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DIVISION: 05 00 00 – Metal Fabrications
Section: 05 52 00 – Metal Railings

REPORT HOLDER:
Vinylast, Inc.
1830 Swarthmore Avenue
Lakewood, NJ 08701
732-367-7200
www.vinylast.com

REPORT SUBJECT:
Atlas-Pro Quik-Mount Post Mount System
LK Post Mount System

ADDITIONAL LISTEE:
UFP Ventures II, Inc
1801 Lessard Street
Prairie du Chien, WI 53821

ADDITIONAL LISTEE SUBJECT:
Deckorators Deck Post Mount

1.0 SCOPE OF EVALUATION

1.1 This research report addresses compliance with the following Codes:

- 2018 and 2015 *International Building Code*® (IBC)
- 2018 and 2015 *International Residential Code*® (IRC)

NOTE: This report references 2018 Code sections with [2015] Code sections shown in brackets.

1.2 The Post Mount Systems have been evaluated for the following properties (See Table 1):

- Structural Performance

1.3 The Post Mount Systems support guards or guardrails under the definitions of the referenced codes. It is intended for use at or near the open sides of elevated walking areas of buildings and walkways as required by the codes.

2.0 STATEMENT OF COMPLIANCE

The Post Mount Systems comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

3.0 DESCRIPTION

3.1 The Post Mount Systems are designed for surface installation in concrete, steel and wood supporting structures. The Vinylast Post Mount Systems are also labeled for UFP Ventures II, Inc as the *Deckorators Deck Post Mount*.

3.2 Components include a post welded to a base plate, top and bottom reinforcement plates (*wood installation only*), post stabilizers, post sleeve and various fasteners.

3.3 Post – 1.575-inch-square x 0.137-inch-thick hollow steel tube (See Figure 1).

3.4 Base Plate – 3.5-inch-square x 0.43-inch-thick steel plate with (4) 0.54-inch-diameter holes at each corner (See Figure 2).

3.5 Reinforcement Plates – 5 inch-square x 0.135-inch-thick steel plate with (4) and (8) 0.44-inch-diameter holes for the top and bottom plates, respectively (*wood installation only*) (See Figure 3).

3.6 Post Stabilizers – 3-¹¹/₁₆-inch-square x 6-³/₄-inch-high x 0.24-inch-thick ribbed PVC and anchorage (See Figure 4).

3.7 Fasteners – See Table 3.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The Post Mount Systems described in this report have demonstrated adequacy per the performance requirements of ASTM D7032-14 in accordance with the performance requirements of IBC §1607.8.1 and IRC §301.5.

4.2 See Table 2 for allowable guardrail spans.



5.0 INSTALLATION

5.1 General: The Post Mount Systems must be installed in accordance with the manufacturer's published installation instructions, applicable Codes and this Report. A copy of the instructions must be available on-site during installation.

5.2 Application:

5.2.1 Installation shall be in accordance Figure 5 (wood framing) and Figure 6 (concrete or steel structure).

5.2.2 For installations limited to the IRC, posts may be installed on wood decks in accordance with Figure 7 and the following conditions:

5.2.2.1 Posts shall be anchored to reinforced wood deck framing with four 3/8-inch by 6-inch-long Grade 5 anchor bolts located in the pre-drilled holes in the structural post base plate.

5.2.2.2 The deck is constructed with two mounting blocks of nominal 2x8 pressure-treated Southern Yellow Pine installed between 16-inch spaced deck framing beneath the post location. Each 2x8 block is attached to the deck framing with four #10 x 3-inch deck screws per side. See Figure 7.

5.2.3 Post installation on concrete or other rigid supports (such as structural steel), the installation uses four 3/8-inch diameter Grade 8 anchor bolts located in the pre-drilled holes in the structural post base plate. The type and length of the anchor bolts is dependent upon the material and condition of the supporting structure and is not within the scope of this report. See Section 6 for Conditions of Use for additional requirements.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.

6.2 Compatibility of fasteners and other metallic components with the supporting structure (including chemically treated wood) is outside the scope of this report.

6.3 Concrete anchors and anchoring systems for use with the structural posts are not within the scope of this report and are subject to evaluation and approval by the building official. Anchors must satisfy the design load requirements specified in Chapter 16 of the building code. Where required by the building official, engineering calculations and details shall be provided. The calculations shall verify that the anchorage and supporting structure complies with the building code for the type and condition of the supporting construction.

