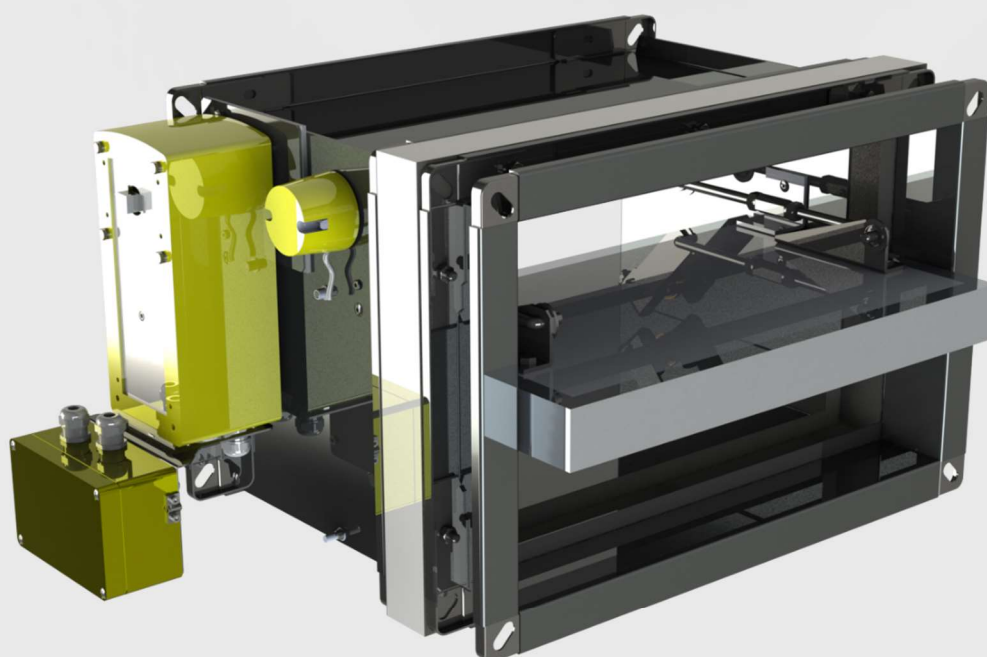


KWP-O- E(S)-EX

Fire Damper

Installation manual



SMAY™

Version 6.15

SMAY reserves the right to make changes to this document.

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INSTALLATION TECHNOOY

Before installing fire dampers, check whether the damper has been damaged during transport or storage. Place the damper straight on a flat surface and check that the damper opens and closes properly throughout its full range of motion. Opening and full closing must be smooth, and the movement of rotating elements must not be hindered. If the damper partition is blocked, further installation is not allowed. In the case of dampers with an actuator, open the damper with the key attached to the actuator. Do not pull the damper by its partition to open/close, this may cause permanent damage to the device which is not covered by the warranty.

Before installation, protect the damper with foil or other covering material to protect it against dirt and, consequently, damage to the damper components. Moreover, in rectangular dampers, it is necessary to use assembly wedges and a spacer to protect the body against compression during assembly. Be especially careful not to let metal objects (e.g. tools, loose fasteners) get into the damper and stay there after installing the ventilation ducts.

To preserve the declared resistance, insulation and smoke leakage EIS120, dampers should be installed in a wall, which was classified as EIS120. It is allowed to install dampers in wall with other fire-resistance, should be remembered that fire-resistance in this situation is resistance of lowest classified (in this regard) element in this system.

Ducts made of flammable and non-flammable materials can be connected to the damper. Ducts should be installed that they cannot load the damper during fire. Ducts lengthening during fire can be compensated by support and knee.

ATTENTION: Distance between fire dampers or fire damper and construction elements must be compatible with standard 1366-2:

- a. Minimal 200 mm between fire damper, which are installed in different ventilating ducts,
- b. Minimal 75 mm between fire damper and construction element (wall/ceiling).

The damper housing must be effectively grounded by connecting a ground wire with grounding clamp, which are placed on damper housing, and marked by symbol.



