







Product List

1 May 2011

Tel: 806-795-5218
Toll free: 800-862-9966

Fax: 806-795-8240
Web: samjackson.com

This Product List introduces products in the Samuel Jackson product family under categories explained below. Look for **HB XX** references that guide you to the correct page in the Samuel Jackson Moisture Handbook for more product details. **HBU** references the 2010 Moisture Handbook Update.

Budget-Saver		Budget Saver products identify your lowest first cost option. These products use basic and simple-to-use controls. As part of the cost control in providing these products, a limited inventory may increase delivery times and they do not include start-up services. In some cases, on-site technical service may be available for an additional charge.
Gateway		Gateway products have more features and power than the Budget Saver products, but still provide an inexpensive price. Some of these products are eligible for upgrade programs, as the needs of your gin grow. Limited start-up services are provided with some products.
Fusion		Fusion products feature a blend between good prices and good performance. Because of their wide appeal, these products are generally produced in larger runs, allowing faster delivery in most cases. Many of these products are eligible for upgrade programs. Start-up assistance is generally included.
Pinnacle		Pinnacle products have the highest first cost, but also deliver the highest performance, resulting in your best return-on-investment option. These products feature sophisticated, yet easy-to-use controls, packed with features to deliver maximum results. Generous start-up, technical, and training services are included on all domestic installations.

HANDHELD COTTON MOISTURE METERS HB107



Delmhorst handheld moisture meters are easy-to-use, easy-to-carry, and offer exceptional repeatability to help the ginner in fine tuning moisture control machinery. They are also excellent for probing modules in wet conditions to spot future problems.

- 16001A C-2000 Cotton Moisture Meter, with case, less electrodes.
- 16002A 30-E/C Bale Moisture Probe for 16001A.
- 16003A 52-E/C Cup electrode for seedcotton moisture, for 16001A.
- 16876A 830-T/C Tee Handle Module Moisture Probe, 38" long, for 16001A.

FIRE TOOLS HBU

Fire Tools is a collection of products designed to sense and prevent fires in production systems handling flammable materials. These are particularly attractive to cotton gins. These products can be used to sense and report the presence of an imminent fire condition, or they may be wired to initiate control strategies automatically.

Argus spark detectors can detect a single spark in 1/50th of a second when the spark is travelling at 200 feet per second down a pipe.



- 23400 Argus 343 Spark Detector. Requires an Argus Z-series panel (see below). Multiple spark detectors may be connected to a single zone for wide coverage.
- 23401 Argus XTRA Z-1 single zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 1 relay.
- 23402 Argus XTRA Z-2 dual zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 2 relays.



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- 23403 Argus XTRA Z-3 triple zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 3 relays.
- 23404 Argus XTRA Z-4 four zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 4 relays.
- 23405 Argus XTRA Z-5 five zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 5 relays.
- 23406 Argus XTRA Z-6 six zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 6 relays.
- 23407 Argus XTRA Z-7 seven zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 7 relays.
- 23408 Argus XTRA Z-8 eight zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 8 relays.
- 23409 Argus XTRA Z-9 nine zone panel. Expandable to up to 10 zones maximum. Each zone may be connected to up to 10 spark detectors. With 9 relays.
- 23410 Argus XTRA Z-10 ten zone panel. Non-expandable beyond the 10 zones. Each zone may be connected to up to 10 spark detectors. With 10 relays.
- 23421 Argus expansion zone card with relay and base for existing Argus Z-X panel. Allows the addition of an additional zone to existing Argus panels above.
- 23398 Argus isolation transformer for Z-X panels. Provides correct voltage and filters power.
- 23399 Argus horn/strobe combo for Z- panels. Provides visual and audible warning of fire.

SawSavers use infrared imaging to detect a potential fires source on a gin saw cylinder much faster than human response could discover the potential fires.

- PIERCE SawSaver with two infrared sensors, single Red Lion controller, and oil-tight operator switch panel. (This item available only through MoistureSurplus.com)
- 82700 SAM JACKSON SawSaver with ROC (Under Pierce license). Two IR sensors, PLC and C-More Micro station. Provides automatic adjustment of alarm settings. Installation services for SawSaver sensors by Eddie Pierce (US only)
- 82800 Fire Tools Interface.



HUMIDAIRE UNITS (MOIST AIR GENERATORS)

The Humidaire Unit is Samuel Jackson’s trade name for a warm moist air generator designed for cotton gins. Any of these moist air generators may be used for safely conditioning both seed cotton and lint cotton. Units are sized by their water evaporation capacity and are available in ranges from .9 gallons/minute up to 4.8 gallons/minute. Choose either gas-fired models or oil-fired models. Control systems range from very simple manual controls on the smallest unit to sophisticated PLC systems with color touch screens on mid-sized and large units. Fully automatic operation is possible with many of these models when paired with Samuel Jackson sensors and controls for cotton gins. Optional remote control of multiple mid-size and larger units is available when used with a single Samuel Jackson Moisture Mirror 2X, 3X, or 4X. All units except Breeze come with 14900A scanner. Specify voltage and power frequency when ordering a Humidaire Unit. 3-Phase 480/60, 380/50, 380/60, and 415/50 are available.

