



THE SMART SOLUTION FOR ENERGY EFFICIENCY
FOR APARTMENT BUILDINGS


CLIMATEMASTER[®]
WATER SOURCE HEAT PUMP SYSTEMS

THE WATER SOURCE HEAT PUMP ADVANTAGE - FOR APARTMENT BUILDINGS

THE IDEAL SOLUTION FOR MULTISTORY FACILITIES

Water source heat pump systems by ClimateMaster are the intelligent choice for comfort and efficiency in apartment and condominium buildings. The result of decades of research and proven performance, they provide reliable, low-maintenance operation with individual zone control. The systems utilize quiet, attractive units that are interconnected by way of an efficient water loop – rather than extensive and costly ductwork. No chiller is required. And unlike most other systems, ClimateMaster water source heat pump systems actually recover energy that would otherwise be wasted – and put it to work in other areas throughout the building.

The result of this intelligent design is more than just quiet, comfortable performance. It translates into greater cost efficiencies on four vital levels:

- Lower initial installation and expansion costs.
- Superior energy efficiency for lower operating costs.
- Lower maintenance costs.
- Longest system and component life of any compatibly zoned system.

THE KEY TO LOWERING MAINTENANCE COSTS

ClimateMaster pioneered the water loop heat pump system – and designed it to be easy and affordable to maintain, regardless of the system's size.

- No single point of failure for the entire system.
- Convenient standard parts availability.
- Easy accessibility to individual units.
- Units located above ceilings and in closets can be changed out by on-site maintenance personnel.
- Special self-contained chassis can be easily removed for off-site repair.
- Units can be installed above ceilings or in closets where they won't disturb residents or tenants.

LOWER COSTS – TODAY AND TOMORROW

The expensive initial requirements of alternative systems simply cannot compare to affordable ClimateMaster water source heat pump installations. ClimateMaster systems eliminate these costly needs:

- Large-scale complex duct work.
- Large chillers.
- Operating engineers.
- Extensive insulated piping requirements.
- Holes in outside walls.

ClimateMaster has numerous products that can be combined to handle all space-conditioning needs. Systems often include horizontal and vertical cabinet products, small console units with no wall penetration needed – even large units designed for rooftop applications. Additions to the system for future loads are easy and economical.

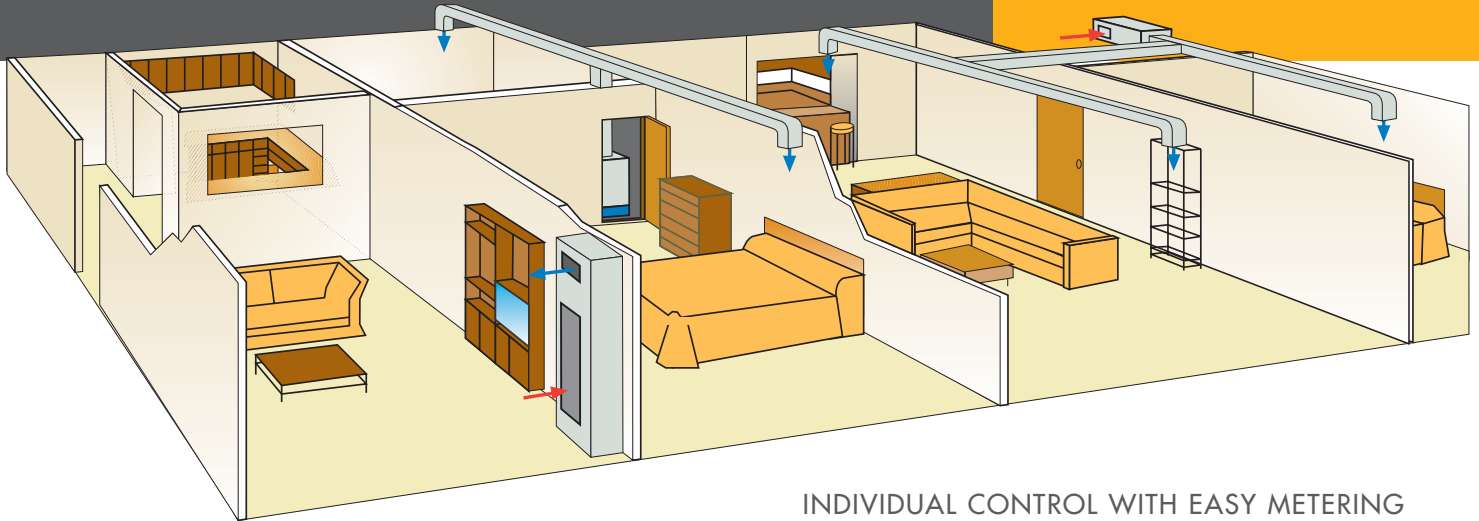
INTELLIGENT EFFICIENCY FOR GREATER SAVINGS

Season after season, year after year, ClimateMaster water source heat pump systems offer the high efficiency necessary to keep operating costs down. In fact, they offer a lower operating cost than most compatibly zoned systems. The difference lies in the system's ability to recover otherwise wasted energy and use it elsewhere in the facility. This dynamic, intelligent use of energy balances the needs of the entire building while reducing operating costs.

