

Part number:

HYDROMA

HYDRAULICKÉ SYSTÉMY

**HIDROMA
SYSTEMS**

UKŁADY HYDRAULICZNE

HYDROMA

ГИДРАВЛИЧЕСКИЕ СИСТЕМЫ



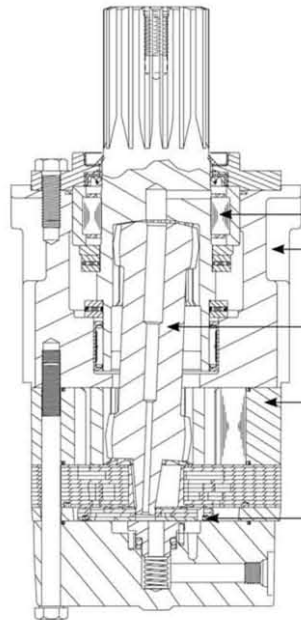
DT

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 drive-line 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]

		Pressure - bars [psi]						Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	241 [3500]
300									
300 cc [18.3 in ³ /rev.]		Torque - Nm [lb-in], Speed rpm						Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	54 [476]	115 [1014]	237 [2100]					7
	4 [1]	47 [415]	108 [952]	255 [2256]	380 [3363]	486 [4304]			13
	8 [2]	49 [435]	119 [1057]	257 [2278]	410 [3628]	543 [4801]	671 [5942]	789 [6983]	899 [7959]
	15 [4]	49 [430]	120 [1064]	264 [2336]	409 [3616]	554 [4904]	701 [6202]	839 [7424]	971 [8595]
	23 [6]		116 [1025]	278 [2462]	420 [3719]	567 [5019]	712 [6297]	854 [7554]	983 [8701]
	30 [8]		105 [929]	251 [2222]	396 [3506]	542 [4793]	692 [6122]	831 [7353]	974 [8621]
	38 [10]		99 [877]	237 [2099]	388 [3438]	549 [4857]	687 [6081]	833 [7369]	970 [8588]
	45 [12]		88 [762]	237 [2094]	378 [3342]	527 [4666]	666 [5893]	823 [7281]	963 [8523]
	53 [14]		77 [679]	211 [1864]	361 [3191]	506 [4478]	656 [5802]	805 [7121]	951 [8420]
	61 [16]		60 [528]	206 [1845]	359 [3179]	495 [4378]	648 [5731]	791 [6999]	928 [8213]
	68 [18]			191 [1694]	335 [2961]	497 [4402]	632 [5592]	776 [6871]	914 [8093]
	76 [20]			168 [1489]	320 [2835]	461 [4083]	610 [5401]	764 [6762]	897 [7934]
	83 [22]			147 [1298]	302 [2675]	444 [3926]	588 [5205]	742 [6570]	883 [7810]
	91 [24]			123 [1086]	272 [2409]	414 [3666]	558 [4934]	708 [6264]	851 [7535]
	95 [25]			108 [958]	257 [2278]	393 [3482]	549 [4857]	694 [6139]	839 [7421]
114 [30]			315	313	308	300	289	280	379

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

		Pressure - bars [psi]						Max. Cont.	Max. Inter.
		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]	224 [3250]
375									
374 cc [22.8 in ³ /rev.]		Torque - Nm [lb-in], Speed rpm						Intermittent Ratings - 10% of Operation	
Flow - lpm [gpm]	2 [0.5]	65 [574]	144 [1272]	302 [2670]	449 [3970]				6
	4 [1]	66 [583]	152 [1345]	312 [2757]	475 [4208]	625 [5535]			11
	8 [2]	67 [596]	154 [1365]	329 [2907]	496 [4388]	644 [5695]	805 [7122]	963 [8524]	1050 [9288]
	15 [4]	71 [627]	158 [1400]	337 [2982]	513 [4536]	680 [6020]	858 [7596]	1013 [8962]	1099 [9723]
	23 [6]	64 [570]	151 [1334]	336 [2969]	520 [4598]	694 [6141]	871 [7704]	1048 [9275]	1115 [9867]
	30 [8]	53 [467]	151 [1337]	325 [2876]	512 [4532]	691 [6113]	873 [7724]	1051 [9304]	1126 [9964]
	38 [10]		131 [1161]	313 [2768]	502 [4439]	686 [6075]	884 [7824]	1049 [9281]	1131 [10011]
	45 [12]		112 [995]	308 [2725]	494 [4375]	685 [6059]	862 [7626]	1053 [9321]	1137 [10066]
	53 [14]		99 [878]	283 [2508]	469 [4149]	645 [5705]	844 [7467]	1013 [8965]	1116 [9877]
	61 [16]		75 [662]	262 [2319]	443 [3923]	631 [5587]	823 [7283]	1009 [8930]	1114 [9859]
	68 [18]			248 [2198]	427 [3779]	612 [5416]	804 [7119]	1005 [8895]	1091 [9653]
	76 [20]			218 [1925]	403 [3568]	583 [5161]	778 [6886]	966 [8549]	1071 [9474]
	83 [22]			189 [1676]	375 [3318]	561 [4967]	754 [6669]	942 [8335]	1036 [9171]
	91 [24]			155 [1374]	344 [3041]	535 [4732]	724 [6410]	911 [8111]	1001 [8911]
	95 [25]			141	321 [2839]	519 [4596]	710 [6283]	891 [7911]	981 [8711]
114 [30]			242	252	249	241	231	221	304

