

Customer:
Machine Used: TensileMill CNC – Classic Upgrade Model
Date:
Prepared By:

Supplied Material:

Machining Conditions:

The demonstration machine was operated without the use of coolant. All parts were machined dry, with compressed air applied to cool the end mill and remove chips from both the cutting tool and the workpiece. While acceptable results were achieved, improved outcomes may be possible with the use of coolant.

Machining was carried out using the IMPACT system integrated into the TensileMill CNC Software. A custom program was utilized to perform machining on four faces and two ends of each part.

Machined Samples:

- Part Number:
- Part Number:
- **Dimensions:** 10 mm ±0.02 / -0.01 mm
- Length: 55 mm ±0.03 mm

Additional Notes:

- Standard cutting conditions were employed for the initial tests. However, optimization of feed rates and spindle speeds may significantly reduce cycle time and improve surface finish for future large-scale production.
- The customer may further enhance efficiency by selecting alternative end mills based on specific edge finish requirements and machining experience.

Machining Parameters:

- Tool: 1/4" Diameter, 5-Flute End Mill
 - **Length of Cut (LOC):** 0.750"
 - EDP Number:
- Spindle Speed: 6000 RPM
- Feed Rate: 0.2 mm/rev
- Depth of Cut (per pass): 0.25 inches
- Finish Allowance: 0.1 mm

Cycle Time:

Approximately 10 minutes per specimen, including setup and reset time.



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TENSILE SAMPLE PREPARATION ENGINEERING REPORT

Photographic Documentation:

The following section includes various images capturing different stages of the machining process.

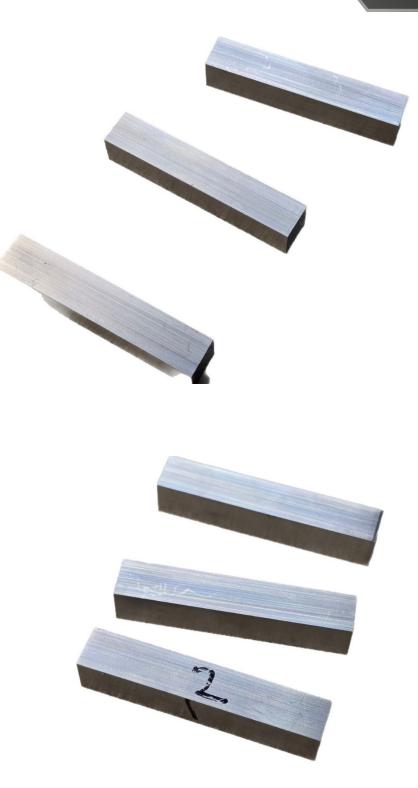
4	
Impact Specimen Operation CNC Hode JOG	
Program Name -> (PREU) (NEXT) (Save) Program # -> (3) (21-30)	
Haterial -> ALLOY SIEEL (NEXT)	
Haterial # -> 2 Impact Specimen Jig	-
Impact Pos-5 Impact Pos-7 Impact Pos-8 Specimen Length (L) = 55,000 Specimen Width (W) = 10,000 Specimen Thickness (T) = 10,000	
Y Rxis Impact Stock Length = 69,000 Pos-1 Loaded Impact Impact Pos-2 Pos-3 Pos-4 Stock Width = 13,000	
X Machine Front Stock Thickness (C) = 13.000 Positions Loaded = 1	
Ist Side 2nd Side 3rd Side dth Side Switch to AUID/HEH mode Image: Construction of the state of the side Image: Construction of the side Home Impact Speciment Plate Image: Construction of the side Home Impact Speciment Plate Image: Construction of the side Home Impact Speciment Plate Image: Construction of the side	



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