Gas-Fired Models

- 82360 “Static Zapper” Mini-Humidaire. Gas-fired. 1 gallon/min. Semi-Automatic PLC-based control. 1,000 CFM max. Gins to 20 BPH.
- 83400 HU-80-1635 “King Mesa” Humidaire Unit. Gas-fired. 3.5 gallons/min. PLC/Color touch screen control. 4,000 CFM max. Up to 60 BPH.





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82100 HU-SOUTHWEST-1480 Humidaire Unit. Gas-fired. 4.2 gallons/min.
PLC/Color touch screen control. 5,000 CFM max. Up to 80 BPH. **HB48**



Oil-Fired Models

82370 "Static Zapper" Mini-Humidaire, Oil-fired. 1 gallon/min. Semi-Automatic
PLC-based control. 1,000 CFM max. Gins to 20 BPH.



82510 HU-80-1145 "Zephyr" Manual Humidaire Unit. Oil-fired. 1.5 gallons/min.
Manual control only. 2,500 CFM max. Gins to 35 BPH. Two stage burner. **HB53**



82500 HU-80-1545 "Sahara Lite" Humidaire Unit. Oil-fired. 3 gallons/min. PLC/Color
touch screen control. 4,000 CFM max. Gins to 60 BPH. **HB55**



82200 HU-SAHARA-1490 Humidaire Unit. Oil-fired. 4.8 gallons/min. PLC/Color
touch screen control. 5,000 CFM max. Gins to 80 BPH+. **HB57**



Tip: Try a Moisture Mirror 2X, 3X, or 4X (Page 10-11) for remote control of Fusion/Pinnacle level Humidaire.

HUMIDAIRE UNIT ACCESSORIES AND UPGRADES

16920 Hot Air Mix Valve with controls. Used on older, HU-60 model Humidaire Units as
a source for warm dry air in moisture condenser applications.

Tip: Use a 1-million Btu/hr heater to supply independent heat to save time during gin startup. See Page 6.

14000 Powdered Acid Descaler for cleaning Humidaire Units. 50-pound pail.

14900A Lint Flue Scanner to turn water pump on and off automatically.

21428 Parts kit for "King Mesa" Gas-fired Humidaire.

21793 Parts kit for "Southwest" Gas-Fired Humidaire.

22880 Part kit for "Zephyr" Oil-Fired Humidaire.

21429 Parts kit for "Sahara Lite" Oil-fired Humidaire.

22208 Parts kit for "Sahara" Oil-Fired Humidaire.

LINT SLIDE GRIDS FOR LINT CONDITIONING **HB66**



The Lint Slide Grid is the least expensive entry level product for applying moist air to lint cotton before baling.
Lint Flue Scanners are included with Humidaire Units, not with grid. All grids are made of stainless steel.

GRIDS FOR STANDARD LINT SLIDES:

Installed on straight, flat floor of lint slide. Grid size shown.

LSG-1072 Lint Slide Grid, 54" X 9'-6"

LSG-1073 Lint Slide Grid, 54" X 14'-6"

LSG-1074 Lint Slide Grid, 54" X 19'-6"

LSG-1075 Lint Slide Grid, 54" X 24'-6"

LSG-1076 Lint Slide Grid, 40" X 9'-6"

LSG-1077 Lint Slide Grid, 40" X 14'-6"

LSG-1078 Lint Slide Grid, 40" X 19'-6"

LSG-1079 Lint Slide Grid, 40" X 24'-6"



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GRIDS FOR LUMMUS LINT SLIDES:

The humid air enters through a 12" diameter connection in the bottom of the lint slide at its upper end. Standard lengths of the 36° portion of the slide identify the grids. For nonstandard lengths, specify next longer size listed.

SJI DESIGNATION

36° portion 13'-3" long. (price includes 50° portion):

LSG-1181 Lint Slide Grid 54" Wide
LSG-1176 Lint Slide Grid 40" Wide

36° portion 18'-3" long. (price includes 50° portion):

LSG-1182 Lint Slide Grid 54" Wide
LSG-1177 Lint Slide Grid 40" Wide

36° portion 23'-3" long. (price includes 50° portion):

LSG-1183 Lint Slide Grid 54" Wide
LSG-1178 Lint Slide Grid 40" Wide

36° portion 28'-3" long. (price includes 50° portion):

LSG-1184 Lint Slide Grid 54" Wide
LSG-1179 Lint Slide Grid 40" Wide

GRID CONVERSION ITEMS:

- 14979A Flanged 12" Pipe Connection.
- 16017B Top Diffuser Sheet Assembly.
- 16812 5-ft Section 54" Grid.
- 16810 1-ft Section 54" Grid
- 17100 Grid for 50° Portion of 54" Slide, including 16810 and 14238 Slat.