1. INSTALLATION TECHNOLOGY – RIGID WALL

1.1. INSTALLATION USING MORTAR

- a. Make an opening in the wall with the 100 [mm] (acceptable 80 ÷ 120 [mm]) greater than the nominal dimensions of the fire damper = B+100 and H+100.
- b. Put the closed fire damper into the installation opening on depth marked by undercuts on the damper body (dimension 60 mm), from one side fix it with suspension Z1, and from other side fix it to the ventilation duct suspended on Z2 suspension.
- c. After setting the fire damper as described, fill the gap between the fire damper and the wall with cement, cement-lime mortar, concrete, or PROMASTOP MG III of production of the PROMAT company.
- d. After 48 hours from the installation, the suspensions and supports used during installation of fire damper, may be removed.

ATTENTIONS:

- Carry out the installation in protective clothing, (gloves, glasses, helmet),
- Pay attention at the sharp edges of the sheets,
- Damper Baffle axis must be in horizontal or vertical position after montage
- Damper cannot be formwork for wall
- Ventilations duct should be installed that they cannot put any load on the damper, their suspension must ensure their full load capacity.
- The suspensions of the ventilation duct connected with the damper battery must be done according to instruction manufacturer of ventilation ducts
- In place of suspensions Z1 and Z2, which are installed for the time of assembly of the damper and in place of mortar binding it can be used mounting brackets, paying attention to the immobilization of the damper.

