

# Which End Is Up?

## *A Guide to Installing Stove Connector Pipe*

Stovepipe is the pipe that connects the stove with the chimney. It is typically single walled and comes in various lengths. Here at Woodstock Soapstone Company, we carry only 22 gauge, welded seam pipe manufactured by Heat-Fab, Inc. of Turners Falls, MA. We have been selling Heat-Fab pipe for almost as long as we have been making stoves because of its quality and durability. It's a bit more expensive than "hardware store" pipe but in this case the old adage "you get what you pay for" holds very true.



Stovepipe comes in 6", 7", and 8" diameters, in lengths of 12", 18", 24", 36", and 48". There are 90° elbows (fixed and adjustable), a 90° tee with cap, 45° elbows (fixed only), several slip/adjustable lengths, and a variety of diameter adapters. Each pipe comes with a set of 4 screws for a securing connections. Stovepipe can be painted to match the cast iron color of your stove.

Hardware store pipe is typically 24 or 26 gauge steel (the higher the number, the thinner the steel) with a snap-lock seam. It's shipped flat and the snap-lock seam allows retailers to stack pieces of pipe and conserve shelf space. This is great for retailers and potentially disastrous for homeowners. Snap-lock seams can fail and burst apart in the event of a chimney fire. Heat-Fab pipe is 22 gauge steel (lower number, thicker steel) with a welded seam that

will not fail in the event of a chimney fire. The thicker steel lasts longer and the welded seam is safer.

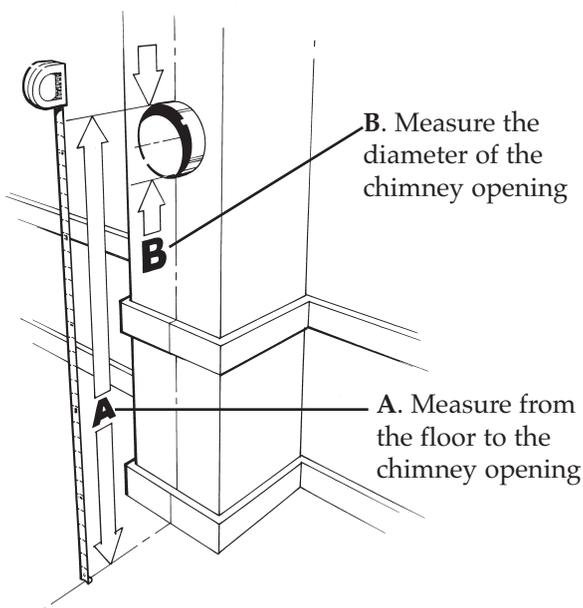
### 1. How much pipe?

The first step in determining how much stove pipe you need is to measure the distance from the floor where the stove will sit to the chimney opening. The chimney opening could be in the ceiling or in the wall. If the chimney opening is in the wall - measure the distance to the top of the opening and then measure the diameter of the hole from top to bottom.

Next, get out your calculator. Take the distance from the floor to the chimney opening and subtract 28". This is the height of the stove. Conveniently, for rear-venting stoves, it is also the height from the floor to the top of the of the elbow coming off the back of the stove. The number remaining is the length of stovepipe you need. There are two other pieces of information that are helpful for calculating which sections of stovepipe you need to complete your length. The first bit of helpful information is that a 90° elbow is about 8" tall. The second is that for each section of pipe you'll have to subtract two inches from the length. Because each pipe overlaps with the next, the installed length of a pipe section is about two inches less than it's stated length.

Even if you have very carefully pre-planned, and pre-measured, very few installations work exactly using

## The Math Corner



### Chimney in Ceiling:

Floor to ceiling height	108"
(minus stove height)	-28"
Stovepipe needed	80"

Recommended sections:

Two 36" sections and one 18" slip pipe  
(plus a 90° elbow for rear vented stoves)

### Chimney in Wall:

Floor to top of opening	70"
(minus stove height)	-28"
(minus 90° elbow height)	-8"
Stovepipe needed	32"

Recommended sections:

One 24" and one 18" slip pipe  
(plus a 2nd 90° elbow for rear vented stoves)

*Note: A slip pipe is tapered all the way down its length in order to slide inside another straight piece of pipe and provide an adjustable length.*

