

# Flush Frameless Vent Installation Guide

For hardwood flush vents *without* a visible outer frame



## Tools & Materials Required

- Flush Frameless Hardwood Vent with hidden plywood frame
- Measuring tape
- Pencil or chalk line
- Square or straightedge
- Table saw or track saw
- Jigsaw or oscillating multi-tool
- Construction adhesive
- Finish nailer (18ga or 22ga)
- Sandpaper (120–180 grit)
- Colour-matched caulking or wood filler
- Vacuum or brush

## 1. PREPARATION

### 1.1 Confirm Vent Size

- Measure the HVAC boot opening and match the correct vent size. Typical sizes in new builds are 4"x10" or 4"x12", but they can be any size, especially in older homes.
- Ensure the hidden plywood frame is cut to the correct thickness (plywood frame + vent grille insert height = flooring thickness). The plywood frame can be slightly thinner (1/32" or less) to allow for room for installation adhesive.

## 2. MARKING THE OPENING

### 2.1 Dry-Fit the Layout

- Install flooring up to the HVAC boot/vent location.
- Position the plywood vent hidden frame to confirm alignment.

### 2.2 Trace the Opening

- Use the frame as a template and trace the outer perimeter, see Figure 1.

## 3. CUTTING THE OPENING

### 3.1 Cut Out the Flooring

- Cut the marked opening using a table saw or track saw, jigsaw, or oscillating multi-tool.

### 3.2 Clean the Area

- Vacuum debris and ensure edges are clean and square.

### 3.3 Lightly Sand Cut Edges

- Remove burrs to ensure a flush, seamless fit.

## 4. INSTALLING THE HIDDEN PLYWOOD VENT FRAME

### 4.1 Dry Fit

- Place the plywood frame + vent grille insert into the cut hole to ensure they sit flush with surrounding flooring. Small adjustments may be necessary using thin shims (e.g. tile spacers) or built-up adhesive to ensure a flush fit.
- Align the outer frame with the HVAC boot. See Figure 2.

### 4.2 Secure the Frame

- Apply a thin bead of construction adhesive to the underside of the frame.
- Optionally secure the frame with 18ga brad nails or 22ga pin nails through the top of the frame.

## 5. INSTALLING THE REMOVABLE GRILLE INSERT

- Ensure the grille insert fits flush and installs smoothly into the frame.
- If the vent grille has an attached damper, ensure the damper drops down into the duct boot without interference. See Figure 3.

## 6. FINISHING

- Touch up cut edges of the flooring with colour-matched filler if needed.

## 7. MAINTENANCE

- Lift the grille periodically to vacuum the duct.
- Avoid wet mopping over the vent area.
- Do not stand on or place heavy furniture directly on the vent.

