BS EN 13126-9:2013

BSI Standards Publication

Building hardware — Requirements and test methods for windows and door height windows

Part 9: Hardware for horizontal and vertical pivot windows

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National foreword

This British Standard is the UK implementation of EN 13126-9:2013. It supersedes DD CEN/TS 13126-9:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/538/4, Building hardware.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Quincaillerie pour le bâtiment - Exigences et methodes 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

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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of an identical text or by endorsement, at the latest by August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.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

3.6
rest time
time, in seconds, of a stationary period either:

— between two changes of direction of movement;

— between the completion of a movement of the active sash and the subsequent operation of the central locking system;

— between the completion of an operation of the central locking system and the subsequent movement of the active sash;

— between two cycles

3.7
central locking system
hardware used all round or only partially to fasten the active sash

4 Classification

4.1 General

The hardware classification shall be in accordance with the requirements in EN 13126-1.

4.2 Category of use (1 – first digit)

No marking is required for the category of use.

4.3 Durability (2 – second digit)

Grades shall be in accordance with EN 13126-1.

4.4 Mass (3 – third digit)

Grades shall be in accordance with EN 13126-1.

4.5 Fire resistance (4 – fourth digit)

Grades shall be in accordance with EN 13126-1.

4.6 Safety in use (5 – fifth digit)

Grades shall be in accordance with EN 13126-1.

4.7 Corrosion resistance (6 – sixth digit)

Grades shall be in accordance with EN 13126-1.

4.8 Security (7 – seventh digit)

Grades shall be in accordance with EN 13126-1.

4.9 Application (8 – eighth digit)

Three grades are identified:

— 9/1: hardware for horizontal pivot windows, with braking function;

— 9/2: hardware for horizontal pivot windows, without braking function;

— 9/3: hardware for vertical pivot windows.

4.10 Test sizes (9 - ninth digit)

4.10.1 Window size for horizontal pivot windows

The window size for horizontal pivot windows is SRW[1)] 1 600 mm X SRH[2)] 1 400 mm or SRD[3)] Ø 1 400 mm.

In the case of not being capable of manufacturing the specified test size due to the fact that the hardware field of application is smaller than this specified test size, a smaller test size shall be used. In this case the window shall be tested in accordance with the largest possible SRW (or SRH) as specified by the hardware manufacturer's appropriate documentation and a SRH (or SRW) in a ratio of 8:7.

4.10.2 Window size for vertical pivot windows

The window size for vertical pivot windows is SRW[1)]1 400 mm x SRH[2)]1 600 mm or SRD[3)]Ø 1 400 mm.

In the case of not being capable of manufacturing the specified test size due to the fact that the hardware field of application is smaller than this specified test size, a smaller test size shall be used. In this case the window shall be tested in accordance with the largest possible SRW (or SRH) as specified by the hardware manufacturer's appropriate documentation and a SRH (or SRW) in a ratio of 7:8.

4.11 Example of classification for horizontal and vertical pivot windows

1	2	3	4	5	6	7	8	9
-	**4**	**120**	**0**	**1**	**4**	**-**	**9/1**	**1 600/1 400**

This denotes hardware for horizontal and vertical pivot windows, which have:

— Digit 1 category of use - (no requirements)

— Digit 2 durability grade 4 (15 000 cycles)

— Digit 3 mass 120 kg

— Digit 4 fire resistance grade 0 (no requirements)

— Digit 5 safety in use grade 1

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1) SRW = Sash Rebate Width.

2) SRH = Sash Rebate Height.

3) SRD = Sash Rebate Diameter.

— Digit 6 corrosion resistance grade 4

— Digit 7 security - (no requirements)

— Digit 8 applicable part grade 9/1 (hardware for horizontal pivot windows with braking function)

— Digit 9 test sizes SRW[4)] = 1 600 mm, SRH[5)] = 1 400 mm

5 Requirements

5.1 General

The hardware requirements shall be in accordance with EN 13126-1.

5.2 Durability

The grades of durability shall be in accordance with EN 13126-1.

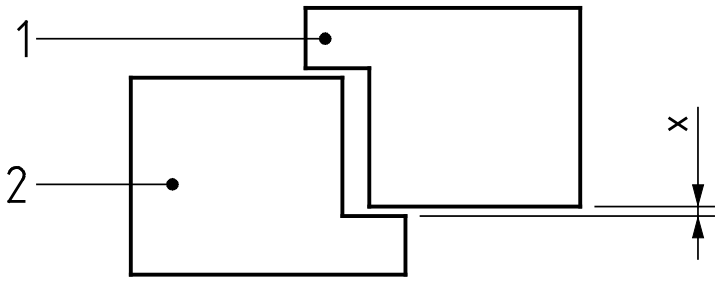
Before, during and after the durability test in accordance with 7.3, the hardware shall continue to function as intended.

