



SLOVENSKI STANDARD
SIST EN 1083-2:1997

01-december-1997

Krtače na električni pogon - 2. del: Varnostne zahteve

Power-driven brushes - Part 2: Safety requirements

Kraftbetriebene Bürstwerkzeuge - Teil 2: Sicherheitstechnische Anforderungen

Brosses entraînées par un moteur - Partie 2: Exigences de sécurité

Ta slovenski standard je istoveten z: EN 1083-2:1997

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EUROPEAN STANDARD

EN 1083-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 1997

ICS 25.100.70

Descriptors: brushing machines, brushes, safety, data, tolerances : measurement, marking, labelling

English version

Power-driven brushes - Part 2: Safety requirements

Brosses entraînées par un moteur - Partie 2:
Exigences de sécuritéKraftbetriebene Bürstwerkzeuge - Teil 2:
Sicherheitstechnische Anforderungen

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by the Technical Committee 173 "Brushware" the secretariat of which is held by BSI.

The definitions for power-driven brushes are given in Part 1 of this European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1997, and conflicting national standards shall be withdrawn at the latest by November 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This Part of EN 1083 specifies safety requirements for power-driven brushes.

This standard is not applicable to power-driven brushes made for a specialized application and those designed exclusively for that purpose (such as those defined in 3.10 to 3.21 of EN 1083-1).

2 Normative References

This European Standard incorporates by dated or undated reference, provisions from other publications. These references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1083-1:1997 Power-driven brushes - Part 1: Definitions

DIN 69170:2¹ "Grinding points - Safety requirements, maximum dimensions, labelling"

¹ Ref BT C 67/93

3 Definitions

For the purposes of this European Standard the definitions given in EN 1083-1 apply.

4 Safety

4.1 Safety factor

Rotating brushes shall be made such that they have a safety factor against breakage of the brush body, or loosening of parts of the fill material by centrifugal force, of at least 2,25 times the permissible speed.

4.2 Configuration

Brush parts shall be designed so that the drive torque is carried from the shaft to the edge of the brush. They shall be shaped in such a manner that a uniform distribution of the fill material across the brush is ensured.

4.3 Metal shafts

Brushes with metal shafts shall have a safety coefficient "S" against bending of S 1.3 according to DIN 69170-2².

4.4 Bore diameter

Depending on the overall diameter (d_1), brushes shall have the minimum bore diameters (d_2) specified in table 1.

4.5 Dimensional limits

For the brush bores given in table 1, the dimensional limits in accordance with table 2 shall apply.

² The DIN standard is specified as a temporary measure in the absence of an equivalent EN. (Resolution BT C 67/93).

Table 1: Minimum bore diameters

Overall brush diameter (d_1) mm	Minimum bore diameter (d_{2min}) mm
50	4,6
75	6,5
100	10
150	13
200	16
250	20
300	20
350	32

Table 2: Dimensional limits for bore diameters

Bore diameter (d_2) mm	Dimensional limits mm
< 16	+ 0,12 + 0,02
16 to 50	+ 0,15 + 0,02
> 50 to 150	+ 0,18 + 0,05
> 150 to 300	+ 0,30 + 0,07

5 Testing

Brushes shall be tested under conditions of 2,25-fold safety corresponding to 1,5 times the maximum speed n_{max} . The test duration shall be 10 s at centrifugal force, without load. The test shall be performed three times.

After testing the brush shall not have lost any component parts.

6 Marking, labelling and instructions

6.1 Marking and labelling

A power-driven brush shall be legibly marked with the following:

- a) the name, registered trademark or other means of identifying the responsible manufacturer or supplier;
- b) the number of this European Standard i. e. EN 1083-2:³
- c) the maximum safe speed in revolutions per minute:
- d) the statement "wear eye protection" or a symbol to that effect.

NOTE: Additional relevant information may also be provided.

Where, for reasons of size or material, it is impracticable to mark the brush, this information shall be given on its immediate packaging material.

6.2 Instructions

Manufacturers shall provide mounting and safety instructions as follows:

- a) Brushes should not be mounted on machines having a speed in excess of the maximum permissible brush speed.
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- b) Damaged brushes should not be used.
- c) Rust discoloration or other signs of chemical or mechanical changes of the fill material may cause premature failure.
- d) Brushes should be stored in suitable racks, containers or boxes in such a manner that they are protected against the effects of:
 - 1) High Humidity, heat, water or other liquids which might cause damage to the brush.
 - 2) Exposure to acids, or fumes from acids, which might induce deterioration.
 - 3) Any temperature low enough to cause condensation on the brush when removed from storage to an area of higher temperature.
 - 4) Distortion of any of the brush components.

³ Such marking is a claim of compliance with prEN 1083-2 but does not imply CEN approval of the product; the accuracy of this claim is therefore solely the responsibility of the person applying the marking.