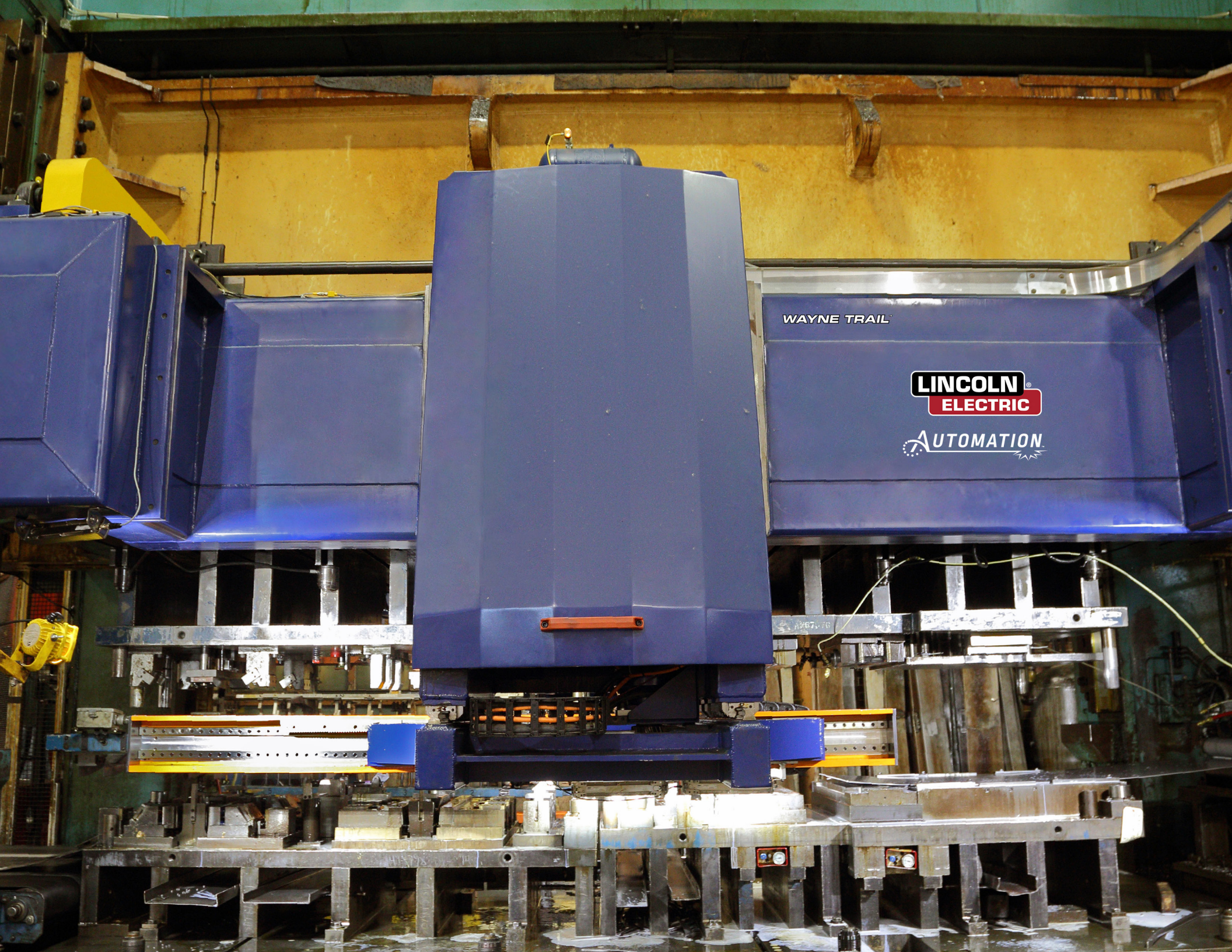
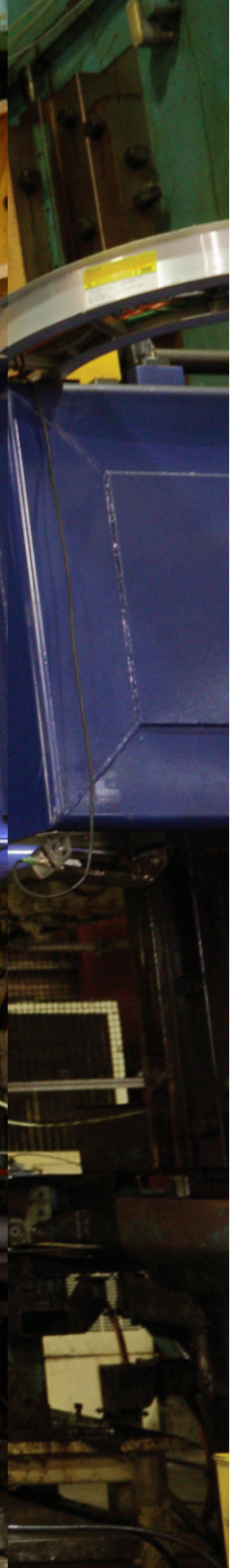
PRESS AUTOMATION SYSTEMS

