

HYDRAULIC
MOTORS
LD | MD | HD

HYDRAULIC
MOTOR | BRAKE
UNITS

STEERING
UNITS

HYDRAULIC
BRAKES

HYDRAULIC
PUMPS

FLOW
DIVIDERS

HYDRAULIC MOTORS

Medium Duty Series



Delivering The Power To Get Work Done



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OVERVIEW

RE Series motors offer the perfect compromise between price and performance by producing work horse power at a reasonable cost. Although these motors perform well in a wide range of applications, they are especially suited for low flow, high pressure applications. During startup, pressure causes the balance plate to flex toward the rotor, vastly improving volumetric efficiency. As the motor reaches operating pressure, the balance plate relaxes, allowing the rotor to turn freely which translates into higher mechanical efficiencies. Transmitting this power to the output shaft is the most durable drive link in its class. Four bearing options, combined with standard mounting flanges and output shafts, allow the motor to be configured to suit nearly any application.

FEATURES / BENEFITS

- High Pressure Shaft Seal offers superior seal life and performance and eliminates need for case drain.
- Three Bearing Options allow load carrying capability of motor to be matched to application.
- Heavy-Duty Drive Link is the most durable in its class and receives full flow lubrication to provide long life.
- Valve-In-Rotor Design provides cost effective, efficient distribution of oil and reduces overall motor length.
- Pressure-Compensated Balance Plate improves volumetric efficiency at low flows and high pressure.

TYPICAL APPLICATIONS

Medium-duty wheel drives, augers, mixers, winch drives, swing drives, grapple heads, feed rollers, broom drives and more

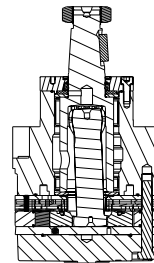
SPECIFICATIONS

| CODE | Displacement cm ³ [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 |
| 120 | 121 [7.4] | 360 | 490 | 45 [12] | 61 [16] | 327 [2900] | 383 [3400] | 207 [3000] | 241 [3500] | 276 [4000] |
| 160 | 162 [9.9] | 370 | 470 | 61 [16] | 76 [20] | 475 [4200] | 542 [4800] | 207 [3000] | 241 [3500] | 276 [4000] |
| 200 | 204 [12.4] | 300 | 370 | 68 [18] | 83 [22] | 542 [4800] | 633 [5600] | 207 [3000] | 241 [3500] | 276 [4000] |
| 230 | 232 [14.2] | 260 | 320 | 68 [18] | 83 [22] | 644 [5700] | 712 [6300] | 207 [3000] | 241 [3500] | 276 [4000] |
| 260 | 261 [15.9] | 260 | 350 | 76 [20] | 91 [24] | 712 [6300] | 791 [7000] | 207 [3000] | 241 [3500] | 276 [4000] |
| 300 | 300 [18.3] | 250 | 320 | 83 [22] | 95 [25] | 825 [7300] | 938 [8300] | 207 [3000] | 241 [3500] | 276 [4000] |
| 350 | 348 [21.2] | 220 | 270 | 83 [22] | 95 [25] | 921 [8150] | 1045 [9250] | 207 [3000] | 241 [3500] | 276 [4000] |
| 375 | 375 [22.8] | 200 | 250 | 76 [20] | 91 [24] | 1006 [8900] | 1158 [10250] | 207 [3000] | 241 [3500] | 276 [4000] |
| 470 | 465 [28.3] | 160 | 200 | 76 [20] | 91 [24] | 1096 [9700] | 1184 [10475] | 172 [2500] | 189 [2750] | 207 [3000] |
| 540 | 536 [32.7] | 140 | 170 | 76 [20] | 91 [24] | 983 [8700] | 1243 [11000] | 138 [2000] | 173 [2500] | 207 [3000] |
| 620 | 631 [38.5] | 120 | 150 | 76 [20] | 91 [24] | 1014 [8976] | 1291 [11421] | 121 [1750] | 155 [2250] | 173 [2500] |
| 750 | 748 [45.6] | 100 | 130 | 76 [20] | 91 [24] | 1062 [9400] | 1237 [10950] | 103 [1500] | 121 [1750] | 138 [2000] |

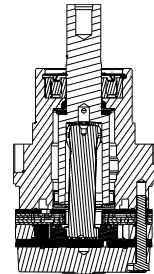
► Performance data is typical. Performance of production units varies slightly from one motor to another. Running at intermittent ratings should not exceed 10% of every minute of operation.

SERIES DESCRIPTIONS

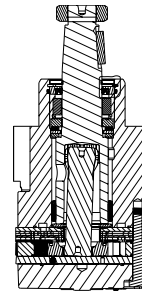
505/506 - Hydraulic Motor
Standard



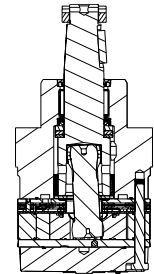
520/521 - Hydraulic Motor
With Medium Duty Bearing



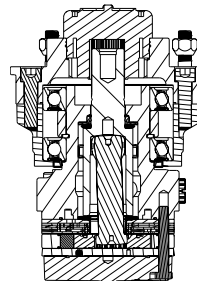
530/531 - Hydraulic Motor
With Heavy Duty Bearing



535/536 - Hydraulic Motor
Compact, Heavy Duty Bearing



540/541 - Hydraulic Motor
With Wheel Hub



DISPLACEMENT PERFORMANCE

| | | | | | | | | | | |
|--|-------------|---|-----------------|-------------------|-------------------|-------------------|-------------------|---|-------------------|-----|
| 120 | | Pressure - bar [psi] | | | | | | Max. Cont. | Max. Inter. | |
| | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 121 cm ³ [7.4 in ³] / rev | | | | | | | | | | |
| Flow - lpm [gpm] | | Torque - Nm [lb-in], Speed rpm | | | | | | Intermittent Ratings - 10% of Operation | | |
| | | 21 [187] 14 | 51 [448] 13 | 97 [859] 11 | 140 [1239] 8 | | | | | 16 |
| Max. Cont. | 4 [1] | 24 [215] 26 | 54 [474] 25 | 111 [986] 25 | 162 [1429] 20 | 225 [1991] 13 | | | 32 | |
| | 8 [2] | | 57 [500] 58 | 118 [1043] 53 | 176 [1554] 51 | 226 [1997] 44 | 271 [2400] 40 | 302 [2673] 35 | 343 [3036] 27 | 63 |
| | 15 [4] | | 54 [479] 111 | 116 [1030] 106 | 186 [1642] 97 | 237 [2094] 93 | 278 [2459] 89 | 335 [2964] 85 | 359 [3179] 79 | 125 |
| | 23 [6] | | 49 [433] 174 | 116 [1023] 167 | 168 [1483] 155 | 232 [2051] 150 | 279 [2467] 144 | 328 [2903] 139 | 360 [3185] 137 | 188 |
| | 30 [8] | | | 111 [984] 245 | 169 [1497] 214 | 223 [1973] 205 | 283 [2505] 200 | 326 [2884] 197 | 385 [3404] 188 | 250 |
| | 38 [10] | | | 104 [923] 294 | 166 [1469] 281 | 218 [1930] 269 | 272 [2411] 261 | 325 [2878] 250 | 385 [3404] 242 | 313 |
| | 45 [12] | | | 99 [872] 358 | 161 [1428] 344 | 217 [1918] 331 | 276 [2444] 326 | 321 [2839] 321 | 385 [3403] 304 | 375 |
| | 53 [14] | | | 91 [807] 415 | 155 [1372] 413 | 208 [1845] 398 | 267 [2363] 391 | 338 [2992] 369 | | 438 |
| | 61 [16] | | | 84 [745] 487 | 145 [1283] 475 | 211 [1864] 457 | 272 [2403] 447 | 327 [2897] 427 | | 500 |
| | Max. Inter. | | | | | | | | | |
| | | | | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 13.8 [542] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| mm [in] | | 33 [295] | 67 [589] | 133 [1178] | 200 [1768] | 266 [2357] | 333 [2946] | 399 [3535] | 466 [4124] | |
| Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | | | | | |

