Suburban

Dynaline™ 3

Gas Heating, Electric Cooling, PTAC Zone Control.

Suburban's Dynaline™ 3 combines the warm air comfort of gas heating with high-efficiency electric cooling for an economical-to-operate PTAC.

Ideal for hotels/motels, apartments and senior housing.

Warm, Economical Suburban Gas Heat

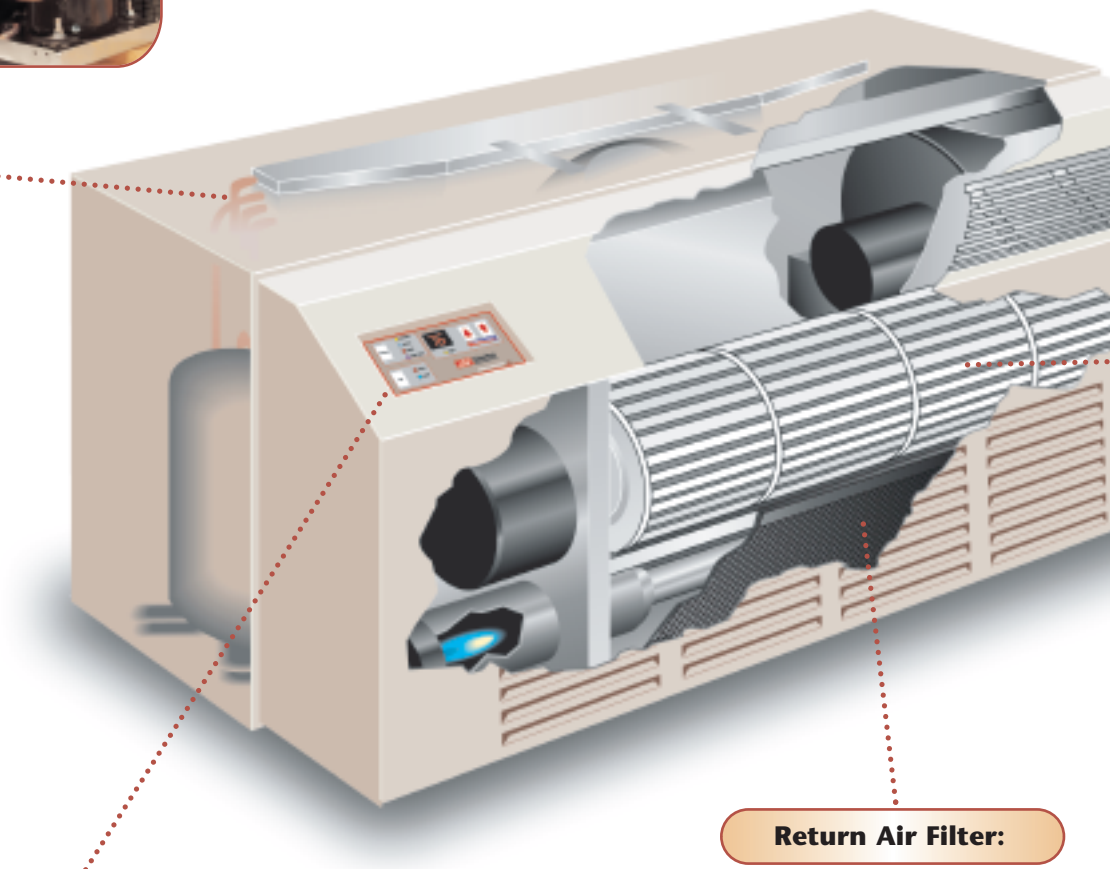
Suburban PTAC is a proven payback in utility savings

for senior housing, hotels/motels, apartments and other applications.

High-efficiency Rotary Compressor:
Reliable and quiet-running design has a longer life expectancy than heat pumps. Suburban's gas heat PTAC design does not use the compressor during heating cycles.

Weather Seals:
Sealing the chassis to the wall case, they prevent the infiltration of air, water and contaminants into the conditioned area.

Air Vent:
The manually-operated lever allows entry of 70 CFM of outside air into the comfort area.



Copper and Aluminum Evaporator and Condenser Coils:
For longer life and ease of repair. Coils use seamless copper tubing mechanically expanded into aluminum plate fins.