5.3 Locking point variable tolerance

Before and after the durability test in accordance with 7.3.1, the distance 'X' between the frame surface and the sash-overlap-begin shall be measured on a locking point in the vicinity of the handle in conjunction with a counteracting force of (20 0/+1) N per locking point.

The results shall not differ by more than 1 mm (see Figure 1).

NOTE The pivot hinges are not considered to be locking points.



Key

1 frame

2 sash

X area of measurement

Figure 1 — Measurement of locking point variable tolerance

4) SRW = Sash Rebate Width.

5) SRH = Sash Rebate Height.

5.4 Handle operation tolerance

In conjunction with a counteracting force of (20 0/+1) N per locking point; before and after the durability test in accordance with 7.3.1, the:

— max. torque applied to the handle to operate the central locking system shall not exceed 10 Nm, or;

— max. force applied to the end of the handle to operate the central locking system shall not exceed 100 N.

5.5 Balance test for pivot hinges with integrated braking function

After the balance test in accordance with 7.4 there shall be no more than 5° deviation from the angle measured before the test.

5.6 Resistance to static load

After the static tests in accordance with 7.5. the hardware shall continue to function correctly.

5.7 Resistance to free fall test for horizontal pivot windows

Upon completion of the free fall test in accordance with 7.6 the sash shall not fall out of the frame. The hardware shall still demonstrate a connection between the sash and the frame.

NOTE Due to the fact that this particular test is designed to prevent personal injury, it is not necessary for the sash to operate upon completion of the test.

5.8 Resistance to rebate hindrance test for vertical pivot windows

Upon completion of the rebate hindrance test in accordance with 7.7 the sash shall not drop. The hardware shall still demonstrate a connection between the sash and the frame.

NOTE Due to the fact that this particular test is designed to prevent personal injury, it is not necessary for the sash to operate upon completion of the test.

5.9 Minimum closing devices resistance

The closing device shall withstand a minimum of 25 Nm in accordance with 7.8. Upon completion of this exerted torque, the closing device shall continue to operate.

5.10 Corrosion test

The hardware for horizontal and vertical pivot windows shall fulfil the requirements of EN 1670.

NOTE The evaluation of the corrosion resistance is limited to the essential areas (as a rule, the visible surfaces of the installed hardware).

Exempt from the corrosion resistance evaluation are:

- rivet locations;
- locations of subsequent machining (for example: cleaved surfaces that result from cropping the hardware components, millings, etc.);
- non surface-treated parts/surfaces, provided they are not in the visible vicinity of the hardware (for example: screw guide-holes made of zinc die cast, etc.); and
- welding joints and their immediate surroundings.

6 Test equipment

The hardware shall be mounted in a specimen as specified in EN 13126-1.

Refer to Annex A for a schematic figure.

7 Test methods

7.1 Samples

Three samples shall be used for testing in accordance with this European Standard:

— Sample A – performance tests;

— Sample B – corrosion tests;

— Sample C – retained for reference control.

Sample B should only be necessary if no test report can be supplied from the manufacturer regarding the testing of the hardware component or set in accordance with EN 1670.

Sample C should be retained by the test institute for the duration of the validity of the test report.

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

7.2 Test order

If, for design reasons, a pivot hinge was not be able to reach a certain specified position, the applicable tests shall be carried out and the missing tests shall be noted in the test report.

Refer to Annex B (normative) for a flowchart of the test procedures:

— durability test of normal opening 7.3.1;

— durability test in reversed position 7.3.2;

— balance test 7.4. (only for horizontal pivot windows);

— static test in ventilation position 7.5.1;

— static test in reversed position 7.5.2;

— free fall test for horizontal pivot windows 7.6;

— rebate hindrance test for vertical pivot windows 7.7;

— minimum closing device resistance test 7.8.

7.3 Durability test

7.3.1 Durability test of normal opening

7.3.1.1 General

The reference velocity depends on the sash mass and is specified in Table 1 with a permissible tolerance of ± 10 %.

Table 1 — Reference velocity

(M) Mass kg	Velocity m/s
M ≤ 65	0,50
65 ≤ M ≤ 100	0,35
100 ≤ M ≤ 150	0,30
150 ≤ M ≤ 200	0,25
200 ≤ M ≤ 300	0,20
M > 300	0,18

During the durability test the hardware should be readjusted after every 2 500 cycles.

Lubrication of hardware shall be in accordance with EN 13126-1.

Opening restrictors should be disabled during the durability test.

Self-engaging spring-loaded restrictors may be disengaged by means of mechanical devices such as clamps on the arresting pins.

7.3.1.2 Central locking system operation cycles

Initial position: The active sash is in the fastened closed position.

Central locking system operation test cycle: Move the handle from the fastened closed position and proceed to the closed position. Then move the handle back to the fastened closed position.

The test equipment shall operate the handle with a rate of (550 ± 20) cycles/h.

7.3.1.3 Hinge operation cycles

In the case of the final position of 45° not being able to be reached due to pivot hinge design reasons, the final position during the durability test shall be the largest possible opening angle. This shall be noted accordingly in the test report.

