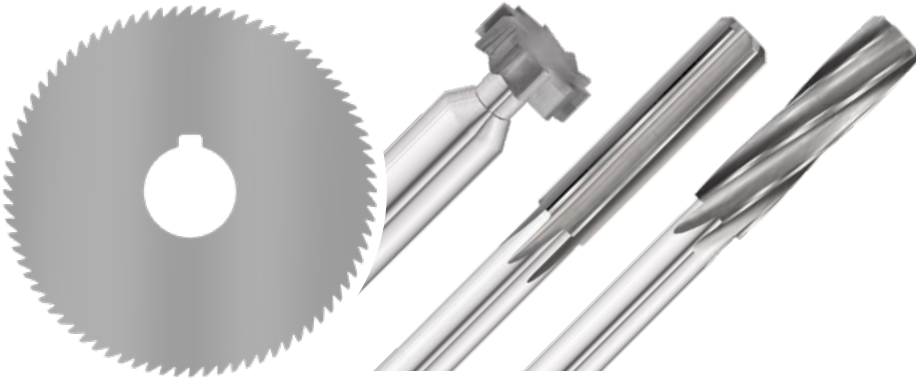


# **FULLERTON**



**JIT** SERVICES

989.799.4550 | 800.248.8315  
sales@fullertontool.com  
**fullertontool.com**



# JIT Reamers

## 1410 JIT Decimal Size Reamers



**Straight Flutes** For all types of general reaming applications.



**RH Spiral Flutes** For blind holes and abrasive, ductile materials. Do not use for holes with interruptions unless material is reasonably soft.



**LH Spiral Flutes** Produces better finishes on hard materials such as heat-treated steels. Shear action is excellent for holes with interruptions, e.g., keyways, elongated slots, etc.



CHAMFER



COATING



IMPERIAL



STUB



VARIABLE

- Straight Flute Standard Sizes available in 1400 Series Stub
- Available with Coatings at Tolerances as Low as .0001" (Additional Charges May Apply)
- Manufactured using Female and Male Centers for improved concentricity
- Male Centers on items up to .1124" (2.86mm)

**SAME DAY DELIVERY IF ORDERED BY 11AM EST ADD 20% TO PRICE.**

|                                    |          |          |
|------------------------------------|----------|----------|
| <b>TOLERANCE:</b>                  |          |          |
| <b>SHANK DIAMETER:</b>             | + .0005" | - .0005" |
|                                    | + .013MM | - .013MM |
| <b>CUTTING DIAMETER:</b>           |          |          |
| UP TO .2500"                       | + .0002" | - .0000" |
| OVER .2501"                        | + .0003" | - .0000" |
| UP TO 6.35MM                       | + .005MM | - .000MM |
| OVER 6.351MM                       | + .008MM | - .000MM |
| .0001" TOLERANCES AVAILABLE (+20%) |          |          |



3:00 PM EST  
ORDER DEADLINE

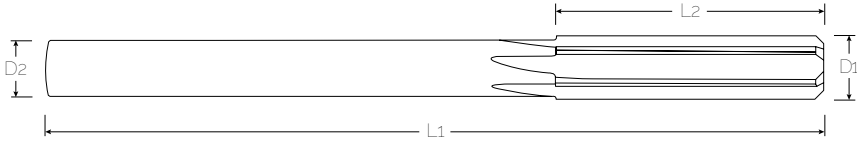
**JIT**  
SERVICES

24-HOUR  
JUST IN TIME  
DELIVERY

**12**  
PIECES  
OR LESS  
ALL STYLES

LIVE  
CHAT

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| SIZE RANGE<br>D1 | STYLE | L2    | D2    | L1    | FLUTES | EDP Number |         |         |
|------------------|-------|-------|-------|-------|--------|------------|---------|---------|
|                  |       |       |       |       |        | ST         | RH      | LH      |
| .0312 - .0394    | STB   | 3/8   | .0312 | 1 1/2 | 4      | 1410S01    | 1410R01 | 1410L01 |
| .0395 - .0484    | STB   | 3/8   | .0312 | 1 1/2 | 4      | 1410S02    | 1410R02 | 1410L02 |
| .0485 - .0574    | STB   | 3/8   | .0469 | 1 1/2 | 4      | 1410S03    | 1410R03 | 1410L03 |
| .0575 - .0654    | STB   | 3/8   | .0469 | 1 1/2 | 4      | 1410S04    | 1410R04 | 1410L04 |
| .0655 - .0804    | STB   | 1/2   | .0625 | 2     | 4      | 1410S05    | 1410R05 | 1410L05 |
| .0805 - .0964    | STB   | 1/2   | .0781 | 2     | 4      | 1410S06    | 1410R06 | 1410L06 |
| .0965 - .1124    | STB   | 5/8   | .0938 | 2 1/4 | 4      | 1410S07    | 1410R07 | 1410L07 |
| .1125 - .1284    | STB   | 5/8   | .1094 | 2 1/4 | 4      | 1410S08    | 1410R08 | 1410L08 |
| .1285 - .1444    | STB   | 3/4   | .1250 | 2 1/2 | 4      | 1410S09    | 1410R09 | 1410L09 |
| .1445 - .1594    | STB   | 3/4   | .1406 | 2 1/2 | 4      | 1410S10    | 1410R10 | 1410L10 |
| .1595 - .1744    | STB   | 7/8   | .1562 | 2 3/4 | 4      | 1410S11    | 1410R11 | 1410L11 |
| .1745 - .1914    | STB   | 7/8   | .1719 | 2 3/4 | 4      | 1410S12    | 1410R12 | 1410L12 |
| .1915 - .2234    | STB   | 1     | .1875 | 3     | 6      | 1410S13    | 1410R13 | 1410L13 |
| .2235 - .2544    | STB   | 1     | .2188 | 3     | 6      | 1410S14    | 1410R14 | 1410L14 |
| .2545 - .2844    | STB   | 1 1/8 | .2500 | 3 1/4 | 6      | 1410S15    | 1410R15 | 1410L15 |
| .2845 - .3164    | STB   | 1 1/8 | .2812 | 3 1/4 | 6      | 1410S16    | 1410R16 | 1410L16 |
| .3165 - .3484    | STB   | 1 1/4 | .3125 | 3 1/2 | 6      | 1410S17    | 1410R17 | 1410L17 |
| .3485 - .3794    | STB   | 1 1/4 | .3438 | 3 1/2 | 6      | 1410S18    | 1410R18 | 1410L18 |
| .3795 - .4104    | STB   | 1 1/2 | .3750 | 4     | 6      | 1410S19    | 1410R19 | 1410L19 |
| .4105 - .4414    | STB   | 1 1/2 | .4062 | 4     | 6      | 1410S20    | 1410R20 | 1410L20 |
| .4415 - .4724    | STB   | 1 1/2 | .4375 | 4     | 6      | 1410S21    | 1410R21 | 1410L21 |
| .4725 - .5054    | STB   | 1 1/2 | .4688 | 4     | 6      | 1410S22    | 1410R22 | 1410L22 |

Due to temperatures reached in the coating process, Fullerton Tool cannot guarantee concentricity on reamers with Cutting Diameter .3485" and over.

