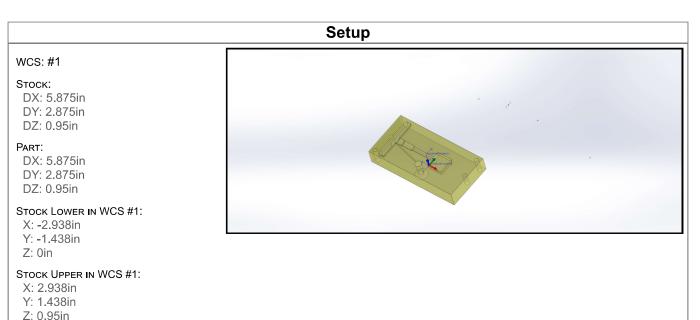
Setup Sheet for Program 00451

PROGRAM COMMENT: IME 450 Top Mold OP#1

DOCUMENT PATH: C:\Users\hendrik\Desktop\IME 450\450 project v2\Botha Screwdriver

Handle v2 MOLDABLE-TOP.SLDPRT



NUMBER OF OPERATIONS: 10 NUMBER OF TOOLS: 9 TOOLS: T2 T3 T7 T8 T10 T11 T14 T17 T18 MAXIMUM Z: 1.114in MINIMUM Z: -0.088in MAXIMUM FEEDRATE: 100in/min MAXIMUM SPINDLE SPEED: 10000rpm CUTTING DISTANCE: 1357.367in RAPID DISTANCE: 109.008in ESTIMATED CYCLE TIME: 21m:40s

Tools			
T2 D2 L2			
Type: flat end mill	Мінімим Z : 0.704in	Holder: Default Holder	7
DIAMETER: 0.25in	Maximum Feed: 28in/min		
LENGTH: 0.75in	MAXIMUM SPINDLE SPEED: 6875rpm		
Flutes: 2	Cutting Distance: 37.189in		
	RAPID DISTANCE: 0.385in		
	ESTIMATED CYCLE TIME: 1m:37s (7.5%)		
T3 D3 L3			
Type: spot drill	Мі мімим Z : 0.85in	Holder: Default Holder	
DIAMETER: 0.5in	MAXIMUM FEED: 22in/min		
TIP ANGLE: 90°	MAXIMUM SPINDLE SPEED: 5730rpm		
LENGTH: 1.25in	CUTTING DISTANCE: 0.6in		
FLUTES: 2	RAPID DISTANCE: 6.611in		
	ESTIMATED CYCLE TIME: 2S (0.1%)		

T7 D7 L7

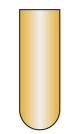
Type: ball end mill Мимим Z: 0.756in DIAMETER: 0.25in

CORNER RADIUS: 0.125in LENGTH: 0.75in FLUTES: 2

MAXIMUM FEED: 48in/min MAXIMUM SPINDLE SPEED: 9931rpm

CUTTING DISTANCE: 77.116in RAPID DISTANCE: 0.28in

ESTIMATED CYCLE TIME: 1m:45s (8.1%)



T8 D8 L8

Type: ball end mill DIAMETER: 0.234in CORNER RADIUS: 0,117in

LENGTH: 0.75in FLUTES: 2

Мимим Z: 0.833in MAXIMUM FEED: 40in/min

MAXIMUM SPINDLE SPEED: 9778rpm **CUTTING DISTANCE: 35.049in** RAPID DISTANCE: 10.541in ESTIMATED CYCLE TIME: 54s (4.2%)

HOLDER: Default Holder

HOLDER: Default Holder



T10 D10 L10

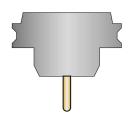
Type: ball end mill DIAMETER: 0.125in CORNER RADIUS: 0.062in

LENGTH: 0.625in FLUTES: 2

Мимим Z: 0.746in MAXIMUM FEED: 100in/min

MAXIMUM SPINDLE SPEED: 10000rpm **CUTTING DISTANCE: 1196.412in** RAPID DISTANCE: 24.828in

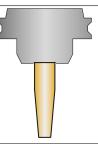
ESTIMATED CYCLE TIME: 12m:38s (58.3%)



T11 D11 L11

Type: tapered mill DIAMETER: 0.25in TAPER ANGLE: 5° LENGTH: 1.563in FLUTES: 3

Мимим Z: 0.125in MAXIMUM FEED: 1.2in/min MAXIMUM SPINDLE SPEED: 400rpm CUTTING DISTANCE: 2.139in RAPID DISTANCE: 2,531in ESTIMATED CYCLE TIME: 1m:50s (8.5%) HOLDER: Default Holder



