

Pressroom Automation Innovations

Atlas Customers (partial list)

Automotive Industry (including suppliers)

BMW Rover Group (UK)
 Chrysler Corporation
 Ford Motor Company
 (N. America and UK)
 Fruehauf
 General Motors
 (N. America, UK, Poland)
 Renault S.A. (France)
 Toyota Motor USA
 AC Delco
 A.G. Simpson
 A.O. Smith Automotive
 Active Industries
 Arvin Industries
 Benteler
 Borg-Warner
 Budd Company
 Dana Corporation
 Edgewood
 Fabricated Steel Products
 Hawthorne Metal Products
 Johnson Controls
 Kastle Steel
 Krupp Camford Pressings (UK)
 LDV Vans (UK)
 Lobdell Emery
 MascoTech Forming Technologies
 Mayflower
 Metalsa (Mexico)
 Midland Steel Products
 Midway Products
 Monroe
 Motor Panels
 MTD Automotive Products
 Namasco
 Powerlasers
 Procoil
 South Charleston Stamping
 Spartanburg Steel Products
 Tower Automotive

Appliance/HVAC Equipment

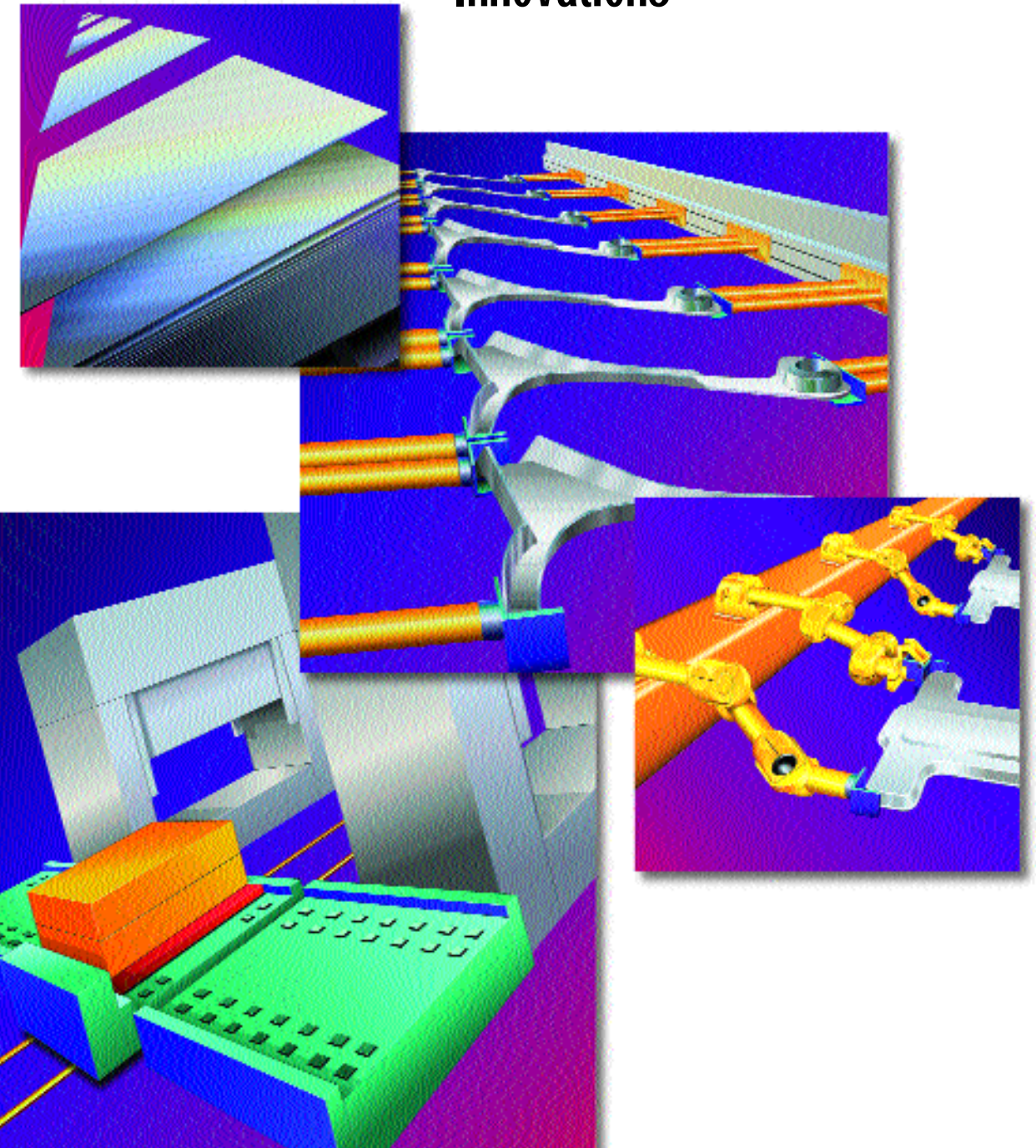
Amana
 Caloric
 Carrier
 Dixie Narco
 Fedders
 Frigidaire
 General Electric
 Inglis
 Keystone Lighting
 Lennox
 Lithonia Lighting
 Maytag
 Rheem
 Roper
 Trane
 Thomas Lighting
 Whirlpool

