

Model HU-80-ZEPHYR Oil-Fired Humidaire Unit (Product Overview and Specifications)



The Zephyr uses the same body as the more powerful Sahara Lite Humidaire. This allows it to be upgraded as needs grow.



A packaged burner assembly provides reliable, manual operation. When upgraded, this burner provides an independent source of dry heated air for larger systems.

Are your present moist air needs modest? Do you think those needs might grow? The Zephyr may be your solution. The Zephyr offers an affordable solution for present needs, and can grow along with your gin. It is a step up from its little brother, the Breeze, but below the powerful Sahara Lite on the performance curve. The Zephyr is ideal for cotton gins with capacities between 15 and 35 bales per hour, who want to use either a lint slide grid or conditioning hoppers.

Combustion inside the Zephyr is so efficient that when burning diesel fuel, the characteristic smell completely disappears.

As a gin's capacity grows, the Zephyr can be upgraded to provide two important components needed for larger moist air systems. The burner and control system can be upgraded at the gin to the larger model HU-80-1545 "Sahara Lite" Humidaire Unit. In this upgrade process, the original burner assembly and controls are transformed into an oil-fired heater to provide an independent source of dry heated air often desired as part of larger moist air applicators, like Steamrollers and moisture condensers.

Other features include:

Simple manual operation or a motorized water valve for automatic control.
(The Zephyr is NOT recommended for use with Steamrollers or moisture condensers.)

Safety shutdown sensors for high heat and low air flow.

Direct fire and water interaction to overcome hot dry afternoon conditions.

Access to the water tank during operation. No more stopping to check water and scale conditions.



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Specifications for HU-80-ZEPHYR

Evaporation capacity (max):	1.5 US gallons/minute
Evaporation capacity (typical):	.8 US gallons/minute
Fresh water supply requirement:	5 US gallons/minute, 15-30 PSI
Compressed air required:	No
Maximum moist air CFM:	2,500 CFM
Heating efficiency:	1230 Btu/pound H ₂ O evap at 2500 CFM
Water purge rate (typical):	.3 US gal/minute (fresh H ₂ O at 15 grain/gal)
Std Electrical power configurations:	220/50, 380/50, 415/50
Fuel requirement:	Diesel or kerosene fuel.
Maximum burner input:	1.0 million Btu/hr.
Typical burner input:	680,000 Btu/hr.
Fuel consumption (max):	7.4 US gal diesel/hour.
Fuel consumption (typical):	5.0 US gal diesel/hour.
Remote control compatibility:	None
16920 Hot Air Valve Compatible:	No
Access water tank during operation:	Yes
Water pump motor:	5 HP
Temperature adjustment:	Two stage – low and high
Water throttling method:	Manual valve or Motorized valve
Burner type and controls:	Packaged unit burner assembly
Water tank/nozzles/piping materials:	Stainless steel

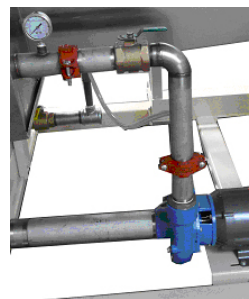


Stainless cover slides back to reveal water Tank (above). Float valve is contained in waveless chamber. Window provides view of spray and flame interaction during operation.

Manual controls are simple and intuitive.

Note the high-low fire control on the door. (above right).

Choice of a manual or motorized water valve following a 5 HP water pump allows output to be regulated manually or automatically (lower right).



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