



whitedriveproducts



**SERIES**

700 -

710 -

740 -



**HEAVY DUTY**  
Hydraulic Motor & Brake

**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 drive-line lubrication for maximum motor life. Standard mounting and shaft options offer interchangeability with competitive designs. An internal drain option is also available.

**FEATURES / BENEFITS**

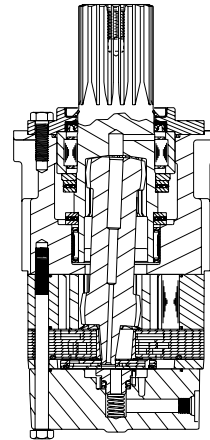
- Heavy-Duty Roller Bearing supports high side loads and receives forced lubrication for cooling and increased life.
- Compact Housing contributes to high power-to-weight ratio of motor and offers front and rear mounting flanges.
- Heavy-Duty Drive Link receives forced lubrication for long life and is capable of extreme duty cycles.
- Roller Stator® Motor available in displacements up to 2093 cm<sup>3</sup> [127.7 in<sup>3</sup>] for high torque output.
- Three-Zone Orbiting Valve precisely meters oil to produce exceptional volumetric efficiencies.

**TYPICAL APPLICATIONS**

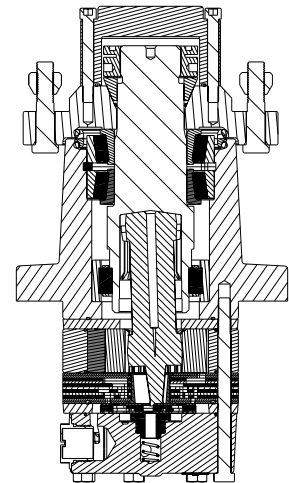
Heavy-duty wheel drives, augers, mixers, pumping units, conveyors, boring machines, rotators, mining equipment, forestry equipment and more and more

**SERIES DESCRIPTIONS**

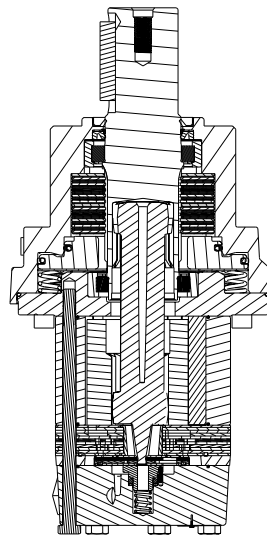
**700 -** Hydraulic Motor  
*Standard*



**740 -** Hydraulic Motor  
*With Wheel Hub*



**710 -** Hydraulic Motor  
*With Integral Hydraulic Brake*



**SPECIFICATIONS**

CODE	Displacement cm <sup>3</sup> [in <sup>3</sup> /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]

► Performance data is typical. Performance of production units varies slightly from one motor to another. Running at intermittent ratings should not exceed 10% of every minute of operation.



DISPLACEMENT PERFORMANCE

300

Pressure - bar [psi] table with values: 17 [250], 35 [500], 69 [1000], 104 [1500], 138 [2000], 173 [2500], 207 [3000], 241 [3500]

300 cm³ [18.3 in³] / rev

Torque - Nm [lb-in], Speed rpm Intermittent Ratings - 10% of Operation

Main performance table for 300 cm³ motor, showing flow (2-114 gpm), torque, speed, and theoretical rpm (7-379) across various pressure and flow conditions.

Rotor Width

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

Theoretical Torque - Nm [lb-in]

Theoretical torque table for 300 cm³ motor: 82 [729], 165 [1457], 329 [2914], 494 [4371], 659 [5828], 823 [7285], 988 [8742], 1152 [10199]

25.4 [1.000] mm [in]

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

Pressure - bar [psi] table for 375 cm³ motor: 17 [250], 35 [500], 69 [1000], 104 [1500], 138 [2000], 173 [2500], 207 [3000], 224 [3250]

375 cm³ [22.8 in³] / rev

Torque - Nm [lb-in], Speed rpm Intermittent Ratings - 10% of Operation

Main performance table for 375 cm³ motor, showing flow (2-114 gpm), torque, speed, and theoretical rpm (6-304) across various pressure and flow conditions.

Rotor Width

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

Theoretical Torque - Nm [lb-in]

Theoretical torque table for 375 cm³ motor: 103 [908], 205 [1815], 410 [3631], 615 [5446], 821 [7261], 1026 [9076], 1231 [10892], 1333 [11799]

31.8 [1.252] mm [in]

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

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



**DISPLACEMENT PERFORMANCE**

		Pressure - bar [psi]							Max. Cont.	Max. Inter.
<b>470</b>		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	224 [3250]	
465 cm <sup>3</sup> [28.3 in <sup>3</sup> ] / rev										
		Torque - Nm [lb-in], Speed rpm							Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	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] 94	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
95 [25]				389 [3442] 203	632 [5589] 198	867 [7676] 190			205	
114 [30]				277 [2451] 243	514 [4549] 240	755 [6684] 235			245	

**Rotor Width**

39.4 [1.553]  
mm [in]

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

		Pressure - bar [psi]							Max. Cont.	Max. Inter.
<b>540</b>		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]		
536 cm <sup>3</sup> [32.7 in <sup>3</sup> ] / rev										
		Torque - Nm [lb-in], Speed rpm							Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	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	
95 [25]			220 [1948] 176	486 [4299] 174	762 [6741] 169	1025 [9075] 163		177		
114 [30]			90 [800] 211	366 [3237] 210	638 [5649] 207	920 [8144] 203		212		

**Rotor Width**

45.5 [1.791]  
mm [in]

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

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



DISPLACEMENT PERFORMANCE

750

Pressure - bar [psi] Max. Cont. Max. Inter. Table with values: 17 [250], 35 [500], 69 [1000], 104 [1500], 138 [2000], 173 [2500], 207 [3000]

748 cm³ [45.6 in³] / rev

Torque - Nm [lb-in], Speed rpm Intermittent Ratings - 10% of Operation

Main performance table for 750 series with columns for Flow - lpm [gpm], Torque, Speed, and Theoretical rpm. Includes Max. Max. Inter. Cont. label on the left.

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

Rotor Width

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

Theoretical Torque - Nm [lb-in]

Theoretical Torque table with values: 205 [1815], 410 [3631], 821 [7261], 1231 [10892], 1641 [14522], 2051 [18153], 2462 [21783]

63.5 [2.501] mm [in]

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

Pressure - bar [psi] Max. Cont. Max. Inter. Table with values: 17 [250], 35 [500], 52 [750], 69 [1000], 86 [1250], 104 [1500], 121 [1750], 138 [2000], 155 [2250], 173 [2500]

930

929 cm³ [56.7 in³] / rev

Torque - Nm [lb-in], Speed rpm Intermittent Ratings - 10% of Operation

Main performance table for 930 series with columns for Flow - lpm [gpm], Torque, Speed, and Theoretical rpm. Includes Max. Max. Inter. Cont. label on the left.

