SLOVENSKI STANDARD
oSIST prEN ISO 8437-2:2016

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Snežne freze - Varnostne zahteve in preskusni postopki - 2. del: Ročno upravljane snežne freze (ISO/DIS 8437-2:2016)

Snow throwers - Safety requirements and test procedures - Part 2: Pedestrian controlled snow throwers (ISO/DIS 8437-2:2016)

Schneefräsen - Sicherheitsanforderungen und Prüfverfahren - Teil 2: Handgeführte Schneefräsen (ISO/DIS 8437-2:2016)

Chasse-neige - Exigences de sécurité et essais - Partie 2: Chasse-neige à conducteur à pied (ISO/DIS 8437-2:2016)

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ICS:

43.160	Vozila za posebne namene	Special purpose vehicles

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Snow throwers — Safety requirements and test procedures —

Part 2:
Pedestrian controlled snow throwers

Chasse-neige — Exigences de sécurité et essais —

Partie 2: Chasse-neige à conducteur à pied

ICS: 43.160

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

ISO 8437 was prepared by Technical Committee ISO/TC 23, *Tractors and Machinery for Agriculture and Forestry*, Subcommittee SC 13, *Lawn and Garden Equipment*.

ISO 8437 consists of the following parts under the general title Snow thrower – Safety requirements and test procedures:

Part 1: Terminology and common tests

Part 2: Pedestrian controlled snow throwers

Part 3: Ride-on snow throwers

Part 4: National and regional provisions

Introduction

The structure of safety standards in the field of machinery is as follows:

a) Type-A standards (basic standards) give basic concepts, principles for design, and general aspects that can be applied to machinery;

b) Type-B standards (generic safety standards) deal with one or more safety aspects or safeguards that can be used across a wide range of machinery:

- type-B1 standards on particular safety aspects (e.g. safety distances, surface temperature, noise);
- type-B2 standards on safeguards (e.g. two-handed controls, interlocking devices, pressure sensitive devices, guards);

c) Type-C standards (machinery safety standards) deal with detailed safety requirements for a particular machine or group of machines.

This international standard is a type-C standard as stated in ISO 12100.

When provisions of this type-C standard are different from those which are stated in type-A or type-B standards, the provisions of this type-C standard shall take precedence over the provisions of the other standards for machines that have been designed and built according to the provisions of this type-C standard.

Snow throwers – Safety requirements and test procedures – Part 2: Pedestrian controlled snow throwers

1 Scope

This part of ISO 8437 specifies safety requirements and test procedures applicable to combustion engine powered pedestrian controlled snow throwers.

This standard deals with significant hazards, hazardous situations and events relevant to snow throwers used as intended and under the conditions foreseen by the manufacturer.

This international standard does not apply to:

- electrically powered and battery powered snow throwers
- hand-held snow throwers
- airport or highway snow removal machines and equipment
- machines intended for use in potentially explosive atmospheres

This international standard does not deal with hazards related to:

- battery circuits exceeding 42 V;
- mains connected starting motor
- magneto grounding circuits;
- working environment;
- electromagnetic compatibility

This international standard is not applicable to machines which are manufactured before the date of its publication.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3767 – 1	1995	*Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Symbols for operator controls and other displays -- Part 1: Common symbols*
ISO 3767 – 3	1995	*Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Symbols for operator controls and other displays – Part 3: Symbols for powered lawn and garden equipment*
ISO 5673 – 1	2005	*Agricultural tractors and machinery -- Power take-off drive shafts and power-input connection -- Part 1: General manufacturing and safety requirements*
ISO 7000	2014	*Graphical symbols for use on equipment – Registered symbols*
ISO 8437 – 1	201x	*Snow throwers – Safety requirements and test procedures - Part 1: Terminology and common tests*

ISO 8437 – 3	201x	*Snow throwers – Safety requirements and test procedures – Part 3: Ride-on snow throwers*
ISO 8437 – 4	201x	*Snow throwers – Safety requirements and test procedures - Part 4: Information on national and regional provisions*
ISO 12100	2010	*Safety of machinery - Basic concepts, general principles for design - Part 1: Basic terminology, methodology*
ISO 13857	2008	*Safety of machinery -- Safety distances to prevent hazard zones being reached by upper and lower limbs*

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 12100 and ISO 8437 -1 apply.

