



COMMANDBATCH CP

## Prestress Services Industries

Prestress Services Industries, a precast / prestressed concrete fabricator, serves markets in Michigan, Indiana, Ohio, West Virginia, Kentucky, and Tennessee.

### The Challenge

At a minimum, the concrete produced by Prestress Services Industries is high performance. For the precast producer, there's always a tight level of control involved to ensure their products are top quality. To keep up with product integrity and demand, Prestress Services looked for a partner that could provide specific tools to help monitor and regulate moisture, strength, temperature, and product waste.

### The Solution

And so, the Prestress team was introduced to COMMANDbatch's precast counterpart: COMMANDbatch CP. Having already operated with COMMANDbatch, the world's leading concrete batching system, the Prestress Services team searched for a tool that could match its material-sequencing flexibility. While COMMANDbatch lets plants arrange their systems to match their needs, Prestress aimed to take this customization to the next level. The intricacies that come with precast concrete products — such as bridge beams and large commercial structures — often take a

heightened level of creativity.

"The tool's moisture probes for aggregates are fantastic, and I believe they are the industry standard," said Jeff Distler, Director of Quality at Prestress. "Having inner-mixer Hydronix moisture probes allows a very fine control of water. Moisture control is number one on top of the list of controlling concrete consistency from batch to batch." Distler, who's been with the company for about



LOCATION

**Mount Vernon, Ohio**



PROJECT TYPE

**Automation**



RESULTS

**Quality-driven**

10 years, has held a variety of positions through production and quality. In other words, he's had a hand with everything the company produces. "I love it when I'm able to see signs of the industry moving forward, and it's nice to work with a team who embraces my ideas for change," he added.

## The Result

While moisture is a critical component behind Prestress's operation, like the rest of the concrete community, waste reduction is climbing the charts as another prioritized business strategy. Avoiding wasted materials equates to higher profits. And of course, reducing waste plays a big role in achieving sustainability initiatives.

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Highlighting the company's Mount Vernon, Ohio plant, Distler describes a noticeable waste reduction since switching to COMMANDbatch CP. As a key performance indicator, total waste is something the company is monitoring across all of its facilities. For Prestress, scrap concrete consists of over-batching due to improper yielding or concrete that tested outside of specification because of batching inconsistencies. "Reducing scrap concrete is our goal, and with CP, I'd say we're achieving about 50% greater right now compared to the previous year." This waste reduction goal isn't so lofty when you look at the numbers. Prestress produces bridge beams that range from small, private projects up to large, multi-span interstate bridge systems — which means scrapping one of those larger pieces could easily cost the company tens of thousands of dollars. Prestress produces pieces with high reinforcement congestion, which can often cause honeycombing within a product.

Since adopting COMMANDbatch CP, the team has seen no honeycombs while eliminating a major contributing factor to rejected product.

## KEY TAKE AWAYS

- With enhanced moisture control, Prestress drastically reduced its wasted materials.
- Production data provided by COMMANDbatch CP can be exported to any of Prestress' existing systems.
- Quality ensured by COMMANDbatch CP has minimized rejected product.

Nodding to the adoption of self-consolidating concrete (SCC) as half of the equation, Distler said Prestress is now producing concrete more efficiently and consistently than ever before. The other half to that equation? That's COMMANDbatch CP. Although SCC is highly flowable and easy to place quickly, it's also very moisture sensitive. "Our production times have excelled. We wouldn't be able to reach this consistency without using COMMANDbatch CP. With very tight control of our moistures, our concrete consistency and strengths are fantastic. Plus, it's much safer to produce with SCC, as there's no need for onsite vibration of the concrete."

Now, with "a mound of data" unsheathed by COMMANDbatch CP, Distler and the Prestress team have leveled up in their data analysis. Exported data can be formatted to any of their systems, allowing educated decision making by using monitored weight deviations, alarm logs, equipment efficiency, and yardage production rates.



Transforming your operations by replacing manual and complex tasks and processes with efficient, scalable, and reliable solutions. Learn more at [commandalkon.com](https://commandalkon.com)