



## HOSPITAL

**AIR FILTERS. TEXAS MEDICAL CENTER'S HOSPITAL CONVERTS TO ENERGY EFFICIENT AIR FILTERS SAVING TENS OF THOUSANDS OF DOLLARS IN FILTER & ENERGY COSTS.**

### COMPANY PROFILE

Texas Medical Center is the largest life sciences destination in the world with 106,000 employees, 50,000 life science students, and thousands of volunteers and patient visits. Amongst their multiple campuses there are 54 medicine-related institutions, including 21 hospitals, eight specialty institutions, eight academic and research institutions, four medical schools, six nursing schools, and multiple schools for health-related practices.

### THE SITUATION

With over 13 million square feet of indoor space to filter, a hospital within the Texas Medical Center was handling filtration purchasing decisions across several different departments, and as a result, doing business with a variety of manufacturers. Buying decisions were primarily based on filter "first cost" (purchase price). Camfil helped the hospital realize that this practice was leading to increased number of filters needed to maintain the facility, as well as inflated labor, waste, and energy expenses. After several joint educational meetings, the customer wanted to explore Camfil's 5-Star rated premium air filters as a way to correct this situation and help meet the hospital's cost reduction and sustainability goals.

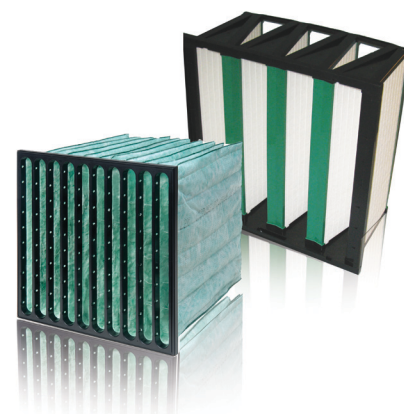
### THE ACTION

The hospital agreed to conduct tests as part of their research efforts. Camfil's local filtration specialists placed a "test bank" in one of the medical office buildings using two-stage filtration where the first stage prefilters were being changed quarterly and second stage rigid final filters were being changed annually. One of the six 100% outside air handling units was chosen to convert to one-stage filtration using Camfil Hi-Flo® ES bag filters. After six months of testing, the Hi-Flo ES airflow resistance was much less than the existing solution.

The CamField mobile filtration testing laboratory was also placed on site at the hospital to test the Camfil recommended products against the hospital's current solutions. Four horizontal test ducts were used to compare two competitive solutions and two Camfil solutions. The test ran for six months and compared particle efficiency and energy efficiency.

### THE RESULT

As a result of this testing, the hospital is retrofitting several areas of the campus with Camfil products. Camfil's state-of-the-art premium filtration products are expected to save the hospital system tens of thousands of dollars in annual filter and energy costs by enabling the air handlers within each facility to use less energy to deliver required airflow.

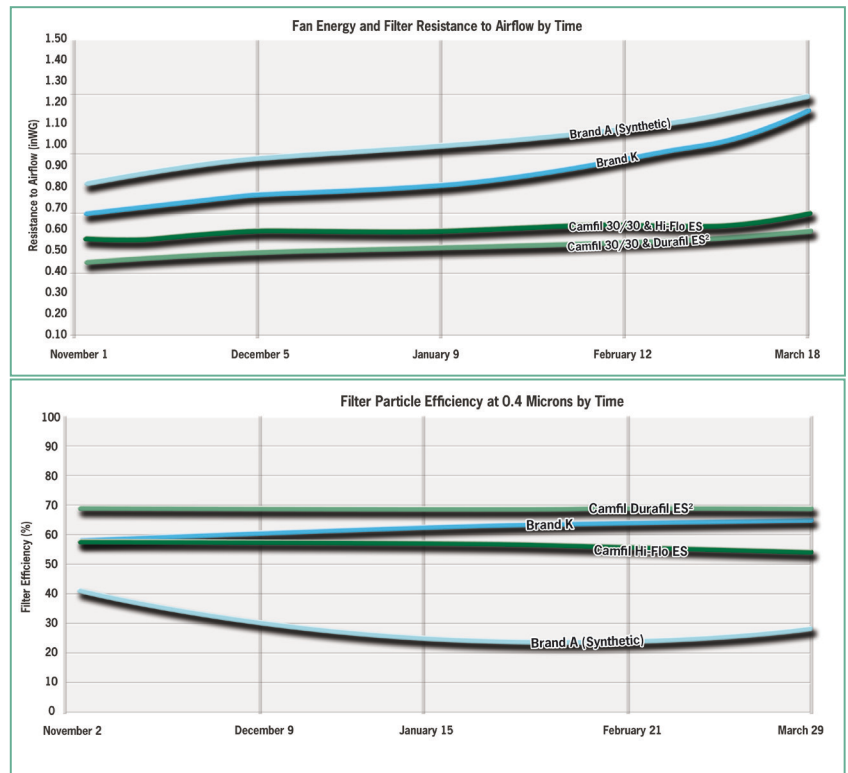


*"Reducing their HVAC system's energy use by 60% allowed the hospital to apply for multiple rebates from the local utility company."*

## THE PROOF

### Data Validated Performance

While one of the filter brands used by the hospital was maintaining adequate particle efficiency, it came with a severe energy penalty as reflected in the data charted in graphs. Another filter brand being used did not fare well in either category of particle or energy efficiency. The performance data proved that both Camfil solutions performed very effectively in particle and energy efficiency. Maintaining particle efficiency ensures the hospital will deliver the desired indoor air quality to patients, while maintaining energy efficiency ensures they do so at a lower total life cycle cost. The analysis demonstrated that Camfil's solution reduced the hospital's total cost of ownership by 42%. The information from the data loggers was submitted and later confirmed by the local utility company. The results verified that the hospital was successful in reducing their energy use by 60% which allowed them to apply for multiple rebates.



TOTAL COST OF OWNERSHIP LIFE CYCLE COST ANALYSIS	POLY PAD & KOCH PLEAT & AAF CELL	CAMFIL HIFLO ES & DURAFIL ES2
Energy Cost	42644 USD	16810 USD
Filter cost	11409 USD	19046 USD
Labor Cost	6552 USD	825 USD
Waste cost	3225 USD	450 USD
Mean Life Efficiency (MLE)	71.4%	80.5%
Energy Cost Index (ECI)	4.15 USD%	2.18 USD%
CO <sup>2</sup> Impact	867960.54 lb	342163.91 lb
Landfill impact	60.15 yd <sup>3</sup>	14.66 yd <sup>3</sup>
Time of LCC Calc.	3 yrs	3 yrs
<b>Total Cost of Ownership (TCO)</b>	<b>63830 USD</b>	<b>37131 USD</b>
<b>Performance Satisfaction Guarantee</b>		