

# BISON INNOVATIVE PRODUCTS

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## INSTALLATION DETAILS

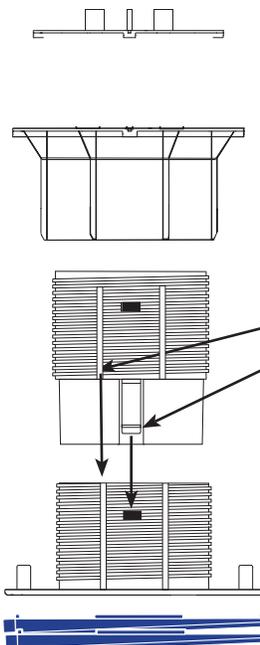
MARCH 2010

### UNDERSTANDING THE VERSADJUST Patent and Patent Improvements Pending

The Versadjust, adjustable V-Series line reaches heights from 2 1/4 inches to 24 inches, has a 1500 pound weight bearing capacity and contains built in slope compensation from zero to one half inch per foot slope. Accessories are available to compensate for additional slope and accommodate heights from 1/8 inch to 2 1/4 inches.

Precise spacer tabs allow for deck drainage, and the screw-to-adjust height setting assures a perfectly straight and level deck. Quick clip couplers<sup>©</sup> (patent pending) increase the speed and efficiency installing pedestals at heights over 9 3/4 inches. Accessories are available to compensate for additional slope and accommodate low heights from 1/8 inch to 2 1/4 inches.

The Bison Versadjust pedestal has a broad footprint that provides stability, is impervious to freeze thaw cycles, and offers a range of heights suited to almost any application.



- V Tab** 1/8" standard or 3/16" optional  
Place Spacer Tab on top of pedestal  
To remove tabs:  
strike with hammer from above
- V Top**  
Comes screwed into V Base Unit. Unscrew top until "engagement" bumps are felt and heard. DO NOT extend beyond bumps EXCEPT to add a coupler to Model V4.
- VC2 Coupler** (Works with Model V4 Only.)  
**To Assemble:**  
Align lines on coupler and base  
Align tab with Quick Connect slot.  
Slide together until tab locks into place.  
**To Separate:**  
Hook C2 Coupler Release Tool into slots on the side of the coupler, detach tool & pull apart.
- V Base**  
Comes screwed into V Top Unit. Unscrew top until "engagement" bumps are felt and heard. DO NOT extend beyond bumps EXCEPT to add a coupler to Model V4.
- VB Leveller Base**  
Built-in base 0 - 1/2" (4%) slope compensation.

### BUILT IN SLOPE BASE COMPENSATION

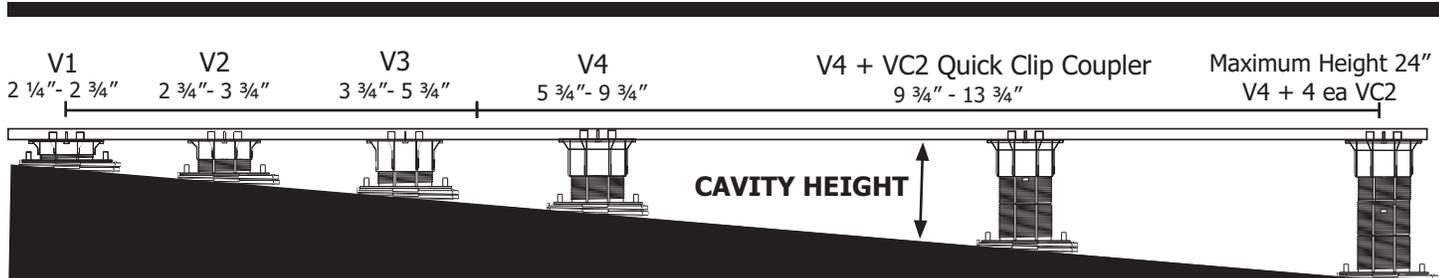
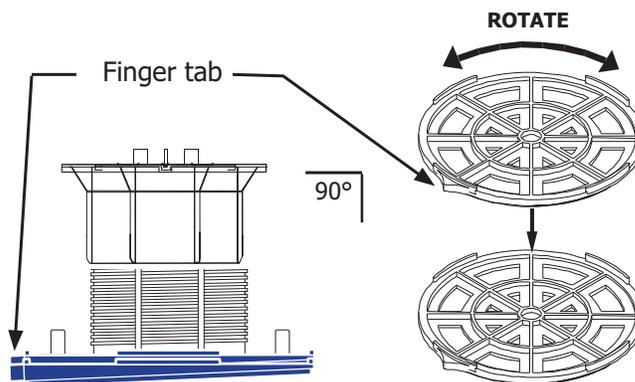
Each V-Series pedestal comes with base slope compensation for up to 1/2" per foot (4%) slope.