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

DT

PERFORMANCE

470

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

464 cc [28.3 in³/rev.]

Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm								Intermittent Ratings - 10% of Operation			Theoretical rpm
	86 [762]	201 [1780]	401 [3553]									
2 [0.5]	3	2	2									5
4 [1]	7	7	6	610 [5395]	806 [7137]							9
8 [2]	15	15	14	631 [5580]	832 [7365]	1042 [9226]	1239 [10961]					17
15 [4]	32	32	30	646 [5717]	849 [7513]	1066 [9430]	1272 [11256]	1381 [12217]				33
23 [6]	48	47	46	647 [5725]	855 [7565]	1070 [9473]	1275 [11287]	1365 [12083]				49
30 [8]	65	64	63	642 [5683]	867 [7671]	1078 [9538]	1300 [11508]	1398 [12367]				66
38 [10]	81	80	79	630 [5573]	857 [7584]	1077 [9531]	1283 [11352]	1393 [12323]				82
45 [12]		153 [1354]	380 [3366]	613 [5422]	842 [7454]	1072 [9488]	1302 [11523]	1394 [12334]				98
53 [14]		127 [1121]	359 [3173]	591 [5229]	823 [7282]	1057 [9350]	1270 [11242]	1392 [12318]				115
61 [16]		100 [888]	335 [2964]	564 [4993]	798 [7061]	1030 [9118]	1254 [11101]	1369 [12118]				131
68 [18]		67 [595]	304 [2689]	535 [4734]	765 [6772]	1003 [8875]	1229 [10877]	1348 [11926]				147
76 [20]			274 [2428]	504 [4458]	733 [6485]	965 [8536]	1197 [10592]	1318 [11668]				164
83 [22]			226 [2003]	458 [4050]	691 [6118]	928 [8215]	1150 [10181]	1266 [11200]				180
91 [24]			176 [1554]	415 [3670]	669 [5917]	885 [7833]						196
95 [25]				389 [3442]	632 [5589]	867 [7676]						205
114 [30]				277 [2451]	514 [4549]	755 [6684]						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

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

536 cc [32.7 in³/rev.]

Flow - lpm [gpm]	Torque - Nm [lb-in], Speed rpm								Intermittent Ratings - 10% of Operation			Theoretical rpm
	103 [908]	215 [1607]	421 [3722]									
2 [0.5]	2	2	1									4
4 [1]	6	5	4	666 [5897]	874 [7730]							8
8 [2]	13	12	11	704 [6231]	925 [8190]	1153 [10201]						15
15 [4]	27	26	24	756 [6692]	994 [8799]	1221 [10806]	1461 [12930]					29
23 [6]	42	41	39	766 [6774]	1023 [9049]	1268 [11225]	1494 [13219]					43
30 [8]	56	55	53	754 [6669]	1032 [9130]	1273 [11262]	1524 [13486]					57
38 [10]	70	69	68	737 [6519]	1006 [8903]	1285 [11374]	1532 [13556]					71
45 [12]	84	83	82	717 [6349]	984 [8710]	1274 [11277]	1518 [13436]					85
53 [14]		146 [1295]	421 [3722]	694 [6139]	964 [8529]	1253 [11091]	1512 [13381]					99
61 [16]		116 [1025]	391 [3460]	663 [5865]	930 [8230]	1206 [10675]	1479 [13086]					114
68 [18]		90 [796]	356 [3153]	629 [5563]	900 [7969]	1192 [10550]	1451 [12841]					128
76 [20]		56 [498]	330 [2923]	595 [5265]	887 [7850]	1158 [10250]	1421 [12578]					142
83 [22]			278 [2464]	549 [4859]	822 [7271]	1121 [9919]	1388 [12283]					156
91 [24]			243 [2154]	508 [4494]	794 [7024]	1054 [9325]						170
95 [25]			220 [1948]	486 [4299]	762 [6741]	1025 [9075]						177
114 [30]			90 [800]	366 [3237]	638 [5649]	920 [8144]						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]

