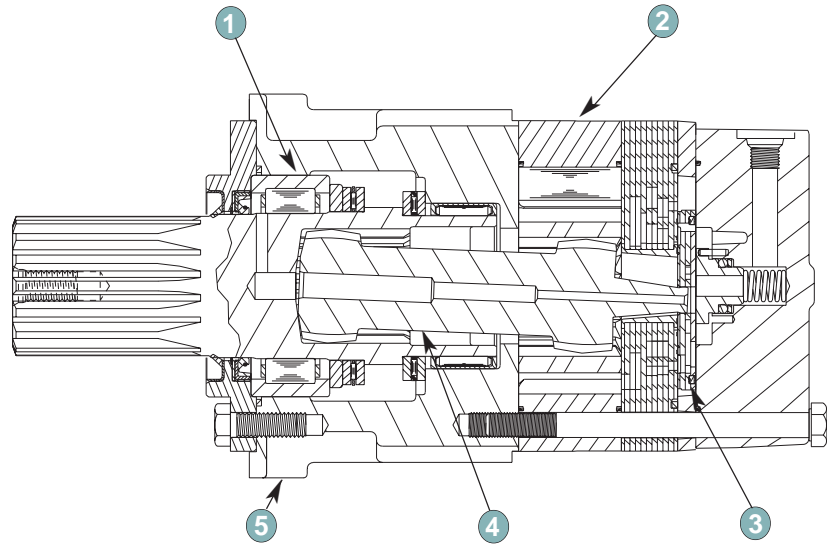




•Features

- 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 cubic inches for tremendous 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.



Tremendous Torque, Compact Design

The most amazing aspect of the DT Series motors 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 much lighter. This savings in space and weight in no way compromises durability, as the motor uses massive shafts, bearings, and drive links to transmit the torque developed 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 in ³ /rev (cm ³ /rev)	Max Speed RPM		Max Flow GPM (LPM)		Max Torque lb-in (Nm)			Pressure DPSI(DBar)		
		Cont.	Inter.	Cont.	Inter.	Cont.	Inter.	*Stall	Cont.	Inter.	Peak
19	18.3 (300)	320	380	25 (95)	30 (114)	7250 (812)	8450 (946)	6275 (709)	3000 (207)	3500 (241)	3750 (259)
25	22.8 (375)	250	300	25 (95)	30 (114)	9250 (1036)	9975 (1117)	8260 (933)	3000 (207)	3250 (224)	3500 (241)
28	28.3 (465)	200	240	25 (95)	30 (114)	9475 (1061)	12300 (1378)	8595 (971)	2500 (172)	3250 (224)	3500 (241)
33	32.7 (536)	180	210	25 (95)	30 (114)	11300 (1266)	13500 (1512)	10240 (1157)	2500 (172)	3000 (207)	3500 (241)
46	45.6 (748)	130	150	25 (95)	30 (114)	15750 (1764)	18500 (2072)	14780 (1670)	2500 (172)	3000 (207)	3500 (241)
56	56.7 (929)	100	120	25 (95)	30 (114)	15750 (1764)	18950 (2122)	14050 (1588)	2000 (138)	2500 (172)	3000 (207)
66	63.9 (1048)	90	110	25 (95)	30 (114)	16950 (1898)	20500 (2296)	16215 (1832)	2000 (138)	2500 (172)	3000 (207)
91	91.2 (1496)	60	70	25 (95)	30 (114)	18500 (2072)	20500 (2296)	18120 (2048)	1500 (103)	1750 (197)	2000 (138)
99	127.7 (2094)	40	50	25 (95)	30 (114)	23550 (2649)	29580 (3328)	23800 (2689)	1500 (103)	1750 (197)	2000 (138)

* Stall torque measured at 1 RPM at continuous pressure per SAE J746b.



For related information
see pages:

Complete description of the
information presented in the
performance tables 3

DT Series

•Performance

19 18.3 in.³/r (300 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)					Max. Cont.		Max. Inter.		Theo. RPM
	250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	3000 (207)	3500 (242)		
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.			958 (108) 315	2278 (257) 313	3482 (393) 308	4857 (549) 300	6139 (694) 289	7421 (839) 280	316	
Max. Inter.				1642 (186) 376	2945 (333) 372	4189 (473) 369			379	
Stall Torque										
250 (17) 500 (35) 1000 (69) 1500 (104) 2000 (138) 2500 (173) 3000 (207) 3500 (242)										
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.

25 22.8 in.³/r (375 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)					Max. Cont.		Max. Inter.		Theo. RPM
	250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	3000 (207)	3250 (224)		
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.				2839 (321) 252	4596 (519) 249	6283 (710) 241			254	
Max. Inter.				2110 (238) 303	3820 (432) 301	5503 (622) 296			304	
Stall Torque										
2607 (295) 3851 (435) 5188 (586) 6635 (750) 8258 (933)										
Theo. Torque										
908 (103) 1815 (205) 3631 (410) 5446 (615) 7261 (821) 9076 (1026) 10892 (1231) 11799 (1333)										

Torque, lb-in (Nm)
Speed, RPM

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

•Performance



For related information
see pages:

Complete description of the
information presented in the
performance tables 3

28 28.3 in.³/r (465 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)						Max. Cont.		Max. Inter.		
	250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	3000 (207)	3250 (224)			Theo. RPM
0.5 (2)	762 (86)	1780 (201)	3553 (401)								5
1 (4)	817 (92)	1728 (195)	3597 (406)	5395 (610)	7137 (806)						9
2 (8)	835 (94)	1761 (199)	3702 (418)	5580 (631)	7365 (832)	9226 (1042)	10961 (1239)				17
4 (15)	815 (92)	1784 (202)	3769 (426)	5717 (646)	7513 (849)	9430 (1066)	11256 (1272)	12217 (1381)			33
6 (23)	729 (82)	1799 (203)	3744 (423)	5725 (647)	7565 (855)	9473 (1070)	11287 (1275)	12083 (1365)			49
8 (30)	595 (67)	1641 (185)	3663 (414)	5683 (642)	7671 (867)	9538 (1078)	11508 (1300)	12367 (1398)			66
10 (38)	459 (52)	1506 (170)	3532 (399)	5573 (630)	7584 (857)	9531 (1077)	11352 (1283)	12323 (1393)			82
12 (45)		1354 (153)	3366 (380)	5422 (613)	7454 (842)	9488 (1072)	11523 (1302)	12334 (1394)			98
14 (53)		1121 (127)	3173 (359)	5229 (591)	7282 (823)	9350 (1057)	11242 (1270)	12318 (1392)			115
16 (61)		888 (100)	2964 (335)	4993 (564)	7061 (798)	9118 (1030)	11101 (1254)	12118 (1369)			131
18 (68)		595 (67)	2689 (304)	4734 (535)	6772 (765)	8875 (1003)	10877 (1229)	11926 (1348)			147
20 (76)			2428 (274)	4458 (504)	6485 (733)	8536 (965)	10592 (1197)	11668 (1318)			164
22 (83)			2003 (226)	4050 (458)	6118 (691)	8215 (928)	10181 (1150)	11200 (1266)			180
24 (91)			1554 (176)	3670 (415)	5917 (669)	7833 (885)					196
Max. Cont.			194	192	190	183					205
Max. Inter.				203	198	190					245
30 (114)				2451 (277)	4549 (514)	6684 (755)					
				243	240	235					
Stall Torque											
Theo. Torque											

Areas within white represent
maximum motor efficiencies.