**Slope Adjustment:**  
Point each finger tab downhill for 1/2" per foot (4%) slope. Rotate base pieces for precise slope compensation.

**To create a flat base:**  
Position finger tabs opposite one another.

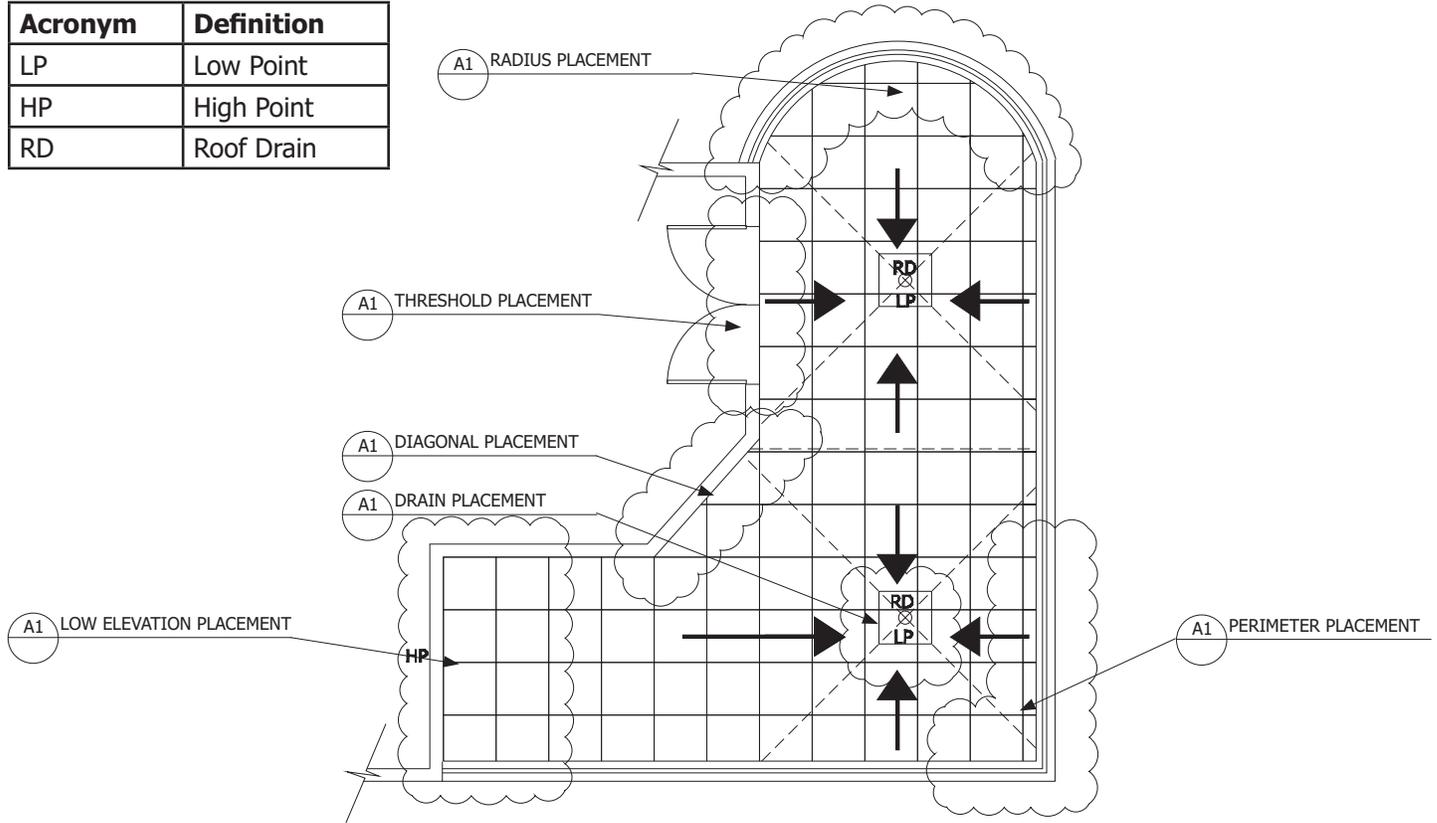
**To Remove VB Base Leveller:**  
Slide pedestal base out of VB base leveller

