

FIGURE A.3.3.33 Styles of Hoods.

Table A.3.3.37 Types of Construction Assemblies Containing Noncombustible, Limited-Combustible, and Combustible Materials

Type of Assembly	Classifications for Determining Hood and Grease Duct Clearance*		
	Non-combustible	Limited-Combustible	Combustible
Wall assemblies			
Brick, clay tile, or concrete masonry products	X		
Plaster, ceramic, or quarry tile on brick, clay tile, or concrete masonry products	X		
Plaster on metal lath on metal studs	X		
Gypsum board on metal studs		X	
Solid gypsum board†		X	
Plaster on wood or metal lath on wood studs			X
Gypsum board on wood studs			X
Plywood or other wood sheathing on wood or metal studs			X
Floor-ceiling or roof-ceiling assemblies			
Plaster applied directly to underside of concrete slab	X		
Suspended membrane ceiling			
With noncombustible mineral wool acoustical material	X		
With combustible fibrous tile			X
Gypsum board on steel joists beneath concrete slab		X	
Gypsum board on wood joists			X

Notes:

- (1) Wall assembly descriptions assume same facing material on both sides of studs.
- (2) Categories are not changed by use of fire retardant-treated wood products.
- (3) Categories are not changed by use of Type X gypsum board.
- (4) See definitions in 3.3.37 of *combustible material*, *limited-combustible material*, and *noncombustible material*.

*See clearance requirements in Section 4.2.

†Solid gypsum walls and partitions, 50.8 mm (2 in.) or 57.15 mm (2¼ in.) thickness, are described in the Gypsum Association publication *Fire Resistance Design Manual*.

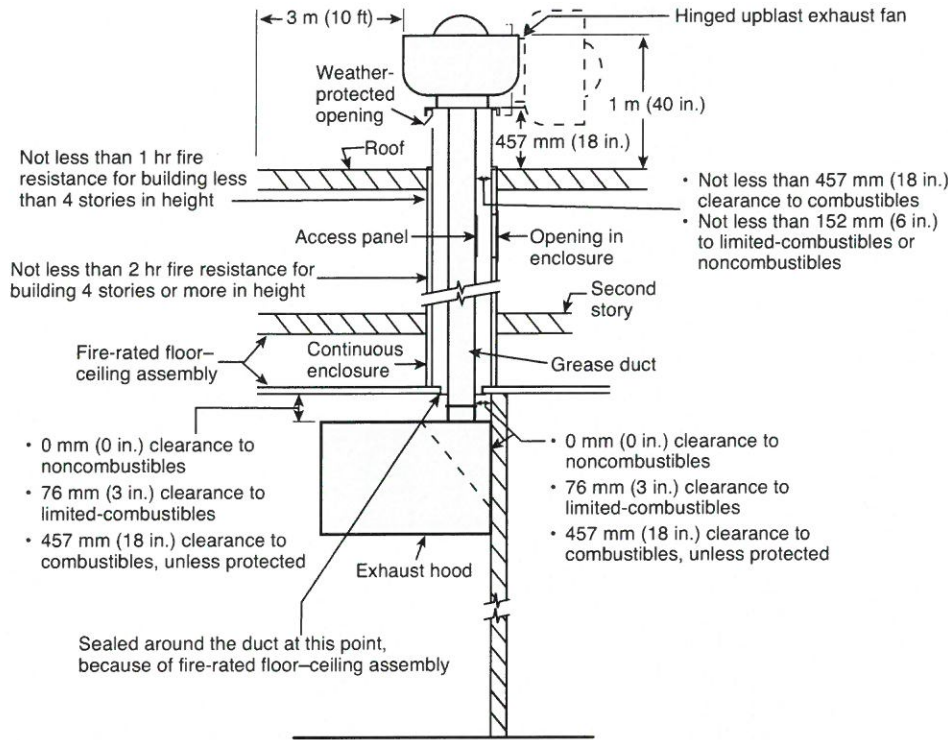


FIGURE A.4.2(a) Typical Section View for Building with Two Stories or More with Fire-Rated Floor-Ceiling Assembly.

A.4.1.6 When solid fuel is burned in cooking operations, increased quantities of carbon, creosote, and grease-laden vapors are produced that rapidly contaminate surfaces, produce airborne sparks and embers, and are subject to significant flare-ups. Also, solid fuel cooking requires fuel storage and handling and produces ash that requires disposal. For these reasons, solid fuel cooking operations are required to comply with Chapter 14.

A.4.1.9 The authority having jurisdiction can exempt temporary facilities, such as a tent, upon evaluation for compliance to the applicable portions of this standard.

Although it might not be practical to enforce all requirements of this standard in temporary facilities, the authority having jurisdiction should determine that all necessary provisions that affect the personal safety of the occupants are considered.

