



# Electric Actuator Application Wins

Note: Applications move to Rodless, Rod-style, and RPNOEM Presentations

# Application Wins

1. Frasca – IMA
2. Kimberly Clark – MXB40S
3. Miller – RSA64
4. HA Industries – B3W
5. Technic Inc. – B3W, B3S
6. Gulmay – B3W
7. Forpak – ERD20
8. Prime – ERD20
9. Paslin – RSA64
10. Sentry – SS ERD

1. Security Barriers IMA, RSA
2. Merchant Roller Screw
3. Forward Tech – RSA
4. Photo Diag – MXE63
5. Hormel RSA50
6. Jacobs RSA24
7. Shuttleworth B3W
8. Delta Cheese Slicing ERD20
9. Tec Eng MXE63S
10. Life Touch Custom



## Frasca Application WIN Information

**RSM: Dave Schmidt**

**Distributor:**



**Customer:**



**Website:** [www.frasca.com](http://www.frasca.com)

**Industry:** Aviation

**What they make or manufacture:**

Helicopter and Fixed Wing Simulators

# The Customer's Challenge



## **Customer's Challenge:**

- Looking for a more cost effective and reliable solution.
- Looking for a better way to simulate rotor vibration in a flight simulator.

## **Application Description:**

- Simulation of helicopter rotor vibration.
- Replace existing rotary cam with linear vibration actuators.

# Application Solution



## **Solution:**

Integrated solution that is easier to install and maintain.

**Tolomatic Product Family:** Electric

## **Product Used:**

- Modified IMA44 with customer specified absolute encoder, 1" working stroke.
- Roller Screw

**Price / Unit:** Goal \$7k ea.

**Units Sold:** (1) Prototype in cycle testing. (12) units for first build of 2 machines.

**Competition:** Exlar and Moog



# Application Results

## Results:

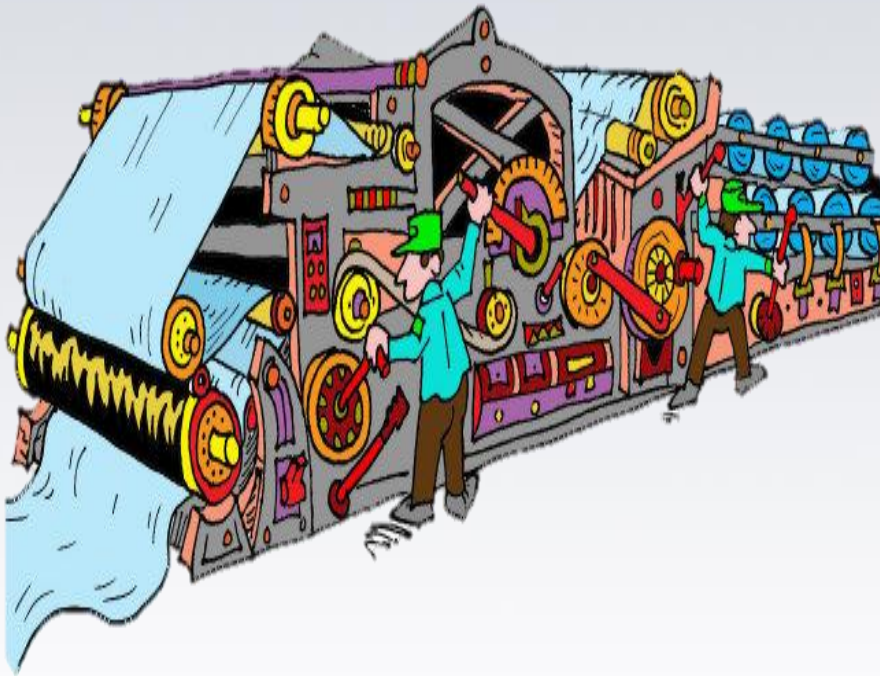
- More reliability.
- Easier assembly.
- Only manufacturer that can meet cycle rate, force and speed.
- Potential for more applications



Bell 407GX Full Flight Simulator

# Pulp and Paper Process

RSM: Adam Farley



**Customer:** Kimberly Clark

**Product produced:**

- Brush Roll

Website: [www.kimberly-clark.com](http://www.kimberly-clark.com)

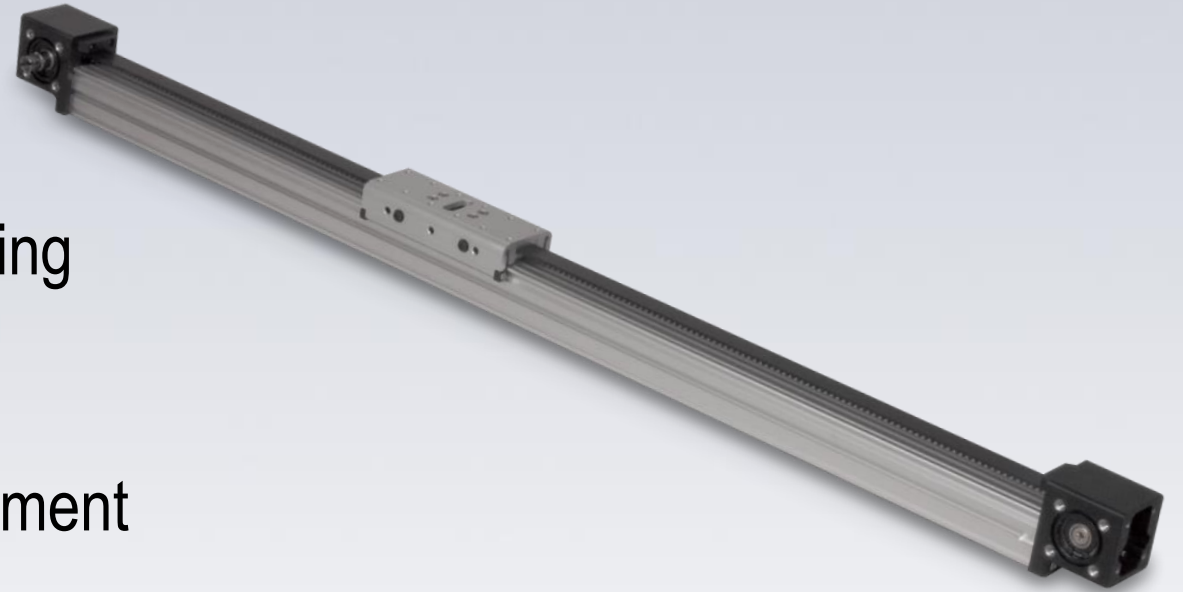
# Pulp and Paper Process

## **Challenge:**

- Pneumatic unit had pulp build-up, clogging
- Removal of all Pneumatic components.
- Speed and Control concerns
- High Pressure Air - Wash-down Environment

## **Solution:**

- Custom MXB40S
- S carrier allows for self cleaning
- Open end caps
- Ease of use with Allen Bradley Controls



**Units Sold: 3**

**Tolomatic Product Family: MXB**

**Product Used: MXB-40S Custom**

**Future Potential: Spreadable Win!**



# Pulp and Paper Process

## **Spreadable to other Industries**

- Converting
- Thin Film Processing
- Web Handling
- Roll Converting (Steel)
- Roll forming

# Lumber Industry

RSM: Bob Chunko



Distributor: Buchanan Automation, Inc.  
Snohomish, WA

Website: [www.buchanan-a.com](http://www.buchanan-a.com)

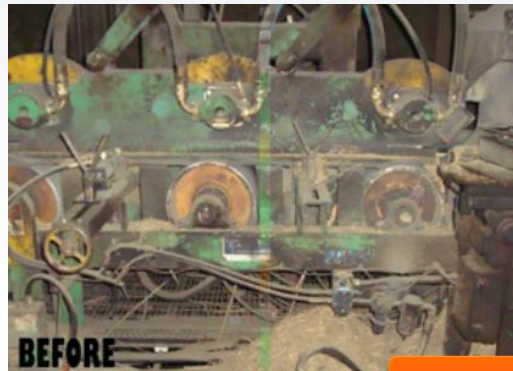


Customer: A&M Machine

Product produced:

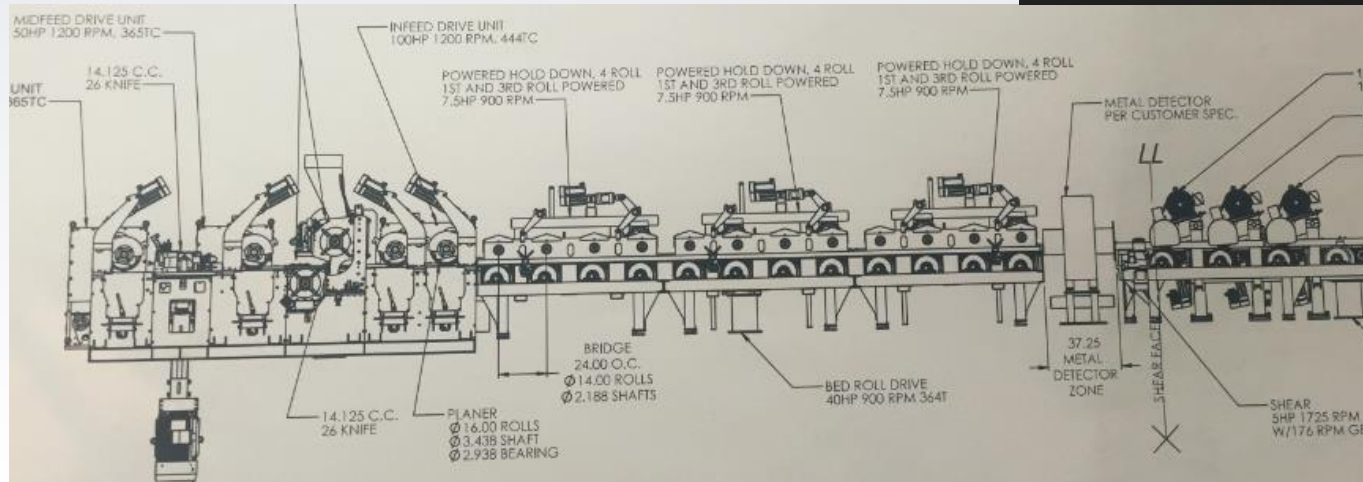
- Electric Roll Tensioning on Planer Systems

[www.ammfginc.com](http://www.ammfginc.com)



# Application Details

- Vertical hold down arms
  - Typically done hydraulically
  - Exlar units have been used by A&M
- Horizontal positioning arms
  - Traditionally done hydraulically
  - Done with competitive E-Drive units



