

SAMPLE SET UP SHEET FOR MAZAK 3 AXIS VIRTICAL MILL

CUSTOMIZABLE MILL SETUP SHEET - MILL.SET
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PROGRAM NAME = B8703B
PROGRAM NUMBER = 0001
DATE PROCESSED = MAY. 03 2010
TIME = 4:59 PM
MATERIAL TYPE = ALUMINUM inch - 2024
STOCK SIZE = X20.6250 Y7.9999 Z1.0000
STOCK ORIGIN = X8.1875 Y1.125 Z0.(AT CENTER, Z AT TOP)
MACHINE NAME = MAZAK MPV-815
GROUP NAME = B8270

OPERATION TYPE = CONTOUR
TOOL NAME = 3.0 FACE MILL
TOOL NUM. = 1
TOOL DIA. = 3.0000
NUMBER OF FLUTES = 6
FLUTE LEN. = .24
OVERALL LEN. = 2.
SHOULDER LEN. = .75
ARBOR DIA. = 1.
HOLDER DIA. = 2.
TOOL CORNER RAD. = .0320
DIA. OFFSET = 1
LEN. OFFSET = 1
SPINDLE = 900
FEEDRATE = 45.
CUTTER COMP. = OFF
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
FEEDRATES: MAX = 45. MIN = 20.
MAX_X = +2.4210 MIN_X = -2.4210
MAX_Y = +19.1933 MIN_Y = +14.0250
MAX_Z = +3.5000 MIN_Z = +0.0000
TOOL FEED CUT LENGTH = 16.6316
TOOL RAPID TRAVERSE LENGTH = 28.8531
RAPID TIME = .17 SECONDS
FEED TIME = 22.34 SECONDS
OPERATION TIME = 22.52 SECONDS

OPERATION TYPE = CONTOUR

TOOL NAME = 3.0 FACE MILL
TOOL NUM. = 1
TOOL DIA. = 3.0000
NUMBER OF FLUTES = 6
FLUTE LEN. = .24
OVERALL LEN. = 2.
SHOULDER LEN. = .75
ARBOR DIA. = 1.
HOLDER DIA. = 2.
TOOL CORNER RAD. = .0320
DIA. OFFSET = 1
LEN. OFFSET = 1
SPINDLE = 900
FEEDRATE = 45.
CUTTER COMP. (WEAR, IN CONTROL) = LEFT
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
FEEDRATES: MAX = 45. MIN = 20.
MAX_X = +3.6500 MIN_X = -6.8000
MAX_Y = +1.6275 MIN_Y = -1.1725
MAX_Z = +3.5000 MIN_Z = +0.0000
TOOL FEED CUT LENGTH = 21.1
TOOL RAPID TRAVERSE LENGTH = 41.6268
RAPID TIME = .25 SECONDS
FEED TIME = 28.47 SECONDS
OPERATION TIME = 28.72 SECONDS

OPERATION TYPE = CONTOUR
TOOL NAME = 1.5 390
TOOL NUM. = 2
TOOL DIA. = 1.5000
NUMBER OF FLUTES = 3
FLUTE LEN. = .6
OVERALL LEN. = 2.6
SHOULDER LEN. = 2.5
ARBOR DIA. = 1.
HOLDER DIA. = 2.
DIA. OFFSET = 2
LEN. OFFSET = 2
SPINDLE = 1973
FEEDRATE = 47.3
CUTTER COMP. (WEAR, IN CONTROL) = LEFT
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
MAX_X = +3.1729 MIN_X = +1.4020
MAX_Y = +0.8091 MIN_Y = -3.1309
MAX_Z = +3.5000 MIN_Z = -1.3750
TOOL FEED CUT LENGTH = 28.0347
TOOL RAPID TRAVERSE LENGTH = 48.2528
RAPID TIME = .29 SECONDS
FEED TIME = 46.34 SECONDS
OPERATION TIME = 46.63 SECONDS