Initial position: The active sash is in the closed position.

Hinge operation test cycle / opening: The active sash is set in motion with consistent acceleration and in a jerk and jolt-free manner. The reference velocity in accordance with Table 1 shall be reached at an opening angle

of (27 ± 2)° (60 % of the stroke) and held up to an opening angle of (31,5 ± 2)° (70 % of the stroke). Subsequently, the active sash shall be brought slowly to a halt via the test equipment in a jerk- and jolt-free manner until it has reached its designated final position (45°).

Rest time: Once the opened position (45°) is reached, the rest time specified shall be applied. The rest time shall be minimum 2 s and may be extended up to 8 s so that the hinges do not overheat.

If applicable, the rest time may be specified by the hardware manufacturer.

Hinge operation test cycle / closing: The sash is set in motion via the test equipment with consistent acceleration and in a jerk and jolt-free manner. The reference velocity in accordance with Table 1 shall be achieved (10 ± 5) mm before reaching the closed position. After this, the active sash shall move freely into the closed position.

Rest time: Once the closed position is reached, the rest time specified shall be applied. The rest time in the closed position shall be minimum 2 s and may be extended up to 8 s so that the hinges do not overheat.

If applicable, the rest time may be specified by the hardware manufacturer.

7.3.1.4 Total operation cycles

Central locking system operation cycles in accordance with 7.3.1.2 and hinge operation cycles in accordance with 7.3.1.3 should be combined to result in total cycles. No individual steps should be repeated during the total cycles.

7.3.1.5 Acceptance criteria

a) Function

Check the correct function of the hardware in accordance with 5.2.

b) Locking point variable tolerance

Check the locking point variable tolerance in accordance with 5.3.

c) Handle operation tolerance

Check that the specimen (central locking system) functions correctly in accordance with 5.4.

7.3.2 Reversed position durability test

The reversible cycle testing shall be carried out with 250 cycles (as a cleaning and maintenance type of operation).

Reversing cycles shall be carried out at a moderate velocity, as expected in common practice. Where suitable test equipment is not available for this test, the test should be carried out manually.

Initial position: The active sash is in the closed position.

Reversed position cycle / opening: Operate the sash from the closed position to the fully reversed position.

If the active sash is equipped with hold open restrictors, these should be disengaged after every cycle.

Rest time: Once the fully reversed position is reached, a rest time of 2 s shall be applied.

Reversed position cycle / closing: Operate the sash from the fully reversed position to the closed position.

Rest time: Once the closed position is reached, a rest time of 2 s shall be applied.

After the reversed position durability test the active sash and the hardware shall function correctly.

7.4 Balance tests

This test is carried out on pivot hinges for horizontal pivot windows equipped with braking or arresting capabilities.

Before this test the active sash should be adjusted.

Open the active sash to an angle of (10 ± 3)° without pivot play, and leave for (300 0/+ 30) s.

Measure again and record the angle.

Set the active sash to an angle of (20 ± 3)° without pivot play.

Measure and record the value of the set angle again after (300 0/+ 30) s.

After the balance test there shall be no more than 5° deviation from the angle measured before the test in accordance with 5.5.

7.5 Static Tests

7.5.1 Ventilation position static test on horizontal pivot windows

Refer to Figure 2. The active sash shall be blocked in a 100 mm open position.

In the case of an integrated restrictor prohibiting the 100 mm opening travel, the restrictor should be disengaged or disabled.

Apply a force of (500 0/+ 25) N in a jerk and jolt-free manner, vertically at the centre of the top transom (top rail). Maintain the force of (500 0/+25) N for (60 0/+ 10) s.

After this static test the hardware shall continue to function correctly in accordance with 5.6.