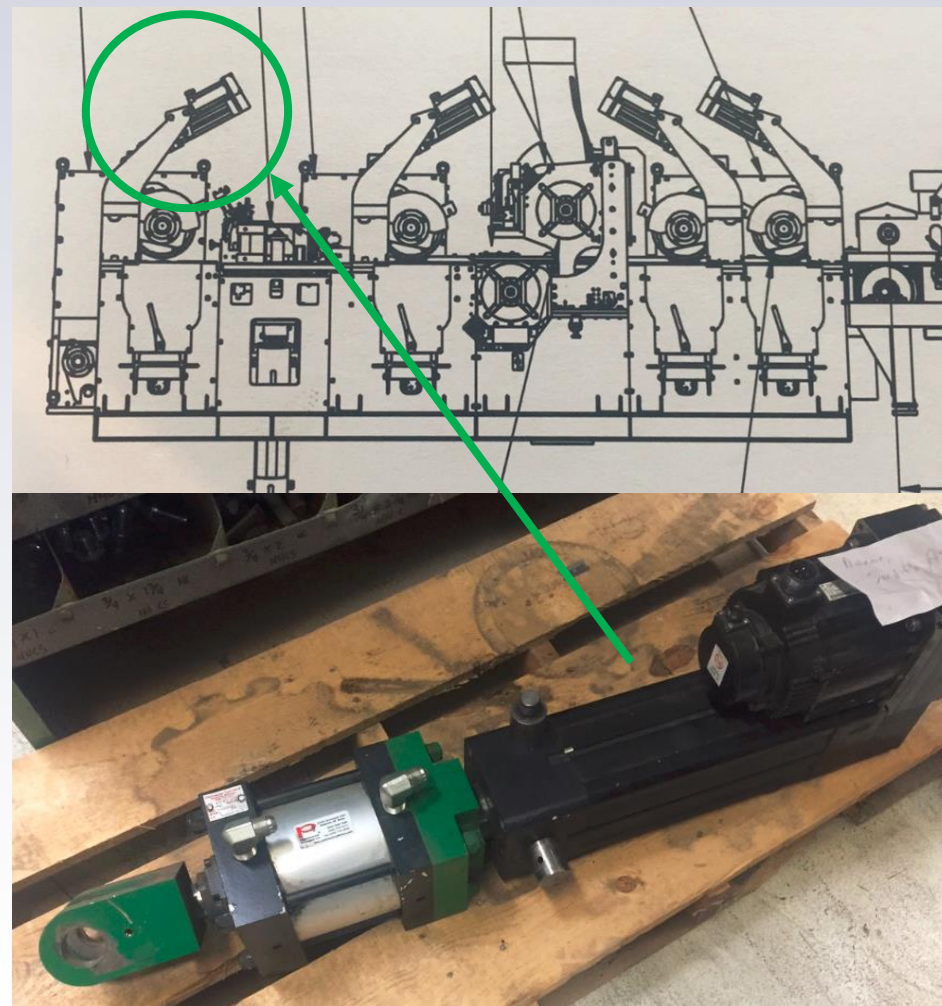
# Application Challenges

## Challenge:

- Hydraulic system
- Did not allow fast infeed height adjustment

## Solution:

- RSA 64
  - BZ Nut
  - Steel Head / Trunnion with HTI Option
  - Added an air cylinder on the end for shock loading





# Infrared Welding

**RSM: Brian Sondergeld**

**Distributor: BEHCO – MRM**

**Customer: HA Industries, Inc.**  
**Sterling Heights, Michigan**

**Industry: Plastic parts heat welding**  
**(primarily in automotive)**



## INFRARED WELDING

State-of-the-art, fully servo-driven systems providing precise and accurate welds of most thermoplastics. Utilizing electric quartz glass infrared emitters, create the strongest welds possible and making us the world leader.



# Application Solution

## Challenge:

The infrared welding of plastic parts requires fast movement, precise position and a fair amount of force. There was a strong desire to remove the belt drive actuator to eliminate potential failures and the subsequent crashing on the heating elements (expensive!). This unit also required a vertical move that was much bigger than a standard move.

## Application:

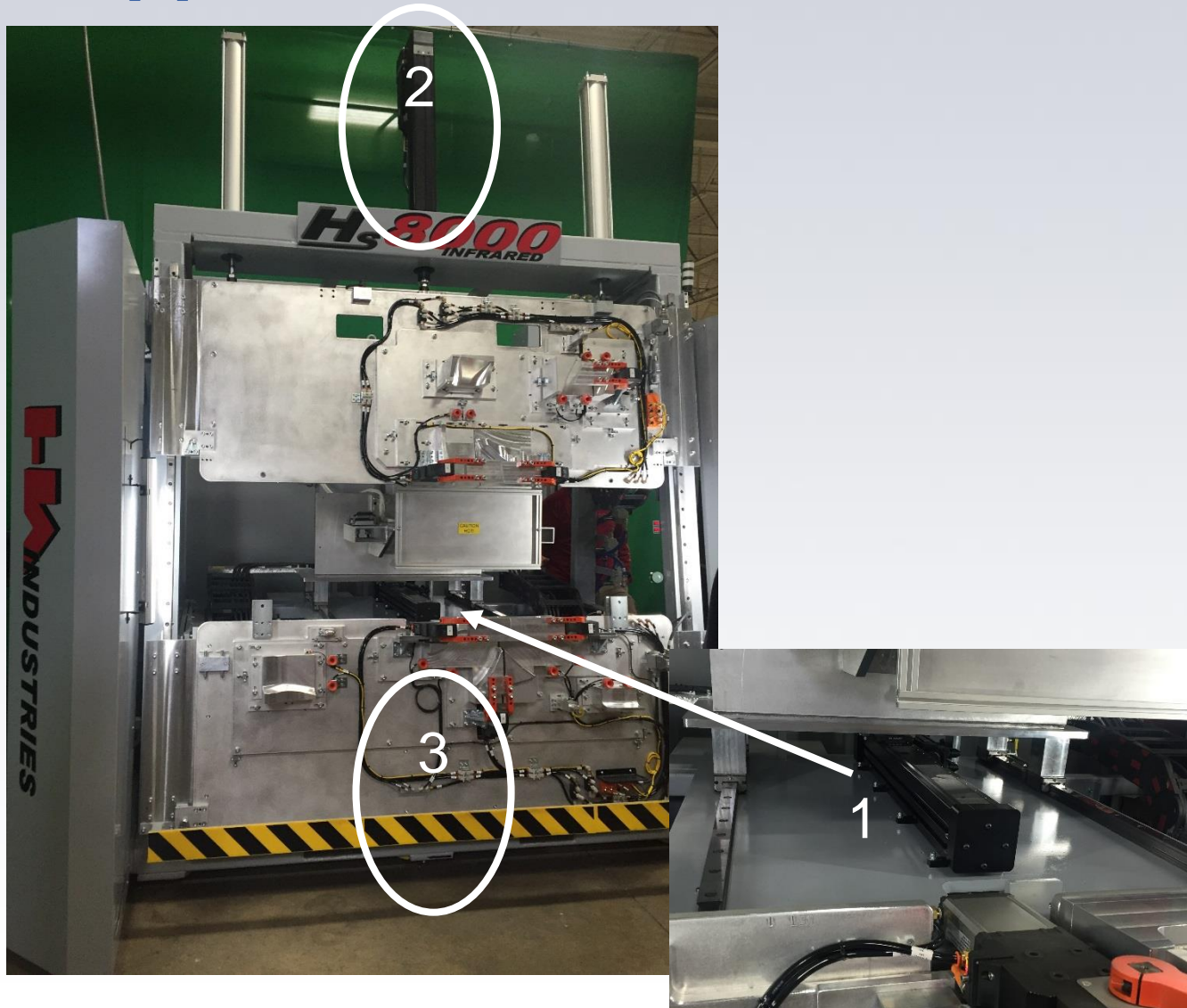
John Deere has a very large plastic exhaust manifold that needs to be heat welded together.

## Prior Solution:

- Exlar custom rodless
- Tolomatic rodless belt drive (M3W)
- Exlar rod



# Application Solution



## **Solution:**

BEHCO MRM worked with the customer to understand the move profile and then helped design in Tolomatic actuators. A custom B3S was used that had a very high lead ball screw. The RSA's were fairly standard. Units were built with Rockwell motor mounts.

## **Tolomatic's Products Used:**

1. M3S-20 (metric B3S)
2. RSA-50
3. RSA-64

# Automated Hoist Systems

**RSM: Adam Farley**

**Distributor: NorthEast**

**Customer: Technic, Inc. in Cranston, RI**

**Industry: Electrical Component Manufacturing  
(solar, semi-conductor, medical)**

Technic engineers and manufactures a wide range of traditional hoist systems for rack, basket and barrel applications. From small manual hoist lines with load capacities of 100 lbs or less, to fully automated lines capable of handling in excess of 4,000 lbs, Technic can meet your specific hoist system needs.





# Application Solution

## Challenge:

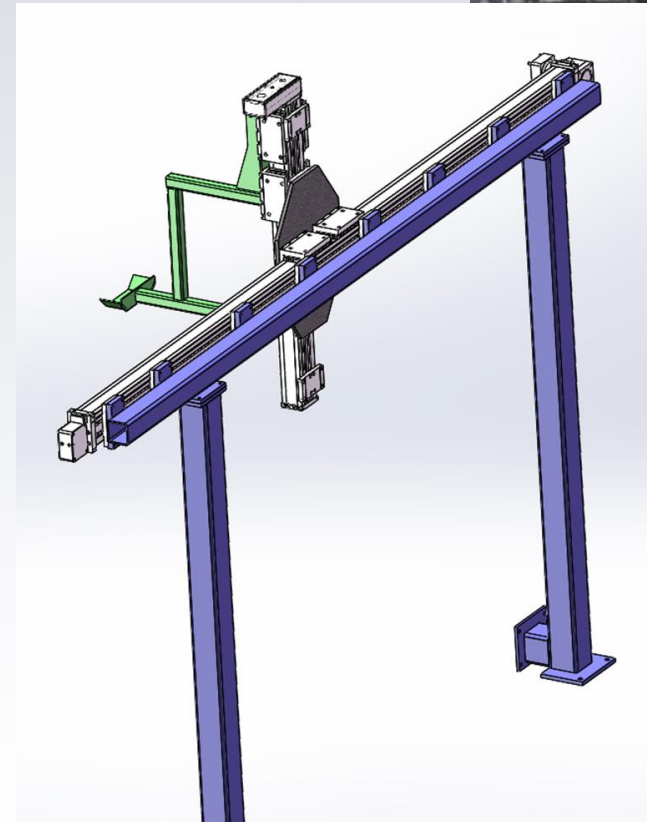
Precise, reliable and dependable movement of parts from one tank to another through the manufacturing process was required.