# JIT Reamers

## 1450 JIT Decimal Size Reamers



**Straight Flutes** For all types of general reaming applications.



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**LH Spiral Flutes** Produces better finishes on hard materials such as heat-treated steels. Shear action is excellent for holes with interruptions, e.g., keyways, elongated slots, etc.



CHAMFER



COATING



IMPERIAL



STANDARD



VARIABLE

- Straight Flute Standard Sizes available in 1400 Series Standard
- Available with Coatings at Tolerances as Low as .0001" (Additional Charges May Apply)
- Steel Shanks on items with Cutting Diameter .3485" and over Female Centers.

**SAME DAY DELIVERY IF ORDERED BY 11AM EST ADD 20% TO PRICE.**

|                               |                |                |
|-------------------------------|----------------|----------------|
| <b>TOLERANCE:</b>             |                |                |
| <b>1/2" DIAMETER SHANK:</b>   | <b>+.0000"</b> | <b>-.0005"</b> |
|                               | <b>+.013MM</b> | <b>-.013MM</b> |
| <b>CUTTING HEAD DIAMETER:</b> |                |                |
| 3/8" - 3/4" DIA               | <b>+.0100"</b> | <b>-.0150"</b> |
| 7/8" - 1 1/2" DIA             | <b>+.0120"</b> | <b>-.0170"</b> |
| <b>FACE WIDTH:</b>            | <b>+.0000"</b> | <b>-.0005"</b> |
| <b>NECK LENGTH:</b>           | <b>1/4"</b>    |                |



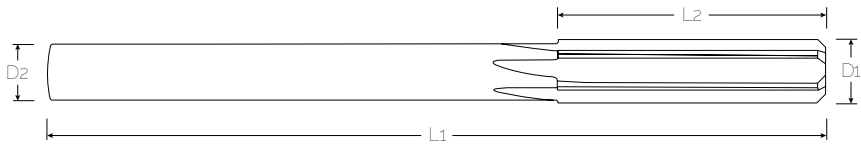
**JIT**  
SERVICES

**24-HOUR**  
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**12**  
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**CHAT**

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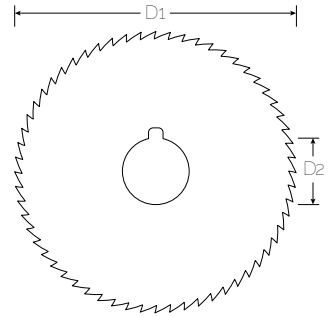
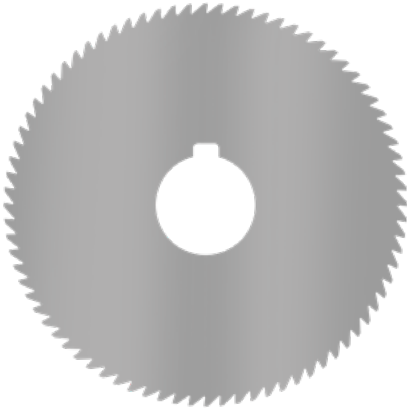


| SIZE RANGE<br>D1 | STYLE | L2    | D2    | L1    | FLUTES | STEEL<br>SHANK | EDP Number |          |          |
|------------------|-------|-------|-------|-------|--------|----------------|------------|----------|----------|
|                  |       |       |       |       |        |                | ST         | RH       | LH       |
| .1105 - .1284    | SD    | 7/8   | .1094 | 3 1/2 | 4      |                | 1450S01    | 1450R01  | 1450L01  |
| .1285 - .1444    | SD    | 7/8   | .1250 | 3 1/2 | 4      |                | 1450S02    | 1450R02  | 1450L02  |
| .1445 - .1594    | SD    | 1     | .1406 | 4     | 4      |                | 1450S03    | 1450R03  | 1450L03  |
| .1595 - .1744    | SD    | 1     | .1562 | 4     | 4      |                | 1450S04    | 1450R04  | 1450L04  |
| .1745 - .1914    | SD    | 1 1/8 | .1719 | 4 1/2 | 4      |                | 1450S05    | 1450R05  | 1450L05  |
| .1915 - .2234    | SD    | 1 1/4 | .1875 | 5     | 6      |                | 1450S06    | 1450R06  | 1450L06  |
| .2235 - .2544    | SD    | 1 1/2 | .2188 | 6     | 6      |                | 1450S07    | 1450R07  | 1450L07  |
| .2545 - .2844    | SD    | 1 1/2 | .2500 | 6     | 6      |                | 1450S08    | 1450R08  | 1450L08  |
| .2845 - .3164    | SD    | 1 5/8 | .2812 | 6     | 6      |                | 1450S09    | 1450R09  | 1450L09  |
| .3165 - .3484    | SD    | 1 5/8 | .3125 | 6     | 6      |                | 1450S10    | 1450R10  | 1450L10  |
| .3485 - .3794    | SD    | 1 3/4 | .3438 | 7     | 6      | ✓              | 1450S11    | 1450R11  | 1450L11  |
| .3795 - .4104    | SD    | 1 3/4 | .3750 | 7     | 6      | ✓              | 1450S12    | 1450R12  | 1450L12  |
| .4105 - .4414    | SD    | 1 3/4 | .4062 | 7     | 6      | ✓              | 1450S13    | 1450R13  | 1450L13  |
| .4415 - .4724    | SD    | 1 3/4 | .4375 | 8     | 6      | ✓              | 1450S14    | 1450R14  | 1450L14  |
| .4725 - .5054    | SD    | 1 3/4 | .4688 | 8     | 6      | ✓              | 1450S15    | 1450R15  | 1450L15  |
| .5055 - .5360    | SD    | 1 7/8 | .5000 | 9     | 6      | ✓              | 1450S16    | 1450R16  | 1450L16  |
| .5361 - .5670    | SD    | 1 7/8 | .5000 | 9     | 6      | ✓              | 1450S16B   | 1450R16B | 1450L16B |
| .5671 - .5990    | SD    | 1 7/8 | .5625 | 9     | 6      | ✓              | 1450S17    | 1450R17  | 1450L17  |
| .5991 - .6300    | SD    | 1 7/8 | .5625 | 9     | 6      | ✓              | 1450S17B   | 1450R17B | 1450L17B |
| .6301 - .6630    | SD    | 2     | .6250 | 9 1/2 | 6      | ✓              | 1450S18    | 1450R18  | 1450L18  |
| .6631 - .6930    | SD    | 2     | .6250 | 9 1/2 | 6      | ✓              | 1450S18B   | 1450R18B | 1450L18B |
| .6931 - .7250    | SD    | 2     | .6875 | 9 1/2 | 6      | ✓              | 1450S19    | 1450R19  | 1450L19  |
| .7251 - .7560    | SD    | 2     | .6875 | 9 1/2 | 6      | ✓              | 1450S19B   | 1450R19B | 1450L19B |
| .7561 - .7870    | SD    | 2     | .7500 | 10    | 8      | ✓              | 1450S20    | 1450R20  | 1450L20  |
| .7871 - .8190    | SD    | 2     | .7812 | 10    | 8      | ✓              | 1450S21    | 1450R21  | 1450L21  |
| .8191 - .8500    | SD    | 2     | .8125 | 10    | 8      | ✓              | 1450S22    | 1450R22  | 1450L22  |
| .8501 - .8820    | SD    | 2     | .8438 | 10    | 8      | ✓              | 1450S23    | 1450R23  | 1450L23  |
| .8821 - .9120    | SD    | 2     | .8750 | 10    | 8      | ✓              | 1450S24    | 1450R24  | 1450L24  |
| .9121 - .9440    | SD    | 2     | .9062 | 10    | 8      | ✓              | 1450S25    | 1450R25  | 1450L25  |
| .9441 - .9760    | SD    | 2     | .9375 | 10    | 8      | ✓              | 1450S26    | 1450R26  | 1450L26  |
| .9761 - 1.0100   | SD    | 2     | .9688 | 10    | 8      | ✓              | 1450S27    | 1450R27  | 1450L27  |

