

# QWR CE MARKED FIRE COLLAR INSTALLATION INSTRUCTIONS

This installation guide is intended for general information only and all details should be checked against relevant supporting test evidence and certification.



Quelfire QWR Fire Collars are lifesaving products designed to prevent the spread of fire where plastic pipes penetrate fire compartment floors. It is therefore essential that they are fitted in a responsible and workmanlike manner. The QWR Fire Collar can be installed to concrete walls and floors, fire rated plasterboard partitions, fire rated plasterboard ceiling/ timber floors and QuelStop Fire Batt so this document should be read in conjunction with all other available relevant information and tested scope of application available from the Quelfire Technical Team.

## Installation principles of the QWR CE Marked Fire Collar

A lot of extra work and associated cost can be avoided by early engagement, coordination and good communication between all trades.

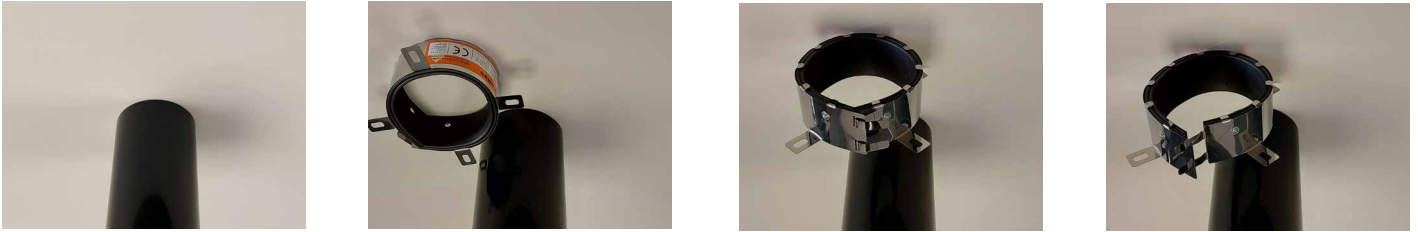
Holes for the pipes should be drilled as close as possible to the outside diameter of the plastic pipes and as given in the table in which case installation will be simple by fixing the collar to the substrate with the correct fixings.

Product Code	Pipe Size (mm)	Approx. space needed around pipe to fit QWR incl. fixing logs (mm)	Recommended hole diameter (mm)
QWR25/CE	25Ø	40	27Ø
QWR32/CE	32Ø	40	34Ø
QWR40/CE	40Ø	35	42Ø
QWR50/CE	50Ø	35	52Ø
QWR55/CE	55Ø	35	57Ø
QWR63/CE	63Ø	55	65Ø
QWR75/CE	75Ø	50	77Ø
QWR82/CE	82Ø	40	84Ø
QWR90/CE	90Ø	50	92Ø
QWR110/CE	110Ø	40	112Ø
QWR125/CE	125Ø	45	132Ø
QWR160/CE	160Ø	50	162Ø

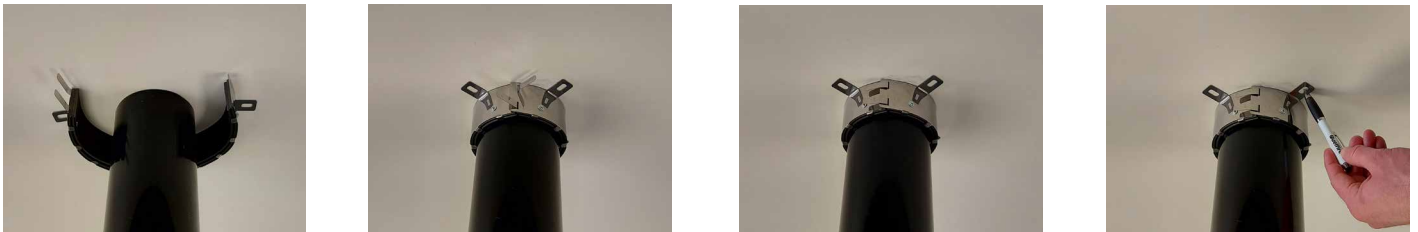
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The surface of the wall must be clean and free of loose debris/dust. Any small irregularities between the QWR and the wall, and between the pipe and wall, should be filled by applying QuelStop Intumescent Acrylic Sealant.

The QWR CE Marked Fire Collar can be retrofitted around the pipe by undoing the 2 tabs that hold it together.



The QWR can then be fed around the plastic pipe, wrapped tight and the ends secured together again by passing the tongues on one end through the slots on the other end. The tongues should then be bent back and the unit secured to the substrate through all the fixing lugs with the correct fixings.



