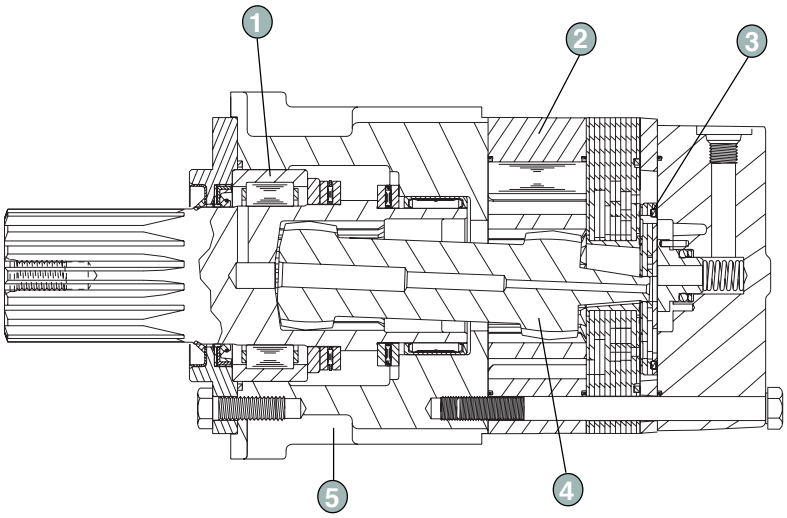
FEATURES



1. **Heavy-Duty Roller Bearing** supports high side loads and receives forced lubrication for cooling and increased life.
2. **Roller Stator® Motor** available in displacements up to 127.7 cid for high torque output.
3. **Three-Zone Orbiting Valve** precisely meters oil to produce exceptional volumetric efficiencies.
4. **Heavy-Duty Drive Link** receives forced lubrication for long life and is capable of extreme duty cycles.
5. **Compact Housing** contributes to high power-to-weight ratio of motor and offers front and rear mounting flanges.

The most amazing aspect of the DT Series motor is its huge torque potential from its relatively small size. The DT Series motor is capable of producing output torque comparable to competitive designs, but from a package that is both shorter and lighter. The savings in space and weight in no way compromises durability, as the motor uses massive shafts, bearings and drive links to transmit the torque produced by this powerful package. The use of a case drain allows reduced pressure on the shaft seal while maintaining driveline lubrication for maximum motor life. Standard mounting and shaft options offer interchangeability with competitive designs. An internal drain option is also available.

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
300	18.3	320	380	25	30	7250	8450	3000	3500	3750
375	22.8	250	300	25	30	9250	9975	3000	3250	3500
470	28.3	200	240	25	30	9475	12300	2500	3250	3500
540	32.7	180	210	25	30	11300	13500	2500	3000	3500
750	45.6	130	150	25	30	15750	18500	2500	3000	3500
930	56.7	100	120	25	30	15750	18950	2000	2500	3000
1K1	63.9	90	110	25	30	16950	20500	2000	2500	3000
1K5	91.2	60	70	25	30	18500	20500	1500	1750	2000
2K1	127.7	40	50	25	30	23550	29580	1500	1750	2000

PERFORMANCE

300 *18.3 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)	476 (54) **4**	1014 (115) **3**	2100 (237) **2**						7
1 (4)	415 (47) **11**	952 (108) **9**	2256 (255) **7**	3363 (380) **5**	4304 (486) **3**				13
2 (8)	435 (49) **24**	1057 (119) **23**	2278 (257) **21**	3628 (410) **19**	4801 (543) **15**	5942 (671) **12**	6983 (789) **9**	7959 (899) **7**	26
4 (15)	430 (49) **50**	1064 (120) **49**	2336 (264) **46**	3616 (409) **43**	4904 (554) **37**	6202 (701) **32**	7424 (839) **28**	8595 (971) **26**	51
6 (23)		1025 (116) **75**	2462 (278) **69**	3719 (420) **65**	5019 (567) **58**	6297 (712) **54**	7554 (854) **51**	8701 (983) **48**	76
8 (30)		929 (105) **100**	2222 (251) **97**	3506 (396) **93**	4793 (542) **86**	6122 (692) **78**	7353 (831) **70**	8621 (974) **69**	101
10 (38)		877 (99) **126**	2099 (237) **122**	3438 (388) **115**	4857 (549) **113**	6081 (687) **107**	7369 (833) **96**	8588 (970) **90**	127
12 (45)		762 (86) **151**	2094 (237) **150**	3342 (378) **140**	4666 (527) **135**	5893 (666) **129**	7281 (823) **119**	8523 (963) **113**	152
14 (53)		679 (77) **176**	1864 (211) **175**	3191 (361) **172**	4478 (506) **164**	5802 (656) **156**	7121 (805) **151**	8420 (951) **140**	177
16 (61)		528 (60) **201**	1845 (208) **200**	3179 (359) **189**	4378 (495) **185**	5731 (648) **178**	6999 (791) **172**	8213 (928) **165**	202
18 (68)			1694 (191) **225**	2961 (335) **222**	4402 (497) **211**	5592 (632) **206**	6871 (776) **196**	8093 (914) **189**	228
20 (76)			1489 (168) **251**	2835 (320) **247**	4083 (461) **240**	5401 (610) **233**	6762 (764) **228**	7934 (897) **216**	253
22 (83)			1298 (147) **276**	2675 (302) **272**	3926 (444) **269**	5205 (588) **258**	6570 (742) **249**	7810 (883) **234**	278
24 (91)			1086 (123) **300**	2409 (272) **298**	3666 (414) **296**	4934 (558) **290**	6264 (708) **281**	7535 (851) **272**	303
Max. Cont. 25 (95)			958 (108) **315**	2278 (257) **313**	3482 (393) **308**	4857 (549) **300**	6139 (694) **289**	7421 (839) **280**	316
Inter. 30 (114)				1642 (186) **376**	2945 (333) **372**	4189 (473) **369**			379
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

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. 3250 (224)	Theo. RPM
0.5 (2)	574 (65) **4**	1272 (144) **3**	2670 (302) **2**	3970 (449) **1**					6
1 (4)	583 (66) **9**	1345 (152) **8**	2757 (312) **7**	4208 (475) **5**	5535 (625) **4**				11
2 (8)	596 (67) **19**	1365 (154) **18**	2907 (329) **17**	4388 (496) **14**	5695 (644) **12**	7122 (805) **10**	8524 (963) **8**	9288 (1050) **7**	21
4 (15)	627 (71) **40**	1400 (158) **39**	2982 (337) **37**	4536 (513) **34**	6020 (680) **30**	7596 (858) **27**	8962 (1013) **25**	9723 (1099) **23**	41
6 (23)	570 (64) **60**	1334 (151) **60**	2969 (336) **58**	4598 (520) **54**	6141 (694) **49**	7704 (871) **45**	9275 (1048) **41**	9867 (1115) **41**	61
8 (30)	467 (53) **81**	1337 (151) **80**	2876 (325) **78**	4532 (512) **73**	6113 (691) **69**	7724 (873) **63**	9304 (1051) **60**	9964 (1126) **59**	82
10 (38)		1161 (131) **101**	2768 (313) **99**	4439 (502) **95**	6075 (686) **89**	7824 (884) **82**	9281 (1049) **79**	10011 (1131) **77**	102
12 (45)		995 (112) **121**	2725 (308) **120**	4375 (494) **116**	6059 (685) **109**	7626 (862) **103**	9321 (1053) **98**	10066 (1137) **97**	122
14 (53)		878 (99) **141**	2508 (283) **140**	4149 (469) **136**	5705 (645) **131**	7467 (844) **125**	8965 (1013) **117**	9877 (1116) **115**	142
16 (61)		662 (75) **162**	2319 (262) **161**	3923 (443) **160**	5587 (631) **155**	7283 (823) **148**	8930 (1009) **143**	9859 (1114) **136**	163
18 (68)			2198 (248) **181**	3779 (427) **178**	5416 (612) **175**	7119 (804) **167**	8895 (1005) **160**	9653 (1091) **156**	183
20 (76)			1925 (218) **202**	3568 (403) **200**	5161 (583) **195**	6886 (778) **189**	8549 (966) **178**	9474 (1071) **173**	203
22 (83)			1676 (189) **222**	3318 (375) **221**	4967 (561) **217**	6669 (754) **211**	8335 (942) **201**	9171 (1036) **196**	223
24 (91)			1374 (155) **242**	3041 (344) **240**	4732 (535) **237**	6410 (724) **229**			244
Max. Cont. 25 (95)				2839 (321) **252**	4596 (519) **249**	6283 (710) **241**			254
Inter. 30 (114)				2110 (238) **303**	3820 (432) **301**	5503 (622) **296**			304
Theo. Torque	908 (103)	1815 (205)	3631 (410)	5446 (615)	7261 (821)	9076 (1026)	10892 (1231)	11799 (1333)	

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.

