

# HydraPressed Slabs Installation Guide



*Where function and style meet*



**ABBOTSFORD**  
CONCRETE PRODUCTS

# HydraPressed Slab Roof Installation using pedestals with various waterproofing systems



HydraPressed Paving Slabs are used for pedestrian traffic or in areas where light maintenance vehicles (ie. golf carts) operate. HydraPressed Paving Slabs are installed on sand, mortar, or pedestal systems, for patios, plaza decks, roof tops, or any other type of pedestrian walking surface.

## Overview

HydraPressed  
Paving Slabs

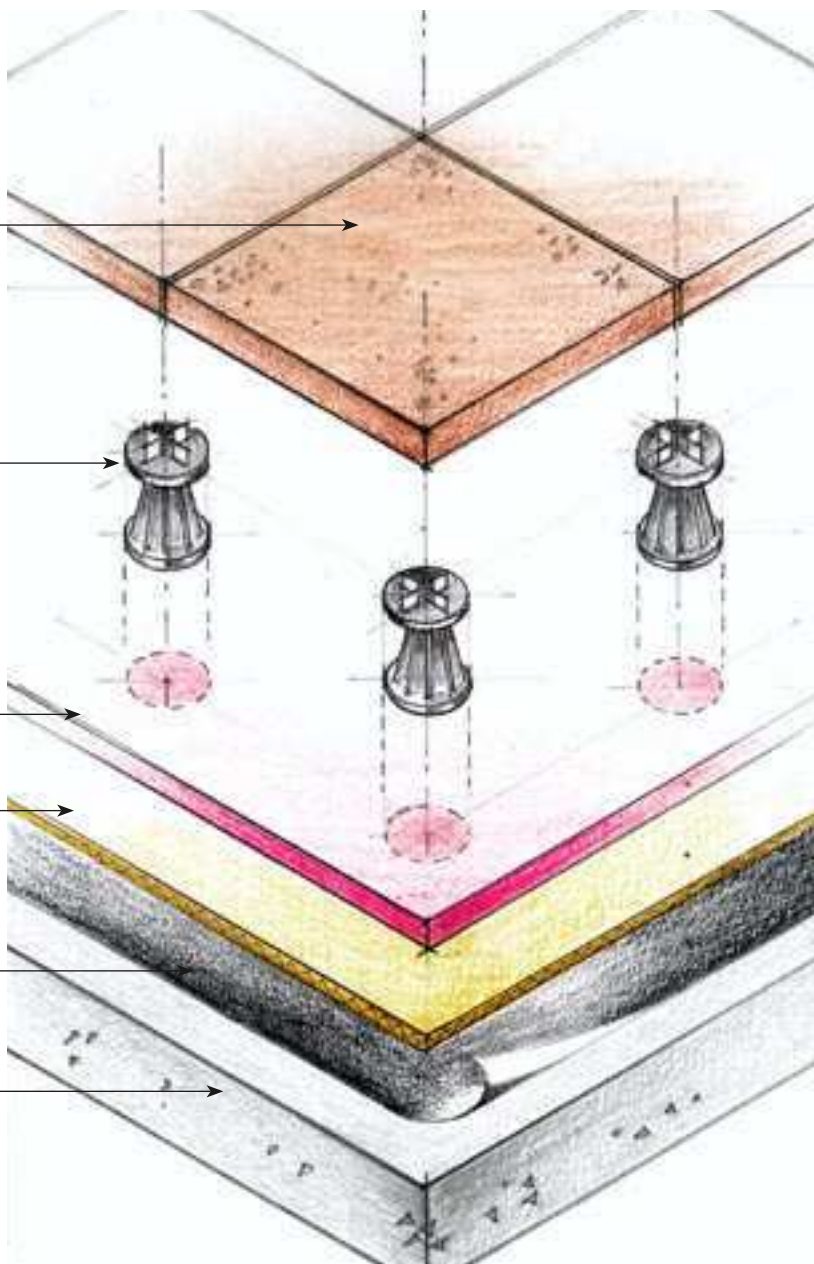
Pedestals

Extruded  
Polystyrene  
Insulation

Protection Board  
and/or Drain Mat

Waterproofing Membrane

Structural Concrete



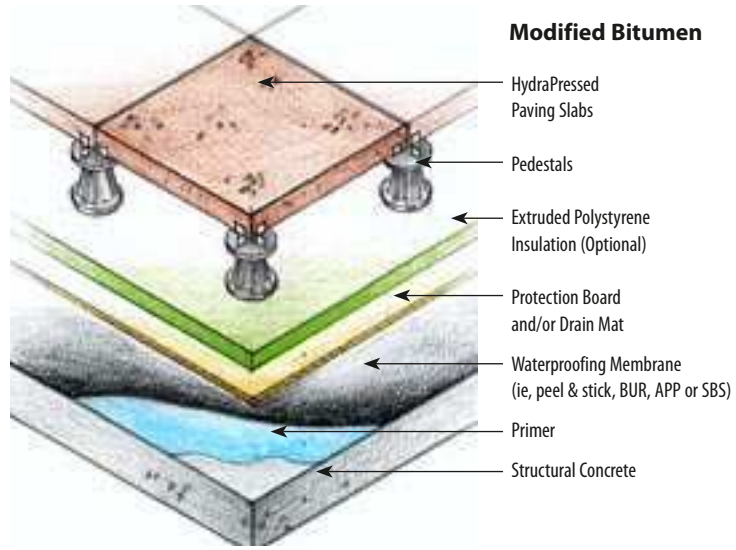
Pedestal systems are designed for use over pitched surfaces. These systems ensure precise HydraPressed Slab alignment and even spacing to allow for drainage and air circulation which are critical to the health of any deck installed over a waterproof membrane. This type of segmental system allows for ease of access for repairs or annual maintenance to the subsurface without damage to the HydraPressed Slabs.

