

Feeder Finger Delivers Productivity-Enhancing Solutions for SMT Feeders

By Bill Hayes – VP of Business Development

Headquartered in San Diego, Feeder Finger is a division of Automation Technical Service (ATS), which was founded in 2001. At that time ATS was focused on Standard Pro 2mm Pitch Feeders for the Quad / Tyco platform. The success of the Standard Pro Feeder led to the company's expansion and the development of the Cut Tape Feeder Finger. This initial design released in 2010, with full production launched in late 2016. Feeder Finger serves as a problem solver for surface mount technology (SMT) manufacturers by designing innovative products that work with equipment from the top suppliers in the industry. The company's goal is to help customers by removing roadblocks in SMT manufacturing.

The company's mission is to design innovative products that reduce costs and improve efficiency on the production floor. With the Feeder Finger solution attached to existing OEM feeders, users can save cost and eliminate waste by purchasing close to the exact number of components required for each job without the concerns of effectively feeding strips of component tape. Additionally, Feeder Finger offers a highly efficient way to run prototypes, one-offs and NPI processes that are proven to provide near zero component loss while running full reel production.

"At Feeder Finger we prefer to look at it all through the prism of productivity – our products help achieve greater equipment utilization, enhance throughput with greater levels of efficiency and enable better use of production hours," added President Kelvin Wiley.

Feeder Finger offers productivity-enhancing solutions for all major SMT feeders, including Juki, Samsung, Yamaha, Panasonic, Siemens, Essemtec, I-Pulse, and ASM. "Our products help ease the concerns of feeding strip tapes associated with component shortages while allowing contract manufacturers to purchase only the number of components required for each job," Wiley added.

Automation Technical Services launched the Feeder Finger division more than eight years ago with the addition of the Cut Tape Feeder Finger products, designed to elevate the efficiency of existing OEM feeders. By attaching the Feeder Finger to existing production feeders, load and unload times can be reduced to seconds, allowing operators to get jobs into production in a fraction of the time of conventional feeders. While production downtime can be the result of numerous factors, the most common is caused by machine setup and changeover times.

"It is not uncommon for production lines at SMT factories to spend more time on setup and line changeover than actually running production," Wiley said. "The Feeder Finger goes a long way in reducing the setup and changeover times on the production floor."

The Feeder Finger Solution adapts manufacturers' feeders to meet the requirements of today's contract manufacturers to handle cut tape, reduce feeder setup time, and increase feeder performance. With the Feeder Finger installed on OEM feeders, cut tape as short as 3" can be fed to the pick-and-place machine. This reduces the feeder setup and changeover time by 50 percent, and feeder performance is elevated by eliminating cover tape jams during production.

The most problematic component of OEM feeders is the separation and collection of the cover tape. Cover tape feeder jams and cover tape splice problems account for a large percentage of machine stops during production. The Feeder Finger eliminates the cover tape collection process entirely while providing the machine operator with the ability to load strips of cut tape as short as 3" without splicing or using additional strip feeders. Feeder Finger not only envisions the flexibility of existing feeders handling cut tape but also the ability to increase performance over traditional feeders.

As previously mentioned, one of the SMT feeders the company works with is Juki Automation Systems. Close to two years ago, Feeder Finger agreed to supply Juki with Cut Tape Feeder Finger Products for its feeders. Working closely with Juki's technical team, Feeder Finger increased the original contracted commitment to incorporate five feeders and shipped the first round of production units for the RF, AF, CF and EF Feeders near the end of 2017, allowing Juki customers to realize the numerous benefits of the Cut Tape Solution for their Juki feeders.

Bob Black, Juki CEO, stated "We are impressed with the innovative design developed and patented by ATS and we are very pleased to be able to offer this product to our customers. We look forward to a long relationship and high-volume sales of the Feeder Finger product."

Wiley remarked, "Feeder Finger is proud to partner with Juki for worldwide sales of our Juki product. Our end goal in designing these products was to partner with the top suppliers in the industry, and Juki certainly qualifies as one of the best. We also look forward to a long, successful relationship together."

Additionally, earlier in 2018, the company signed a distribution agreement with Trans-Tec America to distribute the Yamaha and iPulse Cut Tape Solution in the US, Mexico, and Canada. ATS designed the Feeder Finger to fit each feeder model precisely. The high-quality anodized aircraft machined aluminum replaces the existing tape guide. Feeder Finger allows for an unskilled operator to easily supply taped components by merely inserting the tape itself without the need for splicing or complex routing of the cover tape through the feeder. "Feeder Finger is excited about this relationship with Trans-Tec," said Wiley. "This relationship provides Yamaha and iPulse customers with the ability to work with their current supplier to enhance their pick-and-place machines to handle cut tape demands."

The company's products help these customers and many others achieve greater equipment utilization, enhance throughput with greater levels of efficiency, and enable better use of production hours. Feeder Finger products are designed and manufactured in the United States to exacting tolerances to feed industry standard 8 mm paper tapes.

Wiley added that Feeder Finger is proud of its desire and ability to continue building its products in the United States. As many manufacturers have looked overseas to reduce their build costs, Feeder Finger understands the importance of having its manufacturing close at hand to ensure product quality and time to market.

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