## Application:

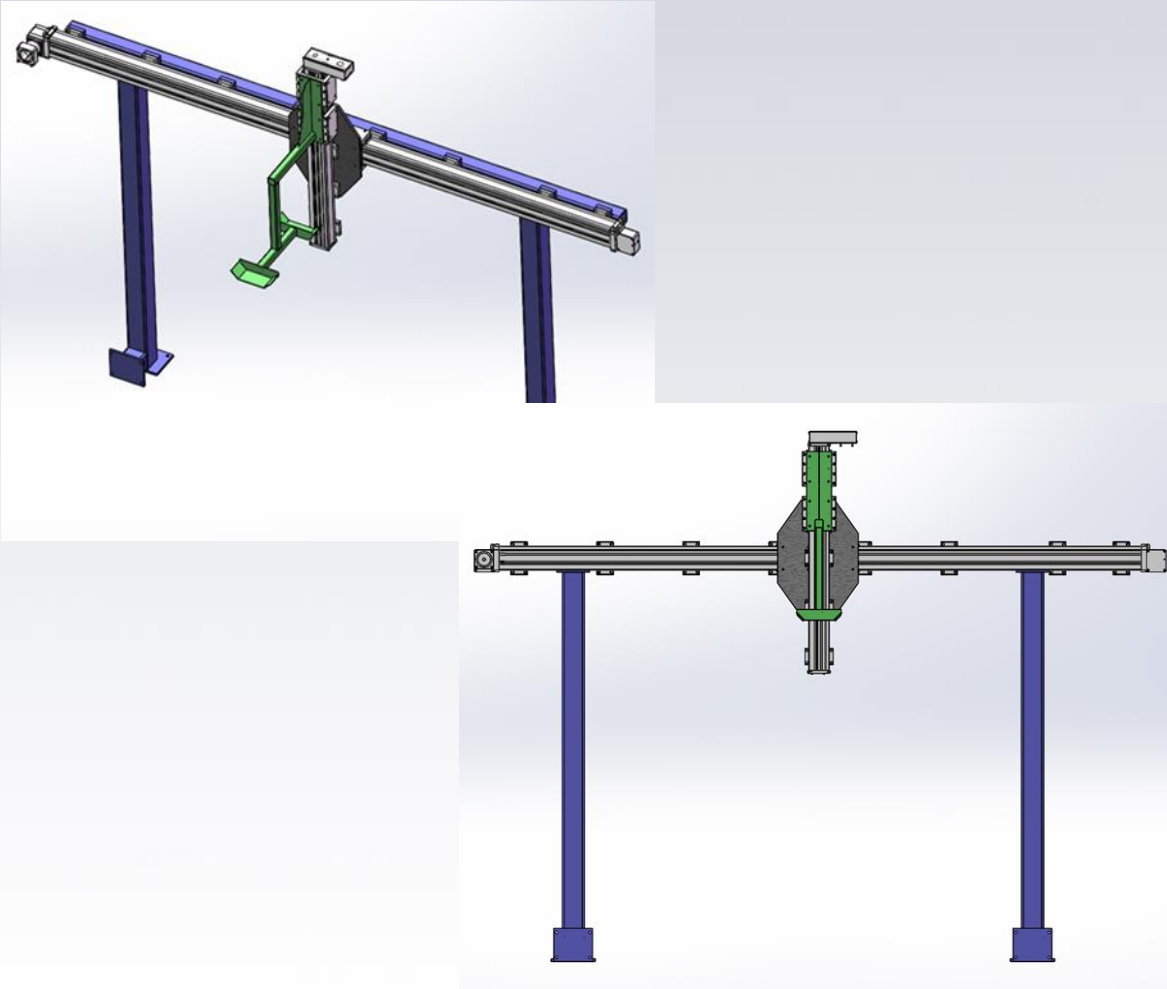
Building a new line for production at a 3M location.

## Prior Solution:

- Rack and Pinnion



# Application Solution



## **Solution:**

NorthEast Electrical worked with the customer to understand the move profile and then helped design in Tolomatic actuators. The customer need a very rugged and dependable solution. Catalogue B3W and B3S units were used with wrap-around carriages.

## **Tolomatic's Products Used:**

1. B3WD-15
2. B3SD-15

## **Order:**

6 actuators for ~\$30,000



# Inspection and X-Ray

RSM: Brian Staines



**Distributor:** Fluid Power South  
Norcross, GA

Website: [www.fluidpowersouth.com](http://www.fluidpowersouth.com)



**Customer:** Gulmay  
Suwanee, GA

**Product produced:**

- 3 axis gantry used for x-raying parts within a large container of water.

Website: [www.gulmay.com](http://www.gulmay.com)

# Inspection and X-Ray

RSM: Brian Staines

## **Challenge:**

- Overall Length over 42ft
- Precision
- Customization

## **Solution:**

- Provided a smooth consistent motion profile
- Accomplished long length requirements



X-Ray Gantry Machine

**Units Sold: 15**

**Tolomatic Product Family: B3W**

**Product Used: B3W10BWS18SK100S**

**Future Potential: RPNOEM**

# Inspection and X-Ray

## Spreadable to other Industries

- Pulp & Paper Scanning
- Transportation/Interstate Scanning
- Sheet Metal Cutting

## Similar Customers

- Rapiscan Systems  
Torrance, CA
- Westminster International LTD  
United Kingdom

# Food Stacking



**RSM: Rich Braga**

**Distributor: Power/mation**

**Customer: ForPak, located in Burnsville, MN**

**Industry: Food & Bev**



# Application Solution

## **Challenge:**

This OEM machine builder was using Tolomatic's ICR rod style electric actuators prior to obsolescence. They had a customer that wanted to aggressively wash down the system and need an IP69K rating.

## **Application:**

Requires electric actuators indexing down quickly and accurately to stack products...meat patties, waffles, pancakes, etc.

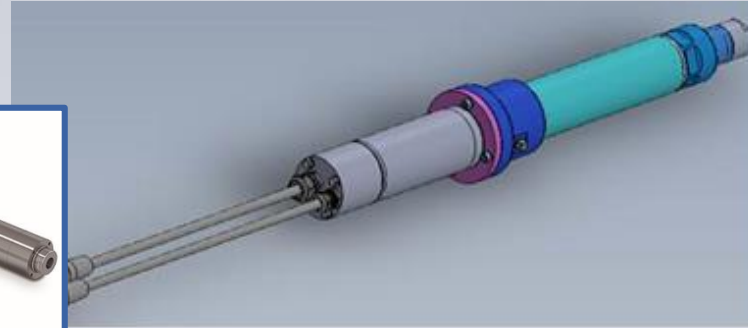
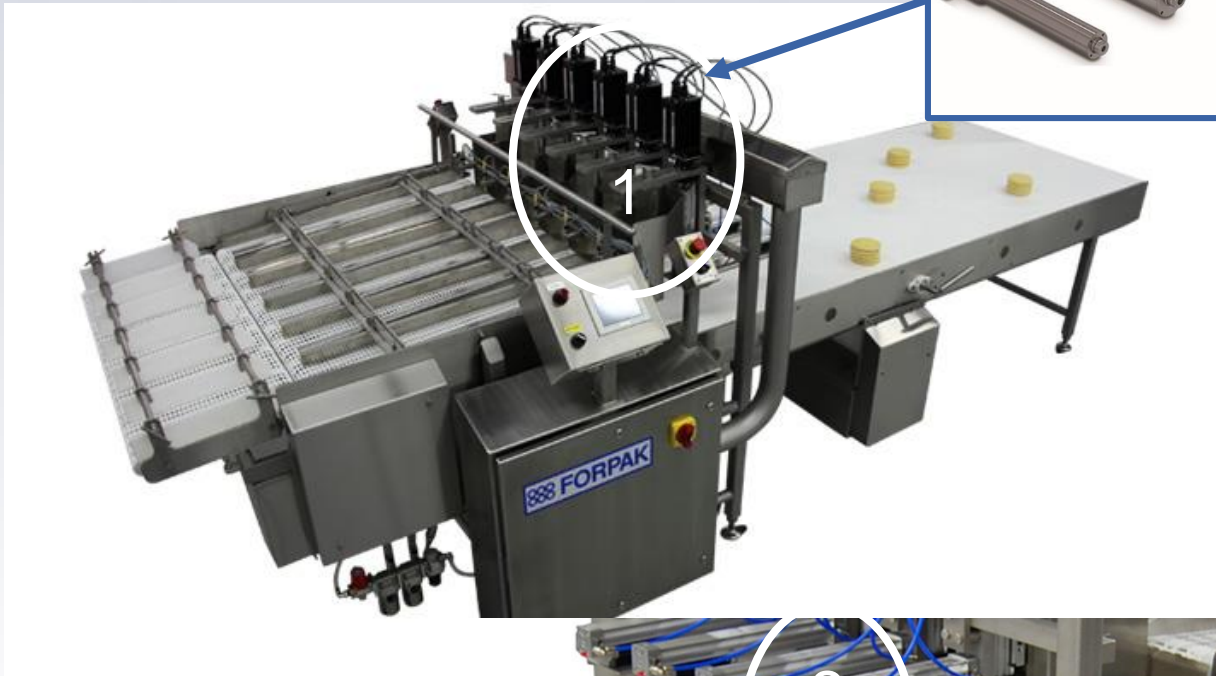
## **Prior Solution:**

- ICR





# Application Solution

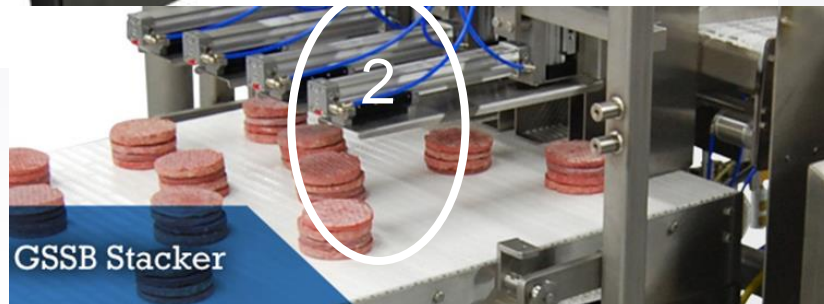


## **Solution:**

1. Power/mation helped specify Tolomatic ERD's into the indexing application.
2. We are also working on winning the pneumatic rodless business that is currently Norgren.

## **Tolomatic's Products Used:**

1. ERD20 in-line with New SS motor & ACS
2. Custom MXP



GSSB Stacker

# Food Processing

RSM: Brian Sondergeld



**Distributor: C&E Sales**

Dayton, OH



**Customer: Prime Equipment Group**  
Columbus, OH

**Product produced:**

- Turkey processing Machine

# Food and Beverage OEM

## Challenge:

- Actuators sit over top of meat
- Movement must be coordinated precisely
- Need for flexible tooling
- Desire to remove pneumatics
- Must be IP69K
- Customer has no experience with servo-driven actuators

## Solution:

- Stainless ERD20
- No Maintenance, no air lines
- Flexible Tooling
- Hygienic, IP69K, within FSMA guidelines



## My Payoff:

- Customer has bought 2 systems since then, I didn't have to resell to get the projects
- Have been part of other projects

# Transmission Assembly

**RSM: Brian Sondergeld**

**Distributor: BEHCO – MRM**

**Customer: The Paslin Co.**  
**Warren, Michigan**

**Industry: Automated Assembly and Test Equipment**  
**(primarily in automotive)**





# Application

## **Project:**

Design and assemble a robotic body shop sub assembly system for Ford's F150 assembly plant in Dearborn, MI

## **Challenges:**

1. Paslin is huge, \$30 million in annual sales, 99% of which is big-3 automotive. All of Tolomatic's competitors are constantly trying to win Paslin's business.
2. The force ranges for Paslin projects often require fairly high force (10,000 lbf is typical), and we have lost projects as a result. This project was at the top-end of our catalog actuators, and the Paslin engineers had to be assured Tolomatic actuators would work well.
3. Paslin was purchased in March 2016 by Wanfeng Tech, a Chinese automotive castings company. As a result there have been changes at Paslin, primarily in purchasing. Paslin may force us to sell directly to them.





