

Vertical Panel Saw Streamlines Fabrication of Aluminum Composite Material

"People don't realize what it is, but they see it everywhere," says Doug Clay.

Clay is talking about aluminum composite material (ACM) - a layer of low-density polyethylene permanently sandwiched between two aluminum skins. The sleek, high-tech look that ACM panels bring to a storefront, a curtainwall, or even a whole building has been popular in Europe for decades and seems to be catching on in the U.S.

While American architects tend to shy away from the Lego-like colors of some European ACM-clad structures, they specify the material enough to keep Clay busy. As general manager of the fabrication division of Karas & Karas Glass Co., Inc., he oversees bidding and fabrication for a multitude of construction projects in and around Boston. He works with glass and aluminum plate too, but reports that a steady increase in ACM jobs has made his shop a major profit center for his employer.

He saw it coming. Under Clay's stewardship, Karas & Karas has become a recognized leader in ACM construction throughout New England. Among the factors contributing to the contractor's reputation for quality and efficiency is Clay's purchase of two Swiss-made Striebig vertical panel saws in the late 1990s.

Building Business

Karas & Karas contracts have included the fabrication and installation of ACM at Gillette Stadium (home of the New England Patriots) and the corporate headquarters of Reebok International Ltd. Another recent project, ACM panels for a maze of walkways linking airline terminals to the parking garage at Boston's Logan Airport, required so many panels that Karas & Karas purchased more square feet of Alucobond® brand ACM that year than any other business in the U.S.

Produced by both Alcan Composites USA Inc. and Alcoa Building Products, Alucobond and Reynobond/Æ are the ACM Clay works with the most. Light yet strong, it is easy to fabricate. It can be bent into sharp corners or sweeping curves. The versatile panels are usually screwed to metal furring or a plywood frame, but fastening techniques vary. Sometimes the joints between panels are waterproofed with gaskets or caulking.

For a typical job, Karas & Karas buys large sheets of ACM, which are cut and/or bent by Clay's crew in accordance with the building's plans. Although the largest standard sheets are 62" x 16'2" the plants will ship custom sheets up to 30' long if requested. For approximately 80% of his projects, Clay orders ACM that is 4 mm thick, though the material is also available in thicknesses of 3 mm and 6 mm.

Alcan supplies its customers with a "How-To" manual filled with fabrication and installation tips. It was here, back in 1998, that Clay noticed a supplier listing for Colonial Saw Co., whose Massachusetts headquarters were only about 30 miles from his shop.

"At that time we were cutting the material with table saws and routing it with handheld routers," Clay recalls. "It was a mess. There were chips and shavings all over the place. There was a lot of dust. And it was hard to keep from scratching the panels during fabrication."

A Better Way

Clay called Colonial Saw and agreed to meet one of the company's salesmen at the shop of a satisfied Colonial Saw customer — a cabinet shop that was using a Striebig vertical panel saw.

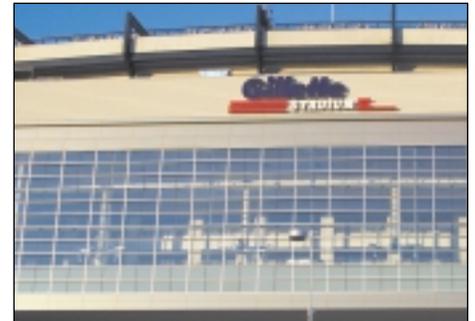
"That was the first time I heard the Striebig name," says Clay. "The saw at the cabinet shop was clean. It was accurate. And I could tell right away that it would be a huge timesaver."

Clay purchased a Striebig vertical panel saw for Karas & Karas, the model called the Optisaw. "It's just an amazing machine," he says. "It paid for itself in the first three months and has paid for itself many times over since then."

Efficient, safe, and easy to use, the Optisaw takes up less space than a table saw. Scratching is minimized because it is the saw head that moves, while the sheet being cut remains in place against the unit's replaceable particleboard backing. A built-in dust-removal system keeps the shop cleaner, and a template bar provides six stops for repeat horizontal cuts. If he wanted to, Clay could use the Optisaw to cut wood, melamine, plastics, or nonferrous metals in addition to ACM.

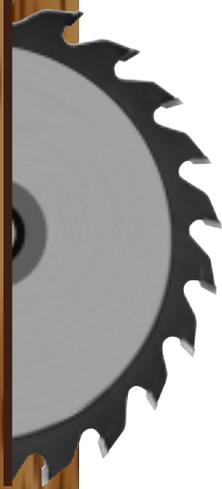


Elevated Walkway at Boston's Logan Airport. Every panel on the project was cut by a Striebig Vertical Panel Saw



Gillette Stadium possesses a sleek, modern and elegant look as a result of ACM panels cut on Striebig Vertical Panel Saw





Striebig saws were the first to feature pivoting saw heads. A quick adjustment rotates the blade 90° to switch from horizontal to vertical cutting and back again. Striebigs are legendary for their smooth-cutting dependability, and their sturdy, precise support rollers permit the positioning of multiple heavy panels (up to 1200 lbs.) with minimal effort.

A year after buying the first Optisaw, Clay purchased another to dedicate to routing V-grooves, which facilitate bending the ACM panels.

"Before we had the Striebigs, we needed three guys to do what just one guy does now," says Clay. "And it was slower! One employee can now trim out enough panels to keep six guys bending. The quality is more consistent, for sure, but time is the main issue, and the Striebig is so much faster."

More Work

More efficient production freed up time for Clay to take on more work, which has increased profits.

Another benefit of switching to Striebig saws has been increased worker safety. "We were fortunate in that we had no injuries with the old table saws and hand routers," says Clay, "but it is clear that injuries are less likely now."

Aside from routine maintenance such as blade sharpening and replacement, the Optisaws have required little service. Their fully welded, heavy-duty frames stay square over time. Each saw is tested at the factory to ensure its accuracy to .004". Striebig engineers are focused on perfecting vertical panel saws because the company produces no other products.

"We don't have a minute of downtime," Clay says. "Colonial Saw installed the saws, and the little bit of technical support we've needed since then has been fantastic. I hear these machines last forever."

The exclusive North American importer of Striebig saws for more than 25 years, Colonial Saw has an extensive dealer network, complete parts inventories on both coasts, and five full-time Striebig technicians.

Striebig panel saws are available with performance-enhancing options such as digital measuring, split-blade scoring, programmable electronic positioning, angle cutting, dado cutting, V-grooving, and a two-speed motor. Striebigs new TRK dust-extraction system keeps dust to an absolute minimum, and a new vacuum system allows bottom-edge trimming without flipping the panel. The company's newest models, named the Evolution (manual) and the Control (automatic), carry out many procedures with the push of a button.

Bright Future

ACM offers several advantages. Although it can be painted after fabrication, the attractive factory finish is usually left alone. That finish is uniform because whole coils of the material are coated in one step. Developers and their architects have come to trust the durability of the material, too — exterior ACM panels that were installed in the mid 1970s have not delaminated despite 30 years of weathering. Thanks to equipment like the Striebig Optisaw, ACM is cheaper and easier to fabricate than sheet aluminum. However, it is ACM's aesthetic appeal that trumps all other explanations of the material's rising popularity — the clean, smooth look is in fashion. In addition to a brushed or polished metal finish, ACM can be ordered in any color, high gloss or low. Although the panels for Clay's latest project, a new arena at Boston University, are flat beige, the future of ACM appears bright.



These two Striebig Vertical Panel Saws have helped Karas & Karas become the leading fabricator/installer of ACM panels in New England

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