



SLOVENSKI STANDARD
SIST-TS CEN/TS 13126-3:2005
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Stavbno okovje, pritrjevalni sistemi za okna in zastekljena vrata – Zahteve in preskusne metode – 3. del: Sprožilne naprave za gonilne zapave/drsne gumbe

Building hardware, fittings for windows and door height windows - Requirements and test methods - Part 3: Manoeuvring fittings for espagnolette bolts/sliding button

Baubeschläge, Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 3: Betätigungsvorrichtungen für Treibriegelverschlüsse/Schließzapfen

Quincaillerie pour le bâtiment, ferrures de fenestres et portes-fenestres - Exigences et méthodes d'essai - Partie 3 : Organes de manoeuvre pour crémones/verrous

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TECHNICAL SPECIFICATION
 SPÉCIFICATION TECHNIQUE
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CEN/TS 13126-3

April 2004

ICS 91.190

English version

**Building hardware, fittings for windows and door height windows
 - Requirements and test methods - Part 3: Manoeuvring fittings
 for espagnolette bolts/sliding button**

Quincaillerie pour le bâtiment, ferrures de fenêtres et
 portes-fenêtres - Exigences et méthodes d'essai - Partie 3 :
 Organes de manoeuvre pour crémones/verrous

Baubeschläge, Beschläge für Fenster und Fenstertüren -
 Anforderungen und Prüfverfahren - Teil 3:
 Betätigungsvorrichtungen für
 Treibriegelverschlüsse/Schließzapfen

This Technical Specification (CEN/TS) was approved by CEN on 18 August 2003 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document (CEN/TS 13126-3:2004) has been prepared by Technical Committee CEN/TC 33 "Doors, windows, shutters, building hardware and curtain walling", the secretariat of which is held by AFNOR.

A full contribution to the preparation of this Technical Specification has been made by the European manufacturers organisation 'ARGE' and National Standards institutions.

This Technical Specification is one of a series of Technical Specifications dedicated to building hardware products. It is divided into seventeen parts to incorporate all types of windows and door height windows.

Informative annex A of CEN/TS 13126-1 gives detailed schedules of the elements of components of the seventeen parts of this Technical Specification.

Normative annex B of CEN/TS 13126-1 gives schedules of the elements of components used on the 21 types of window opening functions.

Annex A is informative while annex B is normative.

Normative and informative annex to all parts of this Technical Specification are indicated in the content of the seventeen parts.

The performance tests incorporated in this Technical Specification are considered to be reproducible and as such will provide a consistent and objective assessment of the performance of these products throughout CEN Member States.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to announce this Technical Specification: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

CEN/TS 13126-3:2004 (E)

1 Scope

This Part of CEN/TS 13126 specifies the requirements and test methods for durability, strength, security and function of manoeuvring fittings for espagnolette bolts/sliding buttons. It applies to operating handles or knobs with spindles, claw operating levers and sliding buttons for use on windows and door height windows.

The following fittings are excluded:

- a) Operating fittings for door latches or locks;
- b) Electromechanical fittings.

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative 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 Technical Specification only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 1670, *Building hardware – Corrosion resistance – Requirements and test methods.*

ENV 1627:1999, *Windows, doors, shutters – Burglar resistance – Requirements and classification.*

EN 12519:2004, *Windows and pedestrian doors – Terminology*

CEN/TS 13126-1:2004, *Building hardware – Fittings for windows and door height windows – Requirements and test methods – Part 1: Requirements common to all types of fittings*

CEN/TS 13126-4, *Building hardware – Fittings for windows and door height windows – Requirements and test methods – Part 4: Espagnolette bolts*

CEN/TS 13126-8, *Building hardware – Fittings for windows and door height windows – Requirements and test methods – Part 8 Tilt & turn, Tilt first and Turn-Only hardware*

3 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in EN 12519:2004 for windows and doors apply.

4 Classification

4.1 General

The classification for manoeuvring fittings for espagnolette bolts / sliding buttons, shall be in accordance with the requirements of clause 4 in CEN/TS 13126-1:2004.

4.2 Category of use (first digit)

No requirement.

4.3 Durability (second digit)

Grades shall be in accordance with 4.3 of CEN/TS 13126-1:2004.

4.4 Mass (third digit)

Grades shall be in accordance with 4.4 of CEN/TS 13126-1:2004.

4.5 Fire resistance (fourth digit)

Grades shall be in accordance with 4.5 of CEN/TS 13126-1:2004.

4.6 Safety in use (fifth digit)

Grades shall be in accordance with 4.6 of CEN/TS 13126-1:2004.