Due to temperatures reached in the coating process, Fullerton Tool cannot guarantee concentricity on reamers with Cutting Diameter .3485" and over.

# 2450 Saws

## 2450 JIT Solid Carbide Saws



### For Size Ranges: .25 - 3"

1-12 pieces, 24- Hours  
13-25 pieces, 48-Hours  
26-49 pieces, 5 Working Days  
50+ pieces, Contact Fullerton Tool

### For Size Ranges: > 3"

1-6 pieces, 24- Hours  
7-12 pieces, 48-Hours  
13-25 pieces, 5 Working Days  
26-49 pieces, 10 Working Days  
50+ pieces, Contact Fullerton Tool



1/4 - 6" Outside Diameters (OD) Available  
1/8 - 1" Inside Diameter Available Depending on OD Size  
.0060 - .2500" Thickness Available Depending on OD Size  
.0005" Concavity per Inch of Diameter for Clearance

|                          |           |           |
|--------------------------|-----------|-----------|
| <b>TOLERANCE:</b>        |           |           |
| <b>CUTTING DIAMETER:</b> | + .0150"  | - .0150"  |
| <b>HOLE DIAMETER:</b>    | + .0005"  | - .0000"  |
| <b>THICKNESS:</b>        | + .00025" | - .00025" |

**12  
PIECES  
OR LESS**  
ALL STYLES



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| D1            | SIZE RANGE    | D2   | TEETH   | EDP Number |
|---------------|---------------|------|---------|------------|
|               |               |      |         | UC         |
| 1/4           | .0100 - .0350 | 1/8  | 12      | 2450001    |
| 5/16          | .0100 - .0350 | 1/8  | 12      | 2450002    |
| 3/8           | .0060 - .0259 | 1/8  | 14      | 2450003    |
|               | .0260 - .0630 | 1/8  | 14      | 2450004    |
| 1/2           | .0060 - .0349 | 3/16 | 14      | 2450005    |
|               | .0350 - .0630 | 3/16 | 14      | 2450006    |
| 5/8           | .0060 - .0149 | 1/4  | 16      | 2450007    |
|               | .0150 - .0409 | 1/4  | 16      | 2450008    |
| 3/4           | .0410 - .0630 | 1/4  | 16      | 2450009    |
|               | .0060 - .0149 | 1/4  | 18      | 2450010    |
|               | .0150 - .0409 | 1/4  | 18      | 2450011    |
|               | .0410 - .0639 | 1/4  | 18      | 2450012    |
| 1             | .0640 - .0949 | 1/4  | 18      | 2450013    |
|               | .0950 - .1300 | 1/4  | 18      | 2450014    |
|               | .0100 - .0199 | 1/4  | 20      | 2450015    |
|               | .0200 - .0409 | 1/4  | 20      | 2450018    |
|               | .0410 - .0639 | 1/4  | 20      | 2450021    |
|               | .0640 - .0949 | 1/4  | 20      | 2450024    |
|               | .0950 - .1300 | 1/4  | 20      | 2450027    |
|               | .0100 - .0199 | 5/16 | 20      | 2450016    |
|               | .0200 - .0409 | 5/16 | 20      | 2450019    |
|               | .0410 - .0639 | 5/16 | 20      | 2450022    |
|               | .0640 - .0949 | 5/16 | 20      | 2450025    |
|               | .0950 - .1300 | 5/16 | 20      | 2450028    |
|               | .0100 - .0199 | 3/8  | 20      | 2450017    |
|               | .0200 - .0409 | 3/8  | 20      | 2450020    |
| .0410 - .0639 | 3/8           | 20   | 2450023 |            |
| .0640 - .0949 | 3/8           | 20   | 2450026 |            |
| .0950 - .1300 | 3/8           | 20   | 2450029 |            |
| 1 1/4         | .0100 - .0199 | 5/16 | 24      | 2450031    |
|               | .0200 - .0459 | 5/16 | 24      | 2450034    |
|               | .0460 - .0639 | 5/16 | 24      | 2450037    |
|               | .0640 - .0949 | 5/16 | 24      | 2450040    |
|               | .0950 - .1300 | 5/16 | 24      | 2450043    |
|               | .0100 - .0199 | 3/8  | 24      | 2450030    |
|               | .0200 - .0459 | 3/8  | 24      | 2450033    |
|               | .0460 - .0639 | 3/8  | 24      | 2450036    |
|               | .0640 - .0949 | 3/8  | 24      | 2450039    |
|               | .0950 - .1300 | 3/8  | 24      | 2450042    |
|               | .0100 - .0199 | 1/2  | 24      | 2450032    |
|               | .0200 - .0459 | 1/2  | 24      | 2450035    |
|               | .0460 - .0639 | 1/2  | 24      | 2450038    |

EDP offering continued on next page.

