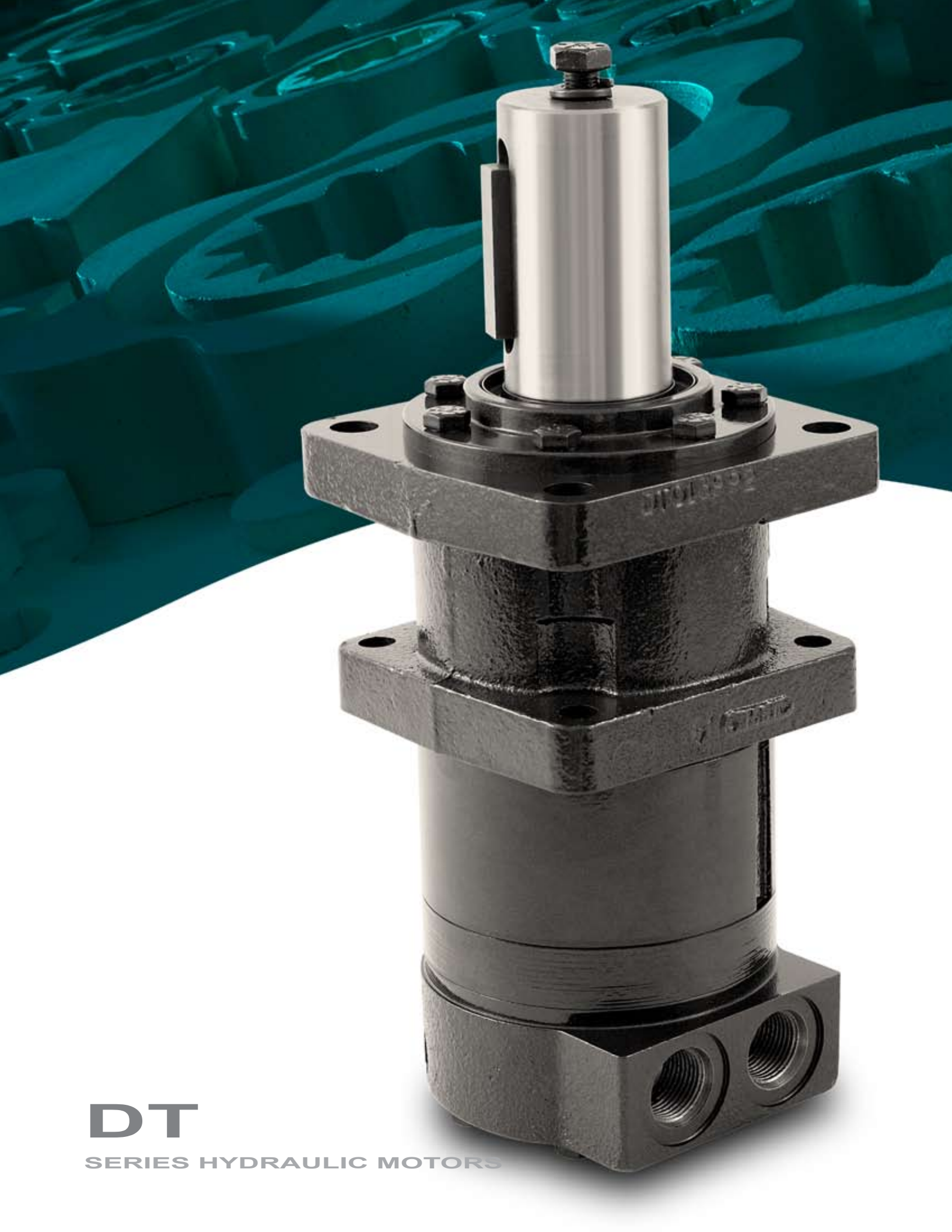


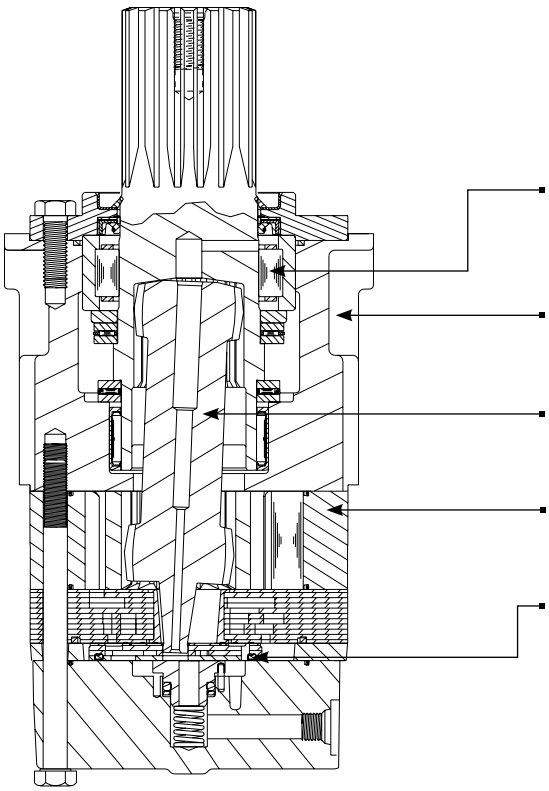
DT

SERIES HYDRAULIC MOTORS

DT

OVERVIEW

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.



KEY FEATURES

Heavy-Duty Roller Bearing supports high side loads and receives forced lubrication for cooling and increased life.

Compact Housing contributes to high power-to-weight ratio of motor and offers front and rear mounting flanges.

Heavy-Duty Drive Link receives forced lubrication for long life and is capable of extreme duty cycles.

Roller Stator® Motor available in displacements up to 2093cc [127.7 cid] for high torque output.

Three-Zone Orbiting Valve precisely meters oil to produce exceptional volumetric efficiencies.

SPECIFICATIONS

Intermittent Ratings - 10% of Operation **Peak Ratings** - 1% of Operation

CODE	Displacement cc [in^3/rev]	Max. Speed rpm		Max. Flow lpm [gpm]		Max. Torque Nm [lb-in]		Max. Pressure bar [psi]		
		cont.	inter.	cont.	inter.	cont.	inter.	cont.	inter.	peak
300	300 [18.3]	320	380	95 [25]	114 [30]	819 [7250]	955 [8450]	207 [3000]	241 [3500]	259 [3750]
375	374 [22.8]	250	300	95 [25]	114 [30]	1045 [9250]	1127 [9975]	207 [3000]	224 [3250]	241 [3500]
470	464 [28.3]	200	240	95 [25]	114 [30]	1071 [9475]	1390 [12300]	172 [2500]	224 [3250]	241 [3500]
540	536 [32.7]	180	210	95 [25]	114 [30]	1277 [11300]	1525 [13500]	172 [2500]	207 [3000]	241 [3500]
750	747 [45.6]	130	150	95 [25]	114 [30]	1780 [15750]	2090 [18500]	172 [2500]	207 [3000]	241 [3500]
930	929 [56.7]	100	120	95 [25]	114 [30]	1780 [15750]	2141 [18950]	138 [2000]	172 [2500]	207 [3000]
1K1	1047 [63.9]	90	110	95 [25]	114 [30]	1915 [16950]	2316 [20500]	138 [2000]	172 [2500]	207 [3000]
1K5	1495 [91.2]	60	70	95 [25]	114 [30]	2090 [18500]	2316 [20500]	103 [1500]	121 [1750]	138 [2000]
2K1	2093 [127.7]	40	50	95 [25]	114 [30]	2661 [23550]	3342 [29580]	103 [1500]	121 [1750]	138 [2000]

300

300 cc [18.3 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000] Max. Cont.	241 [3500] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	Theoretical rpm
2 [0.5]	7
4 [1]	13
8 [2]	26
15 [4]	51
23 [6]	76
30 [8]	101
38 [10]	127
45 [12]	152
53 [14]	177
61 [16]	202
68 [18]	228
76 [20]	253
83 [22]	278
91 [24]	303
95 [25] Max. Max. Inter. Cont.	316
114 [30]	379

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]
54 [476] **4**	115 [1014] **3**	237 [2100] **2**					
47 [415] **11**	108 [952] **9**	255 [2256] **7**	380 3363] **5**	486 [4304] **3**			
49 [435] **24**	119 [1057] **23**	257 [2278] **21**	410 [3628] **19**	543 [4801] **15**	671 [5942] **12**	789 [6983] **9**	899 [7959] **7**
49 [430] **50**	120 [1064] **49**	264 [2336] **46**	409 [3616] **43**	554 [4904] **37**	701 [6202] **32**	839 [7424] **28**	971 [8595] **26**
	116 [1025] **75**	278 [2462] **69**	420 [3719] **65**	567 [5019] **58**	712 [6297] **54**	854 [7554] **51**	983 [8701] **48**
	105 [929] **100**	251 [2222] **97**	396 [3506] **93**	542 [4793] **86**	692 [6122] **78**	831 [7353] **70**	974 [8621] **69**
	99 [877] **126**	237 [2099] **122**	388 [3438] **115**	549 [4857] **113**	687 [6081] **107**	833 [7369] **96**	970 [8588] **90**
	88 [762] **151**	237 [2094] **150**	378 [3342] **140**	527 [4666] **135**	666 [5893] **129**	823 [7281] **119**	963 [8523] **113**
	77 [679] **176**	211 [1864] **175**	361 [3191] **172**	506 [4478] **164**	656 [5802] **156**	805 [7121] **151**	951 [8420] **140**
	60 [528] **201**	208 [1845] **200**	359 [3179] **189**	495 [4378] **185**	648 [5731] **178**	791 [6999] **172**	928 [8213] **165**
		191 [1694] **225**	335 [2961] **222**	497 [4402] **211**	632 [5592] **206**	776 [6871] **196**	914 [8093] **189**
		168 [1489] **251**	320 [2835] **247**	461 [4083] **240**	610 [5401] **233**	764 [6762] **228**	897 [7934] **216**
		147 [1298] **276**	302 [2675] **272**	444 [3926] **269**	588 [5205] **258**	742 [6570] **249**	883 [7810] **234**
		123 [1086] **300**	272 [2409] **298**	414 [3666] **296**	558 [4934] **290**	708 [6264] **281**	851 [7535] **272**
		108 [958] **315**	257 [2278] **313**	393 [3482] **308**	549 [4857] **300**	694 [6139] **289**	839 [7421] **280**
			186 [1642] **376**	333 [2945] **372**	473 [4189] **369**		