A.4.2 See Figure A.4.2(a) through Figure A.4.2(h) for clarification of the appropriate clearances required in Section 4.2.

A.4.2.4.2 The intent of this paragraph is to maintain the systems and their function in accordance with the requirements of the edition of NFPA 96 under which the systems were designed and installed.

A.4.3.2 Protection should be steel outer casing [minimum 0.46 mm (0.018 in.) thick] or equivalent.

A.4.8.1.1 The provisions of 4.8.1.1 do not require inherently noncombustible materials to be tested in order to be classified as noncombustible materials. [5000: A.7.1.4.1]

A.4.8.1.1(1) Examples of such materials include steel, concrete, masonry and glass. [5000: A.7.1.4.1.1(1)]

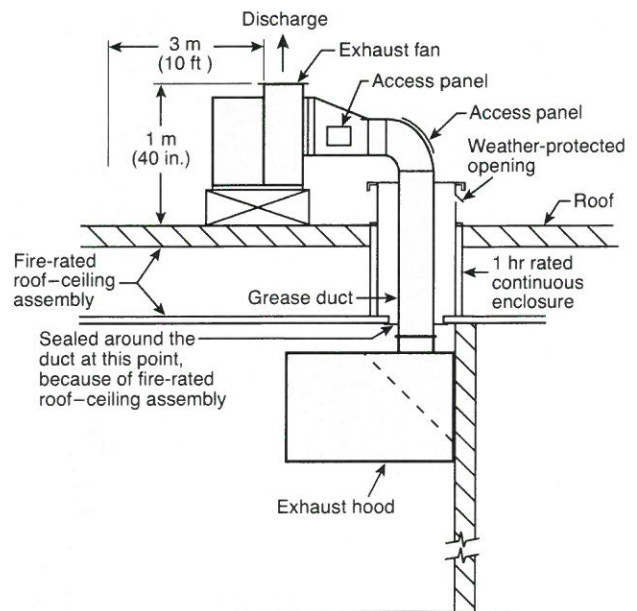


FIGURE A.4.2(b) Typical Section View for One-Story Building with Fire-Rated Roof-Ceiling Assembly. (Clearances given in Figure A.4.2(a) apply also to this drawing.)

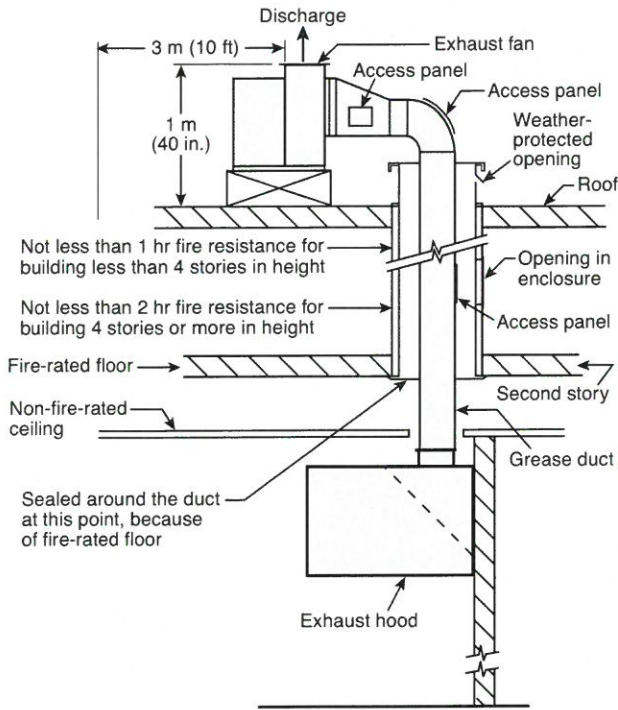


FIGURE A.4.2(c) Typical Section View for Building with Two Stories or More with Non-Fire-Rated Ceiling and Fire-Rated Floor. (Clearances given in Figure A.4.2(a) apply also to this drawing.)