		Pressure - bars [psi]						Max. Cont.	Max. Inter.		
750		17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]	173 [2500]	207 [3000]			
747 cc [45.6 in ³ /rev.]		Torque - Nm [lb-in], Speed rpm						Intermittent Ratings - 10% of Operation			
Flow - lpm [gpm]	2 [0.5]	144 [1276]	290 [2566]						3	Theoretical rpm	
	4 [1]	154 [1367]	323 [2863]	669 [5917]	931 [8242]				6		
	8 [2]	162 [1435]	341 [3015]	712 [6302]	1021 [9038]	1305 [11550]			11		
	15 [4]	158 [1400]	348 [3080]	723 [6399]	1082 [9578]	1402 [12410]			21		
	23 [6]	144 [1273]	331 [2927]	714 [6317]	1083 [9583]	1433 [12678]	1744 [15430]		31		
	30 [8]	126 [1116]	328 [2900]	697 [6167]	1072 [9486]	1451 [12843]	1769 [15658]		41		
	38 [10]	104 [922]	291 [2574]	675 [5976]	1055 [9334]	1445 [12785]	1786 [15805]	2076 [18373]	51		
	45 [12]	77 [682]	269 [2382]	655 [5792]	1032 [9136]	1431 [12668]	1786 [15801]	2094 [18528]	61		
	53 [14]	46 [410]	239 [2116]	627 [5545]	1003 [8880]	1407 [12451]	1767 [15634]	2099 [18578]	71		
	61 [16]		201 [1780]	584 [5164]	971 [8592]	1345 [11907]	1743 [15422]	2065 [18271]	82		
	68 [18]		161 [1421]	545 [4819]	928 [8209]	1306 [11556]	1709 [15120]		92		
	76 [20]		120 [1058]	497 [4395]	863 [7635]	1260 [11154]			102		
	83 [22]			444 [3926]	831 [7351]	1213 [10737]			112		
	91 [24]			389 [3447]	785 [6947]	1196 [10581]			122		
	95 [25]			368 [3255]	757 [6697]	1144 [10126]			127		
114 [30]			205 [1813]	613 [5428]	979 [8665]			152			
		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
		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]									
		Pressure - bars [psi]						Max. Cont.	Max. Inter.		
930		17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	138 [2000]	155 [2250]	173 [2500]
929 cc [56.7 in ³ /rev.]		Torque - Nm [lb-in], Speed rpm						Intermittent Ratings - 10% of Operation			
Flow - lpm [gpm]	2 [0.5]	180 [1590]	387 [3423]	607 [5368]	801 [7089]						3
	4 [1]	196 [1734]	418 [3696]	653 [5780]	864 [7649]	1067 [9447]	1294 [11451]				5
	8 [2]	205 [1816]	442 [3907]	680 [6015]	877 [7764]	1117 [9886]	1300 [11501]	1510 [13365]			9
	15 [4]	198 [1753]	432 [3825]	664 [5878]	906 [8021]	1121 [9924]	1338 [11840]	1556 [13769]	1730 [15306]		17
	23 [6]	185 [1633]	420 [3719]	651 [5765]	908 [8034]	1123 [9935]	1355 [11991]	1543 [13651]	1794 [15873]	1981 [17532]	25
	30 [8]	162 [1438]	404 [3576]	636 [5624]	893 [7900]	1107 [9800]	1340 [11854]	1581 [13988]	1776 [15716]	1985 [17570]	33
	38 [10]	125 [1109]	368 [3253]	626 [5536]	845 [7476]	1087 [9620]	1314 [11625]	1497 [13251]	1736 [15364]	1956 [17306]	41
	45 [12]	91 [807]	341 [3018]	578 [5111]	815 [7213]	1072 [9487]	1314 [11630]	1525 [13492]	1713 [15159]	1946 [17222]	49
	53 [14]	35 [310]	290 [2565]	533 [4715]	765 [6772]	1024 [9059]	1240 [10974]	1487 [13155]	1727 [15287]	1945 [17216]	58
	61 [16]		239 [2118]	484 [4281]	726 [6429]	959 [8488]	1210 [10708]	1450 [12830]	1696 [15008]	1925 [17039]	66
	68 [18]		205 [1811]	440 [3891]	701 [6202]	920 [8143]	1177 [10418]	1422 [12580]	1643 [14538]	1893 [16741]	74
	76 [20]		150 [1325]	409 [3616]	632 [5590]	801 [7091]	1100 [9733]	1505 [12135]	1599 [14148]	1859 [16454]	82
	83 [22]		99 [875]	336 [2977]	581 [5139]	837 [7403]	1056 [9342]	1305 [11553]	1561 [13816]	1799 [15918]	90
	91 [24]			282 [2497]	501 [4438]	766 [6778]	1021 [9038]	1266 [11201]	1489 [13179]	1752 [15505]	98
	95 [25]			241 [2137]	496 [4389]	722 [6390]	974 [8621]	1214 [10743]	1454 [12863]	1727 [15286]	102
114 [30]			66 [582]	300 [2652]	532 [4711]	781 [6914]	1044 [9235]	1271 [11248]		123	
		Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>									
		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]									

