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AMERICAN NATIONAL STANDARD

FOR

SELF CLOSING HINGES & PIVOTS



SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

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AMERICAN NATIONAL STANDARD

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FOREWORD

(This Foreword is not a part of ANSI/BHMA A156.17)

The general classification of builders hardware includes a variety of items which are divided into several categories. To recognize this diversity, a sectional classification system has been established. Self Closing Hinges & Pivots is one such section and this Standard is the result of the collective efforts of members of the Builders Hardware Manufacturers Association, Inc. who manufacture this product. The total Product Standards effort is, therefore, a collection of sections, each covering a specific category of items.

The BHMA recognizes that errors will be found, items will become obsolete, and new products, methods and materials will be developed. With this in mind, the Association plans to update, correct and revise these Standards on a regular basis.

In most cases, products have been described in grade levels related to their durability. Grade classifications indicate levels only within their own product categories. Choice of grade and specific product is made on the basis of utility, aesthetics, security objectives and end use desired.

The BHMA numbers, which indicate types of hardware do not identify, size or finish and are not intended to be used without necessary supplementary information. Individual manufacturers' catalogs are to be consulted.

The user of this Standard consults applicable local building codes as to requirements affecting the use of self closing hinges and pivots on fire doors.

TABLE OF CONTENTS

1.	SCOPE.....	5
2.	DEFINITIONS	5
3.	GENERAL.....	5
4.	PREPARATION FOR PERFORMANCE TEST	6
5.	TEST PROCEDURES.....	7
6.	TEST DETAILS	9
7.	HINGE DESCRIPTIONS AND IDENTIFYING NUMBERS.....	11
8.	EXPLANATION OF TYPE NUMBERS.....	16
	APPENDIX A (Not a part of A156.17).....	18

1. SCOPE

1.1 This Standard establishes requirements for Self Closing Hinges & Pivots. Cycle tests, operational tests, finish tests, material and dimensional requirements are included.

1.2 Tests described in this Standard are performed under laboratory conditions. In actual usage, results vary because of installation, maintenance and environmental conditions.

2. DEFINITIONS

2.1 **Spring Hinge.** A hinge with flanges or leaves which attach to the door and jamb and are connected to the hinge pivot point(s) (barrel). Springs provide energy to close a door from the open position or, in some cases, open a door from the closed position.

2.2 **Spring Pivot Hinge.** A spring hinge employing pivot points at the top and bottom of a door.

2.3 **Gravity Pivot Hinge.** A pivot hinge arranged so that the weight of the door causes it to close from an open position or open from a closed position.

2.4 **Single Acting.** When a door swings in one direction only.

2.5 **Double Acting.** When a door is so arranged to swing in either direction.

2.6 **Full Mortise.** A hinge having one leaf mortised into the butt edge of a door and the other leaf mortised into the rabbet edge of a frame.

2.7 **Half Mortise.** A hinge having one leaf mortised into the butt edge of a door and the other leaf attached to the face of a door frame.

2.8 **Half Surface.** A hinge having one hinge flange or leaf fastened to the surface of the door and the other into the mortise cut-out of the frame.

2.9 **Full Surface.** A hinge having one leaf attached to the face of a door and the other leaf attached to the face of a door frame.

2.10 **Clamp Flange.** A spring hinge flange, which wraps around the edge of the door and is fastened with thru-bolts and nuts.

3. GENERAL

3.1 **Dimensions.** US units are used in this Standard with approximate SI (metric) unit equivalents given in parentheses.

3.2 **Availability of Standards.** ANSI Standards are available from the American National Standards Institute, www.ansi.org, or The Builders Hardware Manufacturers Association www.buildershardware.com.

3.3 **Reverse Action.** Some single acting spring hinges are available with reverse action to hold doors open. Consult individual manufacturers' catalogs.

3.4 **Door Thickness.** Spring hinges and pivots are suitable for doors 3/4 in (19 mm) through 2.5 in (63 mm) thick. Consult individual manufacturers' catalogs.