```
%
O55551110( BTST-0  MAIN TAPE REV: - )
#1=100
WHILE[#1LE149]DO99
#[#1]=#0
#1=#1+1
END99
#101=6( PARTS TO RUN AT LOCATION 1, G54 )
#111=0( PARTS ALREADY RAN FROM BILLET AT LOCATION 1, G54 )
#102=6( PARTS TO RUN AT LOCATION 2, G55 )
#112=0( PARTS ALREADY RAN FROM BILLET AT LOCATION 1, G55 )
#103=6( PARTS TO RUN AT LOCATION 3, G56 )
#113=0( PARTS ALREADY RAN FROM BILLET AT LOCATION 3, G56 )
#104=6( PARTS TO RUN AT LOCATION 4, G57 )
#114=0( PARTS ALREADY RAN FROM BILLET AT LOCATION 4, G57 )
( BTST-0 )
( MAZ-510C-SUBROUTINE )
( MAY 23, 2008 - 21:44 )
( REV - )
( APPROVED DATE        )
( BDDOMER  05/23/08 )

( 10 x 14 BILLET SETUP )
(USE SKIP CODES FOR NEEDED OFFSETS)

(OFFSET WHEN USING G54)
G90G10L2P1X[#150-[1.0000]]Y[#151-[2.0000]]Z[#152-[-0.3750]]
(OFFSET WHEN USING G55)
G90G10L2P2X[#153-[-0.7000]]Y[#154-[-0.5000]]Z[#155-[0.0000]]

( MAIN PROGRAM )
#105=3
#106=2
#107=-3
#108=-6.9

( FIRST SIDE OF PART )
IF[#101LE[#105*#106]]GOTO1001
#101=#105*#106
N1001
IF[#111GE[#105*#106]]GOTO998
IF[[#101+#111]GT[#105*#106]]GOTO998
#110=#111
#130=#101+#111
/1G54M98P55551111
( SECOND SIDE OF PART )
IF[#102LE[#105*#106]]GOTO1002
#102=#105*#106
N1002
IF[#112GE[#105*#106]]GOTO998
IF[[#102+#112]GT[#105*#106]]GOTO998
#110=#112
#130=#102+#112
/2G55M98P55551112
```

```
GOTO999
N998( WRONG VALUES ENTERED FOR #101, #102, #103, #104 )
(                    #111, #112, #113 AND/OR #114 )
N999M30

O55551111( BTST-0  SUP ONE REV: - )
( BTST-1 )
( MAZ-510C-SUBROUTINE )
( MAY 23, 2008 - 21:44 )
( REV - )
( APPROVED DATE        )
( BDDOMER  05/23/08 )
G94G90
G17G40G80
( TOOL 14  3.00 SHELL MILL  )
M9
G0G91G30Y0.0Z0.0
N14T14
M6
T8
G0G90X-7.7Y-14.975
G43Z1.H14M1
S10000M3
M08
G04P1000
Z.1
G61.1
G1Z0.0F75.
Y-15.075
Y1.925F156.
X-5.85
Y-15.075
X-4.
Y1.925
X-2.15
Y-15.075
X-.3
Y1.925
G0Z.1
Z1.
G64
( TT: 0.6 TL: 0.0000 )
( TOOL 8  .368 DRILL  )
M9
G0G91G30Y0.0Z0.0
N8T8
M6
T7
G0G90X.7Y-2.075
G43Z1.H8M1
S2500M3
M08
G04P1000
G98G81X.7Y-2.075Z-.5856R.1F16.
```

```
Y-11.075
G80
G0Z1.
( TT: 0.1 TL: 0.5856 )
( TOOL 7  .378 REAMER  )
M9
G0G91G30Y0.0Z0.0
N7T7
M6
T9
G0G90X.7Y-2.075
G43Z1.H7M1
S1000M3
M08
G04P1000
G98G85X.7Y-2.075Z-.425R.1F10.
Y-11.075
G80
G0Z1.