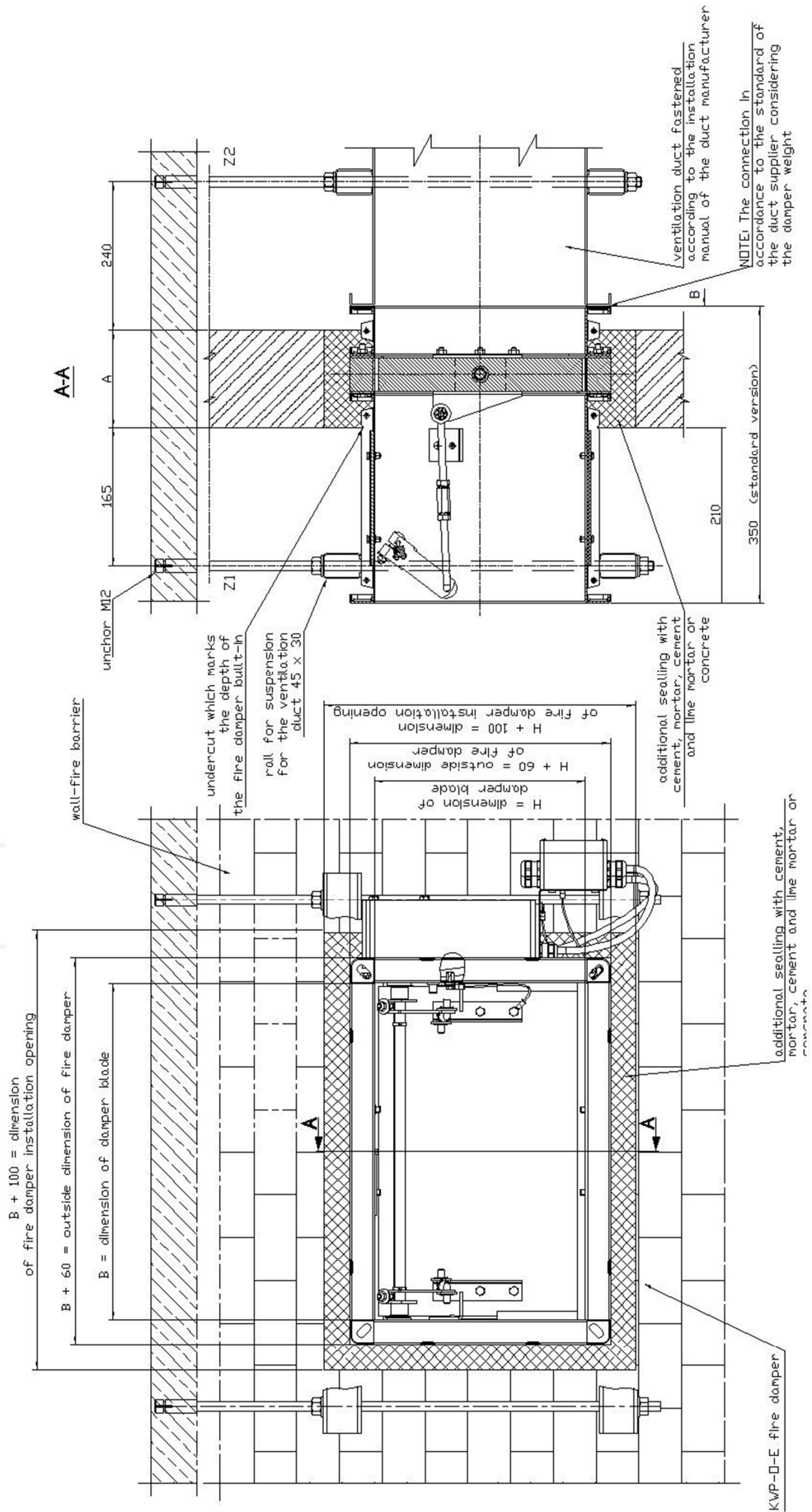


Figure 1 . Installation method of fire dampers KWP-O in rigid wall

1.2. INSTALLATION USING MINERAL WOOL

- a. Make an opening in the wall with the 100 [mm] (acceptable 80 ÷ 120 [mm]) greater than the nominal dimensions of the fire damper = B+100 and H+100.
- b. Put the closed fire damper into the installation opening on depth marked by undercuts on the damper body (dimension 60 mm), from one side fix it with suspension Z1, and from other side fix it to the ventilation duct suspended on Z2 suspension.
- c. After setting the fire damper as described, fill the gap between the fire damper and the wall with non-flammable mineral wool of high density, 80 kg/m³ or more.
- d. Seal the place of filling with mineral wool using the sealing compounds Hilti Firestop Coating CP 673, Promastop-CC, Promaseal-Mastic or Soudal Firesilicone B1 FR.
- e. Mount collar, both side of wall, made of GKF boards, 15 mm thick and 150 mm wide, using screws (with a cut hole for the damper). For easy assembly, the collar can be made of two parts.
- f. After mounting the collar, remove the supports or suspension, check the fire damper correct operation and leave it in open position.