Dimensions in millimetres

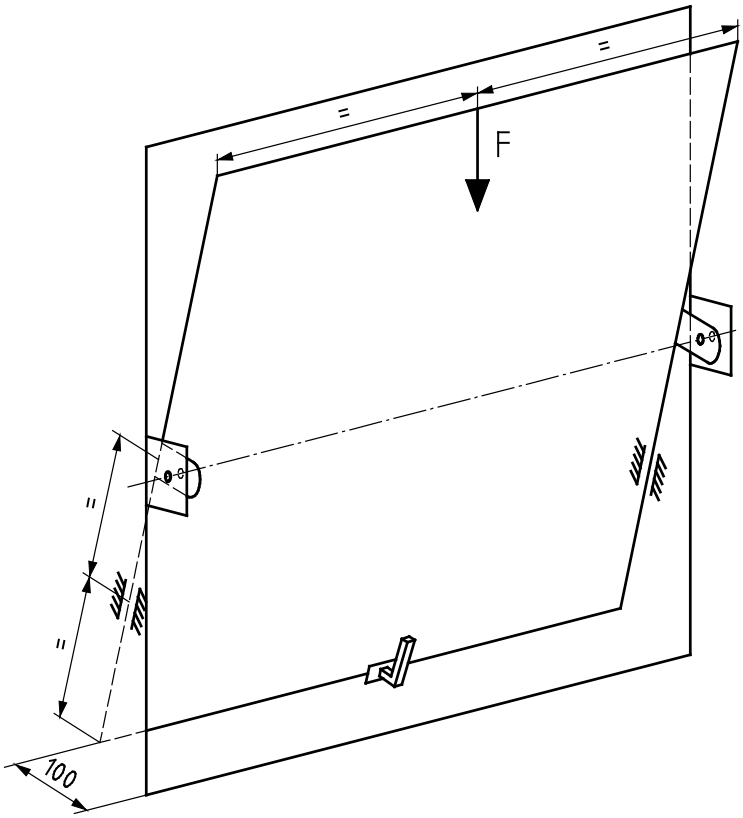


Figure 2 — Ventilation position static test on horizontal pivot windows

7.5.2 Ventilation position static test on vertical pivot windows

Refer to Figure 3. The active sash shall be arrested in a 100 mm open position.

In the case of an integrated restrictor prohibiting the 100 mm opening travel, the restrictor should be disengaged or disabled.

Apply a force of (500 0/+ 25) N in a jerk and jolt-free manner, vertically at the centre of the handle-side vertical sash profile part of the active sash. Maintain the force of (500 0/+ 25) N for (60 0/+10) s.

After this static test the hardware shall continue to function correctly in accordance with 5.6.

Dimensions in millimetres

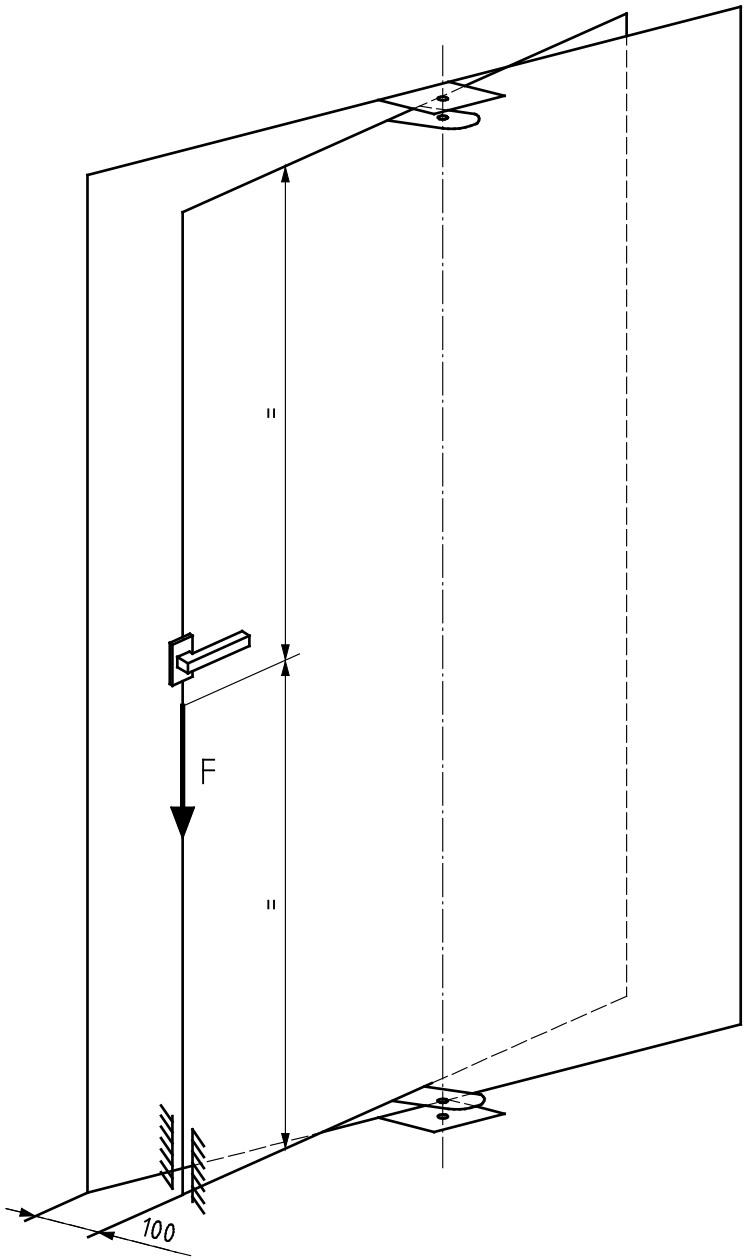


Figure 3 — Ventilation position static test on vertical pivot windows

7.5.3 Reversed position static test on horizontal pivot windows

Refer to Figure 4. The sash shall be blocked in the reversed position.

If the active sash is equipped with hold open restrictors, these should be disengaged.

Apply a force of (500 0/+ 25) N in a jerk- and jolt-free manner, vertically at the centre of the top positioned bottom transom. Maintain the force of (500 0/+ 25) N for (60 0/+10) s.

