

## MFH-Mini Milling



**Material**  
Titanium Heat-Resistant Alloy

**Part Type**  
Aerospace component

**Application**  
Milling: Roughing

**Machine Type**  
Haas

**Kyocera Holder**  
MFH2000R039T  
EDP: [THN08681](#)

**Kyocera Insert**  
LOGU030310ERGM PR1835  
EDP: [TLU00097](#)

**Existing Product**  
2.0000" Dia. 5-Flute End Mill

### Goal

An aerospace parts manufacturer needed to improve machining efficiency and reduce total cost in a roughing operation on a titanium component.

### Strategy

The previous setup was limited by tool life and material removal rate. Kyocera engineers recommended the MFH-Mini Milling system, a high-feed face mill designed for aggressive titanium roughing with the PR1835 grade to maximize productivity and extend tool performance in the demanding alloy.

### Result

The implementation of the MFH-Mini Milling system delivered a 200% increase in tool life, a 60% increase in material removal rate, and a 20% reduction in machining cycle time. The customer saved more than \$56,000 annually.

Total Cost Savings  
**\$56,667**

Tool Life (pcs/edge)  
**↑ 200%**

Tool Running Cost  
**↓ 61%**

Total Cost Per Part  
**↓ 28%**

| Tools                | Cutting Dia. (Dc) | Cutting Speed Vc (sfm) | Cutting Feed Vf (ipm) | Radial Depth (Ae) | Axial Depth (Ap) | Coolant          |
|----------------------|-------------------|------------------------|-----------------------|-------------------|------------------|------------------|
| Kyocera (MFH-Mini)   | 2.0000"           | 180                    | 6.88                  | 2.0000"           | 0.0250"          | External coolant |
| Competitor (5-Flute) | 2.0000"           | 150                    | 4.30                  | 2.0000"           | 0.0250"          | External coolant |

Tool Life (pcs/edge)

**↑ 200%**

Tool Running Cost

**↓ 61%**

Total Cost Per Part

**↓ 28%**

