

## OPTION 4: VERTICAL CHIMNEY VENTING NEGATIVE PRESSURE — CATEGORY II (MULTIPLE BOILERS WITH COMMON VENTING) FIGURE 8

**WARNING** Category II venting is required for multiple XLF boilers connected to a common vent. Common vent systems cannot be pressurized.

The Futera XLF is listed as a Category II appliance when vented vertically into a listed metal chimney system. See Figure 8 (multiple boilers). The chimney must provide a negative pressure not greater than **0.10 in, 2.5 mm WC** at the boiler/water heater flue collar with the unit running.

**NOTICE** When using a listed metal chimney system the chimney system manufacturer's instructions must be followed.

**WARNING** The vent piping must be large enough to safely vent the combined output of all of the appliances connected to the system.

If an appliance using any type of a mechanical draft system operating under positive pressure is connected to a chimney flue, never connect any other appliances to this flue. Doing so can result in excessive levels of carbon monoxide which can cause severe personal injury or death!

## CATEGORY II CHIMNEY INSPECTION & SIZING

**WARNING** Masonry chimneys, when used, must be lined with a metal liner certified for Category IV venting.

A thorough inspection of the masonry chimney must be performed to ensure that the chimney is clean, properly constructed, lined and sized. Exterior masonry chimneys should not be used unless properly lined to prevent draft problems.

Table 5 lists the minimum riser sizes required for the XLF boiler/water heater.

**Table 5** Riser diameters to common vent for Category II venting

Input — MBH	in	mm
2500/3000	<b>12</b>	305
3500/4000	<b>14</b>	356

Note: These sizes are based on a **20 ft, 6.1m** chimney height.

## CATEGORY II VENT CONNECTIONS

Locate the boiler/water heater as close to the chimney as possible. Use the shortest, straightest vent connector possible for the installation. If horizontal runs exceed **5 ft, 1.5 m** they must be supported at **3 ft, 0.9 m** intervals with overhead hangers.

The boiler vent connectors should be sloped up toward the breeching at a minimum rate of **¼ in per ft, 21 mm per m**. On masonry chimneys the connector must terminate flush with the inside of the chimney liner (as shown in Figure 6).

Always provide a minimum clearance of **6 in, 152 mm** between single wall vent pipe and any combustible materials.

**WARNING** Failure to maintain minimum clearances between vent connectors and any combustible material can result in a fire causing extensive property damage, severe personal injury or death!

Exit cones are favorable when used to increase the velocity of the flue gas exiting the stack and, may also help, in cold climates, to reduce ice build-up. Exit cone terminations must be supplied by others, installed per manufacturer's instructions, and meet local and federal code.



generic exit cone