



OMV SERIES HYDRAULIC MOTOR

OMV series motor adapt the advanced Geroler gear set designed with disc distribution flow and high pressure. The unit can be supplied the individual variant in operating multifunction in accordance with requirement of applications.

Characteristic features:

- * Advanced manufacturing devices for the Geroler gear set, which use low pressure of start-up, provide smooth and reliable operation and high efficiency.
- * The output shaft adapts in tapered roller bearings that permit high axial and radial forces. The case can offer capacities of high pressure and high torque in the wide of applications.
- * Advanced design in disc distribution flow, which can automatically compensate in operating with high volume efficiency and long life, provide smooth and reliable operation.

Main Specifaion

| Type | | OMV 315 | OMV 400 | OMV 500 | OMV 630 | OMV 800 | OMV 1000 |
|--|-------|---------|---------|---------|---------|---------|----------|
| Geometric displacement (cm ³ /rev.) | | 333 | 419 | 518 | 666 | 801 | 990 |
| Max. speed (rpm) | cont. | 510 | 500 | 400 | 320 | 250 | 200 |
| | int. | 630 | 600 | 480 | 380 | 300 | 240 |
| Max. torque (N•m) | cont. | 920 | 1180 | 1460 | 1660 | 1880 | 2015 |
| | int. | 1110 | 1410 | 1760 | 1940 | 2110 | 2280 |
| | peak | 1290 | 1640 | 2050 | 2210 | 2470 | 2400 |
| Max. output (kW) | cont. | 38.0 | 47.0 | 47.0 | 40.0 | 33.0 | 28.6 |
| | int. | 46.0 | 56.0 | 56.0 | 56.0 | 44.0 | 40.0 |
| Max. pressure drop (MPa) | cont. | 20 | 20 | 20 | 18 | 16 | 14 |
| | int. | 24 | 24 | 24 | 21 | 18 | 16 |
| | peak | 28 | 28 | 28 | 24 | 21 | 18 |
| Max. flow (L/min) | cont. | 160 | 200 | 200 | 200 | 200 | 200 |
| | int. | 200 | 240 | 240 | 240 | 240 | 240 |
| Weight (kg) | | 31.8 | 32.6 | 33.5 | 34.9 | 36.5 | 38.6 |

- * Continuous pressure: Max. value of operating motor continuously.
- * Intermittent pressure: Max. value of operating motor in 6 seconds per minute.
- * Peak pressure: Max. value of operating motor in 0.6 second per minute.



Performance Data

OMV 315 [333cm³/rev.]

| Pressure (MPa) | | Max.cont. | | Max.int. | | |
|----------------|---|-----------|----|----------|----|----|
| 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |

| Flow (L/min) | Pressure (MPa) | | | | | | |
|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| | 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |
| 10 | 140 26 | 294 24 | 440 23 | 610 22 | 742 20 | 845 17 | 1000 14 |
| 20 | 153 55 | 314 54 | 466 53 | 636 52 | 787 51 | 895 48 | 1070 44 |
| 50 | 149 145 | 312 144 | 465 142 | 654 140 | 815 137 | 935 133 | 1112 127 |
| 75 | 143 220 | 304 218 | 458 215 | 642 211 | 816 207 | 940 202 | 1119 195 |
| 100 | 136 294 | 297 292 | 452 290 | 636 287 | 810 283 | 936 278 | 1108 270 |
| 125 | 123 368 | 286 366 | 442 364 | 626 361 | 799 357 | 921 352 | 1093 345 |
| 150 | 114 445 | 275 443 | 435 441 | 615 437 | 788 430 | 906 422 | 1078 410 |
| 160 | 107 475 | 268 473 | 430 470 | 608 466 | 780 460 | 895 452 | 1070 439 |
| 200 | 82 596 | 249 594 | 412 590 | 593 584 | 758 576 | 871 565 | 1047 544 |

OMV 400 [419cm³/rev.]

