

Kitchen Countertop Series

AutoCove™
Coving Machines

MA **MIDWEST
AUTOMATION**

Innovative Products for Innovative People

midwest 
GROUP ONE

AutoCove™ Coving Machines

The Midwest Automation family of AutoCove™ machines are uniquely designed to postform the inside radius of a kitchen countertop or vanity top with a coved backsplash, in high volume production environments. The key to producing a quality backsplash is a rigid frame and rear fence, uniform contact of the countertop to the heating element, and a concentric forming bar to prevent stretching. The AutoCove™ machines are designed to meet these specific objectives.

Model AC 3120

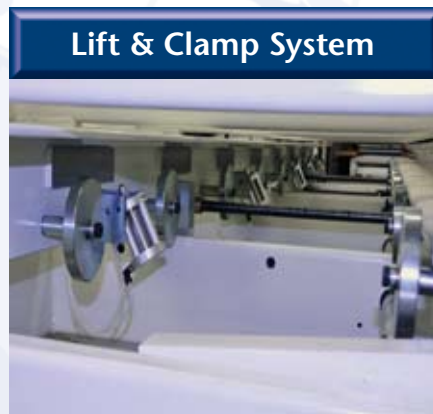
The AutoCove™ AC 3120 is the perfect machine for the medium size kitchen countertop manufacturer designed to produce up to one countertop per minute, or 5,000 linear feet per shift. The pneumatic deck lift & clamp system, electronically controlled heat bar, cove-stick feeding/clamping system, and unique two-stage forming mechanism ensure a true 90° backsplash every time. Optional powered infeed conveyor and automatic loading system maximizes through-put without additional labor.

Features include:

- Heavy-duty frame with additional cross support beams to reduce flexing
- Rigid rear fence assembly with large diameter jack screws & seven (7) contact points
- Pneumatic lift & clamp system with air bladder and hold-over cylinders to ensure countertop contact with rear fence and cove bar assembly
- Aluminum cove bar assembly with electronic temperature controls
- Automatic cove-stick system with electronic linear actuated pusher and variable speed control
- Cove-stick placement rack with five (5) pneumatic cylinders
- Nordson Durablue™ Hot Melt System with air-actuated glue gun & manifold
- Automatic form bar assembly with unique twin cylinder, dual actuating design ensures concentricity
- Ten (10) 90° stops
- Electronically controlled with adjustment
- Operator Interface (HMI) with PLC controlled sequence or operation
- Special infeed & outfeed conveyors
- Optional automatic load/unload system



Operator interface with color monitor and PLC controlled sequence of operation.

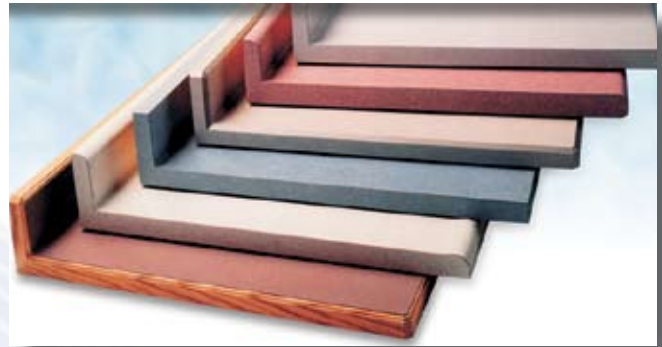


Pneumatic bladder and hold-over cylinders to ensure uniform contact and temperature.



Aluminum cove bar with electronic temperature controls and 90° stops.

Typical Profiles



Shown with gravity infeed conveyor and Nordson Durablue™ Hot Melt System.

Form Bar Assembly



Unique twin cylinder, dual actuating design ensures concentricity.

Cove Stick Feeder



Automatic cove stick feeding system with air actuated glue gun.

Cove Stick Rack



Cove stick placement rack with (5) pneumatic cylinders.

AutoCove™ Coving Machines

Model AC 3125

The AutoCove™ AC 3125 is designed for the high volume, multi-shift kitchen countertop manufacturer. It is designed to produce up to three (3) countertops per minute, or 15,000 linear feet per shift, with an enclosed heavy-duty frame that eliminates flexing and improves quality. Automatic loading/unloading and a cove-stick magazine feeding system eliminates the need for an operator.



Shown with powered infeed conveyor, laminate preheat, powered outfeed conveyor, and automatic cove stick magazine.