After this static test the hardware shall continue to function correctly in accordance with 5.6.

Dimensions in millimetres

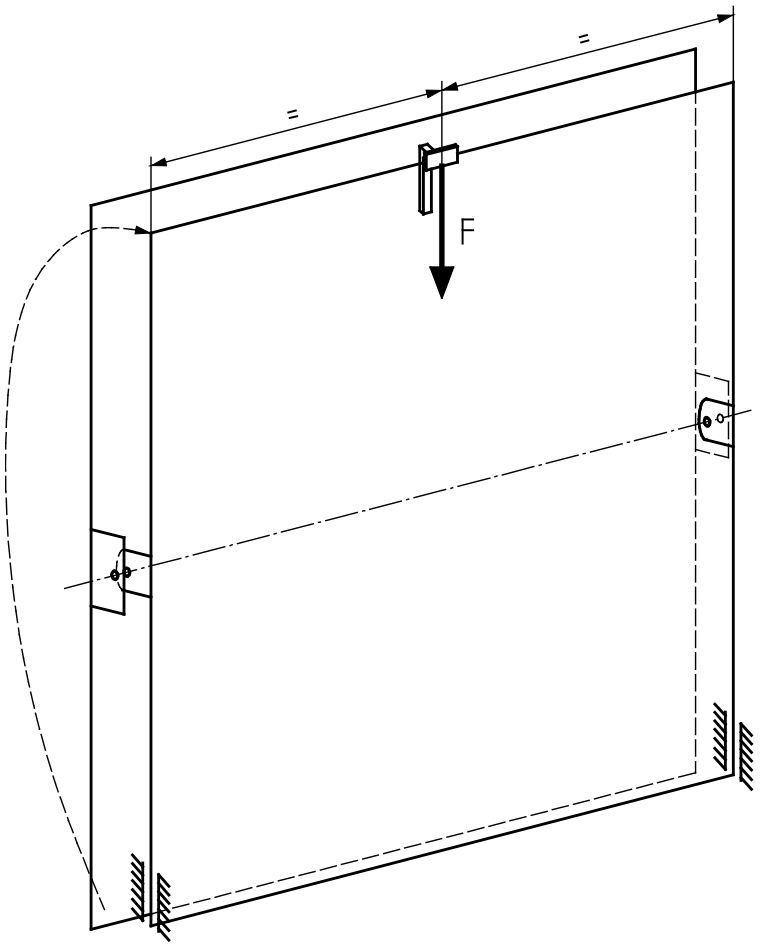


Figure 4 — Reversed position static test on horizontal pivot windows

7.5.4 Reversed position static test on vertical pivot windows

Refer to Figure 5. The sash shall be arrested in the reversed position.

If the active sash is equipped with hold open restrictors, these should be disengaged.

Apply a force of (500 0/+ 25) N in a jerk and jolt-free manner, vertically at the centre of the handle-side vertical sash profile part of the active sash. Maintain the force of (500 0/+ 25) N for (60 0/+ 10) s.

After this static test the hardware shall continue to function correctly in accordance with 5.6.