OPERATION TYPE = DRILL CYCLE - SIMPLE
TOOL NAME = 1.743 otm
TOOL NUM. = 35
TOOL DIA. = 1.7430
DRILL TIP ANGLE = 140.
FLUTE LEN. = 2.
OVERALL LEN. = 3.
SHOULDER LEN. = 2.5
ARBOR DIA. = 1.743
HOLDER DIA. = 2.
DIA. OFFSET = 35
LEN. OFFSET = 35
SPINDLE = 970
FEEDRATE = 6.7
FEEDRATES: MAX = 6.7 MIN = 6.7
MAX_X = -3.6250 MIN_X = -3.6250
MAX_Y = +0.9408 MIN_Y = +0.9408
MAX_Z = +3.5000 MIN_Z = -1.3672
TOOL FEED CUT LENGTH = 1.4672
TOOL RAPID TRAVERSE LENGTH = 31.129
RAPID TIME = .19 SECONDS
FEED TIME = 13.14 SECONDS
OPERATION TIME = 13.33 SECONDS

OPERATION TYPE = POCKET
TOOL NAME = 1/2 iscar
TOOL NUM. = 10
TOOL DIA. = .5000
NUMBER OF FLUTES = 4
FLUTE LEN. = 1.
OVERALL LEN. = 2.
SHOULDER LEN. = 1.2
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 10
LEN. OFFSET = 10
SPINDLE = 3000
FEEDRATE = 28.
CUTTER COMP. (WEAR, IN CONTROL) = LEFT
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
ROUGHING ANGLE = 0.
ROUGHING STEP SIZE = .375
NUMBER OF FINISH PASSES = 1.
FINISH PASS STEP SIZE = .01
FINISH ALLOWANCE = 0.
FEEDRATES: MAX = 28. MIN = 20.
MAX_X = +2.2500 MIN_X = -2.2500
MAX_Y = +17.8750 MIN_Y = +13.3750
MAX_Z = +3.5000 MIN_Z = -0.5000
TOOL FEED CUT LENGTH = 136.989
TOOL RAPID TRAVERSE LENGTH = 28.4331

RAPID TIME = .17 SECONDS
FEED TIME = 5 MINUTES, 6.43 SECONDS
OPERATION TIME = 5 MINUTES, 6.6 SECONDS

OPERATION TYPE = CONTOUR
TOOL NAME = 1/2 iscar
TOOL NUM. = 10
TOOL DIA. = .5000
NUMBER OF FLUTES = 4
FLUTE LEN. = 1.
OVERALL LEN. = 2.
SHOULDER LEN. = 1.2
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 10
LEN. OFFSET = 10
SPINDLE = 3000
FEEDRATE = 28.
CUTTER COMP. (WEAR, IN CONTROL) = LEFT
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
MAX_X = -2.8700 MIN_X = -4.3800
MAX_Y = +1.6958 MIN_Y = +0.1858
MAX_Z = +3.5000 MIN_Z = -0.8387
TOOL FEED CUT LENGTH = 19.251
TOOL RAPID TRAVERSE LENGTH = 34.0952
RAPID TIME = .2 SECONDS
FEED TIME = 43.63 SECONDS
OPERATION TIME = 43.84 SECONDS

OPERATION TYPE = DRILL CYCLE - SIMPLE
TOOL NAME = .257 DELTA
TOOL NUM. = 21
TOOL DIA. = .2570
DRILL TIP ANGLE = 140.
FLUTE LEN. = 1.
OVERALL LEN. = 2.
SHOULDER LEN. = 1.5
ARBOR DIA. = .257
HOLDER DIA. = 2.
DIA. OFFSET = 21
LEN. OFFSET = 21
SPINDLE = 4000
FEEDRATE = 28.
MAX_X = +1.4142 MIN_X = -1.4142
MAX_Y = +1.4142 MIN_Y = -1.7320
MAX_Z = +0.5000 MIN_Z = -1.0000
TOOL FEED CUT LENGTH = 4.4
TOOL RAPID TRAVERSE LENGTH = 39.8883
RAPID TIME = .24 SECONDS
FEED TIME = 9.43 SECONDS
OPERATION TIME = 9.67 SECONDS

OPERATION TYPE = DRILL CYCLE - TAP
TOOL NAME = 5/16-18 TAP
TOOL NUM. = 22
TOOL DIA. = .3120
DRILL TIP ANGLE = 180.
FLUTE LEN. = 1.25
OVERALL LEN. = 2.
SHOULDER LEN. = 1.5
ARBOR DIA. = .312
HOLDER DIA. = 2.
DIA. OFFSET = 22
LEN. OFFSET = 22
SPINDLE = 270
FEEDRATE = .06
MAX_X = +1.4142 MIN_X = -1.4142
MAX_Y = +1.4142 MIN_Y = -1.7320
MAX_Z = +0.5000 MIN_Z = -0.7500
TOOL FEED CUT LENGTH = 8.4
TOOL RAPID TRAVERSE LENGTH = 33.8883
RAPID TIME = .2 SECONDS
FEED TIME = 2 HOURS, 31 MINUTES, 21.08 SECONDS
OPERATION TIME = 2 HOURS, 31 MINUTES, 21.28 SECONDS

