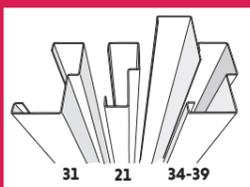


INSTALLATION INSTRUCTIONS

For frames of types 21, 31 and 34-39 for fire and security doors



MANUFACTURER'S DECLARATION

Type-approved products have been manufactured in compliance with the type approval certificate and the documents on which the approval is based. The type approval certificate's number is stated on the marking plate on the product.



CHECK THE DELIVERY!

This delivery includes:

- Door leaf and frame as stated in the delivery note.
- Plastic cover Ø16 mm.
- Where applicable, ordered installation kit
- Where applicable, ordered seal

For wrap around frame 44-49, the following is included:

- Surround profile L+R + Top section
- Blind rivet 3.2x7 mm stainless steel
- Installation screw 4.2x14 mm
- Nail plug ND 5 x 50 SN (for wall thickness > 246 mm)

Read the complete instructions before installation!

1

AIDS DURING INSTALLATION

- Tape measure
- Long and short spirit levels
- Installation key Allen 12 mm (can be ordered from Daloc)
- Drill/power screwdriver
- Bits Torx T30 (for assembly screws)
- Drill Ø10, Ø5 as well as Ø3.3 mm
- Screwdriver
- Packing non-combustible, euroclass A1 or A2-s1 d0.
- Elastic sealant (does not have to be fire rated)
- Panel strips, or equivalent. (for support under threshold if necessary)
- Installation screws (can be ordered from Daloc, see table to right)
- Rivet pliers and, if necessary, plate shears (for surround frames 34-39)
- Hinge grease (synthetic or water-free mineral)

INSTALLATION SCREWS

chosen as given below (or equivalent).

WALL	SCREWS
Concrete Aerated concrete Brick	Concrete screw 7,5x72 (Daloc art. nr.230865, Fischer art. no. 521547 or equivalent) Nylon plug 10x50
Wood joist	Concrete screw 7,5x72 Pre-drill Ø 5mm
Steel joist	Self-drilling screw 6,3x38 (Würth art. no. 02056338 or equivalent)

When ordering from Daloc, please specify wall type, door type and door size!



INSTALLATION QUALITY

By attesting below that the installation of the stated doors/frames has been performed in accordance with these installation instructions, the quality and function of the installation is assured. The signed document is archived.

Product name
Serial number
Installation company
Installer's name
Installer's signature
Date

CHECKLIST APPROVED ASSEMBLY

- The wall is correctly constructed and dimensioned.
- Structural opening corresponds with frame dimensions.
- The frame is centred in the structural opening.
- The frame is adjusted horizontally and vertically.
- The gap between frame and door leaf complies with the instructions.
- The threshold is level and secured with support underneath.
- Where applicable, the trim seals round all of the door leaf.
- All frame sleeves are in place and secured with a sufficient number of screws.
- Screw/frame sleeve above striking plate is placed against wall.
- The frame is packed and sealed according to instructions.
- Adjustments, where necessary, have been carried out according to instructions.

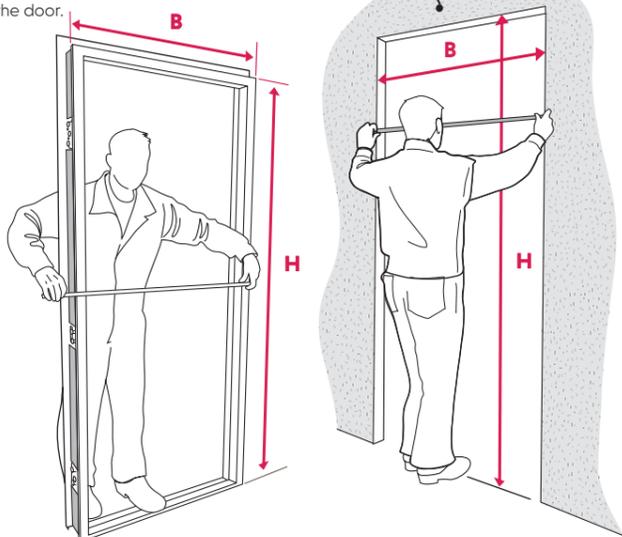
If the structural opening exceeds the given tolerances, it must be adjusted without compromising the fire and sound properties (e.g. steel profile).

