

Installation and maintenance instructions of EI30 fireproof wooden doors with a metal jamb

Version A, 8/10/2020

The fire resistance of these wooden doors has been determined in accordance with test standard EN1634-1:2014+ A1:2018, smoke resistance in accordance with standard EN 1634-3: 2004, self-closing in accordance with standard EN 1191:2012 and classified in accordance with standard EN13501-2:2016. The value of the weighted airborne sound insulation index R_w of solid doors, measured in the laboratory and determined according to ISO 717-1, is $R_w (C;Ctr) = 40 (-2;-5)$ dB. Permitted dimensions and other accessories according to the approved technical specification in the certificate of conformity ANNEX Z.

This is a product designed to ensure human safety, so read this manual carefully before installation. The person responsible for the construction work must ensure that the following requirements are met. The signed installation instructions must be available if necessary and will be added to the building's completion documentation at a later date.

Order

No: _____ Customer: _____
_____ Responsible person (name,
signature): _____

Door marking: _____

Installation

company: _____
Installer (name, signature)

_____ Date: _____

Upon receipt of the order:

Check that the specification and quantity of the goods correspond to those indicated in the accompanying documents (invoice). Certified doors have the corresponding markings on the hinge side at a height of approx. 1700 mm. The maximum permissible dimensions of certified doors are specified in the annex to the certificate of conformity. Please submit comments and complaints to the seller within 7 days of receipt of the goods. To protect the products from dirt and possible mechanical damage during transport and handling, the door sets are always delivered assembled and packed in a polyethylene plastic bag. Corrugated cardboard boxes are attached to the longer sides of the frame for extra protection.

One side of the box shall bear the following information:

- production order number
- customer ID
- production order pos. No
- door set dimensions or module designation, e.g., M10x21
- the handiness of the door set.

Transport packaging is not suitable for long-term storage of products on site. In the event of transport damage, a corresponding note must be made on the consignment note of the transport company upon receipt of the goods. It is not permitted to install a defective or damaged product without the permission of the manufacturer! The door factory does not reimburse the additional costs caused by the installation of damaged products.

Pre-installation storage

The doors are packed in a transport package that only protects the door set during transport and handling. When moving by hand, it must be taken into account that larger door sets can weigh more than 90 kg, in particular, to avoid falling onto a corner. Doors must be stored indoors in a dry and even temperature, outdoor storage is not permitted! The products must be stacked horizontally on a flat and dry base with at least three supports of the same thickness per door height to distribute the weight evenly.

Veneered doors must be protected from direct sunlight to prevent fading and the resulting differences in color shade.

The doors are made of wooden materials, which tend to swell under the influence of moisture, and in the worst case, this can lead to cracking of the finishing layer and breakage of the adhesive joint.

The manufacturer accepts no liability for moisture damage caused by improper storage or processes in progress or on site (casting, tiling, finishing, etc.).

NB! General warnings!

- This manual is intended for experienced installers. It is not suitable for amateurs, nor is it a study material for training installers.
- Certain parts of the set may have sharp or toothed edges. We recommend wearing protective gloves.
- All parts required for the installation of this door are included in the delivery, except for the fasteners, sealing materials for filling the gap between the jamb and the wall, and support blocks. The addition of other parts may affect the safety of the door as well as the validity of its warranty.
- Make sure there is enough light in the installation area. Remove excess items and dirt. Restricted access to unauthorized persons. Other people (especially children!) may be at risk.
- Make sure that the wall where the door is to be installed is strong enough. If in doubt, consult the builder.

EI30 fire doors can be installed in concrete, lightweight block or stone walls with a density of at least 450 kg/m³.

