2.20"]
Wheel Mount mm [in]	97 [3.82"]



BMER-2 SHAFT EXTENSIONS

IMPORTANT:

Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

BMER-2 SHAFT EXTENSION **B1**



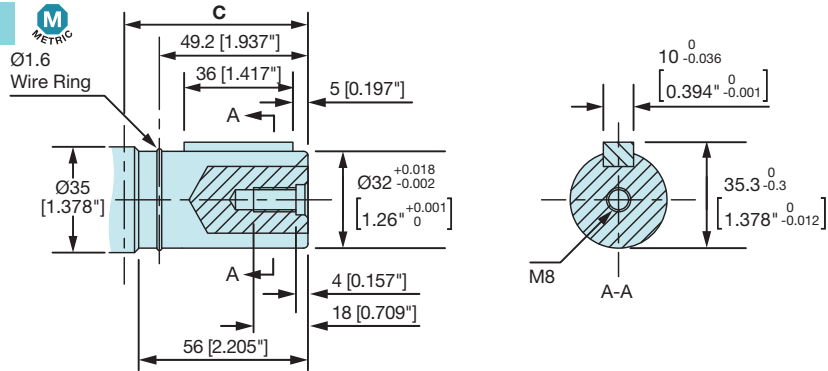
32 mm Straight Keyed

Parallel key 10x8x36

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	61 [2.40"]
Wheel Mount mm [in]	103 [4.06"]



BMER-2 SHAFT EXTENSION **SW**

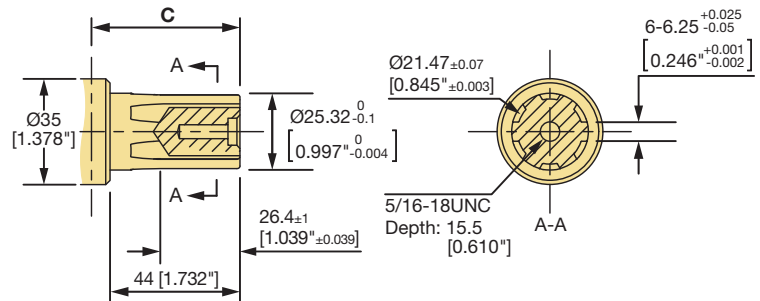


1" SAE 6B Splined

Max. Torque

290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	50 [1.97"]
Wheel Mount mm [in]	91 [3.58"]



BMER-2 SHAFT EXTENSION **FD1**

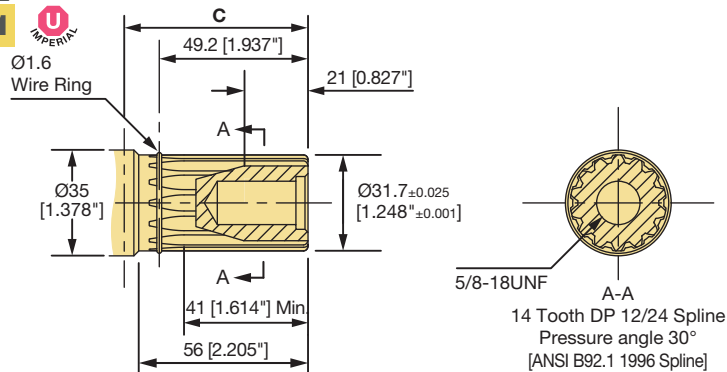


1 1/4" 14 Tooth Splined

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	61 [2.40"]
Wheel Mount mm [in]	103 [4.06"]



BMER-2 SHAFT EXTENSION **T4**



1 1/4" Tapered (1:8) w/ Nut

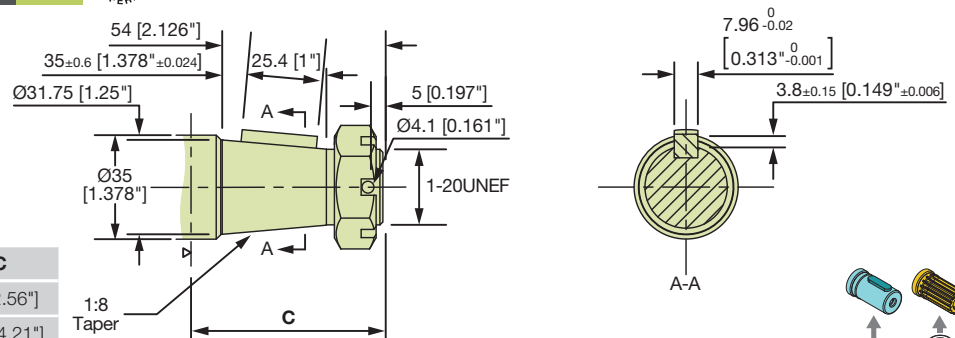
Parallel key 5/16"x5/16"x1"

Tightening Torque 200 ± 10 Nm

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	65 [2.56"]
Wheel Mount mm [in]	107 [4.21"]



mm [inch]

U Imperial M Metric

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BMER-2 SHAFT EXTENSIONS

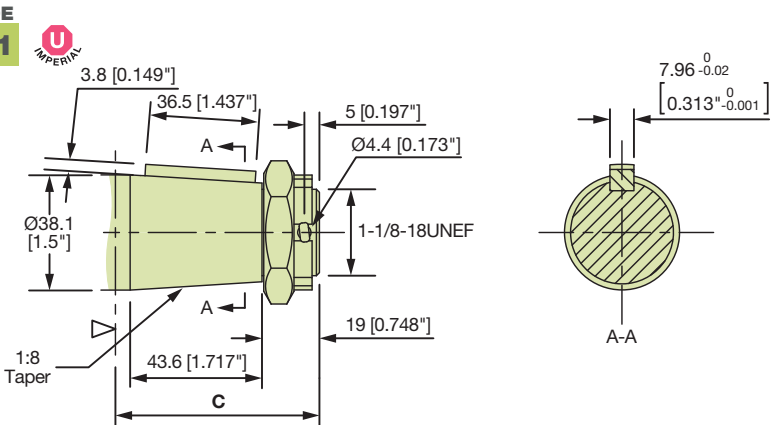
IMPORTANT:
 Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

BMER-2 SHAFT EXTENSION

-  **1 1/2" Tapered (1:8) w/ Nut**
-  Parallel key 5/16"x9/32"x1 7/16"
-  Tightening Torque 410-510 Nm

Max. Torque
 885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Magneto Mount mm [in]	74.5 [2.93"]
Wheel Mount mm [in]	117 [4.61"]