Rotor Width

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

Theoretical Torque - Nm [lb-in]

Theoretical Torque table with values: 255 [2257], 510 [4514], 765 [6771], 1020 [9029], 1275 [11286], 1530 [13543], 1785 [15800], 2040 [18057], 2296 [20314], 2551 [22572]

78.9 [3.106] mm [in]

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



**DISPLACEMENT PERFORMANCE**

		Pressure - bar [psi]										Max. Cont.	Max. Inter.
<b>1K1</b>		17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	138 [2000]	155 [2250]	173 [2500]		
1047 cm <sup>3</sup> [63.9 in <sup>3</sup> ] / rev		Intermittent Ratings - 10% of Operation											
Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm	217 [1918] 1	455 [4026] 1	671 [5940] 0.9	890 [7879] 0.6								
	2 [0.5]	206 [1821] 3	498 [4410] 2	706 [6251] 2	935 [8273] 2	1189 [10518] 2							2
	4 [1]	224 [1985] 6	498 [4407] 6	754 [6672] 6	983 [8700] 5	1222 [10810] 5	1428 [12635] 4						4
	8 [2]	224 [1980] 14	472 [4180] 13	754 [6669] 13	1011 [8946] 13	1262 [11169] 11	1486 [13147] 10	1697 [15014] 9					8
	15 [4]	170 [1500] 21	487 [4314] 21	739 [6538] 20	1020 [9023] 19	1238 [10956] 18	1501 [13286] 16	1695 [14998] 14	1914 [16936] 12				15
	23 [6]	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			22
	30 [8]	129 [1143] 36	401 [3546] 36	675 [5975] 35	944 [8356] 34	1208 [10688] 32	1455 [12879] 29	1714 [15168] 26	1919 [16982] 22	2145 [18983] 17			29
	38 [10]	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		37
	45 [12]	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		44
	53 [14]		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		51
	61 [16]		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		58
	68 [18]		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		66
	76 [20]		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		73
	83 [22]			210 [1862] 86	491 [4346] 85	755 [6677] 84	1018 [9007] 83	1288 [11398] 81	1557 [13777] 76	1827 [16164] 71	2101 [18591] 61		80
91 [24]			185 [1635] 90	463 [4096] 90	710 [6281] 89	963 [8519] 88	1232 [10901] 85	1497 [13247] 82	1790 [15844] 76	2028 [17950] 71		87	
95 [25]				202 [1789] 108	477 [4217] 107	730 [6460] 106	1013 [8962] 105	1237 [10947] 104				91	
114 [30]												109	

**Rotor Width**

88.9 [3.502]  
mm [in]

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

		Pressure - bar [psi]						Max. Cont.	Max. Inter.
<b>1K5</b>		17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	
1495 cm <sup>3</sup> [91.2 in <sup>3</sup> ] / rev		Intermittent Ratings - 10% of Operation							
Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm	305 [2703] 0.9	648 [5736] 0.6						
	2 [0.5]	336 [2978] 2	693 [6128] 1	1011 [8942] 1					
	4 [1]	351 [3106] 4	729 [6454] 4	1085 [9597] 3	1364 [12072] 3				
	8 [2]	331 [2925] 9	712 [6304] 9	1116 [9879] 8	1491 [13191] 7	1771 [15668] 7			
	15 [4]	297 [2629] 15	681 [6023] 14	1088 [9632] 13	1464 [12952] 12	1770 [15662] 10			
	23 [6]	247 [2183] 20	640 [5662] 19	1038 [9188] 18	1430 [12655] 17	1793 [15864] 15	2123 [18786] 9		
	30 [8]	197 [1740] 25	583 [5159] 24	1001 [8860] 23	1377 [12189] 22	1749 [15479] 19	2090 [18498] 14		
	38 [10]	131 [1157] 30	531 [4695] 29	940 [8315] 28	1330 [11770] 27	1702 [15066] 24	2041 [18059] 19	2329 [20613] 14	
	45 [12]	67 [594] 36	484 [4282] 35	869 [7689] 33	1267 [11217] 32	1642 [14532] 30	1990 [17612] 24	2300 [20353] 15	
	53 [14]		391 [3457] 40	769 [6805] 39	1172 [10374] 37	1567 [13866] 36	1914 [16941] 32	2258 [19986] 21	
	61 [16]		294 [2602] 45	686 [6072] 44	1076 [9523] 43	1489 [13177] 40	1846 [16334] 38	2188 [19366] 27	
	68 [18]		182 [1607] 50	614 [5435] 49	988 [8746] 48	1392 [12320] 47	1743 [15429] 44	2301 [18553] 37	
	76 [20]		87 [770] 55	487 [4310] 54	872 [7720] 53	1283 [11356] 52	1632 [14442] 48	2021 [17883] 46	
	83 [22]			456 [4032] 60	749 [6632] 60	1146 [10143] 58	1533 [13570] 58	1872 [16568] 50	
91 [24]			293 [2589] 63	704 [6232] 62	1052 [9313] 62	1465 [12961] 59	1843 [16306] 53		
95 [25]				246 [2174] 75	645 [5711] 74	1047 [9265] 73			
114 [30]									

**Rotor Width**

127.1 [5.003]  
mm [in]

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

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



**DISPLACEMENT PERFORMANCE**

**2K1**

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

2094 cm<sup>3</sup> [127.7 in<sup>3</sup>] / rev

Intermittent Ratings - 10% of Operation

Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm						Theoretical rpm
	438 [3878]	892 [7894]	1398 [12375]	1980 [17520]	2390 [21152]	2668 [23613]	
2 [0.5]	0.8	0.8					1
4 [1]	1	1	1				2
8 [2]	3	3	3				4
15 [4]	7	7	6	6			8
23 [6]	10	10	10	9			11
30 [8]	14	14	14	13	9	8	15
38 [10]	17	17	16	16	13	9	19
45 [12]	21	21	21	20	17	12	22
53 [14]	25	24	24	23	21	13	26
61 [16]		28	28	27	26	20	29
68 [18]		32	32	31	30	26	33
76 [20]		36	36	36	35	30	37
83 [22]		39	39	39	38	36	40
91 [24]			43	43	42	40	44
95 [25]			45	45	45	43	46
114 [30]			54	54	54	53	55

**Rotor Width**

177.9 [7.003]
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mm [in]

