

$M_t$  = Transmissible torque per locking assembly

$M_A$  = Tightening torque per screw

$P_{ax}$  = Transmissible axial force

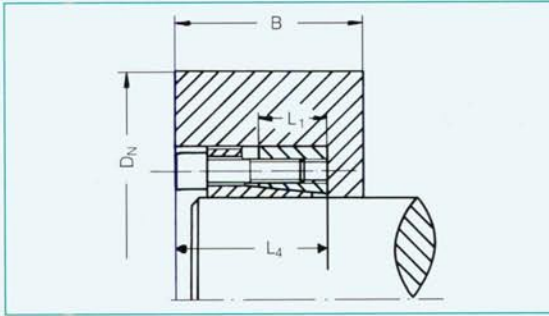
$p_w$   $p_N$  = Contact pressure between locking assembly and shaft ( $p_w$ ) resp. hub ( $p_N$ )

$L_2 - L_4$  are for unlocked assemblies

| mm<br>d x D | Nm<br>$M_t$ | kN<br>$P_{ax}$ | mm    |       |       |       | Pieces | S         | Nm<br>$M_A$ | N/mm <sup>2</sup> |     | Weight<br>kg |
|-------------|-------------|----------------|-------|-------|-------|-------|--------|-----------|-------------|-------------------|-----|--------------|
|             |             |                | $L_1$ | $L_2$ | $L_3$ | $L_4$ |        |           | $P_w$       | $P_N$             |     |              |
| 20 x 47     | 300         | 30             | 17    | 22    | 30    | 36    | 5      | M 6 x 20  | 14          | 235               | 100 | 0.25         |
| 22 x 47     | 330         | 30             | 17    | 22    | 30    | 36    | 5      | M 6 x 20  | 14          | 215               | 100 | 0.25         |
| 24 x 50     | 360         | 30             | 17    | 22    | 30    | 36    | 5      | M 6 x 20  | 14          | 195               | 95  | 0.27         |
| 25 x 50     | 450         | 36             | 17    | 22    | 30    | 36    | 6      | M 6 x 20  | 14          | 225               | 110 | 0.27         |
| 28 x 55     | 500         | 36             | 17    | 22    | 30    | 36    | 6      | M 6 x 20  | 14          | 200               | 100 | 0.32         |
| 30 x 55     | 540         | 36             | 17    | 22    | 30    | 36    | 6      | M 6 x 20  | 14          | 190               | 100 | 0.31         |
| 32 x 60     | 760         | 48             | 17    | 22    | 30    | 36    | 8      | M 6 x 20  | 14          | 230               | 125 | 0.37         |
| 35 x 60     | 830         | 48             | 17    | 22    | 30    | 36    | 8      | M 6 x 20  | 14          | 215               | 125 | 0.34         |
| 38 x 65     | 910         | 48             | 17    | 22    | 30    | 36    | 8      | M 6 x 20  | 14          | 200               | 115 | 0.4          |
| 40 x 65     | 950         | 48             | 17    | 22    | 30    | 36    | 8      | M 6 x 20  | 14          | 185               | 115 | 0.4          |
| 45 x 75     | 1750        | 77             | 20    | 25    | 34    | 42    | 8      | M 8 x 25  | 35          | 230               | 135 | 0.63         |
| 50 x 80     | 1920        | 77             | 20    | 25    | 34    | 42    | 8      | M 8 x 25  | 35          | 205               | 130 | 0.7          |
| 55 x 85     | 2400        | 88             | 20    | 25    | 34    | 42    | 8      | M 8 x 25  | 35          | 210               | 140 | 0.78         |
| 60 x 90     | 2650        | 88             | 20    | 25    | 34    | 42    | 8      | M 8 x 25  | 35          | 195               | 130 | 0.82         |
| 65 x 95     | 3200        | 99             | 20    | 25    | 34    | 42    | 9      | M 8 x 25  | 35          | 205               | 140 | 0.88         |
| 70 x 110    | 4900        | 140            | 24    | 30    | 42    | 52    | 8      | M 10 x 30 | 69          | 220               | 140 | 1.6          |
| 75 x 115    | 5250        | 140            | 24    | 30    | 42    | 52    | 8      | M 10 x 30 | 69          | 205               | 135 | 1.7          |
| 80 x 120    | 5600        | 140            | 24    | 30    | 42    | 52    | 8      | M 10 x 30 | 69          | 195               | 130 | 1.8          |