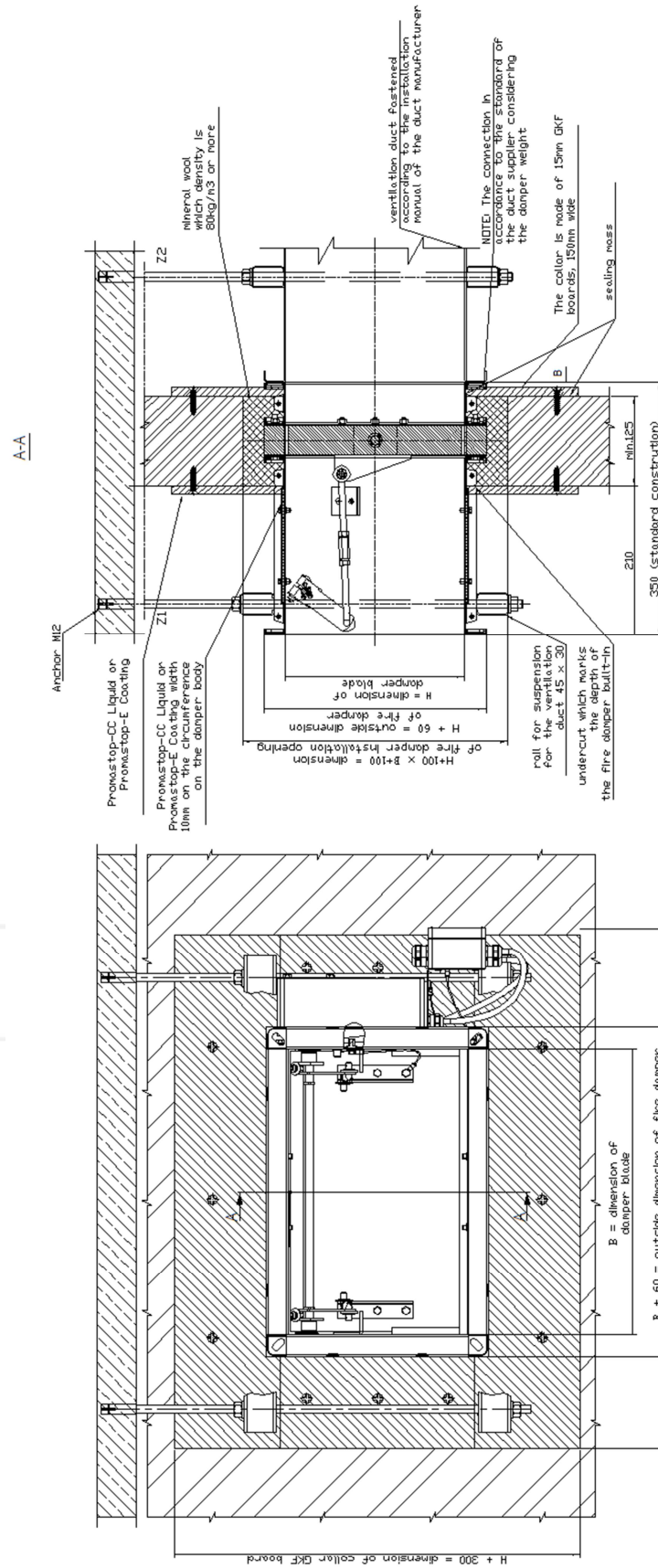


Figure 2. Installation method of fire dampers KWP-O in rigid wall

2. INSTALLATION TECHNOLOGY – FLEXIBLE WALL

- a. Make an opening in the wall with the dimensions 100 [mm] (acceptable 80 ÷ 120 [mm]) greater than the nominal dimensions of the fire damper = B+100 and H+100.
- b. Make a frame of two layers of GKF boards, 12,5 mm thick and the width relative to the width of opening, mounting by screws remembering to carefully seal the contact edges with a mastic: Hilti Firestop Coating CP 673, Promastop-CC, Promaseal-Mastic or Soudal Firesilicone B1 FR.
- c. Put the closed fire damper into the installation opening and support or suspend, in this way that the minimum installation depth mark is on the plane of the flange surface.
- d. After setting the fire damper as described, fill the gap between the fire damper and the wall with non-flammable mineral wool of high density, 80 kg/m³ or more.
- e. Seal the place of filling with mineral wool using the sealing compounds given in pts.2.
- f. Mount collar, both side of wall, made of GKF boards, 15 mm thick and 150 mm wide, using screws.
- g. After mounting the collar, remove the supports or suspensions, check the fire damper correct operation and leave it in open position.



