26-01 Solution

Drilling Operations

The calculated coordinates for the holes *A* to *J* are:

Hole	X coordinate	Y coordinate
A	X0.425	Y-0.4
B	X1.05	Y-0.4
C	X1.675	Y-0.4
D	X2.3	Y-0.4
E	X2.925	Y-0.4
F	X3.55	Y-0.4
G	X3.675	Y-1.5
H	X3.05	Y-1.05
I	X2.05	Y-1.5
J	X0.8	Y-1.05

The program will use two tools - a spot drill and a 5/16 drill. The spot drill will make 1/64 (0.0156) chamfer, the drill will break through the material with a 0.05 clearance. The first tool is in the spindle at the beginning of work.

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O2601 (26-01)
N1 G20                                          (T01 - 0.5 DIA SPOT DRILL)
N2 G90 G54 G00 X0.425 Y-0.4 S980 M03 T02        (HOLE A)
N3 G43 Z1.0 H01 M08
N4 G99 G82 R0.1 Z-0.1719 P200 F5.0
N5 X1.05                                        (HOLE B)
N6 X1.675                                       (HOLE C)
N7 X2.3                                         (HOLE D)
N8 X2.925                                       (HOLE E)
N9 X3.55                                        (HOLE F)
N10 X3.675 Y-1.5                                (HOLE G)
N11 X3.05 Y-1.05                                (HOLE H)
N12 X2.05 Y-1.5                                 (HOLE I)
N13 X0.8 Y-1.05                                 (HOLE J)
N14 G80 G00 X1.0 M09
N15 G28 Z1.0 M05
N16 M01

N17 T02                                         (5/16 DIA DRILL)
N18 M06
N19 G90 G54 G00 X0.425 Y-0.4 S1000 M03 T01      (HOLE A)
N20 G43 Z1.0 H02 M08
N21 G99 G83 R0.1 Z-0.7688 Q0.35 F8.0
N22 X1.05                                       (HOLE B)
N23 X1.675                                      (HOLE C)
N24 X2.3                                        (HOLE D)
N25 X2.925                                      (HOLE E)
N26 X3.55                                       (HOLE F)
N27 X3.675 Y-1.5                                (HOLE G)
N28 X3.05 Y-1.05                                (HOLE H)
N29 X2.05 Y-1.5                                 (HOLE I)
N30 X0.8 Y-1.05                                 (HOLE J)
N31 G80 G00 X1.0 M09
N32 G28 Z1.0 M05
N33 M06                                         (T01 TO SPINDLE)
N34 M30
%
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