

**Product Table:** Variable Helix End Mills for Medium Alloy Steels - Finishers - Square - Long Reach, Standard Flute

**Characteristics:** 3x Length of Cut, 5x Reach, 5 Flutes

**Series:** 7182xx-C6, 7183xx-C6

| Material  | Hardness (HBn) | SFM | Chip Load (IPT) By Cutter Diameter |        |        |        |        |        |        |        |        |        |        |        | Depth of Cut |            |              |
|---|----------------|-----|------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|------------|--------------|
|   |                |     | 0.015                              | 0.031  | 0.047  | 0.062  | 0.078  | 0.093  | 0.125  | 0.187  | 0.250  | 0.312  | 0.375  | 0.500  | Radial       | Axial      |              |
| <b>CARBON STEELS</b><br><br>1030 - 1095, 1140 - 1151, 13xx, 15xx, 2xxx, 3xxx, 4xxx & 4xLxx, 5xxx & 5xLxx, 51xxx & 50Lxxx, 51xxx & 51Lxxx, 52xxx & 52Lxxx, 6xxx, 8xxx, 9xxx                      | 225 - 250      | 600 | Finishing                          | .00011 | .00023 | .00036 | .00047 | .00059 | .00070 | .00095 | .00141 | .00189 | .00248 | .00298 | .00397       | < .07x Dia | .5x - 5x Dia |
|   | 250 - 275      | 550 |                                    | .00010 | .00021 | .00032 | .00043 | .00054 | .00064 | .00086 | .00129 | .00172 | .00226 | .00271 | .00361       | < .07x Dia | .5x - 5x Dia |
|   | 275 - 300      | 500 | Finishing                          | .00009 | .00019 | .00030 | .00039 | .00049 | .00058 | .00079 | .00118 | .00157 | .00206 | .00248 | .00330       | < .07x Dia | .5x - 5x Dia |
| <b>STAINLESS STEELS</b><br><br>201, 202, 203, 205, 301, 302, 304, 304L, 308, 309, 310, 314, 316, 316L, 317, 321, 329, 330, 347, 348, 385, 403, 405, 409, 410, 413, 414, 42x, 43x, 44x, 501, 502 | 225 - 250      | 500 | Finishing                          | .00009 | .00018 | .00027 | .00035 | .00044 | .00053 | .00071 | .00106 | .00142 | .00187 | .00224 | .00299       | < .07x Dia | .5x - 5x Dia |
|   | 250 - 275      | 500 |                                    | .00009 | .00018 | .00027 | .00035 | .00044 | .00053 | .00071 | .00106 | .00142 | .00187 | .00224 | .00299       | < .07x Dia | .5x - 5x Dia |
|   | 275 - 300      | 500 | Finishing                          | .00009 | .00018 | .00027 | .00035 | .00044 | .00053 | .00071 | .00106 | .00142 | .00187 | .00224 | .00299       | < .07x Dia | .5x - 5x Dia |
| <b>TOOL STEELS</b><br><br>A, L, O, P, W series  | 300 - 350      | 500 | Finishing                          | .00009 | .00018 | .00027 | .00035 | .00044 | .00053 | .00071 | .00106 | .00142 | .00187 | .00224 | .00299       | < .07x Dia | .5x - 5x Dia |

**Please note:**  
 All posted speed and feed parameters are suggested starting values that may be increased given optimal setup conditions. If less than minimum Axial or Radial DOC values are used, increased feed rates are possible.  
 If you require additional information, Harvey Tool has a team of technical experts available to assist you through even the most challenging applications. Please contact us at **800-645-5609** or **Harveytech@harveyperformance.com**.  
 WARNING: Cutting tools may shatter under improper use. Government regulations require use of safety glasses and other appropriate safety equipment in the vicinity of use.

| 0.015   | 0.031   | 0.047   | 0.062   | 0.078   | 0.093   | 0.125   | 0.187   | 0.250   | First % | 0.312   | 0.375   | 0.500   | Second % |           | Radial     | Axial        |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|-----------|------------|--------------|
| 0.00011 | 0.00023 | 0.00036 | 0.00047 | 0.00059 | 0.00070 | 0.00095 | 0.00141 | 0.00189 | 0.0076  | 0.00248 | 0.00298 | 0.00397 | 0.0079   | Finishing | < .07x Dia | .5x - 5x Dia |
| 0.00010 | 0.00021 | 0.00032 | 0.00043 | 0.00054 | 0.00064 | 0.00086 | 0.00129 | 0.00172 | 0.0069  | 0.00226 | 0.00271 | 0.00361 | 0.0072   | Finishing | < .07x Dia | .5x - 5x Dia |
| 0.00009 | 0.00019 | 0.00030 | 0.00039 | 0.00049 | 0.00058 | 0.00079 | 0.00118 | 0.00157 | 0.0063  | 0.00206 | 0.00248 | 0.00330 | 0.0066   | Finishing | < .07x Dia | .5x - 5x Dia |
| 0.00009 | 0.00018 | 0.00027 | 0.00035 | 0.00044 | 0.00053 | 0.00071 | 0.00106 | 0.00142 | 0.0057  | 0.00187 | 0.00224 | 0.00299 | 0.0060   | Finishing | < .07x Dia | .5x - 5x Dia |