

# Ribbed Valley Metal

## INSTALLATION GUIDE

The following guidelines are provided to insure proper installation of Ribbed Valley Metal, however local building codes may differ so please consult with the local building department for any different or additional installation requirements.

### APPLICATION

The valley is where two roof sections meet at an angle. Ribbed Valley Metal is a critical roof flashing designed to collect and channel water flow off a tile roof. Ribbed Valley Metal has support ribs that support battens or roof tiles in the valleys. These support ribs also create a defined trough that controls water flow and barriers to prevent water flowing into the tile roof system between the tiles and underlayment. The Ribbed Valley Metal is available in various center diverter heights to help prevent water flowing across the valley's center diverter onto the underlayment. The 1 or 1.5-inch Ribbed Valley Metal can be used with all concrete, clay and slate roofing tiles on slopes 2 ½:12 – 24:12. The 3.5-inch center Ribbed Valley Metal should be used where one roof plane has a greater anticipated amount of water flow typically where two roof planes joining in a valley are significantly different slopes or if one is greater size than the other.

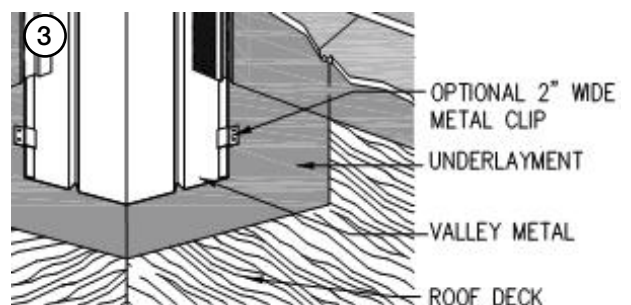
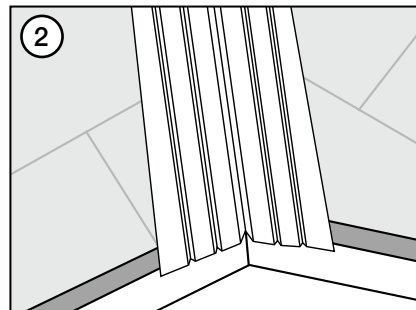
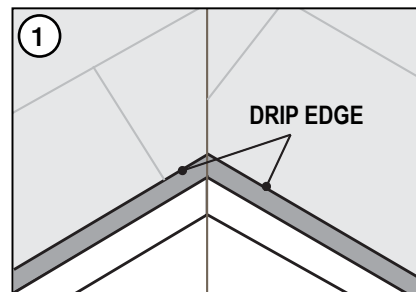
### INSTALLATION

The following steps are provided for easy installation:

1. Install drip edge on top of the roof deck. (Figure 1)
2. There are two options for installing Ribbed Valley Metal:

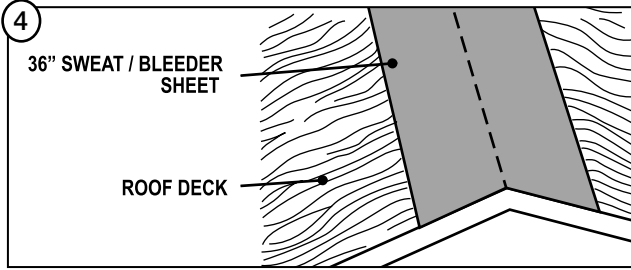
#### A. On Top of the Underlayment:

- a. Install the underlayment per the manufacturer's recommendations and per local building codes. (Figure 1)
- b. Install Ribbed Valley Metal on top of the underlayment in the center and over each roof valley. (Figure 2)
- c. Fasten Ribbed Valley Metal minimum 12" on each side.
  - i. All Ribbed Valley Metals may be fastened in the outside nail flange with minimum 12 gauge corrosion resistant roofing nails. (Figure 5) **Note:** all nail fasteners through the Ribbed Valley Metal nail flange should be sealed. Do not penetrate Ribbed Valley Metal anywhere other than the outside nail flange.
  - ii. Ribbed Valley Metal with a crimped edge or outside turn back may be fastened using metal clips/cleats. Metal clips/cleats engage the crimped edge or outside turn back and are fastened to the roof deck. (Figure 3)

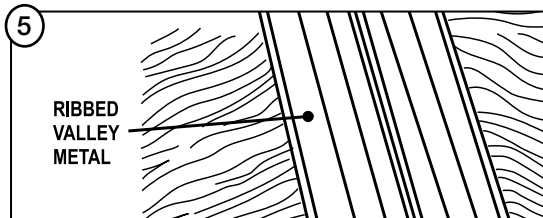


## B. Lapped Valley Metal:

- a. Install a sweat/bleeder sheet in the center of the valley. (Figure 4)



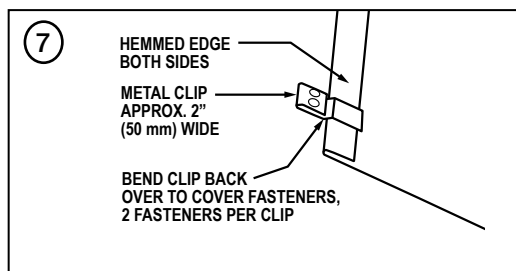
- b. Install Ribbed Valley Metal on top of the sweat/bleeder sheet in the center of each roof valley. (Figure 5)



- c. Fasten Ribbed Valley Metal minimum 12" on each side.
- i. All Ribbed Valley Metals may be fastened in the outside nail flange with minimum 12 gauge corrosion resistant roofing nails (See Figure 6). Note: all nail fasteners through the Ribbed Valley Metal nail flange should be sealed. Do not penetrate Ribbed Valley Metals anywhere other than the outside nail flange.