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PERFORMANCE

		Pressure - bars [psi]						Max. Cont.	Max. Inter.		
		17 [250]	35 [500]	52 [750]	69 [1000]	86 [1250]	104 [1500]	121 [1750]	138 [2000]	155 [2250]	173 [2500]
1K1		1047 cc [63.9 in ³ /rev.]									
		Torque - Nm [lb-in]						Speed rpm			
Flow - lpm [gpm]	2 [0.5]	217 [1918]	455 [4026]	671 [5940]	890 [7879]						
	4 [1]	206 [1821]	498 [4410]	706 [6251]	935 [8273]	1189 [10518]					
	8 [2]	224 [1985]	498 [4407]	754 [6672]	983 [8700]	1222 [10810]	1428 [12635]				
	15 [4]	224 [1980]	472 [4180]	754 [6669]	1011 [8946]	1262 [11169]	1486 [13147]	1697 [15014]			
	23 [6]	170 [1500]	487 [4314]	739 [6538]	1020 [9023]	1238 [10956]	1501 [13286]	1695 [14998]	1914 [16936]		
	30 [8]	164 [1451]	431 [3814]	709 [6270]	970 [8580]	1241 [10986]	1481 [13106]	1727 [15280]	1942 [17185]	2144 [18971]	
	38 [10]	129 [1143]	401 [3546]	675 [5975]	944 [8356]	1208 [10688]	1455 [12879]	1714 [15168]	1919 [16982]	2145 [18983]	
	45 [12]	98 [871]	359 [3176]	624 [5526]	894 [7915]	1148 [10163]	1420 [12569]	1693 [14981]	1893 [16756]	2133 [18879]	2311 [20456]
	53 [14]	44 [390]	312 [2761]	580 [5129]	851 [7535]	1122 [9933]	1383 [12237]	1612 [14263]	1856 [16424]	2098 [18569]	2327 [20596]
	61 [16]		251 [2220]	516 [4569]	776 [6871]	1062 [9402]	1320 [11678]	1587 [14045]	1837 [16261]	2082 [18426]	2291 [20275]
	68 [18]		190 [1678]	458 [4053]	706 [6252]	1002 [8869]	1272 [11252]	1552 [13738]	1794 [15877]	2051 [18147]	2275 [20130]
	76 [20]		117 [1033]	390 [3453]	652 [5774]	930 [8227]	1187 [10502]	1596 [12874]	1723 [15246]	2001 [17705]	2228 [19716]
	83 [22]		50 [444]	310 [2741]	569 [5034]	847 [7493]	1113 [9846]	1380 [12214]	1650 [14599]	1927 [17055]	2138 [18924]
	91 [24]			210 [1862]	491 [4346]	755 [6677]	1018 [9007]	1288 [11398]	1557 [13777]	1827 [16164]	2101 [18591]
95 [25]			185 [1635]	463 [4096]	710 [6281]	963 [8519]	1232 [10901]	1497 [13247]	1790 [15844]	2028 [17950]	
114 [30]			90	202 [1789]	477 [4217]	730 [6460]	1013 [8962]	1237 [10947]			

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]

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

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

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

2093 cc [127.7 in³/rev.]

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

Max. Max.
Inter. Cont.

Theoretical rpm

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

Theoretical Torque - Nm [lb-in]

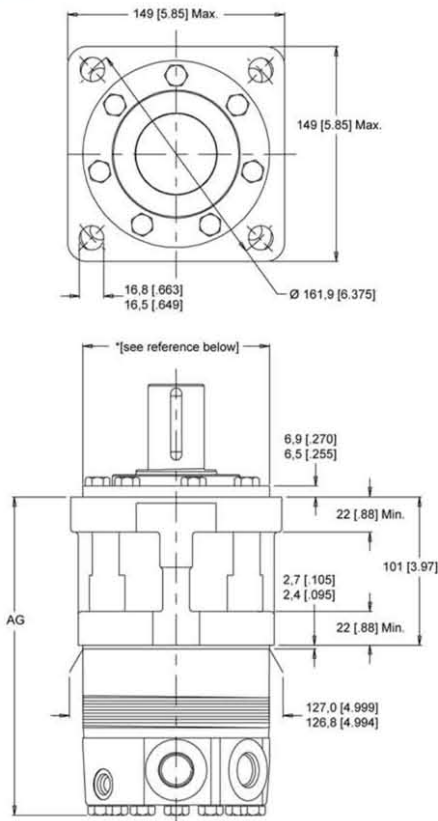
574 [5084]	1149 [10167]	1723 [15251]	2298 [20334]	2872 [25418]	3447 [30502]	4021 [35585]
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Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