1. Fasteners

The jamb fasteners must be selected according to the type of wall, and the following fasteners must be used:

- **Concrete and stone walls:** (brick, natural stone, Columbia type block) concrete screw with a minimum length of 7.5 x 65 mm (e.g., ESSVE art. 105267), pre-drill a Ø6 mm hole
 - **Lightweight concrete walls:** (min. density 450 kg/m³) lightweight concrete screw 8.0 x 120 mm (e.g., ESSVE art. 10523), this screw does not require pre-drilling of the hole.
- Use a 10 mm Allen key to adjust the sleeves. **NB! In the case of hollow blocks (e.g., Columbia block), the extreme cavities must be completely cast!**

2. Installation of doors

Fire doors are intended to close the passages between the fire compartments of heated work and living quarters. The passage gap of the doors is designed to ensure the required performance characteristics of the fire doors, **therefore special care must be taken with the installation work, and we strongly recommend the use of an experienced installation team.** The manufacturer is not responsible for errors or possible inconveniences during operation due to incorrect installation.

The door leaf or jamb must not be machined or adjusted in any way!

When installing the door set, proceed as follows:

1. Carefully remove the door from the package, then remove the door leaf from the frame by lifting the door leaf off the hinge pins. Lean the door leaf stably on the side of the adjacent wall, first placing pieces of corrugated cardboard between the lower edge of the door leaf and the floor and between the upper edge and the wall to prevent damage to the door leaf or wall. Make sure that the structural opening in which you want to install the fire door is 20-30 mm larger than the external dimensions of the frame, the maximum permitted distance on both sides and top is 20 mm. If the sealing cracks are larger, the opening must be corrected. Make sure that the jamb and fasteners do not come into contact with any communications inside the wall.
2. Make sure that the surface below the door sill is smooth and level. If necessary, support the gap under the door threshold with wedges or wooden blocks to prevent possible deflection when stepping on the threshold.
3. Raise the jamb into the opening at the prescribed distance from the outer surface of the wall. Make sure that the jamb support points are under the side profiles to prevent the door from later sinking. Check the horizontal profile of the top frame with a spirit level. The structural opening in which you start to install the door must be dry!
4. Level the hinge side of the jamb and start mounting the jamb from the mounting holes 1, 2, and 3 (Figure 1). Adjust the sleeves against the support surface (Figure 2). The maximum

projection of the sleeve from the rear of the frame is 20 mm. Use the fasteners assigned to the sleeves (1 . Fasteners). Tighten the screws.