BMER-3 OVERALL DIMENSIONS & MOUNTING DETAILS

BMER-3 MOUNTING FLANGE & PORTS

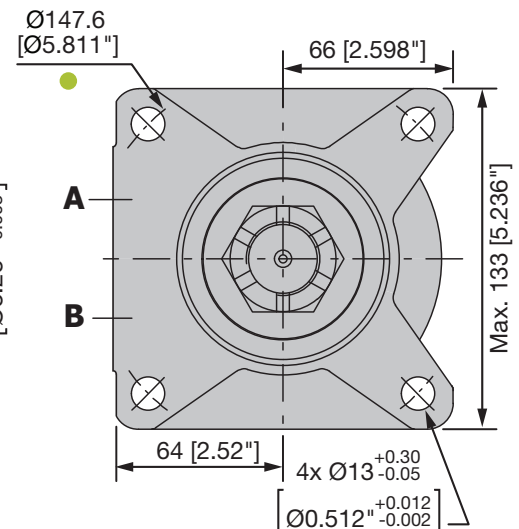
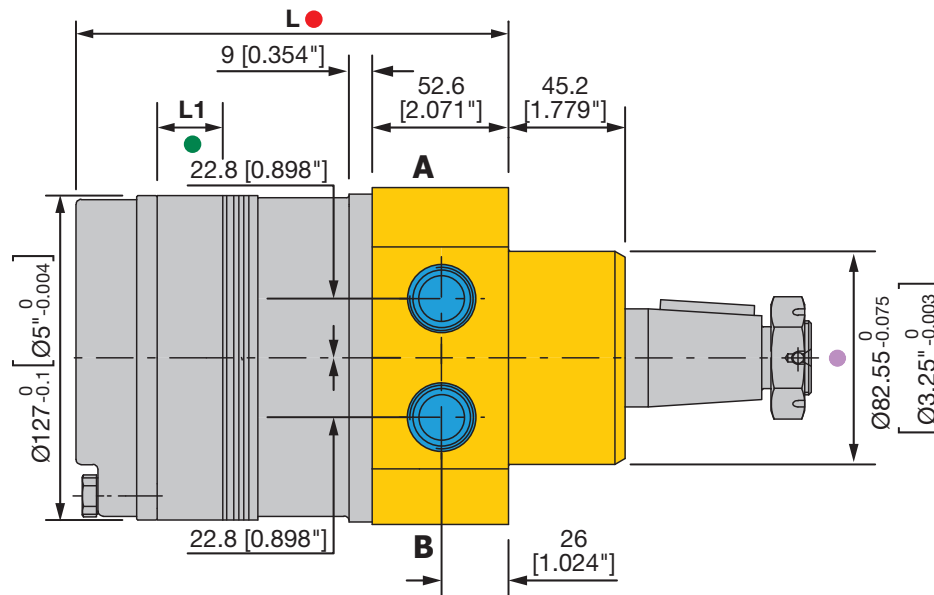
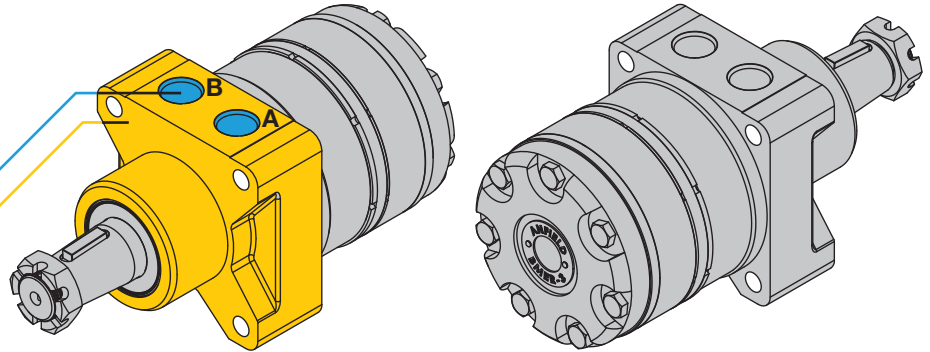
CODE
WS
WP
WD

4-Bolt, Wheel Mount

Pilot Diameter: 3.25"

Bolt Circle Diameter: 5.81"

PORTS A & B	CODE
7/8-14 UNF (SAE-10)	WS
1/2-14 NPTF	WP
G 1/2	WD



		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length L ●	mm [in]	153.0 [6.02"]	156.0 [6.14"]	159.5 [6.28"]	162.0 [6.38"]	164.5 [6.48"]	168.0 [6.61"]	172.0 [6.77"]	174.5 [6.87"]	178.0 [7.01"]	182.0 [7.17"]	190.0 [7.48"]	199.5 [7.85"]	206.0 [8.11"]
Geroler Width L1 ●	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	57.0 [2.24"]	63.5 [2.50"]
Weight	lb [kg]	29.0 [13.2]	29.7 [13.5]	30.4 [13.8]	30.8 [14.0]	31.2 [14.2]	31.9 [14.5]	32.8 [14.9]	33.4 [15.2]	34.1 [15.5]	34.5 [15.7]	36.3 [16.5]	38.1 [17.3]	39.2 [17.8]

WS : 4-Bolt, Wheel Mount w/ SAE straight thread (O-Ring Boss) ports

WP : 4-Bolt, Wheel Mount w/ NPTF (National Pipe Tapered Fuel) ports

WD : 4-Bolt, Wheel Mount w/ BSPP (British Standard Pipe Parallel) G thread ports

mm [Inch]

● Pilot Diameter

U Imperial M Metric

● Bolt Circle Diameter

ANFIELD Orbital Motor Catalog BMER Rev. E (09/02/2025)

BMER-3 SHAFT EXTENSIONS

IMPORTANT:

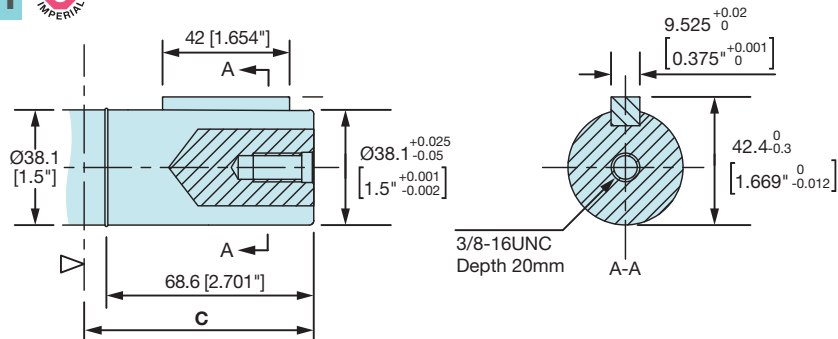
Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

BMER-3 SHAFT EXTENSION **G31**

-  **1 1/2" Straight Keyed**
 Parallel key 3/8"x3/8"x1 21/32"

Max. Torque
885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	119 [4.69"]

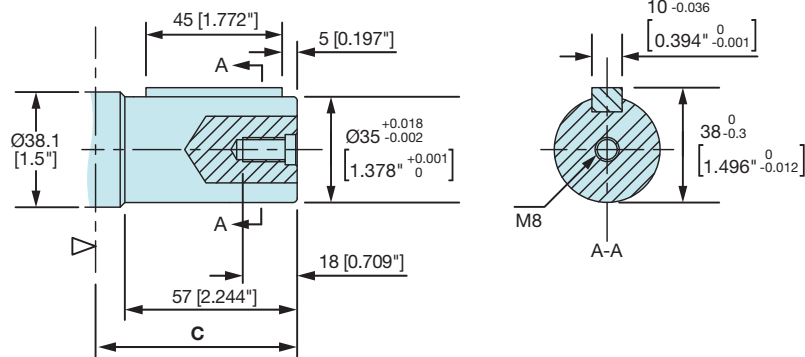


BMER-3 SHAFT EXTENSION **M31**

-  **35 mm Straight Keyed**
 Parallel key 10x8x45

Max. Torque
885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	105 [4.13"]

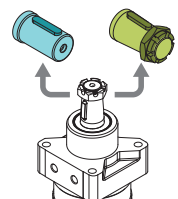
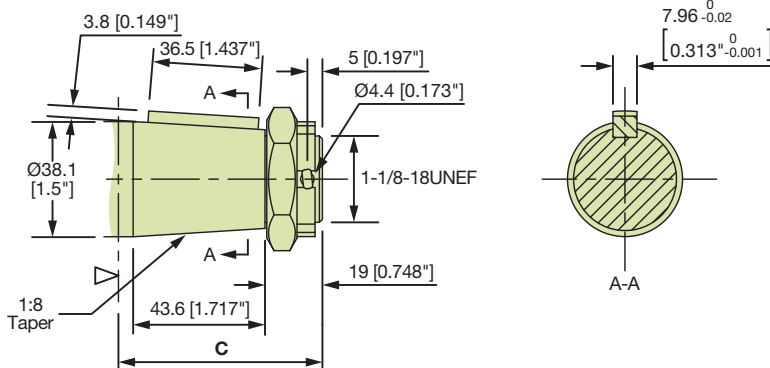


BMER-3 SHAFT EXTENSION **T31**

-  **1 1/2" Tapered (1:8) w/ Nut**
 Parallel key 5/16"x9/32"x1 7/16"
 Tightening Torque 410-510 Nm

Max. Torque
885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	117 [4.61"]