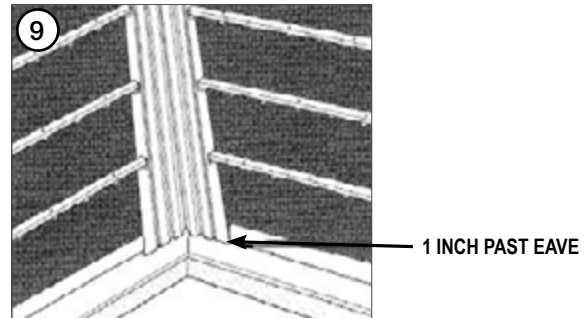
- ii. Ribbed Valley Metals that have a crimped edge or an outside turn back may be fastened using metal clips/cleats. Metal clips/cleats engage the crimped edge or outside turn back and are fastened to the roof deck. (Figure 7)



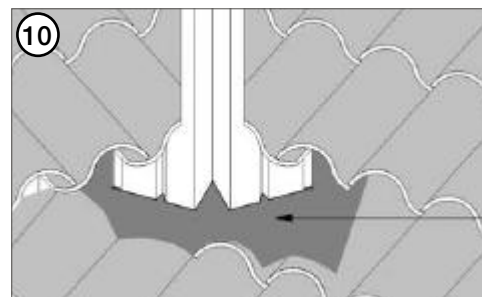
- d. Install the underlayment horizontally a minimum 3 inches over the outer nail flange of the Ribbed Valley Metal. Note: Cut top corner of the underlayment to insure proper diversion of water into the Ribbed Valley Metal. (Figure 8)



3. Cut the Ribbed Valley Metal minimum 1-inch past the eave. (Figure 8)
4. Where required by local code, horizontal battens should be applied on top of the underlayment and Ribbed Valley Metal. (Figure 9)



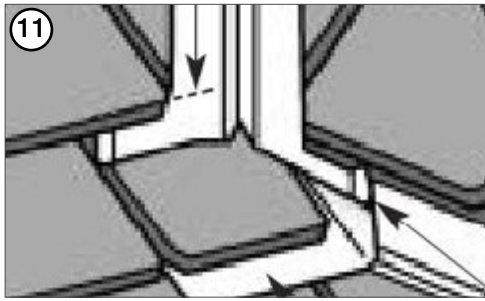
5. Lap Ribbed Valley Metal joints minimum 6 inches.
6. Where the valley and the main roof intersect, an approved malleable flashing material should be installed and fitted to the end of the valley enabling a smooth transition a minimum 6" onto the tile course below. (Figures 9 and 10)



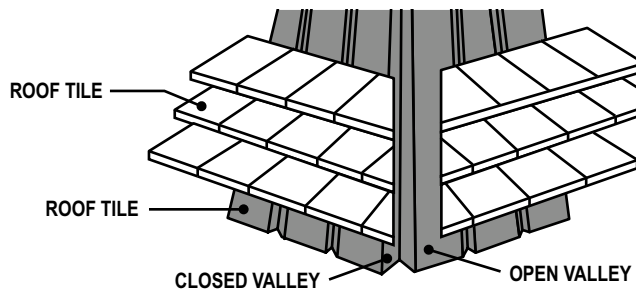
7. Cut and install tiles in the valley. Cut tile pieces should be fastened in all cases but should never be fastened through the valley metal. Cut tile pieces in the Ribbed Valley Metal should be secured by one or a combination of the following:
  - a. Code approved adhesive
  - b. Wire ties
  - c. Code approved fastening devices
  - d. Where a horizontal batten is used; a roofing nail of sufficient length to penetrate the cut roof tile and into the batten only

## **CLOSED OR OPEN TILE VALLEY APPLICATION:**

A closed or open valley is optional, but should be dictated by site conditions. A closed valley is created when the roof tiles are cut close to the center of the valley. An open valley has a 4-8-inch wide open trough down the center of the Ribbed Valley Metal, created when the roof tiles are cut 2-4-inches from the center of the valley on each side. In areas subject to snow or ice damming, open valleys should be cut in a taper to widen toward the down-slope with a minimum 1/8-inch per foot. (Figure 11)



**Open and Close Valley Detail**



## **MAINTENANCE OF VALLEYS:**

To prevent foliage or debris from damming water in the Ribbed Valley Metal, regular maintenance may be required depending on the amount of foliage or debris collected in the valley. Any obstruction in the valley should be removed to prevent water dams that could damage the roof system.

