

# ASSE Tech Brief



February 2015

## ANSI/ASSE Z359.11-2014 – BACKGROUND MATERIALS

### Safety Requirements for Full Body Harness

Name: ANSI/ASSE Z359.11-2014

Past Versions of the Standard: (N/A New Standard)

### Scope and Background Materials

Safety Requirements for Full Body Harness

#### **1. SCOPE, PURPOSE, APPLICATION, EXCEPTIONS AND INTERPRETATIONS**

**E1** It is expected that products be compliant to the requirements of this standard within 6 months after the publication of this standard.

**1.1 Scope.** This standard establishes requirements for the performance, design, marking, qualification, instruction, training, test methods, inspection, use, maintenance and removal from service of full body harnesses (FBH). FBHs are used for fall arrest, positioning, travel restraint, suspension and/or rescue applications for users within the capacity range of 130 to 310 pounds (59 to 140 kg).

**E1.1** See Figures 1a through 1e for five basic examples of full body harnesses covered under this standard. Figures 1f through 1h show example harnesses and belts that are not acceptable for use under the requirements of this standard.

At the time of this standard's development, insufficient scientific data existed regarding the use of FBHs outside of the weight capacity defined.

#### **1.2 Purpose and Application.**

**1.2.1** This standard applies to FBHs used in occupations requiring personal protection against falls from heights and if required, shall allow for the specialized functions of travel restraint, positioning, suspension and/or rescue.

**1.2.2** This standard applies only to FBHs and auxiliary equipment designed specifically for use as part of the FBH.

**E1.2.2** Integrated and non-integrated equipment such as a vest, suspension seat and extended dorsal or specialized attachment elements are included within this standard. FBH including energy absorbing lanyards that cannot be tested separately are outside of the scope of this standard.

**1.2.3** This standard is intended to be used by the manufacturers, distributors, purchasers and users of FBHs, as well as testing, certifying and regulating bodies.

**1.2.4** Before any FBH shall bear the marking ANSI Z359.11, or be represented in any way as being in compliance with this standard, all applicable requirements of this standard shall be met.

**1.2.5** FBHs which meet this standard are intended to be used with other components of a system that limits maximum arrest force to 1,800 pounds (8 kN) or less.

**E1.2.5** It is essential that the users of this type of equipment receive proper training and instruction, including detailed procedures for the safe use of such equipment in their work application. Refer to ANSI/ASSE Z359.2, Minimum Requirements for a Comprehensive Managed Fall Protection Program, for guidance on training requirements. Proper fit of a FBH is essential to performance. Users must be trained to select and maintain the fit of their FBH.

**1.2.6 Units.** In this standard, values for measurement are followed by an equivalent in parentheses, but only the first stated value shall be regarded as the requirement. Values in parentheses may be approximate.

**1.2.6.1 Tolerances.** Unless otherwise specified, the values stated in this standard are expressed as nominal values. Except for temperature limits, values which are not stated as maxima or minima shall be subject to a tolerance of +/- 5%. Unless otherwise specified, the ambient temperature for testing shall be between 35°F and 100°F (2°C and 38°C) and the temperature limits shall be subject to an accuracy of +/- 2°F (+/- 1°C).

**1.2.7** The requirements of this standard supersede any corresponding requirements in ANSI/ASSE Z359.1, Z359.3 and Z359.4 American National Standards.

**1.2.8** This standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed in Section 8. For dated references, subsequent amendments to or revisions of any of these publications apply to this standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

### **1.3 Exceptions.**

**1.3.1** This standard does not apply to body belts which are not attached to a FBH.

**E1.3.1** The US Occupational Safety and Health Administration (OSHA) has deemed body belts unsuitable for fall arrest.

**1.4 Interpretations.** Requests for interpretations of this standard shall be in writing and addressed to the Secretariat of this standard.

**1.5** The requirements of this standard supersede any corresponding requirements in the ANSI/ASSE Z359.1-2007, Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components.

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**Links and information related to the Z359 American National Standards**

- [Official Memorandum of Understanding Between OSHA & ANSI](#)
- [Office of Management & Budget Circular OMB-A119](#)
- [Safeguarding: Are ANSI Standards Really Voluntary?](#)
- [Standards History Article](#)
- [The Impact of Standards on Corporate Profitability A Summary of Research Conducted by ASTM International \(Reprinted with permission from ASTM Standardization News, Vol. 35, No. 7, copyright ASTM International, 100 Barr Harbor Dr., West Conshohocken, PA 19428, \[www.astm.org\]\(http://www.astm.org\)\)](#)
- [Position Statement on Consensus Standards](#)
- [What’s the Difference Between an OSHA Rule and an ANSI Standard?](#)

**Examples of Recognition**

U.S. DOL/OSHA:

[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=standards&p\\_id=10927](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=10927)

[https://www.osha.gov/SLTC/etools/oilandgas/general\\_safety/safety\\_and\\_health.html](https://www.osha.gov/SLTC/etools/oilandgas/general_safety/safety_and_health.html)

<https://www.osha.gov/SLTC/fallprotection/standards.html>

U.S. DOL/MSHA:

[http://www.msha.gov/Safety\\_Targets/Fall%20Prevention%20Safety%20Target%20Package/CD2/Understanding%20ANSI%20Z359.pdf](http://www.msha.gov/Safety_Targets/Fall%20Prevention%20Safety%20Target%20Package/CD2/Understanding%20ANSI%20Z359.pdf)

U.S. Department of Energy:

<http://esh-docdb.fnal.gov/cgi-bin/RetrieveFile?docid=485>

Article from ASSE:

<http://www.asse.org/professional-safety/pres/>

Private sector recognition:

<https://www.millerfallprotection.com/pdfs/ANSI-Z359Standard/Understanding%20ANSI%20Z359.pdf>

ELCOSH:

[http://www.elcosh.org/document/1808/d000646/Fall%2BProtection%2BRescue%2B--%2BAddressing%2Bthe%2BIssue%2Bin%2Bthe%2BUpdated%2BANSI%2BStandard.html?show\\_text=1](http://www.elcosh.org/document/1808/d000646/Fall%2BProtection%2BRescue%2B--%2BAddressing%2Bthe%2BIssue%2Bin%2Bthe%2BUpdated%2BANSI%2BStandard.html?show_text=1)

The U.S. Army Corps of Engineers:

<http://www.usace.army.mil/Portals/2/docs/Safety/EM385-1-1%20Section%2021%20Draft3.pdf>

<http://www.usace.army.mil/Portals/2/docs/Safety/EM385-1-1%20Section%2021FINAL.pdf>

<http://www.usace.army.mil/Portals/2/docs/Safety/EM385-1-1%20Section%2031%20draft1.pdf>