

On-Street Dining Facility

Permit Term: April 15-November 15

Restaurant Name:

UNDERHILLS
CROSSING

Restaurant Address:

74 1/2 PONDFIELD

Contact Person, Phone, & Email:

STEVEN PALM
914-320-4394
STEVEN@STEVENPALM.COM

Renewal	<input checked="" type="checkbox"/>
---------	-------------------------------------

Curbside - No Deck	<input type="checkbox"/>
Curbside - With Deck	<input type="checkbox"/>
Structural - Wood & Metal	<input type="checkbox"/>
Structural - PVC	<input checked="" type="checkbox"/>

seats 26
Tables 7

Additional Free-Standing and Decorative Elements

<input type="checkbox"/> Umbrellas [#:	<u>PERGOLA</u>
<input checked="" type="checkbox"/> Heaters [#:	<u>8</u>
<input type="checkbox"/> Decorative Planters	
<input checked="" type="checkbox"/> Lighting	

BRONXVILLE
BUILDING DEPARTMENT

APR - 2 2024

RECEIVED

Please append the following to this application form:

- Insurance Certificate with the Village of Bronxville as additionally insured:
Village of Bronxville
200 Pondfield Road
Bronxville, NY 10708
- Hold Harmless Certificate.
- A Site Plan to scale illustrating the layout of the outdoor dining facility and compliance with all regulations in the Outdoor Dining Standards document.
- For structural facilities per the Outdoor Dining Standards document:
 - Signed & Sealed Schematic Drawings indicating the following:
 - Ingress/Egress
 - Fire Extinguisher location(s)
 - Waste Receptacle location(s)
 - Exterior Structure
 - Platform
 - Layout of movable elements within structure in accordance with the 15 sq.ft. per person/seat maximum.
 - Electrical Permit (if electric lighting is built into structure).
 - Proof of compliance with Test Method #2 NFPA 701 for floor coverings and/or decorative materials like table cloths and fake plants.

On-Street Dining Facility

Permit Term: April 15-November 15

I, STEVEN P. SUM, have read and agree to adhere to the Outdoor Dining Standards for the 2024 season put forth by the Village of Bronxville, and am aware that any non-compliance may result in permit revocation or additional fees.

Steven P. Sum
Signature

4/2/24
Date

BY THIS CERTIFICATE OF COMPLIANCE
Better Homes Electrical Inspection Services Inc.
5 Buckout Road, West Harrison, NY 10604
914-906-0443

CERTIFIES THAT

Upon the application of:

Zeus Electric
24 Highland Ave
Eastchester, NY 10709

Upon premises owned by:

Mosbacher Properties Group
74.5 Pondfield Road
Bronxville, NY 10708

Certificate Number: 1308

Certificate Date: 9/19/23

Located at: 74.5 Pondfield Road
Bronxville, NY 10708

Occupancy Type: Commercial

Permit Number: 2023-0319

Section: 4

Building Permit Number: ELEC-171-23

Block: 2

Lot: 3

A visual inspection of the electrical system at this premise described above, wherein the premises electrical system consisting of electrical devices and wiring, described herein.

All inspections are in accordance with the National Electrical Code and the details of the installation, as set forth below, was found to be in compliance therewith on the date of the inspection.

Name	Quantity	Rating	Circuit	Type
Ceiling fan	2	120v	20a	Paddle fan outdoor tent
Heater unit	4	120v	20a	Heater outdoor tent
Receptacle	10	120v	20a	GFI duplex outlet outdoor tent
Switch single pole	4	120v	20a	Switch
Relocate existing panel	1	240v	100a	Panel 24 circuit 1st floor

This certificate may not be altered in any way.

This certificate is valid for work performed before the date of inspection only.



A handwritten signature in black ink that reads "Jimmy DeRuffalo".

Licensed Inspector



RARE RETRACTABLES

Creative | Living | Designs

RARE RETRACTABLES OUTDOOR SOLUTIONS

REFERENCE UNDEERHILLS CROSSING

Rare Retractable..... "we've got you covered"



pdf

Estimate_1123_from_DB_
Structures.pdf
58 KB





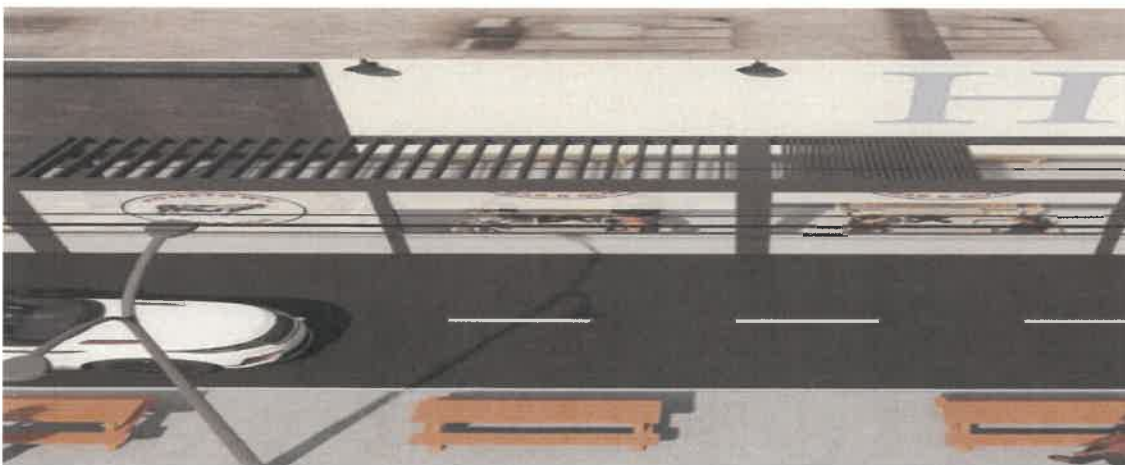
RARE RETRACTABLES

Creative | Living | Designs

Sample Rendering To show DOT Compliant Seasonal outdoor dining *** Street View



2- section Pergola Roof, 20'f x 13 (2) / 6 section Zip screens for seasonal protection**





RARE RETRACTABLES

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Service Entrance open ** No zip screens for 10'f on side walk side **



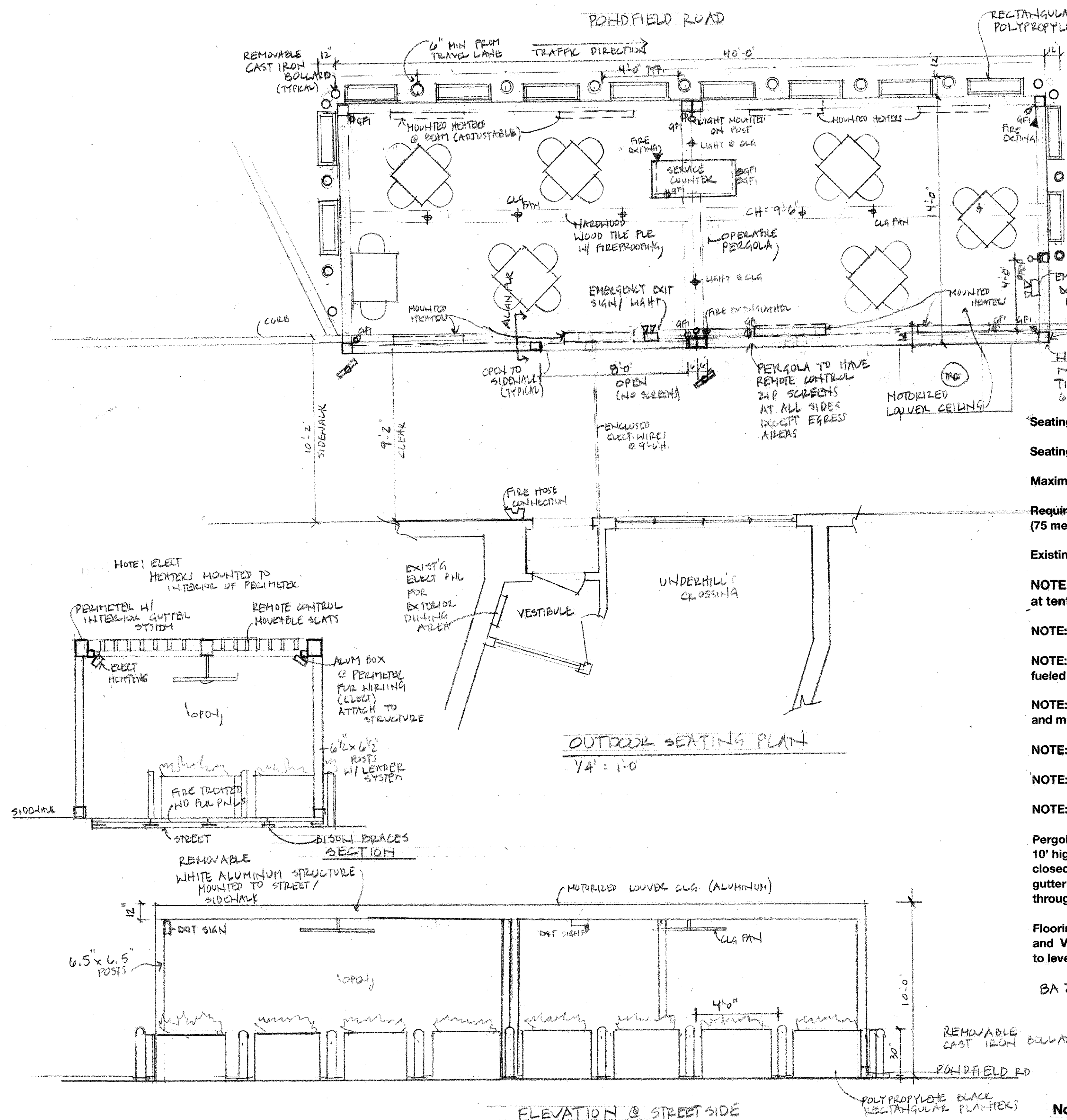
RARE RETRACTABLES

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www.rareretractable.com

📞 516 225 82 71

📷 Rare_Retractables_NY



REMOVABLE CAST IRON BOLLARD (TYPICAL)

6" MIN FROM TRAVEL LANE

TRAFFIC DIRECTION

40'-0"

RECTANGULAR BLACK POLYPROPYLENE PLANTERS 38" x 10" x 30" H.

NOTE: PERGOLA STRUCTURE IS RATED FOR 30 LB. PSF SNOW LOAD + 120 MPH WIND EXPOSURE

NOTE: WOOD FLOORING TO BE SPRAYED WITH FX LUMBER GUARD RETARDANT FIRE PROOFING

NOTE: COMPLETE STRUCTURE IS REMOVABLE

NO PARKING ZONE

EMERGENCY EXIT LIGHT/SIGN

6.5" x 6.5" POSTS

NOTE: POSTS TO BE MOUNTED TO STREET W/ TIVOLI POST PLATE MOUNT- 6 BOLTS

FIRE HYDRANT 1' FROM DINING AREA

PERGOLA TO HAVE REMOTE CONTROL ZIP SCREENS AT ALL SIDES EXCEPT EGRESS AREAS

MOTORIZED LOUVER CEILING

ENCLOSED CEECT. WIRES @ 9'-0" H.

OPEN (NO SCREENS)

9'-0"

OPEN TO SIDEWALK (TYPICAL)

10'-2" SIDEWALK

9'-2" CLEAR

EXIST'G ELECT PHL FOR EXTERIOR DINING AREA

VESTIBULE

UNDERHILL'S CROSSING

ALUM BOX @ PERIMETER FOR WIRING (ELECT) ATTACH TO STRUCTURE

6.5" x 6.5" POSTS W/ LEADER SYSTEM

FIRE TREATED W/ FIRE PROOFING

PERIMETER W/ INTERIOR GUTTER SYSTEM

ELECT HORIZ. MOUNTED TO INTERIOR OF PERIMETER

REMOTE CONTROL MOVABLE SLATS

ALUM BOX @ PERIMETER FOR WIRING (ELECT) ATTACH TO STRUCTURE

6.5" x 6.5" POSTS W/ LEADER SYSTEM

REMOVABLE WHITE ALUMINUM STRUCTURE MOUNTED TO STREET / SIDEWALK

12"

6.5" x 6.5" POSTS

EXIT SIGN

10'-0"

30"

PONDFIELD RD

POLYPROPYLENE BLACK RECTANGULAR PLANTERS

- Seating at Exterior below tent: 26 Seats
- Seating at interior of Restaurant: 44 Seats
- Maximum interior capacity allowed interior: 86 seats
- Required maximum capacity based on restroom fixtures: 150 people (75 men, 75 women for 2 Water closets and 2 lavatories) (unisex)
- Existing total seating interior and exterior: 70 seats
- NOTE: All finishes, furnishings and decorations are fire resistant at tent area.
- NOTE: pergola space in street is over 3 parking spaces.
- NOTE: No open flame devices allowed including candles, heaters or propane fueled devices.
- NOTE: All flooring and floor covering and all tent materials to comply with code and meet Method #2 NFPA701.
- NOTE: All tablecloths to be fire resistant.
- NOTE: No cooking or open flamed dishes allowed in tent.
- NOTE: All freestanding elements to be weighted at the base

Pergola Notes:
10' high white Aluminum structure (2 - 20' x 14') with Tivoli roof system, when closed is completely waterproof. Opening and closing by remote control. Interior gutters inside of exterior beams and leaders inside of posts. Water to drain through leaders to street below.

Flooring to be Bison Cumara Wood Tiles, 24" x 24" with Bison FS-1 Fastening kit and Versadjust adjustable pedestals - steel bracing system below wood flooring to level.

BA ZONE

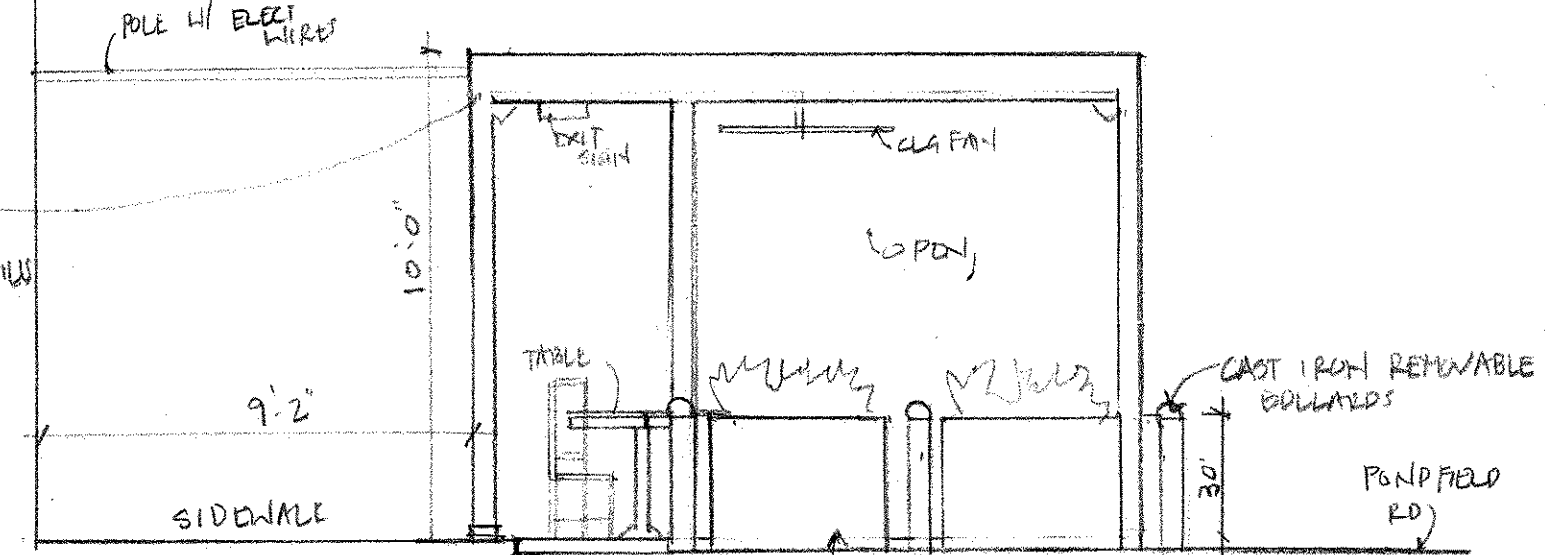
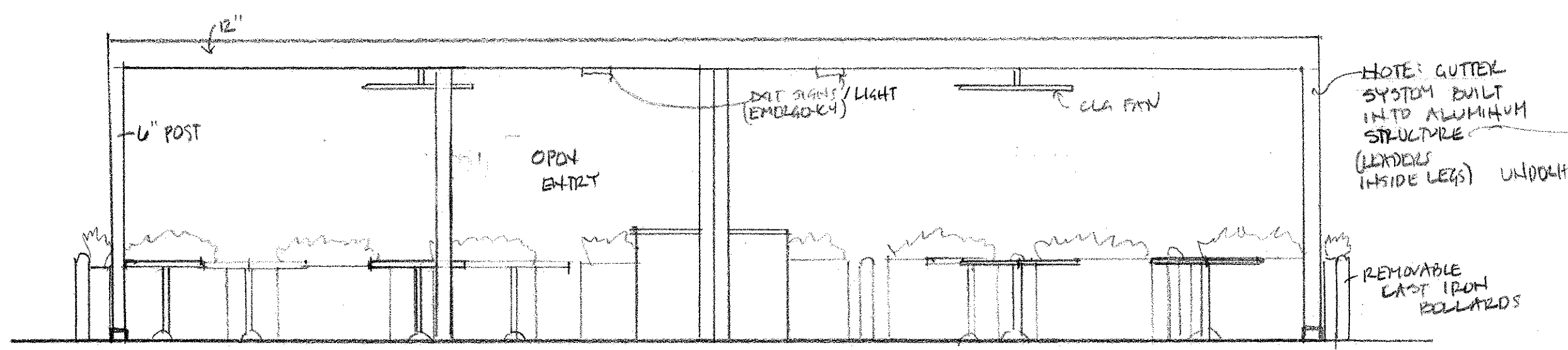
REMOVABLE CAST IRON BOLLARD

NOTE: Outdoor dining facility to be completely removable.

