**Class A:** Old style stainless chimney. They’re double walled with approx 1” insulation between sheets. Were used with all fuel. Usually 2-2 ½” clearance to combustibles. Replaced with 650-C/629 chimneys.

**Class B:** Type B-vents are hollow double-walled metal chimneys/flues and can be used only with listed, drafthood equipped gas appliances. They’ve got Stainless exterior with galvanized or aluminum inner wall. Up to a 500* heat Clearance from combustibles is 1”.

**CLASS “L”:** Type L vents are typically used for Oil fired furnaces with a 570* maximum heat range. Built like Type B but no AL interior and thicker walls. Also, a 3” to combustibles is required. When observing roof clearances, L vents may require 2-3-10 Chimney clearances…

Type 650-C/629 Super Chimneys are rated to 2,000*. They’re built with a 2” insulating space between stainless layers and require a 2” Clearance to Combustables. Standard wood burning/masonry chimney clearances apply.

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**Class A Chimneys - Insulated Double Wall MetalBestos™ type**

![Image of Class A Chimney](image)

**Improper metal chimney installation:** As you can see from our photo (above left), even this superb product can be reduced to shambles when installed by an idiot. The chimney in this photo was not supported, is falling and is unsafe. See [Chimney Collapse Hazards & Chimney Support & Bracing Requirements](#).

This unfortunate collapsing Class-A type metal chimney was the replacement for the abandoned masonry chimney under the corrugated metal roof we show at Chimneys Abandoned Outdoors and that whose remains we showed at Chimneys Abandoned Indoors. It looks as if more than one generation of inexpert chimney installers worked in Dover, NY.

Our photo at above right shows an end view of a section of Metalbestos SS All Fuel Chimney™. The fiberglass insulation is not part of the product and was just left stuffed in that opening.
Class-A Insulated double wall all-fuel chimneys such as the MetalBestos model SS All-Fuel Chimney™ are constructed of double walled stainless steel (usually) and include an insulating material (originally asbestos) between the two metal layers. Class A chimneys have been replaced in some jurisdictions with Super Chimneys or Type 629 Chimneys (also called Type 650 C chimneys) which we discuss below.

Metalbestos™ type chimneys are available in different diameters, lengths, and with elbows, caps, and supporting base kits. These chimneys are used often to vent oil fired heating equipment as well as woodstoves and zero-clearance or built-in fireplaces. Our photograph at above left shows an installation leaving the insulated metal chimney exposed on the home exterior.

While these insulated chimneys may be rated for zero clearance from combustibles by the manufacturer, many building codes require at least a one-inch clearance between the chimney and any combustible materials.

Our photo below (See Wood framed Chimney Chase file) shows a wood-framed chimney chase that might enclose an insulated metal chimney or a Type-B Gas vent chimney.

Class A Chimney Height Requirements

More complete details about chimney height requirements on buildings including Class A Chimneys is at CHIMNEY HEIGHT & CLEARANCE CODE

Class A Chimney Fire Clearance Details

More complete details about Class-A chimney fire clearances indoors can be read at Fire Clearances for Metal Chimneys

Type B-Vents for Gas Fired Appliances
Type B gas vents such as the Ameri-Vent™ are permitted for venting gas-fired appliances and have their own set of combustible clearance and installation specifications.

A Type B vent is intended for relatively low-heat applications.

**B-Vents are not for use with fireplaces, woodstoves, or oil-fired equipment.**

Type B-vents are double-walled metal chimneys/flues and can be used only with listed, draft-hood equipped gas appliances. B-vents are not permitted for use with incinerators and are not intended for use with appliances burning anything other than LP or natural gas.

The B-vent also requires that its own special chimney cap be installed. If the cap is lost, do not substitute something not recommended by the manufacturer or the chimney may be unsafe.

**Type B Vent Chimney Labels & Identification**

Our photos below show the common embossed and printed labels that identify Type B Gas vents.
Chimney Height Requirements for Type B Vents

Heights for these both B-Vent and L-Vent types of metal chimney vents are shown in Carson Dunlop's sketch.

The top of the chimney should be at least two feet above anything within a ten-foot radius of the chimney.

B-Vents should be at least two feet above the chimney surface as well.

Table of Type B-Vent Rooftop Clearance Requirements

The 1992 Vent Sizing Tables require that all Type B gas vents terminate above the roof with a listed cap or listed roof assembly in accordance with the manufacturer's instructions.

