The Big Picture in Turret Press Production

By Don Angel, Applications Engineer

In today's lean manufacturing environment, the variety of equipment and processes needed to produce parts efficiently is daunting. Controlling cost and time are critical to producing parts in today's extremely competitive world-wide market. So, what advantages can Muratec equipment offer you?

Motorum 2048ST

The obvious benefits of a turret are the forming capabilities. Standard part forms like extrusions, lances, embosses, knockouts, louvers and many others are a given. New tooling concepts are always being developed to take advantage of the controllable strokes of hydraulic and servo-controlled ram axes.

Recent years have provided ribbing and forming operations using wheel type tools, scribing tools to mark parts, bending operations, tapping holes and deburring of interior or exterior part edges. Previously, many of these operations created significant work in process as parts were manually moved around the factory. Potential for delay, damaged and lost parts was high.

Using larger standard sheet sizes to create dynamic, static nests of parts provides many benefits to part production. Purchasing large quantities of standard sheet sizes is more cost effective, easier to forecast usage, and more manageable in a busy shop environment than a multitude of cut-to-size sheets that fit only specific product lines. Longer machine "green light" time is realized by eliminating dead time created waiting for a part to be pulled off and a new one loaded.

Automation

Handling larger sheet sizes and producing parts on a consistent and repeatable basis can be accomplished by adding an automated load/unload system to the turret. A "full sheet" load / unload system is extremely productive when running cut-to-size parts or simple nests. However, the "pick and sort" system, where parts are removed from the nest on the turret and stacked on a pallet, provides the most efficient system.

FG-1250, Type 1 Automatic Loader/Unloader

Murata FG Pick and Sort Automation comes in a variety of configurations. After the operator prepares the system, they are free for other work while the system runs. When the scheduled work completes, the operator has a stack of parts ready to move on to the next process

Manual loading and unloading are eliminated, breaking out parts is eliminated or minimized, cleaning up tabs from a shake-n-break type nest is eliminated, and handling of the skeleton / remnant is reduced to a fork truck carrying it away. No manual handling of material or parts is required. During this time, the operator is more of a manager and can prepare the next job for a quick change over, run another system, or during "lights out" production, an operator is not required.

FG-1250, 8 Shelf, Pick & Sort System

Properly prepared unattended operation during the day and after hours allows the equipment to continue and produce parts on a timely and consistent basis. As you increase the cycle time on your turret handling secondary operations and processing nests in a pick and sort system, this will increase available green light time to allow parts production to continue in previously unused times.

All these features used together provide the ***"Big Picture"*** in creating a lean and flexible system to produce parts on a cost effective, reliable, and consistent turret punch press manufacturing system.