



*Asphalt-laminated paper at Fortifiber passes through a Mahlo quality-control system O-frame scanner.*

## Seeing coating quality

Quality-control scanner gives industrial coater a better view of the process.

**By Melissa Larson, Managing Editor**

**T**here's a big difference between seeing your process and really *seeing* it, so that you can improve it on the fly. That's what operators at Fortifiber can now do, thanks to a quality-control system that lets them see the quality parameters they've set for their laminations and how close they are to hitting them, shift after shift, day after day.

When Fortifiber Corp.'s Fernley, NV, manufacturing plant needed to replace the gauging system on its 98-in.

slot-die paper laminating line, it turned to Mahlo's Qualiscan QMS-10A quality control system. "At line speeds in excess of 650 fpm, it's easy to make a lot of off-spec material in a short amount of time," says resident manager Bill Rieger. "The Mahlo QMS-10A's real-time feedback allows us to hit our coating weight targets faster, and maintain them consistently throughout each production run."

Fortifiber Corp. ([www.fortifiber.com](http://www.fortifiber.com)) is a privately-held company founded in 1939 and headquartered in Incline Village, NV, near the California border. Fortifiber Building Systems Group provides moisture-control systems that help protect residential and commercial buildings from moisture-related problems.

The Fernley slot-die laminating line, known simply as Line 1, produces a wide range of moisture-vapor retardant products, including the asphalt-laminated Aquabar® B.



This a multi-purpose vapor retardant used beneath wood flooring and as a cleavage membrane for interior ceramic tile and stone.

With a change of slot dies, the same production line also produces Seekure®, a premium grade, hot-melt laminated, reinforced nonstaining paper for protecting carpet, tile, stone, wood and resilient flooring.

"The most important thing to our customers is flat sheets," says production supervisor Doug Lynch. "Whatever coating we're using, it needs to be applied consistently at the basis weight we set, with no streaking or clumping.

**"We feel like we've gone from go-carts to stock cars."**

**Bill Rieger, Resident Manager  
Fortifiber Corp.**

We needed a quality-control system that gave us more information on the profile of our coated sheets. The old one didn't give the operators enough data to properly adjust the dies."

### Learning the recipe

Fortifiber's Superior MDM slot-die coater is mounted overhead, taking the 30-lb. kraft paper from the unwind and coating it. On the day *Converting* visited, the line was running Aquabar® B, so the coating was liquified laminating asphalt. The coated kraft moves straight down to floor level, then angles around another roller to be laminated to the second kraft sheet.

Since adjusting the coating dies involves an operator climbing the stairs to the overhead coater area, the less trial-and-error involved in hitting the target coating weight, the better. A remote CRT with die bolt display solves this problem.

Manufactured in Germany, the Mahlo Qualiscan QMS 10A system replaced late 1970s technology, which

was no longer supported by the previous supplier. The new system features state-of-the-art touchscreen controls, user-friendly, menu-driven operator interfaces, and precision cross-machine direction and machine-direction readouts. For the operator, bringing the coating target into spec is simply a matter of selecting the proper product

headquarters located in "NASCAR country"—Spartanburg, SC—since 1968.

### Better profiles, faster runs

Installation of the new system was completed over a long Labor Day weekend. The old hardware was pulled following the end of production on a



*Fortifiber operator watches as asphalt-coated kraft (background) descends from overhead coater to join second sheet. Inspection system tracks coating thickness.*

"recipe" and engaging the auto control symbol on the interactive touchscreen.

The QMS 10A features a compact O-frame scanning unit, another feature Fortifiber liked. "Our previous system had a C-frame scanner that required a 60 percent bigger footprint than the Mahlo gauge," says Rieger. "The QMS 10A scanning frame was easy to install, required minimal site preparation, and features high-quality precision engineered components. We feel like we've gone from go-carts to stock cars."

That's an appropriate analogy, given the fact that Mahlo's North American customers have been served from U.S.

Thursday afternoon. The operator's console and scanning frame were spotted by close of business Friday; electrical connections and wiring were completed by in-house technicians Saturday and Sunday. Mahlo's start-up technician arrived the next work day and by the end of the day, the production line was up and running.

"Consistent coating profiles translate into faster converting with less scrap by the finishing team," according to Lynch. Line 1 typically produces work in process rolls at 73 or 97 inches wide by 50 inches in diameter.

These master rolls are then





*Touchscreen operator console (left) gives the Fortifiber operator at-a-glance data about how accurate the coat weight is for the co's products, each shift.*

rewound and slit to customer requirements, in widths from 6 to 96 inches and in lengths from 100 to 5000 lineal feet. The finished product is in a handy-sized wrapped roll that can be used by the building-trades laborer on the job site.

Improved roll formation—due to fewer coat-weight variations—was an immediate benefit. In the first full month of operation, measured scrap from Line 1 work in process fell 20 percent. “With higher paper and adhesive costs, this efficiency improvement has jump-started the ROI of this project,” said Lynch. ■

## MORE INFO:

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