470 *28.3 in³/rev*

Flow GPM (LPM)	Pressure 250 (17)	psi (bars) 500 (35)	1000 (69)	1500 (104)	2000 (138)	Max. Cont. 2500 (173)	3000 (207)	Inter. 3250 (224)	Theo. RPM
0.5 (2)	762 (86) **3**	1780 (201) **2**	3553 (401) **2**						5
1 (4)	817 (92) **7**	1728 (195) **7**	3597 (406) **6**	5395 (610) **5**	7137 (806) **4**				9
2 (8)	835 (94) **15**	1761 (199) **15**	3702 (418) **14**	5580 (631) **13**	7365 (832) **11**	9226 (1042) **9**	10961 (1239) **8**		17
4 (15)	815 (92) **32**	1784 (202) **32**	3769 (426) **30**	5717 (646) **28**	7513 (849) **24**	9430 (1066) **23**	11256 (1272) **21**	12217 (1381) **19**	33
6 (23)	729 (82) **48**	1799 (203) **47**	3744 (423) **46**	5725 (647) **43**	7565 (855) **39**	9473 (1070) **36**	11287 (1275) **34**	12083 (1365) **32**	49
8 (30)	595 (67) **65**	1641 (185) **64**	3663 (414) **63**	5683 (642) **60**	7671 (867) **54**	9538 (1078) **47**	11508 (1300) **46**	12367 (1398) **44**	66
10 (38)	459 (52) **81**	1506 (170) **80**	3532 (399) **79**	5573 (630) **76**	7584 (857) **69**	9531 (1077) **63**	11352 (1283) **61**	12323 (1393) **58**	82
12 (45)		1354 (153) **97**	3366 (380) **96**	5422 (613) **93**	7454 (842) **88**	9488 (1072) **77**	11523 (1302) **74**	12334 (1394) **68**	98
14 (53)		1121 (127) **114**	3173 (359) **113**	5229 (591) **110**	7282 (823) **104**	9350 (1057) **97**	11242 (1270) **89**	12318 (1392) **85**	115
16 (61)		888 (100) **130**	2964 (335) **129**	4993 (564) **127**	7061 (798) **119**	9118 (1030) **114**	11101 (1254) **108**	12118 (1369) **102**	131
18 (68)		595 (67) **146**	2689 (304) **145**	4734 (535) **143**	6772 (765) **137**	8875 (1003) **132**	10877 (1229) **120**	11926 (1348) **114**	147
20 (76)			2428 (274) **162**	4458 (504) **160**	6485 (733) **155**	8536 (965) **148**	10592 (1197) **139**	11668 (1318) **136**	164
22 (83)			2003 (226) **178**	4050 (458) **175**	6118 (691) **172**	8215 (928) **165**	10181 (1150) **156**	11200 (1266) **154**	180
24 (91)			1554 (176) **194**	3670 (415) **192**	5917 (669) **190**	7833 (885) **183**			196
Max. Cont. 25 (95)				3442 (389) **203**	5589 (632) **198**	7676 (867) **190**			205
Inter. 30 (114)				2451 (277) **243**	4549 (514) **240**	6684 (755) **235**			245
Theo. Torque	1127 (127)	2253 (255)	4506 (509)	6760 (764)	9013 (1018)	11266 (1273)	13519 (1528)	14646 (1655)	

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 in³/rev*

Flow GPM (LPM)	Pressure 250 (17)	psi (bars) 500 (35)	1000 (69)	1500 (104)	2000 (138)	Max. Cont. 2500 (173)	Inter. 3000 (207)	Theo. RPM
0.5 (2)	908 (103) **2**	1907 (215) **2**	3722 (421) **1**					4
1 (4)	917 (104) **6**	2016 (228) **5**	4015 (454) **4**	5897 (666) **3**	7730 (874) **1**			8
2 (8)	954 (108) **13**	2043 (231) **12**	4191 (474) **11**	6231 (704) **9**	8190 (925) **5**	10201 (1153) **4**		15
4 (15)	906 (102) **27**	2052 (232) **26**	4448 (503) **24**	6692 (756) **21**	8799 (994) **18**	10806 (1221) **15**	12930 (1461) **13**	29
6 (23)	866 (98) **42**	2038 (230) **41**	4404 (498) **39**	6774 (766) **36**	9049 (1023) **30**	11225 (1268) **27**	13219 (1494) **24**	43
8 (30)	744 (84) **56**	1883 (213) **55**	4280 (484) **53**	6669 (754) **49**	9130 (1032) **42**	11262 (1273) **38**	13486 (1524) **34**	57
10 (38)	561 (63) **70**	1727 (195) **69**	4122 (466) **68**	6519 (737) **64**	8903 (1006) **57**	11374 (1285) **49**	13556 (1532) **46**	71
12 (45)	373 (42) **84**	1586 (179) **83**	3928 (444) **82**	6349 (717) **79**	8710 (984) **72**	11277 (1274) **65**	13436 (1518) **57**	85
14 (53)		1295 (146) **97**	3722 (421) **95**	6139 (694) **93**	8529 (964) **87**	11091 (1253) **80**	13381 (1512) **70**	99
16 (61)		1025 (116) **113**	3460 (391) **111**	5865 (663) **108**	8230 (930) **103**	10675 (1206) **97**	13086 (1479) **84**	114
18 (68)		798 (90) **127**	3153 (356) **125**	5563 (629) **123**	7969 (900) **116**	10550 (1192) **107**	12841 (1451) **100**	128
20 (76)		498 (56) **141**	2923 (330) **139**	5265 (595) **137**	7850 (887) **133**	10250 (1158) **123**	12578 (1421) **114**	142
22 (83)			2464 (278) **155**	4859 (549) **153**	7271 (822) **148**	9919 (1121) **136**	12283 (1388) **133**	156
24 (91)			2154 (243) **169**	4494 (508) **166**	7024 (794) **164**	9325 (1054) **156**		170
Max. Cont. 25 (95)			1948 (220) **176**	4299 (486) **174**	6741 (762) **169**	9075 (1025) **163**		177
Inter. 30 (114)			800 (90) **211**	3237 (366) **210**	5649 (638) **207**	8144 (920) **203**		212
Theo. Torque	1302 (147)	2604 (294)	5207 (588)	7811 (883)	10414 (1177)	13018 (1471)	15621 (1765)	

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)	1500 (104)	2000 (138)	Max. Cont. 2500 (173)	Inter. 3000 (207)	Theo. RPM
0.5 (2)	1276 (144) **1**	2566 (290) **1**						3
1 (4)	1367 (154) **4**	2863 (323) **3**	5917 (669) **2**	8242 (931) **2**				6
2 (8)	1435 (162) **9**	3015 (341) **9**	6302 (712) **7**	9038 (1021) **6**	11550 (1305) **3**			11
4 (15)	1400 (158) **19**	3080 (348) **19**	6399 (723) **17**	9578 (1082) **15**	12410 (1402) **11**			21
6 (23)	1273 (144) **30**	2927 (331) **29**	6317 (714) **27**	9583 (1083) **24**	12678 (1433) **20**	15430 (1744) **16**		31
8 (30)	1116 (126) **40**	2900 (328) **39**	6167 (697) **37**	9486 (1072) **34**	12843 (1451) **25**	15658 (1769) **20**		41
10 (38)	922 (104) **50**	2574 (291) **50**	5976 (675) **47**	9334 (1055) **44**	12785 (1445) **36**	15805 (1786) **28**	18373 (2076) **19**	51
12 (45)	682 (77) **60**	2382 (269) **59**	5792 (655) **58**	9136 (1032) **54**	12668 (1431) **49**	15801 (1786) **36**	18528 (2094) **30**	61
14 (53)	410 (46)	2116 (239) **69**	5545 (627) **68**	8880 (1003) **65**	12451 (1407) **59**	15634 (1767) **45**	18578 (2099) **37**	71
16 (61)		1780 (201) **81**	5164 (584) **79**	8592 (971) **76**	11907 (1345) **70**	15422 (1743) **57**	18271 (2065) **44**	82
18 (68)		1421 (161) **91**	4819 (545) **90**	8209 (928) **86**	11556 (1306) **80**	15120 (1709) **69**		92
20 (76)		1058 (120) **101**	4395 (497) **100**	7635 (863) **97**	11154 (1260) **90**			102
22 (83)			3926 (444) **110**	7351 (831) **108**	10737 (1213) **101**			112
24 (91)			3447 (389) **121**	6947 (785) **117**	10581 (1196) **111**			122
Max. Cont. 25 (95)			3255 (368) **126**	6697 (757) **124**	10126 (1144) **120**			127
Inter. 30 (114)			1813 (205) **151**	5428 (613) **149**	8665 (979) **146**			152
Theo. Torque	1815 (205)	3631 (410)	7261 (821)	10892 (1231)	14522 (1641)	18153 (2051)	21783 (2462)	

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.

