



Standard Specification for Externally Loaded Strength Training Equipment, Strength Training Benches and External Weight Storage Equipment¹

This standard is issued under the fixed designation F3105; 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.

INTRODUCTION

The goal of this specification is to promote proper design and manufacturing practices for externally loaded strength training equipment, strength training benches and external weight storage equipment. Through these specifications, this specification aims to assist designers and manufactures in reducing the possibility of injury when these products are used in accordance with the operational instructions. The equipment user must recognize, however, that a standard alone will not necessarily prevent injuries. Like other physical activities, exercise involving externally loaded strength training equipment, strength training benches and external weight storage equipment involves the risk of injury, particularly if the equipment is used improperly or not properly maintained. In addition, users with physical limitations should seek medical advice and instruction from the fitness facility prior to using this equipment. Certain physical conditions or limitations may preclude some persons from using this equipment properly and without increasing the risk of serious injury.

1. Scope

1.1 This specification establishes parameters for the design and manufacture of externally loaded strength training equipment, strength training benches and external weight storage equipment as defined in [3.1](#).

1.2 It is intended that these fitness products be used in an indoor setting or environment.

1.3 It is the intent of this standard to specify fitness products for use only by an individual age 13 and older.

1.4 This standard is to be used in conjunction with Specification [F2276](#), Test Methods [F2571](#), and Test Methods [F3104](#).

1.5 This standard takes precedence over Specification [F2276](#) and Test Methods [F2571](#) in areas that are specific to Externally Loaded Strength Training Equipment, Strength Training Benches and External Weight Storage Equipment.

1.6 The values stated in SI units are to be regarded as standard. The values in parentheses are for information only.

1.7 *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 appro-*

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

2. Referenced Documents

2.1 ASTM Standards:²

[F1749](#) Specification for Fitness Equipment and Fitness Facility Safety Signage and Labels

[F2216](#) Specification for Selectorized Strength Equipment

[F2276](#) Specification for Fitness Equipment

[F2277](#) Test Methods for Evaluating Design and Performance Characteristics of Selectorized Strength Equipment

[F2571](#) Test Methods for Evaluating Design and Performance Characteristics of Fitness Equipment

[F3104](#) Test Methods for Evaluating Design and Performance Characteristics of Externally Loaded Strength Training Equipment, Strength Training Benches and External Weight Storage Equipment

2.2 Federal Standard:³

[Department of Justice \(DOJ\) 2010 Standard for Accessible Design, United States Department of Justice, Title II \(28 CFR 35\) and Title III \(28 CFR 36\)](#)

¹ This specification is under the jurisdiction of ASTM Committee [F08](#) on Sports Equipment, Playing Surfaces, and Facilities and is the direct responsibility of Subcommittee [F08.30](#) on Fitness Products.

Current edition approved Sept. 1, 2014. Published February 2015. DOI: 10.1520/F3105-14.

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.

³ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.