Attractive Stamped Aluminum or Architectural-style Louvered Grilles:
Custom-colored architectural grilles are available to match your building's decor.

Gas Heat Exchanger:
Provides economical gas heating backed by a 5-year limited warranty.

Digital Display:
Room ambient and set point temperatures are easy to read.

Condensate Removal:
Condenser fan draws condensate from bottom. Warm condenser air, combined with coil temperature, accelerates the evaporation process. Positive drain kits are also available.

Return Air Filter:
No tools are needed to install or remove the permanent electrostatic filter constructed of washable media.

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Dynaline™ 3 with economical gas heat provides the comfort of warmer air to the people who need it the

Elderly senior housing residents and nursing home patients require controlled cool summers and warm winters because typical systems don't readily adapt to extremes in temperature. Warmer, dry gas heat is preferred for its therapeutic effect on residents' respiratory systems. Electric cooling, in turn, is preferred for its rapid response to adjustments. Housing for seniors and the elderly remains expensive because of the necessity for near-hospital-quality security and facility extras not required in normal residential housing. Dynaline™ 3 offers the option of lowering utility expenses with economical gas heating/electric cooling units.

- **Low heating amp draw —** The Dynaline 3 consumes about 1 amp during the heating cycle; electric PTACs consume much more. In the event of a power failure, less power is used by the Dynaline 3 so the standby generator can be downsized, thus, reducing construction costs.
- **Compressor lock-out —** Standard design provides means of locking out the A/C compressor when the standby power generator is operating. The electronic control board has 24V input terminals to receive the lock-out signal.
- **Better comfort for residents —** Faster increase in room ambient than electric unit.

Gas Connection (Inside or Outside):

Available for Natural or LP gas, thus saving the cost of field conversion. Optional 2-lb. Natural gas regulator is available.

Room Air Discharge:

An attractive, durable grille constructed of extruded aluminum directs air laterally.

Tangential Blower Wheel:

Spans the length of the heating chamber and evaporator coil. Air flow is uniform over the system components, enhancing air distribution performance and system efficiency.

Unit Controls:

Each unit can be controlled by a built-in thermostat or reprogrammed to operate from an optional wall thermostat.

Ignition:

The standard in gas heating, an electronically controlled, ceramic hot surface ignites the burner without standing pilot lights. Gas is conserved and safety is ensured.

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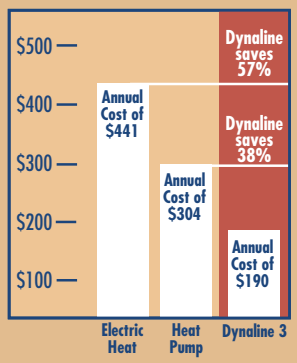
The Dynaline™ 3 Difference

Suburban Gas Heating and Electric Cooling will save money in the long run.

The Suburban Dynaline™ 3 is a Packaged Terminal Air Conditioner (PTAC) that combines economical gas heating and high-efficiency electric cooling in one compact unit for zone temperature room-by-room control. By comparing the operating costs of Dynaline 3 to heat pumps or electric resistance heat, a savings of hundreds of dollars per room every year can be achieved.

For example, at a location with 5,670 annual degree days, such as Columbus, Ohio, and a 5˚ design temperature, the cost to heat with Dynaline 3 can save 57% in utility costs compared to electric resistance. And Dynaline 3 can save 38% compared to heat pumps. For a building with 60 PTACs, Dynaline 3 can save over $15,000 in utility costs in one year!

Location Example	Columbus, OH
Degree days	5670
Heat load	14400
Outside design temperature	5˚
Inside design temperature	72˚
Number of rooms	60
Heating correction factor	0.66
Cost of electricity	$0.0829
Cost of gas	$0.837



	Kw Hours	Annual heating cost per room	Annual heating cost for 60 rooms
Electric Heat	5314.53	$440.57	$26,434.46
Heat Pump	3667.07	$304.00	$18,239.78
	Therms		
Gas Heat	226.66	$189.72	$11,383.10

Note: The above costs are calculated using 2001 national average energy costs published 3/8/01 by the Federal Register. Your utility savings could be even more based on your location.

Dynaline 3 provides warm gas heat. In cooler climates, particularly, warm gas heat is preferred over the "cool" heat of heat pumps. The 10.0 EER provides high-efficiency air conditioning to cool areas economically.

