

Company Logo

Technical Submittal - Box Strap

Project:

Document Ref:

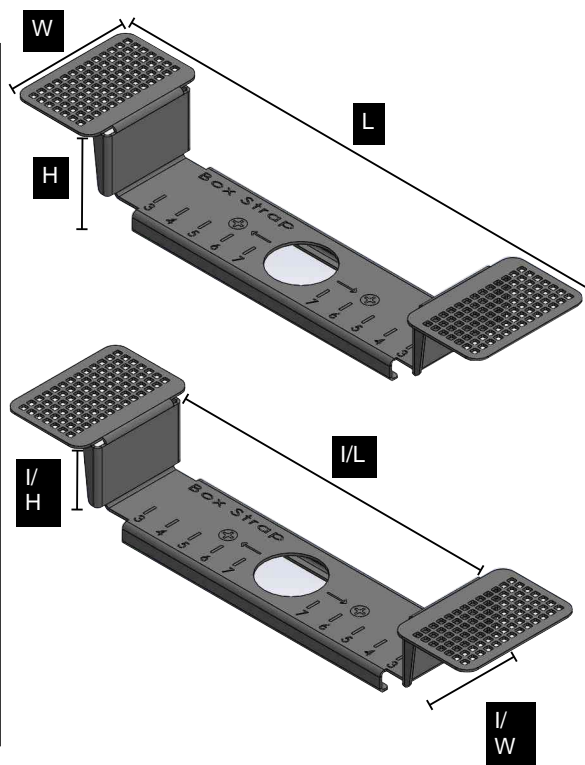
Date Issued:

Rev.: 1

COMPANY PROCEDURES TECHNICAL SUBMISSION DOCUMENT					Company Logo		Company Address	
CONTRACT NAME:					CONTRACT NO:			
DATE ISSUED:					TDI NO:			
COMPLETED BY:								
TECHNICALSUBMITTAL					DATE RESPONSE REQUIRED: TBC			
COMMENT OF THE FOLLOWING DOCUMENT(S) ARE REQUIRED: Please confirm if the proposed is acceptable.								
	Equipment Specifying Schedule		Technical	X	Manufacturer Data		Assembly Installation Details	
	Design Check Calculations	X	Construction		Certified Performance Data	X	For Approval	
ADDITIONAL SUBMISSION DETAILS: Box Strap is a bracket to secure metal back boxes on drywall walls.								
Status A = No comment, can be incorporated into the scheme								
Status B = Minor discrepancies found as detailed below. Submission can be incorporated								
Status C = Submission unacceptable as detailed below, re submission required								
COMMENTS ON SUBMISSION:								
Signed for and on Behalf of the company (Checked and approved before submission)								
Sign:			Print Name:			Date:		
Position:			Representing:					

Specification

Brand	Box Strap
Part No:	220514
Dimensions	H 34 mm x W 50 mm x L 207 mm
Inner Length	I/L 135 mm
Inner Height	I/H 26 mm
Inner Width	I/W 36 mm
Face Plates	36 mm x 50mm
Material Thickness	1mm
Material	Pre Galvanised steel
Packaging type	Bundle of 50 units
Weight	0.082kg
Steel specification	DX54 + Z100 to EN10346-2015
Single layer pull test	40kg - Refer to ADA fixings report
Double layer pull test	80kg - Refer to ADA fixings report
Manufactured to	ISO9001-2015



Pull tests on single and double layer plasterboard

30mm Plasterboard - 80kg

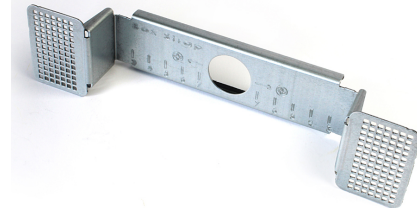
15mm Plasterboard - 40kg





Reduce your carbon footprint by **2,843kg** of CO₂ across 200 apartments by Using our Alternative Bracket.

On average, every metric ton of steel produced led to 1.85 metric tons of CO₂ released into the atmosphere in 2020



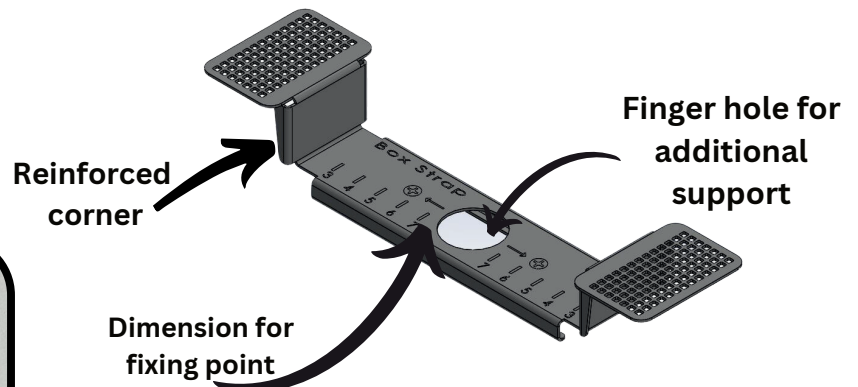
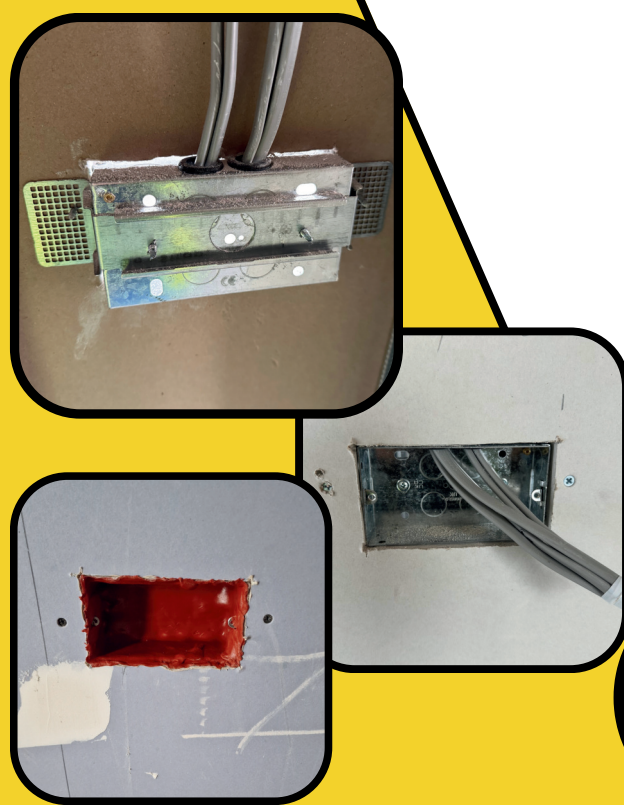
Brand	Generic
Type	Telescopic Bracket
Dimensions	L 440 mm x W 26 mm x D 13.8 mm
Material Thickness	0.6mm
Material	Pre Galvanised steel
Packeging type	Bundle of 50 units
Weight	0.28kg
Steel reduction	N/A
CO2 emissions	0.518kg CO ₂

Brand	Box Strap
Type	Double Box
Dimensions	H 34 mm x W 50 mm x L 207 mm
Material Thickness	1mm
Material	Pre Galvanised steel
Packeging type	Bundle of 50 units
Weight	0.082kg
Steel Reduction	70.7%
CO2 emissions	0.152kg CO ₂

- On average, 35 brackets are used in every new build property in the UK construction industry.
- By using the Box Strap bracket, which is the lighter and smaller bracket, we are able to save approximately 12.81 kg of CO₂ emissions for each new build property in the UK
- Using the Box Strap bracket also has other impacts in the fight to lower CO₂ emissions that we haven't taken into consideration, such as:
 - Transportation: The lighter weight and the size of the bracket means that more pallets can be transported in one trip.
 - Storage: The smaller size of the bracket means that it takes up less space in storage
 - Packaging: The smaller size of the bracket also means that less cardboard is required for packaging, reducing the amount of waste generated and the associated CO₂ emissions.
 - Manufacturing in the UK: It contributes to lower CO₂ emissions, it reduces the need for long distance transportation, resulting in reduced carbon emissions associated with shipping and logistics.