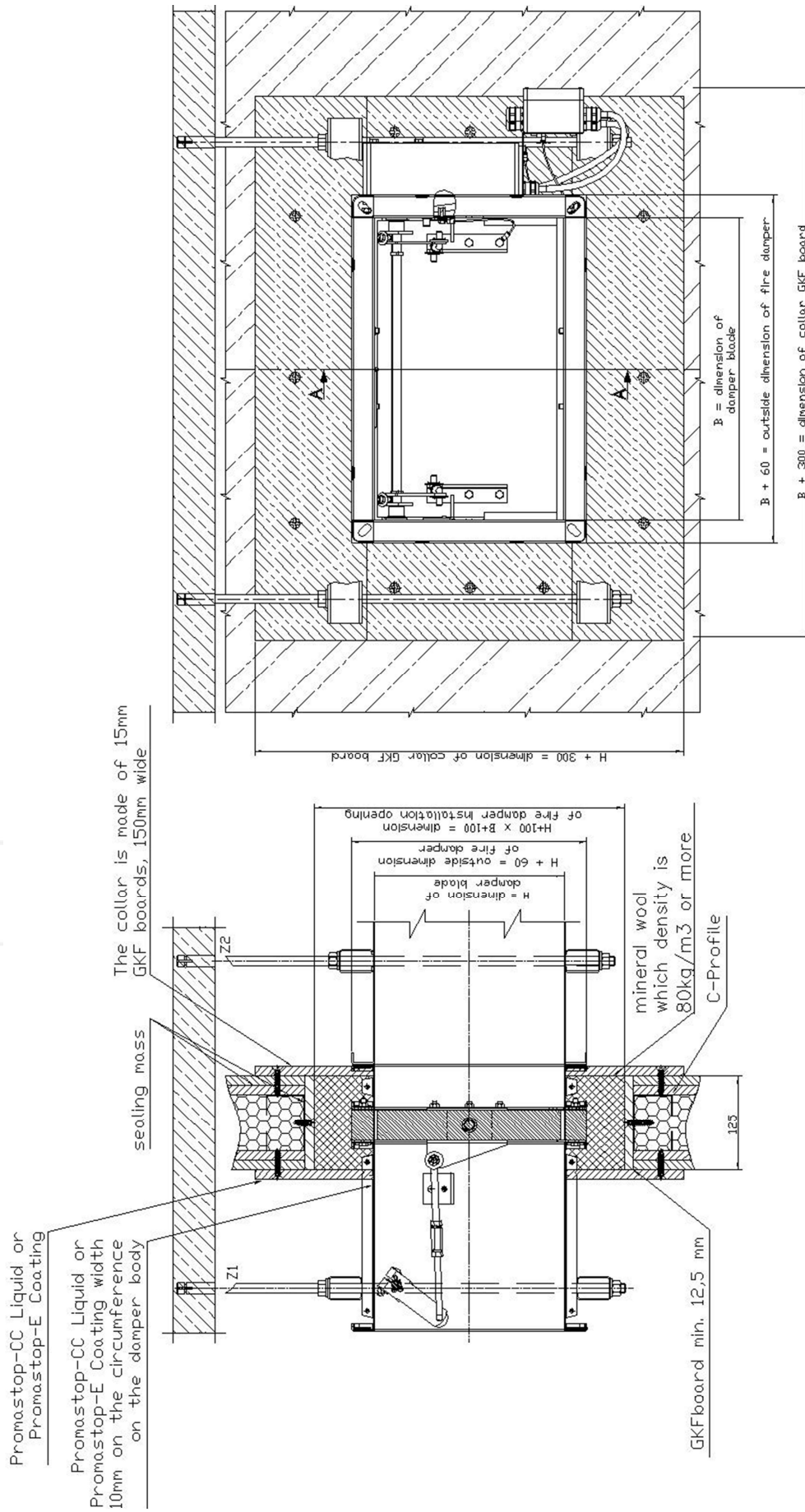


Figure 3. Installation method of fire dampers KWP-O in flexible wall

3. INSTALLATION TECHNOLOGY - CEILING

- Make an opening in the ceiling with the 100 [mm] (acceptable $80 \div 120$ [mm]) greater than the nominal dimensions of the fire damper = $B+100$ and $H+100$.
- Put the closed fire damper into the ceiling to the depth marked on housing (dimension 60mm)
- After setting the fire damper as described, with using montage supports, fill the gap between the fire damper and the wall with cement, cement-lime mortar, concrete, or PROMASTOP MG III of production of the PROMAT company.

