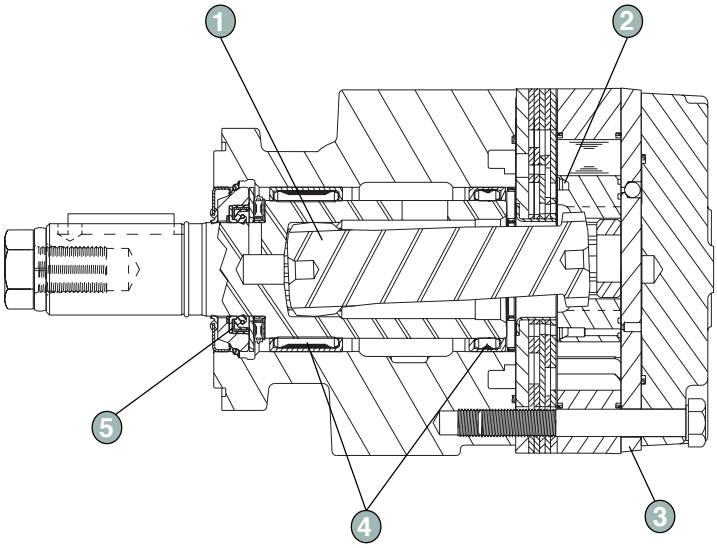
FEATURES



1. **Heavy-Duty Drive Link** is the most durable in its class and receives full flow lubrication to provide long life.
2. **Valve-In-Rotor Design** provides cost effective, efficient distribution of oil and reduces overall motor length.
3. **Pressure-Compensated Balance Plate** improves volumetric efficiency at low flows and high pressure.
4. **Three Bearing Options** allow load carrying capability of motor to be matched to application.
5. **High Pressure Viton® Shaft Seal** offers superior seal life and performance and eliminates need for case drain.

RE Series motors offer the perfect compromise between price and performance by producing work horse power at a reasonable cost. Although these motors perform well in a wide range of applications, they are especially suited for low flow, high pressure applications. During startup, pressure causes the balance plate to flex toward the rotor, vastly 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 the most durable drive link in its class. Four bearing options, combined with standard mounting flanges and output shafts, allow the motor to be configured to suit nearly any application.

SPECIFICATIONS

Code	Displacement (in³/rev)	Max. Speed (RPM) - 1)Cont 2)Inter.		Max. Flow (GPM) - 1)Cont 2)Inter.		Max. Torque (lb-in) - 1)Cont 2)Inter.		Max. Pressure (PSI) - 1)Cont 2)Inter. 3)Peak		
		1	2	1	2	1	2	1	2	3
120	7.4	360	490	12	16	2900	3400	3000	3500	4000
160	9.9	370	470	16	20	4200	4800	3000	3500	4000
200	12.4	300	370	18	22	4800	5600	3000	3500	4000
230	14.2	260	320	18	22	5700	6300	3000	3500	4000
260	15.9	260	350	20	24	6300	7000	3000	3500	4000
300	18.3	250	320	22	25	7300	8300	3000	3500	4000
350	21.2	220	270	22	25	8150	9250	3000	3500	4000
375	22.8	200	250	20	24	8900	10250	3000	3500	4000
470	28.3	160	200	20	24	9700	10475	2500	2750	3000
540	32.7	140	170	20	24	8700	11000	2000	2500	3000
750	45.6	100	130	20	24	9400	10950	1500	1750	2000

PERFORMANCE

120 *7.4 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	187 (21) **14**	448 (51) **13**	859 (97) **11**	1239 (140) **8**					16
1 (4)	215 (24) **26**	474 (54) **25**	986 (111) **25**	1429 (162) **20**	1991 (225) **13**				32
2 (8)		500 (57) **58**	1043 (118) **53**	1554 (176) **51**	1997 (226) **44**	2400 (271) **40**	2673 (302) **35**	3036 (343) **27**	63
4 (15)		479 (54) **111**	1030 (116) **106**	1642 (186) **97**	2094 (237) **93**	2459 (278) **89**	2964 (335) **85**	3179 (359) **79**	125
6 (23)		433 (49) **174**	1023 (116) **167**	1483 (168) **155**	2051 (232) **150**	2467 (279) **144**	2903 (328) **139**	3185 (360) **137**	188
8 (30)			984 (111) **245**	1497 (169) **214**	1973 (223) **205**	2505 (283) **200**	2884 (326) **197**	3404 (385) **188**	250
10 (38)			923 (104) **294**	1469 (166) **281**	1930 (218) **269**	2411 (272) **261**	2878 (325) **250**	3404 (385) **242**	313
Max. Cont. 12 (45)			872 (99) **358**	1428 (161) **344**	1918 (217) **331**	2444 (276) **326**	2839 (321) **321**	3403 (385) **304**	375
14 (53)			807 (91) **415**	1372 (155) **413**	1845 (208) **398**	2363 (267) **391**	2992 (338) **369**		438
Max. Inter. 16 (61)			745 (84) **487**	1283 (145) **475**	1864 (211) **457**	2403 (272) **447**	2897 (327) **427**		500
Theo. Torque	295 (33)	589 (67)	1178 (133)	1768 (200)	2357 (266)	2946 (333)	3535 (399)	4124 (466)	

Areas within white represent maximum motor efficiencies.

DO NOT operate at maximum pressure and maximum flow simultaneously.

Torque, lb-in (Nm)
Speed, RPM

160 *9.9 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	326 (37) **7**	685 (77) **3**	1323 (149) **3**	1977 (223) **3**	2741 (310) **2**	3088 (349) **1**			12
1 (4)	264 (30) **21**	704 (80) **18**	1448 (164) **17**	2158 (244) **16**	2865 (324) **14**	3344 (378) **13**	3909 (442) **9**		24
2 (8)	317 (36) **45**	711 (80) **43**	1423 (161) **41**	2143 (242) **39**	2792 (316) **37**	3350 (379) **35**	4258 (481) **32**	4880 (551) **28**	47
4 (15)	342 (39) **92**	664 (75) **90**	1510 (171) **86**	2241 (253) **84**	2838 (321) **82**	3351 (379) **80**	3992 (451) **76**	4569 (516) **72**	94
6 (23)		631 (71) **138**	1395 (158) **134**	2078 (235) **131**	2806 (317) **127**	3447 (389) **122**	4088 (462) **121**	4586 (518) **118**	140
8 (30)		596 (67) **186**	1449 (164) **182**	2090 (236) **179**	2760 (312) **173**	3411 (385) **170**	4033 (456) **167**	4537 (513) **163**	187
10 (38)		640 (72) **232**	1323 (149) **230**	2074 (234) **229**	2736 (309) **222**	3329 (376) **220**	4022 (455) **213**	4623 (522) **207**	234
12 (45)		596 (67) **279**	1275 (144) **279**	1998 (226) **272**	2689 (304) **270**	3270 (369) **264**	3890 (440) **255**	4397 (497) **247**	280
14 (53)			1190 (135) **326**	2022 (228) **323**	2739 (310) **317**	3317 (375) **311**	4040 (457) **304**	4789 (541) **299**	327
Max. Cont. 16 (61)			1087 (123) **372**	1889 (213) **372**	2634 (298) **364**	3253 (368) **361**	3847 (435) **357**	4439 (502) **350**	374
18 (68)			952 (108) **419**	1764 (199) **417**	2501 (283) **416**	3201 (362) **407**	3708 (419) **401**		420
Max. Inter. 20 (76)			929 (105) **466**	1726 (195) **465**	2476 (280) **462**	3092 (349) **453**	4008 (453) **443**		467
Theo. Torque	394 (45)	788 (89)	1576 (178)	2365 (267)	3153 (356)	3941 (445)	4729 (534)	5518 (623)	

Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

200 *12.4 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	358 (40) **7**	808 (91) **4**	1181 (133) **4**	2602 (294) **4**	3323 (375) **3**				10
1 (4)	376 (43) **16**	753 (85) **13**	1769 (200) **12**	2442 (276) **11**	3304 (373) **10**	3915 (442) **9**	4656 (526) **6**		19
2 (8)	385 (44) **34**	821 (93) **31**	1727 (195) **29**	2646 (299) **27**	3311 (374) **27**	4079 (461) **25**	4792 (542) **23**	5451 (616) **20**	38
4 (15)	347 (39) **72**	834 (94) **69**	1752 (198) **67**	2701 (305) **63**	3549 (401) **60**	4222 (477) **58**	4818 (544) **55**	5568 (629) **51**	75
6 (23)		724 (82) **111**	1694 (191) **109**	2518 (284) **107**	3446 (389) **103**	4098 (463) **100**	4894 (553) **99**	5628 (636) **90**	112
8 (30)		704 (80) **148**	1661 (188) **145**	2518 (285) **141**	3556 (402) **136**	4053 (458) **134**	4802 (543) **130**	5554 (628) **124**	150
10 (38)		581 (66) **185**	1592 (180) **181**	2445 (276) **176**	3224 (364) **173**	4051 (458) **170**	4737 (535) **164**	5441 (615) **160**	187
12 (45)			1462 (165) **221**	2312 (261) **214**	3200 (362) **210**	3982 (450) **207**	4731 (535) **198**	5471 (618) **196**	224
14 (53)			1328 (150) **257**	2413 (273) **256**	3253 (368) **247**	3975 (449) **244**	4936 (558) **241**	5328 (602) **235**	261
16 (61)			1183 (134) **296**	2242 (253) **292**	2969 (335) **284**	3850 (435) **277**	4639 (524) **273**	5292 (598) **269**	299
Max. Cont. 18 (68)			1068 (121) **334**	2056 (232) **330**	3003 (339) **327**	3686 (416) **320**	4532 (512) **313**	5299 (599) **308**	336
20 (76)			970 (110) **372**	1823 (206) **372**	2725 (308) **365**	3552 (401) **357**	4484 (507) **352**		373
Max. Inter. 22 (83)				1689 (191) **407**	2520 (285) **403**	3353 (379) **397**	4303 (486) **388**		410
Theo. Torque	494 (56)	987 (112)	1975 (223)	2962 (335)	3949 (446)	4936 (558)	5924 (669)	6911 (781)	

Areas within white represent maximum motor efficiencies.

DO NOT operate at maximum pressure and maximum flow simultaneously.

