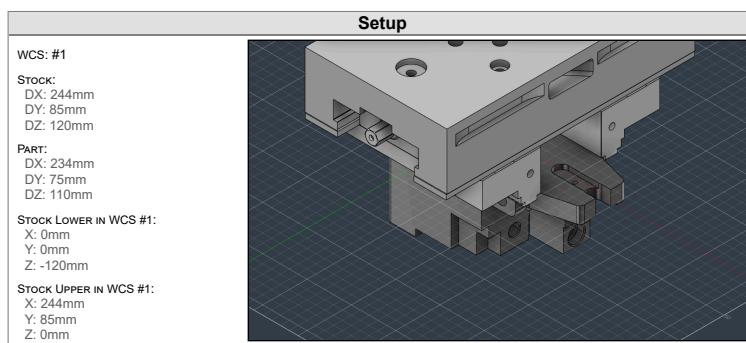


Setup Sheet for Program 1001

JOB DESCRIPTION: Setup finito capovolto
 DOCUMENT PATH: DEFINITIVO v1



Total	
NUMBER OF OPERATIONS: 36	
NUMBER OF TOOLS: 13	
TOOLS: T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T19	
MAXIMUM FEEDRATE: 4500mm/min	
MAXIMUM SPINDLE SPEED: 8000rpm	
CUTTING DISTANCE: 21902.64mm	
RAPID DISTANCE: 3647.59mm	
ESTIMATED CYCLE TIME: 13m:31s	

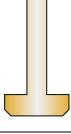
Tools	
T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 4000rpm CUTTING DISTANCE: 9165.86mm RAPID DISTANCE: 397.28mm ESTIMATED CYCLE TIME: 3m:53s (28.7%)
T2 D2 L2 TYPE: drill DIAMETER: 4.9mm TIP ANGLE: 118° LENGTH: 92mm FLUTES: 2 DESCRIPTION: Straight shank VENDOR: Mitsubishi Materials PRODUCT: VSDD0490	MAXIMUM FEED: 142.915mm/min MAXIMUM SPINDLE SPEED: 1299rpm CUTTING DISTANCE: 6.51mm RAPID DISTANCE: 100.51mm ESTIMATED CYCLE TIME: 4s (0.5%)
T3 D3 L3 TYPE: drill DIAMETER: 35mm LENGTH: 142mm FLUTES: 2 DESCRIPTION: MVX COMMENT: https://www.mitsubishicarbide.net/mhg/it/rotating_inserts/no_srs/20099377?lulg_shd_disp_flg=1 VENDOR: Mitsubishi Materials PRODUCT: MVX3500X3F40	MAXIMUM FEED: 450mm/min MAXIMUM SPINDLE SPEED: 1364rpm CUTTING DISTANCE: 108mm RAPID DISTANCE: 130mm ESTIMATED CYCLE TIME: 16s (2%)
T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	MAXIMUM FEED: 4500mm/min MAXIMUM SPINDLE SPEED: 6000rpm CUTTING DISTANCE: 9732.31mm RAPID DISTANCE: 1970.96mm ESTIMATED CYCLE TIME: 4m:9s (30.7%)
T5 D5 L5 TYPE: drill DIAMETER: 12mm TIP ANGLE: 147° LENGTH: 161mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM VENDOR: Sandvik Coromant PRODUCT: 860.1-1200-098A1-PM P1BM	MAXIMUM FEED: 1360mm/min MAXIMUM SPINDLE SPEED: 4530rpm CUTTING DISTANCE: 32mm RAPID DISTANCE: 52mm ESTIMATED CYCLE TIME: 2s (0.3%)
T6 D6 L6 TYPE: right hand tap DIAMETER: 5mm LENGTH: 80mm FLUTES: 3 DESCRIPTION: Maschio con scanalature elicoidali CoroTap™ 300 VENDOR: Sandvik Coromant PRODUCT: T300-PM104DA-M6 P1PM	MAXIMUM FEED: 2590mm/min MAXIMUM SPINDLE SPEED: 2590rpm CUTTING DISTANCE: 29.5mm RAPID DISTANCE: 74.5mm ESTIMATED CYCLE TIME: 2s (0.2%)
T7 D7 L7 TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 51mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	MAXIMUM FEED: 1000mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 172.59mm RAPID DISTANCE: 73.63mm ESTIMATED CYCLE TIME: 13s (1.6%)
T8 D8 L8 TYPE: right hand tap DIAMETER: 4.2mm LENGTH: 70mm FLUTES: 3 DESCRIPTION: Maschio con scanalature elicoidali CoroTap™ 300 COMMENT: Vita utile 0:01:764 s VENDOR: Sandvik Coromant PRODUCT: T300-PM104DA-M5 P1PM	MAXIMUM FEED: 2192mm/min MAXIMUM SPINDLE SPEED: 2740rpm CUTTING DISTANCE: 60mm RAPID DISTANCE: 210mm ESTIMATED CYCLE TIME: 4s (0.5%)

T9 D9 L9 TYPE: drill DIAMETER: 4.5mm TIP ANGLE: 147° LENGTH: 73.2mm FLUTES: 2 DESCRIPTION: CoroDrill® 860-PM solid carbide drill COMMENT: Vita utile 9140 fori VENDOR: Sandvik Coromant PRODUCT: 860_1-0450-027A1-PM P1BM	MAXIMUM FEED: 1500mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 25mm RAPID DISTANCE: 87.51mm ESTIMATED CYCLE TIME: 2s (0.3%)	
T10 D10 L10 TYPE: drill DIAMETER: 4.2mm TIP ANGLE: 118° LENGTH: 83mm FLUTES: 2 DESCRIPTION: Straight shank COMMENT: Vita utile 17600 fori VENDOR: Mitsubishi Materials PRODUCT: VSD0420	MAXIMUM FEED: 143.1mm/min MAXIMUM SPINDLE SPEED: 1590rpm CUTTING DISTANCE: 32.54mm RAPID DISTANCE: 242.54mm ESTIMATED CYCLE TIME: 17s (2%)	
T11 D11 L11 TYPE: drill DIAMETER: 6mm TIP ANGLE: 90° LENGTH: 63.4mm FLUTES: 2 VENDOR: Mitsubishi Materials PRODUCT: DLE0600S060P090	MAXIMUM FEED: 1660mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 7.77mm RAPID DISTANCE: 77.77mm ESTIMATED CYCLE TIME: 1s (0.1%)	
T12 D12 L12 TYPE: bullnose end mill DIAMETER: 7.94mm CORNER RADIUS: 0.38mm LENGTH: 63.5mm FLUTES: 5 DESCRIPTION: CoroMill® Plura, fresa a candela in metallo duro integrale per fresatura pesante COMMENT: 4480 lavorazioni per 2.760 min VENDOR: Sandvik Coromant PRODUCT: 2F342-0794-038-PD P2BM	MAXIMUM FEED: 3670mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 2508.45mm RAPID DISTANCE: 151.59mm ESTIMATED CYCLE TIME: 57s (7%)	
T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 6800rpm CUTTING DISTANCE: 22.11mm RAPID DISTANCE: 79.3mm ESTIMATED CYCLE TIME: 1s (0.2%)	

