

The MGS Group



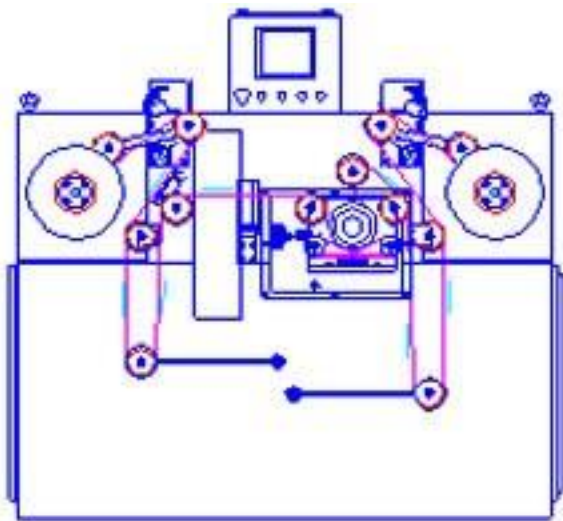
OPTICAL FIBER REWINDER

The MGS / HALL Optical Fiber Rewind / Inspection machine demonstrates high productivity.

Figures 1 and 2 show the machine and string up schematic.

Our Rewinder is designed to run at speeds up to 800 meters per minute (2625 feet per minute), while maintaining tension as low as 30 grams, (1.0 ounce).

This compact unit is caster mounted for easy movement throughout your plant. Simply plug in the power and connect the air.



FEATURES:

Traversing Reel Payoff And Takeup Sections

As this Rewinder is bi-directional, both the Payoff and Takeup sections are identical. The spindle that is operating as a Payoff will have a sensor to traverse the Payoff reel to maintain the product on centerline. The spindle that is operating as a Takeup will use our digital traverse control system for setting and controlling the traverse lay.

Optical Fiber Dancers

Special Optical Fiber Dancers are used for tension and reel speed control. A special low friction air cylinder controls the fiber tension. An E/P converter precisely controls the cylinder air pressure and is set by the system touchscreen. The sheaves are Delrin or lightened hard-coated aluminum.

Tension Monitoring Load Cells

Sheave mounted load cells are located on either side of the line speed Capstan to monitor Payoff and Takeup fiber tension. The tension readings are displayed in grams on the system touchscreen.

Line Speed Capstan

This belt wrap type Capstan performs several functions. It sets and maintains a constant line speed, provides the signal for the length counter, and isolates the Payoff unwinding and Takeup winding tension.

The measuring system is incorporated into the Rewinder PLC. The operator interface will show total footage run, provide a dual preset point for slowdown prior to final preset, and also indicate feet or meters per minute.

Portability

The Rewinder frame is mounted on casters for portability. Two pancake air cylinders lock the Rewinder in position when power is turned on.

Control System

A PLC is used to control five AC vector drives. All functions are monitored and recipes can be stored to ensure repeatability for different products. The MMI is a large 10½-inch Color Touchscreen set up with the Customer input.

Fault Detector

MGS / HALL can provide lump diameter and fault detector units and integrate into the PLC control system with the following operating modes:

Auto:

Fault detection system is in automatic mode. When a fault is detected, the respooler will stop and rewind back to the location of the fault.

Off:

Fault detection system is turned off. If a fault is detected, the mode switch will blink but the system continues to run instead of stopping and rewinding to the fault.

Manual:

The system will slow down and stop if a fault is detected but it will not rewind back to the location of the fault. After the system stops, the operator can use the jog button to rewind the fiber and locate the fault manually.



MGS / HALL designs and manufactures product handling solutions which include Payoffs, Takeups, Dancers, Accumulators, Measuring Machines, and Capstans to handle most any product from sensitive optical fiber to 1000MCM (507-mm²) power cable. We also can handle odd shapes, tubing, ribbon, and tape.

Our Automatic and Semiautomatic Takeups are extremely reliable for on-line packaging of a wide range of products and reels at high speeds, resulting in significant cost savings.

Machines that are built to meet the specifications of the individual customer is a characteristic of MGS/HALL systems. Comprehensive design and engineering capabilities together with meticulous manufacturing techniques and careful testing assure customer satisfaction. Some say we design machines with the user in mind. We like to think we're in the business of solving problems for other business – like yours!

The MGS Group

www.themgsgroup.com | sales@themgsgroup.com | 315-337-3350

MGS Manufacturing
122 Otis Street
Rome, NY 13441 USA

Hall Industries
8C Commerce Drive
North Branford, CT 06471 USA

Northampton Machinery Co.
7 Deer Park Road
Northampton NN3 6RX England