

## ROOF PENETRATION FLASHING – PIPES

Figure 8–8A illustrates a method for flashing a wood curb built around a pipe penetrating the roof. The bonnet flashing is made in two pieces and is installed after the built-up base flashings are in place. Lap the bonnet pieces 1 inch (25 mm) and fasten them with metal screws or rivets, then solder or seal them. Attach a watertight counter flashing (umbrella) the umbrella should lap the flashing over the pipes 4 in. (100 mm) and have 1 in. (6.4 mm) minimum clearance. Manufactured rubber boots that effectively seal against supports and shield the roof jacks are acceptable as umbrellas. Such products must resist ozone and ultraviolet rays, and have a suitable ser-

## FIGURE 8–8

vice temperature. Refer to Figure 8–11 Umbrella Detail for cutaway view. The gage of metal used will depend on the size of flashing.

Recommended minimum gage is 16 oz. (0.55 mm) copper, 26 ga (0.477 mm) stainless steel, or 24 ga (0.607 mm) galvanized steel.

Figure 8–8B is similar to Figure 8–8A except that the top is flat to facilitate installation around two or more pipes and there is insufficient space for an umbrella so the collars around the pipes are sealed with a draw band and sealant at the top of the collars.



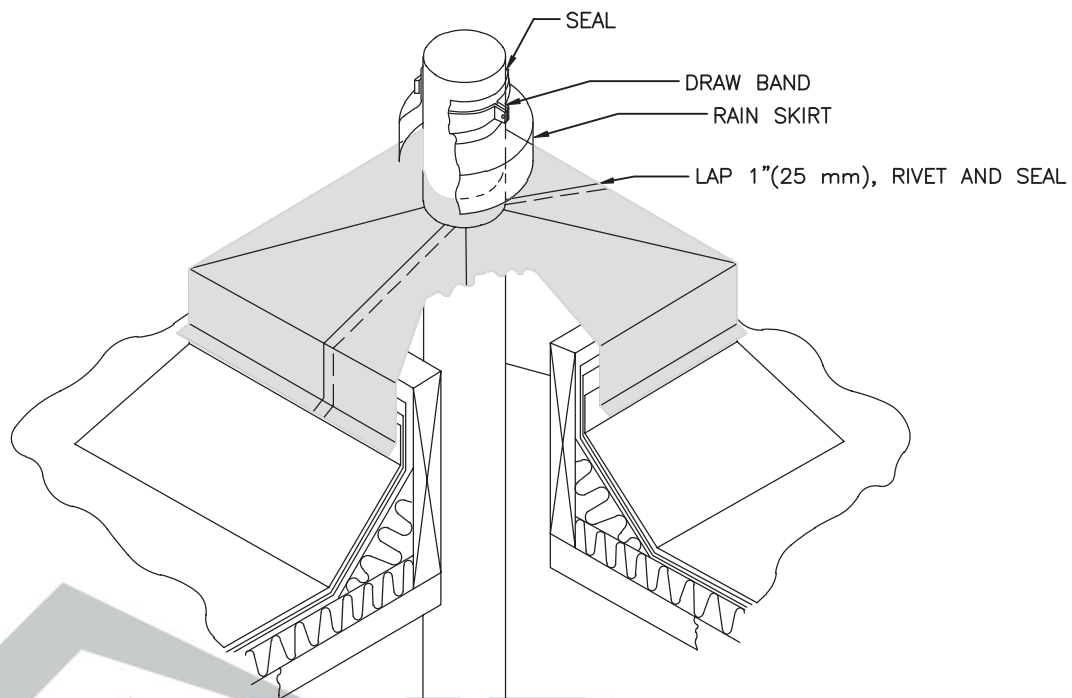


FIG 8-8A

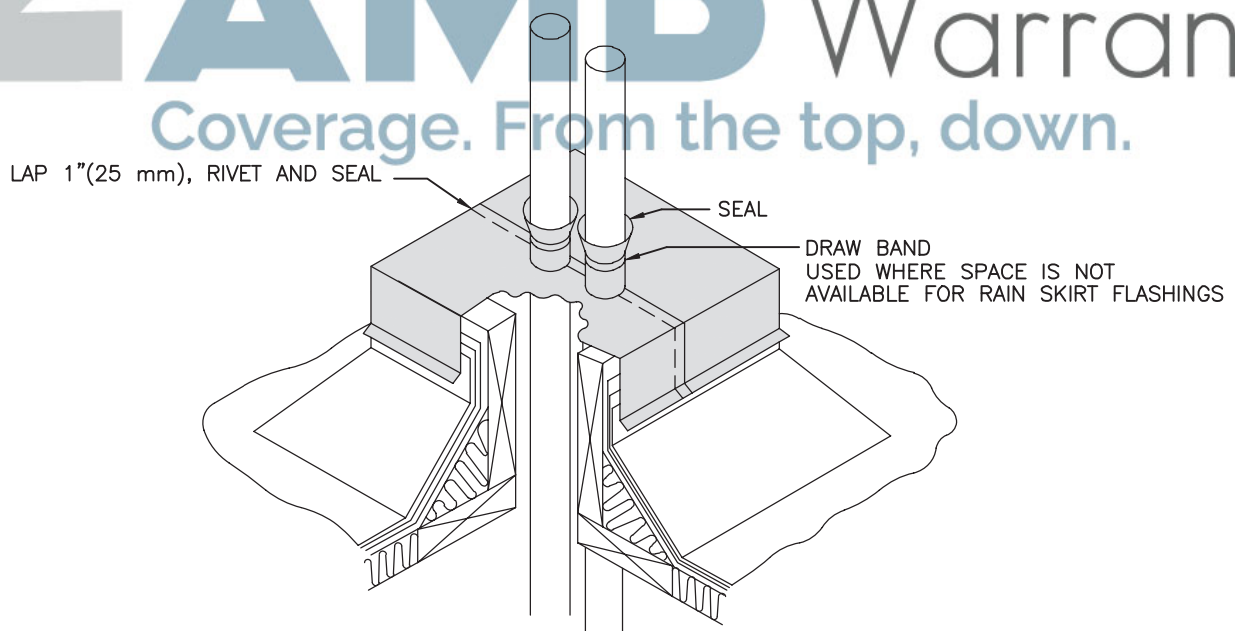


FIG 8-8B

