

(EXTERNAL AND INTERNAL WORK.NC)
(ROUGH AND FINISH MATERIAL REMOVAL)
(PETER SMID - CNC PROGRAMMING HANDBOOK)

(X0Z0 - CENTER LINE AND FRONT FACE OF FINISHED PART)

(T01 - 1.375 DIA INDEXABLE U-DRILL)
(T02 - 80 DEG TOOL - FOR FACE / ROUGH OD / FINISH OD)
(T03 - 80 DEG BORING BAR - FOR ROUGH ID / FINISH ID)

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N1 G20 T0100
N2 G97 S1250 M03
N3 G00 X0 Z0.5 T0101 M08
N4 Z0.15
N5 G01 Z-4.15 F0.003
N6 G00 Z0.5
N7 X7.0 Z2.0 T0100
N8 M01

N9 T0200
N10 G96 S425 M03
N11 G00 G41 X6.75 Z0 T0202 M08
N12 G01 X1.175 F0.01
N13 G00 Z0.1 (Z-POSITION FOR START POINT SP)
N14 G42 X6.55 (X-POSITION FOR START POINT SP)
N15 G71 P16 Q22 U0.05 W0.004 D1500 F0.012 (G71 CYCLE DEFINITION)
N16 G00 X4.1 (RAPID TO P-POINT - NO Z-AXIS !)
N17 G01 X4.5 Z-0.1 F0.004
N18 Z-1.5 F0.006
N19 X5.5 Z-2.5
N20 X6.3
N21 X6.55 Z-2.625 F0.004
N22 U0.2 F0.02 (LAST CONTOUR ELEMENT IS THE Q-POINT)
N23 G70 P16 Q22 S550 (FINISH O.D. WITH THE SAME TOOL)
N24 G00 G40 X7.0 Z6.0 T0200
N25 M01

N26 T0300
N27 G96 S400 M03
N28 G00 G41 X1.35 Z0.1 T0303 M08 (XZ-POSITION FOR START POINT SP)
N29 G71 P30 Q37 U-0.05 W0.004 D1250 F0.01 (G71 CYCLE DEFINITION)
N30 G00 X3.9 (RAPID TO P-POINT - NO Z-AXIS !)
N31 G01 X3.5 Z-0.1 F0.003
N32 Z-1.5 F0.006
N33 X2.5 Z-2.5
N34 X1.7
N35 X1.5 Z-2.6 F0.003
N36 Z-4.1 F0.006
N37 U-0.2 F0.02 (LAST CONTOUR ELEMENT IS THE Q-POINT)
N38 G70 P30 Q37 S525 (FINISH I.D. WITH THE SAME TOOL)
N39 G00 G40 X7.0 Z2.0 T0300
N40 M30
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