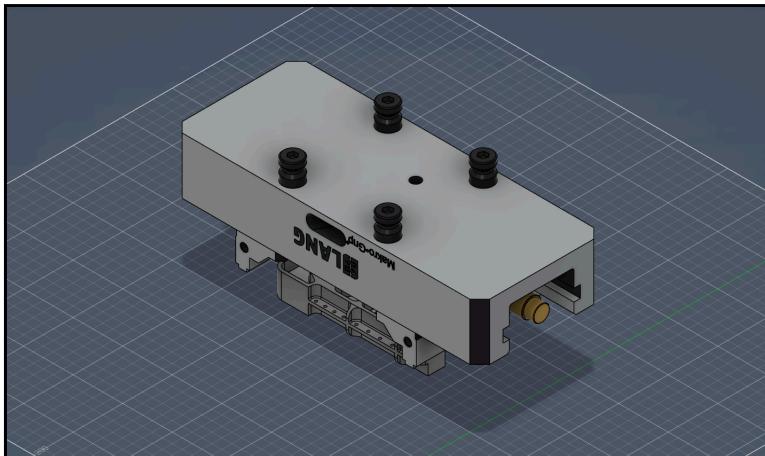


Setup Sheet for Program 1001

JOB DESCRIPTION: AutoSetup 1

DOCUMENT PATH: X_NC03-FORI_EDIT_1210070903 v3

| Setup | |
|------------------------|--|
| WCS: #0 | |
| STOCK: | |
| DX: 160mm | |
| DY: 95mm | |
| DZ: 35mm | |
| PART: | |
| DX: 150mm | |
| DY: 84.87mm | |
| DZ: 25mm | |
| STOCK LOWER IN WCS #0: | |
| X: -80mm | |
| Y: -47.5mm | |
| Z: -35mm | |
| STOCK UPPER IN WCS #0: | |
| X: 80mm | |
| Y: 47.5mm | |
| Z: 0mm | |



| Total | |
|--|--|
| NUMBER OF OPERATIONS: 21 | |
| NUMBER OF TOOLS: 12 | |
| TOOLS: T13000 T13002 T13008 T17002 T17006 T17007 T17009 T19010 T20001 T20002 T20009 T22014 | |
| MAXIMUM Z: 15mm | |
| MINIMUM Z: -30.5mm | |
| MAXIMUM FEEDRATE: 4307.336mm/min | |
| MAXIMUM SPINDLE SPEED: 8100rpm | |
| CUTTING DISTANCE: 27506.42mm | |
| RAPID DISTANCE: 18338.62mm | |
| ESTIMATED CYCLE TIME: 31m:47s | |

| Tools | | | |
|-----------------------------|---|-------------------------------------|--------------------------|
| T13000 D13000 L13000 | TYPE: face mill | MINIMUM Z: -5mm | HOLDER: BT40 - B4C4-1000 |
| | DIAMETER: 40mm | MAXIMUM FEED: 3819.719mm/min | |
| | CORNER RADIUS: 0.8mm | MAXIMUM SPINDLE SPEED: 4775rpm | |
| | TAPER ANGLE: 45° | CUTTING DISTANCE: 1654.86mm | |
| | LENGTH: 40mm | RAPID DISTANCE: 51.75mm | |
| | FLUTES: 4 | ESTIMATED CYCLE TIME: 42s (2.2%) | |
| | DESCRIPTION: Sgrossatura | | |
| | VENDOR: Sandvik | | |
| | PRODUCT: 345-040Q22-13L | | |
| T13002 D13002 L13002 | TYPE: bullnose end mill | MINIMUM Z: -15.75mm | HOLDER: BT40 - B4C4-1000 |
| | DIAMETER: 5mm | MAXIMUM FEED: 2252.614mm/min | |
| | CORNER RADIUS: 0.5mm | MAXIMUM SPINDLE SPEED: 8100rpm | |
| | LENGTH: 18.5mm | CUTTING DISTANCE: 3161.18mm | |
| | FLUTES: 5 | RAPID DISTANCE: 1084.45mm | |
| | DESCRIPTION: Tasche | ESTIMATED CYCLE TIME: 3m:49s (12%) | |
| | VENDOR: Sandvik | | |
| | PRODUCT: 1K335-0500-050-XC 1730 | | |
| T13008 D13008 L13008 | TYPE: bullnose end mill | MINIMUM Z: -15.75mm | HOLDER: BT40 - B4C4-1000 |
| | DIAMETER: 4mm | MAXIMUM FEED: 1834mm/min | |
| | CORNER RADIUS: 1mm | MAXIMUM SPINDLE SPEED: 8100rpm | |
| | LENGTH: 14.87mm | CUTTING DISTANCE: 1181.99mm | |
| | FLUTES: 5 | RAPID DISTANCE: 562.25mm | |
| | DESCRIPTION: Finitura fondo | ESTIMATED CYCLE TIME: 2m:26s (7.6%) | |
| | VENDOR: Sandvik | | |
| | PRODUCT: R216.23-04050CAK11P 1630 | | |

T17002 D17002 L17002

TYPE: flat end mill

DIAMETER: 2.5mm

LENGTH: 21mm

FLUTES: 2

DESCRIPTION: CoroMill Plura Tascapiccola

VENDOR: Sandvik

PRODUCT: [1P250-0250-XA 1630](#)

MINIMUM Z: -15.75mm

MAXIMUM FEED: 304.409mm/min

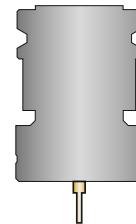
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 2769.79mm

RAPID DISTANCE: 706.46mm

ESTIMATED CYCLE TIME: 9m:14s (29.1%)

