

| Work Material Type | Steel Specification USA (AISI) | Feet per Minute | Meters per Minute | Sq Inch per Minute | Sq cm per Minute |
|-------------------------------------|--------------------------------|-----------------|-------------------|--------------------|------------------|
| Free Machining Carbon Steels | 1211-1215 | 230 - 310 | 69 - 93 | 12 - 18 | 78 - 117 |
| | 1110, 1117-1118 | 220 - 300 | 66 - 90 | 9 - 15 | 58 - 97 |
| | 1137-1151 | 165 - 245 | 50 - 74 | 5 - 11 | 32 - 71 |
| Low Carbon Steels | 1005-1012 | 220 - 300 | 66 - 90 | 9 - 14 | 58 - 97 |
| | 1015-1026 | 210 - 290 | 63 - 87 | 8 - 13 | 52 - 91 |
| Medium Carbon Steels | 1030-1055, A36 | 140 - 220 | 42 - 66 | 5 - 9 | 32 - 58 |
| High Carbon Steels | 1060-1095 | 120 - 200 | 36 - 60 | 5 - 8 | 32 - 52 |
| Manganese Steels | 1330-1345 | 140 - 220 | 42 - 66 | 4 - 8 | 26 - 52 |
| | 1513-1527 | 220 - 300 | 66 - 90 | 8 - 12 | 52 - 91 |
| | 1536-1552 | 165 - 245 | 50 - 74 | 6 - 10 | 39 - 65 |
| | 1561-1572 | 120 - 200 | 36 - 60 | 5 - 8 | 32 - 52 |
| Molybdenum Steels | 4012-4024 | 150 - 230 | 45 - 69 | 4 - 9 | 26 - 58 |
| | 4030-4042 | 140 - 220 | 42 - 66 | 4 - 8 | 26 - 52 |
| | 4047-4068 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| Chrome Moly Steels | 4130-4140 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 58 |
| | 4142-4161 | 120 - 200 | 36 - 60 | 3 - 7 | 20 - 45 |
| Nickel Chrome Moly Steels | 4320 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| | 4340 | 120 - 200 | 36 - 60 | 3 - 7 | 20 - 45 |
| Nickel Moly Steels | 4615-4626 | 140 - 220 | 42 - 66 | 4 - 8 | 26 - 52 |
| | 4815-4820 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| Chrome Steels | 5040-5060 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| | 5115-5120 | 150 - 230 | 45 - 69 | 5 - 9 | 32 - 56 |
| | 5130-5160 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| | 50100, 51100, 52100 | 90 - 160 | 27 - 48 | 3 - 5 | 20 - 32 |
| Chrome Vanadium Steels | 6118 | 150 - 230 | 45 - 69 | 5 - 9 | 32 - 58 |
| | 6150 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| Nickel Chrome Moly Steels | 8115, 8615-8622, 8720, 8820 | 130 - 210 | 39 - 63 | 5 - 9 | 32 - 58 |
| | 8145, 8625-8637 | 130 - 210 | 39 - 63 | 5 - 9 | 32 - 58 |
| | 8640-8660, 8740, 9430-9445 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| | 9310 | 110 - 190 | 33 - 57 | 2 - 4 | 13 - 26 |

CUTTING TABLE

| Work Material Type | Steel Specification USA (AISI) | Feet per Minute | Meters per Minute | Sq Inch per Minute | Sq cm per Minute |
|---|--------------------------------|-----------------|-------------------|--------------------|------------------|
| Silicon Steels | 9255-9262 | 130 - 210 | 39 - 63 | 4 - 8 | 26 - 52 |
| Nitriding Steels | | 140 - 220 | 42 - 66 | 3 - 6 | 20 - 39 |
| Tool Steels (Air & Oil Hardening) | A2-A6, A8-A10 | 130 - 210 | 39 - 63 | 2 - 4 | 13 - 26 |
| | O1, O2, O6, O7 | 130 - 210 | 39 - 63 | 2 - 6 | 13 - 29 |
| | D2, D3, D7 (CUT DRY) | 50 - 100 | 15 - 30 | 2 - 3 | 13 - 20 |
| Carbon Tool Steel | W1-W5 | 130 - 210 | 39 - 63 | 2 - 6 | 13 - 39 |
| Special Purpose Shock Resistant Hot Work Steel | L2, L6 | 120 - 200 | 36 - 60 | 2 - 6 | 13 - 39 |
| | S1 - S7 | 90 - 160 | 27 - 48 | 2 - 4 | 13 - 26 |
| | H10 - H19 | 130 - 210 | 39 - 63 | 2 - 5 | 13 - 32 |
| | H21 - H42 | 90 - 160 | 27 - 48 | 2 - 4 | 13 - 26 |
| High Speed Steels | M1, M2, M7, M10 | 75 - 130 | 22 - 39 | 2 - 4 | 13 - 26 |
| | M3, M4, M30 - M47 | 50 - 100 | 15 - 30 | 1 - 3 | 7 - 20 |
| | T1, T2, T6 | 75 - 130 | 22 - 39 | 2 - 4 | 13 - 26 |
| | T4, T5 | 60 - 120 | 18 - 36 | 1 - 3 | 7 - 20 |
| | T15 | 50 - 90 | 15 - 27 | 1 - 3 | 7 - 20 |
| Free Machining Stainless Steels | 303 | 75 - 140 | 22 - 42 | 2 - 5 | 13 - 32 |
| | 416, 420F, 430F | 100 - 180 | 30 - 54 | 3 - 6 | 20 - 39 |
| Austenitic Stainless Steels | 201, 202, 301-304, 305, 308 | 70 - 120 | 21 - 36 | 2 - 4 | 13 - 26 |
| | 321, 347, 348 | 70 - 120 | 21 - 36 | 2 - 4 | 13 - 26 |
| | A286, 309, 310, 314 | 50 - 80 | 15 - 24 | 1 - 2 | 7 - 13 |
| | 316, 317, 330 | 50 - 80 | 15 - 24 | 1 - 2 | 7 - 13 |
| Ferritic Stainless Steels | 405, 409, 430, 434 | 60 - 100 | 18 - 30 | 1 - 3 | 7 - 20 |
| | 436, 422, 446 | 60 - 100 | 18 - 30 | 1 - 3 | 7 - 20 |
| Martensitic Stainless Steels | 403, 410, 420, 422, 501, 502 | 70 - 130 | 21 - 39 | 2 - 4 | 13 - 26 |
| | 440A-C, 414, 431 | 60 - 100 | 18 - 30 | 1 - 3 | 7 - 20 |
| Precision Hardening Stainless Steels | 15-5PH, 17-4PH, 17-7PH | 50 - 90 | 15 - 27 | 1 - 3 | 7 - 20 |
| Cast Iron | CLASS 30 | 120 - 200 | 36 - 60 | 8 - 14 | 52 - 91 |
| | CLASS 40 | 80 - 160 | 24 - 48 | 5 - 11 | 32 - 71 |
| | DUCTILE 60-40-18 150HB | 160 - 240 | 48 - 72 | 4 - 10 | 26 - 65 |
| | DUCTILE 80-55-06 225HB | 80 - 160 | 24 - 48 | 2 - 7 | 13 - 45 |