Overall Efficiency - 70 - 100% ☐ 40 - 69% ▒ 0 - 39% ■

Theoretical Torque - Nm [lb-in]

82 [729]	165 [1457]	329 [2914]	494 [4371]	659 [5828]	823 [7285]	988 [8742]	1152 [10199]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

375

374 cc [22.8 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000] Max. Cont.	224 [3250] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	Theoretical rpm
2 [0.5]	6
4 [1]	11
8 [2]	21
15 [4]	41
23 [6]	61
30 [8]	82
38 [10]	102
45 [12]	122
53 [14]	142
61 [16]	163
68 [18]	183
76 [20]	203
83 [22]	223
91 [24]	244
95 [25] Max. Max. Inter. Cont.	254
114 [30]	304

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	224 [3250]
65 [574] **4**	144 [1272] **3**	302 [2670] **2**	449 [3970] **1**				
66 [583] **9**	152 [1345] **8**	312 [2757] **7**	475 [4208] **5**	625 [5535] **4**			
67 [596] **19**	154 [1365] **18**	329 [2907] **17**	496 [4388] **14**	644 [5695] **12**	805 [7122] **10**	963 [8524] **8**	1050 [9288] **7**
71 [627] **40**	158 [1400] **39**	337 [2982] **37**	513 [4536] **34**	680 [6020] **30**	858 [7596] **27**	1013 [8962] **25**	1099 [9723] **23**
64 [570] **60**	151 [1334] **60**	336 [2969] **58**	520 [4598] **54**	694 [6141] **49**	871 [7704] **45**	1048 [9275] **41**	1115 [9867] **41**
53 [467] **81**	151 [1337] **80**	325 [2876] **78**	512 [4532] **73**	691 [6113] **69**	873 [7724] **63**	1051 [9304] **60**	1126 [9964] **59**
	131 [1161] **101**	313 [2768] **99**	502 [4439] **95**	686 [6075] **89**	884 [7824] **82**	1049 [9281] **79**	1131 [10011] **77**
	112 [995] **121**	308 [2725] **120**	494 [4375] **116**	685 [6059] **109**	862 [7626] **103**	1053 [9321] **98**	1137 [10066] **97**
	99 [878] **141**	283 [2508] **140**	469 [4149] **136**	645 [5705] **131**	844 [7467] **125**	1013 [8965] **117**	1116 [9877] **115**
	75 [662] **162**	262 [2319] **161**	443 [3923] **160**	631 [5587] **155**	823 [7283] **148**	1009 [8930] **143**	1114 [9859] **136**
		248 [2198] **181**	427 [3779] **178**	612 [5416] **175**	804 [7119] **167**	1005 [8895] **160**	1091 [9653] **156**
		218 [1925] **202**	403 [3568] **200**	583 [5161] **195**	778 [6886] **189**	966 [8549] **178**	1071 [9474] **173**
		189 [1676] **222**	375 [3318] **221**	561 [4967] **217**	754 [6669] **211**	942 [8335] **201**	1036 [9171] **196**
		155 [1374] **242**	344 [3041] **240**	535 [4732] **237**	724 [6410] **229**		
			321 [2839] **252**	519 [4596] **249**	710 [6283] **241**		
			238 [2110] **303**	432 [3820] **301**	622 [5503] **296**		

Overall Efficiency - 70 - 100% ☐ 40 - 69% ▒ 0 - 39% ■

Theoretical Torque - Nm [lb-in]

103 [908]	205 [1815]	410 [3631]	615 [5446]	821 [7261]	1026 [9076]	1231 [10892]	1333 [11799]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

DT

PERFORMANCE

470

464 cc [28.3 in³/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500] Max. Cont.	207 [3000]	224 [3250] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]									Theoretical rpm
2 [0.5]	86 [762] **3**	201 [1780] **2**	401 [3553] **2**						5
4 [1]	92 [817] **7**	195 [1728] **7**	406 [3597] **6**	610 [5395] **5**	806 [7137] **4**				9
8 [2]	94 [835] **15**	199 [1761] **15**	418 [3702] **14**	631 [5580] **13**	832 [7365] **11**	1042 [9226] **9**	1239 [10961] **8**		17
15 [4]	92 [815] **32**	202 [1784] **32**	426 [3769] **60**	646 [5717] **28**	849 [7513] **24**	1066 [9430] **23**	1272 [11256] **21**	1381 [12217] **19**	33
23 [6]	82 [729] **48**	203 [1799] **47**	423 [3744] **46**	647 [5725] **43**	855 [7565] **39**	1070 [9473] **36**	1275 [11287] **34**	1365 [12083] **32**	49
30 [8]	67 [595] **65**	185 [1641] **64**	414 [3663] **63**	642 [5683] **60**	867 [7671] **54**	1078 [9538] **47**	1300 [11508] **46**	1398 [12367] **44**	66
38 [10]	52 [459] **81**	170 [1503] **80**	399 [3532] **79**	630 [5573] **78**	857 [7584] **69**	1077 [9531] **63**	1283 [11352] **61**	1393 [12323] **58**	82
45 [12]		153 [1354] **97**	380 [3366] **96**	613 [5422] **93**	842 [7454] **88**	1072 [9488] **77**	1302 [11523] **74**	1394 [12334] **68**	98
53 [14]		127 [1121] **114**	359 [3173] **113**	591 [5229] **110**	823 [7282] **104**	1057 [9350] **97**	1270 [11242] **89**	1392 [12318] **85**	115
61 [16]		100 [888] **160**	335 [2964] **129**	564 [4993] **127**	798 [7061] **119**	1030 [9118] **114**	1254 [11101] **108**	1369 [12118] **102**	131
68 [18]		67 [595] **146**	304 [2689] **145**	535 [4734] **143**	765 [6772] **137**	1003 [8875] **132**	1229 [10877] **120**	1348 [11926] **114**	147
76 [20]			274 [2428] **162**	504 [4458] **160**	733 [6485] **155**	965 [8536] **148**	1197 [10592] **139**	1318 [11668] **136**	164
83 [22]			226 [2003] **178**	458 [4050] **175**	691 [6118] **172**	928 [8215] **165**	1150 [10181] **156**	1266 [11200] **154**	180
91 [24]			176 [1554] **194**	415 [3670] **192**	669 [5917] **190**	885 [7833] **183**			196
Max. Inter. 95 [25]				389 [3442] **203**	632 [5589] **198**	867 [7676] **190**			205
Max. Cont. 114 [30]				277 [2451] **243**	514 [4549] **240**	755 [6684] **235**			245

Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐

Theoretical Torque - Nm [lb-in]

127 [1127]	255 [2253]	509 [4506]	764 [6760]	1018 [9013]	1273 [1126]	1528 [13519]	1655 [14646]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

540

536 cc [32.7 in³/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500] Max. Cont.	207 [3000] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]								Theoretical rpm
2 [0.5]	103 [908] **2**	215 [1607] **2**	421 [3722] **1**					4
4 [1]	104 [917] **6**	228 [2016] **5**	454 [4015] **4**	666 [5897] **3**	874 [7730] **1**			8
8 [2]	108 [954] **13**	231 [2043] **12**	474 [4191] **11**	704 [6231] **9**	925 [8190] **5**	1153 [10201] **4**		15
15 [4]	102 [906] **27**	232 [2052] **26**	503 [4448] **24**	756 [6692] **21**	994 [8799] **18**	1221 [10806] **15**	1461 [12930] **13**	29
23 [6]	98 [866] **42**	230 [2038] **41**	498 [4404] **39**	766 [6774] **36**	1023 [9049] **30**	1268 [11225] **27**	1494 [13219] **24**	43
30 [8]	84 [744] **56**	213 [1883] **55**	484 [4280] **53**	754 [6669] **49**	1032 [9130] **42**	1273 [11262] **38**	1524 [13486] **34**	57
38 [10]	63 [561] **70**	195 [1727] **69**	466 [4122] **68**	737 [6519] **64**	1006 [8903] **57**	1285 [11374] **49**	1532 [13556] **46**	71
45 [12]	42 [373] **84**	179 [1586] **83**	444 [3928] **82**	717 [6349] **76**	984 [8710] **72**	1274 [11277] **65**	1518 [13436] **57**	85
53 [14]		146 [1295] **97**	421 [3722] **95**	694 [6139] **93**	964 [8529] **87**	1253 [11091] **80**	1512 [13381] **70**	99
61 [16]		116 [1025] **113**	391 [3460] **111**	663 [5865] **108**	930 [8230] **103**	1206 [10675] **97**	1479 [13086] **84**	114
68 [18]		90 [798] **127**	356 [3153] **125**	629 [5563] **123**	900 [7969] **116**	1192 [10550] **107**	1451 [12841] **100**	128
76 [20]		56 [498] **141**	330 [2923] **139**	595 [5265] **137**	887 [7850] **133**	1158 [10250] **123**	1421 [12578] **114**	142
83 [22]			278 [2464] **155**	549 [4859] **153**	822 [7271] **148**	1121 [9919] **136**	1388 [12283] **133**	156
91 [24]			243 [2154] **169**	508 [4494] **166**	794 [7024] **164**	1054 [9325] **156**		170
Max. Inter. 95 [25]			220 [1948] **176**	486 [4299] **174**	762 [6741] **169**	1025 [9075] **163**		177
Max. Cont. 114 [30]			90 [800] **211**	366 [3237] **210**	638 [5649] **207**	920 [8144] **203**		212

Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐

Theoretical Torque - Nm [lb-in]

147 [1302]	294 [2604]	588 [5207]	883 [7811]	1177 [10414]	1471 [13018]	1765 [15621]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

750

747 cc [45.6 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	Max. Cont. 173 [2500]	Max. Inter. 207 [3000]

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	Theoretical rpm
2 [0.5]	144 [1276] **1**	290 [2566] **1**						3
4 [1]	154 [1367] **4**	323 [2863] **3**	669 [5917] **2**	931 [8242] **2**				6
8 [2]	162 [1435] **9**	341 [3015] **9**	712 [6302] **7**	1021 [9038] **6**	1305 [11550] **3**			11
15 [4]	158 [1400] **19**	348 [3080] **19**	723 [6399] **17**	1082 [9578] **15**	1402 [12410] **11**			21
23 [6]	144 [1273] **30**	331 [2927] **29**	714 [6317] **27**	1083 [9583] **24**	1433 [12678] **20**	1744 [15430] **16**		31
30 [8]	126 [1116] **40**	328 [2900] **39**	697 [6167] **37**	1072 [9486] **34**	1451 [12843] **25**	1769 [15658] **20**		41
38 [10]	104 [922] **50**	291 [2574] **50**	675 [5976] **47**	1055 [9334] **44**	1445 [12785] **36**	1786 [15805] **28**	2076 [18373] **19**	51
45 [12]	77 [682] **60**	269 [2382] **59**	655 [5792] **58**	1032 [9136] **54**	1431 [12668] **49**	1786 [15801] **36**	2094 [18528] **30**	61
53 [14]	46 [410] **70**	239 [2116] **69**	627 [5545] **68**	1003 [8880] **65**	1407 [12451] **59**	1767 [15634] **45**	2099 [18578] **37**	71
61 [16]		201 [1780] **81**	584 [5164] **79**	971 [8592] **76**	1345 [11907] **70**	1743 [15422] **57**	2065 [18271] **44**	82
68 [18]		161 [1421] **91**	545 [4819] **90**	928 [8209] **86**	1306 [11556] **80**	1709 [15120] **69**		92
76 [20]		120 [1058] **101**	497 [4395] **100**	863 [7635] **97**	1260 [11154] **90**			102
83 [22]			444 [3926] **110**	831 [7351] **108**	1213 [10737] **101**			112
91 [24]			389 [3447] **121**	785 [6947] **117**	1196 [10581] **111**			122
95 [25]			368 [3255] **126**	757 [6697] **124**	1144 [10126] **120**			127
Max. Max. Inter. Cont. 114 [30]			205 [1813] **151**	613 [5428] **149**	979 [8665] **146**			152

Overall Efficiency - 70 - 100% ☐ 40 - 69% ▒ 0 - 39% ■

Theoretical Torque - Nm [lb-in]

205 [1815]	410 [3631]	821 [7261]	1231 [10892]	1641 [14522]	2051 [18153]	2462 [21783]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

930

929 cc [56.7 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	Max. Cont. 138 [2000]	155 [2250]	Max. Inter. 173 [2500]

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	138 [2000]	155 [2250]	173 [2500]	Theoretical rpm
2 [0.5]	180 [1590] **1**	387 [3423] **1**	607 [5368] **1**	801 [7089] **1**							3
4 [1]	196 [1734] **4**	418 [3696] **3**	653 [5780] **3**	864 [7649] **3**	1067 [9447] **3**	1294 [11451] **3**					5
8 [2]	205 [1816] **8**	442 [3907] **7**	680 [6015] **7**	877 [7764] **7**	1117 [9886] **7**	1300 [11501] **6**	1510 [13365] **5**				9
15 [4]	198 [1753] **16**	432 [3825] **16**	664 [5878] **15**	906 [8021] **15**	1121 [9924] **15**	1338 [11840] **14**	1556 [13769] **13**	1730 [15306] **11**			17
23 [6]	185 [1633] **24**	420 [3719] **24**	651 [5765] **24**	908 [8034] **24**	1123 [9935] **23**	1355 [11991] **22**	1543 [13651] **20**	1794 [15873] **18**	1981 [17532] **16**		25
30 [8]	162 [1438] **32**	404 [3576] **31**	636 [5624] **30**	893 [7900] **30**	1107 [9800] **29**	1340 [11854] **28**	1581 [13988] **27**	1776 [15716] **24**	1985 [17570] **22**	2105 [18632] **17**	33
38 [10]	125 [1109] **40**	368 [3253] **40**	626 [5536] **39**	845 [7476] **38**	1087 [9620] **38**	1314 [11625] **36**	1497 [13251] **34**	1736 [15364] **31**	1956 [17306] **28**	2153 [19054] **24**	41
45 [12]	91 [807] **48**	341 [3018] **47**	578 [5111] **46**	815 [7213] **45**	1072 [9487] **44**	1314 [11630] **42**	1525 [13492] **41**	1713 [15159] **36**	1946 [17222] **33**	2133 [18873] **32**	49
53 [14]	35 [310] **57**	290 [2565] **56**	533 [4715] **55**	765 [6772] **54**	1024 [9059] **52**	1240 [10974] **50**	1487 [13155] **49**	1727 [15287] **45**	1945 [17216] **43**	2168 [19188] **36**	58
61 [16]		239 [2118] **64**	484 [4281] **63**	726 [6429] **62**	959 [8488] **61**	1210 [10708] **59**	1450 [12830] **57**	1696 [15008] **54**	1925 [17039] **50**	2140 [18934] **46**	66
68 [18]		205 [1811] **72**	440 [3891] **72**	701 [6202] **70**	920 [8143] **69**	1177 [10418] **67**	1422 [12580] **65**	1643 [14538] **64**	1893 [16741] **58**	2105 [18625] **55**	74
76 [20]		150 [1325] **81**	409 [3616] **80**	632 [5590] **79**	801 [7091] **78**	1100 [9733] **76**	1505 [12135] **75**	1599 [14148] **72**	1859 [16454] **67**	2060 [18230] **63**	82
83 [22]		99 [875] **89**	336 [2977] **88**	581 [5139] **87**	837 [7403] **86**	1056 [9342] **83**	1305 [11553] **83**	1561 [13816] **80**	1799 [15918] **77**	2025 [17925] **71**	90
91 [24]			282 [2497] **97**	501 [4438] **96**	766 [6778] **94**	1021 [9038] **93**	1266 [11201] **92**	1489 [13179] **89**	1752 [15505] **86**	1969 [17427] **82**	98
95 [25]			241 [2137] **101**	496 [4389] **100**	722 [6390] **100**	974 [8621] **97**	1214 [10743] **96**	1454 [12863] **93**	1727 [15286] **89**	1956 [17309] **84**	102
Max. Max. Inter. Cont. 114 [30]			66 [582] **122**	300 [2652] **121**	532 [4711] **120**	781 [6914] **118**	1044 [9235] **118**	1271 [11248] **116**			123

Overall Efficiency - 70 - 100% ☐ 40 - 69% ▒ 0 - 39% ■

Theoretical Torque - Nm [lb-in]

255 [2257]	510 [4514]	765 [6771]	1020 [9029]	1275 [11286]	1530 [13543]	1785 [15800]	2040 [18057]	2296 [20314]	2551 [22572]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

DT

PERFORMANCE

1K1

1047 cc [63.9 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	138 [2000] Max. Cont.	155 [2250]	173 [2500] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

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

Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐

Theoretical Torque - Nm [lb-in]

287 [2544]	575 [5088]	862 [7631]	1150 [10175]	1437 [12719]	1725 [15263]	2012 [17807]	2300 [20350]	2587 [22894]	2874 [25438]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

1K5

1495 cc [91.2 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500] Max. Cont.	121 [1750] Max. Inter.

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	Theoretical rpm
2 [0.5]	305 [2703] **0.9**	648 [5736] **0.6**						2
4 [1]	336 [2978] **2**	693 [6128] **1**	1011 [8942] **1**					3
8 [2]	351 [3106] **4**	729 [6454] **4**	1085 [9597] **3**	1364 [12072] **3**				6
15 [4]	331 [2925] **9**	712 [6304] **9**	1116 [9879] **8**	1491 [13191] **7**	1771 [15668] **7**			11
23 [6]	297 [2629] **15**	681 [3023] **14**	1088 [9632] **13**	1464 [12952] **12**	1770 [15662] **10**			16
30 [8]	247 [2183] **20**	640 [5662] **19**	1038 [9188] **18**	1430 [12655] **17**	1793 [15864] **15**	2123 [18786] **9**		21
38 [10]	197 [1740] **25**	583 [5159] **24**	1001 [8860] **23**	1377 [12189] **22**	1749 [15479] **19**	2090 [18498] **14**		26
45 [12]	131 [1157] **30**	531 [4695] **29**	940 [8315] **28**	1330 [11770] **27**	1702 [15066] **24**	2041 [18059] **19**	2329 [20613] **14**	31
53 [14]	67 [594] **36**	484 [4282] **35**	869 [7689] **33**	1267 [11217] **32**	1642 [14532] **30**	1990 [17612] **24**	2300 [20353] **15**	36
61 [16]		391 [3457] **40**	769 [6805] **39**	1172 [10374] **37**	1567 [13866] **36**	1914 [16941] **32**	2258 [19986] **21**	41
68 [18]		294 [2602] **45**	686 [6072] **44**	1076 [9523] **43**	1489 [13177] **40**	1846 [16334] **38**	2188 [19366] **27**	46
76 [20]		182 [1607] **50**	614 [5435] **49**	988 [8746] **48**	1392 [12320] **47**	1743 [15429] **44**	2301 [18553] **37**	51
83 [22]		87 [770] **55**	487 [4310] **54**	872 [7720] **53**	1283 [11356] **52**	1632 [14442] **48**	2021 [17883] **46**	56
91 [24]			456 [4032] **60**	749 [6632] **60**	1146 [10143] **58**	1533 [13570] **58**	1872 [16568] **50**	61
Max. Inter. 95 [25]			293 [2589] **63**	704 [6232] **62**	1052 [9313] **62**	1465 [12961] **59**	1843 [16306] **53**	64
Max. Cont. 114 [30]				246 [2174] **75**	645 [5711] **74**	1047 [9265] **73**		76

Overall Efficiency - 70 - 100% ☐ 40 - 69% ☐ 0 - 39% ☐

Theoretical Torque - Nm [lb-in]

410 [3631]	821 [7261]	1231 [10892]	1641 [14522]	2051 [18153]	2462 [21783]	2872 [25414]

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

2K1

2093 cc [127.7 in^3/rev.]