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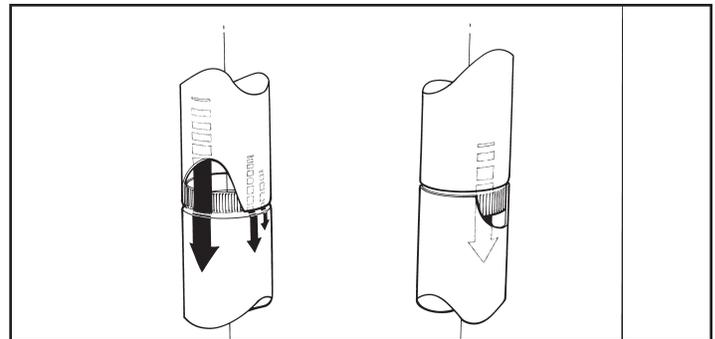
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the fixed lengths of pipe available. You need "wiggle" room. Since the heavy gauge of Heat-Fab pipe makes it difficult to cut, they created two "adjustable" options- an 18" slip pipe and a 38"-70" adjustable kit. These pipes are tapered all the way down their length so that they can slip inside another straight section of pipe. The 18" slip pipe will not work with an elbow, tee, or as a stand alone piece. The 18" slip pipe gives you between 2" and 16" of length depending on how far you slip it inside the pipe section below. The 38"-70" adjustable kit works in the same manner except it starts with a 36" fixed length and a longer slip pipe to allow for fewer joints. To install the adjustable sections, just slip the tapered end inside the pipe below then slide it up to the required height. Once you have reached the proper height, pre-drill and install the 4 screws to hold it in place.

## 2. Which end is up?

Each piece of pipe has a crimped end (male) and a non-crimped end (female). With elbows, it's easy to tell which is which because the crimped end is, well, crimped (has ridges). Straight lengths of pipe are a little different. One end of the pipe has 4 pre-drilled holes for the screws. This is the non-crimped (female) end. The end without the pre-drilled holes is the crimped (male) end. Heat-Fab stovepipe is designed so that the crimped (male) end of the pipe always points toward the stove. You may be thinking that this connection will allow smoke to leak out. This is simply NOT TRUE. If your chimney is designed to provide sufficient draft for the stove, the joint will suck air in, not let smoke out. The reason to have the crimped end of the pipe pointing toward the stove is so that any condensation inside the pipe will flow harmlessly back to the stove, rather than leak out the joint and on to your hearth.

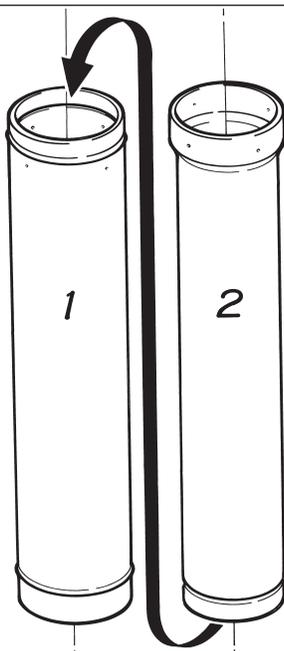
Making the connection between two pieces of pipe



*Installing pipe with the crimped end pointing down allows condensation to run inside the pipe. If the non-crimped end is pointing down, any condensation will run on the outside of the pipe leaving drip marks.*

is, admittedly, a tight fit, but intentionally so for safety. First, be sure you are trying to mate a crimped end with a non-crimped end. Two crimped ends, or two non-crimped ends, will simply not go together no matter how hard you try. Second, check to see that both ends are truly round. If one or both ends is slightly out of round you may require a second person (or a rubber mallet) to help you squeeze one or both ends to make the connection. If necessary, you can apply a light spray of silicone on one or both ends to make the connection. Just be aware that the silicone will give off an odor during the first few firings of your stove, just as the paint will. Once you have made the connection, use the pre-drilled holes as a guide to drill a 1/8" hole in the crimped end of the mating piece and install the 4 screws.

If you have any questions, or are having difficulty installing your stovepipe, we would be happy to help. Our customer service team members are all NFI Certified Woodstove Specialists and have had years of experience helping customers plan and install stoves. We are available by phone at 800-866-4344 from 9-5 ET, Mon-Sat. You can also reach us via email: [info@woodstove.com](mailto:info@woodstove.com).



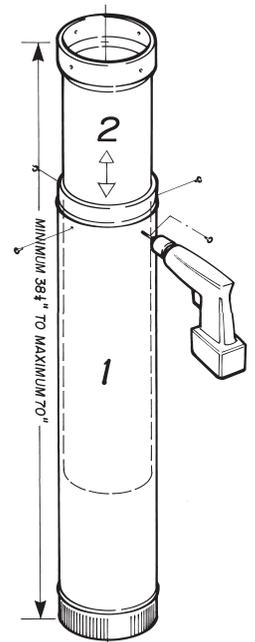
## Quick & Easy Adjustable Pipe Instructions

Stand the two 36" long sections of pipe next to each other so that the top end of each pipe is the end with the pre-drilled screw holes.

Notice that the top of one pipe has the pre-drilled screw holes below a ridge. We will call this Pipe #1. The other pipe has the pre-drilled screw holes above a ridge. This will be Pipe #2. Pipe #2 will slip into the top of Pipe #1. The end of Pipe #2 without the pre-drilled screw holes will slide down inside the top of Pipe #1.

When you have found the right length for your installation, use the holes in the top of Pipe #1 to align and drill through Pipe #2. Then install the 4 sheet metal screws provided.

The adjustable pipe kit adjusts to provide between 38" and 70" of length.



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