

Basic Roller Shutter Installation Instructions

1. Risk Assessment – Identifying Risks

Before starting the installation, conduct a thorough risk assessment. Identify any potential hazards, including moving parts, high-tension springs, and tools in use. Ensure that all team members are aware of the risks, and take necessary precautions, such as wearing appropriate PPE (Personal Protective Equipment) and using safety barriers or warning signs where required.

2. Checking Levels and Measurements of the Opening

Ensure that the opening where the door will be installed is square and level. Measure the width, height, and depth of the opening to verify that they match the door specifications. This step is crucial to prevent any misalignment or issues during the installation.

3. Verifying Door Sizes and Measurements

Double-check the size of the door slats and the shaft to ensure they correspond to the measurements taken in the previous step. Pay particular attention to the width and height of the curtain, as well as the length of the shaft, to confirm everything is correct before proceeding.

4. Clamping the Guides with G or F Clamps

Clamp the vertical guides into place using G or F clamps. Position the guides according to the size of the door, ensuring they are securely held within the opening. If the floor is uneven or skewed, place spacers under the guides to level them out. This ensures that the guides are installed at the correct height and angle, preventing any issues with the door's operation later on.

5. Assembling and Securing the Shaft

Once the guides are secured, assemble the shaft and attach the necessary components:

- 5.1. Fit Endplates: Attach the endplates securely to the ends of the shaft, ensuring they are aligned properly and free of any obstructions.
- 5.2. Connect the Springs to the Endplates: Connect the springs to the endplates.
- 5.3. Ensure Shaft is Level and Centrally Positioned: Position the shaft in the centre of the opening and check that it is level. Use a spirit level to confirm alignment. Once properly positioned, secure the shaft to the wall with M10 rawl bolts to prevent any movement.

6. Removing Guides and Spacers

After the shaft is secured, remove the clamps and spacers used to level the guides. This allows you to prepare for the next stage of the installation without any obstructions.

7. Installing the Drive Mechanism

Install the drive mechanism, ensuring that it is securely attached to the shaft assembly.

- 7.1. Ensure Sprockets are Aligned: The sprockets on the drive mechanism should be properly aligned with the chain or drive system. Misalignment can cause excessive wear, noise, or operational failure. Double-check that all parts are in line before proceeding.
-

8. Assembling the Curtain Packs

Prepare the curtain packs for installation:

- 8.1. Attach End Locks to Slats: Install end locks on every second slat, using pop rivets. This helps to secure the slats in place and prevents movement that could interfere with the door's operation.
-

9. Tensioning the Shaft

Before installing the curtain, tension the shaft to ensure the door operates correctly:

- 9.1. Turn the Shaft to Simulate Closing: Rotate the shaft 3 to 4 turns in the direction as if the door were closing. Most doors require 7 full turns to balance correctly, so ensure that the amount of tension matches the door's size and spring specifications.
-

10. Securing Shaft on the Drive Mechanism & Fitting Top Slats

Once the shaft is tensioned, secure it firmly to the drive mechanism to prevent any movement. Install the top slats of the curtain assembly, taking care to ensure they are aligned correctly.

- Caution: Be mindful that there is now significant stored energy in the shaft, which could pose a risk if not handled properly. Exercise caution when working around the shaft to avoid accidents.
-

11. Attaching Additional Curtain Packs

Continue by adding the remaining curtain packs to the shaft, ensuring that each pack is correctly aligned and locked into place as you progress. Ensure that the curtain unrolls smoothly when operated.

12. Balancing and Final Assembly of Curtains

Now, roll up the curtain onto the shaft and secure it in the rolled-up position using rope or other suitable restraints to prevent the curtain from unrolling unexpectedly.

- 12.1. Roll Curtain onto the Shaft: Carefully guide the curtain onto the shaft, ensuring that it is positioned evenly.
 - 12.2. Secure Curtain with Rope: Tie the curtain into place while it is fully rolled up to prevent it from uncoiling prematurely.
 - 12.3. Apply Additional Tension: Turn the shaft 3 more full turns to simulate the door closing fully. The number of turns needed will depend on the size of the door and the tension in the springs. Adjust as needed to ensure proper tension and functionality.
-

13. Install the T-Bar

Slide the T-bar to the bottom of the curtain assembly to keep the door's structure rigid and provide additional support. Ensure that it is positioned correctly to avoid any issues when the door is in operation.

14. Securing the Guides to the Walls

Ensure that the vertical guides are securely fastened to the walls:

- 14.1. Align Guides and Endplates: Verify that the guides are smooth on the inside to the touch, ensuring no sharp edges or rough surfaces that could damage the curtain. The guides should be perfectly aligned with the door and the endplates to ensure smooth operation.
-

15. Testing the Door

Before finalizing the installation, test the door by opening and closing it a few times. This ensures that it operates smoothly and without any issues:

- If the door doesn't open or close properly, check the tension in the springs and adjust as necessary.
 - If the door moves on its own or is uneven, add or remove tension until it behaves as expected.
-

16. Installing the Cover Box and Final Testing

Once the door is operating correctly, install the cover box to enclose the mechanism. After installation, test the door again to ensure it operates smoothly. Keep an ear out for any unusual noise or friction, especially near the curtain roll. If you notice any issues, adjust the cover box or curtain to resolve them.

17. Tidying Up and Customer Sign-Off

Once everything is installed and functioning properly, tidy the workspace by removing any tools, debris, and packaging materials. Then, invite the manager or customer to inspect the installation. Once they are satisfied, have them sign off on the completed work to confirm that the door meets all expectations and safety standards.