

MAINTENANCE

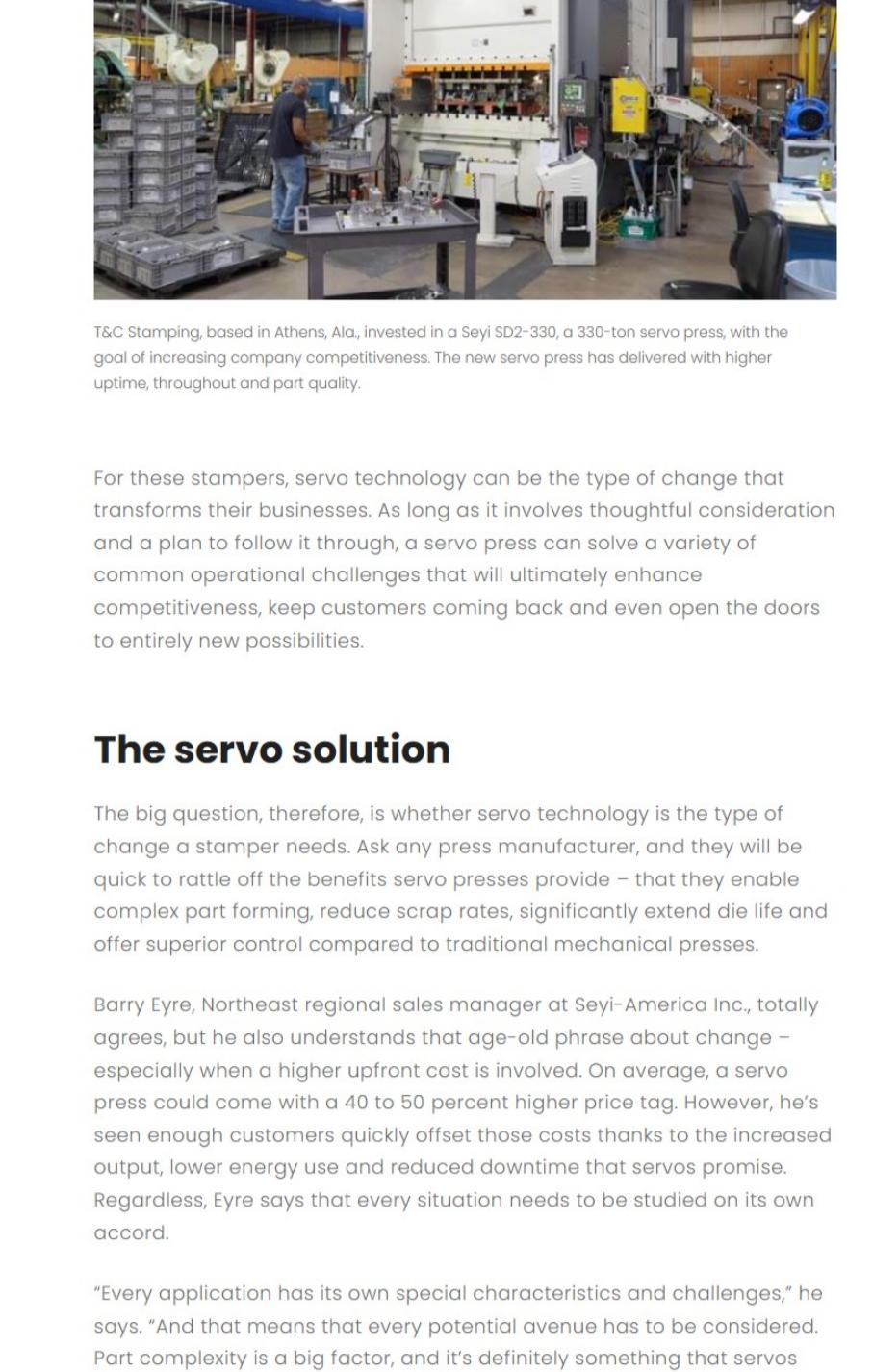
STAMPING

Thoughtful Consideration

Exploring the benefits of servo technology for long-term business growth

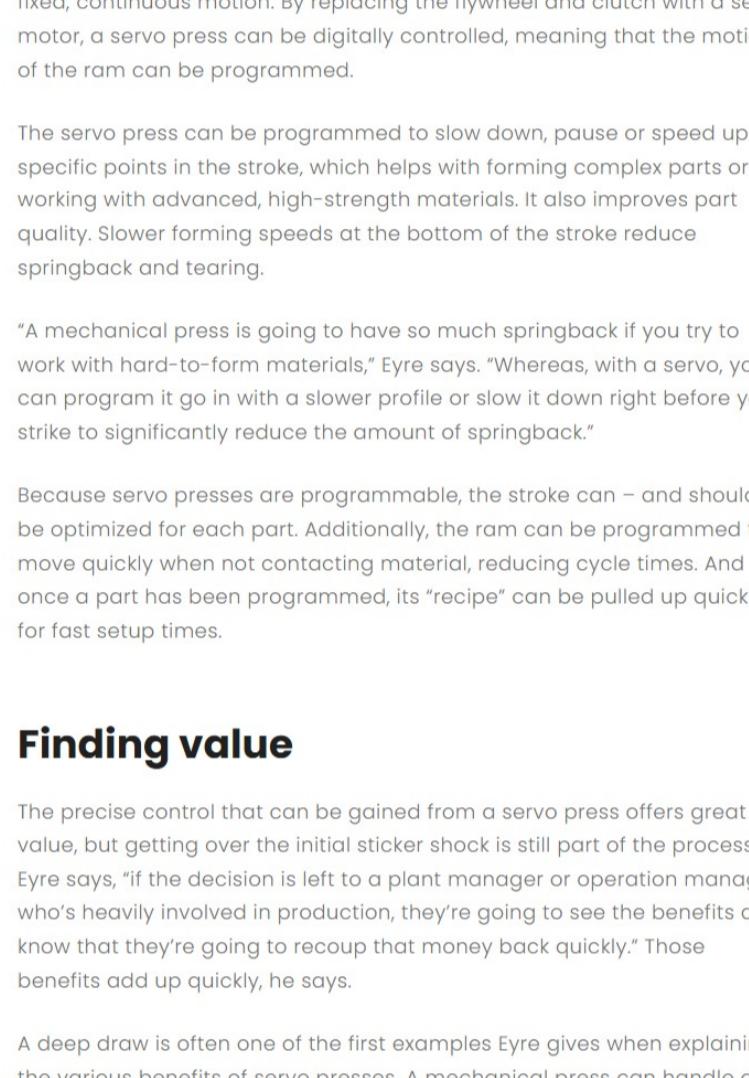
BY ABBE MILLER

November 13, 2025 • In Stamping Productivity



Almost everyone has tossed around the phrase "change is hard." It's a go-to when the plan is to stick with the status quo. But sometimes, the status quo doesn't cut it – especially in the competitive manufacturing space.

In the context of a stamping company, the need for change is often tied to a challenge that must be overcome to stay competitive and keep customers coming back. It could be a complex part, deep draws or frequent die changes that are hurting productivity. In these scenarios, substantive change can be facilitated by new technologies and equipment designed specifically for manufacturers.



T&C Stamping, based in Athens, Ala., invested in a Seyi SD2-330, a 330-ton servo press, with the goal of increasing company competitiveness. The new servo press has delivered with higher uptime, throughout and part quality.

For these stampers, servo technology can be the type of change that transforms their businesses. As long as it involves thoughtful consideration and a plan to follow it through, a servo press can solve a variety of common operational challenges that will ultimately enhance competitiveness, keep customers coming back and even open the doors to entirely new possibilities.

