

**Information:**

These doors can perform fire and acoustic functions or fire, smoke protection and acoustic functions.



Installation should be carried out in dry, well ventilated areas, after finishing any other finishing works such as painting, floor laying, plastering. Prior to starting assembly, the unpacked door leaf and door frame should be checked qualitatively and quantitatively and the wall opening dimensions and outer dimensions of the door frame should be measured. Any discrepancies and visible mechanical damages reported after installation are not covered by the warranty. Mounted handles must have a steel spindle. Door frames, which are provided for rooms where the floor is to be washed wet, have to be secured from the bottom with silicone. Taking into account the thermal and humidity conditions required for use of the HALSPAN EI 30 and EI 60 doors, the installation should be carried out under conditions similar to the conditions of use. Terms of use are ambient temperature between 5 and 30°C and maximum ambient humidity of 60%.

**Conditions of use:**

Fire doors can be installed to the walls:

- brick walls made of solid bricks, thickness not less than 115 mm,
- walls made of cellular concrete or silicate blocks, grid or sieve bricks, thickness not less than 150 mm (for EI30 doors) and 175 mm (for EI60 doors),
- walls made of concrete, thickness not less than 100 mm,
- walls made of plasterboards with fire resistance class not less than EI30 (for EI30 doors) and not less than EI60 (for EI60 doors).

The use of doors covered by Technical Approval AT-15-6103 / 2013 should be based on the technical project, complying with applicable standards and regulations. Installation of door frame, door leaf assembly and maintenance should be done in accordance with the manufacturer's instructions, delivered to the customer with each delivery of the product.

**Assembly:**

1. Dimensions of wall opening should be prepared according to dimensions indicated in the project specification.
2. Set the door frame in the wall opening and then secure it against accidental dropping using the mounting clamp. Lock the upper corners of the door frame with wooden wedges. Set the level of the upper horizontal element and the vertical of vertical elements by positioning them with wooden wedges mounted on the expected height of the struts. Four spaced struts are recommended. In order to check, if the door frame is installed properly, hang up the door leaf and check its adherence to the door frame. If the door leaf does not adhere evenly to the door frame, make a hinge adjustment.  
**NOTE: The gap between the bottom edge of the door leaf and the floor is  $5 \pm 1$  mm.**
3. The door frame should be fixed to the wall using anchors (steel dowels), minimum 4 pieces for each vertical element. Anchor holes are not drilled, they must be carried out on their own.
4. The gap between the door frame and the wall can be filled optionally (according to [FIG.2] ):
  - filling with mineral wool put into the gap between the door frame and the wall, then complete from both sides (up to the depth of 5 mm) with fireproof foam or silicone or fire proof sealant (approved by Technical Approval for HALSPAN EI30 and EI 60 doors) - [FIG.2],
  - filling with fire proof mounting foam approved by Technical Approval - [FIG.2].
5. After hardening of materials that fill the gap between the door frame and the wall, the finishing works can be done:
  - removal of the struts and threshold distance bar,
  - removal of excess sealants,
  - installation of angle architraves,
  - in case of floors and walls to be washed wet, it is essential to protect the edges of the door frame and architraves, that contact directly with the floor or wall, against the humidity by using a color-matched silicone.
6. Hang the door leaf, install the self-closer in accordance with the Technical Approval for HALSPAN EI30 and EI60 doors, check the correct operation of the completely equipped door according to the parameters given in Technical Approval.
7. Correct operation of doors HALSPAN EI30 and EI60:
  - the door leaf should move without jams and brakes,
  - while closing the door, the door-closer should slow down and gently tighten the door leaf to close,
  - when the door leaf is closed, the seal should adhere on the whole length to the appropriate surfaces in accordance with construction assumptions.
8. After 30 days of use, the hinges should be tightened both in the door leaf and the door frame.

