

LECO MasterFlow II

Gin Stand Controller

- True digital loop control
- Message center display
- Use AC or DC feeder motors
- Lint cleaner / battery condensor connectivity
- Ethernet connectivity facilitates remote monitoring and control even via the Internet

State of the art PID loop control in a gin stand controller is now affordable. Precise automatic control of the current on the saw motor translates into a highly consistent flow of cotton through the gin. Our newest control is built around Square D's latest and greatest mini-PLC, which processes true digital signal inputs for more precise control than ever. The operator control is packaged in a 14" x 12" x 6" NEMA 12 enclosure.



The operator enclosure (shown above), which mounts at the front of the gin stand, is connected to the 'brain' of the system, mounted in a 24" x 20" x 8" enclosure. The Square D Twido PLC is packaged with either a D.C. drive or an A.C. variable frequency control.

In addition to the automatic load sensing and feeder speed control, the breast will kick out from motor overload, loss of air pressure, or out-of-cotton limit switch inputs. The fire switch function kicks the breast out and runs the feed at high speed to empty the feeder. (This expels the fire from the feeder without sending it to the gin stand.)

Outputs to control lint cleaners and the battery condensor are provided and can work with LECO's MasterLink system or other control schemes.

Since Ethernet is the communication protocol, a remote touch screen can be provided to control all gin stands or complete trouble-shooting by LECO personnel is available via the Internet.



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MasterFlow II Message Center Screens

The Square D 'Magelis' message display is a user-friendly way to monitor your gin operation and adjust the MasterFlow II to match the quality of the cotton with the desired ginning rate.



In the "AUTOMATIC" mode, the user enters a desired load for the saw motor consistent with the ginning rate. A current transformer on the saw motor sends a digital signal to the Twido PLC, which will vary the feed motor, either AC or DC. This screen shows the values for the current load on the saw motor in real time both in actual amps and as a percent of full load. The trip point setting is displayed both in amps and percent. If exceeded, the gin stand will automatically breast out.

In the "MANUAL" mode, a fixed feed speed may be entered. The saw motor load is displayed in both amps and as a percent of full load. The trip point setting is shown in both amps and percent. If the trip point is exceeded the gin stand will breast out.



The "BREAST" screen allows the user to set independent time delays for breast functions. This is where the user designates the full load current for the saw motor and the size of the current transformer to be utilized in the PID control algorithm.

Since the MasterFlow II is designed to work with any existing control system, it can accept up to (4) pressure switch inputs and (3) limit switch inputs.



Check with your salesman or call 800-692-4474 for price and availability of rebuilt units.
www.lubbockelectric.com

Related Products Available: *MasterFlow (the original), MasterFlow Plus Touch Screen Gin Control, and MasterLink.*