

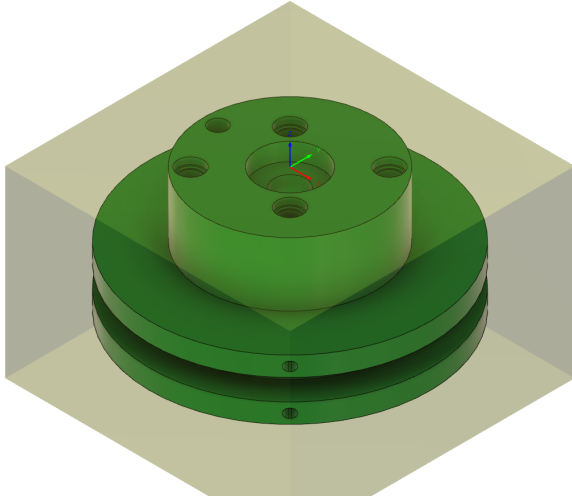
Setup Sheet for Program 6295581101_OP1

JOB DESCRIPTION: OP1

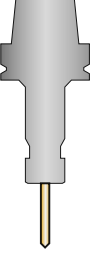
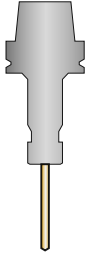
DOCUMENT PATH: 6295581101-001-0 v8

NOTES:

X0 Y0 Center of Part
Z0.5 Top of Part

Setup	
<p>WCS: #30</p> <p>Stock:</p> <p>DX: 162mm</p> <p>DY: 162mm</p> <p>DZ: 104mm</p> <p>PART:</p> <p>DX: 159mm</p> <p>DY: 159mm</p> <p>DZ: 70mm</p> <p>Stock Lower in WCS #30:</p> <p>X: -81mm</p> <p>Y: -81mm</p> <p>Z: -103.5mm</p> <p>Stock Upper in WCS #30:</p> <p>X: 81mm</p> <p>Y: 81mm</p> <p>Z: 0.5mm</p>	

Total
<p>NUMBER OF OPERATIONS: 18</p> <p>NUMBER OF TOOLS: 9</p> <p>TOOLS: T5 T161 T402 T1090 T1100 T1160 T1170 T5110 T7610</p> <p>MAXIMUM Z: 15.5mm</p> <p>MINIMUM Z: -71mm</p> <p>MAXIMUM FEEDRATE: 1464.225mm/min</p> <p>MAXIMUM SPINDLE SPEED: 7321rpm</p> <p>CUTTING DISTANCE: 31288.23mm</p> <p>RAPID DISTANCE: 15697.4mm</p> <p>ESTIMATED CYCLE TIME: 41m:5s</p>

Tools			
<p>T5 D5 L5</p> <p>TYPE: spot drill</p> <p>DIAMETER: 6mm</p> <p>TIP ANGLE: 90°</p> <p>LENGTH: 46mm</p> <p>FLUTES: 2</p> <p>DESCRIPTION: ZENBO-D6_90GRAD</p> <p>VENDOR: Hoffmann Group</p> <p>PRODUCT: 112020 6</p>	<p>MINIMUM Z: -1mm</p> <p>MAXIMUM FEED: 39.789mm/min</p> <p>MAXIMUM SPINDLE SPEED: 1000rpm</p> <p>CUTTING DISTANCE: 30mm</p> <p>RAPID DISTANCE: 212.67mm</p> <p>ESTIMATED CYCLE TIME: 48s (1.9%)</p>	<p>HOLDER: HSK A63-ER16</p> <p>VENDOR: Hoffmann Group</p> <p>PRODUCT: 305390 16</p>	
<p>T161 D161 L161</p> <p>TYPE: drill</p> <p>DIAMETER: 6.1mm</p> <p>TIP ANGLE: 118°</p> <p>LENGTH: 70mm</p> <p>FLUTES: 2</p>	<p>MINIMUM Z: -68.05mm</p> <p>MAXIMUM FEED: 291.063mm/min</p> <p>MAXIMUM SPINDLE SPEED: 3181rpm</p> <p>CUTTING DISTANCE: 183.82mm</p> <p>RAPID DISTANCE: 5277.31mm</p> <p>ESTIMATED CYCLE TIME: 1m:41s (4.1%)</p>	<p>HOLDER: HSK A63-ER16</p> <p>VENDOR: Hoffmann Group</p> <p>PRODUCT: 305390 16</p>	