Pressure - bars [psi]

17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	Max. Cont. 104 [1500]	Max. Inter. 121 [1750]

Torque - Nm [lb-in], **Speed rpm**

Intermittent Ratings - 10% of Operation

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

Overall Efficiency - 70 - 100% ☐ 40 - 69% ▒ 0 - 39% ■

Theoretical Torque - Nm [lb-in]

574 [5084]	1149 [10167]	1723 [15251]	2298 [20334]	2872 [25418]	3447 [30502]	4021 [35585]

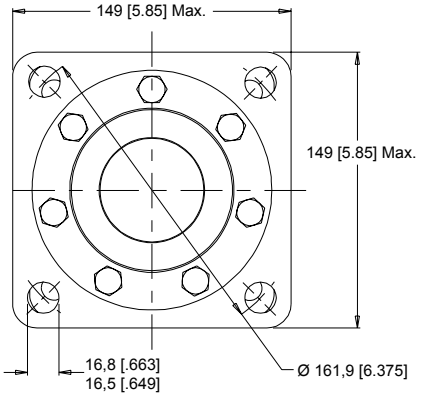
Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

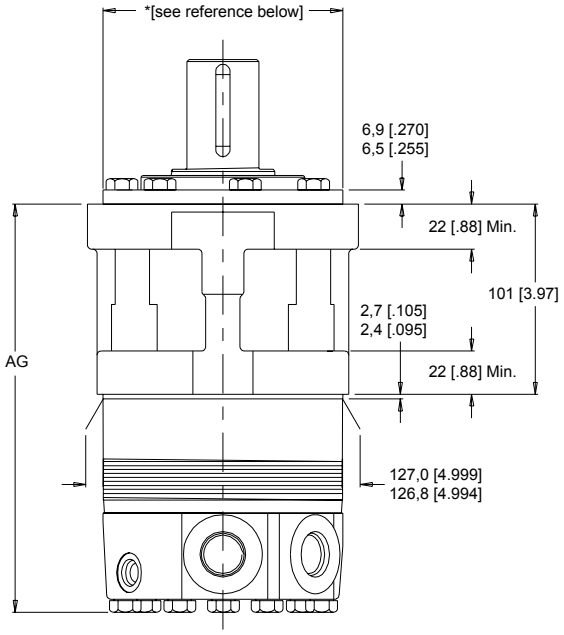
DT

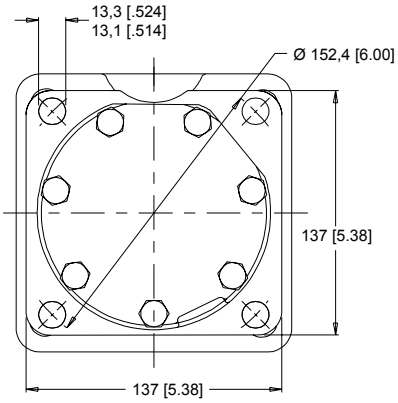
NOTE: Dimensions shown are without paint. Paint thickness can be up to 0,13 [.005]

700 SERIES 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

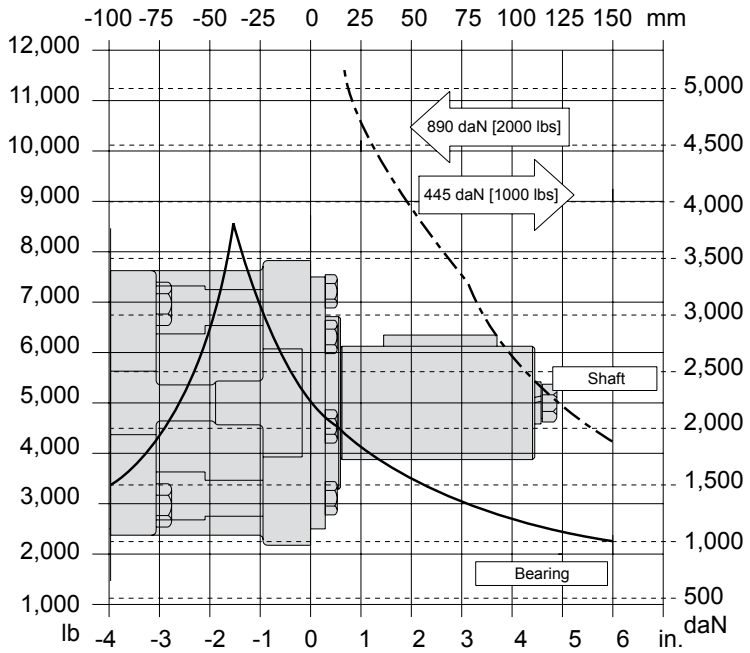






NOTE: *Dimension for the C2 & C8 is 127,0 [5.00] - 127,7 [4.99].
*Dimension for the E2 & E8 is 124,9 [4.92] - 124,5 [4.90].

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 below.



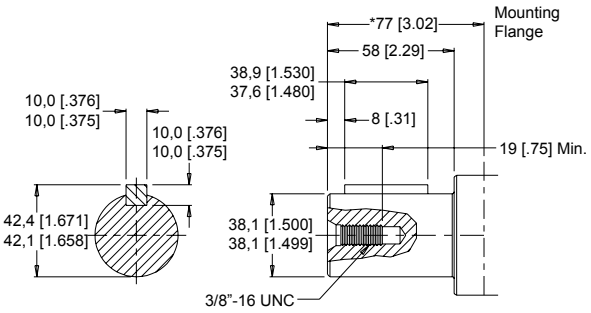
LENGTH / WEIGHT CHART Standard Mount - Dimension **AG**		
Code	**mm [in]**	**kg [lb]**
300	209 [8.25]	20,2 [44.6]
375	216 [8.50]	20,8 [45.8]
470	223 [8.80]	21,4 [47.1]
540	230 [9.04]	21,9 [48.2]
750	248 [9.75]	23,3 [51.3]
930	263 [10.35]	24,4 [53.8]
1K1	273 [10.75]	25,3 [55.7]
1K5	311 [12.25]	28,3 [62.5]
2K1	362 [14.25]	32,3 [71.3]

NOTE:
DT motor weights vary ± 1,4 kg [3 lb] depending upon motor configuration. Subtract 3 [.11] from dimension AG for motors using the 1,2 or 5 Endcover.

BEARING LOAD MULTIPLICATION FACTOR TABLE			
RPM	**FACTOR**	**RPM**	**FACTOR**
50	1.23	**500**	0.62
100	1.00	**600**	0.58
200	0.81	**700**	0.56
300	0.72	**800**	0.50
400	0.66		

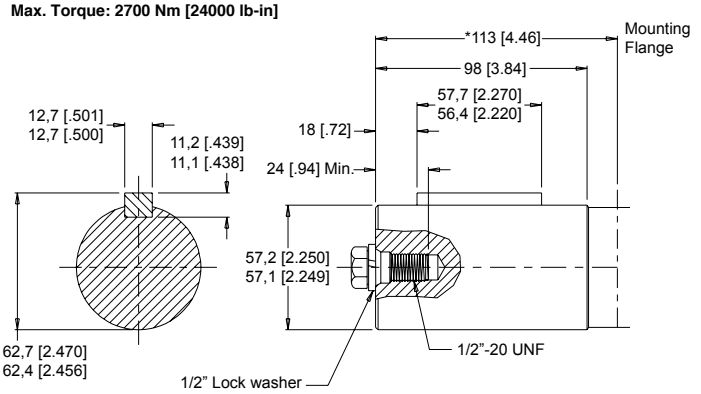
30 1-1/2" Straight

Max. Torque: 2230 Nm [19800 lb-in]



40 2-1/4" Straight

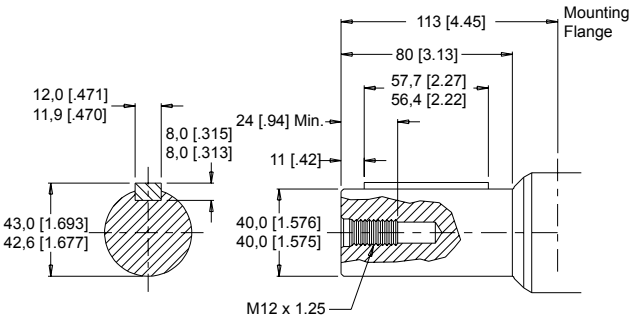
Max. Torque: 2700 Nm [24000 lb-in]



36 40mm Straight

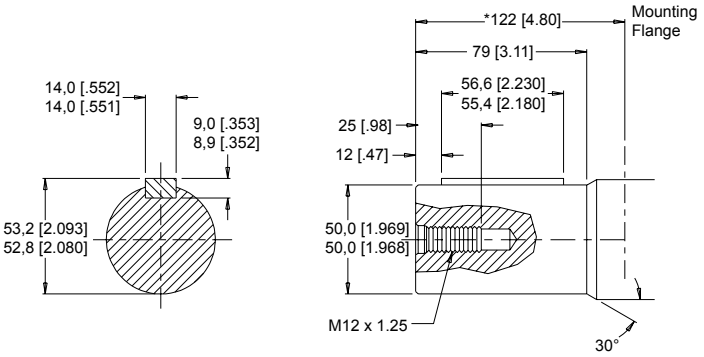
†54 40mm Straight Extended

Max. Torque: 2700 Nm [24000 lb-in]



