

## #6 Flue pipes

Flue pipes, also known as smoke pipes, are part of the venting systems of many woodburning appliances. These pipes direct flue gases from the appliance flue collar to the entrance to the chimney. Together with chimneys (discussed in WISE fact sheet #5), flue pipes play a critical role in the safety of your woodburning appliance.

### THE FLUE PIPE ASSEMBLY

- The size, length, arrangement and installation of the flue pipe all affect the performance and safety of your woodburning system.
- Think of the flue pipe as a heat exchanger transferring heat from flue gases to the room. The flue pipe can account for up to 40% of the total heat output from a woodburning appliance installation.
- The flue pipe should be as short and direct as possible. It should never be longer than 3 m (10 ft.) and should not have more than two 90° elbows.
- The flue pipe should have the same diameter as the appliance flue collar. The flow of hot gases through the flue pipe will be smoother if 45° elbows are used instead of 90°.
- It's advisable to install a flue pipe thermometer to monitor the temperature of flue gases in the pipe.

### SUITABLE FLUE PIPES

Only flue pipes that meet the requirements of the Canadian Standards Association (CSA) standard B365 are suitable for use with woodburning appliances. What flue pipes are safe?

#### Single-Wall Pipes

- at least 24 gauge painted steel
- stainless steel
- minimum 24 gauge enameled pipes

#### Double-Wall Pipes

- certified sealed double-wall flue pipes. These require less clearance than single wall pipes, and keep flue gases hotter than either single-wall or vented double-wall pipes. (See WISE fact sheets #3 and #4 for more information on clearances).
- certified vented double-wall pipes. These transfer more heat to the room than do single-wall pipes. Avoid long runs of vented double-wall flue pipes, because the gases may be cooled too much, causing rapid creosote accumulation. Because of the air space between the walls, the pipe can usually be installed closer to combustibles than a single-wall.