Dynaline 3 is easy to install. Because of its compact size and standard 42" x 16" wall case, the Dynaline 3 can be specified in new construction or as replacement for obsolete electric resistance or heat pump units.

Dynaline 3 is a versatile PTAC. Three BTU/h capacities are available, both operating efficiently and economically in zone systems. Both have individual controls, and operating costs can be controlled by setting the control at a maintained, desired comfort level, or interfacing into an energy management system.

Dynaline 3 fits any decor. The look of the Dynaline 3 PTAC is compact, sleek and a soft champagne color. Small and snug against the wall, it complements any decor without commanding attention.

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Dynaline™ 3

Offers state-of-the-art design, efficiency levels and self-diagnostic controls.

Suburban Dynaline™ 3 Specifications

General Data	DL3-1622	DL3-1220	DL3-0912	DL3-0712
Rated heating input (BTU/h)	20,000	18,000	12,000	12,000
Rated heating output (BTU/h)	16,000	14,580	9,840	9,840
Steady state efficiency	80%	81%	82%	82%
Rated cooling capacity (BTU/h)	15,200	12,300	9,400	7,500
Sensible/Latent cooling	65/35	65/35	69/31	65/35
EER	9.3	10.25	10.55	10.8

Minimum Installation Clearances				
Outside:				
Rear to nearest obstruction	3 feet	3 feet	3 feet	3 feet
Top, sides to nearest obstruction	0	0	0	0
Centerline vent to window	9″	9″	9″	9″
Inside:				
Cabinet front to nearest obstruction	12″*	12″*	12″*	12″*
Cabinet sides to nearest obstruction	1″	1″	1″	1″
Cabinet bottom to floor (for return air)	0	0	0	0
Cabinet top to ceiling	12″	12″	12″	12″

*Obstruction must be removed for service of unit.

Electrical Data	DL3-1622	DL3-1220	DL3-0912	DL3-0712
Volts/Phase/Cycle	208/230-1-60			
Total amps cooling/heating	7.6/1.2	6.4/1.0	4.3/1.0	3.8/1.0
Total watts cooling/heating	1615/260	1170/150	920/150	660/150

Compressor				
Type	Hermetic Rotary			
Refrigerant type (HCFC)	R410A	R410A	R410A	R410A
Rated load amps	6.6	5.4	3.9	2.9
Locked rotor amps	33.0	25	22	8.6
Compressor lock-out relay	(Normally closed 24V) 5VA enrush - 4V constant			

Gas Controls and Additional Data				
Gas (specify)	Natural or LP			
Ignition system: Solid-state	Hot surface			
Gas connection size	3/8″IPS	3/8″IPS	3/8″IPS	3/8″IPS
Gas connection	(LH) front or rear			

Blower/Evaporator				
Air vent-manual	70 CFM	70 CFM	70 CFM	70 CFM
Filter type	Electrostatic/washable media			

Specifications subject to change without notice.
Installation must be in accordance with local codes and regulations.

Suburban Dynaline 3 is easy to install in almost any application.

The standard 42" x 16" wall case makes Dynaline 3 the right choice for new construction or replacement. Gas (Natural or LP) connections can be inside or outside the room.

- **Service is fast and easy.** The entire chassis slides out of the wall cabinet for easy access. Stocking a spare chassis allows quick replacement of inoperative units for minimum downtime. Permanent air filter is removable and washable.
- **Operation is quiet.** Dynaline 3 does not use a noisy compressor during its heating cycle as is required by a heat pump.
- **Components are built to last.** Fully hermetic rotary compressor, rugged chassis, weather protection seals and copper coils provide long life and infrequent repairs.
- **Controls are simple and versatile.** Each unit is individually controlled so comfort levels can be set for each room or zone. The top-mounted controls provide for High and Low speeds in both heating and cooling modes, plus a fan-only mode. Provided with built-in thermostat control or wall-mounted. The Dynaline 3 can be controlled by a thermostat that is built in the unit, wall-mounted, or the Dynaline 3 can be controlled by an energy management system.

Warranty: The Dynaline 3 is backed by a one-year limited warranty on parts and labor and a five-year limited warranty on the compressor and heat exchanger.

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