BMER-4 OVERALL DIMENSIONS & MOUNTING DETAILS

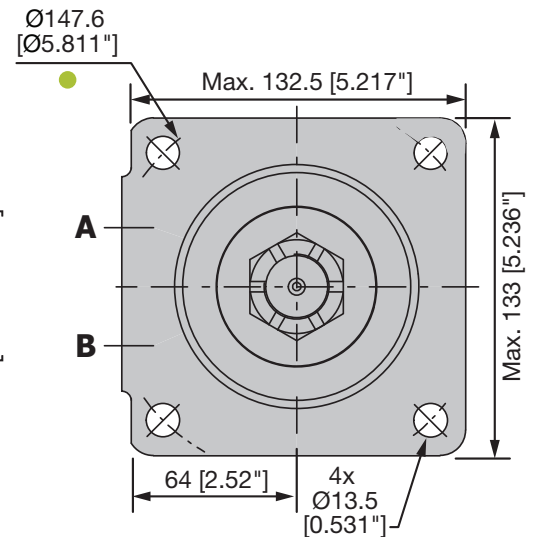
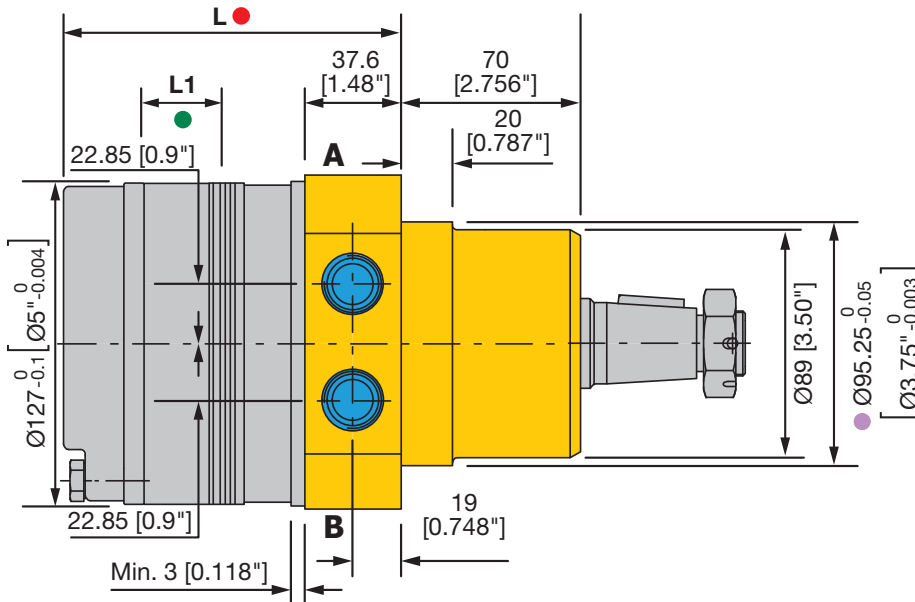
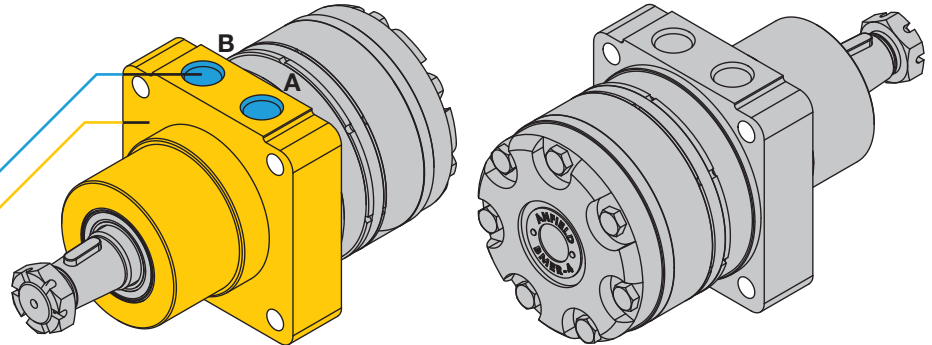
BMER-4 MOUNTING FLANGE & PORTS

4-Bolt, Wheel Mount

Pilot Diameter: 3.75"

Bolt Circle Diameter: 5.81"

PORTS A & B	CODE
7/8-14 UNF (SAE-10)	WS
1/2-14 NPTF	WP
G 1/2	WD



		BMER-2 125	BMER-2 160	BMER-2 200	BMER-2 230	BMER-2 250	BMER-2 300	BMER-2 350	BMER-2 375	BMER-2 400	BMER-2 475	BMER-2 540	BMER-2 650	BMER-2 750
Overall Length ● L	mm [in]	119.0 [4.69"]	122.0 [4.80"]	125.5 [4.94"]	128.0 [5.04"]	130.5 [5.14"]	134.5 [5.30"]	138.0 [5.43"]	140.5 [5.53"]	144.5 [5.83"]	148.0 [5.83"]	156.0 [6.14"]	165.5 [6.52"]	172.0 [6.77"]
Geroler Width ● L1	mm [in]	10.2 [0.40"]	13.5 [0.53"]	17.0 [0.67"]	19.5 [0.77"]	22.0 [0.87"]	25.4 [1.00"]	29.5 [1.16"]	31.8 [1.25"]	35.5 [1.40"]	39.4 [1.55"]	47.3 [1.86"]	57.0 [2.24"]	63.5 [2.50"]
Weight	lb [kg]	28.2 [12.8]	28.8 [13.1]	29.5 [13.4]	29.9 [13.6]	30.4 [13.8]	31.0 [14.1]	31.9 [14.5]	32.6 [14.8]	33.4 [15.2]	34.3 [15.6]	35.4 [16.1]	37.2 [16.9]	38.3 [17.4]

WS : 4-Bolt, Wheel Mount w/ SAE straight thread (O-Ring Boss) ports

WP : 4-Bolt, Wheel Mount w/ NPTF (National Pipe Tapered Fuel) ports

WD : 4-Bolt, Wheel Mount w/ BSPP (British Standard Pipe Parallel) G thread ports

mm [Inch]

● Pilot Diameter

U Imperial M Metric

● Bolt Circle Diameter

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BMER-4 SHAFT EXTENSIONS

IMPORTANT:

Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

CODE

BMER-4 SHAFT EXTENSION

RW



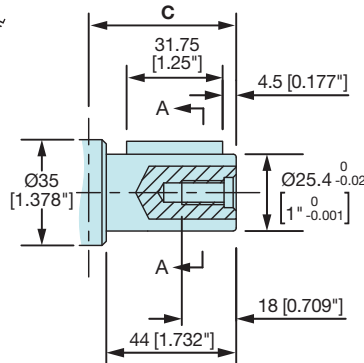
1" Straight Keyed

Parallel key $\frac{1}{4}" \times \frac{1}{4}" \times 1\frac{1}{4}"$

Max. Torque

290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	119 [4.69"]



CODE

BMER-4 SHAFT EXTENSION

G2



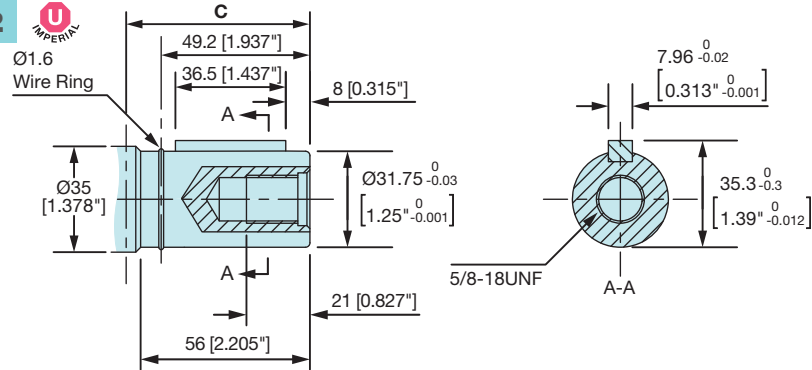
1 1/4" Straight Keyed

Parallel key $\frac{5}{16}" \times \frac{9}{32}" \times 1\frac{7}{16}"$

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	131 [5.16"]



CODE

BMER-4 SHAFT EXTENSION

G32



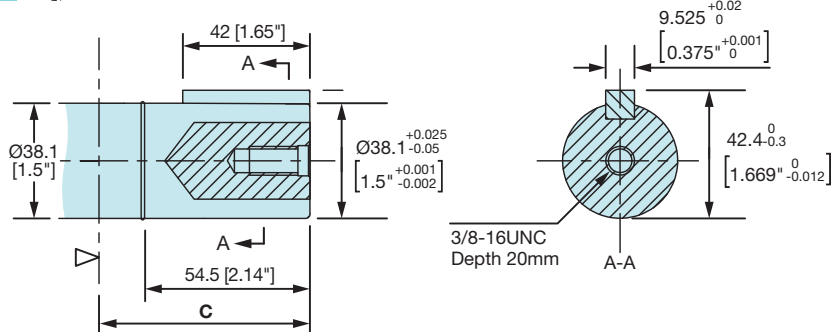
1 1/2" Straight Keyed

Parallel key $\frac{3}{8}" \times \frac{3}{8}" \times 1\frac{21}{32}"$

Max. Torque

885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	135 [5.32"]



