



Find Out How UL 1254, the UL Standard for Safety for Pre-Engineered Dry and Wet Chemical Extinguishing System Units, Impacts the Way Industrial Hazards are Protected

1. What type of pre-engineered dry chemical systems are affected by the UL 1254 Standard for Safety?

Answer: All pre-engineered dry chemical total flooding systems, local application systems (tankside or overhead), automobile service station fueling area systems, open-face paint spray booth systems, and vehicle paint spray booth systems.

2. Does the UL 1254 Standard for Safety establish specific fire testing criteria for each type of pre-engineered dry chemical system?

Answer: Yes. UL has been making an effort to design their testing protocols to more closely simulate real-world scenarios, commonly known as application-based testing, that apply specific performance criteria for each fire test. For example, UL acknowledges that the hazards presented by a vehicle paint spray booth are significantly different than that of a generator room that is protected as a general total flooding hazard.

3. How are the fire tests for vehicle paint spray booths different from the general total flooding tests?

Answer: There are 3 significant differences addressed in the vehicle paint spray booth test:

1. A large barrier, simulating a vehicle, is placed in the hazard area and heptane fires are positioned under it. The barrier represents 50% of the booth width, 60% of the overall height, and 75% of the depth and is located one foot off the floor.
 2. There is a mandatory 10 to 20 second time delay (to allow for fan rundown) incorporated into both the automatic and manual means of system actuation.
 3. Only multipurpose dry chemical (ABC) is allowed.
4. Which styles of paint spray booths are affected by UL 1254?

Answer: The testing requirements for paint spray booths are constructed to meet the testing needs of the many diverse styles and types of paint spray booths available today. The tests also incorporate the various configurations of exhaust networks comprised of the plenum area, pit, and duct. All testing chambers are constructed in accordance with the configurations exhibited in the manufacturer's installation manual. It is, therefore, important for end-users to reference the manufacturer's design and installation specifications.

5. Are there any styles of spray areas that are not addressed in UL 1254?

Answer: Yes. A UL 1254 fire testing chamber is constructed of a solid barrier with a small percentage of surface area removed from the walls. Certain styles of spray areas, such as limited finishing workstations, are left unaddressed due to their materials of construction. Having moveable curtains present raises the concerns that a barrier will not be present to contain the dry chemical when discharged. It is highly advisable for end-users to consult with the system manufacturer for their recommendation whenever faced with concerns on the adequacy of the system design.

6. Are all types of pre-engineered dry chemical systems fire tested for both Class A and Class B hazards?

Answer: No. Local application systems and automobile service station fueling area systems do not involve a Class A fire test.

7. Are local application overhead systems tested for both indoor and outdoor use?

Answer: UL 1254 has instituted different fire testing protocols for indoor and outdoor applications. Both fire tests utilize the same testing hazard, but the outdoor fire test requires a prevailing wind condition of at least 10 miles per hour. Testing for outdoor applications is an elected option so it is imperative to check with the manufacturer to make sure the system has been tested for the desired application.

8. Are local application overhead systems tested for three dimensional hazards?

Answer: No. The only fire test for this application utilizes a two-dimensional Class B fire pan constructed in size to the specifications found in the manufacturer's installation manual.

9. Is UL 1254 used as a Standard for anything other than fire testing?

Answer: Yes. UL 1254 contains the testing protocols for the construction and performance of the numerous components that make a fixed pre-engineered dry and wet chemical fire extinguishing system. UL 1254 also establishes testing and marking guidelines for the manufacturer that are used during the production process.

Founded in 1930, the Fire Equipment Manufacturers' Association is an international, non-profit trade association dedicated to manufacturing commercial fire protection equipment to serve as the first line of defense against fire in its early stages.

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