

## AUXILIARY GAS HEATER

### Optional Gas Heating Module

Desert Aire provides auxiliary heating options for its SelectAire™ Series product line that are available in several capacities to meet the winter specified heating requirements of the space.

These heating elements are utilized when the air temperature in the space drops below the customer set point. Desert Aire sizes the heating elements to precisely match the load requirement of the system. The heaters are automatically controlled by the unit's microprocessor to maintain an exact leaving air temperature. Desert Aire controls the heater output with a 0-10VDC control signal from the dehumidifier's operating controller. The control signal is reverse acting meaning that as the temperature in the space drops then the control signal output is increased.

### Gas Heater Design Specifications

Desert Aire's 80% efficient design gas-fired duct furnace module has been sized to interface with our SelectAire series dehumidifier dimensions and air volume. They are sized for high capacity applications as found in typical pool natatoriums. The module features a 409 SS heat exchanger with a modulating 10:1 turndown ratio burner. Heat exchanger is comprised of a primary combustion chamber (drum) with a tubular secondary section. The heater uses a forced-draft fired system with a nozzle mix power gas burner.

The module includes an air flow proving switch as well as a high temperature limit sensor. The heater assembly includes internal baffles to match each dehumidifier's individual air volume and insure proper air flow distribution across the drum and tubes.

The gas module allows for easy installation for indoor or outdoor applications. Gas inlet pressure limits with the furnace operating are:

- Min Input pressure 7.0" w.c.
- Max Inlet pressure 13.5" w.c.

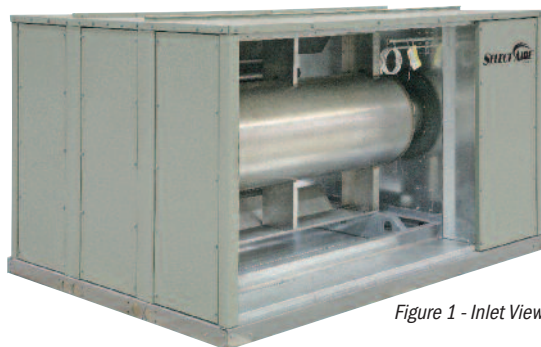


Figure 1 - Inlet View

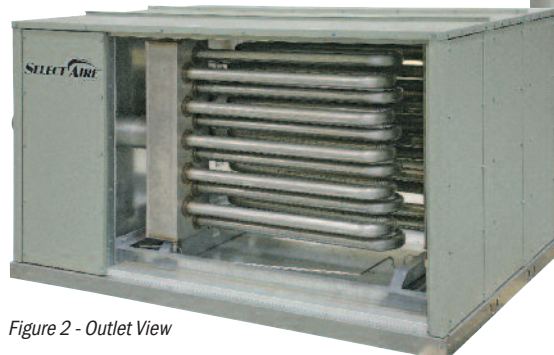


Figure 2 - Outlet View

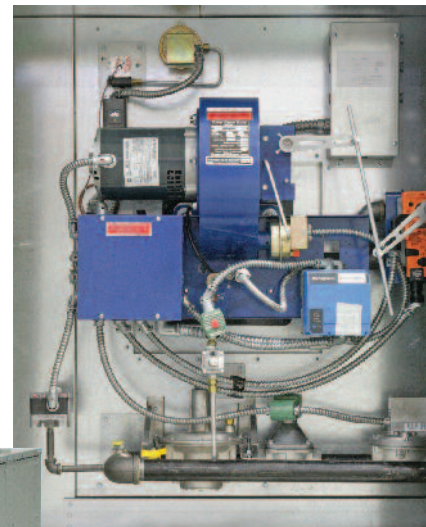


Figure 3 - Gas Burner

## Unit Construction

The heater module enclosure is double-wall G90 galvanized steel coated with 0.20 - 0.30 mm urethane primer and 0.70 - 0.80 mm textured top coat on exterior surfaces. Interior surfaces coated with 0.20 - 0.30 mm urethane primer and 0.20 - 0.30 mm top coat. All surfaces pre-treated with zinc phosphate pre-treatment before coating. The unit is provided with a flue gas stack when specified for outdoor installation to meet building code venting requirements.

Desert Aire shall provide dimension drawings for the field supplied and installed transition ducts. If a roof curb is provided by Desert Aire, it shall include the appropriate curb cap.

## Module Sizes

Input/Output Capacity								
Heater Model Code	400	550	750	1000	1250	1500	1750	2000
Max. MBH Input	550	700	925	1,250	1,550	1,875	2,250	2 500
Max. MBH Output	440	560	740	1,000	1,240	1,500	1,800	2,000
Dehumidifier Size	SA18	✓	✓	✓	N/A	N/A	N/A	N/A
	SA20	✓	✓	✓	N/A	N/A	N/A	N/A
	SA24	✓	✓	✓	✓	N/A	N/A	N/A
	SA30	✓	✓	✓	✓	✓	N/A	N/A
	SA35	✓	✓	✓	✓	✓	✓	N/A
	SA40	✓	✓	✓	✓	✓	✓	✓
	SA45	N/A	✓	✓	✓	✓	✓	✓
	SA50	N/A	✓	✓	✓	✓	✓	✓
	SA60	N/A	✓	✓	✓	✓	✓	✓
Weights (lbs.)	732	881	1,138	1,244	1,369	1,529	1,707	2,063

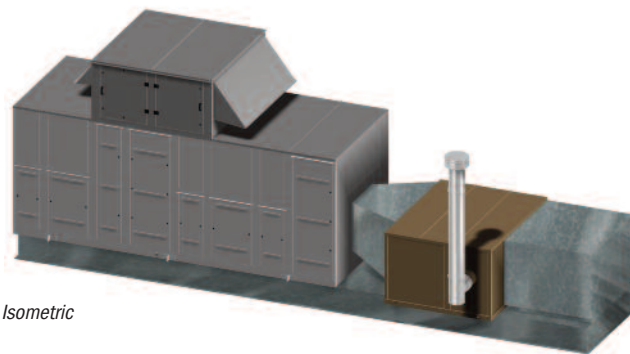


Figure 4 - Curb Assembly Isometric

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## OPTIMIZING SOLUTIONS THROUGH SUPERIOR DEHUMIDIFICATION TECHNOLOGY

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**WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)