T402 D402 L402

TYPE: face mill

DIAMETER: 63mm

LENGTH: 40mm

FLUTES: 6

DESCRIPTION: AL-PMK-D63

VENDOR: Hoffmann Group

PRODUCT: [213555 63/6](#)

MINIMUM Z: 0mm

MAXIMUM FEED: 600mm/min

MAXIMUM SPINDLE SPEED: 3540rpm

CUTTING DISTANCE: 1139.46mm

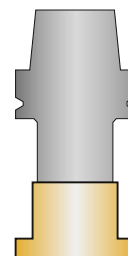
RAPID DISTANCE: 18.4mm

ESTIMATED CYCLE TIME: 1m:54s (4.6%)

HOLDER: HSK A63-Face mill adapter 22 mm

VENDOR: Hoffmann Group

PRODUCT: 306110 22

**T1090 D1090 L1090**

TYPE: flat end mill

DIAMETER: 8mm

LENGTH: 33mm

FLUTES: 1

DESCRIPTION: HM-KU-1SCHN-D8_SL

VENDOR: Schmid Werkzeug Muenchen

PRODUCT: [016-8](#)

MINIMUM Z: -9mm

MAXIMUM FEED: 600mm/min

MAXIMUM SPINDLE SPEED: 6764rpm

CUTTING DISTANCE: 470.89mm

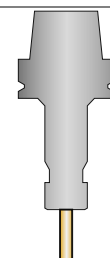
RAPID DISTANCE: 73.4mm

ESTIMATED CYCLE TIME: 48s (1.9%)

HOLDER: HSK A63-ER16

VENDOR: Hoffmann Group

PRODUCT: 305390 16

**T1100 D1100 L1100**

TYPE: flat end mill

DIAMETER: 10mm

LENGTH: 40mm

FLUTES: 1

DESCRIPTION: HM-KU-1SCHN-D10_SR

VENDOR: Schmid Werkzeug Muenchen

PRODUCT: [016-10](#)

MINIMUM Z: -5mm

MAXIMUM FEED: 1464.225mm/min

MAXIMUM SPINDLE SPEED: 7321rpm

CUTTING DISTANCE: 1603.43mm

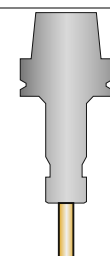
RAPID DISTANCE: 425.34mm

ESTIMATED CYCLE TIME: 1m:11s (2.9%)

HOLDER: HSK A63-ER16

VENDOR: Hoffmann Group

PRODUCT: 305390 16

**T1160 D1160 L1160**

TYPE: flat end mill

DIAMETER: 16mm

LENGTH: 82mm

FLUTES: 1

DESCRIPTION: HM-KU-1SCHN-D16_SR

VENDOR: Schmid Werkzeug Muenchen

PRODUCT: [016-16](#)

MINIMUM Z: -71mm

MAXIMUM FEED: 1372.711mm/min

MAXIMUM SPINDLE SPEED: 4576rpm

CUTTING DISTANCE: 18780.54mm

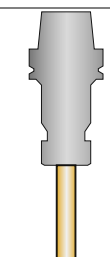
RAPID DISTANCE: 7397.8mm

ESTIMATED CYCLE TIME: 15m:10s (36.9%)

HOLDER: HSK A63-ER25

VENDOR: Hoffmann Group

PRODUCT: 305390 25

**T1170 D1170 L1170**

TYPE: flat end mill

DIAMETER: 16mm

LENGTH: 82mm

FLUTES: 1

DESCRIPTION: HM-KU-1SCHN-D16_SL

VENDOR: Schmid Werkzeug Muenchen

PRODUCT: [016-16](#)

MINIMUM Z: -71mm

MAXIMUM FEED: 600mm/min

MAXIMUM SPINDLE SPEED: 4576rpm

CUTTING DISTANCE: 7651.36mm

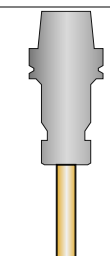
RAPID DISTANCE: 1484.36mm

ESTIMATED CYCLE TIME: 13m:3s (31.8%)

HOLDER: HSK A63-ER25

VENDOR: Hoffmann Group

PRODUCT: 305390 25

**T5110 D5110 L5110**

TYPE: drill

DIAMETER: 11mm

TIP ANGLE: 140°

LENGTH: 73mm

FLUTES: 2

DESCRIPTION: HM-SPIBO-D11.0

VENDOR: Hoffmann Group

PRODUCT: [122664 11.0](#)

