

UL Safety Standards for Airxchange Wheels

The following is intended to serve as a guide to the Underwriters Laboratory safety codes and standards governing the use of energy recovery products.

UL Standards 1812 and 1815 are the key safety standards used in the Airxchange UL listing. All Airxchange energy recovery cassettes are UL Recognized Components. Airxchange subscribes to UL's follow up services program to ensure ongoing compliance with these standards.

Part of the UL investigation of a product to be listed in accordance with Standard 1812 or 1815 involves an evaluation of the fire safety of the heat wheel matrix; several options are available to qualify a product for use. Airxchange wheels are subjected to the UL 900 fire test for air filter units. This test evaluates both flammability and smoke density under operating conditions simulating actual use in an airstream. Note that Airxchange wheels easily surpass the criteria established for Class 2 filters like those installed in almost every building and air-handling unit. Copies of the Airxchange UL Listing Card and test reports are provided to our customers.

Airxchange wheels and equipment comply with NFPA standards, which are the basis for all the major building codes in the U.S. NFPA Standard 90A section 2-2.4.2 Appliances reads as follows: "Materials used in the manufacturing... shall meet the requirements of 2-3.3.1 and 2-3.3.2. Listing by a testing laboratory shall be sufficient evidence of

compliance with this requirement." (Emphasis added). All Airxchange components and units are listed in accordance with UL 1812.

And this, also from NFPA 90A, "2-2.4.7 Heat Recovery Equipment. Equipment ... used for heat transfer or air movement shall be constructed so that all material in the air path shall meet the requirements of Section 2-2." Section 2-2 includes a variety of requirements for different components of the air handling system including intakes, cleaners, filters, fans and heating and cooling equipment. Those most similar to the energy recovery component are air filters and evaporative cooler media. Paragraph 2-2.2.2 requires air filters to be rated either Class 1 or Class 2 for flammability and smoke density in accordance with UL 900. Paragraph 2-2.4.6 requires evaporative cooler media to comply with these same UL 900 requirements. Airxchange energy recovery ventilation components comply with 90A by virtue of their UL 900 testing and UL Component Recognition and listing.

Airxchange products are accepted for installation in accordance with NFPA 90A by virtue of their UL listing for safety and their UL 900 test results, including flammability and smoke density. Airxchange energy recovery ventilators and cassettes are in compliance with both the letter and the spirit of NFPA 90A. Our attention to safety standards and our UL Listing and Component Recognition are evidence of a continuing commitment to safety for our customers, the engineering community and the public.