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StandardSpecification for Pole Vault Box Collars[1]

This standard is issued under the fixed designation F2949; 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 box collars.

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 and health practices and determine the applicability of regulatory limitations prior to use.*

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 *box collar arms, n*—the two parts of the pole vault box collar to the left and right of the pole vault box. If the box collar has box collar wings, the wings are part of the box collar arms.

3.1.2 *box collar body, n*—the part of the pole vault box collar that pads the horizontal surfaces around the rim of the pole vault box and under the front buns.

3.1.3 *box collar cutout, n*—the opening in the pole vault box collar above the pole vault box.

3.1.4 *box collar wing, n*—the part of the box collar arm that extends down the inner sidewall of the pole vault box. The box collar wings provide protection and help to hold the box collar in place.

3.1.5 *front buns, n*—the parts of the pole vault landing system that pad the areas between the standard bases and around the pole vault box.

3.1.6 *front opening, n*—the opening at the front of the pole vault box nearest the approach runway.

3.1.7 *pole bend cavity, n*—the rearmost portion of the pole vault box and box collar cutout in front of the strike plate where the pole bends and rotates. The cavity is formed by the sidewalls and strike plate of the pole vault box, the rearmost part of the pole slide, and inside edges of the box collar cutout over the deepest part of the box where the pole slide meets the strike plate.

3.1.8 *pole slide, n*—the floor of the pole vault box that slants downward from its front boundary with the runway to its rear boundary with the back of the box. The tip of the vaulting pole slides on the pole slide to the strike plate.

3.1.9 *pole slide opening, n*—the space between the ends of the box collar arms at the front of the pole vault box collar and above the intersection of the runway with the pole slide.

3.1.10 *pole vault box, n*—the trough at the end of the pole vault runway. It has four sides: a downward sloping floor or pole slide, two sidewalls, and a strike plate. A vaulter directs the lower end of the vaulting pole into the pole vault box. The back wall of 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.

3.1.11 *pole vault box collar, n*—a device used to offer impact protection to pole vaulters in and around a pole vault box.

3.1.12 *sidewalls, n*—the left and right walls of the pole vault box.

3.1.13 *strike plate, n*—the back wall of the pole vault box; the stopboard.

4. Performance Requirements

4.1 The average peak acceleration calculated from the last two of a series of three impact tests for each impact test

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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.

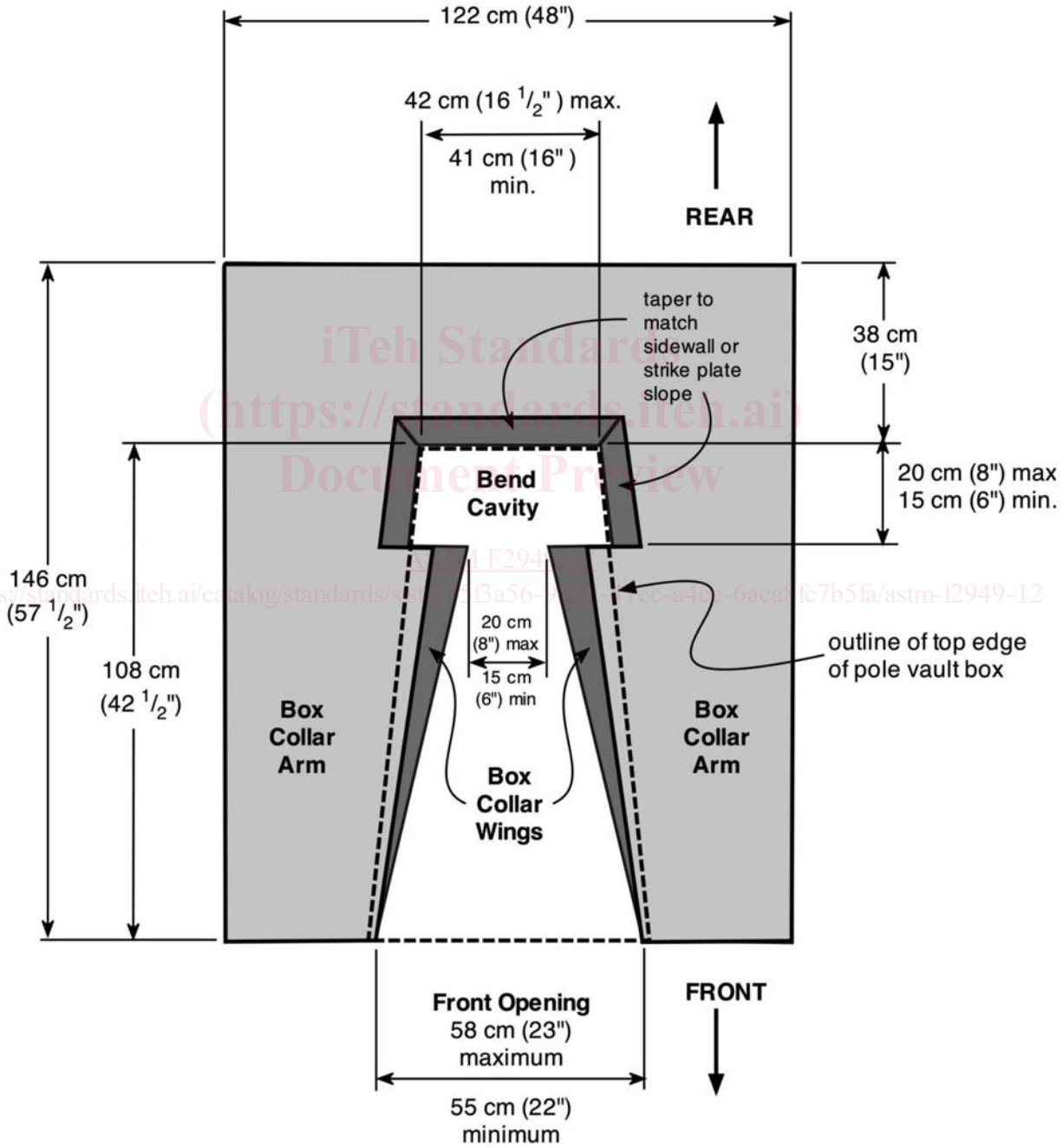
location on the pole vault box collar shall not exceed 200 g when impact tested in accordance with Section 9.

4.2 The average HIC score calculated from the last two of a series of three impact tests for each impact test location on the pole vault box collar shall not exceed 1150 when impact tested in accordance with Section 9.

5. Dimensions

5.1 *Minimum Dimensions*—A pole vault box collar shall be at least 122 cm (48 in.) wide and 146 cm (57½ in.) long. The distance from the rear edge of the box collar at its base to the rear edge of the box collar cutout shall be at least 38 cm (15 in.). At its uppermost surface, the box collar shall cover the upper edges of each sidewall of the box from the front of the box where the pole slide meets the runway to a point on the top edge of the sidewall no less than 20 cm (8 in.) forward of the top of the strike plate. The box collar arms shall extend forward at least 108 cm (42½ in.) from the base of the rear edge of the box collar cutout. (See Figs. 1 and 2.)

5.2 *Maximum Thickness*—A pole vault box collar shall be no more than 10 cm (4 in.) thick.



NOTE 1—Minimum dimensions shown unless otherwise noted.

FIG. 1 Plan View of Pole Vault Box Collar