

INSULATING GLASS PRODUCTION EQUIPMENT



ERDMAN 

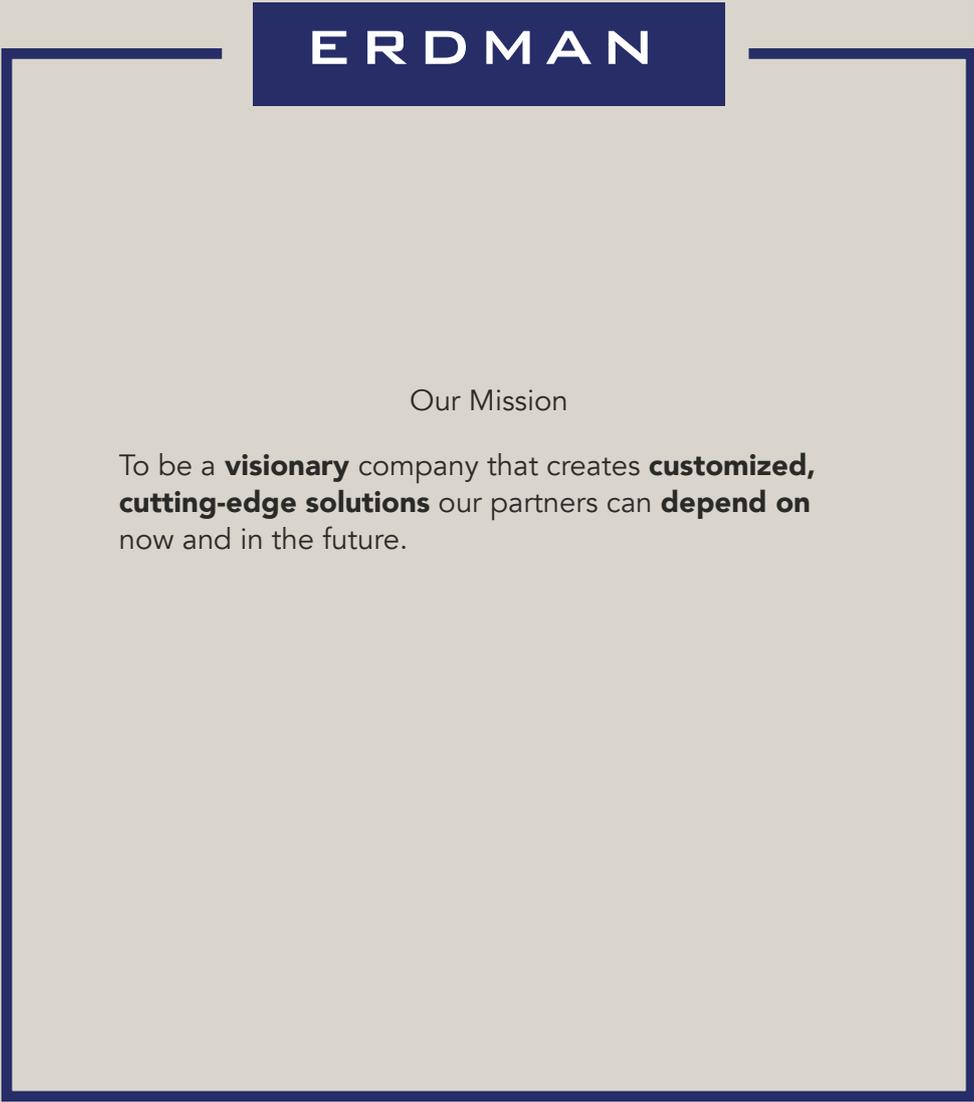
**VISIONARY THINKING.
EXCEPTIONAL DOING.**

"I've bought equipment from a number of vendors over the years and Erdman has, by far, been the best to deal with and has been the only vendor to deliver complicated gear that just works on startup without having to turn wrenches and troubleshoot components."

STEVE STICH
NEIGHBORS WINDOWS
& DOORS

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ERDMAN

Our Mission

To be a **visionary** company that creates **customized, cutting-edge solutions** our partners can **depend on** now and in the future.

