

## G9624, G9A70, G9437, G9438, G9454, G9455 SERIES

Vc = m/min.  
fz = mm/tooth  
RPM = rev./min.  
FEED = mm/min.  
Ap = mm

### 2 FLUTE BALL NOSE

| ISO         | VDI 3323               | Material Description                                       | Ae   | Parameter | Mill Diameter (Ø) |       |       |       |       |       |       |       |       |       |       |       |
|-------------|------------------------|------------------------------------------------------------|------|-----------|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|             |                        |                                                            |      |           | 2.0               | 3.0   | 4.0   | 5.0   | 6.0   | 8.0   | 10.0  | 12.0  | 14.0  | 16.0  | 18.0  | 20.0  |
| P           | 1-4                    | Non-alloy steel                                            | 0.2D | Vc        | 80                | 105   | 110   | 125   | 135   | 155   | 170   | 190   | 200   | 205   | 215   | 225   |
|             |                        |                                                            |      | fz        | 0.026             | 0.025 | 0.035 | 0.045 | 0.06  | 0.089 | 0.122 | 0.15  | 0.165 | 0.18  | 0.188 | 0.201 |
|             |                        |                                                            |      | RPM       | 12732             | 11141 | 8754  | 7958  | 7162  | 6167  | 5411  | 5040  | 4547  | 4078  | 3802  | 3581  |
|             |                        |                                                            |      | FEED      | 662               | 557   | 613   | 716   | 859   | 1098  | 1320  | 1512  | 1501  | 1468  | 1430  | 1440  |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
|             | 5                      |                                                            | 0.2D | Vc        | 55                | 80    | 90    | 95    | 110   | 125   | 135   | 150   | 160   | 160   | 170   | 175   |
|             |                        |                                                            |      | fz        | 0.023             | 0.023 | 0.031 | 0.04  | 0.06  | 0.08  | 0.1   | 0.12  | 0.128 | 0.141 | 0.148 | 0.158 |
|             |                        |                                                            |      | RPM       | 8754              | 8488  | 7162  | 6048  | 5836  | 4974  | 4297  | 3979  | 3638  | 3183  | 3006  | 2785  |
|             |                        |                                                            |      | FEED      | 403               | 390   | 444   | 484   | 700   | 796   | 859   | 955   | 931   | 898   | 890   | 880   |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
|             | 6-7                    | Low alloy steel                                            | 0.2D | Vc        | 80                | 105   | 110   | 125   | 135   | 155   | 170   | 190   | 200   | 205   | 215   | 225   |
|             |                        |                                                            |      | fz        | 0.026             | 0.025 | 0.035 | 0.045 | 0.06  | 0.089 | 0.122 | 0.15  | 0.165 | 0.18  | 0.188 | 0.201 |
|             |                        |                                                            |      | RPM       | 12732             | 11141 | 8754  | 7958  | 7162  | 6167  | 5411  | 5040  | 4547  | 4078  | 3802  | 3581  |
|             |                        |                                                            |      | FEED      | 662               | 557   | 613   | 716   | 859   | 1098  | 1320  | 1512  | 1501  | 1468  | 1430  | 1440  |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
|             | 8-9                    |                                                            | 0.2D | Vc        | 55                | 80    | 90    | 95    | 110   | 125   | 135   | 150   | 160   | 160   | 170   | 175   |
|             |                        |                                                            |      | fz        | 0.023             | 0.023 | 0.031 | 0.04  | 0.06  | 0.08  | 0.1   | 0.12  | 0.128 | 0.141 | 0.148 | 0.158 |
|             |                        |                                                            |      | RPM       | 8754              | 8488  | 7162  | 6048  | 5836  | 4974  | 4297  | 3979  | 3638  | 3183  | 3006  | 2785  |
|             |                        |                                                            |      | FEED      | 403               | 390   | 444   | 484   | 700   | 796   | 859   | 955   | 931   | 898   | 890   | 880   |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
|             | 10                     | High alloyed steel, and tool steel                         | 0.2D | Vc        | 80                | 105   | 110   | 125   | 135   | 155   | 170   | 190   | 200   | 205   | 215   | 225   |
|             |                        |                                                            |      | fz        | 0.026             | 0.025 | 0.035 | 0.045 | 0.06  | 0.089 | 0.122 | 0.15  | 0.165 | 0.18  | 0.188 | 0.201 |
|             |                        |                                                            |      | RPM       | 12732             | 11141 | 8754  | 7958  | 7162  | 6167  | 5411  | 5040  | 4547  | 4078  | 3802  | 3581  |
|             |                        |                                                            |      | FEED      | 662               | 557   | 613   | 716   | 859   | 1098  | 1320  | 1512  | 1501  | 1468  | 1430  | 1440  |
| Ap          |                        |                                                            |      | 0.2       | 0.2               | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |       |
| 11.1 - 11.2 | 0.2D                   |                                                            | Vc   | 55        | 80                | 90    | 95    | 110   | 125   | 135   | 150   | 160   | 160   | 170   | 175   |       |
|             |                        |                                                            | fz   | 0.023     | 0.023             | 0.031 | 0.04  | 0.06  | 0.08  | 0.1   | 0.12  | 0.128 | 0.141 | 0.148 | 0.158 |       |