Outdoor Equipment

American Yard Products
 Caterpillar
 John Deere
 Murray Ohio
 MTD
 New Holland
 Snapper

Other Durable Goods/ Pressroom Equipment Builders

Abbey Etna
 Comau
 Dow - United Technologies
 Fanuc
 Hitachi
 IHI
 Ingersoll-Rand
 Leggett & Platt
 Minster
 Newcor
 Schuler
 Stanley Door
 Verson
 Wilson Automation



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Atlas: The Pressroom Automation People

Our Mission: Help Stampers Get More Production Value Per Press

At Atlas, our entire business is centered around the goal of optimizing the movement of your sheet metal and dies during stamping processes – in short, solving your pressroom production problems and taking advantage of automation opportunities.

We design and build die change systems and part-handling automation that give you more production value per press in terms of efficiency, flexibility and product quality.

In hundreds of applications within the automotive, appliance, lawn and garden, contract stamping and other industries, profit-enhancing benefits have included:

- Maximized press uptime with more throughput per press
- Faster response to changing production schedules
- Improved quality assurance
 - less manual handling of blanks and work-in-process
 - ability to quickly pull and service dies to satisfy quality concerns
- Profitable batch runs
- Inventory reduction to meet Just-in-Time requirements.

Our Resources

Atlas is a full-service resource with over 30 years of experience. We have complete in-house capability for total system responsibility, mechanical and controls design, fabrication, machining, assembly, test, installation and training.

Integrating and simplifying pressroom controls is a daily activity at Atlas. Seamless, reliable operation of sheet metal handling automation, presses, and die change equipment is an Atlas specialty.



Atlas is ISO 9001 certified, encompassing sales, purchasing, engineering, manufacturing and support.

Our team of approximately 200 professionals utilize over 100,000 square feet of modern manufacturing, engineering and office space. Manufacturing facilities are located in Fenton, Michigan, with regional sales offices in the UK and China. Atlas is owned by Michigan-based holding company Productivity Technologies Corporation (PTC).

In this brochure, we'll outline our three automation product lines: die change and die handling systems, in-press transfer automation and tooling, and sheet metal handling systems.



▲ Large die handling and sheet metal handling systems are assembled, staged and tested at our Technical Center, one of two Atlas manufacturing facilities in Fenton, Michigan.