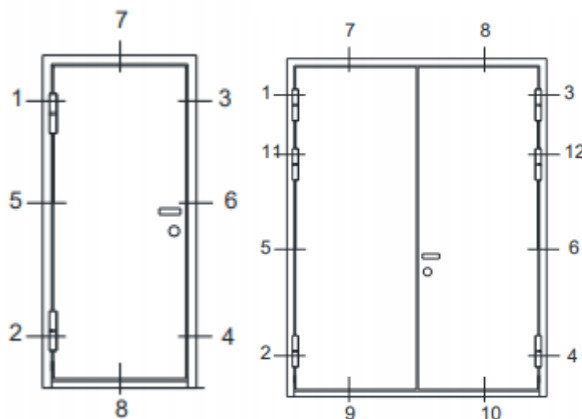


Figure 1. Mounting points of the jambs

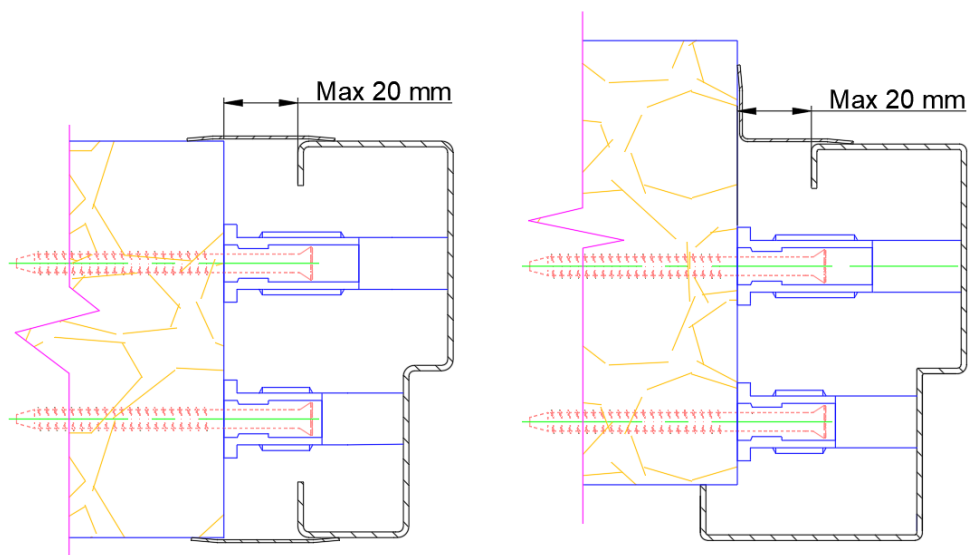


Figure 2. Mounting of the jambs with sleeves

5. Raise the door leaf to the hinges. Make sure the clearances between the door leaf and the jamb and the outer surface of the door and the jamb surface are parallel. In addition, make sure that the door leaf opens and closes freely. If necessary, loosen the fastening screw and adjust the clearances and the parallel position of the surfaces by adjusting the sleeve with a hex key.
6. Check that the passage gaps between the door frame and door leaf are equal and within the range of 1.5-3 mm. (Fine adjustment of the clearances is made after the final installation and sealing of the frame, see "Hinge adjustment" below).
7. Check that the diagonals are even and that the uprights are vertical in both directions (the locking of the wind latch and the pressure on the seals can be slightly adjusted with a locking plate after final installation and sealing).
8. Secure the jam at all other mounting points, observing the parallelism of the clearances.

9. Check with an induction tester that the product is not under voltage. Otherwise, turn off the power and ground the product. Electrical work may only be performed by a qualified electrician.
10. The mounting holes shall be covered with plastic caps (included).

3. Filling and finishing the gap between the jamb and the wall

1. The gap between the jamb and the wall must be filled with fire-retardant mineral wool (A2-s1, d0) with a density of at least 37 kg/m³. When sealing the gaps, care must be taken to ensure that the jambs do not bend due to excessive use of sealing materials.
2. The maximum permissible width of the gap between the jamb and the wall is 20 mm at the top and at the sides
3. After sealing the gaps, check the free movement of the door.
4. Finish the pre-sealed slots with building board, plaster mixture, cover with a metal strip attached with a pull rivet, or with a wooden strip.

Remember!

Fire and soundproof wooden doors are heavy, and care must be taken when moving or installing them by hand.

A special silicone seal is used in the door leaf, which exerts a back pressure when closing the door, therefore, it may happen that sometimes the door does not close properly. Check manually the locking of the tumbler.

The use of painting tapes and films on doors

When finishing the surfaces adjacent to the door, it may be necessary to cover the door leaf and frames with painting film. The following must be taken into account when taping:

- Use tapes recommended by the paint manufacturer.
- Follow the tape manufacturer's instructions.
- In places exposed to direct sunlight, the tape must be UV-resistant.
- The surfaces to be taped must be clean and dry.
- Remove the tape as soon as possible, after 3-4 days at the latest.

Softeners added to improve the adhesion of the adhesive layer of the paint tape may damage the finish. If in doubt about the suitability of the tape, try it on a smaller and less visible surface first.

The paint manufacturer recommends the use of the following tapes: Tesa Blå 4308, Scotch Blue 2080 60 Day, Scotch Blue 2090 14 Day.

The manufacturer accepts no liability for defects caused by improper use of the tapes - tears in the veneer layer, changes in the color, or removal of the finishing layer.

Maintenance of fire and smoke doors

Fire and smoke doors are frequently used products and play an important role in the fire safety of the entire building, so the building owner is obliged to ensure that all opening fillings are fully operational and to be regularly monitored at least once a year.