*For plaza or roof top installations, caution should be exercised with respect to the weight of the product as well as the wind velocities in the areas of use.*

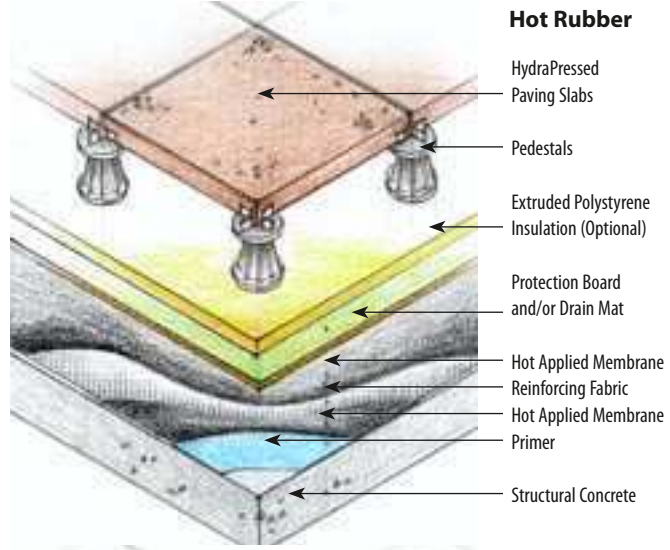




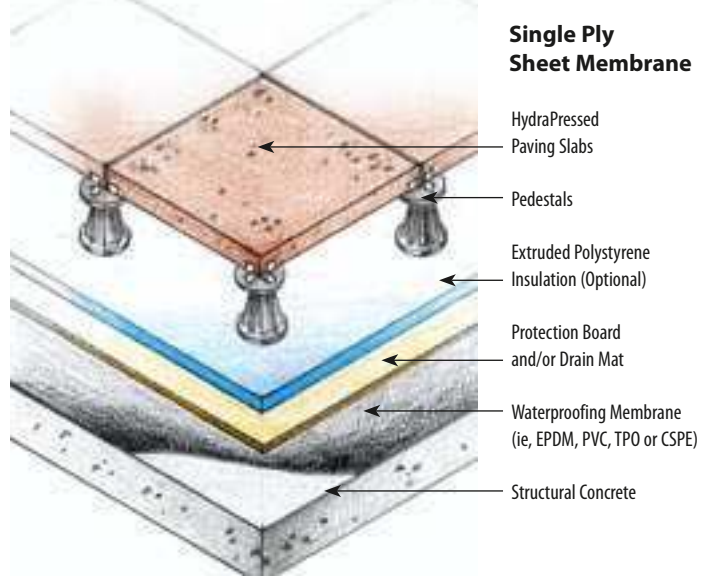
**Modified Bitumen**



**Hot Rubber**



**Single Ply Sheet Membrane**



# Bison ScrewJack® Pedestals

Bison ScrewJacks® unique screw-adjustment feature, provides important advantages directly related to:

- labor expenditure
- long term performance
- stability of pedestrian support

Unlike stackable pedestals of concrete filled forms, pavers can be installed up to four times faster with Bison. In fact, the number of fully installed pavers on a given day is limited only by crew size. On a row by row basis, Bison ScrewJacks® are preset at the approximate desired location, pavers placed on them, and final vertical adjustment made with simple rotation of the ScrewJack base. In contrast, all other paver support systems' adjustments, can only be accomplished by using shims.

