

The Value Of Change

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Hydro's long-term strategy is to build its portfolio of services to include second-stage manufacturing processes: fabrication, bending and CNC machining.

Hydro Aluminum's MO-based extrusion plant took dozens of incremental steps to close production gaps, create value-added services, and improve safety and quality.

No matter how young or old the dog, there are always new tricks.

Brad Clark, operations manager for the Monett, MO facility for Hydro Aluminum's Extrusion North America unit will tell you that there is nothing like an economic downturn to encourage a company to play in new markets and expand production capabilities.

And if you're not afraid of change, you'll do it like Hydro did—in all areas, and all at once. Recent projects have ranged from plant consolidations, market shifts, and increased value-added services.

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A Massive Overhaul

But if you want to understand the full scope, you have to step back a bit and start with Hydro's material handling system overhaul back in November.

"We had a number of quality issues with material getting damaged. Our product—being aluminum extrusions—is obviously pretty soft and it's easy to get damaged," explains Clark. "Moving the material around the plant the way we were causing a lot of damage. The other issue was from a safety perspective. We had a lot of pedestrian and mobile equipment interfaces, so we recognized that we couldn't eliminate it, but we certainly targeted to reduce it substantially. We basically redesigned the racks that we move all of our material around on and made them much smaller and easier to move around. We made them collapsible so we could store them in a smaller area and have set staging areas. Also, we introduced some new forklifts—from a traditional to a side-loading, multi-directional forklift—which eliminated the number of fork movements, and improved the ergonomics of moving the rack around."

Not only did the plant improve its safety record, the amount of recovered materials from damage prevention was about 2 percent. From a housekeeping standpoint, the visual changes allowed for the floors and equipment to be painted.

"We used to drag the racks around the floor. The floor was in bad condition and the equipment was in bad condition because it had been beat up," explains Clark. "We have a much nicer environment for the employees to work in. And from a safety perspective, we were able to designate walkways whereas in the past, the way we moved the material around didn't really allow us to do that. We were able to put up guarding and guard rails to segregate people from mobile equipment."

Before & After:



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This dock was once used as a maintenance area. Hydro moved the product to another storage facility, freeing up plant space and allocating equipment to the perimeter through the use of 5S.

Closing The Gap

Whether they realized it or not, it was this change that would be elemental to the next few production changes. To start, the material handling overhaul resulted in a plant-wide floor use reduction of 15 percent. Freeing the space allowed Hydro to move forward with a process consolidation plan between its Cassville, MO and Monett facilities.

“We had a plant that is 17 miles south of here and we were shipping 800,000 pounds of aluminum to them. We had all of the overhead attached to having the plant down there, and we had extra people,” explains Clark. “Basically, we freed up some space with the racks. Also, we had another extrusion press on site here, and we commissioned that last year and basically freed up a part of the building to make that move.”

“Now that all of our processes take place under one roof, filling a customer order from start to finish is completely visible to the plant team responsible for it, so they can be more efficient,” adds Rhonda Wright, vice president of operations/general manager of Hydro’s Central Region. “All of our operations personnel are focused on meeting customer needs, which really comes down to being able to offer good prices and deliver quality products on time and on spec.”

Going forward, all extrusion, second-stage manufacturing processes, material handling, packaging, loading, and shipping to support the Central region customers will be handled out of Monett.

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“One of the areas we were focusing on as far as volume growth this year, is in value-added activities—particularly fabrication, punching, CNC machining, precision sawing—stuff that traditionally happened at Cassville on a little bit lower of a technology scale. So we wanted to, in the move, incorporate some newer technologies as well,” says Clark.

Before & After:



The aerial shot of the plant floor shows the new material handling solution. Stackable racking addressed concerns over safety and product damage, in addition to improving flow.

Value Add

And the value-added activities Clark mentioned aren't just a flash in the pan: Hydro Aluminum considers it one of their biggest focal points, and one of the reasons the company was able to diversify to navigate the recession. The Monett facility was traditionally focused on the building and construction market, so the economic downturn—as well as a highly competitive industry—encouraged Hydro to look to other niches for its dollars.

“Besides building and construction, we started looking at accounts that serviced the medical field, and lighting, distribution... things we'd never been traditionally involved in,” says Clark. “With that, particularly in the lighting and medical fields, came a need for us to improve our capabilities. We're in the process of specing out a new CNC machine to do some fabrication of new lighting products. It's customers like that that we traditionally haven't had the capability one, to extrude, and two, to supply a fabbed product to. So that's certainly an area we've focused on this year, as far as what markets we've wanted to work in.”

The value-added activities will continue to play a large role in the Monett facility, and not just from a fabrication standpoint: “Where I see us really going is decreasing lead times to provide a better service to our customers,” he says. “That's going to include stocking programs; the changes we made with the material handling allowed us to implement a stocking program because the racks that were

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in use before were just a single layer and weren't stackable, and we can stack them three to four high now, which decreased the amount of floor space, but increased our capability in stocking material in the same area."

In addition, the plant has invested in some expertise to address any potential skill gaps that might come along with the new CNC machining and other high tolerance work: Mark Groene, the facility's new fabrication sales engineer, was brought onboard to help identify opportunities in this area, as well as which equipment investments may be warranted. "Mark's strong background in fabrication and program management complements our equipment investment," adds Wright.

And as fabrication work continues to ramp up, the talent pool at Hydro Aluminum's Monett plant will no doubt increase in size, in which case the reclaimed floor space will most certainly come in handy.

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