Marrone Architects
21 Northway
Bronxville, NY 10708
(914) 779-5538
mgmaia5@aol.com

Project: UNDERHILL'S CROSSING- TENT SEATING
74.5 PONDFIELD ROAD
BRONXVILLE, NY

3.25.24
Drawing#

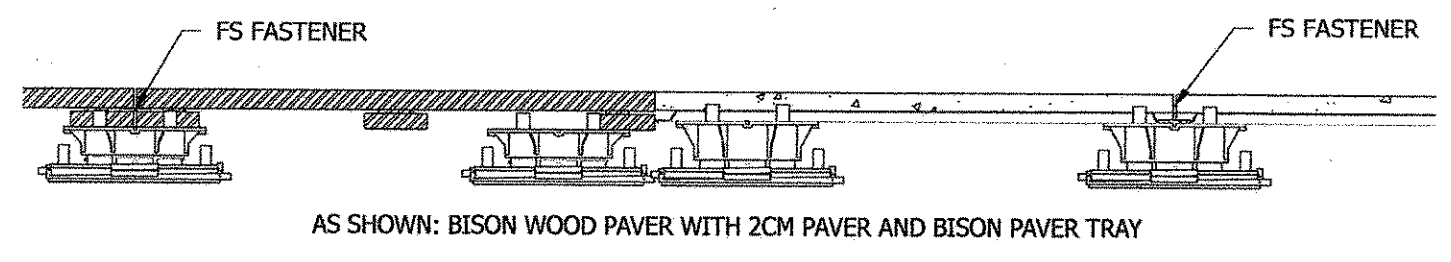
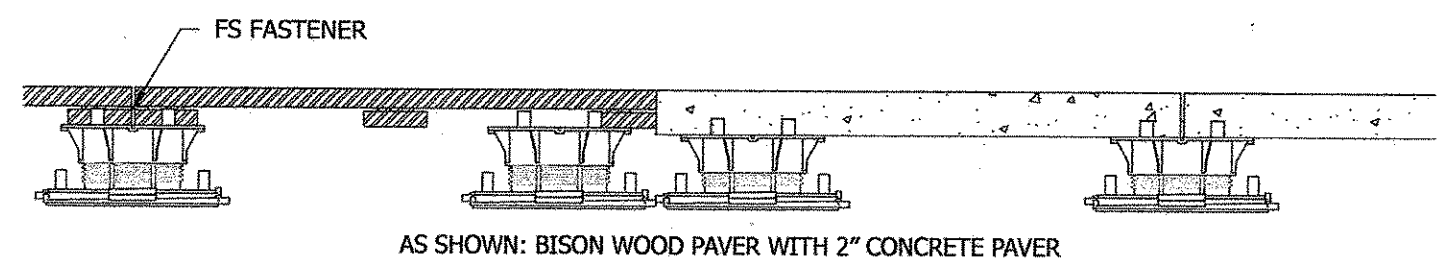


ELEVATION - SIDEWALK SIDE
1/4" = 1'-0"

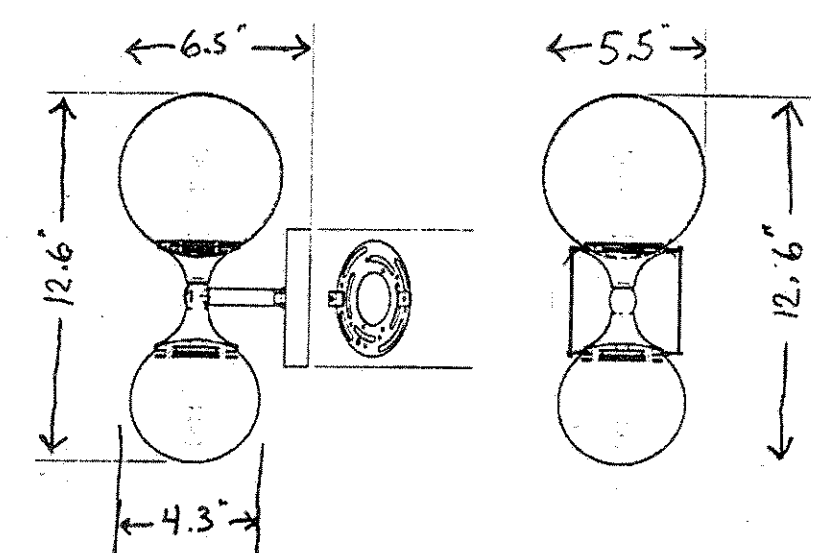
SIDE ELEVATION (EAST)
1/4" = 1'-0" (WEST ELEV. IN REVERSE)

Wood Tile Transitions

Bison pedestals can support a variety of surface materials, including 2cm porcelain, concrete pavers, wood tiles, composite materials, fiberglass grating, or conventional wood plank systems to create unique custom looks. Transitions between surface materials must be properly supported. Be sure to maintain a tight installation and limit space between surfaces.

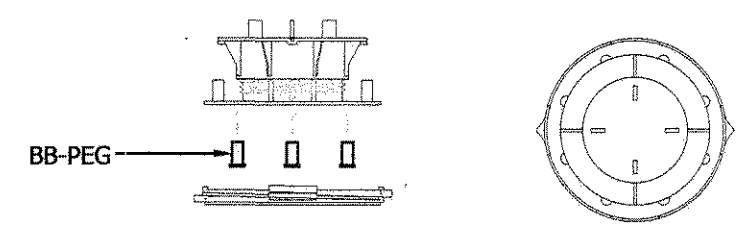


Bison Innovative Products | 701 Osage Street, Unit 120, Denver CO 80204 USA | 800-333-4234 | www.bisonip.com

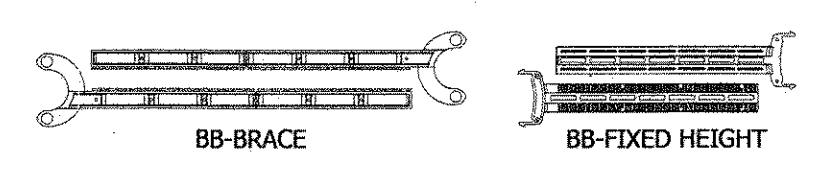


POST MOUNTED LIGHT FIXTURES

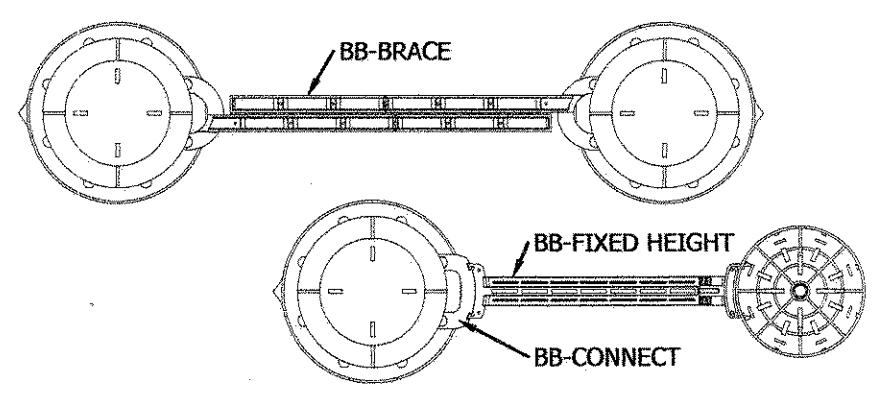
1. REMOVE THE VB BASE LEVELER AND INSERT A PEG INTO EACH OF THE 6 HOLES IN THE BOTTOM OF EACH ADJUSTABLE PEDESTAL TO RECEIVE BRACING, AND CLICK THEM INTO PLACE. THEN REATTACH THE VB BASE LEVELER.



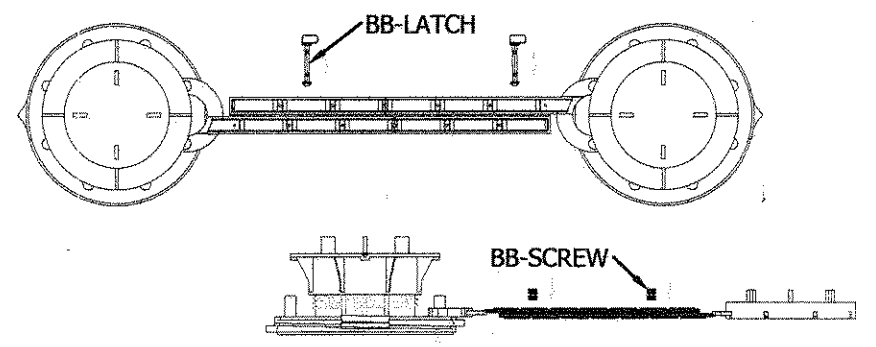
2. DETERMINE HOW LONG THE BRACE SHOULD BE, BASED ON THE SIZE OF THE PAVER. BRACES MAY NEED TO BE CUT DOWN FOR SHORTER DISTANCES.



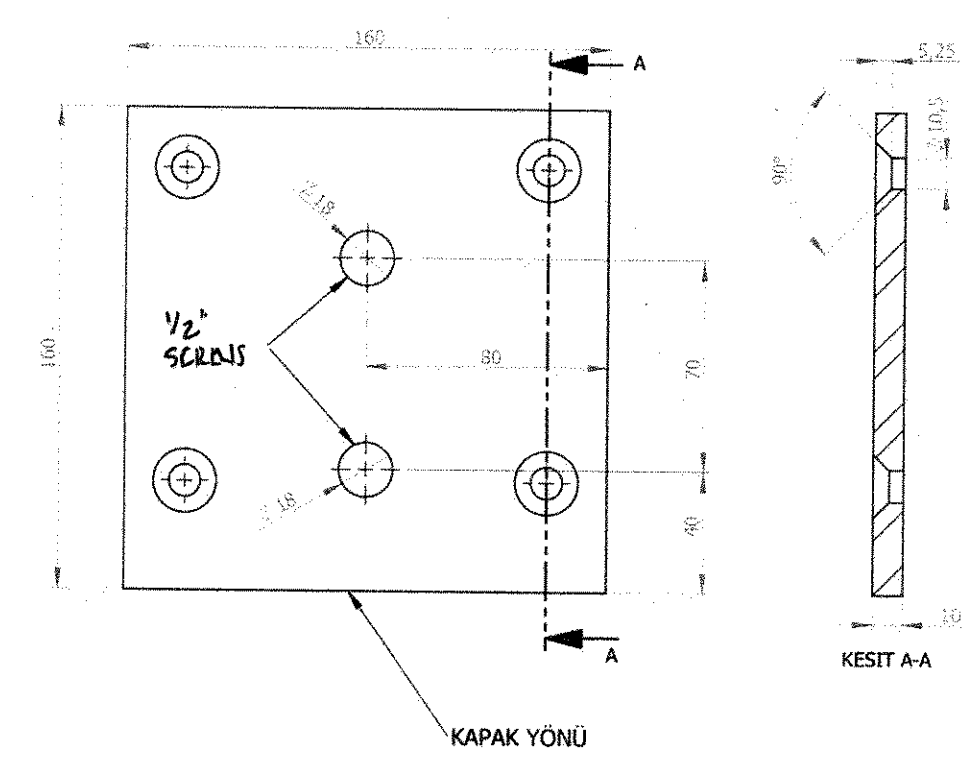
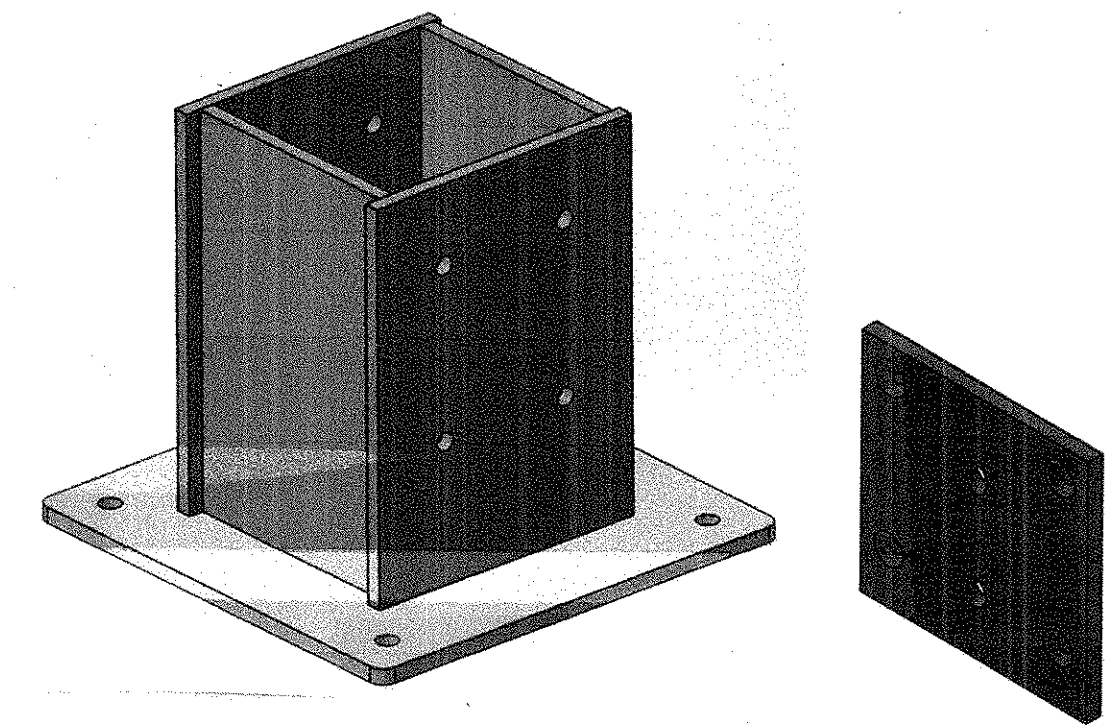
3. SNAP THE BISON BRACE ONTO THE PEGS IN EACH ADJUSTABLE PEDESTAL. FOR FIXED HEIGHT PEDESTALS, SNAP THE BB-FIXED HEIGHT INTO THE SIDE OF AN HD50 OR HD75. USE A BB-CONNECT TO ATTACH THE BB-FIXED HEIGHT TO AN ADJUSTABLE PEDESTAL.



4. LOCK THE BRACING ARMS TOGETHER BY INSERTING BB-LATCHES INTO THE SIDE OF EACH BISON BRACE OR BB-SCREWS INTO THE TOP OF EACH BB-FIXED HEIGHT, AND TWIST 90 DEGREES.