CODE

BMER-4 SHAFT EXTENSION

AW



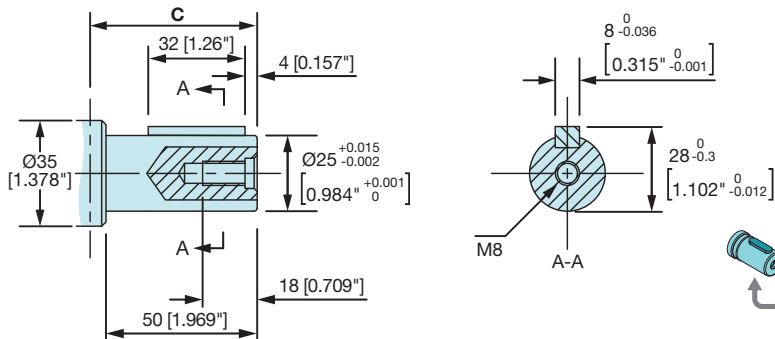
25 mm Straight Keyed

Parallel key 8x7x32

Max. Torque

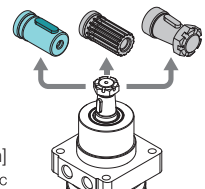
290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	125 [4.92"]



mm [Inch]

Imperial Metric



BMER-4 SHAFT EXTENSIONS

IMPORTANT:

Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

BMER-4 SHAFT EXTENSION **B1**



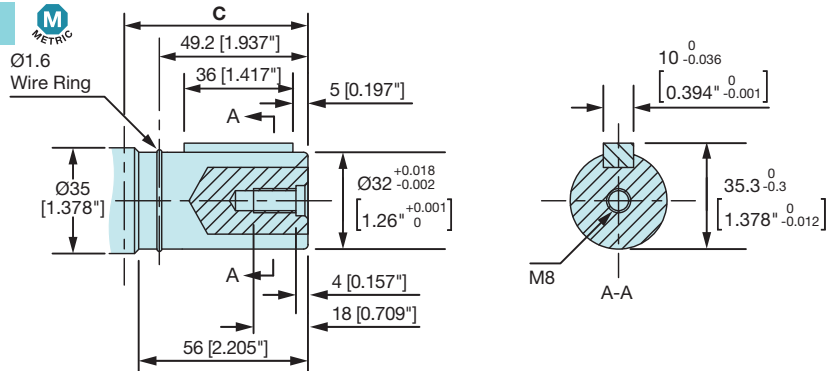
32 mm Straight Keyed

Parallel key 10x8x36

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	130 [5.12"]



BMER-4 SHAFT EXTENSION **SW**

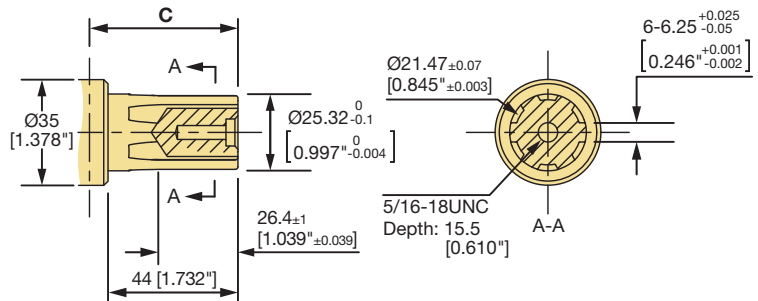


1" SAE 6B Splined

Max. Torque

290 lbf.ft [395 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	119 [4.69"]



BMER-4 SHAFT EXTENSION **FD1**

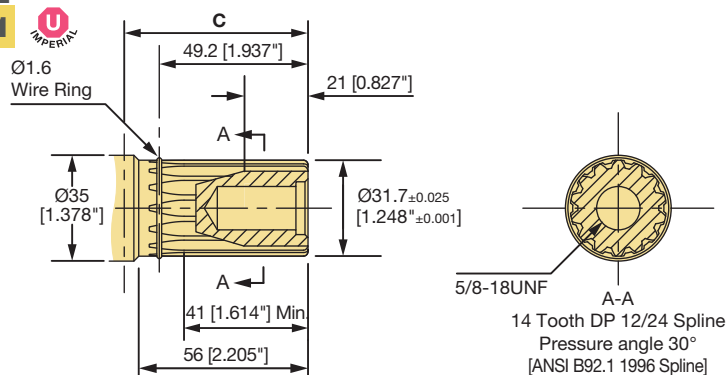


1 1/4" 14 Tooth Splined

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	131 [5.16"]



BMER-4 SHAFT EXTENSION **T4**



1 1/4" Tapered (1:8) w/ Nut

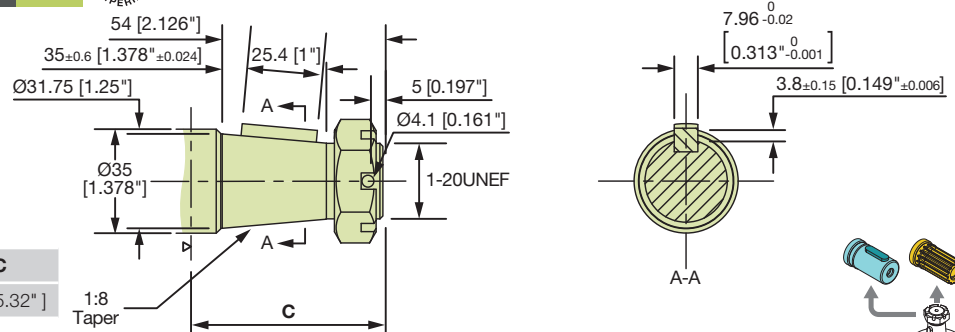
Parallel key 5/16"x5/16"x1"

Tightening Torque 200±10 Nm

Max. Torque

568 lbf.ft [770 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	135 [5.32"]



mm [inch]

Imperial Metric

ANFIELD Orbital Motor Catalog BMER Rev. E (09/02/2025)

BMER-4 SHAFT EXTENSIONS

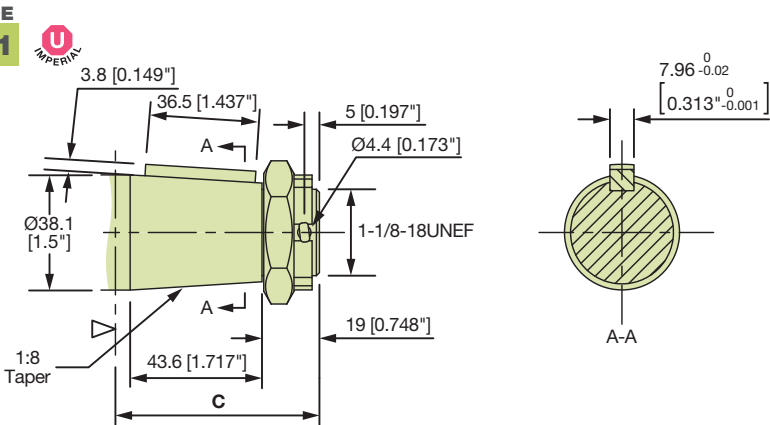
IMPORTANT:
 Ensure that the torque rating of your motor does not exceed shaft torque limitations stated below. Please refer to performance data charts.