# Application

## Success!

1. Order received for 34 RSM64's, over \$200k.
2. This large project represents over half of the business Paslin will do in 2016. Our customer has chosen to trust Tolomatic to supply one of the critical components for this assembly system. If there's no movement there will be no assembly!
3. Paslin trusts Tolomatic because of our flawless performance. All of us at Tolomatic hear about the problems we have. Most of you have never heard of Paslin, just like most of you don't hear about 95% of our customers.
4. Over the past years our business has steadily grown with Paslin, because in their eyes our actuators always work, always ship on time, and the support they receive is the industry's best. This is truly a win built by every person at Tolomatic. And many more to come.



# Machine Builder

**RSM: Brian Staines**

**Distributor: Maxim**

**Customer: Sentry Equipment & Erectors  
Forest, VA**

**Industry: Food & Bev**





# Application Solution

## **Application:**

The Sentry Automatic Shell Denester is designed to receive and separate columns of stacked plastic returnable soft drink trays onto the shell washer or packer delivery conveyor. This requires adjustments to the side guides for different sized plastic trays.

## **Challenge:**

Build de-nesting machines. Previously they had manual hand cranks to change sizes. The machine builder wanted to automate the machine to handle multiple container sizes. The machines are all stainless steel, so the actuators need to be stainless and washdown capable.

## **Prior Solution:**

- Manual adjustment to the side guides
- Pneumatic pusher for indexing



# Application Solution



Head



Pusher



Infeed Wall



# Application Solution



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## **Solution:**

8 Tolomatic SS ERD's with motor and ACS per machine

4 machines done (active quoting on-going)

## **The real story...a total team effort:**

1. Initial actuator design used a ball nut screw and a brake to hold position.
2. Customer experienced issues with the brake not working correctly.
3. Mike Voelner (QA) traveled to the site to re-work the units in the field, with Andy Zaske accompanying.
4. Issues continued, so we redesigned the unit with a bronze nut (ENG).
5. Then we had to build new units FAST and then rebuild existing units to the new design (OPS).
6. Final transition required site visit by Mike Voelner to Kansas City and Bob Chunko to California.

**THANK YOU EVERYONE!**



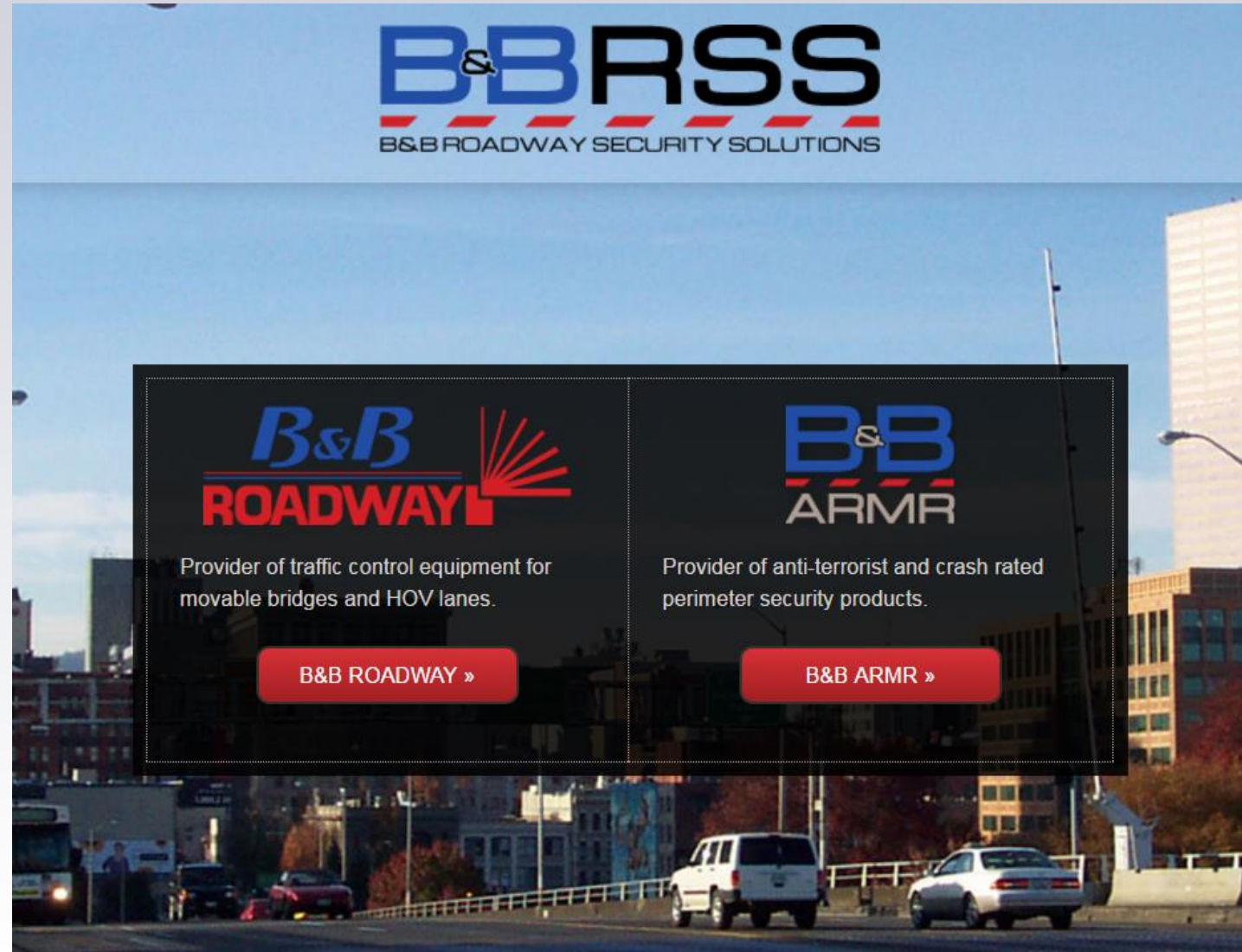


# B&B Armory

- Location: Alabama
- Distributor: Womack
- First sales call was about 10 months ago.

## Challenge:

- Industry is moving away from hydraulics due to environmental concerns.



## Solution:

- Solution: Special IMA44 with manual override
- Prototype ordered in summer of 2016.
- Testing from September – December.
- \$250K Blanket order placed in January.



# Security Barrier:

RSM: Brian Staines



Distributor:

**SCOTT EQUIPEMENT**

10800 Twin Lakes Pkwy  
Charlotte, NC

<http://www.scotteq.com>

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Customer:

**Barrier1 Systems, Inc.**

8015 Thorndike Road  
Greensboro, NC

<http://barrier1.us/ind>

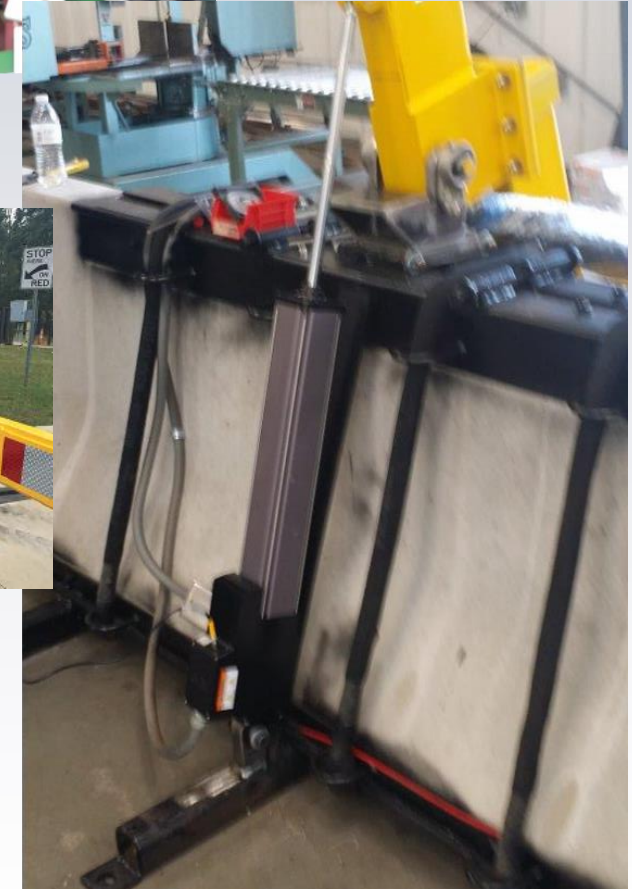
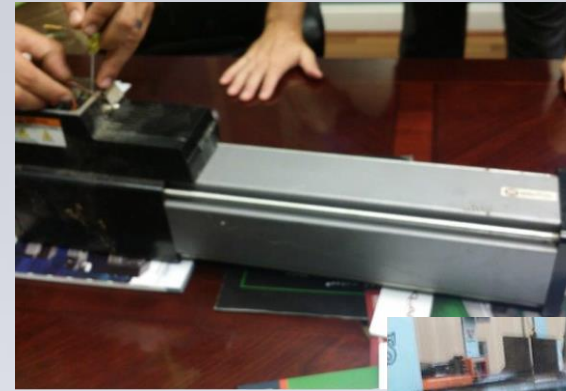


# Security Gates

The business is non lethal security gates as well as wedge gates, but their main focus are the non lethal gates due to the proprietary technology they have invested in these gates making them light weight and still very effective.

## Challenges:

- Long time Exlar customer, but concerned with long lead times.
- Wanted a complete motor and drive solution.
- Needed to be able to 'drop in' to current design and to support existing customers in the field.



# Application Demo





# Solution

First sales call with Brian Staines, Aaron Dietrich and Scott Equipment.  
Quoted a combined unit with Tolomatic RSA coupled with Lenze Motor and Drive.  
Purchased a prototype unit and tested.



**Tolomatic Product: RSA 50**

**January Order: 35 pieces for \$250k**

**Units Shipped: 8**

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# Security Barrier:

RSM: Brian Staines



Distributor:

**Irby Co.**

1284 Heil Quaker Blvd.  
La Vergne, TN 37086

<http://www.irby.com>

Confidential



Customer:

**FutureNet Security Solutions**

277 Mallory Station Road  
Franklin, TN 37067

<http://www.futurenetsecurity.com>



# Security Gates

Based in Franklin, Tenn., FutureNet Security Solutions is a full-service perimeter security integrator, barrier manufacturer, specialty contractor, and maintenance provider.

The company provides a complete range of products and services to a diverse client base which spans the defense, transportation and petrochemical industries, as well as corporate facilities, airports.