MINIMUM Z: -33.5mm

MAXIMUM FEED: 156.261mm/min

MAXIMUM SPINDLE SPEED: 1302rpm

CUTTING DISTANCE: 154.01mm

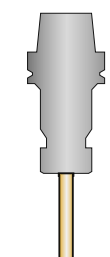
RAPID DISTANCE: 324.49mm

ESTIMATED CYCLE TIME: 1m:3s (2.6%)

HOLDER: HSK A63-ER25

VENDOR: Hoffmann Group

PRODUCT: 305390 25

**T7610 D7610 L7610**

TYPE: chamfer mill

DIAMETER: 6mm

TAPER ANGLE: 45°

LENGTH: 40mm

FLUTES: 4

DESCRIPTION: FASENFR-D6X45GRAD

VENDOR: Hoffmann Group

PRODUCT: [208120 6](#)

MINIMUM Z: -37.3mm

MAXIMUM FEED: 509.296mm/min

MAXIMUM SPINDLE SPEED: 4244rpm

CUTTING DISTANCE: 1274.73mm

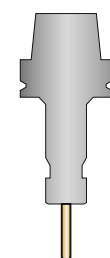
RAPID DISTANCE: 483.63mm

ESTIMATED CYCLE TIME: 2m:43s (6.6%)

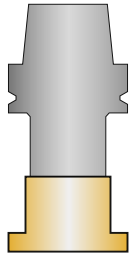
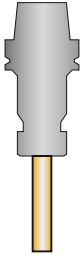
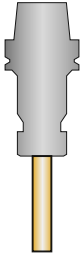
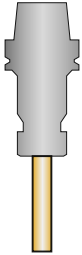
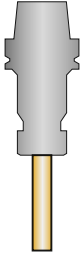
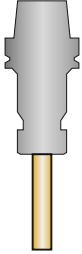
HOLDER: HSK A63-ER16

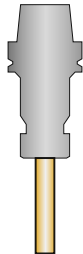
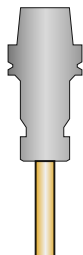
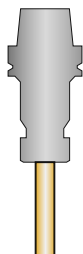
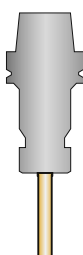
VENDOR: Hoffmann Group

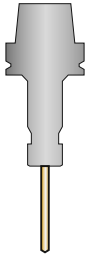
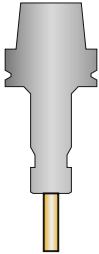
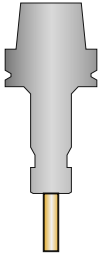
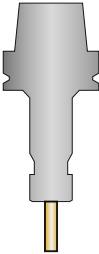
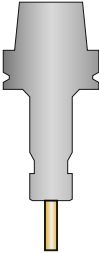
PRODUCT: 305390 16