33 32.7 in.³/r (536 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)						Max. Cont.		Max. Inter.		
	250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	3000 (207)	3250 (224)			Theo. RPM
0.5 (2)	908 (103)	1907 (215)	3722 (421)								4
1 (4)	917 (104)	2016 (228)	4015 (454)	5897 (666)	7730 (874)						8
2 (8)	954 (108)	2043 (231)	4191 (474)	6231 (704)	8190 (925)	10201 (1153)					15
4 (15)		13	12	11	9	5	4				29
6 (23)	906 (102)	2052 (232)	4448 (503)	6692 (756)	8799 (994)	10806 (1221)	12930 (1461)				43
8 (30)	866 (98)	2038 (230)	4404 (498)	6774 (766)	9049 (1023)	11225 (1268)	13219 (1494)				57
10 (38)	744 (84)	1883 (213)	4280 (484)	6669 (754)	9130 (1032)	11262 (1273)	13486 (1524)				71
12 (45)	561 (63)	1727 (195)	4122 (466)	6519 (737)	8903 (1006)	11374 (1285)	13556 (1532)				85
14 (53)	373 (42)	1586 (179)	3928 (444)	6349 (717)	8710 (984)	11277 (1274)	13436 (1518)				99
16 (61)		1295 (146)	3722 (421)	6139 (694)	8529 (964)	11091 (1253)	13381 (1512)				114
18 (68)		97	95	93	87	80	70				128
20 (76)		1025 (116)	3460 (391)	5865 (663)	8230 (930)	10675 (1206)	13086 (1479)				142
22 (83)			113	111	108	103	97	84			156
24 (91)			798 (90)	3153 (356)	5563 (629)	7969 (900)	10550 (1192)	12841 (1451)			170
Max. Cont.			127	125	123	116	107	100			177
Max. Inter.			498 (56)	2923 (330)	5265 (595)	7850 (887)	10250 (1158)	12578 (1421)			212
30 (114)			141	139	137	133	123	114			
			2464 (278)	4859 (549)	7271 (822)	9919 (1121)	12283 (1388)				
			155	153	148	136	133				
			2154 (243)	4494 (508)	7024 (794)	9325 (1054)					
			169	166	164	156					
			1948 (220)	4299 (486)	6741 (762)	9075 (1025)					
			176	174	169	163					
			800 (90)	3237 (366)	5649 (638)	8144 (920)					
			211	210	207	203					
Stall Torque											
Theo. Torque											

Torque, lb-in (Nm)
Speed, RPM

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



For related information
see pages:

Complete description of the
information presented in the
performance tables 3

DT Series

•Performance

46 45.6 in.³/r (748 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)				Max. Cont.		Max. Inter.		Theo. RPM
	250 (17)	500 (35)	1000 (69)	1500 (104)	2000 (138)	2500 (173)	3000 (207)		
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) 69	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.			3255 (368) 126	6697 (757) 124	10126 (1144) 120			127	
Max. Inter.			1813 (205) 151	5428 (613) 149	8665 (979) 146			152	
30 (114)									
Stall Torque		2545 (288)	5365 (606)	8669 (980)	11955 (1351)	14782 (1670)			
Theo. Torque		1815 (205)	3631 (410)	7261 (821)	10892 (1231)	14522 (1641)	18153 (2051)	21783 (2462)	

Areas within white represent
maximum motor efficiencies.

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

Torque, lb-in (Nm)
Speed, RPM

56 56.7 in.³/r (929 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)								Max. Cont.	Max. Inter.	Theo. RPM
	250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	2000 (138)	2250 (155)	2500 (173)	
0.5 (2)	1590 (180)	3423 (387)	5368 (607)	7089 (801)							3
1 (4)	1734 (196)	3696 (418)	5780 (653)	7649 (864)	9447 (1067)	11451 (1294)					5
2 (8)	1816 (205)	3907 (442)	6015 (680)	7764 (877)	9886 (1117)	11501 (1300)	13365 (1510)				9
4 (15)	1753 (198)	3825 (432)	5878 (664)	8021 (906)	9924 (1121)	11840 (1338)	13769 (1556)	15306 (1730)			17
6 (23)	1633 (185)	3719 (420)	5765 (651)	8034 (908)	9935 (1123)	11991 (1355)	13651 (1543)	15873 (1794)	17532 (1981)		25
8 (30)	1438 (162)	3576 (404)	5624 (636)	7900 (893)	9800 (1107)	11854 (1340)	13988 (1581)	15716 (1776)	17570 (1985)	18632 (2105)	33
10 (38)	1109 (125)	3253 (368)	5536 (626)	7476 (845)	9620 (1087)	11625 (1314)	13251 (1497)	15364 (1736)	17306 (1956)	19054 (2153)	41
12 (45)	807 (91)	3018 (341)	5111 (578)	7213 (815)	9487 (1072)	11630 (1314)	13492 (1525)	15159 (1713)	17222 (1946)	18873 (2133)	49
14 (53)	310 (35)	2565 (290)	4715 (533)	6772 (765)	9059 (1024)	10974 (1240)	13155 (1487)	15287 (1727)	17216 (1945)	19188 (2168)	58
16 (61)		2118 (239)	4281 (484)	6429 (726)	8488 (959)	10708 (1210)	12830 (1450)	15008 (1696)	17039 (1925)	18934 (2140)	66
18 (68)		1811 (205)	3891 (440)	6202 (701)	8143 (920)	10418 (1177)	12580 (1422)	14538 (1643)	16741 (1892)	18625 (2105)	74
20 (76)		1325 (150)	3616 (409)	5590 (632)	7091 (801)	9733 (1100)	12135 (1505)	14148 (1599)	16454 (1859)	18230 (2060)	82
22 (83)		875 (99)	2977 (336)	5139 (581)	7403 (837)	9342 (1056)	11553 (1305)	13816 (1561)	15918 (1799)	17925 (2025)	90
24 (91)			2497 (282)	4438 (501)	6778 (766)	9038 (1021)	11201 (1266)	13179 (1489)	15505 (1752)	17427 (1969)	98
25 (95)			2137 (241)	4389 (496)	6390 (722)	8621 (974)	10743 (1214)	12863 (1454)	15286 (1727)	17309 (1956)	102
30 (114)			582 (66)	2652 (300)	4711 (532)	6914 (781)	9235 (1044)	11248 (1271)	13683 (1546)	15707 (1775)	123
Stall Torque											
Theo. Torque											