GENERAL NOTES: APPLY TO ALL OF THE ABOVE PRODUCTS
 1. INSTALLATION MUST BE COMPLETED IN ACCORDANCE WITH BISON INNOVATIVE PRODUCTS SPECIFICATIONS.
 2. DRAWINGS NOT TO SCALE.
 3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.BisonIP.com



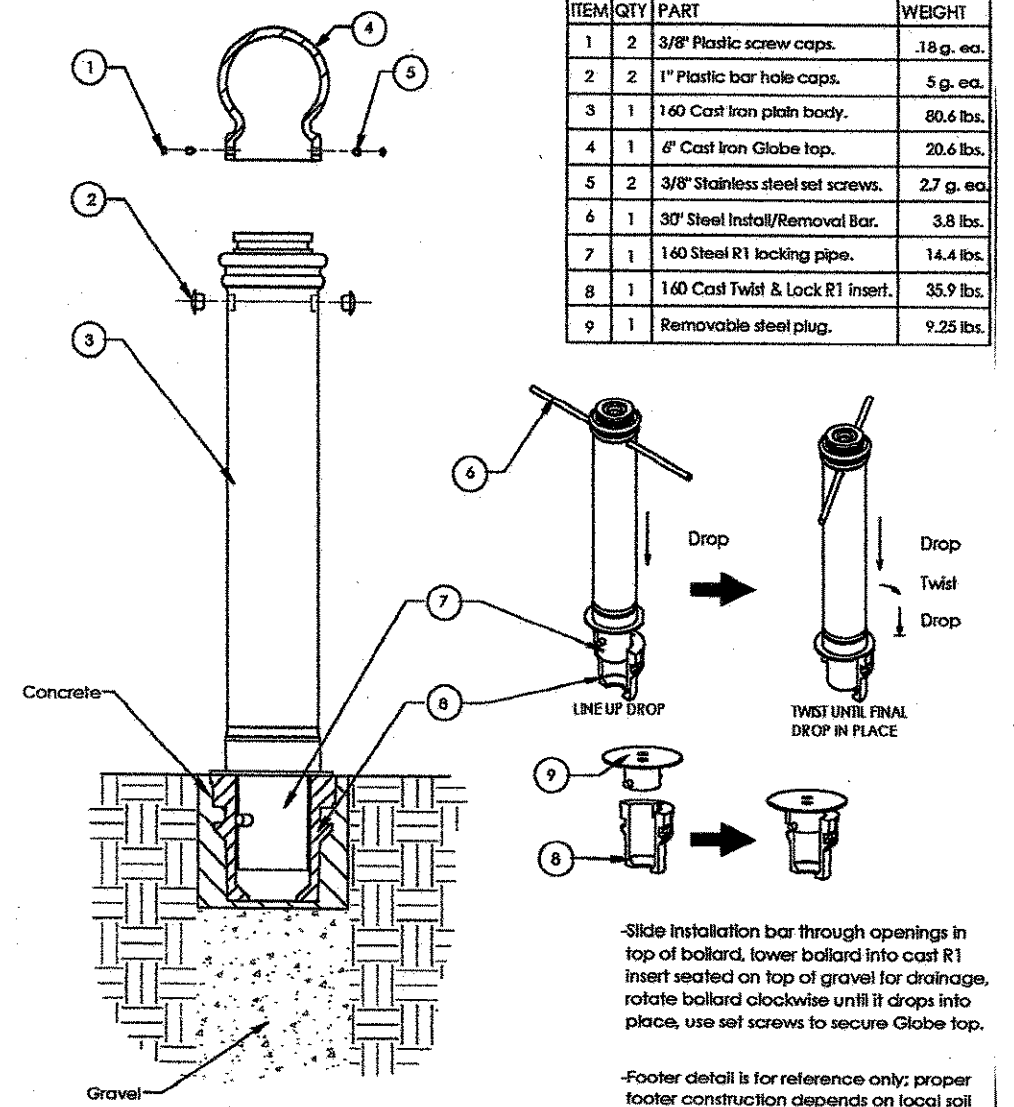
POST PLATE MOUNT - (REMOVABLE)

Type R1 - Twist & Lock

Series: 160 Broadway
 Product Number: 160-GP



ITEM	QTY	PART	WEIGHT
1	2	3/8" Plastic screw caps.	.18 g. ea.
2	2	1" Plastic bar hole caps.	5 g. ea.
3	1	160 Cast Iron plain body.	80.6 lbs.
4	1	6" Cast Iron Globe top.	20.6 lbs.
5	2	3/8" Stainless steel set screws.	27 g. ea.
6	1	30" Steel Install/Removal Bar.	3.8 lbs.
7	1	140 Steel R1 locking pipe.	14.4 lbs.
8	1	160 Cast Twist & Lock R1 Insert.	35.9 lbs.
9	1	Removable steel plug.	9.25 lbs.



BOLLARD DETAIL

BISON BRACE DETAILS
 ASSEMBLY INSTRUCTIONS

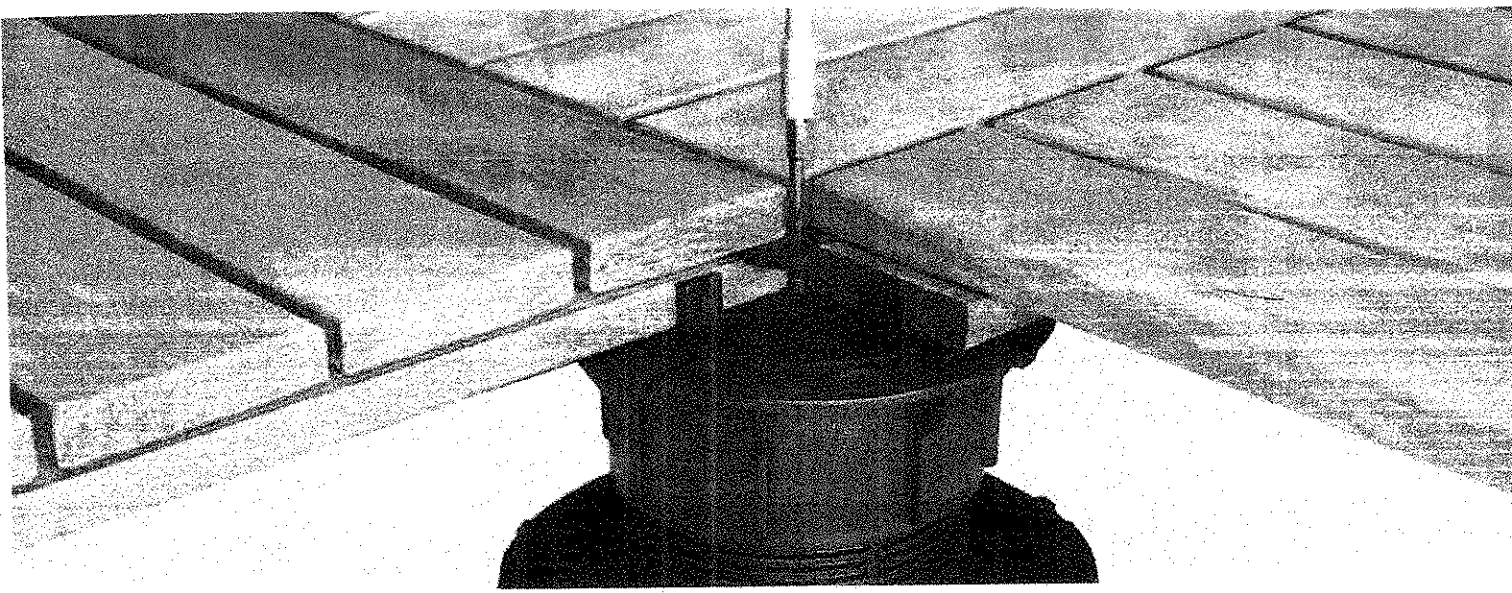
Marrone Architects
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Project: UNDERHILL'S CROSSING - TENT SEATING
 74.5 PONDFIELD ROAD
 BRONXVILLE, NY

3.25.24

Drawing#

2



Installation

Bison recommends the use of Bison Pedestals and the FS-1 Wood Tile Fastening Kit when installing Bison Wood Tiles. The Bison Pedestal/Wood Tile System installs quickly, securely, and allows for single tile removal after installation if needed. The FS-1, available exclusively from Bison, fastens Bison Wood Tiles to Bison Pedestals without penetrating or damaging the wood. When installing an FS-1, use the long screw for adjustable pedestals or the short screw for HD50 and HD75 fixed height pedestals. Using the wrong screw could cause damage to the roofing membrane. **NOTE: For more information, please reference the most up to date version of the Bison Wood Tiles Installation Details, which can be found online at www.bisonip.com.**

Testing

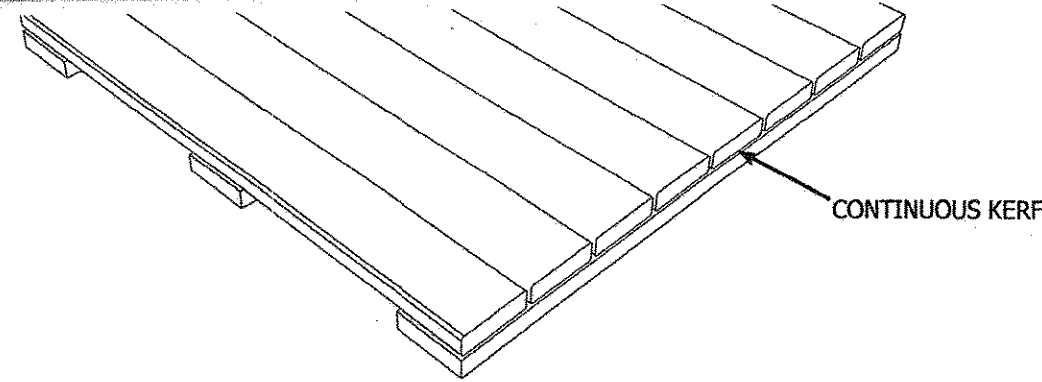
Bison Ipê Wood Tiles meet or exceed these standards.

NOTE: Customer to verify acceptable uses for each project according to the presiding building code authority. All products to be installed per the most up to date Bison Wood Tiles Installation Details and/or Specifications at the time of installation, which can be found online at www.bisonip.com.

Description	Test	Bison Ipê Results/Requirements
Slip Resistance	ANSI A137.1	DCOF \geq 0.46 (Wet)
Solar Reflective Indices	ASTM E 1980-11	45 (Average) New 36 (Average) Weathered One Year
Solar Reflectance	ASTM C1549-09	0.403 New 0.321 Weathered One Year
Hemispherical Emittance	ASTM C1371-04a	0.894 New 0.925 Weathered One Year
Wind Uplift on Pedestals	FBC TAS-108	Aerodynamic Multiplier with Bison Wind System & Installation Guidelines
Seismic	ICC ES AC-156	For use in Seismic Zones A-F with Bison Seismic System & Installation Guidelines
Fire - Spread of Flame	ASTM E108	Class A Spread of Flame
Fire - Flame Spread & Smoke Developed	ASTM E84	Class B
Fire - SF WUI Under-Flame Test	SFA 12-7-A-4 Part A	Pass
Concentrated Load on Versadjust Pedestals	CISCA Section 1: Concentrated Loads	Maximum Total Load 1,000 lbs (453.59 kg) FoS:3
Uniform Load on Versadjust Pedestals	ICC ES AC300-2010	Maximum Total Load 688 psf (3359.09 kg/m ²) FoS:3

Bison Wood Tile Installation Guide

Bison products offer the design flexibility to create versatile, unique outdoor spaces. Since 1994, Bison has led the industry in the design and manufacture of deck supports and hardwood deck tiles that create beautiful rooftop environments. This independently tested, modular pedestal deck system allows rooftop decks to be installed quickly and easily. Bison Wood Tiles are commercial grade, responsibly harvested, weather resistant, and available in standard and FSC® Certified species. Wood species include Ipê, Cumaru, Garapa, Itauba, Tigerwood, and Fused Bamboo.

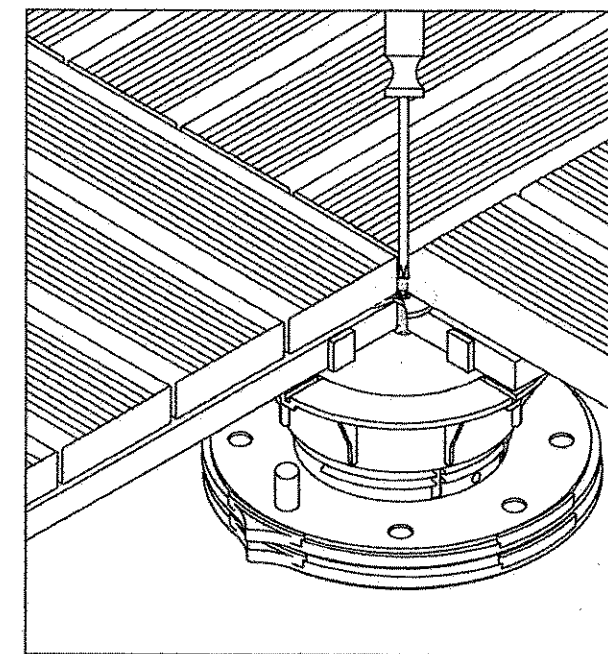
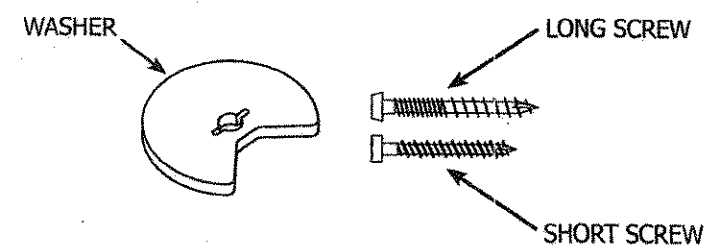


Fastening

FS-1 Wood Tile Fastening Kit

The FS-1 fastening kit secures Bison Wood Tiles to Bison Pedestals and can be rotated to remove individual pavers after installation.

When installing an FS-1, use the long screw for adjustable pedestals or the short screw for HD50 and HD75 fixed height pedestals. Using the wrong screw could cause damage to the roofing membrane. Insert the FS-1 washer into the continuous kerf in the corner of three wood tiles. Leave the notch in the washer facing outwards in order to leave room to place the 4th wood tile. Insert the 4th paver and turn the washer to secure all four corners. Drive the screw through the center of the washer and into the center of the pedestal top. Tighten until all four wood tiles are securely fastened to the pedestal. **CAUTION: Do not overtighten.**



Bison Cumaru Wood Tiles

Model: WTCUMARU24

Species: Cumaru

Surface: Smooth

Color: Golden Brown*

ASTM E108: Class A Spread of Flame

Janka Hardness Rating: 3,540 lbs.

Dimensions: 23.875" x 23.875" x 1.69"

Weight: 24 lbs.

Weight psf: 6 psf

Bison Continuous Kerf cut design

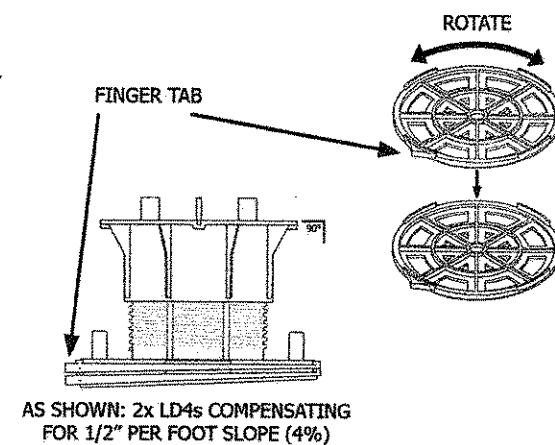
Bison Innovative Products | 701 Osage Street, Unit 120, Denver CO 80204 USA | 800-333-4234 | www.bisonip.com

Built-In Slope Compensation

Each V-Series Pedestal comes with a VB Base Leveler that compensates for up to 1/2" per foot slope (4%).

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

To Create a Flat Base: Position finger tabs opposite one another.

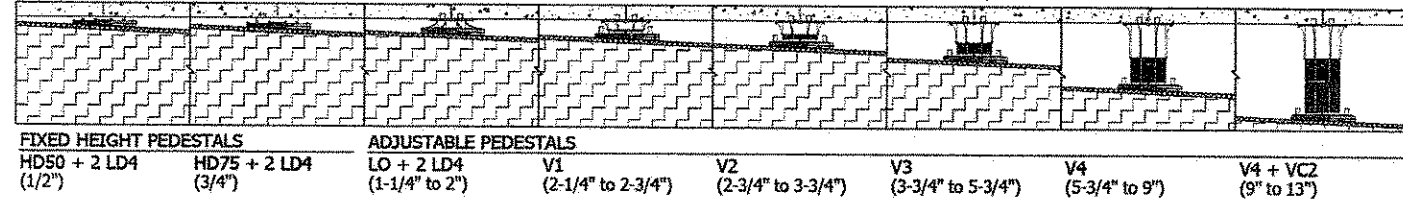


To remove VB Base Leveler, slide pedestal base out of VB Base Leveler.

For additional slope compensation, a maximum of 2 additional LD4 Base Levelers can be used with the V-Series Pedestals adding an additional 1/2" per foot slope (4%) for a total of 1 inch per foot slope (8%). Each LD4 adds 1/4" (6 mm) to the overall height of the pedestal.

AS SHOWN: 2x LD4s COMPENSATING FOR 1/2" PER FOOT SLOPE (4%)

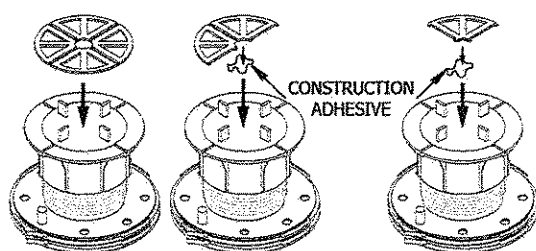
IMPORTANT: Refer to Versadjust product specifications to ensure proper use and installation. For more information visit www.bisonip.com.



Working with Shims

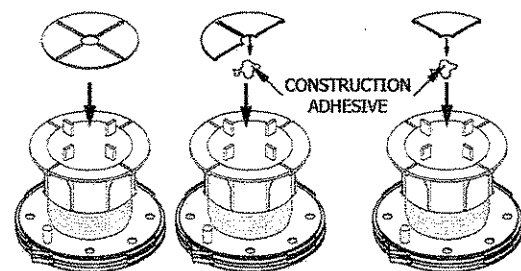
PS1 1/8" (3.2 mm) Shims - Rigid

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 a partial segment, adhere it to the pedestal with construction adhesive.



B11 1/16" (1.6 mm) Shims - Flexible

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 a partial segment, adhere it to the pedestal with construction adhesive.