Torque, lb-in (Nm)
Speed, RPM

930 *56.7 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	Max. Cont. 2000 (138)	2250 (155)	Inter. 2500 (173)	Theo. RPM
0.5 (2)	1590 (180) **1**	3423 (387) **1**	5368 (607) **1**	7089 (801) **1**							3
1 (4)	1734 (196) **4**	3696 (418) **3**	5780 (653) **3**	7649 (864) **3**	9447 (1067) **3**	11451 (1294) **3**					5
2 (8)	1816 (205) **8**	3907 (442) **7**	6015 (680) **7**	7764 (877) **7**	9886 (1117) **7**	11501 (1300) **6**	13365 (1510) **5**				9
4 (15)	1753 (198) **16**	3825 (432) **16**	5878 (664) **15**	8021 (906) **15**	9924 (1121) **15**	11840 (1338) **14**	13769 (1556) **13**	15306 (1730) **11**			17
6 (23)	1633 (185) **24**	3719 (420) **24**	5765 (651) **24**	8034 (908) **24**	9935 (1123) **23**	11991 (1355) **22**	13651 (1543) **20**	15873 (1794) **18**	17532 (1981) **16**		25
8 (30)	1438 (162) **32**	3576 (404) **31**	5624 (636) **30**	7900 (893) **30**	9800 (1107) **29**	11854 (1340) **28**	13988 (1581) **27**	15716 (1776) **24**	17570 (1985) **22**	18632 (2105) **17**	33
10 (38)	1109 (125) **40**	3253 (368) **40**	5536 (626) **39**	7476 (845) **38**	9620 (1087) **38**	11625 (1314) **36**	13251 (1497) **34**	15364 (1736) **31**	17306 (1956) **28**	19054 (2153) **24**	41
12 (45)	807 (91) **48**	3018 (341) **47**	5111 (578) **46**	7213 (815) **45**	9487 (1072) **44**	11630 (1314) **42**	13492 (1525) **41**	15159 (1713) **36**	17222 (1946) **33**	18873 (2133) **32**	49
14 (53)	310 (35)	2565 (290) **56**	4715 (533) **55**	6772 (765) **54**	9059 (1024) **52**	10974 (1240) **50**	13155 (1487) **49**	15287 (1727) **45**	17216 (1945) **43**	19188 (2168) **36**	58
16 (61)		2118 (239) **64**	4281 (484) **63**	6429 (726) **62**	8488 (959) **61**	10708 (1210) **59**	12830 (1450) **57**	15008 (1696) **54**	17039 (1925) **50**	18934 (2140) **46**	66
18 (68)		1811 (205) **72**	3891 (440) **72**	6202 (701) **70**	8143 (920) **69**	10418 (1177) **67**	12580 (1422) **65**	14538 (1643) **64**	16741 (1892) **58**	18625 (2105) **55**	74
20 (76)		1325 (150) **81**	3616 (409) **80**	5590 (632) **79**	7091 (801) **78**	9733 (1100) **76**	12135 (1505) **75**	14148 (1599) **72**	16454 (1859) **67**	18230 (2060) **63**	82
22 (83)		875 (99) **89**	2977 (336) **88**	5139 (581) **87**	7403 (837) **86**	9342 (1056) **83**	11553 (1305) **83**	13816 (1561) **80**	15918 (1799) **77**	17925 (2025) **71**	90
24 (91)			2497 (282) **97**	4438 (501) **96**	6778 (766) **94**	9038 (1021) **93**	11201 (1266) **92**	13179 (1489) **89**	15505 (1752) **86**	17427 (1969) **82**	98
Max. Cont. 25 (95)			2137 (241) **101**	4389 (496) **100**	6390 (722) **100**	8621 (974) **97**	10743 (1214) **96**	12863 (1454) **93**	15286 (1727) **89**	17309 (1956) **84**	102
Inter. 30 (114)			582 (66) **122**	2652 (300) **121**	4711 (532) **120**	6914 (781) **118**	9235 (1044) **118**	11248 (1271) **116**			123
Theo. Torque	2257 (255)	4514 (510)	6771 (765)	9029 (1020)	11286 (1275)	13543 (1530)	15800 (1785)	18057 (2040)	20314 (2296)	22572 (2551)	

1K1 *63.9 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	Max. Cont. 2000 (138)	2250 (155)	Inter. 2500 (173)	Theo. RPM
0.5 (2)	1918 (217) **1**	4026 (455) **1**	5940 (671) **0.9**	7879 (890) **0.6**							2
1 (4)	1821 (206) **3**	4410 (498) **2**	6251 (706) **2**	8273 (935) **2**	10518 (1189) **2**						4
2 (8)	1985 (224) **6**	4407 (498) **6**	6672 (754) **6**	8700 (983) **5**	10810 (1222) **5**	12635 (1428) **4**					8
4 (15)	1980 (224) **14**	4180 (472) **13**	6669 (754) **13**	8946 (1011) **13**	11169 (1262) **11**	13147 (1486) **10**	15014 (1697) **9**				15
6 (23)	1500 (170) **21**	4314 (487) **21**	6538 (739) **20**	9023 (1020) **19**	10956 (1238) **18**	13286 (1501) **16**	14998 (1695) **14**	16936 (1914) **12**			22
8 (30)	1451 (164) **28**	3814 (431) **28**	6270 (709) **28**	8580 (970) **27**	10986 (1241) **26**	13106 (1481) **23**	15280 (1727) **20**	17185 (1942) **16**	18971 (2144) **9**		29
10 (38)	1143 (129) **36**	3546 (401) **36**	5975 (675) **35**	8356 (944) **34**	10688 (1208) **32**	12879 (1455) **29**	15168 (1714) **26**	16982 (1919) **26**	18983 (2145) **17**		37
12 (45)	871 (98) **43**	3176 (359) **43**	5526 (624) **42**	7915 (894) **41**	10163 (1148) **40**	12569 (1420) **37**	14981 (1693) **31**	16756 (1893) **25**	18879 (2133) **22**	20456 (2311) **19**	44
14 (53)	390 (44)	2761 (312) **50**	5129 (580) **49**	7535 (851) **49**	9933 (1122) **47**	12237 (1383) **44**	14263 (1612) **40**	16424 (1856) **33**	18569 (2098) **29**	20596 (2327) **25**	51
16 (61)		2220 (251) **57**	4569 (516) **56**	6871 (776) **56**	9402 (1062) **55**	11678 (1320) **52**	14045 (1587) **50**	16261 (1837) **38**	18426 (2082) **30**	20275 (2291) **29**	58
18 (68)		1678 (190) **65**	4053 (458) **65**	6252 (706) **64**	8869 (1002) **62**	11252 (1272) **60**	13738 (1552) **59**	15877 (1794) **52**	18147 (2051) **41**	20130 (2275) **33**	66
20 (76)		1033 (117) **72**	3453 (390) **71**	5774 (652) **71**	8227 (930) **70**	10502 (1187) **69**	12874 (1596) **64**	15246 (1723) **58**	17705 (2001) **57**	19716 (2228) **45**	73
22 (83)		444 (50) **79**	2741 (310) **79**	5034 (569) **78**	7493 (847) **77**	9846 (1113) **76**	12214 (1380) **74**	14599 (1650) **67**	17055 (1927) **62**	18924 (2138) **51**	80
24 (91)			1862 (210) **86**	4346 (491) **85**	6677 (755) **84**	9007 (1018) **83**	11398 (1288) **81**	13777 (1557) **76**	16164 (1827) **71**	18591 (2101) **61**	87
Max. Cont. 25 (95)			1635 (185) **90**	4096 (463) **90**	6281 (710) **89**	8519 (963) **88**	10901 (1232) **85**	13247 (1497) **82**	15844 (1790) **76**	17950 (2028) **71**	91
Inter. 30 (114)				1789 (202) **108**	4217 (477) **107**	6460 (730) **106**	8962 (1013) **105**	10947 (1237) **104**			109
Theo. Torque	2544 (287)	5088 (575)	7631 (862)	10175 (1150)	12719 (1437)	15263 (1725)	17807 (2012)	20350 (2300)	22894 (2587)	25438 (2874)	

