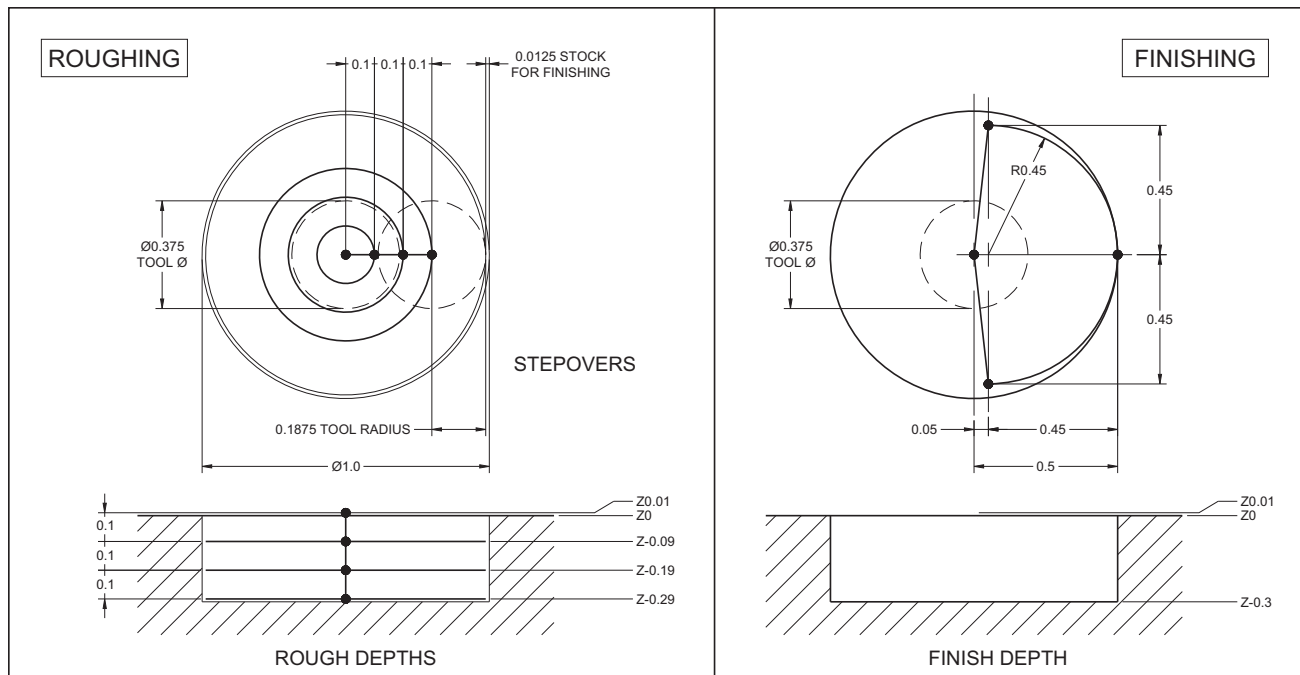


Six Pockets

The suggested version of the part program is documented in detail as comments in the program. Follow the internal program comments along with the detailed drawing, to understand the programming approach.



(SIX POCKETS - MAIN PROGRAM)
 (ALUMINUM PLATE 4 X 3 X 0.5 - CLAMP HORIZONTALLY IN A VISE)
 (X0Y0 = LL CORNER - Z0 = TOP OF PART)

(POCKET A - SINGLE DEPTH - MULTIPLE STEPOVERS)
 (POCKET B - MULTIPLE DEPTHS - SINGLE STEPOVER)
 (POCKETS C-D-E-F - MULTIPLE DEPTHS - MULTIPLE STEPOVERS)

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(T01 = 0.375 CENTER CUTTING END MILL - IN THE SPINDLE)
N1 G20                                     (ENGLISH UNITS)
N2 G17 G40 G80                           (STANDARD CANCELLATIONS)
N3 G90 G00 G54 X0.75 Y0.85 S2500 M03     (MOVE TO POCKET A)
N4 G43 Z0.1 H01 M08                      (INITIAL Z-CLEARANCE)
N5 G01 Z-0.19 F4.0                       (PARTIAL DEPTH ONLY)
N6 M98 P3981                             (ROUGH POCKET A)
N7 G90 G00 Z0.1                          (INITIAL Z-CLEARANCE)
N8 X2.0                                  (MOVE TO POCKET B)
N9 G01 Z0.01 F4.0                        (START POSITION FOR SUBPROGRAM)
N10 M98 P3982 L3                         (ROUGH POCKET B - 3 DEPTHS)
N11 G90 G00 Z0.1                        (INITIAL Z-CLEARANCE)
N12 X3.25 M98 P3983                     (MOVE TO AND ROUGH POCKET C)
N13 Y2.15 M98 P3983                     (MOVE TO AND ROUGH POCKET D)
N14 X2.0 M98 P3983                     (MOVE TO AND ROUGH POCKET E)
  