T14 D14 L14

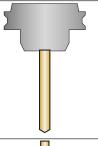
Type: drill DIAMETER: 0.242in

TIP ANGLE: 118° LENGTH: 2in FLUTES: 1

Мимим Z: -0.088in MAXIMUM FEED: 16in/min

MAXIMUM SPINDLE SPEED: 3946rpm **CUTTING DISTANCE: 2.472in** RAPID DISTANCE: 57.955in ESTIMATED CYCLE TIME: 10s (0.8%)

HOLDER: Default Holder



T17 D17 L17

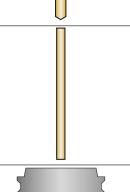
Type: reamer DIAMETER: 0.25in

LENGTH: 4in FLUTES: 3

Мимим Z: -0.015in MAXIMUM FEED: 13in/min MAXIMUM SPINDLE SPEED: 2292rpm

CUTTING DISTANCE: 2.13in RAPID DISTANCE: 0in

ESTIMATED CYCLE TIME: 10s (0.8%)



T18 D18 L18

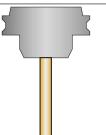
Type: reamer DIAMETER: 0.251in

LENGTH: 1.753in FLUTES: 1

Мимим Z: -0.015in MAXIMUM FEED: 13in/min

MAXIMUM SPINDLE SPEED: 2283rpm

CUTTING DISTANCE: 4.26in RAPID DISTANCE: 5.876in ESTIMATED CYCLE TIME: 20s (1.5%) HOLDER: Default Holder



Operations Operation 1/10 T3 D3 L3 DESCRIPTION: Spot Drill Holes 1/2" Spot Drill (1) MAXIMUM Z: 1.05in Type: spot drill STRATEGY: Drilling Мимим Z: 0.85in DIAMETER: 0.5in WCS: #1 MAXIMUM SPINDLE SPEED: 5730rpm TIP ANGLE: 90° TOLERANCE: 0in MAXIMUM FEEDRATE: 22in/min LENGTH: 1,25in CUTTING DISTANCE: 0.6in FLUTES: 2 RAPID DISTANCE: 6.611in ESTIMATED CYCLE TIME: 2S (0.1%) COOLANT: Flood **T14** D14 L14 Operation 2/10 DESCRIPTION: Drill Dowel Pin Holes Мах**м**им Z: 1.05in Type: drill STRATEGY: Drilling Мимим Z: -0.088in DIAMETER: 0,242in WCS: #1 MAXIMUM SPINDLE SPEED: 3946rpm TIP ANGLE: 118° TOLERANCE: 0in MAXIMUM FEEDRATE: 16in/min LENGTH: 2in CUTTING DISTANCE: 2,472in FLUTES: 1 RAPID DISTANCE: 57.955in ESTIMATED CYCLE TIME: 10s (0.8%) COOLANT: Flood Operation 3/10 T18 D18 L18 **DESCRIPTION: Ream Dowel Pin Holes** Мах**і**мим **Z**: 1.05in Type: reamer STRATEGY: Drilling Мимим Z: -0.015in DIAMETER: 0.251in WCS: #1 MAXIMUM SPINDLE SPEED: 2283rpm LENGTH: 1.753in TOLERANCE: 0in MAXIMUM FEEDRATE: 13in/min FLUTES: 1 CUTTING DISTANCE: 4.26in RAPID DISTANCE: 5.876in ESTIMATED CYCLE TIME: 20s (1.5%) COOLANT: Flood Operation 4/10 T17 D17 L17 DESCRIPTION: Ream Sprue Hole MAXIMUM Z: 1.05in Type: reamer STRATEGY: Drilling Мимим Z: -0.015in DIAMETER: 0.25in WCS: #1 MAXIMUM SPINDLE SPEED: 2292rpm LENGTH: 4in Tolerance: 0in MAXIMUM FEEDRATE: 13in/min FLUTES: 3 CUTTING DISTANCE: 2.13in RAPID DISTANCE: 0in ESTIMATED CYCLE TIME: 10s (0.8%) COOLANT: Flood Operation 5/10 **T11** D11 L11 DESCRIPTION: Drill Tapered Sprue MAXIMUM Z: 1.05in Type: tapered mill STRATEGY: Drilling Мимим Z: 0.125in DIAMETER: 0.25in WCS: #1 MAXIMUM SPINDLE SPEED: 400rpm TAPER ANGLE: 5° TOLERANCE: 0in MAXIMUM FEEDRATE: 1.2in/min **LENGTH: 1.563in** CUTTING DISTANCE: 2.139in FLUTES: 3 RAPID DISTANCE: 2.531in ESTIMATED CYCLE TIME: 1m:50s (8.5%) COOLANT: Flood **T2** D2 L2 Operation 6/10 DESCRIPTION: Pocket Blade Core Pocket Махімим Z: 1.114in Type: flat end mill STRATEGY: Pocket 2D **Мимим Z**: 0.704in DIAMETER: 0.25in WCS: #1 MAXIMUM SPINDLE SPEED: 6875rpm LENGTH: 0.75in FLUTES: 2 TOLERANCE: 0.004in MAXIMUM FEEDRATE: 28in/min STOCK TO LEAVE: 0.02in/0.004in CUTTING DISTANCE: 37.189in MAXIMUM STEPDOWN: 0.125in RAPID DISTANCE: 0.385in MAXIMUM STEPOVER: 0.075in ESTIMATED CYCLE TIME: 1m:37s (7.5%)