Bison Versadjust Pedestal Installation Guide

The Bison Versadjust (V-Series) Adjustable Pedestal line has a broad footprint that provides stability, is impervious to freeze thaw cycles, and offers a range of heights suited to a wide variety of applications. Precise spacer tabs allow for deck drainage and uniform paver spacing, while the screw-to-adjust height settings assure a perfectly level deck. The Bison Versadjust Pedestal series reaches heights from 2-1/4" to 36" (57 to 914 mm), has a weight bearing capacity of 1250 lbs (FoS:3), and contains built-in slope compensation for 0" to 1/2" per foot slope (0 to 4%).

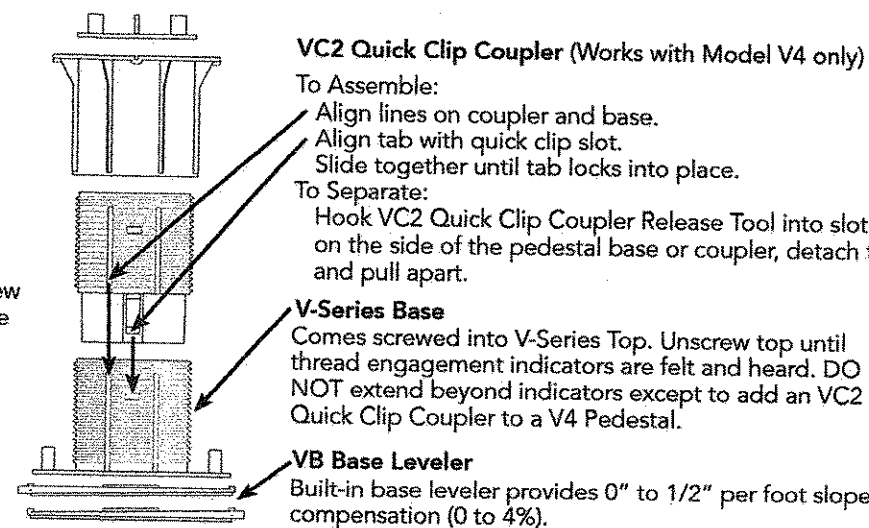
Accessories are available to compensate for additional slope (up to 1" per foot or 8%) and accommodate low height applications from 1/8" to 2-1/4" (3.2 to 57 mm). Quick Clip Couplers increase the speed and efficiency of installing pedestals at heights over 9" (229 mm). Use Versadjust Pedestals with the Bison Brace System for excess height installations from 24" to 36" (610 to 914 mm) or for installations requiring additional stability. Proudly manufactured in the U.S.A.

VT Spacer Tab

(Specify tab width when ordering)
VT316 - 3/16" (4.5 mm) standard
VT18 - 1/8" (3.2 mm) optional
Place spacer tab on top of pedestal.
To remove tabs, strike spacer tabs with hammer on edge.

V-Series Top

Comes screwed into V-Series Base. Unscrew top until thread engagement indicators are felt and heard. **DO NOT** extend beyond this point except to add a VC2 Quick Clip Coupler to a V4 Pedestal.



Maintenance Recommendations

Routine maintenance of your wood tile 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:

- Check for wood tiles that rock. If you notice wood tiles rocking back and forth while walking on the deck, simply lift the wood tile and shim one or more corners until the paver is level on all four corners. Failure to do so can cause a tripping hazard.
- To remove a wood tile, use a screwdriver to loosen the screw, and rotate the washer to release the wood tile.
- Depending on substrate materials, some settling and/or deflection can occur. Remove the wood tile, and adjust the pedestal until a level height is achieved. You may need to do this to more than one pedestal to level out an area.
- Clean drains and scuppers on a regular basis. Water should completely drain off the roof deck within 48 hours after rainfall, under ambient drying conditions. Standing or pooling water can be detrimental to some waterproofing systems.
- Periodically check the spacer tabs between wood tiles, and immediately replace broken spacer tabs to limit unsafe deck movement.
- Make sure the edge restraint remains intact and structurally sound. There should not be room around the perimeter of the deck in excess of 3/16" (4.5 mm) width, which would allow for lateral movement of the wood tiles and create an unsafe condition.
- It is highly recommended to retain extra wood tiles from the original installation in a convenient location for future repairs or replacements.

Marrone Architects
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3



WOOD TILES

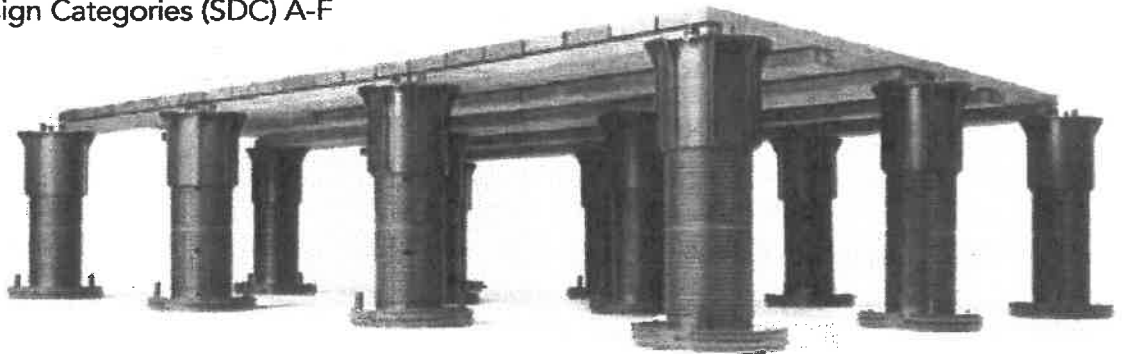
August 2022

BEAUTY, LONGEVITY, AND EXCEPTIONAL VALUE

BISON WOOD TILES

Bison Wood Tiles offer the design flexibility to create versatile, unique outdoor spaces. Commercial grade, responsibly harvested, hardwood tiles are weather resistant and available in standard and FSC® Certified (SCS-COC-002585) species.

- Species include: Bamboo, Cumaru, Garapa, Ipê, Itauba, and Tigerwood
- Exclusive Bison FS-1 Fastening Kit and Continuous Kerf Cut Design allows for easy tile attachment, removal, and replacement
- Modular sizes 2' x 2', 4' x 2', 6' x 2', 8' x 2', and 30" x 30"
 - Pedestals to be spaced on a 2' grid for all Bison Wood Tile sizes*
- Custom sizes available
- Full System Warranty available when installed with Bison Pedestals
- May be covered by one or more Patents
- Bison Ipê Wood Tile Systems can meet:
 - ASTM E108 Class A Spread of Flame
 - ANSI A137.1 Slip Resistance
 - Wind Uplift Criteria set forth in ASCE 7**
 - Seismic Design Categories (SDC) A-F



*Bison 30" x 30" Wood Tiles installed on a 30" grid.

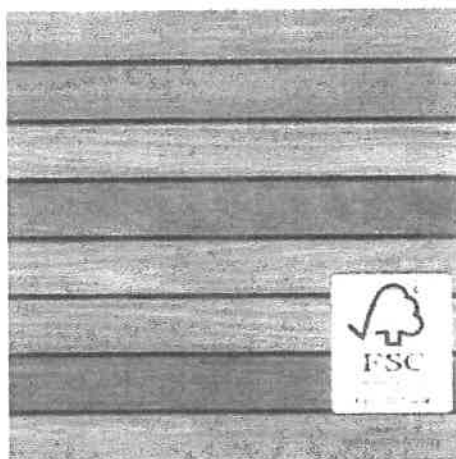
**Wind Uplift documents not contained herein.

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Covered by one or more patents or pending patents.

Bison Innovative Products | 701 Osage Street, Unit 120, Denver CO 80204 USA | 800-333-4234 | www.bisonip.com



Bison FSC® Cumaru Wood Tiles



Model: WTFSC-100%-CUMARU24

Model: WTFSC-100%-CUMARU48

Species: **Cumaru**

Surface: **Smooth**

Color: **Golden Brown***

ASTM E108: **Class A Spread of Flame**

Janka Hardness Rating: **3,540 lbs.**

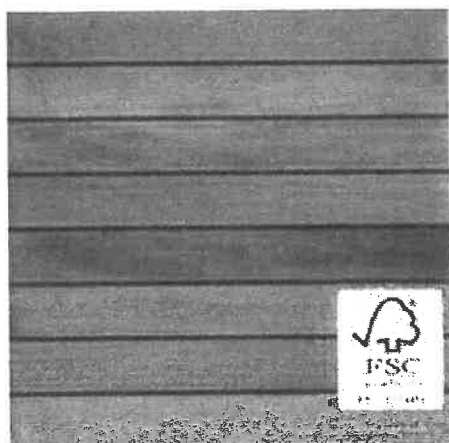
Dimensions: **23.875" x 23.875" x 1.69" / 47.9375" x 23.875" x 1.69"**

Weight: **24 lbs. / 48 lbs.**

Weight psf: **6 psf / 6 psf**

Bison Continuous Kerf cut design

Bison FSC® Garapa Wood Tiles



Model: WTFSC-100%-GARAPA24

Species: **Garapa**

Surface: **Smooth**

Color: **Golden Brown***

ASTM E108: **Class A Spread of Flame**

Janka Hardness Rating: **1,630 lbs.**

Dimensions: **23.875" x 23.875" x 1.69"**

Weight: **24 lbs.**

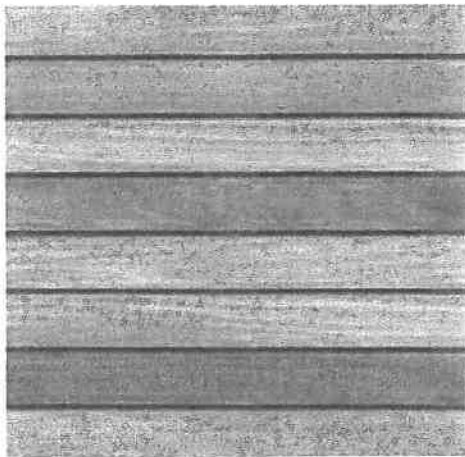
Weight psf: **6 psf**

Bison Continuous Kerf cut design

*Wood tile colors may differ from photos and change without notice.



Bison Cumaru Wood Tiles



Model: WTCUMARU24

Species: Cumaru

Surface: Smooth

Color: Golden Brown*

ASTM E108: Class A Spread of Flame

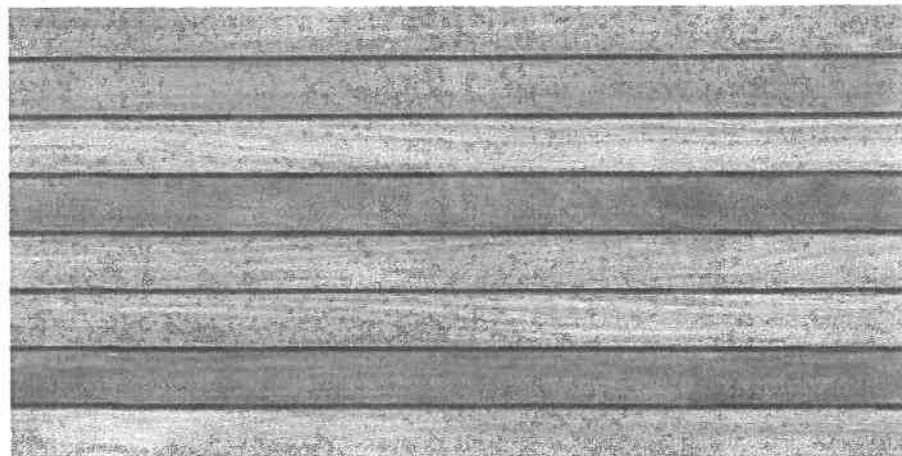
Janka Hardness Rating: 3,540 lbs.

Dimensions: 23.875" x 23.875" x 1.69"

Weight: 24 lbs.

Weight psf: 6 psf

Bison Continuous Kerf cut design



Model: WTCUMARU48

Species: Cumaru

Surface: Smooth

Color: Golden Brown*

ASTM E108: Class A Spread of Flame

Janka Hardness Rating: 3,540 lbs.

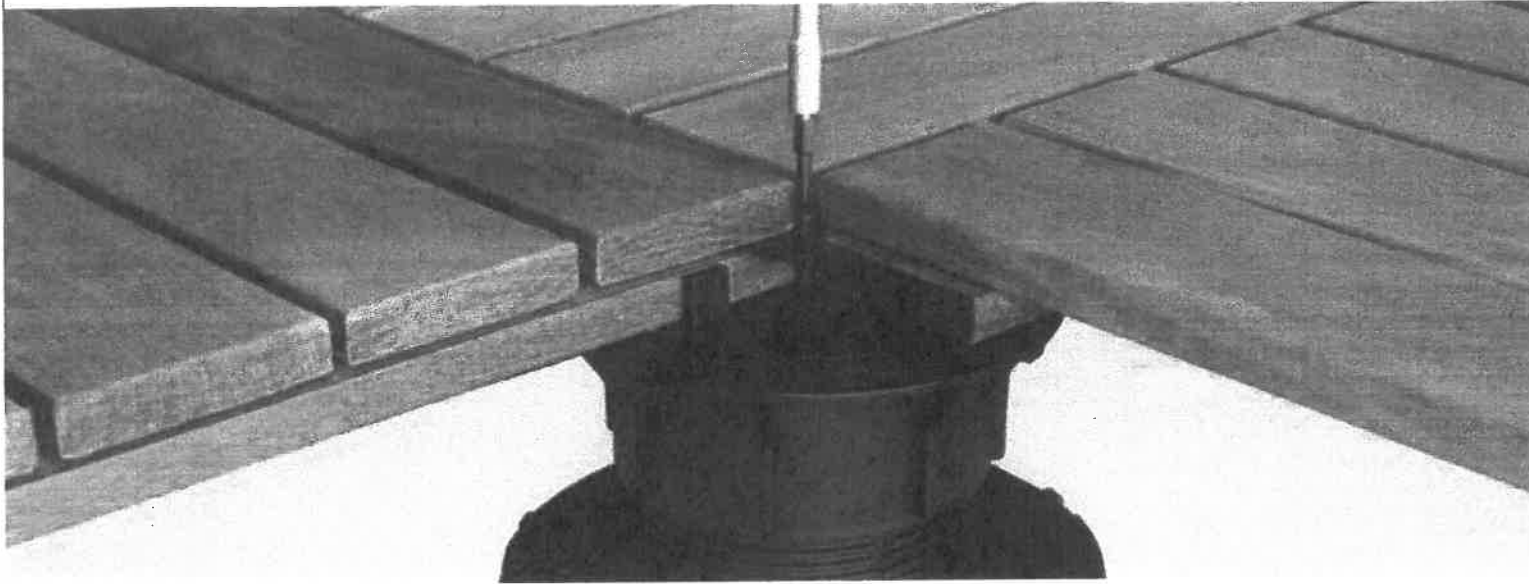
Dimensions: 47.9375" x 23.875" x 1.69"

Weight: 48 lbs.

Weight psf: 6 psf

Bison Continuous Kerf cut design

*Wood tile colors may differ from photos and change without notice.



Installation

Bison recommends the use of Bison Pedestals and the FS-1 Wood Tile Fastening Kit when installing Bison Wood Tiles. The Bison Pedestal/Wood Tile System installs quickly, securely, and allows for single tile removal after installation if needed. The FS-1, available exclusively from Bison, fastens Bison Wood Tiles to Bison Pedestals without penetrating or damaging the wood. When installing an FS-1, use the long screw for adjustable pedestals or the short screw for HD50 and HD75 fixed height pedestals. Using the wrong screw could cause damage to the roofing membrane. *NOTE: For more information, please reference the most up to date version of the Bison Wood Tiles Installation Details, which can be found online at www.bisonip.com.*

Testing

Bison Ipê Wood Tiles meet or exceed these standards.

NOTE: Customer to verify acceptable uses for each project according to the presiding building code authority. All products to be installed per the most up to date Bison Wood Tiles Installation Details and/or Specifications at the time of installation, which can be found online at www.bisonip.com.