HOLDER: BT40 - B4C4-1000

**T17006** D17006 L17006

TYPE: drill

DIAMETER: 2.5mm

TIP ANGLE: 140°

LENGTH: 38mm

FLUTES: 2

DESCRIPTION: CoroDrill 862 Foripiccoli

VENDOR: Sandvik

PRODUCT: [862.1-2500-225A0-GM X2BL](#)

MINIMUM Z: -20.91mm

MAXIMUM FEED: 465.75mm/min

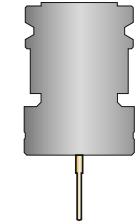
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 627.3mm

RAPID DISTANCE: 1311.37mm

ESTIMATED CYCLE TIME: 1m:37s (5.1%)

HOLDER: BT40 - B4C4-1000

**T17007** D17007 L17007

TYPE: flat end mill

DIAMETER: 25mm

LENGTH: 60mm

FLUTES: 2

DESCRIPTION: CoroMill 390 Finituraforogrande

VENDOR: Sandvik

PRODUCT: [R390-025A25-17L](#)

MINIMUM Z: -30.5mm

MAXIMUM FEED: 3055.775mm/min

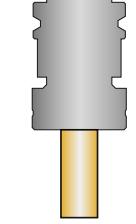
MAXIMUM SPINDLE SPEED: 7639rpm

CUTTING DISTANCE: 1257.85mm

RAPID DISTANCE: 59.5mm

ESTIMATED CYCLE TIME: 26s (1.4%)

HOLDER: BT40 - B4C4-1000

**T17009** D17009 L17009

TYPE: flat end mill

DIAMETER: 12mm

LENGTH: 60mm

FLUTES: 4

DESCRIPTION: CoroMill Dura Finituracontornatura

VENDOR: Sandvik

PRODUCT: [1K334-1200-XB 1730](#)

MINIMUM Z: -30.2mm

MAXIMUM FEED: 3110.4mm/min

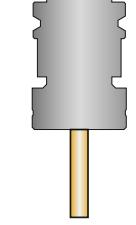
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 528.63mm

RAPID DISTANCE: 112.55mm

ESTIMATED CYCLE TIME: 20s (1%)

HOLDER: BT40 - B4C4-1000

**T19010** D19010 L19010

TYPE: bullnose end mill

DIAMETER: 6mm

CORNER RADIUS: 1mm

LENGTH: 57mm

FLUTES: 5

DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale

VENDOR: sandvik

PRODUCT: [1K335-0600-100-XD 1730](#)

MINIMUM Z: -16mm

MAXIMUM FEED: 2584.402mm/min

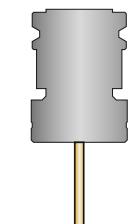
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 807.99mm

RAPID DISTANCE: 1107.48mm

ESTIMATED CYCLE TIME: 57s (3%)

HOLDER: BT40 - B4C4-1000

**T20001** D20001 L20001

TYPE: flat end mill

DIAMETER: 8mm

LENGTH: 40mm

FLUTES: 4

DESCRIPTION: sgrossatura tasche

VENDOR: sandvik

PRODUCT: [2P342-0800-PA 1730](#)

MINIMUM Z: -16mm

MAXIMUM FEED: 2756.695mm/min

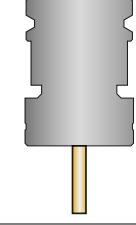
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 2326.38mm

RAPID DISTANCE: 1895.69mm

ESTIMATED CYCLE TIME: 1m:28s (4.6%)

HOLDER: BT40 - B4C4-1000

**T20002** D20002 L20002

TYPE: flat end mill

DIAMETER: 4.5mm

LENGTH: 35mm

FLUTES: 4

DESCRIPTION: SGROSSATURA TASCHE PICCOLE

VENDOR: SANDVIK

PRODUCT: [1P240-0450-XA 1630](#)

MINIMUM Z: -16mm

MAXIMUM FEED: 1550.641mm/min

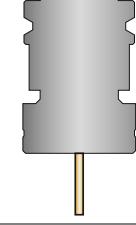
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 1060.68mm

RAPID DISTANCE: 662.11mm

ESTIMATED CYCLE TIME: 1m:19s (4.2%)

HOLDER: BT40 - B4C4-1000

**T20009** D20009 L20009

TYPE: bullnose end mill

DIAMETER: 10mm

CORNER RADIUS: 0.5mm

LENGTH: 50mm

FLUTES: 5

DESCRIPTION: FORO GRANDE

VENDOR: SANVIK

PRODUCT: [1K335-1000-050-XD 1730](#)

MINIMUM Z: -30.2mm

MAXIMUM FEED: 4307.336mm/min

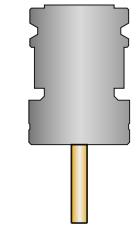
MAXIMUM SPINDLE SPEED: 8100rpm

CUTTING DISTANCE: 10853.89mm

RAPID DISTANCE: 10127.33mm

ESTIMATED CYCLE TIME: 4m:39s (14.6%)

HOLDER: BT40 - B4C4-1000

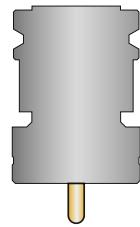


T22014 D22014 L22014

TYPE: ball end mill
DIAMETER: 8mm
CORNER RADIUS: 4mm
LENGTH: 20mm
FLUTES: 4
DESCRIPTION: nervatura tonda
VENDOR: mitsubishi
PRODUCT: [fresa a punta tonda VQ4SVBR04000](#)