*Please note, Quelfire are frequently asked and are unable to comment due the lack of any test evidence, on the suitability of fixing the collar with less than the full amount of lugs, for instance 3 out of 4 only due to space restrictions. All lugs must be secured in accordance with the test evidence.*

QWR Fire Collars are manufactured specifically to suit individual pipe diameters so select the correct product by determining the outside diameter of the pipe. For example a QWR110/CE suits a 110mm outside diameter plastic pipe and a QWR50/CE suits a 50mm outside diameter plastic pipe and remember:

- 🔧 For vertical pipework, one unit should be installed to the underside of the floor.**
- 🔧 For horizontal pipework one unit should be fitted to both sides of the wall.**

Where the holes are drilled larger than recommended then QF2 Fire Protection Compound or QuelStop Fire Batt will be required or even an alternative system such as an Intuwrap considered so care and communication between trades is the key to a simple installation.

The following pages set out the following installation methods:

1. Installation of the QWR Fire Collar to a concrete floor with correctly diamond drilled hole.
2. Installation of the QWR Fire Collar to a QF2 Fire Protection Compound seal - oversized floor hole.
3. Installation of the QWR Fire Collar to QuelStop Fire Batt seal - oversized floor hole.
4. Installation of the QWR Fire Collar to a fire rated plasterboard ceiling timber floor construction – correct size hole.
5. Installation of the QWR Fire Collar to a fire rated plasterboard ceiling timber floor construction – oversized hole.
6. Installation of the QWR Fire Collar to a concrete or masonry wall - correct size hole.
7. Installation of the QWR Fire Collar to a plasterboard wall - correct size hole.
8. Installation of the QWR Fire Collar to a (single, double or pattress fitted) QuelStop Fire Batt seal - oversized wall hole.

## 1. Installation of the QWR CE Marked Fire Collar on a plastic pipe penetrating a concrete floor with a correctly diamond drilled hole

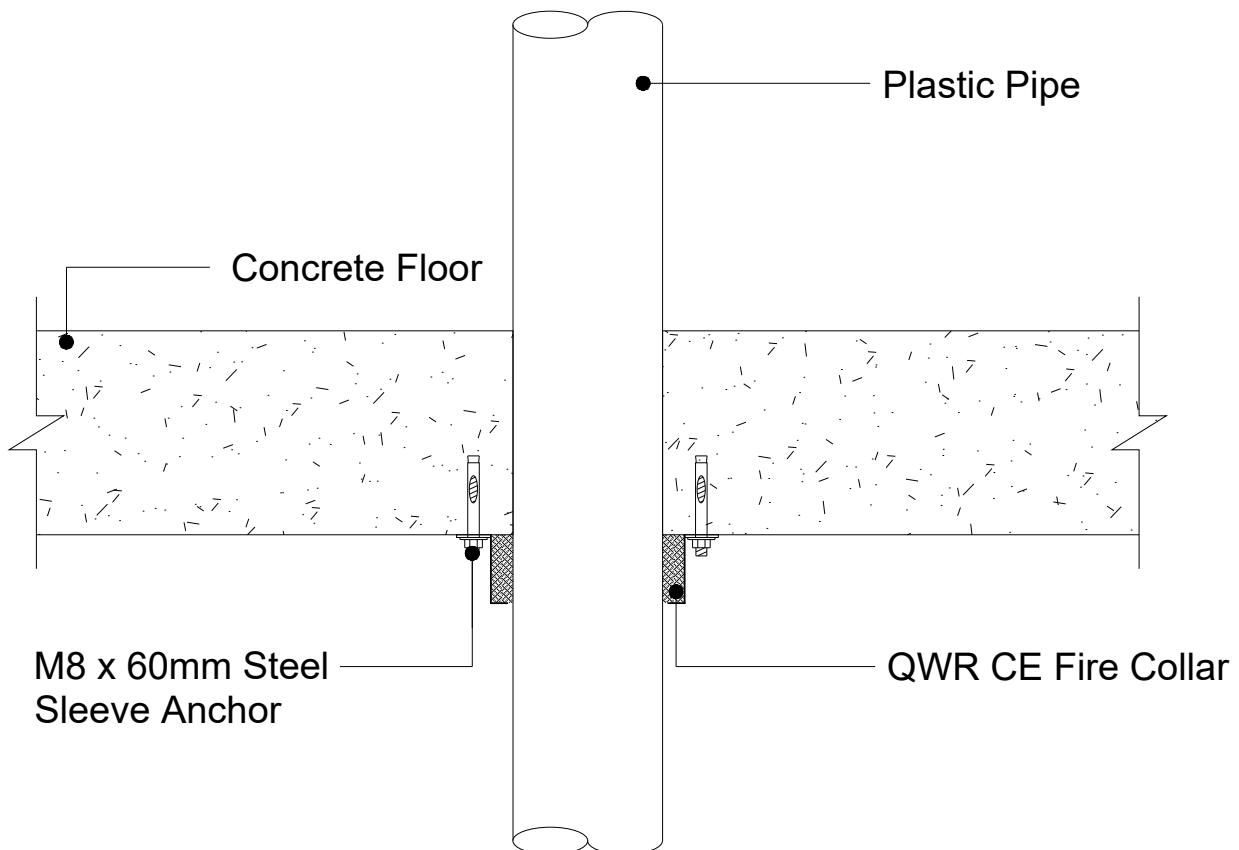
### Quelfire Products used:

🔧 QWR CE Marked Fire Collar

### Fixings:

🔧 M8 X 60mm Steel Sleeve Anchors

- 1.** Make sure that the surface around the aperture and the services are clean of any debris and remove dust from all edges.
- 2.** Any small irregularities on the face of the slab to which the QWR will be installed can be filled using Quelfire Intumescent Acrylic sealant as can any small gaps around the pipe. Large gaps require QF2 Fire Protection Compound, refer to other relevant details if this is the case.
- 3.** The QWR CE Marked Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
- 4.** The QWR Fire Collar should then be secured to the soffit using M8 x 60mm steel sleeve anchors through all integral fixing lugs.



## 2. Installation of the QWR Fire Collar to QF2 Fire Protection Compound seal – oversized floor hole.

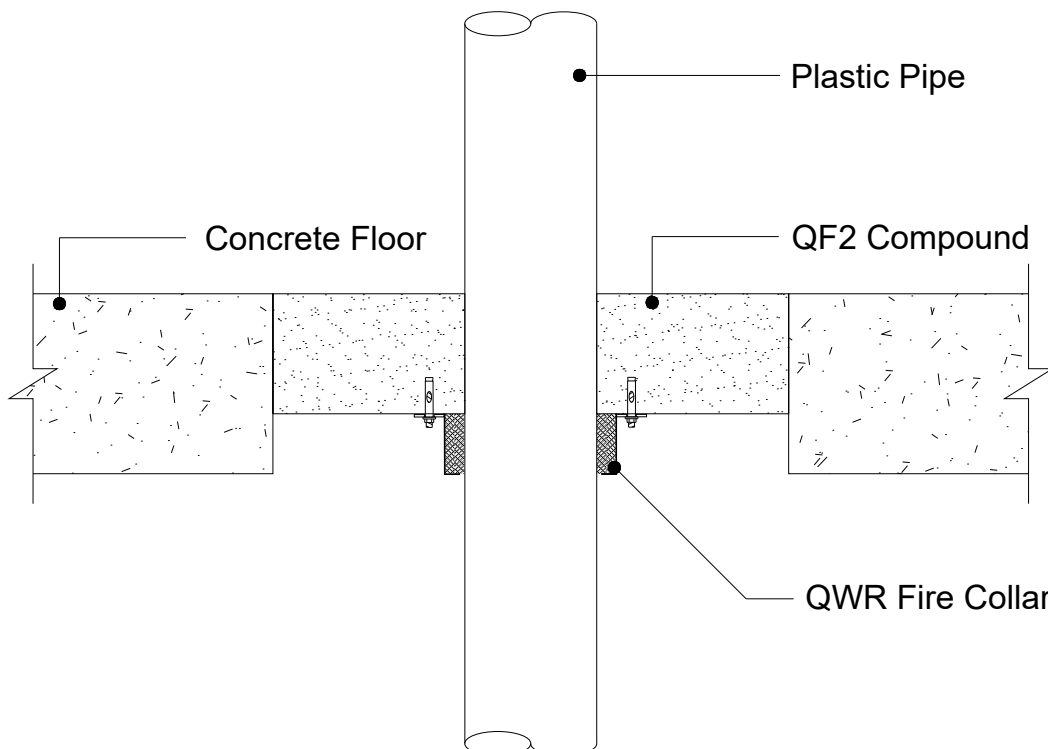
### Quelfire Products used:

- 🔩 QWR CE Marked Fire Collar
- 🔩 QF2 Fire Protection Compound
- 🔩 MW Shuttering Slab

### Fixings:

- 🔩 M6.5 x 35mm steel sleeve anchors

1. Shutter the hole and install the QF2 Fire Protection Compound to a minimum depth of 100mm in accordance with all other relevant installation information.
2. Once the QF2 has cured, the shutter should be removed.
3. Make sure that the surface of the QF2 is relatively smooth and flat. Any irregularities can be filled using Quelfire Intumescent Acrylic Sealant.
4. The QWR CE Marked Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
5. The QWR Fire Collar should then be secured to the QF2 Fire Protection Compound using M6.5 x 35mm steel sleeve anchors through all integral fixing lugs.