Dimensions in millimetres

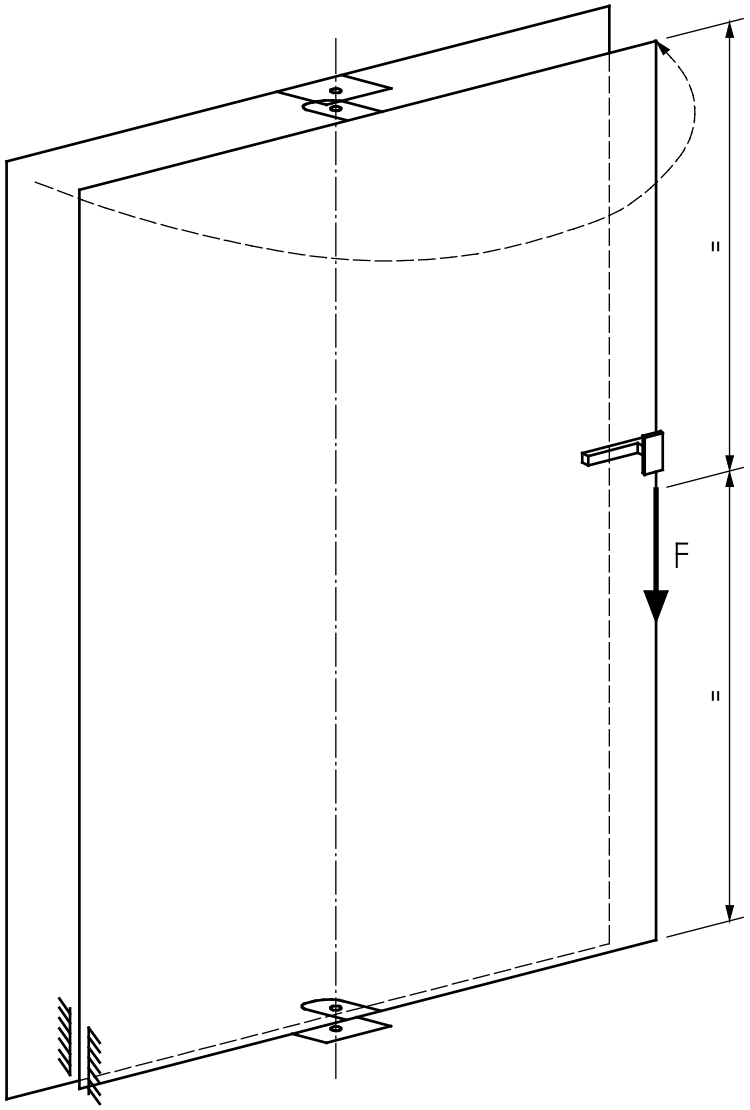


Figure 5 — Reversed position static test on vertical pivot windows

7.6 Free fall test for horizontal pivot windows

After releasing the braking function, the active sash is brought into an opening position of 150° and is then released to fall with its own weight into the reversed position.

Test the sash three times.

In accordance with 5.7, upon completion of the free fall test the sash shall not fall out of the frame. The hardware shall still demonstrate a connection between the sash and the frame.

7.7 Rebate hindrance test for vertical pivot windows

Refer to Figure 6. A rigid hindrance (e.g. made from steel) with the dimensions shown in Figure 6 has to be screwed firmly to the frame at a distance of 200 mm from the centre of the lower pivot hinge to the centre of the hindrance. The sash has to be measured from one position, 200 mm before the end position (= position of the sash at the rebate hindrance), through which a falling test mass of 10 kg accelerates.

The test mass shall be connected by a cable to the test specimen near the window handle. The cable length shall be selected so that the test mass comes to a halt 20 mm before the sash reaches its final position and collides with the hindrance (obstacle). After every test the sash shall be permitted to swing to a halt.

Test the sash three times.

In accordance with 5.8, upon completion of the rebate hindrance test the sash shall not drop. The hardware shall still demonstrate a connection between the sash and the frame.

7.8 Minimum closing device resistance test

The locking mechanism (espagnolette) shall be inserted into a testing-rig that blocks the locking mechanism transmission. For example in the case of an espagnolette, the face-plate and runner-bead shall be blocked using a clamping-device.

Exert a torque of (25 0/+ 1) Nm to the locking mechanism – maintain this torque for (60 0/+ 10) s.

In accordance with 5.9 after the minimum closing device resistance test the closing device shall continue to operate.

The results of this minimum closing device resistance test in accordance with 5.9 shall be submitted by the hardware manufacturer by a self declaration with supporting documentation to the test house.

7.9 Corrosion resistance

Unless a test report can be provided by the manufacturer, the hardware shall be tested in accordance with EN 1670.