MINIMUM Z: -15.82mm
MAXIMUM FEED: 1900mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 1275.89mm
RAPID DISTANCE: 657.67mm
ESTIMATED CYCLE TIME: 1m:6s (3.4%)

HOLDER: BT40 - B4C4-1000

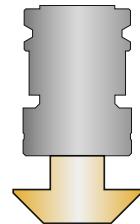
**Operations**

Operation 1/21

DESCRIPTION: Roughing
STRATEGY: Facing
WCS: #0
TOLERANCE: 0.01mm
MAXIMUM STEPDOWN: 16.65mm
MAXIMUM STEPOVER: 30mm

MAXIMUM Z: 15mm
MINIMUM Z: -4.75mm
MAXIMUM SPINDLE SPEED: 2501rpm
MAXIMUM FEEDRATE: 2390mm/min
CUTTING DISTANCE: 933.67mm
RAPID DISTANCE: 25.75mm
ESTIMATED CYCLE TIME: 29s (1.5%)
COOLANT: Flood

T13000 D13000 L13000
TYPE: face mill
DIAMETER: 40mm
CORNER RADIUS: 0.8mm
TAPER ANGLE: 45°
LENGTH: 40mm
FLUTES: 4
DESCRIPTION: Sgrossatura
VENDOR: Sandvik
PRODUCT: [345-040Q22-13L](#)

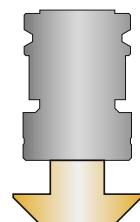


Operation 2/21

DESCRIPTION: Finishing
STRATEGY: Facing
WCS: #0
TOLERANCE: 0.01mm
MAXIMUM STEPOVER: 36mm

MAXIMUM Z: 15mm
MINIMUM Z: -5mm
MAXIMUM SPINDLE SPEED: 4775rpm
MAXIMUM FEEDRATE: 3819.719mm/min
CUTTING DISTANCE: 721.19mm
RAPID DISTANCE: 26mm
ESTIMATED CYCLE TIME: 13s (0.7%)
COOLANT: Flood

T13000 D13000 L13000
TYPE: face mill
DIAMETER: 40mm
CORNER RADIUS: 0.8mm
TAPER ANGLE: 45°
LENGTH: 40mm
FLUTES: 4
DESCRIPTION: Sgrossatura
VENDOR: Sandvik
PRODUCT: [345-040Q22-13L](#)

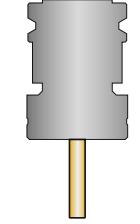


Operation 3/21

DESCRIPTION: Roughing
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 5.15mm
OPTIMAL LOAD: 9.5mm
LOAD DEVIATION: 0.25mm

MAXIMUM Z: 15mm
MINIMUM Z: -30.2mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 4307.336mm/min
CUTTING DISTANCE: 10853.89mm
RAPID DISTANCE: 10127.33mm
ESTIMATED CYCLE TIME: 4m:39s (14.6%)
COOLANT: Flood

T20009 D20009 L20009
TYPE: bullnose end mill
DIAMETER: 10mm
CORNER RADIUS: 0.5mm
LENGTH: 50mm
FLUTES: 5
DESCRIPTION: FORO GRANDE
VENDOR: SANVIK
PRODUCT: [1K335-1000-050-XD 1730](#)

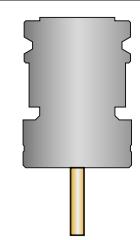


Operation 4/21

DESCRIPTION: Roughing1
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 5.38mm
OPTIMAL LOAD: 7.6mm
LOAD DEVIATION: 0.2mm

MAXIMUM Z: 15mm
MINIMUM Z: -15.75mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 2756.695mm/min
CUTTING DISTANCE: 1757.83mm
RAPID DISTANCE: 1423.61mm
ESTIMATED CYCLE TIME: 57s (3%)
COOLANT: Flood

T20001 D20001 L20001
TYPE: flat end mill
DIAMETER: 8mm
LENGTH: 40mm
FLUTES: 4
DESCRIPTION: sgrossature tasche
VENDOR: sandvik
PRODUCT: [2P342-0800-PA 1730](#)

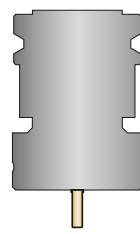


Operation 5/21

DESCRIPTION: Roughing2
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 4mm
OPTIMAL LOAD: 1.31mm
LOAD DEVIATION: 0.13mm

MAXIMUM Z: 15mm
MINIMUM Z: -15.75mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 2252.614mm/min
CUTTING DISTANCE: 3161.18mm
RAPID DISTANCE: 1084.45mm
ESTIMATED CYCLE TIME: 3m:49s (12%)
COOLANT: Flood

T13002 D13002 L13002
TYPE: bullnose end mill
DIAMETER: 5mm
CORNER RADIUS: 0.5mm
LENGTH: 18.5mm
FLUTES: 5
DESCRIPTION: Tasche
VENDOR: Sandvik
PRODUCT: [1K335-0500-050-XC 1730](#)

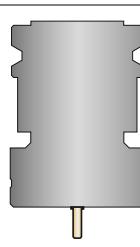


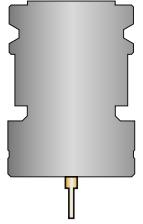
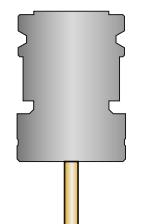
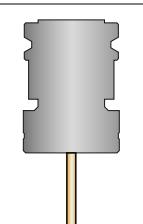
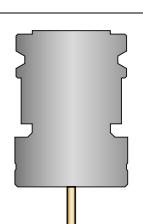
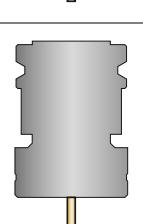
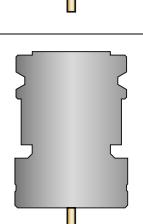
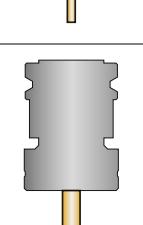
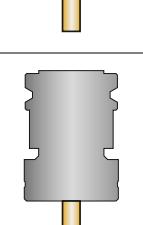
Operation 6/21