ATTENTIONS:

- Install the mounting brackets on each side.
- Quantity of mounting brackets:
 - Side length up to 500 mm – 1 pcs.
 - Side length from 500 to 800 mm – 2 pcs.
- Mount the mounting brackets to the ceiling using dowels.

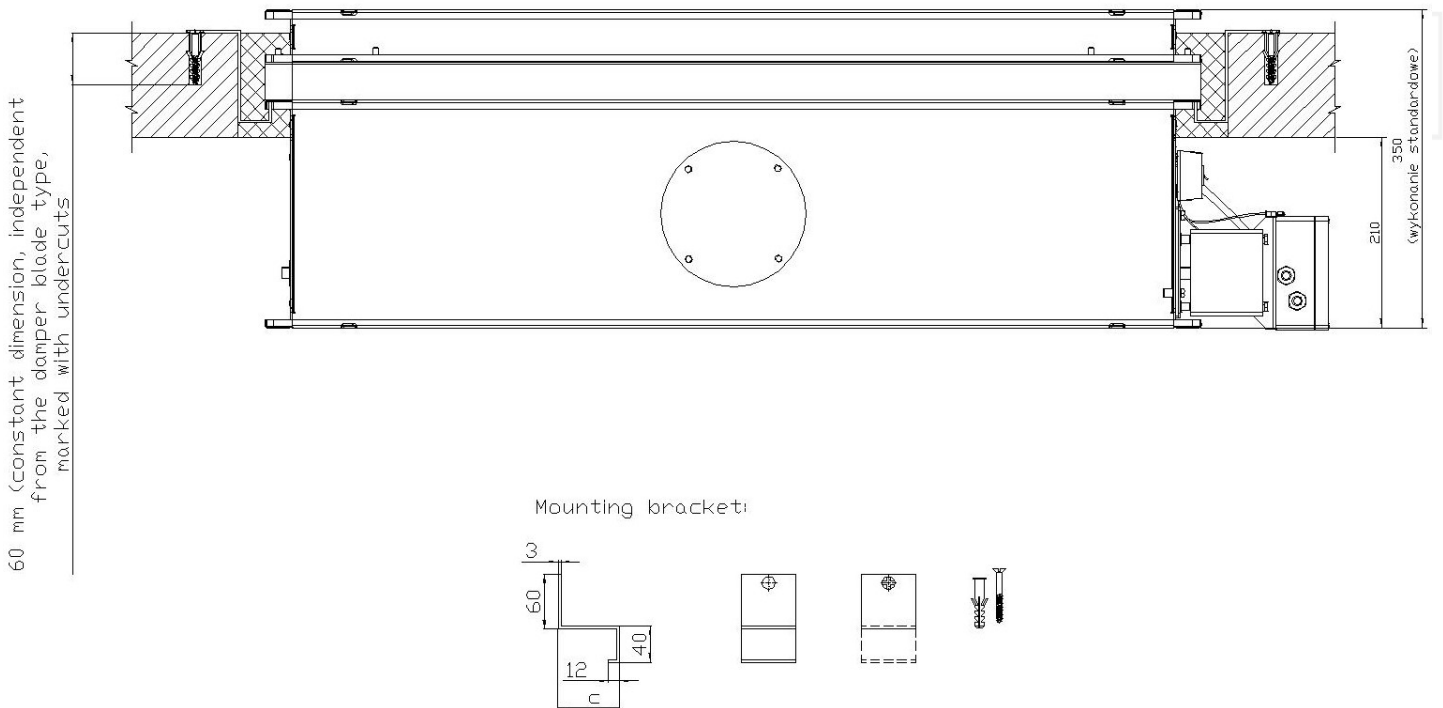


Figure 4. Installation method of fire dampers in ceiling