It is important that the structural opening:

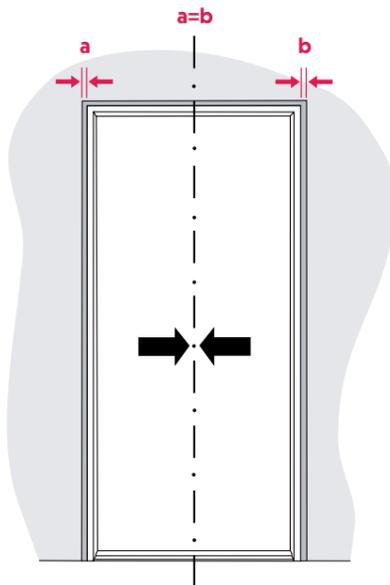
- gives the sleeve nuts stable support.
- provides a good hold for the frame screws.
- is dimensioned to bear the weight of the door.

FRAME	WALL
Module dimensions	Structural opening dimensions
WxH (dm)	$W_{-5}^{+20} \times H_{-5}^{+10}$ (mm)
Example:	
MODULE 9x21	MAX. 920x2110 NOMINAL 900x2100 MIN. 895x2095
MODULE 21x24	MAX. 2120x2410 NOMINAL 2100x2400 MIN. 2095x2395

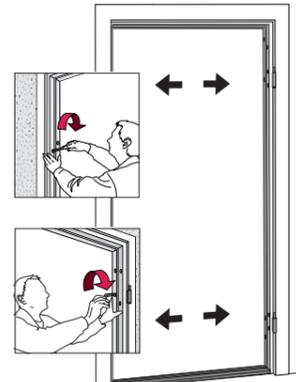
Door with fire resistance class can be mounted in a wall (min 106 mm) of plaster (wood- or steel joist) or solid wall (min 120 mm, at least 450 kg/m³) of e.g. aerated concrete bricks or concrete. Enclosing wall shall at least have the same fire resistance class as the door.



Temporarily secure the frame by adjusting the four frame sleeves to the structural opening by hand. Select the front frame sleeve for the upper and lower hinges.



For coarser adjustments of the frame, the frame sleeves are adjusted in pairs on the lock and the hinge side, so the frame is not deformed. For double doors, the frame sleeves are also adjusted as pairs for both hinge sides.

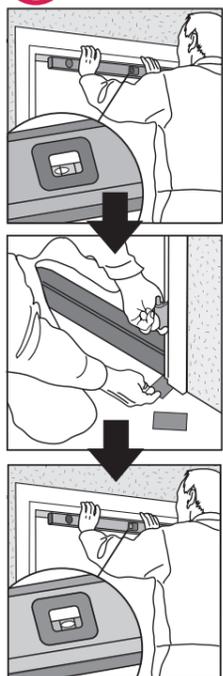


TIP: For doors without a threshold, a board can be used as a spacer in the frame opening to facilitate installation.

2

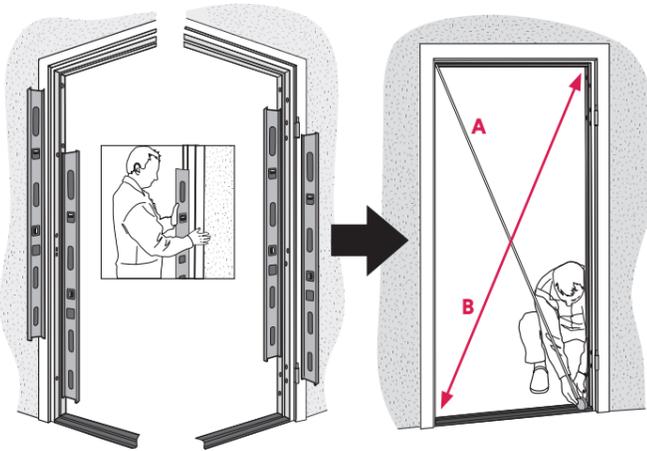
3

4



Check that the hinge side of the frame is vertical. For double doors, the hinge side of the active door must be vertical.

IMPORTANT! Do not proceed with the installation without checking the cross dimensions as described below.