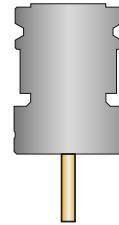
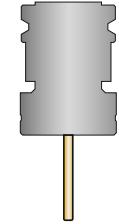
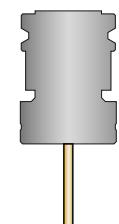
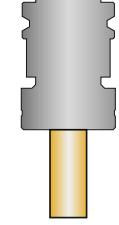
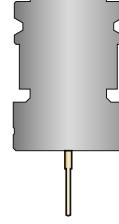
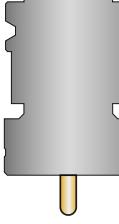
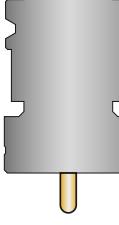
DESCRIPTION: Roughing3
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 3.3mm
OPTIMAL LOAD: 0.9mm
LOAD DEVIATION: 0.09mm

MAXIMUM Z: 15mm
MINIMUM Z: -15.75mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 1834mm/min
CUTTING DISTANCE: 1181.99mm
RAPID DISTANCE: 562.25mm
ESTIMATED CYCLE TIME: 2m:26s (7.6%)
COOLANT: Flood

T13008 D13008 L13008
TYPE: bullnose end mill
DIAMETER: 4mm
CORNER RADIUS: 1mm
LENGTH: 14.87mm
FLUTES: 5
DESCRIPTION: Finitura fondo
VENDOR: Sandvik
PRODUCT: [R216.23-04050CAK11P 1630](#)



| | | | |
|--|--|--|---|
| Operation 7/21 DESCRIPTION: Roughing4 STRATEGY: Adaptive WCS: #0 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.25mm MAXIMUM STEPDOWN: 5mm OPTIMAL LOAD: 0.09mm LOAD DEVIATION: 0.01mm | MAXIMUM Z: 15mm MINIMUM Z: -15.75mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 304.409mm/min CUTTING DISTANCE: 2769.79mm RAPID DISTANCE: 706.46mm ESTIMATED CYCLE TIME: 9m:14s (29.1%) COOLANT: Flood | T17002 D17002 L17002 TYPE: flat end mill DIAMETER: 2.5mm LENGTH: 21mm FLUTES: 2 DESCRIPTION: CoroMill Plura Tascapiccola VENDOR: Sandvik PRODUCT: 1P250-0250-XA 1630 |  |
| Operation 8/21 DESCRIPTION: Flat WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 5.6mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 2370.136mm/min CUTTING DISTANCE: 292.12mm RAPID DISTANCE: 251.5mm ESTIMATED CYCLE TIME: 12s (0.6%) COOLANT: Flood | T20001 D20001 L20001 TYPE: flat end mill DIAMETER: 8mm LENGTH: 40mm FLUTES: 4 DESCRIPTION: sgrossatura tasche VENDOR: sandvik PRODUCT: 2P342-0800-PA 1730 |  |
| Operation 9/21 DESCRIPTION: Flat1 WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 2.8mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 2584.402mm/min CUTTING DISTANCE: 332.8mm RAPID DISTANCE: 655.39mm ESTIMATED CYCLE TIME: 19s (1%) COOLANT: Flood | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 10/21 DESCRIPTION: Flat2 WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 3.15mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1550.641mm/min CUTTING DISTANCE: 462.08mm RAPID DISTANCE: 407.79mm ESTIMATED CYCLE TIME: 24s (1.3%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 11/21 DESCRIPTION: Wall STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 8.73mm MAXIMUM STEPOVER: 4.28mm | MAXIMUM Z: 11.9mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 808.957mm/min CUTTING DISTANCE: 331.93mm RAPID DISTANCE: 62.19mm ESTIMATED CYCLE TIME: 28s (1.5%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 12/21 DESCRIPTION: Wall1 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 8.73mm MAXIMUM STEPOVER: 4.28mm | MAXIMUM Z: 11.9mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 808.957mm/min CUTTING DISTANCE: 266.66mm RAPID DISTANCE: 192.13mm ESTIMATED CYCLE TIME: 27s (1.4%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 13/21 DESCRIPTION: Wall2 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 26mm MAXIMUM STEPOVER: 11.4mm | MAXIMUM Z: 12mm MINIMUM Z: -30mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 3110.4mm/min CUTTING DISTANCE: 45.46mm RAPID DISTANCE: 55.55mm ESTIMATED CYCLE TIME: 6s (0.3%) COOLANT: Flood | T17009 D17009 L17009 TYPE: flat end mill DIAMETER: 12mm LENGTH: 60mm FLUTES: 4 DESCRIPTION: CoroMill Dura Finituracontornatura VENDOR: Sandvik PRODUCT: 1K334-1200-XB 1730 |  |
| Operation 14/21 DESCRIPTION: Wall3 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 26mm MAXIMUM STEPOVER: 11.4mm | MAXIMUM Z: 12mm MINIMUM Z: -30.2mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 3110.4mm/min CUTTING DISTANCE: 483.17mm RAPID DISTANCE: 57mm ESTIMATED CYCLE TIME: 14s (0.7%) COOLANT: Flood | T17009 D17009 L17009 TYPE: flat end mill DIAMETER: 12mm LENGTH: 60mm FLUTES: 4 DESCRIPTION: CoroMill Dura Finituracontornatura VENDOR: Sandvik PRODUCT: 1K334-1200-XB 1730 |  |