Operations

Operation 1/36 DESCRIPTION: Spianatura superficie inferiore STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 1007.85mm RAPID DISTANCE: 24.5mm ESTIMATED CYCLE TIME: 31s (3.8%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 2/36 DESCRIPTION: Finitura spianatura superficie inferiore STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 5mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 3000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 656.28mm RAPID DISTANCE: 27.6mm ESTIMATED CYCLE TIME: 12s (1.5%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 3/36 DESCRIPTION: Spianatura Laterale 1 STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 721.91mm RAPID DISTANCE: 24.1mm ESTIMATED CYCLE TIME: 23s (2.8%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 4/36 DESCRIPTION: Finitura Spianatura Laterale 1 STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 2mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 3000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 718.41mm RAPID DISTANCE: 28.6mm ESTIMATED CYCLE TIME: 13s (1.6%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 5/36 DESCRIPTION: Spianatura Laterale 2 STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 721.91mm RAPID DISTANCE: 24.1mm ESTIMATED CYCLE TIME: 23s (2.8%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 6/36 DESCRIPTION: Finitura Spianatura Laterale 2 STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 2mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 3000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 718.41mm RAPID DISTANCE: 28.6mm ESTIMATED CYCLE TIME: 13s (1.6%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 7/36 DESCRIPTION: Spianatura Laterale attacco morsa 1 STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 1016.23mm RAPID DISTANCE: 24.5mm ESTIMATED CYCLE TIME: 31s (3.9%) COOLANT: Flood	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	

Operation 8/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 9/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 10/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 11/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 12/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 13/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 14/36	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 15/36	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 16/36	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 17/36	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 18/36	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 19/36	T3 D3 L3 TYPE: drill DIAMETER: 35mm LENGTH: 142mm FLUTES: 2 DESCRIPTION: MVX COMMENT: https://www.mitsubishicarbide.net/mhg/it/rotating_inserts/no_srs/20099377?ting_sht_disp_flg=1 VENDOR: Mitsubishi Materials PRODUCT: MVX3500X3F40	

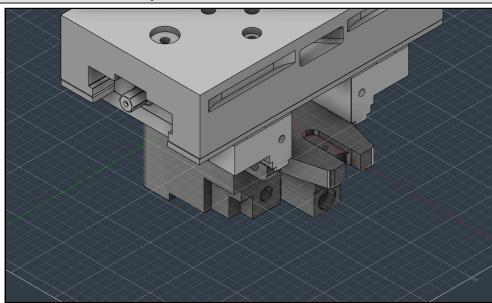
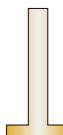
Operation 20/36 DESCRIPTION: Contornatura centrale STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 217.61mm RAPID DISTANCE: 75.8mm ESTIMATED CYCLE TIME: 7s (0.9%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 21/36 DESCRIPTION: Finitura Contornatura centrale STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 24.75mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 5500rpm MAXIMUM FEEDRATE: 4500mm/min CUTTING DISTANCE: 436.12mm RAPID DISTANCE: 72mm ESTIMATED CYCLE TIME: 7s (0.9%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 22/36 DESCRIPTION: Contornatura superficie inferiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 2.3mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 659.24mm RAPID DISTANCE: 61.7mm ESTIMATED CYCLE TIME: 19s (2.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 23/36 DESCRIPTION: Spianatura superficie posteriore STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 18mm MAXIMUM STEPOVER: 7mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 2487.08mm RAPID DISTANCE: 174.12mm ESTIMATED CYCLE TIME: 59s (7.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 24/36 DESCRIPTION: Finitura Spianatura superficie posteriore STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 4mm MAXIMUM STEPOVER: 7mm	MAXIMUM SPINDLE SPEED: 5500rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 1141.1mm RAPID DISTANCE: 87mm ESTIMATED CYCLE TIME: 21s (2.6%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 25/36 DESCRIPTION: Spianatura superficie frontale STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 18mm MAXIMUM STEPOVER: 7mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 2708.16mm RAPID DISTANCE: 173.19mm ESTIMATED CYCLE TIME: 1m:4s (7.8%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 26/36 DESCRIPTION: Finitura Spianatura superficie frontale STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 5mm MAXIMUM STEPOVER: 7mm	MAXIMUM SPINDLE SPEED: 5500rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 1202.91mm RAPID DISTANCE: 87mm ESTIMATED CYCLE TIME: 22s (2.7%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 27/36 DESCRIPTION: Smusso foro superficie inferiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 22.23mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 1000mm/min CUTTING DISTANCE: 172.59mm RAPID DISTANCE: 73.63mm ESTIMATED CYCLE TIME: 13s (1.6%) COOLANT: Flood	T7 D7 L7 TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 51mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 28/36 DESCRIPTION: Finitura Contornatura superficie inferiore (2) STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 10mm MAXIMUM STEPOVER: 6.82mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3670mm/min CUTTING DISTANCE: 2508.45mm RAPID DISTANCE: 151.59mm ESTIMATED CYCLE TIME: 57s (7%) COOLANT: Flood	T12 D12 L12 TYPE: bullnose end mill DIAMETER: 7.94mm CORNER RADIUS: 0.38mm LENGTH: 63.5mm FLUTES: 5 DESCRIPTION: CoroMill® Plura, fresa a candela in metallo duro integrale per fresatura pesante COMMENT: 4480 lavorazioni per 2.760 min VENDOR: Sandvik Coromant PRODUCT: F342-0794-038-PD P2BM	
Operation 29/36 DESCRIPTION: Foratura Superficie inferiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 4530rpm MAXIMUM FEEDRATE: 1360mm/min CUTTING DISTANCE: 32mm RAPID DISTANCE: 52mm ESTIMATED CYCLE TIME: 2s (0.3%) COOLANT: Flood	T5 D5 L5 TYPE: drill DIAMETER: 12mm TIP ANGLE: 147° LENGTH: 161mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM VENDOR: Sandvik Coromant PRODUCT: 860.1-1200-098A1-PM P1BM	
Operation 30/36 DESCRIPTION: Finitura superficie inferiore foro STRATEGY: Circular WCS: #1 STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 10mm	MAXIMUM SPINDLE SPEED: 6800rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 22.11mm RAPID DISTANCE: 79.3mm ESTIMATED CYCLE TIME: 1s (0.2%) COOLANT: Flood	T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	
Operation 31/36 DESCRIPTION: Preforo filettatura inferiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 1500mm/min CUTTING DISTANCE: 25mm RAPID DISTANCE: 87.51mm ESTIMATED CYCLE TIME: 2s (0.3%) COOLANT: Flood	T9 D9 L9 TYPE: drill DIAMETER: 4.5mm TIP ANGLE: 147° LENGTH: 73.2mm FLUTES: 2 DESCRIPTION: CoroDrill® 860-PM solid carbide drill COMMENT: Vita utile 8140 fori VENDOR: Sandvik Coromant PRODUCT: 860.1-0450-027A1-PM P1BM	
Operation 32/36 DESCRIPTION: Smussatura foro grande STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 1660mm/min CUTTING DISTANCE: 7.77mm RAPID DISTANCE: 77.77mm ESTIMATED CYCLE TIME: 1s (0.1%) COOLANT: Flood	T11 D11 L11 TYPE: drill DIAMETER: 6mm TIP ANGLE: 90° LENGTH: 63.4mm FLUTES: 2 DESCRIPTION: Mitsubishi Materials VENDOR: Mitsubishi Materials PRODUCT: DLF0600S060P090	