| Pressure (MPa) | | Max.cont. | | Max.int. | | |
|----------------|---|-----------|----|----------|----|----|
| 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |

| Flow (L/min) | Pressure (MPa) | | | | | | |
|--------------|-------------------|-------------------|-------------------|-------------------|--------------------|---------------------|--------------------|
| | 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |
| 10 | 183 20 | 385 20 | 568 19 | 776 18 | 968 17 | 1101 16 | 1292 14 |
| 20 | 196 44 | 398 44 | 590 43 | 815 42 | 1010 40 | 1152 39 | 1346 37 |
| 50 | 200 114 | 402 113 | 603 113 | 842 112 | 1040 110 | 1186 108 | 1430 103 |
| 75 | 195 175 | 394 173 | 596 170 | 838 166 | 1043 163 | 1188 1579 | 1432 152 |
| 100 | 172 236 | 385 235 | 593 233 | 827 231 | 1036 227 | 1184 223 | 1425 215 |
| 125 | 167 296 | 374 294 | 583 291 | 816 288 | 1021 282 | 1177 275 | 1413 268 |
| 150 | 158 355 | 361 354 | 559 352 | 801 349 | 1008 344 | 1165 335 | 1390 324 |
| 175 | 143 416 | 346 414 | 553 411 | 784 407 | 989 403 | 1145 396 | 1377 388 |
| 200 | 118 475 | 331 473 | 536 469 | 770 463 | 969 455 | 1128 448 | 1356 439 |
| 240 | 82 571 | 301 569 | 506 565 | 740 548 | 943 539 | 1104 530 | 1332 520 |

OMV 500 [518cm³/rev.]

| Pressure (MPa) | | Max.cont. | | Max.int. | | |
|----------------|---|-----------|----|----------|----|----|
| 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |

| Flow (L/min) | Pressure (MPa) | | | | | | |
|--------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| | 3.5 | 7 | 10 | 14 | 18 | 20 | 24 |
| 10 | 242 17 | 468 17 | 696 16 | 959 16 | 1190 15 | 1353 13 | 1607 11 |
| 20 | 245 36 | 501 35 | 738 35 | 1003 34 | 1232 33 | 1394 32 | 1658 29 |
| 50 | 240 93 | 500 92 | 758 91 | 1025 90 | 1270 88 | 1449 85 | 1743 80 |
| 75 | 233 140 | 498 139 | 752 137 | 1030 135 | 1288 132 | 1475 127 | 1766 120 |
| 100 | 228 189 | 491 187 | 748 185 | 1026 182 | 1289 178 | 1472 173 | 1760 166 |
| 125 | 220 237 | 483 236 | 742 234 | 1014 231 | 1280 227 | 1460 223 | 1745 216 |
| 150 | 201 287 | 465 286 | 723 284 | 1008 281 | 1250 276 | 1429 270 | 1736 260 |
| 175 | 182 335 | 446 334 | 711 332 | 997 329 | 1238 325 | 1406 320 | 1715 310 |
| 200 | 161 384 | 423 383 | 676 381 | 974 378 | 1218 374 | 1385 366 | 1697 354 |
| 240 | 120 461 | 378 459 | 622 457 | 921 454 | 1172 450 | 1340 444 | 1650 432 |

OMV 630 [666cm³/rev.]

| Pressure (MPa) | | Max.cont. | | Max.int. | | |
|----------------|---|-----------|----|----------|----|----|
| 3.5 | 6 | 9 | 12 | 15 | 18 | 21 |

| Flow (L/min) | Pressure (MPa) | | | | | | |
|--------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| | 3.5 | 6 | 9 | 12 | 15 | 18 | 21 |
| 10 | 280 14 | 522 13 | 812 13 | 1100 12 | 1268 12 | 1549 11 | 1784 10 |
| 20 | 288 28 | 552 28 | 839 27 | 1101 27 | 1315 26 | 1607 24 | 1864 22 |
| 50 | 289 72 | 555 72 | 868 71 | 1137 69 | 1364 68 | 1682 66 | 1956 62 |
| 75 | 270 109 | 548 108 | 863 106 | 1120 104 | 1352 102 | 1680 99 | 1964 94 |
| 100 | 264 146 | 538 145 | 856 143 | 1093 141 | 1350 138 | 1674 135 | 1965 130 |
| 125 | 251 184 | 516 183 | 837 181 | 1071 179 | 1336 177 | 1659 173 | 1950 168 |
| 150 | 240 221 | 495 220 | 817 219 | 1063 217 | 1330 215 | 1650 212 | 1928 205 |
| 175 | 210 259 | 485 258 | 796 257 | 1052 254 | 1300 250 | 1636 246 | 1908 241 |
| 200 | 182 297 | 469 297 | 751 295 | 1018 293 | 1280 290 | 1611 284 | 1883 273 |
| 240 | 130 358 | 416 357 | 712 355 | 978 351 | 1237 346 | 1563 340 | 1835 332 |

Torque (N·m) 1340
Speed (rpm) 444

cont.
int.