( TT: 0.2 TL: 0.4250 )
( TOOL 9  .120 DRILL  )
M9
G0G91G30Y0.0Z0.0
N9T9
M6
T18
G52X0Y0
#140=#110
WHILE[#140LT#130]DO91
#131=#140/#105
#132=#140/#106
#134=FIX[#131]
#133=#131-#134
#135=#133*#105
#141=#135*#107
#142=#134*#108
G52X#141Y#142
G0G90X-1.75Y-.375
G43Z1.H9M1
S6300M3
M08
G04P1000
G99G83X-1.75Y-.375Z-.1561R.1F16.Q.12
X-.25
Y-5.875
X-1.75
G80
G0Z1.
#140=#140+1
END91
G52X0Y0
( TT: 0.1 TL: 0.1561 )
( TOOL 18  .500 END MILL  )
M9
```

```
G0G91G30Y0.0Z0.0
N18T18
M6
T14
G52X0Y0
#140=#110
WHILE[#140LT#130]DO181
#131=#140/#105
#132=#140/#106
#134=FIX[#131]
#133=#131-#134
#135=#133*#105
#141=#135*#107
#142=#134*#108
G52X#141Y#142
G0G90X-1.225Y-2.4202
G43Z1.H18M1
S12000M3
M08
G04P1000
Z.1
G61.1
G1Z.0065F75.
Y-3.125Z-.25
Y-4.975F100.
X-.775
Y-1.275
X-1.225
Y-3.125
X-1.5
Y-5.15
Y-5.25F42.
X-1.45
X-.6F100.
X-.5F42.
Y-5.2
Y-1.1F100.
Y-1.F42.
X-.55
X-1.4F100.
X-1.5F42.
Y-1.05
Y-3.125F100.
G0Z1.
#140=#140+1
END181
G52X0Y0
G64
( TT: 0.2 TL: 0.2500 )
G0G91G30Y0.0Z0.0
M99
O55551112( BTST-0  TAPE TWO REV: - )
( BTST-2 )
( MAZ-510C-SUBROUTINE )
```

```
( MAY 23, 2008 - 21:44 )
( REV - )
( APPROVED DATE        )
( BDDOMER  05/23/08 )
( TOOL 14  3.00 SHELL MILL  )
M9
G0G91G30Y0.0Z0.0
N14T14
M6
T18
G0G90X1.22Y-14.975
G43Z1.375H14M1
S10000M3
M08
G04P1000
Z.475
Z.45
G61.1
G1Z.35F75.
Y-15.075
Y1.925F156.
X3.0733
Y-15.075
X4.9267
Y1.925
X6.78
Y-15.075
G0Z.45
Z1.375
G64
( TT: 0.5 TL: 0.3500 )
( TOOL 18  .500 END MILL  )
M9
G0G91G30Y0.0Z0.0
N18T18
M6
T16
G0G90X6.2248Y.05
G43Z1.375H18M1
S12000M3
M08
G04P1000
Z.45
G61.1
G1Z.3565F75.
X5.52Z.1
X-.15F100.
X-.25F42.
Y0.0
Y-.3F100.
Y-.4F42.
X-.2
X8.15F100.
X8.25F42.
```

```
Y-.35
Y-.05F100.
Y.05F42.
X8.2
X5.52F100.
G0Z.2
Z.45
X4.8152Y-6.3
G1Z.3565F75.
X5.52Z.1
X8.15F100.
X8.25F42.
Y-6.25
Y-5.95F100.
Y-5.85F42.
X8.2
X-.15F100.
X-.25F42.
Y-5.9
Y-6.2F100.
Y-6.3F42.
X-.2
X5.52F100.
G0Z.2
Z.45
X6.2248Y-6.85
G1Z.3565F75.
X5.52Z.1
X-.15F100.
X-.25F42.
Y-6.9
Y-7.2F100.
Y-7.3F42.
X-.2
X8.15F100.
X8.25F42.
Y-7.25
Y-6.95F100.