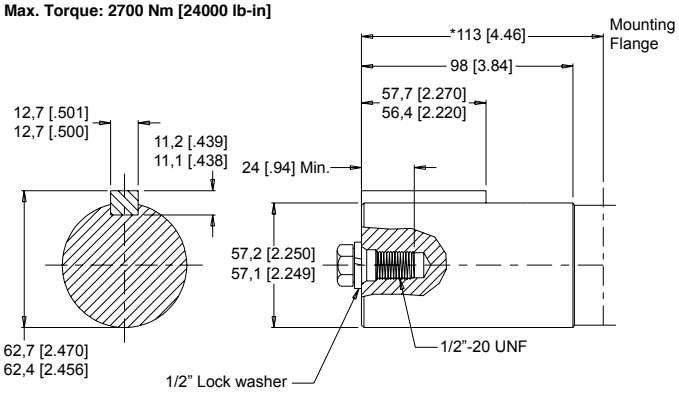
41 50mm Straight

Max. Torque: 2700 Nm [24000 lb-in]



†47 2-1/4" Straight with Modified Keyway

Max. Torque: 2700 Nm [24000 lb-in]



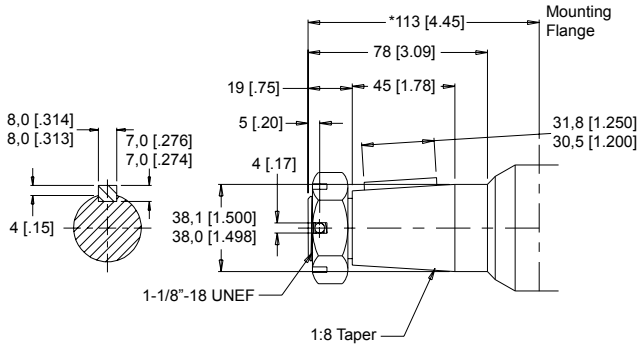
NOTE: *Shaft lengths vary ± 0,8 [.030]. †For speed sensor motors only.

DT

700 SERIES SHAFTS

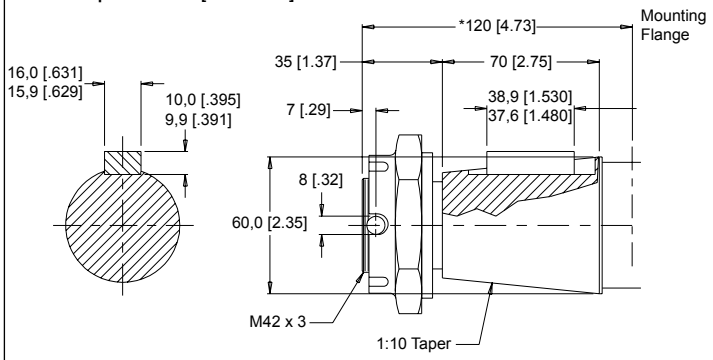
31 1-1/2" Tapered

Max. Torque: 2250 Nm [19900 lb-in]



45 60mm Tapered

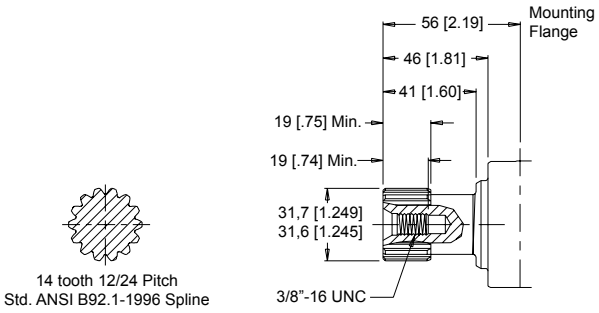
Max. Torque: 2700 Nm [24000 lb-in]



23 14 Tooth Spline

†09 14 Tooth Spline Extended

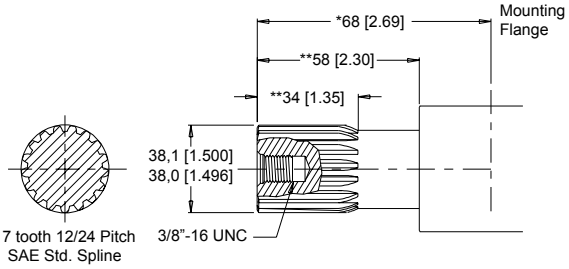
Max. Torque: 2070 Nm [18400 lb-in]



33 17 Tooth Spline

†49 17 Tooth Spline Extended

Max. Torque: 2250 Nm [19900 lb-in]

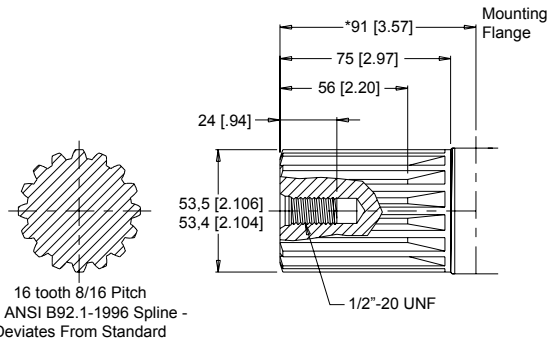


NOTE: **For the 49 shaft add 9,7mm [.38 in] to dimension.

42 16 Tooth Spline

†48 16 Tooth Spline Extended

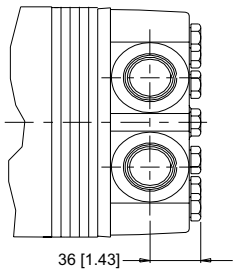
Max. Torque: 2700 Nm [24000 lb-in]



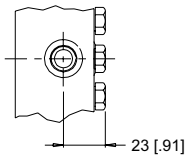
NOTE: A slotted nut is standard on all tapered shafts. *Shaft lengths vary ± 0,8 [.030]. †For speed sensor motors only.

SIDE PORTS

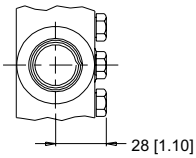
2 3/4" BSP.F with 1/4" Drain



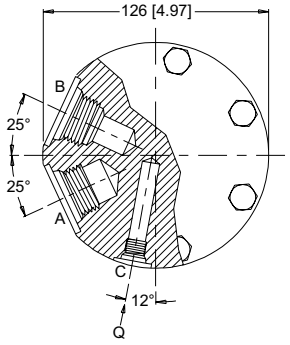
Auxillary View Q - Case Drain



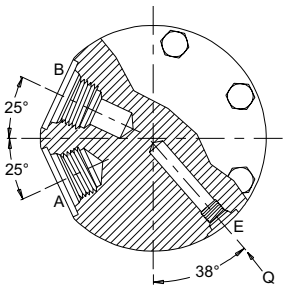
Auxillary View V - Valve Cavity



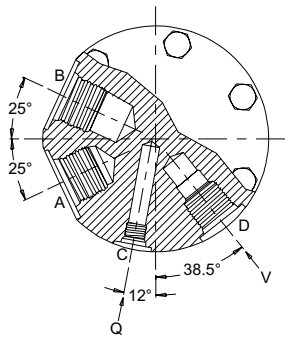
5 1-1/16" O-Ring with 7/16" Drain



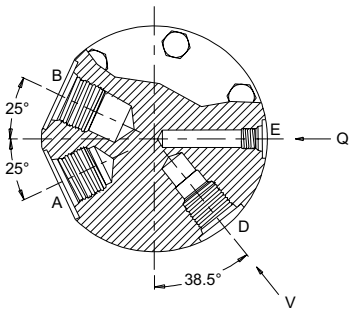
NOTE: Shown with standard case drain.



NOTE: Shown with internal drain option.

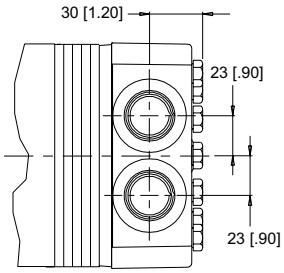


NOTE: Shown with standard case drain & valve cavity.

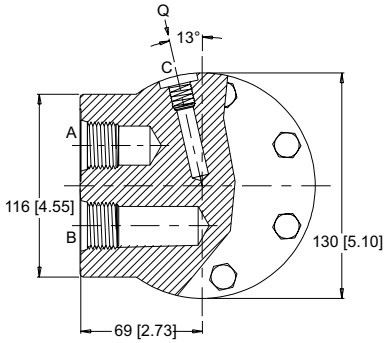


NOTE: Shown with internal drain & valve cavity.

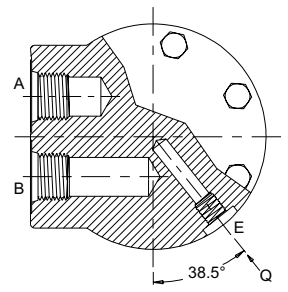
6 1-1/16" O-Ring with 7/16" Drain



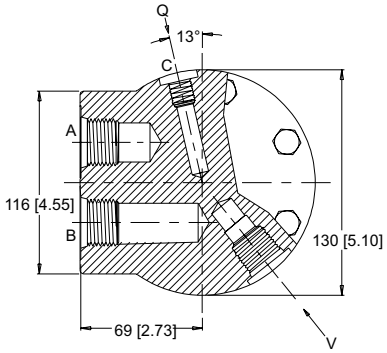
7 3/4" BSP.F with 1/4" Drain



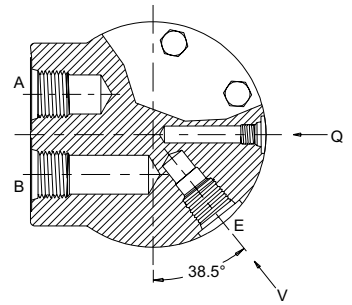
NOTE: Shown with standard case drain.



NOTE: Shown with internal drain option.



NOTE: Shown with standard case drain & valve cavity.



NOTE: Shown with internal drain & valve cavity.