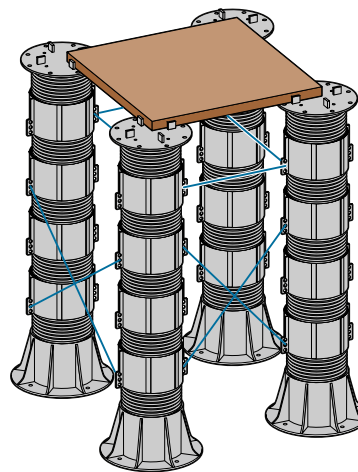
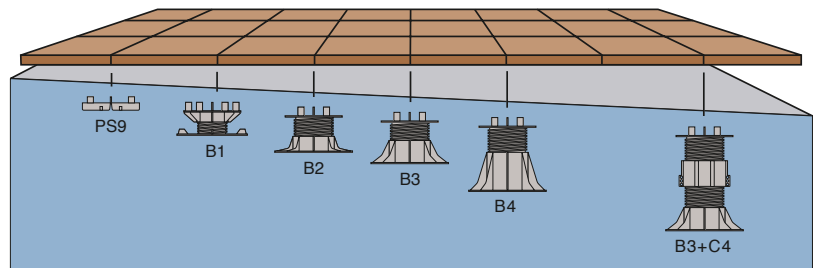
Long term use of any plaza deck requires the eventual removal of some or all pavers for maintenance or repair of the substrate, drains, etc. As well, pavers under load will settle or "creep", creating dangerous offsets of the pavers underfoot. Bisons are the only pedestal system which can correct the problem with absolute precise vertical adjustment without shims. In fact, an entire field of HydraPressed Slab pavers and Bison pedestals can be removed and reinstalled using the original components.

On exceptionally tall applications, no other paver support system has Bison ScrewJacks® stability. Spacer tabs, which are integral to the entire pedestal system, "lock in" the HydraPressed Slabs, preventing any lateral forces from displacing them from the top. Spacers on other pedestal systems are either simply inserted between pavers, or stacked on top of squares or cylinders. With the collapse of even one paver in these systems, a domino effect is possible with the adjacent pavers supports.

Bisons' integral spacer tabs combined with an eight inch diameter, fifty square inch base-bearing surface, ensures "superior stability" in a pedestal system.



Model #	Vertical Range
PS9	3/4" (Fixed)
B1	1-1/4" - 2"
B2	2" - 3"
B3	3" - 4-3/4"
B4	4-3/4" - 7-3/4"
C4	adds 2-1/2" - 4-1/4"
B3 + C4	7-3/4" - 9"
B4 + C4	9" - 12"
B4 + C4s	12' - 24"

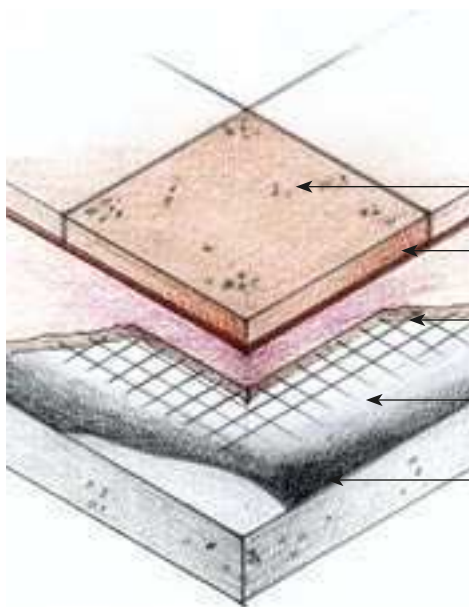


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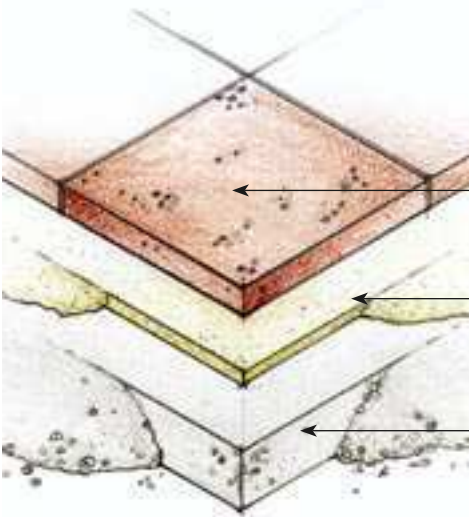