Overall, using the Box Strap bracket not only reduces CO₂ emissions during production, but also has additional benefits that contribute to a more sustainable construction industry.

Perfect Your Installation: Opt for Our Box Strap Brackets to Achieve a Seamless Finish When Installing Metal Back Boxes for Your Clients



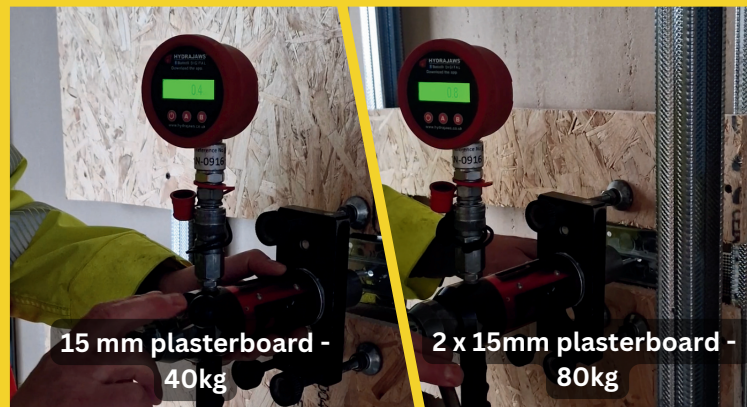
BENEFITS OF THE BOX STRAP BRACKET FOR ELECTRICIANS

- It removes all the unwanted earth parallel paths during testing for an EIC
- Metal boxes allow you to have a flush finish every time
- You can now install a metal back box with both sides of the wall boarded
- Faster and smoother installation process
- Hilti Fire stop putty pad CP617 compatibility

BENEFITS OF THE BOX STRAP BRACKET FOR DRYLINERS

- Build baffle boxes with no clashes
- Close your walls without cutting around back boxes
- Reduce making good

Our Box Strap brackets have been strength tested for single layer and double layer plasterboard. Please refer to our website for more info.



Downside of using a dry lining box

The frame prevents the electrical switch gear to have a flush finish with the finished wall



With constant usage, overtime these lugs bend backwards making the socket become loose

The drawbacks of the traditional telescopic bracket installation methods

Causes small noticeable bows on finished walls



Clashes with baffle box details



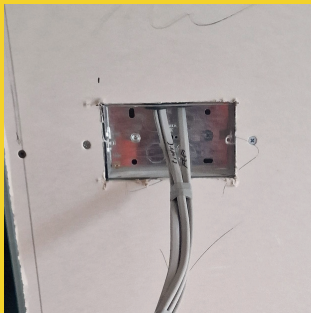
Pencil lines shown here are attempts from the dry-liner to cut around the back box on a party wall.

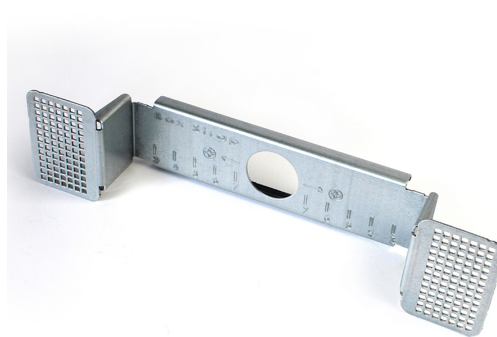


Gaps between back box and finished wall are common as it is difficult for a dry-liner to cut around multiple back boxes



INSTALLATION FINISH WHEN USING OUR BOX STRAP BRACKET





Recommended installation guide

Type of Screws Required



13mm Wafer Head
Drywall screw



13mm Wafer Head
Jack-point screw



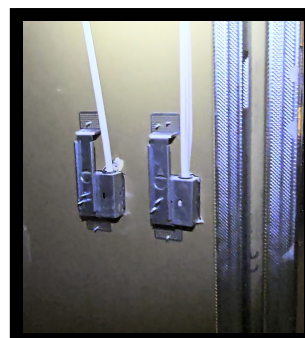
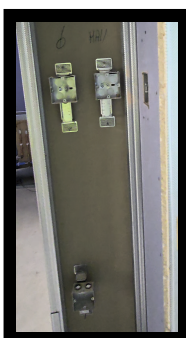
25mm Countersunk
cross head

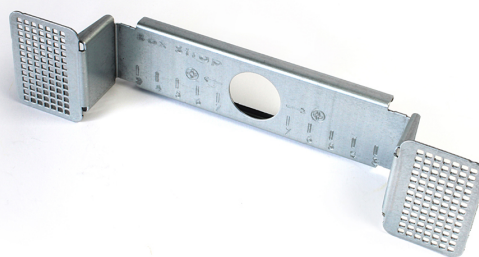


40mm Countersunk
cross head



Examples of installations





Recommended installation guide for open walls

Step 1
Screw back
box to the
bracket



Step 2
Install the
holding screws
leaving a couple
threads out



Step 3
Screw through
the plasterboard
to secure the
bracket

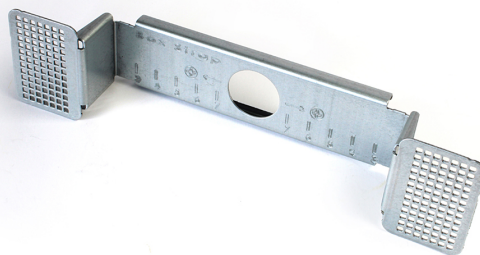


Step 4
Remove the
holding
screws



Notes:

1. One bracket size works for all types of metal back boxes
2. For media plates or kitchen grids use two brackets on the corners



Recommended installation guide for closed walls

Step 1

Put the bracket through the cut out and hold it



Step 2

Secure the bracket using dry lining screws



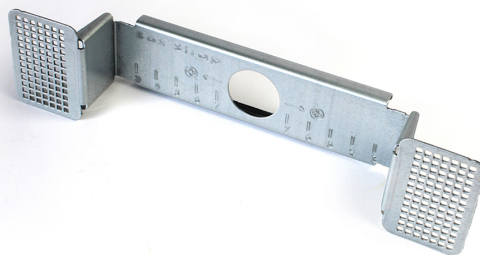
Step 3

Using self tapping screws secure the back box to the bracket



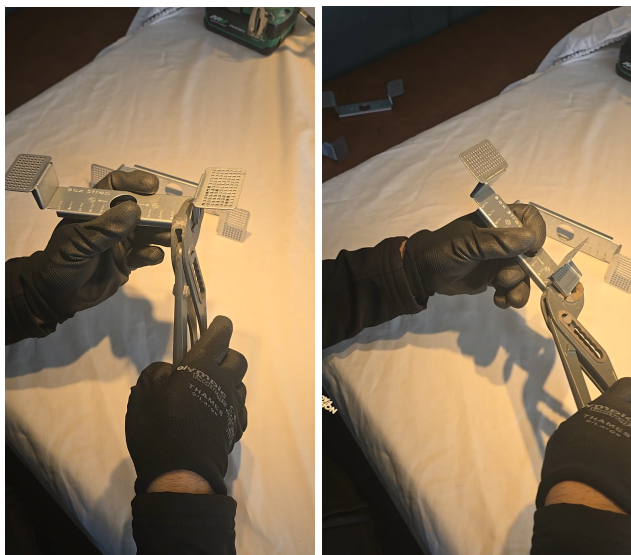
Notes:

1. One bracket size works for all the type of metal back boxes
2. For media plates or kitchen grids use two brackets on the corners
3. Turn the bracket vertically if is clashing with the studs
4. For party walls



Recommended installation guide for 47mm back box

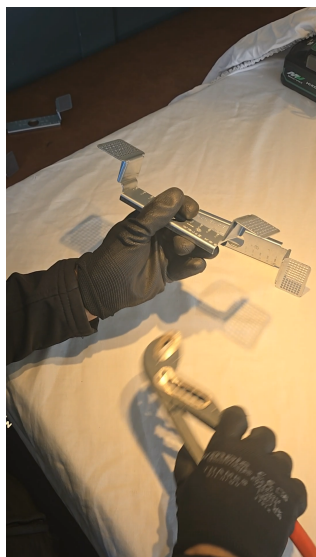
Step 1
Using grips,
bend the wing
inwards



Step 2
Grip the upper
part of the wing
and straighten it



Step 3
Repeat the
process on the
other side



Notes:

1. The bracket depth is 26mm with an additional 10mm when the wing gets straighten allowing for a 47mm metal back box to be installed on a single plasterboard skin.

PP-FW75-01

Single or Double Metal Socket Box in a flexible wall (75mm or thicker)

This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guides.
In line with the Company's policy of continual development, details are subject to change. Care should be taken to ensure this is the latest published detail and instructions.

Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 1no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

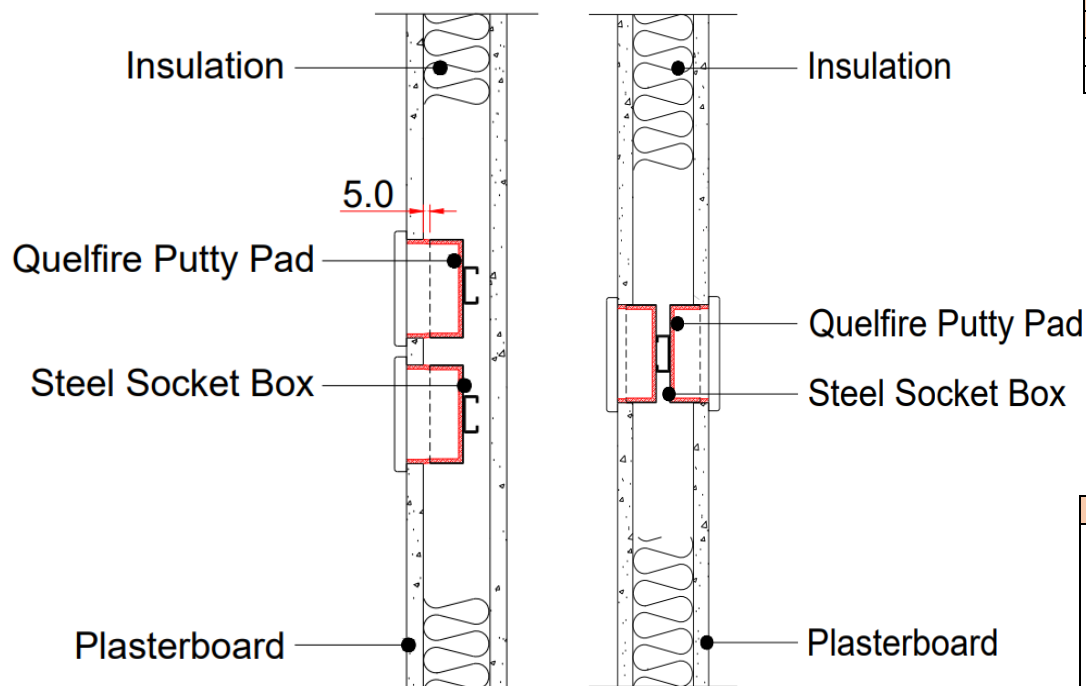
Metal electrical socket box installed in accordance with manufacturers recommendations and secured to proprietary support system and fitted to a steel caddy.

The plasterboard should be cut tight around the metal electrical socket box, and the [BeadMaster](#) product may also be used with the socket boxes where practically possible.

Metal socket boxes with a depth $\leq 25\text{mm}$ are suitable, and metal extension frames can be used to extend the metal socket box to the front face of the wall, as long as the overall depth is no greater than 42.5mm from the front face of the plasterboard wall.

A gap $\leq 5\text{mm}$ between the electrical socket box and back of the fire rated plasterboard is tolerable. PVA glue is used on the exposed raw edges of the plasterboard layers before fitting the Quelfire Intumescent Acoustic Putty Pad. The Quelfire Intumescent Acoustic Putty Pad is extended (using additional material/offcuts) to sit flush with the front face of the plasterboard wall ensuring a $\geq 3\text{mm}$ thickness is maintained.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.

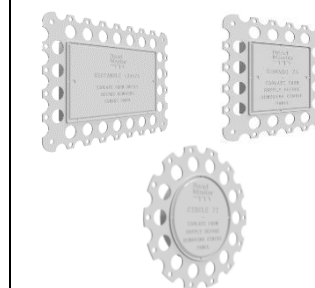


Quelfire Products Required

Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad

Socket Type	Page No.
Metal Caddy	1
Box Strap	2

BeadMaster



Service Type	Service Size**	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Classification
Single Socket (1 Gang)	72mm wide 72mm high $\leq 25\text{mm}$ Depth	75mm wide 75mm high	Offset	20mm	E 60 EI 45
			Back to Back	100mm	
Double Socket (2 Gang)	132mm wide 72mm high $\leq 25\text{mm}$ Depth	135mm wide 75mm high	Offset	20mm	
			Back to Back	100mm	

**As per BS EN 1366-3:2021 Section 13.6.3, the services can be a circular shape equal to or less than the area tested.

To be read in conjunction with:	UL-EU-01308-EN Issue 2 Pages 4, 5 & 6
Test & Classification standard:	BS EN1366-3 & EN13501-2
Substrate minimum thickness:	75mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW75-01

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All services should be adequately supported on both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

- Any information provided by or on behalf of Quelfire Limited is provided for general information only. It is not intended to amount to advice on which you should rely. You must obtain professional or specialist advice before taking, or refraining from, any recommendation or action.
- The summary is not exhaustive and does not consider all issues relevant to the enquiry. It is limited to the information and time available to us. We have not verified any information made available to us by you or any other source, nor have we carried out a physical inspection of any property. We make no representations, warranties or guarantees, whether expressed or implied, that any information is accurate, complete or up to date.
- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
- Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

PP-FW75-01

Single or Double Metal Socket Box in a flexible wall (75mm or thicker)



This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guides.
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Additional Instructions