DT

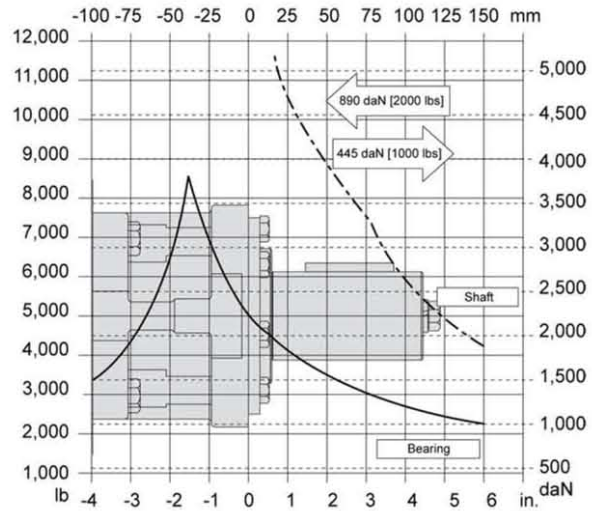
700 SERIES HOUSINGS

- 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 [1.1] from dimension AG for motors using the 1,2 or 5 Endcover.

BEARING LOAD MULTIPLICATION FACTOR TABLE

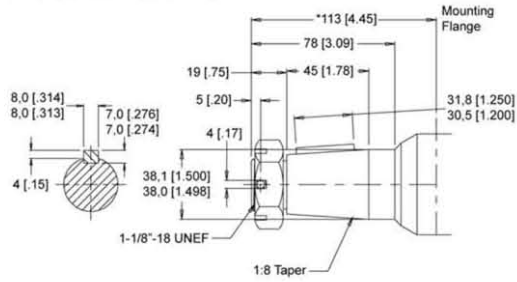
RPM	FACTOR	RPM	FACTOR
50	1.23	500	0.62
100	1.00	600	0.58
200	0.81	700	0.56
300	0.72	800	0.50
400	0.66		

DT

700 SERIES SHAFTS

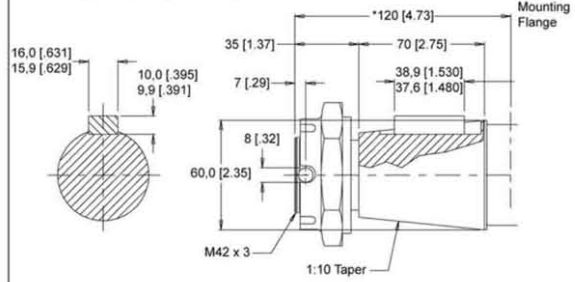
31 1-1/2" Tapered

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



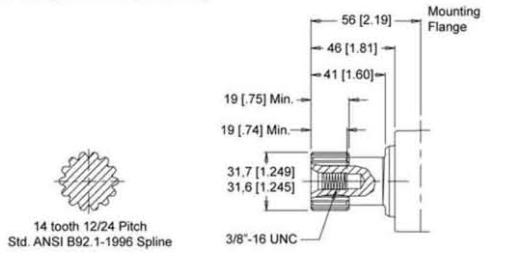
45 60mm Tapered

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



23 14 Tooth Spline

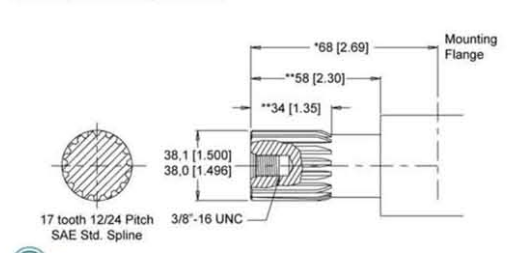
Max. Torque: 2070 Nm [18400 lb-in]



†09 14 Tooth Spline Extended

33 17 Tooth Spline

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

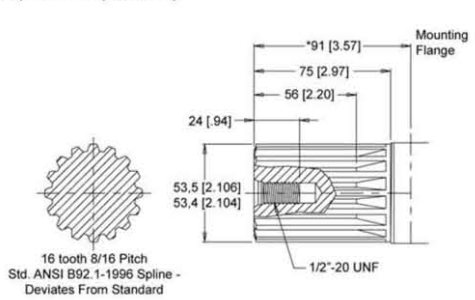


†49 17 Tooth Spline Extended

NOTE: **For the 49 shaft add 9.7mm [0.38 in] to dimension.