Torque, lb-in (Nm)
Speed, RPM

230 *14.2 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	397 (45) **6**	813 (92) **4**	1628 (184) **3**	2590 (293) **2**	3323 (375) **1**				9
1 (4)	429 (48) **14**	890 (101) **12**	1972 (223) **11**	2793 (316) **11**	3660 (414) **9**	4366 (493) **7**	4955 (560) **4**		17
2 (8)	453 (51) **30**	926 (105) **27**	1899 (215) **25**	2911 (329) **25**	3760 (425) **23**	4637 (524) **20**	5468 (618) **17**	6286 (710) **12**	33
4 (15)	384 (43) **63**	960 (108) **59**	1851 (209) **55**	2884 (326) **54**	3846 (435) **52**	4771 (539) **47**	5799 (655) **42**	6381 (721) **39**	66
6 (23)		903 (102) **93**	1889 (213) **88**	3001 (339) **85**	3789 (428) **82**	4747 (536) **77**	5559 (628) **73**	6355 (718) **69**	98
8 (30)		789 (89) **127**	1830 (207) **122**	2793 (316) **120**	3762 (425) **115**	4612 (521) **110**	5653 (639) **107**	6341 (717) **98**	131
10 (38)		690 (78) **161**	1750 (198) **157**	2752 (311) **151**	3856 (436) **148**	4660 (527) **143**	5420 (612) **140**	6218 (703) **132**	163
12 (45)			1669 (189) **191**	2624 (296) **186**	3764 (425) **182**	4517 (510) **176**	5304 (599) **170**	6098 (689) **163**	196
14 (53)			1565 (177) **224**	2596 (293) **216**	3434 (388) **214**	4384 (495) **208**	5197 (587) **205**	6017 (680) **198**	228
16 (61)			1326 (150) **256**	2408 (272) **255**	3509 (397) **249**	4280 (484) **245**	5077 (574) **237**	5925 (669) **227**	261
Max. Cont. 18 (68)			1261 (142) **292**	2333 (264) **286**	3140 (355) **282**	4366 (493) **276**	5032 (569) **274**	5799 (655) **259**	293
20 (76)			1083 (122) **324**	2096 (237) **321**	3068 (347) **316**	4009 (453) **309**	5057 (571) **305**		326
Max. Inter. 22 (83)				1855 (210) **357**	2987 (338) **351**	4104 (464) **345**	4864 (550) **339**		358
Theo. Torque	565 (64)	1131 (128)	2261 (256)	3392 (383)	4522 (511)	5653 (639)	6783 (767)	7914 (894)	

Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

PERFORMANCE

260 *15.9 in^3/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	432 (49) **5**	989 (112) **2**							8
1 (4)	475 (54) **12**	998 (113) **11**	2125 (240) **10**	3230 (365) **9**	4227 (478) **8**	5112 (578) **7**	5736 (648) **5**		15
2 (8)	474 (54) **27**	1021 (115) **25**	2184 (247) **24**	3244 (367) **22**	4318 (488) **21**	5230 (591) **19**	6223 (703) **16**		30
4 (15)	429 (49) **57**	1010 (114) **55**	2307 (261) **51**	3214 (363) **51**	4300 (486) **48**	5268 (595) **46**	6171 (697) **43**	7143 (807) **39**	59
6 (23)	397 (45) **86**	1016 (115) **83**	2090 (236) **80**	3221 (364) **78**	4398 (497) **76**	5225 (590) **71**	6379 (721) **68**	7096 (802) **63**	88
8 (30)		833 (94) **114**	2008 (227) **109**	3078 (348) **109**	4224 (477) **105**	5239 (592) **101**	6128 (692) **96**	7027 (794) **88**	117
10 (38)		752 (85) **145**	2044 (231) **144**	3013 (340) **141**	4155 (470) **138**	5180 (585) **133**	6063 (685) **127**	7048 (796) **119**	146
12 (45)		692 (78) **173**	1919 (217) **173**	3135 (354) **168**	4108 (464) **166**	5018 (567) **161**	5945 (672) **153**	7095 (802) **144**	175
14 (53)		563 (64) **202**	1754 (198) **202**	2886 (326) **200**	3941 (445) **196**	5026 (568) **184**	5908 (668) **181**	6771 (765) **176**	204
16 (61)			1608 (182) **231**	2644 (299) **229**	3965 (448) **221**	4884 (552) **219**	5763 (651) **216**	6659 (752) **209**	233
18 (68)			1417 (160) **261**	2693 (304) **261**	3690 (417) **256**	4870 (550) **247**	5689 (643) **240**	6551 (740) **232**	262
Max. Cont. 20 (76)			1204 (136) **290**	2460 (278) **289**	3464 (391) **285**	4614 (521) **277**	5628 (636) **274**	6516 (736) **263**	291
22 (83)			1168 (132) **319**	2325 (263) **319**	3314 (374) **315**	4535 (512) **311**	5442 (615) **301**		320
Max. Inter. 24 (91)			722 (82) **348**	2009 (227) **347**	3190 (361) **345**	4386 (496) **340**			349
Theo. Torque	633 (72)	1266 (143)	2532 (286)	3798 (429)	5064 (572)	6330 (715)	7596 (858)	8861 (1001)	

300 *18.3 in^3/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	452 (51) **3**	839 (95) **1**							7
1 (4)	557 (63) **11**	1282 (145) **10**	2675 (302) **9**	3829 (433) **8**	4513 (510) **7**	5552 (627) **4**			13
2 (8)	551 (62) **22**	1400 (158) **20**	2722 (308) **19**	3866 (437) **19**	5056 (571) **16**	6011 (679) **13**	6796 (768) **9**	7346 (830) **5**	26
4 (15)	588 (66) **48**	1281 (145) **47**	2793 (316) **45**	3805 (430) **43**	5107 (577) **38**	6015 (680) **33**	7258 (820) **28**	8040 (908) **21**	51
6 (23)	511 (58) **75**	1241 (140) **75**	2566 (290) **72**	3755 (424) **69**	4830 (546) **65**	6105 (690) **57**	7088 (801) **49**	8372 (946) **40**	76
8 (30)	405 (46) **100**	1136 (128) **100**	2699 (305) **99**	3460 (391) **96**	5056 (571) **87**	6199 (700) **82**	7313 (826) **71**	8233 (930) **62**	101
10 (38)		981 (111) **125**	2493 (282) **124**	3623 (409) **121**	4447 (503) **115**	6043 (683) **106**	7028 (794) **98**	8131 (919) **88**	127
12 (45)		814 (92) **150**	2313 (261) **150**	3435 (388) **148**	4177 (472) **143**	5676 (641) **133**	6927 (783) **122**	7794 (881) **113**	152
14 (53)		684 (77) **176**	2165 (245) **175**	3464 (391) **175**	4687 (530) **173**	5848 (661) **163**	7157 (809) **151**	8398 (949) **138**	177
16 (61)		553 (63) **201**	1983 (224) **201**	3243 (366) **199**	4498 (508) **192**	5599 (633) **187**	7044 (796) **173**	8103 (916) **163**	202
18 (68)			1780 (201) **225**	2999 (339) **225**	4135 (467) **222**	5898 (666) **211**	7115 (804) **199**	7955 (899) **194**	228
20 (76)			1522 (172) **251**	2895 (327) **251**	4247 (480) **247**	5410 (611) **240**	6596 (745) **232**	8051 (910) **217**	253
Max. Cont. 22 (83)			1276 (144) **277**	2836 (321) **276**	4127 (466) **269**	5084 (575) **263**	6474 (732) **254**	7611 (860) **242**	278
24 (91)			1049 (119) **302**	2483 (281) **301**	3853 (435) **300**	4943 (559) **291**	6223 (703) **280**		303
Max. Inter. 25 (95)			928 (105) **315**	2319 (262) **314**	3838 (434) **311**	4894 (553) **307**	6257 (707) **294**		316
Theo. Torque	729 (82)	1457 (165)	2914 (329)	4371 (494)	5828 (659)	7285 (823)	8742 (988)	10199 (1152)	

Areas within white represent maximum motor efficiencies.

DO NOT operate at maximum pressure and maximum flow simultaneously.

Torque, lb-in (Nm)
Speed, RPM

Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

350 *21.2 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	566 (64) **4**	1183 (134) **4**	2404 (272) **3**	3532 (399) **2**					6
1 (4)	570 (64) **10**	1189 (134) **9**	2619 (296) **8**	3869 (437) **8**					11
2 (8)	607 (69) **21**	1285 (145) **20**	2764 (312) **19**	4092 (462) **18**	5308 (600) **18**	6571 (742) **17**	7569 (855) **14**		22
4 (15)	627 (71) **42**	1340 (151) **41**	2767 (313) **40**	4169 (471) **39**	5577 (630) **37**	6834 (772) **35**	7869 (889) **34**	8785 (993) **28**	44
6 (23)	549 (62) **64**	1318 (149) **63**	2788 (315) **62**	4191 (474) **60**	5577 (630) **57**	6796 (768) **54**	8182 (925) **51**	9137 (1032) **45**	66
8 (30)	472 (53) **86**	1233 (139) **85**	2713 (307) **84**	4058 (459) **82**	5537 (626) **79**	6793 (768) **75**	8210 (928) **69**	9300 (1051) **65**	88
10 (38)		1004 (113) **108**	2639 (298) **108**	3814 (431) **108**	5317 (601) **102**	6593 (745) **100**	8056 (910) **93**	9399 (1062) **87**	109
12 (45)		869 (98) **130**	2346 (265) **129**	3936 (445) **128**	5144 (581) **125**	6552 (740) **117**	7889 (891) **109**	9237 (1044) **104**	131
14 (53)		758 (86) **152**	2226 (252) **151**	3738 (422) **150**	5044 (570) **147**	6398 (723) **139**	7794 (881) **133**	9126 (1031) **120**	153
16 (61)		560 (63) **173**	2079 (235) **173**	3619 (409) **172**	4859 (549) **170**	6375 (720) **163**	7522 (850) **155**	8952 (1012) **147**	175
18 (68)			1948 (220) **195**	3490 (394) **194**	5054 (571) **190**	6134 (693) **187**	7428 (839) **175**	8727 (986) **164**	197
20 (76)			1843 (208) **217**	3320 (375) **216**	4544 (513) **214**	6044 (683) **213**	7385 (835) **195**	8632 (975) **188**	218
Max. Cont. 22 (83)			1583 (179) **239**	3112 (352) **239**	4906 (554) **238**	6064 (685) **233**	7198 (813) **221**	8482 (958) **215**	240
24 (91)			1526 (172) **261**	3186 (360) **261**	4724 (534) **260**	5890 (666) **256**			262
Max. Inter. 25 (95)				3264 (369) **271**	4682 (529) **270**	5730 (647) **265**			273
Theo. Torque	844 (95)	1688 (191)	3376 (381)	5064 (572)	6752 (763)	8439 (954)	10127 (1144)	11815 (1335)	

Areas within white represent maximum motor efficiencies.

DO NOT operate at maximum pressure and maximum flow simultaneously.

