

# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



Hand-held motor-operated electric tools – Safety –  
Part 2-19: Particular requirements for jointers

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Outils électroportatifs à moteur – Sécurité –  
Partie 2-19: Règles particulières pour les mortaiseuses

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**Hand-held motor-operated electric tools – Safety –  
Part 2-19: Particular requirements for jointers**

**Outils électroportatifs à moteur – Sécurité –  
Partie 2-19: Règles particulières pour les mortaiseuses**

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**HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS –  
SAFETY –****Part 2-19: Particular requirements for jointers**

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**This consolidated version of IEC 60745-2-19 consists of the first edition (2005) [documents 61F/582A/FDIS and 61F/597/RVD] and its amendment 1 (2010) [documents 116/36/FDIS and 116/44/RVD]. It bears the edition number 1.1.**

**The technical content is therefore identical to the base edition and its amendment and has been prepared for user convenience. A vertical line in the margin shows where the base publication has been modified by amendment 1. Additions and deletions are displayed in red, with deletions being struck through.**

International Standard IEC 60745-2-19 has been prepared by subcommittee 61F: Safety of hand-held motor-operated electric tools, of IEC technical committee 61: Safety of household and similar electrical appliances.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This part 2 is to be used in conjunction with the latest edition of IEC 60745-1, *Hand-held motor-operated electric tools – Safety – Part 1: General requirements*, and its amendments. It was established on the basis of the third edition (2001) of that standard.

NOTE 1 When “Part 1” is mentioned in this standard, it refers to IEC 60745-1.

This part 2 supplements or modifies the corresponding clauses of IEC 60745-1, so as to convert that publication into the IEC standard: Safety requirements for electric strapping tools.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states “addition”, “modification” or “replacement”, the relevant text in Part 1 is to be adapted accordingly.

NOTE 2 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- additional annexes are lettered AA, BB, etc.

NOTE 3 In this standard, the following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in smaller roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in **bold**.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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# HAND-HELD MOTOR-OPERATED ELECTRIC TOOLS – SAFETY –

## Part 2-19: Particular requirements for jointers

### 1 Scope

This clause of Part 1 is applicable, except as follows:

#### ~~4.1~~ Addition:

This standard applies to **jointers** for cutting into wood or similar material.

### 2 Normative references

This clause of Part 1 is applicable.

### 3 Terms and definitions

This clause of Part 1 is applicable, except as follows:

#### 3.101 jointer

tool equipped with a disc cutter intended to cut a slot or groove.

NOTE Examples of **jointer** designs are shown in Figure 101

#### 3.102 disc cutter

rotating cutting accessory having its main feed direction perpendicular to its axis of rotation, for working in wood or similar material through chip removing, cutting on its periphery and both flanks simultaneously. The diameter of the accessory is much larger than its thickness

### 4 General requirements

This clause of Part 1 is applicable.

### 5 General conditions for the tests

This clause of Part 1 is applicable.

### 6 Void

### 7 Classification

This clause of Part 1 is applicable.

## 8 Marking and instructions

This clause of Part 1 is applicable except as follows:

### 8.1 Addition:

**Jointers** shall be marked with:

- direction of rotation of the output spindle, this shall be indicated by an arrow, raised or recessed or by any other means no less visible and indelible;
- rated no-load speed of the output spindle;
- recommended disc cutter diameter.

### ~~8.12.1 Addition:~~

~~All notes are not to be printed, they are information for the designer of the manual.~~

### ~~Jointer Safety Warnings~~

~~•Disc cutters must be rated for at least the speed recommended on the tool. Disc cutters running over rated speed can fly apart and cause injury.~~

~~NOTE—The term “disc cutter” may be replaced by other terms to reflect regional differences.~~

~~•Always use the guard. The guard protects the operator from broken disc cutter fragments and unintentional contact with the disc cutter.~~

~~NOTE—The term “disc cutter” may be replaced by other terms to reflect regional differences.~~

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### 8.12.1.1 Addition: <https://standards.iteh.ai/catalog/standards/sist/4f5942b9-8c8d-43f2-952e-abb34a3c0443/iec-60745-2-19-2005amd1-2010-csv>

### Jointers safety warnings

- **Disc cutters must be rated for at least the speed marked on the tool. Disc cutters running over rated speed can fly apart and cause injury.**

NOTE The term “disc cutter” may be replaced by other terms to reflect regional differences.

- **Always use the guard. The guard protects the operator from broken disc cutter fragments and unintentional contact with the disc cutter.**

NOTE The term “disc cutter” may be replaced by other terms to reflect regional differences.