GRIDS FOR CONTINENTAL LINT SLIDES:

The floor of the slide is made with a recess 6" deep in which the grid fits. Maximum size of the recess is shown. Recess may be shorter, but must be multiple of 4" long.

- 13730A Air Inlet Transition, Stainless.
- 13392 4 X 48 Elbow, 53°, Stainless.

GRIDS FOR 54" SLIDES	INLET TRANSITION AND 53° ELBOW	
	WITHOUT	WITH
Grid for 54" X 9'-8" Recess	LSG-1186	LSG-1186W
Grid for 54" X 14'-8" Recess	LSG-1187	LSG-1187W
Grid for 54" X 19'-8" Recess	LSG-1188	LSG-1188W
Grid for 54" X 24'-8" Recess	LSG-1189	LSG-1189W

GRIDS FOR SPECIAL WIDTH SLIDES (53" or 40" WIDE)	INLET TRANSITION AND 53° ELBOW	
	WITHOUT	WITH
Grid for 9'-8" Recess	LSG-1191	LSG-1191W
Grid for 14'-8" Recess	LSG-1192	LSG-1192W
Grid for 19'-8" Recess	LSG-1193	LSG-1193W
Grid for 24'-8" Recess	LSG-1194	LSG-1194W
Grid for 28'-8" Recess	LSG-1195	

STEAMROLLER LINT CONDITIONER HB68



The 81500B Steamroller is a mature moisture restoration method developed for high capacity press operations where lint slide capacity is an issue and batt compression is required. A Steamroller requires a Humidaire Unit, lower steel support structure, two fans, piping, and a new lint slide. It is capable of being bypassed.



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81500B Base model Steamroller (less Humidaire Unit, fans, piping, and structure)

81700B Parts Kit for 81500B Steamroller.

STEAMROLLER II LINT CONDITIONER HB70 & HBU



The Steamroller II is a new moisture restoration method developed for high capacity press operations where lint slide capacity is an issue and batt compression is required. A Steamroller II requires a Humidaire Unit, lower steel support structure, two fans, piping, and a new lint slide. This “overshot” model is NOT capable of being bypassed. It requires approximately 90% less cleaning than the original Steamroller.

81870 Base model Steamroller II (less Humidaire Unit, fans, piping, and structure)

CONDITIONING HOPPERS HB63



Conditioning hoppers are used for seed cotton conditioning just before the gin stands. They are installed below the conveyor distributor and above each feeder over the gin stands. They expose the seed cotton to humid air to preserve the spinning quality of the cotton, increase ginning speed in dry conditions, and kill static electricity. Each hopper includes an automatic air-operated valve to stop the flow of humid air when the feeder stops. Double entry hoppers are available in two styles, “Classic” and “End Entry”. Each includes two grids and two valves to apply humid air from both sides. Each hopper has a removable stainless steel access door on each end. Windows may be available depending on hopper height. Consult factory.

Tip: Use any Moisture Mirror to automatically turn hoppers on when they are needed. See Page 11.

81121 CH-96-1121A for Lummus 96" 700 Feeder., access door, windows, classic.

81122 CH-66-1122A For Lummus 66" 700 Feeder, access door, windows, classic.

81126 CH-40-1126A For Lummus Roller Gin, 40 x 28-3/4 high, classic.

81222 CH-96-1222 Double Entry for Lummus 700 Feeder, 96". classic.

81223 CH-66-1223 Double Entry for Lummus 700 Feeder, 66". classic.

81123 CH-96-1123 For Continental Super 96, 96 x 25-13/16, Single-Entry, classic.

81123A CH-96-1123A For Continental Super 96 as above, Double-Entry, classic.

81124 CH-94-1124 For Continental Commander, 94-1/2 x 25-13/16, classic.

81128 CH-46-1128 For Continental Roller Gin, 46 x 27 3/16 high, classic.

81127 CH-96-1127 Double-Entry for Continental G Eagle with 9000 feeder, classic.

81129 CH-65-1129 For Mitchell 66 Feeder, 65 x 21 3/4 high, classic.

81221 CH-96-1221 Double Entry for Continental 96", classic.

81220 CH-96-1220 Double Entry Conditioning Hopper, standard, 96", classic.

81224 CH-116-1224 Double Entry for Cons 198 feeder, 116 x 36 high, classic.

81125 CH-40-1125 For Consolidated Roller Gin, 40 x 28 3/4 high, classic.

81225 CH-96-1225 Double Entry Hopper for 96" Feeder, end entry.

81232 Conversion kit for CH-96-1121X hoppers to double-entry hoppers, with valve.

The following package is needed for each set of conditioning hoppers:

13865 Plant installation package. Includes 13850 valve relay panel for up to four stands,

13860 relief plug assembly, and 13855 air filter, regulator and lubricator assembly.