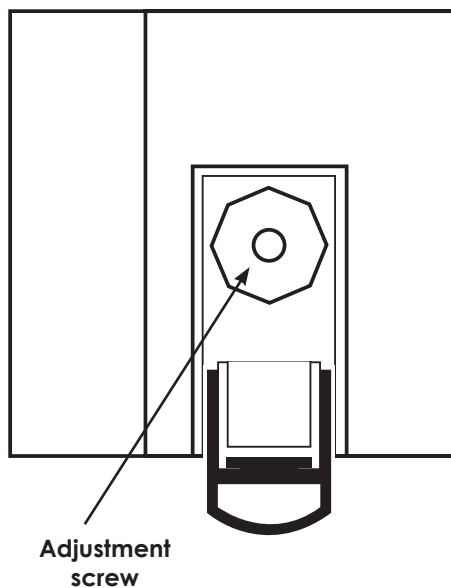
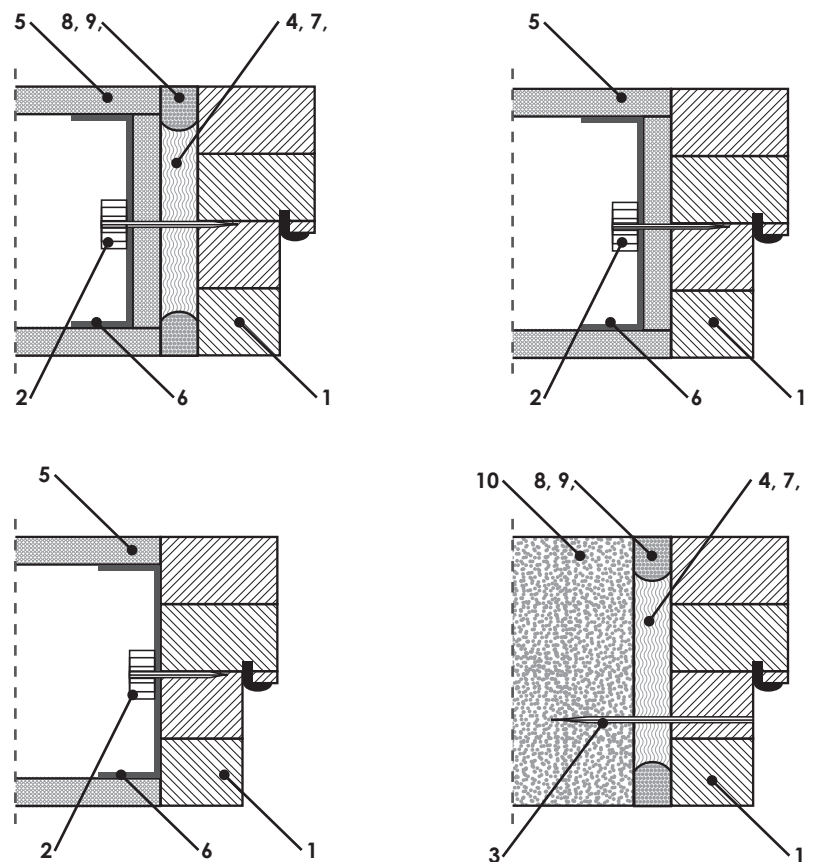
**INSTALLATION INSTRUCTION FOR HALSPAN/GUARDIA DOOR LEAF WITH WOODEN DOOR FRAME**
**Adjustment of the automatic door bottom seal:**

When after the assembly the automatic door bottom seal falls down insufficiently to the floor or falls down too low, so that there is no possibility of free closing of the door leaf, the seal has to be adjusted as below:

1. Open the door leaf as wide as possible.
2. Insert the Allen key into the hole in the bottom seal **[FIG.1]** and depending on whether the seal needs to be raised or lowered, turn in right or left until reaching the right height.
3. In the closed door position, the seal should be firmly attached to the floor.

**Final remarks:**

1. Locks must be equipped with cylinder inserts meeting the requirements of PN-EN 1303:2007/AC:2008 standard. The classification table should absolutely bear the number „1” in fourth place.
2. Each door leaf must be equipped with self-closer meeting the requirements of PN-EN 1154:1999 A1:2004 standard. The classification table should absolutely bear the number „1” in fourth place.
3. Double door should be equipped with the closing sequence controller, which should meet the requirements of PN-EN 1158:2007 standard.
4. Door leaves should be equipped with door handles (with shields) in accordance with PN-EN 1906:2003. Handles can be made of plastic with a steel spindle, aluminium, brass or stainless steel with a composite or split shield.

**FIG.1** Adjustment screw of automatic door bottom seal

**FIG.2** Ways of installation of wooden door frames for HALSPAN doors.


1. Wooden door frame.
2. Screws or steel nails with a minimum length of 50 mm.
3. Anchors with expansion sleeve with a minimum length of 152 mm.
4. Mineral wool with a density of not less than 80 kg/m<sup>3</sup>.
5. Plasterboard type F with minimum thickness 12,5 mm.
6. Steel section minimum U75.
7. Fire proof mounting foam Illbruck 1 K-P (according to AT-15-8200/2009) or another approved mounting foam.
8. Silicone Illbruck (according to AT-15-8200/2009) or another approved fire proof silicone for gaps up to 5 mm.
9. Acrylic Illbruck (according to AT-15-8200/2009) or another approved fire proof acrylic for gaps up to 5 mm.
10. Brick or concrete wall