42 16 Tooth Spline

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

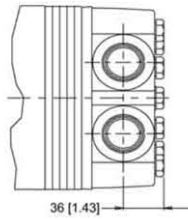


†48 16 Tooth Spline Extended

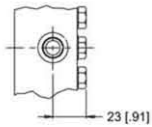
NOTE: A slotted nut is standard on all tapered shafts. *Shaft lengths vary ± 0.8 [0.30]. †For speed sensor motors only.

SIDE PORTS

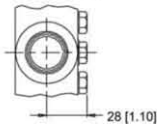
2 3/4" BSP.F with 1/4" Drain



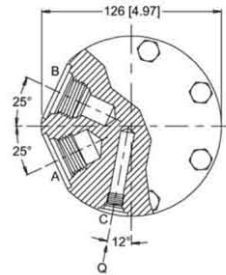
Auxiliary View Q - Case Drain



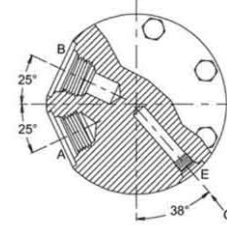
Auxiliary View V - Valve Cavity



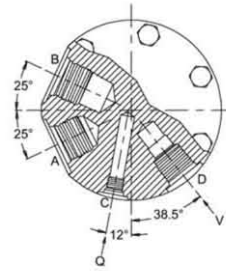
5 1-1/16" O-Ring with 7/16" Drain



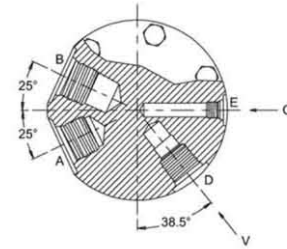
NOTE: Shown with standard case drain.



NOTE: Shown with internal drain option.

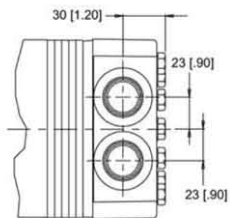


NOTE: Shown with standard case drain & valve cavity.

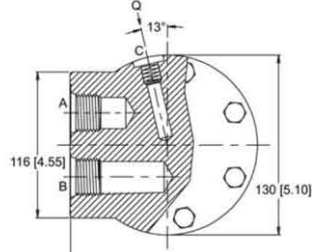


NOTE: Shown with internal drain & valve cavity.

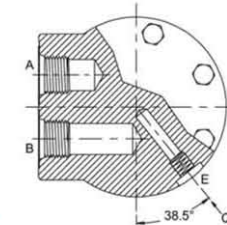
6 1-1/16" O-Ring with 7/16" Drain



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



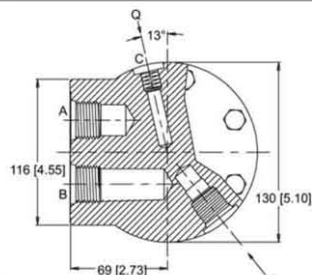
NOTE: Shown with standard case drain.



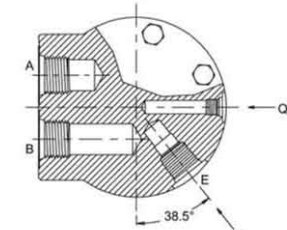
NOTE: Shown with internal drain option.



NOTE: 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.



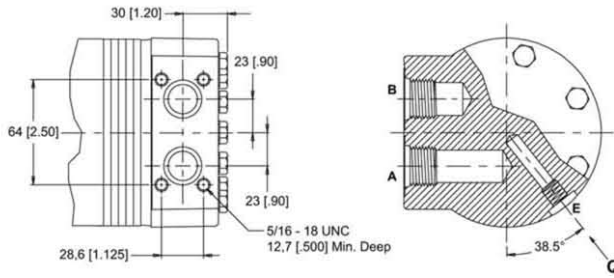
NOTE: Shown with internal drain & valve cavity.

DT

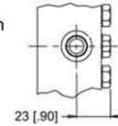
700 SERIES PORTING OPTIONS

SIDE PORTS

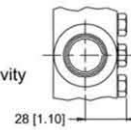
3 Manifold with 7/16" Drain



Q - Case Drain



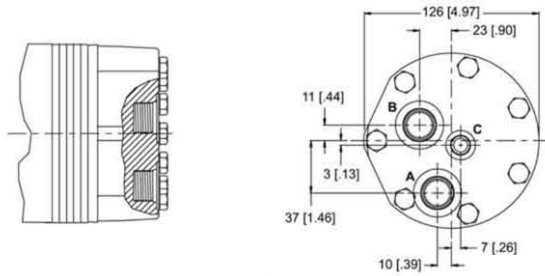
V - Valve Cavity



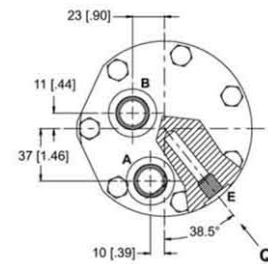
NOTE: The 3 endcover is only available with the internal drain option.