6.4 The Post Mount Systems are qualified for use with guardrail systems that comply with ICC-ES Acceptance Criteria AC174 – *Acceptance Criteria for Deck Board Span Ratings*. The guardrail assembly, including post sleeves and attachment to the Post Mount Systems, must be tested and evaluated separately.

6.5 The Post Mount Systems are manufactured in accordance with an approved quality control system that includes independent, third-party inspections by Intertek.

7.0 SUPPORTING EVIDENCE

7.1 Drawings and installation instructions submitted by Vinylast, Inc.

7.2 Reports of testing demonstrating compliance with the performance requirements of Sections 6.2.3 and 6.2.4 of ASTM D7032-14 in accordance with the performance requirements of IBC Section 1607.8.1 and IRC Section 301.5.

7.3 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.





8.0 IDENTIFICATION

The Post Mount Systems described in this Research Report are identified by a marking bearing the report holders’ name (Vinylast, Inc. or UFP Ventures II, Inc) the Intertek Mark, the Code Compliance Research Report number (CCRR-0257) and the following statement: “See CCRR-0257 at bpdirectory.intertek.com for uses and performance levels.” “



9.0 OTHER CODES

This section is not applicable.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

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TABLE 1 – PROPERTIES EVALUATED

Property	IBC Section	IRC Section
Structural Performance	1607.8.1 ^[1]	R301.5 ^[2]

[1] As supported by testing to ultimate concentrated load and applying specified safety factor of 2.5.

[2] As supported by testing to ultimate concentrated load greater than 500 lbs (consistent with the loading prescribed in Section R301.5 of the IRC multiplied by a safety factor of 2.5).

TABLE 2 – APPLICABLE SPAN AND USES

Post Mount	Attachment	Max Allowable Span (in) ^[1]	Occupancy Classification
<i>Atlas-Pro 42 inch Post Mount</i>	Wood	n/a ^[2]	IRC (One- and Two-Family Dwellings)
<i>LK Post Mount System</i>	Concrete or Steel	90	IBC (All Use Groups) -and-
<i>Deckorators Deck Post Mount</i>	Concrete or Steel (bolted-thru bottom stabilizer)	130	IRC (One- and Two-Family Dwellings)

[1] Span is measured from center of post to center of post.

[2] Max allowable span for the Post Mount System is governed by the max allowable span of the overall assembly the Post Mount System is utilized to support.

TABLE 3 – FASTENING SCHEDULE

Connection	Supporting Structure	Fastener
Post Mount to Supporting Structure	Wood	Four 3/8-16 by 6-inch-long Grade 5 hex-head bolts with two nuts and four washers
	Concrete or Steel	Four 3/8-inch Grade 8 hex-head bolts with washers and two nuts
	Concrete or Steel (bolted-thru bottom stabilizer)	Four 1/2-13 by 12-inch-long zinc plated threaded rod with one nut and one washer at the top of the bottom PVC spacer, one nut at the top of the post mount base plate, and two nuts and one washer on the bottom
Top PVC Spacer to Post	N/A	#10-32 x 1-inch hex-washer head / Phillips drive zinc plated machine screw