TRADITIONAL SYSTEM COMPARISONS	ANNUAL MAINTENANCE EXPENSE	ANNUAL OPERATING EXPENSE	TOTAL ANNUAL COST	INSTALLATION COST
FAN COIL, CHILLER/BOILER 4-PIPE	.14	1.40	1.54	\$12.00
VARIABLE AIR VOLUME	.14	.94	1.08	\$9.00
GEO THERMAL HEAT PUMP	.07	.62	.69	\$10.00
WATER LOOP HEAT PUMP	.10	.94	1.04	\$8.00

PER SQUARE FOOT OF BUILDING SPACE

CLIMATEMASTER MEETS THE UNIQUE NEEDS OF TODAY'S APARTMENT AND CONDOMINIUM BUILDINGS – AND THEIR RESIDENTS. PERFECT FOR MULTI OR SINGLE STORY APARTMENTS, BUILDINGS WITH LARGE COMMON AREAS AND/OR HALLWAYS, AND COMMUNITIES WITH REPEATING FLOOR PLANS.



THE PERFECT SYSTEM FOR EVERY SEASON

COLD WEATHER

In cold weather, the heat pump removes heat from the water loop via the unit's specially designed refrigerant-to-water coaxial heat exchanger and transfers it to the air.

HOT WEATHER

In hot weather, the unit removes heat from the air in the zone and transfers it back into the water loop through the coaxial heat exchanger. The circulation of water in the closed-loop moves heat energy from zone to zone for use where needed. Since zones have different cooling and heating requirements, the system balances energy use based on the needs of the entire system.

BALANCED SYSTEM

During certain times of the year, the constantly changing combination of units in the heating and cooling operating modes may balance the system so that no additional heat injection or rejection is required to maintain the water loop at satisfactory operating temperatures.

THE LONGEST LIFE ON THE MARKET

Because ClimateMaster water source heat pump systems are easy to maintain and operate with very little stress on the system, they offer a longer system and component life. No other heating and cooling system provides a more attractive life cycle cost.

INDIVIDUAL CONTROL WITH EASY METERING

ClimateMaster water source heat pump systems deliver the ultimate in individual comfort control. Unlike other systems, they can heat and cool separate apartments simultaneously upon demand. As a result, building residents are free to meet their own heating and cooling needs, with the peace of mind of accurate, individual metering. Should there be a need to meter usage or control temperature levels in selected areas, connectivity is easily accomplished.

QUIETLY IN COMMAND

The added comfort of ClimateMaster water source heat pump systems doesn't stop with greater individual control. Sound attenuation features such as dual-spring compressor isolation, fully insulated cabinets, and water connections with flexible stainless steel kits reduce potential noise. There is no excessive air flow to discomfort those near the unit. And the systems dehumidify as they cool for added comfort – especially beneficial in southern states. As a result, residents enjoy a peaceful, quiet home environment year round.

TRUST THE EXPERTS AT CLIMATEMASTER

Individualized, quiet comfort. Initial and long-term savings. One smart system does it all. ClimateMaster. The intelligent choice for energy efficiency in apartment and condominium buildings.

THE WORLD LEADER IN WATER SOURCE HEAT PUMP SYSTEMS

- INDIVIDUAL HEAT PUMPS USE A WATER LOOP AS A SOURCE TO PROVIDE COMFORT WITHIN EACH ZONE AS NEEDED.
- WATER CIRCULATION IS EASILY ACCOMPLISHED USING AN UNINSULATED SINGLE- OR DOUBLE-PIPE LOOP RATHER THAN THE STANDARD FULLY INSULATED FOUR-PIPES REQUIRED FOR FAN COIL UNITS.
- DURING WEATHER EXTREMES, WATER LOOP TEMPERATURES ARE CONTROLLED WITH COOLING TOWERS AND BOILERS, OR BY EXCHANGING HEAT WITH THE EARTH.

SIZE TONS	GC COMPACT		GR HI EFFICIENCY		GS ULTRA-HI EFFICIENCY		GLH LARGE HORIZONTAL	GLV LARGE VERTICAL	VERTICAL SELF-CONTAINED	CONSOLE	RE ROOFTOP	GSW WATER TO WATER
	CEILING	CLOSET	CEILING	CLOSET	CEILING	CLOSET						
1/2	•		•							•		
3/4	•	•	•	•					•	•		
1	•	•	•	•					•	•		
1 1/4			•	•	•	•				•		
1 1/2	•	•	•	•	•	•			•	•		
2	•	•	•	•	•	•			•			
2 1/2	•	•	•	•	•	•			•			
3	•	•	•	•	•	•			•		•	•
3 1/2	•	•	•	•	•	•						
4	•	•	•	•	•	•					•	
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25								•				

* CEILING UNITS - HORIZONTAL
 * CLOSET UNITS - VERTICAL



WATER SOURCE HEAT PUMP SYSTEMS

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