



HIGH SPEED GLUE LAYING APPLICATION

Saving time and money and improving performance with application expertise.

The machine builder was contracted by an automotive tier supplier to design several glue laying machines for automotive headliners. The first system was a Yamaha XXYZ ballscrew and linear motor solution, which lacked sufficient stiffness to make the necessary cycle times.

FEATURED PRODUCTS: HPLA, MMP motors, Compax3 drives, ACR9000 controller, PIO

CHALLENGE

The gantry system used by the customer was made up of an XX'YY'Z system, with dual driven HPLA120 actuators on the XX' axes, a single drive and idler rail HPLA120 for the YY' axes, and an HD125 unit for the Z axis. Parker gearboxes, motors (MPP Series), cables, drives (Compax3 Series), controller (ACR9000 series), and I/O (PIO over CAN) were also used on the system. Additionally, Parker designed the Z axis brackets in the system to ensure high rigidity for dynamic acceleration in both the X and Y directions.

SOLUTION

A detailed analysis of the customer's application was done, with key consideration paid to cycle time and stiffness. Parker supplied the mechanics, motors, drives, controller, cable management, and custom bracket design. Key factors to the success of the project included:

- Ability to meet critical deflection criteria vital to the application.
- Ability to quote, design, manufacture, and deliver the system within a short lead time.
- Key distributor relationship with customer, extensive past history and the ability to solve problems.

CUSTOMER VALUE

The customer saved time and money associated with the redesign and manufacture of support brackets for the first Yamaha system—approximately \$2000 savings. It also benefitted in a lower system cost. The estimated Yamaha solution was 20% more expensive, which would have cost \$12,000. Parker improved the current design, allowing the machine builder to offer a faster cycle time and higher throughput to the customer. Cycle time improved by 30+%.



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