

# Commercial Tower Increases Operating Performance with MEGApleat® M8 and VariCel® 2+HC while Lowering TCO

## CASE STUDY – COMMERCIAL

### Customer Profile

#### Private Real Estate Management Firm

- Owns office, commercial and industrial buildings in Montreal, Quebec City and Toronto
- Real estate portfolio encompasses 8.3 million square feet

#### Commercial Office Tower

- Located in Montreal, Quebec
- 45-floor skyscraper
- Average floor area is 13,500 square feet
- Includes underground parking

### The Filtration Situation

The real estate management firm overseeing this office tower had to change out both the tower's prefilters and final filters on a frequent basis. Since approximately 50% of a building's energy consumption goes to the heating, cooling, and moving of air, this high changeout frequency, as well as filter inefficiency, added up to a high Total Cost of Ownership (TCO).

In addition, the facilities managers of the office tower are committed to maintain high environmental standards. The building was awarded BOMA GoGreen, Level 2 certification, the Canadian industry standard for commercial building sustainability certification. Green building practice is achieved by efficiently using energy, water, and other resources, while reducing impact on human health and the environment. Thus, the real estate management firm wanted to increase the building's filter efficiency so that the Indoor Air Quality (IAQ) was both optimized and as green as possible. Decreasing filter changeout would also reduce waste sent to landfill for the facility.

### The AAF Flanders Solution

The firm's AAF Flanders Representative performed an air filtration audit throughout the office tower to identify improvement opportunities and then presented a proposed 2-year filter solution. This proposition compared pricing, including labor costs, and rate of filter changeout for both the current filters being used and the recommended filters, in order to ensure the most optimal and effective solution.

The proposed filters included MEGApleat M8 as a prefilter and VariCel 2+HC MERV 14 as a final filter. The MEGApleat M8 filter was recommended because it loads at a slower rate, increasing the life of the filter. Lower pressure drop and higher dust holding capacity (DHC) translate to reductions in energy consumption and operating costs. The MEGApleat M8 filter construction process results in a filter which is very stable, with no racking or vibration of the pleats under normal airflow. Pleat stability minimizes the chances of captured particulate shaking loose and re-entering the airstream.

The VariCel 2+HC filter was recommended because of its low initial resistance, ideal pleat spacing, and higher-than-average media density, which allows for maximized particle management and full media utilization. This filter's high DHC equates to a longer service life, which reduces the number of filter changeouts. These filters are only one-third the volume of other high-efficiency filters, significantly reducing the contribution to landfills. With no metal components, they are also suitable for incineration.

The AAF Flanders representative also told the real estate management firm that both types of filters would last two years without losing their efficiency, reducing the TCO of the office tower.

### The Results:

256 MEGApleat M8 filters and 160 VariCel 2+HC filters were ordered by the firm. They have been extremely pleased with the filters' performance, as well as the energy savings. The thinner depth of the VariCel 2+HC filters means that they take up less storage space, which is appreciated. The environmental footprint of the building has also been reduced, both because the rate of changeout has been lowered and because of easier disposal.

The real estate management firm's facilities manager at the office tower has had such a high degree of satisfaction with AAF Flanders' filter performance and lower operating costs that he recommended AAF Flanders' products to the firm's facilities manager at another facility.



*This office tower was awarded BOMA GoGreen Level 2 certification, due to the commitment of the facilities managers to high environmental standards.*

