

## U.S. Fire Administration / National Fire Academy

*Coffee Break Training***Topic: Kitchen Exhaust Duct Wrap**

**Learning objective:** The student shall be able to identify minimum clearance requirements for grease ducts from combustible construction.

Model building or mechanical codes and NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, require that hot grease vapor-carrying ducts have minimum clearances from combustible construction.

The purpose for this spacing is to keep radiant heat from a duct fire from igniting nearby structural or finish materials.

Generally, hoods, grease-removal devices, exhaust fans, and ducts must be located at least 18 inches (457 mm) from combustible material or 3 inches (76 mm) from combustible material covered by suitable gypsum wallboard. Grease-carrying equipment can be in direct contact to fully noncombustible construction. Hood, duct, or grease-removal devices evaluated and listed by independent third-party services for lesser clearances are permitted.

The clearances described above can be reduced when appropriate protective measures are provided



The horizontal portion of this grease exhaust duct should be wrapped to meet minimum fire protection requirements.

Permitted Clearance		Protective Measures
Inches	mm	
9	229	0.013 in. (0.33 mm) (28 gauge) sheet metal spaced out 1 in. (25 mm) on noncombustible spacers
3	76	0.027 in. (0.69 mm) (22 gauge) sheet metal on 1 in. (25 mm) mineral wool batts or ceramic fiber blanket, reinforced with wire mesh or equivalent, spaced out 1 in. (25 mm) on noncombustible spacers
0*	0*	Metal lath and plaster, ceramic tile, quarry tile, other noncombustible materials or assembly of noncombustible materials, or materials and products that are listed for the purpose of reducing clearance.
0	0	Materials and products that are listed for the purpose of reducing clearance to “zero” from combustible construction.

\* From “limited combustible” material.

For additional information, refer to the *International Mechanical Code*<sup>®</sup> or NFPA 96.