## Challenges:

- Design of the IMA with brake and manual override
- Retro fitting into existing barriers
- Timeline for testing and production
- Competition (Long time Moog customer)

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## Solution

Project started over 5 yrs ago with Ryan Klemetson and FutureNet decided at that time that they would stay with Moog. In mid-2016 they decided that they could no longer work with Moog and needed a better solution. The Irby Specialist (who has since left) started digging back into the design from 5 yrs ago with help from Ryan, Bryan Rindo, Andy, myself and basically all of engineering. We were able to come up with an IMA55 with custom brake and manual override. The process has taken over a year to finally get to the point where we received a PO# for 10 custom IMA55's. \$100K order second week of July.



**Tolomatic Product:** IMA55

**July Order:** \$100K

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July 2017

Distributor:

**Motion Solutions**  
California

<http://www.motionsolutions.com>

Customer:

**CHIP Handler OEM**  
California

**Merchant Roller Screw**

Confidential



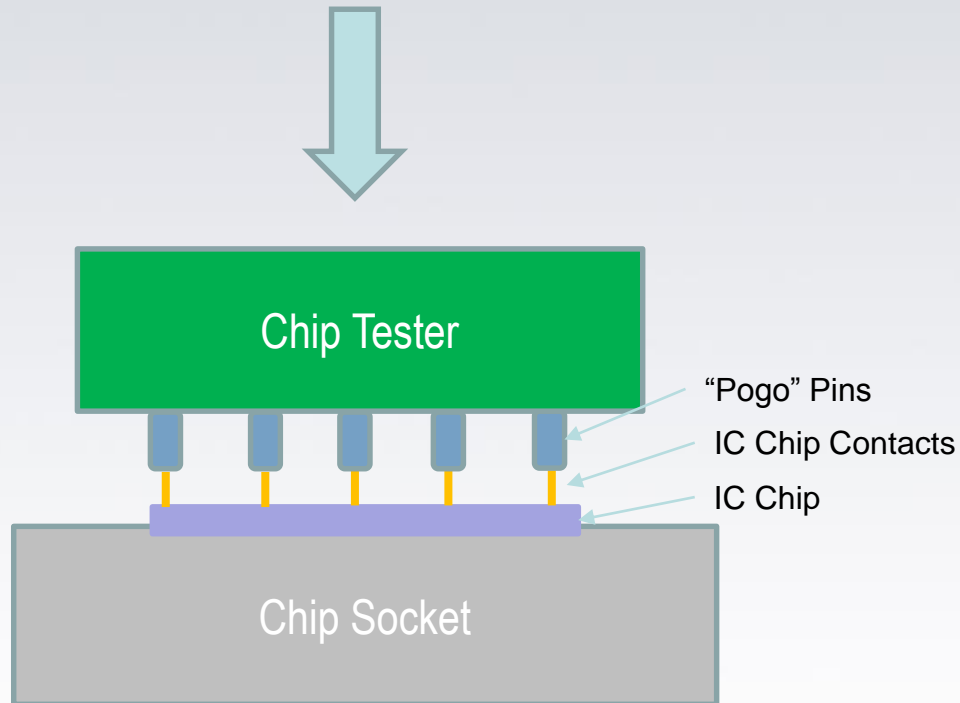
# High Performance Pick And Place Chip Handler



- Used to pick and place IC chips into a test machine (“IE Chip Handler”)
- Chips are loaded in on trays, then pick and placed into the “test site” where they undergo electrical and thermal testing
- Specific end user application is the automotive chip makers

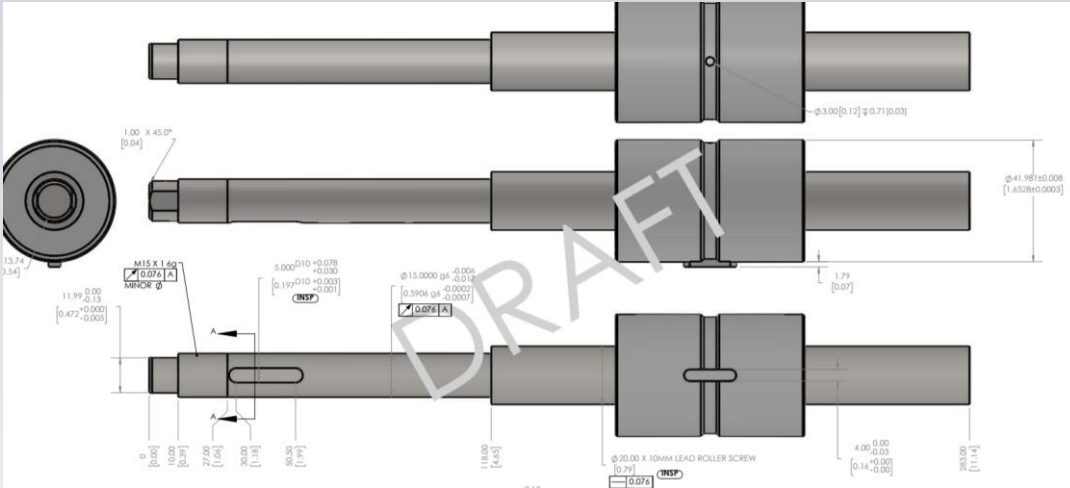
# Matrix Platform “Test Site”

Force Applied To Compress Pogo Pins



- Each socket in the test site requires that the contacts (pins) on the IC chip make good contact with the test instrument
- Each test socket uses spring loaded “pogo” pins to contact each pin on the IC chip. Each of these spring loaded pins requires a given amount of force to compress
- Chip has numerous pins (ex. 100)  
X  
32 chip sockets in the test site  
=  
Significant force to compress all the pins

# Tolomatic / MoSo Solution



- Tolomatic 20x10 Rollerscrew provides force
- Custom Flange Assembly From Motion Solutions
- 1250 lbs of force applied
- 5 Sec. Hold, Cycles Every 12 Sec.
- 1.75in Stroke, 17.5 in/s

# Plastic Welding & Machining:

RSM: Rich Braga



Distributor:

**Power/mation**



Customer:

**Forward Technologies**

Cokato, MN



# Challenge/Opportunity:

## Challenges:

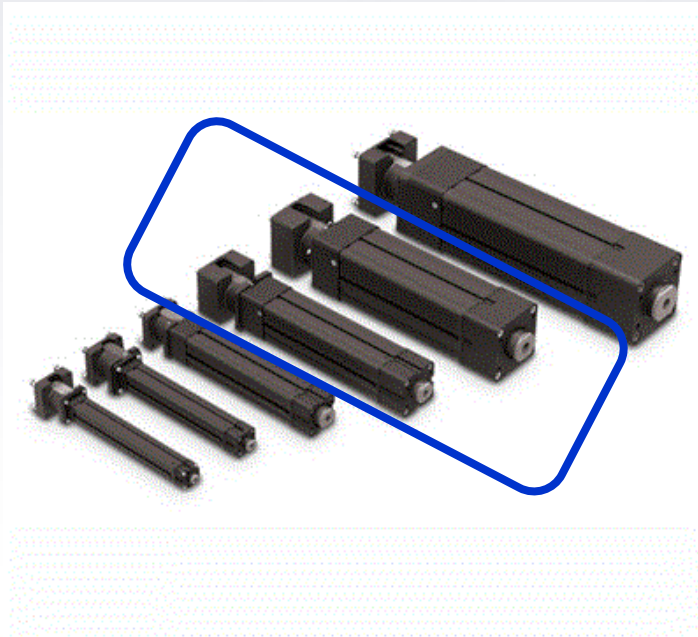
- The RSA products were on applications that replaced hydraulic systems. The one is a plastic pallet welder that welds plastic pallets 50 by 62 inches. Our actuators move the tooling in place so the plastic parts can be quickly welded together by high heat. Using actuator and servos gives them better control and feedback.
- The MX product was a competitive situation with another actuator company supplying actuator / motor and drive as a complete solution.
- Our core challenge was to help size all the actuators and double check all the motor selections.



# Solution:

## Path to Success:

- Customer visit at Tolomatic / Engineering MGR with team
- Responding to drawing request matching the motors
- Direct contact with their engineering team and our tech team Amir Rose
- Very good distributor sales rep calling on company Stephen Leeds of PowerMation
- Making delivery
- YMH



**Tolomatic Product:** RSA 32 / 50 & MXE32

**Qty:** 16 units x 3 systems

**Order:** \$75K in 2017

# Horse - CT Scanning Gantry:

RSM: Adam Farley

PDSI challenges were to supply a need for Veterinary Physicians/Technicians to have the ability to CT Scan large animals. PDSI already supplied small systems but this would be another world.



Distributor: **I-Automation**  
Outside Sales: Ryan Tipple



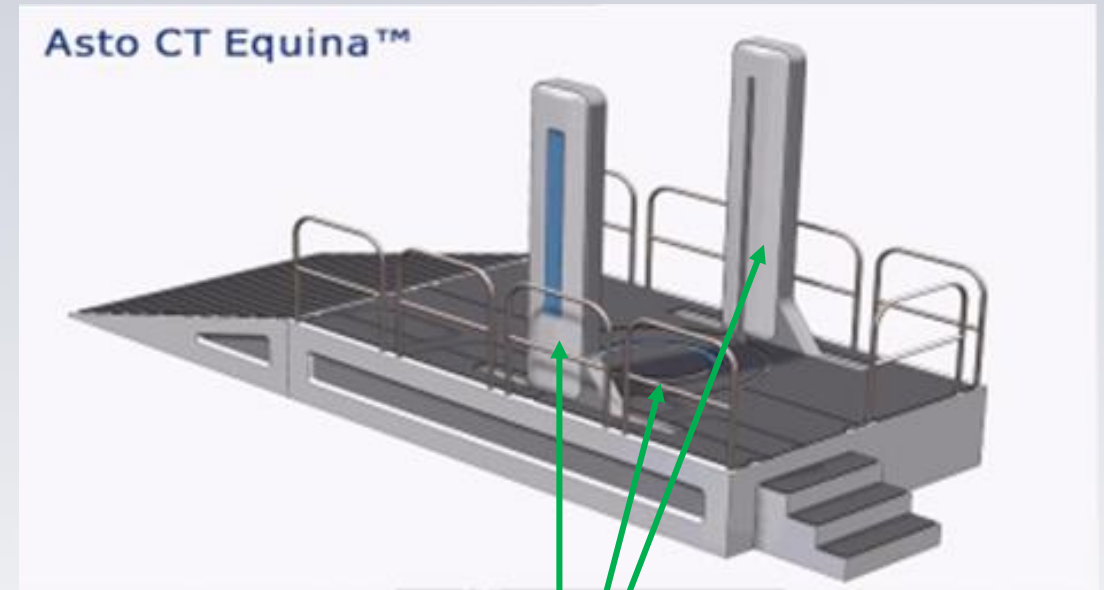
Customer: **PDSI (Photo Diagnostics Systems)**  
Harvard, MA

# Challenge/Opportunity:

Asto CT has designed a computed Tomography (CT) scanner with tracks along the insides of two columns designed to guide the vertical movement of a donut-shaped part that's initially flush with the ground and then rotated perpendicular to the ground. Making it possible to image animals heads legs and necks.