4.7 Corrosion resistance (sixth digit)

Grades shall be in accordance with 4.7 of CEN/TS 13126-1:2004.

4.8 Security (seventh digit)

Grades shall be in accordance with 4.8 of CEN/TS 13126-1:2004.

4.9 Application (eighth digit)

Two grades are identified :

- grade 1 : manoeuvring fitting for espagnolette bolts / sliding button to CEN/TS 13126-4.
- grade 2 : manoeuvring fitting for tilt and turn or turn and tilt operating to CEN/TS 13126-8

NOTE A test on tilt and turn mechanisms should be accepted for turn and tilt mechanisms and vice versa.

4.10 Test sizes – Size limitations (Ninth digit)

In accordance with CEN/TS 13126-1:2004 Table 4, and the following testing systems.

No requirement.

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CEN/TS 13126-3:2004 (E)

5 Requirements

5.1 General

The requirements of manoeuvring fittings for espagnolette bolts/sliding buttons shall be met in accordance with clause 5 of CEN/TS 13126-1:2004

5.2 Other requirements

The following operating forces shall be applied for the duration of the test :

- a) The espagnolette bolt operating handle or sliding button shall operate throughout its normal range of travel under a maximum operating torque $C_1 = 3 \text{ Nm}$ on the operating handle or a maximum operating force $FC_1 = 50 \text{ N}$ on the sliding button as appropriate, when not connected to the bolt.
- b) The operating angles of the operating handles shall not change by more than 5° from those measured before testing and the sliding button position, not more than 5 mm.
- c) After all tests the espagnolette bolt handle or the sliding button shall not prevent normal operation
- d) When tested in accordance with 7.3.1 the spindle shall not distort by more than 5° .
- e) The maximum permanent deformation measured at any part of the handle or of the sliding button shall not exceed 5 mm.
- f) Locking devices with keys shall additionally be subjected to the appropriate tests specified for the equivalent locking devices for windows and/or doors and shall conform to the relevant acceptance criteria.

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6 Test apparatus

The manoeuvring fittings for espagnolette bolts/sliding buttons shall be fitted to a test apparatus as specified in clause 6 of CEN/TS 13126-1:2004 in accordance with the manufacturer's fixing instructions.

The test leaf shall be fitted with a test apparatus which simulates an espagnolette bolt or sliding button or tilt and turn mechanism or turn and tilt mechanism.

7 Test methods

7.1 Samples

Three samples shall be used for testing to this Technical Specification.

sample A – performance tests

sample B – corrosion tests

sample C – retained for reference control

If a specimen fails to meet the appropriate acceptance requirements, two further specimens shall be tested. A pass of the second test shall be accepted but failure shall be recorded accordingly.

There shall be no breakage of any part.

7.2 Procedure

Before commencing the mechanical test a functional test shall be conducted.

For rotatable lever handles or knobs with a spindle, measure and record the angular position of the handle or knob. The retention position shall be marked, as these guarantee the secure use.

The torque shall be measured in accordance with Table 1. The handle shall be tested separately in a durability test to the position of retention. Where the manoeuvring fitting is applied to tilt and turn mechanisms or turn and tilt mechanisms the torque shall be measured in both operating positions.

Table 1 – Operating forces

| | Without load | Under load |
|-----------------|--------------|------------|
| C ₁ | ≤ 3 Nm | |
| C ₂ | | ≤ 25 Nm |
| FC ₁ | ≤ 50 N | |
| FC ₂ | | ≤ 100 N |

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7.3 Static resistance tests

A torque shall be applied to rotatable fittings (see Figure 1(a) and Figure 1(b)). A force shall be applied to sliding buttons as illustrated in Figure 1(c).

The torque C₂ shall be 25 Nm $\begin{matrix} +1 \\ 0 \end{matrix}$ Nm or the force FC₂ shall be 100 N $\begin{matrix} +5 \\ 0 \end{matrix}$ N.

Fittings that have a locking device with key or button operation shall be retested, when locked, with the same values for torque or force.

For handles with burglar resistance functions the above tests apply in accordance with annex C of ENV 1627:1999.

7.4 Durability test

Operate the manoeuvring fitting at the rate of 250 cycles/h $\begin{matrix} +25 \\ -0 \end{matrix}$ cycles/h according to the number of cycles for the required grade.

— grade 3 : 10 000 cycles $\begin{matrix} +500 \\ 0 \end{matrix}$ cycles

— grade 4 : 15 000 cycles $\begin{matrix} +750 \\ 0 \end{matrix}$ cycles