

Recommended Cutting Data 224 / 226 - Metric

| Recommended Speeds By Material Group | | Vc - M/Min | | | | | | | | |
|--------------------------------------|---------------|-------------------------------|-----|------|----------------|-----|------|-----|------|--|
| Material Group | Material Type | Uncoated | | | ALtima® Coated | | | | | |
| | | 3-5xD Solid | | | 3-5xD Solid | | | | | |
| | | Low | Mid | High | Low | Mid | High | Low | High | |
| Steels | P | Low Carbon | 45 | 55 | 65 | 60 | 70 | 80 | | |
| | | Medium Carbon | 40 | 50 | 60 | 55 | 65 | 75 | | |
| | | Alloy Steels (≤ 35 HRC) | 40 | 50 | 60 | 55 | 65 | 75 | | |
| | | Die / Tool Steels (≤ 45 HRC) | 35 | 45 | 55 | 50 | 60 | 70 | | |
| Stainless Steels | M | Free Machining | - | N/A | - | 50 | 60 | 70 | | |
| | | Austenitic | - | N/A | - | 45 | 50 | 60 | | |
| Cast Irons | K | Gray | - | N/A | - | 100 | 110 | 120 | | |
| | | Ductile & Malleable | - | N/A | - | 60 | 70 | 80 | | |
| Non-Ferrous | N | Aluminum - Wrought (≤ 10% Si) | 120 | 135 | 150 | - | N/A | - | | |
| | | Aluminum - Cast (> 10% Si) | 90 | 105 | 120 | - | N/A | - | | |
| | | Copper / Copper Alloys | 60 | 75 | 90 | - | N/A | - | | |
| | | Brass | 120 | 135 | 150 | - | N/A | - | | |
| | | Plastics | 120 | 135 | 150 | - | N/A | - | | |
| | | Kevlar / Graphite | 105 | 120 | 135 | - | N/A | - | | |

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

Recommended Cutting Data 224 / 226 - Metric, Continued

| Recommended Feeds By Material Group | | Drill Diameter (mm) | | | | | | | | |
|-------------------------------------|---------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Material Group | Material Type | 1 | 1.5 | 3 | 6 | 10 | 12 | 16 | 20 | |
| | | Feed (mm/rev) | | | | | | | | |
| Steels | P | Low Carbon | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| | | Medium Carbon | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| | | Alloy Steels (≤ 35 HRC) | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| | | Die / Tool Steels (≤ 45 HRC) | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| Stainless Steels | M | Free Machining | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| | | Austenitic | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| Cast Irons | K | Gray | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| | | Ductile & Malleable | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |
| Non-Ferrous | N | Aluminum - Wrought (≤ 10% Si) | 0.025 | 0.038 | 0.075 | 0.150 | 0.250 | 0.300 | 0.400 | 0.500 |
| | | Aluminum - Cast (> 10% Si) | 0.025 | 0.038 | 0.075 | 0.150 | 0.250 | 0.300 | 0.400 | 0.500 |
| | | Copper / Copper Alloys | 0.025 | 0.038 | 0.075 | 0.150 | 0.250 | 0.300 | 0.400 | 0.500 |
| | | Brass | 0.025 | 0.038 | 0.075 | 0.150 | 0.250 | 0.300 | 0.400 | 0.500 |
| | | Plastics | 0.030 | 0.045 | 0.090 | 0.180 | 0.300 | 0.360 | 0.480 | 0.600 |
| | | Kevlar / Graphite | 0.016 | 0.024 | 0.048 | 0.096 | 0.160 | 0.192 | 0.256 | 0.320 |

.5 to 1xD pecking may be required in difficult-to-machine / long chipping materials, or when exceeding 3xD hole depths.