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

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

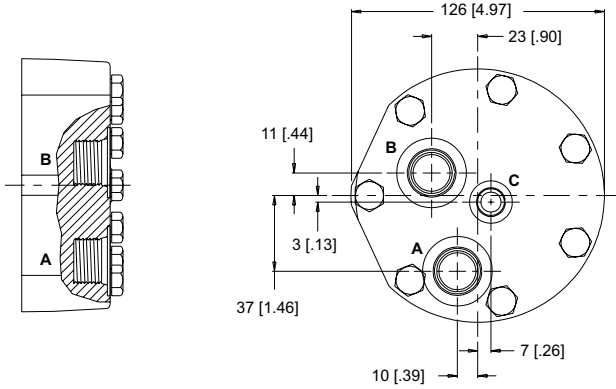
**PORTING**

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

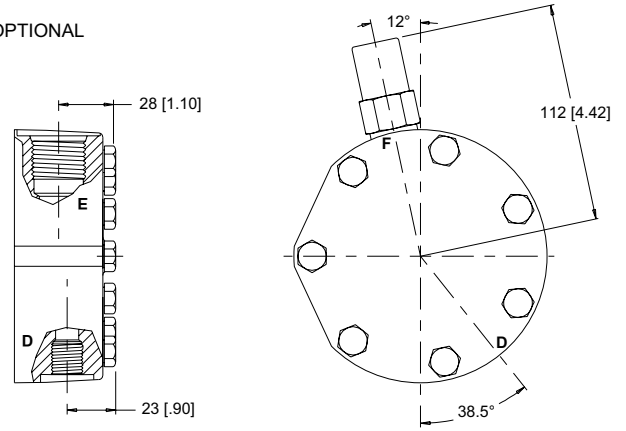
**END PORTED - OFFSET**

- 1** Main Ports **A, B:** 7/8-14 UNF  
Drain Port **C:** 7/16-20 UNF

STANDARD



OPTIONAL

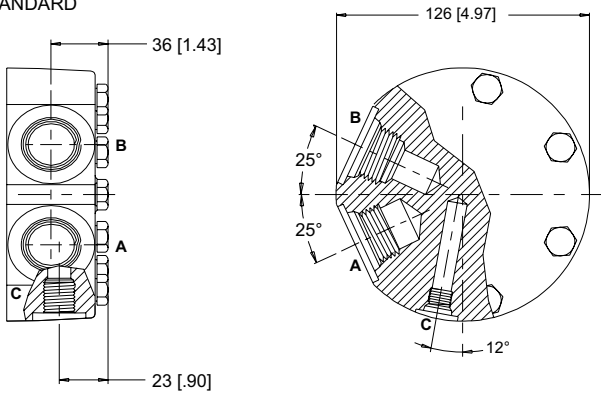


D: Internal Drain E: 10 Series/2-Way Valve Cavity 7/8-14 UNF F: Valve Cartridge Installed

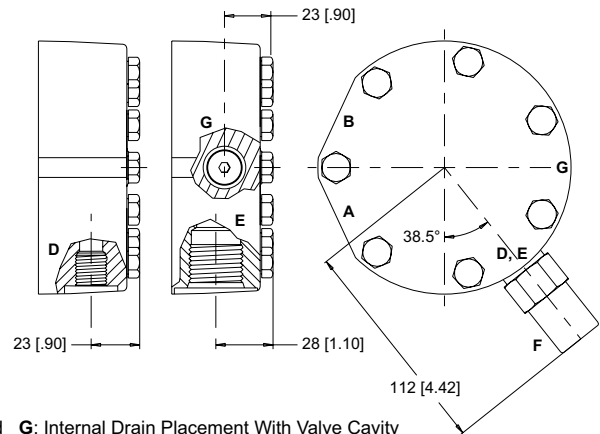
**SIDE PORTED - RADIAL**

- 2** Main Ports **A, B:** G 3/4  
Drain Port **C:** G 1/4

STANDARD



OPTIONAL



D: Internal Drain E: 10 Series/2-Way Valve Cavity 7/8-14 UNF F: Valve Cartridge Installed G: Internal Drain Placement With Valve Cavity



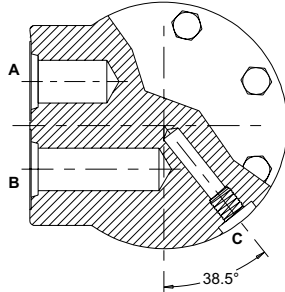
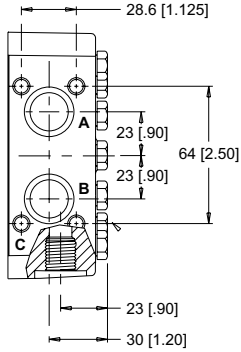
**PORTING**

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

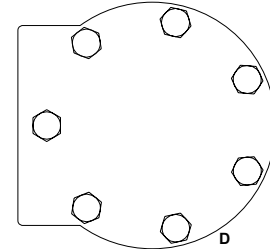
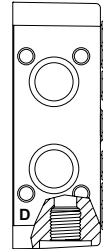
**SIDE PORTED - MANIFOLD ALIGNED**

**3** Main Ports **A, B:** 11/16" Drilled  
Drain Port **C:** 7/16-20 UNF

STANDARD



OPTIONAL



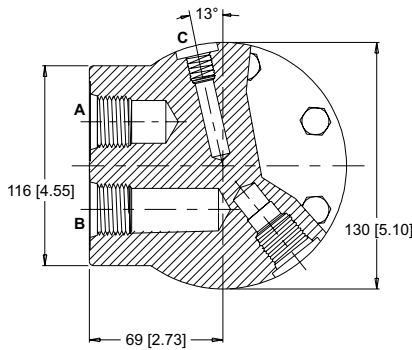
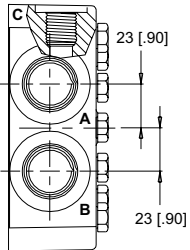
D: Internal Drain

**SIDE PORTED - ALIGNED**

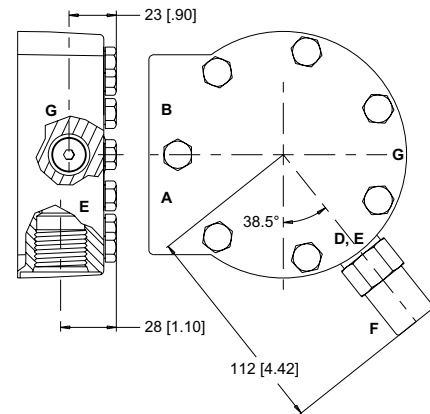
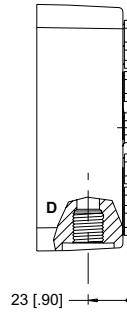
**6** Main Ports **A, B:** 1 1/16-20 UN  
Drain Port **C:** 7/16-20 UNF