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# 2450 Saws

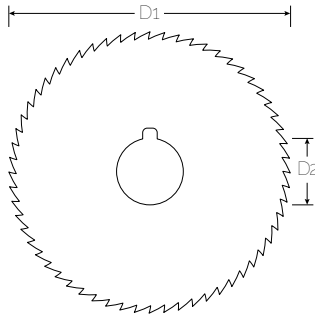
## 2450 JIT Solid Carbide Saws

| D1    | SIZE RANGE    | D2  | TEETH | EDP Number |
|-------|---------------|-----|-------|------------|
|       |               |     |       | UC         |
| 1 1/4 | .0640 - .0949 | 1/2 | 24    | 2450041    |
|       | .0950 - .1300 | 1/2 | 24    | 2450044    |
| 1 1/2 | .0100 - .0199 | 1/2 | 36    | 2450045    |
|       | .0200 - .0459 | 1/2 | 36    | 2450046    |
|       | .0460 - .0639 | 1/2 | 36    | 2450047    |
|       | .0640 - .0949 | 1/2 | 36    | 2450048    |
|       | .0950 - .1300 | 1/2 | 36    | 2450049    |
| 1 3/4 | .0100 - .0199 | 1/2 | 38    | 2450050    |
|       | .0200 - .0459 | 1/2 | 38    | 2450051    |
|       | .0460 - .0639 | 1/2 | 38    | 2450052    |
|       | .0640 - .0949 | 1/2 | 38    | 2450053    |
|       | .0950 - .1300 | 1/2 | 38    | 2450054    |
| 2     | .0100 - .0199 | 1/2 | 40    | 2450055    |
|       | .0200 - .0459 | 1/2 | 40    | 2450057    |
|       | .0460 - .0639 | 1/2 | 40    | 2450059    |
|       | .0640 - .0949 | 1/2 | 40    | 2450061    |
|       | .0950 - .1300 | 1/2 | 40    | 2450063    |
|       | .0100 - .0199 | 1   | 40    | 2450056    |
|       | .0200 - .0459 | 1   | 40    | 2450058    |
|       | .0460 - .0639 | 1   | 40    | 2450060    |
|       | .0640 - .0949 | 1   | 40    | 2450062    |
|       | .0950 - .1300 | 1   | 40    | 2450064    |
| 2 1/4 | .0100 - .0199 | 5/8 | 44    | 2450065    |
|       | .0200 - .0459 | 5/8 | 44    | 2450067    |
|       | .0460 - .0639 | 5/8 | 44    | 2450069    |
|       | .0640 - .0949 | 5/8 | 44    | 2450071    |
|       | .0950 - .1300 | 5/8 | 44    | 2450073    |
|       | .0100 - .0199 | 1   | 44    | 2450066    |
|       | .0200 - .0459 | 1   | 44    | 2450068    |
|       | .0460 - .0639 | 1   | 44    | 2450070    |
|       | .0640 - .0949 | 1   | 44    | 2450072    |
|       | .0950 - .1300 | 1   | 44    | 2450074    |



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| D1    | SIZE RANGE    | D2 | TEETH | EDP Number |         |
|-------|---------------|----|-------|------------|---------|
|       |               |    |       | UC         |         |
| 2 1/2 | .0100 - .0199 | 1  | 48    |            | 2450075 |
|       | .0200 - .0459 | 1  | 48    |            | 2450076 |
|       | .0460 - .0639 | 1  | 48    |            | 2450077 |
|       | .0640 - .0949 | 1  | 48    |            | 2450078 |
|       | .0950 - .1300 | 1  | 48    |            | 2450079 |
| 2 3/4 | .0100 - .0199 | 1  | 60    |            | 2450080 |
|       | .0200 - .0459 | 1  | 60    |            | 2450081 |
|       | .0460 - .0649 | 1  | 60    |            | 2450082 |
|       | .0650 - .0949 | 1  | 60    |            | 2450083 |
|       | .0950 - .1300 | 1  | 60    |            | 2450084 |
| 3     | .0100 - .0199 | 1  | 72    |            | 2450085 |
|       | .0200 - .0459 | 1  | 72    |            | 2450086 |
|       | .0460 - .0649 | 1  | 72    |            | 2450087 |
|       | .0650 - .0949 | 1  | 72    |            | 2450088 |
|       | .0950 - .1259 | 1  | 72    |            | 2450089 |
|       | .1260 - .1889 | 1  | 72    |            | 2450090 |
|       | .1890 - .2500 | 1  | 72    |            | 2450091 |
| 3 1/2 | .0200 - .0399 | 1  | 76    |            | 2450092 |
|       | .0400 - .0649 | 1  | 76    |            | 2450093 |
|       | .0650 - .0949 | 1  | 76    |            | 2450094 |
|       | .0950 - .1300 | 1  | 76    |            | 2450095 |
| 4     | .0200 - .0399 | 1  | 80    |            | 2450096 |
|       | .0400 - .0639 | 1  | 80    |            | 2450097 |
|       | .0640 - .0949 | 1  | 80    |            | 2450098 |
|       | .0950 - .1259 | 1  | 80    |            | 2450099 |
|       | .1260 - .1889 | 1  | 80    |            | 2450100 |
|       | .1890 - .2500 | 1  | 80    |            | 2450101 |
| 5     | .0450 - .0639 | 1  | 100   |            | 2450102 |
|       | .0640 - .0949 | 1  | 100   |            | 2450103 |
|       | .0950 - .1300 | 1  | 100   |            | 2450104 |
| 6     | .0450 - .0639 | 1  | 120   |            | 2450105 |
|       | .0640 - .0949 | 1  | 120   |            | 2450106 |
|       | .0950 - .1300 | 1  | 120   |            | 2450107 |

# JIT Keyseat Cutters

## 4375 | 4375E Keyseat Cutters



### Straight Flutes

1/2" Diameter Steel Shank

1 1/8 - 1 1/2" Cutter Diameter are Solid Carbide Dura Carb III

Need a different size? We can alter our Keyseat Cutter face widths per your requirements. Contact us at **800.248.8315** or **sales@fullertontool.com** for more information.



