



Kitchen Countertop Series  
***Kitchen Countertop  
Laminating Systems***

**MA** MIDWEST  
AUTOMATION

*Innovative Products for Innovative People*

midwest   
GROUP ONE

# CLS 400/500 Water Base Laminating System

## With Fixed Spray Guns

The CLS 400/500 Spray System is designed to apply high solids, water base, PVA adhesives to the core and laminate with air-atomized spray guns specifically designed to minimize overspray and misting.

The system can be operated with the core and laminate either end to end or side by side to increase throughput.

Ideal for companies with intermediate production requirements up to one countertop per minute. Available in 4 and 5 foot widths.

*Benefits include economical initial investment; reduced adhesive costs; reduced VOC emissions; zero hazardous waste; and superior rigid glue line.*

### System Includes

- Chain driven, power roller conveyors
- Specially designed belt transfer conveyor in the spray zone
- Individually controlled spray guns with automatic width & length sensing
- Unique spray head design for high solid PVA glues
- Dual diaphragm pump with individual pressure regulators
- Infrared drying tunnel
- Free-standing "console" type electrical enclosure with PLC controlled sequence of operation
- Variable line speed with digital display
- Gas spring-operated front access door



### Optional Equipment

- Specially designed panel cleaner to clean core and HPL simultaneously
- Laminating index systems
- Pinch roll presses

### Spray Guns

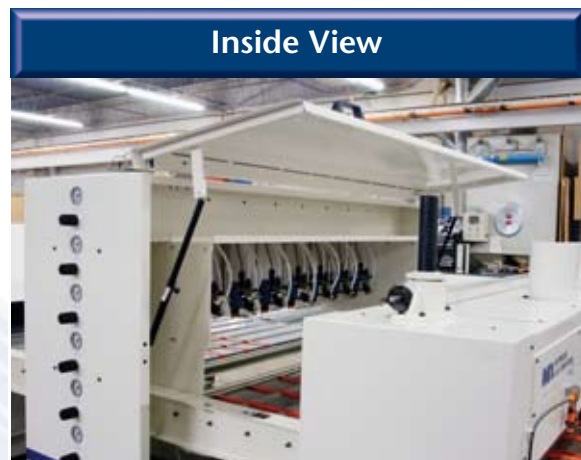


Unique spray gun design reduces overspraying and misting.

### Photo Sensors



Electric sensors for automatically controlling spray width.



Gas spring operated access door for ease of cleaning and maintenance



Pressure regulators for each spray gun



Specially designed belt conveying system through spray zone to reduce cleaning.



High efficient infrared drying tunnel with individually controlled heater banks.

# CL 400/500 SBS Water Base Laminating System

## With Two Side-by-Side Glue Spreaders

### CL 400/400 SBS

The CL 400/500 SBS is designed to apply fast-setting, water base PVA adhesives to the core and laminate utilizing two specifically designed side-by-side glue spreaders for 100% glue transfer efficiency.

Ideal for high volume production requirements up to two countertops per minute. Available in 4 and 5 foot widths.

*Benefits include high output systems; precision adhesive application with 100% transfer efficiency; zero VOC emissions or hazardous waste; superior adhesive bond at a reduced cost; and excellent pay back.*