•Performance



For related information
see pages:

Complete description of the
information presented in the
performance tables 3

66 63.9 in.³/r (1048 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)						Max. Cont.		Max. Inter.		Theo. RPM
	250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	2000 (138)	2250 (155)	2500 (173)	
0.5 (2)	1918(217)	4026(455)	5940(671)	7879(890)							2
1 (4)	1821(206)	4410(498)	6251(706)	8273(935)	10518(1189)						4
2 (8)	1985(224)	4407(498)	6672(754)	8700(983)	10810(1222)	12635(1428)					8
4 (15)	1980(224)	4180(472)	6669(754)	8946(1011)	11169(1262)	13147(1486)	15014(1697)				15
6 (23)	1500(170)	4314(487)	6538(739)	9023(1020)	10956(1238)	13286(1501)	14998(1695)	16936(1914)			22
8 (30)	1451(164)	3814(431)	6270(709)	8580(970)	10986(1241)	13106(1481)	15280(1727)	17185(1942)	18971(2144)		29
10 (38)	1143(129)	3546(401)	5975(675)	8356(944)	10688(1208)	12879(1455)	15168(1714)	16982(1919)	18983(2145)		37
12 (45)	871(96)	3176(359)	5526(624)	7915(894)	10163(1148)	12569(1420)	14981(1693)	16756(1893)	18879(2133)	20456(2311)	44
14 (53)	390(44)	2761(312)	5129(580)	7535(851)	9933(1122)	12237(1383)	14263(1612)	16424(1856)	18569(2098)	20596(2327)	51
16 (61)		2220(251)	4569(516)	6871(776)	9402(1062)	11678(1320)	14045(1587)	16261(1837)	18426(2082)	20275(2291)	58
18 (68)		1678(190)	4053(458)	6252(706)	8869(1002)	11252(1272)	13738(1552)	15877(1794)	18147(2051)	20130(2275)	66
20 (76)		1033(117)	3453(390)	5774(652)	8227(930)	10502(1187)	12874(1596)	15246(1723)	17705(2001)	19716(2228)	73
22 (83)		444(50)	2741(310)	5034(569)	7493(847)	9846(1113)	12214(1380)	14599(1650)	17055(1927)	18924(2138)	80
24 (91)			1862(210)	4346(491)	6677(755)	9007(1018)	11398(1288)	13777(1557)	16164(1827)	18591(2101)	87
Max. Cont.			1635(185)	4096(463)	6281(710)	8519(963)	10901(1232)	13247(1497)	15844(1790)	17950(2028)	91
Max. Inter.			90	90	89	88	85	82	76	71	109
30 (114)				1789(202)	4217(477)	6460(730)	8962(1013)	10947(1237)	13483(1524)	15551(1757)	
				108	107	106	105	104	99	93	

Stall Torque 3751(424) 5895(666) 7568(855) 9873(1116) 11593(1310) 13822(1562) 16213(1832)

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

91 91.2 in.³/r (1496 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)						Max. Cont.		Max. Inter.		Theo. RPM
	250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	2000 (138)	2250 (155)	2500 (173)	
0.5 (2)	2703(305)	5736(648)									2
1 (4)	2978(336)	6128(693)	8942(1011)								3
2 (8)	3106(351)	6454(729)	9597(1085)	12072(1364)							6
4 (15)	2925(331)	6304(712)	9879(1116)	13191(1491)	15668(1771)						11
6 (23)	2629(297)	6023(681)	9632(1088)	12952(1464)	15662(1770)						16
8 (30)	2183(247)	5662(640)	9188(1038)	12655(1430)	15864(1793)	18786(2123)					21
10 (38)	1740(197)	5159(583)	8860(1001)	12189(1377)	15479(1749)	18498(2090)					26
12 (45)	1157(131)	4695(531)	8315(940)	11770(1330)	15066(1702)	18059(2041)	20613(2329)				31
14 (53)	594(67)	4282(484)	7689(869)	11217(1267)	14532(1642)	17612(1990)	20353(2300)				36
16 (61)		3457(391)	6805(769)	10374(1172)	13866(1567)	16941(1914)	19986(2258)				41
18 (68)		2602(294)	6072(686)	9523(1076)	13177(1489)	16334(1846)	19366(2188)				46
20 (76)		1607(182)	5435(614)	8746(988)	12320(1392)	15429(1743)	18553(2101)				51
22 (83)		770(87)	4310(487)	7720(872)	11356(1283)	14442(1632)	17883(2021)				56
24 (91)			4032(456)	6632(749)	10143(1146)	13570(1533)	16568(1872)				61
Max. Cont.			2589(293)	6232(704)	9313(1052)	12961(1465)	16306(1843)				64
Max. Inter.			63	62	62	59	53				76
30 (114)				2174(246)	5711(645)	9265(1047)	12323(1393)				
				75	74	73	72				

Stall Torque 5809(656) 8688(982) 11393(1287) 14088(1592) 18121(2048)

Theo. Torque 3631(410) 7261(821) 10892(1231) 14522(1641) 18153(2051) 21783(2462) 25414(2872)

Areas within white represent
maximum motor efficiencies.

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



For related information
see pages:

Complete description of the
information presented in the
performance tables 3

DT Series

•Performance

99 127.7 in.³/r (2094 cm³/r)

Flow GPM (LPM)	Pressure, psi (bars)					Max. Cont.	Max. Inter.	Theo. RPM
	250 (17)	500 (35)	750 (52)	1000 (69)	1250 (86)	1500 (104)	1750 (121)	
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) 24	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.			3129 (354) 45	7883 (891) 45	12636 (1428) 45	17445 (1971) 43		46
Max. Inter.				3803 (430) 54	8485 (959) 54	13207 (1492) 53		55
Stall Torque		8092 (914)	12282 (1388)	15631 (1766)	19997 (2260)	23796 (2689)		
Theo. Torque	5084 (574)	10167 (1149)	15251 (1723)	20334 (2298)	25418 (2872)	30502 (3447)	35585 (4021)	

Areas within white represent
maximum motor efficiencies.