COATING



IMPERIAL



VARIABLE

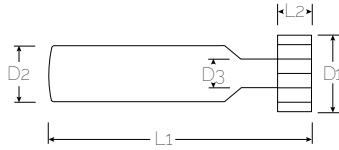
|                               |          |          |
|-------------------------------|----------|----------|
| <b>TOLERANCE:</b>             |          |          |
| <b>1/2" DIAMETER SHANK:</b>   | + .0000" | - .0005" |
|                               | + .013MM | - .013MM |
| <b>CUTTING HEAD DIAMETER:</b> |          |          |
| 3/8" - 3/4" DIA               | + .0100" | - .0150" |
| 7/8" - 1 1/2" DIA             | + .0120" | - .0170" |
| <b>FACE WIDTH:</b>            | + .0000" | - .0005" |
| <b>NECK LENGTH:</b>           | 1/4"     |          |



**12**  
**PIECES**  
**OR LESS**  
ALL STYLES



Need pricing or help finding the right size tool? Our Customer Service team is only a click away with LIVE CHAT at [fullertontool.com](http://fullertontool.com)! Customer Service can also be contacted at 800.248.8315 or [sales@fullertontool.com](mailto:sales@fullertontool.com)

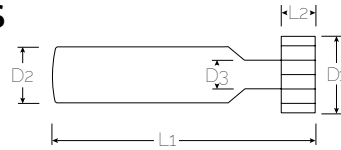


| D1  | AMERICAN STANDARDS NUMBER | L2    | D3    | D2      | L1      | FLUTES | SOLID CARBIDE SHANK | EDP Number |
|-----|---------------------------|-------|-------|---------|---------|--------|---------------------|------------|
|     |                           |       |       |         |         |        |                     | UC         |
| 3/8 |                           | 1/32  | .2030 | 1/2     | 2 1/32  | 8      |                     | 43900      |
|     |                           | 3/64  | .2030 | 1/2     | 2 3/64  | 8      |                     | 43901      |
|     | 203                       | 1/16  | .2030 | 1/2     | 2 1/16  | 8      |                     | 43302      |
|     | 303                       | 3/32  | .2030 | 1/2     | 2 3/32  | 8      |                     | 43303      |
|     | 403                       | 1/8   | .2030 | 1/2     | 2 1/8   | 8      |                     | 43403      |
| 1/2 |                           | 1/32  | .2500 | 1/2     | 2 1/32  | 10     |                     | 43902      |
|     |                           | 3/64  | .2500 | 1/2     | 2 3/64  | 10     |                     | 43903      |
|     | 204                       | 1/16  | .2500 | 1/2     | 2 1/16  | 10     |                     | 43240      |
|     |                           | 5/64  | .2500 | 1/2     | 2 5/64  | 10     |                     | 43904      |
|     | 304                       | 3/32  | .2500 | 1/2     | 2 3/32  | 10     |                     | 43304      |
| 5/8 |                           | 7/64  | .2500 | 1/2     | 2 7/64  | 10     |                     | 43905      |
|     | 404                       | 1/8   | .2500 | 1/2     | 2 1/8   | 10     |                     | 43404      |
|     |                           | 1/32  | .2810 | 1/2     | 2 1/32  | 10     |                     | 43906      |
|     |                           | 3/64  | .2810 | 1/2     | 2 3/64  | 10     |                     | 43907      |
|     |                           | 1/16  | .2810 | 1/2     | 2 1/16  | 10     |                     | 43908      |
|     |                           | 5/64  | .2810 | 1/2     | 2 5/64  | 10     |                     | 43909      |
|     | 305                       | 3/32  | .2810 | 1/2     | 2 3/32  | 10     |                     | 43305      |
|     |                           | 7/64  | .2810 | 1/2     | 2 7/64  | 10     |                     | 43910      |
|     | 405                       | 1/8   | .2810 | 1/2     | 2 1/8   | 10     |                     | 43405      |
|     |                           | 9/64  | .2810 | 1/2     | 2 9/64  | 10     |                     | 43911      |
| 3/4 | 505                       | 5/32  | .2810 | 1/2     | 2 5/32  | 10     |                     | 43505      |
|     | 605                       | 3/16  | .2810 | 1/2     | 2 3/16  | 10     |                     | 43605      |
|     |                           | 1/32  | .2810 | 1/2     | 2 1/32  | 10     |                     | 43912      |
|     |                           | 3/64  | .2810 | 1/2     | 2 3/64  | 10     |                     | 43913      |
|     |                           | 1/16  | .2810 | 1/2     | 2 1/16  | 10     |                     | 43914      |
|     |                           | 5/64  | .2810 | 1/2     | 2 5/64  | 10     |                     | 43915      |
|     |                           | 3/32  | .2810 | 1/2     | 2 3/32  | 10     |                     | 43916      |
|     |                           | 7/64  | .2810 | 1/2     | 2 7/64  | 10     |                     | 43917      |
|     | 406                       | 1/8   | .2810 | 1/2     | 2 1/8   | 10     |                     | 43406      |
|     |                           | 9/64  | .2810 | 1/2     | 2 9/64  | 10     |                     | 43918      |
|     | 506                       | 5/32  | .2810 | 1/2     | 2 5/32  | 10     |                     | 43506      |
|     | 606                       | 3/16  | .2810 | 1/2     | 2 3/16  | 10     |                     | 43606      |
|     |                           | 13/64 | .2810 | 1/2     | 2 13/64 | 10     |                     | 43919      |
|     |                           | 7/32  | .2810 | 1/2     | 2 7/32  | 10     |                     | 43920      |
|     | 15/64                     | .2810 | 1/2   | 2 15/64 | 10      |        | 43921               |            |
| 806 | 1/4                       | .2810 | 1/2   | 2 1/4   | 10      |        | 43806               |            |

EDP offering continued on next page.