**For additional slope compensation:**  
A maximum of two (2) Model LD4 base levellers can be used with the V-Series adding an additional 1/2" per foot (4%) slope for a total of 1 inch per foot (0-8%) slope. Each LD4 adds an 3/8" to the overall height of the pedestal.



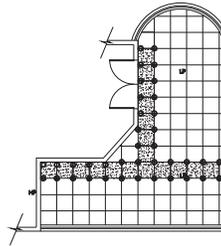
# ADVANCED LAYOUT AND PEDESTAL PLACEMENT

Acronym	Definition
LP	Low Point
HP	High Point
RD	Roof Drain

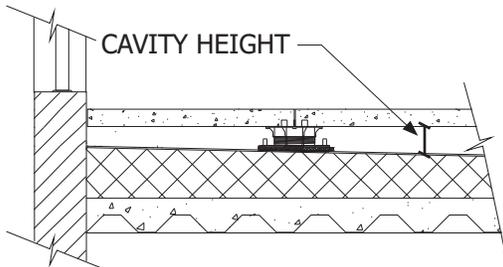


## "T" METHOD INSTALLATION

1. Determine cavity height at all thresholds, drains and high points.
2. Deduct thickness of decking material.
3. Mark top of pedestal elevation around deck with laser level
4. Plan paver/pedestal layout pattern
5. Install "T" shaped portion of deck starting from threshold or high point
6. Adjust to correct height and level.
7. Installation on both sides of the "T" can proceed.



## DETERMINING CAVITY HEIGHT



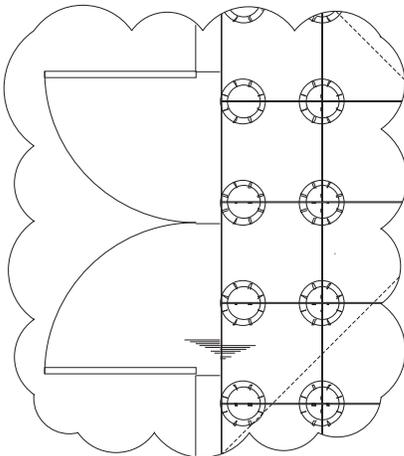
The cavity height is the space between the top of the roofing membrane, and the bottom of the decking material.

This is the height the pedestal will cover.

Use of a laser level or chalk line may assist.

Also refer to the detachable measuring device printed on the box.