A=B ± 2 mm

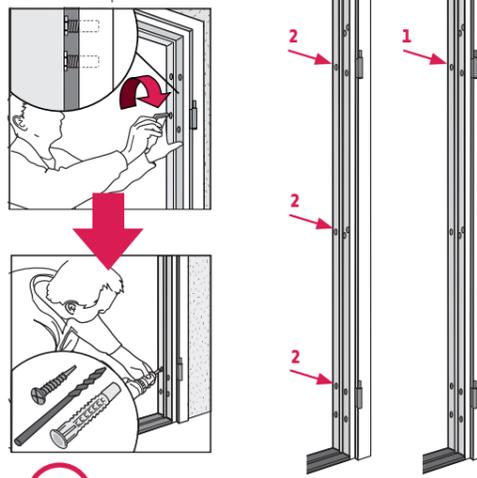


Place 6 frame sleeves on the hinge side and secure with screws. Ensure that the hinge side remains straight.

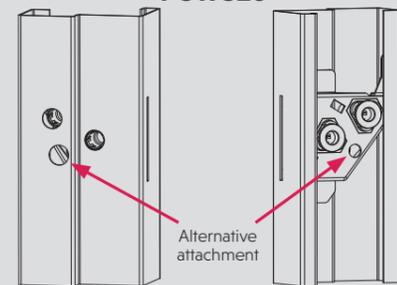
For double doors, the hinge side of the active door is secured in the same way.

For passive doors, only one screw is secured at the top hinge.

Where applicable, a third hinge is secured in step 15.



ALTERNATIVE ATTACHMENT FOR S10



Using alternative attachment point when a normal mounting point does not offer complete attachment:

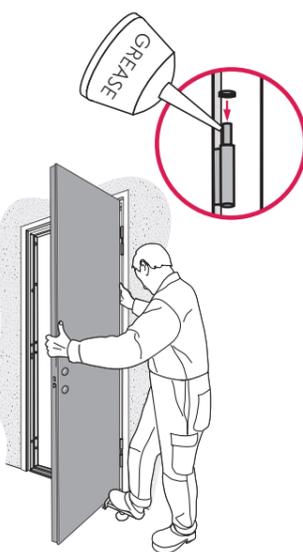
- Adjust the installation according to points 2 and 3.
- Drill and install a screw in the sleeve nut that offers complete attachment.
- Drill and install a screw in the alternative attachment point (secure the mounting plate).

5

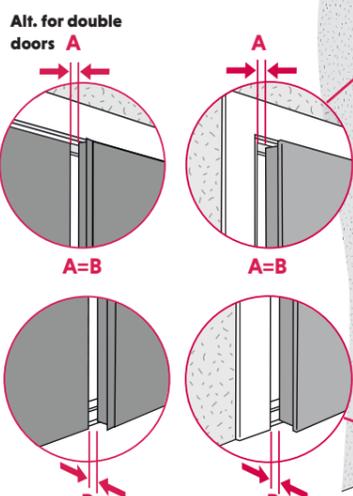
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7

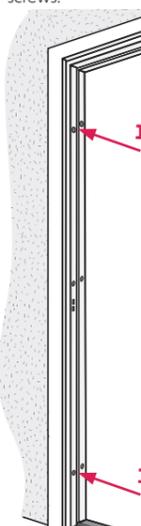
Make sure that the bearings are in place on the hinges and lubricate the hinges, then hang the door leaf.



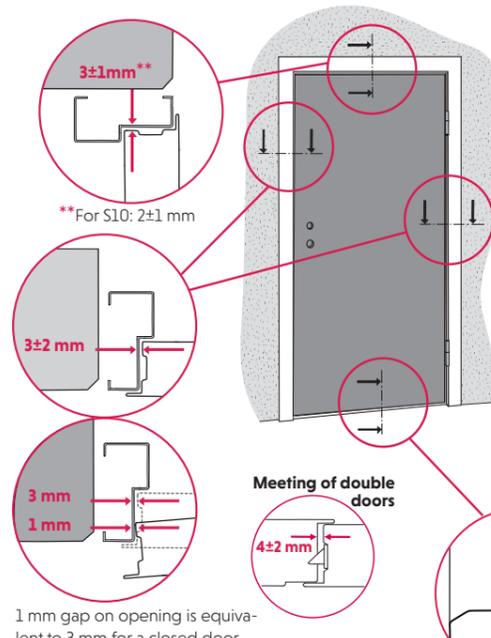
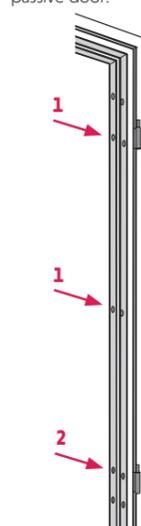
The gap between lock side and door leaf can be adjusted by adjusting the frame's upper/lower corners away from the wall. For double doors, the gap can be changed by adjusting the lower frame corner of the passive door.