Torque, lb-in (Nm)
Speed, RPM

1K5 *91.2 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	Max. Cont. 1500 (104)	Inter. 1750 (121)	Theo. RPM
0.5 (2)	2703 (305) **0.9**	5736 (648) **0.6**						2
1 (4)	2978 (336) **2**	6128 (693) **1**	8942 (1011) **1**					3
2 (8)	3106 (351) **4**	6454 (729) **4**	9597 (1085) **3**	12072 (1364) **3**				6
4 (15)	2925 (331) **9**	6304 (712) **9**	9879 (1116) **8**	13191 (1491) **7**	15668 (1771) **7**			11
6 (23)	2629 (297) **15**	6023 (681) **14**	9632 (1088) **13**	12952 (1464) **12**	15662 (1770) **10**			16
8 (30)	2183 (247) **20**	5662 (640) **19**	9188 (1038) **18**	12655 (1430) **17**	15864 (1793) **15**	18786 (2123) **9**		21
10 (38)	1740 (197) **25**	5159 (583) **24**	8860 (1001) **23**	12189 (1377) **22**	15479 (1749) **19**	18498 (2090) **14**		26
12 (45)	1157 (131) **30**	4695 (531) **29**	8315 (940) **28**	11770 (1330) **27**	15066 (1702) **24**	18059 (2041) **19**	20613 (2329) **14**	31
14 (53)	594 (67)	4282 (484) **35**	7689 (869) **33**	11217 (1267) **32**	14532 (1642) **30**	17612 (1990) **24**	20353 (2300) **15**	36
16 (61)		3457 (391) **40**	6805 (769) **39**	10374 (1172) **37**	13866 (1567) **36**	16941 (1914) **32**	19986 (2258) **21**	41
18 (68)		2602 (294) **45**	6072 (686) **44**	9523 (1076) **43**	13177 (1489) **40**	16334 (1846) **38**	19366 (2188) **27**	46
20 (76)		1607 (182) **50**	5435 (614) **49**	8746 (988) **48**	12320 (1392) **47**	15429 (1743) **44**	18553 (2301) **37**	51
22 (83)		770 (87) **55**	4310 (487) **54**	7720 (872) **53**	11356 (1283) **52**	14442 (1632) **48**	17883 (2021) **46**	56
24 (91)			4032 (456) **60**	6632 (749) **60**	10143 (1146) **58**	13570 (1533) **58**	16568 (1872) **50**	61
Max. Cont. 25 (95)			2589 (293) **63**	6232 (704) **62**	9313 (1052) **62**	12961 (1465) **59**	16306 (1843) **53**	64
Inter. 30 (114)				2174 (246) **75**	5711 (645) **74**	9265 (1047) **73**		76
Theo. Torque	3631 (410)	7261 (821)	10892 (1231)	14522 (1641)	18153 (2051)	21783 (2462)	25414 (2872)	

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.

PERFORMANCE

2K1 *127.7 in³/rev*

Flow GPM (LPM)	Pressure psi (bars) 250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	Max. Cont. 1500 (104)	Inter. 1750 (121)	Theo. RPM
0.5 (2)	3878 (438) **0.8**	7894 (892) **0.8**						1
1 (4)	3891 (440) **1**	8162 (922) **1**	12375 (1398) **1**					2
2 (8)	4073 (460) **3**	8458 (956) **3**	12923 (1460) **3**					4
4 (15)	3920 (443) **7**	8525 (963) **7**	13192 (1491) **6**	17520 (1980) **6**				8
6 (23)	3560 (402) **10**	8179 (924) **10**	13012 (1470) **10**	17370 (1963) **9**				11
8 (30)	2985 (337) **14**	7824 (884) **14**	12613 (1425) **14**	16995 (1920) **13**	21152 (2390) **9**	23613 (2668) **8**		15
10 (38)	2431 (275) **17**	7205 (814) **17**	11944 (1350) **16**	16538 (1869) **16**	20733 (2343) **13**	23564 (2663) **8**		19
12 (45)	1535 (173) **21**	6398 (723) **21**	11171 (1262) **21**	15886 (1795) **20**	20232 (2286) **17**	23588 (2665) **12**		22
14 (53)	587 (66)	5479 (619) **24**	10221 (1155) **24**	15063 (1702) **23**	19519 (2206) **21**	23333 (2637) **13**		26
16 (61)		4391 (496) **28**	9009 (1018) **28**	14046 (1587) **27**	18645 (2107) **26**	22777 (2574) **20**		29
18 (68)		3257 (368) **32**	8052 (910) **32**	12973 (1466) **31**	17527 (1980) **30**	21866 (2471) **26**		33
20 (76)		1991 (225) **36**	6686 (755) **36**	11537 (1304) **36**	16449 (1859) **35**	20878 (2359) **30**		37
22 (83)		628 (71) **39**	5507 (622) **39**	10367 (1171) **39**	14885 (1682) **38**	19575 (2212) **36**		40
24 (91)			3794 (429) **43**	8704 (984) **43**	13665 (1544) **42**	18291 (2067) **40**		44
Max. Cont. 25 (95)			3129 (354) **45**	7883 (891) **45**	12636 (1428) **45**	17445 (1971) **43**		46
Inter. 30 (114)				3803 (430) **54**	8485 (959) **54**	13207 (1492) **53**		55
Theo. Torque	5084 (574)	10167 (1149)	15251 (1723)	20334 (2298)	25418 (2872)	30502 (3447)	35585 (4021)	

Areas within white represent maximum motor efficiencies.

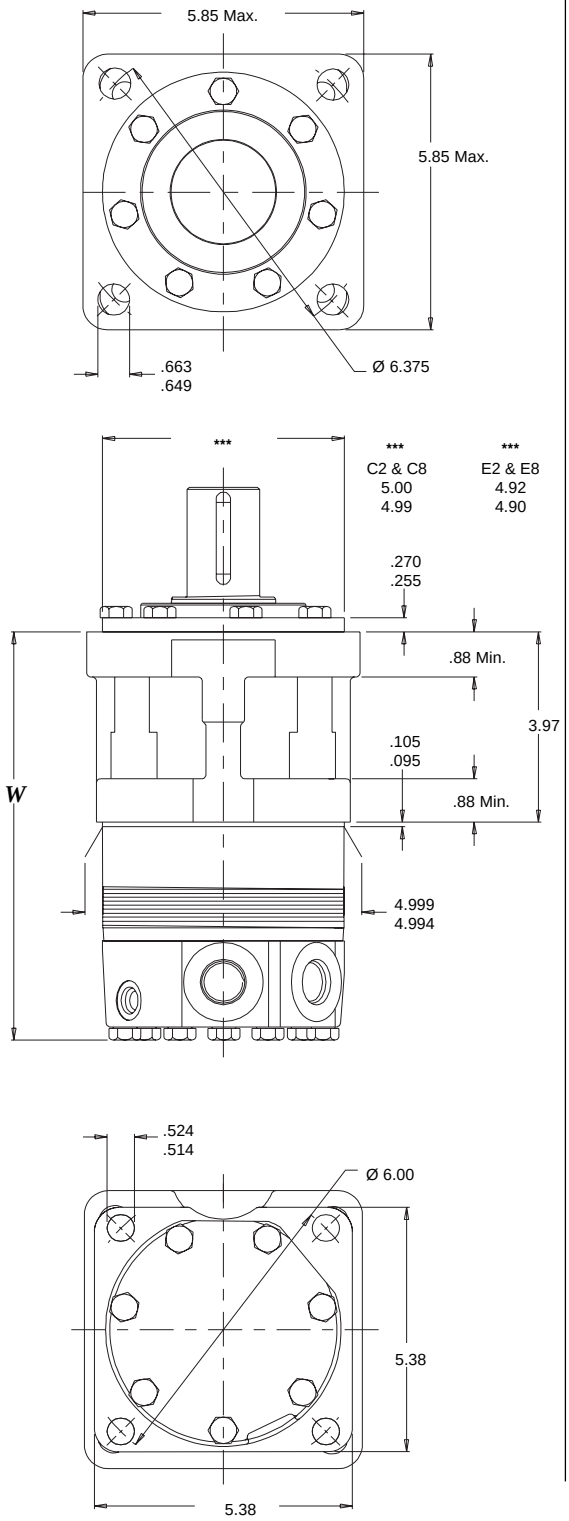
DO NOT operate at maximum pressure and maximum flow simultaneously.

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.

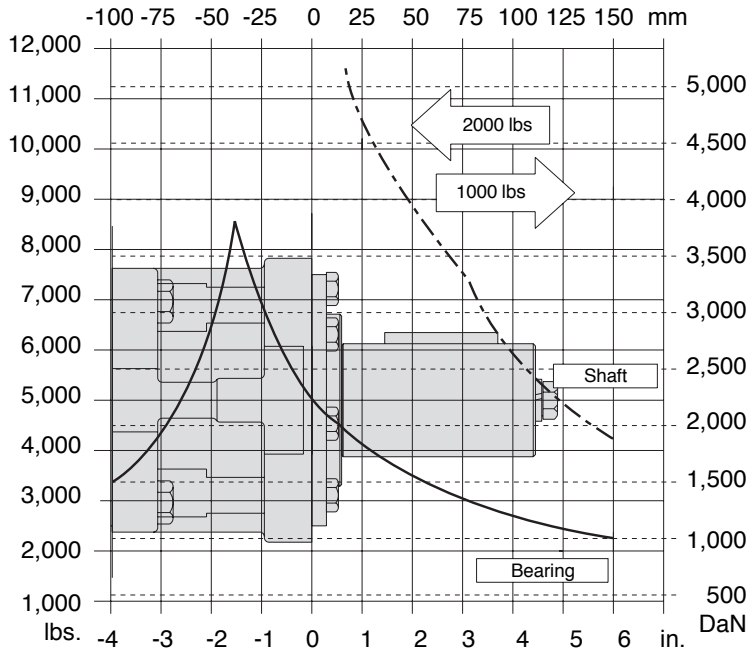
C2	*Standard Mount 5" Pilot End Ports*
E2	*Standard Mount 125mm Pilot End Ports*
C8	*Standard Mount 5" Pilot Side Ports*
E8	*Standard Mount 125mm Pilot Side Ports*



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.