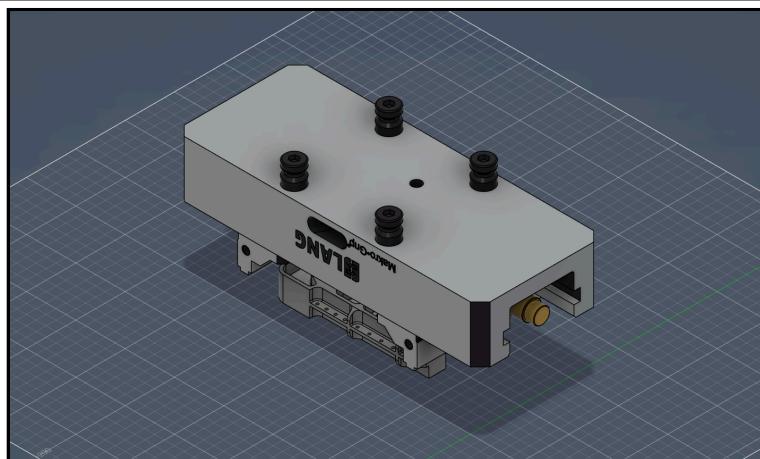
| | | | |
|---|---|--|---|
| Operation 15/21 DESCRIPTION: Wall4 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 17.5mm MAXIMUM STEPOVER: 7.6mm | MAXIMUM Z: 12mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1620mm/min CUTTING DISTANCE: 276.42mm RAPID DISTANCE: 220.58mm ESTIMATED CYCLE TIME: 19s (1%) COOLANT: Flood | T20001 D20001 L20001 TYPE: flat end mill DIAMETER: 8mm LENGTH: 40mm FLUTES: 4 DESCRIPTION: sgrossature tasche VENDOR: sandvik PRODUCT: 2P342-0800-PA 1730 |  |
| Operation 16/21 DESCRIPTION: Wall5 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 4.87mm MAXIMUM STEPOVER: 3.8mm | MAXIMUM Z: 12mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1525.299mm/min CUTTING DISTANCE: 165.57mm RAPID DISTANCE: 134.29mm ESTIMATED CYCLE TIME: 13s (0.7%) COOLANT: Flood | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 17/21 DESCRIPTION: Wall6 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 4.87mm MAXIMUM STEPOVER: 3.8mm | MAXIMUM Z: 12mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1525.299mm/min CUTTING DISTANCE: 309.62mm RAPID DISTANCE: 317.81mm ESTIMATED CYCLE TIME: 25s (1.3%) COOLANT: Flood | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 18/21 DESCRIPTION: Holemaking STRATEGY: Bore WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm | MAXIMUM Z: 15mm MINIMUM Z: -30.5mm MAXIMUM SPINDLE SPEED: 7639rpm MAXIMUM FEEDRATE: 3055.775mm/min CUTTING DISTANCE: 1257.85mm RAPID DISTANCE: 59.5mm ESTIMATED CYCLE TIME: 26s (1.4%) COOLANT: Flood | T17007 D17007 L17007 TYPE: flat end mill DIAMETER: 25mm LENGTH: 60mm FLUTES: 2 DESCRIPTION: CoroMill 390 Finituraforogrande VENDOR: Sandvik PRODUCT: R390-025A25-17L |  |
| Operation 19/21 DESCRIPTION: Holemaking1 STRATEGY: Drilling WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm | MAXIMUM Z: 15mm MINIMUM Z: -20.91mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 465.75mm/min CUTTING DISTANCE: 627.3mm RAPID DISTANCE: 1311.37mm ESTIMATED CYCLE TIME: 1m:37s (5.1%) COOLANT: Flood | T17006 D17006 L17006 TYPE: drill DIAMETER: 2.5mm TIP ANGLE: 140° LENGTH: 38mm FLUTES: 2 DESCRIPTION: CoroDrill 862 Foripiccoli VENDOR: Sandvik PRODUCT: 862.1-2500-225A0-GM X2BL |  |
| Operation 20/21 DESCRIPTION: Freeform STRATEGY: Contour WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 0.56mm | MAXIMUM Z: 15mm MINIMUM Z: -15.82mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1900mm/min CUTTING DISTANCE: 853.68mm RAPID DISTANCE: 557.9mm ESTIMATED CYCLE TIME: 45s (2.3%) COOLANT: Flood | T22014 D22014 L22014 TYPE: ball end mill DIAMETER: 8mm CORNER RADIUS: 4mm LENGTH: 20mm FLUTES: 4 DESCRIPTION: nervatura tonda VENDOR: mitsubishi PRODUCT: fresa a punta tonda VQ4SVBR04000 |  |
| Operation 21/21 DESCRIPTION: Freeform1 STRATEGY: Scallop WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 0.28mm | MAXIMUM Z: 15mm MINIMUM Z: -7.08mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1900mm/min CUTTING DISTANCE: 422.21mm RAPID DISTANCE: 99.77mm ESTIMATED CYCLE TIME: 21s (1.1%) COOLANT: Flood | T22014 D22014 L22014 TYPE: ball end mill DIAMETER: 8mm CORNER RADIUS: 4mm LENGTH: 20mm FLUTES: 4 DESCRIPTION: nervatura tonda VENDOR: mitsubishi PRODUCT: fresa a punta tonda VQ4SVBR04000 |  |