## 3. Installation of the QWR Fire Collar to QuelStop Fire Batt seal - oversized floor hole

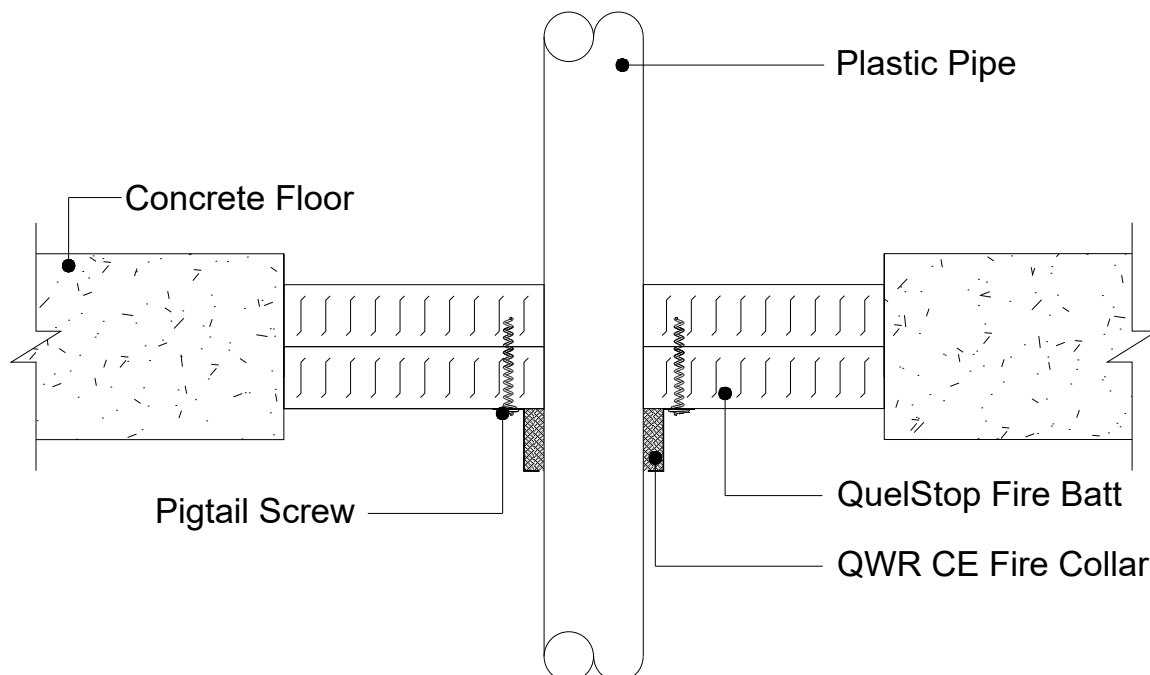
### Quelfire Products used:

- 🔩 QWR CE Marked Fire Collar
- 🔩 QuelStop Fire Batt
- 🔩 QuelStop Intumescent Acrylic Sealant
- 🔩 QuelStop Ablative Coating

### Fixings:

- 🔩 75mm long pig tail screws

- 1.** Install a double layer of QuelStop Fire Batt using QuelStop Intumescent Acrylic Sealant and QuelStop Ablative Coating in accordance with all other relevant installation information.
  - 2.** Make sure that the surface around the aperture and the services are clean of any debris and remove dust from all edges.
  - 3.** The QWR CE Marked Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
  - 4.** The QWR Fire Collar should then be secured to the QuelStop Fire Batt using 75mm steel pigtail screws through all integral fixing lugs.
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- 5.** Apply QuelStop Ablative Coating to repair any damage to the QuelStop Fire Batt coating that may have occurred during installation.



## 4. Installation of the QWR Fire Collar to a fire rated plasterboard ceiling/timber floor construction – correct size hole

