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| ГОСТ 22353-77 : БОЛТЫ ВЫСОКОПРОЧНЫЕ КЛАССА ТОЧНОСТИ Вhttp://www.metiz.net/files/catalog_images/22353.png?0  мм

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Номинальный диаметр резьбы *d* | 16 | (18) | 20 | (22) | 24 | (27) | 30 | 36 | 42 | 48 |
| Шаг резьбы | 2 | 2,5 | 3 | 3,5 | 4 | 4,5 | 5 |
| Диаметр стержня *d*1 | 16 | 18 | 20 | 22 | 24 | 27 | 30 | 36 | 42 | 48 |
| Размер «под ключ» *S* | 27 | 30 | 32 | 36 | 41 | 46 | 55 | 65 | 75 |
| Высота головки *К* | 12,0 | 13,0 | 14,0 | 15,0 | 17,0 | 19,0 | 23,0 | 26,0 | 30,0 |
| Диаметр описанной окружности *е*, не менее | 29,9 | 33,3 | 35,0 | 39,6 | 45,2 | 50,9 | 60,8 | 72,1 | 83,4 |
| Радиус под голов­кой *r* | От 1,5 до 2,0 | От 2,0 до 2,5 | От 3,0 до 4,0 | От 4,0 до 5,0 |

 Примечание. *Размеры, заложенные в скобки, применять не рекомендуется.* мм

|  |  |
| --- | --- |
| Номинальная длина | Длина резьбы *b* при номинальном диаметре резьбы *d* |
| стержня *l* | 16 | (18) | 20 | (22) | 24 | (27) | 30 | 36 | 42 | 48 |
| 40 | х | - | - |   |   |   |   |   |   |   |
| 45 | 38 | х | - | - | - |   |   |   |   |   |
| 50 | 38 | 42 | х |   |   | - |   |   |   |   |
| 55 | 38 | 42 | 46 | х |   |   | - |   |   |   |
| 60 | 38 | 42 | 46 | 50 | х |   |   | - |   |   |
| 65 | 38 | 42 | 46 | 50 | 54 |   |   |   |   |   |
| 70 | 38 | 42 | 46 | 50 | 54 | 60 |   |   | - |   |
| 75 | 38 | 42 | 46 | 50 | 54 | 60 | 66 |   |   |   |
| 80 | 38 | 42 | 46 | 50 | 54 | 60 | 66 |   |   | - |
| 85 | 38 | 42 | 46 | 50 | 54 | 60 | 66 |   |   |   |
| 90 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 |   |   |
| (95) | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 |   |   |
| 100 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 |   |   |
| (105) | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 |   |
| 110 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 |   |
| (115) | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 |   |
| 120 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 | 102 |
| (125) | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 | 102 |
| 130 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 | 102 |
| 140 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 | 102 |
| 150 | 38 | 42 | 46 | 50 | 54 | 60 | 66 | 78 | 90 | 102 |
| 160; 170; 180; 190; 200; 220; 240; 260; 280; 300 | 44 | 48 | 52 | 56 | 60 | 66 | 72 | 84 | 96 | 108 |

 Примечания:*1. Размеры, заключенные в скобки, применять не рекомендуется.**2. Знаком х отмечены болты с резьбой по всей длине стержня.*Пример условного обозначения болта диаметром резьбы d = 20 мм, полем допуска 6 g, длиной l = 100 мм, с наименьшим временным сопротивлением = 1100 МПа (110 кгс/мм2), климатического исполнения У, категории размещения 1: *Болт М 20-6g 100.110 ГОСТ 22353-77* То же, климатического исполнения ХЛ, категория размещения 1: *Болт М 20-6g 100.110 ХЛ 1 ГОСТ 22353-77* Теоретическая масса болтов

|  |  |
| --- | --- |
| Длина болта *l*, мм | Теоретическая масса 1000 шт. болтов, кг », при номинальном диаметре резьбы *d*, мм |
|   | 16 | (18) | 20 | (22) | 24 | (27) | 30 | 36 | 42 | 48 |
| 40 | 111 |   |   |   |   |   |   |   |   |   |
| 45 | 118 | 151 |   |   |   |   |   |   |   |   |
| 50 | 126 | 161 | 198 |   |   |   |   |   |   |   |
| 55 | 134 | 171 | 211 | 267 |   |   |   |   |   |   |
| 60 | 141 | 180 | 223 | 282 | 367 |   |   |   |   |   |
| 65 | 149 | 190 | 235 | 297 | 386 |   |   |   |   |   |
| 70 | 157 | 200 | 247 | 312 | 404 | 538 |   |   |   |   |
| 75 | 164 | 210 | 259 | 326 | 421 | 560 | 621 |   |   |   |
| 80 | 172 | 219 | 271 | 341 | 438 | 582 | 648 |   |   |   |
| 85 | 180 | 229 | 283 | 355 | 456 | 604 | 676 |   |   |   |
| 90 | 188 | 239 | 295 | 370 | 473 | 627 | 703 | 1081 |   |   |
| 95 | 195 | 249 | 307 | 384 | 491 | 649 | 730 | 1120 |   |   |
| 100 | 203 | 258 | 319 | 399 | 508 | 671 | 758 | 1159 |   |   |
| 105 | 210 | 268 | 331 | 414 | 525 | 693 | 785 | 1199 | 1723 |   |
| 110 | 218 | 278 | 343 | 428 | 543 | 715 | 812 | 1238 | 1776 |   |
| 115 | 226 | 288 | 355 | 443 | 560 | 737 | 839 | 1277 | 8130 |   |
| 120 | 233 | 297 | 367 | 457 | 578 | 759 | 867 | 1316 | 1884 | 2462 |
| 125 | 241 | 307 | 379 | 472 | 595 | 781 | 894 | 1356 | 1937 | 2532 |
| 130 | 249 | 317 | 391 | 487 | 612 | 803 | 921 | 1395 | 1991 | 2602 |
| 140 | 264 | 336 | 415 | 516 | 646 | 847 | 976 | 1474 | 2098 | 2743 |
| 150 | 279 | 356 | 439 | 545 | 682 | 891 | 130 | 1552 | 2205 | 2883 |
| 160 | 293 | 373 | 461 | 572 | 714 | 932 | 1080 | 1625 | 2304 | 3004 |
| 170 | 309 | 393 | 485 | 601 | 748 | 976 | 1135 | 1703 | 2412 | 3145 |
| 180 | 324 | 412 | 509 | 630 | 783 | 1020 | 1189 | 1782 | 2519 | 3285 |
| 190 | 340 | 432 | 533 | 659 | 818 | 1064 | 1244 | 1860 | 2626 | 3425 |
| 200 | 355 | 451 | 557 | 688 | 853 | 1108 | 1299 | 1939 | 2733 | 3566 |
| 220 | 386 | 490 | 605 | 747 | 922 | 1196 | 1408 | 2096 | 2948 | 3846 |
| 240 | 416 | 529 | 654 | 805 | 992 | 1285 | 1517 | 2253 | 3162 | 4127 |
| 260 | 447 | 568 | 702 | 863 | 1061 | 1303 | 1626 | 2410 | 3377 | 4408 |
| 280 | 478 | 607 | 750 | 922 | 1131 | 1461 | 1735 | 2568 | 3591 | 4688 |
| 300 | 509 | 646 | 798 | 980 | 1200 | 1549 | 1844 | 2725 | 3806 | 4969 |

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