**7** Main Ports **A, B:** G 3/4  
Drain Port **C:** G 1/4

STANDARD



OPTIONAL



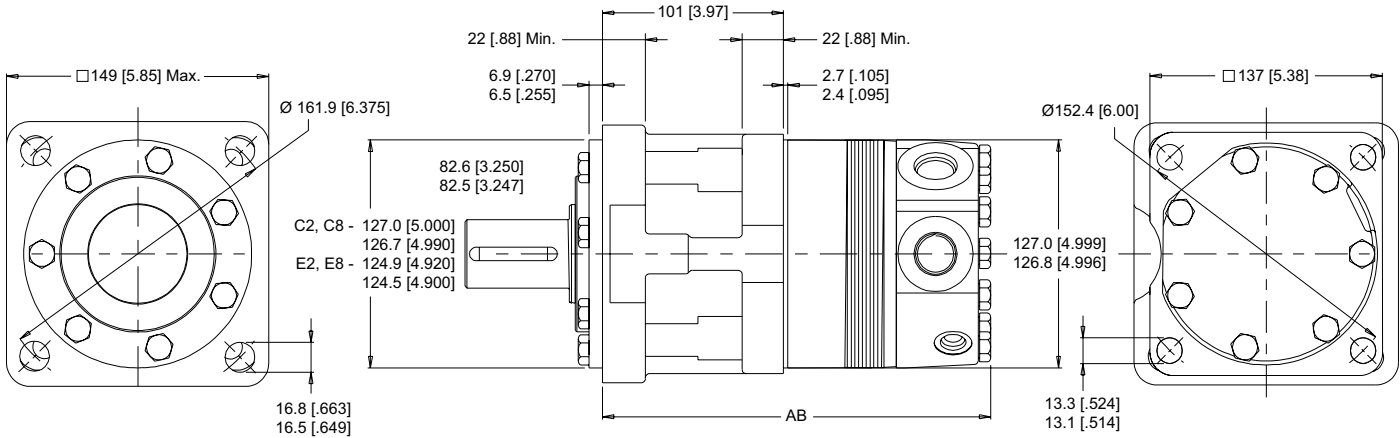
D: Internal Drain E: 10 Series/2-Way Valve Cavity 7/8-14 UNF F: Valve Cartridge Installed G: Internal Drain Placement With Valve Cavity

**HOUSINGS**

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

**4-HOLE, SAE C MOUNT**

**C2** End Ports    **C8** Side Ports    **E2** End Ports    **E8** Side Ports



► Porting options listed on pages 8-9.

**TECHNICAL INFORMATION**

**ALLOWABLE SHAFT LOAD / BEARING CURVE**

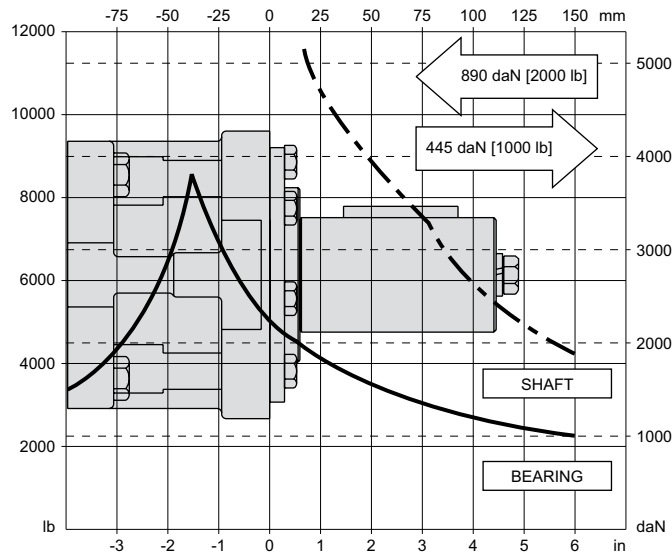
The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an  $L_{10}$  life of 2,000 hours at 100 rpm. Radial loads for speeds other than 100 rpm may be calculated using the multiplication factor table below.

**LENGTH & WEIGHT CHART**

Dimension AB is the overall motor length from the rear of the motor to the mounting surface.

AB #	Endcovers on pg. 8	Endcovers on pg. 9	Weight
	mm [in]	mm [in]	kg [lb]
300	206 [8.14]	209 [8.25]	20.2 [44.6]
375	213 [8.39]	216 [8.50]	20.8 [45.8]
470	220 [8.69]	223 [8.80]	21.4 [47.1]
540	227 [8.93]	230 [9.04]	21.9 [48.2]
750	245 [9.64]	248 [9.75]	23.3 [51.3]
930	260 [10.24]	263 [10.35]	24.4 [53.8]
1K1	270 [10.64]	273 [10.75]	25.3 [55.7]
1K5	308 [12.14]	311 [12.25]	28.3 [62.5]
2K1	359 [14.14]	362 [14.25]	32.3 [71.3]