# JIT Keyseat Cutters

## 4375 | 4375E Keyseat Cutters



| D1    | AMERICAN STANDARDS NUMBER | L2    | D3    | D2    | L1     | FLUTES | SOLID CARBIDE SHANK | EDP Number |
|-------|---------------------------|-------|-------|-------|--------|--------|---------------------|------------|
|       |                           |       |       |       |        |        |                     | UC         |
| 7/8   |                           | 1/16  | .2810 | 1/2   | 2 1/16 | 12     |                     | 43922      |
|       |                           | 1/8   | .2810 | 1/2   | 2 1/8  | 12     |                     | 43923      |
|       | 507                       | 5/32  | .2810 | 1/2   | 2 5/32 | 12     |                     | 43507      |
|       | 607                       | 3/16  | .2810 | 1/2   | 2 3/16 | 12     |                     | 43607      |
|       | 707                       | 7/32  | .2810 | 1/2   | 2 7/32 | 12     |                     | 43707      |
|       | 807                       | 1/4   | .2810 | 1/2   | 2 1/4  | 12     |                     | 43807      |
| 1     |                           | 1/32  | .2810 | 1/2   | 2 1/32 | 12     |                     | 43924      |
|       |                           | 3/64  | .2810 | 1/2   | 2 3/64 | 12     |                     | 43925      |
|       |                           | 1/16  | .2810 | 1/2   | 2 1/16 | 12     |                     | 43926      |
|       |                           | 5/64  | .2810 | 1/2   | 2 5/64 | 12     |                     | 43927      |
|       |                           | 3/32  | .2810 | 1/2   | 2 3/32 | 12     |                     | 43928      |
|       |                           | 1/8   | .2810 | 1/2   | 2 1/8  | 12     |                     | 43929      |
|       |                           | 5/32  | .2810 | 1/2   | 2 5/32 | 12     |                     | 43930      |
|       | 608                       | 3/16  | .2810 | 1/2   | 2 3/16 | 12     |                     | 43608      |
|       | 708                       | 7/32  | .2810 | 1/2   | 2 7/32 | 12     |                     | 43708      |
|       | 808                       | 1/4   | .2810 | 1/2   | 2 1/4  | 12     |                     | 43808      |
| 1 1/8 |                           | 1/8   | .2810 | 1/2   | 2 1/8  | 14     | ✓                   | 43931      |
|       | 609                       | 3/16  | .2810 | 1/2   | 2 3/16 | 14     | ✓                   | 43609      |
|       | 709                       | 7/32  | .2810 | 1/2   | 2 7/32 | 14     | ✓                   | 43709      |
|       | 809                       | 1/4   | .2810 | 1/2   | 2 1/4  | 14     | ✓                   | 43809      |
| 1 1/4 |                           | 1/32  | .2810 | 1/2   | 2 1/32 | 14     | ✓                   | 43932      |
|       |                           | 1/16  | .2810 | 1/2   | 2 1/16 | 14     | ✓                   | 43933      |
|       |                           | 3/32  | .2810 | 1/2   | 2 3/32 | 14     | ✓                   | 43934      |
|       |                           | 1/8   | .2810 | 1/2   | 2 1/8  | 14     | ✓                   | 43935      |
|       |                           | 5/32  | .2810 | 1/2   | 2 5/32 | 14     | ✓                   | 43936      |
|       | 610                       | 3/16  | .2810 | 1/2   | 2 3/16 | 14     | ✓                   | 43610      |
|       | 710                       | 7/32  | .2810 | 1/2   | 2 7/32 | 14     | ✓                   | 43710      |
|       | 810                       | 1/4   | .2810 | 1/2   | 2 1/4  | 14     | ✓                   | 43810      |
| 1 1/2 |                           | 1/32  | .3750 | 1/2   | 2 1/32 | 16     | ✓                   | 43937      |
|       |                           | 1/16  | .3750 | 1/2   | 2 1/16 | 16     | ✓                   | 43938      |
|       |                           | 3/32  | .3750 | 1/2   | 2 3/32 | 16     | ✓                   | 43939      |
|       |                           | 1/8   | .3750 | 1/2   | 2 1/8  | 16     | ✓                   | 43940      |
|       |                           | 3/16  | .3750 | 1/2   | 2 3/16 | 16     | ✓                   | 43941      |
|       | 812                       | 1/4   | .3750 | 1/2   | 2 1/4  | 16     | ✓                   | 43812      |
|       | 1012                      | 5/16  | .3750 | 1/2   | 2 5/16 | 16     | ✓                   | 43000      |
| 1212  | 3/8                       | .3750 | 1/2   | 2 3/8 | 16     | ✓      | 43212               |            |



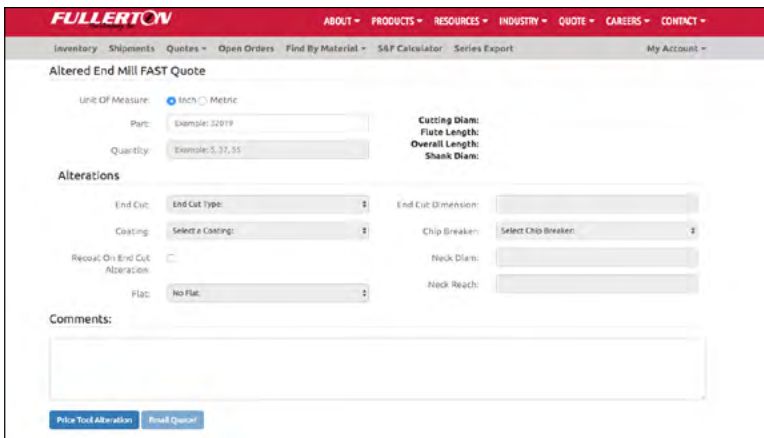
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## Altered End Mill FAST Quotes

### Get Pricing Instantly with FAST Quotes!

With our new **Altered End Mill FAST Quotes** you can type in almost any standard end mill part number, make slight modifications and generate instant pricing and lead times.



The screenshot shows the 'Altered End Mill FAST Quote' tool interface. At the top, there is a navigation bar with 'FULLERTON' and various menu items like 'ABOUT', 'PRODUCTS', 'RESOURCES', 'INDUSTRY', 'QUOTE', 'CAREERS', and 'CONTACT'. Below this is a secondary navigation bar with 'Inventory', 'Shipments', 'Quotes', 'Open Orders', 'Find By Material', 'S&P Calculator', 'Series Export', and 'My Account'. The main content area is titled 'Altered End Mill FAST Quote' and contains several input fields and dropdown menus. On the left, there are fields for 'Line Of Measure' (with radio buttons for 'Inch' and 'Metric'), 'Part' (with an example '32019'), and 'Quantity' (with an example '5.37, 55'). On the right, there are fields for 'Cutting Diam.', 'Flute Length', 'Overall Length', and 'Shank Diam.'. Below these are 'Alterations' fields: 'End Cut' (with a dropdown for 'End Cut Type'), 'Coating' (with a dropdown for 'Select a Coating'), 'Recoat Or End Cut Alteration' (with a checkbox), and 'Flat' (with a dropdown for 'No Flat'). There are also fields for 'End Cut Dimension', 'Chip Breaker' (with a dropdown for 'Select Chip Breaker'), 'Neck Diam.', and 'Neck Reach'. At the bottom, there is a 'Comments' text area and two buttons: 'Price Tool Alteration' and 'Final Quote!'.

