

How to Install a Commercial Steel Door



Standards As Tough As Steel.™

Proper door installation is essential for longevity and performance. This manual will guide you through the key steps to install a commercial steel door.

You can also reference our video for a visual demonstration of the installation process. Just scan the QR code below or visit [steeldoor.org/videos.php](https://www.steeldoor.org/videos.php).

Link to video.

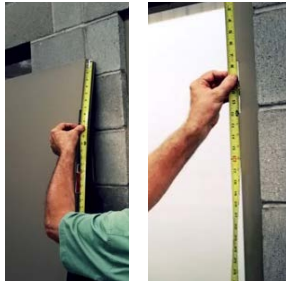


Step 1: Preparation



1. Select the right materials and tools for this project.
2. Locate the correct door by looking at the mark or opening number on the door. The mark number could be on the label, written on the top or bottom channel, or stamped into a hinge reinforcement.
3. Unpack the door.
4. Verify the door with the drawing and hardware schedule to ensure that you have the correct door, frame, and hardware set.
5. Before starting door installation, make sure the frame opening is the correct width and is plumb, square, and level. If the opening is not true, it can cause issues with the door fit as well as hardware function.
6. If required, verify that the door and frame have a fire label for the opening.
7. Check the hardware schedule. Contact your distributor if the information does not match.

Step 2: Hinge Application and Door Installation



8. Locate the top of the door by comparing the hinge locations on the frame to the hinge locations on the door. Remember the top hinge location will be 1/8" less to allow for clearance between the door and frame when installed.
9. Check the screw holes and reinforcements in the door and frame to make sure they are clear of foreign matter.
10. Remove any excess grout, filler, paint, or weld splatter from the reinforcement.
11. Use a screw or tap to clear the threads on any screw holes that have foreign matter.
12. Check the hardware schedule or submittals to verify if you are using **standard** or **heavy weight** hinges.
13. For the application of standard weight hinges, simply attach the hinges to the door using the machine screws provided by the hinge manufacturer. Take care not to overtighten the machine screws.



Step 3: Door Installation

14. Stand up the door and move it close to the opening.
15. Place a wood wedge or other support under the door to hold the weight.
16. Align the top hinge on the door with the top hinge cutout on the frame. The top hinge is typically installed first to hold the weight of the door.
17. Using the machine screws provided by the hinge manufacturer, install the hinges to the frame reinforcement at the top hinge location.
18. Install the middle and bottom hinge.
19. Remove the wood wedge or other support from under the door.
20. Close the door and verify there are proper clearances between the rabbet of the frame and the edge of the door. The door should swing freely. If the door does not swing freely, [SDI-122](#) or our [Videos page](#) can be referenced to help troubleshoot installation issues such as bind or alignment.
21. Install lockset, closer, and any other auxiliary hardware.
22. After installing the lockset, open and close the door to ensure the latch is engaging properly in the strike.



Application of a Heavy Weight Hinges

Many manufacturers offer built-in features that allow hinge pockets on doors and frames to be modified from standard weight to heavy weight.



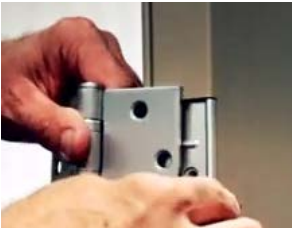
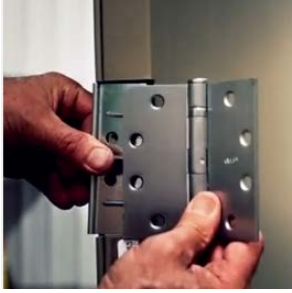
There are a variety of methods in which they can be modified such as:

- grinding or flattening down raised embossments in shim plates or reinforcements;
- removing or breaking off hinge filler shim plates;
- adjusting set screws;
- or removing wire shims.

These options all involve removing material from the pocket to allow for the thicker heavier weight hinges to fit in the hinge pocket. Failure to do so may result in the door not swinging freely.

Check with individual manufacturers to determine the type of modifications offered. Once the modification is complete, refer to the Door Installation instructions above.

Application of Hinges to a Non-Handed Door



1. For non-handed doors, locate the non-handed filler plates and make sure you have the correct quantity. The plates may be supplied separately or attached to the hinge reinforcement with tape or a nylon plug.
2. Remove and discard the plug.
3. Install the handing or filler plates between the door hinge reinforcement and the hinge using the machine screws provided by the hinge manufacturer. If using heavy weight hinges, check for the manufacturer's recommended hinge reinforcement modification.
4. After applying the handing filler plate and hinge, check to be sure they are flush with the door edge or door face.
5. After installing the filler plates, refer to the same Door Installation instructions above.

The procedures in this manual are only guidelines. Please follow all applicable building codes, standards, and accepted practices specific to your geographic location. For more information or to watch the video, visit steeldoor.org/installation.php.



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