## THRESHOLD AND PERIMETER PLACEMENT



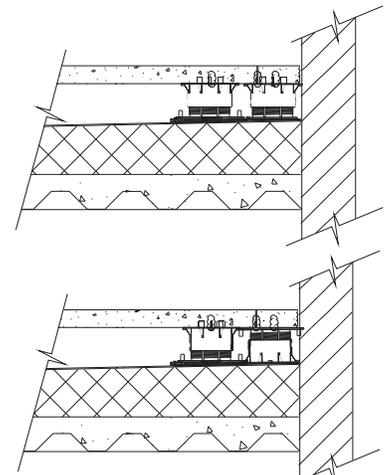
Remove tabs as necessary to inset edge pedestals.

Turn pedestal upside-down or trim the base for tight fits.

Never allow more than 1 tab width between the decking material and your containment.

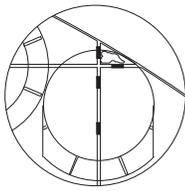
Pedestals may be inverted for particularly tight fits.

Excess tabs may be glued into place with construction adhesive to ensure spacing when "normal" tab placement is not possible.



## RADIUS PLACEMENT

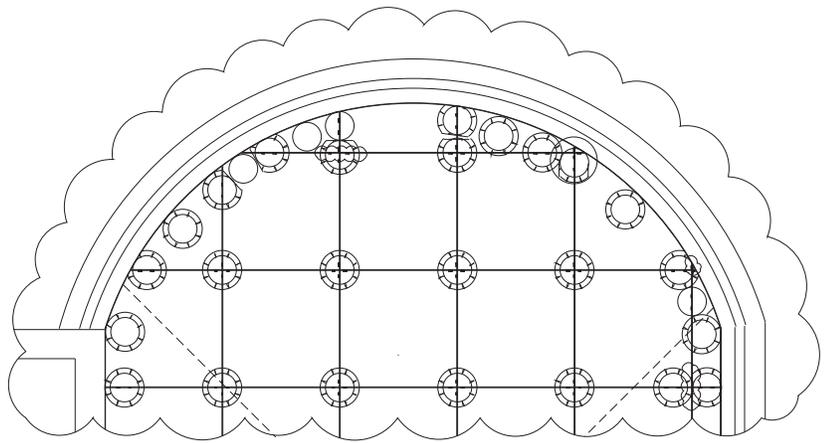
Use extra pedestals under triangular pieces to prevent rocking.  
 Never allow more than 1 tab width between the decking material and your containment.  
 Add an extra pedestal at perimeter bends.  
 Remove extra tabs to inset pedestals on edge.



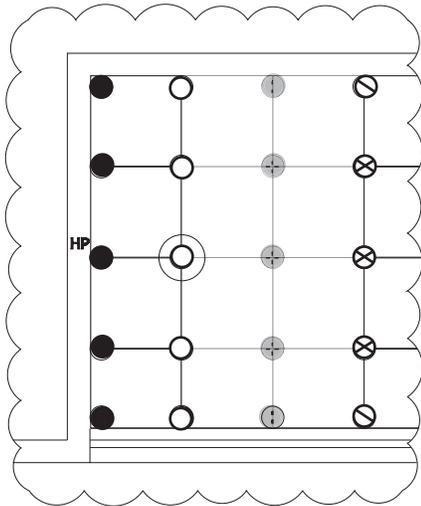
Adhere small pavers to top of pedestal with construction adhesive.

Turn pedestal upside-down or trim pedestal base as needed to fit around perimeter.

Use removed tabs to maintain spacing between pavers.