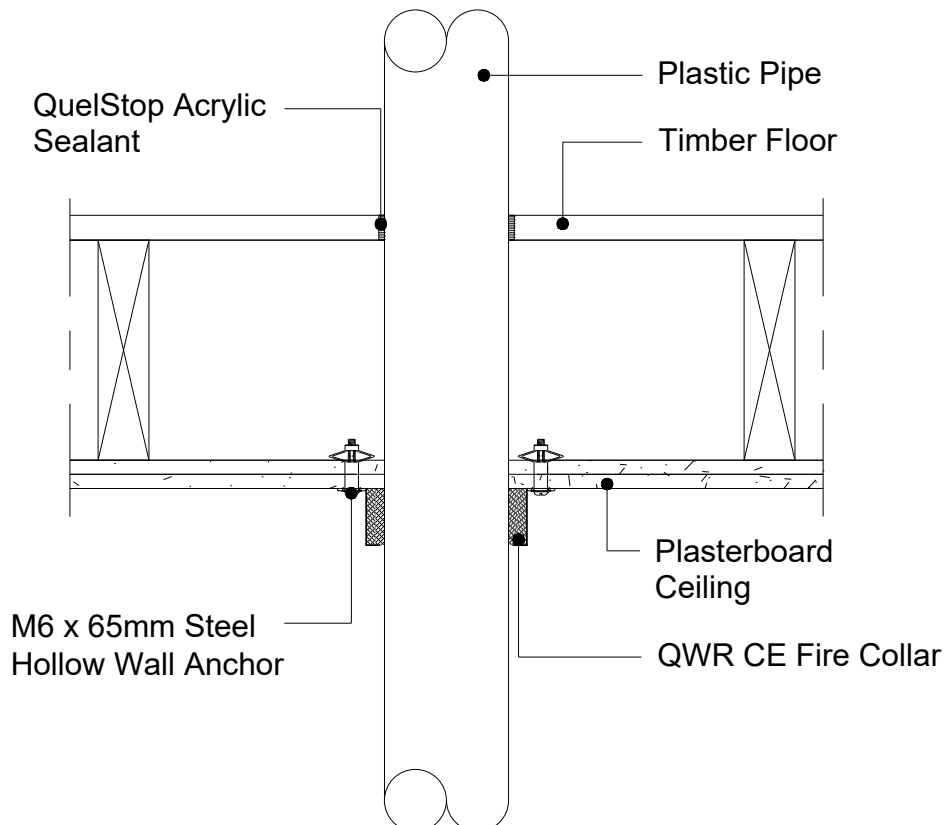
### Quelfire Products used:

- 🔗 QWR CE Marked Fire Collar
- 🔗 QuelStop Intumescent Acrylic Sealant

### Fixings:

- 🔗 M6 X 65mm steel hollow wall anchors

- 1.** Make sure that the surface around the aperture and the services are clean of any debris and remove dust.
- 2.** Any small gaps around the pipe can be filled using Quelfire Intumescent Acrylic Sealant.
- 3.** The QWR Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
- 4.** The QWR Fire Collar should then be secured to fire rated plasterboard using M6 x 65mm steel hollow wall anchors through all integral fixing lugs.
- 5.** Finally, QuelStop Acrylic Sealant should be applied around the plastic pipe on the upper face of the floor acting as a smoke seal.



## 5. Installation of the QWR Fire Collar to a fire rated plasterboard ceiling/timber floor construction – oversized hole

### Quelfire Products used:

- 🔩 QWR CE Marked Fire Collar
- 🔩 QuelStop Fire Batt
- 🔩 QuelStop Intumescent Acrylic Sealant
- 🔩 QuelStop Ablative Coating

### Fixings:

- 🔩 75mm long steel pig tail screws
- 🔩 6mm x 80mm Steel Screws
- 🔩 35mm washers

**1.** Refer to the relevant supporting documentation and installation guides for QuelStop Fire Batt, check dimensions and cut the QuelStop Fire Batt to the size and shape required to patress fit the aperture, ensuring the batt will overlap the aperture on all sides by at least 50mm and fit tight around the plastic pipe.

**2.** The QuelStop Fire Batt can be cut across its width at the midpoint to allow the QuelStop Fire Batt to be fitted around the pipe retrospectively.

**3.** Apply QuelStop Intumescent Acoustic Acrylic Sealant to the edges of the cut made across the QuelStop Fire Batt to allow it to be fitted around the pipe.

**4.** Apply QuelStop Intumescent Acoustic Acrylic Sealant to the face of the plasterboard, around the opening of the aperture where the QuelStop Fire Batt is to overlap/patress fit.

**5.** Place the sections of QuelStop Fire Batt onto the ceiling ensuring they are butted up tight around the pipe and against the plasterboard then mechanically fix using 6 x 80mm steel screws and 35mm diameter penny washers in the corners of the QuelStop Batt seal.