GAS-FIRED HEATERS

Hot dry air is used in cotton gins to reduce condensation in moist air systems and for cotton drying systems early in the ginning process. Heaters 4-mil and larger provide low resistance to air flow in order to accommodate high air volume drying applications. All models burn either natural gas or propane gas. If propane is used, an appropriate vaporizer may be needed (not included). Each heater comes with a pressure regulator and complete temperature and combustion controls. Most of these heaters are capable of accepting signals for temperature



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coordination from any Moisture Mirror, giving the user flexibility to combine the heaters for the desired drying capacity. When ordering, please specify anticipated air volume, desired Btu/hr output, and electrical power system.

82521 HG-1-1142 1-MMBTU HEATER WITH FAN. An economical gas-fired heater package that can handle up to 4,000 CFM of air. The burner is on-off with no modulation, controlled by a simple digital temperature controller on the burner cabinet, making this unit ideal for many typical batch drying applications. [HB72](#)



80195 HG-1-1501 1-MMBTU GAS HEATER WITH FAN. Convenient small heater package, completely wired and mounted over a fan with 3 HP motor for 3,000 CFM. Specify voltage/frequency and gas fuel type (natural gas or propane) with order.



1100 SERIES HEATERS [HB15](#)

The 1100 Series heaters take a building block approach to drying. A gas-fired 1100 Series heater may be upgraded, on site, to a 1400 Series heater of the same capacity for the difference in price between the models. Capital investment is preserved and the gin can enjoy an additional savings in operation using the advantages of Simple Shed Technology. Select your new gas-fired heater with confidence based on your present control needs.

80099 HG-4-1104 "1100 SERIES" 4-MMBTU GAS-FIRED HEATER. Dependable performance and identical air flow and heat output performance as the 1400 Series burners (see below), but without Shed Technology, touch screen, and Ethernet communications.



80094 HG-8-1108 "1100 SERIES" 8-MMBTU GAS-FIRED HEATER. Dependable performance and identical air flow and heat output performance as the 14-Series burners (see below), but without Shed Technology, touch screen, and Ethernet communications.



21790 Cascaded temperature control and remote control kit for 1104 and 1108 heaters.

1400 SERIES HEATERS [HB7](#)

80098 HG-4-1404 "1400 SERIES" 4-MMBTU HEATER. Full-featured heater with Shed Technology for max fuel savings. Color touch screen with PLC controls. Connect with Ethernet to a Mirror 2X, 3X or 4X for remote and automatic features. 14,000 CFM max. Domestic commissioning.



80100 "1400 Series" Controls Cabinet Upgrade. Requires existing SJ burner body.

80093 HG-8-1408 "1400 SERIES" 8-MMBTU HEATER. Full-featured heater with Shed Technology for max fuel savings. Color touch screen with PLC controls. Connect with Ethernet to a Mirror 2X, 3X or 4X for remote and automatic features. 28,000 CFM max. Domestic commissioning.



80100 "1400 Series" Controls Cabinet Upgrade. Requires existing SJ burner body.

GAS-FIRED HEATER CAPACITY UPGRADE

An HG-4-1104 and 1404 can be upgraded to model HG-8-1108 or 1408 for greater capacity. Upgrade can be done on site by a qualified electrician. Contact factory for pricing and details.

ACCESSORIES AND MODIFICATIONS:

FOR PULL-THROUGH INSTALLATIONS: [HB 12](#)

- 16565 Support and inlet screen for HG-4, pull-through.
- 16555 Support and inlet screen for HG-8, pull-through.



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FOR PUSH-PULL INSTALLATIONS: HB 13

80048 PUSH FAN KIT FOR HG-4 installed above push fan.

Includes 16865 air inlet diffuser and 14222 flexible gas line.

80058 PUSH FAN KIT FOR HG-8 installed above push fan.

Includes 16860 air inlet diffuser and 14223 flexible gas line.

80047 PUSH PLENUM FOR HG-4 Stands on floor, attached to bottom horizontal discharge of push fan (sized to fit Smith 60E).

Includes 80048 Push Fan Kit and vibration isolator for plenum inlet.

80057 PUSH PLENUM FOR HG-8 Stands on floor, attached to bottom horizontal discharge of push fan. Requires transition from fan (not included). Includes 80058 Push Fan Kit and vibration isolator for plenum inlet.

