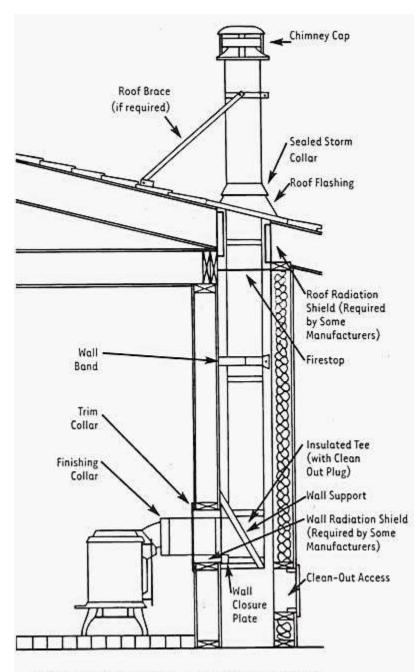
Through the Wall Chimney Installation using Tee

Although this diagram shows the chimney venting low on the wall you will get a little better draft by penetrating the wall as close to the ceiling as your pipe clearances will allow.



Through-the-Wall Installation — Factory-Built Chimney

Through the Wall Installation

Here is some information regarding tee chimney systems

First off, we can never recommend that you vent a woodstove thru a side wall even though there are pipe parts that can do this installation. This is especially a concern when this installation is proposed for the downstairs of a two story home. The issue is that you need "draft" for a woodstove to operate and especially to keep smoke and odors out of the home. I have attached some draft related handouts for education on this topic. The draft is strongest when a pipe vents directly thru the roof in the highest portion of the living space, looking at the whole air space as one big bubble of air pressure. When you penetrate the shell in a lower portion of the home the air/smoke wants to come in the home not out. So, although I could easily give you an estimate for the tee system that you are looking for with elbows to go around the eave, or a flashing to go thru the eave, I could never assure you that it would vent the odors when out of operation or have enough draft to pull the smoke out of the stove fast enough for it to burn hot.

That being said, if you are still interested in taking your chances on this system, here is a list of the parts used for an installation like this for a single story home. Add the necessary parts to get the height overall. The pipe does need to rise 2' taller than any point on the roof within 10' horizontally and will need support bars, which are fabricated from emt thin wall conduit on the job site, if the pipe rises over 4' past the roof line. Penetrating the eave would make the draft better, cost less in pipe and be more stable than using elbows to bypass the eave.

Average Single Story Tee System Materials list

- 3 24' single wall pipe
- **1** 90 degree elbow single wall pipe
- 1 pipe end plate
- 1 Tee fire shield
- 1 Tee
- 1 Tee support
- 3 36" chimney section
- 1 Flashing 0/12 6/12
- 1 Storm collar
- 1 Chimney cap

You will find all of these parts on these two pages

6" -

http://woodheatstoves.com/index.php?main_page=index&cPath=71_72_ 300_79

8 http://woodheatstoves.com/index.php?main_page=index&cPath=71_72_ 300_80

Let us know how we can help you further.

This diagram that may help visualize the installation, except that this system shows the pipe exiting low on the wall instead of higher up on the wall where the draft would be better.

In through the wall chimney installations, the chimney enters the house through a vertical wall rather than the ceiling (see through-the-wall illustration). This requires the use of an insulated tee with cleanout plug, a wall support, wall closure or cover plate, wall bands, roof flashing, storm collar and chimney cap. The illustration also shows a wall radiation shield, firestop, roof radiation shield, trim collar, and finishing collar. Cleanout access should be provided beneath the tee cleanout plug.

It is important to follow manufacturer's instructions regarding the minimum length of chimney that must extend into the living area (as well as instructions regarding the maximum horizontal run of chimney). Some chimney manufacturers offer adjustable length sections to simplify determining horizontal chimney and connector lengths needed from the tee to the stove. For other factory-built chimneys that do not have adjustable lengths (and of course, cannot be cut) the distance from the insulated tee (which the wall support positions in a fixed place) to the chimney's minimum protrusion into the room must be made up with a standard chimney length or combination of lengths that meet or exceed the minimum length needed. The length needed will be the sum of the space between the tee and the outside wall, the overall thickness of the wall, and the minimum extension into the house.

An exterior chimney is subject to cold outdoor temperatures, leading to greater heat loss and higher rates of creosote accumulation and moisture condensation in the chimney. The best location for chimneys for optimum performance and draft is on an interior wall of the house. Cold hearth syndrome spillage is more likely with exterior, through the wall chimneys, particularly in basement installations.

Bends like the 90 degree tee and any connector elbows in a chimney restrict flue gas flow and affect draft. Through-the-wall installations are also more expensive than entirely vertical installations. A better performing alternative to through-thewall may be an interior chase (through upper floors for a basement installation.)

Consideration must be given not only to safety code height for the chimney, but also to draft requirements. Additional height above code minimums may be called for. In any event, roof bracing may be needed.

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