4 Requirements for pedestrian controlled snow thrower safety

4.1 General

The safe running of snow throwers depends on both the safety requirements as given in this clause and the safe working conditions associated with the use of adequate personal protection equipment (PPE) such as gloves, boots, and eye protection equipment.

The machines shall comply with the safety requirements and/or protective measures of this clause. In addition, the machine shall be designed according to the principles of ISO 12100 for hazards relevant but not significant, which are not dealt with by this document (e.g. sharp edges on the outside of the machine).

Snow throwers shall also be marked according to A.2 and carry warnings according to A.3.

The instruction handbook to be provided with the snow thrower shall comply with A.1.

4.2 Controls

4.2.1 General

Except as indicated in the following list operator controls shall be located within, and have a range of movement which remains within, the operator control position given in Figure 2:

- engine controls
- snow discharge guide control

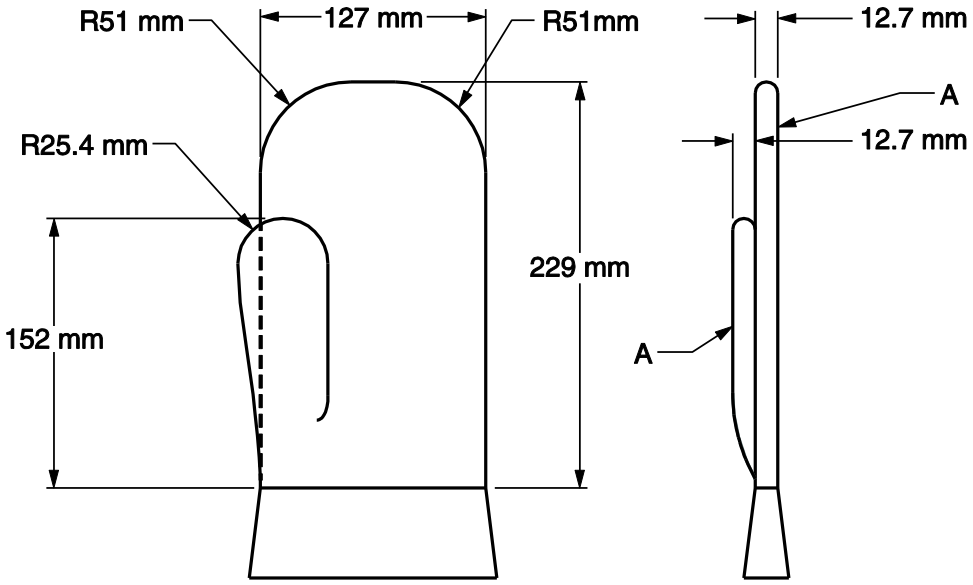
The controls shall be designed such that they can be operated by an operator with and without artic mittens see Figure 1.

No controls shall be in any hazard zone (see Figure 2A and 2B).

Controls, whose purpose is not obvious to the user, shall have the function, direction and/or method of operation clearly identified by a durable label or mark.

Detailed instructions on the operation of all controls shall be provided in an instruction handbook.