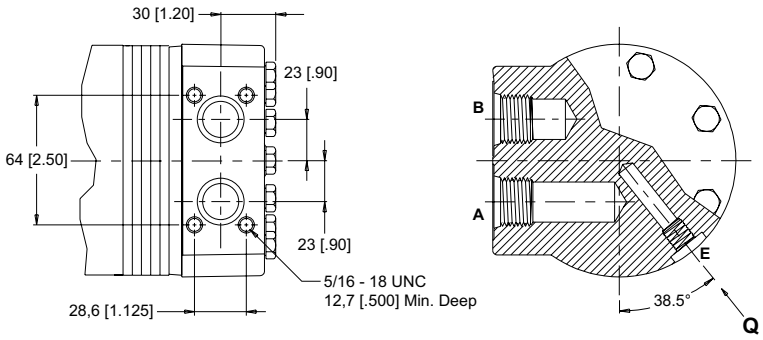
NOTE: **A-** Pressure Port **B-** Pressure Port **C-** Case Drain
D- 10 Series/2-way Valve Cavity (7/8"-14 UNF-2B)
E- Internal Drain

DT

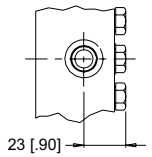
700 SERIES PORTING OPTIONS

SIDE PORTS

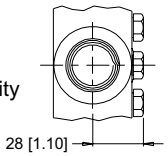
3 Manifold with 7/16” Drain



Q - Case Drain



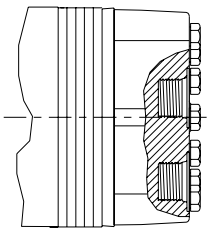
V - Valve Cavity

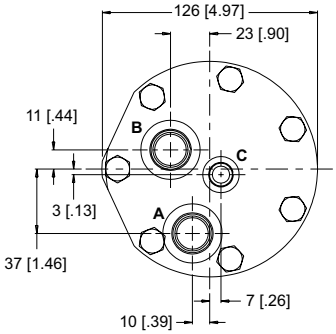


NOTE: The 3 endcover is only available with the internal drain option..

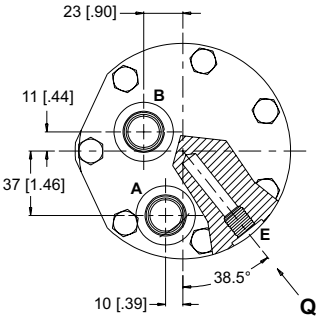
END PORTS

1 7/8” O-Ring with 7/16” Drain



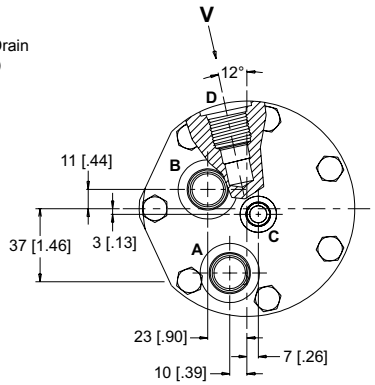


NOTE: Shown with standard case drain.

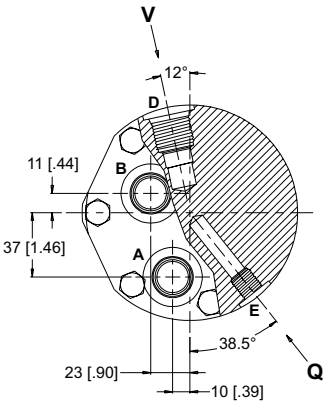


NOTE: Shown with internal drain option.

NOTE: **A-** Pressure Port **B-** Pressure Port **C-** Case Drain
D- 10 Series/2-way Valve Cavity (7/8”-14 UNF-2B)
E- Internal Drain



NOTE: Shown with standard case drain & valve cavity.



NOTE: Shown with internal drain & valve cavity.

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DT

700 SERIES MODEL CODE BUILDER

SERIES	DISPLACEMENT	HOUSING	SHAFT	PAINT	CAVITY	ADD ON	MISCELLANEOUS
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8

STEP 1 - Select a series

700	DT Series Motor

STEP 2 - Select a displacement option

300	300 cc	[18.3 in^3/rev]	930	929 cc	[56.7 in^3/rev]
375	374 cc	[22.8 in^3/rev]	1K1	1047 cc	[63.9 in^3/rev]
470	464 cc	[28.3 in^3/rev]	1K5	1495 cc	[91.2 in^3/rev]
540	536 cc	[32.7 in^3/rev]	2K1	2093 cc	[127.7 in^3/rev]
750	747 cc	[45.6 in^3/rev]			

STEP 3 - Select a mounting option

NOTE: To complete the three (3) digit DT Series housing code a two (2) digit mounting option must be followed with the single (1) digit porting option found in STEP 3 part II. Side port mounting options need side port porting options and end port mounting options need end port porting options.

C2	Standard Mount 5” Pilot End Ports (S)
C8	Standard Mount 5” Pilot Side Ports (S)
E2	Standard Mount 125mm Pilot End Ports (S)
E8	Standard Mount 125mm Pilot Side Ports (S)

STEP 3 (part II) - Select a porting option

END PORTS

1	7/8” O-Ring With 7/16” Drain

SIDE PORTS

2	3/4” BSP.F With 1/4” Drain (Radial Ports)
3	Manifold With 7/16” Drian (Parallel Ports)
5	1-1/16” O-Ring With 7/16” Drain (Radial Ports)
6	1-1/16” O-Ring With 7/16” Drain (Parallel Ports)
7	3/4” BSP.F With 1/4” Drain (Parallel Ports)

STEP 4 - Select a shaft option

30	1-1/2” Straight	41	50mm Straight
31	1-1/2” Tapered	45	60mm Tapered
40	2-1/4” Straight	47	2-1/4” Straight Modified (S)
36	40mm Straight	54	40mm Straight Extended (S)
23	14 Tooth Spline	09	14 Tooth Spline Extended (S)
42	16 Tooth Spline	48	16 Tooth Spline Extended (S)
33	17 Tooth Spline	49	17 Tooth Spline Extended (S)

STEP 5 - Select a paint option

A	Black
B	Black (unpainted flange face)
Z	No Paint

STEP 6 - Select a valve cavity option

A	None
B	Relief Valve Cavity
C	69 Bar [1000 psi] Relief Valve Installed
D	86 Bar [1250 psi] Relief Valve Installed
E	104 Bar [1500 psi] Relief Valve Installed
F	121 Bar [1750 psi] Relief Valve Installed
G	138 Bar [2000 psi] Relief Valve Installed
J	173 Bar [2500 psi] Relief Valve Installed
L	207 Bar [3000 psi] Relief Valve Installed

NOTE: Valve cavity option is not available on porting option 3.

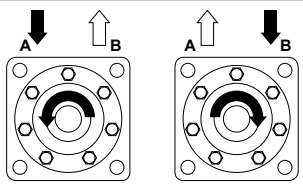
STEP 7 - Select an add on option

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

NOTE: (S) - STEP 3 Mountings available for use with speed sensors. STEP 4 Shafts available for use with speed sensors. STEP 7 Speed sensor options.

STEP 8 - Select a miscellaneous option

AA	None
AB	Internal Drain
AC	Freeturning Rotor
AD	Internal Drain with Freeturning Rotor



NOTE: DT Series motors do not have internal components that allow the motor to turn in either direction. Refer to the diagram to the left to determine which way the motor will turn when either port A or port B is pressurized.

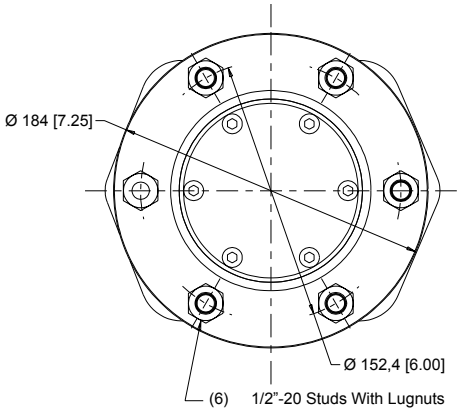
DT

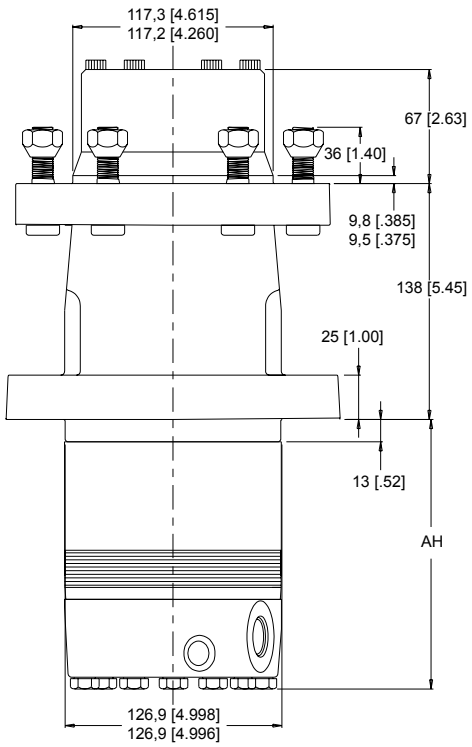
NOTE: Dimensions shown are without paint. Paint thickness can be up to 0,13 [.005]