Operations

Operation 1/18 DESCRIPTION: Face1 STRATEGY: Facing WCS: #30 TOLERANCE: 0.01mm MAXIMUM STEPOVER: 44.1mm	MAXIMUM Z: 15.5mm MINIMUM Z: 0mm MAXIMUM SPINDLE SPEED: 3540rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 1139.46mm RAPID DISTANCE: 18.4mm ESTIMATED CYCLE TIME: 1m:54s (4.6%) COOLANT: Flood	T402 D402 L402 TYPE: face mill DIAMETER: 63mm LENGTH: 40mm FLUTES: 6 DESCRIPTION: AL-PMK-D63 VENDOR: Hoffmann Group PRODUCT: 213555 63/6	
Operation 2/18 DESCRIPTION: 2D Adaptive1 STRATEGY: Adaptive 2D WCS: #30 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.5mm OPTIMAL LOAD: 2mm LOAD DEVIATION: 0.2mm	MAXIMUM Z: 15.5mm MINIMUM Z: -35.5mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 1372.711mm/min CUTTING DISTANCE: 10334.92mm RAPID DISTANCE: 807.05mm ESTIMATED CYCLE TIME: 7m:41s (18.7%) COOLANT: Air	T1160 D1160 L1160 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 3/18 DESCRIPTION: 2D Adaptive1 (2) STRATEGY: Adaptive 2D WCS: #30 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.5mm/0mm OPTIMAL LOAD: 2mm LOAD DEVIATION: 0.2mm	MAXIMUM Z: 15.5mm MINIMUM Z: -71mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 1372.711mm/min CUTTING DISTANCE: 4153.49mm RAPID DISTANCE: 6453.75mm ESTIMATED CYCLE TIME: 4m:19s (10.5%) COOLANT: Air	T1160 D1160 L1160 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 4/18 DESCRIPTION: 2D Pocket1 STRATEGY: Pocket 2D WCS: #30 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 9.6mm	MAXIMUM Z: 15.5mm MINIMUM Z: -36mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 1901.2mm RAPID DISTANCE: 59.9mm ESTIMATED CYCLE TIME: 3m:11s (7.7%) COOLANT: Air	T1170 D1170 L1170 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 5/18 DESCRIPTION: 2D Pocket1 (2) STRATEGY: Pocket 2D WCS: #30 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 9.6mm	MAXIMUM Z: 15.5mm MINIMUM Z: -70mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 1922.51mm RAPID DISTANCE: 1192.56mm ESTIMATED CYCLE TIME: 3m:27s (8.4%) COOLANT: Air	T1170 D1170 L1170 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 6/18 DESCRIPTION: 2D Contour2 STRATEGY: Contour 2D WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: -0.04mm/0mm MAXIMUM STEPOVER: 15.2mm	MAXIMUM Z: 15.5mm MINIMUM Z: -71mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 637.68mm RAPID DISTANCE: 94.9mm ESTIMATED CYCLE TIME: 1m:5s (2.6%) COOLANT: Air	T1170 D1170 L1170 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	

Operation 7/18 DESCRIPTION: Bore1 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm	MAXIMUM Z: 15.5mm MINIMUM Z: -70mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 1372.711mm/min CUTTING DISTANCE: 1605.3mm RAPID DISTANCE: 100.1mm ESTIMATED CYCLE TIME: 1m:11s (2.9%) COOLANT: Air	T1160 D1160 L1160 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 8/18 DESCRIPTION: Bore2 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm	MAXIMUM Z: 15.5mm MINIMUM Z: -10mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 1372.711mm/min CUTTING DISTANCE: 2686.83mm RAPID DISTANCE: 36.9mm ESTIMATED CYCLE TIME: 1m:58s (4.8%) COOLANT: Air	T1160 D1160 L1160 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 9/18 DESCRIPTION: Bore3 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: -0.01mm COMPENSATION: control (center) SAFE TOOL DIAMETER: < 16mm	MAXIMUM Z: 15.5mm MINIMUM Z: -70mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 1795.56mm RAPID DISTANCE: 100.1mm ESTIMATED CYCLE TIME: 3m:1s (7.3%) COOLANT: Air	T1170 D1170 L1170 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 10/18 DESCRIPTION: Bore4 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM Z: 15.5mm MINIMUM Z: -10mm MAXIMUM SPINDLE SPEED: 4576rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 1394.4mm RAPID DISTANCE: 36.9mm ESTIMATED CYCLE TIME: 2m:20s (5.7%) COOLANT: Air	T1170 D1170 L1170 TYPE: flat end mill DIAMETER: 16mm LENGTH: 82mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D16_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-16	
Operation 11/18 DESCRIPTION: Drill1 STRATEGY: Drilling WCS: #30 TOLERANCE: 0.01mm	MAXIMUM Z: 15.5mm MINIMUM Z: -1mm MAXIMUM SPINDLE SPEED: 1000rpm MAXIMUM FEEDRATE: 39.789mm/min CUTTING DISTANCE: 30mm RAPID DISTANCE: 212.67mm ESTIMATED CYCLE TIME: 48s (1.9%) COOLANT: Flood	T5 D5 L5 TYPE: spot drill DIAMETER: 6mm TIP ANGLE: 90° LENGTH: 46mm FLUTES: 2 DESCRIPTION: ZENBO-D6_90GRAD VENDOR: Hoffmann Group PRODUCT: 112020 6	
Operation 12/18 DESCRIPTION: Drill1 (2) STRATEGY: Drilling WCS: #30 TOLERANCE: 0.01mm	MAXIMUM Z: 15.5mm MINIMUM Z: -33.5mm MAXIMUM SPINDLE SPEED: 1302rpm MAXIMUM FEEDRATE: 156.261mm/min CUTTING DISTANCE: 154.01mm RAPID DISTANCE: 324.49mm ESTIMATED CYCLE TIME: 1m:3s (2.6%) COOLANT: Through tool	T5110 D5110 L5110 TYPE: drill DIAMETER: 11mm TIP ANGLE: 140° LENGTH: 73mm FLUTES: 2 DESCRIPTION: HM-SPIBO-D11.0 VENDOR: Hoffmann Group PRODUCT: 122664 11.0	