Torque, lb-in (Nm)
Speed, RPM

375 *22.8 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	Max. Cont. 3000 (207)	Inter. 3500 (242)	Theo. RPM
0.5 (2)	674 (76) **3**								6
1 (4)	745 (84) **8**	1432 (162) **7**	2911 (329) **6**	4337 (490) **6**	5652 (639) **5**	6756 (763) **3**			11
2 (8)	724 (82) **18**	1510 (171) **17**	3196 (361) **16**	4754 (537) **16**	6095 (689) **14**	7399 (836) **12**	8449 (955) **9**		21
4 (15)	680 (77) **39**	1439 (163) **37**	3164 (358) **37**	4756 (537) **36**	6151 (695) **32**	7587 (857) **29**	8750 (989) **25**	9923 (1121) **20**	41
6 (23)	595 (67) **60**	1398 (158) **59**	3130 (354) **56**	4661 (527) **56**	6155 (695) **52**	7642 (864) **47**	8951 (1011) **40**	10334 (1168) **36**	61
8 (30)	508 (57) **80**	1321 (149) **80**	3010 (340) **78**	4512 (510) **77**	6154 (695) **71**	7476 (845) **65**	8930 (1009) **60**	10229 (1156) **51**	82
10 (38)		1187 (134) **100**	2849 (322) **99**	4383 (495) **96**	6024 (681) **93**	7399 (836) **87**	8913 (1007) **80**	10235 (1157) **71**	102
12 (45)		1013 (115) **121**	2661 (301) **120**	4249 (480) **118**	5711 (645) **113**	7159 (809) **108**	8674 (980) **98**	10098 (1141) **92**	122
14 (53)		819 (93) **141**	2475 (280) **140**	4218 (477) **138**	5602 (633) **134**	7036 (795) **128**	8402 (949) **120**	9887 (1117) **105**	142
16 (61)		646 (73) **161**	2314 (261) **161**	3797 (429) **160**	5296 (598) **155**	6817 (770) **151**	8267 (934) **141**	9605 (1085) **130**	163
18 (68)			2091 (236) **181**	3843 (434) **181**	5282 (597) **177**	6771 (765) **168**	8026 (907) **161**	9554 (1080) **150**	183
Max. Cont. 20 (76)			1851 (209) **202**	3396 (384) **201**	4969 (561) **198**	6549 (740) **191**	7764 (877) **183**	9091 (1027) **168**	203
22 (83)			1576 (178) **222**	3309 (374) **221**	4694 (530) **218**	6160 (696) **213**	7431 (840) **205**		223
Max. Inter. 24 (91)			1246 (141) **242**	2822 (319) **241**	4523 (511) **239**	5860 (662) **233**			244
Theo. Torque	908 (103)	1815 (205)	3631 (410)	5446 (615)	7261 (821)	9076 (1026)	10892 (1231)	12707 (1436)	

Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

PERFORMANCE

470 *28.3 in^3/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	Max. Cont. 2500 (173)	Peak 3000 (207)	Theo. RPM
0.5 (2)	823 (93) **2**	1635 (185) **1**						5
1 (4)	857 (97) **7**	1794 (203) **5**	3618 (409) **5**	5402 (610) **5**	7209 (815) **4**			9
2 (8)	865 (98) **15**	1845 (209) **14**	3851 (435) **13**	5836 (659) **13**	7563 (855) **12**	9071 (1025) **11**	10586 (1196) **9**	17
4 (15)	834 (94) **31**	1774 (200) **30**	3932 (444) **28**	5829 (659) **28**	7836 (886) **26**	9434 (1066) **23**	11062 (1250) **21**	33
6 (23)	759 (86) **48**	1704 (193) **47**	3880 (438) **44**	5955 (673) **44**	7715 (872) **41**	9499 (1073) **37**	11128 (1258) **32**	49
8 (30)	643 (73) **64**	1587 (179) **63**	3752 (424) **60**	5863 (663) **60**	7586 (857) **57**	9718 (1098) **50**	11317 (1279) **43**	66
10 (38)	464 (52) **81**	1455 (164) **80**	3597 (407) **78**	5550 (627) **78**	7533 (851) **75**	9444 (1067) **68**	11288 (1276) **61**	82
12 (45)		1248 (141) **97**	3350 (379) **94**	5575 (630) **93**	7363 (832) **90**	9441 (1067) **83**	11264 (1273) **76**	98
14 (53)		1006 (114) **113**	3094 (350) **112**	5133 (580) **111**	7101 (802) **108**	8964 (1013) **102**	10817 (1222) **94**	115
16 (61)		736 (83) **130**	2846 (322) **129**	4819 (545) **127**	7040 (796) **123**	8538 (965) **119**	10528 (1190) **113**	131
18 (68)		497 (56) **146**	2434 (275) **145**	4657 (526) **145**	6519 (737) **142**	8464 (956) **138**	10317 (1166) **128**	147
Max. Cont. 20 (76)			2078 (235) **162**	4239 (479) **161**	6249 (706) **158**	8117 (917) **154**	9933 (1122) **143**	164
22 (83)			1790 (202) **179**	4075 (460) **178**	5920 (669) **176**	7811 (883) **170**		180
Max. Inter. 24 (91)			1392 (157) **195**	3410 (385) **194**	5484 (620) **190**	7464 (843) **186**		196
Theo. Torque	1127 (127)	2253 (255)	4506 (509)	6760 (764)	9013 (1018)	11266 (1273)	13519 (1528)	

Areas within white represent maximum motor efficiencies.

DO NOT operate at maximum pressure and maximum flow simultaneously.

Torque, lb-in (Nm)
Speed, RPM

540 *32.7 in^3/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	1500 (104)	Max. Cont. 2000 (138)	Inter. 2500 (173)	Theo. RPM
0.5 (2)	921 (104) **2**	1748 (197) **2**					4
1 (4)	1111 (126) **6**	2031 (230) **5**	4136 (467) **5**	6183 (699) **5**	8310 (939) **5**	10165 (1149) **4**	8
2 (8)	1189 (134) **13**	2120 (240) **13**	4436 (501) **12**	6679 (755) **12**	8646 (977) **11**	10484 (1185) **10**	15
4 (15)	1058 (120) **27**	2055 (232) **27**	4510 (510) **26**	6697 (757) **26**	8740 (988) **24**	10827 (1223) **23**	29
6 (23)	859 (97) **41**	1984 (224) **41**	4469 (505) **40**	6930 (783) **40**	8787 (993) **38**	10838 (1225) **34**	43
8 (30)	692 (78) **56**	1887 (213) **56**	4285 (484) **55**	6635 (750) **54**	8698 (983) **53**	11075 (1251) **48**	57
10 (38)	523 (59) **70**	1678 (190) **70**	4026 (455) **69**	6445 (728) **69**	8487 (959) **67**	11008 (1244) **62**	71
12 (45)		1554 (176) **84**	3879 (438) **83**	6360 (719) **83**	8360 (945) **80**	10646 (1203) **77**	85
14 (53)		1233 (139) **98**	3703 (418) **97**	6035 (682) **96**	8421 (952) **94**	10467 (1183) **91**	99
16 (61)		963 (109) **112**	3407 (385) **111**	5908 (668) **111**	7957 (899) **110**	10290 (1163) **105**	114
18 (68)		736 (83) **126**	3154 (356) **126**	5417 (612) **125**	7694 (869) **124**	9876 (1116) **123**	128
Max. Cont. 20 (76)			2861 (323) **140**	5333 (603) **139**	7335 (829) **138**	9816 (1109) **134**	142
22 (83)			2629 (297) **154**	4753 (537) **153**	7011 (792) **152**		156
Max. Inter. 24 (91)			1905 (215) **169**	4349 (491) **168**	6639 (750) **168**		170
Theo. Torque	1302 (147)	2604 (294)	5207 (588)	7811 (883)	10414 (1177)	13018 (1471)	

Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

PERFORMANCE

750 *45.6 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	1000 (69)	Max. Cont. 1500 (104)	Peak 2000 (138)	Theo. RPM
0.5 (2)	1299 (147) **2**	2487 (281) **1**				3
1 (4)	1379 (156) **4**	2852 (322) **4**	5768 (652) **4**	8554 (967) **3**	11571 (1308) **3**	5
2 (8)	1403 (158) **9**	3003 (339) **9**	6134 (693) **9**	9088 (1027) **8**	12033 (1360) **7**	11
4 (15)	1350 (153) **19**	2933 (331) **19**	6241 (705) **19**	9419 (1064) **18**	12534 (1416) **16**	21
6 (23)	1194 (135) **29**	2840 (321) **29**	6166 (697) **28**	9373 (1059) **28**	12462 (1408) **26**	31
8 (30)	1008 (114) **40**	2690 (304) **40**	6002 (678) **39**	9197 (1039) **38**	12573 (1421) **34**	41
10 (38)	722 (82) **50**	2395 (271) **49**	5733 (648) **49**	8980 (1015) **48**	12130 (1371) **47**	51
12 (45)	477 (54) **60**	2207 (249) **60**	5452 (616) **59**	8699 (983) **59**	11902 (1345) **56**	61
14 (53)		1739 (197) **70**	5104 (577) **69**	8372 (946) **68**	11600 (1311) **67**	71
16 (61)		1325 (150) **80**	4718 (533) **79**	8008 (905) **78**	11249 (1271) **76**	82
18 (68)		927 (105) **90**	4374 (494) **90**	7614 (860) **89**	10843 (1225) **88**	92
Max. Cont. 20 (76)		552 (62) **100**	3741 (423) **100**	7123 (805) **99**	10385 (1173) **98**	102
22 (83)			3404 (385) **110**	6608 (747) **110**		112
Max. Inter. 24 (91)			2669 (302) **121**	5932 (670) **120**		122
Theo. Torque	1815 (205)	3631 (410)	7261 (821)	10892 (1231)	14522 (1641)	

Torque, lb-in (Nm)
Speed, RPM

Areas within white represent maximum motor efficiencies.

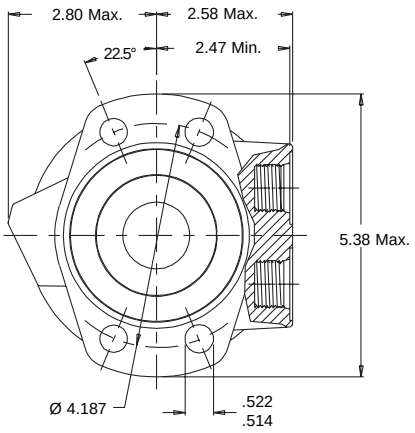
DO NOT operate at maximum pressure and maximum flow simultaneously.

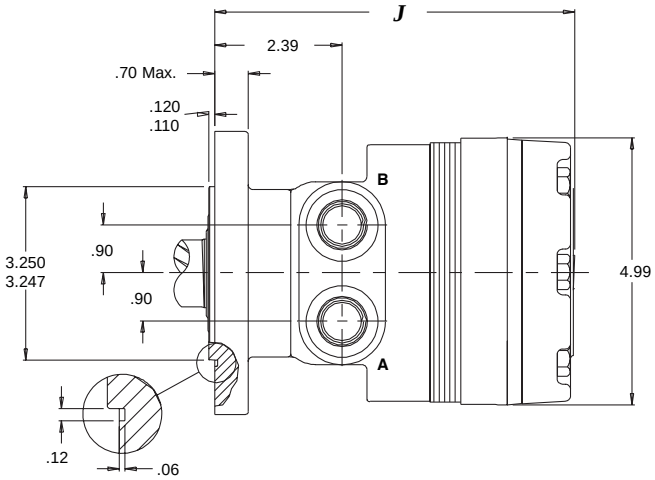
Tested at 129°F with an oil viscosity of 213 SUS

Note: Performance data is typical. Performance of production units varies slightly from one motor to another.

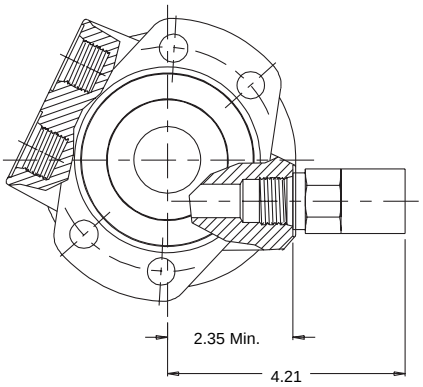
HOUSINGS
SAE A FLANGE

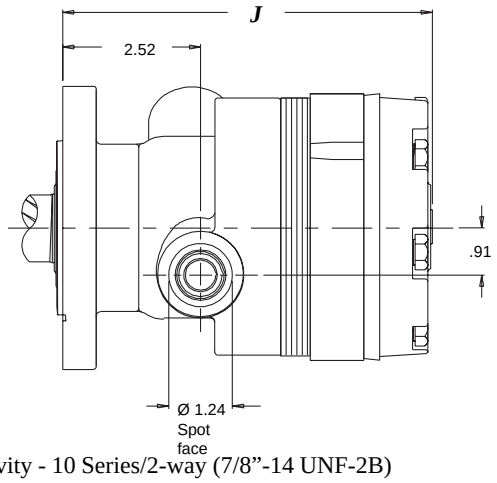
A31 *4-Hole Front Aligned Ports 7/8" O-Ring*
A38 *4-Hole Front Aligned Ports 1/2" BSP.F*





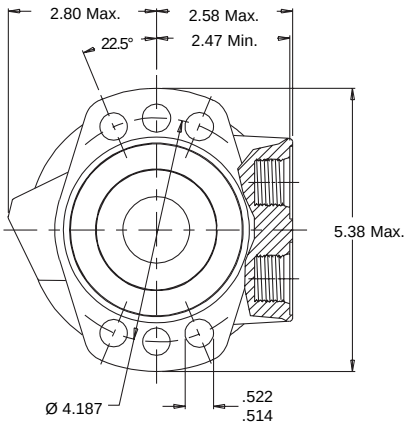
Optional Relief Cartridge shown installed and is available for both the A31 and A38 housings.