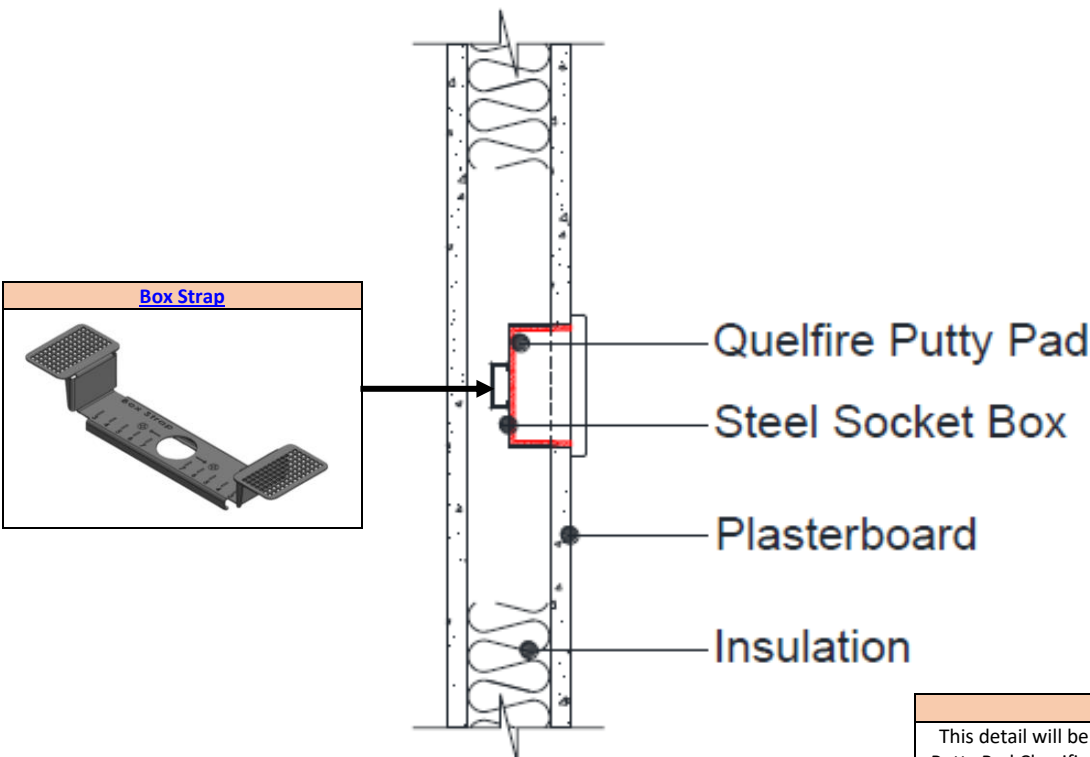
Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 1no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

Metal electrical socket box installed in accordance with manufacturers recommendations and secured to the Plasterboard using the [Box Strap System](#) using 35mm long x 3.5mm diameter jack-point screws.

The plasterboard should be cut tight around the metal electrical socket box, and the [BeadMaster](#) product may also be used with the socket boxes where practically possible.

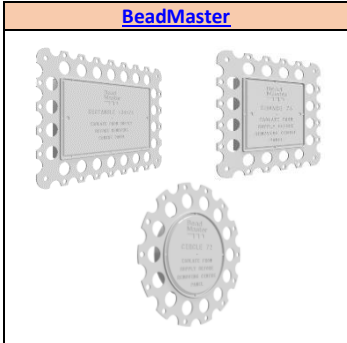
Metal socket boxes with a depth ≤25mm are suitable.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.



Quelfire Products Required	
Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad

Socket Type	Page No.
Metal Caddy	1
Box Strap	2



**** Test Evidence**

This detail will be included in a future update of the Quelfire Putty Pad Classification Report. The fire test report detailed is not for general distribution but can be requested by the projects qualified fire consultant / engineer by contacting the Quelfire Technical Team directly.

Service Type	Service Size**	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Fire Rating
Single Socket (1 Gang)	72mm wide 72mm high ≤25mm Depth	75mm wide 73mm high	Offset	100mm	E 60 EI 45
Double Socket (2 Gang)	132mm wide 72mm high ≤25mm Depth	135mm wide 73mm high			

To be read in conjunction with:	WF 541416 Specimen I1 & I2**
Test standard:	BS EN1366-3
Substrate minimum thickness:	75mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW75-01

Important Information:

1. The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.

2. All services should be adequately supported on both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

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3. We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.

4. Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

PP-FW119-01

Single or Double Metal Socket Box in a flexible wall (119mm or thicker)



This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guides.
In line with the Company's policy of continual development, details are subject to change. Care should be taken to ensure this is the latest published detail and instructions.

Additional Instructions

Non-load bearing flexible walls (Insulated or Uninsulated) to have a minimum 89mm deep x 38mm wide softwood timber stud and minimum 1no. layer of 15mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud.

Metal electrical socket box installed in accordance with manufacturers recommendations and secured to the plasterboard using the [Box Strap System](#) using 35mm long x 3.5mm diameter jack-point screws.

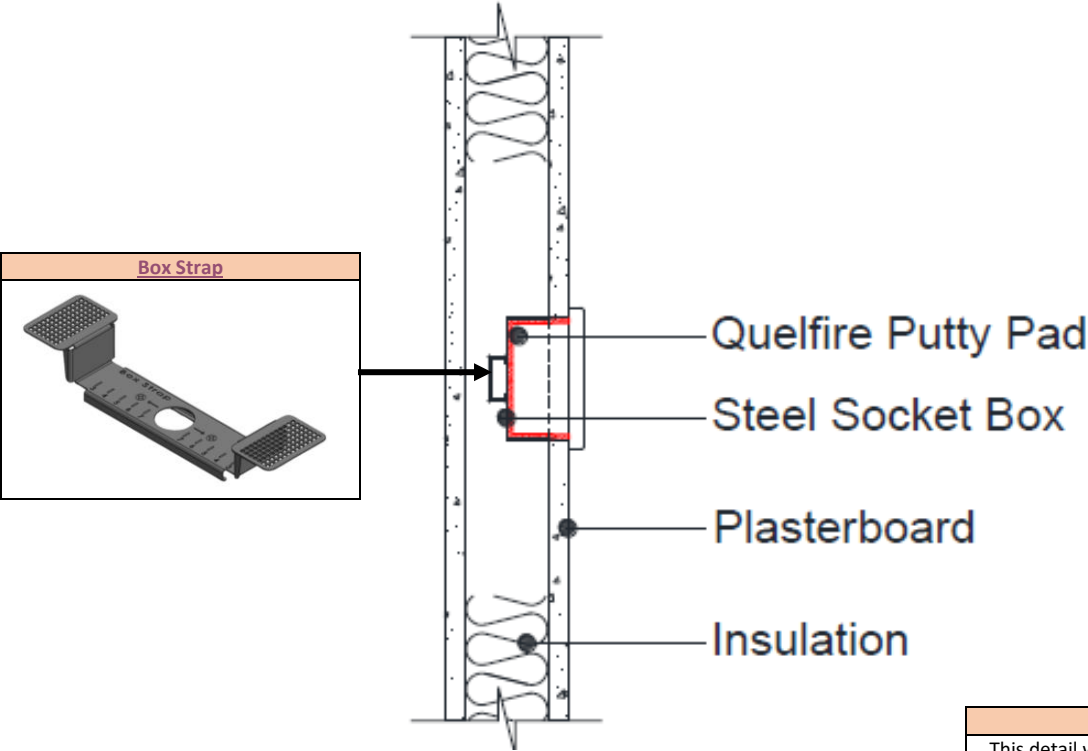
The plasterboard should be cut tight around the metal electrical socket box, and the [BeadMaster](#) product may also be used with the socket boxes where practically possible.

Metal socket boxes with a depth ≤25mm are suitable.

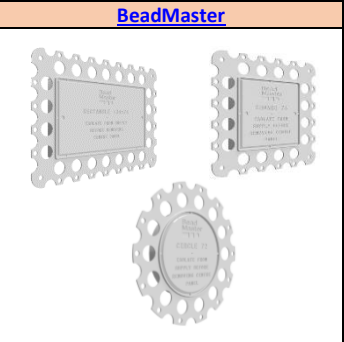
Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.

Load Bearing Walls: Further consideration by the project fire and structural engineer is necessary when considering penetration seals to ensure the studwork is adequately protected from a structural perspective. BS EN 1366-3 testing does not review, or provide an R (load bearing) fire resistance rating.

