Kawasaki Updates Finishing Lines with New ProMix Easy Proportioners



CUSTOMER

Kawasaki Motors Manufacturing Corp. Lincoln, Nebraska

APPLICATION

Painting Consumer Recreational Products

OBJECTIVE

Improve efficiency & reduce maintenance

SOLUTION

Graco ProMix Easy Proportioners

RESULTS

Paint ratios are strictly maintained & maintenance is reduced significantly. one of its motorcycles, ATVs, personal watercrafts or utility vehicles you're riding "The Leading Edge of Power/ Performance/Exhilaration." While accurately describing its consumer recreational products, the phrase could just as easily describe Kawasaki Motors Manufacturing Corp., U.S.A's "Leading Edge" manufacturing facility in Lincoln, Nebraska, where these products are built. The facility features the best of Japanese and American

manufacturing techniques; as

production equipment that is

well as state-of-the-art

Kawasaki wants the world

to know that if you're riding

chosen for its ability to optimize productivity, maintain quality and reduce waste.

Recently, faced with the high cost of rebuilding a mechanical paint proportioner on a paint line in the Lincoln facility, Kawasaki decided instead to replace the old piece of equipment with a high-tech electronic proportioning system.

"For over 17 years we've been using Graco Variable Ratio Hydra-Cats on our paint lines," said Matt Thomas, Senior Engineer. "They've served us well but after years of continual use, they're wearing out. Replacing major components is expensive so Kawasaki has installed a number of ProMix Easy proportioners on its paint lines.

when we compared the cost of repairing the old mechanical proportioner to purchasing a new proportioner, we discovered the difference was insignificant. It was an easy decision."

Because the old Graco proportioners held up so well for such a long time, Kawasaki chose to replace the old workhorse with one of Graco's new generation of proportioners — the ProMix™ Easy.

ProMix Easy is an affordable, easy-to-use electronic proportioner designed for single color, two-component spray finishing applications. The air-operated proportioner is capable of handling most coatings, as well as a wide range of ratios with flow rates as low as 20 cc/min.

The ProMix Easy was installed on the finishing line where painters spray the fiberglass decks of the Company's Jet Ski® personal watercrafts. After being loaded onto an overhead conveyor, the decks receive a prime coat, topcoat and clear coat. All three coatings are two component coatings that require metering and mixing.

The ProMix Easy is used to proportion the topcoat, a

40 percent solids red ureth-ane. At this time, the old mechanical proportioners are still used to meter and mix the primer and clear coat.

In addition to the three coatings, the decks are puttied, sanded, buffed, polished and inspected numerous times as they progress along the line.

The ProMix Easy was installed right in the spray booth because it features intrinsically safe controls, allowing easy integration into hazardous environments. "The system is just steps away from the painter," says Thomas, "providing him with easy access to the system's controls."

In addition to easy access to the controls, the short distance the mixed material travels from the ProMix Easy to the spray gun has reduced the amount of mixed material Kawasaki wastes during flushing, as well as the amount of solvent required to purge the fast curing paint from the fluid hose at the end of the day. The proportioner also features a new fluid manifold that further reduces the amount of solvent required to flush the system by an additional 20 percent.

"There isn't much the painter has to worry about," says Thomas. "All he has to do to start up the system is simply turn a dial, punch a button and he's ready to spray. When he triggers the gun he knows he's getting the mix ratio we programmed into the unit."

The ProMix Easy automatically maintains its mix ratio within ± 1 percent. If an off-ratio occurs the system will stop production and sound an alarm, preventing any off-ratio material from being sprayed on the part. Codes on the controller will direct the operator to the cause of the problem. The controller monitors pump and motor operation, as well a metering accuracy. "Once we enter the specified ratio into the ProMix Easy, we don't have to worry about the quality of material we're spraying — it's the same every time," he says.

This wasn't the case with the old mechanical proportioners. ""Ratio accuracy was a problem we always

worried about," says Paint Line Supervisor Randy Tamerius. "They were so worn they would begin to creep off-ratio. It could result in a finish that was tacky and took longer to cure. We had to constantly check the ratios."

Changing or adjusting the ratio on the old proportioner was another chore. It could take up to an hour.

On the other hand, changing the ratios on the new ProMix system is easy. It simply requires the operator to enter the new recipe into the controller. When the correct ratio is displayed on the controller screen, the system is reprogrammed.

"It's simple," says Thomas.
According to Thomas, they
discovered just how easy it was to
reprogram the system when the
ProMix Easy was moved from the Jet
Ski finishing line to a line where ATV
parts are painted. "We were going to
have to replace the mechanical
proportioner that was metering and
mixing a clear coat on that line. We
wanted to put the ProMix Easy in
there to see if it could handle the
material as easily as it did the topcoat
on the Jet Ski line."

They installed the ProMix Easy and reprogrammed it without suspending production. "We did it ourselves without any difficulty," says Thomas.

In fact, the team on the ATV line liked the ProMix Easy so much that they didn't want to return it to the Jet Ski line. Kawasaki ended up purchasing a second unit to permanently install on the Jet Ski line.

In addition to proportioning the plural component material and alerting the crew to off-ratio occurrence, the ProMix Easy also measures and records the total amount of the mixed material used, as well as the usage of each separate component. It also monitors pot life and sounds an alarm if the mixed material in the line is close to curing.

"This system is just so much easier to use," says Thomas. "It's easy to set up, easy to operate, and the display is easy to understand. We



The ProMix Easy is simple to program, maintains ratio accuracy, and requires minimal maintenance.

recently purchased a third ProMix Easy and expect to replace the remaining mechanical proportioners with ProMix Easy units as the old proportioners become too costly to repair."

"Since we put the first ProMix Easy in, we haven't had a single problem," he adds.

They got the name right," concludes Tamerius. "It's easy!" •

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