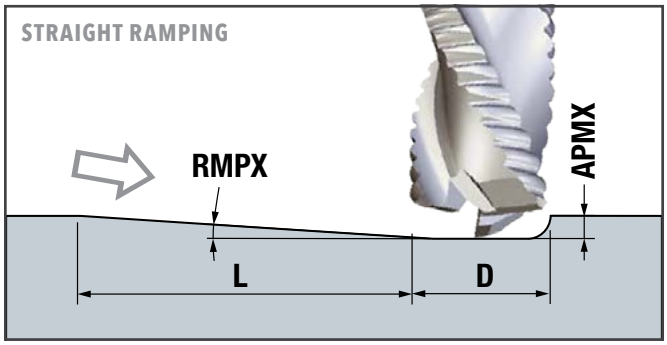
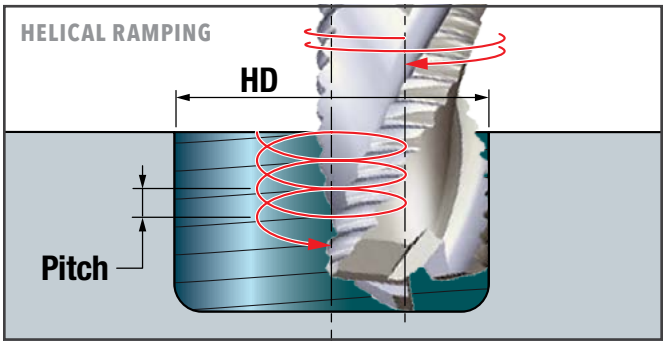
# Ramping Guidelines




| DC Cutter Dia. | STRAIGHT RAMPING | | | HELICAL RAMPING | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RPMX Ramp Angle Max. | APMX Depth of Cut at 1.5xD | L Ramp Length Min. | HD Hole Diameter Max. | | | | | | | Pitch Max. | | | | | | |
| | | | | .015" RE | .030" RE | .060" RE | .090" RE | .125" RE | .188" RE | .250" RE | .015" RE | .030" RE | .060" RE | .090" RE | .125" RE | .188" RE | .250" RE |
| .250 | 3.5 | .375 | 6.1 | .447 | - | - | - | - | - | - | .038 | - | - | - | - | - | - |
| .312 | 3.5 | .469 | 7.7 | .565 | - | - | - | - | - | - | .048 | - | - | - | - | - | - |
| .375 | 3.5 | .563 | 9.2 | .684 | - | - | - | - | - | - | .059 | - | - | - | - | - | - |
| .500 | 4.0 | .750 | 10.8 | .922 | .893 | .836 | .779 | .713 | - | - | .092 | .086 | .074 | .061 | .047 | - | - |
| .625 | 4.0 | .938 | 13.4 | 1.159 | 1.131 | 1.074 | 1.017 | .950 | .831 | - | .117 | .111 | .098 | .086 | .071 | .045 | - |
| .750 | 4.0 | 1.125 | 16.1 | 1.397 | 1.368 | 1.311 | 1.254 | 1.188 | 1.069 | .950 | .142 | .135 | .123 | .110 | .096 | .070 | .044 |
| 1.000 | 4.0 | 1.500 | 21.5 | - | 1.843 | 1.786 | 1.729 | 1.663 | 1.544 | 1.425 | - | .185 | .172 | .160 | .145 | .119 | .093 |

| HD = Hole Diameter Max. formula when Helical Ramping<br>**HD = ((DC-(1 x RE)) x 1.9)** | |
|---|---|
| EXAMPLES | |
| **P3N2R-.500A075L250R030C** | **P3N2R-.750A112L375R125W** |
| **DC = .500" with RE = .03"** | **DC = .750" with RE = .125"** |
| **HD = ((DC-(1 x RE)) x 1.9)** | **HD = ((DC-(1 x RE)) x 1.9)** |
| **HD = ((.500-(1 x .03)) x 1.9)** | **HD = ((.750-(1 x .125)) x 1.9)** |
| **HD = .893** | **HD = 1.188** |

