

**Building hardware - Hardware for windows and door
height windows - Part 9: Hardware for horizontal and
vertical pivot windows**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 13126-9:2013 sisaldab Euroopa standardi EN 13126-9:2013 ingliskeelset teksti.	This Estonian standard EVS-EN 13126-9:2013 consists of the English text of the European standard EN 13126-9:2013.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 06.02.2013.	Date of Availability of the European standard is 06.02.2013.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.190

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

English Version

**Building hardware - Requirements and test methods for windows
and door height windows - Part 9: Hardware for horizontal and
vertical pivot windows**

Quincaillerie pour le bâtiment - Exigences et méthodes
d'essai des ferrures de fenêtres et portes-fenêtres - Partie
9: Ferrures pour fenêtres basculantes et pivotantes

Baubeschläge - Anforderungen und Prüfverfahren für
Fenster und Fenstertüren - Teil 9: Beschläge für Schwing-
und Wendefenster

This European Standard was approved by CEN on 14 December 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	4
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Classification.....	7
4.1 General	7
4.2 Category of use (1 – first digit)	7
4.3 Durability (2 – second digit).....	7
4.4 Mass (3 – third digit)	7
4.5 Fire resistance (4 – fourth digit)	7
4.6 Safety in use (5 – fifth digit).....	7
4.7 Corrosion resistance (6 – sixth digit).....	7
4.8 Security (7 – seventh digit).....	7
4.9 Application (8 – eighth digit).....	8
4.10 Test sizes (9 - ninth digit).....	8
4.10.1 Window size for horizontal pivot windows	8
4.10.2 Window size for vertical pivot windows.....	8
4.11 Example of classification for horizontal and vertical pivot windows	8
5 Requirements	9
5.1 General	9
5.2 Durability	9
5.3 Locking point variable tolerance.....	9
5.4 Handle operation tolerance	10
5.5 Balance test for pivot hinges with integrated braking function	10
5.6 Resistance to static load.....	10
5.7 Resistance to free fall test for horizontal pivot windows	10
5.8 Resistance to rebate hindrance test for vertical pivot windows	10
5.9 Minimum closing devices resistance	10
5.10 Corrosion test	10
6 Test equipment.....	11
7 Test methods.....	11
7.1 Samples	11
7.2 Test order	11
7.3 Durability test.....	12
7.3.1 Durability test of normal opening.....	12
7.3.2 Reversed position durability test	13
7.4 Balance tests.....	14
7.5 Static Tests.....	14
7.5.1 Ventilation position static test on horizontal pivot windows	14
7.5.2 Ventilation position static test on vertical pivot windows.....	15
7.5.3 Reversed position static test on horizontal pivot windows	16
7.5.4 Reversed position static test on vertical pivot windows.....	17
7.6 Free fall test for horizontal pivot windows.....	18
7.7 Rebate hindrance test for vertical pivot windows	18
7.8 Minimum closing device resistance test.....	19
7.9 Corrosion resistance	19
Annex A (informative) Test equipment.....	21

Annex B (normative) Flowchart of test procedures.....	22
Bibliography.....	24

This document is a preview generated by EVS

Foreword

This document (EN 13126-9:2013) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling - Building hardware”, the secretariat of which is held by AFNOR.

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 August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 13126-9:2004.

EN 13126 is composed of the following parts:

- EN 13126-1, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 1: Requirements common to all types of hardware*;
- EN 13126-2, *Building hardware — Requirements and test methods for windows and doors height windows — Part 2: Window fastener handles*;
- EN 13126-3, *Building hardware — Hardware for windows and door-height windows — Requirements and test methods — Part 3: Handles, primarily for Tilt&Turn, Tilt-First and Turn-Only hardware*;
- EN 13126-4, *Building hardware — Requirements and test methods for windows and doors height windows — Part 4: Espagnolettes*;
- EN 13126-5, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 5: Devices that restrict the opening of windows and door height windows*;
- EN 13126-6, *Building hardware — Requirements and test methods for windows and doors height windows — Part 6: Variable geometry stay hinges (with or without a friction stay)*;
- EN 13126-7, *Building hardware — Requirements and test methods for windows and door height windows — Part 7: Finger catches*;
- EN 13126-8, *Building hardware — Requirements and test methods for windows and doors height windows — Part 8: Tilt&Turn, Tilt-First and Turn-Only hardware*;
- EN 13126-9, *Building hardware — Hardware for windows and door height windows — Part 9: Hardware for horizontal and vertical pivot windows (the present document)*;
- EN 13126-10, *Building hardware — Requirements and test methods for windows and doors height windows — Part 10: Arm-balancing systems*;
- EN 13126-11, *Building hardware — Requirements and test methods for windows and doors height windows — Part 11: Top hung projecting reversible hardware*;
- EN 13126-12, *Building hardware — Requirements and test methods for windows and doors height windows — Part 12: Side hung projecting reversible hardware*;

- EN 13126-13, *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 13: Sash balances*;
- EN 13126-14, *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 14: Sash fasteners*;
- EN 13126-15, *Building hardware — Requirements and test methods for windows and doors height windows — Part 15: Rollers for horizontal sliding and sliding folding windows and doors*;
- EN 13126-16, *Building hardware — Requirements and test methods for windows and doors height windows — Part 16: Hardware for Lift&Slide windows and doors*;
- EN 13126-17, *Building hardware — Requirements and test methods for windows and doors height windows — Part 17: Hardware for Tilt&Slide windows and doors*;
- prEN 13126-18, *Building hardware — Specifications for the fittings for the operation of windows and door height windows — Part 18: Requirements and test procedures for durability, strength, security and functionality of Fan light openers for windows and door height windows*
- EN 13126-19, *Building hardware — Requirements and test methods for windows and door height windows — Part 19: Sliding Closing Devices*.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European Standard specifies the requirements and test methods for durability and strength of hardware for vertical and horizontal pivot windows and door height windows (including pivot hinges and central locking systems).

If the hardware manufacturer would like to classify an integrated restrictor function, the pivot hinges may be tested in accordance with EN 13126-5.

This European Standard does not apply to manoeuvring devices which are covered in EN 13126-2, EN 13126-3, EN 13126-7, EN 13126-14 and prEN 13126-18.

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.

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

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

EN 13126-1, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 1: Requirements common to all types of fittings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12519:2004 and the following apply.

3.1

fastened closed position

position in which the active sash rests against the frame or compresses the gaskets on all sides, and the central locking system is fully engaged

3.2

closed position

position in which the active sash rests against the frame or compresses the gaskets on all sides, and the central locking system is not engaged

3.3

opened position

position in which the active sash is at a predefined opening angle (normally 45°) or the maximum opening travel of the operated window

3.4

reversed position

position in which the active sash has been rotated past the opening position until the internal and external faces of the active sash are inverted

3.5

limiting restrictor

device equipped with a maximum opening stop, intended to limit the movement of a sash to a predetermined position