| 85 x 125    | 6675        | 157            | 24    | 30    | 42    | 52    | 9      | M 10 x 30 | 69          | 205               | 140 | 1.9          |
| 90 x 130    | 7100        | 158            | 24    | 30    | 42    | 52    | 9      | M 10 x 30 | 69          | 195               | 135 | 2            |
| 95 x 135    | 8300        | 175            | 24    | 30    | 42    | 52    | 10     | M 10 x 30 | 69          | 205               | 145 | 2.1          |
| 100 x 145   | 10200       | 204            | 26    | 32    | 46    | 58    | 9      | M 12 x 35 | 120         | 210               | 145 | 2.8          |
| 110 x 155   | 11250       | 205            | 26    | 32    | 46    | 58    | 9      | M 12 x 35 | 120         | 190               | 135 | 3            |
| 120 x 165   | 13800       | 230            | 26    | 32    | 46    | 58    | 9      | M 12 x 35 | 120         | 195               | 140 | 3.2          |
| 130 x 180   | 19900       | 306            | 34    | 40    | 57    | 71    | 9      | M 14 x 40 | 190         | 185               | 135 | 4.8          |
| 140 x 190   | 22050       | 315            | 34    | 40    | 57    | 71    | 9      | M 14 x 40 | 190         | 175               | 130 | 5.1          |
| 150 x 200   | 26250       | 330            | 34    | 40    | 57    | 71    | 10     | M 14 x 40 | 190         | 180               | 140 | 5.4          |
| 160 x 210   | 30800       | 385            | 34    | 40    | 57    | 71    | 12     | M 14 x 40 | 190         | 190               | 145 | 5.7          |
| 170 x 225   | 35700       | 420            | 44    | 50    | 67    | 81    | 12     | M 14 x 40 | 190         | 150               | 115 | 7.9          |
| 180 x 235   | 37800       | 420            | 44    | 50    | 67    | 81    | 12     | M 14 x 40 | 190         | 140               | 115 | 8.4          |
| 190 x 250   | 49900       | 525            | 44    | 50    | 67    | 83    | 12     | M 16 x 50 | 295         | 170               | 130 | 9.5          |
| 200 x 260   | 52500       | 525            | 44    | 50    | 67    | 83    | 12     | M 16 x 50 | 295         | 160               | 120 | 10.4         |
| 220 x 285   | 63700       | 579            | 50    | 56    | 75    | 91    | 12     | M 16 x 50 | 295         | 140               | 110 | 14           |
| 240 x 305   | 87000       | 725            | 50    | 56    | 75    | 91    | 15     | M 16 x 50 | 295         | 160               | 125 | 15.2         |
| 260 x 325   | 113000      | 869            | 50    | 56    | 75    | 91    | 18     | M 16 x 50 | 295         | 180               | 140 | 16.2         |
| 280 x 355   | 131500      | 939            | 60    | 66    | 87    | 105   | 16     | M 18 x 60 | 405         | 150               | 120 | 22.9         |
| 300 x 375   | 158500      | 1060           | 60    | 66    | 87    | 105   | 18     | M 18 x 60 | 405         | 155               | 125 | 24.4         |
| 320 x 405   | 218000      | 1363           | 74    | 81    | 104   | 124   | 18     | M 20 x 60 | 580         | 155               | 120 | 36.1         |
| 340 x 425   | 270000      | 1588           | 74    | 81    | 104   | 124   | 21     | M 20 x 60 | 580         | 170               | 135 | 38.4         |
| 360 x 455   | 305000      | 1694           | 86    | 94    | 120   | 142   | 18     | M 22 x 60 | 780         | 145               | 115 | 46.2         |
| 380 x 475   | 375500      | 1976           | 86    | 94    | 120   | 142   | 21     | M 22 x 60 | 780         | 160               | 130 | 55           |
| 400 x 495   | 395500      | 1978           | 86    | 94    | 120   | 142   | 21     | M 22 x 60 | 780         | 155               | 125 | 61           |

