

Skipped Holes

The holes can be identified from left to right as *H1* to *H8*. The eight holes (H1-H8) or six holes (H3 and H4 skipped) can be programmed in a number of ways. The first method uses absolute coordinates:

```
G90 G99 G82 X12.0 Y15.0 R2.5 Z-4.85 P150 F120.0 (H1)
X25.0 (H2)
/ X38.0 (H3)
/ X51.0 (H4)
X64.0 (H5)
X77.0 (H6)
X90.0 (H7)
X103.0 (H8)
G80 Z5.0
```

Another program version will use both the incremental and absolute modes:

```
G90 G99 G82 X12.0 Y15.0 R2.5 Z-4.85 P150 F120.0 (H1)
G91 X13.0 (H2)
/ X13.0 (H3)
/ X13.0 (H4)
G90 X64.0 (H5 - MUST BE IN ABSOLUTE MODE)
G91 X13.0 (H6)
X13.0 (H7)
X13.0 (H8)
G90 G80 Z5.0
```

The previous program can be modified, using the *L* or *K* address (number of repeats):

```
G90 G99 G82 X12.0 Y15.0 R2.5 Z-4.85 P150 F120.0 (H1)
G91 X13.0 (H2)
/ X13.0 L2 (H3-H4)
G90 X64.0 (H5 - MUST BE IN ABSOLUTE MODE)
G91 X13.0 L3 (H6-H7-H8)
G90 G80 Z5.0
```

The complete program for both parts using two tools will be:

```
O2301 (***) BLOCK SKIP SWITCH MUST BE OFF FOR PART A AND ON FOR PART B (***)
N1 G21
N2 G17 G40 G80 T01 M06
N3 G90 G54 G00 X12.0 Y15.0 S1200 M03 T02
N4 G43 Z5.0 H01 M08
N5 G99 G82 R2.5 Z-4.85 P150 F120.0 (H1)
N6 G91 X13.0 (H2)
/ N7 X13.0 L2 (H3-H4)
N8 G90 X64.0 (H5)
N9 G91 X13.0 L3 (H6-H7-H8)
N10 G90 G80 Z5.0 M09
N11 G28 Z5.0 M05
N12 M01

N13 T02 M06
N14 G90 G54 G00 X103.0 Y15.0 S950 T01
N15 G43 Z5.0 H02 M08
N16 G99 G81 R2.5 Z-10.7 F160.0 (H8)
N17 G91 X-13.0 L3 (H7-H6-H5)
/ N18 X-13.0 L2 (H4-H3)
N19 G90 X25.0 (H2)
N20 X12.0 (H1)
N21 G80 Z5.0 M09
N22 G28 X12.0 Y15.0 Z5.0 M05
N23 M30
%
```