Performance Data

OMV 800 [801cm³/rev.]

| Pressure (MPa) | | Max.cont. | | | | | Max.int. |
|----------------|---|-----------|----|----|----|----|----------|
| 2.5 | 5 | 8 | 10 | 13 | 16 | 18 | |

| Flow (L/min) | Pressure (MPa) | | | | | | |
|---------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|
| | 2.5 | 5 | 8 | 10 | 13 | 16 | 18 |
| 10 | 278 11 | 565 10 | 830 10 | 1095 9 | 1405 8 | 1712 8 | 1915 7 |
| 20 | 282 23 | 571 22 | 845 22 | 1150 21 | 1456 20 | 1783 18 | 1994 16 |
| 50 | 288 60 | 582 59 | 856 57 | 1162 56 | 1463 54 | 1790 52 | 2001 48 |
| 75 | 269 91 | 580 90 | 855 89 | 1165 87 | 1465 84 | 1786 81 | 1993 77 |
| 100 | 251 122 | 566 121 | 840 120 | 1140 118 | 1448 115 | 1767 111 | 1985 105 |
| 125 | 242 153 | 535 152 | 824 150 | 1118 147 | 1427 143 | 1739 139 | 1976 133 |
| 150 | 236 185 | 526 183 | 808 181 | 1102 178 | 1401 174 | 1714 169 | 1959 163 |
| 175 | 215 216 | 504 214 | 793 212 | 1079 209 | 1377 206 | 1698 203 | 1936 196 |
| Max.cont. 200 | 197 247 | 468 245 | 765 243 | 1063 240 | 1362 237 | 1681 232 | 1913 225 |
| Max.int. 240 | 118 297 | 388 296 | 713 295 | 1020 293 | 1318 288 | 1637 283 | 1838 277 |

cont.
 int.

OMV 1000 [990cm³/rev.]