Setup Sheet for Program 1002

JOB DESCRIPTION: AutoSetup 2

DOCUMENT PATH: X_NC03-FORI_EDIT_1210070903 v3

| Setup | |
|------------------------|--|
| WCS: #0 | |
| STOCK: | |
| DX: 160mm | |
| DY: 95mm | |
| DZ: 35mm | |
| PART: | |
| DX: 150mm | |
| DY: 84.87mm | |
| DZ: 25mm | |
| STOCK LOWER IN WCS #0: | |
| X: -80mm | |
| Y: -47.5mm | |
| Z: -35mm | |
| STOCK UPPER IN WCS #0: | |
| X: 80mm | |
| Y: 47.5mm | |
| Z: 0mm | |



| Total | |
|---|--|
| NUMBER OF OPERATIONS: 16 | |
| NUMBER OF TOOLS: 7 | |
| TOOLS: T13002 T13008 T17002 T19010 T20001 T20002 T22014 | |
| MAXIMUM Z: 15mm | |
| MINIMUM Z: -16mm | |
| MAXIMUM FEEDRATE: 2756.695mm/min | |
| MAXIMUM SPINDLE SPEED: 8100rpm | |
| CUTTING DISTANCE: 25871.55mm | |
| RAPID DISTANCE: 12959.8mm | |
| ESTIMATED CYCLE TIME: 33m:6s | |

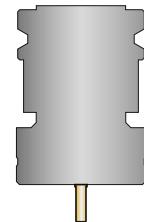
Tools

T13002 D13002 L13002

TYPE: bullnose end mill
DIAMETER: 5mm
CORNER RADIUS: 0.5mm
LENGTH: 18.5mm
FLUTES: 5
DESCRIPTION: Tasche
VENDOR: Sandvik
PRODUCT: [1K335-0500-050-XC 1730](#)

MINIMUM Z: -15.75mm
MAXIMUM FEED: 2252.614mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 4654.26mm
RAPID DISTANCE: 1398.36mm
ESTIMATED CYCLE TIME: 6m:39s (20.1%)

HOLDER: BT40 - B4C4-1000

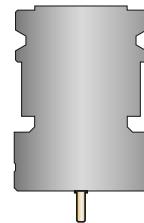


T13008 D13008 L13008

TYPE: bullnose end mill
DIAMETER: 4mm
CORNER RADIUS: 1mm
LENGTH: 14.87mm
FLUTES: 5
DESCRIPTION: Finitura fondo
VENDOR: Sandvik
PRODUCT: [R216.23-04050CAK11P 1630](#)

MINIMUM Z: -15.75mm
MAXIMUM FEED: 1834mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 1238.23mm
RAPID DISTANCE: 552.92mm
ESTIMATED CYCLE TIME: 2m:36s (7.8%)

HOLDER: BT40 - B4C4-1000

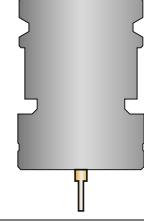


T17002 D17002 L17002

TYPE: flat end mill
DIAMETER: 2.5mm
LENGTH: 21mm
FLUTES: 2
DESCRIPTION: CoroMill Plura TascaPiccola
VENDOR: Sandvik
PRODUCT: [1P250-0250-XA 1630](#)

MINIMUM Z: -15.75mm
MAXIMUM FEED: 304.409mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 3155.13mm
RAPID DISTANCE: 904.55mm
ESTIMATED CYCLE TIME: 10m:33s (31.9%)

HOLDER: BT40 - B4C4-1000

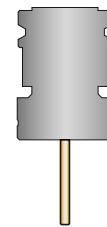


T19010 D19010 L19010

TYPE: bullnose end mill
DIAMETER: 6mm
CORNER RADIUS: 1mm
LENGTH: 57mm
FLUTES: 5
DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale
VENDOR: sandvik
PRODUCT: [1K335-0600-100-XD 1730](#)

MINIMUM Z: -16mm
MAXIMUM FEED: 2584.402mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 1079.78mm
RAPID DISTANCE: 1577.58mm
ESTIMATED CYCLE TIME: 1m:12s (3.6%)

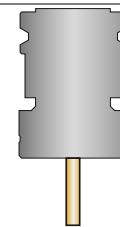
HOLDER: BT40 - B4C4-1000

**T20001 D20001 L20001**

TYPE: flat end mill
DIAMETER: 8mm
LENGTH: 40mm
FLUTES: 4
DESCRIPTION: sgrossature tasche
VENDOR: sandvik
PRODUCT: [2P342-0800-PA 1730](#)

MINIMUM Z: -16mm
MAXIMUM FEED: 2756.695mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 13411.61mm
RAPID DISTANCE: 7281.46mm
ESTIMATED CYCLE TIME: 6m:58s (21%)

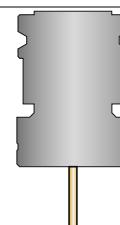
HOLDER: BT40 - B4C4-1000

**T20002 D20002 L20002**

TYPE: flat end mill
DIAMETER: 4.5mm
LENGTH: 35mm
FLUTES: 4
DESCRIPTION: SGROSSATURA TASCHE PICCOLE
VENDOR: SANDVIK
PRODUCT: [IP240-0450-XA 1630](#)

MINIMUM Z: -16mm
MAXIMUM FEED: 1550.641mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 1061.95mm
RAPID DISTANCE: 588.42mm
ESTIMATED CYCLE TIME: 1m:19s (4%)