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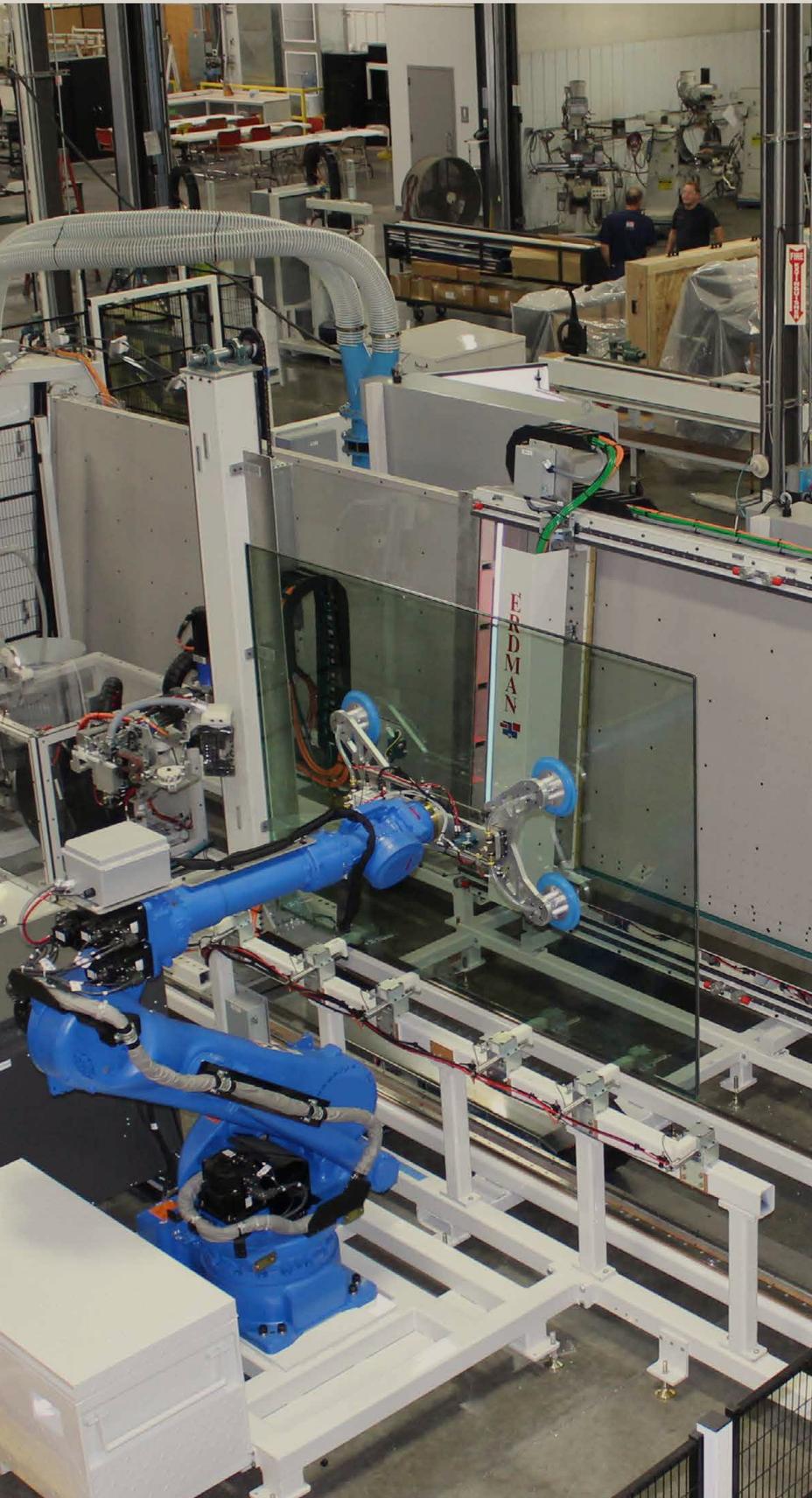
EAC@ERDMANAUTOMATION.COM



OUR FACILITY

Erdman Automation's facility is currently over 167,000 sqft. Our expansion expected to be complete in spring 2023 will put us over 217,000 sqft. We have everything in-house to design and build advanced automated equipment. Most importantly our team of talented individuals.

- 840 sq ft paint booth
- CNC Bridge Mill 10x20' Capacity
- CNC Bridge Mill 60x150" capacity
- Auto Feed Saw
- CNC Router
- CNC Lathe
- Haas VMC
- Slant CNC Lathe
- Faro Arm
- 3 Axis Measuring Machine
- Welding Table
- Flex 20' CNCs
- Haas VF-5 Machining Centers



INNOVATION

The EAC Design department works closely with our R&D group to stay on the leading edge. We have integrated a number of design programs to support all forms of customer communications and machine specifications, including but not limited to all previous AutoCAD applications and AutoCAD Mechanical 2023, Mechanical Desktop and Inventor Version 2023.

The EAC Controls department researches and utilizes the most advanced technology and stays current on the latest innovations. We focus to deliver a smooth, accurate process every time.

SERVICE

One of the many reasons why EAC is generating a large group of repeat customers is because our service doesn't end with the shipment of your machine. Our service department is dedicated and flexible to accommodate your requirements during the entire life-span of your equipment.

We have worked hard to create an efficient service process which can move quickly and accurately to decrease lost-production time. Our parts/service department strives for Same Day or Next Day Shipment. Our technicians are always available to make recommendations and offer the latest technology to ensure that your machine continues to pay for itself again and again. Whether it is a standard install/ routine maintenance & training or a special request; our service department will assist your specific needs in a time-efficient, cost-effective manner.



