

ErgoSpooler

Showmark Precision Optical Fiber and Fine Wire Respooler



Precision and Comfort for Special Spooling Needs

The ErgoSpooler is a precision winding machine for applications where interaction or monitoring by an operator is required. It is ergonomically designed with the takeup spool and operator interface within easy reach of the user. The moving takeup and payoff design produces neat and even layers of material onto a spool or mandrel. It includes a 12-inch color touchscreen interface, recipe manager, custom report generator, and an optional high magnification color camera system. The convenient foot pedal control frees up both of the operator's hands for applying adhesives, inspecting the spool, or other special requirements.



A Flexible Solution

The ErgoSpooler can be configured for almost any precision winding application. It can be equipped with various sized shafts for holding standard style spools and mandrels; or it can be fitted with chucks or a sliding tailstock to add flexibility for unique winding requirements. It is also possible to integrate

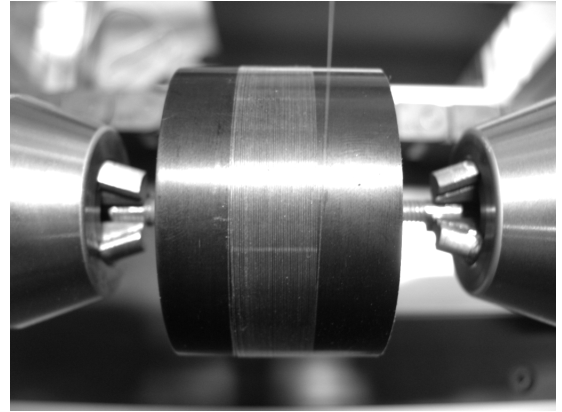
laser micrometers, marking systems, or other devices into the machine for special needs. The standard 12-inch touchscreen interface provides excellent functionality, but it can also be customized for specific requirements. The standard Recipe Manager and Report Generator can also be modified for your exact needs.

A Precise Solution

The ErgoSpooler is typically configured with a 4-axis servomotor control system with closed-loop tension control. Solid state tension transducers are available with ranges from less than 10 grams to 5 kilograms. The system provides smooth starts and precise stops with .02% length repeatability.

The ErgoSpooler employs a moving payoff and takeup design. This assures that the wire travels in a straight path onto the takeup spool. The result is a compact system with less twisting of the wire, more control over the winding process, and potentially perfect rows and layers onto the spool. It also produces less stress and side loading when winding delicate materials. The traversing system that guides the fiber has a positional repeatability of +/- 3 microns.

The fiber is guided through the machine by extremely low friction guide wheels with a 35mm bend radius.

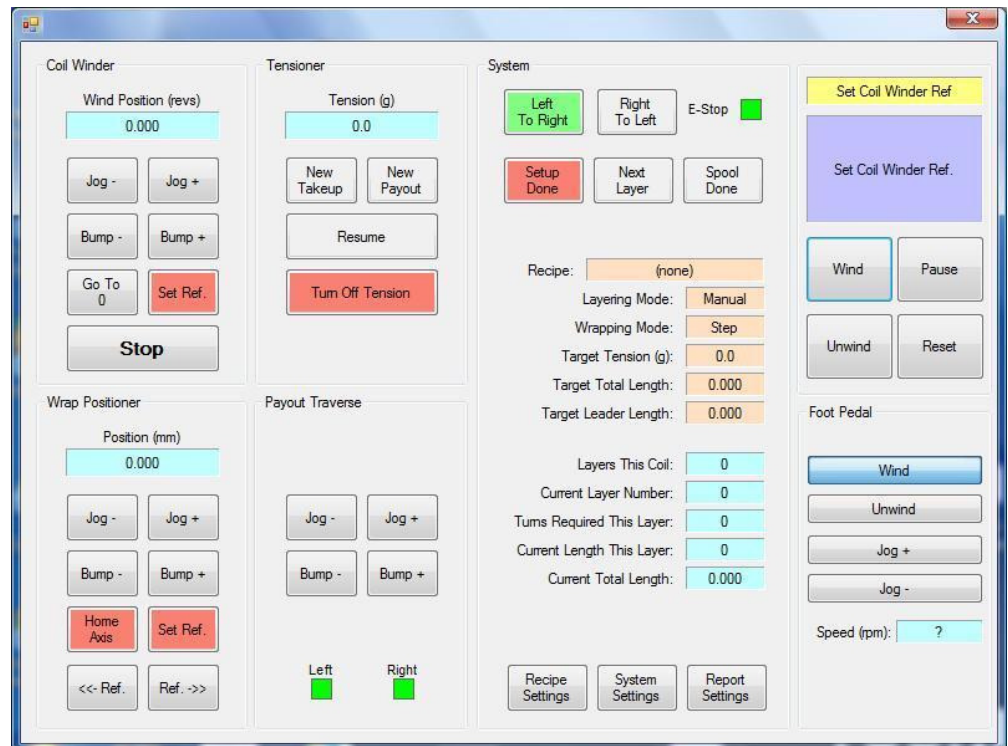


A Smart Solution

The ErgoSpooler features a 12-inch touchscreen interface for easy setup and viewing of information. If desired, the operator is given full control over all winding parameters including: winding speed, winding pitch, tension, starting position, spool width, total spool length, and leader length. They may also choose to wind a specific number of layers or turns instead of a total length. The user may also choose a conventional helical winding pattern or a one step per turn pattern.

The system can store all of the setup parameters for a given product in a Recipe Manager. Several thousand recipes can be saved and recalled using alpha-numeric names.

In addition, detailed reports can be generated and stored or printed after each spool is made. Besides setup information, the report can include the operator's name, a serial number for the part, and specific information such as fiber type, lot number, and manufacturer.



Standard Options

Takeup Travel: 100mm, 200mm, 300mm, 400mm, 500mm
Payoff Travel: Fixed (zero travel), 100mm, 200mm, 300mm, 400mm
Takeup Shaft Size: 10mm, 15mm, 20mm, 0-10mm Chuck, Sliding Tailstock with Dual Chucks (travel based on takeup travel)
Payoff Shaft Size: 10mm, 15mm, 20mm, 0-10mm Chuck
Tension Control Range: 10-100g, 20-200g, 30-500g, 50-1000g

Custom Options and Configurations

The modular design of the ErgoSpooler allows easy integration of laser micrometers, marking devices, adhesive apply systems, or other special equipment. The PC-based controls and interface make it very adaptable for special applications. Contact Showmark to discuss custom screens, reports, and winding requirements.

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