

HELICON 5.250" OD

| RATIO TO 1 | OUTPUT SELECTION | Pinion Speed RPM | | | | | | | | | | | |
|------------|-----------------------|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| | | 1 | 100 | 200 | 300 | 600 | 900 | 1,200 | 1,750 | 2,500 | 3,600 | 6,000 | 10,000 |
| 4 1/12 | OUTPUT TORQUE (in lb) | 2,932 | 2,435 | 2,237 | 2,099 | 1,834 | 1,665 | 1,542 | 1,379 | 1,228 | 1,078 | | |
| | OUTPUT TORQUE (Nm) | 331 | 275 | 253 | 237 | 207 | 188 | 174 | 156 | 139 | 122 | | |
| | EFFICIENCY (%) | 90.8 | 93.4 | 94.1 | 94.6 | 95.3 | 95.8 | 96.1 | 96.5 | 96.8 | 97.1 | | |
| 6 1/8 | OUTPUT TORQUE (in lb) | 2,631 | 2,180 | 1,999 | 1,875 | 1,635 | 1,482 | 1,371 | 1,225 | 1,088 | 954 | | |
| | OUTPUT TORQUE (Nm) | 297 | 246 | 226 | 212 | 185 | 167 | 155 | 138 | 123 | 108 | | |
| | EFFICIENCY (%) | 86.6 | 90.3 | 91.4 | 92.0 | 93.1 | 93.8 | 94.2 | 94.8 | 95.3 | 95.7 | | |
| 8 1/5 | OUTPUT TORQUE (in lb) | 2,548 | 2,107 | 1,928 | 1,805 | 1,568 | 1,417 | 1,309 | 1,165 | 1,033 | 903 | | |
| | OUTPUT TORQUE (Nm) | 288 | 238 | 218 | 204 | 177 | 160 | 148 | 132 | 117 | 102 | | |
| | EFFICIENCY (%) | 82.0 | 87.0 | 88.5 | 89.3 | 90.8 | 91.7 | 92.3 | 93.0 | 93.7 | 94.3 | | |
| 10 1/4 | OUTPUT TORQUE (in lb) | 3,488 | 2,830 | 2,573 | 2,398 | 2,066 | 1,859 | 1,709 | 1,515 | 1,337 | 1,164 | | |
| | OUTPUT TORQUE (Nm) | 394 | 320 | 291 | 271 | 233 | 210 | 193 | 171 | 151 | 132 | | |
| | EFFICIENCY (%) | 77.3 | 83.4 | 85.2 | 86.3 | 88.2 | 89.2 | 90.0 | 90.9 | 91.7 | 92.5 | | |
| 12 1/3 | OUTPUT TORQUE (in lb) | 3,561 | 2,849 | 2,578 | 2,395 | 2,050 | 1,837 | 1,685 | 1,489 | 1,309 | 1,136 | | |
| | OUTPUT TORQUE (Nm) | 402 | 322 | 291 | 271 | 232 | 208 | 190 | 168 | 148 | 128 | | |
| | EFFICIENCY (%) | 72.3 | 79.5 | 81.6 | 82.9 | 85.2 | 86.5 | 87.4 | 88.5 | 89.5 | 90.5 | | |
| 14 2/3 | OUTPUT TORQUE (in lb) | 3,581 | 2,854 | 2,579 | 2,393 | 2,045 | 1,831 | 1,678 | 1,480 | 1,300 | 1,127 | | |
| | OUTPUT TORQUE (Nm) | 405 | 322 | 291 | 270 | 231 | 207 | 190 | 167 | 147 | 127 | | |
| | EFFICIENCY (%) | 68.5 | 76.4 | 78.7 | 80.1 | 82.7 | 84.2 | 85.2 | 86.5 | 87.7 | 88.8 | | |
| 17 1/2 | OUTPUT TORQUE (in lb) | 4,744 | 3,713 | 3,332 | 3,078 | 2,608 | 2,322 | 2,120 | 1,861 | 1,627 | 1,404 | | |
| | OUTPUT TORQUE (Nm) | 536 | 420 | 376 | 348 | 295 | 262 | 240 | 210 | 184 | 159 | | |
| | EFFICIENCY (%) | 62.0 | 71.0 | 73.7 | 75.4 | 78.5 | 80.2 | 81.5 | 83.1 | 84.5 | 85.8 | | |
| 21 1/2 | OUTPUT TORQUE (in lb) | 5,114 | 3,986 | 3,570 | 3,294 | 2,784 | 2,475 | 2,256 | 1,977 | 1,726 | 1,486 | | |
| | OUTPUT TORQUE (Nm) | 578 | 450 | 403 | 372 | 315 | 280 | 255 | 223 | 195 | 168 | | |
| | EFFICIENCY (%) | 56.7 | 66.3 | 69.2 | 71.1 | 74.5 | 76.5 | 77.9 | 79.7 | 81.3 | 82.9 | | |
| 25 1/2 | OUTPUT TORQUE (in lb) | 5,073 | 3,947 | 3,532 | 3,257 | 2,748 | 2,440 | 2,223 | 1,945 | 1,696 | 1,458 | | |