**FIGURE 8-8 ROOF PENETRATION FLASHING - PIPES**



## ROOF PENETRATION FLASHING — PIPES

Figure 8–9A illustrates a method for flashing a roof opening without a curb. This method is recommended only if the pipes are turned horizontally within 24 in. (610 mm) of the roof and the opening is not greater than 18 × 18 in. (460 × 460 mm).

The flashing is made in pieces with base portion being flanged 4 in. (100 mm) onto the roof. The flange is fastened through the roofing felts and is then stripped in by the roofer. The top section is a formed metal hood over the metal pipe. The pipes should be sloped away from the penetration.

The recommended minimum gage for flashing in Fig-

## FIGURE 8–9

ure 8–9A is 16 oz. (0.55 mm) copper, 26 ga (0.477 mm) stainless steel, or 24 ga (0.607 mm) galvanized steel.

Figure 8–9B illustrates two methods of flashing a vent pipe. The flange extends 4 in. (100 mm) on the roof and is stripped in by the roofer. Turn the top of the flashing down inside the vent pipe. The flashing may be of a one-piece or a two-piece style. When a vent pipe extends above the roof so far that it is impractical to completely cover it with flashing (Figure 8–9B), it is recommended that it be flashed as shown in Figure 8–9C, minimum 2 in. (50 mm). The minimum height of the base flashing in Figures 8–9B and 8–9C is 8 in. (205 mm) above the roof's surface.



