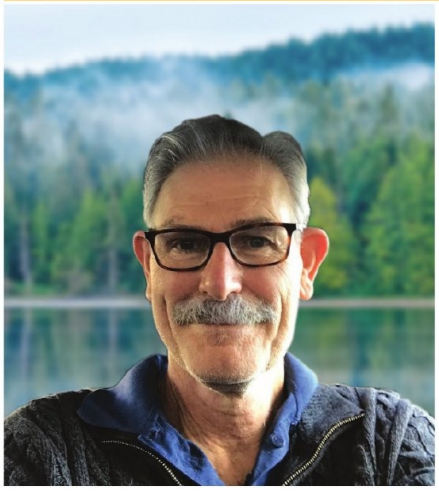
duction? Wagner didn't know all the reasons, but he did say, "Block pallets require a lot of labor to make by hand. And there are fewer operators out there who can do it efficiently, and even fewer that will even try. That's why there is interest in these nailing solutions. We also see more customers that are trying to diversify by offering block pallets."

The Little Buddy and Big Buddy cannot make every block pallet, but Midwest always reviews each application to see what's possible. Wagner clarified, "Block pallet design is often more complex than stringer pallet design. For this reason, we always ask for drawings before committing to any machine build. We want our customers to know what they will get from the machine so there are no surprises. Our machines have a shifting jig and nail in one line when the nailing gantry goes down and a second line when it goes back up. The Little Buddy also does this, but it has steel plates to clinch the nails over.

The Block Pallet Buddy machines are built on the Woodpecker Junior platform. The Little Buddy mat nailing machine was initially conceived and manufactured by Stutzman's. Still, the decision was made that the stringer pallet machines and the block pallet machines needed to be separated to improve efficiency and lead times. Now manufactured by Millcreek Machine, Millcreek redesigned both machines to make them what they are today. Millcreek redesigned the controls and logic on the Big Buddy to make it more reliable, plus the jigging system has been enhanced to make the operation of the machine more ergonomic, while also easier to changeover.

Wagner commented, "We have completely redesigned the Little Buddy mat nailing machine. It is a completely new concept that is unique to us. The team at Millcreek figured out a way to put a mat takeout on the machine while still allowing the machine to quickly and easily be changed from one mat size to the next. In the past, operators had to hand stack the mats. Now, the system kicks out the mats

Pallet Collars Offer Flexible Solution For Hard to Stack Unit Loads



By Rick LeBlanc

I first heard about pallet collars in one of my earlier assignments with *Pallet Enterprise* in the mid-1990s. I was interviewing Drew Graham of Hardy-built Fasteners, a hardware supplier, and he described how after he introduced the concept to an automotive plant, they had been a game changer.

The reason they became a game changer is of particular relevance in today's supply chain landscape where storage capacity is at a premium. For the automotive plant, they allowed for the multiple block stacking and better storage efficiency of crankcases that previously had just been stored single-pallet high and consuming an exasperating amount of floor space. The same tenant holds true today. Pallet collars allow for the efficient block stacking of irregular, crushable or otherwise unstackable palletized materials.

What Is a Pallet Collar?

The pallet collar, also known as pallet frame or pallet surround, is a vertical structure that can turn a standard pallet into a customizable storage or shipping container. It features four or more wooden or engineered wood boards connected by hinges, which allow the boards to be stacked on top of the pallet surface to create a box-like structure.

Pallet collars lock on top of each other through the use of interlocking corners or stacking pins. Each collar has corner hinges designed to fit securely over the edges of the collar beneath it. These hinges typically feature a protruding section or pin that aligns with a corresponding hole or recess in the collar below, ensuring that the collars stay securely in place when stacked, preventing collars from sliding or shifting during transport.

A quality supplier of pallet collars is Midland Wood Products. It offers both new and recycled collars, including standard and custom sizes. Midland provides short lead times and can provide floors, lids and other components to match.

The hinges enable the collar to fold flat when not in use, making it easy to store and transport. Pallet collars can be stacked in multiple layers to accommodate different load heights, and they are often used with a pallet lid to fully enclose the contents. This modular system provides versatility and protection for goods during storage and transportation.

Pallet collars are foldable. This feature allowed for significant space savings and promoted the efficient storage of empty pallet collars back to the point of origin, becoming an early example of a successful reusable packaging application.

Ongoing Design Improvements

Initially, pallet collars were made from solid wood boards and hinged together with simple metal brackets. These early designs were sturdy but somewhat heavy, making them cumbersome to handle manually. The earliest patents for pallet collars seem to date back to the 1960s and 1970s, representing an improvement on earlier pallet boxes and even knock-down pallet boxes.

The innovation of foldable pallet collars was made possible with a hinged six-sided configuration, allowing the two ends to fold inward, sandwiched between the two sides when collapsed. This feature allowed for significant space savings and promoted the efficient storage of empty pallet collars back to the point of origin, becoming an early example of a successful reusable packaging application.

Modularity and ease of customization were other attractive features. Pallet collars could be added as necessary to accommodate loads of various heights without wasting material or space, while reducing the need to inventory a greater range of container sizes to otherwise meet material handling needs.

Pallet Collars in Today's Market

Pallet collars remain relevant in today's market, manufactured with wooden boards, engineered wood, as well as other materials including plastic and metal. According to one market research firm, the pallet collar market is growing at a healthy 8.1% CAGR

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Given the ability to add or subtract collars, they reduce the need for inventorying containers of multiple depths to perform the same task. Additionally, wood or engineered wood side panels can be easily customized in length and quickly fabricated to fit the application.

growth rate globally, with the worldwide market to reach $500 million by 2025. While that is a spit in the bucket compared to the pallet market, it is nonetheless an interesting niche to consider. Leading applications include automotive, heavy manufacturing, food and beverage and pharmaceutical.

Pallet collars represent several attractive benefits for today's market. Consider the following:

• **Improved storage capacity**. Pallet collars allow for the safe and efficient stacking of goods that could not be otherwise stacked, creating superior cube utilization for storage and eliminating the need to install costly pallet racking solutions to achieve the same outcome.

• **More sustainable**. Pallet collars can be made from wood, which is identified as a sustainable, renewable resource. As a reusable packaging solution that can be reused for several cycles, those savings are commensurately increased on a per-use basis.

• **More flexible**. Given the ability to add or subtract collars, they reduce the need for inventorying containers of multiple depths to perform the same task. Additionally, wood or engineered wood side panels can be easily customized in length and quickly fabricated to fit the application.

• **More cost-effective**. Reusable pallet collar systems save money on a per-trip basis through reuse. They can also eliminate the need for stretch or shrink wrap.

If you are looking for a supplier of pallet collars, consider Midland Wood Products. It offers both new and recycled collars, including standard and custom sizes. There is no minimum order quantity. Midland provides short lead times and can provide floors, lids and other components to match. If you need export certified material or Euro sizes too, Midland Wood Products has you covered. Contact michael@midlandwoodproducts.com or call (800) 621-0792.

When customers encounter difficult to stack palletization problems, keep pallet collars in mind as a value-added solution you can offer.

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