STANDARD



LENGTH AND WEIGHT TABLES

Wheel Mount

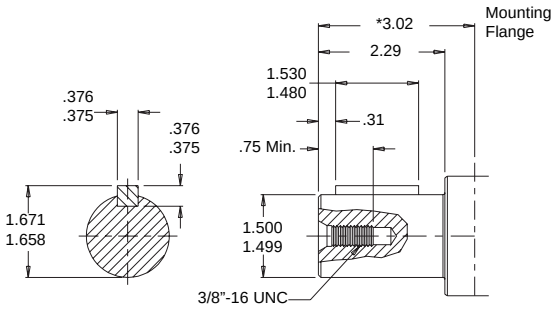
Code	W in	Weight lbs
300	8.25	44.6
375	8.50	45.8
470	8.80	47.1
540	9.04	48.2
750	9.75	51.3
930	10.35	53.8
1K1	10.75	55.7
1K5	12.25	62.5
2K1	14.25	71.3

DT motor weights vary ±3 lbs depending upon motor configuration. Subtract .11 in. from W for motors using the 1, 2 or 5 Endcover.

SHAFTS

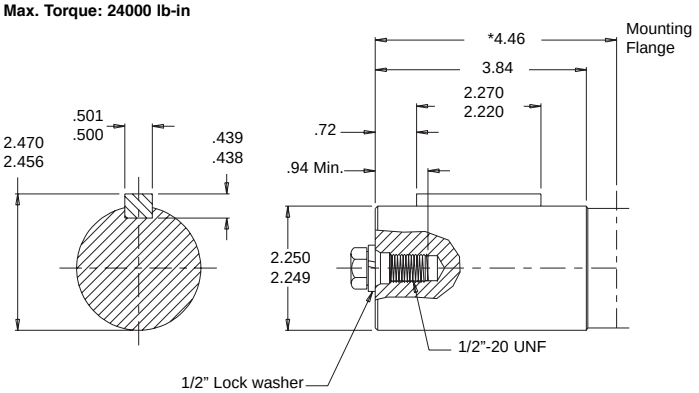
30 *1 ½" Straight*

Max. Torque: 19800 lb-in



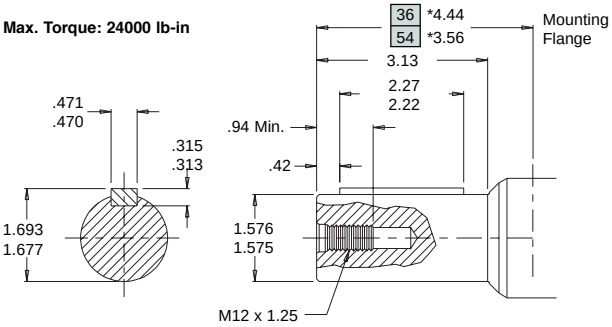
40 *2 ¼" Straight*

Max. Torque: 24000 lb-in



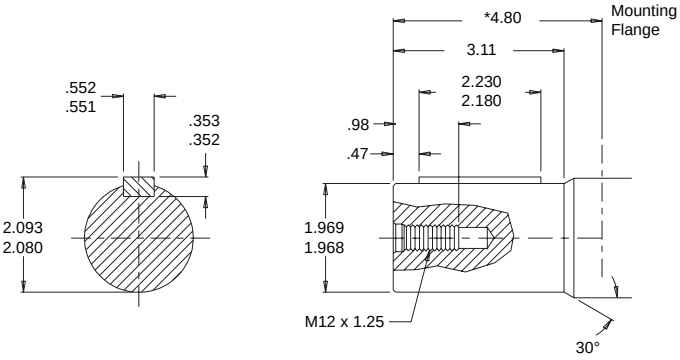
36 *40mm Straight*
Ü54 *40mm Straight Extended*

Max. Torque: 24000 lb-in



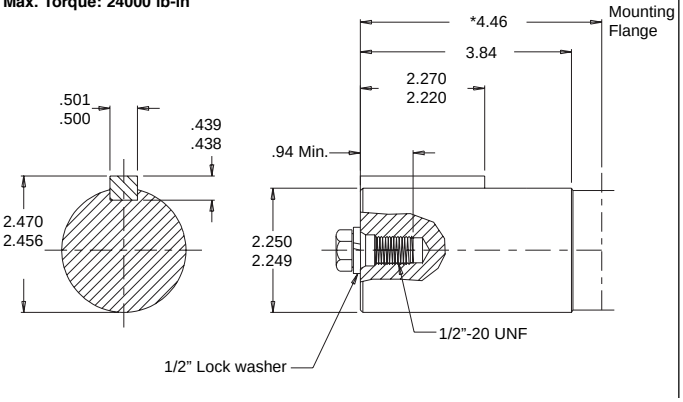
41 *50mm Straight*

Max. Torque: 24000 lb-in



Ü47 *2 ¼" Straight with Modified Keyway*

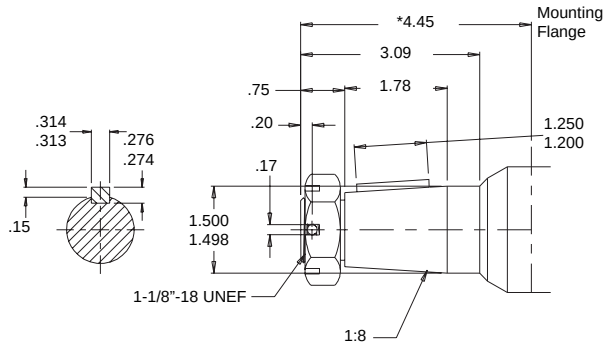
Max. Torque: 24000 lb-in



*Shaft Lengths vary ± .030 inches.
†For Speed Sensor Motors Only

31 *1 ½" Tapered*

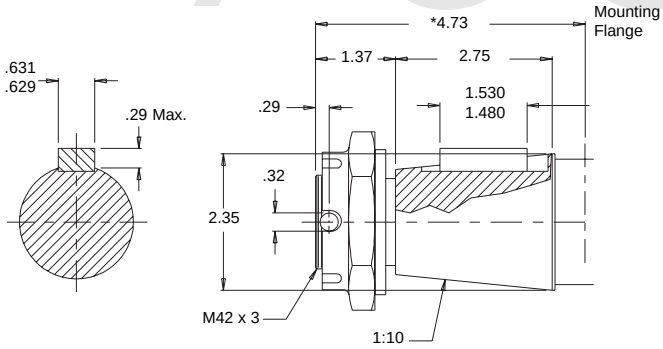
Max. Torque: 19900 lb-in



Note: A slotted nut is standard on this shaft.

45 *60mm Tapered*

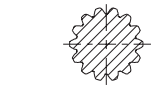
Max. Torque: 24000 lb-in



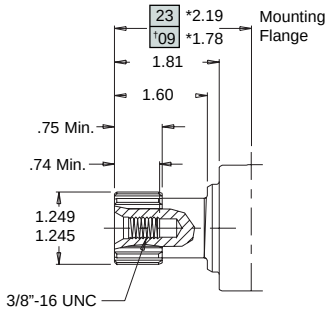
Note: A slotted nut is standard on this shaft.

23 *14 Tooth Spline*
Ü09 *14 Tooth Spline Extended*

Max. Torque: 18400 lb-in

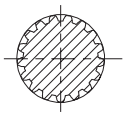


14 tooth 12/24 Pitch
Std. ANSI B92.1-1996 Spline

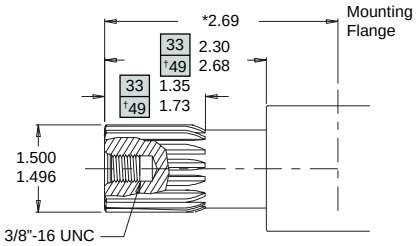


33 *17 Tooth Spline*
Ü49 *17 Tooth Spline Extended*

Max. Torque: 19900 lb-in



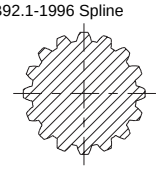
17 tooth 12/24 Pitch
SAE Std. Spline



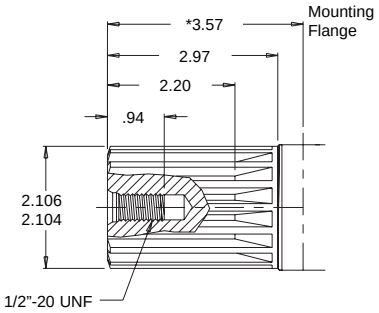
42 *16 Tooth Spline*
Ü48 *16 Tooth Spline Extended*

