

CASE STUDY: SITE 26 BATTERY PARK

THE SITUATION:

Tishman Speyer, the developer for this project, and the owner, a large financial institution, wanted a green building, but also one that was economical to build and operate. Cosentini Associates, the MEP consulting engineer on the project, was tasked with designing a cost effective Under Floor Air Distribution (UFAD) system that consumed low amounts of energy and reduced the per floor mechanical room footprint. The challenge: how could the mechanical shafts be downsized, the underfloor distribution be effective, the floor by floor AHUs have quiet performance, and plenum heat gain and underfloor ductwork be avoided?

Air Zone International was ready to embrace the challenge.

OUR SOLUTION:

Designing a building to better ASHRAE 90.1: 2004 Baseline Building Performance by almost 30% is no easy task –especially when that building is over 800 feet tall. According to Tishman Speyer, the Air Zone Environmental Air Tower design alone contributed 25% towards the building's overall operating cost savings. Why are Air Zone International's products and under floor system designs more energy efficient than other solutions? Our Direct Drive Plenum Fans with High Efficient Motors use up to 6% less energy than "standard" offerings and floor-by-floor environmental air towers with Chilled Water (CW) coils allow for a reduction in the primary outside air shafts and eliminate the need for a large air handling unit on each floor, resulting in less overall horsepower and equipment space.

Effective Air Side Distribution is probably the most important factor to a successful UFAD project, with quiet performance and the control of undesirable air leakage a close second and third. Constructing a column unit with CW Coils to meet rigorous NC 40 sound requirements in an independent lab at the maximum CFM was a challenge—but Air Zone was up to it.

Just one square foot of additional rentable space can equal \$600 – or more in prime real estate locations- when the building is sold. Due to the different floor sizes in this project, our units ranged in capacity from 7,500 CFM to 15,000 CFM. With our patented feature rollout assembly and compact footprint, valuable space is preserved.

THE RESULTS:

Air Zone Column Units successfully passed NC 40 sound levels when no other manufacturer's equipment could pass the requirements.

Our Column Units are economical, especially when compared to the costs they avoid. Air Zone International Environmental Air Units are typically \$2.00-\$3.00 per/cfm depending on unit size. This compares favorably to other custom air unit manufacturers' offerings with far less project experience. But also, look at the whole picture cost: by using column units, one saves on real estate and avoids under floor ductwork—an often expensive and complicated proposition.

Air Zone International manufactures custom air units to save space, save energy, and save money. Call today to see what Air Zone International can build for you.



Site 26 Battery Park
New York, New York

2.1 Million SF

LEED Gold

Consulting Eng.: **Cosentini**

Sales Rep.: **SRS Enterprises**

Environmental Air Tower
Space Return Air is Mixed
in Air Stream in Mech Room
where ½ of the return air
stream is bypassed and
the other ½ is distributed
through the cooling coil