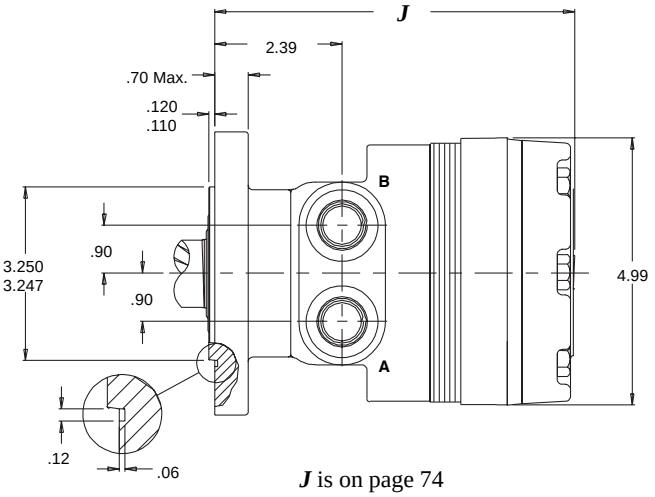




Valve Cavity - 10 Series/2-way (7/8"-14 UNF-2B)

A51 *6-Hole Front Aligned Ports 7/8" O-Ring*
A58 *6-Hole Front Aligned Ports 1/2" BSP.F*



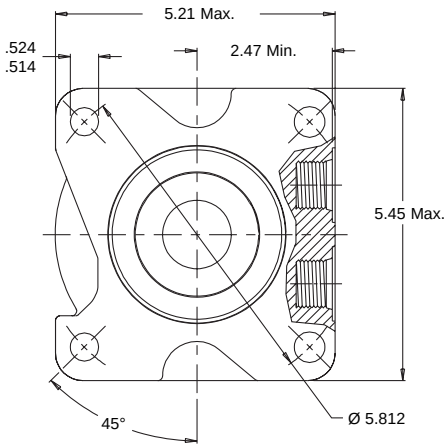


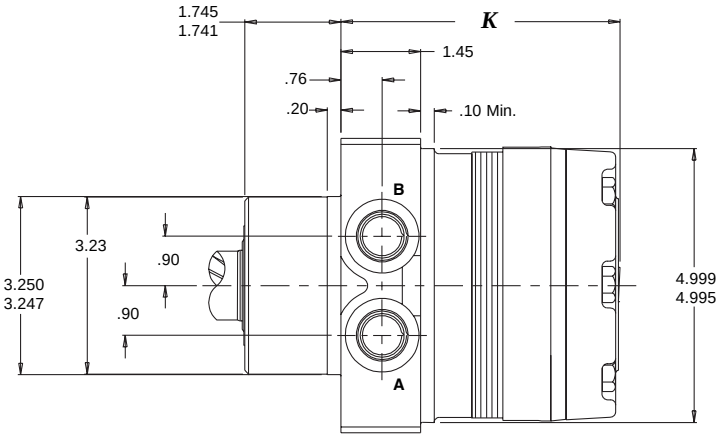
J is on page 74

WHEEL MOUNT

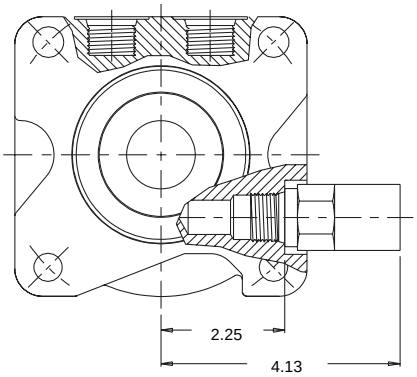
W31 *4-Hole Front Aligned Ports 7/8” O-Ring*

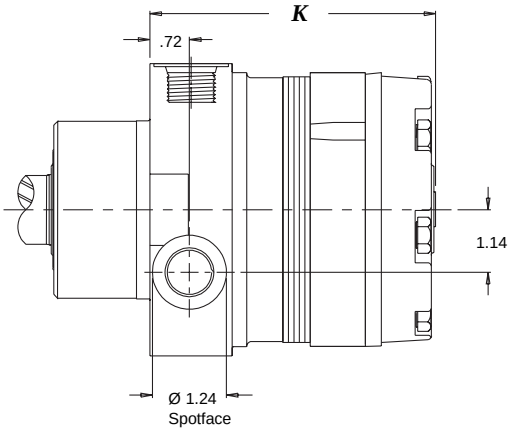
W38 *4-Hole Front Aligned Ports 1/2” BSP.F*





Optional Relief Cartridge shown installed and is available for both the W31 and W38 housings.





Valve Cavity - 10 Series/2-way (7/8”-14 UNF-2B)

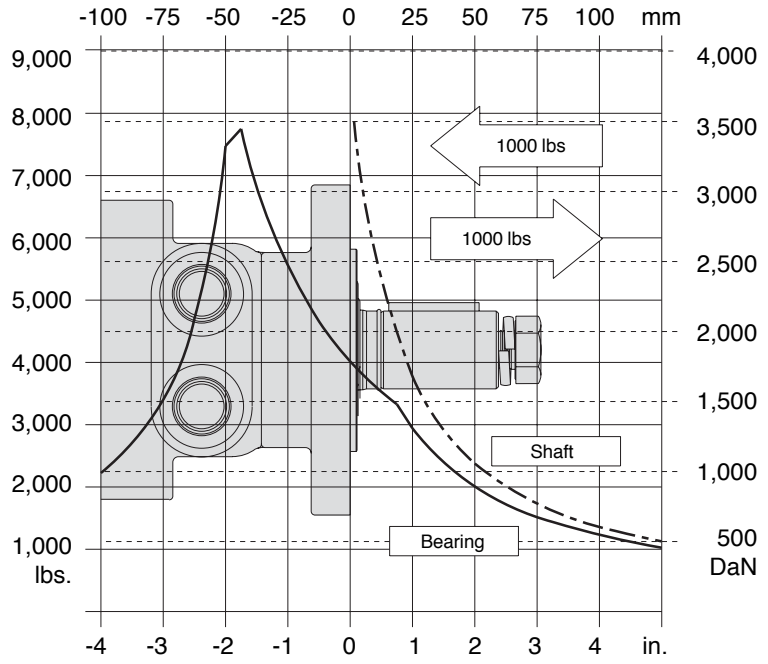
K is on page 74

TECHNICAL

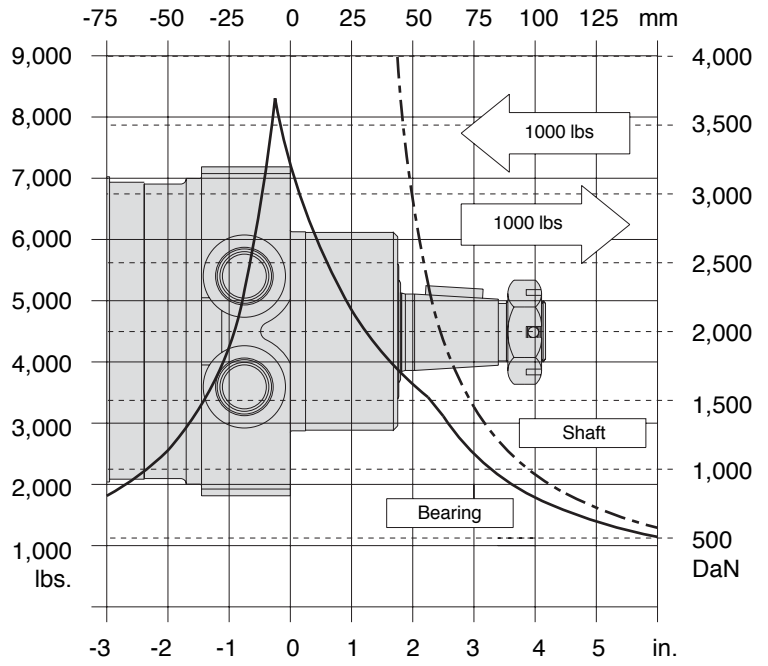
ALLOWABLE BEARING AND SHAFT LOADS

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2,000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 24.

SAE A FLANGE



WHEEL MOUNT



LENGTH AND WEIGHT TABLES

SAE A Flange

Code	J in	Weight lbs
120	6.37	23.4
160	6.37	23.4
200	6.51	24.2
230	6.61	24.4
260	6.70	25.0
300	6.83	25.8
350	7.38	28.2
375	7.08	27.0
470	7.38	28.2
540	7.62	29.4
750	8.33	32.5

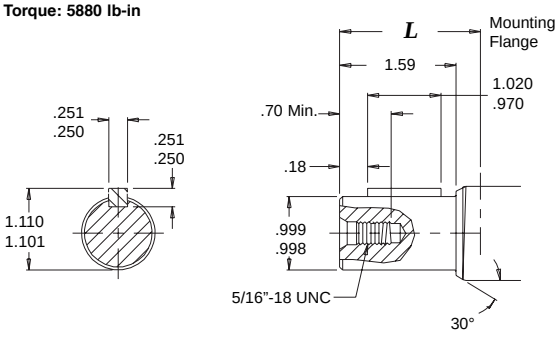
Wheel Mount

Code	K in	Weight lbs
120	4.72	25.8
160	4.72	25.8
200	4.86	26.6
230	4.95	26.8
260	5.05	27.4
300	5.18	28.2
350	5.73	30.6
375	5.43	29.4
470	5.73	30.6
540	5.97	31.8
750	6.68	34.9

RE motor weights vary ± 1 lb depending upon motor configuration.