For single doors
The lock side is secured with screws.



For double doors
Secure more points on the hinge side of the passive door:



S10	
Threshold type	Clearance
Threshold bar steel	5±2mm*
Threshold bar U-profile	13±2mm (to floor)
Threshold panel	8,5±2mm
Threshold panel with sealing strip	8,5±2mm
Threshold panel with brush strip	8,5±2mm
Sealing strip	13±2mm (to floor)
Brush strip	13±2mm (to floor)
Without threshold	13±2mm (to floor)

S93	
Threshold type	Clearance
Threshold bar steel	3,5±2mm
Threshold bar U-profile	8±2mm (to floor)
Threshold panel	3,5±2mm
Threshold panel with sealing strip	3,5±2mm
Threshold panel with brush strip	3,5±2mm
Sealing strip	8±2mm (to floor)
Brush strip	8±2mm (to floor)
Without threshold	8±2mm (to floor)

*For double doors with threshold bar steel clearance 3±2 mm applies.

1 mm gap on opening is equivalent to 3 mm for a closed door.

Clearances according to tables

8

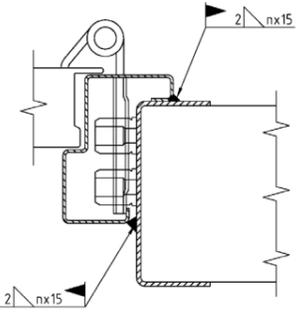
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11



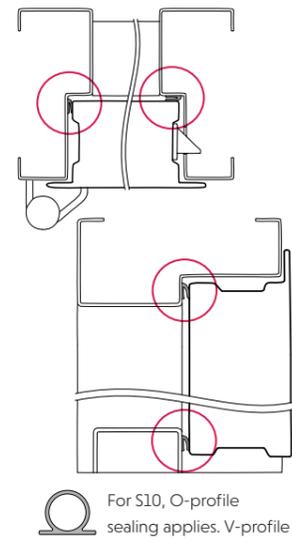
For doors larger than 3x3 metres:
To avoid readjustments over time it is recommended that the frame is welded to ironwork.
Close the door leaves before welding and weld the entire frame with 300mm gaps. By the hinges, weld with 50mm gaps.

NOTE! Ensure that the door is properly adjusted before welding and that locking functions work as they should.

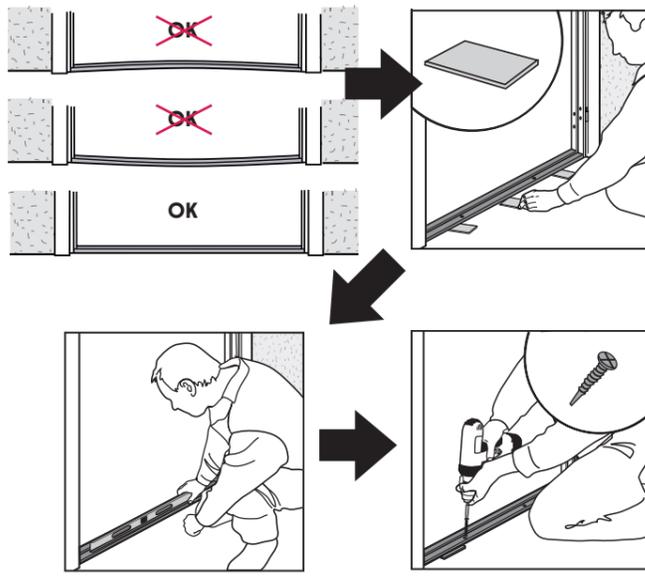


12

If seal is included, install according to images below.