Torque, lb-in (Nm)
Speed, RPM

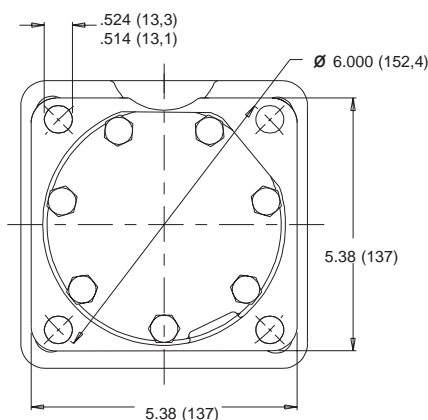
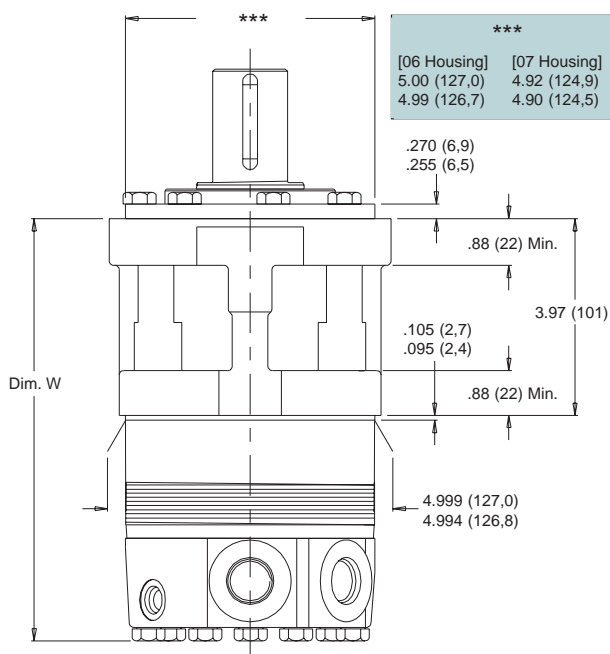
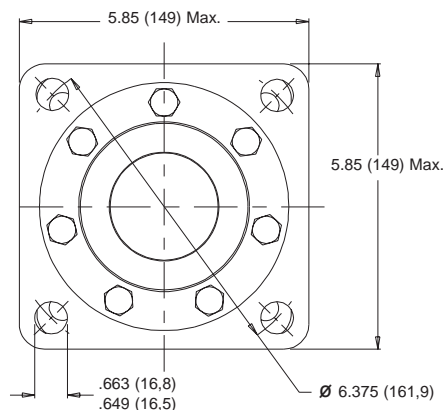
Note: Performance data is typical.
Performance of production units
varies slightly from one motor to
another.



•Housings

•Technical

06	Standard Mount With 5.00" Pilot
07	Standard Mount With 125mm Pilot

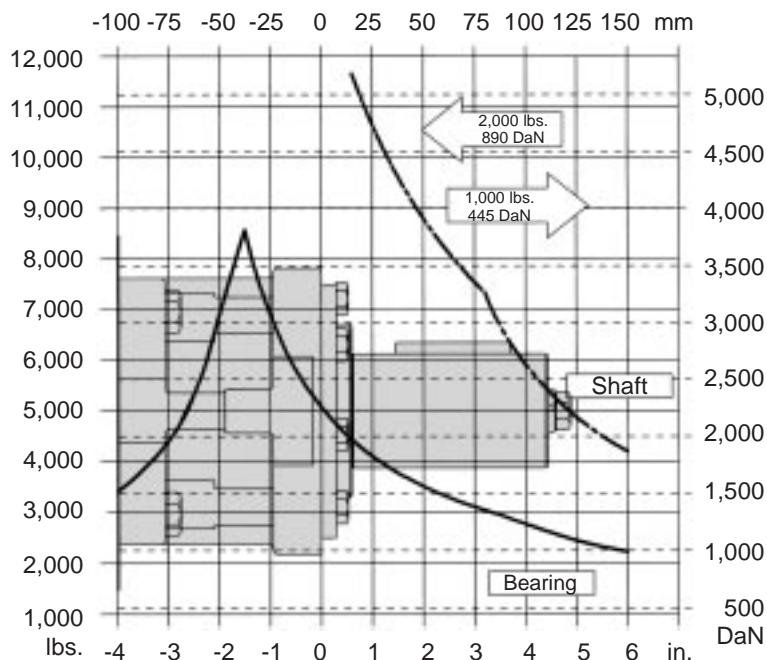


Allowable Bearing And Shaft Loads

Bearing Curve: The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an L_{10} life of 2000 hours at 100 RPM. Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 26.

Shaft Curve: The shaft curve represents a 3:1 safety factor based on a tensile strength of 330 kpsi.

Standard Mount



Length and Weight Tables

Standard Mount

Disp. Code	Dim. W in (mm)	Weight lbs (kg)
19	8.25 (209)	44.6 (20,2)
25	8.50 (216)	45.8 (20,8)
27	8.80 (223)	47.1 (21,4)
33	9.04 (230)	48.2 (21,9)
46	9.75 (248)	51.3 (23,3)
56	10.35 (263)	53.8 (24,4)
66	10.75 (273)	55.7 (25,3)
91	12.25 (311)	62.5 (28,3)
99	14.25 (362)	71.3 (32,3)

DT motor weights vary ± 3 lb. (1.35 kg) depending upon motor configuration.

Subtract .11 in. (3mm) from dimension for motors using 0 or 5 endcover.



For related information
see pages:

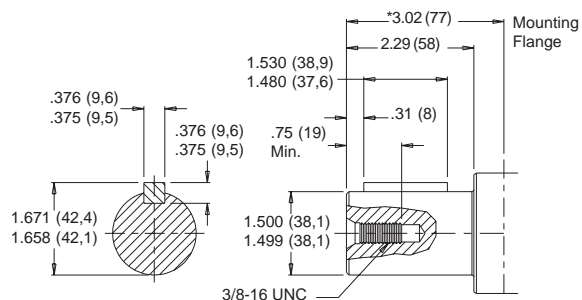
Allowable Side Loads 90
Nut Options 112

DT Series

•Shafts

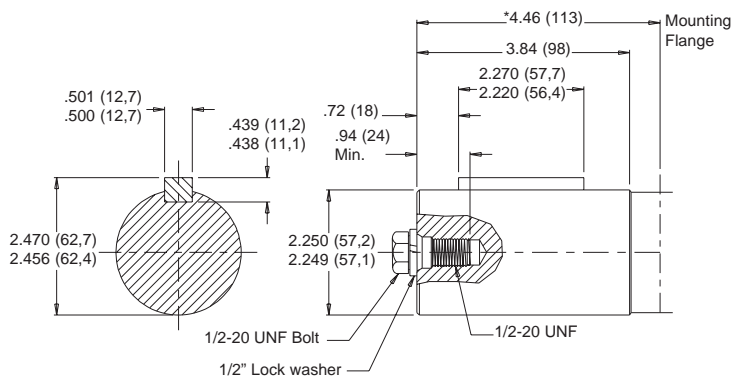
32 1-1/2 Inch Straight

Max. Torque: 19,800 lb-in
2230 Nm



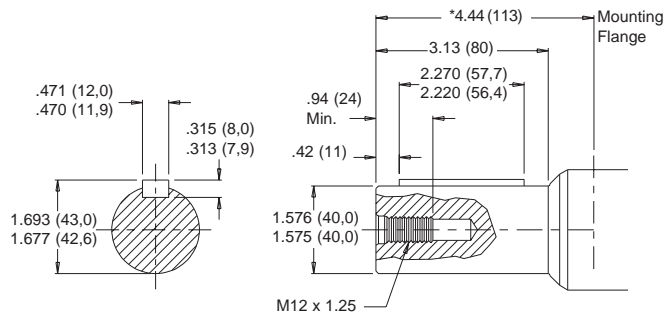
25 2-1/4 Inch Straight

Max. Torque: 24,000 lb-in
2700 Nm



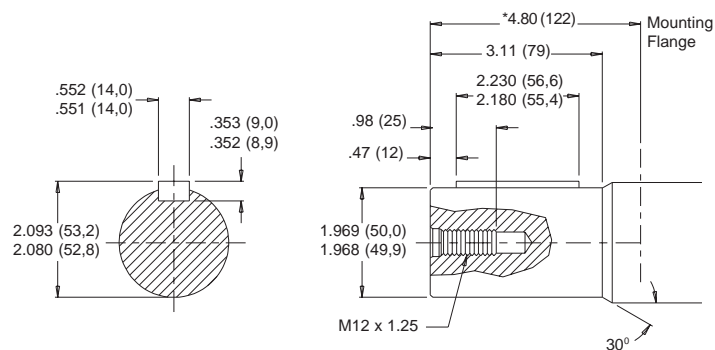
24 40mm Straight

Max. Torque: 24,000 lb-in
2700 Nm



21 50mm Straight

Max. Torque: 24,000 lb-in
2700 Nm



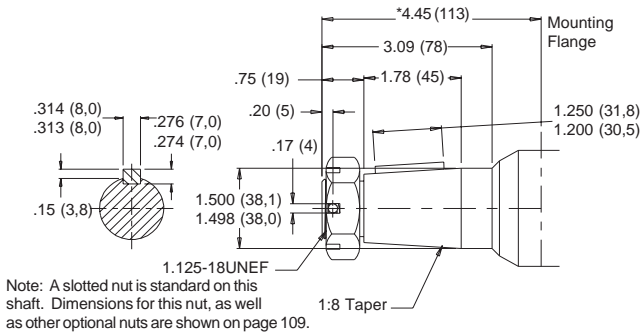
*Shaft lengths vary +/- .030 in. (.8mm)



•Shafts

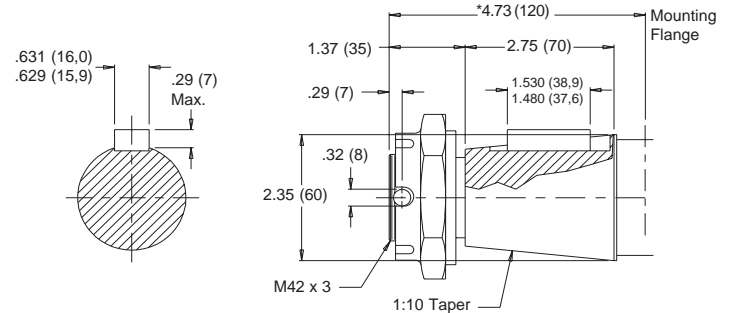
20 1-1/2 Inch Tapered

Max. Torque: 19,900 lb-in
2250 Nm



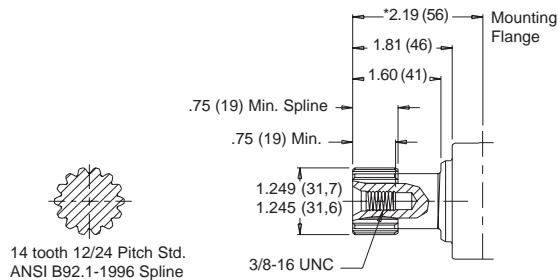
23 60mm Tapered

Max. Torque: 24,000 lb-in
2700 Nm



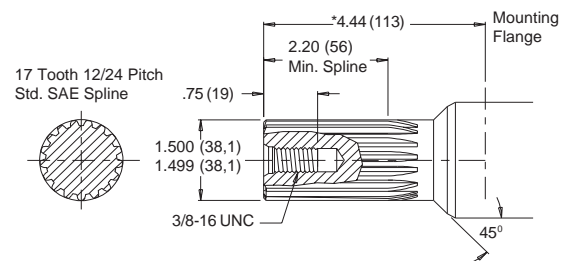
36 14 Tooth Spline

Max. Torque: 18,400 lb-in
2070 Nm



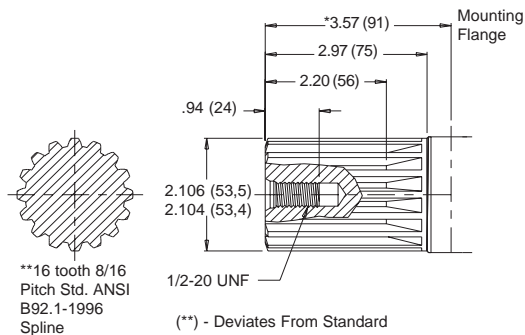
28 17 Tooth Spline

Max. Torque: 19,900 lb-in
2250 Nm



26 16 Tooth Spline

Max. Torque: 24,000 lb-in
2700 Nm



*Shaft lengths vary +/- .030 in. (.8mm)



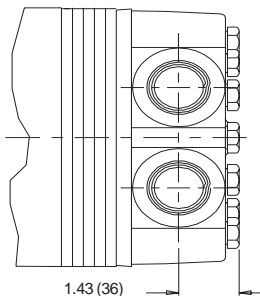
For related information
see pages:

Valve Cavity Option 110
Internal Drain Option 110

DT Series

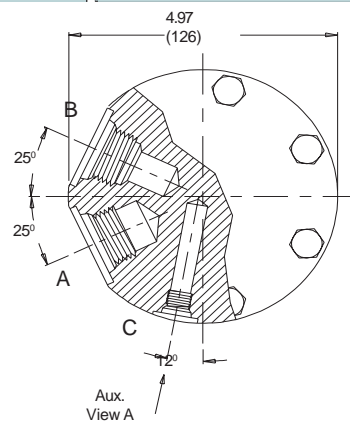
•Ports

Radial Ports



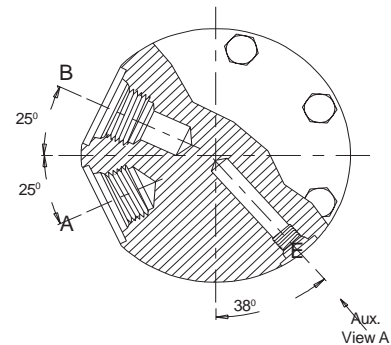
5 or 7

Standard



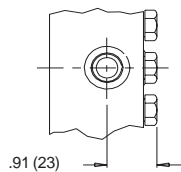
5D or 7D

Internal Drain

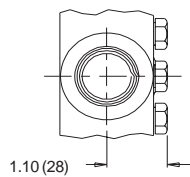


Auxillary Views

View A - Case Drain Port

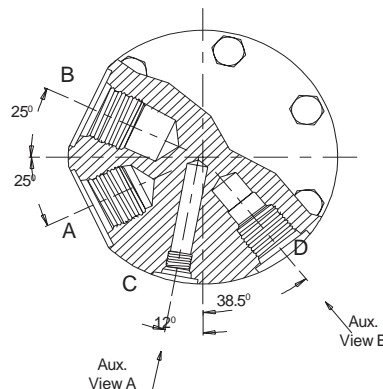


View B - Valve Cavity



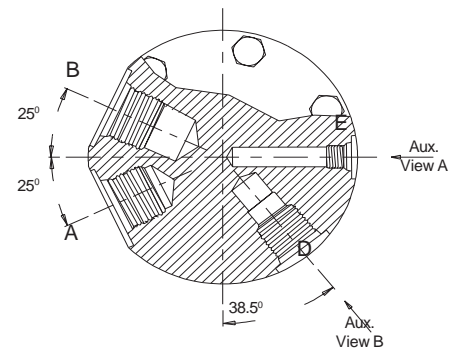
5R or 7R

Valve Cavity



5DR or 7DR

Valve Cavity & Internal Drain



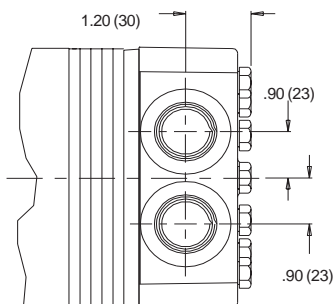
Ports
7

A & B - 3/4 - 14 BSP.F Port
C - 1/4 - 19 BSP.F Drain Port
D - 10 Series/2-way Valve Cavity (7/8-14 UNF-2B)
E - 7/16-20 O-ring Drain Port With Port Plug
Installed (Internal Drain Option)

Ports
5

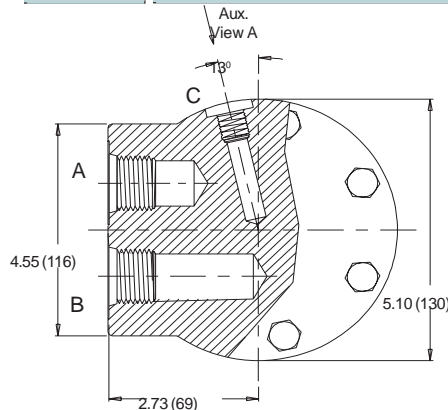
A & B - 1-1/16-12 O-ring Port
C - 7/16-20 O-ring Drain Port
D - 10 Series/2-way Valve Cavity (7/8-14 UNF-2B)
E - 7/16-20 O-ring Drain Port With Port Plug
Installed (Internal Drain Option)

Parallel Ports



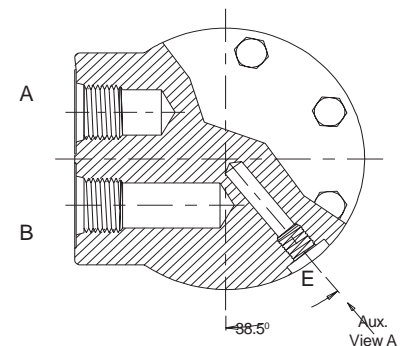
8 or 9

Standard



8D or 9D

Internal Drain



Ports
9

A & B - 3/4 - 14 BSP.F Port
C - 1/4 - 19 BSP.F Drain Port

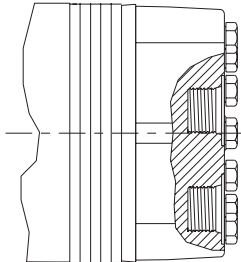
Ports
8

A & B - 1-1/16-12 O-ring Port
C - 7/16-20 O-ring Drain Port
E - 7/16-20 O-ring Drain Port With Port Plug
Installed (Internal Drain Option)



