

# DNMG 332 NN LT 10 & LT 1000

## Speeds & Feeds

| Material Group    |                        | Gr. N° | VDI Group | Material Examples*                      | Hardness | D.O.C. [inch] |       | Feed [inch/rev] |       | Amax   | V <sub>c</sub> [sfm] |      | Suggested Starting Parameters |       |                |
|-------------------|------------------------|--------|-----------|-----------------------------------------|----------|---------------|-------|-----------------|-------|--------|----------------------|------|-------------------------------|-------|----------------|
|                   |                        |        |           |                                         |          | min           | max   | min             | max   |        | min                  | max  | D.O.C.                        | Feed  | V <sub>c</sub> |
| Steel             | Non-alloyed            | 1      | 1         | C35, Ck45, 1020, 1045, 1060, 28Mn6      | 125 HB   | 0.020         | 0.197 | 0.008           | 0.020 | 0.0028 | 590                  | 1080 | 0.118                         | 0.014 | 780            |
|                   |                        |        | 2         |                                         | 190 HB   |               | 0.197 |                 | 0.020 | 0.0028 |                      | 910  |                               |       | 720            |
|                   |                        |        | 3         |                                         | 250 HB   |               | 0.197 |                 | 0.018 | 0.0023 |                      | 820  |                               |       | 650            |
|                   | Low alloyed            | 2      | 6         | 42CrMo4, St50, Ck60, 4140, 4340, 100Cr6 | 180 HB   | 0.020         | 0.197 | 0.008           | 0.018 | 0.0019 | 390                  | 910  | 0.118                         | 0.013 | 650            |
|                   |                        |        | 4,6       |                                         | 230 HB   |               | 0.157 |                 | 0.018 | 0.0019 |                      | 820  |                               | 0.013 | 590            |
|                   |                        |        | 5,7       |                                         | 280 HB   |               | 0.157 |                 | 0.016 | 0.0019 |                      | 680  |                               | 0.012 | 490            |
|                   |                        |        | 8         |                                         | 350 HB   |               | 0.138 |                 | 0.016 | 0.0016 |                      | 590  |                               | 0.012 | 420            |
|                   | High alloyed           | 3      | 10        | X40CrMoV5, H13, M42, D3, S6-5-2, 12Ni19 | 220 HB   | 0.020         | 0.157 | 0.007           | 0.016 | 0.0019 | 220                  | 620  | 0.098                         | 0.012 | 450            |
|                   |                        |        | 10        |                                         | 280 HB   |               | 0.157 |                 | 0.016 | 0.0019 |                      | 490  |                               | 0.012 | 390            |
|                   |                        |        | 11        |                                         | 320 HB   |               | 0.118 |                 | 0.014 | 0.0012 |                      | 420  |                               | 0.011 | 320            |
|                   |                        |        | 11        |                                         | 350 HB   |               | 0.118 |                 | 0.014 | 0.0012 |                      | 360  |                               | 0.011 | 290            |
| Stainless Steel   | Austenitic             | 4      | 14        | 304, 316, X5CrNi18-9                    | 180 HB   | 0.020         | 0.197 | 0.008           | 0.016 | 0.0019 | 550                  | 880  | 0.118                         | 0.010 | 620            |
|                   |                        |        | 14        |                                         | 240 HB   |               | 0.197 |                 | 0.016 | 0.0016 |                      | 720  |                               | 0.009 | 550            |
|                   | Duplex                 | 5      | 14        | X2CrNiN23-4, S31500                     | 290 HB   | 0.020         | 0.157 | 0.007           | 0.014 | 0.0012 | 260                  | 490  | 0.098                         | 0.011 | 320            |
|                   |                        |        | 14        |                                         | 310 HB   |               | 0.157 |                 | 0.014 | 0.0000 |                      | 450  |                               |       | 290            |
|                   | Ferritic & Martensitic | 6      | 12        | 410, X6Cr17, 17-4 PH, 430               | 200 HB   | 0.020         | 0.197 | 0.009           | 0.016 | 0.0016 | 550                  | 820  | 0.118                         | 0.013 | 620            |