## LOW ELEVATION PLACEMENT



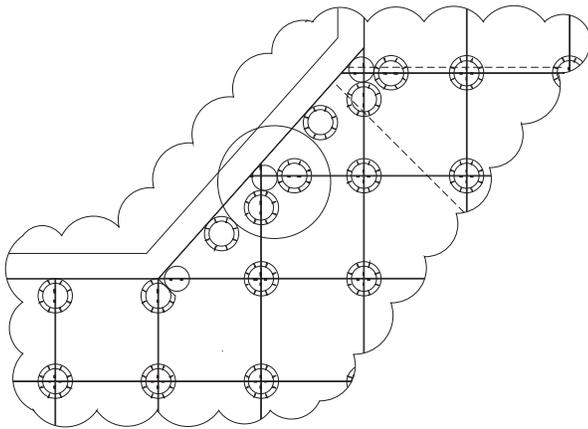
For low elevations the following pedestals are available:

### LOW HEIGHT PEDESTALS

Model:	Height:
VT18 or VT316	● 1/8"
HD25	○ 1/4"
HD50	● 1/2"
HD75	⊗ 3/4"
LO	⊗ 1 1/4 - 2"

Shims can also be used to accommodate variations in height, in either 1/8" (PS1) or 1/16" (B11) increments.

## DIAGONAL PLACEMENT



Use extra pedestals under triangular pieces to prevent rocking.

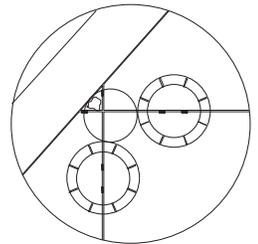
Never allow more than 1 tab width between the decking material and your containment.

Remove extra tabs to inset pedestals on edge.

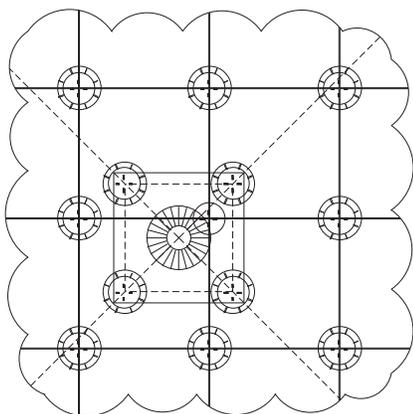
Adhere small pavers to top of pedestal with construction adhesive.

Trim pedestal base as needed to fit around perimeter.

Use removed tabs to maintain spacing between pavers.

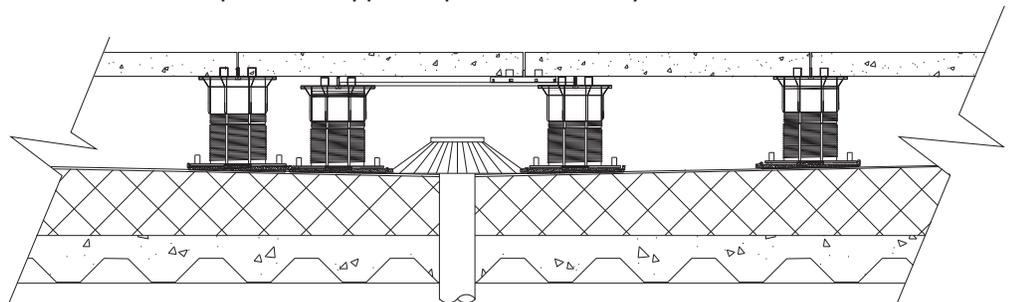


## DRAIN PLACEMENT



Elevate a steel plate or spare paver above the drain, but below the deck itself.

Use that elevated paver to support a pedestal where you need for the deck above.



## MAINTENANCE GUIDE

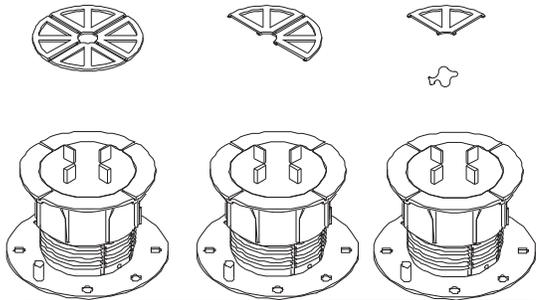
Routine maintenance of your paver deck system will enhance the beauty, reduce major repairs, and prolong the life of your deck. Below is a list of maintenance guidelines that should be performed on a regular basis:

1. Check for "rocking" pavers. If you notice pavers rocking back and forth while walking on the deck simply lift paver up and shim 1 or more corners until paver is level on all four corners. To ensure pedestal stability, make sure "engagement bumps" are engaged. Bison B11 (1/16") or PS1 (1/8") shims can be ordered and shipped.
2. Depending on substrate materials some settling and or deflection can occur. Remove paver and adjust the pedestal by turning the base until level height is achieved. You may need to do this on more than one pedestal to level out an area.
3. Clean drains and scuppers on a regular basis. Water should completely drain off roof deck within 48 hours after rainfall, under ambient drying conditions. Sitting or "ponding" water can be detrimental to deck systems.
4. Periodically check spacer tabs between pavers and replace broken spacer tabs immediately. Loss of spacer tabs can cause unsafe deck movement.
5. Make sure the edge restraint stays intact and in good condition. There should not be room around perimeters of the deck in excess of one tab width which would cause lateral movement of pavers, and void the Bison warranty.
6. Follow paver manufacturers' suggestions for upkeep and maintenance of pavers.

## WORKING WITH SHIMS

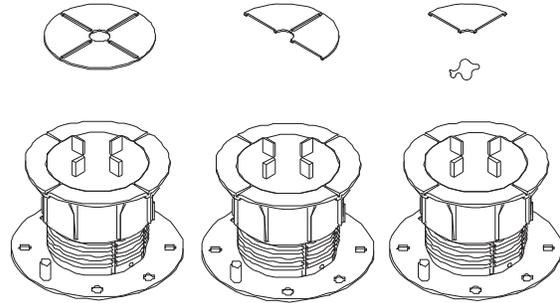
### PS1 (1/8") SHIMS

PS1s may be placed on top of pedestals to accommodate for minor leveling of pavers with thickness variations. Use no more than 2 shims. If using only 1/4 segment, adhere it to the pedestal with construction adhesive.



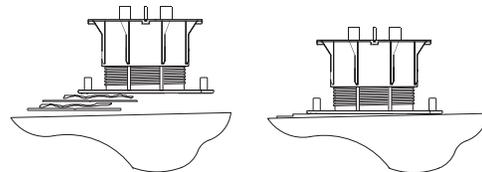
### B11 (1/16") SHIMS

B11s may be placed on top of pedestals to accommodate for minor leveling of pavers with thickness variations. Use no more than 2 shims. If using only 1/4 segment, adhere it to the pedestal with construction adhesive.



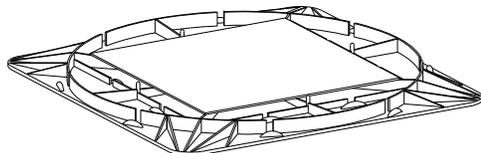
## SHIMS UNDER PEDESTALS

Place shims (whole or in segments) under the pedestal in a stairstep fashion to compensate for sloping substrates. Use only B11 shims for this application. Use no more than four (4) shims.



## PEDESTAL BASE PADS

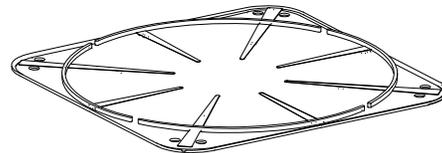
### Floating Insulation Base (FIB)



If integral roof insulation is installed immediately below the membrane, the type and density of the insulation is of utmost importance. Roofing systems having "common" insulations with a medium density of 20 psi must also use Bison Floating Insulation Bases (FIB). FIBs are installed immediately below the Bison Deck Support pedestals to disperse the deck load. FIB's are not needed over systems using 60 psi insulation.

**Do not use Bison Deck Supports over any insulation less than 20 psi or with low density polystyrene (bead board) insulation.**

### Floating Foundation Base (FFB)



Bison Floating Foundation Bases (FFB) must be used beneath all on grade Bison Deck Support decks. Level the surface and set directly on grade as a base.