Y-6.85F42.
X8.2
X5.52F100.
G0Z.2
Z.45
X4.8152Y-13.2
G1Z.3565F75.
X5.52Z.1
X8.15F100.
X8.25F42.
Y-13.15
Y-12.85F100.
Y-12.75F42.
X8.2
X-.15F100.
X-.25F42.
```

```
Y-12.8
Y-13.1F100.
Y-13.2F42.
X-.2
X5.52F100.
G0Z1.375
G64
( TT: 0.9 TL: 0.3565 )
( TOOL 16  .250 END MILL  )
M9
G0G91G30Y0.0Z0.0
N16T16
M6
T0
G52X0Y0
#140=#110
WHILE[#140LT#130]DO162
#131=#140/#105
#132=#140/#106
#134=FIX[#131]
#133=#131-#134
#135=#133*#105
#141=-#135*#107
#142=#134*#108
G52X#141Y#142
G0G90X1.8096Y-.4396
G43Z1.375H16M1
S12000M3
M08
G04P1000
Z.45
Z.3337
G61.1
G1Z.2337F60.
X1.88Y-.51Z.225
X2.125F72.
G2X2.14Y-.525I0.0J-.015
G1Y-5.725
G2X2.125Y-5.74I-.015J0.0
G1X-.125
G2X-.14Y-5.725I0.0J.015
G1Y-.525
G2X-.125Y-.51I.015J0.0
G1X1.88
Y-.525
X2.125
Y-5.725
X-.125
Y-.525
X1.88
G0Z.325
Z.45
X1.8096Y-.4396
Z.2087
```

```
G1Z.1087F60.
X1.88Y-.51Z.1
X2.125F72.
G2X2.14Y-.525I0.0J-.015
G1Y-5.725
G2X2.125Y-5.74I-.015J0.0
G1X-.125
G2X-.14Y-5.725I0.0J.015
G1Y-.525
G2X-.125Y-.51I.015J0.0
G1X1.88
Y-.525
X2.125
Y-5.725
X-.125
Y-.525
X1.88
G0Z1.375
G64
( TT: 0.9 TL: 0.2337 )
G0X-.1293Y-.4643
Z.2
G61.1
G1Z.1039F60.
X-.125Y-.22Z.015
Y.125F72.
X2.125
Y-6.375
X-.125
Y-.22
G0Z1.375
G64
( TT: 0.3 TL: 0.1039 )
G0X-.1267Y-.2099
Z.45
Z.11
G61.1
G1X-.125Y-.22Z-.0046F12.
Y-.2Z-.01F24.
Y0.0
G2X0.0Y.125I.125J0.0F48.
G1X2.F24.
G2X2.125Y0.0I0.0J-.125F48.
G1Y-.1953F24.
Y-.2
Y-.293Z.0149
Y-.8545Z.015
Y-.8789Z.0091
Y-.95Z-.01
Y-5.3
Y-5.3711Z.0091
Y-5.3955Z.015
Y-5.957Z.0149
Y-6.05Z-.01
```

```
Y-6.0547
Y-6.25
G2X2.Y-6.375I-.125J0.0F48.
G1X0.0F24.
G2X-.125Y-6.25I0.0J.125F48.
G1Y-6.05F24.
Y-5.9673Z.0121
Y-5.9438Z.015
Y-5.402
Y-5.3785Z.011
Y-5.3Z-.01
Y-.95
Y-.8795Z.0089
Y-.856Z.015
Y-.3142
Y-.2907Z.0143
Y-.22Z-.0046
G0Z1.35
#140=#140+1
END162
G52X0Y0
G64
( TT: 0.7 TL: 0.0150 )
(TOOL 00 - DUMMY)
M9
G0G91G30X0.0Y0.0Z0.0
T00
M06
T14
M99
( NUM OF TOOLS: 8.0 )
( STANDARD TIME: 4.51 )
( VR3 TIME: 6.55 )
( LENGTH:  41.0 FEET )
%
```