# HUB OUTSIDE DIAMETER $D_N$ AS A FACTOR OF THE YIELD POINT

(minimum theoretical values)



The values in the table for  $D_N$  apply to the use of  $\sigma_{0.2}$  Locking Assembly TAS 3003

Width of the hub  $B \geq 2 L_1$

Depth of the bore  $b \geq L_4$

Hub section unweakened

| d x D<br>mm | $P_N$<br>N/mm <sup>2</sup> | $\sigma_{0.2}$ N/mm <sup>2</sup> |                                  |                          |                                    |                                     |   |                                    |                           |                          |
|-------------|----------------------------|----------------------------------|----------------------------------|--------------------------|------------------------------------|-------------------------------------|---|------------------------------------|---------------------------|--------------------------|
|             |                            | 150                              | 180                              | 200                      | 220                                | 250                                 | 270                                     | 300                                | 350                       | 400                      |
|             |                            | GG-22                            | GG-26<br>GS-38<br>V2A-S<br>V2A-E | GG-30<br>V4A-S<br>GTS-35 | GS-45<br>St 35<br>St 37-3<br>V4A-E | GS-52<br>GS-C 25<br>GGG-40<br>St 45 | C 35<br>St 50-2<br>X8CrTi 17<br>AlCuNiC | GS-60<br>St 60-2<br>C 10<br>GTS-45 | GS-62<br>St 70-2<br>St 52 | GS-70<br>C 60<br>25CrMo4 |
| 20 x 47     | 100                        | 75                               | 70                               | 65                       | 65                                 | 60                                  | 60                                      | 60                                 | 57                        | 55                       |
| 25 x 50     | 110                        | 80                               | 75                               | 72                       | 69                                 | 66                                  | 64                                      | 63                                 | 61                        | 59                       |
| 30 x 55     | 100                        | 85                               | 78                               | 75                       | 73                                 | 71                                  | 69                                      | 68                                 | 66                        | 64                       |
| 35 x 60     | 125                        | 104                              | 94                               | 89                       | 86                                 | 82                                  | 80                                      | 78                                 | 75                        | 73                       |
| 40 x 65     | 115                        | 108                              | 98                               | 93                       | 90                                 | 87                                  | 85                                      | 83                                 | 80                        | 78                       |
| 45 x 75     | 135                        | 138                              | 123                              | 116                      | 111                                | 105                                 | 102                                     | 99                                 | 96                        | 93                       |
| 50 x 80     | 130                        | 143                              | 128                              | 121                      | 116                                | 111                                 | 108                                     | 104                                | 101                       | 98                       |
| 55 x 85     | 140                        | 163                              | 142                              | 133                      | 128                                | 121                                 | 118                                     | 114                                | 109                       | 105                      |
| 60 x 90     | 130                        | 161                              | 143                              | 136                      | 131                                | 125                                 | 122                                     | 117                                | 114                       | 110                      |
| 65 x 95     | 140                        | 182                              | 158                              | 149                      | 143                                | 135                                 | 132                                     | 127                                | 122                       | 117                      |
| 70 x 110    | 140                        | 211                              | 183                              | 172                      | 165                                | 157                                 | 152                                     | 147                                | 141                       | 136                      |
| 75 x 115    | 135                        | 211                              | 188                              | 178                      | 170                                | 161                                 | 157                                     | 152                                | 147                       | 142                      |
| 80 x 120    | 130                        | 214                              | 191                              | 182                      | 174                                | 166                                 | 162                                     | 156                                | 152                       | 147                      |
| 85 x 125    | 140                        | 239                              | 208                              | 195                      | 188                                | 178                                 | 173                                     | 167                                | 160                       | 154                      |
| 90 x 130    | 135                        | 238                              | 212                              | 201                      | 192                                | 182                                 | 177                                     | 172                                | 166                       | 160                      |
| 95 x 135    | 145                        | 262                              | 229                              | 215                      | 206                                | 195                                 | 189                                     | 183                                | 175                       | 168                      |