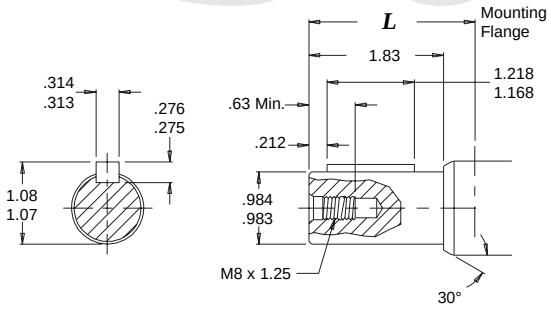
10 *1" Straight*

Max. Torque: 5880 lb-in



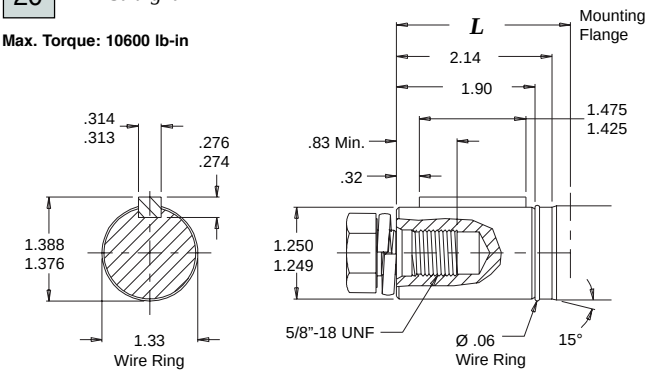
12 *25mm Straight*

Max. Torque: 5617 lb-in



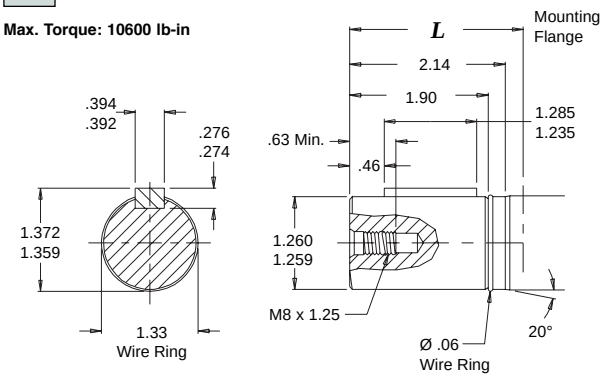
20 *1¼" Straight*

Max. Torque: 10600 lb-in



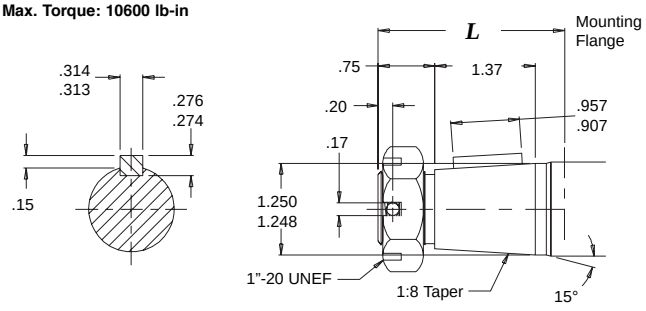
21 *32mm Straight*

Max. Torque: 10600 lb-in



22 *1¼" Tapered*

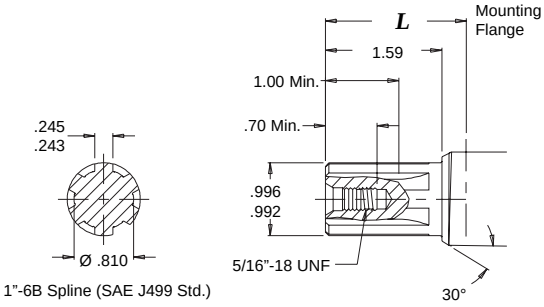
Max. Torque: 10600 lb-in



Note: A slotted nut is standard on this shaft.

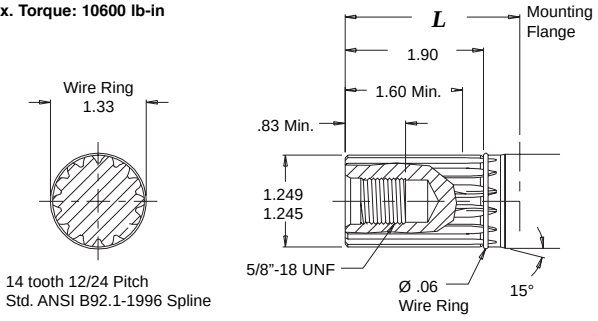
02 *6B Spline*

Max. Torque: 3800 lb-in



23 *14 Tooth Spline*

Max. Torque: 10600 lb-in



SHAFT LENGTHS

L

Code	SAE A Flange in	Wheel Mount in
02	1.97	3.60
22	2.58	4.22
20	2.41	4.05
23	2.42	4.06
10	1.97	3.60
21	2.41	4.05
12	2.21	3.84

WHITE HYDRAULICS

ORDERING INFORMATION

SERIES

501 — REVERSED TIMING

500

OPTIONS

DISPLACEMENT | HOUSING | SHAFT | MISCELLANEOUS

Code	Displacement
120	7.4 in³/rev
160	9.9 in³/rev
200	12.4 in³/rev
230	14.2 in³/rev
260	15.9 in³/rev
300	18.3 in³/rev
350	21.2 in³/rev
375	22.8 in³/rev
470	28.3 in³/rev
540	32.7 in³/rev
750	45.6 in³/rev

Code	Housing
W38	4-Hole Front Ports 1/2" BSP.F
A38	4-Hole Front Ports 1/2" BSP.F (S)
W31	4-Hole Front Ports 7/8" O-ring
A31	4-Hole Front Ports 7/8" O-ring (S)
A51	6-Hole Front Ports 7/8" O-ring
A58	6-Hole Front Ports 1/2" BSP.F

Code	Shafts
02	6-B Spline
22	1-1/4" Tapered
20	1-1/4" Straight
23	14 Tooth Spline
10	1" Straight
12	25mm Straight
21	32mm Straight

Code	Options
AA	None
AC	Freeturning Rotor
AE	Hydraulic Declutch (With Freeturning Rotor)

PAINT | CAVITY | ADD ONS

Code	Options
A	Dark Metallic Gray
B	Dark Metallic Gray (Unpainted Flange Face)
C	Black
D	Black (Unpainted Flange Face)
Z	No Paint

Code	Options
A□	None
*B□	Relief Valve Cavity
*C□	1000 psi Relief Valve Installed
*D□	1250 psi Relief Valve Installed
*E□	1500 psi Relief Valve Installed
*F□	1750 psi Relief Valve Installed
*G□	2000 psi Relief Valve Installed
*J□	2500 psi Relief Valve Installed
*L	3000 psi Relief Valve Installed

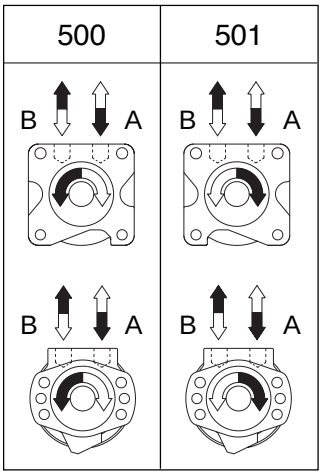
Code	Options
A	Standard
B	Lock Nut
C	Solid Hex Nut
**W	4-Pin Male Weatherpack Connector (Dual)
**X	4-Pin M12 Male Connector (Dual)
**Y	3-Pin Male Weatherpack Connector (Single)
**Z	4-Pin M12 Male Connector (Single)

* Available with A31, A38, W31, and W38 housings

** Available with A31 and A38 housings and must use a medium duty shafts

(S) Speed sensor components

SHAFT ROTATION

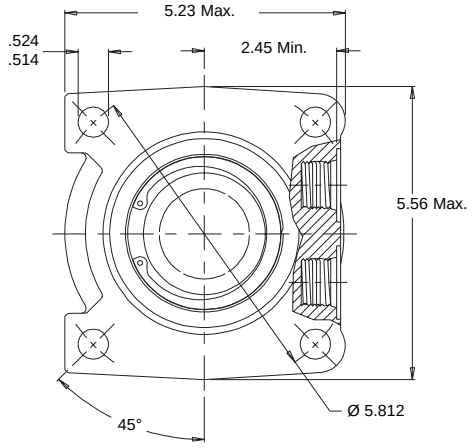


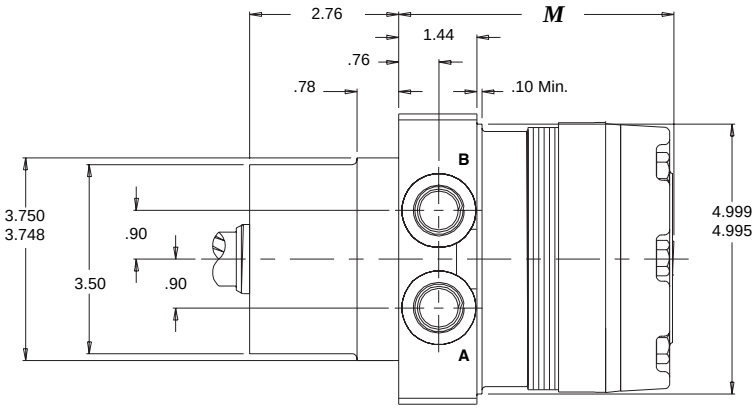
For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the “A” port of the motor. To obtain the desired direction of shaft rotation, use the graphic at the left to determine the rotation code for the motor. For bi-directional applications, the 500 series is recommended. Preferred rotation is determined by internal valving design.

WHEEL MOUNT, SAE A FLANGE

W31 *4-Hole Front Aligned Ports 7/8" O-Ring*

W38 *4-Hole Front Aligned Ports 1/2" BSP.F*

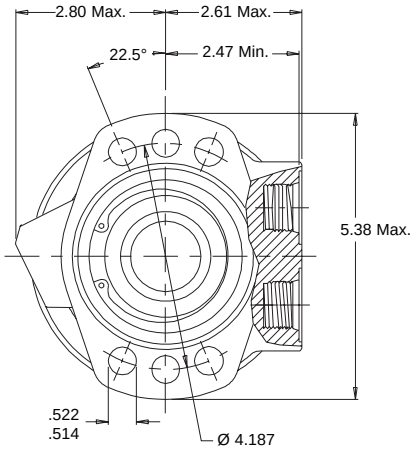


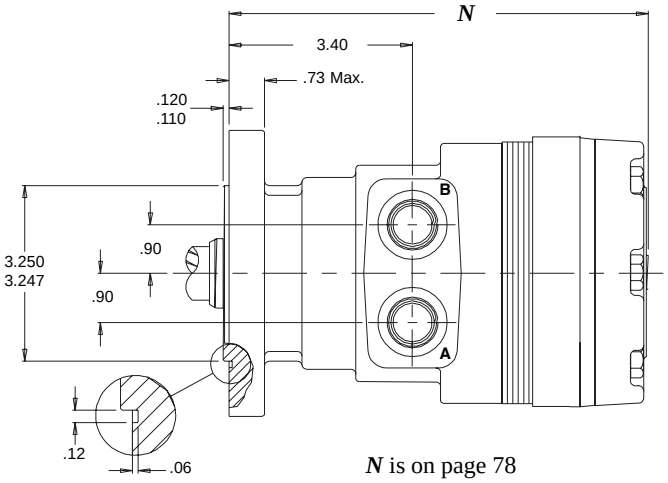


M is on page 78

A51 *6-Hole Front Aligned Ports 7/8" O-Ring*

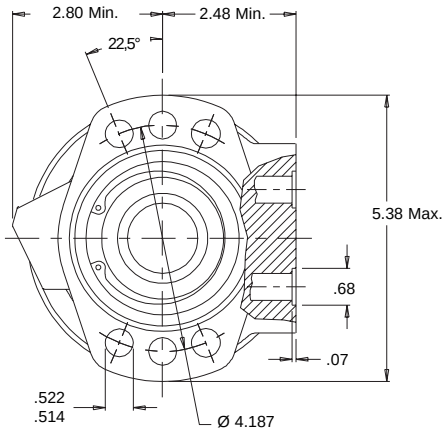
A58 *6-Hole Front Aligned Ports 1/2" BSP.F*