| | | | | | | | | | | |
|--|---------|---|------------------|-------------------|-------------------|-------------------|-------------------|---|-------------------|-----|
| 160 | | Pressure - bar [psi] | | | | | | Max. Cont. | Max. Inter. | |
| | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 162 cm ³ [9.9 in ³] / rev | | | | | | | | | | |
| Flow - lpm [gpm] | | Torque - Nm [lb-in], Speed rpm | | | | | | Intermittent Ratings - 10% of Operation | | |
| | | 37 [326] 7 | 77 [685] 3 | 149 [1323] 3 | 223 [1977] 3 | 310 [2741] 2 | 349 [3088] 1 | | | 12 |
| Max. Cont. | 4 [1] | 30 [264] 21 | 80 [704] 18 | 164 [1448] 17 | 244 [2158] 16 | 324 [2865] 14 | 378 [3344] 13 | 442 [3909] 9 | | 24 |
| | 8 [2] | 36 [317] 45 | 80 [711] 43 | 161 [1423] 41 | 242 [2143] 39 | 316 [2792] 37 | 379 [3350] 35 | 481 [4258] 32 | 551 [4880] 28 | 47 |
| | 15 [4] | 39 [342] 92 | 75 [664] 90 | 171 [1510] 86 | 253 [2241] 84 | 321 [2838] 82 | 379 [3351] 80 | 451 [3992] 76 | 516 [4569] 72 | 94 |
| | 23 [6] | | 71 [631] 138 | 158 [1395] 134 | 235 [2078] 131 | 317 [2806] 127 | 389 [3447] 122 | 462 [4088] 121 | 518 [4586] 118 | 140 |
| | 30 [8] | | 67 [596] 186 | 164 [1449] 182 | 236 [2090] 179 | 312 [2760] 173 | 385 [3411] 170 | 456 [4033] 167 | 513 [4537] 163 | 187 |
| | 38 [10] | | 72 [640] 232 | 149 [1323] 230 | 234 [2074] 229 | 309 [2736] 222 | 376 [3329] 220 | 455 [4022] 213 | 522 [4623] 207 | 234 |
| | 45 [12] | | 67 [596] 279 | 144 [1275] 279 | 226 [1998] 272 | 304 [2689] 270 | 369 [3270] 264 | 440 [3890] 255 | 497 [4397] 247 | 280 |
| | 53 [14] | | | 135 [1190] 326 | 228 [2022] 323 | 310 [2739] 317 | 375 [3317] 311 | 457 [4040] 304 | 541 [4789] 299 | 327 |
| | 61 [16] | | | 123 [1087] 372 | 213 [1889] 372 | 298 [2634] 364 | 368 [3253] 361 | 435 [3847] 357 | 502 [4439] 350 | 374 |
| | 68 [18] | | | 108 [952] 419 | 199 [1764] 417 | 283 [2501] 416 | 362 [3201] 407 | 419 [3708] 401 | | 420 |
| 76 [20] | | | 105 [929] 466 | 195 [1726] 465 | 280 [2476] 462 | 349 [3092] 453 | 453 [4008] 443 | | 467 | |
| Max. Inter. | | | | | | | | | | |
| | | | | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 13.8 [542] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| mm [in] | | 45 [394] | 89 [788] | 178 [1576] | 267 [2365] | 356 [3153] | 445 [3941] | 534 [4729] | 623 [5518] | |
| 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. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

DISPLACEMENT PERFORMANCE

| | | Pressure - bar [psi] | | | | | | | Max. Cont. | Max. Inter. |
|--|---------|---|-----------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------|
| 200 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 204 cm ³ [12.4 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | Intermittent Ratings - 10% of Operation | | | |
| Flow - lpm [gpm] | 2 [0.5] | 40 [358] 7 | 91 [808] 4 | 133 [1181] 4 | 294 [2602] 4 | 375 [3323] 3 | | | | 10 |
| | 4 [1] | 43 [376] 16 | 85 [753] 13 | 200 [1769] 12 | 276 [2442] 11 | 373 [3304] 10 | 442 [3915] 9 | 526 [4656] 6 | | 19 |
| | 8 [2] | 44 [385] 34 | 93 [851] 31 | 195 [1727] 29 | 299 [2646] 27 | 374 [3311] 27 | 461 [4079] 25 | 542 [4792] 23 | 616 [5451] 20 | 38 |
| | 15 [4] | 39 [347] 72 | 94 [834] 69 | 198 [1752] 67 | 305 [2701] 63 | 401 [3549] 60 | 477 [4222] 58 | 544 [4818] 55 | 629 [5568] 51 | 75 |
| | 23 [6] | | 82 [724] 111 | 191 [1694] 109 | 284 [2518] 107 | 389 [3446] 103 | 463 [4098] 100 | 553 [4894] 99 | 636 [5628] 90 | 112 |
| | 30 [8] | | 80 [704] 148 | 188 [1661] 145 | 285 [2518] 141 | 402 [3556] 136 | 458 [4053] 134 | 543 [4802] 130 | 628 [5554] 124 | 150 |
| | 38 [10] | | 66 [581] 185 | 180 [1592] 181 | 276 [2445] 176 | 364 [3224] 173 | 458 [4051] 170 | 535 [4737] 164 | 615 [5441] 160 | 187 |
| | 45 [12] | | | 165 [1462] 221 | 261 [2312] 214 | 362 [3200] 210 | 450 [3982] 207 | 535 [4731] 198 | 618 [5471] 196 | 224 |
| | 53 [14] | | | 150 [1328] 257 | 273 [2413] 256 | 368 [3253] 247 | 449 [3975] 244 | 558 [4936] 241 | 602 [5328] 235 | 261 |
| | 61 [16] | | | 134 [1183] 296 | 253 [2242] 292 | 335 [2969] 284 | 435 [3850] 277 | 524 [4639] 273 | 598 [5292] 269 | 299 |
| | 68 [18] | | | 121 [1068] 334 | 232 [2056] 330 | 339 [3003] 327 | 416 [3686] 320 | 512 [4532] 313 | 599 [5299] 308 | 336 |
| | 76 [20] | | | 110 [970] 372 | 206 [1823] 372 | 308 [2725] 365 | 401 [3552] 357 | 507 [4484] 352 | | 373 |
| | 83 [22] | | | | 191 [1689] 407 | 285 [2520] 403 | 379 [3353] 397 | 486 [4303] 388 | | 410 |
| Max. Cont. | | | | | | | | | | |
| Max. Inter. | | | | | | | | | | |
| Theoretical rpm | | | | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 17.3 [682] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 56 [494] | 112 [987] | 223 [1975] | 335 [2962] | 446 [3949] | 558 [4936] | 669 [5924] | 781 [6911] | |
| Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | | | | | |

| | | Pressure - bar [psi] | | | | | | | Max. Cont. | Max. Inter. |
|--|---------|---|-----------------|-------------------|-------------------|-------------------|---|-------------------|-------------------|-------------|
| 230 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 233 cm ³ [14.2 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | Intermittent Ratings - 10% of Operation | | | |
| Flow - lpm [gpm] | 2 [0.5] | 45 [397] 6 | 92 [813] 4 | 184 [1628] 3 | 293 [2590] 2 | 375 [3323] 1 | | | | 9 |
| | 4 [1] | 48 [429] 14 | 101 [890] 12 | 223 [1972] 11 | 316 [2793] 11 | 414 [3660] 9 | 493 [4366] 7 | 560 [4955] 4 | | 17 |
| | 8 [2] | 51 [453] 30 | 105 [926] 27 | 215 [1899] 25 | 329 [2911] 25 | 425 [3760] 23 | 524 [4637] 20 | 618 [5468] 17 | 710 [6286] 12 | 33 |
| | 15 [4] | 43 [384] 63 | 108 [960] 59 | 209 [1851] 55 | 326 [2884] 54 | 435 [3846] 52 | 539 [4771] 47 | 655 [5799] 42 | 721 [6381] 39 | 66 |
| | 23 [6] | | 102 [603] 93 | 213 [1889] 88 | 339 [3001] 85 | 428 [3789] 82 | 536 [4747] 77 | 628 [5559] 73 | 718 [6355] 69 | 98 |
| | 30 [8] | | 89 [789] 127 | 207 [1830] 122 | 316 [2793] 120 | 425 [3762] 115 | 521 [4612] 110 | 639 [5653] 107 | 717 [6341] 98 | 131 |
| | 38 [10] | | 78 [690] 161 | 198 [1750] 157 | 311 [2752] 151 | 436 [3856] 148 | 527 [4660] 143 | 612 [5420] 140 | 703 [6218] 132 | 163 |
| | 45 [12] | | | 189 [1669] 191 | 296 [2624] 186 | 425 [3764] 182 | 510 [4517] 176 | 599 [5304] 170 | 689 [6098] 163 | 196 |
| | 53 [14] | | | 177 [1565] 224 | 293 [2596] 216 | 388 [3434] 214 | 495 [4384] 208 | 587 [5197] 205 | 680 [6017] 198 | 228 |
| | 61 [16] | | | 150 [1326] 256 | 272 [2408] 255 | 397 [3509] 249 | 484 [4280] 245 | 574 [5077] 237 | 669 [5925] 227 | 261 |
| | 68 [18] | | | 142 [1261] 292 | 264 [2333] 286 | 355 [3140] 282 | 493 [4366] 276 | 569 [5032] 274 | 655 [5799] 259 | 293 |
| | 76 [20] | | | 122 [1083] 324 | 237 [2096] 321 | 347 [3068] 316 | 453 [4009] 309 | 571 [5057] 305 | | 326 |
| | 83 [22] | | | | 210 [1855] 357 | 338 [2987] 351 | 464 [4104] 345 | 550 [4864] 339 | | 358 |
| Max. Cont. | | | | | | | | | | |
| Max. Inter. | | | | | | | | | | |
| Theoretical rpm | | | | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 19.7 [777] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 64 [565] | 128 [1131] | 256 [2261] | 383 [3392] | 511 [4522] | 639 [5653] | 767 [6783] | 894 [7914] | |
| 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. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