PARTS AND OPTIONS FOR GAS-FIRED HEATERS

23423 Parts kit for 80094 and 80099 heaters.

21397 Parts kit for 80093 and 80098 heaters.

16372 Factory installation of transformer for other supply voltage.

OIL-FIRED HEATERS



Tip: Need a source of warm dry air for moist air systems that burn oil? Try the HO-1-1143.

GENERAL PURPOSE 700,000 BTU/HR LIGHT OIL BURNER WITH FAN. This heater uses a commercial burner head (Beckett) which is ideal for providing auxiliary heat for moist air systems burning oil. Also ideal for many small industrial drying processes requiring up to 4,000 CFM of air. A simple on-off digital temperature controller makes operation simple, safe, and reliable. The burner offers no modulation. Burner cycles on and off to hold desired temp setting. HB 73

82522 HO-1-1143 700,000 BTU/HR HEATER WITH FAN.

The following heaters use a modulating (Maxon) industrial burner head to burn oil (diesel or kerosene) and can operate under pressure or in a pull-through system. Each includes an integral combustion air fan, fuel pump, PLC diagnostic and combustion controls. An integral PLC diagnostic system displays helpful prompts to the operator and troubleshooter. It stores and displays the past 16 error events for historical review. These "1100 Series" heaters are compatible with any Moisture Mirror for automatic temperature regulation via analog signals. Temperature control is from the door of the main control cabinet unless the 21790 optional cascade control is purchased. The 7-mil heater's discharge can be positioned for either vertical or horizontal hot air discharge, and can be rotated in the field. Consult factory for delivery. Specify volts and HZ. 3-Phase 380/50, 415/50, 380/60, or 480/60.

82520 HO-4-1112A 4-MMBTU OIL HEATER. HB 17

80523 HO-7-1137 7-MMBTU OIL HEATER.

21790 Cascaded temperature control and remote control kit for 1112A and 1170 heaters.

23422 INLET SCREEN ASSEMBLY FOR 4-MMBTU OIL-FIRED HEATER.

No inlet transition required to heater.

80080 INLET SCREEN ASSEMBLY FOR 7-MMBTU OIL-FIRED HEATER.

Less transition to inlet of push fan or heater.

HOT BOX III (FOR COTTON PICKUP AT MODULE FEEDER BELT) HB U



The Hot Box fits over the discharge end of a module feeder belt and picks up the cotton in hot air from a separate pull-through heater. No push fan, vacuum feeder or other motorized components are used. The Hot Box III has



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been designed for more effective drying and junk separation by reducing hot air leakage points, providing smoother action at the trash gate, and offering a 25% larger discharge opening to expel trash. It will handle 60 bales per hour and up to 30,000 CFM of hot air. It can be used on both moving-head and stationary-head module feeders. Rectangular hot air inlet and cotton outlet are sized at factory for air volume to be used. Each Hot Box III includes an electronic trash gate monitoring system to indicate when large debris has jammed the trash gate in the open position. This feature is designed to work in conjunction with the PLC diagnostic and control systems of "12-Series" and later heaters.

Tip: Save fuel and save money when you buy the 81257A Hot Box III "Combo Pack" with integral sensor.

81254B HOT BOX III -- FOR 36" WIDE CONVEYOR TROUGH.
81253A HOT BOX III -- FOR CUSTOM WIDTH, 36.5" TO 47.5", CONVEYOR TROUGH.
81256A HOT BOX III -- FOR 48" WIDE CONVEYOR TROUGH.
81257A HOT BOX III (81254B) "COMBO PACK" WITH 81670 SENSOR.

FLAIL OPTION FOR HOT BOX III [HB 21](#)

81550 Flail option for the Hot Box III uses segments of rotating logging chain to break wads and enhance the drying process. Mounts on top of the Hot Box III. Custom made for each Hot Box, allow for extended delivery. Especially recommended for use with wet UNR and stripper cotton.

[MINI-COLLIDER DRYER](#) [HB 22](#)



The Mini-Collider dryer can be used both easily and effectively to open and dry cotton through direct collision of opposing cotton and hot air streams within the Mini-Collider Dryer. No special piping or engineering is required to insert the Mini-Collider into a drying process. In many instances, the Mini-Collider may be added in series with existing dryers to improve performance through its powerful opening and fluffing action. A gin can use Mini-Colliders in both first and second stages of the drying and pre-cleaning system. Maximum recommended capacity of each Mini-Collider is 30 bales per hour for picker cotton.

81860A MINI-COLLIDER

[COLLIDER DRYER](#) [HB 25](#)



Samuel Jackson Collider Dryers are sold as components of a completely engineered Samuel Jackson drying system. The dryers are available in six standard versions. Each version is the same physical size, 54 X 78 in plan view, but inlets and outlets are changed to accommodate the amount of air handled. Samuel Jackson Dryers are made of stainless steel to reduce radiant heat loss. These dryers require Samuel Jackson high air volume burners for good performance. Automatic moisture controls are recommended when these dryers are used as fuel savings are amplified under the high air volumes used. They are shipped knocked down, but are easily erected. A Samuel Jackson Dryer includes a custom-designed seed cotton skimmer, which is normally used at the dryer's outlet to achieve a high air-to-cotton ratio. Contact factory for recommendations and a quotation for a drying system to fit your exact needs.