Maintenance of fire and smoke doors includes an assessment of the door assembly and surrounding structure, self-closing ability control, automatic closing control in the case of ATS, latching, locking, and other maintenance activities.

Maintenance work must be documented by the owner.

Operation and maintenance of escape doors and locks

Escape doors and fittings must be regularly inspected by a person appointed by the official in charge of the building or establishment. The frequency of inspections shall be determined by the staff member responsible, but shall take place at least quarterly. The inspection and, where necessary, maintenance of escape doors and locks must ensure their proper functioning in an emergency.

If the door in the escape route is a fire door, the fire door must also be checked once a quarter.

Hinge adjustment

The used door hinge N3248-110 TMKSS allows vertical and horizontal adjustment

Door leaf adjustment up/down, see Figure 3.

Remove the protective cap **1** (5 mm hex key) on one door hinge.

By turning the hexagon bolt below it **2** (with a 5 mm hex key) clockwise, the door leaf moves upwards (one full turn raises the door leaf 1 mm), when turning the bolt counterclockwise, it moves downwards. When the door leaf has risen to the desired height, adjust the other hinges in the same way so that the weight of the door leaf is evenly distributed between the hinges. Slightly tighten the upper protective caps **1**.

Adjusting the lateral passage gaps, see. Figure 3

Open the door leaf so that the frame-side hinge mounting screws can be accessed without hindrance. Loosen the middle hinge mounting bolts with a **3** Torx 25 key by approx. 1.5 turns.

Turn the adjusting bolts **4** (4 mm hex key) clockwise to increase the passage gap on the hinge side (one full turn moves the door leaf by approx. 2 mm). Turn the adjusting bolts **4** to the same depth, carefully tighten the fastening screws **3**. If necessary, make the same adjustments at the upper hinge. It is important that the axis of the middle hinge is in line with the axis of the upper and lower hinges. Finally, retighten the fastening screws **3** of all hinges.

Remember! The adjustment of the hinges corrects the position of the door leaf in relation to the frame (passage gaps), it cannot be used to eliminate the curvature of incorrectly installed

frames. Regular lubrication of the door hinges twice a year improves their performance and prolongs their service life.