DISPLACEMENT PERFORMANCE

| | | Pressure - bar [psi] | | | | | | Max. Cont. | Max. Inter. | |
|--|---------|---|------------------|-------------------|-------------------|-------------------|-------------------|---|-------------------|-----|
| 260 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 261 cm ³ [15.9 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | | Intermittent Ratings - 10% of Operation | | |
| Flow - lpm [gpm] | 2 [0.5] | 49 [432] 5 | 112 [989] 2 | | | | | | | 8 |
| | 4 [1] | 54 [475] 12 | 113 [998] 11 | 240 [2125] 10 | 365 [3230] 9 | 478 [4227] 8 | 578 [5112] 7 | 648 [5736] 5 | | 15 |
| | 8 [2] | 54 [474] 27 | 115 [1021] 25 | 247 [2184] 24 | 367 [3244] 22 | 488 [4318] 21 | 591 [5230] 19 | 703 [6223] 16 | | 30 |
| | 15 [4] | 49 [429] 57 | 114 [1010] 55 | 261 [2307] 51 | 363 [3214] 51 | 486 [4300] 48 | 595 [5268] 46 | 697 [6171] 43 | 807 [7143] 39 | 59 |
| | 23 [6] | 45 [397] 86 | 115 [1016] 83 | 236 [2090] 80 | 364 [3221] 78 | 497 [4398] 76 | 590 [5225] 71 | 721 [6379] 68 | 802 [7096] 63 | 88 |
| | 30 [8] | | 94 [833] 114 | 227 [2008] 109 | 348 [3078] 109 | 477 [4224] 105 | 592 [5239] 101 | 692 [6128] 96 | 794 [7027] 88 | 117 |
| | 38 [10] | | 85 [752] 145 | 231 [2044] 144 | 340 [3013] 141 | 470 [4155] 138 | 585 [5180] 133 | 685 [6063] 127 | 796 [7048] 119 | 146 |
| | 45 [12] | | 78 [692] 173 | 217 [1919] 173 | 354 [3135] 168 | 464 [4108] 166 | 567 [5018] 161 | 672 [5945] 153 | 802 [7095] 144 | 175 |
| | 53 [14] | | 64 [563] 202 | 198 [1754] 202 | 326 [2886] 200 | 445 [3941] 196 | 568 [5026] 184 | 668 [5908] 181 | 765 [6771] 176 | 204 |
| | 61 [16] | | | 182 [1608] 231 | 299 [2644] 229 | 448 [3965] 221 | 552 [4884] 219 | 651 [5763] 216 | 752 [6659] 209 | 233 |
| | 68 [18] | | | 160 [1417] 261 | 304 [2693] 261 | 417 [3690] 256 | 550 [4870] 247 | 643 [5689] 240 | 740 [6551] 232 | 262 |
| | 76 [20] | | | 136 [1204] 290 | 278 [2460] 289 | 391 [3464] 285 | 521 [4614] 277 | 636 [5628] 274 | 736 [6516] 263 | 291 |
| | 83 [22] | | | 132 [1168] 319 | 263 [2325] 319 | 374 [3314] 315 | 512 [4535] 311 | 615 [5442] 301 | | 320 |
| | 91 [24] | | | 82 [722] 348 | 227 [2009] 347 | 361 [3190] 345 | 496 [4386] 340 | | | 349 |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 22.1 [0.872] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 72 [633] | 143 [1266] | 286 [2532] | 429 [3798] | 572 [5064] | 715 [6330] | 858 [7596] | 1001 [8861] | |
| Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | | | | | |

| | | Pressure - bar [psi] | | | | | | Max. Cont. | Max. Inter. | |
|--|---------|---|-------------------|-------------------|-------------------|-------------------|-------------------|---|-------------------|-----|
| 300 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 300 cm ³ [18.3 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | | Intermittent Ratings - 10% of Operation | | |
| Flow - lpm [gpm] | 2 [0.5] | 51 [452] 3 | 95 [839] 1 | | | | | | | 7 |
| | 4 [1] | 63 [557] 11 | 145 [1282] 10 | 302 [2675] 9 | 433 [3829] 8 | 510 [4513] 7 | 627 [5552] 4 | | | 13 |
| | 8 [2] | 62 [551] 22 | 158 [1400] 20 | 308 [2722] 19 | 437 [3866] 19 | 571 [5056] 16 | 679 [6011] 13 | 768 [6796] 9 | 830 [7346] 5 | 26 |
| | 15 [4] | 66 [588] 48 | 145 [1281] 47 | 316 [2793] 45 | 430 [3805] 43 | 577 [5107] 38 | 680 [6015] 33 | 820 [7258] 28 | 908 [8040] 21 | 51 |
| | 23 [6] | 58 [511] 75 | 140 [1241] 75 | 290 [2566] 72 | 424 [3755] 69 | 546 [4830] 65 | 690 [6105] 57 | 801 [7088] 49 | 946 [8372] 40 | 76 |
| | 30 [8] | 46 [405] 100 | 128 [1136] 100 | 305 [2699] 99 | 391 [3460] 96 | 571 [5056] 87 | 700 [6199] 82 | 826 [7313] 71 | 930 [8233] 62 | 101 |
| | 38 [10] | | 111 [981] 125 | 282 [2493] 124 | 409 [3623] 121 | 503 [4447] 115 | 683 [6043] 106 | 794 [7028] 98 | 919 [8131] 88 | 127 |
| | 45 [12] | | 92 [814] 150 | 261 [2313] 150 | 388 [3435] 148 | 472 [4177] 143 | 641 [5676] 133 | 783 [6927] 122 | 881 [7794] 113 | 152 |
| | 53 [14] | | 77 [684] 176 | 245 [2165] 175 | 391 [3464] 175 | 530 [4687] 173 | 661 [5848] 163 | 809 [7157] 151 | 949 [8398] 138 | 177 |
| | 61 [16] | | 63 [553] 201 | 224 [1983] 201 | 366 [3243] 199 | 508 [4498] 192 | 633 [5599] 187 | 796 [7044] 173 | 916 [8103] 163 | 202 |
| | 68 [18] | | | 201 [1780] 225 | 339 [2999] 225 | 467 [4135] 222 | 666 [5898] 211 | 804 [7115] 199 | 899 [7955] 194 | 228 |
| | 76 [20] | | | 172 [1522] 251 | 327 [2895] 251 | 480 [4247] 247 | 611 [5410] 240 | 745 [6596] 232 | 910 [8051] 217 | 253 |
| | 83 [22] | | | 144 [1276] 277 | 321 [2836] 276 | 466 [4127] 269 | 575 [5084] 263 | 732 [6474] 254 | | 278 |
| | 91 [24] | | | 119 [1049] 302 | 281 [2483] 301 | 435 [3853] 300 | 559 [4943] 291 | 703 [6223] 280 | | 303 |
| 95 [25] | | | 105 [928] 315 | 262 [2319] 314 | 434 [3838] 311 | 553 [4894] 307 | 707 [6257] 294 | | 316 | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | | | |
| 25.4 [1.000] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 82 [729] | 165 [1457] | 329 [2914] | 494 [4371] | 659 [5828] | 823 [7285] | 988 [8742] | 1152 [10199] | |
| Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | | | | | |

► Performance data is typical. Performance of production units varies slightly from one motor to another. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