81147 Typical Collider-Dryer with outlet spout, skimmer, and air flow regulator (less heaters, fans, and sheet metal)

[AIR CONTROL/BANJOS](#) [HB 30](#)



81525 Air Control 8. This control unit connects to a maximum of 8 adjustable frequency drives or electric banjos (see below) in any combination for the purpose of regulating and maximizing air volume in an air conveyance and drying system. The AC-8 includes a PLC control system with 6-inch touch screen. Remote control and fully



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automatic operation is an available option using a Moisture Mirror 3X or 4X. Power supply of 115-230 VAC, 50/60 HZ with 10A protection required. (AC Drive Units are purchased separately.)

81510B Banjo II. The Banjo II mounts on the fan inlet of either a pull or a push fan to provide full fan performance regardless of material loading or air temperature. In like manner to the advantages of an adjustable frequency drive, a Banjo II will unload a fan automatically to provide “soft start” and then modulate it smoothly to maintain desired motor load as the air system loading changes. Unique advantages of a Banjo II include its ability to extend blast wheel life on a fan and the ease in which it may be bypassed to a fixed fan load, when this ability is needed. Electric Banjos are sized for 24-inch fan inlet diameters. At least one AC-8 Unit is required. A compressed air supply with water trap is required.

81525 AIR CONTROL 8.

81510B BANJO II.

AIR TOOLS HB 109

Air Tools is a collection of helpful products for measuring static air pressure, and is particularly useful for cotton gins. These tools range from rugged probes and simple gages to sophisticated PLC-based touch screen systems that can share the same probes and gages. The PLC systems are available in a “mini” version ready to go for six measuring points or in the full version that can be taken up to a maximum of 36 measuring points. The measurement hardware is common between all systems. The intended use is to offer the operator a graphical view of air pressures in a conveyance system comprised of air pipes carrying material between machines. Voltage supply of 115-230 VAC, 50/60 HZ is required for PLC systems. No power is required for basic probes and gages. The full version of the PLC system requires one 81950 interface, at least one 81951 concentrator, and at least one 22420 probe with pressure transducer (0”-25” WC range unless otherwise specified). The mini system comes complete with all hardware and software required for six measurement points.

81954 MINI-AIR TOOLS SYSTEM FOR SIX CHANNELS. Everything needed to measure static pressure at six locations. Includes an 8” color touch screen, one data concentrator, and six probe/transducer assemblies. Data concentrator and probe/transducer assemblies can be reused with an 81950 Air Tools Interface (below) if additional monitoring points are desired.



Build an advanced Air Tools System as follows:



(1) Select the total number of 23775 Static Pressure Probes. One per monitoring point.

23775 STATIC PRESSURE PROBE WITH TRANSMITTER COMPLETE Includes 22420B probe, 23541 transmitter, and connection kit for one measurement point.

(2) Up to 12 Static Pressure Probes can connect to a single 81951 Data Concentrator.

Select the number of Data Concentrators needed up to three maximum (36 total points).

81951 DATA CONCENTRATOR gathers electrical signals from static pressure probes with 23541 (or similar) pressure transducers. Maximum of 12 channels per data concentrator. Maximum of 3 data concentrators per 81950 Interface.

(3) A single 81950 Air Tools Interface is needed for a system up to 36 total points.

81950 AIR TOOLS INTERFACE 12” color TFT touch screen in black textured powder coat enclosure mounted on articulated arm for easy positioning near consoles. Includes flow sensor for automatic switching between idle and ginning state. Maximum of 36 channels displayed. Connects to data concentrators via Ethernet connection.

(4) Do you need additional alarms relays or access from a Moisture Mirror? If so, add one of the following.



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81952 AIR TOOLS RELAY AND MIRROR INTERFACE Offers 16 additional relay alarms programmable from the Air Tools Interface. Also offers ability to view Air Tools information on a Moisture Mirror 3X or 4X.

Air Tools Parts and Accessories

22420B AIR TOOLS STATIC PRESSURE PROBE Rugged steel probe withstands harsh environments inside pipes with material flow. Resists choking while providing reliable pressure reading. Includes 20' of flexible tubing for connection.

23002 AIR TOOLS VELOCITY PRESSURE PROBE Recommended for use in air lines without material flow. Use to monitor air velocity. Includes 40' of flexible tubing for connection.

17880 MAGNEHELIC PRESSURE GAGE Classic pressure gage marked in units of inches water column. Comes complete with mounting bracket. Ideal for manual reading of pressure near 22420B probe location. Specify desired measurement range with order (inches water).