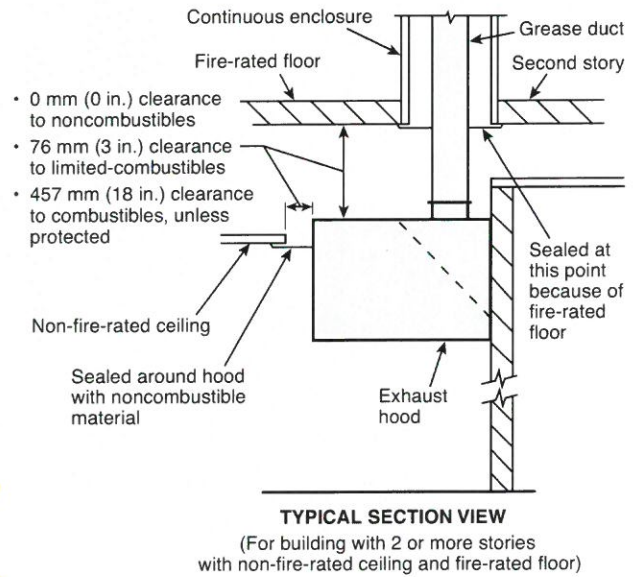
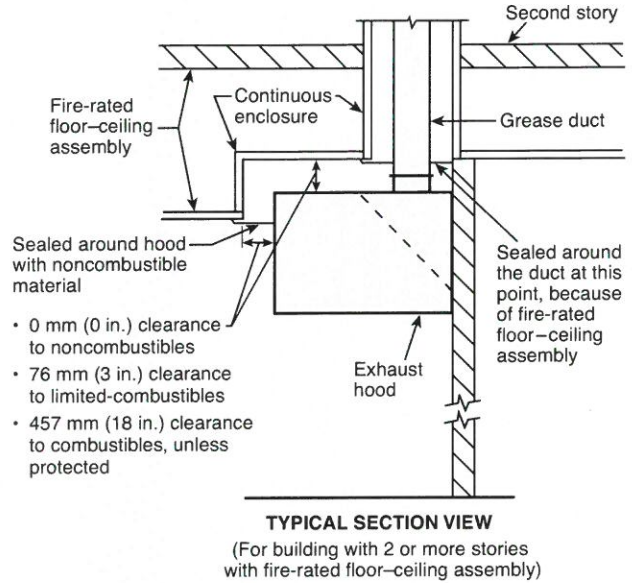
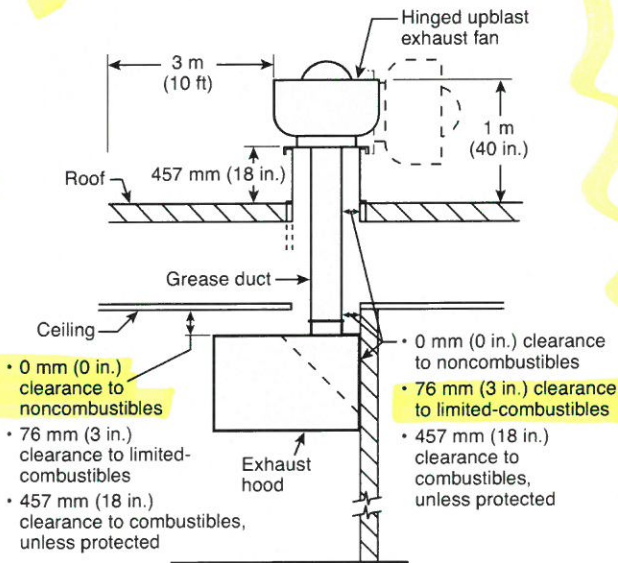


FIGURE A.4.2(e) Detail Drawings Showing Hoods Penetrating Ceilings.



Note: Enclosure is not required in 1-story building where roof ceiling assembly does not have a fire resistance rating.

FIGURE A.4.2(d) Typical Section View for One-Story Building Without Fire-Rated Roof-Ceiling Assembly.

A.5.1.4 Welding is one acceptable method.

A.5.3.4 Figure A.5.3.4 provides examples of exhaust hood assemblies with integrated supply air plenums.

A.5.4 Examples of acceptable materials for hoods include steel and stainless steel.

Additionally, many health officials prohibit galvanized steel in hoods, as does NSF/ANSI 2.

A.6.2.2.1 Appliances that produce high flue gas temperatures include deep-fat fryers, upright or high broilers, and salamander broilers.

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Square Lay-in & Tegular
smooth texture

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



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- acoustics

LOCATION DEPENDENT

VISUAL SELECTION

Edge Profile	Susp. Dwg. Pgs. 295-299 armstrong.com/catdws	Item No.	Dimensions (Inches)
Clean Room™ FL Field Panel			
15/16" or 1-1/2" Square Lay-in	1, 6, 7	1715	24 x 24 x 3/4" □
	1, 6, 7	1716	24 x 48 x 3/4" □
Clean Room™ FL Border Panel			
15/16" or 1-1/2" Square Lay-in	1, 6, 7	1720	24 x 24 x 5/8" □
	1, 6, 7	1721	24 x 48 x 5/8" □
	1, 6, 7	Other Size Panels	W: 24" / L: 24" – 48" 5/8" Thick
Clean Room™ VL Unperforated			
15/16" or 1-1/2" Square Lay-in	1, 7	868	24 x 24 x 5/8" □
	1, 7	870	24 x 48 x 5/8" □
VL Perforated (Not for Clean Rooms)			
15/16" or 1-1/2" Square Lay-in	1	869	24 x 24 x 5/8" □
	1	871	24 x 48 x 5/8" □