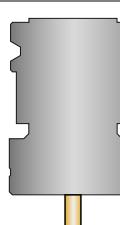
HOLDER: BT40 - B4C4-1000

**T22014 D22014 L22014**

TYPE: ball end mill
DIAMETER: 8mm
CORNER RADIUS: 4mm
LENGTH: 20mm
FLUTES: 4
DESCRIPTION: nervatura tonda
VENDOR: mitsubishi
PRODUCT: [fresa a punta tonda VQ4SVBR04000](#)

MINIMUM Z: -15.82mm
MAXIMUM FEED: 1900mm/min
MAXIMUM SPINDLE SPEED: 8100rpm
CUTTING DISTANCE: 1270.6mm
RAPID DISTANCE: 656.51mm
ESTIMATED CYCLE TIME: 1m:5s (3.3%)

HOLDER: BT40 - B4C4-1000

**Operations**

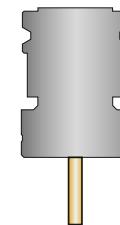
Operation 1/16

DESCRIPTION: Roughing
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 5.38mm
OPTIMAL LOAD: 7.6mm
LOAD DEVIATION: 0.2mm

MAXIMUM Z: 15mm
MINIMUM Z: -16mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 2756.695mm/min
CUTTING DISTANCE: 11499mm
RAPID DISTANCE: 6647.99mm
ESTIMATED CYCLE TIME: 5m:49s (17.6%)
COOLANT: Flood

T20001 D20001 L20001

TYPE: flat end mill
DIAMETER: 8mm
LENGTH: 40mm
FLUTES: 4
DESCRIPTION: sgrossature tasche
VENDOR: sandvik
PRODUCT: [2P342-0800-PA 1730](#)



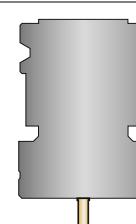
Operation 2/16

DESCRIPTION: Roughing1
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 4mm
OPTIMAL LOAD: 1.31mm
LOAD DEVIATION: 0.13mm

MAXIMUM Z: 15mm
MINIMUM Z: -15.75mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 2252.614mm/min
CUTTING DISTANCE: 4654.26mm
RAPID DISTANCE: 1398.36mm
ESTIMATED CYCLE TIME: 6m:39s (20.1%)
COOLANT: Flood

T13002 D13002 L13002

TYPE: bullnose end mill
DIAMETER: 5mm
CORNER RADIUS: 0.5mm
LENGTH: 18.5mm
FLUTES: 5
DESCRIPTION: Tasche
VENDOR: Sandvik
PRODUCT: [1K335-0500-050-XC 1730](#)



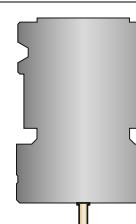
Operation 3/16

DESCRIPTION: Roughing2
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 3.3mm
OPTIMAL LOAD: 0.9mm
LOAD DEVIATION: 0.09mm

MAXIMUM Z: 15mm
MINIMUM Z: -15.75mm
MAXIMUM SPINDLE SPEED: 8100rpm
MAXIMUM FEEDRATE: 1834mm/min
CUTTING DISTANCE: 1238.23mm
RAPID DISTANCE: 552.92mm
ESTIMATED CYCLE TIME: 2m:36s (7.8%)
COOLANT: Flood

T13008 D13008 L13008

TYPE: bullnose end mill
DIAMETER: 4mm
CORNER RADIUS: 1mm
LENGTH: 14.87mm
FLUTES: 5
DESCRIPTION: Finitura fondo
VENDOR: Sandvik
PRODUCT: [R216.23-04050CAK11P 1630](#)



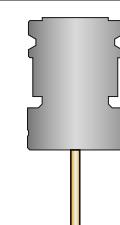
Operation 4/16

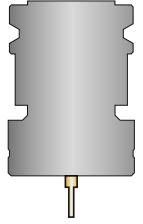
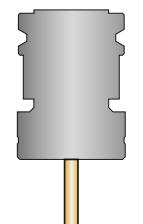
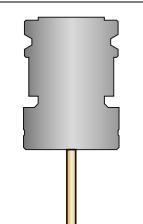
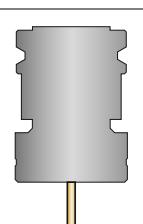
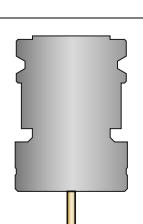
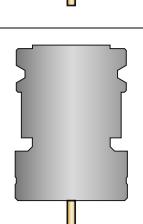
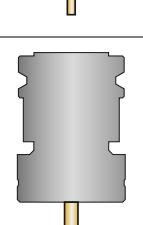
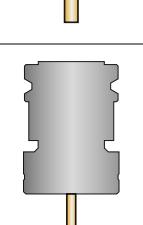
DESCRIPTION: Roughing3
STRATEGY: Adaptive
WCS: #0
TOLERANCE: 0.1mm
STOCK TO LEAVE: 0.25mm
MAXIMUM STEPDOWN: 0.67mm
OPTIMAL LOAD: 5mm
LOAD DEVIATION: 0.5mm

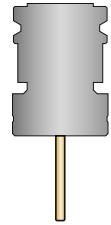
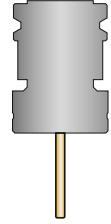
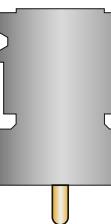
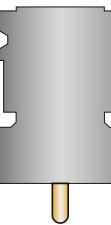
MAXIMUM Z: 15mm
MINIMUM Z: -8.75mm
MAXIMUM SPINDLE SPEED: 7945rpm
MAXIMUM FEEDRATE: 1679.133mm/min
CUTTING DISTANCE: 259.85mm
RAPID DISTANCE: 587.37mm
ESTIMATED CYCLE TIME: 16s (0.8%)
COOLANT: Flood