BMER-4 SHAFT EXTENSION

-  **1 1/2" Tapered (1:8) w/ Nut**
-  Parallel key 5/16"x9/32"x1 7/16"
-  Tightening Torque 410-510 Nm

Max. Torque
 885 lbf.ft [1200 Nm]

From Mounting Surface to Shaft End	C
Wheel Mount mm [in]	142 [5.58"]



PERMISSIBLE SHAFT SEAL PRESSURES - BMER SERIES

The BMER series motors do not have a case drain and High Pressure Shaft Seal (HPS) are standard on all BMER motors, eliminating the need for case drain and offering superior seal life and performance. The BMER series high pressure shaft seal are rated to 2900 psi (200 bar), however as the speed of the shaft increases, the maximum allowable pressure on the shaft seal decreases. The shaft seal pressure equals the average of input and output pressures as shown in the example below:

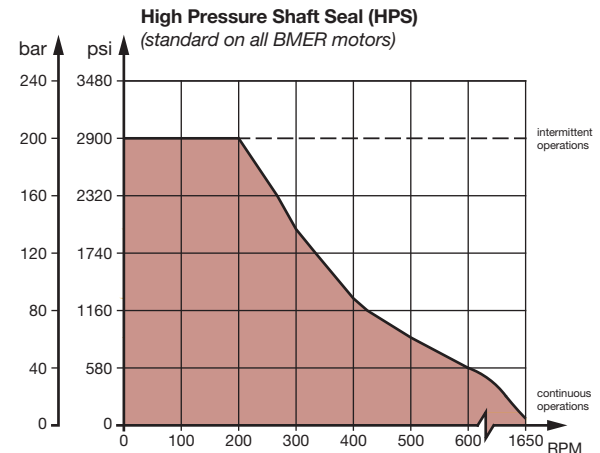
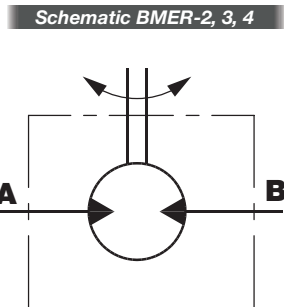
$$P_{\text{seal}} = \frac{P_{\text{input}} + P_{\text{return}}}{2}$$

Example

$$P_{\text{input}} = 2000 \text{ psi}$$

$$P_{\text{return}} = 50 \text{ psi}$$

$$P_{\text{seal}} = \frac{2000 + 50}{2} = 1025 \text{ psi}$$



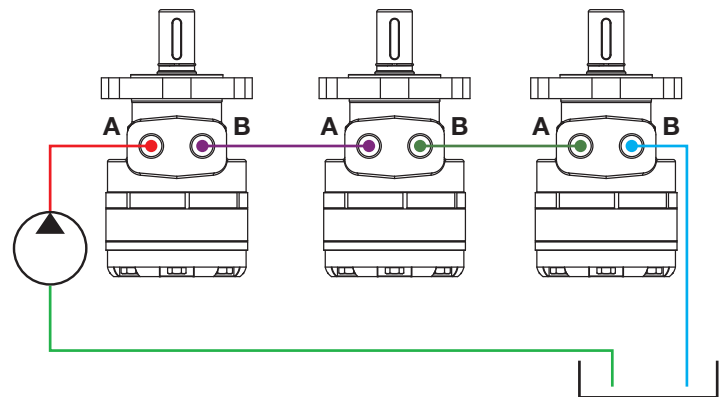
SERIES AND PARALLEL CONNECTION - BMER SERIES

Series Connection

The effective pressure in a hydraulic motor is the differential pressure (difference between inlet and outlet pressure).

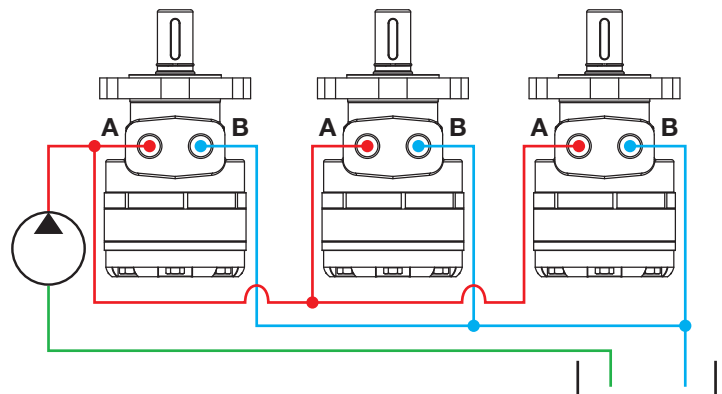
With a series connection, it should be noted that the available torque of the individual motors is reduced.

For example in the three motor setup shown here, if the inlet pressure is 2030 psi (140 bar) and the return pressure is 1450 psi (100 bar), the pressure drop (difference between inlet and outlet pressure) is 580 psi (40 bar). This means that the input pressure for the second motor is 1450 psi (100 bar), and the return pressure is 870 psi (60 bar), the differential pressure across this motor is also 580 psi (40 bar). The third motor has an inlet pressure of 870 psi (60 bar) and a return pressure of 290 psi (20 bar). The available pressure for all 3 motors is 580 psi (40 bar).



Parallel Connection

Motors connected in parallel are commonly used when high torque is required in the application. The pump flow is distributed equally between the motors connected in parallel. For example in the three motor setup shown here, if the pump flow is 15 gpm (57 lpm), each motor will receive 5 gpm (19 lpm). This means that each individual hydraulic motor rotates two-thirds slower than when only one motor is used. However all motor inlets see the same pressure in a parallel circuit. So if the inlet pressure is 1600 psi (110 bar) and the return pressure is 290 psi (20 bar), the pressure drop (difference between inlet and outlet pressure) is 1300 psi (90 bar). This 1300 psi will be the effective pressure for that motor in the circuit.



DIRECTION OF SHAFT ROTATION - BMER SERIES

Standard Rotation

(Viewed from Shaft End)

Port **A** Pressurized - **CW**

Port **B** Pressurized - **CCW**

Reverse Rotation

(Viewed from Shaft End)

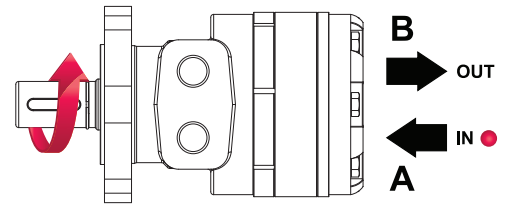
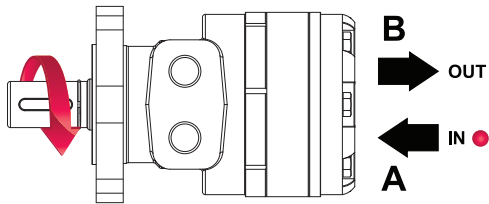
Port **A** Pressurized - **CCW**

Port **B** Pressurized - **CW**

BMER-2

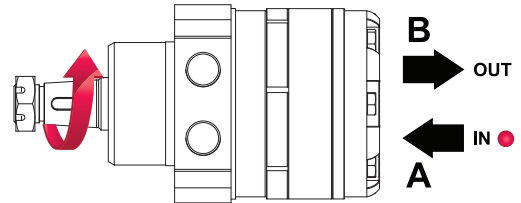
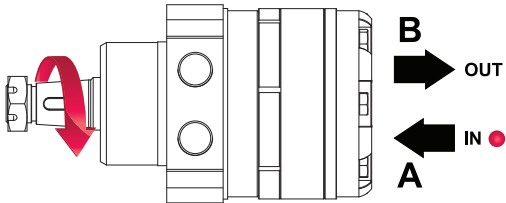
Standard Magneto Mount

MS, FS, FH



Wheel Mount

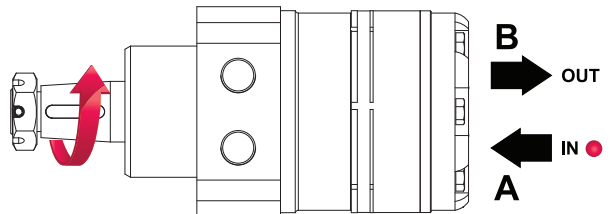
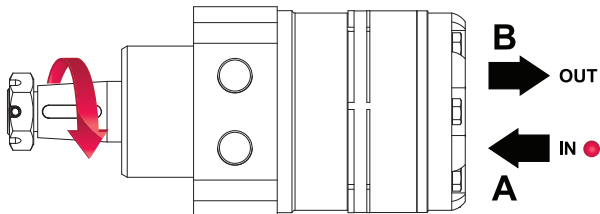
WS, TS