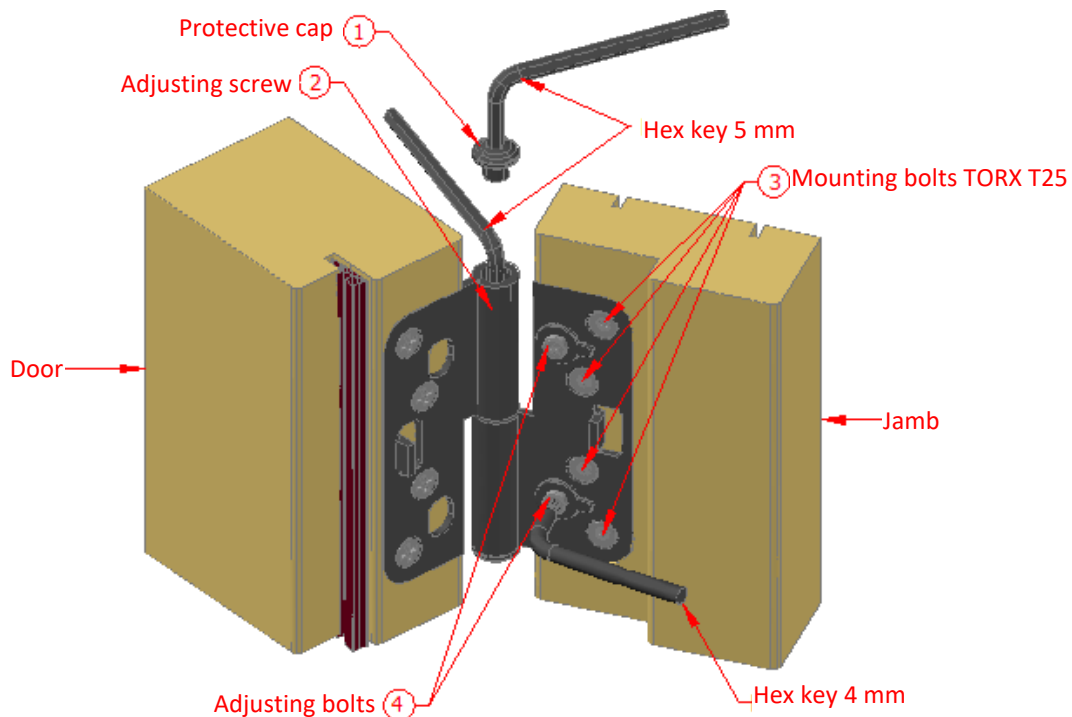


Figure 3. Hinge adjustment

Lock maintenance

For proper operation of the lock, lubricate all moving parts with lock oil at least once a year. Check that the bolts on the handle, lock frame and keyhole are properly tightened. Remember that the locks only work if the doors are properly closed. As a special silicone seal is used in the door leaf, which exerts a back pressure when closing the door, the locking of the tumbler must be checked manually by pulling or pushing the door leaf.

Surface care

Varnished, painted, and oil-impregnated surfaces must be kept dry. Any stains must be removed immediately to prevent them from drying or absorbing. Clean the surface of a painted, varnished or laminated door with a soft cloth, if necessary using a general cleaning agent in the prescribed ratio with water. The cleaning agent should be sprayed on the cloth, not on the surface to be cleaned. If, after cleaning, the surface remains wet for more than 30 seconds, the surface should be dried, not allowed to dry.

We recommend cleaning the door glass with a standard glass cleaner using a soft cleaning cloth.

Do not use soluble organic compounds such as acetone, alcohol, benzine, nail polish remover, etc. to clean the surfaces of doors and jambs. Also, pastes and liquids containing bleaching and abrasive substances, scouring powders, brushes, and other mechanical aids must not be used.

When using disinfectants containing alcohol, never spray them on a painted or varnished surface, but pour or spray them on a soft cleaning cloth and then clean the handles, key sockets, rosettes, and other surface-mounted fittings.

Closing device

The fire door must be equipped with a closing device which, according to the manufacturer's specifications, corresponds to the place of use and door parameters (width, weight) of the given door in terms of its closing force and other characteristics and ensures complete closing of the door. Door latches shall comply with the harmonized standard EN 1154 "Window and door accessories. Controlled door closing devices. Requirements and test methods" and bear the corresponding CE marking.

The **third** digit of the door latch number code indicates the force of the door latch according to the weight of the door leaf and should be at least **4**, i.e., it is suitable for closing a door leaf **weighing up to 80 kg**, and **5**, which is suitable for a door leaf of up to 100 kg.

The **fourth** digit of the door latch number code characterizes the fire resistance of the door:

- class **0** : not suitable for use in fire doors;
- class **1** : suitable for use on fire doors.

The closing device must not be adjustable so that the door can be fixed in the open position or the closing device can be detached from the door leaf without the use of tools.

In the case of a hinged double door, of which only one side is opened daily and the other side is kept latched, the closing device must only be on the first-mentioned (active) door leaf.

The closing device does not have to be used on the exterior doors of apartments and on technical rooms and maintenance rooms that are kept locked in normal use.

If the use of the room requires the door to be kept open at all times, the door must be fitted with a closing device which closes the door automatically in the event of a fire.

For double doors with a closing device on both door leaves, a door damper must be used to close the door leaves in the correct order. Both leaves of the door set must latch automatically when closing.

A high-speed or automatic latch must be used to lock the passive door leaf of a double door. By way of exception, the edge latch can be used only on the exterior doors of apartments, on the doors of accommodation rooms, and on technical rooms and maintenance rooms that are kept locked in normal use.

The manufacturer reserves the right to make changes.