Operation 33/36	T6 D6 L6 DESCRIPTION: Filettatura faccia inferiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 2590rpm MAXIMUM FEEDRATE: 2590mm/min CUTTING DISTANCE: 29.5mm RAPID DISTANCE: 74.5mm ESTIMATED CYCLE TIME: 2s (0.2%) COOLANT: Flood	TYPE: right hand tap DIAMETER: 5mm LENGTH: 80mm FLUTES: 3 DESCRIPTION: Maschio con scanalature elicoidali CoroTap™ 300 VENDOR: Sandvik Coromant PRODUCT: T300-PM104DA-M6 P1PM
Operation 34/36	T2 D2 L2 DESCRIPTION: Smussatura foro piccolo STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 1299rpm MAXIMUM FEEDRATE: 142.915mm/min CUTTING DISTANCE: 6.51mm RAPID DISTANCE: 100.51mm ESTIMATED CYCLE TIME: 4s (0.5%) COOLANT: Flood	TYPE: drill DIAMETER: 4.9mm TIP ANGLE: 118° LENGTH: 92mm FLUTES: 2 DESCRIPTION: Straight shank VENDOR: Mitsubishi Materials PRODUCT: VSDD0490
Operation 35/36	T10 D10 L10 DESCRIPTION: Preforo doppia maschiatura STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 1590rpm MAXIMUM FEEDRATE: 143.1mm/min CUTTING DISTANCE: 32.54mm RAPID DISTANCE: 242.54mm ESTIMATED CYCLE TIME: 17s (2%) COOLANT: Flood	TYPE: drill DIAMETER: 4.2mm TIP ANGLE: 118° LENGTH: 83mm FLUTES: 2 DESCRIPTION: Straight shank COMMENT: Vita utile 17600 fori VENDOR: Mitsubishi Materials PRODUCT: VSDD0420
Operation 36/36	T8 D8 L8 DESCRIPTION: Doppia maschiatura superficie inferiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 2740rpm MAXIMUM FEEDRATE: 2192mm/min CUTTING DISTANCE: 60mm RAPID DISTANCE: 210mm ESTIMATED CYCLE TIME: 4s (0.5%) COOLANT: Flood	TYPE: right hand tap DIAMETER: 4.2mm LENGTH: 70mm FLUTES: 3 DESCRIPTION: Maschio con scanalature elicoidali CoroTap™ 300 COMMENT: Vita utile 0:01:764 s VENDOR: Sandvik Coromant PRODUCT: T300-PM104DA-M5 P1PM

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Setup Sheet for Program 1002