Make the following modifications to Fullerton standard end mills:

- Corner Radius
- Neck Relief
- Coatings
- Weldon Flats
- Chipbreakers

Need more than slight alterations? Our **Special End Mills FAST Quote** tool will also generate instant pricing and turnaround time.

You can find both of those quoting tools under FAST Quotes in the top grey bar of our website when logged in. You must have a Fullerton account to access **FAST Quotes**. If you don't have an account already, you can visit [fullertontool.com](http://fullertontool.com) and select **Login In/Sign Up**.

# Speeds & Feeds

## Saw Speeds & Feeds

| SFM (ft/min) |            | Low SI Aluminum <10%<br>(1200-1500) SFM (ft/min) | High SI Aluminum >10%<br>(750-1000) SFM (ft/min) | Composites<br>(0-0) SFM (ft/min) | Plastics<br>(1500-2000) SFM (ft/min) | Brass & Copper<br>(400-550) SFM (ft/min) | Graphite<br>(0-0) SFM (ft/min) | Cast Iron<br>(150-350) SFM (ft/min) | Hardened Steel > 48RC<br>(60-140) SFM (ft/min) | Mild Steels < 48 RC<br>(150-400) SFM (ft/min) | Stainless Steels<br>(75-175) SFM (ft/min) | Super Alloys<br>(50-150) SFM (ft/min) | Titanium<br>(75-200) SFM (ft/min) |
|--------------|------------|--|--|----------------------------------|--------------------------------------|--|--------------------------------|-------------------------------------|--|---|---|---------------------------------------|-----------------------------------|
| Diameter     | # of Teeth | Slotting   | Slotting   | Slotting                         | Slotting                             | Slotting                                 | Slotting                       | Slotting                            | Slotting                                       | Slotting                                      | Slotting                                  | Slotting                              | Slotting                          |
|              |            | Rough  | Rough  | Rough                            | Rough                                | Rough                                    | Rough                          | Rough                               | Rough  | Rough   | Rough                                     | Rough                                 | Rough                             |
| 1/4          | 12         | .0040  | -  | .0040                            | .0040                                | .0040                                    | .0040                          | .0030                               | .0020  | .0020   | .0020                                     | .0020                                 | .0020                             |
| 5/16         | 12         | .0042  | -  | .0042                            | .0042                                | .0042                                    | .0042                          | .0033                               | .0021  | .0021   | .0021                                     | .0021                                 | .0021                             |
| 3/8          | 14         | .0045  | -  | .0045                            | .0045                                | .0045                                    | .0045                          | .0035                               | .0022  | .0022   | .0022                                     | .0022                                 | .0022                             |
| 1/2          | 14         | .0048  | -  | .0048                            | .0048                                | .0048                                    | .0048                          | .0038                               | .0023  | .0023   | .0023                                     | .0023                                 | .0023                             |
| 5/8          | 16         | .0050  | -  | .0050                            | .0050                                | .0050                                    | .0050                          | .0040                               | .0024  | .0024   | .0024                                     | .0024                                 | .0024                             |
| 3/4          | 18         | .0052  | -  | .0052                            | .0052                                | .0052                                    | .0052                          | .0042                               | .0025  | .0025   | .0025                                     | .0025                                 | .0025                             |
| 1            | 20         | .0055  | -  | .0055                            | .0055                                | .0055                                    | .0055                          | .0045                               | .0026  | .0026   | .0026                                     | .0026                                 | .0026                             |
| 1 1/4        | 24         | .0058  | -  | .0058                            | .0058                                | .0058                                    | .0058                          | .0049                               | .0027  | .0027   | .0027                                     | .0027                                 | .0027                             |
| 1 1/2        | 36         | .0060  | -  | .0060                            | .0060                                | .0060                                    | .0060                          | .0050                               | .0028  | .0028   | .0028                                     | .0028                                 | .0028                             |
| 1 3/4        | 38         | .0062  | -  | .0062                            | .0062                                | .0062                                    | .0062                          | .0052                               | .0029  | .0029   | .0029                                     | .0029                                 | .0029                             |
| 2            | 40         | .0065  | -  | .0065                            | .0065                                | .0065                                    | .0065                          | .0055                               | .0030  | .0030   | .0030                                     | .0030                                 | .0030                             |
| 2 1/4        | 44         | .0068  | -  | .0068                            | .0068                                | .0068                                    | .0068                          | .0058                               | .0033  | .0033   | .0031                                     | .0031                                 | .0031                             |
| 2 1/2        | 48         | .0070  | -  | .0070                            | .0070                                | .0070                                    | .0070                          | .0060                               | .0035  | .0035   | .0032                                     | .0032                                 | .0032                             |
| 2 3/4        | 60         | .0072  | -  | .0072                            | .0072                                | .0072                                    | .0072                          | .0062                               | .0038  | .0038   | .0033                                     | .0033                                 | .0033                             |
| 3            | 72         | .0075  | -  | .0075                            | .0075                                | .0075                                    | .0075                          | .0065                               | .0040  | .0040   | .0034                                     | .0034                                 | .0034                             |
| 3 1/2        | 76         | .0078  | -  | .0078                            | .0078                                | .0078                                    | .0078                          | .0068                               | .0042  | .0042   | .0035                                     | .0035                                 | .0035                             |
| 4            | 80         | .0080  | -  | .0080                            | .0080                                | .0080                                    | .0080                          | .0070                               | .0045  | .0045   | .0037                                     | .0037                                 | .0037                             |
| 5            | 100        | .0080  | -  | .0080                            | .0080                                | .0080                                    | .0080                          | .0070                               | .0048  | .0048   | .0039                                     | .0039                                 | .0039                             |
| 6            | 120        | .0080  | -  | .0080                            | .0080                                | .0080                                    | .0080                          | .0070                               | .0050  | .0050   | .0040                                     | .0040                                 | .0040                             |

IPT (in/tooth)

