

Humidaire Units and Fiber Moisture



Gas-fired Humidaire Unit

Fiber with moisture is good for the gin, good for the grower, and good for the mill. Adding controlled, uniform moisture to improve fiber quality is our specialty. We are Samuel Jackson, the company that introduced humid air to cotton gins. This is a brief introduction to our Humidaire Units and moisture application devices. For those familiar with humid air and cotton fiber, these products are what you have waited for. For those new to cotton moisture control, there is no better time than now to begin.

Pictured at left is the latest model of humid air generator or “Humidaire Unit”. This machine uses a unique combination of fire and water to generate humid air for even addition of moisture to seed cotton or lint. Humidifying lint evenly permits our systems to add more than 17 pounds (7.7 kgs) of moisture per cotton bale, reduce hydraulic pressure, and improve spinning characteristics of the fiber.



A Samuel Jackson burner provides heated air for the Humidaire's spray chamber

The Humidaire Unit's operator has precise control over the relative humidity of the air and can optimize performance under all conditions. Samuel Jackson trains gin personnel in the operation and maintenance of moisture control products. Equipped with this training and a quality humid air generator, moisture restoration becomes easy and profitable.



20500 Dual Digital Temperature Control for Humidaire Unit

The control system prompts the operator whenever something requires special attention. The prompts and alerts are stored for future review by gin management and Samuel Jackson technical personnel. The time and date stamp on each event keeps operators trained and alert to fiber moisture problems that otherwise might be overlooked.



20050 Remote Diagnostic Panel for Humidaire Unit

Hidden features of the latest model Humidaire Unit from Samuel Jackson include a spray chamber that stays clean, rock-steady temperature control, and half a century of Humidaire experience.

Call us at 806-795-5218 or Toll-free at 800-862-9966
Visit us on the Internet at www.samjackson.com

So many ways to use humid air. . .

A Steamroller (right) is the most powerful moisture application device for cotton fiber in the world. Designed for high capacity gins, many smaller gins also enjoy a Steamroller for the maximum weight regain at the press.

The Steamroller is placed just after the battery condenser. A large perforated drum rolls on top of the lint cotton batt as humid air is forced upward through it. A stainless steel roller doffs the drum and squeezes the moist batt for final compression before the press.



Conditioning Hoppers between the feeders and conveyor distributor humidify seed cotton to protect staple, reduce short fiber, and improve final moisture restoration.

Conditioning seed cotton was the original purpose of the Humidaire Unit. Today, gins are rediscovering the benefits of staple preservation and reduction of short fiber. Other gins have discovered that early conditioning makes the press moisture system even more powerful. Conditioning hoppers (middle left) provide these benefits.

A Samuel Jackson original from the 1970's, the Lint Slide Grid (lower right) provides a humid air bed for the cotton to glide on between the battery condenser and press. As the batt floats, significant moisture is gained. Simple and economical, the grid is a favorite for small to moderate gin plants and an excellent first step on the way to a Steamroller System.



A batt of evenly moisturized lint cotton exits a Steamroller on the way to the press.



The batt of lint cotton floats to the press on a bed of humid air provided by this stainless steel Lint Slide Grid.

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