Description	Test	Bison Ipê Results/Requirements
Slip Resistance	ANSI A137.1	DCOF \geq 0.46 (Wet)
Solar Reflective Indices	ASTM E 1980-11	45 (Average) New 36 (Average) Weathered One Year
Solar Reflectance	ASTM C1549-09	0.403 New 0.321 Weathered One Year
Hemispherical Emittance	ASTM C1371-04a	0.894 New 0.925 Weathered One Year
Wind Uplift on Pedestals	FBC TAS-108	Aerodynamic Multiplier with Bison Wind System & Installation Guidelines
Seismic	ICC ES AC-156	For use in Seismic Zones A-F with Bison Seismic System & Installation Guidelines
Fire – Spread of Flame	ASTM E108	Class A Spread of Flame
Fire – Flame Spread & Smoke Developed	ASTM E84	Class B
Fire – SF WUI Under-Flame Test	SFA 12-7-A-4 Part A	Pass
Concentrated Load on Versadjust Pedestals	CISCA Section 1: Concentrated Loads	Maximum Total Load 1,000 lbs (453.59 kg) FoS:3
Uniform Load on Versadjust Pedestals	ICC ES AC300-2010	Maximum Total Load 688 psf (3359.09 kg/m ²) FoS:3

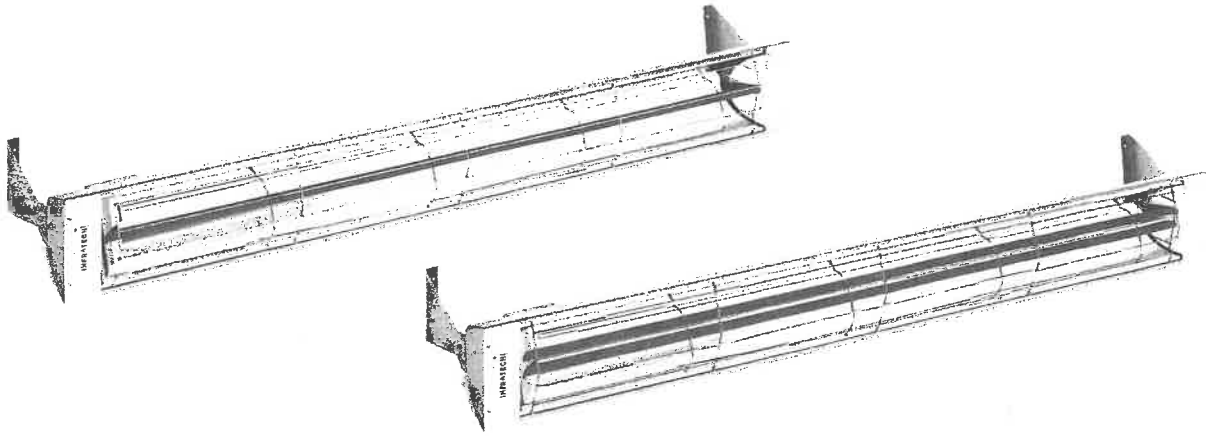


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PROUDLY
MADE IN USA

SAVE THIS MANUAL FOR FUTURE REFERENCE



LIMITED PRODUCT WARRANTY

Model #: _____ Serial #: _____

Date of Purchase: _____ Purchased From: _____

Thank you very much for purchasing a INFRATECH Quartz Tube Electric Heater.

We have designed this heater to provide you and your family with many years of great outdoor experiences. Please fill in the Model and Serial number as well as date of purchase in the areas indicated above. Please save this information for future reference. To get the full and safe enjoyment of your electric heater please read your Owner's Manual carefully and review the proper operating and safety instructions with any family members that may be using the heater.

Manufacturer Warranty:

INFRATECH warrants that this electric heater is designed and manufactured to be free from defects in materials and workmanship for a period of THREE YEARS from original date of purchase.

Extent of Warranty:

This warranty extends to the selling dealers to the original purchaser at the original site of installation: This warranty becomes valid at the time of purchase and ends either by specified time frame listed above, owner transfer or relocation. In order to activate the warranty we require that you send in the attached warranty registration form. This registration is for our internal use only and will only be used in the event we need to send you important safety related product information. The information will not be sold or used for any marketing related purposes.

Warranty Limitations and Exclusions:

This warranty does not apply to damages resulting from negligence, alteration, misuse, abuse, accident, natural disaster, improper installation or improper operation, unauthorized adjustments or calibrations, dings, dents, scratches, nor damages due to harsh chemicals (i.e. cleaning products improperly applied). Warrantor is not responsible for consequential or incidental damages. Under no circumstances shall INFRATECH or any of its representatives be held liable for injury to any person or damage to any property, however arising.

Important: Please retain original proof of purchase to establish warranty period.

Any implied warranties of merchantability and fitness applicable to the equipment are limited in duration to the period of coverage of this express written warranty. This warranty grants specific legal rights to the purchaser. Other rights, which may vary from state to state, may also apply. Title to the merchandise passes to the consignee upon acceptance by the carrier. After acceptance by the carrier, the merchandise travels at the risk of the purchaser. In the event of freight damage, do not refuse shipment. Advise both the freight agent and the shipper of the damage. Note the details of that damage on the freight bill before any freight charges are paid and file a claim for damages with the freight agent.

Online Warranty Registration

Register your Infratech heater online today and you'll not only be covered by the most extensive three-year warranty in the industry – you'll also be automatically enrolled in our Heater Maintenance Program. This means you can enjoy industry-leading customer support and receive free replacement end reflectors when needed, to keep your heating system looking as new as the day it was installed. Register at: infratech.com/warranty

©2018 INFRATECH

----- CUT HERE -----

INFRATECH WARRANTY REGISTRATION

Customer Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Model #: _____ Serial #: _____

Dealer's Name: _____ Date Purchased: _____

Dealer's Address: _____

This Warranty Registration Card must be returned within thirty days of purchase to properly activate your warranty. This information is for our internal use only.

INFRATECH
COMFORT

15700 South Figueroa Street Gardena, CA 90248

TEL 800-421-9455 or 310-354-1250 FAX 310-523-3674 WWW.INFRATECH-USA.COM

INSTALLATION INSTRUCTIONS

This heater must be permanently installed and hard wired by a licensed electrician in accordance with local electrical codes. Assembly procedure must be performed with no electrical power to unit.

Step 1: Check UL/CUL/CE label on heater for proper voltage.

Step 2: Follow supplied wiring instructions. (See wiring instructions below)

Step 3: Heater must be mounted with reflector angled down.

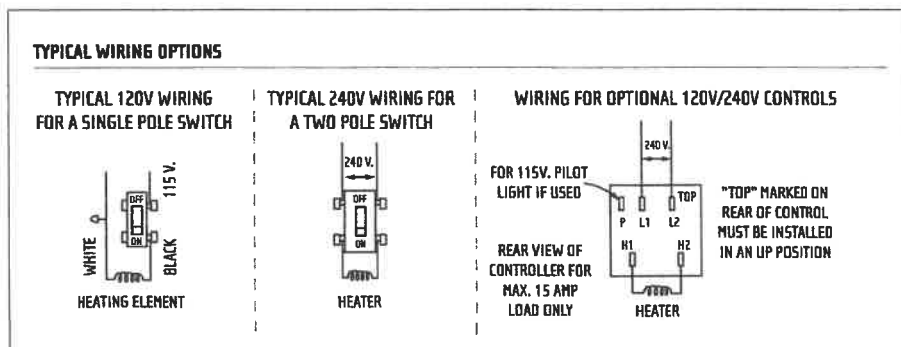
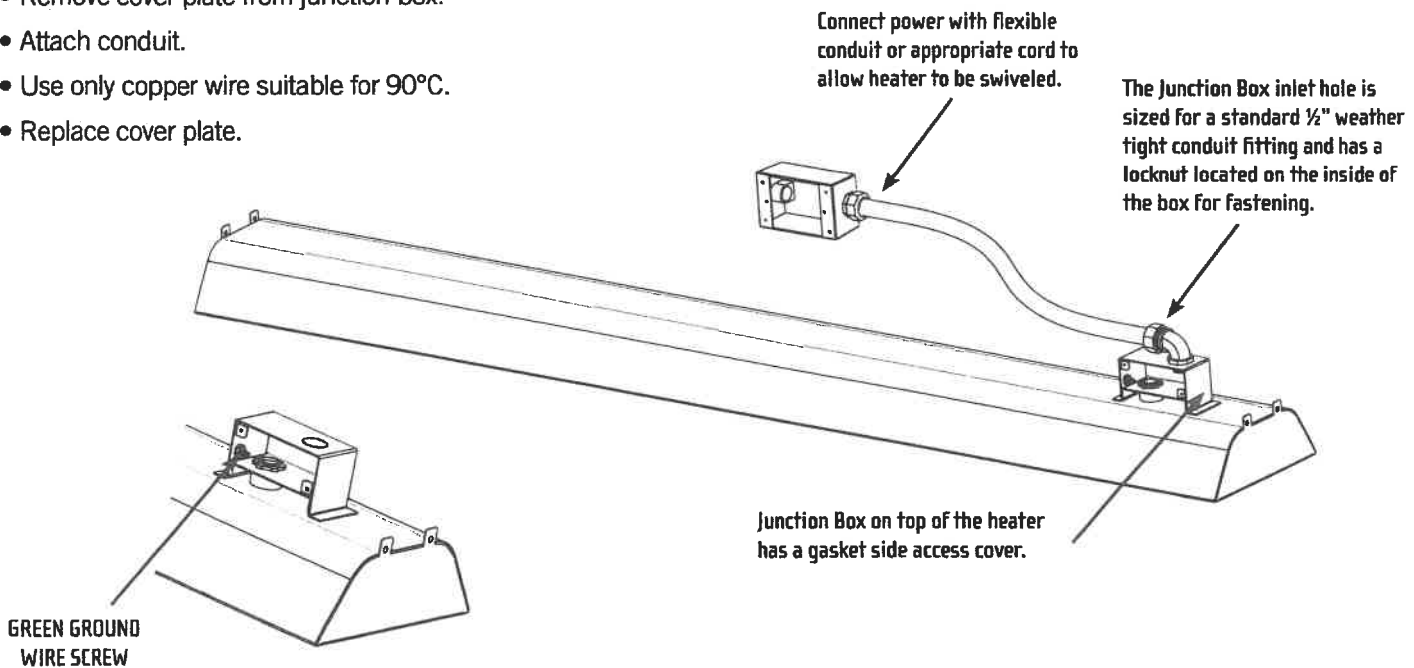
Step 4: All electrical connections must be in compliance with the National Electric Code (NEC) and local codes for outdoor wiring.

Step 5: Use only wiring components UL/CUL/CE listed for outdoor use with IPX4 minimum rating.

WIRING INSTRUCTIONS

The heater is drilled and threaded for standard 1/2" conduit fittings. The installing electrician will need to provide the appropriate rigid metallic, flexible or liquid tight conduit for the installation location.

- Observe local electrical code regulations.
- Remove cover plate from junction box.
- Attach conduit.
- Use only copper wire suitable for 90°C.
- Replace cover plate.



WARNINGS

READ ALL INSTRUCTIONS BEFORE USING HEATER. Unit may be a source of possible shock. **NEVER** attempt to service heater without disconnecting its power source. Source of possible ignition.

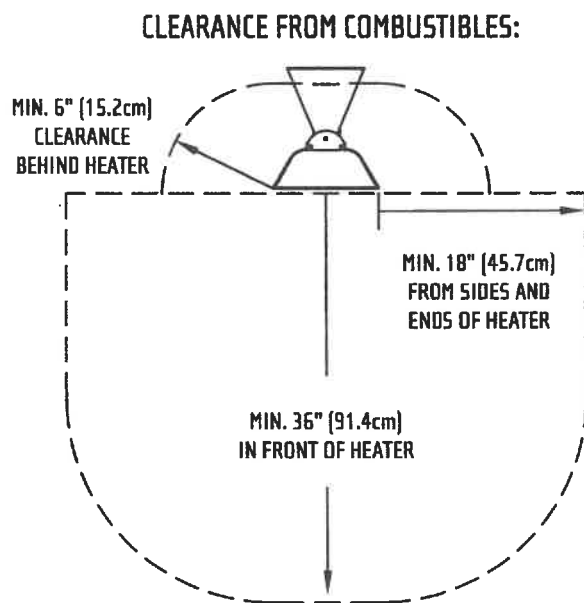


WARNING: If not installed, operated and maintained in accordance with the manufacturer's instructions, this product can expose you to chemicals including nickel, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

CAUTION

High Temperature, risk of fire, keep electrical cords, drapery, furnishings and other combustibles at least 3' (0.9m) from the front of heater and away from sides and rear.

MOUNTING HEIGHT/CLEARANCES

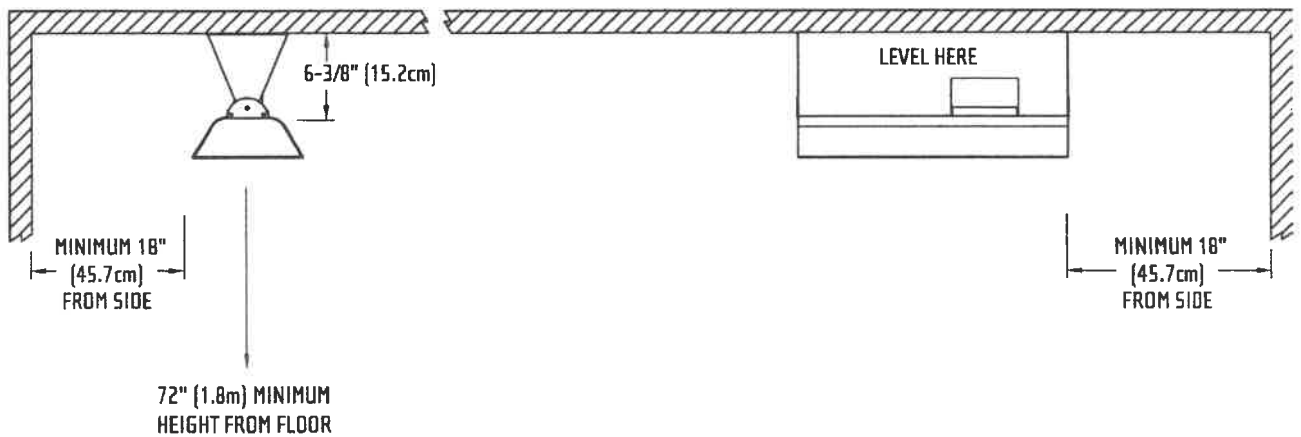
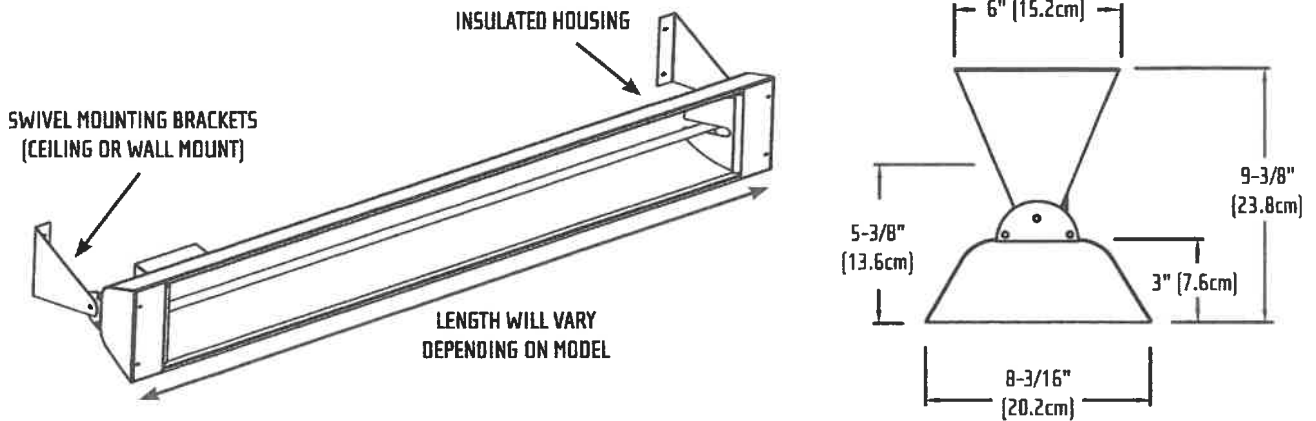


- For Wall-Mounting, do not install heater closer than 18" (45.7cm) from adjacent walls and 6" (15.2cm) from ceiling and do not install less than 6' (1.8m) if the heater is labeled as UL Listed and 8' (2.4m) if the heater is labeled as UL/CUL Listed from floor, while heater is set at a downward angle of 30 to 60 degrees.
- For Ceiling-Mounting, do not install heater closer than 18" (45.7cm) from adjacent walls and 6" (15.2cm) from ceiling and do not install less than 6' (1.8m) if the heater is labeled as UL Listed and 8' (2.4m) if the heater is labeled as UL/CUL Listed from floor, while heater is at a maximum 30 degrees.
- Adjacent Heaters to be installed no less than 3' (0.9m) apart.
- Do NOT operate within 25' (7.6m) of flammable/explosive material.
- Never block heater.
- Heaters greater than 240 Volts are for "Commercial Use Only. Risk of fire. Do not use as a residential or household heater."
- A means for disconnection of the appliance must be incorporated in accordance with the local wiring codes.
- Do not use if the heating element is damaged or cracked.

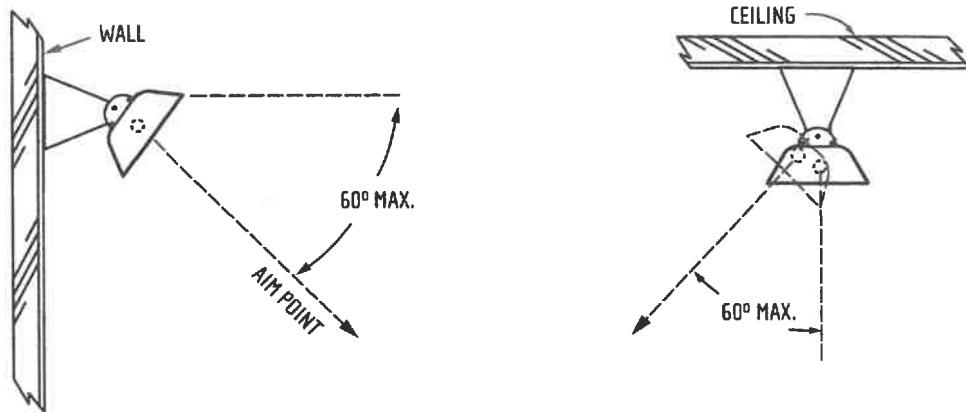
"IMPORTANT INSTRUCTIONS"
"SAVE THESE INSTRUCTIONS"

MOUNTING INSTRUCTIONS

These models may be chain or bracket mounted to any ceiling or horizontal surface. Installation must be such that 18" (45.7cm) minimum clearance is maintained around the heater on all four sides and 36" (91.4cm) directly in front. A minimum of 6" (15.24cm) of clearance provided by mounting brackets is required behind the plane of the face. Heater can be hung using chains or custom brackets. Heater must be level, but can be rotated around its horizontal axis.