T19010 D19010 L19010

TYPE: bullnose end mill
DIAMETER: 6mm
CORNER RADIUS: 1mm
LENGTH: 57mm
FLUTES: 5
DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale
VENDOR: sandvik
PRODUCT: [1K335-0600-100-XD 1730](#)



| | | | |
|--|---|--|---|
| Operation 5/16 DESCRIPTION: Roughing4 STRATEGY: Adaptive WCS: #0 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.25mm MAXIMUM STEPDOWN: 5mm OPTIMAL LOAD: 0.09mm LOAD DEVIATION: 0.01mm | MAXIMUM Z: 15mm MINIMUM Z: -15.75mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 304.409mm/min CUTTING DISTANCE: 3155.13mm RAPID DISTANCE: 904.55mm ESTIMATED CYCLE TIME: 10m:33s (31.9%) COOLANT: Flood | T17002 D17002 L17002 TYPE: flat end mill DIAMETER: 2.5mm LENGTH: 21mm FLUTES: 2 DESCRIPTION: CoroMill Plura Tascapiccola VENDOR: Sandvik PRODUCT: 1P250-0250-XA 1630 |  |
| Operation 6/16 DESCRIPTION: Flat WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 5.6mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 2370.136mm/min CUTTING DISTANCE: 1636.19mm RAPID DISTANCE: 389.74mm ESTIMATED CYCLE TIME: 49s (2.5%) COOLANT: Flood | T20001 D20001 L20001 TYPE: flat end mill DIAMETER: 8mm LENGTH: 40mm FLUTES: 4 DESCRIPTION: sgrossatura tasche VENDOR: sandvik PRODUCT: 2P342-0800-PA 1730 |  |
| Operation 7/16 DESCRIPTION: Flat1 WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 2.8mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 2584.402mm/min CUTTING DISTANCE: 344.74mm RAPID DISTANCE: 586.91mm ESTIMATED CYCLE TIME: 18s (0.9%) COOLANT: Flood | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 8/16 DESCRIPTION: Flat2 WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.27mm/0mm MAXIMUM STEPOVER: 3.15mm | MAXIMUM Z: 15mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1550.641mm/min CUTTING DISTANCE: 463.35mm RAPID DISTANCE: 349.39mm ESTIMATED CYCLE TIME: 23s (1.2%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 9/16 DESCRIPTION: Wall STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 8.73mm MAXIMUM STEPOVER: 4.28mm | MAXIMUM Z: 11.9mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 808.957mm/min CUTTING DISTANCE: 331.93mm RAPID DISTANCE: 62.19mm ESTIMATED CYCLE TIME: 28s (1.4%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 10/16 DESCRIPTION: Wall1 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 8.73mm MAXIMUM STEPOVER: 4.28mm | MAXIMUM Z: 11.9mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 808.957mm/min CUTTING DISTANCE: 266.66mm RAPID DISTANCE: 176.84mm ESTIMATED CYCLE TIME: 27s (1.4%) COOLANT: Flood | T20002 D20002 L20002 TYPE: flat end mill DIAMETER: 4.5mm LENGTH: 35mm FLUTES: 4 DESCRIPTION: SGROSSATURA TASCHE PICCOLE VENDOR: SANDVIK PRODUCT: 1P240-0450-XA 1630 |  |
| Operation 11/16 DESCRIPTION: Wall2 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 17.5mm MAXIMUM STEPOVER: 7.6mm | MAXIMUM Z: 12mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1620mm/min CUTTING DISTANCE: 276.42mm RAPID DISTANCE: 243.73mm ESTIMATED CYCLE TIME: 20s (1%) COOLANT: Flood | T20001 D20001 L20001 TYPE: flat end mill DIAMETER: 8mm LENGTH: 40mm FLUTES: 4 DESCRIPTION: sgrossatura tasche VENDOR: sandvik PRODUCT: 2P342-0800-PA 1730 |  |
| Operation 12/16 DESCRIPTION: Wall3 STRATEGY: Contour 2D WCS: #0 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 4.87mm MAXIMUM STEPOVER: 3.8mm | MAXIMUM Z: 12mm MINIMUM Z: -16mm MAXIMUM SPINDLE SPEED: 8100rpm MAXIMUM FEEDRATE: 1525.299mm/min CUTTING DISTANCE: 165.57mm RAPID DISTANCE: 134.29mm ESTIMATED CYCLE TIME: 13s (0.6%) COOLANT: Flood | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |

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| Operation 13/16 | | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 14/16 | | T19010 D19010 L19010 TYPE: bullnose end mill DIAMETER: 6mm CORNER RADIUS: 1mm LENGTH: 57mm FLUTES: 5 DESCRIPTION: Fresa a candela CoroMill Dura in metallo duro integrale VENDOR: sandvik PRODUCT: 1K335-0600-100-XD 1730 |  |
| Operation 15/16 | | T22014 D22014 L22014 TYPE: ball end mill DIAMETER: 8mm CORNER RADIUS: 4mm LENGTH: 20mm FLUTES: 4 DESCRIPTION: nervatura tonda VENDOR: mitsubishi PRODUCT: fresa a punta tonda VQ4SVBR04000 |  |
| Operation 16/16 | | T22014 D22014 L22014 TYPE: ball end mill DIAMETER: 8mm CORNER RADIUS: 4mm LENGTH: 20mm FLUTES: 4 DESCRIPTION: nervatura tonda VENDOR: mitsubishi PRODUCT: fresa a punta tonda VQ4SVBR04000 |  |

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