

Series 556-557-559

| Material group | Hardness | SFM | Feed Rate - IPR | | | | | | | | | |
|--|----------------|----------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|----------------------|----------------------|
| | | | 1/16 in. 1.590 mm | 1/8 in. 3.170 mm | 1/4 in. 6.350 mm | 3/8 in. 9.520 mm | 1/2 in. 12.700mm | 5/8 in. 15.870mm | 3/4 in. 19.050mm | 1 in. 25.400mm | 1 1/4 in. 31.75mm | 1 1/2 in. 38.10mm |
| Common structural steels | ≤ 20 HRC | 100 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 32 HRC | 80 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Free-cutting steels | ≤ 25 HRC | 105 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 32 HRC | 100 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Unalloyed heat-treatable steels | ≤ 20 HRC | 80 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| | ≤ 25 HRC | 80 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| | ≤ 32 HRC | 65 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| Alloyed heat-treatable steels | ≤ 32 HRC | 50 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | 40 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Unalloyed case hardened steels | ≤ 25 HRC | 100 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Alloyed case hardened steels | ≤ 32 HRC | 50 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | 25 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Nitriding steels | ≤ 32 HRC | | | | | | | | | | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| Tool steels | ≤ 25 HRC | 50 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| High speed steels | ≤ 43 HRC | | | | | | | | | | | |
| Spring steels | ≤ 38 HRC | | | | | | | | | | | |
| Stainless steels | ≤ 28 HRC | 35 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| | ≤ 36 HRC | 20 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| | ≤ 46 HRC | 25 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Hardened steels | ≤ 48 HRC | | | | | | | | | | | |
| | ≤ 66 HRC | | | | | | | | | | | |
| Special alloys | ≤ 54 HRC | | | | | | | | | | | |
| Cast iron | ≤ 23 HRC | 100 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 38 HRC | 100 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Spheroidal graphite iron and malleable cast iron | ≤ 23 HRC | 80 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 38 HRC | 65 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Chilled cast iron | ≤ 38 HRC | | | | | | | | | | | |
| Ti and Ti-alloys | ≤ 25 HRC | | | | | | | | | | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| Aluminum and Al-alloys | ≤120HB | 230 | | 0.0049 | 0.0079 | 0.0124 | 0.0124 | 0.0157 | 0.0197 | 0.0248 | | |
| Al wrought alloys | ≤200HB | 230 | | 0.0049 | 0.0079 | 0.0124 | 0.0124 | 0.0157 | 0.0197 | 0.0248 | | |
| Al cast alloys | ≤ 10% Si | ≤180HB | 165 | | 0.0049 | 0.0079 | 0.0124 | 0.0124 | 0.0157 | 0.0197 | 0.0248 | |
| | ≤ 24% Si | ≤180HB | 165 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | |
| Magnesium alloys | ≤120HB | 230 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Copper | low-alloyed | ≤ 80 HB | 195 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| | short-chipping | ≤180HB | 195 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| Brass | long-chipping | ≤180HB | 130 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| | short-chipping | ≤180HB | 100 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| Bronze | long-chipping | ≤ 25 HRC | 80 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| | short-chipping | ≤ 25 HRC | 50 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| Duroplastics | - | 60 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | - | 90 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Thermoplastics | - | 90 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |

Series 567 - 568

| Material group | Hardness | SFM | Feed Rate - IPR | | | | | | | | | |
|--|----------------|----------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|-------------------|----------------------|----------------------|
| | | | 1/16 in. 1.590 mm | 1/8 in. 3.170 mm | 1/4 in. 6.350 mm | 3/8 in. 9.520 mm | 1/2 in. 12.700mm | 5/8 in. 15.870mm | 3/4 in. 19.050mm | 1 in. 25.400mm | 1 1/4 in. 31.75mm | 1 1/2 in. 38.10mm |
| Common structural steels | ≤ 20 HRC | 105 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 32 HRC | 85 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Free-cutting steels | ≤ 25 HRC | 115 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 32 HRC | 110 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Unalloyed heat-treatable steels | ≤ 20 HRC | 90 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| | ≤ 25 HRC | 90 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| | ≤ 32 HRC | 80 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| Alloyed heat-treatable steels | ≤ 32 HRC | 70 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | 55 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Unalloyed case hardened steels | ≤ 25 HRC | 110 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Alloyed case hardened steels | ≤ 32 HRC | 65 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | 40 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Nitriding steels | ≤ 32 HRC | 45 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| Tool steels | ≤ 25 HRC | 60 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| High speed steels | ≤ 43 HRC | | | | | | | | | | | |
| Spring steels | ≤ 38 HRC | | | | | | | | | | | |
| Stainless steels | ≤ 28 HRC | 40 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| | ≤ 36 HRC | 25 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| | ≤ 46 HRC | 35 | | 0.0020 | 0.0031 | 0.0049 | 0.0049 | 0.0063 | 0.0079 | 0.0098 | | |
| Hardened steels | ≤ 48 HRC | | | | | | | | | | | |
| | ≤ 66 HRC | | | | | | | | | | | |
| Special alloys | ≤ 54 HRC | | | | | | | | | | | |
| Cast iron | ≤ 23 HRC | 110 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 38 HRC | 110 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Spheroidal graphite iron and malleable cast iron | ≤ 23 HRC | 90 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| | ≤ 38 HRC | 70 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Chilled cast iron | ≤ 38 HRC | | | | | | | | | | | |
| Ti and Ti-alloys | ≤ 25 HRC | | | | | | | | | | | |
| | ≤ 43 HRC | | | | | | | | | | | |
| Aluminum and Al-alloys | ≤120HB | | | | | | | | | | | |
| Al wrought alloys | ≤200HB | | | | | | | | | | | |
| Al cast alloys | ≤ 10% Si | ≤180HB | 195 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | |
| | ≤ 24% Si | ≤180HB | 195 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | |
| Magnesium alloys | ≤120HB | 260 | | 0.0039 | 0.0063 | 0.0098 | 0.0098 | 0.0124 | 0.0157 | 0.0197 | | |
| Copper | low-alloyed | ≤ 80 HB | 215 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| | short-chipping | ≤180HB | 230 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| Brass | long-chipping | ≤180HB | 150 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | |
| | short-chipping | ≤180HB | 110 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| Bronze | long-chipping | ≤ 25 HRC | 90 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| | short-chipping | ≤ 25 HRC | 50 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | |
| Duroplastics | - | 70 | | 0.0025 | 0.0039 | 0.0063 | 0.0063 | 0.0079 | 0.0098 | 0.0124 | | |
| | - | 120 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |
| Thermoplastics | - | 120 | | 0.0031 | 0.0049 | 0.0079 | 0.0079 | 0.0098 | 0.0124 | 0.0157 | | |