DISPLACEMENT PERFORMANCE

| | | Pressure - bar [psi] | | | | | | | Max. Cont. | Max. Inter. |
|--|---------|--|-------------------|-------------------|-------------------|-------------------|---|-------------------|--------------------|-------------|
| 350 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 348 cm ³ [21.2 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | Intermittent Ratings - 10% of Operation | | | |
| Flow - lpm [gpm] | 2 [0.5] | 64 [566] 4 | 134 [1183] 4 | 272 [2404] 3 | 399 [3532] 2 | | | | | 6 |
| | 4 [1] | 64 [570] 10 | 134 [1189] 9 | 296 [2619] 8 | 437 [3869] 8 | | | | | 11 |
| | 8 [2] | 69 [607] 21 | 145 [1285] 20 | 312 [2764] 19 | 462 [4092] 18 | 600 [5308] 18 | 742 [6571] 17 | 855 [7569] 14 | | 22 |
| | 15 [4] | 71 [627] 42 | 151 [1340] 41 | 313 [2767] 40 | 471 [4169] 39 | 630 [5577] 37 | 772 [6834] 35 | 889 [7869] 34 | 993 [8785] 28 | 44 |
| | 23 [6] | 62 [549] 64 | 149 [1618] 63 | 315 [2788] 62 | 474 [4191] 60 | 630 [5577] 57 | 768 [6796] 54 | 925 [8182] 51 | 1032 [9137] 45 | 66 |
| | 30 [8] | 53 [472] 86 | 139 [1233] 85 | 307 [2713] 84 | 459 [4058] 82 | 626 [5537] 79 | 768 [6793] 75 | 928 [8210] 69 | 1051 [9300] 65 | 88 |
| | 38 [10] | | 113 [1004] 108 | 298 [2639] 108 | 431 [3814] 108 | 601 [5317] 102 | 745 [6593] 100 | 910 [8056] 93 | 1062 [9399] 87 | 109 |
| | 45 [12] | | 98 [869] 130 | 265 [2346] 129 | 445 [3936] 128 | 581 [5144] 125 | 740 [6552] 117 | 891 [7889] 109 | 1044 [9237] 104 | 131 |
| | 53 [14] | | 86 [758] 152 | 252 [2226] 151 | 422 [3738] 150 | 570 [5044] 147 | 723 [6398] 139 | 881 [7794] 133 | 1031 [9126] 120 | 153 |
| | 61 [16] | | 63 [560] 173 | 235 [2079] 173 | 409 [3619] 172 | 549 [4859] 170 | 720 [6375] 163 | 850 [7522] 155 | 1012 [8952] 147 | 175 |
| Max. Cont. | 68 [18] | | 220 [1948] 195 | 394 [3490] 194 | 571 [5054] 190 | 693 [6134] 187 | 839 [7428] 175 | 986 [8727] 164 | 197 | |
| | 76 [20] | | 208 [1843] 217 | 375 [3320] 214 | 513 [4544] 213 | 683 [6044] 213 | 835 [7385] 195 | 975 [8632] 188 | 218 | |
| | 83 [22] | | 179 [1583] 239 | 352 [3112] 239 | 554 [4906] 238 | 685 [6064] 233 | 813 [7198] 221 | 958 [8482] 215 | 240 | |
| | 91 [24] | | 172 [1526] 261 | 360 [3186] 261 | 534 [4724] 260 | 666 [5890] 256 | | | 262 | |
| Max. Inter. | 95 [25] | | 369 [3264] 271 | 529 [4682] 271 | 647 [5730] 270 | | | | 273 | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/> | | | | | | | | |
| 39.4 [1.553] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 95 [844] | 191 [1688] | 381 [3376] | 572 [5064] | 763 [6752] | 954 [8439] | 1144 [10127] | 1335 [11815] | |
| Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | | | | | |

| | | Pressure - bar [psi] | | | | | | | Max. Cont. | Max. Inter. |
|--|---------|--|-------------------|-------------------|-------------------|-------------------|---|--------------------|--------------------|-------------|
| 375 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] | 241 [3500] | |
| 375 cm ³ [22.8 in ³] / rev | | | | | | | | | | |
| | | Torque - Nm [lb-in], Speed rpm | | | | | Intermittent Ratings - 10% of Operation | | | |
| Flow - lpm [gpm] | 2 [0.5] | 76 [674] 3 | | | | | | | | 6 |
| | 4 [1] | 84 [745] 8 | 162 [1432] 7 | 329 [2911] 6 | 490 [4337] 6 | 639 [5652] 5 | 763 [6756] 3 | | | 11 |
| | 8 [2] | 82 [724] 18 | 171 [1510] 17 | 361 [3196] 16 | 537 [4754] 16 | 689 [6095] 14 | 836 [7399] 12 | 955 [8449] 9 | | 21 |
| | 15 [4] | 77 [680] 39 | 163 [1439] 37 | 358 [3164] 37 | 537 [4756] 36 | 695 [6151] 32 | 857 [7587] 29 | 989 [8750] 25 | 1121 [9923] 20 | 41 |
| | 23 [6] | 67 [595] 60 | 158 [1398] 59 | 354 [3130] 56 | 527 [4661] 56 | 695 [6155] 52 | 864 [7642] 47 | 1011 [8951] 40 | 1168 [10334] 36 | 61 |
| | 30 [8] | 57 [508] 80 | 149 [1321] 80 | 340 [3010] 78 | 510 [4512] 77 | 695 [6154] 71 | 845 [7476] 65 | 1009 [8930] 60 | 1156 [10229] 51 | 82 |
| | 38 [10] | | 134 [1187] 100 | 322 [2849] 99 | 495 [4383] 96 | 681 [6024] 93 | 836 [7399] 87 | 1007 [8913] 80 | 1157 [10235] 71 | 102 |
| | 45 [12] | | 115 [1013] 121 | 301 [2661] 120 | 480 [4249] 118 | 645 [5711] 113 | 809 [7159] 108 | 980 [8674] 98 | 1141 [10098] 92 | 122 |
| | 53 [14] | | 93 [819] 141 | 280 [2475] 140 | 477 [4218] 138 | 633 [5602] 134 | 795 [7036] 128 | 949 [8402] 120 | 1117 [9887] 105 | 142 |
| | 61 [16] | | 73 [646] 161 | 261 [2314] 161 | 429 [3797] 160 | 598 [5296] 155 | 770 [6817] 151 | 934 [8267] 141 | 1085 [9605] 130 | 163 |
| Max. Cont. | 68 [18] | | 236 [2091] 181 | 434 [3843] 181 | 597 [5282] 177 | 765 [6771] 168 | 907 [8026] 161 | 1080 [9554] 150 | 183 | |
| | 76 [20] | | 209 [1851] 202 | 384 [3396] 201 | 561 [4969] 198 | 740 [6549] 191 | 877 [7764] 183 | 1027 [9091] 168 | 203 | |
| | 83 [22] | | 178 [1576] 222 | 374 [3309] 221 | 530 [4694] 218 | 696 [6160] 213 | 840 [7431] 205 | | 223 | |
| | 91 [24] | | 141 [1246] 242 | 319 [2822] 241 | 511 [4523] 239 | 662 [5860] 233 | | | 244 | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/> | | | | | | | | |
| 31.8 [1.252] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | | | |
| | | 103 [908] | 205 [1815] | 410 [3631] | 615 [5446] | 821 [7261] | 1026 [9076] | 1231 [10892] | 1436 [12707] | |
| 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. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

DISPLACEMENT PERFORMANCE

| | | Pressure - bar [psi] | | | | | Max. Cont. | Peak |
|---|------------|---|-------------------|-------------------|-------------------|-------------------|--------------------|-----------------|
| 470 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | 207 [3000] |
| 465 cm ³ [28.3 in ³] / rev | | Intermittent Ratings - 10% of Operation | | | | | | |
| Flow - lpm [gpm] | Max. Cont. | Torque - Nm [lb-in], Speed rpm | | | | | | Theoretical rpm |
| | | 2 [0.5] | 4 [1] | 8 [2] | 15 [4] | 23 [6] | 30 [8] | |
| 2 [0.5] | | 93 [823] 2 | 185 [1635] 1 | | | | | 5 |
| 4 [1] | | 97 [857] 7 | 203 [1794] 5 | 409 [3618] 5 | 610 [5402] 5 | 815 [7209] 4 | | 9 |
| 8 [2] | | 98 [865] 15 | 209 [1845] 14 | 435 [3851] 13 | 659 [5836] 13 | 855 [7563] 12 | 1025 [9071] 11 | 17 |
| 15 [4] | | 94 [834] 31 | 200 [1774] 30 | 444 [3932] 28 | 659 [5829] 28 | 886 [7836] 26 | 1066 [9434] 23 | 33 |
| 23 [6] | | 86 [759] 48 | 193 [1704] 47 | 438 [3880] 44 | 673 [5955] 44 | 872 [7715] 41 | 1073 [9499] 37 | 49 |
| 30 [8] | | 73 [643] 64 | 179 [1587] 63 | 424 [3752] 60 | 663 [5863] 60 | 857 [7586] 57 | 1098 [9718] 50 | 66 |
| 38 [10] | | 52 [464] 81 | 164 [1455] 80 | 407 [3597] 78 | 627 [5550] 78 | 851 [7533] 75 | 1067 [9444] 68 | 82 |
| 45 [12] | | | 141 [1248] 97 | 379 [3350] 94 | 630 [5575] 93 | 832 [7363] 90 | 1067 [9441] 83 | 98 |
| 53 [14] | | | 114 [1006] 113 | 350 [3094] 112 | 580 [5133] 111 | 802 [7101] 108 | 1013 [8964] 102 | 115 |
| 61 [16] | | | 83 [736] 130 | 322 [2846] 129 | 545 [4819] 127 | 796 [7040] 123 | 965 [8538] 119 | 131 |
| 68 [18] | | | 56 [497] 146 | 275 [2434] 145 | 526 [4657] 145 | 737 [6519] 142 | 956 [8464] 138 | 147 |
| 76 [20] | | | | 235 [2078] 162 | 479 [4239] 161 | 706 [6249] 158 | 917 [8117] 154 | 164 |
| 83 [22] | | | | 202 [1790] 179 | 460 [4075] 178 | 669 [5920] 176 | 883 [7811] 170 | 180 |
| 91 [24] | | | | 157 [1392] 195 | 385 [3410] 194 | 620 [5484] 190 | 843 [7464] 186 | 196 |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | |
| 39.4 [1.553] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | |
| | | 127 [1127] | 255 [2253] | 509 [4506] | 764 [6760] | 1018 [9013] | 1273 [11266] | 1528 [13519] |
| | | Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | | |

| | | Pressure - bar [psi] | | | | | Max. Cont. | Max. Inter. |
|---|------------|---|------------------|-------------------|-------------------|-------------------|---------------------|-----------------|
| 540 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | 173 [2500] | |
| 536 cm ³ [32.7 in ³] / rev | | Intermittent Ratings - 10% of Operation | | | | | | |
| Flow - lpm [gpm] | Max. Cont. | Torque - Nm [lb-in], Speed rpm | | | | | | Theoretical rpm |
| | | 2 [0.5] | 4 [1] | 8 [2] | 15 [4] | 23 [6] | 30 [8] | |
| 2 [0.5] | | 104 [921] 2 | 197 [1748] 2 | | | | | 4 |
| 4 [1] | | 126 [1111] 6 | 230 [2031] 5 | 467 [4136] 5 | 699 [6183] 5 | 939 [8310] 5 | 1149 [10165] 4 | 8 |
| 8 [2] | | 134 [1189] 13 | 240 [2120] 13 | 501 [4436] 12 | 755 [6679] 12 | 977 [8646] 11 | 1185 [10484] 10 | 15 |
| 15 [4] | | 120 [1058] 27 | 232 [2055] 27 | 510 [4510] 26 | 757 [6697] 26 | 988 [8740] 24 | 1223 [10827] 23 | 29 |
| 23 [6] | | 97 [859] 41 | 224 [1984] 41 | 505 [4469] 40 | 783 [6930] 40 | 993 [8787] 38 | 1225 [10838] 34 | 43 |
| 30 [8] | | 78 [692] 56 | 213 [1887] 56 | 484 [4285] 55 | 750 [6635] 54 | 983 [8698] 53 | 1251 [11075] 48 | 57 |
| 38 [10] | | 59 [523] 70 | 190 [1678] 70 | 455 [4026] 69 | 728 [6445] 69 | 959 [8487] 67 | 1244 [11008] 62 | 71 |
| 45 [12] | | | 176 [1554] 84 | 438 [3879] 83 | 719 [6360] 83 | 945 [8360] 80 | 1203 [10646] 77 | 85 |
| 53 [14] | | | 139 [1233] 98 | 418 [3703] 97 | 682 [6035] 96 | 952 [8421] 94 | 1183 [10467] 91 | 99 |
| 61 [16] | | | 109 [963] 112 | 385 [3407] 111 | 668 [5908] 111 | 899 [7957] 110 | 1163 [10290] 105 | 114 |
| 68 [18] | | | 83 [736] 126 | 356 [3154] 126 | 612 [5417] 125 | 869 [7694] 124 | 1116 [9876] 123 | 128 |
| 76 [20] | | | | 323 [2861] 140 | 603 [5333] 139 | 829 [7335] 138 | 1109 [9816] 134 | 142 |
| 83 [22] | | | | 297 [2629] 154 | 537 [4753] 153 | 792 [7011] 152 | | 156 |
| 91 [24] | | | | 215 [1905] 169 | 491 [4349] 168 | 750 [6639] 168 | | 170 |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input checked="" type="checkbox"/> | | | | | | |
| 45.5 [1.791] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | | |
| | | 147 [1302] | 294 [2604] | 588 [5207] | 883 [7811] | 1177 [10414] | 1471 [13018] | |
| | | 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. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

DISPLACEMENT PERFORMANCE

| | | Pressure - bar [psi] | | | | Max. Cont. | Max. Inter. |
|---|---------|--|-------------------|-------------------|-------------------|-------------------|--------------|
| 620 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 121 [1750] | 155 [2250] |
| 631 cm ³ [38.5 in ³] / rev | | Intermittent Ratings - 10% of Operation | | | | | |
| Torque - Nm [lb-in], Speed rpm | | | | | | | |
| Flow - lpm [gpm] | 2 [0.5] | 120 [1060] 2 | 228 [2021] 1 | | | | 3 |
| | 4 [1] | 136 [1202] 5 | 264 [2332] 5 | 535 [4733] 5 | 796 [7048] 4 | 935 [8275] 3 | 6 |
| | 8 [2] | 142 [1256] 11 | 276 [2445] 11 | 571 [5055] 11 | 853 [7550] 10 | 985 [8717] 9 | 12 |
| | 15 [4] | 131 [1159] 23 | 269 [2379] 23 | 581 [5141] 23 | 870 [7696] 22 | 1008 [8920] 21 | 24 |
| | 23 [6] | 111 [982] 35 | 260 [2300] 35 | 575 [5087] 34 | 883 [7811] 34 | 1014 [8976] 33 | 36 |
| | 30 [8] | 91 [809] 47 | 247 [2184] 47 | 555 [4914] 46 | 855 [7570] 45 | 1000 [8853] 44 | 48 |
| | 38 [10] | 67 [595] 59 | 220 [1943] 58 | 526 [4655] 58 | 833 [7372] 57 | 972 [8602] 56 | 60 |
| | 45 [12] | | 203 [1794] 71 | 504 [4456] 70 | 815 [7208] 70 | 953 [8437] 69 | 72 |
| | 53 [14] | | 160 [1419] 83 | 476 [4213] 81 | 778 [6888] 80 | 930 [8233] 79 | 84 |
| | 61 [16] | | 124 [1095] 95 | 439 [3885] 94 | 753 [6666] 93 | 895 [7917] 92 | 96 |
| | 68 [18] | | 91 [801] 107 | 407 [3599] 107 | 703 [6223] 106 | 852 [7537] 105 | 108 |
| | 76 [20] | | | 358 [3172] 119 | 675 [5974] 118 | 815 [7215] 117 | 120 |
| | 83 [22] | | | 328 [2901] 131 | 614 [5431] 131 | 759 [6715] 130 | 132 |
| 91 [24] | | | 247 [2185] 143 | 556 [4922] 142 | 706 [6249] 141 | 144 | |
| Max. Cont. | | | | | | | |
| Max. Inter. | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/> | | | | | |
| 54.0 [2.125] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | |
| | | 173 [1532] | 346 [3064] | 692 [6127] | 1039 [9191] | 1212 [10729] | 1559 [13794] |
| | | Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS] | | | | | |

| | | Pressure - bar [psi] | | | | Max. Cont. | Peak |
|---|---------|--|-------------------|-------------------|-------------------|--------------------|------|
| 750 | | 17 [250] | 35 [500] | 69 [1000] | 104 [1500] | 138 [2000] | |
| 748 cm ³ [45.6 in ³] / rev | | Intermittent Ratings - 10% of Operation | | | | | |
| Torque - Nm [lb-in], Speed rpm | | | | | | | |
| Flow - lpm [gpm] | 2 [0.5] | 147 [1299] 2 | 281 [2487] 1 | | | | 3 |
| | 4 [1] | 156 [1379] 4 | 322 [2852] 4 | 652 [5768] 4 | 967 [8554] 3 | 1308 [11571] 3 | 6 |
| | 8 [2] | 158 [1403] 9 | 339 [3003] 9 | 693 [6134] 9 | 1027 [9088] 8 | 1360 [12033] 7 | 11 |
| | 15 [4] | 153 [1350] 19 | 331 [2933] 19 | 705 [6241] 19 | 1064 [9419] 18 | 1416 [12534] 16 | 21 |
| | 23 [6] | 135 [1194] 29 | 321 [2840] 29 | 697 [6166] 28 | 1059 [9373] 28 | 1408 [12462] 26 | 31 |
| | 30 [8] | 114 [1008] 40 | 304 [2690] 40 | 678 [6002] 39 | 1039 [9197] 38 | 1421 [12573] 34 | 41 |
| | 38 [10] | 82 [722] 50 | 271 [2395] 49 | 648 [5733] 49 | 1015 [8980] 48 | 1371 [12130] 47 | 51 |
| | 45 [12] | 54 [477] 60 | 249 [2207] 60 | 616 [5452] 59 | 983 [8699] 59 | 1345 [11902] 56 | 61 |
| | 53 [14] | | 197 [1739] 70 | 577 [5104] 69 | 946 [8372] 68 | 1311 [11600] 67 | 71 |
| | 61 [16] | | 150 [1325] 80 | 533 [4718] 79 | 905 [8008] 78 | 1271 [11249] 76 | 82 |
| | 68 [18] | | 105 [927] 90 | 494 [4374] 90 | 860 [7614] 89 | 1225 [10843] 88 | 92 |
| | 76 [20] | | 62 [552] 100 | 423 [3741] 100 | 805 [7123] 99 | 1173 [10385] 98 | 102 |
| | 83 [22] | | | 385 [3404] 110 | 747 [6608] 110 | | 112 |
| 91 [24] | | | 302 [2669] 121 | 670 [5932] 120 | | 122 | |
| Max. Cont. | | | | | | | |
| Max. Inter. | | | | | | | |
| Rotor Width | | Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/> | | | | | |
| 63.5 [2.501] mm [in] | | Theoretical Torque - Nm [lb-in] | | | | | |
| | | 205 [1815] | 410 [3631] | 821 [7261] | 1231 [10892] | 1641 [14522] | |
| | | 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. Operating at maximum continuous pressure and maximum continuous flow simultaneously is not recommended. For additional information on product testing please refer to page 7.