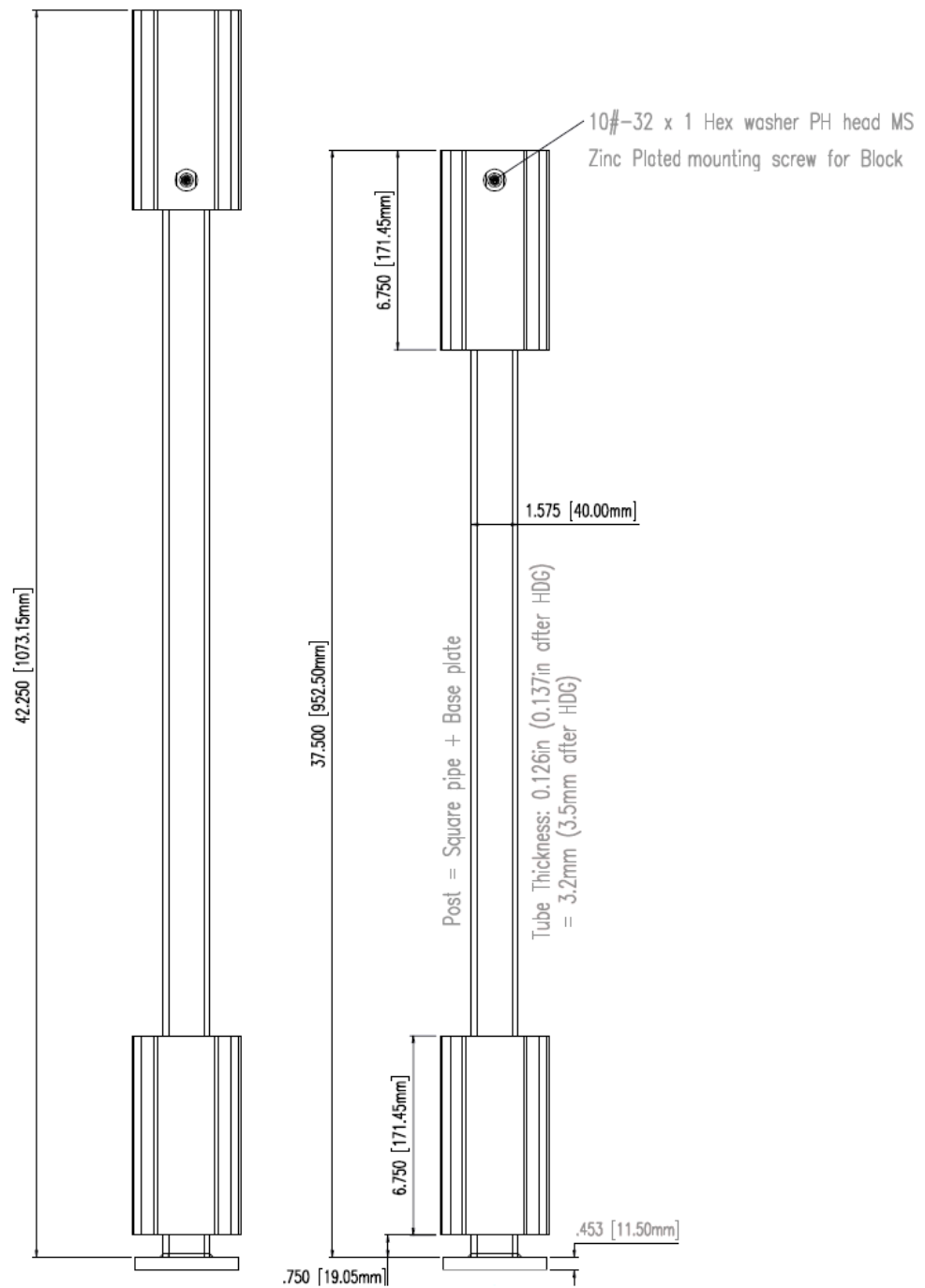


Figure 1 – Posts



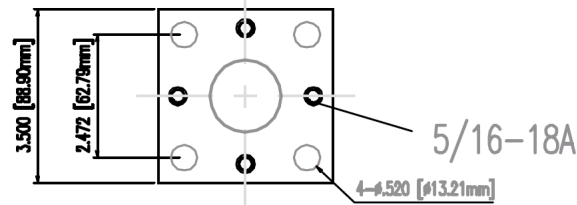


Figure 2 – Base Plate

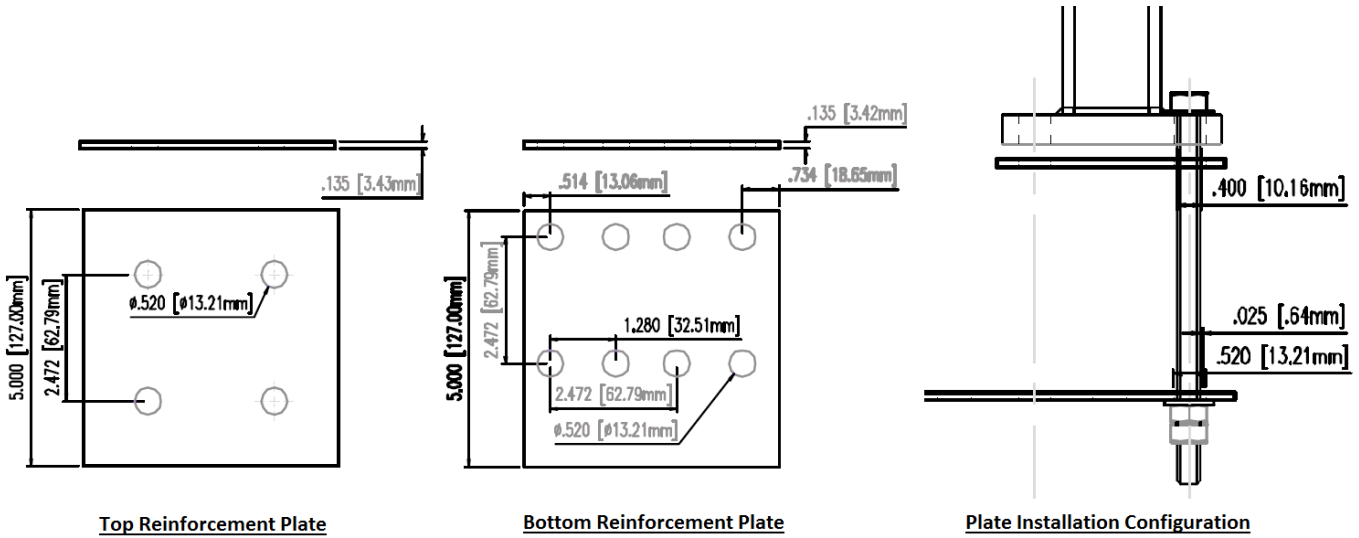


Figure 3 – Reinforcement Plates (Wood Installation)