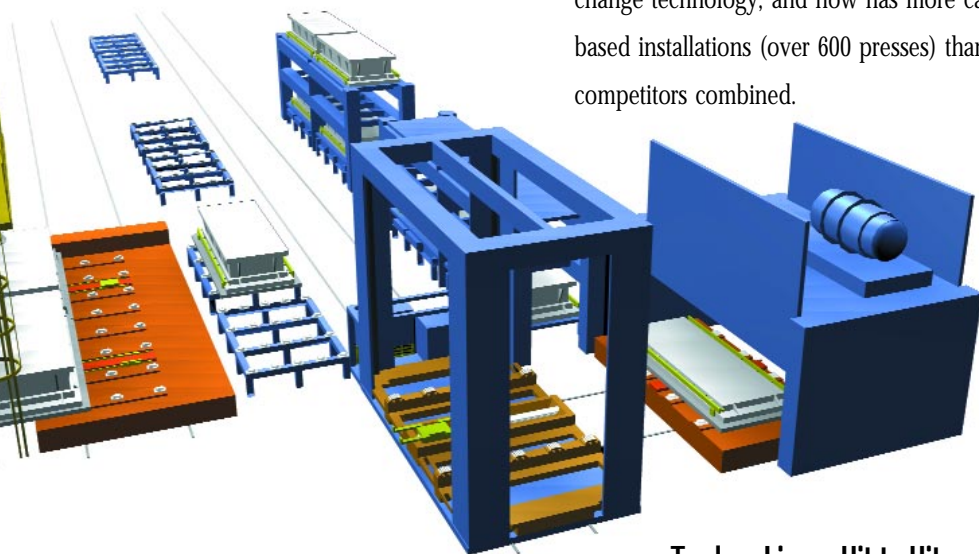
Atlas can help you with all aspects of in-press transfer operations. Atlas FLEX Finger Tooling is a modular system of quick setup components, including grippers, shovels, and sensors.

Die Change and Die Handling Systems

Fast response to changing production schedules...profitable batch runs...ability to quickly pull and service dies to satisfy quality concerns...maximized press uptime. These are the ways that Atlas agile die change and die handling systems turn the realities of today's pressroom into profit opportunities.

Atlas has the most comprehensive array of proven die change systems in the industry, including die carts and racks, die tables, automatic storage/retrieval systems, separator/turnovers, and other equipment... all custom-applied from standardized and modular components. Atlas pioneered die change technology, and now has more cart-based installations (over 600 presses) than all competitors combined.

Die handling systems can include wash stations that are integrated with die change and die storage/retrieval.



Tandem Lines: Hit-to-Hit Changeover in Under Three Minutes

Atlas die cart and cart/rack systems are installed on over 130 tandem stamping press lines in the transportation, lawn and garden, appliance and HVAC industries.



Automotive body panel stampers are achieving completely automatic, "one-button" die changeover with Atlas systems. Here, between-press automation automatically moves out of the way as seven die carts simultaneously move in and exchange the dies.

Die carts and/or die racks can be standing ready with pre-staged dies for the next production run, cutting press downtime to absolute minimums. Some Atlas systems perform hit-to-hit changeover in less than two minutes.

Single Press Applications

Die change systems let you get the most out of a blanking press, transfer press or progressive die press.

Atlas has designed carts to fit all kinds of pressroom layouts...even the most cramped... while allowing clearances that minimize interference with other presses during changeover. On a transfer press, dies can be changed over as one unit quickly with one die cart.

Atlas also provides bolster extensions and die lifters for rolling dies in and out of the press, as well as in-press die clamping.

In-Press Transfer Technology

Faster, More Efficient

The patented Atlas FLEX 5000® and FLEX 2000 are programmable, servo-driven in-press transfers, for new or existing presses, that give you 25 to 50% more parts per hour than mechanically-actuated transfers. Since the transfer path is fully programmable, you can run smaller parts faster than difficult-to-changeover cam-actuated transfers.

Smoother transfer also allows faster speeds without loss of part control. Long-term reliability is higher because there are fewer elements to wear.

Affordable Transfer Automation

Teaming up a FLEX transfer system with a new or existing press costs much less than a new transfer press...80 to 90% less when an existing press is used.