23541 PRESSURE TRANSDUCER Converts pressure signal to electrical signal for PLC system. One is required for each point monitored. 0" – 25" WC range. Other pressure ranges available. Not required when only Magnehelic gage is used for monitoring.



FLOW TOOLS HB116



Flow Tools consists of high speed sensors and software tools designed to allow a cotton ginner to precisely control mass flow into his cotton gin. No "steady flow" hoppers, "surge attenuators" or other crutches are required to protect your gin from the ebb and flow of unpredictable modules as they are fed at high speed into a gin. Effective use of Flow Tools requires training of two gin operators prior to the season with a Samuel Jackson specialist using a flow simulator. Flow Tools must be connected to a high speed internet service (purchased separately).

81890 Flow Tools with training.

82600 REFLECTOR On-line digital moisture meter. Ideal for use with the Tex-Max microwave scanners or Sam Jackson resistance moisture sensors (see page 12). Includes a compact PLC assembly that includes a 6" color touch screen display with user-configurable numeric, graphic, and time graph displays for a single channel of moisture data. Includes one alarm relay contact. HB 84



Tip: Want more features and capabilities? See the Moisture Mirror below.

THE MOISTURE MIRROR HB 82

The Moisture Mirror is a PLC-based control system designed to coordinate the actions of moisture control machinery in a cotton gin. Each Moisture Mirror model is capable of accepting information from multiple sensors of different types and brands, including the Samuel Jackson sensors shown below. It is also able to control many types and brands of moisture control machinery, including all of the Samuel Jackson products included in this price list. Each model comes pre-programmed for a typical cotton gin and the user is encouraged to customize the settings to fit his preference. Voltage supply of 115-230 VAC, 50/60 HZ required.

MIRROR UPGRADE PRICING HB 97

The Mirror product line takes a building block approach to gin automation. Any Mirror may be upgraded to a higher level for the difference in price between the models. All wiring and capital investment is preserved as components are added. The color touch screen is the only component exchanged. Select your Mirror with confidence based on features and needs.



Product List

1 May 2011

Tel: 806-795-5218
Toll free: 800-862-9966

Fax: 806-795-8240
Web: samjackson.com

MOISTURE MIRROR 1 HB 85

81660 MOISTURE MIRROR I

6" Color touch screen and PLC control unit with enclosure and power supply. This unit can accept an incoming cotton moisture signal and automatically adjust drying system temperatures to save fuel and preserve staple. At the same time, it is capable of accepting a final lint moisture signal and adjusting a Samuel Jackson Humidaire Unit to provide precise moisture control for the bale. A 24-hour graph of incoming, intermediate, and final bale moisture is provided. Cotton flow from the module feeder can be displayed for precise regulation by the gin operator. Mount in console or purchase a 17302 steel enclosure.



MOISTURE MIRROR 2X HB 88

81661A MOISTURE MIRROR 2X

All of the features of the Mirror I, plus a 10" TFT color touch screen with more than 3 times the viewing area. Connect as many screens as you need via Ethernet for console, press, and office. The Mirror 2X serves as a single remote control for up to four 1400/1500/1600 Series Humidaire Units and up to eight 1400 Series heaters. The Mirror 2X includes a single channel flow analyzer to assist the user with heater auto-idle and control of moisture at the gin stand. Add a bale bar code scanner and printer module to print moisture information for each bale. Mount in your console or purchase a 21308 economical steel enclosure or a 21740 elegant pedestal mount.



MOISTURE MIRROR 3X HB 92

81880A MOISTURE MIRROR 3X

Enjoy the features of the Mirror 2X on a larger 12" TFT color touch screen plus all of the following extras. A compact flash card in the Mirror 3X stores operator specified data for each permanent bale ID (81667 Required) in non-volatile memory. In addition to serving as a remote control for 1400/1500/1600 Series Sam Jackson Humidaire Units and Heaters, the Mirror 3X also gives the operator control of SJ Electric Banjos and SJ 1400/1500 Series auxiliary heaters. Remote Access Service (81915) allows authorized personnel to view the Mirror 3X screen from remote locations via Internet or using the Mobile Mirror iPhone app.



MOISTURE MIRROR 4X HB 96 & HBU

81900A MOISTURE MIRROR 4X

All of the features of the Mirror 3X, displayed on a 15" TFT color touch screen plus the following extra features. A hard drive in the Mirror 4X stores ginning data for each bale, including all monitored moisture values, production rates, temperatures, and weather conditions. Information is stored in an online database with the bale ID, time, and date. This data is available from any web browser connected to the Mirror network.



