

# Thermal Barrier Machinery

## **BRIDGEMILL™** PRODUCT INFORMATION

### **Extrusion Debrider**



## PRODUCT OVERVIEW

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The Azon Bridgemill™ is designed to work in sequence with the Azon machinery line and performs the final step in the Pour and Debridge process. The Bridgemill creates a thermal break by removing a continuous strip of aluminum from the extrusion cavity which has been filled with standard polyurethane or AzoCore™ polyurethane foam. The result is an aluminum extrusion that is optimized for thermal performance, with a thermal barrier that prevents conductive heat and cold transfer through the metal.

The Bridgemill can also include a top-mounted motor and blade for milling excess AzoCore™ foam from the top of the filled cavity, leaving a clean, smooth surface.

Engineered for production efficiency, the Bridgemill features fast, programmable setups, servo-driven controls, and increased throughput for a wide range of aluminum profiles, requiring minimal operator input and reduced downtime.

## KEY FEATURES

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### HMI Model with Recipe Recall

Touchscreen color graphical operator terminal

Onboard industrial computer with die number recipe recall

Automatic setup of:

- Blade position (in/out)
- Drive wheel speed
- Front/rear drive wheel slide (in/out)

Startup screens for:

- Hydraulic power unit
- 40-hp blade motor
- Chip collector motor

### Power and Performance

40-hp (30-kW) TEFC motor, 3,450 rpm

Four hydraulic drive motors feed extrusions

Throughput up to 250 feet per minute

### Servo-Driven Precision

Servo electric motor controls for:

- Blade height
- Lateral blade position
- Drive wheel positioning

Electric servo-driven ball screws for fast, accurate blade height

Supports skip-debridging patterns up to 180 fpm

### Safety and Efficiency Enhancements

Self-enclosed camera for blade positioning

- Operator views from console
- No need to look under the table

Blade lubricator system included

Top-mounted motor mills AzoCore “doming” after curing

## TECHNICAL SPECS

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**Drive System:** Four hydraulic drive motors

**Motor:** 40-hp (30-kW), totally enclosed, fan cooled 3,450 rpm

**Arbor Diameter:** 2.187 in (55.55 mm)

**Bottom Blade Diameter:** 12.0-16.0 in (304.8-406.4 mm)

**Top Blade Diameter:** 10.0 in (254 mm)

**Blade Kerf:** 0.63 in (16.0 mm)

**Blade Bore Size:** 2.0 in (50.8 mm)

**Max Extrusion Width:** 13.7 in (347.98 mm)

**Upward Blade Reach:** 4.0 in (101.6 mm)

**Lateral Adjustment:** 0.5 in (12.7 mm)

**Blade Height Adjustment:** Servo motor with electrical ball screw

