



Standard Specification for Selectorized Strength Equipment¹

This standard is issued under the fixed designation F 2216; 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 standard is to promote proper design and manufacturing practices for selectorized strength equipment. Through these specifications this standard aims to assist designers and manufacturers in producing functional, safe machines under proper operations. The equipment user must recognize, however, that a standard alone will not necessarily prevent injuries. Like other physical activities, exercise involving selectorized strength training equipment involves the risk of injury, particularly if the equipment is used improperly.

1. Scope

1.1 This standard establishes guidelines for the design and manufacture of selectorized strength equipment as defined in 3.1.6, 3.1.16, and 3.1.29.

1.2 This standard shall be used with its accompanying test method, Test Method for Evaluating Design and Performance Characteristics of Selectorized Strength Equipment.

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

1.4 *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:

F 1749 Specification for Fitness Equipment and Fitness Facility Safety Signage and Labels²

2.2 European Standards:

EN 957-1 Stationary Training Equipment—Part 1: General Safety Requirements and Test Methods³

EN 957-2 Stationary Training Equipment—Part 2: Strength Training Equipment, Additional Specific Safety Requirements and Test Methods³

2.3 ANSI Standard:

B29.1 Precision Power Transmission Roller Chains, Attachments and Sprockets⁴

3. Terminology

3.1 Definitions:

3.1.1 *accessible area—exposed, n*—area within reach of the user or third party when the machine is engaged during entrance, use and termination of the exercise movement.

3.1.2 *accessible area—obscured, n*—area inaccessible to the user of the machine but accessible to technicians or service personnel.

3.1.3 *assist means, n*—the mechanism that the user engages on the machine to assist them in getting into and out of the loaded starting position.

3.1.4 *cam, n*—a rotational component controlling the resistance to the user.

3.1.5 *catch point, n*—location at which edges, protrusions or surfaces allow a body part to become injured.

3.1.6 *consumer selectorized strength equipment, n*—selectorized strength equipment intended for home use or for use in a home environment.

3.1.6.1 *Discussion*—Since significant differences can arise between consumer and institutional selectorized strength equipment, the products must be clearly identified as not for commercial use.

3.1.7 *corner, n*—the intersection of three planes or surfaces on a single component.

3.1.8 *edge, n*—the intersection of two planes or surfaces on a single component.

¹ This specification is under the jurisdiction of ASTM Committee F08 on Sports Equipment and Facilities and is the direct responsibility of Subcommittee F08.30 on Fitness Products.

Current edition approved Jan. 10, 2003. Published February 2003.

² *Annual Book of ASTM Standards*, Vol 15.07.

³ Available from CEN Management Centre, 36 rue de Stassart, B-1050, Brussels, Belgium.

⁴ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.