| Work Material Type | Steel Specification USA (AISI) | Feet per Minute | Meters per Minute | Sq Inch per Minute | Sq cm per Minute |
|-------------------------|--------------------------------|-----------------|-------------------|--------------------|------------------|
| Nickel Alloys | INCONEL 625, 718 | 30 - 80 | 9 - 24 | 0.5 - 1 | 3 - 7 |
| | X-750, WASPALLOY | 30 - 80 | 9 - 24 | 1 - 2 | 7 - 13 |
| | INCONEL 600, 601 | 50 - 90 | 15 - 27 | 1 - 3 | 7 - 20 |
| | MONEL 400, 401 | 50 - 90 | 15 - 27 | 1 - 3 | 7 - 20 |
| | MONEL K500 | 30 - 80 | 9 - 24 | 1 - 2 | 7 - 13 |
| | HASTALLOY, RENE41, | 30 - 70 | 9 - 21 | 0.5 - 1 | 3 - 7 |
| | RENE 63, 77, 95, 100 | 30 - 70 | 9 - 21 | 0.5 - 1 | 3 - 7 |
| Titanium Alloys | 99% TITANIUM | 50 - 90 | 15 - 27 | 0.5 - 2 | 3 - 13 |
| | ALPHA, ALPHA-BETA | 30 - 60 | 9 - 18 | 0.5 - 1 | 3 - 7 |
| | BETA | 30 - 60 | 9 - 18 | 0.5 - 1 | 3 - 7 |
| Refractory Metal | MOLYBDENUM | 60 - 100 | 18 - 30 | 0.5 - 1 | 3 - 7 |
| | TANTALUM | 30 - 60 | 9 - 18 | 0.5 - 1 | 3 - 7 |
| | COLOMBIUM | 40 - 80 | 12 - 24 | 0.5 - 1 | 3 - 7 |
| Copper Alloys | 99% COPPER | 100 - 180 | 30 - 54 | 4 - 9 | 26 - 58 |
| | FREE CUTTING BRASS | 180 - 250 | 54 - 75 | 5 - 11 | 32 - 71 |
| | YELLOW/RED BRASS | 175 - 255 | 53 - 77 | 4 - 10 | 26 - 65 |
| | PHOSPHOR BRONZE | 90 - 180 | 27 - 54 | 4 - 10 | 26 - 65 |
| | ALUMINUM BRONZE | 125 - 190 | 37 - 57 | 4 - 8 | 26 - 52 |
| | AS ABOVE (HARDENED) | 50 - 100 | 15 - 30 | 1 - 2.5 | 7 - 16 |
| | MALLORY 73 AND 100 | 50 - 100 | 15 - 30 | 1 - 2.5 | 7 - 16 |
| | BERYLLIUM COPPER | 120 - 190 | 36 - 57 | 3 - 6 | 20 - 39 |
| | AS ABOVE (HARDENED) | 35 - 55 | 10 - 16 | 0.5 - 1 | 3 - 7 |
| Aluminum | ALLOY | 267 - 400 | 80 - 120 | | |
| | CAST ALLOY | 267 - 400 | 80 - 120 | Please call | Please call |
| | PISTON ALLOY | 267 - 400 | 80 - 120 | for assistance | for assistance |
| | (USE TCT BLADES) | 267 - 400 | 80 - 120 | | |

NOTE: These feed rates are a general guide only. Please contact Starrett Technical Support for precise recommendations.