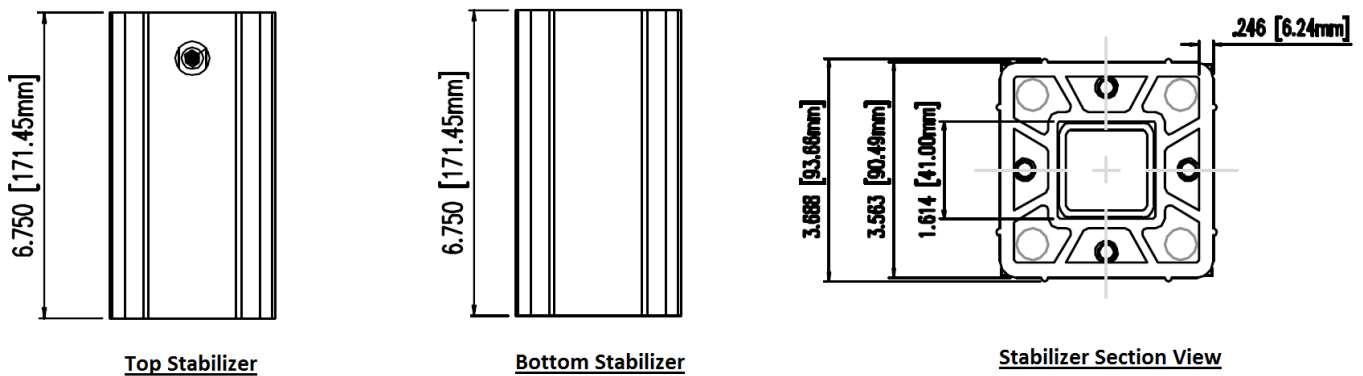


Figure 4 – Post Stabilizers



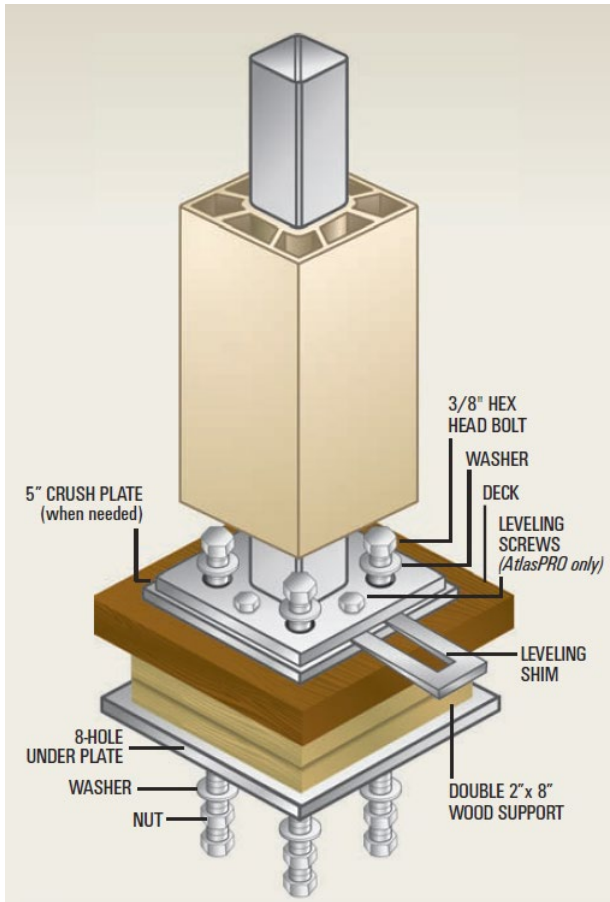


Figure 5 – Wood Installation

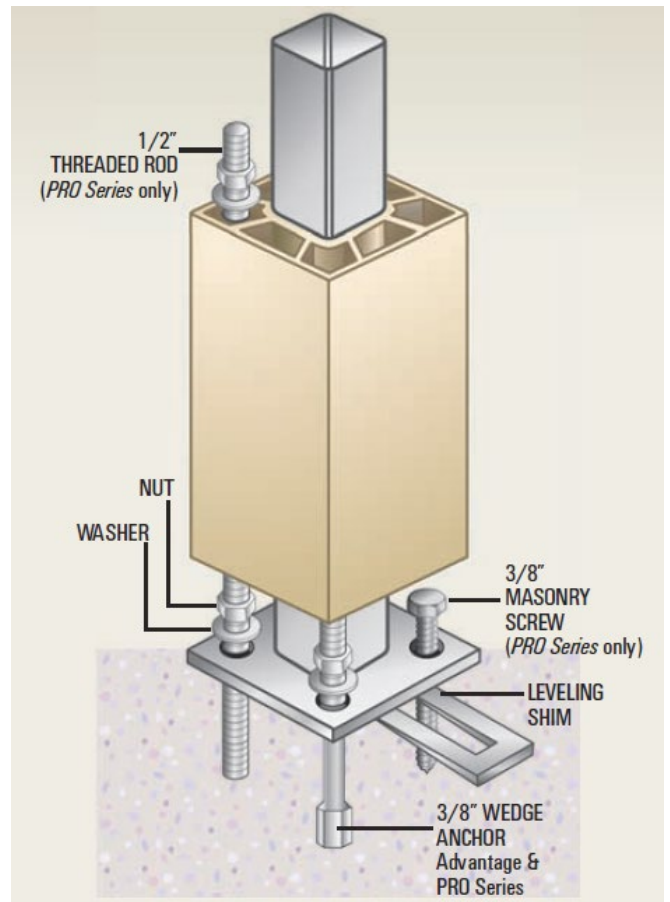


Figure 6 – Concrete Installation