JOB DESCRIPTION: Setup secondo
DOCUMENT PATH: DEFINITIVO v1

Setup	
WCS: #1 STOCK: DX: 244mm DY: 85mm DZ: 120mm PART: DX: 234mm DY: 75mm DZ: 110mm STOCK LOWER IN WCS #1: X: 0mm Y: 0mm Z: -120mm STOCK UPPER IN WCS #1: X: 244mm Y: 85mm Z: 0mm	
Total	
NUMBER OF OPERATIONS: 64 NUMBER OF TOOLS: 19 Tools: T1 T2 T4 T5 T6 T7 T11 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T23 T24 MAXIMUM FEEDRATE: 3500mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 23908.15mm RAPID DISTANCE: 27862.72mm ESTIMATED CYCLE TIME: 25m:27s	
Tools	
T1 D1 L1 Type: face mill Diameter: 54mm Length: 35mm Flutes: 5 Description: CoroMill® 390 square shoulder milling cutter Comment: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%20201130 Vendor: Sandvik Coromant Product: R390-054C5T-17M	 MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 4000rpm CUTTING DISTANCE: 4315.24mm RAPID DISTANCE: 536.63mm ESTIMATED CYCLE TIME: 2m:21s (9.3%)
T2 D2 L2 Type: drill Diameter: 4.9mm Tip Angle: 118° Length: 92mm Flutes: 2 Description: Straight shank Vendor: Mitsubishi Materials Product: VSDD0490	 MAXIMUM FEED: 142.915mm/min MAXIMUM SPINDLE SPEED: 1299rpm CUTTING DISTANCE: 152.49mm RAPID DISTANCE: 388.07mm ESTIMATED CYCLE TIME: 1m:9s (4.5%)
T4 D4 L4 Type: flat end mill Diameter: 10mm Length: 100mm Flutes: 4 Description: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE Vendor: Mitsubishi Materials Product: MPJHD1000AP33	 MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 6000rpm CUTTING DISTANCE: 10280.29mm RAPID DISTANCE: 16442.38mm ESTIMATED CYCLE TIME: 7m:19s (28.8%)
T5 D5 L5 Type: drill Diameter: 12mm Tip Angle: 147° Length: 161mm Flutes: 2 Description: Punta in metallo duro integrale CoroDrill® 860-PM Vendor: Sandvik Coromant Product: 860.1-1200-098A1-PM P1BM	 MAXIMUM FEED: 1360mm/min MAXIMUM SPINDLE SPEED: 4530rpm CUTTING DISTANCE: 108.56mm RAPID DISTANCE: 183.56mm ESTIMATED CYCLE TIME: 7s (0.5%)
T6 D6 L6 Type: right hand tap Diameter: 5mm Length: 80mm Flutes: 3 Description: Maschio con scanalature elicoidali CoroTap™ 300 Vendor: Sandvik Coromant Product: T300-PM104DA-M6 P1PM	 MAXIMUM FEED: 2590mm/min MAXIMUM SPINDLE SPEED: 2590rpm CUTTING DISTANCE: 286.98mm RAPID DISTANCE: 235.59mm ESTIMATED CYCLE TIME: 9s (0.6%)
T7 D7 L7 Type: countersink Diameter: 23.4mm Tip Angle: 90° Length: 51mm Flutes: 1 Description: Fresa per smussatura CoroMill 495 Vendor: Sandvik Coromant Product: 495-012A16-4509L	 MAXIMUM FEED: 1000mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 94.54mm RAPID DISTANCE: 102.26mm ESTIMATED CYCLE TIME: 10s (0.6%)
T11 D11 L11 Type: drill Diameter: 6mm Tip Angle: 90° Length: 63.4mm Flutes: 2 Description: Fresa per smussatura CoroMill 495 Vendor: Sandvik Coromant Product: DLE0600S060P090	 MAXIMUM FEED: 1660mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 46.62mm RAPID DISTANCE: 279.18mm ESTIMATED CYCLE TIME: 5s (0.3%)
T13 D13 L13 Type: drill Diameter: 14mm Tip Angle: 147° Length: 179.7mm Flutes: 2 Description: Punta in metallo duro integrale CoroDrill® 860-PM Comment: 894 fori da 5.082 min Vendor: Sandvik Coromant Product: 860.1-1400-115A1-PM P1BM	 MAXIMUM FEED: 1280mm/min MAXIMUM SPINDLE SPEED: 3880rpm CUTTING DISTANCE: 118mm RAPID DISTANCE: 160mm ESTIMATED CYCLE TIME: 7s (0.5%)

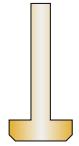
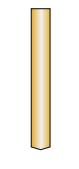
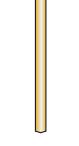
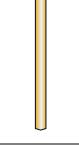
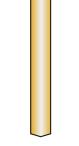
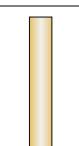
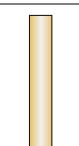
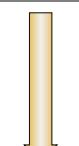
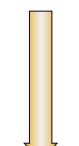
T14 D14 L14 TYPE: drill DIAMETER: 20mm TIP ANGLE: 147° LENGTH: 149.9mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 1320 fori da 3.528 minuti VENDOR: Sandvik Coromant PRODUCT: 860.1-2000-077A1-PM P1BM	MAXIMUM FEED: 958mm/min MAXIMUM SPINDLE SPEED: 2660rpm CUTTING DISTANCE: 69.64mm RAPID DISTANCE: 121.64mm ESTIMATED CYCLE TIME: 6s (0.4%)	
T15 D15 L15 TYPE: drill DIAMETER: 16mm TIP ANGLE: 147° LENGTH: 112.5mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 2140 fori da 2.214 min VENDOR: Sandvik Coromant PRODUCT: 860.1-1600-044A1-PM P1BM	MAXIMUM FEED: 1100mm/min MAXIMUM SPINDLE SPEED: 3320rpm CUTTING DISTANCE: 47mm RAPID DISTANCE: 89mm ESTIMATED CYCLE TIME: 4s (0.2%)	
T16 D16 L16 TYPE: drill DIAMETER: 18mm TIP ANGLE: 147° LENGTH: 120.2mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 10900 fori da 0.559 min VENDOR: Sandvik Coromant PRODUCT: 860.1-1800-050A1-PM P1BM	MAXIMUM FEED: 1060mm/min MAXIMUM SPINDLE SPEED: 2960rpm CUTTING DISTANCE: 16mm RAPID DISTANCE: 54mm ESTIMATED CYCLE TIME: 2s (0.1%)	
T17 D17 L17 TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 100mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill® 495 VENDOR: Sandvik Coromant PRODUCT: 495.012A16-45091	MAXIMUM FEED: 1000mm/min MAXIMUM SPINDLE SPEED: 5000rpm CUTTING DISTANCE: 350.46mm RAPID DISTANCE: 242.32mm ESTIMATED CYCLE TIME: 28s (1.8%)	
T18 D18 L18 TYPE: drill DIAMETER: 3mm TIP ANGLE: 118° LENGTH: 71mm FLUTES: 2 DESCRIPTION: Stelo rettilineo VENDOR: Mitsubishi Materials PRODUCT: VSDD0300	MAXIMUM FEED: 148.4mm/min MAXIMUM SPINDLE SPEED: 2120rpm CUTTING DISTANCE: 13.9mm RAPID DISTANCE: 33.9mm ESTIMATED CYCLE TIME: 6s (0.4%)	
T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 6800rpm CUTTING DISTANCE: 1813.76mm RAPID DISTANCE: 866.13mm ESTIMATED CYCLE TIME: 1m:5s (4.2%)	
T20 D20 L20 TYPE: slot mill DIAMETER: 17.7mm LENGTH: 74.25mm FLUTES: 3 DESCRIPTION: Fresa asola per scanalatura COMMENT: https://www.sandvik.coromant.com/it-it/product-details?c=327R09-18%2013000-GM%20%201025&m=5758658 VENDOR: Sandvik Coromant PRODUCT: 327-16B18SC-09	MAXIMUM FEED: 3500mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 696.27mm RAPID DISTANCE: 401.34mm ESTIMATED CYCLE TIME: 24s (1.6%)	
T21 D21 L21 TYPE: dovetail mill DIAMETER: 15.7mm TAPER ANGLE: 45° LENGTH: 104.1mm FLUTES: 1 DESCRIPTION: Fresa frontale VENDOR: Mitsubishi Materials PRODUCT: CESPR041S16L	MAXIMUM FEED: 1054.275mm/min MAXIMUM SPINDLE SPEED: 2636rpm CUTTING DISTANCE: 21.93mm RAPID DISTANCE: 52mm ESTIMATED CYCLE TIME: 2s (0.1%)	
T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	MAXIMUM FEED: 2500mm/min MAXIMUM SPINDLE SPEED: 5000rpm CUTTING DISTANCE: 3940.96mm RAPID DISTANCE: 4837.38mm ESTIMATED CYCLE TIME: 5m:8s (20.2%)	
T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG_H10F	MAXIMUM FEED: 3000mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 1023.03mm RAPID DISTANCE: 2054.63mm ESTIMATED CYCLE TIME: 45s (3%)	
T24 D24 L24 TYPE: flat end mill DIAMETER: 3mm LENGTH: 60mm FLUTES: 2 DESCRIPTION: 2 tagli, Serie media, Lavorazioni generiche VENDOR: Mitsubishi Materials PRODUCT: AM2MRD0300A060	MAXIMUM FEED: 2000mm/min MAXIMUM SPINDLE SPEED: 8000rpm CUTTING DISTANCE: 512.48mm RAPID DISTANCE: 782.72mm ESTIMATED CYCLE TIME: 50s (3.2%)	