**SAE C MOUNTS**

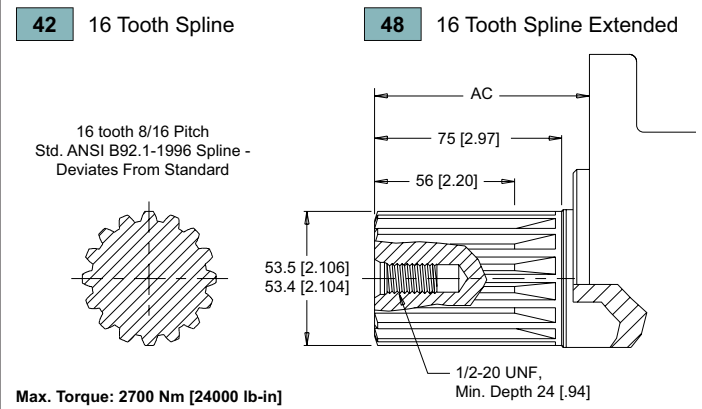
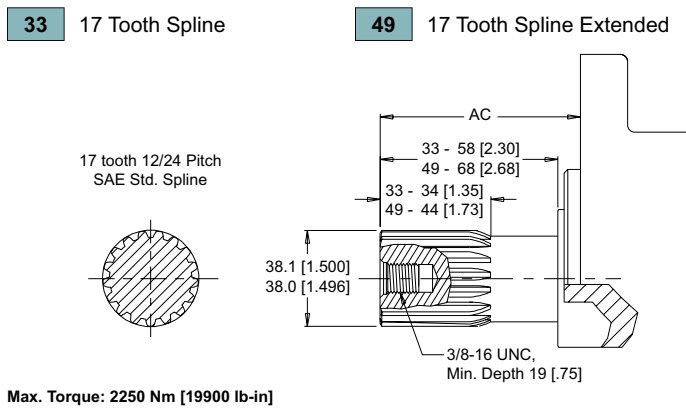
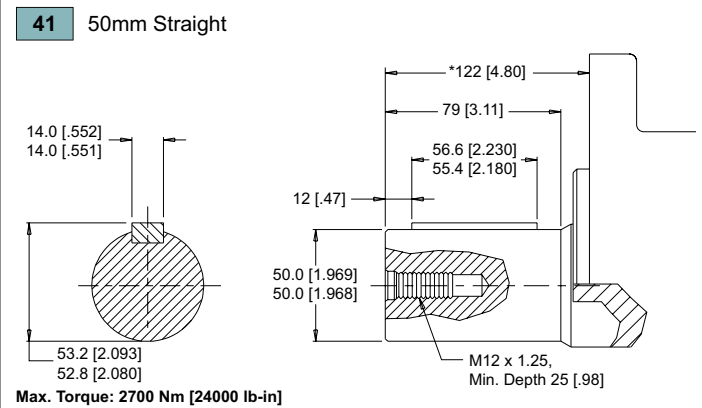
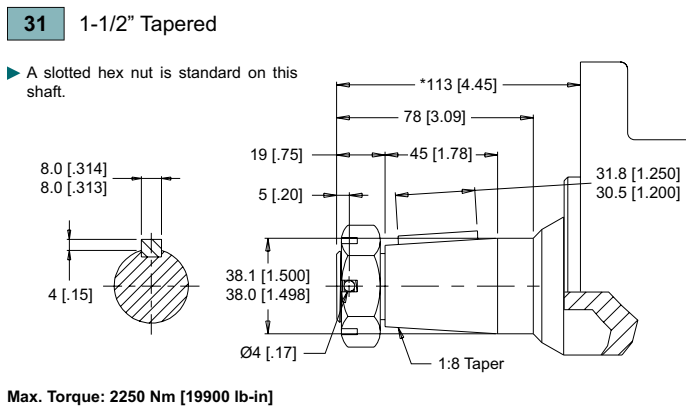
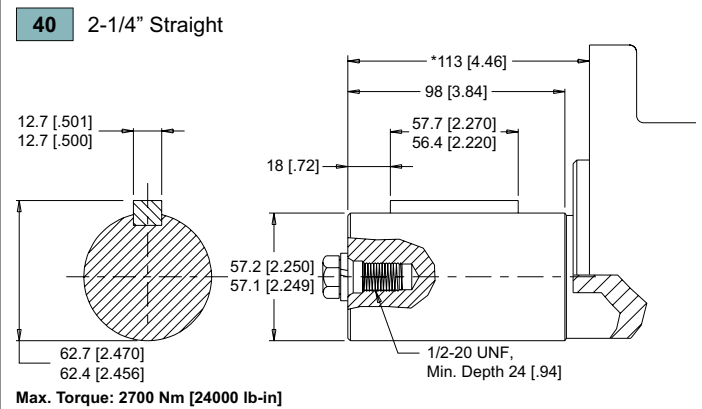
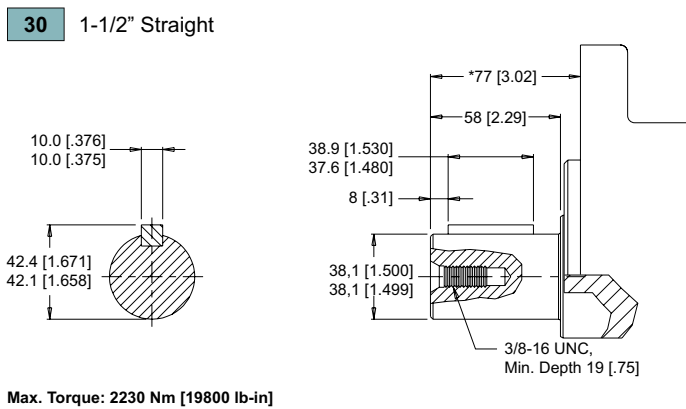
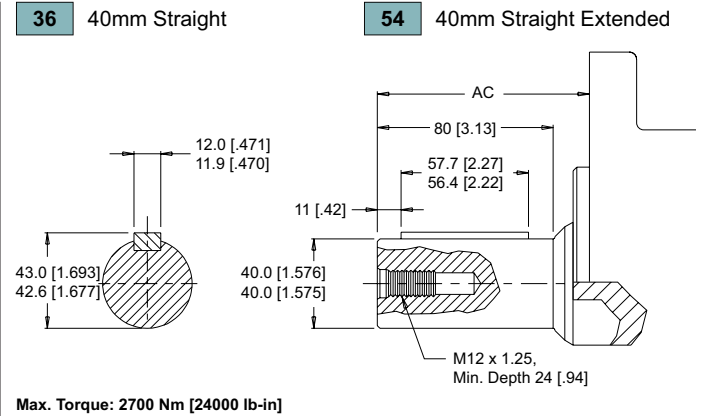
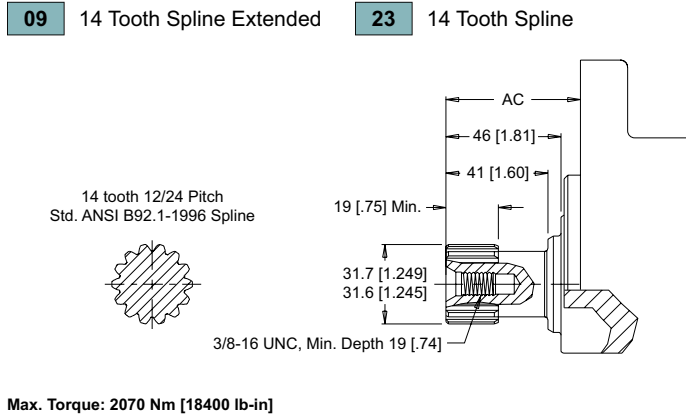


► All DT series motor weights can vary  $\pm 1.4$  kg [3 lb] depending on model configurations such as housing, shaft, endcover, options etc.

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		



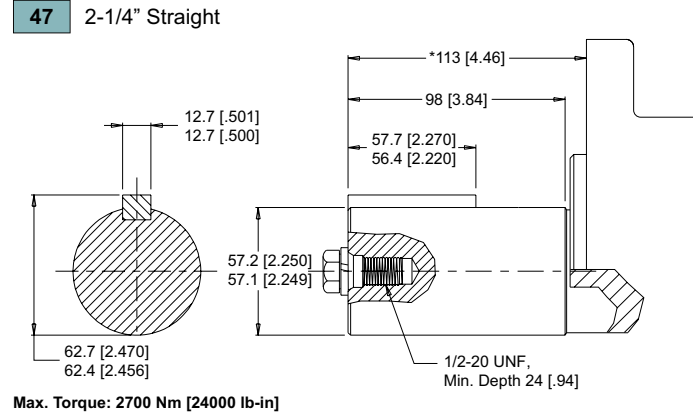
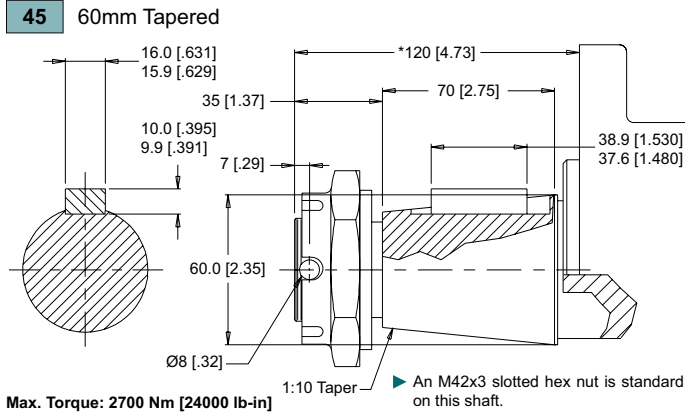
SHAFTS



► Dimension AC is charted on page 12.