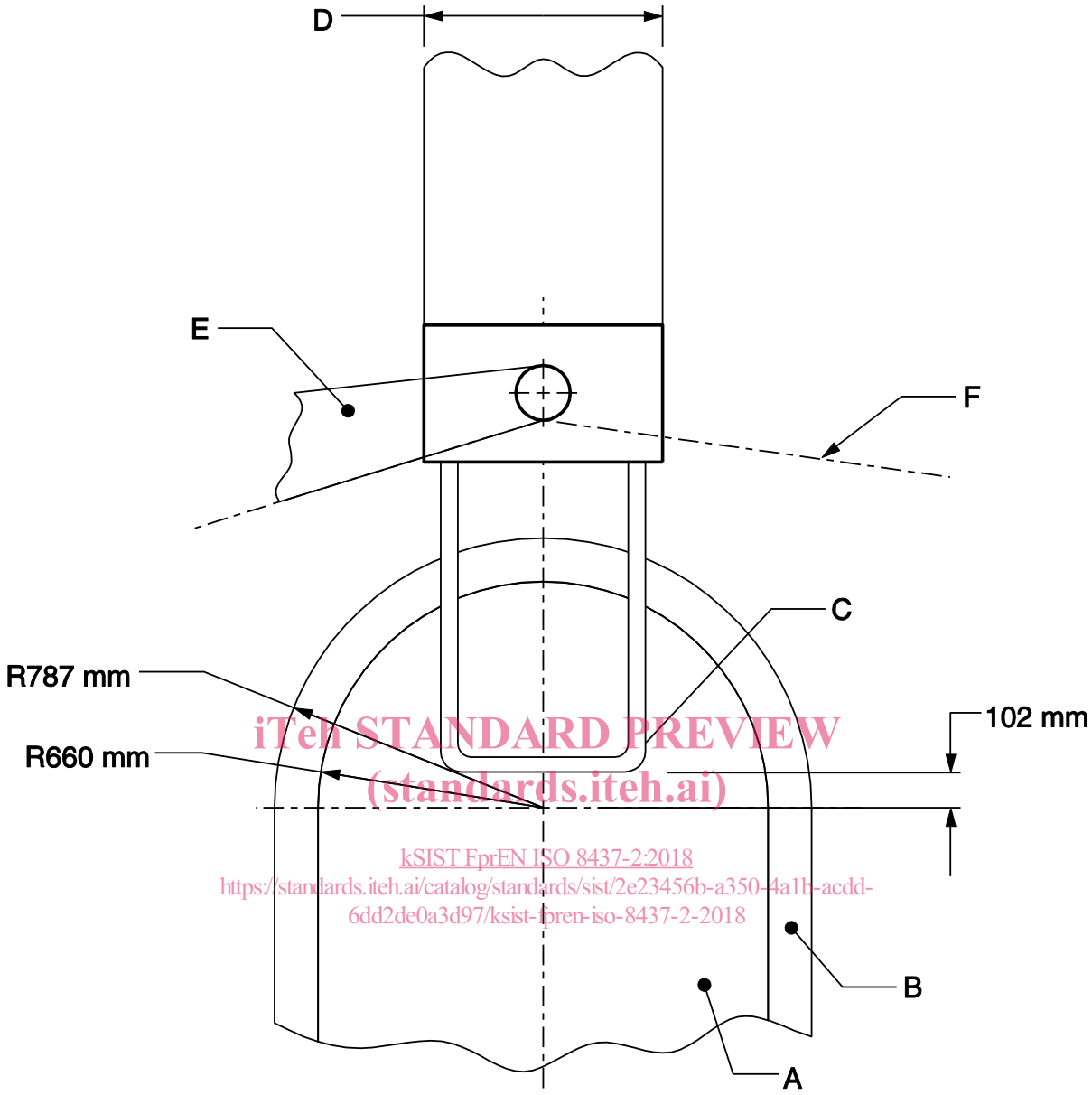
Compliance shall be checked by inspection.



Key
A Pressed Flat

Notes
1 All dimensions approximate, without hand in glove
2 Material – Buckskin outer shell with knit liner

Figure 1 – Arctic mitten



Key

A	Operator control position
B	Operator position
C	Barrier
D	Collector hazard zone
E	Discharge hazard zone
F	Discharge limit

Note Discharge hazard zone shall be limited by a line tangent to, or in line with, the inside walls of the discharge chute. The discharge hazard zone moves as the discharge chute is moved from side to side. Operator position shall not intersect the discharge hazard zone.

Figure 2b – Operator position, operator control position, and hazard zones –Pedestrian controlled snow throwers, single stage, top view