**ERDMAN HIGH SPEED IG LINES
BEING BUILT BACK TO BACK**

WHAT OUR CUSTOMERS SAY ABOUT ERDMAN

KYLE HAWTHORNE

MATHEWS BROTHERS CO.

"The Automated Parallel Process Duralite IG line has given us a huge advantage in an area with a very low unemployment rate. We have been able to shift a significant amount of labor into more critical thinking tasks. We can accomplish what we do on one of our standard goal post lines (12 employees, 10 hour shift) with 4 employees in an 8hour shift on the Erdman Automation line.

SAM or the "Swiggle Application Machine", which is the part of the machine that automatically applies the Duralite, also lowers the amount of soft tissue wrist injuries by decreasing the amount of repetitive tasks needed to be done by employees.

The ink jet printer allows us to stamp the spacer system as opposed to etching the glass with a laser or sand. By utilizing this technique we can greatly minimize any obstructions to the sight line or view of the window panes.

The argon filling chambers have also lowered our costs as they fill more efficiently than any of our previous methods.

The unique industry heating methods allow for immediate sealing of the units which increases our quality control and leads to a better product for our customers.

The final press has an application of even pressure, as an alternative to the standard tapered roll press, which we feel adds to the quality of the units."

DARREN BANNISTER

EXTREME WINDOWS AND ENTRANCE SYSTEMS

"The experience of the designing of the equipment was second to none after having worked with several other equipment manufactures I would have to say that Erdman Automation sets the bar. From the sales team to the technicians the concern for the end result and me as the customer was impressive.

One of the paramount concerns for me when looking for new IG equipment was to move away from European equipment. Not that there is anything wrong with the European equipment it's just that it's comforting to be able to deal with technicians during business hours and if we need a bearing or an electrical component it is much more easily accessible.

The equipment has performed flawlessly it runs consistent and with built in remote access direct to the Erdman technicians we have little to no down time and been able to produce with 3 people what we had to have 7 before to get the same through put.

The installation was seamless, the equipment showed up on time and the installation went ahead of schedule which allowed the technicians more time to spend with my people for training on running and maintaining the equipment. A special note has to be made to Jeff Pollard his ability to customize the program to directly suit our system was incredible."

STEVE STICH

NEIGHBORS WINDOWS & DOORS

"I've bought equipment from a number of vendors over the years and Erdman has, by far, been the best to deal with and has been the only vendor to deliver complicated gear that just works on startup without having to turn wrenches and troubleshoot components."

HIGH SPEED IG EQUIPMENT

- FLEXIBLE FOAM IG

**ONLY 20 X 100' FLOOR SPACE
REQUIRED**

THE ERDMAN® HIGH SPEED PARALLEL PROCESS LINE CHANGES EVERYTHING IG!

The IG (Insulating Glass) process has traditionally been an in series process, in other words one lite after another. The traditional process has the topping lite traveling directly after the application lite. Both of the lites have to go through all of the work zones prior to their assembly thus wasting valuable time.

The high speed parallel process line derives its name from the fact that the topping lite is shuttled to the back lane. Therefore the lites are parallel to each other. This saves 5 seconds over traditional IG production methods. There is no wasted conveying of the topping lite through the application zone and the result is the applicator is more productive.

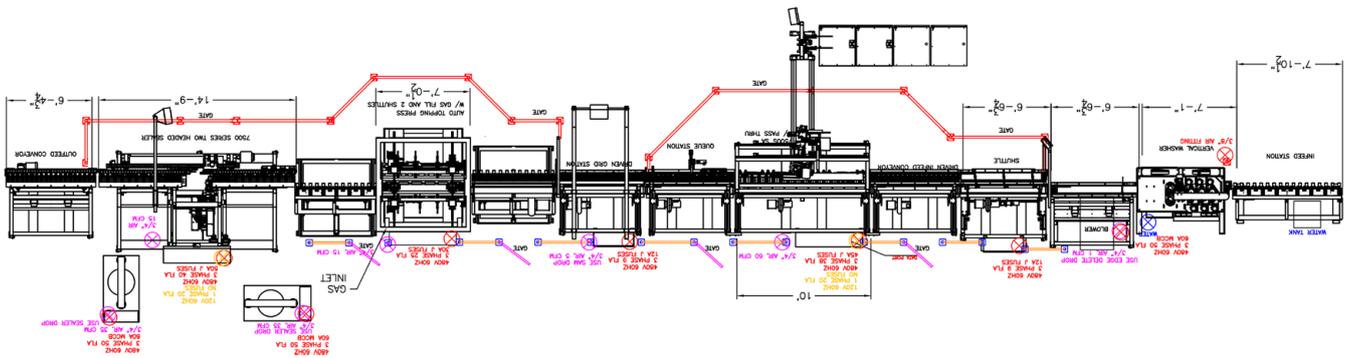
Another innovative feature is the spacer being applied during the in-feed portion along the bottom of the IG, up the top, and then during the travel of the lite through the work zone, again saving time. Application during conveyance picks up another 5 seconds. The next IG can actually be stationed ready for application before the last IG has been processed through this zone saving even more time.