ON-LINE MOISTURE SENSORS

80300 UNIVERSAL RESISTANCE SENSOR HB 100

Rugged electrode design withstands extreme trash and wet cotton conditions, minimizes static electrical interference in dry climates, and a built-in access door provides safe and easy access to the sensing electrodes by gin personnel. A good choice for using in either an incoming feed hopper or as an after-drying sensor in the overflow. Includes transmitter with enclosure.



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80400 COTTON SEED RESISTANCE SENSOR [HB 102](#)

Stainless steel electrode is designed for use in the access door of a cotton gin's seed plug to detect changes in cotton seed moisture during the ginning process. Moisture may be displayed on Mirror 3X, Mirror 4X, or the economical Reflector. Includes transmitter with enclosure.

81670 SENSOR FOR HOT BOX [HB 99](#)

All of the advantages of the 81680 (see below) with no conveyor belt space required! This sensor is a "Sled II" embedded in a Samuel Jackson Hot Box to provide the ultimate in compact installation. Includes transmitter with enclosure ready to connect to a Moisture Mirror (not included).

81680 "SLED II" BELT CONVEYOR MOISTURE SENSOR [HB 98](#)

This sensor is recommended when cotton enters the gin on a conveyor belt. The rugged electrode design is improved to withstand harsh conditions and reads reliably even when exposed to wet weather and rain. The Sled II has been improved to require a minimum of 24" of belt length. Includes transmitter with enclosure.

81710 TEX-MAX MICROWAVE MOISTURE SENSOR FOR BALES [HB 101](#)

The Tex-Max mounts across the conveyor of a bale handling system. It takes thousands of overlapping readings as the bale passes through the field and passes the information to a Moisture Mirror for display and control of a Humidaire Unit on a lint conditioning system for automatic bale moisture control. Not for use with water spray devices.



81850 TEX-MAX MICROWAVE MOISTURE SENSOR FOR MODULES

Mounts before head on module feeder for advance reading of wet areas in the middle of a module for drying control. Takes thousands of readings as module passes through field and passes the information to a Moisture Mirror for display and automatic control of drying temperature.



[MOISTURE MIRROR ACCESSORIES](#)

23574 23-PORT ETHERNET NETWORK EXPANDER. Required for connection of many Moisture Mirror Systems level 2X and higher. Includes wireless access. Does not include enclosure – see 23571 or 20987 below.

23575 47-PORT ETHERNET NETWORK EXPANDER. Required for connection of many Moisture Mirror Systems level 2X and higher. Includes wireless access. Does not include enclosure – see 81960 or 20987 below.

81960 TOOLBOX Freestanding steel enclosure, 60 X 48 X 10. Fits up to four SJI unit panels with up to four touch screens. Includes UPS voltage protection for electronics. NEMA 12.

20987 Fiberglass enclosure. 20" X 18" X 9". Will fit one SJI unit panel. NEMA 6P/12.

81520 SINGLE CHANNEL FLOW ANALYZER (PRICE PER CHANNEL) [HB 103](#)

Add additional flow analyzer channels to a Mirror to view cotton "split" and module feeder disperser head loading. The most popular add-on feature for any module feeder operator!

23850 iPad 2 - 3G WITH 16 GB MEMORY FOR REMOTE ACCESS

Includes \$100 iTunes gift card for purchase of Mobile Mirror. Enjoy easy and elegant connection with your Mirror 2X or larger at the gin from anywhere. Requires the 81915 Remote Access Service (see below). Specify AT&T or Verizon data service provider.

81667 BALE NUMBER BAR CODE SCANNER. [HB 104](#)

Omni directional bar code scanner with rugged stand for automatic scanning of bar coded cotton bales. When used with 81663, will print Mirror 2X-4X data with bale identification. Recommended for use with Mirror 3X or Mirror 4X to automatically tag data with permanent bale ID.

81663 UNIVERSAL PRINTER OPTION FOR MIRROR 2X, 3X or 4X [HB 104](#)

This printer will provide a printed data from the Moisture Mirror for every bale. Digital data recording can be achieved with a Mirror 3X or 4X. The printer may be located anywhere on the Mirror's Ethernet network.



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81915 REMOTE ACCESS SERVICE FOR MIRRORS (ONE YEAR AGREEMENT).

For support of Mirror 2X.

For support of Mirror 3X.

For support of Mirror 4X (MM 4X includes VPN hardware, RAS is normally not necessary).

CABINETS FOR CONTROLS Designed especially to fit the following:

17302 STEEL ENCLOSURE, 9.75 H, 12.75 D, 12.75 W for Mirror I.

21308 STEEL ENCLOSURE, 15" H, 15" D, 20" W for Mirror 2X.

21740 PEDESTAL MOUNT, Textured black powder coat, tilt head, for Mirror 2X.

22454 ARTICULATED ARM MOUNT, Textured black powder coat, for Mirror 3X.

22206 PEDESTAL MOUNT, Textured black powder coat, tilt head, for Mirror 4X.