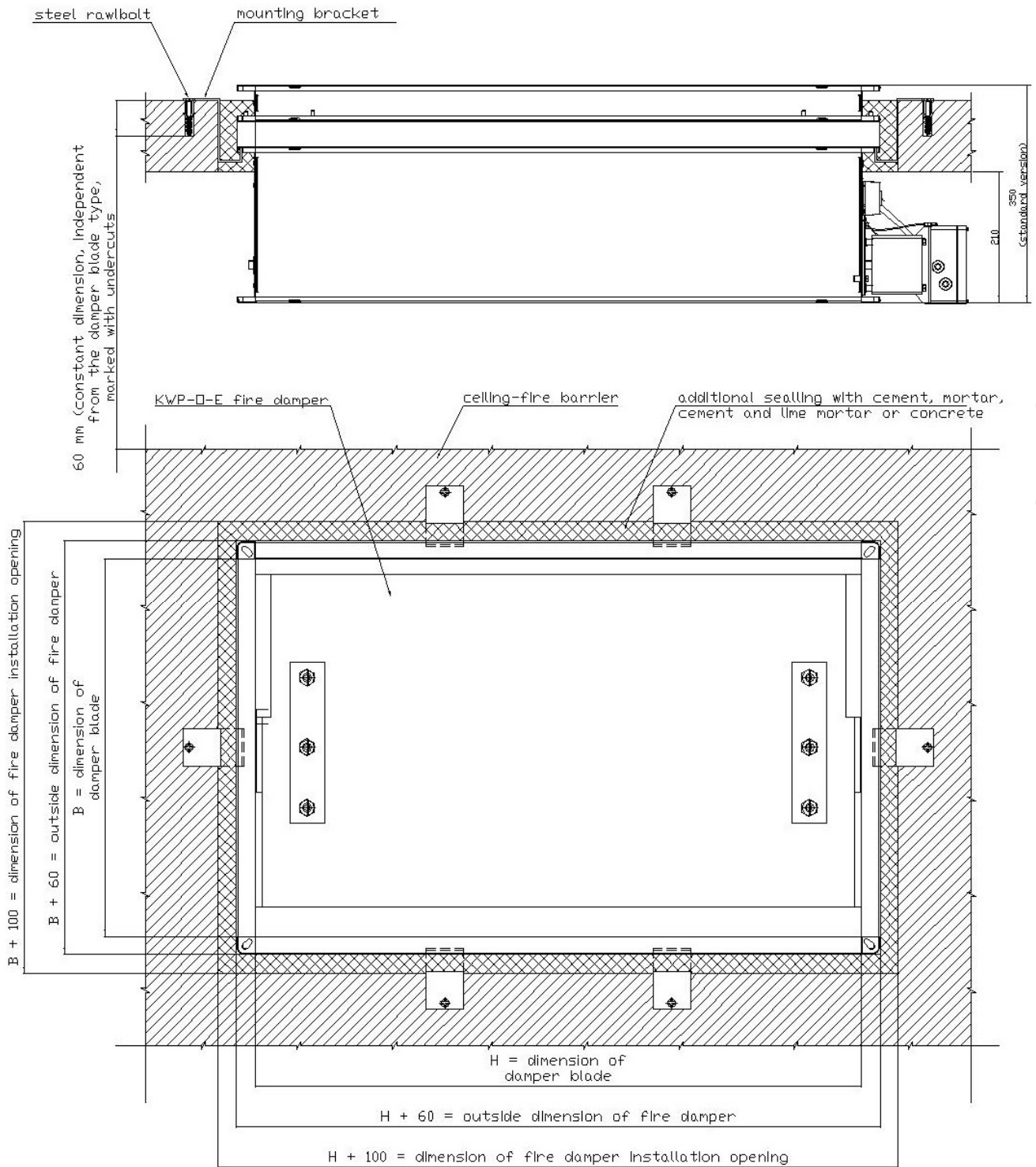


Figure5. Installation method of fire dampers in ceiling

4. INSTALLATION TECHNOLOGY – STRUCTURES THICKER THAN 135 mm

The KWP-O-E(S) damper can be installed also in horizontal compartments thicker than length of damper's body. In this case, ventilation ducts are going to be partially inbuilt in the fire compartment.

