

**Customer:** [REDACTED]**Machine Used:** TensileMill CNC – Classic Upgrade Model**Date:** [REDACTED]**Prepared By:** [REDACTED]**Supplied Material:**

[REDACTED]

**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:** [REDACTED]
- **Part Number:** [REDACTED]
- **Dimensions:** 10 mm  $\pm 0.02$  / -0.01 mm
- **Length:** 55 mm  $\pm 0.03$  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:** [REDACTED]
- **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.



### Photographic Documentation:

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