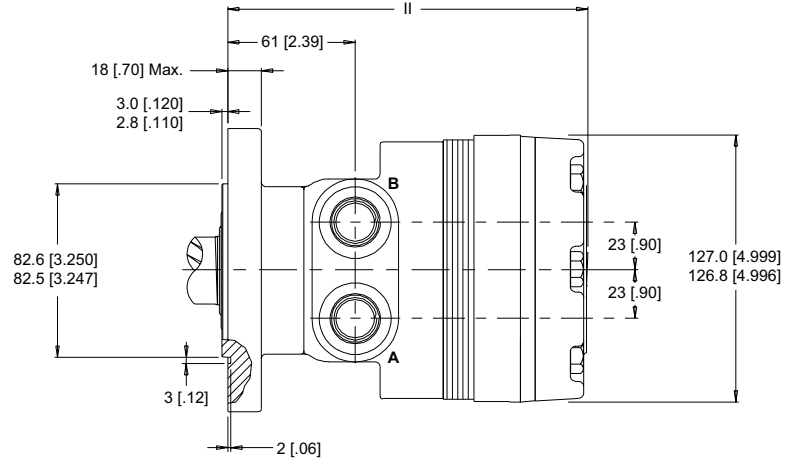
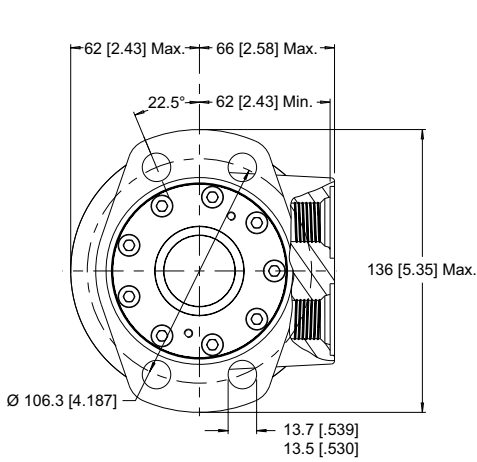
HOUSINGS

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

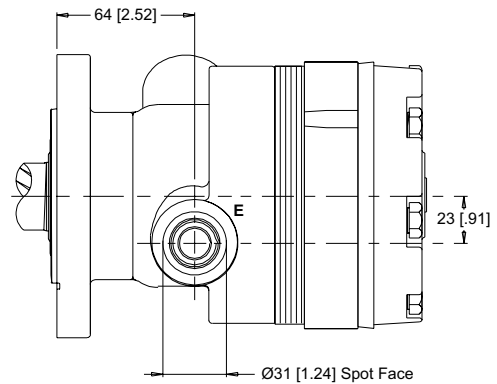
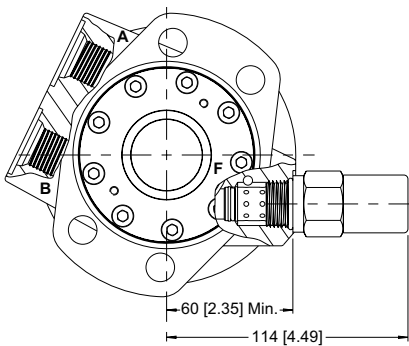
4-HOLE, MAGNETO MOUNT, ALIGNED PORTS

A31 7/8-14 UNF **A38** G 1/2

STANDARD



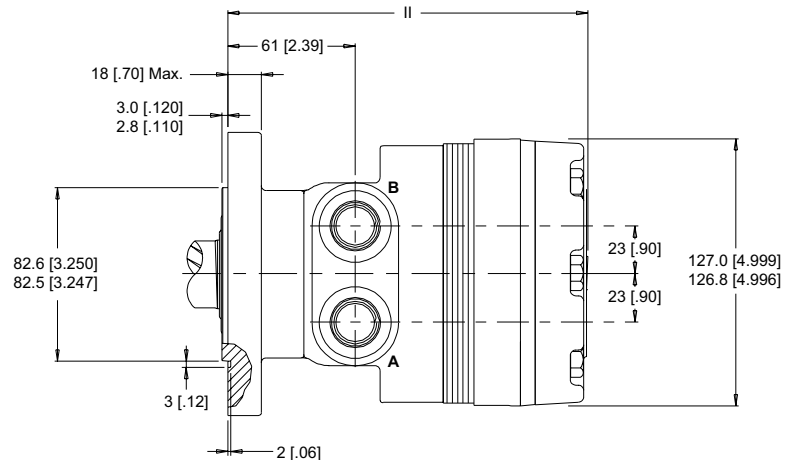
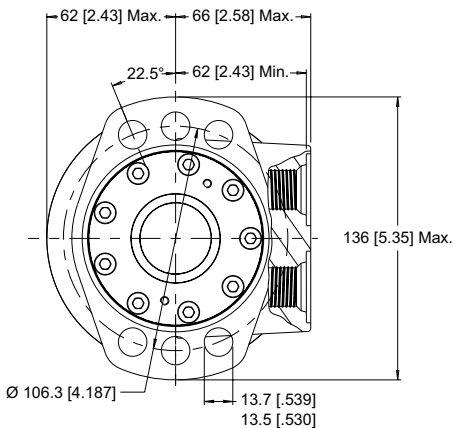
OPTIONAL VALVE CAVITY



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

6-HOLE, SAE A MOUNT, ALIGNED PORTS

A51 7/8-14 UNF **A58** G 1/2



► Dimension II is charted on page 76.

