

ASHRAE Technical FAQ

ID 2

Question What is ASHRAE's recommendation for residential filtration?

[ASHRAE Standard 62.2-2016](#), "Ventilation and Acceptable Indoor Air Quality (covers other residential type buildings including high-rise) notes that filters designated with a minimum efficiency of MERV 6, or better, when testing in accordance with [ASHRAE Standard 52.2-2017](#), shall be provided .

Most residential systems are shipped from the manufacturer with a filter that has a MERV ranging from 1 and 4. This lower level of filter efficiency is selected to protect the heat exchanger and/or cooling coil from fouling debris with minimal initial expense. Higher levels of MERVs are possible. When upgrading the filter MERV a higher restriction to airflow must be considered. Most modern systems can accommodate this higher resistance, but you should consult with your HVAC equipment manufacturer for recommendations on the highest recommended level of initial filter resistance for your HVAC equipment.

Answer Selection procedures based on user requirements such as degree and type of air cleanliness required, space available for filtration equipment, cost (initial and maintenance), amount and type of dust in the air to be filtered, etc. are covered in Chapter [S29](#) of the [2016 ASHRAE Handbook - HVAC Systems and Equipment](#). It is also noted in this chapter that the Air-conditioning, Heating, and Refrigeration Institute ([AHRI](#)) has two standards - 680 and 850 - for air filtration equipment.

The Minimum Efficiency Reporting Value (MERV) test procedure for air filters is defined in [ASHRAE Standard 52.2-2017](#).

The handbook and the other publications may be purchased and/or individual chapters of the handbook may be purchased and downloaded on-line at our website, www.ashrae.org or by calling 1-800-527-4723 in the USA and Canada or 1-404-636-8400 worldwide.

[AHRI](#) – Air-conditioning, Heating, and Refrigeration Institute

[NAFA](#) - National Air Filtration Association

[ACGIH](#) - American Conference of Governmental Industrial Hygienists

[AIHA](#) - American Industrial Hygiene Association,

[U.S. EPA](#) - United States Environmental Protection Agency

[ASHRAE Standard 62.2-2016](#), plus [ASHRAE BOD approved addenda](#).

[ASHRAE Standard 52.1-1992](#), plus [ASHRAE BOD approved addenda](#).

[ASHRAE Standard 52.2-2017](#), plus [ASHRAE BOD approved addenda](#).

[2015 ASHRAE Handbook – HVAC Applications](#), Chapter [A01](#)

ASHRAE Pubs

[2013 ASHRAE Handbook - Fundamentals](#), Chapter [F11](#)

[2016 ASHRAE Handbook - HVAC Systems and Equipment](#), Chapter [S29](#)

[ASHRAE Position Document on Filtration and Air Cleaning](#)

Topic References filtration, filter, contaminants, residential filter, allergy, asthma, respiratory

	Cognizant ASHRAE Committees	Refer to Organization
1	TC 2.4	NAFA
2	SSPC 62.2	ACGIH
3	SSPC 52.2	AIHA
4	SPC 52.1	U.S. EPA
5		AHRI