- **Hold power tool by insulated gripping surfaces, because the cutter may contact its own cord. Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.**

### 8.12.2 b) Addition:

- 101) Dimensions or type of disc cutters to be used
- 102) Instruction not to use blunt or damaged disc cutters
- 103) Instruction to check the proper function of the guard retracting system before use.

## 9 Protection against access to live parts

This clause of Part 1 is applicable.



## 10 Starting

This clause of Part 1 is applicable.

## 11 Input and current

This clause of Part 1 is applicable.

## 12 Heating

This clause of Part 1 is applicable, except as follows:

### 12.4 Replacement:

*The tool is operated at rated input or rated current for 30 min. The temperature rises are measured at the end of the 30 min.*

## 13 Leakage current

This clause of Part 1 is applicable.

## 14 Moisture resistance

This clause of Part 1 is applicable.

## 15 Electric strength

This clause of Part 1 is applicable.

## 16 Overload protection of transformers and associated circuits

This clause of Part 1 is applicable.

## 17 Endurance

This clause of Part 1 is applicable

## 18 Abnormal operation

This clause of Part 1 is applicable.

## 19 Mechanical hazards

This clause of Part 1 is applicable except as follows:

### 19.1 Addition:

Parts of the guarding system which have to be opened for replacement of the disc cutter may be opened without the aid of a tool, provided these parts remain connected with the tool and the tool is not usable with these parts in open position.

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*Additional subclauses:*

### 19.101 Disc cutter guard

A **jointer** shall be provided with a guard that automatically retracts to the closed position when not in use. There shall be no provision for locking the guard in the open position. The guard shall be so constructed that it stays in contact with the work piece when the tool is retracted, or when released from its full open position, it shall retract to its fully closed position.

*Compliance is checked by inspection, and by the following tests:*

*One sample of the tool is to be conditioned by cycling the guard from the fully closed position to the maximum open working position and then releasing for 50 000 cycles at a rate not less than 10 cycles per minute.*

*Following the cycling, the tool is oriented with the weight of the tool in a direction causing the guard to open. The disc cutter shall not be accessible to a straight edge applied perpendicular to the disc cutter.*

*The sample or a second sample at the manufacturers option is to then be conditioned by making 50 plunge cuts into soft wood that has been stored indoors for 72 h prior to the sawing. The tool is then conditioned for 24 h in a relative humidity of  $(90 \begin{smallmatrix} +5 \\ -0 \end{smallmatrix})$  % and at a temperature of  $(32 \pm 2)$  °C.*

*The tool need not be conditioned by wood cutting if the accumulation of saw dust will not affect the closure of the guard.*

*Following conditioning, the guard is to be operated through one complete cycle and the tool is oriented with the weight of the tool in a direction causing the guard to open. The disc cutter shall not be accessible to a straight edge applied perpendicular to the disc cutter.*

### 19.102 Handles

**Jointers** shall be provided with at least two handles. The motor casing may be considered as a handle, if suitably shaped.

*Compliance is checked by inspection.*

### 19.103 Disc cutter changing

Provision shall be made to enable the operator to replace the disc cutter without difficulty.

Examples of such designs are: spindle lock, flats on the outer flange or other means recommended by the manufacturer.

*Compliance is checked by inspection.*

## 20 Mechanical strength

This clause of Part 1 is applicable, except as follows:

**20.3** This clause of Part 1 is applicable for all parts except the disc cutter and guard. The disc cutter and guard shall be evaluated in accordance with 20.101.

**20.101** A **jointer** guard shall have adequate mechanical strength.

*Compliance is checked by the following tests, for which a separate sample may be used.*

*A **jointer** retracting guard shall withstand the tool being dropped one time from a height of 1 m onto a concrete surface. The tool shall be oriented to achieve the most adverse affect on the guard.*

*Following the impact, the guard is to be operated through one complete cycle and the tool is then oriented with the weight of the tool in a direction causing the guard to open. The disc cutter shall not be accessible to a straight edge applied perpendicular to the disc cutter.*

## **21 Construction**

This clause of Part 1 is applicable.

## **22 Internal wiring**

This clause of Part 1 is applicable.

## **23 Components**

This clause of Part 1 is applicable.

## **24 Supply connection and external flexible cords**

This clause of Part 1 is applicable.

## **25 Terminals for external conductors**

This clause of Part 1 is applicable.

## **26 Provision for earthing**

This clause of Part 1 is applicable.

## **27 Screws and connections**

This clause of Part 1 is applicable.

## **28 Creepage distances, clearances and distances through insulation**

This clause of Part 1 is applicable.

## **29 Resistance to heat, fire and tracking**

This clause of Part 1 is applicable.

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