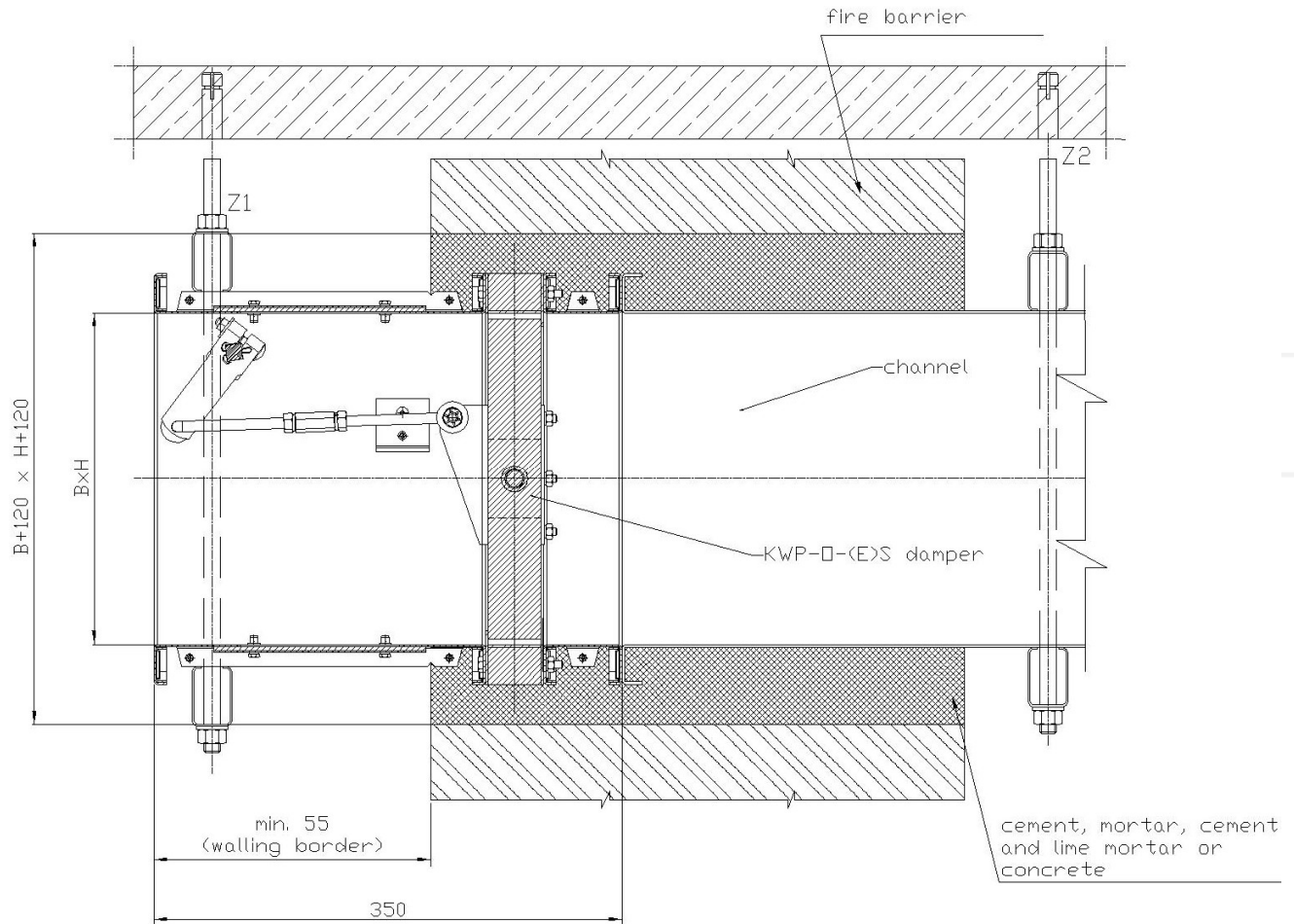


Figure 6. Installation method of fire dampers in structures thicker than 135 mm