LINCOLN ELECTRIC AUTOMATION


WAYNE TRAIL
LINCOLN ELECTRIC
AUTOMATION



Press Automation Systems

Metal stampers face a competitive, increasingly high-mix, low-volume environment, placing flexibility and efficiency at a premium. At the same time, keeping production costs in check, let alone reducing them, grows more important — and more difficult —as production lot sizes shrink and product design changes increase.

Servo transfers and automation system modules can be added to new or used presses to deliver maximum, multi-purpose flexibility, enhancing your stamping performance and boosting productivity. This programmable, servo-based automation for transfer dies also gives operators the ability to run coil-fed, progressive dies as desired. **Available systems include:**

- Front- and-back-mounted servo transfer systems
- “Through-the-window” servo transfer systems
- Press-to-press automation
- Stackers, destackers, and conveying systems

All transfer systems include an easy-to-use touch-screen PC-based operator interface with full featured prompts, diagnostics and fault logging capabilities. Centralized control packages maximize uptime while simplifying setup, changeover and preventive maintenance requirements.

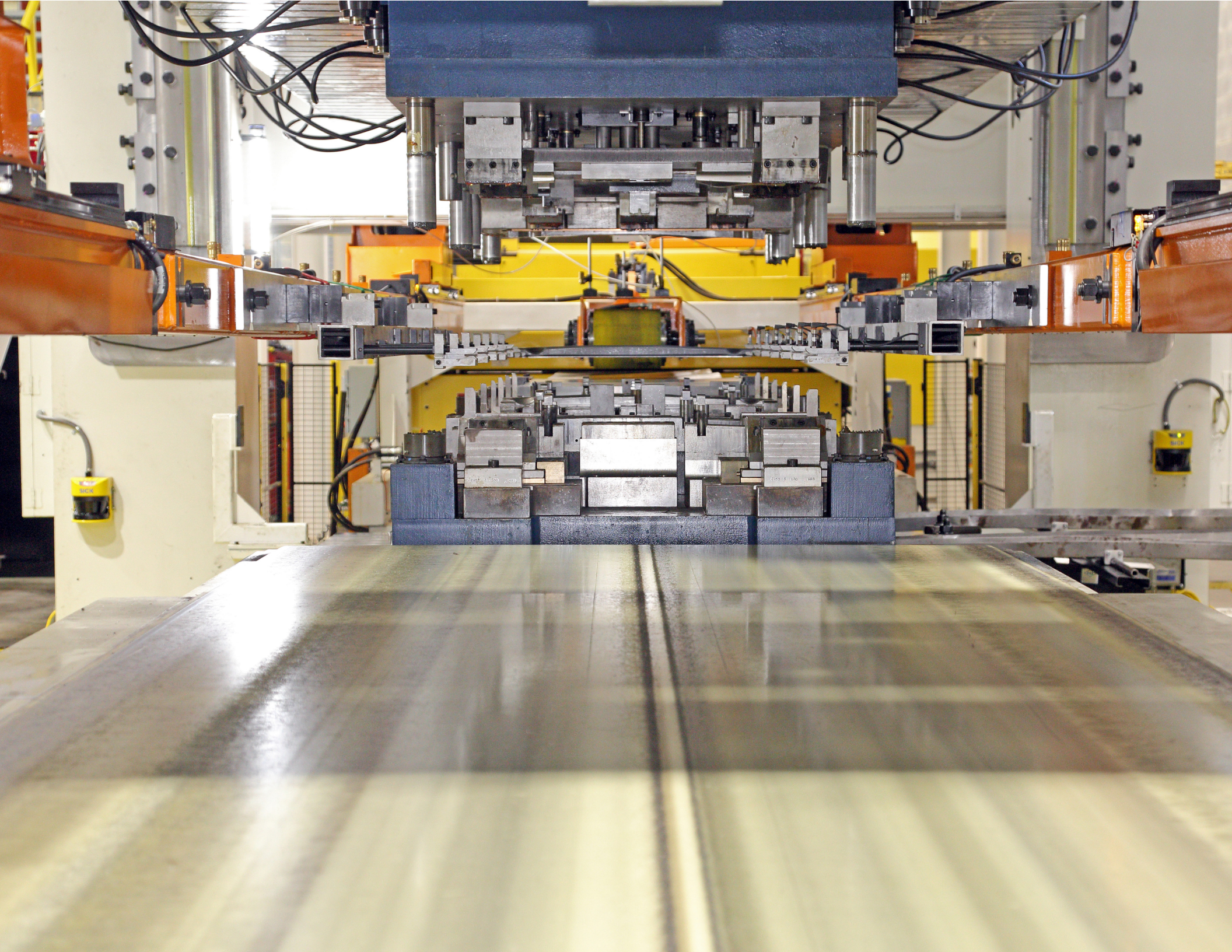
Front and Back Mounted Servo Transfer Systems