END PORTS

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

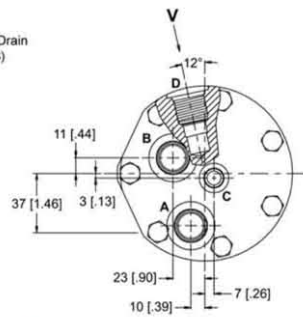


NOTE: Shown with standard case drain.

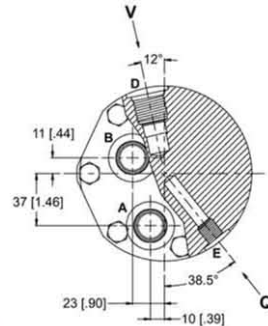


NOTE: Shown with internal drain option.

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.

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.

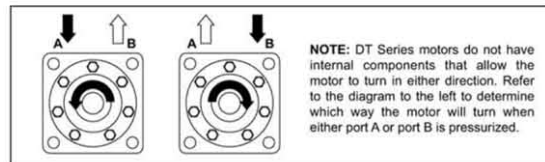
STEP 7 - Select an add on option

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

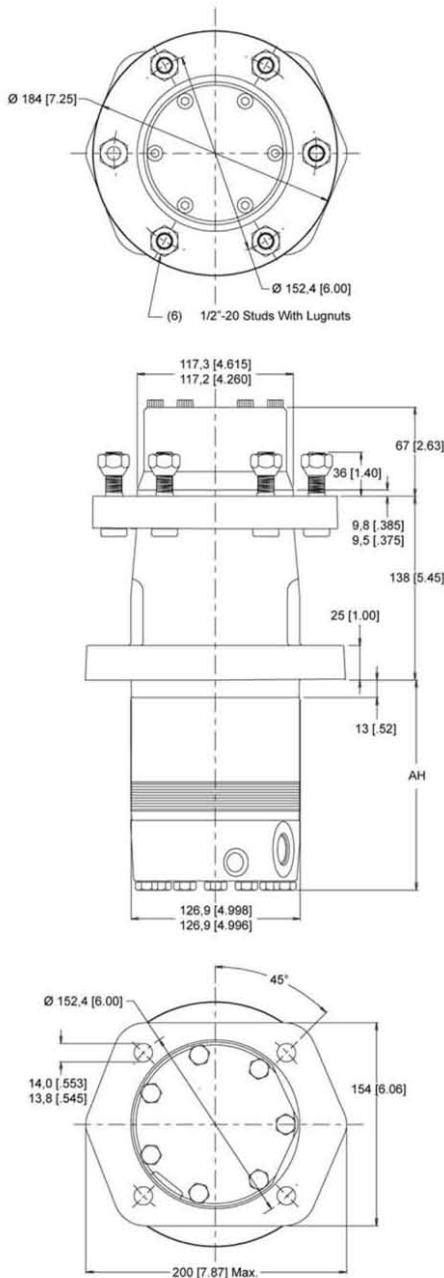


DT

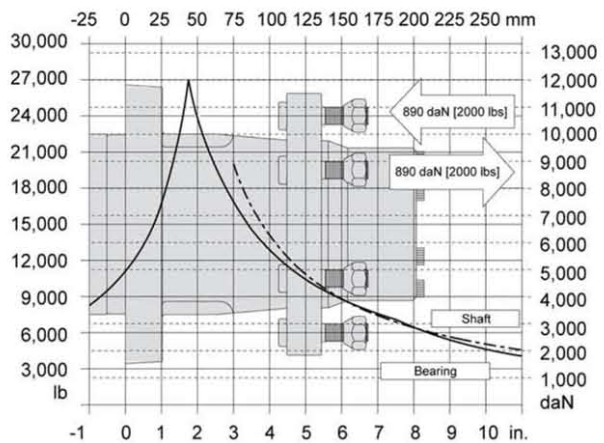
740 SERIES HOUSINGS

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 [1.1] 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.