### System Includes

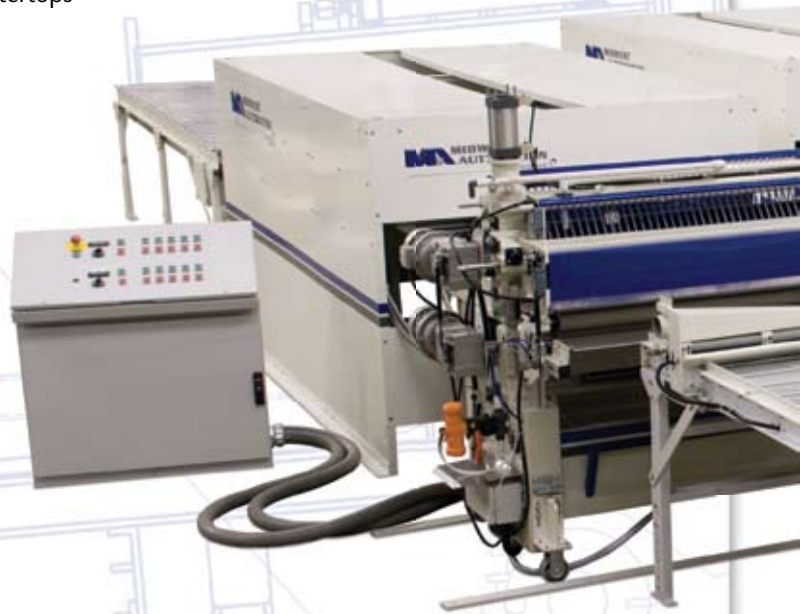
- Chain driven power roller conveyors
- Individual side-by-side glue spreaders for core and HPL
- Two infrared drying tunnels (Core & HPL)
- Free-standing "console" type electrical enclosure with push button controls
- Variable line speed with digital display

### Core Spreader Includes

- Large diameter (10 inch) spreading rollers
- Segmented lower roller
- Cast iron support columns
- Direct drive application rollers
- Glue feeding system with dual diaphragm pump
- Semi-automatic cleaning system
- Caster kit for ease of cleaning
- Infeed and outfeed protective guards with interlocks

### HPL Spreader Includes

- Large diameter (10 inch) spreading rollers
- Cast iron support columns
- Direct drive application rollers
- Glue feeding system with dual diaphragm pump
- Self-cleaning balance roller
- Specially designed application roller with pneumatic pump
- Caster kit for ease of cleaning



### Control Panel



Console type electrical enclosure with separate controls for core and laminate.

### Auto Level Sensor



Optional automatic level sensing control to insure continuous adhesive supply to spreaders.



Super, heavy duty glue spreaders with large diameter rollers and cast iron roller supports for precision adhesive application and years of service.

### Optional Equipment

- Core & laminate cleaners
- Ionization unit for HPL
- Automatic adhesive level sensing
- Laminating index systems
- Pinch roll presses
- "No-drip" systems

### Panel Cleaner



Special panel cleaner with cross belt design.

### HPL Cleaner



Special HPL cleaner with ionization unit, brush and vacuum pump.

# CL 400/500 O&U Water Base Laminating System

## With Two Over & Under Glue Spreaders

The CL 400/500 O&U is designed to apply fast-setting, water base PVA adhesives to the core and laminate utilizing two specifically designed over and under glue spreaders for 100% glue transfer efficiency. Ideal for high volume production requirements up to three countertops per minute. Available in 4 and 5 foot widths.

*Benefits include integrated gluing, indexing and pressing functions; high output system with small footprint; HPL orientation requires no "flipping" of laminate onto core; precision adhesive application with 100% transfer efficiency; zero VOC emissions or hazardous waste; superior adhesive bond at a reduced cost; and excellent pay back in high volume or multiple shift applications.*

### System Includes

- Specially designed lower transfer conveyor with adjustable segmented rollers
- Specially designed upper transfer conveyor with minimum contact chain
- Automatic vacuum feeding system for HPL
- Individual upper & lower glue spreaders for core & HPL
- Fast response, medium wave, infrared heaters with gold backed emitters
- Semi-automatic indexing systems with adjustable fence
- Single pinch roll press with segmented bottom rollers
- PLC controlled sequence of operation
- Operator interface with color display

### Core Spreader Includes

- Large diameter (10 inch) spreading rollers
- Segmented lower roller
- Cast iron support columns
- Direct drive application rollers
- Glue feeding system with dual diaphragm pump
- Automatic adhesive leveling system
- Semi-automatic cleaning system
- Castor kit for ease of cleaning
- Infeed and outfeed protective gauges with interlocks



### Operator Interface



Operator interface with color display for ease of operation.

### Vacuum Feeder



Automatic vacuum feeder for the HPL eliminates the need of an operator.

## Optional Equipment

- Dual HPL shuttles
- Core & HPL cleaners
- Core pre-heat units
- Automatic panel feeding systems
- Dual pinch roll presses
- "No-drip" systems
- Automatic width adjustment



## Glue Spreaders



Upper & lower glue spreaders move out of operating position for ease of cleaning and maintenance.