Operations

Operation 1/64 DESCRIPTION: Spianatura superficie superiore STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPOVER: 37.8mm	T1 D1 L1 MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 1007.85mm RAPID DISTANCE: 24.5mm ESTIMATED CYCLE TIME: 31s (2%) COOLANT: Flood	HOLDER: Pinza ER VENDOR: Sandvik Coromant PRODUCT: 393.14-11 0600	
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Operation 2/64	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 3/64	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 4/64	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 5/64	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 6/64	T1 D1 L1 TYPE: face mill DIAMETER: 54mm LENGTH: 35mm FLUTES: 5 DESCRIPTION: CoroMill® 390 square shoulder milling cutter COMMENT: Inserto: https://www.sandvik.coromant.com/en-gb/product-details?c=R390-17%2004%2012E-PM%20%20%201130 VENDOR: Sandvik Coromant PRODUCT: R390-054C5T-17M	
Operation 7/64	T13 D13 L13 TYPE: drill DIAMETER: 14mm TIP ANGLE: 147° LENGTH: 179.7mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 894 fori da 5.082 mm VENDOR: Sandvik Coromant PRODUCT: R60.1-1400-115A1-PM P1BM	
Operation 8/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 9/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 10/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 11/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 12/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 13/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 14/64	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	

Operation 15/64 DESCRIPTION: Contornatura foro superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPDOWN: 24.75mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 137.51mm RAPID DISTANCE: 49.9mm ESTIMATED CYCLE TIME: 7s (0.4%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 16/64 DESCRIPTION: Finitura contornatura foro superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 137.24mm RAPID DISTANCE: 49mm ESTIMATED CYCLE TIME: 4s (0.2%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 17/64 DESCRIPTION: Adattivo sgrossatura parte frontale STRATEGY: Adaptive WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPDOWN: 24.75mm OPTIMAL LOAD: 6mm LOAD DEVIATION: 0.6mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 4522.75mm RAPID DISTANCE: 12068.08mm ESTIMATED CYCLE TIME: 4m:0s (15.7%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 18/64 DESCRIPTION: Tasca foro centrale STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPOVER: 6mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 151.09mm RAPID DISTANCE: 78.9mm ESTIMATED CYCLE TIME: 5s (0.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 19/64 DESCRIPTION: Finitura tasca foro centrale STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 6mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 149.65mm RAPID DISTANCE: 89mm ESTIMATED CYCLE TIME: 4s (0.2%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 20/64 DESCRIPTION: Finitura piede destro STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 6mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 723.39mm RAPID DISTANCE: 1631.31mm ESTIMATED CYCLE TIME: 36s (2.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 21/64 DESCRIPTION: Finitura superficie intermedia STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 6mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 352.07mm RAPID DISTANCE: 745.96mm ESTIMATED CYCLE TIME: 17s (1.1%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 22/64 DESCRIPTION: Finitura faccia frontale torretta STRATEGY: Facing WCS: #1 TOLERANCE: 0.01mm MAXIMUM STEPDOWN: 10mm MAXIMUM STEPOVER: 7mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 203.4mm RAPID DISTANCE: 87mm ESTIMATED CYCLE TIME: 5s (0.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 23/64 DESCRIPTION: Finitura superficie frontale intemedia STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 98.28mm RAPID DISTANCE: 151mm ESTIMATED CYCLE TIME: 4s (0.3%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 24/64 DESCRIPTION: Finitura faccia posteriore torretta STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 9.5mm	MAXIMUM SPINDLE SPEED: 6000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 51.28mm RAPID DISTANCE: 153mm ESTIMATED CYCLE TIME: 3s (0.2%) COOLANT: Flood	T4 D4 L4 TYPE: flat end mill DIAMETER: 10mm LENGTH: 100mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPJHVD1000AP33	
Operation 25/64 DESCRIPTION: Asola foro superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPDOWN: 1.3mm MAXIMUM STEPOVER: 16.82mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 334.23mm RAPID DISTANCE: 163.07mm ESTIMATED CYCLE TIME: 12s (0.8%) COOLANT: Flood	T20 D20 L20 TYPE: slot mill DIAMETER: 17.7mm LENGTH: 74.25mm FLUTES: 3 DESCRIPTION: Fresa asola per scanalatura COMMENT: https://www.sandvik.coromant.com/it-it/product-details?c=327R09-18%202013000-GM%20%20201025&m=5758658 VENDOR: Sandvik Coromant PRODUCT: 327-16B18SC-09	
Operation 26/64 DESCRIPTION: Finitura asola foro superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 1.3mm MAXIMUM STEPOVER: 16.82mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 336.72mm RAPID DISTANCE: 163.67mm ESTIMATED CYCLE TIME: 10s (0.7%) COOLANT: Flood	T20 D20 L20 TYPE: slot mill DIAMETER: 17.7mm LENGTH: 74.25mm FLUTES: 3 DESCRIPTION: Fresa asola per scanalatura COMMENT: https://www.sandvik.coromant.com/it-it/product-details?c=327R09-18%202013000-GM%20%20201025&m=5758658 VENDOR: Sandvik Coromant PRODUCT: 327-16B18SC-09	
Operation 27/64 DESCRIPTION: Smusso foro superiore1 STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 2.23mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 1000mm/min CUTTING DISTANCE: 87.94mm RAPID DISTANCE: 55.66mm ESTIMATED CYCLE TIME: 8s (0.5%) COOLANT: Flood	T7 D7 L7 TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 51mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	