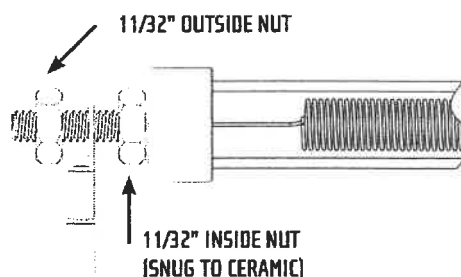
Heater must be installed with the quartz tube horizontally level. For maximum tube life, use a carpenter's level tool to find the optimum level position for the heater's body. Always maintain the minimum clearances from the heater body to any combustible materials.



REPLACEMENT ELEMENT INSTALLATION [VISIT INFRATECH-USA.COM FOR VIDEO INSTRUCTIONS]

Disconnect the power at the breaker. Remove the grill by grasping it in the middle, flex grill up and lift it off. Unscrew and remove both end reflectors. Unhook element clips at each end of the heater and remove nuts from end of element to remove the existing quartz tube. Carefully install the new element. Remove one nut from end of the new element. Install wire by sliding high temperature ring terminal onto element screw and replace nut. Use a thin 11/32" wrench to hold inside nut. Nuts must make a tight connection. Close element clips over tube, reinstall end reflectors, then snap protective grill back in place.

NOTE: Hold ceramic element firmly while tightening nut to prevent damage to element. Nut should be tightened snug. A loose connection can cause the element to short or fail prematurely.



SCAN FOR
VIDEO
INSTRUCTIONS



REPLACEMENT ELEMENTS (OTHER VOLTAGES ALSO AVAILABLE)

PART NUMBER	ELEMENT NUMBER	LENGTH	WATTS	VOLTS	FITS
10-1020	E-7512	16-1/2" (0.4m)	750	120	W-7512
10-1050	E-1412	30" (0.8m)	1500	120	W-1512
10-1055	E-1424	30" (0.8m)	1500	240	W-1524/WD-3024
10-1085	E-2024	36" (0.9m)	2000	240	W-2024/WD-4024
10-2010	E-2524	36" (0.9m)	2500	240	W-2524/WD-5024
10-2030	E-3024	58" (1.5m)	3000	240	W-3024/WD-6024
10-2055	E-4024	58" (1.5m)	4000	240	W-4024

Consult the label on back of heater for proper watts, voltage, and replacement element part number.

Need help? To order replacement elements for your Infratech heating system, please contact us via phone or visit our website.

REPLACEMENT PARTS

PART NUMBER	PART DESCRIPTION	QUANTITY
13-1210	Single Element End Reflector (Set of 2)	1
13-1252	Dual Element End Reflector (Set of 2)	1
13-1202, 13-1200, 13-1205	Body Reflector – Fits 33" (0.8m), 39" (1.0m), 61-1/4" (1.6m)	1
13-1242, 13-1240, 13-1245	Grill Guard – Fits 33" (0.8m), 39" (1.0m), 61-1/4" (1.6m)	1
13-1232, 13-1230, 13-1235	Lead Wire Set – Fits 33" (0.8m), 39" (1.0m), 61-1/4" (1.6m)*	1
22-1151	SS Mounting Bracket (Set of 2)	1
18-2295, 18-2300, 18-2305	Flush Mount SS Plaster Frame – Fits 33" (0.8m), 39" (1.0m), 61-1/4" (1.6m)	1

* Note: Dual Element Heaters require 2 Lead Wire Sets per Heater

SINGLE ELEMENT AREAS COVERED (FEET)

MODEL	WATTS	MOUNTING HEIGHT	AVERAGE	COLD	PROTECTED
W-1512 SS	1,500	6' - 8' (1.8m - 2.4m)	5' x 5' (1.5m x 1.5m)	3' x 3' (0.91m x 0.91m)	7' x 7' (2.1m x 2.1m)
W-2024 SS	2,000	7' - 9' (2.1m - 2.7m)	6' x 6' (1.8m x 1.8m)	4' x 4' (1.2m x 1.2m)	8' x 8' (2.4m x 2.4m)
W-2524 SS	2,500	7' - 9' (2.1m - 2.7m)	7' x 7' (2.1m x 2.1m)	5' x 5' (1.5m x 1.5m)	9' x 9' (2.7m x 2.7m)
W-3024 SS	3,000	7' - 9' (2.1m - 2.7m)	8' x 8' (2.4m x 2.4m)	6' x 6' (1.8m x 1.8m)	10' x 10' (3.0m x 3.0m)
W-4024 SS	4,000	8' - 11' (2.4m - 3.4m)	10' x 10' (3.0m x 3.0m)	8' x 8' (2.4m x 2.4m)	12' x 12' (3.7m x 3.7m)

DUAL ELEMENT AREAS COVERED (FEET)

MODEL	WATTS	MOUNTING HEIGHT	AVERAGE	COLD	PROTECTED
WD-3024 SS	3,000	7' - 9' (2.1m x 2.7m)	7' x 7' (2.1m x 2.1m)	5' x 5' (1.5m x 1.5m)	9' x 9' (2.7m x 2.7m)
WD-4024 SS	4,000	8' - 12' (2.4m - 3.7m)	8' x 10' (2.4m x 3.0m)	6' x 8' (1.8m x 2.4m)	10' x 12' (3.0m x 3.7m)
WD-5024 SS	5,000	8' - 12' (2.4m - 3.7m)	9' x 10' (2.7m x 3.0m)	7' x 8' (2.1m x 2.4m)	11' x 12' (3.4m x 3.7m)
WD-6024 SS	6,000	10' - 14' (3.0m - 4.3m)	11' x 11' (3.4m x 3.4m)	10' x 10' (3.0m x 3.0m)	12' x 12' (3.7m x 3.7m)

NOTE: Mounting height should not be less than 6' (1.8m) if the heater is labeled as UL Listed and 8' (2.4m) if the heater is labeled as CUL Listed. Indoor or well-protected environments will generally exceed average. Heaters can provide less than average coverage in extremely cold/windy conditions.

GENERAL NOTES

- INFRATECH QUARTZ TUBE ELECTRIC HEATERS are furnished with wall/ceiling mount swivel brackets. These brackets may be discarded when the heater is hung with chains, special bracketing, or used in conjunction with our flush mount frame.
- See sales literature and price list for full listing of models, descriptions, amperages, and voltages. At times, especially when the mounting height might be quite low, an increased number of smaller heaters can help prevent overheating.
- Heaters up to 15 AMPS can be controlled with a simple INF Input Regulator. This low cost controller, which is actually an infinite switch, gently pulses the heat on and off at regular intervals when not on full power.
- Dual Element Heaters can be wired with our Duplex/Stack Switch, which enables the ability to turn on and off each element independently, providing for half power/full power capabilities.
- For ideal comfort heat, the best solution is to heat from two sides rather than from just one side. However, there are times when this is not practical.
- Coverage areas are approximate dimensions and will vary depending on prevailing and personal comfort levels.
- Indoor or well-protected environments will generally exceed average (see charts). Heaters can provide less than average coverage in extremely cold/windy conditions.

MAINTENANCE INSTRUCTIONS

- Before performing any maintenance, power must be disconnected and the heater cool to touch.
- Heater housing, reflectors, and heating element can be rinsed with a hose or wiped down with isopropyl alcohol, acetone, or glass cleaner. Use a clean, scratch-free rag or paper towel. Any oxidation, surface rust, or discoloration can be removed with a stainless steel cleaner or metal polish on the bare metal surface.
- Make sure all water, solvents, or cleaners are removed and the heater is dry before reconnecting the power.

TROUBLESHOOTING

PROBLEM

WHAT TO DO

Heater does not glow

- Check supply voltage to confirm it matches voltage of heating element.

Low heat output

- A 240V element connected to 110V or 208V will warm, but not glow orange or generate sufficient heat for typical applications (Matching your voltage is extremely important). If element is visibly orange, but there is insufficient heat, refer to the areas covered with respect to conditions and mounting heights.
- Replace or clean dirty or non reflective reflectors.

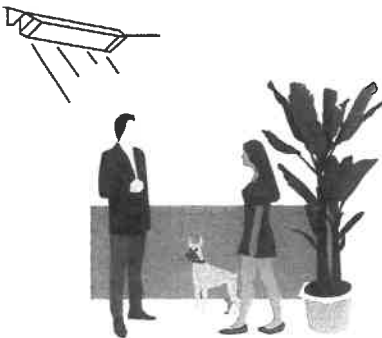
Heater does not work

- Disconnect power and check element with an ohm meter for continuity. If there is any continuity across the bulb, the problem is in the wiring/controls.
- Check that there is proper voltage to the heater.
- Check that the control/switch is working.
- Check main power circuit breaker.
- Check wiring for a loose connection or burned wire.

LOCATION SUGGESTIONS

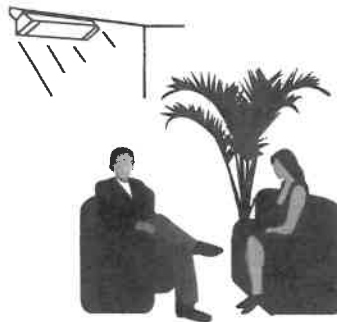
Unless heaters are installed over 12' (3.7m) high, it is generally recommended that all radiant heaters be mounted on an angle to assure that radiant warmth is distributed from the sides rather than straight down on the heads and shoulders of the people being warmed.

RECOMMENDED POSITIONING



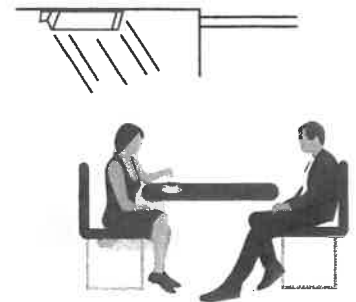
Angle fixture 30° to 60° from horizontal face down. Best angle is approximately 45°.

INSTALLATION DIRECTION



Install fixture to heat the area from the "cold side" if possible. This helps compensate for increased body heat losses due to exposure. Warm floors reradiate heat. Warmer air rises from floor. Some heat reflects from floor. Mounting a heater directly over a table or other obstruction will block the energy, primarily heating the object. It is best to move heater to the side, allowing complete body and floor coverage.

OUTDOORS



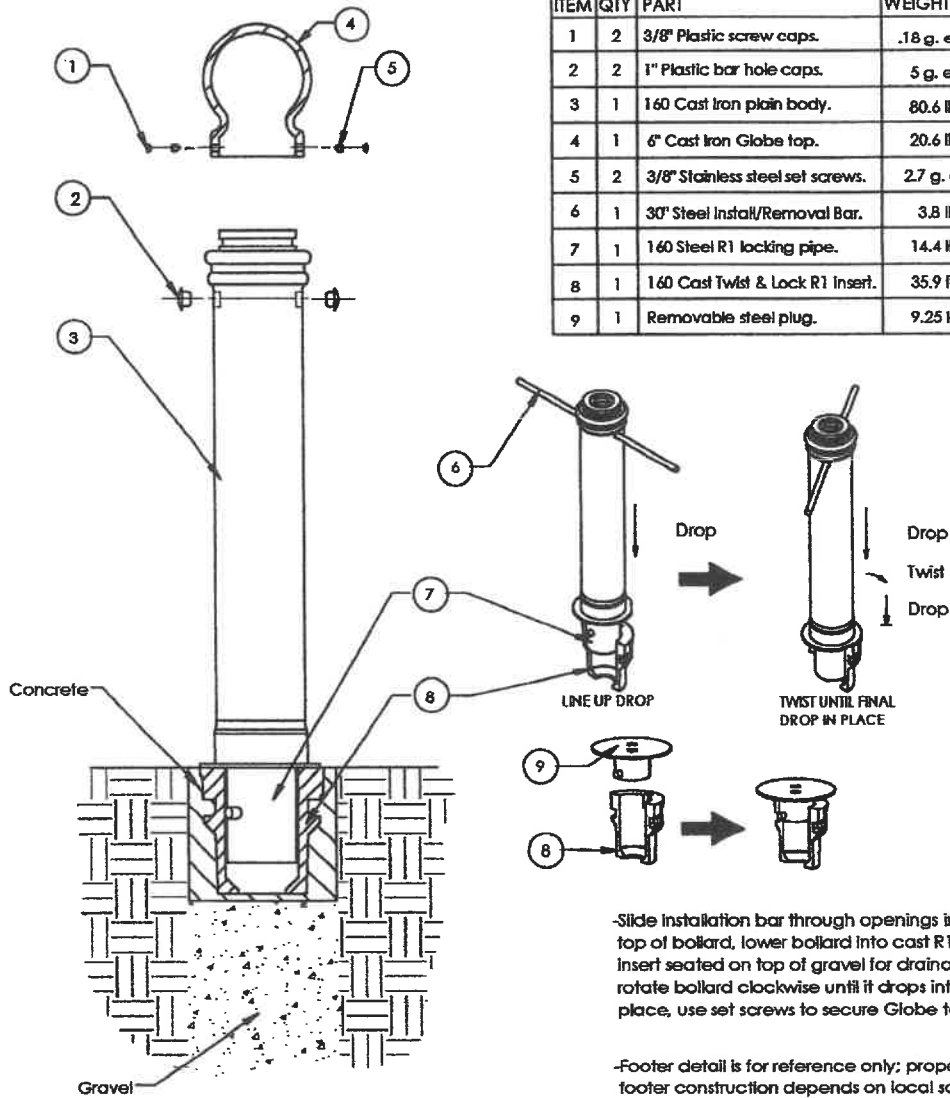
When outdoors, hang heater under protective roof or weather cover whenever possible. Even though heater is all-weather construction, it will last longer and look better if it is protected from rain and snow.

Type R1 - Twist & Lock

Series: 160 Broadway

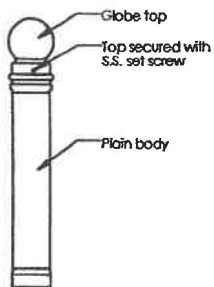
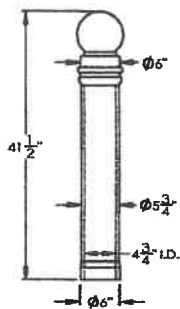
Product Number: 160-GP

ITEM	QTY	PART	WEIGHT
1	2	3/8" Plastic screw caps.	.18 g. ea.
2	2	1" Plastic bar hole caps.	5 g. ea.
3	1	160 Cast Iron plain body.	80.6 lbs.
4	1	6" Cast Iron Globe top.	20.6 lbs.
5	2	3/8" Stainless steel set screws.	2.7 g. ea.
6	1	30" Steel Install/Removal Bar.	3.8 lbs.
7	1	160 Steel R1 locking pipe.	14.4 lbs.
8	1	160 Cast Twist & Lock R1 Insert.	35.9 lbs.
9	1	Removable steel plug.	9.25 lbs.



-Slide installation bar through openings in top of bollard, lower bollard into cast R1 insert seated on top of gravel for drainage, rotate bollard clockwise until it drops into place, use set screws to secure Globe top.

-Footer detail is for reference only; proper footer construction depends on local soil conditions and engineering requirements.



 Made in the USA

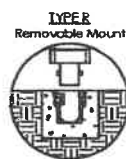
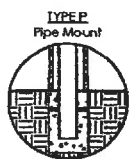
MATERIAL
ASTM A48 Class 30 Cast Iron

SLEEVE WEIGHT
101 lbs.

FINISH
POWDER COAT FINISH
1 coat zinc rich epoxy primer + 1 coat
Super Durable polyester powder coating.
Available in 25 colors.

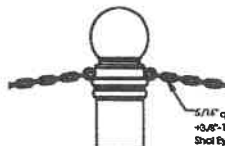
INSTALLATION
MOUNTING OPTIONS AVAILABLE
-Type P - Pipe Mount
-Type I - Iron Base
-Type S - Surface Mount
-Type R - Removable (3 Variations available)

See installation drawings for complete details.
Parts list and component weights.



3 Variations of ball top (each appropriate ball top available) - see installation drawings.

Optional Eye Bolt and Chain



5/16" quick link chain
#3/8" 16 x 1 Stainless Steel
Shel Eye Bolt, Powder coated.

HOLLANDSUSA.com
A DIVISION OF J.R. HOE

Series: Broadway

PRODUCT NO.