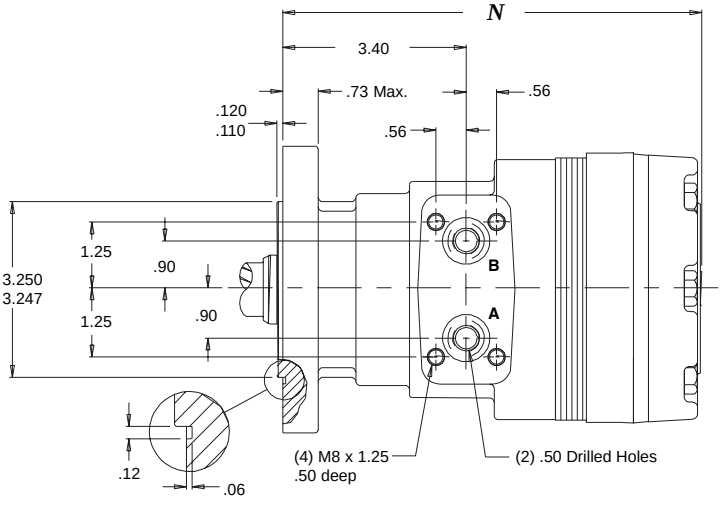




N is on page 78

A57 *6-Hole Manifold Aligned Ports*



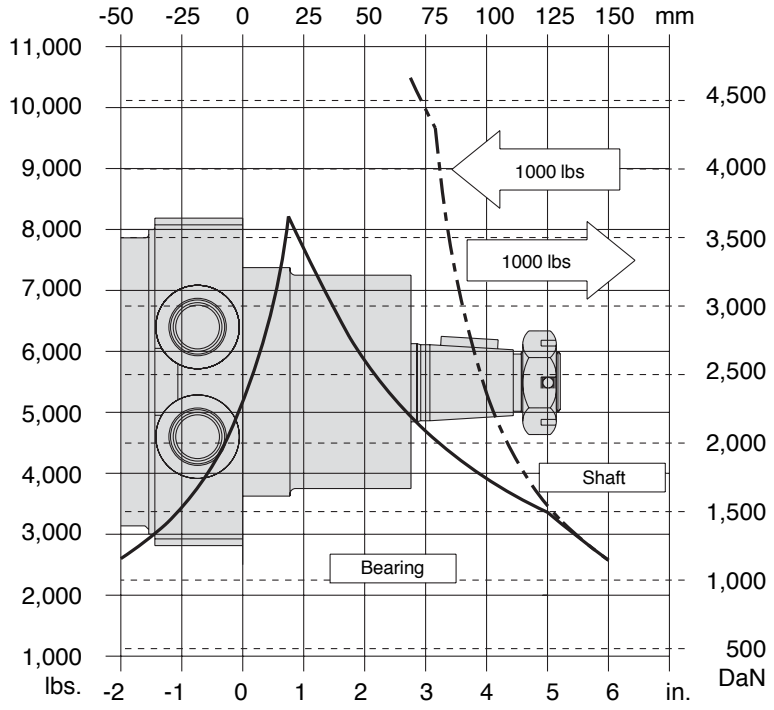


TECHNICAL

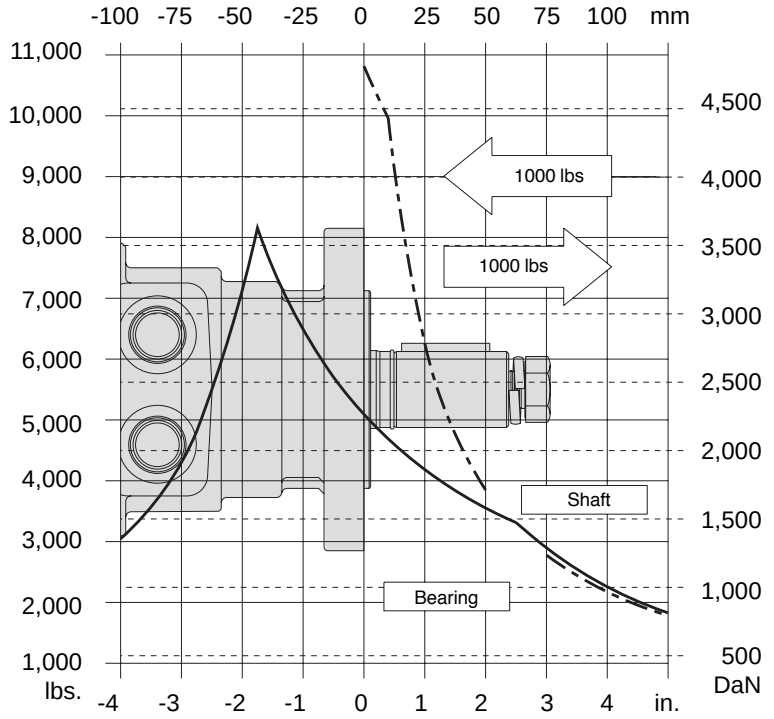
ALLOWABLE BEARING AND SHAFT LOADS

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2,000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 24.

WHEEL MOUNT



SAE A FLANGE



LENGTH AND WEIGHT TABLES

Wheel Mount

Code	M in	Weight lbs
120	4.72	28.4
160	4.72	28.4
200	4.86	29.2
230	4.95	29.4
260	5.05	30.0
300	5.18	30.8
350	5.73	33.2
375	5.43	32.0
470	5.73	33.2
540	5.97	34.4
750	6.68	37.5

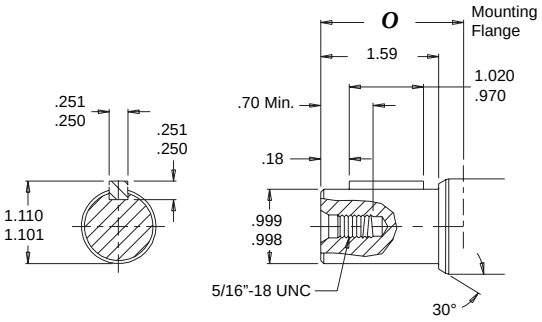
SAE A Flange

Code	N in	Weight lbs
120	7.37	29.4
160	7.37	29.4
200	7.51	30.2
230	7.61	30.4
260	7.70	31.0
300	7.83	31.8
350	8.38	34.2
375	8.08	33.0
470	8.38	34.2
540	8.62	35.4
750	9.33	38.5

RE motor weights vary ± 1 lb depending upon motor configuration.

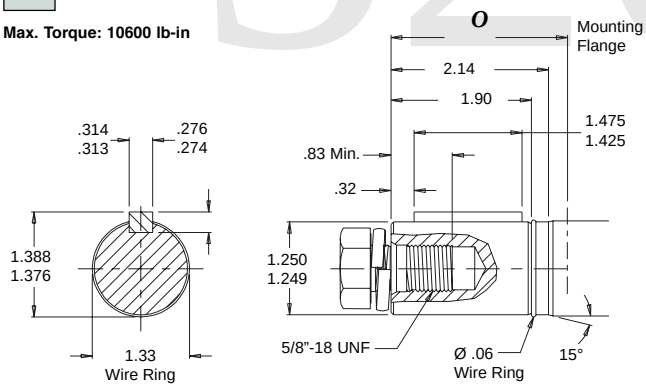
15 *1" Straight*

Max. Torque: 5800 lb-in



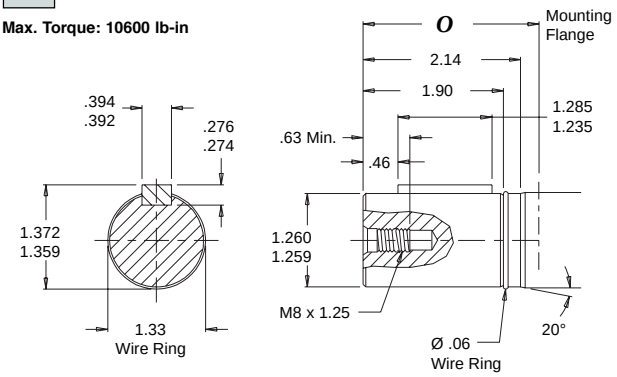
07 *1¼" Straight*

Max. Torque: 10600 lb-in



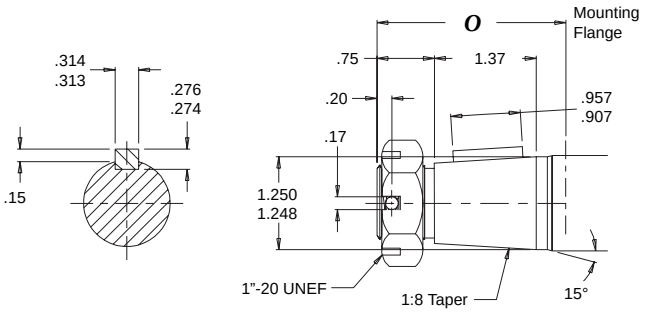
08 *32mm Straight*

Max. Torque: 10600 lb-in



25 *1¼" Tapered*

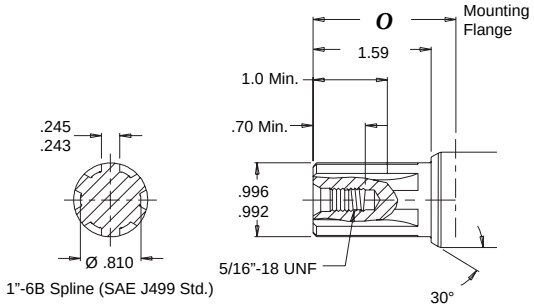
Max. Torque: 10600 lb-in



Note: A slotted nut is standard on this shaft.

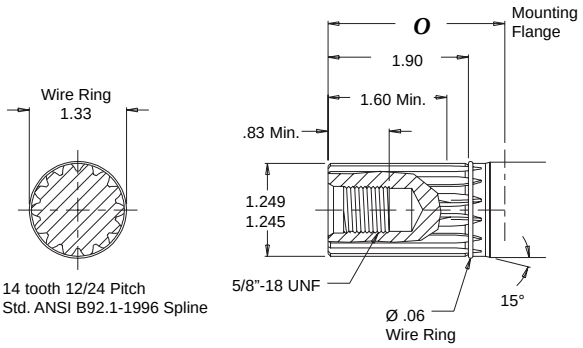
03 *6B Spline*

Max. Torque: 3800 lb-in



09 *14 Tooth Spline*

Max. Torque: 10600 lb-in



SHAFT LENGTHS

O Code	SAE A Flange in	Wheel Mount in
25	2.63	5.31
07	2.47	5.15
09	2.46	5.14
08	2.47	5.15
03	2.02	4.69
15	2.02	4.69

ORDERING INFORMATION

SERIES

521 — REVERSED TIMING

520

DISPLACEMENT | HOUSING | SHAFT | OPTIONS | MISCELLANEOUS

Code	Displacement
120	7.4 in³/rev
160	9.9 in³/rev
200	12.4 in³/rev
230	14.2 in³/rev
260	15.9 in³/rev
300	18.3 in³/rev
350	21.2 in³/rev
375	22.8 in³/rev
470	28.3 in³/rev
540	32.7 in³/rev
750	45.6 in³/rev

Code	Housings
W31	4-Hole Front Ports 7/8" O-ring
W38	4-Hole Front Ports 1/2" BSP.F
A51	6-Hole Front Ports 7/8" O-ring
A58	6-Hole Front Ports 1/2" BSP.F
A57	6-Hole Manifold Ports

Code	Shafts
25	1-1/4" Tapered Ext.
07	1-1/4" Straight Ext.
09	14 Tooth Spline Ext.
08	32mm Straight Ext.
03	6-B Spline Ext.
15	1" Straight Ext.