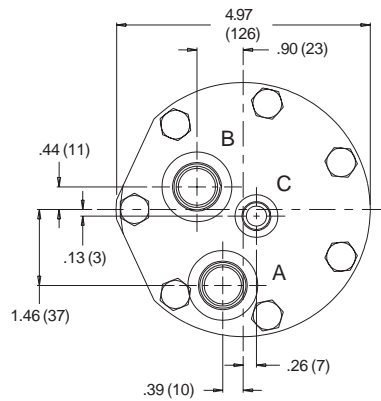
•Ports

Rear Ports



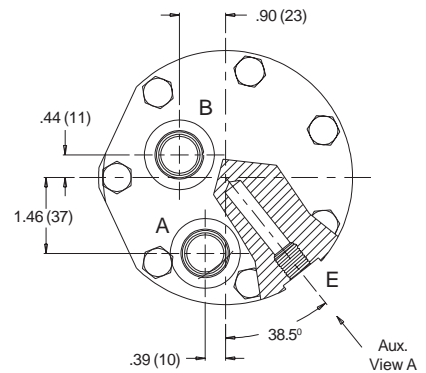
0

Standard



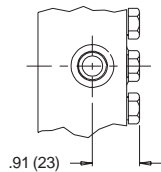
0D

Internal Drain

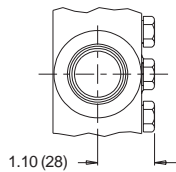


Auxiliary Views

View A - Case Drain Port

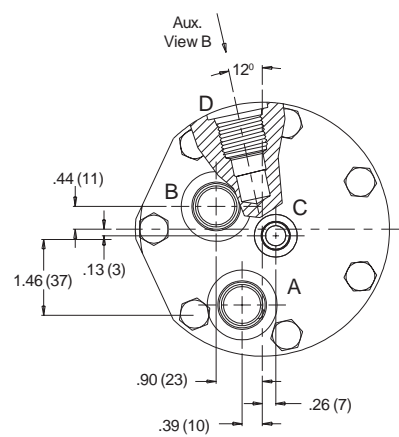


View B - Relief Valve Cavity



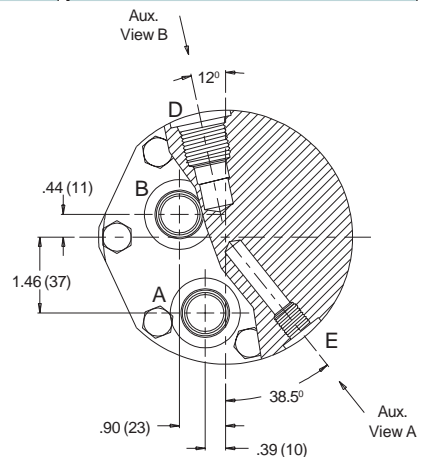
0R

Valve Cavity



0DR

Valve Cavity & Internal Drain

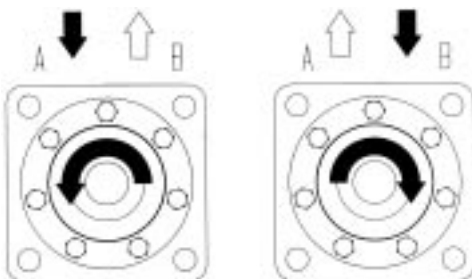


Ports
0

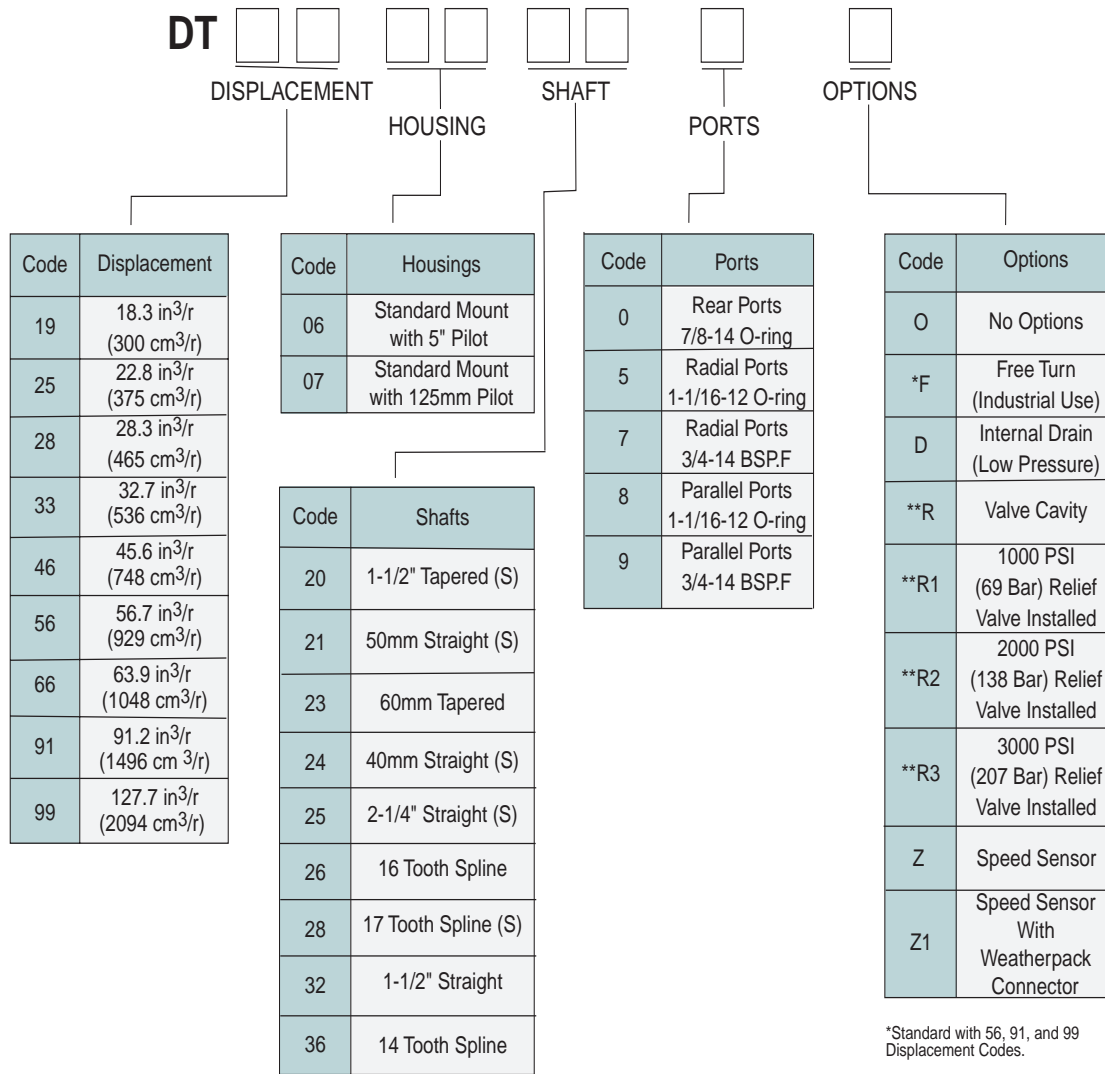
A & B - 7/8-14 O-ring Port
C - 7/16-20 O-ring Drain Port

D - 10 Series/2-way Valve Cavity (7/8-14 UNF-2B)
E - Internal Drain Option (7/16-20 O-ring Drain Port
With Port Plug Installed)

DT Rotation Selection



•Ordering Information



*Standard with 56, 91, and 99 Displacement Codes.

