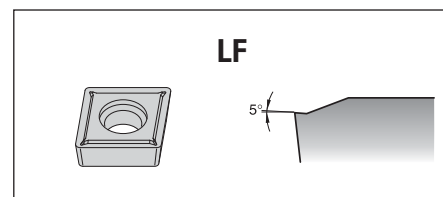


|                           |           |              |     |      |
|---------------------------|-----------|--------------|-----|------|
| cutting conditions        |           |              |     |      |
| cutting speed (SFM) range | <b>K1</b> | 755          | 985 | 1800 |
|                           | <b>K2</b> | 490          | 790 | 1380 |
|                           | <b>K3</b> | 490          | 690 | 1150 |
| carbide grade             |           | <b>KCK20</b> |     |      |



| ISO catalog number | ANSI catalog number | KCK20   | L10   |      | R <sub>e</sub> |      | ap min | starting value depth of cut (in) |           | f/rev min | starting value feed rate (in/rev) |      |
|--------------------|---------------------|---------|-------|------|----------------|------|--------|----------------------------------|-----------|-----------|-----------------------------------|------|
|                    |                     |         | mm    | in   | mm             | in   |        | ap max                           | f/rev max |           |                                   |      |
| CCMT060204LF       | CCMT2151LF          | 3758167 | 6,45  | .254 | 0,4            | 1/64 | .015   | .031                             | .078      | .003      | .005                              | .007 |
| CCMT09T304LF       | CCMT3251LF          | 3758168 | 9,67  | .381 | 0,4            | 1/64 | .015   | .031                             | .078      | .003      | .007                              | .011 |
| CCMT09T308LF       | CCMT3252LF          | 3758169 | 9,67  | .381 | 0,8            | 1/32 | .031   | .059                             | .090      | .003      | .007                              | .011 |
| CCMT120404LF       | CCMT431LF           | 3758170 | 12,90 | .508 | 0,4            | 1/64 | .015   | .031                             | .098      | .003      | .007                              | .011 |
| CCMT120408LF       | CCMT432LF           | 3755481 | 12,90 | .508 | 0,8            | 1/32 | .031   | .059                             | .118      | .003      | .009                              | .015 |
| DCMT070204LF       | DCMT2151LF          | 3755486 | 7,75  | .305 | 0,4            | 1/64 | .015   | .035                             | .078      | .003      | .005                              | .007 |
| DCMT11T304LF       | DCMT3251LF          | 3758172 | 11,63 | .458 | 0,4            | 1/64 | .015   | .035                             | .078      | .003      | .007                              | .011 |
| DCMT11T308LF       | DCMT3252LF          | 3755487 | 11,63 | .458 | 0,8            | 1/32 | .031   | .070                             | .090      | .003      | .007                              | .011 |
| SCMT09T304LF       | SCMT3251LF          | 3755504 | 9,53  | .375 | 0,4            | 1/64 | .015   | .039                             | .078      | .003      | .007                              | .011 |
| SCMT09T308LF       | SCMT3252LF          | 3755505 | 9,53  | .375 | 0,8            | 1/32 | .031   | .078                             | .090      | .003      | .007                              | .011 |
| SCMT120408LF       | SCMT432LF           | 3755507 | 12,70 | .500 | 0,8            | 1/32 | .031   | .078                             | .118      | .003      | .009                              | .015 |
| SCMT120412LF       | SCMT433LF           | 3755508 | 12,70 | .500 | 1,2            | 3/64 | .039   | .098                             | .118      | .003      | .009                              | .015 |
| TCMT110204LF       | TCMT2151LF          | 3755511 | 11,00 | .433 | 0,4            | 1/64 | .015   | .039                             | .078      | .003      | .007                              | .011 |
| TCMT16T308LF       | TCMT3252LF          | 3755514 | 16,50 | .650 | 0,8            | 1/32 | .031   | .074                             | .090      | .003      | .009                              | .013 |
| TCMT16T312LF       | TCMT3253LF          | 3755515 | 16,50 | .650 | 1,2            | 3/64 | .039   | .098                             | .118      | .003      | .009                              | .015 |
| VBMT160408LF       | VBMT332LF           | 3755526 | 16,61 | .654 | 0,8            | 1/32 | .023   | .047                             | .078      | .003      | .005                              | .009 |
| VBMT160412LF       | VBMT333LF           | 3755527 | 16,61 | .654 | 1,2            | 3/64 | .031   | .063                             | .090      | .003      | .007                              | .011 |



TURNING

FIRST CHOICE

MILLING

FIRST CHOICE

HOLEMAKING

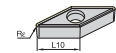
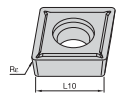
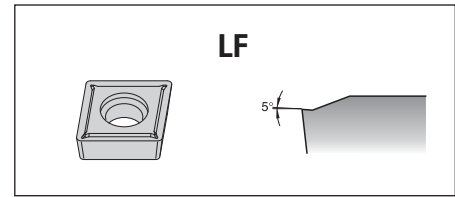
FIRST CHOICE

TOOLING SYSTEMS

FIRST CHOICE



|                           |       |        |      |      |
|---------------------------|-------|--------|------|------|
| cutting conditions        |       |        |      |      |
| cutting speed (SFM) range | N1-N2 | 410    | 1800 | 3280 |
|                           | N4    | 410    | 900  | 2460 |
|                           | N5    | 410    | 560  | 3940 |
|                           | N6    | 328    | 655  | 1640 |
|                           | N8    | 328    | 705  | 1640 |
| carbide grade             |       | KC5410 |      |      |