OPERATION TYPE = DRILL CYCLE - SIMPLE
TOOL NAME = 3.385 twin bore
TOOL NUM. = 41
TOOL DIA. = 3.3850
DRILL TIP ANGLE = 45.
FLUTE LEN. = .25
OVERALL LEN. = 4.
SHOULDER LEN. = 1.5
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 41
LEN. OFFSET = 41
SPINDLE = 500
FEEDRATE = 12.5
MAX_X = +0.0000 MIN_X = +0.0000
MAX_Y = +0.0000 MIN_Y = +0.0000
MAX_Z = +0.5000 MIN_Z = -1.3850
TOOL FEED CUT LENGTH = 1.485
TOOL RAPID TRAVERSE LENGTH = 25.9271
RAPID TIME = .16 SECONDS
FEED TIME = 7.13 SECONDS
OPERATION TIME = 7.28 SECONDS

OPERATION TYPE = DRILL CYCLE - COUNTERBORE
TOOL NAME = 2.8 twin bore
TOOL NUM. = 37
TOOL DIA. = 2.8000

DRILL TIP ANGLE = 45.
FLUTE LEN. = .25
OVERALL LEN. = 5.
SHOULDER LEN. = 3.
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 37
LEN. OFFSET = 37
SPINDLE = 400
FEEDRATE = 7.
MAX_X = +0.0000 MIN_X = +0.0000
MAX_Y = +0.0000 MIN_Y = +0.0000
MAX_Z = +0.5000 MIN_Z = -4.6000
TOOL FEED CUT LENGTH = 1.5
TOOL RAPID TRAVERSE LENGTH = 32.3421
RAPID TIME = .19 SECONDS
FEED TIME = 12.86 SECONDS
OPERATION TIME = 13.05 SECONDS

OPERATION TYPE = DRILL CYCLE - COUNTERBORE
TOOL NAME = 3.515 twin bore
TOOL NUM. = 42
TOOL DIA. = 3.5150
DRILL TIP ANGLE = 45.
FLUTE LEN. = .25
OVERALL LEN. = 6.
SHOULDER LEN. = 4.
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 42
LEN. OFFSET = 42
SPINDLE = 500
FEEDRATE = 12.5
MAX_X = +0.0000 MIN_X = +0.0000
MAX_Y = +0.0000 MIN_Y = +0.0000
MAX_Z = +0.5000 MIN_Z = -0.8950
TOOL FEED CUT LENGTH = .995
TOOL RAPID TRAVERSE LENGTH = 25.4371
RAPID TIME = .15 SECONDS
FEED TIME = 4.78 SECONDS
OPERATION TIME = 4.93 SECONDS

OPERATION TYPE = DRILL CYCLE - MISC_1
TOOL NAME = 2.047 bore
TOOL NUM. = 49
TOOL DIA. = 2.0470
DRILL TIP ANGLE = 45.
FLUTE LEN. = .35
OVERALL LEN. = 2.
SHOULDER LEN. = 1.5
ARBOR DIA. = 2.
HOLDER DIA. = 2.

DIA. OFFSET = 49
LEN. OFFSET = 49
SPINDLE = 1200
FEEDRATE = 2.5
MAX_X = -3.6250 MIN_X = -3.6250
MAX_Y = +0.9408 MIN_Y = +0.9408
MAX_Z = +0.5000 MIN_Z = -0.8390
TOOL FEED CUT LENGTH = .939
TOOL RAPID TRAVERSE LENGTH = 27.6008
RAPID TIME = .17 SECONDS
FEED TIME = 22.54 SECONDS
OPERATION TIME = 22.7 SECONDS

