MATTSON's

February 2004

Applying Intelligence

When it comes to famous "greens," there's kelly, jade, lime, olive, emerald, and of course the most recognizable of them all— "John Deere Green." The green and yellow combination was formally adopted in 1923 and it definitely stuck. Now the secret green recipe is exclusive to John Deere farm equipment. It's not just color that people associate with John Deere equipment, it's also the quality and attention to detail given to every product that carries their name.

The John Deere Des Moines Works in Ankeny, Iowa has been producing John Deere farm equipment for the past 50 years. The employees work in several areas from sales and training to various stages of the manufacturing process. This location primarily manufactures four lines of agricultural equipment.

Challenge

To ensure John Deere's high standard of quality, each piece of equipment is inspected after it is painted, and if required, it is sent to the touch-up area. The touch-up area at the Ankeny Plant works on several pieces of equipment a day. They primarily use green, but touch-ups on the wheels require yellow. For years, the touch-up area had been using a single component paint. It came as is, and required no mixing or additional ingredients. In June of 2002, the company made the change to a two component paint.

How does a two component paint become one? Someone or something has to mix it. The employees in the touch-up paint area spent over six months hand mixing the new paint ingredients. Aside from taking the time each morning to mix the paint, they would also have additional clean up. This meant about an hour every day was dedicated to preparation and cleaning. According to one of the painters, Dennis Cornelius, "It was a messy job." Also, the paint was mixed in half-gallon increments with a pot-life of only eight hours. Out of each half-gallon only about a quart of paint would be used, and the remainder was waste. In addition to the paint waste, over a quart of solvent was used each day for clean-up.

Solution

Andy Vespestad, a paint process engineer at John Deere, knew that there had to be a better way to handle the two component paint dilemma in the touch-up area. In the fall of 2002, he began researching different paint mixing equipment options by visiting various plants and meeting with different fluid handling dealers. Through conversations with Dove Equipment, a Mattson distributor, Vespestad was introduced to the Mattson AutoPilot proportioning system. With Vespestad showing interest in the AutoPilot, Dove and Mattson offered to do an in-plant demonstration.

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Performance

An AutoPilot demo unit was supplied for trial usage in John Deere's sidedraft paint booth in December, 2002. It took only 30 minutes of initial training to get them up and running. The staff recognized immediately what an asset the AutoPilot would be to their department. Cornelius notes, "It saves us a lot of downtime because we are no longer mixing the paint."

A final decision was made to purchase two AutoPilots—one for green and one for yellow. They also purchased a custom cart for flexibility and mobility in their paint booth (another available option is to have the units wall mounted).

With the Mattson AutoPilot installed at John Deere in March, 2003, they are using less than half of the paint they previously used. Consequently, they've cut their touch-up paint cost by over 50%. Solvent and clean up costs have decreased dramatically, because when the AutoPilot is flushed out, it only uses a few ounces of solvent. Vespestad has also achieved his goal of finding a paint mixing solution for his department.

Since the installation of the Mattson AutoPilot system at this John Deere facility, there is no doubt that they've received a return on their investment.

To find out how the AutoPilot can work for your operation, contact Mattson at 800-877-4857, or check out our web site at ***www.mattsonspray.com***.

For mobility and convenience, the Des Moines Works chose a custom cart for their AutoPilot equipment.

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