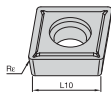
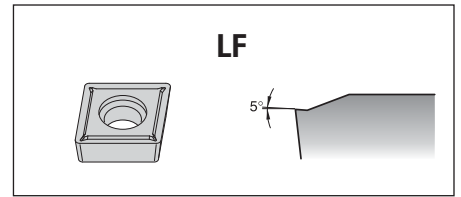


| ISO catalog number | ANSI catalog number | KC5410  | L10  |      | R <sub>ε</sub> |      | ap min | starting value depth of cut (in) | ap max | f/rev min | starting value feed rate (in/rev) | f/rev max |
|--------------------|---------------------|---------|------|------|----------------|------|--------|----------------------------------|--------|-----------|-----------------------------------|-----------|
| CCGT09T304LF       | CCGT3251LF          | 1807220 | 9,67 | .381 | 0,4            | 1/64 | .011   | .023                             | .078   | .003      | .007                              | .011      |

|              |            |         |       |      |     |      |      |      |      |      |      |      |
|--------------|------------|---------|-------|------|-----|------|------|------|------|------|------|------|
| VBGT110301LF | VBGT220LF  | 1866757 | 11,07 | .436 | 0,1 | .004 | .001 | .003 | .039 | .001 | .001 | .003 |
| VBGT160402LF | VBGT3305LF | 1866761 | 16,61 | .654 | 0,2 | .008 | .003 | .007 | .059 | .002 | .003 | .004 |
| VBGT160404LF | VBGT331LF  | 1866762 | 16,61 | .654 | 0,4 | 1/64 | .011 | .023 | .078 | .003 | .005 | .007 |



|                           |    |       |     |     |
|---------------------------|----|-------|-----|-----|
| cutting conditions        |    |       |     |     |
| cutting speed (SFM) range | S1 | 50    | 180 | 460 |
|                           | S2 | 50    | 200 | 460 |
|                           | S3 | 50    | 230 | 460 |
|                           | S4 | 50    | 230 | 560 |
| carbide grade             |    | KCU10 |     |     |



| ISO catalog number | ANSI catalog number | KCU10   | L10   |      | R <sub>e</sub> |      | ap min | starting value depth of cut (in) |           | f/rev min | starting value feed rate (in/rev) |      |
|--------------------|---------------------|---------|-------|------|----------------|------|--------|----------------------------------|-----------|-----------|-----------------------------------|------|
|                    |                     |         | mm    | in   | mm             | in   |        | ap max                           | f/rev max |           |                                   |      |
| CCGT060201LF       | CCGT2150LF          | 4045136 | 6,45  | .254 | 0,1            | .004 | .001   | .003                             | .039      | .001      | .001                              | .003 |
| CCGT060202LF       | CCGT21505LF         | 4045135 | 6,45  | .254 | 0,2            | .008 | .003   | .007                             | .059      | .002      | .003                              | .004 |
| CCGT060204LF       | CCGT2151LF          | 4045138 | 6,45  | .254 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .005                              | .007 |
| CCGT060208LF       | CCGT2152LF          | 4045140 | 6,45  | .254 | 0,8            | 1/32 | .023   | .043                             | .090      | .003      | .007                              | .011 |
| CCGT09T301LF       | CCGT3250LF          | 4045193 | 9,67  | .381 | 0,1            | .004 | .003   | .007                             | .039      | .001      | .001                              | .003 |
| CCGT09T302LF       | CCGT32505LF         | 4045142 | 9,67  | .381 | 0,2            | .008 | .007   | .015                             | .059      | .002      | .003                              | .004 |
| CCGT09T304LF       | CCGT3251LF          | 4045195 | 9,67  | .381 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .007                              | .011 |
| CCGT09T308LF       | CCGT3252LF          | 4045197 | 9,67  | .381 | 0,8            | 1/32 | .023   | .043                             | .090      | .003      | .009                              | .015 |
| DCGT070201LF       | DCGT2150LF          | 4045238 | 7,75  | .305 | 0,1            | .004 | .001   | .003                             | .039      | .001      | .001                              | .003 |
| DCGT11T301LF       | DCGT3250LF          | 4045242 | 11,63 | .458 | 0,1            | .004 | .001   | .003                             | .039      | .001      | .001                              | .003 |
| DCMT11T308LF       | DCMT3252LF          | 4045269 | 11,63 | .458 | 0,8            | 1/32 | .031   | .070                             | .090      | .003      | .007                              | .011 |
| TCGT110204LF       | TCGT2151LF          | 4044822 | 11,00 | .433 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .007                              | .011 |
| TCGT16T304LF       | TCGT3251LF          | 4045317 | 16,50 | .650 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .007                              | .011 |
| TCGT16T308LF       | TCGT3252LF          | 4045319 | 16,50 | .650 | 0,8            | 1/32 | .023   | .043                             | .090      | .003      | .009                              | .015 |
| VBGT110301LF       | VBGT220LF           | 4045337 | 11,07 | .436 | 0,1            | .004 | .001   | .003                             | .039      | .001      | .001                              | .003 |
| VBGT110302LF       | VBGT2205LF          | 4045336 | 11,07 | .436 | 0,2            | .008 | .003   | .007                             | .059      | .002      | .003                              | .004 |
| VBGT110304LF       | VBGT221LF           | 4045339 | 11,07 | .436 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .005                              | .007 |
| VBGT160401LF       | VBGT330LF           | 4045341 | 16,61 | .654 | 0,1            | .004 | .001   | .003                             | .039      | .001      | .001                              | .003 |
| VBGT160402LF       | VBGT3305LF          | 4045340 | 16,61 | .654 | 0,2            | .008 | .003   | .007                             | .059      | .002      | .003                              | .004 |
| VBGT160404LF       | VBGT331LF           | 4045343 | 16,61 | .654 | 0,4            | 1/64 | .011   | .023                             | .078      | .003      | .005                              | .007 |

