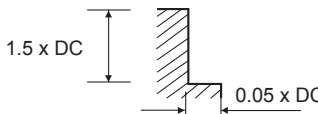
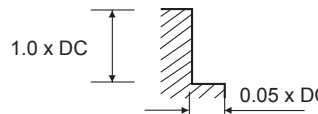


## CUTTING DATA

| 149370 (6&8 Flute 45° Helix)                                                        |       |                              |       |                        |                                                                                      |       |       |       |       |       |
|-------------------------------------------------------------------------------------|-------|------------------------------|-------|------------------------|--------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|
| VDI MATERIAL GROUP                                                                  |       | MATERIAL                     | HRc   | NORMAL SPEED           | Size (mm)                                                                            |       |       |       |       |       |
|                                                                                     |       |                              |       |                        | 6.0                                                                                  | 8.0   | 10.0  | 12.0  | 16.0  | 20.0  |
| P                                                                                   | 1-5   | Non-alloy Steel              | <25   | v <sub>c</sub> (m/min) | 105                                                                                  | 110   | 110   | 110   | 110   | 105   |
|                                                                                     |       |                              |       | n                      | 5570                                                                                 | 4375  | 3500  | 2920  | 2185  | 1670  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.06                                                                                 | 0.079 | 0.099 | 0.099 | 0.1   | 0.075 |
|                                                                                     |       |                              |       | f (mm/min)             | 2005                                                                                 | 2075  | 2080  | 1730  | 1310  | 1000  |
|                                                                                     | 6-9   | Low alloy Steel              | 25-35 | v <sub>c</sub> (m/min) | 75                                                                                   | 75    | 75    | 75    | 75    | 75    |
|                                                                                     |       |                              |       | n                      | 3980                                                                                 | 2985  | 2385  | 1990  | 1490  | 1190  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.059                                                                                | 0.078 | 0.098 | 0.097 | 0.099 | 0.075 |
|                                                                                     |       |                              |       | f (mm/min)             | 1410                                                                                 | 1395  | 1400  | 1155  | 885   | 715   |
|                                                                                     | 10-11 | High alloy Steel, Tool Steel | 35-45 | v <sub>c</sub> (m/min) | 75                                                                                   | 75    | 75    | 75    | 75    | 75    |
|                                                                                     |       |                              |       | n                      | 3980                                                                                 | 2985  | 2385  | 1990  | 1490  | 1190  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.059                                                                                | 0.078 | 0.098 | 0.097 | 0.099 | 0.075 |
|                                                                                     |       |                              |       | f (mm/min)             | 1410                                                                                 | 1395  | 1400  | 1155  | 885   | 715   |
| H                                                                                   | 38    | Hardened Steel               | 45-55 | v <sub>c</sub> (m/min) | 75                                                                                   | 75    | 75    | 75    | 75    | 75    |
|                                                                                     |       |                              |       | n                      | 3980                                                                                 | 2985  | 2385  | 1990  | 1490  | 1190  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.059                                                                                | 0.078 | 0.098 | 0.097 | 0.099 | 0.075 |
|                                                                                     |       |                              |       | f (mm/min)             | 1410                                                                                 | 1395  | 1400  | 1155  | 885   | 715   |
| VDI MATERIAL GROUP                                                                  |       | MATERIAL                     | HRc   | HIGH SPEED             | Size (mm)                                                                            |       |       |       |       |       |
|                                                                                     |       |                              |       |                        | 6.0                                                                                  | 8.0   | 10.0  | 12.0  | 16.0  | 20.0  |
| P                                                                                   | 1-5   | Non-alloy Steel              | <25   | v <sub>c</sub> (m/min) | 325                                                                                  | 325   | 320   | 325   | 325   | 325   |
|                                                                                     |       |                              |       | n                      | 17240                                                                                | 12930 | 10185 | 8620  | 6465  | 5170  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.06                                                                                 | 0.081 | 0.4   | 0.4   | 0.4   | 0.076 |
|                                                                                     |       |                              |       | f (mm/min)             | 6205                                                                                 | 6285  | 6110  | 5170  | 3880  | 3145  |
|                                                                                     | 6-9   | Low alloy Steel              | 25-35 | v <sub>c</sub> (m/min) | 325                                                                                  | 325   | 320   | 325   | 325   | 325   |
|                                                                                     |       |                              |       | n                      | 17240                                                                                | 12930 | 10185 | 8620  | 6465  | 5170  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.06                                                                                 | 0.081 | 0.4   | 0.4   | 0.4   | 0.076 |
|                                                                                     |       |                              |       | f (mm/min)             | 6205                                                                                 | 6285  | 6110  | 5170  | 3880  | 3145  |
|                                                                                     | 10-11 | High alloy Steel, Tool Steel | 35-45 | v <sub>c</sub> (m/min) | 325                                                                                  | 325   | 320   | 325   | 325   | 325   |
|                                                                                     |       |                              |       | n                      | 17240                                                                                | 12930 | 10185 | 8620  | 6465  | 5170  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.06                                                                                 | 0.081 | 0.4   | 0.4   | 0.4   | 0.076 |
|                                                                                     |       |                              |       | f (mm/min)             | 6205                                                                                 | 6285  | 6110  | 5170  | 3880  | 3145  |
| H                                                                                   | 38    | Hardened Steel               | 45-55 | v <sub>c</sub> (m/min) | 325                                                                                  | 325   | 320   | 325   | 325   | 325   |
|                                                                                     |       |                              |       | n                      | 17240                                                                                | 12930 | 10185 | 8620  | 6465  | 5170  |
|                                                                                     |       |                              |       | f <sub>z</sub>         | 0.06                                                                                 | 0.081 | 0.4   | 0.4   | 0.4   | 0.076 |
|                                                                                     |       |                              |       | f (mm/min)             | 6205                                                                                 | 6285  | 6110  | 5170  | 3880  | 3145  |
| MATERIAL GROUP P                                                                    |       |                              |       |                        | MATERIAL GROUP H                                                                     |       |       |       |       |       |
|  |       |                              |       |                        |  |       |       |       |       |       |

Recommended cutting depths are **maximum** depths, and **speeds and feeds are a starting point** based on these depths.  
 All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up.  
**For long series and long necked tools** it may be necessary to reduce feed rate by up to 50%.

$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed per tooth (mm)  
 $f$  - feed rate (mm/min)  
 $a_p$  - axial depth of cut  
 $a_e$  - radial depth of cut