Operation 28/64 DESCRIPTION: Smusso foro centrale STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T7 D7 L7 MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 333.333mm/min CUTTING DISTANCE: 6.6mm RAPID DISTANCE: 46.6mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 51mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 29/64 DESCRIPTION: Allargamento foro centrale STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T14 D14 L14 MAXIMUM SPINDLE SPEED: 2660rpm MAXIMUM FEEDRATE: 958mm/min CUTTING DISTANCE: 69.64mm RAPID DISTANCE: 121.64mm ESTIMATED CYCLE TIME: 6s (0.4%) COOLANT: Flood	TYPE: drill DIAMETER: 20mm TIP ANGLE: 147° LENGTH: 149.9mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 1320 fori da 3.528 minuti VENDOR: Sandvik Coromant PRODUCT: 860.1-2000-077A1-PM P1BM	
Operation 30/64 DESCRIPTION: Foratura sinistra-destra STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T5 D5 L5 MAXIMUM SPINDLE SPEED: 4530rpm MAXIMUM FEEDRATE: 1360mm/min CUTTING DISTANCE: 77mm RAPID DISTANCE: 120mm ESTIMATED CYCLE TIME: 5s (0.3%) COOLANT: Flood	TYPE: drill DIAMETER: 12mm TIP ANGLE: 147° LENGTH: 161mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM VENDOR: Sandvik Coromant PRODUCT: 860.1-1200-098A1-PM P1BM	
Operation 31/64 DESCRIPTION: Foratura foro superiore passante STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T5 D5 L5 MAXIMUM SPINDLE SPEED: 4530rpm MAXIMUM FEEDRATE: 1360mm/min CUTTING DISTANCE: 31.56mm RAPID DISTANCE: 63.56mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	TYPE: drill DIAMETER: 12mm TIP ANGLE: 147° LENGTH: 161mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM VENDOR: Sandvik Coromant PRODUCT: 860.1-1200-098A1-PM P1BM	
Operation 32/64 DESCRIPTION: Foratura foro frontale torretta STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T15 D15 L15 MAXIMUM SPINDLE SPEED: 3320rpm MAXIMUM FEEDRATE: 1100mm/min CUTTING DISTANCE: 47mm RAPID DISTANCE: 89mm ESTIMATED CYCLE TIME: 4s (0.2%) COOLANT: Flood	TYPE: drill DIAMETER: 16mm TIP ANGLE: 147° LENGTH: 112.5mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 2140 fori da 2.214 min VENDOR: Sandvik Coromant PRODUCT: 860.1-1600-044A1-PM P1BM	
Operation 33/64 DESCRIPTION: Foratura foro frontale grande torretta STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T16 D16 L16 MAXIMUM SPINDLE SPEED: 2960rpm MAXIMUM FEEDRATE: 1060mm/min CUTTING DISTANCE: 16mm RAPID DISTANCE: 54mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	TYPE: drill DIAMETER: 18mm TIP ANGLE: 147° LENGTH: 120.2mm FLUTES: 2 DESCRIPTION: Punta in metallo duro integrale CoroDrill® 860-PM COMMENT: 10900 fori da 0.559 min VENDOR: Sandvik Coromant PRODUCT: 860.1-1800-050A1-PM P1BM	
Operation 34/64 DESCRIPTION: Smusso foro frontale torretta STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T17 D17 L17 MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 333.333mm/min CUTTING DISTANCE: 9mm RAPID DISTANCE: 39mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 100mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill® 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 35/64 DESCRIPTION: Smusso foro frontale superiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T17 D17 L17 MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 333.333mm/min CUTTING DISTANCE: 6mm RAPID DISTANCE: 46mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 100mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill® 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 36/64 DESCRIPTION: Smusso foro superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 22.23mm	T17 D17 L17 MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 1000mm/min CUTTING DISTANCE: 130.72mm RAPID DISTANCE: 45.66mm ESTIMATED CYCLE TIME: 9s (0.6%) COOLANT: Flood	TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 100mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill® 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 37/64 DESCRIPTION: Contornatura torretta frontale STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 22.23mm	T17 D17 L17 MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 1000mm/min CUTTING DISTANCE: 204.75mm RAPID DISTANCE: 111.66mm ESTIMATED CYCLE TIME: 15s (1%) COOLANT: Flood	TYPE: countersink DIAMETER: 23.4mm TIP ANGLE: 90° LENGTH: 100mm FLUTES: 1 DESCRIPTION: Fresa per smussatura CoroMill® 495 VENDOR: Sandvik Coromant PRODUCT: 495-012A16-4509L	
Operation 38/64 DESCRIPTION: Preforo flettatura superiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T2 D2 L2 MAXIMUM SPINDLE SPEED: 1299rpm MAXIMUM FEEDRATE: 142.915mm/min CUTTING DISTANCE: 152.49mm RAPID DISTANCE: 388.07mm ESTIMATED CYCLE TIME: 1m:3s (4.5%) COOLANT: Flood	TYPE: drill DIAMETER: 4.9mm TIP ANGLE: 118° LENGTH: 92mm FLUTES: 2 DESCRIPTION: Straight shank VENDOR: Mitsubishi Materials PRODUCT: VSDD0490	
Operation 39/64 DESCRIPTION: Maschiatura superficie superiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	T6 D6 L6 MAXIMUM SPINDLE SPEED: 2590rpm MAXIMUM FEEDRATE: 2590mm/min CUTTING DISTANCE: 286.98mm RAPID DISTANCE: 235.59mm ESTIMATED CYCLE TIME: 9s (0.6%) COOLANT: Flood	TYPE: right hand tap DIAMETER: 5mm LENGTH: 80mm FLUTES: 3 DESCRIPTION: Maschio con scanalature elicoidali CoroTap™ 300 VENDOR: Sandvik Coromant PRODUCT: T300-PM104DA-M6 P1PM	