BMER-3

Wheel Mount

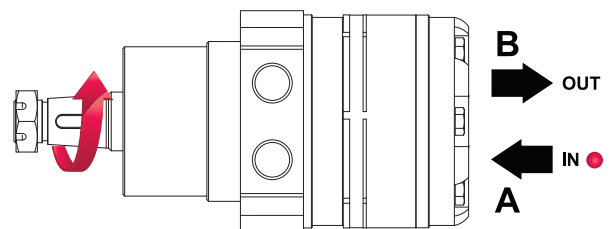
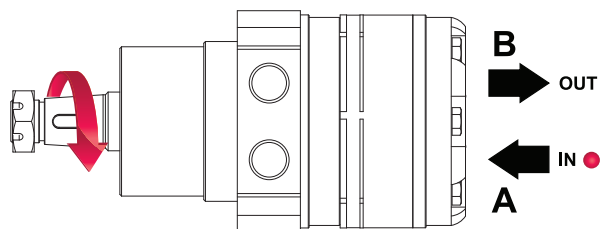
WS



BMER-4

Wheel Mount

WS

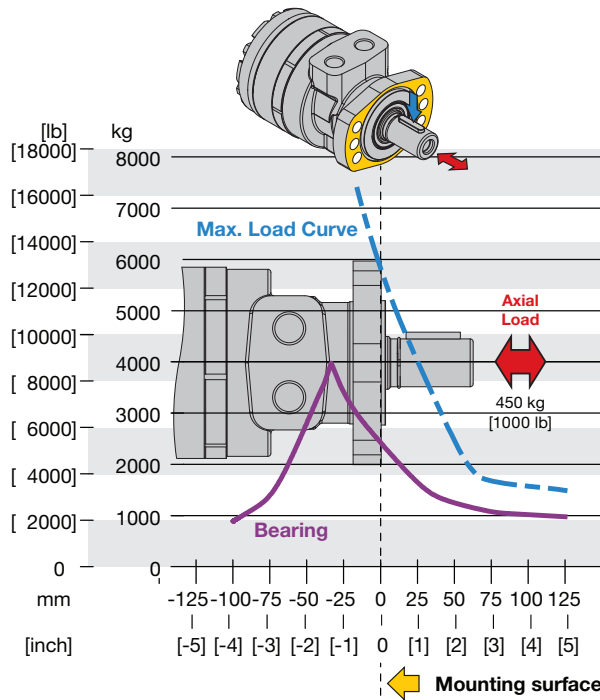


PERMISSIBLE SHAFT LOAD / BEARING CURVE FOR BMER MOTORS

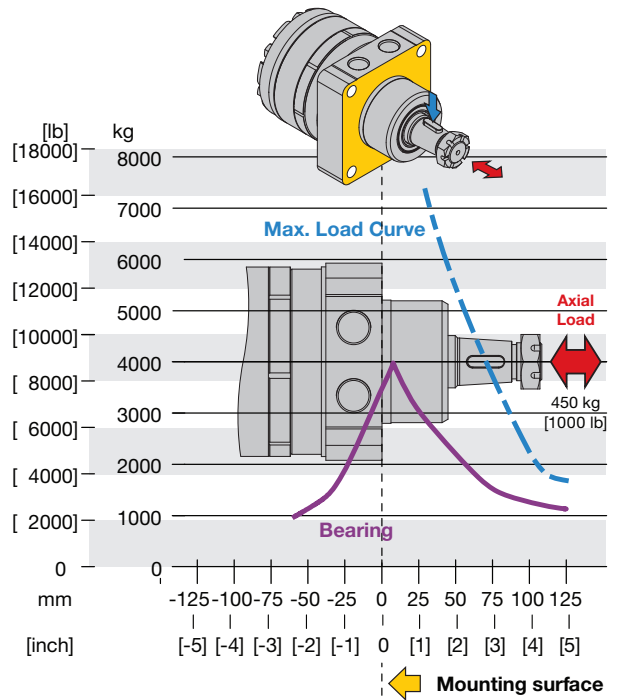
The bearing curve represents allowable bearing loads for an L10 bearing life at 12x10⁶ revolutions.

The maximum load curve is defined by bearing static load capacity. This curve should not be exceeded at any time including shock loads.

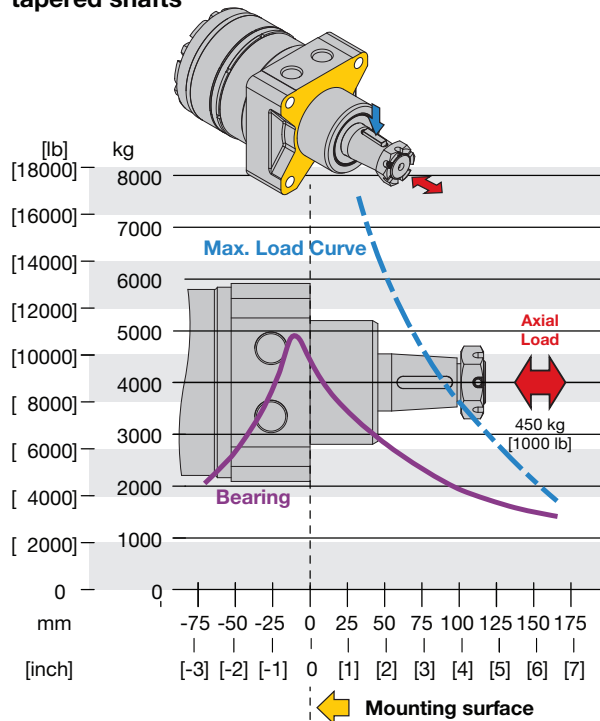
BMER-2 Standard motor (MS, FS, FH)
straight and splined shafts



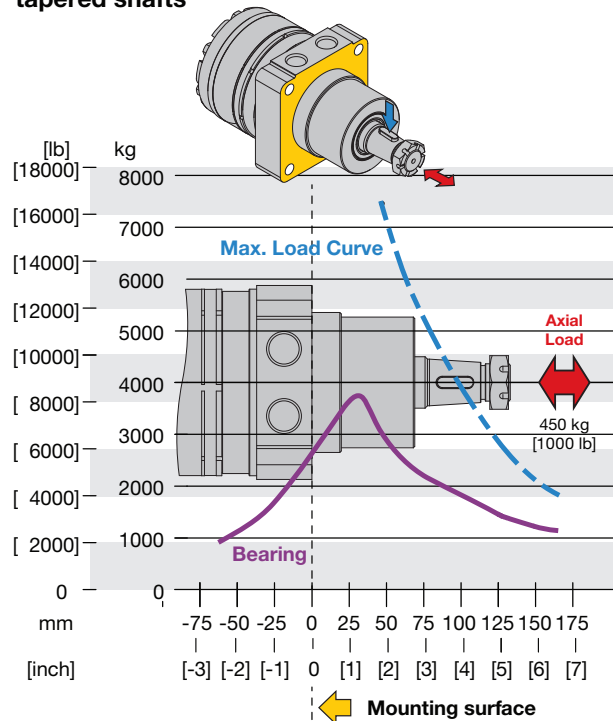
BMER-2 Wheel motor (WS)
tapered shafts



BMER-3 Wheel motor (WS)
tapered shafts



BMER-4 Wheel motor (WS)
tapered shafts



BMER-2 DESIGNATION AND ORDER CODE

BMER-2 - 350 - FS - G2 - ... - ... - HPS

1
BMER-2

2

3 4

5

6

7

9
HPS

1 Series

BMER-2	Standard Mount	Wheel Mount

2 Displacement

	cm ³ /rev	in ³ /rev
125	118	7.20
160	156	9.52
200	196	11.96
230	228	13.91
250	257	15.68
300	296	18.06
350	345	21.05
375	371	22.64
400	405	24.71
475	462	28.19
540	540	32.95
650	647	39.48
750	745	45.46

8 Shaft Seal Version

HPS	High Pressure Shaft Seal
------------	--------------------------

7 Options

Omit	None
------	------

*Contact Anfield if option required is not listed.

6 Rotation

Omit	Standard Rotation
R	Reverse Rotation

*Page 33 for rotation details.

5 Output Shaft

RW	1" Straight Keyed (1/4"x1/4"x1-1/4" key)	
G2	1 1/4" Straight Keyed (5/16"x9/32"x1-7/16" key)	
G32	1 1/2" Straight Keyed (3/8"x3/8"x1-21/32" key)	
AW	25 mm Straight Keyed (8x7x32 key)	
B1	32 mm Straight Keyed (10x8x36 key)	
SW	1" SAE 6B Splined	
FD1	1 1/4" 14 Tooth Splined	
T4	1 1/4" Tapered (1:8) (5/16"x5/16"x1" key)	
T31	1 1/2" Tapered (1:8) (5/16"x9/32"x1-7/16" key)	

*Pages 23-25 for shaft details.