Dimensions in millimetres

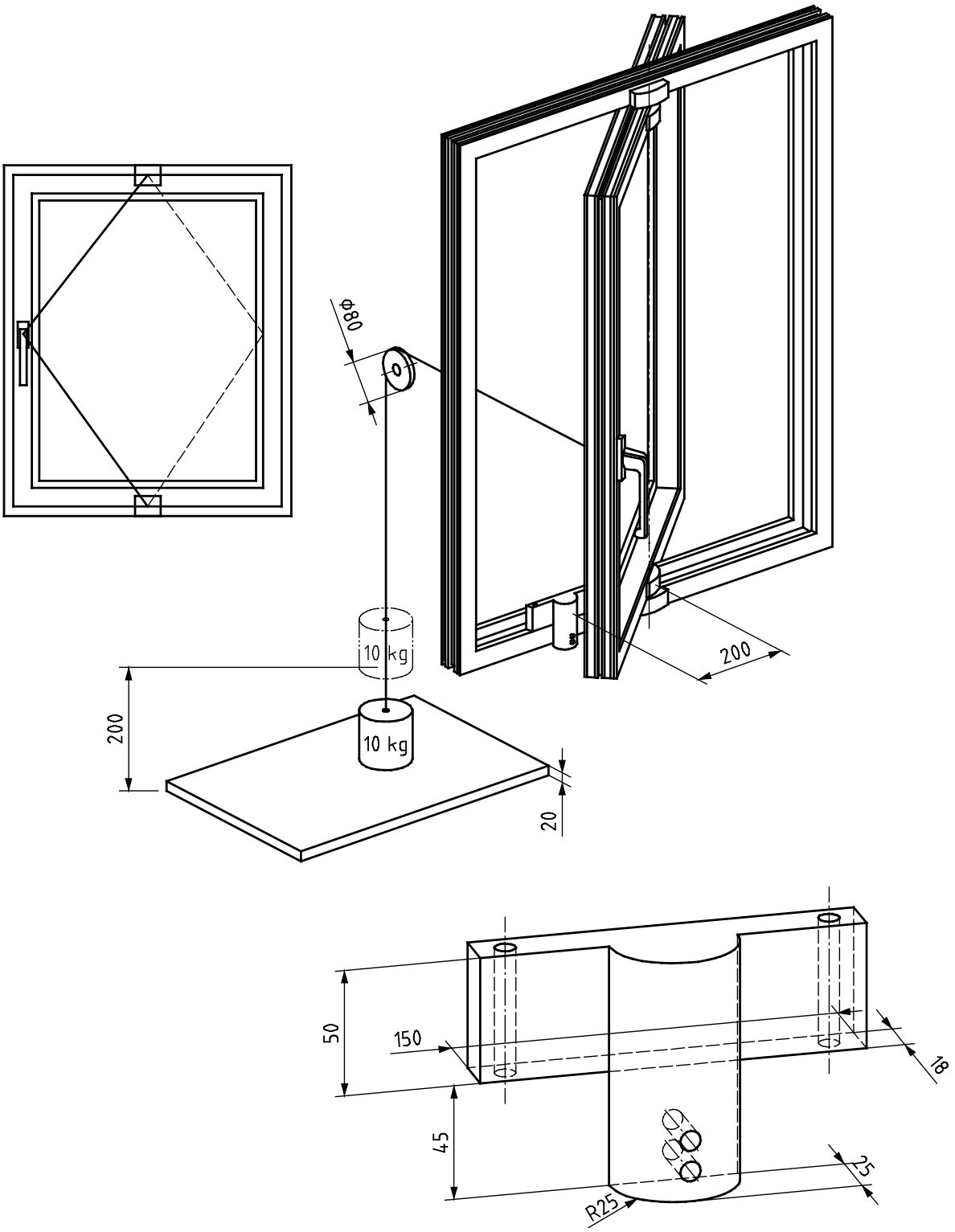
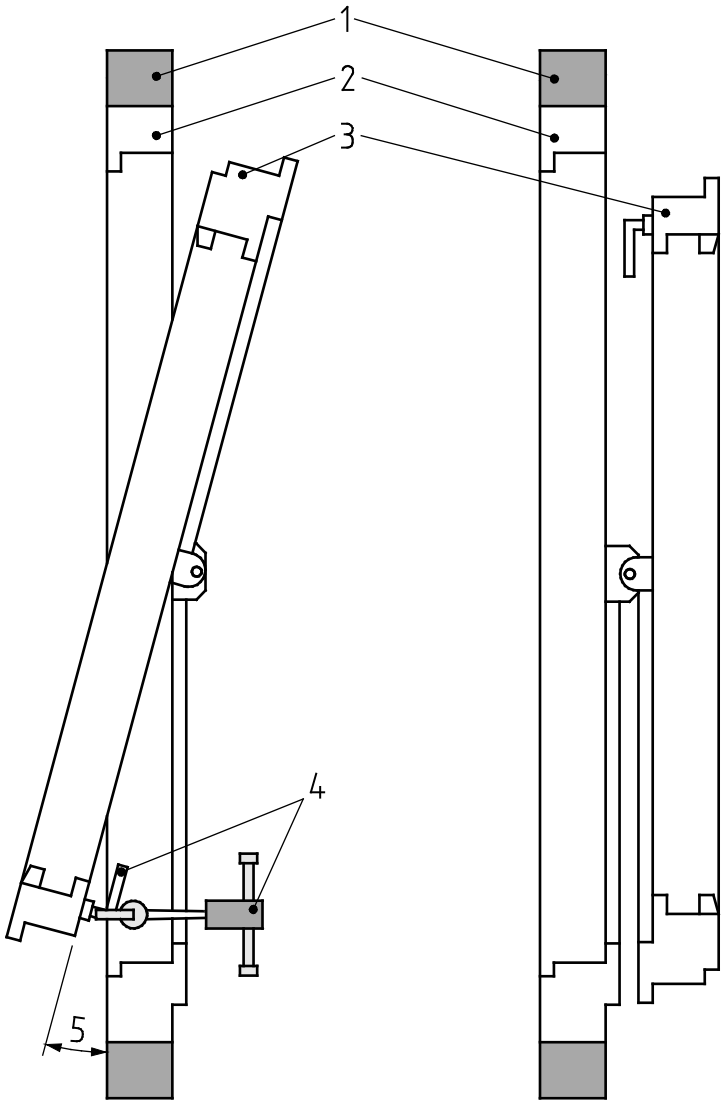


Figure 6 — Rebate hindrance test

Annex A
(informative)

Test equipment



Key

1 part of the test rig (example)

2 specimen (frame)