Quelfire have however included additional thermocouples within the wall cavity around the penetration when testing to record cavity temperatures for specialist engineers to review.



Quelfire Products Required	
Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad



**** Test Evidence**

This detail will be included in a future update of the Quelfire Putty Pad Classification Report. The fire test report detailed is not for general distribution but can be requested by the projects qualified fire consultant / engineer by contacting the Quelfire Technical Team directly.

Service Type	Service Size	Aperture Size	Wall Positions	Timber Stud position	Fire Rating
Single Socket (1 Gang)	72mm wide 72mm high ≤25mm Depth	73mm wide 73mm high	Offset	≥0mm	E 60 EI 60
Double Socket (2 Gang)	132mm wide 72mm high ≤25mm Depth	135mm wide 73mm high			

To be read in conjunction with:	WF 539798/R Specimens D1 & D2**
Test standard:	BS EN1366-3
Substrate minimum thickness:	100mm
Drawing Scale:	Not to Scale
Issue Number:	1
Date of Issue:	October 2024
Detail Reference:	PP-FW119-01

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All Services should be adequately supported either side of the firestop to ensure that no load is transferred onto the firestop seal.

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- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
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PP-FW100-03

Metal Media Panel in a flexible wall (100mm or thicker)

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Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 2no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

The Metal Multimedia Panel should be installed in accordance with manufacturer's recommendations and secured to a proprietary support system.

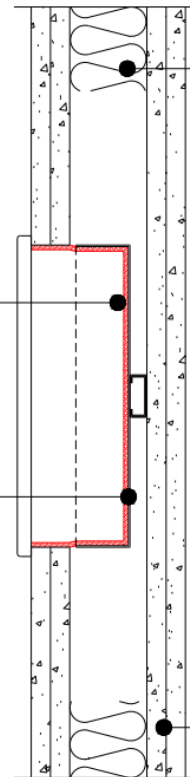
Metal media panels with a depth $\leq 35\text{mm}$ are suitable, and steel extension frames can be used to extend the metal media panel to the front face of the wall, as long as the overall depth is no greater than 65mm from the front face of the plasterboard wall.

A gap $\leq 5\text{mm}$ between the electrical socket box and back of the fire rated plasterboard is tolerable. PVA glue is used on the exposed raw edges of the plasterboard layers before fitting the Quelfire Intumescent Acoustic Putty Pad. The Quelfire Intumescent Acoustic Putty Pad is extended (using additional material/offcuts) to sit flush with the front face of the plasterboard wall ensuring a $\geq 3\text{mm}$ thickness is maintained.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.

Quelfire Putty Pad

Steel Media Box



Insulation

Plasterboard


Quelfire Products Required

Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad

Socket Type	Page No.
Metal Caddy	1
Box Strap	2

*** Different media panels

This detail is specifically tested with the specification listed in the table below. Quelfire cannot comment specifically on other media panels and combinations, we recommend speaking to a qualified fire engineer for other situations.

Service Type	Service Size**	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Classification
DB184 Metal Media Back Box with Deta S1987 Plastic Cover Plate *** 	$\leq 252\text{mm}$ high $\leq 192\text{mm}$ wide $\leq 40\text{mm}$ deep	255mm wide 196mm high	Offset	100mm	E120 EI 90

**As per BS EN 1366-3:2021 section 13.6.3 service can be circular shape equal to or less than the area tested.

To be read in conjunction with:	UL-EU-01308-EN Issue 2 pages 13,14 & 17
Test & Classification standard:	BS EN1366-3 & EN13501-2
Substrate minimum thickness:	100mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW100-03

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All Services should be adequately supported either side of the firestop to ensure that no load is transferred onto the firestop seal.

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- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
- Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

PP-FW100-03

Metal Media Panel in a flexible wall (100mm or thicker)

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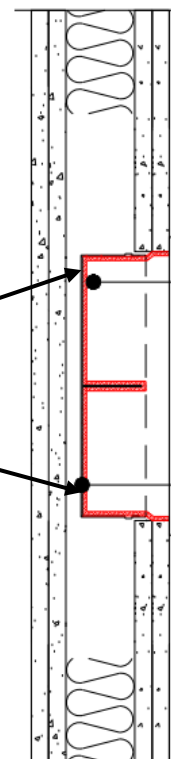
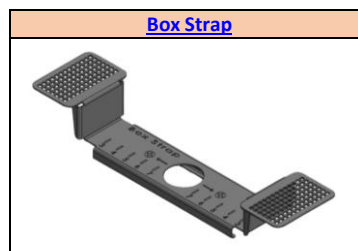
Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 2no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

The metal media panels are installed in accordance with manufacturers recommendations and secured to the Plasterboard using 2no. [Box Strap System](#) fixed diagonally in opposite corners of the media panel, using 60mm long x 3.5mm diameter jack-point screws. 1no. 12.5mm thick section of plasterboard 50x50mm is positioned between each fixing plate of the [Box Strap System](#) and plasterboard wall lining on the inside of the partition.

Metal media panels with a depth $\leq 47\text{mm}$ are suitable.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.



Quelfire Putty Pad

Plastic/Metal Media Panel

Steel Media Box

Quelfire Products Required

Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad



Socket Type	Page No.
Metal Caddy	1
Box Strap	2

*** Different media panels

This detail is specifically tested with the specification listed in the table below. Quelfire cannot comment specifically on other media panels and combinations, we recommend speaking to a qualified fire engineer for other situations.

**** Test Evidence

This detail will be included in a future update of the Quelfire Putty Pad Classification Report. The fire test report detailed is not for general distribution but can be requested by the projects qualified fire consultant / engineer by contacting the Quelfire Technical Team directly.

Service Type	Service Size**	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Fire Rating
MP525 Metal Media Back bBox with CMA606 Plastic Media Cover 	$\leq 222\text{mm}$ high $\leq 192\text{mm}$ wide $\leq 47\text{mm}$ deep	225mm wide 195mm high	Offset	100mm	EI 90
MP525 Metal Media Back Box with MP606SCBK Metal Media Cover 	$\leq 222\text{mm}$ high $\leq 192\text{mm}$ wide $\leq 47\text{mm}$ deep	225mm wide 195mm high	Offset	100mm	E 120 EI 90

**As per BS EN 1366-3:2021 section 13.6.3, services can be a circular shape equal to or less than the area tested.

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All Services should be adequately supported either side of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

- Any information provided by or on behalf of Quelfire Limited is provided for general information only. It is not intended to amount to advice on which you should rely. You must obtain professional or specialist advice before taking, or refraining from, any recommendation or action.
- The summary is not exhaustive and does not consider all issues relevant to the enquiry. It is limited to the information and time available to us. We have not verified any information made available to us by you or any other source, nor have we carried out a physical inspection of any property. We make no representations, warranties or guarantees, whether expressed or implied, that any information is accurate, complete or up to date.
- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
- Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

To be read in conjunction with:	WF 542145/R Specimens C1,C2,D1 & D2****
Test standard:	BS EN1366-3
Substrate minimum thickness:	100mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW100-03

PP-FW100-01

Single or Double Metal Socket Box in a flexible wall (100mm or thicker)

This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guides. In line with the Company's policy of continual development, details are subject to change. Care should be taken to ensure this is the latest published detail and instructions.



Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 2no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

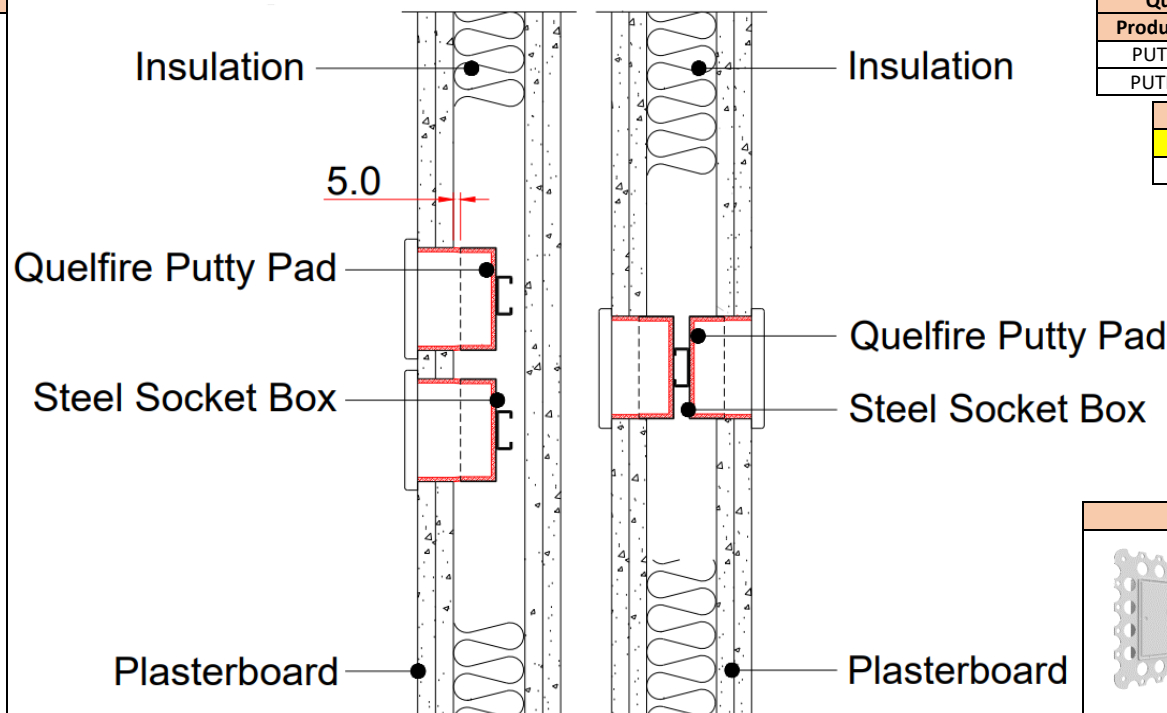
Metal electrical socket box installed in accordance with manufacturers recommendations and secured to proprietary support system and fitted to a steel caddy.

The plasterboard should be cut tight around the metal electrical socket box, and the [BeadMaster](#) product may also be used with the socket boxes where practically possible.

Metal socket boxes with a depth $\leq 47\text{mm}$ are suitable, and metal extension frames can be used to extend the metal socket box to the front face of the wall, as long as the overall depth is no greater than 55mm from the front face of the plasterboard wall.

A gap $\leq 5\text{mm}$ between the electrical socket box and back of the fire rated plasterboard is tolerable. PVA glue is used on the exposed raw edges of the plasterboard layers before fitting the Quelfire Intumescent Acoustic Putty Pad. The Quelfire Intumescent Acoustic Putty Pad is extended (using additional material/offcuts) to sit flush with the front face of the plasterboard wall ensuring a $\geq 3\text{mm}$ thickness is maintained.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.



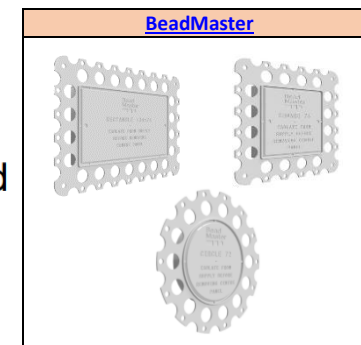
Quelfire Products Required

Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad

Socket Type	Page No.
Metal Caddy	1
Box Strap	2

Service Type	Service Size	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Classification
Single Socket (1 Gang)	72mm wide 72mm high $\leq 47\text{mm}$ Depth	75mm wide 75mm high	Offset	20mm	E 120 EI 90
			Back to Back	100mm	
Double Socket (2 Gang)	132mm wide 72mm high $\leq 47\text{mm}$ Depth	135mm wide 75mm high	Offset	20mm	
			Back to Back	100mm	

****As per BS EN 1366-3:2021 section 13.6.3, services can be a circular shape equal to or less than the area tested.**



To be read in conjunction with:	UL-EU-01308-EN Issue 2 pages 13, 14 & 15
Test & Classification standard:	BS EN1366-3 & EN13501-2
Substrate minimum thickness:	100mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW100-01

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All Services should be adequately supported either side of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

- Any information provided by or on behalf of Quelfire Limited is provided for general information only. It is not intended to amount to advice on which you should rely. You must obtain professional or specialist advice before taking, or refraining from, any recommendation or action.
- The summary is not exhaustive and does not consider all issues relevant to the enquiry. It is limited to the information and time available to us. We have not verified any information made available to us by you or any other source, nor have we carried out a physical inspection of any property. We make no representations, warranties or guarantees, whether expressed or implied, that any information is accurate, complete or up to date.
- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
- Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

PP-FW100-01

Single or Double Metal Socket Box in a flexible wall (100mm or thicker)

This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guides. In line with the Company's policy of continual development, details are subject to change. Care should be taken to ensure this is the latest published detail and instructions.



Additional Instructions

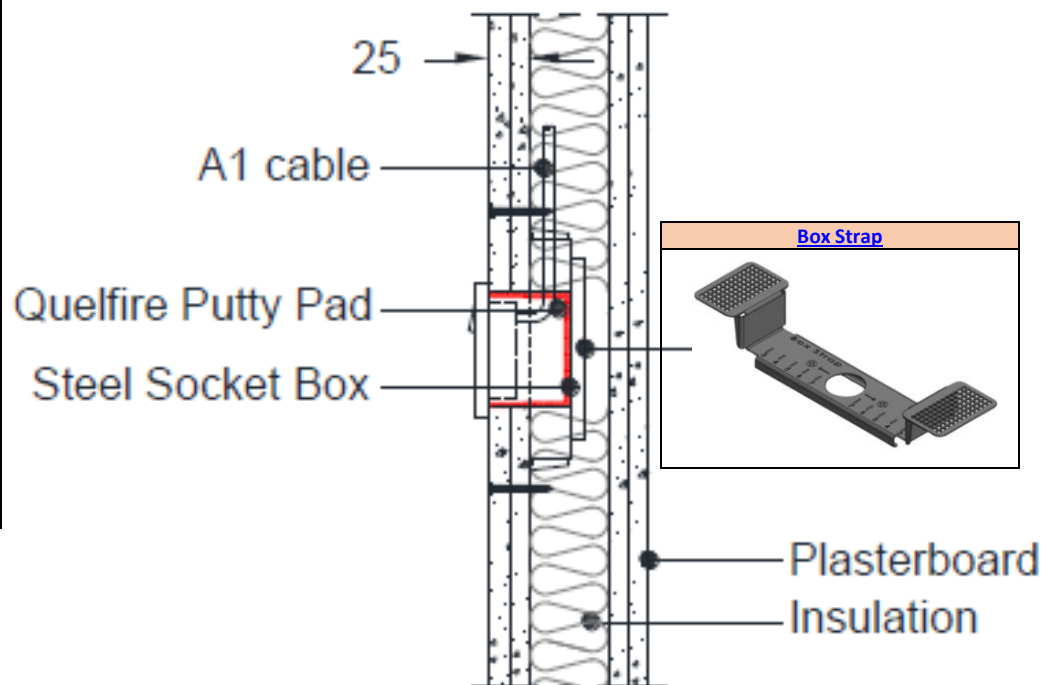
Flexible walls to be insulated and to have a minimum 50mm wide metal or timber stud and minimum 2no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

Metal electrical socket box installed in accordance with manufacturers recommendations and secured to the Plasterboard using the [Box Strap System](#) using 35mm long x 3.5mm diameter jack-point screws.