3 Mounting Type

MS	4-Bolt, SAE A Magneto Mount	
MP		
MD		
FS	6-Bolt, SAE A Magneto Mount	
FP		
FD		
FH		
WS	4-Bolt, Wheel Mount	
WP		
WD		
TS	4-Bolt, Wheel Mount	
TP		
TD		

4 Ports (A&B)

SAE Ports (-10)	
NTPF Ports (1/2)	
BSPP Ports (G1/2)	

Shafts for TS, TP, TD models only

G31	1 1/2" Straight Keyed (3/8"x3/8"x1-21/32" key)	
M31	35 mm Straight Keyed (11x8x45 key)	
T31	1 1/2" Tapered (1:8) (5/16"x9/32"x1-7/16" key)	

*Page 27 for G31, T31, M31 shaft details.

*Pages 18-22 for mounting and port details.

High Pressure Shaft Seal (HPS) standard on all BMER models eliminates the need for case drain and offers superior seal life and performance.

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35

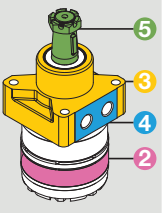
www.anfieldind.com

BMER-3 DESIGNATION AND ORDER CODE

BMER-3 - 350 - WS - T31 - ... - ... - HPS

1 **Series**

BMER-3 Wheel Mount



2 **Displacement**

	cm ³ /rev	in ³ /rev
125	118	7.20
160	156	9.52
200	196	11.96
230	228	13.91
250	257	15.68
300	296	18.06
350	345	21.05
375	371	22.64
400	405	24.71
475	462	28.19
540	540	32.95
650	647	39.48
750	745	45.46

**Pages 4-16 for performance details.*

3 **Mounting Type**

WS 4-Bolt, Wheel Mount



**Page 26 for mounting and port details.*

4 **Ports (A&B)**

SAE Ports (-10)

NTPF Ports (1/2)

BSPP Ports (G1/2)



5 **Output Shaft**

G31	1 1/2" Straight Keyed (3/8"x3/8"x1-21/32" key)	
M31	35 mm Straight Keyed (10x8x45 key)	
T31	1 1/2" Tapered (1:8) ((5/16"x9/32"x1-7/16" key)	

**Page 27 for shaft details.*

6 **Rotation**

Omit Standard Rotation

R Reverse Rotation

**Page 33 for rotation details.*

7 **Options**

Omit None

**Contact Anfield if option required is not listed.*

8 **Shaft Seal Version**

HPS High Pressure Shaft Seal

High Pressure Shaft Seal (HPS) standard on all BMER models eliminates the need for case drain and offers superior seal life and performance.

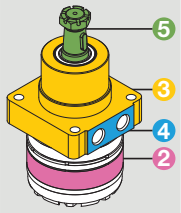
BMER-4 DESIGNATION AND ORDER CODE

BMER-4 - 350 - WS - T4 - ... - ... - HPS

1 **BMER-4**

1 Series

BMER-4 Wheel Mount



2 Displacement

	cm ³ /rev	in ³ /rev
125	118	7.20
160	156	9.52
200	196	11.96
230	228	13.91
250	257	15.68
300	296	18.06
350	345	21.05
375	371	22.64
400	405	24.71
475	462	28.19
540	540	32.95
650	647	39.48
750	745	45.46

**Pages 4-16 for performance details.*

3 **Mounting Type**

WS 4-Bolt, Wheel Mount

WP

WD



4 Ports (A&B)

SAE Ports (-10)

NTPF Ports (1/2)

BSPB Ports (G1/2)



5 Output Shaft

RW	1" Straight Keyed (1/4"x1/4"x1-1/4" key)	
G2	1 1/4" Straight Keyed (5/16"x9/32"x1-7/16" key)	
G32	1 1/2" Straight Keyed (3/8"x3/8"x1-21/32" key)	
AW	25 mm Straight Keyed (8x7x32 key)	
B1	32 mm Straight Keyed (10x8x36 key)	
SW	1" SAE 6B Splined	
FD1	1 1/4" 14 Tooth Splined	
T4	1 1/4" Tapered (1:8) (5/16"x5/16"x1" key)	
T31	1 1/2" Tapered (1:8) (5/16"x9/32"x1-7/16" key)	

**Page 29-31 for shaft details.*

6 **Rotation**

Omit Standard Rotation

R Reverse Rotation

**Page 33 for rotation details.*

7 Options

Omit None

**Contact Anfield if option required is not listed.*

8 Shaft Seal Version

HPS High Pressure Shaft Seal

**Page 28 for mounting and port details.*

High Pressure Shaft Seal (HPS) standard on all BMER models eliminates the need for case drain and offers superior seal life and performance.

BMER-2 Seal Kit

Item No.	Description	BMER w/ shaft Ø35	BMER w/ shaft Ø38.1	Qty /motor
1	Dust Seal	35 x 57 x 6.5	38.1 x 62 x 5.5	1
5	O-ring (OD x W)	Ø92.7 x 1.8		2
6	High Pressure Shaft Seal	35 x 48 x 4.8	38.1 x 50 x 4.3	1
15	Special Profile Seal (Stator Seal) (OD x L ₁ x L ₂)	Ø95.5 x 1.2 x 2		2

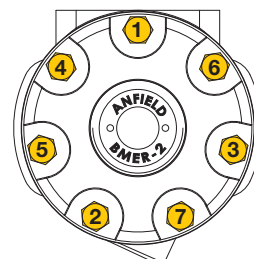
SEAL KIT BMER-MS0011-HPS 35MM

SEAL KIT BMER-MS0012-HPS 38.1MM

For BMER-2 motors Shaft Codes G32 & T32
For BMER-3 motors Shaft Codes G31, M31 & T31



Pre-torque bolts (19) to 10 ft. lb. [13.6 Nm].
Using the bolt pattern shown below,
final torque the bolts to
48-55 ft. lb. [65-75 Nm]