## Challenges:

- Lifting 3000 pounds vertical load (scanning head)
- Needs to be very durable for the environment
- Required outside manufacturing/engineering support
- Actuators and motion control





## Solution Design Details:

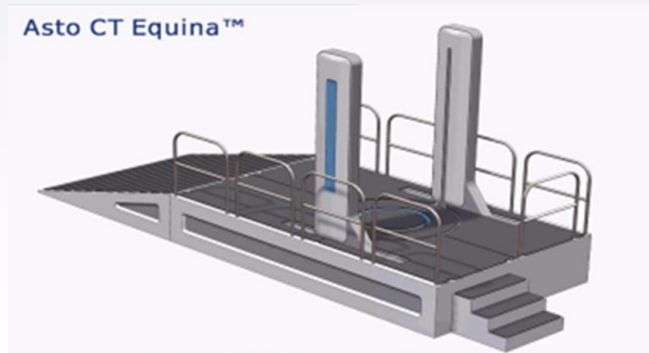
- A large steel framed gantry system (fully guided by large linear rail) would be designed to support the scanning head and its components.
- The Z axis actuators (using Tolomatic MXE63S) were selected due to its high thrust capability as well as using the MXE40S for the X axis transition. Safety was a big concern so from the Tolomatic side we did add a custom ball screw safety spring assembly and keyed motor mount.
- The drive system supplied by I-Automation is a Kollmorgen motor/drive combination with both axis of motion being Master/Slave to allow for synchronized motion along each axis.
- The prototype units was a huge success and were able to scan a very large Clydesdale horse during testing. The end goal for PDSI is to supply stand alone systems to Veterinary Hospitals and Horse racing facilities around the world.
- The next project will be to develop a mobile unit, stay tuned!



# Solution:

## Path to Success:

- Actuator with high thrust capability
- Quality and Performance
- Local and Factory support
- Fast lead times
- YMH (Kollmorgen motors) (keyed coupler)
- Custom Safety Spring ball screw assembly
- Custom rear mounting holes
- Price



**Tolomatic Product:** MXE 40S / 63S

**Qty of Actuators/sys:** 4 units per system

**Qty of Systems in 2017:** 8 systems

**Orders in 2017:** 8 systems @ \$100K



# Hormel – meat walking beam:

RSM: Dave Schmidt w/ Bryan Rindo

## Application Description:

Walking beam pulls sides of pork and beef through the chilling / aging process.



Distributor: **Skarda Equipment**  
Outside Sales: Chuck Evans



Customer: **Hormel Foods Corp**  
Austin, Minnesota

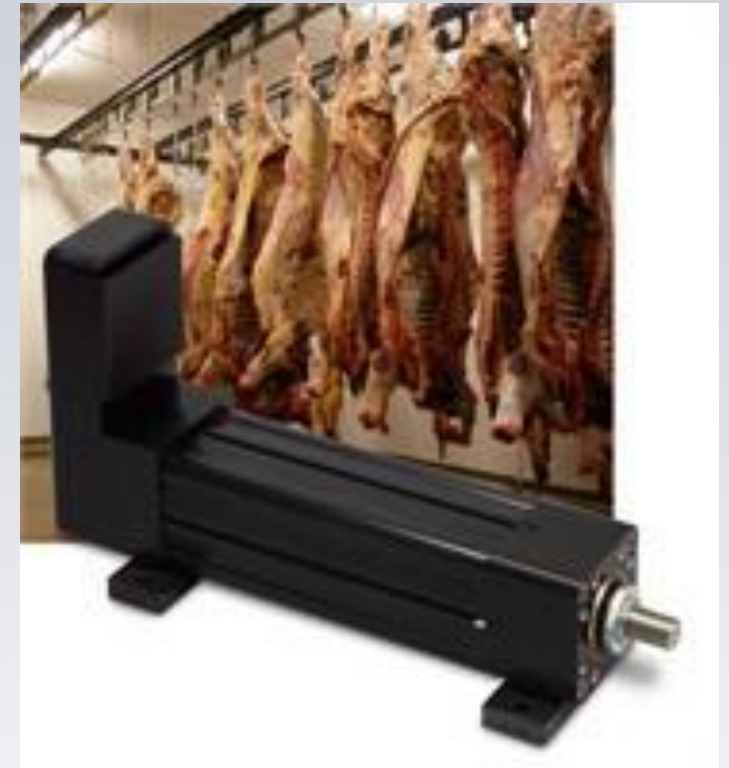
# Challenge/Opportunity:

A large meat processing plant was expanding and upgrading its facility. Due to contamination concerns, the company was evaluating whether to continue to use hydraulics with the "walking beam" application or to consider an alternative way of pulling sides of pork and beef through the chilling process.

Since there were large amounts of product in the walking beam areas, any leaks from the hydraulic cylinders could create a major contamination event which could cost large amounts of money in disposed product.

## Challenges:

- Meat contamination from hydraulic fluid
- Hydraulic operation under cold temperatures
- Difficulty in installation and service





# Solution:

## Path to Success:

- Years of discussion on concept
- Finally a Beta Site Test
- Twice customer had issues that required fast response and Skarda and Tolo met the task

## Benefits:

- Eliminated risk of contamination for pork
- Actuator with high thrust capability (HT)
- Reduced maintenance and operating costs
- Modified actuator mounts to fit hydraulic footprint
- Local and Factory support
- YMH (Kollmorgen motors)

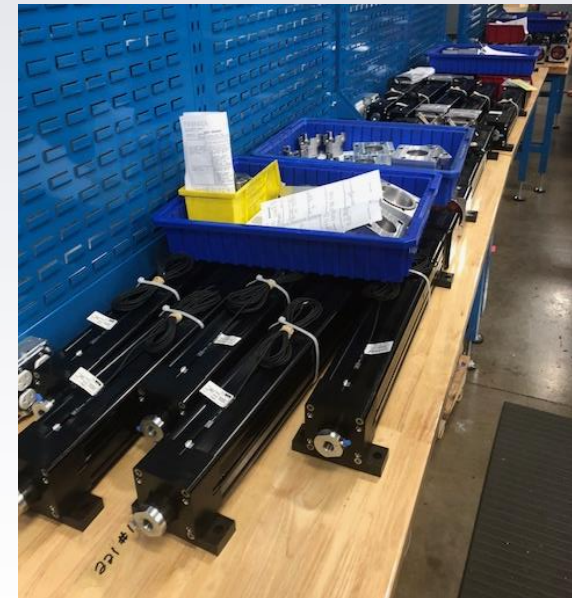
## Tolomatic Product:

RSA50-HT w/ BN02

Stroke: 18 inches (457.2 mm)

**Qty of Actuators:** 100 units

**Orders in 2018:** \$243K



# Jacobs – race car wind tunnel:

RSM: Brian Staines / Bryan Rindo

## Application Description:

Adjusting air flow paths in wind tunnel for race car set-up.

# JACOBS®

Customer: **Jacobs Engineering**  
Tennessee

Global engineering company:  
54,000 employees  
230 locations around the world  
\$10+ Billion in annual revenue

Confidential

# Challenge/Opportunity:

The project is diverting air within a wind chamber. This is done by moving large paddles to divert the air, moving the walls in and out, and changing how the ceiling is set up. The chamber is being used to test super cars so final adjustments can be made before they go to the track.

## Challenges:

- Competition with Thomson selling direct
- Need reliable and dependable actuators
- Wanted specific motors
- Needed a lot of engineering detail



# Solution:

## Path to Success:

- Jacobs found Tolomatic
- Lots of sales and engineering back and forth
- Patience on order timing and working through direct customer set-up
- Final installation will be in Japan
- Worked to accommodate already sourced motor and brakes into YMH

## Benefits:

- Reliable operation with little to no maintenance
- Engineering support through design/sales process
- YMH (Kollmorgen motors)

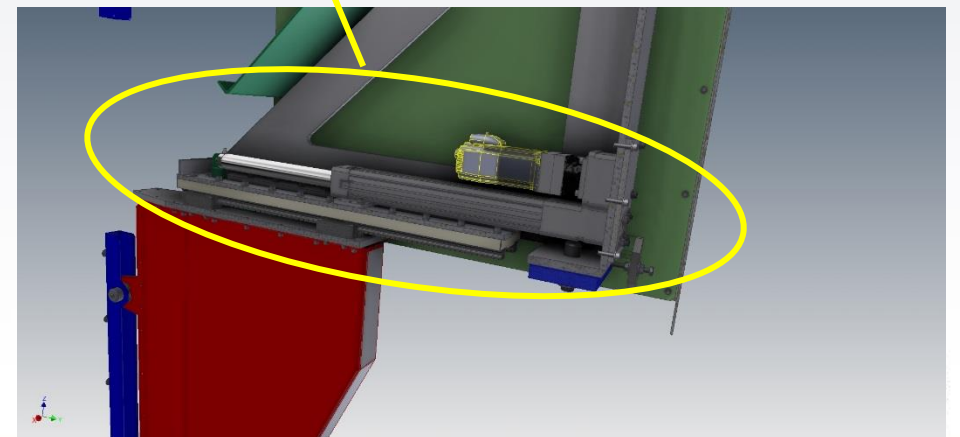
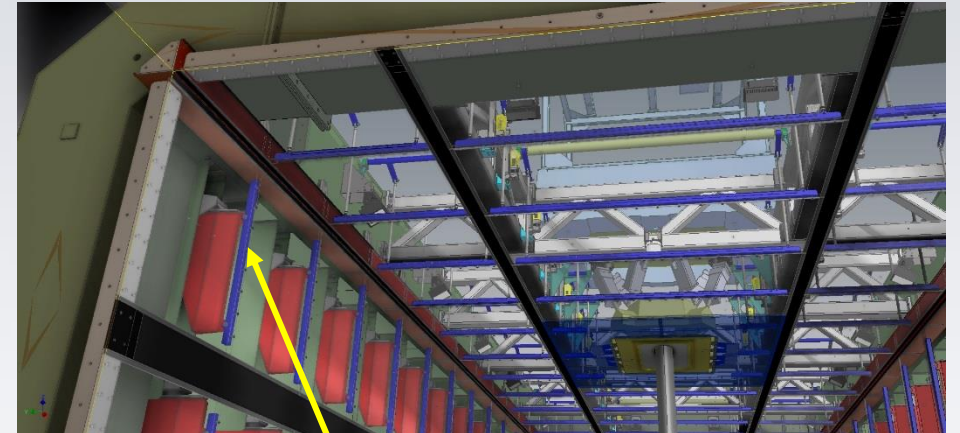
## Tolomatic Product:

RSM24 w/ RN04

Stroke: 10 inches (254 mm)

**Qty of Actuators:** 115 units ?

**Orders in 2018:** \$255K





# Automated Container-Size Bar Code Reader:



Customer: **Shuttleworth**

Huntington, IN

Shuttleworth has developed another conveyor “module” using Tolomatic linear actuators. These modules allow Shuttleworth to offer easily priced, fully tested and verified options when quoting a conveyor system to their end customers.

