



Standard Specification for Pole Vault Landing Systems¹

This standard is issued under the fixed designation F1162/F1162M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers minimum requirements of size, physical characteristics of materials, standard testing procedures, labeling and identification of pole vault landing systems.

1.2 *Units*—The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F1292 Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment

3. Terminology

3.1 *Definitions:*

3.1.1 *base unit sections, n*—those components of a pole vault landing system where the pole vaulter intends to land.

3.1.1.1 *Discussion*—

The base unit sections provide the majority of the padding behind the planting box. In most pole vault landing systems, they are several large rectangular sections that compose the majority of this portion of the landing system. (See Fig. 1.)

3.1.2 *common top cover, n*—the continuous covering over the top surfaces of all parts of the primary landing system.

3.1.2.1 *Discussion*—

It may function both as padding and as a binder to help hold the base units and front bun sections in place during use. (See Fig. 1.)

3.1.3 *front bun sections, n*—those components of the primary landing system that pad the areas between the standard bases and around the pole vault box. (See Fig. 1.)

3.1.4 *pole vault box, n*—a trough at the end of the pole vault runway. A vaulter slides the end of the pole into the pole vault box.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

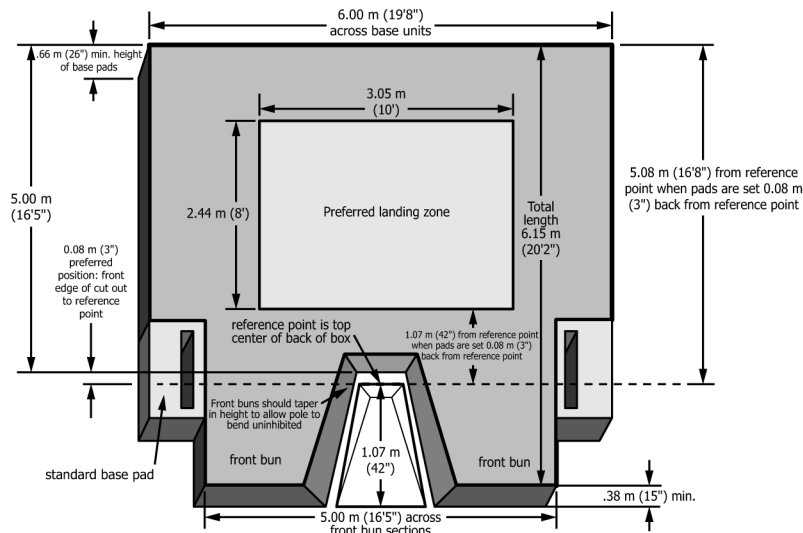


FIG. 1 Pole Vault Landing System Minimum Dimensions and Preferred Landing Zone

3.1.4.1 Discussion—

The pole vault box stops the forward motion of the end of the pole while allowing the pole to rotate about its end as the vaulter leaves the ground and completes a vault.

3.1.5 pole vault landing system, *n*—a device used to decelerate a free-falling pole vaulter.

3.1.6 preferred landing zone, *n*—a painted or sewn contrasting rectangle on the common top pad, 2.44 m [8 ft] deep and 3.05 m [10 ft] wide, beginning 1.07 m [42 in.] behind the reference point. (See Fig. 1.)

3.1.7 primary landing system, *n*—that portion of a pole vault landing system that consists of several components held together to form a continuous landing surface.

3.1.7.1 Discussion—

The base unit sections, front bun sections, and common top cover are all components of the primary landing system.

3.1.8 reference point, *n*—the point defined by the intersections of the horizontal plane at the level of the runway, the vertical plane passing through the top edge of the back of the pole vault box, and the vertical plane passing through the centerline of the runway.

3.1.9 standard base pads, *n*—the pads covering the bases of the pole vault standards and the surfaces between the bases of the pole vault standards and primary landing system.

4. Minimum Overall Dimensions of Pole Vault Landing Systems

4.1 The minimum pole vault landing system dimensions stated within this document are based upon the investigation of catastrophic pole vaulting accidents.

4.2 The minimum overall dimensions for the primary landing system are 6.00 m [19 ft, 8 in.] wide by 6.15 m [20 ft, 2 in.] long from the front edge of the front buns to the rear-most edge of the landing system by 0.66 m [26 in.] high. (See Fig. 1.) If the front edge of the pole vault box cutout of the primary landing system is set 0.08 m [3 in.] behind the reference point, the minimum length of the landing system is 5.00 m [16 ft, 5 in.] from the front edge of the cutout of the landing system.

4.3 The minimum width across all the base unit sections is 6.00 m [19 ft, 8 in.]. This minimum width extends from the rearmost edge of the landing system to a maximum of 1.73 m [5 ft, 8 in.] behind the reference point.

4.4 The minimum width across all of the front bun sections is 5.00 m [16 ft, 5 in.]. The front edge of the front bun sections is at least 1.07 m [42 in.] in front of the reference point. The minimum total length of the pole vault box cutout is thus 1.14 m [45 in.]. The maximum width of the pole vault box cutout (the maximum distance between the bases of the front buns bordering either side of the pole vault box) measured at the base of the front buns shall be 0.91 m [36 in.].

4.5 The height of the front buns should taper downward towards the pole vault box so that the vaulting pole is allowed to bend and rotate undisturbed by contact with the front buns. Excluding this tapered portion of the front buns adjacent to the pole vault box cutout, the height of the front buns may taper from 0.66 m [26 in.] at the rear to a minimum height of 0.38 m [15 in.]. (See Fig. 1.)