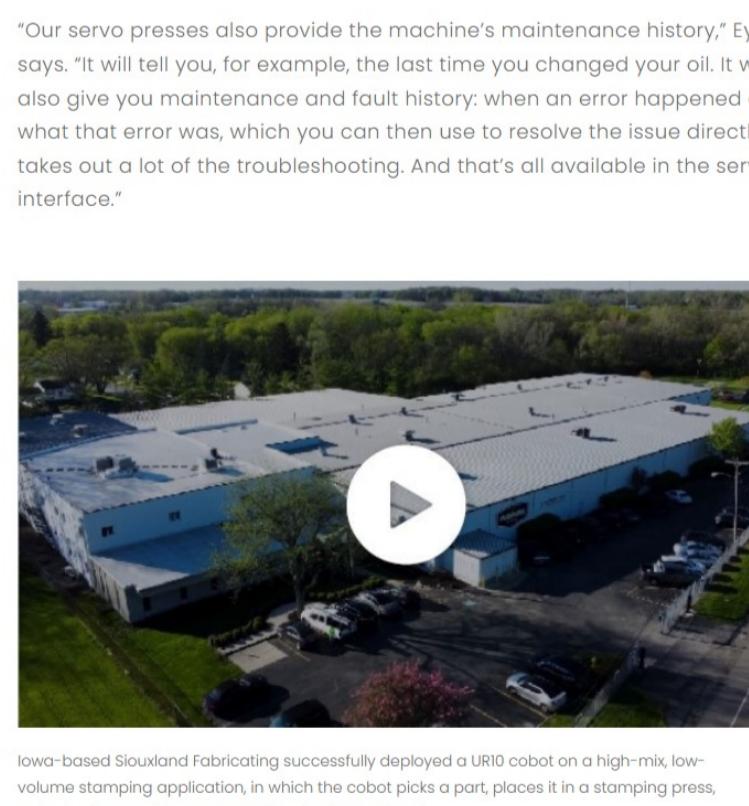
The servo solution

The big question, therefore, is whether servo technology is the type of change a stamper needs. Ask any press manufacturer, and they will be quick to rattle off the benefits servo presses provide – that they enable complex part forming, reduce scrap rates, significantly extend die life and offer superior control compared to traditional mechanical presses.

Barry Eyer, Northeast regional sales manager at Seyi-America Inc., totally agrees, but he also understands that age-old phrase about change – especially when a higher upfront cost is involved. On average, a servo press could come with a 40 to 50 percent higher price tag. However, he's seen enough customers quickly offset those costs thanks to the increased output, lower energy use and reduced downtime that servos promise. Regardless, Eyer says that every situation needs to be studied on its own accord.

"Every application has its own special characteristics and challenges," he says. "And that means that every potential avenue has to be considered. Part complexity is a big factor, and it's definitely something that servos can tackle."

When it comes to part complexity, servos can overcome a lot of common stamping issues. And that is due to a servo's programmability, which truly is its greatest asset.



Lionshead Precision Metals, based in Greenwood, Ind., invested in an SD2-440 straight side crank servo press, shown here, as well as an SD2-1750 straight side eccentric gear servo press to enhance the company's production capabilities.

As the name implies, a servo press uses a servo motor – an electric motor with precise control over speed and position – to drive the ram. Conversely, a traditional mechanical press uses a motor that turns a flywheel to store energy. When the clutch engages, that energy is transferred to the crankshaft, which moves the ram up and down in a fixed, continuous motion. By replacing the flywheel and clutch with a servo motor, a servo press can be digitally controlled, meaning that the motion of the ram can be programmed.

The servo press can be programmed to slow down, pause or speed up at specific points in the stroke, which helps with forming complex parts or working with advanced, high-strength materials. It also improves part quality. Slower forming speeds at the bottom of the stroke reduce springback and tearing.

"A mechanical press is going to have so much springback if you try to work with hard-to-form materials," Eyer says. "Whereas, with a servo, you can program it to go in with a slower profile or slow it down right before you strike to significantly reduce the amount of springback."

Because servo presses are programmable, the stroke can – and should – be optimized for each part. Additionally, the ram can be programmed to move quickly when not contacting material, reducing cycle times. And once a part has been programmed, its "recipe" can be pulled up quickly for fast setup times.

Finding value

The precise control that can be gained from a servo press offers great value, but getting over the initial sticker shock is still part of the process. Eyer says, "If the decision is left to a plant manager or operation manager who's heavily involved in production, they're going to see the benefits and know that they're going to recoup that money back quickly." Those benefits add up quickly, he says.

A deep draw is often one of the first examples Eyer gives when explaining the various benefits of servo presses. A mechanical press can handle a deep draw, but it is typically done on a progressive die where the depth of the draw is tackled incrementally. In this scenario, the multiple stations in the progressive die can create undesirable reduction marks and inconsistent wall thickness, which affects quality.

With a servo press, however, precise control over the slide velocity and stroke means the stroke can be slowed down during forming to allow material to flow. In this way, material thinning is prevented and quality, therefore, improves.

Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

Eyer explains that there are actually a couple of different programmable motions that can be leveraged for a deep draw. One option is called a vibration motion where the slide comes down in a way that removes some of the stress as it forms. Instead of a single continuous stroke, the servo press can be programmed to make multiple short, high-frequency steps as it approaches the final press point. This helps material flow and, in turn, reduces scrap.

"In a deep draw, there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer says the servo's flexibility is the name of the game. In the mechanical world, there just aren't as many options available.

"It's a servo press, but there are several benefits to it. One benefit is that it's going to be better on energy consumption," he says. "If you have a servo press, you can cut down on energy consumption by up to 50 percent compared to a mechanical press."

"Somebody has to do that, and the company has to be willing to allow that to happen," he says. "You have to make that commitment to give those guys the time they need to go through the part's profile and make sure that the part is formed correctly."

The results of giving them the time to do that are significant. Whether it's adjusting the velocity or the stroke or slowing down the ram to make a certain part, Eyer