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

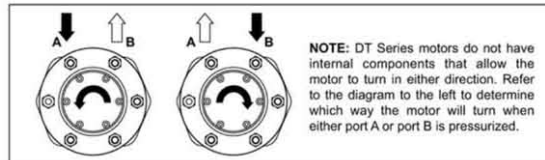
A None
B Relief Valve Cavity
C 1000 psi Relief Valve Installed
D 1250 psi Relief Valve Installed
E 1500 psi Relief Valve Installed
F 1750 psi Relief Valve Installed
G 2000 psi Relief Valve Installed
J 2500 psi Relief Valve Installed
L 3000 psi Relief Valve Installed

STEP 7 - Select an add on option

A Standard

STEP 8 - Select a miscellaneous option

AA None
AC Freeturning Rotor



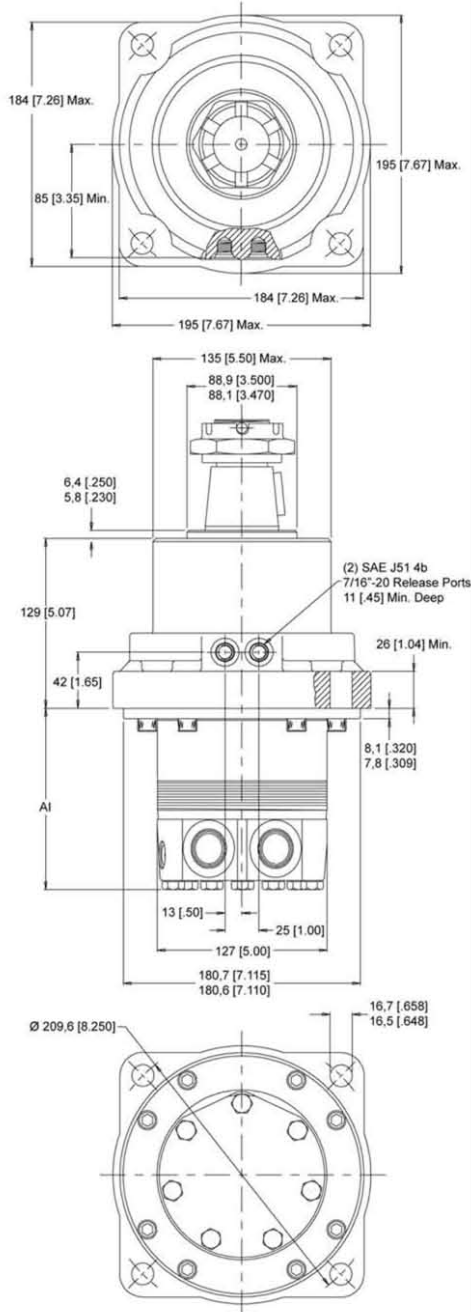
DT

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

710 SERIES (DT MOTOR/BRAKE)

W2 4-Hole End Ports

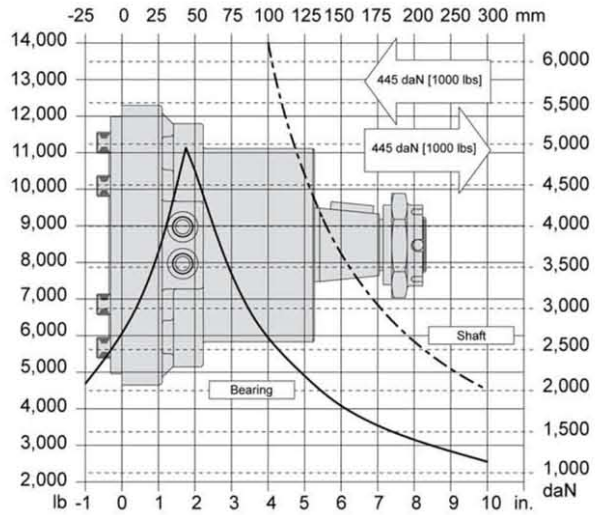
W8 4-Hole Side Ports



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.



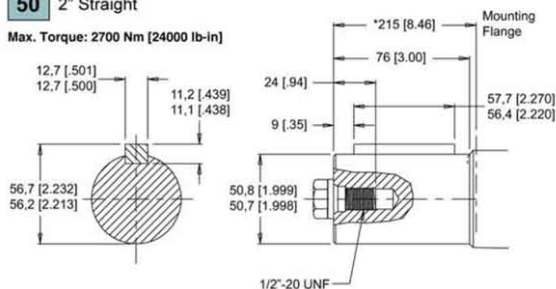
LENGTH / WEIGHT CHART
 Wheel Mount - Dimension AI

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.

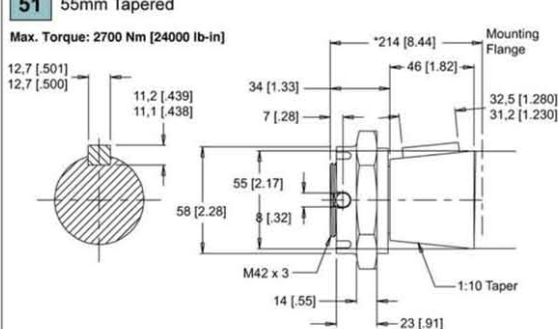
50 2" Straight

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



51 55mm Tapered

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



NOTE: A slotted nut is standard on all tapered shafts. *Shaft lengths vary ± 0.8 [030].

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