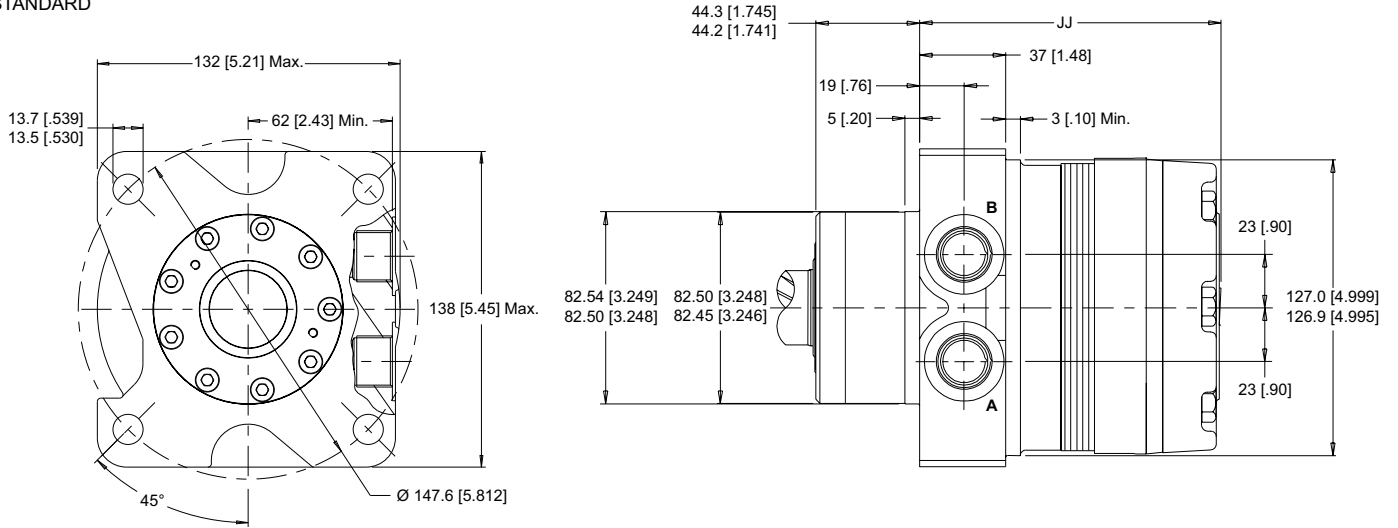
HOUSINGS

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

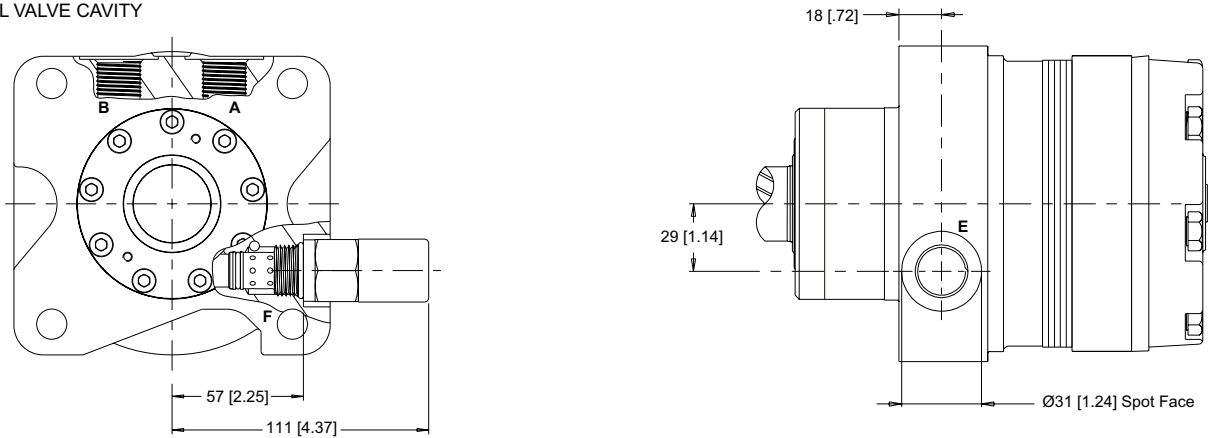
4-HOLE, WHEEL MOUNT, ALIGNED PORTS

W31 7/8-14 UNF **W38** G 1/2

STANDARD



OPTIONAL VALVE CAVITY



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

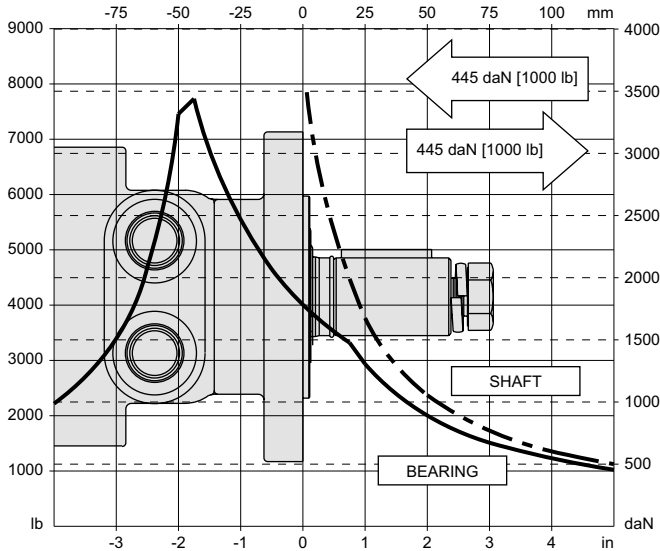
► Dimension JJ is charted on page 76.

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 8.

MAGNETO & SAE A MOUNTS



LENGTH & WEIGHT CHART

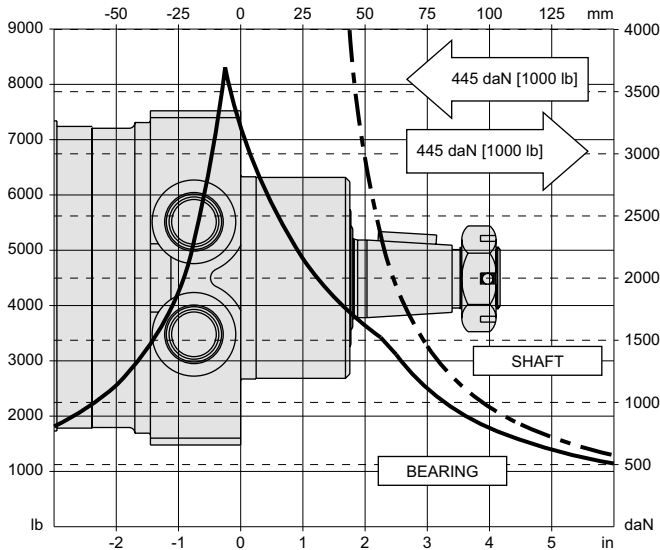
Dimensions II & JJ are the overall motor lengths from the rear of the motor to the mounting flange surface and are referenced on detailed housing drawings listed on pages 74 & 75.

| II | Length | Weight |
|-----|------------|-------------|
| # | mm [in] | kg [lb] |
| 120 | 162 [6.37] | 10.6 [23.4] |
| 160 | 162 [6.37] | 10.6 [23.4] |
| 200 | 165 [6.51] | 11.0 [24.2] |
| 230 | 168 [6.61] | 11.1 [24.4] |
| 260 | 170 [6.70] | 11.3 [25.0] |
| 300 | 174 [6.83] | 11.7 [25.8] |
| 350 | 187 [7.38] | 12.8 [28.2] |
| 375 | 180 [7.08] | 12.2 [27.0] |
| 470 | 187 [7.38] | 12.8 [28.2] |
| 540 | 194 [7.62] | 13.3 [29.4] |
| 620 | 202 [7.95] | 14.1 [30.9] |
| 750 | 212 [8.33] | 14.8 [32.5] |

| JJ | Length | Weight |
|-----|------------|-------------|
| # | mm [in] | kg [lb] |
| 120 | 120 [4.72] | 11.7 [25.8] |
| 160 | 120 [4.72] | 11.7 [25.8] |
| 200 | 123 [4.86] | 12.1 [26.6] |
| 230 | 126 [4.95] | 12.2 [26.8] |
| 260 | 128 [5.05] | 12.4 [27.4] |
| 300 | 132 [5.18] | 12.8 [28.2] |
| 350 | 146 [5.73] | 13.9 [30.6] |
| 375 | 138 [5.43] | 13.3 [29.4] |
| 470 | 146 [5.73] | 13.9 [30.6] |
| 540 | 152 [5.97] | 14.4 [31.8] |
| 620 | 161 [6.35] | 15.1 [33.4] |
| 750 | 170 [6.68] | 15.8 [34.9] |

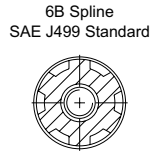
► All RE series motor weights can vary ± 0.5 kg [1 lb] depending on model configurations such as housing, shaft, endcover, options etc.

WHEEL MOUNTS

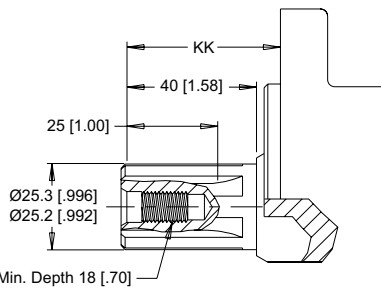


SHAFTS

02 1" 6B Spline

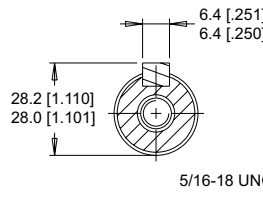


03 1" 6B Spline Extended



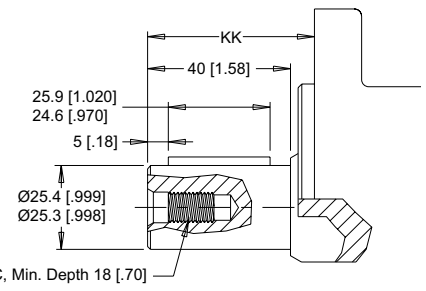
Max. Torque: 678 Nm [6000 lb-in]

10 1" Straight

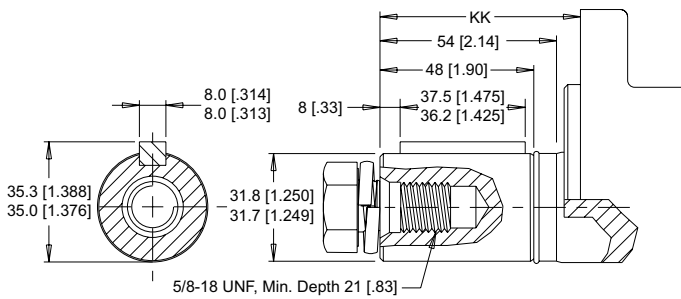


Max. Torque: 655 Nm [5800 lb-in]

15 1" Straight Extended



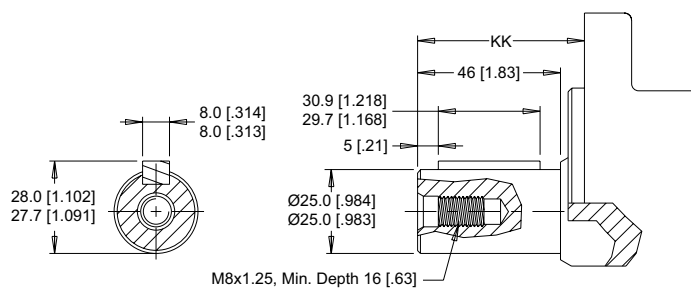
07 1-1/4" Straight Extended



Max. Torque: 1200 Nm [10600 lb-in]

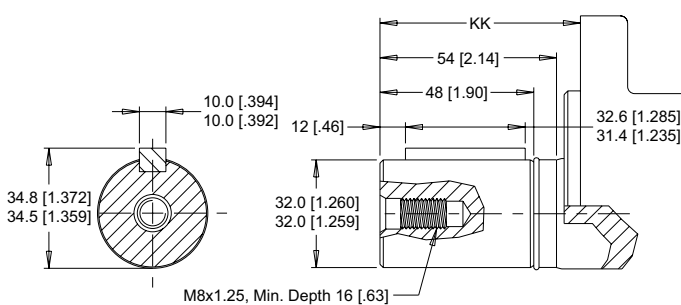
20 1-1/4" Straight

12 25mm Straight



Max. Torque: 678 Nm [6000 lb-in]