Operation 40/64 DESCRIPTION: Smusso maschiatura superiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 1660mm/min CUTTING DISTANCE: 46.62mm RAPID DISTANCE: 279.18mm ESTIMATED CYCLE TIME: 5s (0.3%) COOLANT: Flood	T11 D11 L11 TYPE: drill DIAMETER: 6mm TIP ANGLE: 90° LENGTH: 63.4mm FLUTES: 2 VENDOR: Mitsubishi Materials PRODUCT: DLE0600S060P090	
Operation 41/64 DESCRIPTION: Foratura foro singolo superiore STRATEGY: Drilling WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm	MAXIMUM SPINDLE SPEED: 2120rpm MAXIMUM FEEDRATE: 148.4mm/min CUTTING DISTANCE: 13.9mm RAPID DISTANCE: 33.9mm ESTIMATED CYCLE TIME: 6s (0.4%) COOLANT: Flood	T18 D18 L18 TYPE: drill DIAMETER: 3mm TIP ANGLE: 118° LENGTH: 71mm FLUTES: 2 DESCRIPTION: Stelo rettilineo VENDOR: Mitsubishi Materials PRODUCT: VSDD0300	
Operation 42/64 DESCRIPTION: Asola foro frontale STRATEGY: Circular WCS: #1 STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 1.3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 25.32mm RAPID DISTANCE: 74.6mm ESTIMATED CYCLE TIME: 1s (0.1%) COOLANT: Flood	T20 D20 L20 TYPE: slot mill DIAMETER: 17.7mm LENGTH: 74.25mm FLUTES: 3 DESCRIPTION: Fresa asola per scanalatura COMMENT: https://www.sandvik.coromant.com/it-it/product-details?c=327R09-18%202013000-GM%20%20201025&m=5758658 VENDOR: Sandvik Coromant PRODUCT: 327-16B18SC-09	
Operation 43/64 DESCRIPTION: Smussatura foro interno frontale STRATEGY: Circular WCS: #1 STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 1mm	MAXIMUM SPINDLE SPEED: 2636rpm MAXIMUM FEEDRATE: 1054.275mm/min CUTTING DISTANCE: 21.93mm RAPID DISTANCE: 52mm ESTIMATED CYCLE TIME: 2s (0.1%) COOLANT: Flood	T21 D21 L21 TYPE: dovetail mill DIAMETER: 15.7mm TAPER ANGLE: 45° LENGTH: 104.1mm FLUTES: 1 DESCRIPTION: Fresa frontale VENDOR: Mitsubishi Materials PRODUCT: CFSPR041S16L	
Operation 44/64 DESCRIPTION: Tasca piede sinistro STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPOVER: 6mm	MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 1900mm/min CUTTING DISTANCE: 123.74mm RAPID DISTANCE: 212.7mm ESTIMATED CYCLE TIME: 8s (0.5%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 45/64 DESCRIPTION: Finitura tasca piede sinistro STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 7.2mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 124.55mm RAPID DISTANCE: 212.8mm ESTIMATED CYCLE TIME: 8s (0.5%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 46/64 DESCRIPTION: Tasca piede sinistro 2 STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPOVER: 7.2mm	MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 1900mm/min CUTTING DISTANCE: 474.75mm RAPID DISTANCE: 492.64mm ESTIMATED CYCLE TIME: 24s (1.6%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 47/64 DESCRIPTION: Finitura tasca piede sinistro 2 STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 7.2mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 480.68mm RAPID DISTANCE: 493.46mm ESTIMATED CYCLE TIME: 21s (1.4%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 48/64 DESCRIPTION: Conformativa superficie smussata sinistra STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0.1mm MAXIMUM STEPDOWN: 16mm MAXIMUM STEPOVER: 11.4mm	MAXIMUM SPINDLE SPEED: 4000rpm MAXIMUM FEEDRATE: 1900mm/min CUTTING DISTANCE: 542.64mm RAPID DISTANCE: 1185.03mm ESTIMATED CYCLE TIME: 1m:21s (5.3%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 49/64 DESCRIPTION: Finitura intonacatura superficie smussata sinistra STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 16mm MAXIMUM STEPOVER: 11.4mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 541.58mm RAPID DISTANCE: 1184.18mm ESTIMATED CYCLE TIME: 1m:20s (5.2%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 50/64 DESCRIPTION: Finitura sinistro 1 STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 7.2mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 743.25mm RAPID DISTANCE: 449.46mm ESTIMATED CYCLE TIME: 39s (2.5%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 51/64 DESCRIPTION: Finitura sinistro 2 STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 11.4mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 87.23mm RAPID DISTANCE: 68.3mm ESTIMATED CYCLE TIME: 4s (0.3%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 52/64 DESCRIPTION: Finitura destro 1 STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 7.2mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 735.31mm RAPID DISTANCE: 470.52mm ESTIMATED CYCLE TIME: 39s (2.6%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	