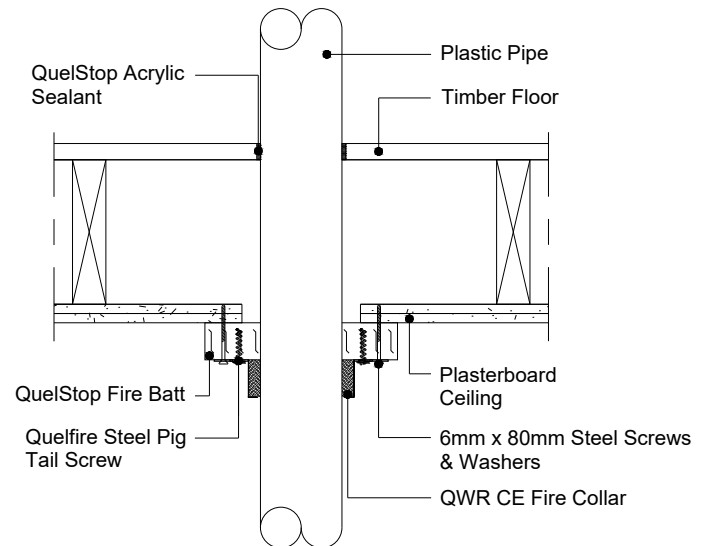
**6.** Apply QuelStop Intumescent Acoustic Acrylic Sealant to all the edges of the exposed mineral wool of the QuelStop Fire Batt. Use a spatula to smooth the QuelStop Intumescent Acoustic Acrylic Sealant evenly to cover over the entire thickness of the QuelStop Fire Batt.

**7.** The QWR Fire Collar should be then fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.

**8.** The QWR CE Marked Fire Collar should then be secured to the QuelStop Fire Batt using 75mm long pig tail screws in all integral fixing lugs.

**9.** Apply QuelStop Ablative Coating to repair any damage to the QuelStop Fire Batt coating that may have occurred during installation and to the face of the screws and washers.

**10.** Finally, QuelStop Acrylic Sealant should be applied around the plastic pipe on the upper face of the floor acting as a smoke seal.



## 6. Installation of the QWR Fire Collar to a concrete or masonry wall – correct size hole

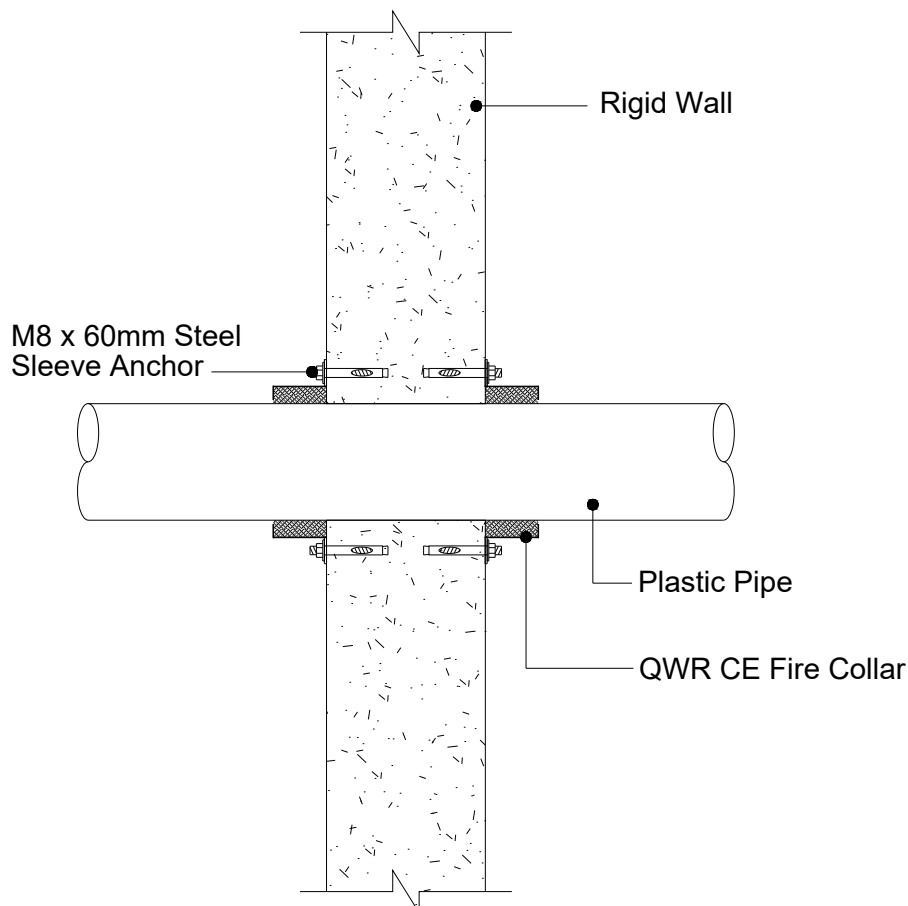
### Quelfire Products used:

🔩 QWR CE Marked Fire Collar

### Fixings:

🔩 M8 X 60mm Steel Sleeve Anchors

- 1.** Make sure that the surface around the aperture and the services are clean of any debris and remove dust from all edges.
- 2.** Any small irregularities on the face of the wall to which the QWR will be installed can be filled using Quelfire Intumescent Acrylic sealant as can any small gaps around the pipe.
- 3.** The QWR CE Marked Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
- 4.** The QWR Fire Collar should then be secured to the wall using M8 x 60mm steel sleeve anchors through all integral fixing lugs.
- 5.** Repeat steps 1 to 4 on the other side of the wall so that a pair of QWR Fire Collars is installed.



