



# SLOVENSKI STANDARD

## SIST EN 50144-2-7:1999

01-julij-1999

Nadomešča:  
SIST HD 400.2G S1:1995

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### Safety of hand-held electric motor operated tools - Part 2-7: Particular requirements for spray guns

Safety of hand-held electric motor operated tools -- Part 2-7: Particular requirements for spray guns

Sicherheit handgeführter motorbetriebener Elektrowerkzeuge -- Teil 2-7: Besondere Anforderungen an Spritzpistolen

Sécurité des outils électroportatifs à moteur -- Partie 2-7: Règles particulières pour les pistolets

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**Ta slovenski standard je istoveten z: EN 50144-2-7:1996**

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#### **ICS:**

25.140.20	Električna orodja	Electric tools
87.100	Oprema za nanašanje premazov	Paint coating equipment

**SIST EN 50144-2-7:1999** en

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EUROPEAN STANDARD

EN 50144-2-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 1996

ICS 25.140.20; 87.100

Supersedes HD 400.2G S1:1980

Descriptors: Hand-held electric motor operated tools, spray guns, safety requirements, protection against electric shocks, fire protection, protection against mechanical hazards

English version

## Safety of hand-held electric motor operated tools Part 2-7: Particular requirements for spray guns

Sécurité des outils électroportatifs  
à moteur  
Partie 2-7: Règles particulières  
pour les pistolets

Sicherheit von handgeführten  
motorbetriebenen Elektrowerkzeugen  
Teil 2-7: Besondere Anforderungen  
für Spritzpistolen

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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 CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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# CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

### Foreword

This European Standard has been prepared by the Technical Committee 61F, Hand-held and transportable electric motor operated tools.

The text of the draft was submitted to the Unique Acceptance Procedure (UAP) in December 1993 and was approved by CENELEC as EN 50144-2-7 on 1994-10-04.

A draft for an amendment was submitted to the Unique Acceptance Procedure in April 1994 and was approved by CENELEC on 1994-10-04 for inclusion into the European Standard.

This European Standard replaces HD 400.2G S1:1980.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-09-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-12-01

As far as certification is concerned, CENELEC Memorandum 6 applies.

This standard is divided into two parts:

Part 1: General Requirements, comprising clauses of a general character.

Part 2: Particular Requirements, dealing with particular types of appliances. The clauses of these particular requirements supplement or modify the corresponding clauses in Part 1. Where the text of Part 2 indicates an "addition" to, a "modification" or "replacement" of the relevant requirement, test specification or explanation of Part 1, these changes are made to the relevant text of Part 1, which then becomes part of the standard. Where no change is necessary, the words "This clause of Part 1 is applicable" are used in Part 2.

Subclauses which are additional to those in Part 1 are numbered starting from 101.

NOTE - In this standard the following print types are used:

- Requirements proper: in roman type;
- *Test specification: in italic type;*
- Explanatory matter: in smaller roman type.

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## 1 Scope

This clause of Part 1 is applicable except as follows:

### 1.1 Addition:

This standard applies to spray guns for non-flammable materials.

## 2 Definitions

This clause of Part 1 is applicable except as follows:

### 2.2 Replacement:

**18 normal load:** The load obtained when the spray gun is operated in a position of normal use under the following conditions.

Spray guns provided with a reciprocating motor are operated intermittently, each cycle comprising a period of operation as long as is necessary to empty the filled container and a rest period of 5 min with the spray gun switched off, the stroke of the armature being adjusted so as to give the maximum input during the periods of operation. Before each period of operation, the container is filled with water or with the liquid specified by the manufacturer.

Spray guns provided with a rotary motor are operated continuously with the container empty, but with the hose and the sprayer attached as in normal use.

NOTE - The normal load is based on the rated voltage or on the upper limit of the rated voltage range.

## 3 General requirements

This clause of Part 1 is applicable.

## 4 General conditions for the tests

This clause of Part 1 is applicable.

## 5 Rating

This clause of Part 1 is applicable.

## 6 Classification

This clause of Part 1 is applicable.

## 7 Marking

This clause of Part 1 is applicable except as follows:

### 7.13.2 Addition:

Instructions shall also include the substance of the following:

- Do not use guns for spraying flammable materials.

- Do not clean guns with flammable solvents.
- A warning
  - Beware of any hazard presented by the material being sprayed and consult the markings on the container or the information supplied by the manufacturer.
  - Do not spray any material where the hazard is not known.

## 8 Protection against electric shock

This clause of Part 1 is applicable.

## 9 Starting

This clause of Part 1 is applicable except as follows:

Spray guns are operated under normal load.

## 10 Input and current

This clause of Part 1 is applicable.

## 11 Heating

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This clause of Part 1 is applicable.

## 12 Leakage current

This clause of Part 1 is applicable.

## 13 Environmental requirements

This clause of Part 1 is applicable except as follows:

### 13.2.3 Replacement of paragraphs 1, 2 and 3:

Spray guns are tested at no-load.

### 13.2.4 Addition:

The spray gun container shall be either directly up or down depending on type.

### 13.3 Replacement:

The vibration level for hand-arm vibration in the user instructions, as required by 7.13.1, shall be quoted as being less than 2,5 m/s<sup>2</sup>.

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#### 14 Moisture resistance

This clause of Part 1 is applicable.

#### 15 Insulation resistance and electric strength

This clause of Part 1 is applicable.

#### 16 Endurance

This clause of Part 1 is applicable except as follows:

##### 16.2 *Modification:*

Spray guns are operated under normal load.

#### 17 Abnormal operation

This clause of Part 1 is applicable.

#### 18 Mechanical hazards

This clause of Part 1 is applicable except as follows:

##### 18.1 *Addition:*

Spray guns where the material is ejected at high pressure shall be guarded at the nozzle to prevent inadvertent contact with the orifice.

#### 19 Mechanical strength

This clause of Part 1 is applicable except as follows:

##### 19.3 *Addition:*

A breakage of the container is disregarded.

#### 20 Construction

This clause of Part 1 is applicable except as follows:

##### *Additional subclause:*

**20.101** Spray guns shall be so constructed that, in any position of the gun, their electrical insulation cannot be affected by liquids which might leak from containers, hoses, couplings and the like.

*Compliance is checked by inspection.*



## 21 Components

This clause of Part 1 is applicable except as follows:

### 21.3 *Modification:*

For spray guns, reed-switches are allowed as mains switches and they may have contact separation of less than 3 mm.

## 22 Internal wiring

This clause of Part 1 is applicable.

## 23 Supply connection and external flexible cables and cords

This clause of Part 1 is applicable.

## 24 Terminals and external conductors

This clause of Part 1 is applicable.

## 25 Provision for earthing

This clause of Part 1 is applicable. [SIST EN 50144-2-7:1999](https://standards.iteh.ai/catalog/standards/sist/c322beaf-ac48-442a-b61a-bc16ef200aea/sist-en-50144-2-7-1999)  
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## 26 Screws and connections

This clause of Part 1 is applicable.

## 27 Creepage distances, clearances and distances through insulation

This clause of Part 1 is applicable except as follows:

### 27.1 *Addition:*

The values specified in table 16 do not apply to reed-switches.

## 28 Resistance to heat, fire and tracking

This clause of Part 1 is applicable.

## 29 Resistance to rusting

This clause of Part 1 is applicable.

## 30 Radiation

This clause of Part 1 is applicable.