Max. Torque: 24000 lb-in

**16 tooth 8/16 Pitch
Std. ANSI B92.1-1996 Spline



**Deviates From Standard



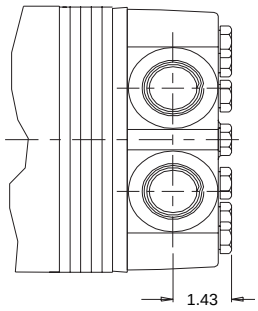
*Shaft Lengths vary ± .030 inches.
†For Speed Sensor Motors Only

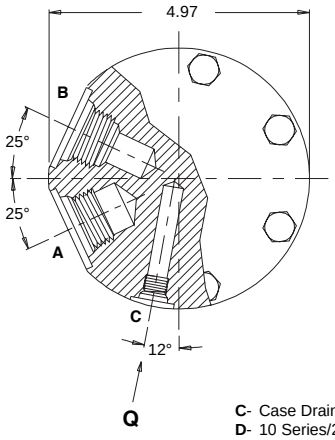
WHITE HYDRAULICS

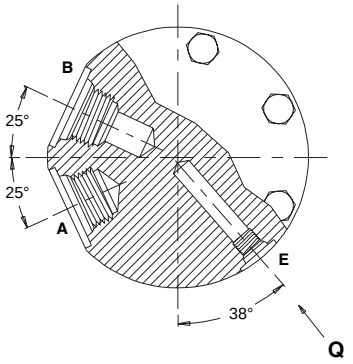
PORTING

5	*1-1/16” O-Ring with 7/16” Drain*
2	*3/4” BSP.F with 1/4” Drain*

SIDE PORTS



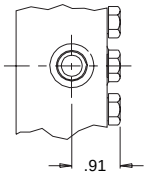




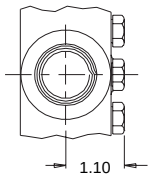
C- Case Drain
D- 10 Series/2-way Valve Cavity (7/8”-14 UNF-2B)
E- Internal Drain

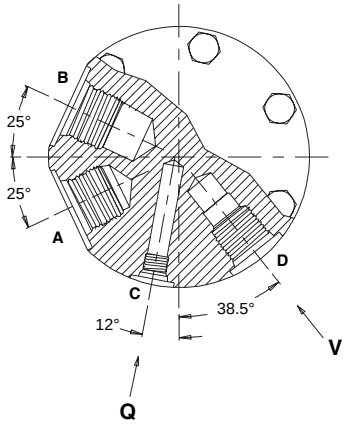
Q and V

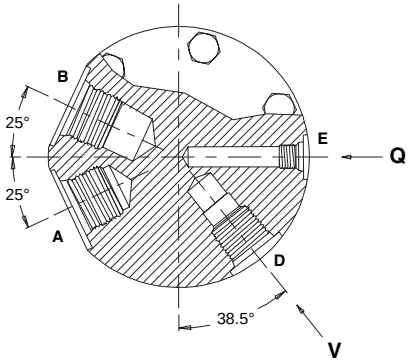
Q - Case Drain



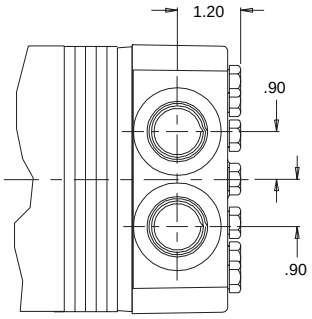
V - Valve Cavity

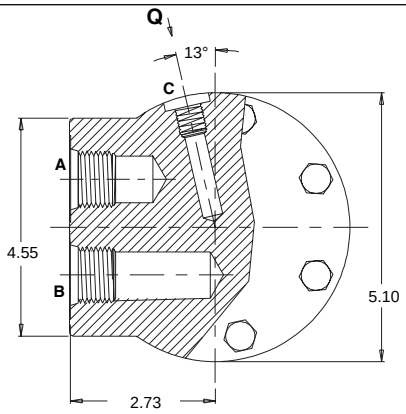


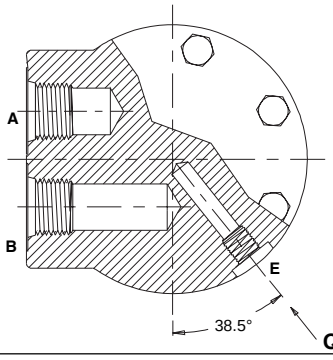




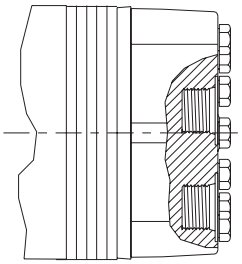
6	*1-1/16” O-Ring with 7/16” Drain*
7	*3/4” BSP.F with 1/4” Drain*

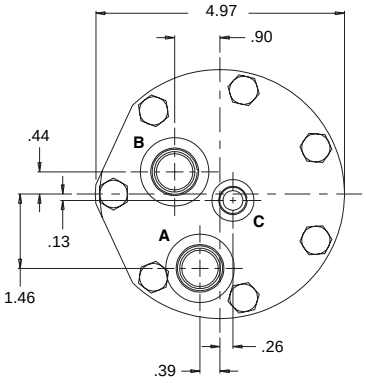


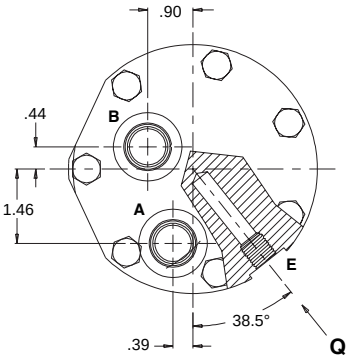




1 *7/8" O-Ring with 7/16" Drain*



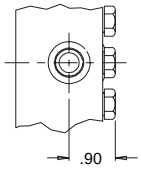




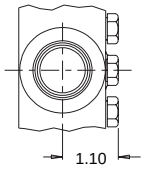
C- Case Drain
D- 10 Series/2-way Valve Cavity (7/8"-14 UNF-2B)
E- Internal Drain

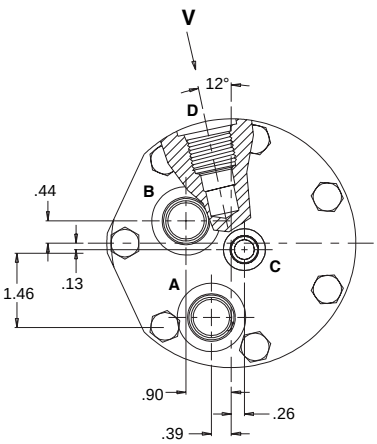
Q and V

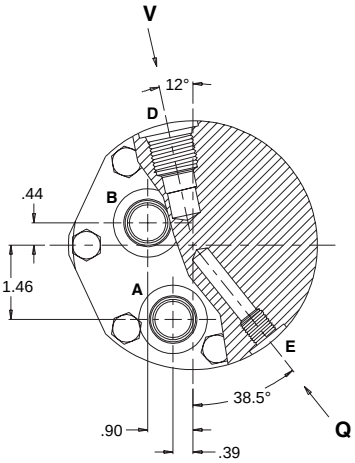
Q - Case Drain



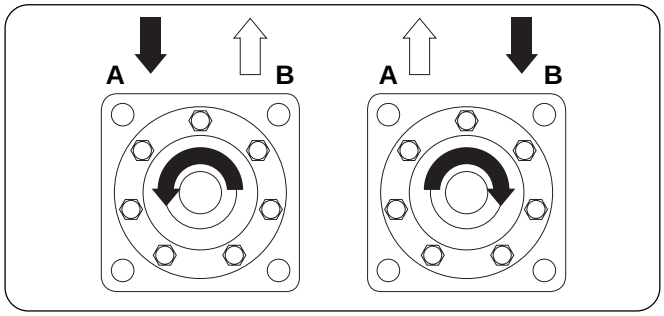
V - Valve Cavity







DT ROTATION SELECTION



ORDERING INFORMATION

SERIES 700 — DISPLACEMENT — HOUSINGS — SHAFT — OPTIONS — MISCELLANEOUS

Code	Displacement
300	18.3 in³/rev
375	22.8 in³/rev
470	28.3 in³/rev
540	32.7 in³/rev
750	45.6 in³/rev
930	56.7 in³/rev
1K1	63.9 in³/rev
1K5	91.2 in³/rev
2K1	127.7 in³/rev

Code	Housings
C2	Standard Mount 5" Pilot End Ports
C8	Standard Mount 5" Pilot Side Ports
E2	Standard Mount 125mm Pilot End Ports
E8	Standard Mount 125mm Pilot Side Ports

PORTS

Code	Side Ports
5	Radial Ports 1-1/16" O-ring
2	Radial Ports 3/4" BSP.F
6	Parallel Ports 1-1/16" O-ring
7	Parallel Ports 3/4" BSP.F

Code	End Ports
1	7/8-14 O-ring

Code	Shafts
*09	14 Tooth Spline Ext.
23	14 Tooth Spline
30	1-1/2" Straight
31	1-1/2" Tapered
34	17 Tooth Spline
36	40mm Straight
40	2-1/4" Straight
41	50mm Straight
42	16 Tooth Spline
45	60mm Tapered
*47	2-1/4" Straight Mod.
*48	16 Tooth Spline Ext.
*49	17 Tooth Spline Ext.
*54	40mm Straight Ext.