The plasterboard should be cut tight around the metal electrical socket box, and the [BeadMaster](#) product may also be used with the socket boxes where practically possible.

Metal socket boxes with a depth ≤25mm are suitable.

Follow the installation steps referenced in the [Quelfire Putty Pad Installation Instructions](#) guidance document.



Quelfire Products Required

Product Code	Description
PUTPAD-S	Single Putty Pad
PUTPAD-D	Double Putty Pad

Socket Type	Page No.
Metal Caddy	1
Box Strap	2

BeadMaster



** Test Evidence

This detail will be included in a future update of the Quelfire Putty Pad Classification Report. The fire test report detailed is not for general distribution but can be requested by the projects qualified fire consultant / engineer by contacting the Quelfire Technical Team directly.

Service Type	Service Size	Aperture Size	Wall Positions	Minimum distance between multiple sockets on same side	Fire Rating
Single Socket (1 Gang)	72mm wide 72mm high ≤25mm Depth	75mm wide 75mm high	Offset	15mm	EI 120
Double Socket (2 Gang)	132mm wide 72mm high ≤25mm Depth	135mm wide 75mm high			

To be read in conjunction with:	WF 541462/R Specimens K1, K2, L1 & L2**
Test standard:	BS EN1366-3
Substrate minimum thickness:	100mm
Drawing Scale:	Not to Scale
Issue Number:	3
Date of Issue:	October 2024
Detail Reference:	PP-FW100-01

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All Services should be adequately supported either side of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

- Any Information provided by or on behalf of Quelfire Limited is provided for general information only. It is not intended to amount to advice on which you should rely. You must obtain professional or specialist advice before taking, or refraining from, any recommendation or action.
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- We do not accept a duty of care to you or any other person in respect of the enquiry, nor do we accept any liability to you or any other person for any loss arising out of or in connection with the enquiry or any reply provided by us. Different limitations and exclusions of liability arising as a result of the supply of any products or services by us to you, and these will be set out in our terms and conditions of supply, a copy of which is available on request.
- Full terms and conditions of sale are available at <https://www.quelfire.co.uk/terms-conditions-of-sale/>

Project Incorporation details

To maximize the benefits of the Box Strap bracket in new build housing developments, it's crucial to follow these steps, tailored specifically for the construction industry:

1. During the first fix stage, the operative responsible for boxing out using the drawing/RCP should mark, cut, and install the Box Strap bracket on all the walls with plasterboard installed.
2. On the open side of the wall, where only metal studs are visible, the operative should mark the centres of the boxes on the floor. The marker line should be at least 30mm long from the bottom track on partition walls with a single layer of plasterboard, and 45mm long on party walls to accommodate two layers of plasterboard. At this point, using floor spray over the floor markings is recommended for better visibility. This eliminates the need to consult the drawing/RCP again during the mid-fix stage when everything is boarded, including the ceilings. At this stage cut out the remaining of the back boxes and downlights. It is recommended to pay attention when dryliners are beginning to close the walls to get the back boxes cut out prior to the ceilings being boarded as there should be a couple of days between walls being closed and ceilings due to sprinkler contractors needing to install their sprinkler heads, fire stoppers carrying out fire stopping and NHBC inspections.
3. For partition walls with a single layer of 12-15mm plasterboard, use a 35mm metal backbox, and a 47mm metal backbox on party walls with two layers of 15mm plasterboard to ensure a high-quality finish.
4. If separate operatives handle boxing out and wiring the flat, it's advised for the boxing out operative to write on the back of the plasterboard what the floor markings represent. This prevents confusion during wiring, helps with routing clips for power, lighting, and ELV, and avoids potential mix-ups like wiring a socket on the BT and vice versa.
5. The electrical manager and dryliner manager should agree that the cables be left inside the wall on the open side during drylining second fix. This prevents dryliner operatives from accidentally placing cables slightly higher or lower than the electrical accessories, which would require additional work during tape and joint or plastering.
6. Both managers should also agree that cutting out spotlights and remaining boxes should be completed before any tape and joint or plastering work. This ensures that the tape and joiner addresses all screw heads holding the Box Strap bracket in place and prevents screw heads from being left on finished plaster.
7. After mist coat, install any necessary putty pads.
8. For R1+R2 testing, there's no need to leave switch gear hanging during testing to remove earth parallel paths from the installation, as the Box Strap bracket isn't installed on the metal studs and has already eliminated potential earth parallel paths.
9. Finally, enjoy a smoother process without the electrical second fixer complaining about dryliners overboarding the backboxes and the tester grumbling about removing earth parallel paths from installations.

By following these steps, you'll optimize the use of the Box Strap bracket and create a more efficient and harmonious work environment for all parties involved.

Test Report

Number: MBS267

ADA Representative:	Steve Mason		
Test Requested by:	Josh Estrada		
Contact:	Josh Estrada	Tel: 07867 425405	Email: Josh.estrada@malcolmbuildingservices.co.uk
Fixing (s):	BOXSTRAP		
Application:	CAVITY WALL		
Site Address:	L&Q, 68 River Way, London, SE10 0BE		
Customer:	Malcolm Building Services		
Customer Contact:	Josh Estrada	Tel: 07867 425405	Email: Josh.estrada@malcolmbuildingservices.co.uk

Test witnessed by:	Company:
Josh Estrada	MBS

Test report prepared by: Steve Mason

Date: 30/7/24

Photo's

☒

Technical data

☒

Sketch

☐

Method Statement

☐

COSH data sheet's

☐

Others



[illegible]

*The testing has been carried out by a competent tester as accredited by the CFA and shown on the CFA website. The report is a factual record of results observed and does not constitute an endorsement of the product for the application concerned. We have tested to the requested load so please make sure this load suits your applications/fixing centres



Substrate

Type:	Plasterboard
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Fixing Installation Details

Drill Type:	N/A	Drill diameter:	N/A
Hammer Drilling:	N/A	Rotary drilling:	N/A
Hole Cleaning Method:	N/A	Installation Torque:	N/A
Fixing Installed By:	MBS		

* In accordance with BS8539/2012

Test Equipment Detail

Test equipment used:	HydraJaw 2000	Gauge range:	0-30kN
Serial No:	MAN0916	Calibration Date:	23/11/23
Test Objective: Type of test required: Preliminary load test* <input checked="" type="checkbox"/>		Proof load test*: <input type="checkbox"/> Proof load required: Note: The required proof load test shall be specified by the engineer responsible for the application. Normally this is 1.5 x applied load but not exceeding 1.5 x recommended load.	

Copy of calibration certificate



Calibration Certificate

GAUGE TYPE DIGITAL TESTER MODEL No. GAUGE_ONLY
MAN/ANA No. ADFSF-DB MAN0916 GAUGE CAPACITY 30 kN
ACCURACY \pm (%) Digital 1.5% Analogue 2%

We certify that this gauge has been inspected, calibrated, and passed within stated accuracy.

Results obtained are as follows:-

GAUGE UNDER TEST	kN	5.0	10.0	15.0	20.0	25.0	30.0
MASTER GAUGE	kN	5.0	10.0	15.0	20.0	25.1	30.2

Traceability

Master gauge calibration undertaken using master reference comparators type Additel 681 Series.

Reference Gauge: CS005 traceability to UKAS via certificate no. 105799. Expires 18th April 2024.

Note: In all accordance with BS EN 837-1 this certificate is valid for a period of 12 months from issue.

Accuracy of gauges as stated above cannot be guaranteed should the unit be subjected to misuse. Gauge will be permanently damaged should maximum load be exceeded.