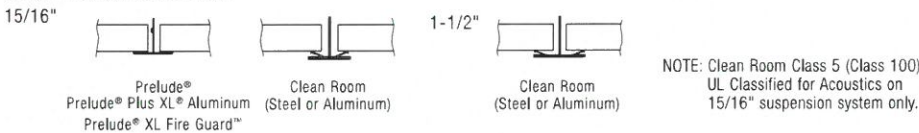
¹ Total Acoustics™ ceiling panels have an ideal combination of noise reduction and sound-blocking performance in one product. Also see Optima® Health Zone™ and Ultima® Health Zone™ for use in Clean Rooms.

PERFORMANCE SELECTION

Dots represent high level of performance.

UL Classified Acoustics		Total Acoustics ¹	Fire Rating	Light Reflect	Anti-Mold & Mildew	Sag Resist	Certified Low VOC Emissions	Water Repel	Wash	Scrub	Impact	Scratch	Soil	Recycled Content	Recycle Program	30-Yr Warranty
NRC	+ CAC	=	Class	Light Reflect	Bio-Block	Humi-Guard+		Durability								
0.55	35	–	Class A	0.79	•	•	•	•	•	•	•	•	•	•	–	•
0.55	35	–	Class A	0.79	•	•	•	•	•	•	•	•	•	•	–	•
N/A	35	–	Class A	0.79	•	•	–	•	•	•	•	•	•	Std	–	•
N/A	35	–	Class A	0.79	•	•	–	•	•	•	•	•	•	Std	–	•
N/A	N/A	–	Class A	0.79	•	•	–	•	•	•	•	•	•	Std	–	•
N/A	40	–	Fire Guard™	0.80	•	•	–	•	•	•	•	•	•	Std	–	•
N/A	40	–	Fire Guard	0.80	•	•	–	•	•	•	•	•	•	Std	–	•
0.55	35	–	Fire Guard	0.78	•	•	–	•	•	•	•	•	•	Std	–	•
0.55	35	–	Fire Guard	0.78	•	•	–	•	•	•	•	•	•	Std	–	•

SUSPENSION SYSTEMS



PHYSICAL DATA

Material
Wet-formed mineral fiber

Surface Finish
1715, 1716, 1720, 1721 – Soil-resistant polyester film
868, 870, 869, 871 – Vinyl-faced membrane

Fire Performance
ASTM E84 and CAN/ULC S102 surface burning characteristics. Flame Spread Index 25 or less. Smoke Developed Index 50 or less (UL labeled.)
Fire Guard: A fire-resistive ceiling when used in applicable UL assemblies

ASTM E1264 Classification
1715, 1716, 1720, 1721 – Type IV, Form 2, Pattern G H
868, 870, – Type IV, Form 2, Pattern E
869, 871 – Type IV, Form 2, Pattern C E
Fire Class A

Humidity/Sag Resistance
HumiGuard® Plus ceiling panels maintain superior sag resistance. Recommended for areas subject to high humidity, up to, but not including, standing water and outdoor applications.

Anti-Mold/Mildew
Ceiling panels with BioBlock® coating contain a mold-inhibiting agent that resists the growth of mold and mildew.

VOC Emissions
(Excludes FL Border and VL Panels) Third-party certified compliant with California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010. This standard is the guideline for low emissions in LEED, CalGreen Title 24, ANSI/ASHRAE/USGBC/IES Standard 189; ANSI/GBI Green Building Assessment Protocol.

High Recycled Content
Contains greater than 50% total recycled content. Total recycled content based on product composition of post-consumer and pre-consumer (post-industrial) recycled content per FTC guidelines.

Insulation Value
R Factor – 1.5 (BTU units)
R Factor – 0.26 (Watts units)

30-Year Performance Guarantee & Warranty
When installed with Armstrong® Suspension System. Details at armstrong.com/warranty

Weight; Square Feet/Carton
1715 – 1.02 lbs/SF; 48 SF/ctn
1716 – 1.02 lbs/SF; 64 SF/ctn
1720 – 1.04 lbs/SF; 48 SF/ctn
1721 – 1.17 lbs/SF; 64 SF/ctn
868, 869 – 1.10 lbs/SF; 48 SF/ctn
870, 871 – 1.11 lbs/SF; 64 SF/ctn

NOTE: For assistance on proper Clean Room installation, contact TechLine at 1 877 ARMSTRONG.

Minimum Order Quantity:
1 carton, excludes other size panels.

Metric Items Available
1715M, 1716M, 1720M, 1721M, 868M, 870M, 869M, 871M – Metric items are subject to extended lead times and minimum quantities. Contact your representative for more details.

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