RSM: Brian Sondergeld

Distributor: Dewald

Other Tolomatic-based modules include:

- a B3W high speed escapement,
- their patented ACSi “bump” diverter,
- a B3W stacker,
- a long-stroke B3 based line accumulator.

Shuttleworth uses RSA’s, ERD’s, B3W’s, MXE’s, MXP’s, ACSi’s, and many other Tolomatic products in their (generally dry food based) custom conveyors.

# Automated Container Bar Code Reader

This application required a 2-axis system to position a bar code reader over a container of items just prior to sealing. Each unit inside the bulk box needs to be read and recorded to double check item picking and provide traceability.

Speed is essential on production lines, and Shuttleworth requested our actuators move at speeds up to 20 inches per second, and that the actuators be a minimum of 36" long. That 36" length will allow this module to be an option for over 80% of the conveyor systems Shuttleworth builds.

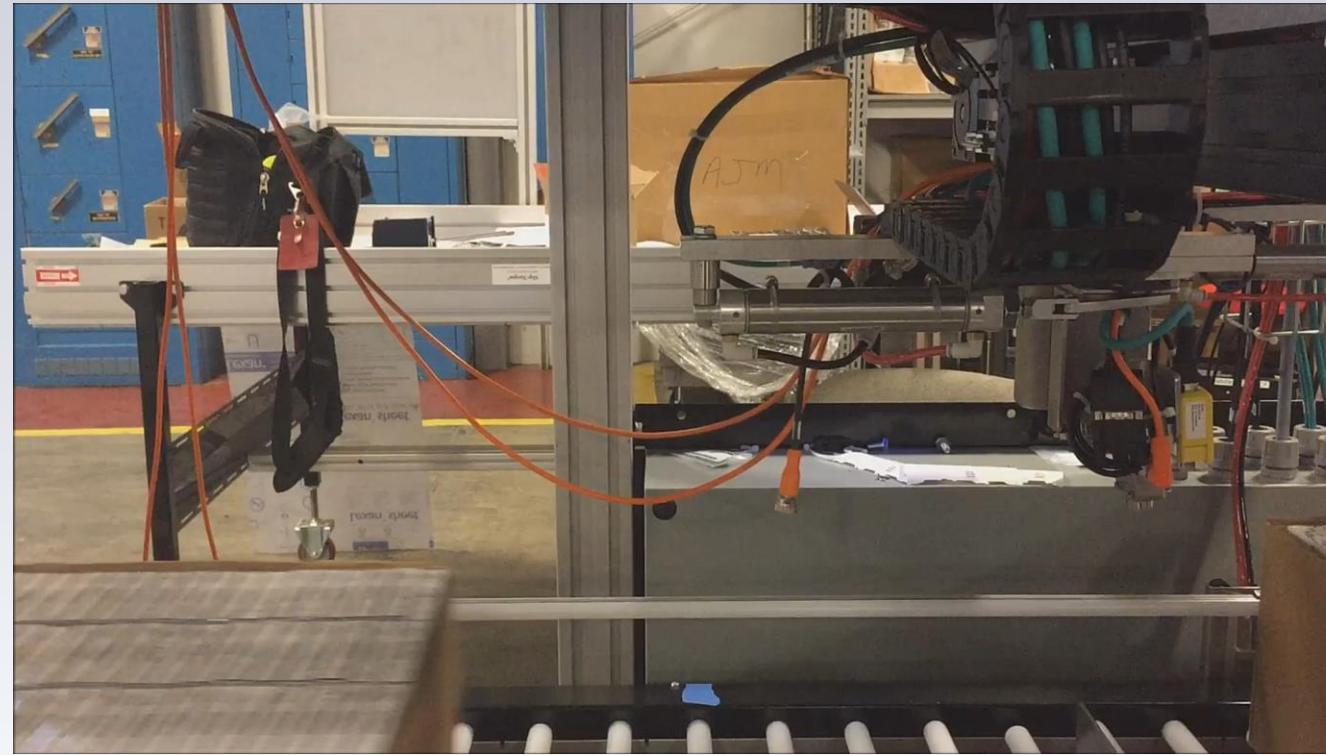
Shuttleworth loves the enclosed belt and robust design of the B3W, and that was their choice here. Since Allen Bradley is their preferred PLC supplier Shuttleworth selected our ACSi with Ethernet IP for easy compatibility.



# Solution

The pilot customer for this bar code reader module was Alcon, Inc. Based in Huntington WV, Alcon manufactures a wide range of contact lenses. The module shipped as part of a larger conveyor system in December 2017, with 4 more to follow in 2018. This will now be an option for most of the 100+ conveyor systems Shuttleworth builds each year.

Alcon required a full box of lenses be read in under 30 seconds with 99.9% reliability. The speed and stability of the ACSi+B3W achieved this easily.



*Shuttleworth/Alcon Contact Lense Bar Code Reader in Action*

# Food & Beverage

RSM: Stephane Renaud-Betz



Distributor:

**DELTA EQUIPEMENT**

15-19 rue Fernand Drouilly Bp 6  
92252 La Garenne-Colombes  
France

[www.delta-equipement.fr](http://www.delta-equipement.fr)



Customer:

**Fromageries Bel Production France**

2 Grande rue  
55110 Clery le petit

<http://www.groupe-bel.com/fr/>



# Food & Beverage

RSM: Stephane Renaud-Betz

## Challenges:

- Upgrade a cutting cheese machine from manual adjustment to a PLC controlled adjustment system.
- IP69K
- Siemens motor compatibility
- Resistant to aggressive washing product

Old Mechanical Cam System  
With Manual Adjustment



## Solution

Replace the actual mechanical cam system with an ERD ready for customer Siemens motor drive by the PLC machine. To complete the ERD, DELTA proposed a bushing system complying the food environment that helped the customer to drop in place of the old system.



**Units Sold:**

Tolomatic Product Family: ERD

**Product Used:** ERD20BNM20SM600.

IP 69 ARI

**January Order:** 16 pieces for  
>\$20,000

Confidential

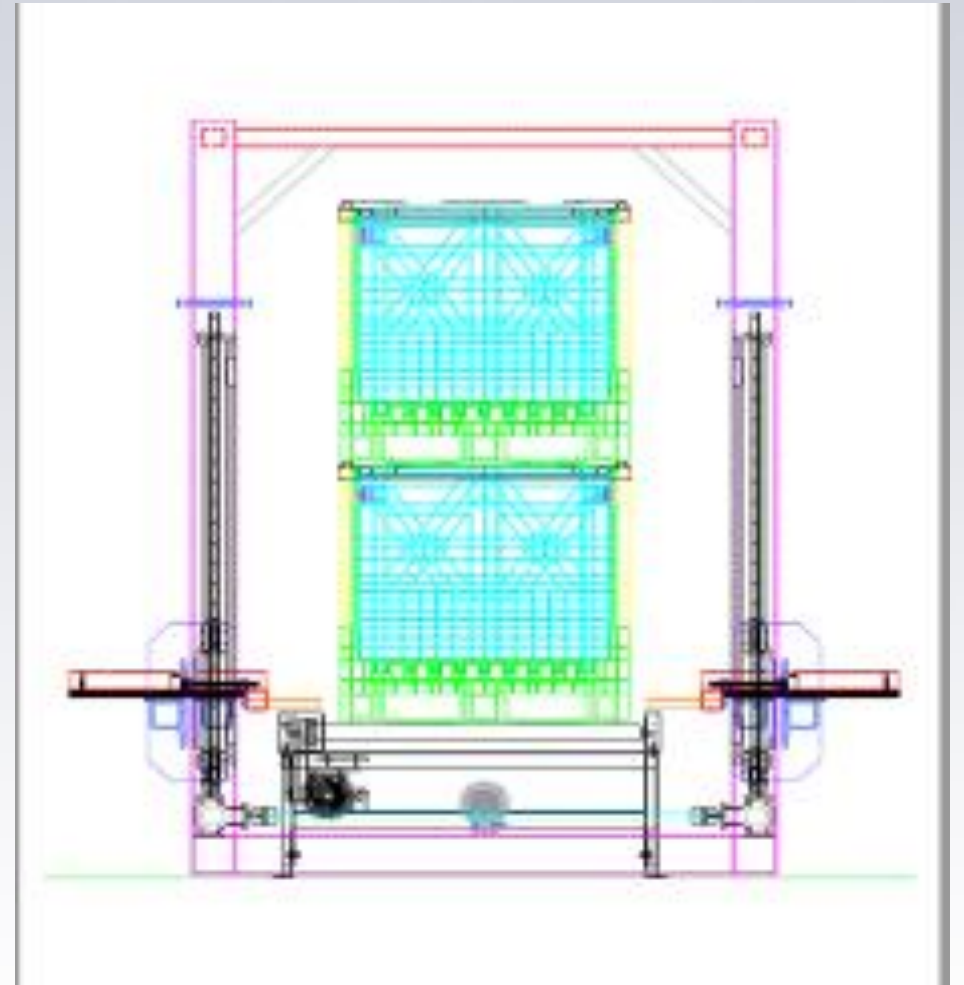
# TEC Engineering:

## Opportunity:

Needed a reliable, high duty cycle tote lift system. Large actuators were needed and there were 84 tote lift systems.