NOT RECOMMENDED

## Keyseat Cutter Speeds & Feeds

| SFM (ft/min) |            | Low SI Aluminum <10%<br>(1200-1500) SFM (ft/min) | High SI Aluminum >10%<br>(750-1000) SFM (ft/min) | Composites<br>(0-0) SFM (ft/min) | Plastics<br>(1500-2000) SFM (ft/min) | Brass & Copper<br>(400-550) SFM (ft/min) | Graphite<br>(0-0) SFM (ft/min) | Cast Iron<br>(150-350) SFM (ft/min) | Hardened Steel > 48RC<br>(60-140) SFM (ft/min) | Mild Steels < 48 RC<br>(150-400) SFM (ft/min) | Stainless Steels<br>(75-175) SFM (ft/min) | Super Alloys<br>(50-150) SFM (ft/min) | Titanium<br>(75-200) SFM (ft/min) |
|--------------|------------|--|--|----------------------------------|--------------------------------------|--|--------------------------------|-------------------------------------|--|---|---|---------------------------------------|-----------------------------------|
| Diameter     | # of Teeth | Slotting   | Slotting   | Slotting                         | Slotting                             | Slotting                                 | Slotting                       | Slotting                            | Slotting                                       | Slotting                                      | Slotting                                  | Slotting                              | Slotting                          |
|              |            | Rough  | Rough  | Rough                            | Rough                                | Rough                                    | Rough                          | Rough                               | Rough  | Rough   | Rough                                     | Rough                                 | Rough                             |
| 10           | 8          | .0325  | .0307  | -                                | .0332                                | .0352                                    | -                              | .0582                               | .1558  | .0727   | .0540                                     | .0686                                 | .0665                             |
| 12           | 10         | .0305  | .0343  | -                                | .0296                                | .0356                                    | -                              | .0437                               | .1140  | .0532   | .0406                                     | .0460                                 | .0455                             |
| 15           | 10         | .0293  | .0332  | -                                | .0286                                | .0342                                    | -                              | .0374                               | .0987  | .0457   | .0356                                     | .0364                                 | .0361                             |
| 20           | 10         | .0280  | .0320  | -                                | .0278                                | .0321                                    | -                              | .0332                               | .0887  | .0399   | .0332                                     | .0315                                 | .0296                             |
| 22           | 12         | .0235  | .0270  | -                                | .0232                                | .0269                                    | -                              | .0280                               | .0754  | .0345   | .0283                                     | .0255                                 | .0251                             |
| 25           | 12         | .0300  | .0345  | -                                | .0300                                | .0338                                    | -                              | .0332                               | .0887  | .0399   | .0328                                     | .0302                                 | .0286                             |
| 28           | 14         | .0248  | .0293  | -                                | .0240                                | .0278                                    | -                              | .0272                               | .0680  | .0285   | .0267                                     | .0214                                 | .0214                             |
| 31           | 14         | .0242  | .0284  | -                                | .0228                                | .0260                                    | -                              | .0237                               | .0643  | .0254   | .0230                                     | .0212                                 | .0213                             |
| 38           | 16         | .0204  | .0224  | -                                | .0190                                | .0215                                    | -                              | .0192                               | .0490  | .0187   | .0178                                     | .0166                                 | .0187                             |

MMPT (mm/tooth)



## Reamer Speeds & Feeds

| Material              | Speed SFM | Feed (IPR) |       |       | SMPM  | Feed (MMPR) |        |         |
|-----------------------|-----------|------------|-------|-------|-------|-------------|--------|---------|
|                       |           | .1250      | .2500 | .5000 |       | 3.00mm      | 6.00mm | 12.00mm |
| High Si Aluminum >10% | 75-200    | .0040      | .0080 | .0120 | 22-60 | .1016       | .2032  | .3048   |
| Low Si Aluminum <10%  | 100-300   | .0050      | .0100 | .0150 | 30-91 | .1270       | .2540  | .3810   |
| Composites            | -         | -          | -     | -     | -     | -           | -      | -       |
| Plastics              | -         | -          | -     | -     | -     | -           | -      | -       |
| Brass & Copper        | 75-150    | .0030      | .0040 | .0060 | 22-45 | .0762       | .1016  | .1524   |
| Graphite              | -         | -          | -     | -     | -     | -           | -      | -       |
| Cast Iron             |           |            |       |       |       |             |        |         |
| Soft                  | 75-150    | .0050      | .0080 | .0120 | 22-45 | .1270       | .2032  | .3048   |
| Medium                | 60-100    | .0050      | .0080 | .0120 | 18-30 | .1270       | .2032  | .3048   |
| Malleable             | 40-100    | .0030      | .0060 | .0100 | 12-30 | .0762       | .1524  | .2540   |
| Bronze                | 65-125    | .0030      | .0040 | .0060 | 19-38 | .0762       | .1016  | .1524   |
| Hardened Steels       | 30-90     | .0020      | .0020 | .0040 | 9-27  | .0508       | .0508  | .1016   |
| Steels                |           |            |       |       |       |             |        |         |
| Low Carbon            | 60-125    | .0030      | .0060 | .0100 | 18-28 | .0762       | .1524  | .2540   |
| Medium Carbon         | 100-150   | .0030      | .0050 | .0080 | 30-45 | .0762       | .1270  | .2032   |
| Stainless Steels      |           |            |       |       |       |             |        |         |
| Free Machining        | 50-90     | .0050      | .0080 | .0120 | 15-27 | .1270       | .2032  | .3048   |
| Work Machining        | 30-75     | .0030      | .0060 | .0100 | 9-22  | .0762       | .1524  | .2540   |
| Super Alloys          | 40-80     | .0025      | .0035 | .0055 | 12-24 | .0635       | .0889  | .1397   |
| Titanium              |           |            |       |       |       |             |        |         |
| Soft                  | 50-125    | .0030      | .0060 | .0100 | 15-38 | .0762       | .1524  | .2540   |
| Hard                  | 20-60     | .0020      | .0040 | .0080 | 6-18  | .0508       | .1016  | .2032   |

The parameters listed for tool series that are stocked uncoated are based on running an uncoated tool. If a coating is applied to the tools, the SMM can be increased by approximately 25%. All speed and feed recommendations should be considered only as a starting point. Start with conservative speeds and feeds while analyzing the rigidity of the process. Then cautiously progress incrementally to achieve optimum performance.

# **FULLERTON**

TOOL COMPANY

## **DOWNLOAD OUR SPEED & FEED CALCULATOR MOBILE APP**



Calculate optimal settings instantly from the convenience of your phone or tablet, regardless if you're slotting, peel milling or trichoidal milling. Available for Android & iOS, it will soon be your favorite resource when tooling up a machine.

## **ABOUT FULLERTON TOOL COMPANY**

Fullerton Tool Company is a third-generation, family owned business that specializes in the design and production of solid carbide cutting tools for a wide variety of industries. Founded in 1942, the company manufactures high quality end mills, drills, reamers, burrs, saws, keyseat cutters and PCD tooling. Fullerton's Advanced Solutions Team (FAST) is the foundation of the company's commitment to continuously improve, innovate and provide vast product diversity. Fullerton is an ISO 9001:2015 certified company.



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