Operating costs are lowered by high uptime. Changeover is as simple as connecting two finger rails and calling up a stored program.

Dies are easily accessed since the FLEX hardware can be mounted overhead and the finger rails can be jogged completely out of the way without running the press.

Articulated Finger Tooling

FLEX Finger Tooling (patent pending) greatly reduces trial-and-error setup time compared to labor-intensive fabricated tooling, lowering your transfer press operating costs. Long-term reusability is another benefit. Standard, modular components, including grippers and shovels, are part of a complete system of tooling and support equipment that can help you increase your transfer press efficiency.



FLEX articulated Finger Tooling lets you adjust one axis at a time, reducing trial-and-error setup time on your transfer press.



FLEX 5000® tri-axis transfer provides high speed with a high degree of part control.

Pin pallet on cranesaver conveyor is transferred under the destack head.



Automated Sheet Handling

Effectively automating the handling of sheet metal blanks can maximize pressroom uptime, ensure consistent surface finish quality, and optimize your investment in new or existing presses. Atlas has the automation answers for virtually any shape blank or production requirement.



Blank stacker drops blanks to wood dunnage which is supported by a lift table that minimizes drop distance.

Blank Stacking Systems

Atlas automatic blank stacking systems increase production efficiency of cut-to-length operations and stacking of blanks as they exit a blanking press or trapezoid shear. Atlas stackers handle rectangular, trapezoid, patterned or irregular shapes, and protect the

quality of exposed metal or prepainted steel, since features of the stackers help to prevent marring of surface finish.

Destacking Systems

Press uptime is dependent on keeping a steady flow of blanks available for destacking. Atlas cranesaver conveyors queue up stacks of blanks...which can be held on pallets, dunnage or placed directly on the conveyer...and quickly move them into position on demand.

Atlas destackers separate blanks, raise them with overhead vacuum cups to either a magnetic roller conveyor or magnetic belt conveyor, and convey them forward. Applications range from 200/hour to 1,500/hour or faster.

Atlas has also developed destackers to handle non-magnetic aluminum blanks.

Complete In-Feed Automation

Atlas designs and builds complete press in-feed automation, including blank washers; rollcoaters that apply a uniform coating of oil or draw compound; and first-press blank loaders. Atlas also builds bundle turn-overs to re-orient blanks.

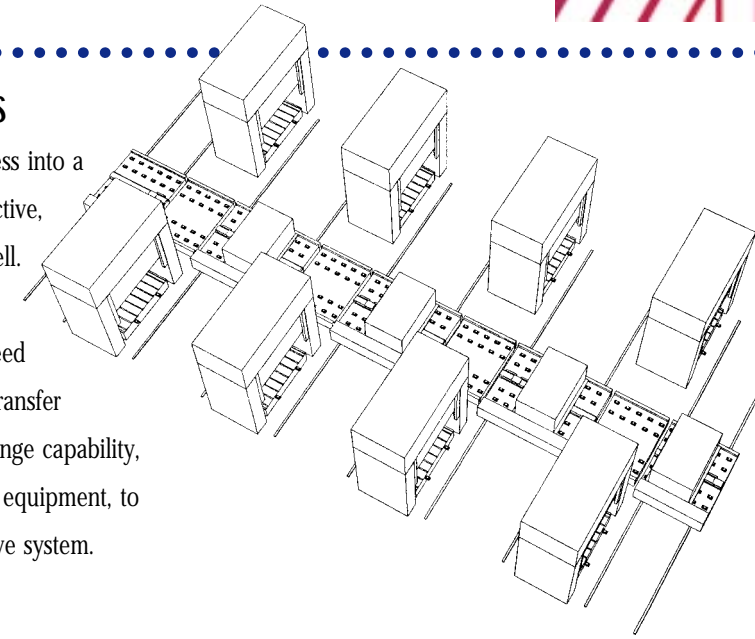
Pressroom Systems Integration

Years of press automation experience is combined with our practical knowledge about presses and dies, to ensure that your tooling is fully compatible with your automation package. In some cases, we coordinate die design as part of our systems integration responsibilities. Providing advice on all your pressroom problems is a natural extension of our work.

