

Automation Group



An Employee Owned
Company

PENN UNITED TECHNOLOGY INC.
Where quality is a way of life.

...by combining our areas of manufacturing expertise

Penn United Technology's Automation Group combines over 30 years of manufacturing expertise that ranges from high speed stamping to connector assembly. This experience creates a unique approach to automation which is based on an explicit understanding of these manufacturing processes. Penn United's Automation Group grew out of its own internal needs to respond to the demand for increased productivity and profitability. Early efforts of our tool and die makers and engineers to improve and expand internal production to meet customers' needs laid the groundwork for the current expertise that Penn United's Automation Group brings to customers.

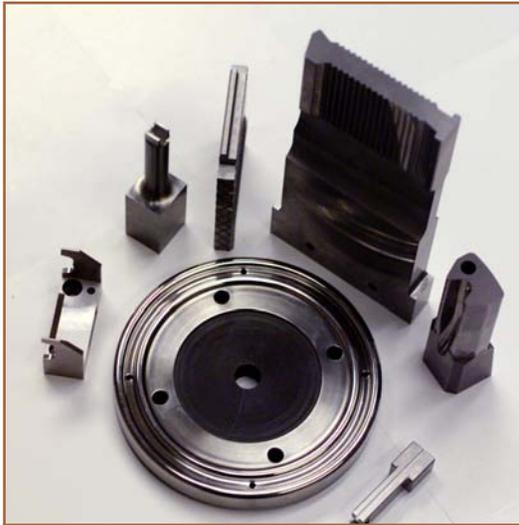
Offering complete automated in-line processes, turnkey precision assembly systems, automated inspection stations, flexible robotic work cells, and part handling solutions, Penn United's Automation Group meets and exceeds customers' automation needs.



Stamping



Plating

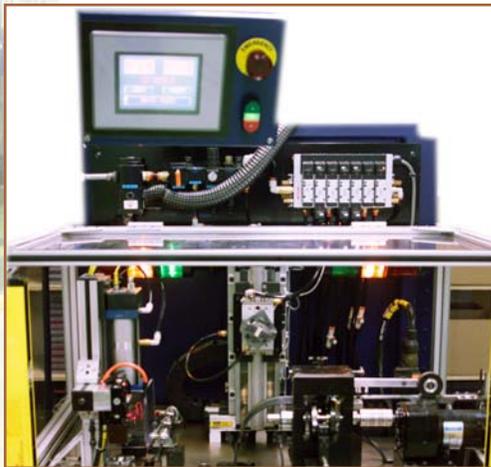
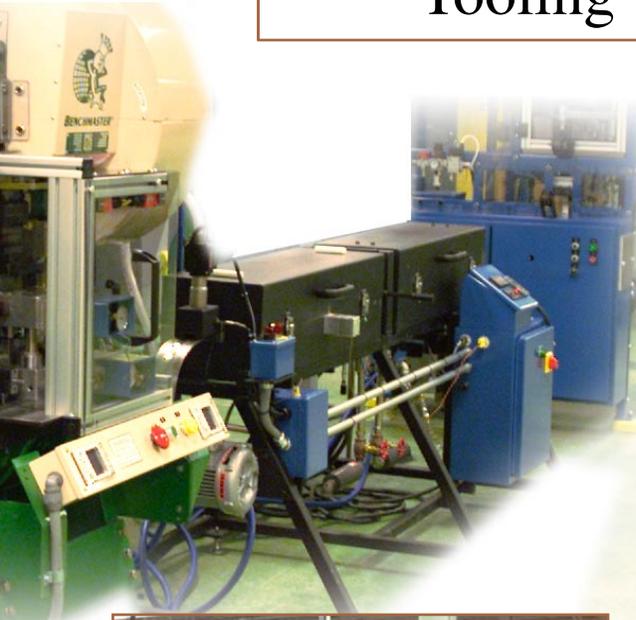


Tooling

Penn United's industry leadership in a variety of manufacturing technologies has given its Automation Group a technical edge that sets Penn United apart from other automation providers.