Features include:

- Heavy-duty enclosed frame eliminates flexing
- Gas spring operated access doors
- Heavy-duty rear fence with large diameter jack screws & seven (7) contact points
- Automatic loading/unloading system with polyurethane v-belt
- Pneumatic lift & clamp system with air bladder and hold-over cylinders to ensure countertop contact with rear fence and cove bar assembly
- Aluminum cove bar assembly with 8, 10 & 12 foot heat zones
- Three (3) electronically controlled heat zones to eliminate scorching of laminate
- Automatic cove-stick system with electronic linear actuated pusher and variable speed control
- Cove-stick placement rack with five (5) pneumatic cylinders
- Nordson Durablue™ Hot Melt System with air-actuated glue gun & manifold
- Unique form bar assembly is electronically driven with chains at four (4) connecting points to ensure concentricity
- Electronically controlled form bar speed
- Electronically controlled width adjustment
- Special infeed & outfeed conveyors
- Optional infrared pre-heat system with electronic temperature controls
- Optional automatic stick feed magazine with three (3) racks for 8, 10 & 12 foot long cove-sticks

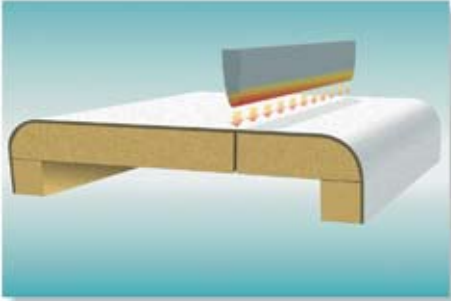


Inside View

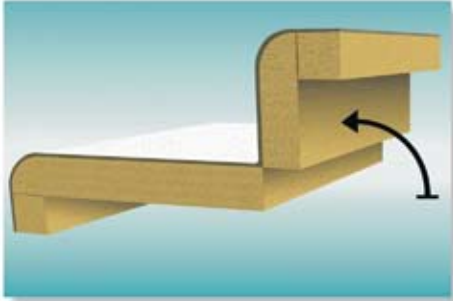


Form bar assembly is electronically driven with chains at four (4) points and includes electronic variable speed control.

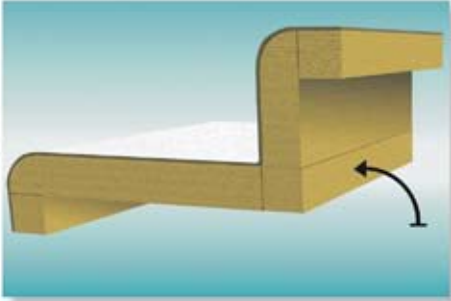
HOW IT WORKS



Step 1: Heating Laminate



Step 2: Postforming Backsplash

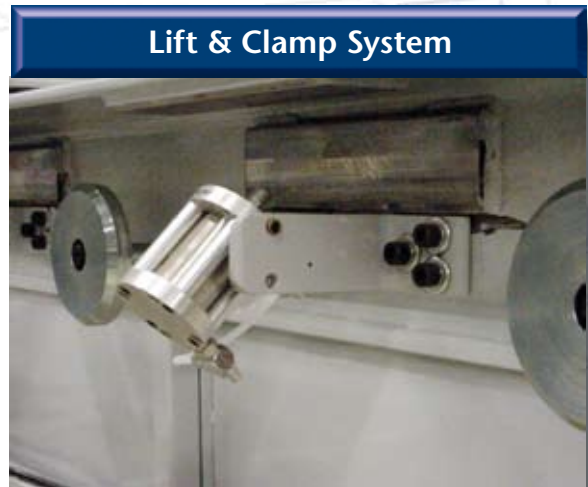


Step 3: Gluing and Inserting Cove Stick

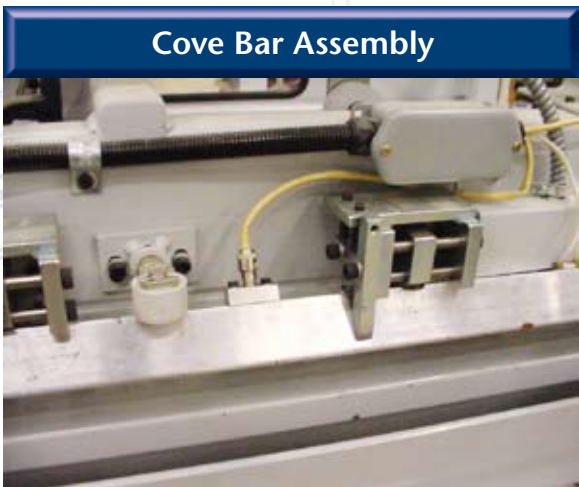
AC 3125 close up shots & accessories



Operator interface with color monitor and PLC controlled sequence of operation.



Rear clamping cylinders and contact point hold countertop securely to fence during operation.



Aluminum cove bar assembly with 8, 10 and 12 foot heat zones, and electronic temperature controls.



The unique chain-driven, forming bar mechanism ensures concentricity and has electronic variable speed control.



Proprietary 3-bead manifold design with air-actuated adhesive gun.

