

# QRS-FW100-01

## Plastic Vent Duct penetrating a flexible or rigid 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 guidelines  
In line with the company's policy of continual development, details are subject to change and/ or withdrawal therefore you must ensure this is the latest published detail and instructions.

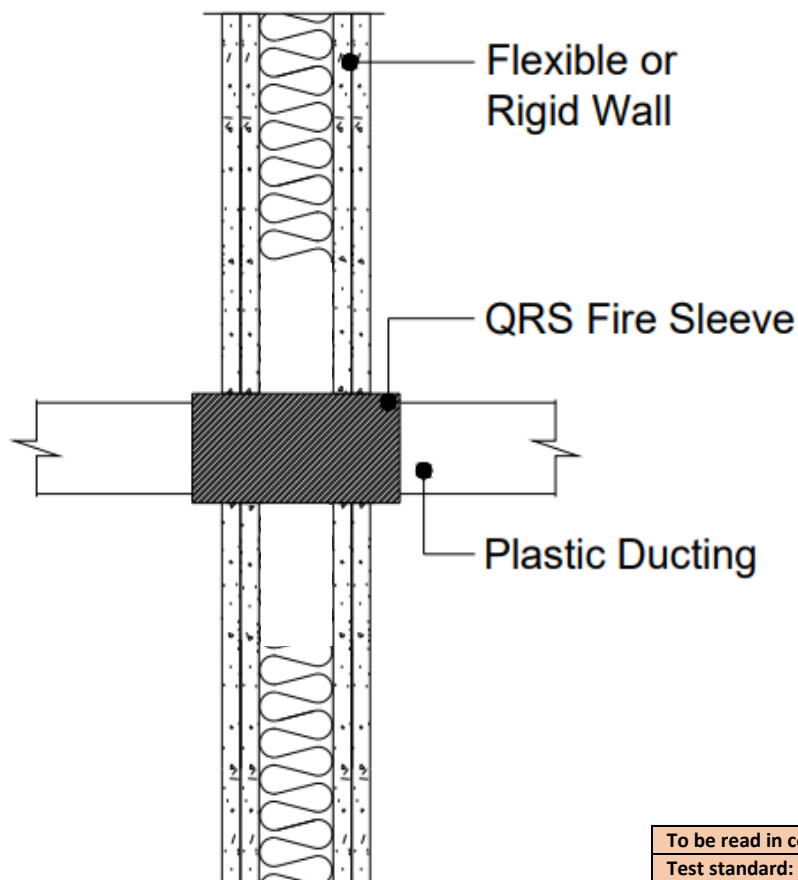
### Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide 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.

The board construction should be cut as tight as possible around the QRS Fire Sleeve. The QRS should be fitted so that it is centrally positioned and protruding from or at least flush with the outside of the face of both sides of the wall. Once finally positioned, the small gap around the QRS should be sealed with QuelStop Intumescent Sealant.

If the gap around the QRS exceeds 5mm then the fire rated board should be replaced in accordance with the board manufacturers recommendations

Test results obtained with flexible supporting walls may be applied to concrete or masonry elements of an overall thickness equal to or greater than that of the element used in the test.

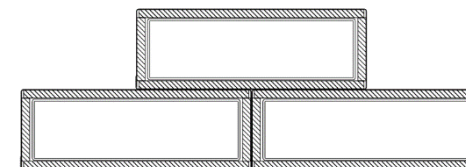


### Quelfire Products Required

| Product Code | Description                                                      |
|--------------|------------------------------------------------------------------|
| QRS??        | Fire Sleeve for plastic ducts.<br>Refer to table below for sizes |
| QSS310       | QuelStop Intumescent Acrylic Sealant                             |

### QRS spacing

The QRS Fire Sleeves have been fire tested in the cluster formation as shown below in accordance with the BS EN 1366-3 guidelines. This means the QRS Fire Sleeves can have 0mm spacing between sleeves and be positioned within the wall either Horizontally or Vertically.



| QRS detail  | Page No. |
|-------------|----------|
| Rectangular | 1        |
| Circular    | 2        |

| Service Type           | Size of Services | Pipe Wall Thickness | QRS Required | Recommended Aperture | Fire Rating               |
|------------------------|------------------|---------------------|--------------|----------------------|---------------------------|
| Rectangular U-PVC Duct | 204 x 60mm       | 1.5 -               | QRS205/60    | 230 x 85mm           | 120 minutes Integrity U/U |
|                        | 220 x 90mm       | 2.0mm               | QRS220/90    | 262 x 132mm          | 90 minutes Insulation U/U |

|                                 |                                        |
|---------------------------------|----------------------------------------|
| To be read in conjunction with: | WF Test Report 438146/R Specimen B & C |
| Test standard:                  | BS EN 1366-3                           |
| Substrate minimum thickness:    | 100mm                                  |
| First service support:          | ≤400mm                                 |
| Drawing Scale:                  | Not to Scale                           |
| Issue Number:                   | 2                                      |
| Date of Issue:                  | January 2023                           |
| Detail Reference:               | QRS-FW100-01                           |

### 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 either side of the firestop to ensure that no load is transferred onto the firestop seal.