**Available with 0,5,and 7 ports only.

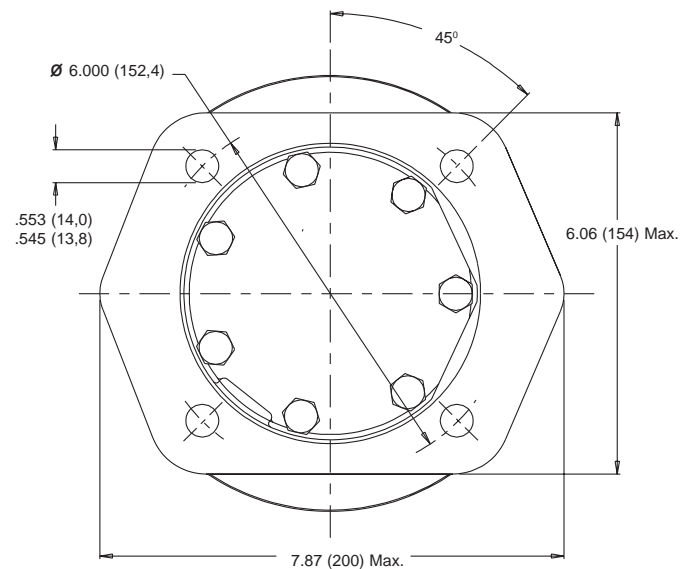
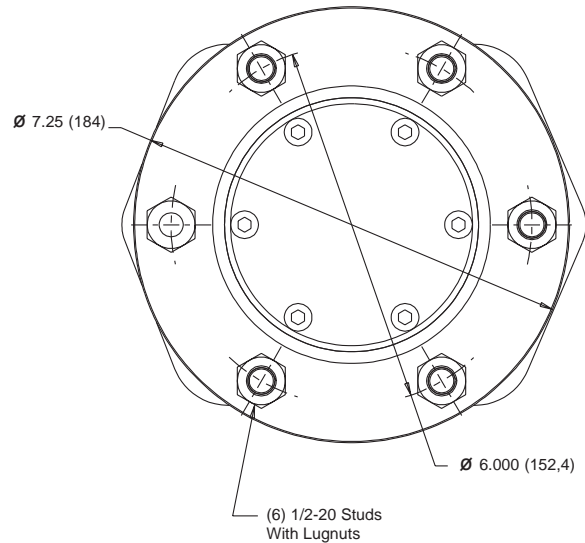
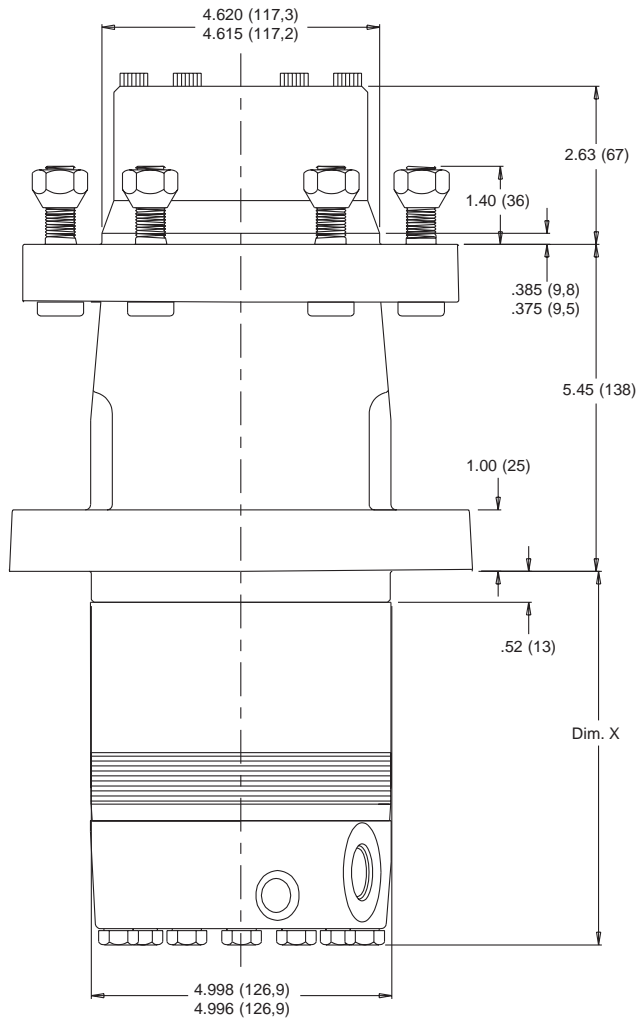
(S) Denotes shafts available for use with speed sensor options



•Housings

41

Wheel Mount



Note: The DT40 Series motor is not available with the internal drain option. Drain line pressure must be maintained below 25 psi (1.7 bars). A dedicated line from the motor drain port to the reservoir is recommended.

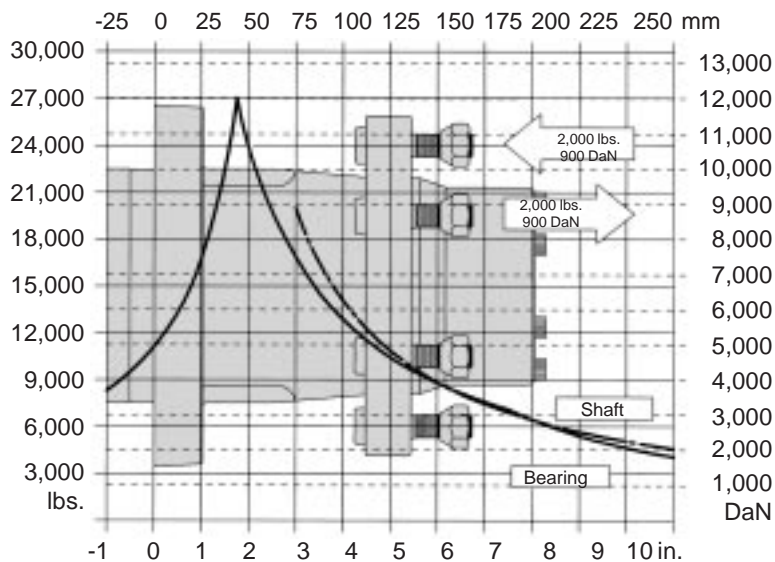
•Technical

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 2000 hours at 100 RPM. Because the DT40 motor uses tapered roller bearings, the curve also accounts for thrust loads up to 2,000 lbs. (890 DaN). Radial loads for speeds other than 100 RPM may be calculated using the multiplication factor table located on page 26.

Shaft Curve: The shaft curve represents a 3:1 safety factor based on a tensile strength of 330 kpsi.

Wheel Mount



Wheel Mount

Disp. Code	Dim. X in (mm)	Weight lbs (kg)
19	4.74 (120)	62.6 (28,4)
25	4.99 (127)	63.8 (28,9)
27	5.29 (134)	65.1 (29,5)
33	5.53 (140)	66.2 (30,0)
46	6.24 (158)	69.2 (31,4)
56	6.84 (174)	71.8 (32,6)
66	7.24 (184)	73.7 (33,4)
91	8.74 (222)	80.5 (36,5)
99	10.74 (273)	89.3 (40,5)

DT motor weights vary ± 3 lb. (1.35 kg) depending upon motor configuration.

Subtract .11 in. (3mm) from dimension for motors using 0 or 5 endcover.

DT 40 Series

•Ordering Information

