

Category: Air Quality Management
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Experts see desire for healthier air in apartment, condominium buildings

By Matt Jachman



ROOM TO BREATHE: The Fellowes Array Wall unit, upper right in photo, features a suite of IAQ sensors and three-stage filtration that captures pollen, pet dander, smoke, and dust. (Courtesy of Fellowes Brands)

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*- Joseph Hillenmeyer
product manager
ventilation, AprilAire*

With pandemic-era public interest in healthy indoor air showing no signs of diminishing, IAQ projects continue to present opportunities for HVAC businesses.

That’s especially true when it comes to multifamily residential buildings, such as apartment houses and attached condominiums, which in the past were often designed with little thought for IAQ and which have common areas — such as

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fitness rooms, lobbies, and laundry facilities — where residents and visitors share the indoor air.

Experts say they see demand for IAQ improvements across many types of buildings, including multifamily buildings. Those improvements could be as extensive as retrofitting air-monitoring and air-cleansing systems into buildings, or as simple as using portable, plug-in devices designed to service one unit or one room in an apartment or condominium complex.

Fellowes Brands, which makes a variety of consumer products, including for IAQ, found in a recent survey that “88% of people, especially post-pandemic, are aware of the fact that IAQ is a growing concern,” said Arti Lyde, the company’s global general manager for air quality management. “And they feel that is a right that they should have, in terms of improving indoor air quality.”

“All consumers are more healthy-air aware than they have ever been, and the desire for better IAQ is not limited to single-family homeowners,” said Joseph Hillenmeyer, product manager for ventilation at AprilAire, which specializes in IAQ. “Multifamily buildings certainly have the potential to create even more awareness around IAQ than single-family homes given the density of people in the space and the tight construction of the buildings.”

Selling Point

Healthy IAQ could even be viewed as a selling point when people consider moving into a multifamily building, said Anthony Kocurek, owner of Energy Balance & Integration, which tests and balances HVAC systems.

“In the past, people really didn’t think much about it. But now it is something that’s on the forefront of their minds,” Kocurek said. “And when they’re going into a multilevel building, especially a high-rise apartment complex or something, first question that they ask is: ‘What is the air quality? How are you taking care of it?’ Or, ‘Is there proper filtration?’”

Hillenmeyer had a similar take.

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“AprilAire has also heard from building managers of rental properties (who) believe IAQ could provide a differentiator to a potential lessee,” Hillenmeyer said. “The overarching trend is that no matter where people call home or how the living agreement is structured, people expect healthy air.”

Kocurek, who is also president of the Sheet Metal and Air Conditioning Contractors’ National Association (SMACNA), said professionals involved in designing new multifamily buildings are taking notice.

“You’re going to start seeing these types of buildings being built with indoor air quality in mind. You’re going to see fresh-air systems being delivered into rooms as well as interior corridors and spaces, lobbies,” Kocurek said. “And there’s going to be an emphasis on measuring and making sure that ... fresh air is getting into those areas, and that it’s also being exhausted out with an air change.”

Looking at Data

Before the pandemic, Energy Balance & Integration did next to no IAQ work, but now, IAQ-related work represents between 30% and 40% of the company’s business, Kocurek said.

“It really wasn’t this huge pivot that we had to make. It’s doing what we always do,” he said. “Now, when we gather the data that we gather, we can give that information in a different way to really address indoor air quality.”

SMACNA recently launched a website, wearewhatwebreathe.com, designed to boost public awareness of indoor air pollution and of the health benefits of improved IAQ. Kocurek cited a recent study, done by the University of California-Davis, that found higher-than-recommended CO₂ levels in many classrooms and improved student test performance once those CO₂ levels were brought down.

“The CO₂ monitor is a lot like the canary in the mine,” Kocurek said. “When that canary goes out, you know that there’s something wrong.”

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Lyde said Fellowes is seeing “growth in a desire for smarter systems, where you’re able to ... bring in sensor data and information from a control perspective that can easily kind of scale up and scale down based upon a building’s needs.”

“Optimizing ventilation in dwelling units and common areas could be improved with sensors that detect human occupancy or sense IAQ issues where ventilation products could mitigate the issue by increasing ventilation or air-cleaning solutions,” Hillenmeyer said.

Air-quality sensors will also play a role, Hillenmeyer said, in balancing the need to bring fresh air into a space with the need for increased energy savings.

Common Spaces, Flexible Controls

One trend in some multifamily buildings, Lyde said, is the addition of more communal spaces, such as shared work spaces, as building amenities. That poses another IAQ opportunity, she said.

“There are more multifamily buildings and owners that are offering these common areas and business centers for their residents to meet,” she said. “So I think that we’re going to continue to see just more traffic and multifamily shared spaces than before COVID, which will continue to drive that demand for improved IAQ.”

The nature of multifamily housing, Hillenmeyer said, means companies should offer some flexibility in the way IAQ products in those buildings can be controlled.

“Multifamily does create some obstacles for IAQ adoption given that who has ownership/control of the mechanicals is not always consistent from building to building,” Hillenmeyer said in an email. “This could lead to more portable-style IAQ solutions brought into spaces where the building itself does not have HVAC that is optimized for air quality in individual units.”

Fellowes, which has had an IAQ division for about 15 years, recently introduced a line of air monitoring and cleansing products, Array, that Lyde said will give people more control over the health of the air in individual spaces, even in multifamily buildings.

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“Array offers us an opportunity to really focus more heavily on the multifamily segments of the market,” she said.

The line includes Array Signal, a suite of sensors in one device that monitor indoor air for particulates, CO₂, volatile organic chemicals (VOCs), temperature, and humidity. Signal can be linked to Array air-cleansing equipment, and also to the Viewpoint cloud-based dashboard, which will give users specifics on the quality of their indoor air.

AprilAire’s whole-home Healthy Air System offers ventilation, air-cleansing with MERV 16-rated filtration, humidity control, and radon gas control all in one package.

AprilAire also has a thermostat, the Model 8920W, that includes touchscreen command over IAQ equipment, such as that used to regulate humidity, air cleanliness, and air freshness. The 8920W is also compatible with the Amazon Alexa and Google Assistant voice-control systems.



CLEAN-AIR COMMAND: AprilAire’s Model 8920W wi-fi thermostat offers touchscreen or voice control of equipment that regulates humidity, air cleanliness, and ventilation. (Courtesy of AprilAire)