## HPL Spreader Includes

- Large diameter (10 inch) spreading rollers
- Cast iron support columns
- Direct drive application rollers
- Glue feeding system with dual diaphragm pump
- Automatic adhesive leveling system
- Self-cleaning balance roller
- Specially designed application roller with pneumatic pump
- Castor kit for ease of cleaning

## Dual Shuttle



Optional dual shuttles reduce down time and increase productivity.

## Fast Response Heaters



Energy efficient, fast response heaters with gold backed emitters.

## Close up shots (CL 400/500 SBS and O&U)

### Roller Group



Large diameter (10 inch) rollers with spring-loaded, Teflon® glue dam.

### Segmented Bottom Roller



Special segmented lower roller to accommodate various panel widths with build-down sticks.

### Automatic Cleaning



Semi-automatic cleaning system on the core spreader.

### HPL Cleaning



Special cleaning system on the HPL spreader.

### Thickness Controls



Precision handwheel operated panel and glue thickness controls with dial indicators.

### Pneumatic Positioning



Automatic width adjustment with pneumatic positioning.

## Optional Equipment

### *IX 2105 Index System*

Allows one operator to place laminate onto panels up to twelve (12) ft (3.7 m) long with ease and accuracy eliminating scrap caused by uneven alignment.

Available on CLS and SBS models only.



### *PR 250 Durapress Pinch Roll Press*

Economical 5-foot wide pinch roll press for small to medium size shops.

Standard features include handwheel operated panel thickness with digital readout, large diameter pressing rollers, and variable speed control.

Optional equipment includes segmented bottom rollers, and powered outfeed rollers.

Available on CLS and SBS models only.



### *PR 400/500 Single Pinch Roll Presses*

Designed for laminating applications where a heavy-duty, single pinch roll press is sufficient. Available in various widths up to 8-feet wide.

Standard features include large diameter pressing rollers, handwheel operated thickness adjustment with digital readout, and variable speed control.

Optional equipment includes powered, upper roller and pneumatic pressure control system.

Available on CLS and SBS models only.



### *Custom Material Handling*

Midwest's newest strategic partner, Dakota Automation, specializes in high quality, expertly designed and cost competitive solutions for industrial automation and material handling equipment.

**Dakota  
Automation inc.**

# Postforming & Laminating Systems

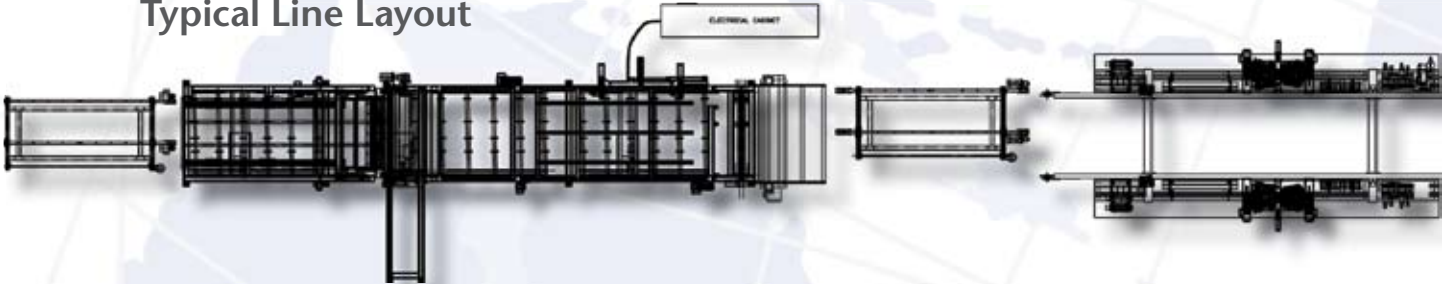
## For Kitchen Countertops

*Midwest Automation*

*The true leader in water base laminating and postforming technology and innovation in the kitchen countertop industry for over 50 years!*



Typical Line Layout





*Fully integrated systems to optimize output, pay back,  
and length of service.*

*Systems engineered to specific requirements of customer.*

## Typical Profiles



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