## 7. Installation of the QWR Fire Collar to a plasterboard wall – correct size hole

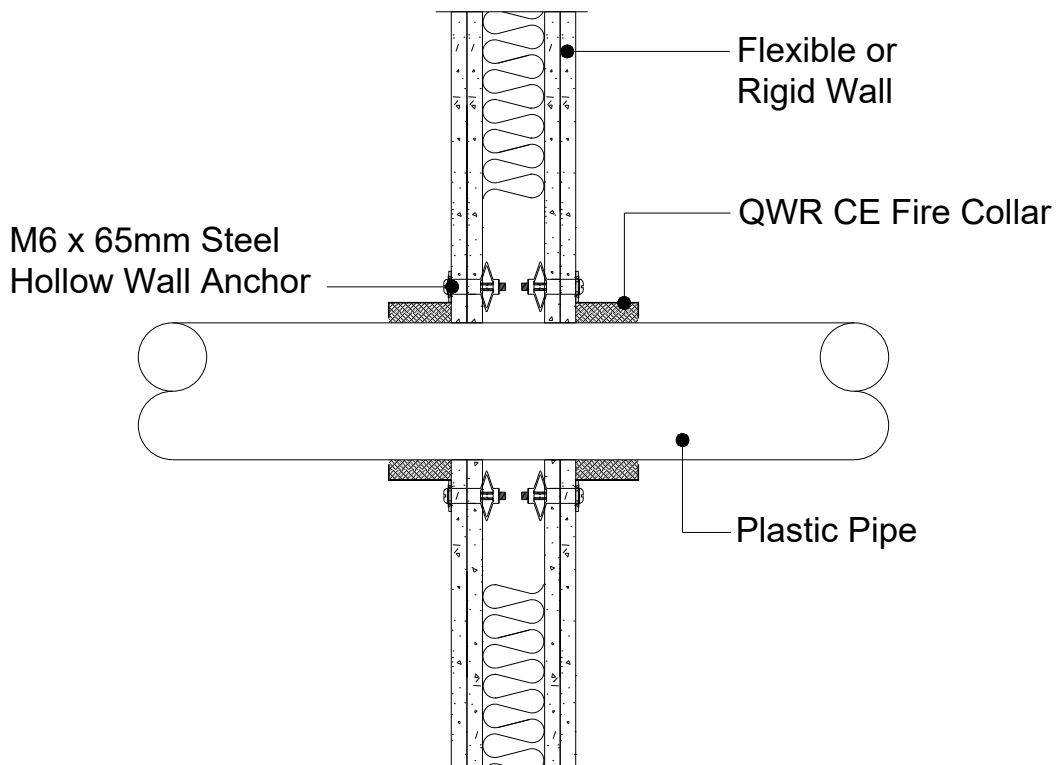
### Quelfire Products used:

🔩 QWR CE Marked Fire Collar

### Fixings:

🔩 M6 X 65mm Steel hollow wall Anchors

- 1.** Make sure that the surface around the aperture and the services are clean of any debris and remove dust from all edges.
- 2.** Any small gaps around the pipe can be filled using Quelfire Intumescent Acrylic Sealant.
- 3.** The QWR Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
- 4.** The QWR Fire Collar should then be secured to the wall using M6 x 65mm steel hollow wall anchors through all integral fixing lugs.
- 5.** Repeat steps 1 to 4 on the other side of the wall so that a pair of QWR Fire Collars are installed.



