Frequently Asked Questions
Acoustic Intumescent Putty Pads
Box Strap

Quelfire
PROTECTING PEOPLE & PROPERTY

The Box Strap is an innovative metal bracket that supports double and single metal back boxes within stud walls. It offers a better alternative to telescopic brackets and drylining back boxes.

This guide is intended to answer any frequently asked questions about using Quelfire Putty Pads in conjunction with the Box Strap:

BOX STRAP
WHERE INNOVATION BEGINS

1. How is the Box Strap installed?

Installing the Box Strap is quite straightforward! Simply cut out the plasterboard, whether it's for a single or double box. Then, insert the bracket through the hole and secure it using drywall and self-tapping screws. It can be installed after the drylining board has been fitted, ready for the installation of the Quelfire Putty Pad.

Watch Box Strap's bracket installation video.

Answered by **Josh Estrada, Director at Box Strap**

2. What are the main benefits for dryliners?

For dryliners, the Box Strap helps build baffle boxes without clashes, ensures walls can be closed without needing to cut around back boxes, and reduces any required rework.

Answered by **Josh Estrada, Director at Box Strap**

3. What are the main benefits for electricians?

The Box Strap removes unwanted earth parallel paths during initial verification testing and ensures a flush finish with metal back boxes. The product also allows for installing metal boxes even after both sides of the wall are boarded, making the installation process smoother, faster, and more cost-effective than traditional approaches.

The bracket is designed for a 35mm metal back box with a 26mm depth, which allows for plasterboard thicknesses of 12.5mm or 15mm. This gives a total depth of 38.5mm or 41mm—sufficient for kitchen grids, media plates, and dimmer switches.

Answered by **Josh Estrada, Director at Box Strap**

4. Some developers use plastic conduits and board the whole apartment prior to the electrical first fix – can the Box Strap be used for those developments?

For this scenario, the suggested way when using plastic conduits is to stop 100mm above the light switch or socket. Working this way ensures the dyliner doesn't have to cut around the metal back boxes again; they can close the wall, cut

out the single or double back box, and the electrician can first fix the whole apartment. Then, when the dryliner returns, they can install the Box Straps and metal back boxes because the cables will already be in place. Or, depending on the sequence of work, the electrician can install the metal back boxes.

Answered by **Josh Estrada, Director at Box Strap**

5. Does the Box Strap have any sustainability benefits?

Yes! On average, 35 brackets are installed in every new build property in the UK. By opting for the lighter and more compact Box Strap bracket, approximately 12.81 kg of CO2 emissions can be saved per property.

Answered by **Josh Estrada, Director at Box Strap**

6. Does Quelfire have any solutions for metal socket boxes using the Box Strap in single-skin plasterboard walls?

We have tested metal socket boxes using the Box Strap in a 75mm-thick single-skin wall. See detail PP-FW75-01 (page two) for the full scope of application.

Answered by **Alec Purdie, Technical Manager at Quelfire**

7. What about double-skin plasterboard walls?

We have tested a 100mm-thick double-skin plasterboard wall, which is generally the minimum you can achieve. Our test evidence also includes thicker walls. A significant finding from the fire test, where we compared the metal caddy bracket and the Box Strap, is that the Box Strap provided a much higher fire rating for the 100mm wall. Refer to detail PP-FW100-01 (page two) for the full scope of application.

Answered by **Alec Purdie, Technical Manager at Quelfire**

8. Can metal socket boxes be positioned close together in a fire-separating element?

This type of scenario is one you'd find in a kitchen, for instance. The uniqueness of the Box Strap allowed us to test two socket boxes where the face plates were 0mm touching, leaving approximately 20mm in between the metal socket boxes. Refer to detail PP-FW100-01 (page two) for the full scope of application.

Answered by **Alec Purdie, Technical Manager at Quelfire**

9. Does the Box Strap need to be positioned in a specific orientation when used with Quelfire Putty Pads?

We tested the Box Strap in both vertical ynd horizontal orientations and found no effect on the application. This level of flexibility is highly beneficial, especially when socket boxes are close to studwork.

Answered by **Alec Purdie, Technical Manager at Quelfire**

10. Has it been tested with media plates?

Certainly. One of the unique aspects of Quelfire is that we don't limit ourselves to just one-gang or two-gang boxes. We've tested media panels using two Box Straps, positioned diagonally in opposite corners. We've also tested metal media panels with both plastic and metal face plates. Refer to detail PP-FW100-03 (page two) for the full scope of application.

Answered by **Alec Purdie, Technical Manager at Quelfire**

11. What about with timber studwork?

Yes, we've tested the Box Strap in a vertical orientation, including tests with socket boxes placed 0mm from timber studs, as well as with conduits. For non-load bearing walls, we have evidence to reduce the 100mm requirement using metal socket boxes, the Box Strap, and both metal and plastic conduits. Please refer to detail PP-FW119-01 for the full scope of application. For load-bearing walls, contact us at technical@quelfire.co.uk.

Answered by **Alec Purdie, Technical Manager at Quelfire**

12. Has the Box Strap been tested using the plasterboard offcut as a spacer?

To create the space for the conduit, the Box Strap needed to be set further back. Therefore, we tested this scenario with the plasterboard offcuts between the Box Strap and the wall. This had no detrimental effect on the fire-resistance performance. Refer to detail PP-FW100-03 (page two) for the full scope of application.

Answered by **Alec Purdie, Technical Manager at Quelfire**