**SHAFTS**



**MOUNTING / SHAFT LENGTH CHART**

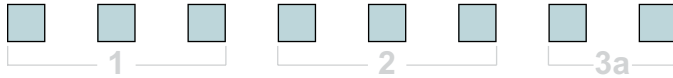
Dimension AC is the overall distance from the motor mounting surface to the end of the shaft and is referenced on detailed shaft drawings on page 11.

► Shaft lengths vary ± 0.8 mm [0.030 in.]

AC #	Length mm [in]	AC #	Length mm [in]
09	86 [3.38]	42	91 [3.57]
23	56 [2.19]	48	121 [4.77]
33	68 [2.69]	49	99 [3.89]
36	113 [4.45]	54	121 [4.78]

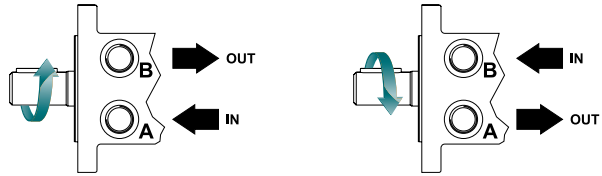


**ORDERING INFORMATION**



**1. CHOOSE SERIES DESIGNATION**

**700** Standard Motor



► The 700 series is bi-directional. Reversing the inlet hose will reverse shaft rotation.

**2. SELECT A DISPLACEMENT OPTION**

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

**3a. SELECT MOUNT TYPE**

▼ **END MOUNTS**

<b>C2</b>	SAE C Mount (5" Pilot)
<b>E2</b>	SAE C Mount (125mm Pilot)

▼ **SIDE MOUNTS**

<b>C8</b>	SAE C Mount (5" Pilot)
<b>E8</b>	SAE C Mount (125mm Pilot)

**3b. SELECT PORT SIZE**

▼ **END PORT OPTIONS**

<b>1</b>	7/8-14 UNF Offset
----------	-------------------

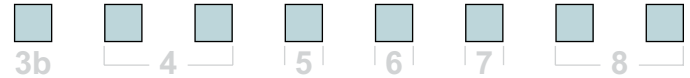
▼ **SIDE PORT OPTIONS**

<b>2</b>	G 3/4, Radial
<b>3</b>	11/16" Hole, Aligned Manifold
<b>5</b>	1 1/16-20 UN, Radial
<b>6</b>	1 1/16-20 UN, Aligned
<b>7</b>	G 3/4, Radial

**4. SELECT A SHAFT OPTION**

<b>09</b>	14 Tooth Spline Extended	<b>41</b>	50mm Straight
<b>23</b>	14 Tooth Spline	<b>42</b>	16 Tooth Spline
<b>30</b>	1-1/2" Straight	<b>45</b>	60mm Tapered
<b>31</b>	1-1/2" Tapered	<b>47</b>	2-1/4" Straight
<b>33</b>	17 Tooth Spline	<b>48</b>	16 Tooth Spline Extended
<b>36</b>	40mm Straight	<b>49</b>	17 Tooth Spline Extended
<b>40</b>	2-1/4" Straight	<b>54</b>	40mm Straight Extended

► The #47 and extended shafts are designed for use with one of the speed sensor options listed in STEP 7.



**5. SELECT A PAINT OPTION**

<b>A</b>	Black
<b>B</b>	Black, Unpainted Mounting Surface
<b>Z</b>	No Paint

**6. SELECT A VALVE CAVITY / CARTRIDGE OPTION**

<b>A</b>	None	<b>F</b>	121 bar [1750 psi] Relief
<b>B</b>	Valve Cavity Only	<b>G</b>	138 bar [2000 psi] Relief
<b>C</b>	69 bar [1000 psi] Relief	<b>J</b>	173 bar [2500 psi] Relief
<b>D</b>	86 bar [1250 psi] Relief	<b>L</b>	207 bar [3000 psi] Relief
<b>E</b>	104 bar [1500 psi] Relief		

► Valve cavity is not available on port option 3.

**7. SELECT AN ADD-ON OPTION**

<b>A</b>	Standard
<b>B</b>	Lock Nut
<b>C</b>	Solid Hex Nut
<b>W</b>	Speed Sensor, Dual, 4-Pin Male Weatherpack Connector
<b>X</b>	Speed Sensor, Dual, 4-Pin M12 Male Connector
<b>Y</b>	Speed Sensor, Single, 3-Pin Male Weatherpack Connector
<b>Z</b>	Speed Sensor, Single, 4-Pin M12 Male Connector

**8. SELECT A MISCELLANEOUS OPTION**

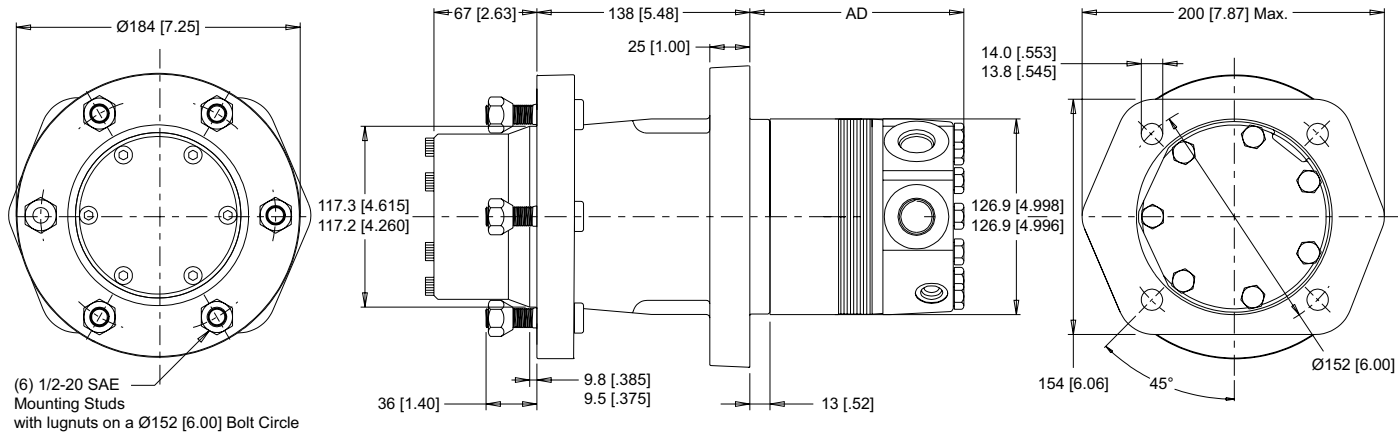
<b>AA</b>	None
<b>AB</b>	Internal Drain
<b>AC</b>	Freeturning Rotor
<b>AD</b>	Internal Drain & Freeturning Rotor

**HOUSINGS**

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

**4-HOLE, WHEEL HUB MOUNT**

**W2** End Ports    **W8** Side Ports



► Porting options listed on pages 8-9.