Note: Concrete anchors are not within the scope of this report and are shown for illustrative purpose only. See Section 5.1.3 and 6.3.

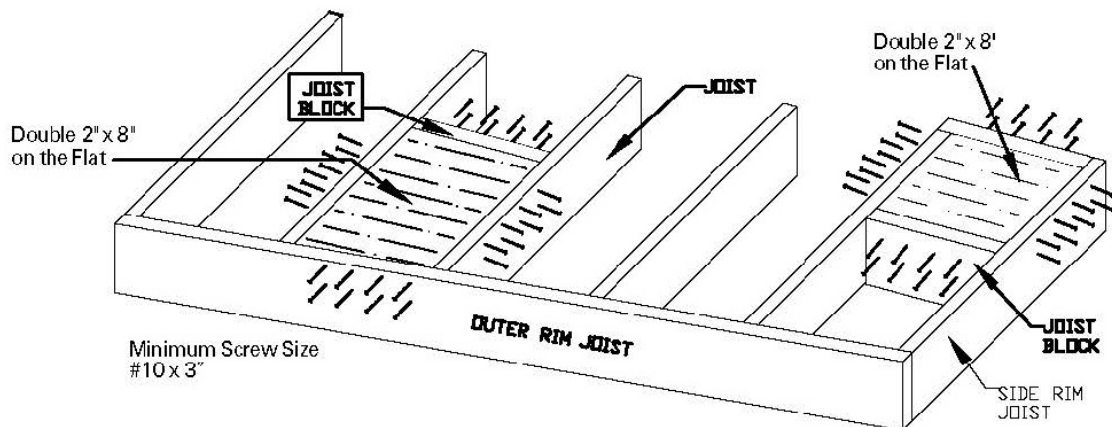


Figure 7 – Blocking Diagram