During traditional methods of IG production, the topping lite is conveyed through the work zone, and the application lite is actually conveyed 3 times through the zone. Forward across the bottom, backward across the top and then forward again to remove the lite. Furthermore another topping lite goes through the zone before the next application lite can be referenced. That is 4 times through the zone including the topping lite!

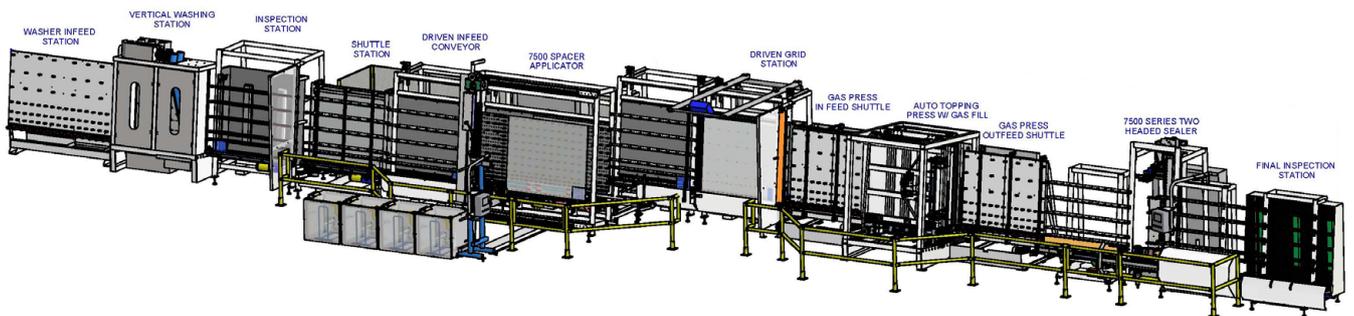
The parallel process line changes all that. The topping lite does not go through the zone, the application lite never backs up, and the next application lite can be referenced at the start position, prior to the last one being completed. These 3 changes immediately save between 12 and 15 seconds total.



HIGH SPEED FLEXIBLE FOAM IG LINE



SAVE 12-15 SECONDS PER IGU OVER TRADITIONAL IG LINES



HIGH SPEED IG EQUIPMENT

- DURA IG

FINISHED IG UNITS

FINISHED GAS FILLED DURA IG UNITS THAT ARE READY TO GLAZE

The Erdman® High Speed Dura Line builds on the platform of producing IG vertically in a fashion that nearly doubles the speed of traditional vertical lines. While the High Speed Super Spacer Line that debuted in 2014 increased the speed of the vertical automation market and did so with less floorspace and the same number of operators, the Dura Line which was unveiled in Vegas 2016 is first for vertical automation for the single seal IG market.

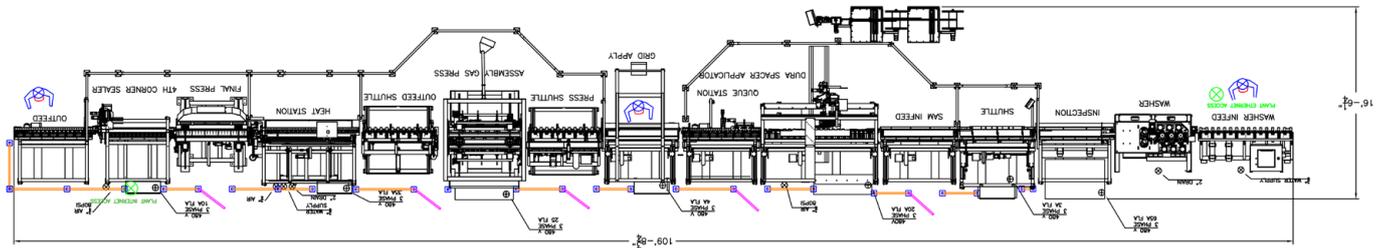
Speed along with the other innovations and benefits such as: reduced floor space, reduced labor and higher quality product; has inspired IG manufacturers to expect more out of their IG production equipment.

Since then, the incumbents in the vertical IG space from Europe and Asia have been trying to catch up. One company came out with a line that utilized multiple pieces of standard machinery to allow double the work to be done, but the result is a very long and complicated line which requires a difficult loading procedure by the operator.