### Scope and Liability:

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# QRS-FW100-01

## Plastic Vent Duct penetrating a flexible or rigid wall (100mm or thicker)

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### Additional Instructions

Flexible walls to be insulated and to have a minimum 50mm wide 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.

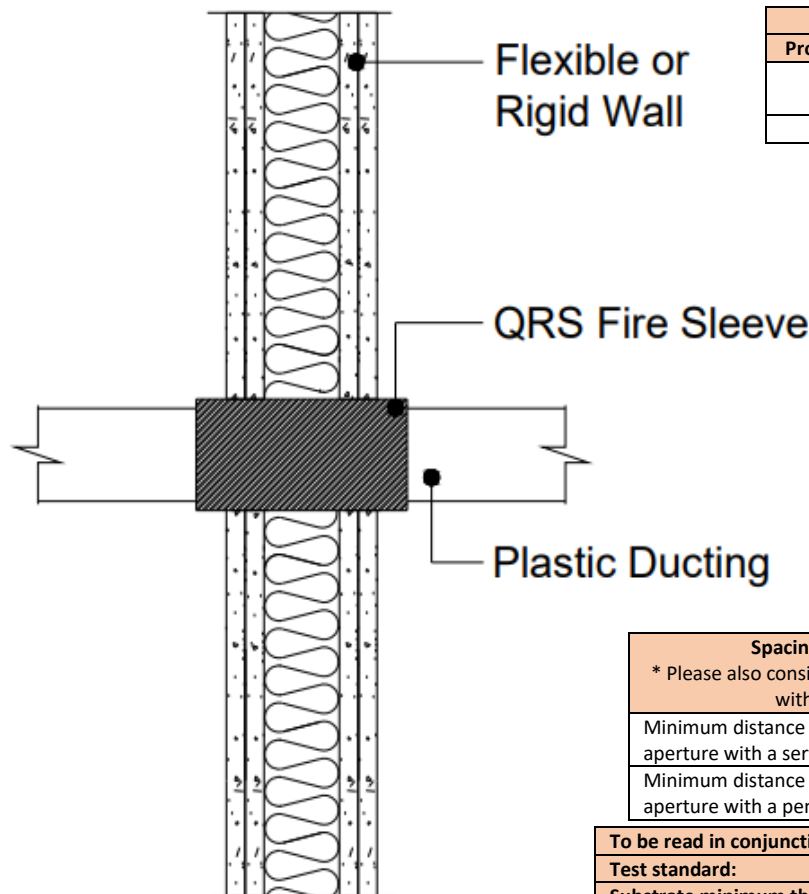
The board construction should be cut as tight as possible around the QRS Fire Sleeve. The QRS should be fitted so that it is centrally positioned and protruding from or at least flush with the outside of the face of both sides of the wall. Once finally positioned, the small gap around the QRS should be sealed with QuelStop Intumescent Sealant.

If the gap around the QRS exceeds 5mm then the fire rated board should be replaced in accordance with the board manufacturers recommendations

Test results obtained with flexible supporting walls may be applied to concrete or masonry elements of an overall thickness equal to or greater than that of the element used in the test.

BS EN 1366-3:2021 Section 13.7: The distance between the aperture edges of penetration seals in a building element shall be as tested or minimum 100mm.

The distance between the aperture edge of a penetration seal and any other penetration (e.g., door) in a building element shall be minimum 200mm.



### Quelfire Products Required

| Product Code | Description                                                       |
|--------------|-------------------------------------------------------------------|
| QRS??        | Fire Sleeve for plastic ducts.<br>Refer to table below for sizes. |
| QSS310       | QuelStop Intumescent Acrylic Sealant                              |

| QRS detail  | Page No. |
|-------------|----------|
| Rectangular | 1        |
| Circular    | 2        |

| Spacing as per BS EN 1366-3: 2021, Section 13.7                                                                  |        |
|------------------------------------------------------------------------------------------------------------------|--------|
| * Please also consider any requirements that the wall manufacturer has with regards to spacing between openings. |        |
| Minimum distance from edge of opening to another aperture with a service penetration tested to BS EN 1366-3      | 100mm* |
| Minimum distance from edge of opening to another aperture with a penetration <u>not</u> tested to BS EN 1366-3   | 200mm* |

|                                 |                                     |
|---------------------------------|-------------------------------------|
| To be read in conjunction with: | BM Trada Test Report BMT/FEI/F13139 |
| Test standard:                  | BS EN 1366-3                        |
| Substrate minimum thickness:    | 100mm                               |
| First service support:          | ≤200mm                              |
| Drawing Scale:                  | Not to Scale                        |
| Issue Number:                   | 2                                   |
| Date of Issue:                  | January 2023                        |
| Detail Reference:               | QRS-FW100-01                        |

| Service Type        | Size of Services | Pipe Wall Thickness | QRS Required | Recommended Aperture | Fire Rating               |
|---------------------|------------------|---------------------|--------------|----------------------|---------------------------|
| Circular U-PVC Duct | Ø100mm           | 1.5mm               | QRS110       | Ø135mm               | 120 minutes Integrity U/U |
|                     | Ø125mm           |                     | QRS130       | Ø170mm               | 90 minutes Integrity U/U  |

### 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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