The WTTBD front-and-back-mounted transfer system allows you to run parts that are effectively the full width of the press window. Commonized lift/pitch/clamp modules mount with brackets on both sides of the press, so they never interfere with existing coil feed or conveyor equipment. Module design minimizes motion and weight, keeping inertia to a minimum.

Standardized module design and simplified mounting techniques enable lower cost and quicker delivery. With a safe, ergonomically-friendly operation for the end user, modules can be moved offline quickly and easily, providing access for die maintenance or changeover.

“Through-the-window” Servo Transfer Systems

The WTTS “through-the-window” style transfer system can be provided when maximum visibility is required in the die area. A variety of coil, blank and finished part handling options can extend beyond the confines of the press window area. This allows this system to offer customizable transfer bar options and gripper or finger configurations for any die and part handling requirement.



Press-to-Press Automation

Efficient parts and material handling is crucial, especially where multiple presses are working together. Effective and affordable automation systems are available for nearly any press-line arrangement — whether existing, upgraded or completely new — typically without any modification to footprint or foundations. Available components include:

- Fixed automation solutions
- Robotic transfer solutions
- Modular conveyors for between-press part handling
- Reorientation and centering modules

Stackers, Destackers and Conveying Systems

A wide range of custom destacking solutions address even the most difficult and unusual applications. Systems work with palletized or pallet-less material, in single or multiple stack configurations. When purchased with a servo transfer, the destacker automation fully integrates into the transfer control, simplifying operation and troubleshooting.

End-of-line blank stackers include adjustable stack guides and tamping units to ensure creation of straight stacks. Stackers can be configured to accommodate continuous-run, blank inspection, and to create multiple stacks on a single pallet.

Design Features

Equipment designs based on years of experience include a variety of features that provide production flexibility, high accuracy, light weight, long life and extreme reliability.

- Helical rack and pinion drive train system
- Maintenance-free linear bearings
- Counter balanced lift axis
- Aluminum and/or steel weldments as required
- Common drivetrain components
- Low deflection aluminum or steel transfer bars
- Can operate in multiple feed directions: R/L, L/R, 2-lane, U-turn

