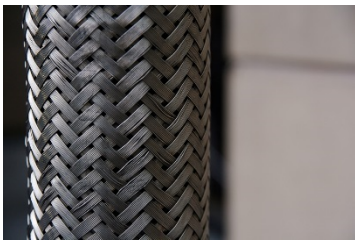
Application Profile

Parker AC10 Drive System Winds Braided Shielding with Precise Control

A global manufacturer of high performance electrical cable and cabling systems was having issues with an existing process used to wind braided metallic wire shielding onto a reel. In a winding application like this, when driven from a center spindle, as the reel builds up the speed must decrease proportionally, but still must maintain tension without slack. The existing control system was not capable of satisfactorily performing this function, resulting in unacceptable finished product quality. For this reason, the customer decided to retrofit the winders with a new drive system.



The solution: A system based on the Parker AC10 variable frequency drive, which includes a feature known as torque control. When run in this mode, the winding reel will maintain a set tension on the braided shielding as it comes from the braiding process. By using an analog input to control torque, the tension can be set to the point where the material is wound neatly onto the reel, but without excessive tension that could damage the finished product or affect the upstream process.

Furthermore, the AC10 was able to accomplish this without **requiring a feedback device** or any additional hardware, making the retrofit easy and economical. Programming software for AC10 is provided free of charge, and allows the drive setup parameters to be downloaded and cloned to other winders in the mill.

In addition to the benefits of easy and quick machine setup, the AC10 also offers compact dimensions and features normally only associated with higher priced drives, including, sensorless vector mode, output frequency up to 590 Hz, and a full 150 % overload for 1 minute. AC10 provides an optimized solution for OEM machine builders looking for a compact, cost-effective, UL listed drive without compromising on performance.

Proven technology and manufacturing techniques ensure AC10 will deliver outstanding levels of performance day in, day out ensuring maximum uptime and productivity. Thanks to its conformally coated PCBs, AC10 is able to withstand even the most arduous class 3C3 environment, allowing you to operate AC10 with the utmost confidence in more applications.

The AC10 is available for applications ranging from 1 to 200 HP, and with a broad range of options. It can be configured for operation of induction motors, or PM AC motors. For more information about the Parker AC10 series, please visit our website: www.parker.com/ssdusa