Vent caps 12" and smaller may terminate a distance above the roof if 8 feet or more away from a vertical surface as follows:

<table>
<thead>
<tr>
<th>Table of Rooftop Chimney Clearances for Metal B-Vent Chimneys &amp; Flues</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOF PITCH - rise/run in inches</td>
</tr>
<tr>
<td>Pitch Range</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>Flat to 7/12</td>
</tr>
<tr>
<td>7/12 to 8/12</td>
</tr>
<tr>
<td>8/12 to 9/12</td>
</tr>
<tr>
<td>9/12 to 10/12</td>
</tr>
<tr>
<td>10/12 to 11/12</td>
</tr>
<tr>
<td>11/12 to 12/12</td>
</tr>
<tr>
<td>* Continues to 21/12 pitch at 8.0 feet</td>
</tr>
</tbody>
</table>

**Notes**

(1) measure on the up-roof or "shorter" height side of the chimney

(2) **Watch out**: while one foot above the roof surface may meet the recommendations for fire clearances, in one-storey buildings or in buildings with heating equipment on the uppermost floor, the total chimney height may be inadequate to establish sufficient and safe draft unless you extend the chimney height by more than these low minimums.

(3) Chimney Vent caps larger than 12" must be located at least 2 feet above the highest point and 2 feet higher than any portion of the building within a horizontal distance of 10 feet.

More complete details about chimney height requirements on buildings is at [CHIMNEY HEIGHT & CLEARANCE CODE](#).

**Type B Chimney Fire Clearance Details**

More complete details about Type B metal chimney fire clearances indoors can be read at [Fire Clearances for Metal Chimneys](#).

**L-Vents vs B-Vents - What's the Difference Between These Two Vents**

As we stated at [Type L Vents](#), it can be confusing distinguishing between L-Vent chimneys and B-Vent chimneys, in part because the same components may be used in both heat venting range installations.

Type L-Vents conform to UL 641.

Describing their model DFS L-Vent/ Type B Gas Vent installation procedures, [Selkirk Corporation](#), a producer of metal chimneys and vents, offers these details:

*Type L-Vent is designed for venting approved oil or gas appliances producing draft hood flue gases not exceeding a temperature of 570°F (299°C).*
Type B Gas vent is designed for venting approved gas appliances equipped with draft hoods and other Listed gas appliances specified for use with Type B Gas vent which produce flue gases not exceeding 480°F (249°C).

Minimum clearance between the vent and combustible materials is 3 inches for L-Vent and 1 inch for Type B gas vent. L-Vent or B-Vent that extends through any story above that on which the connected appliance is located is to be provided with enclosures having a fire resistance rating equal to or greater than that of the floor or roof assemblies through which they pass.

Framing dimensions of enclosures and at joist or rafter levels shall be a minimum of 6” larger than the outside of the vent for L-Vent and 2” larger for B-Vent.

Near the vent base, post a notice of the type of appliance for which the DFS installation to combustibles is installed. If installed at 1” airspace, it is limited to B-Vent (gas) only. If it is installed at 3” airspace, it may be used with oil (as an L-Vent) or gas (as a B-Vent).

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Fire Safety Clearance Requirements between Metal Chimneys & Combustible Materials

- Minimum clearances from combustibles for manufactured metal chimneys for oil, gas, or other fuel-fired appliances using metal chimneys
- Table of Clearances for Listed Flue Vent Connectors for Gas-Fired Heating Appliances Minimum Distance from Combustible Materials

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Fire Safety Clearance Required from Combustibles for Metal Chimneys

This article series on chimneys, chimney construction, and chimney safety provide detailed suggestions describing how to perform a thorough visual inspection of chimneys for safety and other defects.
Adjacent Metal Chimney Separation Requirements

In addition to the requirement for safety fire clearance from rooftops and other building components, separate metal chimneys that are too close to one another may cause damage resulting in poor chimney performance or an unsafe chimney.

Carson Dunlop's sketch at left shows that metal chimneys should be at least 16 inches apart to avoid damage.

See Class A Chimneys, MetalBestos™

Class A, B-Vent, & 650C Metal Chimney Fire Clearance Requirements

Carson Dunlop's sketch (left) summarizes combustible clearance requirements for the three main types of metal chimneys:

- B-Vents - 1" clearance
- Class "A" Chimneys - 2" to 2 1/2" clearance
- 650 C Chimneys - 2" clearance (also see Super Chimneys, 629 Chimneys)

Sketch courtesy Carson Dunlop.
Super Chimneys, 629 Chimneys or 650-C Chimneys Replace Class-A Metal Chimneys & Flues

A 650-C Chimneys are required for use with wood burning stoves and, as Carson Dunlop's sketch explains, they have replaced Class A metal chimneys.

Type 650-C chimneys, also called Super Chimneys are tested for fire safety to 2000 deg.F. and provide an extra measure of fire safety.