Note: This certificate is only valid for the MAN/ANA number above.

Customer A.D.A Fastfix Ltd
Order No. 160511
Date of Calibration 23/11/2023
Approved Signatory Bob Donnelly

THIS CERTIFICATE WILL EXPIRE ON November 23, 2024

Kit Serial No.

Hydrajaws Limited, 73 Kettlebrook Road, Tamworth, Staffordshire B77 1AG, UK.
Tel: +44 (0)1675 430 370 • www.hydrajaws.co.uk • email: tester@hydrajaws.co.uk
Company registration number 2230733 England.

F-QU-025 Rev.2



Images

TEST ONE



TEST TWO

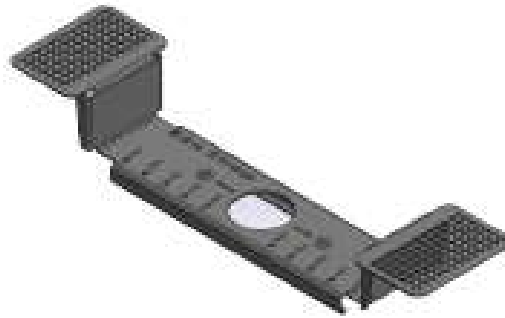


Images

TEST THREE



Technical



Brand	Box Strap
Type	Double Box
Dimensions	H 34 mm x W 50 mm x L 207 mm
Material Thickness	1mm
Material	Pre Galvanised steel
Packeging type	Bundle of 50 units
Weight	0.082kg
Steel Reduction	70.7%
CO2 emissions	0.152kg CO2

Test Report

Number:

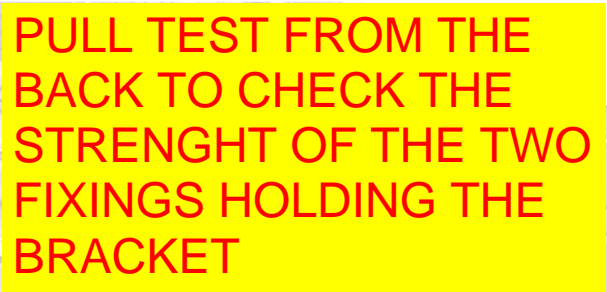
MBS302

ADA Representative:	Steve Mason		
Test Requested by:	Josh Estrada		
Contact:	Josh Estrada	Tel: 07867 425405	Email: Josh.estrada@malcolmbuildingservices.co.uk
Fixing (s):	Box Strap		
Application:	Support of electrical metal boxes		
Site Address:	Barratt hayes Village UB3 4QF		
Customer:	Malcom Building Services		
Customer Contact:	Josh Estrada	Tel: 07867 425405	Email: Josh.estrada@malcolmbuildingservices.co.uk

Test witnessed by:	Company:
Josh Estrada	Malcom Building Services

Test report prepared by:	Steve Mason	Date: 03/02/23
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Photo's	<input checked="" type="checkbox"/>	Technical data.....	<input checked="" type="checkbox"/>	Sketch	<input type="checkbox"/>
Method Statement	<input type="checkbox"/>	COSH data sheet's	<input type="checkbox"/>	Others	

[illegible]

*The testing has been carried out by a competent tester as accredited by the CFA and shown on the CFA website. The report is a factual record of results observed and does not constitute an endorsement of the product for the application concerned. We have tested to the requested load so please make sure this load suits your applications/fixing centres.

Substrate

Type:	BG Plasterboard
--------------	------------------------

Fixing Installation Details

Drill Type:	N/A	Drill diameter:	N/A
Hammer Drilling:	N/A	Rotary drilling:	N/A
Hole Cleaning Method:	N/A	Installation Torque:	N/A
Fixing Installed By:	Malcom Building Services		

Test Equipment Detail

* In accordance with BS8539/2012

Test equipment used:	HydraJaw 2000	Gauge range:	
Serial No:		Calibration Date:	
Test Objective: Type of test required: Preliminary load test* <input type="checkbox"/>		Proof load test*: <input type="checkbox"/> Proof load required: Note: The required proof load test shall be specified by the engineer responsible for the application. Normally this is 1.5 x applied load but not exceeding 1.5 x recommended load.	

Copy of calibration certificate



Test Certificate

GAUGE REF. No.	ANA2997
GAUGE RANGE	10 kN
MODEL. No.	GAUGE_ONLY

We certify that this gauge has been inspected and calibrated for accuracy and passed within our limits. Calibration undertaken using a master test gauge manufactured to BS EN 837-1.

Results obtained are as follows:-

GAUGE UNDER TEST	kN	2.0	4.0	6.0	8.0	10.0	
MASTER GAUGE	kN	1.9	3.9	6.0	8.0	10.0	

TRACEABILITY
Gauges manufactured to BS EN 837-1

Master gauge calibration undertaken using a Budenberg oil operated dead-weight tester type 280H. Serial number 12127 traceability to UKAS via certificate no. 91462. Expires 5.1.23.

Note: In all accordance with BS EN 837-1 this certificate is valid for a period of 12 months from issue. Accuracy of gauges as stated above cannot be guaranteed should the unit be subjected to misuse. Gauge will be permanently damaged should maximum load be exceeded.

Note: This certificate is only valid for the gauge that has the serial number and gauge reference number above.

THIS CERTIFICATE WILL EXPIRE November 08, 2023

Customer	A.D.A Fastfix Ltd
Order No.	147982
Date of Calibration	08/11/2022
Approved Signatory	Bob Donnelly 

Kit Serial No.



Images

BOX STRAP
WHERE INNOVATION BEGINS





ADAFASTFIX

DRYLINING & CONSTRUCTION SUPPLIES

Images





ADAFASTFIX
DRYLINING & CONSTRUCTION SUPPLIES

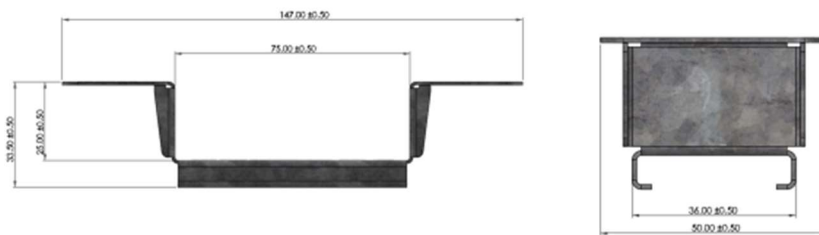
Technical Data

BOX STRAP

WHERE INNOVATION BEGINS

Single Box

Dimensions mm



www.boxstrap.co.uk
info@boxstrap.co.uk

Specification

Brand	Box Strap
Type	single Box
Total Dimensions	147mm x 50mm x 33.5mm
Inner Depth	25mm
Inner length	75mm
Face plates	50mm x 50mm
Material thickness	1mm
Material	Pre Galvanized Steel
Packaging type	Bundle of 50 units
Weight	0.066kg



www.boxstrap.co.uk
info@boxstrap.co.uk





ADAFASTFIX
DRYLINING & CONSTRUCTION SUPPLIES

Technical Data

BOX STRAP

WHERE INNOVATION BEGINS

Double Box

Dimensions mm



www.boxstrap.co.uk
info@boxstrap.co.uk

Specification

Brand	Box Strap
Type	Double Box
Total Dimensions	207mm x 50mm x 33.5mm
Inner Depth	25mm
Inner length	135mm
Face plates	50mm x 50mm
Material thickness	1mm
Material	Pre Galvanized Steel
Packaging type	Bundle of 50 units
Weight	0.092kg



www.boxstrap.co.uk
info@boxstrap.co.uk