OPERATION TYPE = DRILL CYCLE - MISC_1
TOOL NAME = 2.835 bore
TOOL NUM. = 43
TOOL DIA. = 2.8350
DRILL TIP ANGLE = 45.
FLUTE LEN. = .5
OVERALL LEN. = 6.
SHOULDER LEN. = 3.
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 43
LEN. OFFSET = 43
SPINDLE = 600
FEEDRATE = 2.
MAX_X = +0.0000 MIN_X = +0.0000
MAX_Y = +0.0000 MIN_Y = +0.0000
MAX_Z = +0.5000 MIN_Z = -4.6000
TOOL FEED CUT LENGTH = 1.5
TOOL RAPID TRAVERSE LENGTH = 32.3421
RAPID TIME = .19 SECONDS
FEED TIME = 45 SECONDS
OPERATION TIME = 45.19 SECONDS

OPERATION TYPE = DRILL CYCLE - MISC_1
TOOL NAME = 3.544 bore
TOOL NUM. = 44
TOOL DIA. = 3.5440
DRILL TIP ANGLE = 45.
FLUTE LEN. = .25
OVERALL LEN. = 5.
SHOULDER LEN. = 4.
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 44
LEN. OFFSET = 44
SPINDLE = 1250
FEEDRATE = 3.5
MAX_X = +0.0000 MIN_X = +0.0000
MAX_Y = +0.0000 MIN_Y = +0.0000

MAX_Z = +0.5000 MIN_Z = -0.8960
TOOL FEED CUT LENGTH = .996
TOOL RAPID TRAVERSE LENGTH = 25.4381
RAPID TIME = .15 SECONDS
FEED TIME = 17.07 SECONDS
OPERATION TIME = 17.23 SECONDS

OPERATION TYPE = DRILL CYCLE - COUNTERBORE
TOOL NAME = 1/2 GUHRING
TOOL NUM. = 7
TOOL DIA. = .5000
DRILL TIP ANGLE = 140.
FLUTE LEN. = 2.5
OVERALL LEN. = 3.625
SHOULDER LEN. = 3.5
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 7
LEN. OFFSET = 7
SPINDLE = 3246
FEEDRATE = 45.
FEEDRATES: MAX = 45. MIN = 45.
MAX_X = +1.7320 MIN_X = -1.7321
MAX_Y = +17.6250 MIN_Y = +13.6250
MAX_Z = +0.5000 MIN_Z = -1.1410
TOOL FEED CUT LENGTH = 8.6869
TOOL RAPID TRAVERSE LENGTH = 47.2605
RAPID TIME = .28 SECONDS
FEED TIME = 11.58 SECONDS
OPERATION TIME = 11.87 SECONDS

OPERATION TYPE = CONTOUR
TOOL NAME = .625 slotting
TOOL NUM. = 39
TOOL DIA. = .6250
NUMBER OF FLUTES = 4
FLUTE LEN. = .093
OVERALL LEN. = 2.
SHOULDER LEN. = .25
ARBOR DIA. = .5
HOLDER DIA. = 2.
DIA. OFFSET = 39
LEN. OFFSET = 39
SPINDLE = 400
FEEDRATE = 2.5
CUTTER COMP. (WEAR, IN CONTROL) = LEFT
STOCK TO LEAVE (XY) = 0.
STOCK TO LEAVE (Z) = 0.
FEEDRATES: MAX = 20. MIN = 2.5
MAX_X = -2.8520 MIN_X = -4.3980
MAX_Y = +1.7138 MIN_Y = +0.1678
MAX_Z = +0.5000 MIN_Z = -0.1300

TOOL FEED CUT LENGTH = 6.2285
TOOL RAPID TRAVERSE LENGTH = 27.1155
RAPID TIME = .16 SECONDS
FEED TIME = 2 MINUTES, 24.65 SECONDS
OPERATION TIME = 2 MINUTES, 24.82 SECONDS

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PROGRAM TOTALS (16 TOOLS):

FEEDRATES: MAX = 47.3 MIN = .06
MAX_X = +3.6500 MIN_X = -6.8000
MAX_Y = +19.1933 MIN_Y = -3.1309
MAX_Z = +3.5000 MIN_Z = -4.6000
TOTAL FEED CUT LENGTH = 258.6039
TOTAL RAPID TRAVERSE LENGTH = 529.6299
TOTAL RAPID TIME = 3.18 SECONDS
TOTAL FEED TIME = 2 HOURS, 43 MINUTES, 36.46 SECONDS
CYCLE TIME: 2 HOURS, 45 MINUTES, 15.64 SECONDS