



UL Sets the Story Straight on Misuse of Uninsulated “Fire Rated” Duct Systems

UL recently published an article titled “Ducts – Providing Clarity on Fire Rated Ventilation Ducts and Assemblies”. The article provides much needed clarity to the use of Uninsulated “fire rated” duct systems residing in UL Category HNLN. UL published this article as a result of continued confusion in the marketplace regarding the limitations of these systems.

Web link to article: <http://industries.ul.com/blog/ducts-providing-clarity-on-fire-rated-ventilation-ducts-and-assemblies>

Below are the key takeaways from the article:

- UL Categories
 - HNLN – Uninsulated Ventilation Duct Assemblies = Fire Protective Rated (spray duct products)
 - HNLJ – Ventilation Duct Assemblies = Fire Resistive Rated (fire wrap products)
- Differences between HNLN and HNLJ Categories
 - HNLN systems require 18” clearance to ALL combustible items
 - HNLN systems do NOT satisfy temperature rise requirements per ISO 6944
 - HNLJ systems can be installed with zero clearance to combustibles
- ALL combustible items include
 - Combustibles, limited combustibles, and those items suitable for use in plenum locations (i.e. 25/50 rated materials)
- Why 18” clearance is required for HNLN
 - System is incapable of preventing nearby combustible items from igniting
- 18” clearance requirement is NOT to be waived for situations that do not require a T-rating
 - i.e. horizontal ducts penetrating a vertical assembly or exiting a shaft
- UL’s view on 18” clearance requirement
 - 18” minimum clearance requirement is mandatory and cannot be waived
 - It must be interpreted as a declaration of the assemblies’ capabilities and limitations

As noted by UL in the article, the uninsulated ventilation duct assemblies found in UL’s HNLN category do not satisfy the temperature rise requirements within ISO 6944. Temperature rise is the foundational measure of performance for achieving a Fire Resistance Rating per ASTM E119 as required by the IBC. Allowing these uninsulated systems to be used without 18” clearance is a direct violation of the intent of the passive fire protection provisions in the IBC which are based on the principle of fire compartmentation.

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