# Mortar Set & Sand Set Installation



## Mortar Set

- HydraPressed Paving Slabs
- Thinset
- Zero Slump Mortar Bed w/Reinforcing Mesh
- Waterproofing System (by others)
- Structural Concrete



## Sand Set

- HydraPressed Paving Slabs
- 3/4"-1" Sand Setting Bed (Washed Concrete Sand)
- 6"-8" Compacted Aggregate Base (3/4" Minus Roadbase Material)



# HydraPressed Paving Slabs Specifications

## 1.0 Qualifications:

The manufacturer is to be prequalified by the specifier, with the manufacturer having a minimum of 5 years experience in precast concrete pavers, and specialty products.

## 2.0 References:

Materials must conform to the following ASTM and CSA Standards:

A)	ASTM 150, CSA A5	:	Specification for Portland Cement
B)	ASTM C33, CSA A23.1	:	Specification for Normal Weight Aggregates
C)	ASTM C979	:	Specification for Pigments
D)	ASTM C140, CSA A231.1-99	:	Specification for Compressive Strength
E)	CSA A231.1-99	:	Specification for Flexural Strength
F)	ASTM C140, CSA A231.1-99	:	Specification for Water Absorption
G)	CSA A231.1-99	:	Specification Freeze/Thaw

## 3.0 Technical Specifications:

**Compressive Strength:** Average compressive strength shall not be less than 8000 PSI (55 MPA) with no individual unit less than 7300 PSI (50 MPA) when tested not less than 28 days from the date of production in accordance with ASTM C140, or CSA A231.1 – 99.

**Flexural Strength:** Average flexural (transverse) strength of the concrete paving slabs shall be at least 655 PSI (4.5 MPA) with no individual unit below 582 PSI (4.0 MPA) when tested in accordance with CSA A231.1 – 99.

**Water Absorption:** Average water absorption shall not be greater than five percent (5%) with no individual unit greater than seven percent (7%), when tested in accordance with ASTM C140. CSA A231.1 – 99.

**Scaling Resistance:** Specimens shall not have an average loss of mass greater than 300 g/m<sup>2</sup> of the total inundated surface area of the individual paving slab after 28 cycles of freezing and thawing, 800 g/m<sup>2</sup> after 49 cycles. Specimens with an architectural finish shall not have an average loss of mass greater than 500 g/m<sup>2</sup> of the total inundated surface area of the individual paving slab after 28 cycles of freezing and thawing, or 1200 g/m<sup>2</sup> after 49 cycles. When tested in accordance with CSA A231.1 – 99.

**Dimensions:** Dimensions of paving slabs and concave or convex warpage shall not differ from those agreed upon by the manufacturer by more than the following amounts:

- a) Length and width: -1.0 mm to + 2.0 mm
- b) Height  $\pm$  3.0 mm
- c) Concave or convex warpage in one dimension by the following amounts:
  - i) up to 450 mm, 2.0 mm; or
  - ii) over 450 mm, 3.0 mm.

Dimensions are based on manufacturer's standard drawings for the particular shape identified.

Center Point Load Test of Pedestal-supported Slabs: 1,800 lbs.

## 3.1 Test Results:

Documentation for the test results is on file and available upon request.

## 3.2 Technical Services:

Technical service representatives are available to assist with project design, paver selection, installation recommendations, or any other technical concerns you may have. Contact: ABBOTSFORD CONCRETE PRODUCTS LTD. Toll free at 1-800-663-4091.

## 4.0 Submittals:

Two matched samples shall be used to determine the color and texture, one to be retained by the specifier, and the other by the manufacturer, to ensure the correct paver is provided to the project.

## 5.0 Installation:

Qualified installers must show successful completion of three (3) similar sized project applications within the last three (3) years. The installer shall assign mechanics from these earlier applications, one of whom shall serve as lead mechanic. Installers not meeting this criteria shall require approval from the specifier or manufacturer prior to installation.

## 6.0 Maintenance:

This product requires low maintenance. As the product is removable, it allows for easy maintenance to substrate as well as easy replacement of damaged pavers. A high-pressure wash is recommended from time to time, with drains being cleaned regularly.

## 7.0 Warranty:

Abbotsford Concrete Products Ltd. provides a manufacturer's warranty ensuring material specification compliance.



Toll Free: 1-800-663-4091  
Visit our website at  
[www.pavingstones.com](http://www.pavingstones.com)  
for complete design details and photo gallery