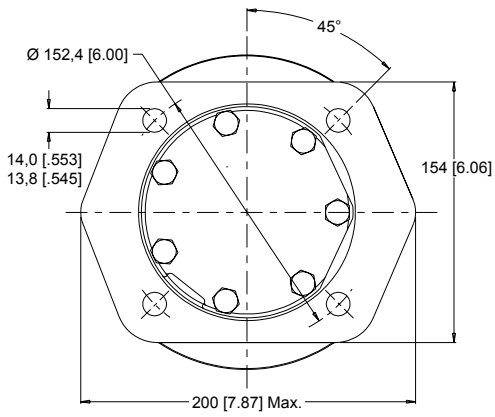
740 SERIES HOUSINGS

W2 4-Hole End Ports

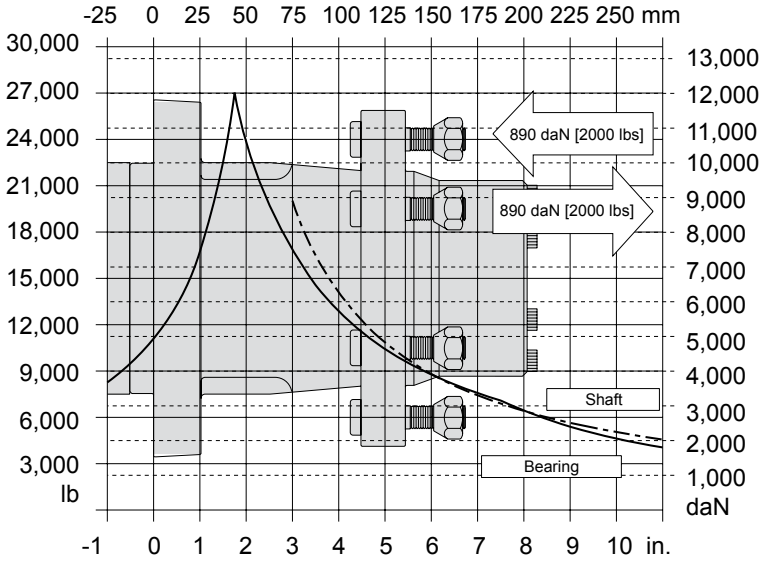
W8 4-Hole Side Ports







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 8.



LENGTH / WEIGHT CHART Wheel Mount - Dimension **AH**		
Code	**mm [in]**	**kg [lb]**
300	120 [4.74]	28,4 [62.6]
375	127 [4.99]	28,9 [63.8]
470	134 [5.29]	29,5 [65.1]
540	140 [5.53]	30,0 [66.2]
750	158 [6.24]	31,4 [69.2]
930	174 [6.84]	32,6 [71.8]
1K1	184 [7.24]	33,4 [73.7]
1K5	222 [8.74]	36,5 [80.5]
2K1	273 [10.74]	40,5 [89.3]

NOTE:
DT motor weights vary ± 1,4 kg [3 lb] depending upon motor configuration. Subtract 3 [.11] from dimension AH for motors using the 1,2 or 5 Endcover.

NOTE: The 740 Series motor is not available with the internal drain option. Drain line pressure must be maintained below 2 bar [25 psi]. A dedicated line from the motor drain port to the reservoir is recommended.

DT

740 SERIES MODEL CODE BUILDER

SERIES	DISPLACEMENT	HOUSING	SHAFT	PAINT	CAVITY	ADD ON	MISCELLANEOUS
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8

STEP 1 - Select a series

740	DT Series Wheel Hub Motor

STEP 2 - Select a displacement option

300	300 cc	[18.3 in^3/rev]	930	929 cc	[56.7 in^3/rev]
375	374 cc	[22.8 in^3/rev]	1K1	1047 cc	[63.9 in^3/rev]
470	464 cc	[28.3 in^3/rev]	1K5	1495 cc	[91.2 in^3/rev]
540	536 cc	[32.7 in^3/rev]	2K1	2093 cc	[127.7 in^3/rev]
750	747 cc	[45.6 in^3/rev]			

STEP 3 - Select a mounting option

NOTE: To complete the three (3) digit DT Series housing code a two (2) digit mounting option must be followed with the single (1) digit porting option found in STEP 3 part II. Side port mounting options need side port porting options and end port mounting options need end port porting options.

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

STEP 3 (part II) - Select a porting option

END PORTS

1	7/8” O-Ring With 7/16” Drain

SIDE PORTS

2	3/4” BSP.F With 1/4” Drain (Radial Ports)
5	1-1/16” O-Ring With 7/16” Drain (Radial Ports)

STEP 4 - Select a shaft option

61	6-Bolt Wheel Flange

STEP 5 - Select a paint option

A	Black
Z	No Paint

STEP 6 - Select a valve cavity option

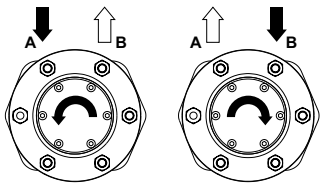
A	None
B	Relief Valve Cavity
C	1000 psi Relief Valve Installed
D	1250 psi Relief Valve Installed
E	1500 psi Relief Valve Installed
F	1750 psi Relief Valve Installed
G	2000 psi Relief Valve Installed
J	2500 psi Relief Valve Installed
L	3000 psi Relief Valve Installed

STEP 7 - Select an add on option

A	Standard

STEP 8 - Select a miscellaneous option

AA	None
AC	Freeturning Rotor



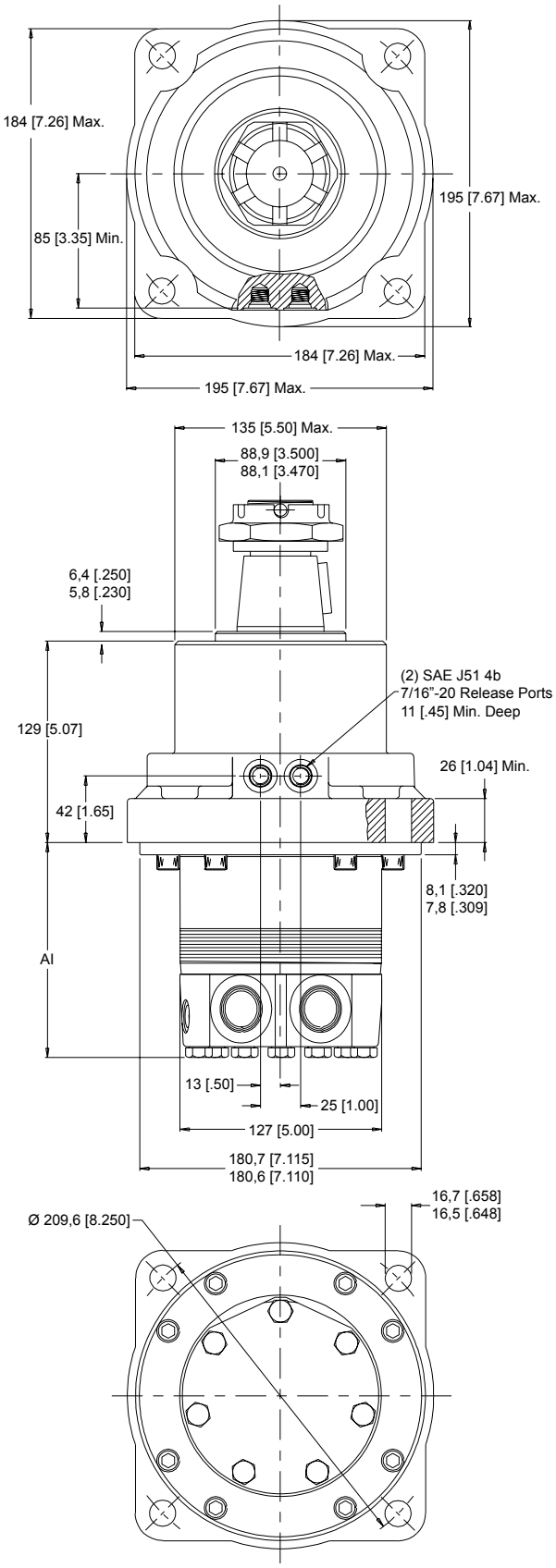
NOTE: DT Series motors do not have internal components that allow the motor to turn in either direction. Refer to the diagram to the left to determine which way the motor will turn when either port A or port B is pressurized.

DT

NOTE: Dimensions shown are without paint. Paint thickness can be up to 0,13 [.005]

710 SERIES (DT MOTOR/BRAKE)

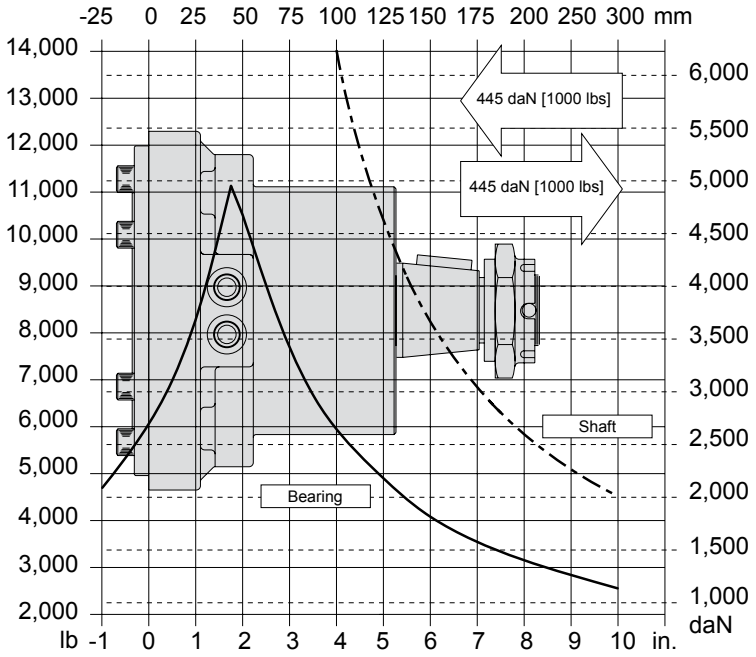
W2 4-Hole End Ports **W8** 4-Hole Side Ports



Rated brake torque.....1582 Nm [14000 lb-in]
Initial release pressure ..... 19 bar [275 psi]
Full release pressure..... 33 bar [475 psi]
Maximum release pressure ..... 207 bar [3000 psi]
Release volume.....13-16 cc [0.8 - 1.0 cu in]

NOTE: See page 18 for important motor/brake operating recommendations.

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 8.