Code	Options
AA	None
AC	Freeturning Rotor
AE	Hydraulic Declutch (With Freeturning Rotor)

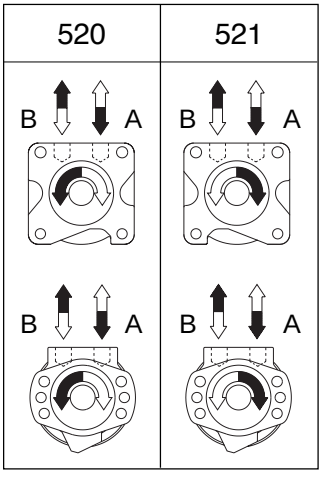
PAINT | CAVITY | ADD ONS

Code	Options
A	Dark Metallic Gray
B	Dark Metallic Gray (Unpainted Flange Face)
C	Black
D	Black (Unpainted Flange Face)
Z	No Paint

Code	Options
A	None

Code	Options
A	Standard
B	Lock Nut
C	Solid Hex Nut

SHAFT ROTATION

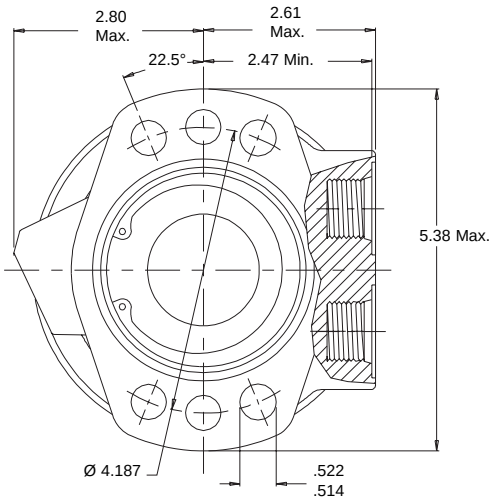


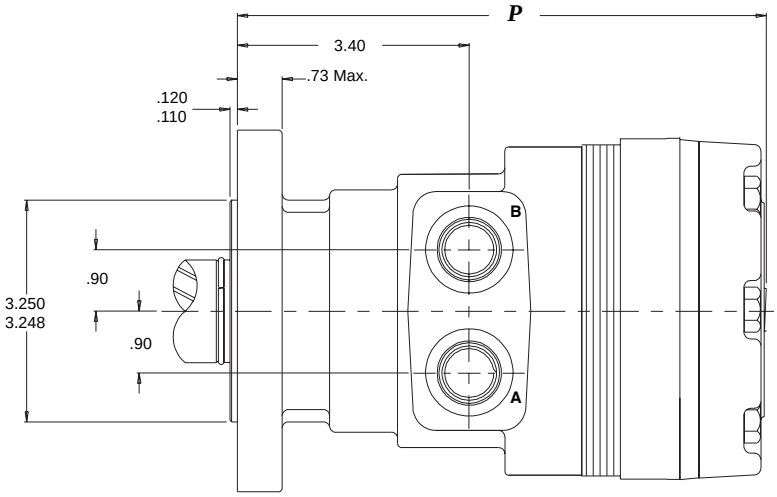
For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the “A” port of the motor. To obtain the desired direction of shaft rotation, use the graphic at the left to determine the rotation code for the motor. For bi-directional applications, the 520 series is recommended. Preferred rotation is determined by internal valving design.

SAE A FLANGE, WHEEL MOUNT

A51 *6-Hole Front Aligned Ports 7/8” O-Ring*

A58 *6-Hole Front Aligned Ports 1/2” BSP.F*

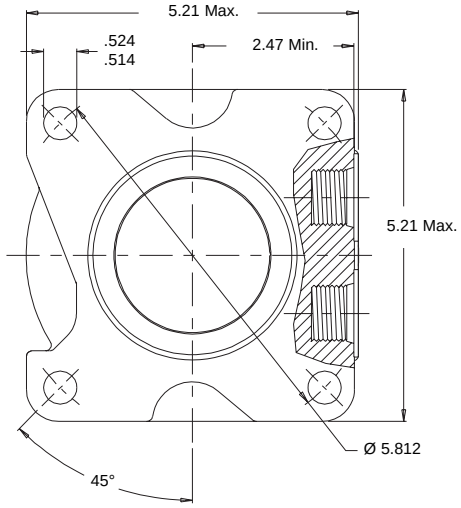


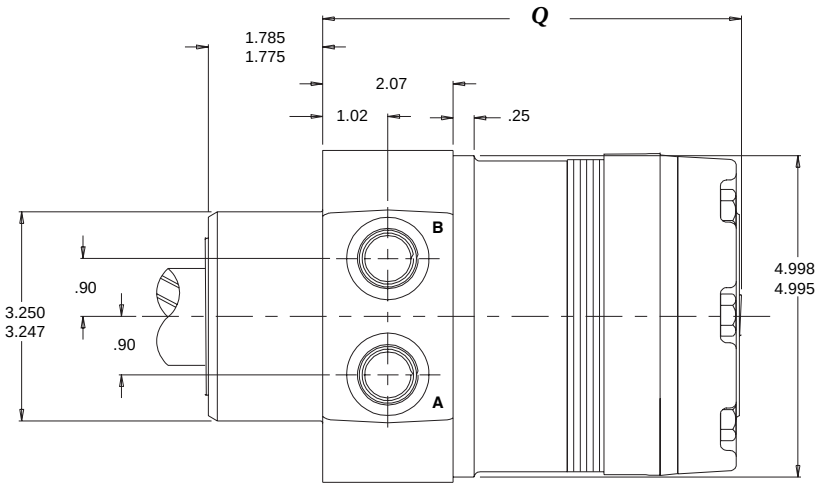


P is on page 82

W31 *4-Hole Front Aligned Ports 7/8” O-Ring*

W38 *4-Hole Front Aligned Ports 1/2” BSP.F*





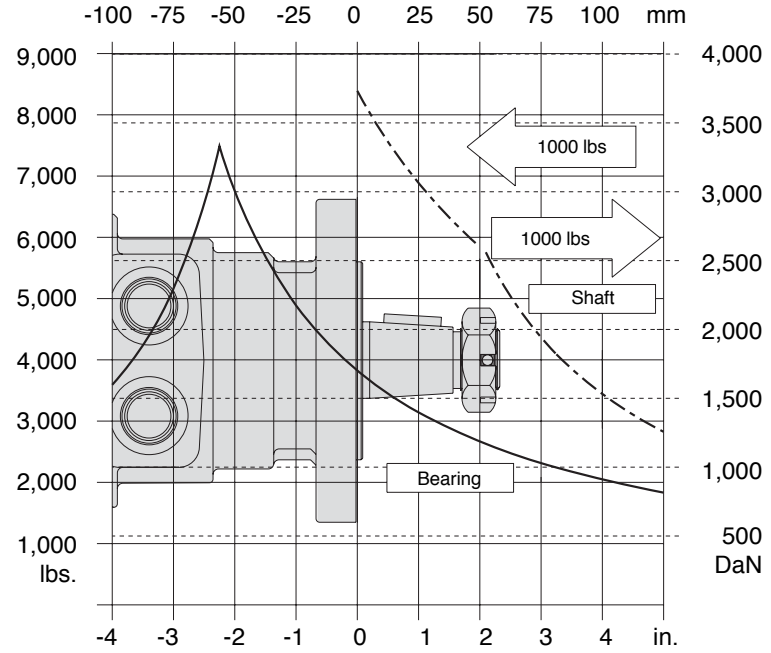
Q is on page 82

TECHNICAL

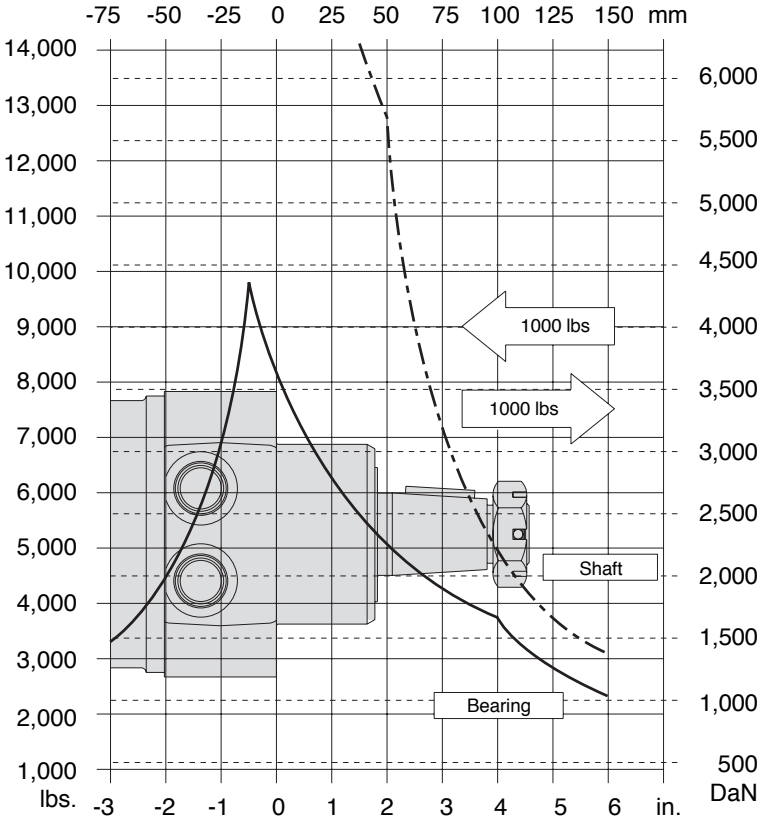
ALLOWABLE BEARING AND SHAFT LOADS

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2,000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 24.

SAE A FLANGE



WHEEL MOUNT



LENGTH AND WEIGHT TABLES

SAE A Flange

Code	P in	Weight lbs
120	7.37	29.4
160	7.37	29.4
200	7.51	30.2
230	7.61	30.4
260	7.70	31.0
300	7.83	31.8
350	8.38	34.2
375	8.08	33.0
470	8.38	34.2
540	8.62	35.4
750	9.33	38.5

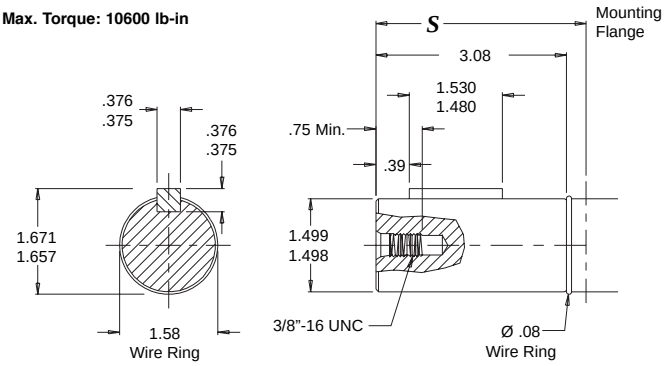
Wheel Mount

Code	Q in	Weight lbs
120	6.15	32.8
160	6.15	32.8
200	6.29	33.6
230	6.38	33.8
260	6.48	34.4
300	6.61	35.2
350	7.16	37.6
375	6.86	36.4
470	7.16	37.6
540	7.40	38.9
750	8.11	41.9

RE motor weights vary ± 1 lb depending upon motor configuration.