13



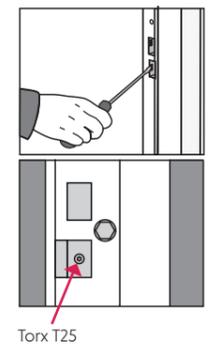
14

Evaluate the seal by pulling a piece of paper between the door leaf and frame. The seal is tight if the paper is hard to pull.
For double doors, also pull a sheet of paper through the gap where the doors meet.



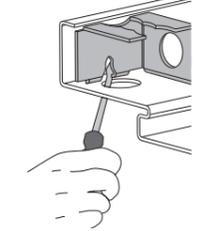
15

For single doors
The striking plate can be adjusted in order to increase the seal pressure. Adjust as necessary.



Torx T25

For double doors
Change the passive door's seal pressure by using the flush bolt plate in the upper part of the frame:



For double doors with adjustable striking plate, this is used to change the active door's seal pressure:



Torx T25



FINE ADJUSTMENT OF FRAME

The frame's installation system provides options for adjustment. The first action is always to check the vertical, horizontal and diagonal dimensions. Adjustment requires that the load is first relieved from the hinge and that there is gap between the frame and wall.

Example adjustment of upper hinge, for an increased gap at the front edge:

1 For mounting plates with 3 frame sleeves, the lowest must be loosened and backed away from the wall before adjusting. Frame sleeves for any extra mounting plates along hinges or at the third hinge should be loosened and backed away from the wall to make adjusting easier.

2 Relieve the load on hinge and mounting plate by:
• opening the door 180 degrees (upper hinge is loaded backwards).
• or close the door as far as possible, while maintaining access to the

sleeve nuts. Relieve the load using a crowbar and a wedge under the front edge of the door leaf.

3 Slacken off the mounting plate's two upper screws, one turn maximum. (If the screws are slackened several turns, there is a risk of them pulling the sleeve during tightening.) See fig. 1.

4 The hinge can now be adjusted backwards by forcing out the rear sleeve nut or moving the front sleeve back. Each turn corresponds to 2 mm. Adjust by a maximum of one turn at a time. See fig. 2.

5 Tighten the screws while the hinge is still under load backwards. See fig. 3.

6 Close the door and check the gaps. Repeat points 1-5 if necessary. Otherwise, place the remaining sleeves against the wall and install using screws.

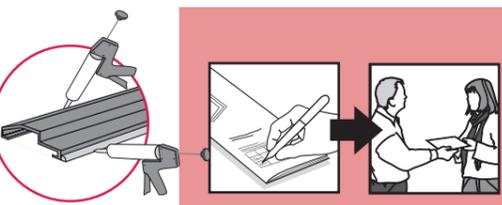
For double doors, fineadjustments may need to be done for both active and passive doors. For the installation to work properly, the top edges of the two doors need to be flush with each other.



Alternative with surround profile – Frame 34–39

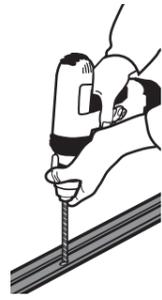
Top sealing frame without wrap around profile:

- For installation of doors in interior walls, seal the frame against the wall on the hinge side or rabbet side, and the threshold against the floor on both sides.
- Seal frame and threshold against wall and floor on both sides in facades. Externally with weather resistant sealant!

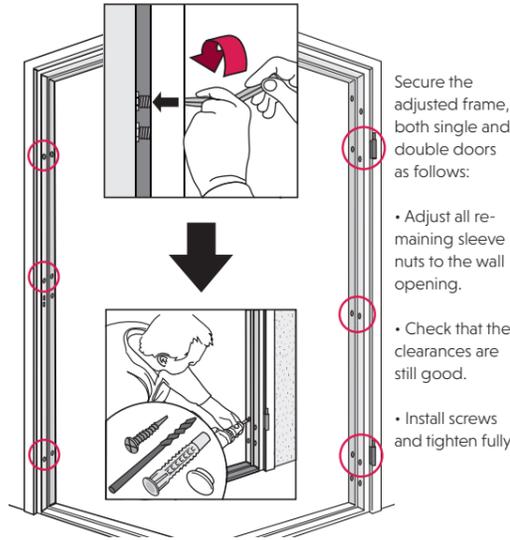


20

For double doors
After any fineadjustment, a hole is drilled in the floor for the flush bolt:



16

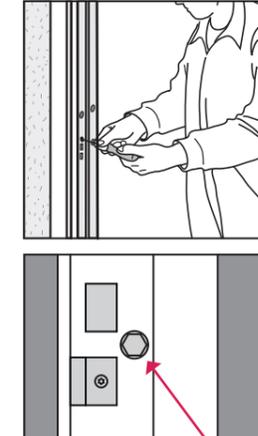


Secure the adjusted frame, both single and double doors as follows:

- Adjust all remaining sleeve nuts to the wall opening.
- Check that the clearances are still good.
- Install screws and tighten fully

17

For security doors screw adjustment screw or frame sleeve by striking plate out towards the wall. The frame sleeve must not be secured against the wall with screws, it is only a distance against the wall.



Not screws

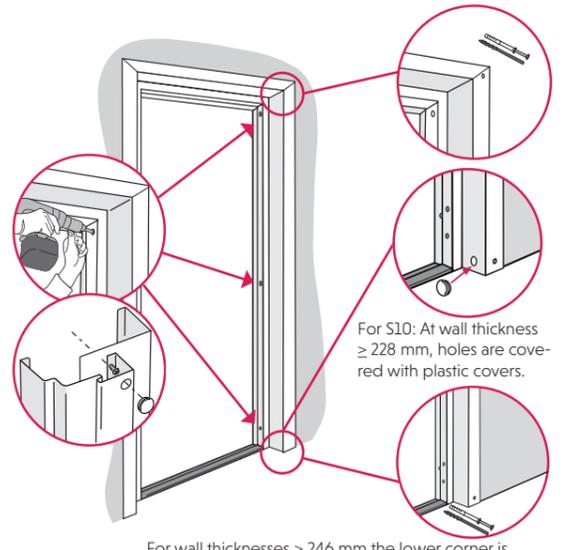
18



The entire gap between the frame and wall must be packed with non-combustible material of euroclass A1 A2-s1 d0.

19

Install the wrap around profiles starting at the upper section. The side sections are then installed.



Or if required, the upper corner can be bonded using the supplied white assembly screws or pop rivets.
Note! Requires pre-drilling (Ø 3.3 mm).

22

For wall thicknesses > 246 mm the lower corner is secured with the enclosed nail plug (pre-drill Ø 5mm).

Top sealing frame with wrap around profile:

- For installation of doors in interior walls, seal the frame against the wall on the hinge side or rabbet side, and the threshold against the floor on both sides.
- For installation in exterior walls fogas, seal frame and threshold against wall and floor on both sides for installation in facades. Also seal where the frame and surrounding profiles meet. Weather resistant sealant must be used externally!



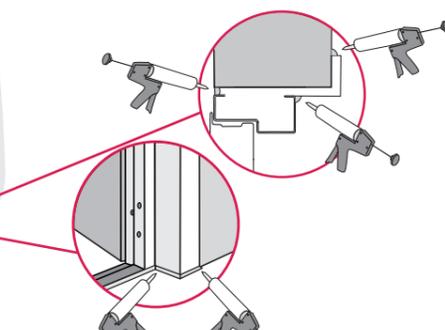
23

Top sealing frame with wrap around profile:

- For installation of doors in interior walls, seal the frame against the wall on the hinge side or rabbet side, and the threshold against the floor on both sides.
- For installation in exterior walls fogas, seal frame and threshold against wall and floor on both sides for installation in facades. Also seal where the frame and surrounding profiles meet. Weather resistant sealant must be used externally!

Recommendation:

- Always seal the wrap around profile to the frame for increased comfort. Where white sealant is not suitable, it is recommended to use transparent sealant e.g. MS-polymer.



24

MASKING

If the doors are to be protected during construction, it is important to use a tape that is suitable for application to painted/sensitive surfaces.

Note! The surface to be taped must not have been exposed to standing water and must be completely dry during application.

Test tape against a hidden surface to assess the suitability of the tape for the surface.

Always follow the tape manufacturer's instructions regarding:

- Application time
- Temperature range
- Internal or external use
- UV resistance

DOOR CLOSER

Door closer is installed according to the installation instruction for the specific door closer model.

For doors that are prepared for door closer from Daloc but where the holes are not threaded, self-drilling screws are used in accordance with DIN 7504P, minimum diameter 4.8.

These screws can be purchased from Daloc if needed.