Operation 13/18 DESCRIPTION: Drill1 (3) STRATEGY: Drilling WCS: #30 TOLERANCE: 0.01mm	MAXIMUM Z: 15.5mm MINIMUM Z: -68.05mm MAXIMUM SPINDLE SPEED: 3181rpm MAXIMUM FEEDRATE: 291.063mm/min CUTTING DISTANCE: 183.82mm RAPID DISTANCE: 5277.31mm ESTIMATED CYCLE TIME: 1m:41s (4.1%) COOLANT: Flood	T161 D161 L161 TYPE: drill DIAMETER: 6.1mm TIP ANGLE: 118° LENGTH: 70mm FLUTES: 2	
Operation 14/18 DESCRIPTION: Bore5 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: -0.03mm	MAXIMUM Z: 15.5mm MINIMUM Z: -5mm MAXIMUM SPINDLE SPEED: 7321rpm MAXIMUM FEEDRATE: 1464.225mm/min CUTTING DISTANCE: 704.49mm RAPID DISTANCE: 215.43mm ESTIMATED CYCLE TIME: 31s (1.3%) COOLANT: Air	T1100 D1100 L1100 TYPE: flat end mill DIAMETER: 10mm LENGTH: 40mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D10_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-10	
Operation 15/18 DESCRIPTION: Bore5 (2) STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: -0.03mm	MAXIMUM Z: 15.5mm MINIMUM Z: -3.7mm MAXIMUM SPINDLE SPEED: 7321rpm MAXIMUM FEEDRATE: 1464.225mm/min CUTTING DISTANCE: 898.94mm RAPID DISTANCE: 209.91mm ESTIMATED CYCLE TIME: 39s (1.6%) COOLANT: Air	T1100 D1100 L1100 TYPE: flat end mill DIAMETER: 10mm LENGTH: 40mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D10_SR VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-10	
Operation 16/18 DESCRIPTION: Bore6 STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm	MAXIMUM Z: 15.5mm MINIMUM Z: -9mm MAXIMUM SPINDLE SPEED: 6764rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 226.68mm RAPID DISTANCE: 36.7mm ESTIMATED CYCLE TIME: 23s (0.9%) COOLANT: Air	T1090 D1090 L1090 TYPE: flat end mill DIAMETER: 8mm LENGTH: 33mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D8_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-8	
Operation 17/18 DESCRIPTION: Bore6 (2) STRATEGY: Bore WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm COMPENSATION: control (center) SAFE TOOL DIAMETER: < 8mm	MAXIMUM Z: 15.5mm MINIMUM Z: -9mm MAXIMUM SPINDLE SPEED: 6764rpm MAXIMUM FEEDRATE: 600mm/min CUTTING DISTANCE: 244.21mm RAPID DISTANCE: 36.7mm ESTIMATED CYCLE TIME: 25s (1%) COOLANT: Air	T1090 D1090 L1090 TYPE: flat end mill DIAMETER: 8mm LENGTH: 33mm FLUTES: 1 DESCRIPTION: HM-KU-1SCHN-D8_SL VENDOR: Schmid Werkzeug Muenchen PRODUCT: 016-8	
Operation 18/18 DESCRIPTION: 2D Chamfer1 WCS: #30 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM Z: 15.5mm MINIMUM Z: -37.3mm MAXIMUM SPINDLE SPEED: 4244rpm MAXIMUM FEEDRATE: 509.296mm/min CUTTING DISTANCE: 1274.73mm RAPID DISTANCE: 483.63mm ESTIMATED CYCLE TIME: 2m:43s (6.6%) COOLANT: Flood	T7610 D7610 L7610 TYPE: chamfer mill DIAMETER: 6mm TAPER ANGLE: 45° LENGTH: 40mm FLUTES: 4 DESCRIPTION: FASENFR-D6X45GRAD VENDOR: Hoffmann Group PRODUCT: 208120 6	