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N15 X0.75 M98 P3983	(MOVE TO AND ROUGH POCKET F)
N16 S3500	(INCREASE SPINDLE SPEED FOR FINISHING)
N17 Y0.85 M98 P3984	(FINISH POCKET A)
N18 X2.0 M98 P3984	(FINISH POCKET B)
N19 X3.25 M98 P3984	(FINISH POCKET C)
N20 Y2.15 M98 P3984	(FINISH POCKET D)
N21 X2.0 M98 P3984	(FINISH POCKET E)
N22 X0.75 M98 P3984	(FINISH POCKET F)
N23 M09	(COOLANT OFF)
N24 G28 Z0.1 M05	(MACHINE ZERO RETURN Z-AXIS - RPM STOP)
N25 Y8.0	(PART CHANGE POSITION)
N26 M30	(MAIN PROGRAM END)
%	(END OF FILE TRANSFER)
O3981	(SUB FOR 3 STEPOVERS)
N101 G91 G01 Z-0.1 F4.0	(DEPTH FOR CURRENT STEPOVER)
N102 X0.1	(STEPOVER 1 OF 3)
N103 G03 I-0.1 F8.0	(0.1 RADIUS AT TOOL CENTER)
N104 G01 X0.1	(STEPOVER 2 OF 3)
N105 G03 I-0.2	(0.2 RADIUS AT TOOL CENTER)
N106 G01 X0.1	(STEPOVER 3 OF 3)
N107 G03 I-0.3	(0.3 RADIUS AT TOOL CENTER)
N108 G01 X-0.3	(MOVE BACK TO THE POCKET CENTER)
N109 M99	(END OF SUBPROGRAM O3981)
%	(END OF FILE TRANSFER)
O3982	(SUB FOR POCKET B)
N201 G91 Z-0.1	(DEPTH FOR CURRENT STEPOVER)
N202 X0.3 F8.0	(STEPOVER 1 OF 1)
N203 G03 I-0.3	(0.3 RADIUS AT TOOL CENTER)
N204 G01 X-0.3	(MOVE BACK TO THE POCKET CENTER)
N205 M99	(END OF SUBPROGRAM O3982)
%	(END OF FILE TRANSFER)
O3983	(SUB FOR 3 DEPTHS - POCKETS)
N301 G01 Z0.01 F10.0	(START POSITION FOR SUBPROGRAM)
N302 M98 P3981 L3	(REPEAT STEPOVERS AT THREE DEPTHS)
N303 G90 G00 Z0.1	(INITIAL Z-CLEARANCE)
N304 M99	(END OF SUBPROGRAM O3983)
%	(END OF FILE TRANSFER)
O3984	(SUB FOR FINISHING POCKETS A TO F)
N401 G01 Z-0.25 F15.0	(FASTER FEEDRATE TO CLEAR POSITION)
N402 Z-0.3 F5.0	(FULL POCKET DEPTH AT SLOWER FEEDRATE)
N403 G91 G41 X0.05 Y-0.45 D51	(CUTTER RADIUS COMPENSATION ACTIVE)
N404 G03 X0.45 Y0.45 I0 J0.45	(LEAD-IN ARC OF 0.45 RADIUS)
N405 I-0.5	(FULL CIRCLE CUTTING - 1.0 DIA)
N406 X-0.45 Y0.45 I-0.45 J0	(LEAD-OUT ARC OF 0.45 RADIUS)
N407 G40 G01 X-0.05 Y-0.45	(CUTTER RADIUS COMPENSATION CANCEL)
N408 G90 G00 Z0.1	(INITIAL Z-CLEARANCE)
N409 M99	(END OF SUBPROGRAM O3984)
%	(END OF FILE TRANSFER)