

American National Standard

*for Powered Consumer
Chipper/Shredders and
Pedestrian-Controlled
Chipper/Shredder Vacuums –
Safety Specifications*



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and Pedestrian-Controlled
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Safety Specifications

Sponsor

Outdoor Power Equipment Institute, Inc. (OPEI)

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American National Standard

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Foreword (This foreword is not part of American National Standard ANSI/OPEI B71.6-2021.)

This standard is a new American National Standard for Powered Consumer Chipper/Shredders and Pedestrian-Controlled Chipper/Shredder Vacuums - Safety Specifications, ANSI/OPEI B71.6-2021. This standard was preceded by ANSI/OPEI B71.6-2000, B71.6-1990, and B71.6-1982. The 2000 edition standard was withdrawn in 2010.

The present revision was prepared by the Outdoor Power Equipment Institute's (OPEI) Chipper/Shredder Committee (B71.6), as part of OPEI's continuing work on standards.

A summary of the principal differences between this new standard and the previous ANSI/OPEI B71.6-2000 are as follows:

<u>Clause/Subclause</u>	<u>Description</u>
1	Updated scope to reflect current state-of-the-art.
1	Added the effective implementation date.
2	Updated normative references.
3	Updated definitions.
4	Added machine identification requirements.
6.6	Updated hot surfaces requirements to harmonize with current outdoor power equipment ANSI safety standards.
6.8	Updated engine exhaust section to reflect added requirement for spark-arresting muffler.
8	Updated electrical requirements to harmonize with current outdoor power equipment ANSI safety standards and make reference to other applicable standards.
9 & 10	Updated safety messaging and durability requirements to harmonize with current outdoor power equipment ANSI safety standards.
11	Updated performance tests to reflect current state-of-the-art.
Figure 7	Where applicable, updated to harmonize with current outdoor power equipment ANSI safety standards.
Annex C	Added reference to ANSI/OPEI B71.10.

Consensus for this standard was achieved by the use of the Canvass Method. The annexes in this standard (A, B, C) are informative and not considered part of this standard.

Suggestions for improvement of this standard are welcome and should be forwarded to the Outdoor Power Equipment Institute, 1605 King Street, Alexandria, VA 22314 or www.opei.org, (703) 549-7600.

The following organizations/individuals are recognized as having an interest in the subject standard and were contacted prior to the approval of this standard. Inclusion in the list does not necessarily imply that the organization/individual concurred with the submittal of the proposal to ANSI.

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U.S. Consumer Product Safety Commission, Andrew Newens

American National Standard

for Powered Consumer Chipper/Shredders and Pedestrian-Controlled Chipper/Shredder Vacuums – Safety Specifications

1 Scope

The safety specifications given in this standard are for powered consumer

- (a) Chipper/Shredders
- (b) Chipper/Shredder Baggers
- (c) Chipper/Shredder Vacuums

Power may be supplied by an internal-combustion engine or an electric motor. The specifications given in this standard are not intended to cover all electrical requirements. Electric motor-powered products shall meet this standard and other cited standards.

These specifications are intended to provide safety requirements and to help ensure uniform operator environments. They are intended to apply to products specifically intended as consumer products for the personal use of a consumer around the home. This standard applies to all aftermarket parts, attachments, and accessories. Any manufacturer of aftermarket parts, attachments and accessories is responsible for ensuring compliance to this standard. Safety specifications in this standard apply only to a configuration of attachments/implements/accessories approved by their respective manufacturers.

These specifications are not intended to apply to commercial products with assisted infeed mechanisms (e.g. infeed-rollers, conveyors) customarily used by hired operators or to products designed primarily for agricultural purposes such as defined in ANSI/ASABE S390 or three-point hitch mounted power-takeoff (PTO) machines.

The effective implementation date of this standard shall be two (2) years after the publication date and shall apply to all products built after that date. Manufacturers may also comply with the requirements of this standard any time after the publication date.

2 Normative references

The following standards contain provisions, which through reference in this text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

ANSI/ASABE S390, *Definitions and classifications of agricultural field equipment*¹

ANSI/NEMA Z535.4, *Product safety signs and labels*¹

ANSI/SAE J156, *Fusible links*¹

ANSI/SAE J553, *Circuit breakers*¹

ANSI/SAE J554, *Electric fuses (cartridge type)*¹

ANSI/SAE J2031, *High-tension ignition cable*¹

¹ ANSI standards are available from the American National Standards Institute, 25 West 43rd St., New York, NY 10036; (212) 642-4900; www.ansi.org

ASTM G152, *Standard practice for operating open flame carbon arc light apparatus for exposure of nonmetallic materials*²

ASTM G155, *Standard practice for operating enclosed carbon arc light apparatus for exposure of nonmetallic materials*²

ISO 11684, *Tractors, Machinery for agriculture and forestry, Powered lawn and garden equipment, Safety signs and hazards pictorials, General principles*³

ISO 17398, *Safety colors and safety signs, Classification, performance and durability of safety signs*³

SAE J350, *Spark arrester test procedure for medium size engines*⁴

SAE J1127, *Low voltage battery cable*⁴

SAE J1128, *Low voltage primary cable*⁴

SAE J1284, *Blade type electric fuses*⁴

SAE J1292, *Automobile and motor coach wiring*⁴

UL 82, *Standard for electric gardening appliances* (clauses 61 & 62 excluded and not normative requirements)⁵

USDA FS 5100-1d – *United States Department of Agriculture, Forest Service, Standard for Spark Arresters for Internal Combustion Engines*⁶

3 Definitions

3.1 chipper: A machine function which may have one or more cutting blades, enclosed for the purpose of reducing yard debris.

3.2 chipper/shredder: A manually fed machine designed to chip and shred yard debris.

3.3 chipper/shredder bagger: A manually fed machine designed to either chip and/or shred yard debris and utilizes a collector bag attached to the discharge opening of the machine.

3.4 collector bag: A device attached to the discharge opening for collecting processed yard debris.

3.5 discharge chute: An extension of the discharge opening through which the processed yard debris is discharged.

3.6 discharge deflector: A fixed or movable component used to direct the flow of processed yard debris from the machine.

3.7 discharge opening: An opening through which processed yard debris is discharged from the machine.

3.8 discharge zone: An area where the processed yard debris is intended to be discharged from the machine and does not interfere with the operator zone.

3.9 durable label: A label for the purpose of identification, instruction, or warning that shall meet the requirements of clause 10.

3.10 engine (motor) start: Change of state from not producing power to producing power.

² ASTM standards are available from ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428; (610) 832-9500; www.astm.org

³ ISO standards are available from the American National Standards Institute, 25 West 43rd St., New York, NY 10036; (212) 642-4900; www.ansi.org

⁴ SAE standards are available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096; (724) 776-4970; www.sae.org

⁵ UL standards are available at shopulstandards.com (ul.com)

⁶ USDA standards are available at www.fs.fed.us