Innovative Press Feeding Solutions

Dynamic Feeds Inc., located in High Point, North Carolina, has quite a story to tell. Founded in 1977 by Robert Allred, the company today offers a complete line of innovative press-feeding and coil-handling solutions.

Since 1977, the business has steadily grown through the establishment of a network of distributors as well as the formations of strategic alliances with European companies. Dynamic Feeds is proud that some of the world's top manufacturers like Black & Decker, Toyota, Lockheed Martin, and many more trust in their equipment, expertise, and reliability.

The newly developed WigWag™ machine application is an evolution of the company's existing family of zig-zag feeds both with regard to design and physical size. The feeder is usually mounted on the side of a large press that processes sheet metal and automates the feeding of the material. "In the past we were not be able to mount to smaller transfer presses, especially where the feed was mounted, so that it was fed from the back side of the press to the front. Now with the pivoting motion of the WigWag™, we are able to fit within this window," says Robert Allred, President of Dynamic Feeds.

Area of application: transfer presses

Dynamic Feeds envisions the majority of their customers for this newly developed machine application to be transfer press users. In general, WigWag™ is used to generate a blank that is then transferred either left to right or vice versa through a series of punches that progressively draw the material deeper into a cup form. The feeder is usually pulling the material from a large roll of raw material that rotates freely or is fed from a pallet decoiler. Once the material is loaded in the die from the feeder, the press comes down, punches the part out, and chops off the excess material. This is a very simplistic explanation, but examples of this would be battery cans for A or AA batteries. Other potential parts are fuel and oil filter cans. The more expensive the material, e.g. stainless steel for fuel filter cans, the quicker the payback in material savings by utilizing multiple rows that are 60 degrees apart from each other.

DYNAMIC FEEDS
INNOVATIVE PRESS-FEEDING AND COIL-HANDLING SOLUTIONS

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Robert Allred
President
Dynamic Feeds

Compact and space-saving

"The WigWag™ is a new and unique way of achieving a zig-zag (nested) pattern. We have made zig-zag feeds for over 15 years, but many times the machine it is going on requires the y-axis move to pivot as opposed making a lateral move. Others have offered a complex and costly mechanical solution that takes up a lot of space. The combination of the Direct Drive Rotary (DDR) servo motor and the x-axis roll-feed make this machine very compact. The size of the machine is simply the real advantage of this system. We now have such a small footprint that the machine can be mounted within very tight spaces. There is no more need for space to mount a conventional y-axis that includes a ballscrew, runner blocks, rails, bearing blocks, guarding and the motor. Now all of these functions are in one motor, the DDR, thus reducing the number of moving components to a minimum. As far as the actual size goes, we can match roll or hitch feed bodies to any number of DDR motors sized to fit each individual application," explains Mr. Allred.

One software for the entire automation

Dynamic Feeds has a history of working with Integrated Motion, Inc., a B&R Automation Partner, on the development of various machine applications. The company chose B&R for their latest WigWag™ machine development for various reasons including the B&R Automation Studio software. They now use a single software package for their entire machine application instead of having to deal with various software tools. The machine, which was developed using CAN Bus as the communication protocol, furthermore features a B&R Power Panel 251 as visualization device with integrated control functions. Additionally, two B&R ACOPOS servo drives, which are controlled by the B&R Power Panel, interface with the specialized rotary third-party DDR motor. The compact B&R I/O block CX408 with a CAN interface, 16 digital inputs, 16 digital outputs, and a B&R motor (for the roll-feed axis) completes the system.

"The power of the B&R hardware and software, along with the ability to drive motors from different manufacturers, is a definite plus especially if deliveries become critical. The color screen we are utilizing gives the customer much more information than in the past. And lastly, we include a modem with all of these units so off-site analysis and maintenance can be performed via a phone line," summarizes Mr. Allred.

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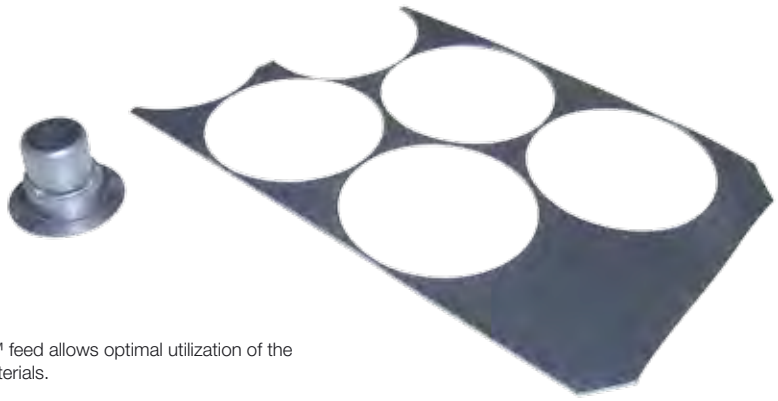

The WigWag™ feed allows optimal utilization of the processed materials.