160-GP

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our story

login

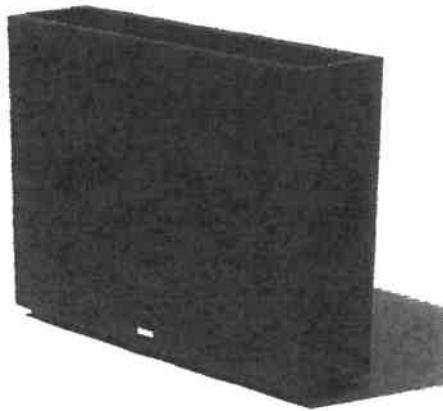
outdoor planters 

outdoor living 

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better living

our story



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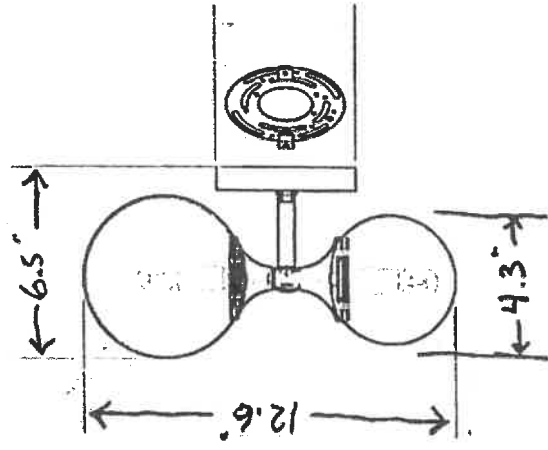
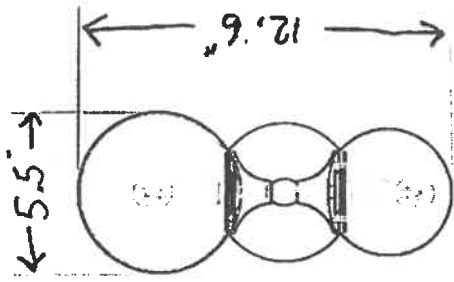
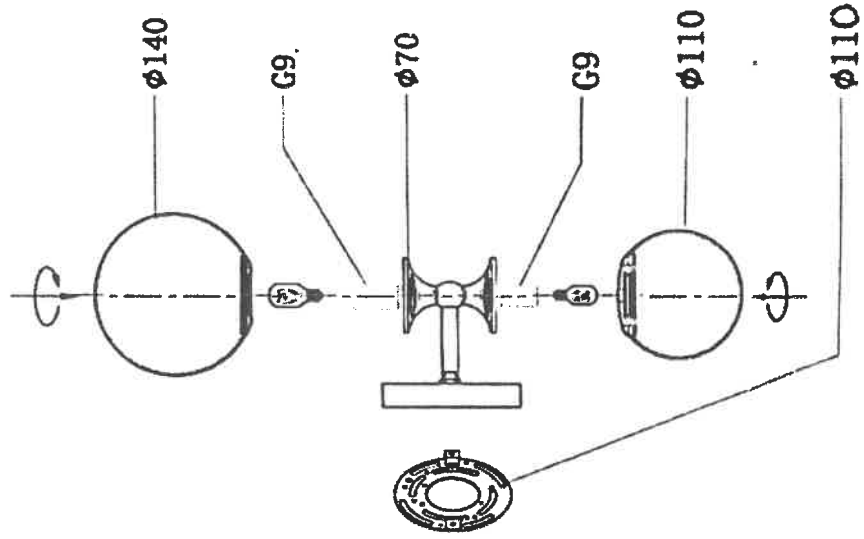
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6003-1B

D140*H320*165

G9*2



CONFIRMATION

Thank You!

Your order number is 9797332

Steven Palm,

Thank you for shopping with us! Please save your order number for future reference. In a few minutes you will receive a confirmation email with a summary of your order as shown below. You can expect additional follow-up emails that will provide you with information about the shipment status of your order.

We appreciate your business and look forward to serving you again soon.

Create an account, save 5% on your next order!

It's fast and easy!

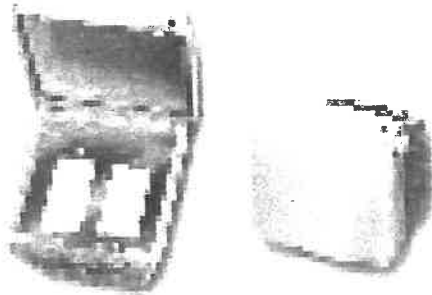
Receive special discounts on future orders when you become a member of our Loyalty Program. You can also receive exclusive emails with featured brands and products offering additional savings.

Sign up (</secure/signup.aspx?s=mem&bid=checkout>)

Your Order Summary

Your Price (ea.)
Quoted Price \$174.60

EXT. PRICE: \$349.20
\$174.60 (ea.) x 2



Accessory - Dual Duplex Switch Flush Mount and Gang Box 20 Amp Per Pole

Infratech - 14 4315

Ships in 1 to 2 Days

QTY: 2

BY THIS CERTIFICATE OF COMPLIANCE
Better Homes Electrical Inspection Services Inc.
5 Buckout Road, West Harrison, NY 10604
914-906-0443

CERTIFIES THAT

Upon the application of:

Zeus Electric
24 Highland Ave
Eastchester, NY 10709

Upon premises owned by:

Mosbacher Properties Group
74.5 Pondfield Road
Bronxville, NY 10708

Certificate Number: 1308

Certificate Date: 9/19/23

Located at: 74.5 Pondfield Road
Bronxville, NY 10708

Occupancy Type: Commercial

Permit Number: 2023-0319

Section: 4

Building Permit Number: ELEC-171-23

Block: 2

Lot: 3

A visual inspection of the electrical system at this premise described above, wherein the premises electrical system consisting of electrical devices and wiring, described herein.

All inspections are in accordance with the National Electrical Code and the details of the installation, as set forth below, was found to be in compliance therewith on the date of the inspection.

Name	Quantity	Rating	Circuit	Type
Ceiling fan	2	120v	20a	Paddle fan outdoor tent
Heater unit	4	120v	20a	Heater outdoor tent
Receptacle	10	120v	20a	GFI duplex outlet outdoor tent
Switch single pole	4	120v	20a	Switch
Relocate existing panel	1	240v	100a	Panel 24 circuit 1st floor

This certificate may not be altered in any way.

This certificate is valid for work performed before the date of inspection only.



Licensed Inspector

Maintenance Recommendations

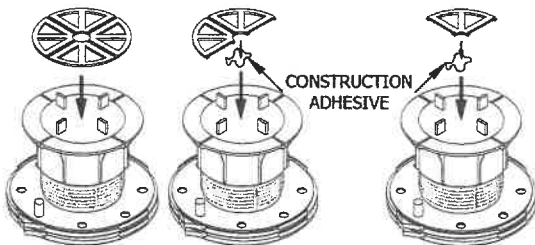
Routine maintenance of your wood tile deck system will enhance the beauty, reduce major repairs, and prolong the life of your deck. Below is a list of maintenance guidelines that should be performed on a regular basis:

- Check for wood tiles that rock. If you notice wood tiles rocking back and forth while walking on the deck, simply lift the wood tile and shim one or more corners until the paver is level on all four corners. Failure to do so can cause a tripping hazard.
- To remove a wood tile, use a screwdriver to loosen the screw, and rotate the washer to release the wood tile.
- Depending on substrate materials, some settling and/or deflection can occur. Remove the wood tile, and adjust the pedestal until a level height is achieved. You may need to do this to more than one pedestal to level out an area.
- Clean drains and scuppers on a regular basis. Water should completely drain off the roof deck within 48 hours after rainfall, under ambient drying conditions. Standing or pooling water can be detrimental to some waterproofing systems.
- Periodically check the spacer tabs between wood tiles, and immediately replace broken spacer tabs to limit unsafe deck movement.
- Make sure the edge restraint remains intact and structurally sound. There should not be room around the perimeter of the deck in excess of 3/16" (4.5 mm) width, which would allow for lateral movement of the wood tiles and create an unsafe condition.
- It is highly recommended to retain extra wood tiles from the original installation in a convenient location for future repairs or replacements.

Working with Shims

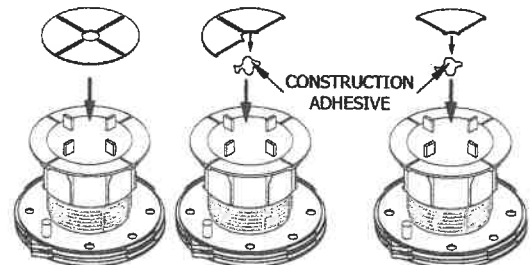
PS1 1/8" (3.2 mm) Shims - Rigid

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 a partial segment, adhere it to the pedestal with construction adhesive.



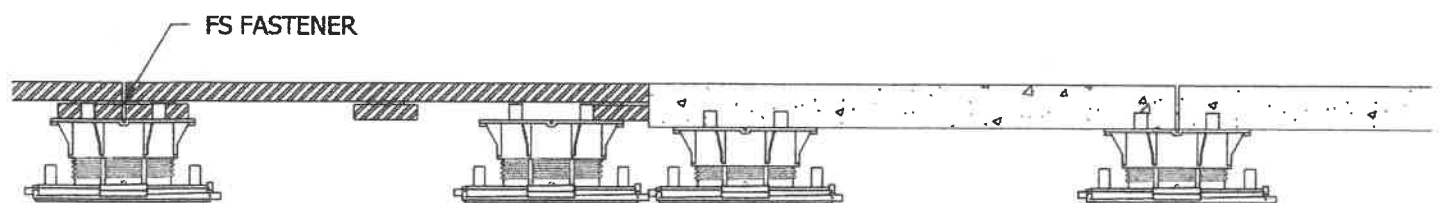
B11 1/16" (1.6 mm) Shims - Flexible

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 a partial segment, adhere it to the pedestal with construction adhesive.

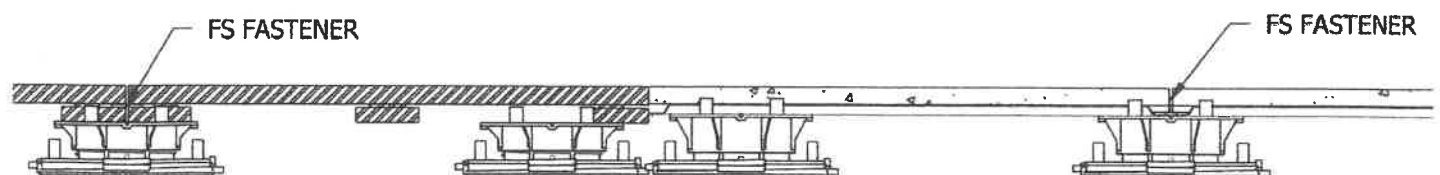


Wood Tile Transitions

Bison pedestals can support a variety of surface materials, including 2cm porcelain, concrete pavers, wood tiles, composite materials, fiberglass grating, or conventional wood plank systems to create unique custom looks. Transitions between surface materials must be properly supported. Be sure to maintain a tight installation and limit space between surfaces.



AS SHOWN: BISON WOOD PAVER WITH 2" CONCRETE PAVER



AS SHOWN: BISON WOOD PAVER WITH 2CM PAVER AND BISON PAVER TRAY

Care & Maintenance Considerations

Bison Wood Tiles are an ideal long-lasting, low-maintenance decking solution providing warmth, excellent weather resistance, and architectural charm to decks.

Wood Characteristics

Bison Wood Tiles are made of South American (Cumaru, Ipê, Garapa, Itauba, and Tigerwood) and Chinese (Fused Bamboo) hardwoods which contain a rich variety of graining and coloration, are exceptionally dense, and resistant to insects. Bison Wood Tiles are a natural material that can absorb or lose moisture in different climates. The natural shading, coloration, and graining variations add to the architectural character and overall visual appeal of the finished product.

Being a natural product, Bison Wood Tiles will react to the surrounding environmental conditions. Surfaces may spot or stain when exposed to various materials including: metal, steel, iron, or aluminum filings, pieces, equipment, tools, or fasteners; iron enriched fertilizers; plant debris; animal urine; beverage, food, or grease spills; or mildew that naturally occurs in humid or moist locations. To avoid spotting or staining during construction, Bison recommends covering the deck to reduce exposure to metal that could rust and react with the deck surface.

Cleaning, Sealing, & Staining

Bison Wood Tiles are made of hardwoods that will weather over time, developing a silvery-gray patina. In order to maintain the original coloring, Bison Wood Tiles can be periodically cleaned and sealed. Use deck products designed for hardwoods. Spot cleaning can be done, but for a consistent appearance, Bison recommends cleaning the entire deck. Most decks need to be cleaned after installation is complete.

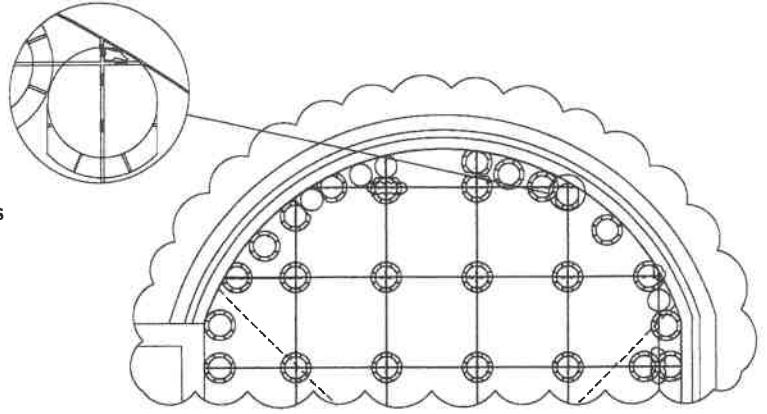
Test any cleaners, brighteners, or sealants in an inconspicuous area first before applying them to the installed deck. In addition, always check with the manufacturer of your roof membrane to ensure that any cleaning solution, stain, oil, deck brightener, or bleach will not compromise or damage the waterproofing membrane. Remember to use safety glasses, respirators, and gloves in handling any materials that contain chemicals. Refer to product manufacturer's SDS for more information on chemical components and safe handling practices. CAUTION: Do not scrub tiles with wire, iron, or steel brushes.

The following manufacturers offer products specifically designed for use with dense hardwoods: Messmer's, Penofin, Defy, and TimberPro. Follow the manufacturers' instructions and repeat as needed to clean stubborn stains. Rinse the deck, adjacent walls, and surrounding areas thoroughly with water prior to and after using wood cleaners or brighteners. Once cleaned and dry, you may apply a UV finish or sealant to the wood if desired.

NOTE: Additional Bison Wood Tile Care & Maintenance Considerations and Wood Tile Cleaning Recommendations are available online at www.bisonip.com.

A2 Radius Placement

- Use extra pedestals under small cut pieces for additional support.
- Adhere small pavers to top of pedestal with construction adhesive.
- Remove tabs as necessary for perimeter pedestals.
- Turn pedestals upside down or trim pedestal bases as necessary to fit around the perimeter.
- Decking pavers must not be spaced more than 3/16" (4.5 mm) from the perimeter containment.
- Adhere tabs into place with construction adhesive to maintain spacing between pavers when normal tab placement is not possible.



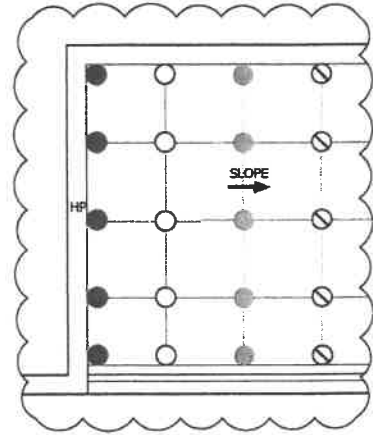
A3 Low Elevation Placement

For low cavity heights the following pedestals are available:

LOW HEIGHT PEDESTALS	
MODEL:	HEIGHT:
VT18 or VT316	● 1/8" (3.2 mm)
HD25-18 or HD25-316	○ 1/4" (6 mm)
HD50-18 or HD50-316	⊙ 1/2" (13 mm)
HD75-18 or HD75-316	⊗ 3/4" (19 mm)
LO-18 or LO-316	⊗ 1-1/4 to 2" (32 to 51 mm)

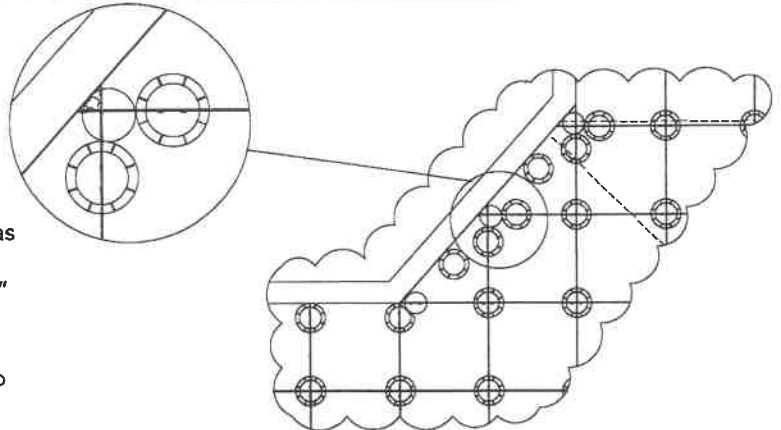
Shims can also be used to accommodate variations in height:

- 1/16" (1.5 mm) B11 Shim
- 1/8" (3.2 mm) PS1 Shim



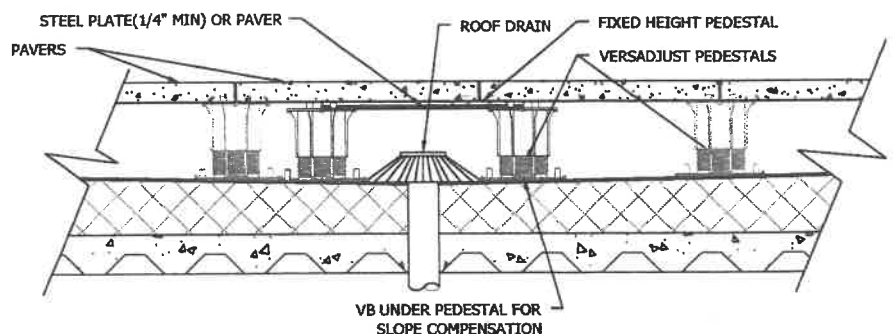
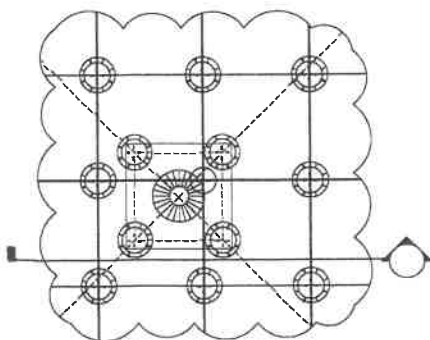
A4 Diagonal Placement

- Use extra pedestals under small cut pieces for additional support.
- Adhere small pavers to top of pedestal with construction adhesive.
- Remove tabs as necessary for perimeter pedestals.
- Turn pedestals upside down or trim pedestal bases as necessary to fit around the perimeter.
- Decking pavers must not be spaced more than 3/16" (4.5 mm) from the perimeter containment.
- Adhere tabs into place with construction adhesive to maintain spacing between pavers when normal tab placement is not possible.



