



Standard Performance Specification for Ice Hockey Skate Blades¹

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^{ε1} NOTE—Keywords were added editorially in July 1998.

1. Scope

1.1 This performance specification covers skate blades used in the sport of ice hockey.

1.2 This performance specification is designed to outline acceptable performance requirements without restricting the use of specific materials or construction.

1.3 This performance specification covers classes of skate blades used by hockey players excluding those used by goalkeepers.

1.4 The values stated in SI units are to be regarded as the standard. Inch-pound units in parentheses are listed for information only.

1.5 The following precautionary caveat pertains only to the test method portion, Section 7, of this specification: *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:

B 456 Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium²

E 18 Test Methods for Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials³

3. Terminology

3.1 *Description of Terms Specific to This Standard (see Fig. 1):*

3.1.1 *bridge*—the entire assembly attached to the runner and which attaches the runner to the boot.

3.1.2 *front bracket*—a component that attaches the front part of runner to the boot (metal blades only).

3.1.3 *heel column*—that part of the structure which connects the runner holder to the heel plate.

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² *Annual Book of ASTM Standards*, Vol 02.05.

³ *Annual Book of ASTM Standards*, Vol 03.01.

3.1.4 *heel plate*—that part of the bridge which connects the heel column to the heel of the boot.

3.1.5 *runner*—that portion of the ice skate in contact with the ice.

3.1.6 *runner holder*—that portion of the bridge which is attached to the upper part of the runner and provides rigidity to the runner.

3.1.7 *safety guard*—an extension of the rear part of the runner holder which extends beyond the runner.

3.1.8 *size*—the length in inches from front of sole plate to rear of heel plate, that is, 286 mm (11¼ in.).⁴

3.1.9 *skate blade*—the entire assembly of the bridge components and the runner.

3.1.10 *sole column*—that part of the structure which connects the runner holder to the sole plate.

3.1.11 *sole plate*—that part of the bridge which connects the sole column to the sole of the boot.

4. General Requirements

4.1 The performance of all skate blades, regardless of construction or materials, shall meet the specifications in this standard.

4.2 For standardization, the blade size for testing will be 279 mm (11 in.) and this size must be representative of the model being tested.

4.3 Materials:

4.3.1 The design of the skate blade and the choice of materials shall be such as to combine mechanical strength and durability consistent with the intended use of the equipment.

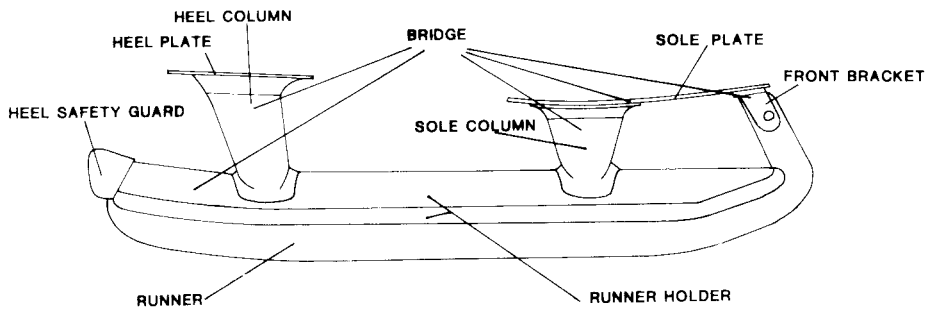
4.3.2 The different materials interacting in the skate blade must be chemically compatible among themselves.

4.4 *Finishes*—All parts (with the exception of that sharpened portion of the runner in contact with the ice) should be free of sharp edges and other irregularities that would present a potential hazard to a player or an opponent.

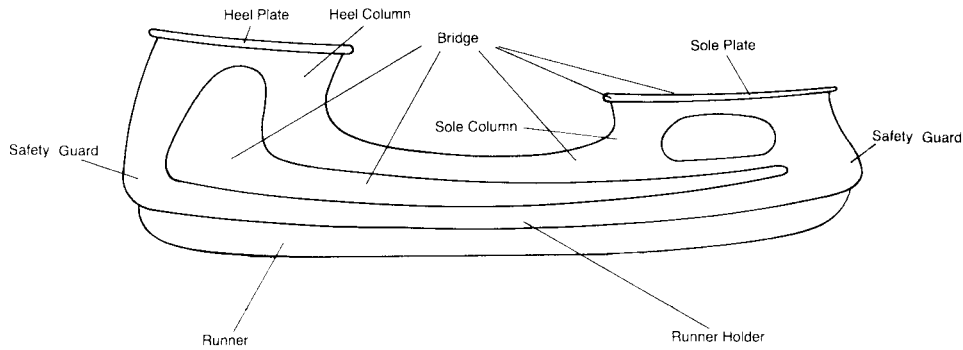
4.5 *Corrosion*—The skate blade (with the exception of the runner) shall pass the requirements of Specification B 456, Service Condition SC 3.