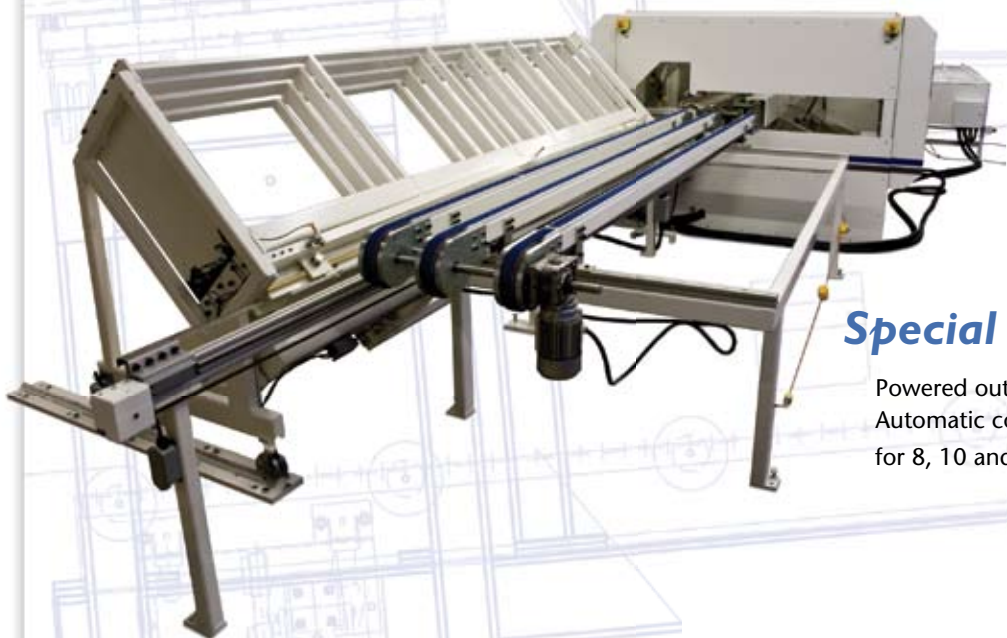


Aluminum cove-stick placement rack with five (5) pneumatic cylinders securely places cove-stick in backslash.

SOL. 6

Special Infeed Conveyor

Powered infeed roller conveyor with adjustable discs and side shift belts to align cove slot to the preheat and cove bar. Infrared preheat pivots out of the way to prevent scorching when not in use.



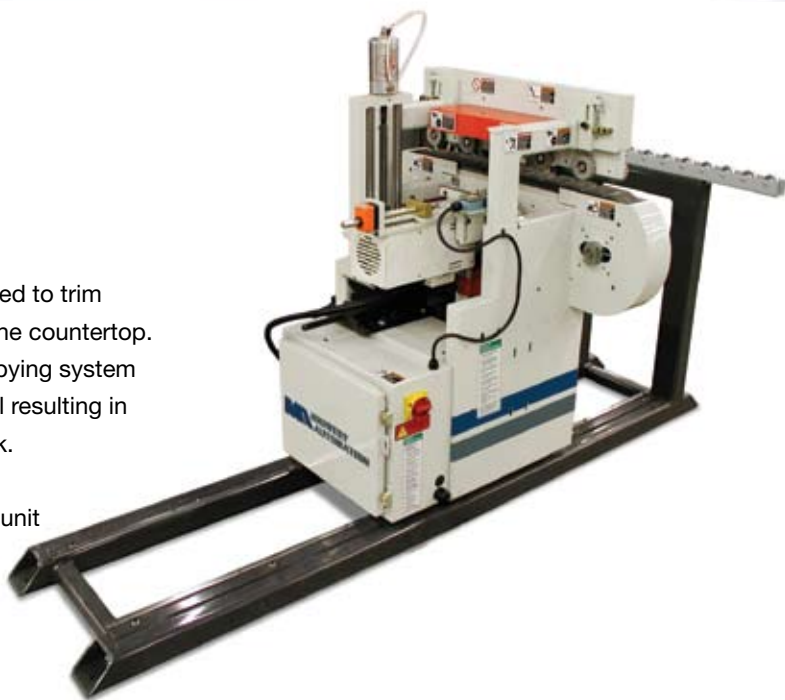
Special Outfeed Conveyor

Powered outfeed belt conveyor with adjustable belts. Automatic cove-stick magazine with three (3) stick racks for 8, 10 and 12 foot long countertops.

Cove-Stick Trimmer

The CT 1000 Cove-Stick Trimmer is designed to trim oversized cove sticks flush to the back of the countertop. The trimming unit includes a single axis copying system designed to float with the edge of the panel resulting in a cove-stick flush to the bottom of the deck.

The CT 1000 is available with the trimming unit mounted on the fixed or movable side.



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