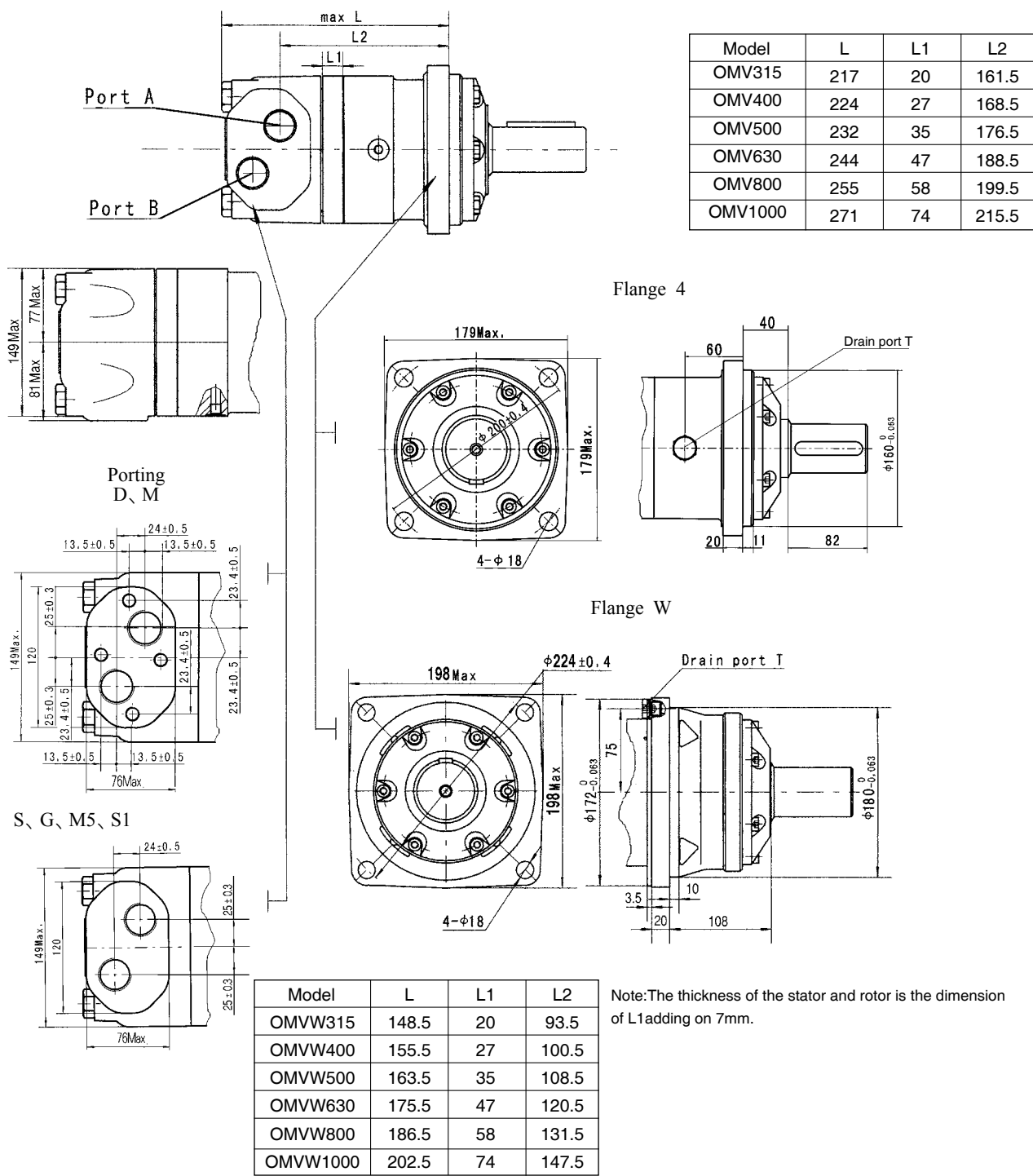
| Pressure (MPa) | | Max.cont. | | | | Max.int. |
|----------------|---|-----------|----|----|----|----------|
| 2.5 | 5 | 7 | 10 | 14 | 16 | |

| Flow (L/min) | Pressure (MPa) | | | | | |
|---------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| | 2.5 | 5 | 7 | 10 | 14 | 16 |
| 10 | 312 9 | 640 9 | 971 9 | 1400 8 | 1978 7 | 2259 6 |
| 20 | 320 28 | 648 27 | 978 26 | 1410 25 | 1980 23 | 2270 21 |
| 50 | 326 47 | 655 46 | 992 45 | 1422 43 | 2015 41 | 2280 38 |
| 75 | 318 72 | 642 71 | 987 70 | 1425 68 | 2003 66 | 2276 63 |
| 100 | 309 98 | 634 97 | 983 95 | 1418 93 | 1994 90 | 2243 86 |
| 125 | 303 123 | 624 122 | 975 120 | 1409 117 | 1988 114 | 2224 110 |
| 150 | 278 149 | 602 148 | 961 146 | 1368 144 | 1963 140 | 2208 133 |
| 175 | 264 174 | 580 172 | 946 170 | 1338 166 | 1925 162 | 2159 155 |
| Max.cont. 200 | 230 199 | 556 196 | 912 193 | 1300 190 | 1891 185 | 2105 178 |
| Max.int. 240 | 166 240 | 513 237 | 867 233 | 1267 229 | 1825 225 | 2034 218 |