Standard Features

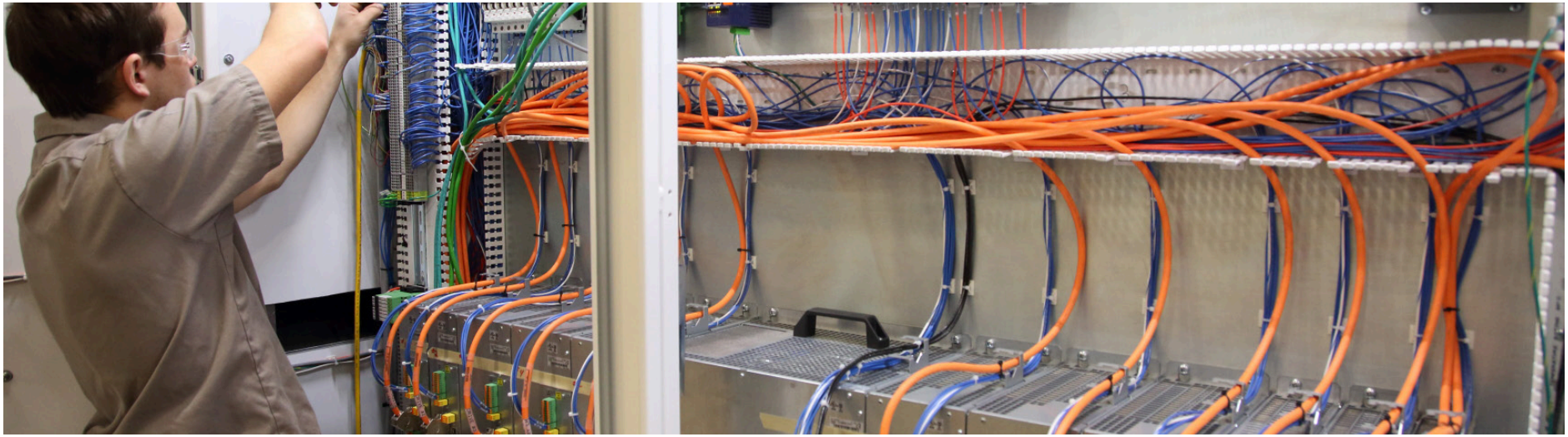
- PC-based operator interface
- Press mounted encoder
- Automatic lubrication system
- Remote diagnostics
- Startup and training support

SIDE MOUNT
TRANSFER UNIT SPECIFICATIONS

	Payload (Parts and Tooling) lb (kg)	Bed Length in (mm)	Positioning Accuracy in (mm)	Pitch Stroke in (mm)	Clamp Stroke in (mm)	Lift Stroke in (mm)
WTTBD-I	150 (68.0)	<180 (4572)	<0.002 (0.05)	36 (914.4)	36 (914.4)	24 (609.6)
WTTBD-II	300 (136.0) @ 150 (68.0) per module	<180 (4572)	<0.002 (0.05)	36 (914.4)	36 (914.4)	24 (609.6)
WTTBD-IIHD	500 (226.8) @ 250 (113.4) per module	180 (4572) to 240 (6096)	<0.002 (0.05)	48 (1219.2)	36 (914.4)	24 (609.6)
WTTBD-IV	600 (272.1) @ 150 (68.0) per module	>240 (6096)	<0.002 (0.05)	36 (914.4)	36 (914.4)	24 (609.6)

END MOUNT
TRANSFER UNIT SPECIFICATIONS

	Payload (Parts and Tooling) lb (kg)	Bed Length in (mm)	Window Width in (mm)	Positioning Accuracy in (mm)	Transfer Stroke in (mm)	Lift Stroke in (mm)	Distance Between Bars in (mm)	
							Min	Max
WTTS I	200 (90.7)	<96 (2438.4)	<48 (1219.2)	<0.002 (0.05)	18 (457.2)	4 (101.6)	14 (355.6)	Window opening minus 11 (279.4)
WTTS II	300 (136.0)	96 - 168 (2438.4 - 4267.2)	48 - 72 (1219.2 - 1828.8)	<0.002 (0.05)	24 (609.6)	6 (152.4)	16 (406.4)	Window opening minus 12 (304.8)
WTTS III	500 (226.8)	168 - 240 (4267.2 - 6096.0)	72 - 96 (1828.8 - 2438.4)	<0.002 (0.05)	36 (914.4)	9 (228.6)	24 (609.6)	Window opening minus 21 (533.4)
WTTS IV	600 (272.1)	>240 (6096.0)	>96 (2438.4)	<0.002 (0.05)	48 (1219.2)	12 (304.8)	26 (660.4)	Window opening minus 26 (660.4)



Installation and Startup Services

Expert installation and startup support ranges from simple supervision and training to turnkey installation on every system sold. Our field team is here to help you quickly bring your system up to full production capacity. Services include:

- Shipping and logistics
- Foundation preparation
- Rigging
- Wiring and piping
- Area barrier safeguarding
- Site supervision
- Production support
- System integration with 3rd party-vendor equipment
- Retrofits with existing processes

Product Support

Our product support team is here to help in any situation – from implementing your first processes to reconfiguring an existing system to new requirements. We understand how important uptime is to productivity and your bottom line. That's why we offer such services as:

- Engineered spare parts packages
- Consulting on upgrades
- Coordination of system relocation
- On-site refurbishment
- Factory rebuilds
- Warranty support
- Preventative maintenance

CUSTOMER ASSISTANCE POLICY

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