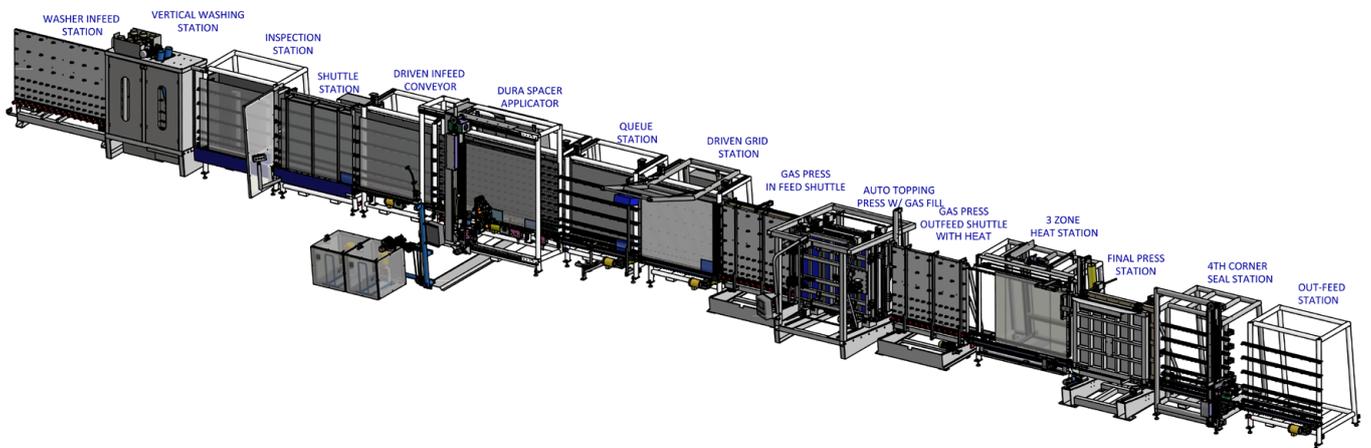
High Speed IG Line Features	Erdman	Other
Original Developer of High Speed Concept	Yes	No
Cycle Time Less than 19 Seconds	Yes	?
North American Parts and Manufacture	Yes	No
North American Controls and Support	Yes	No
Length of Line Under 100'	Yes	?
Standard Loading Sequence	Yes	?
One Grid Application Station vs Two	Yes	?
Multiple Lines in Production	Yes	?



DURA HIGH SPEED LINES BEING BUILT BACK TO BACK



SAVE 12-15 SECONDS PER IGU OVER TRADITIONAL IG LINES



ROBOTICS

SAFETY & ERGONOMICS

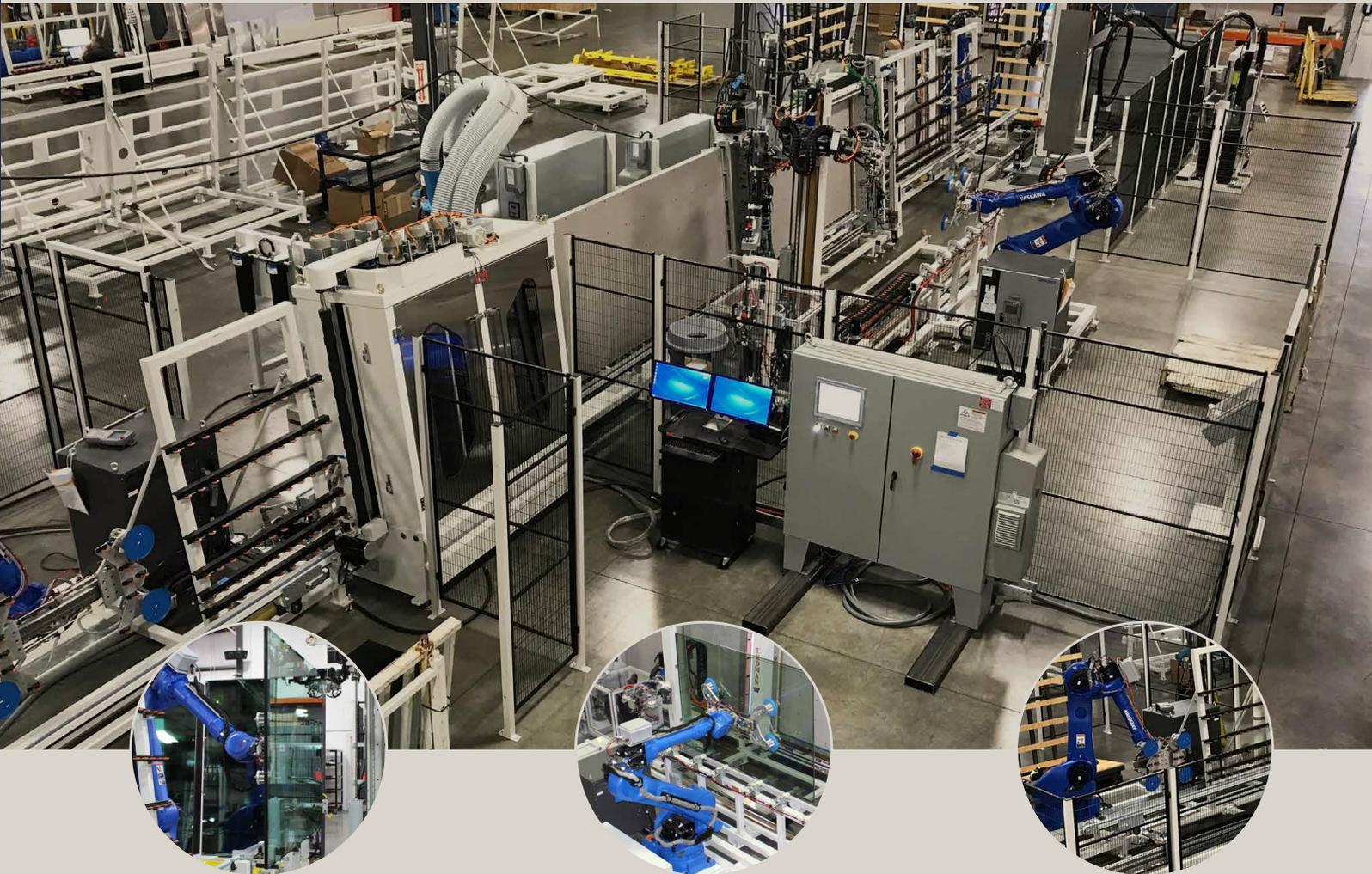
Erdman Automation's latest innovation is incorporating a robot to unload the Erdman® Dura and Super Spacer High Speed IG Line. The unloading robot reduces the chance of injury from unloading larger heavy IG units, but can also be designed to unload all IG units and reduce the operators on the line from 3-4 to 2-3.