## Solution Design:

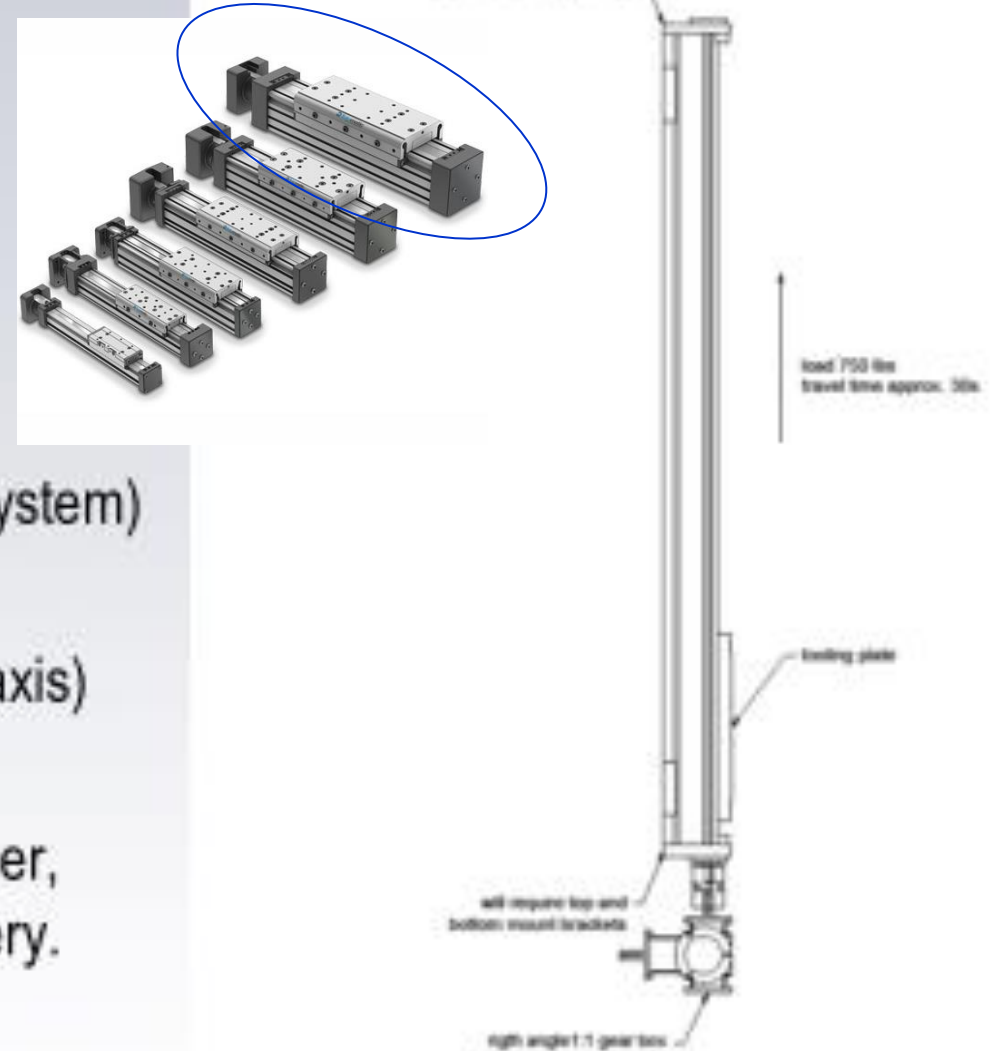
Worked with Adam Farley and i-Automation to appropriately size the actuators and confirm duty cycles.



## Significant Win in 2017:

Opportunity/End user: TEC Engineering/PG

- Distributor: I-Automation
- Application: Pallet/Tote lift Station
- Product: Slide Rite gearbox/MXE63S (Qty: 2 per system)
- Value of deal: 275K (Qty: 84 - stacker lift)
- + Qty: 40 - MXP50P units for downstream transition axis)
- Competition: Intek
- Driver for change/win: Already a Tolomatic customer, support, product performance, reliability and delivery. Great price as well!





# The Challenge



## What They Make / Do:

- Commercial Camera Equipment
- Mobile photography studios

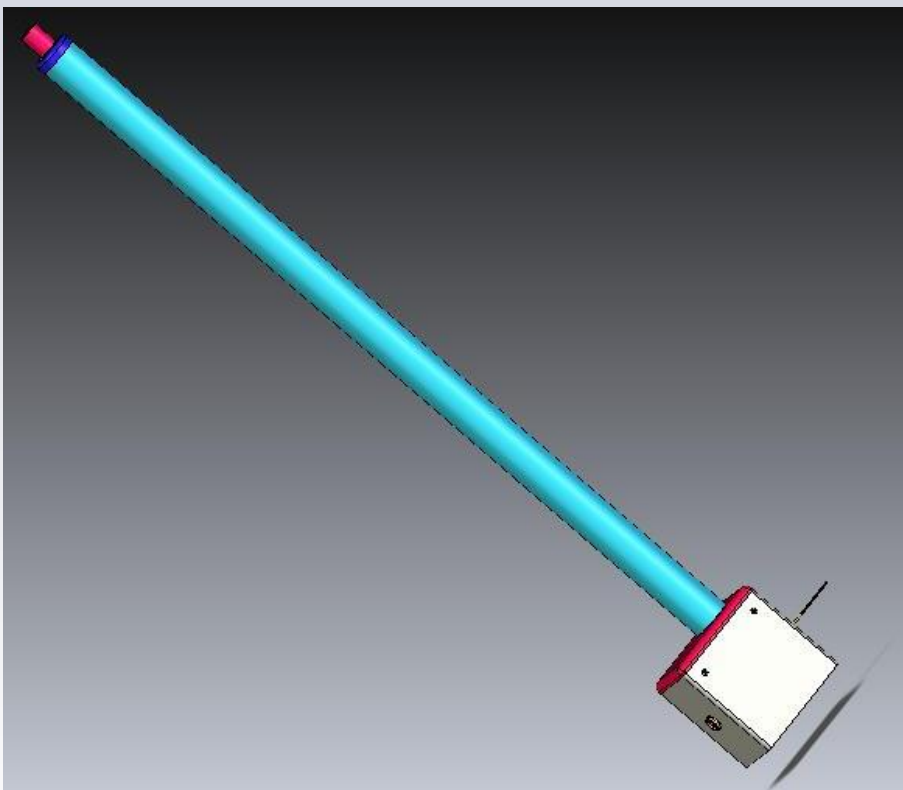
## Application Requirements:

- 500,000 start and stop moves
- Anti rotate rod

## Cost Target / Volume

- \$500.00
- 1,500 units over three years

# The Tolomatic Solution



## Technology Used:

- Custom Rod Screw Actuator

## Solution Description:

- Custom internally keyed tube
- Custom integrated stepper motor/drive
- Custom clocked acme nut

## Progress to Date



## Where are we at?

We have built and shipped 1500 actuators to date.

Five year potential could reach 6,000 units





# Pneumatic and Power Transmission Application Wins



# Counter Balance Lifting

RSM: Dave Schmidt



**Distributor:** Shepherd Controls  
Allen, TX

Website: [www.shepherdcontrols.com](http://www.shepherdcontrols.com)



**Customer:** Arc Specialties  
Houston, TX

**Product produced:**

- Robotic Welding Systems

Website: [www.arcspecialties.com](http://www.arcspecialties.com)

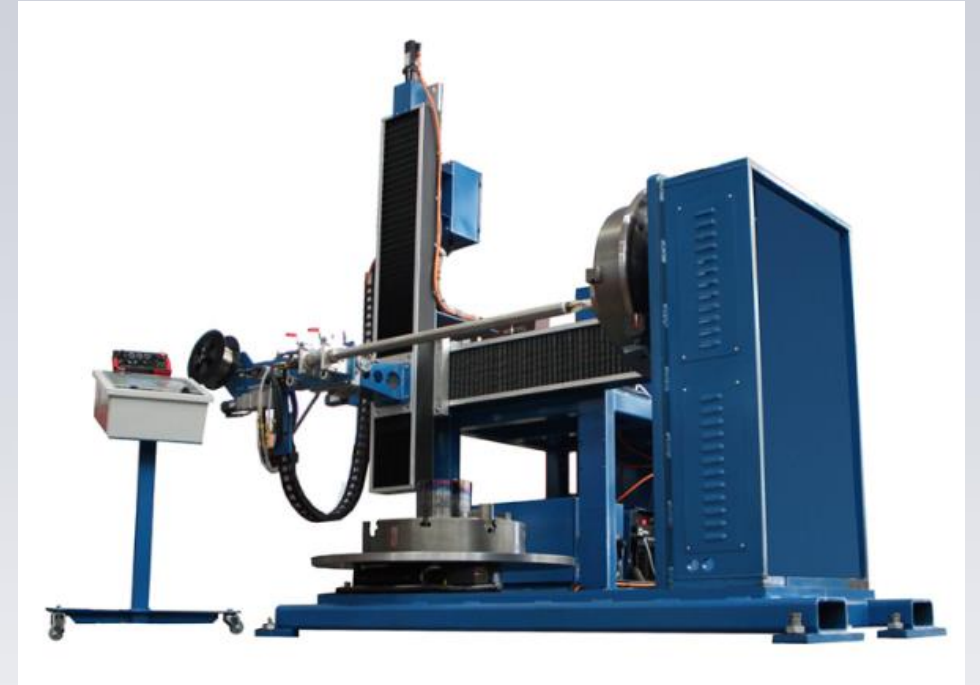
# Counter Balance Lifting

## Challenge:

- Assisting a ball screw assembly to lift the weld head
- Minimize/reduce the torque and wear on the motor

## Solution:

- Single Acting Cable Cylinder



Robotic Welder

**Units Sold:** Qty: 250+ over 8 years

**Tolomatic Product Family:** Cable Cylinder

**Product Used:** SA50\SK109\XA10

**Future Potential:** RPNOEM

# Counter Balance Lifting

## Spreadable to other Industries

- Counter Balance Applications
- Overhead Doors
- Safety Mechanisms





## Food & Bev WIN

**RSM: Brian Sondergeld**

**Customer:**

**A & B Packing Equipment**

Lawrence, MI

**Distributor: HH Barnum**

**Industry:**

**Food Packaging**

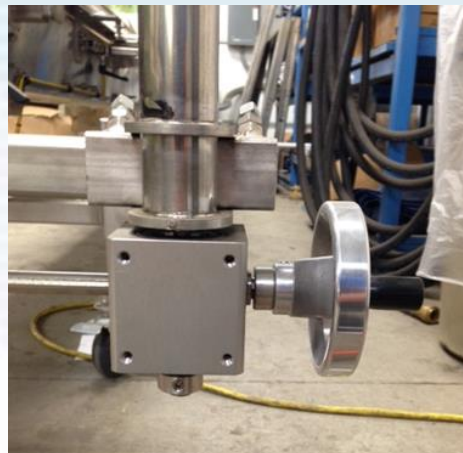
**Sales Rep: Brett VanPutten**

**Website:**

<http://abpacking.com>

### **Application Description:**

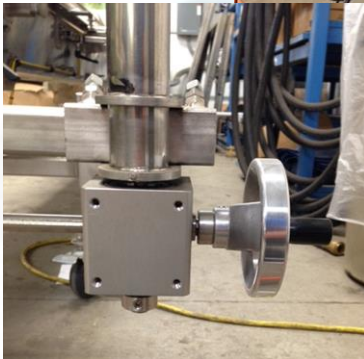
Height adjustment for field berry packaging line. Four adjusters per machine.







## Application Solution



### **Units Sold:**

80 Shipped in June 2015  
Ongoing business – RPNOEM

### **Customer's Challenge:**

Exposed right angle gears difficult to maintain, and fail prematurely

**Solution:** Tolomatic's SRG-CR  
Corrosion Resistant Slide Rite Gear  
Boxes

### **Product Used:**

PN 01200420

Compact Corrosion Resistant SRG 1:1  
Ratio

### **Results:**

Vastly increased reliability, reduced  
maintenance, lowered assembly time,  
overall costs reduced.

# Hargreaves Application WIN Information

**RSM: Keith Hogan**

**OEM Brake Customer:**



<http://www.ajhplant.com/about-us>

**Customer: multiple**

**2012 Sale: \$600k USD**

**2013 Sale: \$250k USD**

**Industry: Transportation**

**What they make or manufacture:**

Repair/Upgrade railway maintenance equipment

# Hargreaves Rail Mounted Excavators