|             |                        |                                                            | RPM  | 8754      | 8488              | 7162  | 6048  | 5836  | 4974  | 4297  | 3979  | 3638  | 3183  | 3006  | 2785  |       |
|             |                        |                                                            | FEED | 403       | 390               | 444   | 484   | 700   | 796   | 859   | 955   | 931   | 898   | 890   | 880   |       |
|             |                        |                                                            | Ap   | 0.2       | 0.2               | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |       |
| K           | 15-20                  | Grey cast iron<br>Nodular cast iron<br>Malleable cast iron | 0.7D | Vc        | 65                | 65    | 65    | 65    | 65    | 65    | 65    | 65    | 60    | 65    | 60    | 65    |
|             |                        |                                                            |      | fz        | 0.01              | 0.016 | 0.028 | 0.04  | 0.053 | 0.092 | 0.112 | 0.131 | 0.164 | 0.177 | 0.209 | 0.2   |
|             |                        |                                                            |      | RPM       | 10345             | 6897  | 5173  | 4138  | 3448  | 2586  | 2069  | 1724  | 1364  | 1293  | 1061  | 1035  |
|             |                        |                                                            |      | FEED      | 207               | 221   | 290   | 331   | 366   | 476   | 463   | 452   | 447   | 458   | 444   | 414   |
|             |                        |                                                            |      | Ap        | 0.3               | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
| N           | 21~22                  | Aluminum-wrought alloy                                     | 0.7D | Vc        | 195               | 195   | 195   | 190   | 195   | 200   | 195   | 195   | 190   | 195   | 190   | 185   |
|             |                        |                                                            |      | fz        | 0.006             | 0.01  | 0.013 | 0.019 | 0.023 | 0.034 | 0.044 | 0.061 | 0.073 | 0.07  | 0.079 | 0.092 |
|             |                        |                                                            |      | RPM       | 31035             | 20690 | 15518 | 12096 | 10345 | 7958  | 6207  | 5173  | 4320  | 3879  | 3360  | 2944  |
|             |                        |                                                            |      | FEED      | 372               | 414   | 403   | 460   | 476   | 541   | 546   | 631   | 631   | 543   | 531   | 542   |
|             |                        |                                                            |      | Ap        | 0.3               | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
| 23~25       | Aluminum-cast, alloyed | 0.7D                                                       | Vc   | 195       | 195               | 195   | 190   | 195   | 200   | 195   | 195   | 190   | 195   | 190   | 185   |       |
|             |                        |                                                            | fz   | 0.006     | 0.01              | 0.013 | 0.019 | 0.023 | 0.034 | 0.044 | 0.061 | 0.073 | 0.07  | 0.079 | 0.092 |       |
|             |                        |                                                            | RPM  | 31035     | 20690             | 15518 | 12096 | 10345 | 7958  | 6207  | 5173  | 4320  | 3879  | 3360  | 2944  |       |
|             |                        |                                                            | FEED | 372       | 414               | 403   | 460   | 476   | 541   | 546   | 631   | 631   | 543   | 531   | 542   |       |
|             |                        |                                                            | Ap   | 0.3       | 0.3               | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |       |
| H           | 38.1                   | Hardened steel                                             | 0.2D | Vc        | 25                | 35    | 45    | 50    | 50    | 50    | 55    | 55    | 55    | 60    | 60    | 60    |
|             |                        |                                                            |      | fz        | 0.016             | 0.016 | 0.021 | 0.024 | 0.03  | 0.046 | 0.054 | 0.07  | 0.081 | 0.091 | 0.1   | 0.111 |
|             |                        |                                                            |      | RPM       | 3979              | 3714  | 3581  | 3183  | 2653  | 1989  | 1751  | 1459  | 1251  | 1194  | 1061  | 955   |
|             |                        |                                                            |      | FEED      | 127               | 119   | 150   | 153   | 159   | 183   | 189   | 204   | 203   | 217   | 212   | 212   |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |
|             | 40                     | Chilled Cast Iron                                          | 0.2D | Vc        | 55                | 80    | 90    | 95    | 110   | 125   | 135   | 150   | 160   | 160   | 170   | 175   |
|             |                        |                                                            |      | fz        | 0.023             | 0.023 | 0.031 | 0.04  | 0.06  | 0.08  | 0.1   | 0.12  | 0.128 | 0.141 | 0.148 | 0.158 |
|             |                        |                                                            |      | RPM       | 8754              | 8488  | 7162  | 6048  | 5836  | 4974  | 4297  | 3979  | 3638  | 3183  | 3006  | 2785  |
|             |                        |                                                            |      | FEED      | 403               | 390   | 444   | 484   | 700   | 796   | 859   | 955   | 931   | 898   | 890   | 880   |
|             |                        |                                                            |      | Ap        | 0.2               | 0.2   | 0.2   | 0.2   | 0.2   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   | 0.3   |

※ The FEED, in long & extra long types, should be reduced by around 50%