PAINT

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

* For speed sensor motors only.

Code	Options
AA	None
AB	Internal Drain (Low Pressure)
AC	Freeturning Rotor
AD	Internal Drain with Freeturning Rotor

ADD ONS

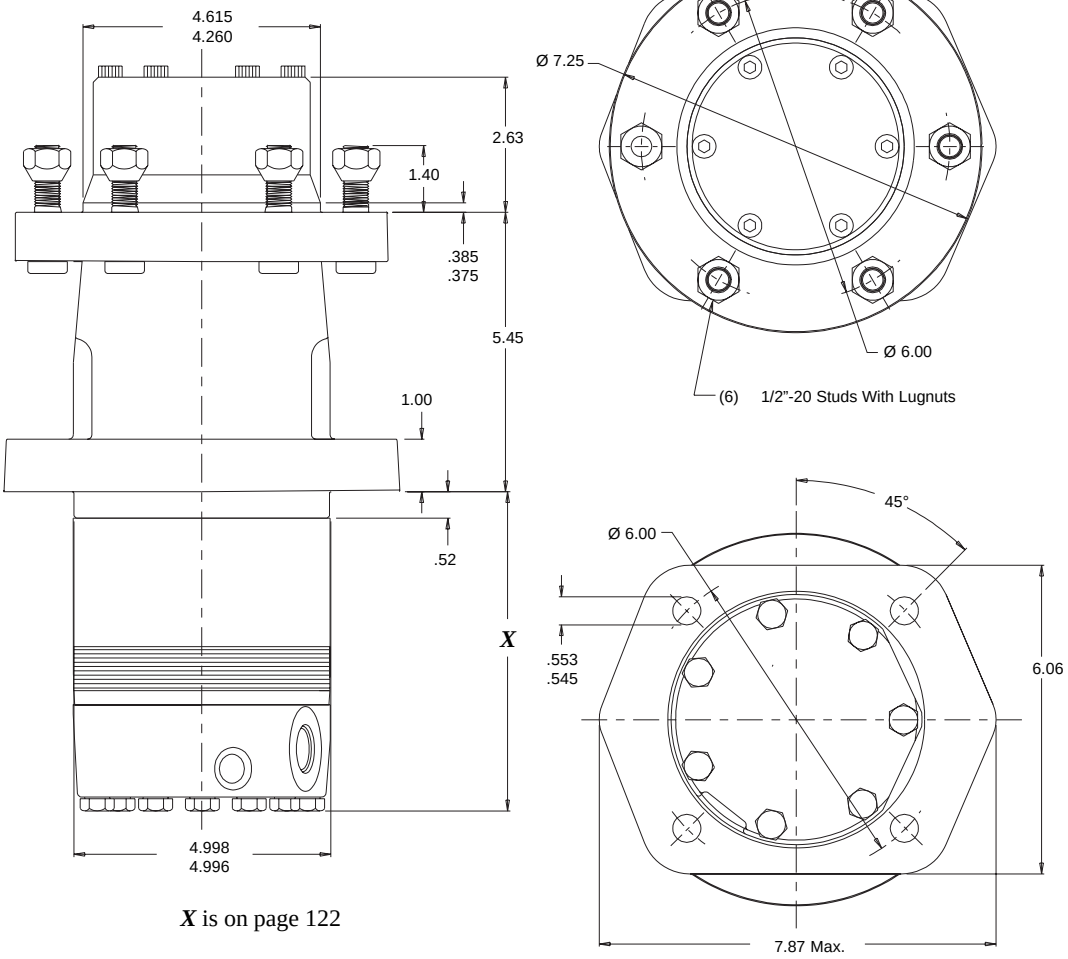
Code	Options
A	Standard
W	4-Pin Male Weatherpack Connector (Dual)
X	4-Pin M12 Male Connector (Dual)
Y	3-Pin Male Weatherpack Connector (Single)
Z	4-Pin M12 Male Connector (Single)

CAVITY

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

NOTE: To complete the 3 digit housing code, a housing and port option must be entered. A side port housing option must use side port connections, and an end port housing option must use end port connections.
(Example: C82 = A standard mount 5" pilot radial side ported motor with 3/4" BSPF threading)

W2	*4-Hole End Ports*
W8	*4-Hole Side Ports*



X is on page 122

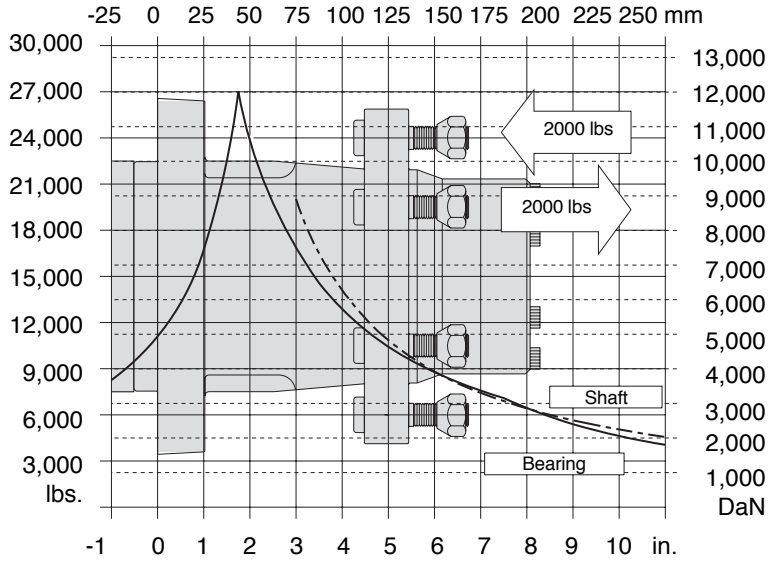
Note: The DT40 Series motor is not available with the internal drain option. Drain line pressure must be maintained below 25 psi. A dedicated line from the motor drain port to the reservoir is recommended.

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.

DT40



LENGTH AND WEIGHT TABLES

Wheel Mount

Code	X in	Weight lbs
300	4.74	62.6
375	4.99	63.8
470	5.29	65.1
540	5.53	66.2
750	6.24	69.2
930	6.84	71.8
1K1	7.24	73.7
1K5	8.74	80.5
2K1	10.74	89.3

DT motor weights vary ±3 lbs depending upon motor configuration. Subtract .11 in. from X for motors using the 1, 2 or 5 Endcover.

ORDERING INFORMATION

SERIES **740** — DISPLACEMENT — HOUSINGS — SHAFT — OPTIONS (PAINT, CAVITY, ADD ONS, MISCELLANEOUS)

Code	Displacement
300	18.3 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
930	56.7 in^3/rev
1K1	63.9 in^3/rev
1K5	91.2 in^3/rev
2K1	127.7 in^3/rev

Code	Housings
W2	4-Hole Wheel Mount (6.00 Diameter B.C.) with End Ports
W8	4-Hole Wheel Mount (6.00 Diameter B.C.) with Side Ports

PORTS

Code	Side Ports
5	Radial Ports 1-1/16" O-ring
2	Radial Ports 3/4" BSP.F

Code	End Ports
1	7/8" O-ring

Code	Shafts
61	6-Bolt Wheel Flange (6.00 Diameter B.C.)