| 100 x 145   | 145                        | 282                              | 246                              | 231                      | 221                                | 209                                 | 203                                     | 196                                | 188                       | 180                      |
| 110 x 155   | 135                        | 284                              | 253                              | 239                      | 228                                | 217                                 | 211                                     | 205                                | 197                       | 191                      |
| 120 x 165   | 140                        | 316                              | 274                              | 258                      | 248                                | 235                                 | 228                                     | 220                                | 212                       | 203                      |
| 130 x 180   | 135                        | 330                              | 294                              | 278                      | 265                                | 252                                 | 245                                     | 238                                | 229                       | 222                      |
| 140 x 190   | 130                        | 339                              | 303                              | 287                      | 276                                | 263                                 | 257                                     | 247                                | 240                       | 232                      |
| 150 x 200   | 140                        | 382                              | 332                              | 312                      | 300                                | 284                                 | 276                                     | 266                                | 256                       | 246                      |
| 160 x 210   | 145                        | 408                              | 355                              | 334                      | 320                                | 303                                 | 294                                     | 284                                | 271                       | 261                      |
| 170 x 225   | 115                        | 372                              | 338                              | 322                      | 311                                | 300                                 | 293                                     | 286                                | 275                       | 268                      |
| 180 x 235   | 115                        | 388                              | 353                              | 337                      | 325                                | 313                                 | 306                                     | 299                                | 287                       | 280                      |
| 190 x 250   | 130                        | 445                              | 398                              | 378                      | 363                                | 345                                 | 338                                     | 325                                | 315                       | 305                      |
| 200 x 260   | 120                        | 440                              | 398                              | 380                      | 367                                | 351                                 | 344                                     | 333                                | 323                       | 312                      |
| 220 x 285   | 110                        | 456                              | 419                              | 402                      | 388                                | 374                                 | 365                                     | 357                                | 345                       | 337                      |
| 240 x 305   | 125                        | 528                              | 476                              | 452                      | 437                                | 415                                 | 406                                     | 394                                | 382                       | 370                      |
| 260 x 325   | 140                        | 621                              | 540                              | 507                      | 488                                | 462                                 | 449                                     | 433                                | 416                       | 400                      |
| 280 x 355   | 120                        | 600                              | 543                              | 519                      | 501                                | 480                                 | 469                                     | 455                                | 441                       | 426                      |
| 300 x 375   | 125                        | 649                              | 585                              | 555                      | 537                                | 510                                 | 499                                     | 484                                | 469                       | 454                      |
| 320 x 405   | 120                        | 685                              | 620                              | 592                      | 572                                | 547                                 | 535                                     | 519                                | 503                       | 486                      |
| 340 x 425   | 135                        | 778                              | 693                              | 655                      | 625                                | 595                                 | 578                                     | 561                                | 540                       | 523                      |
| 360 x 455   | 115                        | 751                              | 683                              | 651                      | 628                                | 606                                 | 592                                     | 578                                | 556                       | 542                      |
| 380 x 475   | 130                        | 846                              | 756                              | 718                      | 689                                | 656                                 | 642                                     | 618                                | 599                       | 580                      |
| 400 x 495   | 125                        | 857                              | 773                              | 733                      | 708                                | 674                                 | 659                                     | 639                                | 619                       | 599                      |