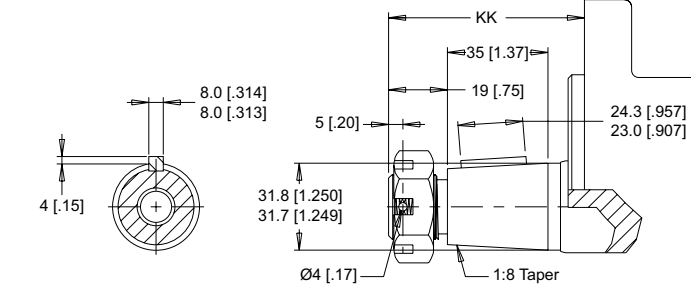
08 32mm Straight Extended



Max. Torque: 1200 Nm [10600 lb-in]

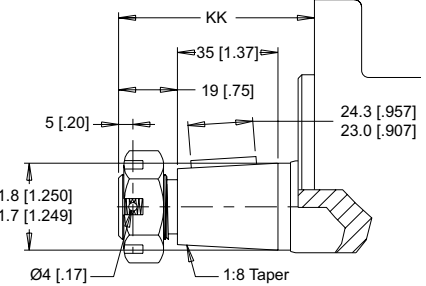
21 32mm Straight

22 1-1/4" Tapered



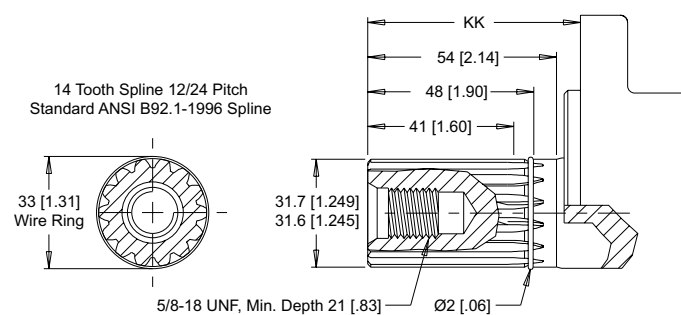
Max. Torque: 1200 Nm [10600 lb-in]

25 1-1/4" Tapered Extended



► A slotted hex nut is standard on this shaft.

09 14 Tooth Spline Extended



Max. Torque: 1200 Nm [10600 lb-in]

23 14 Tooth Spline

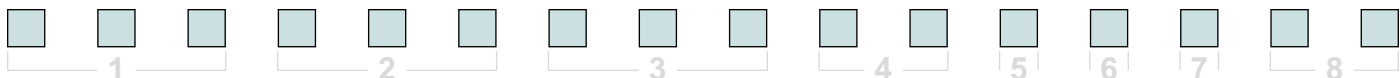
MOUNTING / SHAFT LENGTH CHART

Dimension KK is the overall distance from the motor mounting surface to the end of the shaft and is referenced on detailed shaft drawings above.

| KK # | Magneto & A Mounts | | Wheel Mounts | |
|------|--------------------|------------|--------------|------------|
| | mm [in] | mm [in] | mm [in] | mm [in] |
| 02 | 50 [1.97] | 91 [3.60] | 91 [3.60] | 91 [3.60] |
| 03 | 76 [3.01] | 118 [4.64] | 118 [4.64] | 118 [4.64] |
| 07 | 88 [3.45] | 129 [5.09] | 129 [5.09] | 129 [5.09] |
| 08 | 88 [3.45] | 129 [5.09] | 129 [5.09] | 129 [5.09] |
| 09 | 88 [3.45] | 129 [5.09] | 129 [5.09] | 129 [5.09] |
| 10 | 50 [1.97] | 91 [3.60] | 91 [3.60] | 91 [3.60] |
| 12 | 56 [2.21] | 98 [3.84] | 98 [3.84] | 98 [3.84] |
| 15 | 76 [3.01] | 118 [4.64] | 118 [4.64] | 118 [4.64] |
| 20 | 61 [2.41] | 103 [4.05] | 103 [4.05] | 103 [4.05] |
| 21 | 61 [2.41] | 103 [4.05] | 103 [4.05] | 103 [4.05] |
| 22 | 66 [2.58] | 107 [4.22] | 107 [4.22] | 107 [4.22] |
| 23 | 61 [2.41] | 103 [4.05] | 103 [4.05] | 103 [4.05] |
| 25 | 92 [3.62] | 134 [5.26] | 134 [5.26] | 134 [5.26] |

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

ORDERING INFORMATION



1. CHOOSE SERIES DESIGNATION

| | |
|------------------------------|-----------------------------|
| 505 Standard Rotation | 506 Reverse Rotation |
|------------------------------|-----------------------------|

► The 505 & 506 series are bi-directional. For applications requiring the motor to rotate in only one direction, shaft seal life may be prolonged by pressurizing the A port of the motor.

2. SELECT A DISPLACEMENT OPTION

| | |
|---|---|
| 120 121 cm ³ /rev [7.4 in ³ /rev] | 350 348 cm ³ /rev [21.2 in ³ /rev] |
| 160 162 cm ³ /rev [9.9 in ³ /rev] | 375 375 cm ³ /rev [22.8 in ³ /rev] |
| 200 204 cm ³ /rev [12.4 in ³ /rev] | 470 465 cm ³ /rev [28.3 in ³ /rev] |
| 230 232 cm ³ /rev [14.2 in ³ /rev] | 540 536 cm ³ /rev [32.7 in ³ /rev] |
| 260 261 cm ³ /rev [15.9 in ³ /rev] | 620 631 cm ³ /rev [38.5 in ³ /rev] |
| 300 300 cm ³ /rev [18.3 in ³ /rev] | 750 748 cm ³ /rev [45.6 in ³ /rev] |

3. SELECT A MOUNT & PORT OPTION

| |
|---|
| A31 4-Hole, Magneto Mount, Aligned Ports, 7/8-14 UNF |
| A38 4-Hole, Magneto Mount, Aligned Ports, G 1/2 |
| A51 6-Hole, SAE A Mount, Aligned Ports, 7/8-14 UNF |
| A58 6-Hole, SAE A Mount, Aligned Ports, G 1/2 |
| W31 4-Hole, Wheel Mount, Aligned Ports, 7/8-14 UNF |
| W38 4-Hole, Wheel Mount, Aligned Ports, G 1/2 |

► Speed sensor option is not available with wheel mounts

4. SELECT A SHAFT OPTION

| | |
|------------------------------------|-----------------------------------|
| 02 1" 6B Spline | 15 1" Straight Extended |
| 03 1" 6B Spline Extended | 20 1-1/4" Straight |
| 07 1-1/4" Straight Extended | 21 32mm Straight |
| 08 32mm Straight Extended | 22 1-1/4" Tapered |
| 09 14 Tooth Spline Extended | 23 14 Tooth Spline |
| 10 1" Straight | 25 1-1/4" Tapered Extended |
| 12 25mm Straight | |

► Extended shafts are designed for use with one of the speed sensor options listed in STEP 7.

5. SELECT A PAINT OPTION

| |
|--|
| A Black |
| B Black, Unpainted Mounting Surface |
| Z No Paint |

6. SELECT A VALVE CAVITY / CARTRIDGE OPTION

| | |
|-----------------------------------|------------------------------------|
| A None | E 104 bar [1500 psi] Relief |
| B Valve Cavity Only | F 121 bar [1750 psi] Relief |
| C 69 bar [1000 psi] Relief | G 138 bar [2000 psi] Relief |
| D 86 bar [1250 psi] Relief | |

► Valve cavity is not available on the A51 & A58 housings.

7. SELECT AN ADD-ON OPTION

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

8. SELECT A MISCELLANEOUS OPTION

| |
|---|
| AA None |
| AC Freeturning Rotor |
| AE Hydraulic Declutch With Freeturning Rotor |

DISCLAIMER

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

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Roller Stator® is the registered trademark (tradename) assigned to White Drive Products' patented rotor design. Found at the heart of every White Drive Products motor, this revolutionary rotor design is what sets White Drive Products motors apart from all other gerotor style hydraulic motors. Although other rotors may appear similar to the Roller Stator® design, closer examination reveals critical differences. The most important difference between White Drive Products motors and other designs lies in the profile of the rotor.

Through exhaustive analysis and testing, it was discovered that minute modifications to the profile of a standard rotor lead to increases in the life and efficiency of the motor. At any given point of rotor rotation, it is necessary for only three points on the rotor to maintain contact with the sealing rollers to isolate the high and low pressure areas of the motor from each other. Full contact by the remaining four rollers is functionally unnecessary, and robs power from the motor by producing additional friction. By making small dimensional changes to the rotor profile, measured in mere microns, the contact pressure of the rotor on the four rollers in noncritical positions was reduced, bringing about some very positive benefits to overall motor performance.

Reducing pressure on the four noncritical rollers leads to a reduction in drag, which increases the mechanical efficiency of the motor over the entire operating range, producing more usable power at the output shaft. Equally important, allowing the rollers in the noncritical sealing points to relax provides them the opportunity to rebuild the oil film, which is critical in reducing wear and extending motor life. These two key benefits give the Roller Stator® motor the technological edge over competitive designs, providing customers with motors that excel in efficiency and durability.

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