**TECHNICAL INFORMATION**

**ALLOWABLE SHAFT LOAD / BEARING CURVE**

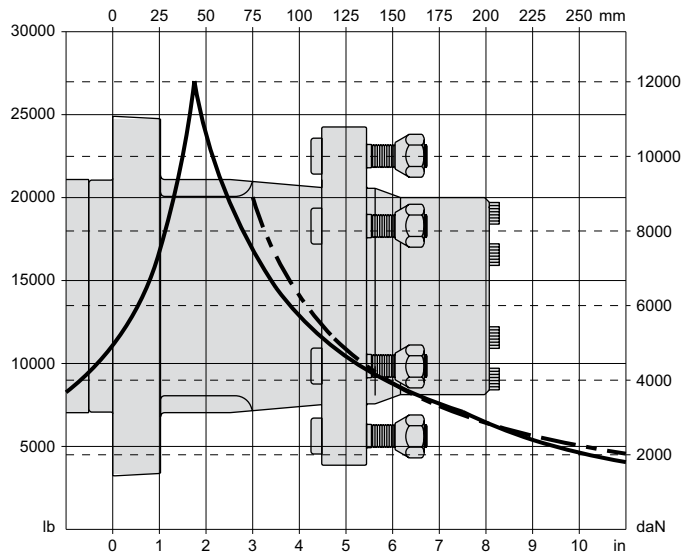
The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an  $L_{10}$  life of 2,000 hours at 100 rpm. Radial loads for speeds other than 100 rpm may be calculated using the multiplication factor table on page 10.

**LENGTH & WEIGHT CHART**

Dimension AD is the overall motor length from the rear of the motor to the mounting surface.

AD #	Endcovers on pg. 8	Endcovers on pg. 9	Weight
	mm [in]	mm [in]	kg [lb]
300	117 [4.63]	120 [4.74]	28.4 [62.6]
375	124 [4.88]	127 [4.99]	28.9 [63.8]
470	131 [5.18]	134 [5.29]	29.5 [65.1]
540	137 [5.42]	140 [5.53]	30.0 [66.2]
750	155 [6.13]	158 [6.24]	31.4 [69.2]
930	171 [6.73]	174 [6.84]	32.6 [71.8]
1K1	181 [7.13]	184 [7.24]	33.4 [73.7]
1K5	219 [8.63]	222 [8.74]	36.5 [80.5]
2K1	270 [10.63]	273 [10.74]	40.5 [89.3]

**WHEEL HUB MOUNTS**



► All DT series motor weights can vary  $\pm 1.4$  kg [3 lb] depending on model configurations such as housing, shaft, endcover, options etc.

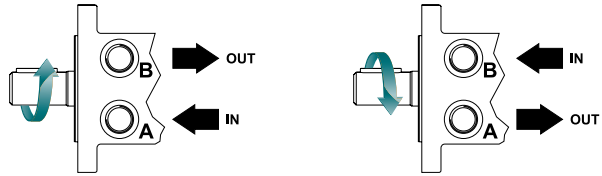


**ORDERING INFORMATION**

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1		2		3a			

**1. CHOOSE SERIES DESIGNATION**

**740** Hydraulic Motor With Wheel Hub



► The 740 series is bi-directional. Reversing the inlet hose will reverse shaft rotation.

**2. SELECT A DISPLACEMENT OPTION**

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

**3a. SELECT MOUNT TYPE**

- ▼ END MOUNTS
- W2** Wheel Hub Mount
- ▼ SIDE MOUNTS
- W8** Wheel Hub Mount

**3b. SELECT PORT SIZE**

- ▼ END PORT OPTIONS
- 1** 7/8-14 UNF Offset
- ▼ SIDE PORT OPTIONS
- 2** G 3/4, Radial
- 5** 1 1/16-20 UN, Radial

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3b	4	5	6	7	8		

**4. SELECT A SHAFT OPTION**

**61** 6-Bolt Wheel Flange

**5. SELECT A PAINT OPTION**

- A** Black
- Z** No Paint

**6. SELECT A VALVE CAVITY / CARTRIDGE OPTION**

<b>A</b> None	<b>F</b> 121 bar [1750 psi] Relief
<b>B</b> Valve Cavity Only	<b>G</b> 138 bar [2000 psi] Relief
<b>C</b> 69 bar [1000 psi] Relief	<b>J</b> 173 bar [2500 psi] Relief
<b>D</b> 86 bar [1250 psi] Relief	<b>L</b> 207 bar [3000 psi] Relief
<b>E</b> 104 bar [1500 psi] Relief	

**7. SELECT AN ADD-ON OPTION**

- A** Standard

**8. SELECT A MISCELLANEOUS OPTION**

- AA** None
- AC** Freeturning Rotor

# DT (710 Series)

Hydraulic Motor With Integral Spring Applied, Hydraulic Released Brake

whitedriveproducts



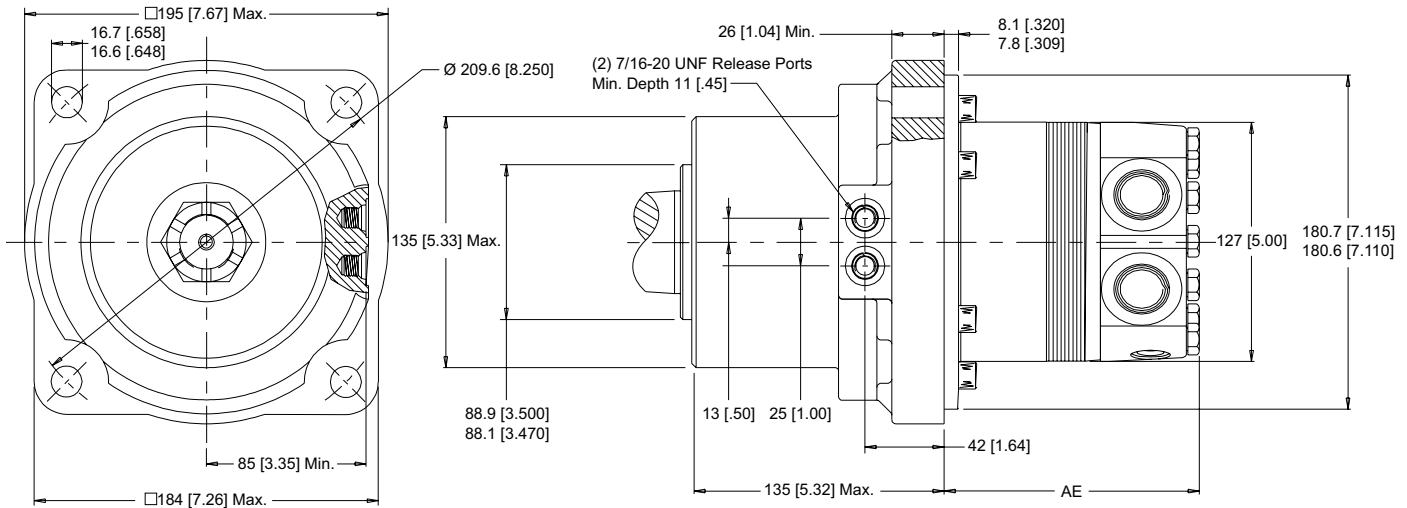
## HOUSINGS

► Dimensions shown are without paint. Paint thickness can be up to 0.13 [.005].

