Small and Powerful

A smaller press might be the right fit for many operations.

By Todd Bryson, Multicyl Inc.

Big presses are impressive. If you walk around at a trade show like FABTECH and see these massive machines clanking away, delivering several hundred tons of force with each stroke, you can't help but be impressed! But when you stop to think about it, smaller presses are often pretty remarkable too. Here's why small presses can be impressive and why they might be the right addition to your manufacturing floor:

While several tons of metal standing tall and producing 100 tons of force, and banging out parts is a sight to behold — and in many ways a symbol of our industry — think of something weighing only 40 pounds that puts out 10 tons. Think of a complete turn-key punching solution that weighs less than 100 pounds, fits in a 12-inch square footprint, and which an operator can punch out holes in parts with all day long. And the best part, this can often be had at a mere fraction of the cost of larger press. That seems pretty impressive too, yes?

Let's think about what we need when we decide to buy a press. Do we really need a towering machine putting out 100 or more tons? Well, the short answer is it depends. In some cases we surely do, they are a cornerstone of our industry for a reason. But other times, perhaps a smaller press can do the job, and might even be a better fit. If we take the time to think about it, we can see that small presses offer many advantages for the right applications; they are often safer, more efficient, more ergonomic and operator friendly, and sometimes more suitable for today's manufacturing environment.

Using the Multicyl press, shown as an example, let's explore some of these claims. As for safety, this one is really a no brainer. The unit shown can be set up with no pinch points over ¼-inch making it extremely difficult if not impossible for an operator to get a hand or finger into danger. For additional safe guards a simple two-hand anti-tiedown control can be used. Efficiency? This unit runs on shop air using a simple air valve for minimal energy use. It requires only a single unskilled operator with little to no set-up time and pushes out six tons of force at a rate of up to one stroke per second. Sounds pretty efficient, right? However, the area in which small presses can really shine is the way they fit into today's lean manufacturing environment. JIT manufacturing, cellular work stations, and lean manufacturing processes dominate the needs of today's manufacturing environment; however larger presses don't always contribute to these ideals. A small foot print, minimal set-up time or dedicated work stations, and flexibility are key components.

Lastly, let's look at the cost. Small Multicyl single hole punching packages such as the one shown here are typically in the \$2,500 to \$5,000 range for a complete solution.

Large presses are an important part of our manufacturing environment, and as I noted earlier can be very impressive machines. But as I also noted smaller press packages shouldn't be overlooked. As they say, sometimes big things come in small packages.

This Multicyl air/oil press provides 6 tons of force while sitting in a $4.5" \times 13"$ footprint and weighs less than 100 pounds. Multicyl