COOLANT: Flood

Operation 7/10

DESCRIPTION: Rough Handle Cavity

STRATEGY: Pocket

WCS: #1

Tolerance: 0.004in Stock to Leave: 0.01in Maximum stepdown: 0.05in

MAXIMUM STEPOVER: 0.038in

Махімим Z: 1.05in Мінімим Z: 0.756in

MAXIMUM SPINDLE SPEED: 9931rpm
MAXIMUM FEEDRATE: 48in/min
CUTTING DISTANCE: 77.116in
RAPID DISTANCE: 0.28in

ESTIMATED CYCLE TIME: 1m:45s (8.1%)
COOLANT: Flood

Махімим Z: 1.081in Мілімим Z: 0.833in

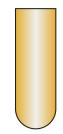
MAXIMUM SPINDLE SPEED: 9778rpm MAXIMUM FEEDRATE: 40in/min CUTTING DISTANCE: 35.049in RAPID DISTANCE: 10.541in ESTIMATED CYCLE TIME: 54s (4.2%)

COOLANT: Flood

T7 D7 L7

Type: ball end mill
DIAMETER: 0.25in
CORNER RADIUS: 0.125in

LENGTH: 0.75in FLUTES: 2



Operation 8/10

DESCRIPTION: Contour Blade Core Print

STRATEGY: Contour 2D

WCS: #1

TOLERANCE: 0in

STOCK TO LEAVE: 0in

MAXIMUM STEPDOWN: 0.025in

MAXIMUM STEPOVER: 0.012in

Compensation: unspecified (left) Safe Tool Diameter: < 0.258in

Operation 9/10

DESCRIPTION: Contour Runner STRATEGY: Contour 2D

WCS: #1
TOLERANCE: 0in
STOCK TO LEAVE: 0in
MAXIMUM STEPDOWN: 0.01in
MAXIMUM STEPOVER: 0.006in
COMPENSATION: UNSPECIFIED (left)

SAFE TOOL DIAMETER: < 0.137in

COOLANT. 1 1000

Мах**і**мим **Z**: 1.05in

MINIMUM Z: 0.888in

MAXIMUM SPINDLE SPEED: 10000rpm

MAXIMUM FEEDRATE: 30in/min

CUTTING DISTANCE: 27.302in

RAPID DISTANCE: 0.163in

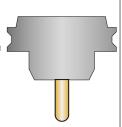
ESTIMATED CYCLE TIME: 55s (4.2%)

COOLANT: Flood

T8 D8 L8

Type: ball end mill
DIAMETER: 0.234in
CORNER RADIUS: 0.117in

LENGTH: 0.75in FLUTES: 2



T10 D10 L10

Type: ball end mill
DIAMETER: 0.125in
CORNER RADIUS: 0.062in

LENGTH: 0.625in Flutes: 2



Operation 10/10

DESCRIPTION: Finish Handle Cavity

STRATEGY: Parallel

WCS: #1
TOLERANCE: 0in
STOCK TO LEAVE: 0in
MAXIMUM STEPOVER: 0.004in

Махімим Z: 1.05in Мілімим Z: 0.746in

MAXIMUM SPINDLE SPEED: 10000rpm MAXIMUM FEEDRATE: 100in/min CUTTING DISTANCE: 1169.11in RAPID DISTANCE: 24.665in

ESTIMATED CYCLE TIME: 11m:43s (54%)

COOLANT: Flood

T10 D10 L10

Type: ball end mill
DIAMETER: 0.125in
CORNER RADIUS: 0.062in

LENGTH: 0.625in FLUTES: 2





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