ROBOTIC UNLOADER AT END OF HIGH SPEED DURA LINE

ROBOTIC IG WORKCELL

ROBOTIC SOLUTIONS FOR SAFETY & ERGONOMICS



ERDMAN® ROBOTIC IG WORK CELL

- Reduce labor from 4-6 operators down to less than 1 and shift your labor into areas of more critical thinking
- Produce 1, 5'x10' IG Unit per minute (90 seconds with gas fill)
- Run your robotic work cell around the clock and produce 1440 units (non-gas filled) per 24 hours at 100% efficiency
- Save roughly one half of the required floor space of a traditional box-spacer line (approximately 20 'x 75')
- No direct labor means safety because all heavy lifting is performed by robots
- Produce cleaner IG because of reduced conveying

TRADITIONAL IG LINES

HORIZONTAL



ERDMAN® HORIZONTAL TRADITIONAL INSULATING GLASS LINE

Automated Spacer Applicator

Automatic transport of glass lite and application of spacer.

Optional punching of gas filling hole
Optional slitting/notching of grid placement

Grid Application Tilt Table

Operator mounts grids horizontally for small/average size units or 60 degree tilt function available for complex grids or larger units.

Grid backboard pattern for verification
Full tilt (80-83 degree) function for assembly of oversize units

Automatic Butterfly Assembly Station

Lites matched automatically in butterfly sequence.
Automatic overall size measurement for adjustment of Roll Press.

Automatic Adjust Roll Press

Roll press adjusts automatically to provide correct amount of compression.

Gas Fill Station

Automated Secondary Sealer

Automatic transport and squaring of unit.
Automatic recognition of unit size and secondary sealing. Automatic out feed.



TRADITIONAL IG LINES

VERTICAL



ERDMAN® 7500 SERIES VERTICAL IG LINE



DURA HEAT STATION ON 7500 SERIES LINE

"The equipment has performed flawlessly it runs consistent and with built in remote access direct to the Erdman technicians we have little to no down time and been able to produce with 3 people what we had to have 7 before to get the same through put."