4.6 *Hardness*—The runner hardness shall be a minimum of 53 Rockwell C in accordance with Test Methods E 18 for a minimum distance of 6 mm (¼ in.) from the blade surface in contact with the ice.

⁴ Skate blade sizes are expressed in millimetres and inches.



(a) Rear Open-ended Blade



(b) Closed-end Blade

FIG. 1 Ice Hockey Skate Blades

4.7 *Construction of Components*—The method of attaching the components shall be such as to prevent them from disengaging while under stress and in use over the temperature range of 23 to -29°C (73 to -20°F).

4.8 *Labeling*—Each blade shall be labeled in accordance with Section 8.

5. Safety Guard Requirements

5.1 The safety guard is an extension of the runner holder beyond the extreme visible end of the runner and is intended to act as a bumper to protect the player from skate blade cuts.

5.1.1 If the extreme visible end of the runner holder is flat, it must have a minimum lateral width of 3 mm ($1/8$ in.) and a minimum vertical length of 12 mm ($1/2$ in.)

5.1.2 If the extreme visible end of the runner holder is rounded, the radius of all curvatures must not be less than 6 mm ($1/4$ in.).

5.2 *Heel Safety Guard Requirement for the Rear Open-Ended Blade*—The extension length of the runner holder must be 6 mm ($1/4$ in.) minimum beyond the extreme visible rear end of the runner (Fig. 1a).

5.3 *Safety Guard Requirement for Closed End Blades*—The extension length of the runner holder must be 3 mm ($1/8$ in.) beyond the extreme visible front and rear ends of the runner (Fig. 2).

5.4 *Measurement of the Extension of the Safety Guard*—The blade will be positioned so that a tangent to the radius of

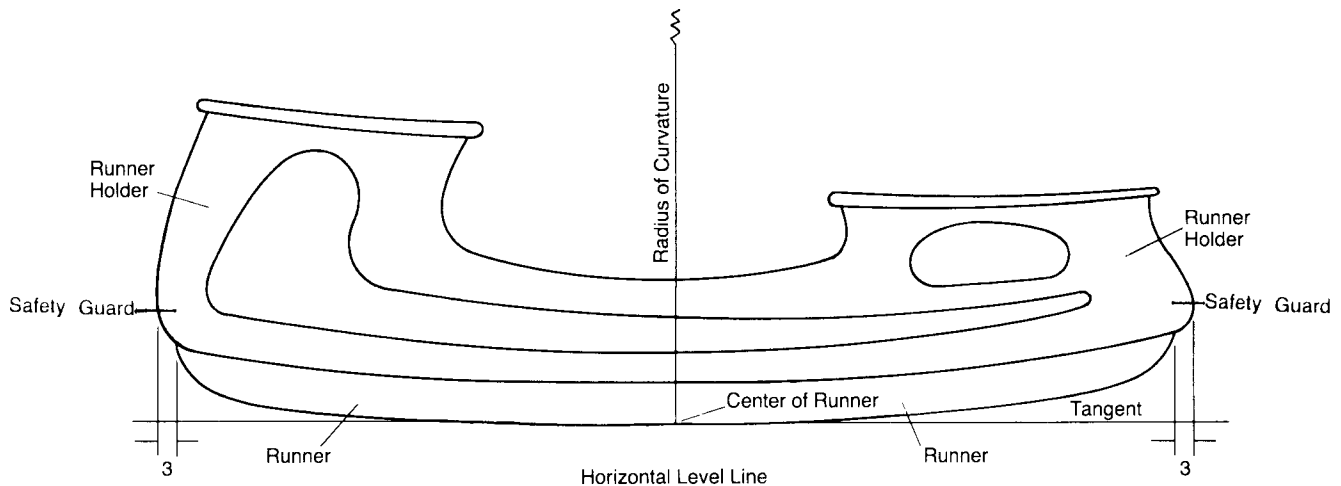


FIG. 2 Closed-End Ice Hockey Skate Blade Safety Guard Requirements