Simply stated, Penn United's approach to automation emerges from over 30 years of designing and implementing automation into its own production processes. That's why when a customer requires quality precision automation,

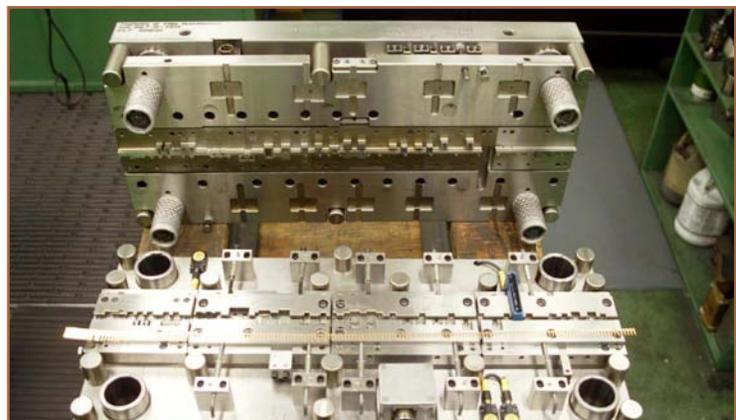
Penn United's Automation Group *delivers.*



Assembly



Monitoring,
Inspection &
Electronics



Dies

Complete Automated Production Systems



(Above Top): The stamping station consists of two presses running dies that were designed and built by Penn United.



(Above Bottom): The heat-treating station allows parts to travel through two computer-controlled ovens



The automation system pictured above is one example of an in-line stamping station, a heat-treating process, and a separation station

...by integrating manufacturing



(Above): The plating section of this system combines cleaning, and precision plating.

Right: The press runs a die that was designed and built by Penn United.



The in-line system below begins with an inspection station, and lastly a stack





In the final stage, parts are removed from their production strip, tested, and stacked.

In-line automation represents one example of the way Penn United's Automation Group provides manufacturing solutions for its customers. These solutions provide complete production in a way that controls the process while increasing productivity.

In-line automation represents one way that Penn United's Automation Group combines its areas of manufacturing expertise into turnkey automated solutions.

-line production system that includes a on.

multiple g technologies

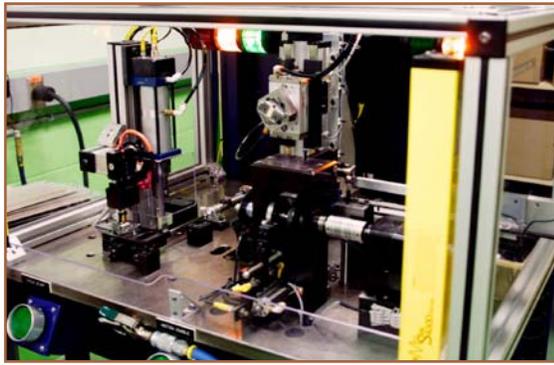
with a stamping station, continues through a small eletcro-plating line, an
cking system.

(Below Top): Parts enter an inspection station after being stamped and plated.

(Below Bottom): A stacking operation finishes the process.



Automated Stations



This precision assembly machine uses cam timing to separate and insert contacts into a servo controlled x-y load pattern, as well as verifying continuity through the loaded connector, and adding heat stake retention for a finished connector assembly.



This machine automatically unloads electrical connecting tubes, transports the connectors via conveyor station and a laser part number marking station, and returns connectors back into a packaging tube.

...that enhance part of your existing manufacturing process



(Above Left): Penn United provides specialized press room automated equipment such as the double-sided wire payout / straightener shown here.



(Above Right): Machine vision cells are customized to accommodate specific applications. Pictured here is a vision inspection unit placed before the take-up reel in a stamping process.



This system is an automated grinding machine capable of grinding small diameter parts. It includes a feeder bowl, material handling, a cleaning system and final packaging.



ectors from plastic pack-
into a pin counter
then reloads the con-



The PULSE 2001 functions as a die protection monitor and peripheral press room equipment control. PULSE boxes can be used with multiple dies.

Penn United's Automation Group not only designs and builds complete automation *systems*, but also has plenty of experience working with its customers to automate individual segments or components of a larger manufacturing process.

Whether the customer needs an automated secondary operation like plating, insertion, or packaging, Penn United possesses the needed experience from implementing similar automation in its own production processes.

rocess



This customized station was designed and built by Penn United's Automation Group for the purpose of fly-cutting precision notches into one side of a coil of strip.

Penn United is a Preferred Integrator partner with Adept Technology, Inc. and is capable of providing flexible robotic work cells.



centerless grinding and cleaning cell
iameter parts. It includes the integration
handling features, grinding capabilities, a
art palletizing.



PENN UNITED TECHNOLOGY INC.

Where quality is a way of life.

- **Complete Automated Production Systems**
- **Automated Stations**
- **Flexible Robotic Cells**
- **High-Speed Precision Assembly**
- **Part Handling / Placement Systems**
- **Machine Vision Systems and Monitoring**
- **Special Press Room Automation Equipment**
- **Electrical Panel Design / Build**
- **Customized Machine Platforms and Guarding**

Complete Automation Services:

- **Mechanical and Electrical Design**
- **Development**
- **Testing**
- **Manufacturing**
- **Set-up**
- **Training**
- **Support Services**
- **Special Diagnostic Services**



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