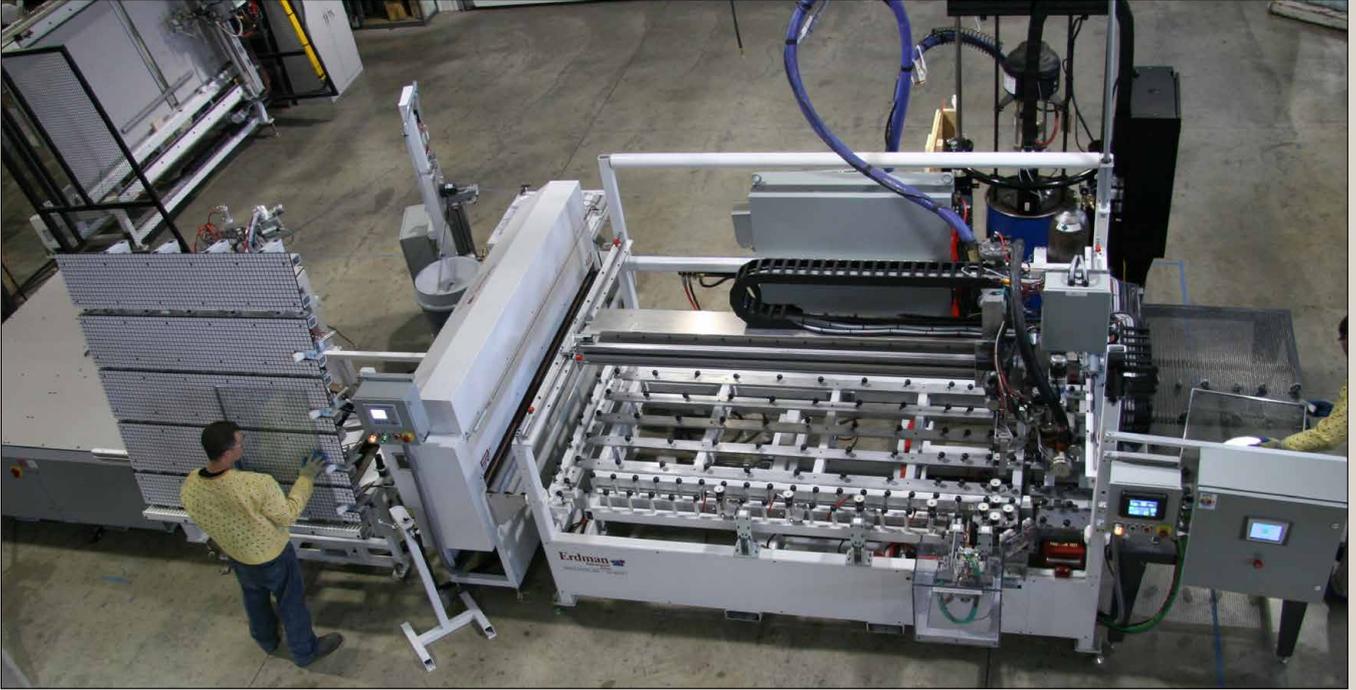
Darren Bannister, President of Extreme Windows and Entrance Systems

The lines have been designed to be modular. They can be run as a single or double line and machines can be added or subtracted as needed.

Buy the machine you need now and you can add more later!

400 SERIES APPLICATOR

HIGH END AUTOMATION AND PRODUCTION AT A FRACTION OF THE COST!



ERDMAN® 400 SERIES IG FLEXIBLE SPACER APPLICATOR TILTING GRID MUNTIN STATION, ROLL PRESS AND 6000 SERIES IG SECONDARY SEALER



400 Series Spacer Applicator Features:

- Eliminates spacer stretch versus manual application
- Auto stripping of release liner including liner break detection
- Inside notch for all flexible spacer types
- Works with all flexible spacer systems
- Works with auto and manual spacer reels
- Easy load of full auto reels
- Climate control box for reel storage
- Gas fill hole punching capable
- Grid notching available; upgrade for data input required
- Safety scanner included for work zone protection
- Utilities: 240v 30Amp ¾" 80 psi air supply

The Erdman® 400 Series line of equipment is a simple and economical solution to your IG production needs. This low-cost insulating glass production system works with all flexible spacer systems applying your spacer straight with true 90 degree corners. Minimal operator training and no data input is required for standard operation.

The Fixed Head IG Secondary Sealer can be used as a lower cost sealing option on the 400 Series Line. See next page.

FIXED HEAD IG SEALER



ERDMAN® FIXED HEAD IG SECONDARY SEALER
SHOWN ABOVE WITH FRAME EXTENSION ON EACH SIDE

The Erdman® Fixed Head IG Secondary Sealer is a simple and economical answer to your Insulating Glass (IG) Secondary Sealing needs. The stationary sealant application system on the Erdman® Fixed Head IG Secondary Sealer gives your operator the ability to easily apply a professional, high quality, consistent secondary seal to your insulating glass units.

Your operator simply positions a glass unit in front of the stationary sealant applicator. The applicator control system tracks the glass while the operator passes the glass from left to right through the applicator. The spacer is measured by a depth probe. The machine applies sealant based on the speed at which the glass is being moved by the operator and the height and depth of the spacer. When the operator gets to the corner (end of glass unit) the operator then rotates the glass 90 degrees and repeats the process until all sides are sealed.

Each corner is filled under pressure with a back up plate or a wiper making for a perfect fill with little or no objectionable bulge in the corners.

- Cycle Times Up to 50% Faster than Hand Gunning (Not Including Time Saved on Scraping or Unit Clean-up)
- Total Quality/Consistency of Seal
- All Four Corners are Completely Packed
- Machine Pays for itself by Reducing Overfill, Excess Purging, IG Clean-up & Eliminating Underfill.
- The Seal Rivals Any Expensive Fully Automated Machine
- Can be Configured for Dual & Triple Pane Units in One Pass
- Precisely Seals Special Shapes with No Program Change

6000 SERIES SEALER



The Erdman® 6000 Series IG Secondary Sealer can seal both straight and curved edges of IG units. Glass is manually loaded in the front of the machine. This machine features a quick change nozzle design for easy change over.