Operation 53/64 DESCRIPTION: Finitura destro 2 STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 11.4mm	MAXIMUM SPINDLE SPEED: 5000rpm MAXIMUM FEEDRATE: 2500mm/min CUTTING DISTANCE: 87.23mm RAPID DISTANCE: 68.3mm ESTIMATED CYCLE TIME: 4s (0.3%) COOLANT: Flood	T22 D22 L22 TYPE: flat end mill DIAMETER: 12mm LENGTH: 110mm FLUTES: 4 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD1200S10	
Operation 54/64 DESCRIPTION: Rampa destra STRATEGY: Ramp WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 285.33mm RAPID DISTANCE: 564.37mm ESTIMATED CYCLE TIME: 12s (0.8%) COOLANT: Flood	T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG H10F	
Operation 55/64 DESCRIPTION: Rampa sinistra STRATEGY: Ramp WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 285.05mm RAPID DISTANCE: 569.74mm ESTIMATED CYCLE TIME: 13s (0.8%) COOLANT: Flood	T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG H10F	
Operation 56/64 DESCRIPTION: Rampa piede destro STRATEGY: Ramp WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 237.24mm RAPID DISTANCE: 462.86mm ESTIMATED CYCLE TIME: 10s (0.7%) COOLANT: Flood	T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG H10F	
Operation 57/64 DESCRIPTION: Rampa superiore STRATEGY: Ramp WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 132.45mm RAPID DISTANCE: 364.85mm ESTIMATED CYCLE TIME: 7s (0.5%) COOLANT: Flood	T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG H10F	
Operation 58/64 DESCRIPTION: Rampa piede sinistro STRATEGY: Ramp WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPDOWN: 3mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 3000mm/min CUTTING DISTANCE: 82.97mm RAPID DISTANCE: 92.81mm ESTIMATED CYCLE TIME: 3s (0.2%) COOLANT: Flood	T23 D23 L23 TYPE: ball end mill DIAMETER: 6mm CORNER RADIUS: 3mm LENGTH: 100mm FLUTES: 2 DESCRIPTION: Fresa a candela con testa sferica in metallo duro integrale CoroMill® Plura per profilatura VENDOR: Sandvik Coromant PRODUCT: 2B320-0600-NG H10F	
Operation 59/64 DESCRIPTION: Finitura tasche sinistra orizzontale STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 4.2mm	MAXIMUM SPINDLE SPEED: 6800rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 601.75mm RAPID DISTANCE: 134.01mm ESTIMATED CYCLE TIME: 18s (1.2%) COOLANT: Flood	T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	
Operation 60/64 DESCRIPTION: Finitura tasche destra orizzontale STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 4.2mm	MAXIMUM SPINDLE SPEED: 6800rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 607.22mm RAPID DISTANCE: 135.26mm ESTIMATED CYCLE TIME: 18s (1.2%) COOLANT: Flood	T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	
Operation 61/64 DESCRIPTION: Finitura tasche superiori STRATEGY: Pocket 2D WCS: #1 TOLERANCE: 0.1mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 4.2mm	MAXIMUM SPINDLE SPEED: 6800rpm MAXIMUM FEEDRATE: 3500mm/min CUTTING DISTANCE: 604.79mm RAPID DISTANCE: 596.85mm ESTIMATED CYCLE TIME: 28s (1.8%) COOLANT: Flood	T19 D19 L19 TYPE: flat end mill DIAMETER: 7mm LENGTH: 80mm FLUTES: 6 DESCRIPTION: FRESA INTEGRALE, LUNGHEZZA DI TAGLIO MEDIA, 4 TAGLIENTI, ELICA VARIABILE VENDOR: Mitsubishi Materials PRODUCT: MPMHVD0700S06	
Operation 62/64 DESCRIPTION: Finitura spigolo superiore STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 2.85mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 203.74mm RAPID DISTANCE: 530.8mm ESTIMATED CYCLE TIME: 23s (1.5%) COOLANT: Flood	T24 D24 L24 TYPE: flat end mill DIAMETER: 3mm LENGTH: 60mm FLUTES: 2 DESCRIPTION: 2 tagli, Serie media, Lavorazioni generiche VENDOR: Mitsubishi Materials PRODUCT: AM2MBD0300A060	
Operation 63/64 DESCRIPTION: Finitura spigolo sinistro STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 2.85mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 154.37mm RAPID DISTANCE: 124.39mm ESTIMATED CYCLE TIME: 14s (0.9%) COOLANT: Flood	T24 D24 L24 TYPE: flat end mill DIAMETER: 3mm LENGTH: 60mm FLUTES: 2 DESCRIPTION: 2 tagli, Serie media, Lavorazioni generiche VENDOR: Mitsubishi Materials PRODUCT: AM2MRD0300A060	
Operation 64/64 DESCRIPTION: Finitura spigolo destro STRATEGY: Contour 2D WCS: #1 TOLERANCE: 0.01mm STOCK TO LEAVE: 0mm MAXIMUM STEPOVER: 2.85mm	MAXIMUM SPINDLE SPEED: 8000rpm MAXIMUM FEEDRATE: 2000mm/min CUTTING DISTANCE: 154.37mm RAPID DISTANCE: 127.54mm ESTIMATED CYCLE TIME: 14s (0.9%) COOLANT: Flood	T24 D24 L24 TYPE: flat end mill DIAMETER: 3mm LENGTH: 60mm FLUTES: 2 DESCRIPTION: 2 tagli, Serie media, Lavorazioni generiche VENDOR: Mitsubishi Materials PRODUCT: AM2MRD0300A060	