ASSEMBLY DIAGRAM - BMER-3 SERIES

BMER-3 Seal Kit

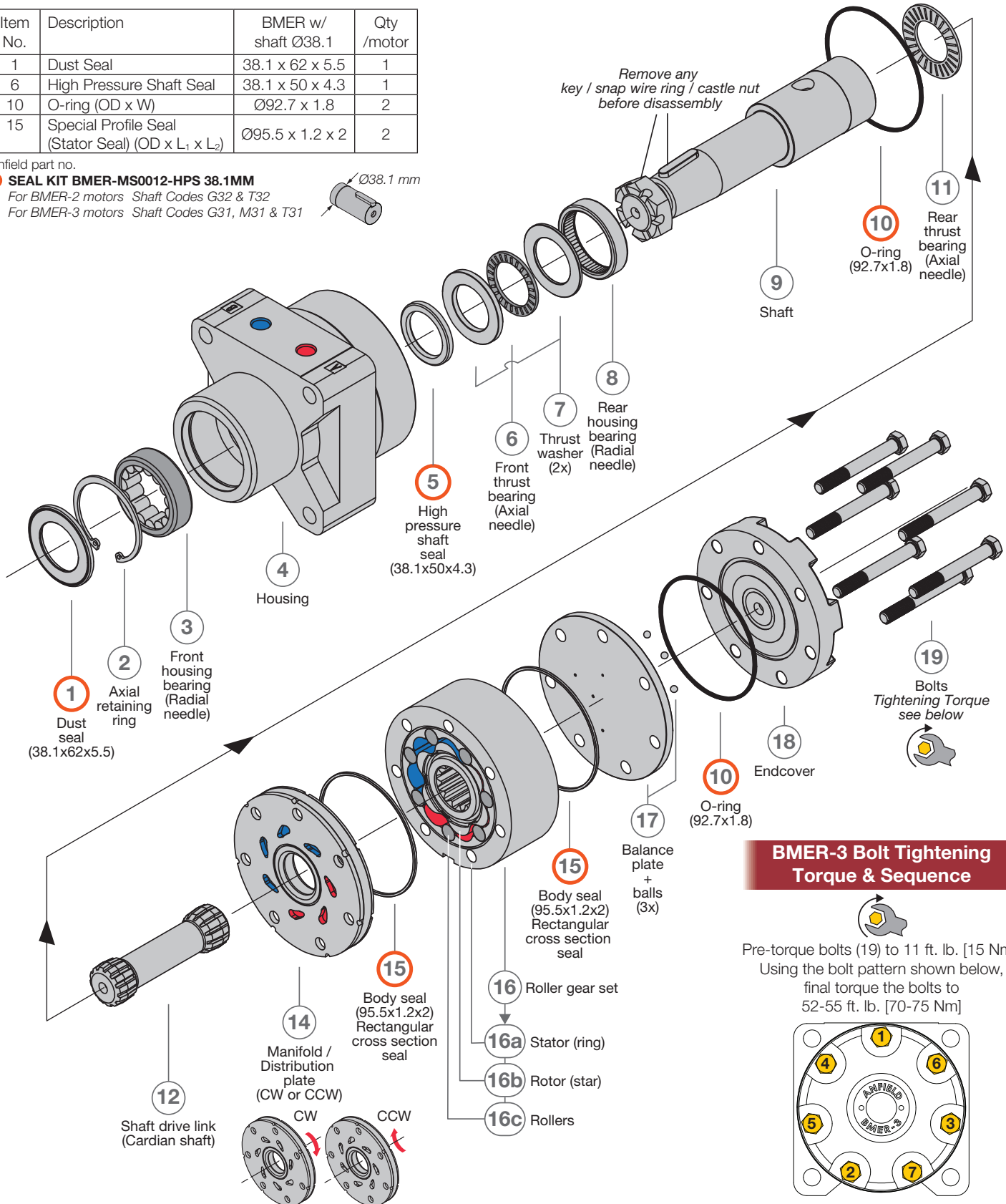
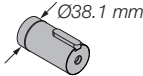
Item No.	Description	BMER w/ shaft Ø38.1	Qty /motor
1	Dust Seal	38.1 x 62 x 5.5	1
6	High Pressure Shaft Seal	38.1 x 50 x 4.3	1
10	O-ring (OD x W)	Ø92.7 x 1.8	2
15	Special Profile Seal (Stator Seal) (OD x L ₁ x L ₂)	Ø95.5 x 1.2 x 2	2

Anfield part no.

SEAL KIT BMER-MS0012-HPS 38.1MM

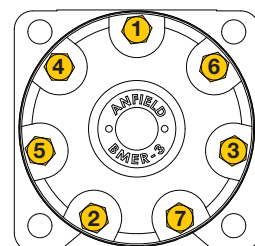
For BMER-2 motors Shaft Codes G32 & T32

For BMER-3 motors Shaft Codes G31, M31 & T31



BMER-3 Bolt Tightening Torque & Sequence

Pre-torque bolts (19) to 11 ft. lb. [15 Nm].
Using the bolt pattern shown below,
final torque the bolts to
52-55 ft. lb. [70-75 Nm]



ASSEMBLY DIAGRAM - BMER-4 SERIES

BMER-4 Seal Kit

Item No.	Description	BMER w/ shaft Ø35	BMER w/ shaft Ø38.1	Qty /motor
1	Dust Seal	35 x 57 x 6.5	38.1 x 62 x 5.5	1
5	High Pressure Shaft Seal	35 x 48 x 4.8	38.1 x 50 x 4.3	1
9	O-ring (OD x W)	Ø92.7 x 1.8		2
16	Special Profile Seal (Stator Seal) (OD x L ₁ x L ₂)	Ø95.5 x 1.2 x 2		2

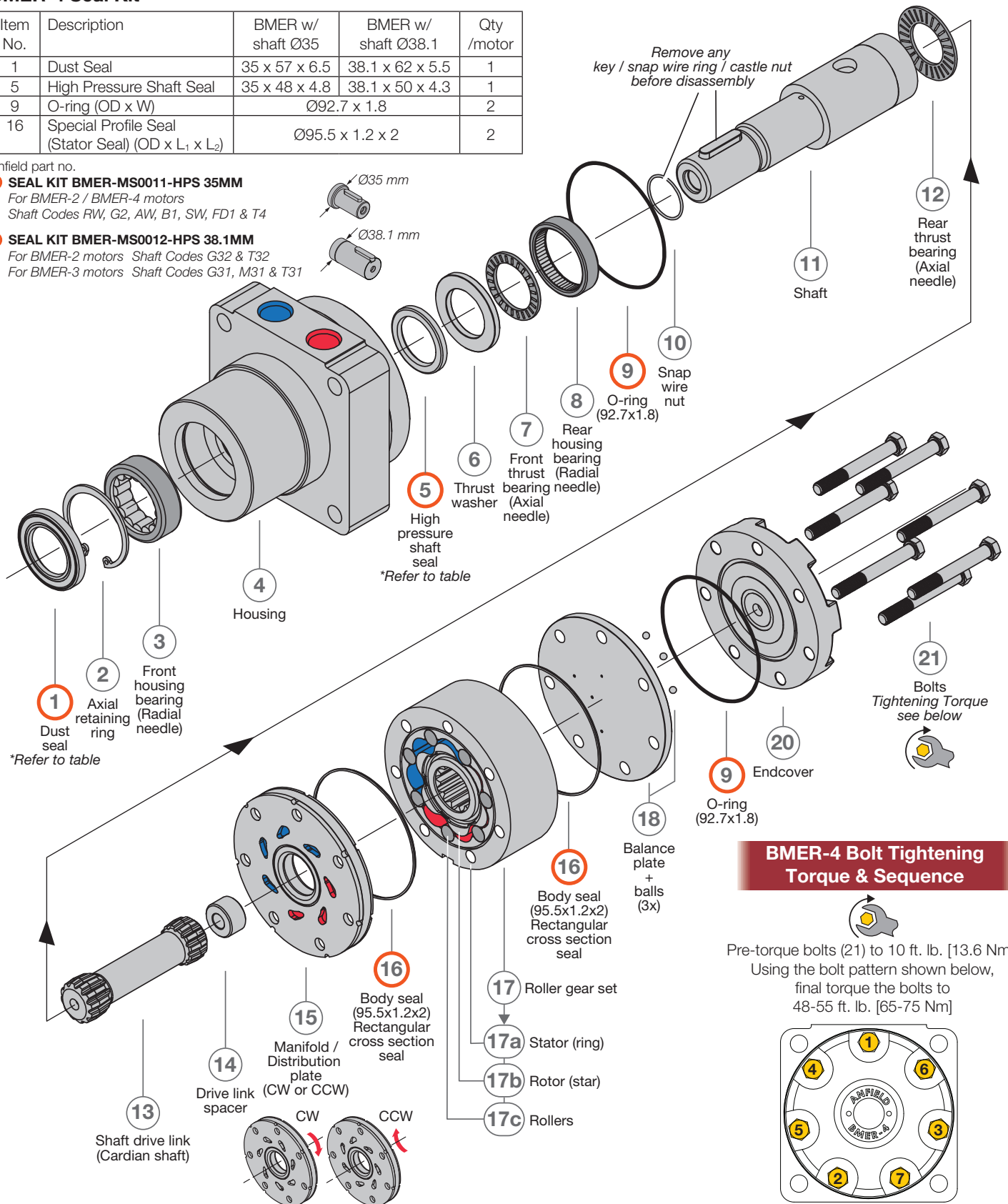
Anfield part no.

SEAL KIT BMER-MS0011-HPS 35MM

For BMER-2 / BMER-4 motors
Shaft Codes RW, G2, AW, B1, SW, FD1 & T4

SEAL KIT BMER-MS0012-HPS 38.1MM

For BMER-2 motors Shaft Codes G32 & T32
For BMER-3 motors Shaft Codes G31, M31 & T31



Strength in Products, Strength in Service

- Pressure Switches
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- Differential Switches
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- Vane Motors
- Gear Motors
- Monoblock Valves
- High Pressure Ball Valves
- Flow Controls & Needle Valves
- Drive Couplings
- Flanges
- Gauges
- Test Points

ANFIELD Orbital Motor Catalog BMER Rev. E (09/02/2025)



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