Torque (N•m) 1825
 Speed (rpm) 225

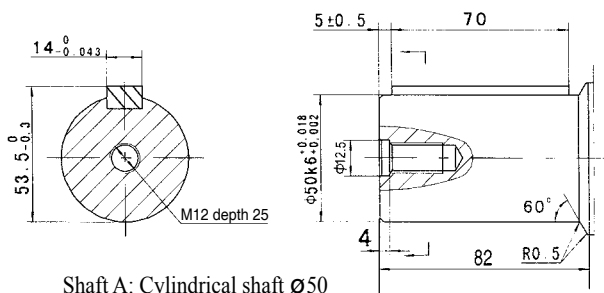


OMV DIMINSIONS AND MOUNTING DATA

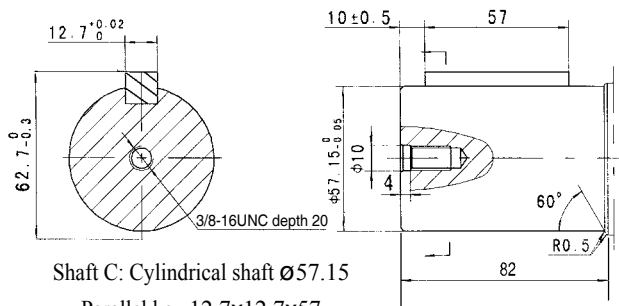


| Content | Code | | | | | |
|---------|------------|----------------|-----------------|-----------|----------------|-----------------|
| | D (depth) | M (depth) | S (depth) | G (depth) | M5 (depth) | S1 (depth) |
| P(A,B) | G1 (18) | M33 x 2 (18) | 1-5/16-12UN(18) | G1 (18) | M33 x 2 (18) | 1-5/16-12UN(18) |
| T | G1/4 (12) | M14 x 1.5 (12) | 9/16-18UNF(12) | G1/4 (12) | M14 x 1.5 (12) | 7/16-20UNF(12) |
| C | 4-M12 (10) | 4-M12 (10) | -- | -- | -- | -- |

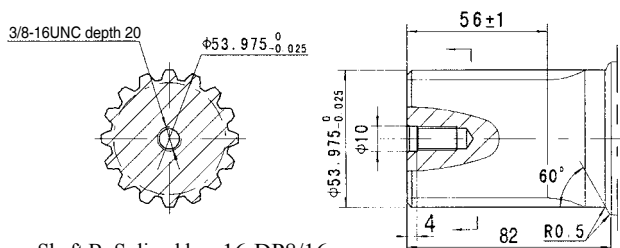
OMV SHAFT EXTENSIONS DIMENSIONS DATA



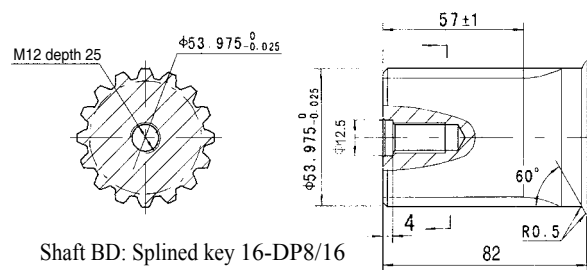
Shaft A: Cylindrical shaft Ø50
Parallel key 14x9x70



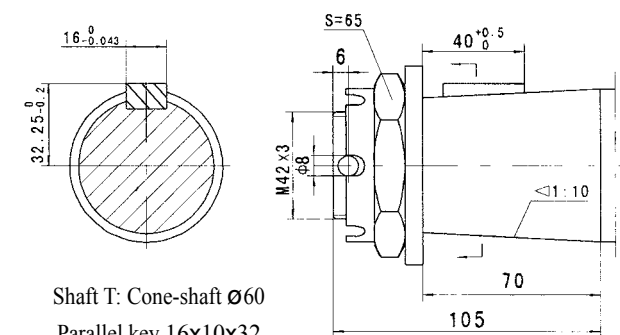
Shaft C: Cylindrical shaft Ø57.15
Parallel key 12.7x12.7x57



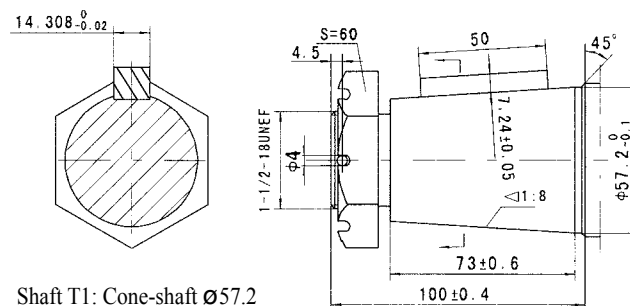
Shaft B: Splined key 16-DP8/16



Shaft BD: Splined key 16-DP8/16



Shaft T: Cone-shaft Ø60
Parallel key 16x10x32
Tightening torque: 750 ± 50Nm



Shaft T1: Cone-shaft Ø57.2
Parallel key 14.308x14.308x50
Tightening torque: 750 ± 50Nm