

# Options and Accessories

**Hot Gas Reheat.** Factory installed hot gas reheat circuit with inlet regulator valve, check valves, hot gas solenoid operated valve, variable speed condenser head pressure control, one stage sensor and one row heat reclaim coil. The coil is generally equal to the evaporator face area and installed in the reheat position. The sensor is factory mounted. Hot gas reheat may not be operated below 60°F ambient temperature. Fan motor and control is standard with all reheat options.

**Lower Relative Humidity.** To lower relative humidity in the supply airstream, a one row subcooling coil, generally equal to the evaporator face area may be specified. The refrigerant liquid passes through the tube side, adding up to 40°F of subcooling. For every two degrees of subcooling, the compressor capacity is increased one per cent. This is also reflected as an increase in efficiency. The resulting heat is passed into the air stream as reheat, usually 8° to 10°F at 200 CFM/ton, thus the lower relative humidity.

**Non-Fused Disconnect.** Factory mounted and wired on the unit with NEMA 3R or 4X enclosure.

**Low Voltage Monitor.** Phase loss and low voltage safety monitor automatically stops the unit whenever a phase is lost, phases are out-of-sequence, or when voltage level drops too low. Restart is automatic with time delay when proper power supply conditions are restored.

**Convenience Outlet.** A 115 Volt GFI receptacle mounted in a 2 by 4" enclosure may be factory installed. It is furnished with either a fuse block and 15A. fuses or a 15A. circuit breaker. Separate 115 volt power and ground is required.

**Coil Guards.** Vinyl coated wire coil guards are optional to aid in prevention of fin damage on the condenser coil.

**Clogged Filter Indicator.** Dirty or clogged filters are red flagged by the indicator when the preset pressure differential across the filters is reached. The indicator is factory installed and manual-reset. It includes contacts for remote annunciation.

## **Electronic Modulation.**

**Electronic Modulation (55° - 90°F) with Ductstat (Option AG8):** Solid state control system, providing close temperature control through regulated manifold pressure. On a call for heat from a unit-mounted ductstat, controls modulate between 50% and 100%, as required. Not for use with propane gas. A room override thermostat (Option CL9) is available for use with this system.

**Electronic Modulation with Ductstat and Remote Temperature Selection (Option AG9):** Control is the same as Option AG8 except that the duct sensor setpoint may be reset from a remote selector. Remote temperature selector is included. Not for use with propane gas. A room override thermostat (Option CL9) is available for use with this system.

**Fan Drives.** Head pressure control is accomplished with one or two variable speed condenser fan drives. A pressure sensing control modulates the condenser fan speed as required to maintain head pressure between 190 psig and 250 psig.

Single fan units will include one controller while dual fan units will be furnished with a separate fan cycling switch matched with a three phase motor. This will cycle in sequence with the variable speed controller.

Where four or more fans are used, the controls will be combinations of the above.

**Room Sensor.** A wall mounted room sensor is available. On a call for heat, the unit will override the leaving air sensor and gas valve will cycle on a 100% fire.

**Motorized Two Position Outside Air Damper.** Damper motor and damper are factory mounted in unit and interlocked with blower motor.

**High Efficiency Blower Motor.** One horsepower and larger motors rated above 85% efficiency may be factory installed.

**Totally Enclosed Blower Motor.** One horsepower and larger motors with totally enclosed fan cooled housing may be factory installed.

**High Altitude Kit.** Unit shipped from factory is provided with burner and pilot natural gas orifices for 0 to 2000 feet. For higher altitudes a high altitude kit is available.

**High Gas Pressure Safety Switch.** High pressure switch (NC contacts) will close off gas when pressure at manifold (after regulator valve) exceeds 4 inches water column. Requires manual reset.

**Low Gas Pressure Safety Switch.** Low pressure switch (NO contacts) (auto reset) will close off gas when supply pressure drops below 5 inches water column.

**321 Stainless Steel Heat Exchanger.** For harsh or corrosive environments stainless steel heat exchanger may be of 321 stainless steel.

[Return to Packaged Cooling Catalog \(C-PC\) Table of Contents](#)

# Options and Accessories Continued

## Special Protective Coatings

**Seacoast Construction/Mill & Chemical Service Option.** Exclusive Seacoast Construction provides years of extended component life. Fan motor is totally enclosed and the motor mount is vinyl coated. A stainless steel blower shaft is used and the galvanized steel blower housing(s) has an electro-deposition acrylic paint finish. The control panel is fully gasketed. All interior uninsulated metal surfaces are coated with a sprayed coat of asphaltic based mastic to fight salt air corrosion and other industrial atmospheric pollutants. Compressors and drier shells are also coated. Condenser coils are coated with Whitaker baked P/C100; evaporator coils are vinyl acrylic or Whitaker for complete fin, tube and collar protection.

**Whitaker or Vinyl Acrylic** coated coils are optional in the event that the complete Seacoast protection is not required.

**Copper-fin copper tube coils** are optional to provide the ultimate in long life. They may also be Whitaker baked coated or may be coated with **Heresite®** baked phenolic finish.

Coils, cabinet surfaces and/or the complete unit interior may be corrosion coated.

**Full Perimeter Curb.** The factory built curb meets the National Roofing Contractors Association August 1985 guidelines for roof mounted installations. Shipped completely assembled, the curb is of all-welded, 16 gauge galvanized steel construction with a 2 x 4 pressure treated wood nailer strip furnished on the outside. Burglar bars welded into supply and return openings are optionally available.

**Insulated Curb.** Factory insulation is fastened to the interior surfaces of the standard welded curb.

**Sloped Curb.** For pitched roof, a special galvanized curb is available upon request. A sketch of the curb showing the direction and rate of slope is required. Curbs are not offered for metal deck roof.

**Support Frame.** Where vibration rails are specified, a steel support frame structured similar to the roof curb approximately 3" high may be supplied. This provides rigid support under the bottom pan of the unit.

**Power through Curb.** To eliminate the need for roof penetration for power wiring, a sleeve located in the compressor base pan can be provided to bring the system power wiring through the unit roof curb.

**Vertical Vent Kit.** An efficient single wall vertical extended vent kit is available.

**Heat Recovery Water Heater Desuperheater Model DSC.** Many industrial and commercial applications also involve the need to generate substantial quantities of domestic hot water. Under such circumstances it makes sense to recover rather than waste heat.

By factory installing a refrigerant-to-water heat exchanger on top of the unit, and piping the refrigerant side into the compressor discharge, waste heat recovery is accomplished in a straight forward manner. The two water connections are stubbed out for field piping to other heat recovery units and the domestic hot water supply which must also include a circulating pump, temperature control valve, and storage tank. Some models are available with a built-in circulator and other options. Contact factory for selection.

The table below illustrates the free water heating that can be accomplished when multiple air conditioning systems on a project are operating at full load in cooling. At less than full load conditions the heating capacity will be less than shown.

Note: The Heat Recovery Water Heater is not recommended with the Hot Gas Reheat Coil option.

## Typical Heat Recovery Performance

<i>Installed Air Conditioning Tons</i>	<i>Hours of Full Load Operation</i>	<i>Gallons Heated* From 70°F to 140°F</i>
10	10	700
25	10	1,750
50	10	3,500
100	10	7,000

\* Approximately 7 gallons/hour/ton at 95°F ambient.