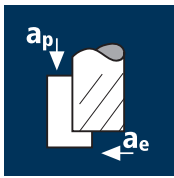




## Application



## Material

Steel  
< 850 N/mm<sup>2</sup>



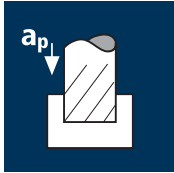
Steel  
850 - 1100 N/mm<sup>2</sup>



Titanium alloys  
> 300 HB  
[Ti6Al4V]



Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



Steel  
< 850 N/mm<sup>2</sup>



Steel  
850 - 1100 N/mm<sup>2</sup>



Titanium alloys  
> 300 HB  
[Ti6Al4V]



Inox normal  
[Cr-Ni/1.4301]  
[Cr-Ni-Mo/1.4571]



| d1<br>[mm] | z | v <sub>c</sub><br>[m/min] | f <sub>s</sub><br>[mm] | a <sub>p</sub><br>[mm] | a <sub>e</sub><br>[mm] | n<br>[min <sup>-1</sup> ] | v <sub>r</sub><br>[mm/min] | Q<br>[cm <sup>3</sup> /min] |
|------------|---|---------------------------|------------------------|------------------------|------------------------|---------------------------|----------------------------|-----------------------------|
| 6.00       | 4 | 180                       | 0.035                  | 9.600                  | 1.200                  | 9550                      | 1335                       | 15.4                        |
| 8.00       | 4 | 180                       | 0.045                  | 12.800                 | 1.600                  | 7160                      | 1290                       | 26.4                        |
| 10.00      | 4 | 180                       | 0.060                  | 16.000                 | 2.000                  | 5730                      | 1375                       | 44.0                        |
| 12.00      | 4 | 180                       | 0.070                  | 19.200                 | 2.400                  | 4775                      | 1335                       | 61.6                        |
| 16.00      | 4 | 180                       | 0.075                  | 25.600                 | 3.200                  | 3580                      | 1075                       | 88.0                        |
| 20.00      | 4 | 180                       | 0.080                  | 32.000                 | 4.000                  | 2865                      | 915                        | 117.3                       |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 130                       | 0.035                  | 9.600                  | 1.200                  | 6895                      | 965                        | 11.1                        |
| 8.00       | 4 | 130                       | 0.045                  | 12.800                 | 1.600                  | 5175                      | 930                        | 19.1                        |
| 10.00      | 4 | 130                       | 0.060                  | 16.000                 | 2.000                  | 4140                      | 995                        | 31.8                        |
| 12.00      | 4 | 130                       | 0.070                  | 19.200                 | 2.400                  | 3450                      | 965                        | 44.5                        |
| 16.00      | 4 | 130                       | 0.075                  | 25.600                 | 3.200                  | 2585                      | 775                        | 63.6                        |
| 20.00      | 4 | 130                       | 0.080                  | 32.000                 | 4.000                  | 2070                      | 660                        | 84.7                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 45                        | 0.025                  | 9.600                  | 1.200                  | 2385                      | 240                        | 2.8                         |
| 8.00       | 4 | 45                        | 0.035                  | 12.800                 | 1.600                  | 1790                      | 250                        | 5.1                         |
| 10.00      | 4 | 45                        | 0.045                  | 16.000                 | 2.000                  | 1430                      | 260                        | 8.3                         |
| 12.00      | 4 | 45                        | 0.055                  | 19.200                 | 2.400                  | 1195                      | 265                        | 12.1                        |
| 16.00      | 4 | 45                        | 0.060                  | 25.600                 | 3.200                  | 895                       | 215                        | 17.6                        |
| 20.00      | 4 | 45                        | 0.065                  | 32.000                 | 4.000                  | 715                       | 185                        | 23.8                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 60                        | 0.025                  | 9.600                  | 1.200                  | 3185                      | 320                        | 3.7                         |
| 8.00       | 4 | 60                        | 0.035                  | 12.800                 | 1.600                  | 2385                      | 335                        | 6.8                         |
| 10.00      | 4 | 60                        | 0.045                  | 16.000                 | 2.000                  | 1910                      | 345                        | 11.0                        |
| 12.00      | 4 | 60                        | 0.055                  | 19.200                 | 2.400                  | 1590                      | 350                        | 16.1                        |
| 16.00      | 4 | 60                        | 0.060                  | 25.600                 | 3.200                  | 1195                      | 285                        | 23.5                        |