Because Atlas has worked with virtually every type of sheet metal automation, we frequently serve as systems integrator for pressroom cells and automated tandem lines that can include die change systems, in-feed automation (blank destacking, first-press load), between-press part unloaders/loaders, in-process turn-overs and re-orientation equipment, and part stacking. In-press transfers can also be integrated.

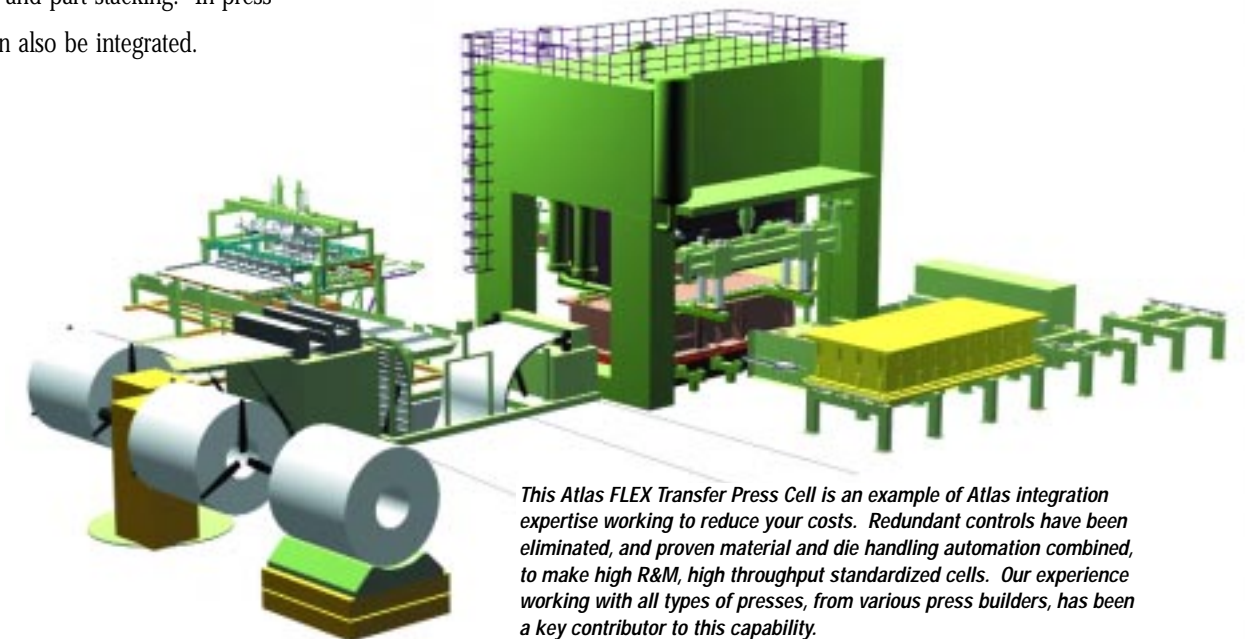
Integrated Press Cells

Atlas can turn a single press into a flexible, constantly productive, multi-purpose stamping cell. We integrate automated blank handling and coil-feed equipment with in-press transfer automation, quick die change capability, scrap handling, and other equipment, to provide a highly productive system.



Engineering Studies

Atlas is a full-service resource that provides objective-based engineering studies to evaluate your present and future needs, examine alternatives, and find the most productive mixture of manual and automated operations.



This Atlas FLEX Transfer Press Cell is an example of Atlas integration expertise working to reduce your costs. Redundant controls have been eliminated, and proven material and die handling automation combined, to make high R&M, high throughput standardized cells. Our experience working with all types of presses, from various press builders, has been a key contributor to this capability.