|                   |                        |        | 13        |                                         | 42 HRC   |               | 0.157 |                 | 0.016 | 0.0000 |                      | 390  |                               |       | 420            |
| Cast Iron         | Grey                   | 7      | 15        | GG20, GG40, EN-GJL-250, No30B           | 150 HB   | 0.020         | 0.197 | 0.006           | 0.024 | 0.0031 | 550                  | 820  | 0.118                         | 0.014 | 650            |
|                   |                        |        | 15        |                                         | 200 HB   |               | 0.197 |                 | 0.024 | 0.0028 |                      | 750  |                               |       | 590            |
|                   |                        |        | 16        |                                         | 250 HB   |               | 0.197 |                 | 0.022 | 0.0028 |                      | 490  |                               |       | 520            |
|                   | Malleable & Nodular    | 8      | 17,19     | GGG40, GGG70, 50005                     | 150 HB   | 0.020         | 0.197 | 0.006           | 0.020 | 0.0023 | 390                  | 820  | 0.118                         | 0.012 | 590            |
|                   |                        |        | 17,19     |                                         | 200 HB   |               | 0.197 |                 | 0.020 | 0.0020 |                      | 750  |                               |       | 520            |
|                   |                        |        | 18,20     |                                         | 250 HB   |               | 0.197 |                 | 0.020 | 0.0019 |                      | 620  |                               |       | 450            |
| High Temp. Alloys | Fe, Ni & Co based      | 9      | 31,32     | Incoloy 800                             | 240 HB   | 0.020         | 0.118 | 0.008           | 0.014 | 0.0011 | 80                   | 140  | 0.079                         | 0.011 | 100            |
|                   |                        |        | 33        | Inconel 700                             | 250 HB   |               | 0.118 |                 | 0.014 | 0.0000 |                      | 80   |                               |       | 90             |
|                   |                        |        | 34        | Stellite 21                             | 350 HB   |               | 0.118 |                 | 0.014 | 0.0000 |                      | 70   |                               |       | 90             |
|                   | Ti based               | 10     | 36        | TiAl6V4                                 | -        | 0.020         | 0.138 | 0.008           | 0.016 | 0.0012 | 140                  | 210  | 0.079                         | 0.013 | 180            |
|                   |                        |        | 37        | T40                                     | -        |               | 0.118 |                 | 0.014 | 0.0011 |                      | 180  |                               | 0.012 | 140            |
| Hardened Mat.     | Steel                  | 11     | 38        | X100CrMo13, 440C, G-X260NiCr42          | 45 HRC   | 0.020         | 0.098 | 0.004           | 0.012 | 0.0009 | 160                  | 320  | 0.079                         | 0.010 | 260            |
|                   |                        |        | 38        |                                         | 50 HRC   |               | 0.079 |                 | 0.010 | 0.0006 |                      | 290  |                               |       | 220            |
|                   |                        |        | 38        |                                         | 55 HRC   |               | 0.059 |                 | 0.008 | 0.0005 |                      | 260  |                               | 0.039 | 190            |
|                   | Chilled Cast Iron      |        | 40        | Ni-Hard 2                               | 400 HB   | 0.020         | 0.079 | 0.004           | 0.010 | 0.0006 | 130                  | 190  | 0.059                         | 0.007 | 160            |
|                   | White Cast Iron        |        | 41        | G-X300CrMo15                            | 55 HRC   | 0.020         | 0.059 | 0.004           | 0.008 | 0.0005 | 90                   | 160  | 0.039                         | 0.006 | 130            |
| NF                | Al (>8%Si)             | 12     | 25        | AlSi12                                  | 130 HB   | 0.020         | 0.236 | 0.008           | 0.024 | 0.0028 | 650                  | 1310 | 0.118                         | 0.016 | 910            |



(800) 597-3921 or (317) 803-8000 for Application Support.  
For additional suggested Speeds & Feeds: <http://delivr.com/1kmpm>