LENGTH / WEIGHT CHART Wheel Mount - Dimension **AI**		
Code	**mm [in]**	**kg [lb]**
300	115 [4.54]	27,2 [60.0]
375	122 [4.79]	27,8 [61.2]
470	129 [5.09]	28,3 [62.5]
540	135 [5.33]	28,8 [63.6]
750	153 [6.04]	30,3 [66.7]
930	169 [6.64]	31,4 [69.2]
1K1	179 [7.04]	32,2 [71.1]
1K5	217 [8.54]	35,3 [77.9]
2K1	268 [10.54]	39,3 [86.7]

NOTE:
DT motor weights vary ± 1,4 kg [3 lb] depending upon motor configuration. Subtract 3 [.11] from dimension AI for motors using the 1,2 or 5 Endcover.

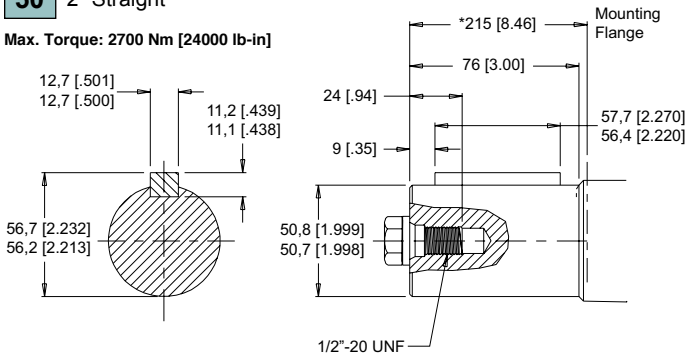
NOTE: The DT 710 series motor/brakes are available with different holding torque specifications. For additional information please contact White Drive Products Customer Service & Technical Support or your local White Drive Products' distributor.

DT

710 SERIES SHAFTS

50 2" Straight

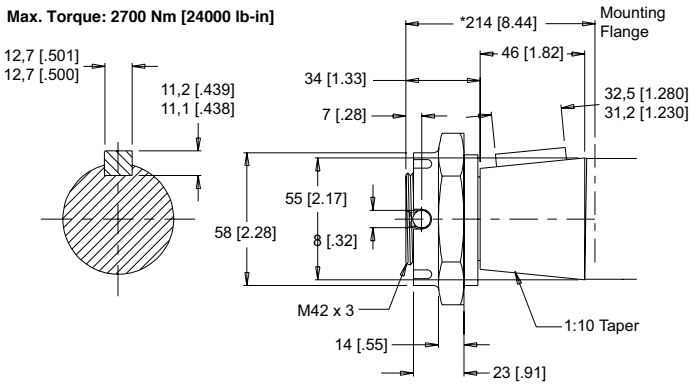
Max. Torque: 2700 Nm [24000 lb-in]



NOTE: A slotted nut is standard on all tapered shafts. *Shaft lengths vary ± 0,8 [.030].

51 55mm Tapered

Max. Torque: 2700 Nm [24000 lb-in]



SERIES	DISPLACEMENT	HOUSING	SHAFT	PAINT	CAVITY	ADD ON	MISCELLANEOUS
STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8

STEP 1 - Select a series

710	DT Series Motor/Brake

STEP 2 - Select a displacement option

300	300 cc	[18.3 in^3/rev]	930	929 cc	[56.7 in^3/rev]
375	374 cc	[22.8 in^3/rev]	1K1	1047 cc	[63.9 in^3/rev]
470	464 cc	[28.3 in^3/rev]	1K5	1495 cc	[91.2 in^3/rev]
540	536 cc	[32.7 in^3/rev]	2K1	2093 cc	[127.7 in^3/rev]
750	747 cc	[45.6 in^3/rev]			

STEP 3 - Select a mounting option

NOTE: To complete the three (3) digit DT Series housing code a two (2) digit mounting option must be followed with the single (1) digit porting option found in STEP 3 part II. Side port mounting options need side port porting options and end port mounting options need end port porting options.

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

STEP 3 (part II) - Select a porting option

END PORTS

1	7/8" O-Ring With 7/16" Drain

SIDE PORTS

2	3/4" BSP.F With 1/4" Drain (Radial Ports)
3	Manifold With 7/16" Drian (Parallel Ports)
5	1-1/16" O-Ring With 7/16" Drain (Radial Ports)
6	1-1/16" O-Ring With 7/16" Drain (Parallel Ports)
7	3/4" BSP.F With 1/4" Drain (Parallel Ports)

STEP 4 - Select a shaft option

50	2" Straight
51	55mm Tapered

STEP 5 - Select a paint option

A	Black
Z	No Paint

STEP 6 - Select a valve cavity option

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

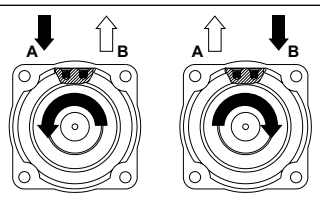
NOTE: Valve cavity option is not available on porting option 3.

STEP 7 - Select an add on option

A	Standard

STEP 8 - Select a miscellaneous option

AA	None
AC	Freeturning Rotor



NOTE: DT Series motors do not have internal components that allow the motor to turn in either direction. Refer to the diagram to the left to determine which way the motor will turn when either port A or port B is pressurized.

OPERATING AND TECHNICAL INFORMATION

WHITE DRIVE PRODUCT MOTOR/BRAKE PRECAUTION

CAUTION! - White Drive Products' motors/brakes are intended to operate as static or parking brakes. System circuitry must be designed to bring the load to a stop before applying the brake.

CAUTION! - Because it is possible for some large displacement motors to overpower the brake, it is critical that the maximum system pressure be limited for these applications. Failure to do so could cause serious injury or death. When choosing a motor/brake for an application, consult the performance chart for the series and displacement chosen for the application to verify that the maximum operating pressure of the system will not allow the motor to produce more torque than the maximum rating of the brake. Also, it is vital that the system relief be set low enough to insure that the motor is not able to overpower the brake.

To ensure proper operation of the brake, case drain back pressure must be maintained at 34 bar [500 psi] or less. Case drain back pressure above 34 bar [500 psi] can result in erratic operation of the brake. To avoid potential problems with the operation of the brake, a separate case drain line is recommended. Use of the internal drain option is not recommended due to the possibility of return line pressure spikes. A simple schematic of a system utilizing a motor/brake is shown in Figure A below. Although maximum brake release pressure may be used for an application, a 34 bar [500 psi] pressure reducing valve is recommended to promote maximum life for the brake release piston seals. However, if a pressure reducing valve is used in a system which has case drain back pressure, the pressure reducing valve should be set to 34 bar [500 psi] over the expected case pressure to ensure full brake release. To achieve proper brake release operation, it is necessary to bleed out any trapped air and fill brake release cavity and hoses before all connections are tightened. To facilitate this operation, all motor/brakes feature two release ports. One or both of these ports may be used to release the brake in the unit. Motor/brakes should be configured so that the release ports are near the top of the unit in the installed position. Once all system connections are made, one release port must be opened to atmosphere and the brake release line carefully charged with fluid until all air is removed from the line and motor/brake release cavity. When this has been accomplished the port plug or secondary release line must be reinstalled. In the event of a pump or battery failure, an external pressure source may be connected to the brake release port to release the brake, allowing the machine to be moved.

Typical motor/brake schematic

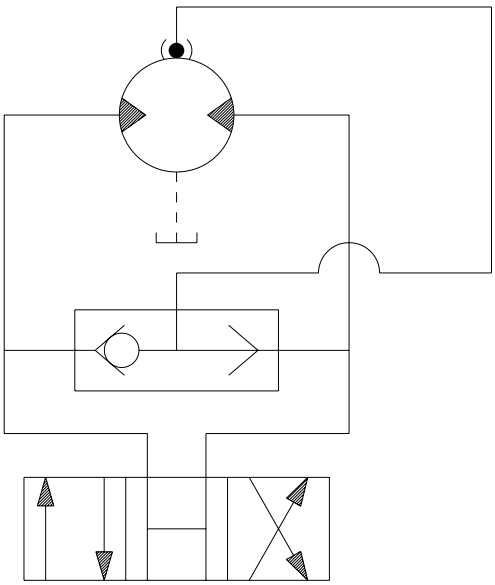


Figure A

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

Important Information
Before selecting or using a White Drive Products' product, it is important that all information concerning the product warranty, limitation of liability and responsibility of the customer be reviewed. This information is located below. Please direct any questions regarding this information to your White Drive Products representative.

Disclaimer
This catalog provides product options for further investigation by customers having technical expertise with respect to the use of such products. It is the responsibility of the customer to thoroughly analyze all aspects of the customer's application and to review the information concerning the product in the current product catalog. Due to the diversity of possible applications, the customer is solely responsible for making the final selection of the product(s) to be used and to assure that all performance, safety and warning requirements of the application are met. The customer is further responsible for all testing to verify acceptable life and performance of White Drive Products' products under actual operating conditions.

White Drive Products has made all reasonable efforts to present accurate information in this catalog and shall not be responsible for any incorrect information which may result from unintentional oversight. Due to continuous product improvement, the product specifications as stated in this catalog are subject to change by White Drive Products at any time without notice. The customer should consult a sales representative of White Drive Products for detailed information and to determine any changes in the information in this catalog.

Improper selection or improper use of the products described herein can result in death, personal injury and/or property damage. White Drive Products, Inc.'s sole responsibility with respect to its products is set forth in the warranty/limitation of liability policy state herein.

Warranty
White Drive Products' products are sold subject to a limited warranty and a limitation of remedies policy, both of which constitute part of any and all agreements to purchase White Drive Products' products. White Drive Products makes no other warranties or promises other than those specifically noted in its written policies, and no White Drive Products employee or agent has the power to alter those policies other than in writing.

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A COMPLETE RANGE OF LSHT HYDRAULIC MOTORS

HYDRAULIC CONTROLLED PRESSURE RELEASED BRAKES

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