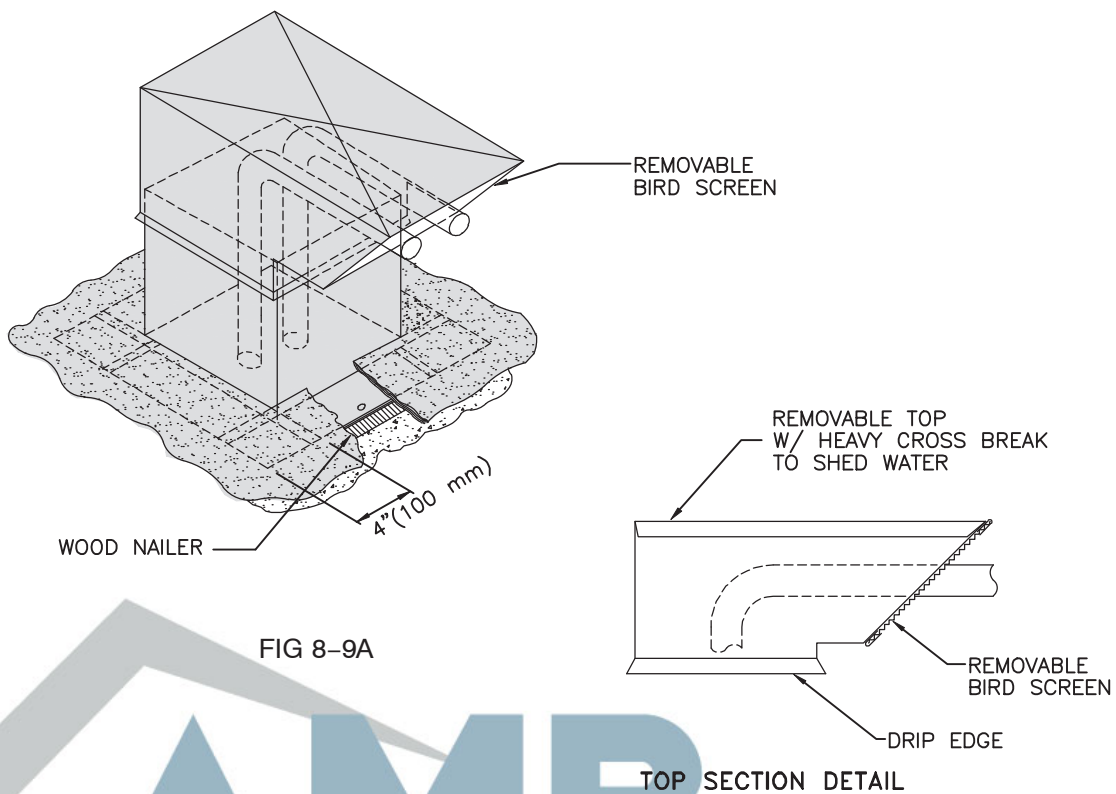


FIG 8-9A

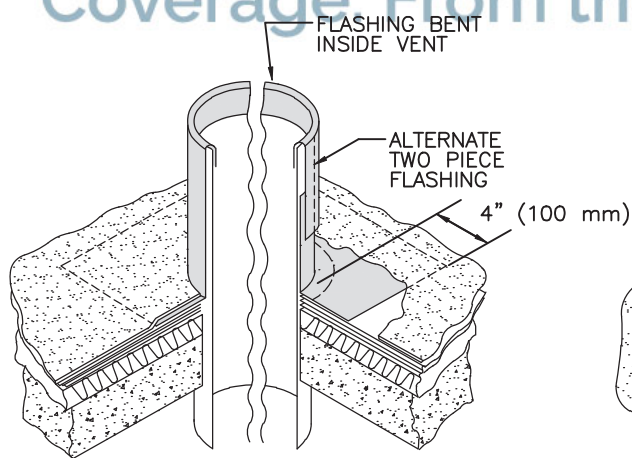


FIG 8-9B

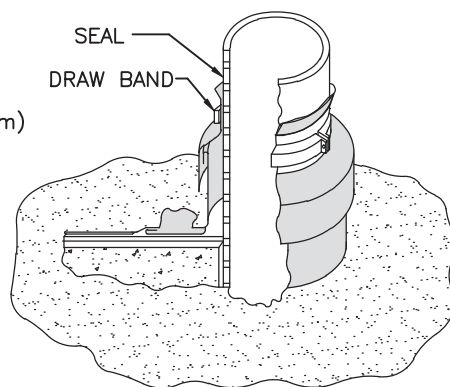


FIG 8-9C

FIGURE 8-9 ROOF PENETRATION FLASHING — PIPES