| 20.00      | 4 | 60                        | 0.065                  | 32.000                 | 4.000                  | 955                       | 250                        | 31.8                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 150                       | 0.030                  | 3.300                  | 6.000                  | 7960                      | 955                        | 18.9                        |
| 8.00       | 4 | 150                       | 0.040                  | 4.400                  | 8.000                  | 5970                      | 955                        | 33.6                        |
| 10.00      | 4 | 150                       | 0.050                  | 5.500                  | 10.000                 | 4775                      | 955                        | 52.5                        |
| 12.00      | 4 | 150                       | 0.055                  | 6.600                  | 12.000                 | 3980                      | 875                        | 69.3                        |
| 16.00      | 4 | 150                       | 0.055                  | 8.800                  | 16.000                 | 2985                      | 655                        | 92.4                        |
| 20.00      | 4 | 150                       | 0.060                  | 11.000                 | 20.000                 | 2385                      | 575                        | 126.1                       |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 80                        | 0.030                  | 3.300                  | 6.000                  | 4245                      | 510                        | 10.1                        |
| 8.00       | 4 | 80                        | 0.040                  | 4.400                  | 8.000                  | 3185                      | 510                        | 17.9                        |
| 10.00      | 4 | 80                        | 0.050                  | 5.500                  | 10.000                 | 2545                      | 510                        | 28.0                        |
| 12.00      | 4 | 80                        | 0.055                  | 6.600                  | 12.000                 | 2120                      | 465                        | 37.0                        |
| 16.00      | 4 | 80                        | 0.055                  | 8.800                  | 16.000                 | 1590                      | 350                        | 49.3                        |
| 20.00      | 4 | 80                        | 0.060                  | 11.000                 | 20.000                 | 1275                      | 305                        | 67.2                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 35                        | 0.025                  | 3.300                  | 6.000                  | 1855                      | 185                        | 3.7                         |
| 8.00       | 4 | 35                        | 0.030                  | 4.400                  | 8.000                  | 1395                      | 165                        | 5.9                         |
| 10.00      | 4 | 35                        | 0.040                  | 5.500                  | 10.000                 | 1115                      | 180                        | 9.8                         |
| 12.00      | 4 | 35                        | 0.045                  | 6.600                  | 12.000                 | 930                       | 165                        | 13.2                        |
| 16.00      | 4 | 35                        | 0.045                  | 8.800                  | 16.000                 | 695                       | 125                        | 17.6                        |
| 20.00      | 4 | 35                        | 0.050                  | 11.000                 | 20.000                 | 555                       | 110                        | 24.5                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |
| 6.00       | 4 | 50                        | 0.025                  | 3.300                  | 6.000                  | 2655                      | 265                        | 5.3                         |
| 8.00       | 4 | 50                        | 0.030                  | 4.400                  | 8.000                  | 1990                      | 240                        | 8.4                         |
| 10.00      | 4 | 50                        | 0.040                  | 5.500                  | 10.000                 | 1590                      | 255                        | 14.0                        |
| 12.00      | 4 | 50                        | 0.045                  | 6.600                  | 12.000                 | 1325                      | 240                        | 18.9                        |
| 16.00      | 4 | 50                        | 0.045                  | 8.800                  | 16.000                 | 995                       | 180                        | 25.2                        |
| 20.00      | 4 | 50                        | 0.050                  | 11.000                 | 20.000                 | 795                       | 160                        | 35.0                        |
|            |   |                           |                        |                        |                        |                           |                            |                             |