| | OUTPUT TORQUE (Nm) | 573 | 446 | 399 | 368 | 310 | 276 | 251 | 220 | 192 | 165 | | |
| | EFFICIENCY (%) | 52.6 | 62.4 | 65.5 | 67.5 | 71.1 | 73.3 | 74.8 | 76.8 | 78.6 | 80.3 | | |
| 31 1/2 | OUTPUT TORQUE (in lb) | 5,438 | 4,212 | 3,761 | 3,462 | 2,911 | 2,579 | 2,345 | 2,047 | 1,780 | 1,527 | | |
| | OUTPUT TORQUE (Nm) | 614 | 476 | 425 | 391 | 329 | 291 | 265 | 231 | 201 | 173 | | |
| | EFFICIENCY (%) | 47.1 | 57.0 | 60.3 | 62.4 | 66.3 | 68.6 | 70.3 | 72.5 | 74.5 | 76.5 | | |
| 38 | OUTPUT TORQUE (in lb) | 5,050 | 3,841 | 3,404 | 3,117 | 2,595 | 2,285 | 2,068 | 1,795 | 1,552 | 1,324 | | |
| | OUTPUT TORQUE (Nm) | 571 | 434 | 385 | 352 | 293 | 258 | 234 | 203 | 175 | 150 | | |
| | EFFICIENCY (%) | 39.7 | 49.9 | 53.3 | 55.6 | 59.7 | 62.3 | 64.2 | 66.6 | 68.9 | 71.1 | | |
| 47 | OUTPUT TORQUE (in lb) | 5,416 | 4,104 | 3,627 | 3,316 | 2,749 | 2,413 | 2,180 | 1,886 | 1,626 | 1,382 | | |
| | OUTPUT TORQUE (Nm) | 612 | 464 | 410 | 375 | 311 | 273 | 246 | 213 | 184 | 156 | | |
| | EFFICIENCY (%) | 34.9 | 44.7 | 48.0 | 50.3 | 54.6 | 57.3 | 59.2 | 61.8 | 64.2 | 66.6 | | |
| 58 | OUTPUT TORQUE (in lb) | 5,342 | 4,037 | 3,560 | 3,247 | 2,681 | 2,346 | 2,114 | 1,823 | 1,566 | 1,327 | | |
| | OUTPUT TORQUE (Nm) | 604 | 456 | 402 | 367 | 303 | 265 | 239 | 206 | 177 | 150 | | |
| | EFFICIENCY (%) | 30.7 | 39.9 | 43.2 | 45.4 | 49.7 | 52.4 | 54.3 | 57.0 | 59.5 | 62.0 | | |
| 71 | OUTPUT TORQUE (in lb) | 5,279 | 3,972 | 3,491 | 3,176 | 2,607 | 2,272 | 2,041 | 1,752 | 1,499 | 1,264 | | |
| | OUTPUT TORQUE (Nm) | 596 | 449 | 394 | 359 | 295 | 257 | 231 | 198 | 169 | 143 | | |
| | EFFICIENCY (%) | 26.9 | 35.4 | 38.6 | 40.7 | 44.9 | 47.5 | 49.5 | 52.2 | 54.8 | 57.4 | | |
| 87 | OUTPUT TORQUE (in lb) | 5,222 | 3,906 | 3,418 | 3,099 | 2,524 | 2,188 | 1,958 | 1,671 | 1,422 | 1,192 | | |
| | OUTPUT TORQUE (Nm) | 590 | 441 | 386 | 350 | 285 | 247 | 221 | 189 | 161 | 135 | | |
| | EFFICIENCY (%) | 23.3 | 31.1 | 34.1 | 36.1 | 40.1 | 42.7 | 44.6 | 47.3 | 49.9 | 52.5 | | |
| 106 | OUTPUT TORQUE (in lb) | 5,176 | 3,841 | 3,341 | 3,015 | 2,432 | 2,095 | 1,864 | 1,580 | 1,336 | 1,112 | | |
| | OUTPUT TORQUE (Nm) | 585 | 434 | 377 | 341 | 275 | 237 | 211 | 179 | 151 | 126 | | |
| | EFFICIENCY (%) | 20.1 | 27.2 | 29.9 | 31.8 | 35.6 | 38.1 | 39.9 | 42.5 | 45.1 | 47.7 | | |

The data in the chart above represents theoretical performance values for a given size and ratio range at various speeds. These values are not intended to represent actual gear sets that Spiroid maintains in stock. While Spiroid does maintain an inventory of cutting tools, our customer's specific applications will determine whether 'Stock' or 'Custom' cutting tools are appropriate. For more information on this, please see our 'Inquiry-to-Quote' Process.