3 active sash

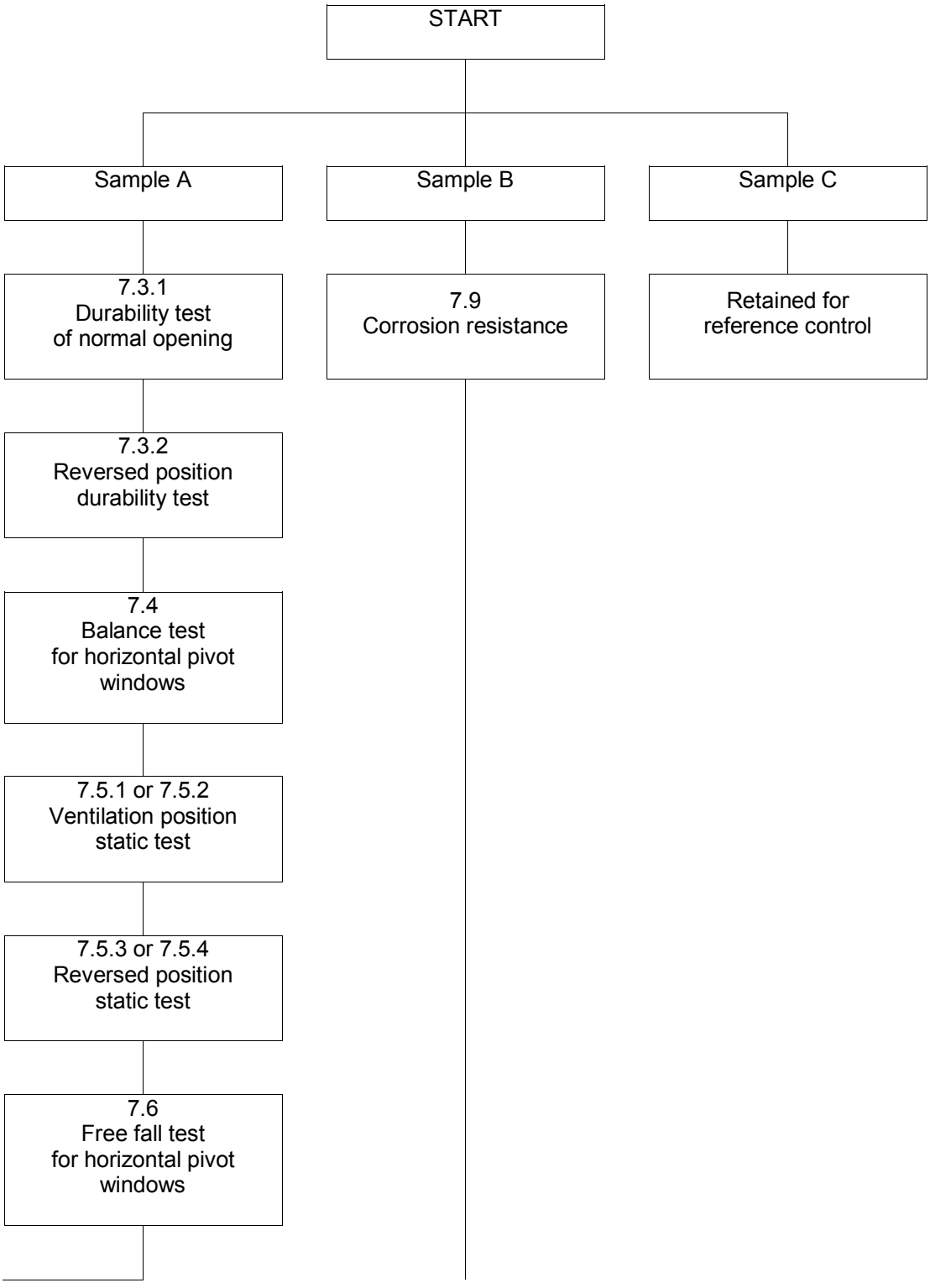
4 handle and manipulator of the test equipment for operating the central locking system and the active sash

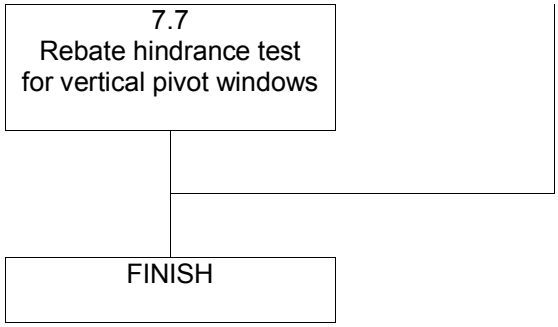
5 angle of aperture

Figure A.1 — Test equipment : horizontally pivoted sash shown in various positions

Annex B
(normative)

Flowchart of test procedures




7.7
Rebate hindrance test
for vertical pivot windows
FINISH

Bibliography

[1] EN 13126-2, *Building hardware — Requirements and test methods for windows and doors height windows — Part 2: Window fastener handles*

[2] 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*

[3] 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*

[4] EN 13126-7, *Building hardware — Requirements and test methods for windows and door height windows — Part 7: Finger catches*

[5] EN 13126-14, *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 14: Sash fasteners*

[6] 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*

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