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AGCO Jackson, Minn., Operations is 2017 Assembly Plant of the Year

Lean Initiatives, Mixed Model Manufacturing and Glass Technology Leads to Greater Quality, Efficiency for Farm Equipment Manufacturer

AGCO Jackson Operations, the Minnesota-based manufacturing center for AGCO Corporation (NYSE:AGCO), a worldwide distributor and manufacturer of agricultural equipment, has been named the 2017 Assembly Plant of the Year. The Jackson facility manufactures complex, custom-configured Challenger® and Massey Ferguson® agricultural machines including tractors and application equipment.

AGCO Jackson Operations was named the 2017 Assembly Plant of the Year during The ASSEMBLY Show, Oct. 25 in Rosemont, Ill. Accepting the honor on behalf of the entire AGCO Jackson manufacturing team are left to right: Jim Croxton, director of Manufacturing; Kim Phillips, manager, Human Resources; Greg Bornholdt, director of Finance; Eric Fisher, director of Operations; Peggy Gulick, director of Business Process Improvement; Travis Van Genderen, senior manager, Supply Chain and Rick Leonard, Quality manager. AGCO Jackson Operations is the only agricultural manufacturing center to receive this distinction since the award was founded in 2004. (Photo: Business Wire)

The Assembly Plant of the Year award was founded in 2004 to showcase production facilities in America and the people, products and processes that make them successful. The award is presented by ASSEMBLY magazine to a state-of-the-art facility that has applied world-class processes to reduce production costs, increase productivity, shorten time to market or improve product quality.

AGCO Jackson Operations was chosen as the 2017 Assembly Plant of the Year because of its use of cutting-edge technology such as Glass assisted-reality wearable devices and adoption of mixed product manufacturing processes. These manufacturing innovations enable the company to custom build five distinct types of tractors and applicators in multiple variations - and to do so better, faster, more efficiently and to the highest standards of quality.

In 2011 when AGCO moved production of Challenger and Massey Ferguson high-horsepower wheeled row crop tractors for the North American market to Jackson, the company began a five-year, $50 million factory upgrade to improve efficiency and increase production capacity by 25 percent while maintaining the same high product quality.

“To efficiently increase production and produce the highest quality product, we needed to overhaul the manufacturing process," says Peggy Gulick, AGCO's director of Business Process Improvement. “We launched improvement programs in design, build, quality control, supply and delivery, all aspects of efficient production while ensuring the best quality product for our customers."

Gulick points out the expansion enabled AGCO to add four quality gates for in-line testing, letting workers troubleshoot quality issues and make needed corrections earlier in the process. The addition of state-of-the-art testing equipment at the end of the line employs a two-hour evaluation of completed machines and further ensures all products will perform to maximum capacity in the field.

Mixed Model Manufacturing

Part of the change in Jackson included moving to a mixed model manufacturing line to streamline processes and provide the flexibility needed to custom manufacture machines where no two are exactly alike. For example, the build sequence can have a high-horsepower Challenger tractor with tracks, followed by a high-horsepower Massey Ferguson tractor with wheels. The mixed model assembly line enables operators to easily switch back and forth between the two while reaching AGCO's quality requirements.

With a moderate volume of Challenger and Massey Ferguson tractors manufactured each year as well as seasonal demand swings and changes in the market, the mixed assembly provided AGCO the flexibility to better meet the just-in-time product flow needed from the plant. “A mixed model line works best because we can adjust to produce a large variety of a mix of products or product variation on the same line," says Eric Fisher, general manager, Operations in Jackson.

Lean Manufacturing Initiatives Save Money

The Jackson team also implemented several lean manufacturing initiatives to improve throughput, reduce operating costs and boost quality. For example, employees are empowered to find better, more efficient processes in production of the machinery. In 2013, a three-step, problem-solving online tool was introduced so employees could submit suggestions to improve safety, product quality or reduce costs in their daily work or area of the plant. Since its inception, 13,095 ideas have been submitted. In 2016, recordable savings reached just under $1 million.

Another example is the use of a lean daily management system to ensure critical information is communicated in timely, systematic forums. Each morning, the Jackson management team meets on the plant floor to review cost, delivery, quality and safety targets. They discuss standardized control points and metrics posted on boards and kiosks on the plant floor. All employees are encouraged to participate in the daily meetings.

AGCO only Agricultural Manufacturer Using Glass

Glass is an assisted reality, wearable headset device being used in Jackson. Glass provides each worker hands-free instant access to parts lists, assembly instructions, quality checkpoints and other work instructions for the specific machine. Today, AGCO is the only agricultural equipment company using this technology in manufacturing, with more than 100 pairs of Glass deployed at the Jackson facility. The technology also is being adopted at six other AGCO facilities globally.

“We tested many wearable technologies - watches and tablets - but Glass is what we selected," says Gulick. “Prior to switching to Glass, we used tablets but they would break easily and were expensive to replace. Glass is the right choice for AGCO."

By using Glass in product quality control, AGCO has been able to reduce inspection time by more than 30 percent and cut the production time for low-volume, high-complexity assemblies by 25 percent. In addition, training is more efficient with a 50 percent reduction in time needed to train new employees and staff training on cross-functional operations cut threefold, reducing the average learning curve from 10 days to three.

“AGCO and its employees at Jackson had a vision of what it would take to be a world-class manufacturer of agricultural equipment. It took a lot of work, but we knew our employees were up to the challenge and we've achieved tremendous success," says Fisher. “Today, our team is setting a standard of excellence for all AGCO manufacturing sites by delivering high-quality products to meet the demand of our customers and dealers."

As the winner of the 14th annual Assembly Plant of the Year competition, AGCO joins previous recipients including Bosch Rexroth Corp. (Fountain Inn, SC); Polaris Industries Inc. (Spirit Lake, IA); STIHL Inc. (Virginia Beach, VA); Northrop Grumman Corp. (Palmdale, CA); Ford Motor Co. (Wayne, MI); Philips Respironics (New Kensington, PA); Eaton Corp. (Lincoln, IL); Batesville Casket Co. (Manchester, TN); IBM Corp. (Poughkeepsie, NY); Schneider Electric/Square D (Lexington, KY); Lear Corp. (Montgomery, AL); Xerox Corp. (Webster, NY); and Kenworth Truck Co. (Renton, WA).

For more information about manufacturing innovations at AGCO, visit https://news.agcocorp.com/news/glass, <>https://www.youtube.com/watch?v=2jIbhRPCJG4 or to learn more about the Assembly Plant of the Year Award, visit <>https://www.assemblymag.com/plantoftheyear.

About AGCO

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