### 4-HOLE, WHEEL BRAKE MOUNT

**W2** End Ports

**W8** Side Ports



► Porting options listed on pages 8-9.

## TECHNICAL INFORMATION

### ALLOWABLE SHAFT LOAD / BEARING CURVE

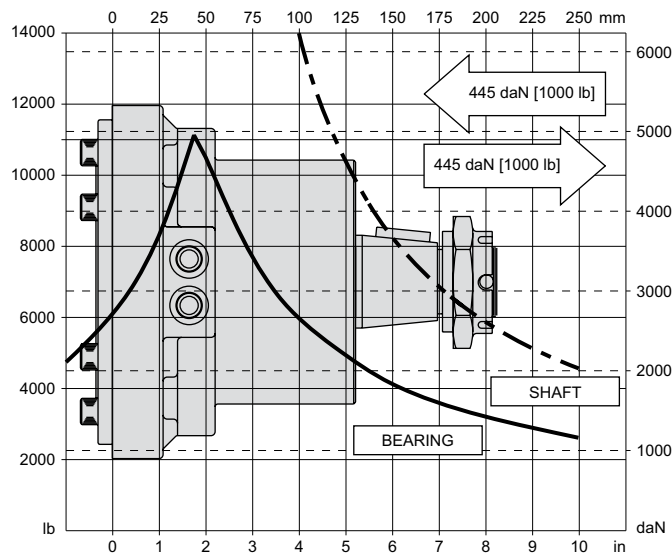
The bearing curve represents allowable bearing loads based on ISO 281 bearing capacity for an  $L_{10}$  life of 2,000 hours at 100 rpm. Radial loads for speeds other than 100 rpm may be calculated using the multiplication factor table on page 10.

### SPECIFICATIONS

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 cm<sup>3</sup> [0.8 - 1.0 in<sup>3</sup>]

► 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.

### WHEEL BRAKE MOUNTS



### LENGTH & WEIGHT CHART

Dimension AE is the overall motor length from the rear of the motor to the mounting surface.

AE	Endcovers on pg. 8	Endcovers on pg. 9	Weight
#	mm [in]	mm [in]	kg [lb]
300	112 [4.43]	115 [4.54]	27.2 [60.0]
375	119 [4.68]	122 [4.79]	27.8 [61.2]
470	126 [4.98]	129 [5.09]	28.3 [62.5]
540	132 [5.22]	135 [5.33]	28.8 [63.6]
750	150 [5.93]	153 [6.04]	30.3 [66.7]
930	166 [6.53]	169 [6.64]	31.4 [69.2]
1K1	176 [6.93]	179 [7.04]	32.2 [71.1]
1K5	214 [8.43]	217 [8.54]	35.3 [77.9]
2K1	265 [10.43]	268 [10.54]	39.3 [86.7]

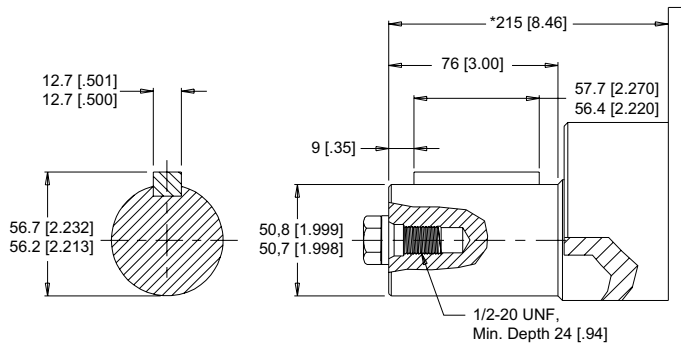
► All DT series motor weights can vary  $\pm 1.4$  kg [3 lb] depending on model configurations such as housing, shaft, endcover, options etc.





SHAFTS

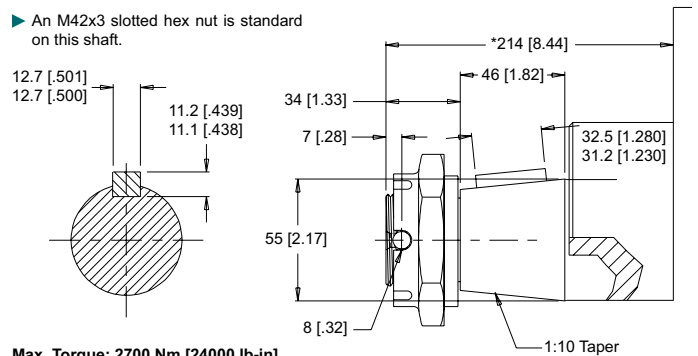
50 2" Straight



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

\*Shaft lengths vary ± 0.8 mm [.030 in.]

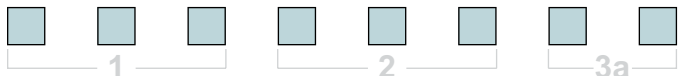
51 55mm Tapered



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

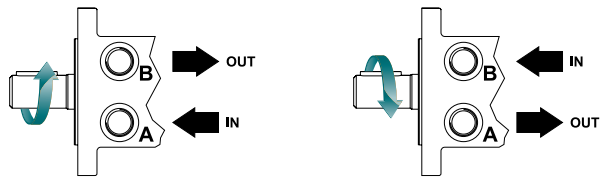
An M42x3 slotted hex nut is standard on this shaft.

ORDERING INFORMATION



1. CHOOSE SERIES DESIGNATION

710 Hydraulic Motor With Integral Brake



The 710 series is bi-directional. Reversing the inlet hose will reverse shaft rotation.

2. SELECT A DISPLACEMENT OPTION

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

3a. SELECT MOUNT TYPE

- END MOUNTS
  - W2 Wheel Brake Mount
- SIDE MOUNTS
  - W8 Wheel Brake Mount

3b. SELECT PORT SIZE

- END PORT OPTIONS
  - 1 7/8-14 UNF Offset
- SIDE PORT OPTIONS
  - 2 G 3/4, Radial
  - 3 11/16" Hole, Aligned Manifold
  - 5 1 1/16-20 UN, Radial
  - 6 1 1/16-20 UN, Aligned
  - 7 G 3/4, Radial



4. SELECT A SHAFT OPTION

50 2" Straight      51 55mm Tapered

5. SELECT A PAINT OPTION

- A Black
- Z No Paint

6. SELECT A VALVE CAVITY / CARTRIDGE OPTION

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

Valve cavity is not available on port option 3.

7. SELECT AN ADD-ON OPTION

- A Standard

8. SELECT A MISCELLANEOUS OPTION

- AA None
- AC Freeturning Rotor

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