Real payback is realized through reduction of waste, cleanup and defective product Erdman® IG secondary Sealers are available to dispense warm, cold and two-part sealants.

- Stand alone automated solution easily added to existing IG line
- Greatly Increases productivity from manual gunning
- Automatic recognition of cavity size and depth
- Consistent sealant application and quality
- Triples IG unit processing
- Shapes capable

7500 SERIES SEALER



The Erdman® IG Secondary Sealer includes a state-of-the-art controls system coupled with the unsurpassed Erdman® Fluid Metering System to provide consistent results at speeds up to 20 inches per second.

Erdman® sealant application systems are available to perform hot, cold, and two-part applications. Real payback is realized through reduction of waste, cleanup, and defective product.

- Can seal both straight and curved edges of IG units
- Automatically applies a consistent fill sealing all 4 corners and sides
- 23 second cycle time for 24" x 36"
- Available for warm, cold, and two-part sealants

7000 SERIES SEALER



DURA HEAT STATION

The new Erdman® Infrared Heating Station offers significant cost savings vs traditional horizontal heat presses. It saves over 80%! Ask for a detailed cost analysis.



AUTO FOURTH CORNER SEALER

Automatic sealing of Final Corner vs manual reheat and seal: saves time, saves labor, saves floor space, reduces repetitive motion concern, eliminates mistakes and improves quality.



OTHER EQUIPMENT

- Wood Bead Stapler
- In-feed Conveyor/ Sash Press
- Gravity Conveyor
- Material Handling Line
- Queuing Conveyor/ Roll Press
- Combo Glass Lay-in & Hand Assist Glazer
- Tilt & Easel Station
- Tilt-up Station
- 90-degree Sash Diverter
- Glass Top Glazer
- Powered Easel Section
- I/O Staging Conveyor
- 45-degree Saw w/ Optimizing
- Roller Bed Work Station
- Frame Press Clamp
- Easel Work Station
- Hand Assist Roll Down
- Flat Bed in-feed Conveyor
- Manual Conveyor Easel Station
- 90-degree Diverter & Flip
- 90-degree Rotate Station
- 90-degree Transfer & Filler Station
- 90-degree Transfer Station
- Mulling Line
- Tip-up Unloader
- A Level Tilt Pinner
- Adhesive Apply Station
- Astragal Station
- Notcher Machine
- Interlock Roll-in Machine
- Sash Metal Roll Press
- Bead Roll Assist Station
- Head Flange Station
- Head OFM Silicone Machine
- Hopper Machine
- Horizontal Platen Press
- Hot-melt Application Glazer
- Automated Bar Roll Down
- Interior Sash Nailer Easel Station
- Jamb Linder Assembly Table
- Line Shift Transfer Station
- Lock Application Station
- Lock, Lift & Tilt Latch Pre-drill Machine
- Packing Prep Transfer Table
- Panel Placement Station
- Packing Tip Table
- Platen Press
- Rough Cut Paint Hook Drill
- Side Flange Station
- Side Jamb Press w/ Predrilling
- Side nailing Flange Roller
- Silicone Injection
- Sill Cap End Welding Station
- Beam Saw
- Belly Bander
- Brick Mold Attachment Machine
- Easel Style Glass Lay
- Butyl Extruder
- Cap Bead Machine
- Cladding Roll Press
- Countertop End Stick Nailer
- Arch-top Clamp
- Wood Nailer
- Drawer Clamp
- Drill & Router Machine
- Dual Keeper Pre-drill Station
- Glass Stop Nailing System
- OFM Picture & Transom
- Easel Rotate Station
- Easel Roller Wet-out Station
- Easel Tilt Pin & Pre-drill Station
- Exit Queue flat table
- Feed-thru Drilling Station
- Feed-thru Pivot Pin Attachment
- Flip & Head Jamb Liner Station
- Flip Over/ Sill Stop Glazer
- Float Station
- Combo Hand Assist & Auto Glazer
- Frame Corner Injection and Screw
- Frame Injection Clamp
- Frame Nailer Hopper Style
- Glass Pick 'n Place
- Over-head Pick 'n Place
- Pick 'n Place Stacker & Unstacker
- Pick Car
- Pinner Drill w/ In-feed
- Pivot Pin Drill Machine
- Glass Laying Tilt Table
- Glass Placement Machine
- Glass Tip & Power Feed Conveyor
- Glazing Bead Nailer
- Gravity O/F Table/Frame Line
- Grid Punch Machine
- Grille Applying Tip-table
- Hand Notcher
- Hardware Attachment Station
- Head & Jamb Assembly Station
- Single Piece Sill Press
- Stop Nail & Liquid Spacer Station
- Stop Nailing Table
- Table Top Notcher
- Tape Wet-out System
- Tilt Latch Machine
- Tip Down & Side Shift Station
- Unit Assembly Hanging Easel

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