



*Unitary Products
Technical Services
Service Tips Letter*

Letter: **ST-001-2017**

Date: March 14, 2017

To: All Unitary Products Branch Service, Sales, and Training Managers
All Unitary Products Distribution Service, Sales, and Training Managers

Subject: **MERV 8 optional filters in commercial equipment**

Product: Commercial Units (Norman built models)

Summary: Explanation of factory option MERV 8 Koch filter vs. previous AAF MERV 7 air filter.

Questions have been directed to the Technical Services group regarding the performance aspects associated with the change to MERV 8 air filtration in the Norman built product offering. A mid-efficient filter is an option choice for commercial models. Approximately 1 year ago, under direction of Engineering, the factory began the change to the “Multi-Pleat Elite” product by the Koch Filter Co. This filter is rated as a MERV 8, mid-efficient standard capacity product. The previous filter product by American Air Filter Co., was rated as MERV 7. It was considered in the same category as a mid-efficient, but as an economy filter. Primary questions and concerns from distribution surround the effect on air flow performance related to the change to the MERV 8 filter. Data can be reviewed at each filter company’s websites. In review of that data to simplify and clarify the concern, we find that the filters initial performance are essentially the same in respect to 500 fpm/sq.ft. pressure drop resistance of .25 and .26, AAF and Koch respectively.

As in any application of HVAC equipment, unique settings and operating conditions will dictate the inspection and change interval of the filters and other maintenance of the equipment. Our findings reflect the change to MERV 8 Koch Multi-Pleat filters has revealed no adverse operational performance issues in Norman built units. Existing published air flow performance data can be applied and relied upon toward design and performance measurement. NOTE: The evaporator dry pressure drop measurement method assumes standard (not MERV 7, 8 or 13) filters in new, clean condition while measurements are gathered.

Alternate methods of air flow measurement using calculated heat temperature rise (when applicable) and total external static pressure methods can also be applied to confirm unit performance. This performance can be compared to the Unit’s CSA data label to insure the unit is operating within its design limitations. Please contact Johnson Controls, Unitary Products Technical Support at 1-877-874-7378 with questions regarding air flow performance and measurement in Unitary Products installed equipment.

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