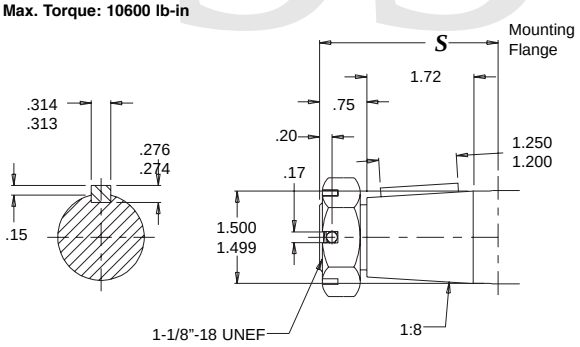
30 *1½" Straight*

Max. Torque: 10600 lb-in



31 *1½" Tapered*

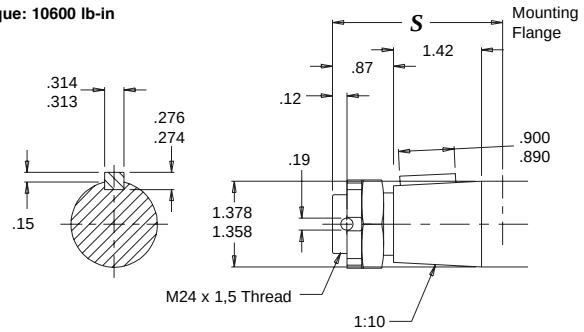
Max. Torque: 10600 lb-in



Note: A slotted nut is standard on this shaft.

28 *35mm Tapered*

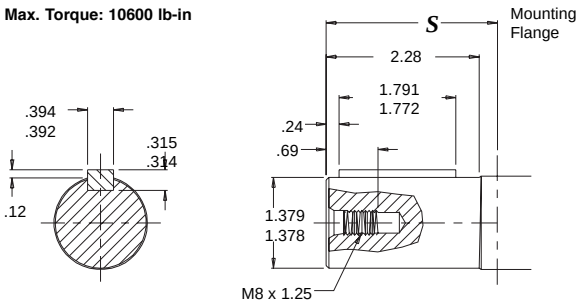
Max. Torque: 10600 lb-in



Available with the W31 and W38 housings only

27 *35mm Straight*

Max. Torque: 10600 lb-in



Available with the W31 and W38 housings only

SHAFT LENGTHS

S Code	SAE A Flange in	Wheel Mount in
27	—	4.65
28	—	4.20
30	3.32	4.51
31	3.36	4.57

ORDERING INFORMATION

SERIES

531 — REVERSED TIMING

530

OPTIONS

DISPLACEMENT | HOUSING | SHAFT | MISCELLANEOUS

Code	Displacement
120	7.4 in^3/rev
160	9.9 in^3/rev
200	12.4 in^3/rev
230	14.2 in^3/rev
260	15.9 in^3/rev
300	18.3 in^3/rev
350	21.2 in^3/rev
375	22.8 in^3/rev
470	28.3 in^3/rev
540	32.7 in^3/rev
750	45.6 in^3/rev

Code	Housings
W31	4-Hole Aligned Ports 7/8" O-Ring
W38	4-Hole Aligned Ports 1/2" BSP.F
A51	6-Hole Aligned Ports 7/8" O-Ring
A58	6-Hole Aligned Ports 1/2" BSP.F

Code	Shafts
31	1-1/2" Tapered
30	1-1/2" Straight
28	35mm Tapered
27	35mm Straight

Code	Options
AA	None
AC	Freeturning Rotor
AE	Hydraulic Declutch (With Freeturning Rotor)

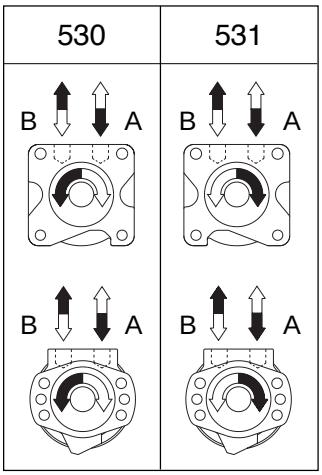
PAINT | CAVITY | ADD ONS

Code	Options
A	Dark Metallic Gray
B	Dark Metallic Gray (Unpainted Flange Face)
C	Black
D	Black (Unpainted Flange Face)
Z	No Paint

Code	Options
A	None

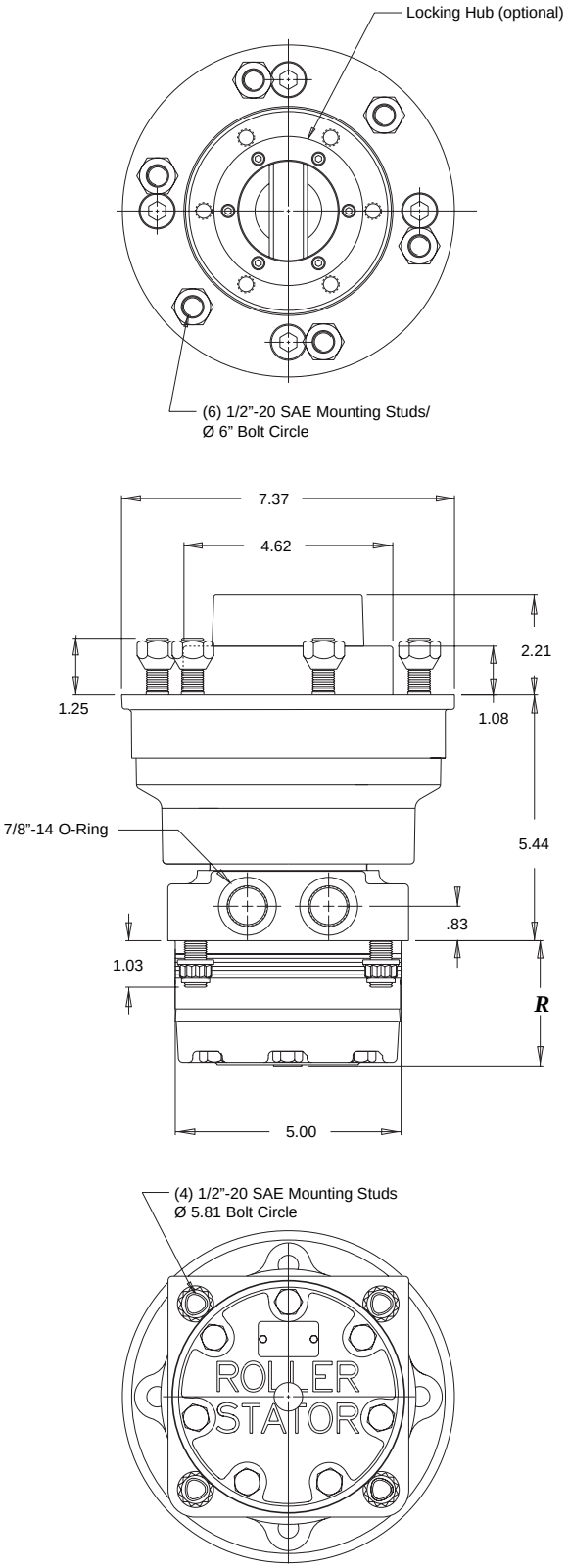
Code	Options
A	Standard
C	Solid Hex Nut

SHAFT ROTATION



For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the “A” port of the motor. To obtain the desired direction of shaft rotation, use the graphic at the left to determine the rotation code for the motor. For bi-directional applications, the 530 series is recommended. Preferred rotation is determined by internal valving design.

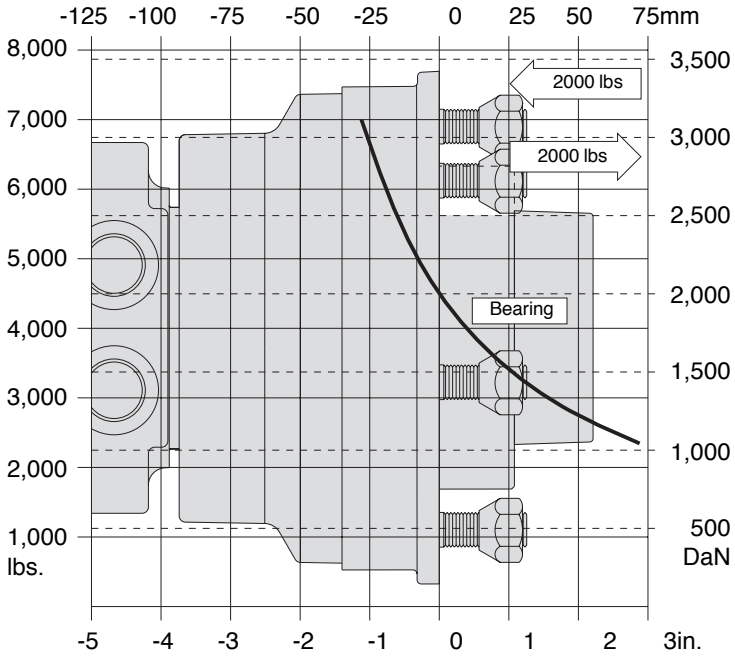
W31 *4-Hole Aligned Ports 7/8" O-Ring*



ALLOWABLE BEARING AND SHAFT LOADS

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2,000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 24.

WHEEL MOUNT WITH 125MM BEARING



LENGTH AND WEIGHT TABLES

Wheel Mount (125mm Bearing)

Code	R in	Weight lbs
120	2.77	49.1
160	2.77	49.1
200	2.90	49.9
230	2.99	50.1
260	3.09	50.7
300	3.22	51.5
350	3.77	53.9
375	3.47	52.7
470	3.77	53.9
540	4.01	55.1
750	4.72	58.2

RE motor weights vary ± 1 lb depending upon motor configuration.

ORDERING INFORMATION

SERIES

541 — REVERSED TIMING

540

DISPLACEMENT | HOUSING | SHAFT | OPTIONS | MISCELLANEOUS

Code	Displacement
120	7.4 in³/rev
160	9.9 in³/rev
200	12.4 in³/rev
230	14.2 in³/rev
260	15.9 in³/rev
300	18.3 in³/rev
350	21.2 in³/rev
375	22.8 in³/rev
470	28.3 in³/rev
540	32.7 in³/rev
750	45.6 in³/rev

Code	Housing
W31	4-Hole Aligned Ports 7/8" O-ring

Code	Shafts
61	6-Bolt Wheel Flange

Code	Options
AA	None
AC	Freeturning Rotor
AE	Hydraulic Declutch (With Freeturning Rotor)

PAINT

Code	Options
A	Dark Metallic Gray
C	Black
Z	No Paint

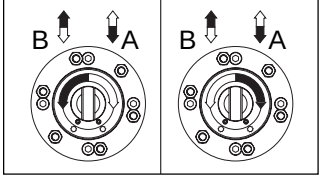
CAVITY

Code	Options
A	None

ADD ONS

Code	Options
A	Standard
H	Locking Hub

SHAFT ROTATION

540	541
	

For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the “A” port of the motor. To obtain the desired direction of shaft rotation, use the graphic at the left to determine the rotation code for the motor. For bi-directional applications, the 540 series is recommended. Preferred rotation is determined by internal valving design.