

Thermal Barrier Machinery

BRIDGEMILL™ PRODUCT INFORMATION

Extrusion Debrider



PRODUCT OVERVIEW

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

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

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