PAINT

Code	Options
A	Dark Metallic Gray
C	Black
Z	No Paint

CAVITY

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

ADD ONS

Code	Options
A	Standard

MISCELLANEOUS

Code	Options
AA	None
AC	Freeturning Rotor

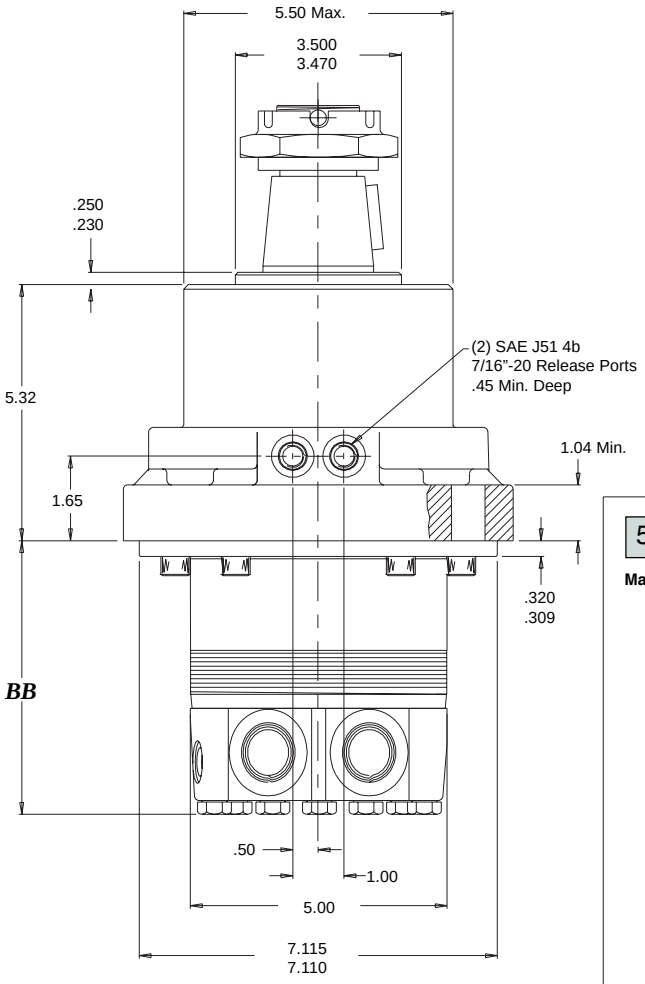
NOTE: To complete the 3 digit housing code, a housing and port option must be entered. A side port housing option must use side port connections, and an end port housing option must use end port connections.
(Example: W21 = A 4-Hole wheel mount end ported motor with 7/8" threading.)

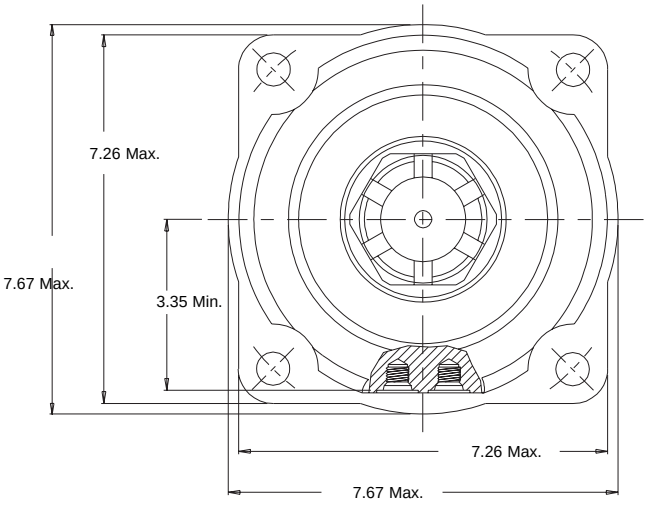
WHITE HYDRAULICS

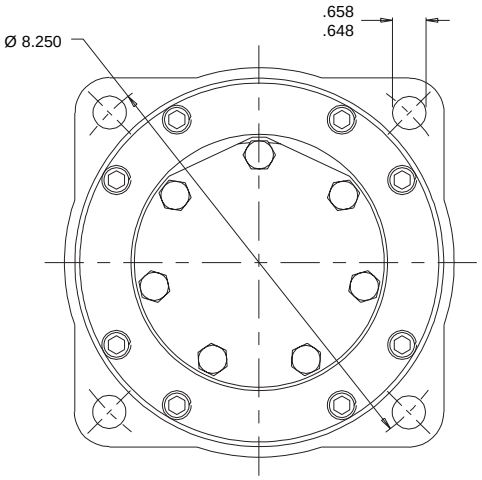
HOUSING

W2 *4-Hole End Ports*

W8 *4-Hole Side Ports*





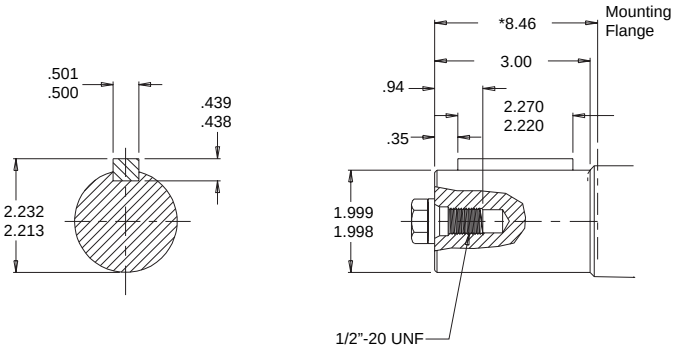


BB is on page 125

SHAFTS

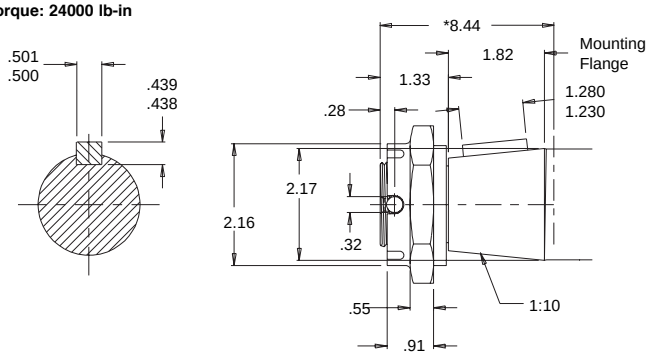
50 *2" Straight*

Max. Torque: 24000 lb-in



51 *55mm Tapered*

Max. Torque: 24000 lb-in



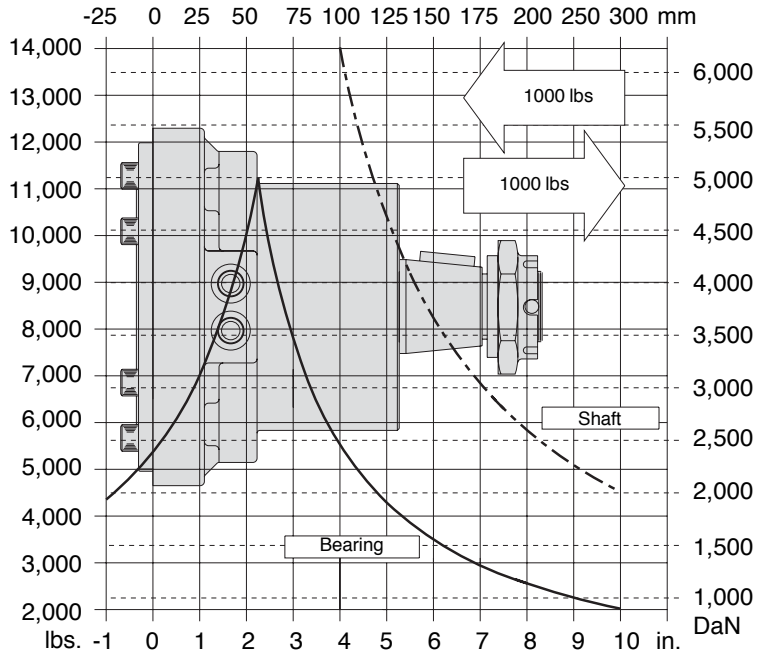
Shaft Lengths vary± .030 inches

Note: A slotted nut is standard on this shaft.

CAUTION: It is vital that all operating recommendations on page 43 be followed. Failure to do so could result in injury or death.

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.



LENGTH AND WEIGHT TABLES

Wheel Mount		
Code	BB in	Weight lbs
300	4.54	60.0
375	4.79	61.2
470	5.09	62.5
540	5.33	63.6
750	6.04	66.7
930	6.64	69.2
1K1	7.04	71.1
1K5	8.54	77.9
2K1	10.54	86.7

DT motor weights vary ±3 lbs depending upon motor configuration. Subtract .11 in. from BB for motors using the 1, 2 or 5 Endcover.

Rated brake torque	14,000 lb-in
Initial release pressure	275 psi
Full release pressure	475 psi
Maximum release pressure	3,000 psi
Release volume	0.8-1.0 cu.in.

ORDERING INFORMATION

SERIES: 712

DISPLACEMENT

Code	Displacement
300	18.3 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
930	56.7 in^3/rev
1K1	63.9 in^3/rev
1K5	91.2 in^3/rev
2K1	127.7 in^3/rev

HOUSINGS

Code	Housings
W2	4-Hole End Ports
W8	4-Hole Side Ports

PORTS

Code	Side Ports
5	Radial Ports 1-1/16" O-ring
2	Radial Ports 3/4" BSP.F
6	Parallel Ports 1-1/16" O-ring
7	Parallel Ports 3/4" BSP.F

Code	End Ports
1	7/8" O-ring

NOTE: To complete the 3 digit housing code, a housing and port option must be entered. A side port housing option must use side port connections, and an end port housing option must use end port connections.
(Example: W82 = A 4-Hole radial ported motor with 3/4" BSP.F threading)

SHAFT

Code	Shafts
50	2" Straight
51	55mm Tapered

OPTIONS

PAINT

Code	Options
A	Dark Metallic Gray
C	Black
Z	No Paint

CAVITY

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

ADD ONS

Code	Options
A	Standard

MISCELLANEOUS

Code	Options
AA	None
AC	Freeturning Rotor