

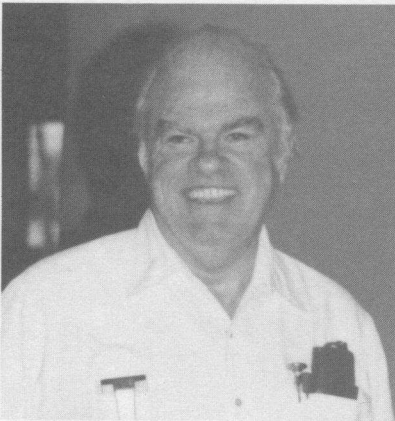
1200 Zones of Temperature Control with No Replacements Due to Failure Since 1981

Sophistication and Simplicity are Cornerstones of New York City's 767 Third Avenue.

NEW YORK, N.Y. — The building at 767 Third Avenue in New York City has been hailed as an architectural superstar. What escapes many admirers, however, is the operational simplicity that makes it a snap to run the 40-story home to 73 tenants.

A key factor in this simplicity is a cooling system based on special VAV diffusers from Acutherm, an Emeryville, California-based concern.

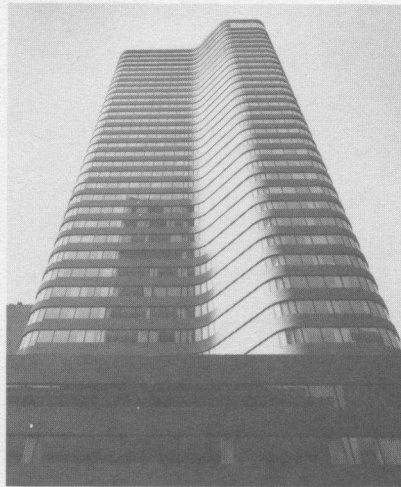
"The Therma-Fuser™ diffusers are quiet and attractive," says Andy Finn, manager of the build-



ing. "But more important, all but the most basic controls are eliminated. Many cooling system problems originate when someone tampers with a thermostat which, in turn, unbalances the system. With Therma-Fuser the controls are internal. If a tenant requests a temperature adjustment, I send someone from the maintenance crew in that night to adjust the thermal element, and the next day the space is at the requested temperature."

Sophistication

The 767 Third Avenue building is 40 stories high, with 275,000 sq. ft. of rentable space. Built by the William Kaufman Organization, a leading real estate developer in New York City that has been widely



acclaimed as one of the country's more enlightened developers, the building is poured concrete with brick facing. It was given the 1982 Award of Merit by the Concrete Industry of New York.

The building was designed by the architectural firm of Fox & Fowler and completed in June, 1981. The first six stories are larger, with 10,500 sq. ft. per floor, while floors 7-40 provide 6,500 sq. ft. per floor.

Although the building has double-paned, tinted windows, a heat load problem is still a possibility around the perimeter. In addition, several computer rooms and large conference rooms require special temperature maintenance.

According to Finn, the 1200 Therma-Fuser VAV diffusers placed throughout the building control the temperature with minimal bother to the maintenance staff. Each diffuser is a VAV zone which enables Finn to adjust temperatures to each tenant's specifications. More units are installed at the building's perimeter to handle the extra heat load. In most instances, a single unit serves an area of approximately 250 sq. ft. Perimeter heating is accomplished with hot water baseboard.

...and Simplicity

The cooling system, designed by Jaros, Baum & Bolles, is simplicity itself. Each floor has its own water-cooled package unit. The lower, larger floors have 25-ton units, and the upper floors 20-ton units. Water is supplied via an evaporation tower on the roof of the building.

Barometric dampers are used to bring in outside air, when necessary. In the summer, the dampers are usually kept closed. Backdraft dampers at the Therma Fuser diffusers bypass into the return air plenum as the system turns down.

A temperature sensor is located just before the entrance to the fan room. When air is cycled back through the return air plenum, the sensor detects any rise in temperature.

If the temperature is too high, a Honeywell stepdown controller loads a compressor, which sends cooler air back into the room. Because the compressors operate only when needed, considerable energy savings are achieved.

"I have a return air stat on the plenum return, and a control for the cooling tower," says Finn. "All of the other controls are in the Therma-Fuser units. They can be adjusted easily by maintenance staff upon request, but are unavailable for tenant tamperers."

Finn also states that the Acutherm diffusers have worn well. Since installation during 1981, not a single unit has had to be replaced due to failure.



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