A5 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.



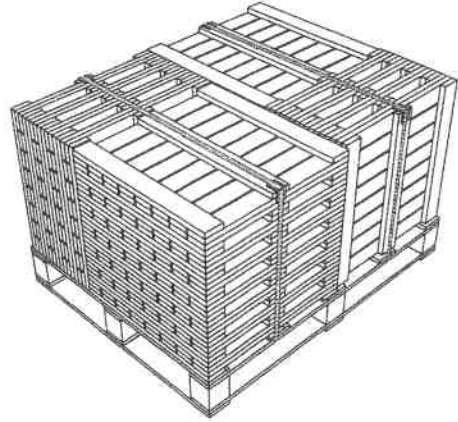
SECTION VIEW

General Safety Precautions

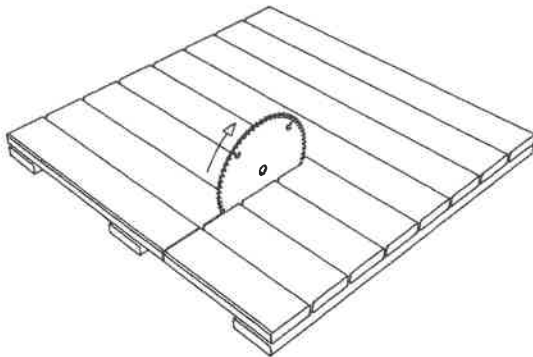
Bison recommends wearing puncture resistant safety gloves and safety glasses with side shields when handling, cutting, or sanding Bison Wood Tiles. Use a full-face shield outdoors or in a well-ventilated area for processes which may generate excessive dusts and splinters. Respirators must be worn if the ambient concentration of airborne contaminants exceeds Prescribed Exposure Limits (PEL). Dust masks may be worn to avoid the inhalation of nuisance hardwood dust, which according to the State of California, can lead to long-term health effects. Dust masks are not adequate protection in environments above the Occupational Safety & Health Administration's (OSHA) exposure limits. Refer to product SDS Section 8 for more information.

Storage

- Inspect all delivered materials to ensure they are undamaged and in good condition.
- Remove original shrink wrap and plastic packaging from Bison Wood Tiles.
- Store Bison Wood Tiles out of direct sunlight in a dry area and/or cover with a tarp until they are ready to be installed.
- Exposure to water while stored on pallets can result in watermarks which can be cleaned and will fade over time but are not covered under warranty.
- Bison Wood Tiles will adjust to the climate where they are installed and may already have, or develop, some slight cracking or checking.
- Limit exposure to metal (especially iron and iron-based products) as it can cause wood tile discoloration.



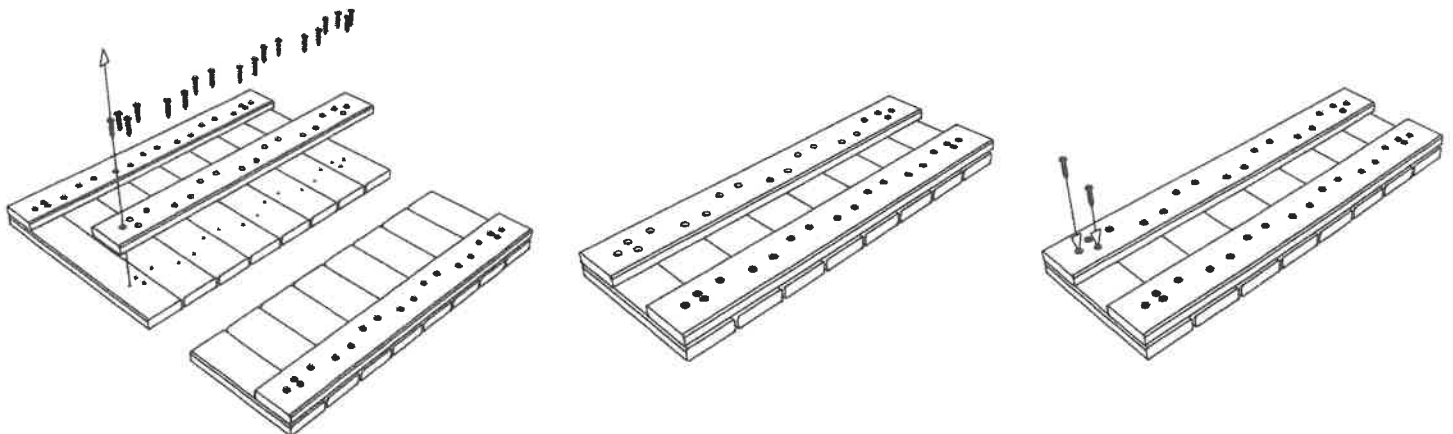
Cutting



Bison Wood Tiles have a very high density, and a slower feed rate is recommended when cutting; carbide saw blades are highly recommended. Remove any screws that fall in the path of the cut. To minimize checking or small cracks, the installer should consider sealing any cut ends with an appropriate glue or end sealer specifically designed for use on exterior wood such as PVA Wood Glue by Elmer's or Gorilla. Apply sealer with a foam brush to the cut ends only. CAUTION: Be very careful to not get any on the top surface of the wood, as a glossy discoloration will appear.














Reassembly

To reassemble Bison Wood Tiles after cutting, remove a bottom runner from the portion to be discarded, being careful to not strip the screw heads. Using the removed bottom runner to align the holes, pre-drill holes accordingly with a carbide drill bit on the portion to be installed. Exercise caution to not drill through the top surface. Bison recommends wrapping some tape around the bit as a depth gauge. Be sure to maintain a consistent spacing between the planks. After pre-drilling, screw the runner into place on the portion to be installed, re-using the screws whenever possible. Bison Wood Tiles use 1.20" (30 mm) long #11 stainless steel screws. Do not use iron based screws as they will cause discoloration as the wood weathers. Galvanized fasteners are also not recommended.

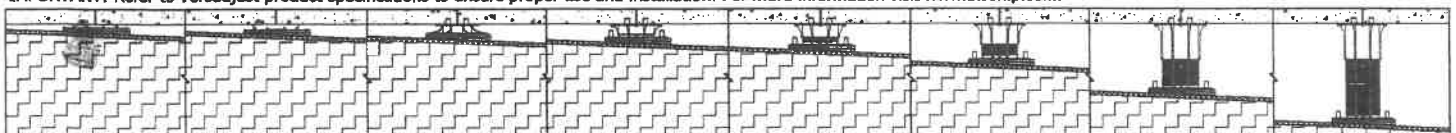


SPECIFICATIONS

- Supports 1250 lbs (567 kg) FoS:3 per pedestal
- Select 1/8 or 3/16 inch (3.2 or 4.5 mm) tab size for pedestals
- Integrated base levelers accommodate 0 to 1/2 inch per foot slope (0-4%)
- Adjustable system height range is 2 1/4 to 36 inches (57 to 914 mm)
- Bison Brace System required for 24 to 36 inches (610 to 914 mm)
- Accessories available for heights from 1/8 to 2 1/4 inches (3.2 to 57 mm)
- Pedestals made of high density copolymer polypropylene
- Contains 20% post-industrial recycled material

	Model No.	Description	Range	Notes
Pedestals	 V1-18 V1-316	Adjustable Pedestal	2-1/4" to 2-3/4" (57 to 70 mm)	--
	 V2-18 V2-316	Adjustable Pedestal	2-3/4" to 3-3/4" (70 to 95 mm)	--
	 V3-18 V3-316	Adjustable Pedestal	3-3/4" to 5-3/4" (95 to 146 mm)	--
	 V4-18 V4-316	Adjustable Pedestal	5-3/4" to 9" (146 to 229 mm)	--
	VC2	Quick Clip Coupler	Adds up to 4" (102 mm)	Insert VC2 into V4 base or another VC2 to reach up to 36" (914 mm)
Tabs	 VT18 VT316	Spacer Tab	--	Select 1/8" (3.2 mm) or 3/16" (4.5 mm) Tab Width
	 VT18 VT316	Ultra Low Height Pedestal	1/8" (3.2 mm)	--
	HD25-18 HD25-316 HD50-18 HD50-316 HD75-18 HD75-316	Fixed Height Stackable Pedestals	1/4" (6 mm) 1/2" (13 mm) 3/4" (19 mm)	Stack up to 4
	LO-18 LO-316	Low Height Adjustable Pedestal	1-1/4" to 2" (32 to 51 mm)	Supports 750 lbs (340 kg) FoS:3 per Pedestal
	B11	Flexible Shim	1/16" (1.5 mm)	--
	PS1	Rigid Shim	1/8" (3.2 mm)	--
Accessories	 LD4	Base Leveler	Adds 1/4" (6 mm)	Stack up to 4 total to base of Pedestals for 1/4" per foot (2%) slope compensation each
	 FS-1	Wood Tile Fastening Kit	Fastens Wood Tiles to Adjustable Pedestals with long screw, and HD50 or HD75 Fixed Height Pedestals with short screw	
	 FS-12 FS-12-WT	12" Fastening Spline 3/16" (4.5 mm) Tab	Fastens Wood Tiles or Paver Trays to Adjustable Pedestals with long screw, and HD50 or HD75 Fixed Height Pedestals with short screw	
	 JT	Joist Top Attachment	Adds 3/16" (4.5 mm)	Works with 2x and 4x lumber on Adjustable Pedestals
	 JS	Joist Saddle Attachment	Adds 1/2" (13 mm)	Works with 2 x and 4 x lumber alone or on any Bison Pedestal
	 FIB	Floating Insulation Base		12" x 12" x 11/16" (305 x 305 x 17 mm) For use over roofing systems with 20 to 40 psi insulation
 FFB	Floating Foundation Base		12" x 12" x 1/4" (305 x 305 x 6 mm) For use over soil	

IMPORTANT: Refer to Versadjust product specifications to ensure proper use and installation. For more information visit www.bisonip.com.



FIXED HEIGHT PEDESTALS		ADJUSTABLE PEDESTALS					
HD50 + 2 LD4 (1/2")	HD75 + 2 LD4 (3/4")	LO + 2 LD4 (1-1/4" to 2")	V1 (2-1/4" to 2-3/4")	V2 (2-3/4" to 3-3/4")	V3 (3-3/4" to 5-3/4")	V4 (5-3/4" to 9")	V4 + VC2 (9" to 13")



Bison Versadjust Pedestal Installation Guide

The Bison Versadjust (V-Series) Adjustable Pedestal line has a broad footprint that provides stability, is impervious to freeze thaw cycles, and offers a range of heights suited to a wide variety of applications. Precise spacer tabs allow for deck drainage and uniform paver spacing, while the screw-to-adjust height settings assure a perfectly level deck. The Bison Versadjust Pedestal series reaches heights from 2-1/4" to 36" (57 to 914 mm), has a weight bearing capacity of 1250 lbs (FoS:3), and contains built-in slope compensation for 0" to 1/2" per foot slope (0 to 4%).

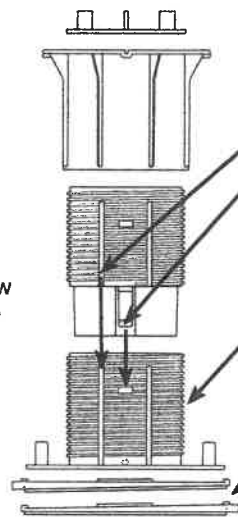
Accessories are available to compensate for additional slope (up to 1" per foot or 8%) and accommodate low height applications from 1/8" to 2-1/4" (3.2 to 57 mm). Quick Clip Couplers increase the speed and efficiency of installing pedestals at heights over 9" (229 mm). Use Versadjust Pedestals with the Bison Brace System for excess height installations from 24" to 36" (610 to 914 mm) or for installations requiring additional stability. Proudly manufactured in the U.S.A.

VT Spacer Tab

(Specify tab width when ordering)
 VT316 - 3/16" (4.5 mm) standard
 VT18 - 1/8" (3.2 mm) optional
 Place spacer tab on top of pedestal.
 To remove tabs, strike spacer tabs with hammer on edge.

V-Series Top

Comes screwed into V-Series Base. Unscrew top until thread engagement indicators are felt and heard. **DO NOT** extend beyond this point except to add a VC2 Quick Clip Coupler to a V4 Pedestal.



VC2 Quick Clip Coupler (Works with Model V4 only)

To Assemble:
 Align lines on coupler and base.
 Align tab with quick clip slot.
 Slide together until tab locks into place.
To Separate:
 Hook VC2 Quick Clip Coupler Release Tool into slots on the side of the pedestal base or coupler, detach tool, and pull apart.

V-Series Base

Comes screwed into V-Series Top. Unscrew top until thread engagement indicators are felt and heard. **DO NOT** extend beyond indicators except to add an VC2 Quick Clip Coupler to a V4 Pedestal.

VB Base Leveler

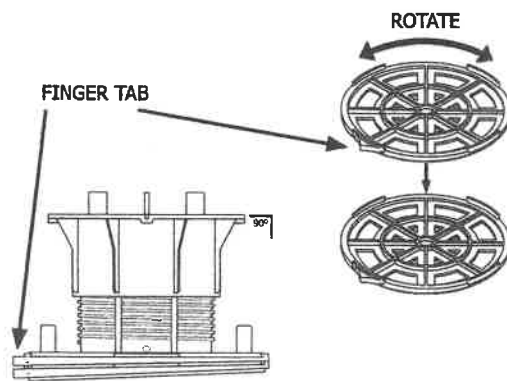
Built-in base leveler provides 0" to 1/2" per foot slope compensation (0 to 4%).

Built-In Slope Compensation

Each V-Series Pedestal comes with a VB Base Leveler that compensates for up to 1/2" per foot slope (4%).

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

To Create a Flat Base:
 Position finger tabs opposite one another.

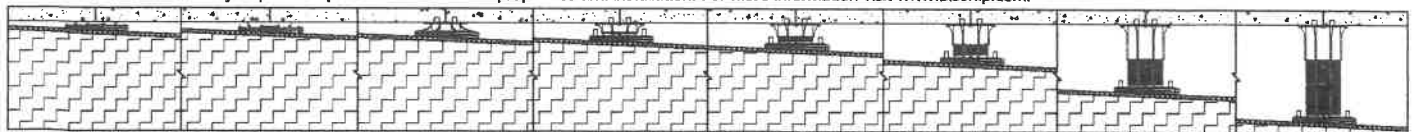


To remove VB Base Leveler, slide pedestal base out of VB Base Leveler.

For additional slope compensation, a maximum of 2 additional LD4 Base Levelers can be used with the V-Series Pedestals adding an additional 1/2" per foot slope (4%) for a total of 1 inch per foot slope (8%). Each LD4 adds 1/4" (6 mm) to the overall height of the pedestal.

AS SHOWN: 2x LD4s COMPENSATING FOR 1/2" PER FOOT SLOPE (4%)

IMPORTANT: Refer to Versadjust product specifications to ensure proper use and installation. For more information visit www.bisonip.com.



FIXED HEIGHT PEDESTALS

HD50 + 2 LD4 (1/2")
 HD75 + 2 LD4 (3/4")

ADJUSTABLE PEDESTALS

LO + 2 LD4 (1-1/4" to 2")
 V1 (2-1/4" to 2-3/4")
 V2 (2-3/4" to 3-3/4")
 V3 (3-3/4" to 5-3/4")
 V4 (5-3/4" to 9")
 V4 + VC2 (9" to 13")

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