# QWR CE MARKED FIRE COLLAR INSTALLATION INSTRUCTIONS

## 8. Installation of the QWR to a (single, double or pattress fitted) QuelStop Fire Batt seal - oversized wall hole

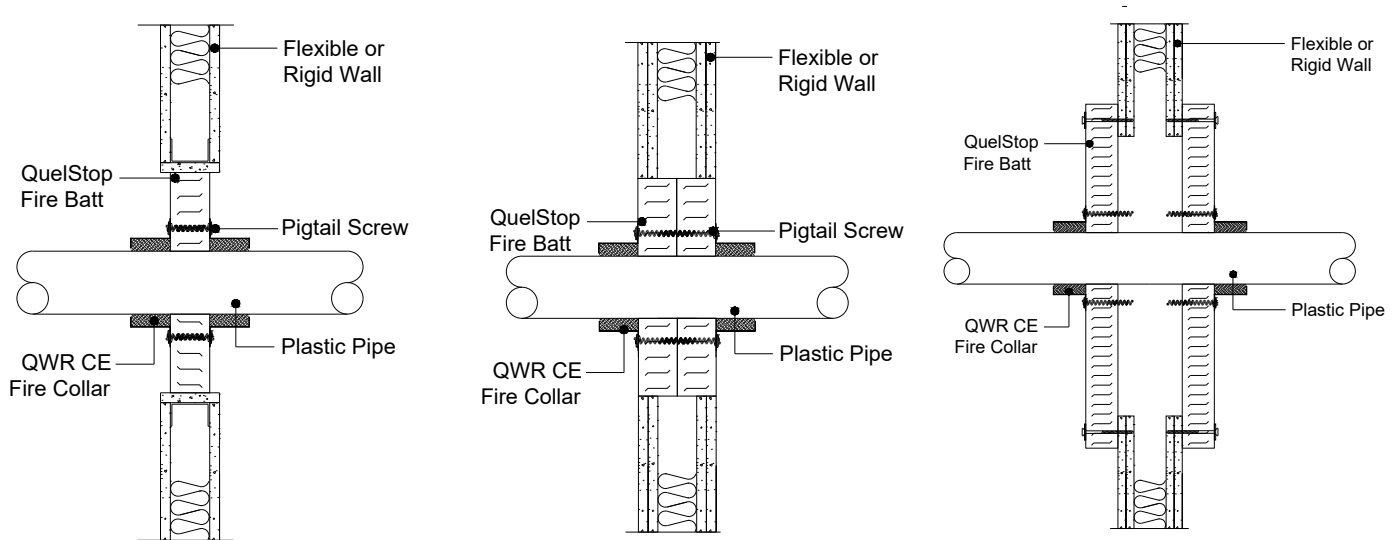
### Quelfire Products used:

- 🔩 QWR CE Marked Fire Collar
- 🔩 QuelStop Fire Batt
- 🔩 QuelStop Intumescent Acrylic Sealant
- 🔩 QuelStop Ablative Coating


### Fixings:

- 🔩 75mm long steel pigtail screws for pattress and double batt details
- 🔩 40mm long long steel pig tail screws – for single batt details

The QWR Fire Collar has been tested in a number of different scenarios in conjunction with QuelStop Fire Batt, for full details on how to install the QuelStop Fire Batt refer to the relevant documentation and installation guides. A summary of the typical details is as follows:



The core principles behind installing the QWR Fire Collar to the QuelStop Batt, in whatever scenario the batt is installed remain the same:

- 1.** Make sure that the surface of the QuelStop Fire Batt and the services are clean of any debris and remove dust from all edges.
- 2.** Apply QuelStop Intumescent Acrylic Sealant or QuelStop Ablative Coating to any damaged QuelStop Fire Batt coating.
- 3.** The QWR Fire Collar should be fed around the plastic pipe, wrapped tight and the ends secured together by passing the tongues on one end through the slots on the other end. The tongues should then be bent fully back to fully secure it.
- 4.** The QWR Fire Collar should be secured to the QuelStop Fire Batt using steel pig tail screws, of the correct length to suit the detail, through all integral fixing lugs. 
- 5.** Repeat steps 1 to 4 on the other side of the wall, Quelfire recommend that the lug fixings are positioned in a way to not interfere with the fixings on the other side of the QuelStop Fire Batt.
- 6.** Finally, apply QuelStop Ablative Coating to repair any damage to the QuelStop Fire Batt coating that may have occurred during installation.

## Packaging & Storage:

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Quelfire QWR Fire Collars are supplied individually to suit specific pipe diameters of plastic pipe and may be packaged in cardboard boxes for shipping purposes and should be stored in a cool, dry location.

## Health & Safety:

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QWR CE Marked Fire Collars consist of a pressed stainless steel shell containing graphite in a synthetic compound with the addition of filters and process oils.

The steel shells can have sharp edges, always wear gloves when handling.

For further information, please refer to the Material Safety Data Sheets, available on request or via the website.

## Technical Support & Guidance:

Should you require any further information regarding this product, please do not hesitate to contact the technical department at Quelfire Ltd.

Tel: **0161 928 7308**. Email: [technical@quelfire.co.uk](mailto:technical@quelfire.co.uk)

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